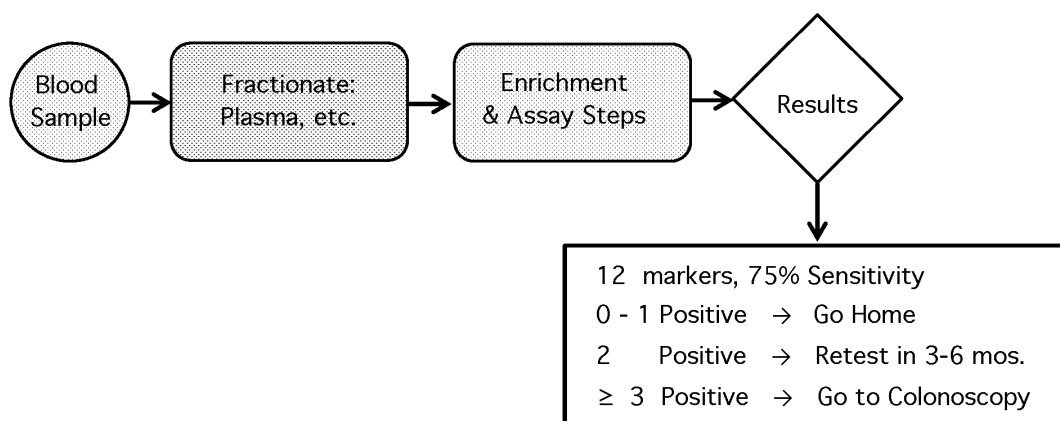
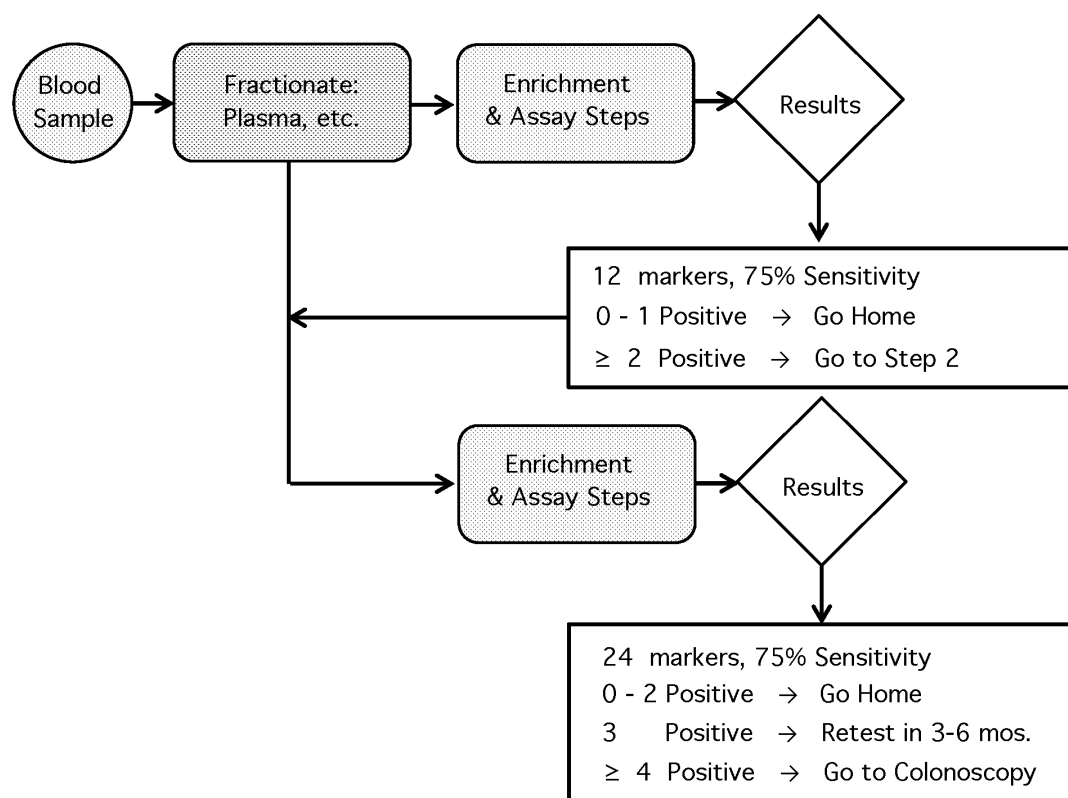
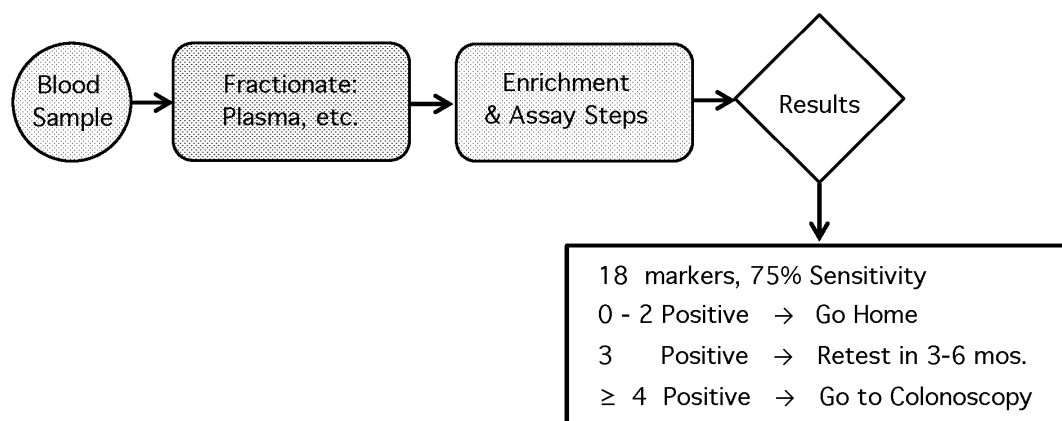
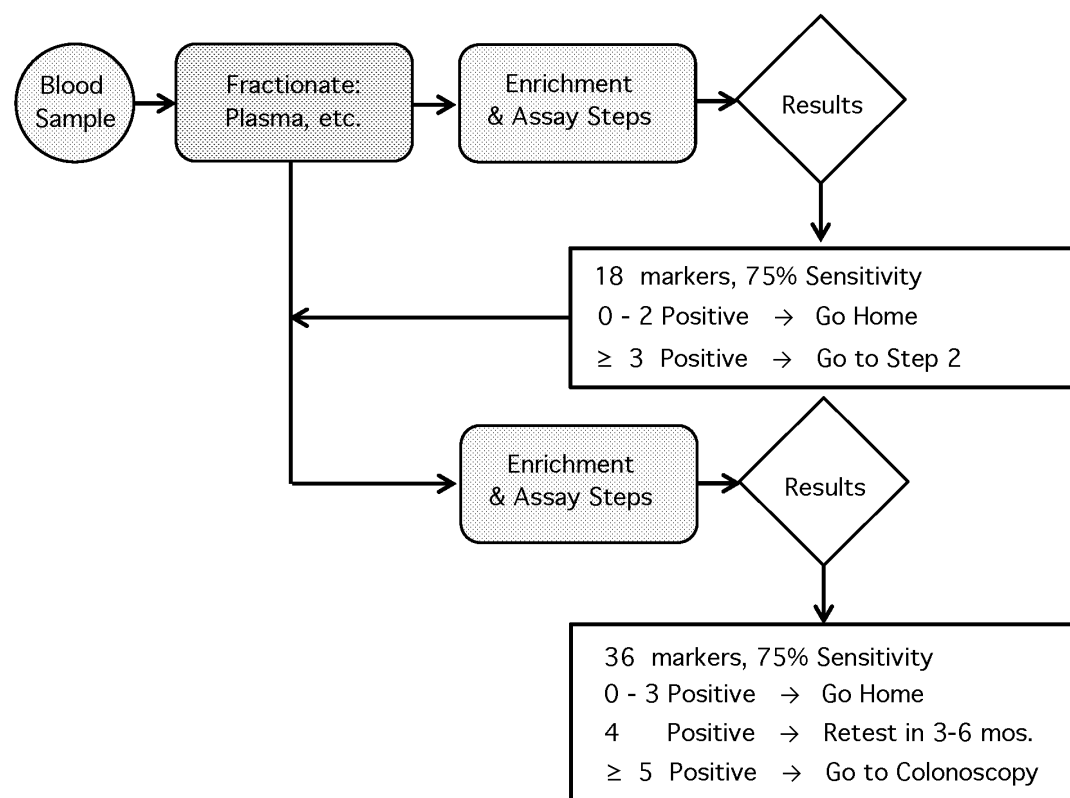


A. One Step Assay: CRC**B. Two Step Assay: CRC**

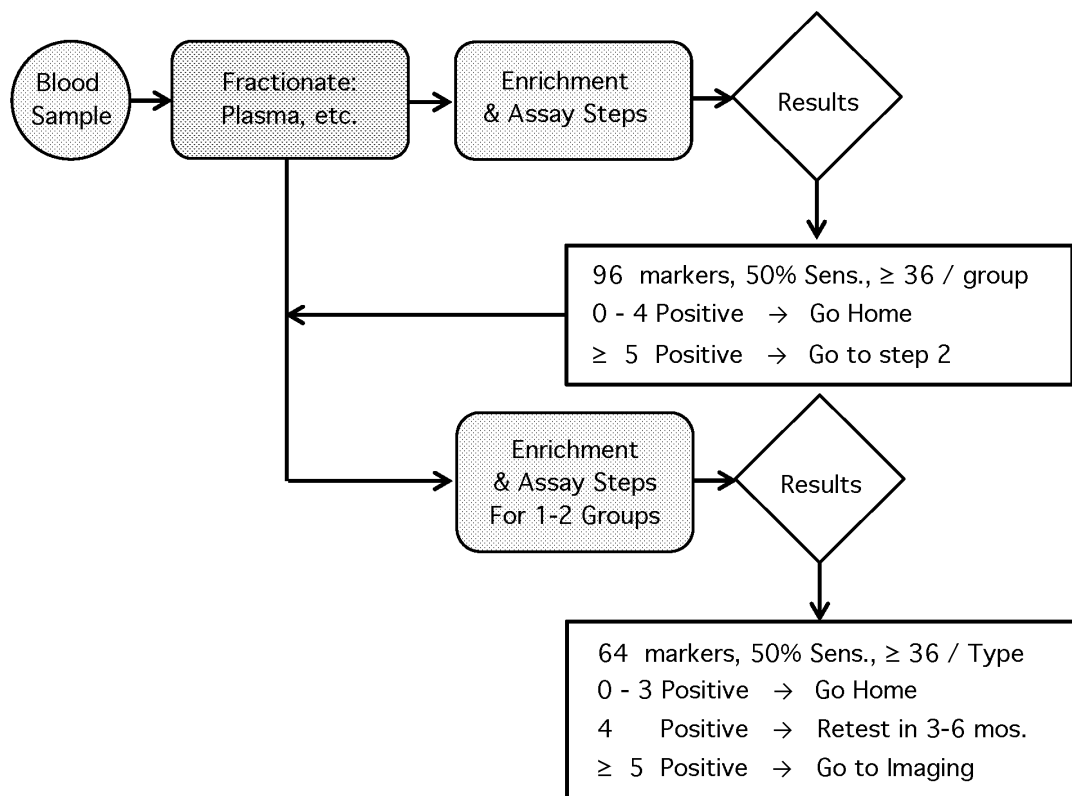
Figures 1A-B

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C. One Step Assay: CRC**D. Two Step Assay: CRC**

