TUMOR NEOANTIGENIC PEPTIDES

FIELD OF THE DISCLOSURE

The present disclosure provides neoantigenic peptides encoded by transposable element (TE)-exon fusion transcripts, nucleic acids, vaccines, antibodies and immune cells that can be used in cancer therapy.

BACKGROUND

Harnessing the immune system to generate effective responses against tumors is a central goal of cancer immunotherapy. Part of the effective immune response involves T lymphocytes specific for tumor antigens. T cell activation requires their interaction with antigen-presenting cells (APCs), commonly dendritic cells (DCs), expressing TCR-cognate peptides presented in the context of a major histocompatibility molecule (MHC) and co-stimulation signals. Subsequently, activated T cells can recognize peptide-MHC complexes presented by all cell types, even malignant cells. Neoplasms often contain infiltrating T lymphocytes reactive with tumor cells.

However, the efficiency of immune responses against tumors is severely dampened by various immunosuppressive strategies developed by tumors; e.g, tumor cells express receptors that provide inhibitory signals to infiltrating T cells, or they secrete inhibitory cytokines. The development of checkpoint blockade therapy has provided means to bypass some of these mechanisms, leading to more efficient killing of cancer cells. The promising results yielded by this approach have opened up new avenues for the development of T cell-based immunotherapy. Checkpoint inhibitors are, however, effective in a minority of patients and only in limited types of cancer.

A major goal in immunotherapy is to increase the proportion of responding patients and extend the cancer indications. Vaccination, administration of anti-tumor antibodies, or administration of immune cells specific for tumor antigens have all been proposed to increase the anti-tumor immune response, and can be administered alone, with other therapies such as chemotherapy or radiation, or as a combination therapy with checkpoint blockers. The selection of antigens able to trigger anti-tumor immunity without targeting healthy tissues has been a long-standing challenge.

The search for tumor neoantigens has mostly been focused on mutated sequences appearing as in cancer cells. These antigens are unique to each patient. Tumor antigens (the ones preferentially expressed in tumor cells) are, however, self-antigens that represent poor targets for vaccination (probably due to central tolerance). Identifying shared true neoantigens (absent from tissues) is a major challenge for the field.

A few prior reports regarding transposable elements (TE) in tumors include (Helman, E. *et al.* (2014). *Genome Res.*)(Schiavetti, F. *et al.* (2002). *Cancer Res.*, Takahashi, Y. *et al.* (2008). *J. Clin. Invest.*). (Chiappinelli, K.B. *et al.* (2015). *Cell*, Roulois, D. *et al.* (2015). *Cell*). However, the relationship of TE to the antigenic landscape presented by tumor cells has not been investigated in depth.

New tumor neoantigens would be of interest and might improve or reduce the cost of cancer therapy in particular in the case of vaccination and adoptive cell therapy.

SUMMARY

The inventors have now discovered that non-canonical alternative splicing events between exons and TEs, also named herein JETs (junctions between TEs and exons) can be a source of tumor antigens and more particularly a source of tumor-specific antigens. The present disclosure therefore provides tumor neoantigenic peptide sequences and nucleotide sequences encoding such peptide sequences; a vaccine or immunogenic composition capable of raising a specific T-cell response comprising one or more of the neoantigenic peptides, or comprising nucleic acid encoding one or more of the neoantigenic peptides; an antibody, or an antigen-binding fragment thereof, a T cell receptor (TCR), or a chimeric antigen receptor (CAR) that specifically binds such neoantigenic peptides; methods of producing such antibodies, TCRs or CARs; polynucleotides encoding such neoantigenic peptides, antibodies, CARs or TCRs, optionally linked to a heterologous regulatory control sequence; immune cells that specifically bind to such neoantigenic peptides; and dendritic cells or antigen presenting cells that have been pulsed with one or more of the neoantigenic peptides; and methods of using such products. The present disclosure provides tumor neoantigenic peptides comprising at least 8 amino acids, optionally wherein said neoantigenic peptides are encoded by a part of an open reading frame (ORF) from a fusion transcript sequence comprising a transposable element (TE) sequence and an exonic sequence. While in some embodiments, the tumor neoantigenic peptide is at least 8 amino acids in length, and/or up to about 25 amino acids in length, antibodies, TCRs or CARs

that specifically bind the neoantigenic peptide may bind a peptide sequence of at least 4, at least 5, at least 6, or at least 7 amino acids.

According to the present disclosure, "neoantigen peptide characteristics" include neoantigenic peptide derived from fusion transcripts (splicing variants) wherein:

- the TE sequence can be located in 5' end of the fusion transcript sequence and the exonic sequence can be located in 3' end of the fusion transcript sequence, and the part of the ORF of said fusion transcript sequence, which encodes the neoantigenic peptide, can overlap the junction;
- the TE sequence can be located in 5' end of the fusion transcript sequence and the exonic sequence can be located in 3' end of the fusion transcript sequence, and the part of ORF which encodes said tumor neoantigenic peptide, can be downstream of the junction such that the open reading frame is non-canonical;
- the TE sequence can be located in 3' end of the fusion transcript sequence and the exonic sequence can be located in 5' end of the fusion transcript sequence and the part of the ORF of said fusion transcript sequence, which encodes the tumor neoantigenic peptide, can overlap the junction; or
- the TE sequence is located in 3' end of the fusion transcript sequence and the exonic sequence is located in 5' end of the chimeric transcript sequence, the part of the ORF which encodes a tumor neoantigenic peptide, is downstream of the junction between the exonic sequence and the TE sequence, optionally wherein the peptide sequence which is thus encoded by the pure TE sequence is non-canonical.

The TE sequences can be selected from the TE class I: Endogenous RetroVirus (ERVs), Long interspersed nuclear elements (LINEs) and short interspersed nuclear element (SINEs) and MaLR sequences or the DNA transposons of class II.

The present disclosure notably provides an isolated tumor neoantigenic peptide comprising at least 8 amino acids of SEQ ID NO:1-38907 and 38916-41099and optionally comprising a transposable element (TE) sequence and an exonic sequence, wherein said ORF overlaps the junction between the TE and the exonic sequence, is pure TE and/or is non-canonical.

Most particularly, the present disclosure provides an isolated tumor neoantigenic peptide, according to claim 1 wherein the peptide is from any one of SEQ ID NO:1-38907 and 38916-41099, including a fragment thereof, and comprises at least a portion of a TE-derived amino acid sequence or is from any one of SEQ ID NO:1-38907 and 38916-41099. In some

embodiments, the neoantigenic peptide overlaps the breakpoint between, the TE-derived amino acid sequence and the exon-derived amino acid sequence. In other embodiments, the neoantigenic peptide is derived from a pure TE sequence. In yet other embodiments, the neoantigenic peptide is encoded by a non-canonical ORF downstream of the junction between the TE-derived amino acid sequence and the exon-derived amino acid sequence.

In one embodiment, the tumor neoantigenic peptide is 8 or 9 amino acids long, notably 8 to 11, and binds to at least one MHC class I molecule.

In another embodiment, the tumor neoantigenic peptide is from 13 to 25 amino acids long, and binds to at least one MHC class II molecule of said subject.

Said neoantigenic peptides are typically expressed at higher levels, or higher frequency, in tumor samples compared to normal, optionally said neoantigenic peptides are not expressed in normal tissue samples (i.e. normal healthy cells), or not detectably expressed in normal healthy samples.

In some embodiments said neoantigenic peptides are expressed in at least 1%, 5 %, 10 %, 15 %, 20 % 25 % or even at least 30 % of subjects from a population of subjects suffering from cancer and notably from a population of subjects suffering from cancer, notably from lung cancer, more particularly Non-small cell lung cancer (NSCLC), even more particularly from lung adenocarcinoma (LUAD).

Typically, the neoantigenic peptides bind MHC class I or class II with a binding affinity Kd of less than about 10^{-4}, 10^{-5}, 10^{-6}, 10^{-7}, 10^{-8} or 10^{-9} M (lower numbers indicating higher binding affinity).

Typically, the neoantigenic peptides bind MHC class I with a binding affinity of less than 2% percentile rank score predicted by NetMHCpan 4.0

Typically, the neoantigenic peptides bind MHC class II with a binding affinity of less than 10% percentile rank score predicted by NetMHCpanII 3.2 .

The present disclosure also encompasses:

- a population of autologous dendritic cells or antigen presenting cells that have been pulsed with one or more of the peptides as herein defined, or transfected with a polynucleotide encoding one or more of the peptides as herein described;
- a vaccine or immunogenic composition, notably a sterile vaccine or immunogenic composition, capable of raising a specific T-cell response comprising

a. one or more neoantigenic peptides as herein defined,

b. one or more polynucleotides encoding a neoantigenic peptide as herein defined, optionally wherein the one or more polynucleotides are linked to a heterologous regulatory control nucleotide sequence; or

c. a population of autologous dendritic cells or antigen presenting cells (notably artificial APC) that have been pulsed or loaded with one or more of the peptides as herein defined,

optionally in combination with a physiologically or pharmacologically acceptable buffer, carrier, excipient, immunostimulant and/or adjuvant.

- an antibody, or an antigen-binding fragment thereof, a T cell receptor (TCR), or a chimeric antigen receptor (CAR) that has been selected for its binding affinity to a neoantigenic peptide from any one of SEQ ID NO:1-38907 and 38916-41099, including a portion thereof, e.g. of a length at least 4, 5, 6 7, or 8 amino acids, or a composition comprising such antibody, antigen-binding fragment thereof, TCR or CAR.
- a polynucleotide encoding a neoantigenic peptide, an antibody, a CAR or a TCR as herein defined, typically operatively linked to a heterologous regulatory control nucleotide sequence, and a vector encoding such polynucleotide, or a vaccine or immunogenic composition comprising such polynucleotide or vector;
- an immune cell, or a population or immune cells that targets one or more neoantigenic peptides from any one of SEQ ID NO:1-38907 and 38916-41099, including a portion thereof, e.g. of a length at least 4, 5, 6 7, or 8 amino acids, wherein the population of immune cells preferably targets a plurality of different tumor neoantigenic peptides as herein disclosed, or a composition comprising such immune cells or population of immune cells optionally in combination with a physiologically or pharmacologically acceptable buffer, carrier, excipient, immunostimulant and/or adjuvant.

Typically, the antibody or antigen-binding fragment thereof, TCR or CAR binds a neoantigenic peptide, optionally in association with an MHC molecule, or optionally expressed on the surface of a cell, with a Kd affinity of about 10^{-6} M or less.

In some embodiments, the T cell receptor can be made soluble and fused to an antibody fragment directed to a T cell antigen, optionally wherein the targeted antigen is CD3 or CD16.

In some embodiments, the antibody can be a multispecific antibody that further targets at least an immune cell antigen, optionally wherein the immune cell is a T cell, a NK cell or a dendritic

cell, optionally wherein the targeted antigen is CD3, CD16, CD30 or a TCR. In any of the embodiments relating to an antibody, the antibody can be chimeric, humanized, or human, and may be IgG, e.g. IgG1, IgG2, IgG3, IgG4.

The immune cell can be typically a T cell or a NK cell, a CD4+ and/or CD8+ cell, a TILs/tumor derived CD8 T cells, a central memory CD8+ T cells, a Treg, a MAIT, or a Yδ T cell. The cell can also be autologous or allogenic. Methods of preparing such immune cells are also contemplated, for example, by delivering a nucleic acid or vector encoding any of the antibody, TCR, or CAR described herein to the cell, in vivo or ex vivo.

The immune cell, e.g. T cell, can comprises comprise a recombinant antigen receptor selected from T cell receptor and chimeric antigen receptor as herein described, wherein the antigen is a tumor neoantigenic receptor as herein disclosed.

The present disclosure also encompasses a method of producing an antibody, TCR or CAR that specifically binds a neoantigenic peptide as herein described and comprising the step of selecting an antibody, TCR or CAR that binds to a tumor neoantigen peptide of the present disclosure, optionally in association with an MHC or HLA molecule, or optionally expressed on the surface of a cell, optionally with a Kd binding affinity of about 10^{-6} M or less. Antibodies, TCRs and CARs selected by said method are also part of the present application, and thus any references to antibodies, TCRs or CARs herein also means an antibody, TCR or CAR that has been selected by said method.

A polynucleotide encoding a neoantigenic peptide as herein defined, or encoding an antibody, a CAR or a TCR as herein defined, optionally linked to a heterologous regulatory control sequence are also part of the present application.

As per the present disclosure, the neoantigenic peptide, the population of dendritic cells, the vaccine or immunogenic composition, the polynucleotide or the vector encoding the peptide can be used in cancer vaccination therapy of a subject; or for treating cancer in a subject suffering from cancer or at risk of cancer; or can be used for inhibiting proliferation of cancer cells. Typically, the peptide(s) bind at least one MHC molecule of said subject. Treatment as used herein includes both prophylactic and therapeutic treatment.

As per the present disclosure, the antibody or the antigen-binding fragment thereof, the multispecific antibody, the TCR, the CAR, the polynucleotide, or the vector encoding such antibody, TCR or CAR, or the immune cells, as herein defined can be used in the treatment of cancer in a subject in need thereof, the subject suffering from cancer or at risk of cancer, or can

be used for inhibiting proliferation of cancer cells. Still as per the present disclosure, the population of immune cells as herein defined can be used in cell therapy of a subject suffering from cancer or at risk of cancer, or can be used for inhibiting proliferation of cancer cells.

Pharmaceutical compositions comprising any of the foregoing, optionally with a sterile pharmaceutically acceptable excipient(s), carrier, and/or buffer are also contemplated as well as methods of using them.

In any of the embodiments described herein, the Cancer Therapeutic Products as above defined can be administered in combination with at least one further therapeutic agent. Such further therapeutic agent can typically be a chemotherapeutic agent, or an immunotherapeutic agent.

For example, according to the present disclosure, any of the Cancer Therapeutic Products can be administered in combination with an anti-immunosuppressive/immunostimulatory agent. For example, the subject is further administered with one or more checkpoint inhibitors typically selected from PD-1 inhibitors, PD-L1 inhibitors, Lag-3 inhibitors, Tim-3 inhibitors, TIGIT inhibitors, BTLA inhibitors, V-domain Ig suppressor of T-cell activation (VISTA) inhibitors and CTLA-4 inhibitors, or IDO inhibitors.

Various embodiments of the methods, neoantigenic peptides and Cancer Therapeutic Products are described in detailed below. Except for alternatives clearly mentioned, combinations of such embodiments are encompassed by the present application.

DETAILED DISCLOSURE

Transposable elements (TEs) expression in normal tissues is silenced by DNA methylation established early during embryonic development. An additional layer of inhibition is provided by histone modifications. TEs can be re-activated in tumor cells. The inventors have discovered and provided clear evidence that non-canonical alternative splicing events between exons and TEs can be a source of tumor antigens, in particular of tumor-specific antigens.

The Inventors have developed a method for identifying a tumor antigen, and notably a tumor specific antigen. In particular, the inventors have identified a method for identifying tumor antigens derived from junctions between TEs and exons (JETs). In some embodiments, the present invention therefore relates to a method for identifying, or selecting, a tumor neoantigenic peptide encoded by a fusion transcript (i.e.: JET) sequence comprising a part of a TE sequence and a part of an exonic sequence.

The neoantigenic tumor specific peptides, in particular neoantigenic peptides from any one of SEQ ID NO:1-38759, identified by the method according to the present disclosure are highly immunogenic. Indeed, because they are derived from fusion transcripts (also named herein JETs), composed of a transposable element, TE, and an exonic sequence, which are absent from normal cells, the peptides of the present disclosure are expected to exhibit very low immunological tolerance.

The present disclosure also allows selecting peptides having shared tumor neoepitopes among a population of patients. Such shared tumor peptides are of high therapeutic interest since they may be used in immunotherapy for a large population of patients.

Definitions

According to the present disclosure, the term "**disease**" refers to any pathological state, including cancer diseases, in particular those forms of cancer diseases described herein.

The term "**normal**" refers to the healthy state or the conditions in a healthy subject or tissue, i.e., non-pathological conditions, wherein "healthy" preferably means non-cancerous.

Cancer (medical term: malignant neoplasm) is a class of diseases in which a group of cells display uncontrolled growth (division beyond the normal limits), invasion (intrusion on and destruction of adjacent tissues), and sometimes metastasis (spread to other locations in the body via lymph or blood). These three malignant properties of cancers differentiate them from benign tumors, which are self-limited, and do not invade or metastasize. Most cancers form a tumor but some, like leukemia, do not.

Malignant tumor is essentially synonymous with cancer. Malignancy, malignant neoplasm, and malignant tumor are essentially synonymous with cancer.

As used herein, the term "tumor" or "tumor disease" refers to an abnormal growth of cells (called neoplastic cells, tumorigenous cells or tumor cells) preferably forming a swelling or lesion. By "tumor cell" is meant an abnormal cell that grows by a rapid, uncontrolled cellular proliferation and continues to grow after the stimuli that initiated the new growth cease. Tumors show partial or complete lack of structural organization and functional coordination with the normal tissue, and usually form a distinct mass of tissue, which may be either benign, pre-malignant or malignant.

A benign tumor is a tumor that lacks all three of the malignant properties of a cancer. Thus, by definition, a benign tumor does not grow in an unlimited, aggressive manner, does not invade surrounding tissues, and does not spread to non-adjacent tissues (metastasize).

Neoplasm is an abnormal mass of tissue as a result of neoplasia. Neoplasia (new growth in Greek) is the abnormal proliferation of cells. The growth of the cells exceeds, and is uncoordinated with that of the normal tissues around it. The growth persists in the same excessive manner even after cessation of the stimuli. It usually causes a lump or tumor. Neoplasms may be benign, pre-malignant or malignant.

"**Growth of a tumor**" or "**tumor growth**" according to the present disclosure relates to the tendency of a tumor to increase its size and/or to the tendency of tumor cells to proliferate.

For purposes of the present disclosure, the terms "**cancer**" and "**cancer disease**" are used interchangeably with the terms "**tumor**" and "**tumor disease**".

Cancers are classified by the type of cell that resembles the tumor and, therefore, the tissue presumed to be the origin of the tumor. These are the histology and the location, respectively.

According to the present application, cancer may affect any one of the following tissues or organs: breast; liver; kidney; heart, mediastinum, pleura; floor of mouth; lip; salivary glands; tongue; gums; oral cavity; palate; tonsil; larynx; trachea; bronchus, lung; pharynx, hypopharynx, oropharynx, nasopharynx; esophagus; digestive organs such as stomach, intrahepatic bile ducts, biliary tract, pancreas, small intestine, colon; rectum; urinary organs such as bladder, gallbladder, ureter; rectosigmoid junction; anus, anal canal; skin; bone; joints, articular cartilage of limbs; eye and adnexa; brain; peripheral nerves, autonomic nervous system; spinal cord, cranial nerves, meninges; and various parts of the central nervous system; connective, subcutaneous and other soft tissues; retroperitoneum, peritoneum; adrenal gland; thyroid gland; endocrine glands and related structures; female genital organs such as ovary, uterus, cervix uteri; corpus uteri, vagina, vulva; male genital organs such as penis, testis and prostate gland; hematopoietic and reticuloendothelial systems; blood; lymph nodes; thymus.

The term "**cancer**" according to the disclosure therefore comprises leukemias, seminomas, melanomas, teratomas, lymphomas, neuroblastomas, gliomas, rectal cancer, endometrial cancer, kidney cancer, adrenal cancer, thyroid cancer, blood cancer, skin cancer, cancer of the brain, cervical cancer, intestinal cancer, liver cancer, colon cancer, stomach cancer, intestine cancer, head and neck cancer, gastrointestinal cancer, lymph node cancer, esophagus cancer, colorectal cancer, pancreas cancer, ear, nose and throat (ENT) cancer, breast cancer, prostate

cancer, cancer of the uterus, ovarian cancer and lung cancer and the metastases thereof. Examples thereof are lung carcinomas, mamma carcinomas, prostate carcinomas, colon carcinomas, renal cell carcinomas, cervical carcinomas, or metastases of the cancer types or tumors described above. The term cancer according to the present disclosure also comprises cancer metastases and relapse of cancer.

The main types of lung cancer are small cell lung carcinoma (SCLC) and non-small cell lung carcinoma (NSCLC). There are three main sub-types of the non-small cell lung carcinomas: squamous cell lung carcinoma, lung adenocarcinoma (LUAD), and large cell lung carcinoma. Adenocarcinomas account for approximately 10% of lung cancers. This cancer usually is seen peripherally in the lungs, as opposed to small cell lung cancer and squamous cell lung cancer, which both tend to be more centrally located.

By "**metastasis**" is meant the spread of cancer cells from its original site to another part of the body. The formation of metastasis is a very complex process and depends on detachment of malignant cells from the primary tumor, invasion of the extracellular matrix, penetration of the endothelial basement membranes to enter the body cavity and vessels, and then, after being transported by the blood, infiltration of target organs. Finally, the growth of a new tumor, i.e. a secondary tumor or metastatic tumor, at the target site depends on angiogenesis. Tumor metastasis often occurs even after the removal of the primary tumor because tumor cells or components may remain and develop metastatic potential. In one embodiment, the term "metastasis" according to the present disclosure relates to "distant metastasis" which relates to a metastasis which is remote from the primary tumor and the regional lymph node system.

The cells of a secondary or metastatic tumor are like those in the original tumor. This means, for example, that, if ovarian cancer metastasizes to the liver, the secondary tumor is made up of abnormal ovarian cells, not of abnormal liver cells. The tumor in the liver is then called metastatic ovarian cancer, not liver cancer.

A relapse or recurrence occurs when a person is affected again by a condition that affected them in the past. For example, if a patient has suffered from a tumor disease, has received a successful treatment of said disease and again develops said disease said newly developed disease may be considered as relapse or recurrence. However, according to the present disclosure, a relapse or recurrence of a tumor disease may but does not necessarily occur at the site of the original tumor disease. Thus, for example, if a patient has suffered from ovarian tumor and has received a successful treatment a relapse or recurrence may be the occurrence of an ovarian tumor or the occurrence of a tumor at a site different to ovary. A relapse or recurrence of a tumor also

includes situations wherein a tumor occurs at a site different to the site of the original tumor as well as at the site of the original tumor. Preferably, the original tumor for which the patient has received a treatment is a primary tumor and the tumor at a site different to the site of the original tumor is a secondary or metastatic tumor.

By "**treat**" is meant to administer a compound or composition as described herein to a subject in order to prevent or eliminate a disease, including reducing the size of a tumor or the number of tumors in a subject; arrest or slow a disease in a subject; inhibit or slow the development of a new disease in a subject; decrease the frequency or severity of symptoms and/or recurrences in a subject who currently has or who previously has had a disease; and/or prolong, i.e. increase the lifespan of the subject. In particular, the term "treatment of a disease" includes curing, shortening the duration, ameliorating, preventing, slowing down or inhibiting progression or worsening, or preventing or delaying the onset of a disease or the symptoms thereof.

By "**being at risk**" is meant a subject, i.e. a patient, that is identified as having a higher than normal chance of developing a disease, in particular cancer, compared to the general population. In addition, a subject who has had, or who currently has, a disease, in particular cancer, is a subject who has an increased risk for developing a disease, as such a subject may continue to develop a disease. Subjects who currently have, or who have had, a cancer also have an increased risk for cancer metastases.

The therapeutically active agents, vaccines and compositions described herein may be administered via any conventional route, including by injection or infusion.

The agents described herein are administered in effective amounts. An "**effective amount**" refers to the amount which achieves a desired reaction or a desired effect alone or together with further doses or together with further therapeutic agents. In the case of treatment of a particular disease or of a particular condition, the desired reaction preferably relates to inhibition of the course of the disease. This comprises slowing down the progress of the disease and, in particular, interrupting or reversing the progress of the disease. The desired reaction in a treatment of a disease or of a condition may also be delay of the onset or a prevention of the onset of said disease or said condition.

An effective amount of an agent described herein will depend on the condition to be treated, the severity of the disease, the individual parameters of the patient, including age, physiological condition, size and weight, the duration of treatment, the type of an accompanying therapy (if present), the specific route of administration and similar factors. Accordingly, the doses

administered of the agents described herein may depend on various of such parameters. In the case that a reaction in a patient is insufficient with an initial dose, higher doses (or effectively higher doses achieved by a different, more localized route of administration) may be used.

The pharmaceutical compositions as herein described are preferably sterile and contain an effective amount of the therapeutically active substance to generate the desired reaction or the desired effect.

The pharmaceutical compositions as herein described are generally administered in pharmaceutically compatible amounts and in pharmaceutically compatible preparation. The term "**pharmaceutically compatible**" refers to a nontoxic material which does not interact with the action of the active component of the pharmaceutical composition. Preparations of this kind may usually contain salts, buffer substances, preservatives, carriers, supplementing immunity-enhancing substances such as adjuvants, e.g. CpG oligonucleotides, cytokines, chemokines, saponin, GM-CSF and/or RNA and, where appropriate, other therapeutically active compounds. When used in medicine, the salts should be pharmaceutically compatible.

As used herein, the term “nucleic acid molecules” include any nucleic acid molecule that encodes a polypeptide of interest or a fragment thereof. Such nucleic acid molecules need not be 100% homologous or identical with an endogenous nucleic acid sequence but may exhibit substantial identity. Polynucleotides having “substantial identity” or “substantial homology” to an endogenous sequence are typically capable of hybridizing with at least one strand of a double-stranded nucleic acid molecule. By “hybridize” is meant a pair to form a double-stranded molecule between complementary polynucleotide sequences (e.g., a gene described herein), or portions thereof, under various conditions of stringency. (See, e.g., Wahl, G. M. and S. L. Berger (1987) Methods Enzymol. 152:399; Kimmel, A. R. (1987) Methods Enzymol. 152:507). For example, stringent salt concentration will ordinarily be less than about 750 mM NaCl and 75 mM trisodium citrate, e.g., less than about 500 mM NaCl and 50 mM trisodium citrate, or less than about 250 mM NaCl and 25 mM trisodium citrate. Low stringency hybridization can be obtained in the absence of organic solvent, e.g., formamide, while high stringency hybridization can be obtained in the presence of at least about 35% formamide, e.g., at least about 50% formamide. Stringent temperature conditions will ordinarily include temperatures of at least about 30° C, at least about 37° C, or at least about 42° C. Varying additional parameters, such as hybridization time, the concentration of detergent, e.g., sodium dodecyl sulfate (SDS), and the inclusion or exclusion of carrier DNA, are well known to those skilled in the art. Various levels of stringency are accomplished by combining these various

conditions as needed. In certain embodiments, hybridization will occur at 30° C in 750 mM NaCl, 75 mM trisodium citrate, and 1% SDS. In certain embodiments, hybridization will occur at 37° C in 500 mM NaCl, 50 mM trisodium citrate, 1% SDS, 35% formamide, and 100 pg/ml denatured salmon sperm DNA (ssDNA). In certain embodiments, hybridization will occur at 42° C in 250 mM NaCl, 25 mM trisodium citrate, 1% SDS, 50% formamide, and 200 pg/ml ssDNA. ETseful variations on these conditions will be readily apparent to those skilled in the art. For most applications, washing steps that follow hybridization will also vary in stringency. Wash stringency conditions can be defined by salt concentration and by temperature. As above, wash stringency can be increased by decreasing salt concentration or by increasing temperature. For example, stringent salt concentration for the wash steps can be less than about 30 mM NaCl and 3 mM trisodium citrate, e.g., less than about 15 mM NaCl and 1.5 mM trisodium citrate. Stringent temperature conditions for the wash steps will ordinarily include a temperature of at least about 25° C, of at least about 42° C, or of at least about 68° C. In certain embodiments, wash steps will occur at 25° C in 30 mM NaCl, 3 mM trisodium citrate, and 0.1% SDS. In certain embodiments, wash steps will occur at 42° C. in 15 mM NaCl, 1.5 mM trisodium citrate, and 0.1% SDS. In certain embodiments, wash steps will occur at 68° C in 15 mM NaCl, 1.5 mM trisodium citrate, and 0.1% SDS. Additional variations on these conditions will be readily apparent to those skilled in the art. Hybridization techniques are well known to those skilled in the art and are described, for example, in Benton and Davis (Science 196: 180, 1977); Grunstein and Rogness (Proc. Natl. Acad. Sci., USA 72:3961, 1975); Ausubel et al. (Current Protocols in Molecular Biology, Wiley Interscience, New York, 2001); Berger and Kimmel (Guide to Molecular Cloning Techniques, 1987, Academic Press, New York); and Sambrook et al., Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory Press, New York.

By “substantially identical” or “substantially homologous” is meant a polypeptide or nucleic acid molecule exhibiting at least about 50% homologous or identical to a reference amino acid sequence (for example, any one of the amino acid sequences described herein) or nucleic acid sequence (for example, any one of the nucleic acid sequences described herein). In certain embodiments, such a sequence is at least about 60%, at least about 65%, at least about 70%, at least about 75%, at least about 80%, at least about 85%, at least about 90%, at least about 95%, at least about 99%, or at least about 100% homologous or identical to the sequence of the amino acid or nucleic acid used for comparison.

Sequence identity can be measured by using sequence analysis software (for example, Sequence Analysis Software Package of the Genetics Computer Group, University of Wisconsin

Biotechnology Center, 1710 University Avenue, Madison, Wis. 53705, BLAST, BESTFIT, GAP, or PILEUP/PRETTYBOX programs). Such software matches identical or similar sequences by assigning degrees of homology to various substitutions, deletions, and/or other modifications. Conservative substitutions typically include substitutions within the following groups: glycine, alanine; valine, isoleucine, leucine; aspartic acid, glutamic acid, asparagine, glutamine; serine, threonine; lysine, arginine; and phenylalanine, tyrosine. In an exemplary approach to determining the degree of identity, a BLAST program may be used, with a probability score between e-3 and e-l00 indicating a closely related sequence.

By "analog" is meant a structurally related polypeptide or nucleic acid molecule having the function of a reference polypeptide or nucleic acid molecule.

Unless specifically stated or obvious from context, as used herein, the term "**about**" is to be understood as within a range of normal tolerance in the art, for example within 2 standard deviations of the mean. About can be understood as within 50%, 45%, 40%, 35%, 30%, 25%, 20%, 15%, 10%, 9%, 8%, 7%, 6%, 5%, 4%, 3%, 2%, 1%, 0.5%, 0.1%, 0.05%, or 0.01% of the stated value. Unless otherwise clear from context, all numerical values provided herein are modified by the term about.

A "**transposable element**" as used herein is a repeated DNA sequence DNA sequences that is able to move from one location to another in the genome either through an RNA copy generated by a reverse transcriptase (Class I TEs, retrotransposons), or by excising themselves from their original location (Class II TEs, or DNA transposons). It thus includes both class I (retrotransposons, including those containing LTRs, LINEs and SINEs) and class II (DNA transposons) endogenously part of the genome (i.e.: not from infection). This includes both autonomous and non-autonomous elements from both classes. According to the present disclosure the TE sequences can be for example selected from TE of class I, such as retrotransposons including Endogenous RetroVirus (ERVs), Long interspersed nuclear elements (LINEs) and short interspersed nuclear element (SINEs) and mammalian long terminal repeat transposon (MaLR), and TE of class II, such as DNA transposons endogenously part of the genome.

Retrotransposons are by far more abundant and their characteristics are similar to retroviruses, such as HIV. Retrotransposons function via reverse transcription of an RNA intermediate replicative mechanism. They are commonly grouped into three main orders: retrotransposons with long terminal repeats (LTRs) flanking the retroelement main body, which encode reverse transcriptase, similar to retroviruses; retroposons with long interspersed nuclear elements

(LINEs, LINE-1s, or L1s), which encode reverse transcriptase but lack LTRs, and are transcribed by RNA polymerase II; and retrotransposons with short interspersed nuclear elements (SINEs) that do not encode reverse transcriptase and are transcribed by RNA polymerase III. DNA transposons have a transposition mechanism that do not involve an RNA intermediate. The transpositions are catalyzed by several transposase enzymes. LTRs include endogenous retroviruses (ERVs), while non-LTR TEs subdivide into long-interspersed (LINEs) and short interspersed elements (SINEs), nonautonomous transposons mobilized by the LINE integration machinery. These lineages are composed of phylogenetically related families, further branching out into multiple subfamilies, each originating from one precursor copy. With time, the accumulation of mutations introduced divergence in the consensus sequence within members of each subfamily. For review on TE retrotransposon, see Richardson, Sandra R et al. "The Influence of LINE-1 and SINE Retrotransposons on Mammalian Genomes." Microbiology spectrum vol. 3,2 (2015): MDNA3-0061-2014.

A typical L1 element is approximately 6,000 base pairs (bp) long and consists of two non-overlapping open reading frames (ORF) which are flanked by untranslated regions (UTR) and target site duplications. LINE-1 retrotransposons have been amplifying in mammalian genomes for greater than 160 million years. In humans, the vast majority of LINE-1 sequences have amplified since the divergence of the ancestral mouse and human lineages approximately 65–75 million years ago. Sequence comparisons between individual genomic LINE-1 sequences and a consensus sequence derived from modern, active LINE-1s can be used to estimate the age of genomic LINE-1s (Khan H, Smit A, Boissinot S; Genome Res. 2006 Jan; 16(1):78-87). L1 subfamilies typically categorize into old (L1M, AluJ), intermediate (L1P, L1PB, AluS), young (L1HS, L1PA, AluY) and related (HAL, FAM) subfamilies. In humans, the only autonomously active family is the long-interspersed element-1 (LINE-1 or L1), however a few L1 copies are still retrotransposition competent, all of them belonging to the youngest human-specific L1HS subfamily.

SVA elements comprise an evolutionarily young, non-autonomous retrotransposon family that arose in primate lineages approximately 25 million years ago (Hancks DC, Kazazian HH Jr, Semin Cancer Biol. 2010 Aug; 20(4):234-45). A typical SVA element is approximately 2,000 bp and has a composite structure that consists of: 1) a hexameric CCCTCT repeat; 2) an inverted Alu-like element repeat; 3) a set of GC-rich variable nucleotide tandem repeats (VNTRs); 4) a SINE-R sequence that shares homology with HERVK-10, an inactive LTR retrotransposon; and 5) a canonical cleavage polyadenylation specificity factor (CPSF) binding site that is

followed by a poly (A) tract. The youngest SVA subfamilies include SVA-D, SVA-E, SVA-F, and SVA-F1 subfamilies.

A "**messenger RNA (mRNA)"** is a single-stranded RNA molecule that corresponds to the genetic sequence of a gene and is read by the ribosome in the process of producing a protein. mRNA is created during the process of transcription, where the enzyme RNA polymerase converts genes into primary transcript mRNA (also known as pre-mRNA). This pre-mRNA usually still contains introns, regions that will not go on to code for the final amino acid sequence. These are removed in the process of RNA splicing, leaving only exons, regions that will encode the protein. This exon sequence constitutes mature mRNA. Mature mRNA is then read by the ribosome, and, utilizing amino acids carried by transfer RNA (tRNA), the ribosome creates the peptide sequence a process called translation.

A "**transcript**" as herein intended is a messenger RNA (or mRNA) or a part of a mRNA which is expressed by an organism, notably in a particular tissue or even in a particular tissue. Expression of a transcript varies depending on many factors. Expression of a transcript may be modified in a cancer cell as compared to a normal healthy cell.

A "**transcriptome**" as herein intended is the full set of messenger RNA, or mRNA, molecules expressed or transcribed by the gene of a cell. In some embodiments, the term "transcriptome" can also be used to describe the array of mRNA transcripts produced in a particular cell (or tissue type). In contrast with the genome, which is characterized by its stability, the transcriptome actively changes. In fact, an organism's transcriptome varies depending on many factors, including stage of development, environmental and physiological conditions. Typically, also, the transcriptome is modified in a cancer cell as compared to a corresponding normal healthy cell. Typically, the transcriptome as herein intended is the human transcriptome. The terms "transcriptomic pattern" and "transcriptome" are used herein as synonyms.

A **reading frame** is a way of dividing the sequence of nucleotides in a nucleic acid (DNA or RNA) molecule into a set of consecutive, non-overlapping triplets.

An **open reading frame** (ORF) is the part of a reading frame that has the ability to be translated into a peptide. An ORF is a continuous stretch of codons that contain a start codon (for example AUG) at a transcription starting site (TSS) and a stop codon (for example UAA, UAG or UGA). An ATG codon within the ORF (not necessarily the first) may indicate where translation starts. The transcription termination site is located after the ORF, beyond the translation stop

codon. In eukaryotic genes with multiple exons, ORFs span intron/exon regions, which may be spliced together after transcription of the ORF to yield the final mRNA for protein translation.

A "**canonical ORF**" as herein intended is a protein coding sequence with specified reading frame within a mRNA sequence which is described or annotated in databases such as for example Ensembl genome/transcriptome/proteome database collection (typically HG19). Typically, a canonical ORF is the same as one of the exons in normal healthy cells.

A "**non-canonical ORF**" as herein intended is a protein coding sequence with specified reading frame within a mRNA sequence which is not described (i.e. unannotated) in genome databases such as for example in Ensembl genome/transcriptome/proteome database. Typically, a non-canonical ORF means thus that the reading frame is shifted compared to the usual reading frame of exons in normal healthy cells. In some embodiments however, a non-canonical can be described in genome databases (such as Ensembl database), but the mRNA sequence represents minor species in normal cells. By minor species it is typically intended less that 5 % , notably less than 2 %, or preferentially less than 1 % species in normal cells.

An **exon** is any part of a gene that will encode a part of the final mature RNA produced by that gene after introns have been removed by RNA splicing. The term *exon* refers to both the DNA sequence within a gene and to the corresponding sequence in RNA transcripts. In RNA splicing, introns are removed, and exons are covalently joined to one another as part of generating the mature messenger RNA. An exonic sequence as per the present applicant comprises at least a portion of one or more exons. Typically, the exonic sequence comprises at least a portion of one or 2 exons.

The untranslated sequences in 3'end and in 5' end (3'UTR and 5'UTR) present in mature RNA after splicing are exonic sequences, but are non-coding sequences because these sequences are located upstream of the start codon for the translation (5'UTR) or downstream of the stop codon ending the translation (3'UTR).

In the present application, the terms "**fusion transcript**", "**chimeric transcripts**" "TE-exon transcript", or "Junction Exon-TE" (JET) are used indifferently as synonyms. A "fusion or a chimeric" "transcript or sequence", as per the present disclosure is defined as a transcript that aligns in part with an exon sequence and in part with a transposable element (TE) sequence. A fusion, or chimeric, transcript is also shortly named herein JET (junction between exon and TE). Typically, a fusion transcript according to the present description has a normalized number

of read greater than 2.10^{-6}. The normalized number of reads is defined as the number of reads that cover the fusion divided by the library size of the sample.

The term "**peptide or polypeptide**," is used interchangeably with "**neoantigenic peptide or polypeptide**" in the present specification to designate a series of residues, typically L-amino acids, connected one to the other, typically by peptide bonds between the α-amino and carboxyl groups of adjacent amino acids. The polypeptides or peptides can be a variety of lengths, either in their neutral (uncharged) forms or in forms which are salts, and either free of modifications such as glycosylation, side chain oxidation, or phosphorylation or containing these modifications, subject to the condition that the modification does not destroy the biological activity of the polypeptides as herein described.

As used herein pJETs are peptides or polypeptides derived from (i.e. encoded by) chimeric/fusion transcripts or JETs. pJETs are also named herein translated JETs.

A "**reference genome**, or "**representative genome**" is a digital nucleic acid sequence data base, assembled by scientists as a representative example of species set of genes. As they are often assembled from the sequencing of DNA from a number of donors, reference genomes do not accurately represent the set of genes of any single individual (animal or person). Instead a reference provides a haploid mosaic of different DNA sequences from each donor.

RNA-Seq (named as an abbreviation of RNA sequencing) is a sequencing technique which uses next-generation sequencing (NGS) to reveal the presence and quantity of RNA (typically messenger RNA, mRNA) in a biological sample and generates an enormous numbers of raw sequencing reads (typically at least in the tens of millions). Single-cell RNA sequencing (scRNA-Seq) provides the expression profiles of an individual cell. A read refers to an RNA sequence from one RNA fragment from a biological sample or a single cell. The RNA sample that was sequenced is called the RNA library. RNA sequencing data are thus typically called RNA reads.

In the present application, "**MHC molecule**" or "**HLA molecule**" refers to at least one MHC/HLA class I molecule or at least one MHC/HLA Class II molecule. MHC class I proteins form a functional receptor on most nucleated cells of the body. There are 3 major MHC class I genes in HLA: HLA-A, HLA-B, HLA-C and three minor genes HLA-E, HLA-F and HLA-G. 32-microglobulin binds with major and minor gene subunits to produce a heterodimer. MHC molecules of class I consist of a heavy chain and a light chain and can bind a peptide of about 8 to 11 amino acids, but usually 8 or 9 amino acids, if this peptide has suitable binding motifs,

and presenting it to cytotoxic T- lymphocytes. The binding of the peptide is stabilized at its two ends by contacts between atoms in the main chain of the peptide and invariant sites in the peptide-binding groove of all MHC class I molecules. There are invariant sites at both ends of the groove which bind the amino and carboxy termini of the peptide. Variations in peptide length are accommodated by a kinking in the peptide backbone, often at proline or glycine residues that allow the required flexibility. The peptide bound by the MHC molecules of class I usually originates from an endogenous protein antigen. As an example, the heavy chain of the MHC molecules of class I is typically an HLA-A, HLA-B or HLA-C monomer, and the light chain is β-2-microglobulin, in humans. There are 3 major and 2 minor MHC class II proteins encoded by the HLA. The genes of the class II combine to form heterodimeric (αβ) protein receptors that are typically expressed on the surface of antigen-presenting cells. The peptide bound by the MHC molecules of class II usually originates from an extracellular or exogenous protein antigen. As an example, the α -chain and the β-chain are in particular HLA-DR, HLA-DQ and HLA-DP monomers, in humans. MHC class II molecules are capable of binding a peptide of about 8 to 20 amino acids, notably from 10 to 25 amino acids or from 13 to 25 amino acids if this peptide has suitable binding motifs, and of presenting it to T-helper cells. The peptide lies in an extended conformation along the MHC II peptide-binding groove which (unlike the MHC class I peptide-binding groove) is open at both ends. It is held in place mainly by main-chain atom contacts with conserved residues that line the peptide-binding groove.

The term "**peptidome**" refers to the complete set of peptides expressed by a particular genome, or present within a particular organism or cell type (such as a cancer cell). Proteomic analysis (proteomics) thus refers to the separation, identification, and quantification of the entire set of peptides or proteins expressed by a genome, a cell, or a tissue at a specific point in time.

Proteomics analysis are typically based on two major techniques, namely two-dimensional gel electrophoresis (2-DGE) (Harper S et al., In: Coligan JE, Dunn BM, Speicher DW, Wing-field PT, editors. Current Protocols in Protein Science. John Wiley & Sons; Hoboken, N.J.: 1998. pp. 10.4.1–10.4.36.) and Mass Spectrometry (MS) (Aebersold & Mann, 2003), which are both powerful methods for the analysis of complex mixtures of proteins. HPLC is an alternative separation technique for proteomic studies, especially in separation and identification of low-molecular-weight proteins and peptides (Garbis et al., 2005). MS allows the determination of the molecular mass of proteins or peptides based on the mass to charge ratio (m/z) of ions in the gas phase. The terms "gel-based" or "gel-free" proteomics are used in relation to the applied separation techniques, 2-DGE or HPLC; proteomics approaches can also be "bottom-up" or

"top-down," which basically identify proteins from their protease (e.g., trypsin) digests or, as a whole, via a mass spectrometer, respectively.

Bottom-up proteomics is a common method to identify proteins from a biological sample (tissue(s) or cells) and characterize their amino acid sequences and post-translational modifications by proteolytic digestion of proteins prior to analysis by mass spectrometry. The crude protein extract is enzymatically digested, followed by one or more dimensions of separation of the peptides typically by liquid chromatography coupled to mass spectrometry, a technique known as shotgun proteomics. By comparing the masses of the proteolytic peptides or their tandem mass spectra with those predicted from a sequence database or annotated peptide spectral in a peptide spectral library, peptides can be identified, and multiple peptide identifications assembled into a protein identification.

In top-down proteomics, intact proteins are purified prior to digestion and/or fragmentation either within the mass spectrometer or by 2D electrophoresis. Top-down proteomics either uses an ion trapping mass spectrometer to store an isolated protein ion for mass measurement and tandem mass spectrometry (MS/MS) analysis or other protein purification methods such as two-dimensional gel electrophoresis in conjunction with MS/MS.

From the data generated by the MS, the protein is either sequenced de novo by manual mass analyses of the spectra or processed automatically via sequence search engines such as SEQUEST, Mascot, Phenyx, X!Tandem, and OMSSA. These algorithms are developed based on the correlation between experimental and theoretical MS/MS data; the latter being generated from in silico digestion of protein databases such as UniProt/Swiss-Prot (Deutsch, Lam, & Aebersold, 2008).

The term "**immunopeptidome**", also commonly named "**immunopeptidomic pattern**", "**pMHC repertoire**", or "**MHC- ligandome**" or "**HLA ligandome**", refers to the complete set of peptides within a particular cell type, which are bound to at least one MHC/HLA molecule at the cell surface. Correspondingly, "immunopeptidomics" has emerged as a term to describe analysis of the MHC/HLA-ligandome. The most common immunopeptidomics methods rely on mass spectrometry (MS). Immunopeptidomics samples are generally prepared by isolating MHCs, for example by using an allele-specific antibody, pan-specific antibody, or engineered affinity tag system, from lysed cells or tissues. Isolated complexes are acid eluted, and peptides are purified from the MHC molecules using molecular weight cut-off filtration (MWCO), solid

phase extraction or other techniques, and are subsequently analyzed by MS (see for example for review L.E. Stopfer et al., Immuno-Oncology and Technology, Volume 11, 2021,100042).

As used herein, the term "antibody" means not only intact antibody molecules, but also fragments of antibody molecules that retain immunogen-binding ability. Such fragments are also well known in the art and are regularly employed both in vitro and in vivo. Accordingly, as used herein, the term "antibody" means not only intact immunoglobulin molecules but also the well-known active fragments F(ab')2, and Fab.

$F(ab')_2$, and Fab fragments that lack the Fc fragment of intact antibody, clear more rapidly from the circulation, and may have less non-specific tissue binding of an intact antibody (Wahl et ah, J. Nucl. Med. 24:316-325 (1983).

As used herein, antibodies include whole native antibodies, bispecific antibodies; chimeric antibodies; Fab, Fab', single chain V region fragments (scFv), fusion polypeptides, and unconventional antibodies.

In certain embodiments, an antibody is a glycoprotein comprising at least two heavy (H) chains and two light (L) chains inter-connected by disulfide bonds. Each heavy chain is comprised of a heavy chain variable region (abbreviated herein as V_H) and a heavy chain constant (C_H) region. The heavy chain constant region is comprised of three domains, CH1, CH2 and CH3. Each light chain is comprised of a light chain variable region (abbreviated herein as V_L) and a light chain constant C_L region. The light chain constant region is comprised of one domain, C_L. The V_H and V_L regions can be further sub-divided into regions of hypervariability, termed complementarity determining regions (CDR), interspersed with regions that are more conserved, termed framework regions (FR). Each V_H and V_L is composed of three CDRs and four FRs arranged from amino-terminus to carboxy-terminus in the following order: FR1, CDR1, FR2, CDR2, FR3, CDR3, FR4.

The variable regions of the heavy and light chains contain a binding domain that interacts with an antigen. The constant regions of the antibodies may mediate the binding of the immunoglobulin to host tissues or factors, including various cells of the immune system (e.g ., effector cells) and the first component (Cl q) of the classical complement system.

As used herein, "CDRs" are defined as the complementarity determining region amino acid sequences of an antibody which are the hypervariable regions of immunoglobulin heavy and light chains (See , e.g. , Rabat et al., Sequences of Proteins of Immunological Interest, 4th U. S. Department of Health and Human Services, National Institutes of Health (1987). Generally,

antibodies comprise three heavy chain and three light chain CDRs or CDR regions in the variable region. CDRs provide the majority of contact residues for the binding of the antibody to the antigen or epitope. In certain embodiments, the CDRs regions are delineated using the Rabat system (Rabat, E. A., et al. (1991) Sequences of Proteins of Immunological Interest, Fifth Edition, ET.S. Department of Health and Human Services, NIH Publication No. 91-3242).

As used herein, the term "single-chain variable fragment" or "scFv" is a fusion protein of the variable regions of the heavy (V_H) and light chains (V_L) of an immunoglobulin covalently linked to form a V_H: :V_L heterodimer. The V_H and V_L are either joined directly or joined by a peptide-encoding linker (e.g., 10, 15, 20, 25 amino acids), which connects the N-terminus of the V_H with the C-terminus of the V_L, or the C-terminus of the V_H with the N-terminus of the V_L. The linker is usually rich in glycine for flexibility, as well as serine or threonine for solubility. Despite removal of the constant regions and the introduction of a linker, scFv proteins retain the specificity of the original immunoglobulin. Single chain Fv polypeptide antibodies can be expressed from a nucleic acid including V_H - and V_L -encoding sequences as described by Huston, et al. (Proc. Nat. Acad. Sci. USA, 85:5879-5883, 1988). See, also , U.S. Patent Nos. 5,091,513, 5,132,405 and 4,956,778; and U.S. Patent Publication Nos. 20050196754 and 20050196754.

As used herein, the term "affinity" is meant a measure of binding strength. Affinity can depend on the closeness of stereochemical fit between antibody combining sites and antigen determinants, on the size of the area of contact between them, and/or on the distribution of charged and hydrophobic groups. As used herein, the term "affinity" also includes "avidity", which refers to the strength of the antigen-antibody bond after formation of reversible complexes. Methods for calculating the affinity of an antibody for an antigen are known in the art, including, but not limited to, various antigen-binding experiments, e.g., functional assays (e.g., flow cytometry assay), surface plasmon resonance assays such as BIACORE assays, and kinetic exclusion assays such as KINEXA assays.

The term "chimeric antigen receptor" or "CAR" as used herein refers to a molecule comprising an extracellular antigen-binding domain that is fused to an intracellular signalling domain that is capable of activating or stimulating an immunoresponsive cell, and a transmembrane domain. In certain embodiments, the extracellular antigen-binding domain of a CAR comprises a scFv. The scFv can be derived from fusing the variable heavy and light regions of an antibody. Alternatively or additionally, the scFv may be derived from Fab's (instead of from an antibody, e.g., obtained from Fab libraries). In certain embodiments, the scFv is fused to the

transmembrane domain and then to the intracellular signaling domain. In certain embodiments, the CAR has a high binding affinity or avidity for the antigen.

The term “antigen-binding domain” as used herein refers to a domain capable of specifically binding a particular antigenic determinant or set of antigenic determinants present on a cell.

The term “immune cell” as herein intended typically encompasses T cells, Natural Killer T cells, CD4+/CD8+ T cells, TILs/tumor derived CD8 T cells, central memory CD8+ T cells, Treg, MAIT, Yδ T cells, human embryonic stem cells, and pluripotent stem cells from which lymphoid cells may be differentiated.

By “isolated cell” is meant a cell that is separated from the molecular and/or cellular components that naturally accompany the cell.

The terms “isolated,” “purified,” or “biologically pure” refer to material that is free to varying degrees from components which normally accompany it as found in its native state. “Isolate” denotes a degree of separation from original source or surroundings. “Purify” denotes a degree of separation that is higher than isolation. A “purified” or “biologically pure” protein is sufficiently free of other materials such that any impurities do not materially affect the biological properties of the protein or cause other adverse consequences. That is, a nucleic acid or peptide is purified if it is substantially free of cellular material, viral material, or culture medium when produced by recombinant DNA techniques, or chemical precursors or other chemicals when chemically synthesized. Purity and homogeneity are typically determined using analytical chemistry techniques, for example, polyacrylamide gel electrophoresis or high performance liquid chromatography. The term“purified” can denote that a nucleic acid or protein gives rise to essentially one band in an electrophoretic gel. For a protein that can be subjected to modifications, for example, phosphorylation or glycosylation, different modifications may give rise to different isolated proteins, which can be separately purified.

Unless specifically stated or obvious from context, as used herein, the term “**about**” is to be understood as within a range of normal tolerance in the art, for example within 2 standard deviations of the mean. About can be understood as within 20%, 15%, 10%, 9%, 8%, 7%, 6%, 5%, 4%, 3%, 2%, 1%, 0.5%, 0.1%, 0.05%, or 0.01% of the stated value. Unless otherwise clear from context, all numerical values provided herein are modified by the term about.

Method for selecting a tumor neoantigenic peptide

The method for selecting a tumor neoantigenic peptide as per the present disclosure comprises

- a step of identifying, among mRNA sequences from a cancer cell sample of a subject, a fusion transcript (JET) sequence comprising a transposable element (TE) sequence and an exonic sequence, and including an open reading frame (ORF), and
- a step of selecting a tumor neoantigenic peptide of at least 8 amino acids, encoded by a part of said ORF of the fusion transcript sequence,

wherein said ORF overlaps the junction between the TE and the exonic sequence, is pure TE and/or is non-canonical, and

wherein said tumor neoantigenic peptide binds to at least one Major Histocompatibility Complex (MHC) molecule of said subject.

Typically, a peptide translated from a part of non-canonical ORF of an exonic sequence is recognized as non-self by the immune system.

In some embodiments, the exonic sequence is from an oncogene and/or a tumor suppressor gene or one of their mutated variants.

Conceptually, cancer is a result of consecutive somatic mutation accumulation. Many studies have shown that both the gain of function in oncogenes and the loss of function in tumor-suppressor genes are required for the development of cancer from a normal cell. For a diploid organism, gain-of-function mutations are often dominant or semi-dominant, whereas loss-of-function mutations are usually recessive. Two-hit hypothesis of oncogenesis proposes that the development of cancer is initiated by the loss of both alleles of a tumor-suppressor gene.

Oncogenes (also named cancer genes) are genes whose action positively promotes cell proliferation or growth. The normal nonmutant versions are known as proto-oncogenes. The mutant versions are excessively or inappropriately active leading to tumor growth. Oncogenes can be identified in the Cancer Gene Marker Database (CGMD) (Pradeepkiran, J., Sainath, S., Kramthi Kumar, K. et al. CGMD:. Sci Rep 5, 12035 (2015) *"An integrated database of cancer genes and markers"*). Oncogenes (ONCs) can also be downloaded from Network of Cancer Genes database (NCG 5.0) (An O, Dall'Olio GM, Mourikis TP, Ciccarelli FD, Nucleic Acids Res. 2016 Jan 4; 44(D1):D992-9; "*NCG 5.0: updates of a manually curated repository of cancer genes and associated properties from cancer mutational screenings*"). Non-limitatives examples of oncogenes include: *L-MYC, LYL-1, LYT-10, LYT-10/Cα1, MAS, MDM-2, MLL, MOS, MTG8/AML1, MYB, MYH11/CBFB, NEU, N-MYC, OST, PAX-5, PBX1/E2A, PIM-1,*

PRAD-1, RAF, RAR/PML, RAS-H, RAS-K, RAS-N, REL/NRG, RET, RHOM1, RHOM2, ROS, SKI, SIS, SET/CAN, SRC, TAL1, TAL2, TAN-1, TIAM1, TSC2, and *TRK*.

Tumor suppressor genes (also named anti-oncogenes) represent the opposite side of cell growth control, normally acting to inhibit cell proliferation and tumor development. Thus tumor suppressor genes are genes that normally suppress cell division or growth. Loss of TSG function promotes uncontrolled cell division and tumor growth. *Rb*, a tumor suppressor gene that was identified by the genetic analysis of retinoblastoma an encoding atranscriptional regulatory protein, served as the prototype for the identification of additional tumor suppressor genes that contribute to the development of many different human cancers. Tumor suppressor genes are notably described in "Cooper GM. The Cell: A Molecular Approach. 2nd edition. Sunderland (MA): Sinauer Associates; 2000. Tumor Suppressor Genes". Tumor-suppressor genes (TSGs) can also be downloaded from Tumor Suppressor Gene database (TSGene 2.0) (see for reference Zhao M, Kim P, Mitra R, Zhao J, Zhao Z; Nucleic Acids Res. 2016 Jan 4; 44(D1):D1023-31; "*TSGene 2.0: an updated literature-based knowledgebase for tumor suppressor genes*"). In this context, non-limitative examples of tumor suppressor genes include: *APC, BRCA1, BRCA2, DPC4, INK4, MADR2, NF1, NF2, p53, PTC, PTEN, Rb, RB1, VHL, WT1, BUB1, BUBR1, TGF-βRII, Axin, DPC4, p300, PPARγ, p16, DPC4, PTEN, and hSNF5*.

Oncogenes, tumor suppressor genes or "double agent" genes (with both oncogenic and tumor-suppressor functions) can be systematically identified through database search and text mining. Indeed, information on oncogenes or tumor suppressor genes can typically be found in Ensembl database (but see also Shen L, Shi Q, Wang W. Double agents: genes with both oncogenic and tumor-suppressor functions. Oncogenesis. 2018;7(3):25. Published 2018 Mar 13). Double agent genes may be identified as genes overlapped between the two above mentioned databases (see also Shen et al., Oncogenesis 2018 above).

Without to be bound by any theory, the inventors believe that selection of fusion wherein the exonic sequence is from an oncogene and/or a tumor suppressor gene is of high relevance for the reason below:

TE insertion in oncogenes can alter their oncogenic activity. Insertion of TE sequences in oncogene active domains could therefore result in constitutive activity of the oncogenes, similar to driver mutations. These fusions giving chimeric oncogenes could thus represent a new family of oncogenic proteins. If this is the case, targeting the activity of these new "fusion oncogenes" with small molecule antagonists could represent a potential therapeutic approach for cancer where these chimeric oncogenes are expressed.

TE insertions in tumor suppressors could inactivate their suppressor functions, leading typically to a loss of function (for example through introduction of stop codons, changes in ORF or disruptive amino acid stretches), thereby contributing to the oncogenic process.

Fusions implicating cancer driver genes would be excellent targets for adoptive cell therapies, antibodies, ADCs, T cell engagers, etc. If they are involved in oncogenesis, fusions oncogenes are expected to be more specific for cancer cells, and thus to reduce the development of resistances (because of the oncogenic activity of the target).

In some embodiments, the TE sequence is located in 5' end of the fusion transcript sequence (it is also said that the TE sequence is the donor sequence) and the exonic sequence is located in 3' end of the fusion transcript sequence with respect to the junction (the exon sequence is thus called an acceptor sequence). The expression "**is located in 5' end of the fusion transcript sequence**" means that the element is located upstream of the junction in the fusion transcript sequence. The expression "**is located in 3' end of the fusion transcript sequence**" means that the element is located downstream of the junction in the fusion transcript sequence.

In a particular embodiment, the TE sequence is located in 5' end of the fusion transcript (JET) sequence and the exonic sequence is located in 3' end of the fusion transcript (JET) sequence, and the part of the ORF of said fusion transcript (JET) sequence, which encodes the neoantigenic peptide (pJET), overlaps the junction. In this case, the ORF can be canonical or non-canonical. It is understood that the ORF may comprise the junction but the neoantigenic peptide (pJET) may not derive from the junction. In some embodiments however, where the neoantigenic peptide has a sequence which is derived from the junction sequence, the obtained peptide is thus encoded by both TE sequence and exonic sequence.

The expression "**the part of the ORF is overlapping or overlaps the junction** between the TE sequence and the exonic sequence", means that said junction is contained in the part of the ORF of the fusion transcript (JET) sequence, which encodes said neoantigenic peptide (pJET).

In embodiments wherein (i) the part of the ORF encoding the neoantigenic peptide is overlapping the junction between the TE sequence and the exonic sequence, and (ii) the TE sequence and the exonic sequence are respectively in 5' end and 3'end of the fusion transcript (JET) sequence, said part of the ORF typically encodes a neoantigenic peptide of at least 8 amino acids, including at least between 1 to 6 amino acids, notably 2 to 6 from the TE sequence and at least between 1 and 6, notably 2 to 6 amino acids from the exonic sequence.

In another embodiment wherein the TE sequence is located in 5' end of the fusion transcript (JET) sequence and the exonic sequence is located in 3' end of the fusion transcript (JET) sequence, the part of ORF which encodes said neoantigenic peptide, is downstream of the junction and the ORF is thus non-canonical.

The expression "**the part of the ORF is downstream of the junction**" means that the part of the ORF encoding the neoantigenic peptide (pJET) is not overlapping the junction, but it is contained in the 3'end part of said fusion transcript sequence with respect to the junction. In this embodiment, as the 3' end part with respect to the junction, is the exonic sequence, the part of the ORF encoding the neoantigenic peptide is thus contained in the exonic sequence. Thus, as the part of the ORF is only located in the exonic sequence, the obtained peptide is therefore encoded by the exonic sequence, in a non-canonical ORF. Thus, in the particular embodiment wherein the exonic sequence is located in 3' end of the fusion transcript (JET) sequence with respect to the junction, and wherein the part of the ORF which encodes the neoantigenic peptide is downstream of the junction with a non-canonical reading frame, the part of the ORF of the fusion transcript (JET) sequence encodes a neoantigenic peptide including 0 amino acid from the TE sequence, and at least 8 amino acids from the exonic sequence.

In another embodiment, the TE sequence is located in 3' end of the fusion transcript (JET) sequence and the exonic sequence is located in 5' end of the fusion transcript sequence with respect to the junction.

In some embodiments, the TE sequence is located in 3' end of the fusion transcript (JET) sequence and the exonic sequence is located in 5' end of the fusion transcript sequence and the part of the ORF of said fusion transcript sequence, which encodes a neoantigenic peptide, is overlapping the junction between the TE sequence and the exonic sequence. In this case, the ORF can also be canonical or non-canonical. The obtained peptide (pJET) is encoded by both TE sequence and exonic sequence.

In the particular embodiment wherein the part of the ORF encoding the neoantigenic peptide (pJET), is overlapping the junction between the exonic sequence and the TE sequence, and wherein the exonic sequence and the TE sequence are respectively in 5' end and 3'end of the fusion transcript (JET) sequence, said part of the ORF encodes a neoantigenic peptide (pJET) of at least 8 amino acids, including at least between 1 to 6, notably 2 to 6 amino acids from the TE sequence and at least between 1 and 6, notably 2 to 6 amino acids from the exonic sequence.

In still another embodiment, the TE sequence is located in 3' end of the fusion transcript (JET) sequence, the exonic sequence is located in 5' end of the fusion transcript sequence, and the part of the ORF which encodes a neoantigenic peptide (pJET), is downstream of the junction between the exonic sequence and the TE sequence. Optionally, the peptide sequence (pJET) which is thus encoded by the pure TE sequence is non-canonical.

In this embodiment, as the 3' end part with respect to the junction is the TE sequence, the part of the ORF encoding the neoantigenic peptide is therefore encoded by the TE sequence. Thus, the part of the ORF encodes a neoantigenic peptide including no amino acid from the exonic sequence and at least 8 amino acids from the TE sequence. In the particular embodiment wherein the TE sequence is located in 3' end of the fusion transcript sequence with respect to the junction, and the part of the ORF which encodes the neoantigenic peptide is downstream the junction, the part of the ORF of the fusion transcript (JET) sequence encodes a neoantigenic peptide (pJET) including 0 amino acid from the exonic sequence, and at least 8 amino acids from the TE sequence.

A tumor neoantigenic peptide is a peptide that arises from somatic alterations (classically mutations in the DNA sequence), is recognized as different from self, and is presented by antigen-presenting cells (APC), such as dendritic cells (DC) and tumor cells themselves. Cross-presentation plays an important role as the APC is able to translocate exogenous antigens from the phagosome into the cytosol for proteolytic cleavage into the major histocompatibility complex I (MHC I) epitopes by the proteasome.

In the present disclosure the alteration corresponds to the transcription of fusion mRNA sequences that comprise a transposable element (TE) sequence and an exonic sequence (JET). This may arise from somatic (*i.e.:* specifically in the tumor clone) transposition. It may also arise not from de novo transposition but from tumor specific transcriptional de-repression such that a TE and nearby gene are co-transcribed.

A neoantigenic peptide (pJET) according to the present disclosure may be completely absent from normal healthy samples (i.e., not expressed in normal healthy samples) and thus be specific to tumor samples. Alternatively, it may be expressed at low levels in normal cells and / or disproportionately expressed on tumor samples as compared to normal (healthy) samples.

It can also be selectively expressed by the cell lineage from which the cancer evolved.

Cancer or tumor samples according to the present disclosure can be isolated from any solid tumor or non-solid tumor of any of the tissues or organs as defined previously, for example,

breast cancer, lung cancer and/or melanoma. In some embodiments cancer samples are from Acute Myeloid Leukemia, Adrenocortical Carcinoma, Bladder Urothelial Carcinoma, Breast Ductal Carcinoma, Breast Lobular Carcinoma, Cervical Carcinoma, Cholangiocarcinoma, Colorectal Adenocarcinoma, Esophageal Carcinoma, Gastric Adenocarcinoma, Glioblastoma Multiforme, Head and Neck Squamous Cell Carcinoma, Hepatocellular Carcinoma, Kidney Chromophobe Carcinoma, Kidney Clear Cell Carcinoma, Kidney Papillary Cell Carcinoma, Lower Grade Glioma, Lung Adenocarcinoma, Lung Squamous Cell Carcinoma, Mesothelioma, Ovarian Serous Adenocarcinoma, Pancreatic Ductal Adenocarcinoma, Paraganglioma & Pheochromocytoma, Prostate Adenocarcinoma, Sarcoma, Skin Cutaneous Melanoma, Testicular Germ Cell Cancer, Thymoma, Thyroid Papillary Carcinoma, Uterine Carcinosarcoma, Uterine Corpus Endometrioid Carcinoma or Uveal Melanoma samples. In a particular embodiment, cancer samples are from lung cancer samples, notably from LUAD samples.

Typically, as per the present disclosure, the step of identifying the fusion transcript sequences is carried out by mapping mRNA sequences from cancer sample against a reference genome, and then distinguishing normal and abnormal (non-canonical) junctions.

According to the present disclosure, normal junctions correspond to junctions between donor and acceptor on the same strand and not too far apart (e.g.: typically not on different chromosomes).

According to the present disclosure, abnormal junctions correspond to junctions between donor and acceptor sequences on different chromosomes, or in cis (same chromosomes) but on different strands (no matter the order and the 5'-3' sense).

mRNA sequences typically usable according to the present disclosure are RNA seq data (as illustrated in the results herein). RNA seq data are typically obtained from purified RNA obtained from a cell or a tissue sample, fragmented and reverse-transcribed into cDNA. The obtained cDNA are then amplified and sequenced (next-generation sequencing - NGS) on a high-throughput platform (such as for example the Illumina GA/HiSeq – see http://www.illumina.com -, SOLiD or Roche 454). This process generates millions of short reads taken from one end of the cDNA fragments. A common variant on this process is to generate reads from both ends of each cDNA fragment, known as "paired-end" reads.

In some embodiments, the mRNA sequences can be mapped against a corresponding reference genome or transcriptome (such as the human reference genome Hg19 ENSEMBL (RNA

sequences, GRCh37) with an adapted software, such as for example: Spliced Transcripts Alignment to a Reference (i.e.: STAR - see Dobin, Alexander et al. "STAR: ultrafast universal RNA-seq aligner." Bioinformatics (Oxford, England) vol. 29,1 (2013): 15-21), TopHat2 (Kim, Daehwan et al. "TopHat2: accurate alignment of transcriptomes in the presence of insertions, deletions and gene fusions." Genome biology vol. 14,4 R36. 25 Apr. 2013, doi:10.1186/gb-2013-14-4-r36) or HISAT (Kim, Daehwan et al. "HISAT: a fast spliced aligner with low memory requirements." Nature methods vol. 12,4 (2015): 357-60. doi:10.1038/nmeth.3317). STAR is a standalone software that uses sequential maximum mappable seed search followed by seed clustering and stitching to align RNA-seq reads. It can typically detect canonical junctions, non-canonical splices, and fusion/chimeric transcripts. Typically, detection of the junctions can be performed as detailed in the results based on the definitions from ENSEMBL and RepeatMasker databases respectively, downloaded from the UCSC Genome Browser. Thus, in some embodiments, the normal and abnormal junctions are determined *in silico* using dedicated databases, such as for example Ensembl and Repeatmasker databases, and the fusion transcripts having junctions between a TE and an exonic sequence are extracted *in silico*.

More particularly, in some embodiments, RNAseq reads from a sample (or cell) of interest are aligned to a reference genome (such as typically the hg19 genome) using typically STAR two-pass mode27 to identify un-annotated junctions. As previously indicated JETs are identified as a junction between an exon (most particularly a coding DNA sequence – CDS- exon) and a TE (or repeated element, RE). As per the present disclosure TE (or RE) can be identified (i.e. filtered) according to the definition of commonly used databases in the field such as ENSEMBL (GRCh37) and RepeatMasker.

According to the present disclosure, the mRNA sequences can come from all types of cancer cell or tumor cell sample(s). The tumor may be a solid or a non-solid tumor. In particular, the mRNA sequences come from any tissues or organs affected by a cancer or tumor as previously defined, for example from breast cancer, lung cancer and/or melanoma. In a particular embodiment, mRNA sequences are from LUAD samples. Tumor samples can be for example obtained from the Cancer Genome Atlas (TCGA). In some embodiments, the mRNA sequences are obtained from cell lines such as for example tumor cell lines from the Cancer Cell Line Encyclopedia (CCLE).

In some embodiments, the number of splicing reads can be normalized by the number of unique mapped reads. Typically JETs with a level of expression over 2.10^{-7} are selected.

In some embodimentsof the present disclosure, the fusion transcript sequences are shared in more than 1%; notably more than 5%, more than 10%, more than 15%, more than 20% or even more than 25 % of cancer samples (typically obtained from various patients, for example from the cancer samples collected for a given cancer type in the TCGA) and/or cell lines. In some embodiments, a fusion transcript (JET) sequence as per the present disclosure is shared in cancer samples from more than 1%; notably more than 2%, more than 5%, more than 10%, more than 15%, more than 20% or even more than 25 % of the subjects suffering from a cancer. Alternatively, or additionally, the fusion (JET) transcript sequence may be specific for a cancer type of shared between several cancer types. Alternatively, or in addition, a fusion transcript sequence can be expressed in at least 1; 2; 3; 4; 5; 6; 7;8;9;10;11;12;13;14;15;16;17;18;19;20 cell lines (typically from the CCLE).

According to the present disclosure, the fusion (JET) transcript sequences are expressed at higher levels in tumor cells compared to normal healthy cells. In some embodiments, the fusion transcript sequence is expressed in cancer cells (obtained from one or more cancer samples and/or one or more cell lines) and not in healthy cells (obtained from one or more tissue samples or one or more cell lines), in particular not in thymus healthy cells. In some embodiments a JET is considered not expressed in a cell when its expression level is below 2.10^{-7}, notably below 2.10^{-8} and typically not detectable. Such fusion (JET) transcript may be called tumor specific fusion (JET) as per the present disclosure. Fusion transcripts that are expressed at higher level(s) in tumor cells as compared to normal cell, typically that are disproportionally expressed in cancers cells as compared to normal cells as defined above may be called tumor associated fusion transcripts (TAF) as per the present disclosure. Tumor associated fusion transcripts may be selected according to the present application if they are present in more than 10% of the tumor samples (for example in more than 1, notably more than 2 %, more than 5 % and in particular more than 10 % of tumor samples obtained from the TCGA database for the same cancer type) and in less than 20% of the normal samples (for example juxta-tumor samples from the TCGA). Alternatively, or in addition, a fusion transcript sequence can be expressed in at least 1; 2; 3; 4; 5; 6; 7;8;9;10;11;12;13;14;15;16;17;18;19;20 cell lines.

In some embodiments, the method further comprises a step of determining, optionally *in* silico or using *in vitro* techniques (see notably the examples for illustration), the binding affinity of the tumor neoantigenic peptide with at least one MHC molecule of the said subject suffering from a cancer.

When the method is carried out on human samples, the method may comprise a step of determining the patient's class I or class I Major Histocompatibility Complex (MHC, aka human leukocyte antigen (HLA) alleles). It is to be noticed that as MHC alleles for laboratory mice are generally known such that this step may not be necessary in that particular context. In the present application, "**MHC molecule**" refers to at least one MHC class I molecule or at least one MHC Class II molecule.

An MHC allele database is carried out by analyzing known sequences of MHC I and MHC II and determining allelic variability for each domain. This can be typically determined *in silico* using appropriate software algorithms well-known in the field. Several tools have been developed to obtain HLA allele information from genome-wide sequencing data (whole-exome, whole-genome, and RNA sequencing data), including OptiType, Polysolver, PHLAT, HLAreporter, HLAforest, HLAminer, and seq2HLA (see Kiyotani K et al., Immunopharmacogenomics towards personalized cancer immunotherapy targeting neoantigens; Cancer Science 2018; 109:542-549). For example, the seq2hla tool (see Boegel S, Lower M, Schafer M, et al. HLA typing from RNA-Seq sequence reads. Genome Med. 2012;4:102), which is well designed to perform the method as herein disclosed is an *in silico* method written in python and R, which takes standard RNA-Seq sequence reads in fastq format as input, uses a bowtie index (Langmead B, et al., Ultrafast and memory-efficient alignment of short DNA sequences to the human genome. Genome Biol. 2009, 10: R25-10.1186/gb-2009-10-3-r25) comprising all HLA alleles and outputs the most likely HLA class I and class II genotypes (in 4 digit resolution), a p-value for each call, and the expression of each class.

Typically, the sequences having junctions between a TE and an exonic sequence (JETs) are extracted *in silico*. The affinity of all possible peptides encoded by each sequence for each MHC allele from the patient (or mouse) can be for example determined *in silico* using computational methods to predict peptide binding-affinity to HLA molecules. Indeed, accurate prediction approaches are based on artificial neural networks with predicted IC_{50}. For example, NetMHCpan software which has been modified from NetMHC to predict peptides binding to alleles for which no ligands have been reported, is well appropriate to implement the method as herein disclosed (Lundegaard C et al., NetMHC-3.0: accurate web accessible predictions of human, mouse and monkey MHC class I affinities for peptides of length 8-11; Nucleic Acids Res. 2008;36:W509-W512; Nielsen M et al. NetMHCpan, a method for quantitative predictions of peptide binding to any HLA-A and -B locus protein of known sequence. PLoS One. 2007;2:e796, but see also Kiyotani K et al., Immunopharmacogenomics towards personalized

cancerimmunotherapy targeting neoantigens; Cancer Science 2018; 109:542-549 and Yarchoan M et al., Nat rev. cancer 2017; 17(4):209-222). NetMHCpan software predicts binding of peptides to any MHC molecule of known sequence using artificial neural networks (ANNs). The method is trained on a combination of more than 180,000 quantitative binding data and MS derived MHC eluted ligands. The binding affinity data covers 172 MHC molecules from human (HLA-A, B, C, E), mouse (H-2), cattle (BoLA), primates (Patr, Mamu, Gogo) and swine (SLA). The MS eluted ligand data covers 55 HLA and mouse alleles.

In example embodiments, neoantigenic peptides encoded by fusion (JETs) transcripts as above described and having a Kd affinity for MHC alleles of less than 10^{-4}. 10^{-5}, 10^{-6}, 10^{-7} M or less than 500 nM, notably less than 50 nM are selected as tumor neoantigenic peptides.

As above mentioned, affinity of the selected peptide for MHC alleles can be determined *in silico* using appropriate software such as netMHCpan. Thus, in some embodiments, neoantigenic peptides bind MHC class I with a binding affinity of less than 2% percentile rank score predicted by NetMHCpan 4.0. In other embodiments, the neoantigenic peptides bind MHC class II with a binding affinity of less than 10% percentile rank score predicted by NetMHCpanII 3.2.

Affinity can also (alternatively or in addition) be estimated *in vitro*, for example by using MHC tetramer formation assay as described in the results included therein (see example 2, point 2.1 and 2.2.2). Commercial assays for example from ImmunAware® can typically be used by the skilled person (EasYmers® kits are from ImmunAware® are notably used according to their training guide). Typically, binding affinity is determined as a percentage of binding to a positive control. Generally, peptides showing a percentage of binding of at least 30 %, notably at least 40% or even at least 50 % of the positive control are selected. Typically, the neoantigenic peptide as per the present disclosure, and typically obtainable as per the present method, binds at least one HLA/MHC molecule with an affinity sufficient for the peptide to be presented on the surface of a cell as an antigen. Generally, the neoantigenic peptide has an IC50 affinity of less than 10^{-4}. or 10^{-5}, or 10^{-6}, or 10^{-7} or less than 500 nM, at least less than 250nM, at least less than 200 nM, at least less than 150 nM, at least less than 100 nM, at least less than 50 nM or less for at least one HLA/MHC molecule (lower numbers indicating greater binding affinity), typically a molecule of said subject suffering from a cancer.

Further optional steps according to the present method may thus independently include:

- a step of exclusion of fusion transcripts or predicted peptides expressed at high levels or high frequency on healthy cells. An alignment of the fusion transcript sequence against the RNAseq data of healthy cells, typically allows determining the relative amount of fusion transcript sequence(s) present in healthy cells; In one embodiment, fusion transcripts or predicted peptides expressed on healthy cells are discarded.
- a step to confirm that a tumor neoantigenic peptide is not expressed in healthy cells of the subject. This step can be carried out using typically the Basic local alignment search tool (BLAST) and performing alignment of the sequence of the neoantigenic peptide against the proteome of healthy cells; Preferably, peptides that align against the proteome of normal healthy cells (for example using BLAST) are discarded.
- a step to confirm that the fusion transcript or predicted peptide is expressed in cancer cells of the subject. The presence of the selected fusion transcript sequence in cancer cells can be checked typically by RT-PCR in mRNA extracted from cancer cell sample.

In some embodiments, the present method can also include a step wherein the identified fusion (JETs) transcripts are in silico translated to generate a JET-derived protein database (JET-db). Typically, Strand-indexed JETs containing gene as donor can be translated using the canonical ORF from the implicated gene until the first stop codon after the breakpoint. In JETs where TE was the donor, the 3 possible ORFs can be translated and only the sequence found more proximal to the breakpoint and between two stop codons is typically kept. This JET db (typically also concatenated to the human proteome) can be then interrogated in mass spectrometry based proteomic datasets obtained from tumor samples and/or tumor cell lines which typically consist in proteomics data obtained from tumors samples and/or tumor cell lines. In some embodiments, public mass spectrometry datasets can be used. This embodiment is notably well described in the results provided in the present application. Such analysis also to identify JET-derived peptides or proteins.

In more specific embodiments, the JETdb (typically concatenated to the human proteome) can be interrogated to immunonopeptidomics mass spectrometry-based datasets as also detailed in the examples included herein. This embodiment allows to identify JET-derived peptides or proteins (pJETs) that are presented to MHC molecules.

To ensure that JET-derived peptides did not match with canonical proteins or peptides derived from JETs found in normal samples, identified peptides can be filtered for example with UniProt/TrEMBL database and/or with in silico translated JETs from normal (including for

example juxta-tumor) samples or cell(s) (for example from public databases such as the TCGA or the CCLE).

Neoantigenic peptides

The present disclosure also relates to an isolated tumor neoantigenic peptide comprising at least 8, 9, 10, 11, or 12 amino acids, encoded by a portion of an open reading frame (ORF) from a fusion transcript that is a human mRNA sequence comprising a transposable element (TE) sequence and an exonic sequence. The peptide may be 8-9, 8-10, 8-11, 12-25, 13-25, 12-20, or 13-20 amino acids in length. Although the ORF overlaps a junction between a TE sequence and an exonic sequence, it is understood that the tumor neoantigenic peptide itself may not comprise the junction.

More particularly, the present disclosure provides a selection of isolated neoantigenic tumor peptide candidates obtained from the fusion transcripts predicted from the bioinformatic tumor transcriptome database CCLE (Broad Institute Cancer Cell Line Encyclopedia).

This step has been detailed in the above section (detailed description and previous examples) of the present application. Briefly, and as previously mentioned, in these fusion transcripts, the TE can be donor (in 5' position) or acceptor (in 3' acceptor) and correspondingly the exon can be acceptor or donor. TE-exon splicing results in the incorporation of parts of the "non-coding" genome into the coding genome, thereby exposing non-coding genomic sequences to the translation machinery. These fusions (or chimeric) transcripts also named JET (Junction Exon TE) include an ORF (open reading frame). When the TE is acceptor, the ORF of the fusion transcript is canonical (i.e. the same as the canonical transcript), whereas when the TE is the donor the ORF can be canonical (generally ORF1) or can be shifted by 1 or 2 nucleotides (typically ORFs 2 and 3 respectively). The fusion transcripts include not only the fused TE and exon sequences but can also further include exon(s), upstream the fusion breakpoint (between the exon and the TE) if the exon is donor or downstream the fusion breakpoint is the TE is donor, corresponding to the various transcript isoforms. Amino acid sequences SEQ ID NO:1-38907 and 38916-41099correspond to the in silico translated sequences of all the transcripts (splice variants) including a fusion event (a fusion between an exonic sequence and TE sequence also named herein JET for "Junction Exon TE"), which are thus also named "fusion transcripts" or "chimeric transcripts". Amino acid sequences are also named translated fusion transcripts or shortly "translated fusions" or "translated JETs" or "pJETs. Sequences SEQ ID

NO: 1-10170; 38760-38907; 38916-39683; 39924-39965; 40128-40193; 40365-40391; and 40510-40728 are translated amino acid sequences from exon donor derived fusion transcripts. Sequences SEQ ID NO:10171-38759; 38760-38907; 38916-39683; 39684-39923; 399666-40127; 40194-40364; 40392-40509; and 40729-41099 are translated amino acid sequences from TE donor derived fusion transcripts. Tables 9; 11; 13; 15; 17 and 19 and 10; 12; 14; 16; 18; 20 herein provides the reference, location and coordinate of the donor sequence (exon or TE) and acceptor sequence (TE or exon respectively) such that each fusion transcript sequence can be unambiguously retrieved. Tables 9; 11; 13; 15; 17 and 19 and 10; 12; 14; 16; 18; 20 also assign each transcript to the corresponding translated fusion transcripts identified as SEQ ID NO:1-38907 and 38916-41099. For each translated fusion transcript, the position of the breakpoint (between the exonic and TE sequences) is provided such that it is possible to identify for each of the amino acid sequences of SEQ ID NO:1-38907 and 38916-41099, the TE-derived sequence and the exon-derived sequence.

Thus, the present disclosure encompasses isolated tumor neoantigenic peptides, optionally comprising at least 8 amino acids, wherein said neoantigenic peptides are encoded by a part of an open reading frame (ORF) from a fusion transcript encoding any one of SEQ ID NO:1-38907 and 38916-41099 and comprising a transposable element (TE) sequence and an exonic sequence, wherein said ORF overlaps the junction between the TE and the exonic sequence, is pure TE and/or is non-canonical.

In some embodiments, the present disclosure encompasses isolated tumor neoantigenic peptide, optionally of at least 8 amino acids, wherein the neoantigenic peptide:

- is a part of any one of the sequences of SEQ ID NO:1-38759; 39587-41089, notably is of any one of SEQ ID NO:38760-38907 and 38916-39596 or a fragment thereof, and comprises a TE-derived amino acid sequence, or
- is a part of any one of the sequence of SEQ ID NO: 1-10170; 39597-39683; 39924-39965; 40128-40193; 40365-40311; and 40510-40728, notably is of any one of SEQ ID NO:38760-38907 and 38916-39596 or a fragment thereof and is encoded by a fusion wherein the exon is the donor, . Typically said neoantigenic peptides are derived from a part of a non-canonical ORF of a fusion transcript as above defined.

In some embodiments, the neoantigenic peptide overlaps the breakpoint between the TE-derived sequence and the exon-derived sequence of the translated fusion transcripts of any one of SEQ ID NO:1-38759; 39597-41099, including fragments thereof. In other embodiments the neoantigenic peptide consists in or comprises a pure TE-derived sequence from a translated

fusion transcripts of any one of SEQ ID NO:1-38759; 39597-41099, including fragments thereof.

in some embodiments the neoantigenic peptide comprises at least 8, 9, 10, 11 or 12 amino acids.

The peptide may be 8-9, 8-10, 8-11, 12-25, 13-25, 12-20, or 13-20 amino acids in length and fulfills one or more of the neoantigen peptide characteristics described above. The N-terminus of the peptide of at least 8 amino acids may be encoded by the triplet codon starting at any of nucleotide positions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and higher (it being understood that the disclosure contemplates a start position that is any of the integers between 1 and 8000 without having to list every number between 1 and 8000). More specifically, the N terminus of the neoantigenic peptide of at least 8 amino acids may start at any of amino acid positions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and higher (it being understood that the disclosure contemplates a start position that is any of the integers between 1 and 15000 without having to list every number between 1 and 15000) of any one of the sequences SEQ ID NO:1-38759. Typically however, and as mentioned above, the neoantigenic peptide:

- is a fragment of any one of the sequence of SEQ ID NO:1-38759; 39597-41099 and comprises a TE-derived amino acid sequence, or
- is a fragment of any one of the sequence of SEQ ID NO: 1-38759; 39597-41099. Typically said neoantigenic peptides are derived from a part of a non-canonical ORF of a fusion transcript as above defined.

In some embodiments, the neoantigenic peptide overlaps the breakpoint between the TE-derived sequence and the exon-derived sequence of the translated fusion transcripts of any one of SEQ ID NO:1-1-38759; 39597-41099. In other embodiments the neoantigenic peptide consists in or comprises a pure TE-derived sequence from a translated fusion transcripts of any one of SEQ ID NO:1-38759; 39597-41099.

A peptide as above defined is typically obtainable according to the method of the present disclosure and thus encompasses one or more of the characteristics as previously described. In particular a neoantigenic peptide as per the present disclosure may exhibit one or a combination of the following further characteristics:

- It binds or specifically binds MHC class I of a subject and is 8 to 11 amino acids, notably 8, 9, 10, or 11 amino acids. Typically the neoantigenic peptide is 8 or 9 amino acids long, and binds to at least one MHC class I molecule of the subject; or alternatively, it

binds to at least one MHC class II molecule of said subject and contains from 12 to 25 amino acids, notably is 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 or 25 amino acids long.

- It binds at least one HLA/MHC molecule of said subject suffering from a cancer with an affinity sufficient for the peptide to be presented on the surface of a cell as an antigen. Typically the neoantigenic peptide has an IC50 of less than 10^{-4}. or 10^{-5}, or 10^{-6}, or 10^{-7} or less than 500 nM, at least less than 250nM, at least less than 200 nM, at least less than 150 nM, at least less than 100 nM, at least less than 50 nM or less (lower numbers indicating greater binding affinity).
- It does not induce a significant autoimmune response and/or invoke immunological tolerance when administered to a subject.
- It is expressed at higher levels in tumor samples compared to normal healthy samples. Typically, as per the present disclosure, a fusion transcript may be selected if it is present in more than .1 %, notably more than 2 %, more than 5% and typically more than 10 % of the tumor samples (from the same or different tumor type, typically from one or more subjects typically from TCGA tumor samples) and in less than 20 %, notably less than 15 %, less than 10 %, less than 5%, less than 2 % or even less than 1% of the normal samples. Alternatively, or in addition, the transcript can be identified in one or more (at least 2, 5, 10, 20, 50,100 cell lines such as for example from the CCLE) In some embodiments, the neoantigenic is more specifically a tumor specific antigen (TSA), *i.e.:* it is only expressed in cancer sample and not in normal samples, or is expressed at relatively low levels in normal samples (e.g. the expressed mRNA sequences represent minor species in normal cells from normal samples).
- It comprises the junction between the TE sequence and the exonic sequence, in other words it is encoded by a part of a TE sequence and a part of an exonic sequence, the ORF being either canonical or non-canonical or
- It is encoded by a non-canonical ORF of an exonic sequence or
- It is encoded by the TE sequence, optionally in a non-canonical ORF

A tumor neoantigenic peptide may first be validated by RT transcription analysis of fusion transcripts sequence in tumors cell from a subject. Typically also, immunization with a tumor neoantigenic peptide as per the present disclosure elicits a T cell response

Affinity for MHC alleles can be determined by known techniques in the field and notably *in silico* or *in vitro* as exemplified above;

In a particular embodiment, a tumor neoantigenic peptide as per the present disclosure binds to a MHC molecule present in at least 1 %, 5 %, 10 %, 15 %, 20 %, 25% or more of subjects. Notably, a tumor neoantigenic peptide as herein disclosed is expressed in at least 1 %, 5 %, 10 %, 15 %, 20 %, 25% of subjects from a population of subjects suffering from cancer

More particularly, a tumor neoantigenic peptide of the present disclosure is capable of eliciting an immune response against a tumor present in at least 1 %, 5 %, 10 %, 15 %, 20%, or 25 % of the subjects in the population of subjects suffering from cancer.

As previously defined, cancer may affect any one of the following tissues or organs: breast; liver; kidney; heart, mediastinum, pleura; floor of mouth; lip; salivary glands; tongue; gums; oral cavity; palate; tonsil; larynx; trachea; bronchus, lung; pharynx, hypopharynx, oropharynx, nasopharynx; esophagus; digestive organs such as stomach, intrahepatic bile ducts, biliary tract, pancreas, small intestine, colon; rectum; urinary organs such as bladder, gallbladder, ureter; rectosigmoid junction; anus, anal canal; skin; bone; joints, articular cartilage of limbs; eye and adnexa; brain; peripheral nerves, autonomic nervous system; spinal cord, cranial nerves, meninges; and various parts of the central nervous system; connective, subcutaneous and other soft tissues; retroperitoneum, peritoneum; adrenal gland; thyroid gland; endocrine glands and related structures; female genital organs such as ovary, uterus, cervix uteri; corpus uteri, vagina, vulva; male genital organs such as penis, testis and prostate gland; hematopoietic and reticuloendothelial systems; blood; lymph nodes; thymus. For example, the tumors or cancers as per the present application includes leukemias, seminomas, melanomas, teratomas, lymphomas, neuroblastomas, gliomas, rectal cancer, endometrial cancer, kidney cancer, adrenal cancer, thyroid cancer, blood cancer, skin cancer, cancer of the brain, cervical cancer, intestinal cancer, liver cancer, colon cancer, stomach cancer, intestine cancer, head and neck cancer, gastrointestinal cancer, lymph node cancer, esophagus cancer, colorectal cancer, pancreas cancer, ear, nose and throat (ENT) cancer, breast cancer, prostate cancer, cancer of the uterus, ovarian cancer and lung cancer and the metastases thereof. Examples thereof are lung carcinomas, mamma carcinomas, prostate carcinomas, colon carcinomas, renal cell carcinomas, cervical carcinomas, or metastases of the cancer types or tumors described above. The term cancer according to the present disclosure also comprises cancer metastases and relapse of cancer.

Typically, a neoantigenic peptide as per the present disclosure does not induce a significant autoimmune response and/or invoke immunological tolerance when administered to a subject.

Tolerating mechanisms involve clonal deletion, ignorance, anergy, or suppression in the host w the reduction in the number of high-affinity self-reactive T cells.

The neoantigenic peptide can also be modified by extending or decreasing the compound's amino acid sequence, e.g., by the addition or deletion of amino acids. The peptides can also be modified by altering the order or composition of certain residues, it being readily appreciated that certain amino acid residues essential for biological activity, e.g., those at critical contact sites or conserved residues, may generally not be altered without an adverse effect on biological activity. The non-critical amino acids need not be limited to those naturally occurring in proteins, such as L-α-amino acids, or their D-isomers, but may include non-natural amino acids as well, such as β-γ-δ-amino acids, as well as many derivatives of L-α-amino acids.

Typically, a series of peptides with single amino acid substitutions are employed to determine the effect of electrostatic charge, hydrophobicity, etc. on binding. For instance, a series of positively charged (e.g., Lys or Arg) or negatively charged (e.g., Glu) amino acid substitutions are made along the length of the peptide revealing different patterns of sensitivity towards various MHC molecules and T cell receptors. In addition, multiple substitutions using small, relatively neutral moieties such as Ala, Gly, Pro, or similar residues may be employed. The substitutions may be homo-oligomers or hetero-oligomers. The number and types of residues which are substituted or added depend on the spacing necessary between essential contact points and certain functional attributes which are sought (e.g., hydrophobicity versus hydrophilicity). Increased binding affinity for an MHC molecule or T cell receptor may also be achieved by such substitutions, compared to the affinity of the parent peptide. In any event, such substitutions should employ amino acid residues or other molecular fragments chosen to avoid, for example, steric and charge interference which might disrupt binding.

Amino acid substitutions are typically of single residues. Substitutions, deletions, insertions or any combination thereof may be combined to arrive at a final peptide. Substitutional variants are those in which at least one residue of a peptide has been removed and a different residue inserted in its place. Such substitutions are generally made in accordance with the following Table 1 when it is desired to finely modulate the characteristics of the peptide.

Original residue	Exemplary substitution
Ala	Ser
Arg	Lys, His
Asn	Gln
Asp	Glu
Cys	Ser
Gln	Asn
Glu	Asp
Gly	Pro
His	Lys, Arg
Ile	Leu, Val
Leu	Ile, Val
Lys	Tyr, Trp
Met	Thr
Phe	Ser
Ser	Tyr, Phe
Tyr	Trp, Phe
Val	Ile, Leu
Pro	Gly

Table 1

Substantial changes in function (e.g., affinity for MHC molecules or T cell receptors) are made by selecting substitutions that are less conservative than those in above Table, i.e., selecting residues that differ more significantly in their effect on maintaining (a) the structure of the peptide backbone in the area of the substitution, for example as a sheet or helical conformation, (b) the charge or hydrophobicity of the molecule at the target site or (c) the bulk of the side chain. The substitutions which in general are expected to produce the greatest changes in peptide properties will be those in which (a) hydrophilic residue, e.g. seryl, is substituted for (or by) a hydrophobic residue, e.g. leucyl, isoleucyl, phenylalanyl, valyl or alanyl; (b) a residue having an electropositive side chain, e.g., lysl, arginyl, or histidyl, is substituted for (or by) an electronegative residue, e.g. glutamyl or aspartyl; or (c) a residue having a bulky side chain, e.g. phenylalanine, is substituted for (or by) one not having a side chain, e.g., glycine.

The peptides and polypeptides may also comprise isosteres of two or more residues in the neoantigenic peptide or polypepeptides. An isostere as defined here is a sequence of two or more residues that can be substituted for a second sequence because the steric conformation of the first sequence fits a binding site specific for the second sequence. The term specifically includes peptide backbone modifications well known to those skilled in the art. Such modifications include modifications of the amide nitrogen, the α-carbon, amide carbonyl, complete replacement of the amide bond, extensions, deletions or backbone crosslinks. See,

generally, Spatola, Chemistry and Biochemistry of Amino Acids, Peptides and Proteins, Vol. VII (Weinstein ed., 1983).

In addition, the neoantigenic peptide may be conjugated to a carrier protein, a ligand, or an antibody. Half-life of the peptide may be improved by PEGylation, glycosylation, polysialylation, HESylation, recombinant PEG mimetics, Fc fusion, albumin fusion, nanoparticle attachment, nanoparticulate encapsulation, cholesterol fusion, iron fusion, or acylation.

Modifications of peptides and polypeptides with various amino acid mimetics or unnatural amino acids are particularly useful in increasing the stability of the peptide and polypeptide in vivo. Stability can be assayed in a number of ways. For instance, peptidases and various biological media, such as human plasma and serum, have been used to test stability. See,e.g., Verhoef et al., Eur. J. Drug Metab Pharmacokin. 11:291-302 (1986). Half life of the peptides of the present disclosure is conveniently determined using a 25% human serum (v/v) assay. The protocol is generally as follows. Pooled human serum (Type AB, non-heat inactivated) is delipidated by centrifugation before use. The serum is then diluted to 25% with RPMI tissue culture media and used to test peptide stability. At predetermined time intervals a small amount of reaction solution is removed and added to either 6% aqueous trichloracetic acid or ethanol. The cloudy reaction sample is cooled (4°C) for 15 minutes and then spun to pellet the precipitated serum proteins. The presence of the peptides is then determined by reversed-phase HPLC using stability-specific chromatography conditions.

The peptides and polypeptides may be modified to provide desired attributes other than improved serum half-life. For instance, the ability of the peptides to induce CTL activity can be enhanced by linkage to a sequence which contains at least one epitope that is capable of inducing a T helper cell response. Particularly preferred immunogenic peptides/T helper conjugates are linked by a spacer molecule. The spacer is typically comprised of relatively small, neutral molecules, such as amino acids or amino acid mimetics, which are substantially uncharged under physiological conditions. The spacers are typically selected from, e.g., Ala, Gly, or other neutral spacers of nonpolar amino acids or neutral polar amino acids. It will be understood that the optionally present spacer need not be comprised of the same residues and thus may be a hetero- or homo-oligomer. When present, the spacer will usually be at least one or two residues, more usually three to six residues. Alternatively, the peptide may be linked to the T helper peptide without a spacer.

The neoantigenic peptide may be linked to the T helper peptide either directly or via a spacer either at the amino or carboxy terminus of the peptide. The amino terminus of either the neoantigenic peptide or the T helper peptide may be acylated. Exemplary T helper peptides include tetanus toxoid 830-843, influenza 307-319, malaria circumsporozoite 382-398 and 378-389

Multiple neoantigenic peptides described herein can also be linked together, optionally by a spacer.

Peptide productions, polynucleotides and vectors

Proteins or peptides may be made by any technique known to those of skill in the art, including the expression of proteins, polypeptides or peptides through standard molecular biological techniques, the isolation of proteins or peptides from natural sources, or the chemical synthesis of proteins or peptides. The nucleotide and protein, polypeptide and peptide sequences corresponding to various genes have been previously disclosed, and may be found at computerized databases known to those of ordinary skill in the art. One such database is the National Center for Biotechnology Information's Genbank and GenPept databases located at the National Institutes of Health website. The coding regions for known genes may be amplified and/or expressed using the techniques disclosed herein or as would be known to those of ordinary skill in the art. Alternatively, various commercial preparations of proteins, polypeptides and peptides are known to those of skill in the art.

In a further aspect the present disclosure provides a nucleic acid (e.g. polynucleotide) encoding a neoantigenic peptide as herein disclosed. The polynucleotide may be selected from DNA, cDNA, PNA, CNA, RNA, either single- and/or double-stranded, or native or stabilized forms of polynucleotides, such as for example polynucleotides with a phosphorothiate backbone, or combinations thereof and it may or may not contain introns so long as it codes for the peptide. Only peptides that contain naturally occurring amino acid residues joined by naturally occurring peptide bonds are encodable by a polynucleotide.

A still further aspect of the disclosure provides an expression vector capable of expressing a neoantigenic peptide as herein disclosed. Expression vectors for different cell types are well known in the art and can be selected without undue experimentation. Generally, the DNA is inserted into an expression vector, such as a plasmid, in proper orientation and correct reading frame for expression. The expression vector will comprise the appropriate heterologous

transcriptional and/or translational regulatory control nucleotide sequences recognized by the desired host. The polynucleotide encoding the tumor neoantigenic peptide may be linked to such heterologous regulatory control nucleotide sequences or may be non-adjacent yet operably linked to such heterologous regulatory control nucleotide sequences. The vector is then introduced into the host through standard techniques. Guidance can be found for example in Sambrook et al. (1989) Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.

Antigen presenting cells (APCs)

The present disclosure also encompasses a population of antigen presenting cells that have been pulsed with one or more of the peptides as previously defined and / or obtainable in a method as previously described. Preferably, the antigen presenting cells are dendritic cell (DCs) or artificial antigen presenting cells (aAPCs) (see Neal, Lillian R et al. "The Basics of Artificial Antigen Presenting Cells in T Cell-Based Cancer Immunotherapies." Journal of immunology research and therapy vol. 2,1 (2017): 68-79). Dendritic cells (DC) are professional antigen-presenting cells (APC) that have an extraordinary capacity to stimulate naive T-cells and initiate primary immune responses to pathogens. Indeed, the main role of mature DCs are to sense antigens and produce mediators that activate other immune cells, particularly T cells. DCs are potent stimulators for lymphocyte activation as they express MHC molecules that trigger TCRs (signal 1) and co-stimulatory molecules (signal 2) on T cells. Additionally, DCs also secrete cytokines that support T cell expansion. T cells require presented antigen in the form of a processed peptide to recognize foreign pathogens or tumor. Presentation of peptide epitopes derived from pathogen/tumor proteins is achieved through MHC molecules. MHC class I (MHC-I) and MHC class II (MHC-II) molecules present processed peptides to CD8+ T cells and CD4+ T cells, respectively. Importantly, DCs home to inflammatory sites containing abundant T cell populations to foster an immune response. Thus, DCs can be a crucial component of any immunotherapeutic approach, as they are intimately involved with the activation of the adaptive immune response. In the context of vaccines, DC therapy can enhance T cell immune responses to a desired target in healthy volunteers or patients with infectious disease or cancer. In one embodiment, APCS are artificial APC, which are genetically modified to express the desired T-cell co-stimulatory molecules, human HLA alleles and /or cytokines. Such artificial antigen presenting cells (aAPC) are able to provide the requirements for adequate T-cell engagement, co-stimulation, as well as sustained release of cytokines that allow for

controlled T-cell expansion. These cells are not subject to the constraints of time and limited availability and can be stored in small aliquots for subsequent use in generating T-cell lines from different donors, thus representing an off the shelf reagent for immunotherapy applications. Expression of potent co-stimulatory signals on these aAPC endows this system with higher efficiency lending to increased efficacy of adoptive immunotherapy. Furthermore, aAPC can be engineered to express genes directing release of specific cytokines to facilitate the preferential expansion of desirable T-cell subsets for adoptive transfer; such as long lived memory T-cells (see for review Hasan AH et al., . Artificial Antigen Presenting Cells: An Off the Shelf Approach for Generation of Desirable T-Cell Populations for Broad Application of Adoptive Immunotherapy; Adv Genet Eng. 2015; 4(3): 130, Kim JV, Latouche JB, Rivière I, Sadelain M. The ABCs of artificial antigen presentation. Nat Biotechnol. 2004;22:403–410 or Wang C, Sun W, Ye Y, Bomba HN, Gu Z. Bioengineering of Artificial Antigen Presenting Cells and Lymphoid Organs. Theranostics 2017; 7(14):3504-3516.).

Typically, the dendritic cells are autologous dendritic cells that are pulsed with a neoantigenic peptide as herein disclosed. The peptide may be any suitable peptide that gives rise to an appropriate T-cell response. The antigen-presenting cell (or stimulator cell) typically has an MHC class I or II molecule on its surface, and in one embodiment is substantially incapable of itself loading the MHC class I or II molecule with the selected antigen. The MHC class I or II molecule may readily be loaded with the selected antigen in vitro.

As an alternative the antigen presenting cell may comprise an expression construct encoding a tumor neoantigenic peptide as herein disclosed. The polynucleotide may be any suitable polynucleotide as previously defined and it is preferred that it is capable of transducing the dendritic cell, thus resulting in the presentation of a peptide and induction of immunity

Thus the present disclosure encompasses a population of APCs than can be pulsed or loaded with the neoantigenic peptide as herein disclosed, genetically modified (via DNA or RNA transfer) to express at least one neoantigenic peptide as herein disclosed, or that comprise an expression construct encoding a tumor neoantigenic peptide of the present disclosure. Typically the population of APCs is pulsed or loaded, modified to express or comprises at least one, at least 5, at least 10, at least 15, or at least 20 different neoantigenic peptide or expression construct encoding it.

The present disclosure also encompasses compositions comprising APCs as herein disclosed. APCs can be suspended in any known physiologically compatible pharmaceutical carrier, such as cell culture medium, physiological saline, phosphate-buffered saline, cell culture medium,

or the like, to form a physiologically acceptable, aqueous pharmaceutical composition. Parenteral vehicles include sodium chloride solution, Ringer's dextrose, dextrose and sodium chloride, lactated Ringer's. Other substances may be added as desired such as antimicrobials. As used herein, a "carrier" refers to any substance suitable as a vehicle for delivering an APC to a suitable *in vitro* or *in vivo* site of action. As such, carriers can act as an excipient for formulation of a therapeutic or experimental reagent containing an APC. Preferred carriers are capable of maintaining an APC in a form that is capable of interacting with a T cell. Examples of such carriers include, but are not limited to water, phosphate buffered saline, saline, Ringer's solution, dextrose solution, serum-containing solutions, Hank's solution and other aqueous physiologically balanced solutions or cell culture medium. Aqueous carriers can also contain suitable auxiliary substances required to approximate the physiological conditions of the recipient, for example, enhancement of chemical stability and isotonicity. Suitable auxiliary substances include, for example, sodium acetate, sodium chloride, sodium lactate, potassium chloride, calcium chloride, sorbitan monolaurate, triethanolamine oleate, and other substances used to produce phosphate buffer, Tris buffer, and bicarbonate buffer.

Vaccine Compositions

The present disclosure further encompasses a vaccine or immunogenic composition capable of raising a specific T-cell response comprising:

- one or more neoantigenic peptides as herein defined,
- one or more polynucleotides encoding a neoantigenic peptide as herein defined; and/or
- a population of antigen presenting cells (such as autologous dendritic cells or artificial APC) as described above.

Preferably, neoantigenic peptide which are encoded by tumor specific fusions as previously defined are used in vaccine compositions as per the present disclosure. Said neoantigenic peptide can be also named tumor specific peptides. Preferably also polynucleotides encoding tumor specific peptides are used as per the present disclosure.

A suitable vaccine or immunogenic composition will preferably contain between 1 and 20 neoantigenic peptides, more preferably 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 different neoantigenic peptides, further preferred 6, 7, 8, 9, 10 11, 12, 13, or 14 different neoantigenic peptides, and most preferably 12, 13 or 14 different neoantigenic peptides.

The neoantigenic peptide(s) may be linked to a carrier protein. Where the composition contains two or more neoantigenic peptides, the two or more (e.g. 2-25) peptides may be linearly linked by a spacer molecule as described above, e.g. a spacer comprising 2-6 nonpolar or neutral amino acids.

In one embodiment of the present disclosure the different neoantigenic peptides, encoding polynucleotides, vectors, or APCs are selected so that one vaccine or immunogenic composition comprises neoantigenic peptides capable of associating with different MHC molecules, such as different MHC class I molecules. Preferably, such neoantigenic peptides are capable of associating with the most frequently occurring MHC class I molecules, e.g. different fragments capable of associating with at least 2 preferred, more preferably at least 3 preferred, even more preferably at least 4 preferred MHC class I molecules. In some embodiments, the compositions comprise peptides, encoding polynucleotides, vectors, or APCs capable of associating with one or more MHC class II molecules. The MHC is optionally HLA -A, -B, -C, -DP, -DQ, or -DR.

The vaccine or immunogenic composition is capable of raising a specific cytotoxic T-cells response and/or a specific helper T-cell response.

Thus, in a particular embodiment, the present disclosure also relates to a neoantigenic peptide as described above, wherein the neoantigenic peptide has a tumor specific neoepitope and is included in a vaccine or immunogenic composition. A vaccine composition is to be understood as meaning a composition for generating immunity for the prophylaxis and/or treatment of diseases. Accordingly, vaccines are medicines which comprise or generate antigens and are intended to be used in humans or animals for generating specific defense and protective substance by vaccination. An “immunogenic composition” is to be understood as meaning a composition that comprises or generates antigen(s) and is capable of eliciting an antigen-specific humoral or cellular immune response, e.g. T-cell response.

In a preferred embodiment, the neoantigenic peptide according to the disclosure is 8 or 9 residues long, or from 13 to 25 residues long. When the peptide is less than 20 residues, in order to have a peptide better suited for in vivo immunization, said neoantigenic peptide, is optionally flanked by additional amino acids to obtain an immunization peptide of more amino acids, usually more than 20.

Pharmaceutical compositions (i.e., the vaccine or immunogenic composition) comprising a peptide as herein described may be administered to an individual already suffering from cancer. In therapeutic applications, compositions are administered to a patient in an amount sufficient

to elicit an effective CTL response to the tumor antigen and to cure or at least partially arrest symptoms and/or complications. An amount adequate to accomplish this is defined as "therapeutically effective dose." Amounts effective for this use will depend on, e.g., the peptide composition, the manner of administration, the stage and severity of the disease being treated, the weight and general state of health of the patient, and the judgment of the prescribing physician, but generally range for the initial immunization (that is for therapeutic or prophylactic administration) from about 1.0 µg to about 50,000 µg of peptide for a 70 kg patient, followed by boosting dosages or from about 1.0 µg to about 10,000 µg of peptide pursuant to a boosting regimen over weeks to months depending upon the patient's response and condition by measuring specific CTL activity in the patient's blood. It must be kept in mind that the peptide and compositions of the present invention may generally be employed in serious disease states, that is, life-threatening or potentially life threatening situations, especially when the cancer has metastasized. In such cases, in view of the minimization of extraneous substances and the relative nontoxic nature of the peptide, it is possible and may be felt desirable by the treating physician to administer substantial excesses of these peptide compositions.

For therapeutic use, administration should begin at the detection or surgical removal of tumors. This is followed by boosting doses until at least symptoms are substantially abated and for a period thereafter.

The vaccine or immunogenic compositions for therapeutic treatment are intended for parenteral, topical, nasal, oral or local administration. Preferably, the pharmaceutical compositions are administered parenterally, e.g., intravenously, subcutaneously, intradermally, or intramuscularly. The compositions may be administered at the site of surgical excision to induce a local immune response to the tumor.

The vaccine or immunogenic composition may be a pharmaceutical composition which additionally comprises a pharmaceutically acceptable adjuvant, immunostimulatory agent, stabilizer, carrier, diluent, excipient and/or any other materials well known to those skilled in the art. Such materials should be non-toxic and should not interfere with the efficacy of the active ingredient. The carrier is preferably an aqueous carrier but its precise nature of the carrier or other material will depend on the route of administration. A variety of aqueous carriers may be used, e.g., water, buffered water, 0.9% saline, 0.3% glycine, hyaluronic acid and the like. These compositions may be sterilized by conventional, well known sterilization techniques, or may be sterile filtered. The resulting aqueous solutions may be packaged for use as is, or lyophilized, the lyophilized preparation being combined with a sterile solution prior to

administration. The compositions may further contain pharmaceutically acceptable auxiliary substances as required to approximate physiological conditions, such as pH adjusting and buffering agents, tonicity adjusting agents, wetting agents and the like, for example, sodium acetate, sodium lactate, sodium chloride, potassium chloride, calcium chloride, sorbitan monolaurate, triethanolamine oleate, etc. See, for example, Butterfield, BMJ. 2015 22;350 for a discussion of cancer vaccines.

Example adjuvants that increase or expand the immune response of a host to an antigenic compound include emulsifiers, muramyl dipeptides, avridine, aqueous adjuvants such as aluminum hydroxide, chitosan-based adjuvants, saponins, oils, Amphigen, LPS, bacterial cell wall extracts, bacterial DNA, CpG sequences, synthetic oligonucleotides, cytokines and combinations thereof. Emulsifier include, for example, potassium, sodium and ammonium salts of lauric and oleic acid, calcium, magnesium and aluminum salts of fatty acids, organic sulfonates such as sodium lauryl sulfate, cetyltrhethylammonlum bromide, glycerylesters, polyoxyethylene glycol esters and ethers, and sorbitan fatty acid esters and their polyoxyethylene, acacia, gelatin, lecithin and/or cholesterol. Adjuvants that comprise an oil component include mineral oil, a vegetable oil, or an animal oil. Other adjuvants include Freund's Complete Adjuvant (FCA) or Freund's Incomplete Adjuvant (FIA). Cytokines useful as additional immunostimulatory agents include interferon alpha, interleukin-2 (IL-2), and granulocyte macrophage-colony stimulating factor (GM-CSF), or combinations thereof.

The concentration of peptides as herein described in the vaccine or immunogenic formulations can vary widely, i.e., from less than about 0.1 %, usually at or at least about 2 % to as much as 20 % to 50 % or more by weight, and will be selected primarily by fluid volumes, viscosities, etc., in accordance with the particular mode of administration selected.

The peptides as herein described may also be administered via liposomes, which target the peptides to a particular cells tissue, such as lymphoid tissue. Liposomes are also useful in increasing the half-life of the peptides. Liposomes include emulsions, foams, micelles, insoluble monolayers, liquid crystals, phospholipid dispersions, lamellar layers and the like. In these preparations the peptide to be delivered is incorporated as part of a liposome, alone or in conjunction with a molecule which binds to, e.g., a receptor prevalent among lymphoid cells, such as monoclonal antibodies which bind to the CD45 antigen, or with other therapeutic or immunogenic compositions. Thus, liposomes filled with a desired peptide of the invention can be directed to the site of lymphoid cells, where the liposomes then deliver the selected therapeutic/immunogenic peptide compositions. Liposomes for use in the invention are formed

from standard vesicle-forming lipids, which generally include neutral and negatively charged phospholipids and a sterol, such as cholesterol. The selection of lipids is generally guided by consideration of, e.g., liposome size, acid lability and stability of the liposomes in the blood stream. A variety of methods are available for preparing liposomes, as described in, e.g., Szoka et al., Ann. Rev. Biophys. Bioeng. 9;467 (1980), USA U.S. Patent Nos. 4,235,871 , 4501728 USA 4,501,728 , 4,837,028 , and 5,019,369 .

For targeting to the immune cells, a ligand to be incorporated into the liposome can include, e.g., antibodies or fragments thereof specific for cell surface determinants of the desired immune system cells. A liposome suspension containing a peptide may be administered intravenously, locally, topically, etc. in a dose which varies according to, inter alia, the manner of administration, the peptide being delivered, and the stage of the disease being treated.

For solid compositions, conventional or nanoparticle nontoxic solid carriers may be used which include, for example, pharmaceutical grades of mannitol, lactose, starch, magnesium stearate, sodium saccharin, talcum, cellulose, glucose, sucrose, magnesium carbonate, and the like. For oral administration, a pharmaceutically acceptable nontoxic composition is formed by incorporating any of the normally employed excipients, such as those carriers previously listed, and generally 10-95% of active ingredient, that is, one or more peptides of the invention, and more preferably at a concentration of 25%-75%.

For aerosol administration, the immunogenic peptides are preferably supplied in finely divided form along with a surfactant and propellant. Typical percentages of peptides are 0.01 %-20 % by weight, preferably 1%-10%. The surfactant must, of course, be nontoxic, and preferably soluble in the propellant. Representative of such agents are the esters or partial esters of fatty acids containing from 6 to 22 carbon atoms, such as caproic, octanoic, lauric, palmitic, stearic, linoleic, linolenic, olesteric and oleic acids with an aliphatic polyhydric alcohol or its cyclic anhydride. Mixed esters, such as mixed or natural glycerides may be employed. The surfactant may constitute 0.1 %-20 % by weight of the composition, preferably 0.25-5 %. The balance of the composition is ordinarily propellant. A carrier can also be included as desired, as with, e.g., lecithin for intranasal delivery.

Cytotoxic T-cells (CTLs) recognize an antigen in the form of a peptide bound to an MHC molecule rather than the intact foreign antigen itself. The MHC molecule itself is located at the cell surface of an antigen presenting cell. Thus, an activation of CTLs is only possible if a trimeric complex of peptide antigen, MHC molecule, and antigen presenting cell (APC) is present. Correspondingly, it may enhance the immune response if not only the peptide is used

for activation of CTLs, but if additionally APCs with the respective MHC molecule are added. Therefore, in some embodiments the vaccine or immunogenic composition according to the present disclosure alternatively or additionally contains at least one antigen presenting cell, preferably a population of APCs.

The vaccine or immunogenic composition may thus be delivered in the form of a cell, such as an antigen presenting cell, for example as a dendritic cell vaccine. The antigen presenting cells such as a dendritic cell may be pulsed or loaded with a neoantigenic peptide as herein disclosed, may comprise an expression construct encoding a neoantigenic peptide as herein disclosed, or may be genetically modified (via DNA or RNA transfer) to express one, two or more of the herein disclosed neoantigenic peptides, for example at least 2, 3, 4, 5, 6, 7, 8, 9, or 10 neoantigenic peptides.

Suitable vaccines or immunogenic compositions may also be in the form of DNA or RNA relating to neoantigenic peptides as described herein. For example, DNA or RNA encoding one or more neoantigenic peptides or proteins derived therefrom may be used as the vaccine, for example by direct injection to a subject. For example, DNA or RNA encoding at least 2, 3, 4, 5, 6, 7, 8, 9 , 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 or 25 neoantigenic peptides or proteins derived therefrom.

A number of methods are conveniently used to deliver the nucleic acids to the patient. For instance, the nucleic acid can be delivered directly, as "naked DNA". This approach is described, for instance, in Wolff et al., Science 247: 1465-1468 (1990) as well as USAU.S. Patent Nos. 5,580,859 and 5,589,466 . The nucleic acids can also be administered using ballistic delivery as described, for instance, in U.S. Patent No. 5,204,253 . Particles comprised solely of DNA can be administered. Alternatively, DNA can be adhered to particles, such as gold particles.

The nucleic acids can also be delivered complexed to cationic compounds, such as cationic lipids. Lipid-mediated gene delivery methods are described, for instance, in 9618372WOAWO 96/18372; 9324640WOAWO 93/24640; Mannino & Gould-Fogerite, BioTechniques 6(7): 682-691 (1988); 5279833USARose U.S. Pat No. 5,279,833 ; 9106309WOAWO 91/06309; and Felgner et al., Proc. Natl. Acad. Sci. USA 84: 7413-7414 (1987).

Delivery systems may optionally include cell-penetrating peptides, nanoparticulate encapsulation, virus like particles, liposomes, or any combination thereof. Cell penetrating

peptides include TAT peptide, herpes simplex virus VP22, transportan, Antp. Liposomes may be used as a delivery system. Listeria vaccines or electroporation may also be used.

The one or more neoantigenic peptides may also be delivered via a bacterial or viral vector containing DNA or RNA sequences which encode one or more neoantigenic peptides. The DNA or RNA may be delivered as a vector itself or within attenuated bacteria virus or live attenuated virus, such as vaccinia or fowlpox. This approach involves the use of vaccinia virus as a vector to express nucleotide sequences that encode the peptide of the invention. Upon introduction into an acutely or chronically infected host or into a noninfected host, the recombinant vaccinia virus expresses the immunogenic peptide, and thereby elicits a host CTL response. Vaccinia vectors and methods useful in immunization protocols are described in, e.g., U.S. Patent No. 4,722,848 ,. Another vector is BCG (Bacille Calmette Guerin). BCG vectors are described in Stover et al. (Nature 351:456-460 (1991)). A wide variety of other vectors useful for therapeutic administration or immunization of the peptides of the invention, e.g.,Salmonella typhivectors and the like, will be apparent to those skilled in the art from the description herein.

An appropriate mean of administering nucleic acids encoding the peptides as herein described involves the use of minigene constructs encoding multiple epitopes. To create a DNA sequence encoding the selected CTL epitopes (minigene) for expression in human cells, the amino acid sequences of the epitopes are reverse translated. A human codon usage table is used to guide the codon choice for each amino acid. These epitope-encoding DNA sequences are directly adjoined, creating a continuous polypeptide sequence. To optimize expression and/or immunogenicity, additional elements can be incorporated into the minigene design. Examples of amino acid sequence that could be reverse translated and included in the minigene sequence include: helper T lymphocyte, epitopes, a leader (signal) sequence, and an endoplasmic reticulum retention signal. In addition, MHC presentation of CTL epitopes may be improved by including synthetic (e.g. poly-alanine) or naturally-occurring flanking sequences adjacent to the CTL epitopes.

The minigene sequence is converted to DNA by assembling oligonucleotides that encode the plus and minus strands of the minigene. Overlapping oligonucleotides (30-100 bases long) are synthesized, phosphorylated, purified and annealed under appropriate conditions using well known techniques. The ends of the oligonucleotides are joined using T4 DNA ligase. This synthetic minigene, encoding the CTL epitope polypeptide, can then cloned into a desired expression vector.

Standard regulatory sequences well known to those of skill in the art are included in the vector to ensure expression in the target cells. Thus, the DNA or RNA encoding the neoantigenic peptide(s) may typically be operably linked to one or more of:

- a promoter that can be used to drive nucleic acid molecule expression. AAV ITR can serve as a promoter and is advantageous for eliminating the need for an additional promoter element. For ubiquitous expression, the following promoters can be used: CMV (notably human cytomegalovirus immediate early promoter (hCMV-IE)), CAG, CBh, PGK, SV40, RSV, Ferritin heavy or light chains, etc. For brain expression, the following promoters can be used: Synapsinl for all neurons, CaMKIIalpha for excitatory neurons, GAD67 or GAD65 or VGAT for GABAergic neurons, etc. Promoters used to drive RNA synthesis can include: Pol III promoters such as U6 or HI . The use of a Pol II promoter and intronic cassettes can be used to express guide RNA (gRNA). Typically, the promoter includes a down-stream cloning site for minigene insertion. For examples of suitable promoters sequences, see notably U.S. Patent Nos. 5,580,859 and 5,589,466.
- Transcriptional transactivators or other enhancer elements, which can also increase transcription activity, e.g. the regulatory R region from the 5′ long terminal repeat (LTR) of human T-cell leukemia virus type 1 (HTLV-1) (which when combined with a CMV promoter has been shown to induce higher cellular immune response).
- Translation optimizing sequences e.g. a Kozak sequence flanking the AUG initiator codon (ACCAUGG) within mRNA, and codon optimization.

Additional vector modifications may be desired to optimize minigene expression and immunogenicity. In some cases, introns are required for efficient gene expression, and one or more synthetic or naturally-occurring introns could be incorporated into the transcribed region of the minigene. The inclusion of mRNA stabilization sequences can also be considered for increasing minigene expression. It has recently been proposed that immunostimulatory sequences (ISSs or CpGs) play a role in the immunogenicity of DNA' vaccines. These sequences could be included in the vector, outside the minigene coding sequence, if found to enhance immunogenicity.

In some embodiments, a bicistronic expression vector, to allow production of the minigene-encoded epitopes and a second protein included to enhance or decrease immunogenicity can be used.

DNA vaccines or immunogenic compositions as herein described can be enhanced by co-delivering cytokines that promote cell-mediated immune responses, such as IL-2, IL-12, IL-18,

GM-CSF and IFNγ. CXC chemokines such as IL-8, and CC chemokines such as macrophage inflammatory protein (MIP)-1α, MIP-3α, MIP-3β, and RANTES, may increase the potency of the immune response. DNA vaccine immunogenicity can also be enhanced by co-delivering plasmid-encoded cytokine-inducing molecules (e.g. LeIF), co-stimulatory and adhesion molecules, e.g. B7-1 (CD80) and/or B7-2 (CD86). Helper (HTL) epitopes could be joined to intracellular targeting signals and expressed separately from the CTL epitopes. This would allow direction of the HTL epitopes to a cell compartment different than the CTL epitopes. If required, this could facilitate more efficient entry of HTL epitopes into the MHC class II pathway, thereby improving CTL induction. In contrast to CTL induction, specifically decreasing the immune response by co-expression of immunosuppressive molecules (e.g. TGF-β) may be beneficial in certain diseases.

Once an expression vector is selected, the minigene is cloned into the polylinker region downstream of the promoter. This plasmid is transformed into an appropriate E. coli strain, and DNA is prepared using standard techniques. The orientation and DNA sequence of the minigene, as well as all other elements included in the vector, are confirmed using restriction mapping and DNA sequence analysis. Bacterial cells harboring the correct plasmid can be stored as a master cell bank and a working cell bank.

Purified plasmid DNA can be prepared for injection using a variety of formulations. The simplest of these is reconstitution of lyophilized DNA in sterile phosphate-buffer saline (PBS). A variety of methods have been described, and new techniques may become available. As noted above, nucleic acids are conveniently formulated with cationic lipids. In addition, glycolipids, fusogenic liposomes, peptides and compounds referred to collectively as protective, interactive, non-condensing (PINC) could also be complexed to purified plasmid DNA to influence variables such as stability, intramuscular dispersion, or trafficking to specific organs or cell types.

Vaccines or immunogenic compositions comprising peptides may be administered in combination with vaccines or immunogenic compositions comprising polynucleotide encoding the peptides. For example, administration of peptide vaccine and DNA vaccine may be alternated in a prime-boost protocol. For example, priming with a peptide immunogenic composition and boosting with a DNA immunogenic composition is contemplated, as is

priming with a DNA immunogenic composition and boosting with a peptide immunogenic composition.

The present disclosure also encompasses a method for producing a vaccine composition comprising the steps of:

a) Optionally, identifying at least one neoantigenic peptide according to the method as previously described;
b) producing said at least one neoantigenic peptide, at least one polypeptide encoding neoantigenic peptide(s), or at least a vector comprising said polypeptide(s) as described herein; and
c) optionally adding physiologically acceptable buffer, excipient and/or adjuvant and producing a vaccine with said at least one neoantigenic peptide, polypeptide or vector.

Another aspect of the present disclosure, is a method for producing a DC vaccine, wherein said DCs present at least one neoantigenic peptide as herein disclosed.

Antibodies TCRs, CARs and derivatives thereof

The present disclosure also relates to an antibody or an antigen-binding fragment thereof that specifically binds a neoantigenic peptide as herein defined.

In some embodiments, the neoantigenic peptide is in association with an MHC or HLA molecule.

Typically, said antibody, or antigen-binding fragment thereof binds a neoantigenic peptide as herein defined, alone or optionally in association with an MHC or HLA molecule (i.e., peptide MHC complex) with a dissociation constant (K_d) of about 2 x 10^{-7} M or less. In certain embodiments, the K_d is about 2 x 10^{-7} M or less, about 1 x 10^{-7} M or less, about 9 x 10^{-8} M or less, about 1 x 10^{-8} M or less, about 9 x 10^{-9} M or less, about 5 x 10^{-9} M or less, about 4 x 10^{-9} M or less, about 3 x 10^{-9} or less, about 2 x 10^{-9} M or less, or about 1 x 10^{-9} M or less, or about 1 x 10^{-10} M or less, or about 1 x 10^{-12} M or less. In certain non-limiting embodiments, the K_d is from about 1.5 x 10^{-6} M to about 2.7 x 10^{-12} M.

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The present disclosure thus includes antibodies targeting MHC-restricted peptides and in particular targeting neoantigenic peptides as herein defined in association with at an MHC (or HLA) molecule (peptide MHC complex) or TCR-like antibodies (see notably for detailed description and method of production Høydahl, Lene Støkken et al. “Targeting the MHC

Ligandome by Use of TCR-Like Antibodies." Antibodies (Basel, Switzerland) vol. 8,2 32. 9 May. 2019, doi:10.3390/antib8020032; He, Qinghua et al. "TCR-like antibodies in cancer immunotherapy." *Journal of hematology & oncology* vol. 12,1 99. 14 Sep. 2019, doi:10.1186/s13045-019-0788-4 ; Trenevska I, Li D, Banham AH. Therapeutic Antibodies against Intracellular Tumor Antigens. Front Immunol. 2017 Aug 18;8:1001. doi: 10.3389/fimmu.2017.01001. PMID: 28868054; PMCID: PMC5563323 ; or . Chang AY, Gejman RS, Brea EJ, Oh CY, Mathias MD, Pankov D, Casey E, Dao T, Scheinberg DA. Opportunities and challenges for TCR mimic antibodies in cancer therapy. Expert Opin Biol Ther. 2016 Aug;16(8):979-87. doi: 10.1080/14712598.2016.1176138. Epub 2016 Apr 27. PMID: 27094818; PMCID: PMC4936943).

In some embodiments, TCR-like antibodies can also be conjugated with cytotoxic organic compounds, such as antibody-drug conjugates (ADCs), radionuclides, and protein toxins, to mediate the specific killing of tumor cells (Dao T, et al. Therapeutic bispecific T-cell engager antibody targeting the intracellular oncoprotein WT1. *Nat Biotechnol.* 2015;**33**(10):1079–1086). Furthermore, immunomodulators or secondary antibodies can be conjugated with the TCR-like antibodies to mediate specific immune responses around the tumor site, as in bi-specific T cell engagers (BiTE) (Trenevska I, Li D, Banham AH. Therapeutic antibodies against intracellular tumor antigens. *Front Immunol.* 2017;**8**:1001).

To promote the infiltration and recognition of tumor cells by lymphocytes T (LT), another strategy consists in using antibodies capable of recognizing more than one antigenic target simultaneously and more particularly two antigenic targets simultaneously. There are many formats of bispecific antibodies. BiTE (bi-specific T-cell engager) are the first to have been developed. These are proteins of fusion consisting of two scFvs (variable domains heavy VH and light VL chains) from two antibodies linked by a binding peptide: one recognizes the LT marker (CD3+) and the other a tumor antigen. The goal is to favor recruitment and activation of LTs in contact with tumor, thus leading to cell lysis tumor (See for review Patrick A. Baeuerle and Carsten Reinhardt; Bispecific T-Cell Engaging Antibodies for Cancer Therapy; Cancer Res 2009; 69: (12). June 15, 2009 ; and Galaine *et al.,* Innovations & Thérapeutiques en Oncologie, vol. 3-n°3-7, mai-août 2017).

In a particular embodiment, said antibody is thus a bi-specific T-cell engager (BiTE), typically derived from a TCR-like antibody that specifically binds a tumor neoantigenic peptide as herein defined, optionally in association with a MHC or an HLA molecule and which further targets at least an immune cell antigen. Typically, the immune cell is a T cell, a NK cell or a dendritic

cell. In this context, the targeted immune cell antigen may be for example CD3, CD16, CD30 or a TCR.

The term "**antibody**" herein is used in the broadest sense and includes polyclonal and monoclonal antibodies, including intact antibodies and functional (antigen-binding) antibody fragments, including fragment antigen binding (Fab) fragments, F(ab')2 fragments, Fab' fragments, Fv fragments, recombinant IgG (rlgG) fragments, variable heavy chain (VH) regions capable of specifically binding the antigen, single chain antibody fragments, including single chain variable fragments (scFv), and single domain antibodies (e.g., VHH antibodies, sdAb, sdFv, nanobody) fragments. The term encompasses genetically engineered and/or otherwise variants modified forms of immunoglobulins, such as intrabodies, peptibodies, chimeric antibodies, fully human antibodies, humanized antibodies, and heteroconjugate antibodies, multispecific, e.g., bispecific, antibodies, diabodies, triabodies, and tetrabodies, tandem di-scFv, tandem tri-scFv. Unless otherwise stated, the term "antibody" should be understood to encompass functional antibody and fragments thereof. The term also encompasses intact or full-length antibodies, including antibodies of any class or sub-class, including IgG and sub-classes thereof, IgG1, IgG2, IgG3, IgG4, IgM, IgE, IgA, and IgD. In some embodiments, the antibody comprises a light chain variable domain and a heavy chain variable domain, e.g. in an scFv format.

Antibodies include variant polypeptide species that have one or more amino acid substitutions, insertions, or deletions in the native amino acid sequence, provided that the antibody retains or substantially retains its specific binding function. Conservative substitutions of amino acids are well known and described above.

The present disclosure further includes a method of producing an antibody, or antigen-binding fragment thereof, comprising a step of selecting antibodies that bind to a tumor neoantigen peptide as herein defined, optionally in association with an MHC or HLA molecule, with with a dissociation constant (K_d) of about 2 x 10^{-7} M or less. In certain embodiments, the K_d is about 2 x 10^{-7} M or less, about 1 x 10-7 M or less, about 9 x 10^{-8} M or less, about 1 x 10^{-8} M or less, about 9 x 10^{-9} M or less, about 5 x 10^{-9} M or less, about 4 x 10^{-9} M or less, about 3 x 10^{-9} or less, about 2 x 10^{-9} M or less, or about 1 x 10^{-9} M or less., or about 1 x 10^{-10} M or less, or about 1 x 10^{-12} M or less..

In certain embodiments, the antibody is of murine, human or camelid (e.g., lama) origin.

In some embodiments, the antibodies are selected from a library of human antibody sequences. In some embodiments, the antibodies are generated by immunizing an animal with a polypeptide comprising the neoantigenic peptide, optionally in association with an MHC or HLA molecule, followed by the selection step.

Antibodies including chimeric, humanized or human antibodies can be further affinity matured and selected as described above. Humanized antibodies contain rodent-sequence derived CDR regions; typically the rodent CDRs are engrafted into a human framework, and some of the human framework residues may be back-mutated to the original rodent framework residue to preserve affinity, and/or one or a few of the CDR residues may be mutated to increase affinity. Fully human antibodies have no murine sequence, and are typically produced via phage display technologies of human antibody libraries, or immunization of transgenic mice whose native immunoglobin loci have been replaced with segments of human immunoglobulin loci.

Antibodies produced by said method, as well as immune cells expressing such antibodies or fragments thereof are also encompassed by the present disclosure.

The present disclosure also encompasses pharmaceutical compositions comprising one or more antibodies as herein disclosed alone or in combination with at least one other agent, such as a stabilizing compound, which may be administered in any sterile, biocompatible pharmaceutical carrier and optionally formulated with formulated with sterile pharmaceutically acceptable buffer(s), diluent(s), and/or excipient(s). Pharmaceutically acceptable carriers typically enhance or stabilize the composition, and/or can be used to facilitate preparation of the composition. Pharmaceutically acceptable carriers include solvents, dispersion media, coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents, and the like that are physiologically compatible and in some embodiments pharmaceutically inert.

Administration of a pharmaceutical composition comprising antibodies as herein disclosed can be accomplished orally or parenterally. Methods of parenteral delivery include topical, intra-arterial (directly to the tumor), intramuscular, spinal, subcutaneous, intramedullary, intrathecal, intraventricular, intravenous, intraperitoneal, or intranasal administration.

Thus, in addition to the active ingredients, these pharmaceutical compositions may contain suitable pharmaceutically acceptable carriers comprising excipients and auxiliaries which facilitate processing of the active compounds into preparations which can be used pharmaceutically. Further details on techniques for formulation and administration may be

found in the latest edition of Remington's Pharmaceutical Sciences (Ed. Maack Publishing Co, Easton, Pa.).

Depending on the route of administration, the active compound, i.e., antibody, bispecific and multispecific molecule, may be coated in a material to protect the compound from the action of acids and other natural conditions that may inactivate the compound.

The composition is typically sterile and preferably fluid. Proper fluidity can be maintained, for example, by use of coating such as lecithin, by maintenance of required particle size in the case of dispersion and by use of surfactants. In many cases, it is preferable to include isotonic agents, for example, sugars, polyalcohols such as mannitol or sorbitol, and sodium chloride in the composition. Long-term absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate or gelatin.

Pharmaceutical compositions for oral administration can be formulated using pharmaceutically acceptable carriers well known in the art in dosages suitable for oral administration. Such carriers enable the pharmaceutical compositions to be formulated as tablets, pills, dragees, capsules, liquids, gels, syrups, slurries, suspensions and the like, for ingestion by the patient.

Pharmaceutical preparations for oral use can be obtained through combination of active compounds with solid excipient, optionally grinding a resulting mixture, and processing the mixture of granules, after adding suitable auxilliaries, if desired, to obtain tablets or dragee cores. Suitable excipients are carbohydrate or protein fillers such as sugars, including lactose, sucrose, mannitol, or sorbitol; starch from corn, wheat, rice, potato, or other plants; cellulose such as methyl, cellulose, hydroxypropylmethylcellulose, or sodium carboxymethylcellulose; and gums including arabic and tragacanth; and proteins such as gelatin and collagen. If desired, disintegrating or solubilizing agents may be added, such as the cross-linked polyvinyl pyrrolidone, agar, alginic acid, or a salt thereof, such as sodium alginate.

Dragee cores are provided with suitable coatings such as concentrated sugar solutions, which may also contain gum arabic, talc, polyvinylpyrrolidone, carbopol gel, polyethylene glycol and/or titanium dioxide, lacquer solutions, and suitable organic solvents or solvent mixtures. Dyestuffs or pigments may be added to the tablets or dragee coatings for product identification or to characterize the quantity of active compound, ie. dosage.

Pharmaceutical preparations that can be used orally include push-fit capsules made of gelatin, as well as soft, sealed capsules made of gelatin and a coating such as glycerol or sorbitol. Push-

fit capsules can contain active ingredients mixed with a filler or binders such as lactose or starches, lubricants such as talc or magnesium stearate, and optionally, stabilizers. In soft capsules, the active compounds may be dissolved or suspended in suitable liquids, such as fatty oils, liquid paraffin, or liquid polyethylene glycol with or without stabilizers.

Pharmaceutical formulations for parenteral administration include aqueous solutions of active compounds. For injection, the pharmaceutical compositions of the invention may be formulated in aqueous solutions, preferably in physiologically compatible buffers such as Hank's solution, Ringer's solution, or physiologically buffered saline. Aqueous injection suspensions may contain substances that increase viscosity of the suspension, such as sodium carboxymethyl cellulose, sorbitol, or dextran. Additionally, suspensions of the active compounds may be prepared as appropriate oily injection suspensions. Suitable lipophilic solvents or vehicles include fatty oils such as sesame oil, or synthetic fatty acid esters, such as ethyl oleate or triglycerides, or liposomes. Optionally, the suspension may also contain suitable stabilizers or agents which increase the solubility of the compounds to allow for the preparation of highly concentrated solutions.

For topical or nasal administration, penetrants appropriate to the particular barrier to be permeated are used in the formulation. Such penetrants are generally known in the art.

Pharmaceutical compositions of the disclosure can be prepared in accordance with methods well known and routinely practiced in the art. See. e.g., Remington: The Science and Practice of Pharmacy, Mack Publishing Co., 20th ed., 2000; and Sustained and Controlled Release Drug Delivery Systems, J R. Robinson, ed., Marcel Dekker, Inc., New York, 1978. Pharmaceutical compositions are preferably manufactured under GMP conditions.

The present disclosure also encompasses a recombinant T cell receptor (TCR) that targets a neoantigenic peptide as herein defined in association with an MHC or HLA molecule.

The present disclosure further includes a method of producing a TCR, or an antigen-binding fragment thereof, comprising a step of selecting TCRs that bind to a tumor neoantigen peptide as herein defined, optionally in association with an MHC or HLA molecule, with a dissociation constant (K_d) of about 2 x 10^{-7} M or less. In certain embodiments, the K_d is about 2 x 10^{-7} M or less, about 1 x 10-7 M or less, about 9 x 10^{-8} M or less, about 1 x 10^{-8} M or less, about 9 x 10^{-9} M or less, about 5 x 10^{-9} M or less, about 4 x 10^{-9} M or less, about 3 x 10^{-9} or less, about 2 x

10^{-9} M or less, or about 1 x 10^{-9} M or less., or about 1 x 10^{-10} M or less, or about 1 x 10^{-12} M or less...

Nucleic acid encoding the TCR can be obtained from a variety of sources, such as by polymerase chain reaction (PCR) amplification of naturally occurring TCR DNA sequences, followed by expression of antibody variable regions, followed by the selecting step described above. In some embodiments, the TCR is obtained from T-cells isolated from a patient, or from cultured T-cell hybridomas. In some embodiments, the TCR clone for a target antigen has been generated in transgenic mice engineered with human immune system genes (e.g., the human leukocyte antigen system, or HLA). See, e.g., tumor antigens (see, e.g., Parkhurst et al. (2009) Clin Cancer Res. 15:169-180 and Cohen et al. (2005) J Immunol. 175:5799-5808. In some embodiments, phage display is used to isolate TCRs against a target antigen (see, e.g., Varela-Rohena et al. (2008) Nat Med. 14:1390-1395 and Li (2005) Nat Biotechnol. 23:349-354.

A "**T cell receptor**" or "**TCR**" refers to a molecule that contains a variable α and β chains (also known as TCRa and TCRb, respectively) or a variable γ and δ chains (also known as TCRg and TCRd, respectively) and that is capable of specifically binding to an antigen peptide bound to a MHC receptor. In some embodiments, the TCR is in the αβ form. Typically, TCRs that exist in αβ and γδ forms are generally structurally similar, but T cells expressing them may have distinct anatomical locations or functions. A TCR can be found on the surface of a cell or in soluble form. Generally, a TCR is found on the surface of T cells (or T lymphocytes) where it is generally responsible for recognizing antigens bound to major histocompatibility complex (MHC) molecules through its extracellular binding domain. In some embodiments, a TCR also can contain a constant domain, a transmembrane domain and/or a short cytoplasmic tail (see, e.g., Janeway et ah, Immunobiology: The Immune System in Health and Disease, 3 rd Ed., Current Biology Publications, p. 4:33, 1997). For example, in some aspects, each chain of the TCR can possess one N-terminal immunoglobulin variable domain, one immunoglobulin constant domain, a transmembrane region, and a short cytoplasmic tail at the C-terminal end. In some embodiments, a TCR is associated with invariant proteins of the CD3 complex involved in mediating signal transduction. Unless otherwise stated, the term "TCR" should be understood to encompass functional TCR fragments thereof. The term also encompasses intact or full-length TCRs, including TCRs in the αβ form or γδ form.

Thus, for purposes herein, reference to a TCR includes any TCR or functional fragment, such as an antigen-binding portion of a TCR that binds to a specific antigenic peptide bound in an MHC molecule, i.e. MHC-peptide complex. An "antigen-binding portion" or antigen-binding

fragment" of a TCR, which can be used interchangeably, refers to a molecule that contains a portion of the structural domains of a TCR, but that binds the antigen (e.g. MHC-peptide complex) to which the full TCR binds. In some cases, an antigen-binding portion contains the variable domains of a TCR, such as variable a chain and variable β chain of a TCR, sufficient to form a binding site for binding to a specific MHC-peptide complex, such as generally where each chain contains three complementarity determining regions.

In some embodiments, the variable domains of the TCR chains associate to form loops, or complementarity determining regions (CDRs) analogous to immunoglobulins, which confer antigen recognition and determine peptide specificity by forming the binding site of the TCR molecule and determine peptide specificity. Typically, like immunoglobulins, the CDRs are separated by framework regions (FRs) {see, e.g., Jores et al., Pwc. Nat'lAcad. Sci. U.S.A. 87:9138, 1990; Chothia et al., EMBO J. 7:3745, 1988; see also Lefranc et al., Dev. Comp. Immunol. 27:55, 2003). In some embodiments, CDR3 is the main CDR responsible for recognizing processed antigen, although CDR1 of the alpha chain has also been shown to interact with the N-terminal part of the antigenic peptide, whereas CDR1 of the beta chain interacts with the C-terminal part of the peptide. CDR2 is thought to recognize the MHC molecule. In some embodiments, the variable region of the β-chain can contain a further hypervariability (HV4) region.

In some embodiments, the TCR chains contain a constant domain. For example, like immunoglobulins, the extracellular portion of TCR chains {e.g., α-chain, β-chain) can contain two immunoglobulin domains, a variable domain {e.g., Va or Vp; typically amino acids 1 to 116 based on Kabat numbering Kabat et al., "Sequences of Proteins of Immunological Interest, US Dept. Health and Human Services, Public Health Service National Institutes of Health, 1991, 5th ed.) at the N-terminus, and one constant domain {e.g., a-chain constant domain or Ca, typically amino acids 117 to 259 based on Kabat, β-chain constant domain or Cp, typically amino acids 117 to 295 based on Kabat) adjacent to the cell membrane. For example, in some cases, the extracellular portion of the TCR formed by the two chains contains two membrane-proximal constant domains, and two membrane-distal variable domains containing CDRs. The constant domain of the TCR domain contains short connecting sequences in which a cysteine residue forms a disulfide bond, making a link between the two chains. In some embodiments, a TCR may have an additional cysteine residue in each of the α and β chains such that the TCR contains two disulfide bonds in the constant domains.

In some embodiments, the TCR chains can contain a transmembrane domain. In some embodiments, the transmembrane domain is positively charged. In some cases, the TCR chains contain a cytoplasmic tail. In some cases, the structure allows the TCR to associate with other molecules like CD3. For example, a TCR containing constant domains with a transmembrane region can anchor the protein in the cell membrane and associate with invariant subunits of the CD3 signaling apparatus or complex.

Generally, CD3 is a multi-protein complex that can possess three distinct chains (γ, δ, and ε) in mammals and the ζ-chain. For example, in mammals the complex can contain a CD3y chain, a CD35 chain, two CD3s chains, and a homodimer of CD3ζ chains. The CD3y, CD35, and CD3s chains are highly related cell surface proteins of the immunoglobulin superfamily containing a single immunoglobulin domain. The transmembrane regions of the CD3y, CD35, and CD3s chains are negatively charged, which is a characteristic that allows these chains to associate with the positively charged T cell receptor chains. The intracellular tails of the CD3y, CD35, and CD3s chains each contain a single conserved motif known as an immunoreceptor tyrosine -based activation motif or ITAM, whereas each CD3ζ chain has three. Generally, ITAMs are involved in the signaling capacity of the TCR complex. These accessory molecules have negatively charged transmembrane regions and play a role in propagating the signal from the TCR into the cell. The CD3- and ζ-chains, together with the TCR, form what is known as the T cell receptor complex.

In some embodiments, the TCR may be a heterodimer of two chains α and β (or optionally γ and δ) or it may be a single chain TCR construct. In some embodiments, the TCR is a heterodimer containing two separate chains (α and β chains or γ and δ chains) that are linked, such as by a disulfide bond or disulfide bonds.

While T-cell receptors (TCRs) are transmembrane proteins and do not naturally exist in soluble form, antibodies can be secreted as well as membrane bound. Importantly, TCRs have the advantage over antibodies that they in principle can recognize peptides generated from all degraded cellular proteins, both intra- and extracellular, when presented in the context of MHC molecules. Thus TCRs have important therapeutic potential.

The present disclosure also relates to soluble T-cell receptors (sTCRs) that contain the antigen recognition part directed against a tumor neoantigenic peptide as herein disclosed (see notably Walseng E, Wälchli S, Fallang L-E, Yang W, Vefferstad A, Areffard A, et al. (2015) Soluble T-Cell Receptors Produced in Human Cells for Targeted Delivery. PLoS ONE 10(4): e0119559). In a particular embodiment, the soluble TCR can be fused to an antibody fragment

directed to a T cell antigen, optionally wherein the targeted antigen is CD3 or CD16 (see for example Boudousquie, Caroline et al. "Polyfunctional response by ImmTAC (IMCgp100) redirected CD8+ and CD4+ T cells." Immunology vol. 152,3 (2017): 425-438. doi:10.1111/imm.12779).

In certain embodiments, the present disclosure encompasses Recombinant HLA-independent (or non-HLA restricted) T cell receptors (referred to as "HI-TCRs") that bind to a neoantigenic peptide as herein defined in an HLA-independent manner. "HI-TCRs" as herein intended and which are well-suited to the present invention are described in International Application No. WO 2019/157454. Thus, typically HI-TCRs according to the present disclosure comprise an antigen binding chain that comprises: (a) an antigen-binding domain (as previously defined) that binds to an antigen in an HLA-independent manner, for example, an antigen-binding fragment of an immunoglobulin variable region; and (b) a constant domain that is capable of associating with (and consequently activating) a CD3ζ polypeptide. Because typically TCRs bind antigen in a HLA-dependent manner, the antigen-binding domain that binds in an HLA-independent manner is heterologous. Preferably, the antigen-binding domain or fragment thereof comprises: (i) an antigen-binding domain comprising or consisting of an heavy chain variable region (VH) of an antibody and/or (ii) a light chain variable region (VL) of an antibody. The constant domain of the TCR is, for example, a native or modified TRAC polypeptide, or a native or modified TRBC polypeptide. The constant domain of the TCR is, for example, a native TCR constant domain (alpha or beta) or fragment thereof. Unlike chimeric antigen receptors, which typically themselves comprise an intracellular signaling domain, the HI-TCR does not directly produce an activating signal; instead, the antigen-binding chain associates with and consequently activates a CD3ζ polypeptide. The immune cells comprising the recombinant TCR provide superior activity when the antigen has a low density on the cell surface of less than about 10,000 molecules per cell.

The CD3ζ polypeptide is, for example, a native CD3ζ polypeptide or a modified CD3ζ polypeptide. The CD3ζ polypeptide is optionally fused to an intracellular domain of a co-stimulatory molecule or a fragment thereof. Alternatively, the antigen binding domain optionally comprises a co-stimulatory region, e.g. intracellular domain, that is capable of stimulating an immunoresponsive cell upon the binding of the antigen binding chain to the antigen. Example co-stimulatory molecules include CD28, 4-1BB, OX40, ICOS, DAP-10, fragments thereof, or a combination thereof.

In some embodiments, the recombinant HI-TCR is expressed by a transgene that is integrated at an endogenous gene locus of the immunoresponsive cell, for example, a CD3δ locus, a CD3ε

locus, a CD247 locus, a B2M locus, a TRAC locus, a TRBC locus, a TRDC locus and/or a TRGC locus. In most embodiments, expression of the recombinant HI-TCR is driven from the endogenous TRAC or TRBC gene locus. In some embodiments, the transgene encoding a portion of the recombinant HI-TCR is integrated into the endogenous TRAC and/or TRBC locus in a manner that disrupts or abolishes the endogenous expression of a TCR comprising a native TCR α chain and/or a native TCR β chain. This disruption prevents or eliminates mispairing between the recombinant TCR and a native TCR α chain and/or a native TCR β chain in the immunoresponsive cell. The endogenous gene locus may also comprise a modified transcription terminator region, for example, a TK transcription terminator, a GCSF transcription terminator, a TCRA transcription terminator, an HBB transcription terminator, a bovine growth hormone transcription terminator, an SV40 transcription terminator, and a P2A element.

In some embodiments of the present disclosure, the recombinant TCR and typically the HI-TCR comprises an extracellular antigen-binding domain which is capable of dimerizing with a second extracellular antigen-binding domain. Typically, the second extracellular antigen-binding domain binds a tumor antigen, preferably wherein the tumor antigen is selected from pHER95, CD19, MUC16, MUC1, CAIX, CEA, CD8, CD7, CD10, CD20, CD22, CD30, CD70, CLL1, CD33, CD34, CD38, CD41, CD44, CD49f, CD56, CD74, CD133, CD138, EGP-2, EGP-40, EpCAM, Erb-B2, Erb-B3, Erb-B4, FBP, Fetal acetylcholine receptor, folate receptor-a, GD2, GD3, HER-2, hTERT, IL-13R-a2, κ-light chain, KDR, LeY, L1 cell adhesion molecule, MAGE-A1, Mesothelin, MAGEA3, p53, MART1,GP100, Proteinase3 (PR1), Tyrosinase, Survivin, hTERT, EphA2, NKG2D ligands, NY-ESO-1, oncofetal antigen (h5T4), PSCA, PSMA, ROR1, TAG-72, VEGF-R2, WT-1, BCMA, CD123, CD44V6, NKCS1, EGF1R, EGFR-VIII, CD99, CD70, ADGRE2, CCR1, LILRB2, LILRB4, PRAME, and ERBB.

The present disclosure also encompasses a chimeric antigen receptor (CAR) which is directed against a tumor neoantigenic peptide as herein disclosed. CARs are fusion proteins comprising an antigen-binding domain, typically derived from an antibody, linked to the signalling domain of the TCR complex. CARs can be used to direct immune cells, such as T-cells or NK T cells, against a tumor neoantigenic peptide as previously defined with a suitable antigen-binding domain selected.

The antigen-binding domain of a CAR is typically based on a scFv (single chain variable fragment) derived from an antibody. In addition to an N-terminal, extracellular antibody-binding domain, CARs typically may comprise a hinge domain, which functions as a spacer to

extend the antigen-binding domain away from the plasma membrane of the immune effector cell on which it is expressed, a transmembrane (TM) domain, an intracellular signalling domain (e.g. the signalling domain from the zeta chain of the CD3 molecule (CD3ζ) of the TCR complex, or an equivalent) and optionally one or more co- stimulatory domains which may assist in signalling or functionality of the cell expressing the CAR. Signalling domains from co-stimulatory molecules including CD28, OX-40 (CD134), and 4-1BB (CD137) can be added alone (second generation) or in combination (third generation) to enhance survival and increase proliferation of CAR modified T cells. Potential co-stimulatory domains also include ICOS-1, CD27, GITR, and DAP10.

Thus, the CAR may include

(1) In its extracellular portion, one or more antigen binding molecules, such as one or more antigen-binding fragment, domain, or portion of an antibody, or one or more antibody variable domains, and/or antibody molecules.

(2) In its transmembrane portion, a transmembrane domain derived from human T cell receptor-alpha or -beta chain, a CD3 zeta chain, CD28, CD3-epsilon, CD45, CD4, CD5, CD8, CD9, CD16, CD22, CD33, CD37, CD64, CD80, CD86, CD134, CD137, ICOS, CD154, or a GITR. In some embodiments, the transmembrane domain is derived from CD28, CD8 or CD3-zeta.

(3) One or more co-stimulatory domains, such as co-stimulatory domains derived from human CD28, 4-1BB (CD137), ICOS-1, CD27, OX 40 (CD137), DAP10, and GITR (AITR). In some embodiments, the CAR comprises co-stimulating domains of both CD28 and 4-1BB.

(4) In its intracellular signalling domain, an intracellular signalling domain comprising one or more ITAMs, for example, the intracellular signalling domain is CD3-zeta, or a variant thereof lacking one or two ITAMs (e.g. ITAM3 and ITAM2), or the intracellular signalling domain is derived from FcεRIγ.

The CAR can be designed to recognize tumor neoantigenic peptide alone or in association with an HLA or MHC molecule.

The moieties used to bind to antigen include three general categories, either single-chain antibody fragments (scFvs) derived from antibodies, Fab's selected from libraries, or natural ligands that engage their cognate receptor (for the first-generation CARs). Successful examples in each of these categories are notably reported in Sadelain M, Brentjens R, Riviere I. The basic

principles of chimeric antigen receptor (CAR) design. Cancer discovery. 2013; 3(4):388-398 (see notably table 1) and are included in the present application.

Antibodies include chimeric, humanized or human antibodies, and can be further affinity matured and selected as described above. Chimeric or humanized scFv's derived from rodent immunoglobulins (e.g. mice, rat) are commonly used, as they are easily derived from well-characterized monoclonal antibodies. Humanized antibodies contain rodent-sequence derived CDR regions; typically, the rodent CDRs are engrafted into a human framework, and some of the human framework residues may be back-mutated to the original rodent framework residue to preserve affinity, and/or one or a few of the CDR residues may be mutated to increase affinity. Fully human antibodies have no murine sequences, and are typically produced via phage display technologies of human antibody libraries, or immunization of transgenic mice whose native immunoglobin loci have been replaced with segments of human immunoglobulin loci. Variants of the antibodies can be produced that have one or more amino acid substitutions, insertions, or deletions in the native amino acid sequence, wherein the antibody retains or substantially retains its specific binding function. Conservative substitutions of amino acids are well known and described above. Further variants may also be produced that have improved affinity for the antigen.

Typically, the CAR includes an antigen-binding domain as previously defined from an antibody molecule, such as a single-chain antibody fragment (scFv) derived from the variable heavy (VH) and variable light (VL) chains of a monoclonal antibody (mAb).

In some aspects, the antigen- binding, domain of the CAR is linked to one or more transmembrane and intracellular signaling domains. In some embodiments, the CAR includes a transmembrane domain fused to the extracellular domain of the CAR. In one embodiment, the transmembrane domain that is naturally associated with one of the domains in the CAR is used. In some instances, the transmembrane domain is selected or modified by amino acid substitution to avoid binding of such domains to the transmembrane domains of the same or different surface membrane proteins to minimize interactions with other members of the receptor complex.

The transmembrane domain in some embodiments is derived either from a natural or from a synthetic source. Where the source is natural, the domain can be derived from any membrane-bound or transmembrane protein. Transmembrane regions include those derived from (i.e. comprise at least the transmembrane region(s) of) the alpha, beta or zeta chain of the T-cell receptor, CD28, CD3 epsilon, CD45, CD4, CD5, CD8, CD9, CD16, CD22, CD33, CD37,

CD64, CD80, CD86, CD 134, CD137, CD154, ICOS or a GITR). The transmembrane domain can also be synthetic. In some embodiments, the transmembrane domain is derived from CD28, CD8 or CD3-zeta.

In some embodiments, a short oligo- or polypeptide linker, for example, a linker of between 2 and 10 amino acids in length, is present and forms a linkage between the transmembrane domain and the cytoplasmic signaling domain of the CAR.

The CAR generally includes at least one intracellular signaling component or components. First generation CARs typically had the intracellular domain from the CD3 ζ- chain, which is the primary transmitter of signals from endogenous TCRs. Second generation CARs typically further comprise intracellular signaling domains from various costimulatory protein receptors (e.g., CD28, 41BB (CD28), ICOS) to the cytoplasmic tail of the CAR to provide additional signals to the T cell. Co-stimulatory domains include domains derived from human CD28, 4-1BB (CD137), ICOS-1, CD27, OX 40 (CD137), DAP10, and GITR (AITR). Combinations of two co-stimulatory domains are contemplated, e.g. CD28 and 4-1BB, or CD28 and OX40. Third generation CARs combine multiple signaling domains, such as CD3z-CD28-4-1BB or CD3z-CD28-OX40, to augment potency.

The intracellular signaling domain can be from an intracellular component of the TCR complex, such as a TCR CD3+ chain that mediates T-cell activation and cytotoxicity, e.g., the CD3 zeta chain. Alternative intracellular signaling domains include FcεRIγ. The intracellular signaling domain may comprise a modified CD3 zeta polypeptide lacking one or two of its three immunoreceptor tyrosine-based activation motifs (ITAMs), wherein the ITAMs are ITAM1, ITAM2 and ITAM3 (numbered from the N-terminus to the C-terminus). The intracellular signaling region of CD3-zeta is residues 22-164 of SEQ ID NO: 4. ITAM1 is located around amino acid residues 61-89, ITAM2 around amino acid residues 100-128, and ITAM3 around residues 131-159. Thus, the modified CD3 zeta polypeptide may have any one of ITAM1, ITAM2, or ITAM3 inactivated. Alternatively, the modified CD3 zeta polypeptide may have any two ITAMs inactivated, e.g. ITAM2 and ITAM3, or ITAM1 and ITAM2. Preferably, ITAM3 is inactivated, e.g. deleted. More preferably, ITAM2 and ITAM3 are inactivated, e.g. deleted, leaving ITAM1. For example, one modified CD3 zeta polypeptide retains only ITAM1 and the remaining CD3ζ domain is deleted (residues 90-164). As another example, ITAM1 is substituted with the amino acid sequence of ITAM3, and the remaining CD3ζ domain is deleted (residues 90-164). See, for example, Bridgeman et al., Clin. Exp. Immunol. 175(2): 258-67

(2014); Zhao et al., J. Immunol. 183(9): 5563-74 (2009); Maus et al., WO 2018/132506; Sadelain et al., WO/2019/133969, Feucht et al., Nat Med. 25(1):82-88 (2019).

Thus, in some aspects, the antigen binding domain is linked to one or more cell signaling modules. In some embodiments, cell signaling modules include CD3 transmembrane domain, CD3 intracellular signaling domains, and/or other CD transmembrane domains. The CAR can also further include a portion of one or more additional molecules such as Fc receptor γ, CD8, CD4, CD25, or CD16.

In some embodiments, upon ligation of the CAR, the cytoplasmic domain or intracellular signaling domain of the CAR activates at least one of the normal effector functions or responses of the corresponding non-engineered immune cell (typically a T cell). For example, the CAR can induce a function of a T cell such as cytolytic activity or T-helper activity, secretion of cytokines or other factors.

In some embodiments, the intracellular signaling domain(s) include the cytoplasmic sequences of the T cell receptor (TCR), and in some aspects also those of co-receptors that in the natural context act in concert with such receptor to initiate signal transduction following antigen-specific receptor engagement, and/or a variant of such molecules, and/or any synthetic sequence that has the same functional capability.

T cell activation is in some aspects described as being mediated by two classes of cytoplasmic signaling sequences: those that initiate antigen- dependent primary activation through the TCR (primary cytoplasmic signaling sequences), and those that act in an antigen-independent manner to provide a secondary or co- stimulatory signal (secondary cytoplasmic signaling sequences). In some aspects, the CAR includes one or both of such signaling components.

In some aspects, the CAR includes a primary cytoplasmic signaling sequence that regulates primary activation of the TCR complex either in a stimulatory way, or in an inhibitory way. Primary cytoplasmic signaling sequences that act in a stimulatory manner may contain signaling motifs which are known as immunoreceptor tyrosine -based activation motifs or ITAMs. Examples of ITAM containing primary cytoplasmic signaling sequences include those derived from TCR zeta, FcR gamma, FcR beta, CD3 gamma, CD3 delta, CD3 epsilon, CDS, CD22, CD79a, CD79b, and CD66d. In some embodiments, cytoplasmic signaling molecule(s) in the CAR contain(s) a cytoplasmic signaling domain, portion thereof, or sequence derived from CD3 zeta.

The CAR can also include a signaling domain and/or transmembrane portion of a costimulatory receptor, such as CD28, 4-1BB, OX40, DAP10, and ICOS. In some aspects, the same CAR includes both the activating and costimulatory components; alternatively, the activating domain is provided by one CAR whereas the costimulatory component is provided by another CAR recognizing another antigen.

Thus, in some embodiments, the CAR may include:

(1) In its extracellular portion, one or more antigen binding molecules, such as one or more antigen-binding fragment, domain, or portion of an antibody, or one or more antibody variable domains (heavy chain and/or light chain), and/or antibody molecules.

(2) In its transmembrane portion, a transmembrane domain derived from human T cell receptor-alpha or -beta chain, a CD3 zeta chain, CD28, CD3-epsilon, CD45, CD4, CD5, CD8, CD9, CD16, CD22, CD33, CD37, CD64, CD80, CD86, CD134, CD137, ICOS, CD154, or a GITR. In some embodiments, the transmembrane domain is derived from CD28, CD8 or CD3-zeta.

(3) One or more co-stimulatory domains, such as co-stimulatory domains derived from human CD28, 4-1BB (CD137), ICOS-1, CD27, OX 40 (CD137), DAP10, and GITR (AITR). In some embodiments, the CAR comprises co-stimulating domains of both CD28 and 4-1BB.

(4) In its intracellular signalling domain, one or more intracellular signalling domain(s) comprising one or more ITAMs, for example: the intracellular signalling domain or a portion thereof from CD3-zeta, or a variant thereof lacking one or two ITAMs (*e.g.*: ITAM3 and/or ITAM2 see also as detailed above and bibliographic references), FcR gamma, FcR beta, CD3 gamma, CD3 delta, CD3 epsilon, CDS, CD22, CD79a, CD79b, and/or CD66d, notably selected from the intracellular domain of CD3-zeta, or a variant thereof lacking one or two ITAMs (*e.g.*: ITAM3 and ITAM2), or the intracellular signalling of FcεRIγ or a variant thereof.

The CAR or other antigen-specific receptor can also be an inhibitory CAR (e.g. iCAR) and includes intracellular components that dampen or suppress a response, such as an immune response. Examples of such intracellular signaling components are those found on immune

checkpoint molecules, including PD-1, CTLA4, LAG3, BTLA, OX2R, TIM-3, TIGIT, LAIR-1, PGE2 receptors, EP2/4 Adenosine receptors including A2AR. In some aspects, the engineered cell includes an inhibitory CAR including a signaling domain of or derived from such an inhibitory molecule, such that it serves to dampen the response of the cell. Such CARs are used, for example, to reduce the likelihood of off-target effects when the antigen recognized by the activating receptor, e.g, CAR, is also expressed, or may also be expressed, on the surface of normal cells.

In some embodiments, the CAR is a MHC-restricted antibody-based chimeric antigen receptor or TCR-like CAR. Typically, such CAR comprises an antibody or a fragment thereof targeting a MHC restricted neoantigenic peptide as previously defined. A non-limiting example of a CAR MHC-resticted antibody-based CAR which general structure is typically well-suited according to the present disclosure can be found in Maus MV, Plotkin J, Jakka G, et al. An MHC-restricted antibody-based chimeric antigen receptor requires TCR-like affinity to maintain antigen specificity. Mol Ther Oncolytics. 2017;3:1-9.

Exemplary antigen receptors, including CARs and recombinant TCRs, as well as methods for engineering and introducing the receptors into cells, include those described, for example, in international patent application publication numbers WO200014257, WO2013126726, WO2012/129514, WO2014031687, WO2013/166321, WO2013/071154, WO2013/123061, WO2019157454, U.S. patent application publication numbers US2002131960, US2013287748, US20130149337, U.S. Patent Nos.: 6,451,995, 7,446,190, 8,252,592, , 8,339,645, 8,398,282, 7,446,179, 6,410,319, 7,070,995, 7,265,209, 7,354,762, 7,446,191, 8,324,353, and 8,479,118, and European patent application number EP2537416, and/or those described by Sadelain et al., Cancer Discov. 2013 April; 3(4): 388-398; Davila et al. (2013) PLoS ONE 8(4): e61338; Turtle et al., Curr. Opin. Immunol., 2012 October; 24(5): 633-39; Wu et al., Cancer, 2012 March 18(2): 160-75. In some aspects, the genetically engineered antigen receptors include a CAR as described in U.S. Patent No.: 7,446,190, and those described in International Patent Application Publication No.: WO/2014055668 Al.

The present disclosure also encompasses polynucleotides encoding antibodies, antigen-binding fragments or derivatives thereof, TCRs and CARs as previously described as well as vector comprising said polynucleotide(s).

Immune cells

The present disclosure further encompasses an immune cell, notably an isolated immune cell which target one or more tumor neoantigenic peptides as previously described. In more specific embodiments the present disclosure encompasses an immune cell, notably an isolated immune cell expressing a recombinant CAR or TCR as previously defined.

As used herein, the term "immune cell" includes cells that are of hematopoietic origin and that play a role in the immune response. Immune cells include lymphocytes, such as B cells and T cells, natural killer cells, myeloid cells, such as monocytes, macrophages, eosinophils, mast cells, basophils, and granulocytes.

As used herein, the term "T cell" includes cells bearing a T cell receptor (TCR), in particular TCR directed against a tumor neoantigenic peptide as herein disclosed. T-cells according to the present disclosure can be selected from the group consisting of inflammatory T-lymphocytes, cytotoxic T-lymphocytes, regulatory T-lymphocytes, Mucosal-Associated Invariant T cells (MAIT), Yδ T cell, tumour infiltrating lymphocyte (TILs) or helper T- lymphocytes included both type 1 and 2 helper T cells and Th17 helper cells. In another embodiment, said cell can be derived from the group consisting of CD4+ T- lymphocytes and CD8+ T-lymphocytes. Said immune cells may originate from a healthy donor or from a subject suffering from a cancer. In some embodiments, the immune cell is an allogenic or autologous cell. In some embodiments, the immune cell is selected from T cells, Natural Killer T cells, CD4+/CD8+ T cells, TILs/tumor derived CD8 T cells, central memory CD8+ T cells, Treg, MAIT, Yδ T cells, human embryonic stem cells, and pluripotent stem cells from which lymphoid cells may be differentiated.

Immune cells can be extracted from blood or derived from stem cells. The stem cells can be adult stem cells, embryonic stem cells, more particularly non-human stem cells, cord blood stem cells, progenitor cells, bone marrow stem cells, induced pluripotent stem cells, totipotent stem cells or hematopoietic stem cells. Representative human cells are CD34+ cells.

T-cells can be obtained from a number of non-limiting sources, including peripheral blood mononuclear cells, bone marrow, lymph node tissue, cord blood, thymus tissue, tissue from a site of infection, ascites, pleural effusion, spleen tissue, and tumors. In certain embodiments, T-cells can be obtained from a unit of blood collected from a subject using any number of techniques known to the skilled person, such as FICOLL™ separation. In one embodiment, cells from the circulating blood of a subject are obtained by apheresis. In certain embodiments, T-cells are isolated from PBMCs. PBMCs may be isolated from buffy coats obtained by density gradient centrifugation of whole blood, for instance centrifugation through a LYMPHOPREP™ gradient, a PERCOLL™ gradient or a FICOLL™ gradient. T-cells may be isolated from

PBMCs by depletion of the monocytes, for instance by using CD14 DYNABEADS®. In some embodiments, red blood cells may be lysed prior to the density gradient centrifugation.

In another embodiment, said cell can be derived from a healthy donor, from a subject diagnosed with cancer. The cell can be autologous or allogeneic.

In allogeneic immune cell therapy, immune cells are collected from healthy donors, rather than the patient. Typically these are HLA matched to reduce the likelihood of graft vs. host disease. Alternatively, universal 'off the shelf' products that may not require HLA matching comprise modifications designed to reduce graft vs. host disease, such as disruption or removal of the TCRαβ receptor. See Graham et al., Cells. 2018 Oct; 7(10): 155 for a review. Because a single gene encodes the alpha chain (TRAC) rather than the two genes encoding the beta chain, the TRAC locus is a typical target for removing or disrupting TCRαβ receptor expression. Alternatively, inhibitors of TCRαβ signalling may be expressed, e.g. truncated forms of CD3ζ can act as a TCR inhibitory molecule. Disruption or removal of HLA class I molecules has also been employed. For example, Torikai et al., Blood. 2013;122:1341–1349 used ZFNs to knock out the HLA-A locus, while Ren et al., Clin. Cancer Res. 2017;23:2255–2266 knocked out Beta-2 microglobulin (B2M), which is required for HLA class I expression. Ren et al. simultaneously knocked out TCRαβ, B2M and the immune-checkpoint PD1. Generally, the immune cells are activated and expanded to be utilized in the adoptive cell therapy. The immune cells as herein disclosed can be expanded in vivo or ex vivo. The immune cells, in particular T-cells can be activated and expanded generally using methods known in the art. Generally the T-cells are expanded by contact with a surface having attached thereto an agent that stimulates a CD3/TCR complex associated signal and a ligand that stimulates a co-stimulatory molecule on the surface of the T cells.

In one embodiment of the present disclosure, the immune cell can be modified to be directed to tumor neoantigenic peptides as previously defined. In a particular embodiment, said immune cell may express a recombinant antigen receptor directed to said neoantigenic peptide its cell surface. By "recombinant" is meant an antigen receptor which is not encoded by the cell in its native state, i.e. it is heterologous, non-endogenous. Expression of the recombinant antigen receptor can thus be seen to introduce new antigen specificity to the immune cell, causing the cell to recognise and bind a previously described peptide. The antigen receptor may be isolated from any useful source. In some embodiments, the cells comprise one or more nucleic acids introduced via genetic engineering that encode one or more antigen receptors, wherein the antigen include at least one tumor neoantigenic peptide as per the present disclosure.

Among the antigen receptors as per the present disclosure are genetically engineered T cell receptors (TCRs) and components thereof, as well as functional non-TCR antigen receptors, such as chimeric antigen receptors (CAR) as previously described.

Methods by which immune cells can be genetically modified to express a recombinant antigen receptor are well known in the art. A nucleic acid molecule encoding the antigen receptor may be introduced into the cell in the form of e.g. a vector, or any other suitable nucleic acid construct. Vectors, and their required components, are well known in the art. Nucleic acid molecules encoding antigen receptors can be generated using any method known in the art, e.g. molecular cloning using PCR. Antigen receptor sequences can be modified using commonly-used methods, such as site-directed mutagenesis.

In some embodiments, the immune cell is cell wherein the gene encoding the Suv39h1 protein, and in particular the human suv39h1 protein (referenced O43463 in UNIPROT), is disrupted.

In some embodiments, the immune cell comprises a recombinant HLA-independent (or non-HLA restricted) T cell receptors (referred to as"HI-TCRs") that bind to an antigen of interest in an HLA-independent manner are described in International Application No. WO 2019/157454. Such HI-TCRs comprise an antigen binding chain that comprises: (a) an antigen-binding domain that binds to an antigen in an HLA-independent manner, for example, an antigen-binding fragment of an immunoglobulin variable region; and (b) a constant domain that is capable of associating with (and consequently activating) a CD3ζ polypeptide. Because typically TCRs bind antigen in a HLA-dependent manner, the antigen-binding domain that binds in an HLA-independent manner must be heterologous. Preferably, the antigen-binding domain or fragment thereof comprises: (i) a heavy chain variable region (VH) of an antibody and/or (ii) a light chain variable region (VL) of an antibody. The constant domain of the TCR is, for example, a native or modified TRAC polypeptide, or a native or modified TRBC polypeptide. The constant domain of the TCR is, for example, a native TCR constant domain (alpha or beta) or fragment thereof. Unlike chimeric antigen receptors, which typically themselves comprise an intracellular signaling domain, the HI-TCR does not directly produce an activating signal; instead, the antigen-binding chain associates with and consequently activates a CD3ζ polypeptide. The immune cells comprising the recombinant TCR provide superior activity when the antigen has a low density on the cell surface of less than about 10,000 molecules per cell.

The CD3ζ polypeptide is, for example, a native CD3ζ polypeptide or a modified CD3ζ polypeptide. The CD3ζ polypeptide is optionally fused to an intracellular domain of a co-stimulatory molecule or a fragment thereof. Alternatively, the antigen binding domain optionally comprises a co-stimulatory region, e.g. intracellular domain, that is capable of stimulating an immunoresponsive cell upon the binding of the antigen binding chain to the antigen. Example co-stimulatory molecules include CD28, 4-1BB, OX40, ICOS, DAP-10, fragments thereof, or a combination thereof.

In some embodiments of the present disclosure, the immune cell is a cell wherein (a) the SUV39H1 gene is inactivated, (b) the antigen-specific receptor is a modified TCR comprising a heterologous (or recombinant) antigen-binding domain and a native TCR constant domain or fragment thereof, and the antigen-specific receptor is capable of activating a CD3 zeta polypeptide. For example, the immune cell may further comprise at least one chimeric costimulatory receptor (CCR) and/or at least one chimeric antigen receptor, for example as previously defined.

In a related aspect, the immune cells, particularly if allogeneic, may be designed to reduce graft vs. host disease, such that the cells comprise inactivated (e.g. disrupted or deleted) TCRαβ receptor. In such cases, the nucleic acid encoding the antigen-binding domain of the HI-TCR (typically as previously defined) is conveniently inserted into the endogenous TRAC locus and/or TRBC locus of the immune cell. The insertion of the HI-TCR nucleic acid sequence, or another smaller mutation, can disrupt or abolish the endogenous expression of a TCR comprising a native TCR alpha chain and/or a native TCR beta chain. The insertion or mutation may reduce endogenous TCR expression by at least about 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 98%, or 99%. Because a single gene encodes the alpha chain (TRAC) rather than the two genes encoding the beta chain, the TRAC locus is a typical target for reducing TCRαβ receptor expression. Thus, the nucleic acid encoding the antigen-specific receptor (e.g. CAR or TCR) may be integrated into the TRAC locus at a location, preferably in the 5' region of the first exon (SEQ ID NO: 3), that significantly reduces expression of a functional TCR alpha chain. See, e.g., Jantz et al., WO 2017/062451; Sadelain et al., WO 2017/180989; Torikai et al,. Blood, 119(2): 5697-705 (2012); Eyquem et al., Nature. 2017 Mar 2;543(7643):113-117. Expression of the endogenous TCR alpha may be reduced by at least about 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 98%, or 99%. In such embodiments, expression of the nucleic

acid encoding the antigen-specific receptor is optionally under control of the endogenous TCR-alpha or endogenous TCR-beta promoter.

Optionally, the immune cell also comprises a modified CD3 with a single active ITAM domain, and optionally the CD3 may further comprise one or more or two or more costimulatory domains. In some embodiments, the CD3 comprises two costimulatory domains, optionally CD28 and 4-1BB. The modified CD3 with a single active ITAM domain can comprise, for example, a modified CD3zeta intracellular signaling domain in which ITAM2 and ITAM3 have been inactivated, or ITAM1 and ITAM2 have been inactivated. In some embodiments, a modified CD3 zeta polypeptide retains only ITAM1 and the remaining CD3ζ domain is deleted (residues 90-164). As another example, ITAM1 is substituted with the amino acid sequence of ITAM3, and the remaining CD3ζ domain is deleted (residues 90-164).

The modified immune cells disclosed herein may comprise combinations of two or more, or three or more, or four or more, of the foregoing aspects.

For example, the modified immune cell is an immune cell wherein (a) the antigen-specific receptor is a modified TCR comprising a heterologous (or recombinant) antigen-binding domain (typically as previously defined) and a native TCR constant domain or fragment thereof, and the antigen-specific receptor is capable of activating a CD3 zeta polypeptide, and/or the antigen-specific receptor is a CAR, and optionally (b) the SUV39H1 gene is inactivated, and optionally (c) the immune cell comprises a modified CD3 with a single active ITAM domain, e.g. in which ITAM2 and ITAM3 have been inactivated, and optionally (d) the TCR is under control of an endogenous TRAC and/or TRBC promoter, and optionally (e) expression of native TCR-alpha chain and/or native TCR-beta chain are disrupted or abolished. In further embodiments, the cell may comprise at least one chimeric costimulatory receptor (CCR). In some embodiments, the tumor antigen is selected from pHER95, CD19, MUC16, MUC1, CAIX, CEA, CD8, CD7, CD10, CD20, CD22, CD30, CD70, CLL1, CD33, CD34, CD38, CD41, CD44, CD49f, CD56, CD74, CD133, CD138, EGP-2, EGP-40, EpCAM, Erb-B2, Erb-B3, Erb-B4, FBP, Fetal acetylcholine receptor, folate receptor-a, GD2, GD3, HER-2, hTERT, IL-13R-a2, κ-light chain, KDR, LeY, L1 cell adhesion molecule, MAGE-A1, Mesothelin, MAGEA3, p53, MART1,GP100, Proteinase3 (PR1), Tyrosinase, Survivin, hTERT, EphA2, NKG2D ligands, NY-ESO-1, oncofetal antigen (h5T4), PSCA, PSMA, ROR1, TAG-72, VEGF-R2, WT-1, BCMA, CD123, CD44V6, NKCS1, EGF1R, EGFR-VIII, CD99, CD70, ADGRE2, CCR1, LILRB2, LILRB4, PRAME, and ERBB.]

In some embodiments, the recombinant HI-TCR is expressed by a transgene that is integrated at an endogenous gene locus of the immunoresponsive cell, for example, a CD3δ locus, a CD3ε locus, a CD247 locus, a B2M locus, a TRAC locus, a TRBC locus, a TRDC locus and/or a TRGC locus. In most embodiments, expression of the recombinant HI-TCR is driven from the endogenous TRAC or TRBC gene locus. In some embodiments, the transgene encoding a portion of the recombinant HI-TCR is integrated into the endogenous TRAC and/or TRBC locus in a manner that disrupts or abolishes the endogenous expression of a TCR comprising a native TCR α chain and/or a native TCR β chain. This disruption prevents or eliminates mispairing between the recombinant TCR and a native TCR α chain and/or a native TCR β chain in the immunoresponsive cell. The endogenous gene locus may also comprise a modified transcription terminator region, for example, a TK transcription terminator, a GCSF transcription terminator, a TCRA transcription terminator, an HBB transcription terminator, a bovine growth hormone transcription terminator, an SV40 transcription terminator, and a P2A element.

The present disclosure also relates to a method for providing an immune cell, and in particular a T cell population which targets a tumor neoantigenic peptide as herein disclosed, in particular an immune cell and notably a T cell population expressing a TCR or a CAR in particular an MHC-restricted antibody-based chimeric antigen receptor as previously defined.

The T cell population may comprise CD8+ T cells, CD4+ T cells or CD8+ and CD4+ T cells.

Immune cell populations produced in accordance with the present disclosure may be enriched with immune cells that are specific to, i.e. target, the tumor neoantigenic peptide of the present disclosure. That is, the immune cell population that is produced in accordance with the present disclosure will have an increased number of immune cells that target one or more tumor neoantigenic peptide. For example, the immune cell population of the disclosure will have an increased number of immune cells that target a tumor neoantigenic peptide compared with the immune cells in the sample isolated from the subject. That is to say, the composition of the immune cell population will differ from that of a "native" immune cell population (i.e. a population that has not undergone the identification and expansion steps discussed herein), in that the percentage or proportion of immune cells that target a tumor neoantigenic peptide will be increased.

Immune cell populations produced in accordance with the present disclosure may be enriched with immune cells that are specific to, i.e. target, tumor neoantigenic peptide. That is, the T cell population that is produced in accordance with the present disclosure will have an increased number of immune cells that target one or more tumor neoantigenic peptide of the present disclosure. For example, the immune cell population of the present disclosure will have an increased number of immune cells that target a tumor neoantigenic peptide compared with the immune cells in the sample isolated from the subject. That is to say, the composition of the immune cell population will differ from that of a "native" immune cell population (i.e. a population that has not undergone the identification and expansion steps discussed herein), in that the percentage or proportion of immune cells that target a tumor neoantigenic peptide will be increased.

The immune cell population according to the present disclosure may have at least about 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1 , 2, 3, 4, 5, 6, 7, 8, 9, 10, 1 1 , 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95 or 100% T cells that target a tumor neoantigenic peptide as herein disclosed. For example, the immune cell population may have about 0.2%-5%, 5%-10%, 10-20%, 20-30%, 30-40%, 40-50 %, 50-70% or 70-100% immune cells that target a tumor neoantigenic peptide of the present disclosure.

An expanded population of tumor neoantigenic peptide -reactive immune cells may have a higher activity than a population of immune cells not expanded, for example, using a tumor neoantigenic peptide. Reference to "activity" may represent the response of the immune cell population to restimulation with a tumor neoantigenic peptide, e.g. a peptide corresponding to the peptide used for expansion, or a mix of tumor neoantigenic peptide. Suitable methods for assaying the response are known in the art. For example, cytokine production may be measured (e.g. IL2 or IFNy production may be measured). The reference to a "higher activity" includes, for example, a 1-5, 5-10, 10-20, 20-50, 50-100, 100-500, 500-1000-fold increase in activity. In one aspect the activity may be more than 1000-fold higher.

In a preferred embodiment present disclosure provides a plurality or population, i.e. more than one, of immune cells wherein the plurality of immune cells comprises a immune cell, notably a T cell, which recognizes a clonal tumor neoantigenic peptide and a T cell which recognizes a different clonal tumor neoantigenic peptide. As such, the present disclosure provides a plurality of immune cells, notably T cells, which recognize different clonal tumor neoantigenic peptide.

Different immune cells, notably T cells, in the plurality or population may alternatively have different TCRs which recognize the same tumor neoantigenic peptide.

In a preferred embodiment the number of clonal tumor neoantigenic peptide recognized by the plurality of T cells is from 2 to 1000. For example, the number of clonal neo-antigens recognized may be 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950 or 1000, preferably 2 to 100. There may be a plurality of immune cells, notably T cells, with different TCRs but which recognize the same clonal neo-antigen.

The immune cell and in particular the T cell population may be all or primarily composed of CD8+ T cells, or all or primarily composed of a mixture of CD8+ T cells and CD4+ T cells or all or primarily composed of CD4+ T cells.

In particular embodiments, the T cell population is generated from T cells isolated from a subject with a tumor. For example, the T cell population may be generated from T cells in a sample isolated from a subject with a tumor. The sample may be a tumor sample, a peripheral blood sample or a sample from other tissues of the subject.

In a particular embodiment the immune cell population is generated from a sample from the tumor in which the tumor neoantigenic peptide is identified. In other words, the immune cell and notably the T cell population is isolated from a sample derived from the tumor of a patient to be treated. Such T cells are referred to herein as 'tumor infiltrating lymphocytes' (TILs).

T cells may be isolated using methods which are well known in the art. For example, T cells may be purified from single cell suspensions generated from samples on the basis of expression of CD3, CD4 or CD8. T cells may be enriched from samples by passage through a Ficoll-paque gradient.

Cancer therapeutic methods

In any of the embodiments, the Cancer Therapeutic Products described herein may be used in methods for inhibiting proliferation of cancer cells. The Cancer Therapeutic Products described herein may also be used in the treatment of cancer, in patients suffering from cancer, or for the prophylactic treatment of cancer, in patients at risk of cancer.

Cancers that can be treated using the therapy described herein include any solid or non-solid tumors as previously defined. Of particular interest according to the present disclosure are breast cancer, melanoma and lung cancer.

Cancers includes also the cancers which are refractory to treatment with other chemotherapeutics. The term “refractory, as used herein refers to a cancer (and/or metastases thereof), which shows no or only weak antiproliferative response (e.g., no or only weak inhibition of tumor growth) after treatment with another chemotherapeutic agent. These are cancers that cannot be treated satisfactorily with other chemotherapeutics. Refractory cancers encompass not only (i) cancers where one or more chemotherapeutics have already failed during treatment of a patient, but also (ii) cancers that can be shown to be refractory by other means, e.g., biopsy and culture in the presence of chemotherapeutics.

The therapy described herein is also applicable to the treatment of patients in need thereof who have not been previously treated.

A subject as per the present disclosure is typically a patient in need thereof that has been diagnosed with cancer or is at risk of developing cancer. The subject is typically a human, dog, cat, horse or any animal in which a tumor specific immune response is desired.

The present disclosure also pertains to a neoantigenic peptide, a population of APCs, a vaccine or immunogenic composition, a polynucleotide encoding a neoantigenic peptide or a vector as previously defined for use in cancer vaccination therapy of a subject or for treating cancer in a subject, wherein the peptide(s) binds at least one MHC molecule of said subject.

The present disclosure also provides a method for treating cancer in a subject comprising administering a vaccine or immunogenic composition as described herein to said subject in a therapeutically effective amount to treat the subject. The method may additionally comprise the step of identifying a subject who has cancer.

The present disclosure also relates to a method of treating cancer comprising producing an antibody or antigen-binding fragment thereof by the method as herein described and administering to a subject with cancer said antibody or antigen-binding fragment thereof, or with an immune cell expressing said antibody or antigen-binding fragment thereof, in a therapeutically effective amount to treat said subject.

The present disclosure also relates to an antibody (including variants and derivatives thereof) in particular a TCR-like antibody , a T cell receptor (TCR) (including variants and derivatives thereof), or a CAR (including variants and derivatives thereof), in particular an MHC-restricted

antibody-based chimeric antigen receptor, which are directed against a tumor neoantigenic peptide as herein described, for use in cancer therapy of a subject, wherein the tumor neoantigenic peptide binds at least one MHC molecule of said subject.

The present disclosure also relates to an antibody (including variants and derivatives thereof) in particular a TCR-like antibody, a T cell receptor (TCR) (including variants and derivatives thereof), or a CAR (including variants and derivatives thereof), in particular an MHC-restricted antibody-based chimeric antigen receptor, which are directed against a tumor neoantigenic peptide as herein described, optionally in association with an MHC or HLA molecule, or an immune cell which targets a neoantigenic peptide, as previously defined, for use in adoptive cell or CAR–T cell therapy in a subject, wherein the tumor neoantigenic peptide binds at least one MHC molecule of said subject. Typically, the skilled person is able to select an appropriate antigen receptor which binds and recognizes a tumor neoantigenic peptide as previously defined with which to redirect an immune cell to be used for use in cancer cell therapy. In a particular embodiment, the immune cell for use in the method of the present disclosure is a redirected T-cell, e.g. a redirected CD8+ and/ or CD4+ T-cell.

In some embodiments, cancer treatment, vaccination therapy and/or adoptive cell cancer therapy as above described are administered in combination with additional cancer therapies. In particular, the T cell compositions according to the present disclosure may be administered in combination with checkpoint blockade therapy, co-stimulatory antibodies, chemotherapy and/or radiotherapy, targeted therapy or monoclonal antibody therapy.

Checkpoint inhibitors include, but are not limited to, PD-1 inhibitors, PD-L1 inhibitors, Lag-3 inhibitors, Tim-3 inhibitors, TIGIT inhibitors, BTLA inhibitors, V-domain Ig suppressor of T-cell activation (VISTA) inhibitors and CTLA-4 inhibitors, IDO inhibitors for example. Co-stimulatory antibodies deliver positive signals through immune-regulatory receptors including but not limited to ICOS, CD137, CD27 OX-40 and GITR. In a preferred embodiment the checkpoint inhibitor is a CTLA-4 inhibitor.

A chemotherapeutic entity as used herein refers to an entity which is destructive to a cell, that is the entity reduces the viability of the cell. The chemotherapeutic entity may be a cytotoxic drug. A chemotherapeutic agent contemplated includes, without limitation, alkylating agents, anthracyclines, epothilones, nitrosoureas, ethylenimines/methylmelamine, alkyl sulfonates, alkylating agents, antimetabolites, pyrimidine analogs, epipodophylotoxins, enzymes such as L-asparaginase; biological response modifiers such as IFNa, IL-2, G-CSF and GM-CSF; platinum coordination complexes such as cisplatin, oxaliplatin and carboplatin,

anthracenediones, substituted urea such as hydroxyurea, methylhydrazine derivatives including N-methylhydrazine (MIH) and procarbazine, adrenocortical suppressants such as mitotane (o,ρ'-DDD) and aminoglutethimide; hormones and antagonists including adrenocorticosteroid antagonists such as prednisone and equivalents, dexamethasone and aminoglutethimide; progestin such as hydroxyprogesterone caproate, medroxyprogesterone acetate and megestrol acetate; estrogen such as diethylstilbestrol and ethinyl estradiol equivalents; antiestrogen such as tamoxifen; androgens including testosterone propionate and fluoxymesterone/equivalents; antiandrogens such as flutamide, gonadotropin-releasing hormone analogs and leuprolide; and non-steroidal antiandrogens such as flutamide.

'In combination' may refer to administration of the additional therapy before, at the same time as or after administration of the T cell composition according to the present disclosure.

In addition or as an alternative to the combination with checkpoint blockade, the T cell composition of the present disclosure may also be genetically modified to render them resistant to immune-checkpoints using gene-editing technologies including but not limited to TALEN and Crispr/Cas. Such methods are known in the art, see e.g. US20140120622. Gene editing technologies may be used to prevent the expression of immune checkpoints expressed by T cells including but not limited to PD-1, Lag-3, Tim-3, TIGIT, BTLA CTLA-4 and combinations of these. The T cell as discussed here may be modified by any of these methods.

The T cell according to the present disclosure may also be genetically modified to express molecules increasing homing into tumours and or to deliver inflammatory mediators into the tumour microenvironment, including but not limited to cytokines, soluble immune-regulatory receptors and/or ligands.

In a particular embodiment, said tumor neoantigenic peptide is used in cancer vaccination therapy in combination with another immunotherapy such as immune checkpoint therapy, more particularly in combination with antibodies anti-PD1, anti-PDL1, anti-CTLA-4, anti-TIM-3, anti-LAG3, anti-GITR.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1: Tumor neoantigenic peptides (or TE-derived epitopes) having a predicted affinity for MHC alleles of less than 500 nM, identified by the in silico method according to the disclosure in the tumor mouse lines B16F10-OVA cells **(A)** and in MCA101-OVA cells **(B)** and identified both in the two lines **(C).**

Figure 2: (A) RT-PCR gels of amplification of the fusion transcript sequence encoding the neoantigenic peptide N25, in cDNA of tumor mouse lines B16F10-OVA and MCA101-OVA. (B) RT-PCR gels of amplification of the fusion transcript sequence encoding the neoantigenic peptide N26, in cDNA of tumor mouse lines B16F10, B16F10-OVA and MCA101-OVA.

Figure 3: (A) Detection of peptide-reactive IFNg-secreting cells by ELISPOT in inguinal lymph nodes from immunized animals with DMSO (negative control), OVA (ovalbumine) (positive control), peptide N25 or peptide N26. **(B)** IFNg spots for 10^5 cells for immunized animals with DMSO (negative control), SIINFEKL (positive control), N25 or N26 peptide.

Figure 4: (A) Evolution of the tumor volume (mm3) in mice beforehand immunized with DMSO, OVA or N25L peptide, following the days after the injection of tumor cells B16F10-OVA into said immunized mice. **(B)** Evolution of the tumor volume (mm3) in mice beforehand immunized with DMSO, OVA or N26L peptide, following the days after the injection of tumor cells B16F10-OVA into said immunized mice.

Figure 5: TCGA data sets for 784 luminal, 100 HER2+, 197 TNBC, 112 normal breast tissue, 516 primary lung adenocarcinomas (primary tumor) and 59 normal lung tissue (solid tissue normal), were analyzed by the method for identifying fusion transcript sequence encoded tumor neoantigenic peptide described. **(A)** Number of fusion transcript sequence (TE-exon fusions) in different subtypes of breast cancer (HER2+, TNBC, normal breast tissue and luminal). **(B)** Number of fusion transcript sequence (TE-exon fusions) in different subtypes of lung cancer (primary lung adenocarcinomas, normal lung tissue).

Figure 6: 8-9 amino acid-long peptides predicted from TE-gene fusion products from each sample were tested *in silico* for binding to the predicted HLA alleles expressed in the same sample. Shown are peptides with predicted affinity below 500nM for at least one HLA-A, -B, or -C allele from each sample. **(A)** Samples of different subtypes of breast cancer (HER2+, TNBC, normal breast tissue and luminal). **(B)** Samples of different subtypes of lung cancer (non-small cell lung cancer, normal lung tissue).

Figure 7: Distribution of tumor-specific peptides per patient across breast tumor subtypes. **(A)** Numbers of tumor-specific HLA-binding peptides per subtypes of breast cancer patient are shown. **(B)** Numbers of predicted tumor neoantigenic peptides shared across luminal subtypes samples (n=784) (abscissa). **(C)** Numbers of predicted tumor neoantigenic peptides shared across HER2+ subtypes samples (n=100) (abscissa). **(D)** Numbers of predicted tumor neoantigenic peptides shared across TNBC subtypes samples (n=197) (abscissa).

Figure 8: (A) Numbers of tumor-specific HLA-binding peptides per primary lung adenocarcinomas (LUAD) sample (lung cancer). **(B)** Distribution of tumor-specific peptides per patient across lung adenocarcinomas. Numbers of predicted tumor neoantigenic peptides shared across primary tumor subtypes samples (n=516) (abscissa).

Figure 9: Reconstruction of the fusion nucleotide sequence when the donor is the exon (A) and when the donor is the TE (B).

Figure 10: **Binding of chimeric transcripts-derived peptides to HLA-A2.** Binding to HLA-A2 allele of predicted peptides from the most frequent chimeric fusions were validated by flow cytometry using tetramer formation assay. The results are shown as percentage of binding relative to positive control. Dotted line indicates the threshold considered to confirm the binding to this allele.

Figure 11. Immunogenicity of fusion transcripts-derived peptides and reactive CD8+ T cells generation. (A) Frequencies of pJET (fusion transcript derived peptides) specific tetramer-positive CD8+ T cells expanded from 6 different healthy donors in in vitro immunogenicity assays using 6 different healthy donors. **(B)** Cytokine secretion of CTL-clones after stimulation with different concentration of specific peptide. On the right is listed the CTL-clones generated and their peptide specificity. **(C)** Killing assay for CTL-clone 9 in co-culture with target cells loaded with 2 different peptide concentration in combination with anti-MHC-I antibodies or Isotype control (Left panel), or with un-loaded targets cells at different ratios (Right panel). **(D)** Killing assays for CTL-clone 9, 80 and 64 when co-cultured with peptide unloaded target cells in combination with anti-MHCI-I antibodies or isotype control. Effector:Target ratio is indicated in each individual plot. H1650 were used as target cells for each plot of this figure.

Figure 12. Expression of TCR recognizing fusion-derived peptides. Transduced Jurkat-reporter cells with TCR sequence derived from CTL-clone 9 co-cultured with target cells alone, or loaded with 2 different peptide concentration. Plots show percentage of positive Jurkat cells for the 3 reporter genes evaluated by flow cytometry, using H1650 cell line as target cells (upper plots) or H1395 cell line as target cells (lower plots). Negative control: non-transduced Jurkat cells. No peptide: transduced Jurkat cells co-cultured with peptide unloaded target cells. Positive control: Transduced Jurkat cells stimulated with PMA/ionomycin.

Figure 13. Tumor infiltrating lymphocytes recognizing fusion transcripts-derived peptides. Percentage of tetramer positive CD8 T cells for the indicated fusion transcript-derived

peptides found in tumor infiltrating lymphocytes (TILs) expanded in the presence of fusion transcripts-derived peptide's mix + IL2 **(A)** or only with IL-2 **(B).**

Figure 14. Phenotype of CD8+ T cells recognizing fusion transcripts-derived peptides in LUAD patient's derived samples. Percentage of tetramer positive CD8 T cells recognizing fusion transcripts-derived peptides present in tumor, juxta tumor, lymph nodes and blood samples derived from LUAD *Patient 2* **(A,** upper panel**)** and *Patient 3* **(B,** upper panel**)**. In lower panel of figure **(A)** and **(B)** is shown the percentage of Naïve (CCR7+CD45+), Central Memory (CM, CCR7+CD45-), Effector Memory (EM, CCR7-CD45-) and Terminal Effector (TE, CCR7-CD45+) cells of tetramer positive parental cell population.

Figure 15. Immunopeptidomics analysis of lung tumor samples. Fusion transcript-derived peptide sequences were searched in public MHC-I immunopeptidomes datasets. Each column represents a different sample. Each row represents a different peptide sequence (specify on the right). Colored squares indicate in which sample is found each fusion transcript-derived peptide. Publications describing each sample data-sets are annotated on the top.

Figure 16. Immunopeptidomics. A. Identification of JET derived peptides across 17 primary lung tumors and the human adenocarcinoma cell line A549, treated or not, with interferon gamma. Peptides are shown in rows and samples in columns. **B.** Boxplot showing the comparison of MS/MS scores obtained from the annotated peptidome (canonical peptides) and from the pJET peptidome. **C.** Comparison of the frequencies of peptides identified from the annotated peptidome (canonical peptides) and the pJET peptidome at different amino acid peptide lengths.

Figure 17. Binding of ER-derived peptides to HLA-A2 molecule. Peptides-HLA-A*02:01 complex formation for synthesized chimeric transcripts-derived peptides. Percentage of complex formation relative to positive control (CMV pp65 495-503) is represented. The mutated (MelA Mut) and non-mutated (MelA) sequences of Melan-A were used as strong and weak binder peptides controls, respectively. 'Negative' indicates staining background. Dashed line indicates the minimum complex formation value needed to consider a peptide as good binder to HLA-A*0201 (50% of positive control).

Figure 18. A. Activation of Jurkat cells transduced with CTL-clones-derived TCRs recognizing chimeric transcripts-derived peptides after co-culture with target cells loaded with relevant/specific or an irrelevant/unrelated peptide (Melan-A). **B.** Activation of Jurkat cells transduced with CTL-clones-derived TCRs recognizing chimeric transcripts-derived peptides after co-culture with target cells loaded with relevant peptide or unrelated peptide (Melan-A),

in presence or absence of anti-MHC-I blocking antibody (W6/32) or isotype control. PMA/Ionomycin was used as a positive control of activation and target cells without loading peptides were used as negative control of activation. H1395 LUAD cell line were used as target cells. CTL-clone from which each TCR is derived is indicated on the top and peptide specificity between brackets, showing aminoacidic sequence of chimeric transcript-derived peptide recognized by each of these TCR. This peptide sequence is the specific/relevant peptide used in each case to load target cells. Melan-A and MelA Mut both refer to the unrelated peptide (ELAGIGILTV).

Figure 19: A. Heatmap summarizing the frequency of CD8+ T cells recognizing chimeric transcript-derived peptides found ex-vivo without T cell expansions. Only peptide specificities found in at least one tissue are shown (total evaluated patients = 4). **B.** CCR7 and CD45RA percentages in tetramer positive cells summarized in A. after ex-vivo staining for patient 2 and patient 5. (no data available for Patient 1). **C.** Heatmap summarizing specific tetramer positive cells recognizing chimeric transcripts-derived peptides after in-vitro expansions at day 20 on CD8+ T cells from tumor, juxta tumor or tumor-draining LN samples in the 5 patients analyzed. Only peptide specificities found in at least one tissue are shown. Black squares highlight peptide specificities found also ex-vivo in the same tissue and patient.

EXAMPLES

1. Example 1: Identification of fusion transcript sequence encoded tumor neoantigenic peptide

1.1 Proof of concept in mice

To detect individual and shared tumor neoantigenic peptide issued from fusion transcripts sequences, a bioinformatics pipeline has been developed. This pipeline is designed to identify tumor-specific mRNA sequences composed in part of a TE sequence and in part of an exonic sequence. This pipeline implies determining the MHC alleles. For each human sample, the Class I and Class II MHC alleles can be determined using the seq2hla (v2.2) tool (bitbucket.org/sebastian_boegel/seq2hla). For mouse models, murine H-2 alleles are generally known. The bioinformatics method comprises the mapping of transcripts from RNA-sequencing against the reference genome. For the proof of concept analyses described here, mm10 was used for mouse and hg19 for human. Different versions of assembled genomes can be used for example hg19, hg38, mm9 or mm10. This mapping is carried out with STAR (v2.5.3a) (github.com/alexdobin/STAR), with the following setting:

- For allowing multi-hits mapping the parameter outFilterMultimapNmax which sets the maximum number of loci, the read is allowed to map to, is set at 1000, and
- For detecting the abnormal junction (fusion), the parameter chimSegmentMin which sets the minimum length of fusion segment, is set at 10, the parameter chimJunctionOverhangMin which sets the minimum overhang for a fusion junction is set at 10.

Normal (from SJ.out.tab output file) and abnormal (from Chimeric.out.junction output file) junctions are annotated using Ensembl and repeatmasker databases. Normal junctions define all the junctions that match the parameters used for the mapping (maximum intron length <= 1 000 000 bp (set by --alignIntronMax), same chromosome and well oriented) and abnormal ones are junctions that do not match with at least one of the previous criteria. This mean that a TE/Exon junction could be in both junction type but a Exon/Exon junction must be in normal file (SJ.out.tab). Transcript sequences comprising a junction between a TE sequence and an exonic sequence are extracted in silico. From the area of the transcript sequence which overlaps the junction, or downstream of the junction when out-of-frame (reading frame non-canonical), the software predicts, in all reading frames, all possible peptides of 8 or 9 mers. Then, the binding affinity of all these possible peptides for the MHC alleles previously defined for the matched sample is determined netMHCpan (v3.4) (cbs.dtu.dk/services/NetMHCpan/). There

are currently more than a dozen various prediction algorithms for predicting the binding affinity of peptides, with NetMHC being the most widely used and validated algorithm for neoantigen prediction pipelines.

Peptides with either less than 500 nM or with a percentile rank less than 2% are considered as potential neo-antigens. Each splice site (donor or acceptor) is uniquely annotated as TE or as Exon. The part in the 5' end is qualified "donor", and the part in the 3' is qualified "acceptor".

Predicted HLA-binding peptides shared between cancer and normal tissues are excluded from further analyses.

This method has been applied to RNAseq data obtained from 7 well-characterized murine tumor cell lines (B16F10, B16F10-OVA, MCA101, MCA101-OVA, MC38, MC38-GFP, MC38-GFP-OVA). The cell lines with the extension-OVA corresponding to the same model but further expressing ovalbumin. In this study, this line is considered as the similar model, that is to say for example that an assay carried out on the cell line from B16F10-OVA is considered as a repeat of an assay carried out on the cell line from B16F10.

A list of candidate peptides has been obtained with these parameters (figures 1A, 1B and 1C), some were specific to particular cell lines (figures 1A and 1B), and some were shared between the two tumor cell lines (figure 1C).

For validation, we selected a range of peptides, expressed either in B16F10-OVA or MCA101-OVA, with predicted affinities less than 500nM. Peptides were selected trying to optimize the ratio between number of reads and predicted affinity for MHC-I.

Four predicted tumor neoantigenic peptides were selected and characterized by identifying the TE and the exonic sequence (table 2).

Table 2: Characterization of 4 predicted tumor neoantigenic peptides selected by the method

Peptide	Cell line	Donor	Acceptor	Predicted affinity
N25	B16/B16-OVA	ERV-MaLR (subfamily MTA)	Chmp3, exon2	H2-Db, 51.8937
N26	MCA/MCA-OVA MC38-GFP/MC38-OVAGFP	SINE-Alu(B1F)	Angel2, exon2	H2-Kb, 392.0384
N90	MCA/MCA-OVA	Predicted gene 45873	ERVL-MaLR (subfamily ORR1A2-int)	H2-Kb, 403.8959 and 50.5416
N94	MCA/MCA-OVA MC38-GFP/MC38-OVAGFP	Rsrc1	ERV1 (subfamily RLTR4_MM-int)	H2-Kb, 431.0564

1.2 Validation by RT-PCR of the fusion transcript sequence

First, a validation by regular RT-PCR has been performed, using primer pairs with one primer in the TE sequence, and the other one in the exonic sequence.

For the RNA extraction and reverse transcription, 3-5.10^6 cells were lyzed in 500µL Trizol, and 100µL phenol-chloroform added to the lyzates prior centrifugation. Aqueous phase was collected, mixed in a 1:1 ratio with 100% EtOH and transferred to RNAeasy minikit columns. RNA was then collected following manufacturer's instructions (including on column DNAse treatment). After RNA elution, DNA contaminants were further removed by treatment with Turbo DNAse (Fisher scientific), according to manufacturer's instructions). RNA concentration was measured using a nanodrop, and 1µg of RNA used for reverse transcription. First strand synthesis was performed with Superscript III (Life technologies) using oligodT(15) as primers, according to manufacturer's instructions. Primers were ordered from Eurogentec. PCR reactions were performed using Taq polymerase. After identification of optimal conditions for each reaction, PCR products were extracted from agarose gels, and sequencing was performed using GATC lightrun. Sequence alignment was checked with APE software.

Using this approach, bands matching predicted size for N25, N26, N90 and N94 were detected, respectively in the cell lines identified in Table 2 (See Figure 2A for N25). Interestingly, although N26 was detected only in MCA and MC38 cells in silico by RNAseq as previously described in the pipeline, using RT-PCR we detected a band corresponding to N26 in B16F10-OVA cells (Figure 2B), indicating that this sequence is shared between three independent tumor cell lines (MCA, MC38 and B16F10). By re-analyzing the RNAseq data, we found that the N26 junction was present in B16F10-OVA cells, but below the detection threshold of the algorithm. Moreover, sequencing of the RT-PCR product showed exact match with sequences predicted by the algorithm.

1.3 In vivo immunization of mice

To validate these candidates in vivo, short (9-mers) peptides corresponding to neoantigenic peptide which binds to the MHC class I sequences, were synthetized. For the in vivo assays, long (27-mers) peptides, which include the flanking regions to the predicted MHC-binding short peptides of 9 mers, were synthetized, because this length is better suited for in vivo immunization. B16F10 OVA and MCA101-OVA were maintained in RPMI, Glutamax, 10%FCS, 1% penicillin-streptomycin and passaged using TrypLE. Cells were kept in culture for a maximum of one month, and new vials were thawed for each *in vivo* experiment. C57BL6J

recipient mice were immunized with 100µg long peptide (N25L or N26L), SIINFEKL peptide (short OVA peptide), OVA (Sigma) or DMSO, each with 50µg polyI:C, by subcutaneous injection into the flank. Immunizations were repeated 7 days after primary immunization. 3 days later (10 days after primary immunization), animals were sacrificed and numbers of peptide-specific IFNg-secreting CD8 T cells in inguinal lymph nodes were detected by ELISPOT (Figure 3A). Short peptides (N25, N26, or SIINFEKL) or DMSO at $10\mu g.mL^{-1}$ were used to restimulate T cells. Alternatively, 7 days after secondary immunization, animals were injected subcutaneously with $2.5.10^5$ B16F10-OVA or 5.10^5 MCA-OVA cells in PBS. We found that N25, and to a lesser extent N26 were able to induce immune responses (Figure 3B).

1.4 In vivo treatment of mice with tumor

To test whether these peptides were protective against tumor cells, we immunized C57BL6 mice with 100mg peptides N25L or N26L, or OVA (control peptide) and 50µg polyI:C in PBS at d0 and d7, and at d14, we injected $2.5.10^5$ B16F10-OVA cells to mice immunized with OVA, N25L and N26L. B16F10 OVA and MCA101-OVA were maintained in RPMI, Glutamax, 10%FCS, 1% penicillin-streptomycin and passaged using TrypLE. Cells were kept in culture for a maximum of one month, and new vials were thawed for each *in vivo* experiment. C57BL6J recipient mice were immunized with 100µg long peptide (N25L or N26L), OVA (Sigma) or DMSO, each with 50µg polyI:C, by subcutaneous injection into the flank. Immunizations were repeated 7 days after primary immunization.

Short peptides (N25, N26, or SIINFEKL) or DMSO at $10\mu g.mL^{-1}$ were used to restimulate T cells. Alternatively, 7 days after secondary immunization, animals were injected subcutaneously with $2.5.10^5$ B16F10-OVA or 5.10^5 MCA-OVA cells in PBS. Tumor size was measured twice weekly using a manual caliper, and animal health status monitored throughout the experiment timeframe (Figures 4A and 4B). Animals were sacrificed when tumor volume reached $1mm^3$. Strikingly, we observed that N25L significantly delayed the formation of B16OVA tumors, in a more efficient way than OVA. Moreover, we obtained a similar result upon N26L immunization.

2 Example 2: Identification of human lung adenocarcinoma (LUAD) neoantigenic peptides derived from fusion transcripts composed of a TE element and an exonic sequence

2.1 Material and methods

RNA extraction. Tumour and juxtatumour samples were cut into pieces of #1 mm^3 and resuspended in 700µl RTL lysis buffer (Quiagen) supplemented with 1% β-mercaptoethanol and homogenized using Perecellys 24 Tissue Homogenizer (Bertin Technoogies). Total RNA isolation was performed using RNeasy Micro Kit (Qiagen) following manufacturer instructions. Total RNA from tumour cell lines were extracted from 5.10^6 tumor cell lines using the same procedure.

PCR and Sequencing. Primers were designed using APE software. For each sample, 1µg of RNA was retrotranscribed into cDNA using SuperScript III Reverse transcriptase (ThermoFisher), as indicated by the provider. PCR reaction was performed using GoTaq G2 Hot Start Polymarase (Promega). All primers were used in a concentration of 0.5µM. Reactions were carried out in VeritiTM 96-Well Thermal Cycler (ThermoFisher). PCR products were loaded in LabChip GX (Caliper LifeSciences) and analysed by LabChip GX Software (v4.2).

PCR reactions were repeated for those samples with an amplification product on the expected size. Then, the PCR products were run in a 2% agarose gel SYBR Free Dye (1/10000) (Invitrogen). The specific bands were cut and the DNA products were purified using QIAquick Gel Extraction Kit (Qiagen) following manufacturer instructions. Finally, these products were sequenced by EuroFins Scientific. The resulting sequences were compared to the expected one using Serial Cloner software.

Tetramer formation. HLA-A2 monomers were purchased from ImmunAware® and the formation of tetramers was evaluated with synthetic ER-derived peptides following manufacturer instructions. Briefly, synthetic HLA-A2 monomers were incubated with synthetic peptides during 48h at 18°C. Tetramerization was done by further incubation of monomers with biotinylated-sepharose. Finally, tetramer formation was measured by flow cytometry using a PE-conjugated anti-β2-microglobulin antibody. As a positive control we used a peptide derived from CMV provided by the manufacturer.

In experiments addressed to evaluate the presence of specific CD8+ T cells, the tetramerization step was performed by incubating the monomers with different combinations of fluorescent streptavidin (PE, APC, PE-Cy5, PE-CF594, BV421, BV711 and FITC).

Priming of naïve CTLs. PBMCs were obtained by Ficoll gradient separation from HLA-A2+ healthy blood donors. CD14+, CD4+ and CD8+ cells were purified by positive selection using magnetic beads (Miltenyi Biotec). While CD4+ and CD8+ T cells were cryopreserved until the experiment day, CD14+ fraction was cultured in the presence of IL-4 (50ng/mL) and GM-CSF (10ng/mL) at 106 cells/mL during 5 days to obtain moDCs. After this period of time, the moDCs were maturated with LPS and incubated with synthetic ER-derived peptides at a final concentration of 1 µg/mL for 2 hours. Finally, peptide-loaded moDCs were co-cultured with autologous CD4+ and CD8+ T cells in culture medium supplemented with with IL-2 (10U/ml) and IL-7 (100ng/ml). The ER-derived peptide stimulation of specific CD8+ CTL populations was assessed by MHC-I tetramer staining by flow cytometry using a combination of two-color tetramer for each peptide.

Tetramer Staining. Cells were resuspended in PBS, stained with Live/Dead Aqua-405nm (ThermoFisher) during 20 minutes at 4°C and washed once. After that, cells were resuspended in PBS-1%BSA containing the mix of SA-coupled tetramers and incubated in the dark at room temperature during 20 minutes. Without further washing, surface antibodies were added in PBS-1%BSA and cells were incubated 20 minutes in the dark at 4°C. Surface antibodies were a combination of anti-CD3-BV650 + anti-CD8-PECy7 in combination with anti-CCR7-AF700 + anti-CD45RA-BUV395 when required. Finally, cells were washed twice and resuspended in FACS buffer for flow cytometry analysis.

CTL-clones generation. Tetramer positive cells were single-cell FACS sorted (ARIA-sorter, BD) in U bottom 96-well plates. Sorted cells were collected in 100µl of RPMI 10% human serum AB (Sigma-Aldrich) containing 150.000 feeders' cells. Finally, 100µl of AIM-medium containing IL-2 (3000 IU/ml) and anti-CD3 (100 µg/ml, OKT3 clone from Miltenyi) were added and cells were cultured during 15-20 days maximum. When evident cell growth was observed in wells, we perform a second round of expansions with new feeders' cells for an additional period of 15 days maximum. Cells were feed and split as necessary during this period with the same culture media (AIM-RPMI 50/50 + 5% Human Serum) but only containing IL-2 at 500 IU/ml. Finally, expanded clones were checked for their specificity by FACs-tetramer staining and only clones with >85% of tetramer positive clones were used for further analysis.

Killing assays. To perform killing assays, xCELLigence RTCA S16 Real Time Cell Analyzer was used. H1650 cell-line were plated at $0{,}5x10^6$ cells/ml in pre-coated 16 well plates. One day after, cells were incubated or not during 1 h with different concentration of the correspondent

synthetic peptides. After that, cells were washed twice with culture medium and incubated or not for additional 30 minutes with anti-MHC-I antibodies (clone W6/32, 50 μg/well) or isotype control at the same concentration. Without additional wash, CTL-clones were added at the correspondent ratio. The complete assay was done in free-serum culture medium in a final volume of 200 at 37°C connected to the xCELLigence system. Impedance variation (cell-index) was measured in real-time during 40 h. Each condition was performed by duplicates.

Cytokine secretion and Jurkat cells activation. 50.000 H1650 cells were plated in 96-well plate in culture medium supplemented with 5% of fetal bovine serum. The day after, cells were culture during 1-2 h with synthetic peptides at different final concentrations. After that, cells were washed twice, CTL-clones were added at 1:1 ratio and co-cultured during 18 h with peptide-loaded target cells. Culture supernatants were collected and cytokine concentration analyzed by cytokine beads arrays (CBA, BD Biosciences) following manufacturer's instructions.

The same experiment was performed using transduced Jurkat cells instead of CTL-clones and two different types of target cells: H1650 and H1395 cell lines. In this assay, after co-cultured with peptide-loaded target cells, Jurkat cells were assesed by flow cytometry analyzing the expression of reporter markers. PMA/Ionomycin was used as positive control to activate Jurkat cells.

Tissues and Blood samples. Lung tumor, juxta tumor and lymoh nodes samples were cut into small pieces and digested using a mix of collagenase-I (2 mg/ml), hyaluronidase (2 mg/ml) and DNasa (25 μg/ml) in a final volume of 2 ml culture medium (CO_2 independent medium + 5) during 40 min at 37°C. After digestion single cell suspensions were collected through a cell Strainer and washed. Tumor and Juxta tumor suspensions were enriched on lymphocyte fractions by a ficoll gradient. After that cells were staining for tetramer analysis by FACs as described before.

Blood samples were seeded on a ficoll gradient and PBMCs were isolated. After that, PBMCs were enriched for CD8+ T cells using EasyStep Human CD8+ T cell Enrichment Kit (STEMCELL Technologies). Finally, enriched cells were stained for tetramer analysis as described before.

Tumor infiltrating lymphocytes (TILs) cultures. Tumor tissue was cut into small pieces (1-3 mm^3 size, 6-12 pieces maximum). Each tumor fragment was transferred into individual wells from 24-well plates and cultured in a final volume of 2 ml RPMI 10% Human Serum + IL-2

6000 IU/ml. Cells were feed/split as necessary during 15-20 days and cryopreserve or analyzed for tetramer staining.

TCR cloning. Total RNA was extracted from CTL-clones and retrotranscribed into cDNA using SuperScript III (ThermoFisher). TCRα and β were amplified by PCR as described in Li *et al* 2019. DNA products were run in 2% agarose gels and sequenced after gel band extraction (Qiagen). TCR V regions (α and β) were concatenated with murine TCR constant chain and cloned into a PEW-pEF1A-inactEGFP vector and amplified in transformed bacteria.

Jurkat transduction. Lentivirus particles were produced by HEK-293FT cell line transfected with TCR-expression plasmids together with envelope (pVSVG) and packaging (psPAX2) plasmids. After 64 h, supernatant was collected and lentivirus particles were concentrated using 100kDa centrifugal filter (Sigma-Aldrich). Lentivirus suspension was transferred by spinoculation into TCR-negative Jurkat cells expressing reporter genes (NFAT-GPF, NF-KB-CFP and AP-1-mCherry). After 5 days, transduction efficiency was evaluated by FACS using anti-murine TCR-β antibody (Clone H57-597). This Jurkat cells were described in Rosskopf S. *et al*. 2018.

Mass spectrometry data analysis. Public immunopeptidomics raw data derived from MHC-eluted peptides were analysed using ProteomeDiscoverer 1.4 (ThermoFisher) with the following parameters: no-enzyme, peptide length 8-15 aa, precursor mass tolerance 20ppm and fragment mass tolerance 0.02 Da. Methionine was enabled as variable modification and a false discovery rate (FDR) of 1% was applied. MS/MS spectra were searched against the human proteome from Uniprot/SwissProt (updated 06.03.2020) concatenated with the list of all fusion transcripts-derived proteins from lung TCGA projects. Finally, peptides matching with Uniprot database or with translated fusion transcripts present in lung normal samples were discarded.

2.2 Results: Identification of fusion transcript sequences encoding tumor neoantigenic peptide in human subject

2.2.1 Characterization of neoantigens

First the TE-Exon fusion transcript landscape was characterized in normal samples from TCGA public database. A total of 8876 unique fusions were identified in 679 normal samples from 19 different tissues (bile duct, bladder, brain, breast, cervical, colon, head and neck, kidneys, liver, pancreas, PCPG, prostate, rectum, sarcoma, skin, thymus, thyroid, uterine). Specific fusions to

each tissue type were found with a very small portion of pan-tissue fusion transcripts. These results suggest that a dedicated tissue specific regulatory mechanism is associated with these fusion transcripts.

Then the number of identified fusions in 514 LUAD samples from TCGA has been compared to their 59 normal associated pulmonary samples present in TCGA. On average, 235 fusions were identified in NSCLC samples, compared with 200 in healthy lung samples (Wilcoxon pvalue = $9 \times 10.^{-10}$). 8269 total unique fusions were identified in NSCLC tumors.

A first category of fusions called TSF (tumor specific fusion) was obtained as those found in at least 1% of tumor samples and in none of the normal samples. 210 fusions were thus defined as TSF.

Some high-frequency fusion transcripts in tumors and low frequency in normal cells may also be good candidates for neo-antigens. Thus, a second category called TAF (tumor associated fusion) was notably defined as fusions present in less than 4 % of normal tissues, notably less than 2 %, and more than 10% of the tumors and that is over expressed in tumors compared to normal tissue samples.

Fusion sequence:

- In order to reconstruct the fusion nucleotide sequence, the sequence of the donor on chromosome "Donor_Chromosome_X" from "Donor_start_X" to "Donor_Breakpoint_X" on strand “Donor_strand_X " and the acceptor sequence on the chromosome "Acceptor_Chromosome_X" starting from "Acceptor_Breakpoint_X" to "Acceptor_end_X" on the strand "Acceptor_strand_X" have been extracted from the Ensembl HG19 human assembly database. It is to be noted that the use of the Ensembl HG19 human database is not limitative and that any other adapted database may be used such as NCBI reference Sequence Database (RefSeq).
- Care should be taken to take the reverse complement of the sequence if the fusion is present on the minus strand.
- The "fusion sequence" consists of the donor sequence followed by the acceptor sequence.

Nucleotide sequence of the fusion transcript:

On the basis of the known canonical transcripts in which the exon is involved, all the "fusion transcripts" were reconstructed.

When the donor is the exon (see Fig. 9A)

- it starts with the beginning of the canonical transcript to the donor exon and replace the complete canonical exon sequence with the fusion sequence. In this case, the fusion transcript stops after the TE sequence of the acceptor.

When the donor is the TE (Fig.9 B)

- The sequence begins at the canonical position of the acceptor exon in the transcript and forget all exons upstream. The canonical sequence of the acceptor exon was replaced with the fusion sequence and the transcript was reconstructed until the end.

Each nucleotide sequence of size k (i.e. from 24 to 75 nucleotides) of the fusion transcript (translation of the first k-mer starts at the first nucleotide of the fusion transcript, translation of the second k-mer starts at the second nucleotide of the fusion transcript, etc.) was then translated into a peptide sequence.

The obtained peptides are then further analyzed with NetMHCpan for MHC binding prediction. Affinity for binding to at least one of the known human alleles was thus predicted, (see also example 1 for further illustration) for each k-mer present in the sequence.

The peptides were then further screened against a reference proteome, typically for human subject against all sequences present in Uniprot (representing all the sequences encoded in the human exome). Peptides were considered equal to those in Uniprot if they had the same amino acid sequence or if they only differed in the amino acid in the first or last position. All these equal sequences were then discarded from the candidate list. 117 peptide sequences derived from these 230 fusion transcripts where thus predicted to bind to HLA-A2: 01 (see table 3 below).

Tables 3: Peptides LUAD

Peptide sequence	Peptide sequence	Peptide sequence
RLLHLESFL	TLGGLMPVL	LMTSSIMSV
TLMNLVQVL	FLQGSITFI	MLMKTVWQA
ILHSLVTGV	MLLLYIWQV	SLQPEDMAL
FMMEQVGLA	YLKIMPVHL	KILTYFPMV
AMDGKELSL	HTLGGLMPV	FLGTRVTRV
TLAYGKYYI	YIMARVLFV	SLMQSGSPV
GLIQLIWLA	FILRTDHYI	VLMWTMAHL
GMVDGGSNI	IMSSAIAYL	LLGETKVYV

Peptide sequence	Peptide sequence	Peptide sequence
YLWTTFFPL	FIIGILQLA	KILTYFPMV
ALWEAKMII	YLLQEIYGI	SLLERGLEA
WLSSRVTQL	GVFPVVIQA	VLSSLNVPL
AILPKANTV	ALVHLPSQL	FLERKSIRV
VLLFEVELV	GLHPAKPQV	FVGSSTFYL
GLDTGLQGM	MLVTWELAL	FLYTGDFFL
SLLDGTQLF	VLLTNTIWL	SVGPFALTV
GLPTGYLFV	ALVHLPSQL	NLALPLPKV
LLDRFGYHV	CLIDEMPEA	VLESGLYQV
SLLEETQAI	ALMGGFMKT	MLVAITVLI
MLLVQPAEL	LLLHLPLXL	FMDDAKILF
GLLNISHTA	TLQDKNLGL	ALVHLPSQL
HLYEPWFPV	ILANLPPAL	ILTASITSI
YLQGLPLPL	PLWDGMAGL	AMDGKELSL
KAVEGILAV	GLDHQTHPL	SLGWNISGV
MIYEENNRL	GMFLLPPQL	MISAFPNEV
YLPYFLKSL	RLADHLSFC	RLTHELPGI
GLYSLSSVV	RMRDQLPAL	LLFSDGEKV
LMISRTPEV	GLLHAEVAL	RLNESTTFV
LLGGPSVFL	SLQNCQVSV	KLEELKSFV
ILSGYGPCV	VISAFPSEV	SINEEIQTV
FLPDLDRPL	ALAIAALEL	RLHDGPLRA
AMDGKELSL	VLDGLDVLL	MISAFPNEV
RMDFEDLGL	ELFPPLFMA	ILHTSVPFL
TLIFNPTEI	FLIVAEILI	YLENMVSGV
LLPGLLLLL	IVAEILISL	QLLGRLESL
LLLVHQHAV	KAVEGILAV	RLLHLESFL
FLDDAPPGT	YLPHLPQVL	ALLRQMEGI
VLIRYVWTL	MLLDPMGGI	TLNKDFQEV
YLCGHLHTL	RLLHLESFL	IMEQGDLSV
VLSQLTILI	YLAYILYFV	RLLHLESFL

2.2.2 Validation on HLA-A2 associated peptides

Given that HLA-A2 allele is expressed in almost 50% of the Caucasian population, together with the existence of different technical tools, validations were focused on HLA-A2-associated peptides.

In the following paragraphs TE-Exon derived-transcripts is used interchangeably with “fusion transcripts” and the term “TE-derived peptides” is used interchangeably with “fusion transcripts-derived peptides.

Expression of TE-Exon derived-transcripts in lung adenocarcinoma samples

To experimentally validate the predicted TE-Exon transcripts, the expression by PCR in LUAD tumor samples and tumor cell lines was validated firstly. Specific primers for each chimeric fusion were thus designed, in order to have one of them binding to the TE part and the other to the Exon part of the fusion. The results were further confirmed by sequencing of the PCR products.

In particular, specific primers were designed in such a way that the forward primer was binding in the "donor" sequence and the reverse primer was binding in the "acceptor" sequence of the reconstructed fusion sequence. PCR reactions were run on RNA derived from lung tumor samples and human tumor cell lines. Amplifications products were seeded on agarose gels and bands found on the expected size were cut and sequenced. Finally, sequenced PCR products were compared with the reconstructed fusion sequence.

Using this approach, it was possible to confirm the presence of predicted fusion transcripts both in LUAD tumor samples and tumor cell lines. Table 4 below summarizes the results found for 8 of the most frequent chimeric fusions with a predicted peptide associated to bind with high affinity to HLA-A2 allele.

Table 4: Most frequent fusion transcript validation. The most frequent fusions peptides were validated by PCR in 15 LUAD tumor samples and 6 LUAD tumor cell lines. The status 'Yes' or 'No' in the table below indicates the presence or absence of the PCR product on the expected size. When the PCR product was further validated by sequencing, is denoted as 'Yes'.

		TE-Exon fusion derived-peptides asociated to bind HLA-A2							
	Frequency	119	48	28	24	23	19	18	16
	peptide sequence	RLLHLESFL	MLMKTVWQA	FLGTRVTRV	AILPKANTV	YLPYFLKSL	AMDGKELSL	FLIVAEILI	RLADHLSFC
LUAD Tumor Cell Lines	H1573	***Yes***	***Yes***	No	No	***Yes***	No	No	No
	H1563	***Yes***	No	No	No	No	No	No	Yes
	H1395	Yes	No	No	No	No	No	No	Yes
	A549	Yes	***Yes***	No	No	***Yes***	No	No	No
	H2087	Yes	No	No	No	No	No	No	No
	HCC95	Yes	Yes	No	No	***Yes***	yes	No	No
LUAD Tumor samples	Tumor 1	Yes	No	No	No	Yes	Yes	No	Yes
	Tumor 2	Yes	Yes	No	No	Yes	Yes	No	No
	Tumor 3	***Yes***	No	No	No	Yes	No	No	Yes
	Tumor 4	Yes	No	No	No	Yes	Yes	No	No
	Tumor 5	Yes	No	No	No	No	No	No	No
	Tumor 6	Yes	No	No	Yes	Yes	Yes	Yes	Yes
	Tumor 7	***Yes***	No	No	No	No	Yes	No	No
	Tumor 8	Yes	No	No	No	Yes	Yes	No	No
	Tumor 9	***Yes***	No	No	No	No	Yes	Yes	No
	Tumor 10	***Yes***	***Yes***	Yes	Yes	***Yes***	Yes	Yes	No
	Tumor 11	***Yes***	Yes	No	No	***Yes***	Yes	Yes	No
	Tumor 12	***Yes***	***Yes***	***Yes***	Yes	***Yes***	Yes	No	No
	Tumor 13	Yes	Yes	No	Yes	Yes	No	No	Yes
	Tumor 14	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	Tumor 15	No	No	No	No	No	Yes	No	No

Binding of ER-derived peptides to HLA-A2 molecule

Once confirmed the expression of chimeric transcripts, the derived-peptides were synthetized and their binding to HLA-A2 was confirmed. Because monomer stabilization and tetramer formation are only possible in the presence of a high affinity binding peptide, the formation of HLA-A2 tetramers was estimated in the presence of synthetized peptides by flow cytometry. All predicted peptides were able to stabilize tetramer formation, showing a percentage of fluorescence higher than 50% relative to positive control. As positive control, a known high affinity binding peptide to HLA-A2 derived from Cytomegalovirus (CMV) was used. This result confirmed the predicted high affinity binding to HLA-A2 allele. Figure 10 shows the result for 10 peptides derived from the most frequent fusions peptides.

Figure 17 shows a new set of peptides, also derived from frequent chimeric transcripts, with a confirmed binding to HLA-A2 using the same peptide-MHC-I complex formation assay. As a positive control of complex formation, we used both CMV pp65 495-503 (NLVPMVATV) and the mutated sequence of Melan-A (MelA mut, ELAGIGILTV), both known good binders to HLA-A2. The non-mutated sequence of Melan-A (MelA) was used as a control of low binder peptide. Negative is recombinant HLA-A2 molecule without any peptide.

Immunogenicity of ER-derived peptides

The following step after binding validation to HLA-A2 allele, was to test the immunogenicity of predicted peptides. Priming assays were thus performed to test the ability of identified peptides to expand specific cytotoxic T cells. PBMCs from HLA-A2+ healthy donors were used to generate monocyte derived-DCs (moDCs). After loading the moDCs with a mix of synthetic peptides, autologous co-culture was performed with CD4+ and CD8+ T cells. Finally, the expansion of specific CD8+ T cells was analysed by flow cytometry using two-colours tetramer staining. As a control of specific expansion, the co-culture was performed in the absence of peptides. By using this approach in one donor, it has been possible to identify and expand specific CD8+ T cells recognizing 6 of the most frequent chimeric fusion derived-peptides (RLLHLESFL, LLGETKVYV, AILPKANTV, RLADHLSFC, FLIVAEILI, YLWTTFFPL). This result is evidenced by an increase in at least one magnitude order of the percentage of tetramer positive cells compared to control test among total CD8+ T cells.

The same experiment was performed in order to evaluate the response in additional 5 donors. Figure 11A summarizes the results obtained for the total of 6 donors analyzed in which we found specific CD8+ T expansions for 23 out of 29 of the most frequent fusions transcripts-derived peptides (YLWTTFFPL, FLGTRVTRV, RLADHLSFC, LLGETKVYV,

MLVTWELAL, MLMKTVWQA, SLMQSGSPV, AILPKANTV, AMDGKELSL, LLDRFGYHV, GLLNISHTA, ILTASITSI, ILSGYGPCV, RQAPGFHHA, GLPSHVELA, ILHSLVTGV, LLHLESFLV, VLLTNTIWL, LLTSWHLYL, RLLHLESFL, YLPYFLKSL, VLMWTMAHL, YLQGLPLPL). As a positive of expansions, mutated Melan-A peptide (ELAGIGILTV) were used. These experiments show that these peptides are able to induce an immune response and confirms the immunogenicity of ER-derived peptides.

Generation of Cytotoxic T lymphocytes clones recognizing ER-derived peptides

Expanded CD8+ tetramer positive T-cells from immunogenicity assays (Figure 11A) were single cell FACS-sorted in order to generate cytotoxic T lymphocytes (CTLs) clones. 10 clones recognizing 5 different ER-derived peptides were generated: YLWTTFFPL, LLGETKVYV, MLVTWELAL, MLMKTVWQA, RLADHLSF. These peptides are listed in Table 3 as peptide 9, 86, 53, 80 and 64 respectively. It will be referred to these numbers to indicate the specificity of each generated CTL-clone. For example, CTL-clone 9 recognize ER-derived peptide 9. In a second set of experiments a new CTL-clone 17 was generated recognizing peptide 17 (LLDRFGYHV).

In order to evaluate the cytotoxic capacity of generated CTL-clones, two different functional assays were conducted using the H1650 cell line as target cells. This is a LUAD-derived tumor cell line expressing HLA-A2 allele.

First, the ability of CTL-clones to secret cytokines after exposure to ER-derived peptides was measured. After co-cultured of the CTL-clones with the target cells loaded with the specific ER-derived peptides during 18h, secretion of INF-γ, TNF and Granzyme-B (Gr-B) was measured in culture supernatants. All CTL-clones were activated after exposure specific ER-derived peptides, secreting cytokines in a dose-dependent manner (**Figure 11B**).

In a second set of experiments, CTL clones killing capacity was assessed. CTL-clones were co-cultured in different conditions with target cells loaded or not with ER-derived peptides. Using xCELLigence system the real-time impedance variation in a target cells monolayer was measured. In these assays, a decrease in cell-index is related with a decrease in the number of cells in the monolayer reflecting cell viability.

When CTL-clone 9 was co-culture in 1:1 ratio with target cells loaded with ER-derived peptide 9, a decrease in cell-index over time was observed, compared to the control cells (target cells alone). This cell-index decrease was inhibited when co-culture was performed in the presence of blocking anti-MHC-I antibody (+ anti-MHC-I). Performing the co-culture using the same concentration of isotype control (+ isotype) did not inhibit the decrease in cell-index. Moreover,

the amount of the decrease increased when target cells were loaded with a higher concentration of peptide (1pM compared to 1uM) (**Figure 11C**, left panel). These result show that cytotoxic T cells can recognize peptides encoded by a fusion transcript as herein described and kill target tumor cells expressing such peptides.

It was then demonstrated that ER-derived peptides are naturally expressed and presented by target cells, such said target target-cells can thus be killed by co-culturing them with CTL-clones without external addition of peptides. To this aim, co-culture of CTL-clone 9 with H1650 target cells at different ratios were performed. The right panel of **Figure 11C**, shows that CTL-9 was able to kill target cells at a ratio effector-target of 4:1 as compared to the control cells (target cells alone). Moreover, killing efficacy is increased at higher ratios (8:1). No killing of target cells was evidenced at lower ratios (2:1).

Finally, similar experiments were performed with CTL-clone 9, CTL-clone 64, and CTL-clone 80 showing a specific killing of target cells that could be also inhibited when the co-culture is performed in the presence of anti-MCH-I antibodies (**Figure 11D**).

All together, these results confirm that cytotoxic T cells that recognizes several different peptides encoded by a fusion transcript as herein described can recognize and kill tumor cells expressing said specific fusion transcripts-derived peptides and that this effect is due to the specific recognition of peptides in the context of MHC-I molecules. Moreover, the fact that CTL-clones are able to kill target cells without addition of external peptides, provide clear evidence that fusion transcripts-derived peptides are naturally expressed and presented by an LUAD tumor cell line.

Generation of engineered T-cells recognizing fusion-derived peptides

Jurkat cells transduced with lentiviral vector encoding for CTL-9 TCR sequence were co-cultured with two different target cells, H1650 and H1395. Both are LUAD-derived cell lines express HLA-A2 allele. TCR-mediated activation of Jurkat cells was evaluated by flow cytometry as an increase in the fluorescence of reporter genes (NFAT-GPF, NF-KB-CFP and AP-1-mCherry). Preliminary results showed that Jurkat cells are activated when co-cultured with both target cells compared to negative control (non-transduced Jurkat cells). Furthermore, this activation increased in a dose-dependent manner when the co-culture was performed with target cells loaded with specific peptides. PMA/ionomycin was used as positive control (**Figure 12**).

These results were repeated in another set of experiments and similar ones were obtained with Jurkat cells transduced with lentiviral vector encoding TCR sequences from CTL-86 and CTL-

53 and CTL-17. Transduced Jurkat cells were activated by co-culture with a target tumor cell line loaded with the corresponding ER-derived peptide (Specific/Relevant peptide) but not with the control Melan-A peptide (Unrelated/Irrelevant peptide, ELAGIGILTV) (Figure 18A). As expected, activation is inhibited by blocking with anti-HLA-I antibodies (Figure 18B). TCRs expressed by the generated CTL-clones are thus specific to the corresponding HLA-A2 presented ER-derived peptides. Table 4bis lists the sequences of re-expressed TCRs.

These results are in line with the results shown in Figure 11 C and D, showing that LUAD-derived tumor cells express TE-derived peptides. Furthermore, these results also highlight the technical relevance of CTL-clones TCR sequences in the development of engineered T cells.

TCR number	Specificity	TCRalpha		TCRbeta			CDR3alpha	CDR3beta
		V	J	V	D	J		
1	LLDRFGYHV	TRAV41*01	TRAJ34*01	TRBV6-5*01	TRBD1*01	TRBJ-2*01	CAVLLDNTDKLIF	CASSRLQGALELFF
2	YLWTTFFPL	TRAV12*2*03	TRAJ44*01	TRBV7-6*01	TRBD1*01	TRBJ2-3*01	CAVNTRGTASKLTF	CASSLGGGTDTQYF
3	LLGETKVYV	TRAV12-3*01	TRAJ49*01	TRBV2*02	TRBD2*01	TRBJ-7*01	CAVFTGNQFYF	CASLSGESYEQYF
4	MLVTWELAL	TRAV35*01	TRAJ54*01	TRBV13*01	TRBD2*01	TRBJ2-5*01	CAGQLAGAQKLVF	CASSPSRDGQETQYF

Table 4bis: TCR sequences derived from CTL-clones recognizing chimeric transcripts-derived peptides.

Presence of CD8+ cells recognizing fusion-derived peptides in LUAD patients

It was then aimed to identify the presence of CTL cells recognizing fusion-derived peptides in LUAD tumor samples.

In a first set of experiments tumor infiltrating lymphocytes (TILs) expanded with a mix of TE-derived peptides and Il-2, or only with Il-2, were analyzed by tetramer staining. As is shown in **Figure 13 A** and **B**, CD8+ T-cells cells recognizing fusion-derived peptides were found in TILs derived from LUAD patients.

It was then showed that tetramer positive cells could be detected and their phenotype in non-expanded CD8+ T cells derived from fresh tumor samples was further assessed. Using this strategy, CD8+ T cells present in Tumor, juxta-tumor, invaded lymph-nodes and blood derived from LUAD patient samples were thus analyzed. The cell phenotype was determined based on the expression of surface markers CCR7 and CD45RA for Naïve (CCR7+CD45+), Central Memory (CM, CCR7+CD45RA-) Effector Memory (EM, CCR7-CD45-) and Terminal Effectors (TE, CCR7-CD45+) T cells. Interestingly, tetramer positive cells found in tumor tissues shared preferentially a memory phenotype whereas naïve cells (CCR7+CD45+) are

found mostly in cells derived from lymph nodes (**Figure 14 A** and **B**). Patient 2 and 3 are the same in Figure 13 and Figure 14.

All samples tested derived from HLA-A2+ patients.

The presence of tetramer positive cells with a memory phenotype in tumor tissues, together with the presence of tetramer positive cells in TILs, provide evidence that an immune response is generated against TE-derived peptides in these patients. Moreover, the existence of naïve tetramer positive cells in lymph nodes shows that an immune response against these particularly TE-derived peptides can be generated.

In a second cohort of 5 primary, untreated, LUAD tumor, juxta-tumor, tumor-draining lymph node and blood samples from LUAD cancer HLA-A2+ patients were analyzed. Half of each sample was analyzed directly ex-vivo by isolating CD8+ T cells without in-vitro expansions, and the other half was cultured in-vitro for 20 days either with chimeric transcript-derived peptide mixed with IL-2 (patients 1 and 2) or with IL-2 alone (patients 3, 4, 5), aiming to amplify in the samples, the populations of specific T cells recognizing Chimeric transcript-derived peptides. T cells were identified using double color tetramer staining. Antibodies directed CCR7 and CD45RA were also added to the non-expanded cells to distinguish naïve and memory cells. Expansions were considered with 5 or more double tetramer-labelled cells. Figure 19A shows a summary of the 7 "Chimeric transcript-derived peptide specific" tetramer-positive T cell populations found in the 4 patients analyzed directly ex-vivo (one of the patient samples could not be analyzed for technical reasons). CCR7/CD45RA labeling showed that all tetramer-positive T cells detected in tumor samples have a clear effector/memory phenotype, whereas in blood and lymph nodes the "Chimeric transcript-derived peptide specific" tetramer-positive T cells have variable proportions of less differentiated, CCR7+ naïve and/or central memory phenotypes.

Therefore, these results demonstrate that primary human NSCLC tumors contain chimeric transcript-derived peptide specific memory T cells (Figure 19B).

A summary of expanded, tetramer+ CD8+ T cells, is shown in Figure 19C. For the majority of peptide specificities, T cells were expanded from both the tumor and the matched invaded lymph nodes (LN) analyzed only in 2 patients, and in some cases from the matched juxta-tumor samples (Jt) (Figure 19C). 5 out of 7 specific tetramer positive populations were also found at Day 20 in the same patient and tissue found ex-vivo without T cell expansions (Figure 19A and bold squares on Figure 19C).

These results provide thus evidence that chimeric transcript-derived peptide specific T cells are present in tumors, tumor-draining lymph nodes and sometimes in juxta-tumor tissue and blood

of LUAD patients before and after in-vitro expansion, consistent with the existence of chimeric transcripts-derived peptide specific immune responses in LUAD patients.

Peptide identification by Mass Spectrometry in LUAD biopsies.

Presentation by MHC class I molecules on the tumour cell surface is required for ER-derived peptides in order to be recognized by cytotoxic T cells. In order to confirm that predicted peptides are express on MHC class I molecules, public data from MHC I immunopeptidome derived from 3 LUAD biopsies (Laumont CM et al., "Noncoding regions are the main source of targetable tumor-specific antigens" Sci Transl Med. 2018 10(470)) were used. OpenMS Software was used to analyse the raw data uploaded to PRIDE database from MHC-I immunopurification of 3 LUAD tumours (PXD009752, PXD009754 and PXD009755). Having in mind that data-dependent acquisition in proteomics only allows the identification of those sequences contained in a target database (generally the whole human proteome); the peptides as per the present application had not been previously identified because they derive from non-coding sequences. The MS/MS identifications incorporating the sequences of the herein predicted peptides in the target database has been re-analyzed. Five peptides among the 3 samples biopsies (peptides ID: 3304, 269, 757, 1810, 3953) were found. To perform this analysis, all predicted peptides derived from chimeric fusions present in at least 5 samples in the TCGA binding to any MHC I allele were considered. This result confirms the expression of chimeric fusion-derived peptides on MHC class I molecules in LUAD tumors.

Later, we extended our analysis to new lung immunopeptidomics datasets (Bulik-Sullivan *et al.* Nat. Biotec 2018, Chong *et al.* Nat. Comm. 2020 and Javitt *et al.* Front Immunol 2019). Of note, all datasets were generated with fresh lung tumor samples with the exception of Javitt *et al.* Front Immunol 2019 containing LUAD tumor cell line. For this second analysis, ProteomeDiscoverer 1.4 Software was used to identify the ER-derived peptides. Considering the 4 datasets, 23 unique ER-derived peptides were present in at least one of the total 19 immunopeptidomic samples. In Figure 15, ER-derived peptides (rows) identified in each MHC sample (column) are indicated with a grey square. On the right, the peptide sequence found is indicated. Interestingly, some of them were observed in more than 1 MHC sample indicating that they are shared across samples. These results confirm that fusion transcripts-derived peptides are processed and presented by HLA-I molecules on tumor cells surface.

Peptide RLADHLSFC derived from a fusion transcript where the gene part of the fusion is a tumor suppressor gene (Fusion ID: chr22:29117506:->chr22:29115473:- /gene involved:

CHEK2) and peptide GLPSHVELA derived from a fusion transcript where the gene part is an oncogene (Fusion ID: chr6:117763597:->chr6:117739669:- / gene involved: ROS1). Interestingly, both peptides were found to be immunogenic (Figure 11 A) and particularly for peptide RLADHLSFC, results show in Figure 11 D indicate that could be express by H1650 cell line. Furthermore, we found TILs recognizing peptide GLPSHVELA (Figure 12A), which indicates that this fusion transcript-derived peptide could be express in LUAD tumor samples.

3 Example 3: Identification neoantigenic peptides derived from fusion transcripts composed of a TE element and an exonic sequence from various cancer samples.

9184 samples from 32 different cancer types (Acute Myeloid Leukemia, Adrenocortical Carcinoma, Bladder Urothelial Carcinoma, Breast Ductal Carcinoma, Breast Lobular Carcinoma, Cervical Carcinoma, Cholangiocarcinoma, Colorectal Adenocarcinoma, Esophageal Carcinoma, Gastric Adenocarcinoma, Glioblastoma Multiforme, Head and Neck Squamous Cell Carcinoma, Hepatocellular Carcinoma, Kidney Chromophobe Carcinoma, Kidney Clear Cell Carcinoma, Kidney Papillary Cell Carcinoma, Lower Grade Glioma, Lung Adenocarcinoma, Lung Squamous Cell Carcinoma, Mesothelioma, Ovarian Serous Adenocarcinoma, Pancreatic Ductal Adenocarcinoma, Paraganglioma & Pheochromocytoma, Prostate Adenocarcinoma, Sarcoma, Skin Cutaneous Melanoma, Testicular Germ Cell Cancer, Thymoma, Thyroid Papillary Carcinoma, Uterine Carcinosarcoma, Uterine Corpus Endometrioid Carcinoma and Uveal Melanoma) were analyzed according to the method as previously described.

16580 fusion transcripts were identified.

4 Example 4: proteomics results

Results

Total proteomics

Mass spectrometry-based proteomics has emerged as a powerful tool to interrogate the actual protein content of a given cell preparation. To confirm that JETs are indeed translated into proteins, mass spectrometry output files (called raw files) generated from cell lines and fresh tumors were analyzed to identify different populations of JET-derived peptides. This study has been grouped into two different analyses, each one providing a different and complementary type of information, that demonstrate that JET derived proteins can reliably be detected in a tumor sample or in a tumor cell line.

First it was demonstrated that proteins derived from the JETs were found to be highly recurrent in CCLE dataset. Therefore, the in-silico translated junctions from all those JET mRNA sequences predicted in more than 7 different cell lines in the CCLE cohort were used and interrogated to the mass spectrometry raw files from Nusinow *et al.* 2020, which consists in the proteomics analysis of 375 cell lines from CCLE. These cell lines were grouped in TMT10plex, generating a total amount of 42 MS/MS output files. This MS-based proteomics analysis led to the identification of **186** JET derived proteins, containing at least 1 peptide overlapping the splicing junction (Table 5).

Table 5:

Sequence	Chimeric_id	Recurrence in dataset
SSTGPADLK	chr20:42212014:+>chr20:42213492:+	72
MLLGLLAK	chr7:20686997:+>chr7:20687158:+	72
MGISIVK	chr8:74872000:->chr8:74871067:-	72
IQSFTNISFSMPHR	chr1:44680991:+>chr1:44683983:+	63
TQEVEVAVNR	chr7:73776406:+>chr7:73778585:+	45
MASASPTIK	chr3:53915693:->chr3:53914136:-	36
ETDLITVTGSSFLTHR	chrX:57620887:+>chrX:57667223:+	36
EAENEVQTAK	chr7:116555100:+>chr7:116556114:+	36
LNIHLLMVTSSVTSSSILINLDR	chr13:41835827:->chr13:41835011:-	36
DLELEIPFGPAIPLLGSCSQCR	chr11:129978600:+>chr11:129979324:+	36
MILESTYHNTLHIAMK	chr6:17835789:->chr6:17834302:-	36
MLAPENSDIGLAAWGR	chr20:32888526:->chr20:32883391:-	36
TQEAELAGVATVR	chr3:122863676:+>chr3:122864369:+	27
TSLHSIPVTVGRR	chr17:42188097:->chr17:42182463:-	27
AEIAPLHSSLGDK	chr5:132253438:->chr5:132240096:-	27
MLGAVAHNCDPSTLR	chr12:57081782:->chr12:57080459:-	27
GPAPEPPSMR	chr19:50010181:+>chr19:50027764:+	27
MACNMGLEKGEK	chr5:179238682:+>chr5:179250858:+	27
MASICPFLK	chr20:49307663:->chr20:49307455:-	27
EIETILANPENK	chr6:130374597:+>chr6:130376316:+	27
QAQCSTDSTLWYFMHGVCR	chr3:12604393:+>chr3:12610374:+	18
LASTTSVSEEDVSSR	chr12:79996543:->chr12:79990438:-	18
AIAQGIQELR	chr17:43475315:->chr17:43474814:-	18
TCPSAMIVSFLK	chr10:51747031:+>chr10:51749068:+	18
VQLAGNTLPSTPCWTR	chr9:130924301:+>chr9:130925722:+	18
GLEFETSLANVVQLPNSIVFSVTR	chr18:19147325:->chr18:19146167:-	18
KESLEASMMLK	chr9:88264917:->chr9:88261333:-	18
VETLCATLWGFGK	chr10:102711867:+>chr10:102716208:+	18
MMAHLCIFGLQSR	chr5:86704905:->chr5:86704003:-	18
VSTSHVGPWVSP	chr5:1475076:->chr5:1474800:-	18

NLLDIDAPVTGWQELK	chr4:102117073:->chr4:102104428:-	18
AKIAPAEGPDVSER	chr3:185370866:->chr3:185369956:-	18
EAEEPSDNGPLFTELK	chr14:97307963:+>chr14:97312432:+	18
MAGLVFQWLR	chr3:136005373:+>chr3:136012598:+	18
ISQLQIWDTAGQER	chr3:128828867:->chr3:128814012:-	18
VISAFPSELQSQCTK	chr6:100379769:->chr6:100369131:-	18
TAQLPEQLMTWHSR	chr22:37870550:->chr22:37861756:-	18
LLNITAGLGSDGTIR	chr6:34511797:->chr6:34511385:-	18
MGTVAHAYNPSTLGGR	chr2:48593264:+>chr2:48600431:+	18
MLPPFVLAVTMGLSVVK	chr3:15058779:+>chr3:15062260:+	18
QADHLMPGVQDQPNMTSVP	chr11:18491675:->chr11:18490765:-	18
WAGHSASCSSLRK	chr22:18351213:->chr22:18348778:-	18
TFMMIHCHLMNNMSCR	chr3:10160654:+>chr3:10167310:+	9
GQIGILLWNSMGTMQQPR	chr20:30254794:->chr20:30253889:-	9
APTDSTLCTLCK	chr17:62609987:->chr17:62602758:-	9
LREPIDNLTPEER	chr20:34315958:->chr20:34313077:-	9
EWSGIQKATLMDLQLSDSNFRR	chr18:244302:->chr18:226901:-	9
TSLANMVVFPLMK	chr2:98263129:+>chr2:98263530:+	9
IWLTEDATALLQRPGWR	chr11:44960717:->chr11:44959917:-	9
METGIISLLPPWGGRPSAVR	chr1:6531548:->chr1:6531300:-	9
GNLLIISLDAK	chr17:65894534:+>chr17:65899905:+	9
TSSGLPLILHCVYAK	chr16:82201145:->chr16:82197799:-	9
SGVQDQPGQQGPVTLHK	chr10:28824988:+>chr10:28872328:+	9
WADHLTSGVR	chr10:95225471:->chr10:95216694:-	9
MNDSCIFRPETDSDIMELTDR	chr19:19976808:+>chr19:19982937:+	9
IVEQTLK	chr13:115035095:+>chr13:115037659:+	9
MELTIPGEGK	chr2:99224660:->chr2:99220654:-	9
HFIAMMYFK	chr5:145540727:->chr5:145540049:-	9
ETFFLQQQGNDAK	chr16:89607754:+>chr16:89611056:+	9
QLQVCVLQIMGSCVPSCPTP	chr11:64643083:->chr11:64641990:-	9
EAEASQAAQEAEINAR	chr1:183107957:+>chr1:183109539:+	9
YSNVLEMAWLQYA	chr12:63961380:->chr12:63954442:-	9
MATVAHTSLATVEDFQIRPHTLY VHSYK	chr2:37520065:->chr2:37518142:-	9
LPIFFFGTHETLLGGR	chr9:15506559:->chr9:15492223:-	9
QASRALPPCPWNTQTSGSR	chr10:6010739:->chr10:6008302:-	9
LDIGFPSLQNYR	chr17:47441711:+>chr17:47450375:+	9
TLPSLDDLR	chr7:72720556:->chr7:72719094:-	9
LLVNDPETAVK	chr12:112149997:+>chr12:112150302:+	9
LQEMGPLGVPQR	chr14:105335983:+>chr14:105342593:+	9
TSLANMDMFK	chr12:72301769:+>chr12:72307606:+	9
MGAVVHACKPSTLGGR	chr15:42151606:->chr15:42151178:-	9
KQAQKDCPTHSGVS	chr17:43536749:->chr17:43531638:-	9
SEGIRIMEMLLK	chr5:145153908:->chr5:145144563:-	9
GFGPSTMLGTQK	chr1:193028315:->chr1:193022970:-	9
MTKLLSPIR	chr22:32787416:->chr22:32784086:-	9
WLTPVIPALWEAER	chr8:103282996:->chr8:103282411:-	9

ETTLAFK	chr1:240569786:+>chr1:240601361:+	9
ATALQPGR	chr1:45988450:->chr1:45981479:-	9
ITSVVMVDEAHER	chr6:30629093:->chr6:30628019:-	9
SQYCTPALEAETK	chr17:78263365:+>chr17:78263458:+	9
TLTFLGPLQFR	chr19:20025631:+>chr19:20026089:+	9
TPEVEATVPLQK	chr22:42085308:+>chr22:42089467:+	9
VILIFFPECYAK	chr22:31947110:+>chr22:31952928:+	9
DGDHPSQHDGVLLCCPGWSTM	chr9:96211969:->chr9:96210771:-	9
GGSHLQSQHFGRPR	chr21:34973474:->chr21:34971554:-	9
SVSTIFLTCSR	chr10:1100108:->chr10:1090111:-	9
MGTVAHACNPCTLGG	chr20:17550856:+>chr20:17565018:+	9
TPGRNGHLESGHLK	chr7:102793520:+>chr7:102939015:+	9
SGFSFLLGIVGF	chr12:22831248:+>chr12:22837417:+	9
EIETLHHPSTGVILADHK	chr13:44432917:->chr13:44413224:-	9
TIAQMIDSTVALPLEAT	chr8:38697785:+>chr8:38698832:+	9
NQSQSHLNVGLLASR	chr9:21808999:+>chr9:21815432:+	9
SVERFLQEDQMFHQEK	chr9:97843062:+>chr9:97909493:+	9
MELTIPGVGHSSGSLNEGK	chr2:99224633:->chr2:99220654:-	9
ESLEASMMLK	chr9:88264917:->chr9:88261333:-	9
LLITAEDQSMWIQS	chr13:113897987:+>chr13:113898724:+	9
QAWWIMPIIPALWEAK	chr2:10135488:+>chr2:10136007:+	9
MESQMVEQLCSR	chr8:66633382:->chr8:66631730:-	9
GLTGEFSITR	chr5:1257816:->chr5:1255526:-	9
GGEFAPSWDCKP	chr2:37490123:->chr2:37487527:-	9
CLTTLFGSFR	chr7:107256834:+>chr7:107258773:+	9
SQHFGRPSCVPLPATGVK	chr12:69249761:->chr12:69236109:-	9
EQLSQAEAVALK	chr6:17837109:->chr6:17835895:-	9
GQVLGPWPSR	chr19:1045618:+>chr19:1046229:+	9
TGAQPPATMPLNVSFTNR	chr8:128749923:+>chr8:128750494:+	9
TGIPSATLIR	chr22:46193106:+>chr22:46202839:+	9
EQTDVMHQNIYD	chr5:414855:+>chr5:422844:+	9
FVDVTECQACSANSR	chr22:25019883:+>chr22:25023093:+	9
IRDSEELIGR	chr15:79649214:+>chr15:79703742:+	9
DHIMFSLFEK	chr1:116206078:+>chr1:116206282:+	9
DSGSTTWCFIQK	chr12:112169999:+>chr12:112171727:+	9
GFPSHMSLGYHFQCPIPR	chr2:28190310:+>chr2:28210860:+	9
CPEMLPTSQTLR	chr12:110470515:+>chr12:110471602:+	9
FLQQCLLLLVSLEVFR	chr19:54502735:+>chr19:54515205:+	9
TAGGQQQALPLGSPR	chr17:45356073:+>chr17:45360720:+	9
SVTVSHNPQLGPSGCR	chr5:133691774:->chr5:133686118:-	9
AVTANGYQMLDGK	chr2:43779972:->chr2:43779478:-	9
FPSGILCVIMPGR	chr6:3432328:->chr6:3416089:-	9
HDYDEDLVQEASSEDVLGVHMV DK	chr5:177450333:+>chr5:177462097:+	9
CNPSTLGDQAEK	chr2:231040909:->chr2:231037675:-	9
AEISCQQPAPGPR	chr19:49832179:+>chr19:49838971:+	9
GQEMETIPANTLIQEDILDTGNDK	chr12:86274547:+>chr12:86276001:+	9

GGFHHDCK	chr7:84736037:->chr7:84727281:-	9
LWTSLPAPMFSR	chr20:60835987:+>chr20:60838672:+	9
CMCLEYPAVVEFAPFQK	chr13:115049839:+>chr13:115051777:+	9
LIISIFLVHSPK	chr12:7125578:->chr12:7120720:-	9
GATWTGSSPQGSWDFTR	chr7:75083158:->chr7:75070925:-	9
TVTVPAQELK	chr9:128421519:->chr9:128420078:-	9
ENTMAENELQV	chr10:112572705:+>chr10:112576399:+	9
TPMELELPPASHFEFIGSSANCR	chr2:37570066:+>chr2:37579932:+	9
GLLWSGMALTGSLRVTQR	chr22:36007617:->chr22:36007153:-	9
GLSDHVQLSQSHSTSFHVSPK	chr16:90158141:->chr16:90141431:-	9
MILESTYHNTLHIAMKAPELK	chr6:17835789:->chr6:17834302:-	9
CPETFLDGTLGR	chr19:4703015:->chr19:4702728:-	9
SYQLRPGTMIEWGNYWR	chr7:56052571:+>chr7:56059164:+	9
TILANTVMAR	chr16:2115231:+>chr16:2115520:+	9
MELTIPGVGK	chr2:99224656:->chr2:99220650:-	9
SSPQAIQMVATLGTTTCCSFDNLL EVGPICNK	chr7:50595367:->chr7:50571757:-	9
GDPGIDAR	chr21:43290029:->chr21:43280481:-	9
MAFSGSQAPYLSPDPK	chr17:25958330:+>chr17:25965125:+	9
TIAQGNLSNTDVQAAKRSCSYL	chr16:21987564:+>chr16:21988399:+	9
MQENTLRAPTDSTLWHPPHYK	chr14:60442915:+>chr14:60443943:+	9
DQPGQHGPGMRPPLGLR	chr1:222838358:+>chr1:222838651:+	9
EAPTYITWTIRR	chr1:51218110:->chr1:51210447:-	9
DLVGGYTPGTPYK	chr2:131824664:->chr2:131813268:-	9
GLNEAIFMIPTNPPPTFR	chr8:99648370:->chr8:99608397:-	9
DAAALLLANEAR	chr6:110774731:->chr6:110768193:-	9
ATSLWYFMAAQAK	chr2:42615589:->chr2:42580483:-	9
MDLVQVSGSLGSPVLSCK	chr10:104231153:+>chr10:104231667:+	9
QHQEVTLYGLK	chr15:99433697:+>chr15:99434554:+	9
LVSLSQYWEK	chr18:74574245:+>chr18:74580641:+	9
TGTTPVYSSQHEQHR	chr1:178806756:+>chr1:178846633:+	9
QATGMDLEVIILSDITQK	chr6:129786434:+>chr6:129788349:+	9
LLALLDVLK	chr1:22263648:->chr1:22224962:-	9
GIGYPAWAMK	chr2:131840150:->chr2:131829742:-	9
MESQLQIEETTLLR	chr16:4667729:+>chr16:4700366:+	9
GLLGLAGMRPELR	chr3:40555431:+>chr3:40557351:+	9
GQEMETILANMISR	chr9:96211969:->chr9:96209979:-	9
ICRPGAAAAARHPGSPGGQLAPR	chr16:29692733:+>chr16:29705985:+	9
ELGVTAGGLPTR	chr12:42795298:+>chr12:42835117:+	9
GNLDTKTPGMPK	chr10:12280484:+>chr10:12301986:+	9
LLELQGLPLMPSR	chr19:53119971:->chr19:53097557:-	9
AGGSLEAGGK	chr7:44883388:->chr7:44882953:-	9
EGDVVLYCSSATFCATSQSGTGE VR	chr2:219296440:+>chr2:219296580:+	9
STNDELDELR	chr18:8708134:+>chr18:8718422:+	9
INSAHLQTLSAGK	chr15:49600974:+>chr15:49611801:+	9
MGLSPASAPRPQTCFSLSTTK	chr17:17735071:->chr17:17723835:-	9

MLADRSMSSSLSASQLHTVNMR	chr17:38177572:->chr17:38176606:-	9
GTQVFVTGYTPWQR	chr20:1532337:->chr20:1530245:-	9
METDLECSDSR	chr5:68551355:+>chr5:68551980:+	9
TLLPGTLR	chr7:129915476:+>chr7:129916468:+	9
WLMPVIPALGR	chr1:160283437:->chr1:160282957:-	9
LLGAEIAPLHSSLDGLS	chr9:97214855:+>chr9:97216240:+	9
DPAIALQPGPQSER	chr15:79168112:+>chr15:79170555:+	9
MAHTLQYFK	chr8:72942008:+>chr8:72964774:+	9
MAHTLQYFKSSQHQR	chr8:72942008:+>chr8:72964774:+	9
MISAFPTEGQR	chr11:74830434:+>chr11:74873700:+	9
MDFMNAEILLK	chr19:49834874:->chr19:49797810:-	9
SEEPLRPAAAPSENALR	chr9:119602892:->chr9:119583062:-	9
TSPVAGPALPPNYK	chr13:45576476:+>chr13:45578440:+	9
EYLEYEDTAQR	chr2:113956803:+>chr2:113966557:+	9
QNLHEIGLWR	chr12:42835231:+>chr12:42836287:+	9
AGGSLEAK	chr19:6365650:+>chr19:6366269:+	9
AMSQINFFTNDPASAIGEYEDLR	chr10:118750845:->chr10:118738819:-	9
LELALLAPQACR	chr8:53483830:->chr8:53455005:-	9
SLVLEGFLINSKPENACEPI	chr3:149581921:+>chr3:149589816:+	9
TVTDSTLWIASSPGGLSPADCGAS FR	chr3:77121427:+>chr3:77147165:+	9
IASTQEADVVVAR	chr5:94876747:->chr5:94876534:-	9
LLRELQVMYGMLVFTLVLR	chr11:76708271:+>chr11:76709807:+	9

The identification of peptides overlapping splicing regions is less sensitive likely due to 1) the lower abundance in the whole proteome of the sequence of interest compared to a non-spliced region and 2) splicing motifs code in around 40% of the cases for a lysine (K) or arginine (R) amino acids, which are also the cleavage sites for trypsin (i.e.: the enzyme used for MS sample processing). Therefore, the above-mentioned protocol probably leads to an underestimated of the presence of JET-derived proteins in tumor samples and cell lines.

It has been then demonstrated that tumor-specific JETs were indeed translated. Focusing on lung tumors, lung tumor-specific JETs predicted in TCGA and CCLE projects were *in silico* translated and interrogated against 2 different mass spectrometry output datasets: Nusinow *et al.* 2020 (CCLE proteomics dataset) and Stewart *et al.* 2019 (lung primary tumours proteomics dataset). This analysis provided information about JET-derived proteins not only in the context of a cell line, but also in cancer human samples. In cell lines, we were able to identify 221 peptides overlapping the splicing site of 206 JET-derived proteins (Table 6).

Table 6:

Sequence	chimeric_Tx_Id	Recurrence
HTDLQATAIGK	chr12:104824437:+:Charlie6>chr12:104995684:+:ENST00000546689	108
YISLIYTNYAEGK	chr11:67352712:+:ENST00000398603>chr11:67361105:+:LTR22A	81
AQWLTPVIPALWEAEAGESPERPR	chr1:36637320:+:AluSp>chr1:36638065:+:ENST00000530729	45
MILSSIR	chr6:144066592:+:L3>chr6:144070122:+:ENST00000427704	45
MGISIVK	chr8:74872000:-:ENST00000520242>chr8:74871067:-:Tigger3b	36
LLINRMVTL	chr5:52197198:+:MLT1D>chr5:52201593:+:ENST00000282588	36
MGAVAHTCNPSTLGGQGK	chr12:104645612:+:AluSc>chr12:104651797:+:ENST00000429002	36
ALVNLSFVTGVSSMTFMMGNICR	chr2:270006:+:MER39>chr2:271866:+:ENST00000442386	36
APVSDEK	chr7:130069134:-:L3>chr7:130067859:-:ENST00000541543	27
MNSLSIR	chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000491787	27
ALELGVVSQPSVYR	chr1:223852296:-:MIRb>chr1:223842101:-:ENST00000419193	27
MGAVTHTCNPSTLEGR	chr2:207009280:-:AluJo>chr2:207008856:-:ENST00000432169	27
ELLHGTEGGEHR	chr17:27441216:-:L3>chr17:27441115:-:ENST00000531253	27
VAASSPIMRK	chr11:71728382:-:MIR>chr11:71727576:-:ENST00000358965	18
TITLEVEPR	chr17:16285735:+:ENST00000535788>chr17:16300446:+:MER4B	18
MGAVAHTCNPSTLEGQDCPCGRPRR	chr3:185370866:-:AluSx1>chr3:185369956:-:ENST00000421047	18
EAEEPSDNGPLFTELK	chr14:97307963:+:AluSx>chr14:97312432:+:ENST00000216639	18
LQDSTGSWEK	chrX:40570189:-:MER8>chrX:40569381:-:ENST00000324817	18
GLPSHAELIR	chr12:16168469:+:THE1D>chr12:16185476:+:ENST00000531803	18
CNPSTLGDQAEK	chr2:231040909:-:AluJb>chr2:231037675:-:ENST00000258381	18
QLQSANYGHMQASCLSIK	chr12:52639328:+:ENST00000331817>chr12:52645561:+:MER58A	18
AHLNERNTLQEENK	chr18:20537359:+:L2c>chr18:20555116:+:ENST00000582354	18
DLYANTVMSVELNAASGTR	chr7:5567728:-:ENST00000331789>chr7:5522250:-:MIRb	18

TEEMPQLNFGMAVLYGG MCL	chr3:107447807:+:ENST00000415149>chr3:10 7448789:+:AluJr	18
ENLPSIQPGMVLQAVAHL HGR	chr5:140764890:+:ENST00000518325>chr5:14 0765965:+:BC200	18
LLNATHQIGCQYTHR	chr1:160314616:+:ENST00000421914>chr1:23 0653304:+:MLT1B	18
MAVVAHACNLNSFGGQG PAWFLR	chr3:49096310:-:AluSp>chr3:49065271:- :ENST00000429182	18
MVWVGTIGSGPK	chr17:59856034:- :MamRep1161>chr17:59853923:- :ENST00000259008	18
NLLDIDAPVTGWQELK	chr4:102117073:- :ENST00000525819>chr4:102104428:-:MLT1J	18
VISAFPSELQSQCTK	chr6:100379769:-:L1PA3>chr6:100369131:- :ENST00000281806	18
MACNMGLEKGEK	chr5:179238682:+:MER61- int>chr5:179250858:+:ENST00000504627	18
MLDNLMYDYELNWVR	chr14:106801819:-:L1ME2>chr14:106518589:- :ENST00000390598	18
AKIAPAEGPDVSER	chr3:185370866:-:AluSx1>chr3:185369956:- :ENST00000346192	18
MVLLVR	chr2:189861722:+:(TA)n>chr2:189861891:+:E NST00000304636	18
VGGSRVLGGDQ	chr6:30690007:+:AluSc>chr6:30690314:+:ENS T00000327892	18
NTQLTMWLPQLIWTK	chr7:127304880:+:MER21C>chr7:127347646:+ :ENST00000354725	18
MCQKEVMEQSAGR	chr2:133425973:- :ENST00000345008>chr2:133381838:- :MLT1B	18
MAQWLMPVIPALWEAQIH FILLFSR	chr2:224652913:-:AluSz>chr2:224642586:- :ENST00000396653	9
LLSSSMHTLQTK	chrX:38146409:+:CT-rich>chrX:38146366:- :ENST00000378505	9
QQMLVCFVNLDVNK	chr2:228948057:-:L1PA8>chr2:228892259:- :ENST00000344657	9
MASTISAGCGGGACGPSYS GG	chr20:62284680:- :ENST00000370053>chr20:62277869:-:AluY	9
LLDEAAGEGEAAGR	chr15:83103156:+:ENST00000358583>chr15:8 3193188:+:GA-rich	9
TSPVAGPALPPNYK	chr13:45576476:+:7SLRNA>chr13:45578440:+ :ENST00000361121	9
LSTVVDADEIIVLDQEK	chrX:74280058:- :ENST00000529949>chrX:74267940:-:L1MB8	9
MDFMNAEILLK	chr19:49834874:-:MLT1J2>chr19:49797810:- :ENST00000335875	9
MATVAHTSLATVEDFQIRP HTLYVHSYK	chr2:37520065:-:AluJb>chr2:37518142:- :ENST00000443187	9

METQADLVSQEPQALLDS ALREAEAGR	chr7:99674926:- :ENST00000428683>chr7:99674180:-:AluSc8	9
LLITAEDQSMWIQS	chr13:113897987:+:L1MC5>chr13:113898724: +:ENST00000326335	9
LADLFGWSQLIYNHITEYK	chr4:2886393:+:ENST00000398129>chr4:2888 303:+:L2a	9
LLHHQLHMMLDK	chr1:145474732:+:ENST00000323397>chr1:14 5476653:+:MIR3	9
LSPLPSNSCVTWGGYR	chr7:7498396:-:MIRb>chr7:7495743:- :ENST00000399429	9
MILESTYHNTLHIAMK	chr6:17835789:-:MIR>chr6:17834302:- :ENST00000378814	9
MQENTLRAPTDSTLWHPP HYK	chr14:60442915:+:MER1A>chr14:60443943:+: ENST00000254271	9
MMVNCHAHFWVSTYLSP HLL	chr8:74209664:+:ENST00000521928>chr8:742 16833:+:L2	9
SQVMDVDTLY	chr3:98618227:-:AluSc8>chr3:98600611:- :ENST00000326857	9
TDDSLGLGLK	chr11:14737526:+:L1PA2>chr11:14793483:+:E NST00000282096	9
GHEFETSLANMVIQLLK	chr7:154793407:-:AluSq>chr7:154790494:- :ENST00000457196	9
MDGQMMDTGVDK	chr4:2453586:+:(TGGA)n>chr4:2453869:+:EN ST00000506607	9
HLEDYMEHTPPPR	chr2:95476942:+:MIR>chr2:95540521:+:ENST 00000295201	9
IFTYQICK	chr15:72463983:-:L1M5>chr15:72462280:- :ENST00000564129	9
TENLGSILSWWHNK	chr3:72442890:-:L1MC4a>chr3:72428578:- :ENST00000477973	9
MGGATSPLLSSAK	chr17:56588640:-:MIRb>chr17:56586202:- :ENST00000579925	9
MISAFPTEGQR	chr11:74830434:+:L1PA4>chr11:74873700:+:E NST00000289575	9
TFTMIHFHLITR	chr12:4948527:+:Tigger2a>chr12:4959904:+:E NST00000542998	9
LLPPCQPGSSLSSK	chr16:18565603:-:MIR>chr16:18540905:- :ENST00000569051	9
GLFSQAEIR	chr6:123549550:-:THE1C>chr6:123545276:- :ENST00000398178	9
MAALTIATGLAVD	chr11:77850610:- :ENST00000530454>chr11:77848691:-:Tigger1	9
MYMAHGLTQSTK	chr5:153529506:+:L2c>chr5:153674376:+:ENS T00000425427	9
EFETSLGLWQAMR	chr9:15573873:+:AluJo>chr9:15578847:+:ENS T00000535968	9
TAELPKPSISSNNSNPK	chr19:42217314:+:Tigger4a>chr19:42311149:+: ENST00000415495	9

VQDHPGQHGEAIGK	chrX:47312190:-:AluSx>chrX:47308873:-:ENST00000432977	9
TSLGNMINDK	chr15:64365987:-:AluJr4>chr15:64365216:-:ENST00000300030	9
MLPPFVLAVTMGLSVVK	chr3:15058779:+:L2c>chr3:15062260:+:ENST00000323373	9
QIGCYQGFAFAWK	chr11:69488615:-:AluJo>chr11:69486587:-:ENST00000542341	9
SQGSGLNFIDLMVR	chr16:77786496:+:MIR3>chr16:77850818:+:ENST00000302536	9
AWEAEIMVKYLLFMWEIK	chr2:177179106:+:AluSz6>chr2:177191553:+:ENST00000249442	9
ATVWLGSGDEK	chr16:50651682:+:MER91A>chr16:50655550:+:ENST00000268459	9
DNTDSVVFEDVAVNFTQEEWALLGPSQK	chr19:12635610:-:L1MB3>chr19:12577664:-:ENST00000598753	9
QSLSEELK	chr2:211453855:+:LTR16C>chr2:211454830:+:ENST00000430249	9
AAAVAAKAEAVSPAK	chr19:39833216:+:(CGG)n>chr19:39866290:+:ENST00000598913	9
KLILCLNDCK	chr12:104518408:-:MER33>chr12:104517201:-:ENST00000240055	9
TGAQPPATMPLNVSFTNR	chr8:128749923:+:G-rich>chr8:128750494:+:ENST00000377970	9
DLEFETSLANK	chr10:103896914:+:AluSx1>chr10:103897607:+:ENST00000278070	9
LSSQHLGGQEPEQLPEKR	chr1:19410263:-:AluJo>chr1:19408067:-:ENST00000375224	9
TPEVEATVPLQK	chr22:42085308:+:AluSx1>chr22:42089467:+:ENST00000402966	9
ISQLQIWDTAGQER	chr3:128828867:-:AluJo>chr3:128814012:-:ENST00000457077	9
VILIFFPECYAK	chr22:31947110:+:L2>chr22:31952928:+:ENST00000450787	9
IRDSEELIGR	chr15:79649214:+:L1ME4a>chr15:79703742:+:ENST00000424155	9
MLAPENSDIGLAAWGR	chr20:32888526:-:L2b>chr20:32883391:-:ENST00000217426	9
QETPMAADEGSAEK	chr9:140606077:+:L1MB7>chr9:140611078:+:ENST00000460843	9
MLADRSMSSSLSASQLHTVNMR	chr17:38177572:-:MIRb>chr17:38176606:-:ENST00000394126	9
LGVGSDSEVEER	chr12:124157140:+:AluJo>chr12:124158165:+:ENST00000303372	9
IQEAEVAVK	chr17:48743773:+:AluSp>chr17:48744915:+:ENST00000502426	9
IDMISCVWK	chr2:223509604:-:MER44A>chr2:223507626:-:ENST00000281828	9

MGVVAHTCNPNTLGGQGI EMHQR	chr11:125450741:+:AluSx1>chr11:125451107: +:ENST00000278903	9
EDQMSSWSISTSVQPSGR	chr1:208254106:-:MIRb>chr1:208252795:- :ENST00000367033	9
MLLTHWLNLADHWR	chrX:63029083:-:MIR3>chrX:62944591:- :ENST00000253401	9
MEQFVQVYNWIDV	chr6:39290104:- :ENST00000507712>chr6:39289934:-:MIR3	9
LLSSLFSEPTCLILVSPQ	chr17:43026722:-:L2c>chr17:43013726:- :ENST00000590129	9
TAQLPEQLMTWHSR	chr22:37870550:- :ENST00000356998>chr22:37861756:-:L2a	9
SYQLRPGTMIEWGNYWR	chr7:56052571:+:ENST00000322090>chr7:560 59164:+:AluSp	9
QEDPLNLTCPSCGITFAPK	chr16:4052808:-:AluSx>chr16:4043511:- :ENST00000571467	9
TQEAEVANAASK	chr18:19241710:-:AluSp>chr18:19239304:- :ENST00000289119	9
ITSVVMVDEAHER	chr6:30629093:-:AluY>chr6:30628019:- :ENST00000376442	9
NIFSCISMGNFGGPGK	chr1:92518215:+:ENST00000370383>chr1:925 24420:+:LTR86B1	9
VISAFPSEVPGSSHSGVPDS GR	chr16:21059883:-:L1PA2>chr16:21051265:- :ENST00000415178	9
DILMYMVWWCVPMMPAT RR	chr2:225400245:- :ENST00000409096>chr2:225395962:-:AluSz	9
GQEIQTILANTCIPR	chr1:10478650:+:AluSc>chr1:10478883:+:ENS T00000270776	9
METDLECSDSR	chr5:68551355:+:ENST00000502604>chr5:685 51980:+:AluJo	9
MLSFMRPPQPCFLYSLWN	chr9:17365375:+:MSTA>chr9:17366615:+:EN ST00000380647	9
MLEKLEFEDEVPGP	chr7:151329155:- :ENST00000493872>chr7:151297948:-:MIRb	9
MELTIPGVGHSSGSLNEGK	chr2:99224633:-:MIRb>chr2:99220654:- :ENST00000328709	9
MASICPFLK	chr20:49307663:- :ENST00000535356>chr20:49307455:-:MIR3	9
AFLAMIHSVSSMK	chr7:151865652:-:UCON26>chr7:151864463:- :ENST00000355193	9
LSLSEDTDNSSLSPPPAK	chrX:19072648:-:L1ME4a>chrX:19058342:- :ENST00000357991	9
LHHWTPAWAAEK	chr17:80441180:+:AluSx>chr17:80443373:+:E NST00000457415	9
TISPFTGK	chr15:29384448:+:MER58A>chr15:29385278:+ :ENST00000561069	9
MSAALMFDAVHVVVSAV R	chr19:42559834:-:L2a>chr19:42558624:- :ENST00000301218	9

MLLTTFVIHGR	chr17:15939279:-:Tigger1>chr17:15938258:-:ENST00000395851	9
MLLTTFVIHGRR	chr17:15939279:-:Tigger1>chr17:15938258:-:ENST00000395851	9
EYIVPMLTGLQPIMIIQ	chr5:139864383:+:L1ME3A>chr5:139864706:+:ENST00000421134	9
PQNSTASVSEAER	chr1:21588222:-:L2c>chr1:21586885:-:ENST00000473505	9
SVSTIFLTCSR	chr10:1100108:-:Tigger1>chr10:1090111:-:ENST00000381344	9
MVILESMVSLTQELCPVAMR	chr14:24530511:+:MIRc>chr14:24530706:+:ENST00000342740	9
VSTEEEK	chr15:51201329:+:MIRb>chr15:51204275:+:ENST00000558439	9
MAHLLPNVSEETVSPTR	chr9:123334133:-:L2b>chr9:123330666:-:ENST00000481266	9
MGTVADTCDPSTLGGGVCDTAYR	chr2:201751637:-:AluJo>chr2:201750495:-:ENST00000415562	9
MLQPSQEVGTISK	chr4:157831776:-:L1MD2>chr4:157782641:-:ENST00000274071	9
TQSLGVDEVTIVNILTNRSN	chr15:60689166:-:MIRc>chr15:60656722:-:ENST00000559370	9
MPGPLRSLEMAR	chr19:20278169:+:ENST00000597083>chr19:20281106:+:AluSx1	9
VMGLVIPDVPK	chr13:96595382:-:L1ME3F>chr13:96592345:-:ENST00000376747	9
LHHCTPAWLTER	chr9:33878600:+:AluJb>chr9:33886879:+:ENST00000263228	9
MLSTSWTLPR	chr20:30459529:-:L2a>chr20:30457400:-:ENST00000278979	9
LAPALLSAMIFAVLWSTR	chr17:64403546:+:MSTA>chr17:64492319:+:ENST00000284384	9
NGISGQVLK	chr2:238991995:+:ENST00000433750>chr2:238992535:+:L1MDa	9
MQLDQICISFDEGK	chr22:50947090:+:Charlie9>chr22:50954876:+:ENST00000299821	9
MGAWLTPDTGVGK	chr18:9766693:+:AluJr4>chr18:9775275:+:ENST00000578921	9
STNDELDELR	chr18:8708134:+:L2c>chr18:8718422:+:ENST00000306329	9
EAEAGESLKPGR	chr17:421135:-:AluJr>chr17:420873:-:ENST00000574029	9
SQILGMQSLALVAQSGVQWR	chr11:17098209:-:FRAM>chr11:17098094:-:ENST00000533969	9
WQIYSGPLPTSPGAACLPCFSCGAK	chr16:57483993:+:L1ME2z>chr16:57484952:+:ENST00000262507	9
EYLEYEDTAQR	chr2:113956803:+:ENST00000245796>chr2:113966557:+:L4	9

SSGAQGEYAGLATIR	chr9:6566281:-:L1MC5>chr9:6565429:-:ENST00000321612	9
AGGSGSVVIWTVPTGSWQK	chr15:75629457:+:AluJr>chr15:75630403:+:ENST00000564815	9
VNGYPNYLIR	chr14:45702609:-:L2a>chr14:45702023:-:ENST00000453142	9
MASAWEGGAWR	chr14:105195833:+:(GCGTG)n>chr14:105196166:+:ENST00000555486	9
CMCLEYPAVVEFAPFQK	chr13:115049839:+:(TG)n>chr13:115051777:+:ENST00000375299	9
TSLANMVGMFK	chr6:136924515:-:AluSx1>chr6:136923117:-:ENST00000359015	9
FSEASVAMLPVQLWNR	chr6:147981955:+:MSTA>chr6:148058453:+:ENST00000566741	9
VETLCATLWGFGK	chr10:102711867:+:AluSz>chr10:102716208:+:ENST00000370269	9
MDLVQVSGSLGSPVLSCK	chr10:104231153:+:ENST00000366277>chr10:104231667:+:MIR3	9
MVAGPTYLGDLCPPK	chr14:94523351:-:MIR>chr14:94521530:-:ENST00000330836	9
HCHALMPK	chr12:15701267:+:L1MC4a>chr12:15702028:+:ENST00000535311	9
ASGSQGMFK	chr8:95855580:+:AluSx3>chr8:95861690:+:ENST00000343161	9
IVESGDTPK	chr2:25505735:-:Charlie24>chr2:25505580:-:ENST00000406659	9
ASGSLEGPFVTWR	chr19:15297447:-:AluSx>chr19:15296490:-:ENST00000263388	9
ENTMAENELQV	chr10:112572705:+:ENST00000369519>chr10:112576399:+:L2a	9
TVTVPAQELK	chr9:128421519:-:MIR>chr9:128420078:-:ENST00000373496	9
NLQLSAHLLTSSLK	chr9:112168615:-:MER102a>chr9:112166888:-:ENST00000374541	9
NLDLLEGMESTQMPK	chr13:38183213:-:L1MEf>chr13:38171419:-:ENST00000541481	9
LDGHAGDLDIEDDMK	chr14:62187825:+:AluSg4>chr14:62188227:+:ENST00000394997	9
MTKLLSPIR	chr22:32787416:-:AluSx1>chr22:32784086:-:ENST00000216038	9
YEEEIRTCR	chr6:24551662:-:ENST00000543707>chr6:24541573:-:MLT1B	9
QAWRLMPVIPAHWEAEVK	chr7:156789005:-:AluJo>chr7:156786875:-:ENST00000469500	9
AEIALLHSSLGNREK	chrX:114878268:+:AluSx>chrX:114879341:+:ENST00000537301	9
TFWTNDDPGLEVLVPEGGVLPETQQ	chr6:134528494:-:ENST00000367858>chr6:134508473:-:ERVL-B4-int	9

QEAEIPGANLNVEILSSCR	chr1:117629144:+:ENST00000369466>chr1:117630672:+:L2c	9
LNEGASGLDGKPGSR	chr4:109762023:-:MIRb>chr4:109755546:-:ENST00000494183	9
MESQLQIEETTLLR	chr16:4667729:+:AluJb>chr16:4700366:+:ENST00000588994	9
MSDPVFLSLSLLVCETGDHEKRNGR	chr9:20361021:-:MIR>chr9:20360839:-:ENST00000380338	9
ICHFLSVTGSLLR	chr2:74071187:+:MIR>chr2:74071940:+:ENST00000424659	9
MSSINPNTSATWK	chr14:90416441:-:ENST00000267544>chr14:90416136:-:THE1B	9
IILANTFSK	chr3:185328562:+:AluY>chr3:185329439:+:ENST00000545472	9
FCRLLNGLGEEIK	chr10:28247767:-:MIRb>chr10:28233891:-:ENST00000537576	9
AQEFETSLGNMFR	chr12:95596369:-:FLAM_C>chr12:95566520:-:ENST00000451107	9
MSDQEKGPIVSSGVR	chr2:203103163:-:ENST00000392244>chr2:203098881:-:Charlie4z	9
TNYAASSYLSLTPEQWK	chr22:23204348:+:L1MA4A>chr22:23248706:+:ENST00000390325	9
TSLGNMLTADPR	chr14:35778674:+:AluSx>chr14:35779946:+:ENST00000556506	9
SPVTMEQLICK	chr2:90074903:+:MER70-int>chr2:90139454:+:ENST00000492446	9
GAGPAVPGGPVPAGATLTTGAR	chr17:2627917:+:GC_rich>chr14:106330469:-:ENST00000461719	9
GQEFETSLANMETPGR	chr16:3718260:-:AluSx>chr16:3716119:-:ENST00000576335	9
FVDVTECQACSANSR	chr22:21567354:-:ENST00000424627>chr22:21564141:-:L2b	9
TELNIVPVPR	chr19:41438041:+:L2b>chr19:41509906:+:ENST00000330446	9
MTLATDGTADMFGIR	chr3:4927407:-:ENST00000441894>chr3:4898429:-:MLT1D	9
MELSAQFAATTTTPPRPLGR	chr11:58943356:+:MIR3>chr11:58949212:+:ENST00000227451	9
EAIALCHFFFNISGILLWYPIPFTR	chr4:25676447:+:L3>chr4:25677757:+:ENST00000503434	9
DAAALLLANEAR	chr6:110774731:-:LTR40c>chr6:110768193:-:ENST00000434949	9
MELTIPGVGK	chr2:99224656:-:MIRb>chr2:99220650:-:ENST00000328709	9
METPAQLLFLLLLWLPAEAGGIMR	chr2:89442543:-:ENST00000492167>chr2:89438968:-:AluYb8	9
MGAVTHIWNPRTLGGQDPDHR	chr17:40046175:-:AluSq2>chr17:40043956:-:ENST00000353196	9

LTMGSTGCDRPLDK	chr14:106717516:-:L1MC>chr14:106641752:-:ENST00000390605	9
WGGQAPPGQPPRPGGR	chr19:39346300:-:SVA_D>chr19:39338074:-:ENST00000601449	9
LRQEQLLEPRMQR	chr19:50809471:+:AluSp>chr19:50812982:+:ENST00000262269	9
TLEVEGK	chr12:76520433:-:AluSx1>chr12:76443026:-:ENST00000431879	9
NLEASWATR	chr16:14738989:+:AluJr>chr16:14742245:+:ENST00000570219	9
ELYPGQFKPPICLL	chr19:39380329:-:ENST00000358931>chr19:39380152:-:MIR	9
MLVSASQDGK	chr7:100274628:+:AluJo>chr7:100274975:+:ENST00000412215	9
AGFYEQMNGPVAG	chr8:144745326:-:AluSz>chr8:144668944:-:ENST00000531931	9
MLGTRPHGR	chr11:73445789:-:MER1B>chr11:73441868:-:ENST00000336083	9
LAVNSPPVEPPEQHSR	chr1:53346501:+:MLT1E1A>chr1:53347143:+:ENST00000371532	9
MIVMNDQMDSSLK	chr10:64976967:-:ENST00000402544>chr10:64445839:-:L2c	9
MGTVAHACNTSTLGGQEHCEGLR	chr22:21577153:-:AluJb>chr22:21104282:-:ENST00000255882	9
MSLCILSMK	chr19:9939645:+:MIRb>chr19:9940641:+:ENST00000586895	9
IPTVTPGAASSC	chr17:62544114:-:MER5B>chr17:62499650:-:ENST00000450599	9
TITDAELPIYR	chr14:51362421:+:HERVH-int>chr14:51368547:+:ENST00000353130	9
GLEWVSQISESTNSL	chr14:107048816:-:ENST00000390627>chr14:107047602:-:LTR13	9
VAVSVLSPGK	chr11:69063184:+:ENST00000308946>chr11:69084301:+:MIRb	9
GQVIGEIDEETDSALDLGNIR	chr7:117829683:+:AluSq2>chr7:117831971:+:ENST00000422760	9
DQPGQHGPGMRPPLGLR	chr1:222838358:+:AluJb>chr1:222838651:+:ENST00000344441	9
VILVNLGSSAEWVFQR	chr9:123165587:-:L2c>chr9:123165349:-:ENST00000416449	9
TTALQPGHSDLVTAR	chr9:127988405:+:AluSx>chr9:127990189:+:ENST00000259460	9

In lung primary tumors, 167 JET-derived proteins were identified (Fig 16A and Table 7).

Table 7:

Sequence	chimeric_id_all	Recurrence
LSVLSQPK	chr2:134035154:+:L1M5>chr22:23248512:+:ENST00000390325	100
SNLNTGVPSR	chr2:90214357:+:L1ME3>chr2:90249278:+:ENST00000468879, chr2:90214357:+:L1ME3>chr2:90260131:+:ENST00000471857	99
LDSQYVER	chr19:18432008:-:L2a>chr19:18426875:-:ENST00000593829	81
DIVRSDLEGKR	chr22:45565558:+:LTR13A>chr22:45566869:+:ENST00000434760	71
AEIAPLNSSLGR	chr19:8529495:+:AluSq2>chr19:8530208:+:ENST00000348943	46
TFTGGAVIVQK	chr20:44410315:-:MER68>chr20:44404241:-:ENST00000337205	35
VETSDEEIHKK	chr1:226016613:+:ENST00000445856>chr1:226018885:+:MER58B, chr1:226016613:+:ENST00000445856>chr1:226018885:+:MER58B	32
SQLLERPRQENRLNLGASR	chr19:17387073:+:AluSq2>chr19:17387304:+:ENST00000596335, chr19:17387073:+:AluSq2>chr19:17387304:+:ENST00000598188, chr19:17387073:+:AluSq2>chr19:17387304:+:ENST00000599474, chr19:17387073:+:AluSq2>chr19:17387304:+:ENST00000601938, chr19:17387073:+:AluSq2>chr19:17387304:+:ENST00000602066	31
LSLGSRIDQINISR	chr3:4867430:-:ENST00000449914>chr3:4859235:-:L1MC4	30
NGKFPSLLTHNENMVAK	chr6:35419093:+:L2b>chr6:35438040:+:ENST00000322203	26
ACLAEGR	chr3:40501213:+:AluY>chr3:40502924:+:ENST00000338970	25
ILNCQKAMAPSFR	chr9:140458886:-:ENST00000277540>chr9:140458662:-:L2	24
TEFLSFMNTELAAFTKK	chr1:152006124:-:ENST00000271638>chr1:152005339:-:MIRc, chr1:152006124:-:ENST00000271638>chr1:152005339:-:MIRc	23
VLGVGSTR	chr1:46675049:+:HAL1>chr1:46685371:+:ENST00000371980	21
QNLQQAQCGLDLR	chrX:38015613:-:MER5A1>chrX:38013836:-:ENST00000432886, chrX:38015613:-:MER5A1>chrX:38013836:-:ENST00000432886, chrX:38015613:-:MER5A1>chrX:38013836:-:ENST00000432886	20
MRRPGQASAFLGLSFFTLYLR	chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000361436, chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000361436, chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000361436, chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000536368, chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000536368, chr9:130213388:-:MIR3>chr9:130213083:-:ENST00000536368	15
TQGGSMGNSSSSR	chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000263238, chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000263238, chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000415792, chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000415792, chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000446821, chr2:114668071:+:MER21B>chr2:114670749:+:ENST00000446821	15

NLDNLPSRLSIR	chr18:66490653:+:MER51E>chr18:66505943:+:ENST00000584775	14
VVSKVEFVHFLAFIK	chr7:156483036:-:Charlie7a>chr7:156480885:-:ENST00000353442	14
LPRTGIGAPRTR	chr7:94018589:+:L2c>chr7:94057721:+:ENST00000297268	14
MGWMGEAVR	chr9:130341201:-:ENST00000373314>chr9:130334967:-:MIRb	12
MALSQCGPGKPK	chr19:53754789:-:ENST00000333952>chr19:53750572:-:MER30	12
LLITTSAGGR	chr3:194340620:-:L3>chr3:194337998:-:ENST00000392432	12
LSCAASGFTLR	chr14:106866613:-:ENST00000390618>chr14:106764783:-:AluJb	12
ASQASVPPASLPCPSR	chr2:112896307:+:ENST00000331203>chr2:112896389:+:C-rich	11
ASVTLIR	chr3:44887389:+:MER65D>chr3:44889477:+:ENST00000326047	11
MNSLSIR	chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000342287, chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000373487, chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000373489, chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000428092, chr9:128638776:+:Tigger2a>chr9:128677965:+:ENST00000491787	11
APVTGWQELK	chr4:102117073:-:ENST00000492351>chr4:102104428:-:MLT1J	11
MEAYTPKLTQLLK	chr11:18373993:+:ENST00000526630>chr11:18374659:+:AluSq2	11
SHLLGRLSQENHWNLIK	chr1:234516671:+:AluSx>chr1:234519469:+:ENST00000366615	11
GLEFETSLANMHGKK	chr4:25395102:+:AluSz6>chr4:25395461:+:ENST00000315368	8
TNVQQTTDLEIPPPGTVGYCAVK	chr14:31588916:-:ENST00000399332>chr14:31586842:-:L1ME4a, chr14:31588916:-:ENST00000399332>chr14:31586842:-:L1ME4a, chr14:31588916:-:ENST00000553957>chr14:31586842:-:L1ME4a, chr14:31588916:-:ENST00000553957>chr14:31586842:-:L1ME4a	8
LARHGWAEAFAGIRSSHIK	chr8:54994449:-:AluSq2>chr8:54978373:-:ENST00000316963, chr8:54994449:-:AluSq2>chr8:54978373:-:ENST00000343231, chr8:54994449:-:AluSq2>chr8:54978373:-:ENST00000518546	8
MATVYFTRATSQCK	chr19:49497180:+:ENST00000595090>chr19:49497762:+:L2a	8
LGGSSCLVAYKK	chr20:35116711:+:MIR>chr20:35125108:+:ENST00000373907, chr20:35116711:+:MIR>chr20:35125108:+:ENST00000373913	8
LLIYAASNGHSGQQ	chr2:90199062:+:ENST00000390276>chr2:90207369:+:MER66-int, chr2:90199062:+:ENST00000390276>chr2:90207369:+:MER66-int	8
MAACLGLPK	chr2:172725191:-:ENST00000392592>chr2:172723793:-:SVA_D, chr2:172725191:-:ENST00000392592>chr2:172723793:-:SVA_D	8
MSLGLSIHHLSDGSGIK	chr17:37028428:+:MIR3>chr17:37034339:+:ENST00000318008	8
AEDTATSCRAK	chr14:106573251:-:ENST00000390601>chr14:106558237:-:L1PB4	8
ISSEQLFCFTLINPK	chr19:32948256:+:L4>chr19:32949006:+:ENST00000392250	7

AIALQPGQQ RETR	chrX:114878268:+:AluSx>chrX:114879341:+:ENST00000355899, chrX:114878268:+:AluSx>chrX:114879341:+:ENST00000497870	7
MGVVAHAC NSSTLGGQD PLDLLHLPG VR	chr7:6508832:-:AluY>chr7:6505954:-:ENST00000258739	7
MELTIPGEG K	chr2:99224660:-:MIRb>chr2:99220654:-:ENST00000328709, chr2:99224660:-:MIRb>chr2:99220654:-:ENST00000328709, chr2:99224660:-:MIRb>chr2:99220654:-:ENST00000328709	7
MAAAALRD PAQSR	chr19:57999351:+:ENST00000354197>chr19:58024390:+:LTR3B_	7
GPSPSGAEP R	chr17:43880005:+:Tigger12>chr17:43884376:+:ENST00000347197, chr17:43880005:+:Tigger12>chr17:43884376:+:ENST00000352855	6
LLSSSMHTL QTK	chrX:38146409:+:CT-rich>chrX:38146366:-:ENST00000318842, chrX:38146409:+:CT-rich>chrX:38146366:-:ENST00000378505, chrX:38146409:+:CT-rich>chrX:38146366:-:ENST00000482855	4
SSRPAWPT WCLPPGPG R	chr19:55882935:-:AluSx>chr19:55880309:-:ENST00000264563	4
MTDGGLAL	chr12:110873462:-:AluSz>chr12:110873022:-:ENST00000228825	4
QFWNHFVC IVEETEADV NPK	chr22:42077159:-:L1MC4a>chr22:42076368:-:ENST00000355257	4
GLILLEQDTA VQNMHK	chr9:15619847:+:Tigger1>chr9:15623265:+:ENST00000297641, chr9:15619847:+:Tigger1>chr9:15623265:+:ENST00000380701, chr9:15619847:+:Tigger1>chr9:15623265:+:ENST00000535968	4
LASVFQLQL LR	chr10:29778636:-:AluJb>chr10:29777685:-:ENST00000375400	4
DASKGVSLH K	chrX:138286221:-:ENST00000370603>chrX:138072779:-:THE1B	4
YAGRPLQCL IQDGILNPH AASCTCAAC CDDMTLLLR	chr11:684898:-:ENST00000382409>chr11:681362:-:AluSx	4
FQTSGLQNC SFKRWSMIL K	chr10:98044785:-:MLT1C>chr10:98006805:-:ENST00000224337, chr10:98044785:-:MLT1C>chr10:98006805:-:ENST00000224337	4
QLWTLIGM EMVPEESTL TSLGIK	chr2:42612922:-:MER34B>chr2:42580483:-:ENST00000468711	4
PAAVALACN PSTLRGRG MPR	chr1:234538581:-:AluJb>chr1:234537008:-:ENST00000040877	4
VIHDNFGIV EGLMTVTPK	chr12:6646556:+:ENST00000229239>chr12:6648679:+:MIRb, chr12:6646556:+:ENST00000396856>chr12:6648679:+:MIRb, chr12:6646556:+:ENST00000396858>chr12:6648679:+:MIRb	4
EFETSLANM LLDHYQNCK	chr14:50950778:-:AluSx1>chr14:50949134:-:ENST00000013125	4
AHSTLQDEA ESFMHVQL EVMVR	chr19:17683411:+:ENST00000252599>chr19:17684363:+:AluJb	4

HLEEATVAELSSCR	chr2:118715941:-:ENST00000319432>chr2:118715754:-:MER58A, chr2:118715941:-:ENST00000376300>chr2:118715754:-:MER58A	4
SLNLYNCNS	chr1:94660048:-:MLT1A0>chr1:94655639:-:ENST00000552844	4
GAILTTMLATRNFSDAVASLDPRSCDSR	chr5:149627335:-:ENST00000348628>chr5:149626005:-:MER102b	4
QMTQVTMPGEPVDVACGVDHMVTLAK	chr7:74461534:-:AluJr>chr7:74457217:-:ENST00000329959	4
QVISAFPTEISTAMPVK	chr3:51405623:+:L1PA5>chr3:51411918:+:ENST00000266037	4
WVYEVQAGAARDALQGFK	chr13:33100704:+:L1MC5>chr19:41270986:+:ENST00000243563, chr13:33100704:+:L1MC5>chr19:41270986:+:ENST00000601393	4
QVDCLGPGVPDQPGQHDITRSGAK	chr8:141451863:-:AluJr>chr8:141449296:-:ENST00000389327	4
YEEASIPFVGILVEK	chr1:182920453:-:ENST00000367547>chr1:182915515:-:HAL1, chr1:182920453:-:ENST00000423786>chr1:182915515:-:HAL1	4
QEQSSSPAMEQSWMENDFDKLTELGFRR	chr1:51946945:-:ENST00000371730>chr1:51945188:-:L1PA5	4
LFFLLLTSCR	chr22:41650398:+:CT-rich>chr22:41648969:-:ENST00000405486	4
AASRGVTFLFPIQAK	chr10:70722825:+:AluJo>chr10:70723047:+:ENST00000354185	4
NPSTLGGQASPSPSPK	chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000349029, chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000349029, chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000351154, chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000351154, chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000399410, chr16:16171648:+:AluSx>chr16:16173209:+:ENST00000399410	4
IIQVWWHVPVVPAAQEAEVR	chr7:116527485:+:AluJo>chr7:116528181:+:ENST00000361183, chr7:116527485:+:AluJo>chr7:116528181:+:ENST00000426421, chr7:116527485:+:AluJo>chr7:116528181:+:ENST00000458284, chr7:116527485:+:AluJo>chr7:116528181:+:ENST00000490693	4
MWSGLPSRGLPIFK	chr2:180610440:-:ENST00000409343>chr2:180493215:-:L1MC5	4
FLGLGFFICNMRR	chr15:81281080:-:MIR3>chr15:81274523:-:ENST00000561312	4
AEIAPLHSSLGDRAAK	chr7:138950208:+:AluSc8>chr7:138951079:+:ENST00000288561, chr7:138950208:+:AluSc8>chr7:138951079:+:ENST00000483726	4
LLPVIPELWEAEMR	chr10:95240482:-:AluSx>chr10:95216694:-:ENST00000358334	4
MDGPAEPQIPGLWDTYEDDISEISYLPKR	chr19:49055580:+:ENST00000201586>chr19:49066561:+:L1ME2z	4

NLGSVWWL EVAELTNPS	chr8:146016536:-:MIRb>chr8:146015855:-:ENST00000394920	4
TSLGNMCVI QSWVTSGT AK	chr21:45165696:+:AluJb>chr21:45165960:+:ENST00000468090	4
EAANMILVD DDFSAIIIGK	chr16:84488590:+:ENST00000262429>chr16:84490583:+:L1HS	4
MAHAYNPS TLGSQAPIK	chr17:62480081:-:AluJb>chr17:62479091:-:ENST00000539111, chr17:62480081:-:AluJb>chr17:62479091:-:ENST00000581355	4
MQVSLHPK CKADK	chr8:105152976:+:L2b>chr8:105160835:+:ENST00000408894	4
GQLRPHTW LSIRSTR	chr19:10200199:+:MIRb>chr19:10200333:+:ENST00000253110, chr19:10200199:+:MIRb>chr19:10200333:+:ENST00000587710, chr19:10200199:+:MIRb>chr19:10200333:+:ENST00000590378, chr19:10200199:+:MIRb>chr19:10200333:+:ENST00000593131	4
MMKPGLAS IQSRIAILSR	chr7:37989696:+:L1MB3>chr7:37989802:+:ENST00000476620, chr7:37989704:+:L1MB3>chr7:37989802:+:ENST00000476620	4
WRHGTPA WLIQVLLED ETTESAVK	chr2:102014362:-:AluSq2>chr2:102014186:-:ENST00000376826	4
TDSREAEFP QKK	chr15:51201329:+:MIRb>chr15:51204275:+:ENST00000561441	4
ATVLFYSYKP K	chr19:32948256:+:L4>chr19:32949006:+:ENST00000392250, chr19:32948256:+:L4>chr19:32949006:+:ENST00000586987, chr19:32948256:+:L4>chr19:32949006:+:ENST00000588648	4
LLLSSLSSLG DSAPER	chr1:156962904:-:MIRb>chr1:156955965:-:ENST00000361409, chr1:156962904:-:MIRb>chr1:156955965:-:ENST00000368194	4
DLGQVISLD LHIFICEVSR VPMIR	chr20:1106051:+:MIR3>chr20:1106141:+:ENST00000333082	4
ILWWSQGK	chr12:123839145:-:MIR3>chr12:123834988:-:ENST00000267176	4
SLGLSFHICII EAAGRGGE AVK	chr15:83100895:+:MIRb>chr15:83103066:+:ENST00000561062	4
VISAFPSEVS RR	chr9:18711328:+:L1PA3>chr9:18721534:+:ENST00000380548	4
MISSTSVYA PK	chr2:164591413:-:ENST00000409634>chr2:164561904:-:MIR3	4
GLPSHTELS MICSRASM TPLWGRPP WPR	chr14:78340168:+:THE1C>chr14:78353434:+:ENST00000238561	4
GIPSQVELA WHWKR	chr7:81946024:-:THE1B>chr7:81799925:-:ENST00000356860	4
VTLGISSPVK K	chr19:3368020:+:MIR3>chr19:3449012:+:ENST00000341919, chr19:3368020:+:MIR3>chr19:3449012:+:ENST00000346156, chr19:3368020:+:MIR3>chr19:3449012:+:ENST00000589123	4
ICKAMLELLE DPVLCALAK	chr10:5056964:-:PABL_B-int>chr10:5037645:-:ENST00000380753	4

TCAMAQNIPEGQKLDILLNK	chr8:99019829:+:ENST00000521689>chr8:99025486:+:Tigger12c, chr8:99019829:+:ENST00000522025>chr8:99025486:+:Tigger12c, chr8:99019829:+:ENST00000524308>chr8:99025486:+:Tigger12c	4
HVVQGIQIIR	chr13:92560311:+:ENST00000377067>chr13:92572670:+:HAL1	4
VTGSLQDGMTTGPPRRR	chr17:39976301:+:MIRc>chr17:39977199:+:ENST00000321562	4
YLSPEAEVAVSRDCATALQPGVK	chr14:73754128:-:AluSz6>chr14:73754022:-:ENST00000554546	4
QLLCIVSNQK	chr12:49658051:+:MIRb>chr12:49663248:+:ENST00000541364, chr12:49658051:+:MIRb>chr12:49663248:+:ENST00000552125	4
FVSDEMSKDCLSILYNTCVCTEGVTK	chr20:33644499:-:L1ME3E>chr20:33642834:-:ENST00000252015, chr20:33644499:-:L1ME3E>chr20:33642834:-:ENST00000451813	4
QLEYLARIQGFQASLFPETQQY	chr8:74464247:-:ENST00000517542>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000521210>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000521451>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000521727>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000522695>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000523533>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000523558>chr8:74420593:-:Tigger1, chr8:74464247:-:ENST00000524300>chr8:74420593:-:Tigger1	4
LQGERISGNLDAPEGGFDAILQTAVCTK	chr17:73725517:+:ENST00000579662>chr17:73726063:+:AluJo	4
LLEILGATIENSR	chr16:29692733:+:Charlie4z>chr16:29708317:+:ENST00000395384, chr17:39696603:-:MIR>chr17:39681525:-:ENST00000361566, chr17:39696603:-:MIR>chr17:39681525:-:ENST00000361566	4
MTKLLSPIR	chr22:32787416:-:AluSx1>chr22:32784086:-:ENST00000216038	4
VLILCQHEALVK	chr17:53344521:+:MIRb>chr17:53345112:+:ENST00000226067	4
DDSEPGMPVLPPR	chr12:56685415:-:L3>chr12:56680404:-:ENST00000351328, chr12:56685415:-:L3>chr12:56680404:-:ENST00000552688	4
QWTEILHFTDFPISLDTTILK	chr11:60665318:-:ENST00000227524>chr11:60663297:-:Tigger1, chr11:60665318:-:ENST00000227524>chr11:60663297:-:Tigger1, chr11:60665318:-:ENST00000535326>chr11:60663297:-:Tigger1, chr11:60665318:-:ENST00000535326>chr11:60663297:-:Tigger1	4
MSVLGELS	chr14:75593608:-:ENST00000238616>chr14:75593104:-:MIRc	4
GQEIKTILANTEWTYPMR	chr14:53079781:+:AluY>chr14:53211570:+:ENST00000442123, chr14:53108136:+:AluY>chr14:53211570:+:ENST00000442123, chr14:53201596:+:AluY>chr14:53211570:+:ENST00000442123	4
FSSHSEMVIITTITSNSQGEAAR	chr18:9858290:+:MIRc>chr18:9859225:+:ENST00000578921	4
TENQTPHVLTHRPPK	chr4:87716976:+:L1PA6>chr4:87718027:+:ENST00000411767	4
QAFLEQTRPLR	chr3:127878586:+:L2a>chr3:127965679:+:ENST00000254730, chr3:127878586:+:L2a>chr3:127965679:+:ENST00000483457,	4

	chr5:43583569:-:MER39B>chr5:43556101:-:ENST00000306846, chr5:43583569:-:MER39B>chr5:43556101:-:ENST00000306846, chr5:43583569:-:MER39B>chr5:43556101:-:ENST00000306846	
ESFSDFSSSILK	chr19:16201431:+:L2c>chr19:16204346:+:ENST00000344824	4
QVLWLMPMIPALSEAEAAGSLETSLGNMTSAWCR	chr4:3344780:+:ENST00000514268>chr4:3377116:+:(CCCCAG)n	4
QTDHLRPGVQHQSGQHSK	chr1:28810817:+:AluSx>chr1:28815682:+:ENST00000373839, chr1:28810817:+:AluSx>chr1:28815682:+:ENST00000373839, chr1:28810817:+:AluSx>chr1:28815682:+:ENST00000373839	4
IEDFGVHCKQMTSHLTK	chr8:67968754:-:ENST00000357849>chr8:67967541:-:L2a	4
YFDYWGQGTLVTQSPPSK	chr14:106330435:-:ENST00000461719>chr14:106301002:-:MER65-int	4
AVALYEGTLSLCSEDLK	chr2:238451319:+:(TGG)n>chr2:238454100:+:ENST00000445024	4
MPSLNTSRPSGVPDRFSGSK	chr22:22689234:+:L1PA8>chr22:22712477:+:ENST00000390294, chr22:22689234:+:L1PA8>chr22:22735583:+:ENST00000390297	4
IVGNMFNQMAK	chr13:77572426:+:MIRc>chr13:77574593:+:ENST00000377453	4
LLIYAAATR	chr2:90537978:-:ENST00000443397>chr2:89942712:-:MLT1D	4
LFSIHLLSALGPK	chr4:55076146:-:L2a>chr2:89160766:-:ENST00000390240	4
LCPAATLSER	chr20:35779434:+:SVA_B>chr20:35812583:+:ENST00000237530	4
TVEQGVGVWR	chr11:64042841:+:MIRb>chr11:64085797:+:ENST00000265462, chr11:64042841:+:MIRb>chr11:64085797:+:ENST00000265462, chr11:64042841:+:MIRb>chr11:64085797:+:ENST00000347941, chr11:64042841:+:MIRb>chr11:64085797:+:ENST00000347941	4
GLEWIGTK	chr14:106877762:-:ENST00000390619>chr14:106859351:-:MLT1C	4
QRPLCCDEQPHQTAFGPK	chr1:153635838:-:AluJr4>chr1:153635752:-:ENST00000361891, chr1:153635838:-:AluJr4>chr1:153635752:-:ENST00000361891, chr1:153635838:-:AluJr4>chr1:153635752:-:ENST00000361891	4
MIVMNDQMDSSLK	chr10:64976967:-:ENST00000402544>chr10:64445839:-:L2c	4
PGVVAHACNPSTLGGRDLHGMVQLPPAEGR	chr19:39144970:+:AluSz>chr19:39191240:+:ENST00000252699, chr19:39144970:+:AluSz>chr19:39191240:+:ENST00000252699, chr19:39144970:+:AluSz>chr19:39191240:+:ENST00000252699	4
MSPQLLTPGSGAHSQVQLVQSGAEVK	chr14:106662989:-:HERVS71-int>chr14:106641867:-:ENST00000390605	4
LLEGEECRNLASKK	chr12:52910421:-:ENST00000252242>chr12:52900057:-:L1MC1	4

PGMMAHACNPSTLGGRGGWIMR	chr6:31360872:-:AluSg>chr6:31324570:-:ENST00000412585	4
LFPGQPMVSNK	chr14:70383468:+:L2a>chr14:70418855:+:ENST00000361956	4
TAPPLSPLADSLCGLSPPAPR	chr14:51363531:+:LTR7>chr14:51368547:+:ENST00000337334	4
NLHQSNFSLSGEAKYPPR	chr4:5827221:-:ENST00000324989>chr4:5744561:-:MER66C, chr4:5827221:-:ENST00000397890>chr4:5744561:-:MER66C, chr4:5827221:-:ENST00000512574>chr4:5744561:-:MER66C	3
SCIFTISKIDDR	chr6:74208780:+:MER104>chr6:74210297:+:ENST00000415954	3
LHELMERTIFLITQIR	chr1:212870303:-:ENST00000243440>chr1:212869254:-:L2	3
EAEAGESLESDAVKQAMQK	chr4:17818661:+:AluSc>chr4:17818884:+:ENST00000251496	3
KKADATLLK	chr14:23350226:+:AluSc>chr14:23353883:+:ENST00000267396, chr14:23350226:+:AluSc>chr14:23353883:+:ENST00000536884	3
MVEGDQLPPGHTVSQYETCK	chr1:183811061:+:Tigger4a>chr1:183816700:+:ENST00000304685, chr1:183811061:+:Tigger4a>chr1:183816700:+:ENST00000539189	3
VCNKNFDDEDSVDGNRPSSASSTSSK	chr2:122259789:-:L2a>chr2:122227536:-:ENST00000263710, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000397587, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000409078, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000418989, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000449975, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000452274, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000455322, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000541377, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000541859, chr2:122259789:-:L2a>chr2:122227536:-:ENST00000545861	3
MLETLTLISSLGGLR	chr19:58288037:+:ENST00000391702>chr19:58308975:+:AluSp	3
STNVLCTLFMLNLPDLEEK	chr2:131117848:+:L2a>chr2:131126706:+:ENST00000175756, chr2:131117848:+:L2a>chr2:131126706:+:ENST00000175756	3
QEQSSSPAMEQSWMENDFDKLTELGFRR	chr1:51946945:-:ENST00000371730>chr1:51945188:-:L1PA5	3
MILSSIR	chr6:144066592:+:L3>chr6:144070122:+:ENST00000367584	3
MGAVAQACNPSTLGGQGKPAPEIR	chr3:10237009:+:AluJo>chr3:10242053:+:ENST00000256458	3
YVLAAPEWTEEDLSQLTRSMVK	chr10:22168673:-:Tigger1>chr10:22095028:-:ENST00000376980	3
HPSFRPAMTVWVGK	chr20:25838731:-:SST1>chr20:25755948:-:ENST00000376403	3

ALEPGRGSEEAKCSITSCTR	chr17:5200809:+:MIRb>chr17:5235244:+:ENST00000262477	3
QVLQHPWK	chr3:118831521:-:L1PA3>chr3:118649122:-:ENST00000425327	3
SLRPAATPSGK	chr1:217697476:-:SVA_D>chr1:217688231:-:ENST00000366935	3
HRRQISTAMPVK	chr3:51405599:+:L1PA5>chr3:51411918:+:ENST00000266037	3
TSSGLPLILHYAMTETPLSMCLWEK	chr7:33001530:+:MER1A>chr7:33014229:+:ENST00000242209	3
LLDASQFGRMITR	chr1:243449699:+:ENST00000435549>chr1:243451519:+:AluJb	3
SQHFGRPRQVDYLR	chr7:101810334:+:AluSx1>chr7:101813726:+:ENST00000437600	3
IQNSQVGIAVQQK	chr3:9476785:+:AluSp>chr3:9477412:+:ENST00000450326	3
QPPRPNQLCRR	chr20:43581385:+:L2b>chr20:43586984:+:ENST00000372826	3
LQAEYMAASLGHGGPR	chr19:10561170:+:MIRb>chr19:10561279:+:ENST00000592685	3
DTVDVLK	chr3:50089360:+:L1MB7>chr3:50091768:+:ENST00000425608	3
AASNQISGVPSR	chr2:90010195:-:LTR62>chr2:89246936:-:ENST00000496168	3
LSWRGSGKITK	chr14:106552518:-:ENST00000390600>chr14:106279761:-:L1PA13, chr14:106815952:-:ENST00000390615>chr14:106279761:-:L1PA13	3
QELSILTMQVPPCSPR	chr18:33758286:+:L1ME1>chr18:33775220:+:ENST00000261326	3
LSCAASGFTVK	chr14:107048875:-:ENST00000390627>chr14:107025026:-:L1PB3, chr14:107131236:-:ENST00000390632>chr14:107025026:-:L1PB3	3
QAPGQGLEWMGGIIPIFGTRNYRK	chr14:107170059:-:ENST00000390633>chr14:107126752:-:L1ME2, chr14:107170059:-:ENST00000390633>chr14:107126752:-:L1ME2	3
VCTWTPFNPVTVR	chr5:302190:+:(TG)n>chr5:304292:+:ENST00000505221, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000505221, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000505221, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000506909, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000506909, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000506909, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507473, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507473, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507473, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507528, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507528, chr5:302190:+:(TG)n>chr5:304292:+:ENST00000507528	3

Importantly, a group of 10 JET-derived proteins were found to be highly recurrent across the dataset, which were also highly reliable according to their MS/MS spectra. In addition, an

overexpression of JET-derived proteins was detected in tumor samples annotated as inflammatory, which could be associated to higher interferon-γ levels, and therefore an increased expression of transposable elements. These results provide a clear evidence that JETs encode for coding sequences that are translated into protein sequences. Mass spectrometry-based proteomics is thus a useful tool for from the validation of coding JETs.

Immunopeptidomics

Proteomic analysis provides evidence of the existence of JET-derived proteins within the cell, but it does not elucidate the contribution of those proteins to the repertoire of major histocompatibility complex class I (HLA-I in humans)-associated peptides (also referred to as the immunopeptidome). Presentation by MHC class I molecules (named HLA-I in humans) on the tumor cell surface is indeed required for JET-derived peptides (pJETs) to be recognized by cytotoxic T cells. To demonstrate that JETs can be effectively processed and presented by HLA-I, the presence of lung tumor-specific pJET was searched in MS-based immunopeptidomics datasets (Fig. 16A – Table 8).

Table 8:

Sequence	chimeric_id	Recurrence in peptidome
RATKPTVQK	chr22:19103521:->chr22:19077003:-	8
MTSQTMVNK	chr17:34139989:+>chr17:34147028:+	5
RTHQQAPLK	chr20:45967949:->chr20:45938948:-	5
VAAAESHPL	chr9:136210283:+>chr9:136216428:+	5
GIRPPTSVR	chr12:120659973:->chr12:120659561:-	4
AQMSVPFNR	chr13:38183213:->chr13:38171419:-	4
SLSPPLVSK	chr19:46646469:+>chr19:46663672:+	4
AVNGKFVGR	chr5:10384580:+>chr5:10387106:+	4
IQNEIHAQR	chr5:43583569:->chr5:43556101:-	4
RLDHQRAEK	chr1:180975232:->chr1:180974599:-	3
RWKEVPSVPR	chr10:123969561:+>chr10:123969912:+	3
GVQQYHLLSW	chr10:72644921:->chr10:72642242:-	3
RLATAPSEK	chr10:99601433:+>chr10:99619215:+	3
YLPDFYFGKF	chr11:108084796:->chr11:108068147:-	3
TVKTKSLM	chr11:117024976:+>chr11:117030650:+	3
HSKALSLSK	chr11:118278445:+>chr11:118279715:+	3
KTKNLPMQEK	chr11:19146727:+>chr11:19164530:+	3
KTKDLDQFLK	chr12:41157000:+>chr12:41312441:+	3
GGGYNDFGNY	chr12:54631910:+>chr12:54677621:+	3

TEIILRIK	chr14:75593406:->chr14:75593104:-	3
RMFWIPKTK	chr15:50744825:+>chr15:50751197:+	3
VWMRSPLSTF	chr15:60657933:->chr15:60656722:-	3
LPDLAGLAHL	chr16:47626347:+>chr16:47627411:+	3
KVLGDVATK	chr2:171927080:->chr2:171917666:-	3
MVKPPSLLK	chr2:44554937:+>chr16:75263893:-	3
ESFYGIGTTRW	chr5:140080670:+>chr5:140081591:+	3
SIKQLQLLK	chr6:7300909:->chr6:7299056:-	3
SVVSVLVQK	chr8:41859766:->chr8:41845081:-	3
ALRAVTLTAK	chr1:151239815:+>chr1:151245271:+	2
YLMPSQLWKA	chr1:207504641:+>chr1:207506243:+	2
EQLDILENI	chr1:33142971:+>chr1:33145245:+	2
RSPDHPRAEY	chr1:38258152:+>chr1:38274660:+	2
ITSWFVPRPW	chr1:45227052:+>chr1:45241706:+	2
NELDKFIVF	chr10:120938004:->chr10:120936665:-	2
SHKASLNKF	chr10:47173898:->chr10:47139994:-	2
GTVPKSKAL	chr10:5058029:->chr10:5043873:-	2
FMMEQVGLAIRS	chr10:5060092:->chr10:5043783:-	2
MELALRSQL	chr11:102093793:+>chr11:102094353:+	2
RVLLKEELTTPK	chr11:13465223:->chr11:13443385:-	2
PSSPRPSSL	chr11:17486945:->chr11:17485151:-	2
GSGKRTSSQLKP	chr11:44148906:+>chr11:44151595:+	2
STSYSISSK	chr11:61132342:+>chr11:61133517:+	2
RTQSSTIQIR	chr11:61196370:->chr11:61189080:-	2
QEDLGQRGY	chr11:785039:+>chr11:810272:+	2
ETEKDRRPW	chr12:104681628:+>chr12:104682709:+	2
RRLQGATAMVR	chr12:20704505:+>chr20:57470710:+	2
WRFQSCPPTTY	chr12:53835233:+>chr12:53836479:+	2
AVMTEVVLSK	chr12:54862609:->chr12:54857081:-	2
STSIYSTL	chr12:56867593:->chr12:56867378:-	2
APKRNTSAL	chr13:38183213:->chr13:38171419:-	2
RSVSARPPR	chr13:42456176:->chr13:42442613:-	2
SVAWPFSFPK	chr13:53015205:->chr13:53013303:-	2
TPNLRTIY	chr13:76192906:->chr13:76104323:-	2
SIQHSDLLY	chr13:99992819:+>chr13:100009388:+	2
SVKQGTGTSW	chr14:102196928:+>chr14:102197694:+	2
KSQKLREQIK	chr14:107277425:->chr14:106478239:-	2
RRQQLITRF	chr14:24686695:->chr14:24686429:-	2
KSQLLERL	chr14:77914837:->chr14:77913291:-	2
GLFFMKQSV	chr15:79168112:+>chr15:79170555:+	2
RENGFVKKF	chr15:80254313:->chr15:80253516:-	2
NEQAALSEAKVGGS	chr16:30778197:+>chr16:30778878:+	2
HELQSHHF	chr16:69773838:->chr16:69752437:-	2
NEIRISEA	chr16:80584267:+>chr16:80584412:+	2
APRMLPIQAV	chr17:25597844:+>chr17:25630393:+	2
EAEVARWL	chr17:57171332:->chr17:57168701:-	2

RLCPAAPSEK	chr17:67192427:->chr17:67190636:-	2
APRGPSGTQEM	chr19:3624569:->chr19:3624160:-	2
STHPPPPSGL	chr19:3782560:->chr19:3781670:-	2
LYSRYKKLQQHSGAK	chr19:40478151:+>chr19:40491610:+	2
AAAVNQGLSY	chr19:40540857:->chr19:40534017:-	2
LWPSPVNLRF	chr19:42217314:+>chr19:42311149:+	2
VSLSPPLVSK	chr19:46646469:+>chr19:46663672:+	2
VAAAAARVL	chr19:8323741:+>chr19:8326572:+	2
WRTSALGQR	chr2:158306719:->chr2:158300518:-	2
KYKLLDIGYRK	chr2:224817241:+>chr2:224824251:+	2
KFTRFFVK	chr2:24029041:->chr2:24021193:-	2
LHQKGGITF	chr2:24198120:+>chr2:24199839:+	2
QPSQTQVPL	chr2:28859785:+>chr2:28863793:+	2
ETFPGKSTF	chr2:30856371:+>chr2:30862983:+	2
DVLDKFMSF	chr2:70488518:+>chr2:70489942:+	2
GRWITPSNR	chr2:89166769:->chr2:89157082:-	2
SAALQALKR	chr20:32408074:+>chr20:32436273:+	2
TATQRPTPM	chr20:34710669:+>chr20:34761806:+	2
RLLVPSSPK	chr20:44540197:->chr20:44540102:-	2
TEATVDTSF	chr20:60770037:+>chr20:60770858:+	2
LASREAIL	chr20:9457400:+>chr20:9484605:+	2
HDLVRISM	chr21:27105478:->chr21:27102112:-	2
NPQFLISMILQR	chr21:27105526:->chr21:27102112:-	2
MRATKPTVQK	chr22:19103521:->chr22:19077003:-	2
SAAAGIVGR	chr22:39716401:->chr22:39714597:-	2
HTMGFWLTK	chr3:10160654:+>chr3:10188198:+	2
SPRDEGKVFR	chr3:120840551:+>chr3:120866822:+	2
QALYCQLLTY	chr3:132948195:+>chr3:132969129:+	2
GTFPFAFSL	chr3:185198511:->chr3:185194935:-	2
KTFPLSKSPK	chr4:106617004:->chr4:106616825:-	2
KVLEKYWLYK	chr4:123834362:->chr4:123833778:-	2
TTDAAIRY	chr5:10384580:+>chr5:10387106:+	2
QAQPTLRPPK	chr5:133406533:->chr5:133326845:-	2
AQPTLRPPK	chr5:133406533:->chr5:133326845:-	2
KPAVARAR	chr5:134415207:->chr5:134367163:-	2
ESFYGIGTTR	chr5:140080670:+>chr5:140081591:+	2
RRNQETGAVQR	chr5:1503092:->chr5:1501718:-	2
ATDNDFSRRNLY	chr5:1503092:->chr5:1501718:-	2
EVVSTSYRR	chr5:87546068:->chr5:87524345:-	2
KLRDPTDSTLR	chr6:109427293:+>chr6:109466422:+	2
SPSADRVVAL	chr6:43395970:+>chr6:43399880:+	2
KVSSPESGLSNR	chr7:101514832:+>chr7:101559395:+	2
DIISAFHPF	chr7:103845571:->chr7:103844682:-	2
AVFSLRPIPR	chr7:32555261:+>chr7:32582753:+	2
GRFPSQAQL	chr7:40618566:+>chr7:40789033:+	2
DIFQQQISR	chr7:56036577:+>chr7:56045819:+	2

SVSATSVQK	chr9:101867407:+>chr9:101891137:+	2
VHCDPTKGF	chr9:71770431:+>chr9:71827464:+	2
IVQHTEISSK	chrX:122865506:->chrX:122846758:-	2

HLA-I peptidomics identified 116 tumor-specific pJETs across 17 primary lung tumors and 2 tumor cell lines (one of the two cell lines was treated with interferon gamma). Interestingly, some pJETs were found in more than 1 sample, indicating that they are shared epitopes. Importantly, pJETs showed similar MS/MS identification scores and peptide length distributions as the annotated peptidome (Fig. 16B and C). To further validate the reliability of the identifications, MS/MS spectra were manually verified, and 8 of them were confirmed with MS/MS spectra of the corresponding synthetic peptides. These results fully confirmed that the present method if reliable for the identification of pJETS that are presented by HLA-I molecules on tumor cells and are therefore accessible to cytotoxic cells.

Methods

Total proteomics

For the discovery of JETs (junctions exon-transposable element) at the proteome level, two sources of mass spectrometry datasets were used. Firstly, a publicly available dataset of 504 mass spectrometry raw files corresponding to 375 cell lines of the CCLE (Cancer Cell Line Encyclopedia) were used. The original study associated to these analyses was described and published by Nusinow and colleagues in Cell in 2020 (DOI: 10.1016/j.cell.2019.12.023). The second source of data was lung primary tumours obtained from Stewart *et al.* in Cell 2019 (raw files downloaded from PRIDE database – accession code PXD010357).

Briefly, in both datasets, total protein extracts were obtained from cell lines or tumours and were subsequently digested with trypsin. The resulting peptides were chemically labelled with isobaric tags using TMT, where different samples were analysed in the same experiment, together with an internal reference standard. Peptides were fractionated offline through HPLC and different fractions from each experiment were run on the mass spectrometer separately (Orbitrap Fusion or Orbitrap Fusion Lumos, from Thermo-Fisher). Further details regarding the experimental procedures and analysis are available in the corresponding publications.

Raw output files from mass spectrometry runs were interrogated using Proteome Discoverer 2.4 (Thermo-Fisher), with Sequest-HT as search engine. Two customized databases were used

to query the mass spectrometry peaks, both of them including Swissprot and TrEMBL canonical sequences, as well as the in silico translation of chimeric sequences predicted from different datasets. One of databases, the "CCLE-recurrent", included those JETs found in at least 7 samples of the CCLE mRNA-seq collection. The other database, the "lung-specific", was constructed adding to the canonical sequences those tumor-specific JETs detected on lung cell lines from CCLE. Thus, two different outputs were obtained, according to the library of predictions set as reference. Protein cleavage was specified as Trypsin allowing for a maximum of 2 miss-cleavages. Peptide FDR was set to 1% while protein FDR was allowed to 100%, to focus our search on the investigation of peptides. The mass tolerance for peptides was 4.5ppm and fragment tolerance 0.02Da. Carbamidomethylation of Cysteines was set as fixed modification. For the quantification, signals from TMT reporters were obtained using MS2 or MS3 fragmentation, paired with the MS2 scans for peptide identification.

Cell lysis and HLA-ABC-peptide complexes purification

Dry pellets from H1650 cells were resuspended in lysis buffer and sonicated. The sample was centrifuged 12 min at 5500g and 4ºC to remove nuclei and organelles. The supernatant was collected and ultracentrifuged at 72000g for 1h at 4ºC to extract the membranes and the pellet was resuspended with solubilization buffer. After overnight incubation at 4ºC, the sample was ultracentrifuged at 55000g for 1h at 4ºC to pellet the non-solubilized membranes. Solubilized membranes were incubated overnight with CNBr-activated Sepharose beads (GE Healthcare Life Sciences) coupled to anti-HLA-ABC W6/32 antibody. After washing, peptide-HLA-ABC complexes were eluted with 0.25% TFA. The eluted material was cleaned by a C18 tip before mass spectrometry. Eluted samples were analyzed by Liquid Chromatography-Mass spectrometry (LC-MS) using an Orbitrap Fusion LumosTM Tribrid (ThermoFisher) equipped with a nanoESI source and coupled to a nanochromatographic system. LC separation was done using a 140-min acetonitrile gradient. Analyses were performed in a Top Speed (most intense) data-dependent mode using a Higher-energy Collisional Dissociation (HCD).

Immunopeptidomics

Mass spectrometry output files (called raw files) were downloaded from PRIDE database (dataset identifiers: PXD013649, MSV000082648, PXD009752, PXD009754, PXD009755 and PXD009936) or generated in house (for the H1650 cell line). Raw files were processed using ProteomeDiscoverer 2.4 (ThermoFisher) with the following parameters: no-enzyme, precursor mass tolerance 20ppm and fragment mass tolerance 0.02 Da. Methionine and N-acetylation were enabled as variable modifications. Using Percolator, a false discovery rate

(FDR) of 1% was applied at peptide level and no FDR was used at protein level. MS/MS spectra were searched against the human proteome from Uniprot/SwissProt with isoforms concatenated with the in-silico translated lung tumour-specific JETs.

Identified peptides in each sample were processed individually to GibbsCluster 2.0 Server and each cluster was attributed to a HLA-I allele. Only peptides grouped to a given cluster were kept for further analyses. To ensure that JET-derived peptides are not found in canonical proteins, identified peptides were filtered with UniProt/TrEMBL database. Leucine and isoleucine were treated as equivalent. Remaining sequences were aligned to the translated junction using our own custom R scripts. Only those peptides overlapping the junction or in gene frameshift were kept. Finally, spectrums from identified peptides were checked manually.

Synthetic peptides (HPLC purity of 95%) were injected in a LTQ Orbitrap and/or in a Orbitrap Fusion Lumos (CID/HCD). Raw files were analysed with ProteomeDiscoverer 2.5 (ThermoFisher). Spectrums were exported and compared to the endogenous peptide using Msnbase R package. Only PSM with the same charge between synthetic and endogenous and without modifications were analysed.

The following tables 9 and 10 respectively refer to the detailed identification of the neoantigenic peptides of SEQ ID NO 1 to 10170 translated from fusion transcripts wherein the exon is the donor and the neoantigenic peptides of SEQ ID NO 10171 to 38759 translated from fusion transcripts wherein the TE is the donor.

The column named “position” refers to the various chimeric proteins (identified by their SEQ ID NO) that are derived from splice variants of the same JET (or fusion). In table 10, the SEQ ID NO of the chimeric protein can be obtained by adding 10170 to the number(s) provided. For example, in line 2, the column “position” refers to 4 chimeric proteins of SEQ ID NO:10171 to 10174

The last column in each table gives the position of the breakpoint between the exon-derived aa sequence and the TE-derived aa sequence respectively for each of the chimeric proteins (if more than one) of the previous column (position).

Table 9

Donor_Chromosome_Exon	Donor_start_Exon	Donor_Breakpoint_Exon	Donor_strand_Exon	Donor_tx_name_Exon	Acceptor_Chromosome_TE	Acceptor_Breakpoint_TE	Acceptor_end_TE	Acceptor_strand_TE	Position	Breakpoint_position_in_AA
chr1	100194196	100194049	-	ENST00000287474,ENST00000414213	chr1	100190854	100190848	-	1	335
				ENST00000370155,ENST00000427993,ENST00000533028,ENST00000370153						295,337
chr1	100483238	100483371	+		chr1	100503383	100503468	+	002_003	
chr1	100715376	100715326	-	ENST00000370132,ENST00000370131	chr1	100710158	100710115	-	4	17
chr1	10155519	10155654	+	ENST00000253251,ENST00000343090	chr1	10158650	10158821	+	5	115
				ENST00000253251,ENST00000377157,ENST00000343090						1046,930,1175
chr1	10231196	10231387	+		chr1	10232959	10233163	+	006_008	
				ENST00000370096,ENST00000353414,ENST00000358392,ENST00000512756						1200,1161,1212,1084
chr1	103400112	103400005	-		chr1	103393968	103393659	-	009_012	
				ENST00000370096,ENST00000353414,ENST00000358392,ENST00000512756						1200,1161,1212,1084
chr1	103400112	103400005	-		chr1	103398518	103393659	-	13-16	
				ENST00000370096,ENST00000353414,ENST00000358392,ENST00000512756,ENST00000427239,ENST00000447608						217,144
chr1	103540336	103540174	-		chr1	103517305	103511177	-	17-18	
				ENST00000400900,ENST00000602296,ENST00000602787,ENST00000470413,ENST00000309048						17
chr1	10490575	10490625	+		chr1	10491205	10491219	+	19	
				ENST00000400900,ENST00000602296,ENST00000602787,ENST00000470413,ENST00000309048						17
chr1	10490575	10490625	+		chr1	10491210	10491219	+	20	
				ENST00000377038,ENST00000476658,ENST00000377036						147
chr1	10527389	10527247	-		chr1	10526554	10526546	-	21	
				ENST00000377038,ENST00000476658,ENST00000377036						147
chr1	10527389	10527247	-		chr1	10526558	10526546	-	22	
chr1	109325271	109325328	+	ENST00000370008	chr1	109330062	109330156	+	23	321
chr1	109446747	109446876	+	ENST00000406462,ENST00000264126	chr1	109452236	109452244	+	24	397
chr1	109506096	109505983	-	ENST00000357393	chr1	109505086	109505048	-	25	38
chr1	109506096	109505983	-	ENST00000357393	chr1	109505103	109505048	-	26	38
chr1	109506096	109506019	-	ENST00000357393	chr1	109505091	109505048	-	27	26
chr1	109816058	109816292	+	ENST00000271332	chr1	109893374	109893480	+	28	2914
chr1	109968952	109968924	-	ENST00000271308	chr1	109967091	109966946	-	29	9
				ENST00000483260,ENST00000474861,ENST00000602318,ENST00000256644,ENST00000602858						70,71,153,59
chr1	110946658	110946541	-		chr1	110938249	110938041	-	30-33	
				ENST00000483260,ENST00000474861,ENST00000602318,ENST00000256644,ENST00000602858						70,71,153,59
chr1	110946658	110946541	-		chr1	110938329	110938041	-	34-37	
chr1	11115983,11	11115838	-	ENST00000376957,ENST00000490101	chr1	11115630	11115475	-	38-39	255,13
chr1	11115983,11	11115838	-	ENST00000376957,ENST00000490101	chr1	11115634	11115475	-	40-41	255,13
chr1	11116151	11116068	-	ENST00000376957,ENST00000465788	chr1	11115464	11115178	-	42-43	206,134
				ENST00000304457,ENST00000376936,ENST00000544779						363
chr1	11147648	11147505	-		chr1	11146504	11143681	-	44	
				ENST00000369763,ENST00000494675,ENST00000485275						623,87
chr1	111492745,1	111492473	-		chr1	111470365	111469821	-	45-46	
				ENST00000356415,ENST00000433097,ENST00000436150,ENST00000369709,ENST00000545460						61
chr1	112240063	112240119	+		chr1	112243637	112244225	+	47	
chr1	112305528,1	112305629	+	ENST00000369702,ENST00000475700	chr1	112307024	112307189	+	48-49	437,45
chr1	113033633	113033703	+	ENST00000369686	chr1	113035318	113035963	+	50	41
chr1	113033633	113033703	+	ENST00000369686	chr1	113035572	113035963	+	51	41
chr1	113033633	113033703	+	ENST00000369686	chr1	113036099	113036264	+	52	41
				ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000369669,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666							415,350,232,398,359
chr1	113119710	113119608	-	,ENST00000538187,ENST00000543570	chr1	113115068	113114510	-	53-57	
				ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497,ENST00000543570,ENST00000369664							150,133,94,22
chr1	113153625,1	113153463	-		chr1	113144180	113144178	-	58-61	
				ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497,ENST00000543570,ENST00000369664							150,133,94,22
chr1	113153625,1	113153463	-		chr1	113153312	113153031	-	62-65	
				ENST00000413052,ENST00000369645,ENST00000544796,ENST00000357443						45
chr1	113217535	113217671	+		chr1	113218427	113218774	+	66	
				ENST00000376810,ENST00000486588,ENST00000483738						206,87,72
chr1	11345701	11345789	+		chr1	11353524	11353596	+	67-69	
				ENST00000369617,ENST00000307546,ENST00000369615,ENST00000369611						184
chr1	114123164	114123283	+		chr1	114124745	114125194	+	70	
				ENST00000369617,ENST00000307546,ENST00000369615,ENST00000369611						339
chr1	114137103	114137182	+		chr1	114153284	114153319	+	71	

Table 9

				ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604							703,756,711
chr1	114241009	114240884	-	ENST00000369596,ENST00000393357,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664	chr1	114232401	114232162	-	72-74		154,207
chr1	114267515	114267381	-	ENST00000369596,ENST00000393357,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664	chr1	114262548	114262422	-	75-76		154,207
chr1	114267515	114267381	-	ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664,ENST00000446739	chr1	114262551	114262422	-	77-78		34
chr1	114300377	114300321	-	ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664,ENST00000446739	chr1	114285701	114285619	-	79		34
chr1	114300377	114300321	-		chr1	114292208	114291776	-	80		
chr1	115112693	115112613	-	ENST00000369541	chr1	115090818	115090575	-	81		183
chr1	116202262	116202394	+	ENST00000355485,ENST00000310260,ENST00000369509	chr1	116205953	116206170	+	82		68
chr1	116227914	116228148	+	ENST00000355485,ENST00000369510,ENST00000310260,ENST00000369509	chr1	116232464	116232588	+	83-84		438,436
chr1	116939220	116939356	+	ENST00000295598,ENST00000537345,ENST00000369496	chr20	50669324	50669324	-	85-87		657,657,626
chr1	117208948	117208906	-	ENST00000369483,ENST00000369486,ENST00000318837	chr1	117186385	117186340	-	88		14
chr1	117452826	117452874	+	ENST00000393203	chr1	117473684	117473916	+	89		16
chr1	117629039	117629144	+	ENST00000369466	chr1	117630672	117630710	+	90		720
chr1	118449204	118449128	-	ENST00000369443,ENST00000369442	chr1	118445410	118444933	-	91		212
chr1	1198741,12	1198726	-	ENST00000347370,ENST00000349431,ENST00000339385,ENST00000348298,ENST00000400929,ENST00000464036,ENST00000360466,ENST00000400930,ENST00000435198,ENST00000477894,ENST00000422076,ENST00000502382	chr1	1185853	1185068	-	92-95		5,57,22,73
chr1	12014887	12014950	+	ENST00000376369,ENST00000429000,ENST00000196061	chr1	12015502	12015516	+	96-97		261,214
chr1	120572610,1	120572529	-	ENST00000256646,ENST00000602566	chr1	120570675	120570084	-	98-99		51,12
chr1	12262024	12262228	+	ENST00000376259	chr1	12262564	12262676	+		100	368
chr1	1237426	1237368	-	ENST00000354700,ENST00000353662	chr1	1236197	1236145	-	101-102		112,7
chr1	1237426	1237368	-	ENST00000354700,ENST00000353662	chr1	1236282	1236145	-	103-104		112,7
chr1	12446244	12446393	+	ENST00000356315,ENST00000358136,ENST00000011700	chr1	12447718	12447803	+	105-107		2699,3853,3878
chr1	1333684,133	1333613	-	ENST00000482621,ENST00000400809,ENST00000481223,ENST00000488340,ENST00000408918,ENST00000425598,ENST00000497013	chr1	1332832	1332679	-	108-111		24,157,168,59
chr1	13940795	13940900	+	ENST00000294489,ENST00000376057,ENST00000510906,ENST00000509009,ENST00000376061,ENST00000513143,ENST00000487038,ENST00000475043	chr1	13965666	13966007	+	112-115		234,225,153,116
chr1	13940795	13940906	+	ENST00000294489,ENST00000510906,ENST00000509009,ENST00000376061,ENST00000513143,ENST00000487038	chr1	13965666	13966007	+	116-119		236,227,155,118
chr1	14075856	14075982	+	ENST00000376048,ENST00000311066,ENST00000235372	chr1	14169527	14169681	+		120	170
chr1	1423243	1423294	+	ENST00000308647	chr1	1424066	1424148	+		121	422
chr1	143906136	143906012	-	ENST00000400889	chr1	143898935	143898778	-		122	118
chr1	145518071	145518272	+	ENST00000369306,ENST00000537888	chr1	145519297	145519467	+	123-124		124,11
chr1	145518071	145518272	+	ENST00000369306,ENST00000537888	chr1	145519410	145519467	+	125-126		124,11
chr1	145584799	145584836	+	ENST00000393045,ENST00000369298	chr1	145589646	145589665	+	127-128		540,505
chr1	145611240,1	145611341	+	ENST00000369291,ENST00000539368,ENST00000542738	chr1	145635682	145635713	+	129-130		34,15
chr1	145791170	145791061	-	ENST00000313835,ENST00000454423,ENST00000534502,ENST00000462900,ENST00000466593	chr1	145789348	145789303	-	131-134		242,122,217,222
chr1	145826929	145826888	-	ENST00000313835,ENST00000460277,ENST00000466593,ENST00000528944,ENST00000524525	chr1	145822856	145822674	-		135	14
chr1	145826929	145826888	-	ENST00000313835,ENST00000460277,ENST00000466593,ENST00000528944,ENST00000524525	chr1	145822859	145822674	-		136	14
chr1	147120213	147120048	-	ENST00000369238	chr1	147074300	147074003	-		137	381
chr1	147586775	147586724	-	ENST00000480568,ENST00000474625,ENST00000369226,ENST00000369228	chr1	147584752	147584450	-	138-139		470,545
chr1	148021628	148021577	-	ENST00000310701,ENST00000369219,ENST00000392972,ENST00000431121,ENST00000436356,ENST00000444640,ENST00000448574,ENST00000458135,ENST00000426874	chr1	148019604	148019301	-	140-142		211,205,216
chr1	149459549	149459425	-	ENST00000369175	chr1	149452345	149452188	-		143	41
chr1	149877591	149877432	-	ENST00000369146,ENST00000369145	chr1	149867275	149866895	-		144	681
chr1	149931715	149931603	-	ENST00000369135,ENST00000417191	chr1	149929006	149923965	-		145	281
chr1	150280482	150280646	+	ENST00000309092,ENST00000369084	chr1	150280922	150280983	+		146	82

Table 9

				ENST00000358595,ENST00000471844,ENST00000354396,ENST00000515192,ENST00000505755							45,36
chr1	150830936,2	150830825	-	,ENST00000504358	chr1	150829510	150829472	-	147-148		
				ENST00000368917,ENST00000368918,ENST00000368916							372,41
chr1	151090433	151090615	+	00368916	chr1	151101377	151101533	+	149-150		
chr1	151227259	151227284	+	ENST00000368884,ENST00000368881	chr1	151231545	151231647	+	151	8	
				ENST00000368868,ENST00000447402,ENST00000426705,ENST00000443708,ENST00000455397,ENST00000427977,ENST00000423070,ENST00000424475,ENST00000458566,ENST00000455839							43,20,62,2
chr1	151342245,151	151342189	-	,ENST00000427867	chr1	151341730	151341702	-	152-155		
				ENST00000353024,ENST00000368849,ENST00000392712,ENST00000368848,ENST00000538902							49,108,83,127
chr1	151536380	151536466	+		chr1	151536831	151536840	+	156-159		
				ENST00000318967,ENST00000456435,ENST00000435409,ENST00000512605							412,206
chr1	153732002	153732089	+		chr1	153732595	153732738	+	160-161		
chr1	153784324	153784207	-	ENST00000368655	chr1	153762552	153762245	-	162	549	
				ENST00000368521,ENST00000368519,ENST00000368518							56
chr1	154192413	154192312	-		chr1	154191261	154191161	-	163		
				ENST00000368521,ENST00000362076,ENST00000350592,ENST00000368519,ENST00000368518							22
chr1	154192883	154192818	-	,ENST00000368516	chr1	154191261	154191161	-	164		
				ENST00000271915,ENST00000361147,ENST00000358505							343,38,30
chr1	154794660,2	154794565	-		chr1	154753959	154753871	-	165-167		
chr1	154947222	154947280	+	ENST00000368436,ENST00000308987	chr1	154948510	154948563	+	168	19	
chr1	155231525	155231448	-	ENST00000302631	chr1	155230877	155230706	-	169	48	
chr1	155408859	155408118	-	ENST00000368346,ENST00000392403	chr1	155394463	155394203	-	170	1942	
				ENST00000471642,ENST00000471214,ENST00000368336,ENST00000343043,ENST00000421487,ENST00000535183,ENST00000465375,ENST00000470830,ENST00000463575,ENST00000497826							15,8
chr1	155679571,2	155679615	+	,ENST00000608852	chr1	155682123	155682426	+	171-172		
				ENST00000295702,ENST00000480567,ENST00000531917,ENST00000474377,ENST00000466905							121
chr1	155984860	155984752	-		chr1	155984250	155984202	-	173		
				ENST00000368301,ENST00000361308,ENST00000347559,ENST00000368300,ENST00000368299,ENST00000448611,ENST00000368297,ENST00000473598,ENST00000392353,ENST00000508500							460,348,379,361,86
chr1	156106005	156106227	+		chr1	156106377	156106563	+	174-178		
				ENST00000490491,ENST00000368279,ENST00000466489,ENST00000368273,ENST00000368277,ENST00000565805,ENST00000567140,ENST00000368276,ENST00000320139,ENST00000497069							53,5
chr1	156182807,2	156182967	+		chr1	156184399	156184558	+	179-180		
				ENST00000490491,ENST00000368279,ENST00000466489,ENST00000368273,ENST00000368277,ENST00000565805,ENST00000567140,ENST00000368276,ENST00000320139,ENST00000497069							53,5
chr1	156182807,2	156182967	+		chr1	156193137	156193154	+	181-182		
				ENST00000490491,ENST00000368279,ENST00000466489,ENST00000368273,ENST00000368277,ENST00000565805,ENST00000567140,ENST00000368276,ENST00000320139,ENST00000497069							53,5
chr1	156182807,2	156182967	+		chr1	156193642	156193754	+	183-184		
chr1	156242189	156242111	-	ENST00000361813,ENST00000368267	chr1	156241474	156241358	-	185	237	
chr1	156242189	156242111	-	ENST00000361813,ENST00000368267	chr1	156241493	156241358	-	186	237	
				ENST00000295688,ENST00000368259,ENST00000413555,ENST00000496684,ENST00000446905							31,55
chr1	156305679	156305618	-	,ENST00000478640,ENST00000415548	chr1	156305281	156305244	-	187-188		
				ENST00000295688,ENST00000368259,ENST00000413555,ENST00000496684,ENST00000446905							31,55
chr1	156305679	156305618	-	,ENST00000478640,ENST00000415548	chr1	156305293	156305244	-	189-190		
				ENST00000375999,ENST00000358897,ENST00000417793,ENST00000375998,ENST00000375997							455,169,161
chr1	15644320	15644424	+	,ENST00000401090	chr1	15645981	15646102	+	191-193		
chr1	156508825	156508601	-	ENST00000361170,ENST00000491900	chr1	156508150	156507851	-	194-195	1093,105	
chr1	156531793	156531630	-	ENST00000361170,ENST00000491900	chr1	156531121	156530966	-	196-197	347,304	
				ENST00000368232,ENST00000438976,ENST00000415314							141,146,112
chr1	156566270	156566179	-		chr1	156566040	156565991	-	198-200		
chr1	156571231	156571201	-	ENST00000438976	chr1	156570205	156570182	-	201	10	
				ENST00000361516,ENST00000368181,ENST00000392274							17
chr1	157745585	157745565	-		chr1	157740791	157740624	-	202		
				ENST00000368173,ENST00000392272,ENST00000359209,ENST00000416935							17
chr1	157963467	157963518	+		chr1	158033547	158033806	+	203		
				ENST00000368173,ENST00000359209,ENST00000416935,ENST00000368172							220,120,18
chr1	158056386,2	158056536	+		chr1	158057068	158057101	+	204-206		
				ENST00000375838,ENST00000375847,ENST00000475133,ENST00000375849,ENST00000472665							532,34
chr1	15890778	15890854	+		chr1	15891737	15891806	+	207-208		
				ENST00000368140,ENST00000368138,ENST00000392252,ENST00000392254							453,444
chr1	158914665	158914832	+		chr1	158958633	158958743	+	209-210		

Table 9

chr1	159824816	159824547	-	ENST00000368102,ENST00000368100	chr1	159812104	159811450	-	211-212	110,413
chr1	160264383	160264274	-	ENST00000368069,ENST00000241704	chr1	160263954	160263947	-	213-214	901,892
chr1	160681553	160681472	-	ENST00000368046,ENST00000368045	chr1	160670007	160669807	-	215	27
chr1	16103665	16103782	+	ENST00000375771,ENST00000375766,ENST00000400773,ENST00000332305	chr1	16115733	16116040	+	216-217	336,239
chr1	161275958,2	161275898	-	ENST00000463290,ENST00000533357,ENST00000360451,ENST00000491222,ENST00000336559	chr1	161251827	161250637	-	218-220	215,225,19
chr1	161275958,2	161275898	-	ENST00000463290,ENST00000533357,ENST00000360451,ENST00000491222,ENST00000336559	chr1	161252001	161250637	-	221-223	215,225,19
chr1	161275958,2	161275898	-	ENST00000463290,ENST00000533357,ENST00000360451,ENST00000491222,ENST00000336559	chr1	161274131	161274041	-	224-226	215,225,19
chr1	161326467	161326630	+	ENST00000367975,ENST00000432287,ENST00000392169	chr1	161366961	161367365	+	227-229	135,101,82
chr1	161483685,2	161483722	+	ENST00000367972,ENST00000271450,ENST00000459885	chr1	161569358	161569484	+	230-232	259,260,11
chr1	161832988	161833102	+	ENST00000367942	chr1	161859029	161859270	+	233	573
chr1	161968139	161967615	-	ENST00000294794,ENST00000367940	chr1	161962751	161961535	-	234-235	491,492
chr1	162688854	162688935	+	ENST00000446985,ENST00000415555,ENST00000367922,ENST00000367921	chr1	162715802	162721945	+	236	27
chr1	164532475,2	164532548	+	ENST00000340699,ENST00000420696,ENST00000401534,ENST00000559240,ENST00000367897,ENST00000540236,ENST00000559578	chr1	164626350	164626668	+	237-238	88,16
chr1	164532475,2	164532548	+	ENST00000340699,ENST00000420696,ENST00000401534,ENST00000559240,ENST00000367897,ENST00000540236,ENST00000559578	chr1	164717894	164717896	+	239-240	88,16
chr1	1647917	1647785	-	ENST00000356200,ENST00000378638,ENST00000509982,ENST00000357760,ENST00000358779,ENST00000378633,ENST00000404249,ENST00000460465,ENST00000378635	chr1	1584511	1584468	-	241-243	128,162,152
chr1	165712548	165712404	-	ENST00000392129,ENST00000367881,ENST00000580248,ENST00000464650	chr1	165676715	165676655	-	244-246	156,207,72
chr1	1666274	1666129	-	ENST00000355439,ENST00000400924,ENST00000246421	chr1	1661116	1660829	-	247	244
chr1	167301707,2	167301772	+	ENST00000367866,ENST00000452019,ENST00000429375,ENST00000541643,ENST00000420254,ENST00000367862	chr1	167307207	167307725	+	248-250	42,19,31
chr1	171751128,2	171751260	+	ENST00000458517,ENST00000367737,ENST00000361735	chr1	171751430	171751717	+	251-252	50,51
chr1	172539803	172539870	+	ENST00000367723,ENST00000608151,ENST00000610051,ENST00000263688	chr1	172540566	172541856	+	253-256	507,508,312,349
chr1	17270595	17270777	+	ENST00000375541,ENST00000445545	chr1	17271447	17271741	+	257-258	523,663
chr1	17275294	17275421	+	ENST00000375541,ENST00000445545	chr1	17279575	17279694	+	259-260	804,945
chr1	17282492	17282651	+	ENST00000375541,ENST00000445545	chr1	17282870	17282947	+	261-262	1288,1147
chr1	173157708	173157660	-	ENST00000367718,ENST00000281834	chr1	173144339	173144262	-	263-264	17,67
chr1	173685176,2	173685205	+	ENST00000546011,ENST00000209884	chr1	173694907	173701011	+	265-266	10,7
chr1	174992544	174992500	-	ENST00000476371,ENST00000367677	chr1	174989861	174989644	-	267	15
chr1	17634718	17634809	+	ENST00000375453,ENST00000375448	chr1	17635757	17636079	+	268	30
chr1	17743142	17742976	-	ENST00000375436,ENST00000375433	chr1	17741173	17741122	-	269	342
chr1	178063682,2	178063829	+	ENST00000448150,ENST00000367649	chr1	178092191	178092353	+	270-271	49,67
chr1	178063682,2	178063829	+	ENST00000448150,ENST00000367649	chr1	178103700	178104526	+	272-273	49,67
chr1	179064103	179064271	+	ENST00000367627	chr1	179066963	179067239	+	274	370
chr1	179815963	179815242	-	ENST00000367612,ENST00000609928	chr1	179805538	179805208	-	275	459
chr1	180849212	180849433	+	ENST00000367590,ENST00000367589	chr1	180864082	180866142	+	276-277	676,611
chr1	181620474	181620577	+	ENST00000524607,ENST00000357570,ENST00000358338,ENST00000367570,ENST00000526775,ENST00000360108,ENST00000367573	chr1	181624671	181625003	+	278-279	351,302
chr1	183209427	183209526	+	ENST00000493293,ENST00000264144	chr1	183227934	183228207	+	280	1109
chr1	183387402	183387318	-	ENST00000287713	chr1	183384411	183384125	-	281	28
chr1	184020890,2	184021024	+	ENST00000361641,ENST00000485209,ENST00000533373,ENST00000423085,ENST00000462677	chr1	184064824	184065022	+	282-283	45,43
chr1	184023488	184023569	+	ENST00000361641,ENST00000485209,ENST00000533373,ENST00000423085,ENST00000462677	chr1	184064824	184065022	+	284-285	71,72
chr1	184023862	184023997	+	ENST00000361641,ENST00000485209,ENST00000533373,ENST00000423085,ENST00000462677	chr1	184064834	184065022	+	286-287	116,117
chr1	184023862	184023997	+	ENST00000361641,ENST00000485209,ENST00000533373,ENST00000423085,ENST00000462677	chr1	184064837	184065022	+	288-289	117,116
chr1	184559873	184559949	+	ENST00000235307	chr1	184561359	184561384	+	290	88
chr1	184679681	184679528	-	ENST00000318130,ENST00000439962,ENST00000367512	chr1	184677949	184677857	-	291-293	615,63,572
chr1	185062193	185062408	+	ENST00000367510,ENST00000453650	chr1	185063653	185063934	+	294	154
chr1	186340175	186340102	-	ENST00000367478	chr1	186338170	186337839	-	295	110
chr1	186880380	186880521	+	ENST00000367466	chr1	186882628	186882771	+	296	186
chr1	19208381	19208194	-	ENST00000538309,ENST00000538839,ENST00000290597,ENST00000375341	chr1	19208011	19207905	-	297-298	228,288

Table 9

				ENST00000367455,ENST00000420791,ENST00000367454,ENST00000449480,ENST00000367450,ENST00000367451,ENST00000367448,ENST00000367449,ENST00000443327,ENST00000367452,ENST00000530098,ENST00000416915							315,205,314,102,354,341,170,190,191
chr1	192990325	192990227	-	ENST00000367455,ENST00000367454,ENST00000367450,ENST00000367451,ENST00000367448,ENST00000367449	chr1	192926552	192926456	-	299-307		25,37
chr1	193028390,2	193028315	-	ENST00000421683,ENST00000417752	chr1	193022970	193022929	-	308-309		16,156
chr1	193028591,2	193028543	-	ENST00000367435	chr1	193022970	193022929	-	310-311		472
chr1	193205386	193205486	+	ENST00000367379,ENST00000598951,ENST00000352140,ENST00000367376,ENST00000594404,ENST00000530727,ENST00000442510,ENST00000367367,ENST00000348564,ENST00000367364,ENST00000413409,ENST00000529828,ENST00000418674	chr1	193216536	193218596	+	312		24,22
chr1	198608399,2	198608471	+	ENST00000352140,ENST00000367376,ENST00000594404,ENST00000530727,ENST00000442510,ENST00000367367,ENST00000348564,ENST00000367364,ENST00000529828	chr1	198641024	198641049	+	313-314		571,619,458,507,621,555,460,573
chr1	198698266	198698300	+	ENST00000352140,ENST00000367376,ENST00000594404,ENST00000442510,ENST00000367367,ENST00000348564,ENST00000529828	chr1	198699460	198699632	+	315-322		751,799,638,801,735,640,753
chr1	198704256	198704381	+	ENST00000322753,ENST00000602384,ENST00000602450	chr1	198708193	198709424	+	323-329		21,14,14
chr1	19923540,1992	19923603	+	ENST00000294543,ENST00000375127,ENST00000375122	chr1	19939857	19939895	+	330-332		421,381
chr1	20063949	20063865	-	ENST00000294543,ENST00000375127,ENST00000375122	chr1	20037024	20036953	-	333-334		59
chr1	20107251	20107073	-	ENST00000295591,ENST00000335211,ENST00000412892	chr1	20105011	20104731	-	335		673,416,325
chr1	201186415	201186588	+	ENST00000295591,ENST00000335211,ENST00000412892	chr1	201186810	201186814	+	336-338		6
chr1	201190572	201190874	+	ENST00000263946,ENST00000367324,ENST00000352845	chr1	201191434	201191561	+	339-341		560,3400,817
chr1	201282294	201282688	+	ENST00000367318,ENST00000367322,ENST00000236918,ENST00000360372,ENST00000367315,ENST00000367317,ENST00000421663,ENST00000458432,ENST00000367320,ENST00000509001,ENST00000438742,ENST00000455702,ENST00000422165,ENST00000412633	chr1	201285204	201285301	+	342		233
chr1	201335999	201335966	-	ENST00000367295	chr1	201334974	201334944	-	343-352		67,72,62,69,79,76,62,77,72,66
chr1	201709152	201709204	+	ENST00000447312	chr1	202036710	202036741	+	353		17
chr1	201952591	201952644	+	ENST00000367242	chr1	201953690	201953759	+	354		18
chr1	202987609	202987689	+	ENST00000414487,ENST00000367208	chr1	202988304	202988396	+	355		263
chr1	203834169	203834247	+	ENST00000414487,ENST00000367208	chr1	203834524	203834579	+	356-357		74,34
chr1	203834169	203834247	+	ENST00000308302	chr1	203836074	203836078	+	358-359		74,34
chr1	204183034	204183010	-	ENST00000429261,ENST00000247992	chr1	204178363	204177989	-	360		8
chr1	20490650	20490512	-	ENST00000429261,ENST00000247992	chr1	20489784	20489509	-	361-362		140,141
chr1	20501638,21	20501500	-	ENST00000429261,ENST00000247992	chr1	20489789	20489509	-	363-364		59,62
chr1	20501638,21	20501500	-	ENST00000367129,ENST00000367128,ENST00000431655,ENST00000341209	chr1	20496261	20496139	-	365-366		59,62
chr1	206145454	206145578	+	ENST00000295713,ENST00000414007,ENST00000439126	chr1	206152663	206152820	+	367-370		118,118,89,78
chr1	206603512	206603572	+	ENST00000355294,ENST00000367117	chr1	206606575	206606707	+	371-373		431,378,132
chr1	206680936	206681392	+	ENST00000340758	chr1	206707156	206707475	+	374		152
chr1	206972240	206972351	+	ENST00000340758	chr1	206984854	206984893	+	375		37
chr1	206972240	206972351	+	ENST00000367064,ENST00000367063,ENST00000391921,ENST00000314754,ENST00000367062,ENST00000367065,ENST00000391920,ENST00000340758	chr1	206986206	206986467	+	376		37
chr1	207512742	207512762	+	ENST00000367057,ENST00000367058,ENST00000482390	chr1	207546114	207546199	+	377-378		360,296
chr1	207639871	207640257	+	ENST00000367057,ENST00000367058,ENST00000367059,ENST00000458541	chr1	207641784	207641809	+	379		148
chr1	207644768	207644844	+	ENST00000367057,ENST00000367058,ENST00000367059	chr1	207645199	207645272	+	380		523
chr1	207818579	207818675	+	ENST00000508064	chr1	207820662	207820777	+	381		32
chr1	20931421	20931532	+	ENST00000375071	chr1	20934676	20934870	+	382		88
chr1	20931421	20931532	+	ENST00000375071	chr1	20936146	20936247	+	383		88
chr1	20940335	20940392	+	ENST00000375071	chr1	20944086	20944175	+	384		108
chr1	209803270	209803082	-	ENST00000356082,ENST00000391911,ENST00000367030	chr1	209802223	209802139	-	385		377
chr1	209803270	209803082	-	ENST00000356082,ENST00000391911,ENST00000367030	chr1	209802238	209802139	-	386		377
chr1	21009377	21009146	-	ENST00000375044,ENST00000400463,ENST00000247986	chr1	21004638	21004501	-	387-388		721,821
chr1	210686497	210686532	+	ENST00000413764,ENST00000541565,ENST00000391905,ENST00000537898,ENST00000545154,ENST00000545781,ENST00000308852,ENST00000261458,ENST00000367010,ENST00000367009	chr1	210702931	210702933	+	389-395		347,210,282,348,284,302,37

Table 9

			ENST00000367006,ENST00000452621,ENST00000528926,ENST00000419091,ENST00000367005,ENST00000534460,ENST00000529763,ENST00000485186						313,345,255,99,73,21
chr1	211462520,2	211462738	+		chr1	211463295	211463420	+	396-401	
chr1	2116952	2116772	-	ENST00000400919	chr1	2115143	2114982	-	402	129
chr1	211952386	211952260	-	ENST00000366997,ENST00000366996	chr1	211925366	211925111	-	403	284
chr1	211952386	211952260	-	ENST00000366997,ENST00000366996	chr1	211940094	211939906	-	404	284
chr1	212459453	212459633	+	ENST00000261461	chr1	212466362	212466458	+	405	60
chr1	212588099	212588064	-	ENST00000261455,ENST00000535273	chr1	212584410	212584057	-	406	12
chr1	212870407	212870303	-	ENST00000243440	chr1	212861763	212861420	-	407	65
chr1	212955768	212955714	-	ENST00000366978,ENST00000366977,ENST00000422588,ENST00000366976	chr1	212930502	212930187	-	408-409	63,166
chr1	212985569,212	212985670	+	ENST00000532324,ENST00000366974,ENST00000526641,ENST00000531963,ENST00000366973,ENST00000526997,ENST00000527693	chr1	212986202	212986364	+	410-415	234,227,206,226,188,38
chr1	214795422	214795624	+	ENST00000366955	chr1	214796396	214796559	+	416	356
chr1	217824439	217824520	+	ENST00000470448,ENST00000366933	chr1	217824814	217824911	+	417	80
chr1	219352489	219352588	+	ENST00000366928,ENST00000366927	chr1	219391860	219391956	+	418	63
chr1	220239459	220239415	-	ENST00000354807	chr1	220237757	220237680	-	419	173
chr1	220375716	220375618	-	ENST00000358951,ENST00000484658	chr1	220374281	220374215	-	420-421	270,171
chr1	221913086	221912276	-	ENST00000366899	chr1	221911990	221911958	-	422	270
chr1	22263710	22263648	-	ENST00000374695	chr1	22224962	22224939	-	423	21
chr1	222743010	222742972	-	ENST00000366890,ENST00000350027,ENST00000352967,ENST00000391882,ENST00000391883,ENST00000543857	chr1	222739867	222739642	-	424-426	144,258,220
chr1	222761905	222761785	-	ENST00000350027,ENST00000352967,ENST00000391883,ENST00000543857	chr1	222758947	222758813	-	427	40
chr1	223959883	223959941	+	ENST00000433674,ENST00000295006	chr1	223961283	223961409	+	428-429	615,693
chr1	224002055,2	224001942	-	ENST00000343537,ENST00000494100,ENST00000465119	chr1	224000215	224000092	-	430-432	96,29,47
chr1	224548197	224548265	+	ENST00000465271,ENST00000366858,ENST00000366857,ENST00000366856	chr1	224551811	224551931	+	433	46
chr1	224872498	224872545	+	ENST00000272133	chr1	224908832	224908933	+	434	66
chr1	225147855	225148004	+	ENST00000430092,ENST00000366850,ENST00000400952,ENST00000366849,ENST00000366848,ENST00000439375	chr1	225148799	225148840	+	435	122
chr1	225156461	225156576	+	ENST00000430092,ENST00000400952,ENST00000366849,ENST00000439375	chr1	225157340	225158402	+	436-437	255,232
chr1	225273379,2	225273491	+	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	chr1	225275728	225276400	+	438-440	1017,1191,2 69
chr1	225355641	225355730	+	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	chr1	225355896	225361977	+	441-443	1418,1823,9 17
chr1	225372993	225373127	+	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	chr1	225416388	225416499	+	444-446	1463,1868,9 62
chr1	225394670	225394922	+	ENST00000445597,ENST00000430092,ENST00000439375	chr1	225416388	225416499	+	447-448	1719,2124
chr1	226036255	226036193	-	ENST00000366835	chr1	226035088	226035082	-	449	750
chr1	226111471	226111401	-	ENST00000432920,ENST00000343818	chr1	226110753	226110712	-	450	46
chr1	226374376	226374091	-	ENST00000366812	chr1	226355992	226355739	-	451	95
chr1	226438620	226438540	-	ENST00000460719,ENST00000328205,ENST00000366808,ENST00000366801,ENST00000481685	chr1	226434067	226433740	-	452-456	349,389,444,338,354
chr1	226453335	226453234	-	ENST00000460719,ENST00000328205,ENST00000366808,ENST00000366801,ENST00000481685	chr1	226439325	226439229	-	457-461	322,362,417,311,327
chr1	226453335	226453234	-	ENST00000272117,ENST00000429204,ENST00000366784	chr1	226439328	226439229	-	462-466	322,362,417,311,327
chr1	226925159	226923228	-	ENST00000366767,ENST00000366769,ENST00000448940,ENST00000334218,ENST00000366764,ENST00000366766,ENST00000442054,ENST00000535525,ENST00000366765,ENST00000429440	chr1	226887652	226887486	-	467	644
chr1	227218171	227218109	-	ENST00000441725	chr1	227217238	227217131	-	468-477	1163,1244,4 46,1216,127 9,572,1224,1 257,141,468
chr1	227504883	227504706	-	ENST00000366767,ENST00000366769,ENST00000334218,ENST00000366764,ENST00000366766,ENST00000535525,ENST00000366765	chr1	227479947	227479689	-	478	59
chr1	228511029	228511307	+	ENST00000284548,ENST00000570156,ENST00000366709,ENST00000366707,ENST00000422127	chr1	228511760	228512407	+	479-482	5217,6174,2 336,2851
chr1	231064839	231064683	-	ENST00000366661,ENST00000366662,ENST00000414259	chr1	231063917	231063725	-	483-484	485,432
chr1	231487050	231487317	+	ENST00000391858,ENST00000295050,ENST00000008440,ENST00000366644	chr1	231496907	231497085	+	485-487	239,196,135
chr1	231678227,2	231678357	+	ENST00000366639,ENST00000602567,ENST00000602634,ENST00000602956,ENST00000602962,ENST00000413309	chr1	231678779	231678935	+	488-489	122,129
chr1	231678227,2	231678357	+	ENST00000366639,ENST00000602567,ENST00000602634,ENST00000602956,ENST00000602962,ENST00000413309	chr1	231678783	231678935	+	490-491	122,129

Table 9

				ENST00000258229,ENST00000518351,ENST000						834,14,133
chr1	233363117,2	233362972	-	00430153	chr1	233356456	233355384	-	492-494	
chr1	233397067	233397031	-	ENST00000258229	chr1	233395520	233395209	-	495	172
chr1	233431224	233431072	-	ENST00000258229	chr1	233407748	233407349	-	496	51
				ENST00000356634,ENST00000400181,ENST000						447,471,471
chr1	23395554	23395644	+	00542151	chr1	23397020	23397316	+	497-499	
				ENST00000288774,ENST00000447513,ENST000						198
chr1	2340297	2339895	-	00507596,ENST00000510434	chr1	2339399	2339300	-	500	
chr1	234041275	234041504	+	ENST00000366618	chr1	234293051	234293202	+	501	94
chr1	235292030	235291910	-	ENST00000366607	chr1	235289364	235289058	-	502	40
				ENST00000366603,ENST00000264183,ENST000						527
chr1	235383283	235383108	-	00349213,ENST00000421364	chr1	235381449	235381155	-	503	
				ENST00000366603,ENST00000264183,ENST000						299
				00349213,ENST00000421364,ENST00000418304						
chr1	235392700	235392546	-		chr1	235388877	235388823	-	504	
				ENST00000488594,ENST00000471812,ENST000						23
				00358966,ENST00000282841,ENST00000476121						
chr1	235498580	235498649	+	,ENST00000497327	chr1	235498833	235498995	+	505	
				ENST00000366601,ENST00000406207,ENST000						61
chr1	235564818	235564902	+	00543662	chr1	235569482	235569539	+	506	
				ENST00000366601,ENST00000406207,ENST000						186
chr1	235590455	235590554	+	00543662	chr1	235590877	235591063	+	507	
				ENST00000366601,ENST00000406207,ENST000						466,517
chr1	235606167	235606226	+	00543662	chr1	235630384	235630695	+	508-509	
chr1	235618996	235618871	-	ENST00000366600	chr1	235618721	235618450	-	510	383
chr1	235884205	235883961	-	ENST00000389794,ENST00000389793	chr1	235881462	235881210	-	511	3186
chr1	235904928	235904722	-	ENST00000389794,ENST00000389793	chr1	235903961	235903565	-	512	2786
				ENST00000366592,ENST00000419162,ENST000						322,104,185
chr1	236347078	236347206	+	00454895	chr1	236410514	236411478	+	513-515	
chr1	236393550	236393524	-	ENST00000354619	chr1	236392113	236391960	-	516	237
				ENST00000439430,ENST00000334232,ENST000						51,73,63
chr1	236590692	236590750	+	00359362	chr1	236607266	236607538	+	517-519	
				ENST00000439430,ENST00000334232,ENST000						51,73,63
chr1	236590692	236590750	+	00359362	chr1	236607294	236607538	+	520-522	
				ENST00000439430,ENST00000334232,ENST000						66,88,78
chr1	236631531	236631576	+	00359362	chr1	236631676	236631925	+	523-525	
				ENST00000366574,ENST00000360064,ENST000						1972,1970,1
chr1	237780586	237780786	+	00542537	chr1	237781681	237784905	+	526-528	956
chr1	23845622	23845508	-	ENST00000361729	chr1	23844296	23844043	-	529	284
chr1	24069916,24	24070068	+	ENST00000418390,ENST00000609199	chr1	24072498	24072800	+	530-531	51,25
				ENST00000374497,ENST00000429356,ENST000						79,15
				00418277,ENST00000425913,ENST00000445705						
chr1	24125220,24	24125105	-		chr1	24124974	24124802	-	532-533	
				ENST00000374490,ENST00000436439,ENST000						20,15
chr1	24151905,24	24151846	-	00235958	chr1	24151194	24151071	-	534-535	
chr1	241675443	241675267	-	ENST00000366560	chr1	241673271	241673228	-	536	185
chr1	24186393	24186288	-	ENST00000374479	chr1	24183873	24183777	-	537	256
chr1	2433551	2434349	+	ENST00000449969,ENST00000288766	chr1	2435361	2435377	+	538-539	1126,441
				ENST00000391846,ENST00000355875,ENST000						182,37,14,5
				00366541,ENST00000343783,ENST00000476722						
chr1	243449574,243	243449699	+	,ENST00000435549	chr1	243451519	243451791	+	540-543	
				ENST00000355875,ENST00000366541,ENST000						448,491,346,
chr1	243507517	243507633	+	00343783,ENST00000435549	chr1	243525247	243525258	+	544-547	271
				ENST00000355875,ENST00000366541,ENST000						618,661,516,
chr1	243589729	243589860	+	00343783,ENST00000435549	chr1	243592303	243592782	+	548-551	362
chr1	244600195	244600127	-	ENST00000366535	chr1	244598980	244598979	-	552	118
				ENST00000366534,ENST00000366533,ENST000						108,98
chr1	244643019	244643086	+	00428042	chr1	244678579	244678586	+	553-554	
chr1	244816616	244816657	+	ENST00000302550,ENST00000263831	chr1	244835704	244835841	+	555	14
				ENST00000327535,ENST00000327575,ENST000						122,39
				00374421,ENST00000374419,ENST00000374418						
chr1	24496091,24	24495907	-		chr1	24492354	24492254	-	556-557	
				ENST00000366523,ENST00000366522,ENST000						116,182,32,1
				00447569,ENST00000366521,ENST00000551317						24,260
chr1	245246924	245246990	+	,ENST00000425550,ENST00000427529	chr1	245287996	245288330	+	558-562	
chr1	245862189	245862339	+	ENST00000407071,ENST00000366518	chr1	245864772	245864851	+	563-564	2059,1678
chr1	247151557	247150691	-	ENST00000339986	chr1	247131094	247130915	-	565	375
				ENST00000479214,ENST00000465049,ENST000						119,131
chr1	247151557	247151423	-	00366504,ENST00000339986	chr1	247132980	247132929	-	566-567	
				ENST00000294753,ENST00000461277,ENST000						335,260,371
chr1	247471890	247471777	-	00366498	chr1	247375694	247375433	-	568-570	
				ENST00000527084,ENST00000527541,ENST000						24,36,56
				00366491,ENST00000366489,ENST00000526896						
				,ENST00000463359,ENST00000529512,ENST000						
chr1	247729233	247729261	+	00366488,ENST00000536561	chr1	247738023	247738630	+	571-573	
				ENST00000527084,ENST00000527541,ENST000						72,84,104
				00366491,ENST00000366489,ENST00000463359						
				,ENST00000529512,ENST00000366488,ENST000						
chr1	247737445	247737590	+	00536561	chr1	247738023	247738630	+	574-576	
				ENST00000426449,ENST00000434817,ENST000						183
				00435221,ENST00000451778,ENST00000409119						
chr1	2492063	2492153	+	,ENST00000355716	chr1	2492884	2492927	+	577	

Table 9

chr1	2494304	2494335	+	ENST00000355716	chr1	2508457	2508463	+	578	242
chr1	25140585	25140710	+	ENST00000374379,ENST00000488683	chr1	25153084	25153121	+	579	102
chr1	25245835	25245731	-	ENST00000399916,ENST00000308873,ENST00000338888,ENST00000540420	chr1	25239183	25239088	-	580-582	195,181,88
chr1	25634138	25634307	+	ENST00000342055,ENST00000423810	chr1	25638826	25638959	+	583	414
chr1	25683284	25683344	+	ENST00000374358	chr1	25694716	25695235	+	584	142
chr1	26131633	26131766	+	ENST00000354177,ENST00000361547,ENST00000374315	chr1	26132545	26132613	+	585-586	145,179
chr1	26349138	26349916	+	ENST00000374280	chr1	26353160	26353217	+	587	259
				ENST00000357089,ENST00000374221,ENST00000374217,ENST00000374222,ENST00000436301,ENST00000374215,ENST00000452980,ENST00000442942,ENST00000450041,ENST00000423664						111,144,69,106
chr1	26623486	26623410	-	ENST00000078527,ENST00000449950,ENST00000374145	chr1	26623058	26622785	-	588-591	400,172
chr1	27120604,27	27121725	+		chr1	27147846	27147895	+	592-593	
chr1	27224216	27223792	-	ENST00000361720	chr1	27223612	27223570	-	594	292
chr1	27432578	27432376	-	ENST00000263980,ENST00000545949,ENST00000374086	chr1	27430321	27430219	-	595-596	495,156
chr1	27480825	27480474	-	ENST00000263980,ENST00000374086,ENST00000374084	chr1	27465146	27465010	-	597	117
chr1	27589643	27589726	+	ENST00000319394,ENST00000361771,ENST00000447062	chr1	27599029	27599184	+	598	44
chr1	27627717	27627952	+	ENST00000319394,ENST00000361771,ENST00000447062	chr1	27628430	27628568	+	599-600	489,488
chr1	27631492,2763	27631684	+	ENST00000319394,ENST00000361771,ENST00000447062,ENST00000472249	chr1	27631988	27632086	+	601-604	612,611,592,60
chr1	28206155,28	28206565	+	ENST00000328928,ENST00000373925,ENST00000373921,ENST00000456990	chr1	28208311	28208377	+	605-606	215,108
chr1	28233552	28233439	-	ENST00000373912,ENST00000373909,ENST00000313433,ENST00000444045	chr1	28229089	28228774	-	607-610	111,119,199,115
chr1	28290008	28290204	+	ENST00000373884	chr1	28292230	28292287	+	611	163
chr1	28362191	28362055	-	ENST00000373871,ENST00000540618,ENST00000545175,ENST00000373863	chr1	28358989	28358692	-	612-613	120,67
chr1	28733959	28733974	+	ENST00000373839	chr1	28746912	28747094	+	614	5
chr1	28819527	28819603	+	ENST00000373839,ENST00000373836	chr1	28820742	28820821	+	615-616	697,707
				ENST00000398958,ENST00000427469,ENST00000434290,ENST00000373833,ENST00000419074,ENST00000373832,ENST00000373831,ENST00000411533,ENST00000430407						220,256,251,237
chr1	28861770	28861892	+	ENST00000343067,ENST00000356093,ENST00000398863,ENST00000349460,ENST00000373800,ENST00000347529,ENST00000373798,ENST00000373797	chr1	28862122	28862186	+	617-620	404,195,369
chr1	29356912	29356999	+	ENST00000373791,ENST00000263702,ENST00000463412	chr1	29358300	29358301	+	621-623	59,135,8
chr1	29542648,3	29542517	-		chr1	29537877	29537601	-	624-626	
chr1	31215396	31215303	-	ENST00000294507	chr1	31215100	31215081	-	627	60
chr1	31230592	31230506	-	ENST00000294507	chr1	31223306	31223271	-	628	29
				ENST00000424085,ENST00000257075,ENST00000373747,ENST00000525843,ENST00000426105,ENST00000498419,ENST00000440538,ENST00000373741,ENST00000423018,ENST00000373742						796,1038,10 41,976,1040, 751,1014,10 76,896,979,5
chr1	31414970	31414845	-	,ENST00000530669,ENST00000525997	chr1	31414514	31414492	-	629-640	1,138
chr1	31782946	31783011	+	ENST00000344147,ENST00000373714	chr1	31783482	31783614	+	641	22
chr1	32154103	32154068	-	ENST00000373672,ENST00000373668	chr1	32152293	32152142	-	642	601
chr1	32696528	32696620	+	ENST00000373586	chr1	32775057	32775306	+	643	298
chr1	32696528	32696620	+	ENST00000373586	chr1	32807901	32808156	+	644	298
chr1	32696528	32696620	+	ENST00000373586	chr1	32857702	32857956	+	645	298
				ENST00000414241,ENST00000373493,ENST00000373485,ENST00000477563,ENST00000458695						102,103,68
chr1	33123028	33123173	+	,ENST00000490500,ENST00000445722	chr1	33132966	33133254	+	646-648	
				ENST00000373476,ENST00000373475,ENST00000398243						306,305
chr1	33293594,33	33293682	+	ENST00000373476,ENST00000373475,ENST00000398243	chr1	33293912	33293952	+	649-650	341,34
chr1	33295565	33295668	+	ENST00000358680,ENST00000294517,ENST00000398167,ENST00000373443,ENST00000373440,ENST00000373441	chr1	33300466	33300751	+	651-652	35
chr1	33547851	33547955	+		chr1	33548712	33548873	+	653	
				ENST00000378378,ENST00000378373,ENST00000378371,ENST00000413250						663,375,367
chr1	3396376	3396477	+		chr1	3403760	3404136	+	654-656	
chr1	34291375	34291298	-	ENST00000241312,ENST00000373381	chr1	34287530	34287241	-	657-658	330,37
				ENST00000294599,ENST00000356575,ENST00000485002						179,284,291
chr1	3431236	3431114	-		chr1	3430316	3430142	-	659-661	
chr1	3512011	3511902	-	ENST00000356575,ENST00000485002	chr1	3506491	3506414	-	662	125
chr1	35790961	35791006	+	ENST00000373297,ENST00000314607	chr1	35822252	35822363	+	663	28
				ENST00000325722,ENST00000426982,ENST00000440579,ENST00000482929,ENST00000478463,ENST00000470388,ENST00000469892,ENST00000494948						47
chr1	36020092	36019951	-		chr1	35991724	35990312	-	664	
				ENST00000251195,ENST00000318121,ENST00000373220,ENST00000520551						1303,1239,1250
chr1	36202676	36202515	-		chr1	36189286	36189183	-	665-667	

Table 9

				ENST00000378230,ENST00000438539,ENST00000461667							717,13,36
chr1	3745937,375	3745830	-		chr1	3744049	3743777	-	668-670		
chr1	37499709	37499595	-	ENST00000373091,ENST00000373093	chr1	37486181	37486150	-	671	38	
				ENST00000378230,ENST00000428079,ENST00000378223							37
chr1	3768971	3768859	-		chr1	3768366	3768227	-	672		
				ENST00000373045,ENST00000397631,ENST00000525897							245,51
chr1	38262416	38262492	+		chr1	38263333	38263452	+	673-674		
				ENST00000324379,ENST00000356511,ENST00000497370,ENST00000372835,ENST00000372830							169,103,118
chr1	40211047	40211170	+		chr1	40214263	40214419	+	675-677		
				ENST00000324379,ENST00000356511,ENST00000497370,ENST00000372835,ENST00000372830							169,103,118
chr1	40211047	40211170	+		chr1	40214267	40214419	+	678-680		
				ENST00000324379,ENST00000356511,ENST00000497370,ENST00000372835,ENST00000372830							169,103,118
chr1	40211047	40211170	+		chr1	40214379	40214419	+	681-683		
				ENST00000433473,ENST00000529905,ENST00000449045,ENST00000439754,ENST00000527311							209,106,104,134,238
chr1	40546159	40546069	-	,ENST00000372779	chr1	40544510	40544499	-	684-688		
				ENST00000433473,ENST00000529905,ENST00000530704,ENST00000439754,ENST00000527311							144,39,69,17 3,94
chr1	40557071	40557001	-	,ENST00000372779,ENST00000526547	chr1	40555213	40555206	-	689-693		
				ENST00000372699,ENST00000372696,ENST00000372697							5
chr1	40998839	40998853	+		chr1	41005147	41005201	+	694		
				ENST00000347132,ENST00000509682,ENST00000443478							347,242
chr1	41285837	41285932	+		chr1	41287805	41287831	+	695-696		
				ENST00000456518,ENST00000397174,ENST00000402904,ENST00000361191,ENST00000361705							391,529,549, 488,502,559
chr1	41503213	41503034	-	,ENST00000397171,ENST00000326197,ENST00000372595,ENST00000337495,ENST00000372596 ,ENST00000372597	chr1	41499774	41499632	-	697-702		
				ENST00000456518,ENST00000397174,ENST00000402904,ENST00000361191,ENST00000361705							391,529,549, 488,502,559
				,ENST00000397171,ENST00000326197,ENST00000372595,ENST00000337495,ENST00000372596							
chr1	41503213	41503034	-	,ENST00000372597	chr1	41499791	41499632	-	703-708		
				ENST00000428554,ENST00000477155,ENST00000507855,ENST00000342022,ENST00000340612							461,159,250
chr1	43054992	43055154	+	,ENST00000390640	chr1	43055966	43056008	+	709-711		
				ENST00000428554,ENST00000477155,ENST00000507855,ENST00000342022,ENST00000340612							461,159,250
chr1	43054992	43055154	+	,ENST00000390640	chr1	43057761	43057911	+	712-714		
				ENST00000372525,ENST00000464081,ENST00000603943							26
chr1	43232983	43233061	+		chr1	43234659	43234931	+	715		
chr1	43233180,43	43233295	+	ENST00000372525,ENST00000603943	chr1	43234659	43234931	+	716-717		65,104
				ENST00000372522,ENST00000372521,ENST00000537227							38
chr1	43282215	43282102	-		chr1	43279571	43279456	-	718		
				ENST00000372522,ENST00000372521,ENST00000537227							38
chr1	43282215	43282102	-		chr1	43279575	43279456	-	719		
chr1	43672391	43672603	+	ENST00000372492,ENST00000528956	chr1	43674166	43674475	+	720	585	
chr1	43897387	43897572	+	ENST00000562955,ENST00000372442	chr1	43897822	43897881	+	721-722		1701,859
				ENST00000361745,ENST00000446292,ENST00000440641,ENST00000437511,ENST00000315913							131,157,102
chr1	44680375	44680570	+	,ENST00000372289,ENST00000372290	chr1	44680978	44681161	+	723-725		
chr1	44818597	44818522	-	ENST00000372257,ENST00000457571	chr1	44801643	44801548	-	726	70	
				ENST00000418644,ENST00000458657,ENST00000441519,ENST00000535358,ENST00000445071							68
chr1	45155370	45155575	+	,ENST00000453711	chr1	45157792	45157942	+	727		
				ENST00000450269,ENST00000453418,ENST00000439563							138
chr1	45277711	45277770	+		chr1	45278224	45278378	+	728		
				ENST00000439363,ENST00000360403,ENST00000372183							9,188
chr1	45392327,45	45392300	-		chr1	45386509	45385912	-	729-730		
chr1	45500141	45499984	-	ENST00000359600	chr1	45492157	45492007	-	731	816	
				ENST00000372009,ENST00000361297,ENST00000372008							197,82
chr1	46425058	46425149	+		chr1	46426062	46426203	+	732-733		
chr1	46476402	46476611	+	ENST00000361297,ENST00000372008	chr1	46480327	46483572	+	734-735		396,281
chr1	46669099	46669296	+	ENST00000371980	chr1	46682724	46683247	+	736	66	
chr1	46726933	46727057	+	ENST00000442598,ENST00000371975	chr1	46730874	46731088	+	737	297	
chr1	46763305	46763235	-	ENST00000343304	chr1	46762741	46762300	-	738	119	
chr1	46763305	46763235	-	ENST00000343304	chr1	46762746	46762300	-	739	119	
chr1	46775827	46775988	+	ENST00000311672	chr1	46786187	46786935	+	740	81	
				ENST00000474844,ENST00000536062,ENST00000537428							335,286
chr1	46827242	46827368	+		chr1	46834444	46834566	+	741-742		
				ENST00000371847,ENST00000371843,ENST00000396199,ENST00000371841							303,231,144
chr1	48851021	48850981	-		chr1	48849836	48849165	-	743-745		
				ENST00000371847,ENST00000371843,ENST00000396199,ENST00000371841							303,231,144
chr1	48851021	48850981	-		chr1	48849906	48849165	-	746-748		
				ENST00000371839,ENST00000371838,ENST00000371836							52
chr1	50317190	50317068	-		chr1	50215057	50213681	-	749		
				ENST00000396153,ENST00000371778,ENST00000545823,ENST00000494400							280,38,86
chr1	51061888	51061793	-		chr1	51054182	51053982	-	750-752		
chr1	51253877	51253672	-	ENST00000396153,ENST00000371778	chr1	51218195	51217944	-	753	122	

Table 9

chr1	51702429	51702551	+	ENST00000242719	chr1	51766518	51766784	+	754	41	
chr1	52530497	52530610	+	ENST00000313334,ENST00000489308,ENST00000484036	chr1	52566879	52567291	+	755	56	
chr1	53544037	53544694	+	ENST00000395871,ENST00000371500,ENST00000312553	chr1	53546365	53546371	+	756-758	410,533,552	
chr1	53716534	53716362	-	ENST00000306052,ENST00000529670,ENST00000371454,ENST00000465675,ENST00000354412,ENST00000347547	chr1	53715532	53715530	-	759-763	892,108,445,688,722	
chr1	53746387	53746259	-	ENST00000306052,ENST00000371454,ENST00000354412,ENST00000480045,ENST00000347547	chr1	53744116	53744043	-	764	165	
chr1	53792664	53792545	-	ENST00000306052,ENST00000371454,ENST00000354412,ENST00000480045,ENST00000347547	chr1	53757975	53757960	-	765	81	
chr1	53792664	53792545	-		chr1	53791209	53791139	-	766	81	
chr1	55064969	55065088	+	ENST00000343744,ENST00000371316	chr1	55066636	55066680	+	767	294	
chr1	55070749	55070882	+	ENST00000343744,ENST00000371316	chr1	55071742	55071817	+	768	456	
chr1	55188348	55188472	+	ENST00000371281	chr1	55189206	55189214	+	769	198	
chr1	57111061	57111154	+	ENST00000371244	chr1	57111402	57111526	+	770	31	
chr1	57233611	57233502	-	ENST00000343433	chr1	57230556	57230418	-	771	354	
chr1	58971881	58971732	-	ENST00000421528,ENST00000358603,ENST00000371226	chr1	58798106	58798067	-	772-773	296,455	
chr1	58993007	58992933	-	ENST00000421528,ENST00000358603,ENST00000371226	chr1	58988584	58988253	-	774-775	246,405	
chr1	58993007	58992933	-	ENST00000421528,ENST00000358603,ENST00000371226	chr1	58988672	58988253	-	776-777	246,405	
chr1	60019796,6	60019899	+	ENST00000371218,ENST00000303721,ENST00000430447,ENST00000371212,ENST00000371210	chr1	60038627	60038649	+	778-780	301,213,2	
chr1	6154460	6154545	+	ENST00000378097,ENST00000378092,ENST00000389632,ENST00000428161,ENST00000602612,ENST00000341524,ENST00000352527,ENST00000164247,ENST00000378083,ENST00000458166	chr1	6154804	6154904	+	781-784	196,182,244,129	
chr1	6181297	6181165	-	ENST00000262450,ENST00000378021,ENST00000462991,ENST00000496404	chr1	6179451	6179209	-	785-788	1637,494,1019,1210	
chr1	6273126	6273243	+	ENST00000377939	chr1	6277525	6277780	+	789	550	
chr1	62943505,63	62943371	-	ENST00000251157,ENST00000454575,ENST00000340370	chr1	62942792	62942662	-	790-792	1867,1040,1847	
chr1	6387473	6387359	-	ENST00000608083,ENST00000377842,ENST00000377845,ENST00000377855,ENST00000377860,ENST00000418124,ENST00000545482,ENST00000361521,ENST00000473466,ENST00000541130	chr1	6380964	6380792	-	793-799	176,167,188,218,103,208,159	
chr1	6387473	6387359	-	ENST00000608083,ENST00000377842,ENST00000377845,ENST00000377855,ENST00000377860,ENST00000418124,ENST00000545482,ENST00000361521,ENST00000473466,ENST00000541130	chr1	6380978	6380792	-	800-806	176,167,188,218,103,208,159	
chr1	63974241	63974199	-	ENST00000371092,ENST00000271002,ENST00000489099,ENST00000283568	chr1	63968496	63968187	-	807-808	55,16	
chr1	63974241	63974199	-	ENST00000371092,ENST00000271002,ENST00000489099,ENST00000283568	chr1	63971868	63968187	-	809-810	55,16	
chr1	64036692	64036799	+	ENST00000371088	chr1	64048982	64049945	+	811	605	
chr1	65280387	65280523	+	ENST00000294428,ENST00000371072,ENST00000430964	chr1	65308026	65308034	+	812-814	643,630,182	
chr1	65349158	65348960	-	ENST00000342505	chr1	65348746	65348743	-	815	68	
chr1	65730594	65730615	+	ENST00000395325	chr1	65784010	65784067	+	816	7	
chr1	65775429	65775621	+	ENST00000371069	chr1	65784010	65784067	+	817	64	
chr1	65845085	65845207	+	ENST00000494710,ENST00000263441,ENST00000395325,ENST00000371069	chr1	65847504	65848884	+	818-821	196,152,165,222	
chr1	65890986	65891061	+	ENST00000371065	chr1	65961974	65962277	+	822	30	
chr1	67721520	67721610	+	ENST00000347310,ENST00000425614,ENST00000395227	chr1	67731444	67731568	+	823-825	413,174,158	
chr1	67721520	67721610	+	ENST00000347310,ENST00000425614,ENST00000395227	chr1	67734104	67734272	+	826-828	413,174,158	
chr1	70144064	70144161	+	ENST00000370958	chr1	70162103	70162257	+	829	33	
chr1	70144064	70144161	+	ENST00000370958	chr1	70189933	70190030	+	830	33	
chr1	70181901	70181901	+	ENST00000310961	chr1	70189933	70190030	+	831	0	
chr1	70446062	70446136	+	ENST00000310961,ENST00000035383,ENST00000359875,ENST00000531950,ENST00000432224	chr1	70449173	70449537	+	832-833	229,224,85	
chr1	70820635	70820891	+		chr1	70831829	70831848	+	834		
chr1	72163822	72163691	-	ENST00000357731,ENST00000306821	chr1	72136431	72136415	-	835-836	222,94	
chr1	75204374	75204472	+	ENST00000370867	chr1	75212461	75212534	+	837	118	
chr1	75214435,75	75214506	+	ENST00000457880,ENST00000370867,ENST00000479111,ENST00000483990	chr1	75217033	75217075	+	838-840	109,142,22	
chr1	75805315	75805267	-	ENST00000370859,ENST00000370855	chr1	75787118	75786960	-	841	33	
chr1	76877693	76878102	+	ENST00000328299	chr1	76917910	76918106	+	842	207	
chr1	77620306	77620134	-	ENST00000370812,ENST00000445065,ENST00000370813,ENST00000359130	chr1	77596445	77596034	-	843-845	328,234,252	

Table 9

chr1	77672416	77672325	-	ENST00000370812,ENST00000359130 ENST00000370812,ENST00000445065,ENST000	chr1	77646651	77646628	-	846 79 31
chr1	77685087	77684995	-	00370813,ENST00000359130 ENST00000354567,ENST00000344720,ENST000	chr1	77684008	77683825	-	847 353,327,7
chr1	77883324,78	77883400	+	00527263 ENST00000354567,ENST00000344720,ENST000	chr1	77890766	77890989	+	848-850 382,356,37
chr1	77951993	77952037	+	00527263	chr1	77962826	77963210	+	851-853
chr1	78044554	78044459	-	ENST00000370801,ENST00000370798	chr1	78042440	78042365	-	854-855 726,232
chr1	78099039	78097535	-	ENST00000370801	chr1	78092122	78091887	-	856 501
chr1	78099039	78098800	-	ENST00000370801 ENST00000370794,ENST00000481579,ENST000 00357428,ENST00000370793,ENST00000370792	chr1	78092122	78091887	-	857 80 802,437,833, 825
chr1	78177540	78177432	-	ENST00000493373,ENST00000338639,ENST000 00493678,ENST00000377493,ENST00000377491	chr1	78174463	78174397	-	858-861 107,87,68
chr1	8030954	8031023	+	,ENST00000377488,ENST00000469225	chr1	8031711	8032022	+	862-864
chr1	84544009	84544054	+	ENST00000370689,ENST00000370688	chr1	84596237	84596418	+	865 15
chr1	85029101	85028940	-	ENST00000370630	chr1	85009184	85009011	-	866 319
chr1	85462555	85462479	-	ENST00000370608,ENST00000463065 ENST00000370596,ENST00000326813,ENST000	chr1	85458992	85458275	-	867 25 805,844,126
chr1	85595673	85595795	+	00294664,ENST00000484007	chr1	85607360	85608146	+	868-870
chr1	85724405	85724207	-	ENST00000471115,ENST00000344356 ENST00000337907,ENST00000400907,ENST000	chr1	85718794	85718704	-	871 158 241
chr1	8616630	8616534	-	00400908 ENST00000436319,ENST00000370571,ENST000	chr1	8606333	8606042	-	872 770
chr1	86482887	86482834	-	00426639 ENST00000359242,ENST00000460698,ENST000 00317336,ENST00000370567,ENST00000394731	chr1	86457917	86457594	-	873 506,353,477, 346,33
chr1	86822285,87	86822127	-	,ENST00000294678,ENST00000531412 ENST00000359242,ENST00000460698,ENST000 00317336,ENST00000370567,ENST00000394731 ,ENST00000370566,ENST00000294678,ENST000	chr1	86821439	86821214	-	874-878 270,146,139, 100
chr1	86842101	86841916	-	00479890 ENST00000316005,ENST00000370521,ENST000	chr1	86840842	86840576	-	879-882 16
chr1	89150264	89150311	+	00370513 ENST00000316005,ENST00000370521,ENST000 00370505,ENST00000370513,ENST00000436111	chr1	89157407	89157723	+	883 328,171,109
chr1	89237346	89237562	+		chr1	89243684	89243972	+	884-886
chr1	8930569	8930511	-	ENST00000234590,ENST00000497492	chr1	8928603	8928532	-	887 80
chr1	89408774	89408688	-	ENST00000370491,ENST00000260508 ENST00000358200,ENST00000330947,ENST000	chr1	89404381	89404060	-	888-889 400,434 713
chr1	90048210	90050348	+	00439853 ENST00000340281,ENST00000370447,ENST000	chr1	90053872	90054017	+	890 467,378,261
chr1	90487809	90487904	+	00455342 ENST00000370382,ENST00000342818,ENST000	chr1	90491478	90491527	+	891-893 220
chr1	92573441	92573558	+	00540648	chr1	92577691	92577967	+	894
chr1	92772745	92772833	+	ENST00000610020	chr1	92776179	92776446	+	895 162
chr1	92811403	92811471	+	ENST00000610020	chr1	92815209	92815486	+	896 562
chr1	92811403	92811471	+	ENST00000610020	chr1	92829266	92829616	+	897 562
chr1	93545084	93545088	+	ENST00000370298,ENST00000370303 ENST00000343253,ENST00000401026,ENST000 00338949,ENST00000557479,ENST00000370276	chr1	93550285	93550439	+	898 1 286,232,31,3 50,271
chr1	93659173,94	93659301	+	,ENST00000481180 ENST00000343253,ENST00000401026,ENST000 00334652,ENST00000338949,ENST00000557479	chr1	93662673	93663061	+	899-903 866,867,162, 622,985,920,
chr1	93701805	93701947	+	,ENST00000370276,ENST00000455267 ENST00000343253,ENST00000401026,ENST000	chr1	93702819	93703433	+	904-910 542 1347,1294,1
chr1	93730258	93730458	+	00557479,ENST00000370276	chr1	93731331	93734979	+	911-914 295,1413
chr1	93819465	93819628	+	ENST00000370272,ENST00000370267	chr1	93823955	93824423	+	915 128
chr1	93819465	93819628	+	ENST00000370272,ENST00000370267	chr1	93881401	93881846	+	916 128
chr1	94367225	94367141	-	ENST00000370238 ENST00000370225,ENST00000535881,ENST000	chr1	94366414	94366359	-	917 92 2272,391,54
chr1	94461751	94461665	-	00536513	chr1	94456746	94456717	-	918-920 2
chr1	94643276	94643168	-	ENST00000552844,ENST00000260526	chr1	94642209	94642169	-	921 968
chr1	94643276	94643168	-	ENST00000552844,ENST00000260526 ENST00000394233,ENST00000454898,ENST000	chr1	94642326	94642169	-	922 968 36
chr1	94884035	94884144	+	00370214,ENST00000315713 ENST00000394233,ENST00000454898,ENST000	chr1	94914676	94915859	+	923 49,73
chr1	94924163	94924199	+	00370214,ENST00000315713	chr1	94929725	94929762	+	924-925
chr1	95492816	95492685	-	ENST00000370205	chr1	95457621	95456812	-	926 140
chr1	95530573	95530422	-	ENST00000370205 ENST00000609116,ENST00000370197,ENST000 00370198,ENST00000426398,ENST00000394184	chr1	95529366	95527843	-	927 96 38,49,7
chr1	97216981,97	97217056	+	,ENST00000541987	chr1	97221531	97221672	+	928-930
chr1	97700550	97700408	-	ENST00000370192 ENST00000377298,ENST00000361311,ENST000	chr1	97666456	97666438	-	931 814 146,136
chr1	9815367	9815172	-	00377288	chr1	9814158	9813867	-	932-933
chr1	99128262	99128372	+	ENST00000528824 ENST00000370189,ENST00000529992,ENST000	chr1	99132549	99132750	+	934 37 311,320,375
chr1	99167373	99167459	+	00306121	chr1	99241251	99241430	+	935-937
chr10	100147064	100146958	-	ENST00000370575	chr10	100146466	100146294	-	938 518
chr10	100174892	100174766	-	ENST00000370575	chr10	100174587	100174461	-	939 42

Table 9

				ENST00000370549,ENST00000370552,ENST000					203
chr10	100904156	100903995	-	00370546	chr10	100759381	100759347	-	940
chr10	101554170	101554225	+	ENST00000370449,ENST00000370434	chr10	101556116	101556288	+	941 210
chr10	101554170	101554225	+	ENST00000370449,ENST00000370434	chr10	101556148	101556288	+	942 210
chr10	101554170	101554225	+	ENST00000370449,ENST00000370434	chr10	101556266	101556288	+	943 210
chr10	101554170	101554225	+	ENST00000370449,ENST00000370434	chr10	101679431	101679542	+	944 210
chr10	101728994	101728872	-	ENST00000324109,ENST00000342239	chr10	101725385	101725254	-	945 89
chr10	102116289	102116521	+	ENST00000370355	chr10	102140973	102141062	+	946 293
				ENST00000523148,ENST00000318325,ENST000					132,176,218
				00370241,ENST00000370242,ENST00000299179					
chr10	102743574	102743512	-	,ENST00000342071	chr10	102739403	102739144	-	947-949
chr10	103364897	103364969	+	ENST00000370147,ENST00000370148	chr10	103366398	103366447	+	950 159
chr10	103368592	103368694	+	ENST00000370151	chr10	103369010	103369043	+	951 169
chr10	1034420	1034467	+	ENST00000360803	chr10	1036509	1036687	+	952 16
				ENST00000428099,ENST00000369966,ENST000					489
chr10	104159334	104159475	+	00189444	chr10	104159684	104159703	+	953
				ENST00000366277,ENST00000238936,ENST000					5,276,125
chr10	104231139,1	104231153	+	00369931	chr10	104231667	104231733	+	954-956
				ENST00000369902,ENST00000369899,ENST000					105
chr10	104268926	104269060	+	00423559	chr10	104284517	104284607	+	957
chr10	104459246	104459130	-	ENST00000260746	chr10	104455572	104455282	-	958 88
chr10	104503811	104503900	+	ENST00000448841	chr10	104523441	104523554	+	959 30
				ENST00000343289,ENST00000404739,ENST000					33
				00452156,ENST00000461461,ENST00000470299					
chr10	104934715	104934615	-		chr10	104930582	104930284	-	960
chr10	105093709	105093682	-	ENST00000337211,ENST00000369847	chr10	105090796	105090704	-	961-962 195,27
				ENST00000360803,ENST00000538293,ENST000					371,255,324
chr10	1052958	1053068	+	00545048	chr10	1054083	1054355	+	963-965
				ENST00000369774,ENST00000355946,ENST000					87,132
chr10	105484119	105484028	-	00420222	chr10	105479321	105479251	-	966-967
				ENST00000369774,ENST00000355946,ENST000					132,87
chr10	105484119	105484028	-	00420222	chr10	105479912	105479778	-	968-969
				ENST00000369774,ENST00000355946,ENST000					132,87
chr10	105484119	105484028	-	00420222	chr10	105483752	105483726	-	970-971
chr10	105615024	105614953	-	ENST00000369774,ENST00000355946	chr10	105563607	105563482	-	972 24
chr10	105809229	105809167	-	ENST00000353479,ENST00000369733	chr10	105808704	105808589	-	973 742
				ENST00000357060,ENST00000428666,ENST000					431,432,362
chr10	105956691	105956611	-	00278064,ENST00000369720	chr10	105954290	105954173	-	974-976
				ENST00000360803,ENST00000538293,ENST000					628,512,581
chr10	1063015	1063147	+	00545048	chr10	1082729	1082851	+	977-979
chr10	108716338	108716271	-	ENST00000263054,ENST00000344440	chr10	108687167	108686884	-	980 208
chr10	108716338	108716271	-	ENST00000263054,ENST00000344440	chr10	108687175	108686884	-	981 208
chr10	111683191	111683160	-	ENST00000322238,ENST00000502935	chr10	111676089	111675666	-	982 10
				ENST00000332674,ENST00000239007,ENST000					145,78,42
chr10	112004586	112004615	+	00442296,ENST00000369612	chr10	112007804	112008111	+	983-985
chr10	112572036	112572705	+	ENST00000369519	chr10	112576399	112576521	+	986 850
chr10	114207132	114207225	+	ENST00000432306,ENST00000393077	chr10	114208162	114208243	+	987 31
chr10	114298005	114298089	+	ENST00000432306,ENST00000393077	chr10	114338645	114339178	+	988 142
				ENST00000534894,ENST00000355995,ENST000					150,97
				00536810,ENST00000538897,ENST00000543371					
				,ENST00000545257,ENST00000349937,ENST000					
chr10	114724315	114724383	+	00346198	chr10	114728089	114728335	+	989-990
				ENST00000609104,ENST00000277575,ENST000					128,145,151
chr10	11543207	11543100	-	00379237	chr10	11537229	11536431	-	991-993
chr10	115664576	115664795	+	ENST00000369301	chr10	115666985	115667101	+	994 641
chr10	116020945	116021054	+	ENST00000603594,ENST00000392982	chr10	116030952	116030985	+	995 123
chr10	116045698	116046270	+	ENST00000603594,ENST00000392982	chr10	116048109	116048177	+	996 523
chr10	116045698	116046270	+	ENST00000603594,ENST00000392982	chr10	116048156	116048177	+	997 523
				ENST00000355044,ENST00000526373,ENST000					1089,173,14
chr10	117154169	117154262	+	00423111	chr10	117163938	117164131	+	998-1000 0
chr10	118215234	118215342	+	ENST00000369230	chr10	118219598	118219824	+	1001 188
chr10	118501980	118501941	-	ENST00000369209	chr10	118486891	118486639	-	1002 13
chr10	11894077	11894214	+	ENST00000277570,ENST00000444604	chr10	11903263	11903437	+	1003 46
				ENST00000356352,ENST00000357604,ENST000					1058
chr10	11990507	11990368	-	00397053	chr10	11985657	11985594	-	1004
				ENST00000356352,ENST00000357604,ENST000					1011
chr10	11994248	11994065	-	00397053	chr10	11993220	11993053	-	1005
				ENST00000356352,ENST00000357604,ENST000					689
chr10	12009453	12009340	-	00397053	chr10	12006835	12006775	-	1006
chr10	120879853	120879964	+	ENST00000544016,ENST00000361432	chr10	120882905	120882939	+	1007-1008 46,197
chr10	120889027	120889055	+	ENST00000544016,ENST00000361432	chr10	120896569	120896605	+	1009-1010 90,241
chr10	121485775	121485871	+	ENST00000369083,ENST00000361976	chr10	121490896	121491182	+	1011 32
chr10	121510588	121510668	+	ENST00000369083,ENST00000361976	chr10	121517404	121517504	+	1012 59
chr10	121510588	121510668	+	ENST00000369083,ENST00000361976	chr10	121517407	121517504	+	1013 59
chr10	12162181	12162266	+	ENST00000263035	chr10	12167150	12167255	+	1014 886
				ENST00000398250,ENST00000439221,ENST000					205,142,195
				00427079,ENST00000541332,ENST00000369073					
chr10	122334643	122334813	+		chr10	122557504	122558843	+	1015-1017
				ENST00000429258,ENST00000281141,ENST000					48
chr10	12240704	12240775	+	00378900,ENST00000442050	chr10	12241474	12241580	+	1018
				ENST00000281141,ENST00000378900,ENST000					41,188,156
chr10	12277047	12277122	+	00442050,ENST00000440613	chr10	12277243	12277379	+	1019-1021

Table 9

				ENST00000281141,ENST00000378900,ENST00000442050,ENST00000440613					41,188,156
chr10	12277047	12277122	+	ENST00000281141,ENST00000378900,ENST00000440613	chr10	12277294	12277379	+	1022-1024 92,239,198
chr10	12280456	12280484	+	ENST00000281141,ENST00000378900,ENST00000440613	chr10	12301986	12302307	+	1025-1027 282,241,135
chr10	12288148	12288276	+	ENST00000369043,ENST00000369040,ENST00000540606	chr10	12301986	12302307	+	1028-1030 314,218,307
chr10	123658484	123658356	-	ENST00000368887,ENST00000406217	chr10	123648619	123648529	-	1031-1033 293,292
chr10	124746385	124746478	+	ENST00000392757,ENST00000368842,ENST00000368839	chr10	124748438	124748764	+	1034-1035 208
chr10	126186605	126186697	+	ENST00000337195,ENST00000309035,ENST00000334808,ENST00000531469,ENST00000494626,ENST00000411419	chr10	126251911	126252288	+	1036 188,728,256
chr10	126686739	126686533	-	ENST00000381312	chr10	126685880	126685778	-	1037-1039 504
chr10	1279787	1279636	-	ENST00000424927,ENST00000284694,ENST00000454341,ENST00000480379,ENST00000544758,ENST00000356858,ENST00000432642	chr10	1273186	1267357	-	1040 196,653,556,57,750,606
chr10	128118419	128118356	-	ENST00000544758	chr10	128106377	128106215	-	1041-1046 104
chr10	128335206	128335134	-	ENST00000544758	chr10	128212143	128212133	-	1047 104
chr10	128335206	128335134	-	ENST00000544758	chr10	128215366	128215119	-	1048 80
chr10	128359049	128358810	-	ENST00000544758	chr10	128341764	128341439	-	1049 80
chr10	128359049	128358810	-	ENST00000280333	chr10	128344799	128344699	-	1050 928
chr10	128925933	128926028	+	ENST00000280333	chr10	129021700	129021923	+	1051 1288
chr10	129183054	129183173	+	ENST00000327347,ENST00000378614,ENST00000545675,ENST00000537130	chr10	129184698	129185104	+	1052 186,119
chr10	13375971	13375817	-	ENST00000455566,ENST00000422256	chr10	13373281	13372830	-	1053-1054 329,132
chr10	133761034,1	133761295	+	ENST00000455566,ENST00000422256	chr10	133768165	133769100	+	1055-1056 329,132
chr10	133761034,1	133761295	+	ENST00000368594,ENST00000368593	chr10	133824449	133824862	+	1057-1058 301
chr10	134563275	134563349	+	ENST00000468317,ENST00000477902,ENST00000317502,ENST00000432508	chr10	134570907	134571113	+	1059 255,209,250,199
chr10	135216196	135216277	+	ENST00000468317,ENST00000477902,ENST00000317502,ENST00000432508	chr10	135240587	135240595	+	1060-1063 255,209,250,199
chr10	135216196	135216277	+	ENST00000468317,ENST00000477902,ENST00000317502,ENST00000432508	chr10	135251335	135252113	+	1064-1067 255,209,250,199
chr10	135216196	135216277	+	ENST00000468317,ENST00000477902,ENST00000317502,ENST00000432508	chr10	135385387	135385395	+	1068-1071 293,247,288,237
chr10	135232984	135233096	+	ENST00000468317,ENST00000477902,ENST00000317502,ENST00000432508	chr10	135240587	135240595	+	1072-1075 293,247,288,237
chr10	135232984	135233096	+	ENST00000432597,ENST00000368517,ENST00000303903,ENST00000343131	chr10	135385387	135385395	+	1076-1079 140,176
chr10	135370326	135370263	-	ENST00000378572,ENST00000595538,ENST00000596044	chr10	135370168	135370104	-	1080-1081 341,33,17
chr10	13672260,14	13672336	+	ENST00000358621,ENST00000357447,ENST00000378503,ENST00000264546	chr10	13679997	13680013	+	1082-1084 443,458,491
chr10	13712528	13712406	-	ENST00000357447,ENST00000378503,ENST00000493380,ENST00000475141	chr10	13709034	13708902	-	1085-1087 15
chr10	14372101	14372057	-	ENST00000181796,ENST00000487335	chr10	14356349	14356318,14	-	1088 137
chr10	14816662	14816252	-	ENST00000378289,ENST00000378278	chr10	14664173	14664120	-	1089 82
chr10	14987188	14987104	-	ENST00000378165,ENST00000378150	chr10	14984434	14984419	-	1090 36,9
chr10	15210611,15	15210502	-	ENST00000378076	chr10	15202035	15201994	-	1091-1092 879
chr10	15614368	15614210	-	ENST00000377602	chr10	15610215	15609910	-	1093 125
chr10	17401599	17401513	-	ENST00000361271	chr10	17381959	17381845	-	1094 261
chr10	17636382	17636204	-	ENST00000377524,ENST00000540523	chr10	17635713	17635638	-	1095 461,35
chr10	17750775	17750950	+	ENST00000381312	chr10	17755268	17756304	+	1096-1097 33
chr10	1779344	1779245	-	ENST00000324631,ENST00000352115,ENST00000377328,ENST00000282343,ENST00000377331	chr10	1688161	1688136	-	1098 71,43
chr10	18439812	18439904	+	ENST00000446906,ENST00000377072,ENST00000307729,ENST00000377059	chr10	18606833	18608535	+	1099-1100 135
chr10	21884260	21884369	+	ENST00000376510,ENST00000472663	chr10	21895128	21895182	+	1101
chr10	23399171	23399247	+	ENST00000376500,ENST00000323327	chr10	23402662	23402895	+	1102-1103 98,59
chr10	23609744	23609670	-	ENST00000376462,ENST00000376456,ENST00000458595,ENST00000376454,ENST00000376452	chr10	23608247	23607925	-	1104-1105 133,183 38,118
chr10	24508725,25	24508838	+	ENST00000320152,ENST00000376378,ENST00000376376	chr10	24513577	24513618	+	1106-1107 113
chr10	25226296	25226113	-	ENST00000376236,ENST00000356785	chr10	25225508	25225219	-	1108
chr10	26785233	26785320	+	ENST00000376170,ENST00000359188,ENST00000376142,ENST00000376139,ENST00000376160,ENST00000376166,ENST00000376138,ENST00000346832,ENST00000355394,ENST00000376134,ENST00000376137,ENST00000490841,ENST00000536334,ENST00000376140	chr10	26785837	26786135	+	1109 53 273,268,290,274,209
chr10	27054247	27054147	-	ENST00000376070,ENST00000376087,ENST00000436985	chr10	27051738	27051737	-	1110-1114 1259,1702,1
chr10	27294652	27294546	-	ENST00000376070,ENST00000376087,ENST00000436985	chr10	27271742	27271348	-	1115-1117 718
chr10	27294652	27294546	-	ENST00000445828,ENST00000376070,ENST00000376087,ENST00000436985	chr10	27284076	27283123	-	1259,1702,1 1118-1120 718
chr10	27295891	27295846	-	ENST00000445828,ENST00000376070,ENST00000376087,ENST00000436985	chr10	27269768	27268335	-	153,1223,16 1121-1124 66,1682
chr10	27295891	27295846	-		chr10	27271742	27271348	-	153,1223,16 1125-1128 66,1682

Table 9

chr10	27431414	27431316	-	ENST00000326799,ENST00000376016,ENST00000396296	chr10	27427751	27427248	-	1129-1131	200,143,135
chr10	27493478	27493369	-	ENST00000396271,ENST00000375901,ENST00000375905,ENST00000375897,ENST00000375888	chr10	27473244	27472951	-	1132-1136	521,412,486,344,530
chr10	27798804	27798859	+	ENST00000356940,ENST00000535776,ENST00000375802,ENST00000423465	chr10	27802892	27803663	+	1137-1138	41,124
chr10	27798804	27798859	+	ENST00000356940,ENST00000535776,ENST00000375802,ENST00000423465	chr10	27802895	27803663	+	1139-1140	124,41
chr10	27798804	27798859	+	ENST00000356940,ENST00000535776,ENST00000375802,ENST00000423465	chr10	27855761	27855937	+	1141-1142	124,41
chr10	27798804	27798859	+	ENST00000356940,ENST00000535776,ENST00000375802,ENST00000423465	chr10	27867300	27867461	+	1143-1144	124,41
chr10	27826805	27826957	+	ENST00000356940,ENST00000535776,ENST00000375802	chr10	27855761	27855937	+	1145-1147	199,135,154
chr10	28149775	28149554	-	ENST00000537576,ENST00000305242,ENST00000545014	chr10	28124969	28124879	-	1148-1150	699,1007,532
chr10	28250644	28250497	-	ENST00000537576,ENST00000305242,ENST00000239715,ENST00000434029	chr10	28249573	28249291	-	1151-1154	154,462,319,356
chr10	29769742	29769466	-	ENST00000375400,ENST00000375398,ENST00000355867,ENST00000535393,ENST00000538146	chr10	29764370	29764322	-	1155-1158	1366,1792,706,584
chr10	29769742	29769466	-	ENST00000375400,ENST00000375398,ENST00000355867,ENST00000535393,ENST00000538146	chr10	29764420	29764322	-	1159-1162	1366,1792,706,584
chr10	31749966	31750166	+	ENST00000320985,ENST00000361642,ENST00000560721,ENST00000558440,ENST00000424869,ENST00000561212,ENST00000446923,ENST00000559476	chr10	31755356	31755845	+	1163-1165	86,94,69
chr10	3206077	3205917	-	ENST00000224949,ENST00000380989,ENST00000451104	chr10	3203378	3203253	-	1166-1167	263,231
chr10	33197462,33	33197296	-	ENST00000423113,ENST00000396033,ENST00000302278,ENST00000374956,ENST00000488427	chr10	33120746	33119894	-	1168-1169	45,777
chr10	34606266	34606035	-	ENST00000545260,ENST00000545693,ENST00000346874,ENST00000350537,ENST00000374788,ENST00000374789,ENST00000374790,ENST00000374794,ENST00000374776,ENST00000340077,ENST00000544292,ENST00000374773	chr10	34591357	34591248	-	1170-1178	934,1008,1024,978,1021,964,949,737,991
chr10	38385546	38385560	+	ENST00000351773,ENST00000361085	chr10	38435660	38435702	+	1179	5
chr10	43127472	43127377	-	ENST00000359467	chr10	43096430	43096126	-	1180	83
chr10	43127472	43127377	-	ENST00000359467	chr10	43112879	43112854	-	1181	83
chr10	45877931	45878129	+	ENST00000542434,ENST00000374391	chr10	45890755	45891066	+	1182	116
chr10	45891303	45891384	+	ENST00000542434,ENST00000374391	chr10	45898065	45898792	+	1183	143
chr10	45924066	45924212	+	ENST00000542434,ENST00000374391	chr10	45928386	45928583	+	1184	327
chr10	46337135	46337101	-	ENST00000448048,ENST00000492347	chr10	46332437	46332317	-	1185-1186	109,92
chr10	47173918	47173898	-	ENST00000358140,ENST00000359178,ENST00000545298,ENST00000414655	chr10	47121259	47120442	-	1187	7
chr10	47173918	47173898	-	ENST00000358140,ENST00000359178,ENST00000545298,ENST00000414655	chr10	47121263	47120442	-	1188	7
chr10	47173918	47173898	-	ENST00000358140,ENST00000359178,ENST00000545298,ENST00000414655	chr10	47122996	47122669	-	1189	7
chr10	47173918	47173898	-	ENST00000358140,ENST00000359178,ENST00000545298,ENST00000414655	chr10	47139742	47138925	-	1190	7
chr10	47219811	47219702	-	ENST00000355232	chr10	47215080	47214858	-	1191	36
chr10	47232295	47232156	-	ENST00000413193	chr10	46734639	46734422	-	1192	153
chr10	47232295	47232156	-	ENST00000413193	chr10	47215080	47214858	-	1193	153
chr10	47239372	47239293	-	ENST00000413193	chr10	47236686	47236386	-	1194	44
chr10	48189978	48190057	+	ENST00000453919	chr10	48192664	48192965	+	1195	44
chr10	48197056	48197195	+	ENST00000453919	chr10	48214270	48214486	+	1196	153
chr10	4889340	4889422	+	ENST00000474119,ENST00000463345,ENST00000298375,ENST00000532248,ENST00000334019,ENST00000345253	chr10	4915406	4915583	+	1197-1200	202,306,249,208
chr10	49763595	49763508	-	ENST00000249601,ENST00000435790,ENST00000417912,ENST00000460425	chr10	49741000	49740914	-	1201-1202	107,113
chr10	50040618	50040754	+	ENST00000325239,ENST00000265453	chr10	50064034	50064086	+	1203-1204	307,2221
chr10	50085078	50085244	+	ENST00000325239,ENST00000265453	chr10	50086044	50086170	+	1205-1206	475,2389
chr10	50373841	50373811	-	ENST00000374153,ENST00000474718,ENST00000374151,ENST00000374148	chr10	50373455	50373011	-	1207	89
chr10	51069709	51069634	-	ENST00000402038	chr10	51067375	51067341	-	1208	250
chr10	51240744	51240710	-	ENST00000602930,ENST00000425119,ENST00000479304	chr10	51236047	51235927	-	1209-1211	93,109,116
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51395613	51395615	+	1212-1213	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51397251	51397260	+	1214-1215	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51729670	51731108	+	1216-1217	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51729741	51731108	+	1218-1219	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51729869	51731108	+	1220-1221	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51730100	51731108	+	1222-1223	171,134
chr10	51387653	51387763	+	ENST00000374098,ENST00000374097	chr10	51746925	51747139	+	1224-1225	171,134
chr10	51480527	51480493	-	ENST00000374095	chr10	51475508	51475389	-	1226	109
chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51265126	51263847	-	1227-1230	171,134,68,123

Table 9

chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51587853	51586689	-	1231-1234	68,171,123,134
chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51588987	51588241	-	1235-1238	68,171,123,134
chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51597486	51597477	-	1239-1242	171,134,68,123
chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51597524	51597477	-	1243-1246	68,171,123,134
chr10	51607098	51606988	-	ENST00000444743,ENST00000260867,ENST00000374064,ENST00000374065	chr10	51599125	51599123	-	1247-1250	68,171,123,134
chr10	51754155	51754189	+	ENST00000374056,ENST00000412531	chr10	51758893	51759012	+	1251-1252	109,132
chr10	53667267	53667330	+	ENST00000401604,ENST00000373985,ENST00000373980,ENST00000373976	chr10	53715594	53716101	+	1253-1256	239,227,254,112
chr10	5471133	5471192	+	ENST00000355029	chr10	5475318	5475434	+	1257	85
chr10	5762834	5762933	+	ENST00000328090	chr10	5764274	5764437	+	1258	48
chr10	5827236	5827105	-	ENST00000380191,ENST00000447751,ENST00000380132,ENST00000380181,ENST00000456041	chr10	5825376	5825217	-	1259-1263	239,67,243,194,229
chr10	5827236	5827105	-	ENST00000380191,ENST00000447751,ENST00000380132,ENST00000380181,ENST00000456041	chr10	5826781	5825217	-	1264-1268	239,67,243,194,229
chr10	5855221	5855177	-	ENST00000380191,ENST00000380181,ENST00000456041,ENST00000418688	chr10	5846179	5846053	-	1269	15
chr10	5855221	5855177	-	ENST00000380191,ENST00000380181,ENST00000456041,ENST00000418688	chr10	5848012	5847869	-	1270	15
chr10	5925130	5924969	-	ENST00000380094,ENST00000380092,ENST00000191063	chr10	5904654	5904643	-	1271	283
chr10	60272904	60273093	+	ENST00000373886	chr10	60376656	60376682	+	1272	63
chr10	62545422	62545545	+	ENST00000519078,ENST00000316629,ENST00000395284,ENST00000448257,ENST00000373809	chr10	62546982	62547147	+	1273	106
chr10	62545422	62545545	+	ENST00000519078,ENST00000316629,ENST00000395284,ENST00000448257,ENST00000373809	chr10	62546987	62547147	+	1274	106
chr10	6268155	6268328	+	ENST00000379789,ENST00000540253,ENST00000317350,ENST00000379785,ENST00000379782,ENST00000360521,ENST00000379775,ENST00000414237	chr10	6325355	6325372	+	1275-1278	485,519,505,74
chr10	65358930	65359043	+	ENST00000298249,ENST00000373758	chr10	65361146	65361331	+	1279-1280	124,139
chr10	69695992	69695910	-	ENST00000277817,ENST00000395198,ENST00000412272,ENST00000373700	chr10	69694344	69693798	-	1281-1284	782,892,814,884
chr10	69695992	69695910	-	ENST00000277817,ENST00000395198,ENST00000412272,ENST00000373700	chr10	69695200	69694905	-	1285-1288	782,892,814,884
chr10	69909797	69909868	+	ENST00000354393,ENST00000540630,ENST00000358913,ENST00000373675	chr10	69914656	69914967	+	1289-1290	164,439
chr10	70360738	70360791	+	ENST00000373644	chr10	70396403	70396421	+	1291	656
chr10	70532745	70532856	+	ENST00000535016,ENST00000265872,ENST00000543719,ENST00000539539,ENST00000543706	chr10	70537113	70537148	+	1292-1294	172,868,883
chr10	70532745	70532856	+	ENST00000535016,ENST00000265872,ENST00000543719,ENST00000539539,ENST00000543706	chr10	70537860	70537992	+	1295-1297	172,868,883
chr10	70532745	70532856	+	ENST00000535016,ENST00000265872,ENST00000543719,ENST00000539539,ENST00000543706	chr10	70541958	70542065	+	1298-1300	868,883,172
chr10	70679588	70679737	+	ENST00000373585	chr10	70680435	70680736	+	1301	413
chr10	70738598	70738732	+	ENST00000354185	chr10	70738877	70738987	+	1302	679
chr10	70847914	70847992	+	ENST00000242465	chr10	70874474	70875487	+	1303	26
chr10	70856840	70856987	+	ENST00000242465	chr10	70874474	70875487	+	1304	75
chr10	71634884	71634919	+	ENST00000356340,ENST00000398972,ENST00000398973,ENST00000398966,ENST00000398968,ENST00000398971,ENST00000479733,ENST00000354547,ENST00000357811,ENST00000398978,ENST00000517713,ENST00000522165	chr10	71640170	71640253	+	1305-1306	145,145
chr10	71637795	71637821	+	ENST00000479733	chr10	71640170	71640253	+	1307	154
chr10	72307062	72307202	+	ENST00000263563	chr10	72329353	72329741	+	1308	754
chr10	72307062	72307202	+	ENST00000263563	chr10	72330333	72330488	+	1309	754
chr10	72307062	72307202	+	ENST00000263563	chr10	72335227	72335472	+	1310	754
chr10	72619128	72619256	+	ENST00000373202,ENST00000299297,ENST00000409118	chr10	72622375	72622664	+	1311-1313	205,188,118
chr10	72619128	72619256	+	ENST00000373202,ENST00000299297,ENST00000409118	chr10	72622383	72622664	+	1314-1316	118,205,188
chr10	72972743	72972821	+	ENST00000335350,ENST00000373192	chr10	73034215	73034323	+	1317	26
chr10	73464668	73464887	+	ENST00000299366,ENST00000224721,ENST00000466757,ENST00000442677	chr10	73466221	73466304	+	1318-1321	1029,989,794,576
chr10	74468041	74468114	+	ENST00000604679	chr10	74501480	74501504	+	1322	74
chr10	74620181	74620285	+	ENST00000373053,ENST00000357157,ENST00000536019,ENST00000604152	chr10	74624054	74624491	+	1323-1325	165,116,130
chr10	74828741	74828604	-	ENST00000307116,ENST00000373008,ENST00000263556,ENST00000394890,ENST00000412021,ENST00000440381	chr10	74823089	74822871	-	1326	154
chr10	74953235	74953351	+	ENST00000242505,ENST00000372955	chr10	74967624	74967784	+	1327-1328	180,121

Table 9

chr10	75003687	75003601	-	ENST00000372950 ENST00000310715,ENST00000401621,ENST000	chr10	74977810	74977607	-	1329	221 264
chr10	75101339	75101157	-	00394865 ENST00000604729,ENST00000603114,ENST000 00604524,ENST00000398706,ENST00000605216 ,ENST00000433366,ENST00000492395,ENST000 00603187,ENST00000412198,ENST00000604754	chr10	75100810	75099175	-	1330	1011,973,10 06,1004,625, 345,280,271
chr10	75555297	75555421	+	ENST00000351293,ENST00000322635,ENST000 00322680,ENST00000394762,ENST00000423381 ,ENST00000433289,ENST00000305762,ENST000	chr10	75555954	75556138	+	1331-1338	73,8
chr10	75620647,76	75620588	-	00372765,ENST00000444854 ENST00000446342,ENST00000372764,ENST000	chr10	75616272	75616176	-	1339-1340	356,373,337
chr10	75675009	75675157	+	00372762 ENST00000446342,ENST00000372764,ENST000	chr10	75675857	75676023	+	1341-1343	356,373,337
chr10	75675009	75675157	+	00372762 ENST00000211998,ENST00000372755,ENST000	chr10	75675929	75676023	+	1344-1346	79
chr10	75802841	75802911	+	00417648 ENST00000539909,ENST00000286621,ENST000	chr10	75823444	75823588	+	1347	64,47
chr10	75984296	75984349	+	00372734 ENST00000286621,ENST00000372734,ENST000	chr10	76002496	76003142	+	1348-1349	242,225,207
chr10	76285014	76285184	+	00541550	chr10	76314427	76314555	+	1350-1352	
chr10	7776885	7777054	+	ENST00000358415,ENST00000379587	chr10	7777383	7777457	+	1353-1354	652,641
chr10	77818424	77818541	+	ENST00000372499	chr10	77821061	77821293	+	1355	144
chr10	78084159	78084243	+	ENST00000372499,ENST00000496424 ENST00000435275,ENST00000440692,ENST000	chr10	78119358	78119368	+	1356-1357	172,29 124
chr10	79796952	79797044	+	00372360,ENST00000360830 ENST00000372277,ENST00000372281,ENST000	chr10	79834319	79834476	+	1358	29
chr10	81838456	81838542	+	00372275,ENST00000372274	chr10	81841396	81841444	+	1359	
chr10	81838792	81838940	+	ENST00000372273 ENST00000429989,ENST00000481124,ENST000	chr10	81841396	81841444	+	1360	49 27
chr10	82248990	82249070	+	00372164,ENST00000372158,ENST00000341863 ,ENST00000372156 ENST00000332904,ENST00000372117,ENST000	chr10	82252292	82252583	+	1361	287,46
chr10	85964283	85964361	+	00440770 ENST00000308448,ENST00000328142,ENST000	chr10	85965458	85965469	+	1362-1363	277,189
chr10	89527480	89527430	-	00400215,ENST00000541004	chr10	89527069	89527009	-	1364-1365	
chr10	89685270	89685314	+	ENST00000371953	chr10	89817751	89817989	+	1366	69
chr10	89690803	89690846	+	ENST00000371953	chr10	89691773	89692078	+	1367	84
chr10	89690803	89690846	+	ENST00000371953 ENST00000224784,ENST00000458208,ENST000	chr10	89691776	89692078	+	1368	84 86
chr10	90707143	90707015	-	00458159,ENST00000415557	chr10	90706796	90706503	-	1369	
chr10	91405059	91404357	-	ENST00000307534	chr10	91395510	91395326	-	1370	234
chr10	91405059	91404357	-	ENST00000307534	chr10	91398963	91398825	-	1371	234
chr10	91405059	91404357	-	ENST00000307534 ENST00000394289,ENST00000260753,ENST000	chr10	91398999	91398825	-	1372	234 1663,1623,1
chr10	91522395	91522592	+	00416354,ENST00000371728 ENST00000394289,ENST00000260753,ENST000	chr10	91525277	91525485	+	1373-1375	693 1663,1623,1
chr10	91522395	91522592	+	00416354,ENST00000371728	chr10	91526021	91526340	+	1376-1378	693
chr10	92662000	92662101	+	ENST00000413330 ENST00000371687,ENST00000543648,ENST000	chr10	92665059	92665363	+	1379	299 37
chr10	92982629	92982740	+	00336126	chr10	92995655	92995698	+	1380	
chr10	93011049	93011197	+	ENST00000543648,ENST00000336126	chr10	93019216	93020711	+	1381	158
chr10	93609269	93609351	+	ENST00000371627	chr10	93610448	93610495	+	1382	898
chr10	93940776	93940720	-	ENST00000412050,ENST00000265997	chr10	93926423	93926166	-	1383-1384	384,407
chr10	94594470,95	94594581	+	ENST00000371547,ENST00000371552 ENST00000371547,ENST00000371552,ENST000 00443748,ENST00000260762,ENST00000495132	chr10	94606672	94606987	+	1385-1386	49,28 667,646,548, 651,328
chr10	94733810	94733989	+	ENST00000371547,ENST00000371552,ENST000 00443748,ENST00000260762,ENST00000495132	chr10	94734870	94736426	+	1387-1391	667,646,548, 651,328
chr10	94733810	94733989	+	ENST00000358334,ENST00000359263,ENST000 00371501,ENST00000371502,ENST00000371489	chr10	94751816	94752069	+	1392-1396	243
chr10	95168672	95168544	-		chr10	95165491	95165348	-	1397	
chr10	95279439	95279564	+	ENST00000371485	chr10	95291375	95291666	+	1398	397
chr10	95658328,96	95658508	+	ENST00000427197,ENST00000371408	chr10	95666009	95666303	+	1399-1400	119,118
chr10	96580253	96580394	+	ENST00000371321	chr10	96583548	96583568	+	1401	320
chr10	96609674	96609815	+	ENST00000371321	chr10	96698194	96698222	+	1402	430
chr10	97023820	97023621	-	ENST00000329399	chr10	96988187	96988062	-	1403	177
chr10	97023820	97023621	-	ENST00000329399	chr10	97019930	97019848	-	1404	177
chr10	97396954	97396850	-	ENST00000371224,ENST00000371221	chr10	97394869	97394813	-	1405	186
chr10	97673183	97673194	+	ENST00000602648,ENST00000423344 ENST00000224337,ENST00000371176,ENST000 00413476,ENST00000427367,ENST00000467799	chr10	97674386	97674589	+	1406	4 15
chr10	98031155	98031109	-	,ENST00000495266 ENST00000224337,ENST00000371176,ENST000 00413476,ENST00000427367,ENST00000467799	chr10	98016897	98016785	-	1407	15
chr10	98031155	98031109	-	,ENST00000495266 ENST00000370992,ENST00000536831,ENST000	chr10	98016984	98016785	-	1408	251,57,190
chr10	99150296	99150180	-	00414986	chr10	99148776	99148681	-	1409-1411	

Table 9

				ENST00000370992,ENST00000536831,ENST000					251,57,190
chr10	99150296	99150180	-	00414986	chr10	99149560	99149470	- 1412-1414	
chr10	99184650	99184558	-	ENST00000439965	chr10	99169616	99169340	- 1415	60
chr10	99184650	99184558	-	ENST00000439965	chr10	99176863	99176603	- 1416	60
chr10	99185496	99185431	-	ENST00000439965	chr10	99176863	99176603	- 1417	29
chr10	99185802	99185780	-	ENST00000439965	chr10	99169616	99169340	- 1418	7
				ENST00000370902,ENST00000370886,ENST000					49,39,59
				00370885,ENST00000485122,ENST00000477692					
chr10	99205604,99	99205489	-	,ENST00000370884	chr10	99204802	99204717	- 1419-1421	
chr10	99967872	99969656	+	ENST00000370584,ENST00000298999	chr10	99971064	99971098	+ 1422	595
chr11	1003722	1003804	+	ENST00000332231,ENST00000448903	chr11	1004067	1004188	+ 1423-1424	736,735
chr11	101832472	101834611	+	ENST00000263468,ENST00000537689	chr11	101835088	101835380	+ 1425-1426	948,749
				ENST00000434758,ENST00000526781,ENST000					145,36
chr11	101937216,1	101937382	+	00529204	chr11	101938410	101938435	+ 1427-1428	
				ENST00000526343,ENST00000282441,ENST000					190,12
				00345877,ENST00000537274,ENST00000531439					
chr11	101984875,1	101985125	+	,ENST00000524575	chr11	102012478	102012590	+ 1429-1430	
				ENST00000282441,ENST00000524575,ENST000					344,166,97
chr11	102080248	102080295	+	00529029	chr11	102093694	102094006	+ 1431-1433	
chr11	102666022	102665905	-	ENST00000315274	chr11	102663671	102663561	- 1434	299
chr11	103033757	103033876	+	ENST00000375735,ENST00000398093	chr11	103033989	103034051	+ 1435	1537
				ENST00000375735,ENST00000398093,ENST000					3630,3637,2
chr11	103153737,1	103153814	+	00528670	chr11	103154850	103155101	+ 1436-1438	3
				ENST00000533423,ENST00000524411,ENST000					71,136
chr11	105950206,1	105950419	+	00278618,ENST00000525660	chr11	105950897	105951067	+ 1439-1440	
chr11	10711916	10711812	-	ENST00000529068,ENST00000531308	chr11	10710926	10710905	- 1441-1442	52,57
				ENST00000282251,ENST00000431778,ENST000					539,42
chr11	107287024	107286935	-	00532251,ENST00000433523	chr11	107281006	107280749	- 1443-1444	
				ENST00000525815,ENST00000525071,ENST000					36
				00533664,ENST00000429869,ENST00000532513					
chr11	107729493	107729384	-	,ENST00000524991	chr11	107704968	107704398	- 1445	
				ENST00000393094,ENST00000532064,ENST000					44
chr11	107904528	107904637	+	00531427	chr11	107909331	107909419	+ 1446	
chr11	107925602	107925682	+	ENST00000393094,ENST00000531427	chr11	107926117	107926120	+ 1447	260
chr11	108093263	108093227	-	ENST00000278612,ENST00000531384	chr11	108084920	108084619	- 1448	12
chr11	108206572	108206688	+	ENST00000278616,ENST00000452508	chr11	108206911	108207055	+ 1449	2756
chr11	108206572	108206688	+	ENST00000278616,ENST00000452508	chr11	108206993	108207055	+ 1450	2756
chr11	108593724	108594189	+	ENST00000322536,ENST00000526794	chr11	108638664	108639005	+ 1451	655
				ENST00000278590,ENST00000528673,ENST000					257,258,226
chr11	110007388,1	110008139	+	00453089	chr11	110008703	110008812	+ 1452-1454	
				ENST00000278590,ENST00000528673,ENST000					257,258,226
chr11	110007388,1	110008139	+	00453089	chr11	110008707	110008812	+ 1455-1457	
				ENST00000528498,ENST00000530749,ENST000					155,123,144
				00405097,ENST00000530301,ENST00000343115					
chr11	110134959	110134685	-	,ENST00000532118	chr11	110131688	110131380	- 1458-1460	
chr11	110306558	110306682	+	ENST00000260270	chr11	110315498	110315705	+ 1461	103
chr11	111275367	111275346	-	ENST00000531398	chr11	111257017	111256989	- 1462	7
				ENST00000375614,ENST00000375615,ENST000					338,346,193
chr11	111430820	111431072	+	00436913	chr11	111433861	111434112	+ 1463-1465	
				ENST00000280362,ENST00000528679,ENST000					27
chr11	112097167	112097249	+	00531673,ENST00000525803	chr11	112099003	112099021	+ 1466	
				ENST00000529221,ENST00000442859,ENST000					148,123,12
				00531164,ENST00000529850,ENST00000314756					
				,ENST00000525965,ENST00000464224,ENST000					
				00494714,ENST00000393020,ENST00000455306					
chr11	113196246,1	113196367	+	,ENST00000483239,ENST00000527362	chr11	113200116	113200529	+ 1467-1469	
chr11	11348728	11348633	-	ENST00000227756	chr11	11334537	11334362	- 1470	504
				ENST00000540540,ENST00000299882,ENST000					194,453,409,
				00538955,ENST00000545579,ENST00000544634					444,384,340
chr11	113560639	113560487	-	,ENST00000544476	chr11	113519404	113519046	- 1471-1476	
				ENST00000200135,ENST00000535142,ENST000					80
chr11	113639689	113639555	-	00538209	chr11	113632297	113632002	- 1477	
				ENST00000445177,ENST00000375300,ENST000					144,151,93,1
				00292055,ENST00000542607,ENST00000415541					03,53
chr11	116824823	116824760	-	,ENST00000446921,ENST00000413553	chr11	116820998	116820347	- 1478-1482	
				ENST00000445177,ENST00000375300,ENST000					144,151,93,1
				00292055,ENST00000542607,ENST00000415541					03,53
chr11	116824823	116824760	-	,ENST00000446921,ENST00000413553	chr11	116821807	116821759	- 1483-1487	
chr11	117089284	117089182	-	ENST00000320934,ENST00000540028	chr11	117087960	117087942	- 1488-1489	511,152
chr11	117094932	117094794	-	ENST00000320934	chr11	117094401	117094315	- 1490	351
chr11	117351286	117351158	-	ENST00000527706,ENST00000321322	chr11	117350617	117350365	- 1491-1492	718,988
				ENST00000278949,ENST00000525386,ENST000					24
chr11	118123009	118122937	-	00527472,ENST00000446386	chr11	118120847	118120709	- 1493	
chr11	118309739	118309837	+	ENST00000531904,ENST00000527869	chr11	118318340	118318578	+ 1494-1495	177,94
				ENST00000534358,ENST00000389506,ENST000					3611,3608,3
chr11	118378244	118378324	+	00354520	chr11	118379331	118379452	+ 1496-1498	570
				ENST00000392859,ENST00000359415,ENST000					325,454,413
chr11	118464305	118464413	+	00264028	chr11	118464719	118464806	+ 1499-1501	
				ENST00000392859,ENST00000359415,ENST000					325,454,413
chr11	118464305	118464413	+	00264028	chr11	118464724	118464806	+ 1502-1504	
chr11	118754651	118754701	+	ENST00000292174	chr11	118755028	118755037	+ 1505	17
chr11	118754651	118754701	+	ENST00000292174	chr11	118776642	118776922	+ 1506	17

Table 9

			ENST00000334418,ENST00000526463,ENST00000532132						127
chr11	118869721	118869819	+		chr11	118877733	118877776	+	1507
			ENST00000334418,ENST00000526463,ENST00000532132						127
chr11	118869721	118869819	+		chr11	118877757	118877776	+	1508
			ENST00000334418,ENST00000526463,ENST00000532132						127
chr11	118869721	118869819	+		chr11	118881272	118881397	+	1509
chr11	118883942	118883972	+	ENST00000334418	chr11	118884924	118885003	+	1510 238
chr11	118883942	118883972	+	ENST00000334418	chr11	118884956	118885003	+	1511 238
				ENST00000278715,ENST00000537841,ENST00000542729,ENST00000546302,ENST00000442944,ENST00000544387,ENST00000543090,ENST00000539986,ENST00000535253,ENST00000392841						166,149,140,148
chr11	118960900	118960975	+		chr11	118962571	118962603	+	1512-1515
chr11	119155899	119156276	+	ENST00000264033	chr11	119156897	119157019	+	1516 647
chr11	122953915	122953793	-	ENST00000448775	chr11	122948480	122948462	-	1517 226
chr11	122953915	122953793	-	ENST00000448775	chr11	122950789	122950711	-	1518 226
				ENST00000334956,ENST00000539723,ENST00000550549,ENST00000538608,ENST00000528916					173,133,80,97
chr11	12499394	12499496	+		chr11	12507403	12507793	+	1519-1522
chr11	126176465	126176639	+	ENST00000263579	chr11	126191336	126192147	+	1523 125
chr11	126176465	126176639	+	ENST00000263579	chr11	126200089	126200265	+	1524 125
				ENST00000227495,ENST00000444328,ENST00000356132,ENST00000530591,ENST00000534083,ENST00000392669,ENST00000526727,ENST00000449406,ENST00000532243,ENST00000534457						253,257,263,246,256,252,93
chr11	126279163	126279306	+	,ENST00000524860	chr11	126318577	126318702	+	1525-1531
				ENST00000525144,ENST00000529097,ENST00000525704						197
chr11	126343361	126343204	-		chr11	126342252	126342132	-	1532
				ENST00000310343,ENST00000392657,ENST00000524655,ENST00000525234						644,295,570
chr11	128850643	128850448	-		chr11	128850014	128849844	-	1533-1535
				ENST00000310343,ENST00000524655,ENST00000525234						134,60,108
chr11	128993425	128993341	-		chr11	128983520	128982422	-	1536-1538
				ENST00000361905,ENST00000527636,ENST00000334310,ENST00000527575,ENST00000361985,ENST00000526600						374,389,320,331,293
chr11	12951721	12951873	+		chr11	12955785	12956129	+	1539-1543
				ENST00000533616,ENST00000530132,ENST00000533195,ENST00000534582,ENST00000528499,ENST00000263574,ENST00000345598,ENST00000338167						35
chr11	129939873	129939977	+		chr11	129947146	129947318	+	1544
				ENST00000317204,ENST00000527886,ENST00000525159,ENST00000263646,ENST00000542915						203,134,142,175,153
chr11	1307322	1307232	-	,ENST00000530506,ENST00000530541	chr11	1288238	1288195	-	1545-1549
				ENST00000331898,ENST00000524381,ENST00000374778,ENST00000541867						175,168,134
chr11	132399080	132398955	-		chr11	132374602	132374250	-	1550-1552
				ENST00000339772,ENST00000535456,ENST00000389881,ENST00000525089,ENST00000533324						244,182,71
chr11	134228954	134229035	+		chr11	134229434	134229943	+	1553-1555
				ENST00000545643,ENST00000537760,ENST00000414023,ENST00000529237,ENST00000256196,ENST00000534746,ENST00000526063,ENST00000532814,ENST00000531807,ENST00000531421						142,101,59,136,117
chr11	14316125	14316017	-		chr11	14307227	14306945	-	1556-1560
				ENST00000249923,ENST00000439561,ENST00000534234						452
chr11	14501260	14501115	-		chr11	14500263	14500180	-	1561
chr11	14632532	14632512	-	ENST00000418988	chr11	14628347	14628323	-	1562 7
chr11	14882751	14882912	+	ENST00000282096,ENST00000455098	chr11	14885159	14886748	+	1563-1564 962,911
				ENST00000228136,ENST00000524439,ENST00000528634						21
chr11	16760326	16760388	+		chr11	16763364	16763574	+	1565
				ENST00000228136,ENST00000524439,ENST00000422258,ENST00000528634						69,41,25
chr11	16769644	16769704	+		chr11	16771777	16772764	+	1566-1568
				ENST00000228136,ENST00000524439,ENST00000422258,ENST00000528634						69,41,25
chr11	16769644	16769704	+		chr11	16773663	16773885	+	1569-1571
				ENST00000531066,ENST00000355661,ENST00000448080						101
chr11	16892729	16892646	-		chr11	16879143	16879040	-	1572
chr11	17097170	17097001	-	ENST00000228140,ENST00000525634	chr11	17089563	17089456	-	1573 107
chr11	17742802	17743046	+	ENST00000250003	chr11	17748103	17748179	+	1574 318
				ENST00000265965,ENST00000529151,ENST00000533241						121,349,213
chr11	17899791	17899755	-		chr11	17888550	17888258	-	1575-1577
chr11	180404	180209	-	ENST00000410108	chr11	177893	177605	-	1578 121
				ENST00000396253,ENST00000349215,ENST00000438420,ENST00000537258						869,983,90
chr11	18307006	18306893	-		chr11	18305508	18305504	-	1579-1581
				ENST00000453096,ENST00000534641,ENST00000265963,ENST00000524753,ENST00000530496						351,235,147,39
chr11	18369379	18369466	+		chr11	18371078	18371250	+	1582-1585
				ENST00000453096,ENST00000534641,ENST00000265963,ENST00000530496,ENST00000526630						420,304,108,10
chr11	18373876,18	18373993	+		chr11	18374503	18374775	+	1586-1589
				ENST00000541669,ENST00000280704,ENST00000535809,ENST00000536880,ENST00000544105						197,183,139
chr11	18456287	18456460	+	,ENST00000546146	chr11	18457008	18457176	+	1590-1592

Table 9

			ENST00000396197,ENST00000543987,ENST00000535484,ENST00000320750,ENST00000379387						374,336,352
chr11	18558016	18557953	-	chr11	18556788	18556704	-	1593-1595	
			ENST00000396197,ENST00000543987,ENST00000320750,ENST00000379387,ENST00000396196						14
chr11	18610201	18610160	- ,ENST00000541984,ENST00000300038	chr11	18604600	18604473	-	1596	
chr11	19138797	19138823	+ ENST00000446113	chr11	19146451	19146545	+	1597	9
chr11	19138797	19138823	+ ENST00000446113	chr11	19155970	19156412	+	1598	9
			ENST00000360655,ENST00000396085,ENST00000349880,ENST00000396087,ENST00000527559						192,256,185,187
chr11	19901415	19901673	+ ,ENST00000540292	chr11	19903115	19903149	+	1599-1602	
			ENST00000360655,ENST00000396085,ENST00000349880,ENST00000396087,ENST00000527559,ENST00000540292,ENST00000533917,ENST00000311043						1768,1835,1832,1891,1820,1822,896
chr11	20104553	20104725	+	chr11	20108138	20108182	+	1603-1609	
			ENST00000360655,ENST00000396085,ENST00000349880,ENST00000396087,ENST00000527559,ENST00000540292,ENST00000533917,ENST00000311043						2324,2391,2388,2447,2376,2378,145
chr11	20136138	20136341	+	chr11	20145026	20145306	+	1610-1616	2
chr11	2323038,232	2322986	- ENST00000381153,ENST00000456145	chr11	2319146	2318963	-	1617-1618	17,35
chr11	2323038,232	2322986	- ENST00000381153,ENST00000456145	chr11	2319151	2318963	-	1619-1620	17,35
chr11	2609943	2610084	+ ENST00000155840,ENST00000335475	chr11	2628768	2628939	+	1621-1622	464,337
			ENST00000406787,ENST00000342303,ENST00000407364,ENST00000303459						244,259
chr11	28318344,28	28318478	+	chr11	28338304	28338536	+	1623-1624	
			ENST00000347936,ENST00000312221,ENST00000449793,ENST00000380574,ENST00000485423						48
chr11	2924576	2924719	+	chr11	2927301	2928107	+	1625	
			ENST00000347936,ENST00000312221,ENST00000449793,ENST00000380574,ENST00000485423						48
chr11	2924576	2924719	+	chr11	2927330	2928107	+	1626	
			ENST00000478260,ENST00000263650,ENST00000389989,ENST00000534454,ENST00000525498						102,648,580,201,559,279
chr11	3114893	3114757	- ,ENST00000542243,ENST00000348039	chr11	3114399	3114382	-	1627-1632	
			ENST00000465995,ENST00000525511,ENST00000536040,ENST00000526042,ENST00000526529						37,36,17
chr11	31392296,3139	31392406	+ ,ENST00000527731	chr11	31415137	31415333	+	1633-1635	
			ENST00000350638,ENST00000379163,ENST00000395934						381,382
chr11	31671663	31671769	+	chr11	31684074	31684100	+	1636-1637	
			ENST00000531921,ENST00000531120,ENST00000525782,ENST00000524896,ENST00000532444						14
chr11	32605434	32605475	+ ,ENST00000524711	chr11	32607495	32607808	+	1638	
			ENST00000531120,ENST00000525782,ENST00000524896,ENST00000323213,ENST00000526267						205,73,142,46
chr11	32615412	32615495	+	chr11	32616129	32616190	+	1639-1642	
			ENST00000526400,ENST00000321505,ENST00000265654,ENST00000389726						622,1225,1231
chr11	33604884	33605047	+	chr11	33605768	33605817	+	1643-1645	
			ENST00000526785,ENST00000265651,ENST00000530401,ENST00000531080,ENST00000532057						300,413,408,100
chr11	33768866	33768676	- ,ENST00000534136,ENST00000448981	chr11	33764704	33764347	-	1646-1649	
chr11	34991686	34991833	+ ENST00000448838,ENST00000227868	chr11	34992203	34992419	+	1650-1651	306,321
			ENST00000448838,ENST00000227868,ENST00000430469,ENST00000526309						379,394,167,81
chr11	35006117	35006275	+	chr11	35006875	35006996	+	1652-1655	
chr11	35706807	35706884	+ ENST00000299413	chr11	35724941	35730471	+	1656	249
			ENST00000524419,ENST00000528989,ENST00000315571						102,151
chr11	36119877	36120011	+	chr11	36166026	36167571	+	1657-1658	
chr11	36523065	36522770	- ENST00000526995,ENST00000348124	chr11	36522163	36521556	-	1659	98
			ENST00000300738,ENST00000423050,ENST00000534285,ENST00000537197						762,665,540,424
chr11	4159425	4159520	+	chr11	4201862	4202006	+	1660-1663	
chr11	428199	428088	- ENST00000332826	chr11	424071	423924	-	1664	444
chr11	428394	428358	- ENST00000332826	chr11	424187	423924	-	1665	407
chr11	428394	428387	- ENST00000332826	chr11	424187	423924	-	1666	397
			ENST00000455725,ENST00000531273,ENST00000420461,ENST00000378852,ENST00000534600						239,250,196,100
chr11	43344980	43345186	+ ,ENST00000526394	chr11	43346735	43347885	+	1667-1670	
			ENST00000455725,ENST00000531273,ENST00000420461,ENST00000378852,ENST00000534600						274,285,231
chr11	43348057	43348161	+	chr11	43348641	43348702	+	1671-1673	
chr11	43772461	43772507	+ ENST00000278353,ENST00000395700	chr11	43774151	43774274	+	1674	69
chr11	43913591	43913679	+ ENST00000302708,ENST00000529366	chr11	43918745	43918784	+	1675-1676	153,152
chr11	460187	460288	+ ENST00000308020	chr11	470388	470578	+	1677	94
			ENST00000529230,ENST00000415402,ENST00000527333,ENST00000526876						1623,151,187
chr11	46776617,47	46776438	-	chr11	46775439	46775145	-	1678-1680	
chr11	46920228	46920109	- ENST00000378623	chr11	46919867	46919755	-	1681	265
chr11	46920228	46920109	- ENST00000378623	chr11	46919899	46919755	-	1682	265
			ENST00000533076,ENST00000531419,ENST00000531865,ENST00000362021,ENST00000354884						245,209
chr11	47435148	47435237	+ ,ENST00000526614,ENST00000524928	chr11	47435677	47435915	+	1683-1684	
			ENST00000533076,ENST00000531419,ENST00000531865,ENST00000362021,ENST00000354884						245,209
chr11	47435148	47435237	+ ,ENST00000526614,ENST00000524928	chr11	47435804	47435915	+	1685-1686	

Table 9

			ENST00000533076,ENST00000531419,ENST00000531865,ENST00000362021,ENST00000354884						245,209
chr11	47435148	47435237	+ ,ENST00000526614,ENST00000524928	chr11	47435836	47435915	+	1687-1688	
			ENST00000533076,ENST00000531419,ENST00000531865,ENST00000362021,ENST00000354884						245,209
chr11	47435148	47435237	+ ,ENST00000526614,ENST00000524928	chr11	47435854	47435915	+	1689-1690	
			ENST00000298854,ENST00000352508,ENST00000524487,ENST00000529341						388,329,338
chr11	47460482,47	47460283	-	chr11	47460167	47459937	-	1691-1693	
chr11	47772588	47772468	- ENST00000263773	chr11	47769157	47769015	-	1694	302
chr11	47786914	47786822	- ENST00000263773,ENST00000540172	chr11	47778543	47778097	-	1695	104
chr11	5269717	5269631	- ENST00000330597	chr11	5268573	5268392	-	1696	134
chr11	5269717	5269655	- ENST00000330597	chr11	5268573	5268392	-	1697	126
chr11	5270820	5270598	- ENST00000330597	chr11	5268573	5268392	-	1698	105
			ENST00000380252,ENST00000380259,ENST00000336906						116,126
chr11	5274635	5274573	-	chr11	5268573	5268392	-	1699-1700	
			ENST00000380252,ENST00000380259,ENST00000336906						95,105
chr11	5275744	5275522	-	chr11	5268573	5268392	-	1701-1702	
			ENST00000395123,ENST00000395124,ENST00000352187,ENST00000529554,ENST00000533524						120,133,67
			,ENST00000530005,ENST00000529113,ENST00000525474,ENST00000529112,ENST00000528187						
chr11	57191501	57191455	-	chr11	57191190	57190890	-	1703-1705	
			ENST00000527985,ENST00000287169,ENST00000529447						22,75,1
chr11	57449949,5744	57450015	+	chr11	57452339	57452637	+	1706-1708	
			ENST00000524972,ENST00000378312,ENST00000528395,ENST00000530114,ENST00000278422						55
			,ENST00000525035,ENST00000533602,ENST00000528110,ENST00000529403						
chr11	57480091	57480256	+	chr11	57502331	57502616	+	1709	
			ENST00000524972,ENST00000378312,ENST00000528395,ENST00000530114,ENST00000278422						63
			,ENST00000525035,ENST00000533602,ENST00000528110,ENST00000529403						
chr11	57480091	57480279	+	chr11	57492012	57492024	+	1710	
			ENST00000524972,ENST00000378312,ENST00000528395,ENST00000530114,ENST00000278422						63
			,ENST00000525035,ENST00000533602,ENST00000528110,ENST00000529403						
chr11	57480091	57480279	+	chr11	57501940	57502250	+	1711	
			ENST00000524972,ENST00000378312,ENST00000528395,ENST00000530114,ENST00000278422						63
			,ENST00000525035,ENST00000533602,ENST00000528110,ENST00000529403						
chr11	57480091	57480279	+	chr11	57502331	57502616	+	1712	
			ENST00000395074,ENST00000528954,ENST00000528489						247,252,227
chr11	58317340	58317259	-	chr11	58282132	58281827	-	1713-1715	
			ENST00000530561,ENST00000395074,ENST00000528954,ENST00000528489						57,62,52
chr11	58338186	58338029	-	chr11	58337161	58336850	-	1716-1718	
chr11	58877099	58877179	+ ENST00000343597	chr11	58890831	58891153	+	1719	27
			ENST00000300150,ENST00000337979,ENST00000535361,ENST00000437946,ENST00000529177						194,225,128,
									177,12
chr11	59560853,6	59560987	+ ,ENST00000528805,ENST00000530221	chr11	59695602	59695922	+	1720-1724	
			ENST00000300150,ENST00000337979,ENST00000529177,ENST00000530221						231,262,49
chr11	59562845	59562955	+	chr11	59564303	59564592	+	1725-1727	
			ENST00000358152,ENST00000278865,ENST00000534744						52
chr11	59828634	59828789	+	chr11	59828928	59829264	+	1728	
			ENST00000358152,ENST00000278865,ENST00000534744						71,117
chr11	59831735	59831791	+	chr11	59834242	59834361	+	1729-1730	
			ENST00000395032,ENST00000358152,ENST00000278865,ENST00000534744						48,125,171
chr11	59834442,6	59834585	+	chr11	59848266	59848444	+	1731-1733	
chr11	60665423	60665318	- ENST00000227524,ENST00000535326	chr11	60663297	60661400	-	1734-1735	472,87
			ENST00000278826,ENST00000542946,ENST00000381787						100,42
chr11	61133517,61	61133688	+	chr11	61140515	61141300	+	1736-1737	
			ENST00000278826,ENST00000542946,ENST00000381787						100,42
chr11	61133517,61	61133688	+	chr11	61143935	61144405	+	1738-1739	
chr11	61135395	61135470	+ ENST00000278826,ENST00000381787	chr11	61140509	61141300	+	1740-1741	125,67
chr11	61135395	61135470	+ ENST00000278826,ENST00000381787	chr11	61142667	61142786	+	1742-1743	125,67
chr11	61135395	61135470	+ ENST00000278826,ENST00000381787	chr11	61143935	61144405	+	1744-1745	125,67
chr11	61135395	61135470	+ ENST00000278826,ENST00000381787	chr11	61144027	61144405	+	1746-1747	125,67
			ENST00000264555,ENST00000413872,ENST00000416188,ENST00000533464						1621,1619,1
chr11	611634	611692	+	chr11	656974	657181	+	1748-1751	620,1617
			ENST00000541135,ENST00000301761,ENST00000534878,ENST00000359614,ENST00000537782						123,111
			,ENST00000538594,ENST00000544801,ENST00000543044						
chr11	61205476	61205585	+	chr11	61240464	61240660	+	1752-1753	
chr11	61236136	61236186	+ ENST00000541135	chr11	61240464	61240660	+	1754	142
			ENST00000263846,ENST00000540677,ENST00000539008,ENST00000542836,ENST00000542670						207,282,490,
									251,415,326
chr11	61295657	61295387	- ,ENST00000535826	chr11	61292285	61292182	-	1755-1760	
chr11	61488151	61488362	+ ENST00000257215	chr11	61489954	61490056	+	1761	102
			ENST00000350997,ENST00000433932,ENST00000542506,ENST00000539999,ENST00000540767						305,164,34
chr11	61578351,62	61578223	- ,ENST00000545245	chr11	61569434	61569355	-	1762-1764	
chr11	62038353	62038540	+ ENST00000227918,ENST00000525380	chr11	62050278	62051523	+	1765	81
chr11	62433352	62433418	+ ENST00000532971	chr11	62433583	62433795	+	1766	22

Table 9

chr11	62502854,63	62503036	+	ENST00000530625,ENST00000316461,ENST00000532583,ENST00000532276	chr11	62515008	62515278	+	1767-1768	140,38
chr11	62623742	62623853	+	ENST00000377892,ENST00000377890,ENST00000377891,ENST00000377889,ENST00000535296	chr11	62626953	62627181	+	1769	37
chr11	63995040	63995138	+	ENST00000279206,ENST00000428347	chr11	63996303	63996464	+	1770-1771	193,224
chr11	64428007	64427804	-	ENST00000377551,ENST00000377559,ENST00000265459,ENST00000409571	chr11	64425056	64424963	-	1772-1774	796,765,789
chr11	64508551	64508420	-	ENST00000377494,ENST00000394432,ENST00000377497,ENST00000354024,ENST00000445445,ENST00000431822,ENST00000441258,ENST00000377486,ENST00000377487,ENST00000377489,ENST00000394430	chr11	64507864	64507806	-	1775	123
chr11	64694184,65	64694380	+	ENST00000526559,ENST00000164133,ENST00000532850	chr11	64694708	64694853	+	1776-1777	132,46
chr11	6477405	6477302	-	ENST00000525074,ENST00000345851,ENST00000536344,ENST00000359518,ENST00000537602	chr11	6473352	6472886	-	1778-1780	511,392,433
chr11	64850871	64850836	-	ENST00000275517,ENST00000524733,ENST00000404147	chr11	64848290	64848197	-	1781-1782	81,27
chr11	64888508	64888453	-	ENST00000529639,ENST00000531743,ENST00000525297,ENST00000527548,ENST00000526555	chr11	64887305	64887234	-	1783-1784	92,57
chr11	65036143	65036200	+	ENST00000265465,ENST00000532391	chr11	65039952	65040135	+	1785-1786	118,78
chr11	65144146	65144007	-	ENST00000527174,ENST00000534028,ENST00000360662,ENST00000377152,ENST00000398802,ENST00000294187,ENST00000417511,ENST00000526432	chr11	65143130	65142665	-	1787-1791	246,222,142,204,184
chr11	65149422	65149386	-	ENST00000527174,ENST00000534028,ENST00000360662,ENST00000398802,ENST00000526898,ENST00000526432,ENST00000533629,ENST00000526259,ENST00000530936,ENST00000529962,ENST00000524438	chr11	65148764	65148608	-	1792	12
chr11	65161730	65161896	+	ENST00000317568,ENST00000533782,ENST00000355991,ENST00000416776,ENST00000526201	chr11	65162940	65163025	+	1793-1796	193,137,159,151
chr11	65222908	65223052	+	ENST00000309775	chr11	65223208	65223239	+	1797	73
chr11	65346812	65346907	+	ENST00000309295,ENST00000533237	chr11	65347185	65347312	+	1798	86
chr11	65425970,65	65425758	-	ENST00000406246,ENST00000525693,ENST00000526283,ENST00000308639,ENST00000532999	chr11	65424162	65424048	-	1799-1802	292,231,289,303
chr11	65429306,65	65429158	-	ENST00000406246,ENST00000525693,ENST00000526283,ENST00000308639,ENST00000532999,ENST00000529389,ENST00000534558,ENST00000527749,ENST00000532879,ENST00000533187,ENST00000527874	chr11	65428975	65428920	-	1803-1806	111,122,102,80
chr11	65429306,65	65429158	-	ENST00000406246,ENST00000525693,ENST00000526283,ENST00000308639,ENST00000532999,ENST00000529389,ENST00000534558,ENST00000527749,ENST00000532879,ENST00000533187,ENST00000527874	chr11	65428978	65428920	-	1807-1810	111,122,102,80
chr11	65637447	65637328	-	ENST00000531972,ENST00000528176,ENST00000307998	chr11	65636969	65636966	-	1811	242
chr11	65653134,66	65653001	-	ENST00000338369,ENST00000357519,ENST00000531115,ENST00000533045	chr11	65652747	65652737	-	1812-1814	215,17,212
chr11	66008898,6600	66009124	+	ENST00000320580,ENST00000529757,ENST00000524815,ENST00000531597,ENST00000529677	chr11	66015165	66015274	+	1815-1818	885,421,13,68
chr11	66010383	66010502	+	ENST00000320580,ENST00000529757,ENST00000524815,ENST00000531597	chr11	66015165	66015274	+	1819-1821	925,461,53
chr11	66055147	66055069	-	ENST00000359461,ENST00000376901,ENST00000431556,ENST00000528575	chr11	66054485	66054431	-	1822	142
chr11	66135019	66134935	-	ENST00000311161,ENST00000357440,ENST00000540386,ENST00000544554,ENST00000546034	chr11	66134753	66134729	-	1823	244
chr11	66294120	66294278	+	ENST00000419755,ENST00000318312,ENST00000455748,ENST00000393994	chr11	66295591	66295701	+	1824-1827	483,446,349,317
chr11	66407183	66407594	+	ENST00000503028,ENST00000310092,ENST00000396053,ENST00000408993,ENST00000578778,ENST00000483858,ENST00000398692,ENST00000510173,ENST00000506523,ENST00000530235,ENST00000532968,ENST00000409406	chr11	66408442	66408490	+	1828	137
chr11	66563776,67	66563835	+	ENST00000524551,ENST00000525908,ENST00000346672,ENST00000360962,ENST00000527634,ENST00000540737,ENST00000532565,ENST00000525449,ENST00000526260,ENST00000532089	chr11	66563974	66564273	+	1829-1834	20,190,84,239,73,64
chr11	66595737	66595835	+	ENST00000346672,ENST00000360962,ENST00000527634,ENST00000540737,ENST00000532565,ENST00000525449,ENST00000531415	chr11	66598726	66599184	+	1835-1841	365,556,339,391,338,364,110
chr11	66949317	66949363	+	ENST00000398645,ENST00000529006	chr11	66953424	66953458	+	1842	102
chr11	66949317	66949363	+	ENST00000398645,ENST00000529006	chr11	66953439	66953458	+	1843	102

Table 9

chr11	66949317	66949363	+	ENST00000398645,ENST00000529006	chr11	56953786	56954260	+	1844	102
chr11	66949317	66949363	+	ENST00000398645,ENST00000529006	chr11	56966693	56967688	+	1845	102
chr11	66986759	66986874	+	ENST00000398645,ENST00000529006	chr11	56992831	56992959	+	1846	319
				ENST00000308127,ENST00000308298,ENST000						178
chr11	67074513	67074584	+	00376757	chr11	67074777	67074788	+	1847	
				ENST00000534749,ENST00000436757,ENST000						213
chr11	67269557	67269333	-	00356404	chr11	67268695	67268670	-	1848	
chr11	67353860	67354008	+	ENST00000398606,ENST00000398603	chr11	67354979	67355146	+	1849-1850	197,161
				ENST00000322776,ENST00000532303,ENST000						108,7,99,101
				00532244,ENST00000529927,ENST00000532343						,101,96,69
				,ENST00000415352,ENST00000533075,ENST000						
				00529867,ENST00000530638,ENST00000528314						
chr11	67376023,6737	67376193	+		chr11	67376661	67376777	+	1851-1857	
				ENST00000322776,ENST00000532303,ENST000						436,335,427,
chr11	67379591	67379736	+	00529927,ENST00000415352	chr11	67393525	67393753	+	1858-1861	429
				ENST00000227471,ENST00000524455,ENST000						184,113
chr11	67767150	67766989	-	00528423	chr11	67766904	67766869	-	1862-1863	
				ENST00000539229,ENST00000316367,ENST000						54
chr11	67782768	67782929	+	00007633,ENST00000342456	chr11	67785455	67785625	+	1864	
				ENST00000539229,ENST00000316367,ENST000						54
chr11	67782768	67782929	+	00007633,ENST00000342456	chr11	67785562	67785625	+	1865	
				ENST00000393799,ENST00000393800,ENST000						816,584,787,
				00534534,ENST00000524845,ENST00000265637						770,810,736,
				,ENST00000524904,ENST00000393801,ENST000						781,523,78
				00265636,ENST00000529710,ENST00000527403						
chr11	68370810	68370960	+	,ENST00000534190,ENST00000526593	chr11	68390179	68390666	+	1866-1874	
chr11	68848868	68848967	+	ENST00000294309	chr11	68896923	68897099	+	1875	563
chr11	70208394	70208594	+	ENST00000253925,ENST00000389547	chr11	70217126	70217227	+	1876	955
				ENST00000338508,ENST00000457074,ENST000						69
chr11	70858372	70858166	-	00413503	chr11	70854670	70854366	-	1877	
chr11	7091517	7091687	+	ENST00000299481	chr11	7179964	7180301	+	1878	1048
				ENST00000319023,ENST00000539574,ENST000						94,42,690,43
				00530055,ENST00000525593,ENST00000527963						0,319
chr11	71209398,71	71209574	+		chr11	71216614	71216960	+	1879-1883	
				ENST00000532852,ENST00000528511,ENST000						136,205,84
chr11	71627298	71627120	-	00528560	chr11	71592679	71592401	-	1884-1886	
				ENST00000361756,ENST00000393713,ENST000						168,136,87
chr11	71698050	71698157	+	00545854,ENST00000530137	chr11	71699938	71700054	+	1887-1889	
				ENST00000359373,ENST00000455638,ENST000						767,527,522,
				00393605,ENST00000334211,ENST00000393609						461,55
				,ENST00000426523,ENST00000429686,ENST000						
chr11	72412828	72412694	-	00427971,ENST00000452383	chr11	72412229	72412048	-	1890-1894	
				ENST00000321297,ENST00000541367,ENST000						590,421,368
chr11	72539928	72540029	+	00540222	chr11	72542271	72542563	+	1895-1897	
				ENST00000321297,ENST00000538973,ENST000						606,403,437,
chr11	72540348	72540393	+	00541367,ENST00000540222	chr11	72542271	72542563	+	1898-1901	383
				ENST00000310571,ENST00000504441,ENST000						94,77,72,95
				00543814,ENST00000536003,ENST00000544552						
				,ENST00000376384,ENST00000536582,ENST000						
chr11	73602157	73602246	+	00544909	chr11	73602545	73602831	+	1902-1905	
				ENST00000541951,ENST00000310571,ENST000						224,339,322,
				00535604,ENST00000536003,ENST00000544552						340
chr11	73629995	73630077	+	,ENST00000376384,ENST00000544909	chr11	73630306	73630327	+	1906-1909	
				ENST00000442398,ENST00000334126,ENST000						452,1696,50
chr11	73768589	73768451	-	00313663,ENST00000414160	chr11	73766178	73766107	-	1910-1912	4
				ENST00000334126,ENST00000313663,ENST000						405
chr11	73844017	73843889	-	00539061	chr11	73841017	73839613	-	1913	
				ENST00000334126,ENST00000313663,ENST000						405
chr11	73844017	73843889	-	00539061	chr11	73841880	73841578	-	1914	
				ENST00000328257,ENST00000398427,ENST000						33
chr11	73882467	73882567	+	00544401	chr11	73901617	73901658	+	1915	
				ENST00000328257,ENST00000398427,ENST000						336,350,149
chr11	73958124	73958168	+	00543525	chr11	73961087	73961139	+	1916-1918	
chr11	74303704	74303763	+	ENST00000263681	chr11	74304195	74304279	+	1919	20
				ENST00000263681,ENST00000527458,ENST000						299,260,193,
chr11	74336453,74	74336618	+	00532497,ENST00000524752	chr11	74338743	74338943	+	1920-1923	23
				ENST00000420843,ENST00000393505,ENST000						17,12,31,34
				00360025,ENST00000532525,ENST00000533609						
chr11	75001083	75001053	-	,ENST00000527385	chr11	74998952	74998895	-	1924-1927	
chr11	76092873	76093337	+	ENST00000530460,ENST00000529331	chr11	76106018	76106145	+	1928	155
				ENST00000534206,ENST00000532485,ENST000						104,146,51,1
				00526597,ENST00000533873,ENST00000538157						09
chr11	76701583	76701618	+		chr11	76708250	76708485	+	1929-1932	
chr11	76705232	76705270	+	ENST00000544113	chr11	76708250	76708485	+	1933	13
				ENST00000299492,ENST00000533792,ENST000						871,713,759,
				00528883,ENST00000530181,ENST00000534552						728,102
chr11	7674255	7674431	+		chr11	7700764	7700971	+	1934-1938	
				ENST00000527134,ENST00000304716,ENST000						109,34
chr11	77587996,78	77588095	+	00529666	chr11	77629107	77629195	+	1939-1940	
chr11	77849823,78	77849756	-	ENST00000530910,ENST00000525761	chr11	77848691	77848225	-	1941-1942	22,5

Table 9

			ENST00000299626,ENST00000376156,ENST00000526737,ENST00000525755,ENST00000530454,ENST00000532050						31,7
chr11	77850634,78	77850540	-	chr11	77848691	77848225	-	1943-1944	
chr11	78177059	78176922	-	ENST00000281038,ENST00000528850	chr11	78170827	78170811	-	1945-1946	388,161
chr11	82611444	82611277	-	ENST00000313010,ENST00000393399	chr11	82590879	82589623	-	1947	56
				ENST00000393389,ENST00000528722,ENST00000260047,ENST00000526731,ENST00000531895						195,82,194,167
chr11	82922337	82922472	+	,ENST00000393392,ENST00000533342	chr11	82923946	82923973	+	1948-1951	
				ENST00000447869,ENST00000315204,ENST00000396672,ENST00000358872,ENST00000534493						448,261,407
chr11	8435239	8435042	-		chr11	8357173	8357164	-	1952-1954	
				ENST00000447869,ENST00000315204,ENST00000396672,ENST00000396673,ENST00000534493,ENST00000524760,ENST00000418597,ENST00000422559,ENST00000457885						113,72,63
chr11	8494823	8494710	-		chr11	8492270	8490347	-	1955-1957	
chr11	85309740	85309701	-	ENST00000376104,ENST00000543673	chr11	85264252	85264122	-	1958	13
				ENST00000533986,ENST00000278483,ENST00000528004						89
chr11	86017287	86017524	+		chr11	86044278	86044295	+	1959	
				ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000323418						306,244
chr11	86176242	86176133	-		chr11	86175946	86175857	-	1960-1961	
				ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000323418						269,207
chr11	86198482	86198379	-		chr11	86196434	86195988	-	1962-1963	
				ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000530335,ENST00000532471,ENST00000526834,ENST00000526944						61
chr11	86382986	86382804	-		chr11	86376870	86376185	-	1964	
chr11	86534430	86534635	+	ENST00000532234,ENST00000533902	chr11	86561222	86561460	+	1965	68
				ENST00000340353,ENST00000526733,ENST00000355734,ENST00000525018,ENST00000305494						132,101
chr11	86802404	86802437	+		chr11	86843071	86843300	+	1966-1967	
				ENST00000227266,ENST00000527018,ENST00000524463,ENST00000529974						106,62
chr11	88068250	88068105	-		chr11	88063813	88063555	-	1968-1969	
chr11	88924370	88924586	+	ENST00000263321	chr11	88924900	88924918	+	1970	345
				ENST00000534061,ENST00000321955,ENST00000525171						426,393,333
chr11	89896703	89896785	+		chr11	89901251	89901538	+	1971-1973	
				ENST00000534328,ENST00000332231,ENST00000448903,ENST00000528815						22
chr11	926022	926088	+		chr11	946225	946368	+	1974	
				ENST00000326402,ENST00000529184,ENST00000534116						180,45,74
chr11	92914047	92913963	-		chr11	92911718	92911696	-	1975-1977	
chr11	9308140	9308002	-	ENST00000299596,ENST00000528080	chr11	9305624	9305335	-	1978	235
chr11	9406311	9406394	+	ENST00000379719,ENST00000533233	chr11	9409103	9409384	+	1979	28
				ENST00000323929,ENST00000407439,ENST00000393241						622,625,621
chr11	94179059,94	94178976	-		chr11	94178772	94178470	-	1980-1982	
				ENST00000323929,ENST00000407439,ENST00000323977,ENST00000393241						521,524
chr11	94189504	94189442	-		chr11	94186500	94185981	-	1983-1984	
				ENST00000323929,ENST00000407439,ENST00000323977,ENST00000393241,ENST00000540013						219,222
chr11	94209569	94209455	-		chr11	94205714	94205609	-	1985-1986	
				ENST00000323929,ENST00000407439,ENST00000323977,ENST00000393241,ENST00000540013						181,184
chr11	94212042	94211901	-		chr11	94205714	94205609	-	1987-1988	
				ENST00000537677,ENST00000325542,ENST00000541150						268,295,286
chr11	95555663	95555740	+		chr11	95557172	95557246	+	1989-1991	
chr11	95657118	95657039	-	ENST00000346299	chr11	95650650	95650642	-	1992	26
				ENST00000551652,ENST00000553038,ENST00000188312,ENST00000546902,ENST00000547458,ENST00000548180,ENST00000552064,ENST00000552376,ENST00000551617						97,85,3
chr12	100599454,1	100599522	+		chr12	100599976	100600233	+	1993-1995	
chr12	10069402	10069299	-	ENST00000339766,ENST00000455827	chr12	10036284	10035663	-	1996	136
chr12	10069402	10069299	-	ENST00000339766,ENST00000455827	chr12	10053474	10051928	-	1997	136
chr12	10069402	10069299	-	ENST00000339766,ENST00000455827	chr12	10054679	10051928	-	1998	136
chr12	10069402	10069303	-	ENST00000339766,ENST00000455827	chr12	10036284	10035663	-	1999	135
chr12	10069402	10069303	-	ENST00000339766,ENST00000455827	chr12	10053474	10051928	-	2000	135
				ENST00000549687,ENST00000360820,ENST00000548871						503,13
chr12	100717303,1	100717416	+		chr12	100718728	100718971	+	2001-2002	
				ENST00000266754,ENST00000547754,ENST00000537247,ENST00000539410						148,44
chr12	101005778,1	101005919	+		chr12	101007961	101008249	+	2003-2004	
				ENST00000355690,ENST00000396507,ENST00000304361,ENST00000434319,ENST00000350667						40,3
chr12	10124176,1	10124286	+		chr12	10129175	10129316	+	2005-2006	
				ENST00000378128,ENST00000541394,ENST00000543784,ENST00000392909,ENST00000537257,ENST00000358383,ENST00000412715,ENST00000417507,ENST00000457614						51,18
chr12	102517667,1	102517819	+		chr12	102520925	102521195	+	2007-2008	
				ENST00000378128,ENST00000541394,ENST00000543784,ENST00000392909,ENST00000537257,ENST00000358383,ENST00000412715,ENST00000417507,ENST00000457614						51,18
chr12	102517667,1	102517819	+		chr12	102527584	102528389	+	2009-2010	

Table 9

			ENST00000378128,ENST00000541394,ENST00000543784,ENST00000392909,ENST00000537257,ENST00000358383,ENST00000412715,ENST00000417507,ENST00000457614						51,18
chr12	102517667,1	102517819	+	ENST00000457614	chr12	102539755	102541503	+	2011-2012	
chr12	102547647	102547767	+	ENST00000327680,ENST00000541394,ENST00000358383,ENST00000392911	chr12	102548605	102548938	+	2013	58
chr12	102569261	102569444	+	ENST00000547347,ENST00000315192	chr12	102571636	102571942	+	2014-2016	254,412,335
chr12	103670988	103670928	-	ENST00000447799,ENST00000392876	chr12	103663631	103663399	-	2017	106
chr12	104174142	104174078	-	ENST00000299767,ENST00000550595	chr12	104165107	104164915	-	2018-2019	38,464
chr12	104341089	104341208	+	ENST00000525566,ENST00000429002	chr12	104354742	104355315	+	2020-2021	794,144
chr12	104651797	104651857	+	ENST00000525566,ENST00000429002	chr12	104658756	104659047	+	2022	101
chr12	104651797	104651857	+	ENST00000525566,ENST00000429002,ENST00000526691,ENST00000388854,ENST00000542918,ENST00000378070	chr12	104668911	104669071	+	2023	101
chr12	104682709,1	104682818	+	ENST00000525566,ENST00000429002,ENST00000503506,ENST00000526691,ENST00000354940,ENST00000388854,ENST00000526390,ENST00000529546,ENST00000540716,ENST00000524698,ENST00000542918,ENST00000378070,ENST00000527688,ENST00000397736,ENST00000427956,ENST00000526950	chr12	104692234	104692526	+	2024-2027	138,40,38,87
chr12	104732917	104733051	+	ENST00000525566,ENST00000429002,ENST00000503506,ENST00000526691,ENST00000354940,ENST00000388854,ENST00000526390,ENST00000529546,ENST00000540716,ENST00000524698,ENST00000542918,ENST00000378070,ENST00000527688,ENST00000397736,ENST00000427956,ENST00000526950	chr12	104754127	104754214	+	2028-2036	627,477,529,521,439,527,576,592,546
chr12	104732917	104733051	+	ENST00000525566,ENST00000429002,ENST00000503506,ENST00000526691,ENST00000354940,ENST00000388854,ENST00000526390,ENST00000529546,ENST00000540716,ENST00000524698,ENST00000542918,ENST00000378070,ENST00000527688,ENST00000397736,ENST00000427956,ENST00000526950	chr12	104791957	104792330	+	2037-2045	627,477,529,521,439,527,576,592,546
chr12	104732917	104733051	+	ENST00000525566,ENST00000429002,ENST00000503506,ENST00000526691,ENST00000354940,ENST00000388854,ENST00000526390,ENST00000529546,ENST00000540716,ENST00000524698,ENST00000542918,ENST00000378070,ENST00000527688,ENST00000397736,ENST00000427956,ENST00000526950	chr12	104824217	104824236	+	2046-2054	627,477,529,521,439,527,576,592,546
chr12	105255148	105255069	-	ENST00000258538	chr12	105253673	105253521	-	2055	418
chr12	105385490	105385626	+	ENST00000552951	chr12	105386110	105386366	+	2056	113
chr12	105420522	105420323	-	ENST00000258494	chr12	105416933	105416853	-	2057	905
chr12	105424207	105424102	-	ENST00000258494,ENST00000548418	chr12	105422243	105422191	-	2058-2059	838,91
chr12	105440593	105440488	-	ENST00000258494	chr12	105436091	105434596	-	2060	621
chr12	105445995	105445868	-	ENST00000258494,ENST00000424857	chr12	105444488	105444466	-	2061	511
chr12	105515896	105516016	+	ENST00000332180	chr12	105516338	105516810	+	2062	262
chr12	105540820	105540924	+	ENST00000332180	chr12	105542844	105542876	+	2063	838
chr12	105582225,1	105582051	-	ENST00000258530,ENST00000539978,ENST00000551662,ENST00000553109	chr12	105578472	105576107	-	2064-2067	544,501,550,75
chr12	105582225,1	105582051	-	ENST00000258530,ENST00000539978,ENST00000551662,ENST00000553109	chr12	105579197	105576107	-	2068-2071	544,501,550,75
chr12	106641629	106641147	-	ENST00000378026	chr12	106618557	106618514	-	2072	161
chr12	107486739	107486582	-	ENST00000008527	chr12	107443630	107443602	-	2073	52
chr12	107714376	107714412	+	ENST00000415943	chr12	107750034	107750076	+	2074	12
chr12	108956399	108956512	+	ENST00000535729,ENST00000431221,ENST00000547005,ENST00000311893,ENST00000539580,ENST00000539593	chr12	108956914	108956990	+	2075	38
chr12	109945369	109945540	+	ENST00000434735,ENST00000280774,ENST00000539599,ENST00000342494,ENST00000449510	chr12	109946155	109946263	+	2076	540
chr12	109971271	109971363	+	ENST00000434735,ENST00000342494,ENST00000535089,ENST00000605142	chr12	109971753	109971803	+	2077-2079	1005,92,116
chr12	109971271	109971363	+	ENST00000434735,ENST00000342494,ENST00000535089,ENST00000605142	chr12	109981335	109981354	+	2080-2082	1005,92,116
chr12	110463547	110463628	+	ENST00000261739,ENST00000547639	chr12	110465019	110465144	+	2083-2084	294,148
chr12	110511233	110511227	-	ENST00000548191	chr12	110493610	110493335	-	2085	2
chr12	110566755	110566935	+	ENST00000361948,ENST00000552912,ENST00000242591,ENST00000546374,ENST00000550156,ENST00000551273	chr12	110569994	110570292	+	2086-2087	112,143
chr12	110574581	110574665	+	ENST00000455511,ENST00000552087,ENST00000450008	chr12	110575428	110575572	+	2088-2091	260,230,229,102
chr12	110814021	110813871	-	ENST00000455511,ENST00000450008	chr12	110813491	110813288	-	2092-2093	86,536
chr12	110833025	110832906	-	ENST00000455511,ENST00000450008,ENST00000552170	chr12	110830950	110830900	-	2094	170
chr12	110841534,1	110841332	-	ENST00000549578,ENST00000360579,ENST00000546588	chr12	110839309	110839253	-	2095-2096	67,46
chr12	110934008	110933817	-	ENST00000551590,ENST00000397655,ENST00000397659	chr12	110932357	110932057	-	2097-2099	65,69,97
chr12	111080054	111080194	+	ENST00000548312,ENST00000242607,ENST00000356742,ENST00000549442,ENST00000547887,ENST00000546713	chr12	111082041	111082072	+	2100-2101	443,429
chr12	111121050	111121030	-		chr12	111109636	111109600	-	2102	7

Table 9

				ENST00000549590,ENST00000455480,ENST000						230
chr12	112147330	112147488	+	00313698	chr12	112149904	112150103	+	2103	
chr12	112148077	112148157	+	ENST00000455480	chr12	112149904	112150103	+	2104	257
chr12	112213409	112213524	+	ENST00000548536	chr12	112219024	112219470	+	2105	76
				ENST00000355445,ENST00000547878,ENST000						70
				00552374,ENST00000550037,ENST00000551297						
				,ENST00000546537,ENST00000549425,ENST000						
chr12	112429693	112429562	-	00546962	chr12	112420398	112420109	-	2106	
chr12	113401118	113401262	+	ENST00000228928	chr12	113401488	113401703	+	2107	743
chr12	113806921	113807014	+	ENST00000545182,ENST00000280800	chr12	113808947	113809260	+	2108	128
				ENST00000261318,ENST00000547630,ENST000						37,15,59
chr12	117175705,117	117175595	-	00547606,ENST00000536380	chr12	117168423	117168413	-	2109-2111	
				ENST00000261318,ENST00000547630,ENST000						37,15,59
chr12	117175705,117	117175595	-	00547606,ENST00000536380	chr12	117168535	117168413	-	2112-2114	
				ENST00000261318,ENST00000547630,ENST000						37,15,59
chr12	117175705,117	117175595	-	00547606,ENST00000536380	chr12	117172467	117172355	-	2115-2117	
				ENST00000261318,ENST00000547630,ENST000						37,15,59
chr12	117175705,117	117175595	-	00547606,ENST00000536380	chr12	117174165	117173929	-	2118-2120	
				ENST00000427718,ENST00000550180,ENST000						156,1
chr12	117624376	117624282	-	00330622	chr12	117617387	117617218	-	2121-2122	
				ENST00000229043,ENST00000454402,ENST000						205,290,269
chr12	118465758	118465835	+	00392542	chr12	118466687	118466707	+	2123-2125	
				ENST00000419821,ENST00000392533,ENST000						64
chr12	118682770	118682699	-	00535570,ENST00000541186	chr12	118682166	118681906	-	2126	
				ENST00000419821,ENST00000392533,ENST000						40
				00535570,ENST00000541186,ENST00000541878						
chr12	118693372	118693253	-	,ENST00000542902	chr12	118685482	118685324	-	2127	
chr12	118823919	118823990	+	ENST00000543473,ENST00000397564	chr12	118825210	118825244	+	2128	113
chr12	119563186	119563284	+	ENST00000267260	chr12	119564715	119565027	+	2129	204
chr12	119563186	119563284	+	ENST00000267260	chr12	119773750	119774061	+	2130	204
chr12	119592048	119592188	+	ENST00000267260	chr12	119592789	119592919	+	2131	510
				ENST00000392521,ENST00000261833,ENST000						1768,1726,1
chr12	120142260	120142168	-	00392520	chr12	120139950	120139912	-	2132-2134	338
				ENST00000392521,ENST00000261833,ENST000						968,926,553
chr12	120190052	120189855	-	00392520	chr12	120181200	120180863	-	2135-2137	
				ENST00000392521,ENST00000261833,ENST000						555,182
chr12	120220441	120220322	-	00392520	chr12	120219858	120219715	-	2138-2139	
				ENST00000392521,ENST00000261833,ENST000						59,431
chr12	120241193,1	120241010	-	00392520	chr12	120237151	120237062	-	2140-2141	
chr12	120313972	120313877	-	ENST00000392521,ENST00000261833	chr12	120312161	120312156	-	2142	32
chr12	120502537,1	120502683	+	ENST00000397558,ENST00000446727	chr12	120507068	120507232	+	2143-2144	303,47
chr12	120599387	120599294	-	ENST00000300648	chr12	120598610	120598497	-	2145	812
				ENST00000228307,ENST00000424649,ENST000						4
chr12	120703432	120703420	-	00267257,ENST00000547983	chr12	120679817	120679738	-	2146	
				ENST00000342607,ENST00000449592,ENST000						153,132
chr12	122190034	122190129	+	00541467	chr12	122195920	122196000	+	2147-2148	
chr12	122481792	122481959	+	ENST00000538010,ENST00000261822	chr12	122482175	122482436	+	2149	146
				ENST00000536306,ENST00000543897,ENST000						142,38
				00336229,ENST00000544054,ENST00000536663						
chr12	122964858	122964737	-		chr12	122963343	122963328	-	2150-2151	
chr12	123075884	123076000	+	ENST00000333479	chr12	123077407	123077767	+	2152	1415
chr12	123075884	123076000	+	ENST00000333479	chr12	123077463	123077767	+	2153	1415
chr12	123075884	123076000	+	ENST00000333479	chr12	123077490	123077767	+	2154	1415
chr12	123078823,1	123078932	+	ENST00000333479,ENST00000423927	chr12	123081149	123081405	+	2155-2156	1451,1
chr12	123247392	123247476	+	ENST00000280557,ENST00000455982	chr12	123247805	123247956	+	2157	70
chr12	123252035	123252151	+	ENST00000280557,ENST00000455982	chr12	123252742	123252745	+	2158	137
				ENST00000320201,ENST00000280562,ENST000						214
chr12	123494624	123494397	-	00542749,ENST00000546049	chr12	123491863	123491615	-	2159	
				ENST00000541603,ENST00000302349,ENST000						184,998,112
				00541076,ENST00000606320,ENST00000392425						0,1150
chr12	123645396	123645328	-		chr12	123642164	123642037	-	2160-2163	
				ENST00000330479,ENST00000402868,ENST000						3
chr12	123868746	123868755	+	00437519	chr12	123872905	123872933	+	2164	
chr12	123907704	123907591	-	ENST00000280571	chr12	123898077	123897795	-	2165	201
chr12	123983312	123983091	-	ENST00000376874,ENST00000340724	chr12	123981698	123981399	-	2166-2167	267,115
chr12	124008192	124008042	-	ENST00000376874	chr12	124007302	124007175	-	2168	153
chr12	124094486	124094675	+	ENST00000238146,ENST00000538744	chr12	124097260	124097384	+	2169	247
chr12	124101058	124101150	+	ENST00000238146	chr12	124102023	124102069	+	2170	349
				ENST00000405201,ENST00000404621,ENST000						1281,1271,1
				00356219,ENST00000397355,ENST00000404121						288,1272,84
chr12	124835283	124835133	-	,ENST00000429285,ENST00000458234	chr12	124834994	124834985	-	2171-2176	2,1289
				ENST00000405201,ENST00000404621,ENST000						604,603,174
				00356219,ENST00000397355,ENST00000404121						
chr12	124885219	124885047	-	,ENST00000429285,ENST00000458234	chr12	124883013	124882922	-	2177-2179	
chr12	125497080	125497182	+	ENST00000341446	chr12	125499792	125499992	+	2180	105
				ENST00000542728,ENST00000314565,ENST000						101,120,72
chr12	12588562	12588719	+	00298571	chr12	12590253	12590370	+	2181-2183	
				ENST00000352940,ENST00000358007,ENST000						60
chr12	12967065	12967158	+	00544400	chr12	12972305	12972402	+	2184	
				ENST00000261653,ENST00000392373,ENST000						93,77
chr12	131297576	131297502	-	00344271	chr12	131295482	131295416	-	2185-2186	

Table 9

chr12	132250663	132250853	+	ENST00000261674,ENST00000535236,ENST00000541286,ENST00000537164	chr12	132252275	132252460	+	2187-2189	714,507,276
chr12	132326169	132326345	+	ENST00000360564,ENST00000535291,ENST00000534865	chr12	132327173	132327336	+	2190-2192	294,210,135
chr12	133225658	133225515	-	ENST00000320574,ENST00000535270,ENST00000539006	chr12	133225399	133225341	-	2193-2195	1383,1356,1163
chr12	133254029	133253949	-	ENST00000320574,ENST00000537064,ENST00000535270,ENST00000539006	chr12	133253545	133253489	-	2196-2198	267,240,47
chr12	133454240	133454141	-	ENST00000315585,ENST00000266880,ENST00000443047,ENST00000450056,ENST00000432561,ENST00000540963	chr12	133449885	133449804	-	2199	77
chr12	133463914	133463782	-	ENST00000315585,ENST00000266880,ENST00000443047,ENST00000450056,ENST00000432561,ENST00000540963	chr12	133456275	133455971	-	2200	44
chr12	133509391	133509299	-	ENST00000392321	chr12	133505048	133504860	-	2201	76
chr12	133509741	133509621	-	ENST00000360187,ENST00000392321	chr12	133505048	133504860	-	2202	45
chr12	133657907	133657915	+	ENST00000355557,ENST00000356456,ENST00000440984,ENST00000319849,ENST00000440550,ENST00000392041,ENST00000536790	chr12	133658419	133658571	+	2203	3
chr12	14576850,15	14578407	+	ENST00000261168,ENST00000543189,ENST00000536444,ENST00000544627,ENST00000540793	chr12	14579485	14579784	+	2204-2205	519,527
chr12	15803940	15803757	-	ENST00000543523,ENST00000281172,ENST00000543612,ENST00000540613,ENST00000542903	chr12	15801120	15800775	-	2206-2207	478,218
chr12	16046981	16047077	+	ENST00000538352,ENST00000025399,ENST00000419869	chr12	16047544	16047777	+	2208-2210	72,179,166
chr12	18793363	18793488	+	ENST00000433979,ENST00000538779,ENST00000266497	chr12	18827786	18827938	+	2211-2212	1395,1436
chr12	18836258	18836186	-	ENST00000536023,ENST00000534932,ENST00000538330,ENST00000266505,ENST00000435379,ENST00000447925,ENST00000539875	chr12	18798861	18798851	-	2213-2219	97,85,386,604,409,602,411
chr12	1906701	1906584	-	ENST00000382722,ENST00000538450,ENST00000587995,ENST00000588077,ENST00000538027,ENST00000536846,ENST00000586184,ENST00000585708	chr12	1905201	1905187	-	2220-2225	1037,167,1012,973,182,184
chr12	1906701	1906584	-	ENST00000382722,ENST00000538450,ENST00000587995,ENST00000588077,ENST00000538027,ENST00000536846,ENST00000586184,ENST00000585708	chr12	1905221	1905187	-	2226-2231	1037,167,1012,973,182,184
chr12	20806881	20807139	+	ENST00000359062	chr12	20808487	20808584	+	2232	1061
chr12	20806881	20807139	+	ENST00000359062	chr12	20815319	20816820	+	2233	1061
chr12	2102557	2102430	-	ENST00000280665,ENST00000543381	chr12	2093939	2091846	-	2234	106
chr12	22402032,22	22401940	-	ENST00000396037,ENST00000539510,ENST00000540824,ENST00000538256,ENST00000541868	chr12	22397709	22397688	-	2235-2239	194,51,145,13,171
chr12	25222342	25222365	+	ENST00000550945,ENST00000361433,ENST00000557489,ENST00000354454,ENST00000548766,ENST00000556887,ENST00000554942,ENST00000547044,ENST00000554272	chr12	25224994	25225167	+	2240	8
chr12	25222342	25222365	+	ENST00000550945,ENST00000361433,ENST00000557489,ENST00000354454,ENST00000548766,ENST00000556887,ENST00000554942,ENST00000547044,ENST00000554272	chr12	25224998	25225167	+	2241	8
chr12	25222342	25222365	+	ENST00000550945,ENST00000361433,ENST00000557489,ENST00000354454,ENST00000548766,ENST00000556887,ENST00000554942,ENST00000547044,ENST00000554272	chr12	25225110	25225167	+	2242	8
chr12	25232590,25	25232697	+	ENST00000550945,ENST00000361433,ENST00000557489,ENST00000354454,ENST00000536173,ENST00000548766,ENST00000547044	chr12	25234149	25234400	+	2243-2244	81,28
chr12	27556366	27556474	+	ENST00000544915,ENST00000395901,ENST00000546179,ENST00000311001,ENST00000261178,ENST00000266503,ENST00000457040,ENST00000542388	chr12	27557508	27557549	+	2245-2251	480,494,491,514,480,528,443
chr12	27568802	27568880	+	ENST00000544915,ENST00000395901,ENST00000546179,ENST00000311001,ENST00000261178,ENST00000266503,ENST00000457040,ENST00000542388	chr12	27570651	27570952	+	2252-2258	521,518,541,507,555,506,470
chr12	27800764,28	27800775	+	ENST00000538433,ENST00000545381,ENST00000537927,ENST00000318304,ENST00000535047,ENST00000542629,ENST00000228425	chr12	27801271	27802067	+	2259-2260	4,157
chr12	27800764,28	27800775	+	ENST00000538433,ENST00000545381,ENST00000537927,ENST00000318304,ENST00000535047,ENST00000542629,ENST00000228425	chr12	27801275	27802067	+	2261-2262	4,157
chr12	28605411,29	28605587	+	ENST00000536154,ENST00000539107,ENST00000545336,ENST00000381256,ENST00000381259,ENST00000306172,ENST00000535212,ENST00000542801	chr12	28629114	28632564	+	2263-2268	37,107,331,367,337,66
chr12	29671540	29671405	-	ENST00000256062,ENST00000551659,ENST00000552618,ENST00000539277	chr12	29670941	29670652	-	2269-2272	566,736,698,674

Table 9

			ENST00000433722,ENST00000298892,ENST00000251071,ENST00000308433,ENST00000417045							462,716,383,635
chr12	30873849	30873745	-	,ENST00000537108	chr12	30873311	30873021	-	2273-2276	
				ENST00000358409,ENST00000359864,ENST00000543035,ENST00000443986						75
chr12	3103933	3104158	+		chr12	3113585	3113622	+	2277	
				ENST00000542838,ENST00000407793,ENST00000228264,ENST00000545668,ENST00000350437						587,561
chr12	31249793	31249924	+		chr12	31250305	31250331	+	2278-2279	
				ENST00000534526,ENST00000531134,ENST00000472289,ENST00000493087,ENST00000427716						337,285,200,107,312,29
chr12	32734894,3273	32735401	+	,ENST00000395740,ENST00000546442,ENST00000525053,ENST00000494977	chr12	32747150	32747571	+	2280-2285	
				ENST00000452533,ENST00000553257,ENST00000549701,ENST00000358214,ENST00000266481						34
				,ENST00000551643,ENST00000551476,ENST00000550154,ENST00000434676,ENST00000413295						
				,ENST00000547312,ENST00000546649,ENST00000						
chr12	32832298	32832399	+	00381000,ENST00000548750	chr12	32851155	32851534	+	2286	
chr12	32974463	32974290	-	ENST00000340811,ENST00000070846	chr12	32964748	32963915	-	2287-2288	671,715
chr12	38712063	38712260	+	ENST00000308742,ENST00000551464	chr12	38720028	38720122	+	2289	123
				ENST00000331366,ENST00000538596,ENST00000						381,50,369
chr12	39087640,39	39087459	-	00360449	chr12	39080504	39080303	-	2290-2292	
chr12	402335	401925	-	ENST00000399788,ENST00000382815	chr12	401370	401068	-	2293	1622
				ENST00000551295,ENST00000347616,ENST00000348761,ENST00000548481						993,982,35
chr12	41422865,41	41423021	+		chr12	41431679	41431986	+	2294-2296	
				ENST00000551295,ENST00000347616,ENST00000348761,ENST00000548481						993,982,35
chr12	41422865,41	41423021	+		chr12	41436436	41437961	+	2297-2299	
				ENST00000399788,ENST00000382815,ENST00000544760						1012,631
chr12	422360	422222	-		chr12	422085	421794	-	2300-2301	
chr12	42632430	42632463	+	ENST00000549190	chr12	42712451	42712856	+	2302	11
				ENST00000549190,ENST00000395580,ENST00000337898,ENST00000358314,ENST00000395568						321,310,248,303,183,284,
				,ENST00000256678,ENST00000449194,ENST00000552761,ENST00000317560,ENST00000432191						255,236
chr12	42792656	42792796	+		chr12	42821126	42822576	+	2303-2310	
				ENST00000550616,ENST00000550615,ENST00000547521,ENST00000448290,ENST00000547101						53
				,ENST00000550386,ENST00000551736,ENST00000						
chr12	44161915	44162075	+	00552309,ENST00000550361	chr12	44164850	44164985	+	2311	
				ENST00000551577,ENST00000266534,ENST00000546868,ENST00000536799						136,66
chr12	44338013	44338145	+		chr12	44422639	44422681	+	2312-2313	
				ENST00000551577,ENST00000266534,ENST00000546868,ENST00000536799						136,66
chr12	44338013	44338145	+		chr12	44432005	44432502	+	2314-2315	
				ENST00000551577,ENST00000266534,ENST00000550495,ENST00000536799						202,58,98
chr12	44605073	44605170	+		chr12	44605915	44606379	+	2316-2318	
				ENST00000425752,ENST00000423947,ENST00000435642,ENST00000320560,ENST00000441606						50,71,32
chr12	45695797	45695876	+		chr12	45716701	45716858	+	2319-2321	
				ENST00000425752,ENST00000423947,ENST00000435642,ENST00000320560,ENST00000441606						50,71,32
chr12	45695797	45695876	+		chr12	45716704	45716858	+	2322-2324	
				ENST00000334344,ENST00000422737,ENST00000444670,ENST00000457135						1591,1442,1
chr12	46243819,46	46246679	+		chr12	46247963	46248191	+	2325-2328	201,199
				ENST00000334344,ENST00000422737,ENST00000444670,ENST00000457135						1640,1491,1
chr12	46254584	46254732	+		chr12	46271224	46271455	+	2329-2332	250,248
chr12	46760728	46760647	-	ENST00000256689	chr12	46760246	46759964	-	2333	187
				ENST00000266544,ENST00000544741,ENST00000540688						321,80,80
chr12	4794425,479	4794491	+		chr12	4802349	4802393	+	2334-2336	
				ENST00000405493,ENST00000449771,ENST00000549151,ENST00000389212,ENST00000171000						490,532
chr12	48140682	48140643	-	,ENST00000548919,ENST00000395358	chr12	48139991	48139698	-	2337-2338	
				ENST00000004980,ENST00000448372,ENST00000551330,ENST00000549595,ENST00000549518						469
chr12	48457624	48457493	-		chr12	48451311	48451024	-	2339	
				ENST00000547306,ENST00000316299,ENST00000548065,ENST00000546531,ENST00000551696						5,19,24
chr12	49406859,49	49406845	-	,ENST00000547125	chr12	49404216	49403954	-	2340-2342	
				ENST00000336023,ENST00000547765,ENST00000550367						1
chr12	49525083	49525081	-		chr12	49523762	49523585	-	2343	
				ENST00000551245,ENST00000257909,ENST00000547923						388,96
chr12	49723178	49723237	+		chr12	49727701	49727999	+	2344-2345	
				ENST00000293618,ENST00000429001,ENST00000398473,ENST00000522085,ENST00000518444						6
				,ENST00000551886,ENST00000347328,ENST00000						
chr12	50794794	50794811	+	00550260	chr12	50797336	50797414	+	2346	
				ENST00000293618,ENST00000429001,ENST00000398473,ENST00000522085,ENST00000518444						6
				,ENST00000551886,ENST00000347328,ENST00000						
chr12	50794794	50794811	+	00550260	chr12	50810129	50810161	+	2347	
chr12	51034507	51034635	+	ENST00000301180	chr12	51048794	51049480	+	2348	100
chr12	51108178	51108379	+	ENST00000301180	chr12	51112324	51112405	+	2349	950

Table 9

			ENST00000603798,ENST00000380103,ENST00000398453,ENST00000603864,ENST00000605426						11
chr12	51663062	51663029	-,ENST00000603838,ENST00000604188	chr12	51648950	51648805	-	2350	54,28
chr12	51707687	51707607	- ENST00000452142,ENST00000267012,ENST00000544402,ENST00000605423	chr12	51705854	51705558	-	2351-2352	270,218
chr12	52374753	52374983	+ ENST00000257963,ENST00000541224,ENST00000426655,ENST00000415850,ENST00000542485	chr12	52375503	52375656	+	2353-2354	
chr12	52641961	52641995	+ ENST00000331817	chr12	52663443	52663483	+	2355	413
chr12	53345515	53345640	+ ENST00000388837,ENST00000550600,ENST00000388835	chr12	53345800	53345848	+	2356	316
chr12	53574380	53574351	- ENST00000379850	chr12	53570808	53570519	-	2357	10
chr12	53574380	53574351	- ENST00000379850	chr12	53572926	53572648	-	2358	10
chr12	54063125	54062932	- ENST00000602871,ENST00000394349,ENST00000549164,ENST00000338662	chr12	54036643	54036615	-	2359-2361	103,160,119
chr12	54066398,54	54066360	- ENST00000602871,ENST00000394349,ENST00000549164,ENST00000338662,ENST00000549748	chr12	54036648	54036615	-	2362-2364	13,70,29
chr12	54379044,54	54379794	+ ENST00000303460,ENST00000513209	chr12	54512388	54512424	+	2365-2366	250,55
chr12	54448634	54448982	+ ENST00000303406,ENST00000609810,ENST00000430889	chr12	54512388	54512424	+	2367	262
chr12	56188171	56188143	- ENST00000546604,ENST00000444631,ENST00000336133,ENST00000546837,ENST00000552080	chr12	56187396	56187208	-	2368-2370	135,75,447
chr12	56501305	56501397	+ ENST00000548861,ENST00000303305,ENST00000552766,ENST00000553057	chr12	56501700	56501832	+	2371-2373	143,162,151
chr12	56501305	56501397	+ ENST00000548861,ENST00000303305,ENST00000552766,ENST00000553057	chr12	56502123	56502200	+	2374-2376	143,162,151
chr12	56549203	56549376	+ ENST00000553066,ENST00000550443,ENST00000207437	chr12	56551145	56551190	+	2377	173
chr12	56824752	56824665	- ENST00000229201,ENST00000553532,ENST00000554616	chr12	56824195	56824152	-	2378-2379	302,303
chr12	57003730,57	57003520	- ENST00000379441,ENST00000179765,ENST00000551812,ENST00000549884,ENST00000547650	chr12	57001454	57001168	-	2380-2384	669,667,699,697,125
chr12	57060050	57059988	- ENST00000262033,ENST00000414274,ENST00000436399,ENST00000456859	chr12	57059583	57059432	-	2385-2388	146,116,113,110
chr12	57898008	57898082	+ ENST00000537638,ENST00000262027,ENST00000315473	chr12	57899800	57900061	+	2389-2390	456,222
chr12	57906534,58	57906747	+ ENST00000262027,ENST00000315473,ENST00000552914	chr12	57907638	57907872	+	2391-2393	655,421,11
chr12	58347389	58347472	+ ENST00000300145	chr12	58351239	58357709	+	2394	179
chr12	62652545	62652544	- ENST00000552075	chr12	62636351	62636267	-	2395	0
chr12	62652545	62652544	- ENST00000552075	chr12	62647460	62647176	-	2396	0
chr12	62652545	62652544	- ENST00000552075	chr12	62647463	62647176	-	2397	0
chr12	62654196,63	62654284	+ ENST00000353364,ENST00000549523,ENST00000280377,ENST00000312635,ENST00000393654,ENST00000549237	chr12	62655749	62656033	+	2398-2399	29,25
chr12	62696571	62696701	+ ENST00000353364,ENST00000549523,ENST00000280377,ENST00000312635,ENST00000393654,ENST00000549237,ENST00000548836	chr12	62699752	62700062	+	2400-2402	116,111,62
chr12	62749112	62749256	+ ENST00000353364,ENST00000280377,ENST00000393654	chr12	62764675	62764750	+	2403-2405	276,305,280
chr12	62965172	62965362	+ ENST00000280379,ENST00000393632,ENST00000393630,ENST00000546600,ENST00000393629,ENST00000552738	chr12	62967914	62967995	+	2406-2409	1505,1504,1498,1475
chr12	63083586	63083479	- ENST00000228705	chr12	63066395	63066228	-	2410	415
chr12	64706532	64706459	- ENST00000543942,ENST00000543259	chr12	64704810	64704500	-	2411-2412	322,174
chr12	64829407	64829454	+ ENST00000332707	chr12	64831658	64831787	+	2413	911
chr12	64858114	64858243	+ ENST00000331710	chr12	64858353	64858741	+	2414	119
chr12	6486841	6486833	- ENST00000536788	chr12	6486517	6486467	-	2415	3
chr12	6570021	6570104	+ ENST00000266556	chr12	6576217	6576346	+	2416	430
chr12	6574107	6574056	- ENST00000400911,ENST00000361716,ENST00000535180,ENST00000396308	chr12	6548842	6548497	-	2417	113
chr12	6574107	6574056	- ENST00000400911,ENST00000361716,ENST00000535180,ENST00000396308	chr12	6564238	6564230	-	2418	113
chr12	65847508	65847605	+ ENST00000355192,ENST00000308259,ENST00000540804,ENST00000535664,ENST00000541189,ENST00000535239,ENST00000446731	chr12	65867739	65868075	+	2419-2422	137,130,145,88
chr12	66232299	66232349	+ ENST00000403681,ENST00000537275,ENST00000393578,ENST00000537429,ENST00000425208,ENST00000536545,ENST00000354636,ENST00000541363,ENST00000393577,ENST00000539662	chr12	66314560	66314599	+	2423-2424	83,46
chr12	6646475	6646556	+ ENST00000229239,ENST00000396856,ENST00000396861,ENST00000396859,ENST00000396858	chr2	62188578	62188232	-	2425-2427	175,100,133
chr12	66563731,67	66563635	- ENST00000539652,ENST00000556010,ENST00000358230,ENST00000286424,ENST00000398033,ENST00000542724,ENST00000545407,ENST00000545504,ENST00000534930	chr12	66555183	66555026	-	2428-2429	32,14

Table 9

			ENST00000229179,ENST00000378905,ENST00000539906						834,595,805
chr12	69129011	69129124	+		chr12	69134672	69134859	+	2430-2432	
			ENST00000435070,ENST00000456847,ENST00000266679						124
chr12	69646831	69646934	+		chr12	69649740	69650153	+	2433	
			ENST00000261267,ENST00000549690,ENST00000548839						91
chr12	69743888	69744024	+		chr12	69745972	69745979	+	2434	
			ENST00000247843,ENST00000548020,ENST00000549685						171,117,113
chr12	69764668	69764755	+		chr12	69791473	69791492	+	2435-2437	
			ENST00000247843,ENST00000548020,ENST00000549685						171,117,113
chr12	69764668	69764755	+		chr12	69817781	69818021	+	2438-2440	
			ENST00000331471,ENST00000488961,ENST00000330891,ENST00000553096,ENST00000476098						366,153,260
chr12	70065359	70065208	-		chr12	70058411	70058359	-	2441-2443	
			ENST00000535923,ENST00000542912,ENST00000440277,ENST00000399433,ENST00000545167						202,238,213
chr12	7077184	7077055	-	,ENST00000536316	chr12	7076038	7075906	-	2444-2446	
chr12	70793989,71	70794116	+	ENST00000258111,ENST00000531884	chr12	70854922	70855114	+	2447-2448	154,42
			ENST00000535479,ENST00000261407,ENST00000540090,ENST00000543794,ENST00000536797						50
chr12	7125728	7125578	-	,ENST00000538910	chr12	7120720	7120235	-	2449	
chr12	71509738	71509686	-	ENST00000549357	chr12	71507025	71506982	-	2450	55
			ENST00000539803,ENST00000266542,ENST00000544702,ENST00000543933						45,230,246,188
chr12	7252356,725	7252282	-		chr12	7247440	7247345	-	2451-2454	
			ENST00000539803,ENST00000266542,ENST00000544702,ENST00000543933						45,230,246,188
chr12	7252356,725	7252282	-		chr12	7249969	7249880	-	2455-2458	
			ENST00000541953,ENST00000266546,ENST00000545663,ENST00000535452,ENST00000534830						127,90,110,139
chr12	7286169	7286364	+	,ENST00000539982,ENST00000537408	chr12	7286642	7286757	+	2459-2462	
chr12	75784161	75784102	-	ENST00000328705	chr12	75754799	75754719	-	2463	31
chr12	75784161	75784102	-	ENST00000328705	chr12	75754966	75754719	-	2464	31
chr12	75784161	75784102	-	ENST00000328705	chr12	75759043	75758126	-	2465	31
chr12	75784161	75784102	-	ENST00000328705	chr12	75780198	75780052	-	2466	31
			ENST00000328705,ENST00000336815,ENST00000552497						11
chr12	75784650	75784618	-		chr12	75754799	75754719	-	2467	
			ENST00000328705,ENST00000336815,ENST00000552497						11
chr12	75784650	75784618	-		chr12	75754966	75754719	-	2468	
			ENST00000328705,ENST00000336815,ENST00000552497						11
chr12	75784650	75784618	-		chr12	75780198	75780052	-	2469	
			ENST00000328705,ENST00000336815,ENST00000552497						11
chr12	75784650	75784618	-		chr12	75780305	75780052	-	2470	
			ENST00000549464,ENST00000536525,ENST00000397909,ENST00000228327,ENST00000266692						138
chr12	78334861	78334913	+		chr12	78339221	78339381	+	2471	
			ENST00000549464,ENST00000536525,ENST00000397909,ENST00000228327,ENST00000266692						138
chr12	78334861	78334913	+		chr12	78344332	78345860	+	2472	
			ENST00000549464,ENST00000536525,ENST00000397909,ENST00000228327,ENST00000266692						674
chr12	78415527	78415642	+		chr12	78419610	78419775	+	2473	
			ENST00000549464,ENST00000536525,ENST00000397909,ENST00000228327,ENST00000266692						674
chr12	78415527	78415642	+		chr12	78421766	78423972	+	2474	
chr12	80084024,8	80083509	-	ENST00000328827,ENST00000551712	chr12	80036392	80036167	-	2475-2476	172,117
chr12	80084024,8	80083509	-	ENST00000328827,ENST00000551712	chr12	80062623	80062239	-	2477-2478	172,117
			ENST00000552810,ENST00000309041,ENST00000604024						939,941,692
chr12	88500682	88500452	-		chr12	88499683	88499498	-	2479-2481	
			ENST00000228280,ENST00000347404,ENST00000552044						64,13
chr12	88926280,89	88926218	-		chr12	88920316	88920256	-	2482-2483	
			ENST00000393179,ENST00000313546,ENST00000549035,ENST00000541909						214,344,302
chr12	89860699	89860547	-		chr12	89854907	89854813	-	2484-2486	
			ENST00000393179,ENST00000313546,ENST00000549035,ENST00000541909						214,344,302
chr12	89860699	89860547	-		chr12	89858556	89858261	-	2487-2489	
			ENST00000318602,ENST00000539638,ENST00000404455						28
chr12	9268445	9268360	-		chr12	9267858	9266884	-	2490	
			ENST00000337179,ENST00000415493,ENST00000550056,ENST00000549992,ENST00000548662						128,127,75,76
chr12	93792953	93792993	+	,ENST00000547014,ENST00000546925	chr12	94407663	94407762	+	2491-2494	
			ENST00000549982,ENST00000361630,ENST00000552217,ENST00000393128,ENST00000547098						73,73
chr12	93873164	93873248	+	,ENST00000549561,ENST00000548545	chr12	93876223	93876286	+	2495-2496	
			ENST00000552983,ENST00000332896,ENST00000552033,ENST00000548483,ENST00000551065						99
chr12	94072551	94072848	+	,ENST00000542893,ENST00000541813	chr12	94209180	94209425	+	2497	
			ENST00000397809,ENST00000339839,ENST00000547232,ENST00000397807,ENST00000547575						139,106
chr12	94797038	94796946	-		chr12	94796352	94795991	-	2498-2499	
chr12	94972305	94972170	-	ENST00000261226,ENST00000551457	chr12	94901319	94901228	-	2500-2501	377,346
chr12	95388033	95387946	-	ENST00000327772,ENST00000546788	chr12	95322039	95321716	-	2502	85
chr12	96640718,97	96641512	+	ENST00000228741,ENST00000549985	chr12	96645493	96646756	+	2503-2504	334,95

Table 9

			ENST00000261340,ENST00000290855,ENST00000325960,ENST00000492359,ENST00000444971,ENST00000479877,ENST00000543300,ENST00000545918,ENST00000261339,ENST00000466035						20,14
chr12	9822331,982	9822391	+		chr12	9832640	9832963	+	2505-2506	
chr12	9885715,989	9885545	-	ENST00000542530,ENST00000327839	chr12	9855036	9854406	-	2507-2508	57,105
				ENST00000556029,ENST00000343315,ENST00000393053,ENST00000261210,ENST00000556678						221,128
chr12	98931253	98931350	+		chr12	98936364	98936664	+	2509-2510	
				ENST00000551964,ENST00000333991,ENST00000339433,ENST00000357310,ENST00000359972,ENST00000552268,ENST00000550527,						175,164
chr12	99043265	99043462	+	ENST00000547045,ENST00000549007	chr12	99043994	99044272	+	2511-2512	
				ENST00000551964,ENST00000339433,ENST00000357310,ENST00000359972,ENST00000550527						1110,1067,1056,1099
chr12	99117417	99117542	+	,ENST00000547045,ENST00000549007	chr12	99118372	99118641	+	2513-2516	
				ENST00000355700,ENST00000403766,ENST00000376440						175,309,274
chr13	100020041	100020160	+		chr13	100021617	100021912	+	2517-2519	
				ENST00000376355,ENST00000444838,ENST00000376360,ENST00000376354,ENST00000339105						83
chr13	100425078	100425264	+		chr13	100502437	100503344	+	2520	
				ENST00000376279,ENST00000376286,ENST00000376285						100,74
chr13	100764247	100764315	+		chr13	100769729	100770024	+	2521-2522	
				ENST00000376180,ENST00000545560,ENST00000376162,ENST00000490242						51,338,197,245
chr13	102250503,1	102250649	+		chr13	102300056	102300068	+	2523-2526	
chr13	103054028	103053821	-	ENST00000376131	chr13	102845713	102845444	-	2527	69
chr13	103309406	103309557	+	ENST00000376065,ENST00000376052	chr13	103314097	103314756	+	2528-2529	1034,1047
chr13	108939151	108939207	+	ENST00000375887,ENST00000542136	chr13	108939342	108939631	+	2530	160
				ENST00000458711,ENST00000424185,ENST00000309957						126,147,257
chr13	111287815	111287935	+		chr13	111289294	111289295	+	2531-2533	
				ENST00000257347,ENST00000487253,ENST00000537743						22,84,329
chr13	111315865	111315798	-		chr13	111312623	111311877	-	2534-2536	
chr13	111366497	111366632	+	ENST00000333219	chr13	111369898	111370188	+	2537	45
chr13	111366497	111366632	+	ENST00000333219	chr13	111370023	111370188	+	2538	45
chr13	111367791	111368355	+	ENST00000375774	chr13	111369898	111370188	+	2539	188
chr13	111367791	111368355	+	ENST00000375774	chr13	111370023	111370188	+	2540	188
				ENST00000317133,ENST00000375739,ENST00000375741,ENST00000370623,ENST00000466143,ENST00000218789,ENST00000375736,ENST00000426073,ENST00000375737,ENST00000375723						316,287,337,244,159,234,81
chr13	111896546	111896641	+	,ENST00000478679	chr13	111909914	111914684	+	2541-2547	
chr13	113242294	113242219	-	ENST00000261965,ENST00000375669	chr13	113225428	113224651	-	2548	25
				ENST00000337344,ENST00000375477,ENST00000375479,ENST00000375459,ENST00000246505						121,119,175
chr13	113849439	113849385	-	,ENST00000375457	chr13	113848236	113848038	-	2549-2551	
				ENST00000337344,ENST00000375477,ENST00000375479,ENST00000375459,ENST00000246505						121,119,175
chr13	113849439	113849385	-	,ENST00000375457	chr13	113848664	113848038	-	2552-2554	
				ENST00000375441,ENST00000451881,ENST00000326335,ENST00000375440						309,409
chr13	113897282	113897474	+		chr13	113897922	113898073	+	2555-2556	
chr13	114157811	114157903	+	ENST00000434316,ENST00000375391	chr13	114159712	114159770	+	2557	346
chr13	114157811	114157903	+	ENST00000434316,ENST00000375391	chr13	114159747	114159770	+	2558	346
chr13	114174931	114175048	+	ENST00000434316	chr13	114179781	114179904	+	2559	447
chr13	114174931	114175048	+	ENST00000434316	chr13	114179909	114179951	+	2560	447
chr13	114174931	114175048	+	ENST00000434316	chr13	114179960	114180006	+	2561	447
chr13	114174931	114175048	+	ENST00000434316	chr13	114180011	114180057	+	2562	447
chr13	115047496	115047602	+	ENST00000375299,ENST00000351487	chr13	115049569	115049827	+	2563	104
chr13	115048312	115048418	+	ENST00000375299,ENST00000351487	chr13	115049591	115049827	+	2564	140
chr13	115048312	115048418	+	ENST00000375299,ENST00000351487	chr13	115049692	115049827	+	2565	140
				ENST00000337963,ENST00000502168,ENST00000382907,ENST00000382905						195,185
chr13	20425588	20425495	-		chr13	20423562	20423277	-	2566-2567	
chr13	21331737	21331594	-	ENST00000382758,ENST00000382754	chr13	21313386	21313052	-	2568	48
				ENST00000400590,ENST00000320220,ENST00000382466,ENST00000542645,ENST00000415724						83,2
chr13	21995303,22	21995200	-	,ENST00000422251	chr13	21992425	21992196	-	2569-2570	
chr13	22141083	22140936	-	ENST00000382374,ENST00000468222	chr13	22122056	22121927	-	2571	119
chr13	22141083	22140936	-	ENST00000382374,ENST00000468222	chr13	22139199	22138112	-	2572	119
chr13	22246052	22246328	+	ENST00000382353	chr13	22252182	22252302	+	2573	92
chr13	24415627	24415474	-	ENST00000382172	chr13	24414516	24414457	-	2574	420
chr13	25848325	25848209	-	ENST00000540661,ENST00000381801	chr13	25847961	25847664	-	2575	47
chr13	26975603	26975761	+	ENST00000381527	chr13	26994344	26994384	+	2576	423
chr13	27256744	27257111	+	ENST00000361042,ENST00000335327	chr13	27259004	27259010	+	2577-2578	447,45
				ENST00000381140,ENST00000435781,ENST00000419181,ENST00000439403						133,3
chr13	28004007,28	28004103	+		chr13	28004177	28004278	+	2579-2580	
				ENST00000381140,ENST00000419181,ENST00000439403						162,32
chr13	28004670	28004758	+		chr13	28019234	28019335	+	2581-2582	
				ENST00000302979,ENST00000399697,ENST00000399696						8
chr13	28196121	28196146	+		chr13	28209519	28209707	+	2583	
chr13	28222516	28222590	+	ENST00000399697	chr13	28312844	28313083	+	2584	33
				ENST00000241453,ENST00000380982,ENST00000380987,ENST00000537084						14
chr13	28674647	28674605	-		chr13	28645902	28645897	-	2585	

Table 9

			ENST00000241453,ENST00000380982,ENST000						14
chr13	28674647	28674605	- 00380987,ENST00000537084	chr13	28651919	28651762	-	2586	
chr13	28752002	28752072	+ ENST00000380958,ENST00000399613	chr13	28765388	28765510	+	2587-2588	230,84
chr13	29238646	29238706	+ ENST00000380842	chr13	29239594	29240618	+	2589	54
chr13	29242610	29242711	+ ENST00000380842	chr13	29246054	29246105	+	2590	88
			ENST00000435781,ENST00000380406,ENST000						54,749,790,7
			00320027,ENST00000380405,ENST00000445273						46,792,609
chr13	31712705	31712544	- ,ENST00000429785	chr13	31711985	31711857	-	2591-2596	
			ENST00000336934,ENST00000255486,ENST000						107,99,92
chr13	33739555	33739474	- 00567873	chr13	33737115	33737072	-	2597-2599	
chr13	33859775	33859607	- ENST00000336934	chr13	33814545	33812970	-	2600	56
chr13	34392316	34392402	+ ENST00000380071,ENST00000434425	chr13	34394532	34394827	+	2601	29
chr13	34392316	34392402	+ ENST00000380071,ENST00000434425	chr13	34394535	34394827	+	2602	29
chr13	34409285	34409354	+ ENST00000380071,ENST00000434425	chr13	34605274	34605455	+	2603	293
			ENST00000400445,ENST00000540320,ENST000						2392,2392,2
			00310336,ENST00000379939,ENST00000537702						389,185
chr13	36158035	36158175	+	chr13	36163623	36163858	+	2604-2607	
			ENST00000438666,ENST00000451493,ENST000						429
chr13	36900835	36900712	- 00355182,ENST00000494062	chr13	36888219	36888071	-	2608	
chr13	37578653	37578698	+ ENST00000389704	chr13	37579005	37579264	+	2609	79
			ENST00000379649,ENST00000239878,ENST000						57,39,39
chr13	38928376	38928433	+ 00437952,ENST00000379641	chr13	38929148	38929157	+	2610-2612	
			ENST00000379367,ENST00000379406,ENST000						302
chr13	41905410	41905505	+ 00403412,ENST00000464857	chr13	41905911	41906076	+	2613	
chr13	42245283	42245082	- ENST00000379310	chr13	42195588	42195548	-	2614	1537
chr13	42457627	42457523	- ENST00000379310,ENST00000281496	chr13	42456590	42455523	-	2615	360
chr13	42457627	42457523	- ENST00000379310,ENST00000281496	chr13	42456906	42455523	-	2616	360
chr13	42524149	42524072	- ENST00000379310,ENST00000281496	chr13	42511508	42511291	-	2617	80
			ENST00000540693,ENST00000337343,ENST000						455,319,210
			00379274,ENST00000261491,ENST00000536612						
chr13	42742815	42742954	+ ,ENST00000538674	chr13	42747840	42747902	+	2618-2620	
			ENST00000540693,ENST00000337343,ENST000						1071,935,82
			00379274,ENST00000261491,ENST00000536612						6
chr13	42789711	42789803	+ ,ENST00000538674	chr13	42792143	42792172	+	2621-2623	
			ENST00000313640,ENST00000313624,ENST000						187,6
chr13	43528157	43528084	- 00398762,ENST00000537828	chr13	43511192	43511153	-	2624-2625	
chr13	43659904	43659974	+ ENST00000379221	chr13	43662912	43663002	+	2626	127
chr13	44433033	44432917	- ENST00000444614,ENST00000281508	chr13	44398147	44395660	-	2627	224
chr13	44433033	44432917	- ENST00000444614,ENST00000281508	chr13	44414831	44414516	-	2628	224
chr13	46070287	46070447	+ ENST00000349995	chr13	46071780	46071919	+	2629	496
			ENST00000378781,ENST00000378797,ENST000						206,139,49,7
			00429979,ENST00000378784,ENST00000441284						1
			,ENST00000378787,ENST00000389908,ENST000						
			00409879,ENST00000322896,ENST00000534925						
chr13	46942950	46942868	- ,ENST00000417405	chr13	46942750	46942644	-	2630-2633	
			ENST00000378781,ENST00000378797,ENST000						206,139,49,7
			00429979,ENST00000378784,ENST00000441284						1
			,ENST00000378787,ENST00000389908,ENST000						
			00409879,ENST00000322896,ENST00000534925						
chr13	46942950	46942868	- ,ENST00000417405	chr13	46942762	46942644	-	2634-2637	
			ENST00000311191,ENST00000389798,ENST000						660,695
chr13	47308056	47308133	+ 00389797	chr13	47323763	47323772	+	2638-2639	
			ENST00000378654,ENST00000544100,ENST000						178,44,120,1
			00534875,ENST00000543413,ENST00000434484						08
chr13	48562838,49	48562676	-	chr13	48559819	48559361	-	2640-2643	
chr13	48615056	48615252	+ ENST00000258662	chr13	48615510	48615688	+	2644	118
			ENST00000258648,ENST00000378586,ENST000						213,167,191
chr13	48654111	48653980	- 00417167	chr13	48616414	48616057	-	2645-2647	
chr13	48669214	48669196	- ENST00000258648	chr13	48667823	48667761	-	2648	6
chr13	48955383	48955579	+ ENST00000267163	chr13	48988208	48988495	+	2649	565
			ENST00000492622,ENST00000484074,ENST000						33
chr13	49580327	49580425	+ 00541916	chr13	49636922	49637041	+	2650	
			ENST00000492622,ENST00000484074,ENST000						33
chr13	49580327	49580425	+ 00541916	chr13	49636981	49637041	+	2651	
			ENST00000354234,ENST00000317257,ENST000						69
chr13	50035233	50035298	+ 00258672	chr13	50039089	50039222	+	2652	
chr13	50038157	50038192	+ ENST00000317257	chr13	50039089	50039222	+	2653	81
			ENST00000378319,ENST00000426879,ENST000						212,167,173
			00357596,ENST00000465045,ENST00000488958						
chr13	50097311	50097377	+	chr13	50097829	50097938	+	2654-2656	
chr13	50321129	50321085	- ENST00000261667	chr13	50315277	50314857	-	2657	38
chr13	50495716	50495614	- ENST00000361840,ENST00000378195	chr13	50492357	50492199	-	2658-2659	164,125
chr13	51796638	51796705	+ ENST00000322475,ENST00000280057	chr13	51799257	51799278	+	2660	22
			ENST00000444610,ENST00000218981,ENST000						170,121
chr13	52351257	52351196	- 00280056	chr13	52350689	52350338	-	2661-2662	
chr13	52701618	52701502	- ENST00000465811,ENST00000355568	chr13	52698052	52697701	-	2663	39
			ENST00000400324,ENST00000400330,ENST000						691,680,621,
			00377908,ENST00000400319,ENST00000400320						645
chr13	60544192	60544078	- ,ENST00000267215	chr13	60501569	60500421	-	2664-2667	
chr13	73301740	73301662	- ENST00000377818	chr13	73296080	73296007	-	2668	26
chr13	73301740	73301662	- ENST00000377818	chr13	73296083	73296007	-	2669	26
chr13	74569159	74569127	- ENST00000377669,ENST00000377666	chr13	74526495	74526317	-	2670	11

Table 9

				ENST00000377636,ENST00000377625,ENST00000425511,ENST00000431480,ENST00000413735					794,731,11,786,243
chr13	75887034,76	75886874	-	ENST00000377636,ENST00000377625,ENST00000425511,ENST00000431480,ENST00000413735	chr13	75884824	75884773	- 2671-2675	794,731,11,786,243
chr13	75887034,76	75886874	-		chr13	75884847	75884773	- 2676-2680	
chr13	76169051	76169126	+	ENST00000377595,ENST00000419068	chr13	76174875	76175884	+ 2681-2682	183,181
chr13	76169051	76169126	+	ENST00000377595,ENST00000419068	chr13	76175548	76175884	+ 2683-2684	183,181
chr13	76301165	76301234	+	ENST00000341547,ENST00000357063,ENST00000377534,ENST00000377499	chr13	76329934	76331072	+ 2685-2686	122,7
chr13	94482407	94482798	+	ENST00000377047	chr13	94530641	94530644	+ 2687	237
chr13	95114443	95114264	-	ENST00000377028,ENST00000483392,ENST00000446125	chr13	95113759	95113598	- 2688-2689	347,157
				ENST00000347108,ENST00000361156,ENST00000361396,ENST00000376829,ENST00000466569					199,245
chr13	96294109,96	96293549	-		chr13	96286961	96286875	- 2690-2691	
chr13	96505911	96505797	-	ENST00000376747	chr13	96498329	96497437	- 2692	1428
chr13	96505911	96505797	-	ENST00000376747	chr13	96498379	96497437	- 2693	1428
chr13	96505911	96505797	-	ENST00000376747	chr13	96498645	96497437	- 2694	1428
chr13	96515968	96515883	-	ENST00000376747	chr13	96515253	96515125	- 2695	1214
chr13	96589342	96589178	-	ENST00000376747	chr13	96581149	96579925	- 2696	659
chr13	96592345	96592211	-	ENST00000376747	chr13	96591790	96591611	- 2697	604
chr13	96599426	96599291	-	ENST00000376747	chr13	96595977	96594829	- 2698	559
				ENST00000261574,ENST00000357602,ENST00000490680,ENST00000539640,ENST00000469360					618,600,475,601
chr13	98660313	98660396	+		chr13	98660780	98660788	+ 2699-2702	
				ENST00000397517,ENST00000376547,ENST00000539966,ENST00000444574					199,211,180,116
chr13	99127232	99127075	-	ENST00000355700,ENST00000403766,ENST00000376440	chr13	99121115	99120971	- 2703-2706	135,269,234
chr13	99992574	99992819	+	ENST00000355700,ENST00000403766,ENST00000376440	chr13	100009388	100009596	+ 2707-2709	135,269,234
chr13	99992574	99992819	+	ENST00000261835,ENST00000423126,ENST00000380228	chr13	100010623	100010838	+ 2710-2712	147,50,134
chr14	100166352	100166438	+	ENST00000392920,ENST00000553875,ENST00000554045	chr14	100167121	100167961	+ 2713-2715	3
chr14	100531838	100531848	+	ENST00000334701	chr14	100539115	100539138	+ 2716	
chr14	102568422	102568212	-	ENST00000334701,ENST00000557234	chr14	102567508	102567412	- 2717	122
chr14	102605741	102605587	-	ENST00000334701,ENST00000557234	chr14	102601042	102600762	- 2718	51
chr14	102605741	102605587	-	ENST00000559138,ENST00000559838,ENST00000561150,ENST00000193029,ENST00000517966,ENST00000523231,ENST00000524370,ENST00000522874,ENST00000361847,ENST00000522867,ENST00000519058,ENST00000524214,ENST00000522534,ENST00000522537	chr14	102601070	102600762	- 2719	51
									21,168,54,28
									7,288,258
chr14	102698935,102	102698872	-		chr14	102691556	102691404	- 2720-2725	
chr14	102843059	102843277	+	ENST00000359520,ENST00000558678	chr14	102869343	102870246	+ 2726	73
chr14	102931478	102931626	+	ENST00000359520,ENST00000558678	chr14	102937804	102938042	+ 2727	1263
				ENST00000409074,ENST00000472726,ENST00000440963,ENST00000458117,ENST00000556253,ENST00000247618,ENST00000489117,ENST00000495778					54,53,48,41,24,16
chr14	104029300,104	104029461	+		chr14	104051201	104051490	+ 2728-2733	
				ENST00000409074,ENST00000472726,ENST00000458117,ENST00000556253,ENST00000247618,ENST00000495778,ENST00000555660					120,114,107,82,22
chr14	104037960,1	104038157	+		chr14	104051201	104051490	+ 2734-2738	
				ENST00000409074,ENST00000472726,ENST00000440963,ENST00000247618					171,83,158
chr14	104053611	104053701	+		chr14	104054571	104054801	+ 2739-2741	
				ENST00000409074,ENST00000472726,ENST00000440963,ENST00000247618					171,83,158
chr14	104053611	104053701	+		chr14	104073541	104073613	+ 2742-2744	
				ENST00000409074,ENST00000472726,ENST00000440963,ENST00000247618					171,83,158
chr14	104053611	104053701	+		chr14	104080011	104080296	+ 2745-2747	
				ENST00000554913,ENST00000352127,ENST00000553264,ENST00000555055,ENST00000445556					187
chr14	104169664	104169510	-		chr14	104168919	104168884	- 2748	
				ENST00000330634,ENST00000398337,ENST00000392634					233
chr14	105170253	105170286	+		chr14	105170701	105170741	+ 2749	
chr14	105172372	105172513	+	ENST00000330634,ENST00000392634	chr14	105172937	105173091	+ 2750	281
				ENST00000329967,ENST00000347067,ENST00000553810,ENST00000553819,ENST00000556195					156,91,174
chr14	105222941	105223097	+		chr14	105228203	105228211	+ 2751-2753	
				ENST00000551606,ENST00000547315,ENST00000550614,ENST00000549240					165,272,30
chr14	105459285,1	105459401	+		chr14	105465558	105465563	+ 2754-2756	
				ENST00000539760,ENST00000298717,ENST00000543235,ENST00000544248					190,241
chr14	21971720	21971316	-		chr14	21970808	21970645	- 2757-2758	
chr14	22111524	22111703	+	ENST00000390423	chr14	22164279	22165492	+ 2759	74
				ENST00000285848,ENST00000604262,ENST00000358043					454,394,378
chr14	23240477	23240557	+		chr14	23241417	23241727	+ 2760-2762	
				ENST00000313250,ENST00000558263,ENST00000543741,ENST00000382761,ENST00000308178,ENST00000397073,ENST00000421831,ENST00000397075,ENST00000397074,ENST00000559632					102,84
chr14	24424244	24424421	+	,ENST00000558581	chr14	24428089	24428218	+ 2763-2764	

Table 9

			ENST00000313250,ENST00000558263,ENST00000543741,ENST00000382761,ENST00000308178,ENST00000397073,ENST00000421831,ENST00000397075,ENST00000397074,ENST00000559632,ENST00000558581						102,84
chr14	24424244	24424421	+	chr14	24463219	24463327	+	2765-2766	
chr14	24615449	24615417	-	ENST00000216802,ENST00000558273,ENST00000560370	chr14	24615130	24615007	-	2767	27
chr14	24620995	24621201	+	ENST00000559275,ENST00000324103,ENST00000560787,ENST00000382687,ENST00000558468	chr14	24624162	24624254	+	2768-2771	559,710,554,185
chr14	31066626	31066732	+	ENST00000206595,ENST00000438909,ENST00000553504	chr14	31067306	31067605	+	2772-2774	211,165,241
chr14	31077094	31077275	+	ENST00000206595,ENST00000438909,ENST00000553504	chr14	31079236	31079257	+	2775-2777	500,454,530
chr14	31163979	31164075	+	ENST00000458591,ENST00000421551,ENST00000544052,ENST00000541123,ENST00000396629	chr14	31166971	31167318	+	2778-2782	446,387,379,261,354
chr14	31416469	31416296	-	ENST00000355683,ENST00000357479,ENST00000555358	chr14	31408533	31408116	-	2783	238
chr14	31424899	31424826	-	ENST00000355683,ENST00000357479,ENST00000555358,ENST00000555152	chr14	31422448	31422402	-	2784-2785	153,34
chr14	31637678,32	31637504	-	ENST00000399332,ENST00000553700,ENST00000553957,ENST00000556224	chr14	31631880	31631809	-	2786-2787	540,14
chr14	31675142	31675003	-	ENST00000399332,ENST00000553700,ENST00000556224	chr14	31673263	31672957	-	2788	46
chr14	31765269	31765115	-	ENST00000439727,ENST00000389961,ENST00000439348,ENST00000543095,ENST00000538864	chr14	31764717	31764462	-	2789-2793	1580,1867,1792,1873,1425
chr14	31922550	31922481	-	ENST00000549185,ENST00000547378,ENST00000310850,ENST00000356180	chr14	31906850	31905965	-	2794	60
chr14	31922550	31922481	-	ENST00000549185,ENST00000547378,ENST00000310850,ENST00000356180	chr14	31907030	31905965	-	2795	60
chr14	32142690	32142780	+	ENST00000281081,ENST00000547839,ENST00000551314,ENST00000536705	chr14	32164897	32165036	+	2796-2798	171,119,75
chr14	32256986	32257079	+	ENST00000281081,ENST00000536705	chr14	32267723	32268027	+	2799-2800	202,106
chr14	32414132	32414314	+	ENST00000553330	chr14	32498037	32498204	+	2801	61
chr14	35062356	35062251	-	ENST00000396526,ENST00000396534,ENST00000362031,ENST00000355110,ENST00000557265	chr14	35057755	35057630	-	2802-2805	123,251,127,214
chr14	35550228,36	35550389	+	ENST00000396472,ENST00000382406,ENST00000280987,ENST00000555260	chr14	35571887	35571980	+	2806-2808	34,199,222
chr14	35649876	35649983	+	ENST00000604948,ENST00000557565,ENST00000250377,ENST00000321130,ENST00000534898,ENST00000603544,ENST00000605870,ENST00000557404	chr14	35660508	35660645	+	2809-2812	330,425,409,53
chr14	36041924	36041766	-	ENST00000554573,ENST00000389698,ENST00000307138,ENST00000258840,ENST00000554259,ENST00000382366,ENST00000553892	chr14	36033127	36032830	-	2813-2817	232,1950,1997,588,1963
chr14	36191055	36190894	-	ENST00000389698,ENST00000307138,ENST00000258840,ENST00000382366,ENST00000553892	chr14	36176789	36176039	-	2818	755
chr14	37892060	37892154	+	ENST00000536774,ENST00000327441,ENST00000539062,ENST00000556451,ENST00000555870,ENST00000396294,ENST00000545536,ENST00000537471	chr14	37932805	37933950	+	2819-2822	162,343,312,165
chr14	38275566	38275715	+	ENST00000553443,ENST00000382320,ENST00000478811	chr14	38276214	38276389	+	2823-2825	1438,152,169
chr14	39508300	39508235	-	ENST00000537403,ENST00000307712,ENST00000536508,ENST00000545328	chr14	39506757	39506605	-	2826-2829	534,736,634,707
chr14	39591634	39591747	+	ENST00000308317,ENST00000396249,ENST00000250379,ENST00000534684,ENST00000527381	chr14	39592705	39592823	+	2830-2832	173,167,161
chr14	39621043	39620950	-	ENST00000330149,ENST00000347691	chr14	39612483	39612348	-	2833-2834	148,1284
chr14	39645731	39645799	+	ENST00000553331,ENST00000216832,ENST00000556530	chr14	39646313	39646596	+	2835	
chr14	39648528	39648666	+	ENST00000216832	chr14	39649004	39649120	+	2836	264
chr14	39769068	39769190	+	ENST00000553728,ENST00000341749,ENST00000557038,ENST00000396165,ENST00000603904,ENST00000396158,ENST00000341502,ENST00000280083,ENST00000556148,ENST00000348007,ENST00000553352	chr14	39769806	39770026	+	2837-2843	800,253,185,236,270,265,190
chr14	50114078	50114011	-	ENST00000216367,ENST00000539565	chr14	50113810	50113784	-	2844-2845	521,495
chr14	50249260	50249312	+	ENST00000298307	chr14	50282870	50283016	+	2846	365
chr14	50267414	50267138	-	ENST00000298310,ENST00000545773,ENST00000546046,ENST00000555970	chr14	50266658	50266592	-	2847-2849	790,748,769
chr14	50280768	50280706	-	ENST00000298310,ENST00000545773,ENST00000555970	chr14	50274115	50273575	-	2850-2851	581,539
chr14	50300214	50300141	-	ENST00000298310,ENST00000545773,ENST00000546046,ENST00000555970	chr14	50299344	50299049	-	2852-2853	245,203
chr14	50790663	50790834	+	ENST00000311459,ENST00000358473	chr14	50791265	50791286	+	2854-2855	177,149
chr14	50825867	50825746	-	ENST00000395834,ENST00000216378	chr14	50819938	50819783	-	2856	97

Table 9

				ENST00000245441,ENST00000389868,ENST00000476352,ENST00000530997,ENST00000382043,ENST00000382041,ENST00000324330,ENST00000453196,ENST00000453401,ENST00000486950					88,50,55
chr14	51273536	51273455	-	,ENST00000496749	chr14	51272994	51272905	-	2857-2859	
chr14	51324887	51324816	-	ENST00000532462	chr14	51320838	51320747	-	2860	817
chr14	52156555	52156653	+	ENST00000356218,ENST00000395718,ENST00000344768,ENST00000554778	chr14	52160286	52160365	+	2861	33
chr14	52344335	52344375	+	ENST00000556522	chr14	52379727	52379906	+	2862	35
chr14	52936891	52936755	-	ENST00000281741,ENST00000555312	chr14	52930121	52929354	-	2863-2864	539,1
chr14	53100546	53100664	+	ENST00000321662,ENST00000542169	chr14	53106233	53106393	+	2865-2866	340,37
chr14	53180599	53180686	+	ENST00000445930,ENST00000606149,ENST00000555339,ENST00000556813	chr14	53184455	53184750	+	2867-2870	190,176,136,175
chr14	55493505	55493429	-	ENST00000360586,ENST00000455555	chr14	55487703	55487399	-	2871	25
chr14	55493505	55493429	-	ENST00000360586,ENST00000455555	chr14	55487805	55487399	-	2872	25
chr14	56146283,56	56146403	+	ENST00000395309,ENST00000413890,ENST00000438792,ENST00000395314,ENST00000459737,ENST00000395308,ENST00000395311,ENST00000416613,ENST00000554507,ENST00000555573,ENST00000554294,ENST00000553710	chr14	56228501	56228853	+	2873-2879	1356,1305,1299,594,333,127,7
chr14	57088249	57088420	+	ENST00000261556	chr14	57088781	57089083	+	2880	466
chr14	57698433	57698224	-	ENST00000413566,ENST00000340918	chr14	57697992	57697729	-	2881-2882	382,317
chr14	58941325	58941515	+	ENST00000354386,ENST00000556134,ENST00000423743,ENST00000261244	chr14	58941799	58941822	+	2883-2886	994,926,897,865
chr14	59006789	59006854	+	ENST00000354386,ENST00000556134,ENST00000423743,ENST00000261244	chr14	59012453	59012770	+	2887-2890	1551,1483,1454,1422
chr14	59757935	59758024	+	ENST00000360909,ENST00000351081,ENST00000556135,ENST00000395125	chr14	59776422	59776440	+	2891	91
chr14	59806792	59806898	+	ENST00000360909,ENST00000351081,ENST00000395125	chr14	59808158	59808422	+	2892-2893	691,701
chr14	59942724	59942587	-	ENST00000247194,ENST00000487285,ENST00000481608	chr14	59942317	59941948	-	2894-2895	313,142
chr14	60441294	60441426	+	ENST00000254271,ENST00000445360	chr14	60442858	60443088	+	2896	546
chr14	60582659,61	60582778	+	ENST00000317623,ENST00000406854,ENST00000406949,ENST00000404681,ENST00000554534	chr14	60583401	60584221	+	2897-2899	292,526,26
chr14	60945107	60945018	-	ENST00000321731,ENST00000555476	chr14	60942065	60939118	-	2900-2901	107,78
chr14	60951655,61	60951599	-	ENST00000321731,ENST00000557138,ENST00000555476,ENST00000556799	chr14	60942065	60939118	-	2902-2903	35,6
chr14	61451448	61451521	+	ENST00000354886,ENST00000267488,ENST00000491344,ENST00000451406,ENST00000456840,ENST00000524402,ENST00000526105,ENST00000528350,ENST00000533744	chr14	61465038	61465618	+	2904-2909	103,98,80,84,49,52
chr14	64165376	64165287	-	ENST00000247225	chr14	64158333	64158320	-	2910	258
chr14	64375867	64375945	+	ENST00000358025,ENST00000344113,ENST00000341472,ENST00000356081,ENST00000554584	chr14	64394320	64394330	+	2911	26
chr14	64497734	64498075	+	ENST00000358025,ENST00000344113,ENST00000554584	chr14	64500121	64500422	+	2912	2407
chr14	64548161	64548298	+	ENST00000357395,ENST00000358025,ENST00000344113,ENST00000554584,ENST00000555002,ENST00000394768	chr14	64549142	64549507	+	2913-2916	190,3828,3861,462
chr14	64554389	64554574	+	ENST00000357395,ENST00000358025,ENST00000344113,ENST00000554584,ENST00000555002,ENST00000394768	chr14	64555808	64556114	+	2917-2920	275,3890,3923,524
chr14	64593316	64593525	+	ENST00000357395,ENST00000358025,ENST00000344113,ENST00000554584,ENST00000555002,ENST00000394768	chr14	64593834	64593989	+	2921-2924	1024,4639,4590,1273
chr14	64911411	64911452	+	ENST00000545908,ENST00000216605	chr14	64911835	64911892	+	2925-2926	782,726
chr14	65417869	65417792	-	ENST00000267512,ENST00000533601,ENST00000436278,ENST00000585059,ENST00000426039,ENST00000554593	chr14	65417382	65417375	-	2927-2929	108,62,95
chr14	66096210,66	66096324	+	ENST00000360689,ENST00000394586,ENST00000342677,ENST00000557164,ENST00000394585,ENST00000358307	chr14	66099856	66101298	+	2930-2932	199,36,70
chr14	66096210,66	66096324	+	ENST00000360689,ENST00000394586,ENST00000342677,ENST00000557164,ENST00000394585,ENST00000358307	chr14	66100104	66101298	+	2933-2935	199,36,70
chr14	66135961,66	66136198	+	ENST00000360689,ENST00000394586,ENST00000342677,ENST00000557164,ENST00000394585,ENST00000358307,ENST00000417683	chr14	66175026	66175147	+	2936-2939	278,115,149,13
chr14	67147825	67147903	+	ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000555668,ENST00000556633,ENST00000305960,ENST00000557654	chr14	67150420	67150708	+	2940	47
chr14	67147825	67147903	+	ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000555668,ENST00000556633,ENST00000305960,ENST00000557654	chr14	67195783	67195977	+	2941	47

Table 9

				ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000555668,ENST00000556633,ENST00000305960,ENST00000557654					47
chr14	67147825	67147903	+	ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000305960	chr14	67195799	67195977	+	2942 67
chr14	67243182	67243239	+	ENST00000256383,ENST00000557310,ENST00000466499,ENST00000555876	chr14	67260048	67260824	+	2943 114,157
chr14	67843156	67843307	+	ENST00000216446,ENST00000555803,ENST00000554395,ENST00000553387	chr14	67843958	67844542	+	2944-2945 69,53,3
chr14	67864543,6786	67864379	-	ENST00000479335,ENST00000487861,ENST00000471583,ENST00000487270,ENST00000488612,ENST00000485181,ENST00000390683	chr14	67862910	67862856	-	2946-2948 105
chr14	68301797	68301913	+	ENST00000487861,ENST00000471583,ENST00000487270,ENST00000488612,ENST00000390683	chr14	68328408	68328693	+	2949 284
chr14	68758601	68758697	+		chr14	68811840	68812008	+	2950
chr14	69864950	69864948	-	ENST00000557016,ENST00000555373,ENST00000556605,ENST00000336643,ENST00000031146,ENST00000555840,ENST00000557046	chr14	69863271	69862988	-	2951 1 68
chr14	69890811	69890919	+	ENST00000556605,ENST00000336643,ENST00000031146,ENST00000555840,ENST00000557046	chr14	69895279	69896037	+	2952 231,165,208
chr14	69922449	69922583	+		chr14	69935025	69935256	+	2953-2955
chr14	69969544	69969596	+	ENST00000322564,ENST00000238570,ENST00000304743,ENST00000439984	chr14	69974845	69975148	+	2956 185 51
chr14	71374568	71374720	+	ENST00000238570,ENST00000304743,ENST00000439984,ENST00000554691	chr14	71411237	71411390	+	2957 1791,1863,1752,849
chr14	71555909	71556059	+	ENST00000238570,ENST00000304743,ENST00000439984,ENST00000554691	chr14	71560461	71560812	+	2958-2961 1791,1863,1752,849
chr14	71555909	71556059	+	ENST00000555631,ENST00000553645,ENST00000311089,ENST00000554339,ENST00000554871,ENST00000540526,ENST00000559993	chr14	71560497	71560812	+	2962-2965 138,177,64,90
chr14	74156078	74156218	+	ENST00000555228,ENST00000555661,ENST00000555976,ENST00000267568,ENST00000556551	chr14	74170390	74170471	+	2966-2969 52
chr14	74327242	74327360	+	ENST00000540593,ENST00000324593,ENST00000442160,ENST00000398139,ENST00000555044,ENST00000334521,ENST00000556797	chr14	74333896	74334128	+	2970 120,193,210,140
chr14	74364774	74364965	+	ENST00000555028	chr14	74365536	74365664	+	2971-2974
chr14	74567858	74567941	+	ENST00000555028	chr14	74592442	74592752	+	2975 98
chr14	74567858	74567941	+	ENST00000434013,ENST00000541064,ENST00000555619,ENST00000554482,ENST00000238633,ENST00000553490,ENST00000557510,ENST00000555592	chr14	74594797	74595268	+	2976 98 27,16
chr14	74959977,75	74959896	-	ENST00000338772,ENST00000554590,ENST00000341162,ENST00000530938,ENST00000553615	chr14	74958067	74957770	-	2977-2978
chr14	75179800	75179636	-	ENST00000238616	chr14	75168477	75168336	-	2979 55 8,97,85,82
chr14	75182778,75	75182802	+	ENST00000238616,ENST00000554258,ENST00000314067,ENST00000542766,ENST00000238628,ENST00000556742	chr14	75185625	75185855	+	2980-2983
chr14	75581016	75580906	-	ENST00000312858,ENST00000261530,ENST00000554799,ENST00000553588	chr14	75580338	75580324	-	2984 291
chr14	75593624	75593608	-	ENST00000327028,ENST00000343765,ENST00000553888,ENST00000557658,ENST00000448935,ENST00000556412	chr14	75593104	75593039	-	2985 5 71
chr14	76488670	76488737	+	ENST00000340700,ENST00000312350,ENST00000554775,ENST00000555761	chr14	76498298	76498807	+	2986 424,429,50
chr14	76662221	76662315	+	ENST00000553612,ENST00000298173,ENST00000434192	chr14	76666226	76666696	+	2987-2989 155,168,119,194
chr14	77914893	77914837	-	ENST00000340700,ENST00000312350,ENST00000554775,ENST00000555761	chr14	77913291	77913149	-	2990-2993
chr14	77984510	77984381	-	ENST00000216484,ENST00000261531,ENST00000554775,ENST00000555761	chr14	77981835	77981312	-	2994 523 344,182
chr14	78197472	78197331	-	ENST00000553612,ENST00000298173,ENST00000434192	chr14	78194368	78193696	-	2995-2996 44,5
chr14	81682858,82	81682757	-	ENST00000340700,ENST00000312350,ENST00000319231	chr14	81679537	81679482	-	2997-2998 222,227,227
chr14	88693879	88693719	-	ENST00000554922,ENST00000352093,ENST00000380664,ENST00000555823	chr14	88681667	88681534	-	2999-3001 1671,1625,1663,112
chr14	89089062	89088948	-	ENST00000316738,ENST00000555872,ENST00000557685,ENST00000556609,ENST00000267544,ENST00000538485,ENST00000556005	chr14	89088248	89088123	-	3002-3005 136,112,111,88,73
chr14	90397975	90397885	-	ENST00000261303,ENST00000261991,ENST00000536315,ENST00000418736,ENST00000554206	chr14	90396023	90395744	-	3006-3010
chr14	90722942	90722944	+	ENST00000256324,ENST00000522170,ENST00000521077,ENST00000518868,ENST00000523816,ENST00000517518,ENST00000525393,ENST00000428926,ENST00000522322,ENST00000523771,ENST00000412671,ENST00000523461,ENST00000517306	chr14	90724425	90724674	+	3011 1 206,127
chr14	91409529	91409422	-	ENST00000261991,ENST00000536315,ENST00000418736,ENST00000554206	chr14	91407923	91407890	-	3012-3013 206,127
chr14	91409529	91409422	-	ENST00000256324,ENST00000522170,ENST00000521077,ENST00000518868,ENST00000523816,ENST00000517518,ENST00000525393,ENST00000428926,ENST00000522322,ENST00000523771,ENST00000412671,ENST00000523461,ENST00000517306	chr14	91408055	91407890	-	3014-3015 202,197,73,187,104
chr14	91639633	91639783	+		chr14	91641189	91641347	+	3016-3020

Table 9

				ENST00000520328,ENST00000256324,ENST00000521077,ENST00000518868,ENST00000523816,ENST00000525393,ENST00000428926,ENST00000522322,ENST00000523771,ENST00000412671,ENST00000523461,ENST00000517306,ENST00000522816						515,572,532,567,443,556,461,167
chr14	91681749	91681900	+		chr14	91682664	91682699	+	3021-3028	90,82
chr14	91875111	91875003	-	ENST00000389857,ENST00000389856,ENST00000553403	chr14	91845444	91844833	-	3029-3030	540,314,553,542
chr14	91937339	91937181	-	ENST00000554684,ENST00000337238,ENST00000428424,ENST00000554943,ENST00000555462,ENST00000554308,ENST00000554390	chr14	91935456	91935427	-	3031-3034	323,339,330,151,315,275,329,232,260
chr14	92537397,93	92537279	-	ENST00000429774,ENST00000545170,ENST00000393287,ENST00000502250,ENST00000503767,ENST00000340660,ENST00000532032,ENST00000554592,ENST00000554672,ENST00000555381,ENST00000557311	chr14	92516158	92516090	-	3035-3043	
chr14	92588121	92587986	-	ENST00000329559	chr14	92586395	92586343	-	3044	45
chr14	92792274,93	92792322	+	ENST00000393265,ENST00000531433,ENST00000532405,ENST00000298877,ENST00000351924	chr14	92801146	92801186	+	3045-3047	16,80,63
chr14	92922748	92922952	+	ENST00000393265,ENST00000531433,ENST00000532405,ENST00000298877,ENST00000351924,ENST00000525557	chr14	92923598	92923941	+	3048-3053	354,399,418,401,382,283
chr14	93290891	93290989	+	ENST00000163416,ENST00000355976	chr14	93293554	93295011	+	3054	573
chr14	93483146	93483021	-	ENST00000267615,ENST00000354313,ENST00000556603,ENST00000556185,ENST00000555553,ENST00000553452,ENST00000557309	chr14	93466543	93466105	-	3055-3056	82,1
chr14	93720136	93719993	-	ENST00000334746,ENST00000554565,ENST00000393170,ENST00000553975	chr14	93719014	93718737	-	3057-3060	584,233,158,199
chr14	95560493	95560225	-	ENST00000343455,ENST00000526495,ENST00000393063,ENST00000527414,ENST00000556045,ENST00000541352	chr14	95558930	95558885	-	3061-3062	1788,686
chr14	96949336,97	96949556	+	ENST00000267584,ENST00000554706	chr14	96951765	96951931	+	3063-3064	658,79
chr14	96991647	96991728	+	ENST00000216277,ENST00000553689,ENST00000557320,ENST00000557471,ENST00000556619,ENST00000392990	chr14	96991975	96992116	+	3065-3066	110,124
chr14	97326894	97327072	+	ENST00000216639,ENST00000557222,ENST00000557352	chr14	97382865	97383106	+	3067-3069	356,212,137
chr14	97342367,97	97342457	+	ENST00000216639,ENST00000553683	chr14	97345985	97346293	+	3070-3071	386,3
chr14	97342367,97	97342457	+	ENST00000216639,ENST00000553683	chr14	97382865	97383106	+	3072-3073	30,386
chr14	99879402	99879288	-	ENST00000331768,ENST00000329331,ENST00000436070	chr14	99876587	99876243	-	3074	283
chr15	100185766	100185969	+	ENST00000453228,ENST00000354410,ENST00000338042,ENST00000557785,ENST00000557942	chr15	100197618	100197761	+	3075	86
chr15	100230446	100230633	+	ENST00000453228,ENST00000354410,ENST00000558812,ENST00000338042,ENST00000557785,ENST00000449277,ENST00000557942	chr15	100233922	100234056	+	3076-3078	286,288,218
chr15	101464838,1	101464934	+	ENST00000388948,ENST00000284395,ENST00000534045,ENST00000532029,ENST00000525284,ENST00000531270	chr15	101487830	101488087	+	3079-3080	32,5
chr15	101601376	101601493	+	ENST00000388948,ENST00000284395,ENST00000526457	chr15	101602586	101602621	+	3081-3083	1599,1596,275
chr15	101608876	101609049	+	ENST00000388948,ENST00000284395	chr15	101612674	101612690	+	3084-3085	2014,2011
chr15	101608876	101609049	+	ENST00000388948,ENST00000284395	chr15	101612677	101612690	+	3086-3087	2014,2011
chr15	101608876	101609049	+	ENST00000388948,ENST00000284395	chr15	101615192	101616147	+	3088-3089	2014,2011
chr15	101835383	101835302	-	ENST00000254193,ENST00000559309	chr15	101833598	101833475	-	3090	27
chr15	102224440	102224278	-	ENST00000335968,ENST00000539112	chr15	102220288	102218481	-	3091	550
chr15	23060905	23060815	-	ENST00000337435,ENST00000437912,ENST00000559448,ENST00000561183,ENST00000557930,ENST00000560069	chr15	23053780	23053777	-	3092-3095	105,30,69,53
chr15	23810930	23811856	+	ENST00000314520	chr15	23820493	23820645	+	3096	309
chr15	23810930,24	23812131	+	ENST00000314520,ENST00000564592	chr15	23872913	23873108	+	3097-3098	400,16
chr15	25200196	25200209	+	ENST00000577949,ENST00000338094,ENST00000580062,ENST00000338327,ENST00000551312,ENST00000557230	chr15	25204520	25204609	+	3099	4
chr15	25599573	25599500	-	ENST00000232165,ENST00000438097,ENST00000566215,ENST00000397954,ENST00000428984,ENST00000604860	chr15	25598722	25598489	-	3100-3103	784,764,787,178
chr15	25605674	25605530	-	ENST00000232165,ENST00000438097,ENST00000566215,ENST00000397954,ENST00000428984	chr15	25602791	25602496	-	3104-3106	584,564,587
chr15	25620910	25620612	-	ENST00000232165,ENST00000438097,ENST00000566215,ENST00000397954,ENST00000428984	chr15	25618922	25618624	-	3107-3109	120,100,123
chr15	25967056	25966804	-	ENST00000356865,ENST00000555815	chr15	25964445	25964442	-	3110	454
chr15	26108243	26107795	-	ENST00000356865,ENST00000555815,ENST00000389967	chr15	26086910	26085314	-	3111	149
chr15	29544682,3	29544572	-	ENST00000261275,ENST00000560082	chr15	29534566	29534264	-	3112-3113	129,33
chr15	30026586	30026478	-	ENST00000346128,ENST00000400011,ENST00000356107,ENST00000545208	chr15	30025718	30025612	-	3114-3115	505,509

Table 9

			ENST00000346128,ENST00000400011,ENST00000356107,ENST00000545208,ENST00000495972						28,32,121
chr15	30092905	30092849	-	,ENST00000558447	chr15	30092286	30092229	-	3116-3118	
chr15	30699222	30699154	-	ENST00000327271,ENST00000544495	chr15	30698869	30698571	-	3119-3120	399,24
chr15	30703402	30703322	-	ENST00000327271,ENST00000544495	chr15	30702824	30702779	-	3121	103
chr15	30704651	30704532	-	ENST00000327271,ENST00000544495	chr15	30703948	30703925	-	3122	56
chr15	30847245	30847325	+	ENST00000333156,ENST00000562783	chr15	30847823	30847868	+	3123	103
chr15	31239503	31239333	-	ENST00000435680,ENST00000314404,ENST00000563714,ENST00000566981	chr15	31212126	31211918	-	3124-3127	516,268,434,281
chr15	31318474	31318342	-	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558768,ENST00000558445,ENST00000559177	chr15	31295757	31295561	-	3128-3132	1187,1209,1226,1111,302
chr15	31369124,31	31369108	-	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558445,ENST00000559177,ENST00000560658,ENST00000559179	chr15	31365990	31364255	-	3133-3135	5,27,44
chr15	31369124,31	31369108	-	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558445,ENST00000559177,ENST00000560658,ENST00000559179	chr15	31366147	31364255	-	3136-3138	5,27,44
chr15	31369124,31	31369108	-	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558445,ENST00000559177,ENST00000560658,ENST00000559179	chr15	31367927	31367717	-	3139-3141	5,27,44
chr15	32740587	32740519	-	ENST00000509311,ENST00000414865	chr15	32740234	32739936	-	3142-3143	400,241
chr15	32744772	32744692	-	ENST00000509311,ENST00000414865,ENST00000562377	chr15	32744194	32744149	-	3144-3145	103,9
chr15	32746023	32745904	-	ENST00000509311,ENST00000414865,ENST00000562377	chr15	32745318	32745295	-	3146-3147	56,43
chr15	32887469	32887588	+	ENST00000448387,ENST00000569659	chr15	32888174	32888197	+	3148	56
chr15	32892900	32892968	+	ENST00000448387,ENST00000569659,ENST00000426622	chr15	32893253	32893551	+	3149-3151	400,364,185
chr15	33149308	33149216	-	ENST00000334528,ENST00000561249,ENST00000559047,ENST00000559610	chr15	33097143	33096715	-	3152-3155	1086,1211,1309,58
chr15	33149308	33149216	-	ENST00000334528,ENST00000561249,ENST00000559047,ENST00000559610	chr15	33097853	33097793	-	3156-3159	58,1086,121 1,1309
chr15	33149308	33149216	-	ENST00000334528,ENST00000561249,ENST00000559047,ENST00000559610	chr15	33104317	33104288	-	3160-3163	1086,1211,1309,58
chr15	33300276	33300215	-	ENST00000334528,ENST00000561249,ENST00000559047	chr15	33269179	33269158	-	3164-3166	518,643,741
chr15	33357275	33357158	-	ENST00000334528,ENST00000559047,ENST00000558197	chr15	33311132	33310841	-	3167-3168	497,72
chr15	34394040,34	34393805	-	ENST00000256545,ENST00000527822	chr15	34391852	34391809	-	3169-3170	78,68
chr15	35222572	35222459	-	ENST00000156471,ENST00000543879	chr15	35221834	35220434	-	3171	338
chr15	37002057,37	37002162	+	ENST00000566621,ENST00000437989,ENST00000569302,ENST00000567389,ENST00000562877,ENST00000338183,ENST00000562489	chr15	37043914	37044362	+	3172-3175	238,244,140,62
chr15	40226397	40226540	+	ENST00000559624,ENST00000382727,ENST00000263791,ENST00000560648	chr15	40231328	40231467	+	3176	48
chr15	40295394	40295515	+	ENST00000382727,ENST00000263791,ENST00000560855	chr15	40297593	40297724	+	3177-3179	896,1091,1119
chr15	40679360	40679407	+	ENST00000416151,ENST00000249776,ENST00000448395,ENST00000560321,ENST00000608100,ENST00000561169,ENST00000557920	chr15	40680096	40680222	+	3180-3184	161,127,83,114,108
chr15	40708489	40708561	+	ENST00000249760,ENST00000487418,ENST00000479013,ENST00000491554,ENST00000559575,ENST00000466756	chr15	40711434	40711726	+	3185-3190	33,29,379,382,352,178
chr15	40895130	40895164	+	ENST00000346991,ENST00000527044,ENST00000399668,ENST00000534204	chr15	40896791	40896986	+	3191	11
chr15	40998375	40998492	+	ENST00000527860,ENST00000423169,ENST00000267868,ENST00000525066	chr15	40998777	40998917	+	3192	114
chr15	41247571	41247612	+	ENST00000444189,ENST00000446533	chr15	41254811	41255097	+	3193	145
chr15	41535865	41535937	+	ENST00000334660,ENST00000560784,ENST00000392151,ENST00000560397	chr15	41536881	41536911	+	3194	46
chr15	41624179	41624113	-	ENST00000220514,ENST00000560640	chr15	41622202	41622195	-	3195-3196	129,105
chr15	41819266,42	41819096	-	ENST00000561603,ENST00000304330,ENST00000562303,ENST00000565035	chr15	41817789	41817526	-	3197-3198	639,24
chr15	42492159	42492094	-	ENST00000318006,ENST00000348544	chr15	42490826	42490564	-	3199	46
chr15	42698124,43	42698141	+	ENST00000397163,ENST00000397200,ENST00000567071,ENST00000565274	chr15	42699941	42700045	+	3200-3203	600,88,86,4
chr15	42855947	42856055	+	ENST00000260372,ENST00000568876	chr15	42858255	42858412	+	3204-3205	166,135
chr15	43132631	43132558	-	ENST00000267890,ENST00000567840,ENST00000567274,ENST00000562880,ENST00000566931	chr15	43122557	43122389	-	3206-3207	97,47
chr15	43164956,43	43164809	-	ENST00000267890,ENST00000567840,ENST00000567274,ENST00000564431,ENST00000562880	chr15	43147398	43147272	-	3208-3209	72,51
chr15	43430772	43430817	+	ENST00000564698,ENST00000565291,ENST00000260403,ENST00000564494	chr15	43431177	43432271	+	3210-3212	90,28,158
chr15	43766965	43766871	-	ENST00000263801,ENST00000382039,ENST00000382044,ENST00000450115,ENST00000413546	chr15	43765330	43765049	-	3213-3214	388,393
chr15	44136099	44136252	+	ENST00000263795,ENST00000381246	chr15	44138940	44139244	+	3215-3216	344,28

Table 9

				ENST00000417257,ENST00000402883,ENST00000458630,ENST00000421674,ENST00000451277					34,29
chr15	44487252,44	44487151	-		chr15	44287280	44287241	-	3217-3218	
chr15	44630435	44630515	+	ENST00000299957,ENST00000345795	chr15	44639405	44640962	+	3219	267
chr15	44890571	44890463	-	ENST00000261866,ENST00000535302,ENST00000427534,ENST00000558319	chr15	44889603	44889306	-	3220	1333
chr15	44898289	44898223	-	ENST00000261866,ENST00000535302,ENST00000427534,ENST00000558319,ENST00000558988,ENST00000559754	chr15	44894022	44893753	-	3221-3223	1173,82,83
chr15	44898289	44898223	-	ENST00000261866,ENST00000535302,ENST00000427534,ENST00000558319,ENST00000558988,ENST00000559754	chr15	44894168	44894089	-	3224-3226	1173,82,83
chr15	44952814	44952630	-	ENST00000261866,ENST00000535302,ENST00000427534,ENST00000559193	chr15	44950950	44950660	-	3227	147
chr15	45315482	45315547	+	ENST00000267814,ENST00000558789,ENST00000559230	chr15	45327948	45328464	+	3228	22
chr15	48414054	48414233	+	ENST00000341459,ENST00000482911	chr15	48419735	48420041	+	3229	100
chr15	48826402	48826277	-	ENST00000316623	chr15	48822577	48822567	-	3230	287
chr15	49584524,5	49584734	+	ENST00000327171,ENST00000560031,ENST00000396509,ENST00000543495,ENST00000544523,ENST00000559454,ENST00000558399,ENST00000559580	chr15	49611086	49611138	+	3231-3236	311,322,298,193,74,22
chr15	49903465	49903412	-	ENST00000299338,ENST00000561064,ENST00000558594,ENST00000561116,ENST00000559905,ENST00000560246	chr15	49898415	49898161	-	3237	35
chr15	49935528	49935634	+	ENST00000403028,ENST00000558653,ENST00000251250,ENST00000415425	chr15	49946075	49946502	+	3238-3239	258,171
chr15	50578380	50578265	-	ENST00000380877,ENST00000220429,ENST00000543881,ENST00000561010,ENST00000429662,ENST00000396464,ENST00000359031,ENST00000560825	chr15	50576546	50576502	-	3240-3244	333,345,269,170,332
chr15	50978730	50978728	-	ENST00000560955,ENST00000313478	chr15	50976219	50976075	-	3245	1
chr15	51260460	51260574	+	ENST00000261842,ENST00000560508	chr15	51272857	51273831	+	3246-3247	655,58
chr15	52194089	52194233	+	ENST00000308580,ENST00000544199,ENST00000560549,ENST00000561438	chr15	52208212	52208402	+	3248-3250	341,202,176
chr15	52821003	52820977	-	ENST00000399231,ENST00000356338,ENST00000399233,ENST00000553916,ENST00000556196	chr15	52752544	52751359	-	3251	9
chr15	52821003	52820977	-	ENST00000399231,ENST00000356338,ENST00000399233,ENST00000553916,ENST00000556196	chr15	52819211	52819123	-	3252	9
chr15	53957965	53957769	-	ENST00000396328,ENST00000557913,ENST00000360509,ENST00000559418,ENST00000560036	chr15	53911275	53910759	-	3253-3255	654,651,664
chr15	55626065	55626205	+	ENST00000539642,ENST00000164305,ENST00000566999	chr15	55631061	55631228	+	3256-3258	69,264,255
chr15	55657507,56	55657386	-	ENST00000442196,ENST00000310958,ENST00000425574,ENST00000568543,ENST00000569205	chr15	55653522	55653371	-	3259-3260	276,29
chr15	55964831	55964643	-	ENST00000389286,ENST00000561465	chr15	55948574	55948137	-	3261-3262	680,215
chr15	56285753,56	56285709	-	ENST00000435532,ENST00000502612	chr15	56280199	56279133	-	3263-3264	15,12
chr15	56535483	56535323	-	ENST00000317318,ENST00000423270	chr15	56525449	56525290	-	3265	53
chr15	57213224	57213296	+	ENST00000438423,ENST00000267811,ENST00000452095,ENST00000559609,ENST00000333725,ENST00000557843,ENST00000557947,ENST00000561152	chr15	57247450	57247762	+	3266	49
chr15	58957396	58957296	-	ENST00000260408	chr15	58942814	58942337	-	3267	195
chr15	58957396	58957296	-	ENST00000260408	chr15	58947589	58947395	-	3268	195
chr15	59123973	59124115	+	ENST00000559228,ENST00000450403	chr15	59137492	59137624	+	3269	456
chr15	59784470	59784588	+	ENST00000288228,ENST00000560474	chr15	59784964	59785026	+	3270-3271	137,146
				ENST00000396024,ENST00000451270,ENST00000332680,ENST00000560014,ENST00000421017,ENST00000559818,ENST00000558132,ENST00000561022,ENST00000560367,ENST00000558503,ENST00000560389,ENST00000560165,ENST00000557906,ENST00000559350,ENST00000558558,ENST00000558986,ENST00000559467,ENST00000559956,ENST00000559780,ENST00000560468,ENST00000557904,ENST00000559370,ENST00000558169					14,32,42
chr15	60678274,61	60678232	-	ENST00000249837,ENST00000261517,ENST00000395896,ENST00000395898	chr15	60675371	60675318	-	3272-3274	165,208
chr15	62315719	62315610	-	ENST00000288398,ENST00000358278,ENST00000403994,ENST00000357980,ENST00000558347,ENST00000559556,ENST00000560970,ENST00000559831	chr15	62314398	62314346	-	3275-3276	80,122,60,4
chr15	63336226,63	63336351	+		chr15	63342246	63342349	+	3277-3280	

Table 9

			ENST00000288398,ENST00000358278,ENST00000403994,ENST00000357980,ENST00000559556,ENST00000559397,ENST00000267996,ENST00000560970,ENST00000561266,ENST00000334895,ENST00000404484,ENST00000560959,ENST00000559281,ENST00000317516,ENST00000558910						5,257,257,29,257,257,23,196,221,221
chr15	63354775,63	63354844	+		chr15	63357021	63357179	+	3281-3290	75,91,43
				ENST00000330964,ENST00000462430,ENST00000455271,ENST00000411926,ENST00000439025						
chr15	63447930	63447820	-		chr15	63435507	63435173	-	3291-3293	75,91,43
				ENST00000330964,ENST00000462430,ENST00000455271,ENST00000411926,ENST00000439025						
chr15	63447930	63447820	-		chr15	63437240	63436970	-	3294-3296	35
				ENST00000178638,ENST00000344366,ENST00000422263						
chr15	63667877	63667857	-		chr15	63650195	63649881	-	3297	258,302,280,53,79,285,225,213
				ENST00000540797,ENST00000380324,ENST00000268049,ENST00000539772,ENST00000559873,ENST00000558285,ENST00000559257,ENST00000559711						
chr15	63862632	63862778	+		chr15	63865149	63865223	+	3298-3305	4562
chr15	63915090	63915014	-	ENST00000443617	chr15	63914235	63909209	-	3306	840
chr15	64039282	64039117	-	ENST00000443617	chr15	64031314	64031196	-	3307	128
chr15	64367736	64367691	-	ENST00000300030,ENST00000559950	chr15	64366106	64366100	-	3308	270,116,243
				ENST00000204566,ENST00000559199,ENST00000433215,ENST00000416889						
chr15	65257801	65257661	-		chr15	65249608	65249401	-	3309-3311	67,305,189
				ENST00000559805,ENST00000261888,ENST00000444347						
chr15	65551880,66	65551802	-		chr15	65527161	65526849	-	3312-3314	619,482
chr15	65622735	65622631	-	ENST00000327987,ENST00000558354	chr15	65622440	65622397	-	3315-3316	254,238
				ENST00000341861,ENST00000358939,ENST00000300141,ENST00000321147,ENST00000321118,ENST00000339244,ENST00000559233,ENST00000395652						
chr15	65790370	65790202	-		chr15	65788619	65788314	-	3317-3318	29
				ENST00000261875,ENST00000442729,ENST00000565299						
chr15	65822970	65823056	+		chr15	65831117	65831450	+	3319	67
chr15	65828059	65828172	+	ENST00000565299	chr15	65831117	65831450	+	3320	74,110,106
				ENST00000313182,ENST00000395644,ENST00000567744,ENST00000442903,ENST00000569004						
chr15	65899718,66	65899497	-	,ENST00000567923	chr15	65898915	65898894	-	3321-3323	
chr15	65983849	65982753	-	ENST00000443035,ENST00000431932	chr15	65972731	65972722	-	3324-3325	1392,1349
chr15	65983849	65982753	-	ENST00000443035,ENST00000431932	chr15	65975183	65974205	-	3326-3327	1392,1349
chr15	66956700	66956790	+	ENST00000558797	chr15	66973928	66974166	+	3328	41
chr15	66960679	66960792	+	ENST00000558797	chr15	66973928	66974166	+	3329	79
chr15	66960679	66960792	+	ENST00000558797	chr15	66975386	66975621	+	3330	79
chr15	66960679	66960792	+	ENST00000558797	chr15	66975440	66975621	+	3331	79
chr15	66976337	66976380	+	ENST00000558797	chr15	66976764	66977043	+	3332	94
chr15	67358493	67358698	+	ENST00000327367	chr15	67388434	67389059	+	3333	68
				ENST00000261880,ENST00000561452,ENST00000542650						238,129
chr15	67500996	67500900	-		chr15	67497384	67497292	-	3334-3335	
				ENST00000178640,ENST00000395476,ENST00000354498,ENST00000439036						195,159,128
chr15	67923226	67923265	+		chr15	67929377	67929650	+	3336-3338	282,246,92
				ENST00000178640,ENST00000395476,ENST00000354498,ENST00000340972						
chr15	67956935	67956983	+		chr15	67962758	67962838	+	3339-3341	
chr15	68570756	68571003	+	ENST00000306917	chr15	68577176	68577398	+	3342	82
				ENST00000355327,ENST00000261862,ENST00000357769						923,563
chr15	72057359	72057538	+		chr15	72059112	72059479	+	3343-3344	51,67
				ENST00000319622,ENST00000565184,ENST00000389093,ENST00000335181,ENST00000449901,ENST00000567118,ENST00000565154,ENST00000568459,ENST00000561609,ENST00000569857,ENST00000564178,ENST00000562997,ENST00000567087,ENST00000566809,ENST00000569050						
chr15	72511438,73	72511285	-		chr15	72510511	72510454	-	3345-3346	508,519
				ENST00000268097,ENST00000566304,ENST00000567159						
chr15	72637891	72637787	-		chr15	72623741	72623345	-	3347-3348	
chr15	72864604	72864634	+	ENST00000561770	chr15	72865838	72865912	+	3349	23
				ENST00000567941,ENST00000569534,ENST00000311669,ENST00000563907,ENST00000569517						77,55,56
chr15	73076032,7307	73075800	-	,ENST00000562286,ENST00000562823	chr15	73072663	73072456	-	3350-3352	
				ENST00000567189,ENST00000318443,ENST00000318424,ENST00000558689,ENST00000560786,ENST00000561213,ENST00000563584,ENST00000560928,ENST00000561416,ENST00000560995,ENST00000567582,ENST00000561260,ENST00000564751						26,65
chr15	73991981,74	73992059	+		chr15	73993632	73994020	+	3353-3354	570,522,213
				ENST00000395135,ENST00000268059,ENST00000354026,ENST00000268058,ENST00000565898,ENST00000569477,ENST00000435786,ENST00000564428,ENST00000566068						
chr15	74326819	74326871	+		chr15	74327451	74327503	+	3355-3357	570,522,213
				ENST00000395135,ENST00000268059,ENST00000354026,ENST00000268058,ENST00000565898,ENST00000569477,ENST00000435786,ENST00000564428,ENST00000566068						
chr15	74326819	74326871	+		chr15	74330173	74330514	+	3358-3360	

Table 9

				ENST00000395105,ENST00000423167,ENST00000323940,ENST00000449139,ENST00000416286,ENST00000535552,ENST00000563965,ENST00000574278,ENST00000569936					433,424,425,470,472,448,476
chr15	74476330	74476197	-		chr15	74475749	74475630	- 3361-3367	
				ENST00000395105,ENST00000423167,ENST00000323940,ENST00000449139,ENST00000416286,ENST00000535552,ENST00000563965,ENST00000574278,ENST00000569936					433,424,425,470,472,448,476
chr15	74476330	74476197	-		chr15	74475850	74475630	- 3368-3374	
				ENST00000395105,ENST00000423167,ENST00000323940,ENST00000449139,ENST00000416286,ENST00000535552,ENST00000563965,ENST00000574278,ENST00000572785,ENST00000569936					363,354,355,400,402,378,39,406
chr15	74481618,74	74481456	-		chr15	74478181	74478060	- 3375-3382	
				ENST00000395105,ENST00000423167,ENST00000323940,ENST00000449139,ENST00000416286,ENST00000535552,ENST00000563965,ENST00000574278,ENST00000572785,ENST00000569936					363,354,355,400,402,378,39,406
chr15	74481618,74	74481456	-		chr15	74478184	74478060	- 3383-3390	
				ENST00000569482,ENST00000565683,ENST00000563622,ENST00000267978					849,866,750
chr15	75650685	75650542	-		chr15	75649819	75649651	- 3391-3393	
				ENST00000394947,ENST00000360439,ENST00000394949					759
chr15	75687204	75687021	-		chr15	75685848	75685722	- 3394	
chr15	75949303	75949540	+	ENST00000308527,ENST00000569152	chr15	75976534	75976602	+ 3395-3396	569,278
				ENST00000338677,ENST00000267938,ENST00000569423,ENST00000561851,ENST00000426727					275,240,259,160
chr15	76171439	76171529	+		chr15	76173731	76173927	+ 3397-3400	
				ENST00000308275,ENST00000453211,ENST00000540507,ENST00000565036,ENST00000569054					264,160,203,150
chr15	76222225	76222390	+	,ENST00000561885	chr15	76226581	76226742	+ 3401-3404	
				ENST00000308275,ENST00000540507,ENST00000564220					380,276,77
chr15	76225026,76	76225371	+		chr15	76226581	76226742	+ 3405-3407	
				ENST00000538941,ENST00000563290,ENST00000324767,ENST00000564590,ENST00000565970					376,622,628
chr15	77046289	77046149	-		chr15	77031778	77031579	- 3408-3410	
				ENST00000563290,ENST00000324767,ENST00000565507,ENST00000564590,ENST00000565970					2
chr15	77176158	77176153	-	,ENST00000565372,ENST00000563919	chr15	77168193	77167944	- 3411	
				ENST00000558407,ENST00000559785,ENST00000558012,ENST00000267939,ENST00000379595,ENST00000559750,ENST00000560796,ENST00000559161,ENST00000559295,ENST00000559859					135,70,69,36,61,24
chr15	77310798,77	77310872	+	,ENST00000559856	chr15	77314118	77314231	+ 3412-3417	
				ENST00000558012,ENST00000267939,ENST00000379595,ENST00000559295,ENST00000558870					387,367,384,368,103
chr15	77329386	77329427	+		chr15	77335963	77336443	+ 3418-3422	
chr15	77451038	77450845	-	ENST00000312493,ENST00000560626	chr15	77448977	77442854	- 3423	1110
				ENST00000560498,ENST00000336216,ENST00000381714,ENST00000559035,ENST00000559099					79
chr15	77756582	77756729	+	,ENST00000560867	chr15	77758442	77758744	+ 3424	
				ENST00000560217,ENST00000044462,ENST00000559082,ENST00000413382,ENST00000559365					179,210,139,122
chr15	78838917	78839040	+	,ENST00000560737,ENST00000559154	chr15	78852648	78852938	+ 3425-3428	
				ENST00000299705,ENST00000424155,ENST00000536821,ENST00000543455					139
chr15	79606099	79606347	+		chr15	79649095	79649396	+ 3429	
				ENST00000558022,ENST00000407106,ENST00000261755,ENST00000561421					27
chr15	80445397	80445477	+		chr15	80445686	80445699	+ 3430	
				ENST00000303329,ENST00000533983,ENST00000527771,ENST00000525103					241,230,15
chr15	80800497,81	80800599	+		chr15	80803433	80803873	+ 3431-3433	
				ENST00000220244,ENST00000356249,ENST00000394685					80
chr15	81171062	81171208	+		chr15	81171734	81171898	+ 3434	
chr15	81436003	81436161	+	ENST00000286732	chr15	81451989	81452297	+ 3435	212
chr15	82507196	82507058	-	ENST00000268206,ENST00000359445	chr15	82487081	82486954	- 3436-3437	583,532
chr15	82519913	82519791	-	ENST00000268206,ENST00000359445	chr15	82518750	82518722	- 3438-3439	397,346
chr15	82726234	82726631	+	ENST00000300515	chr15	82808718	82808882	+ 3440	277
chr15	82726234	82726631	+	ENST00000300515	chr15	82808796	82808882	+ 3441	277
chr15	82726234	82726714	+	ENST00000300515	chr15	82808843	82808882	+ 3442	304
chr15	82726234	82726714	+	ENST00000300515	chr15	82808861	82808882	+ 3443	304
chr15	83102759	83103156	+	ENST00000561062,ENST00000358583	chr15	83193063	83193227	+ 3444	277
chr15	83102759	83103156	+	ENST00000561062,ENST00000358583	chr15	83193141	83193227	+ 3445	277
chr15	83102759	83103239	+	ENST00000561062,ENST00000358583	chr15	83193188	83193227	+ 3446	304
				ENST00000563800,ENST00000562019,ENST00000568128					90,63,63
chr15	83296118	83295944	-		chr15	83263092	83261765	- 3447-3449	
				ENST00000563800,ENST00000562019,ENST00000568128					90,63,63
chr15	83296118	83295944	-		chr15	83263099	83261765	- 3450-3452	
chr15	83485444	83485594	+	ENST00000286760	chr15	83486290	83486542	+ 3453	311
				ENST00000514272,ENST00000538348,ENST00000451195,ENST00000304177,ENST00000513601					23,122,95,114
chr15	83677368,84	83677300	-	,ENST00000508990	chr15	83667573	83665974	- 3454-3457	
				ENST00000514272,ENST00000538348,ENST00000451195,ENST00000304177,ENST00000513601					23,122,95,114
chr15	83677368,84	83677300	-	,ENST00000508990	chr15	83667810	83665974	- 3458-3461	

Table 9

				ENST00000538348,ENST00000510873,ENST00000451195,ENST00000304177,ENST00000513601					79,78,52,72
chr15	83679115	83678989	-	,ENST00000508990	chr15	83667573	83665974	-	3462-3465	
chr15	84850734	84850835	+	ENST00000558195	chr15	84853369	84853516	+	3466	112
				ENST00000558134,ENST00000560266,ENST00000268220,ENST00000558217,ENST00000560409						17,13
chr15	85259306,85	85259256	-	,ENST00000559729	chr15	85235423	85235244	-	3467-3468	
				ENST00000559362,ENST00000560302,ENST00000394518,ENST00000361243,ENST00000560256						11
chr15	86028952	86028984	+		chr15	86061827	86062074	+	3469	
chr15	89455403	89455355	-	ENST00000539437	chr15	89453897	89453853	-	3470	16
chr15	90174941	90174726	-	ENST00000394412	chr15	90174237	90174058	-	3471	1037
				ENST00000336418,ENST00000398333,ENST00000558011,ENST00000560940,ENST00000558648						115,316,127, 152,151
chr15	90414778	90414707	-	,ENST00000559629	chr15	90395713	90395576	-	3472-3476	
				ENST00000355112,ENST00000560509,ENST00000559724						266
chr15	91292597	91293297	+		chr15	91293563	91293617	+	3477	
chr15	91479515	91479690	+	ENST00000394275,ENST00000418476	chr15	91480117	91480293	+	3478-3479	127,142
chr15	91489844	91490144	+	ENST00000394275,ENST00000418476	chr15	91490300	91490423	+	3480-3481	485,5
				ENST00000333371,ENST00000535843,ENST00000535906						591,500,564
chr15	91543023	91542907	-		chr15	91541450	91541217	-	3482-3484	
				ENST00000333371,ENST00000535843,ENST00000535906						134,43,107
chr15	91553076	91553031	-		chr15	91552206	91551800	-	3485-3487	
				ENST00000327355,ENST00000553393,ENST00000555748,ENST00000555064,ENST00000555696						158,17,14
chr15	93173575,9317	93173444	-	,ENST00000557480,ENST00000556824,ENST00000557398	chr15	93171199	93171161	-	3488-3490	
chr15	96869539	96869581	+	ENST00000421109	chr15	96874273	96874414	+	3491	14
				ENST00000459771,ENST00000394132,ENST00000262074,ENST00000394136,ENST00000558613						253
				,ENST00000558663,ENST00000394135,ENST00000394130,ENST00000394129						
chr15	99740301	99740124	-		chr15	99719249	99719232	-	3492	
chr16	101645	101558	-	ENST00000293860	chr16	100904	100824	-	3493	66
				ENST00000324288,ENST00000381835,ENST00000571186						17
chr16	10971188	10971239	+		chr16	10974991	10975178	+	3494	
				ENST00000324288,ENST00000381835,ENST00000571186,ENST00000576601						145,121
chr16	10992782	10992859	+		chr16	10993357	10993507	+	3495-3496	
chr16	11012297	11012383	+	ENST00000324288,ENST00000381835	chr16	11012565	11012597	+	3497-3498	1049,465
				ENST00000396516,ENST00000355758,ENST00000571198,ENST00000572870,ENST00000576018						36
chr16	11875320	11875281	-	,ENST00000572781,ENST00000574995	chr16	11874270	11873967	-	3499	
				ENST00000434724,ENST00000439887,ENST00000565267,ENST00000563468,ENST00000420576						476,475,343, 338
chr16	11976952	11976872	-		chr16	11974128	11973710	-	3500-3503	
chr16	12070664	12070670	+	ENST00000569801,ENST00000566228	chr16	12088543	12088545	+	3504	2
chr16	12096848	12096900	+	ENST00000569801,ENST00000566228	chr16	12099292	12099325	+	3505	40
				ENST00000566228,ENST00000323433,ENST00000306030,ENST00000564791						772,387,261
chr16	12618559	12618698	+		chr16	12705484	12705537	+	3506-3508	
chr16	13297251	13297406	+	ENST00000424107,ENST00000558583	chr16	13338177	13338598	+	3509-3510	282,323
chr16	13297251	13297406	+	ENST00000424107,ENST00000558583	chr16	13352190	13352312	+	3511-3512	282,323
				ENST00000355803,ENST00000325437,ENST00000397514,ENST00000397515,ENST00000403747						74,69
				,ENST00000566587,ENST00000406620,ENST00000567074,ENST00000402301,ENST00000566775						
chr16	1365655	1365727	+		chr16	1366757	1366809	+	3513-3514	
chr16	138779,1388	138697	-	ENST00000399951,ENST00000399953	chr16	137238	137228	-	3515-3516	334,513
chr16	148299	148143	-	ENST00000399951,ENST00000399953	chr16	144903	144902	-	3517-3518	129,308
				ENST00000526520,ENST00000531598,ENST00000552140						233,214
chr16	14818345	14818380	+		chr16	14819198	14819263	+	3519-3520	
				ENST00000526520,ENST00000531598,ENST00000552140						233,214
chr16	14818345	14818380	+		chr16	14858318	14858383	+	3521-3522	
				ENST00000526520,ENST00000531598,ENST00000552140						233,214
chr16	14818345	14818380	+		chr16	15044930	15045005	+	3523-3524	
				ENST00000530328,ENST00000529166,ENST00000553201						233,214
chr16	14857465	14857500	+		chr16	14858318	14858383	+	3525-3526	
				ENST00000530328,ENST00000529166,ENST00000553201						233,214
chr16	14857465	14857500	+		chr16	15044930	15045005	+	3527-3528	
chr16	14982953	14983072	+	ENST00000287667,ENST00000565655	chr16	14983770	14983953	+	3529-3530	1148,69
				ENST00000448525,ENST00000382745,ENST00000262318						458,482
chr16	1501717	1501624	-		chr16	1501254	1501211	-	3531-3532	
chr16	15044077	15044112	+	ENST00000328085,ENST00000537062	chr16	15044930	15045005	+	3533-3534	214,1
				ENST00000563679,ENST00000325823,ENST00000447912,ENST00000535621,ENST00000455313						398,365,289, 380,357,353,
				,ENST00000396410,ENST00000569715,ENST00000450288						352
chr16	15116561	15116611	+		chr16	15118612	15118774	+	3535-3541	
				ENST00000563679,ENST00000325823,ENST00000447912,ENST00000535621,ENST00000396410						484,451,375, 466,439,438
chr16	15123808	15123913	+	,ENST00000569715,ENST00000450288	chr16	15252448	15252527	+	3542-3547	
chr16	1545347	1545624	+	ENST00000497339,ENST00000262319	chr16	1546814	1546840	+	3548	204
				ENST00000360151,ENST00000543801,ENST00000432570,ENST00000534094						214,91,233
chr16	15459321	15459286	-		chr16	15199154	15199085	-	3549-3551	

Table 9

				ENST00000360151,ENST00000543801,ENST000						214,91,233
chr16	15459321	15459286	-	00432570,ENST00000534094	chr16	15458468	15458403	-	3552-3554	
				ENST00000300006,ENST00000566490,ENST000						76,59,41,28
				00561813,ENST00000452191,ENST00000564389						
chr16	15609162,16	15609285	+	,ENST00000561692	chr16	15614735	15615105	+	3555-3558	
				ENST00000396353,ENST00000396355,ENST000						265,144,119,
				00396354,ENST00000342673,ENST00000577101						84,72,58
				,ENST00000574109,ENST00000573694,ENST000						
chr16	15788022	15788113	+	00576502,ENST00000572967	chr16	15810208	15810240	+	3559-3564	
				ENST00000396353,ENST00000396355,ENST000						315,169,122,
				00396354,ENST00000342673,ENST00000574109						108
chr16	15790566	15790717	+	,ENST00000576502,ENST00000572967	chr16	15810208	15810240	+	3565-3568	
				ENST00000399410,ENST00000345148,ENST000						561,662
				00346370,ENST00000349029,ENST00000351154						
chr16	16170183	16170258	+	,ENST00000399408,ENST00000572882	chr16	13908096	13907772	-	3569-3570	
				ENST00000381497,ENST00000541593,ENST000						214,185,96
				00331436,ENST00000524823,ENST00000527703						
chr16	16442554	16442589	+		chr16	16443407	16443482	+	3571-3573	
				ENST00000381497,ENST00000541593,ENST000						214,185,96
				00331436,ENST00000524823,ENST00000527703						
chr16	16442554	16442589	+		chr16	16486771	16486846	+	3574-3576	
				ENST00000530217,ENST00000422673,ENST000						214,91,46
chr16	16485918	16485953	+	00344087	chr16	16486771	16486846	+	3577-3579	
chr16	18413687	18413652	-	ENST00000525596,ENST00000545050	chr16	18412834	18412769	-	3580-3581	214,116
				ENST00000545114,ENST00000427999,ENST000						185,214
				00541810,ENST00000531453,ENST00000528301						
chr16	18453840	18453805	-		chr16	18412834	18412769	-	3582-3583	
				ENST00000545114,ENST00000427999,ENST000						214,185
				00541810,ENST00000531453,ENST00000528301						
chr16	18453840	18453805	-		chr16	18452987	18452912	-	3584-3585	
				ENST00000330537,ENST00000381474,ENST000						1148,981
chr16	18518250	18518131	-	00543392	chr16	18517428	18517245	-	3586-3587	
				ENST00000322989,ENST00000572008,ENST000						99,29
				00563390,ENST00000565420,ENST00000563579						
chr16	18796145,19	18796060	-	,ENST00000569083	chr16	18787291	18787155	-	3588-3589	
				ENST00000322989,ENST00000572008,ENST000						99,29
				00563390,ENST00000565420,ENST00000563579						
chr16	18796145,19	18796060	-	,ENST00000569083	chr16	18795174	18795112	-	3590-3591	
				ENST00000541464,ENST00000381414,ENST000						644,696,450,
				00396229,ENST00000542583,ENST00000219821						337,379,37
				,ENST00000561503,ENST00000564959,ENST000						
chr16	19485447,19	19485598	+	00572147	chr16	19487390	19487712	+	3592-3597	
				ENST00000438132,ENST00000542263,ENST000						607,540,451,
				00417362,ENST00000251143,ENST00000543152						518,267,368
chr16	19641089	19641142	+	,ENST00000448695	chr16	19642392	19642558	+	3598-3603	
				ENST00000219476,ENST00000382538,ENST000						199,150,162,
				00401874,ENST00000353929,ENST00000439673						210,124
				,ENST00000350773,ENST00000568454,ENST000						
chr16	2105403	2105520	+	00432909	chr16	2105981	2106076	+	3604-3608	
				ENST00000268379,ENST00000565464,ENST000						11
				00561553,ENST00000565331,ENST00000563898						
chr16	21964745	21964777	+	,ENST00000564095	chr16	21967720	21967873	+	3609	
				ENST00000268379,ENST00000565464,ENST000						11
				00561553,ENST00000565331,ENST00000563898						
chr16	21964745	21964777	+	,ENST00000564095	chr16	21967724	21967873	+	3610	
				ENST00000268379,ENST00000565464,ENST000						11
				00561553,ENST00000565331,ENST00000563898						
chr16	21964745	21964777	+	,ENST00000564095	chr16	21967752	21967873	+	3611	
				ENST00000268379,ENST00000561553,ENST000						204,176
chr16	21976729	21976826	+	00565331,ENST00000563898	chr16	21978443	21978620	+	3612-3613	
chr16	22237051	22237296	+	ENST00000263026,ENST00000568269	chr16	22240341	22240483	+	3614	82
				ENST00000299853,ENST00000564209,ENST000						54,121,127,8
				00565358,ENST00000418581,ENST00000359210						5,85
chr16	22320749	22320831	+	,ENST00000563024,ENST00000565551	chr16	22321172	22321415	+	3615-3619	
				ENST00000449606,ENST00000563459,ENST000						98
chr16	23563625	23563470	-	00564501,ENST00000563232	chr16	23559969	23559912	-	3620	
				ENST00000300087,ENST00000563998,ENST000						39
				00566053,ENST00000568589,ENST00000563188						
chr16	23654276	23654344	+	,ENST00000568272	chr16	23664560	23665941	+	3621	
				ENST00000300087,ENST00000563998,ENST000						78,36
chr16	23669828,24	23669946	+	00568589,ENST00000566298	chr16	23671709	23671775	+	3622-3623	
				ENST00000457008,ENST00000256797,ENST000						648,748,11
chr16	23706248,24	23706049	-	00562458	chr16	23705752	23705688	-	3624-3626	
				ENST00000457008,ENST00000256797,ENST000						31,79
chr16	23724508,24	23724416	-	00562562,ENST00000569903	chr16	23722723	23722662	-	3627-3628	
chr16	23848696	23848727	+	ENST00000321728,ENST00000303531	chr16	23935547	23935713	+	3629	68
chr16	25703739	25704472	+	ENST00000331351	chr16	25760788	25760843	+	3630	244
				ENST00000566117,ENST00000395762,ENST000						120,105,37
				00543915,ENST00000449195,ENST00000380922						
				,ENST00000566318,ENST00000563002,ENST000						
chr16	27356190,27	27356341	+	00170630,ENST00000562968	chr16	27356893	27357008	+	3631-3633	

Table 9

			ENST00000337929,ENST00000564089,ENST000					289
chr16	27457328	27457409	+ 00395755,ENST00000395754	chr16	27459506	27459801	+ 3634	
			ENST00000261588,ENST00000568258,ENST000					21,16,11
chr16	27585222,2758	27585277	+ 00565672	chr16	27610902	27610930	+ 3635-3637	
chr16	27692720	27692851	+ ENST00000261588	chr16	27694212	27694430	+ 3638	313
chr16	2818998	2819285	+ ENST00000301740	chr16	2819883	2820194	+ 3639	2673
chr16	28222689	28222687	- ENST00000304658	chr16	28221820	28221749	- 3640	1
			ENST00000455114,ENST00000450020,ENST000					30,27,27,23
			00005995,ENST00000570629,ENST00000570594					
chr16	2867431	2867457	+ ,ENST00000574813	chr16	2875971	2876154	+ 3641-3644	
			ENST00000382280,ENST00000570670,ENST000					87,86,68,57
chr16	2880695	2880797	+ 00571723,ENST00000572863	chr16	2898018	2898099	+ 3645-3648	
			ENST00000357573,ENST00000358201,ENST000					144,73,91,13
			00544477,ENST00000568703,ENST00000567483					4,3
chr16	28931264,29	28931107	- ,ENST00000561501,ENST00000566762	chr16	28926227	28926163	- 3649-3653	
			ENST00000538922,ENST00000324662,ENST000					315
chr16	28946765	28946875	+ 00567541	chr16	28947601	28947688	+ 3654	
chr16	28965886	28966003	+ ENST00000320805	chr16	28966622	28966714	+ 3655	192
			ENST00000395461,ENST00000564277,ENST000					200,163,164,
			00395456,ENST00000454369,ENST00000360872					193,183,192,
			,ENST00000354453,ENST00000566177,ENST000					84
chr16	28998120	28998214	+ 00570232	chr16	29000220	29000347	+ 3656-3662	
chr16	29458243	29458123	- ENST00000569622	chr16	29451266	29451205	- 3663	125
chr16	29497154	29495055	- ENST00000354563	chr16	29393024	29392973	- 3664	740
chr16	29497154	29495097	- ENST00000354563	chr16	29392982	29392973	- 3665	726
chr16	29497154	29495184	- ENST00000354563	chr16	29392982	29392973	- 3666	697
chr16	29497154	29495193	- ENST00000354563	chr16	29393033	29392973	- 3667	694
chr16	29497154	29495229	- ENST00000354563	chr16	29392982	29392973	- 3668	682
chr16	29497154	29495229	- ENST00000354563	chr16	29393024	29392973	- 3669	682
			ENST00000561482,ENST00000160827,ENST000					358,426
chr16	29811234	29811369	+ 00400751,ENST00000569382	chr16	29811495	29811789	+ 3670-3671	
			ENST00000253928,ENST00000399667,ENST000					703,752,702,
			00416288,ENST00000573564,ENST00000344592					466,481,71,3
chr16	2990033	2990093	+ ,ENST00000571983,ENST00000575679	chr16	2997153	2997468	+ 3672-3678	8
			ENST00000563177,ENST00000483405,ENST000					35,316
			00308748,ENST00000414952,ENST00000566693					
chr16	29913136,3	29913241	+	chr16	29915806	29915953	+ 3679-3680	
			ENST00000563177,ENST00000483405,ENST000					35,316
			00308748,ENST00000414952,ENST00000566693					
chr16	29913136,3	29913241	+	chr16	29915828	29915953	+ 3681-3682	
			ENST00000308768,ENST00000568000,ENST000					251,129
chr16	29922494	29922299	- 00568995	chr16	29922012	29921975	- 3683-3684	
			ENST00000563197,ENST00000567254,ENST000					171,154,62
			00567705,ENST00000567987,ENST00000562291					
chr16	30012735,3	30012851	+	chr16	30014971	30015058	+ 3685-3687	
			ENST00000570099,ENST00000398841,ENST000					30,128,90
			00398838,ENST00000563788,ENST00000566595					
chr16	30106201,3	30106110	- ,ENST00000565110,ENST00000562641	chr16	30105472	30105386	- 3688-3690	
chr16	30507418	30507522	+ ENST00000356798,ENST00000358164	chr16	30509357	30509357	+ 3691-3692	536,453
chr16	30507757	30507887	+ ENST00000356798,ENST00000358164	chr16	30509127	30509281	+ 3693-3694	610,527
chr16	31374486	31374695	+ ENST00000268296,ENST00000562522	chr16	31379488	31379557	+ 3695	570
			ENST00000382192,ENST00000219091,ENST000					87,161
chr16	3166428	3166548	+ 00414351,ENST00000570935	chr16	3166717	3166784	+ 3696-3697	
			ENST00000396868,ENST00000414144,ENST000					154,155
			00396871,ENST00000431561,ENST00000396870					
chr16	3282544,328	3282421	- ,ENST00000575948	chr16	3276784	3276661	- 3698-3699	
			ENST00000301749,ENST00000359128,ENST000					727,774
chr16	3606995	3606912	- 00448023,ENST00000603507	chr16	3605881	3605582	- 3700-3701	
chr16	4057559	4057369	- ENST00000294016,ENST00000572288	chr16	4053508	4053402	- 3702-3703	628,156
			ENST00000294016,ENST00000571467,ENST000					58,564,92
chr16	4165443,41639	4163751	- 00572288	chr16	4068626	4068513	- 3704-3706	
			ENST00000577031,ENST00000318059,ENST000					20,1
			00571986,ENST00000576217,ENST00000571178					
chr16	4401235,44	4401233	-	chr16	4398779	4398660	- 3707-3708	
			ENST00000577031,ENST00000318059,ENST000					20,1
			00571986,ENST00000576217,ENST00000571178					
chr16	4401235,44	4401233	-	chr16	4398787	4398660	- 3709-3710	
			ENST00000572467,ENST00000251166,ENST000					895,675,877,
			00539968,ENST00000537233,ENST00000574025					810,104
chr16	4407260	4407169	- ,ENST00000570779	chr16	4406257	4406254	- 3711-3715	
			ENST00000572467,ENST00000575334,ENST000					261,41,243,1
			00251166,ENST00000539968,ENST00000537233					76,93,106
			,ENST00000574025,ENST00000574311,ENST000					
			00423908,ENST00000572549,ENST00000572044					
chr16	4438069	4437987	-	chr16	4417443	4417380	- 3716-3721	
			ENST00000444498,ENST00000219481,ENST000					204,26
			00397710,ENST00000424398,ENST00000439661					
chr16	451947,452	452043	+ ,ENST00000437024,ENST00000445291	chr16	452708	452993	+ 3722-3723	
chr16	46633874	46633743	- ENST00000303383	chr16	46632259	46631335	- 3724	448
chr16	46761289	46761148	- ENST00000394809,ENST00000536476	chr16	46757246	46756913	- 3725-3726	638,297
chr16	46843697	46843515	- ENST00000285697,ENST00000565112	chr16	46838358	46837582	- 3727-3728	120,115

Table 9

				ENST00000394806,ENST00000285697,ENST00000565112					59,54
chr16	46858394	46858298	-	ENST00000394806,ENST00000285697,ENST00000565112	chr16	46838358	46837582	- 3729-3730	54,59
chr16	47252857	47252779	-	ENST00000320640,ENST00000544001,ENST00000565262	chr16	47237428	47237200	- 3733-3735	484,371,71
chr16	4751135	4750971	-	ENST00000446014,ENST00000304283,ENST00000585773,ENST00000450067,ENST00000586605	chr16	4749708	4749550	- 3736-3740	299,428,355,222,255
chr16	47644737	47644831	+	ENST00000566044,ENST00000455779,ENST00000299167,ENST00000323584,ENST00000568439	chr16	47664912	47665086	+ 3741-3743	479,486,66
chr16	47684742	47684832	+	ENST00000566044,ENST00000455779,ENST00000299167,ENST00000323584	chr16	47687610	47687764	+ 3744-3745	650,657
chr16	4774832,477	4774751	-	ENST00000446014,ENST00000304283,ENST00000585773,ENST00000586605,ENST00000592421,ENST00000592068,ENST00000589065,ENST00000592711	chr16	4765859	4765800	- 3746-3750	62,191,118,18,84
chr16	48643883	48643686	-	ENST00000262384	chr16	48604203	48603607	- 3751	66
chr16	4908569,491	4908664	+	ENST00000592120,ENST00000262376,ENST00000545171,ENST00000590769,ENST00000396658,ENST00000587027	chr16	4908831	4908895	+ 3752-3753	144,3
chr16	50060307,5	50060378	+	ENST00000458059,ENST00000389134,ENST00000568890,ENST00000427478,ENST00000566482,ENST00000562576,ENST00000565457,ENST00000565556,ENST00000566093	chr16	50060610	50060903	+ 3754-3756	49,32,0
chr16	50136170	50136346	+	ENST00000299192,ENST00000285767	chr16	50137479	50137596	+ 3757-3758	640,554
chr16	50186864	50186943	+	ENST00000436909	chr16	50187655	50187736	+ 3759	26
chr16	50346801	50346947	+	ENST00000394697,ENST00000254235	chr16	50347300	50347328	+ 3760	917
chr16	50367608	50367485	-	ENST00000394688,ENST00000394689	chr16	50362801	50362703	- 3761	337
chr16	50642205	50642271	+	ENST00000268459	chr16	50643591	50643634	+ 3762	86
chr16	50659396	50659491	+	ENST00000268459	chr16	50663373	50663449	+ 3763	154
chr16	50659396	50659491	+	ENST00000268459	chr16	50663376	50663449	+ 3764	154
chr16	53190002	53191453	+	ENST00000447540,ENST00000566029,ENST00000565832,ENST00000564845,ENST00000398510	chr16	53220365	53220520	+ 3765	484
chr16	53272255	53272498	+	ENST00000447540,ENST00000566029,ENST00000564845,ENST00000398510,ENST00000565803	chr16	53273654	53273746	+ 3766-3767	959,485
chr16	53352124	53352252	+	ENST00000447540,ENST00000566029,ENST00000564845,ENST00000398510,ENST00000564600,ENST00000564641	chr16	53354280	53354448	+ 3768-3772	2556,2555,2571,120,102
chr16	546824	546859	+	ENST00000262305,ENST00000457159,ENST00000434585,ENST00000450428,ENST00000452814,ENST00000449879,ENST00000412256	chr16	549083	549234	+ 3773-3778	433,478,354,137,123,133
chr16	55543094	55543264	+	ENST00000262134	chr16	55553476	55557837	+ 3779	57
chr16	56857619	56857758	+	ENST00000308159,ENST00000563858,ENST00000569842,ENST00000564887,ENST00000567641,ENST00000542526	chr16	56862536	56862559	+ 3780-3782	264,57,141
chr16	56873433	56873516	+	ENST00000308159,ENST00000569842,ENST00000564887,ENST00000542526,ENST00000563486,ENST00000569322	chr16	56874628	56874925	+ 3783-3786	740,617,101,48
chr16	57065316	57065375	+	ENST00000262510,ENST00000308149,ENST00000436936,ENST00000539144,ENST00000538805,ENST00000545081,ENST00000538110,ENST00000543030	chr16	57066113	57066307	+ 3787-3791	825,578,553,332,124
chr16	57149388	57149462	+	ENST00000290776,ENST00000537605,ENST00000535318,ENST00000565874,ENST00000567487	chr16	57150975	57151030	+ 3792-3793	145,43
chr16	57819516	57819376	-	ENST00000539578,ENST00000562503,ENST00000561524	chr16	57813828	57813770	- 3794	47
chr16	57819516	57819376	-	ENST00000539578,ENST00000562503,ENST00000561524	chr16	57813863	57813770	- 3795	47
chr16	57829053	57828911	-	ENST00000379655,ENST00000445690,ENST00000541240,ENST00000566648,ENST00000565684,ENST00000567059,ENST00000563028,ENST00000564891	chr16	57813828	57813770	- 3796-3799	105,127,133,154
chr16	57829053	57828911	-	ENST00000379655,ENST00000445690,ENST00000541240,ENST00000566648,ENST00000565684,ENST00000567059,ENST00000563028,ENST00000564891	chr16	57813863	57813770	- 3800-3803	105,127,133,154
chr16	58052876	58052959	+	ENST00000561743,ENST00000219281,ENST00000539737	chr16	58053250	58053264	+ 3804-3806	180,231,213
chr16	58293758	58293838	+	ENST00000219299,ENST00000443128	chr16	58294141	58294369	+ 3807-3808	209,155
chr16	58426506	58426691	+	ENST00000426538,ENST00000328514,ENST00000318129	chr16	58432233	58432532	+ 3809	62
chr16	58426506	58426691	+	ENST00000426538,ENST00000328514,ENST00000318129	chr16	58469596	58469604	+ 3810	62
chr16	58616807	58616697	-	ENST00000317147,ENST00000569240,ENST00000567188,ENST00000441024	chr16	58615696	58615558	- 3811	348

Table 9

			ENST00000577730,ENST00000585315,ENST00000299345,ENST00000577390,ENST00000584337,ENST00000583382						84
chr16	62055307	62055056	-		chr16	62051136	62051014	-	3812
			ENST00000394156,ENST00000268603,ENST00000566827						631,505
chr16	64984921	64984670	-		chr16	64978001	64977883	-	3813-3814
chr16	66471580	66471604	+	ENST00000536005	chr16	66471833	66472005	+	3815 8
				ENST00000534692,ENST00000264001,ENST00000345436,ENST00000351137,ENST00000362093,ENST00000417030,ENST00000527845,ENST00000527729,ENST00000532838					26
chr16	66586619	66586696	+		chr16	66588859	66589154	+	3816
				ENST00000330687,ENST00000561680,ENST00000394106,ENST00000563952					207,113,178
chr16	66656125	66655965	-		chr16	66632743	66632339	-	3817-3819
				ENST00000563853,ENST00000569600,ENST00000219139					293
chr16	67174414	67174497	+		chr16	67177541	67177570	+	3820
chr16	67281313	67281113	-	ENST00000258201,ENST00000561922	chr16	67275487	67275441	-	3821 67
chr16	67360610	67360608	-	ENST00000304372,ENST00000562721	chr16	67355840	67355565	-	3822 1
				ENST00000565263,ENST00000358896,ENST00000432752					270,235
chr16	68104843	68105011	+		chr16	68106854	68106857	+	3823-3824
				ENST00000562381,ENST00000569571,ENST00000569047,ENST00000348497,ENST00000339507,ENST00000568975					94
chr16	68358586	68358735	+		chr16	68362008	68362014	+	3825
				ENST00000449359,ENST00000348497,ENST00000441236,ENST00000339507					500,402,550
chr16	68387395	68387469	+		chr16	68388254	68388292	+	3826-3828
chr16	69786274	69786144	-	ENST00000268802	chr16	69785204	69784998	-	3829 109
				ENST00000288050,ENST00000398122,ENST00000568530,ENST00000569042,ENST00000563930,ENST00000567046,ENST00000542659,ENST00000567896					684,584,67,42,29
chr16	70182367,7	70182456	+		chr16	70197272	70197636	+	3830-3834
				ENST00000288071,ENST00000562519,ENST00000568008,ENST00000562912,ENST00000568460,ENST00000355992,ENST00000565116,ENST00000568408,ENST00000567706					19
chr16	70333201	70333257	+		chr16	70333775	70333814	+	3835
				ENST00000288071,ENST00000562519,ENST00000568008,ENST00000562912,ENST00000568460,ENST00000355992,ENST00000565116,ENST00000568408,ENST00000567706					19
chr16	70333201	70333257	+		chr16	70347871	70348027	+	3836
				ENST00000288078,ENST00000428974,ENST00000378912					161,144,193
chr16	70500785	70500857	+		chr16	70501086	70501089	+	3837-3839
chr16	70534994	70534861	-	ENST00000323786	chr16	70533861	70533569	-	3840 398
chr16	70814842	70814693	-	ENST00000261776	chr16	70808302	70807977	-	3841 365
chr16	712673,7127	712844	+	ENST00000549091,ENST00000293879	chr16	713325	713457	+	3842-3843 1439,1437
				ENST00000544564,ENST00000541571,ENST00000535424,ENST00000378799,ENST00000537613,ENST00000606369,ENST00000329908,ENST00000538850,ENST00000541918,ENST00000534994					184,197,36,122
chr16	71955246,72	71955356	+		chr16	71956255	71956341	+	3844-3847
				ENST00000562153,ENST00000268483,ENST00000423037,ENST00000426362,ENST00000569767					94
chr16	72123037	72122886	-		chr16	72121686	72121581	-	3848
				ENST00000537465,ENST00000237353,ENST00000379073,ENST00000535461,ENST00000539172					4
chr16	72205107	72205096	-		chr16	72204624	72204348	-	3849
				ENST00000536211,ENST00000540440,ENST00000219313,ENST00000568717,ENST00000567958,ENST00000568615					24
chr16	74330813	74330886	+		chr16	74332627	74332783	+	3850
				ENST00000205061,ENST00000422840,ENST00000447066					889,878
chr16	74499711	74499574	-		chr16	74497791	74497788	-	3851-3852
chr16	74683100	74683030	-	ENST00000361070,ENST00000571750	chr16	74679562	74679555	-	3853 264
chr16	74949892	74949768	-	ENST00000262144	chr16	74949615	74949293	-	3854 408
chr16	75018915	75018862	-	ENST00000262144,ENST00000564859	chr16	75016447	75016289	-	3855 18
chr16	75498148	75498130	-	ENST00000569540	chr16	75486595	75486509	-	3856 6
				ENST00000567194,ENST00000566594,ENST00000357613,ENST00000568559,ENST00000561878					44,28
chr16	75498498,75	75498366	-		chr16	75486595	75486509	-	3857-3858
				ENST00000569276,ENST00000460606,ENST00000258173,ENST00000568377,ENST00000570006					25,194,223,1
chr16	75579326,76	75579250	-		chr16	75576877	75576831	-	3859-3862 81
chr16	77233349	77233409	+	ENST00000378644	chr16	77234964	77235077	+	3863 20
				ENST00000564085,ENST00000268533,ENST00000568787,ENST00000437314,ENST00000563839					11
chr16	77756480	77756514	+		chr16	77769291	77769486	+	3864
				ENST00000564085,ENST00000268533,ENST00000568787,ENST00000437314					63
chr16	77759328	77759481	+		chr16	77769291	77769486	+	3865
				ENST00000566780,ENST00000406884,ENST00000355860,ENST00000408984					172
chr16	78198080	78198186	+		chr16	78293905	78294272	+	3866
chr16	78458767	78458952	+	ENST00000566780,ENST00000408984	chr16	78533620	78533647	+	3867 263
chr16	78466385	78466649	+	ENST00000566780,ENST00000408984	chr16	78533620	78533647	+	3868 352
chr16	78466385	78466649	+	ENST00000566780,ENST00000408984	chr16	78790837	78791144	+	3869 352
				ENST00000537098,ENST00000539778,ENST00000398040					632,538,479
chr16	81735265	81735405	+		chr16	81735992	81736093	+	3870-3872
chr16	81819595	81819787	+	ENST00000565054,ENST00000359376	chr16	81875825	81876065	+	3873 64
				ENST00000563941,ENST00000545450,ENST00000566549,ENST00000382862,ENST00000566269					594,602,315,298
chr16	818379	818565	+	,ENST00000561896	chr16	821917	822204	+	3874-3877

Table 9

chr16	81892721	81892768	+	ENST00000565054,ENST00000359376	chr16	81894300	81894614	+	3878	159
chr16	81934217	81934385	+	ENST00000359376	chr16	81935542	81935586	+	3879	454
chr16	82203780	82203730	-	ENST00000258169,ENST00000568016,ENST00000569021	chr16	82201202	82200969	-	3880	17
chr16	83250950	83251102	+	ENST00000566620,ENST00000268613,ENST00000428848	chr16	83265849	83266171	+	3881-3883	212,259,173
chr16	83998667	83998841	+	ENST00000361711,ENST00000343939,ENST00000393306	chr16	84000822	84000969	+	3884-3885	221,304
chr16	83998667	83999542	+	ENST00000361711,ENST00000343939,ENST00000393306	chr16	84000822	84000969	+	3886-3887	454,537
chr16	84328578	84328721	+	ENST00000219454,ENST00000568638	chr16	84329393	84329438	+	3888	48
chr16	84488424	84488590	+	ENST00000262429,ENST00000416219	chr16	84490308	84492114	+	3889	715
chr16	84516316	84516198	-	ENST00000343629,ENST00000535580	chr16	84463506	84463382	-	3890-3891	359,332
chr16	84520665	84520237	-	ENST00000343629,ENST00000535580	chr16	84501070	84500960	-	3892-3893	319,292
chr16	85204882	85205413	+	ENST00000574293	chr16	85217498	85217586	+	3894	177
chr16	85204882	85205413	+	ENST00000574293	chr16	85318604	85318852	+	3895	177
chr16	85204882	85205413	+	ENST00000574293	chr16	85321468	85321536	+	3896	177
chr16	85834812	85834884	+	ENST00000565078,ENST00000566115,ENST00000568794,ENST00000253452,ENST00000562336,ENST00000561569,ENST00000564544,ENST00000564903	chr16	85836052	85836060	+	3897	24
chr16	85834812	85834884	+	ENST00000565078,ENST00000566115,ENST00000568794,ENST00000253452,ENST00000562336,ENST00000561569,ENST00000564544,ENST00000564903	chr16	85837597	85837704	+	3898	24
chr16	85948079	85948126	+	ENST00000268638,ENST00000564803	chr16	85951626	85951752	+	3899	200
chr16	87343939	87343903	-	ENST00000567970	chr16	87342860	87342128	-	3900	171
chr16	87348702	87348577	-	ENST00000253461,ENST00000568879,ENST00000567970	chr16	87342860	87342128	-	3901-3902	110,188
chr16	87764250	87764158	-	ENST00000567298,ENST00000353170,ENST00000270583,ENST00000562261	chr16	87760767	87760627	-	3903-3905	199,142,109
chr16	87795646	87795555	-	ENST00000567298,ENST00000347925,ENST00000270583,ENST00000562155,ENST00000569747,ENST00000564396,ENST00000561825	chr16	87791661	87791614	-	3906-3907	63,11
chr16	87868197	87868020	-	ENST00000565644,ENST00000261622	chr16	87867627	87867450	-	3908-3909	223,489
chr16	88717421	88717364	-	ENST00000261623,ENST00000567174,ENST00000569359,ENST00000568278	chr16	88716100	88715976	-	3910	19
chr16	88787838	88787574	-	ENST00000301015	chr16	88787245	88787214	-	3911	1889
chr16	88958379	88958290	-	ENST00000327483,ENST00000268679,ENST00000360302,ENST00000436887,ENST00000448839,ENST00000569464	chr16	88957383	88957379	-	3912-3916	151,237,212,161,176
chr16	89293102	89293185	+	ENST00000433976,ENST00000306502	chr16	89299070	89299185	+	3917-3918	135,93
chr16	89337317	89337225	-	ENST00000378330,ENST00000301030,ENST00000562194	chr16	89310496	89310182	-	3919-3920	2602,162
chr16	89355078,89	89354936	-	ENST00000378330,ENST00000301030,ENST00000562194	chr16	89353521	89353471	-	3921-3922	50,248
chr16	89579356	89579445	+	ENST00000566371,ENST00000268704,ENST00000341316,ENST00000568151	chr16	89588138	89588208	+	3923-3925	81,125,157
chr16	89597091	89597216	+	ENST00000268704,ENST00000341316	chr16	89607352	89607371	+	3926	329
chr16	89614411	89614521	+	ENST00000268704,ENST00000566221,ENST00000561911	chr16	89615963	89616088	+	3927-3929	554,87,69
chr16	89645265	89645404	+	ENST00000268720	chr16	89645543	89645712	+	3930	165
chr16	89655083,9	89655216	+	ENST00000268720,ENST00000319518,ENST00000529800,ENST00000568977	chr16	89655555	89655711	+	3931-3934	428,353,73,1
chr16	89718054	89717977	-	ENST00000397901,ENST00000253475,ENST00000550102,ENST00000549328	chr16	89716717	89716580	-	3935-3936	35,28
chr16	89724656,9	89724829	+	ENST00000301031,ENST00000566204,ENST00000579310,ENST00000568929	chr16	89727736	89727965	+	3937-3940	69,76,70,39
chr16	89724656,9	89724829	+	ENST00000301031,ENST00000566204,ENST00000579310,ENST00000568929	chr16	89734579	89734747	+	3941-3944	69,76,70,39
chr16	89785510	89785435	-	ENST00000389386	chr16	89785258	89785112	-	3945	58
chr16	89930202	89930269	+	ENST00000393062,ENST00000378247	chr16	89930517	89930810	+	3946	592
chr16	89934597	89934624	+	ENST00000378247	chr16	89935294	89935459	+	3947	602
chr16	89965175	89965280	+	ENST00000263346,ENST00000562256,ENST00000263347,ENST00000568409,ENST00000562193,ENST00000563594,ENST00000562578,ENST00000268676,ENST00000562986,ENST00000569453,ENST00000418391,ENST00000567874,ENST00000570182,ENST00000563795	chr16	89965838	89965857	+	3948-3952	407,268,172,210,51
chr16	90025422	90025563	+	ENST00000268699,ENST00000565062,ENST00000566266	chr16	90026804	90026935	+	3953-3957	171,165,232,111,161
chr16	90089130	90089132	+	ENST00000449207,ENST00000568473,ENST00000564210	chr16	90091151	90091243	+	3958	1
chr16	90141431	90141324	-	ENST00000327827	chr16	90137511	90137488	-	3959-3960	100,59
chr16	9196841	9197116	+	ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000570441,ENST00000574139,ENST00000570525,ENST00000574266	chr16	9234071	9234220	+	3961	194
chr17	1003975,1	1003877	-	ENST00000291107	chr17	1001199	1001190	-	3962-3965	115,69,78,25
chr17	1012308	1012174	-	ENST00000262442,ENST00000454412,ENST00000579703	chr17	1005267	1004964	-	3966	45
chr17	11772451	11772570	+		chr17	11774530	11774536	+	3967-3968	3351,165

Table 9

			ENST00000264335,ENST00000573026,ENST00000573196,ENST00000575977						21
chr17	1303404	1303341	ENST00000359786,ENST00000438665,ENST00000575158,ENST00000361007,ENST00000545534	chr17	1275127	1274679	-	3969	1055,1036,1020,1031
chr17	1370635	1370536	ENST00000359786,ENST00000438665,ENST00000575158,ENST00000361007,ENST00000545534	chr17	1369219	1369128	-	3970-3973	599,580,564,575
chr17	1377984	1377904	ENST00000429152,ENST00000261643,ENST00000536205,ENST00000581931	chr17	1376082	1375967	-	3974-3977	166,16
chr17	13980052,14	13980373	ENST00000519970,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321	chr17	14004652	14004704	+	3978-3979	111,133,197
chr17	15443875	15443747	ENST00000519970,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321	chr17	15419973	15419660	-	3980-3982	111,133,197
chr17	15443875	15443747	ENST00000522212,ENST00000519970,ENST00000225576,ENST00000581273,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321	chr17	15439832	15439517	-	3983-3985	154,68,44,90
chr17	15449230	15449099	ENST00000522212,ENST00000519970,ENST00000225576,ENST00000581273,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321,ENST00000419890	chr17	15387221	15387027	-	3986-3989	154,68,44,90
chr17	15449230	15449099	ENST00000522212,ENST00000519970,ENST00000225576,ENST00000581273,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321,ENST00000419890	chr17	15419873	15419660	-	3990-3993	154,68,44,90
chr17	15449230	15449099	ENST00000522212,ENST00000519970,ENST00000225576,ENST00000581273,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321,ENST00000419890	chr17	15419876	15419660	-	3994-3997	80,16
chr17	15457143,15	15456999	ENST00000522212,ENST00000225576,ENST00000584811,ENST00000438826,ENST00000428082,ENST00000518321,ENST00000419890	chr17	15453161	15453010	-	3998-3999	263
chr17	1547261	1546736	ENST00000263071,ENST00000348987,ENST00000434376,ENST00000571272	chr17	1545790	1545481	-	4000	173
chr17	15554923	15554405	ENST00000455584,ENST00000578237,ENST00000336708	chr17	15548260	15548134	-	4001	
chr17	15562190	15562116	ENST00000578744	chr17	15556919	15556710	-	4002	47
chr17	15848563	15848897	ENST00000304222	chr17	15872903	15873203	+	4003	111
chr17	15983378,16	15983278	ENST00000268712,ENST00000395851,ENST00000395849	chr17	15982186	15981895	-	4004-4006	1167,1183,14
chr17	16021341	16021202	ENST00000268712,ENST00000395851,ENST00000395848	chr17	16019725	16019598	-	4007-4008	685,576
chr17	1612875	1612793	ENST00000330676	chr17	1593887	1591892	-	4009	114
chr17	16137285	16137384	ENST00000581006,ENST00000584797,ENST00000498772,ENST00000225609,ENST00000395844,ENST00000470116,ENST00000477745	chr17	16163819	16164152	+	4010-4011	111,111
chr17	16216861	16216928	ENST00000584797,ENST00000498772,ENST00000225609,ENST00000395844,ENST00000477745,ENST00000596678	chr17	16217226	16217400	+	4012-4014	164,164,22
chr17	1635960	1636125	ENST00000468539,ENST00000437219,ENST00000309182,ENST00000446363,ENST00000419248,ENST00000418841,ENST00000409644,ENST00000545662	chr17	1636597	1636656	+	4015-4022	131,293,445,135,269,81,1496,127
chr17	16395304	16395059	ENST00000409083,ENST00000470794	chr17	16367991	16367925	-	4023	82
chr17	16395304	16395059	ENST00000409083,ENST00000470794	chr17	16373472	16372927	-	4024	82
chr17	16852297	16852052	ENST00000437538,ENST00000584950,ENST00000579315,ENST00000261652,ENST00000583789,ENST00000331302,ENST00000323434,ENST00000536489,ENST00000576420,ENST00000577079,ENST00000574722,ENST00000570638,ENST00000574953,ENST00000573780,ENST00000575736	chr17	16845427	16844928	-	4025-4026	102,148,117,113
chr17	169340	169211	ENST00000577514,ENST00000395811,ENST00000444976,ENST00000395804,ENST00000341712	chr17	132645	132422	-	4027-4028	89
chr17	16981325	16981390	ENST00000395811,ENST00000444976,ENST00000395804,ENST00000341712,ENST00000584067	chr17	17004019	17004228	+	4029	491,453,297,21
chr17	17057620,17	17057729	ENST00000579832	chr17	17061069	17061161	+	4030-4033	
chr17	17226499	17226559	ENST00000389022	chr17	17245904	17246237	+	4034	143
chr17	1733388	1733420	ENST00000254719	chr17	1733882	1734059	+	4035	11
chr17	17380356	17380579	ENST00000268711,ENST00000580462,ENST00000581315	chr17	17390721	17391030	+	4036	74
chr17	1756395	1756483	ENST00000571058,ENST00000570451,ENST00000254719	chr17	1757754	1757986	+	4037-4038	107,12
chr17	17716793,18	17716682	ENST00000485080,ENST00000578469,ENST00000395757,ENST00000355815,ENST00000261646,ENST00000478616	chr17	17712308	17712198	-	4039-4044	104,25,817,1101,1071,141
chr17	1787106	1787238	ENST00000254719,ENST00000574049	chr17	1791458	1791477	+	4045-4046	458,214
chr17	17875627	17875576	ENST00000581396,ENST00000379504,ENST00000318094,ENST00000395739,ENST00000535933,ENST00000540946,ENST00000542206	chr17	17859256	17859007	-	4047	17