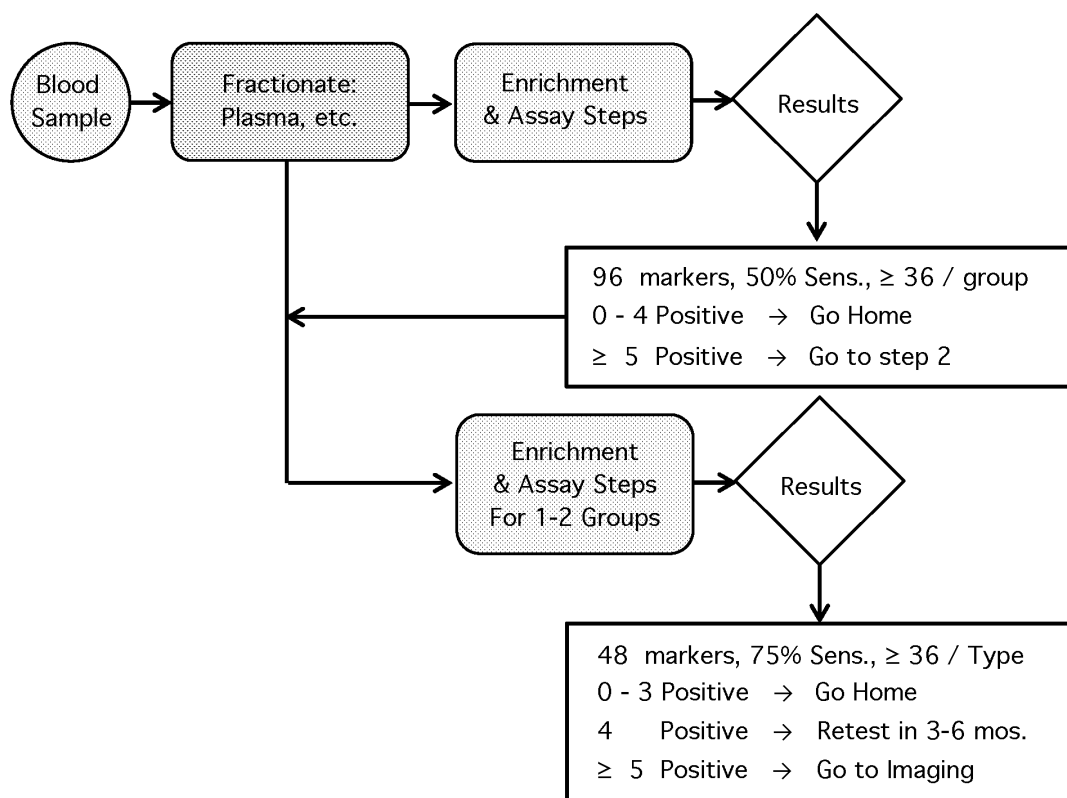
Figures 1C-D

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E. Two Step Assay: Pan Oncology, Detection of Early Cancer

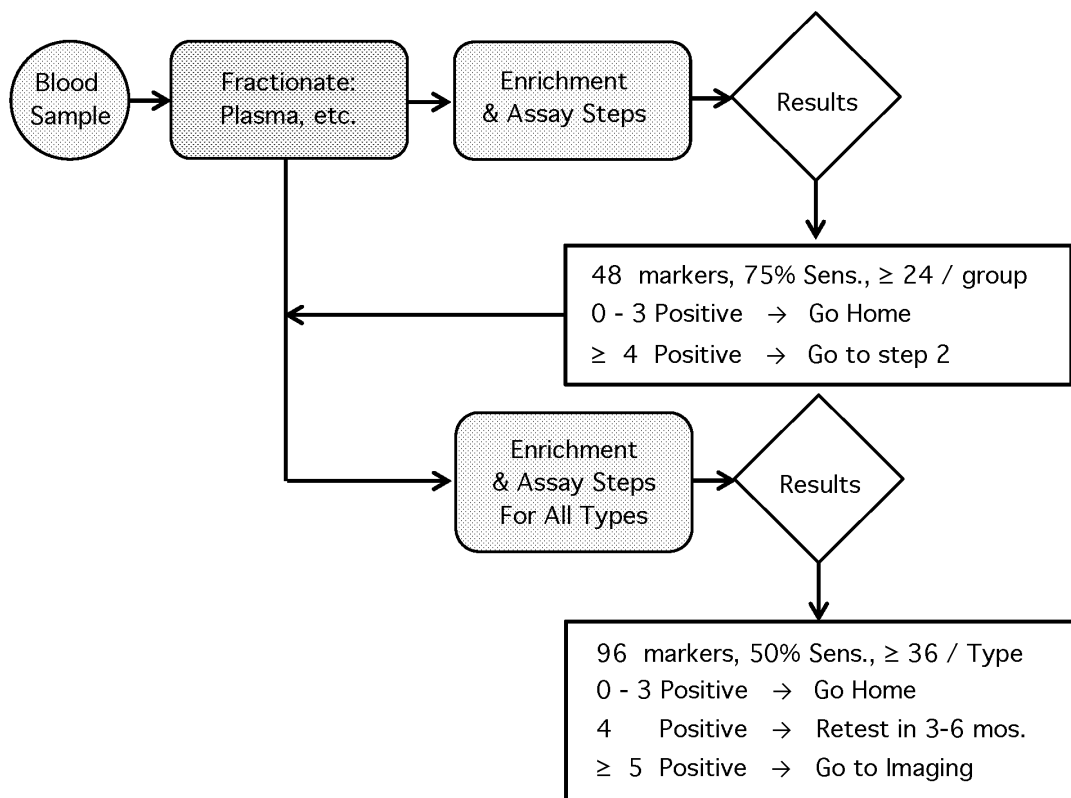
Figures 1E

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F. Two Step Assay: Pan Oncology, Detection of Early Cancer

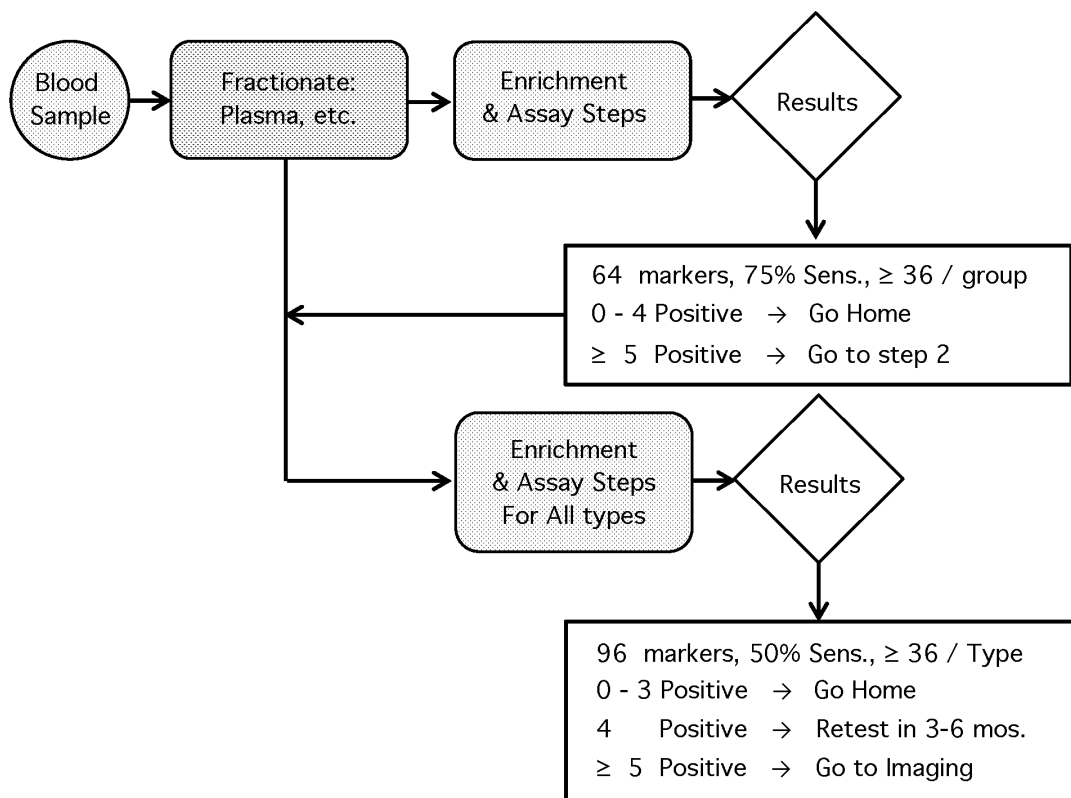
Figures 1F

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G. Two Step Assay: Pan Oncology, Detection of Early Cancer

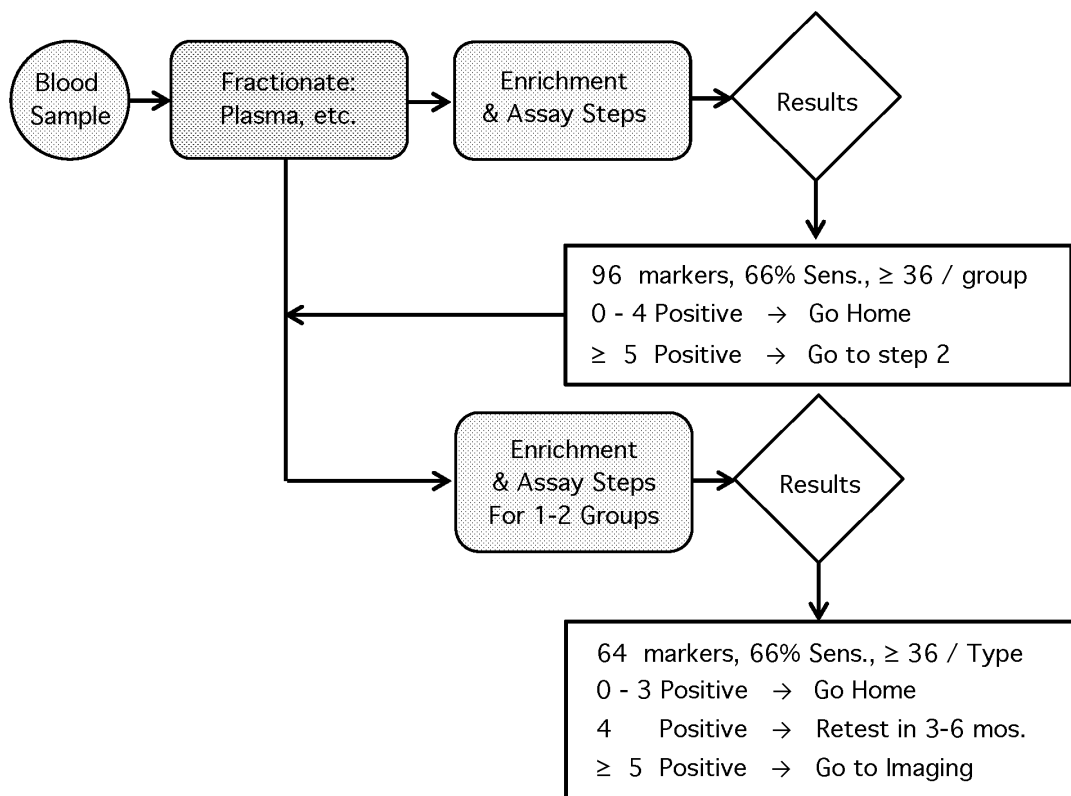
Figures 1G

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H. Two Step Assay: Pan Oncology, Detection of Early Cancer

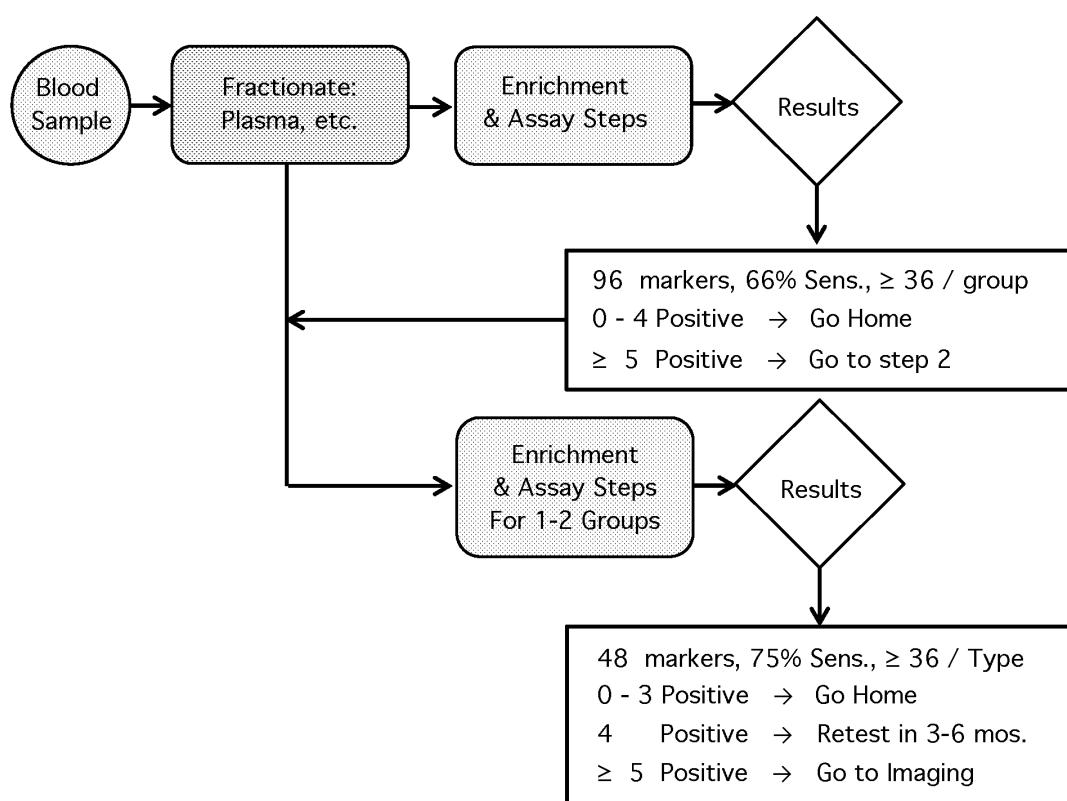
Figures 1H

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I. Two Step Assay: Pan Oncology, Detection of Early Cancer

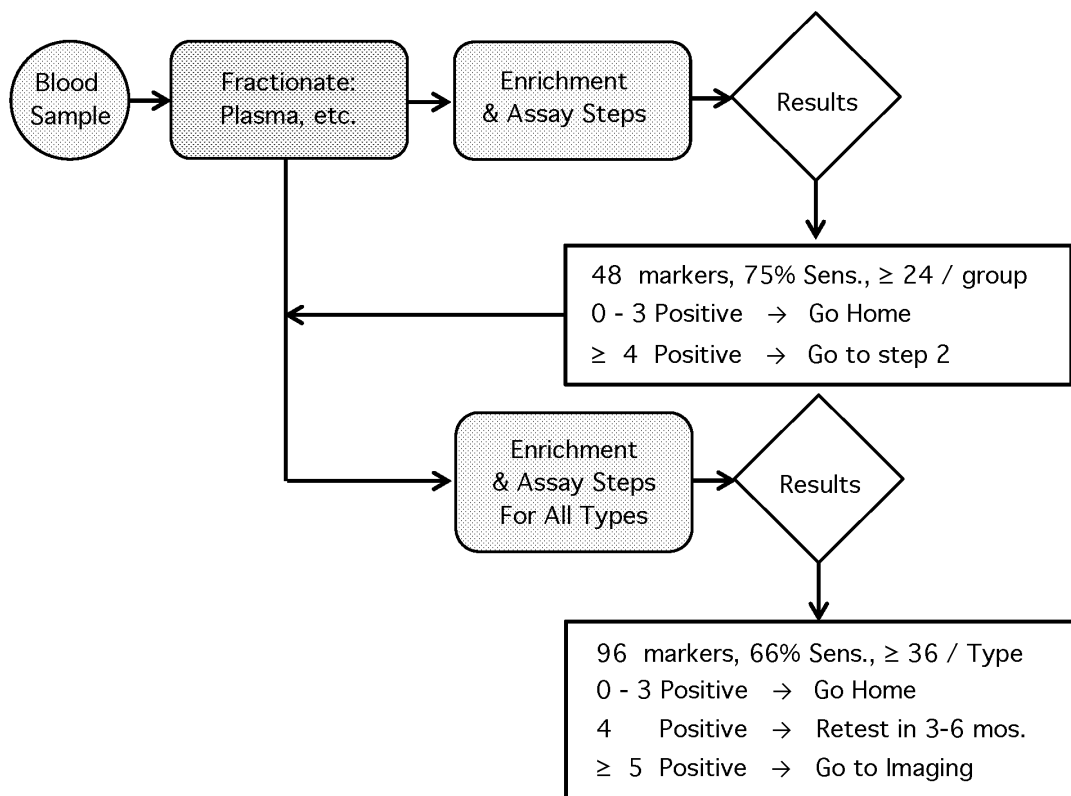
Figures 11

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J. Two Step Assay: Pan Oncology, Detection of Early Cancer

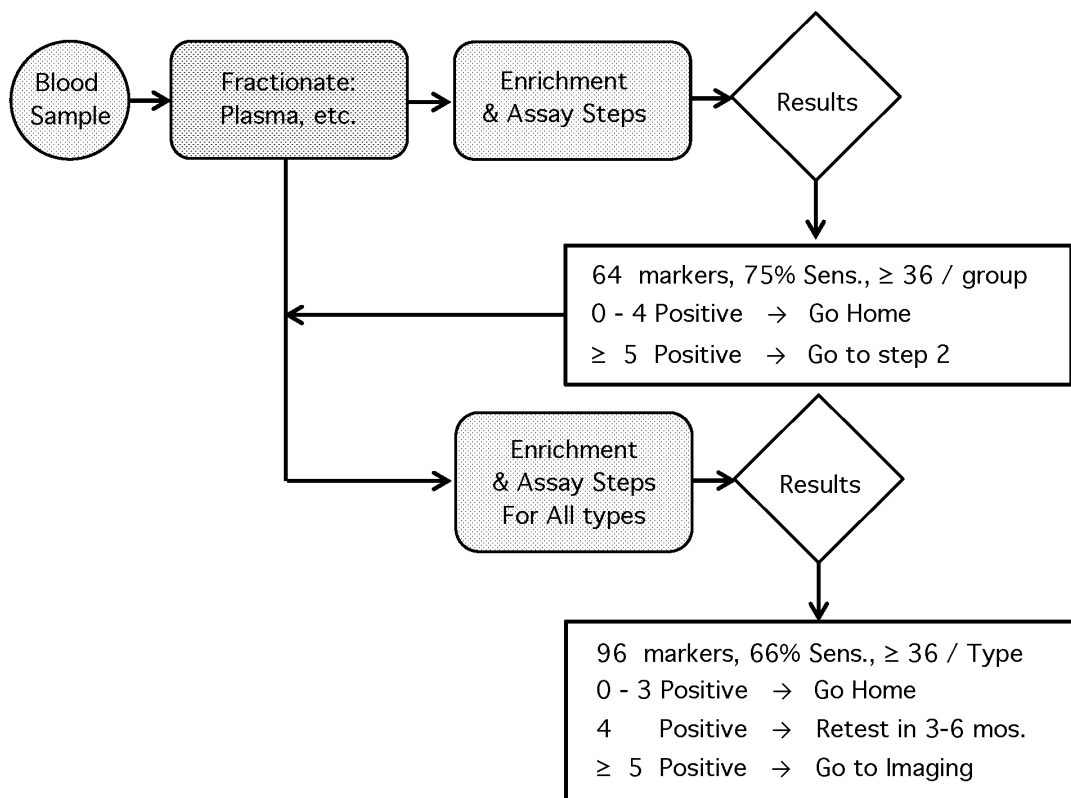
Figures 1J

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K. Two Step Assay: Pan Oncology, Detection of Early Cancer

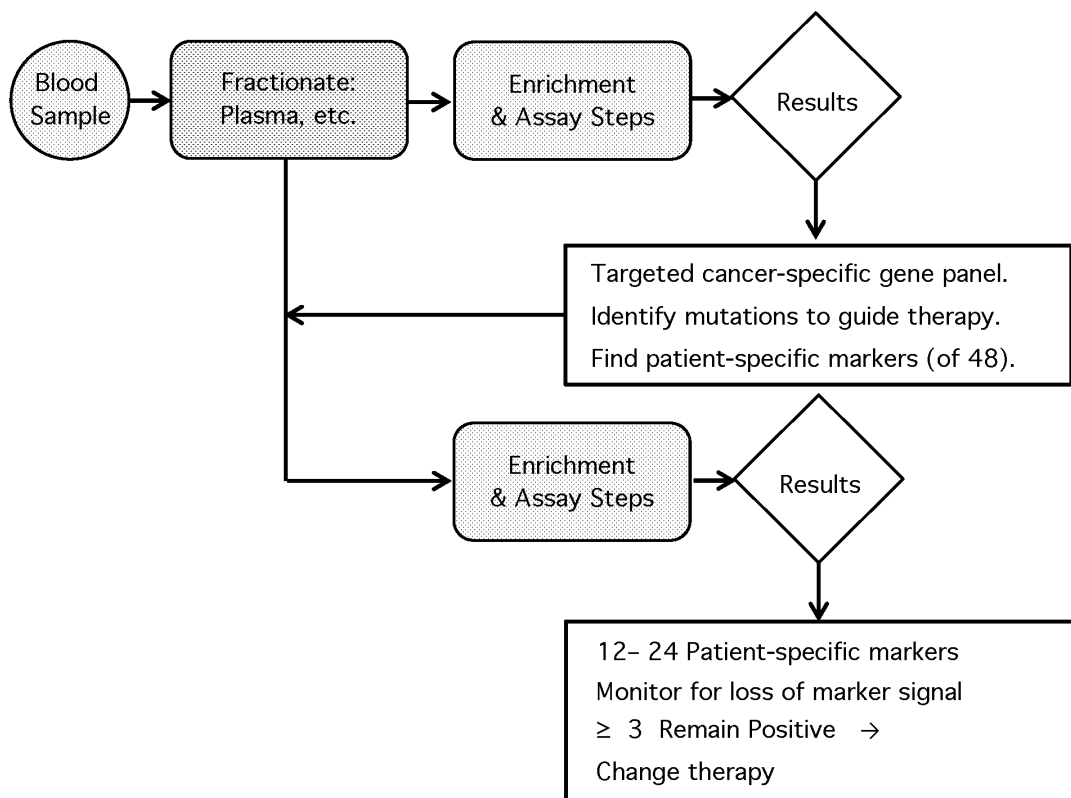
Figures 1K

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L. Two Step Assay: Pan Oncology, Detection of Early Cancer