			ENST00000581396,ENST00000379504,ENST00000318094,ENST00000395739,ENST00000535933						17
chr17	17875627	17875576	-	,ENST00000540946,ENST00000542206	chr17	17859314	17859007	-	4048	
chr17	17924552	17924437	-	ENST00000474627	chr17	17892906	17892842	-	4049	244
				ENST00000584205,ENST00000462733,ENST00000585101,ENST00000474627,ENST00000444058						44
chr17	17942327	17942195	-		chr17	17892906	17892842	-	4050	
				ENST00000316694,ENST00000352886,ENST00000539052,ENST00000354098						173,35
chr17	18250970,18	18250810	-		chr17	18248741	18248571	-	4051-4052	
				ENST00000432893,ENST00000414602,ENST00000419071,ENST00000268835,ENST00000412418,ENST00000536323,ENST00000455992,ENST00000422237,ENST00000542013,ENST00000574451						194,154,108,156,50
chr17	18793135	18793190	+		chr17	18811094	18811167	+	4053-4057	
				ENST00000344415,ENST00000577213,ENST00000437957,ENST00000574324,ENST00000583540						99,70,48,13
chr17	19041779,19	19041901	+		chr17	19060087	19060138	+	4058-4061	
				ENST00000263083,ENST00000571418,ENST00000575667						25,24
chr17	1933449,193	1933524	+		chr17	1935194	1935259	+	4062-4063	
				ENST00000176643,ENST00000582991,ENST00000581518,ENST00000395575,ENST00000339618,ENST00000579855,ENST00000571163,ENST00000573947						369,42,38
chr17	19566646,1956	19566812	+		chr17	19588588	19589107	+	4064-4066	
				ENST00000325411,ENST00000350657,ENST00000433844						339,303
chr17	19608816	19608749	-		chr17	19608433	19608136	-	4067-4068	
chr17	19728495	19728407	-	ENST00000361658,ENST00000395544	chr17	19726506	19726302	-	4069	308
				ENST00000395527,ENST00000583482,ENST00000583463,ENST00000395529,ENST00000261503						94
chr17	20013740	20013875	+	,ENST00000581973	chr17	20028213	20028520	+	4070	
chr17	20768822	20768732	-	ENST00000327925	chr17	20732651	20732353	-	4071	220
chr17	20768822	20768732	-	ENST00000327925	chr17	20761738	20761371	-	4072	220
				ENST00000572875,ENST00000573062,ENST00000268989,ENST00000426855,ENST00000574563						19
chr17	2240983	2241039	+		chr17	2245171	2245425	+	4073	
				ENST00000572875,ENST00000573062,ENST00000268989,ENST00000426855,ENST00000574563						19
chr17	2240983	2241039	+		chr17	2245174	2245425	+	4074	
				ENST00000572875,ENST00000573062,ENST00000268989,ENST00000426855,ENST00000574563						19
chr17	2240983	2241039	+		chr17	2246129	2246279	+	4075	
				ENST00000268989,ENST00000426855,ENST00000574563						525,48
chr17	2274556	2274709	+		chr17	2274910	2275026	+	4076-4077	
				ENST00000268989,ENST00000426855,ENST00000574563						596,551
chr17	2275637	2275782	+		chr17	2276050	2276069	+	4078-4079	
chr17	2614955	2614856	-	ENST00000574426	chr17	2611828	2611783	-	4080	33
chr17	262939	263221	+	ENST00000360127,ENST00000491373	chr17	270463	270776	+	4081-4082	195,189
chr17	26938518,27	26938411	-	ENST00000578956,ENST00000301037	chr17	26932233	26930495	-	4083-4084	36,3
chr17	26939102	26939062	-	ENST00000494272,ENST00000301037	chr17	26932233	26930495	-	4085-4086	48,231
chr17	26939705	26939636	-	ENST00000301037,ENST00000530121	chr17	26932233	26930495	-	4087-4088	182,178
				ENST00000528896,ENST00000544884,ENST00000389003						1941,1798
chr17	26945989	26945809	-		chr17	26944917	26944783	-	4089-4090	
chr17	26988894,27	26988744	-	ENST00000247020,ENST00000591903	chr17	26986845	26986473	-	4091-4092	50,31
chr17	26988894,27	26988744	-	ENST00000247020,ENST00000591903	chr17	26986909	26986473	-	4093-4094	50,31
chr17	27017939	27018081	+	ENST00000314616,ENST00000347486	chr17	27019643	27019739	+	4095	1211
chr17	27020714	27020854	+	ENST00000314616,ENST00000347486	chr17	27022348	27022368	+	4096	1258
chr17	27186221	27186301	+	ENST00000254928,ENST00000583487	chr17	27201113	27201151	+	4097-4098	397,7
				ENST00000394906,ENST00000394908,ENST00000580805,ENST00000585169,ENST00000586827						16
chr17	27224592	27224544	-		chr17	27220568	27220427	-	4099	
				ENST00000332830,ENST00000577226,ENST00000378879,ENST00000268756						378
chr17	27244467	27244303	-		chr17	27242493	27242238	-	4100	
				ENST00000332830,ENST00000577226,ENST00000378879,ENST00000268756						378
chr17	27244467	27244303	-		chr17	27243359	27243221	-	4101	
chr17	27861136	27861318	+	ENST00000261716,ENST00000536202	chr17	27862597	27862888	+	4102-4103	848,7
chr17	28175947	28175867	-	ENST00000540801	chr17	28153251	28153126	-	4104	48
				ENST00000269033,ENST00000540801,ENST00000579040,ENST00000582084,ENST00000590153						21
chr17	28257018	28256956	-	,ENST00000579954	chr17	28249095	28248890	-	4105	
				ENST00000448319,ENST00000423598,ENST00000536908,ENST00000378738,ENST00000320856,ENST00000394832,ENST00000394835,ENST00000440741						7,63
chr17	28270646,28	28270667	+		chr17	28272945	28273443	+	4106-4107	
				ENST00000448319,ENST00000423598,ENST00000536908,ENST00000378738,ENST00000320856,ENST00000394832,ENST00000394835,ENST00000440741						7,63
chr17	28270646,28	28270667	+		chr17	28273888	28273951	+	4108-4109	
				ENST00000541045,ENST00000536908,ENST00000378738,ENST00000320856,ENST00000394832,ENST00000394835,ENST00000440741,ENST00000419434,ENST00000588978						5,292,348,154,146
chr17	28326980,28	28326994	+		chr17	28349862	28353222	+	4110-4114	

Table 9

			ENST00000225724,ENST00000451249,ENST00000427274,ENST00000537788,ENST00000581721,ENST00000414833						48,53
chr17	28808161	28808275	+	chr17	28850117	28851242	+	4115-4116	171,169,106,167,176
chr17	28819697,29	28819771	+	ENST00000225724,ENST00000451249,ENST00000427274,ENST00000467337,ENST00000581721,ENST00000414833	chr17	28832499	28832745	+	4117-4121	186,181,179,116
chr17	28837898	28837927	+	ENST00000225724,ENST00000451249,ENST00000467337,ENST00000414833	chr17	28849953	28851242	+	4122-4125	101
chr17	29100515	29100425	-	ENST00000583527	chr17	29096476	29096405	-	4126	20,54
chr17	29422328,29	29422387	+	ENST00000356175,ENST00000358273,ENST00000431387,ENST00000579081	chr17	29463067	29463376	+	4127-4128	34
chr17	295730	295627	-	ENST00000329099	chr17	293509	293428	-	4129	34
chr17	295730	295627	-	ENST00000329099	chr17	293566	293428	-	4130	33
chr17	30186218	30186120	-	ENST00000302362,ENST00000496655,ENST00000579984	chr17	30185530	30185417	-	4131	12
chr17	30469712	30469748	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581094,ENST00000578205,ENST00000394692	chr17	30473252	30473362	+	4132	12
chr17	30469712	30469748	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581094,ENST00000578205,ENST00000394692	chr17	30473257	30473362	+	4133	12
chr17	30469712	30469748	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581094,ENST00000578205,ENST00000394692	chr17	30487026	30488002	+	4134	109,88
chr17	30503180	30503232	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000354266,ENST00000581031,ENST00000581094,ENST00000394692	chr17	30505235	30506183	+	4135-4136	109,88
chr17	30503180	30503232	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000354266,ENST00000581031,ENST00000581094,ENST00000394692	chr17	30505640	30506183	+	4137-4138	652,620,143,43
chr17	30538135	30538257	+	ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581148,ENST00000584852	chr17	30548416	30548418	+	4139-4142	954,866
chr17	30932259	30932105	-	ENST00000318217,ENST00000394649,ENST00000579584	chr17	30927669	30926971	-	4143-4144	954,866
chr17	30932259	30932105	-	ENST00000318217,ENST00000394649,ENST00000579584	chr17	30928380	30928253	-	4145-4146	236
chr17	31619133	31618426	-	ENST00000225823	chr17	31561582	31561563	-	4147	33,15,73,192,147,80,212,194
chr17	33433500,33	33433405	-	ENST00000593039,ENST00000591723,ENST00000592181,ENST00000345365,ENST00000394589,ENST00000588372,ENST00000360276,ENST00000335858,ENST00000590016,ENST00000460118,ENST00000587405,ENST00000592577,ENST00000590631	chr17	33433201	33433153	-	4148-4155	87,89,55
chr17	33445638	33445520	-	ENST00000345365,ENST00000394589,ENST00000360276,ENST00000587977,ENST00000586210,ENST00000592577,ENST00000585343,ENST00000592850,ENST00000357906	chr17	33443811	33443500	-	4156-4158	
chr17	33687390	33687262	-	ENST00000308377,ENST00000394566	chr17	33681985	33681926	-	4159	399
chr17	33805204	33805094	-	ENST00000260908,ENST00000361112,ENST00000449046	chr17	33791600	33791284	-	4160-4162	401,430,432
chr17	3397644	3397753	+	ENST00000456349,ENST00000263080	chr17	3403420	3403794	+	4163	248
chr17	34856799	34856670	-	ENST00000431794,ENST00000268852	chr17	34856228	34856125	-	4164-4165	792,592
chr17	34856799	34856670	-	ENST00000431794,ENST00000268852	chr17	34856246	34856125	-	4166-4167	792,592
chr17	34867294	34867204	-	ENST00000431794,ENST00000586908,ENST00000268852	chr17	34866816	34866804	-	4168	328
chr17	34867294	34867204	-	ENST00000431794,ENST00000586908,ENST00000268852	chr17	34866853	34866804	-	4169	328
chr17	34958982,35	34959075	+	ENST00000250156,ENST00000585770	chr17	34988002	34988048	+	4170-4171	212,17
chr17	34964106	34964238	+	ENST00000250156,ENST00000585770	chr17	34988002	34988048	+	4172-4173	256,61
chr17	34964335	34964454	+	ENST00000250156,ENST00000585770	chr17	34986556	34986602	+	4174-4175	296,101
chr17	34964335	34964454	+	ENST00000250156,ENST00000585770	chr17	34988002	34988048	+	4176-4177	296,101
chr17	35620797	35620588	-	ENST00000353139,ENST00000360679,ENST00000394406,ENST00000335166	chr17	35617506	35617208	-	4178-4181	443,348,406,328
chr17	35627752	35627642	-	ENST00000353139,ENST00000360679,ENST00000394406,ENST00000335166	chr17	35622418	35622222	-	4182-4185	373,278,336,258
chr17	36523765	36523933	+	ENST00000331159,ENST00000577233,ENST00000580660	chr17	36529683	36529763	+	4186-4188	419,453,151
chr17	3743499	3743394	-	ENST00000389005	chr17	3742935	3742649	-	4189	118
chr17	37453448	37453380	-	ENST00000583610,ENST00000394294,ENST00000264658,ENST00000577399	chr17	37447134	37447124	-	4190-4191	132,134
chr17	37453448	37453380	-	ENST00000583610,ENST00000394294,ENST00000264658,ENST00000577399	chr17	37447139	37447124	-	4192-4193	132,134
chr17	37817234	37817338	+	ENST00000336308,ENST00000544210,ENST00000394250,ENST00000580611	chr17	37818036	37818097	+	4194-4197	379,379,361,353
chr17	37868575	37868701	+	ENST00000584601,ENST00000578199,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450,ENST00000269571,ENST00000540042,ENST00000578502	chr17	37869978	37870025	+	4198-4202	124,352,367,106,382
chr17	3806637	3806496	-	ENST00000225538	chr17	3806325	3806277	-	4203	249
chr17	38151677	38151780	+	ENST00000264639,ENST00000541736	chr17	38152358	38152394	+	4204-4205	440,302

Table 9

chr17	38547892	38547758	-	ENST00000423485	chr17	38547489	38547488	-	4206	1422
chr17	38547892	38547758	-	ENST00000423485	chr17	38547549	38547488	-	4207	1422
chr17	38552717	38552535	-	ENST00000423485	chr17	38552394	38552236	-	4208	1240
				ENST00000397035,ENST00000397041,ENST000						73
				00309890,ENST00000359983,ENST00000352011						
chr17	3856723	3856641	-	,ENST00000397043	chr17	3855541	3855390	-	4209	
				ENST00000591776,ENST00000469257,ENST000						99,47
chr17	39846340	39846441	+	00586699	chr17	39848956	39849044	+	4210-4211	
				ENST00000393930,ENST00000310706,ENST000						591
chr17	39914770	39914651	-	00393931	chr17	39914371	39914298	-	4212	
				ENST00000352035,ENST00000590151,ENST000						590,580,319
				00353196,ENST00000537919,ENST00000393896						
chr17	40048700	40048532	-		chr17	40048221	40047940	-	4213-4215	
				ENST00000346213,ENST00000393860,ENST000						178,211,109
chr17	40278866	40278773	-	00547517,ENST00000551338	chr17	40278069	40278064	-	4216-4218	
				ENST00000592248,ENST00000592574,ENST000						147,180,78
				00346213,ENST00000393860,ENST00000547517						
chr17	40280401	40280279	-	,ENST00000551338	chr17	40280103	40279846	-	4219-4221	
				ENST00000393829,ENST00000546249,ENST000						141,82,67
				00264649,ENST00000343619,ENST00000589727						
chr17	40622108	40622236	+	,ENST00000592324	chr17	40624462	40624752	+	4222-4224	
				ENST00000225927,ENST00000586516,ENST000						44,127,42
chr17	40688291,4068	40688673	+	00591587	chr17	40688835	40688900	+	4225-4227	
chr17	40812657	40812725	+	ENST00000251412	chr17	40813593	40813977	+	4228	133
chr17	40812657	40812725	+	ENST00000251412	chr17	40813836	40813977	+	4229	133
chr17	40815395	40815521	+	ENST00000251412	chr17	40816672	40816795	+	4230	202
chr17	40848043	40848170	+	ENST00000264638	chr17	40848911	40849034	+	4231	1158
				ENST00000341657,ENST00000574367,ENST000						3
chr17	4167236	4167227	-	00572412,ENST00000433651	chr17	4152543	4152457	-	4232	
				ENST00000341657,ENST00000574367,ENST000						3
chr17	4167236	4167227	-	00572412,ENST00000433651	chr17	4165687	4165598	-	4233	
				ENST00000377184,ENST00000269095,ENST000						511,494,518,
				00461854,ENST00000520305,ENST00000523501						355,483,539
chr17	41956771	41956643	-	,ENST00000536246,ENST00000518766	chr17	41952247	41952181	-	4234-4239	
				ENST00000591247,ENST00000293406,ENST000						86
chr17	42141302	42141169	-	00585388	chr17	42139853	42139733	-	4240	
				ENST00000225983,ENST00000393622,ENST000						32,31,22,50
				00336057,ENST00000586802,ENST00000588703						
chr17	42188171,4218	42188097	-	,ENST00000591714,ENST00000587135	chr17	42182399	42182284	-	4241-4244	
				ENST00000343638,ENST00000302904,ENST000						598,635,23
				00527034,ENST00000533177,ENST00000436088						
				,ENST00000393606,ENST00000526094,ENST000						
chr17	42286909,42	42286720	-	00529383,ENST00000529947	chr17	42286037	42286016	-	4245-4247	
				ENST00000343638,ENST00000302904,ENST000						598,635,23
				00527034,ENST00000533177,ENST00000436088						
				,ENST00000393606,ENST00000526094,ENST000						
chr17	42286909,42	42286720	-	00529383,ENST00000529947	chr17	42286041	42286016	-	4248-4250	
chr17	42451838	42451722	-	ENST00000353281,ENST00000262407	chr17	42448518	42448492	-	4251-4252	986,102
chr17	42466841	42466654	-	ENST00000353281,ENST00000262407	chr17	42463657	42463626	-	4253	62
chr17	42739685	42739839	+	ENST00000359945,ENST00000409122	chr17	42741961	42742032	+	4254	119
				ENST00000430334,ENST00000421073,ENST000						307,218
chr17	43553092	43552466	-	00581448	chr17	43551720	43551412	-	4255-4256	
chr17	4428352	4428488	+	ENST00000329078	chr17	4429016	4429158	+	4257	191
				ENST00000398238,ENST00000225282,ENST000						490,396,485
chr17	44782125	44782220	+	00575068	chr17	44783367	44783504	+	4258-4260	
				ENST00000576910,ENST00000439730,ENST000						147,194,129,
				00571841,ENST00000393456,ENST00000225567						192,35
				,ENST00000572403,ENST00000570879,ENST000						
chr17	45015965	45016070	+	00573224	chr17	45025932	45026020	+	4261-4265	
				ENST00000572316,ENST00000354968,ENST000						104,135,8
				00576874,ENST00000536623,ENST00000573747						
				,ENST00000393450,ENST00000572303,ENST000						
chr17	45297270,45	45297419	+	00570671	chr17	45298654	45298717	+	4266-4268	
				ENST00000572316,ENST00000354968,ENST000						188,92
				00536623,ENST00000393450,ENST00000570671						
chr17	45299746	45299823	+		chr17	45304937	45305266	+	4269-4270	
				ENST00000331493,ENST00000517484,ENST000						648,552,174
chr17	45473200	45473343	+	00523842	chr17	45474429	45476216	+	4271-4273	
				ENST00000331493,ENST00000517484,ENST000						648,552,174
chr17	45473200	45473343	+	00523842	chr17	45497371	45499010	+	4274-4276	
				ENST00000530173,ENST00000322157,ENST000						865,869,789,
chr17	45697103	45697150	+	00544660,ENST00000528565	chr17	45698301	45698566	+	4277-4280	119
				ENST00000535458,ENST00000290158,ENST000						96,67,212
				00540627,ENST00000537679,ENST00000582097						
chr17	45735874	45736026	+		chr17	45736303	45736426	+	4281-4283	
chr17	47103828	47103879	+	ENST00000290341,ENST00000431824	chr17	47106560	47106626	+	4284	112
				ENST00000259021,ENST00000454930,ENST000						473,334,363,
				00509773,ENST00000510819,ENST00000424009						304,443,317,
chr17	47900564	47900597	+	,ENST00000503935,ENST00000435742	chr17	47902868	47903153	+	4285-4291	287
				ENST00000259021,ENST00000454930,ENST000						493,354,383,
				00509773,ENST00000510819,ENST00000424009						324,463,337,
chr17	47900564	47900657	+	,ENST00000503935,ENST00000435742	chr17	47902884	47903153	+	4292-4298	307

Table 9

				ENST00000544892,ENST00000320031,ENST000					160,385,7
chr17	48149350,48	48149546	+	00007722,ENST00000510809	chr17	48150324	48150544	+ 4299-4301	
				ENST00000225969,ENST00000503633,ENST000					13
chr17	48450531	48450492	-	00442592	chr17	48448516	48448350	- 4302	
				ENST00000323776,ENST00000437498,ENST000					348,323,311
chr17	48597001	48597148	+	00436259	chr17	48597954	48598031	+ 4303-4305	
				ENST00000575142,ENST00000206020,ENST000					17,28
chr17	4871066,487	4871015	-	00575784	chr17	4865868	4865712	- 4306-4307	
				ENST00000427699,ENST00000285238,ENST000					477,495
chr17	48742514	48742606	+	00502426,ENST00000505699	chr17	48743541	48743550	+ 4308-4309	
chr17	48746713	48746889	+	ENST00000285238,ENST00000505699	chr17	48750082	48750246	+ 4310	747
chr17	48746713	48746889	+	ENST00000285238,ENST00000505699	chr17	48750120	48750246	+ 4311	747
chr17	49371264	49371406	+	ENST00000225298	chr17	49394231	49395277	+ 4312	548
				ENST00000574081,ENST00000399600,ENST000					41
chr17	5126751	5126649	-	00571800,ENST00000574297	chr17	5126455	5126385	- 4313	
				ENST00000262477,ENST00000408982,ENST000					829,796,786,
				00537505,ENST00000546142,ENST00000341923					122
chr17	5284684	5284800	+	,ENST00000572250	chr17	5285149	5285378	+ 4314-4317	
				ENST00000576370,ENST00000572558,ENST000					216,36
				00574821,ENST00000299335,ENST00000571584					
chr17	53040792,53	53040667	-		chr17	53029473	53029438	- 4318-4319	
				ENST00000397861,ENST00000397862,ENST000					52,76
chr17	54892330	54892230	-	00575658	chr17	54877244	54876536	- 4320-4321	
				ENST00000397861,ENST00000397862,ENST000					52,76
chr17	54892330	54892230	-	00575658	chr17	54888541	54888536	- 4322-4323	
chr17	55918413	55918287	-	ENST00000313608,ENST00000578444	chr17	55849557	55849219	- 4324	140
chr17	55918413	55918287	-	ENST00000313608,ENST00000578444	chr17	55876951	55876635	- 4325	140
				ENST00000313608,ENST00000578444,ENST000					71,19
chr17	55926771,56	55926601	-	00579380	chr17	55922516	55922244	- 4326-4327	
				ENST00000393119,ENST00000313863,ENST000					341,331,138,
				00337050,ENST00000537529,ENST00000546108					25,167,82
				,ENST00000577315,ENST00000577824,ENST000					
chr17	56288085	56288020	-	00585134	chr17	56286254	56286028	- 4328-4333	
				ENST00000583539,ENST00000337432,ENST000					279,158,44
chr17	56787220	56787351	+	00413590,ENST00000584804	chr17	56789280	56789407	+ 4334-4336	
				ENST00000262293,ENST00000578777,ENST000					42,69
				00582995,ENST00000578542,ENST00000580177					
chr17	57247114,57	57247241	+		chr17	57250820	57251099	+ 4337-4338	
				ENST00000262293,ENST00000578542,ENST000					338,49,45
				00580177,ENST00000582004,ENST00000577660					
chr17	57275054	57275150	+		chr17	57275331	57275481	+ 4339-4341	
				ENST00000251241,ENST00000451169,ENST000					633,585,556
chr17	57679883	57679977	+	00425628	chr17	57681190	57681647	+ 4342-4344	
				ENST00000251241,ENST00000451169,ENST000					633,585,556
chr17	57679883	57679977	+	00425628	chr17	57681538	57681647	+ 4345-4347	
				ENST00000325752,ENST00000340993,ENST000					179
				00394239,ENST00000376094,ENST00000592426					
chr17	57958471	57958255	-		chr17	57958168	57957867	- 4348	
				ENST00000346141,ENST00000325752,ENST000					57
				00340993,ENST00000394239,ENST00000376094					
chr17	57968363	57968192	-	,ENST00000592426,ENST00000591548	chr17	57967924	57967903	- 4349	
				ENST00000589222,ENST00000407086,ENST000					808,823,594,
				00390652,ENST00000408905,ENST00000588462					579,62
				,ENST00000585744,ENST00000588874,ENST000					
chr17	59161828	59161925	+	00587002	chr17	59430949	59431036	+ 4350-4354	
chr17	59481967	59482130	+	ENST00000240328	chr17	59482382	59482469	+ 4355	350
chr17	59481967	59482130	+	ENST00000240328	chr17	59482455	59482469	+ 4356	350
chr17	59481967	59482130	+	ENST00000240328	chr17	59482458	59482469	+ 4357	350
chr17	59793424	59793312	-	ENST00000259008,ENST00000577598	chr17	59778296	59777522	- 4358	830
chr17	59876660	59876461	-	ENST00000259008,ENST00000577598	chr17	59873901	59872464	- 4359	446
chr17	59924581	59924462	-	ENST00000259008,ENST00000577598	chr17	59923180	59922679	- 4360	209
chr17	59962366	59962262	-	ENST00000444766,ENST00000251334	chr17	59962023	59961948	- 4361-4362	704,696
				ENST00000574946,ENST00000573634,ENST000					283,167
				00317744,ENST00000574232,ENST00000539421					
chr17	5998422	5998543	+		chr17	6002909	6003307	+ 4363-4364	
chr17	60512593	60512653	+	ENST00000311506	chr17	60512815	60513219	+ 4365	223
				ENST00000437048,ENST00000574029,ENST000					56
				00573028,ENST00000291074,ENST00000571805					
chr17	613853	613773	-	,ENST00000389040,ENST00000401468	chr17	612027	611296	- 4366	
				ENST00000578681,ENST00000583590,ENST000					242,123
				00359353,ENST00000389924,ENST00000457800					
chr17	61882431	61882535	+		chr20	45369287	45369495	+ 4367-4368	
				ENST00000448276,ENST00000323347,ENST000					241,193,166
chr17	61912927	61912772	-	00225742	chr17	61912380	61912356	- 4369-4371	
				ENST00000448276,ENST00000323347,ENST000					241,193,166
chr17	61912927	61912772	-	00225742	chr17	61912391	61912356	- 4372-4374	
chr17	62137947	62137829	-	ENST00000433197	chr17	62135721	62135437	- 4375	402
chr17	62493086	62492525	-	ENST00000539111	chr17	62489915	62489902	- 4376	187
				ENST00000582081,ENST00000578386,ENST000					53,66
chr17	62594608	62594500	-	00262435,ENST00000585301	chr17	62591300	62591227	- 4377-4378	
				ENST00000582081,ENST00000578386,ENST000					17
chr17	62657998	62657947	-	00262435,ENST00000585301	chr17	62610044	62609863	- 4379	

Table 9

chr17	63049846,63	63049620	-	ENST00000439174,ENST00000541118	chr17	63017067	63016773	-	4380-4381	170,75
chr17	66303635	66303852	+	ENST00000448504	chr17	66307681	66307941	+	4382	72
chr17	67039856	67039630	-	ENST00000340001,ENST00000453985,ENST00000370732,ENST00000495634	chr17	67039203	67038977	-	4383	266
chr17	6829602	6829480	-	ENST00000575889	chr17	6784381	6784340	-	4384	73
chr17	70732858	70732789	-	ENST00000255559,ENST00000542342,ENST00000582769,ENST00000581581	chr17	70695344	70695309	-	4385-4388	223,230,139,47
chr17	70845943,7084	70845773	-	ENST00000255559,ENST00000542342,ENST00000582769,ENST00000581581,ENST00000579319,ENST00000583715,ENST00000579732,ENST00000580557	chr17	70814077	70813926	-	4389-4394	200,207,116,24,47,57
chr17	70845943,7084	70845773	-	ENST00000255559,ENST00000542342,ENST00000582769,ENST00000581581,ENST00000579319,ENST00000583715,ENST00000579732,ENST00000580557	chr17	70814543	70814304	-	4395-4400	200,207,116,24,47,57
chr17	70845943,7084	70845773	-	ENST00000255559,ENST00000542342,ENST00000582769,ENST00000581581,ENST00000579319,ENST00000583715,ENST00000579732,ENST00000580557	chr17	70827589	70827515	-	4401-4406	200,207,116,24,47,57
chr17	71452192	71452045	-	ENST00000392650,ENST00000388726	chr17	71451140	71450849	-	4407	159
chr17	7195378	7195345	-	ENST00000007699	chr17	7194895	7194882	-	4408	123
chr17	7195378	7195345	-	ENST00000007699	chr17	7194990	7194882	-	4409	123
chr17	72861942	72861841	-	ENST00000293195,ENST00000544854,ENST00000420580,ENST00000581530,ENST00000455107,ENST00000583917,ENST00000442102,ENST00000582944,ENST00000413947,ENST00000579893	chr17	72861510	72861251	-	4410-4418	203,151,163,159,204,246,195,234,152
chr17	72861942	72861841	-	ENST00000293195,ENST00000544854,ENST00000420580,ENST00000581530,ENST00000455107,ENST00000583917,ENST00000442102,ENST00000582944,ENST00000413947,ENST00000579893	chr17	72861609	72861251	-	4419-4427	203,151,163,159,204,246,195,234,152
chr17	73008782,73	73008967	+	ENST00000584208,ENST00000301585,ENST00000580800	chr17	73012483	73012524	+	4428-4429	62,45
chr17	73142779	73142761	-	ENST00000476258,ENST00000405458,ENST00000409753,ENST00000482348,ENST00000470924,ENST00000481647,ENST00000580380	chr17	73136655	73136607	-	4430-4431	59,105
chr17	73201857	73201889	+	ENST00000245544,ENST00000579298,ENST00000581104	chr17	73204250	73204560	+	4432	11
chr17	73205918,73	73206080	+	ENST00000583569,ENST00000245544,ENST00000541827,ENST00000579298,ENST00000581104	chr17	73206555	73206643	+	4433-4435	74,96,50
chr17	73234843	73234733	-	ENST00000351904,ENST00000245541,ENST00000578348,ENST00000582486,ENST00000580646,ENST00000583282,ENST00000538886,ENST00000582717,ENST00000578208	chr17	73222536	73222363	-	4436-4442	654,687,565,615,148,93,61
chr17	73259421	73259588	+	ENST00000579761,ENST00000245539,ENST00000579002,ENST00000581993,ENST00000584678	chr17	73260110	73260275	+	4443-4446	98,82,169,198
chr17	73259421	73259588	+	ENST00000579761,ENST00000245539,ENST00000579002,ENST00000581993,ENST00000584678	chr17	73260114	73260275	+	4447-4450	169,198,98,82
chr17	73467987	73468010	+	ENST00000577380,ENST00000314256,ENST00000582455,ENST00000579208,ENST00000581519	chr17	73468657	73468738	+	4451	8
chr17	73482371,73	73482507	+	ENST00000314256,ENST00000375248,ENST00000579707,ENST00000580441	chr17	73483727	73483759	+	4452-4454	136,146,31
chr17	73517786,74	73518414	+	ENST00000333213,ENST00000545228	chr17	73518981	73519268	+	4455-4456	113,417
chr17	73539508	73539582	+	ENST00000580578,ENST00000167462,ENST00000375227,ENST00000392550,ENST00000578363,ENST00000579392,ENST00000577200,ENST00000578536,ENST00000580925,ENST00000581713	chr17	73542500	73542532	+	4457	25
chr17	73725346	73725517	+	ENST00000579662,ENST00000339591,ENST00000200181,ENST00000450894,ENST00000449880	chr17	73726063	73726108	+	4458	246
chr17	73733619	73733725	+	ENST00000579662,ENST00000339591,ENST00000200181,ENST00000450894,ENST00000449880	chr17	73734167	73734266	+	4459	740
chr17	73780809,74	73781065	+	ENST00000293218,ENST00000589666,ENST00000587501,ENST00000586527,ENST00000592629	chr17	73782671	73782966	+	4460-4461	110,34
chr17	73887428	73887253	-	ENST00000269383,ENST00000543309	chr17	73876710	73876537	-	4462-4463	238,387
chr17	73887428	73887253	-	ENST00000269383,ENST00000543309	chr17	73885428	73885139	-	4464-4465	238,387
chr17	73887428	73887358	-	ENST00000591668,ENST00000592642,ENST00000269383,ENST00000543309	chr17	73878820	73878751	-	4466-4469	116,203,70,32
chr17	73887428	73887358	-	ENST00000591668,ENST00000592642,ENST00000269383,ENST00000543309	chr17	73885422	73885139	-	4470-4473	116,70,352,203
chr17	73913931,74	73913813	-	ENST00000586717,ENST00000319129,ENST00000389570,ENST00000592193,ENST00000588283	chr17	73913221	73912930	-	4474-4477	821,820,834,10
chr17	7400083	7400364	+	ENST00000322644,ENST00000572844	chr17	7400556	7400621	+	4478	273

Table 9

				ENST00000389760,ENST00000313080,ENST00000591885					371,4
chr17	74473106	74472912	-	ENST00000380512,ENST00000582169,ENST00000578495,ENST00000293831,ENST00000585024,ENST00000583802,ENST00000577269,ENST00000584784,ENST00000582746,ENST00000584860	chr17	74472151	74471975	-	4479-4480	99,79,115,113,125
chr17	7478437	7478576	+	,ENST00000581384	chr17	7479673	7479808	+	4481-4485	
chr17	75303223	75303279	+	ENST00000427177	chr17	75313547	75313852	+	4486	25
				ENST00000590602,ENST00000322933,ENST00000392467,ENST00000322914,ENST00000591436						759,338
chr17	76113428	76113350	-		chr17	76110159	76110081	-	4487-4488	
				ENST00000590602,ENST00000322933,ENST00000392467,ENST00000322914,ENST00000591436						759,338
chr17	76113428	76113350	-		chr17	76112232	76112119	-	4489-4490	
				ENST00000225777,ENST00000585591,ENST00000589183,ENST00000589711,ENST00000588282						33,32
chr17	76164698,76	76164796	+	,ENST00000589168	chr17	76166639	76166781	+	4491-4492	
				ENST00000585509,ENST00000589297,ENST00000591455,ENST00000361101,ENST00000446868						313,371,372
chr17	76676426	76676272	-		chr17	76644957	76644781	-	4493-4495	
chr17	7769811	7769809	-	ENST00000576861	chr17	7769691	7769402	-	4496	1
chr17	78180769	78180884	+	ENST00000573882,ENST00000344227	chr17	78189665	78189845	+	4497	935
				ENST00000508628,ENST00000582970,ENST00000336301						2045,1996,69
chr17	78313001,78	78314156	+	ENST00000508628,ENST00000582970,ENST00000336301	chr17	78316103	78316134	+	4498-4500	3443,3394,1
chr17	78324101	78324196	+	ENST00000508628,ENST00000582970,ENST00000336301	chr17	78325035	78325131	+	4501-4503	467
				ENST00000380262,ENST00000563694,ENST00000380255,ENST00000565740						4708,4659,2732
chr17	78355347	78355527	+	ENST00000574767,ENST00000570891,ENST00000306801,ENST00000544334	chr17	78356060	78356143	+	4504-4506	437
chr17	7843414	7843560	+	ENST00000380262,ENST00000563694,ENST00000380255,ENST00000565740	chr17	7844546	7844575	+	4507	481
chr17	7846709	7846842	+	ENST00000574767,ENST00000570891,ENST00000306801,ENST00000544334	chr17	7847055	7847172	+	4508	54
chr17	78519430	78519591	+	ENST00000574767,ENST00000570891,ENST00000306801,ENST00000544334	chr17	78567044	78567786	+	4509	54
chr17	78519430	78519591	+	ENST00000306801,ENST00000544334	chr17	78593427	78593552	+	4510	
chr17	78923243	78923347	+	ENST00000572525,ENST00000325167,ENST00000572778,ENST00000571457	chr17	78928815	78928982	+	4511-4512	1123,965
chr17	78969472	78969558	+		chr17	78969979	78970137	+	4513-4516	30,116,95,74
chr17	79531005	79530947	-	ENST00000573519	chr17	79528336	79528283	-	4517	109
				ENST00000331134,ENST00000572760,ENST00000573519,ENST00000573876,ENST00000571714,ENST00000572824,ENST00000573212,ENST00000374747,ENST00000539314						89,136,556,21,124,102,395
chr17	79532633,8	79532531	-		chr17	79527742	79527729	-	4518-4524	
chr17	80038114	80038016	-	ENST00000306749	chr17	80037742	80037561	-	4525	2382
				ENST00000389641,ENST00000392347,ENST00000419322,ENST00000392343						130,747
chr17	80115824	80115624	-	ENST00000389641,ENST00000392347,ENST00000419322,ENST00000392343	chr17	80093270	80092984	-	4526-4527	130,747
chr17	80115824	80115624	-	ENST00000398519,ENST00000314028,ENST00000392334,ENST00000403276	chr17	80113066	80112739	-	4528-4529	62
chr17	80223672	80223562	-	ENST00000390006,ENST00000309794,ENST00000345415,ENST00000581202,ENST00000374611,ENST00000457415,ENST00000412079,ENST00000577432,ENST00000584513	chr17	80216658	80216412	-	4530	43,197,256,208,211,302,128
chr17	80438958,8	80439087	+		chr17	80441082	80441208	+	4531-4537	
				ENST00000473637,ENST00000335255,ENST00000575578						525,23
chr17	80543780,81	80544076	+	ENST00000392325,ENST00000572583,ENST00000573616,ENST00000571817	chr17	80544502	80544792	+	4538-4539	22,15
chr17	80606216,81	80606150	-		chr17	80602627	80602572	-	4540-4541	
chr17	80656472	80656331	-	ENST00000571995,ENST00000538809	chr17	80626107	80625827	-	4542	47
chr17	80706731	80706853	+	ENST00000300784	chr17	80707427	80707559	+	4543	197
				ENST00000572977,ENST00000576599,ENST00000320865						157,224,335
chr17	80914645	80914571	-	ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000536794	chr17	80909925	80909780	-	4544-4546	597,551,560,379,54
chr17	953421	953290	-	,ENST00000572152	chr17	952567	952416	-	4547-4551	
				ENST00000331302,ENST00000323434,ENST00000536489						204,175
chr17	97076	96902	-		chr17	90431	90088	-	4552-4553	
chr17	9791249	9791290	+	ENST00000574745,ENST00000262441	chr17	9795125	9795224	+	4554-4555	262,442
				ENST00000302079,ENST00000503781,ENST00000580640						1618,1643
chr18	10731519	10731405	-	ENST00000302079,ENST00000503781,ENST00000580640,ENST00000582913	chr18	10731033	10731024	-	4556-4557	53
chr18	11066221	11066126	-	ENST00000590693,ENST00000317702,ENST00000591909,ENST00000590388,ENST00000586653,ENST00000586810,ENST00000592683,ENST00000590967,ENST00000591208,ENST00000591463	chr18	11043969	11043698	-	4558	29,92,20
chr18	12310942,1231	12311052	+	,ENST00000586691	chr18	12313663	12313720	+	4559-4561	
chr18	12344246	12344131	-	ENST00000269143	chr18	12343721	12343597	-	4562	593
				ENST00000409402,ENST00000410092,ENST00000309836,ENST00000440472,ENST00000453447						86,396,199,237,276
chr18	12493200	12493071	-	,ENST00000592156,ENST00000383356	chr18	12491865	12491657	-	4563-4567	

Table 9

				ENST00000409402,ENST00000410092,ENST00000309836,ENST00000453447,ENST00000449797					124,4,22
chr18	12635095,13	12635061	-	,ENST00000497844,ENST00000462226	chr18	12628847	12627076	-	4568-4570
chr18	12724498	12724618	+	ENST00000585331,ENST00000317615,ENST00000590217	chr18	12728047	12728839	+	4571-4572
chr18	14837614	14837675	+	ENST00000358984	chr18	14837784	14838039	+	4573
chr18	18533746	18533539	-	ENST00000399799,ENST00000578051	chr18	18529279	18529219	-	4574-4575
chr18	19353585	19353689	+	ENST00000261537	chr18	19354436	19354563	+	4576
chr18	19359442	19359646	+	ENST00000261537	chr18	19364603	19365382	+	4577
				ENST00000582354,ENST00000581819,ENST00000327155,ENST00000399722,ENST00000399725					82
chr18	20529581	20529676	+	,ENST00000399721,ENST00000360790	chr18	20537294	20537397	+	4578
				ENST00000327155,ENST00000399722,ENST00000399725,ENST00000360790,ENST00000583057					762,767,210
chr18	20581549,21	20581692	+		chr18	20582226	20582374	+	4579-4581
				ENST00000269221,ENST00000590870,ENST00000592119					136
chr18	21089157	21089243	+		chr18	21091006	21091450	+	4582
chr18	21166307	21166251	-	ENST00000269228	chr18	21156778	21156497	-	4583
chr18	21166307	21166251	-	ENST00000269228	chr18	21156806	21156497	-	4584
chr18	21427428	21427632	+	ENST00000313654,ENST00000399516	chr18	21431438	21431550	+	4585
chr18	216633	216486	-	ENST00000261600,ENST00000579891	chr18	216116	215967	-	4586-4587
chr18	21946930	21946856	-	ENST00000319481,ENST00000399441	chr18	21943325	21943102	-	4588
chr18	2544285	2544194	-	ENST00000574538	chr18	2517596	2517552	-	4589
chr18	2610758,261	2610860	+	ENST00000261597,ENST00000574096	chr18	2621137	2621195	+	4590-4591
chr18	2666869	2667030	+	ENST00000320876,ENST00000261598	chr18	2673016	2673084	+	4592
				ENST00000306851,ENST00000237019,ENST00000383131					38
chr18	29264389	29264275	-		chr18	29251601	29250721	-	4593
chr18	29625605	29625695	+	ENST00000217740	chr18	29667861	29668035	+	4594
chr18	29645865	29645972	+	ENST00000217740	chr18	29667861	29668035	+	4595
				ENST00000581852,ENST00000403303,ENST00000581524,ENST00000383096,ENST00000300227,ENST00000579916,ENST00000406524,ENST00000583930,ENST00000402325,ENST00000579947					46,841,338,803,161,865,791
chr18	30554645	30554511	-		chr18	30552512	30550974	-	4596-4602
				ENST00000591206,ENST00000330501,ENST00000261333,ENST00000355632,ENST00000585800					185
chr18	32823116	32823257	+	,ENST00000592264	chr18	32828412	32828458	+	4603
chr18	32825226	32825762	+	ENST00000330501	chr18	32828412	32828458	+	4604
				ENST00000592173,ENST00000334598,ENST00000441607,ENST00000586489,ENST00000587450					364 149,185,94,74,125
chr18	33058313	33058246	-	,ENST00000591139	chr18	33027506	33027398	-	4605-4609
				ENST00000592173,ENST00000334598,ENST00000441607,ENST00000586489,ENST00000587450					149,185,94,74,125
chr18	33058313	33058246	-	,ENST00000591139	chr18	33052574	33052547	-	4610-4614
chr18	33552848	33552870	+	ENST00000592875	chr18	33553555	33553602	+	4615
				ENST00000358232,ENST00000351393,ENST00000442325,ENST00000423854,ENST00000539560,ENST00000542430,ENST00000350494,ENST00000542824,ENST00000540799					33 72
chr18	33713201	33713279	+		chr18	33700936	33701108	+	4616
chr18	33767503	33767644	+	ENST00000261326	chr18	33771085	33771248	+	4617
				ENST00000257209,ENST00000445677,ENST00000590592,ENST00000359247					47 135
chr18	34081895	34081962	+		chr18	34084406	34084747	+	4618
				ENST00000280020,ENST00000592521,ENST00000587139,ENST00000591619					110,98,106
chr18	34424171	34424265	+		chr18	34432296	34432771	+	4619-4621
				ENST00000543923,ENST00000280020,ENST00000587139,ENST00000591619					179,84,192,188
chr18	34539271	34539398	+		chr18	34553023	34553451	+	4622-4625
				ENST00000400147,ENST00000539435,ENST00000400145					17
chr18	3845282	3845232	-		chr18	3840490	3840216	-	4626
				ENST00000400147,ENST00000539435,ENST00000400145					17
chr18	3845282	3845232	-		chr18	3840493	3840216	-	4627
				ENST00000262039,ENST00000398870,ENST00000586545,ENST00000585528,ENST00000591011					177,114,163,131
chr18	39550291	39550420	+		chr18	39564909	39565286	+	4628-4631
				ENST00000262039,ENST00000398870,ENST00000593098,ENST00000597477,ENST00000589056					754,691,239,180,101
chr18	39629495	39629569	+	,ENST00000587402	chr18	39631143	39631254	+	4632-4636
chr18	43604652	43604575	-	ENST00000589328,ENST00000409746	chr18	43596742	43596580	-	4637
				ENST00000300591,ENST00000398705,ENST00000579038,ENST00000398722,ENST00000441893,ENST00000582408,ENST00000536736,ENST00000398722,ENST00000536736,ENST00000441551					70 848,198,752,1681,830,786,1897,1753 404,682
chr18	44085986	44085801	-		chr18	44078646	44078361	-	4638-4645
chr18	44152125	44152049	-		chr18	44150644	44150609	-	4646-4647
				ENST00000285116,ENST00000398452,ENST00000417656,ENST00000488454					243,197,92
chr18	47918469	47918578	+		chr18	47931545	47931648	+	4648-4650
				ENST00000588577,ENST00000269466,ENST00000590722,ENST00000591429					52
chr18	48500775	48500931	+		chr18	48526577	48526896	+	4651
				ENST00000588577,ENST00000269466,ENST00000591429					78,208
chr18	48510857,49	48510933	+		chr18	48526577	48526896	+	4652-4653
chr18	57021812	57021751	-	ENST00000251047	chr18	57021030	57020989	-	4654
chr18	57147470	57147418	-	ENST00000439986	chr18	57140382	57140318	-	4655
chr18	57147470	57147418	-	ENST00000439986	chr18	57141934	57141503	-	4656

Table 9

chr18	59739958	59739906	-	ENST00000357637,ENST00000400334	chr18	59737682	59737600	-	4657	890
chr18	60035934	60036717	+	ENST00000586569	chr18	60046490	60047005	+	4658	522
				ENST00000400105,ENST00000317931,ENST000						481,294
				00284898,ENST00000535782,ENST00000400104						
chr18	6080950	6080880	-		chr18	6078875	6078644	-	4659-4660	
chr18	6575989	6576103	+	ENST00000584361	chr18	6576212	6576241	+	4661	104
				ENST00000299608,ENST00000564631,ENST000						33,13
				00569053,ENST00000443099,ENST00000562706						
				,ENST00000564008,ENST00000565918,ENST000						
chr18	66381137,66	66381083	-	00569982,ENST00000544714	chr18	66379732	66379093	-	4662-4663	
chr18	6955464	6955352	-	ENST00000389658	chr18	6951184	6951114	-	4664	2735
chr18	6955464	6955352	-	ENST00000389658	chr18	6954292	6953832	-	4665	2735
chr18	6971980	6971856	-	ENST00000389658	chr18	6970459	6970361	-	4666	2299
chr18	72921013	72920805	-	ENST00000322342	chr18	72850290	72850160	-	4667	69
				ENST00000355994,ENST00000580402,ENST000						46
				00579129,ENST00000397863,ENST00000397860						
chr18	74778341	74778254	-	,ENST00000581878	chr18	74775570	74775518	-	4668	
				ENST00000299543,ENST00000075430,ENST000						805,737
chr18	77477810	77478016	+	00591598	chr18	77484048	77484297	+	4669-4670	
				ENST00000269601,ENST00000585474,ENST000						85,14
				00592957,ENST00000355491,ENST00000592837						
chr18	77737701,78	77737598	-	,ENST00000591711	chr18	77731863	77731631	-	4671-4672	
chr18	77802135	77802219	+	ENST00000306735	chr18	77802630	77802788	+	4673	192
				ENST00000580170,ENST00000332175,ENST000						377,315,164
				00400060,ENST00000400053,ENST00000578916						
chr18	7955119	7955412	+	,ENST00000444013	chr18	7966442	7972472	+	4674-4676	
				ENST00000580170,ENST00000332175,ENST000						918,905,919,
				00400060,ENST00000400053,ENST00000444013						843,692
chr18	8253225	8253412	+		chr18	8270004	8271088	+	4677-4681	
chr18	8705659	8706711	+	ENST00000306329	chr18	8708193	8708205	+	4682	351
				ENST00000306329,ENST00000517570,ENST000						479,119
chr18	8720336	8720494	+	00400050,ENST00000359865	chr18	8720654	8720802	+	4683-4684	
				ENST00000306329,ENST00000517570,ENST000						1187,827,18
				00306285,ENST00000400050,ENST00000359865						3,868
chr18	8806891	8807058	+	,ENST00000518815	chr18	8809351	8809360	+	4685-4688	
				ENST00000577703,ENST00000318388,ENST000						18
chr18	9102742	9102795	+	00497577	chr18	9113912	9113948	+	4689	
				ENST00000583147,ENST00000262120,ENST000						41
chr18	9337228	9337350	+	00581641	chr18	9340883	9340921	+	4690	
				ENST00000583147,ENST00000262120,ENST000						74
chr18	9359970	9360069	+	00581641	chr18	9365071	9365327	+	4691	
				ENST00000583147,ENST00000262120,ENST000						74
chr18	9359970	9360069	+	00581641	chr18	9379228	9379669	+	4692	
chr18	9792151	9792232	+	ENST00000578921,ENST00000581109	chr18	9805803	9805889	+	4693	67
				ENST00000400000,ENST00000340541,ENST000						26
chr18	9914254	9914332	+	00585042	chr18	9927093	9927326	+	4694	
				ENST00000400000,ENST00000340541,ENST000						26
chr18	9914254	9914332	+	00585042	chr18	9983941	9984271	+	4695	
chr19	10047042	10046980	-	ENST00000264833	chr19	9974202	9973767	-	4696	21
				ENST00000587710,ENST00000590378,ENST000						121,26,14,76
chr19	10199983,1	10200054	+	00397881,ENST00000586889	chr19	10200155	10200219	+	4697-4700	
				ENST00000340748,ENST00000540357,ENST000						1158,1174
chr19	10251585	10251457	-	00359526	chr19	10251337	10251049	-	4701-4702	
chr19	10450290	10450215	-	ENST00000160262,ENST00000585439	chr19	10449884	10449718	-	4703	25
chr19	10818176	10818291	+	ENST00000250237,ENST00000591643	chr19	10819909	10819944	+	4704-4705	215,63
				ENST00000358026,ENST00000344626,ENST000						1390,1357,8
				00429416,ENST00000541122,ENST00000589677						0
				,ENST00000444061,ENST00000590574,ENST000						
				00413806,ENST00000450717,ENST00000592158						
chr19	11145590,11	11145808	+		chr19	11150377	11150476	+	4706-4708	
chr19	11150134	11150229	+	ENST00000358026	chr19	11150377	11150476	+	4709	1422
				ENST00000361757,ENST00000587024,ENST000						628,618,571
chr19	1116102	1116020	-	00438103	chr19	1114801	1114639	-	4710-4712	
				ENST00000558518,ENST00000557933,ENST000						104,189
				00455727,ENST00000545707,ENST00000558013						
chr19	11213340	11213462	+	,ENST00000252444	chr19	11214539	11214666	+	4713-4714	
				ENST00000585567,ENST00000592540,ENST000						145,141,141,
				00591396,ENST00000592967,ENST00000586708						56,142
chr19	11258570	11258546	-	,ENST00000585486	chr19	11256342	11256181	-	4715-4719	
				ENST00000586659,ENST00000355150,ENST000						834,842
				00432929,ENST00000589359,ENST00000589894						
chr19	11280642	11280553	-		chr19	11277618	11277377	-	4720-4721	
				ENST00000586659,ENST00000355150,ENST000						416
				00432929,ENST00000589359,ENST00000589894						
chr19	11304718	11303507	-		chr19	11290707	11290549	-	4722	
				ENST00000586218,ENST00000593256,ENST000						27,88
				00447337,ENST00000354882,ENST00000586590						
				,ENST00000586956,ENST00000589555,ENST000						
				00587948,ENST00000588560,ENST00000586701						
				,ENST00000590482,ENST00000591677,ENST000						
chr19	11456008,11	11455928	-	00590788	chr19	11455662	11455523	-	4723-4724	

Table 9

				ENST00000380456,ENST00000393423,ENST00000589032					332,61
chr19	11517310,12	11517095	-	ENST00000562663,ENST00000563726,ENST00000380456,ENST00000393423,ENST00000567431,ENST00000567080	chr19	11516169	11516169	- 4725-4726	140,140,141,105
chr19	11527341,12	11527288	-	ENST00000562663,ENST00000563726,ENST00000380456,ENST00000393423,ENST00000567431,ENST00000567080	chr19	11522106	11521984	- 4727-4730	122,123,87
chr19	11527733	11527510	-	ENST00000430298,ENST00000596883	chr19	11522106	11521984	- 4731-4733	
chr19	12203283	12203285	+	ENST00000430024,ENST00000414892,ENST00000439556	chr19	12217285	12217312	+ 4734	1
chr19	12258270	12258210	-	ENST00000343979	chr19	12258081	12257786	- 4735-4736	63,62
chr19	12274019	12274021	+	ENST00000586757,ENST00000300952,ENST00000591446,ENST00000586843	chr19	12280097	12280098	+ 4737	1
chr19	1251838	1251900	+	ENST00000456935,ENST00000221363	chr19	1270927	1270988	+ 4738-4739	128,3
chr19	12772190	12772074	-	ENST00000591090,ENST00000586561,ENST00000357332	chr19	12769807	12769678	- 4740	342
chr19	12849325	12849472	+	ENST00000397668,ENST00000264827	chr19	12851350	12851516	+ 4741	103
chr19	12878278	12878209	-	ENST00000221486	chr19	12877837	12877717	- 4742	457
chr19	12918233	12918320	+	ENST00000221486	chr19	12918418	12918459	+ 4743	137
chr19	12921131	12921218	+	ENST00000591495,ENST00000251472,ENST00000588379	chr19	12932848	12933087	+ 4744	212
chr19	12963142	12963209	+	ENST00000586600,ENST00000221554,ENST00000586666,ENST00000588809,ENST00000585844	chr19	12963292	12963350	+ 4745-4747	355,359,312
chr19	13869914,1386	13870079	+		chr19	13872305	13872412	+ 4748-4751	160,188,139,51
chr19	13879638	13879862	+	ENST00000319545,ENST00000040663	chr19	13882153	13882196	+ 4752-4753	269,316
chr19	13939459	13939540	+	ENST00000254323,ENST00000440752,ENST00000590508,ENST00000592227	chr19	13940292	13940408	+ 4754-4757	703,537,612,164
chr19	14143198	14143315	+	ENST00000263379	chr19	14146780	14146913	+ 4758	72
chr19	14232520	14232344	-	ENST00000263382,ENST00000474890	chr19	14231769	14231621	- 4759	134
chr19	14237049	14236934	-	ENST00000263382,ENST00000592798,ENST00000590835,ENST00000474890	chr19	14233000	14232736	- 4760	75
chr19	14237049	14236934	-	ENST00000263382,ENST00000592798,ENST00000590835,ENST00000474890	chr19	14236084	14236069	- 4761	75
chr19	14247268	14247160	-	ENST00000263382,ENST00000592798,ENST00000590835,ENST00000589468,ENST00000474890	chr19	14243019	14242837	- 4762	36
chr19	14574872	14574965	+	ENST00000242783,ENST00000342216,ENST00000586237	chr19	14577528	14577626	+ 4763-4765	577,583,63
chr19	14682812	14682701	-	ENST00000215565,ENST00000593353	chr19	14678902	14678860	- 4766	37
chr19	14698426	14698503	+	ENST00000397439,ENST00000547437,ENST00000339847,ENST00000417570,ENST00000551730	chr19	14700551	14700982	+ 4767	66
chr19	14817498	14817585	+	ENST00000536363,ENST00000540689,ENST00000601134,ENST00000292530,ENST00000598161	chr19	14819936	14820111	+ 4768-4770	61,170,110
chr19	14817498	14817585	+	ENST00000536363,ENST00000540689,ENST00000601134,ENST00000292530,ENST00000598161	chr19	14820394	14820685	+ 4771-4773	61,170,110
chr19	14817498	14817585	+	ENST00000536363,ENST00000540689,ENST00000601134,ENST00000292530,ENST00000598161	chr19	14825063	14825420	+ 4774-4776	61,170,110
chr19	14875422	14875245	-	ENST00000315576,ENST00000346057,ENST00000353005,ENST00000353876,ENST00000392967,ENST00000596991,ENST00000392965,ENST00000594076,ENST00000594294,ENST00000595839,ENST00000601345,ENST00000392964,ENST00000595208,ENST00000392962	chr19	14874908	14874882	- 4777-4782	361,312,219,268,100,205
chr19	1625707	1625575	-	ENST00000344749,ENST00000262965,ENST00000453954,ENST00000395423,ENST00000588136,ENST00000587235	chr19	1624636	1624595	- 4783-4786	166,82,115,195
chr19	16265209	16265301	+	ENST00000253680,ENST00000397372,ENST00000593154,ENST00000588246,ENST00000593031	chr19	16265734	16265930	+ 4787-4789	158,69,133
chr19	16265209	16265301	+	ENST00000253680,ENST00000397372,ENST00000593154,ENST00000588246,ENST00000593031	chr19	16267371	16267514	+ 4790-4792	158,69,133
chr19	16265209	16265301	+	ENST00000253680,ENST00000397372,ENST00000593154,ENST00000588246,ENST00000593031	chr19	16267810	16267821	+ 4793-4795	158,69,133
chr19	16677468	16677343	-	ENST00000595753,ENST00000409648,ENST00000436553,ENST00000431408	chr19	16675410	16675113	- 4796-4799	252,96,186,96
chr19	16890154	16890276	+	ENST00000524140,ENST00000549814,ENST00000379808,ENST00000523826,ENST00000552788,ENST00000339803	chr19	16893491	16893525	+ 4800-4802	910,704,775
chr19	16973163	16973370	+	ENST00000248054,ENST00000379803,ENST00000596638	chr19	16973980	16973999	+ 4803-4804	422,233
chr19	17131163	17131141	-	ENST00000443236,ENST00000291440,ENST00000388925	chr19	17125410	17125273	- 4805-4806	136,89
chr19	17339612	17339724	+	ENST00000215061,ENST00000597836,ENST00000595573	chr19	17339803	17339947	+ 4807-4809	261,205,56
chr19	17346874	17346308	-	ENST00000291442	chr19	17341457	17341293	- 4810	313

			ENST00000598188,ENST00000359435,ENST00000596542,ENST00000447614,ENST00000601043						262,184,262,187,32
chr19	17387632,17	17387718	+ ,ENST00000595632,ENST00000601232	chr19	17388842	17389009	+	4811-4815	
			ENST00000598188,ENST00000359435,ENST00000596542,ENST00000447614,ENST00000601043						262,184,262,187,32
chr19	17387632,17	17387718	+ ,ENST00000595632,ENST00000601232	chr19	17390783	17390960	+	4816-4820	
			ENST00000593466,ENST00000359866,ENST00000596582						1
chr19	17420464	17420466	+	chr19	17421565	17421737	+	4821	
			ENST00000600277,ENST00000442725,ENST00000252595,ENST00000599380,ENST00000600297						55
chr19	17581350	17581516	+	chr19	17594691	17594955	+	4822	
			ENST00000300971,ENST00000595684,ENST00000352727,ENST00000332386,ENST00000335393,ENST00000601861,ENST00000599164,ENST00000600519,ENST00000600871,ENST00000599124						135,104,81
chr19	17643072	17643197	+	chr19	17643937	17644245	+	4823-4825	
			ENST00000300971,ENST00000595684,ENST00000352727,ENST00000332386,ENST00000335393,ENST00000601861,ENST00000599164,ENST00000600519,ENST00000600871,ENST00000599124						173,142,119
chr19	17644396	17644510	+	chr19	17647795	17647802	+	4826-4828	
			ENST00000300971,ENST00000595684,ENST00000352727,ENST00000332386,ENST00000335393,ENST00000601861,ENST00000599164,ENST00000449408,ENST00000600519,ENST00000600871						357,326,83,303
chr19	17650412	17650574	+ ,ENST00000599124	chr19	17651090	17651091	+	4829-4832	
chr19	17666523	17666782	+ ENST00000252599	chr19	17667419	17667440	+	4833	86
chr19	17670120,18	17670230	+ ENST00000252599,ENST00000600474	chr19	17671143	17671143	+	4834-4835	123,3
chr19	17683292	17683411	+ ENST00000252599	chr19	17684363	17684528	+	4836	316
			ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293						1142,1142,1230,1140
chr19	17743717	17743591	- ,ENST00000550896	chr19	17742810	17742721	-	4837-4840	
			ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293						929,929,1017,927
chr19	17751470	17751320	- ,ENST00000550896	chr19	17751163	17751160	-	4841-4844	
			ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293						464,464,552
chr19	17766191	17766083	- ,ENST00000550896	chr19	17764129	17764003	-	4845-4847	
			ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293						50,50,138
chr19	17785565	17785466	- ,ENST00000550896	chr19	17783379	17783344	-	4848-4850	
			ENST00000594202,ENST00000252771,ENST00000389133,ENST00000600676,ENST00000600209,ENST00000596309,ENST00000597474,ENST00000593833,ENST00000596536,ENST00000598086,ENST00000598932,ENST00000595023,ENST00000594068,ENST00000596507,ENST00000595033,ENST00000597718,ENST00000596865,ENST00000539407,ENST00000596951,ENST00000595549						64,14,71
chr19	17875184,18	17875258	+ ,ENST00000597512	chr19	17877380	17877402	+	4851-4853	
			ENST00000594202,ENST00000252771,ENST00000389133,ENST00000600676,ENST00000596536,ENST00000595033,ENST00000539407,ENST00000596951,ENST00000597512						419,369,426
chr19	17887444	17887495	+ ENST00000445755,ENST00000597436,ENST00000596123	chr19	17888317	17888371	+	4854-4856	
chr19	18047230	18047388	+	chr19	18053050	18053234	+	4857	53
			ENST00000445755,ENST00000597436,ENST00000596123						53
chr19	18047230	18047388	+	chr19	18053114	18053234	+	4858	
			ENST00000445755,ENST00000597436,ENST00000596123						53
chr19	18047230	18047388	+	chr19	18053204	18053234	+	4859	
chr19	18239676	18239761	+ ENST00000262811	chr19	18240622	18240762	+	4860	378
			ENST00000269919,ENST00000604499,ENST00000595066,ENST00000597431						68
chr19	18466705	18466821	+	chr19	18467697	18467863	+	4861	
			ENST00000596304,ENST00000430157,ENST00000596273,ENST00000442744,ENST00000595683,ENST00000599256,ENST00000595158,ENST00000598780,ENST00000599551,ENST00000597451,ENST00000599595,ENST00000596272,ENST00000594527						63,45,38
chr19	18684472	18684558	+	chr19	18688261	18688385	+	4862-4864	
			ENST00000596304,ENST00000430157,ENST00000596273,ENST00000442744,ENST00000595683,ENST00000599256,ENST00000595158,ENST00000598780,ENST00000599551,ENST00000597451,ENST00000599595,ENST00000596272,ENST00000594527						63,45,38
chr19	18684472	18684558	+	chr19	18697751	18697992	+	4865-4867	
chr19	18710656	18710375	- ENST00000392386	chr19	18710006	18709918	-	4868	132
chr19	18971635	18971791	+ ENST00000262803,ENST00000599848	chr19	18972609	18972659	+	4869-4870	819,83
			ENST00000262812,ENST00000349893,ENST00000600932,ENST00000351079						193,216,142
chr19	19015661	19015580	-	chr19	19014937	19014781	-	4871-4873	
chr19	19035691,19	19035788	+ ENST00000247003,ENST00000438170	chr19	19035955	19036082	+	4874-4875	342,245
			ENST00000316097,ENST00000409472,ENST00000411971,ENST00000590266						2
chr19	1915019	1915025	+	chr19	1915431	1915449	+	4876	

Table 9

				ENST00000316097,ENST00000409472,ENST000						97
chr19	1918126	1918282	+	00411971	chr19	1918603	1918784	+	4877	
chr19	19291570	19291495	-	ENST00000585679	chr19	19287945	19287908	-	4878	32
chr19	19843767	19843765	-	ENST00000344099	chr19	19826495	19826174	-	4879	1
chr19	19903293	19903220	-	ENST00000586260	chr19	19897663	19897585	-	4880	100
chr19	19976806	19976808	+	ENST00000589717	chr19	19982937	19983370	+	4881	1
				ENST00000591366,ENST00000586021,ENST000						1
chr19	20011898	20011900	+	00592160,ENST00000343769	chr19	20057204	20060476	+	4882	
				ENST00000596019,ENST00000397165,ENST000						1
chr19	20150154	20150152	-	00593468,ENST00000595534	chr19	20143755	20142669	-	4883	
				ENST00000469078,ENST00000473524,ENST000						1
chr19	20188942	20188944	+	00418063	chr19	20190596	20190627	+	4884	
chr19	20828585	20828490	-	ENST00000601440,ENST00000291750	chr19	20763127	20762941	-	4885	75
chr19	20828585	20828490	-	ENST00000601440,ENST00000291750	chr19	20818425	20818158	-	4886	75
chr19	20828585	20828490	-	ENST00000601440,ENST00000291750	chr19	20824663	20824406	-	4887	75
chr19	20844252	20844250	-	ENST00000601440,ENST00000291750	chr19	20843369	20843233	-	4888	1
chr19	20844252	20844250	-	ENST00000601440,ENST00000291750	chr19	20843633	20843526	-	4889	1
				ENST00000360204,ENST00000594534,ENST000						53,75,121
chr19	20976589	20976684	+	00344519,ENST00000425625	chr19	20981120	20981373	+	4890-4892	
				ENST00000360204,ENST00000594534,ENST000						53,75,121
chr19	20976589	20976684	+	00344519,ENST00000425625	chr19	21040983	21041761	+	4893-4895	
				ENST00000601924,ENST00000300540,ENST000						69,76,12,44
				00595854,ENST00000601284,ENST00000328178						
chr19	21117776,2111	21117853	+	,ENST00000599885,ENST00000596476	chr19	21123054	21123353	+	4896-4899	
				ENST00000596143,ENST00000596367,ENST000						83,111
chr19	21299613	21299721	+	00600435	chr19	21307764	21308062	+	4900-4901	
chr19	21299613	21300211	+	ENST00000596143,ENST00000600435	chr19	21307764	21308062	+	4902	247
				ENST00000600692,ENST00000599296,ENST000						106,146
chr19	21350374	21350469	+	00311048,ENST00000598331	chr19	21368809	21369096	+	4903-4904	
chr19	21365426	21365571	+	ENST00000311048,ENST00000598331	chr19	21368809	21369096	+	4905-4906	155,195
chr19	21365426	21365571	+	ENST00000311048,ENST00000598331	chr19	21372668	21372982	+	4907-4908	155,195
chr19	21365426	21366658	+	ENST00000311048	chr19	21368809	21369096	+	4909	517
				ENST00000311015,ENST00000380870,ENST000						106
chr19	21558671	21558766	+	00597810	chr19	21559016	21559069	+	4910	
				ENST00000311015,ENST00000380870,ENST000						106
chr19	21558671	21558766	+	00597810	chr19	21559829	21560121	+	4911	
				ENST00000596302,ENST00000392288,ENST000						10
				00596815,ENST00000594390,ENST00000339914						
chr19	21580040	21580069	+	,ENST00000599461	chr19	21646206	21646251	+	4912	
				ENST00000594012,ENST00000595461,ENST000						70,76,11
				00354959,ENST00000598381,ENST00000599906						
chr19	22000788,22	22000690	-	,ENST00000596899,ENST00000598288	chr19	21993073	21992945	-	4913-4915	
chr19	22157609	22157531	-	ENST00000599916,ENST00000397126	chr19	22107997	22107548	-	4916	101
				ENST00000435820,ENST00000594363,ENST000						1
				00594947,ENST00000597796,ENST00000600162						
chr19	22235435	22235437	+		chr19	21823425	21823304	-	4917	
				ENST00000357774,ENST00000593657,ENST000						84,43
chr19	22585686	22585591	-	00601553	chr19	22581450	22581182	-	4918-4919	
				ENST00000582888,ENST00000590943,ENST000						46
				00602676,ENST00000322297,ENST00000583542						
chr19	2269598	2269736	+		chr19	2521550	2521560	+	4920	
chr19	2785661	2785676	+	ENST00000307741	chr19	2787686	2787692	+	4921	5
				ENST00000262953,ENST00000455444,ENST000						121,241,119,
				00591529,ENST00000443826,ENST00000590536						255,242
chr19	3014612	3014568	-	,ENST00000426948,ENST00000591457	chr19	3014216	3013987	-	4922-4926	
				ENST00000262953,ENST00000591529,ENST000						190,204,191
chr19	3017857	3017838	-	00590536,ENST00000426948	chr19	3016907	3016781	-	4927-4929	
				ENST00000262953,ENST00000455444,ENST000						77,22,90,70
				00591529,ENST00000586422,ENST00000443826						
				,ENST00000590536,ENST00000426948,ENST000						
				00591457,ENST00000587137,ENST00000592584						
chr19	3027871	3027827	-		chr19	3027695	3027423	-	4930-4933	
chr19	3193282	3193426	+	ENST00000590671,ENST00000246117	chr19	3193653	3193687	+	4934-4935	99,173
				ENST00000305768,ENST00000586984,ENST000						13
chr19	33462780	33462742	-	00590597	chr19	33460477	33459705	-	4936	
chr19	344782	344774	-	ENST00000264819	chr19	340607	340268	-	4937	3
				ENST00000540746,ENST00000544216,ENST000						138,133
chr19	34687539	34687668	+	00433627,ENST00000586157	chr19	34690373	34690657	+	4938-4939	
				ENST00000540746,ENST00000544216,ENST000						138,133
chr19	34687539	34687668	+	00433627,ENST00000586157	chr19	34698916	34698945	+	4940-4941	
				ENST00000246548,ENST00000439527,ENST000						580,484,106
chr19	34957783	34957919	+	00592791	chr19	34959538	34959626	+	4942-4944	
				ENST00000389395,ENST00000398558,ENST000						169,160,20
				00588918,ENST00000355415,ENST00000589995						
chr19	3551192,355	3550982	-		chr19	3538708	3538306	-	4945-4947	
				ENST00000454903,ENST00000406242,ENST000						32,89
				00604404,ENST00000435734,ENST00000603181						
				,ENST00000604255,ENST00000344013,ENST000						
				00346446,ENST00000603449,ENST00000406988						
				,ENST00000605550,ENST00000604804,ENST000						
				00605552,ENST00000535103,ENST00000603524						
chr19	35612126	35612149	+	,ENST00000604621,ENST00000605677	chr19	35613392	35613610	+	4948-4949	

Table 9

				ENST00000543307,ENST00000392219,ENST00000541435,ENST00000590686,ENST00000342879,ENST00000588699,ENST00000423817,ENST00000392217					162,91
chr19	35657154	35657228	+		chr19	35659689	35659982	+	4950-4951
				ENST00000434389,ENST00000419602,ENST00000443640,ENST00000447113,ENST00000440396					56,315,89,376
chr19	35998413	35998360	-		chr19	35997567	35997506	-	4952-4955
chr19	3600632	3599847	-	ENST00000375190,ENST00000411851	chr19	3598104	3597945	-	4956 262
				ENST00000434389,ENST00000467637,ENST00000419602,ENST00000443640,ENST00000447113,ENST00000440396,ENST00000458071,ENST00000424570					38,71,297,358
chr19	35999142	35999107	-		chr19	35997567	35997506	-	4957-4960
				ENST00000434389,ENST00000402589,ENST00000339686,ENST00000436012,ENST00000414866,ENST00000480502,ENST00000467637,ENST00000429837,ENST00000419602,ENST00000443640,ENST00000597212,ENST00000602781,ENST00000595571,ENST00000488892,ENST00000447113,ENST00000392206,ENST00000440396,ENST00000458071,ENST00000418261,ENST00000424570,ENST00000451297,ENST00000450261					9,42,329,268,22,16
chr19	36001113,3600	36001086	-		chr19	35997567	35997506	-	4961-4966
				ENST00000587439,ENST00000203166,ENST00000379045					161
chr19	36106129	36106288	+		chr19	36106455	36106470	+	4967
chr19	36214633,36	36214908	+	ENST00000222270,ENST00000420124	chr19	36215286	36215417	+	4968 1111
				ENST00000592409,ENST00000347900,ENST00000360202,ENST00000262625					224,174
chr19	36350383	36350533	+		chr19	36350834	36350930	+	4969-4970
				ENST00000537454,ENST00000221891,ENST00000586861,ENST00000588808					486,526,519,143
chr19	36368987,36	36369010	+		chr19	36369329	36369464	+	4971-4974
				ENST00000396901,ENST00000352614,ENST00000606253,ENST00000585925					2,154
chr19	36388558,36	36388553	-		chr19	36388444	36388162	-	4975-4976
chr19	36851435,37	36851337	-	ENST00000270001,ENST00000589280	chr19	36821394	36821387	-	4977-4978 78,79
chr19	37252640	37252545	-	ENST00000589390,ENST00000591344	chr19	37237666	37237636	-	4979 78
chr19	37383720	37383887	+	ENST00000526123	chr19	37403629	37403913	+	4980 71
				ENST00000395040,ENST00000310132,ENST00000585778,ENST00000395045,ENST00000590493					206,247,248,162,154,128
chr19	3781670	3781605	-	,ENST00000588983,ENST00000587180	chr19	3781499	3781393	-	4981-4986
				ENST00000585547,ENST00000586606,ENST00000355202,ENST00000395835,ENST00000586559					12,78,77
chr19	38198851,3819	38198815	-		chr19	38193984	38193843	-	4987-4989
				ENST00000585547,ENST00000586606,ENST00000355202,ENST00000395835,ENST00000586559					12,78,77
chr19	38198851,3819	38198815	-		chr19	38194134	38193843	-	4990-4992
				ENST00000590414,ENST00000589632,ENST00000357309,ENST00000536220,ENST00000378445					98,113,10,96
chr19	38260737,38	38260645	-	,ENST00000591516	chr19	38245901	38245611	-	4993-4996
chr19	38609946,39	38610522	+	ENST00000222345,ENST00000600919	chr19	38619267	38619547	+	4997-4998 956,16
				ENST00000301244,ENST00000454580,ENST00000587516					35
chr19	38755533	38755638	+		chr19	38769863	38770146	+	4999
chr19	38817820	38818039	+	ENST00000263372	chr19	38823632	38823640	+	5000 312
				ENST00000586305,ENST00000293062,ENST00000426920,ENST00000433821,ENST00000454404,ENST00000587753,ENST00000589358,ENST00000589474					207,221
chr19	38910611,39	38910500	-	,ENST00000587738	chr19	38910232	38910063	-	5001-5002
chr19	39294191	39294162	-	ENST00000307751,ENST00000600070	chr19	39293133	39293125	-	5003-5004 84,19
				ENST00000249396,ENST00000392081,ENST00000358931,ENST00000414941					210,173
chr19	39374396	39374267	-		chr19	39372373	39372316	-	5005-5006
				ENST00000221431,ENST00000594171,ENST00000430193,ENST00000598831,ENST00000448145					516,326,516,164,516,585,
chr19	39406389	39406255	-	,ENST00000599996,ENST00000600042	chr19	39404673	39404435	-	5007-5013 518
				ENST00000448145,ENST00000599996,ENST00000292852,ENST00000595329,ENST00000599598					135,66,231,89
chr19	39435744	39435609	-		chr19	39432008	39431967	-	5014-5017
				ENST00000448145,ENST00000599996,ENST00000292852,ENST00000595329,ENST00000599598					90,44,20,185
chr19	39437173,39	39437112	-		chr19	39432008	39431967	-	5018-5021
				ENST00000221265,ENST00000595564,ENST00000221266,ENST00000416728					328,318,295,275
chr19	39879107	39878979	-		chr19	39877906	39877702	-	5022-5025
				ENST00000409794,ENST00000378550,ENST00000425673,ENST00000458508,ENST00000409797					159,100,160,56
chr19	39905979	39906079	+	,ENST00000451354,ENST00000205135	chr19	39906547	39906613	+	5026-5029
				ENST00000314349,ENST00000601358,ENST00000607714,ENST00000601403,ENST00000602028,ENST00000597782,ENST00000599733,ENST00000602265					189,86,85,77,61,81
chr19	39972523	39972673	+	,ENST00000594583	chr19	39973433	39973490	+	5030-5035
chr19	40542533,41	40540857	-	ENST00000434248,ENST00000221355	chr19	40534017	40532985	-	5036-5037 636,488
				ENST00000253055,ENST00000594951,ENST00000593502,ENST00000597986					273,38,29,23
chr19	40704282,4070	40704418	+		chr19	40709579	40709646	+	5038-5041
				ENST00000253055,ENST00000594951,ENST00000597986					287,53,37
chr19	40704282,4070	40704462	+		chr19	40709579	40709646	+	5042-5044
				ENST00000253055,ENST00000593502,ENST00000597986					396,88,146
chr19	40711028	40711203	+		chr19	40711404	40711597	+	5045-5047

Table 9

			ENST00000253055,ENST00000593502,ENST00000597986						396,88,146
chr19	40711028	40711203	+	chr19	40711447	40711597	+	5048-5050	
			ENST00000392032,ENST00000409419,ENST00000409587,ENST00000602131,ENST00000409735,ENST00000356508,ENST00000596682,ENST00000594908,ENST00000409281,ENST00000359274						81,12
chr19	40872680,41	40872822	+	chr19	40873461	40873502	+	5051-5052	
			ENST00000291842,ENST00000595803,ENST00000600733,ENST00000595945,ENST00000599575,ENST00000600718,ENST00000595631,ENST00000595523						81,86,29
chr19	41083463	41083536	+	chr19	41083662	41083793	+	5053-5055	
			ENST00000252891,ENST00000598779,ENST00000540131,ENST00000598773,ENST00000595741						83,42
chr19	41190461,41	41190322	-	chr19	41188947	41188931	-	5056-5057	
			ENST00000601545,ENST00000243563,ENST00000601253,ENST00000597353,ENST00000599362						32,82
chr19	41263314,41	41263409	+	chr19	41264257	41264312	+	5058-5059	
chr19	41737088	41737203	+	chr19	41741943	41741954	+	5060	261
			ENST00000301178,ENST00000359092,ENST00000593513						512,503,244
chr19	41749521	41749612	+	chr19	41751964	41752066	+	5061-5063	
			ENST00000301178,ENST00000359092,ENST00000593513						512,503,244
chr19	41749521	41749612	+	chr19	41754309	41754383	+	5064-5066	
chr19	41816216	41816261	+	chr19	41820911	41820924	+	5067	15
chr19	41838186	41838033	-	chr19	41818815	41818697	-	5068-5069	100,338
			ENST00000598758,ENST00000221930,ENST00000221972,ENST00000597454,ENST00000444740						26
chr19	42381375	42381453	+	chr19	42382530	42382578	+	5070	
			ENST00000354532,ENST00000599846,ENST00000347545,ENST00000378152,ENST00000337665						536,778,834,745,760,793
chr19	42409327	42409413	+	chr19	42409840	42409858	+	5071-5076	
			ENST00000599589,ENST00000389341,ENST00000342301,ENST00000533720,ENST00000560804,ENST00000526816,ENST00000529067,ENST00000533548,ENST00000560398,ENST00000560558,ENST00000529952						383,399,401,62,405,344,103
chr19	42598047	42597981	-	chr19	42597416	42597162	-	5077-5083	
chr19	42775936	42778729	+	chr19	42786929	42786999	+	5084	931
			ENST00000572681,ENST00000366175,ENST00000407356,ENST00000599812,ENST00000342951,ENST00000404580						321,414
chr19	43679621	43679367	-	chr19	43672355	43671040	-	5085-5086	
			ENST00000418820,ENST00000593948,ENST00000270077,ENST00000291752,ENST00000443718						21
chr19	43773583	43773520	-	chr19	43773287	43773149	-	5087	
chr19	44084588,44	44084517	-	chr19	44080368	44080037	-	5088-5089	24,23
			ENST00000598165,ENST00000599693,ENST00000339082,ENST00000601723,ENST00000340093,ENST00000221264,ENST00000599892						103,78,98
chr19	44169611	44169468	-	chr19	44165476	44165201	-	5090-5092	
chr19	44241834	44241749	-	chr19	44238740	44238707	-	5093	331
chr19	44654566	44654658	+	chr19	44655339	44655382	+	5094	78
			ENST00000592437,ENST00000426739,ENST00000590578,ENST00000589160,ENST00000337433,ENST00000586914,ENST00000588883,ENST00000413984,ENST00000588742,ENST00000300823,ENST00000585678,ENST00000588795,ENST00000588127,ENST00000590089,ENST00000						78,42
chr19	44677013	44677105	+	chr19	44677605	44677628	+	5095-5096	
			ENST00000454662,ENST00000590524,ENST00000301284,ENST00000586684,ENST00000592417,ENST00000586428,ENST00000588271						643,139,157,72
chr19	4501203	4501329	+	chr19	4502768	4502770	+	5097-5100	
chr19	45184499	45184584	+	ENST00000358777,ENST00000403660	chr19	45184732	45184868	+	5101	264
chr19	45287521	45287658	+	ENST00000270279	chr19	45289554	45289566	+	5102	305
chr19	45389390	45389476	+	ENST00000252483	chr19	45390331	45390617	+	5103	449
chr19	45389390	45389476	+	ENST00000252483	chr19	45390493	45390617	+	5104	449
			ENST00000546079,ENST00000541297,ENST00000337392,ENST00000591304						122,210,224,171
chr19	45488476	45488561	+	chr19	45489358	45489609	+	5105-5108	
			ENST00000546079,ENST00000541297,ENST00000337392,ENST00000589347						275,363,377,52
chr19	45491338	45491431	+	chr19	45492401	45492431	+	5109-5112	
			ENST00000342669,ENST00000588301,ENST00000590212						0
chr19	46195146	46195145	-	chr19	46194541	46194383	-	5113	
			ENST00000342669,ENST00000588301,ENST00000590212						0
chr19	46195146	46195145	-	chr19	46194551	46194383	-	5114	
chr19	46351259	46351010	-	ENST00000245934,ENST00000600237	chr19	46348904	46348537	-	5115	225
chr19	46652243	46652294	+	ENST00000434646	chr19	46684492	46684540	+	5116	17
			ENST00000434646,ENST00000377693,ENST00000601052						124,113,79
chr19	46663871,47	46664138	+	chr19	46684492	46684540	+	5117-5119	
chr19	47079974	47079856	-	ENST00000593888	chr19	47071684	47071339	-	5120	97
chr19	47092492	47092403	-	ENST00000593888	chr19	47071684	47071339	-	5121	57
			ENST00000352203,ENST00000593442,ENST00000263270,ENST00000601649						1
chr19	47354023	47354021	-	chr19	47350081	47349906	-	5122	
			ENST00000441740,ENST00000331559,ENST00000560245,ENST00000561096,ENST00000561293,ENST00000558555,ENST00000559524,ENST00000						182,74,287,199,57
chr19	47918072,4791	47917974	-	chr19	47914504	47914493	-	5123-5127	
chr19	48255769	48255864	+	ENST00000246802,ENST00000595143	chr19	48256547	48256702	+	5128-5129	158,255

Table 9

				ENST00000601048,ENST00000509570,ENST00000593892,ENST00000599874,ENST00000595615					9,15
chr19	48282043,48	48282071	+	ENST00000599111,ENST00000354276,ENST00000413144,ENST00000599921,ENST00000599300	chr19	48282905	48283081	+	5130-5131	377,367,119,55,183
chr19	48571143	48571048	-	,ENST00000595161,ENST00000601946	chr19	48567210	48567110	-	5132-5136	
				ENST00000599111,ENST00000354276,ENST00000413144,ENST00000599921,ENST00000599300						55,377,367,119,183
chr19	48571143	48571048	-	,ENST00000595161,ENST00000601946	chr19	48568293	48568272	-	5137-5141	
				ENST00000263274,ENST00000536218,ENST00000594759,ENST00000427526,ENST00000601091						443,375,442,412
chr19	48640341	48640265	-	ENST00000263274,ENST00000594759,ENST00000427526,ENST00000601091	chr19	48639511	48639494	-	5142-5145	155,125
chr19	48657224	48657129	-		chr19	48655673	48655386	-	5146-5147	
chr19	48685712	48686024	+	ENST00000328759	chr19	48690919	48691192	+	5148	196
				ENST00000391898,ENST00000520753,ENST00000522773,ENST00000519646,ENST00000520015						69
				,ENST00000521415,ENST00000519940,ENST00000522431,ENST00000519332,ENST00000520007						
chr19	48741789	48741640	-	ENST00000599704,ENST00000270221,ENST00000599255,ENST00000597279,ENST00000593437	chr19	48739021	48738953	-	5149	39
chr19	48830778	48830818	+		chr19	48832237	48832399	+	5150	
chr19	49055510	49055580	+	ENST00000201586	chr19	49066561	49066923	+	5151	23
				ENST00000549920,ENST00000547897,ENST00000550645,ENST00000552588,ENST00000549370						1
chr19	49122400	49122398	-	,ENST00000549273	chr19	49121858	49121790	-	5152	
				ENST00000549920,ENST00000547897,ENST00000550645,ENST00000552588,ENST00000549370						1
chr19	49122400	49122398	-	,ENST00000549273	chr19	49121892	49121790	-	5153	
				ENST00000549920,ENST00000547897,ENST00000550645,ENST00000552588,ENST00000549370						1
chr19	49122400	49122398	-	,ENST00000549273	chr19	49121918	49121790	-	5154	
				ENST00000549920,ENST00000547897,ENST00000550645,ENST00000552588,ENST00000549370						1
chr19	49122400	49122398	-	,ENST00000549273	chr19	49121930	49121790	-	5155	
				ENST00000340932,ENST00000245222,ENST00000601712,ENST00000600537,ENST00000598088						134,170,111,232
				,ENST00000597434,ENST00000599748,ENST00000443164,ENST00000599029						
chr19	49129217,4912	49129619	+	ENST00000318083,ENST00000356751,ENST00000594582,ENST00000377367,ENST00000419611	chr19	49130278	49130413	+	5156-5159	303,200,135
chr19	49217302	49217117	-		chr19	49178888	49178866	-	5160-5162	
chr19	49242902,49	49242217	-	ENST00000222145,ENST00000599291	chr19	49241364	49241164	-	5163-5164	274,19
chr19	49494740	49494559	-	ENST00000323798,ENST00000263276	chr19	49491917	49491877	-	5165	100
				ENST00000595090,ENST00000595811,ENST00000596247,ENST00000221413,ENST00000593570						4
chr19	49497169	49497180	+	ENST00000595090,ENST00000596247,ENST00000221413,ENST00000593570	chr19	49497762	49497831	+	5166	22
chr19	49502576	49502630	+		chr19	49503008	49503054	+	5167	
				ENST00000601065,ENST00000598984,ENST00000598441,ENST00000221448,ENST00000401730						131,65
chr19	49601899	49601961	+	,ENST00000595231	chr19	49604440	49604480	+	5168-5169	
				ENST00000293350,ENST00000540132,ENST00000455361,ENST00000593417						30,3
chr19	49956589,5	49956678	+		chr19	49958908	49959001	+	5170-5171	
chr19	50167980	50167810	-	ENST00000596788	chr19	50166998	50166957	-	5172	57
				ENST00000323446,ENST00000392518,ENST00000598396,ENST00000354199,ENST00000598293						231
chr19	50204754	50204891	+	,ENST00000405931	chr19	50205734	50205906	+	5173	
				ENST00000322344,ENST00000596014,ENST00000600910,ENST00000600573,ENST00000599543						66
chr19	50369702	50369656	-		chr19	50368961	50368859	-	5174	
				ENST00000221543,ENST00000535102,ENST00000594984						553,520,332
chr19	50390975	50391091	+		chr19	50391361	50391455	+	5175-5177	
				ENST00000391826,ENST00000341114,ENST00000595948						189,211
chr19	50397726	50397525	-		chr19	50396224	50396153	-	5178-5179	
				ENST00000316763,ENST00000377011,ENST00000599538,ENST00000443401,ENST00000601341						365,315,134,61
				,ENST00000594948,ENST00000601912,ENST00000594092,ENST00000593912,ENST00000593919						
chr19	50493028	50492896	-	ENST00000600859,ENST00000440232,ENST00000599857,ENST00000595904,ENST00000593407	chr19	50492130	50492001	-	5180-5183	854,880,111,63
chr19	50918072	50918247	+	,ENST00000593981	chr19	50918464	50918485	+	5184-5187	
				ENST00000601780,ENST00000334976,ENST00000376918,ENST00000598585,ENST00000599293						38
chr19	50979802	50979915	+	ENST00000159111,ENST00000536461,ENST00000588361	chr19	50980379	50980674	+	5188	438,472,184
chr19	5119664	5119863	+		chr19	5122634	5122718	+	5189-5191	
				ENST00000391809,ENST00000336334,ENST00000593428,ENST00000594846						24
chr19	51455913	51455841	-		chr19	51454574	51454523	-	5192	

Table 9

chr19	51455913	51455841	-	ENST00000391809,ENST00000336334,ENST00000593428,ENST00000594846	chr19	51454616	51454523	-	5193	24
chr19	51455913	51455841	-	ENST00000391809,ENST00000336334,ENST00000593428,ENST00000594846	chr19	51454690	51454523	-	5194	24
chr19	51914625	51914568	-	ENST00000441969,ENST00000353836,ENST00000442846,ENST00000356298,ENST00000432469,ENST00000525998,ENST00000436984,ENST00000439889,ENST00000339313	chr19	51914197	51913911	-	5195-5202	473,531,383,626,448,441,483,568
chr19	51917077	51916966	-	ENST00000441969,ENST00000353836,ENST00000442846,ENST00000356298,ENST00000432469,ENST00000525998,ENST00000436984,ENST00000439889,ENST00000339313	chr19	51914757	51914650	-	5203-5210	454,512,364,607,429,422,464,549
chr19	51917077	51916966	-	ENST00000412216,ENST00000301399,ENST00000420592,ENST00000451628,ENST00000458390,ENST00000453272	chr19	51916513	51916380	-	5211-5218	62
chr19	52381768	52381642	-		chr19	52359220	52358662	-	5219	
chr19	52439474	52439488	+	ENST00000293471,ENST00000600853	chr19	52440597	52440715	+	5220	5
chr19	52570863,5257	52568668	-	ENST00000594295,ENST00000389534,ENST00000426391,ENST00000601738,ENST00000359973	chr19	52567804	52567670	-	5221-5224	410,822,706,398
chr19	52570863,5257	52568752	-	ENST00000594295,ENST00000389534,ENST00000426391,ENST00000601738,ENST00000359973	chr19	52567804	52567670	-	5225-5228	794,678,382,370
chr19	52633765	52633754	-	ENST00000600228,ENST00000330123,ENST00000596290,ENST00000597013,ENST00000600282	chr19	52629034	52628376	-	5229	4
chr19	52660793	52658488	-	ENST00000597252,ENST00000322146	chr19	52567804	52567670	-	5230	816
chr19	52660793	52660252	-	ENST00000597252,ENST00000322146	chr19	52567804	52567670	-	5231	228
chr19	53120128,53	53119971	-	ENST00000596930,ENST00000597161	chr19	53097557	53096033	-	5232-5233	100,88
chr19	53391506	53391380	-	ENST00000597909,ENST00000391781,ENST00000595635,ENST00000597091,ENST00000593618,ENST00000594741,ENST00000597265	chr19	53389679	53389379	-	5234	47
chr19	53652030,5365	53651934	-	ENST00000601804,ENST00000334197,ENST00000452676,ENST00000601469,ENST00000597183,ENST00000595967	chr19	53646792	53646483	-	5235-5238	32,90,91,54
chr19	53747150	53746997	-	ENST00000333952,ENST00000598513,ENST00000594517,ENST00000599012,ENST00000594681,ENST00000598806,ENST00000601828,ENST00000601413	chr19	53743670	53743495	-	5239	56
chr19	53747150	53746997	-	ENST00000333952,ENST00000598513,ENST00000594517,ENST00000599012,ENST00000594681,ENST00000598806,ENST00000601828,ENST00000601413	chr19	53743798	53743495	-	5240	56
chr19	53754803	53754789	-	ENST00000333952,ENST00000598513,ENST00000594517,ENST00000599012,ENST00000594681,ENST00000598806,ENST00000601828,ENST00000601413	chr19	53750572	53750537	-	5241	5
chr19	53879023,54	53879149	+	ENST00000474037,ENST00000491101,ENST00000467003,ENST00000475179,ENST00000593918,ENST00000504235,ENST00000396408,ENST00000594030	chr19	53910055	53910188	+	5242-5243	47,11
chr19	53905318	53905444	+		chr19	53910055	53910188	+	5244	47
chr19	54483121	54483261	+	ENST00000270458	chr19	54492493	54492550	+	5245	169
chr19	54567031	54566998	-	ENST00000338372,ENST00000447872,ENST00000376626,ENST00000425006	chr19	54562360	54562304	-	5246	11
chr19	54603071	54603039	-	ENST00000356532,ENST00000359649,ENST00000358375,ENST00000284648,ENST00000391760,ENST00000391761,ENST00000356532,ENST00000359649,ENST00000358375,ENST00000351806	chr19	54602880	54602738	-	5247	23
chr19	54604083	54604047	-	ENST00000284648,ENST00000391760	chr19	54603271	54603094	-	5248	12
chr19	54781451,55	54781404	-	ENST00000391748,ENST00000314446,ENST00000455108,ENST00000391746,ENST00000391749,ENST00000434421	chr19	54780833	54780827	-	5249-5252	452,129,453,337
chr19	54881884	54881869	-	ENST00000391743,ENST00000313038,ENST00000438193	chr19	54880624	54880605	-	5253	5
chr19	54881884	54881869	-	ENST00000391743,ENST00000313038,ENST00000438193	chr19	54880711	54880605	-	5254	5
chr19	54963830	54963931	+	ENST00000326764,ENST00000439657,ENST00000376526,ENST00000431846	chr19	54964481	54964505	+	5255	105
chr19	55145425,55	55145472	+	ENST00000396321,ENST00000418536,ENST00000448689,ENST00000396331,ENST00000396327,ENST00000324602,ENST00000434867,ENST00000396332,ENST00000427581,ENST00000396315,ENST00000396317,ENST00000421584	chr19	55146039	55146048	+	5256-5259	453,437,454,490

Table 9

			ENST00000396321,ENST00000418536,ENST000							453,437,454,
			00448689,ENST00000396331,ENST00000396327							490
			,ENST00000324602,ENST00000434867,ENST000							
			00396332,ENST00000427581,ENST00000396315							
chr19	55145425,55	55145472	+,ENST00000396317,ENST00000421584	chr19	55146042	55146048	+	5260-5263		
			ENST00000588619,ENST00000588107,ENST000							108,39,85,40
			00433772,ENST00000543010,ENST00000391721							
			,ENST00000339757,ENST00000539848,ENST000							
			00448584,ENST00000537859,ENST00000585500							
			,ENST00000427260,ENST00000538819,ENST000							
chr19	55485868	55485912	+00263437,ENST00000397169	chr19	55488676	55488804	+	5264-5267		
			ENST00000586329,ENST00000201647,ENST000							75,93,29,55
chr19	55591058,56	55591219	+00540810,ENST00000587786	chr19	55591374	55591415	+	5268-5271		
			ENST00000587871,ENST00000455045,ENST000							47,332,386,4
			00524407,ENST00000527223,ENST00000391720							53,433,52
chr19	55671381,56	55671271	-,ENST00000588076	chr19	55671088	55671053	-	5272-5277		
			ENST00000589824,ENST00000592953,ENST000							669,624,723
			00589093,ENST00000360133,ENST00000443188							
chr19	56313105	56312938	-,ENST00000590409,ENST00000593244	chr19	56309703	56309657	-	5278-5280		
			ENST00000587950,ENST00000309324,ENST000							108,86
chr19	5679407	5679356	-00590389,ENST00000587589	chr19	5678889	5678771	-	5281-5282		
			ENST00000587950,ENST00000309324,ENST000							108,86
chr19	5679407	5679356	-00590389,ENST00000587589	chr19	5679053	5678918	-	5283-5284		
chr19	5680497	5680469	-ENST00000309324,ENST00000587589	chr19	5679989	5679915	-	5285	9	
			ENST00000330619,ENST00000391709,ENST000							94,29
chr19	57086007,57	57086102	+00601902,ENST00000594953	chr19	57094115	57094308	+	5286-5287		
			ENST00000593711,ENST00000221722,ENST000							98,223,97
			00391708,ENST00000595671,ENST00000597281							
			,ENST00000601070,ENST00000599935,ENST000							
			00423103,ENST00000326441,ENST00000598410							
			,ENST00000593695,ENST00000599534,ENST000							
chr19	57333122	57333019	-00599577,ENST00000600833	chr19	57330307	57330218	-	5288-5290		
chr19	5786553	5786478	-ENST00000320699,ENST00000309061	chr19	5786086	5785962	-	5291-5292		278,52
chr19	57946947	57946961	+ENST00000334181	chr19	57993273	57993556	+	5293	5	
chr19	57946947	57946961	+ENST00000334181	chr19	57994264	57995221	+	5294	5	
chr19	57946947	57946961	+ENST00000334181	chr19	57994314	57995221	+	5295	5	
			ENST00000596831,ENST00000343280,ENST000							66
chr19	57987154	57987028	-00356584	chr19	57978453	57977875	-	5296		
			ENST00000354197,ENST00000426954,ENST000							166,165,179,
			00442920,ENST00000424930,ENST00000347466							146,132,178,
			,ENST00000415379,ENST00000221735,ENST000							145
chr19	58004224	58004459	+00521137	chr19	58024390	58024413	+	5297-5303		
chr19	58017726	58017961	+ENST00000598770,ENST00000282292	chr19	58024390	58024413	+	5304-5305		165,166
			ENST00000316462,ENST00000594328,ENST000							77,28,78
chr19	58352206	58352276	+00442832,ENST00000594901	chr19	58366170	58366262	+	5306-5308		
			ENST00000596604,ENST00000597342,ENST000							12,4
			00597832,ENST00000595894,ENST00000595295							
			,ENST00000597348,ENST00000600634,ENST000							
			00595048,ENST00000435989,ENST00000597807							
chr19	58400170,58	58400135	-	chr19	58389996	58389830	-	5309-5310		
			ENST00000550135,ENST00000546949,ENST000							354,94,93,88
			00313957,ENST00000553254,ENST00000547364							,84
chr19	58514579	58514704	+	chr19	58515947	58516284	+	5311-5315		
chr19	58698314	58698409	+ENST00000326804,ENST00000594839	chr19	58706127	58706415	+	5316	85	
chr19	58698314	58698409	+ENST00000326804,ENST00000594839	chr19	58708955	58708985	+	5317	85	
			ENST00000599227,ENST00000269829,ENST000							11
			00597240,ENST00000594384,ENST00000596825							
			,ENST00000333581,ENST00000596652,ENST000							
			00600044,ENST00000600220,ENST00000596677							
			,ENST00000596929,ENST00000600029,ENST000							
chr19	58755390	58755422	+00595981,ENST00000415203	chr19	58755503	58755515	+	5318		
			ENST00000196548,ENST00000608843,ENST000							22
chr19	58790448	58790513	+00591325	chr19	58796261	58796474	+	5319		
			ENST00000196548,ENST00000608843,ENST000							22
chr19	58790448	58790513	+00591325	chr19	58817454	58817467	+	5320		
chr19	58797476	58797571	+ENST00000196548,ENST00000608843	chr19	58817454	58817467	+	5321	96	
			ENST00000439268,ENST00000340578,ENST000							7
			00592771,ENST00000541471,ENST00000591092							
			,ENST00000034275,ENST00000591736,ENST000							
			00587159,ENST00000587463,ENST00000588010							
chr19	5978093	5978072	-,ENST00000585339,ENST00000587263	chr19	5965933	5965837	-	5322		
chr19	630168	629540	-ENST00000588649,ENST00000590573	chr19	625666	625513	-	5323-5324		274,209
			ENST00000245816,ENST00000597326,ENST000							185,122,98
chr19	6364463	6364650	+00596149	chr19	6365802	6365842	+	5325-5327		
chr19	6438782	6438735	-ENST00000601322	chr19	6436479	6436108	-	5328	84	
			ENST00000598494,ENST00000600229,ENST000							52
chr19	6465556	6465629	+00356762,ENST00000308243	chr19	6466184	6466221	+	5329		
			ENST00000245912,ENST00000326176,ENST000							63,99
chr19	6667165	6667124	-00599359	chr19	6661233	6661226	-	5330-5331		
			ENST00000313285,ENST00000600677,ENST000							65
chr19	6741236	6741292	+00313244,ENST00000596758	chr19	6742535	6742810	+	5332		
chr19	692002	691858	-ENST00000329267	chr19	688462	688345	-	5333	127	

Table 9

chr19	694970	694814	-	ENST00000329267	chr19	588462	588345	-	5334	78
chr19	7447948	7448089	+	ENST00000576789,ENST00000593531	chr19	7466617	7467024	+	5335-5336	92,322
				ENST00000594797,ENST00000598664,ENST000						46,17,45,44
				00599243,ENST00000456958,ENST00000601406						
chr19	7695709	7695732	+	,ENST00000595866,ENST00000598540	chr19	7696101	7696103	+	5337-5340	
				ENST00000561008,ENST00000558268,ENST000						57,6
				00558331,ENST00000561053,ENST00000251363						
				,ENST00000559450,ENST00000559336,ENST000						
chr19	8315961,832	8316133	+	00558877	chr19	8316830	8316972	+	5341-5342	
				ENST00000558331,ENST00000251363,ENST000						231,282
chr19	8322763	8322869	+	00559450	chr19	8323581	8323728	+	5343-5344	
chr19	843893	844034	+	ENST00000234347,ENST00000544537	chr19	845796	845857	+	5345-5346	123,82
chr19	8562724	8562648	-	ENST00000423345,ENST00000255612	chr19	8560142	8559991	-	5347-5348	525,524
				ENST00000270328,ENST00000593913,ENST000						145
chr19	8670243	8669897	-	00597188,ENST00000596851	chr19	8669072	8668924	-	5349	
				ENST00000270328,ENST00000593913,ENST000						145
chr19	8670243	8669897	-	00597188,ENST00000596851	chr19	8669213	8668924	-	5350	
				ENST00000587557,ENST00000603024,ENST000						39,45,39,37,
				00605775,ENST00000604886,ENST00000605750						30
				,ENST00000605006,ENST00000604543,ENST000						
chr19	9435371	9435456	+	00605093,ENST00000593242	chr19	9442099	9442274	+	5351-5355	
				ENST00000587557,ENST00000592504,ENST000						145,81,109,7
				00585352,ENST00000317221,ENST00000586255						3,67,1,49
				,ENST00000603024,ENST00000592896,ENST000						
				00605750,ENST00000603380,ENST00000538743						
				,ENST00000589208,ENST00000393883,ENST000						
				00605071,ENST00000603974,ENST00000591652						
chr19	9451778,945	9451860	+		chr19	9462581	9462758	+	5356-5362	
chr19	960092	960164	+	ENST00000263620,ENST00000587532	chr19	961762	961931	+	5363-5364	255,102
chr19	9677785	9677012	-	ENST00000586602,ENST00000320451	chr19	9671443	9671019	-	5365	259
chr19	9804496	9804370	-	ENST00000457674	chr19	9803023	9802880	-	5366	80
				ENST00000587625,ENST00000247970,ENST000						127,53
chr19	9958706	9958816	+	00588695,ENST00000591777	chr19	9969902	9969981	+	5367-5368	
chr2	100938555	100937877	-	ENST00000393437	chr2	100928550	100927935	-	5369	226
				ENST00000335681,ENST00000542504,ENST000						199,264,188
chr2	101565829	101565942	+	00448812	chr2	101567876	101568325	+	5370-5372	
				ENST00000264258,ENST00000409000,ENST000						23,35
				00409028,ENST00000409320,ENST00000409733						
				,ENST00000409650,ENST00000409038,ENST000						
				00419276,ENST00000456292,ENST00000409711						
chr2	101619164,1	101619270	+	,ENST00000441435	chr2	101619489	101619558	+	5373-5374	
				ENST00000264258,ENST00000409000,ENST000						23,35
				00409028,ENST00000409320,ENST00000409733						
				,ENST00000409650,ENST00000409038,ENST000						
				00419276,ENST00000456292,ENST00000409711						
chr2	101619164,1	101619270	+	,ENST00000441435	chr2	101619984	101620020	+	5375-5376	
				ENST00000264258,ENST00000409000,ENST000						23,35
				00409028,ENST00000409320,ENST00000409733						
				,ENST00000409650,ENST00000409038,ENST000						
				00419276,ENST00000456292,ENST00000409711						
chr2	101619164,1	101619270	+	,ENST00000441435	chr2	101620521	101620557	+	5377-5378	
				ENST00000264258,ENST00000409000,ENST000						35,23
				00409028,ENST00000409320,ENST00000409733						
				,ENST00000409650,ENST00000409038,ENST000						
				00419276,ENST00000456292,ENST00000409711						
chr2	101619164,1	101619270	+	,ENST00000441435	chr2	101620532	101620557	+	5379-5380	
chr2	101638208	101638143	-	ENST00000376840,ENST00000409318	chr2	101633718	101633542	-	5381-5382	927,942
chr2	102022519	102022405	-	ENST00000376826,ENST00000428343	chr2	102021771	102021610	-	5383-5384	422,309
chr2	10263110	10263133	+	ENST00000360566,ENST00000304567	chrX	111052716	111051221	-	5385-5386	101,41
chr2	10282010	10282081	+	ENST00000381786	chr2	10304486	10304563	+	5387	24
chr2	10282010	10282081	+	ENST00000381786	chr2	10312241	10312344	+	5388	24
chr2	10282382	10282502	+	ENST00000381786	chr2	10304486	10304563	+	5389	64
chr2	10282382	10282502	+	ENST00000381786	chr2	10312241	10312344	+	5390	64
				ENST00000410040,ENST00000409599,ENST000						156
chr2	102988413	102988578	+	00233957,ENST00000334376	chr2	102989771	102990081	+	5391	
chr2	106013154	106013104	-	ENST00000344213,ENST00000530340	chr2	106012746	106012578	-	5392	102
chr2	106013154	106013104	-	ENST00000344213,ENST00000530340	chr2	106012875	106012578	-	5393	102
				ENST00000233154,ENST00000451463,ENST000						75
				00393348,ENST00000522586,ENST00000425756						
chr2	106471520	106471745	+	,ENST00000393349	chr2	106494879	106495121	+	5394	
				ENST00000233154,ENST00000451463,ENST000						75
				00393348,ENST00000522586,ENST00000425756						
chr2	106471520	106471745	+	,ENST00000393349	chr2	106494884	106495121	+	5395	
				ENST00000233154,ENST00000451463,ENST000						75
				00393348,ENST00000522586,ENST00000425756						
chr2	106471520	106471745	+	,ENST00000393349	chr2	106494901	106495121	+	5396	
				ENST00000345985,ENST00000381685,ENST000						292,342,292,
				00542668,ENST00000538384,ENST00000431319						316,233
chr2	10784498	10784446	-		chr2	10774684	10774282	-	5397-5401	
chr2	10952822	10952804	-	ENST00000272227	chr2	10945033	10944402	-	5402	6
chr2	10952822	10952804	-	ENST00000272227	chr2	10945097	10944402	-	5403	6

				ENST00000409271,ENST00000258443,ENST00000376651					17
chr2	109547470	109547420	-		chr2	109547304	109547253	-	5404
				ENST00000356688,ENST00000397712,ENST00000397714,ENST00000334001,ENST00000437928,ENST00000545389,ENST00000415095					342,319,209,327,175
chr2	110322111	110321943	-		chr2	110311514	110311472	-	5405-5409
				ENST00000272462,ENST00000427178,ENST00000424988					35
chr2	110873369	110873265	-		chr2	110850667	110850348	-	5410
				ENST00000389811,ENST00000439055,ENST00000340561,ENST00000417074,ENST00000433706					262,100,37
chr2	111598948	111598982	+		chr2	111610762	111610930	+	5411-5413
				ENST00000389811,ENST00000439055,ENST00000417074,ENST00000443586,ENST00000441974					457,427,265,104,44
chr2	111753470	111753581	+		chr2	111757301	111757583	+	5414-5418
chr2	112630289	112630207	-	ENST00000341068	chr2	112627608	112627315	-	5419 203
chr2	112863579	112863652	+	ENST00000283206	chr2	112863878	112864013	+	5420 508
				ENST00000331203,ENST00000409903,ENST00000409667,ENST00000409450					25
chr2	112896233	112896307	+		chr2	112910580	112910597	+	5421
chr2	113260489	113260758	+	ENST00000233336	chr2	113295720	113296039	+	5422 291
chr2	113277859	113278002	+	ENST00000233336	chr2	113295720	113296039	+	5423 339
				ENST00000272542,ENST00000423633,ENST00000433924,ENST00000456264,ENST00000413135					187,34,12,11,7
chr2	113405230,113	113405315	+		chr2	113409614	113409732	+	5424-5428
				ENST00000245796,ENST00000441564,ENST00000409378					971,942,135
chr2	113956660	113956803	+		chr2	113966557	113966942	+	5429-5431
				ENST00000315872,ENST00000261535,ENST00000431087					108,22
chr2	11426765,11	11426665	-		chr2	11418636	11418080	-	5432-5433
				ENST00000245680,ENST00000409106,ENST00000409342					250,244
chr2	114500456	114500269	-		chr2	114497609	114497296	-	5434-5435
chr2	11484262	11484122	-	ENST00000315872,ENST00000261535	chr2	11428575	11428528	-	5436 47
				ENST00000381486,ENST00000263834,ENST00000381483,ENST00000234142					338
chr2	11725287	11725400	+		chr2	11725670	11725757	+	5437
				ENST00000381486,ENST00000234142,ENST00000396123					1107,105
chr2	11755217	11755416	+		chr2	11756090	11756137	+	5438-5439
				ENST00000449576,ENST00000396099,ENST00000425416,ENST00000256720,ENST00000396097,ENST00000404113,ENST00000454151					677,634,598,592,322,93,119
chr2	11935534	11935613	+		chr2	11938150	11938387	+	5440-5446
				ENST00000450943,ENST00000354888,ENST00000393108,ENST00000393106,ENST00000393110,ENST00000393107,ENST00000409811,ENST00000425223					340,35
chr2	120005255	120005782	+		chr2	120011174	120011249	+	5447-5448
				ENST00000295220,ENST00000413369,ENST00000594141					210,31
chr2	120344695,1	120344798	+		chr2	120358298	120358713,1	+	5449-5450
				ENST00000263713,ENST00000443902,ENST00000331393,ENST00000443124,ENST00000452780					291
chr2	120844747	120844816	+		chr2	120845830	120846179	+	5451
				ENST00000447591,ENST00000474855,ENST00000272519,ENST00000420510,ENST00000431732,ENST00000412383,ENST00000449649					60,38
chr2	121036194,1	121036354	+		chr2	121037846	121038302	+	5452-5453
				ENST00000418323,ENST00000341310,ENST00000438299,ENST00000445186,ENST00000452692,ENST00000452319,ENST00000437950,ENST00000361492,ENST00000360874,ENST00000433812					49,41
chr2	121554897,1	121555044	+		chr2	121648972	121649088	+	5454-5455
chr2	122000045	121999935	-	ENST00000263707	chr2	121997478	121997468	-	5456 256
chr2	122000045	121999935	-	ENST00000263707	chr2	121997577	121997468	-	5457 256
				ENST00000409078,ENST00000541859,ENST00000263710,ENST00000397587,ENST00000455322,ENST00000541377,ENST00000545861,ENST00000452274,ENST00000463621					737,506,745,744,513,518,78
chr2	122182882	122182715	-		chr2	122179417	122179126	-	5458-5464
chr2	128615674	128615602	-	ENST00000272645,ENST00000409955	chr2	128611105	128610807	-	5465 24
				ENST00000155926,ENST00000381465,ENST00000405331					187,51
chr2	12863386,13	12863678	+		chr2	12868242	12868375	+	5466-5467
chr2	131117181	131117219	+	ENST00000175756	chr2	131117768	131117890	+	5468 138
chr2	131840219	131840150	-	ENST00000409185,ENST00000389915	chr2	131829742	131829686	-	5469 23
chr2	131840219	131840150	-	ENST00000409185,ENST00000389915	chr2	131829868	131829686	-	5470 23
				ENST00000409261,ENST00000409213,ENST00000317721,ENST00000405974					193
chr2	133721442	133721293	-		chr2	133683778	133683470	-	5471
				ENST00000409261,ENST00000409213,ENST00000317721,ENST00000405974,ENST00000427594					113,109
chr2	133887683	133887550	-		chr2	133788532	133788285	-	5472-5473
				ENST00000409261,ENST00000409213,ENST00000317721,ENST00000405974,ENST00000427594					113,109
chr2	133887683	133887550	-		chr2	133859195	133858449	-	5474-5475
				ENST00000409261,ENST00000409213,ENST00000317721,ENST00000405974,ENST00000427594,ENST00000358991					69,64
chr2	133971351	133971288	-		chr2	133945737	133945099	-	5476-5477
				ENST00000409261,ENST00000409213,ENST00000317721,ENST00000405974,ENST00000427594,ENST00000358991					18,23
chr2	134275097,1	134275029	-		chr2	134228301	134222579	-	5478-5479
chr2	135119846	135119979	+	ENST00000409645,ENST00000281923	chr2	135121112	135121271	+	5480 460
chr2	135223796	135223685	-	ENST00000281924	chr2	135216255	135216223	-	5481 222
chr2	135260568	135260472	-	ENST00000281924	chr2	135250317	135250006	-	5482 185

Table 9

			ENST00000419781,ENST00000446247,ENST00000452839,ENST00000295238,ENST00000264157,ENST00000417175						143,5
chr2	135696572,1	135696632	+	chr2	135698167	135698729	+	5483-5484	
			ENST00000419781,ENST00000446247,ENST00000452839,ENST00000295238,ENST00000264157,ENST00000417175						143,5
chr2	135696572,1	135696632	+	chr2	135698621	135698729	+	5485-5486	
			ENST00000446247,ENST00000537343,ENST00000295238,ENST00000264157,ENST00000452521,ENST00000438691						75,59,234,56,24
chr2	135705306,135	135705469	+	chr2	135755491	135755603	+	5487-5491	
			ENST00000264158,ENST00000442034,ENST00000425393						50
chr2	135815581	135815656	+	chr2	135847221	135847658	+	5492	
			ENST00000264158,ENST00000539493,ENST00000442034						763,719
chr2	135911219	135911446	+	chr2	135918410	135918486	+	5493-5494	
			ENST00000401392,ENST00000264159,ENST00000403017,ENST00000536680						322,322
chr2	136071175	136071059	-	chr2	136048126	136047490	-	5495-5496	
			ENST00000401392,ENST00000264159,ENST00000403017,ENST00000536680						53
chr2	136262059	136261899	-	chr2	136245690	136244383	-	5497	
			ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703,ENST00000445855						508,656,655,784,729,785,80
chr2	136437743	136437894	+	chr2	136438064	136438348	+	5498-5504	
			ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703,ENST00000445855						508,80,656,655,784,729,785
chr2	136437743	136437894	+	chr2	136453337	136453519	+	5505-5511	
			ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703,ENST00000445855						656,655,784,729,785,508,80
chr2	136437743	136437894	+	chr2	136460543	136461029	+	5512-5518	
			ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703						797,796,925,870,926,648
chr2	136473120	136473264	+	chr2	136478774	136479058	+	5519-5524	
chr2	136529990	136530117	+	ENST00000272638	chr2	136531804	136532133	+	5525	316
			ENST00000264161,ENST00000537273,ENST00000441323,ENST00000456565,ENST00000449218						141,41,108,172
chr2	136701050	136700948	-	chr2	136696119	136695127	-	5526-5529	
			ENST00000435076,ENST00000264170,ENST00000375773,ENST00000409512						300
chr2	143743517	143743590	+	chr2	143745347	143745682	+	5530	
chr2	143973953	143974014	+	ENST00000409869,ENST00000295095	chr2	143981581	143981618	+	5531	98
			ENST00000409642,ENST00000409876,ENST00000409029,ENST00000437627,ENST00000450639						1
chr2	149987463	149987467	+	,ENST00000442722	chr2	150015589	150015990	+	5532	
chr2	152230063	152230103	+	ENST00000243347	chr2	152234608	152234727	+	5533	221
chr2	153192118	153192234	+	ENST00000288670	chr2	153271093	153271138	+	5534	39
chr2	153488522	153488651	+	ENST00000288670,ENST00000475377	chr2	153489967	153489972	+	5535-5536	893,268
chr2	153591508	153591640	+	ENST00000326446	chr2	153613411	153613893	+	5537	195
chr2	153591508	153591640	+	ENST00000326446	chr2	153613414	153613893	+	5538	195
			ENST00000415049,ENST00000310454,ENST00000438166,ENST00000540309,ENST00000416888,ENST00000409674,ENST00000409861,ENST00000430992						34
chr2	157332618	157332719	+	chr2	157351653	157351868	+	5539	
chr2	158114595	158116048	+	ENST00000259056	chr2	158121454	158121559	+	5540	484
chr2	158114595	158116048	+	ENST00000259056	chr2	158137449	158137563	+	5541	484
chr2	159077225	159077107	-	ENST00000283233,ENST00000409187	chr2	159052230	159052228	-	5542-5543	456,465
			ENST00000283233,ENST00000409187,ENST00000536771						301,310,215
chr2	159170406	159170268	-	chr2	159167684	159166433	-	5544-5546	
			ENST00000283233,ENST00000409187,ENST00000536771						301,310,215
chr2	159170406	159170268	-	chr2	159167962	159166433	-	5547-5549	
			ENST00000426248,ENST00000389757,ENST00000389759,ENST00000421462,ENST00000481115						93,26
chr2	159459582	159459616	+		chr2	159462759	159462872	+	5550-5551	
chr2	160654709	160654643	-	ENST00000259053,ENST00000429078	chr2	160651998	160651971	-	5552	22
chr2	160918914	160918806	-	ENST00000283243,ENST00000392771	chr2	160916282	160916153	-	5553	36
			ENST00000283249,ENST00000428609,ENST00000409872						756,714,649
chr2	160964356	160964190	-	chr2	160928290	160927975	-	5554-5556	
chr2	161349874	161349800	-	ENST00000348849,ENST00000392753	chr2	161303896	161303582	-	5557	25
chr2	163070583	163070448	-	ENST00000188790,ENST00000443424	chr2	163068002	163067985	-	5558-5559	334,309
			ENST00000188790,ENST00000443424,ENST00000447386,ENST00000450031						30,9
chr2	163099502,2	163099418	-	chr2	163094158	163093734	-	5560-5561	
			ENST00000360093,ENST00000283254,ENST00000409101,ENST00000440431						1281,1281,1232,1232
chr2	165969568	165969395	-	chr2	165963542	165963365	-	5562-5565	
chr2	166430869	166430941	+	ENST00000409420	chr2	166447239	166447399	+	5566	24
			ENST00000458381,ENST00000444448,ENST00000317647,ENST00000445023,ENST00000397206,ENST00000397209,ENST00000421711,ENST00000447264						210,132,182
chr2	169699502	169699627	+	chr2	169700350	169700598	+	5567-5569	
chr2	170019110	170018982	-	ENST00000263816	chr2	170017592	170017582	-	5570	3962
chr2	170550837	170550771	-	ENST00000447353	chr2	170545452	170545415	-	5571	22
			ENST00000272793,ENST00000418381,ENST00000392632,ENST00000392631,ENST00000439681						615,1553,374,253
chr2	170897392	170897495	+		chr2	170897613	170897706	+	5572-5575	
chr2	172314481	172314585	+	ENST00000539783,ENST00000375255	chr2	172316937	172317025	+	5576	244
chr2	172314882	172314987	+	ENST00000539783,ENST00000375255	chr2	172316937	172317025	+	5577	279

Table 9

				ENST00000452242,ENST00000340296,ENST00000263811,ENST00000534253,ENST00000397119,ENST00000410079,ENST00000438879,ENST00000508530,ENST00000409197,ENST00000456808,ENST00000409317,ENST00000409773,ENST00000409453,ENST00000445378,ENST00000358002,ENST00000435234,ENST00000423910,ENST00000425485,ENST00000422646					164,144,170,170,162,182,114
chr2	172571838	172571953	+		chr2	172576995	172577247	+	5578-5584	
chr2	172648099	172647961	-	ENST00000422440,ENST00000392592	chr2	172647384	172647223	-	5585-5586	528,421
				ENST00000422440,ENST00000263812,ENST00000392592,ENST00000426896,ENST00000475360						69,1,65
chr2	172725333,2	172725191	-		chr2	172723613	172722363	-	5587-5589	
chr2	174104132	174104224	+	ENST00000409176,ENST00000375213	chr2	174105559	174106058	+	5590	453
				ENST00000310015,ENST00000455789,ENST00000418194,ENST00000416195						610,557,542,
chr2	174783513	174783321	-		chr2	174779307	174779249	-	5591-5594	567
				ENST00000252804,ENST00000433670,ENST00000425171						66,62
chr2	1748227,175	1748028	-		chr2	1738225	1737899	-	5595-5596	
				ENST00000284719,ENST00000344357,ENST00000428402,ENST00000409546,ENST00000429575						183,25,203
chr2	175006728,2	175006553	-		chr2	175000590	175000544	-	5597-5599	
				ENST00000284719,ENST00000428402,ENST00000409546						124,144
chr2	175087888	175087761	-		chr2	175077629	175076786	-	5600-5601	
				ENST00000284719,ENST00000428402,ENST00000409546						124,144
chr2	175087888	175087761	-		chr2	175077635	175076786	-	5602-5603	
chr2	175289203	175289377	+	ENST00000409673,ENST00000272732	chr2	175352763	175353079	+	5604-5605	357,364
chr2	175809671	175809616	-	ENST00000409900,ENST00000409156	chr2	175798980	175798736	-	5606	38
chr2	178310274	178310354	+	ENST00000264167	chr2	178321502	178325054	+	5607	290
chr2	178388476	178388533	+	ENST00000264167,ENST00000409888	chr2	178389456	178389565	+	5608-5609	618,149
chr2	178388476	178388533	+	ENST00000264167,ENST00000409888	chr2	178423480	178423629	+	5610-5611	618,149
				ENST00000286063,ENST00000358450,ENST00000409504,ENST00000389683,ENST00000449286,ENST00000433879						389,781,531,423,337
chr2	178562160	178562060	-		chr2	178560081	178559916	-	5612-5616	
				ENST00000448223,ENST00000351948,ENST00000381272,ENST00000402989						970,996
chr2	17860231	17860126	-		chr2	17856802	17855300	-	5617-5618	
				ENST00000448223,ENST00000351948,ENST00000381272,ENST00000402989						970,996
chr2	17860231	17860126	-		chr2	17856840	17855300	-	5619-5620	
				ENST00000286063,ENST00000358450,ENST00000409504,ENST00000389683,ENST00000449286,ENST00000433879						455,205,97,1,94
chr2	178740650,2	178740586	-		chr2	178734925	178734443	-	5621-5625	
				ENST00000448223,ENST00000351948,ENST00000381272,ENST00000402989,ENST00000446852,ENST00000430591						576,602,5
chr2	17896332,18	17896128	-		chr2	17891540	17890850	-	5626-5628	
				ENST00000359685,ENST00000392505,ENST00000409045,ENST00000190611,ENST00000409631,ENST00000315022						682,743,687,718,722
chr2	179251788	179251866	+		chr2	179252451	179252748	+	5629-5633	
chr2	180634482	180634230	-	ENST00000410066	chr2	180493215	180492649	-	5634	84
				ENST00000602303,ENST00000602959,ENST00000602479,ENST00000392415,ENST00000602291,ENST00000410062,ENST00000602475,ENST00000602499,ENST00000602710,ENST00000602632						81
chr2	181848770	181848820	+		chr2	181856395	181856495	+	5635	
chr2	182347241	182347378	+	ENST00000397033,ENST00000233573	chr2	182348883	182348983	+	5636	347
chr2	182376426	182376502	+	ENST00000397033	chr2	182379720	182379884	+	5637	640
				ENST00000264065,ENST00000537515,ENST00000418559						139
chr2	183586752	183586802	+		chr2	183590357	183590606	+	5638	
				ENST00000264065,ENST00000537515,ENST00000418559						139
chr2	183586752	183586802	+		chr2	183590363	183590606	+	5639	
chr2	183723561	183723514	-	ENST00000295113	chr2	183711820	183711744	-	5640	175
				ENST00000442895,ENST00000446612,ENST00000409798,ENST00000455063,ENST00000295119,ENST00000374930,ENST00000452137						53,7
chr2	183993026,2	183993185	+		chr2	183994894	183995045	+	5641-5642	
chr2	186664424	186673860	+	ENST00000343098,ENST00000424728	chr2	186675324	186675346	+	5643-5644	6698,6609
				ENST00000261023,ENST00000374907,ENST00000433736						386,350,340
chr2	187506113	187506315	+		chr2	187508334	187508586	+	5645-5647	
				ENST00000409843,ENST00000409830,ENST00000410051,ENST00000409927,ENST00000409805,ENST00000359135,ENST00000409580,ENST00000409637,ENST00000409609						30
chr2	189348158	189348219	+		chr2	189366059	189366213	+	5648	
				ENST00000409843,ENST00000409830,ENST00000410051,ENST00000359135,ENST00000409580,ENST00000409637,ENST00000409609						133
chr2	189405908	189406045	+		chr2	189406556	189406849	+	5649	
				ENST00000441310,ENST00000409985,ENST00000446877,ENST00000342075,ENST00000409823,ENST00000374826,ENST00000450931,ENST00000424766,ENST00000447232,ENST00000447734,ENST00000420421,ENST00000424307						44
chr2	190656536	190656667	+		chr2	190659575	190659813	+	5650	
				ENST00000441310,ENST00000409985,ENST00000409823,ENST00000374826,ENST00000450931,ENST00000424766,ENST00000447232,ENST00000424307						139,78
chr2	190670378	190670480	+		chr2	190676567	190676595	+	5651-5652	

Table 9

				ENST00000441310,ENST00000409985,ENST00000409823,ENST00000374826,ENST00000450931,ENST00000424766,ENST00000447232,ENST00000424307						139,78
chr2	190670378	190670480	+		chr2	190681768	190681939	+	5653-5654	
				ENST00000441310,ENST00000418224,ENST00000409823,ENST00000432292,ENST00000452382						780,604,741,168
chr2	190728469	190728954	+		chr2	190729103	190729411	+	5655-5658	
chr2	197639975	197639840	-	ENST00000263956,ENST00000435252	chr2	197638450	197638222	-	5659-5660	610,133
				ENST00000424317,ENST00000282272,ENST00000337207,ENST00000450567,ENST00000328737,ENST00000422886,ENST00000409153,ENST00000539527						365,542,525,525,225,550,478
chr2	197943538	197943427	-		chr2	197934689	197934187	-	5661-5667	
				ENST00000409153,ENST00000409919,ENST00000447713						9
chr2	198175328	198175302	-		chr2	198070437	198070330	-	5668	
				ENST00000409153,ENST00000409919,ENST00000447713						9
chr2	198175328	198175302	-		chr2	198114959	198114717	-	5669	
				ENST00000409153,ENST00000409919,ENST00000447713						9
chr2	198175328	198175302	-		chr2	198126186	198124811	-	5670	
				ENST00000233893,ENST00000409729,ENST00000409468,ENST00000604458						1
chr2	198365161	198365163	+		chr2	198366208	198366509	+	5671	
				ENST00000416668,ENST00000420922,ENST00000420128						70
chr2	200710893	200710798	-		chr2	200689022	200688837	-	5672	
chr2	200776162	200776494	+	ENST00000319974	chr2	200788554	200788558	+	5673	111
				ENST00000439084,ENST00000409718,ENST00000358677,ENST00000409988,ENST00000439395,ENST00000451764,ENST00000360760,ENST00000423749,ENST00000457757,ENST00000453663,ENST00000409140,ENST00000409397,ENST00000409755,ENST00000409151,ENST00000421573						49,79,57,44
chr2	201277034	201277142	+	,ENST00000449647,ENST00000438761	chr2	201277502	201277796	+	5674-5677	
chr2	201407302	201407387	+	ENST00000357799,ENST00000409203	chr2	201407748	201408046	+	5678	157
chr2	201407302	201407387	+	ENST00000357799,ENST00000409203	chr2	201407751	201408046	+	5679	157
				ENST00000281405,ENST00000345530,ENST00000445063,ENST00000414212						398,243
chr2	20166670	20166485	-		chr2	20165319	20164984	-	5680-5681	
chr2	201785116	201784945	-	ENST00000234296	chr2	201783689	201783604	-	5682	488
chr2	201814366	201814277	-	ENST00000234296,ENST00000410039	chr2	201811006	201810878	-	5683	109
				ENST00000281405,ENST00000345530,ENST00000414212						71
chr2	20182295	20182224	-		chr2	20181597	20181580	-	5684	
chr2	201881893	201881714	-	ENST00000418596,ENST00000452799	chr2	201881269	201881016	-	5685	111
				ENST00000309955,ENST00000443227,ENST00000341222,ENST00000340870,ENST00000355558,ENST00000341582,ENST00000342795,ENST00000423241,ENST00000439154,ENST00000440180,ENST00000457277,ENST00000494258,ENST00000470178,ENST00000462763,ENST00000479953						202,106
chr2	202005080	202005162	+		chr2	202008054	202008213	+	5686-5687	
				ENST00000392263,ENST00000432109,ENST00000264275,ENST00000450491,ENST00000358485						252,267,284,149,326
chr2	202141550	202141691	+	,ENST00000323492	chr2	202143939	202144423	+	5688-5692	
chr2	202580562	202580395	-	ENST00000264276	chr2	202579901	202579381	-	5693	1334
				ENST00000392246,ENST00000392245,ENST00000409368,ENST00000392244,ENST00000409712						4
chr2	203103174	203103163	-	,ENST00000409181,ENST00000409627	chr2	203058624	203058542	-	5694	
chr2	203782725	203782766	+	ENST00000545253,ENST00000456821	chr2	203788040	203788725	+	5695	14
				ENST00000402905,ENST00000444724,ENST00000422368,ENST00000414439,ENST00000545253,ENST00000428585,ENST00000545262,ENST00000434998,ENST00000320443,ENST00000438828						277,247,175,189,201
chr2	203825960	203826149	+		chr2	203826947	203827226	+	5696-5700	
				ENST00000338086,ENST00000319801,ENST00000361078,ENST00000440577,ENST00000536417						430,321,374
chr2	20490551	20490413	-	,ENST00000403432	chr2	20483873	20483850	-	5701-5703	
				ENST00000338086,ENST00000319801,ENST00000361078,ENST00000440577,ENST00000536417						294,185,238
chr2	20507832	20507739	-	,ENST00000403432	chr2	20502117	20501971	-	5704-5706	
				ENST00000406610,ENST00000462231,ENST00000349953,ENST00000351153,ENST00000358768						131
chr2	205829875	205830046	+		chr2	205845396	205845770	+	5707	
				ENST00000406610,ENST00000462231,ENST00000349953,ENST00000351153,ENST00000358768						168
chr2	205912304	205912413	+		chr2	205965194	205966764	+	5708	
				ENST00000406610,ENST00000462231,ENST00000349953,ENST00000351153,ENST00000358768						713,651
chr2	206057929	206058044	+		chr2	206071523	206074109	+	5709-5710	
chr2	207146574	207146633	+	ENST00000374423	chr2	207156735	207157223	+	5711	20
				ENST00000236980,ENST00000402774,ENST00000403094						259
chr2	207631418	207632194	+		chr2	207634574	207634673	+	5712	
chr2	208485418	208485365	-	ENST00000272839	chr2	208446884	208446314	-	5713	104
chr2	208485418	208485365	-	ENST00000272839	chr2	208484596	208484523	-	5714	104
				ENST00000427836,ENST00000447645,ENST00000389247,ENST00000457206						650,401,664
chr2	208773301	208773238	-		chr2	208751425	208751149	-	5715-5717	
chr2	209324620	209324686	+	ENST00000272847	chr2	209436738	209436804	+	5718	327

Table 9

chr2	210804196	210804376	+	ENST00000439458,ENST00000272845 ENST00000359429,ENST00000540255,ENST00000452025,ENST00000435437,ENST00000354506	chr2	210805681	210805732	+	5719-5720	2149,2144 40
chr2	210867386	210867507	+	ENST00000359429,ENST00000540255,ENST00000452025,ENST00000435437 ENST00000443314,ENST00000441020,ENST00000450366,ENST00000233714,ENST00000431941	chr2	210879236	210879364	+	5721	67
chr2	210874381	210874460	+	,ENST00000448951 ENST00000430249,ENST00000233072,ENST00000451903 ENST00000331683,ENST00000413312,ENST00000272898,ENST00000447990,ENST00000374309	chr2	210879236	210879364	+	5722	135
chr2	211320038	211319831	-	ENST00000236959,ENST00000540518,ENST00000435675 ENST00000236959,ENST00000540518,ENST00000435675,ENST00000426233,ENST00000442048	chr2	211306921	211306633	-	5723	862,856,405
chr2	211476841	211477017	+	ENST00000421182,ENST00000323926,ENST00000336916,ENST00000357867,ENST00000354785 ,ENST00000345488,ENST00000346544,ENST00000357009,ENST00000359671,ENST00000446046 ,ENST00000443816,ENST00000432072,ENST00000356005,ENST00000456923	chr2	211479459	211479774	+	5724-5726	277,246,183
chr2	214228800	214228869	+	ENST00000421182,ENST00000323926,ENST00000336916,ENST00000357867,ENST00000354785 ,ENST00000345488,ENST00000346544,ENST00000357009,ENST00000359671,ENST00000446046 ,ENST00000443816,ENST00000432072,ENST00000356005 ENST00000491306,ENST00000600880,ENST00000446558,ENST00000456586,ENST00000598925	chr2	214268682	214269447	+	5727-5729	307,248,306
chr2	216198073	216198180	+	ENST00000236959,ENST00000540518,ENST00000435675 ENST00000236959,ENST00000540518,ENST00000435675,ENST00000426233,ENST00000442048	chr2	216198485	216198776	+	5730-5732	553,494,552, 221,68
chr2	216213817	216213972	+	ENST00000421182,ENST00000323926,ENST00000336916,ENST00000357867,ENST00000354785 ,ENST00000345488,ENST00000346544,ENST00000357009,ENST00000359671,ENST00000446046 ,ENST00000443816,ENST00000432072,ENST00000356005,ENST00000456923 ENST00000421182,ENST00000323926,ENST00000336916,ENST00000357867,ENST00000354785 ,ENST00000345488,ENST00000346544,ENST00000357009,ENST00000359671,ENST00000446046 ,ENST00000443816,ENST00000432072,ENST00000356005	chr2	216216677	216217022	+	5733-5737	1326,1417,1 33
chr2	216256537	216256355	-	ENST00000491306,ENST00000600880,ENST00000446558,ENST00000456586,ENST00000598925 ,ENST00000427280,ENST00000441179 ENST00000315717,ENST00000420104,ENST00000420201,ENST00000295685 ENST00000509807,ENST00000273064,ENST00000542068,ENST00000433439,ENST00000432877 ,ENST00000295701 ENST00000509807,ENST00000273064,ENST00000542068,ENST00000433439,ENST00000432877 ,ENST00000295701 ENST00000509807,ENST00000273064,ENST00000542068,ENST00000433439,ENST00000432877 ,ENST00000295701 ENST00000450993,ENST00000417849,ENST00000432688	chr2	216253407	216253387	-	5738-5740	1084
chr2	216269378	216269112	-		chr2	216265812	216265527	-	5741	57,33
chr2	217364672	217364711	+		chr2	217428092	217428140	+	5742-5743	89
chr2	219099075	219099120	+		chr2	219100535	219100829	+	5744	8
chr2	219433678	219433701	+		chr2	219434747	219434851	+	5745	8
chr2	219433678	219433701	+		chr2	219434752	219434851	+	5746	8
chr2	219433678	219433701	+		chr2	219437290	219437368	+	5747	373
chr2	219494242	219494386	+		chr2	219494827	219494924	+	5748	
chr2	223513514	223513459	-	ENST00000281828	chr2	223509640	223509344	-	5749	38
chr2	223513514	223513459	-	ENST00000281828	chr2	223509656	223509344	-	5750	38
chr2	223916863	223916992	+	ENST00000281830	chr2	223941205	223941414	+	5751	43
chr2	224824251	224824719	+	ENST00000258383 ENST00000264414,ENST00000344951,ENST00000409096,ENST00000409777	chr2	224824979	224825035	+	5752	216 725,659,701
chr2	225343062	225342917	-		chr2	225340051	225340034	-	5753-5755	
chr2	225449726	225449661	-	ENST00000264414,ENST00000344951	chr2	225431828	225429756	-	5756	22
chr2	226516148	226516251	+	ENST00000272907 ENST00000409462,ENST00000392055,ENST00000534952 ENST00000258381,ENST00000358662,ENST00000392048,ENST00000258382,ENST00000540870 ,ENST00000338556 ENST00000258381,ENST00000358662,ENST00000392048,ENST00000258382,ENST00000540870 ,ENST00000338556 ENST00000350136,ENST00000392045,ENST00000417495,ENST00000264052,ENST00000427101,ENST00000432979,ENST00000409824,ENST00000409341 ,ENST00000341950,ENST00000409112,ENST00000340126 ENST00000264052,ENST00000409341,ENST00000341950,ENST00000409112,ENST00000340126 ENST00000264052,ENST00000340126,ENST00000431952 ENST00000373635,ENST00000308696,ENST00000409643,ENST00000447633 ENST00000373635,ENST00000308696,ENST00000409643	chr2	226593946	226594189	+	5757	644 10
chr2	230135759	230135730	-		chr2	230127596	230127321	-	5758	530,528,536, 232
chr2	231042396	231042254	-		chr2	231041054	231040982	-	5759-5762	276,282,28
chr2	231074723	231074646	-		chr2	231073553	231072878	-	5763-5765	227,247,244
chr2	231110578	231110655	+		chr2	231111964	231112355	+	5766-5768	555,610,686, 572,626,659
chr2	231162136	231162177	+		chr2	231163825	231166852	+	5769-5774	10
chr2	231281012	231281043	+		chr2	231301096	231301404	+	5775	35
chr2	231282306	231282380	+		chr2	231305191	231305605	+	5776	698,71
chr2	231375840	231375881	+		chr2	231386022	231386391	+	5777-5778	627,12
chr2	231951831	231951895	+		chr2	231974893	231975042	+	5779-5780	874,905
chr2	232030585	232030731	+		chr2	232031095	232031204	+	5781-5782	

Table 9

				ENST00000373635,ENST00000308696,ENST000					874,905
chr2	232030585	232030731	+	00409643	chr2	232031115	232031204	+	5783-5784
chr2	232160911	232160966	+	ENST00000349938	chr2	232168370	232168655	+	5785 591
chr2	232323100,2	232322977	-	ENST00000322723,ENST00000356936	chr2	232322887	232322727	-	5786-5787 429,3
chr2	233245550	233245741	+	ENST00000392027	chr2	233248914	233249128	+	5788 397
chr2	233245961	233246077	+	ENST00000392027	chr2	233248914	233249128	+	5789 436
				ENST00000258416,ENST00000409514,ENST000					6
				00409098,ENST00000409495,ENST00000409167					
chr2	233415435	233415454	+	,ENST00000409322,ENST00000409394	chr2	233415880	233415934	+	5790
				ENST00000409613,ENST00000264059,ENST000					99,195,83
chr2	233537019	233537153	+	00409708,ENST00000410095	chr2	233551357	233551617	+	5791-5793
				ENST00000373566,ENST00000373563,ENST000					177
				00409480,ENST00000409547,ENST00000409196					
chr2	233626106	233626146	+	,ENST00000409451,ENST00000440945	chr2	233649827	233649866	+	5794
				ENST00000450966,ENST00000251722,ENST000					882,870,45,4
				00427112,ENST00000430158,ENST00000409945					6
chr2	234418781	234418695	-		chr2	234417820	234416692	-	5795-5798
chr2	234526354	234527208	+	ENST00000373450	chr2	234532345	234532466	+	5799 285
				ENST00000373424,ENST00000446481,ENST000					20,287,67
				00305139,ENST00000484784,ENST00000406651					
chr2	234602452,234	234602511	+		chr2	234613630	234613795	+	5800-5802
				ENST00000373424,ENST00000446481,ENST000					20,287,67
				00305139,ENST00000484784,ENST00000406651					
chr2	234602452,234	234602511	+		chr2	234673968	234674326	+	5803-5805
				ENST00000305208,ENST00000360418,ENST000					288
chr2	234668934	234669797	+	00608383	chr2	234673968	234674326	+	5806
				ENST00000392011,ENST00000409212,ENST000					826
chr2	235949532	235951891	+	00344528	chr2	235955071	235955245	+	5807
				ENST00000336665,ENST00000304032,ENST000					441,706,280,
				00409538,ENST00000428334,ENST00000448025					74,21
chr2	236817382,2	236817550	+	,ENST00000418654	chr2	236819281	236819571	+	5808-5812
				ENST00000264605,ENST00000445024,ENST000					340,300,88,2
				00338530,ENST00000409373,ENST00000436965					7
chr2	238436020,238	238436159	+	,ENST00000415753	chr2	238436538	238436933	+	5813-5816
chr2	238536288	238536383	+	ENST00000308482	chr2	238591268	238591369	+	5817 32
				ENST00000254663,ENST00000555827,ENST000					109,101,101,
				00409736,ENST00000412508,ENST00000429612					89
chr2	238976706	238976806	+	,ENST00000416757	chr2	238982424	238982663	+	5818-5821
				ENST00000254663,ENST00000373332,ENST000					302,212,294,
				00555827,ENST00000409736,ENST00000422984					200,138,124,
				,ENST00000437134,ENST00000450965,ENST000					36
chr2	238991889,2	238991995	+	00433750	chr2	238992535	238992951	+	5822-5828
				ENST00000254663,ENST00000373332,ENST000					138,302,212,
				00555827,ENST00000409736,ENST00000422984					294,200,124,
				,ENST00000437134,ENST00000450965,ENST000					36
chr2	238991889,2	238991995	+	00433750	chr2	238992681	238992951	+	5829-5835
chr2	239025544	239025675	+	ENST00000343063	chr2	239026297	239026377	+	5836 329
chr2	240002888	240002791	-	ENST00000345617,ENST00000543185	chr2	239993919	239993128	-	5837-5838 911,495
				ENST00000419408,ENST00000252711,ENST000					103,98,333,2
				00404554,ENST00000443626,ENST00000444548					37,96,363
chr2	240929599	240929491	-	,ENST00000448880,ENST00000307300	chr2	240852407	240851820	-	5839-5844
				ENST00000419408,ENST00000252711,ENST000					98,333,237,1
				00404554,ENST00000443626,ENST00000444548					03,96,363
chr2	240929599	240929491	-	,ENST00000448880,ENST00000307300	chr2	240928029	240927880	-	5845-5850
				ENST00000373318,ENST00000373320,ENST000					625,616,846,
				00391987,ENST00000406958,ENST00000272972					607,622,748,
				,ENST00000361678,ENST00000403283,ENST000					935,49
chr2	241439540,2	241439375	-	00401804,ENST00000407275	chr2	241436854	241436806	-	5851-5858
				ENST00000373318,ENST00000373320,ENST000					625,616,846,
				00391987,ENST00000406958,ENST00000272972					607,622,748,
				,ENST00000361678,ENST00000403283,ENST000					935,49
chr2	241439540,2	241439375	-	00401804,ENST00000407275	chr2	241437145	241436991	-	5859-5866
				ENST00000401884,ENST00000342631,ENST000					348,44,6
				00405547,ENST00000310397,ENST00000401644					
chr2	241976657,241	241976770	+	,ENST00000431690	chr2	241983837	241984086	+	5867-5869
				ENST00000391973,ENST00000428282,ENST000					43,3,54
				00360051,ENST00000428524,ENST00000445030					
				,ENST00000407017,ENST00000391971,ENST000					
				00401990,ENST00000407971,ENST00000457335					
				,ENST00000436795,ENST00000411484,ENST000					
				00434955,ENST00000402092,ENST00000441533					
				,ENST00000443492,ENST00000437066,ENST000					
chr2	242265408,2	242265528	+	00420786,ENST00000449239	chr2	242265899	242266221	+	5870-5872
				ENST00000391973,ENST00000428282,ENST000					43,3,54
				00360051,ENST00000428524,ENST00000445030					
				,ENST00000407017,ENST00000391971,ENST000					
				00401990,ENST00000407971,ENST00000457335					
				,ENST00000436795,ENST00000411484,ENST000					
				00434955,ENST00000402092,ENST00000441533					
				,ENST00000443492,ENST00000437066,ENST000					
chr2	242265408,2	242265528	+	00420786,ENST00000449239	chr2	242266048	242266221	+	5873-5875

Table 9

				ENST00000264042,ENST00000545004,ENST00000373287					257
chr2	242357377	242357524	+	ENST00000405546,ENST00000402096,ENST00000404914,ENST00000396411,ENST00000474739	chr2	242360293	242361276	+	5876 244,170,230,193,81
chr2	242606060,2	242606253	+	,ENST00000400771,ENST00000428861	chr2	242606946	242607037	+	5877-5881
				ENST00000537090,ENST00000342518,ENST00000432449					310,37
chr2	242688280,2	242688357	+		chr2	242688709	242688799	+	5882-5883
				ENST00000407625,ENST00000420135,ENST00000584973					147,52
chr2	24362240	24362320	+		chr2	24365494	24366036	+	5884-5885
				ENST00000407625,ENST00000420135,ENST00000584973					147,52
chr2	24362240	24362320	+		chr2	24367347	24367508	+	5886-5887
				ENST00000260600,ENST00000405392,ENST00000606682					655,288,348
chr2	25057515	25057354	-		chr2	25056695	25056598	-	5888-5890
chr2	25141856	25141182	-	ENST00000260600,ENST00000435135	chr2	25112387	25111889	-	5891 225
				ENST00000496972,ENST00000404103,ENST00000405222,ENST00000406818,ENST00000407038,ENST00000407661,ENST00000407186,ENST00000288642,ENST00000545439					235,292,88
chr2	25799873	25799707	-		chr2	25799395	25799086	-	5892-5894
chr2	26068432,26	26068350	-	ENST00000435504,ENST00000336112	chr2	26067645	26067519	-	5895-5896 46,18
chr2	26101091	26101035	-	ENST00000435504	chr2	26087849	26087703	-	5897 19
chr2	26332637	26332775	+	ENST00000264710	chr2	26346251	26347130	+	5898 109
chr2	26483889	26483931	+	ENST00000545822	chr2	26484342	26484360	+	5899 14
				ENST00000338581,ENST00000339598,ENST00000402415,ENST00000272371,ENST00000403946					934,1011,1701
chr2	26686974	26686832	-		chr2	26686605	26686588	-	5900-5902
				ENST00000260643,ENST00000444452,ENST00000406567					45
chr2	27357289	27357155	-		chr2	27356739	27356665	-	5903
				ENST00000264705,ENST00000403525,ENST00000456311					119,1832,1769
chr2	27462565	27462666	+		chr2	27462964	27463107	+	5904-5906
				ENST00000264705,ENST00000403525,ENST00000456311					1832,1769,119
chr2	27462565	27462666	+		chr2	27463036	27463107	+	5907-5909
chr2	27685660	27685568	-	ENST00000260570	chr2	27685062	27684906	-	5910 705
				ENST00000379717,ENST00000355467,ENST00000416005					10
chr2	27805980	27806009	+		chr2	27806627	27806767	+	5911
				ENST00000379666,ENST00000296102,ENST00000448427					13
chr2	27995541	27995559	+		chr2	28111576	28111745	+	5912
				ENST00000302188,ENST00000449378,ENST00000444339,ENST00000453412					29
chr2	28113212	28113124	-		chr2	28093017	28092383	-	5913
				ENST00000455580,ENST00000358506,ENST00000296122,ENST00000395366					169,197
chr2	29006773	29006844	+		chr2	29010420	29010809	+	5914-5915
chr2	29237261	29237427	+	ENST00000403861,ENST00000379558	chr2	29238467	29239285	+	5916 348
				ENST00000319406,ENST00000359433,ENST00000309052,ENST00000497423					36
chr2	30682479	30682588	+		chr2	30699443	30699680	+	5917
				ENST00000379509,ENST00000319406,ENST00000359433,ENST00000309052,ENST00000540623					170,208
chr2	30785012	30785158	+		chr2	30785261	30785370	+	5918-5919
chr2	31571229	31571134	-	ENST00000379416	chr2	31570949	31570904	-	5920 1049
chr2	31606713	31606621	-	ENST00000379416	chr2	31606178	31606056	-	5921 295
				ENST00000538303,ENST00000379343,ENST00000357055,ENST00000435660,ENST00000282587					192,261,24,21,147
chr2	32422776,32	32422895	+	,ENST00000406369	chr2	32423035	32423074	+	5922-5926
chr2	32526451,33	32526564	+	ENST00000238831,ENST00000441084	chr2	32528121	32528154	+	5927-5928 199,17
chr2	3278190	3278110	-	ENST00000398659	chr2	3276297	3274259	-	5929 113
chr2	32818982	32819127	+	ENST00000421745	chr2	32819514	32819763	+	5930 4500
chr2	32897339	32897451	+	ENST00000317907	chr2	32898786	32899057	+	5931 350
chr2	33173942	33174012	+	ENST00000404816,ENST00000354476	chr2	33207335	33208589	+	5932 188
				ENST00000404816,ENST00000354476,ENST00000390003,ENST00000418533,ENST00000402934					567,241
chr2	33413644	33413918	+	,ENST00000404525,ENST00000407925	chr2	33414812	33415112	+	5933-5934
				ENST00000398659,ENST00000382125,ENST00000435721,ENST00000443925,ENST00000444776					86
chr2	3341920	3341788	-		chr2	3276297	3274259	-	5935
				ENST00000402538,ENST00000403687,ENST00000407811,ENST00000419772					426,425,135
chr2	33764161,34	33764277	+		chr2	33765027	33765082	+	5936-5938
				ENST00000398659,ENST00000382125,ENST00000455162,ENST00000441271,ENST00000435721,ENST00000443925,ENST00000406835,ENST00000444776					14
chr2	3381460	3381419	-		chr2	3359824	3359718	-	5939
				ENST00000398659,ENST00000382125,ENST00000455162,ENST00000441271,ENST00000435721,ENST00000443925,ENST00000406835,ENST00000444776					14
chr2	3381460	3381419	-		chr2	3360102	3359718	-	5940
				ENST00000398659,ENST00000382125,ENST00000455162,ENST00000441271,ENST00000435721,ENST00000443925,ENST00000406835,ENST00000444776					14
chr2	3381460	3381419	-		chr2	3360134	3359718	-	5941
chr2	3596314	3596230	-	ENST00000315212	chr2	3596033	3595966	-	5942 216
chr2	36706640	36706837	+	ENST00000280527	chr2	36720304	36720412	+	5943 457
chr2	37543667	37543380	-	ENST00000379066,ENST00000234179	chr2	37522370	37522273	-	5944 96
				ENST00000354545,ENST00000406384,ENST00000417700,ENST00000425641					409,264,144
chr2	38244329	38244378	+		chr2	38244892	38244894	+	5945-5947

Table 9

			ENST00000272252,ENST00000444351,ENST000						211,184,91
chr2	38916955	38917036	+ 00434934	chr2	38926679	38926808	+ 5948-5950		
			ENST00000272252,ENST00000444351,ENST000						211,184,91
chr2	38916955	38917036	+ 00434934	chr2	38951013	38951065	+ 5951-5953		
			ENST00000426016,ENST00000402219,ENST000						358,301
chr2	39262451	39262353	- 00395038,ENST00000428721	chr2	39260342	39260203	- 5954-5955		
			ENST00000263881,ENST00000437545,ENST000						306,243,76
chr2	39552769	39552659	- 00341681,ENST00000414968	chr2	39548297	39548204	- 5956-5958		
chr2	39982549	39982435	- ENST00000505747,ENST00000260619	chr2	39978330	39977870	- 5959-5960		359,329
			ENST00000405592,ENST00000406652,ENST000						326,383,382
			00407270,ENST00000454356,ENST00000406911						
chr2	42931337,43	42931458	+ ,ENST00000409019,ENST00000405094	chr2	42932564	42932845	+ 5961-5963		
			ENST00000330266,ENST00000405975,ENST000						592,988,127
chr2	43712464	43712373	- 00407351,ENST00000405006	chr2	43674134	43674116	- 5964-5966		8
			ENST00000330266,ENST00000405975,ENST000						592,988,127
chr2	43712464	43712373	- 00407351,ENST00000405006	chr2	43674137	43674116	- 5967-5969		8
			ENST00000330266,ENST00000405975,ENST000						601,891,205
			00415080,ENST00000407351,ENST00000405006						
chr2	43783694	43783484	- ,ENST00000402360,ENST00000404790	chr2	43780072	43779811	- 5970-5972		
			ENST00000260605,ENST00000406852,ENST000						106,9
			00398823,ENST00000605786,ENST00000378587						
chr2	44016772	44016860	+	chr2	44020332	44020628	+ 5973-5974		
			ENST00000402247,ENST00000407131,ENST000						125,93,70,68
			00403853,ENST00000378494,ENST00000454433						
chr2	44617380	44617444	+ ,ENST00000428929,ENST00000428993	chr2	44619028	44619129	+ 5975-5978		
chr2	44942426	44942492	+ ENST00000378494	chr2	44968375	44968383	+ 5979		207
chr2	46070139	46070202	+ ENST00000306156	chr2	46087244	46087360	+ 5980		137
chr2	46803700	46803795	+ ENST00000238738,ENST00000482449	chr2	46807492	46807872	+ 5981-5982		154,75
chr2	46803700	46803795	+ ENST00000238738,ENST00000482449	chr2	46807696	46807872	+ 5983-5984		154,75
chr2	46803700	46803795	+ ENST00000238738,ENST00000482449	chr2	46807745	46807872	+ 5985-5986		154,75
			ENST00000281382,ENST00000420164,ENST000						145,15
chr2	46839483,47	46839367	- 00306465	chr2	46824444	46823636	- 5987-5988		
chr2	47144335	47144416	+ ENST00000409245	chr2	47146559	47146684	+ 5989		27
chr2	47168802	47168711	- ENST00000444761	chr2	47150320	47149797	- 5990		30
			ENST00000409245,ENST00000319190,ENST000						115,82,116,3
			00536057,ENST00000394850,ENST00000441914						5
chr2	47177502,47	47177665	+ ,ENST00000409825	chr2	47177797	47178114	+ 5991-5994		
			ENST00000409245,ENST00000319190,ENST000						220,254,254
chr2	47205931	47206046	+ 00394850,ENST00000441914	chr2	47209857	47210136	+ 5995-5997		
			ENST00000233146,ENST00000454849,ENST000						70,4
chr2	47630331,48	47630541	+ 00543555,ENST00000406134	chr2	47634987	47635143	+ 5998-5999		
chr2	48132859	48132628	- ENST00000403359	chr2	48080502	48080215	- 6000		77
			ENST00000281394,ENST00000294952,ENST000						408,64
chr2	48701822	48701958	+ 00449090,ENST00000455978	chr2	48702705	48702996	+ 6001-6002		
chr2	54101631	54101476	- ENST00000421748,ENST00000404125	chr2	54098085	54098080	- 6003-6004		844,17
chr2	54120097	54119945	- ENST00000421748,ENST00000404125	chr2	54117603	54117457	- 6005-6006		541,1397
			ENST00000606082,ENST00000607452,ENST000						20
chr2	54200886	54200947	+ 00422521	chr2	54263699	54263797	+ 6007		
			ENST00000606082,ENST00000607452,ENST000						20
chr2	54200886	54200947	+ 00422521	chr2	54265349	54265547	+ 6008		
			ENST00000403721,ENST00000263629,ENST000						280
chr2	55479789	55479613	- 00394600	chr2	55479060	55478769	- 6009		
			ENST00000403721,ENST00000263629,ENST000						221
chr2	55481337	55481177	- 00394600	chr2	55479060	55478769	- 6010		
			ENST00000336838,ENST00000263630,ENST000						54
chr2	55646052	55645952	- 00436346,ENST00000413716	chr2	55621376	55621270	- 6011		
			ENST00000272313,ENST00000407823,ENST000						503,535
chr2	55804492	55804451	- 00345102	chr2	55802871	55802586	- 6012-6013		
chr2	55882088	55882035	- ENST00000447944,ENST00000415374	chr2	55881631	55881412	- 6014		498
			ENST00000435505,ENST00000417641,ENST000						181,158
			00412104,ENST00000340157,ENST00000440705						
chr2	58316766	58316858	+	chr2	58325067	58325901	+ 6015-6016		
chr2	58425797	58425714	- ENST00000402135,ENST00000417361	chr2	58415890	58415875	- 6017-6018		185,68
			ENST00000403295,ENST00000233741,ENST000						180,63,121,1
			00402135,ENST00000403676,ENST00000449070						79
chr2	58425797	58425729	- ,ENST00000427708,ENST00000417361	chr2	58415890	58415875	- 6019-6022		
			ENST00000403295,ENST00000233741,ENST000						124,124,65
			00402135,ENST00000449070,ENST00000427708						
chr2	58449177	58449077	- ,ENST00000540646	chr2	58444543	58444390	- 6023-6025		
chr2	61148898	61149134	+ ENST00000295025,ENST00000394479	chr2	61155443	61156979	+ 6026-6027		441,409
			ENST00000402291,ENST00000356719,ENST000						581
chr2	61336332	61336431	+ 00295031,ENST00000453873	chr2	61342774	61342906	+ 6028		
			ENST00000402291,ENST00000356719,ENST000						676
chr2	61345163	61345251	+ 00295031,ENST00000453873	chr2	61346425	61346810	+ 6029		
			ENST00000411912,ENST00000398571,ENST000						291,2531,80
chr2	61454353	61454202	- 00453734	chr2	61453879	61453630	- 6030-6032		9
chr2	61538822	61538675	- ENST00000398571	chr2	61533728	61533028	- 6033		1272
			ENST00000405015,ENST00000449820,ENST000						211,91
			00405482,ENST00000431489,ENST00000354487						
chr2	63058154	63058293	+ ,ENST00000263991,ENST00000405289	chr2	63082850	63083845	+ 6034-6035		

Table 9

			ENST00000272321,ENST00000409562,ENST00000417238,ENST00000418148,ENST00000431065						25,23
chr2	63815405,64	63815331	-		chr2	63798606	63798402	-	6036-6037	
chr2	64327633	64327532	-	ENST00000358912	chr2	64324411	64324032	-	6038	101
chr2	65325200	65325105	-	ENST00000409784,ENST00000398529,ENST00000260638,ENST00000356214	chr2	65275346	65274979	-	6039-6040	64,64
chr2	65331940	65331868	-	ENST00000409892,ENST00000409784,ENST00000398529,ENST00000409751,ENST00000260638,ENST00000356214	chr2	65331205	65330907	-	6041-6042	32,32
chr2	65544017	65543868	-	ENST00000356388,ENST00000443619,ENST00000452315	chr2	65543085	65542793	-	6043-6045	196,193,211
chr2	67626682	67626758	+	ENST00000272342	chr2	67627476	67627559	+	6046	143
chr2	69723212	69723117	-	ENST00000409085,ENST00000406297	chr2	69676163	69676076	-	6047	788
chr2	69732805	69732701	-	ENST00000409085,ENST00000406297	chr2	69676163	69676076	-	6048	756
chr2	70071263	70071328	+	ENST00000282570	chr2	70071832	70071940	+	6049	252
chr2	70092032	70092107	+	ENST00000282570	chr2	70092504	70092790	+	6050	406
chr2	70092032	70092107	+	ENST00000282570	chr2	70094831	70095250	+	6051	406
chr2	70488344	70488518	+	ENST00000422380,ENST00000505044,ENST00000414812,ENST00000433351,ENST00000264441,ENST00000451279,ENST00000545138	chr2	70489942	70490009	+	6052-6054	87,164,86
chr2	70742044	70741991	-	ENST00000295400,ENST00000445399,ENST00000418333,ENST00000450929,ENST00000444975,ENST00000394241	chr2	70730043	70729941	-	6055-6056	31,37
chr2	71148228	71148415	+	ENST00000234392	chr2	71153807	71153841	+	6057	145
chr2	71148228	71148415	+	ENST00000234392	chr2	71154267	71154325	+	6058	145
chr2	71607643	71607695	+	ENST00000377802,ENST00000355812,ENST00000264447,ENST00000409544	chr2	71615022	71615160	+	6059	792
chr2	71607643	71607695	+	ENST00000377802,ENST00000355812,ENST00000264447,ENST00000409544	chr2	71615636	71615774	+	6060	792
chr2	71623271	71623321	+	ENST00000355812,ENST00000264447,ENST00000409544	chr2	71623795	71624095	+	6061	809
chr2	71631000	71631128	+	ENST00000355812,ENST00000264447,ENST00000409544	chr2	71631564	71631855	+	6062	986
chr2	7170257	7170346	+	ENST00000320892,ENST00000432850	chr2	7215725	7215894	+	6063-6064	249,244
chr2	7170257	7170346	+	ENST00000320892,ENST00000432850	chr2	7398547	7401293	+	6065-6066	244,249
chr2	72692468	72692289	-	ENST00000272427,ENST00000410104	chr2	72691043	72690905	-	6067	660
chr2	73053039	73052927	-	ENST00000272427,ENST00000410104,ENST00000410112	chr2	73010098	73009524	-	6068	37
chr2	73172228	73172155	-	ENST00000272433,ENST00000411783	chr2	73171033	73170973	-	6069-6070	251,339
chr2	73195662	73195577	-	ENST00000272433,ENST00000411783	chr2	73194452	73194341	-	6071-6072	226,275
chr2	73478354	73478560	+	ENST00000539919,ENST00000540468,ENST00000258091,ENST00000398422,ENST00000537131,ENST00000538797	chr2	73478793	73479081	+	6073-6078	426,383,470,266,370,342
chr2	73487675	73487517	-	ENST00000295133,ENST00000521871,ENST00000520530	chr2	73487263	73487216	-	6079-6080	877,816
chr2	73490436	73490341	-	ENST00000295133,ENST00000521871,ENST00000520530	chr2	73490138	73489858	-	6081-6082	784,723
chr2	73830368	73830431	+	ENST00000409009,ENST00000264448	chr2	73831073	73831087	+	6083-6084	4077,4119
chr2	73993721	73993545	-	ENST00000272444	chr2	73967245	73966510	-	6085	311
chr2	74749898	74749707	-	ENST00000393951,ENST00000404568	chr2	74749376	74748965	-	6086	498
chr2	74762581	74762419	-	ENST00000264094,ENST00000393937,ENST00000409549,ENST00000409986	chr2	74762168	74761994	-	6087-6089	526,381,470
chr2	74762581	74762419	-	ENST00000264094,ENST00000393937,ENST00000409549,ENST00000409986	chr2	74762261	74761994	-	6090-6092	526,381,470
chr2	74779761	74779449	-	ENST00000264094,ENST00000409249,ENST00000393937,ENST00000409549,ENST00000409986,ENST00000413469	chr2	74777856	74777766	-	6093	104
chr2	74834350	74834182	-	ENST00000290536,ENST00000409585,ENST00000536235	chr2	74833335	74833252	-	6094	198
chr2	75187232	75187273	+	ENST00000483063	chr2	75251831	75252021	+	6095	113
chr2	75187232	75187273	+	ENST00000483063	chr2	75332228	75332804	+	6096	113
chr2	75745266	75745182	-	ENST00000393913,ENST00000233712,ENST00000410113,ENST00000410071,ENST00000432649,ENST00000452003	chr2	75674293	75674116	-	6097	28
chr2	75745266	75745182	-	ENST00000393913,ENST00000233712,ENST00000410113,ENST00000410071,ENST00000432649,ENST00000452003	chr2	75741130	75741088	-	6098	28
chr2	85097909	85097349	-	ENST00000335459,ENST00000409520,ENST00000409133	chr2	85070764	85070616	-	6099	223
chr2	85097909	85097349	-	ENST00000335459,ENST00000409520,ENST00000409133	chr2	85080534	85080355	-	6100	223
chr2	85361446	85361573	+	ENST00000282111	chr2	85445123	85445215	+	6101	147
chr2	85510618,86	85510701	+	ENST00000282111,ENST00000442813	chr2	85528967	85529276	+	6102-6103	175,25
chr2	85782713	85782607	-	ENST00000233838,ENST00000430215	chr2	85781634	85781608	-	6104-6105	241,184
chr2	85782713	85782607	-	ENST00000233838,ENST00000430215	chr2	85781751	85781608	-	6106-6107	241,184
chr2	85806207,86	85806290	+	ENST00000432071,ENST00000263864,ENST00000409760	chr2	85807491	85807560	+	6108-6109	28,54
chr2	86325883	86325734	-	ENST00000263857,ENST00000409681	chr2	86321294	86320956	-	6110	144
chr2	86350824	86350885	+	ENST00000254630,ENST00000409277	chr2	86351635	86351686	+	6111-6112	238,197
chr2	86790471	86790427	-	ENST00000263856,ENST00000409727	chr2	86777151	86776295	-	6113	15
chr2	86790471	86790427	-	ENST00000263856,ENST00000409727	chr2	86778141	86778130	-	6114	15
chr2	89544574	89544399	-	ENST00000468494	chr2	89130914	89130666	-	6115	75

Table 9

chr2	89544574	89544493	-	ENST00000468494	chr2	89130914	89130666	-	5116	43
chr2	9048846	9048751	-	ENST00000305997,ENST00000462696	chr2	9035945	9035762	-	5117-6118	131,108
chr2	9048846	9048751	-	ENST00000305997,ENST00000462696	chr2	9043152	9042479	-	5119-6120	131,108
chr2	96942723	96942642	-	ENST00000323853,ENST00000429650	chr2	96942322	96942159	-	5121-6122	2058,585
chr2	96951078	96950918	-	ENST00000323853	chr2	96950657	96950482	-	5123	1388
chr2	97026326	97026448	+	ENST00000240423,ENST00000427946,ENST00000435975,ENST00000455200	chr2	97028792	97029029	+	6124-6127	529,393,518,518
chr2	97035163	97035238	+	ENST00000240423,ENST00000427946,ENST00000455200,ENST00000435349	chr2	97059632	97059641	+	6128-6131	722,586,711,162
chr2	97267513	97267380	-	ENST00000431828,ENST00000599854,ENST00000440133	chr2	97250422	97250061	-	6132-6134	872,785,692
chr2	97523724	97523625	-	ENST00000443120,ENST00000393537	chr2	97520350	97520278	-	5135	33
chr2	97613639	97613555	-	ENST00000327896,ENST00000417561,ENST00000490605	chr2	97608425	97608140	-	6136-6138	327,507,359
chr2	98612125,9861	98611939	-	ENST00000186436,ENST00000418629,ENST00000425805	chr2	98600999	98600848	-	6139-6141	62,23,13
chr2	98779314	98779439	+	ENST00000435344,ENST00000433678,ENST00000448638,ENST00000477737,ENST00000451075,ENST00000416277	chr2	98782901	98783126	+	6142-6144	371,276,221
chr2	99786073	99786013	-	ENST00000422537,ENST00000289359,ENST00000409107	chr2	99784151	99783867	-	6145-6147	200,218,189
chr2	99786073	99786013	-	ENST00000422537,ENST00000289359,ENST00000409107	chr2	99784310	99783867	-	6148-6150	200,218,189
chr2	99797391	99797294	-	ENST00000422537,ENST00000289359,ENST00000409107,ENST00000438121	chr2	99794848	99794847	-	6151-6152	32,5
chr2	9991670	9991767	+	ENST00000263663,ENST00000434858	chr2	9992097	9992199	+	5153	101
chr2	99999243	99999384	+	ENST00000289371	chr2	100000904	100001511	+	5154	757
chr20	13463984	13463874	-	ENST00000539805,ENST00000337743,ENST00000455532	chr20	13432260	13430613	-	6155-6157	131,328,305
chr20	1532684	1532337	-	ENST00000381621,ENST00000381623	chr20	1530245	1529252	-	5158	140
chr20	16717906	16718046	+	ENST00000377943,ENST00000246071	chr20	16718412	16718708	+	5159	126
chr20	17505553,18	17505493	-	ENST00000377873,ENST00000377868,ENST00000544874,ENST00000536626	chr20	17498254	17498229	-	6160-6162	146,21,7
chr20	17539334	17539333	-	ENST00000377868	chr20	17526760	17526718	-	5163	0
chr20	17923839	17923754	-	ENST00000377759,ENST00000377768	chr20	17923384	17923368	-	5164	388
chr20	18449588	18449705	+	ENST00000377603	chr20	18451948	18452210	+	5165	60
chr20	18516297	18516386	+	ENST00000262544,ENST00000336714,ENST00000377475,ENST00000377465	chr20	18518085	18518412	+	6166	468
chr20	19496132	19496208	+	ENST00000328041	chr20	19517154	19518681	+	5167	116
chr20	19662502	19662635	+	ENST00000328041	chr20	19664554	19664583	+	5168	300
chr20	19662502	19662635	+	ENST00000328041	chr20	19664557	19664583	+	5169	300
chr20	19972812	19972943	+	ENST00000255006,ENST00000440354	chr20	19993233	19993571	+	5170-6171	782,3
chr20	20056133	20056259	+	ENST00000340348,ENST00000377306,ENST00000245957,ENST00000377303,ENST00000451767,ENST00000472660	chr20	20056767	20057218	+	6172-6174	142,188,84
chr20	20123501	20123592	+	ENST00000340348,ENST00000377306,ENST00000245957,ENST00000451767	chr20	20131047	20132188	+	6175-6176	271,317
chr20	21493123	21492812	-	ENST00000377142	chr20	21482950	21482759	-	5177	190
chr20	21493123	21492812	-	ENST00000377142	chr20	21482953	21482759	-	5178	190
chr20	21493123	21492812	-	ENST00000377142	chr20	21482988	21482759	-	5179	190
chr20	2473471	2473345	-	ENST00000461548,ENST00000278772,ENST00000445484,ENST00000381253,ENST00000358413,ENST00000421216	chr20	2453216	2453166	-	6180	101
chr20	25287551	25287469	-	ENST00000376542,ENST00000339157,ENST00000576316,ENST00000491682	chr20	25287176	25287014	-	6181-6183	316,84,159
chr20	25304066	25303961	-	ENST00000376542,ENST00000339157,ENST00000450393	chr20	25303314	25303019	-	6184-6185	140,95
chr20	25388457	25388531	+	ENST00000262460,ENST00000429262	chr20	25391760	25391921	+	5186	25
chr20	29631538	29631629	+	ENST00000278882,ENST00000358464	chr20	29638944	29639719	+	5187	141
chr20	29631538	29631629	+	ENST00000278882,ENST00000358464	chr20	29652124	29652324	+	5188	141
chr20	29632611	29632721	+	ENST00000278882,ENST00000358464	chr20	29651847	29652057	+	5189	178
chr20	29632611	29632721	+	ENST00000278882,ENST00000358464	chr20	29652157	29652324	+	5190	178
chr20	29632611	29632721	+	ENST00000278882,ENST00000358464	chr20	29653310	29653335	+	5191	178
chr20	2987990	2988066	+	ENST00000380393,ENST00000216877,ENST00000358719,ENST00000399903,ENST00000425918,ENST00000318266,ENST00000356147	chr20	2988846	2989258	+	6192-6195	302,293,158,313
chr20	2987990	2988066	+	ENST00000380393,ENST00000216877,ENST00000358719,ENST00000399903,ENST00000425918,ENST00000318266,ENST00000356147	chr20	2988850	2989258	+	6196-6199	302,293,158,313
chr20	30060816	30060759	-	ENST00000317676	chr20	30060104	30059283	-	5200	19
chr20	30137867	30137924	+	ENST00000335574,ENST00000340852,ENST00000398174,ENST00000376127,ENST00000344042	chr20	30138371	30138534	+	6201-6202	241,199
chr20	30137867	30137924	+	ENST00000335574,ENST00000340852,ENST00000398174,ENST00000376127,ENST00000344042	chr20	30138541	30138785	+	6203-6204	241,199
chr20	30310021	30309458	-	ENST00000376062,ENST00000307677,ENST00000420653,ENST00000450273,ENST00000422920,ENST00000456404,ENST00000420488	chr20	30269064	30268467	-	6205	188
chr20	30386168	30386355	+	ENST00000300403,ENST00000340513	chr20	30405401	30405508	+	5206-6207	711,747
chr20	30538190	30538115	-	ENST00000202017	chr20	30536707	30536704	-	5208	54
chr20	30746254	30746317	+	ENST00000398022,ENST00000217315	chr20	30746973	30747053	+	5209-6210	523,506

Table 9

chr20	30749079	30749168	+	ENST00000398022,ENST00000217315	chr20	30763265	30764214	+	5211-6212	593,576
chr20	30749079	30749168	+	ENST00000398022,ENST00000217315	chr20	30763502	30764214	+	5213-6214	593,576
chr20	30904559	30904677	+	ENST00000375712,ENST00000418717	chr20	30909503	30909613	+	5215-6216	582,208
chr20	31017141	31017234	+	ENST00000375687,ENST00000306058	chr20	31017431	31017501	+	5217-6218	188,183
chr20	32247538,32	32247303	-	ENST00000246190,ENST00000375238,ENST00000480994	chr20	32246729	32246725	-	6219-6221	293,259,38
chr20	32891076	32891049	-	ENST00000217426	chr20	32888621	32888482	-	5222	9
chr20	3295767	3295680	-	ENST00000252032,ENST00000453730	chr20	3289847	3289712	-	5223-6224	559,297
chr20	33001548	33001685	+	ENST00000374864,ENST00000535650,ENST00000262650	chr20	33009538	33009830	+	6225-6226	158,48
chr20	33104523	33104681	+	ENST00000374846	chr20	33107225	33107307	+	5227	53
chr20	33203943,33	33203846	-	ENST00000217446,ENST00000374820,ENST00000452740,ENST00000438215	chr20	33191088	33190839	-	6228-6230	209,189,17
chr20	3321286,332	3321151	-	ENST00000252032,ENST00000453730	chr20	3316082	3315817	-	5231-6232	327,66
chr20	33222519	33222419	-	ENST00000217446,ENST00000374820,ENST00000452740	chr20	33211320	33211195	-	6233-6234	176,156
chr20	3324378	3324323	-	ENST00000252032	chr20	3324091	3323811	-	5235	281
chr20	33331145	33328167	-	ENST00000374796,ENST00000359003	chr20	33325210	33325105	-	5236	1964
chr20	33331145	33329362	-	ENST00000374796,ENST00000359003	chr20	33325210	33325105	-	5237	1566
chr20	33439171	33439034	-	ENST00000336431	chr20	33438017	33437979	-	5238	575
chr20	33460618	33460450	-	ENST00000336431,ENST00000427420	chr20	33458889	33458882	-	5239	56
chr20	33623111,34	33622926	-	ENST00000451813,ENST00000252015,ENST00000539834,ENST00000432634	chr20	33613558	33613276	-	6240-6242	350,8,311
chr20	33623111,34	33622926	-	ENST00000451813,ENST00000252015,ENST00000539834,ENST00000432634	chr20	33622168	33622099	-	6243-6245	350,8,311
chr20	33623111,34	33622926	-	ENST00000451813,ENST00000252015,ENST00000539834,ENST00000432634	chr20	33622322	33622099	-	6246-6248	350,8,311
chr20	33657215	33657099	-	ENST00000451813,ENST00000252015	chr20	33656621	33656344	-	5249	138
chr20	33665977	33665849	-	ENST00000451813,ENST00000252015,ENST00000432634	chr20	33664121	33659087	-	6250	99
chr20	33711837	33711693	-	ENST00000374491,ENST00000374492,ENST00000541621,ENST00000542871,ENST00000540582	chr20	33697602	33697239	-	6251-6255	334,371,150,95,330
chr20	33719586,34	33719445	-	ENST00000374491,ENST00000374492,ENST00000541621,ENST00000542871,ENST00000540582	chr20	33718166	33717879	-	6256-6260	244,281,60,5,240
chr20	34317287,3431	34317234	-	ENST00000253363,ENST00000361162,ENST00000338163,ENST00000528062,ENST00000448303,ENST00000374038,ENST00000434927	chr20	34314224	34314050	-	6261-6264	138,116,11,137
chr20	34317287,3431	34317234	-	ENST00000253363,ENST00000361162,ENST00000338163,ENST00000528062,ENST00000448303,ENST00000374038,ENST00000434927	chr20	34314346	34314050	-	6265-6268	138,116,11,137
chr20	35207178,3520	35207369	+	ENST00000373874,ENST00000373872,ENST00000558530,ENST00000558028,ENST00000560025,ENST00000561398,ENST00000557885,ENST00000558465	chr20	35224891	35225066	+	6269-6272	64,53,46,14
chr20	35717525	35717392	-	ENST00000373664,ENST00000344359,ENST00000527999	chr20	35713463	35713177	-	6273	96
chr20	35783570	35783466	-	ENST00000343811,ENST00000441008,ENST00000400441,ENST00000400440	chr20	35780283	35780133	-	6274-6277	384,344,358,388
chr20	36014478	36014577	+	ENST00000445403,ENST00000373578,ENST00000358208,ENST00000360723,ENST00000373567,ENST00000373558	chr20	36014814	36014853	+	6278	116
chr20	36662350	36662500	+	ENST00000373433,ENST00000462548,ENST00000495457	chr20	36663346	36663380	+	6279	50
chr20	36694483	36694658	+	ENST00000373433,ENST00000449186	chr20	36755699	36755717	+	5280-6281	277,159
chr20	37163717,37	37163850	+	ENST00000262879,ENST00000397042,ENST00000397038,ENST00000397040,ENST00000438490	chr20	37167333	37168047	+	6282-6285	793,789,571,621
chr20	37380774	37380943	+	ENST00000243903	chr20	37382014	37382194	+	5286	258
chr20	37591011	37591050	+	ENST00000373325,ENST00000252011,ENST00000373323,ENST00000484417	chr20	37593649	37593797	+	6287	13
chr20	37591011	37591050	+	ENST00000373325,ENST00000252011,ENST00000373323,ENST00000484417	chr20	37596646	37596811	+	6288	13
chr20	39721112	39721227	+	ENST00000361337	chr20	39722119	39722151	+	5289	243
chr20	40116448	40116305	-	ENST00000373233	chr20	40114979	40114869	-	5290	667
chr20	40179976	40179944	-	ENST00000373233,ENST00000309279,ENST00000440647	chr20	40178844	40178752	-	6291	11
chr20	4164141	4164301	+	ENST00000278795,ENST00000305958,ENST00000339123,ENST00000379460,ENST00000457205	chr20	4172412	4172686	+	6292-6294	457,510,367
chr20	4164141	4164301	+	ENST00000278795,ENST00000305958,ENST00000339123,ENST00000379460,ENST00000457205	chr20	4175929	4176173	+	6295-6297	457,510,367
chr20	43243198	43243237	+	ENST00000372891,ENST00000372892,ENST00000372894,ENST00000372889,ENST00000372887,ENST00000372882,ENST00000372886,ENST00000349959	chr20	43299610	43299760	+	6298	13
chr20	43547824	43547918	+	ENST00000217074,ENST00000255136,ENST00000537323,ENST00000217073	chr20	43548349	43548423	+	6299	246
chr20	43550235	43550372	+	ENST00000217074,ENST00000255136,ENST00000537323,ENST00000217073	chr20	43551952	43551981	+	6300	292

Table 9

chr20	43559101	43559367	+	ENST00000255136,ENST00000217073	chr20	43560474	43560611	+	6301	413
chr20	43559101	43559367	+	ENST00000255136,ENST00000217073	chr20	43560506	43560611	+	6302	413
chr20	43559101	43559367	+	ENST00000255136,ENST00000217073	chr20	43560595	43560611	+	6303	413
chr20	43559101	43559367	+	ENST00000255136,ENST00000217073	chr20	43560598	43560611	+	6304	413
chr20	44423984	44424082	+	ENST00000372622,ENST00000449078,ENST00000415790,ENST00000435014	chr20	44425861	44425892	+	6305-6308	124,119,84,50
chr20	44442076,44	44442103	+	ENST00000356455,ENST00000405520,ENST00000335046,ENST00000243893,ENST00000352551,ENST00000372568	chr20	44442603	44442729	+	6309-6310	43,4
chr20	44442076,44	44442103	+	ENST00000356455,ENST00000405520,ENST00000335046,ENST00000243893,ENST00000352551,ENST00000372568	chr20	44442631	44442729	+	6311-6312	43,4
chr20	44463598	44463748	+	ENST00000462307,ENST00000491381,ENST00000342644,ENST00000372542,ENST00000372541	chr20	44464233	44464345	+	6313-6314	146,137
chr20	44751765	44751858	+	ENST00000372285,ENST00000372276	chr20	44752657	44752948	+	6315	165
chr20	45140741	45140721	-	ENST00000347606	chr20	45138390	45137921	-	6316	7
chr20	45140741	45140721	-	ENST00000347606	chr20	45138430	45137921	-	6317	7
chr20	46305367	46305238	-	ENST00000359930,ENST00000484875,ENST00000361612,ENST00000467815	chr20	46305046	46304956	-	6318	460
chr20	47282893	47282821	-	ENST00000371941,ENST00000396220	chr20	47281107	47280951	-	6319	579
chr20	47707474	47707559	+	ENST00000262982,ENST00000542325,ENST00000396192	chr20	47707940	47707979	+	6320-6322	788,571,732
chr20	48099017	48098451	-	ENST00000371741	chr20	48092996	48092887	-	6323	189
chr20	48471975,48	48472118	+	ENST00000417961,ENST00000361573,ENST00000539601	chr20	48479235	48479350	+	6324-6326	253,237,18
chr20	4854738	4854582	-	ENST00000338244,ENST00000379333,ENST00000424750,ENST00000423430	chr20	4853699	4853411	-	6327-6329	367,253,123
chr20	485873	485762	-	ENST00000400227,ENST00000217244,ENST00000349736,ENST00000608066,ENST00000609525	chr20	483925	483794	-	6330	71
chr20	49307665	49307663	-	ENST00000535356	chr20	49307455	49307405	-	6331	1
chr20	49411531,49	49411710	+	ENST00000358791,ENST00000262591,ENST00000371608,ENST00000609336,ENST00000445038,ENST00000463943	chr17	59430949	59431036	+	6332-6333	60,3
chr20	49446816	49446917	+	ENST00000358791,ENST00000262591,ENST00000371608,ENST00000609336,ENST00000445038,ENST00000463943	chr20	49447106	49447403	+	6334-6335	118,88
chr20	50049293	50048604	-	ENST00000371564,ENST00000396009,ENST00000609943,ENST00000610033,ENST00000414705,ENST00000609507	chr20	49994771	49994717	-	6336-6338	907,887,688
chr20	50705182	50704931	-	ENST00000371518,ENST00000371523,ENST00000361387,ENST00000456175,ENST00000395989	chr20	50669322	50669030	-	6339-6342	409,190,114,212
chr20	5107739,511	5107795	+	ENST00000460006,ENST00000450570,ENST00000379062	chr20	5108796	5108866	+	6343-6344	19,9
chr20	52786227	52786131	-	ENST00000216862,ENST00000395955,ENST00000395954	chr20	52783068	52782906	-	6345-6346	213,71
chr20	54974023	54974413	+	ENST00000415828,ENST00000217109,ENST00000452950	chr20	54976609	54976776	+	6347	345
chr20	55059167	55059245	+	ENST00000023939,ENST00000395881,ENST00000357348,ENST00000449062	chr20	55059715	55059760	+	6348-6349	159,189
chr20	55841178,56	55840761	-	ENST00000395863,ENST00000395864,ENST00000450594,ENST00000433911	chr20	55813730	55813708	-	6350-6351	139,24
chr20	56886099	56886178	+	ENST00000244040	chr20	56906418	56906522	+	6352	38
chr20	56918774	56918855	+	ENST00000244040	chr20	56921961	56922057	+	6353	66
chr20	56918774	56918855	+	ENST00000244040	chr20	56922040	56922057	+	6354	66
chr20	5753512,575	5753689	+	ENST00000378979,ENST00000303142,ENST00000445603,ENST00000442185	chr20	5860136	5860192	+	6355-6356	59,106
chr20	5996007	5996136	+	ENST00000378863,ENST00000452938,ENST00000378868	chr20	6006817	6006948	+	6357-6358	191,92
chr20	60847199,61	60847315	+	ENST00000439951,ENST00000313733,ENST00000358053	chr20	60847807	60847966	+	6359-6361	39,131,119
chr20	60891829	60891727	-	ENST00000252999	chr20	60891330	60891321	-	6362	2585
chr20	60920933	60920874	-	ENST00000252999,ENST00000370692,ENST00000370677	chr20	60920236	60920069	-	6363	492
chr20	61300282	61300430	+	ENST00000217159,ENST00000370507,ENST00000451793	chr20	61301432	61301456	+	6364-6365	675,104
chr20	61300282	61300430	+	ENST00000217159,ENST00000370507,ENST00000451793	chr20	61306199	61306347	+	6366-6367	675,104
chr20	61340560	61341273	+	ENST00000370501	chr20	61368272	61368472	+	6368	238
chr20	61389618	61389708	+	ENST00000370501	chr20	61390721	61390729	+	6369	335
chr20	61453943	61453984	+	ENST00000343916,ENST00000452372	chr20	61454575	61454710	+	6370-6371	173,136
chr20	61468435	61468617	+	ENST00000343916	chr20	61469014	61469176	+	6372	595
chr20	61468435	61468617	+	ENST00000343916	chr20	61469089	61469176	+	6373	595
chr20	61910572	61910658	+	ENST00000518601	chr20	61911402	61911508	+	6374	164
chr20	62229213	62229110	-	ENST00000370069,ENST00000266068,ENST00000370077	chr20	62228774	62228506	-	6375-6376	102,153
chr20	62234445	62234318	-	ENST00000370069,ENST00000266068,ENST00000370077	chr20	62230762	62230697	-	6377-6378	68,119

Table 9

			ENST00000370018,ENST00000318100,ENST00000508582,ENST00000360203,ENST00000356810						233,257,283
chr20	62298822	62298906	+,ENST00000492259,ENST00000482936	chr20	62302235	62302405	+	6379-6381	
			ENST00000369927,ENST00000346249,ENST00000348257,ENST00000352482,ENST00000217121						32,55
chr20	62500718,63	62500794	+,ENST00000351424,ENST00000358548	chr20	62504705	62504869	+	6382-6383	
chr20	62632430	62632592	+ ENST00000535781,ENST00000266079	chr20	62632834	62632973	+	6384	395
chr20	742468	742345	- ENST00000217254,ENST00000381944	chr20	734008	733951	-	6385	399
			ENST00000407043,ENST00000441846,ENST00000334005,ENST00000378473,ENST00000437503,ENST00000416836,ENST00000278655,ENST00000414679,ENST00000378493						28
chr20	9288462	9288545	+	chr20	9290207	9290215	+	6386	
			ENST00000334005,ENST00000378473,ENST00000278655,ENST00000414679,ENST00000378493						441
chr20	9371178	9371262	+,ENST00000378501	chr20	9371946	9371949	+	6387	
			ENST00000334005,ENST00000378473,ENST00000278655,ENST00000414679,ENST00000378493						829,841
chr20	9404395	9404599	+,ENST00000378501	chr20	9409205	9409226	+	6388-6389	
chr20	9457364	9457400	+ ENST00000334005,ENST00000378501	chr20	9484605	9485169	+	6390	1165
chr21	15525005	15524894	- ENST00000344577,ENST00000536861	chr21	15522497	15521752	-	6391-6392	393,372
			ENST00000285679,ENST00000285681,ENST00000400183						285
chr21	17181128	17181204	+	chr21	17182085	17182453	+	6393	
			ENST00000285679,ENST00000285681,ENST00000400183,ENST00000449491						865,897,935,
chr21	17238585	17238663	+	chr21	17240271	17240356	+	6394-6397	163
			ENST00000284878,ENST00000400166,ENST00000400165,ENST00000306618,ENST00000400169						339,251,199,
									298
chr21	18937746	18937929	+	chr21	19005467	19005601	+	6398-6401	
			ENST00000400546,ENST00000284894,ENST00000						398,256,423
chr21	22746183	22746333	+ 00535285	chr21	22768365	22768746	+	6402-6404	
			ENST00000400546,ENST00000284894,ENST00000						398,256,423
chr21	22746183	22746333	+ 00535285	chr21	22774169	22775162	+	6405-6407	
			ENST00000346798,ENST00000354192,ENST00000348990,ENST00000357903,ENST00000358918,ENST00000359726,ENST00000448388,ENST00000440126,ENST00000439274,ENST00000448850						288,232,253, 283,209,78
chr21	27394358	27394156	- ,ENST00000415997	chr21	27377399	27376968	-	6408-6413	
			ENST00000346798,ENST00000354192,ENST00000348990,ENST00000357903,ENST00000358918,ENST00000359726,ENST00000448388,ENST00000440126,ENST00000439274,ENST00000448850						220,164,185, 215,142,11
chr21	27423509,27	27423316	- ,ENST00000415997	chr21	27403857	27403728	-	6414-6419	
			ENST00000399975,ENST00000399976,ENST00000334352,ENST00000399973						20
chr21	30400235	30400295	+	chr21	30402465	30402569	+	6420	
chr21	33740907	33740712	- ENST00000382751	chr21	33739473	33739447	-	6421	399
			ENST00000433395,ENST00000290200,ENST00000451065						238,110,47
chr21	34648901,35	34649058	+	chr21	34651125	34651201	+	6422-6424	
			ENST00000416947,ENST00000270139,ENST00000442357						193,262
chr21	34717552	34717666	+	chr21	34720868	34721132	+	6425-6426	
			ENST00000356577,ENST00000381692,ENST00000436227						2344,372,13
chr21	34945614	34945761	+	chr21	34946943	34947055	+	6427-6429	39
chr21	35497641	35497780	+ ENST00000399312	chr21	35567804	35567895	+	6430	61
			ENST00000437180,ENST00000300305,ENST00000482318,ENST00000455571,ENST00000475045						19
chr21	36421196	36421139	- ,ENST00000416754	chr21	36418206	36418174	-	6431	
chr21	37581013	37581202	+ ENST00000399151	chr21	37582237	37582313	+	6432	227
chr21	37653781	37653909	+ ENST00000399151	chr21	37654438	37654736	+	6433	2053
chr21	37661343	37661504	+ ENST00000399151	chr21	37663918	37664341	+	6434	2171
chr21	38302733	38302551	- ENST00000336648,ENST00000399120	chr21	38272940	38272435	-	6435	393
			ENST00000418766,ENST00000450533,ENST00000438055,ENST00000355666,ENST00000399010						281,263
chr21	38468881	38468943	+ ,ENST00000399017,ENST00000354749	chr21	38471924	38472594	+	6436-6437	
			ENST00000418766,ENST00000450533,ENST00000438055,ENST00000355666,ENST00000399017						300,282
chr21	38480692	38480746	+ ,ENST00000354749	chr21	38481378	38487474	+	6438-6439	
			ENST00000333229,ENST00000342449,ENST00000380800						277
chr21	40665958	40665737	-	chr21	40660753	40660460	-	6440	
			ENST00000333229,ENST00000342449,ENST00000380800						277
chr21	40665958	40665737	-	chr21	40661458	40661073	-	6441	
			ENST00000380612,ENST00000380604,ENST00000329618						50
chr21	40981592	40981510	-	chr21	40977809	40977526	-	6442	
chr21	42622679	42622828	+ ENST00000328735,ENST00000330333	chr21	42628789	42628810	+	6443	378
			ENST00000468090,ENST00000291565,ENST00000467908						98,126,86
chr21	45165960	45166006	+	chr21	45166997	45167029	+	6444-6446	
chr21	45212553	45212610	+ ENST00000497547	chr21	45213003	45213097	+	6447	91
			ENST00000291572,ENST00000448287,ENST00000398061,ENST00000327505,ENST00000445582,ENST00000398063,ENST00000398058,ENST00000457068,ENST00000448845,ENST00000422850						22
chr21	45379563	45379628	+ ,ENST00000546158	chr21	45380513	45380695	+	6448	
chr21	45546781	45546846	+ ENST00000291576	chr21	45547456	45547513	+	6449	713

Table 9

			ENST00000291577,ENST00000427803,ENST00000348499,ENST00000389690,ENST00000449622						102,75,64,18
chr21	45555942,46	45556055	+ ,ENST00000419699	chr21	45556776	45556814	+	6450-6453	
			ENST00000344330,ENST00000407780,ENST00000400379,ENST00000400377						299,182
chr21	45649972	45649937	-	chr21	45638127	45637766	-	6454-6455	
			ENST00000345496,ENST00000491513,ENST00000478200						14
chr21	46221663	46221621	-	chr21	46216794	46216527	-	6456	
			ENST00000345496,ENST00000491513,ENST00000478200						14
chr21	46221663	46221621	-	chr21	46218259	46218119	-	6457	
			ENST00000345496,ENST00000491513,ENST00000478200						14
chr21	46221663	46221621	-	chr21	46219395	46218119	-	6458	
			ENST00000331343,ENST00000334538,ENST00000349485,ENST00000451615						212,135
chr21	46702374	46702264	-	chr21	46698653	46698301	-	6459-6460	
			ENST00000400314,ENST00000400310,ENST00000449640,ENST00000400308,ENST00000400309						3
chr21	47270000	47270009	+	chr21	47276246	47276307	+	6461	
chr21	47581619	47581297	-	chr21	47577038	47576960	-	6462-6463	185,339
			ENST00000491666,ENST00000397683,ENST00000417060,ENST00000291691,ENST00000397682						233,165,271
chr21	47722490	47722399	- ,ENST00000397679,ENST00000397680	chr21	47712086	47711746	-	6464-6466	
			ENST00000400274,ENST00000427143,ENST00000318711,ENST00000457905,ENST00000466639						794,734,799,798,755
chr21	47965794	47965874	+ ,ENST00000435722,ENST00000417564	chr21	47966273	47966456	+	6467-6471	
chr22	17629450	17629338	- ENST00000155674,ENST00000336737	chr22	17626276	17626225	-	6472-6473	117,147
			ENST00000329627,ENST00000399744,ENST00000474897,ENST00000428061						76
chr22	18561143	18561372	+	chr22	18561945	18561952	+	6474	
			ENST00000329627,ENST00000399744,ENST00000474897,ENST00000428061						76
chr22	18561143	18561372	+	chr22	18561948	18561952	+	6475	
chr22	18656560	18656609	+ ENST00000215794	chr22	18673897	18673900	+	6476	357
			ENST00000537045,ENST00000263196,ENST00000545799						26
chr22	19109719	19109641	-	chr22	19086679	19086625	-	6477	
			ENST00000353891,ENST00000263200,ENST00000427926						1441
chr22	19178947	19178816	-	chr22	19177227	19176825	-	6478	
			ENST00000353891,ENST00000263200,ENST00000427926,ENST00000505027						973
chr22	19207516	19207394	-	chr22	19206829	19206667	-	6479	
			ENST00000509549,ENST00000452818,ENST00000399568,ENST00000542103,ENST00000399562						64,24,101
chr22	19435068,19	19434901	- ,ENST00000333059	chr22	19427853	19427815	-	6480-6482	
			ENST00000509549,ENST00000452818,ENST00000399568,ENST00000542103,ENST00000399562						64,24,101
chr22	19435068,19	19434901	- ,ENST00000333059	chr22	19430399	19430373	-	6483-6485	
			ENST00000263202,ENST00000360834,ENST00000399523						265,254
chr22	19442353	19442325	-	chr22	19439523	19439445	-	6486-6487	
			ENST00000447208,ENST00000450664,ENST00000327374,ENST00000401833,ENST00000434168						150,191,52,155
			,ENST00000434570,ENST00000420290,ENST00000456048						
chr22	20043466	20043536	+	chr22	20055262	20055273	+	6488-6491	
			ENST00000351989,ENST00000383024,ENST00000407755						596,563
chr22	20082236	20082318	+	chr22	20085370	20085678	+	6492-6493	
chr22	20717964	20717915	- ENST00000292729	chr22	20703894	20703891	-	6494	305
chr22	21096643	21096516	- ENST00000255882,ENST00000572273	chr22	21090879	21090792	-	6495-6496	1247,1189
chr22	21224625,21	21224821	+ ENST00000215730,ENST00000439214	chr22	21225143	21225429	+	6497-6498	144,51
chr22	21340130	21340186	+ ENST00000215739,ENST00000414985	chr22	21341570	21341703	+	6499	106
chr22	21340130	21340186	+ ENST00000215739,ENST00000414985	chr22	21341578	21341703	+	6500	106
chr22	21340130	21340186	+ ENST00000215739,ENST00000414985	chr22	21341610	21341703	+	6501	106
			ENST00000263212,ENST00000407142,ENST00000538191,ENST00000397495						328,160,224
chr22	22280035	22279942	-	chr22	22259038	22258698	-	6502-6504	
chr22	23637211	23637342	+ ENST00000305877	chr22	23643243	23643507	+	6505	1004
chr22	24200323	24200337	+ ENST00000405340	chr22	24200782	24200784	+	6506	5
chr22	24302568	24302481	- ENST00000290765,ENST00000404172	chr22	24301150	24301075	-	6507	66
			ENST00000398344,ENST00000350608,ENST00000404092,ENST00000403754,ENST00000430101						94,108
chr22	24316132	24315957	-	chr22	24233635	24233326	-	6508-6509	
			ENST00000398344,ENST00000350608,ENST00000404092,ENST00000403754,ENST00000430101						94,108
chr22	24316132	24315957	-	chr22	24233639	24233326	-	6510-6511	
			ENST00000263119,ENST00000405822,ENST00000398319						916,866
chr22	24472118	24472233	+	chr22	24477703	24477996	+	6512-6513	
chr22	24493977	24494155	+ ENST00000263119,ENST00000398319	chr22	24509122	24509304	+	6514	1372
chr22	24493977	24494155	+ ENST00000263119,ENST00000398319	chr22	24509277	24509304	+	6515	1372
			ENST00000263119,ENST00000405822,ENST00000398319,ENST00000337989						2013,1934,4
chr22	24567681	24567963	+	chr22	24569871	24569917	+	6516-6518	38
			ENST00000248923,ENST00000412658,ENST00000400382,ENST00000400383,ENST00000400380						340
chr22	25019747	25019883	+ ,ENST00000406383,ENST00000425895	chr22	25023093	25023141	+	6519	
			ENST00000536101,ENST00000335473,ENST00000407587						1438,1439
chr22	26273926	26274015	+	chr22	26274367	26275033	+	6520-6521	
			ENST00000398141,ENST00000398145,ENST00000402105,ENST00000336873,ENST00000422379						218,223
chr22	26864589	26864517	-	chr22	26863211	26863198	-	6522-6523	
			ENST00000335272,ENST00000320996,ENST00000455418,ENST00000436663						65,67
chr22	28307097	28306952	-	chr22	28306377	28306238	-	6524-6525	

Table 9

chr22	29141852	29141996	+	ENST00000216027	chr22	29144852	29145146	+	6526	189
				ENST00000356015,ENST00000357586,ENST000						175
				00432560,ENST00000405198,ENST00000317368						
				,ENST00000402502,ENST00000415447,ENST000						
chr22	29754960	29754715	-	00421126	chr22	29754461	29754416	-	6527	
chr22	30921096	30920984	-	ENST00000402034	chr22	30919632	30919348	-	6528	398
chr22	30921096	30920984	-	ENST00000402034	chr22	30919638	30919348	-	6529	398
				ENST00000403222,ENST00000407373,ENST000						703,696,869,
				00332585,ENST00000382310,ENST00000446658						820,868,502,
				,ENST00000401475,ENST00000437268,ENST000						611,413,541,
				00535268,ENST00000431368,ENST00000452656						438
chr22	31301824	31302056	+		chr22	31315142	31315370	+	6530-6539	
chr22	31621706	31621805	+	ENST00000444929,ENST00000331728	chr22	31624637	31624958	+	6540	38
				ENST00000344710,ENST00000397525,ENST000						517,691,667,
				00330125,ENST00000397523,ENST00000382180						346
chr22	31840676	31840592	-		chr22	31840081	31839793	-	6541-6544	
				ENST00000397493,ENST00000327423,ENST000						158
chr22	32134846	32134373	-	00434485,ENST00000412743	chr22	32129796	32129571	-	6545	
chr22	32802748	32802649	-	ENST00000216038,ENST00000451746	chr22	32799030	32798739	-	6546	113
				ENST00000608642,ENST00000610186,ENST000						54,377,176
				00609799,ENST00000337431,ENST00000354992						
				,ENST00000397394,ENST00000402320,ENST000						
				00452586,ENST00000437602,ENST00000421768						
chr22	33778030	33777905	-		chr22	33765093	33764667	-	6547-6549	
				ENST00000216122,ENST00000382011,ENST000						198,155,230,
chr22	35802546,36	35802718	+	00416905,ENST00000444778	chr22	35803819	35803914	+	6550-6553	55
chr22	35809868	35809979	+	ENST00000216122,ENST00000382011	chr22	35811098	35811201	+	6554-6555	401,358
chr22	35809868	35809979	+	ENST00000216122,ENST00000382011	chr22	35811196	35811201	+	6556-6557	401,358
chr22	35819207	35819334	+	ENST00000216122,ENST00000382011	chr22	35848323	35848472	+	6558-6559	701,658
chr22	36052473	36052522	+	ENST00000409652	chr22	36063122	36063372	+	6560	16
chr22	36054662	36055496	+	ENST00000409652	chr22	36058662	36058789	+	6561	295
				ENST00000397278,ENST00000422706,ENST000						104,86,120
				00426053,ENST00000319136,ENST00000427990						
chr22	36657642	36657768	+	,ENST00000397279	chr22	36673528	36673533	+	6562-6564	
				ENST00000340630,ENST00000453009,ENST000						57,17,58,32,
				00433985,ENST00000415653,ENST00000417951						97
chr22	37163409,37	37163350	-	,ENST00000430701,ENST00000440696	chr22	37163031	37162978	-	6565-6569	
chr22	37257214	37257245	+	ENST00000248899,ENST00000397147	chr22	37257749	37257904	+	6570	10
chr22	37257214	37257245	+	ENST00000248899,ENST00000397147	chr22	37257808	37257904	+	6571	10
chr22	37421043	37421068	+	ENST00000404393	chr22	37424693	37424757	+	6572	207
chr22	37868566	37868481	-	ENST00000416983,ENST00000356998	chr22	37861756	37861710	-	6573-6574	285,299
chr22	37868566	37868481	-	ENST00000416983,ENST00000356998	chr22	37866339	37866164	-	6575-6576	285,299
				ENST00000416983,ENST00000356998,ENST000						17,257,271
chr22	37870715,38	37870550	-	00454291	chr22	37861756	37861710	-	6577-6579	
				ENST00000407936,ENST00000333418,ENST000						150,40,38
chr22	38382161,3838	38382319	+	00427034	chr22	38427211	38427309	+	6580-6582	
				ENST00000404072,ENST00000424694,ENST000						146
chr22	38465040	38465129	+	00356976	chr22	38466249	38466399	+	6583	
chr22	38469007	38469099	+	ENST00000404072,ENST00000356976	chr22	38469578	38469599	+	6584	261
chr22	38870528	38870628	+	ENST00000216014,ENST00000409006	chr22	38873562	38873602	+	6585	64
				ENST00000396821,ENST00000381633,ENST000						404,325
chr22	38890807	38890635	-	00403230	chr22	38890374	38890275	-	6586-6587	
				ENST00000396821,ENST00000381633,ENST000						146,67
chr22	38897285	38897135	-	00403230	chr22	38895718	38895610	-	6588-6589	
				ENST00000396821,ENST00000381633,ENST000						110,31
chr22	38897285	38897242	-	00403230	chr22	38895718	38895610	-	6590-6591	
chr22	38917729	38917613	-	ENST00000216024,ENST00000428462	chr22	38905433	38905383	-	6592-6593	317,262
chr22	39219267	39219088	-	ENST00000333039	chr22	39205747	39204979	-	6594	426
chr22	39219267	39219088	-	ENST00000333039	chr22	39213414	39213303	-	6595	426
chr22	39222752	39222505	-	ENST00000333039	chr22	39205747	39204979	-	6596	366
chr22	39224517	39224292	-	ENST00000333039	chr22	39205747	39204979	-	6597	283
				ENST00000308521,ENST00000381565,ENST000						5
chr22	39436966	39436982	+	00452957	chr22	39437765	39437894	+	6598	
chr22	39795808	39795840	+	ENST00000216160,ENST00000331454	chr22	39805595	39805962	+	6599	11
chr22	39928528	39928400	-	ENST00000334678,ENST00000420879	chr22	39926173	39926135	-	6600	60
chr22	40217118	40216998	-	ENST00000325157	chr22	40186391	40185627	-	6601	277
chr22	40258012	40257770	-	ENST00000325157	chr22	40255169	40253648	-	6602	197
				ENST00000441751,ENST00000301923,ENST000						15
chr22	40521822	40521866	+	00402203	chr22	40536432	40536574	+	6603	
				ENST00000301923,ENST00000402203,ENST000						74,38
chr22	40647183	40647204	+	00454349,ENST00000335727	chr22	40652730	40652745	+	6604-6605	
				ENST00000216194,ENST00000454266,ENST000						477,491,418
chr22	40762440	40762502	+	00342312	chr22	40763473	40763569	+	6606-6608	
chr22	40798143	40798209	+	ENST00000248929	chr22	40798602	40798756	+	6609	52
				ENST00000405486,ENST00000356244,ENST000						253,357,302
				00455915,ENST00000407260,ENST00000446258						
chr22	41652109	41652025	-		chr22	41650670	41650669	-	6610-6612	
				ENST00000405486,ENST00000356244,ENST000						100,90,40
				00455915,ENST00000407260,ENST00000446258						
chr22	41664160	41664101	-	,ENST00000452543,ENST00000418067	chr22	41661142	41660926	-	6613-6615	
chr22	41919834	41919945	+	ENST00000216254,ENST00000396512	chr22	41920193	41920271	+	6616-6617	494,519
chr22	42003335	42003266	-	ENST00000263256	chr22	42001972	42001617	-	6618	60

Table 9

chr22	42016843	42016756	-	ENST00000263256	chr22	42003633	42003499	-	5619	29
chr22	42229275	42229362	+	ENST00000361204,ENST00000424354	chr22	42262409	42262587	+	5620	29
chr22	42339705	42339614	-	ENST00000215980,ENST00000402338	chr22	42335434	42335378	-	5621-5622	134,1
				ENST00000396398,ENST00000403363,ENST000						367
chr22	42457071	42456928	-	00402937	chr22	42448960	42448911	-	6623	
				ENST00000396398,ENST00000403363,ENST000						319
chr22	42459028	42458831	-	00402937	chr22	42448960	42448911	-	6624	
				ENST00000331018,ENST00000439248,ENST000						37
				00266254,ENST00000440761,ENST00000445824						
chr22	43471592	43471480	-		chr22	43468078	43467728	-	6625	
chr22	44335873	44336005	+	ENST00000216180,ENST00000423180	chr22	44337354	44337476	+	5626-6627	370,366
chr22	44386145	44386286	+	ENST00000350028,ENST00000396202	chr22	44395414	44395514	+	5628-6629	454,244
				ENST00000432186,ENST00000006251,ENST000						35,67,44
				00403581,ENST00000336985,ENST00000403696						
				,ENST00000457960,ENST00000431834,ENST000						
				00361473,ENST00000352766,ENST00000517296						
chr22	45098382,4509	45098488	+	,ENST00000432916,ENST00000389773	chr22	45099622	45099776	+	6630-6632	
				ENST00000361473,ENST00000352766,ENST000						109,186,309,
				00517296,ENST00000389773,ENST00000515632						177,55
				,ENST00000389774,ENST00000396119,ENST000						
				00447333,ENST00000336963,ENST00000356099						
chr22	45197957	45198044	+	,ENST00000412433	chr22	45200705	45201141	+	6633-6637	
				ENST00000403565,ENST00000313237,ENST000						255,459,417,
chr22	45281409	45281306	-	00396103,ENST00000404079	chr22	45265046	45264894	-	6638-6641	405
				ENST00000403565,ENST00000313237,ENST000						255,459,417,
chr22	45281409	45281306	-	00396103,ENST00000404079	chr22	45273953	45273791	-	6642-6645	405
				ENST00000347635,ENST00000424634,ENST000						23
				00434760,ENST00000430547,ENST00000419387						
chr22	45564059	45564127	+	,ENST00000422489	chr22	45566216	45566253	+	6646	
chr22	45802544	45802341	-	ENST00000357450,ENST00000404354	chr22	45799464	45799331	-	5647	205
chr22	46088876	46088958	+	ENST00000381061,ENST00000252934	chr22	46089641	46089833	+	5648-6649	66,13
				ENST00000381061,ENST00000252934,ENST000						90,327,391,1
chr22	46136249	46136418	+	00435026,ENST00000451241	chr22	46193043	46194955	+	6650-6653	43
				ENST00000381061,ENST00000252934,ENST000						90,327,391,1
chr22	46136249	46136418	+	00435026,ENST00000451241	chr22	46266405	46266821	+	6654-6657	43
chr22	46207578	46207673	+	ENST00000451241	chr22	46207891	46208259	+	5658	171
				ENST00000337137,ENST00000380995,ENST000						338,291,279,
				00407381,ENST00000355704,ENST00000441162						260
chr22	47307970	47308084	+	,ENST00000406733	chr22	47322951	47324846	+	6659-6662	
				ENST00000337137,ENST00000407381,ENST000						400,341,322,
chr22	47393530	47393605	+	00355704,ENST00000406733	chr22	47405149	47405234	+	6663-6666	353
				ENST00000337137,ENST00000407381,ENST000						475,416,397,
chr22	47507404	47507499	+	00355704,ENST00000406733	chr22	47603245	47603548	+	6667-6670	428
				ENST00000402357,ENST00000336769,ENST000						130,123,51
chr22	49103529	49103656	+	00358295,ENST00000406880	chr22	49126591	49128056	+	6671-6673	
chr22	50355090	50355459	+	ENST00000360612	chr22	50429425	50429581	+	5674	205
				ENST00000545383,ENST00000262794,ENST000						1022,65,100
				00395858,ENST00000395843,ENST00000540615						2,149
chr22	50591474	50591647	+	,ENST00000395852,ENST00000354853	chr22	50592852	50593025	+	6675-6678	
chr22	50765417	50765241	-	ENST00000413817	chr22	50764979	50764787	-	5679	59
				ENST00000359139,ENST00000395741,ENST000						833,833,832,
				00395744,ENST00000216061,ENST00000401672						866,585,462
chr22	50879251,51	50879455	+	,ENST00000427222	chr22	50881318	50881597	+	6680-6685	
chr22	50921136	50921509	+	ENST00000362068	chr22	50924699	50924895	+	5686	124
chr22	51019982	51019849	-	ENST00000406938	chr22	51019575	51019520	-	5687	193
				ENST00000414786,ENST00000262795,ENST000						689,719,704
chr22	51144500	51144580	+	00445220	chr22	51147653	51147768	+	6688-6690	
chr3	100067647	100067725	+	ENST00000394140	chr3	100070090	100071083	+	5691	194
chr3	100455420	100455560	+	ENST00000490574,ENST00000240851	chr3	100458205	100458308	+	5692	240
chr3	100455420	100455560	+	ENST00000490574,ENST00000240851	chr3	100458281	100458308	+	5693	240
				ENST00000287647,ENST00000383806,ENST000						552,51
				00383807,ENST00000419585,ENST00000421731						
chr3	10094071	10094181	+		chr3	10094913	10095253	+	6694-6695	
				ENST00000394095,ENST00000394091,ENST000						826,662,761,
				00394094,ENST00000358203,ENST00000314261						760,793
chr3	101056475	101056353	-	,ENST00000348610	chr3	101052568	101052538	-	6696-6700	
				ENST00000287647,ENST00000383806,ENST000						831,331
				00383807,ENST00000419585,ENST00000421731						
chr3	10108893	10109001	+		chr3	10111693	10112829	+	6701-6702	
				ENST00000273347,ENST00000474165,ENST000						31
				00491511,ENST00000477909,ENST00000422132						
chr3	101504441	101504533	+		chr3	101508107	101508419	+	6703	
chr3	10157386	10157498	+	ENST00000530758,ENST00000256463	chr3	10160590	10160681	+	5704	37
chr3	10157386	10157503	+	ENST00000530758,ENST00000256463	chr3	10160599	10160681	+	5705	39
chr3	10157386	10157503	+	ENST00000530758,ENST00000256463	chr3	10176520	10176795	+	5706	39
				ENST00000306107,ENST00000472644,ENST000						315,554,541,
				00486979,ENST00000389927,ENST00000465413						503,276
chr3	105271312	105271429	+		chr3	105289274	105289475	+	6707-6711	
chr3	108284301	108284202	-	ENST00000295746,ENST00000491772	chr3	108282826	108282604	-	5712-6713	505,346
chr3	108284301	108284202	-	ENST00000295746,ENST00000491772	chr3	108283097	108282976	-	5714-6715	505,346
chr3	108812388	108812283	-	ENST00000232603,ENST00000483760	chr3	108790071	108789980	-	5716	229
chr3	10960014	10960138	+	ENST00000254488	chr3	10965425	10965907	+	5717	373

Table 9

				ENST00000352690,ENST00000283285,ENST000					440,456
chr3	111343180	111343251	+	00494798	chr3	111346016	111351742	+	6718-6719
chr3	111432734	111432975	+	ENST00000393934,ENST00000477665	chr3	111497115	111497347	+	6720 288
chr3	113060765	113060591	-	ENST00000393845,ENST00000465636	chr3	113057583	113057408	-	6721-6722 282,1145
chr3	113060765	113060591	-	ENST00000393845,ENST00000465636	chr3	113059508	113059372	-	6723-6724 282,1145
chr3	113114707	113114597	-	ENST00000393845,ENST00000295868	chr3	113100761	113100586	-	6725 630
chr3	113601599	113601679	+	ENST00000358160,ENST00000472384	chr3	113603390	113603397	+	6726-6727 180,148
				ENST00000446450,ENST00000354956,ENST000					389,428
chr3	11389351	11389509	+	00354449	chr3	11396895	11397779	+	6728-6729
chr3	119205680	119205779	+	ENST00000295588	chr3	119207573	119207735	+	6730 246
				ENST00000495912,ENST00000315843,ENST000					77
chr3	119962623	119962487	-	00464295,ENST00000461057	chr3	119951917	119951723	-	6731
				ENST00000295633,ENST00000424703,ENST000					21
chr3	120169593	120169531	-	00469005	chr3	120149658	120149584	-	6732
				ENST00000295633,ENST00000424703,ENST000					21
chr3	120169593	120169531	-	00469005	chr3	120150139	120150118	-	6733
chr3	120409334	120409304	-	ENST00000273375,ENST00000483733	chr3	120405510	120405455	-	6734-6735 212,188
				ENST00000273375,ENST00000473654,ENST000					15,14
				00485161,ENST00000481015,ENST00000465022					
chr3	120461354,1	120461309	-	,ENST00000483733	chr3	120457916	120457556	-	6736-6737
				ENST00000273666,ENST00000471454,ENST000					223
				00472879,ENST00000492541,ENST00000497029					
chr3	120840488	120840551	+	,ENST00000471262	chr3	120866822	120867003	+	6738
chr3	121151880	121151765	-	ENST00000264233	chr3	121149387	121149057	-	6739 2553
chr3	121258436	121258280	-	ENST00000264233	chr3	121256461	121256142	-	6740 210
				ENST00000493101,ENST00000264468,ENST000					4
chr3	121774337	121774350	+	00330540	chr3	121778695	121778930	+	6741
				ENST00000344337,ENST00000485027,ENST000					43
				00494339,ENST00000465882,ENST00000482287					
chr3	122215412	122215284	-	,ENST00000476916,ENST00000493510	chr3	122194768	122194448	-	6742
				ENST00000477522,ENST00000492382,ENST000					16
				00360356,ENST00000471785,ENST00000462315					
chr3	122277314	122277281	-		chr3	122276669	122276630	-	6743
chr3	122512527	122512464	-	ENST00000383659,ENST00000306103	chr3	122500624	122500440	-	6744 21
				ENST00000462833,ENST00000491190,ENST000					752,385,402,
chr3	123038665	123038521	-	00309879,ENST00000466617	chr3	123037265	123037225	-	6745-6748 311
chr3	123286627	123286609	-	ENST00000383657	chr3	123269934	123269870	-	6749 97
				ENST00000296181,ENST00000481591,ENST000					564,254,292
chr3	124515664	124515235	-	00488466	chr3	124512043	124511881	-	6750-6752
				ENST00000296181,ENST00000488466,ENST000					260,104,56
chr3	124560398	124560230	-	00496703	chr3	124552861	124552596	-	6753-6755
				ENST00000397010,ENST00000309576,ENST000					395,401,423
				00397015,ENST00000397012,ENST00000397026					
chr3	12458203	12458653	+	,ENST00000287820	chr3	12493111	12493334	+	6756-6758
chr3	125170263	125170149	-	ENST00000251775,ENST00000536067	chr3	125161831	125161831	-	6759-6760 435,29
chr3	125188363	125188298	-	ENST00000251775,ENST00000536067	chr3	125188099	125187717	-	6761-6762 284,139
				ENST00000446004,ENST00000314571,ENST000					90
				00383797,ENST00000454502,ENST00000402228					
				,ENST00000444864,ENST00000284995,ENST000					
chr3	12533635	12533716	+	00415684	chr3	12535600	12535862	+	6763
				ENST00000170447,ENST00000411987,ENST000					8
chr3	12598650	12598675	+	00448482	chr3	12604337	12604553	+	6764
chr3	126178580	126178496	-	ENST00000389709	chr3	126170290	126170206	-	6765 737
				ENST00000389709,ENST00000515545,ENST000					416,709
chr3	126181063	126180378	-	00336332	chr3	126179281	126179249	-	6766-6767
				ENST00000389709,ENST00000515545,ENST000					480,187
chr3	126185168	126184998	-	00336332	chr3	126181343	126181327	-	6768-6769
				ENST00000290913,ENST00000503119,ENST000					70,137
chr3	126451921	126452065	+	00508789,ENST00000513253	chr3	126517786	126518066	+	6770-6771
				ENST00000290913,ENST00000503119,ENST000					70,137
chr3	126451921	126452065	+	00508789,ENST00000513253	chr3	126548543	126548658	+	6772-6773
				ENST00000290913,ENST00000508789,ENST000					98,165,166
chr3	126571490,1	126571573	+	00513253	chr3	126602037	126602413	+	6774-6776
chr3	127872351	127872666	+	ENST00000254730,ENST00000483457	chr3	127875655	127877653	+	6777 105
chr3	127872351	127872666	+	ENST00000254730,ENST00000483457	chr3	127913402	127913492	+	6778 105
chr3	127983460	127983624	+	ENST00000254730	chr3	128055747	128055797	+	6779 262
chr3	128363826	128363762	-	ENST00000296255,ENST00000476931	chr3	128357205	128357072	-	6780 108
				ENST00000514643,ENST00000308982,ENST000					50
				00512801,ENST00000505192,ENST00000511227					
				,ENST00000515429,ENST00000514336,ENST000					
chr3	128598535	128598684	+	00505867	chr3	128599584	128599652	+	6781
chr3	130569665	130569772	+	ENST00000393221,ENST00000533801	chr3	130589782	130590115	+	6782 36
				ENST00000510168,ENST00000508532,ENST000					2
				00505072,ENST00000509662,ENST00000328560					
				,ENST00000428331,ENST00000359644,ENST000					
chr3	130613614	130613619	+	00422190	chr3	130630580	130632100	+	6783

Table 9

				ENST00000505330,ENST00000504381,ENST000						283,244,333,
				00507488,ENST00000393221,ENST00000533801						294,299,253,
				,ENST00000510168,ENST00000508532,ENST000						38
				00504948,ENST00000513801,ENST00000328560						
				,ENST00000428331,ENST00000359644,ENST000						
				00422190,ENST00000504612,ENST00000515854						
chr3	130678119	130678185	+		chr3	130680339	130681546	+	6784-6790	
				ENST00000356918,ENST00000510769,ENST000						56
				00429253,ENST00000510688,ENST00000511262						
				,ENST00000383366,ENST00000514915,ENST000						
				00510474,ENST00000507910,ENST00000508196						
chr3	130748553	130748722	+		chr3	130816454	130817253	+	6791	
				ENST00000356918,ENST00000510769,ENST000						466,361,282
				00429253,ENST00000510688,ENST00000511262						
				,ENST00000383366,ENST00000412440,ENST000						
chr3	130889617	130889731	+	00507910,ENST00000508196	chr3	130932681	130933033	+	6792-6794	
chr3	133535722	133535776	+	ENST00000466490,ENST00000466636	chr3	133536844	133536860	+	6795-6796	200,89
chr3	13363335	13363085	-	ENST00000254508	chr3	13362922	13362832	-	6797	1722
chr3	13367431	13367295	-	ENST00000254508	chr3	13365016	13364955	-	6798	1548
chr3	13367431	13367295	-	ENST00000254508	chr3	13365079	13364955	-	6799	1548
				ENST00000460933,ENST00000296084,ENST000						276,294,104
chr3	133914026	133913926	-	00427044	chr3	133911858	133911694	-	6800-6802	
				ENST00000383202,ENST00000236698,ENST000						759,533,343
chr3	136117671	136117591	-	00434713,ENST00000536929	chr3	136115665	136115363	-	6803-6805	
				ENST00000383202,ENST00000236698,ENST000						732,506,316
chr3	136136814	136136727	-	00434713,ENST00000536929	chr3	136133751	136133649	-	6806-6808	
chr3	137790677	137790485	-	ENST00000327532,ENST00000469243	chr3	137789438	137789364	-	6809	538
chr3	137816689	137816605	-	ENST00000327532,ENST00000469243	chr3	137816315	137816228	-	6810	195
				ENST00000481646,ENST00000469044,ENST000						131,145,103,
				00491704,ENST00000461600,ENST00000466749						135,32
				,ENST00000358441,ENST00000489213,ENST000						
				00461822,ENST00000485396,ENST00000471453						
				,ENST00000470821,ENST00000471709,ENST000						
				00393058,ENST00000538260,ENST00000470549						
chr3	137942478	137942575	+	,ENST00000469860	chr3	137943441	137943583	+	6811-6815	
				ENST00000264982,ENST00000542237,ENST000						155,135,137,
				00484888,ENST00000474781,ENST00000481834						134
				,ENST00000468900,ENST00000462419,ENST000						
chr3	138289340	138289160	-	00464035	chr3	138266502	138266098	-	6816-6819	
				ENST00000264982,ENST00000542237,ENST000						94,74,76,73
				00484888,ENST00000474781,ENST00000481834						
				,ENST00000468900,ENST00000462419,ENST000						
chr3	138289999	138289876	-	00464035,ENST00000470159	chr3	138261631	138260784	-	6820-6823	
				ENST00000542237,ENST00000489254,ENST000						3
chr3	138310704	138310696	-	00468900,ENST00000462419	chr3	138261631	138260784	-	6824	
				ENST00000333188,ENST00000507777,ENST000						168,139,147
chr3	139097031,1	139096883	-	00515006	chr3	139095884	139095595	-	6825-6827	
chr3	139108392	139108390	-	ENST00000333188,ENST00000515006	chr3	139104029	139103899	-	6828	1
				ENST00000406164,ENST00000406824,ENST000						88,15,125
chr3	139292522,1	139292440	-	00339837,ENST00000296202	chr3	139290324	139284207	-	6829-6831	
				ENST00000505013,ENST00000514880,ENST000						26
				00286353,ENST00000393010,ENST00000514680						
chr3	140979018	140979096	+	,ENST00000513528	chr3	140993302	140993400	+	6832	
				ENST00000286353,ENST00000502783,ENST000						168,130,151,
				00393010,ENST00000512457,ENST00000504264						159,152
chr3	141006156	141006295	+	,ENST00000508812,ENST00000393007	chr3	141024598	141024718	+	6833-6837	
chr3	141499216	141499653	+	ENST00000264952	chr3	141504326	141504620	+	6838	350
chr3	14163477	14163417	-	ENST00000295767	chr3	14162594	14162297	-	6839	20
chr3	14166176	14166155	-	ENST00000396914,ENST00000420103	chr3	14159238	14159236	-	6840	7
				ENST00000492097,ENST00000480757,ENST000						137
				00392993,ENST00000544571,ENST00000487672						
chr3	141923630	141923537	-		chr3	141923153	141922876	-	6841	
chr3	142204124	142203982	-	ENST00000350721,ENST00000383101	chr3	142191058	142190967	-	6842-6843	2073,2009
chr3	142204124	142203982	-	ENST00000350721,ENST00000383101	chr3	142193507	142193069	-	6844-6845	2073,2009
chr3	142204124	142203982	-	ENST00000350721,ENST00000383101	chr3	142200133	142200079	-	6846-6847	2073,2009
chr3	14225437	14225532	+	ENST00000306024	chr3	14266947	14267013	+	6848	76
				ENST00000350721,ENST00000383101,ENST000						97
chr3	142285103	142284963	-	00507148	chr3	142283468	142283462	-	6849	
chr3	142467100	142467302	+	ENST00000476941,ENST00000273482	chr3	142468439	142468484	+	6850-6851	210,176
chr3	143691175	143691831	+	ENST00000315691	chr3	143701250	143702650	+	6852	219
				ENST00000463633,ENST00000336685,ENST000						33,106
chr3	146176240	146176198	-	00497985,ENST00000489015	chr3	146136930	146136036	-	6853-6854	
chr3	148603880	148603964	+	ENST00000296046	chr3	148641617	148642329	+	6855	355
				ENST00000392894,ENST00000344229,ENST000						233,114,61
				00491086,ENST00000467977,ENST00000361785						
chr3	149638921	149639014	+	,ENST00000482083,ENST00000468289	chr3	149749923	149749973	+	6856-6858	
				ENST00000413118,ENST00000425241,ENST000						24
				00435454,ENST00000323373,ENST00000393102						
chr3	15045422	15045493	+	,ENST00000437120,ENST00000406272	chr3	15046051	15046208	+	6859	
				ENST00000425241,ENST00000323373,ENST000						125,144
				00393102,ENST00000437120,ENST00000406272						
chr3	15057659	15057761	+		chr3	15060247	15060546	+	6860-6861	

Table 9

				ENST00000309237,ENST00000422248,ENST000					419
chr3	150881680	150881829	+	00474524	chr3	150882352	150882799	+	6862
chr3	151542451	151542622	+	ENST00000232892,ENST00000488869	chr3	151551283	151551780	+	6863 201
				ENST00000282486,ENST00000282488,ENST000					56,58
				00355460,ENST00000324210,ENST00000498502					
				,ENST00000324196,ENST00000357472,ENST000					
				00545754,ENST00000485910,ENST00000463374					
				,ENST00000465907,ENST00000485509,ENST000					
chr3	152017983,2	152018156	+	00492948,ENST00000464596	chr3	152113775	152114193	+	6864-6865
				ENST00000282486,ENST00000282488,ENST000					58,56
				00355460,ENST00000324210,ENST00000498502					
				,ENST00000324196,ENST00000357472,ENST000					
				00545754,ENST00000485910,ENST00000463374					
				,ENST00000465907,ENST00000485509,ENST000					
chr3	152017983,2	152018156	+	00492948,ENST00000464596	chr3	152113956	152114193	+	6866-6867
				ENST00000282486,ENST00000282488,ENST000					113,115,23,5
				00355460,ENST00000495875,ENST00000493459					8,18
				,ENST00000324210,ENST00000460591,ENST000					
				00498502,ENST00000324196,ENST00000357472					
				,ENST00000545754,ENST00000485910,ENST000					
				00463374,ENST00000465907,ENST00000485509					
				,ENST00000492948,ENST00000464596,ENST000					
chr3	152132730,152	152132900	+	00478535	chr3	152137525	152139025	+	6868-6872
chr3	15259980	15260047	+	ENST00000253693	chr3	15261397	15261425	+	6873 145
				ENST00000496811,ENST00000308361,ENST000					947,918,933,
chr3	153994688	153994536	-	00544526,ENST00000329463	chr3	153992407	153992152	-	6874-6877 933
chr3	155588660	155588686	+	ENST00000496455,ENST00000295920	chr3	155605221	155605719	+	6878 9
				ENST00000312275,ENST00000468043,ENST000					27
				00459838,ENST00000461040,ENST00000449199					
chr3	157271047	157271129	+	,ENST00000426338	chr3	157275435	157276959	+	6879
				ENST00000383777,ENST00000399451,ENST000					335,302,246
chr3	15762634	15762422	-	00412318,ENST00000451422	chr3	15761212	15761092	-	6880-6882
				ENST00000480820,ENST00000494002,ENST000					164,58
				00295930,ENST00000471994,ENST00000475278					
				,ENST00000480119,ENST00000476899,ENST000					
chr3	157920861	157921034	+	00482822	chr3	158013757	158013899	+	6883-6884
chr3	157943446	157943522	+	ENST00000480119	chr3	158013757	158013899	+	6885 190
				ENST00000415822,ENST00000392813,ENST000					232,193,183,
				00264266,ENST00000474670,ENST00000477743					156,17
chr3	158526968,2	158527076	+		chr3	158530645	158530925	+	6886-6890
				ENST00000415822,ENST00000392813,ENST000					478,439,429
chr3	158541913	158542025	+	00264266	chr3	158542644	158542909	+	6891-6893
				ENST00000399451,ENST00000412318,ENST000					9
chr3	15900910	15900884	-	00439830	chr3	15864886	15864572	-	6894
				ENST00000483754,ENST00000326448,ENST000					490,319,182
chr3	160037727	160037548	-	00483465,ENST00000496589	chr3	160033136	160032874	-	6895-6897
				ENST00000483754,ENST00000326448,ENST000					430,259,122,
				00483465,ENST00000496589,ENST00000472555					49
chr3	160073938	160073801	-	,ENST00000465537	chr3	160049096	160048757	-	6898-6901
				ENST00000483754,ENST00000326448,ENST000					430,259,122,
				00483465,ENST00000496589,ENST00000472555					49
chr3	160073938	160073801	-	,ENST00000465537	chr3	160051019	160050700	-	6902-6905
				ENST00000483754,ENST00000326448,ENST000					430,259,122,
				00483465,ENST00000496589,ENST00000472555					49
chr3	160073938	160073801	-	,ENST00000465537	chr3	160065556	160065433	-	6906-6909
				ENST00000326448,ENST00000483465,ENST000					146,9,31
				00496589,ENST00000484963,ENST00000465537					
				,ENST00000475677,ENST00000498409,ENST000					
				00468218,ENST00000486856,ENST00000478370					
chr3	160093668,2	160093600	-		chr3	160091457	160091238	-	6910-6912
				ENST00000326448,ENST00000483465,ENST000					146,9,31
				00496589,ENST00000484963,ENST00000465537					
				,ENST00000475677,ENST00000498409,ENST000					
				00468218,ENST00000486856,ENST00000478370					
chr3	160093668,2	160093600	-		chr3	160091460	160091238	-	6913-6915
				ENST00000326448,ENST00000483465,ENST000					146,9,31
				00496589,ENST00000484963,ENST00000465537					
				,ENST00000475677,ENST00000498409,ENST000					
				00468218,ENST00000486856,ENST00000478370					
chr3	160093668,2	160093600	-		chr3	160091639	160091238	-	6916-6918
				ENST00000357388,ENST00000360111,ENST000					326,301
				00469762,ENST00000489573,ENST00000462787					
chr3	160130114	160130241	+	,ENST00000344722	chr3	160130402	160130492	+	6919-6920
				ENST00000357388,ENST00000360111,ENST000					1238,1180,1
				00469762,ENST00000462787,ENST00000344722					213
chr3	160150814	160150997	+		chr3	160154999	160155146	+	6921-6923
chr3	160474097	160474495	+	ENST00000497343,ENST00000498165	chr3	160657444	160657581	+	6924 133
				ENST00000497343,ENST00000498165,ENST000					191,12,64
chr3	160679524,2	160679698	+	00464260,ENST00000295839	chr3	160726018	160726375	+	6925-6927
chr3	169550775	169550971	+	ENST00000340806	chr3	169575940	169575940	+	6928 510
chr3	169953018	169953139	+	ENST00000295797	chr3	169977316	169977598	+	6929 74

Table 9

chr3	17084366	17084441	+	ENST00000396755,ENST00000418129,ENST00000432376,ENST00000419842	chr3	17094219	17094541	+	6930-6931	905,649
chr3	170875453	170875249	-	ENST00000436636,ENST00000369326,ENST00000538048,ENST00000341852,ENST00000284483,ENST00000357327,ENST00000460047,ENST00000470834,ENST00000475336,ENST00000488470	chr3	170860098	170859966	-	6932-6933	407,407
chr3	171323206	171323089	-	ENST00000356327,ENST00000351298	chr3	171321625	171321517	-	6934-6935	962,1
chr3	172003716	172003774	+	ENST00000415807,ENST00000336824,ENST00000416957	chr3	172010878	172010962	+	6936	283
chr3	172428774,172	172428637	-	ENST00000475381,ENST00000273512,ENST00000538775,ENST00000424772,ENST00000421723	chr3	172383082	172377778	-	6937-6939	46,78,68
chr3	174577198	174577240	+	ENST00000454872	chr3	174629186	174629410	+	6940	14
chr3	174577198	174577240	+	ENST00000454872	chr3	174764580	174764635	+	6941	14
chr3	178743016,2	178742842	-	ENST00000311417,ENST00000432729	chr3	178683284	178683220	-	6942-6943	277,276
chr3	178743016,2	178742856	-	ENST00000311417,ENST00000432729	chr3	178683284	178683220	-	6944-6945	273,272
chr3	179131401	179131200	-	ENST00000232564,ENST00000466899,ENST00000468623	chr3	179128385	179128169	-	6946-6947	233,155
chr3	182511548	182511574	+	ENST00000323116,ENST00000493826	chr3	182527853	182528135	+	6948	9
chr3	182665122	182665026	-	ENST00000292782,ENST00000469954	chr3	182641611	182640338	-	6949-6950	233,218
chr3	182804576,182	182804481	-	ENST00000265594,ENST00000492597,ENST00000497959,ENST00000476176	chr3	182797431	182796912	-	6951-6954	123,14,85,76
chr3	182994745	182994660	-	ENST00000328913,ENST00000473233,ENST00000447025,ENST00000414362	chr3	182993712	182993390	-	6955	620
chr3	183390084	183390272	+	ENST00000242810,ENST00000454652,ENST00000476808	chr3	183410513	183410519	+	6956	534
chr3	183558428	183558358	-	ENST00000317096,ENST00000418450,ENST00000450375,ENST00000417784,ENST00000311101,ENST00000435888,ENST00000449306	chr3	183557816	183557529	-	6957-6962	276,42,56,67,226,139
chr3	185003394	185003431	+	ENST00000448876,ENST00000446828,ENST00000455188,ENST00000454237,ENST00000438798	chr3	185016852	185017212	+	6963	12
chr3	185376197	185376129	-	ENST00000382199,ENST00000421047,ENST00000457616,ENST00000346192	chr3	185375511	185375454	-	6964-6967	423,366,429,380
chr3	188426055	188426181	+	ENST00000448637,ENST00000312675,ENST00000543006,ENST00000415906	chr3	188476420	188476548	+	6968-6969	413,25
chr3	188426055	188426181	+	ENST00000448637,ENST00000312675,ENST00000543006,ENST00000415906	chr3	188477051	188477102	+	6970-6971	413,25
chr3	191100535	191100614	+	ENST00000392455,ENST00000392456	chr3	191104473	191104608	+	6972-6973	264,44
chr3	192053253	192053150	-	ENST00000445105,ENST00000264730,ENST00000454309,ENST00000450716,ENST00000430714,ENST00000448795,ENST00000418610	chr3	192051973	192051492	-	6974-6977	76,138,39,52
chr3	193311167	193311198	+	ENST00000361150,ENST00000361510,ENST00000361715,ENST00000361828,ENST00000361908,ENST00000392438,ENST00000392437,ENST00000392436	chr3	193314589	193314645	+	6978	10
chr3	193363517	193363589	+	ENST00000361150,ENST00000361510,ENST00000361715,ENST00000361828,ENST00000361908,ENST00000392438	chr3	193364274	193364581	+	6979-6984	530,584,548,547,566,529
chr3	193384959,2	193385069	+	ENST00000361150,ENST00000361510,ENST00000361715,ENST00000361828,ENST00000361908,ENST00000392438,ENST00000445863,ENST00000429164	chr3	193399671	193401724	+	6985-6992	940,994,958,957,976,939,131,35
chr3	193384959,2	193385069	+	ENST00000361150,ENST00000361510,ENST00000361715,ENST00000361828,ENST00000361908,ENST00000392438,ENST00000445863,ENST00000429164	chr3	193401082	193401724	+	6993-7000	940,994,958,957,976,939,131,35
chr3	195101791	195101738	-	ENST00000326793,ENST00000439666	chr3	195078513	195078463	-	7001-7002	95,51
chr3	195456519	195456610	+	ENST00000447234,ENST00000320736,ENST00000436408,ENST00000445522,ENST00000423938	chr3	195464079	195464193	+	7003-7006	687,516,652,98
chr3	195456519	195456610	+	ENST00000447234,ENST00000320736,ENST00000436408,ENST00000445522,ENST00000423938	chr3	195522371	195522437	+	7007-7010	98,687,516,652
chr3	195785236	195785155	-	ENST00000420415,ENST00000360110,ENST00000392396,ENST00000535031	chr3	195782660	195782601	-	7011-7013	478,559,277
chr3	195785236	195785155	-	ENST00000420415,ENST00000360110,ENST00000392396,ENST00000535031	chr3	195782922	195782857	-	7014-7016	478,559,277
chr3	195798369	195798267	-	ENST00000420415,ENST00000360110,ENST00000392396	chr3	195798015	195797911	-	7017-7018	148,229
chr3	195798369	195798267	-	ENST00000420415,ENST00000360110,ENST00000392396	chr3	195798058	195797911	-	7019-7020	148,229
chr3	195799023	195798874	-	ENST00000420415,ENST00000360110,ENST00000392396	chr3	195798058	195797911	-	7021-7022	113,194
chr3	196118796,2	196118684	-	ENST00000296328,ENST00000535858	chr3	196106812	196106735	-	7023-7024	156,8
chr3	196381411	196381518	+	ENST00000328557	chr3	196385589	196385862	+	7025	36
chr3	196537461	196537524	+	ENST00000327134	chr3	196538660	196538892	+	7026	257
chr3	196630404	196630481	+	ENST00000445299,ENST00000323460,ENST00000420019026	chr3	196641598	196642913	+	7027-7028	628,118
chr3	196630404	196630481	+	ENST00000445299,ENST00000323460,ENST00000420019026	chr3	196650196	196650199	+	7029-7030	628,118

Table 9

chr3	196743240	196743060	-	ENST00000296350 ENST00000346964,ENST00000357674,ENST000	chr3	196742765	196742610	-	7031	360 701,668
chr3	196803556	196803457	-	00450955	chr3	196800452	196800239	-	7032-7033	
chr3	197265202	197265177	-	ENST00000434143	chr3	197261024	197260886	-	7034	8
chr3	197265202	197265177	-	ENST00000434143 ENST00000392379,ENST00000392378,ENST000 00358186,ENST00000432819,ENST00000431056	chr3	197261902	197261736	-	7035	8 27
chr3	197273314	197273232	-	,ENST00000445160 ENST00000428738,ENST00000494309,ENST000 00415708,ENST00000241502,ENST00000412924	chr3	197261024	197260886	-	7036	11,83,52,78
chr3	197483395,2	197483428	+	,ENST00000418169,ENST00000426031,ENST000 00424384 ENST00000438796,ENST00000414675,ENST000 00441090,ENST00000425562,ENST00000536618	chr3	197490321	197490377	+	7037-7040	113,736,684, 582,331,211,
chr3	197602569	197602646	+	,ENST00000452660,ENST00000433298,ENST000 00428136 ENST00000464167,ENST00000448864,ENST000 00429437,ENST00000442341,ENST00000439255	chr3	197626177	197626300	+	7041-7047	173 54
chr3	197678030	197678182	+	ENST00000464167,ENST00000448864,ENST000 00429437,ENST00000442341,ENST00000439255	chr3	197680478	197680738	+	7048	54
chr3	197678030	197678182	+		chr3	197680786	197680799	+	7049	
chr3	20019802	20019895	+	ENST00000273047,ENST00000422242	chr3	20044717	20044953	+	7050-7051	177,163
chr3	20081970	20082272	+	ENST00000263754 ENST00000434693,ENST00000396583,ENST000 00383767,ENST00000445033,ENST00000273139	chr3	20112856	20112880	+	7052	101 132,133
chr3	29628605	29628696	+	,ENST00000383766,ENST00000452462,ENST000 00456853 ENST00000424814,ENST00000231948,ENST000	chr3	29682303	29682508	+	7053-7054	245,250,249
chr3	3197965	3197903	-	00432408	chr3	3197653	3197495	-	7055-7057	
chr3	32201060	32201166	+	ENST00000282541	chr3	32206593	32206721	+	7058	319
chr3	32280465	32280611	+	ENST00000458535,ENST00000307526 ENST00000334983,ENST00000349718,ENST000	chr3	32371714	32371853	+	7059	49 171,138,40
chr3	32493884	32493965	+	00487007 ENST00000331889,ENST00000328834,ENST000	chr3	32519587	32519862	+	7060-7062	7
chr3	32726953	32726974	+	00435630 ENST00000331889,ENST00000328834,ENST000	chr3	32109331	32109420	+	7063	7
chr3	32726953	32726974	+	00435630 ENST00000331889,ENST00000328834,ENST000	chr3	32109409	32109420	+	7064	666,693,753,
chr3	32811379	32811454	+	00454516,ENST00000430408 ENST00000468888,ENST00000399362,ENST000 00539981,ENST00000359576,ENST00000480013	chr3	32820288	32820366	+	7065-7068	228 440,439,191, 206,212,216
chr3	33661230	33661095	-	,ENST00000461133,ENST00000313350,ENST000 00487200,ENST00000333778,ENST00000485378	chr3	33659738	33659444	-	7069-7074	
chr3	36422136	36422246	+	ENST00000273183,ENST00000457375,ENST000 00427486,ENST00000434649 ENST00000273183,ENST00000457375,ENST000	chr3	36495761	36496043	+	7075	37 129,118
chr3	36484856,36	36485132	+	00434649 ENST00000231790,ENST00000456676,ENST000	chr3	36495753	36496043	+	7076-7077	126,118,28
chr3	37045892	37045965	+	00435176,ENST00000429117 ENST00000356847,ENST00000450863,ENST000	chr3	37047352	37047452	+	7078-7080	76,109
chr3	37315027	37315092	+	00429018,ENST00000431105 ENST00000361924,ENST00000356847,ENST000	chr3	37321085	37321115	+	7081-7082	471,493,342
chr3	37356911	37357089	+	00437131 ENST00000361924,ENST00000356847,ENST000	chr3	37357356	37357450	+	7083-7085	2064,2086,1
chr3	37370454	37370584	+	00437131	chr3	37374477	37374562	+	7086-7088	935
chr3	38271856	38271921	+	ENST00000446845,ENST00000311806	chr3	38276056	38276740	+	7089	317
chr3	38420737	38420833	+	ENST00000207870,ENST00000542835	chr3	38422525	38422583	+	7090-7091	430,293
chr3	38442382	38442476	+	ENST00000207870,ENST00000542835	chr3	38447194	38453029	+	7092-7093	511,374
chr3	38442382	38442476	+	ENST00000207870,ENST00000542835 ENST00000287675,ENST00000431472,ENST000	chr3	38467177	38467300	+	7094-7095	511,374 37,74
chr3	38539120	38539180	+	00457367,ENST00000453767 ENST00000287675,ENST00000431472,ENST000	chr3	38541581	38541850	+	7096-7097	104,66
chr3	38539120	38539269	+	00457367,ENST00000453767	chr3	38541581	38541850	+	7098-7099	
chr3	38540417	38540480	+	ENST00000457367	chr3	38541046	38541123	+	7100	125
chr3	38540417	38540480	+	ENST00000457367 ENST00000420891,ENST00000314529,ENST000	chr3	38541581	38541850	+	7101	125 8
chr3	40547844	40547867	+	00433723	chr3	40555311	40556056	+	7102	
chr3	40553893	40554006	+	ENST00000420891,ENST00000314529 ENST00000403205,ENST00000310898,ENST000	chr3	40555311	40556056	+	7103	88 86
chr3	40571700	40571807	+	00339296,ENST00000453351 ENST00000403205,ENST00000339296,ENST000	chr3	40578536	40578810	+	7104	264,153
chr3	40573521,41	40574054	+	00431278 ENST00000403205,ENST00000339296,ENST000	chr3	40578536	40578810	+	7105-7106	264,153
chr3	40573521,41	40574054	+	00431278	chr3	40579615	40579722	+	7107-7108	
chr3	41439755	41439570	-	ENST00000301831 ENST00000423701,ENST00000273156,ENST000 00417572,ENST00000449617,ENST00000264454	chr3	41392402	41392075	-	7109	1226 60
chr3	42610538	42610357	-	,ENST00000456515,ENST00000383750,ENST000 00450981,ENST00000445388,ENST00000454141 ,ENST00000416880,ENST00000420163	chr3	42605501	42605463	-	7110	

Table 9

				ENST00000442925,ENST00000422265,ENST00000497921,ENST00000273145,ENST00000492609,ENST00000494619,ENST00000493193						119
chr3	42905995	42906351	+	ENST00000442925,ENST00000422265,ENST00000273145	chr3	42938530	42939566	+	7111	295
chr3	42905995	42906879	+	ENST00000442925,ENST00000422265,ENST00000273145	chr3	42926285	42926346	+	7112	295
chr3	42905995	42906879	+		chr3	42938530	42939566	+	7113	92
				ENST00000426937,ENST00000383748,ENST00000443313,ENST00000446977,ENST00000418176						
chr3	42983450	42983563	+		chr3	43067411	43067789	+	7114	599,409,533,
				ENST00000292246,ENST00000350459,ENST00000396091,ENST00000414522,ENST00000451430						488,126
chr3	43591340	43591212	-	,ENST00000448045	chr3	43498923	43498772	-	7115-7119	
				ENST00000448413,ENST00000534863,ENST00000272902,ENST00000383843,ENST00000458465						338,313,206
chr3	4418073	4418014	-		chr3	4343468	4342890	-	7120-7122	
				ENST00000383746,ENST00000417237,ENST00000396078,ENST00000342649,ENST00000412611						55
chr3	44399233	44399368	+	,ENST00000431657,ENST00000417768	chr3	44400600	44400724	+	7123	
				ENST00000383746,ENST00000417237,ENST00000396078,ENST00000342649,ENST00000412611						55
chr3	44399233	44399368	+	,ENST00000431657,ENST00000417768	chr3	44400603	44400724	+	7124	
				ENST00000448413,ENST00000534863,ENST00000272902,ENST00000383843,ENST00000458465						318,293,186
chr3	4452662	4452549	-	,ENST00000405420	chr3	4442810	4442502	-	7125-7127	
chr3	44542126	44540966	-	ENST00000436261	chr3	44533999	44533659	-	7128	434
chr3	44542126	44541386	-	ENST00000436261	chr3	44533999	44533659	-	7129	294
				ENST00000383744,ENST00000344387,ENST00000383745,ENST00000334075,ENST00000396058						130
chr3	44670647	44671036	+		chr3	44671798	44671933	+	7130	
chr3	44683392	44683709	+	ENST00000344387,ENST00000396058	chr3	44687983	44688118	+	7131	362
chr3	45133030	45132665	-	ENST00000296129	chr3	45132083	45131980	-	7132	664
				ENST00000265537,ENST00000415258,ENST00000431023,ENST00000414984,ENST00000430399						78
chr3	45435946	45436179	+		chr3	45441056	45441126	+	7133	
				ENST00000265537,ENST00000415258,ENST00000431023,ENST00000414984						172,129
chr3	45461161	45461221	+		chr3	45462663	45462933	+	7134-7135	
				ENST00000265537,ENST00000415258,ENST00000414984						374,331
chr3	45527184	45527288	+		chr3	45529143	45529238	+	7136-7137	
				ENST00000265537,ENST00000415258,ENST00000414984						801,758
chr3	45565489	45565600	+		chr3	45612910	45613263	+	7138-7139	
chr3	45636372	45637779	+	ENST00000440097,ENST00000273317	chr3	45676449	45676737	+	7140	469
chr3	45677642	45677743	+	ENST00000440097,ENST00000273317	chr3	45698877	45699036	+	7141	503
chr3	45714946	45714997	+	ENST00000440097,ENST00000273317	chr3	45715166	45715400	+	7142	608
				ENST00000455997,ENST00000418611,ENST00000389061,ENST00000541314						89,192,131
chr3	45755538	45755571	+		chr3	45756665	45756694	+	7143-7145	
				ENST00000318962,ENST00000434140,ENST00000415953,ENST00000431015,ENST00000450172						262,192
chr3	46727134	46727015	-	,ENST00000423707	chr3	46726225	46726107	-	7146-7147	
chr3	47125872	47125210	-	ENST00000445387,ENST00000409792	chr3	47121101	47121082	-	7148-7149	1653,202
				ENST00000433449,ENST00000437353,ENST00000232766,ENST00000442272						43
chr3	47324456	47324584	+		chr3	47329438	47329734	+	7150	
				ENST00000296149,ENST00000446787,ENST00000439305,ENST00000412761,ENST00000444760						224,151
chr3	47539922	47539776	-		chr3	47532948	47532708	-	7151-7152	
				ENST00000296149,ENST00000446787,ENST00000439305,ENST00000412761,ENST00000444760						175,102
chr3	47543341	47543140	-	,ENST00000425291	chr3	47532948	47532708	-	7153-7154	
				ENST00000296149,ENST00000446787,ENST00000439305,ENST00000412761,ENST00000444760						107,34
				,ENST00000445044,ENST00000425291,ENST00000449409,ENST00000414236						
chr3	47545938,48	47545820	-		chr3	47532948	47532708	-	7155-7156	
chr3	47551744	47551674	-	ENST00000296149	chr3	47547512	47547450	-	7157	68
chr3	47552716	47552638	-	ENST00000296149,ENST00000442215	chr3	47547512	47547450	-	7158	44
				ENST00000354698,ENST00000427617,ENST00000412564,ENST00000440261,ENST00000448461						74
chr3	48302303	48302429	+		chr3	48317680	48318089	+	7159	
				ENST00000296449,ENST00000438782,ENST00000452691,ENST00000366429						18
chr3	49249214	49249269	+		chr3	49257041	49257082	+	7160	
				ENST00000351842,ENST00000265560,ENST00000416417,ENST00000415188						231
chr3	49362196	49362135	-		chr3	49360924	49360871	-	7161	
				ENST00000442092,ENST00000266022,ENST00000443081,ENST00000422955,ENST00000454079						22,544,412,5
				,ENST00000425608,ENST00000434592,ENST00000446471						19
chr3	50085687,5	50085752	+		chr3	50089169	50089500	+	7162-7165	
				ENST00000414301,ENST00000450338,ENST00000413852,ENST00000002829,ENST00000434342						152,84,116
chr3	50211664,5	50211783	+	,ENST00000420831	chr3	50211976	50212076	+	7166-7168	
				ENST00000447092,ENST00000357750,ENST00000395139,ENST00000442581						337
chr3	50356476	50356387	-		chr3	50350070	50349064	-	7169	
				ENST00000447092,ENST00000357750,ENST00000395139,ENST00000442581						337
chr3	50356476	50356387	-		chr3	50350174	50349064	-	7170	

Table 9

				ENST00000231749,ENST00000360165,ENST000					67,24
chr3	50382663,5	50382555	-	00442887	chr3	50381909	50381743	-	7171-7172
chr3	51112787	51112871	+	ENST00000266037	chr3	51116215	51116266	+	7173 183
chr3	51399958	51400105	+	ENST00000266037	chr3	51405553	51407000	+	7174 1764
chr3	51423639	51423766	+	ENST00000528157,ENST00000446668	chr3	51424917	51425063	+	7175-7176 74,69
chr3	51971334	51971208	-	ENST00000232888	chr3	51970958	51970906	-	7177 172
chr3	52409256	52409429	+	ENST00000420323	chr3	52409586	52409713	+	7178 2386
chr3	52549439	52549522	+	ENST00000321725	chr3	52549919	52549924	+	7179 1316
				ENST00000423431,ENST00000233025,ENST000					10,99,32
chr3	52740690,53	52740719	+	00602728	chr3	52748313	52748345	+	7180-7182
				ENST00000233027,ENST00000535191,ENST000					811,722,765
chr3	52771735	52771602	-	00383721,ENST00000461689	chr3	52747012	52746289	-	7183-7185
				ENST00000478843,ENST00000394729,ENST000					38
				00330452,ENST00000487897,ENST00000464818					
chr3	53212439	53212553	+		chr3	53213269	53213340	+	7186
				ENST00000350061,ENST00000288139,ENST000					972,992,665
chr3	53777038	53777144	+	00422281,ENST00000481478	chr3	53778358	53778383	+	7187-7189
chr3	53894157	53894255	+	ENST00000288167,ENST00000494338	chr3	53894666	53897334	+	7190-7191 315,299
				ENST00000295951,ENST00000295952,ENST000					66
				00383718,ENST00000428312,ENST00000449503					
chr3	57743379	57743576	+		chr3	57806340	57806732	+	7192
				ENST00000295951,ENST00000295952,ENST000					173
				00383718,ENST00000428312,ENST00000449503					
chr3	57835481	57835543	+		chr3	57835762	57835912	+	7193
				ENST00000490882,ENST00000295956,ENST000					2430,2399,2
				00358537,ENST00000429972,ENST00000348383					375,2388,23
				,ENST00000493452,ENST00000419752					58,2206,221
chr3	58148881	58149057	+		chr3	58153462	58153510	+	7194-7200 9
				ENST00000476844,ENST00000492590,ENST000					93
chr3	59997126	59997097	-	00468189,ENST00000341848	chr3	59970493	59970427	-	7201
chr3	62063837	62063932	+	ENST00000295874,ENST00000474889	chr3	62095923	62095934	+	7202 205
				ENST00000478300,ENST00000468110,ENST000					69,49,60
				00295894,ENST00000498449,ENST00000479198					
chr3	63466508	63466632	+	,ENST00000460711,ENST00000465156	chr3	63481580	63481807	+	7203-7205
				ENST00000398590,ENST00000295900,ENST000					131
chr3	63898833	63898901	+	00487717,ENST00000538065	chr1	106758927	106759273	+	7206
				ENST00000295902,ENST00000564377,ENST000					48,104,140
chr3	64184603,64	64184460	-	00498162,ENST00000569824	chr3	64153981	64153948	-	7207-7209
				ENST00000354883,ENST00000336733,ENST000					235,147
chr3	66420953	66421026	+	00413054	chr3	66426156	66427170	+	7210-7211
				ENST00000383701,ENST00000295571,ENST000					277,176
chr3	69047265	69047162	-	00540764	chr3	69041408	69041250	-	7212-7213
				ENST00000383701,ENST00000295571,ENST000					277,176
chr3	69047265	69047162	-	00540764	chr3	69042871	69042828	-	7214-7215
				ENST00000383701,ENST00000295571,ENST000					277,176
chr3	69047265	69047162	-	00540764	chr3	69043006	69042828	-	7216-7217
				ENST00000383701,ENST00000295571,ENST000					206,1,105
				00403140,ENST00000540955,ENST00000540764					
chr3	69053633,69	69053529	-		chr3	69041023	69040896	-	7218-7220
				ENST00000383701,ENST00000295571,ENST000					206,1,105
				00403140,ENST00000540955,ENST00000540764					
chr3	69053633,69	69053529	-		chr3	69041026	69040896	-	7221-7223
				ENST00000477374,ENST00000478296,ENST000					92,42,85
				00422325,ENST00000400845,ENST00000468296					
chr3	75790519	75790427	-	,ENST00000471541	chr3	75728302	75727934	-	7224-7226
				ENST00000436010,ENST00000464233,ENST000					266,305
chr3	78766563	78766425	-	00495273,ENST00000467549	chr3	78765512	78765375	-	7227-7228
chr3	85008759	85008819	+	ENST00000383699,ENST00000407528	chr3	85088184	85088216	+	7229 20
chr3	85008759	85008819	+	ENST00000383699,ENST00000407528	chr3	85088186	85088216	+	7230 20
chr3	8705597	8705430	-	ENST00000455157	chr3	8700699	8700590	-	7231 64
				ENST00000427329,ENST00000264926,ENST000					98,461,78
chr3	8932135	8932073	-	00429790	chr3	8894632	8894611	-	7232-7234
chr3	9106265	9106080	-	ENST00000383836,ENST00000360413	chr3	9104566	9104110	-	7235 224
				ENST00000478400,ENST00000394222,ENST000					18,43
				00471138,ENST00000460371,ENST00000335438					
chr3	93714734,94	93714788	+	,ENST00000475206	chr3	93716091	93716131	+	7236-7237
				ENST00000478400,ENST00000335438,ENST000					59,84,89
chr3	93715407,94	93715528	+	00475206	chr3	93715924	93716131	+	7238-7240
				ENST00000478400,ENST00000335438,ENST000					59,84,89
chr3	93715407,94	93715528	+	00475206	chr3	93716091	93716131	+	7241-7243
				ENST00000535334,ENST00000303097,ENST000					238,234,341,
				00394222,ENST00000539730,ENST00000471138					62
chr3	93761859,94	93762084	+		chr3	93762529	93764304	+	7244-7247
				ENST00000535334,ENST00000303097,ENST000					238,234,341,
				00394222,ENST00000539730,ENST00000471138					62
chr3	93761859,94	93762084	+		chr3	93762931	93764304	+	7248-7251
				ENST00000402198,ENST00000402466,ENST000					359,261,378,
				00406341,ENST00000407969,ENST00000302463					26,25
chr3	9483812,94838	9483929	+	,ENST00000399686,ENST00000413704	chr3	9484611	9484731	+	7252-7256
				ENST00000470610,ENST00000389672,ENST000					371,277,315
chr3	96706174	96706837	+	00542517,ENST00000506569	chr3	96818427	96818783	+	7257-7259
chr3	9804736	9804598	-	ENST00000256460,ENST00000411972	chr3	9803901	9803691	-	7260-7261 143,99

chr3	98299614	98299536	-	ENST00000264193	chr3	98292414	98292298	-	7262	452
				ENST00000414814,ENST00000452597,ENST000						16,159,13
				00419081,ENST00000438596,ENST00000417065						
				,ENST00000439814,ENST00000418745,ENST000						
				00430718,ENST00000427220,ENST00000426895						
				,ENST00000547186,ENST00000426827,ENST000						
				00431204,ENST00000422738,ENST00000430390						
chr3	9852346,98523	9852393	+		chr3	9852561	9853577	+	7263-7265	
				ENST00000326840,ENST00000326857,ENST000						190,84
chr3	98568442	98568305	-	00449482	chr3	98552616	98550195	-	7266-7267	
				ENST00000326840,ENST00000326857,ENST000						190,84
chr3	98568442	98568305	-	00449482	chr3	98553040	98553013	-	7268-7269	
				ENST00000326840,ENST00000326857,ENST000						190,84
chr3	98568442	98568305	-	00449482	chr3	98555186	98555059	-	7270-7271	
				ENST00000326840,ENST00000326857,ENST000						190,84
chr3	98568442	98568305	-	00449482	chr3	98558179	98558147	-	7272-7273	
				ENST00000326840,ENST00000326857,ENST000						144,38
chr3	98600611,99	98600384	-	00449482	chr3	98576085	98575795	-	7274-7275	
chr3	98620170	98619966	-	ENST00000326840,ENST00000326857	chr3	98586282	98584565	-	7276	68
chr3	9932407	9932495	+	ENST00000307768	chr3	9934493	9934566	+	7277	29
chr3	99536824	99536887	+	ENST00000421999,ENST00000491299	chr3	99635163	99635281	+	7278	21
chr4	100787191	100787278	+	ENST00000296414,ENST00000512369	chr4	100793382	100793408	+	7279	258
				ENST00000512215,ENST00000394854,ENST000						86,4,36
				00323055,ENST00000394853,ENST00000492351						
chr4	102117273,102	102117073	-	,ENST00000529324,ENST00000525819	chr4	102104428	102104243	-	7280-7282	
chr4	103180671	103180612	-	ENST00000424970	chr4	103170788	103170537	-	7283	442
chr4	103180671	103180612	-	ENST00000424970	chr4	103178778	103178761	-	7284	442
chr4	103556202	103555945	-	ENST00000226578,ENST00000505239	chr4	103554634	103554592	-	7285-7286	805,748
chr4	103610841	103610731	-	ENST00000226578,ENST00000505239	chr4	103600866	103600432	-	7287-7288	320,263
chr4	103635718	103635595	-	ENST00000226578,ENST00000505239	chr4	103623787	103618513	-	7289-7290	224,167
chr4	103790242	103790344	+	ENST00000273986,ENST00000574446	chr4	103795340	103795643	+	7291	34
chr4	103790242	103790344	+	ENST00000273986,ENST00000574446	chr4	103795667	103795860	+	7292	34
chr4	103790242	103790344	+	ENST00000273986,ENST00000574446	chr4	103795688	103795860	+	7293	34
chr4	103790242	103790344	+	ENST00000273986,ENST00000574446	chr4	103795768	103795860	+	7294	34
chr4	103790537	103790612	+	ENST00000503643	chr4	103795340	103795643	+	7295	25
chr4	103790537	103790612	+	ENST00000503643	chr4	103795667	103795860	+	7296	25
				ENST00000273980,ENST00000432496,ENST000						857,794,818
				00361687,ENST00000394706,ENST00000394708						
chr4	107016798	107016639	-		chr4	106939916	106939648	-	7297-7299	
				ENST00000273980,ENST00000432496,ENST000						857,794,818
				00361687,ENST00000394706,ENST00000394708						
chr4	107016798	107016639	-		chr4	107010762	107010593	-	7300-7302	
				ENST00000273980,ENST00000432496,ENST000						857,794,818
				00361687,ENST00000394706,ENST00000394708						
chr4	107016798	107016639	-		chr4	107012902	107012545	-	7303-7305	
				ENST00000273980,ENST00000432496,ENST000						356,293,317,
				00361687,ENST00000394706,ENST00000394708						95
chr4	107165921	107165783	-	,ENST00000508666	chr4	107164181	107163868	-	7306-7309	
				ENST00000273980,ENST00000432496,ENST000						95,356,293,3
				00361687,ENST00000394706,ENST00000394708						17
chr4	107165921	107165783	-	,ENST00000508666	chr4	107165141	107164850	-	7310-7313	
chr4	107237705	107237751	+	ENST00000394701	chr4	107241905	107241930	+	7314	15
chr4	107237705	107237751	+	ENST00000394701	chr4	107242334	107243452	+	7315	15
				ENST00000504968,ENST00000399100,ENST000						527,461,496
chr4	110415771	110416012	+	00265175	chr4	110421003	110421417	+	7316-7318	
				ENST00000504968,ENST00000399100,ENST000						527,461,496
chr4	110415771	110416012	+	00265175	chr4	110421050	110421417	+	7319-7321	
				ENST00000504968,ENST00000399100,ENST000						527,461,496
chr4	110415771	110416012	+	00265175	chr4	110421060	110421417	+	7322-7324	
chr4	110481494	110481592	+	ENST00000394650	chr4	110524267	110525556	+	7325	33
				ENST00000506730,ENST00000382968,ENST000						36
				00433731,ENST00000511620,ENST00000508428						
chr4	1107252	1107144	-	,ENST00000510715,ENST00000333673	chr4	1101132	1100845	-	7326	
				ENST00000394607,ENST00000302274,ENST000						124
chr4	110980910	110980759	-	00506625	chr4	110973259	110973257	-	7327	
chr4	113483641	113483527	-	ENST00000505019,ENST00000445413	chr4	113482420	113482332	-	7328-7329	1565,463
chr4	115891740,1	115891586	-	ENST00000264363,ENST00000504854	chr4	115880513	115880491	-	7330-7331	407,28
chr4	115998192	115997215	-	ENST00000264363	chr4	115989211	115988900	-	7332	326
				ENST00000280551,ENST00000379735,ENST000						432,433,63
chr4	119686072	119685957	-	00511481	chr4	119681765	119681309	-	7333-7335	
chr4	120085366	120085549	+	ENST00000307128	chr4	120095998	120096306	+	7336	186
chr4	120085366	120085549	+	ENST00000307128	chr4	120096007	120096306	+	7337	186
				ENST00000264808,ENST00000428209,ENST000						59
chr4	121828712	121828629	-	00515109,ENST00000394435	chr4	121802550	121801537	-	7338	
chr4	123747931,1	123748507	+	ENST00000264498,ENST00000608478	chr4	123760129	123760329	+	7339-7340	192,59
chr4	124011734	124011860	+	ENST00000274008	chr4	124027233	124027586	+	7341	780
chr4	128842926	128842679	-	ENST00000296468,ENST00000513559	chr4	128842353	128842250	-	7342-7343	450,405
chr4	128886288	128886227	-	ENST00000296468	chr4	128884810	128884536	-	7344	20
				ENST00000281142,ENST00000434680,ENST000						34,11
				00439369,ENST00000503215,ENST00000506368						
chr4	130003528,1	130003461	-	,ENST00000511426,ENST00000503401	chr4	129994432	129994338	-	7345-7346	

Table 9

				ENST00000281142,ENST00000434680,ENST00000439369,ENST00000503215,ENST00000506368						34,11
chr4	130003528,1	130003461	-	,ENST00000511426,ENST00000503401	chr4	130001955	130001933	-	7347-7348	
chr4	130030628	130030827	+	ENST00000281146,ENST00000502887,ENST00000425929	chr4	130052104	130052164	+	7349	164
chr4	140046483	140046318	-	ENST00000394235,ENST00000265495,ENST00000379550,ENST00000511184	chr4	140012927	140012649	-	7350	79
chr4	140222932	140222985	+	ENST00000296543,ENST00000398947	chr4	140246488	140246654	+	7351	18
chr4	140325552	140325644	+	ENST00000515576	chr4	140366503	140368812	+	7352	71
chr4	141456887,1	141456984	+	ENST00000323570,ENST00000502397,ENST00000513606	chr4	141457438	141457498	+	7353-7354	89,12
chr4	141974880	141974820	-	ENST00000379512,ENST00000420921	chr4	141973076	141973034	-	7355	20
chr4	143067149	143066993	-	ENST00000513000,ENST00000262992,ENST00000308502,ENST00000508116,ENST00000509777,ENST00000511838,ENST00000510812,ENST00000514525	chr4	143057505	143057411	-	7356-7358	573,388,444
chr4	144451611	144451679	+	ENST00000283131	chr4	144455322	144455438	+	7359	386
chr4	144801662	144801564	-	ENST00000358615,ENST00000506264,ENST00000437468	chr4	144762206	144762101	-	7360	45
chr4	144826660	144826624	-	ENST00000358615,ENST00000506264,ENST00000437468	chr4	144762206	144762101	-	7361	12
chr4	145038092	145038007	-	ENST00000360771,ENST00000324022,ENST00000535709,ENST00000512064,ENST00000503627,ENST00000504786,ENST00000512789	chr4	145019678	145019665	-	7362-7368	119,86,93,106,74,87,54
chr4	146467855	146468076	+	ENST00000302085,ENST00000394092,ENST00000515385	chr4	146470093	146470517	+	7369	332
chr4	146617711	146617784	+	ENST00000438731,ENST00000511965	chr4	146619981	146620424	+	7370-7371	102,62
chr4	151719294	151719233	-	ENST00000535741,ENST00000510413,ENST00000357115,ENST00000509835,ENST00000507224	chr4	151703761	151703453	-	7372-7373	1860,512
chr4	153573728	153573690	-	ENST00000304385,ENST00000504064	chr4	153573118	153570950	-	7374	121
chr4	154197045,2	154197282	+	ENST00000441616,ENST00000437508,ENST00000338700,ENST00000433687	chr4	154212721	154212728	+	7375-7377	124,151,38
chr4	154533404	154533552	+	ENST00000440693,ENST00000409663,ENST00000409959,ENST00000240487	chr4	154534436	154535020	+	7378-7381	1105,1188,1189,966
chr4	154641456	154641336	-	ENST00000347063,ENST00000274068,ENST00000508248	chr4	154640419	154640119	-	7382-7384	210,82,150
chr4	154669938,2	154669797	-	ENST00000347063,ENST00000274068,ENST00000503694	chr4	154666879	154666742	-	7385-7386	82,5
chr4	154672627	154672590	-	ENST00000347063,ENST00000513656,ENST00000503694,ENST00000507512	chr4	154666879	154666742	-	7387	34
chr4	156698702,2	156698794	+	ENST00000505154,ENST00000502959,ENST00000505764,ENST00000507146,ENST00000264424,ENST00000503520,ENST00000513437	chr4	156701609	156701730	+	7388-7390	31,99,79
chr4	15724498	15724557	+	ENST00000265016,ENST00000382346,ENST00000505785,ENST00000514445,ENST00000514989	chr4	15775730	15775946	+	7391-7395	283,298,179,133,91
chr4	15780038	15780270	+	ENST00000502843,ENST00000226279	chr4	15791988	15792662	+	7396	77
chr4	159165448	159165501	+	ENST00000296529	chr4	159166476	159166523	+	7397	318
chr4	159601680,2	159601759	+	ENST00000512251,ENST00000511912	chr4	159602723	159603073	+	7398-7399	38,58
chr4	159816902	159817017	+	ENST00000264433,ENST00000379346	chr4	159875119	159875276	+	7400-7401	1088,1111
chr4	16193146,1619	16192984	-	ENST00000405303,ENST00000399920,ENST00000304584,ENST00000513782	chr4	16192260	16191961	-	7402-7405	204,93,30,41
chr4	162680683	162680563	-	ENST00000306100,ENST00000379164,ENST00000536695,ENST00000427802	chr4	162604231	162604197	-	7406-7407	242,241
chr4	162841804	162841556	-	ENST00000306100,ENST00000379164,ENST00000536695,ENST00000427802	chr4	162838406	162838100	-	7408-7409	136,135
chr4	164048267	164048214	-	ENST00000422287	chr4	164025468	164025039	-	7410	362
chr4	164048267	164048214	-	ENST00000422287	chr4	164032767	164032606	-	7411	362
chr4	164428185	164428297	+	ENST00000509657,ENST00000358572,ENST00000513272,ENST00000513134,ENST00000508268	chr4	164433208	164433449	+	7412-7413	77,38
chr4	166129029	166129054	+	ENST00000226725,ENST00000511305	chr4	166139177	166139897	+	7414	8
chr4	169847364	169847522	+	ENST00000335742,ENST00000512127,ENST00000507735	chr4	169875834	169876505	+	7415-7417	997,773,668
chr4	169923356	169923222	-	ENST00000306193,ENST00000504480,ENST00000504561	chr4	169849828	169849603	-	7418-7419	178,185
chr4	170482705	170482631	-	ENST00000439128,ENST00000511633,ENST00000510533,ENST00000507142	chr4	170482305	170482098	-	7420	422
chr4	170679028	170678981	-	ENST00000393381	chr4	170677421	170677271	-	7421	16
chr4	171008399	171008267	-	ENST00000337664,ENST00000509167,ENST00000515480,ENST00000353187,ENST00000510340,ENST00000507375,ENST00000502392	chr4	171005961	171005597	-	7422-7424	123,127,114
chr4	1737458	1737561	+	ENST00000313288	chr4	1738621	1738655	+	7425	582
chr4	17625224	17625417	+	ENST00000237380,ENST00000503945	chr4	17655595	17655808	+	7426-7427	177,174
chr4	177046255,2	177046506	+	ENST00000508596,ENST00000393643,ENST00000280190,ENST00000507824	chr4	177048057	177048210	+	7428-7430	263,287,270
chr4	17844925	17845004	+	ENST00000251496	chr4	17857257	17857293	+	7431	1001
chr4	183652031	183652292	+	ENST00000511685,ENST00000406950	chr4	183657537	183657650	+	7432	989
chr4	184233494	184233621	+	ENST00000403733,ENST00000513834,ENST00000448232,ENST00000504005,ENST00000508747	chr4	184262819	184263096	+	7433-7437	1170,1121,1194,852,298

				ENST00000326397,ENST00000327570,ENST000					160,65,97
chr4	184570721	184570604	-	00510968,ENST00000512740	chr4	184570121	184569994	-	7438-7440
chr4	185138972	185138732	-	ENST00000296741	chr4	185125278	185125055	-	7441 80
				ENST00000281453,ENST00000510146,ENST000					265
chr4	185631334	185631226	-	00541971	chr4	185624172	185623749	-	7442
chr4	186209166	186209236	+	ENST00000504273,ENST00000264694	chr4	186214280	186214719	+	7443 223
chr4	186231789	186231970	+	ENST00000504273,ENST00000264694	chr4	186240058	186240231	+	7444 284
chr4	186231789	186231970	+	ENST00000504273,ENST00000264694	chr4	186240061	186240231	+	7445 284
				ENST00000514247,ENST00000264689,ENST000					27,21
				00510755,ENST00000502428,ENST00000505357					
chr4	186343717,2	186343639	-		chr4	186341082	186340753	-	7446-7447
chr4	187549518	187549308	-	ENST00000441802	chr4	187543973	187543930	-	7448 1603
				ENST00000508803,ENST00000514045,ENST000					470,64
				00353275,ENST00000382892,ENST00000382891					
				,ENST00000420906,ENST00000312087,ENST000					
				00382895,ENST00000503128,ENST00000398261					
chr4	1919868,192	1920350	+	,ENST00000511904	chr4	1931643	1931653	+	7449-7450
				ENST00000503823,ENST00000504154,ENST000					900,908,912,
				00273739,ENST00000503837,ENST00000511508					904,109,38
chr4	20555428,21	20555591	+	,ENST00000509941	chr4	20559186	20560248	+	7451-7456
				ENST00000471979,ENST00000503585,ENST000					203,105,150
				00360916,ENST00000295290,ENST00000444671					
				,ENST00000502374,ENST00000538990,ENST000					
				00513590,ENST00000514292,ENST00000506702					
				,ENST00000507634,ENST00000513459,ENST000					
chr4	20715055	20715162	+	00467997,ENST00000511089	chr4	20716747	20717056	+	7457-7459
chr4	24914501	24914439	-	ENST00000504487,ENST00000502801	chr4	24912765	24912708	-	7460 21
				ENST00000399878,ENST00000264868,ENST000					985,950,832,
				00502949,ENST00000510448,ENST00000507618					11,76
chr4	25767057,26	25766948	-		chr4	25761855	25761540	-	7461-7465
				ENST00000512351,ENST00000510778,ENST000					50,87,64,49,
				00506956,ENST00000512671,ENST00000345843					51,29
				,ENST00000342295,ENST00000361572,ENST000					
				00348160,ENST00000355476,ENST00000513182					
				,ENST00000507561,ENST00000514730,ENST000					
				00507574,ENST00000514675,ENST00000515573					
				,ENST00000511546,ENST00000504907,ENST000					
chr4	26407797,26	26407892	+	00342320,ENST00000504938	chr4	26415671	26415797	+	7466-7471
				ENST00000512840,ENST00000264866,ENST000					166,197,132
chr4	26661219	26661329	+	00505206,ENST00000511789	chr4	26664486	26665044	+	7472-7474
chr4	26689967	26690029	+	ENST00000264866,ENST00000511789	chr4	26691104	26693414	+	7475-7476 318,253
chr4	26750033	26750148	+	ENST00000264866,ENST00000511789	chr4	26765925	26766271	+	7477-7478 478,413
				ENST00000545951,ENST00000382839,ENST000					1193,1234,1
				00324666,ENST00000502458,ENST00000505311					215
chr4	2717750	2717831	+		chr4	2722102	2722391	+	7479-7481
chr4	28372431	28372322	-	ENST00000507759	chr4	28358343	28358045	-	7482 70
chr4	28394926	28394826	-	ENST00000507759,ENST00000515720	chr4	28319160	28318916	-	7483 33
				ENST00000264758,ENST00000446856,ENST000					170
				00398125,ENST00000513328,ENST00000503455					
				,ENST00000355842,ENST00000398123,ENST000					
chr4	2886242	2886393	+	00398129	chr4	2888303	2888408	+	7484
chr4	289322	289227	-	ENST00000419098	chr4	240768	240701	-	7485 75
				ENST00000416614,ENST00000314262,ENST000					733
chr4	2943456	2943309	-	00502735,ENST00000398071	chr4	2942395	2942332	-	7486
				ENST00000398051,ENST00000398052,ENST000					215,247
chr4	3015415	3015555	+	00345167,ENST00000504933	chr4	3019456	3019801	+	7487-7488
chr4	3201459	3201666	+	ENST00000355072	chr4	3204709	3204750	+	7489 1858
chr4	3219492	3219679	+	ENST00000355072	chr4	3220215	3220371	+	7490 2414
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3376964	3377092	+	7491-7492
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3376976	3377092	+	7493-7494
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3376989	3377092	+	7495-7496
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3377002	3377092	+	7497-7498
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3377014	3377092	+	7499-7500
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3377027	3377092	+	7501-7502
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3377040	3377092	+	7503-7504
				ENST00000543385,ENST00000336727,ENST000					666,64
				00344733,ENST00000514268,ENST00000382788					
chr4	3344664	3344780	+	,ENST00000306648	chr4	3377053	3377092	+	7505-7506

Table 9

			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377065	3377092	+	7507-7508	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377078	3377092	+	7509-7510	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377140	3377292	+	7511-7512	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377152	3377292	+	7513-7514	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377202	3377292	+	7515-7516	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377215	3377292	+	7517-7518	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377227	3377292	+	7519-7520	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377240	3377292	+	7521-7522	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377252	3377292	+	7523-7524	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377265	3377292	+	7525-7526	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377278	3377292	+	7527-7528	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377290	3377292	+	7529-7530	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377328	3377504	+	7531-7532	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377340	3377504	+	7533-7534	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377353	3377504	+	7535-7536	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377365	3377504	+	7537-7538	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377378	3377504	+	7539-7540	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377391	3377504	+	7541-7542	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377404	3377504	+	7543-7544	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377417	3377504	+	7545-7546	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377429	3377504	+	7547-7548	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377442	3377504	+	7549-7550	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377454	3377504	+	7551-7552	
			ENST00000543385,ENST00000336727,ENST000 00344733,ENST00000514268,ENST00000382788						666,64
chr4	3344664	3344780	+,ENST00000306648	chr4	3377467	3377504	+	7553-7554	
chr4	3371995	3372048	+,ENST00000338806	chr4	3376989	3377092	+	7555	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377027	3377092	+	7556	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377040	3377092	+	7557	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377065	3377092	+	7558	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377152	3377292	+	7559	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377202	3377292	+	7560	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377227	3377292	+	7561	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377265	3377292	+	7562	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377278	3377292	+	7563	18
chr4	3371995	3372048	+,ENST00000338806	chr4	3377290	3377292	+	7564	18

Table 9

chr4	3371995	3372048	+	ENST00000338806	chr4	3377340	3377504	+	7565	18
chr4	3371995	3372048	+	ENST00000338806	chr4	3377404	3377504	+	7566	18
chr4	3371995	3372048	+	ENST00000338806	chr4	3377429	3377504	+	7567	18
chr4	3371995	3372048	+	ENST00000338806	chr4	3377467	3377504	+	7568	18
				ENST00000389653,ENST00000340083,ENST000						110
chr4	3475133	3475363	+	00507039	chr4	3476126	3476266	+	7569	
chr4	36109315	36109187	-	ENST00000303965	chr4	36095468	36095258	-	7570	1428
chr4	366453	366593	+	ENST00000512994,ENST00000240499	chr4	371812	371977	+	7571	122
chr4	39000529	39000260	-	ENST00000381938	chr4	38996044	38995758	-	7572	119
chr4	39000529	39000344	-	ENST00000381938,ENST00000344606	chr4	38996044	38995758	-	7573	91
chr4	39241897	39241954	+	ENST00000399820,ENST00000288634	chr4	39244161	39244282	+	7574-7575	807,647
chr4	39408570	39409394	+	ENST00000257408	chr4	39414939	39415046	+	7576	275
				ENST00000261427,ENST00000503368,ENST000						133,82
chr4	39776454	39776553	+	00445950	chr4	39777008	39777086	+	7577-7578	
chr4	40350899	40351431	+	ENST00000310169	chr4	40351856	40351869	+	7579	299
chr4	42025319	42025401	+	ENST00000264451	chr4	42031091	42031093	+	7580	203
chr4	42088099	42088139	+	ENST00000264451	chr4	42100059	42100093	+	7581	567
chr4	42122311	42122142	-	ENST00000502486,ENST00000504360	chr4	42103781	42103646	-	7582-7583	438,434
chr4	42127691	42127600	-	ENST00000502486,ENST00000504360	chr4	42103781	42103646	-	7584-7585	382,378
				ENST00000504654,ENST00000509122,ENST000						80,53,26
				00505922,ENST00000514981,ENST00000508996						
				,ENST00000507210,ENST00000264312,ENST000						
				00396448,ENST00000512236,ENST00000509164						
				,ENST00000511102,ENST00000381473,ENST000						
				00444354,ENST00000509963,ENST00000509246						
				,ENST00000506801,ENST00000503016,ENST000						
				00510824,ENST00000425583,ENST00000508293						
chr4	48850416	48850463	+	,ENST00000513391	chr4	48851097	48851341	+	7586-7588	
				ENST00000508632,ENST00000273860,ENST000						22
chr4	48906566	48906501	-	00381464,ENST00000510159	chr4	48897474	48897360	-	7589	
chr4	5053591	5053642	+	ENST00000282908,ENST00000512018	chr4	5057976	5058030	+	7590	17
				ENST00000295213,ENST00000508915,ENST000						29
				00419395,ENST00000503055,ENST00000505320						
chr4	52917871	52917957	+	,ENST00000505038	chr4	52921851	52921896	+	7591	
				ENST00000295213,ENST00000419395,ENST000						340,308
chr4	52942945	52943206	+	00505320	chr4	52944160	52944366	+	7592-7593	
chr4	54140168	54139993	-	ENST00000401642,ENST00000388940	chr4	54073229	54073041	-	7594	437
chr4	54140168	54139993	-	ENST00000401642,ENST00000388940	chr4	54122868	54121401	-	7595	437
chr4	54179930	54179803	-	ENST00000401642,ENST00000388940	chr4	54149354	54149199	-	7596	378
				ENST00000337488,ENST00000358575,ENST000						235,22
chr4	54257597	54257665	+	00507922,ENST00000507166	chr4	54264288	54264346	+	7597-7598	
chr4	56212504,56	56212724	+	ENST00000264228,ENST00000505210	chr4	56252510	56252750	+	7599-7600	73,48
chr4	56225513	56225655	+	ENST00000264228,ENST00000505210	chr4	56249084	56249136	+	7601-7602	121,96
chr4	56230241	56230438	+	ENST00000264228	chr4	56249084	56249136	+	7603	187
				ENST00000309964,ENST00000381322,ENST000						513
chr4	56315035	56314946	-	00513440	chr4	56314863	56314770	-	7604	
				ENST00000511469,ENST00000264218,ENST000						57
chr4	56496627	56496569	-	00505262,ENST00000507338	chr4	56492943	56492905	-	7605	
				ENST00000264956,ENST00000382674,ENST000						100
chr4	5720975	5721100	+	00509451	chr4	5726215	5726409	+	7606	
chr4	57272867	57272661	-	ENST00000264220,ENST00000510643	chr4	57269929	57269700	-	7607	134
chr4	57272867	57272661	-	ENST00000264220,ENST00000510643	chr4	57270117	57269700	-	7608	134
chr4	5785279	5785491	+	ENST00000264956,ENST00000382674	chr4	5794407	5795260	+	7609	592
				ENST00000381227,ENST00000431623,ENST000						468,393,461
chr4	57872982	57873168	+	00441246,ENST00000314595	chr4	57876090	57876155	+	7610-7612	
				ENST00000503569,ENST00000226760,ENST000						237,103
chr4	6293644	6293724	+	00506362	chr4	6294513	6294550	+	7613-7614	
				ENST00000255622,ENST00000496514,ENST000						709,430,69
chr4	657903	658010	+	00429163,ENST00000471824	chr4	658567	658605	+	7615-7617	
				ENST00000273854,ENST00000432638,ENST000						303
chr4	66468022	66467359	-	00354839,ENST00000511294	chr4	66464265	66464243	-	7618	
chr4	68371002	68370923	-	ENST00000273853,ENST00000513216	chr4	68364345	68363987	-	7619-7620	710,617
				ENST00000448507,ENST00000409757,ENST000						423,195,143,
				00410031,ENST00000451522,ENST00000439515						42,36
chr4	7002872	7002978	+	,ENST00000446947	chr4	7005590	7005751	+	7621-7625	
chr4	71844845	71845008	+	ENST00000309395,ENST00000396051	chr4	71846711	71846914	+	7626-7627	191,196
chr4	71844845	71845008	+	ENST00000309395,ENST00000396051	chr4	71846716	71846914	+	7628-7629	191,196
chr4	72897619	72897917	+	ENST00000308744,ENST00000344413	chr4	72934630	72934755	+	7630	99
				ENST00000362003,ENST00000470161,ENST000						87,53
				00521023,ENST00000433814,ENST00000505655						
chr4	731255	731310	+		chr4	734564	734585	+	7631-7632	
chr4	73414601	73414195	-	ENST00000286657	chr4	73307933	73307685	-	7633	168
chr4	74088744	74088691	-	ENST00000509867	chr4	74083376	74083234	-	7634	18
				ENST00000429519,ENST00000433372,ENST000						210,133,268
				00331145,ENST00000395759,ENST00000359107						
chr4	75091019	75091111	+	,ENST00000325278	chr4	75092739	75093127	+	7635-7637	
				ENST00000429519,ENST00000433372,ENST000						210,133,268
				00331145,ENST00000395759,ENST00000359107						
chr4	75091019	75091111	+	,ENST00000325278	chr4	75126829	75127291	+	7638-7640	
				ENST00000395748,ENST00000264487,ENST000						145
chr4	75314764	75314889	+	00502307	chr4	75484604	75484644	+	7641	
chr4	7533257	7533356	+	ENST00000507866,ENST00000329016	chr4	7636577	7636910	+	7642-7643	216,44

chr4	76839942	76839914	-	ENST00000286733,ENST00000602782 ENST00000513353,ENST00000341029,ENST000 00513122,ENST00000504914,ENST00000349321	chr4	76832528	76832480	-	7644-7645	207,332 23
chr4	76997043	76997111	+	,ENST00000355810,ENST00000510423	chr4	77000080	77000246	+	7646	
chr4	77135428	77135577	+	ENST00000512895	chr4	77138732	77138862	+	7647	50
chr4	77976533	77976303	-	ENST00000237654,ENST00000537948	chr4	77973429	77973108	-	7648-7649	230,216
chr4	78792898	78793009	+	ENST00000315567 ENST00000264899,ENST00000325942,ENST000	chr4	78799753	78800045	+	7650	47 36
chr4	78987139	78987170	+	00264895,ENST00000508909 ENST00000264899,ENST00000325942,ENST000	chr4	78988689	78988800	+	7651	36
chr4	78987139	78987170	+	00264895,ENST00000508909 ENST00000264899,ENST00000325942,ENST000	chr4	78992465	78992521	+	7652	712,641,554
chr4	79239964	79240140	+	00264895,ENST00000502446,ENST00000508900 ENST00000325942,ENST00000264895,ENST000	chr4	79251105	79251209	+	7653-7655	649,807
chr4	79258828	79258971	+	00508900 ENST00000325942,ENST00000264895,ENST000	chr4	79264184	79264463	+	7656-7657	649,807
chr4	79258828	79258971	+	00508900 ENST00000325942,ENST00000264895	chr4	79264311	79264463	+	7658-7659	
chr4	79308529	79308855	+	ENST00000264908,ENST00000512884,ENST000	chr4	79309817	79309977	+	7660	1325 243,204
chr4	79518473	79518568	+	00503570 ENST00000389010,ENST00000502871,ENST000	chr4	79518684	79518740	+	7661-7662	59
chr4	79697698	79697875	+	00335016 ENST00000361737,ENST00000296372,ENST000 00545242,ENST00000546334,ENST00000447017 ,ENST00000341937,ENST00000361581,ENST000 00407564,ENST00000505872,ENST00000428004	chr4	79735733	79735910	+	7663	225
chr4	8079448	8079355	-	ENST00000358105,ENST00000513920,ENST000	chr4	8079220	8079149	-	7664	111
chr4	81504247	81504337	+	00508675 ENST00000358105,ENST00000513920,ENST000	chr4	81546500	81548165	+	7665	111
chr4	81504247	81504337	+	00508675 ENST00000273920,ENST00000509635,ENST000	chr4	81684129	81684215	+	7666	215,127,69
chr4	83378068	83378191	+	00505846 ENST00000503937,ENST00000348405,ENST000 00395310,ENST00000443462,ENST00000326950 ,ENST00000432794,ENST00000448323,ENST000 00505472,ENST00000508502,ENST00000355196	chr4	83394875	83395183	+	7667-7669	31,842,881,8 76,912,645
chr4	83763634	83763616	-	,ENST00000264405,ENST00000505984 ENST00000503391,ENST00000503915,ENST000 00311469,ENST00000439031,ENST00000311461	chr4	83762041	83761706	-	7670-7675	140,37,190,1 53
chr4	84200267,84	84200101	-	ENST00000314167,ENST00000511163,ENST000	chr4	84195670	84195648	-	7676-7679	1278,1199,4
chr4	843856	843680	-	00511980 ENST00000321945,ENST00000475656,ENST000	chr4	840510	840459	-	7680-7682	33 29
chr4	84406225	84406139	-	00511801	chr4	84404701	84404422	-	7683	
chr4	8456469	8456540	+	ENST00000513449,ENST00000389737	chr4	8459245	8460178	+	7684-7685	160,401
chr4	85738738	85738545	-	ENST00000322366,ENST00000295888	chr4	85737303	85737203	-	7686	629
chr4	8601180	8601212	+	ENST00000360986,ENST00000515606 ENST00000427191,ENST00000436978,ENST000 00316707,ENST00000411767,ENST00000511467	chr4	8601621	8601708	+	7687	40 2096,2120,1 924,2115
chr4	87707001	87707089	+	ENST00000395146,ENST00000507468,ENST000	chr4	87712315	87715256	+	7688-7691	12
chr4	87869686	87869723	+	00503477 ENST00000395146,ENST00000507468,ENST000	chr4	87903007	87903575	+	7692	12
chr4	87869686	87869723	+	00503477 ENST00000395146,ENST00000507468,ENST000	chr4	87909621	87911314	+	7693	12
chr4	87869686	87869723	+	00503477 ENST00000395146,ENST00000507468,ENST000	chr4	87916764	87917873	+	7694	12
chr4	87869686	87869723	+	00503477 ENST00000395146,ENST00000507468,ENST000	chr4	87916834	87917873	+	7695	12
chr4	87869686	87869723	+	00503477 ENST00000302174,ENST00000440591,ENST000	chr4	87921408	87921750	+	7696	35
chr4	88344058	88344164	+	00502933	chr4	88351418	88351569	+	7697	
chr4	88940610	88940723	+	ENST00000237596 ENST00000608933,ENST00000295908,ENST000	chr4	88952237	88952506	+	7698	236 180
chr4	89198395	89198295	-	00315194,ENST00000514204	chr4	89195606	89195553	-	7699	
chr4	95255780	95255648	-	ENST00000295256	chr4	95249463	95247064	-	7700	44
chr4	981597	981737	+	ENST00000247933	chr4	992627	992751	+	7701	99
chr4	981597	981737	+	ENST00000247933	chr4	993158	993406	+	7702	99
chr4	981597	981737	+	ENST00000247933	chr4	993212	993406	+	7703	99
chr4	985613	985728	+	ENST00000514192 ENST00000264784,ENST00000506583,ENST000	chr4	993212	993406	+	7704	38 430,401
chr4	9889266	9889191	-	00309065 ENST00000509011,ENST00000380158,ENST000 00264572,ENST00000508213,ENST00000408927 ,ENST00000453712,ENST00000339360,ENST000	chr4	9888526	9888493	-	7705-7706	79,121,120
chr4	99273627	99273752	+	00408900	chr4	99283392	99283627	+	7707-7709	
chr4	995467	996056	+	ENST00000453894 ENST00000450253,ENST00000280892,ENST000 00515638,ENST00000511644,ENST00000504432	chr4	1019782	1019842	+	7710	346 38,41,61,69
chr4	99823133	99823027	-	,ENST00000505992	chr4	99814196	99814122	-	7711-7714	

Table 9

			ENST00000450253,ENST00000280892,ENST00000515638,ENST00000511644,ENST00000504432,ENST00000505992						41,61,38,69
chr4	99823133	99823027	-	chr4	99814296	99814122	-	7715-7718	
			ENST00000450253,ENST00000280892,ENST00000515638,ENST00000511644,ENST00000504432,ENST00000505992						38,41,61,69
chr4	99823133	99823027	-	chr4	99814462	99814122	-	7719-7722	
			ENST00000450253,ENST00000280892,ENST00000515638,ENST00000511644,ENST00000504432,ENST00000505992						38,41,61,69
chr4	99823133	99823027	-	chr4	99815114	99814122	-	7723-7726	
			ENST00000450253,ENST00000280892,ENST00000515638,ENST00000511644,ENST00000504432,ENST00000505992						38,41,61,69
chr4	99823133	99823027	-	chr4	99816419	99814122	-	7727-7730	
			ENST00000264784,ENST00000506583,ENST00000309065,ENST00000513129						136,107
chr4	9998565	9998405	-	chr4	9995169	9995087	-	7731-7732	
			ENST00000280326,ENST00000515390,ENST00000511700,ENST00000512975,ENST00000503454						35,67,28
chr5	10250453,1025	10250557	+	chr5	10252575	10252743	+	7733-7735	
			ENST00000321521,ENST00000358359,ENST00000414217,ENST00000509597						843,117
chr5	102509562	102509676	+	chr5	102512538	102512555	+	7736-7737	
			ENST00000321521,ENST00000358359,ENST00000414217,ENST00000509597,ENST00000511022						1185,1206,361,251
chr5	102530601	102530726	+	chr5	102531040	102531177	+	7738-7741	
			ENST00000449913,ENST00000502795,ENST00000503788,ENST00000274140						6
chr5	10354011	10354029	+	chr5	10376354	10376635	+	7742	
chr5	10381912	10382055	+	ENST00000274140	chr5	10384395	10384587	+	7743	111
chr5	10381912	10382055	+	ENST00000274140	chr5	10385292	10385426	+	7744	111
			ENST00000449913,ENST00000503788,ENST00000274140,ENST00000510792						713,656,761,459
chr5	10417382	10417516	+	chr5	10419597	10419641	+	7745-7748	
chr5	107006314	107006190	-	ENST00000333274,ENST00000509503	chr5	106764564	106764424	-	7749	41
			ENST00000359660,ENST00000542267,ENST00000496714						104,502
chr5	107684231	107684100	-	chr5	107679727	107679611	-	7750-7751	
chr5	109183358	109183491	+	ENST00000261483	chr5	109187251	109187388	+	7752	992
chr5	109202547	109202695	+	ENST00000261483	chr5	109212691	109212995	+	7753	1143
			ENST00000514515,ENST00000509025,ENST00000379671,ENST00000257435,ENST00000447165,ENST00000446294,ENST00000395634,ENST00000515855,ENST00000509979,ENST00000450761,ENST00000419114,ENST00000509427,ENST00000453526,ENST00000455559,ENST00000508870						27,71
chr5	111071204	111071127	-	chr5	110917160	110916940	-	7754-7755	
chr5	111504517	111504436	-	ENST00000261486	chr5	111494139	111493994	-	7756	644
chr5	112870002	112870104	+	ENST00000161863,ENST00000515883	chr5	112871066	112871140	+	7757	315
chr5	112891749	112891831	+	ENST00000161863,ENST00000515883	chr5	112895015	112896106	+	7758	738
chr5	112891749	112891831	+	ENST00000161863,ENST00000515883	chr5	112895408	112896106	+	7759	738
chr5	115177735	115177803	+	ENST00000316788,ENST00000506430	chr5	115200264	115201123	+	7760	23
chr5	115351325	115351462	+	ENST00000357872	chr5	115354122	115354384	+	7761	918
chr5	115469765	115469875	+	ENST00000274458,ENST00000515539	chr5	115602346	115604798	+	7762-7763	170,156
chr5	118469963	118470084	+	ENST00000311085,ENST00000539542	chr5	118473038	118473188	+	7764	792
chr5	118573017	118573109	+	ENST00000311085,ENST00000539542	chr5	118574552	118574557	+	7765-7766	2832,2853
			ENST00000256216,ENST00000515320,ENST00000510025,ENST00000504811,ENST00000414835						707,689,683,732,567,570,
chr5	118872118	118872245	+	chr5	118920110	118920113,1	+	7767-7773	445
chr5	119816899	119816988	+	ENST00000379551	chr5	119901938	119902069	+	7774	30
chr5	121330294	121330365	+	ENST00000339397	chr5	121330699	121334371	+	7775	90
			ENST00000261369,ENST00000513881,ENST00000395451,ENST00000506996,ENST00000511545						20,1
chr5	122181329,1	122181388	+	chr5	122262421	122262513	+	7776-7777	
chr5	122343377	122343440	+	ENST00000261369,ENST00000395451	chr5	122347304	122347325	+	7778-7779	168,201
			ENST00000306467,ENST00000306481,ENST00000328236,ENST00000508442						860,834
chr5	122700288	122700190	-	chr5	122692003	122690470	-	7780-7781	
			ENST00000262461,ENST00000509205,ENST00000343225						872
chr5	127497352	127497492	+	chr5	127498715	127498750	+	7782	
chr5	129039932	129040084	+	ENST00000274487	chr5	129067911	129069629	+	7783	1098
			ENST00000304043,ENST00000511475,ENST00000508495,ENST00000508488,ENST00000506908						72,18
chr5	130498369,1	130498265	-	ENST00000520028	chr5	130491431	130491284	-	7784-7785	
			ENST00000509018,ENST00000307984,ENST00000514667,ENST00000507093,ENST00000296859,ENST00000512052,ENST00000308008,ENST00000515170						1066,1071,1116,781
chr5	130788870	130788747	-	chr5	130786674	130786655	-	7786-7789	
			ENST00000401867,ENST00000379086,ENST00000166534,ENST00000360568,ENST00000379100						417
chr5	131539540	131539441	-	ENST00000379104	chr5	131536373	131536263	-	7790	
chr5	132400672	132400729	+	ENST00000304858	chr5	132401121	132401200	+	7791	55
chr5	132919087	132918956	-	ENST00000510685	chr5	132916168	132916108	-	7792	44
			ENST00000481195,ENST00000522385,ENST00000523082,ENST00000609654						104,39,91,45
chr5	133541822,1	133541613	-	chr5	133539255	133539051	-	7793-7796	4
			ENST00000609654,ENST00000520693,ENST00000519312,ENST00000265334,ENST00000523054,ENST00000521118,ENST00000520592,ENST00000523832,ENST00000435211						75,264,10
chr5	133655188,1	133655049	-	chr5	133649146	133649076	-	7797-7799	

				ENST00000265334,ENST00000521118,ENST000						120
chr5	133695782	133695588	-	00523832,ENST00000435211	chr5	133691831	133691603	-	7800	
				ENST00000282605,ENST00000361895,ENST000						284
chr5	133897890	133898057	+	00402835,ENST00000395003	chr5	133898309	133898472	+	7801	
chr5	134050714	134050851	+	ENST00000398844	chr5	134053577	134053627	+	7802	955
chr5	134305629	134305782	+	ENST00000282611	chr5	134310828	134310872	+	7803	84
chr5	134347211	134347298	+	ENST00000282611	chr5	134353211	134353242	+	7804	394
				ENST00000511689,ENST00000304332,ENST000						317,316,314,
				00312469,ENST00000423969,ENST00000510038						145
chr5	134679124	134678950	-		chr5	134675230	134675097	-	7805-7808	
chr5	13751369	13751187	-	ENST00000265104	chr5	13748791	13747006	-	7809	3737
				ENST00000355078,ENST00000302763,ENST000						251,354,109
chr5	138163204	138163407	+	00518825,ENST00000523275	chr5	137988753	137988828	+	7810-7812	
				ENST00000394817,ENST00000265195,ENST000						35,43,45
				00509534,ENST00000508639,ENST00000513453						
				,ENST00000507002,ENST00000505830,ENST000						
chr5	138463532,1	138463428	-	00505353	chr5	138459501	138459347	-	7813-7815	
chr5	139661118	139661034	-	ENST00000261813,ENST00000524074	chr5	139638531	139638087	-	7816	95
				ENST00000360839,ENST00000297183,ENST000						304,290,293
				00421134,ENST00000394723,ENST00000511151						
chr5	139820580	139820727	+	,ENST00000532219,ENST00000394722	chr5	139820971	139821470	+	7817-7819	
				ENST00000394671,ENST00000537378,ENST000						400,160,406
chr5	140023685	140023779	+	00252100	chr5	140026400	140026480	+	7820-7822	
				ENST00000394671,ENST00000537378,ENST000						456,216,462
chr5	140024158	140024325	+	00252100	chr5	140026400	140026480	+	7823-7825	
				ENST00000394671,ENST00000537378,ENST000						492,252,498
chr5	140024570	140024679	+	00252100	chr5	140026400	140026480	+	7826-7828	
chr5	140044498	140044688	+	ENST00000358337,ENST00000506393	chr5	140046629	140046654	+	7829	63
				ENST00000504156,ENST00000457527,ENST000						398,378,284,
				00431330,ENST00000504366,ENST00000448240						329,203,338,
				,ENST00000307633,ENST00000438307,ENST000						358,324,288
chr5	140056481	140056239	-	00415192,ENST00000507746	chr5	140055131	140054994	-	7830-7838	
				ENST00000389054,ENST00000520569,ENST000						1217,1163,1
				00253811,ENST00000389057,ENST00000398557						221,1211,12
				,ENST00000398562,ENST00000398566,ENST000						20,1196,121
chr5	140903796	140903710	-	00448451,ENST00000518047	chr5	140835966	140835770	-	7839-7847	2,65,1208
				ENST00000508305,ENST00000239440,ENST000						835,933,595
chr5	141044652	141044489	-	00513878	chr5	141044256	141044188	-	7848-7850	
				ENST00000274498,ENST00000378004,ENST000						512,131,84,3
				00443674,ENST00000418236,ENST00000443045						6
chr5	142437207	142437312	+		chr5	142447931	142448611	+	7851-7854	
				ENST00000394464,ENST00000343796,ENST000						394,368
				00415690,ENST00000424646,ENST00000504572						
				,ENST00000394466,ENST00000231509,ENST000						
chr5	142780404,1	142779221	-	00503201	chr5	142706779	142706620	-	7855-7856	
				ENST00000394464,ENST00000343796,ENST000						394,368
				00415690,ENST00000424646,ENST00000504572						
				,ENST00000394466,ENST00000231509,ENST000						
chr5	142780404,1	142779221	-	00503201	chr5	142733304	142732116	-	7857-7858	
				ENST00000334744,ENST00000358004,ENST000						170,158,129
				00394450,ENST00000505416,ENST00000511435						
chr5	145176110	145176005	-		chr5	145175067	145174829	-	7859-7861	
				ENST00000296702,ENST00000394421,ENST000						533,512
chr5	145851051	145851139	+	00549332	chr5	145851919	145852264	+	7862-7863	
				ENST00000340253,ENST00000296701,ENST000						320
chr5	147788687	147788780	+	00394370,ENST00000513826	chr5	147789771	147790124	+	7864	
chr5	148206395	148207568	+	ENST00000305988	chr5	148257075	148257406	+	7865	391
				ENST00000360453,ENST00000394320,ENST000						26
chr5	149109906	149109983	+	00309241	chr5	149197176	149197235	+	7866	
				ENST00000360453,ENST00000394320,ENST000						899,938,874,
				00309241,ENST00000403750,ENST00000434684						625
chr5	149221819	149221940	+		chr5	149223028	149223717	+	7867-7870	
chr5	149900817	149901329	+	ENST00000523767,ENST00000261797	chr5	149907057	149907186	+	7871	171
chr5	149929240	149929349	+	ENST00000523767,ENST00000261797	chr5	149931046	149931110	+	7872-7873	751,808
				ENST00000274599,ENST00000446148,ENST000						5,21
chr5	150282717,2	150282703	-	00427179,ENST00000394226	chr5	150282128	150282026	-	7874-7875	
				ENST00000520931,ENST00000389378,ENST000						572,625,561
				00315050,ENST00000523338,ENST00000522226						
				,ENST00000518977,ENST00000521591,ENST000						
chr5	150411944	150411848	-	00523200	chr5	150373322	150373253	-	7876-7878	
				ENST00000520931,ENST00000389378,ENST000						476,529
				00315050,ENST00000523338,ENST00000522226						
				,ENST00000519339,ENST00000518977,ENST000						
				00521591,ENST00000524280,ENST00000523200						
chr5	150414628	150414563	-		chr5	150373322	150373253	-	7879-7880	
chr5	150929066	150928856	-	ENST00000261800	chr5	150928172	150928049	-	7881	1596
chr5	150929066	150928856	-	ENST00000261800	chr5	150928204	150928049	-	7882	1596
chr5	150929066	150928856	-	ENST00000261800	chr5	150928335	150928049	-	7883	1596
				ENST00000521264,ENST00000522314,ENST000						32,18,27
				00520382,ENST00000524142,ENST00000313115						
chr5	151131340,2	151131265	-	,ENST00000522710	chr5	151110038	151110027	-	7884-7886	

Table 9

				ENST00000521264,ENST00000522314,ENST00000520382,ENST00000524142,ENST00000313115,ENST00000522710						32,18,27
chr5	151131340,2	151131265	-	ENST00000521264,ENST00000522314,ENST00000520382,ENST00000524142,ENST00000313115,ENST00000522710	chr5	151110111	151110027	-	7887-7889	32,18,27
chr5	151131340,2	151131265	-	ENST00000524142,ENST00000313115,ENST00000522710	chr5	151126147	151126128	-	7890-7892	2
chr5	151138112	151138107	-	ENST00000425427,ENST00000297107,ENST00000520647,ENST00000377661	chr5	151110038	151110027	-	7893	133
chr5	153677501	153677639	+	ENST00000425427,ENST00000297107,ENST00000377661	chr5	153704062	153704139	+	7894	352,29
chr5	153765873	153765990	+	ENST00000336314,ENST00000518677,ENST00000522272	chr5	153770159	153770164	+	7895-7896	771,162,29
chr5	154183761,2	154183867	+	ENST00000517913,ENST00000447401,ENST00000337851,ENST00000524347	chr5	154184306	154184322	+	7897-7899	1
chr5	155756587	155756589	+	ENST00000517913,ENST00000435422,ENST00000447401,ENST00000337851,ENST00000524347	chr5	155756747	155757050	+	7900	64,63
chr5	155771499	155771687	+	ENST00000523175,ENST00000339252,ENST00000544197	chr5	155776819	155777256	+	7901-7902	328
chr5	156459898	156459865	-	ENST00000517951,ENST00000394020,ENST00000257527,ENST00000517905	chr5	156429918	156429891	-	7903	135,137
chr5	156957891	156957815	-	ENST00000231198	chr5	156956640	156956500	-	7904-7905	209
chr5	157162854	157162942	+	ENST00000523094,ENST00000530742,ENST00000296951,ENST00000411809,ENST00000523908,ENST00000521615	chr5	157163755	157163890	+	7906	53,319,337
chr5	157230727	157230658	-	ENST00000306675	chr5	157226889	157226705	-	7907-7909	316
chr5	159343913	159344861	+	ENST00000524050,ENST00000456329,ENST00000521424,ENST00000523662,ENST00000307063	chr5	159412678	159412697	+	7910	26,516,61
chr5	159520187,159	159520108	-	ENST00000393980,ENST00000393982,ENST00000402432	chr5	159493619	159493591	-	7911-7913	130,81
chr5	159659105	159659280	+	ENST00000302764,ENST00000517501	chr5	159661175	159661434	+	7914-7915	63
chr5	162887056	162886868	-	ENST00000513610,ENST00000513882	chr5	162886018	162885966	-	7916	616,627
chr5	16758335	16758227	-	ENST00000265293,ENST00000521089,ENST00000393895,ENST00000524228,ENST00000524038	chr5	16755572	16755270	-	7917-7918	841,803,618,167
chr5	167871499	167871590	+	ENST00000231572,ENST00000538719	chr5	167873958	167874007	+	7919-7922	274,68
chr5	167924233	167924353	+	ENST00000239231	chr5	167924952	167925272	+	7923-7924	270
chr5	167991070	167990894	-	ENST00000513610,ENST00000513882,ENST00000507288	chr5	167988952	167988948	-	7925	40,51
chr5	16877816	16877718	-	ENST00000513610,ENST00000513882,ENST00000507288	chr5	16872853	16872731	-	7926-7927	40,51
chr5	16877816	16877718	-	ENST00000513610,ENST00000513882,ENST00000507288	chr5	16875064	16874958	-	7928-7929	40,51
chr5	16877816	16877718	-	ENST00000377365	chr5	16875109	16874958	-	7930-7931	473
chr5	169308446	169308372	-	ENST00000328939,ENST00000390656,ENST00000411494,ENST00000434108	chr5	169294258	169294173	-	7932	20
chr5	169931577	169931637	+	ENST00000377360,ENST00000328939,ENST00000390656,ENST00000520740,ENST00000411494,ENST00000434108	chr5	170046379	170046402	+	7933	154,145,117,156,170
chr5	170149717	170149824	+	ENST00000523189,ENST00000389118,ENST00000519256,ENST00000519949,ENST00000522066,ENST00000522533,ENST00000520864,ENST00000518492	chr5	170152244	170152817	+	7934-7938	570,547,40
chr5	170395246,2	170395381	+	ENST00000523189,ENST00000389118,ENST00000519256,ENST00000519949,ENST00000522066,ENST00000522533,ENST00000520864,ENST00000518492	chr5	170406776	170406817	+	7939-7941	570,547,40
chr5	170395246,2	170395381	+	ENST00000523189	chr5	170451495	170451513	+	7942-7944	807
chr5	170648762	170648844	+	ENST00000517671,ENST00000296930,ENST00000521672,ENST00000351986,ENST00000393820	chr5	170653878	170653975	+	7945	174,11
chr5	170819918	170819982	+	ENST00000517671,ENST00000296930,ENST00000393820	chr5	170823718	170823980	+	7946-7947	223
chr5	170827843	170827929	+	ENST00000176763	chr5	170829818	170829959	+	7948	52
chr5	171615046	171614891	-	ENST00000393792	chr5	171601575	171601483	-	7949	102
chr5	171661362	171661126	-	ENST00000393792	chr5	171641082	171640785	-	7950	23
chr5	171710669	171710600	-	ENST00000393792	chr5	171669532	171669512	-	7951	23
chr5	171710669	171710600	-	ENST00000393792	chr5	171685722	171683984	-	7952	23
chr5	171710669	171710600	-	ENST00000393784	chr5	171702217	171702052	-	7953	214
chr5	172359439	172359539	+	ENST00000519374,ENST00000519911,ENST00000265093,ENST00000517669	chr5	172361736	172361848	+	7954	34
chr5	172410864	172410967	+	ENST00000522692,ENST00000296953,ENST00000540014,ENST00000520420	chr5	172413603	172413644	+	7955	407
chr5	172517318	172518404	+	ENST00000311086,ENST00000285908,ENST00000477985,ENST00000480951	chr5	172518806	172519112	+	7956	79,53
chr5	173043439,2	173043203	-	ENST00000443967	chr5	173012591	173012432	-	7957-7958	19
chr5	175690434	175690490	+	ENST00000443967	chr5	175697394	175697411	+	7959	24
chr5	175690434	175690505	+	ENST00000341199,ENST00000430704,ENST00000443967,ENST00000429602	chr5	175697394	175697411	+	7960	144,559,578
chr5	175723254	175723323	+		chr5	175731490	175732243	+	7961-7963	

Table 9

				ENST00000341199,ENST00000430704,ENST000					144,559,578
chr5	175723254	175723323	+	00443967,ENST00000429602	chr5	175731507	175732243	+	7964-7966
				ENST00000341199,ENST00000430704,ENST000					144,559,578
chr5	175723254	175723323	+	00443967,ENST00000429602	chr5	175860490	175861816	+	7967-7969
				ENST00000510123,ENST00000389158,ENST000					131
chr5	175812328	175812222	-	00509257	chr5	175803953	175803597	-	7970
chr5	175875409	175875471	+	ENST00000261942	chr5	175876297	175876589	+	7971 21
				ENST00000506693,ENST00000358149,ENST000					136,234,202,
				00503425,ENST00000261948,ENST00000511834					259,250
chr5	176477704,2	176477937	+	,ENST00000503039	chr5	176483617	176483930	+	7972-7976
				ENST00000427908,ENST00000423571,ENST000					107,24,97
				00439742,ENST00000513063,ENST00000513169					
chr5	176737541,2	176737427	-	,ENST00000502529	chr5	176736252	176736122	-	7977-7979
				ENST00000427908,ENST00000423571,ENST000					107,24,97
				00439742,ENST00000513063,ENST00000513169					
chr5	176737541,2	176737427	-	,ENST00000502529	chr5	176736305	176736122	-	7980-7982
				ENST00000330503,ENST00000507955,ENST000					162,144,57
chr5	176942990	176942930	-	00504781,ENST00000509576	chr5	176942368	176942292	-	7983-7985
chr5	177035911	177036015	+	ENST00000029410	chr5	177045917	177045981	+	7986 276
				ENST00000308158,ENST00000510913,ENST000					112,44,126
chr5	177657100,2	177656941	-	00323594,ENST00000476170	chr5	177653750	177653661	-	7987-7989
chr5	178293977	178294072	+	ENST00000322434,ENST00000520377	chr5	178314622	178314883	+	7990 85
				ENST00000444149,ENST00000519896,ENST000					85,96
chr5	178455033	178455128	+	00522442	chr5	178457990	178458756	+	7991-7992
chr5	178579256	178579143	-	ENST00000251582,ENST00000274609	chr5	178577988	178577899	-	7993 543
				ENST00000319449,ENST00000377001,ENST000					318,230,210,
				00393448,ENST00000437570,ENST00000393438					30
chr5	179007948	179008013	+	,ENST00000502434	chr5	179009699	179009871	+	7994-7997
				ENST00000319449,ENST00000377001,ENST000					318,230,210,
				00393448,ENST00000437570,ENST00000393438					30
chr5	179007948	179008013	+	,ENST00000502434	chr5	179009703	179009871	+	7998-8001
				ENST00000376929,ENST00000389805,ENST000					212,296
				00402874,ENST00000510187,ENST00000360718					
chr5	179260032	179260166	+		chr5	179283352	179283442	+	8002-8003
chr5	179315312	179315103	-	ENST00000355235,ENST00000356834	chr5	179311137	179311113	-	3004 418
chr5	1802435	1802488	+	ENST00000274137,ENST00000469176	chr5	1811003	1811428	+	3005 62
chr5	1802435	1802488	+	ENST00000274137,ENST00000469176	chr5	1811078	1811428	+	3006 62
chr5	1802435	1802488	+	ENST00000274137,ENST00000469176	chr5	1829396	1829621	+	3007 62
chr5	180481239	180481259	+	ENST00000376841,ENST00000327705	chr5	180482488	180482782	+	3008 302
chr5	180482433	180482453	+	ENST00000376841,ENST00000327705	chr5	180482624	180482782	+	3009 309
				ENST00000382275,ENST00000507958,ENST000					214,16
				00274170,ENST00000506372,ENST00000502796					
chr5	19721575	19721456	-	,ENST00000515257,ENST00000511273	chr5	19676077	19675049	-	8010-8011
				ENST00000264932,ENST00000504309,ENST000					256,208
chr5	228300	228448	+	00510361	chr5	229202	229819	+	8012-8013
chr5	23976106	23976159	+	ENST00000512559,ENST00000507936	chr5	24200305	24200751	+	3014 98
				ENST00000264932,ENST00000504309,ENST000					68,517,469
chr5	240473	240591	+	00510361,ENST00000515815	chr5	242726	242767	+	8015-8017
				ENST00000264932,ENST00000504309,ENST000					517,469,68
chr5	240473	240591	+	00510361,ENST00000515815	chr5	246099	246220	+	8018-8020
				ENST00000264932,ENST00000504309,ENST000					68,517,469
chr5	240473	240591	+	00510361,ENST00000515815	chr5	247614	249420	+	8021-8023
				ENST00000264932,ENST00000504309,ENST000					517,469,68
chr5	240473	240591	+	00510361,ENST00000515815	chr5	248290	249420	+	8024-8026
chr5	31267746,31	31267808	+	ENST00000514738,ENST00000265071	chr5	31283197	31283370	+	3027-8028 21,76
				ENST00000511367,ENST00000344624,ENST000					858,821
chr5	31464450	31464343	-	00442743,ENST00000513349	chr5	31459877	31459550	-	8029-8030
chr5	32061108	32061240	+	ENST00000438447,ENST00000282493	chr5	32061548	32061599	+	3031 817
				ENST00000280285,ENST00000382142,ENST000					237
chr5	32263348	32263219	-	00264934	chr5	32259699	32259611	-	8032
				ENST00000502553,ENST00000265112,ENST000					636,532,669,
				00541634,ENST00000455217,ENST00000414361					515
chr5	33463858	33463930	+		chr5	33469291	33469566	+	8033-8036
chr5	33624456	33624336	-	ENST00000504830	chr5	33619058	33618071	-	3037 714
				ENST00000504830,ENST00000352040,ENST000					163
chr5	33881585	33881224	-	00515401	chr5	33812636	33812494	-	8038
				ENST00000296589,ENST00000382102,ENST000					187
chr5	33982517	33982341	-	00509381,ENST00000345083	chr5	33980779	33980683	-	8039
				ENST00000505113,ENST00000316418,ENST000					24,2
				00510400,ENST00000515206,ENST00000504625					
chr5	344008,344	344079	+		chr5	346856	347073	+	8040-8041
				ENST00000265109,ENST00000514527,ENST000					12
				00510319,ENST00000513974,ENST00000512629					
				,ENST00000428746,ENST00000514873,ENST000					
				00508777,ENST00000503673,ENST00000504052					
				,ENST00000512305,ENST00000514036,ENST000					
				00508315,ENST00000515448,ENST00000503222					
chr5	34687025	34687060	+	,ENST00000512625	chr5	34701489	34701916	+	8042
				ENST00000342382,ENST00000303525,ENST000					452,465,497
chr5	34950275	34950447	+	00382021	chr5	34950584	34950609	+	8043-8045