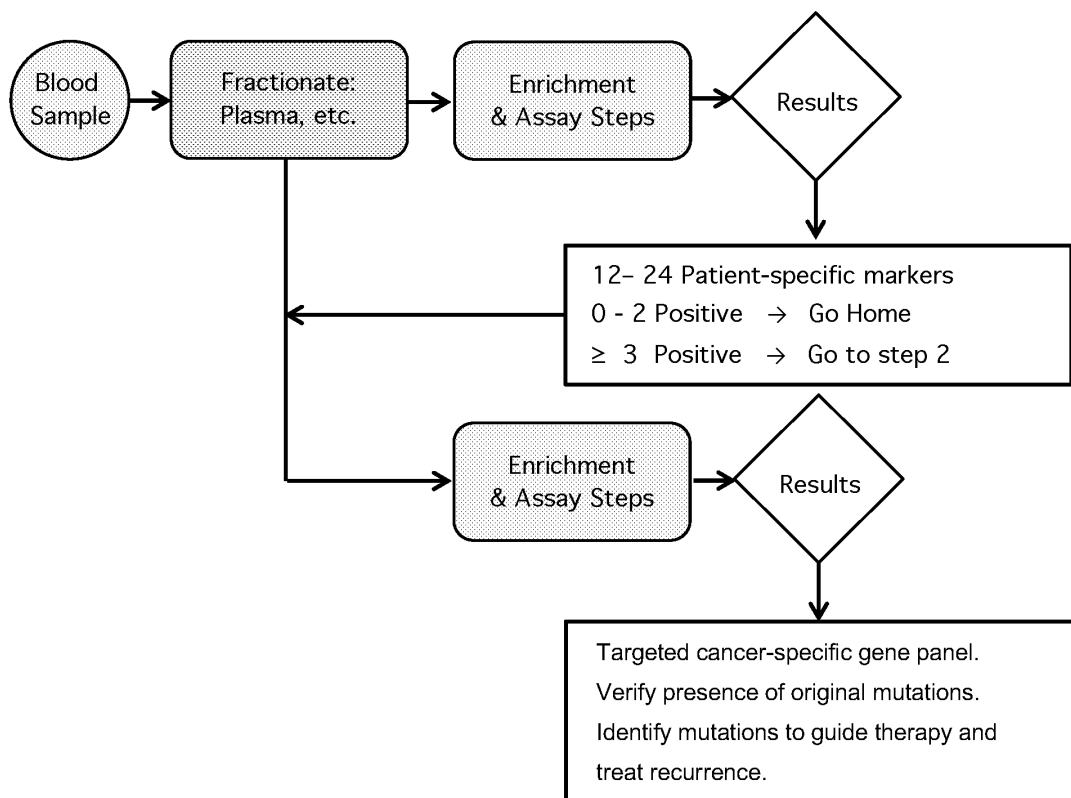
Figures 1L

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M. Two Step Assay: Guide and Monitor treatment

Figures 1M

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N. Two Step Assay: Monitor for recurrence

Figures 1N

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- A. exPCR-LDR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers with 5' universal tails, (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Add upstream primers, which also contain ribose bases (r), optional universal primer and perform PCR (using dUTP). Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA.
- D. PCR products incorporate dU, allowing for carryover prevention.
- E. Methyl region-specific ligation oligonucleotides (m) contain tags (Ai, Ci') for subsequent PCR amplification. Blocking LNA or PNA probes suppress ligation to originally un-methylated DNA sequence. Upstream ligation primer contains block, which may be removed by cleaving ribose base with RNaseH2 only when hybridized to target.
- F. Ligase covalently seals the unblocked methyl region-specific upstream and phosphorylated downstream oligonucleotides together. Aliquot into separate wells, micro-pores, or droplets for detection.
- G. Treat with UDG for carryover prevention, which also destroys original target amplicons. Only authentic LDR products will amplify, when using PCR (and dUTP) with tag-specific primers (Ai, Ci'). Each Taqman probe spans the ligation junction.
- H. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

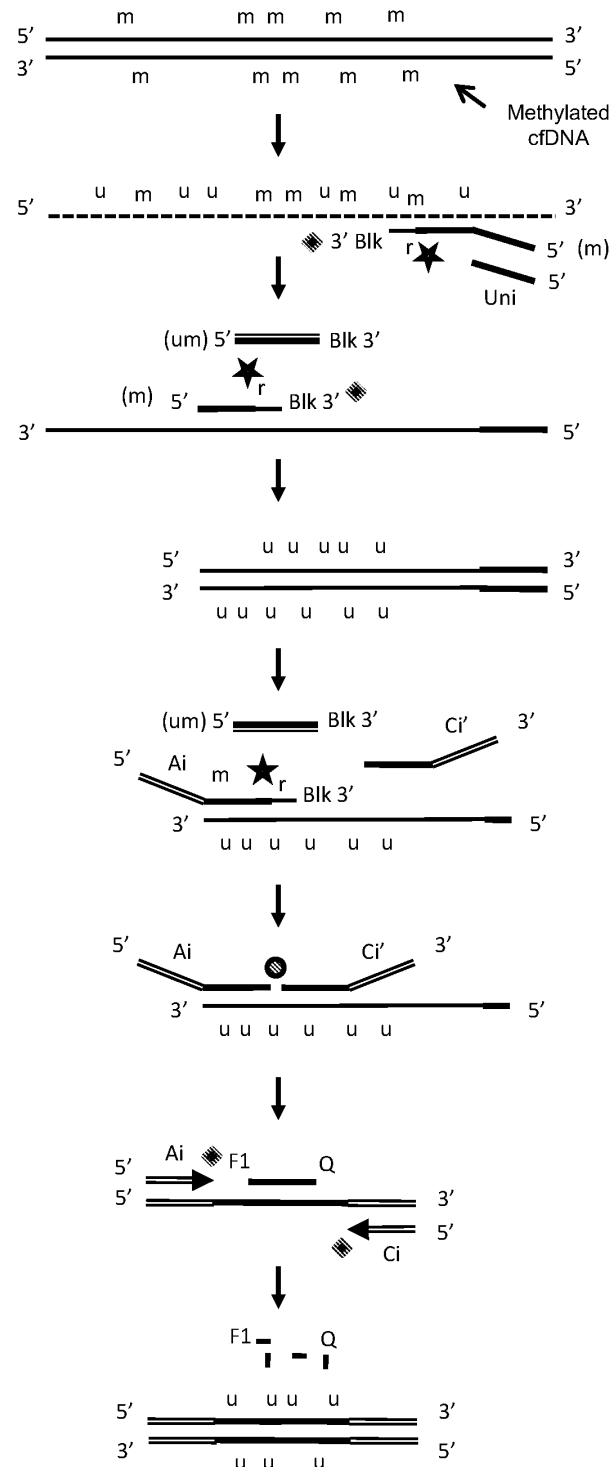


Figure 2

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- A. exPCR-LDR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers with 5' universal tails, (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Add upstream primers, which also contain ribose bases (r), optional universal primer and perform PCR (using dUTP). Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA. PCR products incorporate dU, allowing for carryover prevention.
- D. Methyl region-specific ligation oligonucleotides (m) contain tags (Ai, Bi', Ci') for subsequent PCR amplification. Blocking LNA or PNA Wt probes suppress ligation to Wt sequence. Upstream ligation primer contains block, which may be removed by cleaving ribose base with RNaseH2 only when hybridized to target.
- E. Ligase covalently seals the unblocked methylation-specific upstream and phosphorylated downstream oligonucleotides together. Aliquot into separate wells, micro-pores, or droplets for detection.
- F. Treat with UDG for carryover prevention, which also destroys original target amplicons. Only authentic LDR products will amplify, when using PCR (and dUTP) with Unitaq-specific primers (F1-Bi-Q-Ai, Ci).
- G. Double-stranded DNA products of PCR; the polymerase blocker stops extension of the bottom strand.
- H. After the denaturation step, as the temperature decreases, a hairpin forms between Bi and Bi'. The 5'→3' nuclease activity of Taq polymerase extends primer Ci and liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