Table 9

				ENST00000505113,ENST00000316418,ENST00000510400,ENST00000515206,ENST00000504625						85,81
chr5	353845	354026	+		chr5	360973	361084	+	8046-8047	
chr5	36064452	36064351	-	ENST00000282507,ENST00000504685,ENST00000515131	chr5	36062814	36061347	-	8048	65
chr5	36152873,36	36153144	+	ENST00000274254,ENST00000274255,ENST00000508514,ENST00000513151,ENST00000509692,ENST00000513263,ENST00000504386	chr5	36159875	36159949	+	8049-8050	93,37
chr5	36225714,36	36225644	-	ENST00000397338,ENST00000282512,ENST00000381937,ENST00000506945,ENST00000514504,ENST00000511088	chr5	36221059	36220834	-	8051-8052	23,186
chr5	37108573	37108395	-	ENST00000508244,ENST00000274258,ENST00000425232,ENST00000514429	chr5	37099557	37099228	-	8053-8055	3139,2037,205
chr5	37205556	37205417	-	ENST00000508244,ENST00000425232,ENST00000509849,ENST00000514429	chr5	37203572	37203157	-	8056-8058	1096,101,14 4
chr5	37443341	37443474	+	ENST00000265107,ENST00000504564	chr5	37443674	37443960	+	8059	228
chr5	37443341	37443474	+	ENST00000265107,ENST00000504564	chr5	37445668	37448051	+	8060	228
chr5	376725	376831	+	ENST00000505113,ENST00000316418,ENST00000510400	chr5	411766	411806	+	8061-8062	121,117
chr5	40681096	40681962	+	ENST00000302472	chr5	40685833	40685891	+	8063	289
chr5	40747120	40746900	-	ENST00000337702	chr5	40604138	40603958	-	8064	73
chr5	40798291,41	40798165	-	ENST00000397128,ENST00000354209,ENST00000296800	chr5	40780440	40779306	-	8065-8066	42,33
chr5	41934235	41934410	+	ENST00000296812,ENST00000281623,ENST00000509134	chr5	41935399	41935498	+	8067	299
chr5	43123311	43123412	+	ENST00000515326,ENST00000510026,ENST00000509156,ENST00000508259,ENST00000507218,ENST00000306938,ENST00000399534,ENST00000505606,ENST00000509634,ENST00000509341,ENST00000511736	chr5	43136488	43136578	+	8068	75
chr5	43123311	43123412	+	ENST00000515326,ENST00000510026,ENST00000509156,ENST00000508259,ENST00000507218,ENST00000306938,ENST00000399534,ENST00000505606,ENST00000509634,ENST00000509341,ENST00000511736	chr5	43136924	43138346	+	8069	75
chr5	43123311	43123412	+	ENST00000515326,ENST00000510026,ENST00000509156,ENST00000508259,ENST00000507218,ENST00000306938,ENST00000399534,ENST00000505606,ENST00000509634,ENST00000509341,ENST00000511736	chr5	43137895	43138346	+	8070	75
chr5	5222902	5222997	+	ENST00000511368,ENST00000274181	chr5	5229673	5229674	+	8071	567
chr5	52285299	52285362	+	ENST00000296585,ENST00000503810,ENST00000513685,ENST00000509814,ENST00000509960,ENST00000510722	chr5	52288149	52288664	+	8072	21
chr5	52899282	52899360	+	ENST00000502423,ENST00000296684,ENST00000506974,ENST00000506765	chr5	52932686	52932858	+	8073-8074	59,55
chr5	52954381	52954454	+	ENST00000296684	chr5	53020167	53021272	+	8075	141
chr5	5473671	5473861	+	ENST00000296564	chr5	5474446	5474555	+	8076	2137
chr5	5473671	5473861	+	ENST00000296564	chr5	5474783	5474821	+	8077	2137
chr5	54993786	54993674	-	ENST00000396865,ENST00000539768,ENST00000318672,ENST00000508124,ENST00000511233,ENST00000503891,ENST00000513993,ENST00000505563,ENST00000506624,ENST00000507109	chr5	54993017	54992544	-	8078	37
chr5	54993786	54993674	-	ENST00000396865,ENST00000539768,ENST00000318672,ENST00000508124,ENST00000511233,ENST00000503891,ENST00000513993,ENST00000505563,ENST00000506624,ENST00000507109	chr5	54993090	54992544	-	8079	37
chr5	59895087	59894902	-	ENST00000265036	chr5	59878641	59877460	-	8080	476
chr5	59899394	59899218	-	ENST00000265036,ENST00000453022,ENST00000545085	chr5	59878641	59877460	-	8081-8082	414,387
chr5	59934717	59934577	-	ENST00000265036,ENST00000453022,ENST00000545085	chr5	59920884	59920552	-	8083-8084	299,272
chr5	59934717	59934577	-	ENST00000265036,ENST00000453022,ENST00000545085	chr5	59925107	59924978	-	8085-8086	299,272
chr5	59934717	59934577	-	ENST00000265036,ENST00000453022,ENST00000545085	chr5	59925829	59925824	-	8087-8088	299,272
chr5	59995920	59995873	-	ENST00000265036,ENST00000453022,ENST00000512078,ENST00000512452	chr5	59991132	59990984	-	8089	16
chr5	60224786	60224691	-	ENST00000381118,ENST00000265038	chr5	60220194	60220103	-	8090	57
chr5	60224786	60224691	-	ENST00000381118,ENST00000265038	chr5	60220256	60220103	-	8091	57
chr5	60224786	60224691	-	ENST00000381118,ENST00000265038	chr5	60223193	60222265	-	8092	57
chr5	60241083,6	60241209	+	ENST00000296597,ENST00000511107,ENST00000502658	chr5	60252709	60252715	+	8093-8094	42,16
chr5	60241083,6	60241209	+	ENST00000296597,ENST00000511107,ENST00000502658	chr5	60269270	60269440	+	8095-8096	42,16
chr5	60241083,6	60241209	+	ENST00000296597,ENST00000511107,ENST00000502658	chr5	60346206	60346229	+	8097-8098	42,16
chr5	60241083	60241255	+	ENST00000511107	chr5	60252709	60252715	+	8099	57
chr5	61602300	61602363	+	ENST00000401507,ENST00000514082,ENST00000407818	chr5	61639886	61639890	+	8100	21

Table 9

			ENST00000401507,ENST00000381103,ENST000 00514082,ENST00000407818,ENST00000506857						111,91,84
chr5	61645893	61645947	+	chr5	61646463	61646752	+	8101-8103	
chr5	61833036	61833116	+	ENST00000424533,ENST00000325324,ENST000 00409296	chr5	61834341	61834542	+	8104-8105	750,79
chr5	61833036	61833116	+	ENST00000424533,ENST00000325324,ENST000 00409296	chr5	61836923	61837215	+	8106-8107	750,79
chr5	64100056	64100213	+	ENST00000381070,ENST00000508024	chr5	64126244	64126655	+	8108	312
chr5	64100056	64100213	+	ENST00000381070,ENST00000508024	chr5	64140750	64142538	+	8109	312
chr5	64587297	64587156	-	ENST00000381055,ENST00000464680	chr5	64578155	64577932	-	8110	504
chr5	64625310	64625205	-	ENST00000381055,ENST00000464680,ENST000 00536360	chr5	64619256	64618946	-	8111	407
chr5	64747447	64747302	-	ENST00000381055,ENST00000464680,ENST000 00536360	chr5	64702517	64699979	-	8112	357
chr5	64817355	64817302	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693	chr5	64783218	64783182	-	8113-8115	217,187,154
chr5	64817355	64817302	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693	chr5	64783235	64783182	-	8116-8118	217,187,154
chr5	64817355	64817302	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693	chr5	64785247	64783182	-	8119-8121	217,187,154
chr5	64817355	64817302	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693	chr5	64786115	64783182	-	8122-8124	217,187,154
chr5	64817355	64817302	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693	chr5	64803968	64803481	-	8125-8127	199,169,136,
chr5	64824405	64824279	-	,ENST00000509397 ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693 ,ENST00000505960,ENST00000515497,ENST000 00510768,ENST00000502997,ENST00000510354	chr5	64803968	64803481	-	8128-8131	111 80,50,82
chr5	64847463	64847391	-	ENST00000514814,ENST00000396679,ENST000 00242872,ENST00000508421,ENST00000510693 ,ENST00000505960,ENST00000515497,ENST000 00510768,ENST00000502997,ENST00000510354	chr5	64844919	64843957	-	8132-8134	80,50,82
chr5	64847463	64847391	-	ENST00000231524,ENST00000381018,ENST000	chr5	64844989	64843957	-	8135-8137	81
chr5	64914082	64913920	-	00274327,ENST00000505205 ENST00000399438,ENST00000438419,ENST000 00231526,ENST00000505553,ENST00000545191	chr5	64912846	64912547	-	8138	100
chr5	64933523	64933607	+	ENST00000380985,ENST00000502464,ENST000	chr5	64941352	64941649	+	8139	509,405,108
chr5	65088281	65088482	+	00509935	chr5	65093420	65093537	+	8140-8142	
chr5	66492469	66492380	-	ENST00000256447 ENST00000274192,ENST00000513117,ENST000	chr5	66488399	66488254	-	8143	30 187,131,140
chr5	6656191	6656292	+	00538824	chr5	6659718	6659735	+	8144-8146	
chr5	6751152	6751310	+	ENST00000230859	chr5	6764822	6765114	+	8147	423
chr5	6752986	6753150	+	ENST00000230859	chr5	6764822	6765114	+	8148	478
chr5	68408967	68409054	+	ENST00000396591	chr5	68410812	68410992	+	8149	178
chr5	68419026,68	68419252	+	ENST00000396591,ENST00000511158 ENST00000283006,ENST00000515001,ENST000	chr5	68422309	68422611	+	8150-8151	27,666 63,27
chr5	68487622	68487677	+	00513575,ENST00000502689 ENST00000283006,ENST00000515001,ENST000	chr5	68488367	68488495	+	8152-8153	27,63
chr5	68487622	68487677	+	00513575,ENST00000502689 ENST00000283006,ENST00000515001,ENST000	chr5	68490775	68491059	+	8154-8155	79,44
chr5	68490474	68490522	+	00513575,ENST00000502689 ENST00000506563,ENST00000256443,ENST000	chr5	68490775	68491059	+	8156-8157	6,99
chr5	68551338,69	68551355	+	00514676,ENST00000502604 ENST00000361732,ENST00000509734,ENST000 00354868,ENST00000521422,ENST00000354312 ,ENST00000345306,ENST00000512785,ENST000 00506564,ENST00000305138,ENST00000282891	chr5	68551980	68552084	+	8158-8159	169,180,4,83
chr5	68677728,69	68677884	+	,ENST00000358030,ENST00000380774 ENST00000510979,ENST00000380729,ENST000	chr5	68679799	68680004	+	8160-8163	342,285
chr5	68882081	68882183	+	00508344 ENST00000380751,ENST00000380750,ENST000	chr5	68884759	68885263	+	8164-8165	2
chr5	69321279	69321285	+	00503931,ENST00000506542 ENST00000380741,ENST00000380743,ENST000 00511812,ENST00000506734,ENST00000380742	chr5	69321774	69321813	+	8166	29,278,211,2 46
chr5	69366468,69	69366578	+	,ENST00000507458 ENST00000317633,ENST00000354833,ENST000	chr5	69416132	69416355	+	8167-8170	2
chr5	70196697	70196703	+	00513436,ENST00000504458 ENST00000351205,ENST00000503079,ENST000 00380707,ENST00000514951,ENST00000506239	chr5	70197192	70197231	+	8171	246,278,211
chr5	70241893	70242003	+	,ENST00000506163	chr5	70291605	70291817	+	8172-8174	

Table 9

			ENST00000351205,ENST00000503079,ENST00000380707,ENST00000514951,ENST00000506239,ENST00000506163						278,211,246
chr5	70241893	70242003	+	chr5	70392968	70394258	+	8175-8177	
			ENST00000351205,ENST00000503079,ENST00000380707,ENST00000514951,ENST00000506239,ENST00000506163						246,278,211
chr5	70241893	70242003	+	chr5	70416489	70416701	+	8178-8180	
chr5	70316611	70316486	-	ENST00000523981,ENST00000503719	chr5	70303694	70303537	-	8181	60
chr5	70800448	70800578	+	ENST00000358731	chr5	70802323	70802443	+	8182	790
			ENST00000380639,ENST00000308077,ENST00000503868,ENST00000510676,ENST00000536805						314,205,143,142
chr5	71648468	71648581	+		chr5	71650413	71650825	+	8183-8186	
			ENST00000296794,ENST00000287898,ENST00000513042,ENST00000545377,ENST00000437974,ENST00000426542,ENST00000296799,ENST00000512883						1387,1343,1074,307
chr5	73200183	73200230	+	chr5	73201167	73201197	+	8187-8190	
chr5	7414686	7414883	+	ENST00000338316	chr5	7482986	7483422	+	8191	136
			ENST00000241436,ENST00000352007,ENST00000503479,ENST00000510815,ENST00000514296,ENST00000515295,ENST00000514141,ENST00000380481,ENST00000504026,ENST00000508526						136,70,46
chr5	74865165,75	74865317	+	,ENST00000509126	chr5	74865772	74865999	+	8192-8194	
chr5	7520851	7521012	+	ENST00000338316	chr5	7573126	7573346	+	8195	190
chr5	76115008	76115089	+	ENST00000296677	chr5	76124660	76124954	+	8196	27
chr5	77806036	77805607	-	ENST00000515007,ENST00000380345	chr5	77803986	77803966	-	8197	143
			ENST00000264914,ENST00000396151,ENST00000565165						299
chr5	78251325	78251118	-		chr5	78215621	78215286	-	8198	
			ENST00000453514,ENST00000423041,ENST00000428308,ENST00000296783						342,338
chr5	78944885	78945013	+		chr5	78950391	78950597	+	8199-8200	
			ENST00000453514,ENST00000423041,ENST00000504233,ENST00000428308,ENST00000296783						357,353,314
chr5	78952781	78952824	+		chr5	78956624	78957290	+	8201-8203	
			ENST00000507668,ENST00000509193,ENST00000512972,ENST00000512721						412,41
chr5	79442057	79441913	-		chr5	79400584	79400188	-	8204-8205	
			ENST00000507668,ENST00000509193,ENST00000512972,ENST00000512721						412,41
chr5	79442057	79441913	-		chr5	79401228	79400791	-	8206-8207	
			ENST00000338008,ENST00000510158,ENST00000505560						1487
chr5	79770482	79770649	+		chr5	79776877	79776925	+	8208	
			ENST00000338008,ENST00000510158,ENST00000505560						1487
chr5	79770482	79770649	+		chr5	79795704	79796129	+	8209	
chr5	79783943	79783967	+	ENST00000502608,ENST00000282226	chr5	79789330	79789934	+	8210	8
chr5	79783943	79783967	+	ENST00000502608,ENST00000282226	chr5	79790872	79791367	+	8211	8
chr5	79783943	79783967	+	ENST00000502608,ENST00000282226	chr5	79795704	79796129	+	8212	8
chr5	79797611	79797736	+	ENST00000502608,ENST00000282226	chr5	79800774	79800999	+	8213	50
chr5	80083384	80083491	+	ENST00000265081	chr5	80086384	80087543	+	8214	847
			ENST00000320672,ENST00000509053,ENST00000514493,ENST00000505980,ENST00000515395						20
chr5	81046861	81046800	-		chr5	81020868	81020776	-	8215	
			ENST00000355178,ENST00000282185,ENST00000510085,ENST00000458350,ENST00000513443						36
chr5	81283390	81283497	+	,ENST00000504770,ENST00000513634	chr5	81315240	81315295	+	8216	
chr5	81605976	81606026	+	ENST00000380167,ENST00000439350	chr5	81607614	81607644	+	8217	43
chr5	819727	819640	-	ENST00000424784,ENST00000283441	chr5	815736	815711	-	8218	382
chr5	83476339	83476211	-	ENST00000296591,ENST00000380138	chr5	83471623	83471601	-	8219-8220	118,108
chr5	86564269	86564807	+	ENST00000274376,ENST00000515800	chr5	86595269	86595273	+	8221	179
			ENST00000274376,ENST00000515800,ENST00000456692,ENST00000512763,ENST00000506290						444,267,277,278
chr5	86648974	86649052	+		chr5	86650785	86652200	+	8222-8225	
			ENST00000274376,ENST00000456692,ENST00000512763,ENST00000506290						975,798,808,809
chr5	86682643	86682720	+		chr5	86685120	86685169	+	8226-8229	
			ENST00000514135,ENST00000511087,ENST00000296595,ENST00000507872						1
chr5	87564540	87564538	-		chr5	87546141	87546032	-	8230	
			ENST00000395965,ENST00000505869,ENST00000509739,ENST00000509163,ENST00000502503						369,259,222,323,286
chr5	93111949	93111865	-		chr5	93108551	93108208	-	8231-8235	
			ENST00000395965,ENST00000505869,ENST00000509739,ENST00000509163,ENST00000502503						262,152,115,216,179
chr5	93217394	93217176	-		chr5	93173120	93172685	-	8236-8240	
chr5	94830497	94830386	-	ENST00000358746	chr5	94829653	94829589	-	8241	1267
chr5	94850627	94850559	-	ENST00000358746	chr5	94849996	94849904	-	8242	901
chr5	94918620	94918902	+	ENST00000380009,ENST00000504873	chr5	94920273	94920445	+	8243	233
			ENST00000379982,ENST00000504179,ENST00000510313,ENST00000503737						541,172,122,43
chr5	95119501,95	95119667	+		chr5	95174024	95174433	+	8244-8247	
			ENST00000379982,ENST00000504179,ENST00000510313,ENST00000503737,ENST00000513091						155,75,14,12,573,204
chr5	95124466,9512	95124562	+	,ENST00000514198	chr5	95126623	95126754	+	8248-8253	
chr5	96438767	96438798	+	ENST00000509481	chr5	96448880	96449104	+	8254	10
			ENST00000262903,ENST00000518402,ENST00000518503						171,737,219
chr6	105219264	105219068	-		chr6	105213331	105212253	-	8255-8257	
chr6	105816899	105816778	-	ENST00000369110	chr6	105808007	105807963	-	8258	239
chr6	10728873	10728960	+	ENST00000541412,ENST00000229563	chr6	10730186	10730354	+	8259	95

				ENST00000379542,ENST00000473166,ENST00000463448,ENST00000460341,ENST00000480294,ENST00000473807,ENST00000461342,ENST00000475942,ENST00000379530,ENST00000463100,ENST00000473276,ENST00000481240,ENST00000467317,ENST00000379542,ENST00000475942,ENST00000467317,ENST00000478732,ENST00000467229						7
chr6	10749479	10749501	+		chr6	10829240	10829256	+	8260	
chr6	10751366,11	10751467	+	ENST00000379542,ENST00000461342,ENST00000475942,ENST00000379530,ENST00000473276,ENST00000481240,ENST00000467317,ENST00000467229	chr6	10857678	10857877	+	8261-8263	97,63,38,52
chr6	10755375	10755465	+		chr6	10760279	10760632	+	8264-8267	
chr6	10755375	10755465	+	ENST00000379542,ENST00000461342,ENST00000475942,ENST00000379530,ENST00000473276,ENST00000481240,ENST00000467317,ENST00000467229	chr6	10857678	10857877	+	8268-8271	97,63,38,52
chr6	10759172	10759294	+	ENST00000481240,ENST00000467317	chr6	10760355	10760632	+	8272-8273	104,138
chr6	10935291	10935420	+	ENST00000283141	chr6	10942238	10942536	+	8274	604
chr6	109466425,1	109466584	+	ENST00000521277,ENST00000336977,ENST00000407272,ENST00000517392,ENST00000519286,ENST00000518329,ENST00000518853,ENST00000521522,ENST00000524064,ENST00000522608,ENST00000521503,ENST00000519095,ENST00000368968,ENST00000368970,ENST00000520883,ENST00000523787,ENST00000359793	chr6	109466767	109466824	+	8275-8276	53,56 138,78,154,16,157
chr6	109471369,109	109471442	+	ENST00000521277,ENST00000336977,ENST00000407272,ENST00000517392,ENST00000519286,ENST00000518853,ENST00000521522,ENST00000524064,ENST00000519407,ENST00000519095,ENST00000520610,ENST00000368968,ENST00000522490,ENST00000523209,ENST00000368970,ENST00000520883,ENST00000523787,ENST00000359793	chr6	109472110	109472423	+	8277-8281	138,78,154,16,157
chr6	109471369,109	109471442	+		chr6	109472113	109472423	+	8282-8286	
chr6	11000397	11000320	-	ENST00000354666	chr6	10999084	10998524	-	8287	111
chr6	110736749	110736670	-	ENST00000368923,ENST00000368924,ENST00000479373	chr6	110731780	110731630	-	8288	26
chr6	110778024,110	110777741	-	ENST00000451557,ENST00000368919,ENST00000330550,ENST00000439654,ENST00000437378,ENST00000456137,ENST00000424139	chr6	110774810	110774634	-	8289-8292	94,177,143,134 57,55,7,14
chr6	110778220,110	110778103	-	ENST00000368919,ENST00000330550,ENST00000439654,ENST00000434949,ENST00000437378,ENST00000456137,ENST00000424139	chr6	110774810	110774634	-	8293-8296	
chr6	111067404,1	111067329	-	ENST00000368911,ENST00000323817,ENST00000457688,ENST00000463016	chr6	111031894	111031684	-	8297-8299	25,68,8
chr6	111067404,1	111067329	-	ENST00000368911,ENST00000323817,ENST00000457688,ENST00000463016	chr6	111031991	111031684	-	8300-8302	68,8,25
chr6	111136339	111136212	-	ENST00000368911	chr6	111106812	111106467	-	8303	42
chr6	111498415	111498868	+	ENST00000368851,ENST00000439288,ENST00000419619	chr6	111499652	111499771	+	8304-8305	199,314
chr6	111527795	111527938	+	ENST00000368851,ENST00000368850	chr6	111577260	111577302	+	8306-8307	362,48
chr6	111540017	111540245	+	ENST00000368851,ENST00000368850	chr6	111577260	111577302	+	8308-8309	438,124
chr6	11565899	11566069	+	ENST00000543875,ENST00000379426	chr6	11574408	11574492	+	8310	89
chr6	116560118	116560286	+	ENST00000319550	chr6	116562408	116562804	+	8311	417
chr6	117923451	117923167	-	ENST00000368498,ENST00000535237,ENST00000052569	chr6	117921334	117921179	-	8312	95
chr6	121447607	121447524	-	ENST00000275159,ENST00000398212	chr6	121442426	121442231	-	8313-8314	1035,994
chr6	124604151	124604288	+	ENST00000368416,ENST00000368417,ENST00000546092,ENST00000545433	chr6	124612630	124613119	+	8315-8316	64,49
chr6	125292647	125292744	+	ENST00000519565	chr6	125317721	125317745	+	8317	72
chr6	125569428	125569529	+	ENST00000304877,ENST00000534000,ENST00000368402,ENST00000368388,ENST00000527711,ENST00000528193,ENST00000532429,ENST00000534199,ENST00000392482,ENST00000524679	chr6	125575160	125575251	+	8318-8319	128,99
chr6	125574863	125574901	+	ENST00000304877,ENST00000534000,ENST00000368402,ENST00000528193,ENST00000532429	chr6	125575160	125575251	+	8320-8322	146,141,112
chr6	126329538	126329618	+	ENST00000450358,ENST00000334379,ENST00000368332,ENST00000479748,ENST00000453993	chr6	126329772	126329880	+	8323-8324	253,51
chr6	127601484	127601485	+	ENST00000368314,ENST00000476956,ENST00000356799,ENST00000610153	chr6	127603487	127603664	+	8325	0

				ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000490332,ENST00000525459						165,47
chr6	128643455,1	128643184	-		chr6	128614476	128614311	-	8326-8327	
				ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000490332,ENST00000525459						165,47
chr6	128643455,1	128643184	-		chr6	128614483	128614311	-	8328-8329	
				ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000531050,ENST00000525459						74,17
chr6	128718833,1	128718711	-		chr6	128696545	128696353	-	8330-8331	
chr6	128812994	128812877	-	ENST00000392449	chr6	128812020	128811839	-	8332	72
chr6	129786290	129786434	+	ENST00000421865	chr6	129788349	129788676	+	8333	2433
chr6	130154730	130154605	-	ENST00000368143,ENST00000438392	chr6	130153536	130153239	-	8334	106
				ENST00000431975,ENST00000541650,ENST00000368123						50,49,28
chr6	131466425,131	131466556	+		chr6	131467472	131467584	+	8335-8337	
chr6	132693830	132693747	-	ENST00000367963,ENST00000336749	chr6	132690213	132689921	-	8338-8339	221,153
chr6	134528569	134528494	-	ENST00000367858,ENST00000461976	chr6	134509600	134508253	-	8340-8341	120,89
				ENST00000341911,ENST00000316528,ENST00000442647,ENST00000367814,ENST00000527615,ENST00000525369,ENST00000528774,ENST00000533624,ENST00000534044,ENST00000534121						723,688,599,602,517,720,567,565,707
chr6	135524355	135524462	+		chr6	135526092	135526215	+	8342-8350	
				ENST00000367800,ENST00000457866,ENST00000417892,ENST00000475846,ENST00000367799,ENST00000265602						1142,496,539,641
chr6	135639754	135639657	-		chr6	135637178	135637072	-	8351-8354	
				ENST00000367800,ENST00000457866,ENST00000417892,ENST00000475846,ENST00000367799,ENST00000265602						1055,409,452,554
chr6	135679325	135679270	-		chr6	135678167	135678079	-	8355-8358	
				ENST00000367800,ENST00000457866,ENST00000417892,ENST00000475846,ENST00000367799,ENST00000265602,ENST00000327035						921,275,318,421
chr6	135748445	135748305	-		chr6	135736263	135735955	-	8359-8362	
				ENST00000359782,ENST00000379262,ENST00000397350,ENST00000606117						267,285,177
chr6	13601066	13601181	+		chr6	13604409	13604454	+	8363-8365	
chr6	137219280	137219379	+	ENST00000318471	chr6	137225809	137225945	+	8366	301
chr6	138417631	138417491	-	ENST00000421351	chr6	138345116	138344826	-	8367	118
chr6	142525122	142525202	+	ENST00000367630,ENST00000367621	chr6	142532600	142532620	+	8368-8369	259,201
chr6	143771795	143771700	-	ENST00000237283	chr6	143762637	143762495	-	8370	32
chr6	143771795	143771700	-	ENST00000237283	chr6	143762643	143762495	-	8371	32
chr6	146870600	146870877	+	ENST00000367495	chr6	146873901	146874201	+	8372	176
				ENST00000546097,ENST00000367481,ENST00000321680,ENST00000367480						305
chr6	147612230	147612308	+		chr6	147624636	147624658	+	8373	
				ENST00000546097,ENST00000367481,ENST00000321680,ENST00000367480						305
chr6	147612230	147612308	+		chr6	147624639	147624658	+	8374	
				ENST00000546097,ENST00000367481,ENST00000321680,ENST00000367480						305
chr6	147612230	147612308	+		chr6	147624674	147626061	+	8375	
				ENST00000367481,ENST00000321680,ENST00000367480,ENST00000179882,ENST00000367475						693,364,34,25
chr6	147648261,147	147648412	+	,ENST00000392291	chr6	147652592	147652692	+	8376-8379	
chr6	149342460	149342617	+	ENST00000367463	chr6	149359519	149359775	+	8380	312
				ENST00000392282,ENST00000538427,ENST00000367456,ENST00000470466,ENST00000286332						34
chr6	149691134	149691235	+		chr6	149693466	149693533	+	8381	
				ENST00000367384,ENST00000484601,ENST00000367378,ENST00000464889,ENST00000367380,ENST00000460828,ENST00000494411,ENST00000544496,ENST00000486585						76,18,47
chr6	150070864,150	150071092	+		chr6	150091413	150091563	+	8382-8384	
chr6	150147495	150147400	-	ENST00000239367,ENST00000546019	chr6	150109360	150109349	-	8385-8386	449,194
				ENST00000367321,ENST00000367307,ENST00000367308,ENST00000443074,ENST00000425276						260,220,105,105
chr6	151208981,2	151209117	+		chr6	151211045	151211311	+	8387-8390	
chr6	151270167	151270269	+	ENST00000367321	chr6	151270986	151270990	+	8391	575
chr6	151293083	151293194	+	ENST00000367321	chr6	151306175	151306203	+	8392	708
chr6	151293083	151293194	+	ENST00000367321	chr6	151306186	151306203	+	8393	708
				ENST00000461783,ENST00000528535,ENST00000318981,ENST00000367174,ENST00000456144,ENST00000360366,ENST00000529824,ENST00000456877,ENST00000528391						787,139,99
chr6	155486397	155486543	+		chr6	155495410	155495481	+	8394-8396	
				ENST00000414563,ENST00000359775,ENST00000500518214						135,53
chr6	157963617	157963777	+		chr6	157981813	157981932	+	8397-8398	
chr6	158296083	158296208	+	ENST00000392185	chr6	158297201	158297488	+	8399	100
chr6	158591536	158591570	+	ENST00000607778	chr6	158606242	158606274	+	8400	11
chr6	159291223	159291342	+	ENST00000608817	chr6	159291518	159291688	+	8401	40
				ENST00000367072,ENST00000367073,ENST00000608817						43,74,120
chr6	159316268,2	159316398	+		chr6	159329766	159330019	+	8402-8404	
chr6	159459260	159459146	-	ENST00000367066,ENST00000326965	chr6	159445430	159445264	-	8405-8406	299,121
chr6	16145128	16145548	+	ENST00000356840,ENST00000349606	chr6	16150806	16150861	+	8407-8408	416,235
				ENST00000366882,ENST00000354448,ENST00000539869						416,426
chr6	165827175	165826989	-		chr6	165813226	165812927	-	8409-8410	
chr6	167447363	167447459	+	ENST00000366847,ENST00000349556	chr6	167506113	167506394	+	8411-8412	375,355

				ENST00000448612,ENST00000333572,ENST000					841,714
chr6	169983030	169982932	-	00423258	chr6	169833497	169833179	-	8413-8414
				ENST00000448612,ENST00000333572,ENST000					808,681
chr6	170002417	170002315	-	00423258	chr6	170000214	170000001	-	8415-8416
				ENST00000448612,ENST00000333572,ENST000					741,614
chr6	170033164	170033043	-	00423258	chr6	170019490	170019469	-	8417-8418
				ENST00000448612,ENST00000333572,ENST000					741,614
chr6	170033164	170033043	-	00423258	chr6	170019766	170019469	-	8419-8420
				ENST00000392092,ENST00000540980,ENST000					225,205
chr6	170876006	170876097	+	00230354	chr6	170876428	170876589	+	8421-8422
				ENST00000229922,ENST00000489374,ENST000					403,291,377,
				00378990,ENST00000493172,ENST00000465994					143,339
chr6	17543292	17543374	+		chr6	17549293	17549413	+	8423-8427
				ENST00000378814,ENST00000259711,ENST000					666,666,60
				00378843,ENST00000378826,ENST00000378816					
chr6	17817464,18	17817251	-	,ENST00000358380	chr6	17812856	17812426	-	8428-8430
				ENST00000378814,ENST00000259711,ENST000					48
				00378843,ENST00000378826,ENST00000378816					
chr6	17987375	17987285	-	,ENST00000502704	chr6	17955067	17954894	-	8431
chr6	20404046	20404063	+	ENST00000535432	chr6	20445192	20445247	+	8432 6
				ENST00000274695,ENST00000378624,ENST000					57,25
chr6	20546582,21	20546754	+	00378610	chr6	20548517	20548777	+	8433-8434
				ENST00000274695,ENST00000378624,ENST000					123,53
chr6	20649524	20649608	+	00378610	chr6	20673958	20674150	+	8435-8436
				ENST00000274695,ENST00000378624,ENST000					247,177
chr6	20846306	20846409	+	00378610	chr6	20859481	20859533	+	8437-8438
chr6	2116114	2116005	-	ENST00000530927,ENST00000380815	chr6	2002524	2002433	-	8439-8440 85,115
				ENST00000274747,ENST00000535061,ENST000					88,39
				00378353,ENST00000378386,ENST00000443868					
chr6	24405396	24405469	+	,ENST00000446191	chr6	24408391	24408473	+	8441-8442
				ENST00000430948,ENST00000535378,ENST000					968,1004,10
chr6	24551753	24551662	-	00378214,ENST00000543707	chr6	24544217	24544199	-	8443-8445 13
chr6	25973401	25973513	+	ENST00000357085,ENST00000349458	chr6	25975018	25975060	+	8446 291
				ENST00000476549,ENST00000289361,ENST000					238,186
chr6	26407899,26	26408180	+	00425234,ENST00000414912	chr6	26408920	26409142	+	8447-8448
				ENST00000377600,ENST00000312541,ENST000					143,82
				00493173,ENST00000541522,ENST00000429381					
chr6	26459709,26	26460056	+	,ENST00000469185	chr6	26462997	26463072	+	8449-8450
				ENST00000312541,ENST00000541522,ENST000					327,266,76
				00429381,ENST00000469185,ENST00000480218					
chr6	26466290	26466316	+		chr6	26470701	26471231	+	8451-8453
chr6	26597211	26597451	+	ENST00000274849	chr6	26654533	26655560	+	8454 80
chr6	28254857	28254945	+	ENST00000405948,ENST00000259883	chr6	28261267	28263612	+	8455 214
chr6	2892222	2892067	-	ENST00000380698	chr6	2886438	2886258	-	8456 241
				ENST00000396634,ENST00000376806,ENST000					337
chr6	29912277	29912393	+	00376809	chr6	29915459	29916523	+	8457
				ENST00000396634,ENST00000376806,ENST000					348,354
chr6	29912836	29912868	+	00376809	chr6	29915459	29916523	+	8458-8459
				ENST00000396634,ENST00000376806,ENST000					364,37
chr6	29913011	29913058	+	00376809	chr6	29921085	29921207	+	8460-8461
chr6	30520438	30520244	-	ENST00000376621	chr6	30516679	30516665	-	8462 366
chr6	31127247	31127484	+	ENST00000376257,ENST00000376255	chr6	31128391	31128554	+	8463 79
chr6	31127247	31127484	+	ENST00000376257,ENST00000376255	chr6	31128423	31128554	+	8464 79
chr6	31237302,31	31237270	-	ENST00000376228,ENST00000383329	chr6	31097554	31097480	-	8465-8466 349,355
chr6	31324734,31	31324465	-	ENST00000412585,ENST00000434333	chr6	31287800	31287520	-	8467-8468 114,125
				ENST00000395952,ENST00000440843,ENST000					208,175,110
chr6	31660926	31660804	-	00538874	chr6	31660408	31660288	-	8469-8471
				ENST00000399079,ENST00000374943,ENST000					126
				00434651,ENST00000399084,ENST00000484729					
chr6	32632844	32632575	-		chr6	32631996	32631896	-	8472
				ENST00000419277,ENST00000428995,ENST000					33
chr6	33041347	33041248	-	00453337	chr6	33039528	33039311	-	8473
chr6	33239452	33239363	-	ENST00000482399,ENST00000445902	chr6	33238990	33238905	-	8474 30
				ENST00000434618,ENST00000475304,ENST000					445,463,358
				00489157,ENST00000426633,ENST00000456592					
chr6	33271766	33271732	-		chr6	33270581	33270414	-	8475-8477
chr6	33623543	33623664	+	ENST00000374316,ENST00000605930	chr6	33623823	33623923	+	8478 94
chr6	33625709	33625795	+	ENST00000374316,ENST00000605930	chr6	33626010	33626215	+	8479 123
chr6	33657811	33657975	+	ENST00000374316,ENST00000605930	chr6	33658198	33658441	+	8480 2344
				ENST00000506578,ENST00000293760,ENST000					36,453,151,1
chr6	33744833	33744731	-	00508327,ENST00000504692	chr6	33742815	33742780	-	8481-8484 01
				ENST00000605528,ENST00000344700,ENST000					133
chr6	34389584	34389507	-	00326199	chr6	34387705	34387678	-	8485
				ENST00000605528,ENST00000344700,ENST000					107
chr6	34392617	34392446	-	00326199	chr6	34391166	34390955	-	8486
chr6	35280403	35280549	+	ENST00000316637	chr6	35281909	35282204	+	8487 269
chr6	35280403	35280549	+	ENST00000316637	chr6	35284963	35285174	+	8488 269
chr6	35314915	35314927	+	ENST00000448077	chr6	35350621	35350660	+	8489 4
chr6	35314915	35314927	+	ENST00000448077	chr6	35351107	35351915	+	8490 4
				ENST00000539068,ENST00000536438,ENST000					35
chr6	35610601	35610497	-	00357266,ENST00000542713	chr6	35608235	35607892	-	8491

Table 9

chr6	35610601	35610497	-	ENST00000539068,ENST00000536438,ENST00000357266,ENST00000542713	chr6	35608276	35607892	-	8492	35
chr6	35810381	35810312	-	ENST00000373825,ENST00000361690,ENST00000423325,ENST00000373822	chr6	35807632	35807462	-	8493-8496	563,579,547,455
chr6	36720872	36720811	-	ENST00000393189,ENST00000244751	chr6	36720397	36720322	-	8497-8498	31,323
chr6	36724054,37	36724022	-	ENST00000393189,ENST00000244751	chr6	36720397	36720322	-	8499-8500	11,303
chr6	36870126,37	36870210	+	ENST00000510325,ENST00000359359,ENST00000480824,ENST00000355190,ENST00000373685	chr6	36870881	36870998	+	8501-8503	28,134,141
chr6	36870126,37	36870210	+	ENST00000510325,ENST00000359359,ENST00000480824,ENST00000355190,ENST00000373685	chr6	36878228	36878517	+	8504-8506	28,134,141
chr6	3737430	3737313	-	ENST00000380277,ENST00000380283	chr6	3664139	3663929	-	8507-8508	103,155
chr6	37611719	37611585	-	ENST00000297153,ENST00000434837,ENST00000505425,ENST00000418178	chr6	37611085	37611040	-	8509-8511	849,845,155
chr6	39082865	39082659	-	ENST00000229903	chr6	39078090	39077998	-	8512	69
chr6	41888756	41888743	-	ENST00000265350,ENST00000409312,ENST00000409060	chr6	41885654	41885572	-	8513	4
chr6	42025127	42025251	+	ENST00000372978,ENST00000494547,ENST00000456846,ENST00000372982,ENST00000372977,ENST00000465926	chr6	42025410	42025509	+	8514-8515	163,1
chr6	42946888	42946007	-	ENST00000304611,ENST00000244546	chr6	42944833	42944563	-	8516	294
chr6	43027119	43027024	-	ENST00000388752,ENST00000230413,ENST00000489623,ENST00000487429,ENST00000468957	chr6	43026850	43026804	-	8517	32
chr6	43039885	43039993	+	ENST00000347162,ENST00000453940,ENST00000259708,ENST00000479388,ENST00000394056,ENST00000394058	chr6	43040479	43040507	+	8518-8520	496,419,514
chr6	43040961	43041076	+	ENST00000347162,ENST00000453940,ENST00000259708,ENST00000479388,ENST00000394056,ENST00000394058	chr6	43041256	43041411	+	8521-8523	581,504,599
chr6	43409600	43409698	+	ENST00000372530,ENST00000244533	chr6	43410196	43410317	+	8524-8525	742,714
chr6	43578291	43578460	+	ENST00000372236,ENST00000535400,ENST00000372226	chr6	43579511	43579832	+	8526-8527	414,352
chr6	43600931	43601052	+	ENST00000451025	chr6	43603224	43603344	+	8528	47
chr6	44921154	44921047	-	ENST00000475057,ENST00000371460,ENST00000371459,ENST00000371458,ENST00000371461,ENST00000306867	chr6	44917920	44917814	-	8529-8531	267,278,50
chr6	46986235	46986216	-	ENST00000283297	chr6	46985755	46985710	-	8532	6
chr6	46989794	46989694	-	ENST00000371253,ENST00000475745,ENST00000487323,ENST00000371243	chr6	46985755	46985710	-	8533-8535	184,138,107
chr6	4943780	4943990	+	ENST00000328908,ENST00000397588,ENST00000449732,ENST00000343762	chr6	4945031	4945575	+	8536-8538	498,444,312
chr6	49440503	49440571	+	ENST00000335783	chr6	49441205	49445292	+	8539	115
chr6	49440503	49440571	+	ENST00000335783	chr6	49568217	49572386	+	8540	115
chr6	49604525	49604369	-	ENST00000371175,ENST00000229810	chr6	49595531	49595312	-	8541	52
chr6	4996319	4996185	-	ENST00000380051,ENST00000319533,ENST00000464646	chr6	4993856	4993818	-	8542-8544	297,274,237
chr6	52334131	52334271	+	ENST00000371068,ENST00000433625,ENST00000538167	chr6	52335940	52336382	+	8545-8547	426,335,407
chr6	52380920	52380804	-	ENST00000182527	chr6	52378994	52378907	-	8548	137
chr6	5613402	5613553	+	ENST00000324331,ENST00000274680	chr6	5651322	5651708	+	8549	405
chr6	56857176	56857353	+	ENST00000370750,ENST00000370748,ENST00000370746,ENST00000370745	chr6	56879170	56879240	+	8550	99
chr6	56912111	56912194	+	ENST00000370733,ENST00000545356	chr6	56920483	56921013	+	8551	35
chr6	56912111	56912194	+	ENST00000370733,ENST00000545356	chr6	56938437	56939085	+	8552	35
chr6	56915572	56915652	+	ENST00000370733	chr6	56915752	56916046	+	8553	62
chr6	56915572	56915652	+	ENST00000370733	chr6	56920483	56921013	+	8554	62
chr6	6588968	6589103	+	ENST00000379953,ENST00000230568	chr6	6607415	6607434	+	8555	45
chr6	70462248	70462151	-	ENST00000370577,ENST00000370570,ENST00000472827	chr6	70461513	70461221	-	8556-8557	135,62
chr6	70589460	70589550	+	ENST00000322773	chr6	70599787	70600068	+	8558	30
chr6	70589460	70589550	+	ENST00000322773	chr6	70599810	70600068	+	8559	30
chr6	70745796	70745831	+	ENST00000322773	chr6	70770269	70770794	+	8560	390
chr6	70745796	70745831	+	ENST00000322773	chr6	70770272	70770794	+	8561	390
chr6	70745796	70745831	+	ENST00000322773	chr6	70770565	70770794	+	8562	390
chr6	70745796	70745831	+	ENST00000322773	chr6	70772344	70776493	+	8563	390
chr6	71289117	71289269	+	ENST00000370474	chr6	71295134	71295304	+	8564	72
chr6	71289117	71289269	+	ENST00000370474	chr6	71295291	71295304	+	8565	72
chr6	71442081	71442214	+	ENST00000316999,ENST00000370452,ENST00000370455,ENST00000422334	chr6	71460666	71460966	+	8566	84
chr6	72006375	72006520	+	ENST00000370435	chr6	72029941	72029967	+	8567	230
chr6	7334323	7334255	-	ENST00000379918,ENST00000502583,ENST00000296742,ENST00000512086,ENST00000338150	chr6	7333013	7332761	-	8568-8572	790,812,614,750,777
chr6	73814980	73815090	+	ENST00000342056,ENST00000355194,ENST00000370398,ENST00000370392,ENST00000355635,ENST00000402622,ENST00000403813,ENST00000414165	chr6	73816526	73816627	+	8573-8574	343,343
chr6	73879469	73879577	+	ENST00000342056,ENST00000355194,ENST00000370398,ENST00000355635,ENST00000402622,ENST00000403813	chr6	73886224	73886246	+	8575-8580	544,525,525,526,535,516

			ENST00000342056,ENST00000355194,ENST00000370398,ENST00000355635,ENST00000402622						544,525,525,526,535,516
chr6	73879469	73879577	+,ENST00000403813	chr6	73886227	73886246	+	8581-8586	
chr6	74150168	74149932	- ENST00000370318,ENST00000370315	chr6	74143589	74143509	-	8587	371
chr6	74228951	74228940	- ENST00000316292,ENST00000309268,ENST00000331523,ENST00000356303	chr6	74213929	74213863	-	8588	112
chr6	74512943	74513024	+ ENST00000422508,ENST00000437994,ENST00000287097	chr6	74515720	74516247	+	8589-8590	909,986
chr6	74530185	74530287	+ ENST00000422508,ENST00000437994,ENST00000287097	chr6	74531296	74531600	+	8591-8593	1310,1370,1387
chr6	7606264	7606428	+ ENST00000342415	chr6	7608645	7608817	+	8594	323
chr6	76388527	76388643	+ ENST00000370010,ENST00000370014,ENST00000327284,ENST00000447266,ENST00000424947,ENST00000503501,ENST00000541192	chr6	76402533	76402735	+	8595-8600	684,691,691,581,307,287
chr6	76421044	76421132	+ ENST00000370010,ENST00000370014,ENST00000447266	chr6	76422704	76422822	+	8601-8603	962,969,969
chr6	76527265	76527381	+ ENST00000369981,ENST00000369985,ENST00000369977,ENST00000369975	chr6	76529490	76529773	+	8604	39
chr6	79595095	79595160	+ ENST00000369940,ENST00000606868,ENST00000607739	chr6	79606401	79606556	+	8605-8607	127,117,40
chr6	79595095	79595160	+ ENST00000369940,ENST00000606868,ENST00000607739	chr6	79612336	79612485	+	8608-8610	127,117,40
chr6	79607546	79607676	+ ENST00000369940,ENST00000606868,ENST00000607739	chr6	79612336	79612485	+	8611-8613	170,160,83
chr6	79752720	79752560	- ENST00000275034	chr6	79742492	79741659	-	8614	200
chr6	79770293	79770195	- ENST00000275034	chr6	79761777	79761678	-	8615	146
chr6	80383331	80383516	+ ENST00000369838	chr6	80400712	80400885	+	8616	77
chr6	80982852	80982938	+ ENST00000356489,ENST00000320393	chr6	81003858	81004914	+	8617	346
chr6	83851640	83851765	+ ENST00000237163,ENST00000349129,ENST00000369739	chr6	83853807	83854617	+	8618-8620	1828,1847,1838
chr6	83879042	83878961	- ENST00000504780,ENST00000513973,ENST00000512866,ENST00000283977,ENST00000506587	chr6	83876243	83875142	-	8621-8624	111,540,459,568
chr6	84025132	84025029	- ENST00000369705,ENST00000541327,ENST00000543031	chr6	83997184	83996875	-	8625-8627	234,68,159
chr6	84140673	84140596	- ENST00000369705	chr6	84126927	84126766	-	8628	26
chr6	8428291	8428170	- ENST00000379660,ENST00000339306,ENST00000426876	chr6	8424786	8424493	-	8629-8630	139,205
chr6	8434620	8434618	- ENST00000379660,ENST00000339306	chr6	8432507	8432428	-	8631	1
chr6	84618728	84618809	+ ENST00000369681,ENST00000369679	chr6	84621300	84621453	+	8632-8633	137,103
chr6	84665017	84665181	+ ENST00000369681	chr6	84673796	84673840	+	8634	503
chr6	85448309	85448215	- ENST00000606784,ENST00000369663	chr6	85422447	85422183	-	8635-8636	208,366
chr6	85448309	85448215	- ENST00000606784,ENST00000369663	chr6	85427661	85422500	-	8637-8638	208,366
chr6	86223613	86223518	- ENST00000346348,ENST00000314673,ENST00000513865,ENST00000505648,ENST00000369627,ENST00000508658,ENST00000515216,ENST00000418862	chr6	86219759	86219233	-	8639-8646	123,831,884,603,832,875,802,194
chr6	86235955	86235844	- ENST00000346348,ENST00000314673,ENST00000505648,ENST00000369627,ENST00000515216,ENST00000418862	chr6	86231403	86231376	-	8647-8652	649,702,650,693,620,67
chr6	86275137	86275050	- ENST00000314673,ENST00000513865,ENST00000505648,ENST00000369627,ENST00000515216,ENST00000369635,ENST00000514419	chr6	86272600	86272301	-	8653-8656	183,131,110,182
chr6	88299675	88299640	- ENST00000369536	chr6	88294981	88294929	-	8657	12
chr6	89511351	89511283	- ENST00000369485,ENST00000369475	chr6	89501727	89501558	-	8658	446
chr6	90009584	90009478	- ENST00000602399,ENST00000402938	chr6	90006869	90006811	-	8659-8660	98,73
chr6	91296602	91296483	- ENST00000369325,ENST00000369327,ENST00000369329,ENST00000369332	chr6	91288287	91287980	-	8661	40
chr6	9769288	9769164	- ENST00000460363,ENST00000492169	chr6	9768167	9767848	-	8662-8663	229,173
chr6	97715878	97715748	- ENST00000275053,ENST00000369251,ENST00000510018	chr6	97711995	97711885	-	8664-8665	276,202
chr6	99887732	99887645	- ENST00000392738,ENST00000500704,ENST00000327681,ENST00000539675,ENST00000369233	chr6	99885832	99885524	-	8666-8669	400,720,13,672
chr6	99912623	99912480	- ENST00000392738,ENST00000500704,ENST00000327681,ENST00000511403,ENST00000496090	chr6	99907174	99906863	-	8670-8673	116,436,134,146
chr6	99993106	99992988	- ENST00000520429,ENST00000369220,ENST00000520371,ENST00000523799,ENST00000486428,ENST00000523985,ENST00000518714	chr6	99978767	99978212	-	8674-8677	265,264,180,211
chr7	100420289	100419893	- ENST00000360620,ENST00000358173	chr7	100418333	100418205	-	8678	269
chr7	100473212,1	100473333	+ ENST00000388793,ENST00000457580,ENST00000448716,ENST00000432932,ENST00000347433,ENST00000431645	chr7	100475552	100475651	+	8679-8680	40,47
chr7	100775156	100775350	+ ENST00000223095,ENST00000445463	chr7	100776245	100776292	+	8681-8682	233,218
chr7	100802340	100802477	+ ENST00000337619,ENST00000443943,ENST00000429457	chr7	100804773	100804805	+	8683-8684	143,184
chr7	100853442	100853374	- ENST00000454310,ENST00000223127	chr7	100852624	100852490	-	8685-8686	135,561
chr7	101006314	101006471	+ ENST00000397927,ENST00000313669,ENST00000528707	chr7	101056727	101056826	+	8687	52
chr7	102119307	102119255	- ENST00000292614,ENST00000393794	chr7	102118593	102118434	-	8688	17

Table 9

				ENST00000464525,ENST00000489144,ENST00000379340,ENST00000508848,ENST00000608621						75,105
chr7	102208631	102208457	-	ENST00000464525,ENST00000489144,ENST00000379340,ENST00000508848,ENST00000608621	chr7	102186835	102186693	-	8689-8690	75,105
chr7	102208631	102208457	-	ENST00000464525,ENST00000489144,ENST00000379340,ENST00000486319,ENST00000508848,ENST00000513506,ENST00000507355,ENST00000608621,ENST00000511313,ENST00000513438	chr7	102207583	102207365	-	8691-8692	16
chr7	102212968	102212919	-	ENST00000464525,ENST00000489144,ENST00000379340,ENST00000486319,ENST00000508848,ENST00000513506,ENST00000507355,ENST00000608621,ENST00000511313,ENST00000513438	chr7	102118593	102118434	-	8693	16
chr7	102212968	102212919	-	ENST00000591000,ENST00000476151,ENST00000358438	chr7	102212256	102212097	-	8694	105
chr7	102307711	102307537	-	ENST00000591000,ENST00000476151,ENST00000358438	chr7	102285926	102285784	-	8695	105
chr7	102307711	102307537	-	ENST00000591000,ENST00000476151,ENST00000358438	chr7	102306663	102306445	-	8696	94
chr7	102307711	102307569	-	ENST00000591000,ENST00000476151,ENST00000358438	chr7	102207530	102207365	-	8697	25
chr7	102309451	102309427	-	ENST00000591000,ENST00000476151,ENST00000333432,ENST00000358438	chr7	102207530	102207365	-	8698	16
chr7	102312048	102311999	-	ENST00000591000,ENST00000476151,ENST00000333432,ENST00000358438	chr7	102207530	102207365	-	8699	16
chr7	102312048	102311999	-	ENST00000591000,ENST00000476151,ENST00000333432,ENST00000358438	chr7	102212256	102212097	-	8700	16
chr7	102312048	102311999	-	ENST00000379306,ENST00000379308,ENST00000393772,ENST00000379305,ENST00000448002,ENST00000436908,ENST00000313221,ENST00000456695,ENST00000455112	chr7	102311336	102311177	-	8701	165,255
chr7	102665677	102665510	-		chr7	102637890	102637727	-	8702-8703	
chr7	102695625	102695535	-	ENST00000448002,ENST00000440067	chr7	102692175	102692056	-	3704	90
chr7	102696194	102696091	-	ENST00000448002,ENST00000440067	chr7	102687467	102685843	-	3705	59
chr7	102949399	102949542	+	ENST00000249269,ENST00000428154,ENST00000420236	chr7	102950104	102950140	+	8706-8707	331,226
chr7	1037440	1037282	-	ENST00000357429,ENST00000397100,ENST00000397098,ENST00000412051,ENST00000444428,ENST00000491163	chr7	1019689	1019667	-	8708-8710	172,188,156
chr7	103824481	103824391	-	ENST00000297431,ENST00000545943,ENST00000447452	chr7	103819235	103818010	-	8711-8712	274,142
chr7	103824481	103824391	-	ENST00000297431,ENST00000545943,ENST00000447452	chr7	103819662	103819564	-	8713-8714	274,142
chr7	105182855	105183096	+	ENST00000257700,ENST00000493041	chr7	105187327	105187335	+	3715-8716	171,14
chr7	105902153	105902034	-	ENST00000222553,ENST00000354289	chr7	105900475	105900168	-	3717	363
chr7	107224327,1	107224427	+	ENST00000005259,ENST00000482371,ENST00000445771,ENST00000442065,ENST00000479917,ENST00000421217,ENST00000457837,ENST00000379117,ENST00000473124,ENST00000379119,ENST00000491150	chr7	107225008	107225167	+	8718-8719	64,21
chr7	107224327,1	107224427	+	ENST00000005259,ENST00000482371,ENST00000445771,ENST00000442065,ENST00000479917,ENST00000421217,ENST00000457837,ENST00000379117,ENST00000473124,ENST00000379119,ENST00000491150	chr7	107225012	107225167	+	8720-8721	64,21
chr7	107234400,107	107234550	+	ENST00000005259,ENST00000465919,ENST00000445771,ENST00000442065,ENST00000479917,ENST00000421217,ENST00000457837,ENST00000379117,ENST00000379119,ENST00000491150,ENST00000379121,ENST00000436699	chr7	107235743	107235857	+	8722-8725	114,20,71,28
chr7	107253777	107253877	+	ENST00000005259,ENST00000465919,ENST00000445771,ENST00000457837,ENST00000379117,ENST00000379119,ENST00000491150,ENST00000379121,ENST00000436699	chr7	107262055	107262361	+	8726-8729	230,136,187,143
chr7	107253777	107253877	+	ENST00000005259,ENST00000465919,ENST00000445771,ENST00000457837,ENST00000379117,ENST00000379119,ENST00000491150,ENST00000379121,ENST00000436699	chr7	107263530	107263612	+	8730-8733	230,136,187,143
chr7	107569650	107569509	-	ENST00000393561,ENST00000222399	chr7	107568060	107567891	-	3734-8735	1653,1629
chr7	110526751	110526649	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362	chr7	110312282	110312111	-	8736-8737	136,118
chr7	110526751	110526649	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362	chr7	110365831	110365818	-	8738-8739	136,118
chr7	110526751	110526649	-		chr7	110502693	110502397	-	8740-8741	

				ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362,ENST00000447215,ENST00000437687					101,83
chr7	110603621	110603556	-		chr7	110586215	110586146	-	8742-8743
				ENST00000405709,ENST00000331762,ENST00000452895,ENST00000415362,ENST00000447215,ENST00000437687					79
chr7	111127397	111127294	-		chr7	111103265	111103255	-	8744
chr7	11150977	11151094	+	ENST00000445996	chr7	11226248	11226265	+	8745 639
				ENST00000312814,ENST00000454074,ENST00000418785,ENST00000441474					376,16,28
chr7	112424880,112	112423753	-		chr7	112418467	112418403	-	8746-8748
chr7	116556114	116556176	+	ENST00000361183	chr7	116580418	116580669	+	8749 240
chr7	116595139	116595207	+	ENST00000397750,ENST00000397751	chr7	116738667	116738692	+	8750 23
				ENST00000003084,ENST00000454343,ENST00000426809					17
chr7	117120149	117120201	+		chr7	117129284	117129510	+	8751
chr7	11871572	11871383	-	ENST00000423059	chr7	11863278	11862303	-	8752 63
				ENST00000401903,ENST00000397083,ENST00000316495,ENST00000574135					94,69
chr7	1195220	1195089	-		chr7	1187559	1186755	-	8753-8754
				ENST00000310396,ENST00000450913,ENST00000423795					685,465
chr7	120782027	120782195	+		chr7	120784307	120784896	+	8755-8756
				ENST00000310396,ENST00000450913,ENST00000423795					685,465
chr7	120782027	120782195	+		chr7	120796456	120796766	+	8757-8758
				ENST00000359943,ENST00000412653,ENST00000426156					39,9
chr7	121019068,1	121018964	-		chr7	121018536	121018373	-	8759-8760
				ENST00000393376,ENST00000417368,ENST00000358954,ENST00000431170					157
chr7	121766513	121766429	-		chr7	121761730	121761714	-	8761
chr7	123344711	123344688	-	ENST00000223023	chr7	123343985	123343919	-	8762 153
chr7	12381780	12381685	-	ENST00000275358	chr7	12380332	12380269	-	8763 1423
chr7	1273156	1273331	+	ENST00000316333	chr7	1320042	1320069	+	8764 150
				ENST00000262432,ENST00000480046,ENST00000419443					223,158,45
chr7	128128155	128128215	+		chr7	128128690	128128781	+	8765-8767
				ENST00000262432,ENST00000480046,ENST00000481392					351,286,115
chr7	128141816	128141886	+		chr7	128144872	128145172	+	8768-8770
chr7	128784821	128784922	+	ENST00000289407	chr7	128785708	128785730	+	8771 34
chr7	128864918	128865280	+	ENST00000325006,ENST00000446544	chr7	128914121	128914312	+	8772 121
				ENST00000353868,ENST00000393232,ENST00000454688,ENST00000223190,ENST00000311967					155
chr7	129317472	129317598	+	,ENST00000393230,ENST00000393231	chr7	129320154	129320770	+	8773
chr7	129710484	129710649	+	ENST00000335420,ENST00000463413	chr7	129722550	129723180	+	8774 55
				ENST00000445470,ENST00000222482,ENST00000493259					326,359,255
chr7	129951878	129951962	+		chr7	129960759	129961053	+	8775-8777
chr7	130337788	130337709	-	ENST00000445977,ENST00000330992	chr7	130327576	130327558	-	8778 107
chr7	130337788	130337709	-	ENST00000445977,ENST00000330992	chr7	130331347	130330466	-	8779 107
				ENST00000393161,ENST00000253861,ENST00000539845					394,293
chr7	133059582	133059756	+		chr7	133059949	133060237	+	8780-8781
				ENST00000417172,ENST00000436461,ENST00000361388,ENST00000422748,ENST00000361675,ENST00000361901,ENST00000393118,ENST00000443197,ENST00000424922,ENST00000495522					432,458,457,687,452,426,451,437
chr7	134642960,1	134643041	+	,ENST00000543443	chr7	134644288	134644436	+	8782-8789
				ENST00000424142,ENST00000393114,ENST00000430372,ENST00000483029					16,71,70
chr7	134852531,1	134852484	-		chr7	134836872	134836809	-	8790-8792
				ENST00000285968,ENST00000472132,ENST00000463247					1065,122,56
chr7	135291995	135292119	+		chr7	135292456	135292518	+	8793-8795
chr7	135310988	135311109	+	ENST00000285968,ENST00000477620	chr7	135312084	135312312	+	8796-8797 1597,179
chr7	135323305	135323431	+	ENST00000285968	chr7	135326890	135327021	+	8798 1797
chr7	135635430	135635347	-	ENST00000393085	chr7	135570254	135569898	-	8799 90
chr7	135661848	135661777	-	ENST00000393085,ENST00000435723	chr7	135657336	135657315	-	8800 24
chr7	138203934	138204066	+	ENST00000343526,ENST00000415680	chr7	138205631	138205776	+	8801 254
chr7	138719424	138719289	-	ENST00000275766	chr7	138714587	138714553	-	8802 167
chr7	139477422	139477404	-	ENST00000406875,ENST00000428878	chr7	139441837	139441697	-	8803 6
				ENST00000425687,ENST00000263552,ENST00000438104,ENST00000336425,ENST00000414508,ENST00000416849,ENST00000436047,ENST00000448866,ENST00000422328,ENST00000455353,ENST00000458722,ENST00000411653,ENST00000414041,ENST00000539806					11,79,78
chr7	139575402,1	139575436	+		chr7	139581915	139582781	+	8804-8806
chr7	139734131	139734035	-	ENST00000263549,ENST00000489809	chr7	139732955	139732766	-	8807-8808 473,111
chr7	140439746	140439612	-	ENST00000496384,ENST00000288602	chr7	140415836	140415801	-	8809-8810 316,709
chr7	140534672	140534409	-	ENST00000288602,ENST00000497784	chr7	140522252	140522070	-	8811-8812 168,153
				ENST00000355413,ENST00000473247,ENST00000535825,ENST00000494688					196,168,193
chr7	141321532	141321601	+		chr7	141323980	141324082	+	8813-8815
chr7	141908373	141908422	+	ENST00000477922	chr7	141910122	141914526	+	8816 1729
chr7	142997297	142997387	+	ENST00000310447	chr7	142999107	142999163	+	8817 322
chr7	144364939	144364819	-	ENST00000482940,ENST00000538212	chr7	144356386	144356233	-	8818-8819 76,56
chr7	145813969	145814065	+	ENST00000361727	chr7	145820922	145821351	+	8820 32
chr7	148777809,1	148777683	-	ENST00000491431,ENST00000451334	chr7	148774359	148774199	-	8821-8822 48,11
chr7	148787732	148787715	-	ENST00000491431	chr7	148781070	148780643	-	8823 6
chr7	148787732	148787715	-	ENST00000491431	chr7	148786707	148786412	-	8824 6
				ENST00000335870,ENST00000486371,ENST00000462724					8
chr7	148936870	148936893	+		chr7	148939944	148940202	+	8825
				ENST00000323078,ENST00000359623,ENST00000493307					246
chr7	150033951	150034688	+		chr7	150040617	150040673	+	8826
chr7	150066760	150066786	+	ENST00000467980,ENST00000522266	chr7	150067849	150067901	+	8827 46

Table 9

				ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000476632					288,47,163,164,244
chr7	151292540,2	151292431	-		chr7	151273880	151273595	-	8828-8832
				ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000476632,ENST00000493872					251,10,127,207
chr7	151329224,2	151329155	-		chr7	151303269	151303155	-	8833-8836
				ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000476632,ENST00000493872					251,10,127,207
chr7	151329224,2	151329155	-		chr7	151317866	151317865	-	8837-8840
chr7	151722918	151722969	+	ENST00000452146	chr7	151724055	151724340	+	3841 17
				ENST00000262189,ENST00000558084,ENST00000355193,ENST00000452749					83
chr7	152055760	152055672	-		chr7	152041340	152041289	-	8842
				ENST00000377776,ENST00000256001,ENST00000397282,ENST00000537264					317,229
chr7	152522115	152522207	+		chr7	152552735	152552756	+	8843-8844
				ENST00000377776,ENST00000256001,ENST00000397282,ENST00000537264					317,229
chr7	152522115	152522207	+		chr7	152581995	152582085	+	8845-8846
				ENST00000377776,ENST00000256001,ENST00000397282,ENST00000537264					317,229
chr7	152522115	152522207	+		chr7	152584608	152584625	+	8847-8848
chr7	15666543	15666371	-	ENST00000262041	chr7	15639527	15638615	-	3849 230
				ENST00000353442,ENST00000415428,ENST00000354505,ENST00000454132,ENST00000540390,ENST00000434503,ENST00000434278,ENST00000444719,ENST00000414218,ENST00000434453					22,20,25
chr7	156685687,156	156685622	-		chr7	156655905	156655758	-	8850-8852
				ENST00000441561,ENST00000429029,ENST00000262177,ENST00000417758,ENST00000452797,ENST00000443280,ENST00000441291,ENST00000412557					115,66
chr7	157160067	157160177	+		chr7	157160274	157160566	+	8853-8854
				ENST00000409483,ENST00000389416,ENST00000389418,ENST00000404321					509,530,547,570
chr7	157903607	157903521	-		chr7	157893545	157892972	-	8855-8858
				ENST00000432615,ENST00000356309,ENST00000409423,ENST00000441982,ENST00000275830,ENST00000409339,ENST00000449727					224,25,16
chr7	158482645,158	158482511	-		chr7	158481817	158481791	-	8859-8861
				ENST00000432615,ENST00000356309,ENST00000409423,ENST00000409339,ENST00000449727					26
chr7	158494590	158494513	-		chr7	158489091	158488937	-	8862
chr7	158586417	158586341	-	ENST00000251527,ENST00000275418	chr7	158584050	158583650	-	3863-8864 242,212
chr7	158698680	158698782	+	ENST00000407559,ENST00000444851	chr7	158701712	158701739	+	3865-8866 486,263
chr7	16298107	16298015	-	ENST00000399310,ENST00000407010	chr7	16287026	16286884	-	3867-8868 323,373
				ENST00000428135,ENST00000409389,ENST00000409076,ENST00000409604					146
chr7	17930107	17929986	-		chr7	17928411	17928393	-	8869
				ENST00000417496,ENST00000405010,ENST00000406451,ENST00000428307,ENST00000406072,ENST00000401921,ENST00000432645,ENST00000441542,ENST00000456174,ENST00000524023					340,342,298,329,301,345,314,265
chr7	18684294	18684416	+		chr7	18686254	18686272	+	8870-8877
				ENST00000404938,ENST00000443026,ENST00000406935,ENST00000258738					512,67
chr7	20691043,21	20691246	+		chr7	20691550	20691575	+	8878-8879
				ENST00000404938,ENST00000443026,ENST00000406935,ENST00000258738					569,124
chr7	20698129	20698299	+		chr7	20707396	20709366	+	8880-8881
				ENST00000404938,ENST00000443026,ENST00000406935,ENST00000258738					569,124
chr7	20698129	20698299	+		chr7	20707892	20709366	+	8882-8883
				ENST00000356195,ENST00000406877,ENST00000373934,ENST00000435717					410,444,398,95
chr7	21942732	21942596	-		chr7	21915794	21915492	-	8884-8887
				ENST00000356195,ENST00000406877,ENST00000457951,ENST00000447180,ENST00000435031					67,101,54,66
chr7	21951372,22	21951235	-		chr7	21950938	21950636	-	8888-8891
chr7	22862398	22862296	-	ENST00000358435,ENST00000372879	chr7	22858165	22857897	-	3892 34
				ENST00000258733,ENST00000381990,ENST00000409458,ENST00000539136,ENST00000453162					23
chr7	23286477	23286546	+		chr7	23287188	23287205	+	8893
chr7	23340458	23340636	+	ENST00000466681	chr7	23345566	23345839	+	3894 145
chr7	23458443	23458395	-	ENST00000258729	chr7	23456034	23456031	-	3895 95
chr7	25181951	25181860	-	ENST00000409280,ENST00000283905	chr7	25181648	25181367	-	3896 317
				ENST00000409280,ENST00000283905,ENST00000443822,ENST00000415598					103
chr7	25208084	25207908	-		chr7	25204740	25204256	-	8897
chr7	2671790	2671912	+	ENST00000258796,ENST00000407643	chr7	2681888	2681893	+	3898 41
				ENST00000258796,ENST00000407643,ENST00000403167					290,258,119
chr7	2689547	2689622	+		chr7	2690099	2690223	+	8899-8901
				ENST00000258796,ENST00000407643,ENST00000403167					290,258,119
chr7	2689547	2689622	+		chr7	2690139	2690223	+	8902-8904
chr7	27689252	27689092	-	ENST00000265395	chr7	27686900	27686616	-	3905 84
chr7	27702407	27702317	-	ENST00000265395,ENST00000428288	chr7	27692315	27692157	-	3906 30
				ENST00000265394,ENST00000396276,ENST00000432534,ENST00000409850					82,379
chr7	29103850	29103677	-		chr7	29096977	29096873	-	8907-8908
				ENST00000265394,ENST00000396276,ENST00000432534,ENST00000409850					379,82
chr7	29103850	29103677	-		chr7	29103453	29103181	-	8909-8910
chr7	29186465	29186576	+	ENST00000439384,ENST00000539406	chr7	29193098	29193188	+	3911 91
				ENST00000539406,ENST00000222792,ENST00000495789,ENST00000546235,ENST00000446446					267,192,205,177,43
chr7	29440159,29	29440444	+		chr7	29451306	29451430	+	8912-8916

Table 9

			ENST00000539406,ENST00000222792,ENST000						267,192,205,
			00495789,ENST00000546235,ENST00000446446						177,43
chr7	29440159,29	29440444	+	chr7	29479119	29479373	+	8917-8921	
			ENST00000449726,ENST00000396257,ENST000						454,48
chr7	30113687	30113748	+ 00440706	chr7	30129769	30130495	+	8922-8923	
			ENST00000449726,ENST00000396257,ENST000						454,48
chr7	30113687	30113748	+ 00440706	chr7	30166714	30167083	+	8924-8925	
			ENST00000449726,ENST00000396257,ENST000						454,48
chr7	30113687	30113748	+ 00440706	chr7	30167446	30167606	+	8926-8927	
chr7	30118206	30118394	+ ENST00000449726,ENST00000440706	chr7	30168882	30169138	+	8928-8929	517,543
			ENST00000396193,ENST00000396191,ENST000						713,653
chr7	31815346	31815278	- 00321453	chr7	31787457	31787111	-	8930-8931	
			ENST00000396193,ENST00000396191,ENST000						713,653
chr7	31815346	31815278	- 00321453	chr7	31787468	31787111	-	8932-8933	
			ENST00000318709,ENST00000409301,ENST000						31
chr7	32535322	32535414	+ 00404479	chr7	32554746	32554879	+	8934	
			ENST00000297161,ENST00000426693,ENST000						192,158
chr7	34014314	34014396	+ 00436222	chr7	34017839	34018017	+	8935-8936	
chr7	34997682	34997596	- ENST00000310974	chr7	34996408	34996122	-	8937	320
			ENST00000435235,ENST00000350320,ENST000						325,377,379,
			00399034,ENST00000399035,ENST00000494488						377,364,356,
chr7	35937858,36	35937993	+ ,ENST00000425198,ENST00000432293	chr7	35951632	35951725	+	8938-8944	29
chr7	36193934	36194811	+ ENST00000242108,ENST00000534978	chr7	36276648	36276940	+	8945	292
			ENST00000265748,ENST00000396068,ENST000						1026,989,19
chr7	36483364	36483471	+ 00428612,ENST00000457743	chr7	36483623	36483914	+	8946-8949	0,247
chr7	38766588	38766509	- ENST00000310301,ENST00000395969	chr7	38762834	38762431	-	8950-8951	828,803
			ENST00000310301,ENST00000395969,ENST000						30,17
chr7	38908853	38908822	- 00265745,ENST00000414632	chr7	38762834	38762431	-	8952-8953	
			ENST00000403058,ENST00000518318,ENST000						411,356,403,
			00524147,ENST00000520104,ENST00000559001						110
chr7	39472676	39472882	+ ,ENST00000416452	chr7	39548187	39548383	+	8954-8957	
chr7	40041460	40041630	+ ENST00000181839,ENST00000340829	chr7	40042573	40042694	+	8958	784
chr7	40041460	40041630	+ ENST00000181839,ENST00000340829	chr7	40058072	40058494	+	8959	784
			ENST00000428457,ENST00000311160,ENST000						20,1397,115
chr7	47319788	47319762	- 00355730,ENST00000398879	chr7	47308405	47308385	-	8960-8962	7
			ENST00000311160,ENST00000355730,ENST000						1181,941
chr7	47341870	47341784	- 00398879	chr7	47337677	47337384	-	8963-8964	
			ENST00000311160,ENST00000355730,ENST000						241,344,330
			00398879,ENST00000457718,ENST00000450444						
chr7	47451400	47451325	- ,ENST00000442536,ENST00000458317	chr7	47451123	47450879	-	8965-8967	
			ENST00000416681,ENST00000331803,ENST000						14,8
			00432131,ENST00000457596,ENST00000341253						
			,ENST00000421046,ENST00000395564,ENST000						
			00436673,ENST00000395560,ENST00000444999						
chr7	48134381,48	48134424	+ ,ENST00000429491,ENST00000417464	chr7	48138566	48138676	+	8968-8969	
chr7	4828471	4828582	+ ENST00000348624,ENST00000401897	chr7	4828873	4828889	+	8970	569
			ENST00000435803,ENST00000453246,ENST000						4325,590,98,
chr7	48511127	48511196	+ 00411975,ENST00000544596	chr7	48517188	48517500	+	8971-8974	55
			ENST00000435803,ENST00000453246,ENST000						1050,4784,5
chr7	48567832	48567941	+ 00411975,ENST00000544596	chr7	48575963	48576257	+	8975-8978	57,514
			ENST00000431948,ENST00000445054,ENST000						147,211,319,
			00265136,ENST00000395542,ENST00000452534						344,237
chr7	51204028	51203855	- ,ENST00000395540,ENST00000441453	chr7	51202958	51202654	-	8979-8983	
			ENST00000396872,ENST00000297195,ENST000						483,469
chr7	5340053	5340293	+ 00406453	chr7	5342024	5342186	+	8984-8985	
			ENST00000399537,ENST00000430969,ENST000						2049,85
chr7	5372680,537	5372253	- 00455076	chr7	5365349	5365050	-	8986-8987	
			ENST00000285279,ENST00000433959,ENST000						167,158,164,
			00545390,ENST00000428648,ENST00000428097						100,150,104,
			,ENST00000418904,ENST00000454227,ENST000						165
chr7	55540738	55540566	- 00453256,ENST00000427700	chr7	55533427	55533368	-	8988-8994	
			ENST00000322090,ENST00000446778,ENST000						205,166,65,1
chr7	56052540	56052571	+ 00437587,ENST00000415967	chr7	56059164	56059459	+	8995-8998	13
chr7	5692141	5692044	- ENST00000425013,ENST00000389902	chr7	5690361	5690106	-	8999-9000	662,719
chr7	5751470	5751392	- ENST00000425013,ENST00000389902	chr7	5749083	5748836	-	9001-9002	630,687
chr7	57528430	57528564	+ ENST00000420713	chr7	57540138	57540508	+	9003	132
chr7	5754821	5754684	- ENST00000425013,ENST00000389902	chr7	5754223	5754206	-	9004-9005	554,611
			ENST00000223029,ENST00000415999,ENST000						5
chr7	6048995	6049009	+ 00395236	chr7	6049640	6049758	+	9006	
chr7	6085782	6085702	- ENST00000199389,ENST00000536084	chr7	6085030	6084741	-	9007-9008	210,86
chr7	6217572	6217454	- ENST00000350796	chr7	6214043	6214043	-	9009	122
chr7	63506000	63506002	+ ENST00000550760	chr7	63517701	63518092	+	9010	1
			ENST00000438373,ENST00000355095,ENST000						1
chr7	63774529	63774531	+ 00423484	chr7	63862347	63862489	+	9011	
chr7	63797265	63797360	+ ENST00000355095,ENST00000423484	chr7	63862347	63862489	+	9012	75
			ENST00000297056,ENST00000436575,ENST000						309,268,182
chr7	6470238	6470111	- 00428902	chr7	6468287	6468104	-	9013-9015	
			ENST00000297056,ENST00000436575,ENST000						309,268,182
chr7	6470238	6470111	- 00428902	chr7	6468411	6468104	-	9016-9018	
chr7	6509385	6509227	- ENST00000258739,ENST00000490996	chr7	6506244	6506110	-	9019	117
chr7	65413658	65413767	+ ENST00000360768	chr7	65418334	65418537	+	9020	101

Table 9

			ENST00000304874,ENST00000380839,ENST00000395332,ENST00000362000,ENST00000395331						97,32
chr7	65547355	65547438	+		chr7	65547681	65547698	+	9021-9022	
chr7	66548417	66548526	+	ENST00000359626	chr7	66559829	66559990	+	9023	461
chr7	66660157	66660324	+	ENST00000359626	chr7	66691370	66691746	+	9024	659
				ENST00000544935,ENST00000537384,ENST00000406797,ENST00000403562,ENST00000360274,ENST00000430040,ENST00000414568,ENST00000417852						146,91
chr7	716957	716866	-		chr7	713647	713635	-	9025-9026	
				ENST00000222812,ENST00000395156,ENST00000395154,ENST00000395155						10
chr7	73133961	73133932	-		chr7	73130615	73130585	-	9027	
				ENST00000445912,ENST00000252034,ENST00000358929,ENST00000320492,ENST00000414324,ENST00000380562,ENST00000380575,ENST00000380584,ENST00000458204,ENST00000357036,ENST00000429192,ENST00000380553,ENST00000380576,ENST00000320399						664,732,583,640,670,635,616,654,669,650,528,645,697
chr7	73477951	73478025	+		chr7	73478157	73478463	+	9028-9040	
				ENST00000445912,ENST00000252034,ENST00000358929,ENST00000320492,ENST00000414324,ENST00000380562,ENST00000380575,ENST00000380584,ENST00000458204,ENST00000357036,ENST00000429192,ENST00000380553,ENST00000380576,ENST00000320399						664,732,583,640,670,635,616,654,669,650,528,645,697
chr7	73477951	73478025	+		chr7	73478320	73478463	+	9041-9053	
chr7	75000057	75000044	-	ENST00000594196	chr7	74999965	74999962	-	9054	9
chr7	75932030	75932230	+	ENST00000248553,ENST00000447574	chr7	75947512	75947533	+	9055	67
chr7	76033756	76033624	-	ENST00000275560	chr7	76031382	76031332	-	9056	44
chr7	77166864,77	77166962	+	ENST00000248594,ENST00000523952	chr7	77198943	77199103	+	9057-9058	30,33
				ENST00000334955,ENST00000445288,ENST00000445512,ENST00000441514						541,271,79,47
chr7	77397978	77398120	+		chr7	77399261	77399288	+	9059-9062	
				ENST00000422959,ENST00000307305,ENST00000275575,ENST00000416283,ENST00000248550						619,615,653
chr7	77572017	77572103	+		chr7	77573054	77573344	+	9063-9065	
chr7	7841324	7841374	+	ENST00000406829	chr7	7988980	7989291	+	9066	17
chr7	80535232	80535145	-	ENST00000411788,ENST00000427167	chr7	80480505	80480141	-	9067	63
				ENST00000265361,ENST00000419255,ENST00000544525,ENST00000458729,ENST00000536800						34,52,1
chr7	80546097,8054	80545995	-	,ENST00000411788,ENST00000427167	chr7	80480505	80480141	-	9068-9070	
				ENST00000297440,ENST00000313147,ENST00000440747,ENST00000403952						746,547,171
chr7	814643	814799	+		chr7	815271	815375	+	9071-9073	
				ENST00000402384,ENST00000406470,ENST00000265577,ENST00000396675,ENST00000401396						443,442,431,472
chr7	8167772	8167503	-	,ENST00000422063	chr7	8161027	8160940	-	9074-9077	
chr7	83277858	83277744	-	ENST00000307792,ENST00000453333	chr7	83258453	83253077	-	9078	38
chr7	83606512	83606448	-	ENST00000265362,ENST00000436949	chr7	83533751	83533560	-	9079	572
				ENST00000450689,ENST00000297222,ENST00000444627,ENST00000416314,ENST00000423294						1010,770,939,843,970
chr7	86521205	86521040	-		chr7	86458061	86457726	-	9080-9084	
chr7	87214996	87214828	-	ENST00000265724,ENST00000543898	chr7	87210349	87210176	-	9085	95
				ENST00000398204,ENST00000439864,ENST00000412441,ENST00000398201,ENST00000265727,ENST00000315984,ENST00000398209,ENST00000398203						107,124,74
chr7	87607651	87607727	+		chr7	87635516	87638206	+	9086-9088	
				ENST00000398204,ENST00000439864,ENST00000412441,ENST00000398201,ENST00000265727,ENST00000315984,ENST00000398209,ENST00000398203						107,124,74
chr7	87607651	87607727	+		chr7	87688542	87688727	+	9089-9091	
				ENST00000398204,ENST00000398201,ENST00000265727,ENST00000315984,ENST00000398209,ENST00000398203						406,373
chr7	87765295	87765346	+		chr7	87767189	87767472	+	9092-9093	
chr7	91509397	91509369	-	ENST00000351870,ENST00000442961	chr7	91461532	91460962	-	9094	9
chr7	91509397	91509369	-	ENST00000351870,ENST00000442961	chr7	91497997	91497541	-	9095	9
				ENST00000356239,ENST00000358100,ENST00000359028,ENST00000394534,ENST00000435423						3008,2958,3012,854,152
chr7	91714809	91715000	+		chr7	91715138	91715430	+	9096-9100	
				ENST00000394507,ENST00000340022,ENST00000412043,ENST00000394505,ENST00000445516						329,91
chr7	91863906	91863763	-		chr7	91858213	91857902	-	9101-9102	
				ENST00000438306,ENST00000445716,ENST00000415397,ENST00000427372,ENST00000456502						30,4
chr7	92210911,92	92210820	-		chr7	92209550	92209393	-	9103-9104	
				ENST00000251739,ENST00000305866,ENST00000541136,ENST00000544910						192,3,162
chr7	92887669,93	92887704	+		chr7	92888137	92888212	+	9105-9107	
chr7	93518535	93518347	-	ENST00000222543,ENST00000451238	chr7	93492029	93491711	-	9108-9109	153,74
				ENST00000222543,ENST00000545378,ENST00000451238						90,11
chr7	93519631,94	93519449	-		chr7	93492029	93491711	-	9110-9111	
				ENST00000265735,ENST00000445866,ENST00000437425,ENST00000447873,ENST00000428696						130,89,166
chr7	94257671	94257514	-	,ENST00000415788	chr7	94256035	94255748	-	9112-9114	
				ENST00000433360,ENST00000340694,ENST00000424654,ENST00000433881,ENST00000289495						704,682
chr7	94855273	94855428	+	,ENST00000456331	chr7	94875867	94876001	+	9115-9116	

				ENST00000536183,ENST00000455123,ENST000 00433091,ENST00000222572,ENST00000446142					45,24
chr7	95064326,95	95064190	-		chr7	95055751	95055700	- 9117-9118	
chr7	95125070	95125369	+	ENST00000428113,ENST00000325885	chr7	95134392	95134726	+ 9119	162
chr7	95125070	95125369	+	ENST00000428113,ENST00000325885	chr7	95143069	95143112	+ 9120	162
chr7	95165749	95165862	+	ENST00000325885 ENST00000265631,ENST00000416240,ENST000	chr7	95172743	95172758	+ 9121	364 5
chr7	95951268	95951254	-	00472162	chr7	95939003	95938972	- 9122	
chr7	97736490	97736592	+	ENST00000297293 ENST00000355540,ENST00000359863,ENST000	chr7	97766054	97766464	+ 9123	34 3541,3570,3
chr7	98602754	98602971	+	00446306,ENST00000456197	chr7	98603327	98603417	+ 9124-9127	559,3299
chr7	98652488	98652413	-	ENST00000361368,ENST00000361125 ENST00000432884,ENST00000262942,ENST000	chr7	98651319	98651023	- 9128	159 83,13
chr7	98941916	98942138	+	00432786	chr7	98944322	98944607	+ 9129-9130	
chr7	98961166	98961256	+	ENST00000432884,ENST00000262942	chr7	98963124	98963255	+ 9131-9132	311,358
chr7	98998047	98997926	-	ENST00000350498 ENST00000292478,ENST00000413834,ENST000	chr7	98997442	98997399	- 9133	111 151,2
chr7	99032865,99	99032413	-	00555673,ENST00000430982 ENST00000436336,ENST00000451876,ENST000	chr7	99032213	99032119	- 9134-9135	222,189,247,
chr7	99051664,9905	99051759	+	00292476,ENST00000441580,ENST00000452047 ,ENST00000440514	chr7	99052398	99052511	+ 9136-9141	169,157,128
chr7	99221680	99221803	+	ENST00000394152,ENST00000334715	chr7	99265633	99265996	+ 9142	268
chr7	99221680	99221803	+	ENST00000394152,ENST00000334715 ENST00000447480,ENST00000355947,ENST000	chr7	99321098	99321198	+ 9143	268 181,306,280
chr7	99500938	99500841	-	00349062,ENST00000354241	chr7	99498583	99498105	- 9144-9146	
chr7	99621777	99621930	+	ENST00000324306,ENST00000426572 ENST00000413658,ENST00000424697,ENST000	chr7	99622378	99622545	+ 9147-9148	193,157 18
chr7	99674980	99674926	-	00303915,ENST00000299667,ENST00000449785 ,ENST00000428683,ENST00000415068 ENST00000394061,ENST00000438383,ENST000 00445208,ENST00000429084,ENST00000359593 ,ENST00000439416,ENST00000446007,ENST000	chr7	99674180	99673913	- 9149	49,34
chr7	99699504	99699591	+	00421755,ENST00000416938	chr7	99699942	99700013	+ 9150-9151	
chr7	99954224	99954506	+	ENST00000448382,ENST00000455145 ENST00000355155,ENST00000496144,ENST000 00395996,ENST00000357162,ENST00000358544	chr7	99955507	99955517	+ 9152	94 97
chr8	100050651	100050794	+	,ENST00000441350	chr8	100075336	100077428	+ 9153	
chr8	100654039	100654726	+	ENST00000357162,ENST00000358544 ENST00000318607,ENST00000519004,ENST000 00522387,ENST00000523636,ENST00000517403	chr8	100704251	100707939	+ 9154-9155	1969,1994 445,400,413, 135,98
chr8	101721451	101721361	-	ENST00000395957,ENST00000395958,ENST000 00457309,ENST00000395956,ENST00000353245 ,ENST00000523848,ENST00000522542,ENST000 00521309,ENST00000522819,ENST00000395953 ,ENST00000395948,ENST00000395951,ENST000	chr8	101719715	101719431	- 9156-9160	226,111,151, 106,149,234
chr8	101936278	101936183	-	00419477,ENST00000521607	chr8	101920346	101919464	- 9161-9166	
chr8	102504998	102505017	+	ENST00000251808,ENST00000521085	chr8	102487410	102487704	+ 9167	6
chr8	102589636	102589747	+	ENST00000251808,ENST00000395927	chr8	102609759	102610070	+ 9168-9169	334,318
chr8	102644454	102644593	+	ENST00000251808,ENST00000395927 ENST00000520539,ENST00000220959,ENST000	chr8	102647378	102647513	+ 9170-9171	495,479 2361,90,235
chr8	103283473	103283362	-	00518205,ENST00000521922 ENST00000520539,ENST00000220959,ENST000	chr8	103283045	103282751	- 9172-9174	5 20
chr8	103424462	103424401	-	00521922	chr8	103406986	103406844	- 9175	
chr8	104778455	104778647	+	ENST00000504942,ENST00000406091 ENST00000504942,ENST00000406091,ENST000 00515551,ENST00000262231,ENST00000507740	chr8	104821508	104821527	+ 9176	193 694,502,549, 472
chr8	104930669	104930715	+	,ENST00000408894,ENST00000436393	chr8	104932928	104932935	+ 9177-9180	
chr8	106456508	106456609	+	ENST00000407775	chr8	106463794	106464015	+ 9181	100
chr8	106456508	106456609	+	ENST00000407775	chr8	106488703	106488763	+ 9182	100
chr8	109468102	109468159	+	ENST00000220853,ENST00000519642 ENST00000343508,ENST00000297405,ENST000	chr8	109468457	109468590	+ 9183-9184	68,121 265,305
chr8	114111192	114110985	-	00455883,ENST00000352409 ENST00000521861,ENST00000276682,ENST000	chr8	114084069	114082990	- 9185-9186	96,110,112
chr8	117738411	117738255	-	00518995,ENST00000522453 ENST00000521861,ENST00000276682,ENST000 00518949,ENST00000518995,ENST00000522800 ,ENST00000522453,ENST00000519046,ENST000	chr8	117688683	117688504	- 9187-9189	44,58,2
chr8	117768036,1	117767905	-	00520813	chr8	117763686	117763599	- 9190-9192	
chr8	11872558	11872340	-	ENST00000527396	chr8	11808431	11808370	- 9193	73
chr8	11872558	11872340	-	ENST00000527396	chr8	11822116	11822112	- 9194	73
chr8	118830769	118830674	-	ENST00000378204 ENST00000409003,ENST00000453675,ENST000 00524796,ENST00000314727,ENST00000526328	chr8	118825605	118825362	- 9195	544 154,140,146, 169
chr8	119391939	119391799	-	,ENST00000526765 ENST00000409003,ENST00000453675,ENST000 00524796,ENST00000314727,ENST00000526328	chr8	119353481	119353188	- 9196-9199	140,169,154, 146
chr8	119391939	119391799	-	,ENST00000526765 ENST00000409003,ENST00000524796,ENST000 00314727,ENST00000526328,ENST00000526765	chr8	119388095	119388066	- 9200-9203	122,107,99
chr8	119452200	119452071	-		chr8	119448218	119447981	- 9204-9206	

Table 9

				ENST00000409003,ENST00000445741,ENST000					4
chr8	119634055	119634043	-	00314727,ENST00000526328	chr8	119609004	119608968	-	9207
chr8	120220779	120220844	+	ENST00000276681	chr8	120233132	120233225	+	9208 44
				ENST00000518696,ENST00000306185,ENST000					50,26
chr8	121455548,1	121455425	-	00518918	chr8	121452485	121452212	-	9209-9210
chr8	121463411	121463562	+	ENST00000523373,ENST00000305949	chr8	121464915	121465093	+	9211 141
chr8	121483060	121483177	+	ENST00000305949	chr8	121487430	121487545	+	9212 388
chr8	121483060	121483177	+	ENST00000305949	chr8	121488720	121490652	+	9213 388
chr8	121587465	121587326	-	ENST00000395601,ENST00000517992	chr8	121565279	121564900	-	9214 378
chr8	121824083	121823513	-	ENST00000395601,ENST00000517992	chr8	121777809	121777663	-	9215 190
chr8	121824083	121823513	-	ENST00000395601,ENST00000517992	chr8	121815085	121815011	-	9216 190
				ENST00000259512,ENST00000405944,ENST000					51
chr8	124054362	124054210	-	00419562	chr8	123989465	123989244	-	9217
				ENST00000287387,ENST00000523984,ENST000					184,124,36
chr8	124453546	124453589	+	00518125	chr8	124460287	124460506	+	9218-9220
				ENST00000521166,ENST00000334705,ENST000					234,21
chr8	124792720	124792782	+	00517912	chr8	124795119	124795125	+	9221-9222
				ENST00000318410,ENST00000517845,ENST000					172,24
chr8	126094003,1	126093903	-	00523297	chr8	126093610	126093479	-	9223-9224
chr8	12612929	12612209	-	ENST00000398246	chr8	12609107	12608806	-	9225 240
				ENST00000523741,ENST00000517532,ENST000					139,79
				00287437,ENST00000522563,ENST00000517315					
chr8	126194345	126194498	+		chr8	126243983	126244002	+	9226-9227
				ENST00000523741,ENST00000517532,ENST000					139,79
				00287437,ENST00000522563,ENST00000517315					
chr8	126194345	126194498	+		chr8	126244253	126244322	+	9228-9229
				ENST00000287437,ENST00000522563,ENST000					208,148
chr8	126369954	126370060	+	00517315	chr8	126379477	126379782	+	9230-9231
				ENST00000524124,ENST00000357668,ENST000					356,535
chr8	131136350	131136259	-	00518721	chr8	131136161	131135877	-	9232-9233
chr8	13133909	13133771	-	ENST00000512044	chr8	13044492	13043116	-	9234 46
				ENST00000388996,ENST00000521134,ENST000					259,139
chr8	133192576	133192404	-	00519445	chr8	133192073	133192044	-	9235-9236
chr8	133837509	133837616	+	ENST00000395386,ENST00000395390	chr8	133838019	133838020	+	9237-9238 581,556
chr8	139890559	139889993	-	ENST00000303045,ENST00000435777	chr8	139861680	139861552	-	9239 219
				ENST00000389327,ENST00000389328,ENST000					843,950,695,
chr8	141231682	141231558	-	00520857,ENST00000438773	chr8	141186760	141186259	-	9240-9243 852
				ENST00000389327,ENST00000389328,ENST000					602,750,857,
chr8	141285920	141285757	-	00520857,ENST00000438773	chr8	141280578	141280529	-	9244-9247 759
				ENST00000522684,ENST00000519654,ENST000					982,946,936,
				00535192,ENST00000519465,ENST00000517887					610,1026,99
				,ENST00000521059,ENST00000395218,ENST000					5,45,654,650
				00517712,ENST00000523539,ENST00000538769					,995,292,683
				,ENST00000340930,ENST00000519419,ENST000					
chr8	141675096	141675016	-	00430260,ENST00000521986	chr8	141674529	141674416	-	9248-9259
				ENST00000522684,ENST00000519654,ENST000					724,714,342,
				00535192,ENST00000519465,ENST00000517887					758,386,382,
				,ENST00000521059,ENST00000395218,ENST000					24,412
				00523539,ENST00000538769,ENST00000340930					
				,ENST00000519419,ENST00000430260,ENST000					
				00521986,ENST00000522424,ENST00000521562					
chr8	141727808,1	141727697	-	,ENST00000523388	chr8	141723228	141722117	-	9260-9267
				ENST00000522684,ENST00000519654,ENST000					482,472,100,
				00535192,ENST00000519465,ENST00000517887					516,144,140,
				,ENST00000521059,ENST00000395218,ENST000					285,170,107
				00523539,ENST00000538769,ENST00000340930					
				,ENST00000519419,ENST00000524202,ENST000					
				00521986,ENST00000520151,ENST00000519024					
chr8	141762415	141762331	-		chr8	141760508	141760403	-	9268-9276
				ENST00000522684,ENST00000519654,ENST000					299,289,333,
				00535192,ENST00000517887,ENST00000521059					101
				,ENST00000395218,ENST00000340930,ENST000					
chr8	141828453	141828376	-	00519419,ENST00000524202	chr8	141819125	141818823	-	9277-9280
				ENST00000522684,ENST00000519654,ENST000					208,197,241,
				00535192,ENST00000517887,ENST00000521059					10
				,ENST00000395218,ENST00000340930,ENST000					
chr8	141856421,1	141856359	-	00519419,ENST00000524202	chr8	141854119	141853794	-	9281-9284
				ENST00000262585,ENST00000424248,ENST000					165,245,221
				00519811,ENST00000523058,ENST00000518668					
chr8	142154247	142154358	+		chr8	142154505	142154621	+	9285-9287
				ENST00000524325,ENST00000307180,ENST000					376,377,157
chr8	143395801	143395745	-	00520166,ENST00000519651	chr8	143394065	143393603	-	9288-9290
chr8	144124595,1	144124679	+	ENST00000524181,ENST00000395172	chr8	144129096	144129480	+	9291-9292 57,62
chr8	144548018	144547887	-	ENST00000262577	chr8	144532821	144532651	-	9293 769
chr8	145158128	145157954	-	ENST00000398712,ENST00000359551	chr8	145155901	145155744	-	9294 125
chr8	145487599	145487469	-	ENST00000307404	chr8	145453138	145452957	-	9295 474
chr8	145659142	145658971	-	ENST00000409379	chr8	145658626	145658463	-	9296 1186
chr8	145736177	145736286	+	ENST00000301327	chr8	145744133	145744138	+	9297 355
chr8	145979181	145979068	-	ENST00000292562,ENST00000525191	chr8	145972421	145971488	-	9298-9299 92,129
				ENST00000394920,ENST00000527914,ENST000					165,56,144
				00262584,ENST00000528957,ENST00000529920					
chr8	146016880,146	146016666	-	,ENST00000533397,ENST00000532702	chr8	145974109	145973950	-	9300-9302

Table 9

			ENST00000532777,ENST00000325241,ENST00000446747,ENST00000525266,ENST00000325217,ENST00000533314,ENST00000527218,ENST00000529819,ENST00000528372,ENST00000528130						43,54
chr8	146054863,1	146054989	+		chr8	146057255	146057408	+	9303-9304	82,93,115,81
			ENST00000532777,ENST00000325241,ENST00000446747,ENST00000525266,ENST00000325217,ENST00000533314,ENST00000527218,ENST00000529819,ENST00000528372,ENST00000528130						
chr8	146062776,1	146062892	+		chr8	146096907	146096948	+	9305-9308	21
			ENST00000402718,ENST00000450361,ENST00000305103,ENST00000529143,ENST00000533270						
chr8	146076723	146076661	-		chr8	146063610	146063313	-	9309	120,115
			ENST00000543949,ENST00000342660,ENST00000529780,ENST00000533543,ENST00000292579,ENST00000417550,ENST00000533622,ENST00000525694						
chr8	146112287	146112225	-		chr8	146110028	146109937	-	9310-9311	
chr8	146279404	146279527	+	ENST00000331434	chr8	146282164	146282212	+	9312	224
chr8	1496860,15	1497365	+	ENST00000421627,ENST00000520901	chr17	41401201	41400486	-	9313-9314	168,185
chr8	150533	150392	-	ENST00000523795	chr8	129347	129188	-	9315	47
chr8	150533	150392	-	ENST00000523795	chr8	36580	36177	-	9316	47
chr8	16122710	16122682	-	ENST00000518026	chr8	16108001	16107823	-	9317	9
			ENST00000361272,ENST00000523917,ENST00000519918,ENST00000524358							103,83
chr8	17100694	17100501	-		chr8	17097300	17097011	-	9318-9319	
			ENST00000324849,ENST00000521829,ENST00000521976							398,373,171
chr8	17143856	17143936	+		chr8	17165246	17165554	+	9320-9322	
			ENST00000180173,ENST00000398099,ENST00000521857							540,131
chr8	17159789	17159663	-		chr8	17158238	17158113	-	9323-9324	
			ENST00000251630,ENST00000541323,ENST00000398074							117
chr8	17446977	17447274	+		chr8	17447945	17448237	+	9325	
			ENST00000251630,ENST00000541323,ENST00000398074							117
chr8	17446977	17447274	+		chr8	17461945	17462254	+	9326	
			ENST00000325083,ENST00000519253,ENST00000524226							821,822
chr8	17819543	17819683	+		chr8	17820129	17820426	+	9327-9328	
			ENST00000349830,ENST00000520359,ENST00000398560,ENST00000518288,ENST00000262112							12,36
chr8	1791566,179	1791602	+	,ENST00000398564	chr8	1798948	1799346	+	9329-9330	
chr8	18871093	18871073	-	ENST00000327040,ENST00000440756	chr8	18797803	18797758	-	9331	7
chr8	18942039	18941716	-	ENST00000521475	chr8	18883553	18883382	-	9332	108
			ENST00000524240,ENST00000400782,ENST00000517328,ENST00000518077,ENST00000517892							264,159,131
chr8	21608454	21608100	-	,ENST00000522071	chr8	21570169	21569195	-	9333-9335	
			ENST00000434536,ENST00000252512,ENST00000433566,ENST00000517551							936,927,928,
chr8	21857047	21857185	+		chr8	21858672	21858843	+	9336-9339	237
			ENST00000520125,ENST00000521157,ENST00000397940,ENST00000522813,ENST00000518119							90
chr8	21883158	21883283	+	,ENST00000289820,ENST00000381530	chr8	21883506	21883832	+	9340	
			ENST00000308511,ENST00000389279,ENST00000520861,ENST00000522599,ENST00000520738							401,76,219,9
chr8	22472351	22472514	+		chr8	22472819	22472863	+	9341-9344	3
			ENST00000276416,ENST00000522687,ENST00000520292,ENST00000522268							2
chr8	22526564	22526557	-		chr8	22513974	22513369	-	9345	
			ENST00000519973,ENST00000417331,ENST00000290075,ENST00000523930							70,51
chr8	23386516,23	23386725	+		chr8	23394347	23394426	+	9346-9347	
			ENST00000519973,ENST00000417331,ENST00000290075,ENST00000523930							70,51
chr8	23386516,23	23386725	+		chr8	23400215	23400578	+	9348-9349	
			ENST00000481100,ENST00000276440,ENST00000444569							349,121
chr8	25161771	25161843	+		chr8	25164075	25164208	+	9350-9351	
chr8	25202991	25203127	+	ENST00000276440,ENST00000444569	chr8	25207139	25207438	+	9352-9353	689,918
			ENST00000221200,ENST00000519665,ENST00000523140							16
chr8	25315762	25315715	-		chr8	25307186	25307133	-	9354	
chr8	25327412	25327496	+	ENST00000330560,ENST00000380665	chr8	25334940	25335146	+	9355-9356	273,258
			ENST00000413272,ENST00000341513,ENST00000418860							14
chr8	27931927	27931885	-		chr8	27930795	27930523	-	9357	
			ENST00000335551,ENST00000400186,ENST00000602723,ENST00000520002,ENST00000602557							2688,3095,3
										272,3271,30
chr8	2815329	2815218	-	,ENST00000537824,ENST00000542608	chr8	2815083	2814900	-	9358-9362	94
			ENST00000523303,ENST00000521022,ENST00000416984,ENST00000522363,ENST00000523436							3
chr8	28747399	28747391	-	,ENST00000518510	chr8	28735992	28735836	-	9363	
			ENST00000403668,ENST00000444075,ENST00000287701,ENST00000558662,ENST00000523613							283
			,ENST00000560599,ENST00000397358,ENST00000519047,ENST00000521516,ENST00000355231							
chr8	28876277	28876430	+	,ENST00000524238	chr8	28900614	28901090	+	9364	
chr8	30034642	30034730	+	ENST00000221114,ENST00000520829	chr8	30047981	30047993	+	9365	94
			ENST00000523023,ENST00000221138,ENST00000520334							28,285,123
chr8	30648796,31	30648713	-		chr8	30646381	30646311	-	9366-9368	
chr8	30982424	30982516	+	ENST00000298139	chr8	30987592	30987679	+	9369	941
chr8	31497501,31	31498245	+	ENST00000520407,ENST00000523534	chr8	31565788	31565962	+	9370-9371	248,101
chr8	37914599	37914778	+	ENST00000338825	chr8	37953299	37953457	+	9372	108

Table 9

			ENST00000519416,ENST00000520615,ENST000						303,457,458,
			00443286,ENST00000518415,ENST00000330691						640,579,227,
			,ENST00000348567,ENST00000317827,ENST000						215,653,665,
			00379931,ENST00000276520,ENST00000520973						243,429,411,
			,ENST00000521866,ENST00000518809,ENST000						91
chr8	38697742	38697785	+ 00520611	chr8	38698832	38699148	+	9373-9385	
			ENST00000466936,ENST00000481513,ENST000						32
			00487273,ENST00000481873,ENST00000379917						
chr8	38854583	38854679	+ ,ENST00000468065	chr8	38855393	38855448	+	9386	
			ENST00000487273,ENST00000481873,ENST000						530
chr8	38913096	38913291	+ 00379917,ENST00000468065	chr8	38933666	38934081	+	9387	
			ENST00000342228,ENST00000520262,ENST000						243
chr8	42302280	42302164	- 00520179	chr8	42301587	42301149	-	9388	
chr8	42706140	42706040	- ENST00000319104	chr8	42705549	42704937	-	9389	165
			ENST00000319073,ENST00000534961,ENST000						73,169,85
chr8	42716998	42716888	- 00527424,ENST00000526349	chr8	42705549	42704937	-	9390-9392	
			ENST00000319104,ENST00000534961,ENST000						45
			00527424,ENST00000240159,ENST00000531440						
chr8	42743007	42742871	- ,ENST00000524954	chr8	42740752	42740158	-	9393	
			ENST00000302279,ENST00000342116,ENST000						260,193,109,
chr8	42932359	42932507	+ 00529687,ENST00000533336	chr8	42933783	42935743	+	9394-9397	198
			ENST00000458501,ENST00000379644,ENST000						215,187,137
chr8	43016581	43016650	+ 00520704	chr8	43020544	43020797	+	9398-9400	
			ENST00000297423,ENST00000518074,ENST000						175,115,105
			00524126,ENST00000519661,ENST00000524033						
chr8	48206456	48206619	+ ,ENST00000541342	chr8	48156104	48156472	+	9401-9403	
			ENST00000297423,ENST00000518074,ENST000						175,115,105
			00524126,ENST00000519661,ENST00000524033						
chr8	48206456	48206619	+ ,ENST00000541342	chr8	48538023	48539961	+	9404-9406	
			ENST00000297423,ENST00000518074,ENST000						365,305,295,
			00541342,ENST00000524006,ENST00000519401						54,47
chr8	48352885,4835	48353104	+	chr8	48358023	48359144	+	9407-9411	
			ENST00000297423,ENST00000518074,ENST000						196,514,454,
chr8	48511508	48511758	+ 00541342,ENST00000519401	chr8	48535770	48539961	+	9412-9415	444
chr8	48798708	48798505	- ENST00000314191,ENST00000338368	chr8	48797071	48795598	-	9416	1591
			ENST00000355221,ENST00000520188,ENST000						272,250,290
chr8	54708399	54708207	- 00359530,ENST00000396774	chr8	54698937	54693104	-	9417-9419	
chr8	54793576	54793644	+ ENST00000276500	chr8	54841107	54841396	+	9420	23
			ENST00000396401,ENST00000521604,ENST000						21
			00522635,ENST00000520534,ENST00000518310						
chr8	54934685	54934623	- ,ENST00000518784,ENST00000519704	chr8	54924080	54923662	-	9421	
chr8	56717452	56717595	+ ENST00000260129	chr8	56717849	56718045	+	9422	714
chr8	61178608	61178484	- ENST00000317995	chr8	61171255	61171026	-	9423	139
chr8	61178608	61178484	- ENST00000317995	chr8	61171360	61171026	-	9424	139
			ENST00000262646,ENST00000531289,ENST000						10,15
chr8	61429767,61	61429812	+ 00529579,ENST00000466595	chr8	61445867	61446049	+	9425-9426	
			ENST00000262646,ENST00000531289,ENST000						15,1
chr8	61429767,61	61429812	+ 00529579,ENST00000466595	chr8	61446017	61446049	+	9427-9428	
			ENST00000262646,ENST00000531289,ENST000						10,15
chr8	61429767,61	61429812	+ 00529579,ENST00000466595	chr8	61446025	61446049	+	9429-9430	
			ENST00000522706,ENST00000523415,ENST000						12,123,260,3
chr8	624047,62332	623289	- 00262109,ENST00000522893	chr8	619926	619800	-	9431-9434	54
			ENST00000541428,ENST00000379454,ENST000						207,236,49,2
			00522919,ENST00000356457,ENST00000519234						51,193,222,1
			,ENST00000518068,ENST00000517903,ENST000						79
			00445642,ENST00000517847,ENST00000522835						
chr8	62556560	62556504	-	chr8	62556055	62556042	-	9435-9441	
			ENST00000379454,ENST00000356457,ENST000						34
			00519234,ENST00000518068,ENST00000517856						
chr8	62626930	62626828	- ,ENST00000379449	chr8	62610512	62610367	-	9442	
chr8	63659491	63659688	+ ENST00000523211,ENST00000328472	chr8	63662899	63662903	+	9443	157
			ENST00000262146,ENST00000458689,ENST000						93,60,51
chr8	66605879	66605994	+ 00518800	chr8	66613136	66613530	+	9444-9446	
			ENST00000401827,ENST00000379419,ENST000						198,172
chr8	66651832	66651737	- 00396642	chr8	66648607	66648191	-	9447-9448	
chr8	66753743	66753606	- ENST00000401827,ENST00000396642	chr8	66702285	66702011	-	9449	46
chr8	66753743	66753606	- ENST00000401827,ENST00000396642	chr8	66750820	66750694	-	9450	46
			ENST00000422365,ENST00000313616,ENST000						626,563
chr8	67817461	67817570	+ 00541540	chr8	67823206	67823365	+	9451-9452	
			ENST00000412460,ENST00000262210,ENST000						723,1068
chr8	68092098	68092161	+ 00519668	chr8	68099265	68099650	+	9453-9454	
			ENST00000297769,ENST00000297770,ENST000						64,212
chr8	68419123	68419022	- 00518549	chr8	68418035	68417997	-	9455-9456	
			ENST00000539993,ENST00000518698,ENST000						399,485,374,
chr8	69688634	69688684	+ 00337103,ENST00000325233	chr8	69695974	69696112	+	9457-9460	143
			ENST00000521425,ENST00000262213,ENST000						264,350,319
chr8	71495559	71495399	- 00536748	chr8	71378488	71378454	-	9461-9463	
			ENST00000388742,ENST00000340726,ENST000						566,533,560,
			00388740,ENST00000303824,ENST00000388741						532,565,531
chr8	72123491	72123391	- ,ENST00000388743,ENST00000419131	chr8	72106999	72106716	-	9464-9469	
chr8	72756464	72756657	+ ENST00000537896	chr8	72866373	72866494	+	9470	165

Table 9

			ENST00000521467,ENST00000524152,ENST000						12
chr8	72875248	72875283	+ 00519068	chr8	72937597	72937751	+	9471	
chr8	74440039	74439926	- ENST00000521210,ENST00000523533	chr8	74408867	74408811	-	9472-9473	444,161
chr8	74440039	74439926	- ENST00000521210,ENST00000523533	chr8	74420593	74418574	-	9474-9475	444,161
			ENST00000522695,ENST00000524300,ENST000						478,510,338,
			00523558,ENST00000521210,ENST00000523533						406,123,490,
			,ENST00000355780,ENST00000519961,ENST000						290,472
			00521727,ENST00000521451,ENST00000522509						
chr8	74464554	74464247	- ,ENST00000517542	chr8	74408867	74408811	-	9476-9483	
			ENST00000522695,ENST00000524300,ENST000						478,510,338,
			00523558,ENST00000521210,ENST00000523533						406,123,490,
			,ENST00000355780,ENST00000519961,ENST000						290,472
			00521727,ENST00000521451,ENST00000522509						
chr8	74464554	74464247	- ,ENST00000517542	chr8	74420593	74418574	-	9484-9491	
			ENST00000522695,ENST00000524300,ENST000						104,136,32,1
			00521210,ENST00000355780,ENST00000519961						16,98
			,ENST00000521727,ENST00000522509,ENST000						
			00517542,ENST00000518981,ENST00000521447						
chr8	74585477,75	74585342	- ,ENST00000524104,ENST00000521419	chr8	74568283	74568186	-	9492-9496	
			ENST00000358757,ENST00000523278,ENST000						147,143,176,
			00453587,ENST00000517608,ENST00000602593						158,187
chr8	74717961	74717886	- ,ENST00000602969,ENST00000419880	chr8	74688762	74688511	-	9497-9501	
			ENST00000358757,ENST00000523278,ENST000						143,147,176,
			00453587,ENST00000517608,ENST00000602593						158,187
chr8	74717961	74717886	- ,ENST00000602969,ENST00000419880	chr8	74693057	74692764	-	9502-9506	
			ENST00000602840,ENST00000518127,ENST000						49,33
			00520210,ENST00000520242,ENST00000519487						
			,ENST00000284811,ENST00000522337,ENST000						
chr8	74868289,75	74868146	- 00523815,ENST00000519082	chr8	74842723	74842412	-	9507-9508	
			ENST00000602840,ENST00000518127,ENST000						1
			00520242,ENST00000519487,ENST00000284811						
			,ENST00000522337,ENST00000523815,ENST000						
chr8	74872003	74872000	- 00519082	chr8	74871067	74871039	-	9509	
			ENST00000602840,ENST00000518127,ENST000						1
			00520242,ENST00000519487,ENST00000284811						
			,ENST00000522337,ENST00000523815,ENST000						
chr8	74872003	74872000	- 00519082	chr8	74871645	74871612	-	9510	
chr8	74922236	74922364	+ ENST00000284818,ENST00000518893	chr8	75011654	75012118	+	9511-9512	110,8
chr8	75275174	75275288	+ ENST00000220822,ENST00000434412	chr8	75412748	75413288	+	9513-9514	231,163
chr8	75525103	75525175	+ ENST00000523442,ENST00000523118	chr8	75614601	75614667	+	9515	24
chr8	81733829	81733609	- ENST00000327835,ENST00000519936	chr8	81674672	81674499	-	9516	73
chr8	81733829	81733609	- ENST00000327835,ENST00000519936	chr8	81711062	81711020	-	9517	73
chr8	81903765	81903714	- ENST00000220597	chr8	81901501	81901476	-	9518	59
chr8	87482639	87482447	- ENST00000517710,ENST00000519247	chr8	87481708	87481449	-	9519-9520	149,96
chr8	89059012	89058897	- ENST00000286614	chr8	89036941	89036871	-	9521	496
chr8	89059012	89058897	- ENST00000286614	chr8	89039641	89037949	-	9522	496
chr8	89059012	89058897	- ENST00000286614	chr8	89058476	89058062	-	9523	496
chr8	89339435,89	89339304	- ENST00000286614,ENST00000522726	chr8	89242379	89242355	-	9524-9525	44,61
chr8	90971082	90970953	- ENST00000265433,ENST00000409330	chr8	90970250	90970028	-	9526-9527	374,292
			ENST00000418210,ENST00000458549,ENST000						265,134
chr8	91658133,92	91657339	- 00422900	chr8	91566894	91566536	-	9528-9529	
			ENST00000452913,ENST00000518322,ENST000						219,64
			00518116,ENST00000517718,ENST00000521641						
chr8	94730903	94731016	+ ,ENST00000519679	chr8	94732818	94733107	+	9530-9531	
chr8	95142967	95142854	- ENST00000027335,ENST00000450165	chr8	95116660	95116435	-	9532	799
			ENST00000520408,ENST00000310430,ENST000						369,132
chr8	9538235	9538310	+ 00518281	chr8	9543891	9544003	+	9533-9534	
			ENST00000463267,ENST00000297592,ENST000						116,14
chr8	95444884	95444839	- 00481490	chr8	95431011	95430693	-	9535-9536	
chr8	95449096	95448723	- ENST00000517506,ENST00000481490	chr8	95431011	95430693	-	9537	124
			ENST00000336148,ENST00000463267,ENST000						101
chr8	95470664	95470496	- 00523839,ENST00000297592	chr8	95431011	95430693	-	9538	
			ENST00000414645,ENST00000519176,ENST000						47,203,174,5
chr8	95751873,96	95752018	+ 00521525,ENST00000523020	chr8	95752255	95752273	+	9539-9542	3
			ENST00000523731,ENST00000447247,ENST000						692,513,46
			00343161,ENST00000520526,ENST00000520315						
chr8	95871739	95871860	+	chr8	95876823	95876959	+	9543-9545	
			ENST00000396113,ENST00000396111,ENST000						199,239,291,
			00542894,ENST00000396124,ENST00000286687						139
chr8	96064402	96064458	+	chr8	96076952	96077628	+	9546-9549	
			ENST00000310430,ENST00000518281,ENST000						1299,1062,4
chr8	9627616,963	9627772	+ 00517770	chr8	9628401	9628615	+	9550-9552	4
			ENST00000310430,ENST00000518281,ENST000						1299,1062,4
chr8	9627616,963	9627772	+ 00517770	chr8	9630039	9630303	+	9553-9555	4
			ENST00000517309,ENST00000455950,ENST000						391,245,188
chr8	97332474	97332573	+ 00522072	chr8	97398138	97398353	+	9556-9558	
			ENST00000517309,ENST00000455950,ENST000						437,291,234
chr8	97343254	97343323	+ 00522072	chr8	97398138	97398353	+	9559-9561	
chr8	99162713	99162867	+ ENST00000401707,ENST00000349693	chr8	99163749	99163858	+	9562	685
chr8	99264862	99264691	- ENST00000430223,ENST00000341166	chr8	99260027	99259946	-	9563	125
chr8	99539145	99538970	- ENST00000419617,ENST00000523601	chr8	99469521	99469458	-	9564-9565	439,467
chr8	99539145	99538970	- ENST00000419617,ENST00000523601	chr8	99473937	99473099	-	9566-9567	439,467

Table 9

				ENST00000419617,ENST00000523601,ENST00000518165					274,302,163
chr8	99608397	99608260	-		chr8	99607346	99607203	-	9568-9570
chr8	99895984	99895875	-	ENST00000523601	chr8	99878947	99878851	-	9571 36
chr9	100194307	100194520	+	ENST00000355295,ENST00000422139	chr9	100197672	100197926	+	9572-9573 187,113
chr9	100367147	100367009	-	ENST00000341170,ENST00000354801	chr9	100366271	100365994	-	9574-9575 417,157
chr9	100431875	100431988	+	ENST00000375147,ENST00000375130	chr9	100434950	100435128	+	9576-9577 753,119
chr9	100456041	100455931	-	ENST00000462523,ENST00000375128	chr9	100455617	100455580	-	9578 94
chr9	100760838	100760960	+	ENST00000339399	chr9	100769916	100771241	+	9579 109
chr9	100823064	100823279	+	ENST00000210444	chr9	100828179	100828242	+	9580 116
chr9	100919942	100919742	-	ENST00000343933,ENST00000375077	chr9	100911894	100911685	-	9581 67
chr9	101984828	101984925	+	ENST00000223641	chr9	101986352	101986588	+	9582 33
chr9	101990242,1	101990282	+	ENST00000498603,ENST00000223641	chr9	102000284	102000466	+	9583-9584 13,67
				ENST00000286398,ENST00000374793,ENST00000303219,ENST00000374787,ENST00000493955					1089,156
chr9	106896696	106896856	+		chr9	106898129	106898267	+	9585-9586
				ENST00000602661,ENST00000223528,ENST00000540160,ENST00000448551,ENST00000357998					55
chr9	108358879	108358938	+	,ENST00000602526	chr9	108360912	108361091	+	9587
chr9	111637250	111637175	-	ENST00000374647,ENST00000537196	chr9	111632833	111632544	-	9588-9589 1310,961
chr9	113800979	113800932	-	ENST00000538760	chr9	113773970	113773536	-	9590 16
				ENST00000394777,ENST00000394779,ENST00000374287,ENST00000318737					923,958,997
chr9	114462327	114462234	-		chr9	114460646	114459472	-	9591-9593
				ENST00000394777,ENST00000394779,ENST00000374287,ENST00000318737					923,958,997
chr9	114462327	114462234	-		chr9	114461374	114460913	-	9594-9596
chr9	115171187,1	115171301	+	ENST00000398805,ENST00000262542	chr9	115175483	115175793	+	9597-9598 131,11
chr9	115248821	115248670	-	ENST00000457681	chr9	115232117	115232090	-	9599 126
chr9	115248821	115248670	-	ENST00000457681	chr9	115247443	115246974	-	9600 126
chr9	116984503	116984547	+	ENST00000356083,ENST00000494090	chr9	116985012	116985240	+	9601-9602 822,453
chr9	117029784	117029837	+	ENST00000356083	chr9	117030974	117031018	+	9603 1167
chr9	117029784	117029837	+	ENST00000356083	chr9	117031276	117031284	+	9604 1167
chr9	117228672	117228547	-	ENST00000362057	chr9	117227171	117227153	-	9605 321
chr9	123540823	123540629	-	ENST00000608872,ENST00000453291	chr9	123539299	123539213	-	9606-9607 228,99
				ENST00000546084,ENST00000373887,ENST00000540010					172,294
chr9	123673791	123673614	-		chr9	123671748	123671695	-	9608-9609
				ENST00000373823,ENST00000432226,ENST00000341272,ENST00000373808,ENST00000394353,ENST00000412819,ENST00000436847,ENST00000449733,ENST00000545652,ENST00000373818					221,232,229, 272,3
chr9	124074617,1	124074766	+	,ENST00000373807	chr9	124075820	124075887	+	9610-9614
chr9	124736403	124736288	-	ENST00000321582	chr9	124647854	124647734	-	9615 583
				ENST00000373670,ENST00000498479,ENST00000357244,ENST00000423239,ENST00000373665					194
chr9	125652824	125652591	-	,ENST00000335387,ENST00000471874	chr9	125650970	125650324	-	9616
				ENST00000373647,ENST00000402311,ENST00000426918					50
chr9	125719339	125719488	+		chr9	125733944	125734249	+	9617
chr9	125838913	125839041	+	ENST00000373647,ENST00000373643	chr9	125843319	125843629	+	9618-9619 808,147
chr9	125838913	125839041	+	ENST00000373647,ENST00000373643	chr9	125847506	125847691	+	9620-9621 808,147
				ENST00000447404,ENST00000348403,ENST00000360998					348,334
chr9	125920402	125920291	-		chr9	125920092	125919792	-	9622-9623
				ENST00000373624,ENST00000373620,ENST00000394215,ENST00000373618					29,14
chr9	126641300,1	126641230	-		chr9	126637593	126637585	-	9624-9625
				ENST00000487099,ENST00000373584,ENST00000416460,ENST00000344523					47
chr9	127495628	127495587	-		chr9	127495273	127494977	-	9626
chr9	127570060	127570245	+	ENST00000373580,ENST00000288815	chr9	127571897	127571934	+	9627-9628 451,237
				ENST00000373570,ENST00000493018,ENST00000348462					74
chr9	127622543	127622462	-		chr9	127620586	127620479	-	9629
				ENST00000259460,ENST00000394125,ENST00000373538					124,175
chr9	127982818	127982979	+		chr9	127988316	127988446	+	9630-9631
				ENST00000394105,ENST00000265956,ENST00000394104,ENST00000470056,ENST00000394083,ENST00000495955,ENST00000467750,ENST00000297933,ENST00000312123,ENST00000431329					672,645,809, 788
chr9	128094789	128094908	+	,ENST00000436712	chr9	128096873	128097674	+	9632-9635
				ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000373497,ENST00000497932,ENST00000420643					401,448,412, 256,161,220
chr9	128230388	128230251	-		chr9	128221992	128220495	-	9636-9641
				ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000373497,ENST00000497932,ENST00000420643,ENST00000394060					319,127,68
chr9	128305447	128305338	-	,ENST00000427078	chr9	128287571	128287479	-	9642-9644
				ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000497932,ENST00000420643,ENST00000394060,ENST00000427078					282,9
chr9	128322088	128321912	-		chr9	128320445	128320143	-	9645-9646
				ENST00000373511,ENST00000373498,ENST00000350766,ENST00000265960,ENST00000394060					166,2
chr9	128420078,1	128419930	-	,ENST00000468896	chr9	128362206	128361884	-	9647-9648

				ENST00000342287,ENST00000373487,ENST000					91,16
				00373489,ENST00000373492,ENST00000373482					
chr9	128510829,1	128510902	+	,ENST00000491787,ENST00000447726	chr9	128547735	128548019	+ 9649-9650	
chr9	130271410	130271255	-	ENST00000373314,ENST00000373312	chr9	130271068	130271016	- 9651-9652	426,439
chr9	130331153	130331099	-	ENST00000373312	chr9	130298967	130298928	- 9653	18
chr9	130341216	130341201	-	ENST00000373314	chr9	130332655	130332602	- 9654	5
chr9	130341216	130341201	-	ENST00000373314	chr9	130334705	130334602	- 9655	5
chr9	130341216	130341201	-	ENST00000373314	chr9	130334967	130334888	- 9656	5
chr9	130341216	130341201	-	ENST00000373314	chr9	130338877	130338758	- 9657	5
chr9	130374683	130374719	+	ENST00000373302,ENST00000373299	chr9	130404748	130404838	+ 9658	12
chr9	130540906	130540875	-	ENST00000314830	chr9	130540563	130540257	- 9659	10
chr9	130699802	130699713	-	ENST00000314392,ENST00000373110	chr9	130699144	130699117	- 9660	31
				ENST00000421699,ENST00000609374,ENST000					446,434,473
chr9	131023538	131023451	-	00450617	chr9	131023288	131023235	- 9661-9663	
				ENST00000421699,ENST00000609374,ENST000					446,434,473
chr9	131023538	131023451	-	00450617	chr9	131023294	131023235	- 9664-9666	
chr9	131105412	131105572	+	ENST00000300456	chr9	131106276	131106307	+ 9667	53
				ENST00000372853,ENST00000452446,ENST000					35,49
				00470840,ENST00000372850,ENST00000372847					
chr9	131140315,1	131140385	+		chr9	131141602	131141783	+ 9668-9669	
				ENST00000497812,ENST00000393533,ENST000					131,140,184,
				00372814,ENST00000351030,ENST00000604420					135,140,116,
				,ENST00000393527,ENST00000434106,ENST000					121,121
				00546203,ENST00000446274,ENST00000372791					
chr9	131231462	131231632	+	,ENST00000372807,ENST00000444119	chr9	131232769	131232919	+ 9670-9677	
chr9	131446175	131446286	+	ENST00000372692	chr9	131449003	131449271	+ 9678	37
				ENST00000302586,ENST00000320665,ENST000					374,324,468
chr9	131597681	131597602	-	00436267	chr9	131596793	131596773	- 9679-9681	
				ENST00000358994,ENST00000393370,ENST000					298,333,304,
				00337738,ENST00000348141,ENST00000452489					269,79,256,2
				,ENST00000357197,ENST00000347048,ENST000					63,102,36
				00355007,ENST00000417728,ENST00000411917					
				,ENST00000423100,ENST00000524946,ENST000					
				00436883,ENST00000414510,ENST00000432124					
				,ENST00000435305,ENST00000419582,ENST000					
				00432651,ENST00000435132,ENST00000434095					
chr9	131904724	131904831	+		chr9	131915204	131915251	+ 9682-9690	
				ENST00000358994,ENST00000393370,ENST000					102,298,333,
				00337738,ENST00000348141,ENST00000452489					304,269,79,2
				,ENST00000357197,ENST00000347048,ENST000					56,263,36
				00355007,ENST00000417728,ENST00000411917					
				,ENST00000423100,ENST00000524946,ENST000					
				00436883,ENST00000414510,ENST00000432124					
				,ENST00000435305,ENST00000419582,ENST000					
				00432651,ENST00000435132,ENST00000434095					
chr9	131904724	131904831	+		chr9	131971148	131971362	+ 9691-9699	
chr9	132872649	132872705	+	ENST00000372406,ENST00000372410	chr9	132884904	132885009	+ 9700	454
chr9	132963237	132963261	+	ENST00000372398,ENST00000458469	chr9	132963713	132963803	+ 9701-9702	29,11
chr9	133455068	133455151	+	ENST00000319725	chr9	133468685	133468790	+ 9703	28
				ENST00000359428,ENST00000411637,ENST000					431,102
chr9	134015936	134016097	+	00451030,ENST00000530863	chr9	134016500	134016692	+ 9704-9705	
				ENST00000405995,ENST00000357304,ENST000					1126,1820,5
chr9	134358746	134358832	+	00458550,ENST00000451855	chr9	134359342	134359376	+ 9706-9708	52
				ENST00000404875,ENST00000423007,ENST000					491,608,554,
				00341012,ENST00000372228,ENST00000419118					630,456,348,
				,ENST00000402686,ENST00000541219,ENST000					578,229
chr9	134396733	134396859	+	00354713,ENST00000372220	chr9	134397367	134397375	+ 9709-9716	
				ENST00000372189,ENST00000372195,ENST000					710,727,728,
chr9	134471760	134471685	-	00372190,ENST00000414781	chr9	134469357	134469344	- 9717-9720	137
				ENST00000372189,ENST00000372195,ENST000					88,105,106
chr9	134525629	134525516	-	00372190,ENST00000427994	chr9	134521698	134521476	- 9721-9723	
				ENST00000372179,ENST00000360670,ENST000					285
chr9	135073353	135073996	+	00393228,ENST00000393229	chr9	135081127	135081279	+ 9724	
				ENST00000436441,ENST00000224140,ENST000					424,2182
chr9	135158800	135158651	-	00372169,ENST00000393220	chr9	135158244	135158062	- 9725-9726	
chr9	135262008	135261943	-	ENST00000334270	chr9	135256429	135256286	- 9727	792
				ENST00000372159,ENST00000372153,ENST000					769,696,640
chr9	135487642	135487474	-	00438527	chr9	135401455	135401030	- 9728-9730	
				ENST00000372124,ENST00000339463,ENST000					225,271
				00450530,ENST00000534944,ENST00000372122					
chr9	135865129	135865294	+	,ENST00000372123	chr9	135868121	135868156	+ 9731-9732	
				ENST00000542690,ENST00000372043,ENST000					132,119,102
				00372040,ENST00000540636,ENST00000372038					
chr9	136030699	136030565	-		chr9	136029942	136029881	- 9733-9735	
				ENST00000542690,ENST00000372043,ENST000					87,74,57
				00372040,ENST00000540636,ENST00000372038					
chr9	136031323	136031288	-		chr9	136031078	136030988	- 9736-9738	
				ENST00000303407,ENST00000371834,ENST000					547
chr9	136905391	136905156	-	00357885	chr9	136903449	136903273	- 9739	
chr9	137593017	137593179	+	ENST00000371817	chr9	137605348	137605597	+ 9740	218

Table 9

				ENST00000313050,ENST00000277537,ENST000					2264,658,98
				00453963,ENST00000371706,ENST00000313084					6,2086,292
chr9	139341401,1	139341307	-	,ENST00000290037,ENST00000431893	chr9	139340688	139340557	- 9741-9745	
chr9	139607118	139607180	+	ENST00000371692	chr9	139608702	139608798	+ 9746	21
chr9	139607118	139607180	+	ENST00000371692	chr9	139611405	139611696	+ 9747	21
chr9	140135813	140135869	+	ENST00000340384	chr9	140136137	140136162	+ 9748	19
chr9	140161692	140161798	+	ENST00000343053	chr9	140166336	140166384	+ 9749	448
chr9	140242603,1	140242523	-	ENST00000342129,ENST00000340951	chr9	140242067	140241896	- 9750-9751	317,666
				ENST00000371457,ENST00000277531,ENST000					363,757,782,
chr9	140379188	140379039	-	00406427,ENST00000434090	chr9	140378565	140378385	- 9752-9755	748
chr9	140459058	140458886	-	ENST00000277540	chr9	140458662	140458008	- 9756	316
chr9	140472055	140472029	-	ENST00000277540	chr9	140470854	140470728	- 9757	60
chr9	140473229	140473077	-	ENST00000277540	chr9	140470854	140470728	- 9758	51
chr9	14640010	14639894	-	ENST00000380916	chr9	14555734	14555556	- 9759	207
				ENST00000380881,ENST00000422223,ENST000					1393,1392
chr9	14789112	14788917	-	00380880	chr9	14788175	14788111	- 9760-9761	
				ENST00000380738,ENST00000380733,ENST000					49
				00380715,ENST00000380716,ENST00000397519					
chr9	15506635	15506559	-		chr9	15501789	15501741	- 9762	
				ENST00000535968,ENST00000297641,ENST000					59
chr9	15571622	15571757	+	00380701	chr9	15573779	15573906	+ 9763	
				ENST00000297641,ENST00000380701,ENST000					1200,439,25
chr9	15874530	15874661	+	00449575,ENST00000432954	chr9	15900176	15900623	+ 9764-9766	3
				ENST00000380672,ENST00000484726,ENST000					223,180,156,
				00418777,ENST00000380667,ENST00000545497					128,145
chr9	16552763	16552528	-	,ENST00000380666,ENST00000603713	chr9	16400545	16400340	- 9767-9771	
				ENST00000380672,ENST00000484726,ENST000					223,180,156,
				00418777,ENST00000380667,ENST00000545497					128,145
chr9	16552763	16552528	-	,ENST00000380666,ENST00000603713	chr9	16530132	16529844	- 9772-9776	
				ENST00000380647,ENST00000262360,ENST000					628,628
chr9	17342323	17342442	+	00425824	chr9	17365279	17365459	+ 9777-9778	
				ENST00000380647,ENST00000262360,ENST000					693,693
chr9	17388160	17388251	+	00425824	chr9	17389959	17390177	+ 9779-9780	
				ENST00000380647,ENST00000262360,ENST000					1373,1373
chr9	17486987	17487064	+	00425824	chr9	17509819	17510373	+ 9781-9782	
				ENST00000434457,ENST00000602925,ENST000					495,259,268
chr9	19305350	19305525	+	00380432,ENST00000494124	chr9	19309140	19309436	+ 9783-9785	
				ENST00000349721,ENST00000357248,ENST000					118
				00450198,ENST00000439732,ENST00000382203					
chr9	2032952	2033081	+	,ENST00000382194	chr9	2033966	2034266	+ 9786	
chr9	20620833	20620653	-	ENST00000380338,ENST00000429426	chr9	20584493	20584443	- 9787-9788	64,61
chr9	20720379	20720533	+	ENST00000380249,ENST00000338382	chr9	20723250	20723503	+ 9789	95
chr9	21011694	21011588	-	ENST00000513293,ENST00000495827	chr9	21010781	21010555	- 9790	163
chr9	21031589	21031552	-	ENST00000513293,ENST00000495827	chr9	21029908	21029595	- 9791	12
				ENST00000469197,ENST00000524396,ENST000					17
chr9	214977	215029	+	00453981	chr9	260162	260252	+ 9792	
				ENST00000380172,ENST00000404796,ENST000					11
				00580900,ENST00000419385,ENST00000580718					
chr9	21802748	21802780	+		chr9	21808806	21808839	+ 9793	
				ENST00000380172,ENST00000460874,ENST000					150,167
chr9	21837907	21838009	+	00580900,ENST00000580718	chr9	21841275	21844751	+ 9794-9795	
				ENST00000304494,ENST00000579122,ENST000					50
				00498124,ENST00000380151,ENST00000446177					
chr9	21974826	21974677	-		chr9	21904257	21903674	- 9796	
				ENST00000361570,ENST00000579755,ENST000					105,64
chr9	21994453,22	21994138	-	00530628	chr9	21904257	21903674	- 9797-9798	
				ENST00000397292,ENST00000517642,ENST000					495,167
chr9	26917163	26917095	-	00520884	chr9	26916703	26916698	- 9799-9800	
				ENST00000433700,ENST00000443698,ENST000					444
chr9	27048146	27048272	+	00380062	chr9	27054468	27054559	+ 9801	
				ENST00000433700,ENST00000443698,ENST000					444
chr9	27048146	27048272	+	00380062	chr9	27054516	27054559	+ 9802	
chr9	2823834	2823781	-	ENST00000397885	chr9	2821024	2820918	- 9803	396
				ENST00000453981,ENST00000432829,ENST000					176,108
chr9	304581	304704	+	00483757,ENST00000469391	chr9	307780	308347	+ 9804-9805	
				ENST00000453981,ENST00000432829,ENST000					176,108
chr9	304581	304704	+	00483757,ENST00000469391	chr9	308190	308347	+ 9806-9807	
				ENST00000379825,ENST00000309615,ENST000					305,233,291,
				00397172,ENST00000379817,ENST00000379819					251
				,ENST00000468275,ENST00000463596,ENST000					
chr9	32974559	32974456	-	00476858,ENST00000379813	chr9	32947616	32947459	- 9808-9811	
				ENST00000379825,ENST00000309615,ENST000					270,198,256,
				00397172,ENST00000379817,ENST00000379819					216
				,ENST00000468275,ENST00000463596,ENST000					
				00476858,ENST00000379813,ENST00000379812					
chr9	32984855	32984629	-	,ENST00000473221	chr9	32947616	32947459	- 9812-9815	
chr9	33034214	33034328	+	ENST00000330899,ENST00000544625	chr9	33035156	33035369	+ 9816-9817	252,95
chr9	33036572	33036687	+	ENST00000330899,ENST00000544625	chr9	33051777	33052031	+ 9818-9819	291,134
chr9	33037013	33037113	+	ENST00000330899,ENST00000544625	chr9	33051777	33052031	+ 9820-9821	325,168
chr9	33038683	33038875	+	ENST00000330899,ENST00000544625	chr9	33051777	33052031	+ 9822-9823	389,232
chr9	33120604,33	33120417	-	ENST00000379731,ENST00000541851	chr9	33104779	33104770	- 9824-9825	278,25
chr9	33240207	33240267	+	ENST00000379721	chr9	33240504	33240525	+ 9826	20

chr9	33266008	33266112	+	ENST00000223500,ENST00000419016 ENST00000449054,ENST00000379238,ENST000	chr9	33266960	33267131	+	9827	58 226,102
chr9	33971752	33971649	-	00360802,ENST00000421278	chr9	33967437	33967001	-	9828-9829	
chr9	34179013	34179238	+	ENST00000543944,ENST00000545103 ENST00000421919,ENST00000341694,ENST000 00259632,ENST00000378916,ENST00000447983 ,ENST00000477738,ENST00000378913,ENST000	chr9	34188801	34188976	+	9830	75 25,32
chr9	34620440,35	34620366	-	00378911 ENST00000378407,ENST00000378406,ENST000	chr9	34619201	34619166	-	9831-9832	86
chr9	35658573	35658724	+	00426546,ENST00000327351,ENST00000421582 ,ENST00000378409 ENST00000378407,ENST00000378406,ENST000	chr9	35659734	35659845	+	9833	136
chr9	35660554	35660644	+	00426546,ENST00000327351,ENST00000378409	chr9	35665804	35665882	+	9834	
chr9	36052262	36052320	+	ENST00000377966	chr9	36056977	36057125	+	9835	53
chr9	36112302	36112473	+	ENST00000377966	chr9	36113541	36113585	+	9836	686
chr9	36112302	36112473	+	ENST00000377966 ENST00000358127,ENST00000377840,ENST000 00377852,ENST00000377853,ENST00000520154 ,ENST00000523241,ENST00000377847,ENST000 00414447,ENST00000446742,ENST00000520281 ,ENST00000522003,ENST00000523145,ENST000	chr9	36113676	36113873	+	9837	686 260,217,194, 152,68
chr9	36966721	36966546	-	00523493,ENST00000524340	chr9	36962647	36962635	-	9838-9842	
chr9	37305541,37	37305711	+	ENST00000336755,ENST00000534928	chr9	37313756	37313922	+	9843-9844	317,27
chr9	37327796	37327831	+	ENST00000336755,ENST00000534928	chr9	37382174	37382376	+	9845-9846	329,39
chr9	37426535	37426651	+	ENST00000318158,ENST00000607784 ENST00000377753,ENST00000537911,ENST000	chr9	37426920	37426967	+	9847	134 203,230,186,
chr9	37776279	37776402	+	00377754,ENST00000297994 ENST00000377753,ENST00000537911,ENST000	chr9	37777403	37777517	+	9848-9851	281 203,230,186,
chr9	37776279	37776402	+	00377754,ENST00000297994	chr9	37777418	37777517	+	9852-9855	281
chr9	37948751	37948632	-	ENST00000377707 ENST00000453981,ENST00000432829,ENST000 00469391,ENST00000382331,ENST00000382329	chr9	37899947	37899649	-	9856	448 868,800,170, 335
chr9	379771	379935	+	ENST00000453981,ENST00000432829,ENST000 00469391,ENST00000382331,ENST00000382329	chr9	380035	380206	+	9857-9860	868,800,170, 335
chr9	379771	379935	+	ENST00000377564,ENST00000276974,ENST000	chr9	380279	380820	+	9861-9864	130
chr9	43737327	43737520	+	00479351	chr9	43738400	43738514	+	9865	
chr9	43884945	43885072	+	ENST00000377564	chr9	43887678	43887926	+	9866	788
chr9	45727874	45727967	+	ENST00000377531	chr9	45728480	45728602	+	9867	57
chr9	4741087	4740937	-	ENST00000381809,ENST00000447596	chr9	4726230	4725912	-	9868	50
chr9	4741087	4740937	-	ENST00000381809,ENST00000447596	chr9	4727323	4725912	-	9869	50
chr9	4741087	4740937	-	ENST00000381809,ENST00000447596 ENST00000251879,ENST00000414202,ENST000 00381532,ENST00000418622,ENST00000449720	chr9	4727528	4725912	-	9870	50 270,191,199
chr9	5732388	5732479	+	,ENST00000545641 ENST00000381477,ENST00000381476,ENST000	chr9	5736335	5736651	+	9871-9873	96
chr9	5906885	5906998	+	00381471	chr9	5907645	5907670	+	9874	
chr9	5988545	5988345	-	ENST00000399933,ENST00000381461	chr9	5986285	5985974	-	9875	264
chr9	5988545	5988345	-	ENST00000399933,ENST00000381461 ENST00000417746,ENST00000456383,ENST000	chr9	5986420	5985974	-	9876	264 30
chr9	6241695	6241785	+	00381434	chr9	6246782	6246919	+	9877	
chr9	6433914	6434173	+	ENST00000468435,ENST00000276893	chr9	6458783	6459228	+	9878	214
chr9	69655521	69655673	+	ENST00000322495 ENST00000377270,ENST00000396364,ENST000	chr9	69677167	69677198	+	9879	74 55
chr9	71650699	71650863	+	00396366	chr9	71651547	71651626	+	9880	
chr9	72056031	72055912	-	ENST00000265381	chr9	72055224	72049711	-	9881	767
chr9	72356774	72356708	-	ENST00000340434	chr9	72355692	72355688	-	9882	107
chr9	72897338	72897499	+	ENST00000361138 ENST00000479413,ENST00000334731,ENST000 00377031,ENST00000473252,ENST00000486911	chr9	72899827	72899992	+	9883	327 34,11
chr9	74526651,75	74526752	+	,ENST00000377027 ENST00000334731,ENST00000377031,ENST000	chr9	74556721	74556743	+	9884-9885	69
chr9	74561922	74562028	+	00486911 ENST00000545168,ENST00000238018,ENST000 00376989,ENST00000376986,ENST00000358399	chr9	74579361	74579651	+	9886	54,128,103,8 6
chr9	74817497,75	74817658	+	,ENST00000475764	chr9	74822946	74823023	+	9887-9890	
chr9	75520948	75520874	-	ENST00000297785	chr9	75517878	75517733	-	9891	477
chr9	79438642	79438548	-	ENST00000376718,ENST00000376713 ENST00000376634,ENST00000376636,ENST000 00360280,ENST00000357409,ENST00000419472	chr9	79384606	79384362	-	9892	252 2031,1992,2 84
chr9	79946926	79947029	+	ENST00000376636,ENST00000360280,ENST000 00484581,ENST00000376646,ENST00000467124	chr9	79950293	79951279	+	9893-9895	3119,3158,9 4,31
chr9	80022449	80022523	+		chr9	80023003	80023038	+	9896-9899	
chr9	80144169	80143985	-	ENST00000341700	chr9	80053943	80053493	-	9900	103
chr9	80144169	80143985	-	ENST00000341700 ENST00000376552,ENST00000376537,ENST000 00462803,ENST00000265284,ENST00000428713	chr9	80129379	80129331	-	9901	103 203,178,188, 73
chr9	82268974	82268990	+	,ENST00000490347	chr9	82301369	82301751	+	9902-9905	

Table 9

				ENST00000405990,ENST00000376417,ENST000							16
chr9	86238087	86238136	+	00376419	chr9	86241936	86242166	+	9906		
				ENST00000376083,ENST00000357081,ENST000							322,362,374,
chr9	88270115,88	88270058	-	00376109,ENST00000432218	chr9	88264984	88264393	-	9907-9910		200
				ENST00000358077,ENST00000472284,ENST000							276
				00469640,ENST00000408954,ENST00000491893							
chr9	90255717	90255762	+		chr9	90256073	90256158	+	9911		
				ENST00000336654,ENST00000375883,ENST000							273,260,218,
				00375871,ENST00000605159,ENST00000325303							281
chr9	90584264	90584109	-		chr9	90583088	90583013	-	9912-9915		
				ENST00000375751,ENST00000375754,ENST000							504,527
chr9	93641046	93641235	+	00375747,ENST00000375746	chr9	93648125	93648408	+	9916-9917		
				ENST00000375751,ENST00000375754,ENST000							504,527
chr9	93641046	93641235	+	00375747,ENST00000375746	chr9	93648128	93648408	+	9918-9919		
				ENST00000303617,ENST00000375731,ENST000							189,218
chr9	94058359	94058303	-	00422391	chr9	94027340	94027052	-	9920-9921		
				ENST00000303617,ENST00000375731,ENST000							139
chr9	94118252	94118165	-	00422391	chr9	94104825	94104768	-	9922		
chr9	94797165	94797092	-	ENST00000262554	chr9	94791628	94791412	-	9923		442
chr9	94817776	94817687	-	ENST00000262554	chr9	94812773	94812438	-	9924		260
				ENST00000375643,ENST00000443024,ENST000							1136,1026
chr9	94991408	94991283	-	00447699	chr9	94990436	94990433	-	9925-9926		
chr9	95142045	95142141	+	ENST00000375587	chr9	95191788	95192072	+	9927		188
chr9	95267972	95267815	-	ENST00000444490,ENST00000344604	chr9	95265355	95265087	-	9928-9929		466,488
				ENST00000395505,ENST00000395506,ENST000							42,80,78
chr9	95618185	95618093	-	00375495,ENST00000332591	chr9	95616240	95616097	-	9930-9932		
				ENST00000427277,ENST00000297954,ENST000							956,1344,13
				00349097,ENST00000395477,ENST00000432730							40,947,141
chr9	96030909	96031028	+	,ENST00000411624,ENST00000448251	chr9	96041646	96042892	+	9933-9937		
				ENST00000395395,ENST00000340911,ENST000							85
				00481550,ENST00000480716,ENST00000375354							
chr9	97055256	97055351	+		chr9	97057465	97057639	+	9938		
chr9	97177440,97	97177535	+	ENST00000375344,ENST00000428393	chr9	97179629	97179930	+	9939-9940		68,3
chr9	98643151	98643575	+	ENST00000288985	chr9	98645358	98645689	+	9941		168
chr9	98740343	98740497	+	ENST00000407474,ENST00000320486	chr9	98759528	98759835	+	9942-9943		135,145
				ENST00000253270,ENST00000375259,ENST000							93
chr9	99126832	99126746	-	00375257	chr9	99125669	99125643	-	9944		
chr9	99711964	99711837	-	ENST00000602917,ENST00000375223	chr9	99708634	99708355	-	9945		131
chr9	99711964	99711837	-	ENST00000602917,ENST00000375223	chr9	99708638	99708355	-	9946		131
chr9	99735230	99735135	-	ENST00000602917,ENST00000375223	chr9	99725245	99725051	-	9947		68
				ENST00000218507,ENST00000423383,ENST000							698
chrX	100402932	100403150	+	00372927	chrX	100424653	100425402	+	9948		
chrX	100608339	100608182	-	ENST00000372880,ENST00000308731	chrX	100606114	100605993	-	9949-9950		460,636
chrX	102332674	102332542	-	ENST00000395065,ENST00000425644	chrX	102332353	102332169	-	9951-9952		528,2
				ENST00000361298,ENST00000372645,ENST000							16,26
				00372635,ENST00000372634,ENST00000299872							
chrX	102632450,1	102632498	+		chrX	102633632	102633656	+	9953-9954		
				ENST00000419165,ENST00000563257,ENST000							33
				00540220,ENST00000436583,ENST00000567181							
chrX	103219096	103219195	+	,ENST00000569577	chrX	103221242	103221459	+	9955		
				ENST00000419165,ENST00000563257,ENST000							33
				00540220,ENST00000436583,ENST00000567181							
chrX	103219096	103219195	+	,ENST00000569577	chrX	103295395	103295448	+	9956		
chrX	103411467	103411663	+	ENST00000493442	chrX	103416807	103417127	+	9957		65
				ENST00000541806,ENST00000540876,ENST000							218
chrX	106171459	106172113	+	00336803	chrX	106179585	106179638	+	9958		
chrX	106312632	106312485	-	ENST00000372487,ENST00000372479	chrX	106295942	106295678	-	9959		358
				ENST00000334504,ENST00000372216,ENST000							710,711,711
				00394872,ENST00000538570,ENST00000545689							
chrX	107423852	107423745	-		chrX	107423183	107423091	-	9960-9962		
chrX	107683356	107683436	+	ENST00000328300,ENST00000361603	chrX	107779232	107779336	+	9963		27
chrX	115594017	115593943	-	ENST00000371894	chrX	115438074	115435726	-	9964		25
				ENST00000371822,ENST00000254029,ENST000							793,882,874,
chrX	117578323	117578457	+	00371825,ENST00000371848	chrX	117590888	117591184	+	9965-9968		781
chrX	117900807	117900939	+	ENST00000371666	chrX	117901210	117901221	+	9969		336
chrX	117900807	117900939	+	ENST00000371666	chrX	117902636	117902902	+	9970		336
				ENST00000481285,ENST00000304778,ENST000							471,430,237,
				00371628,ENST00000439603,ENST00000422289							215
chrX	118124433	118124523	+		chrX	118130144	118130603	+	9971-9974		
chrX	118709338	118709363	+	ENST00000371558,ENST00000346330	chrX	118712569	118712648	+	9975		50
				ENST00000360156,ENST00000354228,ENST000							363,305,393
				00489216,ENST00000354416,ENST00000394610							
				,ENST00000343984,ENST00000394616,ENST000							
chrX	118767455	118767323	-	00394617	chrX	118763684	118763673	-	9976-9978		
				ENST00000360156,ENST00000354228,ENST000							262,204,292
				00460411,ENST00000489216,ENST00000354416							
				,ENST00000394610,ENST00000343984,ENST000							
chrX	118774751	118774655	-	00394616,ENST00000394617	chrX	118771911	118771659	-	9979-9981		
				ENST00000360156,ENST00000354228,ENST000							113,55,143
				00460411,ENST00000489216,ENST00000354416							
				,ENST00000394610,ENST00000343984,ENST000							
chrX	118797640,1	118797445	-	00394616,ENST00000394617	chrX	118796675	118796621	-	9982-9984		

Table 9

				ENST00000245838,ENST00000355725,ENST000					256,141
chrX	122820564	122820398	-	00491737	chrX	122812072	122811741	-	9985-9986
chrX	123621079	123621059	-	ENST00000422452	chrX	123617935	123617772	-	9987 1238
chrX	123631115	123630866	-	ENST00000371130,ENST00000422452	chrX	123617935	123617772	-	9988 1231
chrX	123631115	123630866	-	ENST00000371130,ENST00000422452	chrX	123629356	123628346	-	9989 1231
				ENST00000380663,ENST00000380668,ENST000					40
chrX	12809617	12809738	+	00398491,ENST00000489404	chrX	12816011	12816731	+	9990
				ENST00000371121,ENST00000371122,ENST000					1035,1047
chrX	128582420	128582310	-	00371123	chrX	128314030	128306350	-	9991-9992
chrX	129545322	129545499	+	ENST00000305536	chrX	129545714	129545766	+	9993 160
chrX	133632638	133632714	+	ENST00000298556	chrX	133659923	133660259	+	9994 203
				ENST00000370736,ENST00000471213,ENST000					7
chrX	134869964	134869984	+	00495729	chrX	134883702	134883786	+	9995
chrX	13956629	13956626	-	ENST00000454189	chrX	13907677	13907479	-	9996 1
				ENST00000218075,ENST00000355020,ENST000					67,51
chrX	14550361	14550494	+	00415367	chrX	14583790	14584640	+	9997-9998
chrX	14862103	14861782	-	ENST00000398334,ENST00000324138	chrX	14815420	14815300	-	9999 829
				ENST00000398334,ENST00000324138,ENST000					498
chrX	14868796	14868627	-	00452869	chrX	14815420	14815300	-	10000
				ENST00000536359,ENST00000316916,ENST000					82,141,41
chrX	148690521,1	148690314	-	00502858,ENST00000507237	chrX	148688606	148688565	-	10001-10003
				ENST00000536359,ENST00000316916,ENST000					41,82,141
chrX	148690521,1	148690314	-	00502858,ENST00000507237	chrX	148688650	148688565	-	10004-10006
				ENST00000380492,ENST00000482354,ENST000					26
chrX	14891811	14891880	+	00497603	chrX	15075084	15075388	+	10007
				ENST00000485376,ENST00000542156,ENST000					84,31
				00370390,ENST00000490316,ENST00000451863					
				,ENST00000544228,ENST00000445323,ENST000					
chrX	149867668,1	149867773	+	00436701,ENST00000438018	chrX	149874008	149874262	+	10008-10009
				ENST00000485376,ENST00000542156,ENST000					84,31
				00370390,ENST00000490316,ENST00000451863					
				,ENST00000544228,ENST00000445323,ENST000					
chrX	149867668,1	149867773	+	00436701,ENST00000438018	chrX	149874091	149874262	+	10010-10011
chrX	149998077	149997988	-	ENST00000320893	chrX	149996841	149996757	-	10012 73
chrX	1510902	1510792	-	ENST00000381401	chrX	1509067	1508907	-	10013 37
chrX	151129837	151129755	-	ENST00000370328,ENST00000370325	chrX	151128644	151128600	-	10014 215
				ENST00000370287,ENST00000452779,ENST000					5
chrX	151904503	151904518	+	00361211,ENST00000370291	chrX	151908696	151908793	+	10015
				ENST00000370287,ENST00000452779,ENST000					5
chrX	151904503	151904518	+	00361211,ENST00000370291	chrX	151927423	151927619	+	10016
				ENST00000370211,ENST00000370212,ENST000					128,118
chrX	152728129	152728068	-	00370210	chrX	152724161	152723939	-	10017-10018
				ENST00000370211,ENST00000370212,ENST000					84,74
chrX	152734719	152734604	-	00370210	chrX	152728559	152728505	-	10019-10020
				ENST00000370092,ENST00000217901,ENST000					27
chrX	153059781	153059701	-	00370093	chrX	153058937	153058855	-	10021
				ENST00000393721,ENST00000370028,ENST000					336,554,514,
				00350060,ENST00000420383,ENST00000370016					493,491,28
chrX	153178256,2	153178154	-	,ENST00000537206,ENST00000442172	chrX	153177017	153176910	-	10022-10027
				ENST00000393721,ENST00000370028,ENST000					301,519,479,
				00350060,ENST00000420383,ENST00000370016					458,456
chrX	153178505	153178478	-	,ENST00000537206	chrX	153177017	153176910	-	10028-10032
				ENST00000369980,ENST00000369974,ENST000					106,434,460,
				00393682,ENST00000455690,ENST00000437278					14
chrX	153281548,2	153281483	-	,ENST00000393687,ENST00000429936	chrX	153279986	153279980	-	10033-10036
				ENST00000369980,ENST00000369974,ENST000					434,460,14,1
				00393682,ENST00000455690,ENST00000437278					06
chrX	153281548,2	153281483	-	,ENST00000393687,ENST00000429936	chrX	153280253	153280209	-	10037-10040
				ENST00000393562,ENST00000369620,ENST000					515,531,485
chrX	153760495	153760403	-	00393564	chrX	153754558	153754385	-	10041-10043
				ENST00000340647,ENST00000330045,ENST000					183,182,158,
				00369459,ENST00000369462,ENST00000411985					182
chrX	154319059	154319114	+	,ENST00000399042	chrX	154324467	154324713	+	10044-10047
chrX	154456666	154456764	+	ENST00000535916,ENST00000286428	chrX	154464131	154464231	+	10048-10049 123,128
chrX	154736795	154736559	-	ENST00000334398,ENST00000369439	chrX	154696322	154695880	-	10050 331
chrX	154741453	154741334	-	ENST00000334398,ENST00000369439	chrX	154740222	154739894	-	10051 252
chrX	154774937	154774757	-	ENST00000334398,ENST00000369439	chrX	154771915	154770710	-	10052 60
				ENST00000416733,ENST00000534940,ENST000					36,33,91
chrX	1558037	1557990	-	00381317	chrX	1555112	1555069	-	10053-10055
				ENST00000416733,ENST00000534940,ENST000					36,33,91
chrX	1558037	1557990	-	00381317	chrX	1555154	1555069	-	10056-10058
				ENST00000416733,ENST00000534940,ENST000					36,33,91
chrX	1558037	1557990	-	00381317	chrX	1555197	1555069	-	10059-10061
chrX	16838287	16838378	+	ENST00000380122	chrX	16842735	16842759	+	10062 166
				ENST00000354791,ENST00000379873,ENST000					220,236,212,
				00379876,ENST00000379878,ENST00000357991					220,233,206,
				,ENST00000357544,ENST00000360279,ENST000					214,222
				00379869,ENST00000356606,ENST00000340581					
chrX	19037783	19037717	-		chrX	19035956	19035924	-	10063-10070
				ENST00000397821,ENST00000379716,ENST000					630,392,593,
				00379698,ENST00000541422,ENST00000379726					369,610
chrX	19560311	19560043	-		chrX	19559661	19559517	-	10071-10075

Table 9

			ENST00000379565,ENST00000544447,ENST000						481,453,451,
chrX	20187609	20187520 -	00379548,ENST00000540702	chrX	20187107	20186963 -	10076-10079	452	
			ENST00000334651,ENST00000444280,ENST000						152,95,28,61
chrX	2326854	2326786 -	00441131,ENST00000478825	chrX	2251948	2251754 -	10080-10083		
chrX	24766987	24767109 +	ENST00000379068,ENST00000379059	chrX	24816497	24816912 +	10084-10085	988,982	
			ENST00000378943,ENST00000378946,ENST000						50
			00378945,ENST00000481024,ENST00000479048						
chrX	30683628	30683701 +	,ENST00000471362,ENST00000378941	chrX	30684215	30684743 +	10086		
			ENST00000357033,ENST00000420596,ENST000						10
chrX	33229429	33229399 -	00448370	chrX	33096464	33095537 -	10087		
chrX	33357382	33357376 -	ENST00000288447	chrX	33177714	33177406 -	10088	2	
chrX	36254803	36254976 +	ENST00000378653	chrX	36268246	36268803 +	10089	175	
			ENST00000318842,ENST00000309513,ENST000						353,41
			00338898,ENST00000339363,ENST00000482855						
			,ENST00000474584,ENST00000342811,ENST000						
chrX	38160624	38160500 -	00378505,ENST00000464437	chrX	38160082	38159789 -	10090-10091		
chrX	40531224	40531113 -	ENST00000324817	chrX	40527935	40527883 -	10092	1044	
chrX	41048562	41048728 +	ENST00000378308,ENST00000324545	chrX	41050300	41050602 +	10093	1325	
chrX	41060313	41060533 +	ENST00000378308,ENST00000324545	chrX	41063935	41064123 +	10094	1608	
chrX	46618464	46618140 -	ENST00000328306	chrX	46611715	46611454 -	10095	108	
chrX	47065647	47065843 +	ENST00000377351,ENST00000335972	chrX	47067213	47067266 +	10096	646	
			ENST00000377045,ENST00000290277,ENST000						185
chrX	47424651	47424749 +	00377039	chrX	47425840	47425912 +	10097		
			ENST00000019019,ENST00000348411,ENST000						120,1
chrX	48337426,48	48337504 +	00396894,ENST00000456787	chrX	48338387	48338542 +	10098-10099		
			ENST00000495186,ENST00000446158,ENST000						100
chrX	48382160	48382460 +	00414061	chrX	48382600	48382734 +	10100		
chrX	48385543	48385673 +	ENST00000495186,ENST00000446158	chrX	48394356	48394450 +	10101	156	
			ENST00000376372,ENST00000322995,ENST000						78,34
			00356463,ENST00000367375,ENST00000473974						
			,ENST00000376368,ENST00000396681,ENST000						
			00471338,ENST00000474053,ENST00000419567						
chrX	48935406,49	48935302 -	,ENST00000465382	chrX	48934623	48934575 -	10102-10103		
chrX	49098482	49098614 +	ENST00000376227	chrX	49099108	49099222 +	10104	120	
			ENST00000376088,ENST00000376091,ENST000						581,511
chrX	49853355	49853541 +	00376108,ENST00000307367	chrX	49854209	49854217 +	10105-10106		
			ENST00000376020,ENST00000289292,ENST000						985,869
chrX	50370675	50370614 -	00460112	chrX	50368985	50368943 -	10107-10108		
			ENST00000427052,ENST00000342160,ENST000						1993,296
chrX	53579402	53579272 -	00262854	chrX	53579034	53578931 -	10109-10110		
			ENST00000342160,ENST00000262854,ENST000						168
chrX	53672415	53672263 -	00218328	chrX	53671132	53671077 -	10111		
			ENST00000375180,ENST00000328235,ENST000						233
chrX	54209631	54208933 -	00477084	chrX	54200873	54200826 -	10112		
chrX	54780197	54780084 -	ENST00000218436	chrX	54762095	54757899 -	10113	1117	
chrX	54800630	54800514 -	ENST00000218436	chrX	54791004	54790693 -	10114	301	
chrX	55024866	55024839 -	ENST00000545676	chrX	55000269	55000001 -	10115	9	
			ENST00000374941,ENST00000414239,ENST000						172,134,200
chrX	55757797	55758019 +	00262850	chrX	55774494	55775165 +	10116-10118		
			ENST00000374910,ENST00000275988,ENST000						75
			00374912,ENST00000333933,ENST00000434397						
chrX	57147062	57146838 -		chrX	57140900	57139696 -	10119		
chrX	57163030	57162806 -	ENST00000374908,ENST00000374906	chrX	57140900	57139696 -	10120	75	
chrX	57618482	57618778 +	ENST00000374888	chrX	57667223	57667382 +	10121	99	
chrX	57618482	57620887 +	ENST00000374888	chrX	57667223	57667382 +	10122	802	
chrX	57936854	57934461 -	ENST00000358697	chrX	57877126	57877078 -	10123	798	
chrX	57936854	57934461 -	ENST00000358697	chrX	57911362	57911200 -	10124	798	
chrX	64196257	64196205 -	ENST00000447788,ENST00000374839	chrX	64166838	64166680 -	10125	17	
chrX	64936701,65	64936763 +	ENST00000609672,ENST00000360270	chrX	64986593	64986775 +	10126-10127	21,32	
chrX	67316871	67316712 -	ENST00000355520,ENST00000540071	chrX	67301636	67301312 -	10128	562	
chrX	67652862	67652709 -	ENST00000355520,ENST00000540071	chrX	67600753	67600706 -	10129	51	
			ENST00000462683,ENST00000451537,ENST000						197,154
chrX	67742602	67742759 +	00374622	chrX	67790826	67791036 +	10130-10131		
			ENST00000374552,ENST00000374553,ENST000						167,35
chrX	69176877	69176982 +	00524573,ENST00000503592	chrX	69218690	69218818 +	10132-10133		
chrX	69370060	69370172 +	ENST00000342206,ENST00000356413	chrX	69382135	69382514 +	10134	290	
chrX	69623714	69623884 +	ENST00000374388,ENST00000374403	chrX	69624237	69624388 +	10135	930	
			ENST00000381077,ENST00000412827,ENST000						20
			00424830,ENST00000540122,ENST00000486446						
chrX	7066154	7066094 -		chrX	6772821	6772509 -	10136		
			ENST00000218432,ENST00000423432,ENST000						104,86,108
			00373669,ENST00000496835,ENST00000439980						
chrX	71416635	71416754 +	,ENST00000446576	chrX	71461249	71461391 +	10137-10139		
			ENST00000373573,ENST00000373589,ENST000						335,244,140
chrX	71681948	71681854 -	00429103,ENST00000373568	chrX	71642325	71642309 -	10140-10142		
			ENST00000373573,ENST00000373589,ENST000						335,244,140
chrX	71681948	71681854 -	00429103,ENST00000373568	chrX	71650735	71650664 -	10143-10145		
chrX	7243380	7243539 +	ENST00000217961	chrX	7251807	7251894 +	10146	418	
chrX	7252027	7252148 +	ENST00000217961	chrX	7274053	7274273 +	10147	459	
			ENST00000253577,ENST00000339447,ENST000						682,641,681,
chrX	74280165	74280058 -	00373394,ENST00000529949	chrX	74239064	74238919 -	10148-10151	655	
chrX	76829823	76829715 -	ENST00000373344,ENST00000395603	chrX	76817277	76817206 -	10152-10153	2108,207	

Table 9

chrX	77365364,77	77365414	+	ENST00000373316,ENST00000442431,ENST00000537456	chrX	77367813	77367873	+	10154-10155	38,1
chrX	77373548,77	77373667	+	ENST00000373316,ENST00000442431,ENST00000537456	chrX	77375174	77375375	+	10156-10158	213,77,185
chrX	77388945	77388835	-	ENST00000341864	chrX	77387785	77387512	-	10159	197
chrX	79988995	79988955	-	ENST00000373275	chrX	79986710	79986391	-	10160	375
chrX	80457700	80457744	+	ENST00000373212	chrX	80467273	80467441	+	10161	15
chrX	80533830	80533910	+	ENST00000373212	chrX	80548798	80548839	+	10162	104
chrX	83411199	83411083	-	ENST00000262752,ENST00000543399	chrX	83403870	83403705	-	10163-10164	86,86
chrX	83411199	83411083	-	ENST00000262752,ENST00000543399	chrX	83404531	83403705	-	10165-10166	86,86
chrX	84537323	84537209	-	ENST00000262753,ENST00000373145	chrX	84516178	84515773	-	10167	588
chrX	8667786	8667739	-	ENST00000262648	chrX	8613799	8613671	-	10168	85
chrX	9622255,962	9622362	+	ENST00000407597,ENST00000424279,ENST00000536365,ENST00000380961,ENST00000415293,ENST00000217964,ENST00000422314,ENST00000452824	chrX	9636703	9637335	+	10169-10170	70,19

Table 10

Donor_Chromosome_TE	Donor_start_TE	Donor_Breakpoint_TE	Donor_strand_TE	Acceptor_Chromosome_Exon	Acceptor_Breakpoint_Exon	Acceptor_end_Exon	Acceptor_strand_Exon	Acceptor_tx_name_Exon	Position	Breakpoint_position_in_AA
chr1	100190847	100190762	-	chr1	100185203	100185090	-	ENST00000287474,ENST00000414213	001-004	13,2,11,2
chr1	100190847	100190773	-	chr1	100185203	100185090	-	ENST00000287474,ENST00000414213	005-008	10,24,7,7
chr1	100456283	100456558	+	chr1	100459093	100459297	+	ENST00000370153	009-011	24,33,16
chr1	101344162	101343950	-	chr1	101343459	101343032	-	ENST00000370113,ENST00000370114,ENST00000450240	012-014	8,1,8
chr1	101378098	101378238	+	chr1	101379219	101379362	+	ENST00000370112,ENST00000357650	15-17	47,19,1
chr1	10158509	10158726	+	chr1	10161166	10161253	+	ENST00000253251,ENST00000343090	18-21	12,14,9,12
chr1	10164444	10164472	+	chr1	10165574	10165802	+	ENST00000253251,ENST00000377157,ENST00000343090	22-26	3,9,9,9,9
chr1	10226298	10226400	+	chr1	10228194	10228328	+	ENST00000253251,ENST00000377157,ENST00000343090	27-30	34,22,6,22
chr1	10232863	10233089	+	chr1	10238702	10238876,1	+	ENST00000253251,ENST00000377157,ENST00000343090	31-33	6,2,2
chr1	103493889	103493821	-	chr1	103491888	103491772	-	ENST00000370096,ENST00000512756	34-36	18,13,18
chr1	104082367	104082369	+	chr1	104083972	104084097	+	ENST00000524631,ENST00000533099,ENST00000527062,ENST00000423855	37	1
chr1	10526545	10526447	-	chr1	10523677	10523488	-	ENST00000377038,ENST00000377036	38-40	33,1,33
chr1	10531928	10531915	-	chr1	10529395	10529234	-	ENST00000377038,ENST00000476658,ENST00000377036	41-45	4,4,1,4,4
chr1	10531928	10531922	-	chr1	10529395	10529234	-	ENST00000377038,ENST00000476658,ENST00000377036	46-50	2,2,1,2,2
chr1	108199876	108199808	-	chr1	108185377	108185241	-	ENST00000370056,ENST00000527011,ENST00000529413,ENST00000415432,ENST00000525231,ENST00000529809	51-52	23,13
chr1	108710431	108704647	-	chr1	108703915	108703804	-	ENST00000565488,ENST00000264128,ENST00000370041	53-55	550,15,15
chr1	108734048	108733951	-	chr1	108728576	108728450	-	ENST00000565488,ENST00000264128,ENST00000370041	56-58	24,32,32
chr1	109339694	109339834	+	chr1	109340767	109340859	+	ENST00000370008	59-61	24,11,1
chr1	109763981	109764240	+	chr1	109766604	109766670	+	ENST00000234677,ENST00000369923	62-65	86,8,11,86
chr1	109967094	109967000	-	chr1	109964548	109964482	-	ENST00000271308	66-67	23,11
chr1	110037177	110037277	+	chr1	110037765	110037802	+	ENST00000496961,ENST00000533024,ENST00000310611,ENST00000420578,ENST00000528785,ENST00000430195	68-77	33,33,11,33,33,11,33,33,33,11
chr1	11050257	11049989	-	chr1	11036313	11036213	-	ENST00000377004	78-80	7,18,48
chr1	110909055	110908782	-	chr1	110906515	110906388	-	ENST00000369779,ENST00000472422,ENST00000369781,ENST00000437429,ENST00000541986	81-84	23,45,31,23
chr1	110982488	110982762	+	chr1	110996583	110996708	+	ENST00000271331	85-87	7,19,46
chr1	11146601	11145269	-	chr1	11142935	11142745	-	ENST00000304457,ENST00000376936,ENST00000544779	88-92	29,95,6,95,95
chr1	111772023	111772121	+	chr1	111772474	111772503	+	ENST00000445067,ENST00000528451,ENST00000486561,ENST00000369748,ENST00000474304	93-98	33,23,1,1,1,1

Table 10

							ENST00000356415,ENST00000433097,ENST00000436150,ENST00000369709,ENST00000545460	99-100	4,4
chr1	112243223	112243676 +	chr1	112245958	112246098 +				
chr1	112307023	112307072 +	chr1	112308359	112309521 +		ENST00000369702,ENST00000475700	101-103	1,14,16
chr1	113144166	113144100 -	chr1	113143470	113143416 -		ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497,ENST00000543570,ENST00000369664	104-113	22,13,21,22,22,22,22,22,22
chr1	113145636	113145573 -	chr1	113140708	113140593 -		ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497,ENST00000543570,ENST00000369664	114-122	21,13,20,20,20,20,20,20,20
chr1	113145636	113145573 -	chr1	113143470	113143416 -		ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497,ENST00000543570,ENST00000369664	123-132	21,13,20,21,21,21,21,21,21
chr1	113156651	113156541 -	chr1	113153625	113153463 -		ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000543570,ENST00000369664	133-140	37,3,37,37,37,37,37,37,37
chr1	113238268	113238348 +	chr1	113238770	113238873 +		ENST00000413052,ENST00000369645,ENST00000369644,ENST00000357443	141-143	14,18,26
chr1	113458406	113458383 -	chr1	113456787	113456513 -		ENST00000369626,ENST00000538576,ENST00000458229	144-147	8,7,7,7
chr1	114065114	114065132 +	chr1	114092137	114092253 +		ENST00000369617,ENST00000307546,ENST00000369615,ENST00000369611	148-152	6,2,5,6,6
chr1	114153330	114153376 +	chr1	114157223	114157280 +		ENST00000369617,ENST00000307546,ENST00000369615,ENST00000369611	153-156	15,15,15,15
chr1	114262769	114262498 -	chr1	114256060	114255901 -		ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604,ENST00000357783	157-159	7,44,7
chr1	114283368	114282175 -	chr1	114281421	114281352 -		ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664,ENST00000446739	160-167	3,11,10,3,3,3,3,3
chr1	114285590	114285570 -	chr1	114281421	114281352 -		ENST00000369596,ENST00000393357,ENST00000369598,ENST00000369600,ENST00000369604,ENST00000357783,ENST00000447664,ENST00000446739	168-174	7,6,7,7,7,7,7

Table 10

							ENST00000369596,ENST000		74,4,9,74,74
							00393357,ENST00000369598		,74,74,74
							,ENST00000369600,ENST000		
							00369604,ENST00000357783		
							,ENST00000447664,ENST000		
chr1	114286425	114285955	-	chr1	114281421	114281352	- 00446739	175-182	
							ENST00000369596,ENST000		3,24,3,3,3,3,
							00393357,ENST00000369598		3
							,ENST00000369600,ENST000		
							00369604,ENST00000357783		
							,ENST00000447664,ENST000		
chr1	114291746	114291633	-	chr1	114281421	114281352	- 00446739	183-189	
							ENST00000460620,ENST000		13,2,13,13
							00359785,ENST00000528414		
							,ENST00000538253,ENST000		
							00420377,ENST00000525799		
chr1	114363734	114363674	-	chr1	114362276	114362205,11	-	190-193	
							ENST00000358465,ENST000		42,7,4,7
chr1	115049986	115049859	-	chr1	115007010	115006892	- 00369543	194-197	
							ENST00000369516,ENST000		16,28,28,16,
							00369515,ENST00000433172		28,28
chr1	115605062	115604977	-	chr1	115604853	115604756	- ,ENST00000369514	198-203	
							ENST00000355485,ENST000		23,7,18
							00369510,ENST00000310260		
chr1	116212050	116212328	+	chr1	116224985	116225118	+ ,ENST00000369509	204-206	
							ENST00000369503,ENST000		24,27,13,27
chr1	116527185	116527782	+	chr1	116534652	116534864	+ 00369502	207-210	
chr1	116594535	116594632	+	chr1	116609141	116609329	+ ENST00000369503	211-212	6,32
chr1	117630629	117630688	+	chr1	117631423	117631604	+ ENST00000369466	213-215	20,5,3
							ENST00000356554,ENST000		3,99,5,5,5
							00421535,ENST00000422329		
chr1	118063985	118064615	+	chr1	118065447	118065579	+	216-220	
							ENST00000369443,ENST000		12,2
chr1	118446343	118445239	-	chr1	118441838	118441679	- 00369442	221-222	
chr1	118499919	118499968	+	chr1	118501533	118501626	+ ENST00000349139	223-224	7,16
							ENST00000312413,ENST000		22,13,21,13,
							00346436,ENST00000376487		13
chr1	11880542	11880608	+	chr1	11883764	11883890	+ ,ENST00000376496	225-229	
							ENST00000369426,ENST000		11,13,38,13
							00235521,ENST00000537870		
chr1	119589278	119589005	-	chr1	119588285	119588205	-	230-233	
							ENST00000347370,ENST000		10,1,10,10,1
							00349431,ENST00000339385		,1,10,1,10,1
							,ENST00000348298,ENST000		
							00400929,ENST00000464036		
							,ENST00000360466,ENST000		
							00400930,ENST00000435198		
							,ENST00000422076,ENST000		
chr1	1197260	1197229	-	chr1	1192690	1192588,1192	- 00502382	234-243	
chr1	120608319	120608261	-	chr1	120572610	120572529	- ENST00000256646	244-246	17,9,11
							ENST00000444836,ENST000		1,9
chr1	12062470	12062563	+	chr1	12064049	12064175	+ 00235329	247-248	
							ENST00000235332,ENST000		13,34,4,13,4
chr1	12086080	12086346	+	chr1	12089090	12089198	+ 00436478	249-253	
chr1	12132052	12132299	+	chr1	12144521	12144608	+ ENST00000263932	254-255	20,13
							ENST00000354700,ENST000		7,27,20,27
chr1	1236446	1236228	-	chr1	1236072	1235889	- 00353662	256-259	
							ENST00000356315,ENST000		26,68
							00358136,ENST00000011700		
chr1	12510493	12510750	+	chr1	12516054	12516186	+ ,ENST00000543766	260-261	
							ENST00000482621,ENST000		13,10,21,10,
							00400809,ENST00000481223		10,10,10,10,
							,ENST00000488340,ENST000		21,10
							00408918,ENST00000425598		
chr1	1332836	1332708	-	chr1	1330894	1330851,1330	- ,ENST00000497013	262-271	
							ENST00000484063,ENST000		42,16,2,42,4
							00376048,ENST00000311066		2,42
chr1	14070962	14071087	+	chr1	14075856	14075958,1	+ ,ENST00000235372	272-277	
							ENST00000376048,ENST000		7,7,6
							00503842,ENST00000505823		
chr1	14148370	14148391	+	chr1	14149654	14149679	+	278-280	
chr1	1418186	1418284	+	chr1	1420396	1420551	+ ENST00000308647	281-282	26,15
chr1	1418698	1418750	+	chr1	1420396	1420551	+ ENST00000308647	283-284	17,17
chr1	1427292	1427384	+	chr1	1430865	1431197	+ ENST00000308647	285-287	11,30,27

Table 10

							ENST00000369190,ENST000 00412624,ENST00000369365	288-292	24,33,114,1 14,114
chr1	144154684	144155116	+	chr1	144158178	144158229	+		
chr1	144819640	144820072	+	chr1	144823128	144823179	+	ENST00000338347,ENST000 00440491,ENST00000375552 ,ENST00000281815	293-298	24,144,33,1 44,144,144
chr1	145307619	145308051	+	chr1	145311103	145311154	+	ENST00000369339,ENST000 00369338,ENST00000490598 ,ENST00000342960,ENST000 00605176	299-306	144,24,33,1 44,144,33,1 44,144
chr1	145476641	145476740	+	chr1	145487304	145487467	+	ENST00000369308	307-308	1,12
chr1	145598048	145597862	-	chr1	145597054	145596904	-	ENST00000334163,ENST000 00369294	309-312	7,13,28,28
chr1	145598048	145598029	-	chr1	145597054	145596904	-	ENST00000334163,ENST000 00369294	313-316	1,6,6,1
chr1	145621099	145621243	+	chr1	145646115	145646173	+	ENST00000369291,ENST000 00539368,ENST00000542738	317-321	12,20,46,20, 20
chr1	145635714	145635811	+	chr1	145646115	145646173	+	ENST00000369291,ENST000 00539368,ENST00000542738	322-326	23,32,32,32, 32
chr1	145640936	145641121	+	chr1	145646115	145646173	+	ENST00000369291,ENST000 00539368,ENST00000542738	327-330	62,7,62,62
chr1	146043326	146042894	-	chr1	146039847	146039796	-	ENST00000604938,ENST000 00401010,ENST00000339388 ,ENST00000369323,ENST000 00604517,ENST00000604906 ,ENST00000605317,ENST000 00479926,ENST00000604894	331-337	144,24,33,1 44,144,144, 144
chr1	146236840	146236409	-	chr1	146039847	146039796	-	ENST00000604938,ENST000 00401010,ENST00000339388 ,ENST00000369323,ENST000 00604517,ENST00000604906 ,ENST00000605317,ENST000 00479926,ENST00000604894	338-344	24,33,143,1 43,143,143, 143
chr1	146411395	146411466	+	chr1	146412136	146412208	+	ENST00000446760,ENST000 00442909,ENST00000309471	345-350	2,14,22,2,22 ,22
chr1	146415842	146416273	+	chr1	146419344	146419395	+	ENST00000446760,ENST000 00442909,ENST00000309471	351-354	24,33,143,1 43
chr1	147585101	147584669	-	chr1	147581622	147581571	-	ENST00000474625,ENST000 00369226,ENST00000369228	355-358	144,24,33,1 44
chr1	148332575	148332143	-	chr1	148329081	148329030	-	ENST00000369202,ENST000 00369188,ENST00000369189	359-363	24,33,114,1 14,114
chr1	148585497	148585929	+	chr1	148588994	148589045	+	ENST00000442702,ENST000 00369187	364-366	24,33,120
chr1	148585497	148585929	+	chr1	148751038	148751089	+	ENST00000417839	367-369	24,33,120
chr1	148747583	148748015	+	chr1	148751038	148751089	+	ENST00000417839	370-372	24,33,120
chr1	150231228	150231274	+	chr1	150232546	150232566	+	ENST00000369111,ENST000 00483993	373-375	15,7,7
chr1	150313304	150313309	+	chr1	150315785	150315928	+	ENST00000324862,ENST000 00414970	376-378	2,1,1
chr1	150702477	150701618	-	chr1	150679285	150679029,15	-	ENST00000368995,ENST000 00368993,ENST00000322343 ,ENST00000361824,ENST000 00368987,ENST00000442853	379-383	27,14,12,14, 14
chr1	150829613	150829485	-	chr1	150825282	150825238	-	ENST00000358595,ENST000 00471844,ENST00000354396 ,ENST00000515192,ENST000 00505755	384-390	1,36,4,36,36 ,36,36
chr1	150829613	150829494	-	chr1	150825282	150825238	-	ENST00000358595,ENST000 00471844,ENST00000354396 ,ENST00000515192,ENST000 00505755	391-397	3,33,1,33,33 ,33,33
chr1	151169637	151169587	-	chr1	151158426	151158274	-	ENST00000368892,ENST000 00354473	398-401	17,16,8,17

Table 10

						ENST00000368884,ENST00000368881,ENST00000437736	402-404	13,13,13
chr1	151235658	151235726 +	chr1	151236390	151236504 +	ENST00000368830,ENST00000368829	405-408	40,38,12,38
chr1	151742610	151741937 -	chr1	151734976	151734852 -	ENST00000368830,ENST00000368829	409-412	40,38,12,12
chr1	151742610	151741937 -	chr1	151735622	151735466 -	ENST00000368698	413-415	12,27,25
chr1	153546936	153547772 +	chr1	153600903	153600972 +	ENST00000368698,ENST00000292169	416-418	12,27,25
chr1	153546936	153547772 +	chr1	153604174	153604317 +	ENST00000368533,ENST00000330188,ENST00000341372,ENST00000328159,ENST00000509409,ENST00000271850,ENST00000368531,ENST00000323144,ENST00000368530	419-420	39,22
chr1	154147269	154147153 -	chr1	154145677	154145560 -	ENST00000368533,ENST00000330188,ENST00000341485,ENST00000341372,ENST00000328159,ENST00000509409,ENST00000368531,ENST00000323144,ENST00000509601	421-435	18,5,26,5,5,18,5,26,5,18,5,26,5,5,5
chr1	154173770	154173689 -	chr1	154155487	154155464 -	ENST00000368521,ENST00000362076,ENST00000350592,ENST00000368519,ENST00000368518,ENST00000368516	436-439	6,23,6,6
chr1	154191479	154191192 -	chr1	154187050	154186933 -	ENST00000292205,ENST00000368474,ENST00000529168	440-443	6,15,44,15
chr1	154602079	154601746 -	chr1	154575102	154573517 -	ENST00000271915,ENST00000361147,ENST00000358505	444-446	31,10,15
chr1	154707589	154707444 -	chr1	154705620	154705479 -	ENST00000271915,ENST00000361147,ENST00000358505	447-449	13,21,21
chr1	154709585	154709520 -	chr1	154705620	154705479 -	ENST00000271915,ENST00000361147	450-452	28,4,26
chr1	154829774	154829691 -	chr1	154794660	154794565 -	ENST00000368467	453-454	22,11
chr1	154906770	154906674 -	chr1	154904891	154904828 -	ENST00000473363	455-457	50,32,4
chr1	155151933	155151783 -	chr1	155145950	155145793 -	ENST00000545012,ENST00000368383,ENST00000368382,ENST00000334634	458-461	17,7,16,16
chr1	155153105	155153155 +	chr1	155154328	155154625 +	ENST00000361168,ENST00000368361,ENST00000355560,ENST00000536801	462-465	20,7,7,7
chr1	155242106	155241884 -	chr1	155240768	155240599 -	ENST00000368346,ENST00000392403	466-468	22,2,16
chr1	155315924	155315754 -	chr1	155314064	155313974 -	ENST00000368346,ENST00000392403	469-472	13,24,27,13
chr1	155368494	155368337 -	chr1	155365344	155365250 -	ENST00000368346,ENST00000392403	473-476	2,10,5,2
chr1	155489748	155489596 -	chr1	155452240	155447677 -	ENST00000375999,ENST00000358897,ENST00000417793,ENST00000375998	477-481	11,7,14,11,11
chr1	15562769	15563257 +	chr1	15598819	15599025 +	ENST00000471642,ENST00000368336,ENST00000343043,ENST00000421487,ENST00000535183,ENST00000477394,ENST00000490249	482-484	28,6,11
chr1	155703663	155703763 +	chr1	155706737	155706854 +	ENST00000368315,ENST00000361247,ENST00000462460,ENST00000313667,ENST00000609707,ENST00000495070	485-487	21,2,2
chr1	155942793	155942656 -	chr1	155939091	155938947 -	ENST00000474377,ENST00000466905	488-490	24,24,5
chr1	155987996	155987923 -	chr1	155982356	155982318 -	ENST00000361084	491-493	17,7,16
chr1	156036448	156036498 +	chr1	156038061	156038254 +	ENST00000361084	494-496	50,6,27
chr1	156036448	156036597 +	chr1	156038061	156038254 +	ENST00000368273,ENST00000497069	497-501	28,14,7,28,14
chr1	156193214	156193351 +	chr1	156195348	156195459 +			

							ENST00000295688,ENST000		6,17,17,17,1
							00368258,ENST00000413555		7,6,17,17
							,ENST00000496684,ENST000		
							00478640,ENST00000415548		
chr1	156304961	156304861	-	chr1	156304709	156304659	-	502-509	
							ENST00000295688,ENST000		1,4,1,4,4,4,4
							00368259,ENST00000413555		,4,4
							,ENST00000496684,ENST000		
							00446905,ENST00000478640		
chr1	156307574	156307468	-	chr1	156305674	156305618	-	,ENST00000415548	510-518
							ENST00000361170,ENST000		33,23,1
chr1	156508151	156508053	-	chr1	156507113	156506973	-	00491900	519-521
							ENST00000271526,ENST000		8,7,7
							00353233,ENST00000526188		
chr1	156765697	156765720	+	chr1	156767068	156767133	+	,ENST00000454659	522-524
							ENST00000375999,ENST000		10,7,8,7,7,7
							00358897,ENST00000417793		
							,ENST00000375998,ENST000		
							00444385,ENST00000314740		
							,ENST00000529606,ENST000		
chr1	15683840	15684095	+	chr1	15684606	15684779	+	00314668	525-530
							ENST00000368194,ENST000		21,21,18,18
chr1	156962967	156962904	-	chr1	156955965	156955874	-	00361409	531-534
							ENST00000361835,ENST000		16,9,9,9
							00356953,ENST00000368190		
							,ENST00000368191,ENST000		
chr1	157517533	157517430	-	chr1	157514872	157514621	-	00368189	535-538
							ENST00000361835,ENST000		16,9
							00356953,ENST00000368190		
							,ENST00000368189,ENST000		
chr1	157517533	157517430	-	chr1	157516955	157516733	-	00368188	539-540
							ENST00000361835,ENST000		16,9,9,9,9
							00356953,ENST00000368190		
							,ENST00000368189,ENST000		
chr1	157517533	157517430	-	chr1	157516987	157516733	-	00368188	541-545
							ENST00000361516,ENST000		18,10,32,10,
							00368181,ENST00000392274		10
chr1	157746354	157746101	-	chr1	157745585	157745565	-		546-550
chr1	157866342	157866064	-	chr1	157809200	157809174	-	ENST00000368174	551-553
chr1	157868269	157867990	-	chr1	157804538	157804197	-	ENST00000368174	554-556
chr1	157868269	157867990	-	chr1	157805945	157805625	-	ENST00000368174	557-559
							ENST00000368173,ENST000		12,4,12,4,4
							00392272,ENST00000359209		
chr1	157968050	157968151	+	chr1	158045903	158046052	+		560-564
							ENST00000368173,ENST000		34,25,33,34,
							00392272,ENST00000359209		25,34
chr1	157995374	157995476	+	chr1	158045903	158046052	+		565-570
							ENST00000368173,ENST000		55,59,53,59,
							00392272,ENST00000359209		53,59
chr1	158033427	158033617	+	chr1	158045903	158046052	+		571-576
							ENST00000368173,ENST000		6,15,6
							00392272,ENST00000360089		
							,ENST00000359209,ENST000		
							00416935,ENST00000368172		
chr1	158057103	158057175	+	chr1	158057545	158057650	+		577-579
chr1	159812322	159812017	-	chr1	159811025	159810916	-	ENST00000368102	580-582
								ENST00000368073,ENST000	1,3,29
								00326837,ENST00000368074	17,7,16,16,1
								,ENST00000556710,ENST000	6,16,16,16,1
								00608310,ENST00000461888	6,17,16
								,ENST00000610139,ENST000	
								00475733,ENST00000447377	
								,ENST00000440682,ENST000	
								00407642,ENST00000485079	
chr1	160225223	160225173	-	chr1	160210160	160209487,16	-	,ENST00000419626	583-593
								ENST00000368069,ENST000	22,5,21,5
chr1	160283502	160283437	-	chr1	160282957	160282875	-	00241704	594-597
								ENST00000368069,ENST000	28,2,23,28
chr1	160376046	160375962	-	chr1	160310084	160309971	-	00241704	598-601
								ENST00000375799,ENST000	17,7,17
chr1	16045663	16045713	+	chr1	16046229	16046415	+	00375793	602-604
								ENST00000368046,ENST000	10,9,9,9
chr1	160683858	160683829	-	chr1	160654979	160654677	-	00368045	605-608

Table 10

							ENST00000375771,ENST00000375766,ENST00000400773,ENST00000332305	609-611	30,20,13
chr1	16107582	16107671	+	chr1	16111051	16111156	+		
chr1	161720453	161720512	+	chr1	161721445	161721514	+	ENST00000484291,ENST00000464004	612-614	11,19,19
chr1	161720453	161720512	+	chr1	161721458	161721514	+	ENST00000484291,ENST00000367943,ENST00000464004	615-618	11,19,19,19
chr1	1622800	1622415	-	chr1	1601590	1601537	-	ENST00000378662,ENST00000234800	619-621	26,1,57
chr1	163197365	163197091	-	chr1	163138158	163138048	-	ENST00000313961,ENST00000367903,ENST00000530507	622-625	7,19,40,7
chr1	163254992	163254743	-	chr1	163138158	163138048	-	ENST00000313961,ENST00000367903,ENST00000530507	626-629	26,52,7,7
chr1	16330928	16330933	+	chr1	16332414	16332841	+	ENST00000329454	630-632	2,1,1
chr1	16330928	16330994	+	chr1	16332414	16332841	+	ENST00000329454	633-634	13,21
chr1	1651353	1651287	-	chr1	1650894	1650767,17	-	ENST00000356200,ENST00000378638,ENST00000509982,ENST00000357760,ENST00000358779,ENST00000378633,ENST00000404249,ENST00000460465,ENST00000378635,ENST00000479362	635-645	22,13,21,21,22,21,21,21,21,21
chr1	165389832	165389796	-	chr1	165389251	165389107	-	ENST00000359842	646-648	12,12,3
chr1	16578601	16578391	-	chr1	16578280	16577165,2	-	ENST00000375592,ENST00000456164,ENST00000444116	649-652	44,12,13,12
chr1	166084899	166084857	-	chr1	166040000	166039478	-	ENST00000435676,ENST00000456900,ENST00000441649,ENST00000354422,ENST00000338353	653-655	7,5,13
chr1	166110244	166110181	-	chr1	166040000	166039478	-	ENST00000435676,ENST00000456900,ENST00000441649,ENST00000354422,ENST00000338353	656-658	2,21,20
chr1	166117161	166116983	-	chr1	166040000	166039478	-	ENST00000435676,ENST00000456900,ENST00000441649,ENST00000354422,ENST00000338353	659-660	40,17
chr1	16639586	16639489	-	chr1	16632414	16632298	-	ENST00000375592	661-663	32,24,11
chr1	16679766	16679918	+	chr1	16717870	16717919	+	ENST00000401088,ENST00000471507	664-668	31,1,24,31,24
chr1	16679766	16679918	+	chr1	16719723	16719977	+	ENST00000401088,ENST00000401089	669-671	31,1,24
chr1	16713448	16713620	+	chr1	16717870	16717919	+	ENST00000401088,ENST00000471507	672-674	38,20,20
chr1	167307175	167307495	+	chr1	167334704	167334804	+	ENST00000367866,ENST00000452019,ENST00000429375,ENST00000541643,ENST00000420254,ENST00000367862	675-679	1,69,69,69,69
chr1	167383108	167383208	+	chr1	167384737	167385047	+	ENST00000367866,ENST00000429375,ENST00000541643,ENST00000367862	680-682	33,1,9
chr1	167499401	167498934	-	chr1	167410004	167409901	-	ENST00000362089,ENST00000392122	683-684	33,11
chr1	167528967	167528847	-	chr1	167517358	167517239	-	ENST00000370509	685-687	12,35,30
chr1	167836019	167836686	+	chr1	167921038	167921099	+	ENST00000367843,ENST00000470721,ENST00000432587,ENST00000312263,ENST00000367840	688-689	20,89
chr1	168066967	168066913	-	chr1	168066470	168065746	-	ENST00000367838,ENST00000271357,ENST00000539777,ENST00000361697,ENST00000537209,ENST00000546300,ENST00000367835	690-692	18,18,9
chr1	168257659	168257709	+	chr1	168260398	168260662	+	ENST00000367821,ENST00000431969	693-695	15,7,7

Table 10

						ENST00000341426,ENST00000341991,ENST00000378625,ENST00000344463,ENST00000342348,ENST00000489538		32,6,32,32,6,32,6,32
chr1	1686557	1686460	-	chr1	1686137	1685983,1686 -	,ENST00000400922	696-703	
							ENST00000472647,ENST00000367811,ENST00000525440		12,6
chr1	169249077	169248981	-	chr1	169206925	169206861 -		704-705	
							ENST00000367811,ENST00000525440,ENST00000528517		28,13,1,13,13
chr1	169306880	169305206	-	chr1	169293738	169293631 -		706-710	
chr1	170040975	170040618	-	chr1	170024577	170024446 -	ENST00000361580	711-712	28,6
							ENST00000458517,ENST00000367737,ENST00000361735		10,8,18,8
chr1	171751429	171751684	+	chr1	171752880	171753639 +		713-716	
							ENST00000358155,ENST00000367733,ENST00000355305,ENST00000367731,ENST00000520906,ENST00000523513		32,6,32,32,32,32,32
chr1	172024970	172025066	+	chr1	172037959	172038045 +		717-723	
							ENST00000358155,ENST00000367733,ENST00000355305,ENST00000367731,ENST00000520906,ENST00000523513		7,46,18,46,46,46,46
chr1	172086459	172086737	+	chr1	172100315	172100428 +		724-730	
							ENST00000367723,ENST00000608151,ENST00000610051		26,10,2,26,26
chr1	172537026	172537103	+	chr1	172538159	172538282 +	,ENST00000263688	731-735	
							ENST00000375541,ENST00000445545	736-739	33,24,11,33
							ENST00000375541,ENST00000445545	740-743	39,43,37,37
							ENST00000375541,ENST00000445545	744-747	31,21,8,31
							ENST00000375541,ENST00000445545	748-750	1,11,11
chr1	17283485	17283585	+	chr1	17285078	17285245 +			
chr1	17289310	17289351	+	chr1	17292218	17292387 +	ENST00000375541	751	7
chr1	17291620	17291663	+	chr1	17292218	17292387 +	ENST00000375541	752-754	14,10,14
							ENST00000378609,ENST00000439272,ENST00000434686		7,16,16,16,16,16,16
chr1	1735019	1734970	-	chr1	1724750	1724684 -		755-761	
chr1	17351254	17351125	-	chr1	17350569	17350468 -	ENST00000375499	762-763	43,9
chr1	173694445	173694477	+	chr1	173702852	173703425 +	ENST00000209884	764-765	5,1
							ENST00000258349,ENST00000367696,ENST00000367694		1,31,3,3
chr1	173954655	173954228	-	chr1	173953757	173953637 -		766-769	
							ENST00000357444,ENST00000251507,ENST00000457696		16,22,16,16
chr1	174189523	174189592	+	chr1	174190110	174190302 +		770-773	
							ENST00000357444,ENST00000251507,ENST00000457696		15,14,14,15,15
chr1	174244283	174244327	+	chr1	174244971	174245073 +		774-778	
chr1	17586344	17586359	+	chr1	17588628	17588700 +	ENST00000375460	779-781	5,5,4
							ENST00000367669,ENST00000367666,ENST00000308769		19,7
chr1	175997341	175997068	-	chr1	175996824	175996708 -		782-783	
							ENST00000361833,ENST00000367654	784-785	45,7
chr1	176835188	176834928	-	chr1	176833657	176833420 -			
chr1	177903010	177902852	-	chr1	177902771	177902619 -	ENST00000308284	786-788	53,20,1
							ENST00000448150,ENST00000367649	789-792	19,14,6,6
chr1	178184292	178184597	+	chr1	178252699	178252826 +			
							ENST00000367635,ENST00000367634,ENST00000324778		24,5,24,5,5
chr1	178806683	178806756	+	chr1	178846633	178846770 +		793-797	
							ENST00000502732,ENST00000408940,ENST00000344730,ENST00000512653,ENST00000504405,ENST00000367623,ENST00000507173,ENST00000511413	798-799	53,2
chr1	179080107	179079710	-	chr1	179079590	179079417 -			
							ENST00000434513,ENST00000361221,ENST00000452522		25,25,25,25,25
chr1	17930254	17930330	+	chr1	17934297	17934472 +	,ENST00000375415	800-804	

Table 10

						ENST00000367618,ENST00000457238,ENST00000511157,ENST00000434088	805-810	7,18,36,36,36,36
chr1	179370707	179370980 +	chr1	179398653	179398754 +	ENST00000367618,ENST00000457238,ENST00000511157,ENST00000434088	811-815	7,7,36,36,36,36
chr1	179370707	179370980 +	chr1	179399587	179399741 +	ENST00000367614,ENST00000444136,ENST00000294848,ENST00000417329	816-818	17,5,16
chr1	179631454	179631504 +	chr1	179632483	179632626 +	ENST00000367607,ENST00000429851,ENST00000437245	819-822	14,17,17,17
chr1	180051152	180051204 +	chr1	180053153	180053313 +	ENST00000367602,ENST00000392029,ENST00000367600	823-829	10,5,15,10,5,15,15
chr1	180144025	180144071 +	chr1	180144456	180144501 +	ENST00000263726,ENST00000561113	830-832	14,5,5
chr1	180239310	180239366 +	chr1	180240515	180240669 +	ENST00000367595	833-835	1,15,28
chr1	180296745	180295546 -	chr1	180283857	180283827 -	ENST00000367588	836-837	31,6
chr1	180877332	180877427 +	chr1	180885290	180886236 +	ENST00000524607,ENST00000357570,ENST00000358338,ENST00000367570,ENST00000526775,ENST00000360108,ENST00000367573	838-846	7,48,1,7,7,7,7,7,7
chr1	181511536	181511825 +	chr1	181546902	181547005 +	ENST00000524607,ENST00000357570,ENST00000358338,ENST00000367570,ENST00000526775,ENST00000360108,ENST00000367573	847-854	8,22,22,22,22,2,22,22,22
chr1	181620179	181620269 +	chr1	181620474	181620577 +	ENST00000304685,ENST00000536277,ENST00000360851,ENST00000539189	855-858	27,1,34,1
chr1	183810956	183811061 +	chr1	183816700	183816908 +	ENST00000546159,ENST00000361927	859-862	17,1,2,2
chr1	183966600	183966474 -	chr1	183947654	183947544 -	ENST00000318130,ENST00000367512	863-866	34,21,13,13
chr1	184681359	184681094 -	chr1	184681011	184680857 -	ENST00000367510,ENST00000367509,ENST00000453650	867-869	3,16,16
chr1	185063573	185063702 +	chr1	185067204	185067476 +	ENST00000367501,ENST00000367500	870-872	24,45,32
chr1	185172474	185172770 +	chr1	185173832	185173995 +	ENST00000367466,ENST00000442353	873-875	8,2,36
chr1	186882578	186882688 +	chr1	186901895	186902031 +	ENST00000494072,ENST00000455833,ENST00000416166	876-878	5,16,16
chr1	19277063	19276916 -	chr1	19247615	19247555 -	ENST00000367455,ENST00000367454,ENST00000367450,ENST00000367451,ENST00000367448,ENST00000367449,ENST00000421683,ENST00000417752	879-889	9,17,20,17,17,7,17,17,17,7,9,17
chr1	193023119	193022935 -	chr1	193020947	193020884 -	ENST00000367439,ENST00000367440	890-892	17,7,16
chr1	193071782	193071732 -	chr1	193070334	193070271 -	ENST00000367435	893-895	22,28,60
chr1	193206486	193206984 +	chr1	193218860	193219001 +	ENST00000367435	896-898	4,21,47
chr1	193216194	193218147 +	chr1	193218860	193219001 +	ENST00000477853,ENST00000375199,ENST00000375208	899-900	7,7
chr1	19568300	19568250 -	chr1	19567636	19567510 -	ENST00000330263	901-902	17,7
chr1	19580585	19580635 +	chr1	19581276	19581334 +	ENST00000375155,ENST00000375153,ENST00000400548	903-904	2,53
chr1	19654385	19654547 +	chr1	19655066	19655137 +	ENST00000294732,ENST00000367409,ENST00000367408	905-907	7,16,16
chr1	197100987	197100938 -	chr1	197099186	197099045 -	ENST00000448952	908-910	34,21,12
chr1	197411973	197412237 +	chr1	197446678	197446683 +	ENST00000535699,ENST00000538660,ENST00000367400,ENST00000367399,ENST00000544212	911-913	34,21,12
chr1	197411973	197412237 +	chr1	197446794	197447009 +			

Table 10

							ENST00000401084,ENST00000264203,ENST00000375142,ENST00000433834,ENST00000264202	914-917	66,44,44,44
chr1	19747224	19747025	-	chr1	19746244	19746155	-		
							ENST00000352140,ENST00000367376,ENST00000594404,ENST00000442510,ENST00000348564	918-920	4,25,60
chr1	198707982	198708339	+	chr1	198710998	198711155	+		
chr1	200588778	200588680	-	chr1	200587780	200586740	-	ENST00000367350	921-923	33,23,32
							ENST00000447706,ENST00000367348,ENST00000331314		3,36,20,20,20
chr1	200628482	200628334	-	chr1	200628244	200628155	-		924-928	
							ENST00000532631,ENST00000451872,ENST00000367342		16,7,15,7,15,15
chr1	200867889	200867936	+	chr1	200868601	200868666	+	,ENST00000413687	929-934	
							ENST00000332129,ENST00000360529,ENST00000461742		11,21,13,21,21,21
chr1	200982067	200981804	-	chr1	200978616	200978394	-	,ENST00000422435	935-940	
							ENST00000451870,ENST00000437879,ENST00000335211		7,5,7,7
chr1	201169691	201169713	+	chr1	201170847	201170960	+		941-944	
							ENST00000367318,ENST00000367322,ENST00000236918,ENST00000360372,ENST00000367315,ENST00000367317,ENST00000421663,ENST00000458432,ENST00000367320,ENST00000509001,ENST00000438742		2,12,25,2,12
chr1	201329670	201329581	-	chr1	201328791	201328751	-		945-949	
							ENST00000367318,ENST00000367322,ENST00000236918,ENST00000360372,ENST00000367315,ENST00000367317,ENST00000421663,ENST00000458432,ENST00000367320,ENST00000509001,ENST00000438742		1,2,1,1,1
chr1	201330839	201330833	-	chr1	201330497	201330407	-		950-954	
chr1	202036744	202036765	+	chr1	202096869	202097684	+	ENST00000367282	955-957	7,7,6
							ENST00000367279,ENST00000309017,ENST00000495688,ENST00000308986,ENST00000462815,ENST00000477554,ENST00000476061,ENST00000464870,ENST00000467283,ENST00000435759,ENST00000486116,ENST00000492451		16,12,16,12,16,16,12,16,12,16,12,16,12,16,12
chr1	202128050	202128001	-	chr1	202127429	202127246	-		958-972	
							ENST00000367278,ENST00000255432,ENST00000487787		9,8,8,8,8
chr1	202205766	202205792	+	chr1	202245434	202245649	+	,ENST00000423542	973-977	
							ENST00000608999,ENST00000336894,ENST00000367270		15,3,22,3
chr1	202520790	202521185	+	chr1	202531906	202532050	+	,ENST00000391959	978-981	
							ENST00000340990,ENST00000436244		11,32,6
chr1	202912293	202912195	-	chr1	202911346	202911153	-		982-984	
chr1	203119791	203119906	+	chr1	203134184	203134220	+	ENST00000367235	985-987	12,38,38
							ENST00000357681,ENST00000367218,ENST00000367219,ENST00000391954,ENST00000341360		33,11,33,33
chr1	203688073	203688171	+	chr1	203689677	203689868	+		988-991	
							ENST00000453771,ENST00000367214,ENST00000367212,ENST00000332127,ENST00000495527,ENST00000545588		33,1,33,33
chr1	203796527	203796625	+	chr1	203797427	203797550	+	,ENST00000367210	992-995	
chr1	20459145	20458862	-	chr1	20442970	20442826	-	ENST00000375105	996-998	7,47,19
chr1	205691100	205690891	-	chr1	205689781	205689629	-	ENST00000367142	999-1001	3,29,16
chr1	205691100	205691001	-	chr1	205689781	205689629	-	ENST00000367142	1002-1003	24,11
							ENST00000295713,ENST00000414007	1004-1006	2,24,12
chr1	206564675	206564779	+	chr1	206566046	206566261	+			
chr1	206943474	206943427	-	chr1	206943239	206943174	-	ENST00000423557	1007-1009	16,15,15
							ENST00000391929,ENST00000367093	1010-1013	1,5,21,1
chr1	207071217	207071437	+	chr1	207072662	207072860	+			

Table 10

						ENST00000391929,ENST00000294984,ENST00000367093	1014-1015	5,21
chr1	207071217	207071437 +	chr1	207072665	207072860 +	ENST00000391929,ENST00000367093	1016-1019	18,13,17,13
chr1	207071771	207071824 +	chr1	207072662	207072860 +	ENST00000411990,ENST00000367079,ENST00000541914	1020-1022	22,26,3
chr1	207251673	207251752 +	chr1	207252299	207252364 +	ENST00000367052,ENST00000367053,ENST00000400960,ENST00000367049	1023-1024	14,52
chr1	207708044	207710144 +	chr1	207713326	207713411 +	ENST00000367051,ENST00000367049	1025-1026	14,52
chr1	207708044	207710144 +	chr1	207731883	207731968 +	ENST00000367051,ENST00000367052,ENST00000367053,ENST00000400960,ENST00000534202,ENST00000367049	1027-1028	14,52
chr1	207708044	207710144 +	chr1	207748940	207749025 +	ENST00000367051,ENST00000367049	1029-1030	14,52
chr1	207726599	207728699 +	chr1	207731883	207731968 +	ENST00000367051,ENST00000367052,ENST00000367053,ENST00000400960,ENST00000534202,ENST00000367049	1031-1032	14,52
chr1	207726599	207728699 +	chr1	207748940	207749025 +	ENST00000367051,ENST00000367052,ENST00000367053,ENST00000400960,ENST00000534202,ENST00000367049	1033-1034	14,52
chr1	207743694	207745794 +	chr1	207748940	207749025 +	ENST00000508064,ENST00000294997	1035-1038	4,37,21,4
chr1	207860078	207860285 +	chr1	207867698	207868096 +	ENST00000322875,ENST00000322918,ENST00000354848,ENST00000357714,ENST00000358170,ENST00000361067,ENST00000367041,ENST00000367042,ENST00000441839,ENST00000360212,ENST00000480003	1039-1051	10,19,31,10,10,10,10,10,10,10,10
chr1	207918545	207920435 +	chr1	207930359	207930547 +	ENST00000375071	1052-1054	3,7,16
chr1	20928340	20928390 +	chr1	20931421	20931532 +	ENST00000375071	1055-1056	30,15
chr1	20938782	20939130 +	chr1	20940335	20940392 +	ENST00000375071	1057-1059	47,37,7
chr1	20943872	20944154 +	chr1	20944945	20945061 +	ENST00000356082,ENST00000391911,ENST00000367030	1060-1062	13,20,2
chr1	209802348	209802151 -	chr1	209800924	209800728 -	ENST00000375044,ENST00000400463,ENST00000247986	1063-1066	28,8,1,1
chr1	21002380	21002259 -	chr1	20998689	20998431 -	ENST00000375044,ENST00000400463,ENST00000247986	1067-1070	27,7,18,27
chr1	21004863	21004585 -	chr1	20998689	20998431 -	ENST00000399639,ENST00000422431,ENST00000534859,ENST00000367019,ENST00000472886	1071-1078	18,29,28,18,28,28,28,28
chr1	210074070	210074318 +	chr1	210126054	210126101 +	ENST00000399639,ENST00000422431,ENST00000534859,ENST00000367019,ENST00000472886	1079-1084	20,20,14,20,20,20
chr1	210181074	210181135 +	chr1	210186978	210187142 +	ENST00000399639,ENST00000422431,ENST00000534859,ENST00000537238,ENST00000367019,ENST00000472886	1085-1089	4,3,4,4,4
chr1	210277283	210277295 +	chr1	210329066	210329255 +	ENST00000367006,ENST00000452621,ENST00000528926,ENST00000419091,ENST00000367005,ENST00000534460,ENST00000529763,ENST00000485186	1090-1099	10,8,2,2,10,2,2,2,2,2
chr1	211463187	211463365 +	chr1	211469018	211469095 +	ENST00000366997,ENST00000366996	1100-1102	1,4,56
chr1	211925614	211925229 -	chr1	211924409	211924303 -			

Table 10

							ENST00000366994,ENST00000366993,ENST00000366992,ENST00000440600	1103-1107	17,8,17,8,8
chr1	212130606	212130553	-	chr1	212126043	212125911	-		
							ENST00000366994,ENST00000366993,ENST00000366992,ENST00000440600	1108-1112	16,1,25,1,1
chr1	212157492	212157365	-	chr1	212156152	212156018	-		
							ENST00000366991,ENST00000542077	1113-1115	12,17,13
chr1	212234605	212234661	+	chr1	212236226	212236291	+		
							ENST00000400919,ENST00000400918	1116-1120	4,9,1,4,9
chr1	2124338	2124284	-	chr1	2116952	2116717,21	-		
							ENST00000261455,ENST00000535273	1121-1123	18,66,3
chr1	212584509	212584125	-	chr1	212583863	212583767	-		
							ENST00000532324,ENST00000366974,ENST00000530441,ENST00000526641,ENST00000531963,ENST00000366973,ENST00000526997,ENST00000533650,ENST00000488246,ENST00000525574,ENST00000530399	1124-1136	5,5,4,5,5,4,5,5,5,5,5,5,5
chr1	212964391	212964406	+	chr1	212968437	212968469	+		
							ENST00000532324,ENST00000366974,ENST00000526641,ENST00000366973,ENST00000526997,ENST00000527693	1137-1141	2,2,1,2,1
chr1	212986365	212986371	+	chr1	212988355	212988498	+		
							ENST00000366971,ENST00000419102	1142-1144	1,158,5
chr1	213064967	213066344	+	chr1	213068328	213068395	+		
							ENST00000360506,ENST00000366962,ENST00000544555,ENST00000540642,ENST00000535388	1145-1146	2,5
chr1	213175977	213174748	-	chr1	213173725	213173668	-		
							ENST00000360506,ENST00000366962,ENST00000544555,ENST00000540642	1147-1148	2,5
chr1	213175977	213174748	-	chr1	213174254	213174128	-		
chr1	214571140	214571125	-	chr1	214568329	214568242	-	ENST00000366956	1149-1150	5,4
chr1	217698243	217698078	-	chr1	217688231	217688164	-	ENST00000366935	1151-1153	8,33,12
chr1	217891471	217891683	+	chr1	217947676	217947879	+	ENST00000366933	1154-1156	24,26,25
							ENST00000366929,ENST00000366930	1157-1159	7,18,4
chr1	218590051	218590316	+	chr1	218607424	218607556	+		
							ENST00000366929,ENST00000366930	1160-1162	21,7,39
chr1	218591965	218592255	+	chr1	218607424	218607556	+		
chr1	218657932	218658820	+	chr1	218683438	218683529	+	ENST00000443836	1163-1165	23,38,13
							ENST00000366928,ENST00000366927	1166-1168	11,60,1
chr1	219369848	219371145	+	chr1	219383874	219383989	+		
							ENST00000358951,ENST00000484658	1169-1171	23,1,23
chr1	220379944	220379876	-	chr1	220379348	220379249	-		
							ENST00000359316,ENST00000366913,ENST00000425560	1172-1176	57,15,2,57,57
chr1	220891847	220892112	+	chr1	220935000	220935162	+		
chr1	2208724	2209001	+	chr1	2234417	2234542	+	ENST00000378536	1177-1179	7,18,45
							ENST00000400301,ENST00000308271,ENST00000529637,ENST00000421625	1180-1184	17,7,7,7,7
chr1	22096203	22096153	-	chr1	22084276	22084156	-		
chr1	22176470	22176404	-	chr1	22175524	22175386	-	ENST00000374695	1185-1187	22,13,21
chr1	22177764	22177665	-	chr1	22176991	22176856	-	ENST00000374695	1188-1189	24,11
chr1	22177764	22177670	-	chr1	22176991	22176856	-	ENST00000374695	1190-1192	22,9,31
							ENST00000366890,ENST00000350027,ENST00000352967,ENST00000391882,ENST00000391883	1193-1195	24,26,24
chr1	222740121	222739816	-	chr1	222737467	222737401	-		
							ENST00000350027,ENST00000352967,ENST00000391883,ENST00000543857	1196-1200	2,29,29,29,29
chr1	222758955	222758866	-	chr1	222757639	222757470	-		
							ENST00000344922,ENST00000344441,ENST00000344507	1201-1205	2,9,14,14,14
chr1	222797335	222797843	+	chr1	222798110	222798196	+		
							ENST00000340934,ENST00000426638,ENST00000537020,ENST00000539697	1206-1210	10,12,10,10,10
chr1	222888508	222888611	+	chr1	222892267	222892373	+		
chr1	223153055	223153226	+	chr1	223156422	223156451	+	ENST00000284476	1211-1212	57,35
							ENST00000366872,ENST00000419193,ENST00000366873,ENST00000465098	1213-1217	34,11,34,34,34
chr1	223813298	223813197	-	chr1	223810602	223810517	-		

Table 10

						ENST00000366872,ENST00000419193,ENST00000366873,ENST00000467384	1218-1222	22,13,22,22,22
chr1	223842688	223842622 -	chr1	223842101	223842032 -	ENST00000433674,ENST00000434648,ENST00000295006	1223-1224	21,13
chr1	223906962	223907025 +	chr1	223931802	223931920 +	ENST00000343537,ENST00000494100,ENST00000465119	1225-1229	21,43,43,21,43
chr1	224000270	224000092 -	chr1	223998215	223998133 -	ENST00000343537	1230-1231	39,15
chr1	224013703	224013587 -	chr1	224009069	224008922 -	ENST00000343537	1232-1234	7,40,1
chr1	224123658	224123360 -	chr1	224009069	224008922 -	ENST00000415210,ENST00000323699,ENST00000391877	1235-1238	11,23,1,1
chr1	224374134	224374232 +	chr1	224377279	224378021 +	ENST00000469968,ENST00000391875,ENST00000281701,ENST00000469075,ENST00000340871,ENST00000482491,ENST00000361463	1239-1241	2,14,2
chr1	224467525	224467313 -	chr1	224463160	224463041 -	ENST00000469968,ENST00000391875,ENST00000281701,ENST00000469075,ENST00000361463,ENST00000467882,ENST00000488718,ENST00000492281,ENST00000436927	1242-1246	17,7,17,17,17
chr1	224493544	224493494 -	chr1	224492868	224492736 -	ENST00000414423,ENST00000295024,ENST00000480676	1247-1249	24,6,18
chr1	224584992	224584869 -	chr1	224581715	224581530 -	ENST00000414423,ENST00000295024	1250-1251	17,7
chr1	224604227	224604177 -	chr1	224599267	224599129 -	ENST00000272133	1252-1254	45,24,20
chr1	224827077	224827364 +	chr1	224868660	224868728 +	ENST00000272133	1255-1257	16,16,15
chr1	224859188	224859236 +	chr1	224868660	224868728 +	ENST00000272133	1258-1260	19,31,31
chr1	224861566	224861660 +	chr1	224868660	224868728 +	ENST00000272133	1261-1263	22,12,74
chr1	224908673	224908898 +	chr1	224918164	224918276 +	ENST00000445597,ENST00000430092,ENST00000366850,ENST00000400952,ENST00000366849,ENST00000366848,ENST00000439375,ENST00000433124	1264	15
chr1	225148845	225149031 +	chr1	225152181	225152311 +	ENST00000430092,ENST00000439375,ENST00000328556	1265-1267	6,9,6
chr1	225275160	225275831 +	chr1	225284820	225284941 +	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	1268-1271	23,13,23,23
chr1	225350557	225350625 +	chr1	225355641	225355730 +	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	1272-1275	23,13,23,23
chr1	225350557	225350625 +	chr1	225372993	225373127 +	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	1276-1279	24,11,11,11
chr1	225350557	225350657 +	chr1	225355641	225355730 +	ENST00000445597,ENST00000430092,ENST00000439375,ENST00000328556	1280-1283	29,6,29,29
chr1	225355891	225355978 +	chr1	225372993	225373127 +	ENST00000366835,ENST00000436966	1284-1287	2,24,11,11
chr1	226062727	226062633 -	chr1	226062067	226061988 -	ENST00000432920,ENST00000343818	1288-1290	9,5,9
chr1	226111175	226111131 -	chr1	226110083	226109904 -	ENST00000366812	1291-1293	17,38,38
chr1	226354131	226354015 -	chr1	226353701	226353560 -	ENST00000460719,ENST00000328205,ENST00000366808,ENST00000366801,ENST00000481685	1294-1297	62,5,14,14
chr1	226434201	226433810 -	chr1	226426797	226426672 -	ENST00000460719,ENST00000328205,ENST00000366808,ENST00000366801,ENST00000481685	1298-1300	3,3,3
chr1	226435804	226435794 -	chr1	226426797	226426672 -	ENST00000460719,ENST00000328205,ENST00000366808,ENST00000366801,ENST00000481685	1301-1304	17,7,16,17
chr1	226439228	226439178 -	chr1	226438620	226438540 -	ENST00000366794	1305-1306	2,9
chr1	226558789	226558717 -	chr1	226558218	226558135 -			

Table 10

						ENST00000272117,ENST000		59,31
chr1	226887889	226887567 -	chr1	226836472	226836373 -	00429204	1307-1308	
						ENST00000366783,ENST000		17,7,7,7,7,7
						00340188,ENST00000495488		
						,ENST00000422240,ENST000		
						00366782,ENST00000391872		
chr1	227072333	227072383 +	chr1	227073239	227073380 +	,ENST00000496965	1309-1314	
						ENST00000366767,ENST000		16,18
						00366769,ENST00000448940		
						,ENST00000334218,ENST000		
						00366764,ENST00000366766		
						,ENST00000442054,ENST000		
						00535525,ENST00000366765		
						,ENST00000429440,ENST000		
chr1	227214789	227214605 -	chr1	227213853	227213756 -	00441725	1315-1316	
						ENST00000366767,ENST000		3,32,7,32,32
						00366769,ENST00000334218		,32,32,32
						,ENST00000366764,ENST000		
						00366766,ENST00000442054		
						,ENST00000535525,ENST000		
chr1	227281017	227280700 -	chr1	227279692	227279587 -	00366765	1317-1324	
						ENST00000366767,ENST000		1,16,3,16,16
						00366769,ENST00000334218		,16,16,16,16
						,ENST00000366764,ENST000		
						00366766,ENST00000535525		
chr1	227339491	227339428 -	chr1	227335260	227335060 -	,ENST00000366765	1325-1333	
						ENST00000366767,ENST000		41,7,4,4,4,4,
						00366769,ENST00000334218		4,4,4
						,ENST00000366764,ENST000		
						00366766,ENST00000535525		
chr1	227510481	227510359 -	chr1	227441856	227441765 -	,ENST00000366765	1334-1342	
chr1	228397622	228397388 -	chr1	228393148	228393088 -	ENST00000472613	1343-1344	1,34
						ENST00000284548,ENST000		27,27,26,27,
						00570156,ENST00000422127		27
chr1	228401494	228401575 +	chr1	228401875	228402135 +		1345-1349	
						ENST00000284548,ENST000		20
						00570156,ENST00000366709		
						,ENST00000366707,ENST000		
chr1	228511711	228511828 +	chr1	228520561	228520639 +	00422127	1350	
chr1	228782545	228782677 +	chr1	228879032	228879487 +	ENST00000366691	1351-1353	44,36,17
chr1	228812119	228812224 +	chr1	228873420	228873478 +	ENST00000366691	1354-1356	6,11,24
chr1	228812119	228812224 +	chr1	228879032	228879487 +	ENST00000366691	1357-1359	6,11,24
						ENST00000366687,ENST000		14,4,13
						00284617,ENST00000366686		
chr1	229477494	229477453 -	chr1	229462753	229462485 -		1360-1362	
						ENST00000543760,ENST000		17,16
chr1	230227572	230227623 +	chr1	230313964	230314057 +	00366672	1363-1364	
						ENST00000543760,ENST000		23,13,23
						00366672,ENST00000541865		
chr1	230380928	230380996 +	chr1	230381809	230381896 +		1365-1367	
						ENST00000543760,ENST000		22,13,5,22,5
						00366672,ENST00000541865		
chr1	230397475	230397541 +	chr1	230398319	230398411 +		1368-1372	
						ENST00000543760,ENST000		32,22,22
						00366672,ENST00000541865		
chr1	230397475	230397570 +	chr1	230398319	230398411 +		1373-1375	
						ENST00000543760,ENST000		33,1,1
						00366672,ENST00000541865		
chr1	230397475	230397573 +	chr1	230398319	230398411 +		1376-1378	
						ENST00000366663,ENST000		17,10,25,25
						00470540,ENST00000522201		
chr1	231003620	231003544 -	chr1	230991464	230991414 -		1379-1382	
						ENST00000366661,ENST000		8,31,20,31
						00366662,ENST00000414259		
chr1	231064458	231063802 -	chr1	231061393	231061263 -		1383-1386	
						ENST00000544305,ENST000		22,22,21,22,
						00374630,ENST00000400191		22,22,22
						,ENST00000374632,ENST000		
chr1	23107532	23107598 +	chr1	23107914	23107978 +	00374627	1387-1393	
						ENST00000544305,ENST000		33,32,1,1,1,
						00374630,ENST00000400191		1,1
						,ENST00000374632,ENST000		
chr1	23107532	23107630 +	chr1	23107914	23107978 +	00374627	1394-1400	

Table 10

							ENST00000310256,ENST00000366658,ENST00000480519,ENST00000450711,ENST00000435927,ENST00000459891		20,11
chr1	231127674	231128216	+	chr1	231131506	231131730	+	1401-1402	
chr1	232061298	232061696	+	chr1	232094574	232094619	+	ENST00000537876,ENST00000439617	1403-1406	11,13,1,1
chr1	232114618	232114703	+	chr1	232144531	232144637,23	+	ENST00000535983,ENST00000366637,ENST00000439617	1407-1411	28,2,11,28,28
chr1	233281610	233281595	-	chr1	233275601	233275460	-	ENST00000258229,ENST00000462233,ENST00000484347,ENST00000486012,ENST00000488780	1412-1419	3,5,4,3,3,3,4,3
chr1	233395559	233395380	-	chr1	233395090	233393774	-	ENST00000258229	1420-1422	19,16,59
chr1	23396455	23396528	+	chr1	23397718	23397852	+	ENST00000356634,ENST00000400181,ENST00000542151	1423-1424	11,24
chr1	234545282	234545262	-	chr1	234541845	234541649	-	ENST00000040877	1425-1427	7,6,6
chr1	235287773	235287747	-	chr1	235285687	235285641	-	ENST00000366607	1428-1430	5,8,8
chr1	235289370	235289179	-	chr1	235285687	235285641	-	ENST00000366607	1431-1432	24,7
chr1	235302445	235302235	-	chr1	235301489	235301406	-	ENST00000408888,ENST00000366606,ENST00000447801	1433-1435	12,3,16
chr1	235320192	235320076	-	chr1	235318427	235318196,23	-	ENST00000408888,ENST00000366606,ENST00000447801,ENST00000474086,ENST00000429912	1436-1441	30,3,2,3,3,3
chr1	235381458	235381413	-	chr1	235377341	235377084	-	ENST00000366603,ENST00000264183,ENST00000421364	1442-1445	15,2,14,14
chr1	235421095	235421055	-	chr1	235420540	235420475	-	ENST00000366603,ENST00000264183,ENST00000349213,ENST00000421364,ENST00000418304	1446-1451	8,4,13,13,13,13
chr1	235618722	235618589	-	chr1	235617627	235617468	-	ENST00000366600	1452-1454	21,1,15
chr1	236348680	236348778	+	chr1	236368426	236368550	+	ENST00000366592,ENST00000419162,ENST00000454895	1455-1461	11,32,14,11,32,11,32
chr1	236392116	236392035	-	chr1	236390039	236389947	-	ENST00000354619	1462-1464	5,27,18
chr1	236514007	236514139	+	chr1	236572516	236572574	+	ENST00000334232,ENST00000359362	1465-1466	44,3
chr1	23758799	23758731	-	chr1	23758411	23758189	-	ENST00000495646,ENST00000336689,ENST00000465372,ENST00000437606	1467-1469	23,13,22
chr1	23769605	23769344	-	chr1	23769105	23768994	-	ENST00000336689,ENST00000437606	1470-1472	3,22,48
chr1	23844379	23844189	-	chr1	23843019	23842827	-	ENST00000361729	1473-1474	6,5
chr1	240502505	240502549	+	chr1	240519116	240519208	+	ENST00000319653,ENST00000545751	1475-1477	13,14,14
chr1	240502505	240502549	+	chr1	240555811	240555862	+	ENST00000319653,ENST00000545751	1478-1480	13,14,14
chr1	240514537	240514711	+	chr1	240519116	240519208	+	ENST00000319653,ENST00000545751	1481-1482	9,1
chr1	24072497	24072547	+	chr1	24075511	24075567	+	ENST00000418390,ENST00000609199	1483-1485	17,7,16
chr1	240996749	240996416	-	chr1	240990472	240990398	-	ENST00000331110,ENST00000440928,ENST00000348120,ENST00000366563,ENST00000366564,ENST00000366565,ENST00000446183,ENST00000366562,ENST00000401882,ENST00000407727	1486-1491	35,6,31,6,6,6
chr1	24125095	24125045	-	chr1	24124720	24124607	-	ENST00000374497,ENST00000429356,ENST00000418277,ENST00000425913,ENST00000445705	1492-1497	17,7,16,17,17,17
chr1	24151305	24151135	-	chr1	24147083	24147000	-	ENST00000374490,ENST00000436439,ENST00000235958	1498-1502	15,29,2,15,15
chr1	241709013	241708652	-	chr1	241680616	241680482	-	ENST00000366560	1503-1505	2,10,15
chr1	241764724	241764108	-	chr1	241761299	241761048	-	ENST00000366554,ENST00000331838	1506-1507	59,8
chr1	24193203	24193147	-	chr1	24192115	24191981	-	ENST00000374479	1508-1509	19,18

Table 10

							ENST00000536534,ENST00000427495,ENST00000442594,ENST00000467561,ENST00000459864	1510-1513	39,7,7,7
chr1	242508453	242508178	-	chr1	242451832	242451664	-		
							ENST00000336199,ENST00000366540,ENST00000366539,ENST00000263826,ENST00000552631	1514-1518	84,21,19,84,84
chr1	243823630	243823377	-	chr1	243809339	243809195	-		
							ENST00000336199,ENST00000366540,ENST00000366539,ENST00000263826,ENST00000552631	1519-1523	1,3,11,11,11
chr1	243902878	243902825	-	chr1	243859018	243858893	-		
chr1	244595671	244595641	-	chr1	244587689	244587623	-	ENST00000366535	1524-1526	2,9,9
							ENST00000366534,ENST00000366533	1527-1530	28,54,40,54
chr1	244616804	244620871	+	chr1	244627210	244627258	+		
							ENST00000366534,ENST00000366533,ENST00000428042	1531-1535	28,54,40,28,28
chr1	244616804	244620871	+	chr1	244640843	244640916	+		
							ENST00000366534,ENST00000366533,ENST00000428042	1536-1540	28,54,40,54,54
chr1	244616804	244620871	+	chr1	244641208	244641277	+		
							ENST00000302550,ENST00000263831,ENST00000418162	1541-1545	51,17,33,33,33
chr1	244835483	244835763	+	chr1	244849899	244849971	+		
							ENST00000302550,ENST00000263831	1546-1548	1,7,11
chr1	244864272	244864803	+	chr1	244868858	244869091	+		
							ENST00000411948,ENST00000366528	1549-1551	9,4,28
chr1	244979534	244979620	+	chr1	245005246	245005360	+		
							ENST00000411948,ENST00000366528	1552-1554	11,11,11
chr1	244993009	244993043	+	chr1	245005246	245005360	+		
							ENST00000366522,ENST00000366521	1555-1558	8,13,23,23
chr1	245136659	245136729	+	chr1	245165423	245165534	+		
							ENST00000366523,ENST00000366522,ENST00000447569,ENST00000366521,ENST00000551317,ENST00000425550	1559-1563	13,23,13,13,13
chr1	245136659	245136729	+	chr1	245180544	245180628	+		
							ENST00000541742,ENST00000490107,ENST00000388985	1564-1566	29,18,68
chr1	245920258	245919731	-	chr1	245912966	245912865	-		
							ENST00000541742,ENST00000490107,ENST00000388985,ENST00000453676	1567-1570	20,34,21,20
chr1	246581335	246580598	-	chr1	246093239	246093172	-		
							ENST00000388985,ENST00000403792	1571-1573	9,9,9
chr1	246600478	246600450	-	chr1	246518396	246518333	-		
							ENST00000366513,ENST00000366512	1574-1577	30,22,44,22
chr1	246772596	246772891	+	chr1	246784731	246784936	+		
chr1	246899722	246899852	+	chr1	246903474	246903603	+	ENST00000366510	1578-1580	3,9,43
chr1	246905774	246905866	+	chr1	246907378	246907427	+	ENST00000366510	1581-1582	29,3
chr1	247238187	247238102	-	chr1	247202839	247202713	-	ENST00000366503	1583-1585	28,2,11
							ENST00000294753,ENST00000461277,ENST00000366498	1586-1587	13,23
chr1	247467975	247467905	-	chr1	247464578	247463821	-		
							ENST00000243189,ENST00000566395,ENST00000565733,ENST00000568254,ENST00000417642,ENST00000473314	1588-1593	20,11,19,20,20,20
chr1	25572542	25572482	-	chr1	25571792	25571641,3	-	,ENST00000431849		
chr1	25671654	25671722	+	chr1	25678117	25678184	+	ENST00000374358	1594-1595	23,13
chr1	25880981	25881080	+	chr1	25881351	25881463	+	ENST00000374338	1596-1598	33,33,4
chr1	26351407	26351417	+	chr1	26355684	26355777	+	ENST00000374280	1599-1601	3,3,3
chr1	26359266	26359311	+	chr1	26359720	26359806	+	ENST00000374280	1602-1604	15,15,14
chr1	26360410	26360447	+	chr1	26361327	26361495	+	ENST00000374280	1605-1607	12,12,5
							ENST00000451429,ENST00000476272,ENST00000252992	1608-1611	3,13,16,3
chr1	26573630	26573723	+	chr1	26581662	26582356	+			

Table 10

							ENST00000434391,ENST000		22,13,5,13,1
							00427245,ENST00000525682		3,13,13,13,1
							,ENST00000236342,ENST000		3,13,13,13,1
							00526219,ENST00000374185		3,13,13,13,1
							,ENST00000360009,ENST000		3
							00533087,ENST00000531312		
							,ENST00000525165,ENST000		
							00525326,ENST00000525546		
							,ENST00000436153,ENST000		
							00530781,ENST00000430232		
chr1	26763380	26763446	+	chr1	26764659	26764775	+	1612-1628	
							ENST00000374168,ENST000		8,5
							00374166,ENST00000526792		
							,ENST00000374162,ENST000		
							00530003,ENST00000531382		
chr1	26882512	26882654	+	chr1	26883145	26883209	+	1629-1630	
							ENST00000430292,ENST000		25,28,25,28,
							00472757,ENST00000078527		25,25,25
							,ENST00000431541,ENST000		
							00374145,ENST00000455364		
chr1	27119453	27119551	+	chr1	27120604	27120741,271	+	1631-1637	
							ENST00000435827,ENST000		7,16,16,16
							00321265,ENST00000452707		
chr1	27268504	27268553	+	chr1	27269151	27269267	+	1638-1641	
							ENST00000318074,ENST000		26,26,4
chr1	27676685	27676763	+	chr1	27676880	27676976	+	00543823	1642-1644
chr1	28162845	28162898	+	chr1	28165210	28165363	+	ENST00000311772	1645-1647
							ENST00000373839,ENST000		2,5,9
chr1	28746711	28746976	+	chr1	28785596	28785769	+	00373836	1648-1649
							ENST00000373839,ENST000		29,13
chr1	28817772	28817873	+	chr1	28818162	28818299	+	00373836	1650-1651
							ENST00000434290,ENST000		34,7
chr1	28837657	28837703	+	chr1	28856370	28856451	+	00486790	1652-1655
							ENST00000434290,ENST000		2,12,10,10
chr1	28849845	28849917	+	chr1	28856370	28856451	+	00486790	1656-1657
							ENST00000434290,ENST000		13,23
chr1	28854241	28854290	+	chr1	28856370	28856451	+	00486790	1658-1661
							ENST00000398958,ENST000		16,7,16,16
							00427469,ENST00000434290		10,1,10,1,1,
							,ENST00000373833,ENST000		1,1,10,1,10,
							00419074,ENST00000373832		1
							,ENST00000373831,ENST000		
							00411533,ENST00000486790		
chr1	28857528	28857559	+	chr1	28858315	28858502,3	+	,ENST00000430407	1662-1672
							ENST00000398958,ENST000		9,6,6,6,6,6,6
							00427469,ENST00000434290		
							,ENST00000373833,ENST000		
							00419074,ENST00000373832		
							,ENST00000373831,ENST000		
							00411533,ENST00000430407		
chr1	28862013	28862168	+	chr1	28862383	28862538,28	+		1673-1679
chr1	28891431	28891497	+	chr1	28893806	28893925	+	ENST00000373830	1680-1682
							ENST00000343067,ENST000		22,22,17
							00356093,ENST00000398863		9,8,3,9,9,9,9
							,ENST00000347529,ENST000		
							00373798,ENST00000373797		
chr1	29318242	29318268	+	chr1	29319842	29320054	+		1683-1689
							ENST00000343067,ENST000		24,16,32,24,
							00356093,ENST00000398863		24,24,24,24,
							,ENST00000349460,ENST000		24
							00373800,ENST00000347529		
							,ENST00000373798,ENST000		
chr1	29358327	29358425	+	chr1	29359605	29359757	+	00373797	1690-1698
							ENST00000373791,ENST000		22,8,30,8
							00263702,ENST00000463412		
chr1	29537877	29537636	-	chr1	29533417	29533274	-		1699-1702
							ENST00000345512,ENST000		5,30,2,2,2,2,
							00373779,ENST00000323874		2,2
							,ENST00000356870,ENST000		
							00428026,ENST00000460170		
chr1	29571111	29571203	+	chr1	29581787	29581918	+		1703-1710
chr1	31218846	31218634	-	chr1	31215396	31215303	-	ENST00000294507	1711-1712

Table 10

							ENST00000257075,ENST00000373747,ENST00000525843,ENST00000426105,ENST00000440538,ENST00000373741	1713-1719	15,1,6,6,6,6,6
chr1	31488819	31488680	-	chr1	31479946	31479841	-		
							ENST00000263694,ENST00000373720,ENST00000446633	1720-1723	13,5,20,20
chr1	31744147	31743974	-	chr1	31742087	31742005	-		
							ENST00000373710,ENST00000536859	1724-1725	7,7
chr1	31875735	31875757	+	chr1	31883232	31883282	+		
							ENST00000373710,ENST00000536859,ENST00000373709,ENST00000536384	1726-1728	13,12,2
chr1	31893705	31893745	+	chr1	31896540	31896701	+		
							ENST00000271069,ENST00000373672,ENST00000373668	1729-1733	13,7,16,16,16
chr1	32173310	32173260	-	chr1	32165716	32165642	-		
							ENST00000336294,ENST00000373634	1734-1736	48,1,12
chr1	32566345	32566490	+	chr1	32568032	32568274	+		
							ENST00000373625,ENST00000471599,ENST00000545542	1737-1739	5,3,3
chr1	32605303	32605465	+	chr1	32620191	32620322	+		
							ENST00000491434,ENST00000489170,ENST00000461402,ENST00000483001,ENST00000545122,ENST00000309777,ENST00000373593,ENST00000344461	1740-1747	9,8,8,9,8,9,9,9
chr1	32687424	32687398	-	chr1	32686798	32686732	-		
							ENST00000355082,ENST00000373586	1748-1751	22,24,1,24
chr1	32688416	32688620	+	chr1	32689635	32689722	+		
							ENST00000468695,ENST00000436661,ENST00000373501	1752-1754	2,11,2
chr1	33097909	33097809	-	chr1	33093145	33093109	-		
							ENST00000468695,ENST00000473294,ENST00000436661,ENST00000373501	1755-1759	20,7,33,33,33
chr1	33115564	33115342	-	chr1	33099673	33099552,3	-		
							ENST00000468695,ENST00000473294,ENST00000436661,ENST00000373501	1760-1766	20,7,33,20,7,33,20
chr1	33115564	33115342	-	chr1	33100393	33100369	-		
							ENST00000468695,ENST00000473294,ENST00000436661,ENST00000373501	1767-1770	23,13,23,13
chr1	33115564	33115496	-	chr1	33100393	33100369	-		
chr1	33254330	33254108	-	chr1	33252048	33251963	-	ENST00000373477	1771-1772 7,2
chr1	33254330	33254108	-	chr1	33252676	33252541	-	ENST00000373477	1773-1774 7,2
chr1	33263772	33263709	-	chr1	33263444	33263364	-	ENST00000373477	1775-1777 21,12,20
chr1	33263772	33263722	-	chr1	33263444	33263364	-	ENST00000373477	1778-1780 17,7,16
chr1	33267536	33266865	-	chr1	33263444	33263364	-	ENST00000373477	1781-1782 6,15
chr1	33270876	33270029	-	chr1	33263444	33263364	-	ENST00000373477	1783-1785 27,25,12
chr1	33270876	33270146	-	chr1	33256855	33256763	-	ENST00000373477	1786-1788 50,25,12
chr1	33272029	33271877	-	chr1	33263444	33263364	-	ENST00000373477	1789-1791 51,29,50
							ENST00000539719,ENST00000373428	1792-1793	50,63
chr1	33704206	33704536	+	chr1	33741701	33741764	+		
							ENST00000330379,ENST00000442999	1794-1796	12,25,40
chr1	33775959	33775216	-	chr1	33773054	33772367	-		
							ENST00000294599,ENST00000356575,ENST00000485002	1797-1801	10,10,9,10,10
chr1	3459381	3459351	-	chr1	3440810	3440688	-		
							ENST00000294599,ENST00000356575,ENST00000485002	1802-1806	21,7,44,44,44
chr1	3492417	3492136	-	chr1	3440810	3440688	-		
chr1	35198702	35198442	-	chr1	35184010	35183993	-	ENST00000426886	1807-1809 45,7,18
chr1	35307753	35307584	-	chr1	35184010	35183993	-	ENST00000426886	1810-1811 16,2
chr1	35309336	35309191	-	chr1	35184010	35183993	-	ENST00000426886	1812-1814 48,27,4
chr1	36189314	36189221	-	chr1	36186581	36186492	-	ENST00000251195	1815-1817 12,30,8
chr1	36279429	36279445	+	chr1	36282483	36282648	+	ENST00000373210	1818-1820 5,5,5
chr1	36450048	36450149	+	chr1	36469942	36470076	+	ENST00000373191	1821-1822 12,17
chr1	36450048	36450154	+	chr1	36469942	36470076	+	ENST00000373191	1823-1824 1,14
							ENST00000316156,ENST00000373150,ENST00000373151	1825-1828	18,4,4,4
chr1	36627032	36627087	+	chr1	36636572	36636916	+		
							ENST00000359297,ENST00000373129,ENST00000373130	1829-1832	33,23,32,33
chr1	36823515	36823417	-	chr1	36821034	36820807	-	,ENST00000373132	
chr1	36926130	36926085	-	chr1	36923582	36923524	-	ENST00000373116	1833-1835 15,2,14
chr1	3702728	3702585	-	chr1	3701767	3701651	-	ENST00000378251	1836-1837 4,22

Table 10

							ENST00000378230,ENST00000438539,ENST00000461667	20,29,23,29,29
chr1	3744083	3743855 -	chr1	3743308	3743272 -	1838-1842		
chr1	3757403	3757303 -	chr1	3756340	3756172 -	ENST00000378230,ENST00000428079	1843-1846	33,1,11,33
chr1	3796507	3796591 +	chr1	3800071	3800305 +	ENST00000378209,ENST00000461150	1847-1848	9,14
chr1	37970784	37970734 -	chr1	37967597	37967405 -	ENST00000373075,ENST00000296214,ENST00000373074,ENST00000373073,ENST00000448519	1849-1854	17,7,16,16,16,16
chr1	38263332	38263381 +	chr1	38265239	38265875,4 +	ENST00000373045,ENST00000532512,ENST00000525897,ENST00000329006	1855-1857	16,12,16
chr1	38263332	38263381 +	chr1	38265516	38265875,4 +	ENST00000373045,ENST00000397631,ENST00000525897,ENST00000329006	1858-1860	16,12,12
chr1	38448909	38448687 -	chr1	38447483	38447401 -	ENST00000373019,ENST00000448721	1861-1863	18,7,33
chr1	40226991	40227045 +	chr1	40229361	40229414 +	ENST00000356511	1864-1866	18,18,17
chr1	40239233	40239202 -	chr1	40230680	40230521 -	ENST00000397360	1867-1869	10,6,10
chr1	40583015	40582444 -	chr1	40558179	40558070 -	ENST00000433473,ENST00000529905,ENST00000530704,ENST00000372779	1870-1871	1,37
chr1	40667670	40667783 +	chr1	40668084	40668286 +	ENST00000372771	1872-1874	1,4,2
chr1	40776207	40776179 -	chr1	40775989	40775936,4 -	ENST00000372748,ENST00000417105	1875-1880	9,2,9,9,2,9
chr1	40875633	40875638 +	chr1	40878688	40878774 +	ENST00000435168,ENST00000372718,ENST00000372708,ENST00000539317	1881-1884	2,1,1,2
chr1	41466224	41466238 +	chr1	41466701	41466789 +	ENST00000372621,ENST00000541520,ENST00000372616	1885-1887	5,4,4
chr1	41537634	41537503 -	chr1	41536393	41536267 -	ENST00000456518,ENST00000397174,ENST00000402904,ENST00000361191,ENST00000361705,ENST00000397171,ENST00000326197,ENST00000372595,ENST00000337495,ENST00000372596,ENST00000372597	1888-1890	9,43,9
chr1	42662891	42662844 -	chr1	42660735	42660561,4 -	ENST00000372572,ENST00000372573,ENST00000361346,ENST00000361776,ENST00000545068,ENST00000445886,ENST00000422278	1891-1896	3,7,15,3,3,15
chr1	42704513	42704389 -	chr1	42693637	42693554 -	ENST00000372572,ENST00000372573,ENST00000361346,ENST00000361776,ENST00000545068,ENST00000445886	1897-1902	20,32,19,32,19,19
chr1	43092241	43092518 +	chr1	43102908	43103049 +	ENST00000428554,ENST00000477155,ENST00000507855,ENST00000342022,ENST00000340612,ENST00000390640	1903-1904	7,18
chr1	43094158	43094435 +	chr1	43102908	43103049 +	ENST00000428554,ENST00000477155,ENST00000507855,ENST00000342022,ENST00000340612,ENST00000390640	1905-1906	7,39
chr1	43635926	43635779 -	chr1	43634699	43634610 -	ENST00000431635,ENST00000236051	1907-1908	5,43
chr1	43673711	43674249 +	chr1	43675414	43675587,4 +	ENST00000372492,ENST00000528956	1909-1910	33,111
chr1	43816398	43816448 +	chr1	43817887	43817974 +	ENST00000372470	1911-1913	17,7,16
chr1	43816398	43816464 +	chr1	43817887	43817974 +	ENST00000372470	1914-1916	22,13,21
chr1	43897759	43897851 +	chr1	43897943	43898110 +	ENST00000562955,ENST00000372442	1917-1919	22,15,30

Table 10

							ENST00000262915,ENST000		7,59,12,7,59
							00330208,ENST00000335430		,7,7,7,59,7,7
							,ENST00000351035,ENST000		,7,7,7
							00353126,ENST00000372374		
							,ENST00000372375,ENST000		
							00372377,ENST00000545417		
							,ENST00000361392,ENST000		
							00361400,ENST00000347631		
							,ENST00000361812,ENST000		
							00372362,ENST00000531451		
							,ENST00000332628,ENST000		
							00361746,ENST00000372365		
							,ENST00000372366,ENST000		
							00372367,ENST00000372368		
							,ENST00000372369,ENST000		
							00372372,ENST00000469715		
							,ENST00000490541,ENST000		
							00528371,ENST00000530581		
							,ENST00000531993,ENST000		
							00533212,ENST00000533933		
chr1	44341127	44341398	+	chr1	44360055	44360149	+	1920-1933	
							ENST00000372318,ENST000		44,20,1,20,2
							00463846,ENST00000490064		0
							,ENST00000486504,ENST000		
chr1	44458831	44458974	+	chr1	44459562	44459636,4	+	00466180	1934-1938
chr1	44516726	44517166	+	chr1	44595025	44595868	+	ENST00000372299	1939-1941 21,58,4
chr1	44516726	44517203	+	chr1	44595025	44595868	+	ENST00000372299	1942-1944 33,2,16
chr1	44526150	44526899	+	chr1	44595025	44595868	+	ENST00000372299	1945-1947 40,28,10
							ENST00000361745,ENST000		12,38,40,40,
							00446292,ENST00000440641		40,40
							,ENST00000437511,ENST000		
							00315913,ENST00000372289		
chr1	44680726	44680991	+	chr1	44683983	44684141	+	1948-1953	
							ENST00000355387,ENST000		33,32,33,33,
							00361799,ENST00000372247		33,33,33
							,ENST00000443020,ENST000		
							00453863,ENST00000335497		
							,ENST00000440132,ENST000		
chr1	45092429	45092527	+	chr1	45098015	45098057	+	00488865	1954-1960
							ENST00000458657,ENST000		15,11,28,15,
							00535358,ENST00000434068		28
chr1	45187945	45188044	+	chr1	45189794	45189916	+		1961-1965
chr1	45270496	45270594	+	chr1	45270938	45271051	+	ENST00000372201	1966-1968 11,23,1
							ENST00000450269,ENST000		13,41,22,41,
							00453418,ENST00000409335		22
chr1	45278096	45278355	+	chr1	45278668	45278736,5	+	,ENST00000439563	1969-1973
chr1	45328679	45328657	-	chr1	45323479	45323376	-	ENST00000360403	1974-1975 1,7
chr1	45531893	45531763	-	chr1	45525919	45525771	-	ENST00000359600	1976-1977 34,43
chr1	45656606	45656437	-	chr1	45553909	45553553	-	ENST00000359600	1978-1979 19,2
							ENST00000372084,ENST000		1,4,24,24
							00372086,ENST00000341771		
chr1	45863880	45863739	-	chr1	45851632	45851584	-	,ENST00000538496	1980-1983
chr1	46043284	46043350	+	chr1	46054396	46054431	+	ENST00000530840	1984-1986 22,13,21
							ENST00000290795,ENST000		7,16,16
chr1	46109637	46109588	-	chr1	46108171	46108099	-	00355105	1987-1989
chr1	46666187	46666190	+	chr1	46685371	46685892	+	ENST00000371980	1990-1991 1,1
							ENST00000442598,ENST000		9,13
chr1	46730873	46730941	+	chr1	46733131	46733281	+	00371975	1992-1993
							ENST00000442598,ENST000		23,13,13
							00371975,ENST00000488942		
chr1	46737046	46737114	+	chr1	46738138	46738212	+		1994-1996
chr1	46763142	46762443	-	chr1	46752171	46751034	-	ENST00000343304	1997-1998 13,6
chr1	46797740	46797497	-	chr1	46752171	46751034	-	ENST00000343304	1999-2000 15,2
							ENST00000474844,ENST000		5,15
chr1	46809919	46809966	+	chr1	46810473	46810816	+	00307089	2001-2002
							ENST00000342571,ENST000		12,19,7,7,7,
							00371946,ENST00000371944		7,7,7,7
							,ENST00000371945,ENST000		
							00341183,ENST00000528077		
							,ENST00000428112,ENST000		
							00532783,ENST00000496619		
chr1	47038897	47038838	-	chr1	47037839	47037797,47(	-	,ENST00000528237	2003-2011

Table 10

							ENST00000337817,ENST00000360380,ENST00000371877,ENST00000243182,ENST00000396221,ENST00000447475	9,1,1,1,1
chr1	47767878	47767792	-	chr1	47767420	47767233	-	2012-2016	ENST00000533824,ENST00000438567,ENST00000236495	25,2,24
chr1	48701622	48701697	+	chr1	48703351	48703519	+	2017-2019	ENST00000371847,ENST00000371843,ENST00000396199	47,10,10,10
chr1	48845072	48844930	-	chr1	48825442	48825258	-	2020-2023	,ENST00000371841	
									ENST00000396153,ENST00000371778,ENST00000545823	15,8,4,4
chr1	51054183	51054137	-	chr1	51050483	51050357	-	2024-2027	,ENST00000494400	
									ENST00000396153,ENST00000371778,ENST00000545823	12,7,12
chr1	51075350	51075303	-	chr1	51061888	51061793	-	2028-2030	,ENST00000494400	
									ENST00000396153,ENST00000371778	27,28
chr1	51218346	51218110	-	chr1	51210447	51210356	-	2031-2032		
									ENST00000396153,ENST00000371778	46,7,18
chr1	51397261	51397097	-	chr1	51323669	51323601	-	2033-2035		
									ENST00000396153,ENST00000371778	9,5,23
chr1	51400112	51399951	-	chr1	51323669	51323601	-	2036-2038		
									ENST00000447632,ENST00000413473,ENST00000451380,ENST00000371750,ENST00000371747,ENST00000262676,ENST00000439482,ENST00000401051,ENST00000527205	2,11,11,2,2,2,2,2
chr1	51801354	51801320	-	chr1	51787497	51787393	-	2039-2047		
									ENST00000371733,ENST00000396122	24,38,1
chr1	51873161	51873046	-	chr1	51871780	51871577	-	2048-2050		
									ENST00000371730,ENST00000371733	7,16,16,7
chr1	51912425	51912376	-	chr1	51910717	51910561	-	2051-2054		
									ENST00000352171,ENST00000354831,ENST00000539524	11,23,32,23
chr1	52280993	52280895	-	chr1	52280485	52280365	-	2055-2058	,ENST00000544028	
									ENST00000352171,ENST00000354831	44,1,7,44
chr1	52307278	52307139	-	chr1	52306186	52305898	-	2059-2062		
									ENST00000352171,ENST00000354831	29,21,8,21
chr1	52307278	52307186	-	chr1	52306186	52305898	-	2063-2066		
chr1	52504724	52504658	-	chr1	52494302	52494250	-	2067-2069	ENST00000371626	6,8,19
									ENST00000313334,ENST00000489308,ENST00000472944	3,8,8,8
chr1	52539246	52539335	+	chr1	52551784	52551843,5	+	2070-2073	,ENST00000484036	
									ENST00000357206,ENST00000287727,ENST00000371591	33,4
chr1	52708636	52708783	+	chr1	52729445	52729544	+	2074-2075		
									ENST00000371532,ENST00000371528	18,14
chr1	53346099	53346325	+	chr1	53347143	53347337	+	2076-2077		
chr1	53700345	53700279	-	chr1	53699324	53699214	-	2078-2080	ENST00000371470	17,13,21
									ENST00000306052,ENST00000371454,ENST00000480045	6,15,15,15,6,15
chr1	53743895	53743848	-	chr1	53742750	53742364	-	2081-2086		
									ENST00000306052,ENST00000371454,ENST00000354412,ENST00000480045,ENST00000347547	36,35,36,36,36,36
chr1	53779353	53779245	-	chr1	53755361	53755239	-	2087-2092		
									ENST00000371429,ENST00000540001,ENST00000537333	1,8
chr1	54256854	54256829	-	chr1	54254869	54254806	-	2093-2094	,ENST00000234725	
									ENST00000371429,ENST00000540001,ENST00000234725	1,2,1,1
chr1	54283827	54283821	-	chr1	54275419	54275368	-	2095-2098		
									ENST00000419823,ENST00000534324,ENST00000287899,ENST00000537208,ENST00000542737,ENST00000493530	84,84,32,84,84
chr1	54651152	54650900	-	chr1	54649938	54649834	-	2099-2103		
									ENST00000360840,ENST00000605337	2,16,26,26
chr1	54666274	54666354	+	chr1	54670691	54670874	+	2104-2107		
									ENST00000343744,ENST00000371316	16,13,2,16
chr1	55031137	55031334	+	chr1	55050328	55050535	+	2108-2111		

Table 10

						ENST00000343744,ENST000		2,1,1,1
chr1	55066740	55066745 +	chr1	55066942	55067086 +	00371316	2112-2115	
chr1	55189215	55189402 +	chr1	55194019	55194105 +	ENST00000371281	2116-2117	15,5
chr1	55193376	55193416 +	chr1	55194019	55194105 +	ENST00000371281	2118-2120	9,13,13
						ENST00000302118,ENST000		39,7,39
chr1	55498555	55498831 +	chr1	55509516	55509707 +	00452118	2121-2123	
chr1	55498555	55498831 +	chr1	55517951	55518084 +	ENST00000302118	2124-2126	18,39,7
chr1	57122612	57122737 +	chr1	57140054	57140195 +	ENST00000371244	2127-2128	14,15
chr1	57122612	57122737 +	chr1	57157067	57157160 +	ENST00000371244	2129-2130	14,15
chr1	57230745	57230479 -	chr1	57224423	57224389 -	ENST00000343433	2131-2133	35,8,26
chr1	58989289	58988499 -	chr1	58946846	58946637 -	ENST00000371226	2134-2135	50,1
chr1	59165332	59165295 -	chr1	59160879	59160801 -	ENST00000472487	2136-2137	9,11
						ENST00000413489,ENST000		1,1,1,1,1,1
						00371218,ENST00000303721		
chr1	59799663	59799667 +	chr1	59805630	59805741 +	,ENST00000430447	2138-2143	
						ENST00000413489,ENST000		11,15
						00371218,ENST00000303721		
						,ENST00000430447,ENST000		
chr1	59843828	59843967 +	chr1	59844421	59844509 +	00371212	2144-2145	
						ENST00000371218,ENST000		11,11,9,11,1
						00303721,ENST00000430447		1
chr1	59859873	59859907 +	chr1	59922633	59922748 +	,ENST00000371212	2146-2150	
						ENST00000371218,ENST000		12,32,24,32,
						00303721,ENST00000430447		32
chr1	59961914	59962128 +	chr1	59977983	59978111 +	,ENST00000371212	2151-2155	
						ENST00000371208,ENST000		32,7,2
chr1	60316338	60316532 +	chr1	60324100	60324187 +	00395561	2156-2158	
						ENST00000378111,ENST000		33,9,9,9,9,9
						00378097,ENST00000378092		
						,ENST00000389632,ENST000		
						00428161,ENST00000602612		
						,ENST00000378087,ENST000		
						00341524,ENST00000352527		
						,ENST00000435937,ENST000		
						00164247,ENST00000472700		
						,ENST00000378083,ENST000		
						00458166,ENST00000462676		
chr1	6144596	6144694 +	chr1	6145264	6145308,61 +		2159-2164	
						ENST00000378097,ENST000		16,16,11,16,
						00378092,ENST00000389632		16,16,16,11
						,ENST00000428161,ENST000		
						00602612,ENST00000341524		
						,ENST00000352527,ENST000		
						00164247,ENST00000378083		
chr1	6149304	6149352 +	chr1	6150449	6150535 +	,ENST00000458166	2165-2172	
						ENST00000606498,ENST000		7,3,16,7,3,1
						00294613,ENST00000371180		6
chr1	62169726	62169677 -	chr1	62166697	62166606 -	,ENST00000371177	2173-2178	
						ENST00000606498,ENST000		1,21
						00294613,ENST00000371180		
chr1	62191345	62191257 -	chr1	62175109	62175001 -	,ENST00000371177	2179-2180	
						ENST00000316485,ENST000		18,3,22,22,2
						00371158,ENST00000484937		2
chr1	62290648	62290715 +	chr1	62293094	62293255 +		2181-2185	
						ENST00000371158,ENST000		33,6,11,6,11
chr1	62588215	62588315 +	chr1	62588693	62588730,6 +	00484937	2186-2190	
chr1	6260391	6260264 -	chr1	6257816	6257712 -	ENST00000234875	2191-2192	22,14
chr1	6260391	6260335 -	chr1	6257816	6257712 -	ENST00000234875	2193-2194	2,18
chr1	6277225	6277642 +	chr1	6278349	6278429 +	ENST00000377939	2195-2197	5,70,6
						ENST00000371092,ENST000		3,16
						00271002,ENST00000489099		
chr1	63952998	63952262 -	chr1	63944504	63944435 -	,ENST00000283568	2198-2199	
						ENST00000371092,ENST000		7,11,34,11
						00271002,ENST00000489099		
chr1	63972014	63968381 -	chr1	63955889	63955754 -	,ENST00000283568	2200-2203	
						ENST00000608083,ENST000		65,13,65,65,
						00377842,ENST00000377845		65
						,ENST00000377855,ENST000		
						00377860,ENST00000418124		
						,ENST00000361521,ENST000		
chr1	6446637	6446432 -	chr1	6409926	6409809 -	00541130	2204-2208	

						ENST00000608083,ENST00000377842,ENST00000377845,ENST00000377855,ENST00000377860,ENST00000418124,ENST00000361521,ENST00000541130	2209-2214	35,26,5,5,5,5
chr1	6446637	6446523 -	chr1	6409926	6409809 -	ENST00000371080,ENST00000371079	2215-2218	10,1,18,10
chr1	64472814	64472910 +	chr1	64474977	64475048 +	ENST00000377837,ENST00000377836	2219-2220	17,7
chr1	6474320	6474270 -	chr1	6473342	6473253 -	ENST00000400913,ENST00000340850,ENST00000377748,ENST00000377725,ENST00000377728,ENST00000377732,ENST00000400915,ENST00000377740,ENST00000535355,ENST00000377737,ENST00000537245,ENST00000544978	2221-2222	17,7
chr1	6536552	6536502 -	chr1	6536096	6535991 -	ENST00000377748,ENST00000377732,ENST00000400915,ENST00000377740,ENST00000535355,ENST00000537245	2223-2226	30,12,4,12
chr1	6538528	6538333 -	chr1	6537718	6537589 -	ENST00000494710,ENST00000263441,ENST00000395325,ENST00000371069	2227-2230	5,3,27,27
chr1	65847290	65847558 +	chr1	65849876	65850009 +	ENST00000237247,ENST00000371039,ENST00000424320,ENST00000371035,ENST00000371036,ENST00000371037	2231-2236	12,11,12,12,12,12
chr1	67056253	67056289 +	chr1	67091530	67091593 +	ENST00000371026,ENST00000431318,ENST00000464352,ENST00000371023,ENST00000531552	2237-2240	17,15,17,17
chr1	67307214	67306646 -	chr1	67306354	67306152 -	ENST00000235345	2241-2243	12,34,21
chr1	67474085	67473856 -	chr1	67470131	67470023 -	ENST00000456315,ENST00000370966	2244-2245	6,6
chr1	68962013	68961994 -	chr1	68960378	68960113 -	ENST00000473578,ENST00000467404,ENST00000461311	2246-2248	10,21,13
chr1	6919568	6919833 +	chr1	6931817	6931825 +	ENST00000482934	2249-2251	52,6,3
chr1	6934326	6934483 +	chr1	6946300	6946317 +	ENST00000557126	2252-2254	52,6,3
chr1	6934326	6934483 +	chr1	6947714	6947785 +	ENST00000370958	2255-2257	4,18,41
chr1	70022507	70022676 +	chr1	70144064	70144161 +	ENST00000370958	2258-2260	8,19,18
chr1	70025445	70025502 +	chr1	70144064	70144161 +	ENST00000310961,ENST00000035383	2261-2264	48,4,14,14
chr1	70449113	70449297 +	chr1	70451925	70452069 +	ENST00000370952	2265-2267	9,28,12
chr1	70612280	70612092 -	chr1	70611588	70611483 -	ENST00000370952	2268-2270	9,9,9
chr1	70613763	70613735 -	chr1	70611588	70611483 -	ENST00000370951,ENST00000405432,ENST00000370950,ENST00000454435,ENST00000475204,ENST00000395136,ENST00000436161	2271-2276	7,13,7,7,7,7
chr1	70689603	70689806 +	chr1	70694105	70694238 +	ENST00000370944,ENST00000262346	2277-2279	2,4,11
chr1	70780207	70780107 -	chr1	70779473	70779428 -	ENST00000370944,ENST00000262346	2280-2283	7,12,47,12
chr1	70826122	70825980 -	chr1	70801782	70801741 -	ENST00000411986,ENST00000370938,ENST00000346806	2284-2289	1,44,48,1,48,48
chr1	70833745	70833890 +	chr1	70881639	70881720 +	ENST00000411986,ENST00000370938,ENST00000346806	2290-2295	86,5,22,5,22,5
chr1	70833745	70835623 +	chr1	70881639	70881720 +	ENST00000457880,ENST00000370867	2296-2299	23,16,8,23
chr1	75199798	75200130 +	chr1	75202226	75202306 +	ENST00000457880,ENST00000370867,ENST00000421739,ENST00000479111	2300-2302	47,7,18
chr1	75221525	75221785 +	chr1	75229578	75229797 +	ENST00000370859,ENST00000370855,ENST00000535611	2303-2304	2,6
chr1	75678283	75678100 -	chr1	75677237	75677153 -			

Table 10

						ENST00000370859,ENST000		9,23,9
chr1	75777637	75777300 -	chr1	75766370	75766297 -	00370855	2305-2307	
						ENST00000370859,ENST000		14,53,53
chr1	75830282	75829938 -	chr1	75805315	75805267 -	00370855	2308-2310	
						ENST00000370812,ENST000		2,5,5
						00445065,ENST00000370813		
chr1	77626188	77626173 -	chr1	77620306	77620134,8 -	,ENST00000359130	2311-2313	
						ENST00000303635,ENST000		25,1,1
chr1	7774382	7774486 +	chr1	7792508	7792659 +	00439411	2314-2316	
						ENST00000370801,ENST000		28,4,14
chr1	78092329	78092065 -	chr1	78050340	78050202 -	00370798	2317-2319	
chr1	78245583	78245652 +	chr1	78248928	78249036 +	ENST00000370791	2320-2321	23,5
chr1	7832667	7832735 +	chr1	7833502	7833571 +	ENST00000054666	2322-2323	23,13
chr1	7832667	7832767 +	chr1	7833502	7833571 +	ENST00000054666	2324-2326	2,24,11
						ENST00000294623,ENST000		4,37,37,37
						00370768,ENST00000370767		
chr1	78427378	78427231 -	chr1	78426180	78426029 -	,ENST00000436586	2327-2330	
						ENST00000294623,ENST000		10,9,9,10,10
						00370768,ENST00000370767		,10,10
						,ENST00000436586,ENST000		
chr1	78440748	78440719 -	chr1	78435699	78435609 -	00421641	2331-2337	
chr1	78597605	78597713 +	chr1	78601276	78601427 +	ENST00000370759	2338-2340	10,36,34
						ENST00000377532,ENST000		47,8,2,8
chr1	7876474	7877777 +	chr1	7879345	7879480 +	00361923	2341-2344	
						ENST00000370758,ENST000		27,23,18,23,
						00370756,ENST00000370757		18
chr1	78980349	78980683 +	chr1	79002091	79002372,8 +		2345-2349	
						ENST00000370751,ENST000		38
chr1	79088173	79088678 +	chr1	79094636	79094684 +	00450498	2350	
						ENST00000370721,ENST000		2,2
						00370723,ENST00000370725		
						,ENST00000370727,ENST000		
						00370728,ENST00000370730		
						,ENST00000359929,ENST000		
						00319517,ENST00000370713		
						,ENST00000370715,ENST000		
						00271029,ENST00000335786		
						,ENST00000370717,ENST000		
chr1	82383541	82383548 +	chr1	82402412	82402521 +	00394879	2351-2352	
						ENST00000260505,ENST000		17,9,6,6
chr1	84361157	84361039 -	chr1	84356164	84356004 -	00474957	2353-2356	
						ENST00000480174,ENST000		7,6
						00260505,ENST00000474957		
chr1	84386226	84386206 -	chr1	84385517	84385382 -	,ENST00000485638	2357-2358	
						ENST00000370689,ENST000		28,28,28,28,
						00370688,ENST00000370685		28,28,28,28,
						,ENST00000446538,ENST000		28,28,28
						00370684,ENST00000436133		
						,ENST00000370682,ENST000		
						00394838,ENST00000432111		
						,ENST00000450730,ENST000		
						00370680,ENST00000413538		
						,ENST00000417530,ENST000		
chr1	84613832	84613918 +	chr1	84644860	84644921 +	00394839	2359-2369	
						ENST00000370589,ENST000		4,7
chr1	85488750	85488565 -	chr1	85488083	85487982 -	00341115	2370-2371	
						ENST00000284031,ENST000		14,24,8
						00539042,ENST00000426972		
chr1	85954267	85953974 -	chr1	85824530	85824431 -	,ENST00000542148	2372-2374	
						ENST00000436319,ENST000		31,6,31
chr1	86296627	86296535 -	chr1	86289421	86289368 -	00370571	2375-2377	
chr1	863492	863558 +	chr1	1418460	1418486 +	ENST00000378741	2378-2380	22,13,21
						ENST00000436319,ENST000		20,3,9,3,3
						00370571,ENST00000426639		
chr1	86584757	86584649 -	chr1	86581061	86581008 -		2381-2385	
						ENST00000359242,ENST000		24,7,24,24,2
						00460698,ENST00000317336		4,24,24
						,ENST00000370567,ENST000		
						00394731,ENST00000370566		
						,ENST00000294678,ENST000		
chr1	86842568	86842275 -	chr1	86842101	86841916 -	00479890	2386-2392	

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							ENST00000359242,ENST000		23,13,13,13,
							00317336,ENST00000370567		13,13
							,ENST00000370566,ENST000		
chr1	86852370	86852302	-	chr1	86851273	86851141	-	00294678	2393-2398
							ENST00000331835,ENST000		30,23,1,1
chr1	87335746	87335657	-	chr1	87333785	87333736	-	00401030	2399-2402
							ENST00000331835,ENST000		29,26,13,26
							00370554,ENST00000401030		
chr1	87366320	87365382	-	chr1	87346408	87346345	-		2403-2406
							ENST00000331835,ENST000		1,27,14,27
							00370554,ENST00000401030		
chr1	87366320	87365466	-	chr1	87346408	87346345	-		2407-2410
							ENST00000316005,ENST000		19,19
							00370521,ENST00000370513		
chr1	89157405	89157463	+	chr1	89206671	89206971	+		2411-2412
							ENST00000370500,ENST000		36,11,1,11,1
							00448623,ENST00000418217		1
chr1	89358452	89358204	-	chr1	89353050	89352944,9	-		2413-2417
							ENST00000370491,ENST000		4,4
chr1	89418002	89417989	-	chr1	89414960	89414774	-	00260508	2418-2419
							ENST00000358200,ENST000		12,1
							00330947,ENST00000439853		
chr1	90053860	90053927	+	chr1	90058330	90058602	+		2420-2421
chr1	90291257	90291334	+	chr1	90309197	90309217	+	ENST00000370453	2422-2424	3,25,12
chr1	90292249	90292442	+	chr1	90309197	90309217	+	ENST00000370453	2425-2427	20,9,6
							ENST00000394289,ENST000		2,41,41
							00260753,ENST00000416354		
chr1	91462357	91462644	+	chr10	91497903	91498374	+	,ENST00000371728	2428-2430
chr1	92829135	92829327	+	chr1	92846281	92846430	+	ENST00000610020	2431-2432	64,1
chr1	9297220	9297276	+	chr1	9304984	9305620	+	ENST00000602477	2433-2435	2,4,18
							ENST00000540243,ENST000		17,7,16,7
							00545708,ENST00000370298		
chr1	93585558	93585608	+	chr1	93586106	93586229	+	,ENST00000370303	2436-2439
							ENST00000370282,ENST000		33,23,6,33,2
							00370290,ENST00000479918		3,23,23
chr1	93624422	93624324	-	chr1	93622040	93621857,93	-	,ENST00000370280	2440-2446
							ENST00000343253,ENST000		28,2,10,10,1
							00401026,ENST00000338949		0,10
							,ENST00000557479,ENST000		
							00370276,ENST00000455267		
chr1	93685324	93686027	+	chr1	93687166	93687300	+		2447-2452
							ENST00000343253,ENST000		34,22,2,2,2,
							00401026,ENST00000334652		2,2
							,ENST00000338949,ENST000		
							00557479,ENST00000370276		
chr1	93702679	93702937	+	chr1	93704867	93705030	+	,ENST00000455267	2453-2459
							ENST00000260502,ENST000		2,4,7
							00370244,ENST00000370243		
chr1	94132726	94132652	-	chr1	94107899	94107860	-		2460-2462
chr1	94366592	94366387	-	chr1	94363454	94363395	-	ENST00000370238	2463-2465	47,11,6
chr1	94627608	94627254	-	chr1	94620204	94620148	-	ENST00000552844	2466-2467	47,72
							ENST00000552844,ENST000		8,11,26,11
chr1	94657395	94657269	-	chr1	94655639	94655482	-	00260526	2468-2471
							ENST00000394233,ENST000		8,25,8,8
							00454898,ENST00000370214		
chr1	94807942	94808301	+	chr1	94924163	94924199	+	,ENST00000315713	2472-2475
chr1	94914215	94914970	+	chr1	94921289	94921360	+	ENST00000454898	2476-2478	48,3,12
							ENST00000394233,ENST000		3,12,3,3
							00454898,ENST00000370214		
chr1	94914215	94914970	+	chr1	94924163	94924199	+	,ENST00000315713	2479-2482
							ENST00000334047,ENST000		24,11,24
chr1	94997156	94997057	-	chr1	94996152	94996016,9	-	00370207	2483-2485
chr1	95457912	95457468	-	chr1	95448862	95448632	-	ENST00000370205	2486-2487	36,5
chr1	95497664	95497378	-	chr1	95492816	95492685	-	ENST00000370205	2488-2490	4,26,1
chr1	9611160	9611443	+	chr1	9613684	9613863	+	ENST00000302692	2491-2492	7,1
							ENST00000609116,ENST000		4,13,13,4,4,
							00370197,ENST00000370198		4
chr1	97187623	97187663	+	chr1	97189120	97189150	+	,ENST00000426398	2493-2498
chr1	97660358	97660095	-	chr1	97658804	97658625	-	ENST00000370192	2499-2501	21,12,1
							ENST00000536656,ENST000		22,13,21,13,
							00377346,ENST00000361110		13
chr1	9779437	9779503	+	chr1	9779979	9780075	+	,ENST00000543390	2502-2506

Table 10

chr1	9814164	9814030	-	chr1	9811739	9811531	-	ENST00000377298,ENST00000361311,ENST00000377288,ENST00000529992,ENST00000306121	2507-2510	11,2,20,2,1,23,44,23,6,1,6,6
chr1	99132143	99132662	+	chr1	99150441	99150623	+	ENST00000306121	2511-2514	6,1,6,6
chr1	99160463	99160482	+	chr1	99161074	99161272	+	ENST00000370189,ENST00000529992,ENST00000306121	2515-2518	1,23,44,23
chr10	100147690	100147590	-	chr10	100147064	100146958	-	ENST00000370575	2519-2521	2,24,33
chr10	100188340	100188234	-	chr10	100187021	100186972	-	ENST00000361490,ENST00000325103,ENST00000359632	2522-2525	7,4,35,4
chr10	100387938	100387917	-	chr10	100380465	100380359	-	ENST00000370549,ENST00000370552,ENST00000370546,ENST00000404542	2526-2529	7,7,6,7
chr10	101377715	101377646	-	chr10	101373681	101373453	-	ENST00000370495	2530-2532	13,3,6
chr10	101413591	101413582	-	chr10	101373681	101373453	-	ENST00000370495	2533-2535	3,1,2
chr10	101912612	101912562	-	chr10	101912109	101911888	-	ENST00000421367,ENST00000407654	2536-2538	17,7,16
chr10	102255598	102255407	-	chr10	102255303	102255142	-	ENST00000370345	2539-2541	42,1,18
chr10	102711720	102711867	+	chr10	102716208	102716294	+	ENST00000238961,ENST00000370269	2542-2544	40,4,4
chr10	103127762	103128112	+	chr10	103221738	103221815	+	ENST00000370187,ENST00000408038,ENST00000370183	2545-2547	10,52,10
chr10	103555630	103555592	-	chr10	103552700	103552596	-	ENST00000439817,ENST00000361464	2548-2550	2,12,5
chr10	103555630	103555592	-	chr10	103553755	103553670	-	ENST00000439817,ENST00000361464,ENST00000357797	2551-2554	2,12,5,5
chr10	103689834	103689692	-	chr10	103649247	103649169	-	ENST00000370033	2555-2556	4,22
chr10	103774443	103774412	-	chr10	103773781	103773725	-	ENST00000370033	2557-2559	10,5,10
chr10	103788931	103788773	-	chr10	103785005	103784913	-	ENST00000370033	2560-2561	53,25
chr10	103872144	103871991	-	chr10	103871293	103871191	-	ENST00000425280	2562-2563	20,5
chr10	103882006	103882134	+	chr10	103897607	103897795	+	ENST00000278070,ENST00000413464	2564-2567	43,3,20,43
chr10	103896814	103896914	+	chr10	103897607	103897795	+	ENST00000278070,ENST00000413464	2568-2570	33,11,11
chr10	104103574	104103678	+	chr10	104103808	104103939	+	ENST00000369983	2571-2573	2,34,8
chr10	104413910	104414178	+	chr10	104414410	104414505	+	ENST00000302424	2574-2576	34,21,13
chr10	104446126	104446078	-	chr10	104445758	104445573	-	ENST00000260746	2577-2579	16,12,7
chr10	104523421	104523531	+	chr10	104557750	104557852	+	ENST00000448841,ENST00000369889	2580-2582	3,36,7
chr10	104556375	104556510	+	chr10	104557750	104557852	+	ENST00000448841,ENST00000369889	2583-2585	45,37,11
chr10	104852307	104852271	-	chr10	104851372	104851321	-	ENST00000343289,ENST00000404739,ENST00000423468,ENST00000421281	2586-2590	12,8,11,12,8
chr10	104899975	104899874	-	chr10	104899236	104899163	-	ENST00000343289,ENST00000404739,ENST00000423468,ENST00000452156,ENST00000461461	2591-2594	15,11,15,15
chr10	105090129	105089964	-	chr10	105086389	105086291	-	ENST00000337211,ENST00000369847	2595-2597	6,2,10
chr10	105090129	105089992	-	chr10	105086389	105086291	-	ENST00000337211,ENST00000369847	2598-2600	22,19,1
chr10	105091021	105090711	-	chr10	105086389	105086291	-	ENST00000337211,ENST00000369847	2601-2603	31,3,7
chr10	105191066	105191134	+	chr10	105191886	105191991	+	ENST00000369797	2604	13
chr10	105191066	105191166	+	chr10	105191886	105191991	+	ENST00000369797	2605-2606	31,24
chr10	105480006	105479818	-	chr10	105452814	105452786	-	ENST00000427662,ENST00000369774,ENST00000355946,ENST00000420222	2607-2613	28,8,11,28,8,11,8
chr10	105564067	105563550	-	chr10	105561120	105561040	-	ENST00000369774,ENST00000355946	2614-2617	36,31,21,21
chr10	105649762	105649693	-	chr10	105648902	105648830	-	ENST00000224950,ENST00000369764	2618-2619	14,22
chr10	105649762	105649757	-	chr10	105648902	105648830	-	ENST00000224950,ENST00000369764	2620-2622	1,2,1
chr10	108793129	108792826	-	chr10	108716338	108716271	-	ENST00000263054,ENST00000344440	2623-2626	30,13,55,13
chr10	108793129	108792878	-	chr10	108716338	108716271	-	ENST00000263054,ENST00000344440	2627-2629	13,38,13
chr10	1100230	1100108	-	chr10	1090111	1089939	-	ENST00000381344	2630-2631	41,4

Table 10

							ENST00000322238,ENST00000369680,ENST00000502935,ENST00000403138,ENST00000423625	2632-2636	1,4,1,1,1
chr10	111653855	111653774	-	chr10	111652833	111652770	-		
							ENST00000322238,ENST00000502935	2637-2639	32,11,32
chr10	111676221	111675988	-	chr10	111674857	111674769	-		
							ENST00000322238,ENST00000502935	2640-2643	42,12,6,12
chr10	111676221	111676090	-	chr10	111674857	111674769	-		
							ENST00000322238,ENST00000502935	2644-2647	5,16,14,16
chr10	111680717	111680667	-	chr10	111674857	111674769	-		
							ENST00000360162,ENST00000356080,ENST00000277900	2648-2650	22,33,22
chr10	111874554	111874654	+	chr10	111876017	111876168	+		
							ENST00000332674,ENST00000453116,ENST00000239007,ENST00000393134	2651-2655	2,33,30,33,3
chr10	111986521	111986876	+	chr10	111987947	111988079	+		
							ENST00000332674,ENST00000453116,ENST00000239007,ENST00000393134	2656-2660	38,37,1,1,1
chr10	111986999	111987112	+	chr10	111987947	111988079	+		
							ENST00000332674,ENST00000453116,ENST00000239007,ENST00000393134	2661-2665	55,16,10,55,55
chr10	111986999	111987164	+	chr10	111987947	111988079	+		
							ENST00000369603,ENST00000369592	2666-2668	7,51,41
chr10	112109610	112109316	-	chr10	112063345	112063226	-		
chr10	112576508	112576569	+	chr10	112579830	112579934	+	ENST00000369519	2669-2671	20,2,19
							ENST00000280154,ENST00000393104,ENST00000444997	2672-2674	29,14,29
chr10	112643757	112643940	+	chr10	112645011	112645124	+		
chr10	114154560	114154577	+	chr10	114154676	114154860	+	ENST00000356116	2675-2677	6,5,5
							ENST00000354655,ENST00000393081,ENST00000356116,ENST00000433418,ENST00000354273	2678-2681	7,48,11,48
chr10	114163344	114163723	+	chr10	114164269	114164333	+		
							ENST00000432306,ENST00000393077	2682-2684	17,17,17
chr10	114285354	114285406	+	chr10	114286846	114286923	+		
							ENST00000432306,ENST00000393077	2685-2686	13,5
chr10	114338549	114338727	+	chr10	114427977	114428047	+		
							ENST00000534894,ENST00000355717,ENST00000355995,ENST00000536810,ENST00000538897,ENST00000543371,ENST00000545257,ENST00000349937,ENST00000369397,ENST00000352065,ENST00000369395,ENST00000346198	2687-2699	64,53,1,1,1,1,1,1,1,1,1,1
chr10	114727960	114728153	+	chr10	114799784	114799885	+		
							ENST00000609104,ENST00000277575,ENST00000379237	2700-2702	5,3,8
chr10	11536430	11536367	-	chr10	11535227	11535118	-		
							ENST00000609104,ENST00000277575,ENST00000379237	2703-2704	18,44
chr10	11537431	11537051	-	chr10	11535227	11535118	-		
							ENST00000429617,ENST00000369331,ENST00000369321,ENST00000345633,ENST00000369318,ENST00000369315	2705-2708	41,30,41,41
chr10	115460538	115460803	+	chr10	115480791	115480927	+	,ENST00000452490		
							ENST00000361384,ENST00000369305	2709-2711	1,39,23
chr10	115611770	115611626	-	chr10	115610403	115608739	-		
							ENST00000361384,ENST00000369305	2712-2713	24,9
chr10	115611770	115611670	-	chr10	115610403	115608739	-		
chr10	11610003	11609754	-	chr10	11607637	11607564	-	ENST00000609853	2714-2715	21,3
							ENST00000392955,ENST00000369252,ENST00000533213,ENST00000369256,ENST00000277895	2716-2721	2,56,28,28,28,28
chr10	116561233	116561063	-	chr10	116361720	116361586	-		
chr10	118177984	118178265	+	chr10	118196223	118196377	+	ENST00000369230	2722-2723	46,7
chr10	118219578	118219742	+	chr10	118220478	118220597	+	ENST00000369230	2724-2726	4,54,16
chr10	11909407	11909450	+	chr10	11911489	11912405	+	ENST00000277570	2727-2729	14,14,11
chr10	119195792	119195835	+	chr10	119305143	119305327	+	ENST00000553456	2730-2732	14,12,14
							ENST00000553456,ENST00000442245	2733-2736	14,12,14,14
chr10	119195792	119195835	+	chr10	119307576	119307743	+		
chr10	119282744	119283051	+	chr10	119305143	119305327	+	ENST00000553456	2737-2739	7,23,49
chr10	119793852	119793804	-	chr10	119793552	119793493	-	ENST00000369199	2740-2742	16,16,10

Table 10

							ENST00000356352,ENST00000357604,ENST00000397053	22,43
chr10	11993361	11993068	-	chr10	11990507	11990368	-	2743-2744
chr10	120866576	120866794	+	chr10	120867480	120867676	+	ENST00000535029,ENST00000361432 2745-2747	9,28,28
chr10	120929668	120929531	-	chr10	120928854	120928689	-	ENST00000356951,ENST00000298510 2748-2750	14,10,24
chr10	120932268	120932206	-	chr10	120931997	120931894	-	ENST00000356951,ENST00000298510 2751-2752	20,6
chr10	121270859	121270789	-	chr10	121259771	121259625	-	ENST00000392865,ENST00000369101,ENST00000369103 2753-2755	14,23,8
chr10	121348155	121348087	-	chr10	121347760	121347664	-	ENST00000369093,ENST00000497671,ENST00000436547 2756-2759	23,13,13,13
chr10	12147813	12147862	+	chr10	12148245	12148395	+	ENST00000263035 2760-2762	7,16,16
chr10	121480898	121481681	+	chr10	121510588	121510668	+	ENST00000369083,ENST00000361976 2763-2766	14,1,27,14
chr10	121480898	121481721	+	chr10	121510588	121510668	+	ENST00000369083,ENST00000361976 2767-2770	27,14,12,14
chr10	121490895	121490994	+	chr10	121510588	121510668	+	ENST00000369083,ENST00000361976 2771-2774	24,11,2,24
chr10	121517373	121517489	+	chr10	121541147	121541283	+	ENST00000369083,ENST00000361976 2775-2778	39,38,31,31
chr10	121517373	121517489	+	chr10	121551029	121551157	+	ENST00000369083,ENST00000361976,ENST00000369081 2779-2783	39,38,31,39,39
chr10	121525194	121525247	+	chr10	121541147	121541283	+	ENST00000369083,ENST00000361976 2784-2787	6,17,17,17
chr10	121641408	121641336	-	chr10	121619396	121619311	-	ENST00000360003,ENST00000369077 2788-2791	18,24,23,18
chr10	12200448	12200498	+	chr10	12202929	12203120	+	ENST00000379033,ENST00000475268,ENST00000298428,ENST00000304267,ENST00000379020 2792-2795	17,7,17,17
chr10	12201406	12201625	+	chr10	12202929	12203120	+	ENST00000379033,ENST00000475268,ENST00000298428,ENST00000304267,ENST00000379020 2796-2799	5,51,51,51
chr10	122204581	122204678	+	chr10	122263330	122263438	+	ENST00000398248,ENST00000398250,ENST00000439221,ENST00000427079,ENST00000541332,ENST00000369073 2800-2805	6,32,6,6,6,6
chr10	123690420	123689954	-	chr10	123683844	123683781	-	ENST00000369043,ENST00000224652,ENST00000423243,ENST00000540606,ENST00000455628 2806-2807	8,13
chr10	123690420	123690092	-	chr10	123683844	123683781	-	ENST00000369043,ENST00000224652,ENST00000423243,ENST00000540606,ENST00000455628 2808-2812	21,28,25,28,28
chr10	123886363	123886657	+	chr10	123903087	123903221	+	ENST00000369005,ENST00000334433 2813-2815	14,17,8
chr10	123886363	123886657	+	chr10	123954555	123954691	+	ENST00000369005,ENST00000513429,ENST00000515273,ENST00000515603,ENST00000453444,ENST00000334433,ENST00000358010,ENST00000360561,ENST00000368999,ENST00000369004,ENST00000260733,ENST00000514539 2816-2822	17,8,8,8,8,8,8
chr10	123905860	123906196	+	chr10	123954555	123954691	+	ENST00000369005,ENST00000513429,ENST00000515273,ENST00000515603,ENST00000453444,ENST00000334433,ENST00000358010,ENST00000360561,ENST00000368999,ENST00000369004,ENST00000260733,ENST00000514539 2823	30
chr10	124091515	124091773	+	chr10	124096009	124096197	+	ENST00000368994,ENST00000260723 2824-2826	40,47,8

						ENST00000368990,ENST00000368988,ENST00000368989,ENST00000538022,ENST00000392799,ENST00000433307	2827-2831	17,24,4,24,24
chr10	124180539	124180776	+	chr10	124183715	124183779	+	ENST00000481909	2832-2833	25,6
chr10	124701300	124701224	-	chr10	124697675	124697221	-	ENST00000368887,ENST00000405485,ENST00000406217	2834-2838	7,6,1,6,6
chr10	124740804	124740856	+	chr10	124742788	124742986	+	ENST00000406217	2839-2841	11,14,27
chr10	124747976	124748613	+	chr10	124749690	124749889	+	ENST00000392757,ENST00000368842,ENST00000368839	2842-2843	9,9
chr10	126150766	126150793	+	chr10	126172708	126172895	+	ENST00000337318,ENST00000392754,ENST00000280780	2844-2847	12,11,9,9
chr10	126379917	126379882	-	chr10	126370948	126370176	-	ENST00000298492	2848-2850	1,7,15
chr10	126510160	126510268	+	chr10	126515164	126515354	+	ENST00000381312	2851-2852	6,32
chr10	1273495	1273398	-	chr10	1263059	1262891	-	ENST00000381312	2853-2855	15,5,24
chr10	1273495	1273422	-	chr10	1263059	1262891	-	ENST00000368797,ENST00000368786,ENST00000420761,ENST00000368778,ENST00000368774	2856-2861	32,2,8,8,8,8
chr10	127504072	127503840	-	chr10	127503699	127503603	-	ENST00000368693	2862-2863	6,32
chr10	127633807	127633904	+	chr10	127668730	127668907	+	ENST00000424927,ENST00000284694,ENST00000454341,ENST00000544758,ENST00000356858,ENST00000432642	2864-2868	34,34,7,7,7
chr10	128148604	128148501	-	chr10	128147786	128147609	-	ENST00000424927,ENST00000284694,ENST00000454341,ENST00000544758,ENST00000356858,ENST00000432642	2869-2873	3,3,3,3,3
chr10	128158319	128158308	-	chr10	128150154	128149970	-	ENST00000284694,ENST00000544758,ENST00000356858,ENST00000432642	2874-2878	3,3,3,3,3
chr10	128158319	128158308	-	chr10	128153555	128153265	-	ENST00000284694,ENST00000454341,ENST00000544758,ENST00000432642,ENST00000463082	2879-2885	7,2,6,7,7,7,2
chr10	128211313	128211292	-	chr10	128202508	128202417	-	ENST00000284694,ENST00000454341,ENST00000544758,ENST00000432642,ENST00000463082	2886-2888	11,11,11
chr10	128212081	128212047	-	chr10	128202508	128202417	-	ENST00000284694,ENST00000454341,ENST00000544758,ENST00000432642,ENST00000463082	2889-2895	1,10,24,24,2
chr10	128216002	128215274	-	chr10	128202508	128202417	-	ENST00000544758	2896-2897	4,1,24
chr10	128343607	128341607	-	chr10	128335206	128335134	-	ENST00000544758	2898-2899	4,118
chr10	128344814	128344712	-	chr10	128335206	128335134	-	ENST00000544758	2900-2902	29,6
chr10	128346035	128345831	-	chr10	128335206	128335134	-	ENST00000280333	2903-2905	1,27,28
chr10	129021697	129021831	+	chr10	129046272	129046373	+	ENST00000280333	2906-2907	21,4,1
chr10	129184579	129184933	+	chr10	129201319	129201408	+	ENST00000263036,ENST00000378764,ENST00000378757,ENST00000378748,ENST00000378752,ENST00000378747	2908-2910	14,4
chr10	13166716	13166811	+	chr10	13167418	13167567	+	ENST00000331244,ENST00000368644,ENST00000481034	2911-2913	9,28,11
chr10	131961040	131961107	+	chr10	131964771	131964943	+	ENST00000368642	2914-2915	6,22,22
chr10	132928302	132928073	-	chr10	132915197	132915062	-	ENST00000327347,ENST00000378614,ENST00000545675,ENST00000537130	2916-2919	7,49
chr10	13373393	13373063	-	chr10	13371788	13371698	-	ENST00000368594,ENST00000368593,ENST00000423490	2920-2926	110,33,33,3
chr10	134393690	134394020	+	chr10	134421419	134421460	+	ENST00000396900,ENST00000341083,ENST00000440282,ENST00000396898,ENST00000378605	2927-2932	3
chr10	13504530	13504260	-	chr10	13494658	13494539	-			13,61,4,61,1
										3,61,4
										36,1,7,36,36
										,36

Table 10

						ENST00000468317,ENST00000317502,ENST00000432508	2933-2936	13,12,12,12
chr10	135205602	135205640 +	chr10	135209217	135209281 +	ENST00000468317,ENST00000477902,ENST00000317502	2937-2938	13,5
chr10	135213416	135213550 +	chr10	135215033	135215094 +	ENST00000378572,ENST00000417658,ENST00000320054	2939-2943	7,7,6,7,7
chr10	13650804	13650825 +	chr10	13652039	13652185 +	ENST00000535784,ENST00000423462,ENST00000378000	2944-2947	15,11,37,15
chr10	16509096	16509209 +	chr10	16528351	16528616 +	,ENST00000298942	2948-2950	28,16,11
chr10	17409505	17409417 -	chr10	17401599	17401513 -	ENST00000377602	2951-2953	14,16,15
chr10	17446315	17446267 -	chr10	17432619	17432530 -	ENST00000377602	2954-2956	17,31,45
chr10	17456864	17456606 -	chr10	17401599	17401513 -	ENST00000377602	2957-2959	17,31,45
chr10	17456864	17456606 -	chr10	17432619	17432530 -	ENST00000377602	2960-2962	48,7,42
chr10	17463134	17462823 -	chr10	17401599	17401513 -	ENST00000377602	2963-2965	48,7,42
chr10	17463134	17462823 -	chr10	17432619	17432530 -	ENST00000377602	2966-2968	36,12,30
chr10	17463134	17462859 -	chr10	17401599	17401513 -	ENST00000377602	2969-2971	36,12,30
chr10	17463134	17462859 -	chr10	17432619	17432530 -	ENST00000377602	2972-2974	22,13,21
chr10	17490918	17490852 -	chr10	17432619	17432530 -	ENST00000377524,ENST00000445846	2975-2976	9,3
chr10	17561036	17561402 +	chr10	17702463	17702547 +	ENST00000377495,ENST00000338221	2977-2978	15,1
chr10	17775836	17775976 +	chr10	17813308	17813380 +	ENST00000439456,ENST00000397962,ENST00000509513,ENST00000397959,ENST00000381591,ENST00000403354,ENST00000402736,ENST00000602682,ENST00000397955,ENST00000381584,ENST00000558098	2979-2980	25,25
chr10	181423	181499 +	chr10	255829	255988 +	ENST00000324631,ENST00000352115,ENST00000282343,ENST00000377331,ENST00000396576,ENST00000377319,ENST00000377329,ENST00000377315	2981-2983	40,4,14
chr10	18810816	18811167 +	chr10	18816517	18816626 +	ENST00000377304,ENST00000606425	2984-2987	10,2,9,2
chr10	18939522	18939492 -	chr10	18937574	18937419 -	ENST00000377122,ENST00000417816,ENST00000377159	2988-2990	28,27,11
chr10	21088367	21088284 -	chr10	21076237	21076131 -	ENST00000417816,ENST00000377159	2991-2992	30,12
chr10	21291814	21291563 -	chr10	21250708	21250601 -	ENST00000376351	2993-2995	7,41,25
chr10	25480955	25481250 +	chr10	25509981	25510086 +	ENST00000376351	2996-2998	7,2,16
chr10	25874626	25874676 +	chr10	25877936	25878074 +	ENST00000376236,ENST00000356785	2999-3002	5,4,4,5
chr10	26747317	26747331 +	chr10	26781256	26781327 +	ENST00000376236,ENST00000356785	3003-3005	10,15,15
chr10	26754643	26754805 +	chr10	26781256	26781327 +	ENST00000326799,ENST00000376016,ENST00000375972,ENST00000427324,ENST00000396296	3006-3010	16,2,9,2,2
chr10	27428048	27427696 -	chr10	27425314	27425205 -	ENST00000375946,ENST00000375940,ENST00000342386	3011-3012	1,24
chr10	27470722	27470821 +	chr10	27475308	27475465 +	ENST00000537576,ENST00000305242	3013-3016	11,33,19,33
chr10	28249578	28249314 -	chr10	28233891	28233745 -	ENST00000375664,ENST00000375646,ENST00000347934,ENST00000354911,ENST00000428935,ENST00000420266,ENST00000442148,ENST00000448193,ENST00000414108	3017-3028	33,10,32,10,10,10,10,10,33,10,32,10
chr10	28824890	28824988 +	chr10	28872335	28872434,3 +	,ENST00000439676		

Table 10

						ENST00000375664,ENST00000375646,ENST00000347934,ENST00000354911,ENST00000428935,ENST00000420266,ENST00000442148,ENST00000448193,ENST00000414108		11,32,6,6,6,6,6,6,11,32,6,6
chr10	28827231	28827329 +	chr10	28872328	28872434,3 +	,ENST00000439676	3029-3040	
						ENST00000375400,ENST00000375398,ENST00000355867,ENST00000535393,ENST00000538146		13,19,1,1
chr10	29778776	29778636 -	chr10	29777685	29777530 -		3041-3044	
						ENST00000311380,ENST00000375250,ENST00000344936,ENST00000375245,ENST00000396144,ENST00000454919		4,3,3,4,4,4
chr10	32133416	32133405 -	chr10	32132514	32132389 -		3045-3050	
						ENST00000311380,ENST00000375250,ENST00000344936,ENST00000375245,ENST00000396144,ENST00000454919		21,4,4,4,4
chr10	32136550	32135643 -	chr10	32132514	32132389 -		3051-3055	
						ENST00000277657,ENST00000362006,ENST00000435402		6,12,12
chr10	32847606	32847703 +	chr10	32854486	32854548 +		3056-3058	
						ENST00000277657,ENST00000362006,ENST00000435402		28,21
chr10	32847606	32848074 +	chr10	32854486	32854548 +		3059-3060	
						ENST00000423113,ENST00000396033,ENST00000302278,ENST00000374956,ENST00000480226,ENST00000488494,ENST00000534049,ENST00000437302,ENST00000475184,ENST00000528877,ENST00000417122,ENST00000414670		2,11,2,2,2,2,2,2,2,2,2,2
chr10	33246192	33246154 -	chr10	33224486	33224420 -		3061-3072	
						ENST00000545260,ENST00000545693,ENST00000350537,ENST00000374788,ENST00000374789,ENST00000374790		15,11,6
chr10	34591486	34591257 -	chr10	34573173	34573063 -		3073-3075	
						ENST00000545260,ENST00000545693,ENST00000346874,ENST00000350537,ENST00000374788,ENST00000374789,ENST00000374790,ENST00000374794,ENST00000374776,ENST00000340077,ENST00000544292,ENST00000374773		27,23,11,23,23
chr10	34608310	34608216 -	chr10	34606266	34606035 -		3076-3080	
						ENST00000374721,ENST00000374726,ENST00000495960,ENST00000429130,ENST00000354759,ENST00000489321,ENST00000427847,ENST00000374728,ENST00000395895,ENST00000345491,ENST00000487132,ENST00000333809,ENST00000439705,ENST00000337656,ENST00000374734,ENST00000479070,ENST00000348787,ENST00000361599,ENST00000395887,ENST00000484283,ENST00000342105,ENST00000463960		6,59,3,6,6,3,6,6,6,6,6,6,6,6
chr10	35450603	35450989 +	chr10	35467817	35467914,4 +		3081-3094	
chr10	35701498	35701547 +	chr10	35772332	35772406 +	ENST00000374704	3095-3097	7,16,16
chr10	35711261	35711425 +	chr10	35772332	35772406 +	ENST00000374704	3098-3099	12,1
						ENST00000374706,ENST00000265375,ENST00000339497		56,50,79
chr10	35822244	35822484 +	chr10	35841947	35842113 +	,ENST00000374704	3100-3102	
						ENST00000361713,ENST00000374660		8,82,1,1
chr10	37459304	37459585 +	chr10	37462640	37462668 +		3103-3106	

Table 10

						ENST00000374660,ENST000		8,82,1
chr10	37459304	37459585 +	chr10	37474441	37474469 +	00602533	3107-3109	
						ENST00000361713,ENST000		8,82,1
						00374660,ENST00000602533		
chr10	37459304	37459585 +	chr10	37486209	37486237 +		3110-3112	
						ENST00000374660,ENST000		8,82,1
chr10	37471096	37471377 +	chr10	37474441	37474469 +	00602533	3113-3115	
						ENST00000361713,ENST000		8,82,1
						00374660,ENST00000602533		
chr10	37471096	37471377 +	chr10	37486209	37486237 +		3116-3118	
						ENST00000485560,ENST000		17,7,16,17,1
						00395867,ENST00000374648		7,17,17
						,ENST00000357328,ENST000		
						00395873,ENST00000395874		
chr10	38142607	38142557 -	chr10	38127039	38126913 -		3119-3125	
chr10	38256635	38256497 -	chr10	38246474	38246348 -	ENST00000302609	3126-3128	1,19,23
						ENST00000374618,ENST000		4,3,4,4
						00432900,ENST00000458705		
						,ENST00000469037,ENST000		
chr10	38305459	38305471 +	chr10	38305799	38305943 +	00307441	3129-3132	
						ENST00000374618,ENST000		30,30,29,30
						00432900,ENST00000458705		
						,ENST00000469037,ENST000		
chr10	38314248	38314339 +	chr10	38343306	38345488,4 +	00307441	3133-3136	
chr10	38718296	38718428 +	chr10	38724058	38724181 +	ENST00000423687	3137-3139	25,5,12
chr10	43096916	43096318 -	chr10	43090147	43088061 -	ENST00000359467	3140-3141	11,27
chr10	43322396	43322731 +	chr10	43325709	43325870 +	ENST00000374518	3142-3144	22,8,20
						ENST00000431662,ENST000		6,36,6
chr10	43965413	43965581 +	chr10	43971169	43971295 +	00315429	3145-3147	
chr10	43988863	43988997 +	chr10	43991464	43991517 +	ENST00000431662	3148-3150	21,41,3
						ENST00000542434,ENST000		21,15,7,15
chr10	45857608	45857749 +	chr10	45877931	45878129 +	00374391	3151-3154	
						ENST00000336378,ENST000		45,23,32,32,
						00537517,ENST00000540872		32,32
						,ENST00000374362,ENST000		
chr10	46258072	46258370 +	chr10	46258836	46258937 +	00359860	3155-3160	
						ENST00000448048,ENST000		9,8,9,8
chr10	46327805	46327778 -	chr10	46326877	46326842 -	00492347	3161-3164	
chr10	46344392	46344291 -	chr10	46342760	46342573 -	ENST00000448048	3165-3166	33,24
						ENST00000448048,ENST000		9,8,9,8
chr10	46718092	46718065 -	chr10	46326877	46326842 -	00492347	3167-3170	
chr10	46734671	46734570 -	chr10	46342760	46342573 -	ENST00000448048	3171-3172	33,24
						ENST00000448048,ENST000		9,8,9,8
chr10	47198502	47198475 -	chr10	46326877	46326842 -	00492347	3173-3176	
						ENST00000452145,ENST000		45,8
						00413193,ENST00000355232		
chr10	47215112	47214974 -	chr10	47213479	47213292 -		3177-3178	
						ENST00000452145,ENST000		33
						00413193,ENST00000355232		
chr10	47215112	47215011 -	chr10	47213411	47213292 -		3179	
						ENST00000452145,ENST000		33,24
						00413193,ENST00000355232		
chr10	47215112	47215011 -	chr10	47213479	47213292 -		3180-3181	
chr10	47236692	47236604 -	chr10	47235609	47235421 -	ENST00000413193	3182-3184	29,20,29
						ENST00000358474,ENST000		23,45,32,32
chr10	47919178	47919476 +	chr10	47919942	47920043 +	00355876	3185-3188	
chr10	48192658	48192746 +	chr10	48193742	48193930 +	ENST00000453919	3189-3191	29,20,29
						ENST00000453919,ENST000		33,24
chr10	48214238	48214339 +	chr10	48215871	48216058 +	00456984	3192-3193	
						ENST00000453919,ENST000		45,8
chr10	48214238	48214376 +	chr10	48215871	48216058 +	00456984	3194-3195	
						ENST00000533295,ENST000		11,8,29,8,8,
						00463345,ENST00000298375		8,8,8
						,ENST00000532248,ENST000		
						00334019,ENST00000345253		
chr10	4868987	4869077 +	chr10	4872867	4873034 +		3196-3203	
						ENST00000533295,ENST000		42,61,61,61,
						00463345,ENST00000298375		61,61,61
						,ENST00000532248,ENST000		
						00334019,ENST00000345253		
chr10	4868987	4869171 +	chr10	4872867	4873034 +		3204-3210	
						ENST00000360890,ENST000		27,27,27,27,
						00325239,ENST00000413659		27
chr10	49932241	49932323 +	chr10	49933926	49934115 +		3211-3215	

chr10	49990367	49990419	+	chr10	49994684	49994915	+	ENST00000325239	3216-3218	17,17,2
								ENST00000325239,ENST00000265453	3219-3220	20,26
								ENST00000325239,ENST00000265453	3221-3223	7,1,7
chr10	50089021	50089043	+	chr10	50098624	50098772	+	ENST00000380753,ENST00000421196,ENST00000407674,ENST00000604507,ENST00000455190	3224-3229	13,29,66,13,13,13
								ENST00000380753,ENST00000421196,ENST00000407674,ENST00000604507,ENST00000455190	3230-3234	12,33,33,33,33
chr10	5058331	5058029	-	chr10	5043873	5043706	-	ENST00000355832	3235-3236	22,22
chr10	5060345	5060092	-	chr10	5043780	5043706	-	ENST00000339797,ENST00000351556,ENST00000395559,ENST00000337653,ENST00000395562,ENST00000455728	3237-3240	7,1,50,1
chr10	50719770	50719703	-	chr10	50714058	50713930	-	ENST00000602930,ENST00000425119,ENST00000479304	3241-3243	9,8,8
chr10	50845414	50845700	+	chr10	50854551	50854720	+	ENST00000602930,ENST00000479304	3244-3246	33,24,24
chr10	51231422	51231395	-	chr10	51230494	51230459	-	ENST00000425119	3247-3248	33,24
chr10	51248006	51247905	-	chr10	51245817	51245749	-	ENST00000602997,ENST00000605149,ENST00000380554	3249-3250	33,12
chr10	51248006	51247905	-	chr10	51246374	51246187	-	ENST00000602930,ENST00000425119,ENST00000479304	3251-3253	9,8,8
chr10	5138101	5138201	+	chr10	5138602	5138769	+	ENST00000374095	3254-3255	9,8
chr10	51470893	51470866	-	chr10	51230494	51230459	-	ENST00000412531	3256-3257	33,24
chr10	51470893	51470866	-	chr10	51469958	51469923	-	ENST00000374056,ENST00000412531	3258-3259	8,45
chr10	51746893	51746994	+	chr10	51749068	51749136	+	ENST00000412531	3260-3261	45,8
chr10	51746893	51747031	+	chr10	51748511	51748698	+	ENST00000374056,ENST00000412531	3262-3263	9,8
chr10	51746893	51747031	+	chr10	51749068	51749136	+	ENST00000314664,ENST00000351071,ENST00000282633,ENST00000399339	3264-3268	23,45,32,32,32
chr10	51763515	51763542	+	chr10	51764445	51764480	+	ENST00000488756,ENST00000334314	3269-3272	1,8,4,8
chr10	51863038	51863336	+	chr10	51863802	51863903	+	ENST00000488756,ENST00000334314	3273-3275	7,18,18
chr10	5257923	5257503	-	chr10	5204983	5204816	-	ENST00000488756,ENST00000334314	3276-3278	22,2,2
chr10	5258326	5257998	-	chr10	5204983	5204816	-	ENST00000401604,ENST00000373985,ENST00000373980,ENST00000373976	3279-3282	7,18,46,46
chr10	5307785	5305973	-	chr10	5204983	5204816	-	ENST00000355029	3283-3285	8,7,7
chr10	53686869	53687146	+	chr10	53814244	53814321	+	ENST00000380419,ENST00000479328	3286-3287	15,18
chr10	5454793	5454816	+	chr10	5468618	5468684	+	ENST00000380419,ENST00000479328	3288-3289	15,18
chr10	5473735	5473380	-	chr10	5437438	5437290	-	ENST00000380419,ENST00000479328	3290-3292	12,16,16
chr10	5473735	5473380	-	chr10	5442930	5442807	-	ENST00000380419	3293-3295	12,16,16
chr10	5530288	5530238	-	chr10	5442930	5442807	-	ENST00000328090	3296-3298	5,9,9
chr10	5530288	5530238	-	chr10	5443050	5442807	-	ENST00000373910	3299-3300	58,29
chr10	5764438	5764466	+	chr10	5765640	5765740	+	ENST00000373886	3301-3303	13,43,36
chr10	60080482	60080954	+	chr10	60121098	60121161	+	ENST00000373886	3304-3306	37,7,5
chr10	60294142	60299167	+	chr10	60380615	60380661	+	ENST00000373886	3307-3308	1,39
chr10	60454695	60454805	+	chr10	60461834	60461903	+	ENST00000280772,ENST00000373827,ENST00000503366,ENST00000503925	3309-3310	8,1
chr10	60586546	60587731	+	chr10	60588521	60588651	+	ENST00000373827	3311-3312	2,2
chr10	62030349	62030294	-	chr10	62029987	62029889	-	ENST00000279873,ENST00000309334	3313-3315	32,1,32
chr10	62423711	62423703	-	chr10	62374982	62374944	-	ENST00000395254,ENST00000395255,ENST00000410046	3316-3320	1,23,7,23,23
chr10	63846778	63846875	+	chr10	63850621	63852789	+			
chr10	64018731	64019009	+	chr10	64148155	64148335	+			

Table 10

						ENST00000395251,ENST00000344640,ENST00000373784	3321-3322	33,5
chr10	64280004	64280356 +	chr10	64414603	64414690 +			
chr10	64352019	64352323 +	chr10	64382863	64383010 +	ENST00000410046	3323-3325	7,44,48
chr10	65229383	65229303 -	chr10	65140242	65140078 -	ENST00000399262	3326-3327	27,13
chr10	65287457	65288519 +	chr10	65326098	65326170 +	ENST00000373758	3328-3330	2,34,10
chr10	65361397	65361447 +	chr10	65369947	65370094 +	ENST00000298249,ENST00000373758	3331-3333	17,7,16
chr10	69686535	69686509 -	chr10	69684944	69684842 -	ENST00000277817,ENST00000395198,ENST00000412272,ENST00000373700	3334-3336	9,5,3
chr10	69754982	69754919 -	chr10	69752439	69752363 -	ENST00000277817,ENST00000395198,ENST00000412272,ENST00000373700	3337-3340	2,4,2,2
chr10	69797151	69797052 -	chr10	69793943	69793722,697-	ENST00000277817,ENST00000395198,ENST00000412272,ENST00000427635,ENST00000473533,ENST00000373700,ENST00000395187,ENST00000513996	3341-3348	24,11,32,24,24,24,24,24
chr10	69818340	69818313 -	chr10	69804320	69804161 -	ENST00000395198,ENST00000412272,ENST00000427635,ENST00000373700,ENST00000513996	3349-3354	9,2,9,9,9,9
chr10	70212640	70212540 -	chr10	70210004	70209785 -	ENST00000551118,ENST00000399179,ENST00000399180,ENST00000358410	3355-3359	33,24,11,33,33
chr10	70267127	70267029 -	chr10	70266475	70266342 -	ENST00000609923	3360-3362	33,23,6
chr10	70492538	70492658 +	chr10	70496633	70496805,7 +	ENST00000536391,ENST00000535016,ENST00000265872,ENST00000538031,ENST00000543719,ENST00000541012,ENST00000543229,ENST00000539539,ENST00000543225,ENST00000494903,ENST00000540210	3363-3378	10,40,8,10,8,10,10,10,10,8,10,10,8,10,8,40,8
chr10	70500146	70500246 +	chr10	70500386	70500418 +	ENST00000536391,ENST00000535016,ENST00000265872,ENST00000538031,ENST00000543719,ENST00000541012,ENST00000539539,ENST00000540210	3379-3385	33,33,11,11,11,11,11
chr10	70541639	70542046 +	chr10	70545893	70545975 +	ENST00000535016,ENST00000265872,ENST00000543719,ENST00000539539,ENST00000543706	3386-3387	25,9
chr10	70667681	70667726 +	chr10	70670063	70670138 +	ENST00000373585	3388-3390	1,5,14
chr10	70716517	70716583 +	chr10	70719562	70720005 +	ENST00000354185	3391-3392	13,21
chr10	70722737	70722825 +	chr10	70723047	70723225 +	ENST00000354185	3393-3395	20,7,26
chr10	70759520	70759570 +	chr10	70760180	70760278 +	ENST00000361983	3396-3397	17,7
chr10	71023275	71023493 +	chr10	71025341	71025574 +	ENST00000354624	3398-3399	1,31
chr10	71254967	71255084 +	chr10	71255350	71255445 +	ENST00000373290,ENST00000452130	3400-3402	39,37,37
chr10	71390880	71391031 +	chr10	71391236	71391303 +	ENST00000421716	3403-3404	1,4
chr10	71900738	71900499 -	chr10	71899897	71899680,7 -	ENST00000287078,ENST00000335494	3405-3408	5,38,26,26
chr10	71901501	71901342 -	chr10	71899897	71899680,7 -	ENST00000287078,ENST00000335494	3409-3412	47,11,9,47
chr10	72514756	72514805 +	chr10	72517718	72517847 +	ENST00000373207,ENST00000373208	3413-3414	16,16
chr10	73034146	73034272 +	chr10	73039578	73039802 +	ENST00000335350,ENST00000373192	3415-3418	19,28,5,19
chr10	7350030	7350018 -	chr10	7327916	7327828,73 -	ENST00000361972,ENST00000397167,ENST00000379713	3419-3422	2,4,3,2
chr10	73630264	73629509 -	chr10	73594262	73594129 -	ENST00000394936,ENST00000394934	3423-3426	27,13,29,29
chr10	73931182	73930996 -	chr10	73921432	73921296,7 -	ENST00000394919,ENST00000342444,ENST00000317168,ENST00000486689,ENST00000317126,ENST00000545550,ENST00000394915,ENST00000525286,ENST00000531048	3427-3433	4,7,33,7,7,7,7

Table 10

								ENST00000373053,ENST000	46,6,10,46,4
								00357157,ENST00000536019	6,6
chr10	74501810	74502031	+	chr10	74594117	74594186,7	+	,ENST00000604152	3434-3439
								ENST00000373053,ENST000	13,122,5
								00357157,ENST00000536019	
chr10	74639045	74639421	+	chr10	74644024	74644140	+		3440-3442
								ENST00000263556,ENST000	32,7
								00394890,ENST00000412021	
chr10	74788490	74788304	-	chr10	74776657	74776604	-		3443-3444
								ENST00000242505,ENST000	2,1,13,1
chr10	74942880	74942922	+	chr10	74952314	74952456	+	00372955	3445-3448
								ENST00000242505,ENST000	5,7
chr10	74967789	74967827	+	chr10	74968377	74968544	+	00372955	3449-3450
								ENST00000372921,ENST000	18,7,32
								00372919,ENST00000535178	
chr10	75149665	75149559	-	chr10	75148172	75148070	-		3451-3453
								ENST00000339859,ENST000	28,6,11,28,1
								00408019,ENST00000428547	1,11,11,11
								,ENST00000319786,ENST000	
								00451492,ENST00000413442	
chr10	75306392	75306292	-	chr10	75305430	75305296	-		3454-3461
								ENST00000374094,ENST000	9,8
chr10	75440793	75440766	-	chr10	75439864	75439829	-	00443782	3462-3463
								ENST00000374094,ENST000	33,24
chr10	75459067	75458966	-	chr10	75457478	75457291	-	00443782	3464-3465
								ENST00000374094,ENST000	23,20,14,20
chr10	75459067	75458996	-	chr10	75457478	75457291	-	00443782	3466-3469
								ENST00000211998,ENST000	8,14,54,14,1
								00372755,ENST00000417648	4
chr10	75823310	75823555	+	chr10	75830428	75830578	+		3470-3474
								ENST00000211998,ENST000	26,6
								00372755,ENST00000436396	
chr10	75852453	75852570	+	chr10	75854029	75854219	+		3475-3476
								ENST00000539909,ENST000	37,78,29,78
								00286621,ENST00000372734	
chr10	76002306	76002791	+	chr10	76074425	76074503	+	,ENST00000541550	3477-3480
								ENST00000539909,ENST000	14,19,18,19
								00286621,ENST00000372734	
chr10	76106899	76106956	+	chr10	76153899	76154071	+	,ENST00000541550	3481-3484
								ENST00000539909,ENST000	6,28,28
								00286621,ENST00000372734	
chr10	76106899	76106984	+	chr10	76153899	76154071	+	,ENST00000541550	3485-3487
								ENST00000286621,ENST000	12,7,38
								00372734,ENST00000541550	
chr10	76264358	76264642	+	chr10	76285014	76285184	+		3488-3490
								ENST00000539909,ENST000	1,1,1
								00286621,ENST00000372734	
chr10	76315223	76315227	+	chr10	76349040	76349075	+	,ENST00000541550	3491-3493
								ENST00000539909,ENST000	14,1
								00286621,ENST00000372734	
chr10	76421926	76421968	+	chr10	76429941	76430027	+	,ENST00000541550	3494-3495
								ENST00000298468,ENST000	1,37,6,6
								00543351,ENST00000332211	
								,ENST00000535553,ENST000	
chr10	76983337	76983761	+	chr10	76989402	76989459	+	00313132	3496-3499
								ENST00000372499,ENST000	19,29,7
chr10	78249602	78249707	+	chr10	78316967	78317046	+	00496424	3500-3502
								ENST00000372391,ENST000	2,2,2,2,2
								00372388,ENST00000468332	
chr10	79700435	79700428	-	chr10	79616650	79616488	-		3503-3507
chr10	79781024	79780767	-	chr10	79779023	79778920	-	ENST00000372371	3508-3510 1,51,10
								ENST00000372336,ENST000	30,3
chr10	81195512	81195421	-	chr10	81192514	81192314	-	00372333	3511-3512
								ENST00000372277,ENST000	12,7,12
								00372275,ENST00000372274	
chr10	81847117	81847312	+	chr10	81850136	81850168,8	+		3513-3515
								ENST00000372281,ENST000	12,7
								00372273,ENST00000450179	
chr10	81847117	81847312	+	chr10	81850553	81850673	+		3516-3517
								ENST00000372231,ENST000	33,24,11
								00438331,ENST00000265447	
								,ENST00000360615,ENST000	
								00422982,ENST00000535999	
chr10	81916559	81916459	-	chr10	81915668	81915609	-	,ENST00000537102	3518-3520