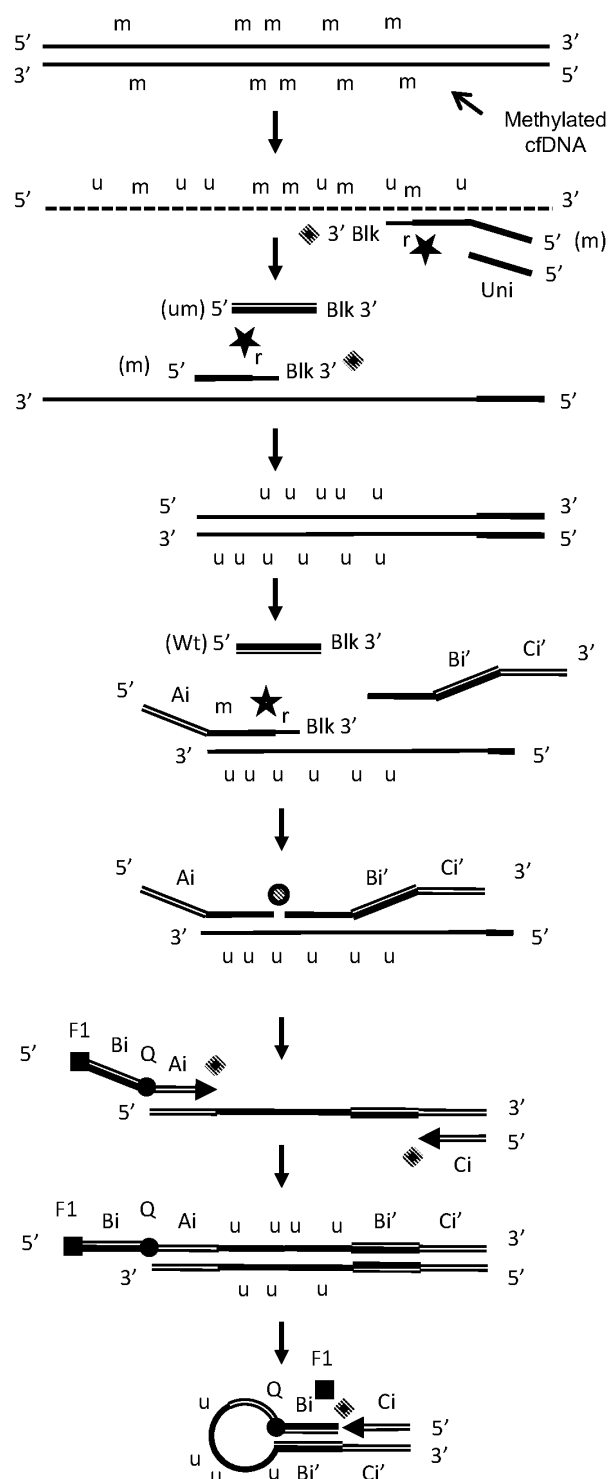


Figure 3

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- A. exPCR-LDR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with upstream primers that contain ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Add downstream primers, with 5' universal tails, (to prevent primer dimers), optional universal primer, and perform PCR (and dUTP).
- D. PCR products incorporate dU, allowing for carryover prevention.
- E. Methyl region-specific ligation oligonucleotides (m) contain tags (Ai, Ci') for subsequent PCR amplification. Blocking LNA or PNA probes suppress ligation to originally un-methylated DNA sequence. Upstream ligation primer contains block, which may be removed by cleaving ribose base with RNaseH2 only when hybridized to target.
- F. Ligase covalently seals the unblocked methyl region-specific upstream and phosphorylated downstream oligonucleotides together. Aliquot into separate wells, micro-pores, or droplets for detection.
- G. Treat with UDG for carryover prevention, which also destroys original target amplicons. Only authentic LDR products will amplify, when using PCR (and dUTP) with tag-specific primers (Ai, Ci'). Each Taqman probe spans the ligation junction.
- H. The 5'->3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

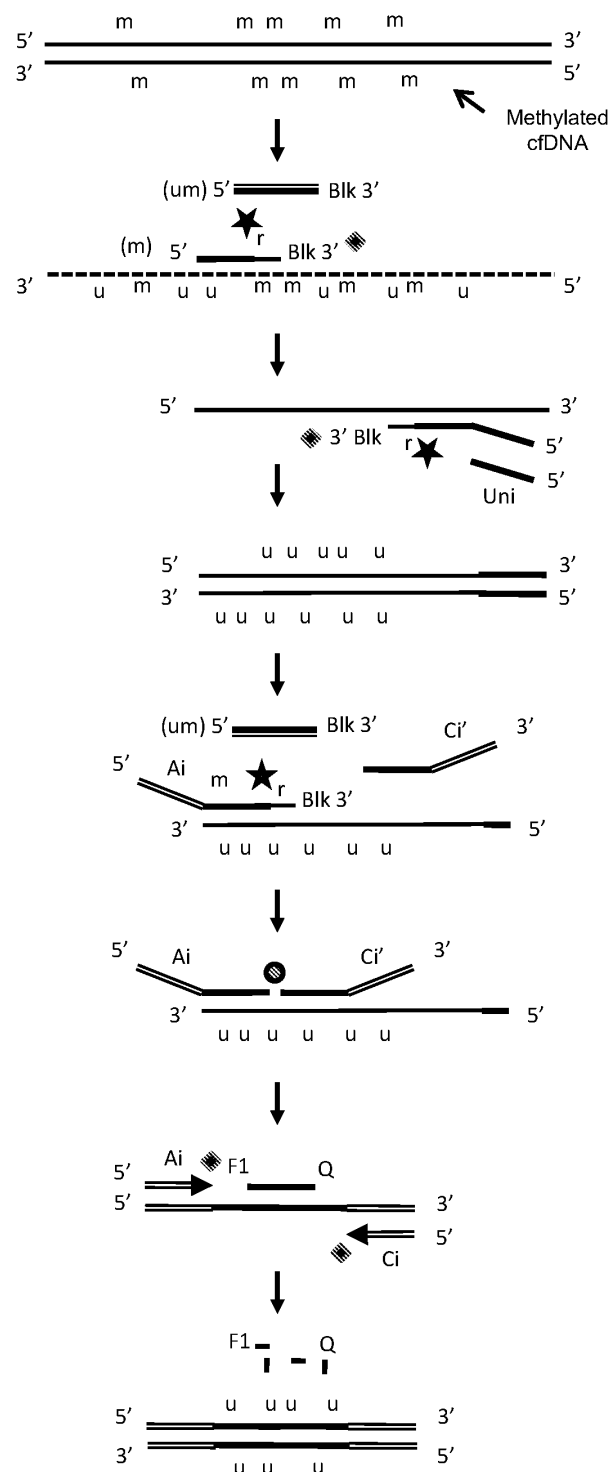


Figure 4

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that have 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Perform limited cycle nested PCR using methylation-specific (m) and locus-specific primers with Universal tag tails. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- D. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence. Distribute products into wells, micro-pores, or droplets for Taqman reactions.
- E. Amplify authentic methylation-specific products with Tag-specific primers (Ai and Ci). Each Taqman probe spans a unique methylation-specific sequence.
- F. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

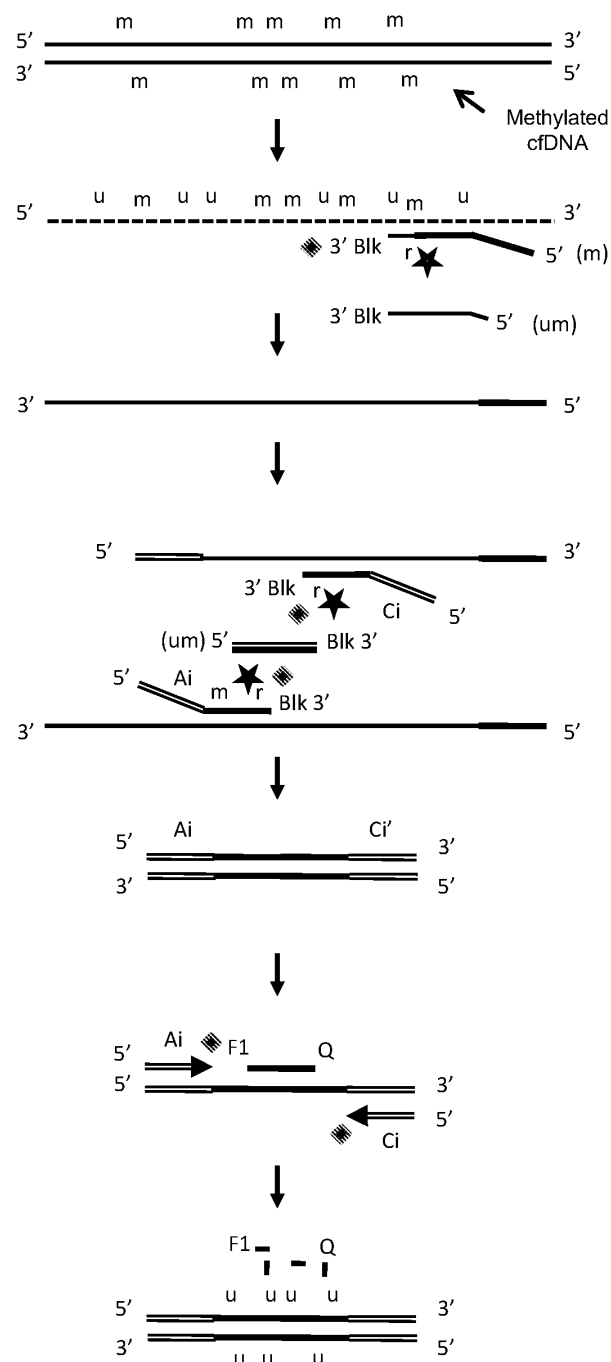


Figure 5

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that have 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Perform limited cycle nested PCR using methylation-specific (m) and locus-specific primers with Universal tag tails. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- D. PCR products comprise of Ai tag sequence, methylation-specific sequence, Bi', and Ci' tag sequence. Distribute products into wells, micro-pores, or droplets for Taqman reactions.
- E. Amplify authentic methylation-specific products with Tag-specific primers (F1-Bi-Q-Ai and Ci).
- F. Double-stranded DNA products of PCR; the polymerase blocker stops extension of the bottom strand.
- G. After the denaturation step, as the temperature decreases, a hairpin forms between Bi and Bi'. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

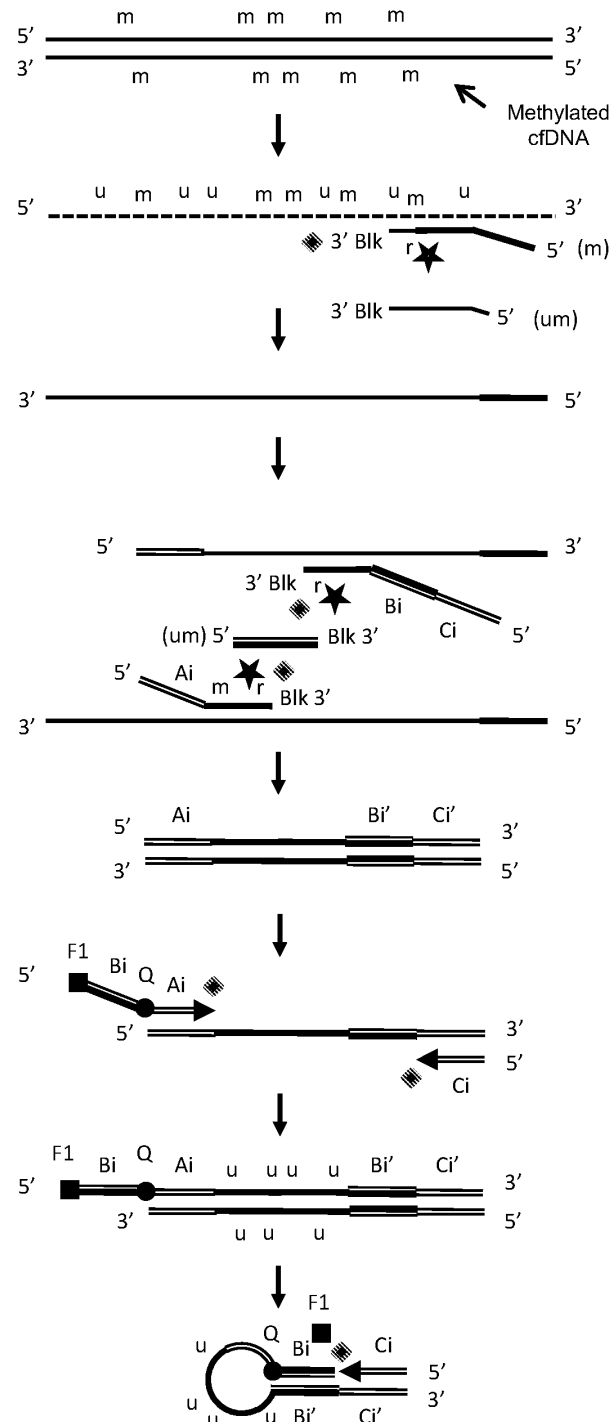


Figure 6

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with upstream primers that contain ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Perform limited cycle nested PCR using methylation-specific (m) and locus-specific primers with Universal tag tails. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- D. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence. Distribute products into wells, micro-pores, or droplets for Taqman reactions.
- E. Amplify authentic methylation-specific products with Tag-specific primers (Ai and Ci). Each Taqman probe spans a unique methylation-specific sequence.
- F. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

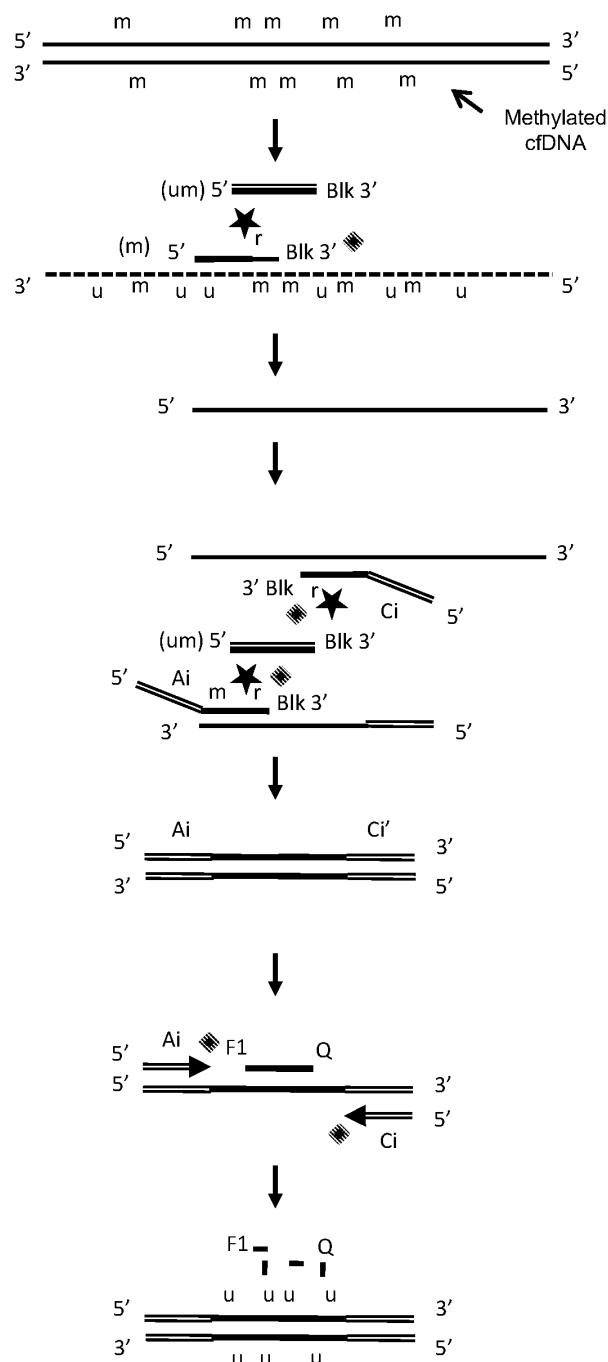


Figure 7

- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that have 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, which also contain ribose bases (r), and perform PCR. Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA.
- D. Distribute products into wells, micro-pores, or droplets for Taqman reactions using methylation-specific and locus-specific primers. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- E. The 5'->3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

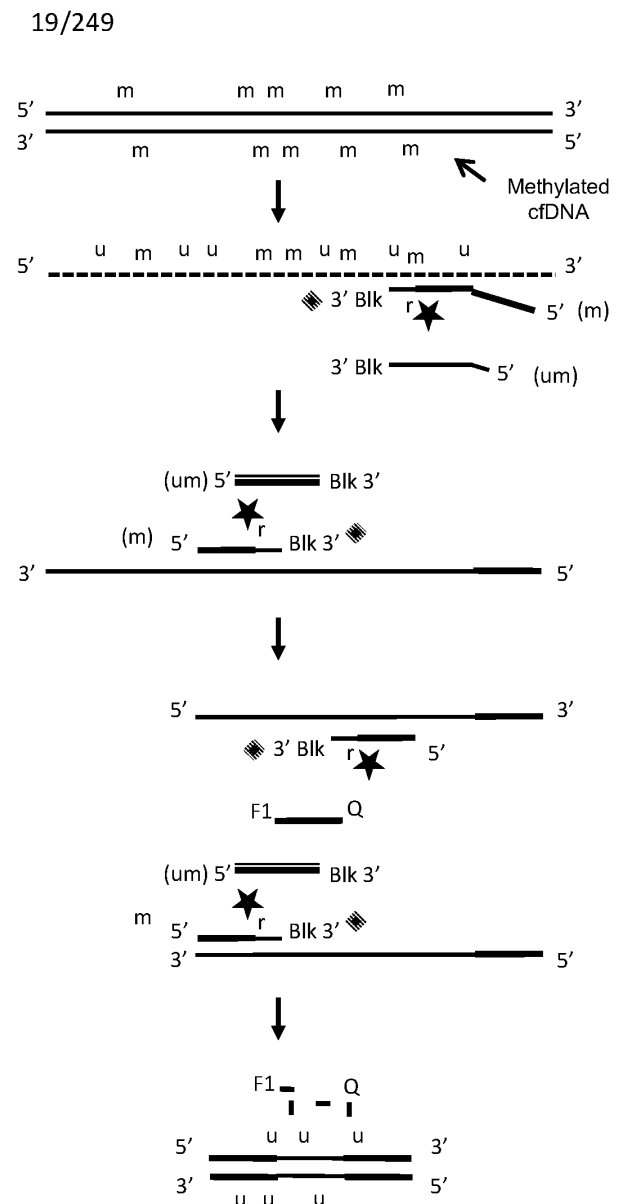


Figure 8

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that have 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, which also contain ribose bases (r), and perform PCR. Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA.
- D. Distribute products into wells, micro-pores, or droplets for Taqman reactions using methylation-specific and locus-specific primers with Universal tag tails, including tag-specific primers Ai and Ci. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- E. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence.
- F. Tag-specific primers (Ai and Ci) then amplify authentic methylation-specific products. Each Taqman probe spans a unique methylation-specific sequence.
- G. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

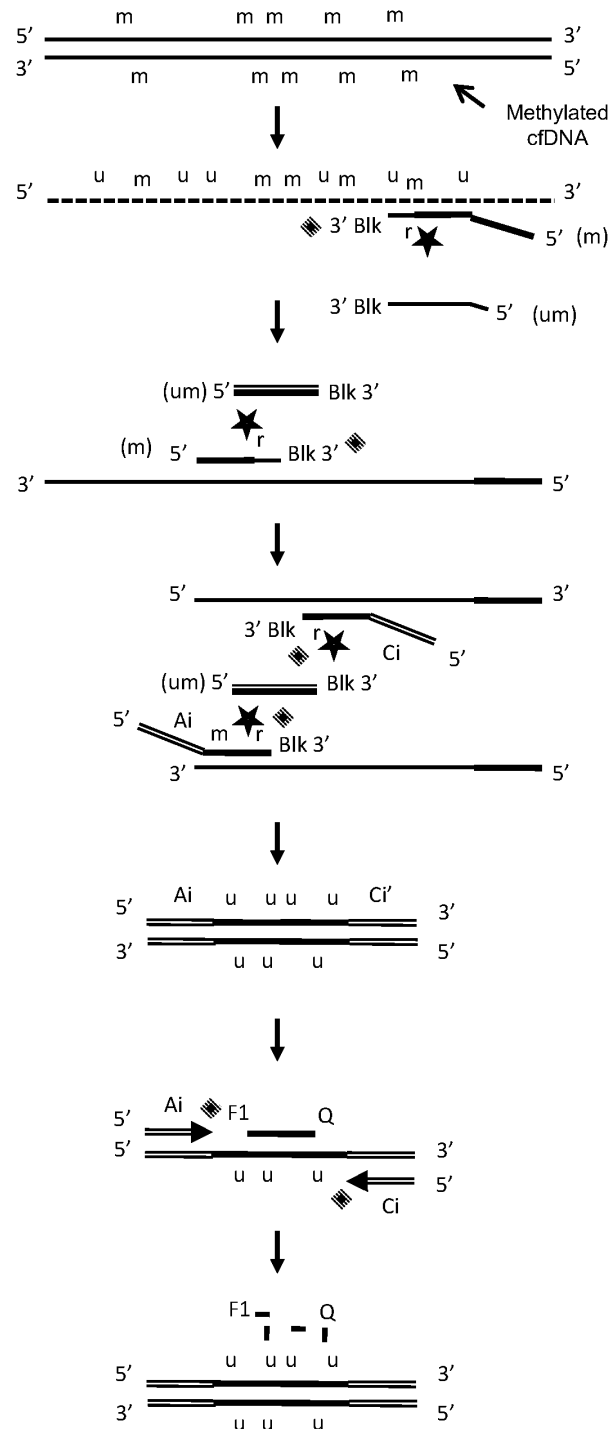


Figure 9

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Optional, treat with a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extension with primers that contain ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking LNA or PNA probes may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add downstream primers with 5' universal tails, (to prevent primer dimers), which also contain ribose bases (r), and perform limited cycle PCR. Blocking primers may be used to limit amplification of originally un-methylated DNA.
- D. Distribute products into wells, micro-pores, or droplets for Taqman reactions using methylation-specific and locus-specific primers with Universal tag tails, including tag-specific primers Ai and Ci. Blocking LNA or PNA Wt probes enables amplification of originally methylated but not originally un-methylated allele. Primers are unblocked with RNaseH2 only when bound to correct target.
- E. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence.
- F. Tag-specific primers (Ai and Ci) then amplify authentic methylation-specific products. Each Taqman probe spans a unique methylation-specific sequence.
- G. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