Table 10

						ENST00000327946,ENST00000536331,ENST00000464741	3521-3523	45,7,7
chr10	87479491	87479212 -	chr10	87407154	87406959 -	ENST00000298767,ENST00000372075,ENST00000263070	3524-3526	15,15,7
chr10	88198305	88198260 -	chr10	88197772	88197677 -	ENST00000298767,ENST00000372075,ENST00000263070	3527-3529	6,29,1
chr10	88205140	88205053 -	chr10	88203120	88203032 -	ENST00000298767	3530-3531	23,32
chr10	88270127	88270031 -	chr10	88260500	88259475 -	ENST00000361175,ENST00000456849,ENST00000427144	3532-3534	2,2,2
chr10	89420803	89420810 +	chr10	89468953	89469070 +	ENST00000361175,ENST00000456849,ENST00000427144	3535-3536	6,15
chr10	89494199	89494265 +	chr10	89500992	89501127 +	ENST00000371953	3537-3539	34,25,33
chr10	89694417	89694519 +	chr10	89711875	89712016 +	ENST00000371947,ENST00000437752,ENST00000331772	3540-3541	35,38
chr10	90305421	90305146 -	chr10	90074398	90074223 -	ENST00000371927	3542-3544	38,7,47
chr10	90713379	90713663 +	chr10	90732939	90733070 +	ENST00000260753,ENST00000416354,ENST00000371728	3545-3547	42,23,15
chr10	91526012	91526329 +	chr10	91528047	91528148 +	ENST00000260753,ENST00000416354,ENST00000371728	3548-3550	42,23,15
chr10	91526012	91526329 +	chr10	91528114	91528148 +	ENST00000543648,ENST00000336126	3551-3553	1,13,11
chr10	92995699	92995820 +	chr10	93000241	93000337 +	ENST00000446394,ENST00000371681,ENST00000298068	3554-3557	12,29,29,29
chr10	93112887	93113133 +	chr10	93185038	93185167 +	ENST00000446394,ENST00000371681,ENST00000298068	3558-3562	24,1,7,1,1
chr10	93112887	93113169 +	chr10	93185038	93185167 +	ENST00000358935	3563-3564	22,22
chr10	94067351	94067418 +	chr10	94070892	94071094 +	ENST00000371581,ENST00000265986	3565-3567	33,24,11
chr10	94224726	94224626 -	chr10	94223760	94223488 -	ENST00000371581,ENST00000265986	3568-3570	28,22,9
chr10	94240650	94240550 -	chr10	94239178	94239034 -	ENST00000265986,ENST00000436178	3571-3574	2,24,17,2
chr10	94318651	94318551 -	chr10	94297307	94297123 -	ENST00000463743,ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502	3575-3580	45,8,5,8,8,8
chr10	95134031	95133812 -	chr10	95132842	95132687 -	ENST00000463743,ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502	3581-3582	33,57
chr10	95134031	95133847 -	chr10	95132842	95132687 -	ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502	3583	7
chr10	95154516	95154466 -	chr10	95148911	95148787 -	ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502,ENST00000371489,ENST00000371488	3584-3591	24,24,10,24,24,24,24,24
chr10	95216438	95216366 -	chr10	95211898	95211807 -	ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502,ENST00000371489,ENST00000371488	3592-3598	24,11,24,24,24,24,24
chr10	95225570	95225471 -	chr10	95216694	95216639 -	ENST00000359204,ENST00000536233,ENST00000371430	3599-3604	21,32,3,3,3,3
chr10	95460864	95460746 -	chr10	95459863	95459787 -	,ENST00000394100	3605-3608	
chr10	96871181	96871088 -	chr10	96827448	96827287 -	ENST00000527420,ENST00000371270,ENST00000490994	3609-3611	25,6,25,25
chr10	97018018	97017752 -	chr10	97007123	97006972 -	ENST00000329399		17,7,19

Table 10

						ENST00000371227,ENST00000371249,ENST00000306402,ENST00000347291,ENST00000353505,ENST00000371246,ENST00000371247,ENST00000393949,ENST00000607232,ENST00000277982,ENST00000361941,ENST00000371245,ENST00000354106,ENST00000371239,ENST00000371241,ENST00000371228	3612-3618	24,11,11,11,11,11,11
chr10	97109899	97109799 -	chr10	97106209	97106163 -	ENST00000371224,ENST00000371221	3619-3622	17,16,13,17
chr10	97394873	97394823 -	chr10	97393406	97393249 -	ENST00000419175,ENST00000371174	3623-3625	8,31,8
chr10	98077268	98077545 +	chr10	98078109	98078283 +	ENST00000339364	3626-3627	5,4
chr10	98525677	98525463 -	chr10	98469740	98469324 -	ENST00000266058,ENST00000371070	3628-3630	7,16,7
chr10	98781618	98781569 -	chr10	98781170	98781007 -	ENST00000370992,ENST00000536831,ENST00000315563,ENST00000414986	3631-3632	33,18
chr10	99134218	99134090 -	chr10	99133651	99133587 -	ENST00000370992,ENST00000315563,ENST00000414986	3633-3634	31,31
chr10	99149469	99149375 -	chr10	99148381	99148246 -	ENST00000370902,ENST00000370886,ENST00000370885,ENST00000370884	3635-3637	22,27,11
chr10	99197404	99197112 -	chr10	99197032	99196948 -	ENST00000370902,ENST00000370886,ENST00000485122,ENST00000477692,ENST00000370884	3638-3644	17,3,16,3,3,3,3
chr10	99204824	99204773 -	chr10	99203068	99202994 -	ENST00000370664	3645-3646	1,46
chr10	99257655	99257796 +	chr10	99327671	99327898 +	ENST00000370597,ENST00000298819,ENST00000309155,ENST00000370591	3647-3648	38,15
chr10	99708832	99708586 -	chr10	99696123	99695927 -	ENST00000527185,ENST00000528682,ENST00000524871,ENST00000418526,ENST00000279463	3649-3652	15,7,21,21
chr11	100156479	100156616 +	chr11	100168357	100168427 +	ENST00000526343,ENST00000282441,ENST00000345877,ENST00000537274,ENST00000531439,ENST00000524575	3653-3661	1,11,17,1,17,1,17,1,1
chr11	102012459	102012511 +	chr11	102033187	102033302 +	ENST00000526343,ENST00000282441,ENST00000345877,ENST00000537274,ENST00000531439,ENST00000524575,ENST00000529029	3662-3670	11,26,32,26,32,26,32,26,32
chr11	102045048	102045146 +	chr11	102076624	102076805 +	ENST00000526343,ENST00000282441,ENST00000345877,ENST00000537274,ENST00000531439,ENST00000524575,ENST00000529029	3671-3673	1,24,32
chr11	102093694	102093793 +	chr11	102094353	102094483 +	ENST00000375735,ENST00000334267,ENST00000398093	3674-3677	7,20,20,20
chr11	102992523	102992583 +	chr11	102993554	102993729 +	ENST00000375735,ENST00000398093,ENST00000533197	3678-3681	4,3,3,4
chr11	103213636	103213647 +	chr11	103228971	103229087 +	ENST00000530950	3682-3684	5,5,5
chr11	105130385	105130369 -	chr11	105009805	105009540 -	ENST00000282251,ENST00000431778,ENST00000532251,ENST00000433523	3685-3688	4,38,38,38
chr11	107281567	107280813 -	chr11	107263621	107263505 -	ENST00000525815,ENST00000525071,ENST00000429869,ENST00000532513	3689-3692	34,1,1,1
chr11	107705041	107704846 -	chr11	107686691	107686516 -	ENST00000320578	3693-3695	14,12,27
chr11	107782497	107783355 +	chr11	107799319	107799521 +	ENST00000320578	3696-3698	14,12,27
chr11	107782497	107783355 +	chr11	107832672	107833098 +	ENST00000393094,ENST00000531427	3699-3701	24,6,2
chr11	107954871	107954943 +	chr11	107959254	107959386 +	ENST00000278612	3702-3703	19,7
chr11	108084921	108084796 -	chr11	108068147	108068029 -			

Table 10

							ENST00000323468,ENST00000434945,ENST00000530529		13,12,12,12
chr11	108364930	108364892	-	chr11	108361894	108361697	- ,ENST00000375648	3704-3707	
chr11	108473586	108473882	+	chr11	108544194	108544254	+ ENST00000322536,ENST00000526794	3708-3711	7,41,38,41
chr11	108638539	108638728	+	chr11	108709173	108709292	+ ENST00000322536,ENST00000526794	3712-3714	31,1,1
chr11	109962576	109962651	+	chr11	110007388	110008139	+ ENST00000278590,ENST00000528673	3715-3717	25,2,24
chr11	110131728	110131634	-	chr11	110128914	110128831,11	- ENST00000528498,ENST00000530749,ENST00000405097,ENST00000530301,ENST00000343115,ENST00000544551,ENST00000530131,ENST00000532118	3718-3727	31,1,5,31,5,31,31,31,1,5
chr11	111423544	111423612	+	chr11	111425286	111425318	+ ENST00000533999,ENST00000375614,ENST00000375615,ENST00000525126,ENST00000436913,ENST00000525866,ENST00000533265,ENST00000530962	3728-3736	14,16,1,14,1,1,14,1,1
chr11	112015269	112015169	-	chr11	112014540	112014319	- ENST00000280357,ENST00000524595,ENST00000528832	3737-3739	2,33,11
chr11	113585525	113585432	-	chr11	113570890	113570788	- ENST00000299882,ENST00000544634,ENST00000538091	3740-3743	25,6,25,25
chr11	113632298	113632161	-	chr11	113631640	113631539	- ENST00000200135,ENST00000535142	3744-3747	46,24,1,46
chr11	113641996	113641769	-	chr11	113639689	113639555	- ENST00000200135,ENST00000535142,ENST00000538209	3748-3751	22,8,22,22
chr11	113641996	113641947	-	chr11	113639689	113639555	- ENST00000200135,ENST00000535142,ENST00000538209	3752-3756	7,16,16,16,16
chr11	113749672	113749395	-	chr11	113712490	113712385	- ENST00000003302,ENST00000260188,ENST00000540438,ENST00000537706,ENST00000537642	3757-3758	7,61
chr11	113749672	113749395	-	chr11	113723355	113723223,11	- ENST00000003302,ENST00000260188,ENST00000540438,ENST00000537706,ENST00000540925,ENST00000544750	3759-3767	7,18,61,61,61,61,61,61,7,61
chr11	113749672	113749395	-	chr11	113725057	113724980	- ENST00000003302,ENST00000260188,ENST00000540438,ENST00000537706,ENST00000540925,ENST00000544750	3768-3774	7,61,61,61,61,61,61
chr11	113858174	113858437	+	chr11	113860187	113860485	+ ENST00000504030,ENST00000355556,ENST00000375498,ENST00000506841,ENST00000535865,ENST00000299961	3775-3776	16,2
chr11	11469419	11469138	-	chr11	11454334	11454168	-	3777-3779	46,7,19
chr11	11469419	11469174	-	chr11	11454334	11454168	- ENST00000227756	3780-3781	34,7
chr11	116642918	116642703	-	chr11	116640938	116640845	- ENST00000227756	3782-3785	11,14,13,14
chr11	116821023	116820430	-	chr11	116798096	116797935	- ENST00000375445,ENST00000260210,ENST00000445177,ENST00000375300,ENST00000292055,ENST00000542607,ENST00000415541,ENST00000446921,ENST00000413553	3786-3792	9,4,4,4,9,4,4
chr11	117089701	117089686	-	chr11	117089284	117089182	- ENST00000320934,ENST00000540028	3793-3794	5,4
chr11	117713167	117713013	-	chr11	117712743	117712705	- ENST00000532984,ENST00000539526,ENST00000540359,ENST00000260282,ENST00000527717,ENST00000526014,ENST00000524656,ENST00000584394,ENST00000524841,ENST00000527429,ENST00000530956,ENST00000584230	3795-3796	6,35

Table 10

							ENST00000534111,ENST00000519236,ENST00000517483,ENST00000437212,ENST00000522824,ENST00000522151		7,7,7,7,7,7
chr11	117969133	117969154	+	chr11	117969700	117969813	+	3797-3802	
							ENST00000392859,ENST00000359415,ENST00000264028		8,1,25
chr11	118464703	118464781	+	chr11	118468422	118468626	+	3803-3805	
							ENST00000361417,ENST00000530994,ENST00000528594		1,8,8,8,8,8
chr11	118506292	118506317	+	chr11	118509609	118509719	+	,ENST00000356063	3806-3811
							ENST00000334418,ENST00000532132	3812-3815	32,1,34,34
chr11	118881230	118881338	+	chr11	118881474	118881540	+	ENST00000527673	3816-3818
chr11	118887613	118887531	-	chr11	118886649	118886555	-	ENST00000278715,ENST00000537841,ENST00000542729,ENST00000546302,ENST00000442944,ENST00000544387	6,22,14
chr11	118961819	118961966	+	chr11	118962835	118962873	+	,ENST00000392841	3819-3822
							ENST00000278715,ENST00000537841,ENST00000542729,ENST00000546302,ENST00000442944,ENST00000544387		14,6,6,6
chr11	118962301	118962584	+	chr11	118962835	118962873	+	,ENST00000392841	3823-3829
							ENST00000278715,ENST00000537841,ENST00000542729,ENST00000546302,ENST00000442944,ENST00000544387		9,2,19,9,19,9,19
chr11	119062105	119062040	-	chr11	119061549	119061419	-	ENST00000503566,ENST00000415318	3830-3832
							ENST00000396505,ENST00000326932,ENST00000525493,ENST00000450094,ENST00000533813,ENST00000534511		13,21,21
chr11	11996229	11996181	-	chr11	11990034	11989942,1	-	,ENST00000529338	3833-3843
chr11	120094857	120094940	+	chr11	120096370	120096504	+	ENST00000328965	3844-3846
							ENST00000396505,ENST00000326932,ENST00000525493,ENST00000450094,ENST00000533813,ENST00000534511		10,1,15,1,1,15,1,15,10,1,15
chr11	12061516	12061233	-	chr11	12023984	12023847	-	,ENST00000529338	3847-3854
							ENST00000537344,ENST00000256194,ENST00000527546,ENST00000342902,ENST00000379612		2,26,5
chr11	12229234	12229279	+	chr11	12229570	12229686	+		3855-3860
							ENST00000396505,ENST00000326932,ENST00000525493,ENST00000450094,ENST00000533813,ENST00000534511		7,18,41,41,41,41,41,41
chr11	122585465	122585585	+	chr11	122646927	122646980	+	ENST00000284273	3861-3862
chr11	122950706	122950690	-	chr11	122945551	122945410	-	ENST00000448775	3863-3864
chr11	122966661	122966541	-	chr11	122955421	122955220	-	ENST00000448775	3865-3867
							ENST00000533050,ENST00000528985,ENST00000360194		14,37 5,5 20,7,1 7,16,16,16,16
chr11	126115443	126115492	+	chr11	126120401	126120628	+	,ENST00000530043	3868-3872
							ENST00000392679,ENST00000392678,ENST00000392680		10,32,18,10
chr11	126161920	126162175	+	chr11	126162372	126162950	+	,ENST00000479770	3873-3876
							ENST00000392679,ENST00000392680,ENST00000479770		15,11,13
chr11	126163030	126163075	+	chr11	126163563	126163582	+		3877-3879
chr11	126175751	126175844	+	chr11	126176465	126176639	+	ENST00000263579	3880-3882
							ENST00000525144,ENST00000529097,ENST00000525704		31,19,6 16,1,8,8,8
chr11	126310850	126310746	-	chr11	126310444	126310344	-		3883-3887
							ENST00000310343,ENST00000392657,ENST00000524655		18,2,35,2
chr11	128850029	128849880	-	chr11	128848810	128848665	-	,ENST00000527272	3888-3891
							ENST00000310343,ENST00000392657,ENST00000524655		8,37
chr11	128853146	128853035	-	chr11	128851831	128851724	-	,ENST00000527272	3892-3893
							ENST00000310343,ENST00000524655,ENST00000525234		1,4,17,1,1
chr11	128983609	128982956	-	chr11	128963602	128963516	-		3894-3898
							ENST00000533195,ENST00000533713,ENST00000534582,ENST00000528499,ENST00000263574,ENST00000345598,ENST00000338167,ENST00000278756		33,23,1,33,3 3,33,33,33,3 3
chr11	129953860	129953958	+	chr11	129979324	129979497	+		3899-3907
chr11	130064862	130064961	+	chr11	130066234	130066343	+	ENST00000278742	3908-3909
									1,11

Table 10

						ENST00000374791,ENST000 00539799,ENST00000550167 ,ENST00000427481,ENST000 00374786,ENST00000425719		11,11,10,10, 10,10
chr11	131934010	131934043 +	chr11	132016176	132016408 +	,ENST00000374784	3910-3915	
						ENST00000539799,ENST000 00427481,ENST00000425719		5,23,15
chr11	132189031	132189100 +	chr11	132200047	132200079 +	,ENST00000457381	3916-3918	
chr11	134168362	134168639 +	chr11	134188525	134188641 +	ENST00000431683	3919-3920	7,39
						ENST00000278174,ENST000 00527102,ENST00000530907		8,10,8
chr11	13436793	13436702 -	chr11	13435197	13435077,1 -	,ENST00000528120	3921-3923	
						ENST00000354817,ENST000 00532701	3924-3925	6,27
chr11	13723391	13723472 +	chr11	13729447	13729626 +			
chr11	13741219	13741242 +	chr11	13743277	13743406 +	ENST00000354817	3926-3928	4,7,7
						ENST00000545643,ENST000 00537760,ENST00000414023 ,ENST00000529237,ENST000 00256196,ENST00000534746 ,ENST00000526063,ENST000 00532814,ENST00000531807		24,39,6,24,2 4,6
chr11	14307556	14307071 -	chr11	14303266	14303148,1 -	,ENST00000531421	3929-3934	
						ENST00000545643,ENST000 00537760,ENST00000256196		24,17,32,17
chr11	14333211	14333112 -	chr11	14317401	14317314 -	,ENST00000531807	3935-3938	
						ENST00000545643,ENST000 00537760,ENST00000256196		23,1,32,32
chr11	14347143	14347046 -	chr11	14317401	14317314 -	,ENST00000531807	3939-3942	
						ENST00000545643,ENST000 00537760,ENST00000256196		13,21,21,13
chr11	14347143	14347078 -	chr11	14317401	14317314 -	,ENST00000531807	3943-3946	
						ENST00000249923,ENST000 00439561,ENST00000534234		33,33,33,33
chr11	14500297	14500197 -	chr11	14498561	14498465,1 -		3947-3950	
						ENST00000396394,ENST000 00396393,ENST00000530457		22,13,21
chr11	14531568	14531502 -	chr11	14529312	14529202 -	,ENST00000418988	3951-3953	
						ENST00000419365,ENST000 00555531,ENST00000396394 ,ENST00000396393,ENST000		2,3,5,2
chr11	14555079	14554816 -	chr11	14540587	14540543 -	00418988	3954-3957	
						ENST00000282096,ENST000		6,32,32
chr11	14737455	14737550 +	chr11	14793483	14793533 +	00455098	3958-3960	
						ENST00000316399,ENST000 00352083,ENST00000396356 ,ENST00000528252,ENST000 00527619,ENST00000528429		45,7,41,41,4 1,45,7,41
chr11	16269322	16269038 -	chr11	16256217	16256128,2 -	,ENST00000533411	3961-3968	
chr11	16381004	16380670 -	chr11	16362798	16362558 -	ENST00000527619	3969-3970	11,5
						ENST00000228136,ENST000 00528634,ENST00000525684		4,12,42,4,4
chr11	16763104	16763421 +	chr11	16766148	16766231 +		3971-3975	
						ENST00000228136,ENST000 00524439,ENST00000422258 ,ENST00000528634,ENST000		17,61,61,17, 61,61
chr11	16771014	16772438 +	chr11	16774332	16774441 +	00525684	3976-3981	
						ENST00000531066,ENST000 00355661,ENST00000448080		41,45,9,41,4 1,41
chr11	16876038	16875901 -	chr11	16873902	16873830 -	,ENST00000528376	3982-3987	
						ENST00000531066,ENST000 00355661,ENST00000448080		1,36,1,1
chr11	16912299	16912190 -	chr11	16892729	16892646 -		3988-3991	
						ENST00000531066,ENST000 00355661,ENST00000448080		52,21,2,21,2 1
chr11	17034780	17034625 -	chr11	16892729	16892646 -		3992-3996	
						ENST00000530527,ENST000 00533773,ENST00000323688 ,ENST00000529010,ENST000 00529313,ENST00000458064		15,11,11,11, 11,11,11
chr11	17304345	17304407 +	chr11	17331200	17331222 +		3997-4003	
chr11	17888603	17888338 -	chr11	17868308	17868241 -	ENST00000533241	4004-4006	7,48,21
chr11	18333357	18333209 -	chr11	18332998	18332934 -	ENST00000349215	4007-4009	14,40,4

Table 10

						ENST00000453096,ENST00000534641,ENST00000265963,ENST00000524753	4010-4013	10,9,4,10
chr11	18365205	18365234 +	chr11	18369135	18369262 +	ENST00000536719	4014-4015	23,1
chr11	18491764	18491675 -	chr11	18490765	18490751 -	ENST00000536719,ENST00000251968,ENST00000357193	4016-4019	13,34,39,34
chr11	18534270	18534048 -	chr11	18531212	18531089 -	ENST00000396197,ENST00000543987,ENST00000535484,ENST00000320750,ENST00000379387,ENST00000541984	4020-4024	16,16,7,16,16
chr11	18580718	18580670 -	chr11	18579877	18579775 -	ENST00000396197,ENST00000543987,ENST00000320750,ENST00000379387,ENST00000396196,ENST00000541984	4025-4034	13,34,11,13,13,11,13,13,13,13
chr11	18604769	18604503 -	chr11	18600355	18600271 -	ENST00000300038,ENST00000311604,ENST00000381775,ENST00000457279,ENST00000429923,ENST00000418975	4035-4040	11,32,32,32,32,32
chr11	1870488	1870586 +	chr11	1901317	1901454 +	ENST00000446113	4041-4043	8,3,13
chr11	19146614	19146727 +	chr11	19164525	19164670 +	ENST00000360655,ENST00000396085,ENST00000349880,ENST00000396087,ENST00000527559,ENST00000540292	4044-4048	7,2,6,7,7
chr11	19861105	19861126 +	chr11	19864417	19864469 +	ENST00000360655,ENST00000396085,ENST00000349880,ENST00000396087,ENST00000527559,ENST00000540292,ENST00000533917,ENST00000311043	4049-4051	19,64,4
chr11	20107820	20108161 +	chr11	20112411	20112564 +	ENST00000419348	4052-4054	11,5,21
chr11	20362325	20362389 +	chr11	20385783	20385978 +	ENST00000410108,ENST00000325147,ENST00000382762,ENST00000529614,ENST00000332865	4055-4061	14,49,31,14,14,14,14
chr11	206602	206455 -	chr11	206043	205952 -	ENST00000298925,ENST00000357134,ENST00000325319,ENST00000532434	4062-4066	23,24,1,1,1
chr11	20791063	20791137 +	chr11	20805226	20805376 +	ENST00000382743,ENST00000529937,ENST00000525319,ENST00000524564,ENST00000529382	4067-4071	13,3,35,35,35
chr11	226402	226041 -	chr11	224239	224078,224 -	ENST00000155840,ENST00000335475	4072-4073	12,15
chr11	2644193	2644477 +	chr11	2683191	2683311 +	ENST00000281268,ENST00000436318,ENST00000529533,ENST00000527569	4074-4077	3,3,2,3
chr11	26618675	26618666 -	chr11	26587443	26586712 -	ENST00000396005,ENST00000280467	4078-4081	10,31,57,10
chr11	27172908	27172597 -	chr11	26734253	26734188 -	ENST00000395986,ENST00000438929,ENST00000314915	4082-4084	11,13,30
chr11	27710419	27709882 -	chr11	27680132	27679368 -	ENST00000406787,ENST00000342303,ENST00000451385,ENST00000407364,ENST00000303459	4085-4090	45,16,8,16,16,16
chr11	28178672	28180826 +	chr11	28232609	28232745,3 +	ENST00000342303,ENST00000303459	4091-4092	21,7
chr11	28338171	28338452 +	chr11	28349642	28349685 +	ENST00000406787,ENST00000407364	4093-4094	21,7
chr11	28338171	28338452 +	chr11	28351943	28352048,3 +	ENST00000533594	4095-4096	36,5
chr11	2910653	2910544 -	chr11	2909865	2909410 -	ENST00000380525,ENST00000531387,ENST00000397111,ENST00000278224,ENST00000401769,ENST00000529772,ENST00000439280,ENST00000527330	4097-4105	17,7,16,17,7,16,16,16,16
chr11	3074760	3074710 -	chr11	3063486	3063395 -	ENST00000597505,ENST00000342355,ENST00000452803	4106-4109	32,6,6,6
chr11	31343227	31343131 -	chr11	31329455	31329186 -			
chr11	31421901	31422760 +	chr11	31429657	31429731 +	ENST00000527731	4110-4112	30,1,46

Table 10

chr11	31428999	31429090	+	chr11	31429657	31429731	+	ENST00000527731	4113-4115	23,1,30
chr11	32629683	32629387	-	chr11	32624566	32624357	-	ENST00000335185,ENST00000528333	4116-4118	34,7,1
chr11	329214	329148	-	chr11	320772	320565	-	ENST00000399808	4119-4121	22,13,21
chr11	33066619	33066883	+	chr11	33076139	33076271	+	ENST00000530419,ENST00000334274,ENST00000527661,ENST00000528107,ENST00000602733,ENST00000432887,ENST00000531632	4122-4128	1,13,34,1,1,1,1
chr11	33204350	33204268	-	chr11	33163532	33163431,331	-	ENST00000323959,ENST00000524827,ENST00000438862,ENST00000431742,ENST00000524556,ENST00000524775	4129-4136	4,24,27,27,27,27,27,27
chr11	33608924	33609118	+	chr11	33612783	33612967	+	ENST00000526400,ENST00000321505,ENST00000389726	4137-4140	7,8,5,7
chr11	34654343	34654351	+	chr11	34664175	34664274	+	ENST00000531794	4141-4143	3,2,2
chr11	34931783	34931484	-	chr11	34916657	34916557	-	ENST00000278359,ENST00000395787	4144-4145	32,3
chr11	34931783	34931484	-	chr11	34918402	34918308	-	ENST00000278359	4146-4147	32,3
chr11	34973581	34974817	+	chr11	34978931	34979130	+	ENST00000533550,ENST00000448838,ENST00000227868,ENST00000533262	4148-4152	29,37,6,37,37
chr11	35196893	35196986	+	chr11	35198122	35198287,4	+	ENST00000263398,ENST00000526025,ENST00000360158,ENST00000415148,ENST00000433354,ENST00000437706,ENST00000449691,ENST00000428726,ENST00000526669,ENST00000425428,ENST00000433892,ENST00000278386,ENST00000434472,ENST00000352818,ENST00000442151,ENST00000525211,ENST00000526000	4153-4171	30,18,13,30,30,30,30,30,30,30,30,30,30,30,30,30,30,30,30
chr11	35209872	35209880	+	chr11	35211382	35211612,4	+	ENST00000263398,ENST00000360158,ENST00000415148,ENST00000433354,ENST00000437706,ENST00000449691,ENST00000428726,ENST00000433892,ENST00000434472,ENST00000352818,ENST00000442151,ENST00000525211,ENST00000526000,ENST00000279452,ENST00000527889,ENST00000528455,ENST00000531873,ENST00000531110,ENST00000525685	4172-4192	3,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2
chr11	35342852	35342591	-	chr11	35339063	35338924	-	ENST00000278379,ENST00000606205,ENST00000449068	4193-4194	2,3
chr11	36103777	36103877	+	chr11	36119877	36120011	+	ENST00000524419,ENST00000528989,ENST00000315571	4195-4199	2,24,11,24,11
chr11	36119405	36119546	+	chr11	36119877	36120011	+	ENST00000524419,ENST00000528989,ENST00000315571	4200-4204	7,18,14,7,18
chr11	36119405	36119546	+	chr11	36119880	36120011	+	ENST00000524419,ENST00000528989,ENST00000315571	4205-4209	7,18,14,7,18
chr11	36165452	36166221	+	chr11	36248635	36248980	+	ENST00000524419,ENST00000528989,ENST00000315571	4210-4212	1,27,14
chr11	36165452	36166261	+	chr11	36248635	36248980	+	ENST00000524419,ENST00000528989,ENST00000315571	4213-4215	12,27,14
chr11	36165452	36166305	+	chr11	36248635	36248980	+	ENST00000524419,ENST00000528989,ENST00000315571	4216-4218	26,13,29
chr11	36522286	36522122	-	chr11	36520190	36520040	-	ENST00000526995,ENST00000348124	4219-4220	1,54

Table 10

							ENST00000324932,ENST000		17,7,16,16,1
							00359171,ENST00000355260		6
chr11	3720078	3720028	-	chr11	3716836	3716679 -	,ENST00000429801	4221-4225	
							ENST00000324932,ENST000		29,11,28,28,
							00359171,ENST00000355260		28
chr11	3722778	3722691	-	chr11	3722069	3721840 -	,ENST00000429801	4226-4230	
							ENST00000525403,ENST000		33,113,113,
							00300737,ENST00000527651		113,113,113
							,ENST00000532610,ENST000		,113,113,11
							00532919,ENST00000530554		3,113
							,ENST00000525055,ENST000		
							00528656,ENST00000532990		
chr11	4073046	4074745	+	chr11	4076756	4076867,407(+		4231-4240	
							ENST00000455725,ENST000		14,28,18
chr11	43362821	43362905	+	chr11	43363978	43364060 +	00531273	4241-4243	
							ENST00000299240,ENST000		46,12,3,3
chr11	43423247	43423386	+	chr11	43425548	43425694 +	00039989	4244-4247	
chr11	43467443	43467522	+	chr11	43469552	43469672 +	ENST00000039989	4248-4249	22,11
							ENST00000278353,ENST000		1
chr11	43767646	43767648	+	chr11	43772461	43772507 +	00395700	4250	
							ENST00000531185,ENST000		7,16,7,16
chr11	43854299	43854348	+	chr11	43859867	43859945,4 +	00278353	4251-4254	
							ENST00000524990,ENST000		26,25
chr11	44092952	44093030	+	chr11	44094997	44095067 +	00263776	4255-4256	
							ENST00000526958,ENST000		27,24,24
chr11	44590932	44591014	+	chr11	44609025	44609106 +	00527737	4257-4259	
							ENST00000526958,ENST000		21,24,23,24
chr11	44593464	44593536	+	chr11	44609025	44609106 +	00527737	4260-4263	
							ENST00000526958,ENST000		3,2,2
chr11	44594756	44594784	+	chr11	44609025	44609106 +	00527737	4264-4266	
chr11	44960770	44960661	-	chr11	44959917	44959758 -	ENST00000525138	4267-4268	23,22
chr11	449670	449733	+	chr11	460187	460288 +	ENST00000308020	4269-4271	21,21,12
chr11	45077793	45077486	-	chr11	44959917	44959758 -	ENST00000525138	4272-4274	12,56,4
							ENST00000343674,ENST000		14,13,13,14,
							00532868,ENST00000395574		13,13,13
							,ENST00000527911,ENST000		
							00533376,ENST00000456247		
							,ENST00000421244,ENST000		
							00318201,ENST00000454345		
chr11	46389807	46389849	+	chr11	46391044	46391100,5 +	,ENST00000524448	4275-4281	
chr11	46389807	46389853	+	chr11	46390914	46390982 +	ENST00000524984	4282-4284	15,14,1
							ENST00000312040,ENST000		33,23,32
							00434074,ENST00000451945		
							,ENST00000529655,ENST000		
							00530500,ENST00000526508		
							,ENST00000524625,ENST000		
							00359513,ENST00000528494		
chr11	46693006	46693104	+	chr11	46693805	46693882 +	,ENST00000531933	4285-4287	
							ENST00000529230,ENST000		32,20,23,20
							00312055,ENST00000415402		
							,ENST00000354558,ENST000		
chr11	46768395	46768208	-	chr11	46766127	46765976,5 -	00525896	4288-4291	
							ENST00000529230,ENST000		23,1,32,32,1
							00312055,ENST00000415402		,32,23,1,32
							,ENST00000354558,ENST000		
							00527333,ENST00000526876		
chr11	46775440	46775343	-	chr11	46775047	46774860,467-		4292-4300	
chr11	46919750	46919747	-	chr11	46918545	46918420 -	ENST00000378623	4301-4302	1,1
							ENST00000528488,ENST000		46,44,18,18,
							00525279,ENST00000278460		18,18,18,18,
							,ENST00000378618,ENST000		18
							00395460,ENST00000532633		
							,ENST00000378615,ENST000		
							00526424,ENST00000527667		
chr11	46948680	46948946	+	chr11	47008759	47008861,5 +	,ENST00000527784	4303-4311	
							ENST00000256996,ENST000		7,3,3,3
							00378600,ENST00000378601		
chr11	47236062	47236225	+	chr11	47237887	47238023 +	,ENST00000378603	4312-4315	
							ENST00000256996,ENST000		17,16,8,16
							00378601,ENST00000378603		
chr11	47254975	47255025	+	chr11	47256124	47256223 +		4316-4319	

Table 10

							ENST00000395397,ENST000	14,40,4,40,4
							00405576,ENST00000481889	0,14,40,40,1
							,ENST00000436778,ENST000	4,40,14,40,1
							00531660,ENST00000407404	4,40,14,40
							,ENST00000444396,ENST000	
							00412937,ENST00000449369	
							,ENST00000441012,ENST000	
							00436029,ENST00000467728	
							,ENST00000405853,ENST000	
chr11	47282354	47282502	+	chr11	47282792	47283000,472	+ 00527949	4320-4335
							ENST00000378538,ENST000	23,8,35,23,8
							00227163,ENST00000533968	
chr11	47391647	47391497	-	chr11	47381591	47381404	-	4336-4340
							ENST00000533076,ENST000	19,42,24,24,
							00531865,ENST00000362021	24,24
chr11	47435494	47435759	+	chr11	47435976	47436026	+ ,ENST00000354884	4341-4346
							ENST00000298854,ENST000	13,33,11,11
							00352508,ENST00000524487	
chr11	47460173	47460073	-	chr11	47459598	47459526,5	-	4347-4350
							ENST00000531165,ENST000	7,35,7,7,7,7,
							00532048,ENST00000528434	35
							,ENST00000535982,ENST000	
chr11	47580916	47580762	-	chr11	47510576	47510389,5	- 00526277	4351-4357
							ENST00000534775,ENST000	7,17,17
chr11	47588670	47588722	+	chr11	47591252	47591394,5	+ 00326674	4358-4360
chr11	47761508	47761407	-	chr11	47758292	47758168	- ENST00000263773	4361-4363 7,33,20
chr11	47769158	47769058	-	chr11	47767946	47767608	- ENST00000263773	4364-4366 33,24,11
chr11	47778760	47778325	-	chr11	47776216	47776080	- ENST00000263773	4367-4368 106,33
							ENST00000378460,ENST000	31,23,1,23
chr11	47809573	47809475	-	chr11	47808106	47808005	- 00530326	4369-4372
							ENST00000378460,ENST000	33,16,33,33,
							00530326,ENST00000528071	33
chr11	47839196	47839098	-	chr11	47837581	47837498	- ,ENST00000528501	4373-4377
							ENST00000378460,ENST000	33,105
							00530326,ENST00000528071	
chr11	47844667	47844350	-	chr11	47843716	47843639	-	4378-4379
							ENST00000378460,ENST000	27,20,15,20
chr11	47867402	47867292	-	chr11	47862140	47861930,5	- 00526870	4380-4383
							ENST00000378460,ENST000	23,16,11,16
chr11	47867402	47867304	-	chr11	47862140	47861930,5	- 00526870	4384-4387
							ENST00000418331,ENST000	6,18,17,18,6
							00440289,ENST00000534219	,18,17,18
chr11	48066369	48066423	+	chr11	48131610	48131628	+ ,ENST00000527952	4388-4395
chr11	5527074	5526799	-	chr11	5270820	5270598	- ENST00000330597	4396-4398 46,7,16
							ENST00000380252,ENST000	46,16,7,7,16
							00380259,ENST00000336906	
chr11	5527074	5526799	-	chr11	5275744	5275522,53	- ,ENST00000444587	4399-4403
chr11	5527074	5526799	-	chr11	5526629	5526581	- ENST00000380252	4404-4406 46,7,16
chr11	57094778	57094761	-	chr11	57094363	57094177	- ENST00000278412	4407-4409 6,5,5
chr11	57140291	57140100	-	chr11	57097776	57097765	- ENST00000278412	4410-4412 13,25,2
							ENST00000395123,ENST000	1,13,34,1,1,
							00395124,ENST00000352187	13,1,13,1,13
							,ENST00000529554,ENST000	,34
							00533524,ENST00000530005	
							,ENST00000529113,ENST000	
							00525474,ENST00000529112	
chr11	57191202	57190935	-	chr11	57188846	57188770	-	4413-4423
							ENST00000524972,ENST000	13,13,13,13,
							00378312,ENST00000528395	13,13,13,13,
							,ENST00000530114,ENST000	13,13,13,13,
							00278422,ENST00000525035	13,13,13
							,ENST00000533602,ENST000	
							00528110,ENST00000529403	
chr11	57492024	57492064	+	chr11	57505080	57505140	+	4424-4438

Table 10

							ENST00000524630,ENST000		23,1,31,23,2
							00529919,ENST00000399039		3,23,23,23,2
							,ENST00000360682,ENST000		3,23,23
							00361796,ENST00000358694		
							,ENST00000361332,ENST000		
							00361391,ENST00000399050		
							,ENST00000415361,ENST000		
							00426142,ENST00000428599		
							,ENST00000526357,ENST000		
							00528232,ENST00000528621		
							,ENST00000529526,ENST000		
							00529873,ENST00000529986		
							,ENST00000530094,ENST000		
							00530748,ENST00000532245		
							,ENST00000532463,ENST000		
							00532649,ENST00000532787		
							,ENST00000532844,ENST000		
							00534579,ENST00000526938		
							,ENST00000534647		
chr11	57565543	57565637	+	chr11	57569205	57569668,6	+	4439-4449	
							ENST00000530561,ENST000		33,6,11,11
							00395074,ENST00000528954		
chr11	58337162	58337062	-	chr11	58331674	58331628	-	4450-4453	
chr11	58890695	58890886	+	chr11	58891652	58893775	+	ENST00000343597 4454-4456	19,24,7
							ENST00000532982,ENST000		12,32,30
chr11	58956822	58956918	+	chr11	58958587	58958648	+	00227451 4457-4459	
							ENST00000532982,ENST000		4,4
chr11	58960620	58960633	+	chr11	58962681	58962842	+	00227451 4460-4461	
chr11	59415929	59415700	-	chr11	59415386	59415227	-	ENST00000300146 4462-4464	18,10,7
chr11	59577781	59577512	-	chr11	59577393	59577328	-	ENST00000300151 4465-4467	13,34,21
chr11	59695486	59695863	+	chr11	59710320	59710501	+	ENST00000398992 4468-4469	37,2
							ENST00000358152,ENST000		28,24,10,24
							00278865,ENST00000525686		
chr11	59825699	59825798	+	chr11	59831735	59831791,6	+	,ENST00000534744 4470-4473	
							ENST00000358152,ENST000		24,49,3
							00278865,ENST00000534744		
chr11	59832893	59834321	+	chr11	59834424	59834585	+	4474-4476	
							ENST00000532114,ENST000		9,4,36,36,4,
							00337908,ENST00000343968		36
chr11	59953379	59953520	+	chr11	60059698	60059857,6	+	,ENST00000527056 4477-4482	
							ENST00000532114,ENST000		50,12,2,50,5
							00337908,ENST00000343968		0,2
chr11	59953379	59953644	+	chr11	60059698	60059857,6	+	,ENST00000527056 4483-4488	
							ENST00000532114,ENST000		50,12,2,2
							00337908,ENST00000355131		
chr11	59953379	59953644	+	chr11	60064670	60064798	+	,ENST00000395016 4489-4492	
							ENST00000532114,ENST000		50,12,2,50,2
							00337908,ENST00000355131		
chr11	59953379	59953644	+	chr11	60068474	60068530	+	,ENST00000395016 4493-4497	
chr11	59973202	59973187	-	chr11	59969324	59969016	-	ENST00000427611 4498-4500	5,5,4
							ENST00000345732,ENST000		7,18,7,7
							00532073,ENST00000534668		
							,ENST00000533306,ENST000		
chr11	60232155	60232325	+	chr11	60233394	60233630,6	+	00389939 4501-4504	
							ENST00000227524,ENST000		49,21,7,49
chr11	60677532	60677259	-	chr11	60671333	60671184	-	00541371 4505-4508	
							ENST00000453848,ENST000		7,22,1,7,1
							00005286,ENST00000536409		
chr11	60701374	60701464	+	chr11	60701960	60702236,6	+	4509-4513	
							ENST00000301765,ENST000		26,37,12,12
chr11	60934781	60934039	-	chr11	60901679	60901508	-	00538036 4514-4517	
							ENST00000301764,ENST000		36,16
							00540166,ENST00000539739		
							,ENST00000535174,ENST000		
chr11	61091176	61091048	-	chr11	61090566	61090483	-	00541513 4518-4519	
							ENST00000294072,ENST000		4,4,4,4,4,4,4
							00426130,ENST00000447532		,4,4
							,ENST00000546151,ENST000		
							00540755,ENST00000536915		
							,ENST00000540139,ENST000		
							00542361,ENST00000537364		
chr11	61129218	61129205	-	chr11	61120611	61120457,611	-	4520-4528	

Table 10

							ENST00000294072,ENST00000426130,ENST00000447532,ENST00000536915,ENST00000542361,ENST00000537364		2,2,1,2,2,2,2,1
chr11	61129218	61129212	-	chr11	61121464	61121256,6	-	,ENST00000539128	4529-4536	
chr11	61132079	61132342	+	chr11	61133517	61133688,6	+	ENST00000278826,ENST00000542946	4537-4540	10,7,18,7
chr11	61132079	61132342	+	chr11	61133590	61133688,6	+	ENST00000278826,ENST00000542946,ENST00000381787	4541-4544	10,7,18,10
chr11	61523396	61523490	+	chr11	61533097	61533184	+	ENST00000278836,ENST00000265460	4545-4548	16,10,31,10
								ENST00000257261,ENST00000522056,ENST00000278840,ENST00000521849,ENST00000521571,ENST00000355484		33,24,11,11,11,11
chr11	61617220	61617320	+	chr11	61624483	61624543	+		4549-4554	
								ENST00000257261,ENST00000522056,ENST00000278840,ENST00000521849,ENST00000521571,ENST00000355484		7,73,20,7,7,73,20,7
chr11	61627178	61627399	+	chr11	61630444	61630541,6	+		4555-4562	
chr11	61898146	61898172	+	chr11	61905304	61905355	+	ENST00000394818,ENST00000278849	4563-4564	9,8
chr11	62330250	62330046	-	chr11	62327926	62327754	-	ENST00000329251,ENST00000378019	4565-4567	23,20,1
								ENST00000377897,ENST00000294179,ENST00000394690		7,28,20,7,7
chr11	62595884	62595663	-	chr11	62595103	62595033	-	,ENST00000491231	4568-4572	
chr11	63329936	63329872	-	chr11	63327665	63327557	-	ENST00000255695	4573-4574	20,4
chr11	63335870	63335765	-	chr11	63327665	63327557	-	ENST00000255695	4575-4576	29,35
chr11	63739306	63739501	+	chr11	63743697	63743792	+	ENST00000314133	4577-4578	12,1
								ENST00000358794,ENST00000305218,ENST00000536973,ENST00000538945,ENST00000543847		18,10,12,12,12,12
chr11	63956553	63956809	+	chr11	63960550	63960759	+		4579-4584	
								ENST00000394546,ENST00000541278,ENST00000317459		17,17,17,17,17
chr11	63993586	63993534	-	chr11	63993052	63992971	-	,ENST00000545812	4585-4589	
								ENST00000320631,ENST00000359393,ENST00000421510		16,16,7,16,16
chr11	64625958	64625910	-	chr11	64622958	64622794	-	,ENST00000433803	4590-4594	
								ENST00000526559,ENST00000164133,ENST00000532850		41,2,93,41,41
chr11	64694549	64694830	+	chr11	64695274	64695375	+		4595-4599	
								ENST00000532617,ENST00000530444,ENST00000536065,ENST00000432175,ENST00000301896		45,7,45
chr11	64746347	64746072	-	chr11	64708118	64708046	-		4600-4602	
								ENST00000530444,ENST00000530735,ENST00000432175		45,7,7,7
chr11	64746347	64746072	-	chr11	64722274	64722229,6	-	,ENST00000301896	4603-4606	
chr11	65048796	65048868	+	chr11	65049141	65049203	+	ENST00000265465,ENST00000541089	4607-4610	24,24,3,24
								ENST00000265465,ENST00000541089,ENST00000525924		33,6,11,33,33
chr11	65057438	65057538	+	chr11	65061624	65061732	+		4611-4615	
								ENST00000309295,ENST00000533364	4616-4618	32,22,9
								ENST00000534313,ENST00000527525,ENST00000394224		11,1,24
chr11	65416023	65416162	+	chr11	65416733	65416951	+	,ENST00000394227	4619-4621	
								ENST00000406246,ENST00000525693,ENST00000526283,ENST00000308639,ENST00000532999,ENST00000526257		27,6,27,27,6,27,27
chr11	65424213	65424081	-	chr11	65423406	65423326,7	-		4622-4628	
								ENST00000448083,ENST00000312562,ENST00000531493		4,4,4
chr11	65662970	65662956	-	chr11	65660767	65660357,7	-	,ENST00000532401	4629-4631	
chr11	65662970	65662956	-	chr11	65661592	65661485	-	ENST00000312562	4632-4633	4,4
								ENST00000312562,ENST00000531493,ENST00000532401		24,11,11,11
chr11	65665110	65665010	-	chr11	65664477	65664280	-		4634-4637	

							ENST00000528302,ENST000 00322535,ENST00000524627 ,ENST00000533595,ENST000 00530322,ENST00000524475		16,24,11,11, 11,11,11,11
chr11	65820868	65820968	+	chr11	65822547	65822786,7	+	4638-4645	
chr11	66002121	66002206	+	chr11	66002772	66002874	+	ENST00000320580,ENST000 00529757	4646-4648	12,1,24
chr11	66037116	66037163	+	chr11	66039268	66039340	+	ENST00000311481,ENST000 00527397	4649-4651	3,15,3
chr11	66037116	66037294	+	chr11	66039268	66039340	+	ENST00000311481,ENST000 00527397	4652-4654	9,13,9
chr11	66037116	66037306	+	chr11	66039268	66039340	+	ENST00000311481,ENST000 00527397	4655-4657	13,17,13
chr11	66134708	66134582	-	chr11	66134035	66133902	-	ENST00000357440,ENST000 00540386,ENST00000544554 ,ENST00000546034	4658-4660	2,15,2
chr11	66208768	66207358	-	chr11	66205730	66205635	-	ENST00000310999,ENST000 00430466,ENST00000534488 ,ENST00000329819	4661-4665	30,47,2,47,4 7
chr11	66234430	66234498	+	chr11	66238713	66238842,662	+	ENST00000349459,ENST000 00320740,ENST00000532970 ,ENST00000524466,ENST000 00527230	4666-4673	23,22,14,23, 22,22,23,22
chr11	66354487	66355199	+	chr11	66361113	66361185	+	ENST00000533244,ENST000 00530961	4674-4677	49,24,1,1
chr11	66354487	66355239	+	chr11	66361113	66361185	+	ENST00000533244,ENST000 00530961	4678-4681	1,37,14,1
chr11	66354487	66355319	+	chr11	66366587	66366724	+	ENST00000533244,ENST000 00530961,ENST00000310190	4682-4685	27,14,12,14
chr11	66355594	66355858	+	chr11	66361113	66361185	+	ENST00000533244,ENST000 00530961	4686-4689	88,88,77,88
chr11	66830715	66830867	+	chr11	66833367	66833454	+	ENST00000308831,ENST000 00533360	4690-4692	40,7,40
chr11	66924211	66924347	+	chr11	66947550	66947688	+	ENST00000398645,ENST000 00529006	4693-4696	35,1,14,14
chr11	66966550	66967594	+	chr11	66974981	66975159	+	ENST00000398645,ENST000 00529006	4697-4700	10,24,61,10
chr11	66970520	66970597	+	chr11	66974985	66975159	+	ENST00000398645,ENST000 00529006	4701-4704	26,1,25,1
chr11	66995882	66996017	+	chr11	66999037	66999431	+	ENST00000398645,ENST000 00529006	4705-4708	34,23,18,34
chr11	67051974	67052042	+	chr11	67052318	67052454	+	ENST00000308595	4709-4710	23,13
chr11	67168060	67168029	-	chr11	67167136	67167032	-	ENST00000312989,ENST000 00376745,ENST00000358239	4711-4713	9,10,10
chr11	67375179	67375259	+	chr11	67375867	67375949,673	+	ENST00000322776,ENST000 00529927,ENST00000415352 ,ENST00000530103,ENST000 00533075	4714-4718	27,20,27,20, 27
chr11	67952973	67952924	-	chr11	67947667	67947599,7	-	ENST00000304363,ENST000 00441488,ENST00000427752 ,ENST00000401547,ENST000 00405515,ENST00000402789 ,ENST00000453170,ENST000 00458496,ENST00000434573	4719-4729	7,16,16,7,7, 7,7,7,7,7,16
chr11	68116134	68116230	+	chr11	68125118	68125315	+	ENST00000294304,ENST000 00529993	4730-4733	24,11,31,31
chr11	68133291	68133364	+	chr11	68153784	68154180	+	ENST00000294304,ENST000 00529993	4734-4737	20,24,3,24
chr11	68135920	68135961	+	chr11	68153784	68154180	+	ENST00000294304,ENST000 00529993	4738-4739	3,13
chr11	68139937	68139945	+	chr11	68153784	68154180	+	ENST00000294304,ENST000 00529993	4740-4743	3,2,2,2
chr11	68353451	68353499	+	chr11	68355395	68355492	+	ENST00000393799,ENST000 00393800,ENST00000534534 ,ENST00000524845,ENST000 00393801,ENST00000265636 ,ENST00000529710,ENST000 00534190	4744-4748	16,15,16,16, 16

Table 10

						ENST00000393799,ENST00000393800,ENST00000534534,ENST00000524845,ENST00000265637,ENST00000524904,ENST00000393801,ENST00000265636,ENST00000529710,ENST00000527403,ENST00000534190	4749-4752	1,4,1,4
chr11	68374083	68374101 +	chr11	68377372	68377491 +	ENST00000540367,ENST00000376618,ENST00000265641,ENST00000539743	4753-4755	12,7,12
chr11	689509	689412 -	chr11	688460	688331 -	ENST00000338675,ENST00000382409	4756-4759	23,1,11,11
chr11	689509	689444 -	chr11	688460	688331 -	ENST00000338675,ENST00000382409	4760-4762	13,21,13
chr11	69488450	69488402 -	chr11	69486587	69486517,7 -	ENST00000538554,ENST00000279147,ENST00000535657,ENST00000543562,ENST00000539414,ENST00000542341	4763-4770	3,13,15,13,13,13,13,15
chr11	69488450	69488402 -	chr11	69488089	69487984 -	ENST00000538554,ENST00000279147,ENST00000535657,ENST00000539414,ENST00000441922,ENST00000542341	4771-4777	3,13,15,15,15,15,15
chr11	69488619	69488615 -	chr11	69486587	69486517,7 -	ENST00000538554,ENST00000279147,ENST00000535657,ENST00000543562,ENST00000539414,ENST00000542341	4778-4785	1,1,1,1,1,1,1,1
chr11	69488619	69488615 -	chr11	69488089	69487984 -	ENST00000538554,ENST00000279147,ENST00000535657,ENST00000539414,ENST00000441922,ENST00000542341	4786-4792	22,13,21,21,21,21,21
chr11	69488920	69488854 -	chr11	69488089	69487984 -	ENST00000346329,ENST00000301843,ENST00000376561	4793-4799	22,13,21,13,13,13
chr11	70260170	70260236 +	chr11	70260648	70260758 +	,ENST00000415461	4800-4805	2,55,8,2,8
chr11	71275749	71276033 +	chr11	71277091	71277242,7 +	ENST00000398531,ENST00000376536	4806-4810	16,3
chr11	71508077	71508126 +	chr11	71510668	71510693 +	ENST00000346333,ENST00000359244,ENST00000426628	4811-4812	11,2,26,2,26,2,2,2
chr11	71728511	71728382 -	chr11	71727576	71727454 -	ENST00000351960,ENST00000358965,ENST00000393695,ENST00000542977,ENST00000537217	4813-4820	7,7,7,7,7
chr11	721697	721719 +	chr11	722401	722549,723 +	ENST00000318562,ENST00000533256,ENST00000530636,ENST00000526198,ENST00000528770,ENST00000530452	4821-4825	7,5,5,5
chr11	72747224	72747122 -	chr11	72726930	72726854 -	ENST00000409314,ENST00000409418,ENST00000422375	4826-4829	
chr11	73059461	73059627 +	chr11	73063875	73064057 +	ENST00000263674	4830-4832	15,6,11
chr11	73588649	73588749 +	chr11	73589824	73589864 +	ENST00000310571	4833-4835	2,24,11
chr11	73780758	73780693 -	chr11	73768589	73768451 -	ENST00000442398,ENST00000334126,ENST00000313663,ENST00000414160	4836-4841	22,2,1,1,1,1
chr11	73796594	73796567 -	chr11	73796015	73795926 -	ENST00000442398,ENST00000334126,ENST00000313663,ENST00000414160	4842-4846	8,9,8,8,8
chr11	73841174	73840232 -	chr11	73834180	73834033 -	ENST00000334126,ENST00000313663	4847-4850	13,29,26,26
chr11	73847365	73847344 -	chr11	73844602	73844470 -	ENST00000334126,ENST00000313663,ENST00000539061	4851-4854	7,7,7,7

Table 10

						ENST00000328257,ENST00000398427,ENST00000544401	4855-4859	15,49,19,19,19
chr11	73928616	73930666 +	chr11	73933357	73933414 +	ENST00000298198	4860-4861	19,16
chr11	74050232	74050081 -	chr11	74049646	74049513 -	ENST00000263681	4862-4864	44,10,1
chr11	74145537	74145821 +	chr11	74305106	74305161 +	ENST00000263681	4865-4867	1,17,41
chr11	74304131	74304255 +	chr11	74305106	74305161 +	ENST00000263681,ENST00000527458,ENST00000532497	4868-4871	23,2,21,23
chr11	74337792	74338813 +	chr11	74340262	74340368 +	,ENST00000524752	4872-4873	6,8
chr11	74830343	74830434 +	chr11	74873700	74873830 +	ENST00000289575	4874-4879	29,15,6,6,29,6
chr11	75174209	75174067 -	chr11	75173934	75173831 -	ENST00000527820,ENST00000529721,ENST00000336898,ENST00000443276,ENST00000532435	4880-4882	22,23,1
chr11	76075754	76075685 -	chr11	76072107	76072000 -	ENST00000260045	4883-4885	22,23,1
chr11	76075754	76075685 -	chr11	76075476	76075447 -	ENST00000528993	4886-4890	31,67,45,31,45
chr11	76110542	76110962 +	chr11	76114704	76115086,8 +	ENST00000321844,ENST00000529331	4891-4895	13,6,13,13,6
chr11	76674878	76674970 +	chr11	76687333	76687385,8 +	ENST00000534206,ENST00000532485,ENST00000531461,ENST00000533873,ENST00000538157	4896-4899	2,6,7,6
chr11	76708226	76708271 +	chr11	76709807	76709865 +	ENST00000534206,ENST00000532485,ENST00000526597,ENST00000533873,ENST00000538157,ENST00000544113	4900-4903	10,13,23,23
chr11	76708226	76708317 +	chr11	76709807	76709865 +	ENST00000308488,ENST00000480887,ENST00000360355	4904-4905	24,11
chr11	77382978	77382878 -	chr11	77378536	77377962 -	ENST00000534064,ENST00000529807	4906-4909	2,18,17,18
chr11	77637566	77637512 -	chr11	77635938	77635796,8 -	ENST00000433818,ENST00000534064,ENST00000529807	4910-4913	24,8,8,8
chr11	77680719	77680541 -	chr11	77672184	77672150,8 -	ENST00000433818,ENST00000534064,ENST00000529807	4914-4918	2,1,1,2,2
chr11	77680719	77680714 -	chr11	77672184	77672150,8 -	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050,ENST00000530910	4919-4927	29,1,12,29,29,29,29
chr11	77843275	77843163 -	chr11	77838482	77838404 -	,ENST00000525761	4928-4936	37,4,36,36,36,36,36
chr11	77845185	77845074 -	chr11	77838482	77838404 -	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050,ENST00000530910,ENST00000525761	4937-4945	2,4,18,2,2,2,2,2,2
chr11	77847939	77847884 -	chr11	77838482	77838404 -	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050,ENST00000530910,ENST00000525761	4946-4954	10,15,2,10,10,10,10,10
chr11	77848224	77848079 -	chr11	77838482	77838404 -	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050,ENST00000530910,ENST00000525761	4955-4963	13,4,13,13,13,13,13
chr11	77848224	77848184 -	chr11	77838482	77838404 -	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050,ENST00000530910,ENST00000525761	4964-4972	9,4,1,1,1,1,1,1,1
chr11	77849035	77848288 -	chr11	77838482	77838404 -			
chr11	78076328	78076313 -	chr11	77991947	77991647 -	ENST00000361507	4973-4975	5,5,4

Table 10

chr11	78181236	78180724 -	chr11	78180359	78180293 -	ENST00000281038,ENST00000528850	4976-4978	2,14,28
chr11	78181236	78180992 -	chr11	78180359	78180293 -	ENST00000281038,ENST00000528850	4979-4981	39,55,33
chr11	78181236	78181009 -	chr11	78180359	78180293 -	ENST00000281038,ENST00000528850	4982-4984	34,49,27
chr11	78181236	78181065 -	chr11	78180359	78180293 -	ENST00000281038,ENST00000528850	4985-4987	15,31,8
chr11	78278553	78278238 -	chr11	78277318	78277178 -	ENST00000281038,ENST00000529880	4988-4991	23,12,46,12
chr11	78394847	78394752 -	chr11	78387432	78387197 -	ENST00000278550,ENST00000530738	4992-4993	32,6
chr11	82668140	82668107 -	chr11	82571159	82571019 -	ENST00000313010,ENST00000393399,ENST00000529671,ENST00000532809	4994-4998	11,11,10,11,11
						ENST00000398309,ENST00000376104,ENST00000418306,ENST00000280241,ENST00000543673,ENST00000330014,ENST00000537455,ENST00000524982,ENST00000532653,ENST00000531015,ENST00000530800,ENST00000434967		2,27,2,2,2,2,2
chr11	83463029	83462848 -	chr11	83344368	83344254 -		4999-5005	
chr11	843046	843050 +	chr11	850288	850367 +	ENST00000409531	5006-5008	1,1,1
						ENST00000447869,ENST00000315204,ENST00000396672,ENST00000396673,ENST00000534493,ENST00000418597,ENST00000422559,ENST00000457885	5009-5014	21,7,21,21,21,21
chr11	8489925	8489646 -	chr11	8486369	8486256 -	ENST00000358867,ENST00000534341,ENST00000393375,ENST00000531274	5015-5019	26,26,2,26,26
chr11	85345572	85345651 +	chr11	85346711	85346822,9 +	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826	5020-5023	132,8,16,132
chr11	86155557	86155162 -	chr11	86153961	86153863 -	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000323418	5024-5029	21,21,2,21,21
chr11	86199542	86199479 -	chr11	86198482	86198379 -	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000323418	5030-5035	62,32,2,2,2,2
chr11	86221813	86221603 -	chr11	86219909	86219834 -	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000530335	5036-5041	7,45,37,37,37,37
chr11	86302970	86302705 -	chr11	86270865	86270732 -	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000530335	5042-5047	7,34,19,19,19,19
chr11	86380764	86380481 -	chr11	86270865	86270732 -	ENST00000340353,ENST00000526733,ENST00000355734,ENST00000525018,ENST00000305494	5048-5053	32,6,32,32,32,32
chr11	86758347	86758442 +	chr11	86778736	86778863 +	ENST00000526733,ENST00000532959,ENST00000305494	5054-5058	14,19,4,19,4
chr11	86842806	86843128 +	chr11	86868383	86868450,9 +	ENST00000535633,ENST00000424319,ENST00000343727,ENST00000534731,ENST00000525196,ENST00000263317,ENST00000532825,ENST00000527956,ENST00000542487,ENST00000528341,ENST00000413594,ENST00000529343	5059-5064	62,65,9,9,9,9
chr11	89280118	89279805 -	chr11	89185063	89184953 -			

Table 10

chr11	89900185	89901463	+	chr11	89902097	89902160	+	ENST00000534061,ENST00000321955	5065-5067	31,9,1
chr11	906515	906353	-	chr11	904859	904706	-	ENST00000323541	5068-5069	54,7
chr11	9163061	9163001	-	chr11	9161795	9161736	-	ENST00000533737	5070-5071	8,4
chr11	94186958	94186370	-	chr11	94180604	94180385	-	ENST00000323929,ENST00000407439,ENST00000323977,ENST00000393241	5072-5076	3,6,22,6,6
chr11	94548752	94549082	+	chr11	94554696	94554987,9	+	ENST00000317829,ENST00000317837,ENST00000433060	5077-5080	8,3,8,3
chr11	94548752	94550042	+	chr11	94554696	94554987,9	+	ENST00000317829,ENST00000317837,ENST00000433060	5081-5086	31,14,20,31,14,20
chr11	9543331	9543432	+	chr11	9546787	9546933,95	+	ENST00000396604,ENST00000396602,ENST00000530463,ENST00000396597,ENST00000299606,ENST00000447186	5087-5090	34,24,11,34
chr11	95557247	95557394	+	chr11	95560950	95561191	+	ENST00000537677,ENST00000325542,ENST00000325486,ENST00000541150,ENST00000537093,ENST00000535224	5091-5095	27,13,2,13,13
chr11	95559036	95559379	+	chr11	95560950	95561191	+		5096-5100	67,44,1,1,1
chr11	95888046	95887922	-	chr11	95826681	95825056	-	ENST00000524717	5101-5103	20,22,1
chr11	96120764	96120694	-	chr11	96116637	96116433	-	ENST00000278520,ENST00000542662,ENST00000423339	5104-5106	23,23,2
chr11	96144829	96144721	-	chr11	96116637	96116433	-	ENST00000278520,ENST00000542662,ENST00000423339	5107-5108	28,6
chr11	9618612	9618744	+	chr11	9715693	9715833	+	ENST00000447399,ENST00000318950,ENST00000526358	5109-5112	13,3,13,13
chr11	9720611	9720850	+	chr11	9735013	9735186,97	+	ENST00000318950,ENST00000526358	5113-5116	10,2,5,10
chr11	9766554	9766596	+	chr11	9769405	9769603	+	ENST00000447399,ENST00000318950	5117-5119	14,14,12
chr11	99693451	99693918	+	chr11	99715584	99715707	+	ENST00000527185,ENST00000528682,ENST00000524871,ENST00000418526,ENST00000279463	5120-5121	12,5
chr12	100651155	100650873	-	chr12	100650004	100649827	-	ENST00000378244,ENST00000416321,ENST00000548313,ENST00000549249,ENST00000550587,ENST00000551642	5122-5126	5,40,18,5,5
chr12	100690627	100690675	+	chr12	100691809	100691953	+	ENST00000549687,ENST00000360820	5127-5129	7,15,15
chr12	100718727	100718916	+	chr12	100720400	100720532	+	ENST00000549687,ENST00000360820,ENST00000548871	5130-5134	18,7,21,7,7
chr12	100718727	100718950	+	chr12	100720400	100720532	+	ENST00000549687,ENST00000360820,ENST00000548871	5135-5136	7,18
chr12	100721774	100721824	+	chr12	100722979	100723097	+	ENST00000549687,ENST00000360820	5137-5140	17,10,16,16
chr12	100952977	100954442	+	chr12	100955663	100955776	+	ENST00000548884,ENST00000392986,ENST00000549996,ENST00000551379,ENST00000188403	5141-5142	25,54
chr12	10104813	10105596	+	chr12	10124176	10124286	+	ENST00000355690	5143-5145	14,1,27
chr12	101737590	101737594	+	chr12	101738373	101738528	+	ENST00000261637	5146-5148	1,1,1
chr12	102165321	102165098	-	chr12	102164935	102164774	-	ENST00000299314,ENST00000549940	5149-5151	24,7,7
chr12	102205416	102205276	-	chr12	102190540	102190455	-	ENST00000299314,ENST00000549940,ENST00000392919,ENST00000549165	5152-5159	30,12,44,30,30,12,30,12

							ENST00000378128,ENST000	45,7,45,45,4
							00541394,ENST00000392909	5,45,45
							,ENST00000537257,ENST000	
							00358383,ENST00000412715	
chr12	102520891	102521077	+	chr12	102542008	102542241 +	,ENST00000417507	5160-5166
							ENST00000327680,ENST000	19,9,2,2,2
							00378128,ENST00000541394	
							,ENST00000543784,ENST000	
							00358383,ENST00000392911	
							,ENST00000412715,ENST000	
chr12	102548302	102548774	+	chr12	102558216	102558386 +	00417507	5167-5171
							ENST00000327680,ENST000	102,53,2
							00541394,ENST00000358383	
chr12	102571347	102571724	+	chr12	102572370	102572548 +	,ENST00000392911	5172-5174
							ENST00000547347,ENST000	12,2,2,2,2
							00315192,ENST00000548883	
							,ENST00000378113,ENST000	
							00551134,ENST00000552578	
chr12	103825150	103824991	-	chr12	103795453	103795385 -		5175-5179
chr12	104180760	104180710	-	chr12	104179525	104179454 -	ENST00000415849	5180-5182 17,5,16
							ENST00000378090,ENST000	2,17,1
							00549478,ENST00000553183	
chr12	104347136	104347051	-	chr12	104345408	104345301 -	,ENST00000547945	5183-5185
							ENST00000525566,ENST000	25,14,8,25,2
							00429002,ENST00000526691	5,25
							,ENST00000531691,ENST000	
							00388854,ENST00000526390	
							,ENST00000528079,ENST000	
							00542918,ENST00000378070	
							,ENST00000397736,ENST000	
							00427956,ENST00000526950	
chr12	104681506	104681628	+	chr12	104705068	104705190 +		5186-5191
							ENST00000547956,ENST000	3,2,3,2
							00549260,ENST00000303694	
chr12	104982613	104982721	+	chr12	104995684	104995799 +	,ENST00000546689	5192-5195
							ENST00000549260,ENST000	6,4
							00303694,ENST00000549016	
chr12	105100775	105100922	+	chr12	105150727	105151581 +		5196-5197
chr12	105259524	105259221	-	chr12	105255148	105255069 -	ENST00000258538	5198-5199 7,2
chr12	105422190	105422122	-	chr12	105420522	105420323 -	ENST00000258494	5200-5201 23,13
chr12	105436603	105435970	-	chr12	105434472	105434385 -	ENST00000258494	5202-5203 14,36
							ENST00000258494,ENST000	6,11,8,11,11
							00552270,ENST00000424857	
chr12	105464025	105463948	-	chr12	105462662	105462497 -		5204-5208
							ENST00000258494,ENST000	17,3,17,17
							00552270,ENST00000424857	
chr12	105464025	105463973	-	chr12	105462662	105462497 -		5209-5212
							ENST00000548195,ENST000	18,3,9,3,3
							00332180,ENST00000550053	
chr12	105510262	105510343	+	chr12	105512224	105512294 +	,ENST00000547404	5213-5217
chr12	105516293	105516448	+	chr12	105519782	105519905 +	ENST00000332180	5218-5220 29,35,51
							ENST00000258530,ENST000	4,36,36,36
							00547439,ENST00000551662	
chr12	105702516	105702407	-	chr12	105623001	105622903 -		5221-5224
							ENST00000443585,ENST000	10,5,8,10,5,
							00549893,ENST00000549934	8,10
chr12	105716148	105716238	+	chr12	105742380	105742404 +		5225-5231
							ENST00000548125,ENST000	17,7,16
							00280756,ENST00000547242	
							,ENST00000550344,ENST000	
							00547081,ENST00000551813	
chr12	107363223	107363273	+	chr12	107364883	107365169 +		5232-5234
chr12	107443596	107443549	-	chr12	107415970	107415862 -	ENST00000008527	5235-5237 4,8,15
							ENST00000420959,ENST000	21,16,42
chr12	109111348	109111220	-	chr12	109095099	109094900 -	00549772	5238-5240
							ENST00000420959,ENST000	1,5,34
chr12	109154043	109153714	-	chr12	109095099	109094900 -	00549772	5241-5243
							ENST00000326495,ENST000	4,4,4,4,4
							00551165,ENST00000326470	
chr12	109229065	109229052	-	chr12	109217137	109217034 -	,ENST00000546697	5244-5248
							ENST00000392784,ENST000	14,1
							00257548,ENST00000536723	
chr12	109508561	109508713	+	chr12	109509417	109509515 +	,ENST00000536393	5249-5250

Table 10

							ENST00000228495,ENST00000440541,ENST00000542262,ENST00000542858	5251-5256	1,6,11,6,6,6
chr12	109911884	109911746	-	chr12	109907533	109907320	-		
							ENST00000228495,ENST00000440541,ENST00000542262,ENST00000542858	5257-5261	13,22,22,22,22
chr12	109911884	109911817	-	chr12	109907533	109907320	-		
							ENST00000228495,ENST00000440541,ENST00000542262,ENST00000542858	5262-5267	13,13,13,13,13
chr12	109914041	109914001	-	chr12	109907533	109907320	-		
							ENST00000434735,ENST00000280774,ENST00000539599,ENST00000342494,ENST00000449510	5268-5272	1,8,10,8,8
chr12	109946084	109946185	+	chr12	109947401	109947519	+		
							ENST00000545712,ENST00000540016,ENST00000537496,ENST00000541763,ENST00000266839	5273-5275	27,4,27
chr12	110002772	110002691	-	chr12	109999657	109999585	-		
							ENST00000545712,ENST00000540016,ENST00000537496,ENST00000541763,ENST00000266839	5276-5280	2,1,1,2,1
chr12	110002772	110002767	-	chr12	109999657	109999585	-		
chr12	110005225	110005159	-	chr12	110004972	110004816	-	ENST00000503497	5281-5283	22,6,21
							ENST00000539335,ENST00000546277,ENST00000447878,ENST00000228510,ENST00000537237,ENST00000545774,ENST00000392727,ENST00000539575	5284-5293	16,16,15,16,16,16,16,16,16
chr12	110011630	110011678	+	chr12	110013803	110013950	+		
							ENST00000543086,ENST00000542302,ENST00000546231,ENST00000347735,ENST00000397203,ENST00000592048,ENST00000440394,ENST00000360905,ENST00000589028,ENST00000355446	5294-5303	26,1,19,26,26,26,26,6
chr12	1100411	1100488	+	chr12	1192330	1192746	+		
							ENST00000418703,ENST00000261740,ENST00000392719,ENST00000538125,ENST00000536838,ENST00000541794	5304-5307	6,25,63,63
chr12	110235827	110235622	-	chr12	110234509	110234330	-		
							ENST00000544838,ENST00000405876,ENST00000312777,ENST00000536408	5308-5311	45,1,31,1
chr12	110338729	110338864	+	chr12	110340832	110341019	+		
							ENST00000544838,ENST00000405876,ENST00000312777,ENST00000536408	5312-5315	5,5,4,5
chr12	110339733	110339748	+	chr12	110340832	110341019	+		
							ENST00000355312,ENST00000338373,ENST00000343646,ENST00000354574,ENST00000356259,ENST00000360185,ENST00000457474,ENST00000361006,ENST00000553118,ENST00000551209,ENST00000547815,ENST00000320063	5316-5329	3,7,16,16,16,16,16,16,16,16,16,16,16,16
chr12	110430776	110430726	-	chr12	110429565	110429432	-		
							ENST00000355312,ENST00000338373,ENST00000343646,ENST00000354574,ENST00000356259,ENST00000360185,ENST00000457474,ENST00000361006,ENST00000553118,ENST00000551209,ENST00000547815,ENST00000320063	5330-5343	64,5,10,64,64,64,64,64,64,64,64,64
chr12	110437958	110437757	-	chr12	110429565	110429432	-		
							ENST00000553025,ENST00000261739	5344-5346	4,14,14
chr12	110455457	110455603	+	chr12	110456150	110456293	+		
chr12	110464934	110465124	+	chr12	110465510	110465571	+	ENST00000261739	5347-5349	6,15,14
							ENST00000552912,ENST00000242591,ENST00000550156	5350-5353	43,71,56,56
chr12	110610148	110610836	+	chr12	110618326	110618376	+		
							ENST00000552912,ENST00000242591,ENST00000550156	5354-5357	73,61,130,61
chr12	110610148	110611060	+	chr12	110618227	110618376	+		

Table 10

						ENST00000455511,ENST00000450008	5358-5360	11,17,17
chr12	110820234	110820180 -	chr12	110819753	110819557 -	ENST00000455511,ENST00000450008	5361-5364	7,17,16,17
chr12	110830899	110830849 -	chr12	110826428	110826317 -	ENST00000455511,ENST00000450008	5365-5368	10,47,5,10
chr12	110839413	110839255 -	chr12	110834187	110834071 -	ENST00000455511,ENST00000450008	5369-5371	47,5,47
chr12	110839413	110839255 -	chr12	110834257	110834071 -	ENST00000455511,ENST00000450008	5372-5374	27,22,22
chr12	110846550	110846259 -	chr12	110834257	110834071 -	ENST00000455511,ENST00000450008	5375-5377	10,67,10
chr12	110856437	110856234 -	chr12	110834257	110834071 -	ENST00000549578,ENST00000360579,ENST00000546588	5378-5380	33,23,1
chr12	110932358	110932260 -	chr12	110931036	110930801 -	ENST00000549578,ENST00000360579,ENST00000546588	5381-5383	28,22,11
chr12	110935321	110935221 -	chr12	110934008	110933817 -	ENST00000545036,ENST00000308208,ENST00000552694	5384-5386	11,33,6
chr12	111334956	111335057 +	chr12	111336737	111336929 +	ENST00000361483	5387-5389	3,2,2
chr12	111801457	111801449 -	chr12	111801267	111800482 -	ENST00000389153,ENST00000608853,ENST00000377617,ENST00000550104,ENST00000483311,ENST00000535949,ENST00000542287	5390-5391	17,7
chr12	111950054	111950004 -	chr12	111948386	111948189 -	ENST00000549590,ENST00000455480,ENST00000313698,ENST00000552706	5392-5396	15,14,47,47,47
chr12	112149615	112149997 +	chr12	112150302	112150461 +	ENST00000546840,ENST00000416293,ENST00000261733,ENST00000548536	5397-5403	17,46,16,16,16,46,16
chr12	112218983	112219272 +	chr12	112219722	112219826 +	ENST00000550735,ENST00000551404	5404-5406	22,5,5
chr12	112303360	112303426 +	chr12	112303960	112304035 +	ENST00000261735,ENST00000455836	5407-5410	2,6,11,6
chr12	112452706	112452806 +	chr12	112459954	112460456 +	ENST00000261745	5411-5413	22,22,21
chr12	112511536	112511470 -	chr12	112509868	112509699 -	ENST00000261745,ENST00000549711	5414-5416	28,28,28
chr12	112535129	112535045 -	chr12	112530940	112530855 -	ENST00000377560,ENST00000430131,ENST00000550722	5417-5419	1,61,9
chr12	112639195	112638931 -	chr12	112638602	112638442 -	ENST00000257600	5420-5422	7,7,6
chr12	113496828	113496849 +	chr12	113515229	113515910 +	ENST00000257600	5423-5425	25,1,4
chr12	113503412	113503487 +	chr12	113515229	113515910 +	ENST00000257600	5426-5428	5,14,16
chr12	113508507	113508558 +	chr12	113515229	113515910 +	ENST00000257600	5429-5430	34,3
chr12	113526028	113526129 +	chr12	113530967	113531028 +	ENST00000335621	5431-5433	18,10,8
chr12	113591809	113592059 +	chr12	113592219	113592440 +	ENST00000306014,ENST00000314045,ENST00000551344	5434-5437	1,47,1,47
chr12	113620964	113620755 -	chr12	113618863	113618734 -	ENST00000403593,ENST00000553248,ENST00000345635,ENST00000546672	5438-5442	3,3,3,3,3
chr12	113865958	113865967 +	chr12	113866225	113866264 +	ENST00000281928	5443-5445	33,24,11
chr12	116555913	116555813 -	chr12	116549317	116549233 -	ENST00000261318	5446-5448	16,4,2
chr12	117172672	117172357 -	chr12	117161028	117160872 -	ENST00000359236,ENST00000538357	5449-5452	13,29,14,13
chr12	118564523	118564286 -	chr12	118533619	118533338 -	ENST00000419821,ENST00000392533,ENST00000535570,ENST00000541186	5453-5456	24,11,11,11
chr12	118682167	118682067 -	chr12	118681321	118681220 -	ENST00000543086,ENST00000542302,ENST00000546231,ENST00000347735,ENST00000397203,ENST00000592048,ENST00000440394,ENST00000360905,ENST00000589028,ENST00000355446	5457-5466	7,18,39,39,39,39,39,39,39
chr12	1189657	1189934 +	chr12	1192330	1192746 +			

Table 10

						ENST00000543086,ENST00000542302,ENST00000546231,ENST00000347735,ENST00000397203,ENST00000592048,ENST00000440394,ENST00000360905,ENST00000589028		4,7,62,4,4,4,4,4,4,4
chr12	1189657	1190004 +	chr12	1192330	1192746 +	,ENST00000355446	5467-5476	
						ENST00000392521,ENST00000261833,ENST00000392520		14,39,27,39,39
chr12	120220058	120219803 -	chr12	120214646	120214476 -		5477-5481	
						ENST00000392521,ENST00000261833,ENST00000392520		8,12,42,12,12
chr12	120237212	120237084 -	chr12	120222869	120222764 -		5482-5486	
						ENST00000392521,ENST00000261833		35,22,14,14
chr12	120312155	120311902 -	chr12	120307005	120306864 -		5487-5490	
						ENST00000229340,ENST00000544304,ENST00000534951		4,1,1
chr12	120553908	120553821 -	chr12	120546271	120546221 -	,ENST00000538903	5491-5493	
						ENST00000229340,ENST00000544304,ENST00000534951		26,1,3,3,3,1,3
chr12	120554144	120553974 -	chr12	120546271	120546221 -	,ENST00000538903	5494-5500	
chr12	120598840	120598529 -	chr12	120598059	120597946 -	ENST00000300648	5501-5503	22,103,27
chr12	120617501	120617366 -	chr12	120616753	120616655 -	ENST00000300648	5504-5505	5,13
chr12	120617501	120617403 -	chr12	120616753	120616655 -	ENST00000300648	5506-5508	11,23,1
chr12	120632074	120631933 -	chr12	120628203	120628101 -	ENST00000300648	5509-5511	10,1,6
						ENST00000392514,ENST00000551150,ENST00000552292,ENST00000313104,ENST00000546989,ENST00000228306,ENST00000546990,ENST00000547211,ENST00000550856		8,1,3,8,1,8,1,8,1,3
chr12	120635915	120635892 -	chr12	120635265	120635125 -		5512-5521	
						ENST00000392514,ENST00000551150,ENST00000313104,ENST00000546989,ENST00000228306,ENST00000551258,ENST00000546990,ENST00000547475,ENST00000547211,ENST00000547173,ENST00000550856,ENST00000547191,ENST00000550423,ENST00000551914		2,2,2,2,2,2,2,2,2,2
chr12	120670120	120670114 -	chr12	120637171	120637113 -	00551914	5522-5534	
						ENST00000392514,ENST00000551150,ENST00000546989,ENST00000228306,ENST00000551258,ENST00000546990,ENST00000547475,ENST00000547211,ENST00000547173,ENST00000550856,ENST00000547191,ENST00000550423,ENST00000551914		5,21,12,21,21,1,5,21,21,21,21,21,21,21,21,21,21
chr12	120674273	120674210 -	chr12	120637225	120637113 -		5535-5550	
						ENST00000228307,ENST00000424649,ENST00000536957,ENST00000267257,ENST00000547983,ENST00000543331		45,48,37,45,45,45,48,45
chr12	120679900	120679756 -	chr12	120662180	120661954 -		5551-5558	
						ENST00000228307,ENST00000424649,ENST00000536957,ENST00000267257,ENST00000547983,ENST00000543331		11,47,34,47,47,47,34,47
chr12	120716864	120716101 -	chr12	120662180	120661954 -		5559-5566	
						ENST00000288532,ENST00000445328,ENST00000547736		7,16,16,16,16
chr12	120965182	120965133 -	chr12	120960166	120960017 -		5567-5571	
						ENST00000325954,ENST00000413266,ENST00000537997		7,17,17,17
chr12	120989916	120989966 +	chr12	120990302	120990501 +		5572-5575	
						ENST00000441917,ENST00000541887,ENST00000261819,ENST00000535482,ENST00000344395		32,24,19
chr12	121755354	121755057 -	chr12	121747666	121747504 -		5576-5578	

Table 10

								ENST00000361234,ENST00000392465,ENST00000392464	3,46,44,44
chr12	121847340	121847479	+	chr12	121853962	121854180	+	5579-5582	
								ENST00000361234,ENST00000392465,ENST00000392464	17,7,16,17
chr12	121852615	121852665	+	chr12	121853962	121854180	+	5583-5586	
								ENST00000377069,ENST00000542973,ENST00000377071	11,18,29,18
chr12	121879528	121879439	-	chr12	121879036	121878873	-	5587-5590	
								ENST00000377069,ENST00000377071,ENST00000536437,ENST00000538046,ENST00000446152,ENST00000542030,ENST00000538379,ENST00000545022,ENST00000541318	13,11,1,11,1,1,11,11,11,1,1,11,11
chr12	121952127	121951950	-	chr12	121951205	121951079,12	-	5591-5601	
								ENST00000377069,ENST00000377071,ENST00000536437,ENST00000446152,ENST00000542030,ENST00000538379,ENST00000545022,ENST00000543852,ENST00000541511	5,22,1,22,22,22,22,22,22,22,5,22
chr12	121968955	121968888	-	chr12	121958903	121958788	-	5602-5613	
								ENST00000541212,ENST00000537407,ENST00000542602	17,7,17
chr12	122352948	122352998	+	chr12	122353762	122353850	+	5614-5616	
								ENST00000541212,ENST00000537407,ENST00000261817	17,7,17
chr12	122352948	122352998	+	chr12	122353765	122353850	+	,ENST00000542602	5617-5619
								ENST00000288912,ENST00000397454	20,10,20
chr12	122371433	122371492	+	chr12	122372153	122372262	+		5620-5622
chr12	122430912	122431655	+	chr12	122441558	122441670	+	ENST00000288912	5623-5625 1,37,14
								ENST00000538010,ENST00000261822	8,13,21,21 5626-5629
chr12	122463894	122463960	+	chr12	122468606	122468687	+		
								ENST00000538010,ENST00000261822	19,18,18,18 5630-5633
chr12	122473590	122473646	+	chr12	122481792	122481959	+		
								ENST00000361654,ENST00000545889,ENST00000302528,ENST00000358808,ENST00000537178,ENST00000540338	10,30,8,30,30,30
chr12	122826630	122826372	-	chr12	122826244	122825528	-	,ENST00000540304	5634-5639
								ENST00000361654,ENST00000302528,ENST00000358808,ENST00000537178,ENST00000540338,ENST00000540304,ENST00000537004,ENST00000541108	17,7,16,17,17,7,17,17,17,17 5640-5648
chr12	122861316	122861266	-	chr12	122848654	122848530	-		
chr12	123076388	123077731	+	chr12	123078823	123078932	+	ENST00000333479	5649-5650 27,11
								ENST00000333479,ENST00000423927	6,9,18,18 5651-5654
chr12	123081106	123081229	+	chr12	123082278	123082485	+		
								ENST00000280557,ENST00000455982	21,43,10,43 5655-5658
chr12	123247667	123247956	+	chr12	123249851	123249934	+		
								ENST00000280557,ENST00000455982	20,13,20 5659-5661
chr12	123252761	123252832	+	chr12	123253329	123253468	+		
								ENST00000267202,ENST00000371248	13,3,17,17 5662-5665
chr12	123373774	123373722	-	chr12	123355608	123355437	-		
								ENST00000267202,ENST00000371248	1,5,5 5666-5668
chr12	123378946	123378930	-	chr12	123355608	123355437	-		
								ENST00000344275,ENST00000442833,ENST00000280560,ENST00000540285,ENST00000346530,ENST00000392439,ENST00000442028,ENST00000542678,ENST00000426173	7,12,12,12
chr12	123436072	123436023	-	chr12	123435112	123434998	-	,ENST00000537276	5669-5672
								ENST00000228922,ENST00000537966,ENST00000540324	1,11,10,11,11 5673-5677
chr12	123460057	123460090	+	chr12	123460358	123460414	+		
								ENST00000397389,ENST00000228922	7,2,6 5678-5680
chr12	123462617	123462638	+	chr12	123462989	123463116	+		
								ENST00000253233,ENST00000366329,ENST00000543139	17,7,16,17
chr12	123739201	123739251	+	chr12	123741360	123741578	+	,ENST00000429587	5681-5684

Table 10

							ENST00000267176,ENST000		31,12,7
							00420886,ENST00000602750		
chr12	123789082	123788896	-	chr12	123787447	123787371 -	,ENST00000602398	5685-5687	
							ENST00000330479,ENST000		18,5,28
chr12	123873017	123873103	+	chr12	123873980	123874101 +	00402868	5688-5690	
							ENST00000330479,ENST000		8,22,8
							00402868,ENST00000437502		
chr12	123889181	123889298	+	chr12	123889431	123889621 +		5691-5693	
							ENST00000376874,ENST000		3,1
chr12	123969505	123969362	-	chr12	123968819	123968727 -	00340724	5694-5695	
chr12	124017510	124017463	-	chr12	124008192	124008042 -	ENST00000376874	5696-5697	4,15
							ENST00000424014,ENST000		2,1,1,1
chr12	124109653	124109648	-	chr12	124109409	124109334 -	00534960	5698-5701	
							ENST00000424014,ENST000		16,53,21,53,
							00539951,ENST00000537073		53
chr12	124113210	124113024	-	chr12	124111703	124111591 -		5702-5706	
							ENST00000426174,ENST000		3,18
chr12	124161436	124161628	+	chr12	124163736	124163836 +	00303372	5707-5708	
							ENST00000405201,ENST000		17,7,16,7,17
							00404621,ENST00000356219		,7,7,7
							,ENST00000397355,ENST000		
							00404121,ENST00000429285		
chr12	124852479	124852429	-	chr12	124848345	124848225 -	,ENST00000458234	5709-5716	
							ENST00000405201,ENST000		23,2,22,23,2
							00404621,ENST00000356219		3,23,23,23
							,ENST00000397355,ENST000		
							00404121,ENST00000429285		
							,ENST00000458234,ENST000		
chr12	124872087	124872018	-	chr12	124870433	124870291 -	00448614	5717-5724	
							ENST00000405201,ENST000		6,3,56,6,56,
							00404621,ENST00000356219		56,56,56,56,
							,ENST00000397355,ENST000		56,6,56,6,56
							00429285,ENST00000458234		
							,ENST00000420698,ENST000		
							00542927,ENST00000448008		
chr12	124917131	124916962	-	chr12	124915333	124915161,12-		5725-5738	
							ENST00000405201,ENST000		13,1,18,1,1,
							00404621,ENST00000356219		1,1,1,1,1,1
							,ENST00000397355,ENST000		
							00429285,ENST00000458234		
							,ENST00000420698,ENST000		
							00542927,ENST00000448008		
chr12	124941313	124941100	-	chr12	124934413	124934361 -		5739-5749	
							ENST00000542728,ENST000		12,37
							00314565,ENST00000298571		
chr12	12586986	12587120	+	chr12	12588562	12588719 +		5750-5751	
							ENST00000542728,ENST000		7,19,39
							00314565,ENST00000298571		
chr12	12590007	12590287	+	chr12	12618480	12618710 +		5752-5754	
chr12	125922134	125922278	+	chr12	126003985	126004171 +	ENST00000299308	5755-5757	10,9,41
chr12	126043674	126043730	+	chr12	126068397	126068540 +	ENST00000299308	5758-5760	11,18,6
chr12	12787710	12787980	+	chr12	12788711	12788908 +	ENST00000228865	5761-5763	1,13,10
							ENST00000266771,ENST000		13,5,2,5
chr12	129303551	129303182	-	chr12	129299615	129299320 -	00376744	5764-5767	
							ENST00000266771,ENST000		7,11
chr12	129304107	129304073	-	chr12	129299615	129299320 -	00376744	5768-5769	
							ENST00000352940,ENST000		25,23,13,13
chr12	12972265	12972375	+	chr12	12974142	12974330 +	00358007	5770-5773	
chr12	132322555	132322565	+	chr12	132322740	132322872 +	ENST00000360564	5774-5776	3,3,3
chr12	132322555	132322612	+	chr12	132322740	132322872 +	ENST00000360564	5777-5779	19,19,12
							ENST00000360564,ENST000		33,24,11,33,
							00545671,ENST00000545790		33
chr12	132324211	132324311	+	chr12	132325118	132325401 +	,ENST00000535291	5780-5784	
							ENST00000360564,ENST000		42,8
							00535291,ENST00000534865		
chr12	132331682	132331904	+	chr12	132334347	132334604,13+	,ENST00000542648	5785-5786	
							ENST00000360564,ENST000		42,8,42,8,42
							00535291,ENST00000534865		,8,42,8
							,ENST00000537848,ENST000		
chr12	132331682	132331904	+	chr12	132334484	132334604,13+	00542648	5787-5794	

Table 10

								ENST00000443358,ENST00000376649,ENST00000322060,ENST00000440818,ENST00000542167,ENST00000538037	39,7,7,7
chr12	132420474	132420697	+	chr12	132423718	132423820	+		5795-5798
								ENST00000330386,ENST00000332482,ENST00000333577,ENST00000389561,ENST00000389562	5,27,22
chr12	132555776	132555940	+	chr12	132561061	132561138	+		5799-5801
								ENST00000434748,ENST00000261673	2,1,1
chr12	133066400	133066405	+	chr12	133084739	133084936	+		5802-5804
								ENST00000434748,ENST00000261673	9,8,5
chr12	133152621	133152647	+	chr12	133153385	133153517	+		5805-5807
								ENST00000537262,ENST00000545677,ENST00000317555,ENST00000498926	23,12,38,12,38,38,38
chr12	133286629	133286746	+	chr12	133291444	133291498	+		5808-5814
								ENST00000539605,ENST00000357997,ENST00000337516,ENST00000535036	1,33,32,33,33,32
chr12	133312835	133312737	-	chr12	133312098	133311992	-		5815-5820
								ENST00000539605,ENST00000357997,ENST00000337516,ENST00000535036,ENST00000545623	21,32,40,21,21,21,40
chr12	133314639	133314516	-	chr12	133313651	133313479	-		5821-5827
								ENST00000539605,ENST00000357997,ENST00000337516,ENST00000545623	6,2,17,6,6
chr12	133325595	133325475	-	chr12	133324917	133324724	-		5828-5832
								ENST00000357997,ENST00000337516	52,5,39,39
chr12	133337630	133337190	-	chr12	133331719	133331261	-		5833-5836
								ENST00000204726,ENST00000450791,ENST00000456883,ENST00000537452,ENST00000545875	7,33,20,20,20
chr12	133390908	133390687	-	chr12	133390005	133389893	-		5837-5841
								ENST00000539605,ENST00000357997,ENST00000337516,ENST00000535036	22,13,21,13,13,21
chr12	133421169	133421103	-	chr12	133312098	133311992	-		5842-5847
								ENST00000315585,ENST00000266880,ENST00000443047,ENST00000450056,ENST00000432561,ENST00000540963	9,9,8,8,8,8,8,8
chr12	133449701	133449674	-	chr12	133448980	133448871	-		5848-5855
								ENST00000540238,ENST00000328654,ENST00000544181	19,9,13,13,13
chr12	133582718	133582794	+	chr12	133583628	133583754	+		5856-5860
chr12	14573282	14573380	+	chr12	14576843	14578407	+	ENST00000544627	5861-5863 33,23,1
								ENST00000261168,ENST00000538511,ENST00000545723,ENST00000543189,ENST00000536444,ENST00000544627	2,24,11,11,11,11
chr12	14589344	14589444	+	chr12	14591064	14591201,1	+	,ENST00000540793	5864-5869
								ENST00000228936,ENST00000430129,ENST00000420600	44,4,10,44,44
chr12	14994988	14994647	-	chr12	14994087	14993379,149	-		5870-5875
								ENST00000266397,ENST00000540097	36,5,9
chr12	15074520	15074172	-	chr12	15073982	15073866	-		5876-5878
								ENST00000543086,ENST00000546231,ENST00000397203,ENST00000360905,ENST00000589028,ENST00000355446	25,5,3,25,25
chr12	1521612	1521704	+	chr12	1553728	1553916,16	+	,ENST00000539802	5879-5883
								ENST00000261169,ENST00000541295	5,15,17
chr12	16755067	16754952	-	chr12	16753802	16753589	-		5884-5886
								ENST00000261169,ENST00000541295	22,19,10
chr12	16805226	16804883	-	chr12	16753802	16753589	-		5887-5889
								ENST00000261169,ENST00000541295	24,7,50
chr12	16985447	16985172	-	chr12	16753802	16753589	-		5890-5892
								ENST00000229002,ENST00000538724,ENST00000536890	5,2
chr12	18259807	18259770	-	chr12	18241890	18241834	-		5893-5894
								ENST00000382722,ENST00000537784,ENST00000587995,ENST00000588077,ENST00000586184,ENST00000585708	13,28
chr12	1921938	1921760	-	chr12	1920889	1920828	-	,ENST00000585732	5895-5896

Table 10

							ENST00000309364,ENST000		1,6,6,6,6,6,6
							00317589,ENST00000355397		,6
							,ENST00000359180,ENST000		
							00429027,ENST00000299275		
chr12	19396177	19396196	+	chr12	19406874	19406957	+ ,ENST00000538714	5897-5904	
							ENST00000317589,ENST000		33,23,1,33
							00355397,ENST00000359180		
							,ENST00000429027,ENST000		
							00539256,ENST00000299275		
							,ENST00000538714,ENST000		
							00543806,ENST00000424268		
							,ENST00000536974,ENST000		
chr12	19512616	19512714	+	chr12	19514516	19514640,2	+ 00538972	5905-5908	
							ENST00000541908,ENST000		17,13,16,17,
							00398864,ENST00000266508		13,17,13,17,
							,ENST00000360995,ENST000		13
							00512223,ENST00000398731		
chr12	19669679	19669729	+	chr12	19671021	19671051,2	+	5909-5917	
							ENST00000280665,ENST000		2,10,30
chr12	2094974	2093824	-	chr12	2077076	2077010	- 00397173	5918-5920	
							ENST00000540853,ENST000		6,28,6,6,6
							00261196,ENST00000381545		
							,ENST00000381541,ENST000		
							00540229,ENST00000553473		
chr12	20995776	20995982	+	chr12	21007962	21008103	+ ,ENST00000554957	5921-5925	
							ENST00000540853,ENST000		14,13
							00261196,ENST00000381545		
							,ENST00000540229,ENST000		
chr12	21011867	21011909	+	chr12	21013989	21014072	+ 00553473	5926-5927	
							ENST00000545178,ENST000		88,11,29,11,
							00543476,ENST00000375266		11
							,ENST00000240651,ENST000		
chr12	21582995	21583295	+	chr12	21593302	21593382	+ 00544970	5928-5932	
							ENST00000229329,ENST000		4,33,33
chr12	22162650	22163250	+	chr12	22208083	22208225	+ 00534981	5933-5935	
							ENST00000229329,ENST000		61,1,34,34
chr12	22188938	22189121	+	chr12	22208083	22208225	+ 00534981	5936-5939	
							ENST00000396037,ENST000		20,22,1,22
							00539510,ENST00000540824		
chr12	22397684	22397550	-	chr12	22354972	22354486,2	-	5940-5943	
							ENST00000396037,ENST000		1,7,11,1,1
							00540824,ENST00000541868		
chr12	22421757	22421446	-	chr12	22408323	22408214	-	5944-5948	
							ENST00000396037,ENST000		5,9,9,9,9,9
							00261197,ENST00000540824		
chr12	22529629	22529600	-	chr12	22440227	22440083	- ,ENST00000541868	5949-5954	
							ENST00000261192,ENST000		13,28,13
							00538118,ENST00000539282		
chr12	25126530	25126219	-	chr12	25054819	25054748	- ,ENST00000539780	5955-5957	
							ENST00000261192,ENST000		30,13,39,30
							00538118,ENST00000539282		
chr12	25137589	25137377	-	chr12	25054819	25054748	- ,ENST00000539780	5958-5961	
							ENST00000550945,ENST000		22,13,5,22,2
							00361433,ENST00000557489		2,22
							,ENST00000354454,ENST000		
							00536173,ENST00000548766		
chr12	25234115	25234181	+	chr12	25236357	25236427	+ ,ENST00000547044	5962-5967	
							ENST00000550945,ENST000		25,7,18,18,1
							00361433,ENST00000557489		8,18
							,ENST00000354454,ENST000		
							00536173,ENST00000548766		
chr12	25240591	25240667	+	chr12	25241034	25241074,252	+ ,ENST00000547044	5968-5973	
chr12	26797731	26797452	-	chr12	26784992	26784799	- ENST00000381340	5974-5975	36,7
							ENST00000343028,ENST000		33,1,33,33,3
							00542019,ENST00000512808		3
chr12	27153691	27153593	-	chr12	27152609	27152459,271	- ,ENST00000545600	5976-5980	
							ENST00000081029,ENST000		6,22,21,6,6
							00538315,ENST00000542199		
chr12	27867239	27867305	+	chr12	27867713	27867753	+	5981-5985	

Table 10

							ENST00000538586,ENST000 00539107,ENST00000536442 ,ENST00000545336,ENST000 00543534,ENST00000543809 ,ENST00000545737,ENST000 00381256,ENST00000381259	42,40,7,42,4 2,42,42,42,4 2
chr12	28298824	28299103	+	chr12	28458582	28458727,3	+ ,ENST00000306172	5986-5994
chr12	2996227	2996277	+	chr12	2997077	2997303,299	+ ENST00000538636,ENST000 00461997,ENST00000489288 ,ENST00000366285,ENST000 00538700	5995-6000 17,7,17,17,7 ,17
chr12	30839577	30839531	-	chr12	30837391	30837235,3	- ENST00000256079,ENST000 00543446,ENST00000545077	6001-6003 7,15,7
chr12	30873317	30873149	-	chr12	30872159	30872013	- ENST00000433722,ENST000 00395805,ENST00000251071 ,ENST00000308433,ENST000 00417045,ENST00000537108	6004-6011 21,2,10,2,2, 2,2,2
chr12	31238993	31239167	+	chr12	31240872	31240917,31	+ ENST00000542838,ENST000 00251758,ENST00000407793 ,ENST00000542129,ENST000 00228264,ENST00000438391 ,ENST00000435753,ENST000 00540935,ENST00000539049 ,ENST00000415475,ENST000 00545668,ENST00000350437 ,ENST00000544652	6012-6024 58,11,35,35, 35,35,35,35, 35,35,35,58, 35
chr12	31549258	31549253	-	chr12	31545630	31545548	- ENST00000306833,ENST000 00389082,ENST00000536562	6025-6026 2,1
chr12	31867560	31867375	-	chr12	31862359	31862227	- ENST00000281471	6027-6028 15,7
chr12	31872239	31872152	-	chr12	31862359	31862227	- ENST00000281471	6029-6030 12,28
chr12	32618322	32618420	+	chr12	32717071	32717223	+ ENST00000534526,ENST000 00531134,ENST00000525053	6031-6033 33,23,16
chr12	32629941	32630008	+	chr12	32717071	32717223	+ ENST00000534526,ENST000 00531134,ENST00000525053	6034-6035 13,22
chr12	32747029	32747388	+	chr12	32751431	32751520,3	+ ENST00000534526,ENST000 00531134,ENST00000493087 ,ENST00000551984,ENST000 00427716,ENST00000395740 ,ENST00000546442,ENST000 00525053,ENST00000494977	6036-6040 4,14,28,4,4
chr12	32851100	32851295	+	chr12	32854349	32854496,3	+ ENST00000452533,ENST000 00553257,ENST00000549701 ,ENST00000358214,ENST000 00266481,ENST00000551643 ,ENST00000551476,ENST000 00550154,ENST00000434676 ,ENST00000413295,ENST000 00547312,ENST00000546649 ,ENST00000381000,ENST000 00548750,ENST00000546757	6041-6056 7,24,7,7,7,7, 7,7,7,7,7,7,7 ,7,7,7
chr12	32951324	32951170	-	chr12	32949232	32949043	- ENST00000340811,ENST000 00070846	6057-6059 51,42,4
chr12	3324451	3324526	+	chr12	3387587	3387778	+ ENST00000537971,ENST000 00011898,ENST00000407263	6060-6062 7,13,7
chr12	3324451	3324526	+	chr12	3387664	3387778	+ ENST00000537971,ENST000 00011898,ENST00000407263	6063-6065 7,13,13
chr12	3326959	3327047	+	chr12	3387587	3387778	+ ENST00000331366,ENST000 00538596,ENST00000360449	6066-6069 29,19,16,16
chr12	39080825	39080394	-	chr12	39079419	39079292	- ENST00000331366,ENST000 00538596,ENST00000360449	6070-6071 11,4
chr12	39080825	39080396	-	chr12	39079419	39079292	-	6072-6073 4,32

Table 10

						ENST00000331366,ENST000		9,9,9
chr12	39252558	39252529 -	chr12	39242464	39242361 -	00360449	6074-6076	
						ENST00000331366,ENST000		112,59,1
chr12	39347332	39346901 -	chr12	39242464	39242361 -	00360449	6077-6079	
						ENST00000331366,ENST000		112,59
chr12	39347332	39346901 -	chr12	39268313	39268273 -	00360449	6080-6081	
chr12	401371	401269 -	chr12	394828	394622 -	ENST00000399788	6082-6084	2,9,11
chr12	401371	401269 -	chr12	395373	395329 -	ENST00000382815	6085-6087	9,11,2
chr12	401371	401301 -	chr12	394828	394622 -	ENST00000399788	6088-6089	13,23
chr12	401371	401301 -	chr12	395373	395329 -	ENST00000382815	6090-6091	13,23
						ENST00000549190,ENST000		20,27,26,20,
						00395580,ENST00000551723		27,20,27,20,
						,ENST00000552761,ENST000		20
						00317560,ENST00000546750		
chr12	42712448	42712529 +	chr12	42729685	42729776 +		6092-6100	
chr12	42713810	42713765 -	chr12	42711700	42711589 -	ENST00000266529	6101-6103	15,1,10
chr12	42850209	42850484 +	chr12	42853080	42853168 +	ENST00000317560	6104-6106	14,9,23
						ENST00000416848,ENST000		11,16,11,11,
						00344862,ENST00000551923		16
						,ENST00000431332,ENST000		
						00550784,ENST00000547156		
chr12	44133488	44133435 -	chr12	44132194	44132113,441-		6107-6111	
						ENST00000395487,ENST000		21,15,7,21,1
						00429094,ENST00000551601		5,21,15
						,ENST00000452445,ENST000		
						00549027,ENST00000333837		
						,ENST00000437801,ENST000		
chr12	45081215	45081074 -	chr12	45059392	45059267 -	00550313	6112-6118	
						ENST00000395487,ENST000		6,32,32,32
						00429094,ENST00000551601		
						,ENST00000452445,ENST000		
						00549027,ENST00000333837		
						,ENST00000437801,ENST000		
chr12	45081215	45081118 -	chr12	45059392	45059267 -	00550313	6119-6122	
						ENST00000425752,ENST000		9,48,27,48
						00423947,ENST00000435642		
						,ENST00000320560,ENST000		
chr12	45716632	45716800 +	chr12	45725078	45725206 +	00441606	6123-6126	
						ENST00000334344,ENST000		4,14,31,14,1
						00422737,ENST00000444670		4
chr12	46270955	46271281 +	chr12	46285563	46285701 +	,ENST00000457135	6127-6131	
chr12	46369502	46367801 -	chr12	46357971	46357890 -	ENST00000266589	6132-6133	6,44
chr12	46369502	46368471 -	chr12	46357971	46357890 -	ENST00000266589	6134-6136	3,14,12
chr12	46369502	46369327 -	chr12	46357971	46357890 -	ENST00000266589	6137-6139	1,58,17
						ENST00000321524,ENST000		6,22,7,22,22
						00228843,ENST00000352618		,22
						,ENST00000544927,ENST000		
chr12	4653807	4654478 +	chr12	4655475	4655584 +	00536117	6140-6145	
						ENST00000398637,ENST000		48,24,18
						00549049,ENST00000439706		
chr12	46589869	46589726 -	chr12	46582854	46582753 -	,ENST00000546893	6146-6148	
						ENST00000398637,ENST000		47,8,29,47,4
						00549049,ENST00000439706		7
						,ENST00000546893,ENST000		
						00552197,ENST00000550173		
chr12	46649108	46648597 -	chr12	46623422	46623347 -		6149-6153	
						ENST00000256689,ENST000		1,3,22
chr12	46760249	46760160 -	chr12	46758972	46758890 -	00551374	6154-6156	
chr12	4681011	4681079 +	chr12	4682496	4682522 +	ENST00000539701	6157-6158	21,22
chr12	4694590	4694728 +	chr12	4698103	4698183 +	ENST00000542744	6159-6161	45,24,33
						ENST00000399788,ENST000		9,6,46,9,9,9,
						00382815,ENST00000535014		6
chr12	485884	479972 -	chr12	475270	475100,4751-	,ENST00000536014	6162-6168	
						ENST00000405493,ENST000		25,9,22,25,2
						00449771,ENST00000549151		5
						,ENST00000389212,ENST000		
						00171000,ENST00000548919		
chr12	48137141	48137057 -	chr12	48135385	48135288 -	,ENST00000548434	6169-6173	

Table 10

							ENST00000405493,ENST00000449771,ENST00000549151,ENST00000389212,ENST00000171000,ENST00000548919,ENST00000395358,ENST00000466322,ENST00000495953		3,2,2,3,3,3,3
chr12	48147016	48147008	-	chr12	48145752	48145699	-	6174-6180	
chr12	48278248	48278181	-	chr12	48276557	48276477	-	ENST00000550325	6181-6183	4,22,22
chr12	48497714	48497852	+	chr12	48516550	48516642,5	+	ENST00000549941,ENST00000550257,ENST00000340802,ENST00000547581,ENST00000546755,ENST00000549366,ENST00000552792,ENST00000548288	6184-6193	1,12,14,1,1,1,1,1,1,1,1
chr12	485884	485797	-	chr12	475270	475100,47513	-	ENST00000399788,ENST00000382815,ENST00000535014,ENST00000536014	6194-6199	29,6,29,29,29,6
chr12	48866956	48866999	+	chr15	69076780	69076736,7	-	ENST00000465139,ENST00000560303	6200-6204	14,3,14,3,14
chr12	48868039	48868112	+	chr12	48879961	48879991	+	ENST00000314014,ENST00000548364,ENST00000380491	6205-6208	24,5,24,24
chr12	49245572	49245313	-	chr12	49239565	49239357	-	ENST00000308025,ENST00000547135,ENST00000552512,ENST00000551468	6209-6213	13,6,6,6,6
chr12	49310439	49309618	-	chr12	49297691	49297443	-	ENST00000398092	6214-6216	1,37,14
chr12	49877518	49877634	+	chr12	49878373	49878452,498	+	ENST00000550997,ENST00000549538,ENST00000550643,ENST00000549412,ENST00000548710,ENST00000549298,ENST00000553127,ENST00000321898,ENST00000551540,ENST00000552918,ENST00000548777,ENST00000552171,ENST00000549045	6217-6229	1,4,4,4,4,4,4,4,4,4,4,1,4,4
chr12	49916976	49917122	+	chr12	49918465	49918679	+	ENST00000553127,ENST00000321898,ENST00000552918	6230-6232	15,39,1
chr12	50129771	50132964	+	chr12	50146247	50146332	+	ENST00000552699,ENST00000423828	6233-6235	11,5,73
chr12	50380548	50380267	-	chr12	50370842	50370733	-	ENST00000548961	6236-6238	42,7,38
chr12	50551320	50551289	-	chr12	50537840	50537735	-	ENST00000551697,ENST00000380189,ENST00000317551,ENST00000422340,ENST00000542320,ENST00000547800	6239-6246	10,1,10,10,1,10,10,1
chr12	50810162	50810217	+	chr12	50821548	50821692	+	ENST00000293618,ENST00000429001,ENST00000548174,ENST00000398473,ENST00000522085,ENST00000518444,ENST00000551886,ENST00000347328,ENST00000550260	6247-6255	18,9,9,9,9,9,9,9,9
chr12	50855458	50855644	+	chr12	50856365	50856413	+	ENST00000293618,ENST00000429001,ENST00000398473,ENST00000518444,ENST00000347328,ENST00000520064	6256-6258	22,7,7
chr12	51078293	51078343	+	chr12	51079616	51079739	+	ENST00000301180	6259-6261	17,7,16
chr12	51086339	51086605	+	chr12	51086732	51086796,5	+	ENST00000301180,ENST00000546732	6262-6266	23,1,13,1,13
chr12	51649120	51648830	-	chr12	51640615	51640535,5	-	ENST00000603798,ENST00000398453,ENST00000603864,ENST00000605426,ENST00000603838,ENST00000604188	6267-6270	20,6,6,6
chr12	51705855	51705755	-	chr12	51696925	51696871	-	ENST00000604560,ENST00000452142,ENST00000267012,ENST00000544402	6271-6275	33,24,11,11,11
chr12	51712338	51712295	-	chr12	51707687	51707607	-	ENST00000452142,ENST00000267012,ENST00000544402,ENST00000605423	6276-6279	14,7,7,7

Table 10

							ENST00000452142,ENST000	4,14,28,4,4
							00267012,ENST00000544402	
chr12	51722178	51722083 -	chr12	51707687	51707607 -		,ENST00000605423 6280-6284	
							ENST00000543196,ENST000	23,13
chr12	51752384	51752316 -	chr12	51752045	51751914 -		00356317 6285-6286	
							ENST00000313234,ENST000	38,37,19,38
chr12	52568442	52568329 -	chr12	52567548	52567384 -		00394815 6287-6290	
							ENST00000313234,ENST000	17,17,16,17
chr12	52568442	52568391 -	chr12	52567548	52567384 -		00394815 6291-6294	
chr12	52631497	52631507 +	chr12	52632464	52632559 +		ENST00000331817 6295-6296	3,3
chr12	53230685	53230620 -	chr12	53225410	53225190 -		ENST00000330553 6297-6299	22,21,3
chr12	53230685	53230620 -	chr12	53227654	53227568 -		ENST00000330553 6300-6302	22,21,3
chr12	53230685	53230620 -	chr12	53227681	53227568 -		ENST00000330553 6303-6305	22,21,3
chr12	53230685	53230620 -	chr12	53227699	53227568 -		ENST00000330553 6306-6308	22,21,3
							ENST00000552551,ENST000	16,11,14,14,
							00293308,ENST00000546897	14,14
							,ENST00000552150,ENST000	
							00546826,ENST00000548998	
chr12	53295532	53295481 -	chr12	53295003	53294943 -		,ENST00000546900 6309-6314	
							ENST00000552551,ENST000	5,4,5,5,5
							00293308,ENST00000546897	
							,ENST00000552150,ENST000	
							00546826,ENST00000548998	
chr12	53295532	53295513 -	chr12	53295003	53294943 -		,ENST00000546900 6315-6319	
							ENST00000262056,ENST000	7,33,20,20,2
							00549077,ENST00000420463	0,20,20,20,2
							,ENST00000416762,ENST000	0,20
							00550704,ENST00000549481	
							,ENST00000552490,ENST000	
chr12	53406061	53406279 +	chr12	53410257	53410394 +		00550390 6320-6329	
							ENST00000262056,ENST000	7,14,14,14,1
							00549077,ENST00000551002	4,14,14,14,1
							,ENST00000420463,ENST000	4,14,14
							00416762,ENST00000550704	
							,ENST00000549481,ENST000	
							00552490,ENST00000550390	
chr12	53410762	53410805 +	chr12	53412582	53412790 +		6330-6340	
							ENST00000262056,ENST000	9,11,30,9,9,
							00549077,ENST00000551002	9,9,9,9,9,9
							,ENST00000420463,ENST000	
							00416762,ENST00000550704	
							,ENST00000549481,ENST000	
							00552490,ENST00000550390	
chr12	53410762	53410855 +	chr12	53412582	53412790 +		6341-6351	
							ENST00000267085,ENST000	3,7,3,3,3,7
							00379843,ENST00000475890	
							,ENST00000379850,ENST000	
							00379846,ENST00000444623	
							,ENST00000453446,ENST000	
							00548698,ENST00000483632	
chr12	53564804	53564754 -	chr12	53564286	53564207,5 -		6352-6357	
							ENST00000267085,ENST000	33,20,7
chr12	53572934	53572714 -	chr12	53567551	53567512 -		00379850 6358-6360	
chr12	53572934	53572714 -	chr12	53567554	53567512 -		ENST00000267085 6361-6363	33,20,7
chr12	53572934	53572886 -	chr12	53567554	53567512 -		ENST00000267085 6364-6366	16,16,7
							ENST00000257863,ENST000	43,16,23,23,
							00550311,ENST00000379791	23
chr12	53822254	53822465 +	chr12	53822680	53822794 +		6367-6371	
							ENST00000359282,ENST000	7,41,41
							00437231,ENST00000447282	
							,ENST00000603815,ENST000	
							00549863,ENST00000359462	
							,ENST00000546463,ENST000	
							00552296,ENST00000552819	
							,ENST00000455667,ENST000	
							00439930,ENST00000548933	
							,ENST00000562264,ENST000	
							00553064,ENST00000547859	
chr12	53863223	53863413 +	chr12	53865422	53865591 +		6372-6374	
							ENST00000591834,ENST000	2,31,24,24,2
							00548446,ENST00000420353	,24,24
							,ENST00000328463,ENST000	
							00415113,ENST00000456903	
chr12	53934808	53934714 -	chr12	53931336	53931199,5 -		,ENST00000588078 6375-6381	

Table 10

							ENST00000602871,ENST000		7,4,20
							00394349,ENST00000549164		
chr12	54061578	54061357	-	chr12	54059212	54059098	-,ENST00000338662	6382-6384	
							ENST00000546931,ENST000		16,3,5,5
							00552397,ENST00000305879		
chr12	54862718	54862609	-	chr12	54857081	54856955	-	6385-6388	
							ENST00000546809,ENST000		6,31
chr12	55182358	55182452	+	chr12	55248900	55248941	+ 00308796	6389-6390	
							ENST00000257899,ENST000		5,21
							00550412,ENST00000548925		
chr12	56110428	56110501	+	chr12	56110722	56110789	+,ENST00000549147	6391-6392	
							ENST00000548898,ENST000		14,20,4,4,4,
							00552067,ENST00000420846		4
							,ENST00000548160,ENST000		
							00546939,ENST00000552692		
							,ENST00000549117,ENST000		
							00257857,ENST00000552754		
							,ENST00000550776,ENST000		
							00552164,ENST00000551173		
chr12	56120428	56120280	-	chr12	56120045	56119905	-	6393-6398	
							ENST00000548898,ENST000		12,17,1,12,1
							00552067,ENST00000420846		2,12
							,ENST00000548160,ENST000		
							00546939,ENST00000552692		
							,ENST00000549117,ENST000		
							00257857,ENST00000552754		
							,ENST00000550776,ENST000		
							00552164,ENST00000551173		
chr12	56120428	56120288	-	chr12	56120045	56119905	-	6399-6404	
							ENST00000351328,ENST000		2,7,27,2,2,2,
							00542324,ENST00000548849		2,7,27,2,2,2,
							,ENST00000546930,ENST000		2,2
							00548041,ENST00000552688		
							,ENST00000550655,ENST000		
							00551968,ENST00000552222		
							,ENST00000549318,ENST000		
chr12	56685499	56685415	-	chr12	56680404	56680379	- 00547423	6405-6418	
							ENST00000549318,ENST000		6,35,6,35
chr12	56702193	56702088	-	chr12	56694004	56693944,6	- 00548360	6419-6422	
							ENST00000229201,ENST000		10,8,6
chr12	56820899	56820782	-	chr12	56818936	56818799	- 00553532	6423-6425	
							ENST00000262031,ENST000		2,1,1,2,2,1,2
							00552247,ENST00000551369		
chr12	56949257	56949262	+	chr12	56956201	56956367,6	+,ENST00000552916	6426-6432	
chr12	56972467	56972651	+	chr12	56974062	56974159	+ ENST00000542360	6433-6434	26,16
chr12	56972467	56972651	+	chr12	56974112	56974159	+ ENST00000542360	6435-6436	26,16
							ENST00000262030,ENST000		6,12,50,6,6,
							00552919,ENST00000551020		6
chr12	57046269	57045678	-	chr12	57038739	57038565	-,ENST00000552959	6437-6442	
							ENST00000262033,ENST000		28,6,11,28,2
							00414274,ENST00000436399		8,28,28
							,ENST00000448157,ENST000		
chr12	57074855	57074755	-	chr12	57066849	57066736	- 00456859	6443-6449	
							ENST00000550920,ENST000		23,13,23,23
							00454682,ENST00000550952		
							,ENST00000356769,ENST000		
							00552540,ENST00000393891		
							,ENST00000546392,ENST000		
							00547914,ENST00000549259		
							,ENST00000549855,ENST000		
chr12	57125342	57125274	-	chr12	57108471	57108386,571	- 00548084	6450-6453	
							ENST00000552590,ENST000		33,24,24,24
							00338193,ENST00000550770		
chr12	57145369	57145269	-	chr12	57144979	57144822	-	6454-6457	
							ENST00000552590,ENST000		13
							00338193,ENST00000550770		
chr12	57145369	57145301	-	chr12	57144979	57144822	-	6458	
							ENST00000379391,ENST000		3,1,4
chr12	57459089	57458840	-	chr12	57458522	57458429	- 00300128	6459-6461	
							ENST00000300134,ENST000		7,7,6,7
							00538913,ENST00000543873		
							,ENST00000556155,ENST000		
							00537215,ENST00000454075		
chr12	57497350	57497329	-	chr12	57496704	57496612	-,ENST00000553533	6462-6465	

Table 10

							ENST00000300134,ENST00000538913,ENST00000543873,ENST00000556155,ENST00000537215,ENST00000454075	17,7,16,17
chr12	57497647	57497597	-	chr12	57496704	57496612	- ,ENST00000553533	6466-6469
chr12	57560056	57560106	+	chr12	57560713	57560829	+ ENST00000243077	6470-6472 17,7,16
chr12	57858020	57858091	+	chr12	57858456	57858651,6	+ ENST00000228682,ENST00000528432	6473-6475 24,14,14
chr12	57858020	57858123	+	chr12	57858456	57858651,6	+ ENST00000228682,ENST00000528432	6476-6480 34,25,11,34,25
chr12	57993558	57993652	+	chr12	57994107	57994220	+ ENST00000422156,ENST00000540759,ENST00000550465,ENST00000354947,ENST00000548264	6481-6484 1,22,10,10
chr12	58022360	58022354	-	chr12	58022045	58021905	- ENST00000341156,ENST00000418555,ENST00000547741	6485-6489 2,2,1,2,2
chr12	58023123	58023062	-	chr12	58022045	58021905	- ENST00000341156,ENST00000418555,ENST00000547741	6490-6493 17,6,17,6
chr12	58091750	58091939	+	chr12	58109543	58109753,6	+ ENST00000552285,ENST00000315970,ENST00000439210,ENST00000389146,ENST00000551035,ENST00000257966,ENST00000435406,ENST00000550372,ENST00000389142	6494-6495 19,4
chr12	58185742	58185842	+	chr12	58186769	58186856	+ ENST00000454289,ENST00000543727,ENST00000323833,ENST00000350762,ENST00000550559,ENST00000548851,ENST00000434359,ENST00000457189	6496-6503 33,22,11,11,11,11,11,11
chr12	62253199	62252900	-	chr12	62148805	62148653	- ENST00000416284,ENST00000551619,ENST00000549379,ENST00000552075,ENST00000549958,ENST00000548780	6504-6509 4,43,43,43,43,3
chr12	62655739	62655838	+	chr12	62687960	62688087	+ ENST00000353364,ENST00000549523,ENST00000280377,ENST00000312635,ENST00000393654,ENST00000549237	6510-6517 33,11,32,32,32,32,32,32
chr12	62713904	62714200	+	chr12	62715245	62715390,627	+ ENST00000353364,ENST00000549523,ENST00000280377,ENST00000312635,ENST00000393654,ENST00000549237,ENST00000548836,ENST00000546694,ENST00000552997	6518-6528 29,12,9,9,9,9,9,9,9,9,9
chr12	62967755	62967972	+	chr12	62972225	62972285	+ ENST00000280379,ENST00000393632,ENST00000393630,ENST00000546600,ENST00000393629,ENST00000552738	6529-6532 7,3,5,7
chr12	63066398	63066387	-	chr12	63061109	63060958	-	6533-6535
chr12	63254155	63253864	-	chr12	63226059	63225894	- ENST00000228705	6536-6538 4,3,3
chr12	63287243	63287060	-	chr12	63226059	63225894	- ENST00000228705	6539-6540 14,40,7
chr12	64180612	64180839	+	chr12	64195871	64196185	+ ENST00000228705	6541-6542 10,13
chr12	64427856	64428117	+	chr12	64436570	64436752	+ ENST00000261234	6543-6545 41,8
chr12	64530008	64530033	+	chr12	64536075	64536452	+ ENST00000355086,ENST00000357825,ENST00000543397	6546-6548 29,12,12
chr12	6459191	6458996	-	chr12	6458171	6458116	- ENST00000355086,ENST00000357825,ENST00000543397	6549-6553 8,8,8
chr12	64687157	64687061	-	chr12	64669152	64669078	- ENST00000360168,ENST00000358945,ENST00000540037,ENST00000228916,ENST00000396966,ENST00000543768	6554-6555 11,4,33,11,4
chr12	64687157	64687061	-	chr12	64678533	64678444	- ENST00000543942,ENST00000333722	6556-6557 32,6

Table 10

chr12	64687157	64687061	-	chr12	64679815	64679734	-	ENST00000543942,ENST00000333722	6558	6
chr12	64851745	64851798	+	chr12	64853969	64854109	+	ENST00000331710,ENST00000538890,ENST00000540417	6559-6563	9,17,17,9,9
chr12	64858329	64858437	+	chr12	64860681	64860862	+	ENST00000331710	6564-6566	26,9,35
chr12	65050590	65050598	+	chr12	65078567	65078674	+	ENST00000336061,ENST00000283172,ENST00000542104	6567-6569	3,2,3
chr12	65054844	65054914	+	chr12	65078567	65078674	+	ENST00000336061,ENST00000283172,ENST00000542104	6570-6571	23,23
chr12	65145435	65145418	-	chr12	65141698	65141492	-	ENST00000418919,ENST00000258145,ENST00000543646,ENST00000542058,ENST00000545273	6572-6575	6,1,5,6
chr12	65612862	65612964	+	chr12	65632282	65632361	+	ENST00000308330	6576-6577	25,1
chr12	66316492	66316767	+	chr12	66345163	66345195,7	+	ENST00000403681,ENST00000541363,ENST00000393577	6578-6586	38,7,18,38,7,18,38,7,18
chr12	66343541	66343985	+	chr12	66345163	66345195,7	+	ENST00000403681,ENST00000541363,ENST00000393577	6587-6595	13,93,6,13,9,3,6,13,93,6
chr12	66640348	66640400	+	chr12	66641475	66641951	+	ENST00000261233,ENST00000457197	6596-6598	17,17,17
chr12	66720530	66720666	+	chr12	66724934	66725425	+	ENST00000247815,ENST00000545134	6599-6601	4,10,45
chr12	67152251	67151972	-	chr12	66990707	66990627	-	ENST00000398016,ENST00000286445,ENST00000359742,ENST00000538211,ENST00000541947	6602-6608	18,46,7,18,18,18,18
chr12	69092055	69092243	+	chr12	69094506	69094633	+	ENST00000229179,ENST00000378905,ENST00000539906	6609-6612	17,3,59,17
chr12	69649730	69649832	+	chr12	69650477	69650622	+	ENST00000435070,ENST00000456847,ENST00000266679	6613-6614	34,13
chr12	7063726	7063737	+	chr12	7063968	7064157,7064	+	ENST00000399448,ENST00000447931,ENST00000538715,ENST00000318974,ENST00000456013,ENST00000541698,ENST00000542462	6615-6625	4,3,1,3,1,3,4,3,1,3,1
chr12	7063726	7063870	+	chr12	7063968	7064157,7064	+	ENST00000399448,ENST00000447931,ENST00000538715,ENST00000318974,ENST00000456013,ENST00000541698,ENST00000542462	6626-6636	15,6,41,15,41,41,15,6,41,15,41
chr12	7063726	7063874	+	chr12	7063968	7064157,7064	+	ENST00000399448,ENST00000447931,ENST00000538715,ENST00000318974,ENST00000456013,ENST00000541698,ENST00000542462	6637-6645	16,7,16,7,16,16,7,16,7,16,7
chr12	70688650	70688663	+	chr12	70691539	70691659	+	ENST00000551661	6646-6647	2,4
chr12	70774348	70775374	+	chr12	70793989	70794116	+	ENST00000258111	6648-6650	9,12,4
chr12	7091780	7091700	-	chr12	7091065	7090972	-	ENST00000535479,ENST00000261407,ENST00000540090,ENST00000543794,ENST00000536797	6651-6658	2,4,13,2,2,2,13,2
chr12	71037693	71037552	-	chr12	71033057	71032964	-	ENST00000440835,ENST00000378778,ENST00000283228,ENST00000342084,ENST00000549308	6659-6661	13,24,10
chr12	7120931	7120639	-	chr12	7092700	7092593	-	ENST00000535479,ENST00000261407,ENST00000543794,ENST00000536797	6662-6667	37,18,34,18,18,18
chr12	71302452	71302163	-	chr12	71286757	71286459	-	ENST00000283228	6668-6670	7,64,23
chr12	71545604	71545547	-	chr12	71537993	71537931	-	ENST00000393330,ENST00000247829,ENST00000546561	6671-6673	7,6,18
chr12	72087434	72087758	+	chr12	72090216	72090353	+	ENST00000266673,ENST00000550524,ENST00000549735	6674-6678	34,5,10,34,34
chr12	72131916	72132016	+	chr12	72163580	72163639	+	ENST00000261263	6679-6681	33,6,11

						ENST00000550746,ENST000		33,24,11
						00319106,ENST00000485960		
chr12	72301669	72301769 +	chr12	72307666	72307706 +	,ENST00000393309	6682-6684	
						ENST00000541953,ENST000		14,19,4,19,1
						00266546,ENST00000539982		9
chr12	7264485	7264660 +	chr12	7285620	7285742 +	,ENST00000537408	6685-6689	
chr12	72878561	72879376 +	chr12	72893278	72893415 +	ENST00000261180	6690-6692	6,44,18
chr12	75765786	75765754 -	chr12	75765262	75765230 -	ENST00000328705	6693-6695	11,1,10
chr12	75780449	75780131 -	chr12	75765262	75765230 -	ENST00000328705	6696-6697	50,3
						ENST00000261182,ENST000		9,7,7,7,7,7,7
						00393263,ENST00000535020		,7,7,7
						,ENST00000549596,ENST000		
						00552342,ENST00000550934		
						,ENST00000551992,ENST000		
						00551600,ENST00000547704		
chr12	76464668	76464572 -	chr12	76462774	76462689 -	,ENST00000547479	6698-6707	
						ENST00000261182,ENST000		11,3,9,11,11
						00393263,ENST00000535020		,11,11,11,11
						,ENST00000549596,ENST000		,11,11
						00552342,ENST00000550934		
						,ENST00000551992,ENST000		
						00551600,ENST00000547704		
chr12	76464668	76464634 -	chr12	76462774	76462689 -	,ENST00000547479	6708-6718	
						ENST00000359019,ENST000		15,33,33
						00334822,ENST00000426126		
						,ENST00000552453,ENST000		
						00549682,ENST00000549944		
chr12	77202130	77202229 +	chr12	77202823	77202900 +		6719-6721	
						ENST00000328827,ENST000		33,24,11,11
chr12	79987783	79987683 -	chr12	79986473	79986387,8 -	00550603	6722-6725	
chr12	79992585	79992556 -	chr12	79990438	79990291 -	ENST00000328827	6726-6728	2,9,9
chr12	79996615	79996543 -	chr12	79990438	79990291 -	ENST00000328827	6729-6731	1,24,12
						ENST00000328827,ENST000		5,35,8,8
chr12	80016387	80016281 -	chr12	80014987	80014856 -	00551712	6732-6735	
chr12	8082227	8082175 -	chr12	8078544	8078440 -	ENST00000075120	6736-6737	7,17
chr12	80871305	80871394 +	chr12	80878212	80878384 +	ENST00000266688	6738-6739	30,6
chr12	80931607	80931705 +	chr12	80933555	80933723 +	ENST00000266688	6740-6742	33,23,1
chr12	80980484	80980807 +	chr12	80981908	80982231 +	ENST00000266688	6743-6745	34,16,20
						ENST00000321196,ENST000		4,8,14,8,4,8
						00548305,ENST00000546590		
chr12	83276384	83276429 +	chr12	83289597	83290425,8 +	,ENST00000549919	6746-6751	
						ENST00000309283,ENST000		12,16,21,12
						00266682,ENST00000552192		
chr12	85258398	85258133 -	chr12	85257380	85257218 -		6752-6755	
chr12	85410564	85410253 -	chr12	85409750	85409667 -	ENST00000532498	6756-6758	3,48,23
chr12	85410564	85410309 -	chr12	85409750	85409667 -	ENST00000532498	6759-6760	30,4
						ENST00000229335,ENST000		33,18,7,7,7,
						00543081,ENST00000544516		7
						,ENST00000537228,ENST000		
chr12	8766814	8766544 -	chr12	8759608	8759461 -	00545512	6761-6766	
						ENST00000535411,ENST000		18,7
						00359478,ENST00000433590		
						,ENST00000396549,ENST000		
						00543369,ENST00000544211		
						,ENST00000535336,ENST000		
						00540087,ENST00000537009		
chr12	8809171	8809118 -	chr12	8808426	8808382 -	,ENST00000544889	6767-6768	
						ENST00000547691,ENST000		18,9
						00552810,ENST00000397838		
chr12	88480474	88480419 -	chr12	88480275	88480168 -	,ENST00000309041	6769-6770	
						ENST00000228280,ENST000		9,9,3,9,9,9
						00347404,ENST00000552044		
chr12	88920376	88920349 -	chr12	88912644	88912474,9 -		6771-6776	
						ENST00000544257,ENST000		6,22,30,6,6,
						00541044,ENST00000539923		6,6
						,ENST00000537189,ENST000		
						00535829,ENST00000357529		
chr12	8901258	8901351 +	chr12	8902458	8902688,8902+	,ENST00000538135	6777-6783	
						ENST00000535572,ENST000		21,7,21,21,2
						00315939,ENST00000537687		1,21
						,ENST00000447667,ENST000		
chr12	904493	904778 +	chr12	922808	922980 +	00530271	6784-6789	

Table 10

						ENST00000549802,ENST00000546975,ENST00000551563	6790-6794	7,1,73,1,1
chr12	92455894	92455635 -	chr12	92382969	92382873 -	ENST00000378487,ENST00000538965	6795-6797	43,26,10
chr12	92826976	92826686 -	chr12	92816412	92816323 -	ENST00000378487,ENST00000538965	6798-6800	43,26,10
chr12	92826976	92826686 -	chr12	92821922	92821871 -	ENST00000322349	6801-6803	4,39,15
chr12	93273142	93273023 -	chr12	93258763	93258636 -	ENST00000549982,ENST00000361630,ENST00000552217,ENST00000393128,ENST00000547098,ENST00000549561		128,1,4,128,128,128
chr12	93875864	93876247 +	chr12	93881273	93881436,9 +	,ENST00000548545	6804-6809	
chr12	94167005	94167262 +	chr12	94253095	94253108 +	ENST00000551065	6810-6812	18,33,7
chr12	94240891	94241406 +	chr12	94243746	94244047 +	ENST00000332896,ENST00000542893	6813-6815	57,11,8
chr12	94279325	94279331 +	chr12	94287826	94287893 +	ENST00000548483,ENST00000541813	6816-6818	2,2,1
chr12	94796393	94796027 -	chr12	94794757	94794626 -	ENST00000397809,ENST00000339839,ENST00000547232,ENST00000397807,ENST00000547575	6819-6823	42,6,22,6,6
chr12	94796393	94796327 -	chr12	94794757	94794626 -	ENST00000397809,ENST00000339839,ENST00000547232,ENST00000397807,ENST00000547575	6824-6827	22,13,22,22
chr12	94801890	94801713 -	chr12	94797038	94796946 -	ENST00000397809,ENST00000339839,ENST00000547232,ENST00000397807,ENST00000547575	6828-6832	11,51,14,51,51
chr12	94801890	94801793 -	chr12	94797038	94796946 -	ENST00000397809,ENST00000339839,ENST00000547232,ENST00000397807,ENST00000547575	6833-6836	24,11,11,11
chr12	95418567	95418461 -	chr12	95416179	95416005 -	ENST00000333003	6837-6838	35,35
chr12	95451180	95450973 -	chr12	95445565	95445538 -	ENST00000333003,ENST00000552791,ENST00000393101,ENST00000330677	6839-6845	38,15,1,38,15,38,38
chr12	95451180	95450973 -	chr12	95445719	95445538 -	ENST00000333003,ENST00000393101,ENST00000330677	6846-6850	38,15,1,15,15
chr12	95451180	95451063 -	chr12	95445719	95445538 -	ENST00000333003,ENST00000393101,ENST00000330677	6851-6855	8,30,16,30,30
chr12	95451180	95451112 -	chr12	95445565	95445538 -	ENST00000333003,ENST00000552791,ENST00000393101,ENST00000330677	6856-6858	23,13,23
chr12	95451180	95451112 -	chr12	95445719	95445538 -	ENST00000333003,ENST00000393101,ENST00000330677	6859-6862	23,13,23,23
chr12	95531251	95531143 -	chr12	95528602	95528515 -	ENST00000343958,ENST00000546711,ENST00000549499	6863-6866	15,1,1,1
chr12	95596469	95596369 -	chr12	95566520	95566376 -	ENST00000343958,ENST00000451107,ENST00000546711,ENST00000549499	6867-6872	33,24,33,33,33,33
chr12	95635992	95636040 +	chr12	95637717	95637785 +	ENST00000551039	6873-6875	16,3,7
chr12	95657145	95657285 +	chr12	95660133	95660408,95(+	ENST00000436874,ENST00000547611,ENST00000549002,ENST00000548838,ENST00000261219,ENST00000551472,ENST00000552821,ENST00000548371,ENST00000546445,ENST00000397792	6876-6887	2,4,13,4,13,4,4,13,4,13,4,4
chr12	96139769	96138502 -	chr12	96131922	96131645 -	ENST00000343702,ENST00000344911,ENST00000538383,ENST00000553059,ENST00000547980	6888-6894	52,6,28,28,5,2,6,28
chr12	96189335	96189306 -	chr12	96131922	96131645 -	ENST00000343702,ENST00000344911,ENST00000538383,ENST00000553059,ENST00000547980	6895-6901	10,3,9,10,10,3,9
chr12	96224171	96223831 -	chr12	96181246	96180717 -	ENST00000343702,ENST00000553059	6902-6903	46,45

Table 10

chr12	96340433	96341098	+	chr12	96346495	96346601	+	ENST00000266736,ENST00000548310	6904-6907	12,26,37,26
chr12	96340433	96341215	+	chr12	96346495	96346601	+	ENST00000266736,ENST00000548310	6908-6911	1,27,14,27
chr12	96340433	96341443	+	chr12	96346495	96346601	+	ENST00000266736,ENST00000548310	6912-6915	77,74,61,74
chr12	96414613	96414468	-	chr12	96413018	96412946	-	ENST00000228740,ENST00000552789,ENST00000413268	6916-6919	10,30,14,10
chr12	96954907	96955176	+	chr12	96958246	96958332	+	ENST00000524981	6920-6922	4,7,41
chr12	9809754	9809773	+	chr12	9833603	9833629	+	ENST00000536355,ENST00000261340,ENST00000290855,ENST00000325960,ENST00000444971,ENST00000479877,ENST00000543300,ENST00000476198,ENST00000430909,ENST00000544322	6923-6929	6,4,6,4,4,4,4
chr12	9832592	9832731	+	chr12	9833519	9833629,98	+	ENST00000261340,ENST00000290855,ENST00000325960,ENST00000492359,ENST00000444971,ENST00000479877,ENST00000543300	6930-6937	27,15,1,15,15,5,15,15,15
chr12	9882852	9882739	-	chr12	9875409	9875240,99	-	ENST00000542530,ENST00000327839	6938-6941	1,12,20,20
chr12	996792	996959	+	chr12	998306	998389	+	ENST00000535572,ENST00000315939,ENST00000537687,ENST00000530271,ENST00000340908	6942-6943	3,1
chr13	100010505	100010677	+	chr13	100020041	100020160	+	ENST00000355700,ENST00000403766,ENST00000376440	6944-6946	48,34,34
chr13	100468746	100469025	+	chr13	100511115	100511303	+	ENST00000376355,ENST00000444838,ENST00000376360,ENST00000376354,ENST00000339105,ENST00000416504,ENST00000443887	6947-6952	30,8,30,30,30,30
chr13	100756583	100756814	+	chr13	100764095	100764142	+	ENST00000376279,ENST00000376286,ENST00000376285	6953-6955	10,37,37
chr13	101090702	101090974	+	chr13	101179929	101180006	+	ENST00000376279,ENST00000376286,ENST00000376285,ENST00000458283,ENST00000428969	6956-6958	48,16,23
chr13	102845436	102844510	-	chr13	102527646	102527536	-	ENST00000376131,ENST00000376143	6959-6961	9,11,19
chr13	103310831	103311215	+	chr13	103315998	103316094	+	ENST00000376065,ENST00000376052	6962-6964	4,16,65
chr13	103313896	103313962	+	chr13	103315998	103316094	+	ENST00000376065,ENST00000376052	6965-6967	1,22,10
chr13	103313896	103314171	+	chr13	103315998	103316094	+	ENST00000376065,ENST00000376052	6968-6969	15,19
chr13	103424298	103424217	-	chr13	103421891	103421661	-	ENST00000376027,ENST00000376029,ENST00000376032	6970-6973	6,27,26,27
chr13	103752875	103752574	-	chr13	103710732	103710614	-	ENST00000245312	6974-6976	7,37,1
chr13	109434009	109434288	+	chr13	109437983	109438091	+	ENST00000356711,ENST00000251041,ENST00000357550	6977-6980	18,39,7,39
chr13	111287310	111287482	+	chr13	111287820	111287935	+	ENST00000458711,ENST00000424185,ENST00000309957	6981-6982	6,11
chr13	111339511	111339494	-	chr13	111335481	111335398	-	ENST00000257347	6983-6985	1,5,5
chr13	111361408	111361403	-	chr13	111357918	111357868	-	ENST00000257347,ENST00000539269,ENST00000542709,ENST00000537394	6986-6991	2,1,1,1,1,1
chr13	111564481	111564462	-	chr13	111563117	111562965	-	ENST00000267339,ENST00000375758,ENST00000310847,ENST00000465753	6992-6996	6,6,6,6,6
chr13	111836339	111836571	+	chr13	111857636	111857720	+	ENST00000317133,ENST00000375739,ENST00000375741,ENST00000426768,ENST00000375737	6997-7000	7,24,24,24

Table 10

						ENST00000317133,ENST000		4,15,24,24,2
						00375739,ENST00000375741		4,15,24,24
						,ENST00000370623,ENST000		
						00466143,ENST00000544132		
						,ENST00000218789,ENST000		
						00375736,ENST00000426073		
						,ENST00000375737,ENST000		
						00375723,ENST00000478679		
chr13	111909849	111909972 +	chr13	111919895	111920017 +		7001-7008	
						ENST00000261965,ENST000		1,26,5,1
chr13	113226568	113225308 -	chr13	113223573	113223466 -	00375669	7009-7012	
						ENST00000283558,ENST000		12,6
						00375630,ENST00000375645		
						,ENST00000487903,ENST000		
chr13	113454014	113455137 +	chr13	113459271	113459360 +	00418678	7013-7014	
						ENST00000283558,ENST000		6,11
						00375630,ENST00000375645		
						,ENST00000487903,ENST000		
						00418678,ENST00000471555		
chr13	113507253	113507353 +	chr13	113508593	113508844 +		7015-7016	
						ENST00000283558,ENST000		18,7,24,24,2
						00375630,ENST00000375645		4,24
						,ENST00000487903,ENST000		
						00418678,ENST00000471555		
chr13	113507253	113507475 +	chr13	113508593	113508844 +		7017-7022	
						ENST00000375608,ENST000		13,13,12,13,
						00442652,ENST00000375604		13,13,13,13
						,ENST00000397030,ENST000		
						00535094,ENST00000421756		
						,ENST00000375601,ENST000		
						00433807,ENST00000434480		
						,ENST00000423482,ENST000		
						00375597,ENST00000397024		
chr13	113659176	113659215 +	chr13	113669077	113669160 +		7023-7030	
						ENST00000375441,ENST000		1,7,4
						00451881,ENST00000326335		
chr13	113897912	113897987 +	chr13	113898724	113898828 +	,ENST00000375440	7031-7033	
chr13	114099237	114099139 -	chr13	114098904	114098740 -	ENST00000375418	7034-7035	33,16
chr13	114099237	114099171 -	chr13	114098904	114098740 -	ENST00000375418	7036-7038	22,13,5
chr13	114099237	114099187 -	chr13	114098904	114098740 -	ENST00000375418	7039-7040	17,7
chr13	114503037	114503040 +	chr13	114503800	114503885 +	ENST00000375353	7041-7042	1,1
chr13	114503037	114503044 +	chr13	114503800	114503885 +	ENST00000375353	7043-7045	2,2,2
						ENST00000357389,ENST000		9,5,8,5
chr13	114551900	114551873 -	chr13	114551023	114550999 -	00327773	7046-7049	
						ENST00000334062,ENST000		8,64,13,64
chr13	114840000	114839789 -	chr13	114839312	114839195 -	00542651	7050-7053	
						ENST00000360383,ENST000		21,21,1
						00356221,ENST00000252457		
chr13	115004234	115004298 +	chr13	115004465	115004503 +		7054-7056	
chr13	115049833	115049839 +	chr13	115051777	115051875 +	ENST00000375299	7057-7059	2,2,1
						ENST00000375299,ENST000		2,2,1
chr13	115049833	115049839 +	chr13	115051994	115052104 +	00351487	7060-7062	
chr13	115049833	115049843 +	chr13	115051777	115051875 +	ENST00000375299	7063-7065	3,3,3
						ENST00000375299,ENST000		3,3,3
chr13	115049833	115049843 +	chr13	115051994	115052104 +	00351487	7066-7068	
						ENST00000337963,ENST000		13,22
						00502168,ENST00000382905		
chr13	20419061	20418994 -	chr13	20413125	20412840 -		7069-7070	
						ENST00000382869,ENST000		10,7
						00382874,ENST00000382871		
chr13	20633914	20633944 +	chr13	20635193	20635364 +		7071-7072	
						ENST00000382778,ENST000		26,28
chr13	21147182	21147290 +	chr13	21148519	21148614 +	00319980	7073-7074	
chr13	22073388	22073113 -	chr13	22070299	22070191 -	ENST00000382374	7075-7077	38,24,16
						ENST00000382374,ENST000		15,24,3,3
chr13	22137312	22137226 -	chr13	22113827	22113796 -	00468222	7078-7081	
						ENST00000382374,ENST000		8,38,39,38
chr13	22139203	22139085 -	chr13	22113827	22113796 -	00468222	7082-7085	
						ENST00000218867,ENST000		22,13,21
						00537476,ENST00000545013		
chr13	23822850	23822916 +	chr13	23824769	23824856 +		7086-7088	
chr13	25458866	25458841 -	chr13	25458601	25458461 -	ENST00000381884	7089-7090	8,8

Table 10

						ENST00000381655,ENST00000255283,ENST00000281620	7091-7094	42,40,42,42
chr13	26171373	26171792 +	chr13	26273311	26273483 +	ENST00000381655,ENST00000255283	7095-7097	1,6,5
chr13	26573736	26573754 +	chr13	26586669	26586760 +	ENST00000381527	7098-7099	12,7
chr13	26937192	26937227 +	chr13	26956951	26957008 +	ENST00000361042,ENST00000335327	7100-7101	37,36
chr13	27259018	27259128 +	chr13	27259825	27259982 +	ENST00000399697	7102-7104	36,1,30
chr13	28224759	28224867 +	chr13	28239823	28240090 +	ENST00000241453,ENST00000380982,ENST00000380987,ENST00000537084	7105-7110	14,13,13,13,13
chr13	28645852	28645811 -	chr13	28644749	28644628 -	ENST00000380958	7111-7113	20,3,14
chr13	28729252	28729311 +	chr13	28748409	28748530 +	ENST00000380958	7114-7116	13,10,6
chr13	28765363	28765444 +	chr13	28771322	28771483 +	ENST00000380842	7117-7119	36,17,8
chr13	29235318	29235607 +	chr13	29236547	29236644 +	ENST00000380842	7120-7122	8,3,30
chr13	29248894	29248986 +	chr13	29252172	29252239 +	ENST00000380842	7123-7124	2,4
chr13	29250496	29250510 +	chr13	29252172	29252239 +	ENST00000380615,ENST00000380617,ENST00000414289,ENST00000441394	7125-7128	21,56,56,56
chr13	30843190	30843020 -	chr13	30829752	30829584,308 -	ENST00000380250,ENST00000436046	7129-7132	37,14,1,14
chr13	32573590	32574326 +	chr13	32652971	32653170 +	ENST00000380152,ENST00000544455,ENST00000470094	7133-7136	16,7,16,7
chr13	32957217	32957266 +	chr13	32968826	32969070 +	ENST00000255448,ENST00000360631,ENST00000379892	7137-7140	6,31,31,31
chr13	36588374	36588275 -	chr13	36521594	36521495 -	ENST00000488319,ENST00000379848,ENST00000493739	7141-7143	8,22,2
chr13	36890955	36893111 +	chr13	36939867	36939980 +	ENST00000443765,ENST00000239891,ENST00000413537	7144-7147	2,18,2,18
chr13	37553681	37553561 -	chr13	37546173	37546114 -	ENST00000389704	7148-7149	33,11
chr13	37575265	37575364 +	chr13	37576410	37576446 +	ENST00000389704,ENST00000239893	7150-7152	33,11,11
chr13	37575265	37575364 +	chr13	37576625	37576688 +	ENST00000360252,ENST00000475892,ENST00000469488,ENST00000356185,ENST00000350612,ENST00000464744	7153-7156	17,16,8,17
chr13	37593085	37593035 -	chr13	37591465	37591382 -	ENST00000280481	7157-7159	20,12,5
chr13	39419847	39419908 +	chr13	39420710	39420859 +	ENST00000379631,ENST00000423210	7160-7161	32,6
chr13	39581012	39580917 -	chr13	39550934	39550831 -	ENST00000379589	7162-7164	40,44,7
chr13	39997276	39996979 -	chr13	39952663	39952565 -	ENST00000379589	7165-7167	9,34,43
chr13	40162223	40162091 -	chr13	39952663	39952565 -	ENST00000379487,ENST00000542082	7168-7169	2,24
chr13	41641535	41641634 +	chr13	41642697	41642873 +	ENST00000379487,ENST00000542082	7170-7172	13,55,1
chr13	41645897	41646166 +	chr13	41646918	41646993 +	ENST00000379480,ENST00000379477,ENST00000430347,ENST00000452359	7173-7176	1,4,4,4
chr13	41835911	41835827 -	chr13	41835011	41834629 -	ENST00000379367,ENST00000379406,ENST00000403412,ENST00000464857	7177-7181	13,19,13,13,13
chr13	41915573	41915756 +	chr13	41929280	41929352 +	ENST00000379310,ENST00000280281496	7182-7185	17,14,24,17
chr13	42411347	42411255 -	chr13	42407667	42407507 -	ENST00000379310,ENST00000280281496	7186-7189	14,1,50,1
chr13	42456979	42456136 -	chr13	42442613	42442482 -	ENST00000379310,ENST00000280281496	7190-7193	1,1,11,37
chr13	42456979	42456176 -	chr13	42442613	42442482 -	ENST00000379310,ENST00000280281496	7194-7197	26,37,12,12
chr13	42456979	42456252 -	chr13	42442613	42442482 -	ENST00000379310,ENST00000280281496	7198-7201	4,14,29,29
chr13	42511780	42511451 -	chr13	42486304	42486174 -	ENST00000025301	7202-7204	3,6,1
chr13	42882195	42882365 +	chr13	42882590	42882745 +	ENST00000358545,ENST00000405262,ENST00000239849,ENST00000398795,ENST00000544862	7205-7207	42,5,23
chr13	43059476	43059651 +	chr13	43155262	43155429 +			

Table 10

							ENST00000313640,ENST00000313624,ENST00000398762,ENST00000537828	7208-7213	17,4,22,4,4,4
chr13	43536502	43536373 -	chr13	43528157	43528084 -		ENST00000313640,ENST00000313624,ENST00000398762	7214-7218	7,36,40,7,7
chr13	43554827	43554550 -	chr13	43544806	43544748 -		ENST00000379221	7219-7220	46,16
chr13	43628887	43629679 +	chr13	43652748	43652824 +		ENST00000379161	7221-7223	7,16,13
chr13	45524782	45524595 -	chr13	45523973	45523857 -		ENST00000379161	7224-7226	21,48,12
chr13	45526107	45525783 -	chr13	45523973	45523857 -		ENST00000379151,ENST00000497558,ENST00000361121	7227-7229	18,6,3
chr13	45576285	45576476 +	chr13	45578440	45578572 +		ENST00000379151,ENST00000497558,ENST00000361121	7230-7232	48,36,10
chr13	45576285	45576566 +	chr13	45578440	45578572 +		ENST00000242848,ENST00000282007	7233-7236	2,27,15,27
chr13	46575392	46573461 -	chr13	46563232	46562922 -		ENST00000242848,ENST00000282007	7237-7240	14,14,11,11
chr13	46575392	46575350 -	chr13	46563232	46562922 -		ENST00000242848,ENST00000282007	7241-7244	1,5,16,5
chr13	46610041	46609879 -	chr13	46594692	46594584 -		ENST00000181383,ENST00000439329	7245-7248	6,6,3,3
chr13	46687889	46687871 -	chr13	46661955	46661880 -		ENST00000378781,ENST00000378797,ENST00000429979,ENST00000378784,ENST00000441284,ENST00000378787,ENST00000389908,ENST00000409879,ENST00000322896,ENST00000534925,ENST00000417405	7249-7255	10,10,10,10,10,10,10
chr13	46960484	46960453 -	chr13	46942950	46942868 -		ENST00000311191,ENST00000389798,ENST00000389797	7256-7259	5,5,1,1
chr13	47301775	47301791 +	chr13	47302982	47303119 +		ENST00000378654,ENST00000544100,ENST00000534875,ENST00000543413,ENST00000434484,ENST00000433022	7260-7264	5,12,8,8,8
chr13	48560164	48559566 -	chr13	48547527	48547399 -		ENST00000267163	7265-7267	7,9,9
chr13	48914776	48914804 +	chr13	48916735	48916850 +		ENST00000492622,ENST00000484074,ENST00000541916,ENST00000398316	7268-7270	1,14,14
chr13	49679574	49679674 +	chr13	49688791	49688867 +		ENST00000538056,ENST00000251108,ENST00000496061	7271-7274	33,23,1,33
chr13	49831625	49831723 +	chr13	49833482	49833659 +		ENST00000355854,ENST00000347776,ENST00000409308,ENST00000425242,ENST00000410043,ENST00000457041,ENST00000413278,ENST00000409082	7275-7281	25,7,5,5,5,5,5
chr13	49951524	49951427 -	chr13	49951267	49951103,5 -		ENST00000354234,ENST00000317257,ENST00000258672	7282-7285	46,2,37,37
chr13	50038916	50039194 +	chr13	50042000	50042096 +		ENST00000258646,ENST00000378302	7286-7287	4,28
chr13	50121047	50120697 -	chr13	50118999	50118873 -		ENST00000258646,ENST00000378302,ENST00000546015	7288-7291	19,14,28,28
chr13	50130625	50130447 -	chr13	50129809	50129651 -		ENST00000378284,ENST00000242827	7292-7295	18,10,32,10
chr13	50239424	50239288 -	chr13	50237331	50237193 -		ENST00000378284,ENST00000242827	7296-7299	8,8,2,8
chr13	50240558	50240533 -	chr13	50237331	50237193 -		ENST00000361840,ENST00000378195	7300-7302	17,13,5
chr13	50491538	50491472 -	chr13	50489296	50489199 -		ENST00000336617,ENST00000422660	7303-7306	1,41,4,1
chr13	51440177	51440522 +	chr13	51501543	51501614 +		ENST00000242839,ENST00000344297,ENST00000400366,ENST00000448424,ENST00000418097,ENST00000542656	7307-7313	20,23,4,4,4,4,4
chr13	52545296	52545210 -	chr13	52544885	52544628 -				

Table 10

						ENST00000242839,ENST00000344297,ENST00000400366,ENST00000400370,ENST00000448424,ENST00000418097	7314-7321	7,7,6,7,7,7,7,7
chr13	52567996	52567975 -	chr13	52549304	52548071,5 -			
chr13	52591542	52591821 +	chr13	52593049	52593279 +	ENST00000521508	7322-7324	18,42,7
chr13	52991794	52991572 -	chr13	52990228	52990152 -	ENST00000378060	7325-7327	20,7,33
chr13	52991794	52991655 -	chr13	52991276	52991192 -	ENST00000378060	7328-7330	15,1,6
chr13	53015285	53015205 -	chr13	53013303	53013233 -	ENST00000378060	7331-7333	1,10,2
						ENST00000400324,ENST00000400330,ENST00000377908,ENST00000400319,ENST00000400320,ENST00000267215	7334-7338	8,1,49,49,49
chr13	60503039	60501480 -	chr13	60499004	60498909 -			
chr13	60984020	60984298 +	chr13	61018817	61018882 +	ENST00000535286	7339-7341	19,7,39
chr13	60984020	60984298 +	chr13	61034514	61034674 +	ENST00000535286	7342-7344	19,7,39
chr13	60999787	60999976 +	chr13	61013822	61013906 +	ENST00000535286	7345-7347	63,1,62
						ENST00000377669,ENST00000377666	7348-7349	55,29
chr13	74526711	74526399 -	chr13	74518207	74518118 -			
						ENST00000377636,ENST00000377625,ENST00000431480	7350-7354	2,9,52,52,52
chr13	75962476	75962100 -	chr13	75936743	75936162 -			
						ENST00000341547,ENST00000357063,ENST00000377534,ENST00000377499,ENST00000526202	7355-7360	14,6,6,6,6,6
chr13	76329931	76330127 +	chr13	76335068	76335174 +			
						ENST00000341547,ENST00000357063,ENST00000377534,ENST00000377499,ENST00000526202	7361-7367	1,27,26,26,26,2
chr13	76337258	76337339 +	chr13	76369537	76369567 +			6,26,26
						ENST00000544440,ENST00000407578,ENST00000357337	7368-7369	7,34
chr13	77734382	77734278 -	chr13	77732244	77732072 -			
						ENST00000535157,ENST00000377246,ENST00000349847	7370-7371	28,1
chr13	78200589	78200876 +	chr13	78202082	78202144 +			
						ENST00000446573,ENST00000377211,ENST00000334286	7372-7375	65,15,2,2
chr13	78549747	78549482 -	chr13	78477742	78477630 -			
chr13	78549747	78549482 -	chr13	78493722	78493532 -	ENST00000377211	7376-7378	65,15,2
						ENST00000483392,ENST00000446125	7379-7382	26,26,26,26
chr13	95099797	95099719 -	chr13	95098015	95097944 -			
						ENST00000377028,ENST00000483392,ENST00000446125	7383-7387	6,27,4,6,6
chr13	95113760	95113612 -	chr13	95112480	95112345 -			
						ENST00000377028,ENST00000483392,ENST00000446125	7388-7392	4,24,1,24,24
chr13	95113760	95113620 -	chr13	95112480	95112345 -			
						ENST00000377028,ENST00000446125	7393-7394	7,37
chr13	95152781	95152531 -	chr13	95121299	95121000 -			
						ENST00000412704,ENST00000376887	7395-7396	4,6
chr13	95736183	95736103 -	chr13	95735544	95735394 -			
						ENST00000412704,ENST00000376887,ENST00000536256,ENST00000431522	7397-7398	34,56
chr13	95771438	95771061 -	chr13	95768255	95768176 -			
						ENST00000412704,ENST00000376887,ENST00000536256,ENST00000431522	7399-7404	13,2,1,2,2,2
chr13	95908488	95908378 -	chr13	95900007	95899897 -			
						ENST00000376873,ENST00000299339	7405-7407	9,5,20
chr13	96129948	96130040 +	chr13	96212386	96212547 +			
						ENST00000347108,ENST00000361156,ENST00000361396,ENST00000376829	7408-7411	31,24,31,31
chr13	96280590	96280496 -	chr13	96277183	96277022 -			
						ENST00000347108,ENST00000361156,ENST00000361396,ENST00000376829,ENST00000466569	7412-7416	22,2,29,29,2 9
chr13	96287369	96286894 -	chr13	96285575	96285488 -			
chr13	96581453	96580761 -	chr13	96579590	96579467 -	ENST00000376747	7417-7419	1,50,25
chr13	96596609	96595921 -	chr13	96592345	96592211 -	ENST00000376747	7420-7422	2,37,5
chr13	97425125	97425187 +	chr13	97484744	97485452 +	ENST00000376705	7423-7425	17,20,14
						ENST00000403766,ENST00000376440	7426-7427	3,2
chr13	99931629	99931637 +	chr13	99966351	99966474 +			
						ENST00000403766,ENST00000376440	7428-7429	17,2
chr13	99961013	99961063 +	chr13	99966351	99966474 +			

Table 10

						ENST00000554998,ENST00000402312,ENST00000335290,ENST00000542471	7430-7432	19,2,15
chr14	100873043	100873100 +	chr14	100934358	100934505 +	ENST00000556973	7433-7435	59,9,1
chr14	102189471	102189830 +	chr14	102197694	102197805 +	ENST00000422945,ENST00000328724,ENST00000557268,ENST00000350249,ENST00000557621,ENST00000445439,ENST00000334743,ENST00000557095,ENST00000554137		33,23,1,23,23,23,1,23
chr14	102352337	102352435 +	chr14	102356574	102356633 +	,ENST00000557716	7436-7445	
chr14	102503799	102504005 +	chr14	102504797	102504943 +	ENST00000360184	7446-7448	27,1,4
chr14	102504615	102504642 +	chr14	102504797	102504943 +	ENST00000360184	7449	9
						ENST00000216281,ENST00000334701,ENST00000441629	7450-7453	18,7,17,7
chr14	102577217	102577163 -	chr14	102551170	102551018 -	ENST00000335263,ENST00000322340,ENST00000342702,ENST00000558567,ENST00000454394,ENST00000556094		4,2,49,4,4,4,4,4,2
chr14	102644837	102644986 +	chr14	102661275	102661457 +		7454-7462	
chr14	102691697	102691432 -	chr14	102691128	102691116 -	ENST00000559838	7463-7465	12,10,1
chr14	102937762	102937942 +	chr14	102963316	102963457 +	ENST00000359520	7466-7468	11,51,7
						ENST00000440884,ENST00000416682,ENST00000429436,ENST00000303622,ENST00000216288,ENST00000553942,ENST00000335102,ENST00000561225	7469-7478	33,22,33,33,33,33,33,33,33,33
						ENST00000554913,ENST00000352127,ENST00000553264,ENST00000555055,ENST00000445556	7479-7481	13,34,21
chr14	104171043	104170777 -	chr14	104169664	104169510 -	ENST00000202556,ENST00000555734	7482-7486	13,21,21,13,21
chr14	104225593	104225528 -	chr14	104224088	104223987 -	ENST00000202556,ENST00000557082,ENST00000555734,ENST00000553739	7487-7491	2,11,2,2,2
chr14	104265324	104265042 -	chr14	104263855	104263708 -	ENST00000409874,ENST00000339063	7492-7495	29,2,52,52
chr14	104397984	104398290 +	chr14	104422001	104422107 +	ENST00000553819	7496-7498	5,36,18
chr14	105228212	105228427 +	chr14	105233127	105233166 +	ENST00000333244	7499-7501	15,14,12
chr14	105433343	105433298 -	chr14	105424009	105423951 -	ENST00000379937,ENST00000546474,ENST00000327359,ENST00000440513,ENST00000546417	7502-7505	20,20,20,20
chr14	105713373	105713313 -	chr14	105707751	105707602 -	ENST00000390556	7506-7508	21,17,7
chr14	106308944	106308882 -	chr14	106308368	106308297 -	ENST00000390617	7509-7510	27,29
chr14	106854053	106853837 -	chr14	106845627	106845323 -	ENST00000390596	7511-7513	9,13,5
chr14	106922312	106922240 -	chr14	106478411	106478110 -	ENST00000390616	7514-7516	9,13,5
chr14	106922312	106922240 -	chr14	106829895	106829594 -	ENST00000390618	7517-7519	5,9,13
chr14	106922312	106922240 -	chr14	106866707	106866406 -	ENST00000390619	7520-7522	9,13,5
chr14	106922312	106922240 -	chr14	106877926	106877619 -	ENST00000434710	7523-7524	26,5
chr14	106935420	106935206 -	chr14	106926495	106926188 -	ENST00000434710	7525-7527	3,8,10
chr14	106935420	106935260 -	chr14	106926495	106926188 -	ENST00000556563	7528-7529	22,22
chr14	20792644	20792577 -	chr14	20784719	20784573 -	ENST00000250489,ENST00000398020	7530-7532	7,18,39
chr14	20959248	20959100 -	chr14	20929004	20928814 -	ENST00000430083	7533-7535	2,1,34
chr14	20976443	20976801 +	chr14	20978626	20979281 +	ENST00000304418	7536-7538	17,7,16
chr14	21629735	21629685 -	chr14	21624045	21623096 -			

Table 10

							ENST00000320084,ENST000		33,22,2,22,2
							00449098,ENST00000336053		2,22,22,22,2
							,ENST00000554969,ENST000		2,22,22,22,2
							00556142,ENST00000554455		2,22,22,22
							,ENST00000430246,ENST000		
							00553753,ENST00000555914		
							,ENST00000555309,ENST000		
							00557442,ENST00000555883		
							,ENST00000556513,ENST000		
							00557201,ENST00000553300		
							,ENST00000556897,ENST000		
							00420743,ENST00000557157		
							,ENST00000554383,ENST000		
							00555215,ENST00000555137		
							,ENST00000554891,ENST000		
							00556226,ENST00000555176		
chr14	21699460	21699360	-	chr14	21699231	21699117,2	-	7539-7554	
							ENST00000430710,ENST000		17,8,30
							00399982,ENST00000557364		
chr14	21865033	21864779	-	chr14	21864051	21863976	-	7555-7557	
chr14	21937217	21937201	-	chr14	21936867	21936829	-	ENST00000397762	7558-7560	4,5,5
chr14	22736916	22737336	+	chr14	22740146	22740446	+	ENST00000390464	7561-7563	12,64,34
chr14	23040829	23040566	-	chr14	23034037	23034012	-	ENST00000538631	7564-7566	12,17,20
							ENST00000250498,ENST000		10,31,18,10
							00535847,ENST00000543337		
chr14	23056941	23056686	-	chr14	23044133	23044003,2	-	7567-7570	
							ENST00000267396,ENST000		22,44,21,44
chr14	23349937	23350226	+	chr14	23353883	23354224	+	00536884	7571-7574	
							ENST00000359890,ENST000		15,1,6,15,1,
							00399922,ENST00000346528		15,15,1,15,1
							,ENST00000554256,ENST000		,15,1,15,1,1
							00557549,ENST00000555676		5,1
							,ENST00000557571,ENST000		
							00556862,ENST00000557464		
chr14	23386376	23386237	-	chr14	23375577	23375404,23	-	7575-7590	
							ENST00000490506,ENST000		13,6,11,11,1
							00206474,ENST00000541587		1,11,11,6,11
							,ENST00000342454,ENST000		
							00555367,ENST00000555986		
							,ENST00000553859,ENST000		
							00555040,ENST00000556915		
							,ENST00000554516,ENST000		
chr14	23421526	23421426	-	chr14	23419619	23419523,2	-	00557591	7591-7599	
							ENST00000262713,ENST000		16,26
chr14	23447983	23447903	-	chr14	23447654	23447553	-	00361265	7600-7601	
							ENST00000361611,ENST000		2,24,33,24,3
							00493471,ENST00000460922		3,24
chr14	23495958	23495858	-	chr14	23495584	23495298,23	-	,ENST00000425762	7602-7607	
							ENST00000361611,ENST000		32,1,16,1,16
							00493471,ENST00000460922		,1
chr14	23502105	23502008	-	chr14	23495584	23495298,23	-	,ENST00000425762	7608-7613	
							ENST00000339733,ENST000		23,13
							00316902,ENST00000469263		
							,ENST00000453702,ENST000		
chr14	23610962	23610894	-	chr14	23609833	23609680	-	00529705	7614-7615	
							ENST00000308724,ENST000		6,14,21
chr14	24032473	24032394	-	chr14	24031802	24031713	-	00397120	7616-7618	
							ENST00000308724,ENST000		7,14,13
chr14	24034276	24034234	-	chr14	24033869	24033771	-	00397120	7619-7621	
							ENST00000432832,ENST000		23,11,23,23,
							00250383,ENST00000344777		23,23
							,ENST00000557535,ENST000		
chr14	24104836	24105822	+	chr14	24112361	24112428	+	00553600	7622-7627	
							ENST00000397071,ENST000		4,32,30,32,3
							00559411,ENST00000335125		0,30,32,30,3
							,ENST00000558753,ENST000		2,30,30
							00537912,ENST00000545240		
chr14	24451699	24451795	+	chr14	24459391	24459568	+	,ENST00000382755	7628-7638	
							ENST00000206451,ENST000		11,25,6,11,1
							00382708,ENST00000561435		1
chr14	24603367	24603444	+	chr14	24606194	24606226	+		7639-7643	

Table 10

							ENST00000530611,ENST00000556387,ENST00000347519,ENST00000533523,ENST00000609024,ENST00000533011,ENST00000534106	7644-7645	7,65
chr14	24681598	24681376	-	chr14	24681035	24680886	-	ENST00000530611,ENST00000556387,ENST00000347519,ENST00000533523,ENST00000609024,ENST00000533011,ENST00000534106	7646-7652	17,7,16,16,16,16,16
chr14	24682072	24682022	-	chr14	24681035	24680886	-	ENST00000530611,ENST00000556387,ENST00000347519,ENST00000530996,ENST00000609024,ENST00000533011	7653-7656	22,21,22,22
chr14	24682204	24682139	-	chr14	24679689	24679554	-	ENST00000530611,ENST00000556387,ENST00000347519,ENST00000530996,ENST00000533523,ENST00000609024,ENST00000533011	7657-7661	22,21,21,21,21
chr14	24682204	24682139	-	chr14	24679974	24679860,2	-	ENST00000288087,ENST00000396833,ENST00000534348	7662-7666	32,2,31,2,2
chr14	24684586	24684491	-	chr14	24683805	24683698,2	-	ENST00000605847,ENST00000250495	7667-7669	23,13,13
chr14	24686795	24686727	-	chr14	24686429	24686392,2	-	ENST00000399387	7670	1
chr14	29260521	29260523	+	chr14	29261086	29261467	+	ENST00000458591,ENST00000555259,ENST00000463622,ENST00000556768,ENST00000311943,ENST00000554776	7671-7678	19,7,32,19,19,19,19
chr14	31096671	31096890	+	chr14	31097415	31097485	+	ENST00000458591,ENST00000421551,ENST00000544052,ENST00000541123,ENST00000396629	7679-7681	6,18,11
chr14	31133161	31138256	+	chr14	31139462	31139601	+	ENST00000216361,ENST00000396618,ENST00000475087,ENST00000556908	7682-7686	1,12,44,44,44
chr14	31347586	31347721	+	chr14	31348017	31348150	+	ENST00000355683,ENST00000357479,ENST00000555358	7687-7691	30,11,1,30,30
chr14	31408534	31408326	-	chr14	31405830	31405701	-	ENST00000355683,ENST00000357479,ENST00000555358,ENST00000555152	7692-7696	28,1,1,1,1
chr14	31422403	31422318	-	chr14	31420150	31420069	-	ENST00000439727,ENST00000389961,ENST00000439348,ENST00000543095,ENST00000538864	7697-7699	10,25,34
chr14	31764755	31764652	-	chr14	31763310	31763097	-	ENST00000439727,ENST00000389961,ENST00000439348,ENST00000543095,ENST00000538864,ENST00000550366,ENST00000404677	7700-7705	33,23,1,23,23
chr14	31823304	31823206	-	chr14	31819923	31819818	-	ENST00000549838	7706-7708	2,2,2
chr14	32123158	32123165	+	chr14	32123276	32123322	+	ENST00000281081,ENST00000551314,ENST00000536705	7709-7712	1,85,1,85
chr14	32159253	32160476	+	chr14	32256986	32257079,3	+	ENST00000281081,ENST00000547839,ENST00000536705	7713-7715	1,85,85
chr14	32159253	32160476	+	chr14	32295835	32295920,3	+	ENST00000281081,ENST00000551314,ENST00000536705	7716-7720	1,1,1,1,1
chr14	32245037	32245041	+	chr14	32256986	32257079,3	+	ENST00000250454,ENST00000554792	7721-7724	18,24,6,18
chr14	34988201	34988068	-	chr14	34985792	34985516,3	-	ENST00000362031,ENST00000556162,ENST00000555416,ENST00000556712,ENST00000557265,ENST00000557341,ENST00000555648	7725-7733	31,11,30,11,11,11,11,11,11
chr14	35085856	35085763	-	chr14	35078948	35078844,4	-	ENST00000358716,ENST00000382422,ENST00000360310,ENST00000554865	7734-7735	24,11
chr14	35242414	35242315	-	chr14	35240865	35240717	-			

Table 10

							ENST00000358716,ENST00000382422,ENST00000360310	7736-7738	2,8,2
chr14	35336184	35336158	-	chr14	35331528	35331250	-		
chr14	35507780	35508121	+	chr14	35515711	35515834	+	ENST00000280987	7739-7741	12,26,37
								ENST00000261475,ENST00000554361,ENST00000555630,ENST00000554563,ENST00000555644,ENST00000557278		12,9,12,12,12,12
chr14	35590842	35590613	-	chr14	35585943	35585816,4	-	,ENST00000553282	7742-7748	
								ENST00000604948,ENST00000557565,ENST00000250377,ENST00000321130,ENST00000534898,ENST00000603544,ENST00000605870,ENST00000557404	7749-7752	18,35,7,35
chr14	35660288	35660561	+	chr14	35735933	35736081	+			
								ENST00000604948,ENST00000557565,ENST00000250377,ENST00000321130,ENST00000534898,ENST00000603544,ENST00000605870,ENST00000557404	7753-7754	4,19
chr14	35675862	35675920	+	chr14	35735933	35736081	+			
								ENST00000540871,ENST00000261479,ENST00000554961,ENST00000553809,ENST00000555764,ENST00000556506	7755-7760	33,15,11,15,15,15
chr14	35778574	35778674	+	chr14	35779946	35780101	+			
								ENST00000389698,ENST00000307138,ENST00000258840,ENST00000382366,ENST00000553892	7761-7764	10,8,12,8
chr14	36151511	36151264	-	chr14	36147308	36147156	-			
								ENST00000389698,ENST00000307138,ENST00000258840,ENST00000382366,ENST00000553892	7765	1
chr14	36184915	36184913	-	chr14	36159209	36159042	-			
								ENST00000555449,ENST00000331299	7766-7769	25,25,7,25
chr14	37223112	37223036	-	chr14	37203778	37203712	-			
chr14	38184444	38185136	+	chr14	38194103	38194207	+	ENST00000553443	7770-7772	11,24,4
								ENST00000553443,ENST00000382320,ENST00000478811	7773-7776	22,21,22,22
chr14	38276170	38276237	+	chr14	38276525	38276665	+			
								ENST00000308317,ENST00000396249,ENST00000250379	7777-7781	18,6,26,6,6
chr14	39599002	39599104	+	chr14	39601162	39601272	+	,ENST00000534684		
chr14	39881888	39881778	-	chr14	39871715	39871605	-	ENST00000298097	7782-7783	30,27
								ENST00000361577,ENST00000361462	7784-7785	40,75
chr14	45515948	45516227	+	chr14	45521639	45521765	+			
								ENST00000310806,ENST00000454990,ENST00000453142	7786-7790	1,21,8,8,8
chr14	45704072	45702609	-	chr14	45702023	45701936,5	-			
								ENST00000310806,ENST00000454990,ENST00000453142	7791-7794	2,9,9,9
chr14	45711072	45711036	-	chr14	45706924	45706851	-			
								ENST00000298292,ENST00000406043	7795-7797	23,6,32
chr14	50097765	50097668	-	chr14	50092766	50092260	-			
chr14	50097765	50097668	-	chr14	50094873	50094730	-	ENST00000298292	7798-7800	23,6,32
								ENST00000216367,ENST00000539565	7801-7803	33,2,6
chr14	50113338	50113240	-	chr14	50110388	50110370	-			
								ENST00000298310,ENST00000545773,ENST00000546046,ENST00000555970	7804-7807	5,2,4,4
chr14	50266621,5	50266606	-	chr14	50266396	50266354	-			
								ENST00000298310,ENST00000545773,ENST00000546046,ENST00000555970	7808-7811	2,4,11,11
chr14	50277402	50277178	-	chr14	50272851	50272739	-			
								ENST00000298310,ENST00000545773,ENST00000546046,ENST00000555970	7812-7816	23,1,32,1,1
chr14	50285108	50285011	-	chr14	50281525	50281472	-			
								ENST00000298310,ENST00000545773,ENST00000546046	7817-7821	24,1,38,38,38
chr14	50299345	50299209	-	chr14	50298995	50298925	-	,ENST00000555970		
chr14	50477794	50477652	-	chr14	50459591	50459496	-	ENST00000399206	7822-7823	18,3
chr14	50565876	50565833	-	chr14	50555913	50555839	-	ENST00000305273	7824-7826	14,14,14
								ENST00000216373,ENST00000543680	7827-7829	13,15,7
chr14	50628766	50628545	-	chr14	50628327	50628200	-			

Table 10

							ENST00000216373,ENST00000543680,ENST00000556452	7830-7834	24,11,32,11,11
chr14	50672068	50671969	-	chr14	50671127	50671002,5	-		
							ENST00000245448,ENST00000426751,ENST00000311459	7835-7839	21,7,47,47,47
chr14	50780824	50781108	+	chr14	50788201	50788312	+		
							ENST00000395834,ENST00000216378	7840-7843	32,54,8,54
chr14	50828472	50828193	-	chr14	50825867	50825746	-		
chr14	50928045	50927777	-	chr14	50923312	50923234	-	ENST00000013125	7844-7846	34,11,13
							ENST00000013125,ENST00000555216,ENST00000557390	7847-7851	2,6,22,6,6
chr14	50950845	50950778	-	chr14	50949134	50949079	-		
							ENST00000441560,ENST00000555960,ENST00000354525,ENST00000357032,ENST00000358385,ENST00000557735	7852-7859	31,11,2,31,2,2,2,2
chr14	51057204	51057298	+	chr14	51057659	51057793,51(	+		
							ENST00000245441,ENST00000389868,ENST00000476352,ENST00000530997,ENST00000382043,ENST00000389869,ENST00000382041,ENST00000324330,ENST00000530853	7860-7865	28,22,16,22,22,22
chr14	51209976	51209688	-	chr14	51208446	51208300	-	,ENST00000453196		
							ENST00000532462,ENST00000544180,ENST00000216392	7866-7869	33,24,11,11
chr14	51390305	51390205	-	chr14	51387785	51387674	-		
							ENST00000356218,ENST00000395718,ENST00000344768	7870-7874	8,18,2,18,18
chr14	52160148	52160358	+	chr14	52164860	52164950,5	+	,ENST00000554778		
							ENST00000553432,ENST00000556522,ENST00000557376	7875-7880	18,16,3,18,3,18
chr14	52355561	52355615	+	chr14	52417368	52417483,5	+	,ENST00000554875		
							ENST00000553432,ENST00000556522,ENST00000557376	7881-7886	40,44,7,40,7,40
chr14	52372375	52372666	+	chr14	52417368	52417483,5	+	,ENST00000554875		
							ENST00000216286,ENST00000541773,ENST00000556572	7887-7889	14,13,13
chr14	52482855	52482814	-	chr14	52481993	52481772	-		
chr14	53077070	53077140	+	chr14	53080389	53080436	+	ENST00000542169	7890-7891	23,22
							ENST00000395686,ENST00000556358	7892-7893	7,9
chr14	53117615	53117558	-	chr14	53113179	53113093	-		
							ENST00000442123,ENST00000354586	7894-7896	33,23,1
chr14	53201498	53201596	+	chr14	53211570	53211602	+		
							ENST00000335183,ENST00000442975,ENST00000458126,ENST00000556102,ENST00000395577	7897-7903	9,12,18,9,12,18,9
chr14	54878508	54878584	+	chr14	54882617	54882648	+		
							ENST00000554908,ENST00000358056,ENST00000554247,ENST00000553333	7904-7907	19,28,19,19
chr14	54953831	54953646	-	chr14	54950485	54950389	-		
							ENST00000554908,ENST00000358056,ENST00000554247,ENST00000553333	7908-7912	57,43,55,55,55
chr14	54954858	54954584	-	chr14	54950485	54950389	-		
							ENST00000554908,ENST00000358056,ENST00000554247,ENST00000553333	7913-7916	17,7,17,17
chr14	54956572	54956386	-	chr14	54950485	54950389	-		
							ENST00000554908,ENST00000358056,ENST00000554247,ENST00000553333	7917-7921	29,21,28,29,29
chr14	54958611	54958525	-	chr14	54950485	54950389	-		
							ENST00000554335,ENST00000251091,ENST00000392067,ENST00000357634,ENST00000555192	7922-7925	26,26,12,12
chr14	55240708	55240786	+	chr14	55241652	55241853	+		
							ENST00000360586,ENST00000420358,ENST00000359167,ENST00000421192	7926-7928	1,13,21
chr14	55428852	55428786	-	chr14	55424347	55424310	-		
							ENST00000360586,ENST00000420358,ENST00000359167,ENST00000421192	7929-7931	1,13,21
chr14	55428852	55428786	-	chr14	55424353	55424310	-		
							ENST00000360586,ENST00000420358,ENST00000421192	7932-7934	18,7,2
chr14	55468280	55468055	-	chr14	55467710	55467604	-		

Table 10

chr14	55488125	55487639	-	chr14	55480314	55480203	-	ENST00000360586,ENST00000455555	7935-7938	31,1,92,92
chr14	56981935	56982236	+	chr14	57051719	57051750	+	ENST00000556810,ENST00000261556,ENST00000555497,ENST00000539559,ENST00000538838	7939-7945	7,4,1,4,4,4,4
chr14	58475533	58475398	-	chr14	58471900	58471766	-	ENST00000267485	7946-7947	16,45
chr14	58684104	58684154	+	chr14	58686412	58686447	+	ENST00000254286,ENST00000554402	7948-7951	17,7,16,16
chr14	59942429	59942202	-	chr14	59939808	59939683	-	ENST00000247194	7952-7954	10,1,5
chr14	59942429	59942202	-	chr14	59941244	59941233	-	ENST00000487285	7955-7957	10,1,5
chr14	60442564	60442915	+	chr14	60443943	60444065	+	ENST00000254271,ENST00000445360	7958-7961	69,4,14,69
chr14	60677440	60677153	-	chr14	60622870	60622718,6	-	ENST00000216500,ENST00000557185,ENST00000554101,ENST00000557137,ENST00000557326	7962-7963	39,7
chr14	61181679	61181631	-	chr14	61180921	61180125	-	ENST00000216513	7964-7966	16,16,7
chr14	61220500	61220883	+	chr14	61262935	61263087	+	ENST00000261245,ENST00000539616	7967-7970	11,2,13,2
chr14	61408136	61408282	+	chr14	61434947	61435067	+	ENST00000261245,ENST00000539616,ENST00000557134	7971-7973	6,39,1
chr14	61516750	61516792	+	chr14	61517230	61517354	+	ENST00000354886,ENST00000267488,ENST00000451406,ENST00000456840,ENST00000529212	7974-7978	14,4,10,14,14
chr14	61540480	61540659	+	chr14	61545548	61545645	+	ENST00000354886,ENST00000451406,ENST00000456840	7979-7980	60,49
chr14	61587873	61587614	-	chr14	61446604	61445949,614	-	ENST00000261249,ENST00000553903,ENST00000555420	7981-7985	63,4,40,63,63
chr14	61939316	61939395	+	chr14	61952220	61952374	+	ENST00000332981,ENST00000555082	7986-7988	17,1,14
chr14	63929087	63928989	-	chr14	63920603	63920407	-	ENST00000337537,ENST00000555899	7989-7992	11,21,1,1
chr14	64214136	64214028	-	chr14	64165376	64165287	-	ENST00000247225	7993-7995	10,4,17
chr14	64218821	64218088	-	chr14	64165376	64165287	-	ENST00000247225	7996-7998	27,14,1
chr14	64548845	64549437	+	chr14	64554389	64554574	+	ENST00000357395,ENST00000358025,ENST00000344113,ENST00000554584,ENST00000555002,ENST00000394768	7999-8003	35,15,37,37,37
chr14	64562482	64562837	+	chr14	64564667	64564864	+	ENST00000357395,ENST00000358025,ENST00000344113,ENST00000554584,ENST00000555002,ENST00000394768	8004-8008	8,34,31,31,31
chr14	64908248	64908293	+	chr14	64908772	64908883	+	ENST00000545908,ENST00000216605	8009-8012	15,15,7,15
chr14	65194968	65195089	+	chr14	65195714	65195811	+	ENST00000555982,ENST00000394691,ENST00000554499	8013-8016	6,40,40,40
chr14	65406849	65406711	-	chr14	65406556	65406206	-	ENST00000389614,ENST00000557049	8017-8019	20,7,45
chr14	65408081	65408035	-	chr14	65406916	65406902	-	ENST00000553522	8020-8021	7,15
chr14	66099700	66100403	+	chr14	66135961	66136198	+	ENST00000360689,ENST00000394586,ENST00000342677,ENST00000557164,ENST00000394585,ENST00000358307	8022-8025	26,37,12,12
chr14	66197110	66197208	+	chr14	66199949	66200099,7	+	ENST00000360689,ENST00000394586,ENST00000342677,ENST00000557164,ENST00000394585,ENST00000358307,ENST00000417683	8026-8029	33,10,1,10
chr14	66459048	66458799	-	chr14	66456461	66456398	-	ENST00000554907	8030-8031	12,26
chr14	67017875	67017899	+	chr14	67147825	67147903	+	ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000555668,ENST00000556633,ENST00000305960,ENST00000557654	8032	5

Table 10

							ENST00000315266,ENST00000478722,ENST00000459628,ENST00000543237,ENST00000305960	8033-8039	21,7,39,7,7,7,7
chr14	67195607	67195894	+	chr14	67243182	67243239	+	ENST00000315266,ENST00000478722,ENST00000543237,ENST00000556633,ENST00000555456	8040-8047	53,74,8,8,8,74,8,8
chr14	67279984	67280207	+	chr14	67291192	67291284,7	+	ENST00000256383,ENST00000557310,ENST00000466499,ENST00000555876	8048-8051	3,24,3,3
chr14	67833420	67833534	+	chr14	67841185	67841264	+	ENST00000256383,ENST00000557310,ENST00000466499,ENST00000555876	8052-8056	35,6,74,74,74
chr14	67843580	67844030	+	chr14	67847376	67847482	+	ENST00000347230,ENST00000555452	8057-8058	23,13
chr14	68263222	68263154	-	chr14	68260956	68260888	-	ENST00000487861,ENST00000471583,ENST00000487270,ENST00000488612,ENST00000390683	8059-8063	6,32,6,6,6
chr14	68334789	68334886	+	chr14	68352586	68352705	+	ENST00000193403,ENST00000394419,ENST00000438964,ENST00000538545,ENST00000556433,ENST00000556571,ENST00000553659	8064-8072	22,13,21,13,13,13,13,13
chr14	69417577	69417511	-	chr14	69392389	69392275,7	-	ENST00000409018,ENST00000312994	8073-8074	3,14
chr14	69676729	69676918	+	chr14	69695533	69695789	+	ENST00000557016,ENST00000555373	8075-8078	22,46,30,22
chr14	69856043	69855743	-	chr14	69853800	69853680,7	-	ENST00000556605,ENST00000336643,ENST00000555840,ENST00000557046	8079-8080	13,25
chr14	69906293	69906598	+	chr14	69908786	69908983	+	ENST00000256366	8081-8083	10,5,19
chr14	70892721	70892663	-	chr14	70855323	70855187	-	ENST00000256367	8084-8086	6,8,56
chr14	71133333	71133539	+	chr14	71134281	71134463	+	ENST00000238570,ENST00000304743,ENST00000439984	8087-8091	25,24,7,7,7
chr14	71471005	71471079	+	chr14	71476351	71476441	+	ENST00000238570,ENST00000304743,ENST00000439984	8092-8096	5,16,25,16,16
chr14	71471005	71471132	+	chr14	71476351	71476441	+	ENST00000238570,ENST00000304743,ENST00000439984,ENST00000554691	8097-8098	3,51
chr14	71480329	71481996	+	chr14	71485726	71485879	+	ENST00000238570,ENST00000304743,ENST00000439984,ENST00000554691	8099-8101	34,1,16
chr14	71558147	71560562	+	chr14	71568707	71568937	+	ENST00000381232,ENST00000555818,ENST00000358550,ENST00000537413,ENST00000555066	8102-8107	14,14,2,14,14,14
chr14	72102023	72102065	+	chr14	72117052	72117226	+	ENST00000381232,ENST00000555818,ENST00000358550,ENST00000537413	8108-8112	3,38,23,3,3
chr14	72166257	72166396	+	chr14	72169098	72169222	+	ENST00000556509,ENST00000366353,ENST00000381216,ENST00000541685,ENST00000546183	8113-8116	18,60,9,9
chr14	73341947	73341671	-	chr14	73238601	73238441	-	ENST00000357710,ENST00000324501,ENST00000261970,ENST00000344094,ENST00000394164,ENST00000553855,ENST00000555386,ENST00000557511,ENST00000406768	8117-8121	13,41,11,13,13
chr14	73653203	73653469	+	chr14	73653561	73653628	+	ENST00000554546,ENST00000356296,ENST00000557597,ENST00000555238,ENST00000556772,ENST00000355058,ENST00000359560,ENST00000555394,ENST00000535282,ENST00000555859,ENST00000555307,ENST00000554394	8122-8127	6,24,11,11,11,11
chr14	73751855	73751754	-	chr14	73751082	73750789,73	-			

Table 10

							ENST00000394071,ENST00000286523,ENST00000423556	29,26,29,29
chr14	74186409	74186321	-	chr14	74186204	74186004,741 -	,ENST00000435371	8128-8131
							ENST00000394026,ENST00000238709,ENST00000334571	22,13,5,22
chr14	74422746	74422812	+	chr14	74424850	74424980 +	,ENST00000554320	8132-8135
							ENST00000557325,ENST00000334696,ENST00000553284	4,3,3,3,3,3,3
chr14	74463364	74463353	-	chr14	74454749	74454589 -	,ENST00000556242	8136-8142
chr14	74497056	74497061	+	chr14	74500731	74500874 +	ENST00000394009	8143-8144 2,1
							ENST00000261978,ENST00000553939,ENST00000556690	31,31,15,31,31
chr14	75006039	75005946	-	chr14	75002703	75002629 -		8145-8149
							ENST00000261978,ENST00000553939,ENST00000556690	61,41,61,61
chr14	75050624	75050440	-	chr14	75022396	75022206 -		8150-8153
							ENST00000261978,ENST00000553939,ENST00000556690	39,38,38,38
chr14	75052286	75052170	-	chr14	75022396	75022206 -		8154-8157
chr14	75169826	75168372	-	chr14	75159031	75158879 -	ENST00000338772	8158-8159 1,15
chr14	75169826	75168372	-	chr14	75165559	75165467 -	ENST00000338772	8160-8161 1,15
chr14	75571167	75571118	-	chr14	75570700	75570545 -	ENST00000238616	8162-8164 7,16,13
chr14	75593199	75593044	-	chr14	75590926	75590749 -	ENST00000238616	8165-8166 8,2
							ENST00000314067,ENST00000542766,ENST00000556742	26,19,2,26
chr14	76498152	76498447	+	chr14	76524985	76525017,8 +		8167-8170
							ENST00000314067,ENST00000542766,ENST00000238628	26,19,2
chr14	76498152	76498447	+	chr14	76548638	76548710 +		8171-8173
chr14	77684166	77684530	+	chr14	77685144	77685181 +	ENST00000557752	8174-8176 37,25,14
chr14	78001267	78001231	-	chr14	77987924	77987789 -	ENST00000216484	8177-8178 12,4
							ENST00000216489,ENST00000557057,ENST00000555100	11,22,9,22
chr14	78149462	78149394	-	chr14	78146313	78146223,8 -		8179-8182
							ENST00000554738,ENST00000554719,ENST00000335750,ENST00000557594,ENST00000281127,ENST00000428277	6,29
chr14	79780404	79780492	+	chr14	79933564	79933745 +	,ENST00000555387	8183-8184
							ENST00000554738,ENST00000554719,ENST00000335750,ENST00000557594,ENST00000281127,ENST00000428277	21,7,21,21,21,1,21
chr14	80012204	80012474	+	chr14	80130121	80130292 +	,ENST00000555387	8185-8190
							ENST00000438257,ENST00000557010,ENST00000422005	14,41,7
chr14	80745215	80744770	-	chr14	80669631	80669032,8 -	,ENST00000555750	8191-8193
							ENST00000553612,ENST00000434192	19,15,18 8194-8196
chr14	81679555	81679499	-	chr14	81670448	81670244 -	ENST00000261304,ENST00000544807,ENST00000393569,ENST00000557316,ENST00000554372	18,20,22,20,20,20 8197-8202
							ENST00000340700,ENST00000312350,ENST00000319231	18,7
chr14	88681890	88681614	-	chr14	88658754	88658568 -		8203-8204
							ENST00000340700,ENST00000312350,ENST00000319231	39,46,7,39
chr14	88753247	88752971	-	chr14	88729895	88729546 -	,ENST00000556282	8205-8208
							ENST00000554922,ENST00000352093,ENST00000380664	1,17,7,7,7
chr14	89232065	89231744	-	chr14	89221015	89220856 -		8209-8213
							ENST00000556077,ENST00000345383,ENST00000338104,ENST00000346301,ENST00000380656,ENST00000555057,ENST00000556651,ENST00000554686	1,1,1,1,1,1,1
chr14	89297376	89297379	+	chr14	89305796	89305916 +		8214-8220
							ENST00000316738,ENST00000555872,ENST00000556609	2,2,1
chr14	90336993	90336987	-	chr14	90263668	90263587 -		8221-8223

Table 10

							ENST00000316738,ENST000	38,21,9,38,3
							00555872,ENST00000557685	8
							,ENST00000556609,ENST000	
							00267544,ENST00000538485	
chr14	90410786	90410507	-	chr14	90398971	90398870 -	,ENST00000556005	8224-8228
							ENST00000554976,ENST000	5,13,5,5,5,5,
							00393452,ENST00000554180	5,5,5,5,5,5
							,ENST00000393454,ENST000	
							00335725,ENST00000556867	
							,ENST00000553527,ENST000	
							00553989,ENST00000545686	
							,ENST00000555178,ENST000	
							00556498,ENST00000555880	
chr14	90422960	90423144	+	chr14	90429569	90430017,904 +		8229-8240
							ENST00000393452,ENST000	5,13
							00554180,ENST00000393454	
							,ENST00000553617,ENST000	
							00335725,ENST00000545686	
							,ENST00000555178,ENST000	
chr14	90422960	90423144	+	chr14	90432491	90432534 +	00555880	8241-8242
							ENST00000393452,ENST000	22,13,5,13,1
							00393454,ENST00000335725	3,13
							,ENST00000357382,ENST000	
							00555880,ENST00000556063	
chr14	90452091	90452157	+	chr14	90455249	90455434 +		8243-8248
							ENST00000328459,ENST000	64,4,64
chr14	91288371	91288031	-	chr14	91252672	91252518 -	00357056	8249-8251
							ENST00000520328,ENST000	13,31,31,31,
							00256324,ENST00000521077	31,31
							,ENST00000518868,ENST000	
							00523816,ENST00000517518	
							,ENST00000525393,ENST000	
							00428926,ENST00000522322	
							,ENST00000523771,ENST000	
							00412671,ENST00000523461	
chr14	91640950	91641326	+	chr14	91642278	91642400 +	,ENST00000517306	8252-8257
chr14	91682092	91682137	+	chr14	91690023	91690046 +	ENST00000523461	8258-8260 15,2,3
chr14	91682705	91682804	+	chr14	91690023	91690046 +	ENST00000523461	8261-8263 6,11,28
							ENST00000389857,ENST000	13,32,6,32
							00389856,ENST00000553403	
chr14	91903237	91903141	-	chr14	91883182	91883082 -		8264-8267
							ENST00000554684,ENST000	19,15,7,15,1
							00337238,ENST00000428424	5,15,15,15
							,ENST00000554943,ENST000	
							00555462,ENST00000554308	
							,ENST00000554390,ENST000	
							00555029,ENST00000555470	
chr14	91945407	91945350	-	chr14	91943330	91943253 -		8268-8275
							ENST00000554684,ENST000	14,37,37,37,
							00337238,ENST00000554943	37,37,37
							,ENST00000554308,ENST000	
							00554390,ENST00000557018	
chr14	91951099	91950987	-	chr14	91948537	91947920,9 -		8276-8282
							ENST00000267622,ENST000	3,7,16
chr14	92450959	92450909	-	chr14	92442533	92442452 -	00554357	8283-8285
chr14	92515615	92514240	-	chr14	92499597	92499536 -	ENST00000267622	8286-8288 8,24,1
chr14	92516089	92515947	-	chr14	92499597	92499536 -	ENST00000267622	8289-8291 47,23,4
							ENST00000553514,ENST000	7,4
							00329559,ENST00000605997	
chr14	92586341	92586220	-	chr14	92582573	92582537 -	,ENST00000555441	8292-8293
							ENST00000393265,ENST000	17,4,10,17,1
							00531433,ENST00000532405	7
							,ENST00000298877,ENST000	
							00351924,ENST00000525557	
chr14	92914315	92914484	+	chr14	92915418	92915560,9 +		8294-8298
							ENST00000163416,ENST000	51,51,29,29
chr14	93293516	93293670	+	chr14	93299467	93299692 +	00355976	8299-8302
							ENST00000267615,ENST000	4,4,3,4,4,4,4
							00354313,ENST00000556603	
							,ENST00000556185,ENST000	
							00555553,ENST00000553452	
chr14	93483584	93483572	-	chr14	93483146	93483021 -	,ENST00000557309	8303-8309

Table 10

						ENST00000334746,ENST00000554565,ENST00000393170		11,32,24
chr14	93719018	93718920 -	chr14	93717998	93717809 -	,ENST00000553975	8310-8312	
chr14	93754513	93754098 -	chr14	93730339	93730131 -	ENST00000334746,ENST00000554565	8313-8315	63,50,19
chr14	93863913	93864223 +	chr14	93934017	93934137 +	ENST00000555664,ENST00000553484,ENST00000393151	8316-8320	54,6,11,6,6
chr14	93875756	93875855 +	chr14	93934017	93934137 +	ENST00000555664,ENST00000553484,ENST00000393151	8321-8325	6,11,6,6,32
chr14	94561163	94561245 +	chr14	94563233	94563311 +	ENST00000553664	8326-8328	13,22,2
						ENST00000555523,ENST00000393115,ENST00000554166,ENST00000556381,ENST00000553664,ENST00000555341,ENST00000557218,ENST00000557066,ENST00000554562		8,22,3,3,22,3,3,3,22,3
chr14	94565821	94566012 +	chr14	94567085	94567117 +		8329-8338	
chr14	94713832	94714083 +	chr14	94716509	94716614 +	ENST00000304338	8339-8340	13,63
						ENST00000298845,ENST00000337425,ENST00000380365,ENST00000538527,ENST00000546329		26,18,13,26,18,13,13,13
chr14	94936503	94936425 -	chr14	94936004	94935962,94		8341-8348	
						ENST00000298845,ENST00000337425,ENST00000538527		26,18,13,26,18,13,26
chr14	94936503	94936425 -	chr14	94936194	94935962,94		8349-8355	
chr14	96154807	96155145 +	chr14	96157073	96157243 +	ENST00000340722	8356-8357	13,27
						ENST00000216277,ENST00000557320,ENST00000557471,ENST00000556619,ENST00000392990		20,18,9,18,18,18,18
chr14	96991936	96992096 +	chr14	96993767	96993876 +		8358-8364	
chr14	97307913	97307963 +	chr14	97312432	97312501 +	ENST00000216639	8365-8366	17,7
						ENST00000331768,ENST00000329331,ENST00000436070		5,1,15,5,5
chr14	99888526	99888479 -	chr14	99880271	99880213 -		8367-8371	
chr15	100197598	100197743 +	chr15	100211725	100211862 +	ENST00000354410	8372-8374	27,26,2
						ENST00000453228,ENST00000354410,ENST00000558812,ENST00000338042,ENST00000557785,ENST00000449277		4,8,8
chr15	100235346	100235372 +	chr15	100246934	100247060 +	,ENST00000557942	8375-8377	
						ENST00000453228,ENST00000354410,ENST00000558812,ENST00000338042,ENST00000557785,ENST00000449277		23,6,1
chr15	100236085	100236341 +	chr15	100246934	100247060 +	,ENST00000557942	8378-8380	
chr15	101106413	101106122 -	chr15	101105470	101105454 -	ENST00000560783	8381-8383	19,21,42
						ENST00000388948,ENST00000284395		11,2,48
chr15	101587762	101588025 +	chr15	101588699	101588862 +		8384-8386	
						ENST00000398185,ENST00000348070,ENST00000358417,ENST00000344273,ENST00000398181,ENST00000331826		2,35,10,10,10,10,10,10,10
chr15	101970827	101970607 -	chr15	101970268	101970192 -	,ENST00000559417	8387-8395	
						ENST00000335968,ENST00000539112		5,8,8
chr15	102213686	102213662 -	chr15	102211951	102211874 -		8396-8398	
						ENST00000335968,ENST00000539112		17,2,9,2
chr15	102220628	102218951 -	chr15	102215940	102215803 -		8399-8402	
						ENST00000335968,ENST00000539112		8,6,7,6
chr15	102232109	102232085 -	chr15	102226265	102226099 -		8403-8406	
						ENST00000335968,ENST00000539112		1,8,1
chr15	102233726	102233451 -	chr15	102226265	102226099 -		8407-8409	
						ENST00000337451,ENST00000398014,ENST00000398013,ENST00000539711,ENST00000359727		22,47,37
chr15	23017187	23016915 -	chr15	23014528	23014438 -		8410-8412	
chr15	23247743	23247846 +	chr15	23257058	23257177 +	ENST00000450802	8413-8415	6,34,26
						ENST00000232165,ENST00000438097,ENST00000566215,ENST00000397954,ENST00000428984		6,5
chr15	25584253	25584270 +	chr15	25584302	25584284 -		8416-8417	

Table 10

						ENST00000232165,ENST00000438097,ENST00000566215,ENST00000397954,ENST00000428984	8418-8419	22,7
chr15	25618923	25618738 -	chr15	25616959	25615713 -	ENST00000356865,ENST00000555756	8420-8422	6,11,6
chr15	25938468	25938369 -	chr15	25936938	25936862 -	ENST00000356865,ENST00000555815	8423-8425	1,1,1
chr15	26006525	26006522 -	chr15	25981288	25981203 -	ENST00000353809,ENST00000354638	8426-8427	2,58
chr15	28127352	28127177 -	chr15	28116404	28116300 -	ENST00000353809,ENST00000354638	8428-8430	3,2,29
chr15	28127352	28127264 -	chr15	28117068	28117009 -	ENST00000353809,ENST00000354638,ENST00000382996,ENST00000445578,ENST00000431101	8431-8437	1,8,12,12,12,12,12
chr15	28324513	28324246 -	chr15	28277309	28277211 -	ENST00000261609	8438-8440	17,7,16
chr15	28369995	28369945 -	chr15	28369380	28369183 -	ENST00000261609	8441-8442	41,1
chr15	28379836	28378505 -	chr15	28377976	28377799 -	ENST00000346128,ENST00000400011,ENST00000356107,ENST00000400007,ENST00000545208	8443-8447	1,11,8,8,8
chr15	29997366	29997331 -	chr15	29996509	29996426,29[illegible] -	ENST00000346128,ENST00000400011,ENST00000356107,ENST00000545208	8448-8453	43,1,35,1,1,1
chr15	30052312	30052094 -	chr15	30034985	30034846 -	ENST00000346128,ENST00000400011,ENST00000356107,ENST00000545208,ENST00000495972,ENST00000558447	8454-8461	36,11,19,11,11,11,11,11
chr15	30090734	30090605 -	chr15	30065560	30065436 -		8462-8463	
chr15	30430677	30430785 +	chr15	30431261	30431299 +	ENST00000569052	8464-8465	36,36
chr15	30703050	30702942 -	chr15	30702470	30702432 -	ENST00000327271	8466-8468	36,36
chr15	31201864	31201968 +	chr15	31206061	31206294 +	ENST00000362065	8469-8472	35,5,34
chr15	31327648	31327548 -	chr15	31325143	31324892 -	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558768,ENST00000558445	8473-8475	33,6,11,11
chr15	31327648	31327580 -	chr15	31325143	31324892 -	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558768,ENST00000558445	8476	23,13,23
chr15	31367719,31	31367717 -	chr15	31362429	31362234,3 -	ENST00000397795,ENST00000256552,ENST00000542188,ENST00000558445,ENST00000559177,ENST00000560658,ENST00000559179	8477-8478	1
chr15	32740238	32740172 -	chr15	32739273	32739198 -	ENST00000509311	8479-8482	13,22
chr15	32744420	32744312 -	chr15	32743840	32743802 -	ENST00000509311,ENST00000562377	8483-8484	36,36,36,36
chr15	32893249	32893315 +	chr15	32894214	32894289 +	ENST00000448387,ENST00000569659	8485-8487	22,13
chr15	33097772	33097045 -	chr15	33096533	33096482 -	ENST00000334528,ENST00000561249,ENST00000559047	8488-8490	16,78,2
chr15	33283217	33282964 -	chr15	33261678	33260915 -	ENST00000334528,ENST00000561249,ENST00000559047	8491-8493	11,22,33
chr15	34362520	34362245 -	chr15	34295410	34295233 -	ENST00000306730,ENST00000560611,ENST00000354181,ENST00000458406,ENST00000559523,ENST00000559664,ENST00000397702,ENST00000561080,ENST00000290209,ENST00000558667,ENST00000558589,ENST00000561120,ENST00000559236,ENST00000559484	8494-8495	20,46,8,12,6
chr15	34585349	34585260 -	chr15	34567590	34567546 -	ENST00000432566,ENST00000360553,ENST00000359187	8496-8497	36,36
chr15	34678554	34678446 -	chr15	34677979	34677941 -	ENST00000432566,ENST00000360553,ENST00000359187	8498-8500	33,23,32
chr15	34679923	34679825 -	chr15	34678942	34678826 -			

Table 10

						ENST00000360553,ENST000		2,11,11
chr15	34680280	34680246 -	chr15	34680153	34680034 -	00359187	8501-8503	
						ENST00000342314,ENST000		36,36
						00438958,ENST00000267731		
chr15	34824775	34824667 -	chr15	34824200	34824162 -		8504-8505	
						ENST00000342314,ENST000		23,32,33
						00438958,ENST00000267731		
chr15	34826144	34826046 -	chr15	34825163	34825047 -		8506-8508	
						ENST00000342314,ENST000		2,11,11
chr15	34826501	34826467 -	chr15	34826374	34826255 -	00267731	8509-8511	
chr15	35161605	35161095 -	chr15	35159810	35159725 -	ENST00000156471	8512-8514	1,12,51
						ENST00000156471,ENST000		4,31
						00543879,ENST00000560117		
chr15	35243079	35242985 -	chr15	35240585	35240465 -		8515-8516	
						ENST00000256538,ENST000		8,2,13,8,8
						00558266,ENST00000561411		
chr15	35736283	35736145 -	chr15	35703097	35703036 -		8517-8521	
						ENST00000566621,ENST000		13,13,5,13,1
						00437989,ENST00000569302		3
						,ENST00000566807,ENST000		
						00567389,ENST00000562877		
chr15	36988671	36988711 +	chr15	36989524	36989591 +	,ENST00000338183	8522-8526	
						ENST00000566621,ENST000		21,28,30,30
						00437989,ENST00000569302		
						,ENST00000567389,ENST000		
						00562877,ENST00000338183		
						,ENST00000562489,ENST000		
chr15	37049638	37050077 +	chr15	37100525	37100654,4 +	00563167	8527-8530	
chr15	40039834	40039503 -	chr15	40034101	40034006 -	ENST00000350221	8531-8532	19,1
						ENST00000299092,ENST000		14,1,62
						00561100,ENST00000543580		
chr15	40187476	40186657 -	chr15	40094455	40093333 -		8533-8535	
chr15	40187476	40186657 -	chr15	40099826	40099769 -	ENST00000299092	8536-8538	14,1,62
						ENST00000299092,ENST000		12,26,37
						00561100,ENST00000543580		
chr15	40187476	40186733 -	chr15	40094455	40093333 -		8539-8541	
chr15	40187476	40186733 -	chr15	40099826	40099769 -	ENST00000299092	8542-8544	12,26,37
						ENST00000559624,ENST000		1,8,14,1,1
						00382727,ENST00000263791		
chr15	40237559	40237687 +	chr15	40241317	40241469 +		8545-8549	
						ENST00000559624,ENST000		5,11,11,11
						00382727,ENST00000263791		
chr15	40237559	40239093 +	chr15	40241317	40241469 +		8550-8553	
						ENST00000287598,ENST000		10,32,10,10
						00558715,ENST00000412359		
chr15	40455610	40455833 +	chr15	40457254	40457397 +		8554-8557	
						ENST00000287598,ENST000		9,13,13
chr15	40460287	40460355 +	chr15	40462263	40462322,4 +	00412359	8558-8560	
						ENST00000287598,ENST000		16,15,15,15
						00412359,ENST00000559733		
chr15	40479208	40479255 +	chr15	40488746	40488975,4 +		8561-8564	
						ENST00000346991,ENST000		3,2,3,3,3
						00527044,ENST00000399668		
chr15	40896709	40896879 +	chr15	40897308	40897347 +	,ENST00000534204	8565-8569	
						ENST00000346991,ENST000		11,28,28
						00399668,ENST00000526913		
chr15	40944700	40944786 +	chr15	40947107	40947175 +		8570-8572	
chr15	41128690	41128316 -	chr15	41109545	41109430 -	ENST00000427255	8573-8574	13,2
						ENST00000220509,ENST000		33,6,11,33,6
						00558855,ENST00000558474		,33,6
chr15	41188455	41188555 +	chr15	41191105	41191196,4 +		8575-8581	
chr15	41622194	41622128 -	chr15	41611978	41611856 -	ENST00000220514	8582-8584	22,13,21
						ENST00000260359,ENST000		29,24,9,24,2
						00450318,ENST00000450592		4,24,24
						,ENST00000559596,ENST000		
						00414849,ENST00000560747		
						,ENST00000560177,ENST000		
chr15	41643702	41643802 +	chr15	41648237	41648338 +	00560898	8585-8591	
						ENST00000260359,ENST000		30,19,7,30,3
						00450318,ENST00000450592		0,30,30
						,ENST00000559596,ENST000		
						00414849,ENST00000560747		
						,ENST00000560177,ENST000		
chr15	41646423	41646513 +	chr15	41648237	41648338 +	00560898	8592-8598	

						ENST00000260359,ENST00000450318,ENST00000450592,ENST00000559596,ENST00000414849,ENST00000560747		13,21,21
chr15	41662299	41662364 +	chr15	41663725	41663882 +	,ENST00000560177	8599-8601	
chr15	41765961	41766053 +	chr15	41766818	41766900 +	ENST00000389629	8602-8604	31,21,1
chr15	42151656	42151606 -	chr15	42151178	42151088 -	ENST00000320955	8605-8607	12,7,16
chr15	42157222	42157151 -	chr15	42156222	42156107 -	ENST00000320955	8608-8610	9,23,16
chr15	42200018	42199751 -	chr15	42193379	42192843 -	ENST00000220325	8611-8612	13,25
chr15	42440107	42440056 -	chr15	42439960	42439824 -	ENST00000397272,ENST00000382396	8613-8615	3,7,1
chr15	42490827	42490663 -	chr15	42483758	42483694 -	ENST00000318006,ENST00000348544	8616-8617	36,7
chr15	42490827	42490663 -	chr15	42484296	42484264 -	ENST00000348544	8618-8619	36,7
chr15	42526279	42526179 -	chr15	42525504	42525411 -	ENST00000389834,ENST00000448392,ENST00000566014	8620-8623	33,24,6,33
chr15	42638489	42638518 +	chr15	42640301	42640414 +	ENST00000318010	8624-8626	3,9,7
chr15	42660968	42661108 +	chr15	42676681	42676750 +	ENST00000356316,ENST00000318023,ENST00000357568,ENST00000349748,ENST00000397163	8627-8632	12,46,1,12,12,12
chr15	43147402	43147308 -	chr15	43132631	43132558 -	ENST00000267890,ENST00000567840,ENST00000567274,ENST00000562880,ENST00000566931	8633-8642	16,1,13,1,1,13,1,13,1,13
chr15	43147402	43147316 -	chr15	43132631	43132558 -	ENST00000267890,ENST00000567840,ENST00000567274,ENST00000562880,ENST00000566931	8643-8652	14,28,10,10,14,10,14,10,14,10
chr15	43433469	43434110 +	chr15	43438691	43438832,434 +	ENST00000564698,ENST00000569535,ENST00000565291,ENST00000260403,ENST00000564494	8653-8660	27,5,1,5,5,1,5,5
chr15	43467899	43467988 +	chr15	43473379	43473497 +	ENST00000260403,ENST00000564494	8661-8662	12,6
chr15	43528259	43528252 -	chr15	43528035	43527667 -	ENST00000220420,ENST00000349114	8663-8664	2,2
chr15	43631593	43631628 +	chr15	43632463	43632550,4 +	ENST00000422466,ENST00000428046,ENST00000389651,ENST00000563551,ENST00000562188	8665-8671	12,11,3,12,12,12,3
chr15	43686778	43687083 +	chr15	43687305	43687355 +	ENST00000260383,ENST00000564079,ENST00000399460,ENST00000561691	8672-8676	11,18,31,11,11
chr15	43838507	43838500 -	chr15	43831781	43831668 -	ENST00000381885,ENST00000396923,ENST00000360135,ENST00000360301,ENST00000334933,ENST00000420765,ENST00000381879,ENST00000348806	8677-8681	2,2,2,2,2
chr15	43923726	43923628 -	chr15	43922930	43922899 -	ENST00000396879,ENST00000381761,ENST00000354127,ENST00000321596	8682-8684	33,23,6
chr15	43927445	43927307 -	chr15	43925126	43924915 -	ENST00000396879,ENST00000381761,ENST00000354127,ENST00000321596	8685-8687	8,3,6
chr15	43927445	43927307 -	chr15	43925132	43924915 -	ENST00000321596	8688-8690	8,3,6
chr15	43935833	43935583 -	chr15	43932694	43932522 -	ENST00000396879,ENST00000381761,ENST00000354127,ENST00000355438,ENST00000433380,ENST00000321596	8691-8695	16,8,49,8,8
chr15	44023902	44023764 -	chr15	43925126	43924915 -	ENST00000396879,ENST00000381761,ENST00000354127,ENST00000321596	8696-8698	8,3,6
chr15	44097811	44097792 -	chr15	44097663	44097574 -	ENST00000267812	8699	6
chr15	44149737	44149836 +	chr15	44150869	44151021 +	ENST00000263795,ENST00000381246	8700-8702	24,11,32
chr15	44287240	44287031 -	chr15	44216507	44216403 -	ENST00000417257,ENST00000402883,ENST00000449926,ENST00000458630,ENST00000421674,ENST00000451277	8703-8708	10,12,10,10,10,10

Table 10

							ENST00000299957,ENST00000345795,ENST00000558847	8709-8711	6,29,29
chr15	44645133	44645582	+	chr15	44671888	44671986	+		
chr15	44780032	44780098	+	chr15	44782982	44783197,4	+	ENST00000260327,ENST00000558791,ENST00000558966	8712-8715	13,21,13,21
chr15	44894062	44893937	-	chr15	44892830	44892665,4	-	ENST00000261866,ENST00000535302,ENST00000427534,ENST00000558319,ENST00000558988	8716-8722	42,30,41,41,41,41,41
chr15	45890101	45892313	+	chr15	45895298	45895385	+	ENST00000220531,ENST00000569076,ENST00000565216,ENST00000565323	8723-8725	15,215,15
chr15	48957310	48956848	-	chr15	48905289	48905207	-	ENST00000316623,ENST00000537463	8726-8729	10,4,24,24
chr15	49016171	49016145	-	chr15	49009366	49009314	-	ENST00000561245	8730-8732	4,8,8
chr15	49061919	49061482	-	chr15	49061278	49061153	-	ENST00000380950,ENST00000399334,ENST00000325747	8733-8736	17,27,17,17
chr15	49081452	49081435	-	chr15	49081198	49080998	-	ENST00000380950,ENST00000399334,ENST00000325747,ENST00000560322	8737-8742	6,5,5,6,6,6
chr15	49428732	49428615	-	chr15	49426711	49426537	-	ENST00000388901,ENST00000299259,ENST00000542928,ENST00000558843,ENST00000561248	8743-8747	17,7,1,7,7
chr15	49517484	49517546	+	chr15	49528048	49528138,5	+	ENST00000327171,ENST00000560654,ENST00000560031,ENST00000396509,ENST00000558145,ENST00000544523,ENST00000560138,ENST00000559454	8748-8754	21,20,20,20,20,20,20
chr15	49600845	49600974	+	chr15	49611801	49612002	+	ENST00000327171,ENST00000560031,ENST00000396509,ENST00000544523,ENST00000559454,ENST00000558399,ENST00000559580	8755-8759	1,38,7,1,1
chr15	49763965	49764168	+	chr15	49775348	49775451	+	ENST00000267843,ENST00000560765,ENST00000560979	8760-8763	25,2,8,8
chr15	49843453	49842635	-	chr15	49834003	49833877	-	ENST00000299338,ENST00000560765	8764-8767	12,27,14,12
chr15	50211913	50211815	-	chr15	50211147	50211036	-	ENST00000284509,ENST00000559829,ENST00000557955	8768-8771	33,23,1,33
chr15	50211913	50211863	-	chr15	50211147	50211036	-	ENST00000284509,ENST00000559829,ENST00000557955	8772-8775	17,7,16,17
chr15	50249042	50248998	-	chr15	50226379	50226214	-	ENST00000284509,ENST00000559829,ENST00000557955	8776-8779	1,5,14,1
chr15	50606679	50606581	-	chr15	50601995	50601888	-	ENST00000380877,ENST00000220429,ENST00000429662,ENST00000396464,ENST00000359031,ENST00000560825,ENST00000558335,ENST00000558970	8780-8787	33,23,1,33,33,33,33
chr15	50606679	50606613	-	chr15	50601995	50601888	-	ENST00000380877,ENST00000220429,ENST00000429662,ENST00000396464,ENST00000359031,ENST00000560825,ENST00000558335,ENST00000558970	8788-8795	22,13,21,13,13,13,13
chr15	50744811	50744825	+	chr15	50751197	50751359,5	+	ENST00000307179,ENST00000433963,ENST00000396444,ENST00000425032,ENST00000559329,ENST00000558091	8796-8801	2,4,2,2,2,4
chr15	50748801	50748901	+	chr15	50751197	50751359,5	+	ENST00000307179,ENST00000433963,ENST00000396444,ENST00000425032,ENST00000559329,ENST00000558091	8802-8804	24,33,24

Table 10

						ENST00000560955,ENST000		31,10,35,10
chr15	50976331	50976100 -	chr15	50955243	50955164 -	00313478	8805-8808	
						ENST00000561441,ENST000		10,8,9,8,8
						00558439,ENST00000261842		
chr15	51201299	51201329 +	chr15	51204275	51204346 +		8809-8813	
						ENST00000261842,ENST000		47,57,21
chr15	51272081	51272958 +	chr15	51276219	51276342 +	00560508	8814-8816	
						ENST00000335449,ENST000		115,26,17,2
chr15	51652200	51652734 +	chr15	51669646	51669697 +	00558426	8817-8820	6
						ENST00000251076,ENST000		8,7,6,7
						00543779,ENST00000449909		
chr15	51789070	51789018 -	chr15	51787331	51787221 -		8821-8824	
chr15	52249319	52249269 -	chr15	52246772	52246678 -	ENST00000299601	8825-8827	17,7,16
						ENST00000399231,ENST000		18,9,1,9,9,9,
						00356338,ENST00000358212		9,9,1
						,ENST00000399233,ENST000		
						00553916,ENST00000556196		
chr15	52726494	52726440 -	chr15	52725482	52725372 -		8828-8836	
						ENST00000261844,ENST000		22,23
						00534964,ENST00000546305		
chr15	52898321	52898249 -	chr15	52897443	52897330 -	,ENST00000399202	8837-8838	
						ENST00000261844,ENST000		6,9,6,6,6,6,6
						00534964,ENST00000546305		,6
						,ENST00000562135,ENST000		
						00566768,ENST00000561490		
						,ENST00000561543,ENST000		
chr15	52917275	52917175 -	chr15	52906054	52905870 -	00568863	8839-8846	
						ENST00000260323,ENST000		7,24,92,7,24
						00537900,ENST00000545554		,7,24
chr15	54441128	54441405 +	chr15	54527228	54527306 +		8847-8853	
						ENST00000260323,ENST000		40,25,43
						00537900,ENST00000545554		
chr15	54875841	54876231 +	chr15	54914525	54914617 +		8854-8856	
						ENST00000260323,ENST000		41,26
						00537900,ENST00000545554		
chr15	54875841	54876235 +	chr15	54914525	54914617 +		8857-8858	
						ENST00000164305,ENST000		16,3,3
chr15	55611849	55611899 +	chr15	55612473	55612608 +	00566999	8859-8861	
						ENST00000539642,ENST000		1,13,6
chr15	55630862	55631171 +	chr15	55631465	55631516 +	00164305	8862-8864	
						ENST00000539642,ENST000		1,29,60,1,29
						00164305,ENST00000565502		
chr15	55640596	55640942 +	chr15	55642897	55643110,6 +		8865-8869	
						ENST00000508342,ENST000		23,13,23
						00435532,ENST00000506154		
chr15	56167815	56167747 -	chr15	56166206	56166156 -		8870-8872	
						ENST00000435532,ENST000		6,292,18,6
chr15	56280207	56279329 -	chr15	56258744	56258671 -	00502612	8873-8876	
						ENST00000435532,ENST000		13,3,9,13
chr15	56331216	56330932 -	chr15	56258744	56258671 -	00502612	8877-8880	
						ENST00000438423,ENST000		27,4,27,27
						00267811,ENST00000333725		
						,ENST00000557843,ENST000		
chr15	57220255	57220351 +	chr15	57355948	57356021 +	00557947	8881-8884	
						ENST00000380569,ENST000		45,12,29,45,
						00380560,ENST00000396180		45,45,45,45,
						,ENST00000572390,ENST000		45,45,45,45,
						00574161,ENST00000380561		45,45,45
						,ENST00000267853,ENST000		
						00587652,ENST00000380565		
						,ENST00000468886,ENST000		
						00471563,ENST00000488175		
						,ENST00000496101,ENST000		
						00380568,ENST00000460962		
						,ENST00000463717,ENST000		
						00477282,ENST00000482814		
						,ENST00000496627,ENST000		
chr15	57851017	57851304 +	chr15	57896467	57896553 +	00569089	8885-8899	
						ENST00000249750,ENST000		5,17
						00347587,ENST00000537372		
chr15	58712222	58712170 -	chr15	58306479	58306375 -	,ENST00000558231	8900-8901	
chr15	58942932	58942662 -	chr15	58938403	58938254 -	ENST00000260408	8902-8903	19,47

Table 10

						ENST00000316848,ENST00000559228,ENST00000450403		3,3,2,3,3
chr15	59137625	59137634 +	chr15	59139496	59139539,6 +		8904-8908	
						ENST00000380516,ENST00000492526,ENST00000557924,ENST00000558756,ENST00000249736,ENST00000559305,ENST00000559880,ENST00000558486,ENST00000560682		52,7
chr15	59210252	59210063 -	chr15	59209198	59209134,6 -		8909-8910	
						ENST00000380516,ENST00000492526,ENST00000557924,ENST00000558756,ENST00000249736,ENST00000559305,ENST00000559880,ENST00000558486,ENST00000560682		1,23,9,23,23,23,23,23,23,23
chr15	59212161	59212085 -	chr15	59209198	59209134,6 -		8911-8920	
						ENST00000348370,ENST00000434298,ENST00000559209,ENST00000557998,ENST00000561186,ENST00000559592		7,21,43,43,43,43
chr15	59329755	59330045 +	chr15	59344504	59344630 +		8921-8927	
						ENST00000288207,ENST00000559622	8928-8931	33,23,1,33
chr15	59401904	59402002 +	chr15	59406643	59406813 +			
						ENST00000288235,ENST00000558571	8932-8933	12,4
chr15	59621577	59621541 -	chr15	59564648	59564505 -			
						ENST00000558348,ENST00000560394,ENST00000288228,ENST00000560474,ENST00000560087,ENST00000560074		4,19,9,4,19,9,9,9,9,4,9,4
chr15	59776488	59776603 +	chr15	59784470	59784501,59; +	,ENST00000561361	8934-8945	
						ENST00000267859,ENST00000607373,ENST00000415213		6,11
chr15	59973945	59973845 -	chr15	59972507	59972440 -		8946-8947	
						ENST00000396024,ENST00000451270,ENST00000332680,ENST00000560014,ENST00000421017,ENST00000559176,ENST00000559818,ENST00000560367,ENST00000558503,ENST00000560389,ENST00000560165,ENST00000557906,ENST00000559350,ENST00000558558,ENST00000558986,ENST00000559467,ENST00000559956,ENST00000559780,ENST00000560468,ENST00000557904,ENST00000559370		14,4,22,4,4,4,4,4,4,4,4,4,4,4,4,4
chr15	60688417	60688350 -	chr15	60656722	60656628,6 -		8948-8964	
						ENST00000261520,ENST00000439632,ENST00000561114,ENST00000558512,ENST00000560895	8965-8969	2,28,2,2,2
chr15	60753278	60753191 -	chr15	60748993	60748856,6 -			
						ENST00000249837,ENST00000261517,ENST00000395896,ENST00000395898	8970-8972	5,1,1
chr15	62198738	62198068 -	chr15	62182599	62182364 -			
						ENST00000249837,ENST00000261517,ENST00000395896,ENST00000395898	8973-8976	3,5,11,11
chr15	62198738	62198101 -	chr15	62182599	62182364 -			
						ENST00000249837,ENST00000261517,ENST00000395896,ENST00000395898	8977-8980	36,35,1,36
chr15	62314345	62314238 -	chr15	62312737	62312678 -			
						ENST00000261893,ENST00000413507	8981-8984	26,4,12,12
chr15	63390455	63391179 +	chr15	63414835	63414901 +			
						ENST00000321437,ENST00000558119,ENST00000559006,ENST00000448330	8985-8990	13,24,4,24,24,4,24
chr15	63515040	63515272 +	chr15	63536955	63537015 +			
						ENST00000321437,ENST00000558119,ENST00000559006,ENST00000448330	8991-8996	19,23,4,19,19,19
chr15	63516109	63516178 +	chr15	63536955	63537015 +			
						ENST00000321437,ENST00000559006	8997-9001	12,3,13,12,13
chr15	63553283	63553357 +	chr15	63554891	63554941,6 +			

Table 10

						ENST00000540797,ENST00000380324,ENST00000268049,ENST00000539772,ENST00000559873,ENST00000558285,ENST00000559257,ENST00000559711	9002-9004	12,13,13
chr15	63865071	63865214 +	chr15	63866245	63866351,6 +			
chr15	63946042	63945974 -	chr15	63944740	63944613 -	ENST00000443617	9005-9007	10,20,22
chr15	63951751	63951651 -	chr15	63950917	63950743 -	ENST00000443617	9008-9010	33,24,11
chr15	63987886	63987717 -	chr15	63987093	63986973 -	ENST00000443617	9011-9013	10,47,2
chr15	64366099	64365987 -	chr15	64365227	64365130 -	ENST00000300030	9014-9016	15,4,11
chr15	64752985	64753037 +	chr15	64915026	64915251 +	ENST00000326648	9017-9019	17,17,17
chr15	64961184	64961284 +	chr15	64962545	64962632 +	ENST00000326648	9020-9022	22,33,11
						ENST00000268043,ENST00000333425,ENST00000559239	9023-9026	33,23,1,23
chr15	65114238	65114140 -	chr15	65113480	65113366 -			
						ENST00000268043,ENST00000333425,ENST00000559239	9027-9030	33,23,1,1
chr15	65114238	65114140 -	chr15	65113719	65113566 -			
						ENST00000204566,ENST00000559199,ENST00000433215,ENST00000416889	9031-9033	2,27,14
chr15	65261378	65261268 -	chr15	65257801	65257661 -			
						ENST00000204566,ENST00000559199,ENST00000433215,ENST00000416889	9034-9035	24,11
chr15	65261378	65261278 -	chr15	65257801	65257661 -			
						ENST00000204566,ENST00000433215,ENST00000561078,ENST00000416889	9036-9039	33,20,7,33
chr15	65266086	65265866 -	chr15	65262560	65262452,7 -			
						ENST00000220058,ENST00000558460,ENST00000543678	9040-9044	12,18,18,18, 18
chr15	65317450	65317395 -	chr15	65312610	65312535,7 -			
						ENST00000220058,ENST00000558460	9045-9047	12,18,18
chr15	65317450	65317395 -	chr15	65313954	65313852 -			
						ENST00000220058,ENST00000558460	9048-9050	12,18,18
chr15	65317450	65317395 -	chr15	65316132	65316010 -			
chr15	65593976	65592585 -	chr15	65563410	65563273 -	ENST00000261888	9051-9052	59,11
chr15	65685311	65685287 -	chr15	65684708	65684472 -	ENST00000352385	9053-9054	8,7
						ENST00000341861,ENST00000358939,ENST00000300141,ENST00000321147,ENST00000558786,ENST00000321118,ENST00000339244,ENST00000559233	9055-9056	24,11
chr15	65742047	65741947 -	chr15	65739344	65739222 -			
						ENST00000261875,ENST00000442729,ENST00000565299,ENST00000568793	9057-9059	11,5,11
chr15	65830345	65831275 +	chr15	65844014	65844056 +			
						ENST00000562901,ENST00000261875,ENST00000442729,ENST00000565299,ENST00000568793,ENST00000566074,ENST00000566511,ENST00000569894,ENST00000562832	9060-9063	17,7,16,17
chr15	65849532	65849582 +	chr15	65851018	65851069 +			
						ENST00000409699,ENST00000288745,ENST00000360698,ENST00000395625,ENST00000422354	9064-9067	12,18,2,18
chr15	66277619	66277564 -	chr15	66274826	66274580 -			
						ENST00000319194,ENST00000319212	9068-9069	5,4
chr15	66622021	66622036 +	chr15	66624213	66624358 +			
						ENST00000307102,ENST00000566326	9070-9072	8,27,26
chr15	66774952	66775033 +	chr15	66777328	66777529 +			
chr15	66975379	66975513 +	chr15	66976337	66976380 +	ENST00000558797	9073-9075	10,14,13
						ENST00000288840,ENST00000457357,ENST00000557916,ENST00000338426	9076-9078	2,34,34
chr15	67000809	67001260 +	chr15	67004006	67004062 +			
						ENST00000327367,ENST00000559092,ENST00000439724	9079-9082	35,43,12,35
chr15	67368929	67369158 +	chr15	67457233	67457426,7 +			
						ENST00000327367,ENST00000559092,ENST00000439724	9083-9086	21,20,20,20
chr15	67411087	67411149 +	chr15	67457233	67457426,7 +			
						ENST00000261880,ENST00000561452,ENST00000542650	9087-9089	9,14,18
chr15	67497540	67497357 -	chr15	67496486	67496382 -			

Table 10

							ENST00000261880,ENST00000561452,ENST00000542650	9090-9092	28,23,1
chr15	67504518	67504420	-	chr15	67501882	67501800	-	ENST00000178640,ENST00000395476,ENST00000354498	9093-9096	7,48,2,7
chr15	67833885	67834136	+	chr15	67842372	67842420	+	ENST00000178640,ENST00000395476,ENST00000354498	9097-9100	15,21,4,15
chr15	67855034	67855100	+	chr15	67855621	67855688	+	ENST00000178640,ENST00000395476,ENST00000354498	9101-9104	65,47,25,65
chr15	67929070	67929564	+	chr15	67938569	67938637	+	,ENST00000340972	9105-9108	ENST00000178640,ENST00000395476,ENST00000354498
chr15	67962134	67962785	+	chr15	67984817	67984890	+	,ENST00000340972	9109-9112	9,111,1,9
chr15	68377604	68377627	+	chr15	68378644	68379088	+	ENST00000249636,ENST00000564915,ENST00000545237	9113-9117	2,4,7,2
chr15	68478327	68479011	+	chr15	68479880	68480173,7	+	ENST00000249636,ENST00000545237,ENST00000563996	9118-9121	39,24,26,24,26
chr15	68505146	68505048	-	chr15	68504201	68504013,7	-	ENST00000249806,ENST00000538696,ENST00000564752	9122-9124	8,32,6,8
chr15	69628047	69629840	+	chr15	69689807	69689903	+	ENST00000395407,ENST00000561153,ENST00000340965	9125-9126	2,22,28
chr15	69643027	69643353	+	chr15	69672222	69672349	+	ENST00000395407,ENST00000561153,ENST00000340965	9127-9128	7,75
chr15	71567959	71568254	+	chr15	71704026	71704162	+	ENST00000355327,ENST00000261862	9129-9130	7,4
chr15	71624665	71624711	+	chr15	71704026	71704162	+	ENST00000355327,ENST00000261862	9131	4,2
chr15	71703089	71703157	+	chr15	71704026	71704162	+	ENST00000355327,ENST00000261862	9132-9133	13
chr15	71703089	71703189	+	chr15	71704026	71704162	+	ENST00000355327,ENST00000261862	9134-9135	33,24
chr15	71703089	71703371	+	chr15	71704026	71704162	+	ENST00000309731,ENST00000564129,ENST00000568594,ENST00000570275,ENST00000562288	9136-9142	21,34
chr15	72465071	72465066	-	chr15	72462280	72462188	-	ENST00000309731,ENST00000564129,ENST00000568594,ENST00000570275,ENST00000562288	9143-9148	2,1,1,1,1,1,1
chr15	72487697	72487602	-	chr15	72462280	72462188	-	ENST00000449901	9149-9151	25,31,31,31,31,31
chr15	72521811	72521610	-	chr15	72511451	72511285	-	ENST00000569795,ENST00000260376,ENST00000287196,ENST00000564610,ENST00000567974,ENST00000565443,ENST00000567263,ENST00000419739	9152-9159	11,40,13
chr15	72548437	72548371	-	chr15	72546861	72546796	-	ENST00000379887	9160-9162	22,13,5,13,13
chr15	72867641	72867776	+	chr15	72873072	72873332	+	ENST00000311669,ENST00000563907	9163-9165	1,13,3
chr15	73072831	73072538	-	chr15	73067438	73067213	-	ENST00000311669,ENST00000563907	9166	1,7,7
chr15	73072831	73072574	-	chr15	73067438	73067213	-	ENST00000563584	9167-9169	41
chr15	73976790	73976801	+	chr15	73991931	73992059	+	ENST00000318443,ENST00000537340,ENST00000318424,ENST00000561213,ENST00000564751,ENST00000561176,ENST00000559073	9170-9173	4,3,3
chr15	73976790	73976801	+	chr15	74001989	74002030	+	ENST00000563584	9174-9176	4,3,3,3
chr15	73986391	73986508	+	chr15	73991927	73992059	+	ENST00000318443,ENST00000537340,ENST00000318424,ENST00000564751,ENST00000561176,ENST00000559073	9177-9178	16,12,9
chr15	74004214	74004224	+	chr15	74005275	74005297	+	ENST00000566011,ENST00000261921	9179-9183	3,3
chr15	74228975	74229039	+	chr15	74235195	74235204,7	+			21,11,21,11,21

Table 16

							ENST00000395105,ENST000	33,6,16,33,6
							00423167,ENST00000323940	,16
							,ENST00000449139,ENST000	
							00416286,ENST00000535552	
							,ENST00000563965,ENST000	
							00574278,ENST00000572785	
chr15	74475884	74475786	-	chr15	74474801	74474684	-	9184-9189
							ENST00000261918,ENST000	3,4,4
chr15	74712594	74712580	-	chr15	74711293	74711142	-	00543145 9190-9192
							ENST00000395048,ENST000	45,7,18,7
							00379727,ENST00000567032	
chr15	75030988	75030728	-	chr15	75014875	75014614	-	,ENST00000395049 9193-9196
							ENST00000322347,ENST000	19,6,17
							00567270,ENST00000568517	
chr15	75218816	75218716	-	chr15	75216111	75215998	-	,ENST00000564811 9197-9199
							ENST00000342932,ENST000	34,21,13,13,
							00568649,ENST00000562095	13
chr15	75334710	75334978	+	chr15	75335782	75335877,8	+	9200-9204
							ENST00000394947,ENST000	18,1,21,21,2
							00360439,ENST00000394949	1,21,21,21,2
							,ENST00000564778,ENST000	1,21
							00562776,ENST00000568431	
							,ENST00000567289,ENST000	
							00570115,ENST00000568309	
chr15	75717113	75716824	-	chr15	75715164	75714988,75	-	,ENST00000568190 9205-9214
							ENST00000566417,ENST000	10,8,36,10
							00394907,ENST00000563910	
chr15	76251615	76251363	-	chr15	76248347	76248273	-	9215-9218
							ENST00000566417,ENST000	3,1,33,33,33
							00394907,ENST00000563204	
							,ENST00000563910,ENST000	
chr15	76298180	76298078	-	chr15	76254315	76254169	-	00535975 9219-9223
							ENST00000557943,ENST000	13,10,21,13,
							00267950,ENST00000560595	13,13
chr15	76605787	76605536	-	chr15	76588078	76587932	-	,ENST00000559386 9224-9229
							ENST00000538941,ENST000	2,54,14,14,1
							00563290,ENST00000324767	4
							,ENST00000564590,ENST000	
chr15	77032094	77031643	-	chr15	77025725	77025570	-	00565970 9230-9234
							ENST00000267970,ENST000	36,5,26,26
chr15	77359540	77359221	-	chr15	77348597	77348406	-	00346495 9235-9238
							ENST00000299518,ENST000	2,13,5,5,5
							00558933,ENST00000558554	
							,ENST00000558509,ENST000	
chr15	78448687	78448775	+	chr15	78449890	78449973	+	00559803 9239-9243
chr15	79096093	79096044	-	chr15	79092889	79092534	-	ENST00000388820 9244-9245 5,16
							ENST00000379535,ENST000	21,13,37,21,
							00426013,ENST00000331268	21,21
							,ENST00000558746,ENST000	
chr15	79167833	79168112	+	chr15	79170555	79170601	+	00560422 9246-9251
							ENST00000220166,ENST000	4,21,21
chr15	79233486	79233413	-	chr15	79231513	79231482	-	00533777 9252-9254
chr15	79649053	79649214	+	chr15	79703742	79703846	+	ENST00000424155 9255-9256 29,1
							ENST00000261749,ENST000	15,15,14,15,
							00561060,ENST00000559157	15,15,15,15,
							,ENST00000558494,ENST000	15,15,15
							00559835,ENST00000559775	
							,ENST00000558688,ENST000	
							00560976,ENST00000558390	
							,ENST00000558997,ENST000	
							00558087,ENST00000558724	
chr15	80352106	80352151	+	chr15	80423522	80423635,80	+	9257-9267
							ENST00000561012,ENST000	17,2,13,2,2,
							00560976,ENST00000558390	2
chr15	80352983	80353050	+	chr15	80412670	80412746,8	+	,ENST00000558724 9268-9273
							ENST00000561012,ENST000	28,13,23,28,
							00560976,ENST00000558390	28,28
chr15	80352983	80353082	+	chr15	80412670	80412746,8	+	,ENST00000558724 9274-9279
							ENST00000261749,ENST000	6,21,1,21,1
							00561060,ENST00000559157	
							,ENST00000564367,ENST000	
							00558494,ENST00000559835	
							,ENST00000559775,ENST000	
chr15	80424477	80425006	+	chr15	80429822	80429970,8	+	00558087 9280-9284

							ENST00000261749,ENST00000561060,ENST00000559157,ENST00000564367,ENST00000558494,ENST00000559835,ENST00000559775,ENST00000558087	66,1,66,1
chr15	80426632	80427511	+	chr15	80429822	80429970,8	+	9285-9288	
							ENST00000303329,ENST00000533983,ENST00000527771,ENST00000525103	12,64,3,64
chr15	80803215	80803505	+	chr15	80806252	80806317	+	9289-9292	
chr15	81195441	81195438	-	chr15	81189680	81189595	-	ENST00000560560	9293-9294	1,1
							ENST00000220244,ENST00000356249,ENST00000394685	20,13
chr15	81211878	81211939	+	chr15	81212435	81212640	+	9295-9296	
chr15	81245283	81245278	-	chr15	81244637	81244434	-	ENST00000422879	9297-9299	2,1,1
							ENST00000559388,ENST00000394660,ENST00000302987	9,13,35,9,9
chr15	81588644	81588751	+	chr15	81589269	81589419	+	9300-9304	
							ENST00000268206,ENST00000359445	15,14,7
chr15	82448581	82448537	-	chr15	82444764	82443806	-	9305-9307	
							ENST00000561062,ENST00000358583	2,2,1,2
chr15	82808711	82808717	+	chr15	83102875	83103327	+	9308-9311	
							ENST00000561062,ENST00000358583	2,2,1,2
chr15	82808711	82808717	+	chr15	83103022	83103327	+	9312-9315	
							ENST00000561062,ENST00000358583	28,28,20,28
chr15	82808711	82808795	+	chr15	83103079	83103327	+	9316-9319	
							ENST00000563800,ENST00000562019,ENST00000568128	57,4,57
chr15	83263939	83262993	-	chr15	83240282	83240094	-	,ENST00000261723	9320-9322	
chr15	83486167	83486454	+	chr15	83486672	83486841	+	ENST00000286760	9323-9324	6,55
							ENST00000450735,ENST00000304231,ENST00000399166	2,14
chr15	83565808	83565670	-	chr15	83561593	83561437	-	,ENST00000426485	9325-9326	
chr15	83667946	83667118	-	chr15	83657580	83657392	-	ENST00000514272	9327-9329	14,1,27
chr15	83667946	83667118	-	chr15	83660798	83660684	-	ENST00000451195	9330-9332	14,1,27
chr15	83667946	83667158	-	chr15	83660798	83660684	-	ENST00000451195	9333-9335	1,37,14
							ENST00000538348,ENST00000510873,ENST00000512638,ENST00000451195,ENST00000304177,ENST00000513601,ENST00000508990,ENST00000563387	4,47,86,4,4,4,4,4
chr15	83679987	83679727	-	chr15	83679115	83678989,8	-	9336-9343	
							ENST00000299633,ENST00000562702	26,12,12
chr15	83835732	83835477	-	chr15	83832827	83832751	-	9344-9346	
							ENST00000299633,ENST00000562702	2,13,12,13
chr15	83856358	83856319	-	chr15	83832827	83832751	-	9347-9350	
							ENST00000427482,ENST00000563901,ENST00000535412,ENST00000324537,ENST00000434347	42,50,48,48,48
chr15	84202781	84203022	+	chr15	84228005	84228073	+	9351-9355	
							ENST00000558134,ENST00000560266,ENST00000268220,ENST00000558217,ENST00000560409,ENST00000559729	9,13,17,9,9,9,9,9
chr15	85257684	85257616	-	chr15	85234875	85234766	-	9356-9363	
chr15	85398808	85398974	+	chr15	85399623	85401786	+	ENST00000258888	9364-9366	6,13,1
chr15	89010354	89010295	-	chr15	89009004	89008818	-	ENST00000312475	9367-9369	9,11,2
							ENST00000325844,ENST00000353598	1
chr15	89017812	89017814	+	chr15	89018341	89018470	+	9370		
chr15	89430863	89430657	-	chr15	89430576	89430406	-	ENST00000562889	9371-9373	46,2,5
chr15	89759852	89759630	-	chr15	89758469	89758291	-	ENST00000268125	9374-9376	20,7,33
							ENST00000300027,ENST00000310775,ENST00000447611	3,2,3,2,3
chr15	89852720	89852729	+	chr15	89856135	89856203,9	+	,ENST00000561894	9377-9381	
chr15	90174340	90174129	-	chr15	90173724	90173518	-	ENST00000394412	9382-9383	47,2
chr15	90174340	90174160	-	chr15	90173724	90173518	-	ENST00000394412	9384-9385	37,1
chr15	90186199	90186109	-	chr15	90185636	90185434	-	ENST00000394412	9386-9388	13,1,4
							ENST00000336418,ENST00000398333,ENST00000558011,ENST00000560940,ENST00000558648,ENST00000559629	8,6,8,8,8
chr15	90388576	90388551	-	chr15	90380954	90380847,9	-	9389-9393	
							ENST00000398333,ENST00000357484	23,13,13
chr15	90455352	90455284	-	chr15	90454051	90453976	-	9394-9396	

Table 10

						ENST00000330062,ENST000		37,90,53,53
chr15	90646932	90646552 -	chr15	90634876	90634785 -	00559482	9397-9400	
						ENST00000355112,ENST000		4,4,4,4
chr15	91331203	91331216 +	chr15	91333879	91334074 +	00560509	9401-9404	
						ENST00000560451,ENST000		1,11,27,11,1
						00558161,ENST00000559717		1,11,27,11,2
						,ENST00000360468,ENST000		7
						00557865,ENST00000560616		
chr15	91451328	91451474 +	chr15	91452557	91452734 +		9405-9413	
						ENST00000394275,ENST000		2,1,55
chr15	91479793	91480187 +	chr15	91482961	91483053 +	00418476	9414-9416	
						ENST00000394275,ENST000		7,27,2
chr15	91490265	91490360 +	chr15	91491026	91491120 +	00418476	9417-9419	
						ENST00000333371,ENST000		24,45,14
						00535843,ENST00000535906		
chr15	91552278	91552134 -	chr15	91551194	91551100 -		9420-9422	
						ENST00000318445,ENST000		7,50,22,22,2
						00424469,ENST00000553304		2
chr15	92016252	92016546 +	chr15	92459223	92459688,9 +		9423-9427	
						ENST00000318445,ENST000		7,36,40,40,4
						00424469,ENST00000553304		0
chr15	92439647	92439924 +	chr15	92459223	92459688,9 +		9428-9432	
						ENST00000318445,ENST000		9,25,25,25
chr15	92501622	92501699 +	chr15	92638111	92638209 +	00424469	9433-9436	
chr15	93200507	93200043 -	chr15	93173575	93173444 -	ENST00000327355	9437-9439	36,4,15
						ENST00000394196,ENST000		25,13,23,25,
						00557381,ENST00000557116		25
chr15	93517185	93517271 +	chr15	93518109	93518180 +		9440-9444	
						ENST00000543482,ENST000		25,29,29,29,
						00456504,ENST00000451018		29
chr15	94821273	94821492 +	chr15	94857511	94857573 +	,ENST00000357742	9445-9449	
						ENST00000268035,ENST000		30,13,3,13,1
						00558762,ENST00000558355		3
chr15	99433390	99433697 +	chr15	99434554	99434867 +		9450-9454	
						ENST00000459771,ENST000		5,24,24,24,5
						00394132,ENST00000262074		,24,5,24,5,2
						,ENST00000394136,ENST000		4
						00558613,ENST00000558663		
						,ENST00000394135,ENST000		
						00394130,ENST00000394129		
						,ENST00000561365,ENST000		
						00560279,ENST00000560860		
chr15	99761110	99760964 -	chr15	99759253	99759104 -		9455-9464	
						ENST00000459771,ENST000		4,8,3,3,3,3,3
						00394132,ENST00000262074		,3,3
						,ENST00000394136,ENST000		
						00558613,ENST00000558663		
						,ENST00000394135,ENST000		
						00394130,ENST00000394129		
						,ENST00000561365,ENST000		
						00560279,ENST00000560860		
chr15	99765614	99765589 -	chr15	99762069	99761947 -	,ENST00000560772	9465-9473	
						ENST00000301981,ENST000		6,52,32,6,6,
						00422500,ENST00000447360		6
						,ENST00000558172,ENST000		
chr15	99900316	99900491 +	chr15	99901541	99901717 +	00561276	9474-9479	
chr16	101130	100849 -	chr16	97557	97430 -	ENST00000293860	9480-9481	47,7
chr16	103424	103201 -	chr16	101645	101558 -	ENST00000293860	9482-9484	74,74,3
						ENST00000396559,ENST000		31,16,3,16
						00396560,ENST00000356427		
chr16	10548955	10549048 +	chr16	10551229	10551386 +	,ENST00000324570	9485-9488	
chr16	10722197	10722040 -	chr16	10721656	10721440 -	ENST00000283025	9489-9491	39,52,52
						ENST00000283025,ENST000		4,7,21,4,21
chr16	10765848	10765567 -	chr16	10729775	10729621 -	00576638	9492-9496	
						ENST00000324288,ENST000		10,3,50,3,50
						00381835,ENST00000571186		,3,50,50
chr16	10992987	10993469 +	chr16	10995371	10995415 +	,ENST00000576601	9497-9504	
						ENST00000324288,ENST000		15,15,14
chr16	11016414	11016459 +	chr16	11017085	11017160 +	00381835	9505-9507	
						ENST00000409790,ENST000		29,2,6,29
chr16	11086967	11087053 +	chr16	11096931	11097162,1 +	00409552	9508-9511	
						ENST00000409790,ENST000		29,6,6
chr16	11086967	11087053 +	chr16	11114050	11114182 +	00409552	9512-9514	

						ENST00000409790,ENST000		8,24,33,8,33
chr16	11243796	11243898 +	chr16	11260245	11260409 +	00261657	9515-9519	
						ENST00000572173,ENST000		17,7,16,7,16
						00381820,ENST00000312499		
chr16	11444166	11444216 +	chr16	11444499	11444647,1 +	,ENST00000576027	9520-9524	
						ENST00000283033,ENST000		43,20,55
chr16	11780113	11779821 -	chr16	11778101	11778021 -	00356957	9525-9527	
						ENST00000283033,ENST000		13,21,21,21
						00356957,ENST00000575591		
chr16	11803589	11803524 -	chr16	11794420	11794308 -		9528-9531	
						ENST00000566228,ENST000		8,24,8
						00323433,ENST00000306030		
chr16	12238230	12238489 +	chr16	12293458	12293540 +	,ENST00000564791	9532-9534	
						ENST00000566228,ENST000		25,17,22
chr16	12661360	12661477 +	chr16	12662363	12662486 +	00306030	9535-9537	
						ENST00000381774,ENST000		8,23
chr16	12860483	12860214 -	chr16	12758972	12758743 -	00433677	9538-9539	
chr16	12860483	12860214 -	chr16	12798906	12798481 -	ENST00000381774	9540-9541	8,23
						ENST00000381774,ENST000		1,11,45
chr16	12860483	12860252 -	chr16	12758972	12758743 -	00433677	9542-9544	
chr16	12860483	12860252 -	chr16	12798906	12798481 -	ENST00000381774	9545-9547	1,11,45
						ENST00000575156,ENST000		41,43,43,43,
						00311895,ENST00000574194		43
chr16	14020017	14020148 +	chr16	14020418	14020613 +		9548-9552	
						ENST00000437198,ENST000		1,13,11
						00420015,ENST00000341484		
chr16	14605843	14605591 -	chr16	14576684	14576495 -	,ENST00000539279	9553-9555	
						ENST00000437198,ENST000		18,10,9
						00420015,ENST00000341484		
chr16	14605843	14605599 -	chr16	14576684	14576495 -	,ENST00000539279	9556-9558	
						ENST00000437198,ENST000		7,31,31
						00420015,ENST00000341484		
						,ENST00000539279,ENST000		
chr16	14698416	14698232 -	chr16	14698083	14698003,1 -	00538472	9559-9561	
						ENST00000437198,ENST000		13,7,13
						00420015,ENST00000341484		
						,ENST00000539279,ENST000		
chr16	14699100	14698911 -	chr16	14698083	14698003,1 -	00538472	9562-9564	
						ENST00000437198,ENST000		17,2,2
						00420015,ENST00000341484		
						,ENST00000539279,ENST000		
chr16	14699964	14699912 -	chr16	14693817	14693761 -	00569444	9565-9567	
chr16	14775280	14775189 -	chr16	14772599	14772580 -	ENST00000567462	9568-9570	4,30,8
chr16	14775280	14775189 -	chr16	14772617	14772580 -	ENST00000567462	9571-9573	4,30,8
						ENST00000409671,ENST000		8,40,40
chr16	1489880	1489759 -	chr16	1489127	1489026 -	00389176	9574-9576	
chr16	14959356	14959361 +	chr16	14960412	14960548 +	ENST00000287667	9577-9578	1,1
chr16	14980119	14980186 +	chr16	14980618	14980719 +	ENST00000287667	9579-9581	21,6,22
						ENST00000287667,ENST000		16,4
chr16	14983739	14983896 +	chr16	14988855	14988947 +	00565655	9582-9583	
						ENST00000287706,ENST000		46,45,1,46,4
chr16	15145500	15145363 -	chr16	15141956	15141854,2 -	00566419	9584-9589	5,1
						ENST00000198767,ENST000		23,13,23,23
						00563559,ENST00000429751		
						,ENST00000327307,ENST000		
						00540462,ENST00000564131		
chr16	15171135	15171067 -	chr16	15170507	15170415,2 -		9590-9593	
						ENST00000448525,ENST000		2,17,20,2,2,
						00382745,ENST00000262318		2,17
						,ENST00000569851,ENST000		
chr16	1521687	1521625 -	chr16	1511675	1511604 -	00564568	9594-9600	
						ENST00000300006,ENST000		8,17,15,8,8,
						00566490,ENST00000452191		8,8
						,ENST00000564389,ENST000		
						00561692,ENST00000565857		
chr16	15626793	15626992 +	chr16	15661840	15661913 +		9601-9607	
						ENST00000300006,ENST000		7,4
						00566490,ENST00000452191		
						,ENST00000564389,ENST000		
						00561692,ENST00000565857		
chr16	15666585	15666865 +	chr16	15675074	15675188 +		9608-9609	

Table 16

								ENST00000396368,ENST00000540441,ENST00000344181,ENST00000548025,ENST00000551742,ENST00000602337	25,7,4,7,7
chr16	15707179	15706995	-	chr16	15706634	15706414,2	-	,ENST00000552553	9610-9614
								ENST00000399410,ENST00000345148,ENST00000346370,ENST00000349029,ENST00000351154,ENST00000399408	46,1,13,13,13,13,13,13
chr16	16162563	16162702	+	chr16	16165499	16165586	+	,ENST00000572882	9615-9622
								ENST00000399410,ENST00000345148,ENST00000346370,ENST00000349029,ENST00000351154,ENST00000399408	8,8,7,7,7,8,7,8,7,7
chr16	16171624	16171648	+	chr16	16173209	16173335	+	,ENST00000572882	9623-9632
chr16	1629378	1629212	-	chr16	1621535	1621408	-	ENST00000426508	9633-9634 51,7
								ENST00000399336,ENST00000263012,ENST00000538468	1,1,1
chr16	16357845	16357850	+	chr16	16358900	16359036	+		9635-9637
								ENST00000399336,ENST00000263012,ENST00000538468	21,6,22,22
chr16	16378763	16378830	+	chr16	16379262	16379363	+		9638-9641
								ENST00000399336,ENST00000263012,ENST00000538468	16,40,40
chr16	16382391	16382548	+	chr16	16387509	16387601	+		9642-9644
								ENST00000399957,ENST00000399953,ENST00000422814	16,16,5,16,16,16
chr16	165271	165223	-	chr16	162774	162753,16262	-	,ENST00000419636	9645-9651
								ENST00000397412,ENST00000436138,ENST00000293925	17,7,16
chr16	1719984	1720034	+	chr16	1720665	1720810	+	,ENST00000262317	9652-9654
chr16	17217149	17215639	-	chr16	17211836	17211503	-	ENST00000261381	9655-9657 8,1,11
chr16	17217149	17215958	-	chr16	17211836	17211503	-	ENST00000261381	9658-9660 12,59,16
								ENST00000562684,ENST00000566925,ENST00000569765	28,33,23,33,23,23
chr16	1729775	1729874	+	chr16	1733510	1733593,17	+		9661-9666
chr16	17321868	17321816	-	chr16	17294511	17294339	-	ENST00000261381	9667-9668 17,4
chr16	17330836	17330452	-	chr16	17294511	17294339	-	ENST00000261381	9669-9671 1,42,35
								ENST00000248098,ENST00000562684,ENST00000561516,ENST00000566742,ENST00000566925,ENST00000569765	7,33,18,33,33,33
chr16	1734461	1734682	+	chr16	1735440	1735588,17	+	,ENST00000382710	9672-9677
								ENST00000248098,ENST00000562684,ENST00000561516,ENST00000566742,ENST00000566925,ENST00000569765	7,16,16,7,7,7
chr16	1735047	1735096	+	chr16	1735440	1735588,17	+	,ENST00000382710	9678-9683
chr16	17497585	17497303	-	chr16	17451907	17451869	-	ENST00000261381	9684-9685 16,7
								ENST00000250894,ENST00000356010	11,11,11,11 9686-9689
chr16	1779570	1779604	+	chr16	1793336	1793477	+	ENST00000330537,ENST00000381474,ENST00000543392	21,6,22,22
chr16	18521087	18521020	-	chr16	18520588	18520487	-		9690-9693
								ENST00000330537,ENST00000381474,ENST00000543392,ENST00000567831,ENST00000569051	24,1,30,1,1
chr16	18539587	18539152	-	chr16	18538946	18538859	-		9694-9698
								ENST00000330537,ENST00000381474,ENST00000543392	5,48,48,48
chr16	18541692	18541547	-	chr16	18540959	18540823	-	,ENST00000569051	9699-9702
								ENST00000330537,ENST00000381474,ENST00000543392	1,1,1,1
chr16	18542015	18542010	-	chr16	18540959	18540823	-	,ENST00000569051	9703-9706
								ENST00000322989,ENST00000572008,ENST00000563390,ENST00000565420,ENST00000563579	27,14,14
chr16	18795209	18795127	-	chr16	18794424	18794331,2	-		9707-9709
								ENST00000389467,ENST00000446231,ENST00000565324	17,7,16
chr16	18831825	18831775	-	chr16	18830976	18830824	-		9710-9712
								ENST00000389467,ENST00000446231,ENST00000565324	9,13,9
chr16	18862376	18862308	-	chr16	18861789	18861559	-		9713-9715

Table 10

chr16	18995846	18995903	+	chr16	19020494	19020737	+	ENST00000569532,ENST00000304381	9716-9718	17,14,17
chr16	19012061	19012159	+	chr16	19020494	19020737	+	ENST00000569532,ENST00000304381	9719-9721	33,6,6
chr16	19079421	19079552	+	chr16	19083250	19083428	+	ENST00000321998,ENST00000566049,ENST00000568985,ENST00000569312,ENST00000569127	9722-9726	6,4,6,4,4
chr16	19486110	19486196	+	chr16	19488762	19488840	+	ENST00000541464,ENST00000381414,ENST00000396229,ENST00000542583,ENST00000219821,ENST00000561503,ENST00000564959	9727-9729	29,9,9
chr16	19642365	19642480	+	chr16	19644414	19644494	+	ENST00000438132,ENST00000542263,ENST00000417362,ENST00000251143,ENST00000543152,ENST00000448695	9730-9732	8,30,30
chr16	2060688	2060600	-	chr16	2053729	2053617	-	ENST00000563630,ENST00000431526,ENST00000562103	9733-9734	29,26
chr16	20684551	20684474	-	chr16	20682993	20682853	-	ENST00000307493,ENST00000520010	9735-9737	16,21,2
chr16	20766857	20766938	+	chr16	20787161	20787242,2	+	ENST00000568235,ENST00000289416,ENST00000440284,ENST00000561795,ENST00000450120,ENST00000562251	9738-9745	1,23,9,23,9,23,23,23
chr16	20818619	20818685	+	chr16	20824512	20824624	+	ENST00000568894,ENST00000568046,ENST00000566993,ENST00000261377,ENST00000348433,ENST00000568647,ENST00000566518,ENST00000564274,ENST00000563068	9746-9755	22,13,21,13,13,13,13,13,13
chr16	20837884	20837952	+	chr16	20838380	20838518,2	+	ENST00000261377,ENST00000348433,ENST00000566276,ENST00000565340,ENST00000564274	9756-9761	23,22,20,22,22,22
chr16	20949145	20949014	-	chr16	20948175	20947971	-	ENST00000261383	9762-9764	20,3,17
chr16	21001529	21000058	-	chr16	20999387	20999264	-	ENST00000261383	9765-9766	11,44
chr16	21060024	21059883	-	chr16	21051265	21051174	-	ENST00000261383,ENST00000415178	9767-9770	21,15,46,15
chr16	21060024	21059883	-	chr16	21053525	21053349	-	ENST00000261383,ENST00000415178	9771-9774	21,15,46,15
chr16	21060024	21059927	-	chr16	21051265	21051174	-	ENST00000261383,ENST00000415178	9775-9777	6,32,32
chr16	21060024	21059927	-	chr16	21053521	21053349	-	ENST00000261383,ENST00000415178	9778-9779	6,32
chr16	2115133	2115231	+	chr16	2115520	2115636	+	ENST00000219476,ENST00000382538,ENST00000401874,ENST00000353929,ENST00000439673,ENST00000350773,ENST00000568454	9780-9786	11,23,1,11,11,11,11
chr16	21176500	21176568	+	chr16	21178161	21178232,2	+	ENST00000573487,ENST00000451578,ENST00000577162	9787-9791	23,11,23,23,11
chr16	2118595	2118777	+	chr16	2120457	2120579	+	ENST00000219476,ENST00000382538,ENST00000401874,ENST00000353929,ENST00000439673,ENST00000350773,ENST00000568454	9792-9797	27,7,27,27,27,7,27
chr16	21314566	21314299	-	chr16	21286915	21286853	-	ENST00000574448,ENST00000543948,ENST00000219599,ENST00000396023,ENST00000415987,ENST00000576703,ENST00000572914	9798-9803	18,39,7,39,39,39
chr16	2142891	2142838	-	chr16	2142593	2142481,21	-	ENST00000262304,ENST00000423118,ENST00000562425	9804-9808	9,2,17,2,17
chr16	2148816	2148723	-	chr16	2147985	2147869	-	ENST00000262304,ENST00000423118,ENST00000567946	9809-9814	16,19,12,19,12,19

Table 16

							ENST00000262304,ENST000		20,41,34,20,
							00423118,ENST00000567946		34,34
chr16	2149538	2149321	-	chr16	2147985	2147869 -		9815-9820	
							ENST00000567404,ENST000		1,18,17,17,1
							00358154,ENST00000396014		7,17
chr16	21623619	21623749	+	chr16	21623966	21624156,2 +	,ENST00000570074	9821-9826	
							ENST00000567404,ENST000		1,13,2,2,2,2,
							00358154,ENST00000396014		2
							,ENST00000562379,ENST000		
chr16	21628767	21629034	+	chr16	21629186	21629395,2 +	00562961	9827-9833	
							ENST00000567404,ENST000		18,13,13,13,
							00358154,ENST00000396014		13,13,13
							,ENST00000562961,ENST000		
							00568826,ENST00000569290		
chr16	21635766	21635834	+	chr16	21636252	21636436,2 +		9834-9840	
							ENST00000326181,ENST000		11,11,10,11,
							00564067,ENST00000567645		11,11
chr16	2205826	2205859	+	chr16	2218078	2218169,22 +		9841-9846	
chr16	22293776	22293844	+	chr16	22295208	22295317 +	ENST00000263026	9847-9849	4,18,10
							ENST00000299853,ENST000		2,7,14,14,14
							00564209,ENST00000565358		,14,14
							,ENST00000418581,ENST000		
							00359210,ENST00000563024		
chr16	22321432	22321557	+	chr16	22324941	22325048,22: +		9850-9856	
							ENST00000299853,ENST000		8,11,5
							00564209,ENST00000418581		
chr16	22343727	22343901	+	chr16	22344965	22345021 +	,ENST00000359210	9857-9859	
chr16	2255832	2255968	+	chr16	2256062	2256215 +	ENST00000301725	9860-9862	6,11,45
chr16	23347412	23347490	+	chr16	23359913	23360231 +	ENST00000307331	9863-9865	5,2,25
chr16	23406427	23406329	-	chr16	23404668	23404554 -	ENST00000307149	9866-9867	11,24
chr16	23427649	23427514	-	chr16	23424885	23424769 -	ENST00000307149	9868-9870	45,5,22
chr16	23491663	23491553	-	chr16	23491208	23491086 -	ENST00000309859	9871-9873	19,9,36
							ENST00000449606,ENST000		12,37,1,1,1
							00563459,ENST00000564501		
chr16	23556462	23556322	-	chr16	23556024	23555835 -	,ENST00000563232	9874-9878	
							ENST00000449606,ENST000		17,7,16,16,1
							00563459,ENST00000564501		6,16
							,ENST00000563232,ENST000		
chr16	23567979	23567929	-	chr16	23563625	23563470,2 -	00564668	9879-9884	
							ENST00000219638,ENST000		17,2
							00395878,ENST00000567212		
chr16	23575135	23575410	+	chr16	23578308	23578390 +		9885-9886	
							ENST00000300087,ENST000		8,4,8,8,4,8,8
							00563998,ENST00000566053		
							,ENST00000568589,ENST000		
chr16	23671837	23671862	+	chr16	23672491	23672602,2 +	00566298	9887-9893	
							ENST00000321728,ENST000		24,24,23,24
chr16	23915006	23915078	+	chr16	23999829	23999911 +	00303531	9894-9897	
							ENST00000399069,ENST000		20,16,2,2,2,
							00380962,ENST00000380966		2,2
							,ENST00000564011,ENST000		
chr16	25138403	25138478	+	chr16	25139796	25139887,251 +	00570981	9898-9904	
chr16	25256305	25256068	-	chr16	25255597	25255106 -	ENST00000328086	9905-9907	11,39,19
chr16	25760940	25760943	+	chr16	26146933	26147569 +	ENST00000331351	9908	1
chr16	26142175	26142230	+	chr16	26146933	26147569 +	ENST00000331351	9909-9911	18,18,7
							ENST00000342085,ENST000		12,34,2,12,3
							00566659,ENST00000441549		4,12
							,ENST00000268673,ENST000		
chr16	2621656	2621785	+	chr16	2627426	2627501 +	00389224	9912-9917	
							ENST00000361439,ENST000		1,11,1,11
chr16	27239405	27239305	-	chr16	27238157	27238041 -	00562039	9918-9921	
							ENST00000361439,ENST000		2,13,13,13,1
							00563273,ENST00000564342		3,13
chr16	27245002	27244962	-	chr16	27244468	27244322,27: -	,ENST00000563900	9922-9927	
							ENST00000361439,ENST000		53,1,8,1,1,1
							00563273,ENST00000564342		
chr16	27245223	27245064	-	chr16	27244468	27244322,27: -	,ENST00000563900	9928-9933	
chr16	27564854	27564954	+	chr16	27585222	27585277 +	ENST00000261588	9934-9935	24,33
chr16	27578668	27578792	+	chr16	27585222	27585277 +	ENST00000261588	9936-9938	7,14,19
							ENST00000261588,ENST000		58,4,58,58
chr16	27611223	27611398	+	chr16	27629746	27629822 +	00568258	9939-9942	
							ENST00000565698,ENST000		11,32,11,11
							00304658,ENST00000570033		
chr16	28188129	28188030	-	chr16	28187416	28187219,3 -	,ENST00000569951	9943-9946	

Table 16

chr16	28200565	28200381	-	chr16	28192352	28192262	-	ENST00000304658	9947-9948	34,61
								ENST00000262306,ENST00000409906,ENST00000409477		15,48,4,4
chr16	2826090	2825942	-	chr16	2825557	2825452	-	,ENST00000494946	9949-9952	
								ENST00000262306,ENST00000409906,ENST00000494946		24,13,31,13,13,13
chr16	2830169	2829914	-	chr16	2827128	2826994	-	,ENST00000572954	9953-9958	
								ENST00000398944,ENST00000380876,ENST00000398943		4,1,20
chr16	28407397	28407334	-	chr16	28403463	28403301	-		9959-9961	
								ENST00000566501,ENST00000331666,ENST00000395587,ENST00000569690,ENST00000564243,ENST00000566866		11,13,13,13
chr16	28724048	28724137	+	chr16	28725022	28725087	+		9962-9965	
								ENST00000566501,ENST00000331666,ENST00000395587,ENST00000564243,ENST00000566866		1,4,20
chr16	28730551	28730614	+	chr16	28734485	28734644	+		9966-9968	
								ENST00000395461,ENST00000564277,ENST00000395456,ENST00000454369,ENST00000360872,ENST00000354453,ENST00000566177,ENST00000570232		10,27,18,10
chr16	29000072	29000300	+	chr16	29000848	29000910	+		9969-9972	
								ENST00000549950,ENST00000551411,ENST00000549858		4,14,8,14,14
chr16	29491804	29491761	-	chr16	29477062	29476933	-		9973-9977	
								ENST00000449759,ENST00000395384,ENST00000562473		16,68,3,16,68,3
chr16	29681899	29682103	+	chr16	29705985	29706465,297	+		9978-9986	
								ENST00000395384,ENST00000562473		16,68,3
chr16	29681899	29682103	+	chr16	29708317	29708448	+		9987-9989	
								ENST00000395384,ENST00000562473		21,20,5
chr16	29692671	29692733	+	chr16	29708317	29708448	+		9990-9992	
								ENST00000561482,ENST00000160827,ENST00000400751		41,17,19,17
chr16	29811494	29811781	+	chr16	29814090	29814258	+	,ENST00000569382	9993-9996	
								ENST00000308748,ENST00000414952,ENST00000566693		10,51,30
chr16	29912088	29912241	+	chr16	29912309	29913241	+		9997-9999	
								ENST00000308748,ENST00000414952,ENST00000566693		10,51,30
chr16	29912088	29912241	+	chr16	29912873	29913241	+		10000-10002	
								ENST00000308768,ENST00000568000	10003-10005	16,35,1
chr16	29921974	29921863	-	chr16	29918429	29918193	-	ENST00000253928,ENST00000399667,ENST00000416288,ENST00000344592,ENST00000575679	10006-10011	13,41,9,13,4,9
								ENST00000563197,ENST00000304516,ENST00000567254,ENST00000567065,ENST00000562441,ENST00000567705		5,5,5,5,5,5,5
chr16	30009209	30009225	+	chr16	30012079	30012157	+	,ENST00000567987	10012-10018	
								ENST00000350119,ENST00000564944,ENST00000564979,ENST00000565273,ENST00000563378	10019-10023	1,13,12,1,1
chr16	30024827	30024788	-	chr16	30020878	30020799	-			
								ENST00000563732,ENST00000279387,ENST00000566749,ENST00000562664,ENST00000562222,ENST00000561610		13,2,21,13,13,13,2,13
chr16	30093094	30093360	+	chr16	30093805	30093855	+		10024-10031	
								ENST00000303746,ENST00000572045,ENST00000571007,ENST00000575885,ENST00000319500,ENST00000575769		24,32,32,32,32,32,32
chr16	3015490	3015589	+	chr16	3016141	3016232	+		10032-10038	
								ENST00000550538,ENST00000568353,ENST00000549390		4,14,8,14,14
chr16	30231144	30231101	-	chr16	30216411	30216282	-		10039-10043	
								ENST00000356798,ENST00000358164	10044-10047	11,7,16,11
chr16	30509284	30509333	+	chr16	30510395	30510555	+			

Table 16

						ENST00000324685,ENST00000402121,ENST00000563683		28,6,11
chr16	30778844	30778944 +	chr16	30779215	30779336 +	,ENST00000357890	10048-10050	
chr16	30866024	30865264 -	chr16	30863643	30863290 -	ENST00000572628	10051-10053	60,9,19
						ENST00000533518,ENST00000529564,ENST00000300851,ENST00000319788,ENST00000394975,ENST00000394971		5,23,10,5,10,5,5,10
chr16	31105324	31105227 -	chr16	31104742	31104633 -	,ENST00000498155	10054-10061	
chr16	31107693	31107688 -	chr16	31106822	31106710 -	ENST00000420057,ENST00000498155	10062-10065	2,1,1,1
chr16	349066	349016 -	chr16	348251	347722 -	ENST00000262320,ENST00000354866	10066-10069	17,16,16,17
chr16	356366	356291 -	chr16	354441	354304 -	ENST00000262320,ENST00000354866	10070-10073	25,5,9,5
chr16	3605882	3605782 -	chr16	3604326	3604243 -	ENST00000301749,ENST00000359128,ENST00000448023,ENST00000603507	10074-10081	33,24,11,33,24,33,33,24
chr16	3638647	3638359 -	chr16	3634872	3634770 -	ENST00000294008	10082-10084	16,24,30
chr16	3711430	3711555 +	chr16	3712647	3712760 +	ENST00000414110	10085-10087	18,41,41
chr16	4065590	4065563 -	chr16	4057559	4057369 -	ENST00000294016,ENST00000572288	10088-10091	9,2,8,9
						ENST00000572467,ENST00000575334,ENST00000251166,ENST00000537233,ENST00000574025,ENST00000571756,ENST00000575038,ENST00000570928,ENST00000575850		17,7,16,16,16,16,17,16,17,7,7,16,17,7,16
chr16	4457248	4457198 -	chr16	4455568	4455492,45 -	,ENST00000572898	10092-10108	
chr16	46633642	46631533 -	chr16	46629582	46629464 -	ENST00000303383	10109-10110	6,15
						ENST00000262370,ENST00000415496,ENST00000536343,ENST00000587747,ENST00000399577,ENST00000588994		8,8
chr16	4667704	4667729 +	chr16	4700366	4700484 +	,ENST00000586183	10111-10112	
chr16	46808157	46808058 -	chr16	46774059	46773969 -	ENST00000394809	10113-10114	33,25
chr16	46838509	46838248 -	chr16	46836982	46836864 -	ENST00000394806,ENST00000285697	10115-10117	13,49,10
chr16	46840105	46839620 -	chr16	46836982	46836864 -	ENST00000394806,ENST00000285697	10118-10119	15,7
chr16	46840105	46839626 -	chr16	46836982	46836864 -	ENST00000394806,ENST00000285697	10120-10122	13,5,8
chr16	46944322	46944470 +	chr16	46950540	46950619 +	ENST00000340124,ENST00000440783	10123-10125	6,19,1
						ENST00000262370,ENST00000415496,ENST00000536343,ENST00000587747,ENST00000399577,ENST00000588994,ENST00000586183,ENST00000590790		10,79,16,79,79,79,79,79,79,79
chr16	4713978	4714287 +	chr16	4714710	4714776 +	ENST00000562435,ENST00000303155,ENST00000562559	10126-10135	5,20,20
chr16	47160072	47159971 -	chr16	47156823	47156779,5 -		10136-10138	
chr16	47168008	47167981 -	chr16	47165936	47165880 -	ENST00000562435,ENST00000303155	10139-10142	9,9,8,9
chr16	47170616	47170431 -	chr16	47165936	47165880 -	ENST00000562435,ENST00000303155	10143-10144	27,7
						ENST00000262370,ENST00000415496,ENST00000536343,ENST00000587747,ENST00000399577,ENST00000588994,ENST00000586183,ENST00000590790		33,6,11,11,11,33,11,11,11,11
chr16	4719153	4719253 +	chr16	4721392	4721460 +	ENST00000320640,ENST00000544001	10145-10154	4,14,28,28
chr16	47237724	47237371 -	chr16	47196575	47196451 -	ENST00000262384	10155-10158	48,2,35
chr16	48604257	48604093 -	chr16	48596355	48594665 -	ENST00000589389,ENST00000436648,ENST00000321919,ENST00000381983,ENST00000591451,ENST00000588297	10159-10161	14,3,13,3,3,3,3
chr16	4890825	4890784 -	chr16	4882913	4882775 -		10162-10168	

Table 16

						ENST00000589389,ENST000		17,16,16,16,
						00436648,ENST00000321919		16,16,16
						,ENST00000381983,ENST000		
						00591451,ENST00000588297		
chr16	4893455	4893405 -	chr16	4882913	4882775 -		10169-10175	
						ENST00000458059,ENST000		16,7
						00427478,ENST00000562576		
						,ENST00000565457,ENST000		
						00565556,ENST00000566093		
chr16	50060604	50060787 +	chr16	50063636	50063709 +		10176-10177	
						ENST00000458059,ENST000		16,7,16,7,16
						00389134,ENST00000568890		,16
						,ENST00000427478,ENST000		
						00566482,ENST00000562576		
						,ENST00000565457,ENST000		
						00565556,ENST00000566093		
chr16	50060604	50060787 +	chr16	50067308	50067417,5 +		10178-10183	
						ENST00000394688,ENST000		3,54,54
chr16	50401434	50401205 -	chr16	50388833	50388704 -	00394689	10184-10186	
						ENST00000394688,ENST000		5,50,5
chr16	50401434	50401215 -	chr16	50388833	50388704 -	00394689	10187-10189	
chr16	50663540	50663651 +	chr16	50664097	50664244 +	ENST00000268459	10190-10192	10,8,24
chr16	50663540	50663659 +	chr16	50664097	50664244 +	ENST00000268459	10193-10195	13,10,1
						ENST00000447540,ENST000		3,6,42,6,6,6
						00566029,ENST00000564845		
						,ENST00000398510,ENST000		
chr16	53285799	53287098 +	chr16	53288350	53288517 +	00565803	10196-10201	
						ENST00000262133,ENST000		2,14,34,2
chr16	53446562	53447422 +	chr16	53472928	53473058 +	00544405	10202-10205	
						ENST00000262135,ENST000		8,6,8,6,6
						00379925,ENST00000563746		
chr16	53671072	53670911 -	chr16	53670424	53670351 -	,ENST00000564374	10206-10210	
						ENST00000471389,ENST000		6,1,1
chr16	53842923	53843503 +	chr16	53844052	53844129 +	00464071	10211-10213	
						ENST00000290649,ENST000		21,7,39,21
						00492830,ENST00000567738		
chr16	56413355	56413083 -	chr16	56403239	56403105 -		10214-10217	
chr16	56456287	56456259 -	chr16	56448256	56448164 -	ENST00000290649	10218-10220	9,9,9
						ENST00000566157,ENST000		14,37,21,37,
						00562150,ENST00000561646		37,37,37
						,ENST00000336111,ENST000		
chr16	56489730	56489934 +	chr16	56492460	56492506,6 +	00568397	10221-10227	
						ENST00000308159,ENST000		24,11,11
						00569842,ENST00000564887		
chr16	56874627	56874726 +	chr16	56875617	56875745 +	,ENST00000542526	10228-10230	
						ENST00000262510,ENST000		35,6,9,35,35
						00308149,ENST00000436936		,35,35,35,35
						,ENST00000539144,ENST000		,35,35
						00538805,ENST00000545081		
						,ENST00000538110,ENST000		
						00543030,ENST00000538453		
						,ENST00000540182,ENST000		
chr16	57078543	57078649 +	chr16	57079360	57079404 +	00537056	10231-10241	
						ENST00000262510,ENST000		2,56,4
						00308149,ENST00000539144		
chr16	57113531	57113732 +	chr16	57115010	57115093 +		10242-10244	
						ENST00000379655,ENST000		7,50,25,25,2
						00445690,ENST00000541240		5,25,25,25,2
						,ENST00000540079,ENST000		5
						00539578,ENST00000562503		
						,ENST00000569222,ENST000		
						00566648,ENST00000561524		
chr16	57814071	57813789 -	chr16	57806200	57806135 -	,ENST00000565684	10245-10253	
						ENST00000379655,ENST000		15,11,11,11,
						00445690,ENST00000541240		11,11,11,11
						,ENST00000540079,ENST000		
						00539578,ENST00000562503		
						,ENST00000569222,ENST000		
						00566648,ENST00000561524		
chr16	57828437	57828337 -	chr16	57806200	57806135 -	,ENST00000565684	10254-10261	
chr16	58078069	58078168 +	chr16	58078911	58079350 +	ENST00000219271	10262-10264	1,11,2
						ENST00000219299,ENST000		3,2,2,2
chr16	58284336	58284344 +	chr16	58286631	58286757 +	00443128	10265-10268	
chr16	603045	603077 +	chr16	603339	603516 +	ENST00000219611	10269-10271	11,10,10

chr16	603045	603138	+	chr16	603339	603516	+	ENST00000219611	10272-10274	31,31,30
chr16	66471830	66471920	+	chr16	66503505	66503768	+	ENST00000536005	10275-10276	5,29
								ENST00000299697,ENST00000451102,ENST00000527800,ENST00000527284,ENST00000544898,ENST00000545043,ENST00000564917,ENST00000525974,ENST00000417693,ENST00000563369,ENST00000563478,ENST00000562484		29,24,11,29,29,29
chr16	66558540	66558440	-	chr16	66551780	66551692	-		10277-10282	
								ENST00000264001,ENST00000345436,ENST00000417030		40,13,13,13
chr16	66588858	66589081	+	chr16	66592093	66592251	+		10283-10286	
								ENST00000299697,ENST00000451102,ENST00000527284,ENST00000567357,ENST00000545043,ENST00000564917,ENST00000569718,ENST00000417693		28,2,28,28,2,28,28,28
chr16	66597590	66597505	-	chr16	66582912	66582881	-		10287-10294	
								ENST00000563672,ENST00000424011,ENST00000562357,ENST00000562707,ENST00000361909,ENST00000567572,ENST00000564060,ENST00000566756		3,3,2,3,3,3,3
chr16	66640897	66640906	+	chr16	66642212	66642367	+		10295-10301	
								ENST00000330687,ENST00000394106,ENST00000563952		2,21,21
chr16	66729825	66729761	-	chr16	66670484	66670308	-		10302-10304	
								ENST00000330687,ENST00000394106,ENST00000563952		9,17,9
chr16	66729825	66729772	-	chr16	66670484	66670308	-		10305-10307	
								ENST00000359087,ENST00000290810,ENST00000379463		2,22
chr16	66847343	66847209	-	chr16	66844675	66844600	-	,ENST00000394074	10308-10309	
								ENST00000359087,ENST00000290810,ENST00000379463,ENST00000569388,ENST00000566336,ENST00000565535		11,31,24,31,31,31,31
chr16	66864084	66863989	-	chr16	66860683	66860571,7	-		10310-10316	
								ENST00000359087,ENST00000290810,ENST00000379463,ENST00000569388,ENST00000566336,ENST00000565535		21,13,13,13,13,13
chr16	66864084	66864021	-	chr16	66860683	66860571,7	-		10317-10322	
								ENST00000561924,ENST00000290858,ENST00000412916		13,19,21,19,19
chr16	67103290	67103653	+	chr16	67116116	67116242,671	+	,ENST00000563939	10323-10327	
								ENST00000561924,ENST00000290858,ENST00000412916		1,15,24,1,1
chr16	67108584	67108676	+	chr16	67116116	67116242,671	+	,ENST00000563939	10328-10332	
								ENST00000317506,ENST00000411657,ENST00000602677,ENST00000425512,ENST00000602638		6,12,2,6,6,6,12
chr16	67786860	67786824	-	chr16	67778358	67778191,7	-		10333-10339	
								ENST00000338335,ENST00000316341,ENST00000541864,ENST00000576616,ENST00000537830		8,1,11,8,8
chr16	67999791	67999737	-	chr16	67997462	67997368	-		10340-10344	
chr16	68286505	68286556	+	chr16	68287325	68287420	+	ENST00000564827	10345-10347	2,17,5
								ENST00000562381,ENST00000569571,ENST00000569047,ENST00000449359,ENST00000441236,ENST00000339507		6,25,4,6,6,6,6
chr16	68362015	68362137	+	chr16	68362969	68363011,7	+	,ENST00000568975	10348-10354	
								ENST00000264012,ENST00000429102,ENST00000581171		18,9,17,17
chr16	68719427	68719481	+	chr16	68721419	68721639	+		10355-10358	
								ENST00000512062,ENST00000307892,ENST00000515314		6,3,2,2,2
chr16	69424888	69425069	+	chr16	69481053	69481181	+	,ENST00000561792	10359-10363	
								ENST00000512062,ENST00000307892,ENST00000515314		33,2,16,33,33
chr16	69460328	69460426	+	chr16	69481053	69481181	+	,ENST00000561792	10364-10368	

Table 10

							ENST00000512062,ENST00000307892,ENST00000515314		7,20,20,20
chr16	69460861	69461042	+	chr16	69481053	69481181	+,ENST00000561792	10369-10372	
							ENST00000512062,ENST00000307892,ENST00000515314		21,13,13,13
chr16	69461619	69461683	+	chr16	69481053	69481181	+,ENST00000561792	10373-10376	
							ENST00000561500,ENST00000320623,ENST00000379046		10,47,2,2
chr16	69748079	69747910	-	chr16	69747032	69746931	-,ENST00000564043	10377-10380	
							ENST00000359154,ENST00000561780,ENST00000569620,ENST00000563659,ENST00000448661,ENST00000569174		1,31,27,27,27,1,27,27
chr16	69821552	69821974	+	chr16	69832585	69832732,7	+,ENST00000356003	10381-10388	
							ENST00000566216,ENST00000563206,ENST00000451014,ENST00000288071,ENST00000355992,ENST00000568408		11,2,22,11,11,11,11
chr16	70343876	70343965	+	chr16	70346512	70346560	+,ENST00000567706	10389-10395	
							ENST00000566216,ENST00000563206,ENST00000451014,ENST00000288071,ENST00000562912,ENST00000568460,ENST00000355992,ENST00000567706		10,32,8,10,10,10,10
chr16	70347730	70347988	+	chr16	70348805	70348858	+	10396-10402	
chr16	70533862	70533796	-	chr16	70531958	70531840	-	ENST00000323786	10403-10405	22,13,21
							ENST00000323786,ENST00000482252,ENST00000393612		6,52,11,11,11
chr16	70546602	70546444	-	chr16	70546335	70546142,7	-,ENST00000534772	10406-10410	
							ENST00000323786,ENST00000482252,ENST00000393612		16,13,15,16,16
chr16	70548270	70548222	-	chr16	70546335	70546142,7	-,ENST00000534772	10411-10415	
							ENST00000564415,ENST00000323786,ENST00000482252,ENST00000393612,ENST00000564653,ENST00000530160		6,18,6,6,6,6,18,6,18
chr16	70558588	70558531	-	chr16	70553634	70553552,7	-,ENST00000524584	10416-10424	
							ENST00000568886,ENST00000261776,ENST00000566416		37,4,37
chr16	70782547	70782406	-	chr16	70778482	70778479,7	-	10425-10427	
chr16	70808644	70808042	-	chr16	70806075	70806012	-	ENST00000261776	10428-10429	21,62
							ENST00000299980,ENST00000423132,ENST00000433195,ENST00000569748,ENST00000393512		12,19,1
chr16	71783693	71783553	-	chr16	71782281	71782154	-	10430-10432	
							ENST00000544564,ENST00000541571,ENST00000535424,ENST00000378799,ENST00000537613,ENST00000606369,ENST00000329908,ENST00000538850,ENST00000541918,ENST00000534994,ENST00000378798,ENST00000439924		44,5,31,31,31,31,31,31,1
chr16	71956144	71956277	+	chr16	71956377	71956583,71	+,ENST00000456820	10433-10441	
							ENST00000268483,ENST00000423037,ENST00000426362		3,3
chr16	72121517	72121507	-	chr16	72120701	72120536	-	10442-10443	
							ENST00000537465,ENST00000237353,ENST00000379073,ENST00000535461,ENST00000539172,ENST00000536211		28,6,11,11,11,11,11,11,1
chr16	72204630	72204530	-	chr16	72198815	72198663,7	-,ENST00000540440	10444-10452	
							ENST00000547605,ENST00000550418,ENST00000553186,ENST00000547372,ENST00000422070,ENST00000535565,ENST00000552089,ENST00000551752,ENST00000547338,ENST00000436368,ENST00000311745,ENST00000355637,ENST00000340209,ENST00000		19,22,2,22,22,22,22,22,22,22,22,22,22
chr16	7378863	7378929	+	chr16	7568149	7568391	+00570626	10453-10466	

Table 10

							ENST00000219313,ENST00000567958,ENST00000568615		32,8,10,8,8
chr16	74331910	74332032	+	chr16	74334013	74334104	+	10467-10471	
							ENST00000205061,ENST00000422840,ENST00000447066		12,1,21,21
chr16	74497622	74497471	-	chr16	74497377	74497254	-	10472-10475	
chr16	74670910	74670810	-	chr16	74670475	74670244	-	ENST00000361070,ENST00000571750	33,24,11
								10476-10478	
chr16	74673365	74673271	-	chr16	74671868	74671754	-	ENST00000361070,ENST00000571750	9,31,4
								10479-10481	
chr16	74679440	74679389	-	chr16	74678633	74678439	-	ENST00000361070,ENST00000571750	17,4,16
								10482-10484	
chr16	74718145	74718095	-	chr16	74716684	74716549	-	ENST00000308807,ENST00000571303	7,16,16
								10485-10487	
chr16	74991277	74991093	-	chr16	74990508	74990373	-	ENST00000262144,ENST00000563111	7,13,7
								10488-10490	
chr16	74996771	74995348	-	chr16	74990508	74990373	-	ENST00000262144,ENST00000563111	59,20,8,59
								10491-10494	
chr16	75016476	75016303	-	chr16	74999720	74999671	-	ENST00000262144,ENST00000564859	3,12,11,3,12,11
								10495-10500	
chr16	75016476	75016316	-	chr16	74999720	74999671	-	ENST00000262144,ENST00000564859	10,8,7,10,8,7
								10501-10506	
							ENST00000570010,ENST00000568079,ENST00000464850,ENST00000332307,ENST00000393430,ENST00000567481		23,11
chr16	75201713	75201781	+	chr16	75203151	75204232,8	+	10507-10508	
							ENST00000162330,ENST00000393422,ENST00000535626,ENST00000538440,ENST00000418647,ENST00000542031,ENST00000420641,ENST00000393420		11,9,28,9,9
chr16	75296443	75296356	-	chr16	75276988	75276368,8	-	10509-10513	
chr16	75348082	75347859	-	chr16	75339080	75338922	-	ENST00000283882	10514-10516	24,20,7
chr16	75428806	75428758	-	chr16	75425406	75425394	-	ENST00000569341	10517-10519	16,11,5
							ENST00000567194,ENST00000357613,ENST00000568559,ENST00000569540,ENST00000561878,ENST00000567796,ENST00000566980,ENST00000569276		11,19,24,11,19,24,11,19,24,11
chr16	75486638	75486537	-	chr16	75485735	75485636,754	-	10520-10529	
							ENST00000567194,ENST00000357613,ENST00000568559,ENST00000569540,ENST00000561878,ENST00000569276		11,19,24,11,19,24,11,19,24,24
chr16	75486638	75486537	-	chr16	75485737	75485636,754	-	10530-10539	
							ENST00000307431,ENST00000377504,ENST00000478060,ENST00000476707		7,43,4,43,43,43
chr16	76321898	76322184	+	chr16	76350310	76350420	+	10540-10545	
							ENST00000564085,ENST00000268533,ENST00000568787		35,56,19,56,56
chr16	77769083	77769404	+	chr16	77769725	77769883,8	+	10546-10550	
							ENST00000566780,ENST00000408984		45,18,7,18
chr16	78300752	78301028	+	chr16	78420757	78420845	+	10551-10554	
							ENST00000305850,ENST00000439957,ENST00000393335,ENST00000428963		3,7,16,16
chr16	81057014	81057064	+	chr16	81060131	81060243	+	10555-10558	
							ENST00000563941,ENST00000545450,ENST00000566549,ENST00000382862,ENST00000563651,ENST00000569566		67,17
chr16	810974	811174	+	chr16	813233	813276	+	10559-10560	
							ENST00000533478,ENST00000525539		33,2,1
chr16	81177472	81177374	-	chr16	81175130	81174902	-	10561-10563	
							ENST00000565054,ENST00000359376		37,4,2,2
chr16	81844750	81844893	+	chr16	81888049	81888192	+	10564-10567	
							ENST00000565054,ENST00000359376		1
chr16	81855891	81855893	+	chr16	81888049	81888192	+	10568	
							ENST00000565054,ENST00000359376		20,15,14,14
chr16	81855891	81855950	+	chr16	81888049	81888192	+	10569-10572	
							ENST00000565054,ENST00000359376		19,19,18,19
chr16	81875767	81875824	+	chr16	81888049	81888192	+	10573-10576	
							ENST00000565054,ENST00000359376		6,6,5,6
chr16	81890953	81890971	+	chr16	81891868	81891961	+	10577-10580	

Table 16

chr16	81894294	81894394	+	chr16	81902819	81902903	+	ENST00000359376	10581-10583	33,33,11
								ENST00000359376,ENST000		13,3,3
chr16	81921641	81921681	+	chr16	81922777	81922878	+	00563193	10584-10586	
								ENST00000563100,ENST000		25,19,12,25
								00258169,ENST00000563504		
chr16	82195896	82195817	-	chr16	82185119	82185029	-	,ENST00000568016	10587-10590	
								ENST00000566620,ENST000		40,3,15,15,1
								00268613,ENST00000569144		5,15,15,15,1
								,ENST00000565636,ENST000		5
								00431540,ENST00000428848		
								,ENST00000539548,ENST000		
								00567445,ENST00000446376		
chr16	82752959	82753080	+	chr16	82891967	82892078,8	+		10591-10599	
								ENST00000566620,ENST000		1,18,12
								00268613,ENST00000428848		
chr16	83827441	83827495	+	chr16	83828628	83828635	+		10600-10602	
								ENST00000566620,ENST000		7,7,6
								00268613,ENST00000428848		
chr16	83827869	83827890	+	chr16	83828628	83828635	+		10603-10605	
								ENST00000219454,ENST000		36,30,5
chr16	84335618	84335726	+	chr16	84346567	84346759	+	00568638	10606-10608	
								ENST00000219473,ENST000		12,24,2,24,1
								00563892,ENST00000563048		2,24,24
								,ENST00000570191,ENST000		
chr16	84791327	84791400	+	chr16	84792322	84792413,8	+	00569038	10609-10615	
chr16	85726735	85726532	-	chr16	85724383	85724325	-	ENST00000602719	10616-10618	2,17,19
chr16	87337914	87337865	-	chr16	87336681	87336663	-	ENST00000567970	10619-10621	16,16,16
								ENST00000253461,ENST000		66,7,37,37
								00568879,ENST00000567970		
chr16	87342963	87342139	-	chr16	87339511	87339365,9	-		10622-10625	
								ENST00000268607,ENST000		2,32,32,32
chr16	87434460	87434557	+	chr16	87435781	87435887,9	+	00565788	10626-10629	
								ENST00000567298,ENST000		31,6,11,11
								00353170,ENST00000347925		
								,ENST00000270583,ENST000		
chr16	87760777	87760648	-	chr16	87760530	87760371	-	00562261	10630-10633	
								ENST00000567298,ENST000		24,20,4,20
								00353170,ENST00000347925		
								,ENST00000270583,ENST000		
chr16	87760777	87760670	-	chr16	87760530	87760371	-	00562261	10634-10637	
chr16	87900370	87900272	-	chr16	87885455	87885330	-	ENST00000261622	10638-10640	11,32,32
								ENST00000286122,ENST000		7,5,3
								00355163,ENST00000479780		
								,ENST00000393208,ENST000		
								00355022,ENST00000538234		
chr16	88103397	88103419	+	chr16	88105675	88105818	+	,ENST00000393207	10641-10643	
								ENST00000261623,ENST000		3,3,3,3,3,3,3
								00566229,ENST00000567174		,3,3,3,3
								,ENST00000569359,ENST000		
chr16	88715643	88715633	-	chr16	88714522	88714453	-	00568278	10644-10654	
								ENST00000301015,ENST000		6,30,30
chr16	88785407	88785316	-	chr16	88783619	88783431	-	00327397	10655-10657	
chr16	88785407	88785316	-	chr16	88784023	88783994	-	ENST00000419505	10658-10659	6,3
								ENST00000378364,ENST000		10,5,2,10,5,
								00567713,ENST00000426324		5,5
chr16	88878506	88878442	-	chr16	88876964	88876831	-	,ENST00000569616	10660-10666	
chr16	8890745	8890694	-	chr16	8890447	8889809	-	ENST00000333050	10667-10669	17,2,4
								ENST00000268679,ENST000		10,10,10,10,
								00436887,ENST00000563640		10
chr16	89024030	89023999	-	chr16	88968064	88967912	-		10670-10674	
chr16	89248767	89249054	+	chr16	89249956	89250100	+	ENST00000289746	10675-10677	28,19,41
								ENST00000268704,ENST000		1,10,6,1
chr16	89607673	89607778	+	chr16	89611056	89611180	+	00569820	10678-10681	
								ENST00000268704,ENST000		10,64,55,64
chr16	89607673	89607977	+	chr16	89611056	89611180	+	00569820	10682-10685	
								ENST00000268720,ENST000		39,20,39,39,
								00319518,ENST00000529800		20
chr16	89655418	89655641	+	chr16	89656305	89656359	+	,ENST00000568977	10686-10690	
								ENST00000397901,ENST000		22,13,21,22,
								00550102,ENST00000549328		21,22,21
chr16	89722844	89722778	-	chr16	89720331	89720312	-		10691-10697	
								ENST00000353379,ENST000		14,7,14
chr16	89754347	89754388	+	chr16	89755660	89755732,9	+	00511415	10698-10700	

Table 10

						ENST00000289805,ENST00000335360,ENST00000569918	10701-10706	17,7,16,17,16,17
chr16	89765493	89765443 -	chr16	89764713	89763742,89 -			
chr16	89786424	89786358 -	chr16	89785510	89785435 -	ENST00000389386	10707-10708	22,21
						ENST00000389301,ENST00000568369,ENST00000389302,ENST00000563673,ENST00000534992,ENST00000543736	10709-10715	13,21,13,13,13,13,13
chr16	89875613	89875547 -	chr16	89874775	89874702 -	,ENST00000565582		
						ENST00000393062,ENST00000378247,ENST00000563972	10716-10720	10,18,10,10,18
chr16	89903106	89903379 +	chr16	89911730	89911773 +			
chr16	89930382	89930405 +	chr16	89934597	89934624 +	ENST00000378247	10721-10722	8,7
chr16	89935293	89935381 +	chr16	89935975	89936090 +	ENST00000378247	10723-10725	29,7,29
						ENST00000556922,ENST00000315491,ENST00000556536,ENST00000557490,ENST00000555576,ENST00000554336,ENST00000555609,ENST00000553967	10726-10740	1,17,10,17,10,17,10,17,10,17,10
chr16	89991713	89991818 +	chr16	89998979	89999087 +			
						ENST00000556922,ENST00000315491,ENST00000556536,ENST00000557490,ENST00000555576,ENST00000554336,ENST00000555609,ENST00000553967	10741-10755	1,9,9,1,9,1,9,1,9,1,9,1,9,1,9
chr16	89998793	89998822 +	chr16	89998979	89999087 +			
						ENST00000563594,ENST00000268676,ENST00000569453,ENST00000567874,ENST00000570182,ENST00000563795	10756-10760	29,21,24,29,21
chr16	90028787	90029072 +	chr16	90029771	90029851 +			
						ENST00000449207,ENST00000568473,ENST00000564210	10761-10767	24,37,1,24,37,24,37
chr16	90145019	90144650 -	chr16	90141431	90141324 -			
chr16	90158714	90160261 +	chr16	90160750	90160858 +	ENST00000567960	10768-10770	83,26,12
						ENST00000262301,ENST00000399843,ENST00000543238,ENST00000568897	10771-10773	75,35,6
chr16	907438	907038 -	chr16	904706	904532 -			
						ENST00000323816,ENST00000432992,ENST00000585266	10774-10775	13,3
chr17	10020767	10020360 -	chr17	9923214	9923094 -			
						ENST00000323816,ENST00000432992,ENST00000585266	10776-10777	47,8
chr17	10020767	10020611 -	chr17	9923214	9923094 -			
						ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000574139,ENST00000570525,ENST00000574266	10778-10782	14,12,12,12,12
chr17	1008726	1008648 -	chr17	1003975	1003877 -			
						ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000574139,ENST00000570525,ENST00000574266	10783-10788	40,34,21,40,40,40
chr17	1010069	1009803 -	chr17	1003975	1003877 -			
						ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000574139,ENST00000570525,ENST00000574266	10789-10794	1,33,23,33,33,33
chr17	1042758	1042660 -	chr17	1003975	1003877 -			
						ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000574139,ENST00000570525,ENST00000574266	10795-10800	1,23,28,28,28,28
chr17	1052325	1052225 -	chr17	1003975	1003877 -			
						ENST00000302538,ENST00000544583,ENST00000574437,ENST00000291107,ENST00000574139,ENST00000570525,ENST00000574266	10801-10806	33,32,1,33,33,33
chr17	1136687	1136589 -	chr17	1003975	1003877 -			
						ENST00000264335,ENST00000466227,ENST00000571732,ENST00000496706,ENST00000573196	10807-10813	27,1,27,27,27,27,1
chr17	1258736	1258654 -	chr17	1257641	1257505,125 -			

Table 10

						ENST00000264335,ENST000		33,39,7,33,3
						00466227,ENST00000571732		3,33,39
						,ENST00000496706,ENST000		
chr17	1263553	1263333	-	chr17	1257641	1257505,1257 -	00573196	10814-10820
						ENST00000338034,ENST000		1,26,19,26
						00395962,ENST00000426905		
						,ENST00000584650,ENST000		
chr17	12903984	12903904	-	chr17	12903591	12903473 -	00446899	10821-10824
						ENST00000359786,ENST000		33,33,11,11
						00438665,ENST00000545534		
chr17	1390109	1390009	-	chr17	1387597	1387442 -	,ENST00000570490	10825-10828
						ENST00000421807,ENST000		19,33,11,11,
						00406424,ENST00000320345		19,11,19,11,
						,ENST00000350761,ENST000		11,19,11
						00542125,ENST00000575172		
						,ENST00000573790,ENST000		
						00571274,ENST00000477910		
chr17	1413800	1413700	-	chr17	1413093	1412977 -		10829-10839
						ENST00000313486,ENST000		17,7,16,17,7
						00539476,ENST00000575288		,17,7,7,17,7
						,ENST00000574991,ENST000		
chr17	1452499	1452449	-	chr17	1451681	1451590 -	00573056	10840-10849
						ENST00000301335,ENST000		4,12
						00571650,ENST00000382147		
chr17	1485670	1485633	-	chr17	1481617	1481544 -	,ENST00000412517	10850-10851
						ENST00000312177,ENST000		11,43,11
						00519970,ENST00000524205		
chr17	15420045	15419733	-	chr17	15341517	15341090,153 -		10852-10854
chr17	15420045	15419733	-	chr17	15343599	15343567 -	ENST00000522212	10855-10856 11,43
						ENST00000519970,ENST000		11,43,11
chr17	15420045	15419733	-	chr17	15406546	15406412,2 -	00225576	10857-10859
chr17	15434072	15433918	-	chr17	15419973	15419923 -	ENST00000581273	10860-10861 20,5
						ENST00000519970,ENST000		18,17,17,18,
						00584811,ENST00000438826		18,18,17
						,ENST00000428082,ENST000		
						00518321,ENST00000419890		
chr17	15444814	15444761	-	chr17	15443875	15443747,154 -		10862-10868
						ENST00000522212,ENST000		12,7,16,12,7
						00557349,ENST00000481756		,12,12,12,12
						,ENST00000518506,ENST000		
						00225576,ENST00000438826		
						,ENST00000428082,ENST000		
						00523573,ENST00000521179		
chr17	15465830	15465780	-	chr17	15458678	15458596 -	,ENST00000518321	10869-10877
						ENST00000304992,ENST000		12,34,27
chr17	1574080	1573815	-	chr17	1565447	1565200 -	00572621	10878-10880
						ENST00000399277,ENST000		43,7,33,7,33
						00584519,ENST00000486655		,33
						,ENST00000472495,ENST000		
chr17	15891223	15891001	-	chr17	15890682	15890580,2 -	00579955	10881-10886
						ENST00000476496,ENST000		20,7,14,20,7
						00490395,ENST00000399277		,20
						,ENST00000486655,ENST000		
						00474716,ENST00000472495		
						,ENST00000460315,ENST000		
						00491631,ENST00000585208		
						,ENST00000486706,ENST000		
chr17	15898874	15898658	-	chr17	15897092	15897086,2 -	00460252	10887-10892
						ENST00000268712,ENST000		3,4,10,10
						00395851,ENST00000395849		
						,ENST00000395857,ENST000		
chr17	15940759	15939938	-	chr17	15938258	15938079 -	00579573	10893-10896
						ENST00000268712,ENST000		33,2,6,33
chr17	15982187	15982089	-	chr17	15979016	15978848 -	00395851	10897-10900
						ENST00000268712,ENST000		22,13,21,13
chr17	15982187	15982121	-	chr17	15979016	15978848 -	00395851	10901-10904
						ENST00000268712,ENST000		21,7,53,21,7
						00395851,ENST00000395848		,21
chr17	16017675	16017376	-	chr17	16012226	16012100 -		10905-10910

						ENST00000331302,ENST000		27,2,1,27,1,
						00323434,ENST00000536489		27,27,27,27,
						,ENST00000576420,ENST000		27,27,27,1,2
						00577079,ENST00000574722		7,1,27,1,27,
						,ENST00000570638,ENST000		1
						00574953,ENST00000573780		
						,ENST00000575736,ENST000		
						00575130,ENST00000575634		
chr17	169721	169504 -	chr17	169340	169211,1692 -	,ENST00000573588	10911-10929	
chr17	17119033	17118975 -	chr17	17118630	17118499 -	ENST00000285071	10930-10932	19,19,19
chr17	1733619	1733991 +	chr17	1746097	1746147 +	ENST00000254719	10933-10935	44,58,11
chr17	17391031	17391033 +	chr17	17394593	17394809 +	ENST00000268711	10936	1
chr17	17391031	17391043 +	chr17	17394593	17394809 +	ENST00000268711	10937-10938	4,4
						ENST00000338854,ENST000		2,5,4,2,2,2
						00355815,ENST00000261646		
						,ENST00000435530,ENST000		
chr17	17744712	17744697 -	chr17	17723835	17723404 -	00423161	10939-10944	
						ENST00000581396,ENST000		17,7
						00379504,ENST00000318094		
						,ENST00000395739,ENST000		
						00535933,ENST00000540946		
chr17	17814182	17814132 -	chr17	17810845	17810761 -	,ENST00000542206	10945-10946	
						ENST00000581396,ENST000		1,27,14,14,1
						00379504,ENST00000318094		4,14,14,14
						,ENST00000395739,ENST000		
						00535933,ENST00000540946		
chr17	17816540	17815695 -	chr17	17810845	17810761 -	,ENST00000542206	10947-10954	
						ENST00000581396,ENST000		12,26,4,4,4,
						00379504,ENST00000318094		4,4,4
						,ENST00000395739,ENST000		
						00535933,ENST00000540946		
chr17	17816540	17815812 -	chr17	17810845	17810761 -	,ENST00000542206	10955-10962	
						ENST00000581396,ENST000		34,7
						00379504,ENST00000318094		
						,ENST00000395739,ENST000		
						00535933,ENST00000540946		
chr17	17858952	17858729 -	chr17	17810845	17810761 -	,ENST00000542206	10963-10964	
						ENST00000411504,ENST000		13,37,1,13
						00313838,ENST00000399187		
						,ENST00000584166,ENST000		
chr17	17896518	17896658 +	chr17	17897613	17897732 +	00399182	10965-10968	
						ENST00000411504,ENST000		6,29,5,5
						00313838,ENST00000399187		
						,ENST00000584166,ENST000		
chr17	17898985	17899073 +	chr17	17907677	17907808 +	00399182	10969-10972	
						ENST00000474627,ENST000		23,13,23
chr17	17924274	17924206 -	chr17	17922000	17921863,2 -	00581698	10973-10975	
						ENST00000584205,ENST000		36,20,1,1,1
						00462733,ENST00000585101		
						,ENST00000474627,ENST000		
chr17	17931402	17931107 -	chr17	17929730	17929633 -	00444058	10976-10980	
						ENST00000225729,ENST000		21,14,17,14,
						00496428,ENST00000395726		14,14,14,14,
						,ENST00000582314,ENST000		14,14,14
						00579601,ENST00000580055		
						,ENST00000467099,ENST000		
						00579224,ENST00000577450		
						,ENST00000580929,ENST000		
chr17	17995497	17995588 +	chr17	17997127	17997287,2 +	00583355	10981-10991	
						ENST00000225729,ENST000		17,7,16,17,1
						00496428,ENST00000395726		7,17,17,17,1
						,ENST00000582314,ENST000		7
						00579601,ENST00000580055		
						,ENST00000467099,ENST000		
						00579224,ENST00000577450		
chr17	17998007	17998057 +	chr17	18001584	18001673,2 +		10992-11000	
						ENST00000205890,ENST000		13,34,34,13,
						00418233,ENST00000451725		34
chr17	18072803	18072935 +	chr17	18074952	18075085 +	,ENST00000579848	11001-11005	
						ENST00000578558,ENST000		41,13,13,13
						00327031,ENST00000545457		
chr17	18161519	18161395 -	chr17	18160333	18160223 -	,ENST00000579294	11006-11009	
chr17	18623878	18623977 +	chr17	18625550	18625645 +	ENST00000395902	11010-11012	29,11,2

Table 10

						ENST00000307767,ENST00000574226,ENST00000575261,ENST00000476139,ENST00000581733	11013-11017	18,17,17,18,18
chr17	18706512	18706565	+	chr17	18707451	18707579,187	+	
						ENST00000432893,ENST00000419071,ENST00000268835,ENST00000412418,ENST00000536323,ENST00000455992,ENST00000422237,ENST00000542013,ENST00000574451	11018-11026	17,17,7,7,17,7,7,7,7
chr17	18813450	18813501	+	chr17	18814416	18814564,2	+	
						ENST00000388995,ENST00000585154,ENST00000345041	11027-11029	2,3,2
chr17	18893193	18893185	-	chr17	18891727	18891560	-	
						ENST00000314728,ENST00000347697,ENST00000395618,ENST00000395628,ENST00000494192,ENST00000575595,ENST00000395620,ENST00000395626,ENST00000571254	11030-11035	11,31,6,6,6,6
chr17	19230708	19230803	+	chr17	19232024	19232200	+	
						ENST00000263083,ENST00000571418,ENST00000575667	11036-11039	3,5,10,10
chr17	1941109	1941265	+	chr17	1943049	1943117	+	
						,ENST00000570477	11040-11042	
						ENST00000325411,ENST00000350657	11043-11045	40,21,8
chr17	19600322	19600139	-	chr17	19584983	19584851	-	
						ENST00000361658,ENST00000395544	11046-11049	7,29,52
chr17	19719861	19719678	-	chr17	19713751	19713691	-	
						ENST00000225737,ENST00000395536,ENST00000583951	11050-11052	5,45,8,45
chr17	19822635	19822433	-	chr17	19813291	19813239	-	
						ENST00000225737,ENST00000395536,ENST00000583951	11053-11056	33,10,10
chr17	19822635	19822468	-	chr17	19813291	19813239	-	
						ENST00000225737,ENST00000395536,ENST00000583951	11057-11059	13,34,21,34
chr17	19826690	19826424	-	chr17	19823431	19823349	-	
chr17	19839221	19838624	-	chr17	19835291	19835118	-	ENST00000225737
chr17	19839221	19839030	-	chr17	19835291	19835118	-	ENST00000225737
						ENST00000395527,ENST00000583482,ENST00000583463,ENST00000395529,ENST00000261503,ENST00000581973,ENST00000395530,ENST00000395522,ENST00000395525	11060-11062	64,63,9
							11063-11071	10,18,10,18,10,10,10,18,10
chr17	20091038	20091389	+	chr17	20107646	20109225,201	+	
						ENST00000544865,ENST00000263073	11072-11073	23,13
chr17	2140661	2140593	-	chr17	2139931	2139786	-	
						ENST00000544865,ENST00000263073	11074-11076	8,13,21
chr17	2183856	2183790	-	chr17	2148013	2147952	-	
						ENST00000572709,ENST00000344595,ENST00000575840,ENST00000576620,ENST00000570662,ENST00000574229	11077-11083	2,19,2,19,2,2,2
chr17	2207251	2207311	+	chr17	2221164	2221194,222	+	
						ENST00000572709,ENST00000344595,ENST00000575840,ENST00000576620,ENST00000570662,ENST00000574229	11084-11092	7,33,20,7,33,20,7,7,7
chr17	2220316	2220438	+	chr17	2221164	2221194,222	+	
						ENST00000301364,ENST00000575049	11093-11096	13,5,21,21
chr17	2229203	2229138	-	chr17	2228714	2228598,22	-	
chr17	2233514	2233462	-	chr17	2232769	2232637	-	ENST00000301364
						ENST00000573062,ENST00000268989,ENST00000426855,ENST00000574563	11097-11099	17,8,17
							11100-11105	9,9,9,9,9,9
chr17	2241833	2241861	+	chr17	2246839	2246914	+	
						ENST00000573062,ENST00000268989,ENST00000426855,ENST00000574563	11106-11111	7,1,71,7,7,7
chr17	2245034	2245354	+	chr17	2246839	2246914	+	
chr17	2319075	2319009	-	chr17	2318541	2318482	-	ENST00000609667
						ENST00000576586,ENST00000397195	11112-11114	22,22,21
							11115-11118	2,1,1,1
chr17	2566123	2566128	+	chr17	2568666	2568750	+	
						ENST00000576586,ENST00000397195	11119-11120	20,7
chr17	2566123	2566348	+	chr17	2568666	2568750	+	

Table 10

								ENST00000397195,ENST00000451360,ENST00000574468	22,13,21
chr17	2580867	2580933	+	chr17	2583458	2583614	+	11121-11123	
								ENST00000397195,ENST00000451360,ENST00000574468	22,13,21
chr17	2580867	2580933	+	chr17	2585023	2585096	+	11124-11126	
								ENST00000509603,ENST00000319524	6,1,10,1
chr17	25810743	25810860	+	chr17	25877594	25877734	+	11127-11130	
								ENST00000509603,ENST00000319524	12,6,16,12
chr17	25810743	25810877	+	chr17	25877594	25877734	+	11131-11134	
								ENST00000509603,ENST00000319524	6,2,1,1
chr17	25830609	25830916	+	chr17	25877594	25877734	+	11135-11138	
								ENST00000509603,ENST00000319524	20,20,20,20
chr17	25858999	25859060	+	chr17	25877594	25877734	+	11139-11142	
								ENST00000509603,ENST00000319524	17,3,17,17
chr17	25903906	25903958	+	chr17	25904518	25904665	+	11143-11146	
chr17	2611889	2611793	-	chr17	2607858	2607656	-	ENST00000574426	11147-11149	8,32,30
								ENST00000292114,ENST00000555264,ENST00000509083	7,13,1,13,13
chr17	26685339	26685379	+	chr17	26685939	26686012	+	11150-11154	
								ENST00000292114,ENST00000555264,ENST00000509083	25,2
chr17	26685339	26685491	+	chr17	26685939	26686012	+	11155-11156	
								ENST00000579795,ENST00000226247	4,13,1
chr17	26852530	26852579	+	chr17	26854269	26854379	+	11157-11159	
								ENST00000247020,ENST00000591903	32,19,44,19
chr17	26987289	26986513	-	chr17	26982497	26982305	-	11160-11163	
								ENST00000314616,ENST00000347486	13,7
chr17	27008458	27008508	+	chr17	27008900	27008998	+	11164-11165	
								ENST00000314616,ENST00000347486	50,46,10
chr17	27025750	27025948	+	chr17	27026799	27026911	+	11166-11168	
								ENST00000439862,ENST00000473751	8,17,8
chr17	27034176	27034065	-	chr17	27033781	27033698	-	11169-11171	
								ENST00000292090,ENST00000394933,ENST00000580518	11,24,6,6
chr17	27054938	27054837	-	chr17	27052404	27052322	-	11172-11175	
								ENST00000332830,ENST00000577226,ENST00000378879	13,21,1,1,1,1
chr17	27248484	27248340	-	chr17	27246293	27246161	-	,ENST00000268756	11176-11181	
								ENST00000332830,ENST00000577226,ENST00000378879,ENST00000268756,ENST00000583524,ENST00000584685	6,1,6,6,6,6,6,6
chr17	27258899	27258633	-	chr17	27254081	27254009,3	-	,ENST00000583747	11182-11189	
								ENST00000354329,ENST00000533112,ENST00000531253,ENST00000527372,ENST00000528564	13,15,2,13,13,13,13
chr17	27457437	27457390	-	chr17	27449271	27449184	-	11190-11196	
								ENST00000354329,ENST00000533112,ENST00000531253,ENST00000527372,ENST00000528564	17,9,9,9,9,9
chr17	27464179	27464034	-	chr17	27449271	27449184	-	11197-11202	
								ENST00000261716,ENST00000536202	8,3
chr17	27862593	27862776	+	chr17	27869579	27870040	+	11203-11204	
								ENST00000269033,ENST00000540801,ENST00000579040	8,55,1,55,55
chr17	28110731	28110387	-	chr17	28030080	28029977	-	,ENST00000592397	11205-11209	
chr17	28249323	28249035	-	chr17	28175947	28175867	-	ENST00000540801	11210-11211	16,47
								ENST00000247026,ENST00000394826	20,3,34,3,34
chr17	28495129	28495232	+	chr17	28499560	28499616,3	+	11212-11216	
								ENST00000261714,ENST00000394819,ENST00000577623	17,16,17
chr17	28600484	28600434	-	chr17	28599917	28599759	-	11217-11219	
								ENST00000225724,ENST00000451249,ENST00000467337	51,12,50
chr17	28832456	28832608	+	chr17	28837898	28837927	+	,ENST00000414833	11220-11222	
								ENST00000225724,ENST00000451249,ENST00000467337,ENST00000581721,ENST00000414833	33,22,10
chr17	28840687	28840786	+	chr17	28846957	28847039	+	11223-11225	
								ENST00000540393,ENST00000254695,ENST00000366401	2,1,1
chr17	2896102	2896107	+	chr17	2898631	2898760	+	,ENST00000542807	11226-11228	
chr17	29101198	29101110	-	chr17	29100515	29100425	-	ENST00000583527	11229-11231	26,20,8

chr17	293602	293444	-	chr17	293285	292955	-	ENST00000329099	11232-11233	7,11
chr17	293602	293482	-	chr17	293285	292955	-	ENST00000329099	11234-11236	3,40,30
								ENST00000356175,ENST00000358273,ENST00000431387,ENST00000579081	11237-11242	13,21,21,13,13,13
chr17	29463067	29463132	+	chr17	29483001	29483144	+	ENST00000322652,ENST00000580398	11243-11245	27,18,5
chr17	30291854	30291936	+	chr17	30293166	30293215	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581094,ENST00000578205,ENST00000394692	11246-11254	9,41,30,41,41,41,41,41,1
chr17	30473217	30473341	+	chr17	30498062	30498120	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000581031,ENST00000581094,ENST00000578205,ENST00000394692	11255-11263	11,33,13,11,11,11,11,11,11
chr17	30485892	30487326	+	chr17	30498062	30498120	+	ENST00000333942,ENST00000358365,ENST00000545287,ENST00000354266,ENST00000581031,ENST00000581094,ENST00000394692	11264-11271	48,23,11,48,48,48,48,48
chr17	30506185	30506666	+	chr17	30509776	30509884	+	ENST00000333942,ENST00000358365,ENST00000583994,ENST00000545287,ENST00000354266,ENST00000581031,ENST00000581094,ENST00000394692,ENST00000582602,ENST00000580392,ENST00000581148	11272-11281	3,11,3,3,3,3,3,3,3,3
chr17	30534481	30534582	+	chr17	30535126	30535328,3	+	ENST00000318217,ENST00000394649,ENST00000579584	11282-11285	15,5,24,24
chr17	31011290	31011217	-	chr17	30986356	30986133	-	ENST00000318217,ENST00000394649,ENST00000579584	11286-11289	11,14,8,8
chr17	31045107	31044684	-	chr17	31039213	31039006	-	ENST00000318217,ENST00000394649,ENST00000579584	11290-11293	3,12,11,11
chr17	31074299	31074263	-	chr17	31072303	31072229	-	ENST00000345365,ENST00000394589,ENST00000360276,ENST00000588594,ENST00000586044,ENST00000590016,ENST00000592577	11294-11300	11,23,1,23,23,1,23
chr17	33443812	33443714	-	chr17	33434466	33434385,3	-	ENST00000394562,ENST00000304905,ENST00000452764	11301-11303	7,7,7
chr17	33759229	33759207	-	chr17	33747400	33747293	-	ENST00000589774,ENST00000262325,ENST00000592191,ENST00000592545,ENST00000590538,ENST00000591610,ENST00000312678,ENST00000589344,ENST00000590432,ENST00000537622,ENST00000592167,ENST00000593014	11304-11313	14,14,13,14,14,14,14,14,14,14
chr17	33914405	33914447	+	chr17	33925249	33925354	+	ENST00000262325,ENST00000538556,ENST00000592545,ENST00000312678,ENST00000589344,ENST00000537622	11314-11316	17,7,16
chr17	34048978	34049028	+	chr17	34050644	34050718	+	ENST00000588240,ENST00000590273,ENST00000592237	11317-11322	11,23,1,23,1,23
chr17	34158125	34158223	+	chr17	34160911	34160945	+	ENST00000311979,ENST00000572919,ENST00000225519	11323-11325	17,7,16
chr17	3519445	3519395	-	chr17	3518831	3518631	-	ENST00000572919,ENST00000225519	11326-11328	23,32,32
chr17	3520329	3520232	-	chr17	3518831	3518631	-	ENST00000572919,ENST00000225519	11329-11331	33,23,1
chr17	3523859	3523761	-	chr17	3518831	3518631	-	ENST00000572919,ENST00000225519	11332-11334	16,55,11
chr17	3530560	3530273	-	chr17	3527525	3527342	-			

Table 10

						ENST00000353139,ENST00000360679,ENST00000394406		27,7
chr17	35617506	35617321 -	chr17	35616452	35616282 -	,ENST00000335166	11335-11336	
chr17	35702308	35702210 -	chr17	35696810	35696764 -	ENST00000353139,ENST00000456066	11337-11340	33,23,32,23
						ENST00000394395,ENST00000490992,ENST00000225396		14,22
chr17	35826979	35827047 +	chr17	35827558	35827629 +		11341-11342	
chr17	35987591	35987464 -	chr17	35986906	35986834 -	ENST00000349699,ENST00000394367	11343-11344	20,9
chr17	35996461	35995581 -	chr17	35993448	35993318 -	ENST00000349699	11345-11347	16,1,30
						ENST00000331159,ENST00000577233,ENST00000580660		3,7,16,3,7,16
chr17	36529764	36529814 +	chr17	36533540	36533668,4 +		11348-11353	
chr17	36608779	36608902 +	chr17	36614346	36614507 +	ENST00000431231,ENST00000437668	11354-11357	23,6,8,6
chr17	36614080	36614086 +	chr17	36614346	36614507 +	ENST00000431231,ENST00000437668	11358-11361	2,2,1,2
chr17	36954877	36954801 -	chr17	36943173	36943076 -	ENST00000269554	11362-11363	24,3
						ENST00000225428,ENST00000536127,ENST00000582713		6,11,2,2
chr17	36970095	36969996 -	chr17	36969117	36969048 -		11364-11367	
						ENST00000394332,ENST00000394333,ENST00000479035,ENST00000577407,ENST00000378096		3,5,5,5,5
chr17	37011092	37010884 -	chr17	37009358	37009275 -		11368-11372	
						ENST00000394332,ENST00000394333,ENST00000479035,ENST00000577407,ENST00000378096		31,1
chr17	37011092	37010983 -	chr17	37009358	37009275 -		11373-11374	
chr17	3722569	3722106 -	chr17	3721866	3721557 -	ENST00000158149,ENST00000389005	11375-11376	50,3
						ENST00000583610,ENST00000264658,ENST00000577399		9,16,1
chr17	37447115	37446985 -	chr17	37441826	37441731 -		11377-11379	
						ENST00000583610,ENST00000264658,ENST00000577399		21,15,27
chr17	37448810	37448649 -	chr17	37441826	37441731 -		11380-11382	
						ENST00000583610,ENST00000394294,ENST00000264658		13,20,26,20
chr17	37461310	37461068 -	chr17	37459892	37459838 -	,ENST00000577399	11383-11386	
						ENST00000430627,ENST00000447079	11387-11388	5,5
chr17	37616089	37616259 +	chr17	37627132	37628016 +			
						ENST00000381769,ENST00000348335,ENST00000381771		17,7,7
chr17	3775239	3775189 -	chr17	3773182	3773095 -	,ENST00000158166	11389-11391	
						ENST00000381769,ENST00000348335,ENST00000381771		43,43,40,40
chr17	3777004	3776874 -	chr17	3776756	3776703 -	,ENST00000158166	11392-11395	
						ENST00000579146,ENST00000300658,ENST00000378011,ENST00000429199,ENST00000584620	11396-11403	6,6,6,6,6,6,6,6
chr17	37846763	37846744 -	chr17	37842272	37842175 -			
						ENST00000541774,ENST00000584450,ENST00000582648,ENST00000578373,ENST00000269571	11404-11411	49,66,33,49,49,33,49,33
chr17	37861216	37861414 +	chr17	37863243	37863394,4 +			
						ENST00000541774,ENST00000584450,ENST00000582648,ENST00000578373,ENST00000269571	11412-11418	50,67,67,50,67,50,67
chr17	37861216	37861418 +	chr17	37863243	37863394,4 +			
chr17	37868954	37869172 +	chr17	37869406	37869522 +	ENST00000578502	11419-11420	24,15
						ENST00000584601,ENST00000578199,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450,ENST00000269571,ENST00000540042		24,15,3,15,15,24,15,3
chr17	37868954	37869172 +	chr17	37871539	37871612,4 +	,ENST00000578502	11421-11428	

Table 15

						ENST00000584601,ENST00000578199,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450,ENST00000269571,ENST00000540042		24,11,24,11
chr17	37870027	37870127 +	chr17	37871539	37871612,4 +	,ENST00000578502	11429-11432	
						ENST00000584601,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450,ENST00000269571,ENST00000582818,ENST00000580074		24,11,19,19,19,19
chr17	37878475	37878574 +	chr17	37879572	37879710 +		11433-11438	
						ENST00000584601,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450		24,11,24
chr17	37882306	37882405 +	chr17	37882815	37882912 +	,ENST00000269571	11439-11441	
						ENST00000584601,ENST00000406381,ENST00000541774,ENST00000445658,ENST00000540147,ENST00000584450		24,11,11
chr17	37882306	37882405 +	chr17	37883068	37883256 +	,ENST00000269571	11442-11444	
						ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000491466,ENST00000422942		14,34,19,34,19
chr17	38177578	38177426 -	chr17	38176606	38176526 -	,ENST00000501516	11445-11449	
						ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000491466,ENST00000422942		2,1,2,1
chr17	38177578	38177572 -	chr17	38176603	38176526 -	,ENST00000501516	11450-11453	
						ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000491466,ENST00000422942		2,1,2,1
chr17	38177578	38177572 -	chr17	38176606	38176526 -	,ENST00000501516	11454-11457	
						ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000501516,ENST00000535071		17,5,5,17,5
chr17	38181288	38181238 -	chr17	38179648	38179384,4 -	,ENST00000580885	11458-11462	
						ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000501516,ENST00000535071		16,7,15,7,16,7
chr17	38186539	38186492 -	chr17	38186112	38186001 -	,ENST00000580885	11463-11468	
						ENST00000323571,ENST00000582781,ENST00000585043,ENST00000583130,ENST00000584296		29,23,21,29,23,29,23
chr17	38417125	38417285 +	chr17	38418777	38418893,38+		11469-11475	
						ENST00000397035,ENST00000397041,ENST00000309890,ENST00000359983,ENST00000352011,ENST00000397043		21,10,4,10,10,10,10
chr17	3849070	3849007 -	chr17	3848442	3848354 -		11476-11482	
						ENST00000397035,ENST00000397041,ENST00000309890,ENST00000359983,ENST00000352011,ENST00000397043		3,2,1,1,1,1,1
chr17	3860355	3860347 -	chr17	3857004	3856987 -		11483-11489	
chr17	38637917	38637849 -	chr17	38637020	38636952 -	ENST00000254051	11490-11491	18,13
chr17	38639751	38639621 -	chr17	38638668	38638576 -	ENST00000254051	11492-11494	16,21,13
chr17	39620042	39619992 -	chr17	39619302	39619082 -	ENST00000225899	11495-11497	17,14,5
chr17	39737300	39737191 -	chr17	39727734	39727603 -	ENST00000246662	11498-11500	7,36,18
chr17	39737300	39737221 -	chr17	39726472	39726390 -	ENST00000246662	11501-11503	4,26,8
chr17	3990471	3990407 -	chr17	3989949	3989780 -	ENST00000381638	11504-11506	5,21,13

Table 10

							ENST00000540235,ENST000 00393930,ENST00000310706 ,ENST00000393931,ENST000 00449889,ENST00000437187 ,ENST00000420370,ENST000 00424457,ENST00000591690	1,1,1,1,1,1,1 ,1,1
chr17	39942849	39942852	+	chr17	39928093	39927899	- ,ENST00000437369	11507-11515
							ENST00000321562,ENST000 00455106,ENST00000544340	7,7,7
chr17	39974832	39974854	+	chr17	39976521	39976713	+	11516-11518
							ENST00000321562,ENST000 00455106,ENST00000544340	20,20,20
chr17	39974832	39974893	+	chr17	39976521	39976713	+	11519-11521
							ENST00000352035,ENST000 00590151,ENST00000353196 ,ENST00000537919,ENST000	7,22
chr17	40027907	40027720	-	chr17	40025840	40025727	- 00393896	11522-11523
							ENST00000352035,ENST000 00590151,ENST00000353196 ,ENST00000537919,ENST000	12,16,16
chr17	40046225	40046175	-	chr17	40043956	40043852	- 00393896	11524-11526
							ENST00000457167,ENST000 00588814,ENST00000588641	3,52
chr17	40150180	40149995	-	chr17	40149257	40149133	- ,ENST00000590348	11527-11528
							ENST00000346213,ENST000 00393860,ENST00000547517	2,24,11,24,1 1
chr17	40280125	40280037	-	chr17	40278866	40278773,4	- ,ENST00000551338	11529-11533
							ENST00000607371,ENST000	24,11
chr17	40335771	40335672	-	chr17	40331044	40330811	- 00264661	11534-11535
							ENST00000293328,ENST000	17,7,17,7
chr17	40381467	40381417	-	chr17	40376886	40376797	- 00415845	11536-11539
							ENST00000293328,ENST000	17,7,7
chr17	40381467	40381417	-	chr17	40379703	40379547	- 00415845	11540-11542
chr17	4046539	4046636	+	chr17	4053185	4053325	+ ENST00000301391	11543-11545 1,23,10
							ENST00000264657,ENST000 00585517,ENST00000389272 ,ENST00000588969,ENST000	6,12,1,6,6
chr17	40477879	40477742	-	chr17	40477079	40476981	- 00404395	11546-11550
							ENST00000225927,ENST000	45,12,44,12,
chr17	40688756	40688891	+	chr17	40689416	40689563	+ 00590358	11551-11555 44
							ENST00000225927,ENST000 00586516,ENST00000591587	45,12,44,12, 12,45,12
chr17	40688756	40688891	+	chr17	40690357	40690503,4	+ ,ENST00000590358	11556-11562
chr17	40813111	40813245	+	chr17	40815441	40815521	+ ENST00000251412	11563-11564 25,31
chr17	40816521	40816769	+	chr17	40817494	40817580	+ ENST00000251412	11565-11567 39,32,21
							ENST00000361523,ENST000 00590099,ENST00000438274 ,ENST00000593205,ENST000	18,33,33,33, 18,33
chr17	40973371	40973094	-	chr17	40972859	40972792,40	- 00591085,ENST00000589636	11568-11573
							ENST00000590720,ENST000 00441946,ENST00000589469 ,ENST00000543428,ENST000	28,28,28
chr17	40985441	40985526	+	chr17	40986361	40986393	+ 00293362,ENST00000592169	11574-11576
							ENST00000591096,ENST000 00360221,ENST00000409399 ,ENST00000427569,ENST000	33,24,17,24, 17
chr17	41105296	41105196	-	chr17	41103911	41103893,4	- 00409103,ENST00000421990	11577-11581
							ENST00000591096,ENST000 00360221,ENST00000409399 ,ENST00000427569,ENST000	17,7,16,17,1 6
chr17	41105426	41105376	-	chr17	41103911	41103893,4	- 00409103,ENST00000421990	11582-11586
							ENST00000589037,ENST000 00253788,ENST00000588830 ,ENST00000589913,ENST000	20,22,43,20, 43
chr17	41154241	41154535	+	chr17	41154690	41154800,4	+ 00586277,ENST00000590864	11587-11591

Table 10

						ENST00000357654,ENST000 00351666,ENST00000346315 ,ENST00000352993,ENST000 00354071,ENST00000468300 ,ENST00000471181,ENST000 00461221,ENST00000491747 ,ENST00000478531,ENST000 00470026,ENST00000477152 ,ENST00000492859,ENST000 00494123,ENST00000476777 ,ENST00000461798,ENST000		17,8,8,8,8,8, 8,8,8,8,8,8,8 ,8,8,8,8
chr17	41268528	41268454 -	chr17	41267796	41267743 -	00489037	11592-11608	
						ENST00000341657,ENST000 00570535,ENST00000574367 ,ENST00000572412,ENST000		15,12,1,1,12 ,1,1
chr17	4165590	4165546 -	chr17	4145743	4145551 -	00433651	11609-11615	
						ENST00000341657,ENST000 00570535,ENST00000574367 ,ENST00000572412,ENST000		4,2,3,4,4,3,4
chr17	4165590	4165578 -	chr17	4145743	4145551 -	00433651	11616-11622	
						ENST00000341657,ENST000 00570535,ENST00000574367 ,ENST00000572412,ENST000		72,18,5,18,7 2,18,18
chr17	4165856	4165639 -	chr17	4145743	4145551 -	00433651	11623-11629	
						ENST00000398393,ENST000 00496503,ENST00000398389		13,9,17,9
chr17	41902440	41902386 -	chr17	41901373	41901299 -		11630-11633	
						ENST00000591703,ENST000 00225992,ENST00000591228		44,1,7,1,1
chr17	42022575	42022281 -	chr17	42019022	42018832 -	,ENST00000587006	11634-11638	
						ENST00000269097,ENST000		13,7,2,13,7
chr17	42149044	42149189 +	chr17	42151528	42151634,4 +	00591696	11639-11643	
						ENST00000343638,ENST000 00302904,ENST00000527034 ,ENST00000533177,ENST000 00436088,ENST00000393606 ,ENST00000526094,ENST000		32,28,7,32,2 8,28
chr17	42291856	42291761 -	chr17	42290307	42290187 -	00529383	11644-11649	
						ENST00000343638,ENST000 00302904,ENST00000527034 ,ENST00000533177,ENST000 00436088,ENST00000393606 ,ENST00000526094,ENST000 00529383,ENST00000530828		32,7,32,7,32 ,32,7
chr17	42291856	42291761 -	chr17	42290650	42290586,4 -		11650-11656	
						ENST00000225308,ENST000 00377095,ENST00000590194 ,ENST00000537904,ENST000 00588049,ENST00000585636 ,ENST00000586633,ENST000 00592857,ENST00000585523		17,7,17,7,17 ,7,7
chr17	42400590	42400540 -	chr17	42399896	42399787,423-		11657-11663	
						ENST00000353281,ENST000		33,24,33,33
chr17	42454280	42454180 -	chr17	42453756	42453676 -	00262407	11664-11667	
						ENST00000353281,ENST000		23,13,22,13
chr17	42454280	42454212 -	chr17	42453756	42453676 -	00262407	11668-11671	
						ENST00000353281,ENST000		15,7,7
chr17	42466184	42466001 -	chr17	42463499	42463378 -	00262407	11672-11674	
						ENST00000353281,ENST000		11,32
chr17	42466184	42466086 -	chr17	42463499	42463378 -	00262407	11675-11676	
						ENST00000353281,ENST000		17,16,16,16
chr17	42466184	42466134 -	chr17	42463499	42463378 -	00262407	11677-11680	
						ENST00000353281,ENST000		13,13,23
chr17	42466332	42466264 -	chr17	42463499	42463378 -	00262407	11681-11683	
						ENST00000434000,ENST000 00591680,ENST00000585614		27,11,11
chr17	42503195	42503096 -	chr17	42501860	42501717 -		11684-11686	
						ENST00000426333,ENST000 00592576,ENST00000591382 ,ENST00000402521,ENST000 00593072,ENST00000592701		5,26,66,5,5, 5
chr17	42965639	42965439 -	chr17	42964118	42963953 -		11687-11692	
chr17	43015342	43015076 -	chr17	43013726	43013400 -	ENST00000590129	11693-11695	10,13,5

Table 10

							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11696-11700	51,50,50,51,51
chr17	43129117	43129269	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11701-11705	60,60,59,60,60
chr17	43129117	43129297	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11706-11710	8,8,7,8,8
chr17	43129329	43129353	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11711-11715	17,17,17,17,17
chr17	43129329	43129381	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11716-11720	27,26,26,27,27
chr17	43129329	43129409	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000543908,ENST00000585561	11721-11725	36,36,35,36,36
chr17	43129329	43129437	+	chr17	43138716	43138828	+		
							ENST00000592782,ENST00000258960,ENST00000592654	11726-11729	12,24,11,24
chr17	43165841	43165941	+	chr17	43171053	43171171,4	+		
							ENST00000532038,ENST00000428638,ENST00000442348,ENST00000532891,ENST00000528677	11730-11735	3,19,29,19,19,19
chr17	43506819	43506588	-	chr17	43483449	43483042,4	-		
							ENST00000430334,ENST00000421073,ENST00000591580,ENST00000590991	11736-11742	28,27,28,28,27,28,27
chr17	43518288	43518203	-	chr17	43517592	43517529,4	-		
							ENST00000430334,ENST00000421073	11743-11744	16,34
chr17	43525461	43525278	-	chr17	43523029	43522836	-		
							ENST00000355530,ENST00000333476	11745-11747	23,11,22
chr17	4356662	4356730	+	chr17	4381867	4381932	+		
							ENST00000574590,ENST00000575318,ENST00000572904,ENST00000262419,ENST00000432791,ENST00000393476	11748-11749	23,13
chr17	44125573	44125505	-	chr17	44117250	44117068	-		
							ENST00000574590,ENST00000575318,ENST00000572904,ENST00000262419,ENST00000432791	11750-11753	1,1,1,1
chr17	44173668	44173664	-	chr17	44172067	44171926	-		
							ENST00000398238,ENST00000225282,ENST00000575068	11754-11755	5,1
chr17	44753121	44753151	+	chr17	44770269	44770434	+		
							ENST00000398238,ENST00000225282,ENST00000575068	11756-11759	14,28,4,4
chr17	44783087	44783424	+	chr17	44788329	44788485	+		
chr17	44846851	44846781	-	chr17	44846165	44845686	-	ENST00000225512	11760-11761	23,2
							ENST00000570618,ENST00000434041	11762-11763	44,11
chr17	45135214	45133826	-	chr17	44377031	44376913	-		
							ENST00000066544,ENST00000531206,ENST00000446365,ENST00000527547,ENST00000526866,ENST00000574304	11764-11771	24,11,32,32,32,32,11,32
chr17	45234112	45234013	-	chr17	45232152	45232038,5	-		
							ENST00000559488,ENST00000571680,ENST00000560629	11772-11775	78,76,78,78
chr17	45304794	45305028	+	chr17	45351785	45351870	+		
							ENST00000331493,ENST00000517484	11776-11779	11,37,1,37
chr17	45474375	45475159	+	chr17	45479498	45479569	+		
							ENST00000331493,ENST00000517484	11780-11783	14,12,27,14
chr17	45474375	45475239	+	chr17	45479498	45479569	+		
							ENST00000331493,ENST00000517484	11784-11787	29,26,13,13
chr17	45474375	45475283	+	chr17	45479498	45479569	+		
							ENST00000525007,ENST00000530173,ENST00000526247,ENST00000532729,ENST00000322157,ENST00000527298,ENST00000544660,ENST00000534691	11788-11795	22,12,22,22,22,22,22,22
chr17	45609740	45609805	+	chr17	45623275	45623359	+		

Table 10

							ENST00000525007,ENST000		2,23,11,11,1
							00530173,ENST00000526247		1,11,11,11,1
							,ENST00000532729,ENST000		1
							00322157,ENST00000527298		
							,ENST00000544660,ENST000		
chr17	45609740	45609837	+	chr17	45623275	45623359	+ 00534691	11796-11804	
							ENST00000535458,ENST000		43,34,43,34
							00290158,ENST00000540627		
							,ENST00000537679,ENST000		
chr17	45739669	45739798	+	chr17	45740455	45740544	+ 00582097	11805-11808	
							ENST00000535458,ENST000		3,5,16,3,16
							00290158,ENST00000540627		
							,ENST00000537679,ENST000		
chr17	45739966	45740016	+	chr17	45740455	45740544	+ 00582097	11809-11813	
							ENST00000007414,ENST000		30,12,30
							00392507,ENST00000579728		
chr17	45897045	45896884	-	chr17	45896465	45896352	-	11814-11816	
							ENST00000351111,ENST000		23,13
							00290208,ENST00000414011		
chr17	45908171	45908103	-	chr17	45906036	45905867	-	11817-11818	
							ENST00000351111,ENST000		51,32,1
							00290208,ENST00000414011		
chr17	45908775	45908576	-	chr17	45906036	45905867	-	11819-11821	
							ENST00000583599,ENST000		2,2,1,2,2,2,2
							00544840,ENST00000434554		
							,ENST00000225573,ENST000		
							00585320,ENST00000582171		
chr17	46019410	46019417	+	chr17	46021982	46022081,5	+	11822-11828	
							ENST00000437048,ENST000		13,23,16,13,
							00446250,ENST00000291074		13
							,ENST00000571805,ENST000		
							00389040,ENST00000401468		
chr17	467013	466922	-	chr17	465985	465743	-	11829-11833	
chr17	46708306	46708303	-	chr17	46685457	46685204	- ENST00000239165	11834-11835	1,1
							ENST00000360943,ENST000		8,10,28,28
chr17	46994064	46994341	+	chr17	46998522	46998634	+ 00508468	11836-11839	
							ENST00000290341,ENST000		7,4,29,4
chr17	47090337	47090522	+	chr17	47102980	47103028	+ 00431824	11840-11843	
							ENST00000263088,ENST000		22,13,21,13
chr17	4720676	4720742	+	chr17	4721297	4721401	+ 00572940	11844-11847	
							ENST00000263088,ENST000		33,23,1,33
chr17	4720676	4720774	+	chr17	4721297	4721401	+ 00572940	11848-11851	
chr17	47441499	47441711	+	chr17	47450375	47450448	+ ENST00000576461	11852-11854	55,8,12
chr17	47582952	47582998	+	chr17	47583661	47584020	+ ENST00000172229	11855-11857	15,1,14
							ENST00000393328,ENST000		3,1,12,12,12
							00347630,ENST00000393331		,12
							,ENST00000504102,ENST000		
							00503676,ENST00000509079		
							,ENST00000505581,ENST000		
chr17	47692512	47692380	-	chr17	47688819	47688642,5	- 00507970	11858-11863	
							ENST00000393328,ENST000		13,10,7,10,1
							00347630,ENST00000393331		0,10
							,ENST00000504102,ENST000		
							00503676,ENST00000509079		
							,ENST00000505581,ENST000		
chr17	47692512	47692470	-	chr17	47688819	47688642,5	- 00507970	11864-11869	
							ENST00000240364,ENST000		61,21,13
chr17	47792310	47792042	-	chr17	47788917	47788617	- 00513602	11870-11872	
							ENST00000259021,ENST000		23,24
							00454930,ENST00000509773		
							,ENST00000510819,ENST000		
							00424009,ENST00000503935		
chr17	47902829	47902904	+	chr17	47903362	47903508	+ ,ENST00000435742	11873-11874	
							ENST00000506401,ENST000		1,3,1,1
							00320031,ENST00000007722		
chr17	48135445	48135458	+	chr17	48141441	48141568	+	11875-11878	
							ENST00000544892,ENST000		15,4,4,4,4,4
							00320031,ENST00000007722		
							,ENST00000512553,ENST000		
chr17	48150284	48150385	+	chr17	48151280	48151368	+ 00510809	11879-11884	
							ENST00000544892,ENST000		7,11,14,11,1
							00320031,ENST00000007722		1,11,11
							,ENST00000512553,ENST000		
chr17	48150284	48150543	+	chr17	48151280	48151368	+ 00510809	11885-11891	

Table 10

chr17	48164136	48164185	+	chr17	48165108	48165233	+	ENST00000320031,ENST00000007722	11892-11895	7,16,16,16
chr17	48164136	48164282	+	chr17	48165108	48165233	+	ENST00000320031,ENST00000007722	11896-11898	4,14,4
chr17	48251398	48251498	+	chr17	48252618	48252740,482	+	ENST00000513821,ENST00000344627,ENST00000262018,ENST00000543315,ENST00000511303,ENST00000504073	11899-11906	2,24,11,2,24,2,24,11
chr17	48446263	48446199	-	chr17	48445659	48445453	-	ENST00000507088,ENST00000508200,ENST00000225969,ENST00000511860	11907-11908	21,11
chr17	48449905	48449855	-	chr17	48447947	48447816	-	ENST00000225969,ENST00000503633,ENST00000442592	11909-11912	7,16,16,16
chr17	48527593	48527720	+	chr17	48538038	48538233	+	ENST00000300441,ENST00000506582,ENST00000504392,ENST00000427954,ENST00000502667	11913-11918	24,1,20,24,24,24
chr17	48607573	48607673	+	chr17	48608688	48608789,5	+	ENST00000323776,ENST00000488432	11919-11923	33,24,11,24,11
chr17	48613518	48613639	+	chr17	48613782	48613986	+	ENST00000537145	11924-11926	12,11,1
chr17	48629121	48629154	+	chr17	48629330	48629541	+	ENST00000006658,ENST00000356488,ENST00000393244	11927-11929	11,11,10
chr17	4869432	4869347	-	chr17	4864148	4864081	-	ENST00000575142,ENST00000206020,ENST00000575784	11930-11933	28,28,28,28
chr17	48743551	48743773	+	chr17	48744915	48745202,487	+	ENST00000427699,ENST00000285238,ENST00000502426,ENST00000505699	11934-11939	20,7,33,7,7,7
chr17	48743843	48743888	+	chr17	48744915	48745202,487	+	ENST00000427699,ENST00000285238,ENST00000502426,ENST00000505699	11940-11941	6,14
chr17	48756002	48756050	+	chr17	48757159	48757260	+	ENST00000285238	11942-11944	7,16,16
chr17	48756002	48756100	+	chr17	48757159	48757260	+	ENST00000285238	11945-11947	11,32,24
chr17	48758154	48758204	+	chr17	48760971	48761117	+	ENST00000285238	11948-11950	12,7,16
chr17	48783748	48783487	-	chr17	48778077	48777929	-	ENST00000285243	11951-11953	44,31,22
chr17	49231249	49231312	+	chr17	49233012	49233141,5	+	ENST00000336097,ENST00000480143,ENST00000555572,ENST00000608447,ENST00000013034,ENST00000456492	11954-11958	21,20,20,20,20
chr17	49246522	49246572	+	chr17	49247298	49247410	+	ENST00000393198,ENST00000393193,ENST00000555572,ENST00000608447,ENST00000514264,ENST00000393185,ENST00000513177,ENST00000512737,ENST00000503064,ENST00000393183,ENST00000393190	11959-11961	17,7,16
chr17	49258685	49258539	-	chr17	49258055	49257937	-	ENST00000586178,ENST00000415868	11962-11963	14,32
chr17	49358257	49358357	+	chr17	49362606	49362729	+	ENST00000225298,ENST00000583725,ENST00000583205,ENST00000579261	11964-11969	28,6,11,6,6,6
chr17	526228	526129	-	chr17	505136	505035	-	ENST00000437048,ENST00000446250,ENST00000291074,ENST00000571805,ENST00000389040,ENST00000401468,ENST00000570650	11970-11974	23,11,11,11,11
chr17	52990745	52990876	+	chr17	52991109	52991234,5	+	ENST00000570371,ENST00000575882,ENST00000445275,ENST00000348161,ENST00000572405,ENST00000576932,ENST00000572158,ENST00000540336,ENST00000572298,ENST00000536554,ENST00000575333,ENST00000570499,ENST00000572576,ENST00000573607,ENST00000575909	11975-11987	4,9,43,4,4,4,4,4,4,4,4,4,4,4

Table 10

						ENST00000570371,ENST00000575882,ENST00000445275,ENST00000348161,ENST00000576932,ENST00000572158,ENST00000540336,ENST00000536554,ENST00000575333		2,11,2
chr17	53007785	53007884	+	chr17	53014010	53014070	+	,ENST00000572576	11988-11990	
								ENST00000573584,ENST00000225696,ENST00000572809		13,7,7,7
chr17	5316591	5316412	-	chr17	5314109	5314023	-		11991-11994	
								ENST00000318698,ENST00000566473	11995-11998	1,81,9,1
chr17	54489714	54490176	+	chr17	54517688	54517785	+			
								ENST00000397861,ENST00000397862,ENST00000575658		48,13,36
chr17	54877252	54877090	-	chr17	54872541	54872425	-		11999-12001	
								ENST00000416426,ENST00000284073,ENST00000322684,ENST00000442934,ENST00000579180	12002-12006	10,9,9,10,10
chr17	55522799	55522828	+	chr17	55607037	55607085	+			
								ENST00000577830,ENST00000407144,ENST00000360238		1,1
chr17	56023535	56023533	-	chr17	55957099	55956972	-	,ENST00000577589	12007-12008	
								ENST00000225275,ENST00000340482	12009-12011	8,1,33
chr17	56352884	56352784	-	chr17	56351030	56350775	-			
								ENST00000225275,ENST00000340482	12012-12014	21,4,21
chr17	56360821	56360757	-	chr17	56358090	56357966	-			
								ENST00000268893,ENST00000355701,ENST00000343736		5,5,5,5
chr17	56402632	56402615	-	chr17	56402363	56402172	-		12015-12018	
								ENST00000389934,ENST00000240361,ENST00000349033		31,14,17,17,17
chr17	56709197	56709090	-	chr17	56707915	56707801	-		12019-12023	
								ENST00000583539,ENST00000337432,ENST00000413590		17,7,17,7,7
chr17	56803074	56803124	+	chr17	56809845	56809920,6	+	,ENST00000584804	12024-12028	
								ENST00000393066,ENST00000262294,ENST00000393065		4,3,3,3,3
								,ENST00000580122,ENST00000584889		
chr17	57167151	57167140	-	chr17	57165768	57165652,6	-		12029-12033	
								ENST00000262293,ENST00000578777,ENST00000578542		47,15,12,47
chr17	57269322	57269648	+	chr17	57270853	57271095,6	+	,ENST00000580177	12034-12037	
								ENST00000251241,ENST00000451169,ENST00000425628		19,10,14
chr17	57659640	57660025	+	chr17	57663514	57663594	+		12038-12040	
								ENST00000262291,ENST00000593168,ENST00000537567		21,13,10,21,13
chr17	57837339	57837468	+	chr17	57842332	57842499,6	+	,ENST00000536180	12041-12045	
								ENST00000262291,ENST00000537567,ENST00000539763,ENST00000536180,ENST00000545362,ENST00000591877		2,4
chr17	57913412	57913424	+	chr17	57915656	57915758	+		12046-12047	
								ENST00000300896,ENST00000592339,ENST00000590133		21,7,7,7
chr17	58319652	58319560	-	chr17	58313601	58313499	-	,ENST00000589335	12048-12051	
								ENST00000300896,ENST00000592339,ENST00000590133		7,15,15,15,15
chr17	58335140	58335094	-	chr17	58332619	58332536	-	,ENST00000393003	12052-12056	
								ENST00000300896,ENST00000590133,ENST00000393003		66,23,3,66,66,66,23
chr17	58377016	58376695	-	chr17	58372162	58372044	-	,ENST00000588898	12057-12063	
								ENST00000300896,ENST00000590133,ENST00000393003		4,27,1,27,27,27
chr17	58382442	58382268	-	chr17	58379065	58378960	-	,ENST00000588898	12064-12069	
								ENST00000300896,ENST00000590133,ENST00000393003		31,5,14,31,31,31
chr17	58382896	58382504	-	chr17	58379065	58378960	-	,ENST00000588898	12070-12075	
								ENST00000300896,ENST00000590133,ENST00000393003		15,99,12,99,99,99
chr17	58382896	58382551	-	chr17	58379065	58378960	-	,ENST00000588898	12076-12081	
chr17	58549941	58549828	-	chr17	58543820	58543652	-	ENST00000083182	12082-12083	4,19

Table 10

						ENST00000589222,ENST00000408905,ENST00000588462	12084-12087	34,3,1,1
chr17	59449092	59449229 +	chr17	59457867	59457932 +	ENST00000589222,ENST00000407086,ENST00000390652,ENST00000408905,ENST00000588462,ENST00000585744	12088-12091	34,3,1,1
chr17	59449092	59449229 +	chr17	59469338	59469374,6 +	,ENST00000588874	12092-12094	57,7,7
chr17	59779545	59777799 -	chr17	59770873	59770791 -	ENST00000259008,ENST00000577598	12095-12100	3,11,11,11,1
chr17	598352	598318 -	chr17	565135	565049 -	ENST00000437048,ENST00000573028,ENST00000571805,ENST00000389040	12101-12103	1,11
chr17	5997857	5997945 +	chr17	5998422	5998543 +	ENST00000574946,ENST00000573634,ENST00000317744,ENST00000574232,ENST00000539421	12104-12109	29,29,29
chr17	600194	600065 -	chr17	565135	565049 -	ENST00000437048,ENST00000573028,ENST00000571805,ENST00000389040	12110-12112	13,35,21,35,35,35
chr17	60065402	60065353 -	chr17	60064489	60064368 -	ENST00000397786	12113-12116	16,7,16
chr17	60101063	60100777 -	chr17	60088594	60087911,6 -	ENST00000397786,ENST00000583958	12117-12120	4,8,95,4
chr17	60101063	60100941 -	chr17	60088594	60087911,6 -	ENST00000397786,ENST00000583958	12121-12122	8,4,40,4
chr17	60735573	60735586 +	chr17	60741909	60742310 +	ENST00000303375	12123-12126	4,4
chr17	61869125	61869192 +	chr17	61869772	61869864,6 +	ENST00000581135,ENST00000578681,ENST00000583590,ENST00000389924,ENST00000578137,ENST00000457800	12127-12139	22,22,22,22
chr17	61908039	61908102 +	chr17	61908280	61908295,6 +	ENST00000310144,ENST00000581842,ENST00000582130,ENST00000584320,ENST00000585123,ENST00000580864,ENST00000375812,ENST00000581882,ENST00000584880	12140-12148	8,6,17,8,6,17,6,8,6,8,6,8,6
chr17	62097801	62097766 -	chr17	62084031	62083991 -	,ENST00000584084	12149-12150	13,5
chr17	62199146	62199080 -	chr17	62175601	62175481 -	ENST00000433197	12151-12153	17,7,13
chr17	62480131	62480081 -	chr17	62476506	62476406 -	ENST00000539111	12154-12157	17,7,13,13
chr17	62480131	62480081 -	chr17	62479091	62479036 -	ENST00000539111,ENST00000581355	12158-12162	23,1,11,1,11
chr17	62489901	62489804 -	chr17	62489138	62489012,6 -	ENST00000539111,ENST00000578997	12163-12165	13,21,13
chr17	62489901	62489836 -	chr17	62489138	62489012,6 -	ENST00000539111,ENST00000578997	12166-12168	2,16,19
chr17	62533310	62533369 +	chr17	62533721	62533897 +	ENST00000556440,ENST00000553412	12169-12171	6,2,2
chr17	62591214	62591197 -	chr17	62589691	62589558 -	ENST00000262435,ENST00000585301	12172-12176	28,4,14,28,28
chr17	62610293	62609987 -	chr17	62594608	62594500 -	ENST00000582081,ENST00000578386,ENST00000262435,ENST00000585301	12177-12180	12,12,8,12
chr17	6366941	6366904 -	chr17	6364876	6364693 -	ENST00000421306,ENST00000262483,ENST00000575201	12181-12185	7,46,18,18,18
chr17	63705764	63705487 -	chr17	63685336	63685247,6 -	ENST00000535342,ENST00000392769,ENST00000581739,ENST00000317442,ENST00000581734,ENST00000541355,ENST00000537949	12186-12188	33,23,6
chr17	6409989	6409891 -	chr17	6406894	6406847 -	ENST00000421306,ENST00000262483	12189-12191	4,23,60
chr17	64777270	64777565 +	chr17	64782985	64783092 +	ENST00000413366	12192-12194	17,7,16
chr17	65351507	65351457 -	chr17	65346452	65346345 -	ENST00000356126,ENST00000357146		

Table 10

							ENST00000580974,ENST00000299954,ENST00000335257,ENST00000581322	15,11,36,36,36,36
chr17	65453985	65454148	+	chr17	65528918	65529066	+	12195-12200
							ENST00000580974,ENST00000299954,ENST00000335257,ENST00000581322	5,4,4,5,5,5
chr17	65508222	65508236	+	chr17	65528918	65529066	+	12201-12206
							ENST00000580974,ENST00000299954,ENST00000335257,ENST00000581322	14,13,7,14
chr17	65639867	65639908	+	chr17	65665624	65665779	+	12207-12210
							ENST00000544778,ENST00000321892,ENST00000335221,ENST00000306378,ENST00000424123,ENST00000582467	11,32,6,6,6,6
chr17	65929895	65929993	+	chr17	65936555	65936772,7	+	12211-12216
chr17	66219214	66219249	+	chr17	66244781	66244846	+	ENST00000584837 12217-12219 12,2,11
							ENST00000359904,ENST00000580548,ENST00000580753,ENST00000392720,ENST00000359783,ENST00000579724,ENST00000584494,ENST00000580837,ENST00000577866,ENST00000577985,ENST00000577273	12,11,12,12,12,12,12,12
chr17	66219214	66219249	+	chr17	66246329	66246611	+	12220-12227
							ENST00000448504,ENST00000452479	7,1,4
chr17	66396754	66396876	+	chr17	66397501	66397591	+	12228-12230
							ENST00000448504,ENST00000452479	18,3,17
chr17	66416126	66416180	+	chr17	66416330	66416604	+	12231-12233
							ENST00000340001,ENST00000453985,ENST00000370732	27,4,14,14,14
chr17	67039557	67039149	-	chr17	67031942	67031801	-	12234-12238
							ENST00000416101,ENST00000269081,ENST00000523419	27,25,12,25,25
chr17	67193146	67192347	-	chr17	67190636	67190526	-	12239-12243
							ENST00000392676,ENST00000392677,ENST00000588877,ENST00000586811	13,8,1,13
chr17	67248694	67248654	-	chr17	67246762	67246613	-	12244-12247
							ENST00000392676,ENST00000392677,ENST00000588877,ENST00000593153,ENST00000593253,ENST00000587607,ENST00000592568	30,21,8,8,8,8,8,8
chr17	67306578	67306489	-	chr17	67305564	67305403,7	-	12248-12254
chr17	6843591	6843569	-	chr17	6829602	6829480	-	ENST00000575889 12255-12257 7,7,4
							ENST00000304478,ENST00000574509,ENST00000571157	2,2,2,2,2,2
chr17	689949	689956	+	chr17	691205	691372,6912	+	12258-12263
							ENST00000548577,ENST00000402093,ENST00000570898,ENST00000552039,ENST00000552842,ENST00000552321	8,8,8,8,8,8
chr17	6916238	6916262	+	chr17	6916985	6917061,691	+	12264-12268
							ENST00000299886,ENST00000438720,ENST00000582587	19,26,3,3,26,3
chr17	71187820	71187899	+	chr17	71192646	71192890,7	+	12269-12274
							ENST00000269346,ENST00000529107	27,27,1
chr17	72225690	72225772	+	chr17	72227027	72227138	+	12275-12277
							ENST00000158762,ENST00000570457,ENST00000575425	8,7,7,7
chr17	7245803	7245826	+	chr17	7246698	7246881,72	+	12278-12281
							ENST00000158762,ENST00000570457,ENST00000575425	34,21,13,34,34
chr17	7245937	7246211	+	chr17	7246698	7246881,72	+	12282-12286
chr17	73048819	73048973	+	chr17	73049109	73049200	+	ENST00000322444 12287-12289 6,21,13
							ENST00000420826,ENST00000578238	17,7
chr17	73172027	73171977	-	chr17	73170918	73170847	-	12290-12291
							ENST00000245544,ENST00000579298,ENST00000581104	55,10,10,10
chr17	73204249	73204520	+	chr17	73204622	73204715	+	12292-12295
							ENST00000314256,ENST00000375248	23,32,11
chr17	73485881	73485978	+	chr17	73486315	73486431	+	12296-12298
							ENST00000333213,ENST00000583173,ENST00000578415	11,24,8,11,8,11,8
chr17	73515953	73516025	+	chr17	73517490	73517591,7	+	12299-12305
							ENST00000333213,ENST00000545228	1,13,34,1
chr17	73518980	73519244	+	chr17	73519356	73519416	+	12306-12309

Table 10

chr17	73597900	73597955 +	chr17	73598598	73598675 +	ENST00000583560	12310-12312	1,18,9
						ENST00000579662,ENST00000339591,ENST00000200181,ENST00000450894,ENST00000449880	12313-12317	7,13,13,13,13
chr17	73744170	73744210 +	chr17	73744922	73745126 +			
chr17	73900439	73900307 -	chr17	73898235	73898101 -	ENST00000309352	12318-12320	19,14,16
chr17	73904252	73904202 -	chr17	73900800	73900621 -	ENST00000309352	12321-12323	17,7,16
						ENST00000607838,ENST00000332065,ENST00000589210,ENST00000335146,ENST00000467929,ENST00000405575,ENST00000357231,ENST00000411744,ENST00000420116	12324-12326	16,5,5
chr17	74093226	74093178 -	chr17	74090662	74090495,7 -			
						ENST00000607838,ENST00000332065,ENST00000589210,ENST00000335146,ENST00000405575,ENST00000411744,ENST00000589507,ENST00000406660	12327-12336	33,2,1,33,33,33,33,33,33,33
chr17	74106432	74106334 -	chr17	74099507	74099442 -			
						ENST00000269391,ENST00000319945	12337-12338	29,24
chr17	74167568	74167469 -	chr17	74163878	74163732 -			
						ENST00000446526,ENST00000442767	12339-12341	1,3,1
chr17	74350976	74350924 -	chr17	74344662	74344610 -			
						ENST00000389760,ENST00000313080,ENST00000591885	12342-12344	13,38,1
chr17	74471963	74471820 -	chr17	74471223	74471112 -			
						ENST00000389760,ENST00000313080,ENST00000591885	12345-12346	7,16
chr17	74471963	74471913 -	chr17	74471223	74471112 -			
						ENST00000592014,ENST00000586148	12347	1
chr17	74524190	74524193 +	chr17	74536587	74536655 +			
						ENST00000293230,ENST00000589342	12348-12351	34,1,39,34
chr17	74528918	74528647 -	chr17	74527773	74527542 -			
						ENST00000445478,ENST00000303996,ENST00000542934,ENST00000397625,ENST00000585429	12352-12358	23,1,32,1,1,1,1
chr17	74719821	74719724 -	chr17	74718015	74717880 -			
						ENST00000586622,ENST00000588460,ENST00000593181,ENST00000355954,ENST00000336509,ENST00000590514,ENST00000585584	12359-12361	11,6,11
chr17	74743162	74743283 +	chr17	74750129	74750169,7 +			
						ENST00000586622,ENST00000588460,ENST00000593181,ENST00000355954,ENST00000336509,ENST00000590514,ENST00000585584	12362-12366	33,33,10,33,10
chr17	74749473	74749572 +	chr17	74750129	74750169,7 +			
						ENST00000427177,ENST00000591198,ENST00000449803,ENST00000431235,ENST00000329047,ENST00000590294,ENST00000588690,ENST00000423034,ENST00000590059,ENST00000427674,ENST00000592420,ENST00000585930,ENST00000427180	12367-12371	6,73,20,20,20
chr17	75422586	75422807 +	chr17	75478226	75478417,8 +			
						ENST00000590602,ENST00000322933,ENST00000392467,ENST00000322914,ENST00000591436	12372-12373	22,15
chr17	76110555	76110081 -	chr17	76109705	76109629 -			
						ENST00000318430,ENST00000589691	12374-12375	18,16
chr17	76136167	76136308 +	chr17	76136915	76137193 +			
						ENST00000301634,ENST00000405273,ENST00000588734,ENST00000590862,ENST00000590430,ENST00000586613	12376-12381	7,16,7,7,7,7
chr17	76181909	76181860 -	chr17	76181246	76181136 -			
						ENST00000301633,ENST00000350051,ENST00000590925,ENST00000587746	12382-12385	33,23,1,23
chr17	76212049	76212147 +	chr17	76212745	76212862 +			

Table 10

						ENST00000262764,ENST00000586510,ENST00000589689,ENST00000589426,ENST00000592043	12386	1
chr17	76358829	76358832 +	chr17	76388557	76388746,8 +	ENST00000585421,ENST00000536189,ENST00000262768,ENST00000586057	12387-12389	46,1,24
chr17	76853369	76853230 -	chr17	76851946	76851749 -	ENST00000585421,ENST00000536189,ENST00000262768,ENST00000586057,ENST00000592761,ENST00000586713	12390-12393	36,12,12,12
chr17	76869672	76869497 -	chr17	76867088	76866980,8 -	ENST00000269385,ENST00000413392	12394-12397	3,21,14,3
chr17	77775802	77775737 -	chr17	77770339	77770296 -	ENST00000380358	12398-12400	13,12,12
chr17	7788014	7788052 +	chr17	7788167	7788401 +	ENST00000380358,ENST00000358181,ENST00000330494	12401-12404	4,1,12,4
chr17	7793771	7793809 +	chr17	7793889	7794059 +	ENST00000380358,ENST00000358181,ENST00000330494	12405-12407	1,12,1
chr17	7793771	7793809 +	chr17	7793894	7794059 +	ENST00000380358,ENST00000358181,ENST00000330494	12408-12410	23,13,23
chr17	7805457	7805525 +	chr17	7805928	7806045 +	ENST00000361193,ENST00000411502,ENST00000546047,ENST00000572725	12411-12413	7,28,2
chr17	78219271	78219357 +	chr17	78219953	78220008 +	ENST00000380262,ENST00000563694,ENST00000380255,ENST00000565740	12414-12418	11,16,16,16,16
chr17	7847000	7847129 +	chr17	7847441	7847566 +	ENST00000574767,ENST00000570891,ENST00000306801,ENST00000544334	12419-12424	1,16,1,16,16,16
chr17	78593363	78593511 +	chr17	78599491	78599593 +	ENST00000331134,ENST00000572760,ENST00000573519,ENST00000573876,ENST00000571714,ENST00000572824	12425-12427	57,43,43
chr17	79528018	79527747 -	chr17	79526442	79526285,8 -	ENST00000571714	12428-12429	57,43
chr17	79528018	79527747 -	chr17	79527631	79527588 -	ENST00000571714	12430-12431	57,43
chr17	79528018	79527747 -	chr17	79527655	79527588 -	ENST00000331134,ENST00000572760,ENST00000573519,ENST00000573876,ENST00000571714,ENST00000572824	12432-12435	28,10,32,32
chr17	79528282	79528184 -	chr17	79526442	79526285,8 -	ENST00000331134,ENST00000572760,ENST00000573519,ENST00000573876,ENST00000571714,ENST00000572824	12436-12439	25,41,3,41
chr17	79528923	79528766 -	chr17	79526442	79526285,8 -	ENST00000574024,ENST00000331056,ENST00000573076,ENST00000571224,ENST00000571004	12440-12444	33,23,1,33,1
chr17	79619606	79619508 -	chr17	79618715	79618675 -	ENST00000397498,ENST00000570561,ENST00000576135	12445-12446	6,9
chr17	79649571	79649450 -	chr17	79649179	79649064 -	ENST00000397498,ENST00000573392,ENST00000574938,ENST00000570561,ENST00000576135	12447-12448	17,7
chr17	79649571	79649521 -	chr17	79649149	79649064 -	ENST00000329138,ENST00000572392	12449-12451	12,10,12
chr17	79652296	79652333 +	chr17	79652635	79652719 +	ENST00000329138	12452-12453	23,16
chr17	79665049	79665146 +	chr17	79667497	79667630 +	ENST00000330261,ENST00000570394	12454-12457	15,6,33,6
chr17	79794321	79794141 -	chr17	79792709	79792640 -	ENST00000331483,ENST00000415593,ENST00000439918,ENST00000576380,ENST00000570907,ENST00000573778	12458-12468	3,3,2,3,3,2,3,3,3,3,2
chr17	79853222	79853213 -	chr17	79805181	79805119 -	ENST00000576052,ENST00000389641,ENST00000392347,ENST00000392345	12469-12471	1,32,1
chr17	80062713	80062616 -	chr17	80059742	80059558,8 -			

Table 10

							ENST00000389641,ENST00000392347,ENST00000392345		7,16,16,16
chr17	80062713	80062664	-	chr17	80059742	80059558,8	-	12472-12475	
							ENST00000389641,ENST00000392347,ENST00000392346		1,1,1,1
chr17	80096322	80096318	-	chr17	80086473	80086369	-	,ENST00000419322	12476-12479
							ENST00000389641,ENST00000392347,ENST00000419322		1,19
chr17	80116735	80116608	-	chr17	80115824	80115624,8	-	,ENST00000392343	12480-12481
chr17	80217303	80217685	+	chr17	80218775	80218971	+	ENST00000583025	12482-12484 16,25,51
							ENST00000313056,ENST00000329197,ENST00000583897,ENST00000583445,ENST00000582593		29,7,25,29,7,29,7,29,7
chr17	80356747	80356660	-	chr17	80356195	80356072	-		12485-12493
							ENST00000313056,ENST00000329197,ENST00000583897		5,29,18,29,5,29,18,29
chr17	80372311	80372100	-	chr17	80369406	80369331	-	,ENST00000580445	12494-12501
							ENST00000309794,ENST00000345415,ENST00000581202,ENST00000374611,ENST00000582585,ENST00000457415,ENST00000581795,ENST00000577432,ENST00000582907		18,10,32,18,32,32,32,18,32,32,32,32,32
chr17	80417459	80417721	+	chr17	80417868	80417948,8	+	,ENST00000580748	12502-12514
chr17	80552641	80552900	+	chr17	80559179	80559375	+	ENST00000335255	12515-12517 10,21,13
							ENST00000269373,ENST00000535965,ENST00000574356		22,22,22,22
chr17	80677350	80677417	+	chr17	80678148	80678239	+	,ENST00000577128	12518-12521
							ENST00000269373,ENST00000535965,ENST00000577128		22,22
chr17	80677350	80677417	+	chr17	80680680	80680762	+		12522-12523
							ENST00000269373,ENST00000535965,ENST00000574356		7,16,16,7,7
chr17	80677760	80677809	+	chr17	80678148	80678239	+	,ENST00000577128	12524-12528
chr17	80993344	80993203	-	chr17	80992975	80992911	-	ENST00000320865	12529-12531 16,38,24
							ENST00000316199,ENST00000534871,ENST00000585124,ENST00000584972,ENST00000578549,ENST00000577833		23,13,13,13
chr17	8109748	8109680	-	chr17	8108708	8108534,810	-		12532-12535
							ENST00000360416,ENST00000379980,ENST00000396239		8,4,7
chr17	8381422	8381398	-	chr17	8380366	8380194	-	,ENST00000269243	12536-12538
							ENST00000360416,ENST00000379980,ENST00000396239		1,38,24,38
chr17	8443206	8443065	-	chr17	8439249	8439076	-	,ENST00000269243	12539-12542
							ENST00000360416,ENST00000379980,ENST00000396239		24,11,11
chr17	8443206	8443106	-	chr17	8439249	8439076	-	,ENST00000269243	12543-12545
							ENST00000302538,ENST00000544583,ENST00000572441,ENST00000574437,ENST00000291107,ENST00000543210		5,9,9,5,9,9
chr17	915735	915707	-	chr17	915225	915086,915	-	,ENST00000536794	12546-12551
							ENST00000396219,ENST00000352665,ENST00000299764		6,32
chr17	9519303	9519400	+	chr17	9531989	9532137	+		12552-12553
							ENST00000580483,ENST00000542979,ENST00000322897		15,15,34,7,7
chr18	10538868	10538971	+	chr18	10539759	10539759,1	+	,ENST00000582472	12554-12558
							ENST00000580483,ENST00000542979,ENST00000322897		25,25,1,78,78
chr18	10538868	10539184	+	chr18	10539759	10539759,1	+	,ENST00000582472	12559-12563
							ENST00000302079,ENST00000503781,ENST00000580640		7,40,1,7,7,7
chr18	10890770	10890478	-	chr18	10871413	10871251	-	,ENST00000582913	12564-12569
							ENST00000590693,ENST00000317702,ENST00000591909,ENST00000590388,ENST00000586653,ENST00000586810,ENST00000592683,ENST00000590967,ENST00000591208		22,13,21,22,22,22,22,22,22,22
chr18	12310207	12310273	+	chr18	12310942	12311052	+		12570-12580

Table 10

							ENST00000440960,ENST00000336990,ENST00000588729,ENST00000587862	12581-12585	18,38,1,18,18
chr18	12408608	12408753	+	chr18	12420324	12420492	ENST00000440960,ENST00000336990,ENST00000588729,ENST00000587862	12586-12590	3,2,2,2,2
chr18	12419938	12419946	+	chr18	12420324	12420492	ENST00000440960,ENST00000336990,ENST00000588729,ENST00000589952,ENST00000592149,ENST00000587862	12591-12596	3,2,2,3,3,3
chr18	12419938	12419946	+	chr18	12421539	12421628	ENST00000409402,ENST00000410092,ENST00000453447,ENST00000449797,ENST00000497844,ENST00000462226	12597-12603	13,34,21,13,13,13,13
chr18	12606829	12606563	-	chr18	12546903	12546673	ENST00000327283,ENST00000591115,ENST00000353319,ENST00000309660,ENST00000591497,ENST00000592776	12604-12611	33,24,11,11,11,11,11
chr18	12827683	12827583	-	chr18	12825943	12825809,1	ENST00000592059		
chr18	14827405	14827605	+	chr18	14828277	14828307	+ ENST00000358984	12612-12613	41,34
chr18	14848312	14848600	+	chr18	14848715	14848928	+ ENST00000358984	12614-12615	4,6
chr18	19147425	19147325	-	chr18	19146167	19146107	- ENST00000269214,ENST00000383276	12616-12619	16,24,11,24
chr18	19151449	19151349	-	chr18	19148055	19147941	- ENST00000269214,ENST00000383276	12620-12622	33,11,11
chr18	19276409	19276343	-	chr18	19263926	19263881	- ENST00000289119,ENST00000584464	12623-12627	22,13,21,22,21
chr18	19284147	19284047	-	chr18	19283708	19283545	- ENST00000289119,ENST00000580981	12628-12630	24,11,11
chr18	19354268	19354318	+	chr18	19358064	19358130	+ ENST00000261537	12631-12633	17,7,16
chr18	19354268	19354533	+	chr18	19358064	19358130	+ ENST00000261537	12634-12635	34,1
chr18	20537112	20537359	+	chr18	20548769	20548881,2	+ ENST00000582354,ENST00000581819,ENST00000327155,ENST00000399722,ENST00000399725,ENST00000399721,ENST00000360790	12636-12644	16,2,22,16,2,2,16,16,16,16
chr18	20594380	20594415	+	chr18	20596791	20596887	+ ENST00000327155,ENST00000399722,ENST00000360790,ENST00000583057	12645-12647	11,11,11
chr18	20724753	20724809	+	chr18	20768802	20768873	+ ENST00000256925,ENST00000582882,ENST00000420687	12648-12651	19,15,18,15
chr18	20785832	20786015	+	chr18	20793941	20794018,2	+ ENST00000400473,ENST00000579963,ENST00000256925,ENST00000582882,ENST00000420687	12652-12655	11,60,60,60
chr18	20911714	20911557	-	chr18	20889708	20889644	- ENST00000450466,ENST00000383233	12656-12659	8,49,48,48
chr18	20912930	20912888	-	chr18	20889708	20889644	- ENST00000450466,ENST00000383233	12660-12663	14,12,13,12
chr18	21090623	21091237	+	chr18	21095820	21095960	+ ENST00000269221,ENST00000590868,ENST00000590870	12664-12666	21,4,21
chr18	21117340	21117290	-	chr18	21116840	21116637	- ENST00000269228,ENST00000412552,ENST00000591051	12667-12669	17,7,16
chr18	21139244	21138915	-	chr18	21137154	21137081	- ENST00000269228,ENST00000412552,ENST00000591051	12670-12672	33,109,33
chr18	21339049	21339121	+	chr18	21343369	21343487	+ ENST00000313654,ENST00000585600,ENST00000399516	12673-12677	24,11,2,24,24
chr18	23648120	23648035	-	chr18	23637706	23637553,23	- ENST00000415083,ENST00000542420,ENST00000542743,ENST00000269138,ENST00000269137,ENST00000545952,ENST00000579061,ENST00000584083,ENST00000581021	12678-12687	28,28,2,2,28,2,2,2,28,2

Table 10

							ENST00000415083,ENST000		12,2
							00542420,ENST00000269137		
							,ENST00000539244,ENST000		
							00579061,ENST00000577636		
							,ENST00000584083,ENST000		
chr18	23661454	23661189	-	chr18	23658124	23658040,2	-	00581021	12688-12689
							ENST00000415576,ENST000		31,6
							00343848,ENST00000308268		
chr18	23708128	23708493	+	chr18	23731822	23731946	+		12690-12691
							ENST00000269142,ENST000		15,15
chr18	23964873	23964918	+	chr18	23969809	23969976	+	00578121	12692-12693
							ENST00000261600,ENST000		11,4,14,4
chr18	241122	240822	-	chr18	226901	226801	-	00579891	12694-12697
							ENST00000284224,ENST000		37,7,37,7
							00581714,ENST00000580774		
chr18	24499193	24498911	-	chr18	24497314	24496223,2	-		12698-12701
							ENST00000269141,ENST000		8,7,2
chr18	25540839	25540816	-	chr18	25532323	25532117	-	00399380	12702-12704
							ENST00000320876,ENST000		23,13,23
							00261598,ENST00000577880		
chr18	2731728	2731796	+	chr18	2732263	2732490	+		12705-12707
							ENST00000283351,ENST000		33,23,1,23
							00582539,ENST00000581057		
chr18	29417024	29416926	-	chr18	29412136	29412047	-		12708-12711
							ENST00000283351,ENST000		22,13,21,21
							00582539,ENST00000581057		
chr18	29417024	29416958	-	chr18	29412136	29412047	-		12712-12715
							ENST00000283351,ENST000		23,1,23,33
							00582539,ENST00000581057		
chr18	29601342	29601244	-	chr18	29412136	29412047	-		12716-12719
							ENST00000261593,ENST000		16,7,15
chr18	29698217	29698265	+	chr18	29703481	29703537	+	00257190	12720-12722
							ENST00000399218,ENST000		3,21,20,3
chr18	29911652	29911589	-	chr18	29890286	29890156	-	00269209	12723-12726
							ENST00000399218,ENST000		17,13,5,17
chr18	30006281	30006215	-	chr18	29972998	29972858	-	00269209	12727-12730
							ENST00000403303,ENST000		9,14,9,9,9,9,
							00383096,ENST00000300227		9
							,ENST00000406524,ENST000		
							00583930,ENST00000402325		
							,ENST00000579947,ENST000		
chr18	30934572	30932591	-	chr18	30928939	30928854	-	00399177	12731-12737
							ENST00000579226,ENST000		22,31,31,31
							00217652,ENST00000578611		
							,ENST00000578562,ENST000		
							00536605,ENST00000580887		
chr18	3249627	3249721	+	chr18	3253327	3253426	+		12738-12741
							ENST00000237500,ENST000		22,31,31
							00581193,ENST00000400175		
chr18	3249627	3249721	+	chr18	3272981	3273080	+	,ENST00000584539	12742-12744
							ENST00000333206,ENST000		3,1,11
chr18	32839156	32839074	-	chr18	32834345	32833414	-	00420878	12745-12747
							ENST00000333206,ENST000		34,3
chr18	32841822	32840200	-	chr18	32834345	32833414	-	00420878	12748-12749
							ENST00000441607,ENST000		4,1,15,1
chr18	33069210	33067665	-	chr18	33067403	33067350	-	00591139	12750-12753
							ENST00000269187,ENST000		22,21,21,21
							00590986,ENST00000440549		
chr18	33694157	33694222	+	chr18	33694356	33694060	-	,ENST00000586829	12754-12757
chr18	33771010	33771166	+	chr18	33775220	33775309	+	ENST00000261326	12758-12759 13,49
							ENST00000587129,ENST000		25,2,1,25,25
							00591906,ENST00000590842		,25,25,25,25
							,ENST00000587382,ENST000		,25,25
							00334295,ENST00000593035		
							,ENST00000383056,ENST000		
							00589049,ENST00000590337		
chr18	34397698	34397558	-	chr18	34387897	34387810	-		12760-12770
							ENST00000543923,ENST000		9,14,14,14,1
							00592611,ENST00000280020		4,14
							,ENST00000592521,ENST000		
							00590617,ENST00000587139		
chr18	34432288	34432344	+	chr18	34465520	34465635,34	+	,ENST00000591619	12771-12776

Table 10

							ENST00000587129,ENST000	3,1,35,35,35
							00590842,ENST00000587382	,35,35,35,35
							,ENST00000334295,ENST000	,35,35
							00593035,ENST00000383056	
							,ENST00000589049,ENST000	
							00590337,ENST00000587207	
chr18	34493199	34492915	-	chr18	34398936	34398857	-	12777-12787
							ENST00000400149,ENST000	27,7
							00400150,ENST00000539435	
chr18	3659863	3659680	-	chr18	3656113	3656084	-	12788-12789
							ENST00000400147,ENST000	10,45,53,10,
							00400149,ENST00000400155	10,10,10
							,ENST00000400150,ENST000	
							00315677,ENST00000584874	
							,ENST00000534970,ENST000	
							00539435,ENST00000581699	
							,ENST00000400145,ENST000	
							00515196,ENST00000581527	
chr18	3840671	3840285	-	chr18	3814273	3814059	-	12790-12796
							ENST00000262039,ENST000	35,1,26
chr18	39564737	39565071	+	chr18	39567776	39567862	+	00398870 12797-12799
							ENST00000262039,ENST000	12,5,1,1,1
							00398870,ENST00000593098	
							,ENST00000597477,ENST000	
							00589056,ENST00000587402	
chr18	39628422	39628508	+	chr18	39629495	39629569,4	+	12800-12804
							ENST00000282041,ENST000	18,62,7,18,6
chr18	43454731	43454452	-	chr18	43450707	43450532,4	-	00592272 12805-12809 2
chr18	435583	435290	-	chr18	357522	357400	-	ENST00000400256 12810-12812 41,7,51
							ENST00000589328,ENST000	23,3
chr18	43596765	43596625	-	chr18	43595903	43595869	-	00409746 12813-12814
							ENST00000589328,ENST000	18,10,22,22
chr18	43596765	43596639	-	chr18	43595903	43595869	-	00409746 12815-12818
							ENST00000300591,ENST000	5,27,22,22,2
							00398705,ENST00000579038	2
							,ENST00000398722,ENST000	
							00441893,ENST00000582408	
							,ENST00000536736,ENST000	
							00398686,ENST00000441551	
chr18	44078825	44078394	-	chr18	44069105	44068935	-	12819-12823
							ENST00000300591,ENST000	6,9,8,8,8,8
							00579038,ENST00000398722	
							,ENST00000441893,ENST000	
							00582408,ENST00000536736	
							,ENST00000441551,ENST000	
chr18	44100568	44100540	-	chr18	44098219	44098092	-	00452425 12824-12829
							ENST00000300591,ENST000	2,2,2,2,2
							00579038,ENST00000398722	
							,ENST00000441893,ENST000	
							00582408,ENST00000536736	
chr18	44102804	44102797	-	chr18	44102272	44102064	-	,ENST00000441551 12830-12834
							ENST00000262160,ENST000	12,7,7,7,7,7
							00402690,ENST00000587269	
							,ENST00000586514,ENST000	
							00587421,ENST00000589877	
chr18	45399508	45399460	-	chr18	45396935	45396846,5	-	,ENST00000585978 12835-12840
							ENST00000256413,ENST000	10,53,42
chr18	46381316	46381475	+	chr18	46383959	46384012	+	00382998 12841-12843
							ENST00000577628,ENST000	12,37,1,1
							00261292,ENST00000427224	
chr18	47107347	47107487	+	chr18	47107785	47108056,5	+	,ENST00000580036 12844-12847
							ENST00000577628,ENST000	53,16
							00261292,ENST00000427224	
chr18	47107347	47107533	+	chr18	47107785	47108056,5	+	,ENST00000580036 12848-12849
							ENST00000285039,ENST000	14,28,4,4
							00324581,ENST00000592779	
chr18	47411113	47410782	-	chr18	47406825	47406741	-	12850-12853

Table 10

						ENST00000585672,ENST000		14,34,11,11,
						00382948,ENST00000353909		11,11,11,11,
						,ENST00000591416,ENST000		11,11,11,11,
						00339998,ENST00000269468		11,11
						,ENST00000269471,ENST000		
						00347968,ENST00000349085		
						,ENST00000436910,ENST000		
						00590208,ENST00000587605		
						,ENST00000588937,ENST000		
						00424334,ENST00000585595		
						,ENST00000398495,ENST000		
						00457839,ENST00000398493		
						,ENST00000398488,ENST000		
chr18	47804716	47804536	-	chr18	47803574	47803460	-	00591535	12854-12867	
chr18	48554588	48555035	+	chr18	48573290	48573393	+	ENST00000590722	12868-12870	10,4,14
								ENST00000442544,ENST000		31,6
chr18	51037821	51037914	+	chr18	51052987	51053129	+	00581580	12871-12872	
								ENST00000442544,ENST000		15,7,21,21
chr18	51037821	51037958	+	chr18	51052987	51053129	+	00581580	12873-12876	
								ENST00000579534,ENST000		7,1,1,1,1,1
								00406285,ENST00000577612		
								,ENST00000579434,ENST000		
								00583136,ENST00000580880		
chr18	51801231	51801398	+	chr18	51804073	51804225	+		12877-12882	
								ENST00000580650,ENST000		7,7,7
chr18	5251119	5251097	-	chr18	5145754	5145561	-	00434239	12883-12885	
								ENST00000217515,ENST000		2,7,7,7,7
								00590954,ENST00000587807		
								,ENST00000586262,ENST000		
chr18	54314953	54314680	-	chr18	54293688	54293592	-	00587613	12886-12890	
chr18	56218748	56218407	-	chr18	56205456	56202066	-	ENST00000361673	12891-12893	13,78,2
								ENST00000348428,ENST000		4,7
								00345724,ENST00000591792		
chr18	56362148	56362408	+	chr18	56363598	56363719	+		12894-12895	
								ENST00000336078,ENST000		18,11,25,11
								00591083,ENST00000589288		
								,ENST00000591230,ENST000		
								00591808,ENST00000586997		
chr18	56644798	56644900	+	chr18	56646287	56646399	+		12896-12899	
chr18	57140317	57140192	-	chr18	57136839	57136705	-	ENST00000439986	12900-12901	42,12
chr18	57333593	57333308	-	chr18	57147470	57147418	-	ENST00000439986	12902-12903	21,7
								ENST00000357637,ENST000		38,1,23
chr18	59737726	59737612	-	chr18	59713212	59713089	-	00400334	12904-12906	
								ENST00000269485,ENST000		33,7
chr18	60046463	60046637	+	chr18	60051984	60052267	+	00586569	12907-12908	
								ENST00000400105,ENST000		4,29
								00317931,ENST00000284898		
chr18	6079168	6078818	-	chr18	5969561	5969392	-	,ENST00000535782	12909-12910	
								ENST00000406396,ENST000		64,15
								00326575,ENST00000592327		
chr18	61030875	61030683	-	chr18	61030101	61030012	-		12911-12912	
								ENST00000400105,ENST000		26,15,10,15,
								00317931,ENST00000284898		15,15,15,15,
								,ENST00000400104,ENST000		10
								00583054,ENST00000583809		
chr18	6247465	6247306	-	chr18	6244587	6244483,62	-	,ENST00000581231	12913-12921	
								ENST00000262150,ENST000		28,4,14,28,2
								00579658,ENST00000540086		8,28
chr18	64229835	64229481	-	chr18	64221761	64221642	-	,ENST00000454642	12922-12927	
								ENST00000299608,ENST000		87,2,12,12,1
								00564631,ENST00000569053		2,12,12,12,1
								,ENST00000443099,ENST000		2
								00562706,ENST00000564008		
								,ENST00000565918,ENST000		
								00569982,ENST00000544714		
chr18	66379867	66379501	-	chr18	66378640	66378601	-		12928-12936	
								ENST00000280200,ENST000		17,41,7,7,17
								00582621,ENST00000579496		,7
chr18	67613267	67613039	-	chr18	67563277	67562937,7	-	,ENST00000583955	12937-12942	
								ENST00000280200,ENST000		17,41,7,17,1
								00582621,ENST00000579496		7,41
chr18	67613267	67613039	-	chr18	67563281	67562937,7	-	,ENST00000583955	12943-12948	

Table 10

							ENST00000255674,ENST000 00583043,ENST00000454359		13,7,13,13
chr18	67829978	67829696	-	chr18	67817969	67817844	- ,ENST00000437017	12949-12952	
							ENST00000383578,ENST000 00251101,ENST00000340116 ,ENST00000585128,ENST000		12,8,12,12,1 2
chr18	693136	693095	-	chr18	691276	691204,691	- 00583771	12953-12957	
chr18	6951222	6951147	-	chr18	6950970	6950781	- ENST00000389658	12958-12960	25,7,24
chr18	7010104	7010100	-	chr18	7009365	7009238	- ENST00000389658	12961-12963	1,1,1
							ENST00000581011,ENST000		8,5,23
chr18	70837263	70837082	-	chr18	70829208	70829180	- 00581862	12964-12966	
chr18	72147504	72147248	-	chr18	72109351	72109187	- ENST00000343998	12967-12969	44,7,18
chr18	72147504	72147248	-	chr18	72114518	72113841	- ENST00000343998	12970-12972	44,7,18
							ENST00000320610,ENST000 00253159,ENST00000543926		5,28,41,28,2 8
chr18	74574119	74574245	+	chr18	74580641	74580819	+ ,ENST00000579322	12973-12977	
							ENST00000355994,ENST000 00580402,ENST00000579129 ,ENST00000397863,ENST000 00397860,ENST00000581878		15,33
chr18	74777456	74777165	-	chr18	74729224	74728788,747	-	12978-12979	
							ENST00000426216,ENST000		35,47,56,56
chr18	77021254	77021605	+	chr18	77037054	77037196	+ 00307671	12980-12983	
							ENST00000426216,ENST000 00307671,ENST00000543761 ,ENST00000590477,ENST000		1,5,8,8,8,5,8
chr18	77118930	77119110	+	chr18	77119354	77119462	+ 00588921	12984-12990	
							ENST00000253506,ENST000 00591814,ENST00000587635 ,ENST00000427363,ENST000 00542384,ENST00000318065 ,ENST00000590313,ENST000 00592223,ENST00000329101		45,3,1,3,3,3, 3,3
chr18	77185936	77186070	+	chr18	77193579	77193738,8	+ ,ENST00000586434	12991-12998	
							ENST00000299543,ENST000		25,23,51,51
chr18	77484045	77484207	+	chr18	77488907	77489069	+ 00591598	12999-13002	
							ENST00000262198,ENST000 00560752,ENST00000559951		14,1,34,14,1 4,14,1
chr18	77890120	77890260	+	chr18	77890986	77891075	+ ,ENST00000560561	13003-13009	
							ENST00000587254,ENST000		2,4,24,2,4
chr18	77906423	77906530	+	chr18	77920399	77920486	+ 00586421	13010-13014	
							ENST00000353265,ENST000		7,18,46,46
chr18	77990591	77990314	-	chr18	77960815	77960593	- 00470488	13015-13018	
chr18	8708124	8708134	+	chr18	8718422	8718646	+ ENST00000306329	13019-13020	3,3
chr18	8714167	8714247	+	chr18	8718422	8718646	+ ENST00000306329	13021-13023	21,4,22
							ENST00000306329,ENST000 00517570,ENST00000306285 ,ENST00000400050,ENST000 00359865,ENST00000518815		6,12,11,11
chr18	8822589	8822625	+	chr18	8824697	8826230	+	13024-13027	
							ENST00000318388,ENST000		16,16
chr18	9100409	9100457	+	chr18	9117836	9117901	+ 00400033	13028-13029	
							ENST00000318388,ENST000		13,7
chr18	9115573	9115759	+	chr18	9117836	9117901	+ 00400033	13030-13031	
							ENST00000585234,ENST000 00383440,ENST00000262126 ,ENST00000581635,ENST000 00400020,ENST00000546007		11,58,11,58, 11,11,11
chr18	9191624	9192095	+	chr18	9195549	9195595,92	+	13032-13038	
chr18	9367507	9367628	+	chr18	9388038	9388042	+ ENST00000583147	13039-13041	5,15,24
							ENST00000262120,ENST000		5,15,24,15
chr18	9367507	9367628	+	chr18	9396428	9396544,94	+ 00581641	13042-13045	
							ENST00000578921,ENST000		7,7,7,7
chr18	9766671	9766693	+	chr18	9775275	9775354	+ 00581109	13046-13049	
							ENST00000400000,ENST000		18,13,10
chr18	9953012	9953293	+	chr18	9954050	9954208	+ 00340541	13050-13052	
							ENST00000253110,ENST000 00591813,ENST00000587710 ,ENST00000590378,ENST000 00397881,ENST00000593131		11,21,11,11, 11
chr19	10200082	10200199	+	chr19	10200333	10200371,1	+	13053-13057	
							ENST00000589181,ENST000 00592641,ENST00000253109		23,9,14,9,14
chr19	10206599	10206530	-	chr19	10205614	10205434	-	13058-13062	

Table 16

chr19	10217582	10217766	+	chr19	10218181	10218282	+	ENST00000428358,ENST00000253107,ENST00000556468,ENST00000393796,ENST00000393793,ENST00000446223,ENST00000430370	13063-13068	7,27,27,27,27
chr19	10251343	10251293	-	chr19	10251004	10250722	-	ENST00000340748,ENST00000540357,ENST00000359526	13069-13072	17,7,16,16
chr19	10270184	10270134	-	chr19	10267185	10267067	-	ENST00000340748,ENST00000540357,ENST00000359526	13073-13076	17,5,16,5
chr19	10273942	10273892	-	chr19	10273424	10273343	-	ENST00000340748,ENST00000540357,ENST00000359526	13077-13079	17,7,7
chr19	10275117	10274902	-	chr19	10274036	10274002	-	ENST00000340748,ENST00000540357,ENST00000359526	13080-13083	3,31,18,3
chr19	10471727	10471638	-	chr19	10468814	10468679	-	ENST00000264818,ENST00000524462,ENST00000525621,ENST00000529370	13084-13087	28,29,8,28
chr19	10480187	10480149	-	chr19	10479094	10478971,1	-	ENST00000264818,ENST00000525621,ENST00000529370,ENST00000531836,ENST00000530829	13088-13091	13,7,7,7
chr19	1048215	1048436	+	chr19	1048894	1049004	+	ENST00000263094,ENST00000433129,ENST00000435683	13092-13094	7,28,18
chr19	1049516	1049535	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13095-13097	6,6,6
chr19	1049516	1049560	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13098-13100	7,14,14
chr19	1049516	1049586	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13101-13103	15,7,23
chr19	1049516	1049611	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13104-13106	15,7,31
chr19	1049516	1049636	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13107-13109	7,15,39
chr19	1049516	1049662	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13110-13112	15,7,24
chr19	1049516	1049687	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13113-13115	7,15,32
chr19	1049516	1049713	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13116-13118	15,7,41
chr19	1049516	1049739	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13119-13121	49,7,16
chr19	1049516	1049764	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13122-13124	7,15,24
chr19	1049516	1049790	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13125-13127	15,7,33
chr19	1049516	1049815	+	chr19	1050920	1051051	+	ENST00000263094,ENST00000433129,ENST00000435683	13128-13130	7,15,41
chr19	10560989	10561170	+	chr19	10561279	10561328	+	ENST00000592685,ENST00000380702,ENST00000352831,ENST00000293683,ENST00000440014	13131-13133	28,21,2
chr19	1064675	1064746	+	chr19	1064930	1065170	+	ENST00000263094,ENST00000433129,ENST00000435683,ENST00000525073	13134-13135	4,6
chr19	10669978	10669880	-	chr19	10668736	10668648	-	ENST00000312962,ENST00000361821	13136-13137	11,24
chr19	10669978	10669880	-	chr19	10668915	10668840	-	ENST00000312962,ENST00000361821	13138-13139	11,24

chr19	10819783	10819829	+	chr19	10819957	10820040	+	ENST00000591643	13140-13142	15,8,15
								ENST00000250237,ENST00000591643	13143-13145	1,15,1
chr19	10819991	10820076	+	chr19	10822837	10822975,1	+	ENST00000358026,ENST00000344626,ENST00000429416,ENST00000541122,ENST00000589677,ENST00000444061,ENST00000590574,ENST00000413806,ENST00000450717,ENST00000592158	13146-13152	9,23,6,9,9,23,6
chr19	11150477	11150575	+	chr19	11151983	11152236,1	+	ENST00000558518,ENST00000557933,ENST00000455727,ENST00000535915,ENST00000545707,ENST00000558013,ENST00000252444	13153-13158	19,2,21,19,19,19
chr19	11219385	11219538	+	chr19	11221328	11221447	+	ENST00000585567,ENST00000592540,ENST00000591396,ENST00000592967,ENST00000423327,ENST00000585486	13159-13167	17,16,16,16,16,16,16,16,16
chr19	11263185	11263135	-	chr19	11259914	11259770,1	-	ENST00000585567,ENST00000592540,ENST00000591396,ENST00000592967,ENST00000423327,ENST00000585486	13168-13170	13,2,2
chr19	11266015	11265935	-	chr19	11259914	11259770,1	-	ENST00000361757,ENST00000587024,ENST00000438103,ENST00000590998,ENST00000590176,ENST00000587655	13171-13178	13,19,19,13,19,13,13,19
chr19	1128104	1128046	-	chr19	1127764	1127603,1127	-	ENST00000586659,ENST00000355150,ENST00000432929,ENST00000589359,ENST00000589894	13179-13183	7,7,7,7,7
chr19	11290826	11290804	-	chr19	11289396	11289229	-	ENST00000361757,ENST00000587024,ENST00000438103,ENST00000590998,ENST00000590176,ENST00000587655	13184-13192	16,28,4,28,28,4,4,28,4
chr19	1143813	1143708	-	chr19	1127764	1127603,1127	-	ENST00000251473,ENST00000591329,ENST00000586380,ENST00000591608	13193-13197	4,6,6,6,6,6
chr19	11469032	11469050	+	chr19	11470283	11470396,1	+	ENST00000361113,ENST00000588174	13198-13200	18,6,6
chr19	11686113	11686168	+	chr19	11725342	11725468	+	ENST00000254321,ENST00000482090	13201-13203	7,16,30
chr19	12034966	12035150	+	chr19	12057996	12058122	+			
chr19	1216605	1216634	+	chr19	1218416	1218499	+	ENST00000326873	13204-13206	10,9,9
chr19	12258081	12257983	-	chr19	12257039	12256112	-	ENST00000439556	13207-13208	33,1
chr19	12258081	12258015	-	chr19	12257039	12256112	-	ENST00000439556	13209-13211	22,13,5
chr19	1256201	1256299	+	chr19	1256994	1257271	+	ENST00000300952,ENST00000591446	13212-13214	33,23,1
chr19	12761939	12761854	-	chr19	12761036	12760918	-	ENST00000456935,ENST00000221363	13215-13217	4,12,28
chr19	12771870	12771724	-	chr19	12769324	12769242	-	ENST00000456935	13218-13219	4,32
chr19	12791647	12791389	-	chr19	12791139	12790975,127	-	ENST00000210060,ENST00000351660,ENST00000601639,ENST00000594424,ENST00000601537,ENST00000595912,ENST00000598850,ENST00000596162,ENST00000593423,ENST00000595100	13220-13229	10,32,1,32,32,32,32,32
chr19	12822007	12821941	-	chr19	12821587	12821435	-	ENST00000425528,ENST00000441499,ENST00000356861,ENST00000450764,ENST00000592287,ENST00000588216,ENST00000585886	13230-13234	22,13,5,22,22
chr19	12829405	12829367	-	chr19	12826553	12826447	-	ENST00000425528,ENST00000441499,ENST00000356861,ENST00000450764,ENST00000592287,ENST00000588216,ENST00000585886	13235-13239	8,12,12,12,12
chr19	13066108	13065992	-	chr19	13065340	13065022	-	ENST00000316939	13240-13242	39,12,15
chr19	13213092	13212993	-	chr19	13211862	13211651	-	ENST00000264824	13243-13245	24,11,32

Table 10

							ENST00000344663,ENST00000592374,ENST00000591337,ENST00000588810,ENST00000591433,ENST00000591806,ENST00000415183,ENST00000587460	13246-13252	12,11,11,12,12,12,12
chr19	1354984	1355019	+	chr19	1357008	1357093,14	+		
							ENST00000546283,ENST00000233627,ENST00000539480,ENST00000313408,ENST00000534853,ENST00000414651	13253-13262	15,7,14,14,14,15,14,15,7,14
chr19	1385238	1385282	+	chr19	1387810	1387846	+		
							ENST00000254323,ENST00000440752,ENST00000590508,ENST00000592227	13263-13267	31,21,8,21,8
chr19	13939633	13939725	+	chr19	13941005	13941864,1	+		
							ENST00000254323,ENST00000440752,ENST00000590508,ENST00000592227	13268-13272	4,4,4,4,4
chr19	13940410	13940423	+	chr19	13941005	13941864,1	+		
chr19	14146914	14146945	+	chr19	14150320	14150477	+	ENST00000263379	13273-13275	10,10,10
							ENST00000263382,ENST00000589468,ENST00000474890	13276-13280	7,13,7,13,13
chr19	14236068	14236028	-	chr19	14232520	14232344,142	-		
							ENST00000340736,ENST00000361434	13281-13283	13,10,10
chr19	14284168	14284108	-	chr19	14281603	14281494	-		
							ENST00000215567,ENST00000436007,ENST00000598987,ENST00000598333,ENST00000598715,ENST00000598918	13284-13293	1,1,1,1,1,1,1,1,1,1
chr19	14617302	14617306	+	chr19	14673337	14673387	+		
							ENST00000397439,ENST00000547437,ENST00000339847,ENST00000417570,ENST00000551730	13294-13301	4,24,10,4,10,10,10,10
chr19	14696220	14696642	+	chr19	14698426	14698503	+		
							ENST00000547437,ENST00000339847,ENST00000417570,ENST00000551730	13302-13307	24,4,10,10,10,10
chr19	14696220	14696642	+	chr19	14703093	14703170	+		
							ENST00000547437,ENST00000339847,ENST00000417570,ENST00000551730	13308-13313	24,4,10,10,10,10
chr19	14700483	14700905	+	chr19	14703093	14703170	+		
							ENST00000315576,ENST00000346057,ENST00000353876,ENST00000392967,ENST00000596991,ENST00000392965,ENST00000594076,ENST00000594294,ENST00000601345,ENST00000595208,ENST00000392962	13314-13321	12,11,26,12,12,12,12,12
chr19	14876957	14876876	-	chr19	14876616	14876470	-		
							ENST00000315576,ENST00000346057,ENST00000392967,ENST00000596991,ENST00000392965,ENST00000594294,ENST00000601345,ENST00000595208,ENST00000392962	13322-13331	13,32,1,13,1,1,1,1,1
chr19	14878350	14878252	-	chr19	14877921	14877790	-		
							ENST00000315576,ENST00000346057,ENST00000392967,ENST00000596991,ENST00000392965,ENST00000594294,ENST00000601345,ENST00000595208,ENST00000392962	13332-13341	17,16,16,17,16,16,16,16,16,16
chr19	14878350	14878300	-	chr19	14877921	14877790	-		
							ENST00000315576,ENST00000346057,ENST00000392967,ENST00000596991,ENST00000392965,ENST00000594294,ENST00000601345,ENST00000595208,ENST00000392962	13342-13351	20,8,11,20,1,11,11,11,1,11
chr19	14878778	14878719	-	chr19	14877921	14877790	-		
							ENST00000292609,ENST00000340880	13352-13354	20,28,28
chr19	15581914	15581827	-	chr19	15580740	15580179,2	-		
							ENST00000292609,ENST00000340880	13355-13359	22,13,21,13,21
chr19	15582224	15582158	-	chr19	15580740	15580179,2	-		
							ENST00000590550,ENST00000434436,ENST00000592012,ENST00000156825	13360-13362	6,24,11
chr19	1580056	1579956	-	chr19	1578537	1578339	-		

Table 10

							ENST00000434436,ENST00000592012,ENST00000156825	1,11,27
chr19	1587396	1587300	-	chr19	1585213	1585054	-	13363-13365	ENST00000344824,ENST00000538887,ENST00000586499,ENST00000586833,ENST00000300933,ENST00000588410	1,3,3,1,1,1
chr19	16190080	16190091	+	chr19	16192723	16192856	+	13366-13371	ENST00000344824,ENST00000538887,ENST00000586499,ENST00000586833,ENST00000300933,ENST00000588410	6,11
chr19	16195785	16195879	+	chr19	16197233	16197350	+	13372-13373	ENST00000344824,ENST00000538887,ENST00000586499,ENST00000586833,ENST00000300933,ENST00000588410	19,13,34,34,34,34
chr19	16196177	16196360	+	chr19	16197233	16197350	+	13374-13379	ENST00000300935,ENST00000586682	23,72,32,72
chr19	16228017	16228315	+	chr19	16229036	16229096	+	13380-13383	ENST00000300935,ENST00000586682	7,16,16,16
chr19	16234137	16234186	+	chr19	16236280	16236357	+	13384-13387	ENST00000253680,ENST00000593154,ENST00000586872,ENST00000588246,ENST00000535834,ENST00000587963,ENST00000593031,ENST00000591154	34,40,7,34,34,40,40,34,40,34,34
chr19	16262946	16263169	+	chr19	16263362	16263451,162	+	13388-13398	ENST00000253680,ENST00000397372,ENST00000593154,ENST00000588246,ENST00000593031	24,71,24,71,24,71,24,71
chr19	16265487	16265896	+	chr19	16268020	16268208,162	+	13399-13406	ENST00000344749,ENST00000262965,ENST00000395423,ENST00000588136,ENST00000587235	17,7,16,16,16,16
chr19	1631567	1631517	-	chr19	1627425	1627358	-	13407-13412	ENST00000602022,ENST00000455140,ENST00000248070,ENST00000535753,ENST00000594975	1,2,1,1,1
chr19	16473620	16473615	-	chr19	16472795	16472778,164	-	13413-13417	ENST00000595753,ENST00000436553,ENST00000421082	56,18,4,56
chr19	16672351	16672184	-	chr19	16666208	16665963	-	13418-13421	ENST00000595753,ENST00000409648,ENST00000431408	31,23,12,12
chr19	16680133	16679838	-	chr19	16678980	16678843	-	13422-13425	ENST00000601636,ENST00000593991,ENST00000595505,ENST00000594509,ENST00000600705,ENST00000465250,ENST00000481671,ENST00000594662,ENST00000597781,ENST00000598278,ENST00000593409,ENST00000487416,ENST00000593404,ENST00000597711,ENST00000599310,ENST00000602194,ENST00000600740	33,24,11,24,11
chr19	16758566	16758466	-	chr19	16758072	16758057,2	-	13426-13430	ENST00000187762,ENST00000599479	2,10,55,55
chr19	16781469	16781636	+	chr19	16790795	16790951	+	13431-13434	ENST00000443236,ENST00000291440,ENST00000388925	7,1,36,36
chr19	17125634	17125357	-	chr19	17122567	17122402	-	13435-13438	ENST00000595618,ENST00000594824,ENST00000397274,ENST00000595641	18,10,32,32,32
chr19	17255839	17256062	+	chr19	17256207	17256301	+	13439-13443	ENST00000445667,ENST00000263897,ENST00000596136,ENST00000379776,ENST00000593597	10,18
chr19	17328449	17328507	+	chr19	17329173	17329200	+	13444-13445	ENST00000593466,ENST00000359866,ENST00000596582	7,1
chr19	17423968	17423999	+	chr19	17424832	17424912	+	13446-13447		

Table 19

chr19	17445063	17444964	-	chr19	17444609	17444499	-	ENST00000597643,ENST00000159087	13448-13451	2,19,12,2
chr19	17524027	17524114	+	chr19	17533141	17533267	+	ENST00000528911,ENST00000600514,ENST00000317040,ENST00000392702,ENST00000529939,ENST00000543795	13452-13457	4,21,2,4,4,4
chr19	17524027	17524114	+	chr19	17534307	17534426	+	ENST00000528911,ENST00000600514,ENST00000317040,ENST00000529939,ENST00000528515,ENST00000543795,ENST00000594784	13458-13467	4,21,2,4,2,4,2,2,4,2
chr19	17667441	17667706	+	chr19	17670120	17670230	+	ENST00000252599	13468-13470	10,21,13
chr19	17669687	17669738	+	chr19	17670120	17670230	+	ENST00000252599	13471-13473	17,17,7
chr19	17669687	17669786	+	chr19	17670120	17670230	+	ENST00000252599	13474-13476	33,33,23
chr19	17742335	17742285	-	chr19	17741559	17741463	-	ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293,ENST00000550896	13477-13483	17,7,16,7,7,7,7
chr19	17751147	17751047	-	chr19	17750717	17750649	-	ENST00000519716,ENST00000252773,ENST00000428389,ENST00000551649,ENST00000552293,ENST00000550896	13484-13490	33,24,11,11,11,11,11
chr19	17971608	17971682	+	chr19	17972102	17972281,2	+	ENST00000222247,ENST00000600147,ENST00000599898	13491-13497	6,24,10,6,6,24,10
chr19	18209759	18209565	-	chr19	18194301	18194242	-	ENST00000593993,ENST00000600835,ENST00000322153,ENST00000430026,ENST00000598019,ENST00000594176	13498-13505	48,3,64,64,48,64,64,64
chr19	18240779	18240783	+	chr19	18241304	18241512	+	ENST00000262811	13506-13508	1,1,1
chr19	1829939	1829841	-	chr19	1828630	1826877	-	ENST00000170168	13509-13511	11,32,24
chr19	18493334	18493439	+	chr19	18497039	18497276	+	ENST00000595973,ENST00000252809	13512-13516	1,26,12,1,26
chr19	18528014	18528055	+	chr19	18538161	18538233	+	ENST00000597724,ENST00000348495,ENST00000270061,ENST00000607020	13517-13524	14,13,3,13,13,3,13
chr19	19022660	19022610	-	chr19	19021880	19021780	-	ENST00000262812,ENST00000349893,ENST00000600932,ENST00000351079,ENST00000593827	13525-13533	17,7,16,17,17,17,7
chr19	19031670	19031891	+	chr19	19032472	19032557,2	+	ENST00000247003,ENST00000594021,ENST00000595858	13534-13539	7,28,20,7,28,28
chr19	19123169	19122822	-	chr19	19121151	19120664	-	ENST00000594773,ENST00000330854,ENST00000337018,ENST00000452918,ENST00000600239,ENST00000601879,ENST00000600377,ENST00000456085	13540-13546	38,4,73,4,4,4,4
chr19	19123169	19123079	-	chr19	19121151	19120664	-	ENST00000594773,ENST00000330854,ENST00000337018,ENST00000452918,ENST00000600239,ENST00000601879,ENST00000600377,ENST00000456085	13547-13553	8,25,6,6,6,6,6
chr19	19143268	19143167	-	chr19	19141891	19141760	-	ENST00000600377	13554-13556	11,33,33
chr19	19143268	19143199	-	chr19	19141891	19141760	-	ENST00000600377	13557-13558	23,22
chr19	1915506	1915543	+	chr19	1917693	1917821	+	ENST00000316097,ENST00000409472,ENST00000411971,ENST00000590266	13559-13562	12,4,12,12
chr19	19294987	19294939	-	chr19	19293492	19293382,2	-	ENST00000354191,ENST00000602804,ENST00000602689,ENST00000488252,ENST00000462790,ENST00000588208,ENST00000477565	13563-13567	16,12,7,12,7
chr19	19449979	19450075	+	chr19	19451655	19451682	+	ENST00000392313,ENST00000262815,ENST00000609122,ENST00000609060	13568-13573	6,19,23,19,23,23
chr19	19826655	19826405	-	chr19	19825296	19825170	-	ENST00000344099	13574-13576	7,22,1
chr19	19900444	19900426	-	chr19	19897663	19897563	-	ENST00000587461	13577-13578	6,1

Table 10

chr19	1996507	1996366	-	chr19	1993175	1993019	-	ENST00000255608,ENST00000587825	13579-13583	43,29,9,29,9
chr19	20025593	20025631	+	chr19	20026089	20026215	+	ENST00000591366,ENST00000586021,ENST00000592160,ENST00000343769	13584-13589	13,2,12,13,13
chr19	20143793	20143651	-	chr19	20135185	20135059	-	ENST00000596019,ENST00000397165,ENST00000597972,ENST00000593468,ENST00000595534	13590-13595	39,5,8,8,8,8
chr19	20301624	20301745	+	chr19	20307773	20308911	+	ENST00000335117	13596-13598	2,24,40
chr19	21305182	21305353	+	chr19	21307764	21307957	+	ENST00000596053	13599-13601	27,7,28
chr19	21711936	21712081	+	chr19	21712460	21712586	+	ENST00000358491,ENST00000597078	13602-13605	48,3,1,1
chr19	21993338	21993008	-	chr19	21992609	21990409,219	-	ENST00000594012,ENST00000595461,ENST00000354959,ENST00000598381,ENST00000599906,ENST00000596899	13606-13610	63,18,9,63,63
chr19	22021098	22020656	-	chr19	22002023	22001897	-	ENST00000354959	13611-13613	54,46,29
chr19	2222618	2222716	+	chr19	2223280	2223485	+	ENST00000398665,ENST00000457590	13614-13617	33,23,1,33
chr19	23308046	23308299	+	chr19	23316882	23317008	+	ENST00000597761	13618-13620	4,65,22
chr19	23582073	23581984	-	chr19	23557566	23557440	-	ENST00000599743,ENST00000300619,ENST00000397082	13621-13625	8,29,22,8,8
chr19	2718822	2718772	-	chr19	2717873	2717767	-	ENST00000586572	13626-13628	17,7,16
chr19	2719117	2719050	-	chr19	2717873	2717767	-	ENST00000586572	13629-13630	22,22
chr19	2765936	2765920	-	chr19	2765283	2765184	-	ENST00000221566,ENST00000589251	13631-13634	5,5,1,5
chr19	2787693	2787902	+	chr19	2790419	2790631	+	ENST00000307741	13635-13637	68,62,69
chr19	2808909	2808959	+	chr19	2810302	2810488	+	ENST00000307741,ENST00000586677,ENST00000591363,ENST00000590970,ENST00000587401	13638-13645	17,7,16,17,17,17,7,17,7,17
chr19	2808909	2808959	+	chr19	2810638	2810766,28	+	ENST00000307741,ENST00000586677,ENST00000591363,ENST00000590970,ENST00000587401,ENST00000395212,ENST00000587468	13646-13660	17,7,16,17,7,16,17,7,16,7,16,7,16
chr19	2981688	2981943	+	chr19	2982146	2982187	+	ENST00000246112,ENST00000453329	13661-13664	9,63,7,63
chr19	3028268	3028248	-	chr19	3027871	3027827	-	ENST00000262953,ENST00000455444,ENST00000591529,ENST00000586422,ENST00000443826,ENST00000590536,ENST00000426948,ENST00000591457,ENST00000587137,ENST00000592584	13665-13675	6,6,6,6,6,6,6,6,6,6,6
chr19	32871856	32871929	+	chr19	32873373	32873507	+	ENST00000311921,ENST00000544431,ENST00000355898	13676-13678	21,24,13
chr19	33099215	33099211	-	chr19	33098738	33098541	-	ENST00000306065	13679-13681	1,1,1
chr19	33132106	33132008	-	chr19	33131291	33131213	-	ENST00000306065,ENST00000587352	13682-13684	23,1,1
chr19	33476120	33476111	-	chr19	33471162	33470902	-	ENST00000254260,ENST00000400226	13685-13686	3,2
chr19	33511706	33511606	-	chr19	33503630	33503553,3	-	ENST00000254260,ENST00000588388	13687-13690	6,1,11,11
chr19	33557038	33556993	-	chr19	33535270	33535155	-	ENST00000254260,ENST00000588388	13691-13694	2,11,14,11
chr19	340691	340514	-	chr19	327989	327864	-	ENST00000264819	13695-13696	59,1
chr19	340691	340514	-	chr19	334542	334400	-	ENST00000264819	13697-13699	59,1,8
chr19	34298211	34298261	+	chr19	34302152	34302457,3	+	ENST00000589786,ENST00000284006,ENST00000588881,ENST00000430256,ENST00000590385	13700-13706	17,7,16,17,7,17,7
chr19	343855	343810	-	chr19	334542	334400	-	ENST00000264819	13707-13708	15,5
chr19	343855	343810	-	chr19	336173	336083	-	ENST00000264819	13709-13710	15,5
chr19	3448734	3448895	+	chr19	3449012	3449137	+	ENST00000589123,ENST00000346156,ENST00000395111,ENST00000586919,ENST00000341919,ENST00000590282,ENST00000443272	13711-13717	25,50,11,50,11,50,11

Table 16

							ENST00000589123,ENST00000346156,ENST00000395111,ENST00000586919,ENST00000341919,ENST00000590282	17,16,17,16,17,16
chr19	3451349	3451399 +	chr19	3452480	3452664 +	,ENST00000443272	13718-13723	
chr19	34817778	34818044 +	chr19	34818326	34818466 +	ENST00000299505	13724-13726	13,9,1
						ENST00000592740,ENST00000606020,ENST00000246535	13727-13731	22,7,22,7,22
chr19	34896837	34896950 +	chr19	34900066	34900269,345 +			
chr19	34908046	34908129 +	chr19	34912424	34912572 +	ENST00000246535	13732-13734	5,13,27
						ENST00000250937,ENST00000427575,ENST00000592858	13735-13741	1,26,134,1,26,1,26
chr19	3493016	3492612 -	chr19	3492497	3492260,35 -	,ENST00000587122		
						ENST00000246548,ENST00000439527,ENST00000592791	13742-13744	13,16,15
chr19	34959404	34959597 +	chr19	34959945	34960126 +			
chr19	3539968	3540068 +	chr19	3543233	3543471 +	ENST00000329493	13745-13747	2,24,11
chr19	3542779	3542680 -	chr19	3538754	3538753 -	ENST00000389395	13748-13749	24,32
						ENST00000599564,ENST00000317991,ENST00000411896	13750-13752	36,4,4
chr19	35503125	35503234 +	chr19	35504160	35504272 +			
						ENST00000262631,ENST00000595652,ENST00000415950	13753-13757	3,6,26,26,26
chr19	35517536	35517616 +	chr19	35523432	35523598 +			
						ENST00000389395,ENST00000398558,ENST00000588918,ENST00000355415,ENST00000585814	13758-13763	12,37,1,1,1,1
chr19	3552465	3552325 -	chr19	3551192	3550982,36 -			
						ENST00000392219,ENST00000541435,ENST00000590686,ENST00000342879,ENST00000423817,ENST00000392217	13764-13766	33,24,11
chr19	35659684	35659784 +	chr19	35660469	35660518 +			
						ENST00000341773,ENST00000270311,ENST00000085219,ENST00000536635,ENST00000419549,ENST00000544992	13767-13772	28,19,27,28,19,28
chr19	35834785	35834869 +	chr19	35835732	35835828 +	,ENST00000594250		
						ENST00000341773,ENST00000270311,ENST00000085219,ENST00000536635,ENST00000419549,ENST00000544992	13773-13779	28,19,27,28,19,27,27
chr19	35834785	35834869 +	chr19	35835736	35835828 +	,ENST00000594250		
						ENST00000396908,ENST00000544099,ENST00000301165	13780-13786	16,7,15,16,16,16,15
chr19	36253331	36253378 +	chr19	36255755	36255837 +	,ENST00000535581		
						ENST00000396908,ENST00000544099,ENST00000301165	13787-13792	1,11,11,11,1,11
chr19	36253331	36253428 +	chr19	36255755	36255837 +	,ENST00000535581		
						ENST00000396908,ENST00000544099,ENST00000301165	13793-13799	15,2,10,2,2,15,2
chr19	36255278	36255443 +	chr19	36255755	36255837 +	,ENST00000535581		
						ENST00000537454,ENST00000221891,ENST00000590561,ENST00000586861,ENST00000589743,ENST00000592316	13800-13805	23,13,23,23,23,23
chr19	36361404	36361472 +	chr19	36361798	36361930 +			
						ENST00000221855,ENST00000589996,ENST00000591296,ENST00000588385,ENST00000585746	13806-13811	13,32,13,13,32,13
chr19	36609315	36609566 +	chr19	36611612	36611708,4 +			
chr19	36651479	36649509 -	chr19	36642657	36642571,4 -	ENST00000292907,ENST00000589154	13812-13816	5,26,6,5,6
						ENST00000292907,ENST00000589154	13817-13819	22,20,20
chr19	36651479	36649528 -	chr19	36642657	36642571,4 -			
chr19	36694358	36694349 -	chr19	36692952	36692879 -	ENST00000355114	13820-13822	3,3,2
						ENST00000434377,ENST00000454319,ENST00000392170,ENST00000424129,ENST00000452939,ENST00000427002	13823-13827	28,7,28,7,7
chr19	36953544	36953459 -	chr19	36940903	36939879,365 -			
						ENST00000335312,ENST00000539785,ENST00000537021	13828-13833	32,2,53,2,2,2
chr19	3696897	3696275 -	chr19	3667351	3667320 -	,ENST00000589578		

Table 10

							ENST00000588268,ENST00000360357,ENST00000591370		9,11,45,11
chr19	37134363	37134176	-	chr19	37130945	37129555,4	-	13834-13837	
chr19	37353659	37353913	+	chr19	37383720	37383832,4	+	ENST00000586933,ENST00000526123	13838-13841	9,11,5,5
								ENST00000541714,ENST00000539908,ENST00000382008,ENST00000589378,ENST00000262968,ENST00000587686		17,7,16
chr19	3740857	3740907	+	chr19	3743937	3744032	+		13842-13844	
chr19	37624824	37624649	-	chr19	37606067	37606063	-	ENST00000587817	13845-13847	3,29,58
								ENST00000395040,ENST00000310132,ENST00000585778,ENST00000395045,ENST00000590493,ENST00000588983		1,16,43,43,4 3,43,1,16,43
chr19	3781550	3781419	-	chr19	3779795	3779696,38	-	,ENST00000587180	13848-13856	
								ENST00000395040,ENST00000310132,ENST00000585778,ENST00000395045,ENST00000590493,ENST00000588983		23,19,22,23, 23,23,23,22
chr19	3782629	3782560	-	chr19	3781670	3781605	-	,ENST00000587180	13857-13864	
chr19	37958888	37958946	+	chr19	37960379	37960459	+	ENST00000586475	13865-13866	12,6
								ENST00000585547,ENST00000586606,ENST00000355202,ENST00000395835,ENST00000591664		30,22,43,30, 30
chr19	38194145	38193860	-	chr19	38190796	38190686,381	-		13867-13871	
								ENST00000585547,ENST00000586606,ENST00000355202,ENST00000395835,ENST00000591664		12,27,27,27
chr19	38197597	38197283	-	chr19	38190796	38190686,381	-		13872-13875	
								ENST00000590414,ENST00000339503,ENST00000357309,ENST00000536220,ENST00000392138,ENST00000378445		22,13,21,13
chr19	38245907	38245841	-	chr19	38231081	38229393,4	-		13876-13879	
								ENST00000590414,ENST00000339503,ENST00000357309,ENST00000536220,ENST00000392138,ENST00000378445		22,13,21,22
chr19	38245907	38245841	-	chr19	38231095	38229393,4	-		13880-13883	
								ENST00000222345,ENST00000595982	13884-13887	17,7,16,16
chr19	38575840	38575890	+	chr19	38579361	38579491	+			
chr19	38592351	38592437	+	chr19	38597177	38597280	+	ENST00000222345	13888-13889	6,28
chr19	38603566	38603616	+	chr19	38609946	38610522	+	ENST00000222345	13890-13891	17,7
								ENST00000222345,ENST00000600919	13892-13895	33,24,11,11
chr19	38619255	38619355	+	chr19	38621138	38621412	+			
chr19	38688037	38688782	+	chr19	38689029	38689172	+	ENST00000222345	13896-13898	31,24,13
								ENST00000301244,ENST00000587516	13899-13901	6,28,6
chr19	38769176	38769261	+	chr19	38774267	38774437	+			
								ENST00000337679,ENST00000339413,ENST00000329420,ENST00000591755,ENST00000588002,ENST00000589247		30,12,17,30, 30,30,30
chr19	38807810	38807720	-	chr19	38800283	38800045	-		13902-13908	
								ENST00000337679,ENST00000339413,ENST00000329420,ENST00000591755,ENST00000588002,ENST00000589247		6,6,5,6,6,6,6
chr19	38807810	38807792	-	chr19	38800283	38800045	-		13909-13915	
chr19	38809896	38810019	+	chr19	38817233	38817628	+	ENST00000263372	13916-13918	35,19,3
								ENST00000591517,ENST00000589130,ENST00000396857		12,7,16,16,1 2,7,16
chr19	39100074	39100024	-	chr19	39098810	39098752	-	,ENST00000591921	13919-13925	
								ENST00000252699,ENST00000424234,ENST00000589528		6,4,4,4
chr19	39182261	39182409	+	chr19	39191240	39191354,4	+		13926-13929	
								ENST00000307751,ENST00000600070	13930-13932	10,1,13
chr19	39293298	39293168	-	chr19	39293044	39292956	-			
								ENST00000307751,ENST00000600070	13933-13935	12,4,1
chr19	39293617	39293477	-	chr19	39293044	39292956	-			
								ENST00000221418,ENST00000601778,ENST00000595470,ENST00000594769,ENST00000602021	13936-13941	15,15,7,15,1 5,15
chr19	39308792	39308747	-	chr19	39308215	39308091,4	-			

Table 10

							ENST00000221419,ENST00000601449,ENST00000600233,ENST00000601813	37,14,12,12,12
chr19	39347374	39346518	-	chr19	39338074	39337956	-	13942-13946
							ENST00000221419,ENST00000601449,ENST00000600233,ENST00000601813	24,1,37,1,1
chr19	39347374	39346558	-	chr19	39338074	39337956	-	13947-13951
							ENST00000249396,ENST00000392081,ENST00000358931,ENST00000414941,ENST00000420440,ENST00000407552,ENST00000381766,ENST00000437828,ENST00000447739	4,15,13,13,13,13,13,13,13,13,13
chr19	39403332	39403063	-	chr19	39380784	39380743	-	13952-13961
							ENST00000599539,ENST00000339471,ENST00000251453,ENST00000601655,ENST00000602153,ENST00000599705	15,2,17,15,2,15,2,2
chr19	39935475	39935421	-	chr19	39924401	39924305,4	-	13962-13969
chr19	40457046	40455917	-	chr19	40434213	40432966	-	ENST00000221347 13970-13972 7,18,37
							ENST00000434248,ENST00000598845,ENST00000595995	32,6
chr19	40549961	40549865	-	chr19	40542533	40540264,405	-	13973-13974
chr19	40711387	40711403	+	chr19	40711818	40712064	+	ENST00000253055 13975-13977 3,5,5
							ENST00000253055,ENST00000593502,ENST00000597986	29,23,23
chr19	40711387	40711506	+	chr19	40715010	40715126,4	+	13978-13980
chr19	40931145	40930937	-	chr19	40929453	40928743	-	ENST00000357949 13981-13983 27,69,30
							ENST00000595483,ENST00000263368	7,23,25
chr19	40957161	40957080	-	chr19	40953953	40953796	-	13984-13986
							ENST00000595483,ENST00000263368,ENST00000597870	2,10,11,11,11
chr19	40969678	40969643	-	chr19	40964452	40964288	-	13987-13991
							ENST00000243563,ENST00000601253,ENST00000597353,ENST00000599362,ENST00000601393,ENST00000600456	1
chr19	41258713	41258715	+	chr19	41263237	41263409,4	+	13992
							ENST00000601545,ENST00000243563,ENST00000597353	11,27,27
chr19	41267045	41267127	+	chr19	41268806	41268979,4	+	,ENST00000601393 13993-13995
chr19	41446847	41447027	+	chr19	41515124	41515300	+	ENST00000324071 13996-13998 37,7,45
							ENST00000301178,ENST00000359092	33,2,32,32
chr19	41725556	41725654	+	chr19	41726541	41726763	+	13999-14002
							ENST00000301178,ENST00000359092	22,13,5,22
chr19	41728530	41728596	+	chr19	41736872	41736952	+	14003-14006
							ENST00000301178,ENST00000359092,ENST00000593513	4,16
chr19	41751837	41752043	+	chr19	41754419	41754514	+	14007-14008
							ENST00000392006,ENST00000378215,ENST00000595196,ENST00000602130,ENST00000263367	22,22,21,22,22,21,22
chr19	41772058	41772124	+	chr19	41774128	41774250	+	14009-14015
chr19	41820925	41821023	+	chr19	41822289	41822744	+	ENST00000269967 14016-14018 33,23,32
chr19	41820925	41821075	+	chr19	41822289	41822744	+	ENST00000269967 14019-14021 5,16,49
chr19	4231485	4231535	+	chr19	4233126	4233304	+	ENST00000221847 14022-14024 17,7,16
							ENST00000598742,ENST00000601492,ENST00000600467,ENST00000593863,ENST00000598261	6,1,20,6,1,6,1,6,1
chr19	42370042	42370181	+	chr19	42373101	42373284,423	+	14025-14033
							ENST00000389341,ENST00000342301,ENST00000533720,ENST00000560804,ENST00000526816,ENST00000560398,ENST00000560558,ENST00000529952	24,11,32,24,32,24,32,24,32
chr19	42597460	42597361	-	chr19	42596422	42596221,4	-	14034-14042
							ENST00000572681,ENST00000160740,ENST00000575354	10,17,31,17,17
chr19	42786803	42786990	+	chr19	42790923	42791072	+	14043-14047
							ENST00000543264,ENST00000599689	23,23,21
chr19	4288546	4288615	+	chr19	4290444	4290630	+	14048-14050

Table 10

							ENST00000436291,ENST000 00595124,ENST00000595356 ,ENST00000403380,ENST000 00312439,ENST00000244296	6,1,30,1,1,1, 1,1
chr19	43383573	43383464	-	chr19	43382430	43382065	-	14051-14058	
							ENST00000366175,ENST000 00407356,ENST00000407568 ,ENST00000599812,ENST000 00342951,ENST00000404580	7,6
chr19	43690397	43690377	-	chr19	43689299	43688934	-	14059-14060	
							ENST00000292147,ENST000 00594342,ENST00000600651	33,2,6,33,33
chr19	44018935	44018837	-	chr19	44015718	44015589,4	-	,ENST00000598330	14061-14065
							ENST00000292147,ENST000 00594342,ENST00000600651	12,2,12,12
chr19	44020305	44020201	-	chr19	44015718	44015589,4	-	,ENST00000598330	14066-14069
chr19	44084977	44085072	+	chr19	44085364	44085516	+	ENST00000599207	14070-14071 11,24
chr19	44129112	44129056	-	chr19	44128394	44128266	-	ENST00000222374	14072-14074 19,18,18
chr19	44133762	44133727	-	chr19	44131942	44131796	-	ENST00000222374	14075-14076 3,11
							ENST00000339082,ENST000 00601723,ENST00000340093 ,ENST00000221264,ENST000 00593714,ENST00000599892 ,ENST00000602141,ENST000	30,49,32,32, 32,32,32,32, 32
chr19	44165537	44165244	-	chr19	44160792	44160631	-	00593939	14077-14085
chr19	44277764	44277666	-	chr19	44276287	44276152	-	ENST00000262888	14086-14088 33,32,3
							ENST00000589155,ENST000 00262894,ENST00000590612	1,14,12,12
chr19	44624386	44624532	+	chr19	44635003	44635134,4	+		14089-14092
							ENST00000590578,ENST000 00589160,ENST00000337433 ,ENST00000586286,ENST000 00585560,ENST00000586914 ,ENST00000588883,ENST000 00413984,ENST00000588742 ,ENST00000300823,ENST000 00586203,ENST00000590467 ,ENST00000588795,ENST000 00588127,ENST00000590089 ,ENST00000454662,ENST000	18,45,11,18, 18,18,18,18, 18,18,11,18, 18,18
chr19	44670898	44671035	+	chr19	44676241	44676367,4	+	00590524	14093-14106
							ENST00000402988,ENST000 00428245,ENST00000441389	2,1,1
chr19	45129913	45129918	+	chr19	45130717	45130870	+		14107-14109
							ENST00000592472,ENST000 00585657,ENST00000587729 ,ENST00000591979,ENST000 00592789,ENST00000358777	3,3,2,3,3,2,3 ,3,2,3
chr19	45174699	45174708	+	chr19	45175868	45175976,451	+	,ENST00000403660	14110-14119
							ENST00000358777,ENST000	21,20,20,21,
chr19	45184732	45184794	+	chr19	45185839	45185892	+	00403660	14120-14125 20,20
							ENST00000589651,ENST000 00270233,ENST00000591520	22,11,22,22
chr19	45310850	45310940	+	chr19	45314482	45314603	+		14126-14129
chr19	45323736	45323876	+	chr19	45323979	45324079	+	ENST00000270233	14130-14131 30,46
chr19	45386832	45387058	+	chr19	45389194	45389257	+	ENST00000252483	14132-14134 1,10,8
chr19	4541634	4541551	-	chr19	4538963	4537952	-	ENST00000306390	14135-14136 3,8
							ENST00000301293,ENST000 00586582,ENST00000586965	9,13,13
chr19	4545651	4545583	-	chr19	4544541	4543613,45	-		14137-14139
							ENST00000541297,ENST000 00337392,ENST00000591304	21,13,16,13, 16
chr19	45467323	45467389	+	chr19	45476344	45476467	+		14140-14144
							ENST00000221455,ENST000 00391953,ENST00000391952 ,ENST00000588936,ENST000 00544944,ENST00000587112	8,31,22,8,31 ,22,31,31,31 ,31
chr19	45554945	45555239	+	chr19	45555329	45555426,5	+		14145-14154
							ENST00000262891,ENST000	67,1,39,1
chr19	45778896	45779097	+	chr19	45781181	45781300	+	00300843	14155-14158
							ENST00000360957,ENST000	18,10,23
chr19	45898030	45897783	-	chr19	45895598	45895138	-	00418234	14159-14161

Table 19

							ENST00000300853,ENST000 00423698,ENST00000340192 ,ENST00000590701,ENST000 00591636,ENST00000589165 ,ENST00000013807,ENST000 00589381,ENST00000592083		2,19,25,2,2, 2,2,2,2,2
chr19	45952508	45952431	-	chr19	45920155	45920079	-	,ENST00000592023	14162-14171
								ENST00000342669,ENST000 00588301,ENST00000590212	22,13,21,21
chr19	46192290	46192224	-	chr19	46191824	46191645	-		14172-14175
								ENST00000342669,ENST000 00588301,ENST00000590212	7,6,5,6
chr19	46201219	46201199	-	chr19	46191824	46191645	-		14176-14179
								ENST00000245934,ENST000	4,5,4,5
chr19	46341244	46341229	-	chr19	46338486	46338336	-	00600237	14180-14183
								ENST00000245934,ENST000	9,1,7,7
chr19	46349183	46348617	-	chr19	46347458	46347288	-	00600237	14184-14187
chr19	46648560	46648135	-	chr19	46627578	46627525	-	ENST00000341415	14188-14189
								ENST00000594671,ENST000 00262960,ENST00000598800 ,ENST00000599163,ENST000 00597849,ENST00000597726	30,2 24,23,13,13, 13,13,24,13
chr19	4703086	4703015	-	chr19	4702728	4702615,47	-		14190-14197
								ENST00000542575,ENST000 00594991,ENST00000593713	13,31,16,16
chr19	47288867	47288675	-	chr19	47287816	47287774	-		14198-14201
								ENST00000352203,ENST000 00601498,ENST00000599990 ,ENST00000263270,ENST000	3,1,44,1,1
chr19	47351280	47350845	-	chr19	47349399	47349250	-	00601649	14202-14206
								ENST00000352203,ENST000 00601498,ENST00000599990 ,ENST00000263270,ENST000	24,11,11,11
chr19	47352561	47352462	-	chr19	47349399	47349250	-	00601649	14207-14210
chr19	47486481	47486488	+	chr19	47491246	47491323	+	ENST00000404338	14211-14213
								ENST00000341983,ENST000 00449228,ENST00000439096	2,2,2 16,3,16,16,1 6
chr19	47730457	47730408	-	chr19	47730011	47729821	-		14214-14218
chr19	47811001	47811079	+	chr19	47823038	47824087	+	ENST00000355085	14219-14221
								ENST00000338134,ENST000 00536339,ENST00000595554	2,11,25 2,24,11,24,2 4,11
chr19	47982575	47982499	-	chr19	47981038	47980963,5	-	,ENST00000600271	14222-14227
								ENST00000391901,ENST000 00263351,ENST00000314121 ,ENST00000448976,ENST000	23,19
chr19	48026583	48026486	-	chr19	48025251	48025111	-	00595558	14228-14229
								ENST00000391901,ENST000 00314121,ENST00000595558	33,24,11
chr19	48034207	48034107	-	chr19	48032909	48032834	-		14230-14232
								ENST00000263277,ENST000	32,32,2
chr19	48227902	48227998	+	chr19	48229069	48229481	+	00538399	14233-14235
								ENST00000263277,ENST000	7,15,2
chr19	48238716	48238796	+	chr19	48239626	48239790	+	00538399	14236-14238
								ENST00000221957,ENST000 00592528,ENST00000589163	33,24,14,24, 14,24
chr19	4848295	4848195	-	chr19	4847902	4847703,48	-	,ENST00000585479	14239-14244
								ENST00000221957,ENST000 00589163,ENST00000585479 ,ENST00000589034,ENST000	49,9,9,9,9,9
chr19	4857016	4856869	-	chr19	4852313	4852028,485	-	00589494	14245-14250
								ENST00000599111,ENST000 00354276,ENST00000413144 ,ENST00000599921,ENST000	11,15,11,11
chr19	48593456	48593411	-	chr19	48591969	48591943	-	00601946	14251-14254
								ENST00000263274,ENST000 00536218,ENST00000594759 ,ENST00000427526,ENST000 00601091,ENST00000596672	12,34,21,34, 34
chr19	48637017	48636887	-	chr19	48636354	48636239,5	-		14255-14259
chr19	48709673	48709641	-	chr19	48707500	48707454	-	ENST00000357778	14260-14262	11,10,6

Table 19

						ENST00000518450,ENST00000357778,ENST00000391898,ENST00000359009,ENST00000447740,ENST00000520753,ENST00000520153,ENST00000520015,ENST00000521613		4,14,28,14,28,14,28,14,28
chr19	48720530	48720177 -	chr19	48718641	48718597,5 -	,ENST00000519940	14263-14271	
						ENST00000293261,ENST00000377431,ENST00000435956,ENST00000436660,ENST00000541566,ENST00000598926		61,31,31
chr19	48847844	48847660 -	chr19	48846708	48846578 -		14272-14274	
chr19	48905076	48905144 +	chr19	48907991	48908610 +	ENST00000263269	14275-14276	23,22
						ENST00000549920,ENST00000547897,ENST00000084795,ENST00000550645,ENST00000549370,ENST00000549273		6,6,5,6,6,6,6
chr19	49121994	49121976 -	chr19	49121130	49121048 -		14277-14283	
chr19	4914137	4913900 -	chr19	4891585	4891058 -	ENST00000381781	14284-14285	13,44
chr19	49172176	49172141 -	chr19	49168024	49167836 -	ENST00000270235	14286-14288	12,11,11
						ENST00000323798,ENST00000541188,ENST00000540532		32,12,1,1
chr19	49491864	49491710 -	chr19	49490642	49490451 -		14289-14292	
						ENST00000601065,ENST00000598984,ENST00000598441,ENST00000221448,ENST00000401730,ENST00000595231		40,6,6,6,6,4 0,6
chr19	49594348	49594467 +	chr19	49601684	49601748,5 +	,ENST00000601411	14293-14299	
						ENST00000391864,ENST00000221459	14300-14302	23,8,31
chr19	49618961	49619281 +	chr19	49621112	49621275 +			
						ENST00000334186,ENST00000602655,ENST00000602351		7,65,20,7,7
chr19	49641945	49642169 +	chr19	49642925	49643088,5 +		14303-14307	
						ENST00000391859,ENST00000595725,ENST00000323906,ENST00000535669,ENST00000595660	14308-14319	8,17,49,8,17,49,8,17,17,8,17,49
chr19	49831887	49832179 +	chr19	49840166	49840290 +			
						ENST00000335875,ENST00000454748,ENST00000598828		8,11,16,11,1 1
chr19	49834432	49834333 -	chr19	49797285	49797084 -		14320-14324	
						ENST00000335875,ENST00000454748	14325-14327	11,16,16
chr19	49834432	49834333 -	chr19	49797810	49797624 -			
						ENST00000335875,ENST00000454748	14328-14330	3,3,3
chr19	49834884	49834874 -	chr19	49797810	49797624 -			
						ENST00000335875,ENST00000454748	14331-14333	9,11,11
chr19	49835532	49835311 -	chr19	49797810	49797624 -			
						ENST00000391859,ENST00000595725,ENST00000323906,ENST00000535669,ENST00000595660	14334-14340	23,13,23,13,13,23,13
chr19	49839531	49839599 +	chr19	49840166	49840290 +			
						ENST00000221498,ENST00000597546	14341-14344	17,16,16,16
chr19	49867325	49867375 +	chr19	49867839	49868011 +			
						ENST00000262265,ENST00000596049,ENST00000601807,ENST00000601053,ENST00000599366,ENST00000597415		33,23,1,33,3 3,1,33,1,33, 33,1
chr19	49954585	49954487 -	chr19	49954105	49954039 -	,ENST00000601825	14345-14355	
						ENST00000262265,ENST00000596049,ENST00000601807,ENST00000601053,ENST00000599366,ENST00000597415		22,13,21,13, 22,13,22,13, 13,22,13
chr19	49954585	49954519 -	chr19	49954105	49954039 -	,ENST00000601825	14356-14366	
						ENST00000293350,ENST00000455361	14367-14370	6,9,32,9
chr19	49958872	49958971 +	chr19	49961743	49961845 +			
						ENST00000270625,ENST00000596873,ENST00000599561		7,34,20,7,7, 34,7
chr19	49960525	49960746 +	chr19	50000451	50000582,5 +	,ENST00000601306	14371-14377	
						ENST00000221466,ENST00000598491,ENST00000598927,ENST00000426395,ENST00000600273,ENST00000596975,ENST00000598319,ENST00000598949	14378-14384	8,44,44,44,4 4,44,44
chr19	50014882	50015040 +	chr19	50017139	50017390 +			

Table 10

							ENST00000309877,ENST00000601291,ENST00000377139,ENST00000597198,ENST00000593922,ENST00000596765,ENST00000599223,ENST00000600022,ENST00000599144,ENST00000598808,ENST00000377135,ENST00000596756	17,7,7,7
chr19	50165135	50165085	-	chr19	50164085	50163970	-	14385-14388	
							ENST00000309877,ENST00000600911,ENST00000601291,ENST00000377139,ENST00000597198,ENST00000597636,ENST00000599223,ENST00000377135,ENST00000596756,ENST00000598108,ENST00000593337,ENST00000601809,ENST00000596788,ENST00000600453	28,24,11,11,11,11,11,11,11,28,11,11
chr19	50167252	50167152	-	chr19	50166771	50166600,501	-	14389-14402	
							ENST00000354293,ENST00000359032	17,13,16,13
chr19	50294180	50294230	+	chr19	50295192	50295321	+	14403-14406	
							ENST00000525130,ENST00000528094,ENST00000533418,ENST00000525370,ENST00000313777,ENST00000445575,ENST00000528043,ENST00000529302,ENST00000526575	25,9,3,3,3,3,3
chr19	50315780	50315704	-	chr19	50314956	50314929,5	-	14407-14413	
							ENST00000221543,ENST00000535102,ENST00000599049	23,10,22,23,23
chr19	50385678	50385746	+	chr19	50386021	50386149	+	,ENST00000594984	14414-14418
							ENST00000221543,ENST00000535102,ENST00000594984	23,13,23
chr19	50388423	50388491	+	chr19	50390733	50390830	+		14419-14421
chr19	50399990	50399940	-	chr19	50399439	50399405	-	ENST00000601717	14422-14424 17,16,16
							ENST00000159111,ENST00000381759,ENST00000536461	8,42,20,8,8
chr19	5047023	5047151	+	chr19	5047487	5047680	+		14425-14429
							ENST00000598205,ENST00000376970,ENST00000425460,ENST00000440075,ENST00000599920,ENST00000601313,ENST00000262269,ENST00000596571	1,1,1,1,1,1,1
chr19	50719580	50719583	+	chr19	50720872	50721028	+		14430-14436
							ENST00000600859,ENST00000440232,ENST00000599857,ENST00000595904,ENST00000593407,ENST00000593981	24,23
chr19	50918490	50918561	+	chr19	50918695	50918847,5	+		14437-14438
							ENST00000599632,ENST00000595883,ENST00000439922	15,15,2,15,15
chr19	50927112	50927158	+	chr19	50931295	50931593,5	+	,ENST00000270632	14439-14443
							ENST00000391813,ENST00000293441,ENST00000391814	51,2,18
chr19	51166429	51166231	-	chr19	51165939	51165222	-	,ENST00000359082	14444-14446
							ENST00000376851,ENST00000310157,ENST00000391808,ENST00000456750,ENST00000376853,ENST00000594641	24,32,2,2
chr19	51464451	51464355	-	chr19	51462572	51462420,5	-		14447-14450
							ENST00000376851,ENST00000310157,ENST00000391808,ENST00000456750,ENST00000376853,ENST00000594641	24,2,2,44
chr19	51464727	51464491	-	chr19	51462572	51462420,5	-		14451-14454
							ENST00000421133,ENST00000262262	33,1
chr19	51739132	51739230	+	chr19	51742773	51742943	+		14455-14456
							ENST00000262963,ENST00000348075,ENST00000357368,ENST00000372412,ENST00000587303,ENST00000588012	13,10,21,21,21
chr19	5223560	5223435	-	chr19	5223308	5222700	-		14457-14461
							ENST00000293471,ENST00000600853	10,11,10
chr19	52440038	52440701	+	chr19	52443462	52443588	+		14462-14464

Table 10

							ENST00000243644,ENST000		14,13,2,2
chr19	52470558	52470517	-	chr19	52469467	52468107,5 -	00601430	14465-14468	
							ENST00000243644,ENST000		10,10,9,10
chr19	52470558	52470528	-	chr19	52469467	52468107,5 -	00601430	14469-14472	
							ENST00000356322,ENST000		33,19,8,33,3
							00270649,ENST00000595189		3,33,8
chr19	52522404	52522279	-	chr19	52521747	52521621,5 -	,ENST00000597952	14473-14479	
							ENST00000356322,ENST000		13,21,1,13,1
							00270649,ENST00000595189		3,13,1
chr19	52528819	52528607	-	chr19	52521747	52521621,5 -	,ENST00000597952	14480-14486	
							ENST00000600228,ENST000		19,1,39,1,1,
							00330123,ENST00000596290		19,1
							,ENST00000597013,ENST000		
chr19	52629037	52628764	-	chr19	52627302	52627176,5 -	00600282	14487-14493	
							ENST00000424032,ENST000		6,11,11,11,1
							00600321,ENST00000344085		1
							,ENST00000597976,ENST000		
chr19	52873777	52873855	+	chr19	52876364	52876490 +	00422689	14494-14498	
chr19	53121949	53121881	-	chr19	53120588	53120563 -	ENST00000601140	14499-14501	18,13,22
chr19	53381011	53380437	-	chr19	53377325	53377245 -	ENST00000597909	14502-14503	27,65
chr19	53383753	53383699	-	chr19	53377325	53377245 -	ENST00000597909	14504-14506	4,9,17
							ENST00000391781,ENST000		4,39,4,4,4
							00595635,ENST00000593618		
							,ENST00000594741,ENST000		
chr19	53386611	53386494	-	chr19	53385236	53383849,53: -	00597265	14507-14511	
							ENST00000334197,ENST000		160,24,33,1
							00452676,ENST00000601469		60,160
							,ENST00000597183,ENST000		
chr19	53647189	53646709	-	chr19	53645809	53643561,53(-	00595967	14512-14516	
							ENST00000324134,ENST000		39,20,34,39,
							00351894,ENST00000354278		39,39,39,39,
							,ENST00000535162,ENST000		39
							00391775,ENST00000345770		
							,ENST00000391772,ENST000		
chr19	54309071	54308848	-	chr19	54308704	54308534 -	00391773	14517-14525	
							ENST00000324134,ENST000		13,18
							00351894,ENST00000354278		
							,ENST00000535162,ENST000		
							00391775,ENST00000345770		
							,ENST00000391772,ENST000		
chr19	54327102	54327035	-	chr19	54318242	54318162 -	00391773	14526-14527	
							ENST00000352529,ENST000		10,6,4
							00252729,ENST00000346968		
chr19	54502652	54502735	+	chr19	54515205	54515443 +		14528-14530	
							ENST00000338372,ENST000		24,11,24,11
							00447872,ENST00000366170		
chr19	54551668	54551569	-	chr19	54545623	54545531,5 -		14531-14534	
							ENST00000431666,ENST000		18,17,17,18,
							00338624,ENST00000245615		17
chr19	54681925	54681872	-	chr19	54678125	54677738,5 -	,ENST00000449249	14535-14539	
							ENST00000391743,ENST000		5,5,5,5,5
							00348231,ENST00000391742		
							,ENST00000434277,ENST000		
							00313038,ENST00000391741		
chr19	54868492	54868476	-	chr19	54868228	54868100,5 -	,ENST00000474878	14540-14544	
							ENST00000391743,ENST000		29,20,4,20,2
							00348231,ENST00000391742		0,4
							,ENST00000434277,ENST000		
							00313038,ENST00000391741		
							,ENST00000474878,ENST000		
chr19	54880845	54880625	-	chr19	54868575	54868537,5 -	00418556	14545-14550	
							ENST00000391743,ENST000		29,20,4,20,2
							00348231,ENST00000391742		0,20,20,4,20
							,ENST00000391741,ENST000		
							00418556,ENST00000436513		
							,ENST00000420483,ENST000		
chr19	54880845	54880625	-	chr19	54872816	54872523,548 -	00438193	14551-14559	
							ENST00000348231,ENST000		29,20,4,20,2
							00391742,ENST00000434277		9,20,4,20,20
							,ENST00000313038,ENST000		,20,29,20,4,
							00391741,ENST00000474878		20
							,ENST00000418556,ENST000		
							00436513,ENST00000420483		
chr19	54880845	54880625	-	chr19	54875937	54875902 -	,ENST00000438193	14560-14573	

Table 10

							ENST00000348231,ENST00000391742,ENST00000434277,ENST00000313038,ENST00000391741,ENST00000474878,ENST00000418556,ENST00000436513,ENST00000420483,ENST00000438193	14574-14587	28,3,8,3,28,3,8,3,3,3,28,3,8,3
chr19	54887701	54887511	-	chr19	54875937	54875902	-		
							ENST00000348231,ENST00000391742,ENST00000434277,ENST00000313038,ENST00000391741,ENST00000474878,ENST00000418556,ENST00000436513,ENST00000420483,ENST00000438193	14588-14601	37,5,9,5,37,5,9,5,5,5,37,5,9,5
chr19	54900777	54900665	-	chr19	54875937	54875902	-		
							ENST00000391736,ENST00000270452,ENST00000430952,ENST00000391734,ENST00000391733,ENST00000434286	14602-14608	3,52,13,52,52,52,52
chr19	55173583	55173998	+	chr19	55174990	55175025	+		
							ENST00000588619,ENST00000588107,ENST00000433772,ENST00000543010,ENST00000391721,ENST00000339757,ENST00000539848,ENST00000448584,ENST00000537859,ENST00000585500,ENST00000427260,ENST00000538819,ENST00000263437,ENST00000397169	14609-14620	13,21,21,21,21,21,21,21,21,21
chr19	55485443	55485508	+	chr19	55485868	55485912	+		
							ENST00000588619,ENST00000588107,ENST00000433772,ENST00000543010,ENST00000391721,ENST00000339757,ENST00000539848,ENST00000448584,ENST00000537859,ENST00000585500,ENST00000427260,ENST00000538819,ENST00000263437,ENST00000397169	14621-14631	6,32,6,6,6,6,6,6,6,6,6
chr19	55485443	55485540	+	chr19	55485868	55485912	+		
							ENST00000543010,ENST00000391721,ENST00000339757,ENST00000448584,ENST00000537859,ENST00000427260,ENST00000538819,ENST00000263437	14632-14634	18,17,14
chr19	55507890	55507943	+	chr19	55508685	55508855	+		
							ENST00000310373,ENST00000333884,ENST00000417454	14635-14637	9,11,11
chr19	55530972	55530844	-	chr19	55530079	55530020	-		
							ENST00000310373,ENST00000333884,ENST00000417454	14638-14643	33,12,33,12,12,12
chr19	55541288	55541188	-	chr19	55539230	55538946,6	-		
							ENST00000468239,ENST00000591960,ENST00000415061,ENST00000291892,ENST00000592573,ENST00000587721	14644-14649	8,10,11,8,10,8
chr19	55570038	55569966	-	chr19	55568176	55568134,6	-		
							ENST00000412770,ENST00000587283	14650-14651	11,15
chr19	55749115	55749042	-	chr19	55748338	55748281	-		
							ENST00000255631,ENST00000433386,ENST00000376343,ENST00000587922,ENST00000593263,ENST00000585698,ENST00000588971	14652-14658	12,2,4,2,2,2,2
chr19	55789999	55789945	-	chr19	55789214	55789010,55	-		
							ENST00000420723,ENST00000592464	14659-14663	22,20,3,22,20
chr19	56058839	56058629	-	chr19	56056315	56056165	-		
							ENST00000420723,ENST00000592464	14664-14668	5,16,15,16,15
chr19	56061261	56061020	-	chr19	56056315	56056165	-		
							ENST00000577257,ENST00000582346,ENST00000581773,ENST00000423665,ENST00000581521,ENST00000339423	14669-14673	23,11,23,23,23
chr19	5685441	5685509	+	chr19	5686427	5686538,57	+		

Table 10

						ENST00000593711,ENST00000221722,ENST00000391708,ENST00000595671,ENST00000597281,ENST00000601070,ENST00000599935,ENST00000423103,ENST00000326441,ENST00000598410,ENST00000593695,ENST00000599534,ENST00000599577,ENST00000600833	14674-14684	2,34,18,34,18,34,34,18,34,18
chr19	57330460	57330244 -	chr19	57330070	57329968 -	ENST00000317398	14685-14687	33,7,2
chr19	58235894	58235794 -	chr19	58234708	58234582 -	ENST00000599802	14688-14689	15,2
chr19	58327092	58327357 +	chr19	58330936	58330971 +	ENST00000316462,ENST00000442832,ENST00000604231,ENST00000594901	14690-14695	50,15,2,2,2,2
chr19	58327092	58327357 +	chr19	58350391	58350517 +	ENST00000316462,ENST00000598031,ENST00000604231,ENST00000339656	14696-14700	50,15,2,2,2
chr19	58327092	58327357 +	chr19	58367472	58367491,6 +	ENST00000316462,ENST00000598031,ENST00000604231,ENST00000339656	14701-14705	14,1,6,1,1
chr19	58365825	58365900 +	chr19	58367472	58367491,6 +	ENST00000316462,ENST00000598031,ENST00000604231,ENST00000339656	14706-14709	17,16,17,17
chr19	58366263	58366313 +	chr19	58367472	58367491,6 +	ENST00000312026	14710-14712	21,24,53
chr19	58433994	58433833 -	chr19	58423557	58423428 -	ENST00000314391	14713-14715	47,8,11
chr19	58479725	58479432 -	chr19	58478000	58477898 -	ENST00000196548,ENST00000608843	14716-14717	25,23
chr19	58796231	58796389 +	chr19	58797083	58797209 +	ENST00000601521,ENST00000596314,ENST00000598098,ENST00000598495,ENST00000196551,ENST00000596046	14718-14725	17,7,16,7,7,16,7,16
chr19	58876069	58876119 +	chr19	58899576	58899612 +	ENST00000252674	14726-14728	4,1,40
chr19	6258490	6258339 -	chr19	6230724	6230581 -	ENST00000245816,ENST00000597326,ENST00000596149,ENST00000596605	14729-14733	5,10,32,32,32
chr19	6365553	6365650 +	chr19	6366269	6366374,64 +	ENST00000597558,ENST00000321510,ENST00000458275	14734-14737	25,4,7,25
chr19	6436518	6436192 -	chr19	6432215	6432060 -	ENST00000264088,ENST00000301454,ENST00000334510	14738-14742	33,32,1,33,33
chr19	6456029	6455931 -	chr19	6454728	6454570 -	ENST00000381480,ENST00000543576	14743-14745	33,24,11
chr19	6475207	6475107 -	chr19	6473004	6472900 -	ENST00000423145,ENST00000245903	14746-14749	33,6,11,6
chr19	6589700	6589600 -	chr19	6586416	6586165,66 -	ENST00000423145,ENST00000245903	14750-14753	30,3,8,3
chr19	6592518	6592427 -	chr19	6586416	6586165,66 -	ENST00000423145,ENST00000245903,ENST00000597430	14754-14758	30,3,8,8,8
chr19	6592518	6592427 -	chr19	6590147	6590114 -	ENST00000264080,ENST00000595908,ENST00000597706,ENST00000598052	14759-14767	12,7,16,12,7,12,12,7,16
chr19	6736408	6736220 -	chr19	6735969	6735919 -	ENST00000304076,ENST00000602142,ENST00000596764,ENST00000539284,ENST00000599806	14768-14772	33,24,9,9,9
chr19	6798357	6798457 +	chr19	6820713	6820829 +	ENST00000329267	14773-14775	33,23,1
chr19	693230	693132 -	chr19	692002	691858 -	ENST00000329267	14776-14778	9,19,1
chr19	693370	693266 -	chr19	692002	691858 -	ENST00000329267	14779-14780	19,17
chr19	693739	693683 -	chr19	687188	686925 -	ENST00000329267	14781-14782	19,17
chr19	693739	693683 -	chr19	692002	691858 -	ENST00000359920	14783-14785	11,24,33
chr19	7475413	7475514 +	chr19	7505075	7505368 +	ENST00000359920	14786-14788	11,11,6
chr19	7486110	7486143 +	chr19	7505075	7505368 +	ENST00000593531,ENST00000359920	14789-14792	11,11,6,11
chr19	7486110	7486143 +	chr19	7505230	7505368 +	ENST00000264079,ENST00000601003	14793-14796	23,11,22,11
chr19	7590127	7590196 +	chr19	7591325	7591492 +	ENST00000595866,ENST00000595950,ENST00000441779,ENST00000221283,ENST00000597068,ENST00000414284	14797-14804	5,9,5,9,9,9,9
chr19	7703081	7703110 +	chr19	7703612	7703620,77 +			

Table 10

							ENST00000359894,ENST00000520876,ENST00000519502	33,24,11,11,11
chr19	819589	819489	-	chr19	815851	815666	-	14805-14809	
chr19	828600	828660	+	chr19	829562	829706	+	ENST00000233997	14810-14812	20,20,19
chr19	828600	828762	+	chr19	829562	829706	+	ENST00000233997	14813-14815	54,31,53
chr19	828600	828828	+	chr19	829562	829706	+	ENST00000233997	14816-14818	76,53,75
chr19	828600	828861	+	chr19	829562	829706	+	ENST00000233997	14819-14821	87,64,86
chr19	828600	828894	+	chr19	829562	829706	+	ENST00000233997	14822-14824	98,75,97
chr19	828957	828960	+	chr19	829562	829706	+	ENST00000233997	14825-14826	1,1
chr19	828957	829125	+	chr19	829562	829706	+	ENST00000233997	14827-14829	56,56,55
chr19	829186	829257	+	chr19	829562	829706	+	ENST00000233997	14830-14832	24,7,23
chr19	844696	844807	+	chr19	846147	846377	+	ENST00000234347,ENST00000544537	14833-14835	37,37,9
chr19	851618	851673	+	chr19	852876	853032	+	ENST00000590230,ENST00000263621	14836-14838	17,2,18
chr19	851618	851673	+	chr19	852953	853032	+	ENST00000590230,ENST00000263621	14839-14841	17,2,18
chr19	852620	852716	+	chr19	852876	853032	+	ENST00000590230,ENST00000263621	14842-14844	32,3,31
chr19	8565154	8565067	-	chr19	8564664	8563260,86	-	ENST00000423345,ENST00000255612,ENST00000600262	14845-14849	29,29,20,29,29
chr19	8565154	8565106	-	chr19	8564664	8563260,86	-	ENST00000423345,ENST00000255612,ENST00000600262	14850-14854	16,16,7,16,16
chr19	911686	911630	-	chr19	902627	902561	-	ENST00000590454,ENST00000590259	14855-14857	19,18,18
								ENST00000587557,ENST00000603024,ENST00000605775,ENST00000604886,ENST00000605750,ENST00000605006,ENST00000604543,ENST00000605093,ENST00000593242	14858-14869	44,23,9,44,23,44,23,44,23,44,23
chr19	9434085	9434459	+	chr19	9435371	9435456	+	ENST00000603024,ENST00000604886,ENST00000593242	14870-14874	13,33,1,33,1
chr19	9454638	9454901	+	chr19	9475538	9475549,95	+	ENST00000605071	14875-14879	33,24,60,33,24
chr19	9462391	9462680	+	chr19	9475538	9475549,95	+	ENST00000603024,ENST00000604886,ENST00000593242,ENST00000605071	14880-14882	6,14,6
chr19	9727569	9727431	-	chr19	9724779	9724697	-	ENST00000424629,ENST00000302851,ENST00000444611	14883-14886	15,7,14,14
chr19	9728341	9728297	-	chr19	9724779	9724697	-	ENST00000443819	14887-14888	7,14
chr19	9728341	9728297	-	chr19	9727902	9727900	-	ENST00000293648,ENST00000448622,ENST00000453372,ENST00000541032,ENST00000453792,ENST00000587392,ENST00000588653	14889-14894	10,10,7,10,7,10
chr19	9802870	9802840	-	chr19	9764557	9763625,9764	-	ENST00000589626,ENST00000592067	14895-14899	18,30,7,18,7
chr19	9924904	9924814	-	chr19	9923950	9923942,99	-	ENST00000409236,ENST00000356421,ENST00000317233,ENST00000409579,ENST00000430789	14900-14903	5,47,17,17
chr2	100438283	100438141	-	chr2	100368763	100368683	-	ENST00000393437	14904-14905	21,11
chr2	100929076	100928509	-	chr2	100925687	100925569	-	ENST00000542617,ENST00000448989	14906-14908	25,17,17
chr2	101032563	101032236	-	chr2	101031573	101031503	-	ENST00000376865	14909-14910	39,7
chr2	101054224	101054500	+	chr2	101089257	101089312	+	ENST00000427413,ENST00000542504	14911-14914	33,19,33,33
chr2	101518123	101518223	+	chr2	101521195	101521248	+	ENST00000376840,ENST00000409318	14915-14916	2,52
chr2	101634040	101633566	-	chr2	101628002	101627913	-	ENST00000376840,ENST00000409318	14917-14919	14,11,13
chr2	101649818	101649776	-	chr2	101648847	101648730	-	ENST00000376840,ENST00000409318	14920-14921	6,29
chr2	101684735	101684054	-	chr2	101676001	101675883	-	ENST00000376840,ENST00000409318	14922-14924	43,42,13
chr2	101693478	101693350	-	chr2	101676001	101675883	-	ENST00000376840,ENST00000409318	14925-14929	2,31,30,2,30
chr2	101740498	101740405	-	chr2	101706826	101706716	-			

Table 15

chr2	105695574	105695634	+	chr2	105696441	105696520	+	ENST00000258455	14930-14932	18,1,11
								ENST00000409177,ENST00000344213,ENST00000393353,ENST00000393352,ENST00000322142,ENST00000358129,ENST00000409807,ENST00000408995	14933-14935	21,13,34
chr2	106001265	106000998	-	chr2	105990190	105990016	-	ENST00000233154,ENST00000393348,ENST00000425756,ENST00000393349	14936-14942	33,75,8,75,3,75,8
chr2	106494716	106495047	+	chr2	106497784	106498505,1(	+	ENST00000345985,ENST00000381685,ENST00000542668,ENST00000538384	14943-14945	1,3,9
chr2	10762225	10762142	-	chr2	10747437	10747311	-	ENST00000283195	14946-14947	3,15
chr2	109390403	109390448	+	chr2	109392188	109392392	+	ENST00000418513,ENST00000309415	14948-14951	18,52,29,52
chr2	110040881	110041039	+	chr2	110048957	110049127	+	ENST00000356688,ENST00000397712,ENST00000397714,ENST00000334001,ENST00000437928,ENST00000545389,ENST00000415095	14952-14956	18,11,11,11,11
chr2	110312307	110311482	-	chr2	110310796	110310664	-	ENST00000424988	14957-14959	22,5,17
chr2	110856274	110856019	-	chr2	110855181	110855076	-	ENST00000272227,ENST00000404371,ENST00000404824,ENST00000540494,ENST00000381611	14960-14962	6,828,64
chr2	11142262	11137817	-	chr2	10942766	10942625	-	ENST00000535254,ENST00000409311,ENST00000302759	14963-14965	11,14,14
chr2	111400262	111400026	-	chr2	111399811	111399696	-	ENST00000535254,ENST00000409311,ENST00000302759	14966-14969	11,28,6,6
chr2	111400563	111400468	-	chr2	111399811	111399696	-	ENST00000389811,ENST00000439055,ENST00000340561,ENST00000448863	14970-14975	6,5,6,6,6,5
chr2	111538632	111538649	+	chr2	111542309	111542392	+	ENST00000389811,ENST00000439055,ENST00000417074	14976-14977	8,4
chr2	111610931	111610955	+	chr2	111666366	111666482	+			
chr2	112629045	112627437	-	chr2	112625673	112625600	-	ENST00000341068	14978-14980	43,13,25
chr2	112853526	112853913	+	chr2	112854632	112854729	+	ENST00000283206	14981-14983	19,27,24
chr2	112855022	112855088	+	chr2	112856172	112856275	+	ENST00000283206	14984-14986	22,13,21
								ENST00000263331,ENST00000541869,ENST00000537335,ENST00000417433	14987-14989	3,7,16
chr2	113312476	113312526	+	chr2	113315487	113315658	+	ENST00000259213,ENST00000327407	14990-14993	7,19,40,19
chr2	113812041	113811761	-	chr2	113788732	113788625	-	ENST00000358604	14994-14996	16,7,18
chr2	114185642	114185902	+	chr2	114196597	114196619	+	ENST00000259199,ENST00000416503,ENST00000433343,ENST00000456188	14997-15001	3,1,49,1,1
chr2	114188389	114188536	+	chr2	114198928	114199014	+	ENST00000245680,ENST00000409106	15002-15004	1,12,56
chr2	114497721	114497539	-	chr2	114493435	114493354	-	ENST00000263238,ENST00000415792,ENST00000446821	15005-15011	27,14,12,14,12,14,12
chr2	114667534	114668071	+	chr2	114670749	114670804	+	ENST00000436732,ENST00000410059,ENST00000409163,ENST00000393146,ENST00000393147,ENST00000310323,ENST00000429914,ENST00000419287	15012-15017	6,17,17,17,17,17
chr2	116096231	116097292	+	chr2	116101393	116101488	+	ENST00000381486,ENST00000234142,ENST00000396123	15018-15020	30,44,13
chr2	11764056	11764383	+	chr2	11765280	11765438	+			
chr2	11821382	11821618	+	chr2	11853882	11853938	+	ENST00000449576	15021-15023	12,30,27
chr2	118751607	118751509	-	chr2	118743645	118743545	-	ENST00000319432,ENST00000376300	15024-15028	33,23,16,33,23
chr2	118751607	118751541	-	chr2	118743645	118743545	-	ENST00000319432,ENST00000376300	15029-15033	22,13,5,13,5
								ENST00000449576,ENST00000396099,ENST00000425416,ENST00000256720,ENST00000396097,ENST00000404113,ENST00000454151	15034-15035	85,33

							ENST00000449576,ENST00000396099,ENST00000425416,ENST00000256720,ENST00000396097,ENST00000404113		97,45,7,7
chr2	11938010	11938304	+	chr2	11943033	11943159	+,ENST00000454151	15036-15039	
chr2	1206089	1206365	+	chr2	1241660	1241789	+ENST00000308624,ENST00000407292	15040-15042	31,27,4
chr2	120825555	120825650	+	chr2	120830754	120830796	+ENST00000263713,ENST00000443902,ENST00000331393,ENST00000443124,ENST00000452780	15043-15047	14,6,14,14,14
chr2	121013952	121014193	+	chr2	121036194	121036354	+ENST00000447591,ENST00000474855	15048-15050	7,30,7
chr2	121013952	121014229	+	chr2	121036194	121036354	+ENST00000447591,ENST00000474855	15051-15054	7,19,42,19
chr2	121013952	121014229	+	chr2	121043450	121043658	+ENST00000447591,ENST00000474855,ENST00000272519,ENST00000420510,ENST00000404963,ENST00000412383,ENST00000449649	15055-15060	7,19,42,42,42,42
chr2	121648900	121649079	+	chr2	121684937	121685034	+ENST00000418323,ENST00000452319,ENST00000361492,ENST00000360874	15061-15067	31,17,2,31,2,31,2
chr2	122179123	122178873	-	chr2	122168545	122168442	-ENST00000409078,ENST00000541859,ENST00000263710,ENST00000397587,ENST00000455322,ENST00000541377,ENST00000545861,ENST00000452274,ENST00000463621	15068-15078	18,10,38,10,10,10,10,10,10,10
chr2	122216900	122216806	-	chr2	122216551	122216416	-ENST00000409078,ENST00000541859,ENST00000263710,ENST00000397587,ENST00000455322,ENST00000541377,ENST00000545861,ENST00000452274	15079-15088	31,11,10,31,31,31,31,31,31
chr2	122260622	122259789	-	chr2	122227536	122227384	-ENST00000409078,ENST00000541859,ENST00000263710,ENST00000397587,ENST00000455322,ENST00000541377,ENST00000545861,ENST00000452274,ENST00000418989,ENST00000449975	15089-15100	14,64,2,2,2,2,2,2,2,2
chr2	125165448	125165544	+	chr2	125175020	125175167	+ENST00000431078	15101-15102	32,6
chr2	127416934	127417058	+	chr2	127447831	127447887	+ENST00000259254	15103-15104	41,41
chr2	127422811	127423049	+	chr2	127447831	127447887	+ENST00000259254	15105-15106	31,2
chr2	127447001	127447365	+	chr2	127447831	127447887	+ENST00000259254	15107-15108	45,17
chr2	128049136	128049086	-	chr2	128047849	128047800	-ENST00000285398,ENST00000493187,ENST00000456257	15109-15111	17,7,17
chr2	128049136	128049131	-	chr2	128047849	128047800	-ENST00000285398,ENST00000493187,ENST00000456257	15112-15115	2,1,1,2
chr2	128049840	128049660	-	chr2	128047849	128047800	-ENST00000285398,ENST00000493187,ENST00000456257	15116-15119	15,19,23,19
chr2	128049989	128049955	-	chr2	128047849	128047800	-ENST00000285398,ENST00000493187,ENST00000456257	15120-15123	11,11,11,11
chr2	128050107	128050010	-	chr2	128047849	128047800	-ENST00000285398,ENST00000493187,ENST00000456257	15124-15127	32,16,14,14
chr2	128259276	128258667	-	chr2	128253724	128253574	-ENST00000295321,ENST00000455721	15128-15132	28,10,34,28,34
chr2	128547239	128546587	-	chr2	128528508	128528352	-ENST00000322313,ENST00000393006,ENST00000409658,ENST00000408998	15133-15138	26,37,12,26,26,26
chr2	130837715	130837385	-	chr2	130834774	130834654	-ENST00000357462,ENST00000409914	15139-15140	66,1
chr2	130902009	130901913	-	chr2	130900886	130900842,13	-ENST00000409943,ENST00000310463,ENST00000423263,ENST00000409128,ENST00000457413,ENST00000409234,ENST00000441670	15141-15152	1,32,23,1,23,1,23,1,1,1,2,3,1

							ENST00000351288,ENST00000439886,ENST00000453750,ENST00000409031,ENST00000431183,ENST00000443958,ENST00000339679,ENST00000452225,ENST00000451542	57,17,8,17,17,17
chr2	130916866	130916614	-	chr2	130914969	130914824	- ,ENST00000435455	15153-15158
							ENST00000351288,ENST00000439886,ENST00000453750,ENST00000409031,ENST00000431183,ENST00000339679,ENST00000452225,ENST00000451542,ENST00000430682	33,33,33,33,33,33,33,33
chr2	130923441	130923341	-	chr2	130922018	130921947	- ,ENST00000451542	15159-15166
							ENST00000351288,ENST00000453750,ENST00000409031	14,9,14,14,14
chr2	130935957	130935823	-	chr2	130934210	130934127	- ,ENST00000431183	15167-15171
							ENST00000351288,ENST00000453750,ENST00000409031	22,14,22,22,22,22
chr2	130939589	130939522	-	chr2	130934210	130934127	- ,ENST00000431183	15172-15177
							ENST00000259239,ENST00000409935,ENST00000456713	57,5,5,5
chr2	131057722	131058851	+	chr2	131102202	131102285	+ ,ENST00000452955	15178-15181
chr2	131226275	131225945	-	chr2	131223345	131223225	- ENST00000451531	15182-15183 66,1
chr2	131241453	131241387	-	chr2	131239646	131239576	- ENST00000451531	15184-15186 22,13,21
							ENST00000409185,ENST00000389915	15187-15188 36,26
chr2	131824753	131824504	-	chr2	131813268	131813126	-	
							ENST00000409185,ENST00000389915	15189-15191 11,29,16
chr2	131824753	131824664	-	chr2	131813268	131813126	-	
							ENST00000409158,ENST00000403716,ENST00000234115,ENST00000439822,ENST00000438882,ENST00000538982,ENST00000409612,ENST00000409279	15192-15195 22,13,21,22
chr2	131903474	131903540	+	chr2	131904210	131904346	+	
							ENST00000409158,ENST00000403716,ENST00000234115,ENST00000439822,ENST00000438882,ENST00000538982,ENST00000409612,ENST00000409279	15196-15199 33,23,1,1
chr2	131903474	131903572	+	chr2	131904210	131904346	+	
chr2	132016359	132016689	+	chr2	132019299	132019419	+ ENST00000356920	15200-15201 66,1
							ENST00000409645,ENST00000281923	15202-15204 26,4,25
chr2	135128691	135128769	+	chr2	135160559	135160708	+	
chr2	135314766	135314647	-	chr2	135309662	135309619	- ENST00000281924	15205-15207 40,9,39
chr2	135443808	135443753	-	chr2	135309662	135309619	- ENST00000281924	15208-15210 18,18,1
chr2	135450432	135450101	-	chr2	135309662	135309619	- ENST00000281924	15211-15213 69,29,33
							ENST00000419781,ENST00000452839,ENST00000295238,ENST00000264157,ENST00000417175	23,53,53,53,53,53
chr2	135698727	135698888	+	chr2	135700182	135700244	+	15214-15218
							ENST00000401392,ENST00000264159,ENST00000403017	29,19,12,29,29
chr2	136105151	136105065	-	chr2	136103205	136103120	- ,ENST00000536680	15219-15223
							ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703	28,42,22,22
chr2	136460438	136460651	+	chr2	136467003	136467106	+ ,ENST00000445855	15224-15227
							ENST00000409478,ENST00000329971,ENST00000264160,ENST00000410054,ENST00000409606,ENST00000429703	6,17,6,17
chr2	136478773	136478866	+	chr2	136479494	136479576	+ ,ENST00000445855	15228-15231
chr2	136531355	136531946	+	chr2	136533819	136533921	+ ENST00000272638	15232-15234 59,6,7
chr2	136531355	136532066	+	chr2	136533819	136533921	+ ENST00000272638	15235-15236 99,21
							ENST00000264161,ENST00000537273,ENST00000441323,ENST00000456565,ENST00000449218	68,1
chr2	136694898	136694692	-	chr2	136691560	136691480	-	15237-15238
							ENST00000264161,ENST00000537273,ENST00000441323,ENST00000456565,ENST00000449218	6,9,42,9,9,9
chr2	136696169	136696040	-	chr2	136691560	136691480	-	15239-15244

chr2	139314445	139314543	+	chr2	139316592	139316769	+	ENST00000280098	15245-15247	33,23,1
								ENST00000295095,ENST000		49,1,10,49
chr2	144291595	144291886	+	chr2	144313977	144314054	+	00419455	15248-15251	
								ENST00000337415,ENST000		5,46,19,5,5,
								00345913,ENST00000346956		5,5,5,46,19,
								,ENST00000349624,ENST000		5
								00329066,ENST00000382201		
								,ENST00000423320,ENST000		
								00382198,ENST00000422464		
chr2	1445654	1445916	+	chr2	1457466	1457595,15	+		15252-15262	
								ENST00000457184,ENST000		36,3,4,36,36
								00258484,ENST00000397424		
chr2	149493516	149493675	+	chr2	149501191	149501336	+		15263-15267	
								ENST00000409198,ENST000		21,15,7,15,1
								00397345,ENST00000427231		5,15
								,ENST00000172853,ENST000		
								00603639,ENST00000604864		
chr2	152561403	152561259	-	chr2	152554162	152554058	-		15268-15273	
								ENST00000409198,ENST000		6,25,25,25,2
								00397345,ENST00000427231		5
								,ENST00000172853,ENST000		
								00603639,ENST00000604864		
chr2	152561403	152561303	-	chr2	152554162	152554058	-		15274-15278	
chr2	153010854	153010800	-	chr2	153006743	153006659	-	ENST00000263904	15279-15280	3,1
chr2	153400649	153400699	+	chr2	153405535	153405611	+	ENST00000288670	15281-15282	17,7
								ENST00000410080,ENST000		6,15,6,6
								00354363,ENST00000545856		
								,ENST00000493468,ENST000		
chr2	153568878	153568818	-	chr2	153551136	153551056	-	00448428	15283-15286	
chr2	153612829	153613536	+	chr2	153616261	153616354	+	ENST00000326446	15287-15289	37,1,30
								ENST00000441750,ENST000		5,25,15
								00281513,ENST00000442506		
chr2	15473695	15473223	-	chr2	15470889	15470722	-		15290-15292	
chr2	158033146	158033435	+	chr2	158140794	158140960	+	ENST00000259056	15293-15295	7,44,21
chr2	158137180	158137515	+	chr2	158140794	158140960	+	ENST00000259056	15296-15298	66,13,23
chr2	158199204	158197811	-	chr2	158182186	158181914	-	ENST00000397283	15299-15301	22,19,5
								ENST00000264192,ENST000		23,1,32,23
chr2	158306816	158306719	-	chr2	158300518	158300359	-	00457793	15302-15305	
								ENST00000283233,ENST000		11,38,36,11
								00409187,ENST00000536771		
chr2	159168041	159167226	-	chr2	159166151	159165945	-		15306-15309	
								ENST00000454300,ENST000		11,26
chr2	159944237	159944605	+	chr2	159954149	159954346	+	00263635	15310-15311	
								ENST00000553424,ENST000		33,23,1,1,1
								00554112,ENST00000504764		
								,ENST00000505052,ENST000		
chr2	160671811	160671713	-	chr2	160667186	160667037	-	00263636	15312-15316	
								ENST00000283243,ENST000		7,1,18,18
chr2	160916507	160916229	-	chr2	160901668	160901285	-	00392771	15317-15320	
chr2	163164891	163164677	-	chr2	163163365	163163219	-	ENST00000263642	15321-15322	33,14
								ENST00000263915,ENST000		13,19,9,13,1
								00543549,ENST00000446413		3
chr2	165405382	165405311	-	chr2	165404326	165404170	-	,ENST00000424693	15323-15327	
								ENST00000375458,ENST000		13,10,1,13,1
								00342193,ENST00000409184		3,13
								,ENST00000392717,ENST000		
								00194871,ENST00000456171		
chr2	165574372	165574097	-	chr2	165561615	165561462	-		15328-15333	
								ENST00000375458,ENST000		11,30,15,30,
								00342193,ENST00000409184		30,30
								,ENST00000392717,ENST000		
								00194871,ENST00000456171		
chr2	165574372	165574273	-	chr2	165561615	165561462	-		15334-15339	
								ENST00000375458,ENST000		10,9,9,9,9,9,
								00342193,ENST00000409184		9,9,9,9,9
								,ENST00000392717,ENST000		
								00194871,ENST00000456171		
								,ENST00000452626,ENST000		
								00448708,ENST00000439313		
								,ENST00000444537,ENST000		
								00414843,ENST00000445474		
chr2	165603229	165603200	-	chr2	165600385	165600197	-		15340-15350	

Table 10

							ENST00000424833,ENST00000357398,ENST00000375437,ENST00000283256,ENST00000375427	15351-15355	9,11,32,11,11
chr2	166064674	166064775	+	chr2	166152390	166152600	+		
chr2	166222961	166223061	+	chr2	166223727	166223881	+	ENST00000357398,ENST00000375437,ENST00000283256,ENST00000375427	15356-15357	24,11
chr2	166618020	166617921	-	chr2	166616080	166615846	-	ENST00000392701,ENST00000409882,ENST00000412248,ENST00000437849	15358-15363	24,11,32,24,24,11
chr2	167100570	167100000	-	chr2	167099166	167099012	-	ENST00000409672,ENST00000303354,ENST00000375387,ENST00000409435	15364-15366	13,22,1
chr2	168950099	168949834	-	chr2	168931741	168931619	-	ENST00000355999	15367-15369	7,1,4
chr2	169621359	169621830	+	chr2	169622102	169622258	+	ENST00000305747,ENST00000392687	15370-15373	4,15,8,8
chr2	170422071	170421973	-	chr2	170419860	170419735	-	ENST00000453153,ENST00000453929,ENST00000438035,ENST00000445210	15374-15378	11,23,1,23,23
chr2	170669634	170669578	-	chr2	170669016	170668967,17	-	ENST00000409837,ENST00000442181,ENST00000409340,ENST00000260953,ENST00000409965,ENST00000392640,ENST00000308099,ENST00000410097,ENST00000538491	15379-15387	19,8,10,19,10,19,10
chr2	170676765	170676716	-	chr2	170676153	170676071	-	ENST00000409837,ENST00000442181,ENST00000409340,ENST00000260953,ENST00000409965,ENST00000392640,ENST00000537825,ENST00000410097	15388-15389	16,16
chr2	170818882	170818989	+	chr2	170843155	170843304	+	ENST00000272793,ENST00000418381,ENST00000392632,ENST00000392631	15390-15393	4,24,10,10
chr2	171497679	171497690	+	chr2	171508138	171508210	+	ENST00000317935,ENST00000408978,ENST00000409044,ENST00000334231	15394-15397	4,3,3,3
chr2	171948541	171948475	-	chr2	171939362	171939291	-	ENST00000360843,ENST00000431350,ENST00000442919,ENST00000359766,ENST00000521943,ENST00000409443	15398-15403	22,13,5,13,13,13
chr2	172289867	172289536	-	chr2	172217023	172216932	-	ENST00000375258,ENST00000392604,ENST00000392599,ENST00000442778,ENST00000453846,ENST00000442541	15404-15410	4,1,4,4,4,4,4
chr2	172316934	172316979	+	chr2	172325398	172325540	+	ENST00000539783,ENST00000375255,ENST00000339506	15411-15413	14,1,14
chr2	172316934	172317009	+	chr2	172325398	172325540	+	ENST00000539783,ENST00000375255,ENST00000339506	15414-15416	24,2,24
chr2	172646037	172645939	-	chr2	172644457	172644299	-	ENST00000422440,ENST00000392592	15417-15419	33,23,1
chr2	172647389	172647251	-	chr2	172644457	172644299	-	ENST00000422440,ENST00000392592	15420-15422	1,13,9
chr2	172647389	172647294	-	chr2	172644457	172644299	-	ENST00000422440,ENST00000392592	15423-15425	7,21,30
chr2	172724171	172723334	-	chr2	172712459	172712344	-	ENST00000422440,ENST00000426896,ENST00000475360	15426-15430	13,29,26,26,26
chr2	172724171	172723418	-	chr2	172712459	172712344	-	ENST00000422440,ENST00000426896,ENST00000475360	15431-15435	24,1,37,37,37
chr2	172780259	172780362	+	chr2	172782047	172782151	+	ENST00000412731,ENST00000457761,ENST00000264108	15436	34
chr2	172888375	172888520	+	chr2	172926226	172926383	+	ENST00000315796	15437-15439	5,48,48
chr2	1738358	1738111	-	chr2	1696906	1696835	-	ENST00000252804,ENST00000433670,ENST00000425171	15440-15444	2,16,24,2,2

Table 10

							ENST00000284719,ENST00000344357,ENST00000409546	15445-15447	5,10,65
chr2	174982998	174982666	-	chr2	174946729	174946652	-		
							ENST00000284719,ENST00000344357,ENST00000409546	15448-15451	1,44,53,44
chr2	174982998	174982703	-	chr2	174946792	174946652	-	,ENST00000429575	
							ENST00000284719,ENST00000344357,ENST00000409546	15452-15454	42,11,50
chr2	174982998	174982711	-	chr2	174946729	174946652	-		
							ENST00000284719,ENST00000428402,ENST00000409546	15455-15456	17,7
chr2	175021612	175021562	-	chr2	175006728	175006553	-		
							ENST00000284719,ENST00000428402,ENST00000409546	15457-15460	59,32,4,32
chr2	175077702	175077488	-	chr2	175006728	175006553	-		
							ENST00000284719,ENST00000428402,ENST00000409546	15461-15464	3,1,2,3
chr2	175082609	175082600	-	chr2	175006728	175006553	-		
							ENST00000284719,ENST00000428402,ENST00000409546	15465-15469	13,47,24,13,13
chr2	175102195	175101576	-	chr2	175094179	175094036	-	,ENST00000427472	
							ENST00000342016,ENST00000362053	15470-15472	6,31,31
chr2	175275210	175275116	-	chr2	175252507	175252413	-		
							ENST00000409900,ENST00000409156	15473-15476	14,4,4,28
chr2	175785930	175785585	-	chr2	175783293	175783262	-		
							ENST00000409900,ENST00000409156	15477-15480	14,28,4,4
chr2	175799281	175798923	-	chr2	175783293	175783262	-		
							ENST00000264110,ENST00000428760,ENST00000392544,ENST00000409499,ENST00000415955,ENST00000417080,ENST00000421438,ENST00000429579,ENST00000456655,ENST00000435231,ENST00000409833	15481-15488	26,2,14,2,2,2,2,2
chr2	175997500	175997423	-	chr2	175994935	175994866	-		
							ENST00000249442,ENST00000392529,ENST00000452865	15489-15492	10,20,7,7
chr2	177178880	177179106	+	chr2	177188120	177188192	+		
							ENST00000392524,ENST00000411529,ENST00000435711	15493-15494	25,25
chr2	178081595	178081672	+	chr2	178084015	178084027	+	,ENST00000432457	
							ENST00000264167,ENST00000409888	15495-15498	31,21,8,21
chr2	178262475	178262567	+	chr2	178284997	178285086	+		
chr2	178297818	178297852	+	chr2	178299055	178299145	+	ENST00000264167	15499-15501	2,5,8
chr2	178333894	178334037	+	chr2	178346787	178346914	+	ENST00000264167	15502-15504	19,28,25
							ENST00000448223,ENST00000351948,ENST00000381272	15505-15507	26,50,20
chr2	17857631	17856699	-	chr2	17851842	17851690	-	,ENST00000402989	
							ENST00000286063,ENST00000358450	15508-15510	1,4,4
chr2	178849579	178849565	-	chr2	178769914	178769825	-		
							ENST00000359685,ENST00000392505,ENST00000409045,ENST00000190611,ENST00000409631,ENST00000315022	15511-15513	33,23,1
chr2	179252450	179252548	+	chr2	179253736	179253880	+		
chr2	179699581	179699514	-	chr2	179699167	179698900	-	ENST00000420890	15514-15516	21,8,22
chr2	179976744	179976647	-	chr2	179974755	179974626	-	ENST00000428443	15517-15519	23,1,32
							ENST00000410066,ENST00000409343,ENST00000439340	15520-15523	27,10,35,35
chr2	180493299	180493135	-	chr2	180409696	180409554	-		
							ENST00000602303,ENST00000602959,ENST00000602479,ENST00000392415,ENST00000602291,ENST00000410062,ENST00000602499,ENST00000602710	15524-15530	57,3,35,57,57,57,3
chr2	181921432	181922180	+	chr2	181922420	181922552	+		
							ENST00000397033,ENST00000233573	15531-15534	23,1,43,43
chr2	182348813	182348958	+	chr2	182350608	182350719	+		
chr2	183749691	183749630	-	chr2	183723561	183723514	-	ENST00000295113	15535-15537	6,1,15
							ENST00000361354,ENST00000360982	15538-15540	1,5,29
chr2	183899739	183899651	-	chr2	183888644	183888534	-		
							ENST00000343098,ENST00000424728	15541-15543	14,28,4
chr2	186347547	186347818	+	chr2	186604073	186604198	+		

Table 10

							ENST00000343098,ENST000		12,3
chr2	186601542	186601949	+	chr2	186604073	186604198	+ 00424728	15544-15545	
							ENST00000261023,ENST000		3,21,18,18
							00374907,ENST00000433736		
chr2	187483916	187484317	+	chr2	187487066	187487157	+	15546-15549	
							ENST00000261023,ENST000		24,10,2
							00374907,ENST00000433736		
chr2	187508330	187508401	+	chr2	187511413	187511604	+	15550-15552	
							ENST00000409843,ENST000		29,32,32,32,
							00409830,ENST00000410051		32
							,ENST00000409927,ENST000		
							00359135,ENST00000409580		
							,ENST00000409637,ENST000		
chr2	189365852	189366095	+	chr2	189387483	189387554	+ 00409609	15553-15557	
chr2	190058435	190058426	-	chr2	189975175	189974951	- ENST00000374866	15558-15559	3,2
							ENST00000314761,ENST000		19,18,2,18,1
							00436347,ENST00000427960		8
chr2	190306824	190306880	+	chr2	190313105	190313234	+	15560-15564	
							ENST00000261024,ENST000		10,9,4,10
chr2	190448089	190448060	-	chr2	190436567	190436441	- 00427241	15565-15568	
							ENST00000261024,ENST000		10,9,4,4,9,4,
							00427241,ENST00000455320		9,4
							,ENST00000427419,ENST000		
chr2	190448089	190448060	-	chr2	190444606	190444539	- 00440626	15569-15576	
							ENST00000441310,ENST000		6,17,29,17,1
							00409985,ENST00000342075		7,17,17,17,1
							,ENST00000409823,ENST000		7,17,17
							00374826,ENST00000450931		
							,ENST00000424766,ENST000		
							00447232,ENST00000420421		
chr2	190659551	190659641	+	chr2	190660495	190660677	+	15577-15587	
							ENST00000441310,ENST000		50,5,28,5,28
							00342075,ENST00000409823		,28,28,28,28
							,ENST00000450931,ENST000		,28
							00424766,ENST00000447232		
							,ENST00000447734,ENST000		
chr2	190677053	190677361	+	chr2	190682743	190682906,19	+ 00424307	15588-15597	
							ENST00000441310,ENST000		12,8,1,12,8,
							00342075,ENST00000409823		8,8,8,8,8
							,ENST00000450931,ENST000		
							00424766,ENST00000447232		
							,ENST00000447734,ENST000		
chr2	190681733	190681836	+	chr2	190682743	190682906,19	+ 00424307	15598-15607	
							ENST00000441310,ENST000		17,7,16,7,16
							00418224,ENST00000409823		,7
							,ENST00000450931,ENST000		
							00447232,ENST00000432292		
							,ENST00000409593,ENST000		
chr2	190729102	190729152	+	chr2	190732525	190732655	+ 00452382	15608-15613	
							ENST00000441310,ENST000		17,7,16,16
							00418224,ENST00000409823		
							,ENST00000447232,ENST000		
							00432292,ENST00000409593		
chr2	190729102	190729152	+	chr2	190732551	190732655	+ ,ENST00000452382	15614-15617	
							ENST00000392332,ENST000		11,11,11,11,
							00359678,ENST00000409934		11
chr2	191207778	191207744	-	chr2	191175522	191175480	-	15618-15622	
							ENST00000392328,ENST000		9,17,17,17,1
							00281416,ENST00000434582		7
							,ENST00000444317,ENST000		
chr2	191335831	191335884	+	chr2	191353383	191353544	+ 00535751	15623-15627	
							ENST00000409150,ENST000		11,3,8,8
chr2	191426369	191426115	-	chr2	191390104	191389989	- 00343105	15628-15631	
							ENST00000320717,ENST000		11,11,5,11,1
							00338435,ENST00000409626		1
chr2	191794719	191794752	+	chr2	191795163	191795294	+ ,ENST00000457316	15632-15636	
							ENST00000339514,ENST000		18,11,28,11,
							00392318,ENST00000304164		11
							,ENST00000392316,ENST000		
chr2	192260430	192260517	+	chr2	192261155	192261223	+ 00439065	15637-15641	
							ENST00000409086,ENST000		10,10,9
chr2	196549186	196549216	+	chr2	196571340	196571509	+ 00359634	15642-15644	
chr2	196772505	196772498	-	chr2	196771733	196771631	- ENST00000312428	15645-15647	2,2,2

Table 10

						ENST00000263956,ENST000		46,9,6,46
chr2	197661592	197661433 -	chr2	197657876	197657680 -	00409364	15648-15651	
						ENST00000263956,ENST000		1,1
chr2	197663966	197663964 -	chr2	197662632	197662521 -	00409364	15652-15653	
						ENST00000424317,ENST000		5,11,1,1,1,1
						00282272,ENST00000337207		
						,ENST00000450567,ENST000		
						00328737,ENST00000422886		
chr2	197936619	197934554 -	chr2	197889991	197889920 -		15654-15659	
						ENST00000282272,ENST000		31,42,44,31,
						00409153,ENST00000409919		31,31
chr2	198070319	198070167 -	chr2	198051830	198051747 -	,ENST00000447713	15660-15665	
						ENST00000282272,ENST000		4,62,41,62,6
						00409153,ENST00000409919		2,62
chr2	198221091	198220818 -	chr2	198051830	198051747 -	,ENST00000447713	15666-15671	
						ENST00000282272,ENST000		53,33,33,33,
						00409153,ENST00000409919		33
chr2	198221091	198220844 -	chr2	198051830	198051747 -	,ENST00000447713	15672-15676	
chr2	198505485	198505344 -	chr2	198498721	198498442 -	ENST00000295049	15677-15679	21,15,7
chr2	198505485	198505388 -	chr2	198498721	198498442 -	ENST00000295049	15680-15681	6,32
chr2	198558285	198558188 -	chr2	198498721	198498442 -	ENST00000295049	15682-15683	6,32
						ENST00000295049,ENST000		6,32
chr2	198558285	198558188 -	chr2	198511390	198511207 -	00429081	15684-15685	
chr2	198593687	198593783 +	chr2	198636581	198636638 +	ENST00000409845	15686-15687	32,6
chr2	200689578	200688840 -	chr2	200684480	200684295 -	ENST00000420128	15688-15689	20,6
chr2	200788560	200788656 +	chr2	200789785	200790609 +	ENST00000319974	15690-15691	32,8
						ENST00000354611,ENST000		8,8,8
						00483328,ENST00000441832		
chr2	200813798	200813774 -	chr2	200813195	200813041 -		15692-15694	
						ENST00000354611,ENST000		20,12,10,10
						00483328,ENST00000441832		
chr2	200819124	200818859 -	chr2	200813195	200813041 -		15695-15698	
						ENST00000409718,ENST000		3,7,15,7,7
						00358677,ENST00000409988		
						,ENST00000409385,ENST000		
						00451764,ENST00000360760		
						,ENST00000409140,ENST000		
						00409397,ENST00000409755		
						,ENST00000409151,ENST000		
chr2	201328047	201328093 +	chr2	201332013	201332122 +	00438761	15699-15703	
						ENST00000409718,ENST000		14,11,2
						00358677,ENST00000409988		
						,ENST00000409385,ENST000		
						00451764,ENST00000360760		
						,ENST00000409140,ENST000		
						00409755,ENST00000409151		
chr2	201335658	201335700 +	chr2	201337555	201337775 +		15704-15706	
						ENST00000281405,ENST000		28,28
						00345530,ENST00000416055		
						,ENST00000414212,ENST000		
chr2	20141458	20141373 -	chr2	20138162	20138026 -	00453014	15707-15708	
						ENST00000281405,ENST000		19,1,11,11
						00345530,ENST00000414212		
chr2	20164983	20164883 -	chr2	20160375	20160315 -		15709-15712	
						ENST00000286175,ENST000		33,15,11,11,
						00392283,ENST00000415562		11,11,11,11
						,ENST00000409264,ENST000		
						00409361,ENST00000409449		
						,ENST00000443398,ENST000		
chr2	201751687	201751587 -	chr2	201750495	201750421 -	00457063	15713-15720	
						ENST00000286175,ENST000		17,7,16,17,1
						00392283,ENST00000415562		7,17,17,17
						,ENST00000409264,ENST000		
						00409361,ENST00000409449		
						,ENST00000443398,ENST000		
chr2	201751687	201751637 -	chr2	201750495	201750421 -	00457063	15721-15728	
						ENST00000286175,ENST000		2,2,2,2,2,2,2
						00392283,ENST00000415562		,2
						,ENST00000409264,ENST000		
						00409361,ENST00000409449		
						,ENST00000443398,ENST000		
chr2	201753974	201753967 -	chr2	201750495	201750421 -	00457063	15729-15736	
chr2	201811010	201810962 -	chr2	201807500	201807408 -	ENST00000234296	15737-15739	16,3,7

Table 10

							ENST00000281405,ENST00000345530,ENST00000414212	13,7,27,13,13
chr2	20181284	20181179	-	chr2	20180544	20180452	-	15740-15744	ENST00000281405,ENST00000345530,ENST00000414212	13,7,16,16,16
chr2	20181579	20181529	-	chr2	20180544	20180452	-	15745-15749	ENST00000410091,ENST00000260967,ENST00000450471,ENST00000434439,ENST00000374598	5,25
chr2	202675128	202675224	+	chr2	202677206	202677285	+	15750-15751	ENST00000410091,ENST00000260967,ENST00000450471,ENST00000434439,ENST00000374598	2,15,4,4,4
chr2	202711230	202711506	+	chr2	202712104	202712197	+	15752-15756		
chr2	20310613	20310164	-	chr2	20240772	20240652	-	15757-15759	ENST00000175091	1,33,9
chr2	203559970	203560250	+	chr2	203560604	203560755	+	15760-15761	ENST00000392238	18,8
chr2	203559970	203560310	+	chr2	203560604	203560755	+	15762-15764	ENST00000392238	38,11,3
chr2	205984224	205984344	+	chr2	205986315	205986673	+	15765-15766	ENST00000406610,ENST00000462231,ENST00000349953,ENST00000351153,ENST00000358768	6,31
chr2	206995378	206995112	-	chr2	206994966	206994812	-	15767-15769	ENST00000233190,ENST00000423725,ENST00000457011,ENST00000440274,ENST00000455934,ENST00000449699,ENST00000432169	13,34,21
chr2	207022985	207022887	-	chr2	207018406	207018342	-	15770-15772	ENST00000455934	33,23,1
chr2	208459715	208459333	-	chr2	208446884	208446871	-	15773-15775	ENST00000458426,ENST00000425132	25,14,1
chr2	209004099	209003792	-	chr2	208994407	208994165	-	15776-15777	ENST00000282141	26,46
chr2	209198844	209199227	+	chr2	209200030	209200143	+	15778-15781	ENST00000264380,ENST00000452564	37,6,46,6
chr2	209281308	209281661	+	chr2	209292926	209293028	+	15782-15784	ENST00000272847	1,55,30
chr2	210879235	210879333	+	chr2	210880697	210880836	+	15785-15791	ENST00000359429,ENST00000540255,ENST00000452025,ENST00000435437,ENST00000354506	33,23,32,32,32,32,32
chr2	210972556	210972490	-	chr2	210969025	210968828	-	15792-15799	ENST00000281772,ENST00000418791,ENST00000457374,ENST00000452086,ENST00000428655,ENST00000438563,ENST00000415553	22,13,21,13,13,13,13,13
chr2	211342203	211342174	-	chr2	211336800	211336683	-	15800-15804	ENST00000443314,ENST00000441020,ENST00000450366,ENST00000233714,ENST00000431941,ENST00000448951,ENST00000453956	7,9,3,7,7
chr2	212857227	212856958	-	chr2	212812341	212812155	-	15805-15811	ENST00000342788,ENST00000436443,ENST00000402597,ENST00000260943,ENST00000435846	39,9,4,39,39,39,39
chr2	213881738	213881613	-	chr2	213878658	213878515	-	15812-15814	ENST00000457361,ENST00000342002,ENST00000434687,ENST00000374319,ENST00000374327,ENST00000451136	15,7,40
chr2	213920337	213920332	-	chr2	213914604	213914437	-	15815-15817	ENST00000457361,ENST00000342002,ENST00000434687,ENST00000374319,ENST00000413091,ENST00000421754,ENST00000431520,ENST00000451136,ENST00000433134	2,1,2
chr2	214615901	214616323	+	chr2	214727209	214727352	+	15818-15821	ENST00000331683,ENST00000374309,ENST00000451561	21,45,34,45
chr2	214683379	214683617	+	chr2	214727209	214727352	+	15822-15823	ENST00000331683,ENST00000374309,ENST00000451561	30,36
chr2	214683379	214683653	+	chr2	214727209	214727352	+	15824-15827	ENST00000331683,ENST00000374309,ENST00000451561	7,1,48,7

Table 10

							ENST00000236959,ENST00000540518,ENST00000435675		22,13,5,22
chr2	216198484	216198550	+	chr2	216199642	216199727	+,ENST00000446622	15828-15831	
							ENST00000421182,ENST00000323926,ENST00000336916,ENST00000357867,ENST00000354785,ENST00000345488,ENST00000346544,ENST00000357009,ENST00000359671,ENST00000446046,ENST00000443816,ENST00000432072		13,7,16,16,16,16,16,16,16,16,16,16
chr2	216265818	216265768	-	chr2	216264074	216263980	-,ENST00000356005	15832-15846	
chr2	216913097	216912999	-	chr2	216908738	216908627	-ENST00000265322	15847-15849	33,23,1
chr2	217487249	217487570	+	chr2	217525280	217525509	+ENST00000233809,ENST00000456764	15850-15852	9,19,21
chr2	219252014	219252166	+	chr2	219252288	219252355	+ENST00000233202,ENST00000539932	15853-15854	4,1
chr2	219305830	219305880	+	chr2	219313946	219314059	+ENST00000248444,ENST00000392114	15855-15857	17,7,16
chr2	219349028	219348928	-	chr2	219346957	219346793	-ENST00000258399,ENST00000454775,ENST00000415516,ENST00000418019	15858-15861	19,24,11,19
chr2	219361673	219361573	-	chr2	219360673	219360483	-ENST00000258399,ENST00000454775,ENST00000415516,ENST00000418019	15862-15864	2,11,11
chr2	219491137	219491328	+	chr2	219492752	219492953	+ENST00000450993,ENST00000417849,ENST00000432688	15865-15866	11,9
chr2	219505961	219505956	-	chr2	219505492	219505387	-ENST00000449707,ENST00000411696	15867-15869	2,1,1
chr2	219510071	219509863	-	chr2	219505492	219505387	-ENST00000449707,ENST00000411696	15870-15872	27,6,12
chr2	220077543	220077475	-	chr2	220077213	220077109	-ENST00000265316,ENST00000295750,ENST00000439002	15873-15874	6,13
chr2	222366374	222366257	-	chr2	222365892	222365737	-ENST00000281821,ENST00000409854,ENST00000409938,ENST00000392071,ENST00000441679	15875-15876	20,5
chr2	223595715	223595407	-	chr2	223513514	223513459	-ENST00000281828	15877-15878	29,15
							ENST00000443700,ENST00000415298,ENST00000334271,ENST00000396654,ENST00000396653,ENST00000446015,ENST00000409375,ENST00000423110	15879-15880	10,1
chr2	224652680	224652648	-	chr2	224642586	224642408	-		
chr2	224790872	224790123	-	chr2	224782727	224782660	-ENST00000233055,ENST00000429915	15881-15884	31,5,31,5
chr2	224804525	224804247	-	chr2	224782727	224782660	-ENST00000233055,ENST00000429915	15885-15888	4,7,4,7
chr2	224890620	224890419	-	chr2	224866639	224866359	-ENST00000447280	15889-15891	22,4,9
chr2	224900385	224900285	-	chr2	224866639	224866359	-ENST00000447280	15892-15894	2,24,11
chr2	224972612	224969472	-	chr2	224866639	224866359	-ENST00000447280	15895-15897	6,4,84
chr2	225431925	225431659	-	chr2	225422573	225422376	-ENST00000264414,ENST00000436172	15898-15901	25,10,12,25
chr2	225656490	225656424	-	chr2	225653887	225653781	-ENST00000409592,ENST00000258390	15902-15904	17,13,21
chr2	227950840	227950688	-	chr2	227946903	227946831	-ENST00000396625,ENST00000329662	15905-15908	8,11,3,8
chr2	228747335	228747637	+	chr2	228750067	228750139	+ENST00000373666,ENST00000309931,ENST00000454999	15909-15911	2,7,2
chr2	230371170	230370893	-	chr2	230341969	230341856	-ENST00000341772	15912-15914	47,7,42
chr2	231040936	231040909	-	chr2	231037675	231037560	-ENST00000258381,ENST00000358662	15915-15918	9,9,7,9
chr2	231263120	231263304	+	chr2	231264842	231264961	+ENST00000444636,ENST00000415673,ENST00000243810,ENST00000396563	15919-15922	36,15,5,5

Table 10

							ENST00000264052,ENST000	29,6,10,10,1
							00427101,ENST00000432979	0,10,10,10,1
							,ENST00000409824,ENST000	0
							00409341,ENST00000341950	
							,ENST00000409112,ENST000	
							00340126,ENST00000409897	
chr2	231301033	231301120	+	chr2	231307652	231307814	+	15923-15931
							ENST00000340126,ENST000	12,16,19
chr2	231385910	231386115	+	chr2	231403982	231404097	+	00431952 15932-15934
							ENST00000258418,ENST000	14,19
							00410084,ENST00000409788	
chr2	231652479	231652709	+	chr2	231655587	231655751	+	15935-15936
							ENST00000258418,ENST000	8,2,7
							00410084,ENST00000409788	
chr2	231675398	231675561	+	chr2	231678764	231678829	+	15937-15939
							ENST00000258418,ENST000	19,23
							00410084,ENST00000409788	
chr2	231676233	231676479	+	chr2	231678764	231678829	+	15940-15941
							ENST00000373635,ENST000	21,13,45,45,
							00308696,ENST00000409643	21,45
chr2	231974751	231975018	+	chr2	232003450	232003564	+	,ENST00000447633 15942-15947
							ENST00000373635,ENST000	12,18,3,12
							00308696,ENST00000409643	
chr2	232025643	232025784	+	chr2	232026054	232026223	+	15948-15951
chr2	232027571	232027596	+	chr2	232028349	232028441	+	ENST00000308696 15952-15954 8,8,8
							ENST00000373635,ENST000	17,1,13
							00308696,ENST00000409643	
chr2	232031613	232031740	+	chr2	232035280	232035426	+	15955-15957
chr2	232160422	232160487	+	chr2	232160911	232160966	+	ENST00000349938 15958-15960 9,12,21
							ENST00000322723,ENST000	10,10,10,10,
							00454824,ENST00000417652	10,10,10
							,ENST00000453992,ENST000	
chr2	232326358	232326389	+	chr2	232326720	232326251,23	-	00436894 15961-15967
chr2	232383222	232383005	-	chr2	232320147	232320112	-	ENST00000322723 15968-15970 72,18,5
							ENST00000410024,ENST000	23,13,13
							00409295,ENST00000350033	
							,ENST00000413197,ENST000	
							00410017,ENST00000373608	
chr2	232656920	232656988	+	chr2	232658973	232659061	+	15971-15973
							ENST00000403712,ENST000	24,23,23,23,
							00415006,ENST00000403657	23,23,23
							,ENST00000405430,ENST000	
							00356150,ENST00000403658	
							,ENST00000479739,ENST000	
							00451005,ENST00000431160	
chr2	232742	232671	-	chr2	231191	231023,231	-	,ENST00000481932 15974-15980
							ENST00000273009,ENST000	3,15,3,3,3
							00325385,ENST00000390005	
							,ENST00000409307,ENST000	
chr2	233049867	233049952	+	chr2	233075036	233075115	+	00424049 15981-15985
							ENST00000441621,ENST000	23,1,32,32,3
							00449596,ENST00000543200	2,32,32
							,ENST00000258385,ENST000	
							00412233,ENST00000536614	
chr2	233392174	233392271	+	chr2	233392972	233393081	+	,ENST00000446616 15986-15992
							ENST00000422935,ENST000	39,30,15,15,
							00451407,ENST00000538935	15
chr2	233988322	233988546	+	chr2	233990458	233990629	+	,ENST00000359570 15993-15997
							ENST00000264057,ENST000	14,32,2,2
							00447484,ENST00000409813	
chr2	234271426	234271919	+	chr2	234296903	234297013	+	15998-16001
							ENST00000450966,ENST000	19,24,11,11,
							00251722,ENST00000427112	11
							,ENST00000450940,ENST000	
chr2	234399117	234399017	-	chr2	234398129	234398011	-	00430158 16002-16006
							ENST00000450966,ENST000	37,4,14,4,4
							00251722,ENST00000427112	
							,ENST00000430158,ENST000	
chr2	234410857	234409978	-	chr2	234408561	234408525	-	00409945 16007-16011

Table 10

							ENST00000373450,ENST00000344644,ENST00000373445,ENST00000354728,ENST00000609637,ENST00000373426,ENST00000373424,ENST00000446481,ENST00000305139,ENST00000406651,ENST00000373414,ENST00000608381,ENST00000373409,ENST00000450233,ENST00000482026,ENST00000609767,ENST00000305208,ENST00000360418,ENST00000608383		5,4,5
chr2	234583667	234583682	+	chr2	234675680	234675811	+	16012-16014	
chr2	234734895	234735640	+	chr2	234737276	234737425	+	ENST00000389758	16015-16016	5,2
chr2	234734895	234736005	+	chr2	234737276	234737425	+	ENST00000389758	16017-16018	59,38
chr2	234754096	234754043	-	chr2	234752929	234752851	-	ENST00000411486,ENST00000432087,ENST00000441687,ENST00000414924,ENST00000454020	16019-16023	9,17,4,9,9
chr2	234844893	234844926	+	chr2	234845997	234846153	+	ENST00000324695,ENST00000444298,ENST00000355722	16024-16028	11,11,5,5,5
chr2	236692226	236692494	+	chr2	236706403	236706530	+	ENST00000409457,ENST00000336665,ENST00000304032,ENST00000409538,ENST00000428334	16029-16033	54,65,6,65,65
chr2	236692226	236692669	+	chr2	236706403	236706530	+	ENST00000409457,ENST00000336665,ENST00000304032,ENST00000409538,ENST00000428334	16034-16038	35,1,5,5,5
chr2	237298332	237298235	-	chr2	237289279	237289212	-	ENST00000254653,ENST00000309507,ENST00000418802	16039-16042	6,32,32,32
chr2	238521893	238521896	+	chr2	238617187	238617273	+	ENST00000308482,ENST00000289175,ENST00000244815,ENST00000420665,ENST00000392000	16043-16050	1,1,1,1,1,1,1,1
chr2	238602635	238602692	+	chr2	238617187	238617273	+	ENST00000308482,ENST00000289175,ENST00000244815,ENST00000420665,ENST00000392000	16051-16059	3,19,5,3,19,3,19,19,19
chr2	238921636	238921737	+	chr2	238933983	238934053	+	ENST00000441728,ENST00000272930,ENST00000448502,ENST00000416292,ENST00000409633,ENST00000445676,ENST00000414443,ENST00000439780,ENST00000433241,ENST00000409953,ENST00000409332,ENST00000434655,ENST00000434137	16060-16071	34,24,6,34,34,34,34,6,34,6,34
chr2	238992475	238992776	+	chr2	238999859	238999895	+	ENST00000254663,ENST00000373332,ENST00000555827,ENST00000409736,ENST00000422984,ENST00000437134,ENST00000450965,ENST00000440143,ENST00000433750	16072-16080	54,1,69,54,69,54,54
chr2	240942552	240942466	-	chr2	240929599	240929491	-	ENST00000419408,ENST00000252711,ENST00000404554,ENST00000443626,ENST00000444548,ENST00000448880,ENST00000307300	16081-16082	29,24
chr2	241497783	241497721	-	chr2	241496769	241496607	-	ENST00000403283	16083-16084	20,19
chr2	24197875	24198120	+	chr2	24199839	24199945	+	ENST00000404924,ENST00000309033,ENST00000535786	16085-16088	9,3,7,9
chr2	241984096	241984162	+	chr2	241987732	241987857	+	ENST00000401884,ENST00000342631,ENST00000405547,ENST00000310397,ENST00000401644,ENST00000431690	16089-16096	22,22,11,22,22,22,22,22

Table 16

							ENST00000404924,ENST00000309033,ENST00000535786	17,7,16
chr2	24210367	24210417	+	chr2	24222542	24222737	+	16097-16099
							ENST00000391973,ENST00000428282,ENST00000360051,ENST00000428524,ENST00000445030,ENST00000407017,ENST00000391971,ENST00000401990,ENST00000407971,ENST00000457335,ENST00000436795,ENST00000411484,ENST00000434955,ENST00000402092,ENST00000441533,ENST00000443492,ENST00000437066,ENST00000420786,ENST00000449239	46,38,36,38,38,38,38,38,38,38,38,38,38,38,38,38
chr2	242265750	242266162	+	chr2	242274541	242274627,24	+	16100-16116
							ENST00000391973,ENST00000428282,ENST00000360051,ENST00000428524,ENST00000445030,ENST00000407017,ENST00000391971,ENST00000401990,ENST00000407971,ENST00000457335,ENST00000436795,ENST00000411484,ENST00000434955,ENST00000402092,ENST00000441533,ENST00000443492,ENST00000437066,ENST00000420786,ENST00000449239	8,48,45,8,8,8,8,8,8,8,8,8,8,8,8,8
chr2	242265750	242266191	+	chr2	242274541	242274627,24	+	16117-16133
							ENST00000391973,ENST00000428282,ENST00000360051,ENST00000428524,ENST00000445030,ENST00000407017,ENST00000391971,ENST00000401990,ENST00000407971,ENST00000457335,ENST00000436795,ENST00000411484,ENST00000434955,ENST00000402092,ENST00000441533,ENST00000443492,ENST00000437066,ENST00000420786,ENST00000449239	10,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1
chr2	242268818	242268855	+	chr2	242274541	242274627,24	+	16134-16149
							ENST00000391973,ENST00000428282,ENST00000360051,ENST00000391971,ENST00000401990,ENST00000407971,ENST00000436795,ENST00000411484,ENST00000402092,ENST00000443492,ENST00000437066,ENST00000449239	13,23,16,23,23,23,23,23,16,23,23
chr2	242276229	242276327	+	chr2	242276797	242276931,24	+	,ENST00000457874 16150-16160
							ENST00000264042,ENST00000545004,ENST00000373287,ENST00000418082,ENST00000445489	29,30,30,29,29,29,29
chr2	242326635	242326727	+	chr2	242343243	242343347	+	16161-16167
chr2	242506149	242506210	+	chr2	242509540	242509703	+	ENST00000318407 16168-16170
							ENST00000405546,ENST00000402096,ENST00000404914,ENST00000419606,ENST00000396411,ENST00000474739,ENST00000425239,ENST00000400771,ENST00000430617	20,3,8 18,10,32,10,10,18,10,18,10,18,10,18,10,10
chr2	242593556	242593812	+	chr2	242593961	242594062	+	,ENST00000429899 16171-16184
							ENST00000313552,ENST00000406941,ENST00000445620	22,13,21,22,22
chr2	242633577	242633643	+	chr2	242644068	242644139	+	16185-16189
							ENST00000537090,ENST00000321264,ENST00000436747,ENST00000342518,ENST00000400769	20,22,39,39,39,39,39
chr2	242677711	242677830	+	chr2	242680448	242680505	+	16190-16196

Table 15

						ENST00000537090,ENST00000321264,ENST00000436747,ENST00000342518,ENST00000400769	16197-16198	17,7
chr2	242679278	242679328 +	chr2	242680448	242680505 +	ENST00000192314	16199-16200	20,11
chr2	242712430	242712531 +	chr2	242738480	242738569 +	ENST00000407625,ENST00000420135,ENST00000584973	16201-16204	24,6,24,24
chr2	24318028	24318099 +	chr2	24369618	24369705 +	ENST00000407625,ENST00000420135,ENST00000584973	16205-16206	24,6
chr2	24318028	24318099 +	chr2	24369800	24369956 +	ENST00000407625,ENST00000420135	16207-16210	24,6,24,6
chr2	24318028	24318099 +	chr2	24390496	24390524,2 +	ENST00000448919	16211-16212	24,6
chr2	24318028	24318099 +	chr2	24392225	24392268 +	ENST00000407625,ENST00000420135,ENST00000584973	16213-16217	1,12,8,1,1
chr2	24365311	24365616 +	chr2	24369618	24369705 +	ENST00000361999,ENST00000355123,ENST00000406921	16218-16219	31,12
chr2	24487826	24487620 -	chr2	24484611	24484430 -	ENST00000361999,ENST00000355123,ENST00000406921,ENST00000412011	16220-16221	7,1
chr2	24538453	24538411 -	chr2	24538093	24538001 -	ENST00000260600,ENST00000405392,ENST00000606682	16222-16225	6,14,47,14
chr2	25056754	25056611 -	chr2	25054618	25054531 -	ENST00000260600,ENST00000405392,ENST00000606682,ENST00000427849,ENST00000435135	16226-16231	13,13,7,7,7,7
chr2	25062099	25062060 -	chr2	25061491	25061314 -	ENST00000260600,ENST00000433852	16232-16233	6,71
chr2	25112419	25112189 -	chr2	25095588	25095439 -	ENST00000260600,ENST00000433852	16234-16237	24,2,23,24
chr2	25128787	25128716 -	chr2	25095588	25095439 -	ENST00000380649	16238-16240	33,23,1
chr2	26433512	26433414 -	chr2	26432758	26432649 -	ENST00000448743,ENST00000317799,ENST00000405867,ENST00000545822,ENST00000425035,ENST00000412805	16241-16242	26,12
chr2	26491042	26491617 +	chr2	26492821	26492865 +	ENST00000260585,ENST00000447170	16243-16246	10,8,47,8
chr2	26567531	26567675 +	chr2	26587170	26587238 +	ENST00000344420,ENST00000416475,ENST00000414029	16247-16254	10,28,3,10,2,8,3,28,3
chr2	26972733	26973058 +	chr2	26997119	26997191 +	ENST00000260643,ENST00000406567	16255-16257	17,16,17
chr2	27358456	27358405 -	chr2	27356589	27356400 -	ENST00000302188,ENST00000444339	16258-16261	46,4,8,4
chr2	28094129	28092639 -	chr2	28081438	28081306 -	ENST00000448427	16262-16264	16,3,16
chr2	28111573	28111622 +	chr2	28117400	28117445 +	ENST00000436924,ENST00000344773,ENST00000379624,ENST00000342045,ENST00000361704,ENST00000379632,ENST00000379629,ENST00000604932	16265-16271	34,73,34,34,34,34,34
chr2	28200909	28201241 +	chr2	28248093	28248252,282+	ENST00000436924,ENST00000344773,ENST00000379624,ENST00000342045,ENST00000361704,ENST00000379632,ENST00000379629,ENST00000604932	16272-16278	3,5,5,5,5,5,5
chr2	28216064	28216143 +	chr2	28248093	28248252,282+	ENST00000436924,ENST00000344773,ENST00000379624,ENST00000342045,ENST00000361704,ENST00000379632,ENST00000379629,ENST00000604932	16279-16280	24,1
chr2	28247287	28247405 +	chr2	28248093	28248252,282+	ENST00000344773,ENST00000379624,ENST00000342045,ENST00000361704,ENST00000379632	16281-16285	5,4,4,4,4
chr2	28420067	28420081 +	chr2	28460069	28460168 +			

Table 10

							ENST00000416713,ENST00000327757,ENST00000422425,ENST00000404858	10,9,9,10,9,10
chr2	28753104	28753133	+	chr2	28754975	28755061	+	16286-16291
							ENST00000358506,ENST00000296122,ENST00000395366	2,38
chr2	29010373	29010487	+	chr2	29011524	29011675	+	16292-16293
							ENST00000306108,ENST00000439947	2,3,2,2
chr2	29084787	29084778	-	chr2	29084174	29083984	-	16294-16297
							ENST00000403861,ENST00000379558	36,8,23,36,23
chr2	29238436	29238543	+	chr2	29240020	29240170	+	16298-16302
							ENST00000401723,ENST00000403861,ENST00000379558	7,6,6,6
chr2	29247264	29247284	+	chr2	29249719	29249877	+	16303-16306
							ENST00000401605,ENST00000415891,ENST00000404424,ENST00000456385,ENST00000320081,ENST00000449202	20,17,20,20,20,20
chr2	29336959	29337178	+	chr2	29354124	29354263	+	16307-16312
							ENST00000319406,ENST00000359433,ENST00000309052,ENST00000497423	18,15
chr2	30699218	30699501	+	chr2	30748453	30748621	+	16313-16314
							ENST00000319406,ENST00000359433,ENST00000309052,ENST00000497423	25,91,11,25,25
chr2	30742368	30742864	+	chr2	30748453	30748621	+	16315-16319
							ENST00000379509,ENST00000309052,ENST00000540623	24,13,43
chr2	30831182	30831388	+	chr2	30862983	30863485	+	16320-16322
							ENST00000379509,ENST00000309052,ENST00000540623	23,32,32
chr2	30856274	30856371	+	chr2	30862983	30863485	+	16323-16325
							ENST00000295065,ENST00000379383,ENST00000404530,ENST00000426310	9,12,32
chr2	32148419	32148057	-	chr2	32145979	32145867	-	16326-16328
							ENST00000295065,ENST00000379383,ENST00000404530,ENST00000407893	19,6,11,19,6
chr2	32167890	32167790	-	chr2	32157204	32157136	-	16329-16333
chr2	32528155	32528287	+	chr2	32530558	32530695	+	ENST00000238831 16334-16336 1,18,22
							ENST00000404816,ENST00000354476,ENST00000390003,ENST00000418533,ENST00000402934,ENST00000404525,ENST00000407925	6 16337
chr2	33395081	33395178	+	chr2	33411923	33412147	+	
							ENST00000382110,ENST00000324266,ENST00000411973,ENST00000457845,ENST00000441983	7,21,15,15,15
chr2	3373018	3373157	+	chr2	3405548	3405664	+	16338-16342
							ENST00000402538,ENST00000403687,ENST00000407811	17,7
chr2	33782495	33782545	+	chr2	33783278	33783403	+	16343-16344
							ENST00000398659,ENST00000382125,ENST00000455162,ENST00000435721,ENST00000443925,ENST00000406835,ENST00000444776	3,23,23,23,23,23,23,23
chr2	3381163	3381094	-	chr2	3358404	3358321	-	16345-16352
							ENST00000382110,ENST00000324266,ENST00000441983,ENST00000417243,ENST00000415624	12,14,4,14,4,14,4,14
chr2	3460834	3461000	+	chr2	3461392	3461464	+	16353-16361
							ENST00000379245,ENST00000405912,ENST00000451623	19,19,18,18,18
chr2	36822767	36822710	-	chr2	36818154	36818046	-	16362-16366
							ENST00000425467,ENST00000233099,ENST00000354531	10,24,26,24
chr2	37220167	37220068	-	chr2	37216002	37215789	-	16367-16370
							ENST00000233099,ENST00000354531	10,24
chr2	37220167	37220068	-	chr2	37217942	37217791	-	16371-16372
							ENST00000233099,ENST00000354531	13,42,21,42
chr2	37280148	37279575	-	chr2	37276986	37276796	-	16373-16376
chr2	3731343	3731477	+	chr2	3743307	3743462	+	ENST00000252505 16377-16379 21,37,19
							ENST00000608836,ENST00000409774,ENST00000281932	33,6,11
chr2	37321803	37321903	+	chr2	37322580	37322661	+	16380-16382

Table 10

						ENST00000233057,ENST00000395127,ENST00000405334,ENST00000411537,ENST00000390013	16383-16387	40,24,40,40,40
chr2	37374805	37374684 -	chr2	37374116	37373996 -	ENST00000402297,ENST00000397064,ENST00000406711,ENST00000392061,ENST00000397226	16388-16389	13,7
chr2	37427696	37427869 +	chr2	37428191	37428235 +	ENST00000379066,ENST00000234179,ENST00000443187	16390-16393	22,13,21,22
chr2	37519788	37519722 -	chr2	37518142	37518011 -	ENST00000379066,ENST00000234179,ENST00000443187	16394-16397	7,7,7,7
chr2	37520087	37520065 -	chr2	37518142	37518011 -	ENST00000379066,ENST00000234179	16398-16400	76,27,20
chr2	37522551	37522288 -	chr2	37520414	37520276 -	ENST00000379066,ENST00000234179	16401-16403	11,13,23
chr2	37529965	37529894 -	chr2	37520414	37520276 -	ENST00000338415	16404-16405	78,13
chr2	37569837	37570071 +	chr2	37579932	37580078 +	ENST00000354545,ENST00000406384,ENST00000407257,ENST00000417700,ENST00000234195,ENST00000442857,ENST00000425641	16406-16412	6,2,15,6,6,6,6
chr2	38223446	38223718 +	chr2	38224559	38224657 +	ENST00000449105,ENST00000409636,ENST00000378915,ENST00000608859,ENST00000409328,ENST00000358367,ENST00000410076,ENST00000425682	16413-16414	21,4
chr2	38824521	38824403 -	chr2	38818790	38818672 -	ENST00000449105,ENST00000409636,ENST00000378915,ENST00000608859,ENST00000409328,ENST00000358367,ENST00000410076,ENST00000425682	16415-16422	4,4,4,4,4,4,4,4
chr2	38827586	38827571 -	chr2	38818790	38818672 -	ENST00000449105,ENST00000409636,ENST00000378915,ENST00000608859,ENST00000409328,ENST00000358367,ENST00000410076,ENST00000425682	16423-16430	39,7,39,39,39,39,39,39
chr2	38836558	38836399 -	chr2	38818790	38818672 -	ENST00000313117,ENST00000425778,ENST00000425941,ENST00000446327,ENST00000409276,ENST00000431066,ENST00000443213	16431-16437	4,17,11,4,4,4,4
chr2	38983894	38982844 -	chr2	38977336	38977156 -	ENST00000295373,ENST00000452978	16438-16440	33,24,33
chr2	39030419	39030319 -	chr2	39030057	39029857 -	ENST00000295373,ENST00000452978	16441-16443	3,5,3
chr2	39076065	39075985 -	chr2	39075544	39075411 -	ENST00000295373,ENST00000452978	16444-16446	21,9,9
chr2	39077679	39077433 -	chr2	39075544	39075411 -	ENST00000426016,ENST00000402219,ENST00000395038,ENST00000428721	16447-16451	12,47,21,12,12
chr2	39280011	39279832 -	chr2	39278428	39278285 -	ENST00000426016,ENST00000402219,ENST00000395038,ENST00000428721,ENST00000451331	16452-16457	27,20,7,7,7,7
chr2	39294454	39294228 -	chr2	39285945	39285814 -	ENST00000426016,ENST00000402219,ENST00000395038	16458-16460	16,15,16
chr2	39339741	39339693 -	chr2	39294894	39294769 -	ENST00000263881,ENST00000437545,ENST00000341681,ENST00000536018	16461-16463	20,2,4
chr2	39488294	39488120 -	chr2	39487918	39487747 -	ENST00000263881,ENST00000437545,ENST00000341681,ENST00000414968	16464-16467	5,11,5,5
chr2	39548298	39548250 -	chr2	39542529	39542451 -	ENST00000263881,ENST00000341681,ENST00000429397,ENST00000484274	16468-16473	12,12,7,12,12,12
chr2	39657314	39657278 -	chr2	39605264	39605207 -	ENST00000505747,ENST00000260619	16474-16476	43,17,1
chr2	39978361	39978233 -	chr2	39971618	39971510 -			

Table 15

							ENST00000406785,ENST00000407929,ENST00000402441,ENST00000405269,ENST00000406391,ENST00000408028		22,13,21,21,21,21
chr2	40439722	40439656	-	chr2	40404995	40404892,4	- ,ENST00000542024	16477-16482	
							ENST00000406785,ENST00000542756,ENST00000403092,ENST00000405901,ENST00000402441,ENST00000405269,ENST00000332839,ENST00000406391,ENST00000408028		31,23,23,23
chr2	40465767	40465674	-	chr2	40401982	40401965	-	16483-16486	
							ENST00000407929,ENST00000403092,ENST00000405901		31,23,23,23
chr2	40465767	40465674	-	chr2	40405633	40405527	- ,ENST00000332839	16487-16490	
							ENST00000406785,ENST00000407929,ENST00000402441,ENST00000405269,ENST00000406391,ENST00000408028		44,7,7,7,7
chr2	40548982	40548694	-	chr2	40404995	40404892,4	- ,ENST00000542024	16491-16495	
							ENST00000407929,ENST00000403092,ENST00000405901		40,44,7,7,7
chr2	40548982	40548694	-	chr2	40405633	40405527	- ,ENST00000332839	16496-16500	
							ENST00000468711,ENST00000378669,ENST00000234301		23,21,3,3,3
chr2	42613028	42612922	-	chr2	42580483	42580352,4	- ,ENST00000463055	16501-16505	
							ENST00000306078,ENST00000394973	16506-16507	12,11
chr2	42684342	42684304	-	chr2	42671719	42671074	-		
							ENST00000330266,ENST00000405975,ENST00000415080		27,26
chr2	43674115	43674035	-	chr2	43657441	43657352	- ,ENST00000405006	16508-16509	
							ENST00000330266,ENST00000405975,ENST00000415080		37,3,5,37
chr2	43686704	43686571	-	chr2	43657441	43657352	- ,ENST00000405006	16510-16513	
							ENST00000330266,ENST00000405975,ENST00000415080,ENST00000407351,ENST00000405006,ENST00000402796		3,1,33,3,3,3,3,33,3
chr2	43780404	43779972	-	chr2	43779478	43779343,43	- ,ENST00000402360	16514-16522	
chr2	43961500	43961903	+	chr2	43965480	43965659	+ ENST00000282406	16523-16524	28,16
chr2	43965038	43965055	+	chr2	43965480	43965659	+ ENST00000282406	16525-16527	6,5,5
							ENST00000260665,ENST00000409946,ENST00000409659		2,9,118,9,9,9
chr2	44213260	44212673	-	chr2	44209573	44209377	- ,ENST00000447246	16528-16533	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		7,7,7,7,7,7,7
chr2	44513652	44513674	+	chr2	44527110	44527229	+ ,ENST00000427285	16534-16540	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		15,15,15,15,15,15,15
chr2	44513652	44513698	+	chr2	44527110	44527229	+ ,ENST00000427285	16541-16547	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		23,23,23,23,23,23,23
chr2	44513652	44513722	+	chr2	44527110	44527229	+ ,ENST00000427285	16548-16554	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		31,31,31,31,31,31,31
chr2	44513652	44513746	+	chr2	44527110	44527229	+ ,ENST00000427285	16555-16561	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		16,23,16,16,16,16,16
chr2	44513652	44513930	+	chr2	44527110	44527229	+ ,ENST00000427285	16562-16568	
							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380		24,31,24,24,24,24,24
chr2	44513652	44513954	+	chr2	44527110	44527229	+ ,ENST00000427285	16569-16575	

Table 10

							ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380,ENST00000427285	16576-16582	32,39,32,32,32,32,32
chr2	44520914	44521031	+	chr2	44527110	44527229	+	ENST00000260649,ENST00000409387,ENST00000410056,ENST00000409741,ENST00000409229,ENST00000409380,ENST00000427285	16583-16589	5,22,22,22,22,22,22
chr2	45651360	45651254	-	chr2	45647033	45646927	-	ENST00000263736,ENST00000535761	16590-16591	7,2
chr2	46824548	46824184	-	chr2	46819722	46819614	-	ENST00000281382,ENST00000420164,ENST00000306465	16592-16593	64,17
chr2	47081087	47081370	+	chr2	47083062	47083129	+	ENST00000422294	16594-16596	7,46,21
chr2	47133926	47133826	-	chr2	47132733	47132602,5	-	ENST00000444761,ENST00000409105,ENST00000409913,ENST00000319466,ENST00000409800,ENST00000409207,ENST00000409973,ENST00000409147,ENST00000409218,ENST00000412438	16597-16599	31,33,11
chr2	47177792	47177861	+	chr2	47183978	47184146	+	ENST00000409245,ENST00000319190,ENST00000394850,ENST00000441914	16600-16604	12,6,2,6,6
chr2	47209837	47210009	+	chr2	47220589	47220667	+	ENST00000409245,ENST00000319190,ENST00000394850,ENST00000441914	16605-16609	5,28,5,5,28
chr2	47396592	47396477	-	chr2	47389801	47389658	-	ENST00000272298,ENST00000432899,ENST00000456319,ENST00000409563	16610-16613	5,13,18,13
chr2	47396592	47396498	-	chr2	47389801	47389658	-	ENST00000272298,ENST00000432899,ENST00000456319,ENST00000409563	16614-16616	6,11,6
chr2	47691377	47691551	+	chr2	47693797	47693947	+	ENST00000233146,ENST00000543555,ENST00000406134	16617-16618	12,28
chr2	47989659	47989739	+	chr2	48018066	48018262	+	ENST00000445503,ENST00000234420	16619-16622	16,7,23,7
chr2	48004489	48004583	+	chr2	48018066	48018262	+	ENST00000445503,ENST00000234420	16623-16626	9,21,4,9
chr2	48004489	48004873	+	chr2	48018066	48018262	+	ENST00000445503,ENST00000234420	16627-16630	45,9,32,32
chr2	48017279	48017406	+	chr2	48018066	48018262	+	ENST00000445503,ENST00000234420	16631-16634	28,15,5,28
chr2	48042721	48042635	-	chr2	48041006	48040930	-	ENST00000402508,ENST00000403359,ENST00000316377,ENST00000434523,ENST00000493962	16635-16638	29,10,28,10
chr2	48080508	48080362	-	chr2	48066908	48066781	-	ENST00000403359	16639-16640	4,48
chr2	48593214	48593264	+	chr2	48600431	48600467,5	+	ENST00000413569,ENST00000340553	16641-16644	17,7,16,16
chr2	49305520	49305305	-	chr2	49295429	49295358	-	ENST00000346173,ENST00000406846,ENST00000304421,ENST00000454032,ENST00000419927	16645-16650	21,7,7,7,7,7
chr2	50243927	50243636	-	chr2	50170929	50170842	-	ENST00000342183,ENST00000412315,ENST00000378262,ENST00000401710,ENST00000404971,ENST00000406316,ENST00000405472,ENST00000401669,ENST00000402717,ENST00000406859	16651-16653	23,4,7
chr2	54098072	54097965	-	chr2	54096675	54096513	-	ENST00000421748,ENST00000404125	16654-16656	36,26,13
chr2	54160818	54160686	-	chr2	54159897	54159805	-	ENST00000404125,ENST00000389993	16657-16659	23,17,17
chr2	54212606	54212622	+	chr2	54278095	54278187	+	ENST00000607452,ENST00000422521	16660-16663	5,5,5,5
chr2	54265311	54265441	+	chr2	54278095	54278187	+	ENST00000607452,ENST00000422521	16664-16665	12,31
chr2	54981412	54981496	+	chr2	55040369	55040528	+	ENST00000356458	16666-16668	10,15,3
chr2	55014955	55015188	+	chr2	55040369	55040528	+	ENST00000356458	16669-16671	42,8,6

chr2	55014955	55015415 +	chr2	55040369	55040528 +	ENST00000356458	16672-16674	40,21,24
						ENST00000394609,ENST00000405240,ENST00000357376,ENST00000317610,ENST00000337526,ENST00000357732,ENST00000394611,ENST00000404909,ENST00000354474,ENST00000402434,ENST00000438462	16675-16678	46,7,18,18
chr2	55319183	55318905 -	chr2	55214834	55214627 -	ENST00000428621,ENST00000407122,ENST00000401408	16679-16682	2,25,3,2
chr2	55422483	55422336 -	chr2	55408880	55408779,6 -	,ENST00000406076	16683-16685	19,8,6
chr2	55441318	55441139 -	chr2	55439942	55439809 -	ENST00000407122,ENST00000401408	16686-16691	18,44,7,18,18,18
chr2	55757178	55757448 +	chr2	55761009	55761096 +	ENST00000339012,ENST00000406691,ENST00000349456,ENST00000407816,ENST00000403007	16692-16693	14,1
chr2	55845956	55845886 -	chr2	55842642	55842587 -	ENST00000272313,ENST00000407823,ENST00000345102	16694-16695	4,5
chr2	55881791	55881589 -	chr2	55874588	55874482 -	ENST00000447944,ENST00000415374	16696-16697	62,28,28,28,28,28,28,28
chr2	56564171	56564245 +	chr2	56570014	56570090 +	ENST00000407595	16698-16705	33,12,12,12,12,12,33,12,12
chr2	58415874	58415687 -	chr2	58393009	58392859,6 -	ENST00000403295,ENST00000233741,ENST00000402135,ENST00000403676,ENST00000449070,ENST00000446381,ENST00000427708,ENST00000540646,ENST00000417361	16706-16714	33,24,11
chr2	58415874	58415775 -	chr2	58393009	58392859,6 -	ENST00000316752,ENST00000407787	16715-16717	2,18
chr2	61199303	61199203 -	chr2	61198692	61198658 -	ENST00000295030	16718-16719	6,11
chr2	61248198	61249593 +	chr2	61258554	61259248 +	ENST00000402291,ENST00000356719,ENST00000295031,ENST00000453873	16720-16721	20,7,33,7
chr2	61316364	61316464 +	chr2	61319599	61319722 +	ENST00000402291,ENST00000356719,ENST00000295031,ENST00000453873	16722-16725	1,22,21
chr2	61320449	61320671 +	chr2	61324835	61324987 +	ENST00000411912,ENST00000398571,ENST00000436269	16726-16728	33,23,1,33,3
chr2	61416709	61416643 -	chr2	61416204	61416045 -	ENST00000411912,ENST00000398571,ENST00000453734	16729-16733	20,7,51,20,20
chr2	61467712	61467614 -	chr2	61463524	61463460 -	ENST00000401558,ENST00000404992,ENST00000406957,ENST00000451765,ENST00000443240	16734-16738	15,23
chr2	61743848	61743626 -	chr2	61729445	61729384 -	ENST00000404929,ENST00000405894	16739-16740	42,6,20
chr2	62061900	62061829 -	chr2	62054393	62054239 -	ENST00000404929,ENST00000405894	16741-16743	3,8
chr2	62064008	62063718 -	chr2	62063244	62063145 -	ENST00000404929,ENST00000405894	16744-16745	6,2,17,6,2
chr2	62064302	62064211 -	chr2	62063244	62063145 -	ENST00000409354,ENST00000272321,ENST00000409199,ENST00000409120,ENST00000398544	16746-16750	45,7
chr2	63436640	63436558 -	chr2	63401967	63401932,6 -	ENST00000272321,ENST00000409199,ENST00000398544	16751-16752	10,14,1,10,10,10,14
chr2	63507640	63507361 -	chr2	63486544	63486442 -	ENST00000272321,ENST00000409562,ENST00000418148,ENST00000431065	16753-16759	
chr2	63719737	63719680 -	chr2	63714628	63714581 -			

Table 10

							ENST00000272321,ENST00000409562,ENST00000418148,ENST00000431065	16760-16765	25,18,7,25,25,25
chr2	63798637	63798509	-	chr2	63720074	63719990	-		
							ENST00000394417,ENST00000482668,ENST00000467648,ENST00000337130,ENST00000488245,ENST00000497883,ENST00000445915,ENST00000475462,ENST00000491621,ENST00000472047	16766-16774	11,23,1,11,11,1,11,11,11,11
chr2	64104846	64104944	+	chr2	64109600	64109785,641	+		
chr2	64324626	64324196	-	chr2	64323744	64323547	-	ENST00000358912	16775-16776	10,22
							ENST00000260641,ENST00000377982	16777-16780	43,24,5,24
chr2	65416550	65416703	+	chr2	65466986	65467096	+		
							ENST00000234310,ENST00000409752	16781-16783	9,2,9
chr2	68461608	68461580	-	chr2	68444263	68444224	-		
chr2	68543023	68542840	-	chr2	68521158	68520994	-	ENST00000263655	16784-16786	13,11,1
chr2	68613052	68613083	+	chr2	68613634	68613818	+	ENST00000234313	16787-16789	10,10,2
							ENST00000303795,ENST00000445692	16790-16793	8,16,24,24
chr2	68705123	68705472	+	chr2	68717322	68717393	+		
							ENST00000463483,ENST00000544262,ENST00000409202,ENST00000488795,ENST00000409220,ENST00000497079,ENST00000497259	16794-16795	24,7
chr2	69033958	69034071	+	chr2	69034405	69034612,7	+		
							ENST00000303714,ENST00000409829,ENST00000409349	16796-16800	16,21,18,21,21
chr2	69302552	69302615	+	chr2	69302722	69302790	+		
							ENST00000328895,ENST00000481498	16801-16803	1,21,21
chr2	69419782	69419718	-	chr2	69177887	69177834	-		
chr2	69464894	69464904	+	chr2	69472357	69472617	+	ENST00000303714	16804-16806	3,3,3
							ENST00000357308,ENST00000361060	16807-16809	23,11,11
chr2	69583425	69583357	-	chr2	69581700	69581621	-		
							ENST00000458098,ENST00000256722,ENST00000404168	16810-16814	3,9,9,9,9
chr2	7004492	7004463	-	chr2	7003687	7003595	-		
chr2	70092498	70092764	+	chr2	70096851	70096996	+	ENST00000282570	16815-16817	13,34,21
chr2	70094378	70094933	+	chr2	70096851	70096996	+	ENST00000282570	16818-16819	21,1
							ENST00000433529,ENST00000415783,ENST00000282574,ENST00000445587,ENST00000416149	16820-16826	13,10,1,13,13,13,10
chr2	70450844	70450587	-	chr2	70444126	70444018,7	-		
							ENST00000272348,ENST00000413456,ENST00000454893	16827-16830	18,10,32,18
chr2	70519780	70519521	-	chr2	70516504	70516482	-		
							ENST00000295400,ENST00000419940,ENST00000445399,ENST00000418333,ENST00000450929,ENST00000444975,ENST00000394241	16831-16836	2,17,18,2,2,2
chr2	70730115	70729971	-	chr2	70692865	70692748	-		
							ENST00000295400,ENST00000444975	16837-16839	2,17,18
chr2	70730115	70729971	-	chr2	70692868	70692748	-		
chr2	71137126	71137159	+	chr2	71148228	71148415	+	ENST00000234392	16840-16842	8,2,10
							ENST00000413592,ENST00000244217	16843-16844	22,12
chr2	71343968	71343903	-	chr2	71337252	71337100	-		
							ENST00000355812,ENST00000264447,ENST00000409544	16845-16848	24,10,6,6
chr2	71623794	71623892	+	chr2	71625831	71625902	+		
							ENST00000355812,ENST00000264447,ENST00000409544	16849-16851	17,13,13
chr2	71631560	71631750	+	chr2	71632731	71632772	+		
chr2	72681281	72681021	-	chr2	72606999	72606858	-	ENST00000272427	16852-16854	36,7,5
							ENST00000272427,ENST00000410104	16855-16857	8,4,4
chr2	72803736	72803594	-	chr2	72802797	72802621	-		
							ENST00000272427,ENST00000410104	16858-16861	71,3,6,71
chr2	73010442	73010027	-	chr2	72968598	72968433	-		
							ENST00000272433,ENST00000411783,ENST00000410065	16862-16865	2,29,9,29
chr2	73194633	73194366	-	chr2	73172228	73172151,7	-		
							ENST00000272433,ENST00000410065	16866-16869	2,29,9,9
chr2	73194633	73194366	-	chr2	73188377	73188260	-		
							ENST00000413491,ENST00000389501,ENST00000258100,ENST00000443900	16870-16877	11,13,24,11,24,11,24,11
chr2	73443403	73443501	+	chr2	73445989	73446097	+		

							ENST00000539919,ENST00000540468,ENST00000258091,ENST00000398422,ENST00000537131,ENST00000538797	2,9
chr2	73462720	73462773	+	chr2	73474890	73475054	+	16878-16879	
							ENST00000339566,ENST00000409707,ENST00000452725,ENST00000432295,ENST00000424659,ENST00000394073,ENST00000394070,ENST00000536064	2,1,14,2,2,2,2
chr2	74069290	74069621	+	chr2	74071940	74072015	+	16880-16886	
							ENST00000327428,ENST00000295326	17,5,17
chr2	74373419	74373369	-	chr2	74372430	74372316	-	16887-16889	
							ENST00000394053,ENST00000409804,ENST00000409601	35,10,4,10,10
chr2	74414447	74414584	+	chr2	74432832	74433016	+	16890-16894	
							ENST00000305557,ENST00000272430,ENST00000233330	3,61,5
chr2	74656429	74656216	-	chr2	74656069	74655975	-	16895-16897	
							ENST00000305557,ENST00000272430	88,21,13
chr2	74661706	74661441	-	chr2	74659793	74659594	-	16898-16900	
chr2	74701508	74701443	-	chr2	74699923	74699922	-	ENST00000454193 16901	12
							ENST00000264094,ENST00000409249,ENST00000393937,ENST00000409549,ENST00000409986,ENST00000413469	46,13,30,46,46,46,46,46
chr2	74777928	74777790	-	chr2	74777475	74777312	-	16902-16909	
							ENST00000531188,ENST00000528439,ENST00000530164,ENST00000530721,ENST00000278572,ENST00000532872,ENST00000534440,ENST00000527446,ENST00000526608,ENST00000527273,ENST00000524851,ENST00000526248,ENST00000525933,ENST00000525690	6,33,16,6,6,6,6,6,6,6,6,6,6,6
chr2	75636716	75637828	+	chr11	75111738	75111868,8	+	16910-16923	
							ENST00000409911,ENST00000409884,ENST00000409093	24,30,41
chr2	77306261	77305985	-	chr2	76976042	76975821	-	16924-16926	
							ENST00000398278,ENST00000389394,ENST00000237449	7,29,29
chr2	84789998	84790275	+	chr2	84800591	84800711	+	16927-16929	
							ENST00000398278,ENST00000389394,ENST00000237449	7,36,29,29
chr2	84789998	84790275	+	chr2	84806651	84806803	+	16930-16933	
							ENST00000398278,ENST00000389394,ENST00000237449	7,36,29,29
chr2	84789998	84790275	+	chr2	84811123	84811374	+	16934-16937	
							ENST00000335459,ENST00000409520	40,43,7
chr2	85080726	85080438	-	chr2	85059269	85059179	-	16938-16940	
							ENST00000409520,ENST00000409133	40,43,7,43
chr2	85080726	85080438	-	chr2	85069131	85068985	-	16941-16944	
chr2	85251318	85251414	+	chr2	85255012	85255179	+	ENST00000409785 16945-16947	32,22,31
chr2	85251318	85251580	+	chr2	85255012	85255179	+	ENST00000409785 16948-16950	34,21,13
							ENST00000282111,ENST00000442813	23,13,23,13
chr2	85528967	85529035	+	chr2	85529607	85529739,9	+	16951-16954	
							ENST00000263864,ENST00000409760	6,11,23,11
chr2	85804318	85804390	+	chr2	85806132	85806290	+	16955-16958	
							ENST00000432071,ENST00000263864,ENST00000409760	15,6,23,6,23
chr2	85807694	85807766	+	chr2	85808699	85808839,9	+	16959-16963	
chr2	86008214	86008260	+	chr2	86014008	86014013	+	ENST00000306279 16964-16966	15,15,5
							ENST00000254630,ENST00000409783,ENST00000409277	18,10,32,32,32
chr2	86339510	86339781	+	chr2	86343653	86343721	+	16967-16971	
							ENST00000254636,ENST00000449247,ENST00000410111,ENST00000419070,ENST00000442664,ENST00000409051	5,39
chr2	86386507	86386323	-	chr2	86385844	86385715	-	16972-16973	
							ENST00000254644,ENST00000605125,ENST00000337109,ENST00000409180	13,21,2,21,21
chr2	86426952	86427121	+	chr2	86433229	86433418	+	16974-16979	

Table 10

						ENST00000409556,ENST00000312912,ENST00000441719,ENST00000409064,ENST00000542128	16980-16983	18,7,31,18
chr2	86694862	86695090 +	chr2	86697327	86697531 +	ENST00000263856,ENST00000409727,ENST00000439940,ENST00000604011,ENST00000440757	16984-16990	1,23,7,1,7,1,7
chr2	86767519	86766913 -	chr2	86756520	86756341,9 -	ENST00000263856,ENST00000409727,ENST00000439940,ENST00000604011,ENST00000440757	16991-16995	44,17,31,17,17
chr2	86788191	86787867 -	chr2	86769435	86769375 -	ENST00000456996,ENST00000352580,ENST00000283635,ENST00000409511,ENST00000538832,ENST00000409781	16996-16998	21,1,36
chr2	87028767	87028634 -	chr2	87013094	87013043 -	ENST00000456996,ENST00000352580,ENST00000283635,ENST00000409511,ENST00000538832,ENST00000409781	16999-17001	21,1,36
chr2	87028767	87028634 -	chr2	87015683	87015653 -	ENST00000398146,ENST00000420840	17002-17003	7,4
chr2	88129333	88129050 -	chr2	88118142	88118078 -	ENST00000398146,ENST00000420840	17004-17005	40,7
chr2	88130465	88130187 -	chr2	88118142	88118078 -	ENST00000303254	17006-17008	3,32,11
chr2	88804201	88804412 +	chr2	88828570	88828992 +	ENST00000492167	17009-17010	23,8
chr2	89445392	89443312 -	chr2	89442355	89442057 -	ENST00000468494	17011-17013	1,46,10
chr2	89545744	89545604 -	chr2	89544574	89544264 -	ENST00000305997,ENST00000471753	17014-17017	6,11,2,6
chr2	9011426	9011327 -	chr2	9008679	9008576 -	ENST00000305997,ENST00000477073,ENST00000462696	17018-17023	36,11,33,11,33,11
chr2	9059887	9059171 -	chr2	9048846	9048751,9 -	ENST00000305997	17024-17026	2,1,1
chr2	9099891	9099886 -	chr2	9098771	9098626 -	ENST00000281419,ENST00000315273	17027-17029	27,7,27
chr2	9507608	9507793 +	chr2	9508554	9508648 +	ENST00000281419,ENST00000315273	17030-17033	22,13,5,13
chr2	9527052	9527118 +	chr2	9528423	9528675 +	ENST00000317620,ENST00000403131,ENST00000317668,ENST00000542147,ENST00000431567	17034-17038	2,18,18,18,18
chr2	9594257	9594355 +	chr2	9595788	9595886 +	ENST00000238112,ENST00000460593	17039-17040	33,32
chr2	9638461	9638318 -	chr2	9637377	9637243 -	ENST00000310823	17041-17043	48,47,1
chr2	9648135	9648090 -	chr2	9645494	9645295 -	ENST00000310823	17044-17046	15,3,7
chr2	9691887	9691604 -	chr2	9683414	9683282 -	ENST00000310823,ENST00000497134	17047-17050	40,27,19,27
chr2	9695192	9695172 -	chr2	9683414	9683282 -	ENST00000310823,ENST00000497134	17051-17054	1,5,6,6
chr2	97028375	97028952 +	chr2	97030219	97030329 +	ENST00000240423,ENST00000427946,ENST00000435975,ENST00000455200,ENST00000435349	17055-17058	1,10,10,10
chr2	97439027	97439042 +	chr2	97490795	97490938 +	ENST00000305510	17059-17060	4,1
chr2	97524482	97524434 -	chr2	97520178	97520075 -	ENST00000443120,ENST00000393537	17061-17063	16,16,7
chr2	97561135	97561027 -	chr2	97559788	97559663 -	ENST00000327896,ENST00000417561,ENST00000490605	17064-17066	7,2,20
chr2	98601155	98600919 -	chr2	98543950	98543889 -	ENST00000186436,ENST00000418629,ENST00000425805	17067-17070	27,1,21,21
chr2	99224680	99224633 -	chr2	99220654	99220571 -	ENST00000328709,ENST00000409997	17071-17073	16,15,16
chr2	99224680	99224656 -	chr2	99220650	99220571 -	ENST00000328709,ENST00000409997	17074-17076	8,7,8
chr2	99658590	99658539 -	chr2	99635103	99634999 -	ENST00000393483,ENST00000410001,ENST00000355053,ENST00000539964,ENST00000409564,ENST00000393482	17077-17080	17,13,16,16
chr2	99798738	99798835 +	chr2	99802640	99802717 +	ENST00000424491	17081-17083	23,1,32

Table 10

							ENST00000424491,ENST00000410042,ENST00000338148,ENST00000512183,ENST00000409145,ENST00000409841	21,32,32,32,32
chr2	99810221	99810318	+	chr2	99811214	99811361	+	17084-17088	
							ENST00000264255,ENST00000409434,ENST00000434323	17,7,16,17,17,7,17
chr2	99948492	99948442	-	chr2	99944116	99943998	-	,ENST00000409705	17089-17095
							ENST00000347364,ENST00000399054	30,17,11
chr20	10400592	10400319	-	chr20	10393222	10393178	-		17096-17098
							ENST00000337743,ENST00000455532	3,10,3
chr20	13517650	13517588	-	chr20	13514788	13514669	-		17099-17101
							ENST00000353088,ENST00000476071,ENST00000216879,ENST00000350991,ENST00000381653,ENST00000470376	5,17,1,17,17,17,17,17,17,17
chr20	1449256	1449205	-	chr20	1445071	1444974	-	,ENST00000489203	17102-17110
							ENST00000353088,ENST00000476071,ENST00000216879,ENST00000350991,ENST00000381653,ENST00000470376	24,23,21,24,24,24,24,24,24
chr20	1453431	1453360	-	chr20	1445071	1444974	-	,ENST00000489203	17111-17119
							ENST00000481731,ENST00000486775,ENST00000359801,ENST00000444444,ENST00000608073	12,10,9,10,10,9,10
chr20	1461066	1460939	-	chr20	1460710	1460345,146	-		17120-17126
							ENST00000217246,ENST00000310348,ENST00000402914	31,21,7,31
chr20	15932564	15932834	+	chr20	15948198	15948275	+	,ENST00000378058	17127-17130
							ENST00000377873,ENST00000377868,ENST00000544874	2,24,11
chr20	17498228	17498128	-	chr20	17495461	17495366	-	,ENST00000536626	17131-17133
							ENST00000246069,ENST00000474024	2,2,2
chr20	17585849	17585856	+	chr20	17587682	17587791	+		17134-17136
chr20	18117781	18117863	+	chr20	18122852	18123001	+	ENST00000432901	17137-17139 1,13,27
chr20	18278979	18279108	+	chr20	18286325	18286451	+	ENST00000396026	17140-17142 13,12,42
							ENST00000262547,ENST00000329494,ENST00000357236,ENST00000358866,ENST00000609267	42,55,3,3,3
chr20	18392741	18392445	-	chr20	18379270	18379167	-		17143-17147
chr20	18451789	18452009	+	chr20	18453486	18453553	+	ENST00000377603	17148-17150 73,3,18
							ENST00000400068,ENST00000356025,ENST00000358771	3,3,3,3
chr20	1875153	1875163	+	chr20	1895745	1896101	+		17151-17154
							ENST00000400068,ENST00000356025,ENST00000358771	3,3,3,3
chr20	1875153	1875163	+	chr20	1895805	1896101	+		17155-17158
							ENST00000400068,ENST00000356025,ENST00000358771	5,4,4,4
chr20	1875598	1875612	+	chr20	1895805	1896101	+		17159-17162
chr20	19095714	19096044	+	chr20	19261603	19261731	+	ENST00000328041	17163-17164 33,7
chr20	19436887	19437175	+	chr20	19496132	19496208	+	ENST00000328041	17165-17167 50,21,7
chr20	19813619	19813818	+	chr20	19870210	19870302	+	ENST00000255006	17168-17169 9,34
							ENST00000389656,ENST00000377309,ENST00000245957,ENST00000431753,ENST00000377293,ENST00000377308	8,18,38,8,8,8
chr20	20198773	20199051	+	chr20	20208893	20209020,2	+		17170-17175
							ENST00000429762,ENST00000444511	23,8,45,23,45
chr20	25053246	25052997	-	chr20	25052654	25052557,3	-		17176-17180
chr20	25241142	25241188	+	chr20	25249765	25249843	+	ENST00000216962	17181-17183 15,10,9
chr20	25241142	25245694	+	chr20	25249765	25249843	+	ENST00000216962	17184-17186 165,4,14
							ENST00000262460,ENST00000429262	33,24,33,33,24
chr20	25398210	25398310	+	chr20	25398741	25398831	+		17187-17191
chr20	25458883	25458831	-	chr20	25457725	25456679	-	ENST00000278886	17192-17194 17,8,17
							ENST00000376403,ENST00000584071	7,35,63,7,35
chr20	25835826	25834496	-	chr20	25755948	25755497,3	-		17195-17199
chr20	2940317	2940367	+	chr20	2944918	2944996	+	ENST00000425918	17200-17202 7,17,16
							ENST00000380393,ENST00000216877,ENST00000358719,ENST00000399903,ENST00000425918,ENST00000318266	18,32,5
chr20	2988817	2988991	+	chr20	2996495	2996531	+	,ENST00000356147	17203-17205

Table 10

						ENST00000335574,ENST00000340852,ENST00000398174,ENST00000376127,ENST00000344042	17206-17211	10,18,7,18,18,18
chr20	30126108	30126162 +	chr20	30137867	30137924 +			
chr20	30153629	30153664 +	chr20	30154013	30154098 +	ENST00000335574,ENST00000340852,ENST00000398174,ENST00000376127	17212-17218	12,9,2,12,2,12,2
chr20	30254348	30254151 -	chr20	30253889	30253752,3 -	ENST00000376062,ENST00000376055,ENST00000307677,ENST00000420653,ENST00000450273	17219-17224	66,51,11,66,51,11
chr20	30254946	30254854 -	chr20	30253889	30253752,3 -	ENST00000376062,ENST00000376055,ENST00000307677,ENST00000420653,ENST00000450273	17225-17228	13,25,13,25
chr20	30357427	30357453 +	chr20	30358146	30358274 +	ENST00000300403,ENST00000340513	17229-17232	9,5,2,5
chr20	30640879	30640981 +	chr20	30642019	30642082 +	ENST00000262651	17233-17235	19,15,33
chr20	30702584	30702723 +	chr20	30720816	30720929 +	ENST00000398022,ENST00000442842,ENST00000450829	17236-17238	45,25,25
chr20	30909457	30909603 +	chr20	30914574	30914687 +	ENST00000375712,ENST00000418717	17239-17241	26,48,18
chr20	31220967	31220695 -	chr20	31115716	31115561 -	ENST00000201961	17242-17244	45,7,19
chr20	31220967	31220731 -	chr20	31115716	31115561 -	ENST00000201961	17245-17246	33,7
chr20	31621280	31621419 +	chr20	31621992	31622096 +	ENST00000349552	17247-17249	14,17,12
chr20	31766954	31767004 +	chr20	31767410	31767473 +	ENST00000253362,ENST00000354932	17250-17252	17,2,16
chr20	31967095	31966797 -	chr20	31962018	31961921 -	ENST00000473997,ENST00000339269,ENST00000346416,ENST00000357886,ENST00000544843	17253-17256	18,10,32,32
chr20	3219545	3219491 -	chr20	3218234	3218190 -	ENST00000380056,ENST00000380059,ENST00000539553	17257-17259	11,4,17
chr20	32246894	32246768 -	chr20	32246640	32246528 -	ENST00000246190,ENST00000375238,ENST00000480994,ENST00000439478	17260-17267	9,20,11,20,1,9,20,11
chr20	32249906	32249841 -	chr20	32248201	32248065 -	ENST00000246190,ENST00000375238,ENST00000485399,ENST00000606690,ENST00000439478,ENST00000607805	17268-17277	14,1,21,14,14,21,14,14,21
chr20	32331811	32331856 +	chr20	32332909	32333105 +	ENST00000342427,ENST00000375200,ENST00000483118	17278-17279	7,15
chr20	3254407	3254027 -	chr20	3251208	3251073 -	ENST00000252032	17280-17282	5,13,3
chr20	32873041	32873022 -	chr20	32868971	32868840 -	ENST00000217426,ENST00000538132	17283-17285	6,6,6
chr20	32875497	32875429 -	chr20	32873440	32873246 -	ENST00000217426,ENST00000538132	17286-17287	23,13
chr20	32888703	32888526 -	chr20	32883391	32883201 -	ENST00000217426	17288-17290	6,59,1
chr20	32890106	32890056 -	chr20	32883391	32883201 -	ENST00000217426	17291-17293	3,7,16
chr20	32902680	32902474 -	chr20	32883391	32883201 -	ENST00000217426	17294-17296	2,24,12
chr20	33009534	33009632 +	chr20	33012286	33012331 +	ENST00000374864,ENST00000535650,ENST00000262650	17297-17299	11,32,6
chr20	33037542	33037726 +	chr20	33045195	33045279 +	ENST00000374864,ENST00000535650,ENST00000262650	17300-17302	19,24,6
chr20	33125111	33125178 +	chr20	33128385	33128428 +	ENST00000357156,ENST00000374846	17303-17304	22,7
chr20	33239433	33239199 -	chr20	33233138	33233079 -	ENST00000217446,ENST00000452740	17305-17308	10,5,24,5
chr20	33325234	33325141 -	chr20	33324562	33324494 -	ENST00000374796,ENST00000359003	17309-17311	13,19,21
chr20	33438592	33438585 -	chr20	33437863	33437764 -	ENST00000336431	17312-17314	2,2,2
chr20	33458870	33458844 -	chr20	33451351	33451116 -	ENST00000336431,ENST00000427420	17315-17316	9,8
chr20	33509975	33510061 +	chr20	33511126	33511234 +	ENST00000336325,ENST00000360596,ENST00000480978,ENST00000253382	17317-17318	20,3

Table 10

							ENST00000451813,ENST00000252015,ENST00000539834		13,22
chr20	33610257	33610190	-	chr20	33600869	33600811	-	,ENST00000432634	17319-17320	
chr20	33614025	33613501	-	chr20	33609159	33608993	-	ENST00000252015,ENST00000432634	17321-17323	25,40,12
chr20	33621490	33621417	-	chr20	33609159	33608993	-	ENST00000252015,ENST00000432634	17324-17326	24,5,16
								ENST00000451813,ENST00000252015,ENST00000432634		1,1
chr20	33644502	33644499	-	chr20	33642834	33642779	-		17327-17328	
chr20	33665195	33659313	-	chr20	33657215	33657099	-	ENST00000451813,ENST00000252015	17329-17330	83,12
								ENST00000451813,ENST00000252015,ENST00000432634		9,10,8,8,8
chr20	33684895	33684864	-	chr20	33665977	33665849	-		17331-17335	
								ENST00000374491,ENST00000374492,ENST00000541621,ENST00000542871,ENST00000540582		24,11,24
chr20	33718172	33718072	-	chr20	33714178	33714054	-		17336-17338	
								ENST00000374491,ENST00000374492,ENST00000541621,ENST00000542871,ENST00000540582		19,18,18
chr20	33718729	33718673	-	chr20	33714178	33714054	-		17339-17341	
chr20	3385846	3385823	-	chr20	3363153	3363074	-	ENST00000252032	17342-17344	8,7,5
chr20	33883444	33883225	-	chr20	33876761	33876594	-	ENST00000374408	17345-17347	9,47,7
								ENST00000349714,ENST00000359226,ENST00000374384,ENST00000374380,ENST00000374385,ENST00000374377,ENST00000397556,ENST00000407996,ENST00000540457,ENST00000453855,ENST00000424405,ENST00000438533		20,20,13,13,13,20,13
chr20	33894849	33894788	-	chr20	33894582	33894469,338	-		17348-17354	
								ENST00000349714,ENST00000359226,ENST00000374380,ENST00000374385,ENST00000374377,ENST00000397556,ENST00000540457,ENST00000424405,ENST00000542501		6,5,6,6,6,6
chr20	33932045	33932028	-	chr20	33902568	33902491,3	-	,ENST00000438533	17355-17359	
								ENST00000457259,ENST00000349714,ENST00000359226,ENST00000374384,ENST00000374380,ENST00000374385,ENST00000407996,ENST00000453855,ENST00000424405,ENST00000542501,ENST00000443429,ENST00000438533,ENST00000397554,ENST00000491040,ENST00000397553		21,16,16,16,16,16,16,16,16,16,16,16,16,16,16,16
chr20	33983129	33982681	-	chr20	33981999	33981895	-		17360-17375	
								ENST00000457259,ENST00000349714,ENST00000359226,ENST00000374384,ENST00000374380,ENST00000374385,ENST00000407996,ENST00000453855,ENST00000424405,ENST00000542501,ENST00000443429,ENST00000438533,ENST00000397554,ENST00000491040,ENST00000397553		28,6,2,28,28,28,28,28,28,28,28,28,28,28,28
chr20	33984394	33984311	-	chr20	33981999	33981895	-		17376-17392	
								ENST00000457259,ENST00000349714,ENST00000359226,ENST00000374384,ENST00000374380,ENST00000374385,ENST00000407996,ENST00000453855,ENST00000424405,ENST00000542501,ENST00000443429,ENST00000438533,ENST00000397554,ENST00000491040,ENST00000397553		17,7,17,17,17,17,7,17,17,17,17,7,17,17,17,17
chr20	33997908	33997858	-	chr20	33981999	33981895	-		17393-17408	

Table 10

chr20	33997908	33997858	-	chr20	33997270	33997226	-	ENST00000374394	17409-17410	17,7
								ENST00000454607,ENST000		13,21
chr20	34244724	34244660	-	chr20	34243266	34243156	-	00541176	17411-17412	
								ENST00000374092,ENST000		24,11,2,11,1
								00374085,ENST00000397425		1
								,ENST00000440385,ENST000		
chr20	34282365	34282266	-	chr20	34278487	34278335,3	-	00419569	17413-17417	
								ENST00000253363,ENST000		1
								00361162,ENST00000338163		
								,ENST00000528062,ENST000		
								00448303,ENST00000374038		
chr20	34314983	34314980	-	chr20	34313077	34312960	-	,ENST00000434927	17418	
								ENST00000374012,ENST000		22,13
								00439301,ENST00000339089		
								,ENST00000374000,ENST000		
chr20	34440865	34440931	+	chr20	34446224	34446303	+	00449988	17419-17420	
								ENST00000373745,ENST000		1,27,12,1
								00426836,ENST00000373740		
								,ENST00000448110,ENST000		
								00373750,ENST00000373734		
								,ENST00000438549,ENST000		
chr20	35398766	35398502	-	chr20	35396445	35396372	-	00447406	17421-17424	
								ENST00000237536,ENST000		21,13,43,13
								00279034,ENST00000456801		
								,ENST00000465671,ENST000		
chr20	35426770	35426506	-	chr20	35425976	35425905	-	00357779	17425-17428	
								ENST00000237536,ENST000		9,9,9,9
								00279034,ENST00000357779		
chr20	35463603	35463575	-	chr20	35457615	35457457	-		17429-17432	
chr20	35475662	35475516	-	chr20	35467844	35467620	-	ENST00000237536	17433-17435	42,17,48
chr20	35488003	35487977	-	chr20	35467844	35467620	-	ENST00000237536	17436-17438	9,6,8
								ENST00000262919,ENST000		4,11,32,32
chr20	3553183	3553282	+	chr20	3553378	3553598	+	00446916	17439-17442	
								ENST00000373664,ENST000		71,23,10,71
chr20	35706869	35706301	-	chr20	35696589	35696389	-	00344359	17443-17446	
								ENST00000343811,ENST000		23,13
								00441008,ENST00000217333		
								,ENST00000400441,ENST000		
								00400440,ENST00000421643		
chr20	35807270	35807202	-	chr20	35800460	35800315	-		17447-17448	
								ENST00000343811,ENST000		23,13,13,13,
								00441008,ENST00000217333		13,13
								,ENST00000400441,ENST000		
								00400440,ENST00000421643		
chr20	35807270	35807202	-	chr20	35802519	35802398	-		17449-17454	
								ENST00000237530,ENST000		23,22,18,23,
								00373632,ENST00000462163		23,22
chr20	35826382	35826450	+	chr20	35826800	35826895	+		17455-17460	
chr20	36323355	36323435	+	chr20	36361281	36361469	+	ENST00000361383	17461-17463	6,2,4
								ENST00000361383,ENST000		7,3,7,3
								00447935,ENST00000405275		
chr20	36385572	36385594	+	chr20	36385973	36386058	+		17464-17467	
								ENST00000361383,ENST000		31,2,24
								00405275,ENST00000373473		
chr20	36482823	36482932	+	chr20	36488301	36488438	+	,ENST00000373469	17468-17470	
								ENST00000361475,ENST000		6,20,9,20,20
								00536701,ENST00000373403		,20
chr20	36793450	36793389	-	chr20	36790001	36789822	-	,ENST00000453095	17471-17476	
chr20	36916452	36916397	-	chr20	36874528	36874331	-	ENST00000279024	17477-17478	5,18
chr20	37382000	37382095	+	chr20	37383600	37383817	+	ENST00000243903	17479-17481	17,8,7
								ENST00000316562,ENST000		36,52,4,52
								00336066,ENST00000610179		
chr20	3877054	3877694	+	chr20	3888573	3888925,39	+		17482-17485	
								ENST00000316562,ENST000		50,10,17,17
								00336066,ENST00000610179		
chr20	3877054	3877734	+	chr20	3888573	3888925,39	+		17486-17489	
								ENST00000411647,ENST000		7,6,6,6,6,6,6
								00382214,ENST00000356286		
								,ENST00000415942,ENST000		
chr20	388295	388315	+	chr20	390525	390669	+	00475269	17490-17496	
								ENST00000336095,ENST000		7,12
								00358395,ENST00000432261		
chr20	3923761	3923577	-	chr20	3915720	3915641	-	,ENST00000545616	17497-17498	

Table 10

							ENST00000309060,ENST000	2,38,17,38,1
							00540170,ENST00000559234	7
							,ENST00000557816,ENST000	
							00558993,ENST00000544979	
							,ENST00000560361,ENST000	
chr20	39896529	39896103	-	chr20	39813841	39813831,4	- 00432768	17499-17503
chr20	40043465	40043462	-	chr20	40042155	40041964	- ENST00000373233	17504-17505 1,1
chr20	40095156	40094963	-	chr20	40086068	40085904	- ENST00000373233	17506-17507 27,6
chr20	4067821	4067532	-	chr20	4053311	4053172	- ENST00000379526	17508-17510 45,22,19
							ENST00000396863,ENST000	36,2,35,36,3
chr20	42300568	42300676	+	chr20	42302446	42302539	+ 00217026	17511-17515 5
chr20	43584176	43584261	+	chr20	43586978	43587052	+ ENST00000372826	17516-17518 1,4,28
							ENST00000279036,ENST000	21,8,19
							00279035,ENST00000545755	
							,ENST00000535404,ENST000	
							00341555,ENST00000543458	
chr20	44049427	44049490	+	chr20	44050023	44050223	+	17519-17521
							ENST00000357199,ENST000	8,6,5
chr20	44216780	44216020	-	chr20	44190858	44190749	- 00289953	17522-17524
							ENST00000357199,ENST000	2,22
chr20	44216780	44216039	-	chr20	44190858	44190749	- 00289953	17525-17526
							ENST00000337205,ENST000	36,4,8
							00243938,ENST00000372632	
chr20	44410585	44410315	-	chr20	44404241	44404056	- ,ENST00000372630	17527-17529
							ENST00000337205,ENST000	36,4,8
chr20	44410585	44410315	-	chr20	44405845	44405714	- 00243938	17530-17532
							ENST00000372622,ENST000	1,14,1,1
							00449078,ENST00000456939	
chr20	44420870	44420915	+	chr20	44421316	44421386	+	17533-17536
							ENST00000462307,ENST000	1,12,19,1,12
							00491381,ENST00000342644	,12
							,ENST00000372542,ENST000	
chr20	44464125	44464332	+	chr20	44469278	44469296,44	+ 00372541	17537-17542
							ENST00000290246,ENST000	7,15,15,15,1
							00396391,ENST00000439931	5
							,ENST00000352077,ENST000	
chr20	45027382	45027336	-	chr20	45017859	45017678	- 00450812	17543-17547
							ENST00000457685,ENST000	22,9,20,20
							00593880,ENST00000347606	
chr20	45132419	45132339	-	chr20	45131736	45129935,5	- ,ENST00000596323	17548-17551
							ENST00000593880,ENST000	28,19,12,28,
chr20	45138455	45138194	-	chr20	45133379	45133253	- 00347606	17552-17556 19
							ENST00000279027,ENST000	1,3,7,7,7,7
							00413164,ENST00000420568	
							,ENST00000372121,ENST000	
chr20	45296236	45296205	-	chr20	45242364	45242099	- 00339636	17557-17562
							ENST00000279027,ENST000	1,7,1,1,1
							00413164,ENST00000420568	
							,ENST00000372121,ENST000	
chr20	45313316	45313035	-	chr20	45242364	45242099	- 00339636	17563-17567
chr20	45337330	45337794	+	chr20	45353680	45354963	+ ENST00000359271	17568-17570 2,3,21
chr20	45345810	45345913	+	chr20	45353680	45354963	+ ENST00000359271	17571-17573 8,7,34
							ENST00000311275,ENST000	12,3,12,12,3
							00360911,ENST00000458360	
							,ENST00000262975,ENST000	
							00471951,ENST00000352431	
							,ENST00000396281,ENST000	
							00446994,ENST00000536340	
							,ENST00000355972,ENST000	
							00372023,ENST00000461685	
							,ENST00000540497,ENST000	
							00435836,ENST00000446894	
							,ENST00000441977	
chr20	45962907	45962776	-	chr20	45938948	45938800,45	-	17574-17578

							ENST00000311275,ENST00000360911,ENST00000458360,ENST00000262975,ENST00000471951,ENST00000352431,ENST00000396281,ENST00000446994,ENST00000536340,ENST00000355972,ENST00000372023,ENST00000461685,ENST00000540497,ENST00000435836,ENST00000446894,ENST00000441977	22,13,21,22,22,22,22,22,22,22,22,22,13,22,13,21
chr20	45968015	45967949	-	chr20	45938948	45938800,45	-	17579-17596	ENST00000311275,ENST00000360911,ENST00000458360,ENST00000262975,ENST00000471951,ENST00000352431,ENST00000396281,ENST00000446994,ENST00000536340,ENST00000355972,ENST00000372023,ENST00000461685,ENST00000540497,ENST00000435836,ENST00000446894,ENST00000441977	23,13,13,23,13
chr20	45968523	45968453	-	chr20	45938948	45938800,45	-	17597-17601	ENST00000482556,ENST00000371941,ENST00000396220	3,3,3,3
chr20	47256929	47256919	-	chr20	47256432	47256304	-	17602-17605	ENST00000371941,ENST00000396220	29,23,28,29
chr20	47281126	47281039	-	chr20	47276599	47276457	-	17606-17609	ENST00000371941,ENST00000396220	7,19,40,40
chr20	47373661	47373381	-	chr20	47364417	47364346	-	17610-17613	ENST00000371941,ENST00000396220	46,8,18,8
chr20	47504916	47504637	-	chr20	47364417	47364346	-	17614-17617	ENST00000262982,ENST00000396192	19,24,11,11
chr20	47681410	47681510	+	chr20	47682729	47682830	+	17618-17621	ENST00000371828,ENST00000340954,ENST00000347458,ENST00000360426,ENST00000371792,ENST00000371802,ENST00000371856,ENST00000437404	38,3,27,27,27,27
chr20	47761676	47760826	-	chr20	47752468	47752370	-	17622-17627	ENST00000417961,ENST00000361573,ENST00000539601	5,10,24
chr20	48479097	48479313	+	chr20	48479466	48479604	+	17628-17630	ENST00000417961,ENST00000361573,ENST00000541138,ENST00000539601	5,17,3
chr20	48502391	48502496	+	chr20	48503289	48503435	+	17631-17633	ENST00000338244,ENST00000379333,ENST00000424750,ENST00000423430	24,20,13,20
chr20	4853700	4853477	-	chr20	4850699	4850552	-	17634-17637	ENST00000338244,ENST00000379333,ENST00000424750,ENST00000423430	34,24,33,33
chr20	4853700	4853599	-	chr20	4850699	4850552	-	17638-17641	ENST00000338244,ENST00000379333,ENST00000424750,ENST00000423430	23,14,22,23
chr20	4853700	4853631	-	chr20	4850699	4850552	-	17642-17645		
chr20	48559078	48559128	+	chr20	48561919	48562025	+	ENST00000244061	17646-17648	17,7,16
chr20	486305	486207	-	chr20	485873	485762	-	ENST00000400227,ENST00000217244,ENST00000349736,ENST00000608066,ENST00000609525	17649-17654	33,23,1,23,23,23
chr20	48720242	48719984	-	chr20	48713357	48713209	-	ENST00000371657,ENST00000371674,ENST00000340309,ENST00000371677,ENST00000341698,ENST00000557021,ENST00000483534	17655-17659	51,32,24,51,51,1,64
chr20	48730651	48730456	-	chr20	48713357	48713209	-	ENST00000371657,ENST00000371674,ENST00000340309,ENST00000371677,ENST00000341698,ENST00000557021,ENST00000483534	17660-17661	

Table 10

						ENST00000371657,ENST00000371674,ENST00000340309,ENST00000371677,ENST00000341698,ENST00000557021		6,2,9,2,2
chr20	48732330	48732236 -	chr20	48713357	48713209 -	,ENST00000483534	17662-17666	
						ENST00000327979,ENST00000045083,ENST00000535356		20,26,15
chr20	49211512	49211434 -	chr20	49211240	49211090 -		17667-17669	
						ENST00000327979,ENST00000045083,ENST00000535356		20,26,15
chr20	49211512	49211434 -	chr20	49211251	49211090 -		17670-17672	
chr20	49306271	49306258 -	chr20	49247393	49247275 -	ENST00000535356	17673-17675	4,4,4
						ENST00000371588,ENST00000371582,ENST00000371584		32,9,18,9,9
chr20	49561224	49560952 -	chr20	49558663	49558568 -		17676-17680	
						ENST00000371588,ENST00000371582,ENST00000371584		20,17,14,17,17
chr20	49561680	49561621 -	chr20	49558663	49558568 -		17681-17685	
						ENST00000371588,ENST00000371582,ENST00000371584,ENST00000371583,ENST00000413082		8,2,18,2,2,2,2
chr20	49567758	49567701 -	chr20	49565199	49565166 -		17686-17692	
						ENST00000396009,ENST00000609943		3,3
chr20	50033346	50033335 -	chr20	50007988	50007933 -		17693-17694	
						ENST00000371564,ENST00000610033,ENST00000414705		3,3
chr20	50033346	50033335 -	chr20	50015267	50015224 -	,ENST00000609507	17695-17696	
						ENST00000371564,ENST00000396009,ENST00000609943,ENST00000610033,ENST00000414705,ENST00000609507		6,30,11,11
chr20	50069471	50069379 -	chr20	50052298	50052243 -		17697-17700	
						ENST00000371564,ENST00000396009,ENST00000609943		38,38,38,38
chr20	50147733	50147618 -	chr20	50140649	50139620 -	,ENST00000414705	17701-17704	
chr20	50669323	50669039 -	chr20	50668671	50668652 -	ENST00000371518	17705-17707	28,19,41
						ENST00000371518,ENST00000371523,ENST00000361387,ENST00000456175,ENST00000395989		16,16,15,16,16,16
chr20	50713545	50713497 -	chr20	50705182	50704931 -		17708-17713	
						ENST00000460006,ENST00000450570	17714-17717	19,24,11,11
chr20	5156783	5156883 +	chr20	5157294	5157391 +			
						ENST00000371471,ENST00000302342	17718-17720	18,18,18
chr20	52197903	52197848 -	chr20	52194989	52194873 -			
						ENST00000216862,ENST00000395955,ENST00000395954		41,10,10
chr20	52779759	52779634 -	chr20	52779401	52779256 -		17721-17723	
						ENST00000216862,ENST00000395955,ENST00000395954		5,42,39,39
chr20	52783171	52782971 -	chr20	52782372	52782281 -		17724-17727	
						ENST00000395909,ENST00000395914,ENST00000371356,ENST00000347343,ENST00000395911,ENST00000312783,ENST00000395915,ENST00000395913,ENST00000395907,ENST00000441357,ENST00000420474,ENST00000422322,ENST00000456249,ENST00000451915	17728-17738	17,7,16,17,17,7,17,17,17,17,7,7,16
chr20	54965662	54965612 -	chr20	54961466	54961313,5 -			
						ENST00000395909,ENST00000395914,ENST00000371356,ENST00000347343,ENST00000395911,ENST00000312783,ENST00000395915,ENST00000395913,ENST00000395907,ENST00000441357,ENST00000420474,ENST00000422322,ENST00000456249,ENST00000451915	17739-17747	17,7,16,17,17,7,17,17,17,17,7
chr20	54965662	54965612 -	chr20	54961589	54961313,5 -			
chr20	54977082	54977131 +	chr20	54978524	54978783 +	ENST00000217109	17748-17750	16,16,16
chr20	54977082	54977347 +	chr20	54978524	54978783 +	ENST00000217109	17751-17753	34,21,13

Table 10

						ENST00000023939,ENST00000395881,ENST00000357348		31,8,3,31,31
chr20	55045566	55045997 +	chr20	55048357	55048451 +	,ENST00000449062	17754-17758	
chr20	5572105	5572041 -	chr20	5564968	5564927 -	ENST00000379019	17759-17761	2,12,10
chr20	5572105	5572041 -	chr20	5566915	5566840 -	ENST00000379019	17762-17764	2,12,10
chr20	55844084	55844002 -	chr20	55803477	55803285 -	ENST00000395863,ENST00000395864,ENST00000450594,ENST00000433911	17765-17772	27,27,27,27,27,27,27,27
chr20	56265149	56265086 -	chr20	56234753	56234599 -	ENST00000341744,ENST00000347215,ENST00000414037,ENST00000395819	17773-17775	10,4,4
chr20	56286020,56	56286012 -	chr20	56234753	56234599 -	ENST00000341744,ENST00000347215,ENST00000414037,ENST00000395819	17776-17781	3,2,2,2,2,2
chr20	56924821	56924934 +	chr20	56928329	56928400 +	ENST00000244040	17782-17784	38,35,1
chr20	57009388	57009562 +	chr20	57009658	57009761 +	ENST00000475243	17785-17786	3,5
chr20	57050068	57050052 -	chr20	57045803	57045665 -	ENST00000371149,ENST00000439429,ENST00000425773	17787-17791	5,5,5,5,5
chr20	57218128	57218176 +	chr20	57242546	57242653 +	ENST00000355957,ENST00000361770,ENST00000371141,ENST00000530122,ENST00000371132,ENST00000467096,ENST00000358029,ENST00000464640,ENST00000361830,ENST00000493301	17792-17797	16,16,15,16,16,16
chr20	58345950	58345966 +	chr20	58348334	58348508 +	ENST00000359926,ENST00000371015,ENST00000395639,ENST00000541461,ENST00000355648,ENST00000361300,ENST00000395636	17798-17800	5,5,5
chr20	58478898	58478743 -	chr20	58476865	58476717 -	ENST00000357552,ENST00000371001,ENST00000446834	17801-17803	10,19,19
chr20	58573716	58573800 +	chr20	58574641	58574718 +	ENST00000244047,ENST00000348616,ENST00000370991,ENST00000244049,ENST00000350849,ENST00000456106	17804-17810	8,4,8,4,8,8,4
chr20	5938737	5938833 +	chr20	5939174	5939372 +	ENST00000378883,ENST00000378896,ENST00000378886,ENST00000265187	17811-17816	32,23,31,31,31,31
chr20	60576261	60576203 -	chr20	60575777	60575608,6 -	ENST00000252996,ENST00000488539	17817-17820	12,19,19,12
chr20	60730176	60729945 -	chr20	60716000	60715874 -	ENST00000370873,ENST00000370858	17821-17824	40,25,11,25
chr20	60739820	60739957 +	chr20	60740478	60740570 +	ENST00000421564,ENST00000331758,ENST00000370848,ENST00000492466	17825-17826	9,1
chr20	60769972	60770037 +	chr20	60770858	60771005 +	ENST00000436421,ENST00000467101,ENST00000370823,ENST00000448254	17827-17832	13,21,21,13,13,13
chr20	60769972	60770069 +	chr20	60770858	60771005 +	ENST00000436421,ENST00000467101,ENST00000370823,ENST00000448254	17833-17838	23,32,32,32,32,32
chr20	60835762	60835987 +	chr20	60838672	60838747 +	ENST00000313733,ENST00000358053	17839-17841	30,7,35
chr20	60878087	60878105 +	chr20	60878816	60878837 +	ENST00000253003	17842-17844	6,6,5
chr20	60878087	60878105 +	chr20	60879517	60879633 +	ENST00000253003	17845-17847	6,6,5
chr20	60878087	60878105 +	chr20	60882652	60882884 +	ENST00000253003	17848-17850	6,6,5
chr20	60920676	60920496 -	chr20	60913664	60913524 -	ENST00000252999	17851-17853	21,13,10
chr20	60974939	60974764 -	chr20	60971648	60971577 -	ENST00000279101	17854-17855	50,12
chr20	61368111	61368355 +	chr20	61386037	61386238 +	ENST00000370501	17856-17857	33,28
chr20	61368111	61368391 +	chr20	61386037	61386238 +	ENST00000370501	17858-17860	7,45,40
chr20	61385281	61385398 +	chr20	61386037	61386238 +	ENST00000370501	17861-17863	39,39,38
chr20	61385281	61385405 +	chr20	61386037	61386238 +	ENST00000370501	17864-17866	41,41,41
chr20	61390849	61390895 +	chr20	61391370	61391619 +	ENST00000370501	17867-17868	7,15
chr20	61428100	61428241 +	chr20	61428462	61428583 +	ENST00000370487	17869-17871	47,3,46
chr20	61437613	61437681 +	chr20	61438889	61438957 +	ENST00000290291	17872-17874	23,13,22
chr20	61882507	61882315 -	chr20	61881424	61881287 -	ENST00000370316	17875-17877	24,38,5
chr20	62121717	62121619 -	chr20	62120505	62120271 -	ENST00000298049,ENST00000217182	17878-17880	19,23,32

Table 10

						ENST00000370069,ENST00000266068,ENST00000370077		11,1,47
chr20	62230860	62230718	-	chr20	62229213	62229110	-		17881-17883	
chr20	62274933	62274666	-	chr20	62273652	62273461	-	ENST00000370053,ENST00000540534	17884-17886	35,22,13
chr20	62288748	62288703	-	chr20	62275662	62275567	-	ENST00000370053	17887-17889	14,15,14
chr20	62302194	62302275	+	chr20	62303909	62303974	+	ENST00000370018,ENST00000318100,ENST00000508582,ENST00000360203,ENST00000356810,ENST00000492259,ENST00000482936	17890-17896	27,4,26,4,4,4,4
chr20	62340708	62340776	+	chr20	62364571	62364704	+	ENST00000448100,ENST00000355969,ENST00000357119,ENST00000369967,ENST00000328969,ENST00000490623	17897-17900	9,13,13,13
chr20	62363099	62363235	+	chr20	62364571	62364704	+	ENST00000448100,ENST00000355969,ENST00000357119,ENST00000369967,ENST00000328969,ENST00000490623	17901-17904	5,45,5,5
chr20	62511962	62512060	+	chr20	62514072	62514173	+	ENST00000369927,ENST00000346249,ENST00000348257,ENST00000352482,ENST00000217121,ENST00000351424,ENST00000358548	17905-17911	33,23,1,33,23,33,23
chr20	8354723	8355012	+	chr20	8608941	8609078	+	ENST00000378641,ENST00000338037,ENST00000378637,ENST00000404098	17912-17915	7,44,44,44
chr20	9441935	9447895	+	chr20	9449218	9449319	+	ENST00000334005,ENST00000378473,ENST00000278655,ENST00000414679,ENST00000378493,ENST00000378501	17916-17919	8,5,45,5
chr21	17181810	17182227	+	chr21	17183456	17183529	+	ENST00000285679,ENST00000285681,ENST00000400183	17920-17924	18,8,16,16,16
chr21	19778675	19778383	-	chr21	19770646	19770516	-	ENST00000284885,ENST00000422787	17925-17927	2,91,2
chr21	19833204	19832890	-	chr21	19770646	19770516	-	ENST00000284885,ENST00000422787	17928-17931	23,39,4,4
chr21	27105558	27105526	-	chr21	27102112	27101942	-	ENST00000457143	17932-17933	4,8
chr21	27288611	27288399	-	chr21	27284274	27284053	-	ENST00000346798,ENST00000354192,ENST00000348990,ENST00000357903,ENST00000358918,ENST00000359726,ENST00000448388,ENST00000440126,ENST00000439274,ENST00000456209	17934-17938	5,21,17,17,17
chr21	27404102	27403804	-	chr21	27394358	27394156	-	ENST00000346798,ENST00000354192,ENST00000348990,ENST00000357903,ENST00000358918,ENST00000359726,ENST00000448388,ENST00000440126,ENST00000439274,ENST00000448850,ENST00000415997	17939-17946	7,18,7,7,7,7,7,7,7
chr21	30381704	30381523	-	chr21	30380942	30380716	-	ENST00000493196	17947-17948	5,17
chr21	30402325	30402544	+	chr21	30402916	30403094	+	ENST00000399975,ENST00000399976,ENST00000334352,ENST00000399973	17949-17952	16,6,16,16
chr21	30445573	30445527	-	chr21	30442658	30442568	-	ENST00000286788,ENST00000542732,ENST00000431234	17953-17956	1,10,7,7
chr21	30932082	30932231	+	chr21	30969890	30970014,3	+	ENST00000422809,ENST00000468059	17957-17960	6,8,6,8
chr21	33655676	33655395	-	chr21	33647207	33647141	-	ENST00000290130	17961-17963	8,24,50
chr21	33656401	33656135	-	chr21	33647207	33647141	-	ENST00000290130	17964-17966	20,88,14
chr21	33656401	33656182	-	chr21	33647207	33647141	-	ENST00000290130	17967-17969	4,73,19
chr21	33784380	33784501	+	chr21	33840004	33840156	+	ENST00000300255,ENST00000457807,ENST00000401402,ENST00000382699,ENST00000412833	17970-17975	40,32,40,40,40,40

							ENST00000431216,ENST00000553001,ENST00000440966,ENST00000382549,ENST00000290155,ENST00000300260	8,8,7,8,8,8,8,8
chr21	33982484	33982460	-	chr21	33982315	33982148	-	17976-17983	
chr21	34783774	34783877	+	chr21	34787195	34787327	+	ENST00000290219,ENST00000381995	17984-17986	7,34,29
chr21	34783774	34783881	+	chr21	34793787	34793992,3	+	ENST00000290219,ENST00000381995,ENST00000545369	17987-17989	35,30,35
chr21	34882935	34882870	-	chr21	34882227	34882090	-	ENST00000381815,ENST00000381831,ENST00000381839,ENST00000543717	17990-17992	13,21,21
chr21	34973542	34973474	-	chr21	34971554	34971456,3	-	ENST00000381554,ENST00000290244,ENST00000381540,ENST00000361534,ENST00000440526,ENST00000414079,ENST00000426935	17993-17994	23,22
chr21	34973542	34973474	-	chr21	34971591	34971572	-	ENST00000452420,ENST00000437996,ENST00000429827,ENST00000420072	17995-17996	23,22
chr21	34980478	34980440	-	chr21	34975843	34975710	-	ENST00000381554,ENST00000290244,ENST00000381540,ENST00000452420,ENST00000445393,ENST00000361534,ENST00000429827,ENST00000420072,ENST00000440526,ENST00000426935,ENST00000431177,ENST00000417979	17997-18007	13,12,12,12,12,12,12,12,12,12
chr21	34993510	34993412	-	chr21	34989056	34989012	-	ENST00000381554,ENST00000381540,ENST00000361534,ENST00000420072,ENST00000440526,ENST00000426935,ENST00000431177,ENST00000417979,ENST00000413017	18008-18018	33,23,1,1,1,1,1,1,1,1,1
chr21	35006018	35005952	-	chr21	35003863	35003792	-	ENST00000361534	18019-18021	22,13,21
chr21	35303910	35303819	-	chr21	35286804	35286754	-	ENST00000431254,ENST00000290299	18022-18024	6,13,13
chr21	35761084	35761376	+	chr21	35772009	35772197	+	ENST00000399299	18025-18027	19,43,10
chr21	35766813	35766868	+	chr21	35772009	35772197	+	ENST00000399299	18028-18029	18,18
chr21	35941461	35941184	-	chr21	35896008	35895835	-	ENST00000481448,ENST00000381132,ENST00000399272,ENST00000313806,ENST00000381135,ENST00000492600	18030-18033	7,18,44,44
chr21	36001180	36001090	-	chr21	35896008	35895835	-	ENST00000481448,ENST00000381132,ENST00000399272,ENST00000313806,ENST00000381135,ENST00000492600	18034-18037	19,30,7,30
chr21	37625727	37625798	+	chr21	37626070	37626207	+	ENST00000399151	18038-18039	24,13
chr21	37818247	37818305	+	chr21	37858336	37858849	+	ENST00000595927	18040-18042	2,10,19
chr21	38493179	38493247	+	chr21	38494117	38494279	+	ENST00000418766,ENST00000450533,ENST00000438055,ENST00000355666,ENST00000399017,ENST00000354749	18043-18044	9,22
chr21	38531394	38531712	+	chr21	38532001	38532047	+	ENST00000418766,ENST00000438055,ENST00000355666,ENST00000399017,ENST00000354749,ENST00000411496	18045-18049	32,6,32,32,32
chr21	39513161	39513404	+	chr21	39526509	39526623	+	ENST00000357704	18050-18051	37,55
chr21	40602190	40602167	-	chr21	40601362	40601238	-	ENST00000333229,ENST00000446924,ENST00000342449,ENST00000380800	18052-18057	8,7,5,8,8,8
chr21	40660876	40660694	-	chr21	40652174	40652074	-	ENST00000333229,ENST00000342449,ENST00000380800	18058-18061	7,5,7,7
chr21	41099916	41099919	+	chr21	41137462	41137779	+	ENST00000380588	18062-18063	1,1
chr21	41692820	41692534	-	chr21	41684286	41684008	-	ENST00000400454,ENST00000404019	18064-18067	7,45,21,45

Table 10

chr21	41692820	41692596	-	chr21	41684286	41684008	-	ENST00000400454,ENST00000404019	18068-18069	5,24
chr21	42760712	42760792	+	chr21	42762492	42762630	+	ENST00000330714	18070-18072	25,1,26
chr21	42814606	42814782	+	chr21	42815715	42815793	+	ENST00000398600,ENST00000398598,ENST00000455164,ENST00000288383	18073-18075	4,51,5
chr21	42865093	42864922	-	chr21	42861520	42861434	-	ENST00000332149,ENST00000398585,ENST00000458356,ENST00000454499,ENST00000424093	18076-18080	57,24,22,57,57
chr21	43288791	43288432	-	chr21	43280481	43280436	-	ENST00000398548,ENST00000422911,ENST00000449395,ENST00000433067,ENST00000269844	18081-18086	15,119,1,15,15,15
chr21	43290276	43290029	-	chr21	43280481	43280436	-	ENST00000398548,ENST00000422911,ENST00000449395,ENST00000433067,ENST00000269844	18087-18092	23,8,2,2,2,2
chr21	44517527	44517477	-	chr21	44515853	44515804	-	ENST00000380276,ENST00000291552	18093-18094	17,7
chr21	45105804	45105943	+	chr21	45106685	45106816	+	ENST00000340648	18095-18097	40,20,7
chr21	45165019	45165069	+	chr21	45165960	45166006	+	ENST00000468090,ENST00000291565,ENST00000467908	18098-18099	17,16
chr21	45498680	45498768	+	chr21	45499445	45499585	+	ENST00000291574	18100-18102	29,2,7
chr21	45653891	45653481	-	chr21	45651327	45651163	-	ENST00000344330,ENST00000407780,ENST00000400379,ENST00000400377	18103-18104	15,2
chr21	45653891	45653692	-	chr21	45651327	45651163	-	ENST00000344330,ENST00000407780,ENST00000400379,ENST00000400377	18105-18109	6,24,66,24,24
chr21	45925762	45925484	-	chr21	45924764	45924663	-	ENST00000323084	18110-18112	80,5,11
chr21	46217060	46216669	-	chr21	46208010	46207975	-	ENST00000345496,ENST00000491513,ENST00000478200	18113-18116	6,23,6,6
chr21	46220180	46219306	-	chr21	46208010	46207975	-	ENST00000345496,ENST00000491513,ENST00000478200	18117-18121	36,5,3,5,5
chr21	46389236	46389245	+	chr21	46393112	46393180	+	ENST00000291634,ENST00000397826	18122-18124	3,3,1
chr21	46389236	46389245	+	chr21	46393115	46393180	+	ENST00000291634,ENST00000397826	18125-18127	3,3,1
chr21	47278635	47278917	+	chr21	47316122	47316276	+	ENST00000400314,ENST00000400310,ENST00000449640,ENST00000400308,ENST00000400309	18128-18133	47,37,7,47,47,47
chr21	47741810	47741638	-	chr21	47738134	47737926	-	ENST00000291691	18134-18136	1,23,32
chr21	47886559	47886752	+	chr21	47904670	47904741	+	ENST00000400274,ENST00000318711,ENST00000457905,ENST00000466639,ENST00000435722,ENST00000417564	18137-18144	18,16,64,16,16,16,16,16
chr21	47966230	47966344	+	chr21	47966828	47966955,5	+	ENST00000400274,ENST00000427143,ENST00000318711,ENST00000457905,ENST00000466639,ENST00000435722,ENST00000417564	18145-18149	38,17,17,17,17
chr21	47976315	47976410	+	chr21	47976852	47976982	+	ENST00000400274,ENST00000318711,ENST00000417564	18150-18152	32,22,31
chr21	47976315	47976410	+	chr21	47977498	47977666	+	ENST00000400274,ENST00000318711,ENST00000417564	18153-18155	32,22,31
chr21	47976315	47976413	+	chr21	47976852	47976982	+	ENST00000400274,ENST00000318711,ENST00000417564	18156-18157	33,32
chr21	47976315	47976413	+	chr21	47977498	47977666	+	ENST00000400274,ENST00000318711,ENST00000417564	18158-18160	33,23,32
chr22	18205145	18205156	+	chr22	18209457	18210300,2	+	ENST00000317582,ENST00000543133,ENST00000538149,ENST00000337612,ENST00000355028	18161-18164	4,3,3,3

Table 10

								ENST00000441493,ENST000	17,21,35,17,
								00577821,ENST00000579997	35,17,35
chr22	18285952	18285844	-	chr22	18274067	18273968,2	-	18165-18171	
								ENST00000441493,ENST000	2,1,1,2,2
								00577821,ENST00000579997	
chr22	18294814	18294809	-	chr22	18293579	18293469	-	18172-18176	
								ENST00000441493,ENST000	35,2,18,2,2,
								00400561,ENST00000444520	2,18
								,ENST00000414725,ENST000	
								00383094,ENST00000207726	
								,ENST00000429452,ENST000	
								00461307,ENST00000585038	
chr22	18351340	18351213	-	chr22	18348778	18348690	-	18177-18183	
								ENST00000474897,ENST000	7,12,12,12
								00330423,ENST00000416740	
chr22	18571264	18571313	+	chr22	18604246	18604444,2	+	18184-18187	
chr22	18717976	18718030	+	chr22	18723545	18723603	+	ENST00000342888	18188-18190 17,13,17
chr22	18721778	18721832	+	chr22	18723545	18723603	+	ENST00000342888	18191-18193 17,13,17
								ENST00000263196,ENST000	7,3
chr22	19086405	19086356	-	chr22	19077003	19076881	-	00545799	18194-18195
								ENST00000407835,ENST000	1
								00437685,ENST00000263201	
chr22	19482437	19482439	+	chr22	19483504	19483552	+	,ENST00000404724	18196
								ENST00000401886,ENST000	34,28,34,28,
								00432198,ENST00000447208	34,28,34,28,
								,ENST00000398042,ENST000	34,34,28,34,
								00399807,ENST00000450664	34
								,ENST00000450019,ENST000	
								00432883,ENST00000327374	
								,ENST00000430807,ENST000	
								00401833,ENST00000434168	
								,ENST00000434570,ENST000	
								00444651,ENST00000456048	
chr22	20035748	20035851	+	chr22	20039988	20040107	+	18197-18209	
								ENST00000351989,ENST000	33,23,1
								00383024,ENST00000407755	
chr22	20080647	20080745	+	chr22	20082236	20082318	+	18210-18212	
								ENST00000351989,ENST000	33,23,32
								00383024,ENST00000407755	
chr22	20085370	20085468	+	chr22	20093700	20093800	+	18213-18215	
								ENST00000439765,ENST000	17,7,17
chr22	20139019	20138969	-	chr22	20137582	20137478	-	00540078	18216-18218
								ENST00000439765,ENST000	17,7,17
chr22	20139019	20138969	-	chr22	20138014	20137991	-	00540078	18219-18221
								ENST00000439765,ENST000	17,7
chr22	20139019	20138969	-	chr22	20138031	20137991	-	00540078	18222-18223
								ENST00000439765,ENST000	17,7,7
chr22	20139019	20138969	-	chr22	20138267	20137991	-	00540078	18224-18226
								ENST00000444094,ENST000	7,12,12,7,7,
								00433831,ENST00000292733	7,7,7,12,7
								,ENST00000263205,ENST000	
								00382974,ENST00000441501	
chr22	20855086	20855123	+	chr22	20891404	20891491,208	+	,ENST00000438962	18227-18236
								ENST00000255882,ENST000	33,22
chr22	21102323	21102224	-	chr22	21101990	21101871	-	00572273	18237-18238
								ENST00000255882,ENST000	4,10,1
chr22	21138039	21138009	-	chr22	21119981	21119873	-	00572273	18239-18241
								ENST00000255882,ENST000	39,2
chr22	21177129	21176899	-	chr22	21174899	21174827	-	00572273	18242-18243
								ENST00000215742,ENST000	37,37,12
chr22	21355965	21355853	-	chr22	21355700	21355545	-	00399133	18244-18246
								ENST00000413302,ENST000	30,55,54
								00336296,ENST00000401443	
chr22	21379627	21379794	+	chr22	21380094	21380187	+	,ENST00000443995	18247-18249
								ENST00000413302,ENST000	71,2,96
								00336296,ENST00000401443	
chr22	21379627	21379919	+	chr22	21380094	21380187	+	,ENST00000443995	18250-18252
								ENST00000412327,ENST000	22,13,21,21,
								00335025,ENST00000492445	21
								,ENST00000398831,ENST000	
								00406385,ENST00000456792	
chr22	22045688	22045754	+	chr22	22048105	22048161	+	18253-18257	

							ENST00000412327,ENST000	33,23,1,23,2
							00335025,ENST00000492445	3
							,ENST00000398831,ENST000	
							00406385,ENST00000456792	
chr22	22045688	22045786	+	chr22	22048105	22048161	+	18258-18262
							ENST00000215832,ENST000	33,23,1
							00398822,ENST00000544786	
chr22	22127836	22127738	-	chr22	22127271	22127162	-	18263-18265
							ENST00000215832,ENST000	33,6,11
							00398822,ENST00000544786	
chr22	22139410	22139310	-	chr22	22127271	22127162	-	18266-18268
							ENST00000215832,ENST000	13,18,18,18
							00398822,ENST00000544786	
chr22	22165327	22165271	-	chr22	22162135	22161953	-	18269-18272
							ENST00000263212,ENST000	16,6,16,16
chr22	22295884	22295835	-	chr22	22294052	22293904	-	00397495 18273-18276
							ENST00000398743,ENST000	8,8,3,8,8,8,8
							00398741,ENST00000543184	,8,8,8
							,ENST00000405655,ENST000	
							00402697,ENST00000439106	
							,ENST00000438888,ENST000	
							00420709,ENST00000406503	
							,ENST00000442481,ENST000	
chr22	22894411	22894387	-	chr22	22893511	22893189,228	-	00403441 18277-18286
chr22	23062012	23062229	+	chr22	23063340	23063630	+	ENST00000390309 18287-18289 6,11,21
chr22	23159021	23159053	+	chr22	23161954	23162253	+	ENST00000390316 18290-18291 11,1
							ENST00000305877,ENST000	9,9,8,9,9
							00359540,ENST00000427791	
chr22	23612460	23612487	+	chr22	23613719	23613779	+	18292-18296
							ENST00000344921,ENST000	33,8,16
							00263121,ENST00000407422	
chr22	24168324	24168422	+	chr22	24175759	24175890	+	,ENST00000407082 18297-18299
							ENST00000215780,ENST000	33,23,1,23
chr22	24323645	24323743	+	chr22	24324819	24324969	+	00402588 18300-18303
							ENST00000215780,ENST000	12,30,36,30
chr22	24324468	24324620	+	chr22	24324819	24324969	+	00402588 18304-18307
							ENST00000263119,ENST000	5,4,4,5
							00405822,ENST00000398319	
chr22	24434931	24434945	+	chr22	24437587	24437721	+	18308-18311
							ENST00000263119,ENST000	2,24,11,11
							00405822,ENST00000398319	
chr22	24477697	24477797	+	chr22	24479181	24479342	+	18312-18315
							ENST00000263119,ENST000	14,20,12
							00405822,ENST00000398319	
chr22	24509092	24509233	+	chr22	24509533	24509715	+	18316-18318
							ENST00000437398,ENST000	7,5
							00314328,ENST00000541492	
chr22	24737551	24738064	+	chr22	24743054	24743144	+	18319-18320
							ENST00000413389,ENST000	9,26,32
chr22	24899415	24899796	+	chr22	24906717	24906811	+	00326010 18321-18323
chr22	25337931	25337833	-	chr22	25335418	25335302	-	ENST00000423535 18324-18325 19,32
							ENST00000324198,ENST000	16,4,1,4
chr22	25990279	25990479	+	chr22	26000344	26000420	+	00455558 18326-18329
							ENST00000536101,ENST000	13,5,13,13
							00335473,ENST00000407587	
chr22	26177295	26177361	+	chr22	26177701	26177801	+	,ENST00000539302 18330-18333
chr22	26880039	26880192	+	chr22	26881989	26882029	+	ENST00000215917 18334-18335 4,1
							ENST00000407690,ENST000	5,21,21,21,2
							00407431,ENST00000407148	1
							,ENST00000405938,ENST000	
							00455080,ENST00000418876	
chr22	26908130	26908065	-	chr22	26902894	26902741,269	-	,ENST00000420242 18336-18340
							ENST00000335272,ENST000	33,6,1,6,6
							00320996,ENST00000455418	
chr22	28295610	28295512	-	chr22	28293880	28293789	-	,ENST00000436663 18341-18345
							ENST00000335272,ENST000	22,13,21,21,
							00320996,ENST00000455418	21
chr22	28295610	28295544	-	chr22	28293880	28293789	-	,ENST00000436663 18346-18350
							ENST00000335272,ENST000	30,20,13,20,
							00320996,ENST00000455418	20
chr22	28306237	28306148	-	chr22	28293880	28293789	-	,ENST00000436663 18351-18355
							ENST00000335272,ENST000	40,7,18,7,7
							00320996,ENST00000455418	
chr22	28329536	28329105	-	chr22	28310335	28310305	-	,ENST00000436663 18356-18360

Table 10

							ENST00000348295,ENST00000382566,ENST00000382578,ENST00000404276,ENST00000328354,ENST00000405598,ENST00000382580,ENST00000433728,ENST00000448511,ENST00000402731,ENST00000403642,ENST00000439200	18361-18368	10,32,2,32,32,2,32,2,32
chr22	29117574	29117315	-	chr22	29115473	29115383,3	-		
							ENST00000348295,ENST00000382566,ENST00000382578,ENST00000404276,ENST00000328354,ENST00000405598,ENST00000382580,ENST00000433728,ENST00000448511,ENST00000402731,ENST00000403642,ENST00000439200	18369-18376	33,24,11,24,24,24,11,24
chr22	29117574	29117474	-	chr22	29115473	29115383,3	-		
							ENST00000348295,ENST00000382566,ENST00000382578,ENST00000404276,ENST00000328354,ENST00000405598,ENST00000382580,ENST00000433728,ENST00000402731,ENST00000403642,ENST00000439200	18377-18378	23,13
chr22	29117574	29117506	-	chr22	29115446	29115383	-		
chr22	29141256	29141322	+	chr22	29141852	29141996,3	+	ENST00000216027,ENST00000420442	18379-18383	22,13,21,22,13
chr22	29141256	29141546	+	chr22	29141852	29141996,3	+	ENST00000216027,ENST00000420442	18384-18388	22,7,20,22,20
chr22	29194908	29194712	-	chr22	29193193	29193065	-	ENST00000216037,ENST00000403532,ENST00000405219,ENST00000344347	18389-18391	7,11,11
chr22	29197368	29197310	-	chr22	29195141	29195045,3	-	ENST00000216037,ENST00000403532,ENST00000405219,ENST00000344347	18392-18396	19,19,11,19,19
chr22	29197680	29197583	-	chr22	29195141	29195045,3	-	ENST00000216037,ENST00000403532,ENST00000405219,ENST00000344347	18397-18401	32,23,32,32,32
chr22	29218110	29218167	+	chr22	29383064	29383189	+	ENST00000544604,ENST00000332811,ENST00000402174,ENST00000406323	18402-18403	8,19
chr22	29317444	29317576	+	chr22	29383064	29383189	+	ENST00000544604,ENST00000332811,ENST00000402174,ENST00000406323	18404-18405	15,3
chr22	29519807	29519837	+	chr22	29521251	29521404	+	ENST00000400338,ENST00000400335,ENST00000327813,ENST00000407188,ENST00000453585	18406-18411	7,2,7,7,7,2
chr22	29925011	29924926	-	chr22	29924455	29924415	-	ENST00000490103,ENST00000397871,ENST00000397872,ENST00000442555,ENST00000397873,ENST00000443089	18412-18417	3,6,5,6,5,6
chr22	29975066	29975027	-	chr22	29966521	29966394	-	ENST00000216121,ENST00000415100,ENST00000455496	18418-18422	3,13,5,5,5
chr22	29975583	29975486	-	chr22	29966521	29966394	-	ENST00000216121,ENST00000415100,ENST00000455496	18423-18427	32,1,32,32,32
chr22	30028193	30028235	+	chr22	30032740	30032865	+	ENST00000413209,ENST00000338641,ENST00000403435,ENST00000361452,ENST00000403999,ENST00000361166,ENST00000397789	18428-18434	14,7,13,7,7,7,7
chr22	31173221	31173482	+	chr22	31266416	31266669	+	ENST00000403222,ENST00000407373,ENST00000332585,ENST00000382310,ENST00000446658,ENST00000437268	18435-18440	18,44,7,18,18,18

Table 10

							ENST00000403222,ENST00000407373,ENST00000332585,ENST00000382310,ENST00000446658,ENST00000437268	27,52,4,4,4,4
chr22	31173221	31173508	+	chr22	31266416	31266669	+	18441-18446	
							ENST00000403222,ENST00000407373,ENST00000332585,ENST00000382310,ENST00000446658,ENST00000437268	7,52,51,52,52,52
chr22	31181630	31181919	+	chr22	31266416	31266669	+	18447-18452	
chr22	31359261	31359163	-	chr22	31354680	31354627	-	ENST00000397641	18453-18454	33,1
chr22	31361127	31360912	-	chr22	31354680	31354627	-	ENST00000397641	18455-18456	1,27
chr22	31361127	31361045	-	chr22	31354680	31354627	-	ENST00000397641	18457-18459	27,22,9
							ENST00000444929,ENST00000331728	18460-18462	13,23,23
							ENST00000414585,ENST00000443326,ENST00000540643,ENST00000432498,ENST00000443011,ENST00000400289,ENST00000400288,ENST00000524296	18463-18470	18,32,9,18,9,9,9,9
chr22	31934577	31935024	+	chr22	31942847	31942957	+	,ENST00000450787	18471-18476	
							ENST00000414585,ENST00000443326,ENST00000540643,ENST00000432498,ENST00000443011,ENST00000400289,ENST00000400288,ENST00000452250,ENST00000417682	18477-18481	13,21,13,13,13
chr22	32008083	32008149	+	chr22	32009128	32009202	+			
							ENST00000414585,ENST00000443326,ENST00000540643,ENST00000432498,ENST00000443011,ENST00000400289,ENST00000400288,ENST00000452250,ENST00000417682	18482-18488	11,23,1,11,11,1,1,11
chr22	32008083	32008181	+	chr22	32009128	32009202	+			
							ENST00000535622,ENST00000536766,ENST00000400242,ENST00000266091,ENST00000382105,ENST00000400246,ENST00000400249,ENST00000382112,ENST00000382111,ENST00000400248	18489-18498	11,1,9,9,9,9,9,9,9
chr22	32181014	32181093	+	chr22	32188019	32188088	+			
							ENST00000535622,ENST00000536766,ENST00000266091,ENST00000382105,ENST00000400246,ENST00000400249,ENST00000382112,ENST00000382111,ENST00000400248,ENST00000448753,ENST00000433147,ENST00000539165	18499-18506	2,11,22,11,11,11,11,11
chr22	32227144	32227211	+	chr22	32229901	32229966,3	+	18507-18508		
							ENST00000535622,ENST00000266091,ENST00000382105,ENST00000400246,ENST00000400249,ENST00000382112,ENST00000382111,ENST00000400248,ENST00000448753,ENST00000433147,ENST00000539165	18509-18510	13,3
chr22	32274743	32274916	+	chr22	32275511	32275738	+	ENST00000400237	18511-18513	24,11
chr22	32591744	32591644	-	chr22	32590385	32590332	-	ENST00000266086	18514-18516	6,47,47
chr22	32749007	32748864	-	chr22	32650200	32650129	-	ENST00000216038	18517-18518	1,13,2
chr22	32787677	32787416	-	chr22	32784086	32783979	-	ENST00000216038,ENST00000451746	18519-18521	27,7
chr22	32799031	32798846	-	chr22	32797890	32797734,3	-	ENST00000358763,ENST00000332840	18522-18523	45,30,40
chr22	32952041	32951437	-	chr22	32937699	32937557	-	ENST00000444518,ENST00000216106		28,4
chr22	35666073	35666395	+	chr22	35679955	35680036	+			

Table 10

						ENST00000608749,ENST00000447733,ENST00000608674,ENST00000456128,ENST00000449058,ENST00000411850,ENST00000425375,ENST00000439512,ENST00000424387,ENST00000395736,ENST00000443206	18524-18536	94,55,24,24,24,24,24,24,24,55,24,24
chr22	35716443	35716728	+	chr22	35717952	35718030,357	+	
						ENST00000405409,ENST00000414461,ENST00000449924,ENST00000262829,ENST00000416721,ENST00000438146,ENST00000408983	18537-18545	8,5,12,5,5,5,5,5,5
chr22	36280849	36280552	-	chr22	36206051	36205827	-	
						ENST00000422426,ENST00000432700,ENST00000530895	18546-18548	15,7,15
chr22	36555471	36555425	-	chr22	36545419	36545394	-	
						ENST00000319136,ENST00000438034	18549-18552	2,1,1,1
chr22	36648506	36648511	+	chr22	36650983	36651045	+	
						ENST00000216185,ENST00000403313,ENST00000411915	18553-18556	33,23,1,23
chr22	36873554	36873456	-	chr22	36872903	36872780	-	
						ENST00000216185,ENST00000403313,ENST00000411915	18557-18560	22,13,21,21
chr22	36873554	36873488	-	chr22	36872903	36872780	-	
						ENST00000397224,ENST00000216187,ENST00000397223	18561-18563	17,1,12
chr22	36899343	36899195	-	chr22	36897454	36897288	-	
						ENST00000397110,ENST00000337843,ENST00000434784	18564-18567	37,37,36,37
chr22	37581767	37581656	-	chr22	37581495	37581258	-	
						ENST00000397110,ENST00000337843,ENST00000434784	18568-18571	6,11,10,10
chr22	37591507	37585938	-	chr22	37581495	37581258	-	
						ENST00000397110,ENST00000337843,ENST00000434784	18572-18575	9,2,27,2
chr22	37591507	37586542	-	chr22	37581495	37581258	-	
						ENST00000249071,ENST00000405484,ENST00000441619,ENST00000401529	18576-18582	14,44,5,14,14,44,5
chr22	37637992	37637859	-	chr22	37637698	37637627	-	
						ENST00000249071,ENST00000405484,ENST00000441619,ENST00000401529	18583-18589	15,18,10,10,15,18,10
chr22	37644487	37644271	-	chr22	37637698	37637627	-	
						ENST00000416983,ENST00000356998,ENST00000454291	18590-18592	23,5,23
chr22	37866373	37866178	-	chr22	37866067	37866001,4	-	
						ENST00000356998,ENST00000430411,ENST00000424765	18593-18598	30,6,30,6,30,6
chr22	37877482	37877382	-	chr22	37876807	37876759	-	
						ENST00000414350,ENST00000343632,ENST00000381756,ENST00000405147,ENST00000325180,ENST00000337437	18599-18610	7,7,6,7,6,6,7,6,6,7,6,6
chr22	38012219	38012240	+	chr22	38012929	38013070,38(	+	
						ENST00000343632,ENST00000381756,ENST00000405147,ENST00000325180,ENST00000449944	18611-18617	2,5,5,2,5,2,2
chr22	38013504	38013521	+	chr22	38014455	38014553	+	
						ENST00000359114,ENST00000438329,ENST00000455236	18618-18620	4,15,20
chr22	38083381	38083457	+	chr22	38083917	38084022	+	
						ENST00000215941,ENST00000458278,ENST00000413497,ENST00000434930	18621-18622	14,1
chr22	38239145	38239104	-	chr22	38236241	38236194	-	
						ENST00000215941,ENST00000458278,ENST00000413497,ENST00000434930	18623-18628	33,20,7,20,20,20
chr22	38245287	38245070	-	chr22	38236241	38236194	-	
						ENST00000412331,ENST00000439997,ENST00000381683	18629-18635	13,13,12,13,13,13,12
chr22	38245795	38245834	+	chr22	38246022	38246070	+	
chr22	38427383	38427393	+	chr22	38437075	38437099	+	ENST00000407936	18636-18638	3,3,3
chr22	38436000	38436004	+	chr22	38437075	38437099	+	ENST00000407936	18639-18641	1,1,1
						ENST00000332509,ENST00000335539,ENST00000402064	18642-18643	24,11
chr22	38515067	38514968	-	chr22	38512218	38512082,4	-	
						ENST00000454670		

Table 10

						ENST00000332509,ENST00000335539,ENST00000402064,ENST00000436218,ENST00000455341	18644-18650	43,12,104,104,104,43,104
chr22	38559737	38559422 -	chr22	38541660	38541445,4 -			
chr22	38561499	38561341 -	chr22	38541660	38541445,4 -	ENST00000332509,ENST00000335539,ENST00000402064,ENST00000436218,ENST00000455341	18651-18653	25,19,19
chr22	38708395	38708295 -	chr22	38699253	38699143 -	ENST00000359867,ENST00000396832,ENST00000400206,ENST00000403904,ENST00000413574,ENST00000405675,ENST00000430335	18654-18659	33,24,33,24,24,24
chr22	38890479	38890318 -	chr22	38890136	38890026 -	ENST00000396821,ENST00000381633,ENST00000403230	18660-18664	14,1,10,1,1
chr22	38901213	38901145 -	chr22	38897285	38897135 -	ENST00000396821,ENST00000381633,ENST00000403230	18665-18669	23,13,22,13,13
chr22	39025650	39025612 -	chr22	39024940	39024839 -	ENST00000535113,ENST00000355830,ENST00000406767	18670-18674	13,12,12,13,13
chr22	39541011	39540895 -	chr22	39537441	39537376 -	ENST00000216133,ENST00000401405	18675-18679	36,38,2,38,2
chr22	39634698	39634672 -	chr22	39631879	39631783 -	ENST00000331163,ENST00000381551	18680-18682	9,8,8
chr22	39716627	39716401 -	chr22	39714597	39714405 -	ENST00000216146,ENST00000453303,ENST00000427905,ENST00000420536	18683-18688	3,41,17,17,17,17
chr22	40011901	40011910 +	chr22	40015315	40015412 +	ENST00000407673,ENST00000401624,ENST00000336649,ENST00000400164,ENST00000404898,ENST00000402142	18689-18696	2,3,2,2,2,2,2,2
chr22	40218023	40217750 -	chr22	40217118	40216998 -	ENST00000325157	18697-18698	23,3
chr22	40270249	40269979 -	chr22	40217118	40216998 -	ENST00000325157	18699-18700	4,7
chr22	40898710	40898260 -	chr22	40859290	40859225 -	ENST00000422851	18701-18703	1,14,27
chr22	40898710	40898340 -	chr22	40859290	40859225 -	ENST00000422851	18704-18706	49,24,1
chr22	40898710	40898377 -	chr22	40859290	40859225 -	ENST00000422851	18707-18709	37,12,26
chr22	41141526	41141507 -	chr22	40859290	40859225 -	ENST00000422851	18710-18712	6,6,6
chr22	41240186	41240136 -	chr22	41236696	41236630 -	ENST00000216218,ENST00000413424,ENST00000411695	18713-18717	7,17,16,17,17
chr22	41287065	41287165 +	chr22	41303591	41303600,4 +	ENST00000541156,ENST00000357137,ENST00000544094	18718-18721	6,11,6,11
chr22	41643652	41643470 -	chr22	41642676	41642607 -	ENST00000405486,ENST00000356244,ENST00000455915,ENST00000407260	18722-18723	61,26
chr22	41651105	41651084 -	chr22	41650498	41650312 -	ENST00000405486,ENST00000356244,ENST00000455915,ENST00000407260	18724-18725	7,6
chr22	41657412	41657264 -	chr22	41654110	41653952 -	ENST00000405486,ENST00000356244,ENST00000455915,ENST00000407260,ENST00000446258	18726-18729	49,10,36,36
chr22	41661280	41660978 -	chr22	41660847	41660668,4 -	ENST00000405486,ENST00000356244,ENST00000455915,ENST00000407260,ENST00000446258,ENST00000452543	18730-18736	39,1,39,1,39,39,1
chr22	41732862	41733081 +	chr22	41734317	41734359 +	ENST00000352645,ENST00000351589	18737-18739	20,7,43
chr22	42000550	42000500 -	chr22	42000157	42000048 -	ENST00000263256	18740-18742	12,7,16
chr22	42058805	42058988 +	chr22	42059626	42059819 +	ENST00000360079,ENST00000402580,ENST00000428575,ENST00000359308,ENST00000405878,ENST00000405506	18743-18744	12,7
chr22	42085084	42085308 +	chr22	42089467	42089982 +	ENST00000402966	18745-18747	7,15,20
chr22	42143316	42143334 +	chr22	42144111	42144222 +	ENST00000401548,ENST00000540833	18748-18750	6,6,6

Table 10

						ENST00000401548,ENST00000540833,ENST00000400107,ENST00000540880	18751-18757	33,23,1,23,1,23,23,4,13,4
chr22	42155352	42155450 +	chr22	42159178	42159325 +			
chr22	42234951	42234991 +	chr22	42262835	42263284 +	ENST00000361204,ENST00000424354	18758-18760	20,4,4
chr22	42236978	42237037 +	chr22	42262835	42263284 +	ENST00000361204,ENST00000424354	18761-18763	5,4
chr22	42465336	42465321 -	chr22	42464578	42464443 -	ENST00000396398,ENST00000403363,ENST00000402937	18764-18765	33,24,11,24
chr22	42832125	42832025 -	chr22	42807742	42807413 -	ENST00000329021,ENST00000355469	18766-18769	75,26,13
chr22	42915415	42915189 -	chr22	42914153	42914011 -	ENST00000323013	18770-18772	26,13,72
chr22	42977623	42977405 -	chr22	42914153	42914011 -	ENST00000323013	18773-18775	17,7
chr22	42986488	42986309 -	chr22	42983578	42983512 -	ENST00000348657,ENST00000252115	18776-18777	3,16
chr22	42999650	42999602 -	chr22	42999166	42998776 -	ENST00000445215,ENST00000348657,ENST00000252115,ENST00000339677,ENST00000454057	18778-18779	11,11,11,11,11,11,11,11
chr22	43333370	43333336 -	chr22	43289619	43289463,4 -	ENST00000263246,ENST00000337959,ENST00000407585,ENST00000403744,ENST00000402229,ENST00000453643,ENST00000418133,ENST00000422336,ENST00000453079	18780-18787	13,8,43,13
chr22	43468149	43467932 -	chr22	43465850	43465642 -	ENST00000331018,ENST00000266254	18788-18791	9,26
chr22	44337238	44337443 +	chr22	44340571	44340675 +	ENST00000216180,ENST00000423180	18792-18793	33,16,40
chr22	44589128	44589250 +	chr22	44589681	44589703 +	ENST00000422871,ENST00000444313,ENST00000415224	18794-18796	11,11,11,11,11,11,11,11,11
chr22	45064651	45064685 +	chr22	45110471	45110551 +	ENST00000432186,ENST00000006251,ENST00000403581,ENST00000336985,ENST00000403696,ENST00000457960,ENST00000431834,ENST00000361473,ENST00000352766,ENST00000517296,ENST00000432916,ENST00000389773	18797-18805	14,13,13
chr22	45594389	45594348 -	chr22	45593829	45593671 -	ENST00000336156,ENST00000423262,ENST00000251993,ENST00000391627,ENST00000443310	18806-18808	7,17,16,17
chr22	45603191	45603141 -	chr22	45601793	45601674 -	ENST00000336156,ENST00000251993,ENST00000391627,ENST00000443310,ENST00000414854,ENST00000424508	18809-18812	8,24,10,8
chr22	45799638	45799375 -	chr22	45798451	45798213 -	ENST00000357450,ENST00000404354	18813-18816	7,12
chr22	46085237	46085420 +	chr22	46085592	46085783 +	ENST00000252934	18817-18818	18,9
chr22	46087848	46087906 +	chr22	46088876	46088958 +	ENST00000381061,ENST00000252934	18819-18820	20,15
chr22	46347848	46347454 -	chr22	46346026	46345800 -	ENST00000339464,ENST00000409496,ENST00000410089,ENST00000410058	18821-18822	6,21,7,7
chr22	46347848	46347527 -	chr22	46346026	46345800 -	ENST00000339464,ENST00000409496,ENST00000410089,ENST00000410058	18823-18826	
chr22	46694568	46695582 +	chr22	46704047	46704104 +	ENST00000454366	18827-18829	54,112,3
chr22	46732441	46732563 +	chr22	46733676	46733841 +	ENST00000441818,ENST00000381021,ENST00000453630,ENST00000456595,ENST00000457572,ENST00000290846,ENST00000381019	18830-18835	19,11,7,7,7,7
chr22	46829879	46829813 -	chr22	46829378	46829290 -	ENST00000262738	18836-18838	22,22,21
chr22	46887130	46887031 -	chr22	46860242	46859604 -	ENST00000262738,ENST00000395964,ENST00000454637	18839-18842	33,22,33,33

Table 10

						ENST00000337137,ENST00000380995,ENST00000407381,ENST00000355704,ENST00000441162,ENST00000406733		6,24,24
chr22	47246367	47246587	+	chr22	47274549	47274619	+		18843-18845	
chr22	50643073	50643453	+	chr22	50644750	50644949	+	ENST00000380903	18846-18847	5,16
chr22	51019691	51019653	-	chr22	51019089	51018994	-	ENST00000406938	18848-18850	13,12,7
chr22	51020538	51020458	-	chr22	51020291	51020178	-	ENST00000406938	18851-18852	11,26
chr3	100102505	100102448	-	chr3	100100607	100100459	-	ENST00000284320	18853-18854	3,17
								ENST00000471714,ENST00000284322,ENST00000495063		4,11,10,11,11
chr3	100664752	100664424	-	chr3	100645325	100645146	-		18855-18859	
chr3	101373184	101372917	-	chr3	101371782	101371624	-	ENST00000312938	18860-18862	1,13,21
								ENST00000273347,ENST00000474165,ENST00000491511,ENST00000477909,ENST00000422132	18863-18865	11,2,2
chr3	101508106	101508244	+	chr3	101520079	101520833	+			
								ENST00000530758,ENST00000256463	18866-18868	33,1,1
chr3	10160479	10160654	+	chr3	10167953	10167979,1	+	ENST00000256474	18869-18871	27,55,22
chr3	10176238	10176610	+	chr3	10188198	10188320	+	ENST00000256458	18872-18874	13,8,21
chr3	10256497	10256760	+	chr3	10258618	10258732	+	ENST00000337354,ENST00000350697,ENST00000383801,ENST00000431352,ENST00000428626,ENST00000445064	18875-18880	14,8,1,1,1,1
chr3	10361265	10361222	-	chr3	10359778	10359734,103	-			
								ENST00000383801,ENST00000428626,ENST00000445064	18881-18885	14,8,1,14,14
chr3	10361265	10361222	-	chr3	10360856	10360823	-			
								ENST00000306107,ENST00000472644	18886-18889	58,2,4,58
chr3	105121096	105121285	+	chr3	105238911	105239011	+	ENST00000355354,ENST00000361309	18890-18891	35,3
chr3	107816467	107815933	-	chr3	107799191	107798838	-	ENST00000491820,ENST00000467562,ENST00000357759,ENST00000467761,ENST00000489514,ENST00000482099	18892-18894	6,32,32
chr3	108088174	108088271	+	chr3	108095340	108095404	+			
								ENST00000295746,ENST00000491772	18895-18897	19,4,12
chr3	108282829	108282681	-	chr3	108282091	108281973	-			
								ENST00000393963,ENST00000261047,ENST00000471108	18898-18901	60,2,2,2
chr3	108666307	108666120	-	chr3	108639432	108639283	-			
								ENST00000232603,ENST00000483760	18902-18905	33,39,14,39
chr3	108835299	108834583	-	chr3	108833284	108833231	-			
								ENST00000232603,ENST00000483760	18906-18909	16,6,1,6
chr3	108865734	108865438	-	chr3	108833284	108833231	-			
								ENST00000283290,ENST00000402314,ENST00000496423	18910-18914	46,19,74,19,19
chr3	112278685	112278355	-	chr3	112277264	112277223	-			
								ENST00000383678,ENST00000383677,ENST00000295864,ENST00000485330,ENST00000488781,ENST00000467752,ENST00000473129	18915-18918	11,34,18,34
chr3	112715024	112715248	+	chr3	112715739	112715838	+			
								ENST00000314400,ENST00000383675,ENST00000461381,ENST00000496206,ENST00000496340	18919-18923	11,27,11,11,11
chr3	112737788	112737578	-	chr3	112736449	112736295	-			
								ENST00000393845,ENST00000295868	18924-18927	25,6,5,25
chr3	113100925	113100698	-	chr3	113099907	113099746	-			
								ENST00000264852,ENST00000393830	18928-18929	3,13
chr3	113318875	113318943	+	chr3	113320435	113320506	+			
								ENST00000264852,ENST00000393830	18930-18933	13,24,11,24
chr3	113318875	113318975	+	chr3	113320435	113320506	+			
								ENST00000240922,ENST00000477813,ENST00000481432	18934-18937	5,36,36,36
chr3	113450271	113449590	-	chr3	113442942	113442806	-			
								ENST00000273398,ENST00000538620	18938-18939	34,35
chr3	113521808	113522191	+	chr3	113522430	113522524	+			
								ENST00000295878,ENST00000545063,ENST00000491000	18940-18944	2,1,13,2,2
chr3	113752105	113751978	-	chr3	113750626	113750473	-			

Table 10

							ENST00000485050,ENST00000281273,ENST00000479882,ENST00000493014	18945-18947	9,12,27
chr3	113801768	113801850	+	chr3	113804520	113804751	+		
chr3	11396763	11397035	+	chr3	11399892	11400086	+	ENST00000446450,ENST00000354956,ENST00000354449	18948-18952	7,58,1,7,7
chr3	115089249	115089544	+	chr3	115394860	115395457	+	ENST00000305124,ENST00000393780	18953-18955	7,41,45
chr3	11863074	11862757	-	chr3	11858811	11858666,1	-	ENST00000455809,ENST00000273037,ENST00000414736,ENST00000444133	18956-18961	4,14,46,46,46,46
chr3	11877764	11877547	-	chr3	11874625	11874581	-	ENST00000457498,ENST00000411947	18962-18964	67,18,11
chr3	119164410	119164343	-	chr3	119156950	119156602	-	ENST00000319172,ENST00000491685	18965-18967	11,22,11
chr3	119207495	119207681	+	chr3	119207776	119207834	+	ENST00000295588	18968-18969	4,1
chr3	119210620	119210717	+	chr3	119211129	119211285	+	ENST00000295588	18970-18972	1,23,10
chr3	119400938	119400657	-	chr3	119394080	119393996	-	ENST00000468918,ENST00000261070,ENST00000486606,ENST00000484810,ENST00000497116	18973-18975	4,10,45
chr3	119400938	119400693	-	chr3	119394080	119393996	-	ENST00000468918,ENST00000261070,ENST00000486606,ENST00000484810,ENST00000497116	18976-18977	28,33
chr3	119952009	119951845	-	chr3	119912271	119912142	-	ENST00000315843,ENST00000464295,ENST00000461057	18978-18980	32,47,47
chr3	120153686	120153655	-	chr3	120134874	120134770	-	ENST00000295633,ENST00000469005	18981-18984	10,8,10,10
chr3	120378800	120378661	-	chr3	120371498	120371439	-	ENST00000283871,ENST00000476082	18985-18988	16,20,33,33
chr3	120382411	120382226	-	chr3	120371498	120371439	-	ENST00000283871,ENST00000476082	18989-18992	4,7,48,4
chr3	120457470	120457374	-	chr3	120449634	120449543	-	ENST00000273375,ENST00000473654,ENST00000485161,ENST00000481015,ENST00000465022,ENST00000483733	18993-19000	6,13,31,6,6,31,6,6
chr3	120457470	120457397	-	chr3	120449634	120449543	-	ENST00000273375,ENST00000473654,ENST00000485161,ENST00000481015,ENST00000465022,ENST00000483733	19001-19008	15,5,24,5,15,5,5,5
chr3	121161699	121161509	-	chr3	121158963	121158839	-	ENST00000264233	19009-19011	48,4,7
chr3	121221350	121221250	-	chr3	121217517	121217324	-	ENST00000264233	19012-19014	18,24,11
chr3	121255788	121255692	-	chr3	121252056	121251837	-	ENST00000264233	19015-19017	8,32,23
chr3	121256498	121256378	-	chr3	121256055	121255947	-	ENST00000264233	19018-19020	40,28,12
chr3	121538378	121538020	-	chr3	121526290	121526191	-	ENST00000310864,ENST00000349820,ENST00000393650	19021-19025	14,28,4,28,28
chr3	121562001	121562017	+	chr3	121563300	121563394	+	ENST00000490434,ENST00000273668,ENST00000451944	19026-19030	5,5,1,5,5
chr3	121766785	121766690	-	chr3	121726008	121725838	-	ENST00000273691,ENST00000344209,ENST00000393631,ENST00000462014	19031-19035	32,6,13,13,13
chr3	122163450	122162488	-	chr3	122160963	122160885	-	ENST00000344337,ENST00000465882	19036-19040	29,24,7,24,7
chr3	122163450	122162490	-	chr3	122160963	122160885	-	ENST00000344337,ENST00000465882	19041-19045	28,24,6,28,6
chr3	122172090	122171963	-	chr3	122170911	122170823,12	-	ENST00000344337,ENST00000465882,ENST00000482287,ENST00000476916	19046-19050	42,42,42,42,42
chr3	122203904	122203816	-	chr3	122186276	122186169	-	ENST00000344337,ENST00000485027,ENST00000494339,ENST00000465882,ENST00000482287,ENST00000476916,ENST00000493510	19051-19057	8,13,13,13,13,13,13
chr3	122250062	122249969	-	chr3	122247590	122247211	-	ENST00000477522,ENST00000492382,ENST00000360356,ENST00000471785	19058-19060	4,18,2