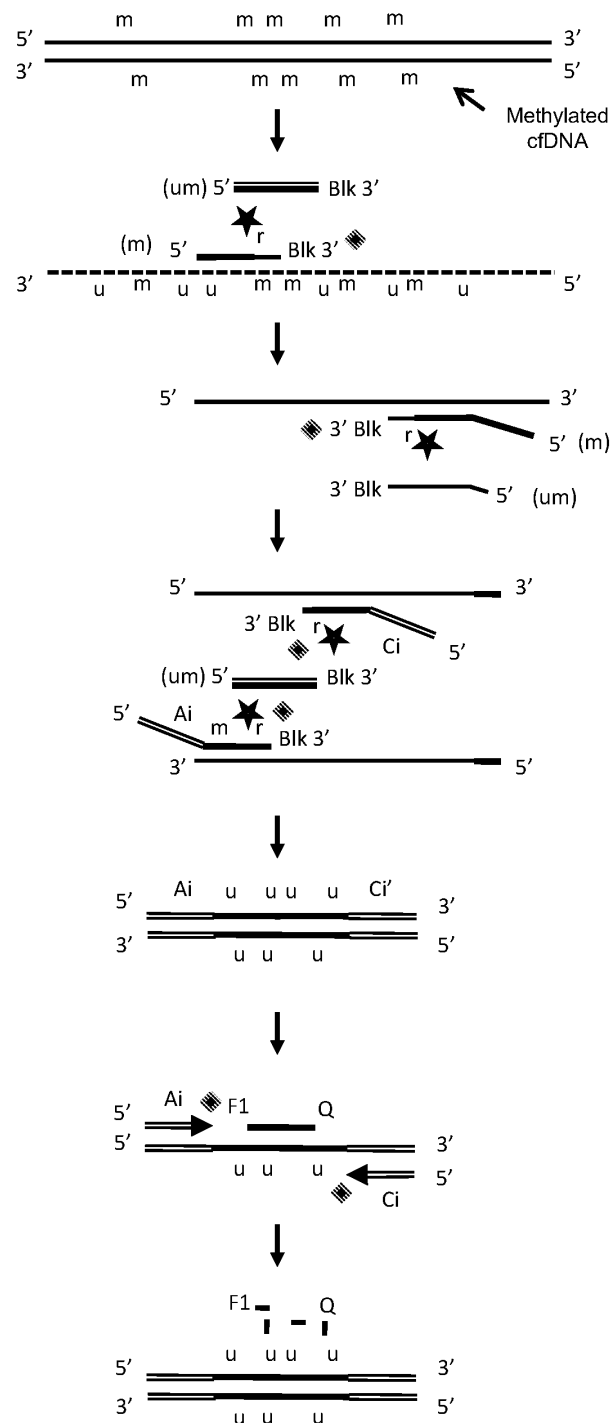


Figure 10

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- A. exPCR-LDR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that contain 5' universal tails, (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, with 10-15 bp tails, which also contain ribose bases (r), optional universal primer, and perform PCR (using dUTP). Blocking primers may be used to limit amplification of originally un-methylated DNA.
- D. PCR products incorporate dU, allowing for carryover prevention.
- E. Methyl region-specific ligation oligonucleotides (m) contain tags (Ai, Ci') for subsequent PCR amplification. Upstream ligation primer contains block, which may be removed by cleaving ribose base with RNaseH2 only when hybridized to target.
- F. Ligase covalently seals the unblocked methyl region-specific upstream and phosphorylated downstream oligonucleotides together. Aliquot into separate wells, micro-pores, or droplets for detection.
- G. Treat with UDG for carryover prevention, which also destroys original target amplicons. Only authentic LDR products will amplify, when using PCR (and dUTP) with tag-specific primers (Ai, Ci'). Each Taqman probe spans the ligation junction.
- H. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

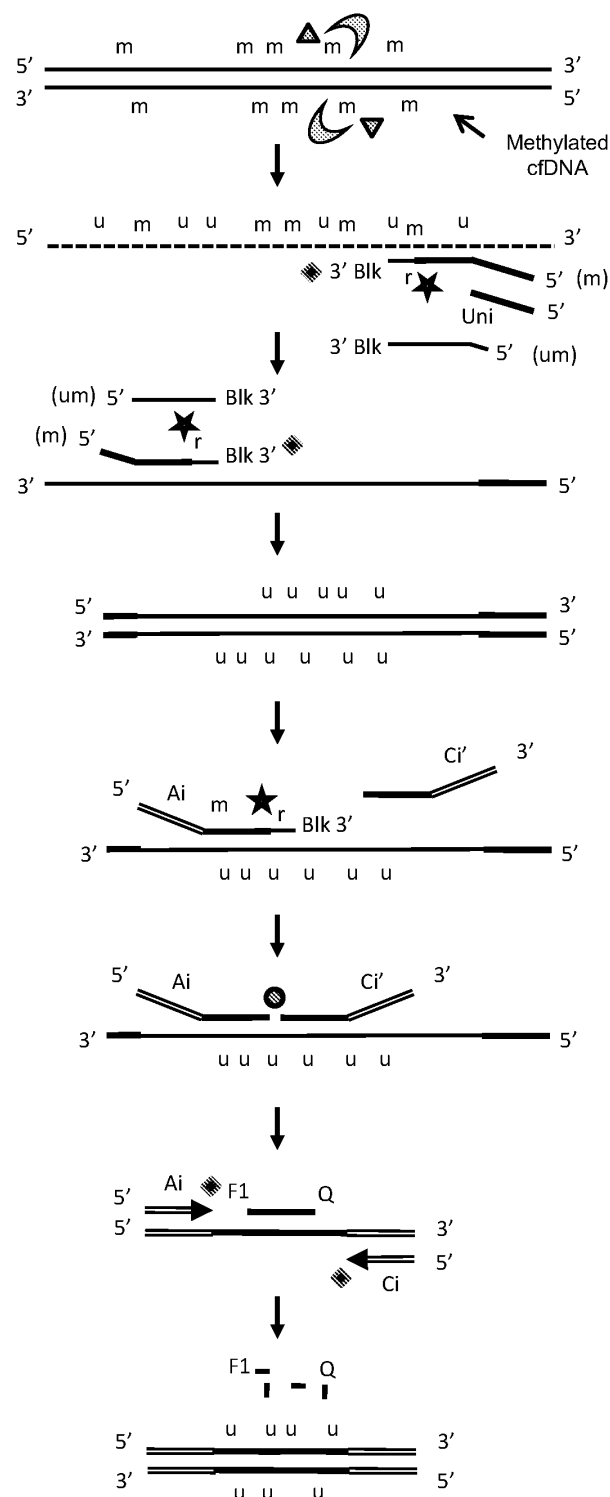


Figure 11

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- A. exPCR-LDR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with upstream primers, with 10-15 bp tails, that contain ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Add downstream primers, with 5' universal tails, (to prevent primer dimers), optional universal primer, and perform PCR (and dUTP).
- D. PCR products incorporate dU, allowing for carryover prevention.
- E. Methyl region-specific ligation oligonucleotides (m) contain tags (Ai, Ci') for subsequent PCR amplification. Upstream ligation primer contains block, which may be removed by cleaving ribose base with RNaseH2 only when hybridized to target.
- F. Ligase covalently seals the unblocked methyl region-specific upstream and phosphorylated downstream oligonucleotides together. Aliquot into separate wells, micro-pores, or droplets for detection.
- G. Treat with UDG for carryover prevention, which also destroys original target amplicons. Only authentic LDR products will amplify, when using PCR (and dUTP) with tag-specific primers (Ai, Ci'). Each Taqman probe spans the ligation junction.
- H. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

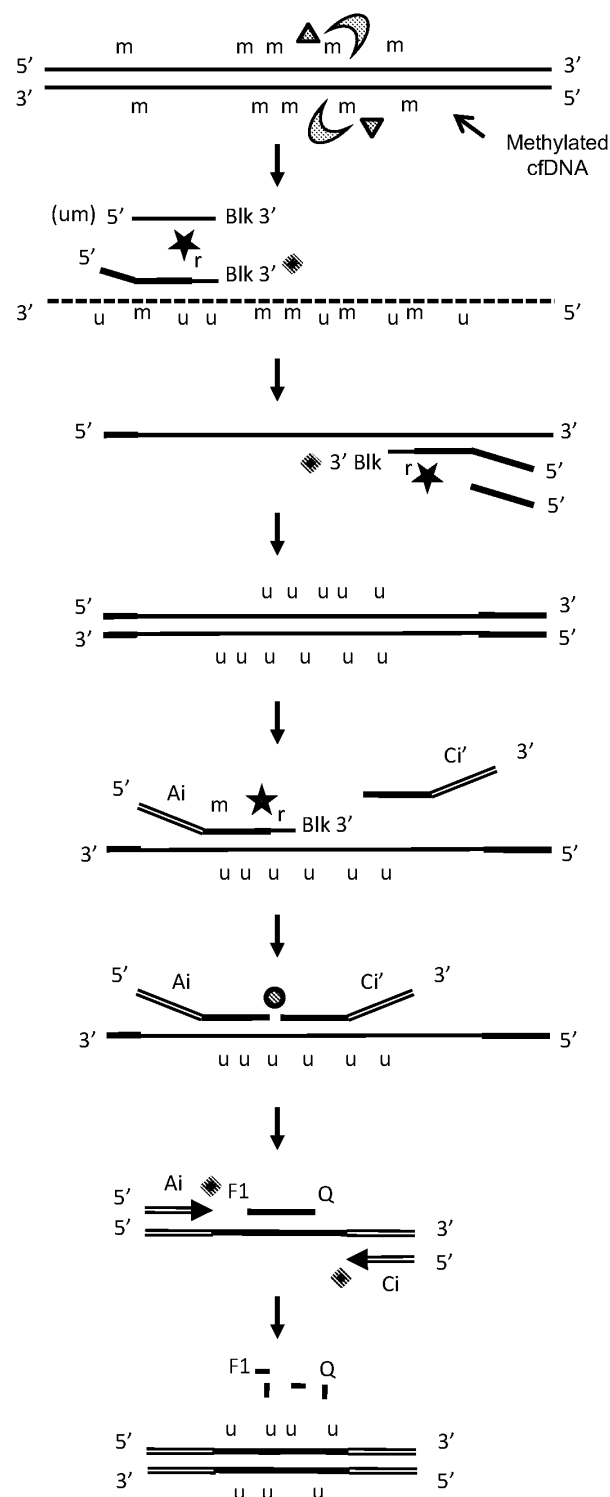


Figure 12

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that have 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to extension.)
- C. Perform limited cycle nested PCR using methylation-specific (m) and locus-specific primers with Universal tag tails. Primers are unblocked with RNaseH2 only when bound to correct target. Blocking primers may be used to limit amplification of originally un-methylated DNA.
- D. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence. Distribute products into wells, micro-pores, or droplets for Taqman reactions.
- E. Amplify authentic methylation-specific products with Tag-specific primers (Ai and Ci). Each Taqman probe spans a unique methylation-specific sequence.
- F. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

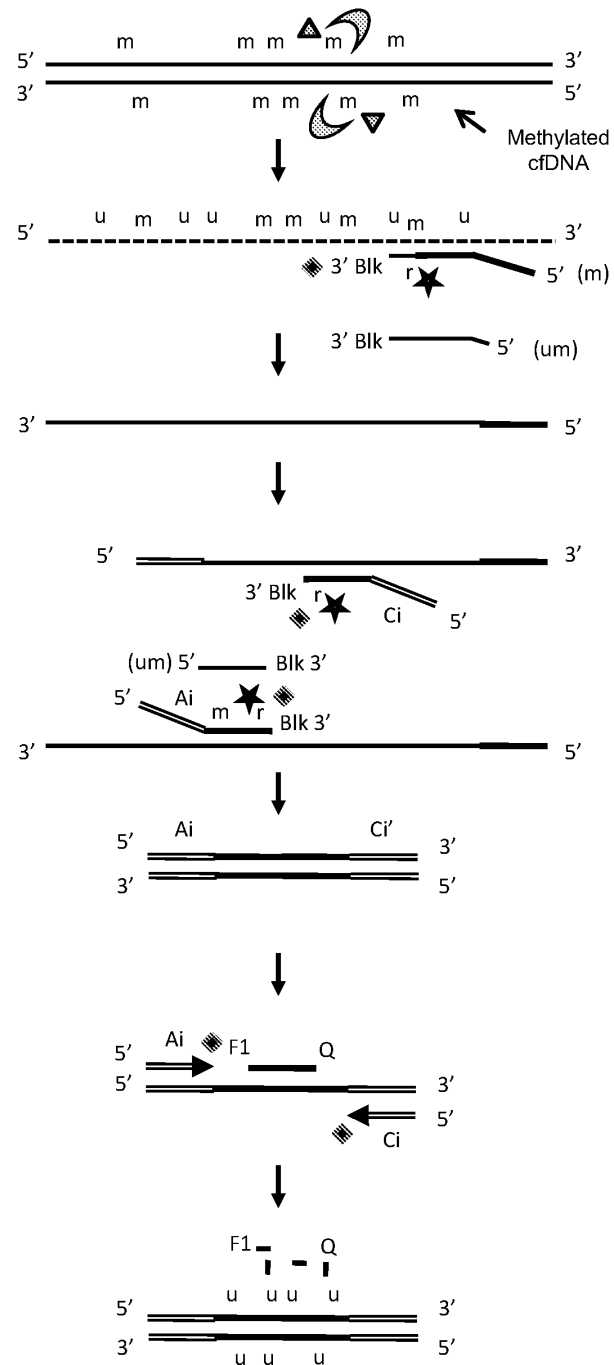


Figure 13

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that contain 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, with 10-15 base tails, (to prevent primer dimers), which also contain ribose bases (r), optional Universal primer, and perform PCR. Blocking primer may be used to limit amplification of originally un-methylated DNA.
- D. Distribute products into wells, micro-pores, or droplets for Taqman reactions using methylation-specific and locus-specific primers. Primers are unblocked with RNaseH2 only when bound to correct target.
- E. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