Table 10

							ENST00000464300,ENST00000483793,ENST00000310366		5,4,4
chr3	122352949	122352963	+	chr3	122353867	122354041	+,ENST00000493645	19061-19063	
chr3	122439681	122439764	+	chr3	122446659	122446833	+ ENST00000474629	19064-19066	28,3,8
chr3	122551791	122551902	+	chr3	122552164	122552293	+ ENST00000261038	19067-19068	37,11
							ENST00000462833,ENST00000491190,ENST00000309879		40,5,40,40
chr3	123034731	123034582	-	chr3	123033169	123033082	-,ENST00000466617	19069-19072	
							ENST00000310351,ENST00000488653,ENST00000485727,ENST00000489746,ENST00000433542,ENST00000409697		40,83,13
chr3	123648441	123648191	-	chr3	123634565	123633626	-	19073-19075	
							ENST00000460856,ENST00000240874,ENST00000360013		17,7
chr3	124132671	124132721	+	chr3	124141659	124141825	+,ENST00000354186	19076-19077	
							ENST00000360013,ENST00000354186,ENST00000393496,ENST00000291478,ENST00000454902,ENST00000428018		14,10,99,10,10,10
chr3	124349737	124350215	+	chr3	124351267	124351550	+	19078-19083	
							ENST00000232607,ENST00000462091,ENST00000479719,ENST00000497791,ENST00000536109		22,11,22,22
chr3	124455969	124456069	+	chr3	124456415	124457086,1	+	19084-19087	
chr3	124783262	124782983	-	chr3	124748332	124748039	- ENST00000311127	19088-19090	19,4,7
							ENST00000430155,ENST00000393469,ENST00000423114,ENST00000469902,ENST00000314584		10,7,10
chr3	124842655	124842374	-	chr3	124826970	124826325	-	19091-19093	
							ENST00000430155,ENST00000393469,ENST00000423114,ENST00000469902,ENST00000314584,ENST00000479826		10,7,37,7,7
chr3	124842655	124842374	-	chr3	124837700	124837613	-	19094-19098	
							ENST00000393469,ENST00000423114,ENST00000469902,ENST00000479826		16,34,16
chr3	124873767	124873653	-	chr3	124854626	124854513	-	19099-19101	
							ENST00000393469,ENST00000423114,ENST00000473262		1,20,20
chr3	124932853	124932792	-	chr3	124909365	124909219	-,ENST00000469902	19102-19104	
							ENST00000251775,ENST00000536067	19105-19106	8,28
chr3	125188162	125188078	-	chr3	125179704	125179615	-		
							ENST00000446004,ENST00000314571,ENST00000383797,ENST00000454502,ENST00000402228,ENST00000444864,ENST00000284995,ENST00000415684	19107-19114	38,6,27,6,6,6,6,6
chr3	12522368	12522483	+	chr3	12538017	12538053	+		
chr3	125267022	125266954	-	chr3	125266436	125266250	- ENST00000296220	19115-19117	23,13,22
							ENST00000446004,ENST00000314571,ENST00000383797,ENST00000454502,ENST00000402228,ENST00000444864,ENST00000284995,ENST00000415684	19118-19124	3,10,10,10,10,10,10
chr3	12535562	12535804	+	chr3	12538017	12538053	+		
							ENST00000360370,ENST00000346785,ENST00000383598,ENST00000315891,ENST00000508835,ENST00000507008,ENST00000514677,ENST00000513723,ENST00000512470,ENST00000514333,ENST00000507280,ENST00000514891,ENST00000504035,ENST00000509064	19125-19140	29,15,37,37,29,37,37,37,29,37,29,37,29,37,29,37
chr3	125754167	125754055	-	chr3	125752521	125752450,1	-		
							ENST00000170447,ENST00000448482	19141-19145	4,68,14,68,14
chr3	12604073	12604393	+	chr3	12610374	12610502,1	+		
chr3	126180264	126180113	-	chr3	126160789	126160608	- ENST00000389709	19146-19148	12,17,9
							ENST00000290913,ENST00000503119,ENST00000508789		35,35,35,35,35
chr3	126423819	126423925	+	chr3	126445921	126446029	+	19149-19153	

Table 10

							ENST00000290913,ENST00000508789,ENST00000513253		14,22,44,14,14
chr3	126517724	126517858	+	chr3	126571490	126571573	+	19154-19158	
							ENST00000290913,ENST00000508789,ENST00000513253		6,31,31,31
chr3	126519918	126520012	+	chr3	126571490	126571573	+	19159-19162	
							ENST00000290913,ENST00000508789	19163-19166	6,24,64,6
chr3	126636479	126636765	+	chr3	126676259	126676394	+		
							ENST00000265052,ENST00000453507	19167-19170	23,2,1,1
chr3	127545021	127544509	-	chr3	127540681	127540537	-		
							ENST00000464873,ENST00000322623,ENST00000417360		37,1,12,12,12
chr3	127866211	127866072	-	chr3	127831863	127831731	-	19171-19175	
							ENST00000322623,ENST00000417360	19176-19179	37,1,12,12
chr3	127866211	127866072	-	chr3	127838257	127838171	-		
							ENST00000308982,ENST00000514336	19180-19184	3,3,2,3,2
chr3	128600357	128600366	+	chr3	128603496	128603589	+		
chr3	128616288	128616307	+	chr3	128616475	128616553	+	ENST00000308982	19185-19187	6,1,6
							ENST00000511438,ENST00000265068	19188-19190	12,12,12
chr3	128721625	128721589	-	chr3	128707761	128707571	-		
							ENST00000315150,ENST00000393304,ENST00000393308,ENST00000393307,ENST00000393305,ENST00000418265,ENST00000476465,ENST00000457077	19191-19198	17,1,38,38,38,17,1,38
chr3	128828982	128828867	-	chr3	128814012	128813829,12	-		
chr3	128978025	128978090	+	chr3	128979176	128979243	+	ENST00000314797	19199-19201	13,21,21
							ENST00000393238,ENST00000426664,ENST00000329333		23,11,23
chr3	129430006	129429938	-	chr3	129390107	129389173	-	,ENST00000505616	19202-19204	
							ENST00000265379,ENST00000312481,ENST00000432398		108,7,25,25,25
chr3	130126675	130127570	+	chr3	130128170	130128232	+		19205-19209	
							ENST00000265379,ENST00000312481,ENST00000432398		7,25,7
chr3	130149696	130149772	+	chr3	130150309	130150793	+	,ENST00000512836	19210-19212	
							ENST00000505330,ENST00000504381,ENST00000507488,ENST00000393221,ENST00000533801,ENST00000510168,ENST00000508532,ENST00000504948,ENST00000513801,ENST00000328560,ENST00000428331,ENST00000359644,ENST00000422190,ENST00000504612,ENST00000508660,ENST00000507194		13,24,7,24,24,24,24,24
chr3	130713976	130714200	+	chr3	130714887	130714955	+		19213-19220	
chr3	132226278	132228642	+	chr3	132229911	132230088	+	ENST00000260818	19221-19222	5,31
							ENST00000264993,ENST00000431519,ENST00000503932		9,18
chr3	133290344	133290630	+	chr3	133293883	133293959	+		19223-19224	
chr3	133344108	133344010	-	chr3	133343019	133342896	-	ENST00000260810	19225-19227	33,23,10
chr3	133354093	133353999	-	chr3	133347577	133347404	-	ENST00000260810	19228-19230	15,31,11
chr3	13362939	13362851	-	chr3	13361479	13361263	-	ENST00000254508	19231-19233	8,29,24
							ENST00000295757,ENST00000402259,ENST00000402271,ENST00000425430,ENST00000404548,ENST00000404040,ENST00000458642,ENST00000418189,ENST00000434848		2,34,11,11,11,11,11,11,11,11
chr3	13522405	13522519	+	chr3	13522746	13522894	+		19234-19244	
							ENST00000264977,ENST00000490467,ENST00000334546,ENST00000492624,ENST00000447251		17,7,16,7
chr3	135766462	135766512	+	chr3	135768101	135768203	+		19245-19248	

Table 10

							ENST00000251654,ENST00000462637,ENST00000466072,ENST00000468777,ENST00000483687,ENST00000484181,ENST00000490504,ENST00000471595,ENST00000469217,ENST00000465423,ENST00000478469,ENST00000462542	3,8,2,2,2,2,2,2,2,2,2,2,2,2,2,2
chr3	135968788	135968870	+	chr3	135974698	135974817	+	19249-19262	ENST00000383202,ENST00000236698,ENST00000434713	6,6,6
chr3	136203945	136203848	-	chr3	136196254	136196131	-	19263-19265	ENST00000383202,ENST00000236698,ENST00000480733	11,1,24,1,1
chr3	136270736	136270597	-	chr3	136261037	136260961	-	19266-19270	ENST00000469243	16,17,12
chr3	137789546	137789370	-	chr3	137788006	137788002	-	19271-19273	ENST00000289104,ENST00000423968,ENST00000474559	8,2,9
chr3	138092146	138092176	+	chr3	138116166	138116319	+	19274-19276	ENST00000264982,ENST00000542237,ENST00000489254,ENST00000484888,ENST00000474781,ENST00000481834	13,12,4,12
chr3	138230854	138230816	-	chr3	138227386	138227281	-	19277-19280	ENST00000264982,ENST00000542237,ENST00000489254,ENST00000484888,ENST00000474781,ENST00000481834,ENST00000468900,ENST00000462419,ENST00000464035	1,34,2,34,34,34,34
chr3	138266828	138266423	-	chr3	138256189	138256020	-	19281-19287	ENST00000477593,ENST00000544716,ENST00000493568,ENST00000289153,ENST00000473435	24,11,28,11,11
chr3	138416873	138416774	-	chr3	138413749	138413628	-	19288-19292	ENST00000477593,ENST00000289153,ENST00000462294	18,10,8,10
chr3	138462702	138462446	-	chr3	138461623	138461400	-	19293-19296	ENST00000333188,ENST00000507777,ENST00000515006,ENST00000512153,ENST00000513274,ENST00000512242,ENST00000514508	8,1,1,1,1,1,1,1
chr3	139100447	139100303	-	chr3	139098308	139098222	-	19297-19303	ENST00000509842,ENST00000507722,ENST00000503809,ENST00000513258,ENST00000509883,ENST00000514251,ENST00000510338,ENST00000504673,ENST00000513570,ENST00000321464,ENST00000441582,ENST00000510726	10,17,17,17,17,17,17,17,17,17,17,17,17,17,17,17
chr3	141159904	141159955	+	chr3	141161231	141161682,14	+	19304-19315	,ENST00000509813	
chr3	141220809	141220938	+	chr3	141231005	141231049	+	19316-19320	ENST00000515549,ENST00000452898,ENST00000286364	41,43,19,41,41
chr3	141304994	141305071	+	chr3	141305488	141305597	+	19321-19323	ENST00000452898,ENST00000286364	16,2,16
chr3	142133636	142133538	-	chr3	142133133	142132977	-	19324-19327	ENST00000264951,ENST00000392981	33,23,1,23
chr3	142191470	142190981	-	chr3	142189025	142188928	-	19328-19330	ENST00000350721,ENST00000383101	5,14,6
chr3	142193754	142193404	-	chr3	142189025	142188928	-	19331-19333	ENST00000350721,ENST00000383101	5,24,14
chr3	142200076	142199980	-	chr3	142189025	142188928	-	19334-19335	ENST00000350721,ENST00000383101	32,6
chr3	142566179	142565479	-	chr3	142562151	142562087	-	19336-19338	ENST00000480473	21,7,15
chr3	14504676	14504784	+	chr3	14508024	14508158	+	19339-19342	ENST00000427436,ENST00000454876,ENST00000458124,ENST00000360861	36,3,33,3

							ENST00000342435,ENST00000493432,ENST00000463777,ENST00000468985,ENST00000488253,ENST00000489775,ENST00000478267,ENST00000462666,ENST00000472349		6,17,17
chr3	146281070	146279765	-	chr3	146251337	146251257	-	19343-19345	
							ENST00000285046,ENST00000543601,ENST00000457774		28,1,28,28,28,1
chr3	14866043	14866128	+	chr3	14905635	14905767	+	19346-19351	
							ENST00000345003,ENST00000296048,ENST00000484197		31,65,57,65,65,65
chr3	148726093	148726289	+	chr3	148727063	148727189	+	,ENST00000461191	19352-19357
							ENST00000473414,ENST00000491617,ENST00000483708		2
chr3	149469886	149469821	-	chr3	149469272	149469190	-	19358	
							ENST00000425241,ENST00000323373,ENST00000393102,ENST00000437120,ENST00000406272		7,7,7,7
chr3	15058757	15058779	+	chr3	15062260	15062439,2	+	19359-19362	
							ENST00000425241,ENST00000323373,ENST00000393102,ENST00000437120,ENST00000406272		3,6,23,3
chr3	15060751	15061063	+	chr3	15062260	15062439,2	+	19363-19366	
							ENST00000253699,ENST00000476527,ENST00000426541		18,10,32,32,18,32
chr3	15122788	15122562	-	chr3	15122309	15122239,2	-	,ENST00000435849	19367-19372
chr3	15316549	15316543	-	chr3	15311384	15311220	-	ENST00000383791	19373-19374 2,1
							ENST00000356448,ENST00000465093,ENST00000496710		6,3,7,3,3
chr3	153846915	153846937	+	chr3	153847363	153847508	+	,ENST00000465817	19375-19379
							ENST00000496811,ENST00000308361,ENST00000544526,ENST00000329463,ENST00000481941		1,12,19,19
chr3	153996568	153996428	-	chr3	153995507	153995387	-		19380-19383
chr3	15439121	15439043	-	chr3	15425694	15425657	-	ENST00000458728	19384-19385 26,6
							ENST00000383777,ENST00000399451,ENST00000412318		12,10,4,4
chr3	15761363	15761110	-	chr3	15756163	15756085	-	,ENST00000451422	19386-19389
							ENST00000480820,ENST00000295930,ENST00000471994,ENST00000464171,ENST00000312179,ENST00000475278		23,13
chr3	158173487	158173555	+	chr3	158178724	158178792	+	,ENST00000482822	19390-19391
							ENST00000486715,ENST00000478576,ENST00000478254		6,28,28,28,28
chr3	158352313	158352398	+	chr3	158363418	158363570	+	,ENST00000264263	19392-19396
							ENST00000486715,ENST00000478576,ENST00000478254		22,13,21,21,21
chr3	158368530	158368596	+	chr3	158369885	158370035	+	,ENST00000264263	19397-19401
							ENST00000486568,ENST00000491804,ENST00000415822,ENST00000484166,ENST00000480292,ENST00000264266,ENST00000471266,ENST00000471500,ENST00000474670		14,21,8,14,8,8,14,8,14,8,8,8,8
chr3	158465596	158465838	+	chr3	158522108	158522160	+	,ENST00000482835	19402-19414
							ENST00000471575,ENST00000476809,ENST00000485419,ENST00000397832,ENST00000451172,ENST00000482126,ENST00000483486,ENST00000481715		12,15
chr3	158928761	158928817	+	chr3	158963632	158963696	+		19415-19416
							ENST00000483754,ENST00000326448,ENST00000483465		49,14,27
chr3	160049270	160049046	-	chr3	160037727	160037548	-	,ENST00000496589	19417-19419
							ENST00000483754,ENST00000326448,ENST00000483465		19,13,30
chr3	160051890	160050989	-	chr3	160037727	160037548	-	,ENST00000496589	19420-19422
							ENST00000483754,ENST00000326448,ENST00000483465,ENST00000496589,ENST00000484963,ENST00000465537		31,17,4,31,4,4,4
chr3	160091761	160091403	-	chr3	160075366	160075277,16	-	,ENST00000475677	19423-19429

Table 10

							ENST00000483754,ENST000		31,17,4,17,1
							00326448,ENST00000483465		7,17,17,17
							,ENST00000496589,ENST000		
							00484963,ENST00000465537		
							,ENST00000475677,ENST000		
							00498409,ENST00000468218		
							,ENST00000486856,ENST000		
chr3	160091761	160091403	-	chr3	160083940	160083831,16	-	00478370	19430-19437	
chr3	160258898	160258871	-	chr3	160254628	160254584	-	ENST00000334256	19438-19440	9,2,7
chr3	160271523	160271509	-	chr3	160254628	160254584	-	ENST00000334256	19441-19442	4,4
								ENST00000432519,ENST000		2,15
								00334133,ENST00000451036		
								,ENST00000449415,ENST000		
								00441460,ENST00000453536		
chr3	16493724	16493288	-	chr3	16475544	16475358	-	,ENST00000431547	19443-19444	
								ENST00000264381,ENST000		13,16,2,16,1
								00497011,ENST00000479451		6
chr3	165526056	165526006	-	chr3	165504099	165503933	-	,ENST00000488954	19445-19449	
								ENST00000476257,ENST000		33,23,1
								00461846,ENST00000264677		
chr3	167161194	167161096	-	chr3	167159973	167159897	-	,ENST00000471111	19450-19452	
								ENST00000476257,ENST000		5,10,34
								00461846,ENST00000264677		
chr3	167173791	167173429	-	chr3	167170821	167170724	-	,ENST00000471111	19453-19455	
								ENST00000476257,ENST000		4,18
								00461846,ENST00000264677		
								,ENST00000471111,ENST000		
chr3	167187360	167187227	-	chr3	167185073	167184843	-	00466903	19456-19457	
chr3	169977599	169977613	+	chr3	169977757	169977846	+	ENST00000295797	19458-19459	4,4
								ENST00000064724,ENST000		14,14,14,14
								00486975,ENST00000451576		
chr3	170138572	170138615	+	chr3	170140951	170141115	+		19460-19463	
								ENST00000396755,ENST000		18,41,7,41
								00418129,ENST00000432376		
chr3	17064831	17065107	+	chr3	17084366	17084441	+	,ENST00000419842	19464-19467	
								ENST00000396755,ENST000		1,21,17,17
								00418129,ENST00000432376		
chr3	17092958	17094283	+	chr3	17109448	17109557	+	,ENST00000419842	19468-19471	
								ENST00000436636,ENST000		19,36,7,36,3
								00369326,ENST00000538048		6,36,36,36,3
								,ENST00000341852,ENST000		6,36,36,36
								00284483,ENST00000357327		
								,ENST00000460047,ENST000		
								00470834,ENST00000475336		
chr3	171076362	171076095	-	chr3	170946010	170945954	-	,ENST00000488470	19472-19483	
chr3	171076362	171076095	-	chr3	171065007	171064993	-	ENST00000465393	19484-19486	19,36,7
								ENST00000356327,ENST000		40,7,36,40
								00351298,ENST00000446289		
chr3	171384326	171384048	-	chr3	171379960	171379850	-	,ENST00000340989	19487-19490	
								ENST00000415807,ENST000		31,3
								00336824,ENST00000416957		
chr3	172010853	172010946	+	chr3	172013153	172013304	+		19491-19492	
								ENST00000475381,ENST000		5,45,8,8,8
								00273512,ENST00000538775		
chr3	172383900	172377959	-	chr3	172365904	172365676	-	,ENST00000424772	19493-19497	
chr3	174617099	174617438	+	chr3	174814580	174815081	+	ENST00000454872	19498-19499	7,1
chr3	174692195	174692220	+	chr3	174814580	174815081	+	ENST00000454872	19500-19501	8,8
								ENST00000497599,ENST000		7,16,16,16
								00392686,ENST00000392685		
								,ENST00000314235,ENST000		
								00349697,ENST00000485523		
chr3	178983544	178983495	-	chr3	178968717	178968531	-		19502-19505	
								ENST00000497599,ENST000		7,16,16,7
								00392686,ENST00000392685		
								,ENST00000314235,ENST000		
								00349697,ENST00000485523		
chr3	178983544	178983495	-	chr3	178968722	178968531	-		19506-19509	
								ENST00000263966,ENST000		12,7,12
chr3	179393708	179394002	+	chr3	179399666	179399791	+	00497380	19510-19512	
								ENST00000467460,ENST000		39,7,39,39,3
								00485199,ENST00000469198		9
chr3	179726679	179726400	-	chr3	179689453	179689382	-	,ENST00000463761	19513-19517	

							ENST00000357559,ENST00000445140,ENST00000480918		17,7,17,17
chr3	180635455	180635505	+	chr3	180651122	180651174	+,ENST00000484042	19518-19521	
chr3	182511301	182511432	+	chr3	182538048	182538164	ENST00000323116,ENST00000493826	19522-19525	44,21,6,44
chr3	182527852	182527938	+	chr3	182538048	182538164	ENST00000323116,ENST00000493826	19526-19529	11,28,28,11
							ENST00000265594,ENST00000497830,ENST00000495767,ENST00000476176,ENST00000487634,ENST00000466650		4,8,2,4,2,4,2,4,2,4,2,4
chr3	182816355	182816276	-	chr3	182812393	182812347	-,ENST00000486226	19530-19539	
chr3	182887615	182887338	-	chr3	182872179	182871470	ENST00000265598,ENST00000476015	19540-19542	7,18,18
chr3	183216602	183216503	-	chr3	183212069	183211867	ENST00000341319,ENST00000468734	19543-19545	2,21,10
chr3	183272304	183272127	-	chr3	183245798	183245633	-ENST00000341319,ENST00000468734	19546-19547	22,2
							ENST00000242810,ENST00000454652,ENST00000476808		17,7,16,17
chr3	183384926	183384976	+	chr3	183388822	183389010	+	19548-19551	
							ENST00000242810,ENST00000454652,ENST00000476808		4,7
chr3	183385171	183385199	+	chr3	183388822	183389010	+	19552-19553	
chr3	183460031	183460260	+	chr3	183465460	183465504	+ ENST00000305135	19554-19556	10,12,2
chr3	183475864	183476003	+	chr3	183476650	183476753	+ ENST00000305135	19557-19559	46,1,24
chr3	183515369	183515508	+	chr3	183515711	183515839	+ ENST00000305135	19560-19562	24,16,38
							ENST00000317096,ENST00000417784,ENST00000311101		17,7,16,17
chr3	183557817	183557767	-	chr3	183551613	183551512	-,ENST00000449306	19563-19566	
chr3	183693430	183693330	-	chr3	183689822	183689805	- ENST00000437205	19567-19569	33,24,11
							ENST00000287546,ENST00000437079,ENST00000436792		9,7,17
chr3	184712009	184712252	+	chr3	184714120	184714289	+,ENST00000446204	19570-19572	
							ENST00000446828,ENST00000424227,ENST00000443863,ENST00000535426,ENST00000265026,ENST00000420577		41,45,7,7
chr3	185182117	185182408	+	chr3	185183535	185183651	+	19573-19576	
chr3	185198807	185198511	-	chr3	185194935	185194909	- ENST00000382227	19577-19579	17,12,53
							ENST00000545472,ENST00000296257,ENST00000427465		33,11
chr3	185329663	185329763	+	chr3	185330395	185330446	+	19580-19581	
							ENST00000382199,ENST00000421047,ENST00000457616		1,24,30,1
chr3	185397242	185396926	-	chr3	185393701	185393579	-,ENST00000346192	19582-19585	
							ENST00000382199,ENST00000421047,ENST00000457616		1,11,28,28
chr3	185406417	185406330	-	chr3	185404979	185404845	-,ENST00000346192	19586-19589	
							ENST00000382199,ENST00000421047,ENST00000457616		13,18,13
chr3	185406417	185406362	-	chr3	185404979	185404845	-,ENST00000346192	19590-19592	
							ENST00000382199,ENST00000421047,ENST00000457616		18,13,13
chr3	185407929	185407854	-	chr3	185407415	185407143	-,ENST00000346192	19593-19595	
							ENST00000421047,ENST00000457616		17,13,4
chr3	185411133	185410965	-	chr3	185410568	185410487	-	19596-19598	
							ENST00000382199,ENST00000421047,ENST00000457616		34,1,54,34,1,54,34
chr3	185416901	185416636	-	chr3	185416135	185416087	-,ENST00000346192	19599-19605	
							ENST00000453386,ENST00000414862,ENST00000382191		16,5,14,16,5
chr3	185638616	185638453	-	chr3	185637284	185637225	-	19606-19610	
							ENST00000169298,ENST00000457772,ENST00000455441,ENST00000427315,ENST00000448044,ENST00000448449		3,58,58,58,58,58
chr3	186739600	186739792	+	chr3	186790637	186790735,18	+,ENST00000442023	19611-19616	
							ENST00000312675,ENST00000543006	19617-19619	3,21,32

							ENST00000264731,ENST000 00382063,ENST00000418709 ,ENST00000320472,ENST000 00392460,ENST00000440651	16,16,15,15, 15,15,15,15
chr3	189314979	189315027	+	chr3	189455529	189455657	+	19620-19627	
							ENST00000412504,ENST000 00072516,ENST00000443369 ,ENST00000439062,ENST000 00447382,ENST00000342550 ,ENST00000413869,ENST000	13,61,7,7,7
chr3	190359952	190360191	+	chr3	190362037	190362186	+	00317757	19628-19632
							ENST00000392455,ENST000	52,9,9
chr3	191078613	191078769	+	chr3	191078858	191078948	+	00392456	19633-19635
							ENST00000445105,ENST000 00264730,ENST00000454309 ,ENST00000450716,ENST000	4,12,35,35
chr3	192129888	192129781	-	chr3	192078327	192078217	-	00418610	19636-19639
chr3	192605113	192605050	-	chr3	192517439	192516175	-	ENST00000392452	19640-19641 21,2
							ENST00000361150,ENST000 00361510,ENST00000361715 ,ENST00000361828,ENST000 00361908,ENST00000392438	6,14
chr3	193364273	193364391	+	chr3	193364854	193364969	+	19642-19643	
							ENST00000361150,ENST000 00361510,ENST00000361715 ,ENST00000361828,ENST000 00361908,ENST00000392438	1,8,8
chr3	193374044	193374069	+	chr3	193374869	193375021	+	19644-19646	
							ENST00000361150,ENST000 00361510,ENST00000361715 ,ENST00000361828,ENST000 00361908,ENST00000392438	1,11,10
chr3	193374044	193374077	+	chr3	193374869	193375021	+	19647-19649	
							ENST00000392432,ENST000 00273580,ENST00000432352 ,ENST00000381975,ENST000 00347147,ENST00000473092 ,ENST00000452358,ENST000	2,23,10,2,2, 2,2
chr3	194337080	194336928	-	chr3	194336399	194336298	-	00429560	19650-19656
							ENST00000392432,ENST000 00273580,ENST00000432352 ,ENST00000381975,ENST000 00347147,ENST00000473092	2,23,10,2,2, 2
chr3	194337080	194336928	-	chr3	194336426	194336298	-	19657-19662	
							ENST00000310380,ENST000 00355729,ENST00000437101 ,ENST00000429994,ENST000	7,2
chr3	194791292	194791230	-	chr3	194790840	194790444	-	00356740	19663-19664
							ENST00000478156,ENST000 00463781,ENST00000462323 ,ENST00000466475,ENST000 00470451,ENST00000475231 ,ENST00000477086,ENST000 00477756,ENST00000479406	36,7
chr3	195535375	195535201	-	chr3	195518368	195505661	-	,ENST00000480843	19665-19666
							ENST00000381916,ENST000 00333602,ENST00000428187 ,ENST00000392400,ENST000 00439230,ENST00000424563 ,ENST00000411741,ENST000	11,32,3,32,3 2,32,32,32
chr3	195599713	195599543	-	chr3	195599341	195599147	-	00316664	19667-19674
							ENST00000381916,ENST000 00428187,ENST00000427576	5,5,5,5
chr3	195616246	195616231	-	chr3	195615477	195615297	-	19675-19678	
							ENST00000381916,ENST000 00428187,ENST00000427576	27,5,5,5
chr3	195621559	195621477	-	chr3	195615477	195615297	-	19679-19682	
							ENST00000381916,ENST000 00428187,ENST00000427576	52,16,35,52, 52
chr3	195633969	195633814	-	chr3	195615477	195615297	-	19683-19687	
							ENST00000420415,ENST000 00360110,ENST00000392396	5,5,4
chr3	195788258	195788242	-	chr3	195787118	195787051	-	,ENST00000535031	19688-19690

Table 10

						ENST00000296327,ENST000		12,37,1,1
chr3	195947186	195947326	+	chr3	195953836	195953990	+	00428985	19691-19694	
								ENST00000441879,ENST000		1,11,33,1,1,
								00419333,ENST00000292823		1,1,1,1,1
								,ENST00000431016,ENST000		
								00411591,ENST00000430755		
								,ENST00000444822,ENST000		
								00412869,ENST00000443555		
chr3	195983712	195983610	-	chr3	195975194	195975078	-		19695-19704	
chr3	196013503	196013437	-	chr3	195997412	195997409	-	ENST00000431391	19705-19706	9,11
chr3	196213500	196213356	-	chr3	196210762	196210641	-	ENST00000318037	19707-19708	4,27
chr3	196213500	196213404	-	chr3	196210762	196210641	-	ENST00000318037	19709-19711	6,11,31
								ENST00000332629,ENST000		7,17,16
chr3	196293258	196293208	-	chr3	196281678	196281082	-	00433160	19712-19714	
chr3	196295798	196295847	+	chr3	196296012	196296173	+	ENST00000311630	19715-19717	16,16,3
chr3	196385555	196385825	+	chr3	196386623	196388593	+	ENST00000328557	19718-19720	1,13,34
								ENST00000426755,ENST000		23,32,32,23,
								00392391,ENST00000314118		23,23,23,23
								,ENST00000296333,ENST000		
								00457284,ENST00000421265		
								,ENST00000415832,ENST000		
chr3	196444901	196444998	+	chr3	196449286	196449427	+	00451319	19721-19728	
chr3	196510307	196510437	+	chr3	196528798	196528898	+	ENST00000327134	19729-19731	34,21,13
chr3	196742801	196742666	-	chr3	196742387	196742236	-	ENST00000296350	19732-19734	2,45,44
chr3	196745321	196745271	-	chr3	196744161	196743974	-	ENST00000296350	19735-19737	17,7,16
								ENST00000314062,ENST000		46,21,46
								00346964,ENST00000357674		
								,ENST00000419354,ENST000		
								00452595,ENST00000422288		
								,ENST00000448528,ENST000		
								00443183,ENST00000450955		
chr3	196800555	196800318	-	chr3	196796131	196796090	-	,ENST00000392382	19738-19740	
								ENST00000438796,ENST000		11,8,8,8,8,8
								00414675,ENST00000441090		
								,ENST00000334859,ENST000		
chr3	197556912	197556944	+	chr3	197557641	197557734	+	00425562	19741-19746	
								ENST00000438796,ENST000		6,19,18,19,1
								00414675,ENST00000441090		9
								,ENST00000425562,ENST000		
								00536618,ENST00000452660		
								,ENST00000433298,ENST000		
chr3	197600375	197600432	+	chr3	197602569	197602646	+	00428136	19747-19751	
								ENST00000281523,ENST000		40,4,1,40
chr3	21686131	21685793	-	chr3	21606176	21606066	-	00446749	19752-19755	
								ENST00000429845,ENST000		28,6,28,28
								00357467,ENST00000341435		
								,ENST00000435584,ENST000		
chr3	27305443	27305359	-	chr3	27297862	27297787	-	00424275	19756-19759	
chr3	31661485	31661585	+	chr3	31663589	31663800	+	ENST00000295770	19760-19762	33,24,11
chr3	31668605	31668679	+	chr3	31670790	31670903	+	ENST00000295770	19763-19765	2,24,7
								ENST00000429432,ENST000		9,14,6,14,9,
								00282541,ENST00000428684		14,14,14
								,ENST00000425459,ENST000		
chr3	32180604	32181057	+	chr3	32181720	32181853,321	+	00431009	19766-19773	
chr3	32534151	32534075	-	chr3	32533378	32533202	-	ENST00000205636	19774-19776	25,19,13
								ENST00000331889,ENST000		1,12,19,12
								00328834,ENST00000454516		
chr3	32806537	32806669	+	chr3	32811379	32811454,3	+	,ENST00000430408	19777-19780	
chr3	32896392	32896432	+	chr3	32915310	32915477	+	ENST00000383763	19781-19783	13,12,13
								ENST00000307363,ENST000		15,1,6
								00399402,ENST00000445488		
chr3	33066736	33066597	-	chr3	33065817	33065743	-	,ENST00000307377	19784-19786	
								ENST00000468888,ENST000		7,3,7,7,7,7,7
								00399362,ENST00000539981		,7
								,ENST00000307312,ENST000		
								00359576,ENST00000480013		
								,ENST00000461133,ENST000		
								00313350,ENST00000487200		
chr3	33646111	33646062	-	chr3	33645701	33645646	-	,ENST00000333778	19787-19794	
								ENST00000468888,ENST000		20,3,19,20,2
								00399362,ENST00000359576		0
chr3	33741352	33741293	-	chr3	33738425	33738347	-		19795-19799	

Table 10

						ENST00000428977,ENST00000301807,ENST00000429976	19800-19801	23,23
chr3	36879263	36879193 -	chr3	36876398	36876253 -	ENST00000429976	19802-19804	46,19,6
chr3	36936674	36936479 -	chr3	36934475	36934392 -	ENST00000443503,ENST00000273179	19805-19807	7,16,16
chr3	37953269	37953318 +	chr3	38006062	38006163 +	ENST00000273179	19808-19810	9,15,12
chr3	37996600	37996648 +	chr3	37998602	37998634 +	ENST00000333167,ENST00000301810,ENST00000450296,ENST00000452171	19811-19813	1,2,1
chr3	38165211	38165205 -	chr3	38164613	38164538 -	ENST00000446845,ENST00000311806	19814-19815	12,7
chr3	38258308	38258349 +	chr3	38263069	38263178 +	ENST00000446845,ENST00000311806	19816-19819	1,20,7,20
chr3	38275468	38276251 +	chr3	38278330	38278452 +	ENST00000207870	19820-19821	14,3
chr3	38398310	38398618 +	chr3	38401830	38401899 +	ENST00000287675,ENST00000422077,ENST00000454803,ENST00000453767,ENST00000450732	19822-19826	15,51,6,6,6
chr3	38541500	38541655 +	chr3	38542846	38542985 +	ENST00000420891,ENST00000314529	19827-19829	25,23,25
chr3	40555106	40555431 +	chr3	40557351	40557435,4 +	ENST00000448413,ENST00000534863	19830-19832	7,19,41
chr3	4143861	4143575 -	chr3	4110429	4110253 -	ENST00000232978	19833-19835	13,34,4
chr3	42670212	42670478 +	chr3	42672038	42672067 +	ENST00000452906	19836-19837	15,7
chr3	42836697	42836652 -	chr3	42835767	42835649 -	ENST00000440367,ENST00000328199,ENST00000541208,ENST00000422021	19838-19844	82,11,86,11,86,11,86
chr3	42880484	42880771 +	chr3	42950288	42950401 +	ENST00000328199	19845-19847	17,8,48
chr3	42929037	42929193 +	chr3	42949514	42949640 +	ENST00000440367,ENST00000541208,ENST00000422021	19848-19852	17,8,48,17,48
chr3	42929037	42929193 +	chr3	42950285	42950401 +	ENST00000440367,ENST00000328199,ENST00000541208,ENST00000422021	19853-19859	17,8,48,17,48,17,48
chr3	42929037	42929193 +	chr3	42950288	42950401 +	ENST00000454177,ENST00000429705,ENST00000296088	19860-19861	5,2
chr3	43351415	43351434 +	chr3	43373661	43373802 +	ENST00000292246,ENST00000350459,ENST00000396091,ENST00000451430,ENST00000448045	19862-19864	39,36,12
chr3	43499158	43498891 -	chr3	43474219	43474103 -	ENST00000458276,ENST00000013894	19865-19867	45,1,1
chr3	43734698	43734832 +	chr3	43740768	43740853 +	ENST00000417237,ENST00000342649,ENST00000412611,ENST00000431657,ENST00000417768	19868-19870	31,9,31
chr3	44400599	44400691 +	chr3	44402857	44403010 +	ENST00000296121	19871-19872	24,11
chr3	44800654	44800555 -	chr3	44795860	44795716 -	ENST00000326047,ENST00000481166,ENST00000425755,ENST00000453693	19873-19878	31,1,20,1,1,20
chr3	44867705	44867798 +	chr3	44867924	44867952 +	ENST00000448413,ENST00000534863,ENST00000272902,ENST00000383843,ENST00000405420	19879-19883	1,49,26,49,49
chr3	4487328	4487181 -	chr3	4461830	4461748 -	ENST00000326047,ENST00000425755,ENST00000422209	19884-19885	10,4
chr3	44887096	44887389 +	chr3	44889477	44889549 +			
chr3	45031597	45031791 +	chr3	45038584	45038744 +	ENST00000265564	19886-19887	1,11
chr3	45043491,45	45043506 +	chr3	45046783	45046906 +	ENST00000265564	19888-19889	5,2
chr3	45159453	45159404 -	chr3	45153937	45153575 -	ENST00000296129,ENST00000425231	19890-19891	16,16
chr3	45440992	45441104 +	chr3	45441737	45441865,5 +	ENST00000265537,ENST00000415258,ENST00000430399	19892-19895	12,7,37,37
chr3	45715123	45715356 +	chr3	45715835	45715903 +	ENST00000273317	19896-19898	18,20,7
chr3	45813118	45813050 -	chr3	45812950	45812709 -	ENST00000353278,ENST00000358525,ENST00000456124,ENST00000413781	19899-19900	22,5
chr3	45821989	45821882 -	chr3	45821592	45821501 -	ENST00000353278,ENST00000358525,ENST00000456124,ENST00000413781	19901-19906	3,6,23,23,23,23
chr3	46449213	46449272 +	chr3	46449559	46450605 +	ENST00000357392	19907-19909	2,8,19

Table 10

							ENST00000231751,ENST00000417439,ENST00000443496,ENST00000431944	19910-19915	10,25,37,25,25,25
chr3	46525941	46525829	-	chr3	46501309	46501146	-		
chr3	46546605	46546327	-	chr3	46501309	46501146	-	ENST00000231751,ENST00000417439,ENST00000443496,ENST00000431944	19916-19917	46,7
chr3	47032070	47032113	+	chr3	47032713	47032794	+	ENST00000292309,ENST00000450053	19918-19921	14,14,14,14
chr3	47129070	47129013	-	chr3	47127804	47127685	-	ENST00000445387,ENST00000409792	19922-19925	7,19,8,19
chr3	47168513	47168352	-	chr3	47168153	47168138	-	ENST00000409792	19926-19928	16,53,1
chr3	47328752	47328838	+	chr3	47361143	47361273	+	ENST00000437353,ENST00000232766	19929-19931	2,6,2
chr3	47554781	47554727	-	chr3	47552716	47552638	-	ENST00000296149,ENST00000442215	19932-19935	18,9,17,9
chr3	47703654	47703486	-	chr3	47702945	47702784	-	ENST00000254480	19936-19938	10,32,23
chr3	47764739	47764313	-	chr3	47762225	47762156	-	ENST00000254480	19939-19940	21,7
chr3	47821921	47821703	-	chr3	47814426	47814307	-	ENST00000254480,ENST00000454240	19941-19943	18,10,18
chr3	48317642	48317885	+	chr3	48327736	48327803	+	ENST00000427617,ENST00000440261	19944-19945	28,14
chr3	48483363	48483575	+	chr3	48485256	48485290	+	ENST00000438607	19946-19948	5,12,17
chr3	48564872	48564746	-	chr3	48563102	48562998	-	ENST00000232375,ENST00000536104,ENST00000416568,ENST00000541519	19949-19951	1,13,16
chr3	48589264	48589209	-	chr3	48587667	48587551,5	-	ENST00000232375,ENST00000536104,ENST00000383734,ENST00000416568,ENST00000445633,ENST00000545984,ENST00000452531,ENST00000422701	19952-19954	13,18,13
chr3	48702173	48702074	-	chr3	48701567	48701364	-	ENST00000341520	19955-19957	4,11,32
chr3	48734751	48734654	-	chr3	48732851	48732523,487	-	ENST00000454335,ENST00000431721,ENST00000450045,ENST00000446860,ENST00000455545,ENST00000412795,ENST00000443964,ENST00000424035	19958-19959	1,32
chr3	48734751	48734654	-	chr3	48732854	48732332	-	ENST00000431721,ENST00000443964	19960-19962	32,1,32
chr3	48734751	48734686	-	chr3	48732851	48732523,487	-	ENST00000454335,ENST00000431721,ENST00000450045,ENST00000446860,ENST00000455545,ENST00000412795,ENST00000443964,ENST00000424035	19963-19970	22,5,21,5,5,5,5,5
chr3	48846513	48846463	-	chr3	48845117	48845082	-	ENST00000265563,ENST00000454963,ENST00000296446	19971-19974	17,7,16,16
chr3	48860638	48860538	-	chr3	48845117	48845082	-	ENST00000265563,ENST00000454963,ENST00000296446	19975-19978	33,24,11,24
chr3	49072804	49072618	-	chr3	49070661	49070553	-	ENST00000395443,ENST00000357496,ENST00000424300	19979-19980	13,7
chr3	49080305	49080120	-	chr3	49070661	49070553	-	ENST00000395443,ENST00000357496,ENST00000424300	19981-19982	27,7
chr3	49080305	49080165	-	chr3	49070661	49070553	-	ENST00000395443,ENST00000357496,ENST00000424300	19983-19985	12,14,1
chr3	49085854	49085642	-	chr3	49084679	49084502	-	ENST00000296449,ENST00000438782,ENST00000452691,ENST00000366429,ENST00000451634	19986-19988	7,8
chr3	49257083	49257194	+	chr3	49273981	49274155	+		19988-19991	7,4,12,12
chr3	49351439	49351304	-	chr3	49349087	49348947	-	ENST00000265560	19992-19994	11,18,22
chr3	49715714	49715847	+	chr3	49716285	49716382,5	+	ENST00000296456,ENST00000442186,ENST00000438011	19995-19999	2,18,2,18,2

Table 10

							ENST00000296474,ENST00000344206,ENST00000434765,ENST00000440292	20000-20005	11,23,1,23,23,1
chr3	49928458	49928392	-	chr3	49928083	49927918,5	ENST00000296474,ENST00000344206,ENST00000434765,ENST00000440292	20006-20009	13,5,5,5
chr3	50084260	50084266	+	chr3	50085678	50085752	ENST00000266022,ENST00000443081,ENST00000454079,ENST00000425608	20010-20014	2,2,1,2,2
chr3	50089137	50089360	+	chr3	50091768	50091828,5	ENST00000442092,ENST00000266022,ENST00000443081,ENST00000419610,ENST00000422955,ENST00000454079,ENST00000425608,ENST00000434592,ENST00000446471	20015-20021	18,22,22,22,22,22,22
chr3	50096066	50096116	+	chr3	50097082	50097179,5	ENST00000442092,ENST00000266022,ENST00000443081,ENST00000539992,ENST00000422955,ENST00000454079,ENST00000434592	20022-20027	17,7,16,17,17,16
chr3	50130454	50130475	+	chr3	50131153	50131308,501	ENST00000347869,ENST00000469838,ENST00000404526,ENST00000441305,ENST00000437500,ENST00000417905,ENST00000395174	20028-20037	7,6,7,7,6,7,7,6,7,7
chr3	50145860	50145998	+	chr3	50147036	50147121	ENST00000347869	20038-20040	1,12,45
chr3	50210625	50210691	+	chr3	50211226	50211386,5	ENST00000414301,ENST00000450338,ENST00000002829,ENST00000426511,ENST00000434342	20041-20049	22,13,5,22,22,5,22
chr3	50210625	50210889	+	chr3	50211226	50211386,5	ENST00000414301,ENST00000450338,ENST00000002829,ENST00000426511,ENST00000434342	20050-20058	1,13,34,1,1,34,1,34,1
chr3	50211855	50211899	+	chr3	50214201	50214294	ENST00000414301,ENST00000450338,ENST00000413852,ENST00000002829,ENST00000434342,ENST00000420831	20059-20065	2,14,14,2,2,2,14
chr3	50658607	50658707	+	chr3	50677797	50677936	ENST00000446044,ENST00000430409,ENST00000357955,ENST00000457064	20066-20070	33,6,11,11,11
chr3	51236480	51236576	+	chr3	51246205	51246293	ENST00000266037	20071-20072	32,6
chr3	51236480	51236620	+	chr3	51246205	51246293	ENST00000266037	20073-20075	15,7,21
chr3	51405547	51405599	+	chr3	51411900	51412018	ENST00000266037	20076-20078	15,5,4
chr3	51405547	51405599	+	chr3	51411918	51412018	ENST00000266037	20079-20081	15,5,4
chr3	51405547	51405623	+	chr3	51411900	51412018	ENST00000266037	20082-20083	6,12
chr3	51405547	51405623	+	chr3	51411918	51412018	ENST00000266037	20084-20085	6,12
chr3	52321342	52321392	+	chr3	52324976	52325127	ENST00000461183,ENST00000305690,ENST00000473032,ENST00000486393,ENST00000354773,ENST00000436784,ENST00000477382	20086-20091	17,7,7,7,7,7,7
chr3	52409491	52409634	+	chr3	52409971	52410009	ENST00000420323	20092-20094	14,10,47
chr3	52409491	52409643	+	chr3	52409971	52410009	ENST00000420323	20095-20096	17,5
chr3	52606690	52606591	-	chr3	52598249	52598066	ENST00000356770,ENST00000394830,ENST00000296302,ENST00000337303,ENST00000409057,ENST00000410007,ENST00000409114,ENST00000409767,ENST00000423351	20097-20104	24,11,32,24,24,24,24,24
chr3	52777100	52777050	-	chr3	52775515	52775427	ENST00000233027,ENST00000535191,ENST00000383721,ENST00000461689	20105-20109	17,5,16,17,17
chr3	52897550	52897272	-	chr3	52889460	52889412	ENST00000504329,ENST00000355083	20110-20113	38,7,18,18
chr3	53144053	53144024	-	chr3	53140885	53140835	ENST00000296292,ENST00000394738,ENST00000467048	20114-20117	10,8,9,9
chr3	53163906	53163843	-	chr3	53160010	53159925	ENST00000296292,ENST00000394738,ENST00000467048	20118-20123	2,21,13,2,21,21

Table 10

						ENST00000288167,ENST000		1,30,1,30
chr3	53894643	53897091 +	chr3	53898773	53899335,5 +	00494338	20124-20127	
chr3	53915729	53915693 -	chr3	53914099	53913966 -	ENST00000335754	20128-20130	3,12,11
chr3	53915729	53915693 -	chr3	53914136	53913966 -	ENST00000335754	20131-20133	3,12,11
						ENST00000495461,ENST000		21,15,7,21
						00541726,ENST00000488746		
chr3	53961832	53961691 -	chr3	53922510	53922420 -		20134-20137	
						ENST00000495461,ENST000		6,32
						00541726,ENST00000488746		
chr3	53961832	53961735 -	chr3	53922510	53922420 -		20138-20139	
						ENST00000474267,ENST000		7,1
chr3	55539482	55539190 -	chr3	55514946	55514813 -	00264634	20140-20141	
						ENST00000474267,ENST000		29,13
chr3	55539482	55539226 -	chr3	55514946	55514813 -	00264634	20142-20143	
						ENST00000431842,ENST000		28,1,32,28,2
						00493960,ENST00000355628		8
chr3	56690015	56689917 -	chr3	56683085	56683013 -		20144-20148	
						ENST00000338458,ENST000		7,15,23,15,1
						00496106,ENST00000468727		5,15
						,ENST00000473779,ENST000		
chr3	56953944	56953761 -	chr3	56916382	56916320 -	00468466	20149-20154	
						ENST00000351747,ENST000		31,1,38,31
chr3	57435638	57433917 -	chr3	57432416	57432264 -	00495027	20155-20158	
						ENST00000356151,ENST000		1,2,2,1,1,1
						00484288,ENST00000477308		
chr3	58336263	58336271 +	chr3	58351601	58351651 +	,ENST00000491164	20159-20164	
						ENST00000459701,ENST000		35,44,7
chr3	58504257	58504044 -	chr3	58503150	58502933 -	00302819	20165-20167	
chr3	58720213	58720199 -	chr3	58703355	58703315 -	ENST00000486145	20168-20169	2,4
						ENST00000476844,ENST000		21,20,2
						00492590,ENST00000468189		
chr3	59970510	59970448 -	chr3	59908140	59908072 -	,ENST00000341848	20170-20172	
						ENST00000295874,ENST000		3,9,35
chr3	62266518	62266625 +	chr3	62267238	62267384 +	00474889	20173-20175	
						ENST00000343837,ENST000		15,5,4,15,15
						00469440,ENST00000496807		
chr3	63630847	63630920 +	chr3	63640438	63640472 +		20176-20180	
						ENST00000343837,ENST000		6,12,6,6
						00469440,ENST00000496807		
chr3	63630847	63630944 +	chr3	63640438	63640472 +		20181-20184	
						ENST00000564377,ENST000		64,45,5,5
chr3	64221857	64221569 -	chr3	64184643	64184460 -	00569824	20185-20188	
						ENST00000295903,ENST000		4,8,8
						00498707,ENST00000481060		
chr3	64519268	64519242 -	chr3	64518946	64518842 -		20189-20191	
						ENST00000330909,ENST000		17,21,40,40,
						00402939,ENST00000463103		40,40,40
						,ENST00000483466,ENST000		
						00460329,ENST00000497477		
chr3	65595550	65595419 -	chr3	65479306	65479187 -		20192-20198	
						ENST00000354883,ENST000		22,24,22,24,
						00336733,ENST00000464350		22
chr3	66317918	66317992 +	chr3	66396788	66396832 +	,ENST00000413054	20199-20203	
						ENST00000354883,ENST000		65,5
chr3	66425314	66426990 +	chr3	66428114	66428231 +	00336733	20204-20205	
						ENST00000493112,ENST000		14,13,13,14
						00460567,ENST00000307227		
chr3	67459330	67459289 -	chr3	67451275	67451155 -		20206-20209	
						ENST00000493112,ENST000		45,14,45,45
						00307227,ENST00000492795		
chr3	67610061	67609925 -	chr3	67579610	67579511 -		20210-20213	
						ENST00000318789,ENST000		1,6
						00475937,ENST00000491238		
						,ENST00000327590,ENST000		
						00498215,ENST00000493089		
chr3	71149427	71149310 -	chr3	71102924	71102787 -	,ENST00000468577	20214-20215	
chr3	72507636	72507559 -	chr3	72428578	72428402 -	ENST00000477973	20216-20218	26,25,25
chr3	72507636	72507559 -	chr3	72495772	72495647 -	ENST00000477973	20219-20221	26,25,25
						ENST00000487694,ENST000		4,57,31,31,3
						00602589,ENST00000461745		1,31
						,ENST00000332191,ENST000		
chr3	77121074	77121427 +	chr3	77147165	77147491 +	00473767	20222-20227	

Table 10

							ENST00000487694,ENST00000602589,ENST00000461745,ENST00000332191,ENST00000473767	20228-20232	37,5,37,37,37
chr3	77168074	77168321	+	chr3	77526565	77526722	+	ENST00000487694,ENST00000602589,ENST00000461745,ENST00000332191,ENST00000473767	20233-20238	7,49,17,49,49,49
chr3	78690257	78690227	-	chr3	78689048	78688894	-	ENST00000436010,ENST00000464233,ENST00000495273,ENST00000467549	20239-20243	2,10,9,2,9
chr3	78765735	78765457	-	chr3	78763674	78763547	-	ENST00000436010,ENST00000464233,ENST00000495273,ENST00000467549	20244-20248	46,7,19,7,7
chr3	8696022	8695750	-	chr3	8677543	8677445	-	ENST00000413305,ENST00000544814,ENST00000427408	20249-20254	31,20,8,31,8,8
chr3	8700829	8700611	-	chr3	8677543	8677445	-	ENST00000413305,ENST00000544814,ENST00000427408	20255-20260	20,12,4,20,4,4
chr3	87041382	87041290	-	chr3	87027793	87027676	-	ENST00000398399,ENST00000383698,ENST00000494229	20261-20262	30,8
chr3	8987453	8987403	-	chr3	8983488	8983151,898	-	ENST00000264926,ENST00000415439,ENST00000421052,ENST00000413832	20263-20270	17,7,16,7,7,17,7,16
chr3	9004001	9003911	-	chr3	9000685	9000604	-	ENST00000264926,ENST00000415439,ENST00000418463,ENST00000421052,ENST00000413832	20271-20277	18,2,4,2,2,2,2
chr3	93623174	93623122	-	chr3	93619773	93619648	-	ENST00000394236,ENST00000407433	20278-20280	4,17,17
chr3	93715627	93715980	+	chr3	93754175	93754280	+	ENST00000535334,ENST00000303097,ENST00000394222,ENST00000471138	20281-20283	4,28,14
chr3	9504310	9504360	+	chr3	9506109	9506356	+	ENST00000402198,ENST00000402466,ENST00000406341,ENST00000407969,ENST00000302463,ENST00000399686,ENST00000421188	20284-20288	17,7,16,16,16
chr3	9710542	9710608	+	chr3	9711116	9711176	+	ENST00000353332,ENST00000296003,ENST00000430020,ENST00000351233,ENST00000416864,ENST00000414996	20289-20294	22,13,21,22,22,22
chr3	9710542	9710640	+	chr3	9711116	9711176	+	ENST00000353332,ENST00000296003,ENST00000430020,ENST00000351233,ENST00000416864,ENST00000414996	20295-20300	33,23,1,1,1,1
chr3	9835902	9836000	+	chr3	9839343	9839461	+	ENST00000397261,ENST00000417500,ENST00000418163,ENST00000424442,ENST00000440787,ENST00000397256,ENST00000433034,ENST00000453882	20301-20311	33,23,1,33,1,33,1,33,33,33,33
chr3	9852501	9852625	+	chr3	9854627	9854795,99	+	ENST00000397256,ENST00000453882,ENST00000414814,ENST00000452597,ENST00000419081,ENST00000417065,ENST00000439814,ENST00000418745,ENST00000430718,ENST00000427220,ENST00000426895,ENST00000547186,ENST00000426827,ENST00000431204,ENST00000422738,ENST00000430390	20312-20329	41,40,4,40,4,4,4,4,4,4,4,4,4,4,4,4,4,4
chr3	98542470	98542458	-	chr3	98541585	98541513	-	ENST00000326840,ENST00000326857	20330-20332	4,3,3
chr3	98549913	98548916	-	chr3	98544210	98544159	-	ENST00000326840,ENST00000326857	20333-20336	40,2,12,2
chr3	98557868	98557046	-	chr3	98544210	98544159	-	ENST00000326840,ENST00000326857	20337-20340	14,12,27,14

Table 10

							ENST00000326840,ENST00000326857,ENST00000449482	33,256,256,256
chr3	98586295	98584782	-	chr3	98568442	98568306	-	20341-20344	ENST00000326840,ENST00000326857	6,26,28,26
chr3	98586295	98586135	-	chr3	98544210	98544159	-	20345-20348	ENST00000326840,ENST00000326857	11,12
chr3	98617883	98617844	-	chr3	98600611	98600384	-	20349-20350	ENST00000326840,ENST00000326857	57,8,22,8
chr3	98695604	98695309	-	chr3	98600611	98600384	-	20351-20354	ENST00000499869,ENST00000382452,ENST00000508079	9,5,5
chr4	10117508	10117439	-	chr4	10105610	10105520	-	20355-20357	ENST00000499869,ENST00000382452,ENST00000508079	6,1,15,6
chr4	10117508	10117449	-	chr4	10105610	10105520	-	20358-20361	ENST00000394854,ENST00000323055,ENST00000394853,ENST00000523694,ENST00000529324,ENST00000525819	66,8,13,8,8,8,8
chr4	102104622	102104375	-	chr4	102030235	102030111	-	20362-20368	ENST00000504592,ENST00000322953,ENST00000428908,ENST00000508653,ENST00000444316	22,14
chr4	102871801	102872224	+	chr4	102942671	102942749	+	20369-20370	ENST00000424970,ENST00000394833,ENST00000356736	25,6,25
chr4	103302056	103301960	-	chr4	103236987	103236825	-	20371-20373	ENST00000226578,ENST00000505239	7,6,6
chr4	103554428	103554408	-	chr4	103553438	103553214	-	20374-20376	ENST00000226578,ENST00000505239	5,7,41,41
chr4	103666513	103666242	-	chr4	103647840	103647746	-	20377-20380	ENST00000453744,ENST00000394801,ENST00000394803,ENST00000394804,ENST00000343106,ENST00000321805,ENST00000350435,ENST00000338145,ENST00000349311,ENST00000357194,ENST00000505307,ENST00000510129,ENST00000502563,ENST00000508238,ENST00000514755,ENST00000508974,ENST00000502690,ENST00000503418,ENST00000508249	3,20,3,3,20,3,20,3,3,20,3,3,20
chr4	103736496	103736433	-	chr4	103731012	103730949	-	20381-20393	ENST00000453744,ENST00000394801,ENST00000394803,ENST00000394804,ENST00000343106,ENST00000321805,ENST00000350435,ENST00000338145,ENST00000349311,ENST00000357194,ENST00000505307,ENST00000510129,ENST00000502563,ENST00000508238,ENST00000514755,ENST00000508974,ENST00000502690,ENST00000503418,ENST00000508249	17,7,16,17,17,7,7,17,7,17,17,17,17,7
chr4	103736496	103736446	-	chr4	103731012	103730949	-	20394-20407		
chr4	103795662	103795828	+	chr4	103803928	103803968	+	20408-20409	ENST00000574446	32,11
chr4	103795662	103795828	+	chr4	103806373	103806587	+	20410-20412	ENST00000273986,ENST00000503643	32,1,11
chr4	106615786	106615719	-	chr4	106614643	106614456,1	-	20413-20416	ENST00000394735,ENST00000340139,ENST00000451321,ENST00000503746,ENST00000420368	13,22,22,22
chr4	106762711	106762761	+	chr4	106763222	106763291	+	20417-20418	ENST00000394730,ENST00000515279,ENST00000360505,ENST00000394728	17,7
chr4	107164248	107164059	-	chr4	107163726	107163627	-	20419-20422	ENST00000273980,ENST00000432496,ENST00000361687,ENST00000394706,ENST00000394708,ENST00000508666	9,7,11,11

Table 10

							ENST00000273980,ENST00000432496,ENST00000361687,ENST00000394706,ENST00000394708,ENST00000508666	50,15,15
chr4	107164248	107164098	-	chr4	107163726	107163627	-	20423-20425	
chr4	107241932	107242773	+	chr4	107246142	107246275	+	ENST00000394701	20426-20428	43,41,28
chr4	108938487	108938702	+	chr4	108940696	108940822	+	ENST00000603302,ENST00000403312,ENST00000505878,ENST00000454409	20429-20432	14,40,23,40
chr4	110132761	110132709	-	chr4	109971335	109971291	-	ENST00000494183,ENST00000399132,ENST00000399127,ENST00000399126	20433-20440	9,17,3,17,3,17,3,17
chr4	110174186	110172653	-	chr4	109971335	109971291	-	ENST00000494183,ENST00000399132,ENST00000399127,ENST00000399126	20441-20448	11,16,12,11,16,11,16,11
chr4	110420699	110421210	+	chr4	110427484	110427668	+	ENST00000399100,ENST00000265175	20449-20451	20,7,2
chr4	110420699	110421210	+	chr4	110427487	110427668	+	ENST00000504968,ENST00000399100,ENST00000265175	20452-20454	20,7,2
chr4	113101828	113101940	+	chr4	113107849	113108094	+	ENST00000309733	20455-20457	3,31,15
chr4	113161388	113161511	+	chr4	113174364	113174412	+	ENST00000274000,ENST00000309703	20458-20461	29,28,16,16
chr4	113482530	113482361	-	chr4	113482151	113481889	-	ENST00000505019,ENST00000445413	20462-20463	16,11
chr4	113521479	113521351	-	chr4	113511030	113510880	-	ENST00000505019,ENST00000309071	20464-20465	23,2
chr4	119227431	119227100	-	chr4	119220093	119219888	-	ENST00000296498	20466-20468	14,3,6
chr4	119623650	119623907	+	chr4	119625090	119625206	+	ENST00000388822,ENST00000506780	20469-20470	16,1
chr4	119626358	119626398	+	chr4	119626766	119626976	+	ENST00000388822,ENST00000506780	20471-20473	7,13,13
chr4	119657792	119657605	-	chr4	119654067	119653888	-	ENST00000280551,ENST00000379735,ENST00000511481	20474-20476	58,36,11
chr4	119681864	119681546	-	chr4	119679000	119678876	-	ENST00000280551,ENST00000379735,ENST00000511481	20477-20478	14,3
chr4	121733873	121733706	-	chr4	121732604	121732525	-	ENST00000264808,ENST00000428209,ENST00000515109	20479-20482	12,10,16,16
chr4	122104421	122104227	-	chr4	122103951	122103831	-	ENST00000507879,ENST00000509841	20483-20485	36,10,5
chr4	123760021	123760240	+	chr4	123797476	123797579	+	ENST00000264498,ENST00000608478	20486-20488	37,2,7
chr4	123834640	123834362	-	chr4	123833778	123833723	-	ENST00000304430	20489-20490	28,3
chr4	128842470	128842273	-	chr4	128841991	128841785	-	ENST00000296468,ENST00000513559	20491-20493	1,4,10
chr4	128923149	128923248	+	chr4	128930075	128930153,12	+	ENST00000398965,ENST00000473040,ENST00000444616,ENST00000388795,ENST00000513371	20494-20501	24,11,32,24,32,32,24,32
chr4	128930712	128930776	+	chr4	128932838	128932855	+	ENST00000398965,ENST00000444616,ENST00000388795	20502-20505	6,21,13,6
chr4	128930712	128930776	+	chr4	128938518	128938656	+	ENST00000398965,ENST00000444616,ENST00000388795	20506-20507	21,13
chr4	1297203	1297332	+	chr4	1305767	1305949,13	+	ENST00000303400,ENST00000505177,ENST00000513301,ENST00000503653,ENST00000264750,ENST00000509254,ENST00000502558,ENST00000452175,ENST00000514708,ENST00000509531,ENST00000510794	20508-20518	23,26,11,26,26,26,26,26,26,26
chr4	1346458	1346674	+	chr4	1346818	1347201	+	ENST00000511216,ENST00000389851,ENST00000507531	20519-20521	20,7,27
chr4	13485298	13485267	-	chr4	13481150	13481054	-	ENST00000508274,ENST00000288723,ENST00000330852,ENST00000338176	20522-20527	10,7,10,10,10,10

Table 10

							ENST00000296543,ENST000		2,1
chr4	140287029	140287034	+	chr4	140291365	140291558	+ 00398947	20528-20529	
							ENST00000265498,ENST000		5,3,20,5
							00506797,ENST00000503816		
chr4	140585462	140585759	+	chr4	140599697	140599796	+	20530-20533	
							ENST00000394205,ENST000		3,55,49,55
							00338517,ENST00000394203		
							,ENST00000608372,ENST000		
chr4	141284448	141286891	+	chr4	141300275	141300346	+ 00506597	20534-20537	
							ENST00000323570,ENST000		17,12,26,17,
							00502397,ENST00000513606		17
chr4	141457256	141457482	+	chr4	141458566	141458695	+	20538-20542	
							ENST00000513000,ENST000		7,15,15,15,1
							00262992,ENST00000308502		5,15
							,ENST00000508116,ENST000		
							00509777,ENST00000511838		
							,ENST00000510812,ENST000		
chr4	143069662	143069616	-	chr4	143067149	143066993	- 00514525	20543-20548	
							ENST00000262995,ENST000		9,34,21,21,2
							00262994,ENST00000514639		1,21
chr4	144319931	144320061	+	chr4	144336630	144336924	+ ,ENST00000509992	20549-20554	
chr4	144455264	144455430	+	chr4	144456008	144456117	+ ENST00000283131	20555-20556	9,6
chr4	144586393	144586297	-	chr4	144548913	144548767	- ENST00000329798	20557-20558	32,6
							ENST00000507656,ENST000		5,44
							00451299,ENST00000309439		
							,ENST00000514390,ENST000		
chr4	145961045	145960910	-	chr4	145916755	145916525,14	- 00513054	20559-20560	
chr4	146042744	146042965	+	chr4	146044173	146044283	+ ENST00000296577	20561-20563	7,28,20
chr4	146046935	146047010	+	chr4	146048678	146048725	+ ENST00000296577	20564-20565	25,16
							ENST00000454497,ENST000		34,11,13,13,
							00447906,ENST00000514973		13,13
							,ENST00000509620,ENST000		
							00296579,ENST00000504501		
chr4	146090923	146090670	-	chr4	146086349	146086303	-	20566-20571	
							ENST00000508784,ENST000		7,12
							00513320,ENST00000379448		
chr4	146738852	146738605	-	chr4	146700663	146700526	-	20572-20573	
							ENST00000322396,ENST000		31,21,8
chr4	148576613	148576521	-	chr4	148575717	148575003	- 00541232	20574-20576	
							ENST00000336498,ENST000		20,7,33,20
							00414545,ENST00000507661		
chr4	148966611	148966830	+	chr4	148968043	148968202	+	20577-20580	
							ENST00000344721,ENST000		2,6
							00355292,ENST00000358102		
							,ENST00000512865,ENST000		
chr4	149035824	149035671	-	chr4	149035412	149035255	- 00511528	20581-20582	
							ENST00000535741,ENST000		41,49,36,49,
							00510413,ENST00000357115		49,49
							,ENST00000509835,ENST000		
chr4	151605458	151605107	-	chr4	151604869	151604703	- 00507224	20583-20588	
							ENST00000451320,ENST000		7,18,60
							00353617,ENST00000405727		
chr4	153796910	153797187	+	chr4	153802115	153802336	+ ,ENST00000356064	20589-20591	
							ENST00000240488,ENST000		22,13,5,22
chr4	154282710	154282776	+	chr4	154330123	154330167	+ 00504860	20592-20595	
							ENST00000440693,ENST000		1,49,28,1,1,
							00409663,ENST00000445960		49,1
chr4	154408563	154408711	+	chr4	154471225	154471293	+ ,ENST00000409959	20596-20602	
							ENST00000413206,ENST000		17,7,16,7,7
							00424120,ENST00000512702		
							,ENST00000503292,ENST000		
chr4	15530748	15530798	+	chr4	15534816	15534956	+ 00389652	20603-20607	
							ENST00000507827,ENST000		21,7,39
chr4	155657018	155657290	+	chr4	155670136	155670288	+ 00336356	20608-20610	
							ENST00000264428,ENST000		3,3
chr4	158066415	158066425	+	chr4	158073870	158074162	+ 00509282	20611-20612	
							ENST00000264428,ENST000		3,3,3,3
							00541722,ENST00000512619		
chr4	158066415	158066425	+	chr4	158091584	158091880,15	+ ,ENST00000509282	20613-20616	
							ENST00000502843,ENST000		33,32
chr4	15814039	15814137	+	chr4	15818134	15818263	+ 00226279	20617-20618	
							ENST00000226279,ENST000		23,4,14,23
chr4	15819388	15819459	+	chr4	15826504	15826639,2	+ 00510674	20619-20622	

Table 10

chr4	15819388	15820148	+	chr4	15826504	15826639,2	+	ENST00000226279,ENST00000510674	20623-20626	6,26,20,20
chr4	15819388	15820475	+	chr4	15826504	15826639,2	+	ENST00000226279,ENST00000510674	20627-20630	19,9,22,22
chr4	15820965	15825563	+	chr4	15826504	15826639,2	+	ENST00000226279,ENST00000510674	20631-20633	34,3,34
chr4	15843170	15843267	+	chr4	15850162	15850225	+	ENST00000226279	20634-20635	6,32
chr4	159067854	159067711	-	chr4	159052164	159051938	-	ENST00000585682,ENST00000296530,ENST00000393807,ENST00000590648,ENST00000592586,ENST00000593260	20636-20640	16,5,16,16,16
chr4	159802561	159803483	+	chr4	159812598	159812798	+	ENST00000264433,ENST00000379346	20641-20643	26,13,29
chr4	16192261	16192076	-	chr4	16189978	16189843,2	-	ENST00000405303,ENST00000399920,ENST00000304584,ENST00000513782	20644-20646	27,7,27
chr4	162584323	162584037	-	chr4	162577646	162577480	-	ENST00000306100,ENST00000379164,ENST00000536695,ENST00000427802	20647-20648	21,1
chr4	162586244	162585968	-	chr4	162577643	162577480	-	ENST00000306100,ENST00000379164,ENST00000536695,ENST00000427802	20649-20651	18,7,18
chr4	164033509	164032711	-	chr4	164031442	164031428	-	ENST00000509434	20652-20653	2,3
chr4	164433182	164433262	+	chr4	164433974	164434011	+	ENST00000509657,ENST00000358572,ENST00000513272,ENST00000513134,ENST00000508268	20654-20655	24,14
chr4	166019763	166019663	-	chr4	166009754	166009620	-	ENST00000306480,ENST00000506087,ENST00000505095	20656-20658	15,11,15
chr4	166138870	166139367	+	chr4	166141086	166141211	+	ENST00000226725,ENST00000511305,ENST00000514860,ENST00000506824	20659-20663	13,71,24,71,71
chr4	16764349	16764089	-	chr4	16760883	16760781	-	ENST00000515064,ENST00000441778,ENST00000304523,ENST00000502640,ENST00000508918,ENST00000512345,ENST00000506732	20664-20671	1,7,1,1,1,1,1,1
chr4	1696417	1696278	-	chr4	1695440	1695324	-	ENST00000429429,ENST00000489418,ENST00000318386,ENST00000483348,ENST00000488267	20672-20674	11,1,24
chr4	170442683	170442586	-	chr4	170429482	170429399	-	ENST00000439128,ENST00000511633,ENST00000510533,ENST00000507142,ENST00000512193	20675-20676	6,32
chr4	170479787	170479710	-	chr4	170477246	170477083	-	ENST00000439128,ENST00000511633,ENST00000510533,ENST00000507142,ENST00000512193	20677-20682	2,25,25,2,2,2
chr4	170677501	170677279	-	chr4	170674986	170674827	-	ENST00000393381	20683-20685	2,10,17
chr4	170996759	170996519	-	chr4	170994496	170994287,17	-	ENST00000337664,ENST00000509167,ENST00000515480,ENST00000353187,ENST00000510340,ENST00000507375,ENST00000502392	20686-20691	21,25,10,25,25,25
chr4	171005986	171005858	-	chr4	170999734	170999660	-	ENST00000337664,ENST00000509167,ENST00000515480,ENST00000353187,ENST00000510340,ENST00000507375,ENST00000502392	20692-20697	43,4,8,43,43,43
chr4	174236886	174237711	+	chr4	174238785	174238883	+	ENST00000265000,ENST00000505308,ENST00000503213	20698-20701	37,15,150,15
chr4	174310403	174310369	-	chr4	174309546	174309492	-	ENST00000296506	20702-20704	11,11,4
chr4	175796687	175796123	-	chr4	175710094	175709967	-	ENST00000274093,ENST00000340217	20705-20708	26,19,14,14
chr4	176989469	176989537	+	chr4	177032726	177032854	+	ENST00000280190,ENST00000507824,ENST00000513261	20709-20712	23,13,23,23
chr4	177047830	177048128	+	chr4	177049889	177050011	+	ENST00000508596,ENST00000393643,ENST00000280190,ENST00000507824	20713-20717	7,41,45,41,41

chr4	177630219	177630123	-	chr4	177609081	177608975	-	ENST00000280193	20718-20720	1,6,17
								ENST00000251496,ENST000		15,35,35
chr4	17818476	17818661	+	chr4	17818884	17819076,2	+	00514176	20721-20723	
chr4	183890511	183890251	-	chr4	183836728	183836614	-	ENST00000357067	20724-20726	45,7,18
								ENST00000326397,ENST000		5,9,1,5,5
								00327570,ENST00000506467		
chr4	184574440	184574411	-	chr4	184572480	184572371	-		20727-20731	
chr4	186093192	186093089	-	chr4	186085333	186085183	-	ENST00000458385	20732-20734	25,12,34
								ENST00000448662,ENST000		7,36,32,32,3
								00319471,ENST00000449407		2,32,36,32,3
								,ENST00000355634,ENST000		2,32,32,32,3
								00393528,ENST00000319454		2,32,32,32,3
								,ENST00000430503,ENST000		2,32,32,32,3
								00425679,ENST00000439049		2,36,32,32,3
								,ENST00000451958,ENST000		2,32,32
								00444781,ENST00000414724		
								,ENST00000419063,ENST000		
								00420158,ENST00000421639		
								,ENST00000457934,ENST000		
								00431902,ENST00000435480		
								,ENST00000415274,ENST000		
								00432655,ENST00000451701		
								,ENST00000428330,ENST000		
								00421420,ENST00000452351		
								,ENST00000429056		
chr4	186629113	186628847	-	chr4	186599976	186599950	-		20735-20761	
chr4	187125427	187125547	+	chr4	187126354	187126456	+	ENST00000378802	20762-20764	9,20,30
chr4	187125427	187125554	+	chr4	187126354	187126456	+	ENST00000378802	20765-20767	11,22,1
chr4	187544165	187544022	-	chr4	187542929	187538862	-	ENST00000441802	20768-20770	4,7,24
								ENST00000226798,ENST000		8,2,2,2
								00524583,ENST00000531991		
chr4	190875196	190875404	+	chr4	190878553	190878657	+		20771-20774	
								ENST00000508803,ENST000		14,25,6
								00382892,ENST00000382891		
								,ENST00000382895,ENST000		
chr4	1979571	1979752	+	chr4	1980365	1980636	+	00382888	20775-20777	
								ENST00000382148,ENST000		1,14,45
								00447367,ENST00000382150		
								,ENST00000382152,ENST000		
								00509207,ENST00000359001		
chr4	20764785	20764647	-	chr4	20760513	20760444	-		20778-20780	
chr4	21889799	21889772	-	chr4	21764655	21764612	-	ENST00000515786	20781-20783	9,3,8
chr4	22399659	22399614	-	chr4	22394313	22394168	-	ENST00000334304	20784-20786	15,6,14
chr4	22419272	22419037	-	chr4	22415437	22415224	-	ENST00000334304	20787-20789	16,2,15
								ENST00000290974,ENST000		3,3,2,3,3
								00511071,ENST00000503000		
chr4	2365687	2365678	-	chr4	2355800	2355660	-		20790-20794	
chr4	24533010	24532912	-	chr4	24531393	24531224	-	ENST00000336812	20795-20797	33,23,1
chr4	24582439	24582343	-	chr4	24578297	24577866	-	ENST00000336812	20798-20800	23,10,15
chr4	24582439	24582343	-	chr4	24578301	24577866	-	ENST00000336812	20801-20803	23,10,15
								ENST00000315368,ENST000		33,24,11,24
chr4	25395002	25395102	+	chr4	25395461	25395513	+	00510092	20804-20807	
								ENST00000399878,ENST000		4,9,31
								00264868,ENST00000502949		
chr4	25822648	25822554	-	chr4	25821562	25821430	-		20808-20810	
chr4	25916114	25916293	+	chr4	25929935	25929991	+	ENST00000506197	20811-20813	18,8,2
chr4	2651491	2651841	+	chr4	2656785	2656856	+	ENST00000502458	20814-20816	4,14,13
								ENST00000513455,ENST000		36,7,19,19,1
								00512840,ENST00000264866		9,19
chr4	26566612	26566877	+	chr4	26614791	26614863	+	,ENST00000513596	20817-20822	
								ENST00000545951,ENST000		13,12,8,8,13
								00382839,ENST00000512465		,8,8,13,8,8
								,ENST00000324666,ENST000		
								00502458,ENST00000505311		
								,ENST00000513898,ENST000		
chr4	2695071	2695109	+	chr4	2695313	2695601	+	00513350	20823-20832	
								ENST00000382839,ENST000		2,1,13
								00324666,ENST00000502458		
chr4	2722101	2722237	+	chr4	2733502	2733595	+		20833-20835	
								ENST00000315423,ENST000		1,12,27,12
chr4	2751829	2751697	-	chr4	2749672	2749382	-	00503235	20836-20839	
								ENST00000442312,ENST000		5,9,26
chr4	2796645	2796803	+	chr4	2822341	2822480	+	00503393	20840-20842	

Table 10

							ENST00000398052,ENST000		22,13,21,22
chr4	2967859	2967925	+	chr4	2986240	2986335	+ 00504933	20843-20846	
							ENST00000543385,ENST000		18,18,18,18,
							00336727,ENST00000344733		18,18,18
							,ENST00000514268,ENST000		
							00382788,ENST00000306648		
chr4	3294771	3294826	+	chr4	3344664	3344780	+	20847-20853	
							ENST00000512994,ENST000		4,4,3,4,4
							00505939,ENST00000240499		
chr4	331192	331204	+	chr4	337571	337697	+	20854-20858	
							ENST00000512994,ENST000		31,1,31,31
							00505939,ENST00000240499		
chr4	332311	332403	+	chr4	337571	337697	+	20859-20862	
							ENST00000543385,ENST000		47,26,48,47,
							00336727,ENST00000344733		48,47,47
							,ENST00000514268,ENST000		
							00382788,ENST00000306648		
							,ENST00000338806,ENST000		
chr4	3406179	3406329	+	chr4	3415799	3415804,34	+ 00538395	20863-20869	
							ENST00000543385,ENST000		21,5,5,5,5
							00336727,ENST00000344733		
							,ENST00000514268,ENST000		
							00382788,ENST00000306648		
							,ENST00000338806,ENST000		
chr4	3415586	3415648	+	chr4	3415799	3415804,34	+ 00538395	20870-20874	
							ENST00000336727,ENST000		24,11,24,24
							00344733,ENST00000382788		
							,ENST00000306648,ENST000		
							00338806,ENST00000538395		
chr4	3420627	3420726	+	chr4	3422369	3422445	+	20875-20878	
chr4	37931569	37931603	+	chr4	37953627	37953644	+ ENST00000402522	20879-20881	11,11,9
							ENST00000508802,ENST000		5,13,13,13,1
							00261439,ENST00000446803		3
chr4	38019034	38019074	+	chr4	38019975	38020064	+	20882-20886	
chr4	38973708	38973658	-	chr4	38972757	38972690	- ENST00000381938	20887-20888	17,7
							ENST00000381938,ENST000		13,7
chr4	38996045	38995859	-	chr4	38995618	38995358,4	- 00344606	20889-20890	
							ENST00000399820,ENST000		20,6,17,20
							00288634,ENST00000506503		
chr4	39207546	39209440	+	chr4	39216221	39216291	+	20891-20894	
							ENST00000349703,ENST000		6,4,5,6
chr4	39321400	39321383	-	chr4	39318642	39318535	- 00381897	20895-20898	
							ENST00000349703,ENST000		7,46,21,21,2
							00381897,ENST00000512275		1,21
chr4	39386791	39386268	-	chr4	39353096	39352968,4	- ,ENST00000503784	20899-20904	
							ENST00000316423,ENST000		18,9,17,18,1
							00501493,ENST00000506179		8,18,18,17,1
							,ENST00000515021,ENST000		8,18
							00514106,ENST00000510881		
							,ENST00000503779,ENST000		
							00509391,ENST00000505698		
chr4	39516601	39516547	-	chr4	39515800	39515703,39	-	20905-20914	
							ENST00000316423,ENST000		2,1,1,2,2,2,2
							00501493,ENST00000506179		,2
							,ENST00000515021,ENST000		
							00514106,ENST00000509391		
chr4	39516601	39516596	-	chr4	39515804	39515703,4	- ,ENST00000505698	20915-20922	
							ENST00000316423,ENST000		47,37,1,47,4
							00501493,ENST00000506179		7,47,47,47
							,ENST00000515021,ENST000		
							00514106,ENST00000509391		
chr4	39517619	39517479	-	chr4	39515804	39515703,4	- ,ENST00000505698	20923-20930	
chr4	39524673	39524582	-	chr4	39523139	39522971	- ENST00000515021	20931-20933	2,16,30
							ENST00000295958,ENST000		3,37,5,3,37,
							00511809,ENST00000505729		5,37
chr4	39628910	39628604	-	chr4	39574083	39574035	-	20934-20940	
							ENST00000261427,ENST000		22,13,21,22,
							00510934,ENST00000295963		22,22
chr4	39744942	39745008	+	chr4	39747372	39747430	+ ,ENST00000445950	20941-20946	
							ENST00000261427,ENST000		12,5,12
							00503368,ENST00000445950		
chr4	39753025	39753061	+	chr4	39757277	39757359	+	20947-20949	
chr4	39828404	39828306	-	chr4	39827108	39827105	- ENST00000303538	20950-20952	2,33,32
chr4	39897328	39897117	-	chr4	39891984	39891869	- ENST00000303538	20953-20954	30,4

Table 10

							ENST00000503431,ENST000		33,11,32,32
							00284440,ENST00000508768		
chr4	41267314	41267413	+	chr4	41270004	41270090,4 +	,ENST00000512788	20955-20958	
							ENST00000508501,ENST000		48,9,9,9,9,9
							00512946,ENST00000313860		
							,ENST00000512632,ENST000		
chr4	41566726	41567003	+	chr4	41600937	41601043 +	00512820	20959-20964	
							ENST00000504986,ENST000		1,27
							00508448,ENST00000513702		
							,ENST00000264452,ENST000		
							00325094,ENST00000506794		
chr4	41936578	41936660	+	chr4	41940619	41940713 +		20965-20966	
							ENST00000504986,ENST000		20,7,20,20,2
							00508448,ENST00000513702		0
							,ENST00000264452,ENST000		
							00325094,ENST00000506794		
chr4	41938587	41938653	+	chr4	41940619	41940713 +		20967-20971	
							ENST00000264451,ENST000		15,7,2,2
chr4	42000995	42002041	+	chr4	42003633	42003797 +	00513699	20972-20975	
							ENST00000254742,ENST000		35,26,13,35
							00382753,ENST00000538516		
chr4	4243934	4243828	-	chr4	4242206	4242048 -	,ENST00000540397	20976-20979	
							ENST00000514372,ENST000		5,5,3,3
							00381668,ENST00000264449		
chr4	42517103	42517087	-	chr4	42509171	42509033 -		20980-20983	
							ENST00000343470,ENST000		9,11
chr4	4273410	4272690	-	chr4	4270342	4270257 -	00452476	20984-20985	
							ENST00000343470,ENST000		14,89,1
chr4	4273410	4273132	-	chr4	4270342	4270257 -	00452476	20986-20988	
							ENST00000515578,ENST000		23,1,32,32,3
							00506646,ENST00000505900		2
chr4	471325	471228	-	chr4	466490	466364 -		20989-20993	
							ENST00000515578,ENST000		4,10,10,10,1
							00506646,ENST00000505900		0
chr4	472929	472898	-	chr4	466490	466364 -		20994-20998	
chr4	47584885	47584978	+	chr4	47589097	47589223 +	ENST00000273859	20999-21001	26,9,30
chr4	47955160	47954834	-	chr4	47954720	47954600 -	ENST00000402813	21002-21004	5,10,55
chr4	48091708	48091658	-	chr4	48088654	48088483 -	ENST00000264316	21005-21007	17,5,16
chr4	48637550	48637492	-	chr4	48636507	48636308 -	ENST00000505759	21008-21010	6,2,19
chr4	48895997	48895948	-	chr4	48894906	48894789 -	ENST00000508632	21011-21012	7,16
							ENST00000506646,ENST000		78,4,4,4
							00511833,ENST00000505900		
chr4	491211	490916	-	chr4	438221	438132,4354[-		21013-21016	
							ENST00000282908,ENST000		19,40,7,19,4
chr4	5129467	5129746	+	chr4	5141632	5141687 +	00512018	21017-21021	0
							ENST00000282908,ENST000		43,4,13,4
							00512636,ENST00000510398		
chr4	5215778	5216077	+	chr4	5332947	5333120 +		21022-21025	
							ENST00000509376,ENST000		28,28,22,28,
							00334635,ENST00000381441		28,28,28,28,
							,ENST00000506673,ENST000		28
							00502930,ENST00000477560		
							,ENST00000509068,ENST000		
							00505403,ENST00000451288		
chr4	52709574	52709659	+	chr4	52729603	52729673,5 +		21026-21034	
							ENST00000334635,ENST000		43,41,2,43,4
							00381441,ENST00000381437		3,43,43
							,ENST00000477560,ENST000		
							00509068,ENST00000505403		
chr4	52742755	52742885	+	chr4	52743929	52744020 +	,ENST00000451288	21035-21041	
							ENST00000334635,ENST000		1,11,31,1,1,
							00381441,ENST00000381437		1,1,1
							,ENST00000477560,ENST000		
							00509068,ENST00000505403		
							,ENST00000451288,ENST000		
chr4	52747015	52747111	+	chr4	52752734	52752804,5 +	00505634	21042-21049	
							ENST00000381431,ENST000		55,32
chr4	52897497	52896892	-	chr4	52896029	52895844 -	00535450	21050-21051	
							ENST00000381431,ENST000		8,47,12
chr4	52898463	52898031	-	chr4	52896029	52895844 -	00535450	21052-21054	
							ENST00000381431,ENST000		7,35,21,21
							00506357,ENST00000514133		
chr4	52915782	52915523	-	chr4	52899806	52899597 -		21055-21058	

Table 10

chr4	52944159	52944242	+	chr4	52944901	52945059	+	ENST00000295213,ENST00000419395,ENST00000505320	21059-21061	10,3,10
chr4	53893	53995	+	chr4	59323	59449	+	ENST00000509152,ENST00000526473	21062-21064	13,17,13
chr4	54073444	54073121	-	chr4	54011749	54011500	-	ENST00000401642,ENST00000388940	21065-21067	48,53,48
chr4	5519908	5520004	+	chr4	5527134	5527223	+	ENST00000195455,ENST00000505296	21068-21070	32,6,32
chr4	5709780	5709774	-	chr4	5699374	5699320	-	ENST00000344938,ENST00000344408	21071-21074	2,2,1,2
chr4	5726213	5726403	+	chr4	5731043	5731117	+	ENST00000264956,ENST00000382674,ENST00000509451	21075-21077	12,29,29
chr4	57270227	57269872	-	chr4	57269567	57269455,6	-	ENST00000264220,ENST00000510643	21078-21082	14,28,2,14,2
chr4	57273783	57273599	-	chr4	57272867	57272661	-	ENST00000264220,ENST00000510643	21083-21085	7,21,21
chr4	5734456	5734505	+	chr4	5735078	5735162	+	ENST00000264956,ENST00000382674,ENST00000509451	21086-21089	16,7,16,16
chr4	5743913	5743953	+	chr4	5746931	5747068	+	ENST00000264956,ENST00000382674,ENST00000509451	21090-21092	13,13,13
chr4	5759684	5760007	+	chr4	5785279	5785491	+	ENST00000264956,ENST00000382674	21093-21095	60,4,63
chr4	57866320	57866580	+	chr4	57871412	57871608	+	ENST00000381227,ENST00000431623,ENST00000441246,ENST00000314595	21096-21098	1,13,10
chr4	5794372	5794553	+	chr4	5795335	5795444	+	ENST00000264956,ENST00000382674	21099-21101	11,3,60
chr4	5797097	5797147	+	chr4	5798749	5798959	+	ENST00000264956,ENST00000382674	21102-21103	17,7
chr4	63639	63689	+	chr4	67732	67763	+	ENST00000509152	21104-21106	8,11,16
chr4	669454	669643	+	chr4	672447	672554	+	ENST00000400159,ENST00000513662,ENST00000507804	21107-21111	37,10,16,10,10
chr4	68366008	68364163	-	chr4	68360930	68360877	-	ENST00000273853,ENST00000513216	21112-21115	4,35,19,4
chr4	69207909	69207873	-	chr4	69204102	69204001	-	ENST00000344157,ENST00000355665,ENST00000579690	21116-21120	4,1,11,4,4
chr4	69441933	69441669	-	chr4	69433523	69433479	-	ENST00000317746	21121-21123	15,40,72
chr4	69917056	69917320	+	chr4	69978175	69978454,7	+	ENST00000305231,ENST00000508661	21124-21125	15,2
chr4	7000116	7000218	+	chr4	7000812	7000929	+	ENST00000448507,ENST00000409757,ENST00000410031,ENST00000451522	21126-21127	34,8
chr4	71529576	71529477	-	chr4	71527932	71527809	-	ENST00000254801,ENST00000510437,ENST00000543780,ENST00000510614,ENST00000391614,ENST00000470866	21128-21133	24,11,2,24,24,24
chr4	71542824	71542600	-	chr4	71527932	71527809	-	ENST00000254801,ENST00000510437,ENST00000543780,ENST00000510614,ENST00000391614,ENST00000470866	21134-21139	7,9,20,20,20,20
chr4	73975685	73975563	-	chr4	73968264	73968093,7	-	ENST00000358602,ENST00000558247,ENST00000509867,ENST00000330838,ENST00000561029	21140-21144	1,40,9,1,9
chr4	73984902	73984718	-	chr4	73984567	73984405	-	ENST00000358602,ENST00000558247,ENST00000509867,ENST00000330838,ENST00000561029	21145-21147	7,15,7
chr4	74269495	74269497	+	chr4	74270086	74270123	+	ENST00000441319,ENST00000295897,ENST00000415165,ENST00000476441,ENST00000509063,ENST00000401494	21148-21149	1,1
chr4	74471668	74471459	-	chr4	74464435	74464357	-	ENST00000307439,ENST00000342081,ENST00000395777	21150-21153	14,69,19,69

Table 10

							ENST00000395759,ENST00000359107,ENST00000325278	16,9,16
chr4	75126695	75126926	+	chr4	75147142	75147267	+	21154-21156	
chr4	75247412	75247510	+	chr4	75248362	75248511	+	ENST00000244869	21157-21159	33,23,32
chr4	7636133	7636844	+	chr4	7640055	7640219	+	ENST00000507866,ENST00000329016	21160-21163	6,9,67,9
chr4	76462485	76462778	+	chr4	76465069	76465137	+	ENST00000507556,ENST00000504190,ENST00000507885	21164-21165	21,7
chr4	76939125	76938389	-	chr4	76927427	76927301	-	ENST00000264888	21166-21168	14,7,6
chr4	77100506	77100317	-	chr4	77097681	77097590	-	ENST00000264896	21169-21171	13,9,1
chr4	77378291	77378618	+	chr4	77476762	77476916	+	ENST00000296043	21172-21174	11,17,20
chr4	77865383	77865449	+	chr4	77917578	77917692	+	ENST00000264893,ENST00000502584,ENST00000510641,ENST00000505788,ENST00000510515,ENST00000504637,ENST00000512778,ENST00000541121	21175-21182	3,22,7,22,22,22,22,22
chr4	77932389	77932552	+	chr4	77932888	77933074,77	+	ENST00000264893,ENST00000502584,ENST00000510641,ENST00000505788,ENST00000510515,ENST00000504637,ENST00000512778,ENST00000541121	21183-21191	15,30,44,15,15,15,15,30,15
chr4	7830581	7830465	-	chr4	7820898	7820803	-	ENST00000360265,ENST00000358461,ENST00000420658,ENST00000382543	21192-21194	11,25,11
chr4	78732182	78732055	-	chr4	78697546	78697425	-	ENST00000504123,ENST00000264903,ENST00000515506,ENST00000512485,ENST00000504804,ENST00000515441	21195-21200	42,34,5,42,42,42
chr4	78988667	78988764	+	chr4	78989707	78989718	+	ENST00000508909	21201-21203	32,14,24
chr4	79496481	79496762	+	chr4	79500181	79500275	+	ENST00000264908,ENST00000512373,ENST00000514171,ENST00000508214	21204-21205	48,7
chr4	79518633	79518710	+	chr4	79522664	79522722	+	ENST00000264908,ENST00000512884,ENST00000503570	21206-21208	18,16,25
chr4	79735537	79735829	+	chr4	79747191	79747309	+	ENST00000389010,ENST00000502871,ENST00000335016	21209-21213	7,32,1,32,32
chr4	79821142	79821343	+	chr4	79831764	79833187	+	ENST00000335016,ENST00000502613	21214-21215	67,2
chr4	79844055	79843983	-	chr4	79841835	79841693	-	ENST00000511594,ENST00000512733	21216-21217	4,23
chr4	79850315	79849981	-	chr4	79847872	79847675	-	ENST00000342820,ENST00000511594,ENST00000512733,ENST00000395594,ENST00000380645	21218-21224	14,65,4,65,4,65,4
chr4	81018685	81018658	-	chr4	80992808	80992737	-	ENST00000403729,ENST00000346652,ENST00000307333,ENST00000295465	21225-21226	5,9
chr4	81218674	81219791	+	chr4	81222437	81222454	+	ENST00000507780	21227-21229	28,26,22
chr4	81222457	81222483	+	chr4	81283908	81284038	+	ENST00000358105,ENST00000514249,ENST00000513920,ENST00000508675	21230-21234	9,8,9,9,9
chr4	81404074	81404396	+	chr4	81504247	81504337	+	ENST00000358105,ENST00000513920,ENST00000508675	21235-21239	15,3,1,15,15
chr4	81497015	81497124	+	chr4	81504247	81504337	+	ENST00000358105,ENST00000513920,ENST00000508675	21240-21243	7,36,7,7
chr4	83616038	83615861	-	chr4	83602065	83601860	-	ENST00000319540,ENST00000273908	21244-21246	43,1,1
chr4	83762275	83762010	-	chr4	83752128	83752090	-	ENST00000503937,ENST00000432794	21247-21248	20,4

							ENST00000503937,ENST000		19,2,2
							00348405,ENST00000513858		
							,ENST00000395310,ENST000		
							00443462,ENST00000509142		
							,ENST00000311785,ENST000		
							00326950,ENST00000432794		
							,ENST00000448323,ENST000		
							00505472,ENST00000500777		
							,ENST00000508502,ENST000		
							00355196,ENST00000264405		
							,ENST00000505984,ENST000		
chr4	83764590	83764450	-	chr4	83750211	83750153	-	00511338	21249-21251	
							ENST00000503391,ENST000		33,24,11,24,
							00503915,ENST00000311469		11,11
							,ENST00000439031,ENST000		
chr4	84195647	84195547	-	chr4	84194770	84194649	-	00311461	21252-21257	
							ENST00000503391,ENST000		12,5
							00311469,ENST00000439031		
chr4	84204013	84203853	-	chr4	84200267	84200101	-	,ENST00000311461	21258-21259	
							ENST00000295488,ENST000		16,13,16
chr4	84338654	84338605	-	chr4	84338018	84337884	-	00510985	21260-21262	
							ENST00000321945,ENST000		7,52,20,7
chr4	84404713	84404510	-	chr4	84403397	84403307	-	00475656	21263-21266	
chr4	85518998	85519048	+	chr4	85525396	85525523	+	ENST00000295887	21267-21269	17,7,16
							ENST00000360986,ENST000		3,15,43
chr4	8601537	8601692	+	chr4	8602850	8603224	+	00315782	21270-21272	
							ENST00000395184,ENST000		22,44,37,37
chr4	86497301	86497596	+	chr4	86643038	86643125	+	00503995	21273-21276	
							ENST00000314167,ENST000		31,35,28
chr4	873576	873348	-	chr4	871597	871403	-	00511163	21277-21279	
							ENST00000427191,ENST000		33,53
							00436978,ENST00000316707		
							,ENST00000411767,ENST000		
chr4	87715256	87716976	+	chr4	87718027	87718082	+	00511467	21280-21281	
							ENST00000302174,ENST000		13,3,3
chr4	88351071	88351491	+	chr4	88356133	88356372	+	00440591	21282-21284	
							ENST00000237623,ENST000		2,22,22
chr4	88900815	88900927	+	chr4	88901198	88901278	+	00395080	21285-21287	
chr4	88952120	88952292	+	chr4	88957372	88957505	+	ENST00000237596	21288	36
chr4	89454580	89454122	-	chr4	89443180	89443039	-	ENST00000273968	21289-21290	85,151
							ENST00000513325,ENST000		8,2,8,2,8,8,2
							00402738,ENST00000431413		,8,8,8
							,ENST00000422770,ENST000		
							00407637,ENST00000426683		
							,ENST00000452979,ENST000		
chr4	89516704	89516765	+	chr4	89570991	89570998,895	+	00264345	21291-21300	
							ENST00000402738,ENST000		18,11
chr4	89587047	89587101	+	chr4	89588528	89588639	+	00264345	21301-21302	
							ENST00000264344,ENST000		15,17,1,17,1
							00512339,ENST00000509094		7
chr4	89870542	89870477	-	chr4	89859392	89859239,898	-		21303-21307	
							ENST00000264344,ENST000		8,7,7,7,7,7
							00512339,ENST00000509094		
							,ENST00000515600,ENST000		
chr4	89943526	89943503	-	chr4	89941820	89941611,9	-	00506913	21308-21313	
chr4	95249513	95249286	-	chr4	95239116	95239024	-	ENST00000295256	21314-21316	28,32,17
chr4	96104494	96104405	-	chr4	96104212	96104048	-	ENST00000453304	21317-21319	2,29,14
							ENST00000509011,ENST000		41,16,41,41,
							00380158,ENST00000264572		41,41,41,41
							,ENST00000508213,ENST000		
							00408927,ENST00000453712		
							,ENST00000510870,ENST000		
							00339360,ENST00000408900		
chr4	99267115	99267268	+	chr4	99273627	99273753	+		21320-21327	
							ENST00000508213,ENST000		12,22,7,12,1
							00408927,ENST00000453712		2,12
							,ENST00000511212,ENST000		
chr4	99287253	99287520	+	chr4	99300168	99300314	+	00339360	21328-21333	
							ENST00000247933,ENST000		85,30,85,85,
							00453894,ENST00000502910		85,85,85,85
							,ENST00000504568,ENST000		
							00514192,ENST00000509948		
chr4	993020	993276	+	chr4	994400	994485	+		21334-21341	

Table 10

							ENST00000247933,ENST000		33,88,33,33,
							00453894,ENST00000502910		33,33,33
							,ENST00000504568,ENST000		
							00514192,ENST00000509948		
chr4	993020	993286	+	chr4	994400	994485	+	21342-21348	
							ENST00000508798,ENST000		6,32,32,32
							00305798,ENST00000515440		
chr4	99519614	99519517	-	chr4	99428879	99428829	-	21349-21352	
							ENST00000508798,ENST000		20,8,14,20,2
							00305798,ENST00000515440		0
chr4	99541178	99540915	-	chr4	99428879	99428829	-	21353-21357	
							ENST00000450253,ENST000		21,9,16,9,9
							00280892,ENST00000511644		
							,ENST00000504432,ENST000		
chr4	99816475	99814130	-	chr4	99812483	99812388	-	00505992 21358-21362	
							ENST00000450253,ENST000		21,6,11,21,1
							00280892,ENST00000515638		1,11,11
							,ENST00000511644,ENST000		
							00504432,ENST00000505992		
chr4	99824758	99824694	-	chr4	99823133	99823027	-	21363-21369	
							ENST00000506729,ENST000		34,37,30,34,
							00379807,ENST00000389019		34
							,ENST00000513675,ENST000		
chr5	101847665	101847554	-	chr5	101816138	101815881	-	00379810 21370-21374	
							ENST00000280330,ENST000		52,53
							00511437,ENST00000510047		
chr5	10230154	10229534	-	chr5	10227759	10227553	-	21375-21376	
							ENST00000438793,ENST000		9,7
							00379787,ENST00000348126		
							,ENST00000304400,ENST000		
chr5	102359437	102359520	+	chr5	102360835	102361038	+	00504691 21377-21378	
							ENST00000321521,ENST000		16,16,13
							00358359,ENST00000414217		
chr5	102531040	102531089	+	chr5	102537223	102537335	+	,ENST00000509597 21379-21381	
							ENST00000449913,ENST000		15,2
							00502795,ENST00000274140		
chr5	10358712	10359382	+	chr5	10377910	10378006	+	21382-21383	
							ENST00000449913,ENST000		11,44
							00502795,ENST00000274140		
chr5	10375089	10376599	+	chr5	10377910	10378006	+	21384-21385	
							ENST00000449913,ENST000		2,5,5,5
							00502795,ENST00000274140		
chr5	10376636	10376688	+	chr5	10377910	10378006	+	21386-21389	
							ENST00000449913,ENST000		49,30,1
							00503788,ENST00000274140		
chr5	10384725	10385361	+	chr5	10387106	10387178	+	21390-21392	
							ENST00000449913,ENST000		50,31,2
							00503788,ENST00000274140		
chr5	10384725	10385364	+	chr5	10387106	10387178	+	21393-21395	
							ENST00000504806,ENST000		45,57,42,45
chr5	10589248	10589436	+	chr5	10618445	10618574	+	00296657 21396-21399	
chr5	10589248	10589436	+	chr5	10638140	10638280	+	ENST00000296657 21400-21402	45,57,42
							ENST00000536402,ENST000		7,82,82,82
							00281092,ENST00000504143		
chr5	108201111	108202070	+	chr5	108203468	108203651	+	21403-21406	
							ENST00000281092,ENST000		10,51,5
chr5	108341955	108342238	+	chr5	108373123	108373179	+	00438717 21407-21409	
chr5	109187023	109187309	+	chr5	109190841	109191035	+	ENST00000261483 21410-21411	44,34
							ENST00000429839,ENST000		7,18,4,7,7,7,
							00455884,ENST00000511883		7
							,ENST00000515278,ENST000		
chr5	110066530	110066253	-	chr5	109978072	109977961	-	00512886 21412-21418	
							ENST00000508074,ENST000		30,6,6,30,6,
							00512453,ENST00000282356		6
							,ENST00000504544,ENST000		
							00515231,ENST00000514007		
chr5	110637937	110638027	+	chr5	110679722	110679800	+	21419-21424	
chr5	112894898	112895099	+	chr5	112896777	112896882	+	ENST00000161863 21425-21426	36,5
chr5	112894898	112895627	+	chr5	112896777	112896882	+	ENST00000161863 21427-21429	24,32,19
							ENST00000512097,ENST000		8,13
chr5	113790814	113793025	+	chr5	113798746	113798887	+	00264773 21430-21431	
							ENST00000379611,ENST000		17,7,16,17
							00512261,ENST00000506442		
chr5	114607919	114607869	-	chr5	114607323	114606910	-	,ENST00000395557 21432-21435	

Table 10

							ENST00000379611,ENST00000512261,ENST00000506442		12,3,12
chr5	114609531	114609433	-	chr5	114607323	114606910	-	,ENST00000395557	21436-21438	
chr5	115199292	115200406	+	chr5	115202367	115202458	+	ENST00000316788,ENST00000506430	21439-21442	2,22,32,32
chr5	115301274	115301555	+	chr5	115318984	115319126	+	ENST00000504467,ENST00000357872	21443-21446	45,7,28,7
chr5	115368122	115368202	+	chr5	115389711	115389850	+	ENST00000600981,ENST00000601302	21447-21450	8,1,26,8
chr5	115421182	115421275	+	chr5	115423194	115423284	+	ENST00000274458,ENST00000507356	21451-21454	31,5,18,18
chr5	115421182	115421303	+	chr5	115423194	115423284	+	ENST00000274458,ENST00000507356	21455-21458	6,3,28,6
								ENST00000274458,ENST00000515539,ENST00000506589	21459	33
								ENST00000274458,ENST00000515539,ENST00000506589		1,2
chr5	115481298	115481607	+	chr5	115627214	115627273	+		21460-21461	
chr5	118471579	118473105	+	chr5	118479536	118479625	+	ENST00000311085,ENST00000539542	21462-21464	20,115,20
								ENST00000274456,ENST00000513374,ENST00000504771,ENST00000503646,ENST00000504642	21465-21467	2,1,1
chr5	119960441	119960714	+	chr5	120021649	120022404	+	ENST00000407149,ENST00000379551	21468-21470	18,45,7
chr5	122516189	122516286	+	chr5	122522781	122522895	+	ENST00000407847	21471-21473	22,1,3
								ENST00000513040,ENST00000506445,ENST00000285689,ENST00000515200,ENST00000542322,ENST00000543198,ENST00000514099,ENST00000513978,ENST00000511134		22,13,21,21,22,21,22,21,21,22
chr5	125792603	125792669	+	chr5	125801118	125801237	+		21474-21485	
								ENST00000409134,ENST00000447989,ENST00000553117		17,5
chr5	125900139	125900089	-	chr5	125896816	125896775	-		21486-21487	
								ENST00000409134,ENST00000447989,ENST00000553117		22,10,14,10,10
chr5	125931332	125931224	-	chr5	125929096	125929043	-	,ENST00000510111	21488-21492	
chr5	125935488	125936006	+	chr5	125939262	125939875	+	ENST00000297540	21493-21495	5,35,30
chr5	128902064	128902228	+	chr5	128932252	128932357	+	ENST00000274487	21496-21498	6,13,16
								ENST00000379380,ENST00000510516,ENST00000507584		34,1,13,13,13
chr5	130514374	130514639	+	chr5	130515788	130515860	+		21499-21503	
								ENST00000401867,ENST00000379086,ENST00000166534,ENST00000360568,ENST00000379100,ENST00000379104		4,19,9,9
chr5	131541101	131540869	-	chr5	131539845	131539775	-		21504-21507	
chr5	131579855	131579665	-	chr5	131554337	131554238	-	ENST00000431054	21508-21510	54,61,15
chr5	131808146	131808416	+	chr5	131811359	131811624	+	ENST00000378953	21511-21513	13,81,22
								ENST00000378746,ENST00000378735,ENST00000403231		32,1,13,13,13,13
chr5	132071062	132070800	-	chr5	132070170	132069897	-	,ENST00000428744	21514-21519	
								ENST00000265343,ENST00000378595,ENST00000425658		34,21,13,13,13
chr5	132253709	132253438	-	chr5	132240096	132240060	-		21520-21524	
								ENST00000324170,ENST00000355372,ENST00000509437,ENST00000513848,ENST00000513541,ENST00000509008		6,19,19,19,19
chr5	132354099	132354039	-	chr5	132342612	132342451	-		21525-21529	
								ENST00000353411,ENST00000522552,ENST00000521216,ENST00000517625,ENST00000522855,ENST00000328392,ENST00000519321,ENST00000520417,ENST00000519718		33,23,1,1,1,1,1,1,1
chr5	133503514	133503416	-	chr5	133502934	133502861	-		21530-21538	
								ENST00000481195,ENST00000522385,ENST00000523082		1,30,10,30,30
chr5	133539401	133539119	-	chr5	133537712	133537539	-		21539-21543	

Table 10

							ENST00000481195,ENST00000522385,ENST00000523082	21544-21548	10,27,8,8,8
chr5	133539401	133539127	-	chr5	133537712	133537539	-		
							ENST00000481195,ENST00000523082,ENST00000609654	21549-21553	33,1,22,22,22
chr5	133557104	133557004	-	chr5	133541822	133541613	-		
							ENST00000609654,ENST00000519312,ENST00000265334,ENST00000523054,ENST00000521118,ENST00000523832,ENST00000435211	21554-21561	53,15,19,15,19,15,15,15
chr5	133649261	133649102	-	chr5	133648071	133647983	-		
							ENST00000265334,ENST00000521118,ENST00000523832,ENST00000435211	21562-21563	28,4
chr5	133692123	133691774	-	chr5	133657594	133657482	-		
							ENST00000265334,ENST00000521118,ENST00000523832,ENST00000435211	21564-21567	28,4,4,4
chr5	133692123	133691774	-	chr5	133686118	133685940	-		
chr5	133740775	133740724	-	chr5	133738617	133738606	-	ENST00000458198	21568-21569	8,16
chr5	133747145	133747103	-	chr5	133745693	133745594	-	ENST00000458198	21570-21572	6,14,13
							ENST00000512386,ENST00000282605,ENST00000361895,ENST00000402835,ENST00000395003,ENST00000431355	21573-21580	33,32,32,33,33,33,33,33
chr5	133844665	133844763	+	chr5	133871548	133871605	+		
chr5	134054074	134054312	+	chr5	134056688	134056780	+	ENST00000398844	21581-21582	21,4
							ENST00000507392,ENST00000452510,ENST00000354283	21583-21587	17,7,16,17,17
chr5	134107932	134107982	+	chr5	134109386	134109551	+		
							ENST00000507392,ENST00000452510,ENST00000354283	21588-21592	36,4,13,13,13
chr5	134122253	134122428	+	chr5	134124203	134124281	+		
chr5	134310927	134311014	+	chr5	134331963	134332202	+	ENST00000282611	21593-21595	5,3,24
chr5	134664419	134664515	+	chr5	134673621	134673703	+	ENST00000432382	21596-21598	28,5,31
							ENST00000442011,ENST00000305126,ENST00000507018	21599-21603	8,39,67,8,8
chr5	135330987	135331309	+	chr5	135369452	135369550	+		
							ENST00000442011,ENST00000305126,ENST00000507018	21604-21608	34,25,11,34,34
chr5	135380814	135380916	+	chr5	135382024	135382184	+		
							ENST00000394945,ENST00000282223,ENST00000510689	21609-21612	2,5,57,57
chr5	136430492	136430287	-	chr5	136403518	136403404	-		
							ENST00000394945,ENST00000282223,ENST00000505690	21613-21617	9,21,43,21,43
chr5	136896573	136896286	-	chr5	136476383	136476269	-		
							ENST00000394945,ENST00000282223,ENST00000505690	21618-21620	9,21,9
chr5	136896573	136896286	-	chr5	136602744	136602699	-		
							ENST00000394945,ENST00000282223,ENST00000505690	21621-21624	9,21,43,9
chr5	136896573	136896286	-	chr5	136834247	136834062	-		
							ENST00000309755,ENST00000394937	21625-21628	92,4,14,14
chr5	137095062	137093556	-	chr5	137056273	137056154	-		
							ENST00000508638,ENST00000414094,ENST00000502810,ENST00000508883,ENST00000290431	21629-21635	33,23,32,32,32,32,32
chr5	137225692	137225790	+	chr5	137226170	137226271	+		
							ENST00000033079,ENST00000420893,ENST00000514310,ENST00000502471,ENST00000509596,ENST00000508403	21636-21647	32,1,32,1,1,1,32,1,32,32,1,32
chr5	137355667	137355570	-	chr5	137354203	137353991,13	-		
							ENST00000297185,ENST00000523929	21648-21652	11,7,27,7,27
chr5	137896536	137896326	-	chr5	137895780	137895553	-		
							ENST00000297185,ENST00000523929	21653-21656	7,15,7,15
chr5	137896536	137896364	-	chr5	137895780	137895553	-		
							ENST00000302060,ENST00000508445	21657-21660	10,32,18,10
chr5	138761152	138760894	-	chr5	138760803	138760694	-		
chr5	139638689	139638408	-	chr5	139625642	139625559	-	ENST00000261813	21661-21663	10,50,41
							ENST00000261813,ENST00000510217,ENST00000524074	21664-21668	33,23,1,23,23
chr5	139663117	139663019	-	chr5	139661118	139661034,13	-		

Table 10

							ENST00000261813,ENST00000510217,ENST00000524074	21669-21673	11,34,4,34,34
chr5	139666493	139666389	-	chr5	139661118	139661034,1	ENST00000261813,ENST00000524074	21674-21677	2,9,1,1
chr5	139680809	139680781	-	chr5	139680167	139680001	ENST00000360839,ENST00000297183,ENST00000421134,ENST00000394723,ENST00000511151,ENST00000532219,ENST00000394722	21678-21683	58,57,58,58,58,58
chr5	139820940	139821114	+	chr5	139825327	139825560	ENST00000360839,ENST00000297183,ENST00000421134,ENST00000532219,ENST00000246149,ENST00000412116	21684-21690	73,22,11,22,22,22,22
chr5	139855682	139856342	+	chr5	139862165	139862252	ENST00000360839,ENST00000297183,ENST00000421134,ENST00000532219,ENST00000246149,ENST00000412116	21691-21697	10,9,29,10,10,10,10
chr5	139864293	139864383	+	chr5	139864706	139864833	ENST00000360839,ENST00000297183,ENST00000532219,ENST00000431508,ENST00000433049,ENST00000435794,ENST00000437495	21698-21706	11,2,1,2,2,1,2,2,2
chr5	139913996	139914030	+	chr5	139914947	139915123	ENST00000504156,ENST00000457527,ENST00000415192,ENST00000507746	21707-21712	19,24,5,19,19,19
chr5	140067405	140067331	-	chr5	140062804	140062685	ENST00000265104	21713-21715	28,4,14
chr5	14013373	14013037	-	chr5	13931353	13931219	ENST00000389054,ENST00000520569,ENST00000253811,ENST00000389057,ENST00000398557,ENST00000398562,ENST00000398566,ENST00000448451,ENST00000518047	21716-21718	7,31,7
chr5	140898388	140898204	-	chr5	140896575	140896418	ENST00000435817	21719-21720	27,4
chr5	141022458	141022337	-	chr5	141021324	141021269	ENST00000522783	21721-21722	27,4
chr5	141022458	141022337	-	chr5	141022070	141022003	ENST00000508305,ENST00000239440,ENST00000513878	21723	1
chr5	141039777	141039775	-	chr5	141039493	141039346	ENST00000508305,ENST00000239440,ENST00000513878	21724-21727	5,31,5,5
chr5	141048133	141048038	-	chr5	141046210	141045991	ENST00000344204,ENST00000537187,ENST00000509967	21728-21732	18,34,7,18,18
chr5	14202612	14202945	+	chr5	14270934	14271008	ENST00000274498,ENST00000378004,ENST00000451259	21733-21738	3,43,9,43,43,9
chr5	142298611	142298877	+	chr5	142311612	142311690	ENST00000274498,ENST00000378004,ENST00000443674,ENST00000418236	21739-21744	13,31,56,31,31,31
chr5	142482844	142483290	+	chr5	142500553	142500712	ENST00000394464,ENST00000343796,ENST00000415690,ENST00000424646,ENST00000504572,ENST00000394466,ENST00000231509,ENST00000503201	21745-21749	24,40,7,7,7
chr5	142706979	142706703	-	chr5	142693733	142693567	ENST00000344204,ENST00000537187,ENST00000512070,ENST00000513206,ENST00000344135	21750-21755	18,13,21,13,21,13
chr5	14490106	14490172	+	chr5	14492676	14492923,1	ENST00000359120,ENST00000511217	21756-21757	2,4
chr5	145434798	145434810	+	chr5	145435544	145435776	ENST00000394434,ENST00000545646,ENST00000274562	21758-21761	25,8,25,25
chr5	145560493	145560413	-	chr5	145557228	145557110	ENST00000394434,ENST00000545646,ENST00000274562	21762-21766	24,11,32,32,32
chr5	145561802	145561703	-	chr5	145552337	145552250	ENST00000284274,ENST00000514913	21767-21769	23,13,23
chr5	14680886	14680954	+	chr5	14681573	14681716,1			

Table 10

							ENST00000398514,ENST00000343218,ENST00000512722		24,19,19
chr5	146890841	146890766	-	chr5	146804526	146804438	-	21770-21772	
							ENST00000340253,ENST00000296701,ENST00000394370		13,21
chr5	147787206	147787272	+	chr5	147788687	147788780	+,ENST00000513826	21773-21774	
							ENST00000340253,ENST00000296701,ENST00000394370		8,32,18,8,8
chr5	147787206	147787464	+	chr5	147788687	147788780	+,ENST00000513826	21775-21779	
							ENST00000340253,ENST00000296701,ENST00000394370		13,12,13,13
chr5	147796226	147796264	+	chr5	147796557	147796767	+,ENST00000513826	21780-21783	
							ENST00000504690,ENST00000538184,ENST00000515425		40,7,18,7,7
chr5	148398271	148397993	-	chr5	148392297	148392147	-,ENST00000512049	21784-21788	
							ENST00000504690,ENST00000323829,ENST00000515425,ENST00000512049,ENST00000513604		17,7,16,17,17,17
chr5	148425507	148425457	-	chr5	148424201	148424096	-	00513604	21789-21794
							ENST00000504690,ENST00000323829,ENST00000515425,ENST00000512049,ENST00000513604,ENST00000511307		13,13,12,13,13,13,13
chr5	148428422	148428383	-	chr5	148427552	148427425	-	21795-21801	
							ENST00000504690,ENST00000323829,ENST00000515425,ENST00000512049,ENST00000513604,ENST00000511307		9,1,4,1,1,1,1
chr5	148445434	148445277	-	chr5	148431803	148431705	-	21802-21808	
							ENST00000326685,ENST00000356541,ENST00000309868,ENST00000506113,ENST00000515171,ENST00000504238		25,15,6,25,25,25,25
chr5	148578373	148578449	+	chr5	148579879	148579991	+,ENST00000508983	21809-21815	
							ENST00000326685,ENST00000356541,ENST00000309868,ENST00000506113,ENST00000504238,ENST00000508983		9,2,4,9,9,9
chr5	148583584	148583641	+	chr5	148586571	148586697	+	21816-21821	
							ENST00000326685,ENST00000356541,ENST00000309868,ENST00000506113,ENST00000504238,ENST00000508983		75,5,26,26,26,26
chr5	148584656	148584880	+	chr5	148586571	148586697	+	21822-21827	
							ENST00000296721,ENST00000515000		7,5,1,5
chr5	148677755	148677879	+	chr5	148679072	148679200	+	21828-21831	
							ENST00000296721,ENST00000515000		41,10,4,10
chr5	148678340	148678464	+	chr5	148679072	148679200	+	21832-21835	
							ENST00000360453,ENST00000394320,ENST00000309241,ENST00000403750		55,15,28,55,28,28
chr5	149204960	149205126	+	chr5	149206236	149206448	+	21836-21841	
							ENST00000360453,ENST00000394320,ENST00000309241,ENST00000403750,ENST00000434684		42,6,19,19,19
chr5	149223008	149223242	+	chr5	149225323	149225477	+	21842-21846	
chr5	149314792	149314696	-	chr5	149314281	149314129	-	ENST00000255266	21847-21849 3,28,1
							ENST00000230671,ENST00000524041		4,15
chr5	149569048	149569113	+	chr5	149574291	149574474	+	21850-21851	
							ENST00000377797,ENST00000451292,ENST00000445265,ENST00000323668,ENST00000439160,ENST00000427724,ENST00000504761,ENST00000513346		1,14,47,1,14,1
chr5	149771215	149771358	+	chr5	149771520	149771739	+	21852-21857	
							ENST00000523767,ENST00000261797		7,6,3,7
chr5	149877521	149877541	+	chr5	149907366	149907860	+	21858-21861	
							ENST00000523767,ENST00000261797		2,5,27,2
chr5	149877712	149877801	+	chr5	149907366	149907860	+	21862-21865	
							ENST00000523767,ENST00000261797		15,4,41,4
chr5	149907053	149907179	+	chr5	149907366	149907860	+	21866-21869	
							ENST00000394243,ENST00000522122		2,15,5
chr5	150019092	150019156	+	chr5	150027506	150029895	+	21870-21872	
chr5	150019092	150019156	+	chr5	150035966	150036649	+	ENST00000307662	21873-21875 2,15,5

Table 10

							ENST00000354546,ENST00000523714,ENST00000356496		2,7,15,15
chr5	150505283	150505039	-	chr5	150503928	150503847	-,ENST00000521512	21876-21879	
							ENST00000355417,ENST00000518189,ENST00000522964		12,23,16,16,16
chr5	150582762	150582523	-	chr5	150581249	150581143	-	21880-21884	
							ENST00000355417,ENST00000518189,ENST00000522964		15,18,29,29,29
chr5	150584562	150584473	-	chr5	150581249	150581143	-	21885-21889	
chr5	151774544	151774377	-	chr5	151772062	151771752	- ENST00000255262	21890-21891	35,18
							ENST00000351797,ENST00000522858,ENST00000520667,ENST00000520313,ENST00000522395,ENST00000523705,ENST00000519808,ENST00000518102,ENST00000522634,ENST00000517605,ENST00000524246		11,16,11,11,11,11,11,11,11,11
chr5	153417082	153416998	-	chr5	153414506	153414304,15	-	21892-21901	
							ENST00000425427,ENST00000297107,ENST00000520647,ENST00000377661		23,86,49,86,86,86
chr5	153666815	153667074	+	chr5	153677501	153677639	+	21902-21907	
							ENST00000297107,ENST00000377661,ENST00000377657		1,54,18,1,54,18
chr5	153781508	153781681	+	chr5	153783664	153783771	+	21908-21913	
							ENST00000504595,ENST00000329673		40,1,7
chr5	15516668	15517013	+	chr5	15616092	15616181	+	21914-21916	
							ENST00000517913,ENST00000435422,ENST00000447401,ENST00000337851,ENST00000524347		22,13,21,13,13
chr5	155756746	155756812	+	chr5	155771499	155771687	+	21917-21921	
							ENST00000517913,ENST00000435422,ENST00000447401,ENST00000337851		4,1,38,38
chr5	155775239	155776869	+	chr5	155935611	155935712	+	21922-21925	
							ENST00000522693,ENST00000523175,ENST00000339252,ENST00000425854,ENST00000544197		13,16,5,13
chr5	156458307	156458259	-	chr5	156456852	156456599	-	21926-21929	
							ENST00000456329,ENST00000523662		2,1,1
chr5	159516518	159516513	-	chr5	159505175	159505162	-	21930-21932	
							ENST00000393980,ENST00000393982,ENST00000402432		22,2,16
chr5	159661025	159661202	+	chr5	159661827	159661916	+	21933-21935	
							ENST00000393977,ENST00000257536,ENST00000519673,ENST00000541762,ENST00000520748,ENST00000505287		7,13,1,7,13,13,13,7,13
chr5	159709309	159709270	-	chr5	159707745	159707532	-	21936-21944	
							ENST00000332432,ENST00000507111		45,12,21,21
chr5	16068659	16068525	-	chr5	16067902	16067580,2	-	21945-21948	
chr5	162886150	162886001	-	chr5	162884086	162883935	- ENST00000302764	21949-21950	45,13
							ENST00000518659,ENST00000545108,ENST00000519204,ENST00000520394,ENST00000403607		48,21,7,7,21,7,7
chr5	167396152	167396440	+	chr5	167419949	167420187	+	21951-21957	
							ENST00000513610,ENST00000513882		33,23,1,33
chr5	16755573	16755475	-	chr5	16755017	16754937	-	21958-21961	
							ENST00000513610,ENST00000513882		19,1,16,16
chr5	16765096	16764957	-	chr5	16764505	16764359	-	21962-21965	
							ENST00000265293,ENST00000521089,ENST00000393895		4,76,76,76
chr5	167803409	167804389	+	chr5	167812216	167812419	+	21966-21969	
							ENST00000265293,ENST00000521089,ENST00000393895		8,31,31,31
chr5	167803409	167804794	+	chr5	167812216	167812419	+	21970-21973	
							ENST00000265293,ENST00000521089,ENST00000393895		43,26,26,26
chr5	167803409	167804929	+	chr5	167812216	167812419	+	21974-21977	
							ENST00000265293,ENST00000521089,ENST00000393895,ENST00000524228,ENST00000524038		16,16,7,7,7,7
chr5	167879950	167879998	+	chr5	167880973	167881105	+	21978-21983	
							ENST00000231572,ENST00000521329,ENST00000522834		17,7,16,17,7,17,17
chr5	167914086	167914136	+	chr5	167915607	167915741	+	,ENST00000520013	21984-21990

Table 10

						ENST00000231572,ENST000		2,24,11
chr5	167924951	167925051 +	chr5	167927596	167927725 +	00538719	21991-21993	
						ENST00000231572,ENST000		24,1,4
chr5	167936695	167936834 +	chr5	167937586	167937691 +	00538719	21994-21996	
						ENST00000513610,ENST000		7,18,37,37,3
						00513882,ENST00000502436		7,37
chr5	16875282	16875011 -	chr5	16818276	16818118 -	,ENST00000507288	21997-22002	
						ENST00000513610,ENST000		6,2,8,8,8
						00513882,ENST00000507288		
chr5	16894487	16894264 -	chr5	16877816	16877718 -		22003-22007	
						ENST00000256935,ENST000		30,26,9,9
chr5	169122017	169122216 +	chr5	169122807	169122942 +	00524185	22008-22011	
						ENST00000256935,ENST000		27,1
chr5	169122017	169122220 +	chr5	169122807	169122942 +	00524185	22012-22013	
						ENST00000256935,ENST000		2,5,48,48
chr5	169127951	169128259 +	chr5	169129307	169129431 +	00524185	22014-22017	
						ENST00000256935,ENST000		21,1,26,1,1
						00524185,ENST00000520908		
chr5	169218644	169218723 +	chr5	169230062	169230210 +	,ENST00000519628	22018-22022	
chr5	169294164	169294107 -	chr5	169291463	169291277 -	ENST00000377365	22023-22024	4,19
						ENST00000517671,ENST000		43,15,9,43
						00296930,ENST00000351986		
chr5	170829608	170829904 +	chr5	170832306	170832407 +	,ENST00000393820	22025-22028	
chr5	171514578	171514312 -	chr5	171510088	171509965 -	ENST00000176763	22029-22031	13,34,21
chr5	171541786	171541601 -	chr5	171534856	171534784 -	ENST00000176763	22032-22033	7,22
chr5	171658086	171657902 -	chr5	171639231	171638834 -	ENST00000393792	22034-22035	7,3
chr5	171686145	171684365 -	chr5	171661362	171661126 -	ENST00000393792	22036-22038	33,3,12
chr5	171693234	171693134 -	chr5	171661362	171661126 -	ENST00000393792	22039-22041	33,1,11
chr5	171693234	171693166 -	chr5	171661362	171661126 -	ENST00000393792	22042-22043	23,13
chr5	171702389	171702101 -	chr5	171661362	171661126 -	ENST00000393792	22044-22046	48,65,7
chr5	171702389	171702137 -	chr5	171661362	171661126 -	ENST00000393792	22047-22048	36,53
						ENST00000393784,ENST000		39,8,4,39,39
						00520326,ENST00000520642		,39
chr5	172267725	172267843 +	chr5	172315702	172315763 +	,ENST00000523291	22049-22054	
						ENST00000393784,ENST000		7,13,13,7,7,
						00520326,ENST00000520642		7
chr5	172315191	172315231 +	chr5	172315702	172315763 +	,ENST00000523291	22055-22060	
chr5	172361566	172361752 +	chr5	172362191	172362313 +	ENST00000393784	22061-22063	20,62,15
						ENST00000519974,ENST000		7,15,7
						00521476,ENST00000265100		
						,ENST00000519239,ENST000		
chr5	172381291	172381339 +	chr5	172395462	172395602 +	00519156	22064-22066	
						ENST00000231668,ENST000		8,7,7
						00351486,ENST00000352523		
chr5	172589345	172589368 +	chr5	172590728	172590924 +	,ENST00000393770	22067-22069	
						ENST00000265085,ENST000		1,31,30,1,1
						00519152,ENST00000522336		
chr5	173354500	173354593 +	chr5	173359453	173359503 +		22070-22074	
chr5	175387350	175387205 -	chr5	175345175	175345102 -	ENST00000432305	22075-22076	16,19
						ENST00000443967,ENST000		11,2,29,29
chr5	175693122	175694665 +	chr5	175716657	175717958 +	00429602	22077-22080	
						ENST00000341199,ENST000		1,27,14
						00430704,ENST00000443967		
chr5	175731244	175732011 +	chr5	175740694	175740848 +	,ENST00000332772	22081-22083	
						ENST00000341199,ENST000		14,12,27
						00430704,ENST00000443967		
chr5	175731244	175732051 +	chr5	175740694	175740848 +	,ENST00000332772	22084-22086	
chr5	175834602	175834554 -	chr5	175833709	175833539 -	ENST00000510734	22087-22088	7,15
						ENST00000510730,ENST000		19,5,7,19
chr5	175880635	175880703 +	chr5	175906189	175906257 +	00261942	22089-22092	
						ENST00000329542,ENST000		6,2
chr5	176302994	176303171 +	chr5	176304193	176304280 +	00261961	22093-22094	
						ENST00000377227,ENST000		16,5,13,13,1
						00377219,ENST00000506128		3
						,ENST00000511320,ENST000		
chr5	176372087	176372038 -	chr5	176370489	176370336 -	00510698	22095-22099	
						ENST00000377227,ENST000		22,11,21,11,
						00377219,ENST00000506128		11,11,11,11,
						,ENST00000511320,ENST000		11
						00512031,ENST00000510698		
						,ENST00000509236,ENST000		
chr5	176408444	176408378 -	chr5	176402481	176402397 -	00507513	22100-22108	

							ENST00000358149,ENST00000261948,ENST00000511834		16,1,11,11
chr5	176469416	176469465	+	chr5	176471390	176471534	+,ENST00000503039	22109-22112	
							ENST00000510954,ENST00000354179,ENST00000508896		25,1,3,1,1
chr5	176614406	176614481	+	chr5	176618885	176619020	+,ENST00000439151,ENST00000347982	22113-22117	
							ENST00000359895,ENST00000493815,ENST00000356618		15,5
							,ENST00000355841,ENST00000486828,ENST00000393551		
							,ENST00000505074,ENST00000355572,ENST00000393546		
							,ENST00000506161,ENST00000503827,ENST00000506537		
chr5	176921476	176921430	-	chr5	176919678	176919527	-	22118-22119	
							ENST00000312943,ENST00000377112,ENST00000357198		31,24,11,11,
							,ENST00000501403,ENST00000510380,ENST00000506493		11,31,24,11,
									31,24,11
chr5	176933254	176933154	-	chr5	176932111	176932012,17	- ,ENST00000502885	22120-22130	
							ENST00000274606,ENST00000314397		11,32,4,11,4
chr5	177577681	177577583	-	chr5	177576839	177576714	-	22131-22135	
							ENST00000358344,ENST00000506339,ENST00000355836		38,9,10
							,ENST00000514633,ENST00000515193,ENST00000506259		
chr5	177637351	177637465	+	chr5	177637554	177637624	+,ENST00000504898	22136-22138	
							ENST00000308158,ENST00000510913,ENST00000323594		7,29,7,7
chr5	177656871	177656699	-	chr5	177652430	177652356	-	22139-22142	
							ENST00000316308,ENST00000522136,ENST00000521621		7,32,35,35,7
							,ENST00000522556,ENST00000520957		,35,7,35,7,3
chr5	178059736	178059459	-	chr5	178050417	178050257	-	22143-22152	5
							ENST00000335815,ENST00000520331		22,13,21,22
chr5	178153142	178153076	-	chr5	178152472	178152377	-	22153-22156	
							ENST00000393432,ENST00000442819,ENST00000356731		3,7,7,7,7,7
							,ENST00000329433,ENST00000510411,ENST00000521173		
chr5	179080182	179080134	-	chr5	179045165	179045146	- ,ENST00000523921	22157-22162	
chr5	179123799	179123879	+	chr5	179132680	179132853	+ ENST00000415618	22163-22165	27,6,26
							ENST00000337755,ENST00000292591,ENST00000520918		1,12,31,1,1
chr5	179234950	179234812	-	chr5	179228969	179228784	- ,ENST00000523329	22166-22170	
							ENST00000376929,ENST00000389805,ENST00000402874		2,9,9
chr5	179238653	179238682	+	chr5	179260587	179260782	+,ENST00000360718	22171-22173	
							ENST00000355235,ENST00000356834		15,2,34,2
chr5	179310796	179310637	-	chr5	179306789	179306628	-	22174-22177	
							ENST00000452135,ENST00000393360,ENST00000455781		13,37,1,37,3
							,ENST00000343111,ENST00000347470,ENST00000397072		7,37,37,37,1
							,ENST00000393362,ENST00000425491,ENST00000539014		,37,37,37
chr5	179704614	179704237	-	chr5	179696409	179696280	- ,ENST00000523583	22178-22189	
							ENST00000274137,ENST00000469176		43,33,1,43,3
chr5	1811001	1811176	+	chr5	1814484	1814575,18	+	22190-22194	3
							ENST00000504376,ENST00000382254		7,41,1
chr5	21918883	21918594	-	chr5	21854899	21854780	-	22195-22197	
							ENST00000504376,ENST00000382254,ENST00000522262		14,18,4,14
chr5	22078460	22078395	-	chr5	21975494	21975200	-	22198-22201	
							ENST00000264932,ENST00000510361		210,33,8
chr5	246790	247878	+	chr5	251107	251218	+	22202-22204	
							ENST00000264932,ENST00000510361		28,83
chr5	246790	248244	+	chr5	251107	251218	+	22205-22206	
							ENST00000264932,ENST00000510361		2,27
chr5	246790	248530	+	chr5	251107	251218	+	22207-22208	
							ENST00000511367,ENST00000344624,ENST00000442743		13,6,21
chr5	31457524	31457264	-	chr5	31451747	31451640	- ,ENST00000513349	22209-22211	

Table 10

							ENST00000511367,ENST00000344624,ENST00000442743	61,1
chr5	31489272	31489089	-	chr5	31486669	31486598	,ENST00000513349	22212-22213
chr5	32389587	32389488	-	chr5	32388780	32388575	ENST00000265069,ENST00000507465	4,9,24,9 22214-22217
							ENST00000502553,ENST00000514259,ENST00000265112,ENST00000508361,ENST00000455217,ENST00000507716,ENST00000509731,ENST00000505012,ENST00000513066	29,38,38,38,38,38,38,38,38
chr5	33400835	33401091	+	chr5	33445430	33445510	+	22218-22226
							ENST00000502553,ENST00000514259,ENST00000265112,ENST00000508361,ENST00000455217,ENST00000507716,ENST00000509731,ENST00000505012,ENST00000513066	12,9,4,4,12,4,4,4,12,4,4,12,4
chr5	33400835	33401142	+	chr5	33445430	33445510	+	22227-22239
							ENST00000504830,ENST00000352040	34,1
chr5	33619760	33618304	-	chr5	33616177	33615933	-	22240-22241
							ENST00000504830,ENST00000352040,ENST00000515401	27,19,26,27,27
chr5	33789000	33788920	-	chr5	33751653	33751509,3	-	22242-22246
							ENST00000504830,ENST00000352040,ENST00000515401	36,15,15,15
chr5	33812991	33812570	-	chr5	33751653	33751509,3	-	22247-22250
							ENST00000296589,ENST00000342059,ENST00000382102,ENST00000510600,ENST00000509381,ENST00000345083	1,15,14,15,15,15,15
chr5	33959441	33959396	-	chr5	33954609	33954466	-	22251-22257
							ENST00000296589,ENST00000342059,ENST00000382102	53,11,53,53
chr5	33981197	33980699	-	chr5	33964121	33963796	-	,ENST00000510600 22258-22261
							ENST00000296589,ENST00000342059,ENST00000382102,ENST00000510600,ENST00000509381,ENST00000345083	52,10,52,52,52,52
chr5	33981197	33980703	-	chr5	33954609	33954466	-	22262-22267
							ENST00000382079,ENST00000382065,ENST00000231338	3,3,2,3
chr5	34064377	34064368	-	chr5	34035863	34035752	-	22268-22271
							ENST00000505113,ENST00000316418,ENST00000510400,ENST00000515206,ENST00000504625	10,45,3,3,3,3,3
chr5	346828	346963	+	chr5	353845	354026	+	22272-22278
							ENST00000265109,ENST00000514527,ENST00000510319,ENST00000513974,ENST00000512629,ENST00000428746,ENST00000514873,ENST00000508777,ENST00000503673,ENST00000504052,ENST00000512305,ENST00000514036,ENST00000515799,ENST00000508315,ENST00000503222,ENST00000512625,ENST00000506376,ENST00000397449	16,15,5,16,16,15,16,16,16,15,16,16,16,16
chr5	34705236	34705283	+	chr5	34757573	34757703,347	+	22279-22293
chr5	34711694	34711941	+	chr5	34716160	34716186	+	ENST00000515448 22294-22295 31,2
							ENST00000265109,ENST00000514527,ENST00000510319,ENST00000513974,ENST00000512629,ENST00000428746,ENST00000514873,ENST00000508777,ENST00000503673,ENST00000504052,ENST00000512305,ENST00000514036,ENST00000515799,ENST00000508315,ENST00000503222,ENST00000512625,ENST00000506376,ENST00000397449	31,2,2,31,2,2,2,31,2,2,2,2,2
chr5	34711694	34711941	+	chr5	34757573	34757703,347	+	22296-22309

Table 10

chr5	35729765	35730041 +	chr5	35740021	35740148 +	ENST00000356031,ENST00000440995	22310-22312	36,7,36
chr5	35729765	35730041 +	chr5	35740231	35740369 +	ENST00000356031,ENST00000440995	22313-22315	36,7,7
chr5	35924461	35924298 -	chr5	35921222	35921086 -	ENST00000397367,ENST00000397366,ENST00000513623,ENST00000514524	22316-22320	14,5,25,25,25
chr5	36055125	36055083 -	chr5	36052086	36051972 -	ENST00000282507,ENST00000513300,ENST00000504685,ENST00000515131	22321-22325	14,1,13,14,14
chr5	360516	361037 +	chr5	367923	368098 +	ENST00000515206	22326-22327	31,58
chr5	360516	361037 +	chr5	376725	376831 +	ENST00000505113,ENST00000316418,ENST00000510400	22328-22331	31,58,58,58
chr5	360516	361037 +	chr5	413459	413548 +	ENST00000505113,ENST00000316418,ENST00000510400	22332-22335	31,58,31,31
chr5	36136183	36136154 -	chr5	36124367	36124293 -	ENST00000296603	22336-22337	10,8
chr5	361369	361531 +	chr5	376725	376831 +	ENST00000505113,ENST00000316418,ENST00000510400	22338-22342	54,45,5,54,54
chr5	36172171	36172356 +	chr5	36177067	36177118,4 +	ENST00000274254,ENST00000274255,ENST00000508514,ENST00000546211,ENST00000504386	22343-22347	8,56,31,31,31
chr5	36199891	36199849 -	chr5	36197766	36197643 -	ENST00000397338,ENST00000282512,ENST00000381937,ENST00000506945,ENST00000502355,ENST00000514504	22348-22349	1,4
chr5	36278229	36277949 -	chr5	36271413	36271355 -	ENST00000296604,ENST00000502994,ENST00000515759,ENST00000505865	22350-22352	7,36,36
chr5	37203612	37203426 -	chr5	37201910	37201693 -	ENST00000508244,ENST00000425232,ENST00000509849,ENST00000514429	22353-22356	22,7,22,22
chr5	37367616	37367566 -	chr5	37364486	37364349 -	ENST00000231498,ENST00000513532	22357-22360	17,7,16,16
chr5	37496115	37496626 +	chr5	37605166	37605340 +	ENST00000265107,ENST00000504564	22361-22363	11,52,11
chr5	37741028	37741033 +	chr5	37752588	37752675 +	ENST00000265107	22364-22365	2,1
chr5	37818307	37818217 -	chr5	37816237	37815753,4 -	ENST00000344622,ENST00000326524,ENST00000381826,ENST00000427982,ENST00000515058,ENST00000510177,ENST00000502572	22366-22369	4,30,6,4
chr5	37819854	37819754 -	chr5	37816237	37815753,4 -	ENST00000344622,ENST00000326524,ENST00000381826,ENST00000427982,ENST00000515058,ENST00000510177,ENST00000502572	22370-22373	33,24,11,24
chr5	40777414	40777314 -	chr5	40775605	40775512 -	ENST00000397128,ENST00000354209,ENST00000296800	22374-22378	33,24,11,33,33
chr5	40779200	40779100 -	chr5	40777688	40777547 -	ENST00000397128,ENST00000354209,ENST00000296800	22379-22383	33,6,11,6,6
chr5	40781388	40780135 -	chr5	40777688	40777547 -	ENST00000397128,ENST00000354209,ENST00000296800	22384-22388	10,153,28,28,28
chr5	40822418	40822262 -	chr5	40777688	40777547 -	ENST00000397128,ENST00000354209,ENST00000296800	22389-22393	14,39,8,14,14
chr5	414618	414718 +	chr5	422844	422973,423 +	ENST00000505113,ENST00000316418,ENST00000510400,ENST00000506456	22394-22398	20,8,1,1,1
chr5	41744849	41742813 -	chr5	41739593	41739492 -	ENST00000196371,ENST00000512084,ENST00000510634,ENST00000509987	22399-22400	15,32
chr5	41926394	41926444 +	chr5	41927115	41927350 +	ENST00000296812,ENST00000281623,ENST00000504463,ENST00000509134	22401-22406	17,7,16,17,17,17

Table 10

							ENST00000296812,ENST00000281623,ENST00000504463,ENST00000509134	22407-22412	22,13,21,21,13,13,13
chr5	41926394	41926460	+	chr5	41927115	41927350	+		
							ENST00000296812,ENST00000281623,ENST00000504463,ENST00000509134	22413-22418	33,23,1,33,33,33
chr5	41926394	41926492	+	chr5	41927115	41927350	+		
							ENST00000361970,ENST00000388827	22419-22422	6,10,24,24
chr5	42759579	42759844	+	chr5	42762545	42762650	+		
							ENST00000515326,ENST00000510026,ENST00000509156,ENST00000508259,ENST00000306938,ENST00000399534,ENST00000505606,ENST00000509634,ENST00000509341,ENST00000511736	22423-22424	21,1
chr5	43136888	43138060	+	chr5	43139267	43139411	+		
							ENST00000325110,ENST00000433297	22425-22427	24,1,12
chr5	43294114	43293975	-	chr5	43293075	43292950	-		
							ENST00000306862	22428-22430	33,2,16
chr5	43510154	43510056	-	chr5	43508768	43508679	-		
							ENST00000306846,ENST00000436644,ENST00000514514,ENST00000504639	22431-22434	44,31,31,31
chr5	43583930	43583569	-	chr5	43556101	43555932	-		
							ENST00000282588	22435-22437	23,31,10
chr5	52210188	52210283	+	chr5	52211294	52211424	+		
							ENST00000296585,ENST00000503810,ENST00000509814,ENST00000509960,ENST00000510722	22438-22444	44,83,2,2,2,2,2
chr5	52287999	52288259	+	chr5	52322578	52322698	+		
							ENST00000296585,ENST00000503810,ENST00000509814,ENST00000509960,ENST00000510722	22445-22451	15,15,12,15,15,15,15
chr5	52301777	52301822	+	chr5	52322578	52322698	+		
							ENST00000361377,ENST00000450852,ENST00000510818,ENST00000508922,ENST00000582677,ENST00000584946,ENST00000527216	22452-22453	17,15
chr5	52414267	52414105	-	chr5	52404473	52404352	-		
							ENST00000296684,ENST00000506974,ENST00000506765	22454-22457	13,16,13,13
chr5	52932461	52932776	+	chr5	52942063	52942235,5	+		
							ENST00000230640,ENST00000506750,ENST00000545714	22458-22461	2,2,1,2
chr5	54620575	54620581	+	chr5	54623544	54623606	+		
							ENST00000296564	22462-22463	13,61
chr5	5474357	5474541	+	chr5	5476086	5476192	+		
							ENST00000396836,ENST00000396834,ENST00000447346,ENST00000359040,ENST00000297015,ENST00000490985,ENST00000354961	22464-22468	6,1,20,1,1
chr5	55200742	55200887	+	chr5	55201934	55202116	+		
							ENST00000274289	22469-22471	12,5,17
chr5	57751078	57750977	-	chr5	57750848	57750738	-		
							ENST00000502484,ENST00000546160,ENST00000505507,ENST00000514552	22472-22475	4,15,4,4
chr5	59443904	59443440	-	chr5	59284544	59284315,592	-		
							ENST00000502484,ENST00000546160,ENST00000505507,ENST00000514552	22476-22480	58,5,36,58,58
chr5	59443904	59443575	-	chr5	59284544	59284315,592	-		
							ENST00000265036,ENST00000453022	22481-22484	13,23,64,64
chr5	59991415	59991066	-	chr5	59983054	59982789	-		
							ENST00000512452	22485-22487	13,23,64
chr5	59991415	59991066	-	chr5	59983665	59983603	-		
							ENST00000508821,ENST00000425382,ENST00000438340,ENST00000505959,ENST00000504455,ENST00000511799,ENST00000507047,ENST00000514809	22488-22493	47,7,19,19,19,19
chr5	60074535	60074263	-	chr5	60067920	60067730,6	-		
							ENST00000426742,ENST00000265038,ENST00000543101	22494-22496	17,7,16
chr5	60192336	60192286	-	chr5	60186913	60186716	-		
							ENST00000265038	22497-22498	48,3
chr5	60220334	60220118	-	chr5	60217982	60217881	-		
							ENST00000296597,ENST00000511107	22499-22503	2,3,15,2,15
chr5	60394560	60394730	+	chr5	60394819	60394859,6	+		
							ENST00000401507,ENST00000381103,ENST00000514082,ENST00000407818	22504-22508	11,23,16,16,16
chr5	61639891	61639989	+	chr5	61642957	61643051	+		

Table 10

							ENST00000401507,ENST00000381103,ENST00000514082,ENST00000407818,ENST00000506857	22509-22511	18,13,18
chr5	61646459	61646525	+	chr5	61648415	61648537,6	+		
chr5	61657567	61657617	+	chr5	61658277	61658368	+	ENST00000401507,ENST00000381103,ENST00000407818,ENST00000506857	22512-22515	17,7,16,16
chr5	617831	617964	+	chr5	619105	619232	+	ENST00000264935,ENST00000444221	22516-22519	34,19,13,19
chr5	61834160	61834424	+	chr5	61846194	61846289	+	ENST00000424533,ENST00000325324,ENST00000409296,ENST00000511713	22520-22523	28,13,13,13
chr5	61837225	61837325	+	chr5	61846194	61846289	+	ENST00000424533,ENST00000325324,ENST00000409296,ENST00000511713	22524-22528	2,4,11,11,11
chr5	63595586	63596046	+	chr5	63621013	63621238	+	ENST00000389100	22529-22530	2,53
chr5	6374899	6374864	-	chr5	6374539	6374437	-	ENST00000255764	22531-22533	12,3,11
chr5	64115214	64115495	+	chr5	64181270	64181373	+	ENST00000381070	22534-22535	7,1
chr5	64827628	64827530	-	chr5	64825026	64824944	-	ENST00000514814,ENST00000396679,ENST00000242872,ENST00000508421,ENST00000510693,ENST00000509397,ENST00000515497,ENST00000502997	22536-22542	33,23,16,33,33,33,33
chr5	64845741	64844131	-	chr5	64838675	64838629	-	ENST00000514814,ENST00000396679,ENST00000242872,ENST00000508421,ENST00000510693,ENST00000515497,ENST00000510768,ENST00000502997	22543-22544	2,15
chr5	64845741	64844717	-	chr5	64838675	64838629	-	ENST00000514814,ENST00000396679,ENST00000242872,ENST00000508421,ENST00000510693,ENST00000515497,ENST00000510768,ENST00000502997	22545-22551	40,5,16,5,5,5,5
chr5	64911171	64911128	-	chr5	64910046	64909925,6	-	ENST00000231524,ENST00000381018,ENST00000274327,ENST00000506400,ENST00000505205	22552-22553	14,14
chr5	64912847	64912748	-	chr5	64910046	64909925,6	-	ENST00000231524,ENST00000381018,ENST00000274327,ENST00000506400,ENST00000505205	22554-22560	33,11,32,33,33,33,33
chr5	64946967	64947213	+	chr5	64948328	64948372	+	ENST00000399438,ENST00000438419,ENST00000231526,ENST00000505553,ENST00000545191	22561-22569	39,20,17,20,39,20,20,39,20
chr5	65093298	65093520	+	chr5	65105342	65105528	+	ENST00000380985,ENST00000502464,ENST00000511299,ENST00000509935	22570-22573	3,68,10,68
chr5	65307240	65307284	+	chr5	65307877	65307955	+	ENST00000284037,ENST00000380943,ENST00000416865,ENST00000380935,ENST00000380936,ENST00000380939,ENST00000380938,ENST00000511297,ENST00000506030,ENST00000508515	22574-22584	15,7,14,14,14,14,14,14,14
chr5	66046112	66046252	+	chr5	66055537	66055690	+	ENST00000404260,ENST00000403625,ENST00000406374,ENST00000406039	22585-22590	15,7,21,15,15,15
chr5	66226147	66226185	+	chr5	66226575	66226581	+	ENST00000452953	22591-22593	13,12,11
								ENST00000404260,ENST00000403625,ENST00000490016,ENST00000403666,ENST00000405643,ENST00000432426,ENST00000261569,ENST00000436277,ENST00000447738		7,39,1,7,7,7,7,7,7
chr5	66245086	66245372	+	chr5	66350232	66350320	+		22594-22602	
chr5	66488612	66488294	-	chr5	66481845	66481679	-	ENST00000256447	22603-22605	4,57,22
chr5	68422308	68422374	+	chr5	68423831	68423959	+	ENST00000396591	22606-22608	22,13,21
								ENST00000283006,ENST00000515001,ENST00000513575		13,9,13,13,13,13
chr5	68485661	68485701	+	chr5	68487622	68487677	+	,ENST00000502689	22609-22614	3,13

Table 10

						ENST00000283006,ENST00000515001,ENST00000513575,ENST00000502689	22615-22620	25,17,4,4,4,4
chr5	68485661	68485787 +	chr5	68487622	68487677 +	ENST00000283006,ENST00000515001,ENST00000513575,ENST00000502689	22621-22628	22,4,9,4,4,9,4,9
chr5	68488357	68488424 +	chr5	68490474	68490522 +	ENST00000283006,ENST00000515001,ENST00000513575	22629-22633	7,16,7,7,16
chr5	68490775	68490825 +	chr5	68491544	68491618,7 +	ENST00000256441	22634-22635	12,2
chr5	68515564	68515668 +	chr5	68522165	68522228 +	ENST00000380822,ENST00000380818	22636-22637	17,28
chr5	68663671	68663425 -	chr5	68662422	68662330 -	ENST00000510979,ENST00000380729,ENST00000508344,ENST00000507595	22638-22641	40,26,16,16
chr5	68873516,69	68873640 +	chr5	68874539	68874629 +	ENST00000510979,ENST00000380729,ENST00000508344	22642-22643	15,2
chr5	68884348	68884782 +	chr5	68886155	68886194 +	ENST00000380751,ENST00000380750,ENST00000503931,ENST00000506542	22644-22649	18,5,1,5,5,5
chr5	69274706	69274884 +	chr5	69322234	69322342 +	ENST00000380741,ENST00000380743,ENST00000511812,ENST00000506734,ENST00000380742	22650-22655	24,7,24,24,24,24
chr5	69352145	69352346 +	chr5	69359242	69359313 +	ENST00000317633,ENST00000354833,ENST00000513436,ENST00000504458	22656-22661	18,5,1,5,5,5
chr5	70149778	70149956 +	chr5	70197652	70197760 +	ENST00000351205,ENST00000503079,ENST00000380707,ENST00000514951,ENST00000506239,ENST00000506163	22662-22667	24,7,24,24,24,24
chr5	70227569	70227770 +	chr5	70234666	70234737 +	ENST00000523981,ENST00000503719	22668-22670	6,11,32
chr5	70317526	70317427 -	chr5	70316611	70316486 -	ENST00000274400,ENST00000425596,ENST00000330280	22671-22672	15,2
chr5	70335180	70334746 -	chr5	70333373	70333334 -	ENST00000274400,ENST00000425596,ENST00000330280	22673-22675	16,40,26
chr5	70346021	70345897 -	chr5	70344985	70344895 -	ENST00000380639,ENST00000308077,ENST00000503868,ENST00000510676,ENST00000536805	22676-22679	31,17,9,17
chr5	71650236	71650506 +	chr5	71654030	71654254,7 +	ENST00000337273,ENST00000454282,ENST00000520850,ENST00000523768	22680-22684	12,22,39,22,22
chr5	72121528	72121648 +	chr5	72144212	72144325 +	ENST00000337273,ENST00000454282,ENST00000520850,ENST00000523768	22685-22689	16,1,62,1,1
chr5	72141880	72142159 +	chr5	72144212	72144325 +	ENST00000296785	22690-22691	27,7
chr5	72858141	72857956 -	chr5	72857113	72856955 -	ENST00000261416	22692-22694	19,4,6
chr5	73978213	73978330 +	chr5	73985153	73985298 +	ENST00000511206,ENST00000287936,ENST00000343975	22695-22698	15,37,23,37
chr5	74642551	74642824 +	chr5	74643029	74643134 +	ENST00000511206,ENST00000287936,ENST00000343975	22699-22701	22,32,12
chr5	74653395	74653596 +	chr5	74654482	74654652 +	ENST00000241436,ENST00000352007,ENST00000514296,ENST00000515295,ENST00000514141,ENST00000511527,ENST00000504026,ENST00000505975,ENST00000508526,ENST00000509126	22702-22711	33,6,11,11,1,1,11,11,11,1,1,11
chr5	74808671	74808771 +	chr5	74848297	74848416 +	ENST00000508859,ENST00000382776	22712-22714	7,40,20
chr5	748364	748242 -	chr5	745413	745298 -			

Table 10

							ENST00000241436,ENST000		14,28,4,4,4,
							00352007,ENST00000503479		14,28,4,4,4,
							,ENST00000510815,ENST000		4,4
							00514296,ENST00000515295		
							,ENST00000514141,ENST000		
							00380481,ENST00000504026		
							,ENST00000508526,ENST000		
chr5	74865483	74865829	+	chr5	74869563	74869694,7	+ 00509126	22715-22726	
chr5	74938061	74938132	+	chr5	74948967	74949065	+ ENST00000601380	22727-22729	24,15,5
chr5	74938061	74938156	+	chr5	74948967	74949065	+ ENST00000601380	22730-22731	32,6
							ENST00000428202,ENST000		17,7,16,16
							00514838,ENST00000380475		
							,ENST00000510798,ENST000		
chr5	74983154	74983104	-	chr5	74981309	74981032	- 00446329	22732-22735	
							ENST00000274364,ENST000		49,60,2,60
chr5	75771230	75771454	+	chr5	75858221	75858377	+ 00514350	22736-22739	
chr5	76107394	76108252	+	chr5	76128515	76129626	+ ENST00000296677	22740-22742	76,12,27
chr5	76107394	76108296	+	chr5	76128515	76129626	+ ENST00000296677	22743-22745	91,26,13
							ENST00000340978,ENST000		37,1,62,62
							00346042,ENST00000264917		
							,ENST00000333194,ENST000		
chr5	76673368	76673777	+	chr5	76696073	76696115	+ 00342343	22746-22749	
							ENST00000296679,ENST000		7,39,39,39,3
							00515253,ENST00000509701		9,39,39,39,3
							,ENST00000511791,ENST000		9,39,39,39,3
							00505129,ENST00000506307		9
							,ENST00000509892,ENST000		
							00513417,ENST00000514559		
							,ENST00000503035,ENST000		
							00504895,ENST00000509971		
chr5	76977234	76976954	-	chr5	76785397	76785282,8	- ,ENST00000506474	22750-22762	
chr5	76977234	76976954	-	chr5	76933055	76932646	- ENST00000306422	22763-22765	7,1,39
							ENST00000380377,ENST000		7,16
							00517679,ENST00000520361		
							,ENST00000518338,ENST000		
chr5	76988408	76988359	-	chr5	76987323	76987243	- 00522370	22766-22767	
							ENST00000453514,ENST000		22,2,18,2,2
							00423041,ENST00000504233		
							,ENST00000428308,ENST000		
chr5	78920073	78920145	+	chr5	78936674	78936788	+ 00296783	22768-22772	
							ENST00000453514,ENST000		2,1
							00423041,ENST00000504233		
							,ENST00000428308,ENST000		
chr5	78956533	78956777	+	chr5	78964715	78964851	+ 00296783	22773-22774	
							ENST00000264668,ENST000		11,9
chr5	7899514	7899569	+	chr5	7900027	7900171	+ 00440940	22775-22776	
chr5	79410194	79410058	-	chr5	79409445	79409424	- ENST00000507668	22777-22779	7,24,40
chr5	79421569	79421482	-	chr5	79409445	79409424	- ENST00000507668	22780-22782	20,29,13
							ENST00000507668,ENST000		20,29
chr5	79421569	79421482	-	chr5	79409448	79409424,8	- 00509193	22783-22784	
chr5	79421569	79421482	-	chr5	79410474	79410337	- ENST00000509193	22785-22786	20,29
chr5	79421569	79421482	-	chr5	79412146	79412131	- ENST00000512972	22787-22788	20,29
							ENST00000502608,ENST000		16,55,24,55
chr5	79790633	79791102	+	chr5	79797611	79797736	+ 00282226	22789-22792	
							ENST00000502608,ENST000		21,16,38,16
chr5	79795689	79795804	+	chr5	79797611	79797736	+ 00282226	22793-22796	
							ENST00000502608,ENST000		14,12,3,12
chr5	79797304	79797347	+	chr5	79797611	79797736	+ 00282226	22797-22800	
chr5	79806428	79806905	+	chr5	79809423	79809588	+ ENST00000282226	22801-22803	26,5,29
chr5	79807009	79807059	+	chr5	79809423	79809588	+ ENST00000282226	22804-22806	3,5,16
chr5	79812665	79812935	+	chr5	79815512	79815729	+ ENST00000282226	22807-22809	35,6,16
chr5	80086142	80086499	+	chr5	80088552	80088663	+ ENST00000265081	22810-22812	24,28,31
chr5	80168007	80168057	+	chr5	80168935	80169106	+ ENST00000265081	22813-22815	17,7,16
							ENST00000320672,ENST000		7,6,1,6,6,7,6
							00504985,ENST00000512923		,6
							,ENST00000505980,ENST000		
chr5	80898856	80897860	-	chr5	80809536	80809447	- 00509013	22816-22823	
							ENST00000320672,ENST000		1,7,34,7,34,
							00509053,ENST00000514493		7,7,7,7
							,ENST00000505980,ENST000		
							00515395,ENST00000509013		
chr5	80924248	80923979	-	chr5	80911376	80911292	-	22824-22832	

Table 10

								ENST00000320672,ENST00000509053,ENST00000514493,ENST00000505980,ENST00000515395,ENST00000509013	2,1,1,1,1,1,1,1
chr5	80929234	80929229	-	chr5	80911376	80911292	-		22833-22841	
								ENST00000320672,ENST00000509053,ENST00000514493,ENST00000505980,ENST00000515395,ENST00000509013	1,3,52,3,3,3,3,3
chr5	81021061	81020811	-	chr5	80946158	80946086	-		22842-22849	
								ENST00000282185,ENST00000458350,ENST00000513634	7,5,3,3
chr5	81537719	81538701	+	chr5	81548381	81548478,8	+		22850-22853	
								ENST00000380167,ENST00000439350	1,13,34
chr5	81600859	81601123	+	chr5	81605976	81606026	+		22854-22856	
								ENST00000424784,ENST00000283441	5,26,25
chr5	817970	817890	-	chr5	814910	814876	-		22857-22859	
								ENST00000282268,ENST00000338635,ENST00000396027	33,2,11,11
chr5	82405457	82405867	+	chr5	82406847	82407022	+	,ENST00000511817	22860-22863	
								ENST00000296591,ENST00000380138	17,7,16,17,16
chr5	83630181	83630131	-	chr5	83550030	83549902	-		22864-22868	
								ENST00000508859,ENST00000382776	16,33
chr5	859818	859716	-	chr5	767034	766813	-		22869-22870	
								ENST00000424784,ENST00000283441	16,33
chr5	859818	859716	-	chr5	850717	850496	-		22871-22872	
								ENST00000424784,ENST00000283441	22,5,82
chr5	860972	860659	-	chr5	850717	850496	-		22873-22875	
								ENST00000323510,ENST00000388890,ENST00000483173	27,13,1
chr5	869235	869153	-	chr5	865696	865529	-	,ENST00000467963	22876-22878	
								ENST00000514135,ENST00000511087,ENST00000296595	2,31,22,31,31
chr5	87546215	87546068	-	chr5	87536733	87536630	-	,ENST00000507872	22879-22884	
								ENST00000515393,ENST00000429576,ENST00000505078,ENST00000312216,ENST00000508509,ENST00000512425,ENST00000505208,ENST00000506568	7,19,31,7,7,7,7,7
chr5	94237125	94236845	-	chr5	94230540	94230354	-		22885-22892	
								ENST00000358746,ENST00000514952	20,13,33,13
chr5	94876969	94876747	-	chr5	94876534	94876394	-		22893-22896	
								ENST00000380009,ENST00000513814,ENST00000504873	52,1,13,13,13,1
chr5	94897637	94897899	+	chr5	94901702	94901831	+	,ENST00000512106	22897-22903	
								ENST00000506959,ENST00000506817,ENST00000379982	57,13,17,57,17,57
chr5	95041914	95042221	+	chr5	95067563	95067789	+		22904-22909	
								ENST00000506959,ENST00000506817,ENST00000379982	13,46,57,46,57,57
chr5	95048985	95049294	+	chr5	95067563	95067789	+		22910-22915	
								ENST00000506959,ENST00000506817,ENST00000379982	3,2,2,3,2,2
chr5	95053461	95053469	+	chr5	95067563	95067789	+		22916-22921	
								ENST00000506959,ENST00000379982,ENST00000510623	3,2,2,2,2,2
chr5	95053461	95053469	+	chr5	95084037	95084145,95(	+	,ENST00000502541	22922-22927	
								ENST00000506959,ENST00000506817,ENST00000379982	39,19,47,39,47,39
chr5	95064362	95064978	+	chr5	95067563	95067789	+		22928-22933	
								ENST00000506959,ENST00000379982,ENST00000510623	11,23,1,1,1,1
chr5	95076751	95076849	+	chr5	95084037	95084145,95(	+	,ENST00000502541	22934-22939	
								ENST00000506959,ENST00000379982,ENST00000510623	12,31,7,7,7,7
chr5	95080493	95080633	+	chr5	95084037	95084145,95(	+	,ENST00000502541	22940-22945	
								ENST00000506959,ENST00000379982,ENST00000510623	8,4,4,4,4
chr5	95080493	95080668	+	chr5	95084037	95084145,95(	+	,ENST00000502541	22946-22950	
chr5	95096436	95096450	+	chr5	95099212	95099324	+	ENST00000379982	22951-22952	4,4
								ENST00000379982,ENST00000504179,ENST00000503737	21,32,32,32,32
chr5	95128216	95128313	+	chr5	95128763	95128878,951	+	,ENST00000514198	22953-22957	

Table 10

chr5	96240626	96240640	+	chr5	96244665	96244822	+	ENST00000437043,ENST00000510373,ENST00000379904	22958-22961	5,4,4,4
chr5	96267311	96267574	+	chr5	96314842	96315682	+	ENST00000231368	22962-22963	67,15
chr5	96424624	96424908	+	chr5	96518712	96518944	+	ENST00000509481	22964-22966	21,7,1
chr6	100379866	100379769	-	chr6	100369131	100368816	-	ENST00000281806,ENST00000369212	22967-22968	6,32
chr6	101078556	101078477	-	chr6	101077057	101076891	-	ENST00000369162	22969-22971	26,2,13
chr6	102248513	102248901	+	chr6	102250206	102250313	+	ENST00000369138,ENST00000413795,ENST00000421544,ENST00000318991,ENST00000369137,ENST00000369134,ENST00000455610	22972-22978	21,2,36,36,36,36,36
chr6	102495343	102495409	+	chr6	102503205	102503455	+	ENST00000369138,ENST00000413795,ENST00000421544,ENST00000318991,ENST00000369137,ENST00000369134	22979-22985	22,13,21,22,21,22,21
chr6	106759307	106759234	-	chr6	106756366	106756239	-	ENST00000343245,ENST00000369076	22986-22988	24,4,14
chr6	10706836	10706974	+	chr6	10707648	10707747	+	ENST00000379568	22989-22991	1,12,19
chr6	107487565	107485603	-	chr6	107475981	107475823	-	ENST00000369037,ENST00000453874	22992-22994	32,9,22
chr6	107496136	107496103	-	chr6	107475981	107475823	-	ENST00000369037,ENST00000453874	22995-22997	11,6,10
chr6	107546327	107546048	-	chr6	107533486	107533313	-	ENST00000369037	22998	15
chr6	108240414	108240346	-	chr6	108234631	108234570	-	ENST00000369002,ENST00000429168	22999-23001	13,13,18
chr6	109245439	109245507	+	chr6	109249291	109249436	+	ENST00000368972,ENST00000392644	23002-23003	23,13
chr6	109421477	109421489	+	chr6	109466422	109466584	+	ENST00000523787	23004-23006	4,4,3
chr6	109426948	109427293	+	chr6	109467961	109468140,1(	+	ENST00000521277,ENST00000407272,ENST00000517392,ENST00000519286,ENST00000518853,ENST00000521522,ENST00000524064,ENST00000522608,ENST00000521503,ENST00000519095,ENST00000368968,ENST00000368970,ENST00000523787,ENST00000359793	23007-23019	57,4,18,57,57,57,57,57,57,57,57,57,57
chr6	109471887	109472211	+	chr6	109475036	109475152	+	ENST00000521277,ENST00000336977,ENST00000407272,ENST00000517392,ENST00000519286,ENST00000518853,ENST00000521522,ENST00000524064,ENST00000519407,ENST00000519095,ENST00000520610,ENST00000368968,ENST00000522490,ENST00000523209,ENST00000368970,ENST00000520883,ENST00000523787,ENST00000359793	23020-23034	25,5,1,5,5,5,5,5,5,5,5,5,5,5,5
chr6	110008536	110008949	+	chr6	110036281	110036379	+	ENST00000230124,ENST00000454215	23035-23038	7,49,4,7
chr6	110732015	110731713	-	chr6	110729645	110729537	-	ENST00000368923,ENST00000368924	23039-23043	1,35,7,1,7
chr6	110774932	110774731	-	chr6	110763978	110763447	-	ENST00000451557,ENST00000368919,ENST00000330550,ENST00000439654,ENST00000434949,ENST00000437378	23044-23049	1,12,33,12,12,12
chr6	110774932	110774731	-	chr6	110768193	110768076	-	ENST00000451557,ENST00000368919,ENST00000330550,ENST00000439654,ENST00000434949,ENST00000437378,ENST00000424139	23050-23056	1,12,33,33,33,33,33
chr6	111032041	111031762	-	chr6	110991744	110991634	-	ENST00000368911,ENST00000323817,ENST00000457688,ENST00000463016	23057-23061	32,62,3,62,62
chr6	111093691	111093410	-	chr6	111067404	111067329	-	ENST00000368911,ENST00000463016	23062-23064	39,7,7

							ENST00000368802,ENST00000368805,ENST00000358835	2,19
chr6	111762330	111761863	-	chr6	111737675	111737486	-	23065-23066	ENST00000230538,ENST00000522006,ENST00000389463,ENST00000424408,ENST00000521732,ENST00000368640	4,17,4,17
chr6	112507580	112507488	-	chr6	112506549	112506439	-	23067-23070	,ENST00000521398	
chr6	114332332	114331155	-	chr6	114281182	114281070	-	23071-23075	ENST00000519065,ENST00000398283,ENST00000425835,ENST00000521163	1,42,50,42,42
chr6	114332332	114332295	-	chr6	114281182	114281070	-	23076-23080	ENST00000519065,ENST00000398283,ENST00000425835,ENST00000521163	12,12,9,12,12
chr6	11574268	11574484	+	chr6	11575664	11575794	+	23081-23083	ENST00000543875,ENST00000379426	21,2,8
chr6	116560424	116560628	+	chr6	116565072	116565187	+	23084-23086	ENST00000319550	17,37,7
chr6	116562329	116562473	+	chr6	116565072	116565187	+	23087-23088	ENST00000319550	3,16
chr6	116989358	116989308	-	chr6	116988075	116987797	-	23089-23091	ENST00000368576,ENST00000368573	5,16,16
chr6	117036377	117036455	+	chr6	117037382	117037481	+	23092-23093	ENST00000368564,ENST00000356348	7,13
chr6	117763870	117763560	-	chr6	117739669	117739625	-	23094-23097	ENST00000368507,ENST00000368508	56,33,8,8
chr6	117785105	117784820	-	chr6	117739669	117739625	-	23098-23101	ENST00000368507,ENST00000368508	42,28,7,28
chr6	117921634	117921259	-	chr6	117900227	117900063	-	23102-23105	ENST00000368498,ENST00000368498,ENST00000535237,ENST00000052569	35,48,48,48
chr6	117985410	117984069	-	chr6	117900227	117900063	-	23106-23110	ENST00000368498,ENST00000535237,ENST00000052569	24,1,8,1,1
chr6	118877710	118877705	-	chr6	118845083	118844965	-	23111-23115	ENST00000368491,ENST00000368488,ENST00000434604,ENST00000360290,ENST00000392500,ENST00000419517	2,1,1,2,2
chr6	119344858	119344766	-	chr6	119344245	119344110	-	23116-23121	ENST00000338891,ENST00000352896,ENST00000368475,ENST00000521531,ENST00000522284	4,21,30,4,4,4
chr6	123699756	123699661	-	chr6	123699038	123699011	-	23122-23125	ENST00000398178,ENST00000334268	11,19,6,11
chr6	123699756	123699661	-	chr6	123699043	123699011	-	23126-23128	ENST00000398178,ENST00000334268	11,6,6
chr6	125461613	125461736	+	chr6	125541224	125541339	+	23129-23136	ENST00000304877,ENST00000534000,ENST00000368402,ENST00000368388,ENST00000527711,ENST00000528193	36,20,7,36,36,36,36,36
chr6	126291637	126291658	+	chr6	126293405	126293474	+	23137-23139	ENST00000229633	7,7,2
chr6	126315748	126316267	+	chr6	126317113	126317186	+	23140-23147	ENST00000450358,ENST00000334379,ENST00000461129,ENST00000368332,ENST00000479748,ENST00000468097,ENST00000473273	19,21,32,21,21,21,21,21
chr6	127654237	127654187	-	chr6	127652175	127651954	-	23148-23150	ENST00000531967	17,7,16
chr6	127687499	127687205	-	chr6	127652175	127651954	-	23151-23153	ENST00000531967	38,33,45
chr6	128614523	128614384	-	chr6	128563747	128563666	-	23154-23163	ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000531050	8,1,46,46,46,46,46,46,46,46
chr6	128696719	128696391	-	chr6	128643455	128643184	-	23164-23173	ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000525459	64,19,5,19,19,9,19,19,19,19

Table 10

						ENST00000368226,ENST00000368227,ENST00000532331,ENST00000368213,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000525459,ENST00000392449		3,7,3
chr6	128732337	128732287 -	chr6	128718833	128718711 -		23174-23176	
chr6	128732337	128732287 -	chr6	128730477	128730458 -	ENST00000532751	23177-23178	3,7
chr6	129994201	129994067 -	chr6	129963163	129962961 -	ENST00000368149	23179-23180	4,1
chr6	129996364	129996192 -	chr6	129963163	129962961 -	ENST00000368149	23181-23183	14,5,17
chr6	130009108	130009028 -	chr6	129963163	129962961 -	ENST00000368149	23184-23186	2,26,3
						ENST00000529410,ENST00000533560,ENST00000361794,ENST00000368139,ENST00000526019,ENST00000368136		33,23,1
chr6	130374499	130374597 +	chr6	130376316	130376400 +		23187-23189	
						ENST00000414305,ENST00000357639,ENST00000358229		13
chr6	132046068	132046135 +	chr6	132047186	132047340 +		23190	
						ENST00000367963,ENST00000336749	23191-23193	28,32,9
chr6	132690281	132690185 -	chr6	132649733	132649554 -	ENST00000367963,ENST00000336749	23194-23196	4,18,22
chr6	132706930	132706664 -	chr6	132695916	132695770 -	ENST00000418593,ENST00000326499,ENST00000422400,ENST00000392389,ENST00000525289,ENST00000525674,ENST00000528801,ENST00000532053,ENST00000533835,ENST00000524919,ENST00000532012	23197-23209	12,7,16,16,16,16,16,16,16,16,6
						ENST00000606214,ENST00000356436,ENST00000379300,ENST00000379307,ENST00000343141,ENST00000607658,ENST00000450347,ENST00000452989,ENST00000422136,ENST00000446018,ENST00000420456	23210-23217	31,24,9,31,31,31,31,31
chr6	13309252	13309160 -	chr6	13307977	13307832,1 -	ENST00000275227,ENST00000367918	23218-23221	9,7,12,7
chr6	133126364	133125670 -	chr6	133118260	133118121 -	ENST00000230050	23222-23224	3,2,2
chr6	133135931	133135939 +	chr6	133136111	133136227 +	ENST00000367858,ENST00000461976	23225-23228	1,7,14,1
chr6	134551843	134551538 -	chr6	134528569	134528494 -	ENST00000379287	23229-23231	9,18,39
chr6	13472490	13472213 -	chr6	13365894	13364975 -	ENST00000265605,ENST00000367845,ENST00000349305		1
chr6	135271768	135271766 -	chr6	135271126	135271054 -	,ENST00000367847	23232	
						ENST00000367837,ENST00000415177,ENST00000367826,ENST00000533274,ENST00000314674,ENST00000524715		15,21,2,15,2,15,15,2
chr6	135352549	135352012 -	chr6	135323980	135323872,1 -	,ENST00000529882	23233-23240	
chr6	137026743	137026643 -	chr6	137026271	137026248 -	ENST00000359015	23241-23242	24,11
chr6	137225577	137225870 +	chr6	137234596	137234664 +	ENST00000318471	23243-23245	21,7,44
						ENST00000316649,ENST00000367746	23246-23249	17,5,13,17
chr6	137366910	137366412 -	chr6	137338240	137338105 -			
chr6	138550410	138550460 +	chr6	138550921	138550989 +	ENST00000251691	23250-23251	16,16
						ENST00000427025,ENST00000343505,ENST00000342260,ENST00000491526,ENST00000533765	23252-23259	13,13,13,13,13,13,13,13
chr6	138808906	138808867 -	chr6	138794570	138794443 -			
						ENST00000427025,ENST00000343505,ENST00000342260,ENST00000491526,ENST00000533765	23260-23266	10,24,30,30,30,30,30
chr6	138967956	138967864 -	chr6	138817508	138817356 -			
						ENST00000427025,ENST00000343505,ENST00000342260,ENST00000491526,ENST00000533765	23267-23273	8,7,7,7,7,7,7
chr6	138995993	138995970 -	chr6	138817508	138817356 -			
chr6	139458334	139458413 +	chr6	139487421	139488461 +	ENST00000367658	23274-23276	6,15,11
chr6	139590340	139590113 -	chr6	139583910	139583716 -	ENST00000358430	23277-23279	7,26,75

							ENST00000367630,ENST00000367621,ENST00000452973	15,14,1
chr6	142532621	142532665	+	chr6	142539635	142539780	+	23280-23282	
chr6	143762867	143762530	-	chr6	143759831	143759727	-	ENST00000237283	23283-23285	13,33,5
chr6	143829105	143828966	-	chr6	143828561	143828374	-	ENST00000002165,ENST00000438118	23286-23289	41,1,24,41
chr6	144127819	144127859	+	chr6	144128194	144128270	+	ENST00000367584,ENST00000427704,ENST00000305766,ENST00000440869,ENST00000367582	23290-23291	7,3
chr6	144629083	144629228	+	chr6	144724259	144724320	+	ENST00000433557,ENST00000367545,ENST00000421035	23292-23295	48,1,48,48
chr6	146611103	146611938	+	chr6	146625747	146625982	+	ENST00000361719,ENST00000392299,ENST00000492807,ENST00000355289,ENST00000282753,ENST00000507907	23296-23298	1,1,1
chr6	146873567	146874069	+	chr6	146875592	146875741	+	ENST00000367495	23299-23300	16,23
chr6	147981647	147981955	+	chr6	148058453	148058584	+	ENST00000566741	23301-23303	9,12,16
chr6	149188617	149188870	+	chr6	149208122	149208165	+	ENST00000367463	23304-23305	7,35
chr6	149989880	149989792	-	chr6	149983374	149982865	-	ENST00000543571,ENST00000253339	23306-23308	27,29,7
chr6	149990257	149990158	-	chr6	149983374	149982865	-	ENST00000543571,ENST00000253339	23309-23310	6,33
chr6	150050427	150050377	-	chr6	150048334	150048105	-	ENST00000340413,ENST00000460354,ENST00000367404	23311-23313	17,7,16
chr6	150091073	150091487	+	chr6	150092298	150092402	+	ENST00000367384,ENST00000484601,ENST00000367378,ENST00000464889,ENST00000367380,ENST00000460828,ENST00000494411	23314-23320	40,12,21,40,40,40,40
chr6	150161138	150161090	-	chr6	150158599	150158474	-	ENST00000239367,ENST00000546019	23321-23322	7,15
chr6	150163753	150163608	-	chr6	150158599	150158474	-	ENST00000239367,ENST00000546019	23323-23325	46,5,48
chr6	151264137	151264187	+	chr6	151265622	151265729	+	ENST00000367321	23326-23327	17,7
chr6	151378495	151378500	+	chr6	151413603	151413692	+	ENST00000367321	23328-23330	1,2,1
chr6	151412664	151412759	+	chr6	151413603	151413692	+	ENST00000367321	23331-23332	8,14
chr6	151740204	151739913	-	chr6	151738534	151738414	-	ENST00000336451,ENST00000367303,ENST00000444024	23333-23336	41,30,21,21
chr6	151856205	151856257	+	chr6	151857453	151857581	+	ENST00000239374,ENST00000367290	23337-23340	17,17,17,17
chr6	152155043	152155613	+	chr6	152163732	152163922	+	ENST00000440973,ENST00000338799,ENST00000456483,ENST00000443427,ENST00000206249	23341-23344	32,82,12,12
chr6	153038539	153038808	+	chr6	153042877	153043388	+	ENST00000367245,ENST00000532295	23345-23346	48,7
chr6	153298169	153297990	-	chr6	153296756	153296042	-	ENST00000229758	23347-23349	13,16,3
chr6	155503934	155503979	+	chr6	155504371	155504634	+	ENST00000461783,ENST00000528535,ENST00000318981,ENST00000367174,ENST00000456144,ENST00000360366,ENST00000529824,ENST00000456877,ENST00000528391	23350-23355	15,5,14,15,15,15
chr6	155587321	155586959	-	chr6	155581534	155581407	-	ENST00000367166	23356-23358	62,47,1
chr6	155631738	155631675	-	chr6	155619719	155619611	-	ENST00000367166	23359-23361	13,18,15
chr6	15627114	15626981	-	chr6	15615630	15615498	-	ENST00000344537,ENST00000355917,ENST00000515875,ENST00000338950,ENST00000511762	23362-23368	17,22,10,22,22,22,22
chr6	15723232	15722951	-	chr6	15652371	15652318	-	ENST00000344537,ENST00000510395,ENST00000355917,ENST00000515875,ENST00000338950	23369-23375	1,7,64,7,7,7,7
chr6	157999582	157999876	+	chr6	158014020	158014178	+	ENST00000414563,ENST00000359775,ENST00000518214	23376-23380	24,41,7,24,24

Table 10

							ENST00000367121,ENST00000367122,ENST00000355585,ENST00000449859	23381-23386	13,16,21,16,16,16
chr6	158451642	158451911	+	chr6	158454487	158454712	+		
							ENST00000367121,ENST00000367122,ENST00000355585,ENST00000367112	23387-23390	33,23,1,1
chr6	158512068	158512166	+	chr6	158513958	158514136	+		
chr6	158596515	158596614	+	chr6	158613009	158613189	+	ENST00000607778	23391-23392	6,32
							ENST00000367094,ENST00000367097	23393-23396	23,32,32,23
chr6	158911149	158911246	+	chr6	158914605	158914749	+		
chr6	158999153	158999335	+	chr6	159001972	159002027	+	ENST00000367090	23397-23398	7,16
							ENST00000367089,ENST00000367085	23399-23402	2,1,1,2
chr6	159062903	159062898	-	chr6	159062392	159062351	-		
							ENST00000367072,ENST00000367073,ENST00000608817	23403-23404	27,45
chr6	159329747	159329927	+	chr6	159330999	159331245	+		
							ENST00000321394,ENST00000420894,ENST00000392168,ENST00000539756	23405-23406	7,15
chr6	160206360	160206314	-	chr6	160205099	160204973	-		
							ENST00000321394,ENST00000420894,ENST00000392168	23407-23408	7,15
chr6	160206360	160206314	-	chr6	160205820	160205698	-		
chr6	160409794	160409896	+	chr6	160412216	160412355	+	ENST00000356956	23409-23411	34,34,33
chr6	160411260	160411501	+	chr6	160412216	160412355	+	ENST00000356956	23412-23414	11,34,25
chr6	160491431	160491447	+	chr6	160492942	160493068	+	ENST00000356956	23415-23417	5,5,5
							ENST00000275300,ENST00000392145	23418-23421	5,2,14,5
chr6	160821713	160826817	+	chr6	160828073	160828227	+		
							ENST00000366911,ENST00000320285,ENST00000366906	23422-23428	39,7,18,39,39,7,18
chr6	161637963	161637691	-	chr6	161575342	161575181	-		
chr6	16256166	16256233	+	chr6	16274646	16274727	+	ENST00000259727	23429-23430	13,22
chr6	166758004	166757800	-	chr6	166743735	166743649	-	ENST00000361731	23431-23433	48,10,30
							ENST00000344191,ENST00000351017,ENST00000392108,ENST00000366806,ENST00000392112,ENST00000447894,ENST00000400822,ENST00000423229	23434-23442	5,6,5,5,5,5,5,5,5
chr6	168283918	168283938	+	chr6	168289895	168290006	+		
							ENST00000344191,ENST00000351017,ENST00000392108,ENST00000366806,ENST00000392112,ENST00000447894,ENST00000400822,ENST00000423229	23443-23452	7,26,2,7,7,7,7,7,7,7
chr6	168297814	168298011	+	chr6	168298885	168299147	+		
							ENST00000443060,ENST00000354419,ENST00000351261	23453-23456	17,21,20,20
chr6	168436420	168436483	+	chr6	168439233	168439409	+		
							ENST00000283309,ENST00000468647,ENST00000509157,ENST00000511714	23457-23461	40,7,22,22,22
chr6	168493926	168493651	-	chr6	168479704	168479562	-		
							ENST00000354536,ENST00000356284	23462-23464	7,24,47
chr6	169003608	169003906	+	chr6	169008837	169008919	+		
							ENST00000448612,ENST00000333572,ENST00000423258	23465-23467	4,14,14
chr6	170018108	170018066	-	chr6	170013752	170013655	-		
							ENST00000448612,ENST00000333572,ENST00000423258	23468-23472	54,29,10,29,29
chr6	170055260	170055094	-	chr6	170052104	170052026	-	,ENST00000441385		
							ENST00000540480,ENST00000537664	23473-23474	34,25
chr6	170624894	170625072	+	chr6	170626458	170628212	+		
							ENST00000536551,ENST00000354384	23475-23478	22,11,31,11
chr6	17125267	17125366	+	chr6	17129343	17129474	+		
							ENST00000229922,ENST00000489374,ENST00000378990,ENST00000493172,ENST00000479291,ENST00000465994,ENST00000476263	23479-23487	12,20,20,20,20,20,20,20,20
chr6	17424355	17424416	+	chr6	17426821	17426921	+		
							ENST00000229922,ENST00000489374,ENST00000378990,ENST00000493172,ENST00000479291,ENST00000465994,ENST00000476263	23488-23496	1,31,30,1,1,1,1,1,1
chr6	17424355	17424448	+	chr6	17426821	17426921	+		
							ENST00000262077,ENST00000537253	23497-23499	3,6,10
chr6	17633774	17633743	-	chr6	17633075	17632881	-		

Table 10

chr6	17663784	17663534	-	chr6	17662301	17662249	-	ENST00000262077,ENST00000537253	23500-23503	23,10,7,7
chr6	17684088	17683932	-	chr6	17676001	17675753	-	ENST00000262077,ENST00000537253	23504	7
chr6	17816064	17815794	-	chr6	17809161	17808999	-	ENST00000378814,ENST00000259711,ENST00000378843,ENST00000378826,ENST00000378816,ENST00000358380	23505-23511	4,11,6,6,6,6,6
chr6	17835827	17835789	-	chr6	17834302	17834192	-	ENST00000378814,ENST00000259711,ENST00000378843,ENST00000378826,ENST00000378816	23512-23516	13,12,13,13,13
chr6	18214859	18214909	+	chr6	18215238	18215360	+	ENST00000388870,ENST00000397244,ENST00000297792,ENST00000449850	23517-23519	17,7,16
chr6	18266729	18265951	-	chr6	18264227	18264074	-	ENST00000515742	23520-23522	52,57,29
chr6	2002607	2002468	-	chr6	1961200	1961008	-	ENST00000530927,ENST00000380815	23523-23525	13,17,2
chr6	20548491	20548622	+	chr6	20548824	20548936	+	ENST00000274695,ENST00000378610	23526-23528	1,43,4
chr6	20771812	20772140	+	chr6	20781376	20781496	+	ENST00000274695,ENST00000378624,ENST00000378610	23529-23532	13,35,16,35
chr6	20925106	20925479	+	chr6	20955650	20955816	+	ENST00000274695,ENST00000378624,ENST00000378610	23533-23536	5,2,11,2
chr6	21092788	21093690	+	chr6	21108632	21108694	+	ENST00000274695,ENST00000378610	23537-23539	1,20,25
chr6	2215831	2215582	-	chr6	2124965	2124921	-	ENST00000530927,ENST00000380815	23540-23541	37,7
chr6	24292012	24291914	-	chr6	24289134	24289080	-	ENST00000378454	23542-23544	1,33,23
chr6	24519511	24519579	+	chr6	24520629	24520772	+	ENST00000546278,ENST00000357578,ENST00000491546,ENST00000348925	23545-23546	23,13
chr6	24817934	24817838	-	chr6	24810035	24809945	-	ENST00000259698,ENST00000538035	23547-23548	32,6
chr6	24835151	24835011	-	chr6	24832619	24832484	-	ENST00000259698,ENST00000538035	23549-23551	12,19,1
chr6	25333373	25333419	+	chr6	25420342	25420392	+	ENST00000329474	23552-23553	15,15
chr6	26408556	26409089	+	chr6	26409761	26409961	+	ENST00000476549,ENST00000289361,ENST00000425234,ENST00000414912	23554-23557	10,62,62,62
chr6	26474324	26474624	+	chr6	26476350	26476360	+	ENST00000469185	23558-23559	7,28
chr6	28218646	28218643	-	chr6	28217612	28217465	-	ENST00000377294	23560-23561	1,1
chr6	30159395	30159307	-	chr6	30157812	30157790	-	ENST00000437089,ENST00000454678,ENST00000453195	23562-23564	29,29,29
chr6	30298766	30298815	+	chr6	30303522	30303752,3	+	ENST00000376656,ENST00000540416,ENST00000396551,ENST00000428728,ENST00000396548,ENST00000376659,ENST00000396547,ENST00000420746,ENST00000513556	23565-23572	7,16,16,16,16,16,16,16
chr6	30526458	30526730	+	chr6	30529611	30529901	+	ENST00000376560,ENST00000376557	23573-23575	1,36,16
chr6	30629158	30629093	-	chr6	30628019	30627809	-	ENST00000376437,ENST00000376442	23576-23578	13,21,21
chr6	30646730	30646715	-	chr6	30645065	30645046	-	ENST00000399199,ENST00000274853	23579-23581	5,5,4
chr6	30689664	30689772	+	chr6	30690314	30690422	+	ENST00000327892,ENST00000435534,ENST00000396389	23582-23584	36,36,36
chr6	30708863	30708763	-	chr6	30708575	30708456	-	ENST00000376389,ENST00000456573,ENST00000413165,ENST00000438162,ENST00000445853,ENST00000416018,ENST00000454845	23585-23592	2,24,11,11,1,1,11,11,11

Table 10

							ENST00000376389,ENST000		17,7,16,17,1
							00456573,ENST00000413165		7,17,17,17,1
							,ENST00000438162,ENST000		7,7,16
							00418160,ENST00000445853		
							,ENST00000416018,ENST000		
chr6	30708863	30708813	-	chr6	30708368	30708273,3	- 00454845	23593-23603	
							ENST00000508312,ENST000		10,10,6,6
chr6	30841120	30841151	+	chr6	30856465	30856591	+ 00503495	23604-23607	
							ENST00000259808,ENST000		1,34,16
							00541791,ENST00000380409		
chr6	3094448	3094622	+	chr6	3104459	3104549	+	23608-23610	
							ENST00000259915,ENST000		15,2,77
chr6	31154067	31153803	-	chr6	31133478	31133348	- 00606567	23611-23613	
							ENST00000375976,ENST000		12,24,33,33,
							00211379,ENST00000439687		33,33,33,33,
							,ENST00000375964,ENST000		33,33,33,33,
							00404765,ENST00000362049		33,33,12,24,
							,ENST00000437771,ENST000		33
							00435080,ENST00000434444		
							,ENST00000452994,ENST000		
							00456622,ENST00000428326		
							,ENST00000451898,ENST000		
							00433828,ENST00000424480		
							,ENST00000424176,ENST000		
							00441054,ENST00000456286		
chr6	31616092	31615992	-	chr6	31615603	31615368,31	-	23614-23630	
							ENST00000375858,ENST000		14,36,26,14,
							00375860,ENST00000375863		26
							,ENST00000383237,ENST000		
chr6	31648787	31648533	-	chr6	31647045	31646878,3	- 00474678	23631-23635	
							ENST00000395952,ENST000		32,24,32
							00440843,ENST00000538874		
chr6	31662128	31662033	-	chr6	31661209	31661136	-	23636-23638	
							ENST00000375784,ENST000		11,33,6
							00375779,ENST00000375780		
chr6	31701082	31700981	-	chr6	31700175	31699994	- ,ENST00000395892	23639-23641	
							ENST00000395728,ENST000		4,19,4
							00375528,ENST00000375530		
chr6	31859020	31858871	-	chr6	31857379	31857245	- ,ENST00000375537	23642-23644	
							ENST00000414204,ENST000		2,2,2,2,2,2
							00361568,ENST00000395523		
							,ENST00000324816,ENST000		
							00445576,ENST00000428388		
							,ENST00000585246,ENST000		
							00375137,ENST00000375143		
							,ENST00000422437,ENST000		
							00436118,ENST00000583227		
chr6	32123205	32123212	+	chr6	32123465	32123560	+	23645-23650	
							ENST00000442822,ENST000		24,39,13,13,
							00447241,ENST00000375015		13,13,13,13,
							,ENST00000533191,ENST000		13,13
							00527965,ENST00000375007		
							,ENST00000532023,ENST000		
chr6	32353899	32353222	-	chr6	32337760	32337674	- 00534588	23651-23660	
							ENST00000343139,ENST000		9,10,3,9
							00395363,ENST00000496318		
chr6	32600656	32600686	+	chr6	32609087	32609335	+ ,ENST00000374949	23661-23664	
							ENST00000419277,ENST000		5,20,40,20
							00428995,ENST00000453337		
chr6	33038152	33037992	-	chr6	33037663	33037418	-	23665-23668	
chr6	33239122	33238914	-	chr6	33238060	33237976	- ENST00000445902	23669-23671	9,6,11
chr6	33239122	33238991	-	chr6	33238060	33237976	- ENST00000445902	23672-23673	40,27
chr6	33376668	33376718	+	chr6	33377423	33377467	+ ENST00000428849	23674-23675	17,7
							ENST00000374316,ENST000		17,5
chr6	33629490	33629540	+	chr6	33630305	33630451	+ 00605930	23676-23677	
							ENST00000430124,ENST000		2,4,4,2,4
							00266003,ENST00000507738		
chr6	33763736	33763724	-	chr6	33763382	33763280,3	-	23678-23682	
							ENST00000607016,ENST000		6,58
chr6	34327735	34327560	-	chr6	34309749	34309639	- 00605528	23683-23684	
							ENST00000605528,ENST000		33,24,11,33,
							00344700,ENST00000326199		24,11,33,24,
chr6	34388294	34388194	-	chr6	34386201	34386146	-	23685-23693	11

Table 10

chr6	34725918	34725966	+	chr6	34730372	34730480	+	ENST00000244520,ENST00000374017	23694-23695	16,15
chr6	34753553	34754307	+	chr6	34789430	34789592	+	ENST00000192788,ENST00000452449	23696-23699	26,37,12,26
chr6	34973548	34973598	+	chr6	34985250	34985836	+	ENST00000360359	23700-23702	17,7,16
chr6	35807881	35807833	-	chr6	35806206	35806114	-	ENST00000373825,ENST00000361690,ENST00000423325	23703-23704	16,7
chr6	36050822	36050890	+	chr6	36070348	36070426	+	ENST00000229795,ENST00000229794,ENST00000468133	23705-23707	23,22,12
chr6	36063654	36063670	+	chr6	36063764	36063843	+	ENST00000229794,ENST00000468133,ENST00000310795	23708-23711	5,5,5,5
chr6	36498766	36498509	-	chr6	36493419	36493368	-	ENST00000229812	23712-23714	10,31,18
chr6	36694878	36694949	+	chr6	36695354	36695468	+	ENST00000229824	23715-23716	23,3
chr6	36720498	36720357	-	chr6	36716044	36715998	-	ENST00000393189,ENST00000244751	23717-23718	19,26
chr6	36862435	36862468	+	chr6	36867202	36867409	+	ENST00000355190	23719-23721	1,11,3
chr6	36950464	36950323	-	chr6	36949448	36949364	-	ENST00000373616,ENST00000373627,ENST00000460219	23722-23726	16,38,6,38,38
chr6	36980943	36981073	+	chr6	36981385	36981541,4	+	ENST00000274963,ENST00000373535	23727-23731	9,43,2,9,43
chr6	36994992	36995110	+	chr6	36995205	36995351	+	ENST00000274963	23732-23733	21,17
chr6	39856845	39856875	+	chr6	39859117	39859223	+	ENST00000274867,ENST00000398904,ENST00000538976	23734-23737	10,10,9,10
chr6	4002330	4002340	+	chr6	4032445	4032989	+	ENST00000480058,ENST00000337659,ENST00000538861	23738-23739	3,3
chr6	41043084	41043006	-	chr6	41035176	41035074,41(	-	ENST00000479950,ENST00000463088,ENST00000373154,ENST00000244558,ENST00000424266,ENST00000480585,ENST00000482515,ENST00000464633,ENST00000468811,ENST00000486443,ENST00000488238	23740-23747	18,5,25,5,18,25,5,25,18,25
chr6	41043084	41043006	-	chr6	41039015	41038871,4	-	ENST00000479950,ENST00000463088,ENST00000373154,ENST00000424266,ENST00000480585,ENST00000482515,ENST00000464633,ENST00000468811,ENST00000488238,ENST00000469104,ENST00000471367	23748-23754	18,5,25,5,5,5,5
chr6	41259258	41259171	-	chr6	41250489	41250133	-	ENST00000589614,ENST00000244709,ENST00000334475,ENST00000591620	23755-23760	25,9,4,25,25,25
chr6	41905389	41905332	-	chr6	41905132	41904973	-	ENST00000372991,ENST00000511642,ENST00000372987,ENST00000372988,ENST00000414200,ENST00000510503,ENST00000512426,ENST00000505064	23761-23766	2,1,10,1,1,1
chr6	42019738	42019877	+	chr6	42023269	42023367	+	ENST00000372978,ENST00000494547,ENST00000456846,ENST00000372982,ENST00000472818,ENST00000372977,ENST00000465926,ENST00000482432	23767-23774	12,9,12,12,12,9,12,12
chr6	42176309	42176291	-	chr6	42176110	42176027	-	ENST00000053468	23775-23777	5,6,5
chr6	42226772	42226672	-	chr6	42225939	42225873	-	ENST00000372917,ENST00000541110,ENST00000372922,ENST00000340840,ENST00000354325	23778-23780	24,11,24
chr6	42560631	42560697	+	chr6	42561929	42562042	+	ENST00000372903,ENST00000372899,ENST00000372901	23781-23785	22,13,21,13,13
chr6	42945151	42944990	-	chr6	42942776	42942613	-	ENST00000304611,ENST00000244546	23786-23789	6,32,24,6
chr6	42945881	42945658	-	chr6	42942776	42942613	-	ENST00000304611,ENST00000244546	23790-23793	65,20,7,7

Table 10

chr6	43025085	43024960	-	chr6	43024183	43024045	-	ENST00000388752,ENST00000230413	23794-23797	32,18,10,10
chr6	43598196	43598200	+	chr6	43600931	43601052	+	ENST00000451025	23798-23800	1,1,1
chr6	43603054	43603304	+	chr6	43604118	43604383	+	ENST00000451025,ENST00000372171	23801-23803	21,83,6
								ENST00000515220,ENST00000323108,ENST00000288390	23804-23807	5,3,10,10
chr6	44301413	44301769	+	chr6	44320463	44320610	+			
chr6	46526325	46526021	-	chr6	46521591	46521504	-	ENST00000275016	23808-23810	12,47,4
chr6	46595009	46594729	-	chr6	46593245	46593155	-	ENST00000275016	23811-23813	7,24,48
chr6	46595009	46594765	-	chr6	46593245	46593155	-	ENST00000275016	23814-23815	12,36
chr6	47213848	47213556	-	chr6	47202634	47202406	-	ENST00000296861	23816-23818	96,29,13
chr6	47462528	47462554	+	chr6	47471016	47471176	+	ENST00000359314	23819-23821	9,8,6
chr6	47546855	47547012	+	chr6	47547121	47547225	+	ENST00000359314	23822-23824	43,2,7
								ENST00000339488,ENST00000398738,ENST00000543600	23825-23827	30,15,30
chr6	48070175	48069863	-	chr6	47976850	47976370	-			
chr6	4881639	4881741	+	chr6	4891947	4892613	+	ENST00000328908,ENST00000397588	23828-23829	23,2
chr6	49579761	49579661	-	chr6	49578858	49578737	-	ENST00000371175	23830-23832	33,24,11
chr6	49582962	49582651	-	chr6	49582566	49582400	-	ENST00000371175,ENST00000229810	23833-23835	6,1,1
chr6	49582962	49582702	-	chr6	49582566	49582400	-	ENST00000371175,ENST00000229810	23836-23839	10,16,36,36
chr6	49582962	49582829	-	chr6	49582566	49582400	-	ENST00000371175,ENST00000229810	23840-23843	4,10,44,10
chr6	49595671	49595393	-	chr6	49587075	49586892	-	ENST00000371175,ENST00000229810	23844-23847	40,7,19,19
chr6	50787520	50787561	+	chr6	50789847	50789873	+	ENST00000344788,ENST00000263046	23848-23851	9,13,13,9
chr6	50787520	50787561	+	chr6	50791120	50791578	+	ENST00000344788,ENST00000393655,ENST00000263046	23852-23855	9,13,13,9
chr6	52134825	52134768	-	chr6	52134024	52133884	-	ENST00000229854,ENST00000596288,ENST00000419835,ENST00000421471	23856-23859	19,19,11,19
chr6	52166901	52166558	-	chr6	52148204	52148092	-	ENST00000229854,ENST00000596288	23860-23861	16,2
chr6	54191952	54192044	+	chr6	54208024	54208147	+	ENST00000259782	23862-23863	31,6
chr6	5490744	5491208	+	chr6	5545413	5545573	+	ENST00000324331,ENST00000274680	23864-23866	4,44,10
chr6	56536500	56536462	-	chr6	56535605	56535439,565	-	ENST00000312431,ENST00000370769,ENST00000421834,ENST00000370754,ENST00000370788,ENST00000361203,ENST00000520645,ENST00000449297,ENST00000522538,ENST00000523817	23867-23876	2,10,2,2,2,2,2,2,2,2
								ENST00000312431,ENST00000370769,ENST00000421834,ENST00000370754,ENST00000370788,ENST00000361203,ENST00000520645,ENST00000449297,ENST00000523817	23877-23878	6,32
chr6	56650666	56650569	-	chr6	56600087	56600026	-			
chr6	56798923	56798864	-	chr6	56765419	56765219	-	ENST00000370754,ENST00000449297	23879-23882	17,2,11,17
chr6	56991438	56991505	+	chr6	56993527	56993638	+	ENST00000510483,ENST00000370706,ENST00000357489,ENST00000491832	23883-23887	13,22,22,22,22
chr6	57015878	57015944	+	chr6	57017019	57017149	+	ENST00000370706,ENST00000357489,ENST00000491832	23888-23891	22,13,5,22
								ENST00000370706,ENST00000357489,ENST00000491832	23892-23895	33,23,1,1
chr6	57015878	57015976	+	chr6	57017019	57017149	+			
chr6	580339	580273	-	chr6	576882	576757	-	ENST00000230449	23896-23898	22,13,5
chr6	64114674	64114411	-	chr6	64004950	64004818	-	ENST00000370658,ENST00000485906,ENST00000370657	23899-23902	23,6,23,23
chr6	64381257	64381260	+	chr6	64389901	64390062	+	ENST00000494284,ENST00000262043,ENST00000509330,ENST00000393387,ENST00000514822	23903-23906	1,1,1,1

Table 10

chr6	64450043	64450311	+	chr6	64487959	64488104	+	ENST00000505138	23907-23909	7,39,21
								ENST00000503581,ENST000		19,6,14,14,1
								00370621,ENST00000370616		4
chr6	64476630	64476519	-	chr6	64472526	64472354	-	,ENST00000398580	23910-23914	
chr6	69783613	69783684	+	chr6	69785887	69785930	+	ENST00000370598	23915-23917	24,6,2
chr6	69783781	69783814	+	chr6	69785887	69785930	+	ENST00000370598	23918-23920	5,11,3
								ENST00000370577,ENST000		11,8,51,8
chr6	70518957	70518642	-	chr6	70500364	70500188	-	00472827	23921-23924	
chr6	70633013	70633725	+	chr6	70637801	70637924	+	ENST00000322773	23925	9
								ENST00000322773,ENST000		2,24,7
chr6	70770269	70770343	+	chr6	70778315	70778368	+	00393344	23926-23928	
								ENST00000322773,ENST000		4,14,19
chr6	70770269	70770622	+	chr6	70778315	70778368	+	00393344	23929-23931	
chr6	71295059	71295231	+	chr6	71298318	71298427	+	ENST00000370474	23932-23933	23,33
								ENST00000316999,ENST000		16,15,2,16,1
								00370452,ENST00000370455		6
chr6	71507487	71507534	+	chr6	71508360	71508440	+	,ENST00000439432	23934-23938	
chr6	72005198	72005405	+	chr6	72006020	72006098	+	ENST00000370435	23939-23940	16,14
								ENST00000379918,ENST000		34,5,41,5,41
								00502583,ENST00000296742		
								,ENST00000512086,ENST000		
chr6	7333112	7332929	-	chr6	7330121	7330082	-	00338150	23941-23945	
								ENST00000342056,ENST000		24,11,24,24,
								00355194,ENST00000370398		24,24,24,24
								,ENST00000370392,ENST000		
								00355635,ENST00000402622		
								,ENST00000403813,ENST000		
chr6	73816509	73816580	+	chr6	73821031	73821126	+	00414165	23946-23953	
								ENST00000370318,ENST000		32,32,32
chr6	74143508	74143411	-	chr6	74138534	74138432	-	00370315	23954-23956	
								ENST00000415954,ENST000		7,16,3,16,16
								00498286,ENST00000370305		
chr6	74179448	74179497	+	chr6	74183088	74183377	+	,ENST00000370300	23957-23961	
								ENST00000415954,ENST000		10,10,10
								00498286,ENST00000370305		
								,ENST00000370300,ENST000		
chr6	74208750	74208780	+	chr6	74210297	74210458,7	+	00521156	23962-23964	
								ENST00000316292,ENST000		3,9,3,3
								00309268,ENST00000331523		
								,ENST00000356303,ENST000		
chr6	74238545	74238420	-	chr6	74229620	74229606	-	00455918	23965-23968	
								ENST00000370318,ENST000		33,32,32
chr6	74261665	74261567	-	chr6	74138534	74138432	-	00370315	23969-23971	
								ENST00000422508,ENST000		29,12
								00437994,ENST00000287097		
chr6	74531051	74531315	+	chr6	74533182	74533357	+		23972-23973	
chr6	7594719	7594812	+	chr6	7595260	7595334	+	ENST00000342415	23974-23976	14,27,3
								ENST00000370010,ENST000		31,23,43,31,
								00370014,ENST00000327284		31
								,ENST00000447266,ENST000		
								00483859,ENST00000424947		
chr6	76356272	76356567	+	chr6	76357447	76357517	+		23977-23981	
								ENST00000369981,ENST000		4,11,11,11,1
								00369985,ENST00000369977		1
chr6	76529489	76529589	+	chr6	76532499	76532568	+	,ENST00000369975	23982-23986	
								ENST00000539054,ENST000		17,7,16,7,16
								00379757,ENST00000439343		
chr6	7917082	7917032	-	chr6	7904956	7904807,79	-		23987-23991	
								ENST00000539054,ENST000		24,8,14,8,14
								00379757,ENST00000439343		
chr6	7935408	7935127	-	chr6	7904956	7904807,79	-		23992-23996	
								ENST00000369940,ENST000		30,6,30,30
								00606868,ENST00000607739		
chr6	79587229	79587319	+	chr6	79595095	79595160	+		23997-24000	
chr6	79762243	79761760	-	chr6	79752720	79752560	-	ENST00000275034	24001-24002	16,6
chr6	80380902	80381107	+	chr6	80383331	80383516	+	ENST00000369838	24003-24004	19,7
chr6	80383010	80383060	+	chr6	80383331	80383516	+	ENST00000369838	24005-24007	7,17,16
chr6	80400703	80400801	+	chr6	80406202	80406282	+	ENST00000369838	24008-24010	3,27,32
								ENST00000369760,ENST000		11,1,1
								00356489,ENST00000320393		
chr6	80838492	80838559	+	chr6	80838878	80838946	+	,ENST00000545529	24011-24013	
chr6	8089971	8089616	-	chr6	8080263	8080123	-	ENST00000379715	24014-24016	50,1,10

Table 10

							ENST00000397456,ENST00000429723,ENST00000502429,ENST00000379715,ENST00000507463,ENST00000515633	58,24,24,24,24,24,58,24
chr6	8092471	8092197	-	chr6	8090514	8090419,809(	-	24017-24024	
							ENST00000397456,ENST00000429723,ENST00000502429,ENST00000379715,ENST00000507463,ENST00000488226	45,7,18,45,45,5,45,45,45,18
chr6	8107874	8107599	-	chr6	8097700	8097500,81	-	24025-24033	
chr6	82247549	82247271	-	chr6	82204830	82204789	-	ENST00000412306	24034-24035	19,7
							ENST00000369754,ENST00000369756	24036-24037	2,2
chr6	82466383	82466376	-	chr6	82461895	82461307	-			
chr6	83673543	83673180	-	chr6	83667169	83667031	-	ENST00000369747	24038-24040	1,50,46
chr6	83726275	83721005	-	chr6	83667169	83667031	-	ENST00000369747	24041-24043	7,87,19
							ENST00000237163,ENST00000349129,ENST00000369739	24044-24047	23,33,23,23
chr6	83853280	83853984	+	chr6	83855243	83855377	+			
							ENST00000369705,ENST00000543031	24048-24050	17,7,16
chr6	84060506	84060456	-	chr6	84056053	84055892	-			
							ENST00000379660,ENST00000339306	24051-24052	22,9
chr6	8424792	8424692	-	chr6	8422857	8422703	-			
chr6	85486286	85486268	-	chr6	85472466	85472262	-	ENST00000369663	24053-24055	6,6,5
							ENST00000346348,ENST00000314673,ENST00000513865,ENST00000505648,ENST00000369627,ENST00000515216		5,4,4,4,4
chr6	86231176	86231162	-	chr6	86227766	86227726	-	,ENST00000418862	24056-24060	
							ENST00000369577,ENST00000339907,ENST00000496806		19,1,19,19,1,19
chr6	87920258	87920316	+	chr6	87925621	87925775,9	+		24061-24066	
chr6	88054014	88054325	+	chr6	88054885	88054965	+	ENST00000388923	24067-24069	1,40,13
chr6	88235563	88235297	-	chr6	88234370	88234275	-	ENST00000369536	24070-24072	14,35,12
							ENST00000369536,ENST00000451155	24073-24077	10,8,14,10,8
chr6	88294842	88294764	-	chr6	88279308	88279235	-			
chr6	88461852	88461037	-	chr6	88391481	88391338	-	ENST00000257787	24078-24080	1,37,14
							ENST00000369485,ENST00000265607,ENST00000538899		4,20,20
chr6	89460223	89460161	-	chr6	89388138	89388072,9	-	,ENST00000369475	24081-24083	
							ENST00000369485,ENST00000265607,ENST00000538899		6,14,6
chr6	89501991	89501710	-	chr6	89479593	89479493	-	,ENST00000369475	24084-24086	
							ENST00000369485,ENST00000369475	24087-24089	13,3,13
chr6	89513512	89513417	-	chr6	89511351	89511283	-			
							ENST00000369485,ENST00000265607,ENST00000538899		45,1,3,1,1
chr6	89571463	89571329	-	chr6	89563483	89563348	-	,ENST00000369475	24090-24094	
chr6	89819231	89819176	-	chr6	89816977	89816873	-	ENST00000452027	24095-24097	18,4,11
chr6	89861526	89861625	+	chr6	89862762	89862904	+	ENST00000275072	24098-24100	24,11,5
chr6	90061083	90061000	-	chr6	90053475	90053402	-	ENST00000435041	24101-24103	11,18,27
							ENST00000369393,ENST00000428876	24104-24105	57,54
chr6	90355955	90355778	-	chr6	90354876	90354734	-			
chr6	96037644	96038049	+	chr6	96044613	96044722	+	ENST00000358812	24106-24107	15,31
							ENST00000275053,ENST00000369251	24108-24110	17,10,8
chr6	97642231	97642181	-	chr6	97634566	97634373	-			
							ENST00000460363,ENST00000492169	24111-24115	7,52,1,7,52
chr6	9767130	9766835	-	chr6	9708205	9707995,97	-			
							ENST00000460363,ENST00000492169	24116-24118	40,23,40
chr6	9767130	9766871	-	chr6	9708205	9707995,97	-			
							ENST00000275053,ENST00000369251,ENST00000510018		22,2,22,22,2
chr6	97703137	97702787	-	chr6	97702609	97702433	-	,ENST00000482634	24119-24123	2
							ENST00000275053,ENST00000369251,ENST00000510018		11,65,42,11,11,11
chr6	97708965	97708669	-	chr6	97702609	97702433	-	,ENST00000482634	24124-24129	
							ENST00000275053,ENST00000369251,ENST00000510018		8,13,1,1,1
chr6	97716363	97716220	-	chr6	97715878	97715748	-		24130-24134	
							ENST00000392738,ENST00000500704,ENST00000327681,ENST00000539675,ENST00000369233	24135-24137	33,6,11
chr6	99885833	99885733	-	chr6	99885275	99885122	-			

Table 10

							ENST00000500704,ENST00000327681,ENST00000369233,ENST00000496090	24138-24142	16,3,20,20,20
chr6	99916173	99915976	-	chr6	99914639	99914548	-	ENST00000500704,ENST00000327681,ENST00000369233,ENST00000506871,ENST00000496090,ENST00000507717	24143-24147	1,1,1,1,1
chr6	99917655	99917653	-	chr6	99916494	99916413	-	ENST00000223061	24148-24150	11,34,21
chr7	100203670	100203936	+	chr7	100204039	100204253	+	ENST00000348028,ENST00000349350,ENST00000421100,ENST00000427578,ENST00000443370,ENST00000449052,ENST00000538115,ENST00000542585,ENST00000546292	24151-24155	6,11,6,6,6
chr7	100333658	100333758	+	chr7	100334106	100334252	+	ENST00000388793,ENST00000457580,ENST00000432932,ENST00000347433,ENST00000431645	24156-24162	7,16,16,7,7,7,7
chr7	100475652	100475701	+	chr7	100478906	100479034	+	ENST00000223095,ENST00000445463	24163-24165	1,36,24
chr7	100774403	100774544	+	chr7	100775156	100775350	+	ENST00000223095,ENST00000445463	24166-24167	23,13
chr7	100778185	100778253	+	chr7	100778775	100778875	+	ENST00000337619,ENST00000443943,ENST00000429457	24168-24171	18,9,1,9
chr7	100801901	100801955	+	chr7	100802340	100802477	+	ENST00000223114,ENST00000440203	24172-24176	38,11,15,38,15
chr7	100840892	100840778	-	chr7	100839670	100839468	-	ENST00000454310,ENST00000223127,ENST00000421736	24177-24180	17,7,7,7
chr7	100854761	100854711	-	chr7	100853954	100853813	-	ENST00000422177,ENST00000315322,ENST00000437644	24181-24183	7,16,16
chr7	100961347	100961298	-	chr7	100959823	100959621	-	ENST00000397927,ENST00000313669,ENST00000528707	24184-24187	1,41,21,21
chr7	101194830	101195011	+	chr7	101196607	101196657	+	ENST00000437600,ENST00000292538,ENST00000547394,ENST00000360264,ENST00000425244,ENST00000292535,ENST00000546411,ENST00000549414,ENST00000550008,ENST00000556210	24188-24199	15,39,1,39,39,1,39,39,39,39,39,39
chr7	101514616	101514832	+	chr7	101559395	101559505	+	ENST00000437600,ENST00000292538,ENST00000393824,ENST00000360264,ENST00000425244,ENST00000292535,ENST00000546411,ENST00000549414,ENST00000550008,ENST00000556210	24200-24209	13,6,11,11,11,11,11,11,11,11
chr7	101633357	101633457	+	chr7	101671378	101671425	+	ENST00000457254,ENST00000344111	24210-24211	22,22
chr7	1016680	1016613	-	chr7	1012928	1012817	-	ENST00000437600,ENST00000292538,ENST00000393824,ENST00000547394,ENST00000360264,ENST00000425244,ENST00000292535,ENST00000546411,ENST00000549414,ENST00000550008,ENST00000556210	24212-24219	23,13,23,23,23,23,23,23
chr7	101810266	101810334	+	chr7	101813726	101813830	+	ENST00000457254,ENST00000344111	24220-24223	31,42,21,21
chr7	1018743	1018450	-	chr7	1012928	1012817	-	ENST00000496391,ENST00000462601,ENST00000397912,ENST00000354783	24224-24228	4,25,1,25,1
chr7	102040788	102040872	+	chr7	102045045	102045130	+	ENST00000495936,ENST00000356387,ENST00000478730,ENST00000468241,ENST00000403646,ENST00000498661,ENST00000473939	24229-24235	17,5,16,17,17,17,16
chr7	102080245	102080295	+	chr7	102086960	102087422,1	+	ENST00000292616,ENST00000485808	24236-24238	7,16,16
chr7	102105988	102106128	+	chr7	102106264	102106498	+			

Table 10

						ENST00000292614,ENST000		7,33,33
chr7	102118729	102118507 -	chr7	102116717	102116628 -	00393794	24239-24241	
						ENST00000379357,ENST000		33,6,11,6,6,
						00486319,ENST00000513506		6
chr7	102186836	102186736 -	chr7	102182109	102181948 -	,ENST00000514917	24242-24247	
chr7	102186836	102186736 -	chr7	102185867	102185864 -	ENST00000507355	24248-24250	33,6,11
						ENST00000379357,ENST000		17,16
						00486319,ENST00000513506		
chr7	102186836	102186786 -	chr7	102182109	102181948 -	,ENST00000514917	24251-24252	
chr7	102186836	102186786 -	chr7	102185867	102185864 -	ENST00000507355	24253-24254	17,16
						ENST00000489144,ENST000		3,2,2,2,2,2,2
						00379340,ENST00000486319		,2
						,ENST00000508848,ENST000		
						00513506,ENST00000514917		
						,ENST00000507355,ENST000		
						00608621,ENST00000511313		
chr7	102211924	102211916 -	chr7	102210371	102210282 -	,ENST00000513438	24255-24262	
						ENST00000292614,ENST000		1,1,1,1
chr7	102212088	102212084 -	chr7	102116717	102116628 -	00393794	24263-24266	
						ENST00000262940,ENST000		32,11,23,23,
						00461209,ENST00000449970		23,11
						,ENST00000462172,ENST000		
chr7	102238169	102238072 -	chr7	102236576	102236459 -	00522801	24267-24272	
						ENST00000541662,ENST000		24,11,2,2
						00465829,ENST00000306682		
chr7	102246155	102246056 -	chr7	102143691	102143610 -		24273-24276	
						ENST00000379357,ENST000		33,6,11,6,6,
						00486319,ENST00000513506		6
chr7	102285927	102285827 -	chr7	102182109	102181948 -	,ENST00000514917	24277-24282	
chr7	102285927	102285827 -	chr7	102185867	102185864 -	ENST00000507355	24283-24285	33,6,11
						ENST00000519541,ENST000		33,6,11,6,6
						00340457,ENST00000333432		
chr7	102285927	102285827 -	chr7	102281220	102281059 -		24286-24290	
						ENST00000519541,ENST000		33,6,11,6
chr7	102285927	102285827 -	chr7	102283154	102283077 -	00340457	24291-24294	
chr7	102285927	102285877 -	chr7	102185867	102185864 -	ENST00000507355	24295-24296	17,16
						ENST00000519541,ENST000		17,16
						00340457,ENST00000333432		
chr7	102285927	102285877 -	chr7	102281220	102281059 -		24297-24298	
						ENST00000292614,ENST000		1,1,1,1
chr7	102311168	102311164 -	chr7	102116717	102116628 -	00393794	24299-24302	
						ENST00000489144,ENST000		1,1,1,1,1,1,1
						00379340,ENST00000486319		,1,1,1,1,1,
						,ENST00000508848,ENST000		1
						00513506,ENST00000514917		
						,ENST00000507355,ENST000		
						00608621,ENST00000511313		
chr7	102311168	102311164 -	chr7	102210371	102210282 -	,ENST00000513438	24303-24316	
						ENST00000591000,ENST000		1,1,1,1,1,1
						00476151,ENST00000333432		
chr7	102311168	102311164 -	chr7	102309451	102309362 -	,ENST00000358438	24317-24322	
						ENST00000409231,ENST000		55,15,19
chr7	102410788	102411767 +	chr7	102412856	102412897 +	00413034	24323-24325	
						ENST00000409231,ENST000		23,5,17
chr7	102421125	102421195 +	chr7	102427782	102427916 +	00413034	24326-24328	
						ENST00000249269,ENST000		19,5,39,39,3
						00428154,ENST00000456433		9,39,39
						,ENST00000443722,ENST000		
chr7	102909917	102910035 +	chr7	102939015	102939155 +	00453466	24329-24335	
						ENST00000249269,ENST000		3,2,2,3,3
						00428154,ENST00000420236		
chr7	102950141	102950149 +	chr7	102950762	102950922 +		24336-24340	
						ENST00000297431,ENST000		1,10,8
chr7	103777835	103777591 -	chr7	103777340	103777228 -	00545943	24341-24343	
						ENST00000297431,ENST000		29,24,11,29
						00545943,ENST00000447452		
chr7	103819696	103819596 -	chr7	103808973	103808921 -		24344-24347	
						ENST00000311117,ENST000		15,1
						00334914,ENST00000257745		
chr7	104749017	104749109 +	chr7	104749389	104749675 +	,ENST00000334877	24348-24349	
						ENST00000393651,ENST000		7,32,18,32,3
						00357311,ENST00000489828		2
						,ENST00000482897,ENST000		
chr7	104872600	104872478 -	chr7	104844232	104844075 -	00460391	24350-24354	

Table 10

							ENST00000393651,ENST00000357311,ENST00000489828,ENST00000482897,ENST00000460391	24355-24359	17,33,10,33,33
chr7	105039998	105039603	-	chr7	104844232	104844075	-		
chr7	105198991	105199089	+	chr7	105204180	105204394	+	ENST00000257700	24360-24362	11,13,32
chr7	105920839	105920124	-	chr7	105917625	105917469	-	ENST00000222553,ENST00000354289,ENST00000424768,ENST00000417537	24363-24367	30,19,19,19,19
chr7	107190146	107190096	-	chr7	107188777	107188723	-	ENST00000347053,ENST00000297135,ENST00000393603,ENST00000605888	24368-24373	17,7,16,16,16,16
chr7	107256472	107256836	+	chr7	107258773	107258808	+	ENST00000005259,ENST00000465919,ENST00000445771,ENST00000379117,ENST00000379119	24374-24375	43,1
chr7	107521491	107521557	+	chr7	107533645	107533723	+	ENST00000205402,ENST00000415325,ENST00000417551,ENST00000440410,ENST00000437604,ENST00000450038,ENST00000451081	24376-24384	22,11,21,22,11,11,11,11,11
chr7	107521491	107521557	+	chr7	107542183	107542262	+	ENST00000205402,ENST00000417551,ENST00000440410,ENST00000437604,ENST00000450038,ENST00000451081	24385-24391	22,11,21,22,22,22,22
chr7	107624992	107624924	-	chr7	107621256	107621054	-	ENST00000393561,ENST00000222399,ENST00000393560	24392-24393	14,22
chr7	108135184	108135067	-	chr7	108131911	108131854	-	ENST00000426128,ENST00000388728,ENST00000257694,ENST00000422087,ENST00000453144,ENST00000436062,ENST00000453085	24394-24398	12,38,38,38,38
chr7	108158707	108158634	-	chr7	108155891	108154880,1(	-	ENST00000426128,ENST00000388728,ENST00000257694,ENST00000422087,ENST00000436062,ENST00000427008,ENST00000415498	24399-24404	5,24,5,5,5,5
chr7	11012444	11013130	+	chr7	11014462	11014572	+	ENST00000521747,ENST00000403050,ENST00000423760	24405-24408	39,14,42,42
chr7	110312477	110312222	-	chr7	110303777	110303658	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362	24409-24410	28,32
chr7	110740160	110740041	-	chr7	110603621	110603556	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362,ENST00000447215,ENST00000437687	24411-24413	2,20,20
chr7	110743897	110743878	-	chr7	110603621	110603556	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362,ENST00000447215,ENST00000437687	24414-24417	6,6,1,6
chr7	110956258	110956039	-	chr7	110603621	110603556	-	ENST00000405709,ENST00000331762,ENST00000452895,ENST00000450877,ENST00000415362,ENST00000447215,ENST00000437687	24418-24421	11,16,7,7
chr7	111475264	111475146	-	chr7	111474742	111474644	-	ENST00000423057,ENST00000428084,ENST00000437633,ENST00000445943	24422-24426	11,19,18,18,18
chr7	111726631	111726569	-	chr7	111644186	111644103	-	ENST00000428084,ENST00000437633,ENST00000445943	24427-24431	21,6,2,2,2
chr7	114556578	114556717	+	chr7	114582330	114582452	+	ENST00000257724,ENST00000393486,ENST00000431629,ENST00000427207	24432-24435	1,3,3,3
chr7	115665746	115665671	-	chr7	115624567	115624316	-	ENST00000484212	24436-24437	4,9
chr7	116527299	116527485	+	chr7	116528181	116528244	+	ENST00000361183,ENST00000458284,ENST00000490693,ENST00000426421	24438-24443	27,30,7,30,30,30

Table 10

							ENST00000361183,ENST00000458284,ENST00000490693	22,12,2,22,22,2
chr7	116543102	116543212	+	chr7	116544231	116544437	+ ,ENST00000426421	24444-24449
chr7	116555054	116555100	+	chr7	116556114	116556176	+ ENST00000361183	24450-24451 7,15
							ENST00000393446,ENST00000265437,ENST00000393451,ENST00000323984,ENST00000393449,ENST00000446490,ENST00000422922,ENST00000432298,ENST00000393443,ENST00000393444,ENST00000393447,ENST00000490039	32,12,12,12,12,12,12
chr7	116821936	116822139	+	chr7	116829375	116829447	+	24452-24458
							ENST00000393446,ENST00000265437,ENST00000393451,ENST00000323984,ENST00000393449,ENST00000446490,ENST00000422922,ENST00000432298,ENST00000393443,ENST00000393444,ENST00000393447,ENST00000490039	36,22,36,36,36,36,36
chr7	116822525	116822799	+	chr7	116829375	116829447	+	24459-24465
chr7	117192906	117193207	+	chr7	117355812	117355913	+ ENST00000600166	24466-24468 8,17,69
							ENST00000003084,ENST00000454343,ENST00000426809	38,7,19,38,38
chr7	117294491	117294775	+	chr7	117304742	117304914	+ ,ENST00000600166	24469-24473
chr7	117315827	117316049	+	chr7	117355812	117355913	+ ENST00000600166	24474-24476 3,16,53
							ENST00000249299,ENST00000422760	5,15,1
chr7	117830877	117831084	+	chr7	117831966	117832056	+	24477-24479
							ENST00000310396,ENST00000428526,ENST00000450913	7,18,46,46,46
chr7	120702727	120703004	+	chr7	120704292	120704367	+	24480-24484
chr7	120901480	120901824	+	chr7	120906281	120906501	+ ENST00000310396	24485-24487 21,8,1
							ENST00000361301,ENST00000222462	23,44,18
chr7	120955874	120956019	+	chr7	120969621	120969871	+	24488-24490
							ENST00000361301,ENST00000222462	5,26,14
chr7	120955874	120958168	+	chr7	120969621	120969871	+	24491-24493
							ENST00000359943,ENST00000412653,ENST00000426156	4,2,2,2
chr7	121010362	121010312	-	chr7	121004242	121004184	-	24494-24497
							ENST00000359943,ENST00000412653,ENST00000426156	20,29,28,20,20
chr7	121018537	121018450	-	chr7	121012193	121012164	-	24498-24502
							ENST00000393376,ENST00000417368,ENST00000358954	24,11,32,11,11
chr7	121758008	121757909	-	chr7	121757011	121756933	- ,ENST00000431170	24503-24507
							ENST00000313070,ENST00000334010,ENST00000412584,ENST00000449022,ENST00000397721	24,11
chr7	122181559	122181459	-	chr7	122153369	122153303	-	24508-24509
							ENST00000471770,ENST00000355749,ENST00000378795,ENST00000466896,ENST00000470123	1,19,45,19,19
chr7	123191558	123191422	-	chr7	123190638	123190524	-	24510-24514
							ENST00000471770,ENST00000355749,ENST00000378795,ENST00000466896,ENST00000470123	7,15,15,15
chr7	123191558	123191512	-	chr7	123190640	123190524	-	24515-24518
							ENST00000471770,ENST00000355749,ENST00000378795,ENST00000466896,ENST00000470123	40,7,40,40
chr7	123193589	123193308	-	chr7	123190640	123190524	-	24519-24522
							ENST00000471770,ENST00000355749,ENST00000378795,ENST00000466896,ENST00000470123	27,2,27,27
chr7	123196761	123195939	-	chr7	123190640	123190524	-	24523-24526
							ENST00000444921,ENST00000339582,ENST00000358373,ENST00000341617,ENST00000472701,ENST00000405249	10,6,9,10,10
chr7	126341173	126341143	-	chr7	126249552	126249416	-	24527-24531
chr7	127444689	127444778	+	chr7	127447538	127447627	+ ENST00000354725	24532-24533 11,4
							ENST00000354725,ENST00000486037	15,66,5,66,5
chr7	127590996	127591408	+	chr7	127631000	127631109	+	24534-24538

Table 10

						ENST00000262432,ENST000		49,26,1
chr7	128102917	128103542	+	chr7	128119212	128119567	+	00480046	24539-24541	
								ENST00000325006,ENST000		13,2,9,2,9,2
								00446544,ENST00000531335		
								,ENST00000460109,ENST000		
								00474594,ENST00000446212		
								,ENST00000490911,ENST000		
								00466993,ENST00000466924		
chr7	128913469	128914267	+	chr7	129019482	129019590	+		24542-24547	
								ENST00000249344,ENST000		10,6,4,4
chr7	129094557	129094700	+	chr7	129095085	129095212	+	00435494	24548-24551	
								ENST00000358303,ENST000		33,23,1
								00360708,ENST00000311873		
chr7	129659188	129659090	-	chr7	129658572	129658504	-	,ENST00000481503	24552-24554	
								ENST00000358303,ENST000		53,39,53
								00360708,ENST00000311873		
								,ENST00000481503,ENST000		
								00483827,ENST00000480193		
chr7	129681309	129681142	-	chr7	129679387	129679304	-		24555-24557	
								ENST00000358303,ENST000		24,11,2,24,2
								00360708,ENST00000311873		4,24
								,ENST00000481503,ENST000		
chr7	129681309	129681228	-	chr7	129680925	129680791	-	00480193	24558-24563	
								ENST00000358303,ENST000		7,10,10,10,1
								00360708,ENST00000311873		0,10,10,10
								,ENST00000481503,ENST000		
								00483827,ENST00000480193		
chr7	129681309	129681278	-	chr7	129679387	129679304	-		24564-24571	
								ENST00000358303,ENST000		7,10,10,10,1
								00360708,ENST00000311873		0,10
								,ENST00000481503,ENST000		
chr7	129681309	129681278	-	chr7	129680925	129680791	-	00480193	24572-24577	
								ENST00000335420,ENST000		33,6,24,33,6
								00463413,ENST00000468226		,24,24
chr7	129757411	129757509	+	chr7	129760589	129760743	+		24578-24584	
								ENST00000335420,ENST000		27,10,1,27,1
								00463413,ENST00000468226		0,1,1
chr7	129757411	129757674	+	chr7	129760589	129760743	+		24585-24591	
								ENST00000222482,ENST000		58,6,6,6
								00470542,ENST00000492072		
chr7	129939399	129939607	+	chr7	129940656	129940754	+		24592-24595	
								ENST00000223208,ENST000		4,10,9,4,9,4,
								00541543,ENST00000484549		4,4,4,9,4,9
								,ENST00000343969,ENST000		
								00477003,ENST00000471201		
chr7	130069250	130068798	-	chr7	130067859	130067796	-	,ENST00000489512	24596-24607	
								ENST00000223215,ENST000		10,21,30,10
chr7	130124576	130124706	+	chr7	130135209	130135363	+	00437945	24608-24611	
								ENST00000352689,ENST000		1,42
chr7	131023563	131023742	+	chr7	131060183	131060252	+	00458153	24612-24613	
								ENST00000321063,ENST000		27,32,32,27,
								00359827,ENST00000423507		27
chr7	132174509	132174411	-	chr7	132174233	132174051	-	,ENST00000378539	24614-24618	
								ENST00000378509,ENST000		4,58,58
chr7	134005265	134004891	-	chr7	133994231	133994118	-	00416907	24619-24621	
								ENST00000344924,ENST000		13,22,21
								00418040,ENST00000393132		
chr7	134357645	134357711	+	chr7	134363605	134363783	+		24622-24624	
								ENST00000344400,ENST000		22,13,21,13
								00423565,ENST00000354475		
chr7	134931896	134931830	-	chr7	134894507	134894328	-		24625-24628	
								ENST00000541284,ENST000		4,28,21,21,2
								00451834,ENST00000423368		1,21,21,21,2
								,ENST00000361528,ENST000		1
								00414802,ENST00000356162		
								,ENST00000428680,ENST000		
chr7	135118095	135117338	-	chr7	135107102	135106905	-	00315544	24629-24637	
chr7	135326721	135326987	+	chr7	135327940	135328106	+	ENST00000285968	24638-24640	13,34,1
								ENST00000288490,ENST000		4,15,15,15
								00424189,ENST00000446122		
chr7	137388132	137387856	-	chr7	137374748	137374640	-		24641-24644	
								ENST00000343526,ENST000		12,11,7,7
chr7	138147385	138147420	+	chr7	138189035	138189153	+	00415680	24645-24648	

Table 10

						ENST00000343526,ENST00000415680	24649-24652	10,23,5,10
						ENST00000288561,ENST00000473989,ENST00000483726	24653-24656	13,34,21,13
						ENST00000608368,ENST00000456182	24657-24662	24,2,17,24,2,17
						ENST00000263549,ENST00000489809	24663-24668	13,21,1,13,2 1,1
						ENST00000263549,ENST00000489809	24669-24672	7,37,7,37
						ENST00000255977,ENST00000474576,ENST00000443720,ENST00000471104,ENST00000467513,ENST00000494939		13,2,2,2,2,2,2
						,ENST00000473444	24673-24679	
						ENST00000288602,ENST00000497784	24680-24684	39,49,1,49,1
						ENST00000565468	24685-24687	18,47,7
						ENST00000355413,ENST00000473247,ENST00000535825		4,4,4,4
						,ENST00000494688	24688-24691	
						ENST00000355413,ENST00000473247,ENST00000535825		37,33,37
						,ENST00000494688	24692-24694	
						ENST00000355413,ENST00000473247,ENST00000535825		3,1,8,3
						,ENST00000494688	24695-24698	
						ENST00000549489,ENST00000475668	24699-24702	37,12,24,37
						ENST00000390368	24703-24705	18,60,7
						ENST00000444908,ENST00000518791,ENST00000357344,ENST00000441159,ENST00000411935,ENST00000409703		18,2,11,18,1 8
							24706-24710	
						ENST00000444908,ENST00000518791,ENST00000357344,ENST00000441159,ENST00000411935,ENST00000409703		18,2,11,18,1 8
							24711-24715	
						ENST00000258767,ENST00000399322,ENST00000403951,ENST00000402815,ENST00000407950,ENST00000444700		8,5,7,5
						,ENST00000406247	24716-24719	
						ENST00000360057,ENST00000538212,ENST00000549981		18,38,7,38
						,ENST00000378099	24720-24723	
						ENST00000360057,ENST00000378099,ENST00000378098		7,21,19,21,2 1,21
						,ENST00000552881	24724-24729	
						ENST00000405088,ENST00000297508	24730-24732	23,14,22
						ENST00000405088,ENST00000297508	24733-24735	23,14,22
						ENST00000361727	24736-24737	19,4
						ENST00000409469,ENST00000602748,ENST00000325222		8,12,3
							24738-24740	
						ENST00000492143,ENST00000478654,ENST00000460911,ENST00000320356,ENST00000541220,ENST00000476773,ENST00000483967,ENST00000483012		47,1,3,1,1,1,47,1
							24741-24748	
						ENST00000492143,ENST00000478654,ENST00000460911,ENST00000350995,ENST00000320356,ENST00000541220,ENST00000476773,ENST00000483967,ENST00000483012		1,3,1,1,1,1,1,1
							24749-24756	

Table 10

chr7	148773978	148773846	-	chr7	148771630	148771478	-	ENST00000491431,ENST00000451334	24757-24758	44,1
chr7	148781170	148780748	-	chr7	148777809	148777683	-	ENST00000491431	24759-24761	5,23,7
chr7	148781170	148780912	-	chr7	148771630	148771478	-	ENST00000491431,ENST00000451334	24762-24763	67,4
chr7	148781170	148780912	-	chr7	148777809	148777683	-	ENST00000491431	24764-24765	67,4
chr7	148781170	148781001	-	chr7	148777809	148777683	-	ENST00000491431	24766-24768	37,2,11
chr7	148786708	148786522	-	chr7	148777809	148777683	-	ENST00000491431	24769-24770	15,7
chr7	148939416	148940076	+	chr7	148947250	148947639	+	ENST00000335870	24771-24773	3,22,4
chr7	149464940	149464818	-	chr7	149463328	149461803	-	ENST00000302017	24774-24776	41,31,1
chr7	149999993	149999931	-	chr7	149992432	149992395	-	ENST00000478393,ENST00000477871	24777-24782	21,20,20,21,20,20
chr7	149999993	149999931	-	chr7	149992436	149992395	-	ENST00000478393,ENST00000477871	24783-24788	21,20,20,21,20,20
chr7	150655934	150655920	-	chr7	150648787	150648536	-	ENST00000330883,ENST00000392968,ENST00000262186,ENST00000430723	24789-24792	5,4,4,4
chr7	150756839	150756849	+	chr7	150761289	150761454	+	ENST00000483786,ENST00000485713,ENST00000413384,ENST00000490898,ENST00000482950,ENST00000463414,ENST00000488420,ENST00000392826,ENST00000461735	24793-24805	3,3,3,3,3,3,3,3,3,3,3,3
chr7	150777427	150777296	-	chr7	150776108	150775929	-	ENST00000353841,ENST00000297532,ENST00000482571	24806-24808	2,16,2
chr7	150913899	150913800	-	chr7	150913115	150913053	-	ENST00000222388,ENST00000287844	24809-24812	33,6,10,6
chr7	150914542	150913995	-	chr7	150913115	150913053	-	ENST00000222388,ENST00000287844	24813-24816	32,11,5,5
chr7	151097768	151097627	-	chr7	151097327	151097186	-	ENST00000334493,ENST00000469830	24817-24820	1,15,6,1
chr7	151255656	151255596	-	chr7	151254318	151254287	-	ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801	24821-24822	20,13
chr7	151273886	151273701	-	chr7	151273538	151273457	-	ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000476632	24823-24825	27,52,27
chr7	151303270	151303180	-	chr7	151292540	151292431	-	ENST00000287878,ENST00000418337,ENST00000492843,ENST00000392801,ENST00000488258,ENST00000476632	24826-24831	6,11,29,6,29,6
chr7	151317864	151317723	-	chr7	151292537	151292431	-	ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000488258,ENST00000476632	24832-24836	1,1,4,4,1
chr7	151317864	151317723	-	chr7	151292540	151292431	-	ENST00000287878,ENST00000418337,ENST00000492843,ENST00000392801,ENST00000488258,ENST00000476632	24837-24842	1,25,4,1,4,1
chr7	151857683	151857636	-	chr7	151856157	151855948	-	ENST00000360104,ENST00000262189,ENST00000355193,ENST00000424877	24843-24848	16,15,15,16,16,16
chr7	152523224	152523266	+	chr7	152549211	152549336	+	ENST00000256001,ENST00000397282,ENST00000537264	24849-24850	3,5
chr7	15494706	15494526	-	chr7	15470733	15470630	-	ENST00000342526	24851-24852	19,8
chr7	15551068	15550735	-	chr7	15470733	15470630	-	ENST00000342526	24853-24855	111,2,9
chr7	155562311	155562411	+	chr7	155567253	155567341	+	ENST00000401878,ENST00000341148,ENST00000392755	24856-24858	29,5,5
chr7	156483081	156483036	-	chr7	156480885	156480724	-	ENST00000353442,ENST00000415428,ENST00000354505	24859-24860	15,14

Table 10

							ENST00000353442,ENST000		77,1,47,47,7
							00415428,ENST00000354505		7,1,47,77,1,
							,ENST00000454132,ENST000		47,77,47,77,
							00434503,ENST00000444719		1,47
chr7	156656235	156655871	-	chr7	156629579	156629507	- ,ENST00000434453	24861-24875	
chr7	156960055	156960063	+	chr7	156961742	156961816	+ ENST00000348165	24876-24878	3,2,1
							ENST00000389413,ENST000		18,36,22,18
							00389416,ENST00000389418		
chr7	158230787	158229356	-	chr7	158109624	158109511	- ,ENST00000404321	24879-24882	
							ENST00000541468,ENST000		24,11,2,11
							00356309,ENST00000409423		
							,ENST00000441982,ENST000		
							00275830,ENST00000409339		
chr7	158440675	158440576	-	chr7	158439255	158439152	- ,ENST00000449727	24883-24886	
							ENST00000541468,ENST000		13,9,49,13
							00356309,ENST00000409423		
							,ENST00000441982,ENST000		
							00275830,ENST00000409339		
chr7	158442209	158442060	-	chr7	158439255	158439152	- ,ENST00000449727	24887-24890	
							ENST00000541468,ENST000		4,12,2,2,2
							00356309,ENST00000409423		
							,ENST00000441982,ENST000		
							00275830,ENST00000409339		
chr7	158450080	158450017	-	chr7	158449397	158449244	- ,ENST00000449727	24891-24895	
							ENST00000356309,ENST000		29,23,1,29,2
							00409423,ENST00000441982		9
							,ENST00000275830,ENST000		
							00409339,ENST00000449727		
chr7	158465332	158465234	-	chr7	158464358	158464206	-	24896-24900	
							ENST00000432615,ENST000		20,40,20,20
							00356309,ENST00000409423		
							,ENST00000409339,ENST000		
chr7	158489092	158488970	-	chr7	158486189	158486001	- 00449727	24901-24904	
							ENST00000251527,ENST000		35,3,21,35
chr7	158584934	158583871	-	chr7	158581108	158581036	- 00275418	24905-24908	
chr7	158667737	158667773	+	chr7	158669300	158669382	+ ENST00000407559	24909-24910	10,11
							ENST00000407559,ENST000		19,25
chr7	158684760	158684836	+	chr7	158694430	158694507	+ 00444851	24911-24912	
							ENST00000407559,ENST000		42,7,42
chr7	158692225	158692504	+	chr7	158694430	158694507	+ 00444851	24913-24915	
							ENST00000407559,ENST000		19,13,21
chr7	158731473	158731537	+	chr7	158734616	158734839	+ 00454771	24916-24918	
							ENST00000407559,ENST000		9,1,21
chr7	158734291	158734423	+	chr7	158734616	158734839	+ 00454771	24919-24921	
							ENST00000399310,ENST000		7,27
chr7	16319816	16319536	-	chr7	16317851	16317754	- 00407010	24922-24923	
							ENST00000399310,ENST000		14,32,26
chr7	16398015	16397447	-	chr7	16348252	16348148	- 00407010	24924-24926	
							ENST00000399310,ENST000		1,7,7
chr7	16458455	16458131	-	chr7	16445962	16445686	- 00407010	24927-24929	
							ENST00000306999,ENST000		4,3,4
chr7	16678572	16678020	-	chr7	16676080	16676016	- 00447802	24930-24932	
chr7	16761228	16761518	+	chr7	16815836	16816003	+ ENST00000262067	24933-24935	1,7,41
							ENST00000419304,ENST000		11,31,22,22,
							00450569,ENST00000419572		22
chr7	16836846	16836751	-	chr7	16834643	16834560,168	- ,ENST00000401412	24936-24940	
chr7	16842289	16842051	-	chr7	16841427	16841282	- ENST00000419572	24941-24943	3,8,10
chr7	16842757	16842467	-	chr7	16841427	16841282	- ENST00000419572	24944-24946	29,20,6
chr7	16842757	16842690	-	chr7	16841425	16841282	- ENST00000419572	24947-24948	13,21
							ENST00000310398,ENST000		11,28,6,6,6
							00402239,ENST00000414935		
chr7	16920082	16919984	-	chr7	16913467	16913404	-	24949-24953	
							ENST00000428135,ENST000		18,39
chr7	17914890	17914744	-	chr7	17913239	17913151	- 00409389	24954-24955	
							ENST00000417496,ENST000		9,1
chr7	18434767	18434806	+	chr7	18535885	18535947	+ 00406072	24956-24957	
							ENST00000417496,ENST000		70,25,37,37,
							00405010,ENST00000406451		37
							,ENST00000428307,ENST000		
							00406072,ENST00000401921		
							,ENST00000432645,ENST000		
							00441542,ENST00000456174		
chr7	18697331	18697665	+	chr7	18705836	18706150,2	+ ,ENST00000524023	24958-24962	

Table 10

							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235	24963-24968	62,40,97,62,40,97
chr7	1895178	1894595	-	chr7	1855864	1855706,19	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235	24969-24972	23,57,23,57
chr7	1895178	1894714	-	chr7	1855864	1855706,19	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235	24973-24978	33,43,1,33,43,1
chr7	1895496	1895366	-	chr7	1855864	1855706,19	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235,ENST00000437877	24979-24985	32,11,31,32,31,32,31
chr7	1961254	1961158	-	chr7	1938026	1937836	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235,ENST00000437877	24986-24992	18,4,1,18,4,18,4
chr7	1963896	1963826	-	chr7	1938026	1937836	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235,ENST00000437877	24993-24999	2,3,9,3,9,3,9
chr7	1965333	1965031	-	chr7	1938026	1937836	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000450235,ENST00000437877	25000-25003	8,41,8,8
chr7	1965333	1965071	-	chr7	1938026	1937836	-		
chr7	197500	197583	+	chr7	208898	208976	+	ENST00000313766	25004-25006	3,4,27
							ENST00000400331,ENST00000332878,ENST00000589011	25007-25008	3,2
chr7	20195197	20195124	-	chr7	20194004	20193816	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000438959,ENST00000444373	25009-25012	10,4,4,4
chr7	2059680	2059649	-	chr7	2041756	2041700	-		
							ENST00000404938,ENST00000258738	25013-25015	14,1,37
chr7	20707326	20708127	+	chr7	20721128	20721289	+		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854,ENST00000438959	25016-25018	11,1,1
chr7	2079513	2078618	-	chr7	2054277	2054137	-		
							ENST00000356195,ENST00000406877,ENST00000373934,ENST00000457951,ENST00000447180,ENST00000435031	25019-25024	32,23,11,11,11,11
chr7	21950944	21950847	-	chr7	21948125	21947748,219	-		
							ENST00000356195,ENST00000406877,ENST00000373934,ENST00000457951,ENST00000447180,ENST00000435031	25025-25029	22,12,22,22,22
chr7	21950944	21950879	-	chr7	21948125	21947748,219	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854	25030-25032	54,52,32
chr7	2213442	2213209	-	chr7	2188873	2188787	-		
							ENST00000402746,ENST00000399654,ENST00000406869,ENST00000265854	25033-25035	15,30,18
chr7	2214538	2214005	-	chr7	2188873	2188787	-		
chr7	22512874	22512791	-	chr7	22478374	22478108	-	ENST00000404369	25036-25038	28,6,17
chr7	22531483	22531389	-	chr7	22459455	22459423	-	ENST00000406890	25039-25041	31,22,1
							ENST00000399654,ENST00000406869,ENST00000265854,ENST00000455998,ENST00000429779	25042-25048	39,92,1,39,92,1,39
chr7	2270564	2270184	-	chr7	2269699	2269619	-		
							ENST00000242257,ENST00000440306	25049-25052	6,41,1,41
chr7	2281236	2281113	-	chr7	2279311	2279053	-		
							ENST00000242257,ENST00000440306	25053-25056	6,41,1,1
chr7	2281236	2281113	-	chr7	2279342	2279053	-		

Table 10

							ENST00000397049,ENST00000397048,ENST00000343985	17,7
chr7	2283126	2283176	+	chr7	2284198	2284361	+	25057-25058
							ENST00000432176,ENST00000440481,ENST00000409923	26,37,12,12,12
chr7	23087035	23086305	-	chr7	23023664	23023563	-	,ENST00000409763 25059-25063
chr7	23087035	23086305	-	chr7	23053658	23053544	-	ENST00000440481 25064-25066 26,37,12
chr7	23358143	23358043	-	chr7	23357332	23357258	-	ENST00000258729 25067-25068 24,11
chr7	23385803	23385778	-	chr7	23385681	23385559	-	ENST00000258729 25069-25071 8,8,6
chr7	23455826	23455748	-	chr7	23401360	23401309	-	ENST00000258729 25072-25074 1,8,25
chr7	23455826	23455820	-	chr7	23401360	23401309	-	ENST00000258729 25075-25076 2,1
							ENST00000409192,ENST00000344962,ENST00000409653	22,11,22,22
chr7	23726838	23726905	+	chr7	23728888	23729078	+	,ENST00000409994 25077-25080
							ENST00000355870,ENST00000456014,ENST00000433467,ENST00000354639,ENST00000531170,ENST00000444333	33,5,10,33,3,3,33,33
chr7	23754955	23755053	+	chr7	23757100	23757198,2	+	,ENST00000428484 25081-25087
							ENST00000355870,ENST00000433467,ENST00000354639	21,7,35,21
chr7	23827033	23827350	+	chr7	23827599	23827748	+	,ENST00000428484 25088-25091
							ENST00000342947,ENST00000409775	1,29,23
chr7	24824279	24823940	-	chr7	24784373	24784181	-	25092-25094
							ENST00000342947,ENST00000409775	64,38,15
chr7	24834969	24834709	-	chr7	24784373	24784181	-	25095-25097
							ENST00000313367,ENST00000352860,ENST00000353930,ENST00000431825,ENST00000396431,ENST00000396429	8,8
chr7	24849861	24849836	-	chr7	24849570	24849426	-	,ENST00000409069 25098-25099
							ENST00000337620,ENST00000396386,ENST00000456948,ENST00000409747,ENST00000462165	23,13,3,23,2,3,23
chr7	26245424	26245492	+	chr7	26245988	26246130	+	25100-25105
							ENST00000337620,ENST00000396386,ENST00000409747	38,18,5,5
chr7	26249628	26249848	+	chr7	26251282	26251376,3	+	25106-25109
							ENST00000265395,ENST00000425715	35,53,8,35
chr7	27581923	27580058	-	chr7	27578036	27577960	-	25110-25113
							ENST00000265395,ENST00000428288,ENST00000425715	3,3,3,3
chr7	27683231	27683220	-	chr7	27672060	27671955,3	-	25114-25117
							ENST00000265395,ENST00000425715	11,6,71,71
chr7	27687049	27686771	-	chr7	27582719	27582586	-	25118-25121
							ENST00000543117,ENST00000265393,ENST00000409980,ENST00000433216,ENST00000396319	15,15,15,15
chr7	27811462	27811507	+	chr7	27824782	27824930	+	25122-25125
							ENST00000543117,ENST00000265393,ENST00000409980,ENST00000433216,ENST00000396319,ENST00000457186	33,2,16,33
chr7	27855373	27855471	+	chr7	27855968	27856013,3	+	25126-25129
							ENST00000543117,ENST00000265393,ENST00000409980,ENST00000433216,ENST00000396319,ENST00000457186	1,12,29,12
chr7	27855373	27855511	+	chr7	27855968	27856013,3	+	25130-25133
							ENST00000543117,ENST00000265393,ENST00000409980,ENST00000433216,ENST00000396319,ENST00000457186	3,3,2
chr7	27863899	27863908	+	chr7	27867357	27867439	+	25134-25136
							ENST00000427814,ENST00000283928,ENST00000430432	5,7,7,7,7
chr7	27886073	27886050	-	chr7	27880486	27880317	-	,ENST00000447620 25137-25141
							ENST00000275364,ENST00000407904,ENST00000396960	3,38
chr7	2819986	2819777	-	chr7	2773135	2773085	-	,ENST00000407653 25142-25143
							ENST00000396299,ENST00000357727,ENST00000396300,ENST00000409603,ENST00000396298	43,41,6
chr7	28637666	28637935	+	chr7	28758370	28758496	+	25144-25146

Table 10

							ENST00000275364,ENST00000407904,ENST00000544127,ENST00000447791	25147-25150	7,3,3,3
chr7	2882231	2882047	-	chr7	2834777	2834562,28	-	ENST00000396946	25151-25152	4,46
chr7	2982397	2982258	-	chr7	2979562	2979383	-	ENST00000409123,ENST00000242140,ENST00000409290	25153-25156	9,32,47,47
chr7	29898684	29898934	+	chr7	29915446	29915578	+	ENST00000409290	25157-25159	45,28,32
chr7	29944971	29945236	+	chr7	29954109	29954132	+	ENST00000242059,ENST00000426154,ENST00000409497,ENST00000434476,ENST00000421434,ENST00000438497	25160-25165	6,11,28,11,11,11
chr7	30007143	30007044	-	chr7	29994976	29994795	-	,ENST00000409570	25166-25167	9,8
chr7	30267335	30267361	+	chr7	30363258	30363353	+	ENST00000323037	25168-25169	8,3
chr7	30360246	30360270	+	chr7	30363258	30363353	+	ENST00000323037	25170-25172	17,7,16
chr7	30363868	30363918	+	chr7	30395344	30395449	+	ENST00000396184,ENST00000396182	25173-25174	5,24
chr7	31843013	31842105	-	chr7	31829873	31829860	-	ENST00000318709,ENST00000409301,ENST00000404479	25175-25179	30,4,30,30,30
chr7	32554715	32554806	+	chr7	32582753	32582873	+	ENST00000318709,ENST00000409301,ENST00000446718	25180-25184	19,14,36,19,19
chr7	32602265	32602375	+	chr7	32609632	32609766	+	ENST00000318709,ENST00000409301,ENST00000446718	25185-25188	5,23,5,5
chr7	32602265	32602525	+	chr7	32609632	32609766	+	ENST00000610140,ENST00000381626,ENST00000396152,ENST00000242210,ENST00000405342,ENST00000409467,ENST00000409787	25189-25192	29,8,5,5
chr7	33060685	33059974	-	chr7	33059336	33059247	-	ENST00000610140,ENST00000381626,ENST00000396152,ENST00000242210,ENST00000405342,ENST00000409467,ENST00000409787,ENST00000449201	25193-25196	24,11,11,11
chr7	33066405	33066305	-	chr7	33063720	33063651,3	-	ENST00000297161,ENST00000426693,ENST00000436222	25197-25201	9,7,20,9,7
chr7	34013694	34013757	+	chr7	34014314	34014396,3	+	ENST00000297161,ENST00000426693	25202-25204	66,6,4
chr7	34017619	34017963	+	chr7	34085918	34086017	+	ENST00000297161,ENST00000426693	25205-25207	2,6,11
chr7	34103618	34103721	+	chr7	34118469	34118798	+	ENST00000310974,ENST00000446375	25208-25211	33,23,1,33
chr7	34996414	34996316	-	chr7	34994979	34994920	-	ENST00000396081,ENST00000311350	25212-25214	23,16,13
chr7	35797858	35797789	-	chr7	35712888	35712811	-	ENST00000435235,ENST00000469679,ENST00000350320,ENST00000399034,ENST00000399035,ENST00000494488,ENST00000425198	25215-25219	11,1,10,1,1
chr7	35912473	35912505	+	chr7	35913251	35913385	+	ENST00000242108,ENST00000534978	25220-25222	30,7,40
chr7	36303879	36304100	+	chr7	36320724	36320834	+	ENST00000404826,ENST00000389531	25223-25224	4,1
chr7	3645663	3646035	+	chr7	3658712	3658871	+	ENST00000538464,ENST00000535891,ENST00000258749,ENST00000431169	25225-25226	12,6
chr7	36598732	36598637	-	chr7	36589081	36589045	-	ENST00000341056,ENST00000310758,ENST00000442504,ENST00000448602,ENST00000420636,ENST00000433246	25227-25231	32,6,32,32,6
chr7	37209096	37209001	-	chr7	37172839	37172735	-	ENST00000199447,ENST00000455500,ENST00000444718,ENST00000440017,ENST00000426106	25232-25236	6,11,6,6,6
chr7	37878107	37879192	+	chr7	37896876	37896947	+	ENST00000476620,ENST00000559325,ENST00000199448,ENST00000423717,ENST00000425345	25237-25240	25,16,25,16
chr7	37989134	37989696	+	chr7	37989802	37989998,4	+			

Table 10

							ENST00000476620,ENST00000559325,ENST00000199448,ENST00000423717,ENST00000425345	25241-25244	1,1,28,28
chr7	37989134	37989704	+	chr7	37989802	37989998,4	+		
							ENST00000310301,ENST00000413141,ENST00000265745,ENST00000414632,ENST00000418457,ENST00000457055	25245-25252	12,1,18,12,12,12,12,12
chr7	38898146	38897610	-	chr7	38869928	38869854	-		
							ENST00000310301,ENST00000395969,ENST00000265745	25253-25257	16,31,12,31,31
chr7	38941285	38940985	-	chr7	38937729	38937691	-		
							ENST00000403058,ENST00000518318,ENST00000524147,ENST00000520104,ENST00000559001	25258-25264	9,15,15,15,15,15,15
chr7	39357881	39357927	+	chr7	39379241	39379614	+		
chr7	39645565	39645597	+	chr7	39649216	39649585	+	ENST00000432096	25265-25267	11,1,4
							ENST00000181839,ENST00000340829	25268-25271	72,38,1,72
chr7	40023740	40023957	+	chr7	40027198	40027857	+		
							ENST00000181839,ENST00000340829	25272-25275	11,20,20,20
chr7	40036318	40036380	+	chr7	40037093	40037263	+		
							ENST00000181839,ENST00000340829	25276-25279	44,3,7,3
chr7	40058011	40058144	+	chr7	40085435	40085624	+		
							ENST00000181839,ENST00000340829	25280-25283	6,42,2,2
chr7	40058011	40058307	+	chr7	40085435	40085624	+		
chr7	40187422	40187175	-	chr7	40172858	40172658	-	ENST00000306984	25284-25286	23,14,22
							ENST00000395891,ENST00000453890	25287-25289	4,36,1
chr7	43529641	43530004	+	chr7	43531674	43531779	+		
							ENST00000265523,ENST00000402924,ENST00000424330	25290-25293	25,1,21,25
chr7	43825334	43826212	+	chr7	43827503	43827624	+		
							ENST00000317534,ENST00000603700	25294-25297	20,2,19,2
chr7	43911490	43911430	-	chr7	43908975	43908907	-		
							ENST00000406581,ENST00000223361,ENST00000452185,ENST00000433715,ENST00000456038,ENST00000418438	25298-25304	33,23,1,1,1,1,1
chr7	44158417	44158319	-	chr7	44157663	44157542	-		
							ENST00000406581,ENST00000223361,ENST00000452185,ENST00000433715,ENST00000456038,ENST00000418438	25305-25311	22,13,21,21,21,21,21
chr7	44158417	44158351	-	chr7	44157659	44157542	-		
chr7	44521208	44520891	-	chr7	44467302	44467170	-	ENST00000355451	25312-25313	36,5
							ENST00000258772,ENST00000446987,ENST00000421223,ENST00000433257,ENST00000431640	25314-25320	26,26,25,26,26,26,26
chr7	44613059	44612981	-	chr7	44612649	44612489	-		
							ENST00000439616,ENST00000447398,ENST00000449767,ENST00000444676,ENST00000222673,ENST00000543843	25321-25323	6,5,5
chr7	44738241	44738258	+	chr7	44739740	44739868	+		
							ENST00000413916,ENST00000457123,ENST00000309315,ENST00000416856,ENST00000441627,ENST00000433667	25324-25332	20,44,20,44,20,20,44,20,20
chr7	44788456	44788590	+	chr7	44796024	44796138	+	,ENST00000265346		
							ENST00000222690,ENST00000437072,ENST00000349299,ENST00000308153,ENST00000381124,ENST00000446531	25333-25340	13,6,13,6,6,6,6,6
chr7	44883455	44883388	-	chr7	44882953	44882876	-		
chr7	46798065	46797968	-	chr7	46732567	46732409	-	ENST00000451905	25341-25343	32,26,10
							ENST00000457718,ENST00000450444,ENST00000434451	25344-25348	1,9,20,9,9
chr7	47623357	47623294	-	chr7	47568745	47568634	-		
							ENST00000446823,ENST00000328914,ENST00000460979	25349-25353	1,6,12,1,12
chr7	4785251	4785393	+	chr7	4794090	4794246,48	+		

Table 10

						ENST00000453071,ENST00000297325,ENST00000412371,ENST00000412142,ENST00000395572,ENST00000453192,ENST00000438771	25354-25356	2,1,2
chr7	48039730	48039725 -	chr7	48028477	48028385 -			
chr7	48039730	48039725 -	chr7	48030642	48030607 -	ENST00000412142,ENST00000438771	25357-25358	2,1
chr7	48039730	48039725 -	chr7	48034079	48033912 -	ENST00000453071,ENST00000297325,ENST00000412371,ENST00000412142,ENST00000395572,ENST00000453192,ENST00000438771	25359-25362	2,1,2,2
chr7	50365089	50365154 +	chr7	50367234	50367353 +	ENST00000413698,ENST00000359197,ENST00000440768,ENST00000331340,ENST00000343574,ENST00000346667,ENST00000349824,ENST00000357364,ENST00000438033,ENST00000439701	25363-25372	22,12,21,21,21,21,21,21,21,21
chr7	50848376	50848324 -	chr7	50771605	50771518 -	ENST00000439599,ENST00000398812,ENST00000403097,ENST00000357271,ENST00000401949,ENST00000439044	25373-25377	14,3,10,10,10
chr7	51089324	51089187 -	chr7	51085265	51085248 -	ENST00000431948,ENST00000445054,ENST00000265136,ENST00000395542	25378-25380	12,1,23
chr7	5253017	5253033 +	chr7	5254166	5254335 +	ENST00000288828,ENST00000401525,ENST00000404704,ENST00000382384,ENST00000484262	25381-25384	5,5,5,5
chr7	5253017	5253037 +	chr7	5254166	5254335 +	ENST00000288828,ENST00000401525,ENST00000404704,ENST00000382384,ENST00000484262	25385-25387	6,6,6
chr7	5365353	5365256 -	chr7	5364879	5364727 -	ENST00000399537,ENST00000430969,ENST00000455076	25388-25392	23,32,32,32,32
chr7	5454669	5454542 -	chr7	5434226	5434071 -	ENST00000399537,ENST00000430969	25393-25396	12,2,42,2
chr7	55205366	55205435 +	chr7	55209979	55210130 +	ENST00000455089,ENST00000342916,ENST00000344576,ENST00000420316,ENST00000275493,ENST00000442591	25397-25404	8,10,17,8,8,8,8,8
chr7	55636067	55635973 -	chr7	55588823	55588765 -	ENST00000285279,ENST00000433959,ENST00000545390,ENST00000418904,ENST00000427700	25405-25407	31,1,31
chr7	5602236	5602205 -	chr7	5569294	5569166 -	ENST00000417101	25408-25410	10,10,10
chr7	56121163	56121213 +	chr7	56122062	56122196 +	ENST00000275603,ENST00000540286	25411-25413	15,7,16
chr7	5637015	5637065 +	chr7	5642888	5643044 +	ENST00000340250,ENST00000382361	25414-25416	17,7,16
chr7	5691161	5691108 -	chr7	5681007	5680785 -	ENST00000425013,ENST00000389902	25417-25418	1,13
chr7	5754178	5754138 -	chr7	5752494	5752346 -	ENST00000425013,ENST00000389902	25419-25421	7,13,13
chr7	5937562	5937645 +	chr7	5939915	5940012 +	ENST00000325974	25422-25424	11,6,18
chr7	6019451	6019351 -	chr7	6018327	6018227 -	ENST00000265849,ENST00000441476,ENST00000382321	25425-25426	6,11
chr7	6022134	6022034 -	chr7	6018327	6018227 -	ENST00000265849,ENST00000441476,ENST00000382321	25427-25428	24,33
chr7	6025580	6025513 -	chr7	6022622	6022455 -		25429-25430	22,1
chr7	6049300	6049400 +	chr7	6054777	6054983 +	ENST00000223029	25431-25433	33,4,11
chr7	618618	618352 -	chr7	591107	591026 -	ENST00000544935,ENST00000537384,ENST00000406797,ENST00000403562,ENST00000360274,ENST00000400758	25434-25436	13,34,21

Table 10

chr7	6192620	6192717 +	chr7	6193387	6194826,62 +	ENST00000306177,ENST00000426246	25437-25440	32,23,10,32
chr7	6214042	6213821 -	chr7	6213364	6213284 -	ENST00000350796	25441-25443	16,20,13
chr7	6308100	6307875 -	chr7	6230162	6230080 -	ENST00000350796	25444-25446	20,7,34
chr7	64007627	64007536 -	chr7	64004810	64004684 -	ENST00000309683,ENST00000447137	25447-25449	16,22,22
chr7	64274487	64274525 +	chr7	64275296	64275422 +	ENST00000307355,ENST00000494380,ENST00000440155,ENST00000440598	25450-25454	13,7,13,13,13
chr7	6463505	6463467 -	chr7	6461435	6461358 -	ENST00000297056,ENST00000425398,ENST00000436575,ENST00000428902,ENST00000421761	25455-25459	13,7,12,13,13
chr7	6485393	6485343 -	chr7	6470238	6470111 -	ENST00000297056,ENST00000436575,ENST00000428902	25460-25463	17,7,16,17
chr7	6485393	6485343 -	chr7	6472590	6472468 -	ENST00000297056,ENST00000425398,ENST00000436575,ENST00000428902,ENST00000421761,ENST00000454738	25464-25472	17,7,16,17,7,16,17,7,7
chr7	6485393	6485343 -	chr7	6476164	6475993 -	ENST00000297056,ENST00000425398,ENST00000436575,ENST00000432248	25473-25477	17,7,16,16,16
chr7	65402913	65402963 +	chr7	65413658	65413767 +	ENST00000360768	25478-25479	17,7
chr7	65406402	65406437 +	chr7	65413658	65413767 +	ENST00000360768	25480-25481	12,11
chr7	660987	660934 -	chr7	647089	647028,647 -	ENST00000544935,ENST00000537384,ENST00000406797,ENST00000403562,ENST00000360274,ENST00000430040,ENST00000414568,ENST00000417852	25482-25487	10,6,10,10,10,6
chr7	6620403	6620531 +	chr7	6621238	6621311 +	ENST00000405731,ENST00000396707,ENST00000396713,ENST00000335965,ENST00000396709,ENST00000483589,ENST00000396706	25488-25491	13,10,42,13
chr7	66209899	66209996 +	chr7	66236870	66237065 +	ENST00000503687,ENST00000439720,ENST00000437078	25492-25495	23,1,11,1
chr7	66414006	66414056 +	chr7	66415939	66416122 +	ENST00000341567	25496-25497	17,16
chr7	66521198	66521247 +	chr7	66532272	66532390,7 +	ENST00000359626,ENST00000361660	25498-25502	16,5,16,16,16
chr7	69286781	69286805 +	chr7	69364272	69364484 +	ENST00000406775,ENST00000342771,ENST00000403018	25503-25506	8,7,8,8
chr7	69662315	69662412 +	chr7	69755354	69755494 +	ENST00000403018	25507-25508	6,32
chr7	71289070	71288786 -	chr7	71275477	71275321 -	ENST00000329008,ENST00000395275,ENST00000395276,ENST00000405452,ENST00000412588,ENST00000431984	25509-25511	4,7,41
chr7	72875067	72874891 -	chr7	72874048	72873866 -	ENST00000339594,ENST00000404251	25512-25514	7,25,35
chr7	72875067	72875015 -	chr7	72874048	72873866 -	ENST00000339594,ENST00000404251	25515-25516	6,17
chr7	72917290	72917134 -	chr7	72913028	72912827 -	ENST00000339594,ENST00000404251	25517-25518	27,6
chr7	72957807	72957802 -	chr7	72954382	72954212,725-	ENST00000223368,ENST00000454871,ENST00000416906	25519-25523	1,2,1,1,1
chr7	73080000	73080118 +	chr7	73083749	73083920 +	ENST00000324941	25524-25526	39,39,9
chr7	73106520	73106752 +	chr7	73106926	73106976,7 +	ENST00000265758,ENST00000432522,ENST00000421744,ENST00000428163,ENST00000423166,ENST00000423497,ENST00000430446,ENST00000442099,ENST00000453316	25527-25536	32,6,1,1,32,1,1,1,32,1
chr7	73124361	73124269 -	chr7	73123452	73123375 -	ENST00000222812,ENST00000395156,ENST00000395154,ENST00000395155	25537-25542	31,30,8,31,31,31

Table 10

							ENST00000357419,ENST000		12,34,20,12,
							00222800,ENST00000458339		20,20,20,20,
							,ENST00000412965,ENST000		20,12,20
							00395147,ENST00000437891		
chr7	73154059	73153948	-	chr7	73152793	73152663,7 -	,ENST00000474130	25543-25553	
							ENST00000445912,ENST000		13,39,20,20,
							00252034,ENST00000358929		20,20,20,20,
							,ENST00000414324,ENST000		39,20,39,20,
							00380562,ENST00000380575		20,20
							,ENST00000380584,ENST000		
							00458204,ENST00000357036		
							,ENST00000429192,ENST000		
							00442310,ENST00000380553		
							,ENST00000380576,ENST000		
chr7	73460097	73460306	+	chr7	73460518	73460547 +	00320399	25554-25567	
							ENST00000418310,ENST000		2,1,1,1
							00336180,ENST00000435201		
chr7	73512895	73512900	+	chr7	73513362	73513568 +	,ENST00000538333	25568-25571	
							ENST00000418310,ENST000		1,1,1
							00336180,ENST00000538333		
chr7	73523544	73523548	+	chr7	73525978	73526037 +		25572-25574	
							ENST00000418310,ENST000		13,21
							00336180,ENST00000538333		
chr7	73525487	73525553	+	chr7	73525978	73526037 +		25575-25576	
							ENST00000265753,ENST000		23,13,13
chr7	73593680	73593748	+	chr7	73601941	73602128 +	00353999	25577-25579	
							ENST00000361545,ENST000		11,7,27,11
							00223398,ENST00000395060		
chr7	73734574	73734793	+	chr7	73752778	73753334 +		25580-25583	
							ENST00000361545,ENST000		23,13,23,13
							00223398,ENST00000395060		
chr7	73776149	73776217	+	chr7	73778585	73778645 +		25584-25587	
							ENST00000361545,ENST000		7,16,7,16
							00223398,ENST00000395060		
chr7	73777934	73777983	+	chr7	73778585	73778645 +		25588-25591	
							ENST00000361545,ENST000		10,16,3
							00223398,ENST00000395060		
chr7	73811793	73811843	+	chr7	73814700	73814885 +		25592-25594	
							ENST00000265755,ENST000		47,46,21,21,
							00455841,ENST00000424337		21
chr7	73930110	73930250	+	chr7	73932469	73932652 +	,ENST00000476977	25595-25599	
							ENST00000265755,ENST000		22,11,22,22
							00455841,ENST00000424337		
							,ENST00000476977,ENST000		
chr7	73990609	73990709	+	chr7	74004180	74004257 +	00470715	25600-25603	
							ENST00000324896,ENST000		17,7,16
							00346152,ENST00000353920		
chr7	74162967	74163017	+	chr7	74163362	74163427 +	,ENST00000416070	25604-25606	
							ENST00000324896,ENST000		32,18,10
							00346152,ENST00000353920		
chr7	74162967	74163224	+	chr7	74163362	74163427 +	,ENST00000416070	25607-25609	
							ENST00000324896,ENST000		19,37
							00346152,ENST00000353920		
chr7	74168558	74168670	+	chr7	74169841	74169869 +	,ENST00000416070	25610-25611	
							ENST00000324896,ENST000		29,102,37
							00346152,ENST00000353920		
chr7	74171651	74171957	+	chr7	74172292	74172333 +	,ENST00000416070	25612-25614	
							ENST00000405086,ENST000		10,9,9,10,10
							00361071,ENST00000453619		,10,9
chr7	74265461	74265432	-	chr7	74248066	74247928,7 -	,ENST00000417115	25615-25621	
chr7	7498465	7498396	-	chr7	7495743	7495675 -	ENST00000399429	25622-25624	12,2,5
							ENST00000257665,ENST000		18,8,3
chr7	75052862	75052807	-	chr7	75052486	75050792 -	00453279	25625-25627	
							ENST00000453773,ENST000		11,10,11,11
							00439963,ENST00000461988		
							,ENST00000448410,ENST000		
							00394893,ENST00000412521		
							,ENST00000414186,ENST000		
							00432753,ENST00000412064		
							,ENST00000454934,ENST000		
							00447222,ENST00000426184		
chr7	75585753	75585785	+	chr7	75601731	75601779,8 +	,ENST00000439297	25628-25631	
chr7	76032443	76032392	-	chr7	76030360	76030325 -	ENST00000275560	25632-25633	17,12
chr7	76044411	76044541	+	chr7	76054369	76054593 +	ENST00000394857	25634-25636	8,1,3

Table 10

							ENST00000275569,ENST000		6,11,19,6,19
							00310842,ENST00000441393		,19,19
							,ENST00000424818,ENST000		
chr7	76248403	76248304	-	chr7	76247617	76247500	-	00454397	25637-25643
							ENST00000415750,ENST000		48,58,13,13
chr7	76648007	76648314	+	chr7	76866264	76866346	+	00285871	25644-25647
							ENST00000415750,ENST000		48,58,13,13
chr7	76675927	76676234	+	chr7	76866264	76866346	+	00285871	25648-25651
chr7	77044350	77044208	-	chr7	77035422	77035346	-	ENST00000257626	25652-25654
chr7	77045872	77045831	-	chr7	77035422	77035346	-	ENST00000257626	25655-25657
							ENST00000248594,ENST000		17,7,16,17,1
							00433369,ENST00000415482		7,17,17,17
							,ENST00000418110,ENST000		
							00522115,ENST00000440186		
chr7	77213913	77213963	+	chr7	77214860	77214898,8	+	,ENST00000447995	25658-25665
							ENST00000248594,ENST000		22,13,21,13,
							00433369,ENST00000415482		13,13,13,13
							,ENST00000418110,ENST000		
							00522115,ENST00000440186		
chr7	77213913	77213979	+	chr7	77214860	77214898,8	+	,ENST00000447995	25666-25673
							ENST00000248594,ENST000		33,23,1,33,3
							00433369,ENST00000415482		3,33,33,33
							,ENST00000418110,ENST000		
							00522115,ENST00000440186		
chr7	77213913	77214011	+	chr7	77214860	77214898,8	+	,ENST00000447995	25674-25681
chr7	79763586	79763628	+	chr7	79818267	79818309	+	ENST00000351004	25682-25684
chr7	80559020	80558662	-	chr7	80546135	80545995	-	ENST00000544525	25685-25687
							ENST00000222390,ENST000		11,6
chr7	81339388	81339304	-	chr7	81336680	81336606	-	00457544	25688-25689
							ENST00000222390,ENST000		33,2,1,1,1,1,
							00457544,ENST00000444829		1,1,1,1
							,ENST00000453411,ENST000		
							00423064,ENST00000354224		
							,ENST00000412881,ENST000		
chr7	81397994	81397896	-	chr7	81392188	81392023	-	00421558	25690-25699
							ENST00000356860,ENST000		7,13,13,13
							00356253,ENST00000423588		
chr7	81778251	81778202	-	chr7	81765992	81765951	-		25700-25703
							ENST00000402384,ENST000		22,11,11,11,
							00406470,ENST00000265577		11
							,ENST00000396675,ENST000		
							00401396,ENST00000422063		
							,ENST00000407906,ENST000		
chr7	8197619	8197519	-	chr7	8196844	8196746,82	-	00317367	25704-25708
							ENST00000333891,ENST000		18,7,38,7
chr7	82523973	82523713	-	chr7	82457282	82457189	-	00423517	25709-25712
							ENST00000333891,ENST000		18,7,38,38
chr7	82523973	82523713	-	chr7	82476563	82476455	-	00423517	25713-25716
chr7	82523973	82523713	-	chr7	82497511	82497456	-	ENST00000456006	25717-25719
chr7	83155408	83154104	-	chr7	83119590	83119430	-	ENST00000307792	25720-25722
chr7	83155408	83154150	-	chr7	83119590	83119430	-	ENST00000307792	25723-25724
							ENST00000265362,ENST000		13,6
chr7	83624658	83624562	-	chr7	83614793	83614752	-	00436949	25725-25726
							ENST00000265362,ENST000		15,7,21
chr7	83685046	83684906	-	chr7	83675759	83675640	-	00436949	25727-25729
							ENST00000265362,ENST000		25,6
chr7	83685046	83684950	-	chr7	83675759	83675640	-	00436949	25730-25731
							ENST00000284136,ENST000		46,7,19,46
chr7	84736318	84736037	-	chr7	84710895	84710833	-	00444867	25732-25735
							ENST00000284136,ENST000		46,7,19,19
chr7	84736318	84736037	-	chr7	84727281	84727121	-	00444867	25736-25739
							ENST00000284136,ENST000		34,7,34
chr7	84736318	84736073	-	chr7	84710895	84710833	-	00444867	25740-25742
							ENST00000284136,ENST000		34,7,7
chr7	84736318	84736073	-	chr7	84727281	84727121	-	00444867	25743-25745
							ENST00000405863,ENST000		8,16,11,8,8
							00438764,ENST00000429542		
chr7	8679239	8679556	+	chr7	8790638	8791399,879	+		25746-25750
							ENST00000257637,ENST000		1,7,1
							00433078,ENST00000423734		
chr7	86836094	86835995	-	chr7	86828373	86828323	-		25751-25753
							ENST00000257637,ENST000		3,5
							00433078,ENST00000423734		
chr7	86840105	86839692	-	chr7	86828373	86828323	-		25754-25755

Table 10

							ENST00000257637,ENST00000433078,ENST00000423734		52,3,11,11
chr7	86948901	86947817	-	chr7	86828373	86828323	-	25756-25759	
							ENST00000359206,ENST00000358400,ENST00000265723,ENST00000453593,ENST00000545634,ENST00000417608		55,13,43,43,43,43
chr7	87130818	87130521	-	chr7	87101991	87101937	-	25760-25765	
							ENST00000338056,ENST00000493037,ENST00000394654		28,61,12
chr7	87454558	87455169	+	chr7	87459200	87459345	+	25766-25768	
chr7	87471322	87471247	-	chr7	87471029	87470948	-	ENST00000341119	25769-25771	3,6,24
							ENST00000413643,ENST00000265728,ENST00000430279		17,7,17,17
chr7	87515566	87515616	+	chr7	87516159	87516209	+	25772-25775	
							ENST00000456758,ENST00000389574,ENST00000452783,ENST00000405266,ENST00000401592,ENST00000425407,ENST00000429178,ENST00000413514,ENST00000433212		16,7,16,16
chr7	898510	898559	+	chr7	899765	900019	+	,ENST00000457861	25776-25779	
							ENST00000356239,ENST00000358100,ENST00000359028		8,1,68,68,68,68
chr7	91703173	91703654	+	chr7	91706169	91706321	+	,ENST00000394534	25780-25785	
							ENST00000394507,ENST00000340022,ENST00000412043,ENST00000394505,ENST00000394503,ENST00000445516		7,16,16,7
chr7	91862305	91862256	-	chr7	91855996	91855840	-	25786-25789	
chr7	91961992	91963034	+	chr7	91972338	91972546	+	ENST00000265742	25790-25792	5,7,1
							ENST00000265732,ENST00000481551		17,13,24,13
chr7	92158419	92158497	+	chr7	92158790	92158980	+		25793-25796	
							ENST00000251739,ENST00000305866,ENST00000541136		12,5,3,12,12
chr7	92888092	92888193	+	chr7	92888862	92888944	+	,ENST00000544910	25797-25801	
							ENST00000251739,ENST00000305866,ENST00000541136,ENST00000544910,ENST00000458707		6,68,6,68,6,6
chr7	92904134	92904865	+	chr7	92905477	92905659,9	+		25802-25807	
							ENST00000357520,ENST00000222547,ENST00000433727,ENST00000457139,ENST00000425626		2,10,10,10,10,10
chr7	93629249	93629217	-	chr7	93628606	93628482	-		25808-25813	
chr7	94168699	94168799	+	chr7	94173723	94173842	+	ENST00000297273	25814-25816	2,22,11
							ENST00000265735,ENST00000445866,ENST00000447873,ENST00000428696,ENST00000415788		5,13,17,13,13,13,13
chr7	94318477	94316874	-	chr7	94259153	94259031	-		25817-25823	
							ENST00000433360,ENST00000340694,ENST00000424654,ENST00000433881,ENST00000289495,ENST00000456331		59,9,9,9,9
chr7	94760401	94760673	+	chr7	94791179	94791283	+		25824-25828	
							ENST00000536183,ENST00000455123,ENST00000433091,ENST00000222572,ENST00000446142		17,29,24,29,29,29
chr7	95065683	95065594	-	chr7	95053897	95053827	-		25829-25834	
							ENST00000428113,ENST00000325885		17,8
chr7	95089497	95090911	+	chr7	95125070	95125369	+		25835-25836	
							ENST00000265631,ENST00000416240		35,5,27,27
chr7	95904510	95904405	-	chr7	95864229	95864114	-		25837-25840	
							ENST00000265846,ENST00000446141,ENST00000449296,ENST00000539900,ENST00000437486,ENST00000454383,ENST00000453823,ENST00000435943		19,15,10,19,19,19,19
chr7	960962	960874	-	chr7	959687	959605	-		25841-25847	
							ENST00000265846,ENST00000446141,ENST00000449296,ENST00000539900,ENST00000437486,ENST00000454383,ENST00000453823,ENST00000435943		31,3,8,3,3,3,3
chr7	961250	960963	-	chr7	959687	959605	-		25848-25854	

Table 10

						ENST00000265846,ENST00000446141,ENST00000449296,ENST00000539900,ENST00000437486,ENST00000454383,ENST00000453823,ENST00000435943	25855-25861	23,31,18,31,31,31,31
chr7	961250	961155 -	chr7	959687	959605 -			
chr7	96798362	96798424 +	chr7	96810324	96810527 +	ENST00000432641	25862-25863	21,11
						ENST00000175506,ENST00000394309,ENST00000437628,ENST00000394308,ENST00000422745,ENST00000455086,ENST00000444334	25864-25866	10,1,13
chr7	97484453	97484323 -	chr7	97483992	97483892 -			
chr7	97805087	97805138 +	chr7	97814363	97814447 +	ENST00000297293	25867-25868	4,16
						ENST00000361368,ENST00000361125	25869-25873	8,2,10,8,10
chr7	98651329	98651080 -	chr7	98650069	98649828 -			
						ENST00000265846,ENST00000539900,ENST00000457254,ENST00000435943	25874-25877	24,11,24,24
chr7	986992	986892 -	chr7	975141	975011 -			
						ENST00000265846,ENST00000539900,ENST00000457254,ENST00000435943	25878-25882	27,18,5,18,18
chr7	986992	986910 -	chr7	975141	975011 -			
						ENST00000432884,ENST00000262942,ENST00000432786	25883-25887	6,1,46,6,6
chr7	98944321	98944460 +	chr7	98946475	98946582 +			
						ENST00000432884,ENST00000262942,ENST00000432786	25888-25893	23,13,22,13,23,13
chr7	98953946	98954014 +	chr7	98955963	98956039 +			
						ENST00000432884,ENST00000262942,ENST00000432786	25894-25898	46,16,24,16,16
chr7	98956781	98957078 +	chr7	98957168	98957362 +			
						ENST00000350498,ENST00000426447	25899-25901	7,14,14
chr7	99005716	99005568 -	chr7	99002576	99002485 -			
						ENST00000350498,ENST00000426447	25902-25906	13,12,2,13,2
chr7	99005716	99005678 -	chr7	99002576	99002485 -			
chr7	99098821	99098889 +	chr7	99101170	99101210 +	ENST00000493485	25907-25909	22,17,22
chr7	99098821	99099132 +	chr7	99101170	99101210 +	ENST00000493485	25910-25912	56,19,22
chr7	99099286	99099332 +	chr7	99101170	99101210 +	ENST00000493485	25913-25915	15,15,3
						ENST00000394152,ENST00000334715	25916-25918	8,2,19
chr7	99216154	99216274 +	chr7	99220172	99220263 +			
chr7	99533045	99532778 -	chr7	99521226	99521168 -	ENST00000312891	25919-25921	18,37,7
						ENST00000472509,ENST00000437822	25922-25923	24,11
chr7	99712783	99712683 -	chr7	99711891	99711677 -			
chr7	99923621	99923314 -	chr7	99831297	99831227 -	ENST00000436886	25924-25926	48,58,13
						ENST00000355155,ENST00000496144,ENST00000395996,ENST00000357162,ENST00000358544,ENST00000441350	25927-25933	17,4,133,17,17,17,17
chr8	100077427	100079421 +	chr8	100108540	100108660 +			
						ENST00000357162,ENST00000358544,ENST00000521559	25934-25938	15,20,13,20,13
chr8	100597607	100597745 +	chr8	100654039	100654726 +			
						ENST00000357162,ENST00000358544	25939-25941	35,9,96
chr8	100678430	100678720 +	chr8	100711753	100712160 +			
						ENST00000357162,ENST00000358544	25942-25944	2,16,16
chr8	100847139	100847189 +	chr8	100847425	100847552 +			
						ENST00000357162,ENST00000358544	25945-25946	8,3
chr8	100866601	100866756 +	chr8	100871532	100871708 +			
						ENST00000357162,ENST00000358544	25947-25949	4,3,3
chr8	100869769	100869780 +	chr8	100871532	100871708 +			
						ENST00000360863,ENST00000523287,ENST00000517843,ENST00000523437	25950-25952	1,1,1
chr8	100979156	100979152 -	chr8	100977658	100977563 -			
						ENST00000251808,ENST00000395927	25953-25955	13,52,15
chr8	102609579	102609899 +	chr8	102611285	102611379 +			
						ENST00000251808,ENST00000395927	25956-25958	2,23,34
chr8	102639376	102641479 +	chr8	102643865	102643952 +			
						ENST00000251808,ENST00000395927	25959-25961	3,5,23
chr8	102647370	102647442 +	chr8	102649125	102649156 +			
						ENST00000520539,ENST00000220959,ENST00000518205,ENST00000521922	25962-25964	23,13,13
chr8	103280731	103280663 -	chr8	103279235	103279175 -			
						ENST00000520539,ENST00000220959,ENST00000521922	25965-25969	5,14,10,5,5
chr8	103380981	103380776 -	chr8	103373854	103373810 -			

Table 10

							ENST00000285407,ENST000		3,1
chr8	103663219	103663095	-	chr8	103662619	103662360	- 00395884	25970-25971	
							ENST00000330295,ENST000		2,1,1
							00520337,ENST00000520880		
chr8	104389530	104389536	+	chr8	104394686	104394828	+	25972-25974	
							ENST00000314787,ENST000		23,33,58,23,
							00426190,ENST00000519088		23,58
chr8	10667742	10667425	-	chr8	10623426	10622911,10	- ,ENST00000524114	25975-25980	
							ENST00000553390,ENST000		13,1,12,1,1,
							00554914,ENST00000314787		1,1
							,ENST00000426190,ENST000		
							00519088,ENST00000524114		
chr8	10691037	10690998	-	chr8	10690494	10690402	- ,ENST00000523559	25981-25987	
							ENST00000553390,ENST000		8,47,10,8,8,
							00554914,ENST00000314787		8,8
							,ENST00000426190,ENST000		
							00519088,ENST00000524114		
chr8	10692934	10692751	-	chr8	10692285	10692176	- ,ENST00000523559	25988-25994	
							ENST00000553390,ENST000		11,7,2,2,2,2,
							00554914,ENST00000314787		2
							,ENST00000426190,ENST000		
							00519088,ENST00000524114		
chr8	10692934	10692902	-	chr8	10692285	10692176	- ,ENST00000523559	25995-26001	
							ENST00000445937,ENST000		9,4,45,4
							00531443,ENST00000517566		
chr8	107515571	107515927	+	chr8	107531171	107531367	+ ,ENST00000442977	26002-26005	
							ENST00000382461,ENST000		23,32
chr8	10795937	10795840	-	chr8	10782340	10782144	- 00416569	26006-26007	
							ENST00000220849,ENST000		2,4,2
							00519030,ENST00000519627		
chr8	109234024	109233717	-	chr8	109229689	109229563	-	26008-26010	
							ENST00000220849,ENST000		21,20,2,21,2
							00519030,ENST00000521440		1,20,21,20
							,ENST00000521297,ENST000		
chr8	109247819	109247757	-	chr8	109247331	109247227,10	- 00518345	26011-26018	
							ENST00000221086,ENST000		2,1,1
chr8	11156555	11156560	+	chr8	11157532	11157657	+ 00526292	26019-26021	
							ENST00000343508,ENST000		61,25,1,25
							00297405,ENST00000339701		
							,ENST00000455883,ENST000		
chr8	113411149	113410443	-	chr8	113403017	113402893	- 00352409	26022-26025	
							ENST00000343508,ENST000		29,17,24,24,
							00297405,ENST00000339701		24
							,ENST00000455883,ENST000		
chr8	113687108	113686332	-	chr8	113678644	113678506	- 00352409	26026-26030	
							ENST00000343508,ENST000		44,1
							00297405,ENST00000339701		
							,ENST00000455883,ENST000		
chr8	113687108	113686427	-	chr8	113678644	113678506	- 00352409	26031-26032	
							ENST00000343508,ENST000		23,40,23,23
							00297405,ENST00000339701		
							,ENST00000455883,ENST000		
chr8	113687108	113686489	-	chr8	113678644	113678506	- 00352409	26033-26036	
							ENST00000538689,ENST000		4,12,35,12,1
							00530337,ENST00000220584		2,12
							,ENST00000525283,ENST000		
							00525900,ENST00000528812		
							,ENST00000530664,ENST000		
							00532266,ENST00000528643		
chr8	11667930	11668056	+	chr8	11679259	11679387,11	+ ,ENST00000525777	26037-26042	
chr8	117897392	117897718	+	chr8	117954797	117954940	+ ENST00000378279	26043-26045	14,37,11
chr8	117963295	117963358	+	chr8	118159193	118159392	+ ENST00000456015	26046-26048	6,2,12
							ENST00000521243,ENST000		6,2,12,6
							00524274,ENST00000427715		
							,ENST00000519688,ENST000		
chr8	117963295	117963358	+	chr8	118165183	118165329	+ 00456015	26049-26052	
							ENST00000378204,ENST000		18,9,2,18
chr8	118858180	118858125	-	chr8	118849440	118849347	- 00436216	26053-26056	
							ENST00000378204,ENST000		39,9,38,38
chr8	119110260	119110143	-	chr8	118849440	118849347	- 00436216	26057-26060	
chr8	119776509	119776623	+	chr8	120101919	120101990	+ ENST00000332843	26061-26063	5,3,18
chr8	119918965	119919242	+	chr8	120079593	120079668	+ ENST00000332843	26064-26066	7,1,16
chr8	120017531	120017728	+	chr8	120101919	120101990	+ ENST00000332843	26067-26069	66,12,1
chr8	120021463	120021792	+	chr8	120101919	120101990	+ ENST00000332843	26070-26071	25,37

Table 15

chr8	120069290	120069570	+	chr8	120101919	120101990	+	ENST00000332843	26072-26073	7,42
chr8	120232808	120233214	+	chr8	120233827	120233997	+	ENST00000276681	26074-26076	10,4,2
chr8	120246187	120246283	+	chr8	120252405	120252560	+	ENST00000276681	26077-26078	12,6
chr8	120864894	120864794	-	chr8	120862756	120862622	-	ENST00000313655	26079-26081	33,4,33
chr8	120929572	120929863	+	chr8	120940640	120940818	+	ENST00000286234	26082-26084	28,3,21
chr8	121452569	121452362	-	chr8	121444363	121444270	-	ENST00000306185,ENST00000518918	26085-26088	32,27,2,32
chr8	121469879	121469981	+	chr8	121471455	121471589	+	ENST00000523373,ENST00000305949	26089-26092	1,34,23,34
chr8	122643008	122642958	-	chr8	122641580	122640954	-	ENST00000303924	26093-26095	10,8,16
chr8	124685345	124685072	-	chr8	124659254	124659149	-	ENST00000325995	26096-26098	49,21,7
chr8	124795128	124795178	+	chr8	124796710	124796816	+	ENST00000521166,ENST00000334705,ENST00000517912	26099-26103	17,7,16,16,16
chr8	125652779	125652759	-	chr8	125603476	125603392	-	ENST00000378017,ENST00000518547,ENST00000325064,ENST00000522162	26104-26109	7,6,5,5,5,5
chr8	126059315	126059241	-	chr8	126056940	126056778	-	ENST00000318410,ENST00000517845	26110-26112	25,4,14
chr8	126168241	126168340	+	chr8	126369461	126369561	+	ENST00000517532,ENST00000287437,ENST00000522563,ENST00000517315	26113-26115	24,11,24
chr8	128749913	128749932	+	chr8	128750494	128751265	+	ENST00000377970	26116-26118	6,6,6
chr8	12953029	12952967	-	chr8	12952754	12952595	-	ENST00000276297,ENST00000358919,ENST00000512044,ENST00000520226	26119-26121	10,20,20
chr8	130861116	130860856	-	chr8	130859120	130859050	-	ENST00000519824,ENST00000522746,ENST00000523509,ENST00000401979,ENST00000519110,ENST00000522250,ENST00000517654,ENST00000519540,ENST00000522941	26122-26124	10,40,18
chr8	130869913	130869545	-	chr8	130867993	130867857	-	ENST00000519824,ENST00000522746,ENST00000523509,ENST00000401979,ENST00000519110,ENST00000517654,ENST00000519540,ENST00000519142	26125-26127	69,66,66
chr8	133192035	133192002	-	chr8	133187855	133187700	-	ENST00000388996,ENST00000521134,ENST00000519445	26128-26131	11,11,10,11
chr8	133769441	133769209	-	chr8	133764243	133764031,13	-	ENST00000523829,ENST00000356838,ENST00000377901,ENST00000519187,ENST00000519304	26132-26138	8,43,7,8,8,8,8
chr8	134075914	134075825	-	chr8	134072445	134072345	-	ENST00000427060,ENST00000395352,ENST00000517648	26139-26142	2,29,9,29
chr8	13966219	13965940	-	chr8	13965744	13965672	-	ENST00000382080,ENST00000421524	26143-26145	39,46,7
chr8	141732666	141732574	-	chr8	141727808	141727697	-	ENST00000522684,ENST00000519654,ENST00000535192,ENST00000519465,ENST00000517887,ENST00000521059,ENST00000395218,ENST00000523539,ENST00000538769,ENST00000340930,ENST00000519419,ENST00000521986,ENST00000521250,ENST00000521981	26146-26154	17,21,14,21,21,21,21,17,21
chr8	141777870	141777761	-	chr8	141774389	141774333	-	ENST00000522684,ENST00000519654,ENST00000535192,ENST00000519465,ENST00000517887,ENST00000521059,ENST00000395218,ENST00000523539,ENST00000538769,ENST00000340930,ENST00000519419,ENST00000524202,ENST00000521986,ENST00000521981,ENST00000521029,ENST00000520151,ENST00000523670,ENST00000519024	26155-26168	18,36,14,36,36,36,36,36,36,36,36,36

							ENST00000522684,ENST000		6,2,32,32,32
							00519654,ENST00000535192		,32,32,32
							,ENST00000517887,ENST000		
							00521059,ENST00000395218		
							,ENST00000340930,ENST000		
							00519419,ENST00000524202		
chr8	141854856	141854046	-	chr8	141840625	141840571	- ,ENST00000524357	26169-26176	
							ENST00000522684,ENST000		2,13,2,2,2,2,
							00519654,ENST00000535192		13,2,2
							,ENST00000517887,ENST000		
							00521059,ENST00000395218		
							,ENST00000340930,ENST000		
							00519993,ENST00000519419		
							,ENST00000521791,ENST000		
							00523067,ENST00000520828		
chr8	141884620	141884562	-	chr8	141874498	141874411	- ,ENST00000520475	26177-26185	
							ENST00000262585,ENST000		36,47,18,36,
							00424248,ENST00000519811		36,36
							,ENST00000520986,ENST000		
							00523058,ENST00000518668		
chr8	142154462	142154620	+	chr8	142160933	142161052	+	26186-26191	
							ENST00000262585,ENST000		1,1,1
							00424248,ENST00000519811		
chr8	142164995	142164998	+	chr8	142165948	142166069	+ ,ENST00000518668	26192-26194	
							ENST00000262585,ENST000		21,1,15
							00424248,ENST00000519811		
chr8	142187445	142187533	+	chr8	142188166	142188295	+ ,ENST00000518668	26195-26197	
chr8	142257811	142257828	+	chr8	142266540	142266812	+ ENST00000518520	26198-26200	6,5,5
							ENST00000524325,ENST000		32,9,18
							00307180,ENST00000520166		
chr8	143312712	143312613	-	chr8	143310940	143310845	-	26201-26203	
chr8	144533036	144532694	-	chr8	144523290	144523106	- ENST00000262577	26204-26206	53,1,16
chr8	144536880	144536782	-	chr8	144523290	144523106	- ENST00000262577	26207-26209	11,23,1
							ENST00000532741,ENST000		20,7,51,51,5
							00442189,ENST00000423316		1
							,ENST00000530616,ENST000		
chr8	144669798	144669576	-	chr8	144669022	144668899	- 00533749	26210-26214	
chr8	144725021	144725162	+	chr8	144732068	144733653	+ ENST00000501748	26215-26216	47,12
chr8	144725021	144725536	+	chr8	144732068	144733653	+ ENST00000501748	26217-26218	19,26
chr8	144728142	144728159	+	chr8	144732068	144733653	+ ENST00000501748	26219-26220	4,5
							ENST00000398712,ENST000		35,11,1,1
chr8	145158461	145158355	-	chr8	145158128	145157954	- 00359551	26221-26224	
							ENST00000532777,ENST000		2,21,44,21,2
							00325241,ENST00000446747		1,21,21
							,ENST00000525266,ENST000		
							00325217,ENST00000533314		
							,ENST00000528372,ENST000		
chr8	146057251	146057384	+	chr8	146062776	146062892	+ 00528130	26225-26231	
							ENST00000292579,ENST000		13,34,27,27,
							00417550,ENST00000533221		27,27
							,ENST00000533622,ENST000		
chr8	146109936	146109670	-	chr8	146108221	146106900,14	- 00525694	26232-26237	
							ENST00000276816,ENST000		2,18,18,18
							00394909,ENST00000532351		
chr8	146168901	146168302	-	chr8	146157976	146156124,14	- ,ENST00000527811	26238-26241	
							ENST00000382020,ENST000		69,12,69,69,
							00515859,ENST00000506802		69,69
							,ENST00000510836,ENST000		
							00509380,ENST00000503731		
chr8	15274514	15274762	+	chr8	15480589	15480758	+ ,ENST00000511783	26242-26247	
							ENST00000382020,ENST000		86,13,3,3,3,
							00515859,ENST00000506802		3,3
							,ENST00000510836,ENST000		
							00509380,ENST00000503731		
chr8	15274514	15274814	+	chr8	15508206	15508323	+ ,ENST00000511783	26248-26254	
							ENST00000382020,ENST000		7,37,37,37,3
							00515859,ENST00000506802		7,37
							,ENST00000510836,ENST000		
							00509380,ENST00000503731		
chr8	15470993	15471132	+	chr8	15480589	15480758	+ ,ENST00000511783	26255-26260	

Table 10

							ENST00000382020,ENST00000515859,ENST00000506802,ENST00000510836,ENST00000503731,ENST00000511783	31,16,7,31,7,31,31
chr8	15589701	15589962	+	chr8	15601047	15601121,2	+	26261-26267	
chr8	16108188	16107906	-	chr8	16035501	16035395	-	ENST00000445506,ENST00000518026	48,21,7,7
chr8	16314747	16314476	-	chr8	16035501	16035395	-	26268-26271 ENST00000445506,ENST00000518026	7,10,19,7
chr8	17097301	17097235	-	chr8	17094882	17094721,2	-	26272-26275 ENST00000361272,ENST00000523917,ENST00000519918,ENST00000524358	22,13,21,21,21,21
chr8	17158552	17158135	-	chr8	17157733	17157371	-	26276-26281 ENST00000180173,ENST00000398099	5,10,2
chr8	17248470	17248175	-	chr8	17230749	17230627	-	26282-26284 ENST00000180173,ENST00000521857,ENST00000517317	7,49,40,40,40
chr8	17248470	17248211	-	chr8	17230749	17230627	-	26285-26289 ENST00000180173,ENST00000521857,ENST00000517317	37,28,28,28
chr8	17456187	17456507	+	chr8	17478560	17478711	+	26290-26293 ENST00000251630,ENST00000541323,ENST00000398074	33,13,50
chr8	17543769	17543672	-	chr8	17542051	17541837	-	26294-26296 ENST00000544260,ENST00000381869,ENST00000297488,ENST00000381861,ENST00000262102,ENST00000519263	16,11,32
chr8	17567236	17567229	-	chr8	17542051	17541837	-	26297-26299 ENST00000544260,ENST00000381869,ENST00000297488,ENST00000381861,ENST00000262102,ENST00000519263	2,2
chr8	17820128	17820178	+	chr8	17820610	17820800	+	26300-26301 ENST00000325083,ENST00000519253,ENST00000524226	12,7,12,12
chr8	1789290	1789319	+	chr8	1791519	1791602	+	26302-26305 ENST00000398560,ENST00000518288,ENST00000262112,ENST00000398564	2,9,9,9,9,9
chr8	18002043	18002036	-	chr8	17941553	17941490	-	26306-26311 ENST00000262097,ENST00000520781	2,2,2,2
chr8	1851734	1851790	+	chr8	1853737	1853882	+	26312-26315 ENST00000349830,ENST00000520359,ENST00000518288,ENST00000262112,ENST00000398564,ENST00000522435	19,15,18,19
chr8	1875802	1875865	+	chr8	1876593	1876816	+	26316-26319 ENST00000349830,ENST00000520359,ENST00000518288,ENST00000262112,ENST00000398564,ENST00000522435	21,13,20
chr8	18797749	18797602	-	chr8	18793652	18793544,2	-	26320-26322 ENST00000327040,ENST00000440756,ENST00000521475	49,28,31,28,28
chr8	20061546	20061594	+	chr8	20061995	20062050	+	26323-26327 ENST00000276390,ENST00000523478,ENST00000519667	16,14
chr8	21570568	21569754	-	chr8	21563553	21563444,2	-	26328-26329 ENST00000524240,ENST00000400782,ENST00000517328,ENST00000518077,ENST00000517892,ENST00000522071	37,24,1,37,24
chr8	21570568	21569831	-	chr8	21563553	21563444,2	-	26330-26334 ENST00000524240,ENST00000400782,ENST00000517328,ENST00000518077,ENST00000517892,ENST00000522071	12,26,37,26,37
chr8	21605961	21605876	-	chr8	21563553	21563444,2	-	26335-26339 ENST00000524240,ENST00000400782,ENST00000517328,ENST00000518077,ENST00000517892,ENST00000522071	9,4,9
								26340-26342	

							ENST00000381470,ENST00000432128,ENST00000443491,ENST00000517600,ENST00000523782,ENST00000265800,ENST00000358242,ENST00000415253,ENST00000523266,ENST00000519907,ENST00000517305	26343-26347	21,21,11,21,21
chr8	21932420	21932484	+	chr8	21937691	21937755	+	ENST00000427751,ENST00000450006,ENST00000289921	26348-26350	12,32,32
chr8	21949809	21950067	+	chr8	21951951	21951967,2	+	ENST00000276416,ENST00000522687,ENST00000520292	26351-26352	10,18
chr8	22501116	22500885	-	chr8	22494475	22494435	-	ENST00000276431,ENST00000347739	26353-26356	13,2,8,13
chr8	22909571	22909491	-	chr8	22900756	22900651	-	ENST00000356864	26357-26359	15,12,23
chr8	22947731	22947801	+	chr8	22969233	22969338	+	ENST00000397677,ENST00000313219,ENST00000519984,ENST00000519503	26360-26364	17,40,17,40,17
chr8	23085423	23085666	+	chr8	23112760	23112945,2	+	ENST00000389131	26365-26366	13,21
chr8	23163619	23163555	-	chr8	23160910	23160795	-	ENST00000524144,ENST00000520871	26367-26368	29,6
chr8	23237590	23237503	-	chr8	23225947	23225510	-	ENST00000519973,ENST00000417331,ENST00000290075,ENST00000523930	26369-26373	28,8,8,8,8
chr8	23394333	23394417	+	chr8	23423621	23423849,2	+	ENST00000519973,ENST00000417331,ENST00000290075,ENST00000523930	26374-26379	41,45,2,2,2,2
chr8	23400192	23400349	+	chr8	23423621	23423849,2	+	ENST00000265769,ENST00000523379,ENST00000520448,ENST00000437154	26380-26384	50,15,15,15,15
chr8	24093467	24093736	+	chr8	24157487	24157590	+	ENST00000481100,ENST00000276440,ENST00000444569	26385-26390	33,1,13,13,1,13
chr8	25155287	25155387	+	chr8	25156460	25156617	+	ENST00000380737,ENST00000518397,ENST00000315985	26391-26394	16,7,18,18
chr8	26182671	26182943	+	chr8	26196406	26196503	+	ENST00000380737,ENST00000315985	26395-26397	3,24,7
chr8	26216262	26216548	+	chr8	26217685	26217797	+	ENST00000380629,ENST00000523949	26398-26401	20,10,22,22
chr8	26246359	26246517	+	chr8	26248759	26248942	+	ENST00000521913,ENST00000311151,ENST00000523027	26402-26403	2,5
chr8	26470357	26470491	+	chr8	26481659	26481823	+	ENST00000413272,ENST00000341513,ENST00000418860	26404-26409	4,30,22,22,4,22
chr8	27930813	27930670	-	chr8	27927873	27927769	-	ENST00000521015,ENST00000256398,ENST00000542181,ENST00000524103,ENST00000537665,ENST00000380353,ENST00000523357,ENST00000517975	26410-26414	18,3,6,6,6
chr8	28016633	28016688	+	chr8	28017746	28017973,3	+	ENST00000335551,ENST00000400186,ENST00000602723,ENST00000520002,ENST00000602557,ENST00000537824	26415-26418	15,37,24,15
chr8	2816920	2816780	-	chr8	2815329	2815218	-	,ENST00000542608	26419-26420	
chr8	28226049	28225966	-	chr8	28218699	28218493	-	ENST00000521548		13,7
chr8	29106241	29105966	-	chr8	29102956	29102863,3	-	ENST00000524189,ENST00000522355,ENST00000521515,ENST00000523968	26421-26423	4,7,4
chr8	30373615	30373886	+	chr8	30402011	30402141,304	+	ENST00000397323,ENST00000339877,ENST00000320203,ENST00000287771,ENST00000517860,ENST00000520161,ENST00000523115,ENST00000519647,ENST00000520191,ENST00000522694	26424-26432	34,11,13,11,11,11,11,13,11

Table 10

						ENST00000221130,ENST00000414019,ENST00000537535,ENST00000541648,ENST00000546342,ENST00000523295		6,17,17,17,17,17
chr8	30574903	30574804 -	chr8	30569605	30569579 -	,ENST00000520888	26433-26439	
chr8	30698734	30698635 -	chr8	30697480	30697422 -	ENST00000256246	26440-26442	24,11,28
chr8	36762118	36762383 +	chr8	36763226	36763322 +	ENST00000399881,ENST00000522372	26443-26445	1,25,1
chr8	37742812	37742546 -	chr8	37735069	37734627 -	ENST00000287263,ENST00000330843	26446-26449	13,79,21,79
chr8	37746613	37746548 -	chr8	37735069	37734627 -	ENST00000287263,ENST00000330843	26450-26453	13,21,21,21
chr8	37953099	37953396 +	chr8	37963896	37963962 +	ENST00000343823,ENST00000517496	26454-26457	3,6,7,7
chr8	38160451	38160229 -	chr8	38157108	38156962 -	ENST00000317025,ENST00000527502	26458-26461	69,7,40,69
chr8	38698576	38699007 +	chr8	38699805	38699965 +	ENST00000519416,ENST00000520615,ENST00000443286,ENST00000518415,ENST00000330691,ENST00000348567,ENST00000317827,ENST00000379931,ENST00000276520,ENST00000520973	26462-26464	5,28,18
chr8	38946487	38946750 +	chr8	38947566	38947707,4 +	ENST00000487273,ENST00000379917,ENST00000468065	26465-26469	34,20,4,20,4
chr8	42023143	42023220 +	chr8	42024682	42024889 +	ENST00000518421,ENST00000174653,ENST00000396926,ENST00000521280	26470-26473	2,4,25,4
chr8	42651806	42651476 -	chr8	42620347	42620208 -	ENST00000276410,ENST00000534622	26474-26478	21,3,46,21,3
chr8	42740888	42740649 -	chr8	42729149	42729074 -	ENST00000319104,ENST00000534961,ENST00000527424,ENST00000240159,ENST00000531440	26479-26480	22,1
chr8	43032412	43032511 +	chr8	43033217	43033377 +	ENST00000458501,ENST00000379644,ENST00000522082	26481-26484	1,24,32,32
chr8	43049881	43050076 +	chr8	43051573	43051683 +	ENST00000524016	26485-26487	22,65,8
chr8	43049881	43050076 +	chr8	43052091	43052168 +	ENST00000458501,ENST00000379644,ENST00000524016,ENST00000297798,ENST00000521576	26488-26492	22,65,8,22,65
chr8	479257	478895 -	chr8	444597	444494 -	ENST00000324079,ENST00000523656,ENST00000427263	26493-26496	47,88,1,47
chr8	48319332	48319478 +	chr8	48320423	48320523 +	ENST00000297423,ENST00000518074,ENST00000524033,ENST00000541342	26497-26498	2,25
chr8	48546155	48546187 +	chr8	48586363	48586503 +	ENST00000297423,ENST00000518074,ENST00000541342,ENST00000519401	26499-26502	11,10,10,10
chr8	48748323	48748233 -	chr8	48746957	48746757 -	ENST00000314191,ENST00000338368	26503-26505	1,9,1
chr8	48773112	48772883 -	chr8	48772320	48772172 -	ENST00000314191,ENST00000338368	26506-26509	76,75,5,75
chr8	52643572	52643296 -	chr8	52567320	52567249 -	ENST00000356297,ENST00000543296	26510-26512	39,7,7
chr8	53480937	53480772 -	chr8	53455005	53454952 -	ENST00000358543,ENST00000523939	26513-26514	54,21
chr8	53484030	53483830 -	chr8	53455005	53454952 -	ENST00000358543,ENST00000523939	26515-26516	60,66
chr8	54699232	54698777 -	chr8	54684727	54684549 -	ENST00000355221,ENST00000520188,ENST00000359530,ENST00000396774	26517-26518	21,1
chr8	54841106	54841324 +	chr8	54852139	54852284 +	ENST00000297313,ENST00000344277,ENST00000276500	26519-26521	7,33,18
chr8	54844161	54844227 +	chr8	54852136	54852284 +	ENST00000297313,ENST00000344277,ENST00000276500	26522-26524	14,8,4
chr8	54857306	54857930 +	chr8	54859225	54859308,5 +	ENST00000297313,ENST00000344277,ENST00000517659,ENST00000276500	26525-26529	66,37,9,66,9

Table 10

chr8	54994274	54994122	-	chr8	54965316	54965215,5	-	ENST00000316963,ENST00000343231,ENST00000518546,ENST00000521352	26530-26534	51,7,51,51,7
chr8	54994274	54994122	-	chr8	54975935	54975888	-	ENST00000316963,ENST00000521898	26535-26537	51,7,7
chr8	54994274	54994224	-	chr8	54978373	54978308	-	ENST00000316963,ENST00000343231,ENST00000518546	26538-26544	17,7,16,17,7,16,7
chr8	54994586	54994449	-	chr8	54975935	54975888	-	ENST00000316963,ENST00000521898	26545-26548	46,37,1,37
chr8	54994586	54994449	-	chr8	54978373	54978308	-	ENST00000316963,ENST00000343231,ENST00000518546	26549-26555	46,37,1,46,37,1,37
chr8	54994586	54994521	-	chr8	54975935	54975888	-	ENST00000316963,ENST00000521898	26556-26558	22,13,13
chr8	54994586	54994521	-	chr8	54978373	54978308	-	ENST00000316963,ENST00000343231,ENST00000518546	26559-26563	22,13,22,13,13
chr8	55007856	55007788	-	chr8	54978373	54978308	-	ENST00000316963,ENST00000343231,ENST00000518546	26564-26568	23,13,23,13,13
chr8	55057049	55057117	+	chr8	55059942	55060279	+	ENST00000260102	26569-26570	23,13
chr8	56661448	56661201	-	chr8	56657680	56657620,6	-	ENST00000434581,ENST00000523073,ENST00000519780,ENST00000522090	26571-26578	26,12,32,26,32,32,26,32
chr8	56717784	56717944	+	chr8	56723440	56723656	+	ENST00000260129	26579-26580	2,7
chr8	56723701	56723719	+	chr8	56725659	56725677	+	ENST00000260129	26581-26582	6,6
chr8	59542300	59542212	-	chr8	59536339	59536268	-	ENST00000038176,ENST00000427130	26583-26585	3,29,8
chr8	59548978	59548751	-	chr8	59548105	59548027	-	ENST00000038176,ENST00000427130	26586-26588	11,28,2
chr8	59549974	59549784	-	chr8	59548105	59548027	-	ENST00000038176,ENST00000427130	26589-26591	1,33,12
chr8	59549974	59549793	-	chr8	59548105	59548027	-	ENST00000038176,ENST00000427130	26592-26594	10,30,9
chr8	59847168	59847086	-	chr8	59764364	59764083	-	ENST00000361421	26595-26596	27,24
chr8	61420968	61421371	+	chr8	61471411	61471482	+	ENST00000262646,ENST00000529579,ENST00000466595,ENST00000534260	26597-26603	12,8,5,8,8,8,5
chr8	61759848	61759925	+	chr8	61761074	61761163	+	ENST00000423902	26604-26606	10,18,7
chr8	620733	620243	-	chr8	618792	618598,618	-	ENST00000522706,ENST00000523415,ENST00000262109,ENST00000522893	26607-26612	12,102,11,102,102,102
chr8	620733	620456	-	chr8	618782	618598,618	-	ENST00000522706,ENST00000523415,ENST00000262109,ENST00000522893	26613-26618	50,31,45,50,50,50
chr8	620733	620456	-	chr8	618792	618598,618	-	ENST00000522706,ENST00000523415,ENST00000262109,ENST00000522893	26619-26624	50,31,45,31,31,31
chr8	622229	622007	-	chr8	618792	618598,618	-	ENST00000522706,ENST00000523415,ENST00000262109,ENST00000522893	26625-26630	74,55,32,74,74,74
chr8	622229	622022	-	chr8	618792	618598,618	-	ENST00000522706,ENST00000523415,ENST00000262109,ENST00000522893	26631-26636	69,50,27,69,69,69
chr8	62610659	62610381	-	chr8	62596747	62596598	-	ENST00000541428,ENST00000379454,ENST00000522349,ENST00000356457,ENST00000519234,ENST00000518068,ENST00000517903,ENST00000445642,ENST00000517847,ENST00000522835,ENST00000518306,ENST00000517856,ENST00000389204,ENST00000522603,ENST00000379449,ENST00000517661	26637-26650	13,10,19,19,19,19,19,19,19,19,19,19

Table 10

							ENST00000541428,ENST00000379454,ENST00000522349,ENST00000356457,ENST00000519234,ENST00000518068,ENST00000517903,ENST00000445642,ENST00000517847,ENST00000522835,ENST00000518306,ENST00000517856,ENST00000389204,ENST00000522603,ENST00000379449,ENST00000517661	26651-26652	43,17
chr8	62610659	62610464	-	chr8	62596747	62596598	-		
							ENST00000541428,ENST00000379454,ENST00000522349,ENST00000356457,ENST00000519234,ENST00000518068,ENST00000517903,ENST00000445642,ENST00000517847,ENST00000522835,ENST00000518306,ENST00000517856,ENST00000389204,ENST00000522603,ENST00000379449,ENST00000517661	26653-26654	8,14
chr8	62638502	62638285	-	chr8	62596747	62596598	-		
							ENST00000539294,ENST00000517371,ENST00000524135	26655-26668	4,1,23,1,1,1,1,1,1,1,1,1,1,1,1,1,1
chr8	62675105	62674981	-	chr8	62596747	62596598	-		
							ENST00000401827,ENST00000379419,ENST00000396642	26669-26674	9,9,9,9,9,9
chr8	64081636	64081664	+	chr8	64081946	64081970	+		
							ENST00000401827,ENST00000379419,ENST00000396642	26675-26678	43,15,31,15
chr8	66648651	66648443	-	chr8	66647129	66647029	-		
							ENST00000401827,ENST00000379419,ENST00000396642	26679-26682	37,8,24,24
chr8	66648651	66648463	-	chr8	66647129	66647029	-		
							ENST00000412460,ENST00000262210,ENST00000519163,ENST00000519668	26683-26687	48,18,25,48,48
chr8	66751080	66750709	-	chr8	66695078	66695018	-		
							,ENST00000523253	26688-26690	36,1,12,36,36
chr8	67574853	67574772	-	chr8	67563779	67563693	-		
							ENST00000310421	26691-26692	3,27,26
chr8	67867354	67861568	-	chr8	67860399	67860286	-		
							ENST00000563496	26693-26695	15,123
chr8	67867354	67867214	-	chr8	67860399	67860286	-		
							ENST00000563496	26696-26697	15,7,21
chr8	67867354	67867258	-	chr8	67860399	67860286	-		
							ENST00000563496	26698-26702	32,6
chr8	68014550	68014683	+	chr8	68015272	68015370	+		
							ENST00000412460,ENST00000262210,ENST00000519668	26703-26706	4,11,7,7
chr8	68027456	68027499	+	chr8	68028149	68028357	+		
							ENST00000412460,ENST00000262210,ENST00000519668	26707	2
chr8	68080681	68080754	+	chr8	68084651	68084790	+		
chr8	68999478	68999480	+	chr8	68999959	69000044	+	ENST00000288368	26708 1
							ENST00000539993,ENST00000518698,ENST00000337103		22,31,4,22
chr8	69695782	69696039	+	chr8	69699678	69699771	+		
							,ENST00000325233	26709-26712	
chr8	72766521	72766846	+	chr8	72875158	72875209	+	ENST00000537896	26713-26715 6,57,24
chr8	72866507	72866618	+	chr8	72875158	72875209	+	ENST00000537896	26716-26718 25,6,11
chr8	72874223	72874284	+	chr8	72875158	72875209	+	ENST00000537896	26719-26721 20,20,20
chr8	72874223	72874348	+	chr8	72875158	72875209	+	ENST00000537896	26722-26723 7,4
chr8	72895839	72896141	+	chr8	72964774	72964806	+	ENST00000524152,ENST00000519068	26724-26726 30,8,14
chr8	72915513	72915547	+	chr8	72964774	72964806	+	ENST00000524152,ENST00000519068	26727-26729 4,2,11

						ENST00000524152,ENST000		6,33,63
chr8	72941789	72942008 +	chr8	72964774	72964806 +	00519068	26730-26732	
chr8	74036014	74035742 -	chr8	73984105	73984015 -	ENST00000297354	26733-26735	81,47,1
						ENST00000522695,ENST000		3,12,27
						00524300,ENST00000523558		
chr8	74393505	74393345 -	chr8	74334937	74334849 -	,ENST00000521210	26736-26738	
						ENST00000522695,ENST000		4,4,3
						00524300,ENST00000523558		
chr8	74417979	74417967 -	chr8	74334937	74334849 -	,ENST00000521210	26739-26741	
						ENST00000522695,ENST000		15,8,30,15,1
						00524300,ENST00000521210		5,15,15
						,ENST00000355780,ENST000		
						00519961,ENST00000521727		
						,ENST00000522509,ENST000		
						00517542,ENST00000518981		
chr8	74536929	74536838 -	chr8	74529686	74529527 -	,ENST00000521447	26742-26748	
chr8	74568317	74568251 -	chr8	74566131	74566128 -	ENST00000524104	26749-26751	17,13,5
						ENST00000522695,ENST000		1,35,1,1,1,1
						00524300,ENST00000521210		
						,ENST00000355780,ENST000		
						00519961,ENST00000521727		
						,ENST00000522509,ENST000		
						00517542,ENST00000518981		
chr8	74574830	74573931 -	chr8	74529686	74529527 -	,ENST00000521447	26752-26757	
						ENST00000522695,ENST000		37,34,37,37,
						00524300,ENST00000521210		37,37
						,ENST00000355780,ENST000		
						00519961,ENST00000521727		
						,ENST00000522509,ENST000		
						00517542,ENST00000518981		
chr8	74574830	74573935 -	chr8	74529686	74529527 -	,ENST00000521447	26758-26763	
						ENST00000358757,ENST000		11,2,17,11,1
						00523278,ENST00000453587		1,11
						,ENST00000517608,ENST000		
						00422906,ENST00000602593		
						,ENST00000602969,ENST000		
						00419880,ENST00000519277		
chr8	74743020	74742919 -	chr8	74742707	74742616 -	,ENST00000519255	26764-26769	
chr8	76410524	76411880 +	chr8	76456046	76456214 +	ENST00000396423	26770-26772	1,27,12
						ENST00000354724,ENST000		4,12,12
chr8	80702735	80702433 -	chr8	80679529	80679454 -	00337919	26773-26775	
						ENST00000537855,ENST000		19,8,8,8,8,8,
						00379096,ENST00000518937		8,8,8
						,ENST00000517427,ENST000		
						00520527,ENST00000448733		
						,ENST00000379097,ENST000		
						00517462,ENST00000518517		
						,ENST00000521241,ENST000		
						00523753,ENST00000520795		
chr8	80979920	80979861 -	chr8	80976828	80976713,8 -		26776-26784	
						ENST00000537855,ENST000		3,3,3,3,3,3,3
						00379096,ENST00000518937		,3,3
						,ENST00000517427,ENST000		
						00520527,ENST00000448733		
						,ENST00000379097,ENST000		
						00517462,ENST00000518517		
						,ENST00000521241,ENST000		
						00523753,ENST00000520795		
chr8	81046716	81046706 -	chr8	80976828	80976713,8 -		26785-26793	
						ENST00000518517,ENST000		3,3
chr8	81046716	81046706 -	chr8	81032119	81032050 -	00523753	26794-26795	
chr8	81900985	81900729 -	chr8	81899701	81899605 -	ENST00000220597	26796-26798	10,27,13
						ENST00000523096,ENST000		9,39,27,27,2
						00220669,ENST00000519464		7,27
chr8	82640428	82640309 -	chr8	82630459	82630417 -	,ENST00000519523	26799-26804	

							ENST00000523953,ENST000 00432364,ENST00000542576 ,ENST00000431316,ENST000 00256119,ENST00000523022 ,ENST00000522389,ENST000 00521679,ENST00000524324 ,ENST00000517618,ENST000 00519991,ENST00000520663 ,ENST00000517590,ENST000 00521846,ENST00000522579 ,ENST00000522814		30,61,39,61, 61,61,61,61, 61,61,61,61
chr8	86290623	86290275	-	chr8	86245849	86245754,862	-		26805-26816	
								ENST00000523953,ENST000 00432364,ENST00000542576 ,ENST00000431316,ENST000 00256119,ENST00000523022 ,ENST00000521679,ENST000 00524324,ENST00000517618 ,ENST00000517590,ENST000 00521846,ENST00000522579 ,ENST00000522814,ENST000 00522662,ENST00000523858		30,61,39,30, 30,30,30,30, 30,30,30
chr8	86290623	86290275	-	chr8	86249292	86249174,9	-		26817-26827	
								ENST00000523953,ENST000 00432364,ENST00000542576 ,ENST00000431316,ENST000 00256119,ENST00000523022 ,ENST00000517618,ENST000 00517590,ENST00000517429 ,ENST00000521846,ENST000 00522579,ENST00000522814 ,ENST00000522662,ENST000 00523858,ENST00000519129		30,61,39,30, 30,30,30,30, 30,30,30,61
chr8	86290623	86290275	-	chr8	86250678	86250481,9	-		26828-26839	
chr8	8717578	8717483	-	chr8	8655001	8654875	-	ENST00000276282	26840-26842	1,31,10
chr8	8717578	8717500	-	chr8	8655001	8654875	-	ENST00000276282	26843-26844	26,4
chr8	87481901	87481653	-	chr8	87480936	87480905	-	ENST00000517710	26845-26847	24,10,17
chr8	87604594	87604454	-	chr8	87591480	87591334	-	ENST00000320005	26848-26850	15,7,21
								ENST00000517327,ENST000		32,6,6
chr8	87604594	87604498	-	chr8	87591091	87590917	-	00320005	26851-26853	
chr8	87604594	87604498	-	chr8	87591480	87591334	-	ENST00000320005	26854-26855	32,6
chr8	87665376	87664480	-	chr8	87660115	87660029	-	ENST00000320005	26856-26858	41,13,26
chr8	87834527	87834808	+	chr8	87899770	87899839	+	ENST00000518476	26859-26861	4,10,44
chr8	87834527	87834808	+	chr8	87917309	87917422	+	ENST00000518476	26862-26864	4,10,44
chr8	89058524	89058431	-	chr8	89054023	89053689	-	ENST00000286614	26865-26867	15,28,13
chr8	89070349	89070236	-	chr8	89068506	89068356	-	ENST00000286614	26868-26869	38,4
chr8	91107662	91105622	-	chr8	91094326	91094254	-	ENST00000265431	26870-26871	6,15
chr8	91107662	91106303	-	chr8	91094330	91094254	-	ENST00000265431	26872-26874	10,73,1
								ENST00000265431,ENST000		23,44,34
chr8	91107662	91107517	-	chr8	91075381	91075328	-	00518457	26875-26877	
chr8	91107662	91107517	-	chr8	91094326	91094254	-	ENST00000265431	26878-26880	23,44,34
								ENST00000521988,ENST000 00537541,ENST00000518748 ,ENST00000523580,ENST000 00520686,ENST00000520430 ,ENST00000517858,ENST000 00378861,ENST00000524037 ,ENST00000521617,ENST000 00519069,ENST00000524107 ,ENST00000519969,ENST000 00517751,ENST00000522925		4,2
chr8	93907165	93907153	-	chr8	93904302	93904217	-		26881-26882	
								ENST00000452913,ENST000 00518322,ENST00000522324 ,ENST00000359421,ENST000 00522803,ENST00000423990 ,ENST00000520937,ENST000 00518116,ENST00000523453		2,9,32,2,2,2, 2,2,2,2,2
chr8	94710710	94710975	+	chr8	94713452	94713686	+		26883-26893	
chr8	94870169	94870422	+	chr8	94934244	94935901	+	ENST00000396200	26894-26896	5,11,27
chr8	94933573	94933591	+	chr8	94934244	94935901	+	ENST00000396200	26897-26899	6,6,5
								ENST00000520408,ENST000 00310430,ENST00000518281		7,6,1,1
chr8	9528693	9528713	+	chr8	9537461	9537497	+		26900-26903	

Table 10

							ENST00000336148,ENST00000463267,ENST00000523839,ENST00000297592	31,6,8,31,31,31
chr8	95479455	95479363	-	chr8	95470664	95470496	-	26904-26909
							ENST00000423620,ENST00000433389,ENST00000358397,ENST00000454170,ENST00000519505,ENST00000517610	1,1,1,1,1,1,1,1
chr8	95688077	95688081	+	chr8	95690431	95690599	+	26910-26917
							ENST00000414645,ENST00000523020	20,13,19,19
chr8	95765825	95765885	+	chr8	95768264	95768387	+	26918-26921
chr8	95776524	95776589	+	chr8	95777411	95777542	+	ENST00000414645 26922-26924 13,5,21
							ENST00000523731,ENST00000447247,ENST00000343161,ENST00000520526	21,21,13,13,13
chr8	95855516	95855580	+	chr8	95861690	95861760	+	26925-26929
							ENST00000523731,ENST00000447247,ENST00000343161,ENST00000520526	29,29,20,29,29
chr8	95855516	95855603	+	chr8	95861690	95861760	+	26930-26934
							ENST00000310430,ENST00000518281	33,23,1
chr8	9617203	9617301	+	chr8	9619026	9619146	+	26935-26937
							ENST00000287022,ENST00000521036,ENST00000518406,ENST00000523920	10,6,17,17,17
chr8	97246725	97246651	-	chr8	97245455	97245384	-	26938-26942
chr8	97295987	97295991	+	chr8	97296337	97296381	+	ENST00000517309 26943-26944 1,1
							ENST00000336273,ENST00000519934,ENST00000522313	21,43,29,43,43
chr8	98672105	98672396	+	chr8	98673300	98673401	+	26945-26949
							ENST00000445593,ENST00000521545,ENST00000517924	18,33,7,18
chr8	98819170	98819269	+	chr8	98827556	98827629	+	26950-26953
							ENST00000445593,ENST00000521545,ENST00000517924	26,3,12,3
chr8	98822486	98822589	+	chr8	98827556	98827629	+	26954-26957
							ENST00000401707,ENST00000349693	26,5,30
chr8	99163727	99163819	+	chr8	99168278	99168640	+	26958-26960
							ENST00000430223,ENST00000341166	4,30,39,30
chr8	99240551	99240433	-	chr8	99234828	99234707	-	26961-26964
							ENST00000419617,ENST00000523601	2,47,5
chr8	99474137	99473854	-	chr8	99468228	99468070	-	26965-26967
							ENST00000419617,ENST00000523601	43,15,46
chr8	99746479	99746171	-	chr8	99719539	99719375	-	26968-26970
chr9	100366272	100366222	-	chr9	100365049	100364751	-	ENST00000341170 26971-26973 17,7,16
chr9	100687164	100687174	+	chr9	100756913	100757062	+	ENST00000339399 26974-26976 3,3,2
chr9	100769295	100769984	+	chr9	100773556	100773671	+	ENST00000339399 26977-26978 81,32
chr9	100807994	100808121	+	chr9	100839200	100839299	+	ENST00000210444 26979-26980 8,28
chr9	100827951	100828229	+	chr9	100839200	100839299	+	ENST00000210444 26981-26983 39,7,1
							ENST00000343933,ENST00000375077	31,50,23
chr9	100912062	100911765	-	chr9	100899970	100899854	-	26984-26986
							ENST00000375064,ENST00000342112,ENST00000375066	20,5
chr9	100976157	100976067	-	chr9	100975500	100975390	-	26987-26988
							ENST00000444472,ENST00000375018	3,4
chr9	101521924	101521911	-	chr9	101518888	101518702	-	26989-26990
							ENST00000444472,ENST00000375019,ENST00000375018,ENST00000353234,ENST00000540940	13,9,17,9,9
chr9	101538982	101538928	-	chr9	101536362	101536159	-	26991-26995
							ENST00000375018,ENST00000353234,ENST00000540940	5,12,19,19
chr9	101569118	101569053	-	chr9	101547158	101547114	-	26996-26999
							ENST00000259400,ENST00000524405,ENST00000525640	17,7,17
chr9	102708082	102708132	+	chr9	102713342	102713567	+	,ENST00000534052 27000-27002
							ENST00000262457,ENST00000262456	12,20,12
chr9	102891870	102892026	+	chr9	102988344	102988517	+	27003-27005
							ENST00000502978,ENST00000334943,ENST00000374879	13,6
chr9	103289511	103289606	+	chr9	103310026	103310174	+	27006-27007
							ENST00000502978,ENST00000334943,ENST00000374879	7,21,15
chr9	103289511	103289650	+	chr9	103310026	103310174	+	27008-27010
chr9	107589694	107589635	-	chr9	107589450	107589229	-	ENST00000374736 27011-27013 2,19,19
							ENST00000374720,ENST00000374723,ENST00000470972	25,5,25,25
chr9	108014537	108014617	+	chr9	108061501	108061590	+	,ENST00000374724 27014-27017

Table 10

						ENST00000602661,ENST000 00223528,ENST00000540160 ,ENST00000448551,ENST000 00357998,ENST00000374705		1,23,37,1,1, 1
chr9	108360494	108360982	+	chr9	108363426	108363629	+		27018-27023	
								ENST00000495759,ENST000 00374647,ENST00000537196		36,14,36
chr9	111645746	111645537	-	chr9	111644467	111644405	-		27024-27026	
								ENST00000374647,ENST000 00537196		2,73,60
chr9	111656796	111656571	-	chr9	111656346	111656223	-		27027-27029	
								ENST00000374595,ENST000 00325551,ENST00000325580		54,8,85,54,5 4,54
chr9	111764690	111764433	-	chr9	111761536	111761347	-	,ENST00000374593	27030-27035	
								ENST00000374531,ENST000 00448454,ENST00000374530 ,ENST00000483909,ENST000 00314527,ENST00000413420 ,ENST00000302798,ENST000 00510514,ENST00000555236		24,11
chr9	112684418	112684518	+	chr9	112686015	112686129	+	,ENST00000497711	27036-27037	
								ENST00000189978,ENST000 00374448,ENST00000416899		6,32
chr9	113553378	113553475	+	chr9	113562586	113563268	+		27038-27039	
								ENST00000374431,ENST000 00541779,ENST00000374430 ,ENST00000358883,ENST000 00538760,ENST00000441240		35,34,17,35
chr9	113706508	113706404	-	chr9	113704448	113703701	-		27040-27043	
								ENST00000374431,ENST000 00541779,ENST00000374430 ,ENST00000358883,ENST000 00538760,ENST00000441240		6,39,17,17
chr9	113774021	113773828	-	chr9	113704448	113703701	-		27044-27047	
								ENST00000338205,ENST000 00259335,ENST00000602447		33,7,7,7
chr9	114218387	114218286	-	chr9	114213835	114213705	-	,ENST00000602978	27048-27051	
								ENST00000538962,ENST000 00466771,ENST00000309195 ,ENST00000407693,ENST000		4,12,25,4,4
chr9	114341022	114340650	-	chr9	114337118	114337014	-	00238248	27052-27056	
								ENST00000538962,ENST000 00466771,ENST00000309195 ,ENST00000407693,ENST000		4,12,25,12,1 2
chr9	114341022	114340650	-	chr9	114337122	114337014	-	00238248	27057-27061	
								ENST00000538962,ENST000 00309195,ENST00000407693		23,1,31,31,3 1
chr9	114350808	114350712	-	chr9	114348445	114348278	-	,ENST00000422125	27062-27066	
								ENST00000538962,ENST000 00466771,ENST00000309195 ,ENST00000407693,ENST000		27,38,1,1,1
chr9	114380572	114379851	-	chr9	114337122	114337014	-	00238248	27067-27071	
								ENST00000463589,ENST000		26,37,12
chr9	114402184	114402911	+	chr9	114405137	114405208	+	00447096	27072-27074	
chr9	114402184	114403028	+	chr9	114405119	114405208	+	ENST00000463589	27075-27077	27,14,1
chr9	114402184	114403068	+	chr9	114405119	114405208	+	ENST00000463589	27078-27080	12,27,14
								ENST00000394777,ENST000 00394779,ENST00000374287		11,6
chr9	114461862	114461309	-	chr9	114456642	114456511	-	,ENST00000318737	27081-27082	
								ENST00000355396,ENST000 00374263,ENST00000374270		9,18,44,9,44
chr9	114809683	114809383	-	chr9	114804240	114804181	-	,ENST00000374264	27083-27087	
chr9	114809683	114809383	-	chr9	114804445	114804381	-	ENST00000374264	27088-27089	18,44
								ENST00000355396,ENST000 00374263,ENST00000374270		54,27,27
chr9	114809683	114809435	-	chr9	114804240	114804181	-	,ENST00000374264	27090-27092	
								ENST00000355396,ENST000 00374263,ENST00000374270 ,ENST00000374264,ENST000		11,1
chr9	114893022	114892990	-	chr9	114886716	114886537	-	00415074	27093-27094	
								ENST00000446284,ENST000 00238256,ENST00000414250		10,36,36
chr9	115983081	115982970	-	chr9	115973872	115973757	-		27095-27097	
chr9	116123136	116123375	+	chr9	116124649	116124674	+	ENST00000374183	27098-27099	11,15

							ENST00000374140,ENST00000350696,ENST00000343817,ENST00000394646,ENST00000462143,ENST00000374134		14,14,13,14
chr9	116348238	116348280	+	chr9	116353613	116353677	+,ENST00000467805	27100-27103	
							ENST00000374126,ENST00000288466,ENST00000452710		4,4,4,4,4
chr9	116765635	116765649	+	chr9	116769630	116769719	+,ENST00000374124	27104-27108	
							ENST00000374126,ENST00000288466		17,7,16
chr9	116795408	116795458	+	chr9	116798580	116798657	+	27109-27111	
chr9	116925247	116925284	+	chr9	116929969	116931743	+ ENST00000356083	27112-27114	12,12,12
							ENST00000356083,ENST00000494090		8,15,25,15
chr9	116985009	116985210	+	chr9	116993359	116993412	+	27115-27118	
							ENST00000356083,ENST00000494090		6,12,5,5
chr9	116990823	116990959	+	chr9	116993359	116993412	+	27119-27122	
							ENST00000307564,ENST00000374088,ENST00000223791		11,10,10
chr9	117116175	117116143	-	chr9	117113301	117113139	-,ENST00000374075	27123-27125	
							ENST00000307564,ENST00000374088,ENST00000374075		2,25,25,25
chr9	117130557	117130480	-	chr9	117129977	117129823	-,ENST00000312033	27126-27129	
							ENST00000265134,ENST00000374059,ENST00000362057		29,18,45
chr9	117186399	117186263	-	chr9	117185803	117185594	-	27130-27132	
chr9	117226907	117226633	-	chr9	117188693	117188491	- ENST00000362057	27133-27135	10,16,1
chr9	117226907	117226640	-	chr9	117188693	117188491	- ENST00000362057	27136-27138	8,14,29
							ENST00000340094,ENST00000345230,ENST00000346706,ENST00000535648,ENST00000350763,ENST00000341037,ENST00000423613,ENST00000537320,ENST00000542877		15,14,15
chr9	117793645	117793600	-	chr9	117792684	117792533	-,ENST00000544972	27139-27141	
							ENST00000328252,ENST00000534838	27142-27144	29,15,1
chr9	119095401	119095487	+	chr9	119097140	119097353	+		
							ENST00000328252,ENST00000534838	27145-27147	6,1,8
chr9	119107308	119107333	+	chr9	119109305	119109488	+		
							ENST00000359309,ENST00000360822,ENST00000349780,ENST00000360190,ENST00000473282,ENST00000480112		6,11,31,11,1 1,11,11,11,1 1,31
chr9	123288191	123288095	-	chr9	123287356	123287264	-,ENST00000482047	27148-27157	
							ENST00000608872,ENST00000340778	27158-27160	22,15,8
chr9	123529036	123528942	-	chr9	123527125	123526837	-		
							ENST00000373920,ENST00000210313,ENST00000373904		7,49
chr9	123585369	123585221	-	chr9	123583742	123583633	-	27161-27162	
							ENST00000373896,ENST00000419155,ENST00000453868		1,1,1
chr9	123626287	123626284	-	chr9	123625027	123624866	-	27163-27165	
							ENST00000373865,ENST00000373855,ENST00000238341		4,4,4,4
chr9	123842743	123842756	+	chr9	123852553	123852683	+	27166-27169	
							ENST00000373865,ENST00000373855,ENST00000238341		5,45,8,45
chr9	123861305	123866622	+	chr9	123870080	123870273	+	27170-27173	
							ENST00000394340,ENST00000259371,ENST00000408936		13,62,4,62,6 2
chr9	124515187	124515375	+	chr9	124519292	124519445	+,ENST00000373782	27174-27178	
chr9	125008586	125008486	-	chr9	125007620	125007535	- ENST00000417201	27179-27180	24,17
							ENST00000297908,ENST00000344641,ENST00000373729		2,18
chr9	125048307	125048445	+	chr9	125075506	125075665	+	27181-27182	
							ENST00000373670,ENST00000498479,ENST00000357244,ENST00000423239,ENST00000373665,ENST00000335387		7,5,23,7,7,7
chr9	125651309	125650895	-	chr9	125645658	125645483	-	27183-27188	
							ENST00000373670,ENST00000498479,ENST00000357244,ENST00000423239,ENST00000373665,ENST00000335387		6,7
chr9	125654691	125654641	-	chr9	125652824	125652591	-,ENST00000471874	27189-27190	

Table 16

chr9	125733069	125734231	+	chr9	125746764	125746998	+	ENST00000373647,ENST00000402311	27191-27194	28,7,17,17
chr9	125788321	125788389	+	chr9	125827627	125827836	+	ENST00000456584,ENST00000373647	27195-27198	23,13,23,13
chr9	125831878	125831928	+	chr9	125832629	125832703	+	ENST00000373647	27199-27201	17,7,16
chr9	125843194	125843383	+	chr9	125852037	125852129	+	ENST00000373647,ENST00000373643	27202-27203	58,1
chr9	125847503	125847562	+	chr9	125852037	125852129	+	ENST00000373647,ENST00000373643	27204-27205	16,1
chr9	125920156	125919911	-	chr9	125910149	125910057	-	ENST00000447404,ENST00000348403,ENST00000360998	27206-27207	30,26
chr9	126148095	126148037	-	chr9	126146192	126145934	-	ENST00000373624,ENST00000542603,ENST00000394219	27208-27209	1,19
chr9	126760364	126760597	+	chr9	126776240	126776442	+	ENST00000560961,ENST00000373615,ENST00000446480	27210-27215	4,20,77,4,4,20
chr9	127173550	127173482	-	chr9	127146935	127146877	-	ENST00000259457,ENST00000536392	27216-27218	23,13,23
chr9	127431696	127431668	-	chr9	127316849	127316607	-	ENST00000487099,ENST00000344523,ENST00000475178	27219-27223	9,9,8,9,9
chr9	127623282	127623154	-	chr9	127622543	127622462	-	ENST00000373570,ENST00000493018,ENST00000348462	27224-27228	1,42,10,42,10
chr9	127969088	127969226	+	chr9	127969843	127970000	+	ENST00000259460,ENST00000394125,ENST00000373544,ENST00000394124,ENST00000373538,ENST00000416065	27229-27234	1,6,15,15,15,15
chr9	127969549	127969567	+	chr9	127969843	127970000	+	ENST00000259460,ENST00000394125,ENST00000373544,ENST00000394124,ENST00000373538,ENST00000416065	27235-27240	6,4,5,5,5,5
chr9	127988272	127988405	+	chr9	127990189	127990338	+	ENST00000259460,ENST00000394125,ENST00000373538	27241-27243	18,44,32
chr9	128222152	128221249	-	chr9	128206877	128206780	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000444226,ENST00000373497,ENST00000420643	27244-27247	14,12,27,14
chr9	128222152	128221289	-	chr9	128206877	128206780	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000444226,ENST00000373497,ENST00000420643	27248-27251	1,27,14,14
chr9	128222152	128221329	-	chr9	128206877	128206780	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000373497,ENST00000420643	27252-27255	37,14,1,14
chr9	128320446	128320169	-	chr9	128305447	128305338	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000373503,ENST00000265960,ENST00000394063,ENST00000373497,ENST00000420643,ENST00000394060,ENST00000427078	27256-27267	12,11,15,12,12,15,12,12,12,15,12,15
chr9	128421642	128421519	-	chr9	128420078	128419930	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000265960,ENST00000394060,ENST00000373496	27268-27274	41,3,35,41,41,41,41

						ENST00000342287,ENST00000373487,ENST00000373489,ENST00000491787,ENST00000447726,ENST00000428092	27275-27281	1,29,25,1,1,1,1
chr9	128547450	128547933 +	chr9	128677965	128678206 +	ENST00000361436,ENST00000536368	27282-27285	3,17,17,17
chr9	130213440	130213388 -	chr9	130213083	130213010 -	ENST00000300417,ENST00000373324,ENST00000323301,ENST00000373322	27286-27287	34,4
chr9	130235462	130235674 +	chr9	130236080	130236210 +	ENST00000373314,ENST00000373312	27288-27289	7,5
chr9	130334892	130334619 -	chr9	130294057	130293927 -	ENST00000373314,ENST00000373312	27290-27291	6,4
chr9	130334892	130334623 -	chr9	130294057	130293927 -	ENST00000373277,ENST00000373276,ENST00000314830,ENST00000440630	27292-27295	11,32,24,32
chr9	130529146	130529048 -	chr9	130523929	130523890 -	ENST00000373247,ENST00000373245,ENST00000393706,ENST00000373228,ENST00000373225,ENST00000431857,ENST00000423577	27296-27301	17,17,17,17,17,17
chr9	130570101	130570153 +	chr9	130570513	130570590 +	ENST00000335791	27302-27304	4,3,1
chr9	130679116	130679105 -	chr9	130674959	130674547 -	ENST00000338961,ENST00000449878	27305-27307	19,13,13
chr9	130886651	130886594 -	chr9	130886130	130885981 -	ENST00000393533,ENST00000372814,ENST00000351030,ENST00000604420,ENST00000448249,ENST00000393527,ENST00000434106,ENST00000546203,ENST00000421776,ENST00000372791,ENST00000372807,ENST00000444119	27308-27311	40,7,40,40
chr9	131236960	131237146 +	chr9	131243859	131243930 +	ENST00000309971,ENST00000372770	27312-27314	13,13,13
chr9	131269580	131269619 +	chr9	131271165	131271376 +	ENST00000309971,ENST00000372770	27315-27318	13,13,12,13
chr9	131269580	131269619 +	chr9	131271188	131271376 +	ENST00000309971,ENST00000372770	27319-27322	13,13,12,13
chr9	131269580	131269619 +	chr9	131271239	131271376 +	ENST00000372715,ENST00000451652,ENST00000419989	27323-27327	2,14,14,2,2
chr9	131406554	131406510 -	chr9	131403218	131402970 -	ENST00000291906	27328-27330	13,13,4
chr9	131476078	131476117 +	chr9	131476325	131476400 +	ENST00000291900	27331-27333	8,21,13
chr9	131506762	131506672 -	chr9	131505024	131504809 -	ENST00000302586,ENST00000320665,ENST00000436267	27334-27336	11,5,3
chr9	131596763	131596695 -	chr9	131596105	131596019 -	ENST00000302586,ENST00000436267,ENST00000451800,ENST00000416084,ENST00000427720	27337-27343	24,11,32,11,11,24,11
chr9	131602828	131602729 -	chr9	131600646	131600497 -	ENST00000372564,ENST00000372559,ENST00000372554,ENST00000417224,ENST00000416629,ENST00000416230	27344-27349	25,9,25,25,25,25
chr9	131786280	131786205 -	chr9	131784702	131784561 -	ENST00000259339	27350-27352	33,23,1
chr9	132567136	132567234 +	chr9	132569467	132569642 +	ENST00000446176,ENST00000420781,ENST00000449089,ENST00000355681	27353-27358	31,12,30,12,12,12
chr9	132707119	132707026 -	chr9	132691974	132691846 -	ENST00000347136,ENST00000372406,ENST00000372410	27359-27361	40,77,25
chr9	132884754	132884985 +	chr9	132887194	132887243 +	ENST00000372398,ENST00000458469	27362-27364	29,4,29
chr9	132963658	132963746 +	chr9	132980111	132980249 +	ENST00000352480,ENST00000372394,ENST00000372393,ENST00000422569,ENST00000443588	27365-27369	12,7,12,12,7
chr9	133332665	133332761 +	chr9	133333788	133333976 +	ENST00000361069	27370-27372	2,33,59
chr9	133948255	133948435 +	chr9	133948632	133948708 +			

Table 10

						ENST00000372210,ENST00000372211,ENST00000491309,ENST00000372208,ENST00000372215	27373-27377	28,4,31,4,4
chr9	134413306	134412958 -	chr9	134406032	134405873 -	ENST00000372189,ENST00000372195,ENST00000372190,ENST00000414781,ENST00000419442	27378-27384	13,5,12,13,13,5,12
chr9	134478051	134478013 -	chr9	134477536	134477448 -	ENST00000372189,ENST00000372195,ENST00000372190,ENST00000438647,ENST00000427994	27385-27388	11,24,24,24
chr9	134538353	134538255 -	chr9	134526336	134526197 -	ENST00000436441,ENST00000224140,ENST00000372169,ENST00000393220	27389-27392	9,15,15,15
chr9	135157977	135157827 -	chr9	135156961	135156854 -	ENST00000436441,ENST00000224140,ENST00000372169,ENST00000393220	27393-27397	4,22,1,4,4
chr9	135198054	135197986 -	chr9	135187243	135187144 -	ENST00000372159,ENST00000372153,ENST00000438527,ENST00000310532	27398-27405	16,19,19,19,19,16,19,19
chr9	135519140	135519082 -	chr9	135517450	135517391 -	ENST00000542690,ENST00000372043,ENST00000372040,ENST00000540636,ENST00000372038	27406-27413	12,1,46,1,46,1,46,46
chr9	136031181	136031031 -	chr9	136030699	136030565 -	ENST00000323345,ENST00000426651	27414-27417	11,9,13,13
chr9	136210211	136210283 +	chr9	136216428	136216555 +	ENST00000491289,ENST00000343730,ENST00000344469,ENST00000476080,ENST00000371999,ENST00000446777,ENST00000494177,ENST00000457204	27418-27424	1,25,1,1,1,1,1
chr9	136213250	136213146 -	chr9	136212107	136212027 -	ENST00000371989,ENST00000485435,ENST00000545297	27425-27431	4,14,91,4,4,91,4
chr9	136245053	136244721 -	chr9	136234321	136234135 -	,ENST00000371991	27432-27434	2,1,3
chr9	136258173	136258183 +	chr9	136259418	136259536 +	ENST00000371957	27435-27437	2,1,3
chr9	136258173	136258183 +	chr9	136260727	136260890 +	ENST00000371957	27438-27439	5,4
chr9	137326382	137326396 +	chr9	137328313	137328460 +	ENST00000481739,ENST00000540193	27440-27441	27,7
chr9	139123673	139123591 -	chr9	139118720	139118620 -	ENST00000358701	27442-27444	38,2,63
chr9	139124093	139123901 -	chr9	139118720	139118620 -	ENST00000358701	27445-27447	5,14,14
chr9	139131280	139131237 -	chr9	139118720	139118620 -	ENST00000358701	27448-27451	33,33,11,11
chr9	139263707	139263607 -	chr9	139262280	139262089 -	ENST00000371732,ENST00000371734	27452-27454	33,23,32
chr9	139419387	139419289 -	chr9	139418431	139418169 -	ENST00000277541	27455-27457	2,24,11
chr9	139611399	139611499 +	chr9	139612029	139612163 +	ENST00000371692	27458-27460	8,13,21
chr9	140066852	140066786 -	chr9	140066228	140066093 -	ENST00000413619	27461-27463	40,7,7
chr9	140367712	140367440 -	chr9	140361925	140361769 -	ENST00000371457,ENST00000277531,ENST00000406427,ENST00000434090	27464-27466	27,26,2
chr9	140487337	140487257 -	chr9	140483170	140483111 -	ENST00000298585	27467-27470	8,35,10,10
chr9	140545382	140545489 +	chr9	140611078	140611634 +	ENST00000462484,ENST00000460843	27471-27474	9,43,5,9
chr9	140546264	140546641 +	chr9	140605419	140605482 +	ENST00000462484,ENST00000460843	27475-27476	8,3
chr9	140605760	140605933 +	chr9	140611078	140611634 +	ENST00000462484,ENST00000460843	27477-27480	9,32,4,32
chr9	140605760	140605938 +	chr9	140611078	140611634 +	ENST00000462484,ENST00000460843	27481-27482	25,8
chr9	140632674	140633231 +	chr9	140637844	140637980 +	ENST00000462484,ENST00000460843	27483-27484	25,8
chr9	140632674	140633231 +	chr9	140637847	140637980 +			
chr9	14629773	14629695 -	chr9	14619680	14619637 -	ENST00000380916	27485-27487	26,26,19
chr9	14788120	14788073 -	chr9	14784632	14784368 -	ENST00000380881,ENST00000422223,ENST00000380880,ENST00000380821,ENST00000467062,ENST00000490969	27488-27490	15,13,15,152,26
chr9	15430891	15431346 +	chr9	15433550	15433634 +	,ENST00000421710	27491-27492	

Table 10

						ENST00000380738,ENST00000380733,ENST00000380715,ENST00000380716,ENST00000397519	27493-27497	36,10,19,10,10
chr9	15492055	15491786 -	chr9	15490122	15489984 -			
						ENST00000380738,ENST00000380733,ENST00000380715,ENST00000380716,ENST00000397519	27498-27499	24,7
chr9	15492055	15491822 -	chr9	15490122	15489984 -			
						ENST00000297641,ENST00000380701,ENST00000449575,ENST00000432954	27500-27503	59,1,1,1
chr9	15865410	15865593 +	chr9	15874530	15874661,2 +			
chr9	15865410	15865593 +	chr9	15920268	15920420 +	ENST00000380701	27504-27505	59,1
						ENST00000380683,ENST00000433347	27506-27509	50,63,61,61
chr9	16400748	16400418 -	chr9	16215897	16215770 -			
						ENST00000380672,ENST00000484726,ENST00000418777,ENST00000380667,ENST00000545497,ENST00000380666,ENST00000603713,ENST00000486514,ENST00000603313,ENST00000468187,ENST00000471301	27510-27518	17,7,16,17,17,7,17,17,17,17
chr9	16606041	16605991 -	chr9	16583083	16582981 -			
						ENST00000380672,ENST00000484726,ENST00000418777,ENST00000380667,ENST00000545497,ENST00000380666,ENST00000603713,ENST00000486514,ENST00000603313,ENST00000468187,ENST00000471301	27519-27527	6,11,13,11,11,11,11,11,11,1
chr9	16607233	16607152 -	chr9	16583083	16582981 -			
						ENST00000380647,ENST00000262360,ENST00000425824,ENST00000380641	27528-27532	7,51,7,7,7
chr9	17222328	17222623 +	chr9	17226201	17226285 +			
						ENST00000380647,ENST00000262360,ENST00000425824	27533-27535	29,13,29
chr9	17365077	17365375 +	chr9	17366615	17366715 +			
						ENST00000380647,ENST00000262360,ENST00000425824	27536-27539	27,33,4,27
chr9	17366937	17367036 +	chr9	17388160	17388251 +			
						ENST00000380647,ENST00000262360,ENST00000425824	27540-27543	11,3,8,11
chr9	17389780	17390100 +	chr9	17394532	17395067 +			
						ENST00000380607,ENST00000537391	27544-27546	21,4,45
chr9	17763260	17763624 +	chr9	17786379	17786522 +			
						ENST00000380548,ENST00000276935	27547-27548	32,6
chr9	18711232	18711328 +	chr9	18721534	18721663 +			
						ENST00000434457,ENST00000602925,ENST00000380432	27549-27552	9,15,12,15
chr9	19323881	19323981 +	chr9	19324360	19324505 +			
						ENST00000341998,ENST00000286344	27553-27554	32,6
chr9	19542228	19542133 -	chr9	19528136	19528047 -			
						ENST00000380338,ENST00000429426	27555-27557	7,42,45
chr9	20539718	20539429 -	chr9	20456784	20456702 -			
						ENST00000380338,ENST00000429426	27558-27560	9,1,4
chr9	20582536	20582456 -	chr9	20456784	20456702 -			
						ENST00000380338,ENST00000429426	27561-27563	7,18,59
chr9	20582894	20582620 -	chr9	20456784	20456702 -			
						ENST00000380338,ENST00000429426	27564-27566	45,7,39
chr9	20584804	20584527 -	chr9	20456784	20456702 -			
						ENST00000380249,ENST00000338382	27567-27569	24,24,7
chr9	20773873	20773946 +	chr9	20778680	20778767 +			
						ENST00000380249,ENST00000338382	27570-27571	12,7
chr9	20790491	20790539 +	chr9	20819795	20819899 +			
						ENST00000513293,ENST00000495827	27572-27574	4,14,28
chr9	21011071	21010724 -	chr9	21007118	21007036 -			
						ENST00000513293,ENST00000495827	27575-27577	26,2,8
chr9	21011420	21011343 -	chr9	21008145	21008020 -			
						ENST00000513293,ENST00000495827	27578-27579	48,2
chr9	21030011	21029758 -	chr9	21029397	21029294 -			
chr9	21491043	21490898 -	chr9	21481151	21481067 -	ENST00000448696	27580-27582	23,44,48

Table 10

							ENST00000380172,ENST000		52,3,8,52,52
							00404796,ENST00000460874		,52,52
							,ENST00000580900,ENST000		
							00419385,ENST00000580718		
chr9	21808844	21808999	+	chr9	21815432	21815518,2	+	27583-27589	
							ENST00000397292,ENST000		18,9,17,18
							00487173,ENST00000520884		
chr9	26908771	26908717	-	chr9	26907996	26907832,3	-	27590-27593	
							ENST00000433700,ENST000		23,13,13
							00443698,ENST00000380062		
chr9	26992409	26992477	+	chr9	27009018	27009156	+	,ENST00000429045	27594-27596
							ENST00000453981,ENST000		12,55,3,12,1
							00432829,ENST00000483757		2
chr9	307685	307852	+	chr9	311954	312166	+	,ENST00000469391	27597-27601
							ENST00000453981,ENST000		6,8,17,17,17
							00432829,ENST00000483757		
chr9	307685	308289	+	chr9	311954	312166	+	,ENST00000469391	27602-27606
chr9	32502542	32502521	-	chr9	32500937	32500803	-	ENST00000379883	27607-27608 4,7
							ENST00000379825,ENST000		1,15,6,15,15
							00309615,ENST00000397172		,15,15,15,15
							,ENST00000379819,ENST000		,15,15
							00474658,ENST00000476858		
							,ENST00000379812,ENST000		
							00473221,ENST00000464632		
chr9	33001144	33001005	-	chr9	32989893	32989757	-	,ENST00000478279	27609-27619
chr9	33133481	33133223	-	chr9	33120604	33120417	-	ENST00000379731	27620-27621 12,38
							ENST00000472232,ENST000		12,3,3,3,3
							00379707,ENST00000379704		
							,ENST00000473781,ENST000		
chr9	33263260	33263114	-	chr9	33262828	33262700,3	-	00488499	27622-27626
							ENST00000379540,ENST000		10,9,9,9,9
							00379521,ENST00000318524		
chr9	33291547	33291576	+	chr9	33294418	33295425	+		27627-27631
							ENST00000379540,ENST000		2,9,9,9,9
							00379521,ENST00000318524		
chr9	33315081	33315110	+	chr9	33318729	33318828	+		27632-27636
							ENST00000379540,ENST000		8,9,45,8
chr9	33347488	33347940	+	chr9	33351558	33351788	+	00379521	27637-27640
							ENST00000379540,ENST000		13,11,23,11
chr9	33348069	33348165	+	chr9	33351558	33351788	+	00379521	27641-27644
chr9	33814858	33815278	+	chr9	33886879	33886965	+	ENST00000263228	27645-27647 6,12,43
chr9	33906753	33907012	+	chr9	33911962	33912096	+	ENST00000263228	27648-27650 12,10,21
							ENST00000449054,ENST000		7,13,13,13
							00379238,ENST00000360802		
							,ENST00000379239,ENST000		
							00539807,ENST00000488443		
							,ENST00000418786,ENST000		
chr9	33936581	33936541	-	chr9	33935876	33935837,3	-	00379225	27651-27654
							ENST00000449054,ENST000		16,16,16,16,
							00379238,ENST00000360802		16,16
							,ENST00000379239,ENST000		
							00539807,ENST00000418786		
							,ENST00000412543,ENST000		
chr9	33951643	33951594	-	chr9	33948585	33948372,3	-	00421278	27655-27660
							ENST00000449054,ENST000		64,3,64,64
							00379238,ENST00000360802		
							,ENST00000418786,ENST000		
chr9	33967504	33967312	-	chr9	33963789	33963724	-	00412543	27661-27664
chr9	34095081	34094998	-	chr9	34093446	34093284	-	ENST00000361264	27665-27667 1,19,27
							ENST00000361264,ENST000		7,6,6,6
							00396990,ENST00000450964		
chr9	34128415	34128363	-	chr9	34125275	34125021	-		27668-27671
chr9	34213528	34215170	+	chr9	34220906	34220946	+	ENST00000543944	27672-27674 5,57,27
chr9	36113624	36113868	+	chr9	36116982	36117174	+	ENST00000377966	27675-27677 46,1,4
							ENST00000396594,ENST000		1,47,21,1
							00539815,ENST00000543356		
							,ENST00000539208,ENST000		
							00447283,ENST00000377902		
chr9	36235217	36235076	-	chr9	36234129	36233917	-		27678-27681
							ENST00000259605,ENST000		19,6
chr9	36395459	36395401	-	chr9	36376124	36375931	-	00353739	27682-27683
chr9	36395459	36395401	-	chr9	36390613	36390464	-	ENST00000259605	27684-27685 19,6

Table 10

						ENST00000298048,ENST00000536860,ENST00000545008,ENST00000541717,ENST00000543751	27686-27691	23,9,22,9,9,9
chr9	37289446	37289555 +	chr9	37302185	37302228 +	ENST00000336755	27692-27694	36,36,23
chr9	37292015	37292118 +	chr9	37302185	37302228 +	ENST00000336755	27695-27697	12,10,9
chr9	37301322	37301611 +	chr9	37302185	37302228 +	ENST00000336755	27698-27700	44,31,23
chr9	37409294	37409353 +	chr9	37425919	37425991 +	ENST00000318158,ENST00000607784	27701-27704	20,18,6,6
chr9	37416074	37416206 +	chr9	37424842	37424972 +	ENST00000318158,ENST00000607784	27705-27708	10,4,43,43
chr9	37773418	37773466 +	chr9	37776279	37776402 +	ENST00000377753,ENST00000537911,ENST00000377754,ENST00000297994	27709-27712	16,2,16,2
chr9	37777231	37777503 +	chr9	37777598	37777704 +	ENST00000377754,ENST00000297994	27713-27714	33,7
chr9	37784449	37784381 -	chr9	37784060	37783911 -	ENST00000465229,ENST00000327304,ENST00000396521	27715-27718	5,1,22,5
chr9	37798646	37798628 -	chr9	37784060	37783911 -	ENST00000465229,ENST00000327304,ENST00000396521	27719-27721	6,6,6
chr9	37853430	37853518 +	chr9	37854777	37854979 +	ENST00000377724,ENST00000242323	27722-27725	6,1,29,6
chr9	37949622	37949473 -	chr9	37948751	37948632 -	ENST00000377707	27726-27728	50,16,33
chr9	37955784	37955634 -	chr9	37948751	37948632 -	ENST00000377707	27729-27731	1,16,49
chr9	37976661	37976509 -	chr9	37974834	37974619 -	ENST00000377707	27732-27734	20,5,1
chr9	38414532	38414362 -	chr9	38414200	38414091 -	ENST00000377694	27735-27737	56,40,13
chr9	38414532	38414406 -	chr9	38414200	38414091 -	ENST00000377694	27738-27740	41,26,41
chr9	38561653	38560157 -	chr9	38543493	38543458 -	ENST00000607974	27741-27742	7,69
chr9	38564710	38563462 -	chr9	38543360	38543250 -	ENST00000313339,ENST00000566717,ENST00000564591,ENST00000607974	27743-27744	81,12
chr9	38564710	38563462 -	chr9	38543493	38543458 -	ENST00000607974	27745-27747	11,81,12
chr9	39170858	39170806 -	chr9	39166073	39165930 -	ENST00000297668,ENST00000377656,ENST00000358144,ENST00000443583,ENST00000323947,ENST00000377659	27748-27755	17,17,1,17,17,1,17,17,17
chr9	42254026	42254873 +	chr9	42671887	42671946 +	ENST00000456520,ENST00000377391	27756-27759	2,2,12,85
chr9	42254026	42255913 +	chr9	42671887	42671946 +	ENST00000456520,ENST00000377391	27760-27763	2,72,12,2
chr9	42254026	42256117 +	chr9	42671887	42671946 +	ENST00000456520,ENST00000377391	27764-27767	2,2,140,12
chr9	43857729	43857736 +	chr9	43861003	43861206 +	ENST00000377564,ENST00000479351	27768-27772	2,1,2,2,1
chr9	43857729	43857736 +	chr9	43861006	43861206 +	ENST00000377564,ENST00000479351	27773-27777	2,1,2,2,1
chr9	4686769	4686849 +	chr9	4688513	4688606 +	ENST00000381858,ENST00000381854	27778-27780	6,2,6
chr9	4728263	4726083 -	chr9	4719307	4719135 -	ENST00000381809,ENST00000359883,ENST00000447596	27781-27782	2,5
chr9	5056581	5056606 +	chr9	5064883	5065040 +	ENST00000539801,ENST00000381652,ENST00000544510	27783-27784	8,6
chr9	5710362	5710474 +	chr9	5713896	5714003 +	ENST00000251879,ENST00000414202,ENST00000381532,ENST00000418622,ENST00000449720,ENST00000545641	27785-27789	37,16,6,37,37
chr9	5736282	5736392 +	chr9	5738450	5738538 +	ENST00000251879,ENST00000414202,ENST00000381532,ENST00000418622,ENST00000449720,ENST00000545641	27790-27793	21,6,6,6
chr9	5986613	5986136 -	chr9	5969436	5968019,6 -	ENST00000399933,ENST00000381461,ENST00000513355	27794-27797	16,29,29,29
chr9	6248332	6248555 +	chr9	6252866	6252991 +	ENST00000381434	27798-27799	9,17
chr9	6459387	6459653 +	chr9	6460573	6460791 +	ENST00000468435,ENST00000276893	27800-27803	13,34,1,34
chr9	6545645	6545458 -	chr9	6540146	6540051 -	ENST00000321612	27804-27806	39,13,24

Table 15

chr9	6586449	6586345	-	chr9	6565429	6565354	-	ENST00000321612	27807-27809	21,34,3
								ENST00000377457,ENST000		45,7,18,18,1
								00377449,ENST00000382399		8,18
								,ENST00000377441,ENST000		
chr9	69272296	69272036	-	chr9	69259308	69259222,7	-	00377439	27810-27815	
								ENST00000382405,ENST000		7,18,18,18,4
								00480229,ENST00000377395		5,18,18,18,1
								,ENST00000430059,ENST000		8,18
								00429800,ENST00000377392		
								,ENST00000486221,ENST000		
								00497250,ENST00000476161		
chr9	70499873	70499613	-	chr9	70486879	70486793	-	,ENST00000377384	27816-27825	
								ENST00000360171,ENST000		17,7,16
chr9	70885518	70885568	+	chr9	70889798	70889854	+	00377342	27826-27828	
								ENST00000377270,ENST000		3,3,2,2,2
								00396364,ENST00000396366		
chr9	71667776	71667785	+	chr9	71668056	71668176	+	,ENST00000498653	27829-27833	
								ENST00000377245,ENST000		31,17,31,31,
								00348208,ENST00000265384		31,31
								,ENST00000535702,ENST000		
chr9	71770337	71770431	+	chr9	71827464	71827517	+	00539225	27834-27839	
								ENST00000377245,ENST000		1,1,1,1,1,1
								00348208,ENST00000265384		
								,ENST00000535702,ENST000		
chr9	71805772	71805776	+	chr9	71827464	71827517	+	00539225	27840-27845	
chr9	72809181	72809473	+	chr9	72833253	72833512	+	ENST00000377182	27846-27848	8,31,17
chr9	72899825	72899955	+	chr9	72901116	72901187	+	ENST00000361138	27849-27851	6,4,16
chr9	72917007	72917056	+	chr9	72920163	72920276	+	ENST00000361138	27852-27854	16,7,16
chr9	72963734	72963859	+	chr9	72965030	72965209	+	ENST00000361138	27855-27857	21,41,16
								ENST00000377110,ENST000		10,10,1,10,1
								00377111,ENST00000360823		0
								,ENST00000377105,ENST000		
								00377106,ENST00000357533		
								,ENST00000358082,ENST000		
								00396280,ENST00000396285		
								,ENST00000396292,ENST000		
								00408909,ENST00000423814		
chr9	73215959	73215929	-	chr9	73213586	73213335	-		27858-27862	
								ENST00000382303,ENST000		4,11
								00382297,ENST00000382293		
								,ENST00000382289,ENST000		
chr9	733542	733603	+	chr9	734748	734835	+	00382286	27863-27864	
chr9	74593407	74593444	+	chr9	74597573	74597789	+	ENST00000377031	27865-27867	12,12,7
chr9	74596467	74596500	+	chr9	74597573	74597789	+	ENST00000377031	27868-27870	1,11,10
								ENST00000238018,ENST000		17,3,65,17,1
								00376989,ENST00000358399		7
chr9	74802105	74802404	+	chr9	74810416	74810504	+	,ENST00000475764	27871-27875	
chr9	75517880	75517770	-	chr9	75516196	75516124	-	ENST00000297785	27876-27877	28,1
chr9	75524373	75524323	-	chr9	75520948	75520874	-	ENST00000297785	27878-27879	17,7
								ENST00000297785,ENST000		12,4,22,12,1
								00376939,ENST00000419959		2,12
chr9	75580673	75580323	-	chr9	75545935	75545795	-	,ENST00000446946	27880-27885	
chr9	75772288	75772388	+	chr9	75773438	75773517	+	ENST00000456643	27886-27887	8,33
								ENST00000545128,ENST000		13,85,6,13,1
								00376767,ENST00000376752		3
chr9	78565373	78565630	+	chr9	78601048	78601161	+		27888-27892	
								ENST00000376736,ENST000		33,24,11,24
chr9	79008422	79008322	-	chr9	79007485	79007334	-	00490113	27893-27896	
								ENST00000376718,ENST000		24,2,22,2
chr9	79501292	79501220	-	chr9	79469124	79469020	-	00376713	27897-27900	
								ENST00000376636,ENST000		23,15
								00360280,ENST00000484581		
chr9	80023222	80023319	+	chr9	80030872	80030922	+	,ENST00000376646	27901-27902	
								ENST00000286548,ENST000		12,31,6,12
chr9	80440779	80439718	-	chr9	80430686	80430532	-	00411677	27903-27906	
								ENST00000347159,ENST000		5,6,6,5
chr9	80908232	80908252	+	chr9	80915518	80915578	+	00376588	27907-27910	
chr9	85641601	85641312	-	chr9	85640836	85640690	-	ENST00000376447	27911-27912	72,43
chr9	85641601	85641347	-	chr9	85640836	85640690	-	ENST00000376447	27913-27914	61,1
chr9	85670486	85670389	-	chr9	85640836	85640690	-	ENST00000376447	27915-27916	6,32
								ENST00000376438,ENST000		29,15,28,29
chr9	85955483	85955396	-	chr9	85950554	85950431	-	00304195	27917-27920	
								ENST00000376438,ENST000		19,18,7,19
chr9	86048867	86048811	-	chr9	86004623	86004519	-	00304195	27921-27924	

Table 10

chr9	86983842	86983367	-	chr9	86928369	86928274	-	ENST00000376238	27925-27927	27,14,7
								ENST00000376083,ENST000		4,7,37,37
								00357081,ENST00000376109		
chr9	88265156	88264917	-	chr9	88261333	88261236	-	,ENST00000432218	27928-27931	
								ENST00000361671,ENST000		12,12,8,12
chr9	88581553	88581589	+	chr9	88589882	88589948	+	00376040	27932-27935	
								ENST00000375859,ENST000		22,22,7
chr9	91079394	91079460	+	chr9	91083287	91083520	+	00541629	27936-27938	
chr9	91921248	91921534	+	chr9	91930085	91930212	+	ENST00000314355	27939-27941	20,6,18
								ENST00000339861,ENST000		3,3
								00420987,ENST00000455551		
								,ENST00000429836,ENST000		
								00343780,ENST00000537934		
								,ENST00000450295,ENST000		
								00438547,ENST00000356444		
chr9	92007883	92007873	-	chr9	92007451	92007338	-	,ENST00000422704	27942-27943	
								ENST00000375731,ENST000		7,3,4,7
chr9	94104751	94104391	-	chr9	94087686	94087600	-	00422391	27944-27947	
								ENST00000262554,ENST000		32,6,6
chr9	94850680	94850584	-	chr9	94843245	94843152	-	00337841	27948-27950	
								ENST00000375643,ENST000		17,16
								00443024,ENST00000447699		
chr9	94988740	94988690	-	chr9	94985771	94985628	-		27951-27952	
								ENST00000375643,ENST000		14,12,28
								00443024,ENST00000447699		
chr9	94990425	94989812	-	chr9	94985711	94985628	-		27953-27955	
								ENST00000375643,ENST000		30,48,19,30,
								00375629,ENST00000443024		48
								,ENST00000447699,ENST000		
chr9	95001835	95001400	-	chr9	94991408	94991283,9	-	00375627	27956-27960	
chr9	95109711	95109788	+	chr9	95142045	95142141	+	ENST00000375587	27961-27962	26,12
								ENST00000395505,ENST000		15,51,26
								00395506,ENST00000375495		
chr9	95616438	95616196	-	chr9	95610833	95608510	-	,ENST00000332591	27963-27965	
								ENST00000375464,ENST000		18,18,11,18
chr9	95861689	95861743	+	chr9	95869956	95870098	+	00466409	27966-27969	
chr9	96212067	96211969	-	chr9	96210771	96210733	-	ENST00000476484	27970-27971	33,32
								ENST00000277165,ENST000		1,38,3
								00333936,ENST00000340893		
chr9	96322294	96322435	+	chr9	96323391	96323532	+	,ENST00000427765	27972-27974	
chr9	96406387	96406437	+	chr9	96407911	96408071	+	ENST00000359246	27975-27977	17,7,16
								ENST00000375344,ENST000		1,32,24,24
chr9	97193313	97193412	+	chr9	97200683	97200810	+	00428393	27978-27981	
								ENST00000375344,ENST000		19,27,47,27
chr9	97211592	97211901	+	chr9	97213738	97213809	+	00428393	27982-27985	
								ENST00000375344,ENST000		86,18
chr9	97214597	97214855	+	chr9	97216240	97216352	+	00428393	27986-27987	
								ENST00000375326,ENST000		20,36,94
chr9	97403519	97402601	-	chr9	97382773	97382611	-	00415431	27988-27990	
								ENST00000375326,ENST000		25,13,7
chr9	97480272	97479999	-	chr9	97382773	97382611	-	00415431	27991-27993	
								ENST00000407474,ENST000		3,108,1
chr9	98759370	98759695	+	chr9	98766802	98766983	+	00320486	27994-27996	
								ENST00000253270,ENST000		9,4
chr9	99085298	99085152	-	chr9	99084362	99084280	-	00375259	27997-27998	
								ENST00000375251,ENST000		20,4,19,20,4
chr9	99212388	99212448	+	chr9	99220661	99220823	+	00375249	27999-28003	
								ENST00000481138,ENST000		10,10,10,10
								00289032,ENST00000478850		
chr9	99616401	99616370	-	chr9	99589463	99589362	-		28004-28007	
								ENST00000481138,ENST000		10,10,10,10
chr9	99616401	99616370	-	chr9	99607298	99607172	-	00478850	28008-28011	
								ENST00000602917,ENST000		1,24,32,24
chr9	99719338	99719239	-	chr9	99711964	99711837	-	00375223	28012-28015	
								ENST00000423383,ENST000		5,4,4
chrX	100415082	100415096	+	chrX	100416517	100416558	+	00372927	28016-28018	
								ENST00000427805,ENST000		30,17,17,17
								00553110,ENST00000392994		
chrX	100649036	100649154	+	chrX	100650323	100650445	+	,ENST00000409170	28019-28022	
chrX	103221099	103221386	+	chrX	103227464	103227606	+	ENST00000567181	28023-28024	43,6

Table 10

							ENST00000317552,ENST00000453318,ENST00000380779,ENST00000380780,ENST00000380785,ENST00000380787,ENST00000380782,ENST00000413894	28025-28029	68,15,2,2,2
chrX	10557892	10557627	-	chrX	10491227	10491132	-		
chrX	105870926	105871036	+	chrX	105875855	105875963	+	ENST00000372544,ENST00000372548,ENST00000461251,ENST00000421550	28030-28034	5,7,1,1,1
chrX	107265928	107266064	+	chrX	107301268	107301431	+	ENST00000415430,ENST00000217957,ENST00000458383	28035-28038	9,15,15,15
chrX	107423268	107423129	-	chrX	107422668	107422447	-	ENST00000334504,ENST00000372216,ENST00000394872,ENST00000538570,ENST00000545689	28039-28043	5,28,13,28,28
chrX	107779170	107779283	+	chrX	107782976	107783035	+	ENST00000328300,ENST00000361603	28044-28047	20,37,24,20
chrX	108731137	108731224	+	chrX	108780166	108780250	+	ENST00000218004	28048-28050	5,8,9
								ENST00000534860,ENST00000380736,ENST00000303025,ENST00000337414,ENST00000495242,ENST00000380717,ENST00000380718,ENST00000413512,ENST00000380732		19,5,18,5,5,5
chrX	11191594	11191537	-	chrX	11187804	11187625	-		28051-28056	
chrX	114371131	114371047	-	chrX	114364762	114364718	-	ENST00000317135,ENST00000538422	28057-28060	28,12,10,12
chrX	114443816	114444076	+	chrX	114536557	114536688	+	ENST00000371921,ENST00000371920	28061-28064	45,7,18,18
chrX	117109653	117109558	-	chrX	117079538	117079397	-	ENST00000262820,ENST00000539496,ENST00000540167,ENST00000541812	28065-28067	1,22,9
chrX	117246448	117246238	-	chrX	117079538	117079397	-	ENST00000262820,ENST00000539496,ENST00000540167,ENST00000541812	28068-28069	19,56
chrX	117415479	117415395	-	chrX	117079538	117079397	-	ENST00000262820,ENST00000539496,ENST00000540167,ENST00000541812	28070-28072	7,28,13
chrX	117896888	117896960	+	chrX	117900493	117900540	+	ENST00000371666	28073-28075	24,24,6
chrX	118553258	118553307	+	chrX	118585972	118586106	+	ENST00000217909,ENST00000336249	28076-28079	16,6,16,16
chrX	118560228	118560317	+	chrX	118585972	118586106	+	ENST00000217909,ENST00000336249	28080-28082	9,18,9
chrX	118677743	118677618	-	chrX	118676557	118676468	-	ENST00000320339,ENST00000371594,ENST00000536133	28083-28085	15,19,41
chrX	119590173	119590089	-	chrX	119589425	119589212	-	ENST00000434600,ENST00000200639,ENST00000371335,ENST00000540603	28086-28089	6,28,28,28
chrX	119661684	119661510	-	chrX	119660711	119660616	-	ENST00000371322,ENST00000336592,ENST00000404115	28090-28091	34,55
chrX	119728008	119728127	+	chrX	119739262	119739414	+	ENST00000371317,ENST00000371315	28092-28094	40,4,14
chrX	12230462	12230484	+	chrX	12516799	12516915	+	ENST00000380682	28095-28096	7,7
chrX	122552142	122552706	+	chrX	122561792	122561990	+	ENST00000264357,ENST00000542149,ENST00000371251,ENST00000371256	28097-28101	6,28,18,18,18
chrX	122771111	122771053	-	chrX	122770026	122769930	-	ENST00000245838,ENST00000355725,ENST00000491737	28102-28104	19,9,3
chrX	122789414	122789387	-	chrX	122779226	122779185	-	ENST00000245838,ENST00000355725,ENST00000491737	28105-28107	5,1,8
chrX	122812118	122811935	-	chrX	122805612	122805520	-	ENST00000245838,ENST00000355725,ENST00000491737	28108-28110	52,46,11
chrX	122817749	122817695	-	chrX	122805612	122805520	-	ENST00000245838,ENST00000355725,ENST00000491737	28111-28113	13,9,17
chrX	123028645	123028805	+	chrX	123034343	123034543	+	ENST00000434753,ENST00000371199,ENST00000355640	28114-28115	43,1

						ENST00000455404,ENST000 00218089,ENST00000354548 ,ENST00000371160,ENST000 00435103,ENST00000371157 ,ENST00000371145,ENST000 00371144,ENST00000428941 ,ENST00000435215,ENST000		7,15,15,15,1 5,15,15,15,1 5
chrX	123167334	123167380 +	chrX	123171377	123171473 +	00394478	28116-28124	
chrX	123891492	123891399 -	chrX	123871047	123870807 -	ENST00000371130,ENST000 00422452	28125-28128	13,31,6,13
chrX	128876596	128876664 +	chrX	128877937	128878047 +	ENST00000371105,ENST000 00371106	28129-28131	23,13,23
chrX	129266146	129266046 -	chrX	129265774	129265650 -	ENST00000440263,ENST000 00460436,ENST00000346424 ,ENST00000319908,ENST000 00287295	28132-28134	33,24,11
chrX	129540366	129540466 +	chrX	129543231	129543360 +	ENST00000305536	28135-28136	6,11
chrX	133967010	133967158 +	chrX	133979235	133979278 +	ENST00000370784,ENST000 00370785	28137-28138	38,38
chrX	133971094	133971364 +	chrX	133979235	133979278 +	ENST00000370784,ENST000 00370785	28139-28142	1,36,12,36
chrX	133972691	133973507 +	chrX	133979235	133979278 +	ENST00000370784,ENST000 00370785	28143-28146	14,1,27,1
chrX	133972691	133973547 +	chrX	133979235	133979278 +	ENST00000370784,ENST000 00370785	28147-28150	27,14,12,12
chrX	133972691	133973591 +	chrX	133979235	133979278 +	ENST00000370784,ENST000 00370785	28151-28154	13,29,26,29
chrX	134482685	134482762 +	chrX	134483035	134483239 +	ENST00000339249	28155-28157	18,2,12
chrX	134482685	134482809 +	chrX	134483035	134483239 +	ENST00000339249	28158-28160	1,12,28
chrX	134847126	134847440 +	chrX	134852761	134852870 +	ENST00000370741,ENST000 00497301,ENST00000482795	28161-28163	56,1,14
chrX	134972389	134972625 +	chrX	134978402	134978488 +	ENST00000324447,ENST000 00535938,ENST00000537770 ,ENST00000370709	28164-28166	2,15,2
chrX	134972389	134972625 +	chrX	134983718	134983850 +	ENST00000324447,ENST000 00535938,ENST00000537770 ,ENST00000370709	28167-28170	2,6,15,2
chrX	134975955	134975479 -	chrX	134932924	134932815 -	ENST00000487941,ENST000 00434966,ENST00000494421	28171-28173	51,37,14
chrX	134975955	134975479 -	chrX	134950187	134950078 -	ENST00000420087,ENST000 00463085,ENST00000370724 ,ENST00000491480	28174-28177	51,37,14,37
chrX	134975955	134975479 -	chrX	134967437	134967328 -	ENST00000491002,ENST000 00448053,ENST00000472834	28178-28180	51,37,14
chrX	135054996	135054943 -	chrX	135053269	135053217 -	ENST00000305963,ENST000 00433339	28181-28183	18,4,11
chrX	135305300	135305034 -	chrX	135304645	135304552 -	ENST00000370661,ENST000 00316077,ENST00000370663 ,ENST00000370660	28184-28187	13,10,34,13
chrX	138072952	138072643 -	chrX	137939841	137939674 -	ENST00000370603,ENST000 00436198,ENST00000455663 ,ENST00000448673	28188-28193	4,30,7,4,4,4
chrX	138072952	138072670 -	chrX	137791090	137790980 -	ENST00000315930,ENST000 00305414,ENST00000441825 ,ENST00000370603,ENST000 00541469,ENST00000436198 ,ENST00000455663,ENST000 00448673	28194-28195	21,7
chrX	13883248	13883175 -	chrX	13803927	13803741 -	ENST00000316715,ENST000 00454189,ENST00000493677 ,ENST00000355135,ENST000 00356942,ENST00000475307	28196-28199	22,24,24,24
chrX	138883265	138883183 -	chrX	138882269	138882219 -	ENST00000370557,ENST000 00327569,ENST00000361648 ,ENST00000370543,ENST000 00359686	28200-28201	11,27
chrX	13907696	13907571 -	chrX	13825888	13825769 -	ENST00000316715,ENST000 00355135	28202-28203	12,12

Table 10

							ENST00000370457,ENST00000370460,ENST00000342251,ENST00000370458	28204-28208	4,5,5,5,5
chrX	147335287	147336747	+	chrX	147733520	147733640	+		
chrX	14821896	14822540	+	chrX	14910845	14911000	+	ENST00000380492,ENST00000482354	28209-28211	33,214,214
chrX	148577156	148576990	-	chrX	148573198	148573139	-	ENST00000466323,ENST00000370443	28212-28214	13,15,8
chrX	148685092	148685042	-	chrX	148682143	148682044	-	ENST00000513505,ENST00000536359,ENST00000316916,ENST00000502858	28215-28219	17,16,16,17,16
chrX	14870588	14870490	-	chrX	14868796	14868627	-	ENST00000398334,ENST00000324138,ENST00000452869	28220-28222	33,6,33
chrX	14899920	14900068	+	chrX	14910845	14911000	+	ENST00000380492,ENST00000482354	28223-28225	33,46,46
chrX	149786239	149786268	+	chrX	149787511	149787612	+	ENST00000370396,ENST00000542741,ENST00000413012	28226-28227	9,7
chrX	149903328	149903700	+	chrX	149903936	149903971	+	ENST00000542156	28228-28230	8,17,42
chrX	149904011	149904099	+	chrX	149905067	149905252	+	ENST00000541925,ENST00000485376,ENST00000370390,ENST00000451863,ENST00000544228,ENST00000445323	28231-28234	1,17,29,29
chrX	149945882	149945390	-	chrX	149944766	149944647	-	ENST00000370377,ENST00000355149,ENST00000437787,ENST00000466436	28235-28237	38,41,9
chrX	149997009	149996779	-	chrX	149945955	149945917	-	ENST00000370377,ENST00000355149,ENST00000437787,ENST00000466436,ENST00000418547	28238-28242	9,26,15,9,15
chrX	151907991	151908326	+	chrX	151908778	151908928,15	+	ENST00000370287,ENST00000452779,ENST00000361211,ENST00000370291	28243-28248	20,57,8,20,8,8
chrX	153148628	153148692	+	chrX	153149231	153149351	+	ENST00000452593	28249-28251	19,21,21
chrX	153280199	153279980	-	chrX	153279729	153279493	-	ENST00000369980,ENST00000393682,ENST00000455690,ENST00000393687,ENST00000429936,ENST00000443220	28252-28258	9,21,6,21,21,21,21
chrX	153314038	153313968	-	chrX	153298008	153297658	-	ENST00000303391,ENST00000453960,ENST00000407218,ENST00000415944	28259-28263	1,23,3,1,1
chrX	153788359	153788481	+	chrX	153788622	153788774,15	+	ENST00000440286,ENST00000422680,ENST00000369609,ENST00000369607,ENST00000369606,ENST00000413620,ENST00000470142,ENST00000393549,ENST00000455588,ENST00000424839,ENST00000369601	28264-28269	26,40,40,40,40,40
chrX	154044586	154042475	-	chrX	154020560	154020417,15	-	ENST00000369534,ENST00000413259,ENST00000393531,ENST00000417435,ENST00000369531	28270-28275	19,8,19,19,8,19
chrX	154049630	154049249	-	chrX	154020560	154020417,15	-	ENST00000369534,ENST00000413259,ENST00000393531,ENST00000417435,ENST00000369531	28276-28278	4,10,4
chrX	154323876	154324029	+	chrX	154344332	154344463	+	ENST00000340647,ENST00000330045,ENST00000369462,ENST00000411985,ENST00000399042	28279-28283	24,22,14,14,14
chrX	154464060	154464222	+	chrX	154464510	154464648	+	ENST00000535916,ENST00000286428	28284-28286	3,2,5
chrX	154539157	154538885	-	chrX	154528458	154528349	-	ENST00000369449,ENST00000321926	28287-28290	39,7,18,39
chrX	154751709	154751612	-	chrX	154743926	154743647	-	ENST00000334398,ENST00000369439	28291-28292	6,32
chrX	15479242	15479150	-	chrX	15477863	15477780	-	ENST00000380420,ENST00000380421	28293-28294	5,3
chrX	15787058	15787416	+	chrX	15790619	15790737,2	+	ENST00000318636,ENST00000479740,ENST00000454127	28295-28298	4,10,4,10

Table 10

							ENST00000329235,ENST00000380291,ENST00000545766,ENST00000421527	28299-28303	26,1,7,1,1
chrX	15896424	15896346	-	chrX	15870647	15870469	ENST00000329235,ENST00000380291,ENST00000545766,ENST00000421527	28304-28307	14,14,14,14
chrX	16026701	16026822	+	chrX	16168428	16168779	+ ENST00000380289	28308-28309	20,8
chrX	16818933	16819258	+	chrX	16836697	16837000	+ ENST00000380122	28310-28312	71,22,21
chrX	19559714	19559549	-	chrX	19555898	19555835	- ENST00000397821,ENST00000379716,ENST00000379698,ENST00000541422,ENST00000379726	28313-28315	49,10,6
chrX	19953510	19953476	-	chrX	19948058	19947903	- ENST00000379687,ENST00000472158,ENST00000379682	28316-28319	11,11,11,11
chrX	19964414	19964321	-	chrX	19955650	19955623,2	- ENST00000379687,ENST00000472158,ENST00000379682,ENST00000340625,ENST00000356980	28320-28324	31,6,6,6,6
chrX	20044518	20044481	-	chrX	20044070	20043799	- ENST00000379651,ENST00000379643,ENST00000543767,ENST00000443379,ENST00000452324	28325-28327	4,1,9
chrX	20182802	20182619	-	chrX	20181158	20181082	- ENST00000379565,ENST00000544447,ENST00000379548,ENST00000540702	28328-28329	52,7
chrX	2309256	2309213	-	chrX	2209644	2209543	- ENST00000334651,ENST00000412516,ENST00000444280	28330-28334	12,10,14,10,10
chrX	2357974	2357928	-	chrX	2343345	2343238	- ENST00000334651,ENST00000412516,ENST00000441131,ENST00000478825	28335-28339	15,6,15,6,6
chrX	23690120	23690196	+	chrX	23693107	23693223,2	+ ENST00000379349,ENST00000379341,ENST00000379331	28340-28344	23,25,25,23,23
chrX	23748509	23748288	-	chrX	23740870	23740787	- ENST00000379303,ENST00000336430,ENST00000379295,ENST00000492081	28345-28348	7,28,20,20
chrX	23780886	23780554	-	chrX	23751334	23751289	- ENST00000379303,ENST00000336430	28349-28351	9,30,24
chrX	23780886	23780554	-	chrX	23754133	23754036,2	- ENST00000379303,ENST00000336430,ENST00000494361	28352-28356	9,30,24,30,30
chrX	23780886	23780558	-	chrX	23754133	23754036,2	- ENST00000379303,ENST00000336430,ENST00000494361	28357-28361	7,29,23,7,7
chrX	24552406	24552773	+	chrX	24557251	24557281	+ ENST00000441463	28362-28363	1,9
chrX	24748663	24748857	+	chrX	24750487	24750571	+ ENST00000379068,ENST00000379059	28364-28365	41,7
chrX	24816418	24816594	+	chrX	24828015	24828047	+ ENST00000379068,ENST00000379059	28366-28367	1,41
chrX	2686527	2686581	+	chrX	2688591	2688632	+ ENST00000381174,ENST00000419513,ENST00000426774	28368-28374	18,9,17,18,9,18,9
chrX	30864178	30864050	-	chrX	30852269	30852168	- ENST00000378933,ENST00000378930,ENST00000288422,ENST00000378932	28375-28376	6,27
chrX	30864178	30864050	-	chrX	30861166	30861083	- ENST00000378933,ENST00000378930,ENST00000288422	28377-28379	6,3,27
chrX	35826688	35826957	+	chrX	35944134	35944285	+ ENST00000297866,ENST00000493930	28380-28383	39,7,35,39
chrX	35908843	35909132	+	chrX	35944134	35944285	+ ENST00000297866,ENST00000493930	28384-28387	55,11,23,23
chrX	38015740	38015613	-	chrX	38013836	38013715	- ENST00000432886,ENST00000544439,ENST00000378533,ENST00000343800	28388-28390	38,42,4
chrX	38160087	38159947	-	chrX	38158394	38158209	- ENST00000318842,ENST00000338898,ENST00000339363,ENST00000482855,ENST00000474584,ENST00000342811,ENST00000378505,ENST00000464437	28391-28398	12,19,1,12,12,12,12,12
chrX	40527338	40526867	-	chrX	40526103	40525972	- ENST00000324817	28399-28401	50,23,13

Table 19

chrX	40551163	40551063	-	chrX	40547782	40547706	-	ENST00000324817	28402-28404	33,6,11
chrX	44087393	44087268	-	chrX	44037810	44037613	-	ENST00000420999	28405-28406	26,1
chrX	46474775	46474677	-	chrX	46466638	46466387	-	ENST00000328306	28407-28408	33,32
chrX	46612381	46611648	-	chrX	46541970	46541771	-	ENST00000328306	28409-28411	3,18,43
chrX	48123100	48123129	+	chrX	48123217	48123352	+	ENST00000376919	28412-28413	10,4
								ENST00000495186,ENST00000446158,ENST00000414061	28414-28415	23,13
chrX	48382599	48382667	+	chrX	48385377	48385413	+	ENST00000376771,ENST00000481090,ENST00000418627	28416-28419	33,8,33,33
chrX	48394106	48394426	+	chrX	48399721	48399830	+	ENST00000450772,ENST00000376701	28420-28424	3,3,3,3,3
chrX	48544551	48544561	+	chrX	48545170	48545260,5	+	ENST00000303227	28425-28427	17,7,16
chrX	48623694	48623744	+	chrX	48624240	48624377	+	ENST00000444343,ENST00000334136,ENST00000376619,ENST00000413163	28428-28431	17,7,16,7
chrX	48669429	48669479	+	chrX	48672847	48672973	+	ENST00000444343,ENST00000334136,ENST00000376619,ENST00000413163	28432-28435	10,7,2,7
chrX	48672578	48672631	+	chrX	48672847	48672973	+	ENST00000465150,ENST00000376582,ENST00000396779,ENST00000495490,ENST00000490755	28436-28437	24,95
chrX	48752918	48752631	-	chrX	48752384	48752321	-	ENST00000396743,ENST00000455452,ENST00000156084,ENST00000376488,ENST00000428668	28438-28440	33,24,11
chrX	48783927	48783827	-	chrX	48783326	48783123	-	ENST00000396743,ENST00000455452,ENST00000156084,ENST00000376488	28441-28444	17,2,27,27
chrX	48804356	48804175	-	chrX	48801544	48801451	-	ENST00000376425,ENST00000376444,ENST00000376441	28445-28447	15,9,25
chrX	48838743	48838620	-	chrX	48838284	48838207	-	ENST00000156109	28448-28449	52,7
chrX	49000000	48998307	-	chrX	48979126	48978972	-	ENST00000156109	28450-28452	15,40,50
chrX	49004983	49004719	-	chrX	48979126	48978972	-	ENST00000376227	28453-28454	6,8
chrX	49098844	49099191	+	chrX	49099352	49099458	+	ENST00000376088,ENST00000376091,ENST00000482218	28455-28458	4,9,2,9
chrX	49742663	49742691	+	chrX	49806925	49807071,5	+	ENST00000376088,ENST00000376091,ENST00000376108,ENST00000307367	28459-28461	3,3,3
chrX	49854261	49854271	+	chrX	49854773	49855171	+	ENST00000452825,ENST00000375401,ENST00000404049,ENST00000375379,ENST00000375383	28462-28465	17,5,17,17
chrX	53243439	53243389	-	chrX	53241088	53240969	-	ENST00000452825,ENST00000375401,ENST00000404049,ENST00000375379,ENST00000375383	28466-28467	3,2
chrX	53244740	53244609	-	chrX	53244029	53243871	-	ENST00000396435,ENST00000375368,ENST00000375365	28468-28471	10,23,18,18
chrX	53282604	53282450	-	chrX	53280356	53279461	-	ENST00000427052,ENST00000342160,ENST00000262854	28472-28474	19,3,9
chrX	53579130	53578976	-	chrX	53578441	53578227	-	ENST00000427052,ENST00000342160,ENST00000262854	28475-28476	23,13
chrX	53600567	53600499	-	chrX	53596787	53596576	-	ENST00000342160,ENST00000262854,ENST00000218328	28477-28479	62,34,62
chrX	53671076	53670890	-	chrX	53661250	53661188	-	ENST00000375180,ENST00000328235	28480-28481	32,6
chrX	54151177	54151081	-	chrX	54143227	54142978	-	ENST00000375135	28482-28484	37,31,10
chrX	54494087	54493830	-	chrX	54492285	54492129	-	ENST00000218436	28485-28486	32,6
chrX	54796837	54796741	-	chrX	54786360	54786189	-	ENST00000218436	28487-28488	6,12
chrX	54909652	54909555	-	chrX	54786360	54786189	-	ENST00000374941,ENST00000414239,ENST00000262850	28489-28492	4,12,26,12
chrX	55774262	55775006	+	chrX	55777534	55777629	+	ENST00000374941,ENST00000414239,ENST00000262850	28493-28496	1,37,14,1
chrX	55774262	55775083	+	chrX	55777534	55777629	+			

Table 10

							ENST00000253401,ENST00000374878,ENST00000374870,ENST00000437457,ENST00000433323,ENST00000374872	113,33,113
chrX	62867794	62865337	-	chrX	62863928	62863860,6	-	28497-28499	
chrX	67302896	67301543	-	chrX	67293141	67292994	-	ENST00000355520,ENST00000540071	28500-28503	9,17,31,17
chrX	67885146	67885172	+	chrX	67885341	67885374	+	ENST00000523864,ENST00000374599	28504-28507	9,8,8,9
chrX	69218465	69218743	+	chrX	69243068	69243091	+	ENST00000374552,ENST00000374553,ENST00000524573,ENST00000503592	28508-28515	40,7,18,18,40,18
chrX	69355716	69355761	+	chrX	69385683	69385831	+	ENST00000342206,ENST00000356413	28516-28517	6,2
chrX	69552907	69552957	+	chrX	69553478	69553539	+	ENST00000374388,ENST00000374403	28518-28521	17,7,16,17
chrX	69558655	69558720	+	chrX	69561649	69561781	+	ENST00000374388,ENST00000374403	28522-28525	13,21,21,21
chrX	69635474	69635481	+	chrX	69637738	69637854	+	ENST00000374403	28526-28528	2,1,2
chrX	69693029	69693263	+	chrX	69699000	69699114	+	ENST00000194900,ENST00000374360,ENST00000374355	28529-28533	56,37,6,56,56
chrX	70333604	70333224	-	chrX	70331344	70331275	-	ENST00000374202	28534-28536	57,29,8
chrX	7044004	7043730	-	chrX	7023879	7023661,7	-	ENST00000381077,ENST00000412827,ENST00000424830,ENST00000540122,ENST00000486446	28537-28542	7,18,59,18,18,18
chrX	70610982	70611012	+	chrX	70612419	70612568	+	ENST00000423759,ENST00000449580,ENST00000373790,ENST00000276072	28543-28546	2,10,10,10
chrX	70620422	70620504	+	chrX	70621378	70621589	+	ENST00000423759,ENST00000449580,ENST00000373790,ENST00000276072,ENST00000483985	28547-28548	9,27
chrX	71410521	71410621	+	chrX	71416635	71416778,7	+	ENST00000218432,ENST00000423432,ENST00000373669,ENST00000496835,ENST00000439980	28549-28554	33,33,11,11,11,11
chrX	71504095	71504385	+	chrX	71518832	71518849	+	ENST00000439980	28555-28557	8,49,11
chrX	74287163	74287044	-	chrX	74285076	74284905	-	ENST00000253577,ENST00000339447,ENST00000373394,ENST00000529949	28558-28561	14,15,18,14
chrX	76851229	76851196	-	chrX	76849319	76849166	-	ENST00000373344,ENST00000395603	28562-28564	11,1,10
chrX	77115884	77115700	-	chrX	77112994	77112854	-	ENST00000358075	28565-28567	14,1,21
chrX	77375056	77375296	+	chrX	77378332	77378446	+	ENST00000373316,ENST00000442431,ENST00000537456	28568-28569	22,7
chrX	83405792	83403712	-	chrX	83403131	83403050	-	ENST00000262752,ENST00000543399	28570-28571	1,13
chrX	83743203	83743032	-	chrX	83730405	83730259	-	ENST00000297977,ENST00000373177	28572-28574	3,5,11
chrX	84594395	84594123	-	chrX	84586085	84585955	-	ENST00000262753,ENST00000373145	28575-28578	7,21,77,21
chrX	9715945	9715893	-	chrX	9714193	9714084	-	ENST00000467482,ENST00000380929,ENST00000447366,ENST00000431126	28579-28583	17,17,11,17,17
chrX	9877043	9877608	+	chrX	9900215	9900910	+	ENST00000380913	28584-28586	72,36,1
chrX	99933159	99933113	-	chrX	99931173	99931025	-	ENST00000372989,ENST00000276141,ENST00000454200,ENST00000455616,ENST00000263033	28587-28589	15,15,12

In the following tables 11-20, columns 1-13 refer to the following items

	Fusions (donor :exon)	Fusions (donor :TE)
1	Fusion_id	Fusion_id
2	Donor_Chromosome_Exon	Donor_Chromosome_TE
3	Donor_start_Exon	Donor_start_TE
4	Donor_Breakpoint_Exon	Donor_Breakpoint_TE
5	Donor_tx_name_Exon	Donor_tx_name_TE
6	Donor_strand_Exon	Donor_strand_TE
7	Acceptor_Chromosome_TE	Acceptor_Chromosome_exon
8	Acceptor_Breakpoint_TE	Acceptor_Breakpoint_exon
9	Acceptor_end_TE	Acceptor_end_exon
10	Acceptor_strand_TE	Acceptor_strand_exon
11	Chimeric protein (i.e. translated JET) reference	Chimeric protein (i.e. translated JET) reference
12	Breakpoint_position_in_AA	Breakpoint_position_in_AA
13	Tissue	Tissue

Column 11 refers to the various chimeric proteins (identified by their SEQ ID NO) that are derived from splice variants of the same JET (or fusion).

- In table 11, the SEQ ID NO of the chimeric protein can be obtained by adding 39596 to the number(s) provided.
- In table 12, the SEQ ID NO of the chimeric protein can be obtained by adding 39596 to the number(s) provided.
- In table 13, the SEQ ID NO of the chimeric protein can be obtained by adding 39923 to the number(s) provided.
- In table 14, the SEQ ID NO of the chimeric protein can be obtained by adding 39923 to the number(s) provided.
- In table 15, the SEQ ID NO of the chimeric protein can be obtained by adding 40127 to the number(s) provided.
- In table 16, the SEQ ID NO of the chimeric protein can be obtained by adding 40127 to the number(s) provided.
- In table 17, the SEQ ID NO of the chimeric protein can be obtained by adding 40364 to the number(s) provided.
- In table 18, the SEQ ID NO of the chimeric protein can be obtained by adding 40364 to the number(s) provided.
- In table 19, the SEQ ID NO of the chimeric protein can be obtained by adding 40509 to the number(s) provided.
- In table 20, the SEQ ID NO of the chimeric protein can be obtained by adding 40509 to the number(s) provided.

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:193028315:->chr1:193022970:-	chr1	193028315,193028315,193028315,193028315	193028315	ENST00000367455,ENST00000367454,ENST00000367450,ENST00000367451,ENST00000367448,ENST00000367449	-	chr1	193022970	193023119	-	1-2	37,25	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr1:22263648:->chr1:22224962:-	chr1	22263648	22263648	ENST00000374695	-	chr1	22224962	22225012	-	3	21	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA
chr1:6531548:->chr1:6531300:-	chr1	6531548,6531548,6531548,6531548,6531548,6531548,6531548,6531548,6531548	6531548	ENST00000400913,ENST00000340850,ENST00000377748,ENST00000377725,ENST00000377728,ENST00000377732,ENST00000400915,ENST00000377740,ENST00000535355,ENST00000377737,ENST00000537245,ENST00000544978	-	chr1	6531300	6531418	-	4-9	483,464,496,427,504,506	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr10:104231153:+>chr10:104231667:+	chr10	104231139,104231030	104231153	ENST00000366277,ENST00000238936,ENST00000369931	+	chr10	104231667	104231733	+	10-12	5,125,276	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD
chr10:112572705:+>chr10:112576399:+	chr10	112572036	112572705	ENST00000369519	+	chr10	112576399	112576521	+	13-13	850	CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC
chr10:12280484:+>chr10:12301986:+	chr10	12280456,12280456,12280456	12280484	ENST00000281141,ENST00000378900,ENST00000440613	+	chr10	12301986	12302307	+	14-16	239,198,93	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LUSC,CCLE-MM,CCLE-PAAD
chr12:42835231:+>chr12:42836287:+	chr12	42835117,42835117,42835117,42835117,42835117,42835117,42835117,42835117,42835117	42835231	ENST00000549190,ENST00000395580,ENST00000337898,ENST00000358314,ENST00000395568,ENST00000256678,ENST00000449194,ENST00000552761,ENST00000317560,ENST00000432191	+	chr12	42836287	42836464	+	17-24	293,274,348,359,221,286,341,322	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC
chr12:57081782:->chr12:57080459:-	chr12	57081782,57081782,57081782,57081782,57081782	57081782	ENST00000262033,ENST00000414274,ENST00000436399,ENST00000448157,ENST00000456859	-	chr12	57080459	57080460	-	25-25	0	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr12:7125578:->chr12:7120720:-	chr12	7125578,7125578,7125578,7125578,7125578	7125578	ENST00000535479,ENST00000261407,ENST00000540090,ENST00000543794,ENST00000536797,ENST00000538910	-	chr12	7120720	7120931	-	26-26	50	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr13:44432917:->chr13:44413224:-	chr13	44432917,44	44432917	ENST00000444614,ENST00000281508	-	chr13	44413224	44413313	-	27-27	224	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr16:21987564:+>chr16:21988399:+	chr16	21987488,22	21987564	ENST00000268379,ENST00000561553	+	chr16	21988399	21988688	+	28-28	374	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr17:25958330:+>chr17:25965125:+	chr17	25958292,25958292,25958292,25958292,25958292,25958292,25958292,25958292,25958292	25958330	ENST00000310394,ENST00000302228,ENST00000395473,ENST00000313648,ENST00000580779,ENST00000577392,ENST00000467111	+	chr17	25965125	25965196	+	29-29	13	CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-STAD
chr17:42188097:->chr17:42182463:-	chr17	42188097,42188097,42188097,42188097,42188097,42188097,42188097,42188097,42188097	42188097	ENST00000225983,ENST00000393622,ENST00000336057,ENST00000586802,ENST00000588703,ENST00000591714,ENST00000587135	-	chr17	42182463	42182465	-	30-33	50,32,31,22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr17:43475315:->chr17:43474814:-	chr17	43475315,43475315,43475315,43475315,43475315,43475315,43475315,43475315,43475315	43475315	ENST00000532038,ENST00000376922,ENST00000528384,ENST00000455881,ENST00000428638,ENST00000442348,ENST00000532891	-	chr17	43474814	43475039	-	34-39	587,592,614,246,273,392	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-STAD
chr19:19976808:+>chr19:19982937:+	chr19	19976806	19976808	ENST00000589717	+	chr19	19982937	19983370	+	40-40	1	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr19:53119971:->chr19:53097557:-	chr19	53119971,53	53119971	ENST00000596930,ENST00000597161	-	chr19	53097557	53097606	-	41-41	100	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PAAD
chr2:113956803:+>chr2:113966557:+	chr2	113956660,113956660,113956660	113956803	ENST00000245796,ENST00000441564,ENST00000409378	+	chr2	113966557	113966942	+	42-43	971,942	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LUSC,CCLE-PAAD,CCLE-STAD
chr2:131840150:->chr2:131829742:-	chr2	131840150,1	131840150	ENST00000409185,ENST00000389915	-	chr2	131829742	131829995	-	44-44	23	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM
chr20:1532337:->chr20:1530245:-	chr20	1532337,153	1532337	ENST00000381621,ENST00000381623	-	chr20	1530245	1530251	-	45-45	140	CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-THCA
chr20:17550856:+>chr20:17565018:+	chr20	17550854,18	17550856	ENST00000246069,ENST00000449141	+	chr20	17565018	17565313	+	46-46	1	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA

chr20:49307663:->chr20:49307455:-	chr20	49307663	49307663	ENST00000535356	-	chr20	49307455	49307533	-	47-47	1	CCLE-BLCA,CCLE-CESC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA
chr22:25019883:+>chr22:25023093:+	chr22	25019747,25019747,25019747,25019747,25019747,25019747,25019747	25019883	ENST00000248923,ENST00000412658,ENST00000400382,ENST00000400383,ENST00000400380,ENST00000406383,ENST00000425895	+	chr22	25023093	25023141	+	48-48	340	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD
chr22:37870550:->chr22:37861756:-	chr22	37870550,37870550,37870550	37870550	ENST00000416983,ENST00000356998,ENST00000454291	-	chr22	37861756	37862095	-	49-51	271,257,18	CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-MM
chr4:102117073:->chr4:102104428:-	chr4	102117073,102117073,102117073,102117073,102117073,102117073,102117073	102117073	ENST00000512215,ENST00000394854,ENST00000323055,ENST00000394853,ENST00000492351,ENST00000529324,ENST00000525819	-	chr4	102104428	102104622	-	52-53	36,86	CCLE-BRCA,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-UCEC
chr5:68551355:+>chr5:68551980:+	chr5	68551338,68551287,68551287,68551338	68551355	ENST00000506563,ENST00000256443,ENST00000514676,ENST00000502604	+	chr5	68551980	68552084	+	54-55	99,6	CCLE-BRCA,CCLE-DLBC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr6:129786434:+>chr6:129788349:+	chr6	129786290	129786434	ENST00000421865	+	chr6	129788349	129788676	+	56-56	2433	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:17837109:->chr6:17835895:-	chr6	17837109,17837109,17837109,17837109,17837109	17837109	ENST00000378814,ENST00000259711,ENST00000378843,ENST00000378826,ENST00000378816	-	chr6	17835895	17835938	-	57-58	385	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr6:34511797:->chr6:34511385:-	chr6	34511797,35	34511797	ENST00000374037,ENST00000544425	-	chr6	34511385	34511537	-	59-59	145	CCLE-BRCA,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD
chr7:56052571:+>chr7:56059164:+	chr7	56052540,56052540,56052540,56052540	56052571	ENST00000322090,ENST00000446778,ENST00000437587,ENST00000415967	+	chr7	56059164	56059459	+	60-63	205,166,65,113	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr8:38697785:+>chr8:38698832:+	chr8	38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742,38697742	38697785	ENST00000519416,ENST00000520615,ENST00000443286,ENST00000518415,ENST00000330691,ENST00000348567,ENST00000317827,ENST00000379931,ENST00000276520,ENST00000520973,ENST00000521866,ENST00000518809,ENST00000520611	+	chr8	38698832	38699148	+	64-76	243,653,665,91,215,227,579,640,457,458,429,303,411	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr8:74872000:->chr8:74871067:-	chr8	74872000,74872000,74872000,74872000,74872000,74872000,74872000	74872000	ENST00000602840,ENST00000518127,ENST00000520242,ENST00000519487,ENST00000284811,ENST00000522337,ENST00000523815,ENST00000519082	-	chr8	74871067	74871473	-	77-77	1	CCLE-BLCA,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr9:15506559:->chr9:15492223:-	chr9	15506559,15506559,15506559,15506559,15506559	15506559	ENST00000380738,ENST00000380733,ENST00000380715,ENST00000380716,ENST00000397519	-	chr9	15492223	15493546	-	78-78	49	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr9:97843062:+>chr9:97909493:+	chr9	97842976,97842976,97842976,97842976,97842976,97842976,97842976,97842976	97843062	ENST00000297979,ENST00000375315,ENST00000424143,ENST00000428313,ENST00000425634,ENST00000433691,ENST00000445181,ENST00000478473	+	chr9	97909493	97909522	+	79-86	555,674,773,135,114,497,138,134	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chrX:57620887:+>chrX:57667223:+	chrX	57618482	57620887	ENST00000374888	+	chrX	57667223	57667382	+	87-87	802	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:116206078:+>chr1:116206282:+	chr1	116205952	116206078	+	chr1	116206282	116206889,116206889,116206889	+	ENST00000355485,ENST00000369510,ENST00000310260,ENST00000369509	88-88	42	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM
chr1:160283437:->chr1:160282957:-	chr1	160283210	160283437	-	chr1	160282957	160282957,2	-	ENST00000368069,ENST00000241704	89-89	22	CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM
chr1:178806756:+>chr1:178846633:+	chr1	178806683	178806756	+	chr1	178846633	178846770,178846770,178846770	+	ENST00000367635,ENST00000367634,ENST00000324778	90-90	24	CCLE-BRCA,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC
chr1:183107957:+>chr1:183109539:+	chr1	183107909	183107957	+	chr1	183109539	183109638	+	ENST00000258341	91-91	3	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr1:222838358:+>chr1:222838651:+	chr1	222838237	222838358	+	chr1	222838651	222838961,222838961,222838961	+	ENST00000344922,ENST00000344441,ENST00000340535	92-92	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-STAD
chr1:240569786:+>chr1:240601361:+	chr1	240569724	240569786	+	chr1	240601361	240601510,2	+	ENST00000319653,ENST00000545751	93-93	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr1:44680991:+>chr1:44683983:+	chr1	44680726	44680991	+	chr1	44683983	44684141,44684141,44684141,44684141,44684141,44684141	+	ENST00000361745,ENST00000446292,ENST00000440641,ENST00000437511,ENST00000315913,ENST00000372289	94-94	39	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr1:45988450:->chr1:45981479:-	chr1	45988424	45988450	-	chr1	45981479	45981479,45981479,45981479,45981479	-	ENST00000262746,ENST00000319248,ENST00000447184,ENST00000424390	95-96	22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA
chr1:51218110:->chr1:51210447:-	chr1	51217944	51218110	-	chr1	51210447	51210447,51	-	ENST00000396153,ENST00000371778	97-97	29	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-PRAD
chr10:102711867:+>chr10:102716208:+	chr10	102711720	102711867	+	chr10	102716208	102716294,1	+	ENST00000238961,ENST00000370269	98-98	41	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr10:1100108:->chr10:1090111:-	chr10	1099853	1100108	-	chr10	1090111	1090111	-	ENST00000381344	99-99	41	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr10:11870845:->chr10:11873881:-	chr10	11875081	11875084	-	chr10	11873881	11873881,11873881	-	ENST00000392903,ENST00000260777,ENST00000355371	100-102	64	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV
chr10:2882498:+>chr10:2887232:+	chr10	2882489	2882498	+	chr10	2887232	2887243,2887243,2887243,2887243,2887243,2887236,2887243,2887243	+	ENST00000375664,ENST00000375646,ENST00000347934,ENST00000354911,ENST00000428935,ENST00000420266,ENST00000442148,ENST00000448193,ENST00000414108,ENST00000439676	103-104	33	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr10:5174703:+>chr10:5174906:+	chr10	5174689	5174703	+	chr10	5174906	5174913	+	ENST00000412531	105-105	46	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr10:6010739:->chr10:6008302:-	chr10	6010471	6010739	-	chr10	6008302	6008302,6008302,6008302,6008302,6008302,6008302	-	ENST00000379977,ENST00000528354,ENST00000532039,ENST00000397255,ENST00000530685,ENST00000429135	106-106	21	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr10:95225471:->chr10:95216694:-	chr10	95225282	95225471	-	chr10	95216694	95216694,95216694,95216694,95216694,95216694,95216694	-	ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502,ENST00000371489,ENST00000371488	107-112	25	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr11:129978600:+>chr11:129979324:+	chr11	129977262	129978600	+	chr11	129979324	129979497,129979497,129979497,129979497,129979497,129979497,129979497,129979497,129979497,129979497	+	ENST00000533195,ENST00000533713,ENST00000534582,ENST00000528499,ENST00000263574,ENST00000345598,ENST00000338167,ENST00000278756	113-113	19	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM,CCLE-STAD
chr11:18491675:->chr11:18490765:-	chr11	18491478	18491675	-	chr11	18490765	18490765	-	ENST00000536719	114-114	23	CCLE-CESC,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SKCM
chr11:44960717:->chr11:44959917:-	chr11	44960655	44960717	-	chr11	44959917	44959917	-	ENST00000525138	115-115	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr11:64643083:->chr11:64641990:-	chr11	64643077	64643083	-	chr11	64641990	64641990,64641990,64641990,64641990,64641990,64641990	-	ENST00000320631,ENST00000359393,ENST00000433803,ENST00000457202,ENST00000411683	116-118	68	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr11:74830434:+>chr11:74873700:+	chr11	74830343	74830434	+	chr11	74873700	74873830	+	ENST00000289575	119-119	8	CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SKCM

chr12:110470515:+>chr12:110471602:+	chr12	110470197	110470515	+	chr12	110471602	110471762,1	+	ENST00000261739,ENST00000547419	120-120	27	CCLE-BLCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr12:112149997:+>chr12:112150302:+	chr12	112149615	112149997	+	chr12	112150302	112150461,112150461,112150461	+	ENST00000549590,ENST00000455480,ENST00000313698,ENST00000552706	121-123	47	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr12:112169999:+>chr12:112171727:+	chr12	112169907	112169999	+	chr12	112171727	112171872,112171872,112171872,112171851	+	ENST00000392636,ENST00000549590,ENST00000455480,ENST00000313698,ENST00000552706	124-125	13	CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr12:22831248:+>chr12:22837417:+	chr12	22831166	22831248	+	chr12	22837417	22837490,23	+	ENST00000266517,ENST00000538218	126-127	27	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr12:42795298:+>chr12:42835117:+	chr12	42795223	42795298	+	chr12	42835117	42835311,42835311,42835231,42835311,42835231,42835231,42835311,42835231,42835311,42835231	+	ENST00000549190,ENST00000395580,ENST00000337898,ENST00000358314,ENST00000395568,ENST00000256678,ENST00000449194,ENST00000552761,ENST00000317560,ENST00000432191	128-128	8	CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-STAD
chr12:63961380:->chr12:63954442:-	chr12	63961130	63961380	-	chr12	63954442	63954442,64	-	ENST00000324472,ENST00000413230	129-129	17	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr12:69249761:->chr12:69236109:-	chr12	69249510	69249761	-	chr12	69236109	69236109	-	ENST00000551897	130-130	8	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr12:72301769:+>chr12:72307606:+	chr12	72301669	72301769	+	chr12	72307606	72307706,72307706,72307706,72307706	+	ENST00000550746,ENST00000319106,ENST00000485960,ENST00000393309	131-131	11	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr12:79996543:->chr12:79990438:-	chr12	79996516	79996543	-	chr12	79990438	79990438	-	ENST00000328827	132-132	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr12:86274547:+>chr12:86276001:+	chr12	86274449	86274547	+	chr12	86276001	86276153,86	+	ENST00000551529,ENST00000256010	133-133	33	CCLE-BRCA,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr13:113897987:+>chr13:113898724:+	chr13	113897912	113897987	+	chr13	113898724	113898828,113898828,113898828,113898828	+	ENST00000375441,ENST00000451881,ENST00000326335,ENST00000375440	134-134	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr13:115035095:+>chr13:115037659:+	chr13	115034935	115035095	+	chr13	115037659	115037918,115037918,115037918,115037918,115037918	+	ENST00000360383,ENST00000375312,ENST00000356221,ENST00000375310,ENST00000252457,ENST00000375308,ENST00000252458	135-135	2	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr13:115049839:+>chr13:115051777:+	chr13	115049833	115049839	+	chr13	115051777	115051875	+	ENST00000375299	136-136	3	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr13:41835827:->chr13:41835011:-	chr13	41835733	41835827	-	chr13	41835011	41835043,41835043,41835051,41835043	-	ENST00000379480,ENST00000379477,ENST00000430347,ENST00000452359	137-137	2	CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr13:45576476:+>chr13:45578440:+	chr13	45576285	45576476	+	chr13	45578440	45578572,45578572,45578572	+	ENST00000379151,ENST00000497558,ENST00000361121	138-138	4	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM
chr14:105335983:+>chr14:105342593:+	chr14	105335893	105335983	+	chr14	105342593	105342682,1	+	ENST00000453495,ENST00000414716	139-139	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr14:60442915:+>chr14:60443943:+	chr14	60442564	60442915	+	chr14	60443943	60444065,6	+	ENST00000254271,ENST00000445360	140-140	15	CCLE-BLCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD
chr14:97307963:+>chr14:97312432:+	chr14	97307913	97307963	+	chr14	97312432	97312501	+	ENST00000216639	141-141	17	CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr15:42151606:->chr15:42151178:-	chr15	42151360	42151606	-	chr15	42151178	42151178	-	ENST00000320955	142-142	17	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr15:49600974:+>chr15:49611801:+	chr15	49600845	49600974	+	chr15	49611801	49612002,49612002,49612002,49612002,49612002,49612002,49612002,49612002	+	ENST00000327171,ENST00000560031,ENST00000396509,ENST00000544523,ENST00000559454,ENST00000558399,ENST00000559580	143-143	8	CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-OV,CCLE-SKCM
chr15:79168112:+>chr15:79170555:+	chr15	79167833	79168112	+	chr15	79170555	79170601,79170601,79170601,79170601,79170601,79170601	+	ENST00000379535,ENST00000426013,ENST00000331268,ENST00000558746,ENST00000560422	144-147	22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM,CCLE-STAD

chr15:79649214:+>chr15:79703742:+	chr15	79649053	79649214	+	chr15	79703742	79703846	+	ENST00000424155	148-148	2	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr15:99433697:+>chr15:99434554:+	chr15	99433390	99433697	+	chr15	99434554	99434866,99434866,99434848	+	ENST00000268035,ENST00000558762,ENST00000558355	149-151	14	CCLE-BLCA,CCLE-BRCA,CCLE-ESCA,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM
chr16:2115231:+>chr16:2115520:+	chr16	2115133	2115231	+	chr16	2115520	2115636,2115636,2115636,2115636,2115636,2115636,2115636	+	ENST00000219476,ENST00000382538,ENST00000401874,ENST00000353929,ENST00000439673,ENST00000350773,ENST00000568454	152-156	11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM
chr16:29692733:+>chr16:29705985:+	chr16	29692671	29692733	+	chr16	29705985	29706465,29706520,29706076	+	ENST00000449759,ENST00000395384,ENST00000562473	157-159	21	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-STAD
chr16:4667729:+>chr16:4700366:+	chr16	4667704	4667729	+	chr16	4700366	4700484,4700484,4700484,4700484,4700484,4700484,4700484	+	ENST00000262370,ENST00000415496,ENST00000536343,ENST00000587747,ENST00000399577,ENST00000588994,ENST00000586183	160-160	8	CCLE-BRCA,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr16:82201145:->chr16:82197799:-	chr16	82200969	82201145	-	chr16	82197799	82197799,82197799,82197799	-	ENST00000258169,ENST00000568016,ENST00000569021	161-161	29	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr16:89607754:+>chr16:89611056:+	chr16	89607673	89607754	+	chr16	89611056	89611180,9	+	ENST00000268704,ENST00000569820	162-162	14	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr17:17735071:->chr17:17723835:-	chr17	17735005	17735071	-	chr17	17723835	17723835,17723835,17723835,17723835,17723835	-	ENST00000338854,ENST00000355815,ENST00000261646,ENST00000435530,ENST00000423161	163-163	12	CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr17:38177572:->chr17:38176606:-	chr17	38177416	38177572	-	chr17	38176606	38176606,38176606,38176606,38176606,38176735,38176606	-	ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000491466,ENST00000422942,ENST00000501516	164-165	3	CCLE-BLCA,CCLE-COAD,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr17:43536749:->chr17:43531638:-	chr17	43536525	43536749	-	chr17	43531638	43531638,44	-	ENST00000430334,ENST00000421073	166-166	22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr17:45356073:+>chr17:45360720:+	chr17	45356022	45356073	+	chr17	45360720	45360915,45360915,45360915,45360915	+	ENST00000559488,ENST00000571680,ENST00000435993,ENST00000560629	167-169	11	CCLE-CESC,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr17:47441711:+>chr17:47450375:+	chr17	47441499	47441711	+	chr17	47450375	47450448	+	ENST00000576461	170-170	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr17:62609987:->chr17:62602758:-	chr17	62609863	62609987	-	chr17	62602758	62602758,63	-	ENST00000578386,ENST00000262435	171-171	15	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr17:65894534:+>chr17:65899905:+	chr17	65894489	65894534	+	chr17	65899905	65900034,65900034,65900034,65900034	+	ENST00000544778,ENST00000321892,ENST00000335221,ENST00000306378,ENST00000424123	172-172	15	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr17:78263365:+>chr17:78263458:+	chr17	78263107	78263365	+	chr17	78263458	78263636,78263636,78263636,78263636	+	ENST00000508628,ENST00000456466,ENST00000582970,ENST00000319921	173-175	32	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr18:19147325:->chr18:19146167:-	chr18	19147113	19147325	-	chr18	19146167	19146167,19	-	ENST00000269214,ENST00000383276	176-176	11	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr18:244302:->chr18:226901:-	chr18	244039	244302	-	chr18	226901	226901,2269	-	ENST00000261600,ENST00000579891	177-178	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr18:74574245:+>chr18:74580641:+	chr18	74574119	74574245	+	chr18	74580641	74580819,74580819,74580819,74580819	+	ENST00000320610,ENST00000253159,ENST00000543926,ENST00000579322	179-181	28	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM
chr18:8708134:+>chr18:8718422:+	chr18	8708124	8708134	+	chr18	8718422	8718646	+	ENST00000306329	182-182	3	CCLE-BLCA,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV
chr19:1045618:+>chr19:1046229:+	chr19	1045546	1045618	+	chr19	1046229	1046405,1046405,1046405	+	ENST00000263094,ENST00000433129,ENST00000435683	183-183	2	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-STAD,CCLE-THCA
chr19:20025631:+>chr19:20026089:+	chr19	20025593	20025631	+	chr19	20026089	20026215,20026215,20026215,20026215	+	ENST00000591366,ENST00000586021,ENST00000592160,ENST00000343769	184-187	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-STAD,CCLE-UCEC
chr19:4703015:->chr19:4702728:-	chr19	4702907	4703015	-	chr19	4702728	4702728,4702728,4702728,4702728,4702728,4702728	-	ENST00000594671,ENST00000262960,ENST00000598800,ENST00000599163,ENST00000597849,ENST00000597726	188-188	24	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM

chr19:49834874:->chr19:49797810:-	chr19	49834789	49834874	-	chr19	49797810	49797810,5	-	ENST00000335875,ENST00000454748	189-190	4	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-LGG,CCLE-LUSC,CCLE-OV
chr19:50010181:+>chr19:50027764:+	chr19	50010116	50010181	+	chr19	50027764	50028033,50028033,50028033	+	ENST00000221466,ENST00000426395,ENST00000596975	191-191	10	CCLE-BRCA,CCLE-CESC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-STAD
chr19:54502735:+>chr19:54515205:+	chr19	54502652	54502735	+	chr19	54515205	54515443,54515443,54515443	+	ENST00000352529,ENST00000252729,ENST00000346968	192-192	5	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-STAD
chr19:6365650:+>chr19:6366269:+	chr19	6365553	6365650	+	chr19	6366269	6366374,6366374,6366374,6366333	+	ENST00000245816,ENST00000597326,ENST00000596149,ENST00000596605	193-195	32	CCLE-CESC,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-PAAD
chr2:10135488:+>chr2:10136007:+	chr2	10135439	10135488	+	chr2	10136007	10136098,10136098,10136098,10136017	+	ENST00000405379,ENST00000324883,ENST00000324907,ENST00000472167	196-197	16	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-STAD,CCLE-THCA
chr2:131824664:->chr2:131813268:-	chr2	131824421	131824664	-	chr2	131813268	131813268,1	-	ENST00000409185,ENST00000389915	198-198	17	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM
chr2:219296440:+>chr2:219296580:+	chr2	219296373	219296440	+	chr2	219296580	219296680,2	+	ENST00000248444,ENST00000392114	199-199	18	CCLE-COAD,CCLE-LIHC,CCLE-LUSC
chr2:231040909:->chr2:231037675:-	chr2	231040659	231040909	-	chr2	231037675	231037675,2	-	ENST00000258381,ENST00000358662	200-200	10	CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr2:28190310:+>chr2:28210860:+	chr2	28190037	28190310	+	chr2	28210860	28210954,28210954,28210954,28210954,28210954,28210954,28210954,28210954	+	ENST00000436924,ENST00000344773,ENST00000379624,ENST00000342045,ENST00000361704,ENST00000379632,ENST00000379629,ENST00000604932	201-201	8	CCLE-BRCA,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-THCA
chr2:37490123:->chr2:37487527:-	chr2	37489916	37490123	-	chr2	37487527	37487527,37487527,37487527	-	ENST00000379066,ENST00000234179,ENST00000443977	202-203	20	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr2:37520065:->chr2:37518142:-	chr2	37519789	37520065	-	chr2	37518142	37518142,37518142,37518142	-	ENST00000379066,ENST00000234179,ENST00000443187	204-205	8	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr2:37570066:+>chr2:37579932:+	chr2	37569837	37570066	+	chr2	37579932	37580078	+	ENST00000338415	206-206	77	CCLE-COAD,CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-SKCM
chr2:42615589:->chr2:42580483:-	chr2	42615589	42615589	-	chr2	42580483	42580483,42580483,42580483,42580483	-	ENST00000468711,ENST00000378669,ENST00000234301,ENST00000463055	207-209	14	CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SKCM
chr2:43779972:->chr2:43779478:-	chr2	43779811	43779972	-	chr2	43779478	43779478,43779478,43779478,43779478,43779478,43779478	-	ENST00000330266,ENST00000405975,ENST00000415080,ENST00000407351,ENST00000405006,ENST00000402796,ENST00000402360	210-210	34	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:48593264:+>chr2:48600431:+	chr2	48593214	48593264	+	chr2	48600431	48600467,49	+	ENST00000413569,ENST00000340553	211-212	17	CCLE-BRCA,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD
chr2:98263129:+>chr2:98263530:+	chr2	98263029	98263129	+	chr2	98263530	98263603	+	ENST00000258424	213-213	11	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr2:99224633:->chr2:99220654:-	chr2	99224536	99224633	-	chr2	99220654	99220654,99	-	ENST00000328709,ENST00000409997	214-215	16	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:99224656:->chr2:99220650:-	chr2	99224536	99224656	-	chr2	99220650	99220654,99	-	ENST00000328709,ENST00000409997	216-217	9	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:99224660:->chr2:99220654:-	chr2	99224536	99224660	-	chr2	99220654	99220654,99	-	ENST00000328709,ENST00000409997	218-219	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr20:30254794:->chr20:30253889:-	chr20	30254782	30254794	-	chr20	30253889	30253889,30253889,30253889,30253889	-	ENST00000376062,ENST00000376055,ENST00000307677,ENST00000420653,ENST00000450273	220-221	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr20:32888526:->chr20:32883391:-	chr20	32888482	32888526	-	chr20	32883391	32883391	-	ENST00000217426	222-222	7	CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr20:34315958:->chr20:34313077:-	chr20	34315874	34315958	-	chr20	34313077	34313077,34313077,34313077,34313077,34313077	-	ENST00000253363,ENST00000361162,ENST00000338163,ENST00000528062,ENST00000448303,ENST00000374038,ENST00000434927	223-228	8	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr20:42212014:+>chr20:42213492:+	chr20	42211946	42212014	+	chr20	42213492	42213656,42213656,42213656,42213656	+	ENST00000373100,ENST00000373092,ENST00000373077,ENST00000423407,ENST00000341458,ENST00000426287	229-229	18	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr20:60835987:+>chr20:60838672:+	chr20	60835762	60835987	+	chr20	60838672	60838747,61	+	ENST00000313733,ENST00000358053	230-230	36	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr21:34973474:->chr21:34971554:-	chr21	34973240	34973474	-	chr21	34971554	34971554,34971554,34971554,34971554,34971554,34971554	-	ENST00000381554,ENST00000290244,ENST00000381540,ENST00000361534,ENST00000440526,ENST00000414079,ENST00000426935	231-231	23	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC

chr21:43290029:->chr21:43280481:-	chr21	43289853	43290029	-	chr21	43280481	43280481,43280481,43280481,43280481,43280481	-	ENST00000398548,ENST00000422911,ENST00000449395,ENST00000433067,ENST00000269844	232-232	9	CCLE-DLBC,CCLE-KIRC,CCLE-LUSC
chr22:18351213:->chr22:18348778:-	chr22	18351092	18351213	-	chr22	18348778	18348778,18348778,18348778,18348778,18348778,18348778,18348778,18348778,18348778	-	ENST00000441493,ENST00000400561,ENST00000444520,ENST00000414725,ENST00000383094,ENST00000207726,ENST00000429452,ENST00000461307,ENST00000585038	233-233	36	CCLE-HNSC,CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM
chr22:31947110:+>chr22:31952928:+	chr22	31947045	31947110	+	chr22	31952928	31953045,31953045,31953045,31953045,31953045,31953045,31953045	+	ENST00000443326,ENST00000540643,ENST00000432498,ENST00000400289,ENST00000400288,ENST00000524296,ENST00000450787	234-237	22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr22:32787416:->chr22:32784086:-	chr22	32787383	32787416	-	chr22	32784086	32784086	-	ENST00000216038	238-238	3	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr22:36007617:->chr22:36007153:-	chr22	36007545	36007617	-	chr22	36007153	36007153,36007153,36007153,36007153,36007153,36007153,36007153,36007153	-	ENST00000397326,ENST00000397328,ENST00000359787,ENST00000406324,ENST00000443033,ENST00000451685,ENST00000447607,ENST00000419229	239-239	11	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr22:42085308:+>chr22:42089467:+	chr22	42085084	42085308	+	chr22	42089467	42089982	+	ENST00000402966	240-240	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr22:46193106:+>chr22:46202839:+	chr22	46192682	46193106	+	chr22	46202839	46202902,46202902,46202902,46202984,46202902	+	ENST00000381061,ENST00000252934,ENST00000435026,ENST00000451241,ENST00000402380	241-241	24	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM
chr3:10160654:+>chr3:10167310:+	chr3	10160479	10160654	+	chr3	10167310	10167392,1	+	ENST00000530758,ENST00000256463	242-243	34	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr3:122863676:+>chr3:122864369:+	chr3	122863450	122863676	+	chr3	122864369	122864384,1	+	ENST00000489923,ENST00000316218	244-244	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr3:12604393:+>chr3:12610374:+	chr3	12604073	12604393	+	chr3	12610374	12610502,13	+	ENST00000170447,ENST00000448482	245-246	69	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr3:128828867:->chr3:128814012:-	chr3	128828702	128828867	-	chr3	128814012	128814012,128814012,128814012,128814012,128814012,128814012,128814012,128814012	-	ENST00000315150,ENST00000393304,ENST00000393308,ENST00000393307,ENST00000393305,ENST00000418265,ENST00000476465,ENST00000457077	247-250	38	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM
chr3:136005373:+>chr3:136012598:+	chr3	136005115	136005373	+	chr3	136012598	136012706,136012706,136012706,136012706,136012706,136012706,136012706,136012706,136012706,136012706,136012706	+	ENST00000251654,ENST00000462637,ENST00000466072,ENST00000468777,ENST00000482086,ENST00000483687,ENST00000484181,ENST00000490504,ENST00000471595,ENST00000469217,ENST00000478469	251-251	10	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PRAD,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr3:15058779:+>chr3:15062260:+	chr3	15058757	15058779	+	chr3	15062260	15062439,15062439,15062439,15062442,15062439	+	ENST00000425241,ENST00000323373,ENST00000393102,ENST00000437120,ENST00000406272	252-252	7	CCLE-BLCA,CCLE-CESC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM
chr3:185370866:->chr3:185369956:-	chr3	185370627	185370866	-	chr3	185369956	185369956,185369956,185369956,185369956	-	ENST00000382199,ENST00000421047,ENST00000457616,ENST00000346192	253-253	16	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-UCEC
chr3:40555431:+>chr3:40557351:+	chr3	40555106	40555431	+	chr3	40557351	40557435,41	+	ENST00000420891,ENST00000314529	254-254	23	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD
chr3:53915693:->chr3:53914136:-	chr3	53915609	53915693	-	chr3	53914136	53914136	-	ENST00000335754	255-255	12	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr3:77121427:+>chr3:77147165:+	chr3	77121074	77121427	+	chr3	77147165	77147491,77147491,77147491,77147491,77147491	+	ENST00000487694,ENST00000602589,ENST00000461745,ENST00000332191,ENST00000473767	256-256	58	CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-STAD
chr5:1257816:->chr5:1255526:-	chr5	1257699	1257816	-	chr5	1255526	1255526,126	-	ENST00000310581,ENST00000334602	257-257	10	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr5:132253438:->chr5:132240096:-	chr5	132253393	132253438	-	chr5	132240096	132240096,132240096,132240096	-	ENST00000265343,ENST00000378595,ENST00000425658	258-260	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr5:133691774:->chr5:133686118:-	chr5	133691603	133691774	-	chr5	133686118	133686118,133686118,133686118,133686118	-	ENST00000265334,ENST00000521118,ENST00000523832,ENST00000435211	261-261	29	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr5:145153908:->chr5:145144563:-	chr5	145153683	145153908	-	chr5	145144563	145144563,145144563,145144563,145144563	-	ENST00000334744,ENST00000358004,ENST00000394450,ENST00000505416	262-262	2	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC

chr5:145540727:->chr5:145540049:-	chr5	145540564	145540727	-	chr5	145540049	145540049,145540049,145540049	-	ENST00000394434,ENST00000545646,ENST00000274562,ENST00000510191	263-263	11	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr5:1475076:->chr5:1474800:-	chr5	1474878	1475076	-	chr5	1474800	1474800,1474	-	ENST00000475622,ENST00000283415	264-264	15	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV
chr5:177450333:+>chr5:177462097:+	chr5	177450235	177450333	+	chr5	177462097	177462155,2	+	ENST00000511856,ENST00000511189	265-266	2	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA
chr5:179238682:+>chr5:179250858:+	chr5	179238653	179238682	+	chr5	179250858	179251087,179251087,179251087,179251087,179251057,179251087,179251087,179251087	+	ENST00000376929,ENST00000514093,ENST00000422245,ENST00000389805,ENST00000504627,ENST00000402874,ENST00000510187,ENST00000360718	267-267	10	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM
chr5:414855:+>chr5:422844:+	chr5	414618	414855	+	chr5	422844	422973,422973,422875,422973	+	ENST00000505113,ENST00000316418,ENST00000510400,ENST00000506456	268-270	35	CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr5:86704905:->chr5:86704003:-	chr5	86704732	86704905	-	chr5	86704003	86704003,86704003,86704003	-	ENST00000508855,ENST00000256897,ENST00000504878	271-271	2	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM
chr5:94876747:->chr5:94876534:-	chr5	94876664	94876747	-	chr5	94876534	94876534,95	-	ENST00000358746,ENST00000514952	272-273	13	CCLE-BLCA,CCLE-COAD,CCLE-ESCA,CCLE-LUSC,CCLE-OV,CCLE-PRAD,CCLE-SKCM
chr6:100379769:->chr6:100369131:-	chr6	100373713	100379769	-	chr6	100369131	100369131,1	-	ENST00000281806,ENST00000369212	274-274	32	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr6:130374597:+>chr6:130376316:+	chr6	130374499	130374597	+	chr6	130376316	130376400,130376400,130376400,130376400,130376400,130376400	+	ENST00000529410,ENST00000533560,ENST00000361794,ENST00000368139,ENST00000526019,ENST00000368136	275-275	33	CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC
chr6:17835789:->chr6:17834302:-	chr6	17835759	17835789	-	chr6	17834302	17834302,17834302,17834302,17834302,17834302	-	ENST00000378814,ENST00000259711,ENST00000378843,ENST00000378826,ENST00000378816	276-279	13	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-SKCM,CCLE-STAD
chr6:30629093:->chr6:30628019:-	chr6	30628869	30629093	-	chr6	30628019	30628019,31	-	ENST00000376437,ENST00000376442	280-280	22	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr6:3432328:->chr6:3416089:-	chr6	3432245	3432328	-	chr6	3416089	3416089,3416089,3416089,3416089	-	ENST00000436008,ENST00000406686,ENST00000485307,ENST00000467177,ENST00000380298	281-281	3	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr7:102793520:+>chr7:102939015:+	chr7	102793255	102793520	+	chr7	102939015	102939155,102939155,102939155,102939155,102939155	+	ENST00000249269,ENST00000428154,ENST00000456433,ENST00000443722,ENST00000453466	282-282	16	CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-STAD
chr7:107256834:+>chr7:107258773:+	chr7	107256472	107256834	+	chr7	107258773	107258808,107258808,107259050,107258808,107259050	+	ENST00000005259,ENST00000465919,ENST00000445771,ENST00000379117,ENST00000379119	283-284	10	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr7:116555100:+>chr7:116556114:+	chr7	116555054	116555100	+	chr7	116556114	116556176	+	ENST00000361183	285-285	15	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr7:129915476:+>chr7:129916468:+	chr7	129915447	129915476	+	chr7	129916468	129916578	+	ENST00000222481	286-286	10	CCLE-BRCA,CCLE-CESC,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-UCEC
chr7:44883388:->chr7:44882953:-	chr7	44883161	44883388	-	chr7	44882953	44882953,44882953,44882953,44882953,44882953	-	ENST00000222690,ENST00000437072,ENST00000349299,ENST00000308153,ENST00000381124,ENST00000446531	287-292	6	CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-UCEC
chr7:50595367:->chr7:50571757:-	chr7	50595218	50595367	-	chr7	50571757	50571757,50571757,50571757,50571757,50571757	-	ENST00000357936,ENST00000431062,ENST00000426377,ENST00000444733,ENST00000444124,ENST00000430300,ENST00000380984	293-294	19	CCLE-COAD,CCLE-ESCA,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-PRAD,CCLE-STAD,CCLE-THCA
chr7:72720556:->chr7:72719094:-	chr7	72720415	72720556	-	chr7	72719094	72719094,72719094,72719094,72719094,72719094	-	ENST00000428206,ENST00000252594,ENST00000438747,ENST00000310326,ENST00000455763	295-298	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr7:73776406:+>chr7:73778585:+	chr7	73776149	73776406	+	chr7	73778585	73778645,73778645,73778645	+	ENST00000361545,ENST00000223398,ENST00000395060	299-300	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr7:75083158:->chr7:75070925:-	chr7	75082911	75083158	-	chr7	75070925	75070925	-	ENST00000257665	301-301	63	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SARC,CCLE-SKCM
chr7:84736037:->chr7:84727281:-	chr7	84735954	84736037	-	chr7	84727281	84727281,85	-	ENST00000284136,ENST00000444867	302-303	20	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr8:103282996:->chr8:103282411:-	chr8	103282751	103282996	-	chr8	103282411	103282411,103282411,103282411,103282411	-	ENST00000520539,ENST00000220959,ENST00000518205,ENST00000521922	304-304	17	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr8:128749923:+>chr8:128750494:+	chr8	128749913	128749923	+	chr8	128750494	128751265	+	ENST00000377970	305-305	3	CCLE-BLCA,CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA

chr8:66633382:->chr8:66631730:-	chr8	66633042	66633382	-	chr8	66631730	66631730,67	-	ENST00000401827,ENST00000379419	306-306	12	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA
chr8:72942008:+>chr8:72964774:+	chr8	72941789	72942008	+	chr8	72964774	72964806,73	+	ENST00000524152,ENST00000519068	307-307	7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LUSC,CCLE-SARC,CCLE-THCA
chr8:99648370:->chr8:99608397:-	chr8	99648359	99648370	-	chr8	99608397	99608397,99608397,99608397,99608397	-	ENST00000419617,ENST00000523601,ENST00000518165,ENST00000521649	308-309	4	CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD
chr9:119602892:->chr9:119583062:-	chr9	119602163	119602892	-	chr9	119583062	119583062,119583062,119583062,119583062	-	ENST00000373996,ENST00000313400,ENST00000373986,ENST00000361209	310-310	28	CCLE-BLCA,CCLE-ESCA,CCLE-HNSC,CCLE-LUSC,CCLE-MM
chr9:128421519:->chr9:128420078:-	chr9	128421464	128421519	-	chr9	128420078	128420078,128420078,128420078,128420078,128420078	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000265960,ENST00000394060,ENST00000373496	311-315	42	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr9:130924301:+>chr9:130925722:+	chr9	130924283	130924301	+	chr9	130925722	130925894	+	ENST00000372994	316-316	6	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr9:21808999:+>chr9:21815432:+	chr9	21808844	21808999	+	chr9	21815432	21815518,21815518,21815518,21815518,21815543,21815518	+	ENST00000380172,ENST00000404796,ENST00000460874,ENST00000580900,ENST00000419385,ENST00000580718	317-321	52	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr9:88264917:->chr9:88261333:-	chr9	88264393	88264917	-	chr9	88261333	88261333,88261333,88261333,88261333	-	ENST00000376083,ENST00000357081,ENST00000376109,ENST00000432218	322-323	38	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD
chr9:96211969:->chr9:96209979:-	chr9	96211775	96211969	-	chr9	96209979	96209979,96209979,96209979	-	ENST00000423591,ENST00000375412,ENST00000428378	324-325	33	CCLE-BLCA,CCLE-BRCA,CCLE-ESCA,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr9:96211969:->chr9:96210771:-	chr9	96211775	96211969	-	chr9	96210771	96210771	-	ENST00000476484	326-326	33	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr9:97214855:+>chr9:97216240:+	chr9	97214597	97214855	+	chr9	97216240	97216352,97	+	ENST00000375344,ENST00000428393	327-327	87	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:117629144:+>chr1:117630672:+	chr1	117629039	117629144	ENST00000369466	+	chr1	117630672	117630710	+	01	720	CCLE-DLBC,CCLE-HNSC,CCLE-LUSC
chr1:145474732:+>chr1:145476653:+	chr1	145473329	145474732	ENST00000323397	+	chr1	145476653	145476760	+	02	468	CCLE-BRCA,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC
chr1:160314616:+>chr1:230653304:+	chr1	160314512,160314512,160314512,160314512,160314512,160314512	160314616	ENST00000294785,ENST00000368063,ENST00000437169,ENST00000421914,ENST00000535857,ENST00000438008,ENST00000392212	+	chr1	230653304	230653504	+	03	63	CCLE-LUSC
chr1:92518215:+>chr1:92524420:+	chr1	92518067	92518215	ENST00000370383	+	chr1	92524420	92524604	+	04	285	CCLE-LUSC
chr10:104231153:+>chr10:104231667:+	chr10	104231139,104231030,104231030	104231153	ENST00000366277,ENST00000238936,ENST00000369931	+	chr10	104231667	104231733	+	05	5	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD,TCGA-STAD
chr10:112572705:+>chr10:112576399:+	chr10	112572036	112572705	ENST00000369519	+	chr10	112576399	112576521	+	06	850	CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC
chr10:64976967:->chr10:64445839:-	chr10	64976967,64976967,64976967,64976967	64976967	ENST00000399262,ENST00000402544,ENST00000399251,ENST00000542921	-	chr10	64445839	64445873	-	07	7	TCGA-LUSC
chr11:67352712:+>chr11:67361105:+	chr11	67352609,67	67352712	ENST00000398606,ENST00000398603	+	chr11	67361105	67361444	+	08	112	TCGA-DLBC,TCGA-HNSC,TCGA-LUSC
chr11:69063184:+>chr11:69084301:+	chr11	69063059,69063059,69063092	69063184	ENST00000441339,ENST00000308946,ENST00000535407	+	chr11	69084301	69084421	+	09	89	CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-STAD,TCGA-LUSC
chr11:77850610:->chr11:77848691:-	chr11	77850540,77850540,77850540,77850540	77850610	ENST00000299626,ENST00000376156,ENST00000526737,ENST00000530454,ENST00000532050	-	chr11	77848691	77849035	-	10	8	CCLE-LUSC,CCLE-OV,CCLE-THCA,TCGA-BRCA
chr12:52639328:+>chr12:52645561:+	chr12	52639196	52639328	ENST00000331817	+	chr12	52645561	52645764	+	11	372	CCLE-LUSC
chr14:107048816:->chr14:107047602:-	chr14	107048672	107048816	ENST00000390627	-	chr14	107047602	107048228	-	12	68	TCGA-LUSC,TCGA-LUAD,TCGA-READ
chr14:90416441:->chr14:90416136:-	chr14	90416441,90416441,90416441,90416441,90416441,90416441	90416441	ENST00000316738,ENST00000555872,ENST00000557685,ENST00000556609,ENST00000267544,ENST00000538485,ENST00000556005	-	chr14	90416136	90416395	-	13-13	9	CCLE-LUSC
chr15:83103156:+>chr15:83193188:+	chr15	83102759,83	83103156	ENST00000561062,ENST00000358583	+	chr15	83193188	83193227	+	14-14	277	CCLE-LUSC
chr17:16285735:+>chr17:16300446:+	chr17	16285222,16285222,16285673,16285222,16285222	16285735	ENST00000302182,ENST00000577640,ENST00000535788,ENST00000395839,ENST00000395837	+	chr17	16300446	16300675	+	15-15	95	CCLE-LUSC
chr19:20278169:+>chr19:20281106:+	chr19	20278140,2	20278169	ENST00000597083,ENST00000335117	+	chr19	20281106	20281399	+	16-16	10	CCLE-LGG,CCLE-LUSC,CCLE-OV
chr19:39380329:->chr19:39380152:-	chr19	39380329,39380329,39380329,39380329,39380329,39380329	39380329	ENST00000249396,ENST00000392081,ENST00000358931,ENST00000414941,ENST00000420440,ENST00000407552,ENST00000381766	-	chr19	39380152	39380244	-	17-17	144	CCLE-COAD,TCGA-HNSC,TCGA-LGG,TCGA-LUSC
chr2:113956803:+>chr2:113966557:+	chr2	113956660,113956660,113956666660	113956803	ENST00000245796,ENST00000441564,ENST00000409378	+	chr2	113966557	113966942	+	18-18	971	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LUSC,CCLE-PAAD,CCLE-STAD
chr2:133425973:->chr2:133381838:-	chr2	133425973,1	133425973	ENST00000345008,ENST00000397463	-	chr2	133381838	133381971	-	19-19	11	CCLE-CESC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-THCA,TCGA-BLCA,TCGA-GBM,TCGA-HNSC,TCGA-LGG,TCGA-LIHC,TCGA-LUSC,TCGA-LUAD,TCGA-OV
chr2:203103163:->chr2:203098881:-	chr2	203103163,203103163,203103163,203103163,203103163,203103163	203103163	ENST00000392246,ENST00000392245,ENST00000409368,ENST00000392244,ENST00000409712,ENST00000409181,ENST00000409627	-	chr2	203098881	203098903	-	20-20	4	CCLE-LUSC,TCGA-LUAD,TCGA-PRAD
chr2:225400245:->chr2:225395962:-	chr2	225400245,225400245,225400245,225400245,225400245	225400245	ENST00000264414,ENST00000344951,ENST00000409096,ENST00000409777,ENST00000436172	-	chr2	225395962	225396104	-	21-21	102	CCLE-LUSC,TCGA-ESCA
chr2:89442543:->chr2:89438968:-	chr2	89442543	89442543	ENST00000492167	-	chr2	89438968	89439014	-	22-22	16	TCGA-LUAD
chr20:49307663:->chr20:49307455:-	chr20	49307663	49307663	ENST00000535356	-	chr20	49307455	49307533	-	23-23	1	CCLE-BLCA,CCLE-CESC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA,TCGA-LIHC
chr20:62284680:->chr20:62277869:-	chr20	62284680	62284680	ENST00000370053	-	chr20	62277869	62278005	-	24-24	6	CCLE-LUSC
chr22:21567354:->chr22:21564141:-	chr22	21567354,21567354,21567354	21567354	ENST00000405188,ENST00000401924,ENST00000424627	-	chr22	21564141	21564628	-	25-25	340	CCLE-KIRC,TCGA-BLCA,TCGA-KIRC,TCGA-LUSC,TCGA-LUAD,TCGA-THCA
chr22:37870550:->chr22:37861756:-	chr22	37870550,37870550,37870550	37870550	ENST00000416983,ENST00000356998,ENST00000454291	-	chr22	37861756	37862095	-	26-26	271	CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,TCGA-BLCA,TCGA-OV
chr3:107447807:+>chr3:107448789:+	chr3	107447612,107447612,107447612,107447612,107447612,107447612	107447807	ENST00000415149,ENST00000402543,ENST00000325805,ENST00000416476,ENST00000456419,ENST00000402163,ENST00000406780	+	chr3	107448789	107448940	+	27-27	200	CCLE-LUSC
chr3:4927407:->chr3:4898429:-	chr3	4927407,493	4927407	ENST00000449914,ENST00000441894	-	chr3	4898429	4898685	-	28-28	14	CCLE-BRCA,CCLE-DLBC,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-PAAD,TCGA-BLCA,TCGA-BRCA,TCGA-LIHC,TCGA-LUAD,TCGA-PRAD
chr4:102117073:->chr4:102104428:-	chr4	102117073,102117073,102117073,102117073,102117073,102117073	102117073	ENST00000512215,ENST00000394854,ENST00000323055,ENST00000393485,ENST00000492351,ENST00000052935,ENST00000525819	-	chr4	102104428	102104622	-	29-29	36	CCLE-BRCA,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-UCEC,TCGA-PRAD
chr4:2886393:+>chr4:2888303:+	chr4	2886242,2886242,2886242,2886242,2886242,2886242	2886393	ENST00000264758,ENST00000446856,ENST00000398125,ENST00000513328,ENST00000503455,ENST00000355842,ENST00000398123,ENST00000398129	+	chr4	2888303	2888408	+	30-30	170	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr5:140764890:+>chr5:140765965:+	chr5	140762467	140764890	ENST00000518325	+	chr5	140765965	140766087	+	31-31	808	CCLE-LUSC
chr5:68551355:+>chr5:68551980:+	chr5	68551338,68551287,68551287,68551338	68551355	ENST00000506563,ENST00000256443,ENST00000514676,ENST00000502604	+	chr5	68551980	68552084	+	32-32	6	CCLE-BRCA,CCLE-DLBC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr6:134528494:->chr6:134508473:-	chr6	134528494,1	134528494	ENST00000367858,ENST00000461976	-	chr6	134508473	134509638	-	33-33	120	CCLE-LCLL,CCLE-LUSC
chr6:24551662:->chr6:24541573:-	chr6	24551662,24551662,24551662,24551662	24551662	ENST00000430948,ENST00000535378,ENST00000378214,ENST00000543707	-	chr6	24541573	24541734	-	34-34	1013	CCLE-BLCA,CCLE-LUSC
chr6:39290104:->chr6:39289934:-	chr6	39290104,39290104,39290104,39290104,39290104,39290104	39290104	ENST00000373229,ENST00000425054,ENST00000507712,ENST00000377227,ENST00000437525	-	chr6	39289934	39289990	-	35-35	6	CCLE-LUSC,TCGA-PAAD
chr7:151329155:->chr7:151297948:-	chr7	151329155,151329155,151329155,151329155,151329155,151329155	151329155	ENST00000287878,ENST00000418337,ENST00000433631,ENST00000492843,ENST00000392801,ENST00000476632,ENST00000493872	-	chr7	151297948	151298124	-	36-36	10	CCLE-LUSC
chr7:5567728:->chr7:5522250:-	chr7	5567635	5567728	ENST00000331789	-	chr7	5522250	5522279	-	37-37	297	CCLE-LUSC,TCGA-BRCA,TCGA-OV,TCGA-THYM
chr7:56052571:+>chr7:56059164:+	chr7	56052540,56052540,56052540,56052540,56052540,56052540	56052571	ENST00000322090,ENST00000446778,ENST00000437587,ENST00000415967	+	chr7	56059164	56059459	+	38-38	205	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-GBM
chr7:99674926:->chr7:99674180:-	chr7	99674926,99674926,99674926,99674926,99674926,99674926	99674926	ENST00000413658,ENST00000424697,ENST00000303915,ENST00000299667,ENST00000449785,ENST00000428683,ENST00000415068	-	chr7	99674180	99674214	-	39-39	18	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-THCA
chr8:74209664:+>chr8:74216833:+	chr8	74209429,74209635,74209635	74209664	ENST00000240285,ENST00000521928,ENST00000519380	+	chr8	74216833	74216952	+	40-40	10	CCLE-LUSC
chr8:74872000:->chr8:74871067:-	chr8	74872000,74872000,74872000,74872000,74872000,74872000	74872000	ENST00000602840,ENST00000518127,ENST00000520242,ENST00000519487,ENST00000028411,ENST00000522337,ENST00000523815,ENST00000519082	-	chr8	74871067	74871473	-	41-41	1	CCLE-BLCA,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chrX:74280058:->chrX:74267940:-	chrX	74280058,74280058,74280058,74280058	74280058	ENST00000253577,ENST00000339447,ENST00000373394,ENST00000529949	-	chrX	74267940	74268611	-	42-42	655	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:10478650:+>chr1:10478883:+	chr1	10478552	10478650	+	chr1	10478883	10478982,10478982,10478982	+	ENST00000541529,ENST00000270776,ENST00000538557	43-43	33	CCLE-LUSC,TCGA-BLCA,TCGA-TGCT
chr1:19410263:->chr1:19408067:-	chr1	19410034	19410263	-	chr1	19408067	19408067,19408067,19408067,19408067,19408300,19408067,19408067	-	ENST00000375217,ENST00000375226,ENST00000375267,ENST00000375254,ENST00000375225,ENST00000429347,ENST00000375224,ENST00000543981	44-44	17	CCLE-LUSC
chr1:208254106:->chr1:208252795:-	chr1	208254087	208254106	-	chr1	208252795	208252795	-	ENST00000367033	45-45	31	CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr1:21588222:->chr1:21586885:-	chr1	21588170	21588222	-	chr1	21586885	21586885,21586885,21586885,21586885,21586885	-	ENST00000415912,ENST00000357071,ENST00000374893,ENST00000439138,ENST00000264205,ENST00000473505	46-46	2	CCLE-BRCA,CCLE-LUSC,CCLE-OV
chr1:222838358:+>chr1:222838651:+	chr1	222838237	222838358	+	chr1	222838651	222838961,222838961,222838961	+	ENST00000344922,ENST00000344441,ENST00000340535	47-47	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-STAD,TCGA-ACC,TCGA-BRCA,TCGA-ESCA,TCGA-LIHC,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-PRAD,TCGA-STAD,TCGA-UCEC
chr1:223852296:->chr1:223842101:-	chr1	223852104	223852296	-	chr1	223842101	223842101,223842101,223842101,223842101	-	ENST00000366872,ENST00000419183,ENST00000366873,ENST00000467384	48-48	5	CCLE-LUSC,TCGA-LUAD
chr1:36637320:+>chr1:36638065:+	chr1	36637256	36637320	+	chr1	36638065	36638228,36638228,36638228,36638228,36638141	+	ENST00000429533,ENST00000316156,ENST00000373150,ENST00000373151,ENST00000530729	49-49	21	CCLE-BLCA,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-BRCA,TCGA-CESC,TCGA-ESCA,TCGA-HNSC,TCGA-SARC
chr1:53346501:+>chr1:53347143:+	chr1	53346099	53346501	+	chr1	53347143	53347337,53	+	ENST00000371532,ENST00000371528	50-50	14	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BLCA,TCGA-BRCA,TCGA-LUSC,TCGA-LUAD,TCGA-TGCT
chr10:102711867:+>chr10:102716208:+	chr10	102711720	102711867	+	chr10	102716208	102716294,1	+	ENST00000238961,ENST00000370269	51-51	41	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-UCS
chr10:103896914:+>chr10:103897607:+	chr10	103896814	103896914	+	chr10	103897607	103897795,1	+	ENST00000278070,ENST00000413464	52-52	11	CCLE-ESCA,CCLE-LUSC,CCLE-PAAD,CCLE-SARC
chr10:1100108:->chr10:1090111:-	chr10	1099853	1100108	-	chr10	1090111	1090111	-	ENST00000381344	53-53	41	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-STAD
chr10:28247767:->chr10:28233891:-	chr10	28247615	28247767	-	chr10	28233891	28233891,28	-	ENST00000537576,ENST00000305242	54-54	20	CCLE-LUSC
chr11:125450741:+>chr11:125451107:+	chr11	125450691	125450741	+	chr11	125451107	125451218	+	ENST00000278903	55-55	17	CCLE-LUSC
chr11:14737526:+>chr11:14793483:+	chr11	14737455	14737526	+	chr11	14793483	14793533,15	+	ENST00000282096,ENST00000455098	56-56	6	CCLE-COAD,CCLE-LUSC,CCLE-PAAD
chr11:17098209:->chr11:17098094:-	chr11	17098119	17098209	-	chr11	17098094	17098094	-	ENST00000533969	57-57	8	CCLE-COAD,CCLE-LGG,CCLE-LUSC
chr11:58943356:+>chr11:58949212:+	chr11	58943264	58943356	+	chr11	58949212	58949935	+	ENST00000227451	58-58	1	TCGA-LUAD,TCGA-OV,TCGA-THCA
chr11:69488615:->chr11:69486587:-	chr11	69488458	69488615	-	chr11	69486587	69486587,69486587,69486587,69486587,69486587	-	ENST00000538554,ENST00000279147,ENST00000535657,ENST00000545562,ENST00000539414,ENST00000542341	59-59	1	CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM
chr11:71728382:->chr11:71727576:-	chr11	71728310	71728382	-	chr11	71727576	71727576,71727576,71727576,71727576,71727576	-	ENST00000351960,ENST00000358965,ENST00000393695,ENST00000542977,ENST00000537217	60-60	12	CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-OV
chr11:73445789:->chr11:73441868:-	chr11	73445535	73445789	-	chr11	73441868	73441868,73441868,73441868,73441868,73441868,73441868	-	ENST00000310653,ENST00000336083,ENST00000541973,ENST00000541588,ENST00000545625,ENST00000540771,ENST00000537446,ENST00000400470	61-61	10	CCLE-ESCA,CCLE-LIHC,CCLE-PRAD,CCLE-SARC,TCGA-HNSC,TCGA-LUSC,TCGA-PRAD,TCGA-READ,TCGA-SARC
chr11:74830434:+>chr11:74873700:+	chr11	74830343	74830434	+	chr11	74873700	74873830	+	ENST00000289575	62-62	8	CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SKCM,TCGA-KIRC
chr12:104518408:->chr12:104517201:-	chr12	104518299	104518408	-	chr12	104517201	104517201,104517201,104517201	-	ENST00000240055,ENST00000551727,ENST00000551446	63-63	8	CCLE-LUSC
chr12:104645612:+>chr12:104651797:+	chr12	104645562	104645612	+	chr12	104651797	104651857,1	+	ENST00000525566,ENST00000429002	64-64	17	CCLE-LUSC
chr12:104824437:+>chr12:104995684:+	chr12	104824237	104824437	+	chr12	104995684	104995769,104995769,104995769,104995769	+	ENST00000547956,ENST00000549260,ENST00000303694,ENST00000546689	65-65	12	CCLE-LUSC
chr12:124157140:+>chr12:124158165:+	chr12	124157002	124157140	+	chr12	124158165	124158357,1	+	ENST00000426174,ENST00000303372	66-66	14	CCLE-BRCA,CCLE-LUSC
chr12:15701267:+>chr12:15702028:+	chr12	15701006	15701267	+	chr12	15702028	15702160,15702160,15702160	+	ENST00000281171,ENST00000348962,ENST00000535311	67-67	11	CCLE-COAD,CCLE-LUSC,TCGA-BLCA,TCGA-COAD,TCGA-LUSC,TCGA-READ,TCGA-STAD
chr12:16168469:+>chr12:16185476:+	chr12	16168176	16168469	+	chr12	16185476	16185588,16185485,16185588,16185588	+	ENST00000428559,ENST00000531803,ENST00000532964,ENST00000533447,ENST00000526530	68-68	13	CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-OV,CCLE-PAAD
chr12:4948527:+>chr12:4959904:+	chr12	4948345	4948527	+	chr12	4959904	4960077	+	ENST00000542998	69-69	61	CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-STAD,TCGA-BLCA,TCGA-CESC,TCGA-COAD,TCGA-GBM,TCGA-LGG,TCGA-LUSC,TCGA-OV,TCGA-PAAD,TCGA-PCPG,TCGA-READ,TCGA-STAD,TCGA-TGCT,TCGA-UCS
chr12:76520433:->chr12:76443026:-	chr12	76520344	76520433	-	chr12	76443026	76443030,76443030,76443030,76443030,76443030,76443030	-	ENST00000261182,ENST00000552056,ENST00000393263,ENST00000431879,ENST00000547773,ENST00000544816,ENST00000542344	70-70	5	TCGA-LUSC
chr12:95596369:->chr12:95566520:-	chr12	95596343	95596369	-	chr12	95566520	95566520,95566520,95566520,95566520,95566520	-	ENST00000343958,ENST00000451107,ENST00000546711,ENST00000549499	71-71	33	CCLE-BLCA,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-UCEC
chr13:113897987:+>chr13:113898724:+	chr13	113897912	113897987	+	chr13	113898724	113898828,113898828,113898828,113898828	+	ENST00000375441,ENST00000451881,ENST00000326335,ENST00000375440	72-72	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr13:115049839:+>chr13:115051777:+	chr13	115049833	115049839	+	chr13	115051777	115051875	+	ENST00000375299	73-73	3	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr13:38183213:->chr13:38171419:-	chr13	38183157	38183213	-	chr13	38171419	38171419,38171419,38171419,38171419,38171419	-	ENST00000541179,ENST00000379749,ENST00000379747,ENST00000379743,ENST00000379742,ENST00000541481	74-74	41	CCLE-BRCA,CCLE-LUSC,TCGA-BRCA,TCGA-SARC
chr13:45576476:+>chr13:45578440:+	chr13	45576285	45576476	+	chr13	45578440	45578572,45578572,45578572	+	ENST00000379151,ENST00000497558,ENST00000361121	75-75	4	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM,TCGA-COAD
chr13:96593382:->chr13:96592345:-	chr13	96594829	96593382	-	chr13	96592345	96592345	-	ENST00000376747	76-76	19	CCLE-CESC,CCLE-LUSC,CCLE-OV
chr14:105195833:+>chr14:105196166:+	chr14	105195807	105195833	+	chr14	105196166	105196232	+	ENST00000555486	77-77	9	CCLE-BRCA,CCLE-LUSC
chr14:106717516:->chr14:106641752:-	chr14	106717458	106717516	-	chr14	106641752	106641867	-	ENST00000390605	78-78	16	TCGA-CESC,TCGA-LUSC,TCGA-LUAD,TCGA-READ,TCGA-STAD,TCGA-TGCT,TCGA-THCA
chr14:106801819:->chr14:106518589:-	chr14	106801655	106801819	-	chr14	106518589	106518704	-	ENST00000390598	79-79	12	TCGA-LUAD
chr14:24530511:+>chr14:24530706:+	chr14	24530507	24530511	+	chr14	24530706	24530881	+	ENST00000342740	80-80	1	CCLE-DLBC,CCLE-LUSC
chr14:35778674:+>chr14:35779946:+	chr14	35778574	35778674	+	chr14	35779946	35780101,35780101,35780101,35780101,35780101,35780101	+	ENST00000540871,ENST00000261479,ENST00000554961,ENST00000553809,ENST00000555764,ENST00000555606	81-81	11	CCLE-COAD,CCLE-LUSC,CCLE-SKCM,CCLE-THCA,TCGA-BRCA,TCGA-LUSC,TCGA-LUAD
chr14:45702609:->chr14:45702023:-	chr14	45702088	45702609	-	chr14	45702023	45702023,45702023,45702023,45702023	-	ENST00000310806,ENST00000454990,ENST00000453142	82-82	9	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-LUSC
chr14:51362421:+>chr14:51368547:+	chr14	51360331	51362421	+	chr14	51368547	51368629,51368629,51368629	+	ENST00000337334,ENST00000353130,ENST00000395752	83-83	8	TCGA-BLCA,TCGA-COAD,TCGA-LUSC,TCGA-TGCT
chr14:60442915:+>chr14:60443943:+	chr14	60442564	60442915	+	chr14	60443943	60444065,6	+	ENST00000254271,ENST00000445360	84-84	15	CCLE-BLCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD,TCGA-LUAD

chr14:62187825:+>chr14:62188227:+	chr14	62187678	62187825	+	chr14	62188227	62188372,62188372,62188372,62188372,62188372	+	ENST00000337138,ENST00000394997,ENST00000323441,ENST00000539097,ENST00000557538	85-85	28	CCLE-LUSC,CCLE-THCA,TCGA-ESCA
chr14:94523351:->chr14:94521530:-	chr14	94523347	94523351	-	chr14	94521530	94521530,94521530,94521530	-	ENST00000330836,ENST00000544005,ENST00000555054	86-86	4	CCLE-LUSC
chr14:97307963:+>chr14:97312432:+	chr14	97307913	97307963	+	chr14	97312432	97312501	+	ENST00000216639	87-87	17	CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr15:29384448:+>chr15:29385278:+	chr15	29384249	29384448	+	chr15	29385278	29385423,29385423,29385423,29385423	+	ENST00000561069,ENST00000558402,ENST00000558330,ENST00000411764,ENST00000558259	88-88	20	CCLE-LUSC
chr15:51201329:+>chr15:51204275:+	chr15	51201299	51201329	+	chr15	51204275	51204346,51204346,51204346	+	ENST00000561441,ENST00000558439,ENST00000261842	89-89	8	CCLE-BRCA,CCLE-CESC,CCLE-LGG,CCLE-LUSC,CCLE-PRAD,CCLE-SKCM
chr15:60689166:->chr15:60656722:-	chr15	60689103	60689166	-	chr15	60656722	60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722	-	ENST00000396024,ENST00000451270,ENST00000332680,ENST00000560014,ENST00000421017,ENST00000559176,ENST00000559818,ENST00000560367,ENST00000558503,ENST00000560389,ENST00000560165,ENST00000557906,ENST00000559350,ENST00000558558,ENST00000558986,ENST00000559467,ENST00000559956,ENST00000559780,ENST00000560468,ENST00000557904,ENST00000559370	90-90	30	CCLE-CESC,CCLE-KIRC,CCLE-LUSC,TCGA-OV,TCGA-STAD
chr15:64365987:->chr15:64365216:-	chr15	64365816	64365987	-	chr15	64365216	64365227	-	ENST00000300030	91-91	11	CCLE-LUSC
chr15:72463983:->chr15:72462280:-	chr15	72463893	72463983	-	chr15	72462280	72462280,72462280,72462300,72462280,72462280	-	ENST00000309731,ENST00000564129,ENST00000568594,ENST00000570275,ENST00000562288	92-92	12	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-HNSC,CCLE-LUSC,CCLE-OV,CCLE-STAD,CCLE-THCA,TCGA-LUAD,TCGA-OV,TCGA-THCA,TCGA-UCEC
chr15:75629457:+>chr15:75630403:+	chr15	75629452	75629457	+	chr15	75630403	75630474,75630474,75630474,75630474,75630474,75630474,75630474,75630474	+	ENST00000267935,ENST00000567195,ENST00000564815,ENST00000562610,ENST00000338995,ENST00000567720,ENST00000480484,ENST00000568301	93-93	2	CCLE-LUSC,CCLE-OV
chr15:79649214:+>chr15:79703742:+	chr15	79649053	79649214	+	chr15	79703742	79703846	+	ENST00000424155	94-94	2	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr16:14738989:+>chr16:14742245:+	chr16	14738890	14738989	+	chr16	14742245	14742449,15	+	ENST00000261658,ENST00000570219	95-95	33	CCLE-BRCA,CCLE-LGG,TCGA-LUSC
chr16:18565603:->chr16:18540905:-	chr16	18565507	18565603	-	chr16	18540905	18540959,18540959,18540959,18540959,18540959	-	ENST00000330537,ENST00000381474,ENST00000543392,ENST00000569051	96-96	20	CCLE-LUSC
chr16:21059883:->chr16:21051265:-	chr16	21053994	21059883	-	chr16	21051265	21051265,21	-	ENST00000261383,ENST00000415178	97-97	47	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD,CCLE-UCEC,TCGA-OV
chr16:3718260:->chr16:3716119:-	chr16	3718223	3718260	-	chr16	3716119	3716119,3716119,3716119,3716119,3716119	-	ENST00000246957,ENST00000575671,ENST00000538171,ENST00000576335	98-98	11	CCLE-BRCA,TCGA-LUAD,TCGA-TGCT,TCGA-UCEC
chr16:4052808:->chr16:4043511:-	chr16	4052719	4052808	-	chr16	4043511	4043511,4043511,4043511	-	ENST00000294016,ENST00000571467,ENST00000572288	99-99	24	CCLE-BRCA,CCLE-LUSC
chr16:4667729:+>chr16:4700366:+	chr16	4667704	4667729	+	chr16	4700366	4700484,4700484,4700484,4700484,4700484,4700484,4700484,4700484	+	ENST00000262370,ENST00000415496,ENST00000536343,ENST00000587747,ENST00000399577,ENST00000588994,ENST00000586183	100-100	8	CCLE-BRCA,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD,TCGA-OV
chr16:50651682:+>chr16:50655550:+	chr16	50651663	50651682	+	chr16	50655550	50655619	+	ENST00000268459	101-101	7	CCLE-LUSC
chr16:57483993:+>chr16:57484952:+	chr16	57483531	57483993	+	chr16	57484952	57485120,57485120,57485120,57485120,57485120,57485120,57485120,57485120	+	ENST00000262507,ENST00000565964,ENST00000564655,ENST00000566115,ENST00000567072,ENST00000567933,ENST00000563166	102-102	5	CCLE-KIRC,CCLE-LUSC,CCLE-MM,CCLE-SARC
chr16:77786496:+>chr16:77850818:+	chr16	77786486	77786496	+	chr16	77850818	77850947	+	ENST00000302536	103-103	4	CCLE-LUSC
chr17:15939279:->chr17:15938258:-	chr17	15939156	15939279	-	chr17	15938258	15938258,15938258,15938258,15938258,15938258	-	ENST00000268712,ENST00000395851,ENST00000395849,ENST00000395857,ENST00000579573	104-104	12	CCLE-ESCA,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM
chr17:27441216:->chr17:27441115:-	chr17	27441186	27441216	-	chr17	27441115	27441115,27441115,27441115,27441115,27441115	-	ENST00000354329,ENST00000533112,ENST00000531253,ENST00000527372	105-105	11	CCLE-DLBC,CCLE-UCEC,TCGA-COAD,TCGA-ESCA,TCGA-HNSC,TCGA-LGG,TCGA-LUAD,TCGA-STAD
chr17:38177572:->chr17:38176606:-	chr17	38177416	38177572	-	chr17	38176606	38176606,38176606,38176606,38176606,38176606,38176606,38176735,38176606	-	ENST00000394126,ENST00000356271,ENST00000394128,ENST00000394127,ENST00000491466,ENST00000422942,ENST00000501516	106-106	3	CCLE-BLCA,CCLE-COAD,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr17:40046175:->chr17:40043956:-	chr17	40045947	40046175	-	chr17	40043956	40043956,40043956,40043956,40043956,40043956	-	ENST00000352035,ENST00000590151,ENST00000353196,ENST00000539791,ENST00000393896	107-107	17	CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SARC,CCLE-STAD,TCGA-BLCA,TCGA-ESCA,TCGA-KIRC,TCGA-KIRP,TCGA-LUAD,TCGA-STAD
chr17:421135:->chr17:420873:-	chr17	421101	421135	-	chr17	420873	420879	-	ENST00000574029	108-108	36	CCLE-LUSC
chr17:43026722:->chr17:43013726:-	chr17	43026697	43026722	-	chr17	43013726	43013739	-	ENST00000590129	109-109	14	CCLE-LUSC,TCGA-LGG
chr17:48743773:+>chr17:48744915:+	chr17	48743551	48743773	+	chr17	48744915	48745202,48745118,48744961,48745118	+	ENST00000427699,ENST00000285238,ENST00000502426,ENST00000505699	110-110	7	CCLE-BRCA,CCLE-ESCA,CCLE-LUSC,TCGA-ESCA
chr17:56588640:->chr17:56586202:-	chr17	56588480	56588640	-	chr17	56586202	56586202,56586202,56586202	-	ENST00000579925,ENST00000323456,ENST00000583656	111-111	3	CCLE-COAD,CCLE-LUSC,CCLE-OV,TCGA-BRCA
chr17:59856034:->chr17:59853923:-	chr17	59855937	59856034	-	chr17	59853923	59853923,6	-	ENST00000259008,ENST00000577598	112-112	1	CCLE-BLCA,CCLE-LUSC
chr17:62544114:->chr17:62499650:-	chr17	62544019	62544114	-	chr17	62499650	62499689,62499689,62499689,62499689	-	ENST00000225792,ENST00000450599,ENST00000578804,ENST00000577787,ENST00000577922	113-113	7	TCGA-LUSC
chr17:64403546:+>chr17:64492319:+	chr17	64403301	64403546	+	chr17	64492319	64492401,64492401,64492401	+	ENST00000578063,ENST00000413366,ENST00000284384	114-114	21	CCLE-DLBC,CCLE-LUSC
chr17:80441180:+>chr17:80443373:+	chr17	80440912	80441180	+	chr17	80443373	80443530,80443530,80443530,80443530,80443530	+	ENST00000390006,ENST00000309794,ENST00000345415,ENST00000457415,ENST00000584513	115-115	35	CCLE-DLBC,CCLE-LUSC
chr18:19241710:->chr18:19239304:-	chr18	19241640	19241710	-	chr18	19239304	19239304,19239304,19239304	-	ENST00000289119,ENST00000580981,ENST00000578270	116-116	7	CCLE-ESCA,CCLE-LUSC
chr18:20537359:+>chr18:20555116:+	chr18	20537112	20537359	+	chr18	20555116	20555182,20555182,20555182,20555182,20555182,20555182,20555182,20555182	+	ENST00000582354,ENST00000327155,ENST00000399722,ENST00000399725,ENST00000399721,ENST00000360790,ENST00000577445	117-117	3	CCLE-LUSC
chr18:8708134:+>chr18:8718422:+	chr18	8708124	8708134	+	chr18	8718422	8718646	+	ENST00000306329	118-118	3	CCLE-BLCA,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV
chr18:9766693:+>chr18:9775275:+	chr18	9766671	9766693	+	chr18	9775275	9775354,978	+	ENST00000578921,ENST00000581109	119-119	7	CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-PRAD,CCLE-SARC,CCLE-STAD,TCGA-BRCA,TCGA-HNSC,TCGA-LGG
chr19:12635610:->chr19:12577664:-	chr19	12635350	12635610	-	chr19	12577664	12577664,12577664,12577664,12577664,12577664	-	ENST00000598753,ENST00000397732,ENST00000428311,ENST00000455490	120-120	25	CCLE-COAD,CCLE-LUSC,CCLE-OV
chr19:15297447:->chr19:15296490:-	chr19	15297232	15297447	-	chr19	15296490	15296490,15	-	ENST00000263388,ENST00000601011	121-121	23	CCLE-BLCA,CCLE-BRCA,CCLE-LUSC,TCGA-CESC,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC,TCGA-OV
chr19:39346300:->chr19:39338074:-	chr19	39345611	39346300	-	chr19	39338074	39338074,39338074,39338074,39338074,39338074	-	ENST00000221419,ENST00000601449,ENST00000600233,ENST00000601813	122-122	30	TCGA-LUSC

chr19:39833216:+>chr19:39866290:+	chr19	39833110	39833149	###	+	chr19	39866290	+	39865293,39866529,39866539865,39866539865	ENST00000598913,ENST00000314471,ENST00000596368	123-123	22	CCLE-LUSC,TCGA-OV
chr19:41438041:+>chr19:41509906:+	chr19	41438018	41438041	+	chr19	41509906	41510068,42	+	ENST00000330446,ENST00000324071	124-124	8	TCGA-LUAD	
chr19:42217314:+>chr19:42311149:+	chr19	42217251	42217314	+	chr19	42311149	42311258	+	ENST00000415495	125-125	2	CCLE-LUSC,CCLE-OV	
chr19:49834874:->chr19:49797810:-	chr19	49834789	49834874	-	chr19	49797810	49797810,5	-	ENST00000335875,ENST00000454748	126-126	4	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-LGG,CCLE-LUSC,CCLE-OV	
chr19:50809471:+>chr19:50812982:+	chr19	50809255	50809471	+	chr19	50812982	50813047,50813047,50813047,50813047,50813047,50813047,50813047,50813047,50813047,50813047	+	ENST00000598205,ENST00000376970,ENST00000425460,ENST00000440075,ENST00000601313,ENST00000226269,ENST00000596571	127-127	19	TCGA-LUSC	
chr19:9939645:+>chr19:9940641:+	chr19	9939625	9939645	+	chr19	9940641	9940684,9940684,9940684,9940661	+	ENST00000586895,ENST00000358666,ENST00000590068,ENST00000593087	128-128	7	TCGA-CESC,TCGA-HNSC,TCGA-LUSC,TCGA-OV	
chr2:177179106:+>chr2:177191553:+	chr2	177178880	177179106	+	chr2	177191553	177191629,177191629,177191629,177191629	+	ENST00000249442,ENST00000392529,ENST00000443241,ENST00000452865	129-129	7	CCLE-LUSC	
chr2:189861722:+>chr2:189861891:+	chr2	189861720	189861722	+	chr2	189861891	189861944,2	+	ENST00000304636,ENST00000317840	130-130	1	TCGA-BRCA,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC,TCGA-MESO,TCGA-SARC,TCGA-UCS	
chr2:201751637:->chr2:201750495:-	chr2	201751554	201751637	-	chr2	201750495	201750495,201750495,201750495,201750495,201750495,201750495,201750495,201750495	-	ENST00000286175,ENST00000392283,ENST00000415562,ENST00000409264,ENST00000409361,ENST00000409449,ENST00000443398,ENST00000457063	131-131	17	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,TCGA-GBM	
chr2:207009280:->chr2:207008856:-	chr2	207009263	207009280	-	chr2	207008856	207008856,207008856,207008856,207008856,207008856,207008856	-	ENST00000233190,ENST00000423725,ENST00000457011,ENST00000440274,ENST00000455934,ENST00000449699,ENST00000432169	132-132	17	CCLE-LUSC	
chr2:211453855:+>chr2:211454830:+	chr2	211453619	211453855	+	chr2	211454830	211454958,2	+	ENST00000430249,ENST00000233072	133-133	14	CCLE-LUSC	
chr2:223509604:->chr2:223507626:-	chr2	223509344	223509604	-	chr2	223507626	223507724	-	ENST00000281828	134-134	24	CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-PRAD,CCLE-STAD,TCGA-BRCA	
chr2:224652913:->chr2:224642586:-	chr2	224652681	224652913	-	chr2	224642586	224642586,224642586,224642586,224642586,224642586,224642586,224642586,224642586	-	ENST00000443700,ENST00000415298,ENST00000334271,ENST00000396654,ENST00000396653,ENST00000446015,ENST00000409375,ENST00000423110	135-135	16	CCLE-LUSC	
chr2:228948057:->chr2:228892259:-	chr2	228947987	228948057	-	chr2	228892259	228892259,2	-	ENST00000392056,ENST00000344657	136-136	8	CCLE-LUSC	
chr2:231040909:->chr2:231037675:-	chr2	231040659	231040909	-	chr2	231037675	231037675,2	-	ENST00000258381,ENST00000358662	137-137	10	CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-STAD	
chr2:25505735:->chr2:25505580:-	chr2	25505620	25505735	-	chr2	25505580	25505580,25505580,25505580,25505580	-	ENST00000321117,ENST00000264709,ENST00000380756,ENST00000406659	138-138	1	CCLE-LUSC	
chr2:270006:+>chr2:271866:+	chr2	269636	270006	+	chr2	271866	271939,271939,271939,271939,271939,271916,271939,271916,271939,271939	+	ENST00000272067,ENST00000272065,ENST00000413140,ENST00000407983,ENST00000442386,ENST00000439645,ENST00000405364,ENST00000405233,ENST00000453390	139-139	34	CCLE-STAD,TCGA-CESC,TCGA-LUSC,TCGA-UCEC	
chr2:37520065:->chr2:37518142:-	chr2	37519789	37520065	-	chr2	37518142	37518142,37518142,37518142,37518142	-	ENST00000379066,ENST00000234179,ENST00000443187	140-140	8	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BRCA,TCGA-ESCA,TCGA-OV,TCGA-UCEC	
chr2:74071187:+>chr2:74071940:+	chr2	74071101	74071187	+	chr2	74071940	74072015,74072015,74072015,74072015,74072015,74072015,74072015,74072015	+	ENST00000339566,ENST00000409707,ENST00000452725,ENST00000432295,ENST00000424659,ENST00000394073,ENST00000394070,ENST00000536064	141-141	9	CCLE-LUSC,CCLE-SKCM	
chr2:90074903:+>chr2:90139454:+	chr2	90073874	90074903	+	chr2	90139454	90139580	+	ENST00000492446	142-142	9	TCGA-LUAD	
chr2:95476942:+>chr2:95540521:+	chr2	95476910	95476942	+	chr2	95540521	95540743	+	ENST00000295201	143-143	11	CCLE-LUSC	
chr2:99224633:->chr2:99220654:-	chr2	99224536	99224633	-	chr2	99220654	99220654,99	-	ENST00000328709,ENST00000409997	144-144	16	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-GBM	
chr2:99224656:->chr2:99220650:-	chr2	99224536	99224656	-	chr2	99220650	99220654,99	-	ENST00000328709,ENST00000409997	145-145	9	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-DLBC,TCGA-GBM,TCGA-KIRC,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-PCPG,TCGA-PRAD,TCGA-THCA,TCGA-THYM	
chr20:30459529:->chr20:30457400:-	chr20	30459510	30459529	-	chr20	30457400	30457400,30457400,30457400	-	ENST00000278979,ENST00000375666,ENST00000339738	146-146	3	CCLE-LUSC	
chr20:32888526:->chr20:32883391:-	chr20	32888482	32888526	-	chr20	32883391	32883391	-	ENST00000217426	147-147	7	CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD	
chr22:21577153:->chr22:21104282:-	chr22	21576891	21577153	-	chr22	21104282	21104282,21	-	ENST00000255882,ENST00000572273	148-148	17	TCGA-LUSC	
chr22:23204348:+>chr22:23248706:+	chr22	23202946	23204348	+	chr22	23248706	23248831	+	ENST00000390325	149-149	10	TCGA-LUAD	
chr22:31947110:+>chr22:31952928:+	chr22	31947045	31947110	+	chr22	31952928	31953045,31953045,31953045,31953045,31953045,31953045,31953045,31953045	+	ENST00000443326,ENST00000540643,ENST00000432498,ENST00000400289,ENST00000405296,ENST00000450787	150-150	22	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA	
chr22:32787416:->chr22:32784086:-	chr22	32787383	32787416	-	chr22	32784086	32784086	-	ENST00000216038	151-151	3	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA	
chr22:42085308:+>chr22:42089467:+	chr22	42085084	42085308	+	chr22	42089467	42089982	+	ENST00000402966	152-152	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC	
chr22:50947090:+>chr22:50954876:+	chr22	50947084	50947090	+	chr22	50954876	50954977,50954977,50954977,50954977,50954901,50954901,50954977	+	ENST00000420993,ENST00000395698,ENST00000395701,ENST00000518394,ENST00000418794,ENST00000299821	153-153	2	CCLE-BRCA,CCLE-CESC,CCLE-ESCA,CCLE-LGG,CCLE-LUSC,CCLE-THCA,TCGA-GBM,TCGA-SARC,TCGA-STAD	

chr3:128828867:->chr3:128814012:-	chr3	128828702	128828867	-	chr3	128814012	128814012,128814012,128814012,128814012,128814012,128814012	-	ENST00000315150,ENST00000393304,ENST00000393308,ENST00000393307,ENST00000393305,ENST00000418265,ENST00000476465,ENST00000457077	154-154	38	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM
chr3:15058779:+>chr3:15062260:+	chr3	15058757	15058779	+	chr3	15062260	15062439,15062439,15062439,15062442,15062439	+	ENST00000425241,ENST00000323730,ENST00000393102,ENST00000437120,ENST00000406272	155-155	7	CCLE-BLCA,CCLE-CESC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM
chr3:185328562:+>chr3:185329439:+	chr3	185328464	185328562	+	chr3	185329439	185329533,185329533,185329533	+	ENST00000545472,ENST00000296257,ENST00000427465	156-156	33	CCLE-BRCA,CCLE-COAD,CCLE-LGG,CCLE-LUSC,CCLE-MM
chr3:185370866:->chr3:185369956:-	chr3	185370627	185370866	-	chr3	185369956	185369956,185369956,185369956,185369956	-	ENST00000382199,ENST00000421047,ENST00000457616,ENST00000346192	157-158	17,2	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-UCEC,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC,TCGA-OV,TCGA-STAD
chr3:49096310:->chr3:49065271:-	chr3	49096059	49096310	-	chr3	49065271	49065349,49065349,49065349	-	ENST00000429182,ENST00000326739,ENST00000442157	159-159	17	CCLE-LUSC,TCGA-BRCA,TCGA-PRAD,TCGA-UCEC
chr3:72442890:->chr3:72428578:-	chr3	72442717	72442890	-	chr3	72428578	72428578	-	ENST00000477973	160-160	17	CCLE-LUSC
chr3:98618227:->chr3:98600611:-	chr3	98618095	98618227	-	chr3	98600611	98600611,99	-	ENST00000326840,ENST00000326857	161-161	2	CCLE-COAD,CCLE-LUSC,CCLE-THCA
chr4:109762023:->chr4:109755546:-	chr4	109761972	109762023	-	chr4	109755546	109755546,1	-	ENST00000494183,ENST00000399127	162-162	3	CCLE-LUSC
chr4:157831776:->chr4:157782641:-	chr4	157831506	157831776	-	chr4	157782641	157782641	-	ENST00000274071	163-163	7	CCLE-LCLL,CCLE-LUSC,CCLE-MM
chr4:2453586:+>chr4:2453869:+	chr4	2453560	2453586	+	chr4	2453869	2454073	+	ENST00000506607	164-164	9	CCLE-LUSC,TCGA-BLCA
chr4:25676447:+>chr4:25677757:+	chr4	25676322	25676447	+	chr4	25677757	25678371,25678371,25678371	+	ENST00000504570,ENST00000382051,ENST00000503434	165-165	11	TCGA-LUAD
chr5:139864383:+>chr5:139864706:+	chr5	139864293	139864383	+	chr5	139864706	139864833,139864833,139864833,139864833,139864833,139864833	+	ENST00000360839,ENST00000297183,ENST00000421134,ENST00000532219,ENST00000246149,ENST00000412116	166-166	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr5:153529506:+>chr5:153674376:+	chr5	153529490	153529506	+	chr5	153674376	153674478,153674478,153674478,153674478	+	ENST00000425427,ENST00000297107,ENST00000520647,ENST00000377661	167-167	6	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LGG,CCLE-LUSC,CCLE-PAAD,CCLE-PRAD,CCLE-SARC
chr5:179238682:+>chr5:179250858:+	chr5	179238653	179238682	+	chr5	179250858	179251087,179251087,179251087,179251087,179251057,179251087,179251087,179251087	+	ENST00000376929,ENST00000514093,ENST00000422245,ENST00000389805,ENST00000504627,ENST00000402874,ENST00000510187,ENST00000360718	168-168	10	CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,TCGA-ESCA,TCGA-KIRC,TCGA-KIRP,TCGA-LUAD,TCGA-OV,TCGA-STAD,TCGA-UCEC,TCGA-UCS
chr5:52197198:+>chr5:52201593:+	chr5	52196787	52197198	+	chr5	52201593	52201738	+	ENST00000282588	169-169	13	CCLE-LUSC,CCLE-SKCM
chr6:100379769:->chr6:100369131:-	chr6	100373713	100379769	-	chr6	100369131	100369131,1	-	ENST00000281806,ENST00000369212	170-170	32	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr6:110774731:->chr6:110768193:-	chr6	110774634	110774731	-	chr6	110768193	110768193,110768193,110768193,110768193,110768193,110768193	-	ENST00000451557,ENST00000368919,ENST00000330050,ENST00000439654,ENST00000434949,ENST00000437378,ENST00000424139	171-171	12	CCLE-DLBC,CCLE-LCLL,TCGA-LUAD,TCGA-UCEC
chr6:123549550:->chr6:123545276:-	chr6	123549469	123549550	-	chr6	123545276	123545276,1	-	ENST00000398178,ENST00000334268	172-172	8	CCLE-LCLL,CCLE-LUSC,TCGA-LUAD,TCGA-SARC
chr6:136924515:->chr6:136923117:-	chr6	136924315	136924515	-	chr6	136923117	136923117,1	-	ENST00000359015,ENST00000355845	173-173	11	CCLE-LUSC
chr6:144066592:+>chr6:144070122:+	chr6	144066439	144066592	+	chr6	144070122	144070202,144070202,144070202,144070202,144070202,144070202	+	ENST00000367584,ENST00000427704,ENST00000305766,ENST00000440869,ENST00000367582,ENST00000445182,ENST00000542769,ENST00000397980	174-174	5	CCLE-LUSC
chr6:147981955:+>chr6:148058453:+	chr6	147981647	147981955	+	chr6	148058453	148058584	+	ENST00000566741	175-175	17	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-STAD,CCLE-THCA,TCGA-HNSC,TCGA-KIRC,TCGA-LIHC,TCGA-LUAD,TCGA-OV,TCGA-SARC,TCGA-TGCT
chr6:17835789:->chr6:17834302:-	chr6	17835759	17835789	-	chr6	17834302	17834302,17834302,17834302,17834302,17834302	-	ENST00000378814,ENST00000259711,ENST00000378843,ENST00000378826,ENST00000378816	176-176	13	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-SKCM,CCLE-STAD
chr6:30629093:->chr6:30628019:-	chr6	30628869	30629093	-	chr6	30628019	30628019,31	-	ENST00000376437,ENST00000376442	177-177	22	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC,TCGA-PAAD
chr6:30690007:+>chr6:30690314:+	chr6	30689942	30690007	+	chr6	30690314	30690422,30690422,30690422	+	ENST00000327892,ENST00000435534,ENST00000396389	178-178	22	CCLE-BRCA,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-UCEC,TCGA-BRCA,TCGA-HNSC,TCGA-LUSC,TCGA-PRAD,TCGA-SARC,TCGA-TGCT
chr7:117829683:+>chr7:117831971:+	chr7	117829639	117829683	+	chr7	117831971	117832056,1	+	ENST00000249299,ENST00000422760	179-179	15	CCLE-DLBC,TCGA-LUSC
chr7:127304880:+>chr7:127347646:+	chr7	127304405	127304880	+	chr7	127347646	127347701	+	ENST00000354725	180-180	4	TCGA-COAD,TCGA-KICH,TCGA-LUSC,TCGA-PRAD
chr7:130069134:->chr7:130067859:-	chr7	130068790	130069134	-	chr7	130067859	130067859,130067859,130067859,130067859,130067859,130067859	-	ENST00000223208,ENST00000541543,ENST00000484549,ENST00000343969,ENST00000477003,ENST00000471201,ENST00000489512	181-181	3	CCLE-LUSC
chr7:151865652:->chr7:151864463:-	chr7	151865489	151865652	-	chr7	151864463	151864463,151864463,151864463	-	ENST00000360104,ENST00000262189,ENST00000355193	182-182	24	CCLE-KIRC,CCLE-LGG,CCLE-LUSC,TCGA-BRCA
chr7:154793407:->chr7:154790494:-	chr7	154793210	154793407	-	chr7	154790494	154790494,154790494,154790494,154790494	-	ENST00000404141,ENST00000457196,ENST00000397192,ENST00000419436	183-183	11	CCLE-LUSC
chr7:156786005:->chr7:156786875:-	chr7	156788762	156789005	-	chr7	156786875	156786875,2	-	ENST00000469500,ENST00000479817	184-184	16	CCLE-LUSC
chr7:7498396:->chr7:7495743:-	chr7	7498255	7498396	-	chr7	7495743	7495743	-	ENST00000399429	185-185	13	CCLE-ESCA,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,TCGA-LUSC
chr8:128749923:+>chr8:128750494:+	chr8	128749913	128749923	+	chr8	128750494	128751265	+	ENST00000377970	186-186	3	CCLE-BLCA,CCLE-CESC,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-THCA,TCGA-BLCA,TCGA-BRCA,TCGA-CESC,TCGA-COAD,TCGA-ESCA,TCGA-HNSC,TCGA-KIRC,TCGA-KIRP,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-MESO,TCGA-OV,TCGA-PAAD,TCGA-PRAD,TCGA-READ,TCGA-SARC,TCGA-SKCM,TCGA-STAD,TCGA-THYM,TCGA-UCEC,TCGA-UVM
chr8:144745326:->chr8:144668944:-	chr8	144745033	144745326	-	chr8	144668944	144669015,144669015,144669022,144669015,144669022,144669015,144669015,144669022,144669015,144669015,144669015,144669015,144669015,144669015,144669015,144669015,144669015,144669015,144669015,144669022,144669015,144669015,144669015,144669022,144669015,144669015	-	ENST00000419152,ENST00000532400,ENST00000532741,ENST00000317198,ENST00000526838,ENST00000442189,ENST00000528610,ENST00000533833,ENST00000423316,ENST00000395119,ENST00000529272,ENST00000529007,ENST00000531621,ENST00000524624,ENST00000524397,ENST00000534380,ENST00000534377,ENST00000533204,ENST00000530191,ENST00000530616,ENST00000531218,ENST00000533494,ENST00000530445,ENST00000529516,ENST00000533749,ENST00000526340,ENST00000525223,ENST00000532543,ENST00000531931	187-187	2	TCGA-LUSC
chr8:95855580:+>chr8:95861690:+	chr8	95855516	95855580	+	chr8	95861690	95861760,95861760,95861760,95861760	+	ENST00000523731,ENST00000447247,ENST00000343161,ENST00000520526	188-188	22	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SKCM,TCGA-BRCA,TCGA-LUSC,TCGA-TGCT

chr9:112168615:->chr9:112168888:-	chr9	112168394	112168615	-	chr9	112166888	112166888,112166888,112166888,112166888	-	ENST00000412145,ENST00000446349,ENST00000374541,ENST00000394827,ENST00000262539	189-189	12	CCLE-DLBC,CCLE-LUSC,TCGA-KICH
chr9:123165587:->chr9:123165349:-	chr9	123165566	123165587	-	chr9	123165349	123165349,123165349,123165349,123165349	-	ENST00000359309,ENST00000360822,ENST00000349780,ENST00000360190,ENST00000416449,ENST00000425647	190-190	13	TCGA-CESC,TCGA-HNSC,TCGA-LUSC
chr9:123334133:->chr9:123330666:-	chr9	123334105	123334133	-	chr9	123330666	123330666,123330666,123330666,123330666,123330666,123330666	-	ENST00000359309,ENST00000360822,ENST00000349780,ENST00000360190,ENST00000473282,ENST00000480112,ENST00000481266	191-191	4	CCLE-LUSC
chr9:127988405:+>chr9:127990189:+	chr9	127988272	127988405	+	chr9	127990189	127990338,127990338,127990338	+	ENST00000259460,ENST00000394125,ENST00000373538	192-192	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-BRCA,TCGA-COAD,TCGA-GBM,TCGA-LUSC,TCGA-SARC
chr9:128421519:->chr9:128420078:-	chr9	128421464	128421519	-	chr9	128420078	128420078,128420078,128420078,128420078,128420078,128420078	-	ENST00000373511,ENST00000373498,ENST00000350766,ENST00000265960,ENST00000394060,ENST00000373496	193-193	42	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA,TCGA-GBM,TCGA-LGG
chr9:128638776:+>chr9:128677965:+	chr9	128638590	128638776	+	chr9	128677965	128678206,128678206,128678206,128678206,128678206,128678206	+	ENST00000342287,ENST00000373487,ENST00000373489,ENST00000491787,ENST00000447726,ENST00000428092	194-194	3	CCLE-LCLL,CCLE-LUSC,CCLE-SARC
chr9:140606077:+>chr9:140611078:+	chr9	140605760	140606077	+	chr9	140611078	140611634,1	+	ENST00000462484,ENST00000460843	195-195	31	CCLE-LUSC,CCLE-PRAD,CCLE-SARC,CCLE-SKCM
chr9:15573873:+>chr9:15578847:+	chr9	15573778	15573873	+	chr9	15578847	15579021,15579021,15579021	+	ENST00000535968,ENST00000297641,ENST00000380701	196-196	32	CCLE-LCLL,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr9:20361021:->chr9:20360839:-	chr9	20360969	20361021	-	chr9	20360839	20360839,20360839,20360839,20360839	-	ENST00000380338,ENST00000355930,ENST00000429426,ENST00000380321	197-197	25	CCLE-LUSC,TCGA-BRCA,TCGA-COAD,TCGA-STAD
chr9:33878600:+>chr9:33886879:+	chr9	33878332	33878600	+	chr9	33886879	33886965	+	ENST00000263228	198-198	35	CCLE-LUSC
chr9:6566281:->chr9:6565429:-	chr9	6566257	6566281	-	chr9	6565429	6565429	-	ENST00000321612	199-199	2	CCLE-BLCA,CCLE-DLBC,CCLE-LUSC,CCLE-THCA
chrX:114878268:+>chrX:114879341:+	chrX	114878001	114878268	+	chrX	114879341	114879419,114879419,114879419,114879419,114879419,114879419	+	ENST00000355899,ENST00000537301,ENST00000289290,ENST00000420625,ENST00000539310,ENST00000497870	200-200	13	CCLE-LUSC
chrX:19072648:->chrX:19058342:-	chrX	19072550	19072648	-	chrX	19058342	19058342,19058342,19058342,19058342,19058342,19058342,19058342,19058342	-	ENST00000354791,ENST00000379873,ENST00000379876,ENST00000379878,ENST00000357991,ENST00000357544,ENST00000360279,ENST00000379869,ENST00000356606,ENST00000340581	201-201	5	CCLE-LUSC,CCLE-PAAD
chrX:40570189:->chrX:40569381:-	chrX	40570115	40570189	-	chrX	40569381	40569381	-	ENST00000324817	202-202	3	CCLE-KIRC,CCLE-LUSC,CCLE-MM
chrX:47312190:->chrX:47308873:-	chrX	47312061	47312190	-	chrX	47308873	47308873,47308873,47308873,47308873	-	ENST00000313116,ENST00000377065,ENST00000397050,ENST00000432977	203-203	25	CCLE-LUSC
chrX:63029083:->chrX:62944591:-	chrX	63029033	63029083	-	chrX	62944591	62944591,63	-	ENST00000253401,ENST00000374878	204-204	10	CCLE-LUSC,TCGA-PCPG

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:152006124:->chr1:152005339:-	chr1	152006124	152006124	ENST00000271638	-	chr1	152005339	152005526	-	1	52	CCLE-COAD,TCGA-BLCA,TCGA-BRCA,TCGA-CESC,TCGA-COAD,TCGA-ESCA,TCGA-GBM,TCGA-HNSC,TCGA-LIHC,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-READ,TCGA-SARC,TCGA-STAD,TCGA-THCA
chr1:182920453:->chr1:182915515:-	chr1	182920453,2	182920453	ENST00000367547,ENST00000423786	-	chr1	182915515	182915731	-	2-3	185,7	CCLE-LUSC
chr1:212870303:->chr1:212869254:-	chr1	212870303	212870303	ENST00000243440	-	chr1	212869254	212869764	-	4	65	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-MESO
chr1:226016613:+>chr1:226018885:+	chr1	226016431,226016431,226016431,226016431	226016613	ENST00000445856,ENST00000272167,ENST00000448202,ENST00000366837	+	chr1	226018885	226018904	+	5	61	CCLE-LUSC,CCLE-THCA,TCGA-LIHC,TCGA-LUAD,TCGA-UCEC
chr1:243449699:+>chr1:243451519:+	chr1	243449574,243449574,243449574,243449589,243449656,243449685	243449699	ENST00000391846,ENST00000355875,ENST00000366541,ENST00000343783,ENST00000476722,ENST00000435549	+	chr1	243451519	243451791	+	6	5	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM
chr1:51946945:->chr1:51945188:-	chr1	51946945,51946945,51946945	51946945	ENST00000371730,ENST00000371733,ENST00000465467	-	chr1	51945188	51945255	-	7	25	CCLE-BRCA,CCLE-DLBC,CCLE-LUSC,CCLE-SKCM
chr10:64976967:->chr10:64445839:-	chr10	64976967,64976967,64976967,64976967	64976967	ENST00000399262,ENST00000402544,ENST00000399251,ENST00000542921	-	chr10	64445839	64445873	-	8	7	TCGA-LUSC
chr11:18373993:+>chr11:18374659:+	chr11	18373876,18373876,18373876,18373876,18373964	18373993	ENST00000453096,ENST00000534641,ENST00000265963,ENST00000530496,ENST00000526630	+	chr11	18374659	18374775	+	9	10	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-PAAD,TCGA-SARC,TCGA-UCEC
chr11:60665318:->chr11:60663297:-	chr11	60665318,61	60665318	ENST00000227524,ENST00000535326	-	chr11	60663297	60663653	-	10-11	472,9	CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA,TCGA-LUSC,TCGA-READ,TCGA-TGCT,TCGA-THYM
chr11:684898:->chr11:681362:-	chr11	684898,684898,684898	684898	ENST00000527170,ENST00000338675,ENST00000382409	-	chr11	681362	681398	-	12	290	CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-OV,CCLE-STAD
chr12:52910421:->chr12:52900057:-	chr12	52910421,53	52910421	ENST00000252242,ENST00000548409	-	chr12	52900057	52901495	-	13-13	479	TCGA-LUSC
chr12:6646556:+>chr12:6648679:+	chr12	6646475,6646475,6646475,6646475,6646475	6646556	ENST00000229239,ENST00000396856,ENST00000396861,ENST00000396859,ENST00000396858	+	chr12	6648679	6648724	+	14-16	100,175,133	CCLE-LUSC,TCGA-OV
chr13:92560311:+>chr13:92572670:+	chr13	92560191	92560311	ENST00000377067	+	chr13	92572670	92573160	+	17-17	467	CCLE-LUSC
chr14:106330435:->chr14:106301002:-	chr14	106330425	106330435	ENST00000461719	-	chr14	106301002	106301483	-	18-18	12	TCGA-LUAD
chr14:106552518:->chr14:106279761:-	chr14	106552285	106552518	ENST00000390600	-	chr14	106279761	106279832	-	19-19	40	TCGA-LUSC
chr14:106573251:->chr14:106558237:-	chr14	106573233	106573251	ENST00000390601	-	chr14	106558237	106558632	-	20-20	111	TCGA-LUSC
chr14:106815952:->chr14:106279761:-	chr14	106815722	106815952	ENST00000390615	-	chr14	106279761	106279832	-	21-21	40	TCGA-LUSC
chr14:106866613:->chr14:106764783:-	chr14	106866406	106866613	ENST00000390618	-	chr14	106764783	106764836	-	22-22	47	TCGA-LUSC
chr14:106877762:->chr14:106859351:-	chr14	106877619	106877762	ENST00000390619	-	chr14	106859351	106859576	-	23-23	77	TCGA-LUSC
chr14:107048875:->chr14:107025026:-	chr14	107048672	107048875	ENST00000390627	-	chr14	107025026	107025281	-	24-24	48	TCGA-LUSC
chr14:107131236:->chr14:107025026:-	chr14	107131033	107131236	ENST00000390632	-	chr14	107025026	107025281	-	25-25	48	TCGA-LUSC
chr14:107170059:->chr14:107126752:-	chr14	107169931	107170059	ENST00000390633	-	chr14	107126752	107127053	-	26-26	74	TCGA-HNSC,TCGA-KIRC,TCGA-KIRP,TCGA-LUSC,TCGA-LUAD
chr14:31588916:->chr14:31586842:-	chr14	31588916,31588916,31588916,31588916	31588916	ENST00000554882,ENST00000399332,ENST00000553700,ENST00000553957	-	chr14	31586842	31587049	-	27-28	1798	CCLE-DLBC,CCLE-LUSC,TCGA-BRCA,TCGA-LUAD,TCGA-THCA,TCGA-UVM
chr14:75593608:->chr14:75593104:-	chr14	75593406,76	75593608	ENST00000238616,ENST00000554258	-	chr14	75593104	75593199	-	29-29	5	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SARC
chr16:84488590:+>chr16:84490583:+	chr16	84488424,84	84488590	ENST00000262429,ENST00000416219	+	chr16	84490583	84492114	+	30-30	715	CCLE-BRCA,CCLE-COAD,CCLE-LUSC,CCLE-PAAD
chr17:73725517:+>chr17:73726063:+	chr17	73725346,73725346,73725346,73725346	73725517	ENST00000579662,ENST00000339591,ENST00000200181,ENST00000450894,ENST00000449880	+	chr17	73726063	73726108	+	31-31	246	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-HNSC,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM,CCLE-STAD,TCGA-ESCA,TCGA-HNSC,TCGA-STAD
chr19:17683411:+>chr19:17684363:+	chr19	17683292	17683411	ENST00000252599	+	chr19	17684363	17684528	+	32-32	316	CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,TCGA-BRCA
chr19:49055580:+>chr19:49066561:+	chr19	49055510	49055580	ENST00000201586	+	chr19	49066561	49066923	+	33-33	23	CCLE-BRCA,CCLE-LUSC,CCLE-PRAD,CCLE-STAD
chr19:49497180:+>chr19:49497762:+	chr19	49497169,49497169,49497169,49497169,49497169	49497180	ENST00000595090,ENST00000595811,ENST00000596247,ENST00000221413,ENST00000593570	+	chr19	49497762	49497831	+	34-34	4	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr19:53754789:->chr19:53750572:-	chr19	53754789,53754789,53754789,53754789,53754789,53754789	53754789	ENST00000333952,ENST00000598513,ENST00000594517,ENST00000599012,ENST00000594681,ENST00000598806,ENST00000601828,ENST00000601413	-	chr19	53750572	53750761	-	35-35	5	CCLE-BLCA,CCLE-BRCA,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-PAAD,CCLE-PRAD,CCLE-THCA,TCGA-OV
chr19:57999351:+>chr19:58024390:+	chr19	57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319,57999319	57999351	ENST00000354197,ENST00000426954,ENST00000523882,ENST00000520540,ENST00000442820,ENST00000601674,ENST00000424930,ENST00000347466,ENST00000523138,ENST00000415379,ENST00000521754,ENST00000599674,ENST00000221735,ENST00000518999,ENST00000521137	+	chr19	58024390	58024413	+	36-36	11	TCGA-LUSC
chr19:58288037:+>chr19:58308975:+	chr19	58288004,58	58288037	ENST00000391702,ENST00000396154	+	chr19	58308975	58309229	+	37-37	11	CCLE-LUSC
chr2:112896307:+>chr2:112896389:+	chr2	112896233,112896233,112896233,112896233	112896307	ENST00000331203,ENST00000409903,ENST00000409667,ENST00000409450	+	chr2	112896389	112896457	+	38-38	25	CCLE-LIHC,CCLE-LUSC,CCLE-OV,TCGA-ESCA,TCGA-UCEC
chr2:118715941:->chr2:118715754:-	chr2	118715941,1	118715941	ENST00000319432,ENST00000376300	-	chr2	118715754	118715872	-	39-40	335,3	CCLE-LUSC
chr2:164591413:->chr2:164561904:-	chr2	164591413,2	164591413	ENST00000409634,ENST00000333129	-	chr2	164561904	164562018	-	41-41	8	CCLE-LUSC
chr2:172725191:->chr2:172723793:-	chr2	172725191,172725191,172725191,172725191,172725191	172725191	ENST00000422440,ENST00000263812,ENST00000392592,ENST00000426896,ENST00000475360	-	chr2	172723793	172724171	-	42-42	1	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BLCA,TCGA-BRCA,TCGA-CESC,TCGA-HNSC,TCGA-LUSC,TCGA-OV,TCGA-TGCT
chr2:180610440:->chr2:180493215:-	chr2	180610440	180610440	ENST00000409343	-	chr2	180493215	180493299	-	43-43	8	CCLE-BRCA,CCLE-LUSC,CCLE-PRAD
chr2:90199062:+>chr2:90207369:+	chr2	90198895	90199062	ENST00000390276	+	chr2	90207369	90208420	+	44-44	74	TCGA-BLCA,TCGA-LUSC,TCGA-LUAD
chr2:90537978:->chr2:89942712:-	chr2	90537839	90537978	ENST00000443397	-	chr2	89942712	89942935	-	45-45	73	TCGA-HNSC,TCGA-KIRC,TCGA-LUSC
chr3:4867430:->chr3:4859235:-	chr3	4867430	4867430	ENST00000449914	-	chr3	4859235	4859338	-	46-46	77	TCGA-BRCA,TCGA-LUAD,TCGA-PRAD,TCGA-THCA
chr4:102117073:->chr4:102104428:-	chr4	102117073,102117073,102117073,102117073,102117073	102117073	ENST00000512215,ENST00000394854,ENST00000323055,ENST00000394853,ENST00000492351,ENST00000052924,ENST00000525819	-	chr4	102104428	102104622	-	47-47	4	CCLE-BRCA,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-UCEC,TCGA-PRAD
chr4:5827221:->chr4:5744561:-	chr4	5827221,5827221,5827221	5827221	ENST00000324989,ENST00000397890,ENST00000512574	-	chr4	5744561	5745042	-	48-50	656,540,542	CCLE-LGG,CCLE-LUSC

chr5:149627335:->chr5:149626005:-	chr5	149627335,1	149627335	ENST00000348628,ENST00000398376	-	chr5	149626005	149626163	-	51-51	314	CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC
chr8:67968754:->chr8:67967541:-	chr8	67968754,68	67968754	ENST00000357849,ENST00000517736	-	chr8	67967541	67967737	-	52-52	219	TCGA-LUAD
chr8:74464247:->chr8:74420593:-	chr8	74464247,74464247,74464247,74464247,74464247,74464241,74464241,74464241,74464241,74464241	74464247	ENST00000522695,ENST00000524300,ENST00000523558,ENST00000521210,ENST00000523533,ENST00000355780,ENST00000519961,ENST00000521727,ENST00000521451,ENST00000522509,ENST00000517542	-	chr8	74420593	74420928	-	53-60	510,472,338,406,478,290,490,0,123	CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-THCA,TCGA-BRCA
chr8:99019829:+>chr8:99025486:+	chr8	99019707,99019707,99019707,99019707,99019707,99019707,99019707	99019829	ENST00000521689,ENST00000254898,ENST00000524308,ENST00000522025,ENST00000520016,ENST00000518154,ENST00000521952	+	chr8	99025486	99025607	+	61-63	240,524,483	CCLE-LUSC
chr9:130341201:->chr9:130334967:-	chr9	130341201	130341201	ENST00000373314	-	chr9	130334967	130335011	-	64-64	5	CCLE-LUSC,CCLE-MESO,CCLE-SARC
chr9:140458886:->chr9:140458662:-	chr9	140458886	140458886	ENST00000277540	-	chr9	140458662	140458810	-	65-65	316	CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chrX:138286221:->chrX:138072779:-	chrX	138286221,138286221,138286221,138286221	138286221	ENST00000370603,ENST00000541469,ENST00000436198,ENST00000448673	-	chrX	138072779	138072952	-	66-66	16	CCLE-LGG,CCLE-LUSC,CCLE-PRAD,CCLE-SARC

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:153635838:->chr1:153635752:-	chr1	153635812	153635838	-	chr1	153635752	153635752	-	ENST00000361891	67-67	2	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-BLCA,TCGA-BRCA,TCGA-ESCA,TCGA-GBM,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-MESO,TCGA-OV,TCGA-SARC,TCGA-SKCM,TCGA-STAD,TCGA-TGCT,TCGA-THYM,TCGA-UCEC,TCGA-UCS
chr1:156962904:->chr1:156955965:-	chr1	156962838	156962904	-	chr1	156955965	156955965,2	-	ENST00000368194,ENST00000361409	68-69	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:183811061:+>chr1:183816700:+	chr1	183810956	183811061	+	chr1	183816700	183816908,183816908,183816908,183816908	+	ENST00000304685,ENST00000536277,ENST00000360851,ENST00000539189	70-71	1	CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-SKCM,TCGA-KIRC
chr1:217697476:->chr1:217688231:-	chr1	217696518	217697476	-	chr1	217688231	217688231	-	ENST00000366935	72-72	14	CCLE-COAD,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-OV,TCGA-BRCA,TCGA-ESCA,TCGA-HNSC,TCGA-PRAD,TCGA-THYM
chr1:234516671:+>chr1:234519469:+	chr1	234516510	234516671	+	chr1	234519469	234519564,234519564	+	ENST00000366615,ENST00000366613,ENST00000366612	73-73	15	TCGA-HNSC,TCGA-LUSC,TCGA-STAD
chr1:234538581:->chr1:234537008:-	chr1	234538318	234538581	-	chr1	234537008	234537008	-	ENST00000040877	74-74	17	CCLE-LUSC
chr1:46675049:+>chr1:46685371:+	chr1	46674991	46675049	+	chr1	46685371	46685892	+	ENST00000371980	75-75	20	CCLE-LUSC
chr1:94660048:->chr1:94655639:-	chr1	94659981	94660048	-	chr1	94655639	94655639,95	-	ENST00000552844,ENST00000260526	76-76	7	CCLE-LUSC,CCLE-SARC,TCGA-KIRP
chr10:22168673:->chr10:22095028:-	chr10	22168560	22168673	-	chr10	22095028	22095028	-	ENST00000376980	77-77	4	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BLCA,TCGA-BRCA,TCGA-ESCA,TCGA-KIRC,TCGA-SARC,TCGA-SKCM,TCGA-TGCT,TCGA-THYM
chr10:29778636:->chr10:29777685:-	chr10	29778476	29778636	-	chr10	29777685	29777685,29777685,29777685,29777685	-	ENST00000375400,ENST00000375398,ENST00000355867,ENST00000535393,ENST00000538146	78-78	20	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-KIRC,CCLE-LGG,CCLE-LUSC,CCLE-PAAD,CCLE-SKCM
chr10:5056964:->chr10:5037645:-	chr10	5056485	5056964	-	chr10	5037645	5037676,5037676,5037676	-	ENST00000380753,ENST00000421196,ENST00000407674	79-79	10	CCLE-LUSC,TCGA-READ
chr10:70722825:+>chr10:70723047:+	chr10	70722737	70722825	+	chr10	70723047	70723225	+	ENST00000354185	80-80	8	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-PAAD
chr10:95240482:->chr10:95216694:-	chr10	95240225	95240482	-	chr10	95216694	95216694,95216694,95216694,95216694	-	ENST00000358334,ENST00000359263,ENST00000371501,ENST00000371502,ENST00000371489,ENST00000371488	81-81	12	CCLE-LUSC
chr10:98044785:->chr10:98006805:-	chr10	98044707	98044785	-	chr10	98006805	98006805,98006805,98006805,98006805,98006805,98006805	-	ENST00000224337,ENST00000371176,ENST00000413476,ENST00000427367,ENST00000467799,ENST00000495266	82-82	9	CCLE-BLCA,CCLE-LCLL,CCLE-LUSC,TCGA-BLCA,TCGA-LUAD
chr11:64042841:+>chr11:64085797:+	chr11	64042827	64042841	+	chr11	64085797	64085858,64085858,64085858	+	ENST00000265462,ENST00000352435,ENST00000347941	83-84	5	TCGA-LUSC,TCGA-LUAD,TCGA-THCA
chr12:110873462:->chr12:110873022:-	chr12	110873443	110873462	-	chr12	110873022	110873022	-	ENST00000228825	85-85	3	CCLE-COAD,CCLE-KIRC,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-THCA
chr12:123839145:->chr12:123834988:-	chr12	123839132	123839145	-	chr12	123834988	123834988,123834988,123834988	-	ENST00000267176,ENST00000420886,ENST00000602750,ENST00000602398	86-86	20	CCLE-LUSC
chr12:49658051:+>chr12:49663248:+	chr12	49658018	49658051	+	chr12	49663248	49663470,49663252,49663470,49663470	+	ENST00000541364,ENST00000552125,ENST00000301072,ENST00000549183	87-88	11	CCLE-LUSC
chr12:56685415:->chr12:56680404:-	chr12	56685401	56685415	-	chr12	56680404	56680429,56680429,56680429,56680429,56680429,56680429,56680429,56680429	-	ENST00000351328,ENST00000542324,ENST00000548849,ENST00000546930,ENST00000548041,ENST00000552688,ENST00000550655,ENST00000551968,ENST00000552222,ENST00000549318,ENST00000547423	89-90	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-THCA,TCGA-SARC
chr13:33100704:+>chr19:41270986:+	chr13	33099859	33100704	+	chr19	41270986	41271072,41	+	ENST00000243563,ENST00000601393	91-92	4	CCLE-LUSC
chr13:77572426:+>chr13:77574593:+	chr13	77572418	77572426	+	chr13	77574593	77575104	+	ENST00000377453	93-93	3	TCGA-LUSC
chr14:106662989:->chr14:106641867:-	chr14	106661396	106662989	-	chr14	106641867	106641867	-	ENST00000390605	94-94	11	TCGA-COAD,TCGA-LUSC,TCGA-MESO,TCGA-OV
chr14:23350226:+>chr14:23353883:+	chr14	23349937	23350226	+	chr14	23353883	23354224,23	+	ENST00000267396,ENST00000536884	95-96	45	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-SARC,CCLE-STAD
chr14:50950778:->chr14:50949134:-	chr14	50950556	50950778	-	chr14	50949134	50949134,50949134,50949134	-	ENST00000013125,ENST00000555216,ENST00000557390	97-97	22	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-SARC,CCLE-STAD,CCLE-UCEC
chr14:51363531:+>chr14:51368547:+	chr14	51363110	51363531	+	chr14	51368547	51368629,51368629,51368629	+	ENST00000337334,ENST00000353130,ENST00000395752	98-98	45	CCLE-COAD,TCGA-BLCA,TCGA-CESC,TCGA-COAD,TCGA-HNSC,TCGA-LUSC,TCGA-READ,TCGA-TGCT
chr14:53079781:+>chr14:53211570:+	chr14	53079680	53079781	+	chr14	53211570	53211602,53	+	ENST00000442123,ENST00000354586	99-99	34	CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,TCGA-BRCA
chr14:53108136:+>chr14:53211570:+	chr14	53108038	53108136	+	chr14	53211570	53211602,53	+	ENST00000442123,ENST00000354586	100-100	33	CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,TCGA-BRCA
chr14:53201596:+>chr14:53211570:+	chr14	53201498	53201596	+	chr14	53211570	53211602,53	+	ENST00000442123,ENST00000354586	101-101	33	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA

chr14:70383468:+>chr14:70418855:+	chr14	70381885	70383468	+	chr14	70418855	70419020,7	+	ENST00000361956,ENST00000381280	102-102	29	TCGA-LGG,TCGA-LUSC
chr14:73754128:->chr14:73754022:-	chr14	73754087	73754128	-	chr14	73754022	73754022,73754022,73754022,73754022,73754022,73754022,73754022,73754022,73754022,73754022	-	ENST00000554546,ENST00000356296,ENST00000557597,ENST00000555238,ENST00000556772,ENST00000355058,ENST00000359560,ENST00000555394,ENST00000454166,ENST00000544991,ENST00000554521,ENST00000555738,ENST00000559312,ENST00000560335,ENST00000535282,ENST00000555859,ENST00000555307,ENST00000554394	103-103	32	CCLE-LUSC,CCLE-STAD
chr14:78340168:+>chr14:78353434:+	chr14	78339937	78340168	+	chr14	78353434	78353592,78353592,78353592	+	ENST00000238561,ENST00000557501,ENST00000341211	104-104	8	CCLE-CESC,CCLE-LCLL,CCLE-LUSC
chr15:51201329:+>chr15:51204275:+	chr15	51201299	51201329	+	chr15	51204275	51204346,51204346,51204346	+	ENST00000561441,ENST00000558439,ENST00000261842	105-105	10	CCLE-BRCA,CCLE-CESC,CCLE-LGG,CCLE-LUSC,CCLE-PRAD,CCLE-SKCM
chr15:81281080:->chr15:81274523:-	chr15	81281025	81281080	-	chr15	81274523	81274523,81	-	ENST00000561312,ENST00000261758	106-106	13	CCLE-LUSC
chr15:83100895:+>chr15:83103066:+	chr15	83100823	83100895	+	chr15	83103066	83103327,83	+	ENST00000561062,ENST00000358583	107-107	19	CCLE-LUSC
chr16:16171648:+>chr16:16173209:+	chr16	16171624	16171648	+	chr16	16173209	16173335,16173335,16173335,16173335,16173335,16173335	+	ENST00000399410,ENST00000345148,ENST00000346370,ENST00000349029,ENST00000351154,ENST00000399408,ENST00000572882	108-110	9	CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-PRAD,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC
chr17:37028428:+>chr17:37034339:+	chr17	37028336	37028428	+	chr17	37034339	37034433,37034433,37034433,37034433	+	ENST00000318008,ENST00000585841,ENST00000443937,ENST00000435347	111-111	13	CCLE-BRCA,CCLE-SARC,CCLE-SKCM,TCGA-LUSC
chr17:39696603:->chr17:39681525:-	chr17	39696593	39696603	-	chr17	39681525	39681525,4	-	ENST00000361566,ENST00000455635	112-112	15	CCLE-BRCA,CCLE-LUSC,CCLE-PRAD,TCGA-BRCA,TCGA-LUAD,TCGA-TGCT
chr17:39976301:+>chr17:39977199:+	chr17	39976225	39976301	+	chr17	39977199	39977341,39977341,39977341	+	ENST00000321562,ENST00000455106,ENST00000544340	113-113	8	CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr17:43880005:+>chr17:43884376:+	chr17	43879729	43880005	+	chr17	43884376	43884463,43884463,43884463,43884463,43884463	+	ENST00000347197,ENST00000314537,ENST00000352855,ENST00000577353,ENST00000398285	114-115	76	CCLE-LUSC
chr17:5200809:+>chr17:5235244:+	chr17	5200792	5200809	+	chr17	5235244	5235447,5235447,5235447,5235447	+	ENST00000262477,ENST00000408982,ENST00000537505,ENST00000546142,ENST00000341923	116-116	6	CCLE-LUSC
chr17:53344521:+>chr17:53345112:+	chr17	53344409	53344521	+	chr17	53345112	53345447	+	ENST00000226067	117-117	30	CCLE-LUSC,CCLE-OV
chr17:62480081:->chr17:62479091:-	chr17	62479839	62480081	-	chr17	62479091	62479116,62	-	ENST00000539111,ENST00000581355	118-119	14	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-SARC,CCLE-STAD,TCGA-KIRP
chr18:33758286:+>chr18:33775220:+	chr18	33758263	33758286	+	chr18	33775220	33775309	+	ENST00000261326	120-120	8	TCGA-LUSC
chr18:66490653:+>chr18:66505943:+	chr18	66490085	66490653	+	chr18	66505943	66506163,66506163,66506163,66506163,66506163	+	ENST00000584775,ENST00000319445,ENST00000358653,ENST00000362402,ENST00000584156	121-121	52	CCLE-LUSC,CCLE-MM,CCLE-STAD,CCLE-THCA
chr18:9858290:+>chr18:9859225:+	chr18	9858107	9858290	+	chr18	9859225	9859322	+	ENST00000578921	122-122	42	CCLE-ESCA,CCLE-LUSC,TCGA-LUAD
chr19:10200199:+>chr19:10200333:+	chr19	10200082	10200199	+	chr19	10200333	10200371,10200371,10200351,10200371,10200371	+	ENST00000253110,ENST00000591813,ENST00000587710,ENST00000590378,ENST00000397881,ENST00000593131	123-126	12	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SKCM,CCLE-STAD
chr19:10561170:+>chr19:10561279:+	chr19	10560989	10561170	+	chr19	10561279	10561328,10561328,10561328,10561328,10561328	+	ENST00000592685,ENST00000380702,ENST00000352831,ENST00000293683,ENST00000440014	127-127	22	CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-SARC
chr19:16201431:+>chr19:16204346:+	chr19	16201364	16201431	+	chr19	16204346	16204354,16204374,16204391,16204408,16204408,16204408	+	ENST00000586833,ENST00000588507,ENST00000592138,ENST00000344824,ENST00000538887,ENST00000300933,ENST00000588032	128-128	9	CCLE-OV,TCGA-BRCA,TCGA-CESC,TCGA-HNSC,TCGA-KIRC,TCGA-LUAD,TCGA-OV,TCGA-PRAD,TCGA-STAD
chr19:17387073:+>chr19:17387304:+	chr19	17386874	17387073	+	chr19	17387304	17387433,17387433,17387334,17387433,17387433,17387365,17387433,17387359,17387411	+	ENST00000598188,ENST00000359435,ENST00000596542,ENST00000599474,ENST00000447614,ENST00000601043,ENST00000596335,ENST00000595632,ENST00000601938,ENST00000602066	129-133	17	CCLE-LUSC
chr19:18432008:->chr19:18426875:-	chr19	18431984	18432008	-	chr19	18426875	18426875,18426875,18426950	-	ENST00000593829,ENST00000600289,ENST00000594828,ENST00000597776	134-134	20	CCLE-CESC,CCLE-HNSC,CCLE-KIRC,CCLE-LUSC,CCLE-OV,TCGA-OV
chr19:32948256:+>chr19:32949006:+	chr19	32947912	32948256	+	chr19	32949006	32949079,32949079,32949079,32949079	+	ENST00000392250,ENST00000586987,ENST00000342179,ENST00000588648	135-138	14,4	CCLE-DLBC,CCLE-LUSC
chr19:3368020:+>chr19:3449012:+	chr19	3367942	3368020	+	chr19	3449012	3449137,3449137,3449137,3449137,3449137,3449137,3449137,3449137	+	ENST00000589123,ENST00000346156,ENST00000395111,ENST00000586919,ENST00000341919,ENST00000590282,ENST00000443272	139-141	4	CCLE-LUSC
chr19:39144970:+>chr19:39191240:+	chr19	39144921	39144970	+	chr19	39191240	39191354,39191344,39191354	+	ENST00000252699,ENST00000424234,ENST00000589528	142-142	17	CCLE-CESC,CCLE-COAD,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BLCA,TCGA-BRCA,TCGA-DLBC,TCGA-KIRP,TCGA-LUSC,TCGA-LUAD,TCGA-MESO,TCGA-OV,TCGA-READ,TCGA-STAD
chr19:55882935:->chr19:55880309:-	chr19	55882714	55882935	-	chr19	55880309	55880309,56	-	ENST00000264563,ENST00000585513	143-143	33	CCLE-COAD,CCLE-DLBC,CCLE-LGG,CCLE-LUSC,CCLE-MM
chr19:8529495:+>chr19:8530208:+	chr19	8529239	8529495	+	chr19	8530208	8530246,8530399,8530246,8530399,8530246,8530246	+	ENST00000348943,ENST00000325495,ENST00000600092,ENST00000594907,ENST00000596984,ENST00000601645	144-144	12	CCLE-LUSC,TCGA-COAD,TCGA-HNSC,TCGA-PRAD
chr2:102014362:->chr2:102014186:-	chr2	102014319	102014362	-	chr2	102014186	102014186,1	-	ENST00000376826,ENST00000428343	145-145	32	CCLE-LUSC
chr2:114668071:+>chr2:114670749:+	chr2	114667534	114668071	+	chr2	114670749	114670804,114670804,114670804	+	ENST00000263238,ENST00000415792,ENST00000446821	146-148	13	CCLE-KIRC,CCLE-LUSC,TCGA-LUSC
chr2:122259789:->chr2:122227536:-	chr2	122259766	122259789	-	chr2	122227536	122227536,122227536,122227536,122227536,122227536,122227536,122227536,122227536	-	ENST00000409078,ENST00000541859,ENST00000263710,ENST00000397587,ENST00000455322,ENST00000541377,ENST00000545861,ENST00000452274,ENST00000418989,ENST00000449975	149-158	3	CCLE-ESCA,CCLE-LUSC,CCLE-OV

chr2:131117848:+>chr2:131126706:+	chr2	131117443	131117848	+	chr2	131126706	131126774,1	+	ENST00000175756,ENST00000347849	159-159	18	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-STAD,TCGA-BLCA,TCGA-CESC,TCGA-ESCA,TCGA-LUSC,TCGA-PRAD,TCGA-STAD,TCGA-THYM
chr2:134035154:+>chr22:23248512:+	chr2	134034038	134035154	+	chr22	23248512	23248831	+	ENST00000390325	160-160	10	TCGA-LUAD
chr2:238451319:+>chr2:238454100:+	chr2	238451313	238451319	+	chr2	238454100	238454216	+	ENST00000445024	161-161	2	TCGA-LUAD
chr2:42612922:->chr2:42580483:-	chr2	42612671	42612922	-	chr2	42580483	42580483,42580483,42580483,42580483	-	ENST00000468711,ENST00000378669,ENST00000234301,ENST00000463055	162-162	22	CCLE-BRCA,CCLE-CESC,CCLE-LCLL,CCLE-LUSC,CCLE-OV,CCLE-STAD,TCGA-ACC,TCGA-BRCA,TCGA-COAD,TCGA-KIRC,TCGA-LGG,TCGA-PRAD,TCGA-SKCM,TCGA-THYM
chr2:90010195:->chr2:89246936:-	chr2	90009650	90010195	-	chr2	89246936	89247114	-	ENST00000496168	163-163	25	TCGA-LUAD,TCGA-READ
chr2:90214357:+>chr2:90249278:+	chr2	90214133	90214357	+	chr2	90249278	90249395	+	ENST00000468879	164-164	5	TCGA-HNSC,TCGA-LUSC
chr2:90214357:+>chr2:90260131:+	chr2	90214133	90214357	+	chr2	90260131	90260248	+	ENST00000471857	165-165	5	TCGA-HNSC,TCGA-LUSC,TCGA-STAD
chr2:99224660:->chr2:99220654:-	chr2	99224536	99224660	-	chr2	99220654	99220654,99	-	ENST00000328709,ENST00000409997	166-166	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BRCA,TCGA-GBM,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-PCPG,TCGA-SARC,TCGA-SKCM
chr20:1106051:+>chr20:1106141:+	chr20	1105935	1106051	+	chr20	1106141	1106293,1106293,1106293,1106293,1106293	+	ENST00000333082,ENST00000381899,ENST00000246015,ENST00000335877,ENST00000438768	167-167	18	CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,TCGA-GBM,TCGA-HNSC,TCGA-LGG,TCGA-PCPG,TCGA-PRAD,TCGA-READ,TCGA-STAD,TCGA-TGCT,TCGA-THCA
chr20:25838731:->chr20:25755948:-	chr20	25838602	25838731	-	chr20	25755948	25755948,26	-	ENST00000376403,ENST00000584071	168-168	25	CCLE-LUSC
chr20:33644499:->chr20:33642834:-	chr20	33644477	33644499	-	chr20	33642834	33642834,33642834,33642834	-	ENST00000451813,ENST00000252015,ENST00000432634	169-170	2	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr20:35116711:+>chr20:35125108:+	chr20	35116621	35116711	+	chr20	35125108	35125469,35125469,35125469,35125469,35125469	+	ENST00000373913,ENST00000401952,ENST00000373907,ENST00000339266,ENST00000340491	171-172	3	CCLE-LUSC,CCLE-OV
chr20:35779434:+>chr20:35812583:+	chr20	35778650	35779434	+	chr20	35812583	35812776,35812776,35812776	+	ENST00000237530,ENST00000373622,ENST00000373632	173-173	51	TCGA-BRCA,TCGA-ESCA,TCGA-HNSC,TCGA-KIRP,TCGA-LUSC,TCGA-OV,TCGA-STAD,TCGA-UCEC
chr20:43581385:+>chr20:43586984:+	chr20	43581305	43581385	+	chr20	43586984	43587052	+	ENST00000372826	174-174	9	CCLE-LUSC
chr20:44410315:->chr20:44404241:-	chr20	44410053	44410315	-	chr20	44404241	44404241,44404241,44404241,44404241	-	ENST00000337205,ENST00000243938,ENST00000372632,ENST00000372630	175-175	4	CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-LUSC,CCLE-MESO,CCLE-PAAD,CCLE-SKCM,TCGA-SARC
chr21:45165696:+>chr21:45165960:+	chr21	45165597	45165696	+	chr21	45165960	45166006,45166006,45166006	+	ENST00000468090,ENST00000291565,ENST00000467908	176-176	9	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SKCM,CCLE-STAD,CCLE-UCEC,TCGA-BLCA,TCGA-OV,TCGA-STAD,TCGA-UCEC
chr22:22689234:+>chr22:22712477:+	chr22	22686048	22689234	+	chr22	22712477	22712608	+	ENST00000390294	177-177	32	TCGA-LUSC
chr22:22689234:+>chr22:22735583:+	chr22	22686048	22689234	+	chr22	22735583	22735715	+	ENST00000390297	178-178	32	TCGA-LUSC
chr22:32787416:->chr22:32784086:-	chr22	32787383	32787416	-	chr22	32784086	32784086	-	ENST00000216038	179-179	3	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA
chr22:42077159:->chr22:42076368:-	chr22	42077073	42077159	-	chr22	42076368	42076368,42076368,42076368,42076368	-	ENST00000355257,ENST00000215956,ENST00000401959,ENST00000402458	180-180	12	CCLE-LUSC,TCGA-COAD,TCGA-OV
chr22:45565558:+>chr22:45566869:+	chr22	45565287	45565558	+	chr22	45566869	45566892,46	+	ENST00000434760,ENST00000419387	181-181	12	CCLE-LUSC
chr3:10237009:+>chr3:10242053:+	chr3	10236959	10237009	+	chr3	10242053	10242199	+	ENST00000256458	182-182	17	CCLE-LUSC
chr3:118831521:->chr3:118649122:-	chr3	118825434	118831521	-	chr3	118649122	118649122,118649122,118649122,118649122,118649122,118649122	-	ENST00000425327,ENST00000393775,ENST00000489689,ENST00000354673,ENST00000441144,ENST00000491903	183-183	24	CCLE-LUSC
chr3:194340620:->chr3:194337998:-	chr3	194340610	194340620	-	chr3	194337998	194337998,194337998,194337998,194337998,194337998	-	ENST00000392432,ENST00000273580,ENST00000381975,ENST00000347147,ENST00000473092	184-184	39	CCLE-BRCA,CCLE-LUSC
chr3:40501213:+>chr3:40502924:+	chr3	40501065	40501213	+	chr3	40502924	40502997,40502997,40502997	+	ENST00000338970,ENST00000396203,ENST00000416518	185-185	10	CCLE-LUSC
chr3:44887389:+>chr3:44889477:+	chr3	44887096	44887389	+	chr3	44889477	44889549,44889549,44889549	+	ENST00000326047,ENST00000425755,ENST00000422209	186-186	5	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:51405599:+>chr3:51411918:+	chr3	51405547	51405599	+	chr3	51411918	51412018	+	ENST00000266037	187-187	4	CCLE-DLBC,CCLE-LGG,CCLE-LUSC
chr3:51405623:+>chr3:51411918:+	chr3	51405547	51405623	+	chr3	51411918	51412018	+	ENST00000266037	188-188	12	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-STAD

chr3:9476785:+>chr3:9477412:+	chr3	9476647	9476785	+	chr3	9477412	9477509,9477590,9477590,9477590,9477590,9477590	+	ENST00000450326,ENST00000402198,ENST00000402466,ENST00000406341,ENST00000407969,ENST00000442373,ENST00000302463	189-189	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BLCA,TCGA-ESCA,TCGA-GBM,TCGA-HNSC,TCGA-LGG,TCGA-OV,TCGA-PRAD,TCGA-SARC,TCGA-STAD,TCGA-UCS
chr4:17818661:+>chr4:17818884:+	chr4	17818476	17818661	+	chr4	17818884	17819076,18	+	ENST00000251496,ENST00000514176	190-190	36	CCLE-BLCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM
chr4:25395102:+>chr4:25395461:+	chr4	25395002	25395102	+	chr4	25395461	25395513,25	+	ENST00000315368,ENST00000510092	191-191	11	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-PAAD,CCLE-UCEC
chr4:55076146:->chr2:89160766:-	chr4	55075835	55076146	-	chr2	89160766	89160770	-	ENST00000390240	192-192	58	TCGA-LUSC
chr4:87716976:+>chr4:87718027:+	chr4	87715256	87716976	+	chr4	87718027	87718082,87718082,87718082,87718082,87718082	+	ENST00000427191,ENST00000436978,ENST00000316707,ENST00000411767,ENST00000511467	193-193	34	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-MM,CCLE-PAAD,CCLE-SARC,TCGA-BLCA,TCGA-CESC,TCGA-ESCA,TCGA-LUAD,TCGA-THYM
chr5:302190:+>chr5:304292:+	chr5	302186	302190	+	chr5	304292	304336,304336,304336,304310,304336,304336	+	ENST00000264933,ENST00000505221,ENST00000507528,ENST00000505526,ENST00000506909,ENST00000507473	194-197	2	CCLE-BRCA,CCLE-LUSC,TCGA-LUSC,TCGA-LUAD
chr5:43583569:->chr5:43556101:-	chr5	43583316	43583569	-	chr5	43556101	43556101,43556101,43556101,43556101	-	ENST00000306846,ENST00000436644,ENST00000514514,ENST00000504639	198-198	32	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-STAD,TCGA-BLCA,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-PRAD
chr6:144066592:+>chr6:144070122:+	chr6	144066439	144066592	+	chr6	144070122	144070202,144070202,144070202,144070202,144070202,144070202,144070202	+	ENST00000367584,ENST00000427704,ENST00000305766,ENST00000440869,ENST00000367582,ENST00000451827,ENST00000542769,ENST00000397980	199-199	5	CCLE-LUSC
chr6:31360872:->chr6:31324570:-	chr6	31360644	31360872	-	chr6	31324570	31324734,31	-	ENST00000412585,ENST00000434333	200-200	22	TCGA-LUSC
chr6:35419093:+>chr6:35438040:+	chr6	35418888	35419093	+	chr6	35438040	35438128	+	ENST00000322203	201-201	2	TCGA-LUSC
chr6:74208780:+>chr6:74210297:+	chr6	74208750	74208780	+	chr6	74210297	74210458,74210458,74210458,74210458,74210310	+	ENST00000415954,ENST00000498286,ENST00000370305,ENST00000370300,ENST00000521156	202-202	11	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM
chr7:101810334:+>chr7:101813726:+	chr7	101810266	101810334	+	chr7	101813726	101813830,101813830,101813830,101813830,101813830,101813830,101813830,101813830,101813830	+	ENST00000437600,ENST00000292538,ENST00000393824,ENST00000547394,ENST00000360264,ENST00000425244,ENST00000292535,ENST00000546411,ENST00000549414,ENST00000550008,ENST00000556210	203-203	14	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LUSC,CCLE-MM,TCGA-ESCA
chr7:116527485:+>chr7:116528181:+	chr7	116527299	116527485	+	chr7	116528181	116528244,116528244,116528244,116528244	+	ENST00000361183,ENST00000458284,ENST00000490693,ENST00000426421	204-207	30	CCLE-LUSC,CCLE-PAAD,TCGA-KIRC,TCGA-KIRP,TCGA-STAD
chr7:138950208:+>chr7:138951079:+	chr7	138949960	138950208	+	chr7	138951079	138951149,138951149,138951149	+	ENST00000288561,ENST00000473989,ENST00000483726	208-209	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD
chr7:156483036:->chr7:156480885:-	chr7	156482831	156483036	-	chr7	156480885	156480885,156480885,156480885	-	ENST00000353442,ENST00000415428,ENST00000354505	210-210	15	CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC
chr7:33001530:+>chr7:33014229:+	chr7	33001176	33001530	+	chr7	33014229	33014374,33	+	ENST00000242209,ENST00000538336	211-211	20	CCLE-LUSC,CCLE-STAD
chr7:37989696:+>chr7:37989802:+	chr7	37989134	37989696	+	chr7	37989802	37989998,37989998,37989998,37989805,37989998	+	ENST00000476620,ENST00000559325,ENST00000199448,ENST00000423717,ENST00000425345	212-212	16	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-KICH,TCGA-SARC,TCGA-THYM
chr7:37989704:+>chr7:37989802:+	chr7	37989134	37989704	+	chr7	37989802	37989998,37989998,37989998,37989805,37989998	+	ENST00000476620,ENST00000559325,ENST00000199448,ENST00000423717,ENST00000425345	213-213	28	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC,TCGA-COAD,TCGA-GBM,TCGA-KICH,TCGA-KIRC
chr7:6508832:->chr7:6505954:-	chr7	6508585	6508832	-	chr7	6505954	6505954	-	ENST00000258739	214-214	17	CCLE-ESCA,CCLE-LUSC,TCGA-BRCA
chr7:74461534:->chr7:74457217:-	chr7	74461367	74461534	-	chr7	74457217	74457217	-	ENST00000329959	215-215	23	CCLE-LUSC,CCLE-SARC
chr7:81946024:->chr7:81799925:-	chr7	81945941	81946024	-	chr7	81799925	81799925,81799925,81799925	-	ENST00000356860,ENST00000356253,ENST00000423588	216-216	8	CCLE-LUSC
chr7:94018589:+>chr7:94057721:+	chr7	94018505	94018589	+	chr7	94057721	94057789	+	ENST00000297268	217-217	3	TCGA-BRCA,TCGA-HNSC,TCGA-LUSC
chr8:105152976:+>chr8:105160835:+	chr8	105152952	105152976	+	chr8	105160835	105161076,1	+	ENST00000408894,ENST00000436393	218-218	3	CCLE-LUSC
chr8:141451863:->chr8:141449296:-	chr8	141451758	141451863	-	chr8	141449296	141449296,141449296,141449296,141449296	-	ENST00000389327,ENST00000389328,ENST00000520857,ENST00000438773	219-219	23	CCLE-LUSC
chr8:146016536:->chr8:146015855:-	chr8	146016442	146016536	-	chr8	146015855	146015855,146015855,146015855,146015855,146015855	-	ENST00000394920,ENST00000527914,ENST00000262584,ENST00000528957,ENST00000533397,ENST00000532702	220-220	4	CCLE-BRCA,CCLE-LUSC,CCLE-OV,TCGA-OV,TCGA-STAD,TCGA-UVM

chr8:54994449:->chr8:54978373:-	chr8	54994275	54994449	-	chr8	54978373	54978373,54978373,54978373	-	ENST00000316963,ENST00000343231,ENST00000518546	221-223	38	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-OV,TCGA-STAD
chr9:128638776:+>chr9:128677965:+	chr9	128638590	128638776	+	chr9	128677965	128678206,128678206,128678206,128678206,128678206	+	ENST00000342287,ENST00000373487,ENST00000373489,ENST00000491787,ENST00000447726,ENST00000428092	224-228	3	CCLE-LCLL,CCLE-LUSC,CCLE-SARC
chr9:130213388:->chr9:130213083:-	chr9	130213359	130213388	-	chr9	130213083	130213083,1	-	ENST00000361436,ENST00000536368	229-230	18	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-BLCA,TCGA-CESC,TCGA-HNSC,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-PRAD,TCGA-READ,TCGA-SKCM,TCGA-STAD,TCGA-THCA,TCGA-UCEC,TCGA-UVM
chr9:15619847:+>chr9:15623265:+	chr9	15618978	15619847	+	chr9	15623265	15623411,15623411,15623411	+	ENST00000535968,ENST00000297641,ENST00000380701	231-233	5	CCLE-LUSC
chr9:18711328:+>chr9:18721534:+	chr9	18711232	18711328	+	chr9	18721534	18721663,19	+	ENST00000380548,ENST00000276935	234-234	32	CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LUSC,CCLE-SARC,CCLE-THCA
chrX:114878268:+>chrX:114879341:+	chrX	114878001	114878268	+	chrX	114879341	114879419,114879419,114879419,114879419,114879419	+	ENST00000355899,ENST00000537301,ENST00000289290,ENST00000420625,ENST00000539310,ENST00000497870	235-236	22	CCLE-LUSC
chrX:38015613:->chrX:38013836:-	chrX	38015578	38015613	-	chrX	38013836	38013836,38013836,38013836,38013836	-	ENST00000432886,ENST00000544439,ENST00000378533,ENST00000343800	237-237	4	CCLE-CESC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,TCGA-GBM,TCGA-HNSC,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-SARC,TCGA-SKCM,TCGA-UCEC,TCGA-UCS

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:151239815:+>chr1:151245271:+	chr1	151239649,151239649,151239649	151239815	ENST00000368884,ENST00000368881,ENST00000445776,ENST00000453615	+	chr1	151245271	151245553	+	1-4	376,379,192,83	CCLE-BLCA,CCLE-COAD,CCLE-LUSC,CCLE-SKCM
chr10:47173898:->chr10:47139994:-	chr10	47173898,47173898,47173898	47173898	ENST00000358140,ENST00000359178,ENST00000545298,ENST00000414655	-	chr10	47139994	47139994	-	5	7	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-BLCA,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC,TCGA-MESO,TCGA-OV,TCGA-STAD
chr10:72644921:->chr10:72642242:-	chr10	72644909	72644921	ENST00000299299	-	chr10	72642242	72642557	-	6	68	TCGA-LUAD,TCGA-PRAD
chr13:99992819:+>chr13:100009388:+	chr13	99992574,99992574,99992574	99992819	ENST00000355700,ENST00000403766,ENST00000376440	+	chr13	100009388	100009596	+	7-9	234,269,135	CCLE-BLCA,CCLE-COAD,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr14:75593406:->chr14:75593104:-	chr14	75593406,76	75593406	ENST00000238616,ENST00000554258	-	chr14	75593104	75593199	-	10	73	CCLE-LUSC,CCLE-MM
chr14:77914837:->chr14:77913291:-	chr14	77914837,77914837,77914837,77914837,77914837	77914837	ENST00000327028,ENST00000343765,ENST00000553888,ENST00000557658,ENST00000448935,ENST00000556412	-	chr14	77913291	77913294	-	11-14	155,168,119,194	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr16:30778197:+>chr16:30778878:+	chr16	30778062,30778062,30778062	30778197	ENST00000324685,ENST00000402121,ENST00000563683,ENST00000357890	+	chr16	30778878	30778979	+	15-18	168,476,376,436	CCLE-BLCA,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM
chr19:40478151:+>chr19:40491610:+	chr19	40478053,4	40478151	ENST00000157812,ENST00000455878	+	chr19	40491610	40491685	+	19-19	45	CCLE-SKCM,TCGA-HNSC,TCGA-LIHC,TCGA-LUSC,TCGA-OV,TCGA-SARC,TCGA-STAD,TCGA-UCEC
chr19:40540857:->chr19:40534017:-	chr19	40540264,41	40540857	ENST00000434248,ENST00000221355	-	chr19	40534017	40534240	-	20-21	488,636	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:70488518:+>chr2:70489942:+	chr2	70488344,70488344,70488344,70488344,70488344	70488518	ENST00000422380,ENST00000505044,ENST00000414812,ENST00000433351,ENST00000264441,ENST00000451279,ENST00000545138	+	chr2	70489942	70490009	+	22-24	164,87,86	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-UCEC
chr20:9457400:+>chr20:9484605:+	chr20	9457364,946	9457400	ENST00000334005,ENST00000378501	+	chr20	9484605	9485169	+	25-25	1165	CCLE-BRCA,CCLE-CESC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-STAD,TCGA-PCPG
chr3:120840551:+>chr3:120866822:+	chr3	120840488,120840488,120840488,120840488,120840488	120840551	ENST00000273666,ENST00000471454,ENST00000472879,ENST00000492541,ENST00000497029,ENST00000471262	+	chr3	120866822	120867003	+	26-26	223	CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,TCGA-BLCA
chr3:132948195:+>chr3:132969129:+	chr3	132948156,132948156,132948156,132948156,132948156	132948195	ENST00000321871,ENST00000393130,ENST00000512137,ENST00000511555,ENST00000508711,ENST00000515826,ENST00000510183	+	chr3	132969129	132969448	+	27-27	13	CCLE-LUSC

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:180975232:->chr1:180974599:-	chr1	180975197	180975232	-	chr1	180974599	180974599	-	ENST00000258301	28-28	13	CCLE-BLCA,CCLE-CESC,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-PAAD
chr1:33142971:+>chr1:33145245:+	chr1	33142637	33142971	+	chr1	33145245	33145306,33145306,33145306,33145306,33145415,33145306,33145299	+	ENST00000414241,ENST00000373493,ENST00000544435,ENST00000458695,ENST00000463378,ENST00000460669,ENST00000482190	29-29	37	CCLE-CESC,CCLE-LUSC,TCGA-BLCA,TCGA-BRCA,TCGA-CESC,TCGA-COAD,TCGA-HNSC,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-PRAD,TCGA-THCA,TCGA-UCS
chr1:38258152:+>chr1:38274660:+	chr1	38257891	38258152	+	chr1	38274660	38274745,38274745,38274745,38274806	+	ENST00000373043,ENST00000468084,ENST00000373042,ENST00000446260	30-30	8	TCGA-BRCA,TCGA-ESCA,TCGA-GBM,TCGA-LUSC,TCGA-LUAD,TCGA-OV,TCGA-PCPG,TCGA-PRAD,TCGA-STAD
chr1:45227052:+>chr1:45241706:+	chr1	45226996	45227052	+	chr1	45241706	45241812,45	+	ENST00000396651,ENST00000372209	31-31	19	CCLE-LUSC,TCGA-OV
chr10:120938004:->chr10:120936665:-	chr10	120937837	120938004	-	chr10	120936665	120936665,1	-	ENST00000356951,ENST00000298510	32-33	1	CCLE-LUSC,TCGA-BRCA,TCGA-COAD,TCGA-LIHC,TCGA-LUAD,TCGA-OV,TCGA-READ,TCGA-STAD,TCGA-THCA,TCGA-THYM
chr10:123969561:+>chr10:123969912:+	chr10	123969507	123969561	+	chr10	123969912	123971223,123971223,123971223,123971223,123971223,123971223,123971223,123971223,123971223,123971223,123971223	+	ENST00000369005,ENST00000513429,ENST00000515273,ENST00000515603,ENST00000453444,ENST00000334433,ENST00000358010,ENST00000360561,ENST00000368999,ENST00000369004,ENST00000260733,ENST00000514539	34-34	18	CCLE-LUSC,CCLE-STAD
chr10:5058029:->chr10:5043873:-	chr10	5057939	5058029	-	chr10	5043873	5043873,5043873,5043873,5043873,5043873	-	ENST00000380753,ENST00000421196,ENST00000407674,ENST00000604507,ENST00000455190	35-38	13	CCLE-BLCA,CCLE-ESCA,CCLE-LUSC,TCGA-HNSC,TCGA-LUSC,TCGA-LUAD
chr10:5060092:->chr10:5043783:-	chr10	5059958	5060092	-	chr10	5043783	5043873,5043873,5043873,5043873,5043873	-	ENST00000380753,ENST00000421196,ENST00000407674,ENST00000604507,ENST00000455190	39-42	33	CCLE-BLCA,CCLE-ESCA,CCLE-LUSC,TCGA-CESC,TCGA-ESCA,TCGA-HNSC,TCGA-LIHC,TCGA-LUSC,TCGA-LUAD
chr10:99601433:+>chr10:99619215:+	chr10	99600727	99601433	+	chr10	99619215	99619340	+	ENST00000370602	43-43	27	CCLE-BLCA,CCLE-ESCA,CCLE-LUSC,CCLE-MM,CCLE-SKCM
chr11:102093793:+>chr11:102094353:+	chr11	102093694	102093793	+	chr11	102094353	102094483,102094483,102094483,102094483,102094483,102094483	+	ENST00000526343,ENST00000282441,ENST00000345877,ENST00000537274,ENST00000531439,ENST00000524575,ENST00000529029	44-44	24	CCLE-LUSC,CCLE-STAD,TCGA-MESO,TCGA-SARC
chr11:108084796:->chr11:108068147:-	chr11	108084619	108084796	-	chr11	108068147	108068147	-	ENST00000278612	45-45	20	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr11:117024976:+>chr11:117030650:+	chr11	117024922	117024976	+	chr11	117030650	117030739,117030739,117030739,117030739	+	ENST00000527958,ENST00000419197,ENST00000529887,ENST00000530272	46-46	2	CCLE-LUSC
chr11:118278445:+>chr11:118279715:+	chr11	118278321	118278445	+	chr11	118279715	118279813	+	ENST00000300688	47-47	30	TCGA-KIRC,TCGA-LUAD,TCGA-OV
chr11:13465223:->chr11:13443385:-	chr11	13465148	13465223	-	chr11	13443385	13443385,13443385,13443385,13443385,13443385	-	ENST00000278174,ENST00000527102,ENST00000530907,ENST00000529708,ENST00000526841	48-48	36	CCLE-LUSC
chr11:17486945:->chr11:17485151:-	chr11	17486885	17486945	-	chr11	17485151	17485151,17485151,17485151	-	ENST00000389817,ENST00000302539,ENST00000527905	49-49	19	CCLE-LUSC
chr11:19146727:+>chr11:19164530:+	chr11	19146614	19146727	+	chr11	19164530	19164670	+	ENST00000446113	50-50	14	CCLE-LCLL,CCLE-LUSC,CCLE-UCEC
chr11:44148906:+>chr11:44151595:+	chr11	44148850	44148906	+	chr11	44151595	44151688,44151688,44151688,44151688	+	ENST00000533608,ENST00000358681,ENST00000395673,ENST00000343631	51-51	19	CCLE-ESCA,CCLE-LUSC
chr11:61132342:+>chr11:61133517:+	chr11	61132079	61132342	+	chr11	61133517	61133688,61	+	ENST00000278826,ENST00000542946	52-52	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-COAD,TCGA-ESCA,TCGA-SKCM
chr11:61196370:->chr11:61189080:-	chr11	61196370	61196370	-	chr11	61189080	61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080,61189080	-	ENST00000340437,ENST00000394888,ENST00000439958,ENST00000448745,ENST00000477890,ENST00000539952,ENST00000535222,ENST00000544990,ENST00000544585,ENST00000413232,ENST00000537162,ENST00000543545,ENST00000541963,ENST00000536548,ENST00000450000,ENST00000449811,ENST00000413184,ENST00000536145	53-53	15	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA,TCGA-ESCA,TCGA-GBM,TCGA-KIRC,TCGA-LGG,TCGA-LUSC,TCGA-OV,TCGA-STAD,TCGA-THCA
chr11:785039:+>chr11:810272:+	chr11	784898	785039	+	chr11	810272	810357,810357,810321	+	ENST00000321153,ENST00000530797,ENST00000530398	54-54	34	CCLE-LUSC,TCGA-COAD
chr12:104681628:+>chr12:104682709:+	chr12	104681506	104681628	+	chr12	104682709	104682818,104682818,104682818,104682818,104682818,104682818	+	ENST00000525566,ENST00000429002,ENST00000526691,ENST00000388854,ENST00000542918,ENST00000378070	55-55	15	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-KIRP,TCGA-LUSC,TCGA-LUAD
chr12:120659973:->chr12:120659561:-	chr12	120659921	120659973	-	chr12	120659561	120659561,120659561,120659561,120659561,120659561	-	ENST00000458477,ENST00000228307,ENST00000424649,ENST00000536957,ENST00000267257	56-58	18	CCLE-LUSC,CCLE-SKCM
chr12:20704505:+>chr20:57470710:+	chr12	20704358	20704505	+	chr20	57470710	57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739,57470739	+	ENST00000371100,ENST00000371102,ENST00000450130,ENST00000349036,ENST00000423897,ENST00000604005,ENST00000371095,ENST00000354359,ENST00000371085,ENST00000265620,ENST00000306090,ENST00000371081,ENST00000338783,ENST00000603546	59-59	7	CCLE-LUSC
chr12:41157000:+>chr12:41312441:+	chr12	41156671	41157000	+	chr12	41312441	41312573,41312534,41312573,41312573,41312573,41312573,41312564,41312573,41312573,41312573	+	ENST00000547702,ENST00000551424,ENST00000551295,ENST00000548005,ENST00000552248,ENST00000547849,ENST00000552913,ENST00000360099,ENST00000347616,ENST00000348761	60-62	10	CCLE-LUSC

chr12:53835233:+>chr12:53836479:+	chr12	53835137	53835233	+	chr12	53836479	53836517	+	ENST00000547368	63-63	3	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-STAD,TCGA-ESCA,TCGA-OV,TCGA-STAD
chr12:54631910:+>chr12:54677621:+	chr12	54631694	54631910	+	chr12	54677621	54677751,54677662,54677751,54677751,54677751,54677751,54677751	+	ENST00000546500,ENST00000547708,ENST00000547566,ENST00000340913,ENST00000330752,ENST00000547276,ENST00000550482	64-65	19	TCGA-LUSC
chr12:54862609:->chr12:54857081:-	chr12	54862584	54862609	-	chr12	54857081	54857081,54857081,54857081	-	ENST00000546931,ENST00000552397,ENST00000305879	66-66	17	CCLE-BRCA,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr12:56867593:->chr12:56867378:-	chr12	56867552	56867593	-	chr12	56867378	56867378	-	ENST00000311966	67-67	58	CCLE-COAD,CCLE-LUSC
chr13:38183213:->chr13:38171419:-	chr13	38183157	38183213	-	chr13	38171419	38171419,38171419,38171419,38171419,38171419,38171419	-	ENST00000541179,ENST00000379749,ENST00000379747,ENST00000379743,ENST00000379742,ENST00000541481	68-68	29	CCLE-BRCA,CCLE-LUSC,TCGA-BRCA,TCGA-SARC
chr13:42456176:->chr13:42442613:-	chr13	42455523	42456176	-	chr13	42442613	42442613,42	-	ENST00000379310,ENST00000281496	69-69	38	CCLE-CESC,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SKCM,CCLE-STAD
chr13:53015205:->chr13:53013303:-	chr13	53014957	53015205	-	chr13	53013303	53013303	-	ENST00000378060	70-70	11	CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-PAAD
chr13:76192906:->chr13:76104323:-	chr13	76190856	76192906	-	chr13	76104323	76104402,76104402,76104402,76104402	-	ENST00000406936,ENST00000377615,ENST00000377619,ENST00000355801	71-72	30	TCGA-LUAD
chr14:102196928:+>chr14:102197694:+	chr14	102196918	102196928	+	chr14	102197694	102197805	+	ENST00000556973	73-73	3	CCLE-DLBC,CCLE-LUSC,CCLE-OV
chr14:107277425:->chr14:106478239:-	chr14	107277216	107277425	-	chr14	106478239	106478411	-	ENST00000390596	74-74	21	TCGA-BRCA,TCGA-ESCA,TCGA-LUAD,TCGA-TGCT,TCGA-THCA
chr14:24686695:->chr14:24686429:-	chr14	24686517	24686695	-	chr14	24686429	24686429,25	-	ENST00000605847,ENST00000250495	75-75	25	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC,TCGA-ESCA,TCGA-OV,TCGA-STAD
chr15:50744825:+>chr15:50751197:+	chr15	50744811	50744825	+	chr15	50751197	50751359,50751359,50751359,50751359,50751359,50751267	+	ENST00000307179,ENST00000433963,ENST00000396444,ENST00000425032,ENST00000559329,ENST00000558091	76-76	5	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-BRCA,TCGA-SARC,TCGA-SKCM
chr15:60657933:->chr15:60656722:-	chr15	60657768	60657933	-	chr15	60656722	60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722,60656722	-	ENST00000396024,ENST00000451270,ENST00000332680,ENST00000560014,ENST00000421017,ENST00000559176,ENST00000559818,ENST00000560367,ENST00000558503,ENST00000560389,ENST00000560165,ENST00000557906,ENST00000559350,ENST00000558558,ENST00000558986,ENST00000559467,ENST00000559956,ENST00000559780,ENST00000560468,ENST00000557904,ENST00000559370	77-77	23	CCLE-LUSC,TCGA-BRCA,TCGA-CESC,TCGA-ESCA,TCGA-HNSC,TCGA-KIRC,TCGA-LUSC,TCGA-PAAD,TCGA-SARC,TCGA-STAD
chr15:79168112:+>chr15:79170555:+	chr15	79167833	79168112	+	chr15	79170555	79170601,79170601,79170601,79170601,79170601	+	ENST00000379535,ENST00000426013,ENST00000331268,ENST00000558746,ENST00000560422	78-78	13	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-ESCA,CCLE-KIRC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr15:80254313:->chr15:80253516:-	chr15	80254221	80254313	-	chr15	80253516	80253516,8	-	ENST00000267953,ENST00000335661	79-79	9	TCGA-BRCA,TCGA-LUSC,TCGA-SKCM
chr16:47626347:+>chr16:47627411:+	chr16	47626052	47626347	+	chr16	47627411	47627468,47627468,47627468,47627468	+	ENST00000566044,ENST00000455779,ENST00000299167,ENST00000323584	80-81	37	TCGA-LUSC
chr16:69773838:->chr16:69752437:-	chr16	69773549	69773838	-	chr16	69752437	69752437,69752437,69752437,69752437,69752437	-	ENST00000561500,ENST00000379047,ENST00000320623,ENST00000379046,ENST00000439109	82-82	3	CCLE-LUSC
chr16:80584267:+>chr16:80584412:+	chr16	80584128	80584267	+	chr16	80584412	80584455,80584455,80584455	+	ENST00000562982,ENST00000305904,ENST00000568035	83-83	46	CCLE-UCEC,TCGA-BRCA,TCGA-GBM,TCGA-LUAD,TCGA-UCEC
chr17:25597844:+>chr17:25630393:+	chr17	25597568	25597844	+	chr17	25630393	25630448,25630661,25630661,25630661,25630661	+	ENST00000583742,ENST00000581440,ENST00000262394,ENST00000581185,ENST00000427287	84-84	19	TCGA-LUAD
chr17:34139989:+>chr17:34147028:+	chr17	34139850	34139989	+	chr17	34147028	34147079,34147079,34147079,34147079	+	ENST00000588240,ENST00000590273,ENST00000587272,ENST00000311979	85-87	47	CCLE-LUSC
chr17:57171332:->chr17:57168701:-	chr17	57171256	57171332	-	chr17	57168701	57168701,57168701,57168701,57168701,57168701,57168701,57168701	-	ENST00000393066,ENST00000577554,ENST00000262294,ENST00000393065,ENST00000580973,ENST00000580122,ENST00000584889	88-92	7	CCLE-LUSC,CCLE-STAD
chr17:67192427:->chr17:67190636:-	chr17	67191701	67192427	-	chr17	67190636	67190636,67190636,67190636	-	ENST00000416101,ENST00000269081,ENST00000523419	93-93	38	CCLE-LGG,CCLE-LUSC
chr19:3624569:->chr19:3624160:-	chr19	3624203	3624569	-	chr19	3624160	3624160,3624160,3624160	-	ENST00000429344,ENST00000585942,ENST00000248420	94-94	4	CCLE-LUSC
chr19:3782560:->chr19:3781670:-	chr19	3782430	3782560	-	chr19	3781670	3781670,3781670,3781670,3781670,3781670,3781670,3781670	-	ENST00000395040,ENST00000310132,ENST00000585778,ENST00000395045,ENST00000590493,ENST00000588983,ENST00000587180	95-96	23	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-SARC,CCLE-STAD,TCGA-BRCA,TCGA-HNSC,TCGA-MESO,TCGA-SARC
chr19:42217314:+>chr19:42311149:+	chr19	42217251	42217314	+	chr19	42311149	42311258	+	ENST00000415495	97-97	21	CCLE-LUSC,CCLE-OV
chr19:46646469:+>chr19:46663672:+	chr19	46646299	46646469	+	chr19	46663672	46663725,47	+	ENST00000434646,ENST00000377693	98-98	55	CCLE-LUSC
chr19:8323741:+>chr19:8326572:+	chr19	8323736	8323741	+	chr19	8326572	8326728,8326728,8326728	+	ENST00000558331,ENST00000251363,ENST00000559450	99-99	2	CCLE-LUSC,CCLE-MM,CCLE-PRAD,TCGA-BRCA,TCGA-CESC,TCGA-LIHC,TCGA-PRAD

chr2:158306719:->chr2:158300518:-	chr2	158306498	158306719	-	chr2	158300518	158300532,2	-	ENST00000264192,ENST00000457793	100-100	2	CCLE-COAD,CCLE-DLBC,CCLE-KIRC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-STAD,CCLE-THCA,TCGA-BRCA,TCGA-KICH
chr2:171927080:->chr2:171917666:-	chr2	171926701	171927080	-	chr2	171917666	171917666,171917666,171917666,171917666,171917666,171917666,171917666,171917666	-	ENST00000360843,ENST00000431350,ENST00000442919,ENST00000521943,ENST00000434911,ENST00000409443,ENST00000453628	101-102	122	CCLE-LUSC
chr2:224817241:+>chr2:224824251:+	chr2	224816773	224817241	+	chr2	224824251	224824719	+	ENST00000258383	103-103	20	CCLE-LUSC
chr2:24029041:->chr2:24021193:-	chr2	24028227	24029041	-	chr2	24021193	24021193,24	-	ENST00000238789,ENST00000381024	104-104	29	CCLE-LCLL,CCLE-LUSC
chr2:24198120:+>chr2:24199839:+	chr2	24197875	24198120	+	chr2	24199839	24199945,24199945,24199945	+	ENST00000404924,ENST00000309033,ENST00000535786	105-105	8	CCLE-BRCA,CCLE-LUSC,CCLE-MM,CCLE-SKCM,CCLE-STAD
chr2:28859785:+>chr2:28863793:+	chr2	28859259	28859785	+	chr2	28863793	28863867,28863867,28863867,28863867	+	ENST00000327757,ENST00000422425,ENST00000404858,ENST00000541605	106-106	4	CCLE-LUSC
chr2:30856371:+>chr2:30862983:+	chr2	30856274	30856371	+	chr2	30862983	30863485,30863485,30863485	+	ENST00000379509,ENST00000309052,ENST00000540623	107-107	32	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-MESO,CCLE-PRAD
chr2:44554937:+>chr16:75263893:-	chr2	44554718	44554937	+	chr16	75263893	75263921,75263921,75263921,75263921,75263921,75263921,75263921,75263921	-	ENST00000162330,ENST00000546196,ENST00000393422,ENST00000535626,ENST00000538440,ENST00000418647,ENST00000542031,ENST00000420641,ENST00000393420	108-108	51	CCLE-LUSC
chr2:89166769:->chr2:89157082:-	chr2	89166011	89166769	-	chr2	89157082	89157196	-	ENST00000390237	109-109	17	TCGA-LUSC
chr20:32408074:+>chr20:32436273:+	chr20	32408012	32408074	+	chr20	32436273	32436450	+	ENST00000217402	110-110	21	TCGA-LUSC
chr20:34710669:+>chr20:34761806:+	chr20	34710617	34710669	+	chr20	34761806	34761876,34761876,34761876,34761876,34761876,34761876,34761876,34761876	+	ENST00000406771,ENST00000452261,ENST00000447825,ENST00000427533,ENST00000338074,ENST00000373941	111-112	17	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-STAD,TCGA-BRCA,TCGA-CESC,TCGA-COAD,TCGA-ESCA,TCGA-HNSC,TCGA-KICH,TCGA-KIRP,TCGA-PAAD,TCGA-STAD
chr20:44540197:->chr20:44540102:-	chr20	44540195	44540197	-	chr20	44540102	44540151	-	ENST00000542937	113-113	32	CCLE-COAD,CCLE-HNSC,CCLE-LUSC,TCGA-GBM,TCGA-LGG,TCGA-THYM
chr20:45967949:->chr20:45938948:-	chr20	45967709	45967949	-	chr20	45938948	45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948,45938948	-	ENST00000311275,ENST00000360911,ENST00000458360,ENST00000262975,ENST00000471951,ENST00000352431,ENST00000396281,ENST00000446994,ENST00000536340,ENST00000355972,ENST00000372023,ENST00000461685,ENST00000540497,ENST00000435836,ENST00000446894,ENST00000441977	114-114	13	CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-OV,TCGA-STAD
chr20:60770037:+>chr20:60770858:+	chr20	60769972	60770037	+	chr20	60770858	60771005,60771005,60771005,60771005	+	ENST00000436421,ENST00000467101,ENST00000370823,ENST00000448254	115-115	22	CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-LUSC,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr21:27105478:->chr21:27102112:-	chr21	27105472	27105478	-	chr21	27102112	27102112	-	ENST00000457143	116-116	7	CCLE-BLCA,CCLE-CESC,CCLE-LGG,CCLE-LUSC,TCGA-BLCA,TCGA-CHOL,TCGA-COAD,TCGA-DLBC,TCGA-ESCA,TCGA-HNSC,TCGA-LUSC,TCGA-OV,TCGA-UVM
chr21:27105526:->chr21:27102112:-	chr21	27105472	27105526	-	chr21	27102112	27102112	-	ENST00000457143	117-117	9	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-LUSC
chr22:19103521:->chr22:19077003:-	chr22	19103457	19103521	-	chr22	19077003	19077003,19	-	ENST00000263196,ENST00000545799	118-118	4	CCLE-LUSC
chr22:39716401:->chr22:39714597:-	chr22	39716331	39716401	-	chr22	39714597	39714597,39714597,39714597,39714597	-	ENST00000216146,ENST00000453303,ENST00000427905,ENST00000420536	119-119	4	CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,TCGA-CHOL,TCGA-OV,TCGA-SARC,TCGA-THCA,TCGA-THYM
chr3:10160654:+>chr3:10188198:+	chr3	10160479	10160654	+	chr3	10188198	10188320	+	ENST00000256474	120-120	1	CCLE-ESCA,CCLE-LUSC
chr3:185198511:->chr3:185194935:-	chr3	185198429	185198511	-	chr3	185194935	185194935	-	ENST00000382227	121-121	54	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,CCLE-UCEC
chr4:123834362:->chr4:123833778:-	chr4	123834285	123834362	-	chr4	123833778	123833778	-	ENST00000304430	122-122	28	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,TCGA-SKCM
chr5:10384580:+>chr5:10387106:+	chr5	10384097	10384580	+	chr5	10387106	10387178,10387178,10387178	+	ENST00000449913,ENST00000503788,ENST00000274140	123-123	8	CCLE-BRCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-OV
chr5:133406533:->chr5:133326845:-	chr5	133406479	133406533	-	chr5	133326845	133326845,133326845,133326845,133326845	-	ENST00000395044,ENST00000265333,ENST00000395047,ENST00000425992	124-124	7	CCLE-LCLL,CCLE-LUSC
chr5:134415207:->chr5:134367163:-	chr5	134415107	134415207	-	chr5	134367163	134367198,134367198,134367198,134367198	-	ENST00000265340,ENST00000506438,ENST00000503586,ENST00000507253,ENST00000502676	125-127	6	TCGA-LUAD
chr5:140080670:+>chr5:140081591:+	chr5	140080589	140080670	+	chr5	140081591	140081714,1	+	ENST00000274712,ENST00000506644	128-128	27	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC
chr5:1503092:->chr5:1501718:-	chr5	1503037	1503092	-	chr5	1501718	1501718,15	-	ENST00000475622,ENST00000283415	129-129	8	CCLE-COAD,CCLE-LUSC
chr5:43583569:->chr5:43556101:-	chr5	43583316	43583569	-	chr5	43556101	43556101,43556101,43556101,43556101	-	ENST00000306846,ENST00000436644,ENST00000514514,ENST00000504639	130-130	45	CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-MM,CCLE-PAAD,CCLE-STAD,TCGA-BLCA,TCGA-LGG,TCGA-LUSC,TCGA-LUAD,TCGA-PRAD

chr5:87546068:->chr5:87524345:-	chr5	87546032	87546068	-	chr5	87524345	87524345,87524345,87524345,87524345,87524345	-	ENST00000514135,ENST00000511087,ENST00000296595,ENST00000512429,ENST00000507872	131-131	31	CCLE-CESC,CCLE-COAD,CCLE-LCLL,CCLE-LUSC,CCLE-MM,CCLE-SKCM
chr6:109427293:+>chr6:109466422:+	chr6	109426948	109427293	+	chr6	109466422	109466584	+	ENST00000523787	132-132	19	CCLE-BLCA,CCLE-BRCA,CCLE-CESC,CCLE-COAD,CCLE-DLBC,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-MESO,CCLE-MM,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SARC,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-BRCA,TCGA-GBM,TCGA-HNSC,TCGA-KIRP,TCGA-LUSC,TCGA-OV,TCGA-READ,TCGA-STAD
chr6:43395970:+>chr6:43399880:+	chr6	43395962	43395970	+	chr6	43399880	43401098,43	+	ENST00000372530,ENST00000244533	133-133	3	CCLE-LUSC
chr6:7300909:->chr6:7299056:-	chr6	7300879	7300909	-	chr6	7299056	7299056,7299056,7299056,7299056,7299056,7299056,7299056,7299056	-	ENST00000474597,ENST00000244763,ENST00000397511,ENST00000534851,ENST00000489567,ENST00000479365,ENST00000479485,ENST00000462112	134-134	35	CCLE-LUSC
chr7:101514832:+>chr7:101559395:+	chr7	101514616	101514832	+	chr7	101559395	101559505,101559505,101559505,101559505,101559505,101559505,101559505,101559505,101559505	+	ENST00000437600,ENST00000292538,ENST00000547394,ENST00000360264,ENST00000425244,ENST00000292535,ENST00000546411,ENST00000549414,ENST00000550008,ENST00000556210	135-136	2	CCLE-LUSC
chr7:103845571:->chr7:103844682:-	chr7	103845535	103845571	-	chr7	103844682	103844682,103844682,103844682,10384468	-	ENST00000297431,ENST00000422497,ENST00000447452,ENST00000448563	137-137	15	CCLE-BRCA,CCLE-DLBC,CCLE-LIHC,CCLE-LUSC,TCGA-STAD
chr7:32555261:+>chr7:32582753:+	chr7	32554883	32555261	+	chr7	32582753	32582873,32582873,32582873	+	ENST00000318709,ENST00000409301,ENST00000404479	138-138	11	CCLE-BRCA,CCLE-COAD,CCLE-LUSC,CCLE-MM,TCGA-COAD,TCGA-LUSC,TCGA-READ,TCGA-TGCT
chr7:40618566:+>chr7:40789033:+	chr7	40618403	40618566	+	chr7	40789033	40789096,40789096,40789096	+	ENST00000309930,ENST00000401647,ENST00000335693	139-139	2	CCLE-LCLL,CCLE-LUSC,TCGA-PAAD
chr7:56036577:+>chr7:56045819:+	chr7	56036437	56036577	+	chr7	56045819	56045958,56045958,56045958	+	ENST00000322090,ENST00000446778,ENST00000456204	140-140	12	CCLE-BLCA,CCLE-ESCA,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,TCGA-GBM,TCGA-HNSC,TCGA-LUSC
chr8:41859766:->chr8:41845081:-	chr8	41859568	41859766	-	chr8	41845081	41845081,41845081,41845081,41845081	-	ENST00000265713,ENST00000396930,ENST00000406337,ENST00000485568	141-141	16	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LUSC,TCGA-BRCA
chr9:101867407:+>chr9:101891137:+	chr9	101867374	101867407	+	chr9	101891137	101891382,101891382,101891382,10189138	+	ENST00000374994,ENST00000374990,ENST00000549766,ENST00000552516,ENST00000546584	142-142	11	CCLE-BLCA,CCLE-HNSC,CCLE-LUSC,CCLE-UCEC
chr9:136210283:+>chr9:136216428:+	chr9	136210211	136210283	+	chr9	136216428	136216555,1	+	ENST00000323345,ENST00000426651	143-143	9	CCLE-LIHC,CCLE-LUSC,TCGA-OV,TCGA-THCA
chr9:71770431:+>chr9:71827464:+	chr9	71770337	71770431	+	chr9	71827464	71827517,71827517,71827517,71827517	+	ENST00000377245,ENST00000348208,ENST00000265384,ENST00000535702,ENST00000539225	144-144	18	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-ESCA,CCLE-HNSC,CCLE-KIRC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-OV,CCLE-PAAD,CCLE-PRAD,CCLE-SKCM,CCLE-STAD,CCLE-THCA,TCGA-STAD
chrX:122865506:->chrX:122846758:-	chrX	122865370	122865506	-	chrX	122846758	122846758,122846758	-	ENST00000245838,ENST00000355725,ENST00000433883	145-145	4	CCLE-LUSC

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:209795881:->chr1:209793531:-	chr1	209795881,209795881,209795881	209795881	ENST00000356082,ENST00000391911,ENST00000367030	-	chr1	209793531	209793871	-	1	900	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr1:235301192:->chr1:235299662:-	chr1	235301192,235301192,235301192	235301192	ENST00000408888,ENST00000366606,ENST00000447801	-	chr1	235299662	235299865	-	2-4	283,261,278	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr1:246490503:->chr1:246450472:-	chr1	246490503,246490503,246490503,246490503,246490503	246490503	ENST00000541742,ENST00000490107,ENST00000388985,ENST00000045367,ENST00000403792	-	chr1	246450472	246450473	-	5-6	177,118	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:39376994:->chr1:39374816:-	chr1	39376994,39376994,39376994,39376994,39376994	39376994	ENST00000372990,ENST00000289248,ENST00000538156,ENST00000372985	-	chr1	39374816	39375005	-	7-9	169,249,236	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:40218724:+>chr1:40226825:+	chr1	40218582,40218582,40218582,40218582,40218582	40218724	ENST00000324379,ENST00000356511,ENST00000497370,ENST00000372832	+	chr1	40226825	40226890	+	10-12	279,228,213	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:44054671:+>chr1:44055856:+	chr1	44054402,44054402,44054402,44054402,44054402	44054671	ENST00000359947,ENST00000438120,ENST00000372413,ENST00000372414	+	chr1	44055856	44056111	+	13-13	316	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:45140003:->chr1:45139519:-	chr1	45140003,45140003,45140003,45140003,45140003	45140003	ENST00000372242,ENST00000372243,ENST00000372244,ENST00000372237,ENST00000372235,ENST00000420706	-	chr1	45139519	45139523	-	14-14	20	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr1:50956260:->chr1:50951659:-	chr1	50956260,50956260,50956260,50956260,50956260	50956260	ENST00000396153,ENST00000371778,ENST00000545823,ENST00000494400	-	chr1	50951659	50951725	-	15-17	551,357,309	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:53343641:+>chr1:53346273:+	chr1	53343597,53343641	53343641	ENST00000371532,ENST00000371528	+	chr1	53346273	53346674	+	18-19	241,583	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr10:20436831:+>chr10:20448101:+	chr10	20436713,20436831	20436831	ENST00000377242,ENST00000377252	+	chr10	20448101	20448202	+	20-21	261,212	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr10:6268328:+>chr10:6386699:+	chr10	6268155,6268155,6268155,6268155,6268155,6268155,6268155,6268155,6268155	6268328	ENST00000379789,ENST00000540253,ENST00000317350,ENST00000379785,ENST00000379782,ENST00000360521,ENST00000379775,ENST00000414237	+	chr10	6386699	6386920	+	22-25	74,519,485,505	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr10:75527765:+>chr10:75528065:+	chr10	75527595,75527595,75527595,75527595,75527595	75527765	ENST00000465076,ENST00000345254,ENST00000339365,ENST00000411652	+	chr10	75528065	75528148	+	26-27	727,608	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC
chr10:89690846:+>chr10:89691657:+	chr10	89690803,89690846	89690846	ENST00000371953	+	chr10	89691657	89692078	+	28-28	84,LGG,CCLE-SARC	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE
chr10:92982740:+>chr10:92995468:+	chr10	92982629,92982629,92982629,92982629	92982740	ENST00000371687,ENST00000543648,ENST00000336126	+	chr10	92995468	92995698	+	29-29	37	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr10:99185780:->chr10:99176863:-	chr10	99185780,99185780	99185780	ENST00000439965	-	chr10	99176863	99177292	-	30-30	7	CCLE-BLCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:108464145:->chr11:108449287:-	chr11	108464145,108464145,108464145	108464145	ENST00000265843,ENST00000525344	-	chr11	108449287	108450266	-	31-32	32,39	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:110150406:->chr11:110148399:-	chr11	110150406,110150406,110150406,110150406,110150406,110150406,110150406,110150406,110150406	110150406	ENST00000528498,ENST00000530749,ENST00000405097,ENST00000530301,ENST00000343115,ENST00000530131,ENST00000528556,ENST00000533678	-	chr11	110148399	110148399	-	33-33	4	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:112103956:+>chr11:112113642:+	chr11	112103886,112103956	112103956	ENST00000280362,ENST00000524931	+	chr11	112113642	112114074	+	34-35	104,36	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-STAD
chr11:129034214:->chr11:128983520:-	chr11	129034214,129034214,129034214	129034214	ENST00000310343,ENST00000524655,ENST00000525234	-	chr11	128983520	128983609	-	36-38	75,35,1	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:47435237:+>chr11:47435818:+	chr11	47435148,47435148,47435148,47435148,47435148,47435148,47435148	47435237	ENST00000533076,ENST00000531419,ENST00000531865,ENST00000362021,ENST00000354884,ENST00000526614,ENST00000524928	+	chr11	47435818	47435915	+	39-40	245,209	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:66526567:+>chr11:66563974:+	chr11	66526514,66526514,66526514,66526514,66526514,66526514,66526543	66526567	ENST00000525908,ENST00000346672,ENST00000360962,ENST00000540737,ENST00000531400,ENST00000525449,ENST00000532727	+	chr11	66563974	66564273	+	41-44	125,174,198,8	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr11:72632873:->chr11:72631727:-	chr11	72632873,72632873,72632873,72632873,72632873	72632873	ENST00000311172,ENST00000409314,ENST00000409418,ENST00000458644,ENST00000409853	-	chr11	72631727	72631836	-	45-47	116,220,276	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LGG,CCLE-STAD
chr11:86176133:->chr11:86173719:-	chr11	86176133,86176133,86176133,86176133,86176133,86176133,86176133	86176133	ENST00000393324,ENST00000359636,ENST00000543262,ENST00000524826,ENST00000526504,ENST00000323418	-	chr11	86173719	86174014	-	48-49	244,306	CCLE-BLCA,CCLE-DLBC,CCLE-LUSC
chr12:109998845:->chr12:109997897:-	chr12	109998845,109998845,109998845,109998845,109998845	109998845	ENST00000545712,ENST00000540016,ENST00000266839	-	chr12	109997897	109997917	-	50-52	103,142,194	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-SKCM
chr12:110883257:->chr12:110879509:-	chr12	110883257,110883257,110883257,110883257,110883257	110883257	ENST00000228825,ENST00000426440,ENST00000547365	-	chr12	110879509	110879553	-	53-54	27,35	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr12:48137313:->chr12:48136479:-	chr12	48137313,48137313,48137313,48137313,48137313	48137313	ENST00000405493,ENST00000449771,ENST00000549151,ENST00000389212,ENST00000171000	-	chr12	48136479	48136646	-	55-56	608,566	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC
chr12:54066360:->chr12:54036643:-	chr12	54066360,54066360,54066360,54066360,54066360	54066360	ENST00000602871,ENST00000394349,ENST00000549164,ENST00000338662,ENST00000549748	-	chr12	54036643	54036669	-	57-59	13,29,70	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr12:69987393:+>chr12:69987642:+	chr12	69987290,69987290,69987290,69987290,69987290	69987393	ENST00000299300,ENST00000544368,ENST00000550010,ENST00000543146	+	chr12	69987642	69987931	+	60-61	327,28	CCLE-BLCA,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr12:89918897:->chr12:89892592:-	chr12	89918897,89918897,89918897,89918897,89918897,89918897,89918897	89918897	ENST00000313546,ENST00000547496,ENST00000548715,ENST00000547274,ENST00000546830,ENST00000548729,ENST00000547474,ENST00000413530	-	chr12	89892592	89892935	-	62-63	33,12	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr13:103309557:+>chr13:103311084:+	chr13	103309406,103309557	103309557	ENST00000376065,ENST00000376052	+	chr13	103311084	103311533	+	64-65	1034,1047	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr13:113344769:+>chr13:113363918:+	chr13	113344731,113344731,113344731,113344731	113344769	ENST00000283558,ENST00000375630,ENST00000375645,ENST00000487903	+	chr13	113363918	113364194	+	66-66	13	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD

chr14:35008761:->chr14:35008475:-	chr14	35008761,35	35008761	ENST00000250454,ENST00000555705	-	chr14	35008475	35008507	-	67-67	24	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr14:37892154:+>chr14:37893546:+	chr14	37892060,37892060,37892060,37892060,37892060,37892060,37892060	37892154	ENST00000536774,ENST00000327441,ENST00000539062,ENST00000555651,ENST00000555870,ENST00000396294,ENST00000545536,ENST00000537471	+	chr14	37893546	37893840	+	68-71	343,312,165,162	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM
chr14:50280706:->chr14:50277397:-	chr14	50280706,50280706,50280706	50280706	ENST00000298310,ENST00000545773,ENST00000555970	-	chr14	50277397	50277402	-	72-73	581,539	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr14:69444934:->chr14:69414143:-	chr14	69444934	69444934	ENST00000556433	-	chr14	69414143	69414294	-	74-74	14	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr14:91681900:+>chr14:91682646:+	chr14	91681749,91681749,91681749,91681749,91681749,91681749,91681749,91681749,91681749,91681749	91681900	ENST00000520328,ENST00000256324,ENST00000521077,ENST00000518868,ENST00000523816,ENST00000525393,ENST00000428926,ENST00000522322,ENST00000523771,ENST00000412671,ENST00000523461,ENST00000517306,ENST00000522816	+	chr14	91682646	91682699	+	75-82	556,572,532,515,567,443,461,167	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr15:43850993:->chr15:43840881:-	chr15	43850993,43850993,43850993,43850993,43850993,43850993,43850993	43850993	ENST00000381885,ENST00000396923,ENST00000360135,ENST00000360301,ENST00000334933,ENST00000420765,ENST00000381879,ENST00000348806	-	chr15	43840881	43840944	-	83-87	1128,1104,1061,1124,1103	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-STAD
chr15:49531564:+>chr15:49571640:+	chr15	49531418,49531418,49531418,49531448,49531418,49531418,49531418	49531564	ENST00000327171,ENST00000560031,ENST00000396509,ENST00000543495,ENST00000544523,ENST00000560138,ENST00000559454	+	chr15	49571640	49571874	+	88-91	168,144,39,157	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr16:21846309:->chr16:21413958:-	chr16	21846039,21846039,21846039,21846039	21846309	ENST00000415645,ENST00000537951,ENST00000357370,ENST00000451409	-	chr16	21413958	21413971	-	92-95	331,903,759,1049	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr16:22320831:+>chr16:22323705:+	chr16	22320749,22320749,22320749,22320749,22320749,22320749,22320749	22320831	ENST00000299853,ENST00000564209,ENST00000565358,ENST00000418581,ENST00000359210,ENST00000565624,ENST00000565551	+	chr16	22323705	22323824	+	96-100	121,85,127,85,54	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr16:25258028:->chr16:25256158:-	chr16	25258028	25258028	ENST00000328086	-	chr16	25256158	25256305	-	101-101	496	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM
chr16:70564820:+>chr16:70566332:+	chr16	70564648	70564820	ENST00000302516	+	chr16	70566332	70566355	+	102-102	190	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr16:89294803:+>chr16:89299070:+	chr16	89293102,89	89294803	ENST00000433976,ENST00000306502	+	chr16	89299070	89299185	+	103-104	674,674,632,632	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr17:49284249:->chr17:49281748:-	chr17	49284249,49284249,49284249	49284249	ENST00000586178,ENST00000415868,ENST00000376381	-	chr17	49281748	49281762	-	105-105	201,201	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr17:7293953:->chr17:7289182:-	chr17	7293953,7293953,7293953,7293953,7293953,7293953,7293767	7293953	ENST00000324822,ENST00000576201,ENST00000574401,ENST00000535512,ENST00000576362,ENST00000575434,ENST00000571078	-	chr17	7289182	7289183	-	106-109	153,153,253,253,277,277,108,108	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr18:77489069:+>chr18:77231398:-	chr18	77488907,77	77489069	ENST00000299543,ENST00000591598	+	chr18	77231398	77231493	-	110-111	792,86	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr19:11455928:->chr19:11441356:-	chr19	11455928,11455928,11455928,11455928,11455928,11455928,11455928,11455928,11455928,11455928	11455928	ENST00000586218,ENST00000593256,ENST00000447337,ENST00000354882,ENST00000586590,ENST00000586956,ENST00000589555,ENST00000587948,ENST00000588560,ENST00000586701,ENST00000590482,ENST00000591677,ENST00000590788	-	chr19	11441356	11441524	-	112-113	88,27	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM
chr19:11708445:+>chr19:11709067:+	chr19	11708443,12	11708445	ENST00000361113,ENST00000588174	+	chr19	11709067	11709182	+	114-114	1,1	CCLE-BLCA,CCLE-DLBC,CCLE-LIHC,CCLE-SARC
chr19:14640523:+>chr19:14667415:+	chr19	14640509,14640509,14640509	14640523	ENST00000215567,ENST00000598987,ENST00000598333	+	chr19	14667415	14667444	+	115-115	5	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-SKCM
chr19:46005454:+>chr19:46008577:+	chr19	46005275,46005275,46005275	46005454	ENST00000456399,ENST00000401593,ENST00000396736	+	chr19	46008577	46008588	+	116-118	129,129,129,139,139,139,136,136,136	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr19:48643228:->chr19:48641210:-	chr19	48643228,48643228,48643228,48643228,48643228,48643228	48643228	ENST00000263274,ENST00000536218,ENST00000594759,ENST00000427526,ENST00000601091,ENST00000542460	-	chr19	48641210	48641307	-	119-123	331,331,362,362,361,361,294,294,330,330	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr19:53138319:->chr19:53108907:-	chr19	53138319,53138319,53138319,53138319,53138319,53138319,53138319	53138319	ENST00000600714,ENST00000601257,ENST00000594682,ENST00000595939,ENST00000596930,ENST00000597161,ENST00000598536,ENST00000601140	-	chr19	53108907	53108911	-	124-124	5	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr19:960164:+>chr19:961778:+	chr19	960092,9601	960164	ENST00000263620,ENST00000587532	+	chr19	961778	961931	+	125-126	102,102,102,255,255,255	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:112560005:->chr2:112559167:-	chr2	112560005,1	112560005	ENST00000427997,ENST00000341068	-	chr2	112559167	112559280	-	127-128	941,941,941,1407,1407,1407	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:153192234:+>chr2:153205124:+	chr2	153192118	153192234	ENST00000288670	+	chr2	153205124	153205134	+	129-129	39,39,39,39,39	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:170815036:+>chr2:170837934:+	chr2	170814948,170814948,170814948,170814948	170815036	ENST00000272793,ENST00000418381,ENST00000430321,ENST00000392632	+	chr2	170837934	170838331	+	130-132	269,1211,358	CCLE-BLCA,CCLE-BRCA,CCLE-LGG,CCLE-STAD
chr2:25818955:->chr2:25818057:-	chr2	25818955,25818955,25818955,25818955,25818955,25818955,25818955	25818955	ENST00000496972,ENST00000404103,ENST00000405222,ENST00000406818,ENST00000407038,ENST00000407661,ENST00000407186,ENST00000288642	-	chr2	25818057	25818257	-	133-134	144,144,201,201	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-SARC,CCLE-STAD
chr2:74432898:+>chr2:74428574:-	chr2	74432832,74432832,74432832	74432898	ENST00000394053,ENST00000409804,ENST00000409601	+	chr2	74428574	74428766	-	135-135	56	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr20:33264760:->chr20:33245231:-	chr20	33264760,33264760,33264760	33264760	ENST00000217446,ENST00000374820,ENST00000452740	-	chr20	33245231	33245300	-	136-136	43,43,43	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr20:33517204:->chr20:33511439:-	chr20	33517204,33517204,33517204	33517204	ENST00000216951,ENST00000541098,ENST00000451957	-	chr20	33511439	33511726	-	137-139	322,433,305	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM

chr22:22285520:->chr22:22259038:-	chr22	22285520,22285520,22285520,22285520	22285520	ENST00000263212,ENST00000407142,ENST00000538191,ENST00000397495	-	chr22	22259038	22259215	-	140-142	129,129,193,193,297,297	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr22:38046732:+>chr22:38048999:+	chr22	38046549,38	38046732	ENST00000357436,ENST00000599616	+	chr22	38048999	38049164	+	143-144	468,532	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr22:41863452:->chr22:41857922:-	chr22	41863452	41863452	ENST00000216252	-	chr22	41857922	41857964	-	145-145	81,81	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr22:42018090:+>chr19:13054608:+	chr22	42018009,42018009,42018009,42018009,42018046	42018090	ENST00000360079,ENST00000402580,ENST00000359308,ENST00000405506,ENST00000405506	+	chr19	13054608	13054696	+	146-147	15,27	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:100455548:+>chr3:100458281:+	chr3	100455420,100455420,100455420,100455420	100455548	ENST00000418917,ENST00000490574,ENST00000240851,ENST00000476228	+	chr3	100458281	100458308	+	148-148	236,236	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-LCLL,CCLE-SKCM
chr3:10357005:->chr3:10355738:-	chr3	10357005,10357005,10357005,10357005,10357005	10357005	ENST00000397109,ENST00000337354,ENST00000350697,ENST00000397117,ENST00000383801,ENST00000431352	-	chr3	10355738	10355806	-	149-152	57,40,100,54	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr3:42906351:+>chr3:42938215:+	chr3	42905995,42905995,42905995,42905995,42905995	42906351	ENST00000442925,ENST00000422265,ENST00000497921,ENST00000273145,ENST00000492609,ENST00000049461,ENST00000049319,ENST00000049319	+	chr3	42938215	42938243	+	153-153	119	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:66396832:+>chr3:66397474:+	chr3	66396788,66396788,66396788,66396788	66396832	ENST00000354883,ENST00000336733,ENST00000464350,ENST00000413054	+	chr3	66397474	66398551	+	154-155	166,166,166,166,166,78,78,78,78,78	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr4:121732525:->chr4:121729176:-	chr4	121732525,121732525,121732525	121732525	ENST00000264808,ENST00000428209,ENST00000515109	-	chr4	121729176	121730285	-	156-157	284,284,315,315	CCLE-BLCA,CCLE-LCLL,CCLE-SARC,CCLE-SKCM
chr4:141464740:+>chr4:141479125:+	chr4	141464607	141464740	ENST00000323570	+	chr4	141479125	141479650	+	158-158	245	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr4:177073118:+>chr4:177073846:+	chr4	177072963,177072963,177072963,177072963	177073118	ENST00000508596,ENST00000393643,ENST00000280190,ENST00000507824,ENST00000443118	+	chr4	177073846	177074097	+	159-162	827,827,827,827,827,844,844,844,844,844,86,86,86,86,86,820,820,820,820,820	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr4:44449580:->chr4:44343758:-	chr4	44449580,44	44449580	ENST00000360029,ENST00000515268	-	chr4	44343758	44344106	-	163-164	320,17	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr4:515550:+>chr20:18003206:+	chr4	515449,515449,515449,515449,515449,515449,515449	515550	ENST00000536264,ENST00000310340,ENST00000453061,ENST00000504346,ENST00000506402,ENST00000383028,ENST00000509768	+	chr20	18003206	18003226	+	165-170	389,462,478,470,345,340	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr4:99264412:+>chr4:99267131:+	chr4	99264290,99264290,99264290,99264290,99264290,99264290,99264290	99264412	ENST00000380158,ENST00000264572,ENST00000408927,ENST00000514122,ENST00000453712,ENST00000510870,ENST00000511212,ENST00000339360,ENST00000408900	+	chr4	99267131	99267301	+	171-172	79,78	CCLE-BLCA,CCLE-DLBC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr5:10354029:+>chr5:10376346:+	chr5	10354011,10354011,10354011,10354011	10354029	ENST00000449913,ENST00000502795,ENST00000503788,ENST00000274140	+	chr5	10376346	10376635	+	173-173	6	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr5:137320946:->chr5:137316941:-	chr5	137320946,137320946,137320946	137320946	ENST00000033079,ENST00000425075,ENST00000420893	-	chr5	137316941	137316984	-	174-175	275,393	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr5:176370336:->chr5:176339196:-	chr5	176370336,176370336,176370336,176370336	176370336	ENST00000377227,ENST00000377219,ENST00000506128,ENST00000511320,ENST00000510698	-	chr5	176339196	176339394	-	176-178	532,532,366,366,251,251	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LIHC,CCLE-LUSC,CCLE-STAD
chr5:87498779:->chr5:87497977:-	chr5	87498779,87498779,87498779,87498779,87498779,87498775	87498779	ENST00000514135,ENST00000296595,ENST00000506536,ENST00000511218,ENST00000512429,ENST00000509387	-	chr5	87497977	87498037	-	179-182	122,304,177,293	CCLE-BLCA,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr5:90398157:+>chr5:90444891:+	chr5	90398036,9	90398157	ENST00000405460,ENST00000425867	+	chr5	90444891	90445050	+	183-184	1805,1805,6144,6144	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:149285699:+>chr6:149333093:+	chr6	149285546	149285699	ENST00000367463	+	chr6	149333093	149333186	+	185-185	227	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LUSC,CCLE-SARC
chr6:151358253:+>chr6:151383292:+	chr6	151358101,151358101,151358110	151358253	ENST00000367321,ENST00000453602,ENST00000450635	+	chr6	151383292	151383578	+	186-188	949,949,48,48,74,74	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC
chr6:155490050:+>chr6:155495410:+	chr6	155489979,155489979,155489979	155490050	ENST00000367174,ENST00000360366,ENST00000528391	+	chr6	155495410	155495481	+	189-191	123,123,123,163,163,163,811,811,811	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr6:170892145:->chr6:170890689:-	chr6	170892145,170892145,170892145,170892145,170892116,170892145,170892116	170892145	ENST00000541970,ENST00000167218,ENST00000392090,ENST00000543896,ENST00000538195,ENST00000453163,ENST00000537445,ENST00000443345	-	chr6	170890689	170890721	-	192-194	219,219,186,186,177,17	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:17463304:+>chr6:17501658:+	chr6	17463227,17463227,17463227,17463227	17463304	ENST00000229922,ENST00000489374,ENST00000465994,ENST00000476263	+	chr6	17501658	17501703	+	195-195	100,100,100	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:27860539:->chr6:27855866:-	chr6	27860535	27860539	ENST00000359611	-	chr6	27855866	27856376	-	196-196	129,129	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:34360041:->chr6:34323339:-	chr6	34360041	34360041	ENST00000607016	-	chr6	34323339	34323582	-	197-197	33,33	CCLE-BLCA,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM
chr7:154720734:+>chr7:154720726:-	chr7	154720666,154720666,154720666	154720734	ENST00000411526,ENST00000397551,ENST00000449486	+	chr7	154720726	154720849	-	198-198	62	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr7:33573788:+>chr7:33900207:+	chr7	33573566,33573566,33573566,33573566,33573566	33573788	ENST00000242067,ENST00000350941,ENST00000354265,ENST00000355070,ENST00000396127,ENST00000043473	+	chr7	33900207	33900392	+	199-204	406,406,805,805,800,800,805,805,840,835,835	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC
chr7:43946161:->chr7:43932166:-	chr7	43946161,43946161,43946161,43946161,43946161	43946161	ENST00000603700,ENST00000402306,ENST00000453200,ENST00000439702,ENST00000446958	-	chr7	43932166	43932342	-	205-205	4	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr7:72922657:->chr7:72917188:-	chr7	72922657,73	72922657	ENST00000339594,ENST00000404251	-	chr7	72917188	72917290	-	206-206	123,123	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr7:77166962:+>chr7:77198851:+	chr7	77166864,77	77166962	ENST00000248594,ENST00000523952	+	chr7	77198851	77199103	+	207-208	30,33	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LUSC,CCLE-SARC

chr8:101612577:->chr8:101612148:-	chr8	101612577,1	101612577	ENST00000311812,ENST00000428383	-	chr8	101612148	101612206	-	209-210	258,159	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr8:42302164:->chr8:42301215:-	chr8	42302164,42302164,42302164	42302164	ENST00000342228,ENST00000520262,ENST00000520179	-	chr8	42301215	42301896	-	211-211	243,243,243	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr8:94722103:+>chr8:94732818:+	chr8	94721999,94721999,94721999,94721999,94722026,94722026,94722026	94722103	ENST00000452913,ENST00000518322,ENST00000423990,ENST00000518116,ENST00000517718,ENST00000521641,ENST00000519679	+	chr8	94732818	94733107	+	212-213	26,26,26,181,181,181	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LGG,CCLE-SKCM,CCLE-STAD
chr9:125014216:->chr9:125013339:-	chr9	125014126	125014216	ENST00000417201	-	chr9	125013339	125013471	-	214-214	50	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr9:14672828:->chr9:14546277:-	chr9	14672828	14672828	ENST00000380916	-	chr9	14546277	14546486	-	215-215	84	CCLE-BLCA,CCLE-BRCA,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr9:69655673:+>chr9:70078409:+	chr9	69655521	69655673	ENST00000322495	+	chr9	70078409	70078414	+	216-216	74	CCLE-BLCA,CCLE-BRCA,CCLE-LGG,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr9:95142141:+>chr9:95349000:+	chr9	95142045	95142141	ENST00000375587	+	chr9	95349000	95349463	+	217-217	188,188	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr9:97137209:+>chr9:97147280:+	chr9	97137102	97137209	ENST00000375344	+	chr9	97147280	97147418	+	218-218	36	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chrX:48246802:+>chrX:48247974:+	chrX	48246753,48	48246802	ENST00000376886,ENST00000375517	+	chrX	48247974	48248153	+	219-219	110,110,110	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-STAD

1	2	3	4	5	6	7	8	9	10	11	12	13
chr1:113118121:->chr1:113084712:-	chr1	113117877	113118121	-	chr1	113084712	113084712,113084712,113084712,113084712,113084712,113084712,113084712,113084712,113084712,113084712,113084712,113084712	-	ENST00000361846,ENST00000360743,ENST00000358039,ENST00000490715,ENST00000544629,ENST00000369669,ENST00000490067,ENST00000369668,ENST00000343210,ENST00000369666,ENST00000538187,ENST00000418497	220-225	4,4,4,4,17,20	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr1:16462407:->chr1:16462265:-	chr1	16462369	16462407	-	chr1	16462265	16462265	-	ENST00000358432	226-228	18,32,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:19571098:->chr1:19570509:-	chr1	19570915	19571098	-	chr1	19570509	19570509,2	-	ENST00000477853,ENST00000375199	229-232	18,11,19,19	CCLE-BLCA,CCLE-COAD,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr1:207234997:+>chr1:207235298:+	chr1	207234952	207234997	+	chr1	207235298	207235423,2	+	ENST00000367080,ENST00000367079	233-234	15,15,15,15,15,15,7,7,7,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:22203834:->chr1:22203145:-	chr1	22203730	22203834	-	chr1	22203145	22203145	-	ENST00000374695	235-236	3,3,20,20	CCLE-BLCA,CCLE-COAD,CCLE-LCLL,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:44460050:+>chr1:44460780:+	chr1	44459836	44460050	+	chr1	44460780	44460834,44	+	ENST00000372318,ENST00000466180	237-240	3,10,4,4	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr1:8498249:->chr1:8482867:-	chr1	8498037	8498249	-	chr1	8482867	8482867,8482867,8482867,8482867,8482867	-	ENST00000337907,ENST00000377464,ENST00000400907,ENST00000400908,ENST00000464972	241-244	33,33,33,33,33,33,33,33,33,11,11,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr1:89421714:->chr1:89420908:-	chr1	89421567	89421714	-	chr1	89420908	89420908,89	-	ENST00000370491,ENST00000260508	245-247	1,1,2,2,4,4	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr1:97699293:->chr1:97658804:-	chr1	97697557	97699293	-	chr1	97658804	97658804	-	ENST00000370192	248-250	10,10,59,59,16,16	CCLE-BLCA,CCLE-DLBC,CCLE-LGG,CCLE-LIHC
chr10:135033808:+>chr10:135038163:+	chr10	135033758	135033808	+	chr10	135038163	135038394,1	+	ENST00000304613,ENST00000368572	251-253	16,17,16	CCLE-BLCA,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr10:60313302:+>chr10:60461834:+	chr10	60312890	60313302	+	chr10	60461834	60461903	+	ENST00000373886	254-256	1,3,13	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr10:73098333:+>chr10:73103966:+	chr10	73098232	73098333	+	chr10	73103966	73104048	+	ENST00000373189	257-258	11,11,1,1	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LGG
chr10:78749878:->chr10:78734331:-	chr10	78749753	78749878	-	chr10	78734331	78734331,79	-	ENST00000434208,ENST00000354353	259-260	6,6	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-STAD
chr10:89490615:+>chr10:89500992:+	chr10	89490462	89490615	+	chr10	89500992	89501127,89501127,89501127	+	ENST00000361175,ENST00000456849,ENST00000427144	261-263	1,17,45	CCLE-BLCA,CCLE-COAD,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-STAD
chr10:98044785:->chr10:98006805:-	chr10	98044707	98044785	-	chr10	98006805	98006805,98006805,98006805,98006805,98006805,98006805	-	ENST00000224337,ENST00000371176,ENST00000413476,ENST00000427367,ENST00000467799,ENST00000495266	264-271	8,8,11,11,115,115,115,115,115,115,115,115,115,115,115,115	CCLE-BLCA,CCLE-COAD,CCLE-HNSC,CCLE-LUSC
chr11:32124287:+>chr11:32124827:+	chr11	32124203	32124287	+	chr11	32124827	32125026,32	+	ENST00000532942,ENST00000054950	272-274	5,19,15	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr11:33066883:+>chr11:33078661:+	chr11	33066619	33066883	+	chr11	33078661	33078781,33078781,33078781,33078693,33078682,33078781,33078781	+	ENST00000530419,ENST00000334274,ENST00000527661,ENST00000528107,ENST00000602733,ENST00000432887,ENST00000531632	275-282	13,13,1,34,34,34,34,34	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-SKCM
chr11:66512170:+>chr11:66523824:+	chr11	66512147	66512170	+	chr11	66523824	66523976,67	+	ENST00000525908,ENST00000360962	283-286	7,7,7,8,8,8,7,7,7,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr11:68313125:+>chr11:68315535:+	chr11	68313061	68313125	+	chr11	68315535	68315672,68315672,68315672,68315672,68315672,68315672,68315672,68315672,68315672,68315672,68315672	+	ENST00000393799,ENST00000393800,ENST00000529907,ENST00000534534,ENST00000524845,ENST00000265637,ENST00000524904,ENST00000393801,ENST00000265636,ENST00000529710,ENST00000527403,ENST00000531244	287-300	5,5,5,5,5,5,5,5,5,5,5,5,1,13	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-SKCM
chr11:86175907:->chr11:86168801:-	chr11	86175857	86175907	-	chr11	86168801	86168801	-	ENST00000526504	301-303	18,18,15,15,6,6	CCLE-BLCA,CCLE-BRCA,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr12:110879137:->chr12:110878193:-	chr12	110878951	110879137	-	chr12	110878193	110878193,110878193,110878193	-	ENST00000228825,ENST00000426440,ENST00000547365	304-308	16,16,16,2,32	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LUSC,CCLE-SARC
chr12:122186105:+>chr12:122186232:+	chr12	122185867	122186105	+	chr12	122186232	122186348,122186348,122186348	+	ENST00000342607,ENST00000449592,ENST00000541467	313-313	7,7,7,7,7,7,28,28,28,1,1,1	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr12:19550974:+>chr12:19615444:+	chr12	19550875	19550974	+	chr12	19615444	19615651,19615651,19615651	+	ENST00000398864,ENST00000266508,ENST00000360995	314-317	33,33,24,24,32,32,32,32	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC
chr12:27077604:->chr12:27077416:-	chr12	27077590	27077604	-	chr12	27077416	27077416,27	-	ENST00000261191,ENST00000539625	318-320	31,4,3	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr12:45792334:+>chr12:45795578:+	chr12	45791949	45792334	+	chr12	45795578	45795803,45795803,45795803,45795803,45795803	+	ENST00000425752,ENST00000423947,ENST00000435642,ENST00000320560,ENST00000441606	321-323	12,12,16	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr12:56110505:+>chr12:56110722:+	chr12	56110428	56110505	+	chr12	56110722	56110789,56110789,56110789,56110789	+	ENST00000257899,ENST00000550412,ENST00000548925,ENST00000549147	324-325	1,22	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr13:109920237:+>chr6:107096900:+	chr13	109917870	109920237	+	chr6	107096900	107097076,1	+	ENST00000369046,ENST00000369044	326-329	5,26,26,6	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr14:34071823:+>chr14:34145417:+	chr14	34071773	34071823	+	chr14	34145417	34145591,34145591,34145591,34145591,34145591,34145591,34145591,34145591	+	ENST00000551634,ENST00000551492,ENST00000346562,ENST00000341321,ENST00000548645,ENST00000356141,ENST00000357798,ENST00000547068,ENST00000551008	330-334	17,17,17,17,17,17,17,17,17,16,16,16,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr14:64444990:+>chr14:64445570:+	chr14	64444982	64444990	+	chr14	64445570	64445732,64445732,64445732	+	ENST00000358025,ENST00000344113,ENST00000554584	335-339	2,2,2,2,3	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr14:93172172:->chr14:93171052:-	chr14	93171982	93172172	-	chr14	93171052	93171052,93171052,93171052	-	ENST00000334869,ENST00000557434,ENST00000393218	340-342	33,33,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr15:33027250:+>chr4:174254270:-	chr15	33027211	33027250	+	chr4	174254270	174254365,174254365,174254365,174254365	-	ENST00000296503,ENST00000438704,ENST00000446922,ENST00000506267	343-345	13,5,5	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr15:34678433:->chr15:34677979:-	chr15	34678404	34678433	-	chr15	34677979	34677979,34677979,34677979	-	ENST00000432566,ENST00000360553,ENST00000359187	346-348	40,40,40,40,3,3	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr15:43927307:->chr15:43924561:-	chr15	43926983	43927307	-	chr15	43924561	43924561,43924561,43924561,43924561,43924561,43924561,43924561	-	ENST00000396879,ENST00000381761,ENST00000450810,ENST00000354127,ENST00000355438,ENST00000433380,ENST00000321596	349-353	8,8,8,8,8,8,8,8,8,6,6,6,3,3,3	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD

chr15:45794376:->chr15:45783079:-	chr15	45794292	45794376	-	chr15	45783079	45783079	-	ENST00000261867	354-356	28,20,7	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr15:63515272:+>chr15:63516047:+	chr15	63515040	63515272	+	chr15	63516047	63516069	+	ENST00000559927	357-359	24,24,4,4,13,13	CCLE-BLCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SKCM
chr15:65237281:+>chr15:65239624:+	chr15	65237245	65237281	+	chr15	65239624	65239813,65239813,65239813,65239813,65239813	+	ENST00000395720,ENST00000357698,ENST00000380230,ENST00000395723,ENST00000487867	360-364	12,12,12,12,12,12,11,11,11,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr15:75913792:->chr15:75913397:-	chr15	75913599	75913792	-	chr15	75913397	75913397	-	ENST00000371091	365-367	14,3,7	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr15:89432600:->chr15:89430576:-	chr15	89432570	89432600	-	chr15	89430576	89430576	-	ENST00000562889	368-370	13,34,21	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr16:144932:->chr16:143323:-	chr16	144902	144932	-	chr16	143323	143323,1433	-	ENST00000399951,ENST00000399953	371-372	25,25,24,24	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr16:1466280:->chr16:1464056:-	chr16	1466182	1466280	-	chr16	1464056	1464056,1464056,1464056,1464056	-	ENST00000389221,ENST00000508903,ENST00000397462,ENST00000301712	373-378	18,18,18,18,7,7,7,7,7,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-STAD
chr16:1466280:->chr16:1464056:-	chr16	1466182	1466280	-	chr16	1464056	1464056,1464056,1464056,1464056	-	ENST00000389221,ENST00000508903,ENST00000397462,ENST00000301712	373-378	18,18,18,18,7,7,7,7,7,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-STAD
chr16:57694987:+>chr16:57695609:+	chr16	57694913	57694987	+	chr16	57695609	57695877,57695877,57695877,57695877,57695877,57695877,57695877,57695877,57695877,57695877,57695877,57695877	+	ENST00000568908,ENST00000568909,ENST00000567835,ENST00000562631,ENST00000388812,ENST00000456916,ENST00000538815,ENST00000388813,ENST00000562558,ENST00000544297,ENST00000540164,ENST00000379694,ENST00000379696	379-381	10,10,10,16,16,16,20,20,20	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM
chr16:87463444:->chr16:87457456:-	chr16	87463221	87463444	-	chr16	87457456	87457487,87457487,87457487	-	ENST00000268616,ENST00000568020,ENST00000561928	382-382	13	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr17:2896273:+>chr17:2898631:+	chr17	2896223	2896273	+	chr17	2898631	2898760,2898760,2898760,2898760	+	ENST00000540393,ENST00000254695,ENST00000366401,ENST00000542807	383-385	17,17,16,16,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-LGG,CCLE-LIHC,CCLE-STAD
chr17:79814556:->chr17:79813462:-	chr17	79814517	79814556	-	chr17	79813462	79813462,79813462,79813462	-	ENST00000331483,ENST00000573778,ENST00000574914	386-390	14,14,14,14,22,22,22,22,22,22,22,22,22,22,22,22,35,35,35,35	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr17:8447595:->chr17:8445598:-	chr17	8447539	8447595	-	chr17	8445598	8445598,8445598,8445598,8445598	-	ENST00000360416,ENST00000379980,ENST00000396239,ENST00000269243	391-394	68,68,68,16,16,16,16,16,16,1,1,1	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LUSC,CCLE-SKCM
chr18:47780089:->chr18:47778154:-	chr18	47779896	47780089	-	chr18	47778154	47778154	-	ENST00000398545	395-396	24,24,24,24,24,24,24,24	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr18:76875349:+>chr18:76886267:+	chr18	76874974	76875349	+	chr18	76886267	76886375,76886375,76886375,76886375	+	ENST00000586366,ENST00000426216,ENST00000307671,ENST00000586672	397-402	125,125,125,125,125,125,125,125,125,125,125,125,6,6,6,64,64,64	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-SKCM,CCLE-STAD
chr19:15297447:->chr19:15296490:-	chr19	15297232	15297447	-	chr19	15296490	15296490,15	-	ENST00000263388,ENST00000601011	403-405	23,23,23,23,23,23,13,13,13	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr19:16668570:->chr19:16666208:-	chr19	16668304	16668570	-	chr19	16666208	16666208,16666208,16666208	-	ENST00000595753,ENST00000436553,ENST00000421082	406-409	13,13,1,1,14,14,14,14	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr19:17869600:+>chr19:17873571:+	chr19	17869500	17869600	+	chr19	17873571	17873662,17873662,17873662,17873662,17873662,17873662,17873662,17873662,17873628,17873662,17873649,17873662,17873662,17873662,17873662,17873662,17873662,17873589,17873662,17873614,17873662,17873662,17873662,17873662	+	ENST00000594202,ENST00000252771,ENST00000389133,ENST00000600676,ENST00000600209,ENST00000596309,ENST00000598539,ENST00000597474,ENST00000598067,ENST00000596536,ENST00000593870,ENST00000598086,ENST00000598932,ENST00000595023,ENST00000594068,ENST00000596507,ENST00000597718,ENST00000596462,ENST00000596865,ENST00000598960,ENST00000539407,ENST00000596951,ENST00000595549,ENST00000597512	410-429	1,1,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr19:38685034:+>chr19:38689029:+	chr19	38685019	38685034	+	chr19	38689029	38689172	+	ENST00000222345	430-432	3,4,5	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM
chr19:38691066:+>chr14:99865111:-	chr19	38690874	38691066	+	chr14	99865111	99865462	-	ENST00000331768	433-435	30,6,18	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr19:41752121:+>chr19:41754419:+	chr19	41752071	41752121	+	chr19	41754419	41754514,41754514,41754514	+	ENST00000301178,ENST00000359092,ENST00000593513	436-437	16,16,16,16,7,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr19:47766341:+>chr19:47767860:+	chr19	47766062	47766341	+	chr19	47767860	47767943	+	ENST00000221922	438-440	13,22,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LGG,CCLE-SKCM
chr19:8668969:->chr19:8668768:-	chr19	8668924	8668969	-	chr19	8668768	8668768,8668768,8668768,8668768	-	ENST00000270328,ENST00000593913,ENST00000597188,ENST00000596851	441-444	13,13,16,1	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC
chr2:112834599:+>chr2:112834769:+	chr2	112834497	112834599	+	chr2	112834769	112834859,1	+	ENST00000283206,ENST00000452614	445-448	6,11,25,25	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-SARC,CCLE-SKCM
chr2:113520756:->chr2:113520146:-	chr2	113520663	113520756	-	chr2	113520146	113520146,1	-	ENST00000302450,ENST00000435431	449-452	18,1,1,24	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-LGG,CCLE-SKCM,CCLE-STAD
chr2:128258702:->chr2:128255813:-	chr2	128257878	128258702	-	chr2	128255813	128255813	-	ENST00000295321	453-455	23,16,4	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr2:201331317:+>chr2:201332013:+	chr2	201331238	201331317	+	chr2	201332013	201332122,201332122,201332122,201332122,201332122,201332122,201332122,201332122,201332122,201332122,201332101	+	ENST00000409718,ENST00000358677,ENST00000409988,ENST00000409385,ENST00000451764,ENST00000360760,ENST00000409140,ENST00000409397,ENST00000409755,ENST00000409151,ENST00000438761	456-460	26,26,26,15,19	CCLE-BLCA,CCLE-BRCA,CCLE-SKCM
chr2:20241925:->chr2:20240768:-	chr2	20241894	20241925	-	chr2	20240768	20240772	-	ENST00000175091	461-462	2,2,24,24	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD

chr2:223503544:>chr2:223499260:-	chr2	223503488	223503544	-	chr2	223499260	223499260,2	-	ENST00000281828,ENST00000536361	463-465	22,10,2	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr2:86768380:>chr2:86756520:-	chr2	86767721	86768380	-	chr2	86756520	86756520,86756520,86756520,86756520,86756520,86756520,8675 6520	-	ENST00000263856,ENST00000409727,ENST00000439940,ENST00000604011,ENST00000440757	466-472	8,8,8,8,8,8,64,64,64,64,64,64,64,64,64,64,64,64,64,19,19,19,19,19,19,19,19,19,19,19,19,19,19	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr22:18321309:>chr22:18314873:-	chr22	18321277	18321309	-	chr22	18314873	18314873	-	ENST00000441493	473-474	22,22,16,16	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr22:27089799:+>chr22:41368480:+	chr22	27089771	27089799	+	chr22	41368480	41368492	+	ENST00000216225	475-477	9,9,5	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:12794922:>chr3:12791339:-	chr3	12794707	12794922	-	chr3	12791339	12791339	-	ENST00000431022	478-479	24,24,11,11	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:196641657:+>chr3:196650285:+	chr3	196641545	196641657	+	chr3	196650285	196650422,2	+	ENST00000323460,ENST00000419026	483-485	4,4,4,4,15,15,15,15,29,29,29,29	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr3:45676516:+>chr3:45677642:+	chr3	45676448	45676516	+	chr3	45677642	45677743,46	+	ENST00000440097,ENST00000273317	486-487	22,22,22,22,22,22,22,22,23,23,23,23,23,23,23,23	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr3:49096008:>chr3:49095323:-	chr3	49095765	49096008	-	chr3	49095323	49095323,49095323,49095323	-	ENST00000395443,ENST00000357496,ENST00000424300	488-490	12,12,12,12,12,12,7,7,7	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr4:140439323:>chr4:140439196:-	chr4	140439289	140439323	-	chr4	140439196	140439196,1	-	ENST00000506866,ENST00000274031	491-493	10,10,10,10,10,10,10,10,10,10,32,32,32,32,32	CCLE-BLCA,CCLE-BRCA,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr4:36095363:>chr4:36093642:-	chr4	36095258	36095363	-	chr4	36093642	36093642	-	ENST00000303965	494-496	7,7,7,5,5,5,19,19,19	CCLE-BLCA,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr4:5106093:+>chr4:5141632:+	chr4	5105814	5106093	+	chr4	5141632	5141687,514	+	ENST00000282908,ENST00000512018	497-501	31,31,7,40,40	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr5:177653591:>chr5:177652430:-	chr5	177653368	177653591	-	chr5	177652430	177652430,177652430,177652430	-	ENST00000308158,ENST00000510913,ENST00000323594	502-506	17,4,4,4,3	CCLE-BLCA,CCLE-COAD,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr5:41805554:>chr5:41803265:-	chr5	41805327	41805554	-	chr5	41803265	41803265,42	-	ENST00000196371,ENST00000509987	507-508	2,2,2,6,6,6	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:128380618:>chr6:128330410:-	chr6	128379032	128380618	-	chr6	128330410	128330413,128330413,128330413,128330413,128330413,128330410,128330413,128330413	-	ENST00000368226,ENST00000368227,ENST00000532331,ENST00000036821,ENST00000368210,ENST00000368215,ENST00000368207,ENST00000415046	509-516	1,1,1,1,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr6:149207783:+>chr6:149208122:+	chr6	149207748	149207783	+	chr6	149208122	149208165	+	ENST00000367463	517-519	11,11,12	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr6:25522854:+>chr6:25529027:+	chr6	25522758	25522854	+	chr6	25529027	25529121	+	ENST00000329474	520-521	26,32	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-LIHC,CCLE-SARC,CCLE-STAD
chr6:42945755:>chr6:42942776:-	chr6	42945581	42945755	-	chr6	42942776	42942776,43	-	ENST00000304611,ENST00000244546	522-524	2,2,2,2,11,11	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr7:102238072:>chr7:102137411:-	chr7	102237861	102238072	-	chr7	102137411	102137411,102137411,102137411	-	ENST00000541662,ENST00000465829,ENST00000306682	525-528	11,11,11,32,32,32,23,23,23,23,23,23	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr7:138863946:+>chr7:138864320:+	chr7	138863844	138863946	+	chr7	138864320	138864389,138864389,138864389,138864389,138864389	+	ENST00000430935,ENST00000495038,ENST00000478836,ENST00000046848,ENST00000343187	529-531	11,11,11,11,34,34	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-LCLL,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr7:27682471:>chr7:27672064:-	chr7	27682262	27682471	-	chr7	27672064	27672064,28	-	ENST00000265395,ENST00000428288	532-535	33,33,1,23	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr7:30647097:+>chr7:30649201:+	chr7	30646886	30647097	+	chr7	30649201	30649346	+	ENST00000389266	536-537	13,13,33,33	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chr7:48143633:+>chr7:48146470:+	chr7	48143535	48143633	+	chr7	48146470	48146679,48146536,48146679,48146679,48146536,48146679,481465 36	+	ENST00000331803,ENST00000457596,ENST00000341253,ENST00000395564,ENST00000395560,ENST00000429491,ENST00000417464	538-541	33,33,33,33,33,32,32,32,32,32,32,32,32,23,23,23,23,23	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-STAD
chr7:92950482:+>chr7:92952923:+	chr7	92950447	92950482	+	chr7	92952923	92953044,92953044,92953044	+	ENST00000305866,ENST00000541136,ENST00000544910,ENST00000535481	542-545	11,11,11,11,11,11,12,12	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LIHC,CCLE-SARC
chr7:98651132:>chr7:98650069:-	chr7	98651023	98651132	-	chr7	98650069	98650069,99	-	ENST00000361368,ENST00000361125	546-550	6,6,6,6,4,4,4,4,29,29	CCLE-BLCA,CCLE-BRCA,CCLE-LCLL,CCLE-LIHC,CCLE-LUSC,CCLE-SARC
chr8:38319026:>chr8:38315052:-	chr8	38318855	38319026	-	chr8	38315052	38315052	-	ENST00000425967	551-553	11,33,15	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC
chr8:72896141:+>chr8:72914457:+	chr8	72895839	72896141	+	chr8	72914457	72914504	+	ENST00000521467	554-555	30,30,8,8	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chr9:125052125:+>chr9:125054028:+	chr9	125052023	125052125	+	chr9	125054028	125054119,125054119,125054119,125054119	+	ENST00000297908,ENST00000344641,ENST00000373723,ENST00000373729,ENST00000394315	556-560	11,11,6,6,33	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM
chr9:132942884:+>chr9:132963237:+	chr9	132942875	132942884	+	chr9	132963237	132963261,1	+	ENST00000372398,ENST00000458469	561-562	3,3	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SKCM,CCLE-STAD
chr9:135702694:>chr9:135702441:-	chr9	135702683	135702694	-	chr9	135702441	135702441	-	ENST00000298545	563-565	38,13,20	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chr9:137248127:+>chr9:137293478:+	chr9	137248112	137248127	+	chr9	137293478	137293728	+	ENST00000481739	566-568	4,5,5	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM
chr9:97175554:+>chr9:97177440:+	chr9	97175296	97175554	+	chr9	97177440	97177535	+	ENST00000375344	569-570	17,14	CCLE-BLCA,CCLE-HNSC,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-STAD
chrX:153619453:>chrX:153580568:-	chrX	153619354	153619453	-	chrX	153580568	153580815,153580815,153580815,153580815,153580815,153580815	-	ENST00000360319,ENST00000422373,ENST00000369850,ENST00000369856,ENST00000344736,ENST00000444578	571-575	11,11,7,18,18	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-SARC,CCLE-SKCM,CCLE-STAD

chrX:23900708:->chrX:23899069:-	chrX	23900630	23900708	-	chrX	23899069	23899069,23899069,23899069	-	ENST00000379226,ENST00000379220,ENST00000490078	576-580	18,18,18,19,19,19,19,19,19,18,18,18	CCLE-BLCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-STAD
chrX:40587003:->chrX:40586103:-	chrX	40586831	40587003	-	chrX	40586103	40586103	-	ENST00000324817	581-583	2,2,2	CCLE-BLCA,CCLE-BRCA,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SKCM,CCLE-STAD
chrX:48207738:->chrX:48207039:-	chrX	48207544	48207738	-	chrX	48207039	48207039,48	-	ENST00000298396,ENST00000376895	584-586	3,3,3,3,2,2,2,2,2,2,2,2	CCLE-BLCA,CCLE-BRCA,CCLE-COAD,CCLE-DLBC,CCLE-HNSC,CCLE-LCLL,CCLE-LGG,CCLE-LIHC,CCLE-LUSC,CCLE-SARC,CCLE-SKCM,CCLE-STAD
chrX:67885244:+>chrX:67885341:+	chrX	67885146	67885244	+	chrX	67885341	67885374,68	+	ENST00000523864,ENST00000374599	587-590	32,32,32,1,1,1,33,33,33,33,33,33	CCLE-BLCA,CCLE-DLBC,CCLE-LCLL,CCLE-LGG,CCLE-LUSC,CCLE-SARC,CCLE-SKCM

Description of the sequences

SEQ ID NO:	Sequence description
1-10170	Translated peptides from transcripts table 9: exon donor
10171-38759	Translated peptides from transcripts table 10: TE donor
38760-38876	LUAD peptides of table 3 (117)
38877-38907	Additional peptides from figures 11-16 (31)
38908-38915	CDRs sequences table 4bis (8)
38916-39104	Table 5 peptides from MS (189)
39105-39315	Table 6 peptides from MS (211)
39316-394820	Table 7 peptides from MS (167)
39483-39596	Table 8 peptides from MS (116)
39597-39683	Translated peptides (JETs of table 11: exon donor) (87)
39684-39923	Translated peptides (JETs of table 12: TE donor) (240)
39924-39965	Translated peptides (JETs of table 13: exon donor) (42)
39966-40177	Translated peptides (JETs of table 14: TE donor) (162)
40128-40193	Translated peptides (JETs of table 15: exon donor) (66)
40194-40364	Translated peptides (JETs of table 16: TE donor) (171)
40365-40391	Translated peptides (JETs of table 17: exon donor) (27)
40392-40509	Translated peptides (JETs of table 18: TE donor) (118)
40510-40728	Translated peptides (JETs of table 19: exon donor) (219)
40729-41099	Translated peptides (JETs of table 20: TE donor) (371)

CLAIMS

1. An isolated tumor neoantigenic peptide comprising at least 4, 5, 6, 7 or 8 amino acids of any one of SEQ ID NO:1-38907 and 38916-41099.

2. An isolated tumor neoantigenic peptide, according to claim 1 wherein (a) the peptide is from any one of SEQ ID NO:1-38907 and 38916-41099 or a fragment thereof, and comprises at least a portion of TE-derived amino acid sequence from any one of SEQ ID NO:1-38907 and 38916-41099, optionally (i) a fragment that overlaps the breakpoint between, the TE-derived amino acid sequence and an exon-derived amino acid sequence or ., optionally (ii) a pure TE sequence; or (b) the peptide is from any one of SEQ ID NO: 1-10170; 38760-38907; 38916-39683; 39924-39965; 40128-40193; 40365-40391; and 40510-40728 or a fragment thereof, and is encoded by a non-canonical ORF downstream of the junction between the TE-derived amino acid sequence and the exon-derived amino acid sequence.

3. The isolated tumor neoantigenic peptide according to any one of claim 1 or 2, wherein said neoantigenic peptide
   - is expressed at higher levels in tumor cells compared to normal healthy cells;
   - is expressed in at least 1 % of subjects from a population of subjects suffering from cancer; and/or
   - binds MHC class I or class II with a Kd binding affinity of less than about 10^{-5} M.

4. A population of autologous dendritic cells or antigen presenting cells that have been pulsed with one or more of the peptides as defined in any one of claims 1-3 or transfected with a polynucleotide encoding one or more of the peptides as defined in any one of claims 1-3.

5. A vaccine or immunogenic composition capable of raising a specific T-cell response comprising
   a. one or more neoantigenic peptides as defined in any one of claims 1-3, optionally with a physiologically acceptable buffer, carrier, or excipient, and/or optionally with an adjuvant or immunostimulant;

b. one or more polynucleotides encoding a neoantigenic peptide as defined in any one of claims 1-3, optionally linked to a heterologous regulatory control nucleotide sequence; and/or
c. a population of antigen presenting cells, as defined in claim 4.

6. An antibody, or an antigen-binding fragment thereof, a T cell receptor (TCR), or a chimeric antigen receptor (CAR) that specifically binds a neoantigenic peptide as defined in any one of claims 1-3, optionally in association with an MHC molecule, with a Kd affinity of about 10^{-6} M or less, optionally wherein the antibody is a TCR-like antibody or the CAR is a TCR-like antibody-based CAR.

7. A method of producing an antibody, TCR or CAR that specifically binds a neoantigenic peptide as defined in any one of claims 1-3, comprising the step of selecting an antibody, TCR or CAR that binds to a tumor neoantigen peptide of any of claims 1-3, optionally in association with an MHC or HLA molecule, or optionally expressed on the surface of a cell, with a Kd binding affinity of about 10^{-6} M or less.

8. An antibody, TCR or CAR produced by the method of claim 7.

9. A T cell receptor according to claim 8, wherein said T cell receptor is made soluble or a TCR-like antibody fused to an antibody fragment directed to a T cell antigen, optionally wherein the targeted antigen is CD3 or CD16.

10. An antibody, TCR or CAR according to any one of claims 6, 8 or 9, wherein said antibody is a multispecific antibody that further targets at least an immune cell antigen, optionally wherein the immune cell is a T cell, a NK cell or a dendritic cell, optionally wherein the targeted antigen is CD3, CD16, CD30 or a TCR, optionally wherein the immune cell is defective for the Suv39h1 gene.

11. A polynucleotide encoding a neoantigenic peptide as defined in claims 1-3, or an antibody, a CAR or a TCR as defined in any one of claims 6,8-10, optionally linked to a heterologous regulatory control sequence.

12. A vector comprising the polynucleotide of claim 11.

13. An immune cell that specifically binds to one or more neoantigenic peptides as defined in any one of claims 1-3, optionally wherein the immune cell is defective for the Suv39h1 gene.

14. The immune cell of claim 13, which is an allogenic or autologous cell selected from T cells, Natural Killer T cells, CD4+/CD8+ T cells, TILs/tumor derived CD8 T cells, central memory CD8+ T cells, Treg, MAIT, Yδ T cells, human embryonic stem cells, and pluripotent stem cells from which lymphoid cells may be differentiated.

15. A T cell according to claim 17, which comprises
- a T cell receptor that specifically binds one or more neoantigenic peptides as defined in any one of claims 1-3, or
- a TCR or a CAR of any one of claim 6 or 9, optionally wherein the CAR is an MHC-restricted antibody-based chimeric antigen receptor.

16. The neoantigenic peptide as defined in claims 1-3, the population of dendritic cells according to claim 4, the vaccine or immunogenic composition according to claim 5, the polynucleotide as defined in claim 11 or the vector according to claim 12, for use in inhibiting cancer cell proliferation, or for use in cancer vaccination therapy of a subject, or for treating cancer in a subject.

17. The antibody or the antigen-binding fragment thereof, the antibody, the TCR, the CAR, the polynucleotide, or the vector as defined in any one of claims 6-12 for use for inhibiting cancer cell proliferation, or for use in the treatment of cancer in a subject in need thereof.

18. An immune cell as defined in any one of claims 13-15, for use in in cell therapy of cancer.

19. The neoantigenic peptide, the population of dendritic cells, the vaccine or immunogenic composition, the polynucleotide or the vector for use according to claim 16, the antibody or the antigen-binding fragment thereof, the multispecific antibody, the TCR, the CAR, the polynucleotide, or the vector for use according to claim 17, or the population of immune cells for use according to claim 18, which is administered in combination with at least one further therapeutic agent.

20. The neoantigenic peptide, the population of dendritic cells, the vaccine or immunogenic composition, the polynucleotide, the vector for use according to claim 16, the antibody or the antigen-binding fragment thereof, the multispecific antibody, the TCR, the CAR, the polynucleotide, the vector for use according to claim 17, or the population of immune cells for use according to claim 18
wherein said at least one further therapeutic agent is a chemotherapeutic agent, or an immunotherapeutic agent, optionally a checkpoint inhibitor.