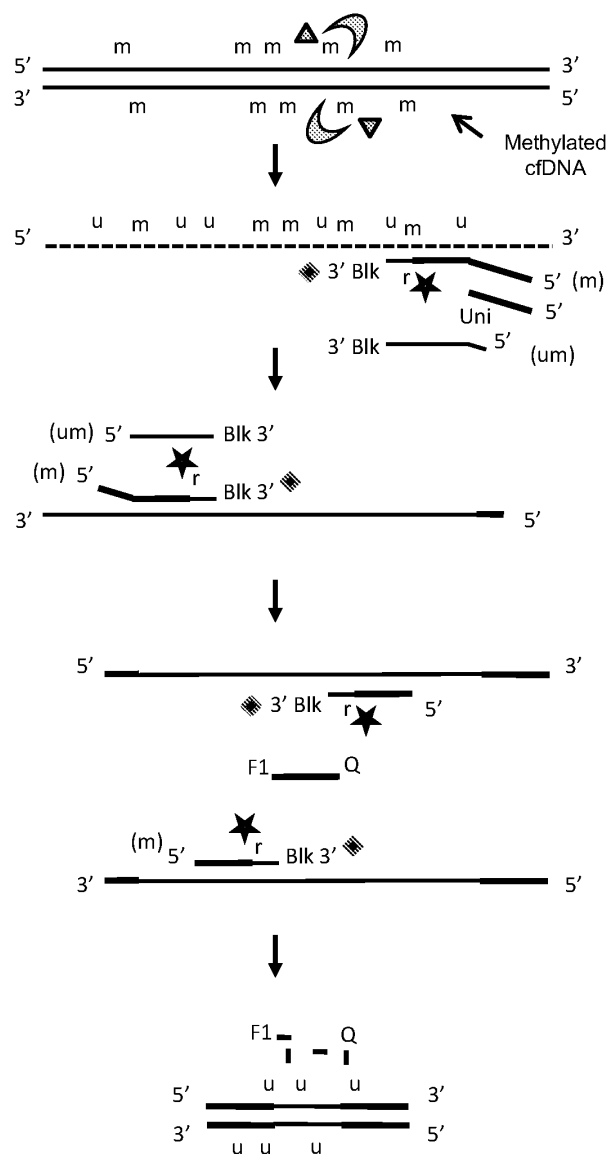


Figure 15

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers that contain 5' universal tails (to prevent primer dimers) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, with 10-15 base tails, (to prevent primer dimers), which also contain ribose bases (r), optional Universal primer, and perform PCR. Blocking primer may be used to limit amplification of originally un-methylated DNA.
- D. Distribute products into wells, micro-pores, or droplets for Taqman reactions using methylation-specific and locus-specific primers with Universal tag tails, including tag-specific primers Ai and Ci. Primers are unblocked with RNaseH2 only when bound to correct target.
- E. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence.
- F. Tag-specific primers (Ai and Ci) then amplify authentic methylation-specific products. Each Taqman probe spans a unique methylation-specific sequence.
- G. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

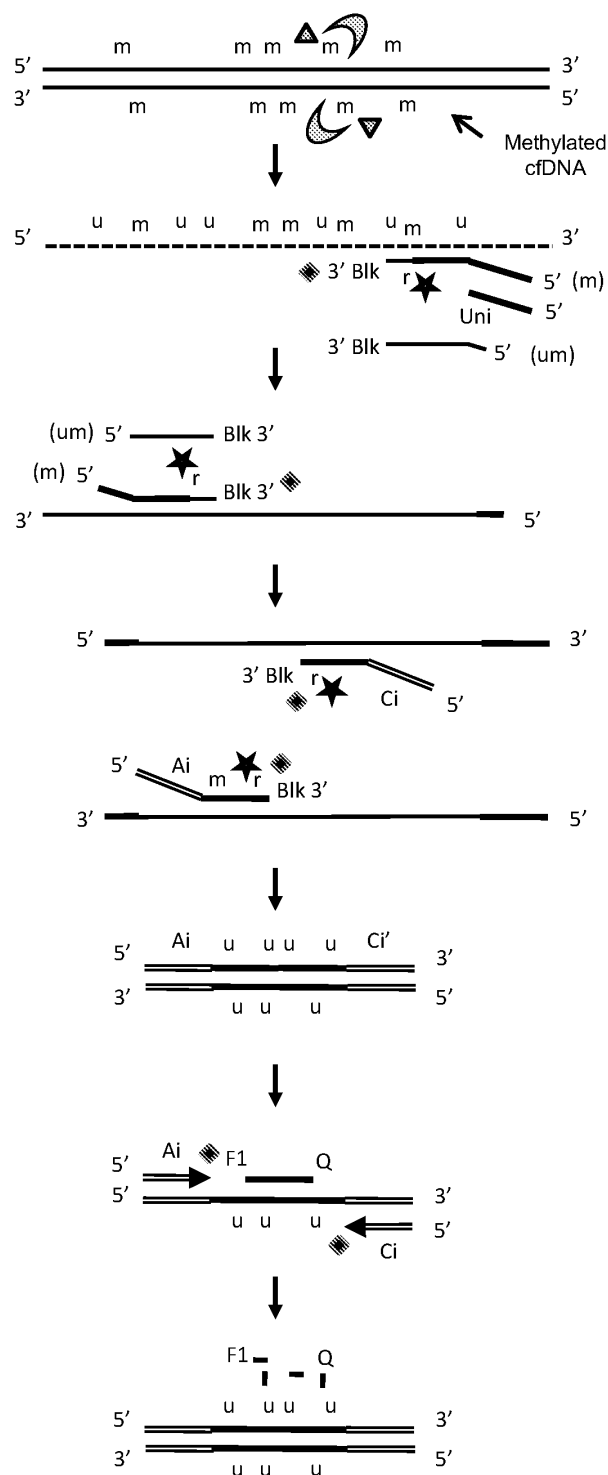


Figure 16

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- A. exPCR-qPCR carryover prevention reaction to detect low-level methylation. Isolate genomic or cfDNA. Treat with (i) Bsh1236I (CG[^]CG) to completely digest un-methylated DNA, or (ii) capture and enrich methylated DNA, followed by a DNA repair kit. Treat with TET-APOBEC, which renders the strands non-complementary.
- B. Perform multiple rounds of one-sided locus primer extensions with downstream primers comprising 5' universal tails (Ci) and ribose bases (r), which are removed with RNaseH2 only when bound to target, thus unblocking primer. Blocking primers may be used to limit amplification of originally un-methylated DNA. Add UDG to destroy TET-APOBEC converted DNA. (Optional: aliquot into 12, 24, 36, 48, or 96 wells prior to initial extension.)
- C. Add upstream primers, comprising 5' universal tails (Ai) and ribose bases (r), and perform PCR. Blocking primer may be used to limit amplification of originally un-methylated DNA.
- D. PCR products comprise of Ai tag sequence, methylation-specific sequence, and Ci' tag sequence. Distribute products into wells, micro-pores, or droplets for Taqman reactions.
- E. Amplify authentic methylation-specific products with Tag-specific primers (Ai and Ci). Each Taqman probe spans a unique methylation-specific sequence.
- F. The 5'→3' nuclease activity of Taq polymerase liberates the fluorescent group to generate signal. (PCR products incorporate dU, allowing for carryover prevention.)

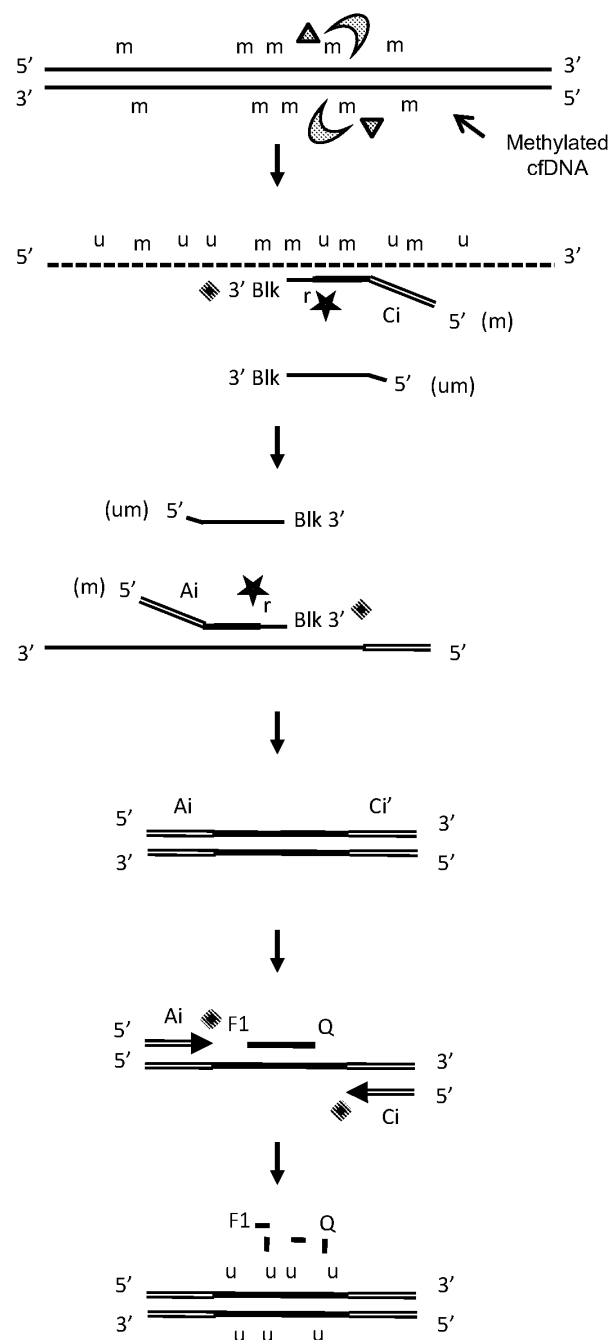
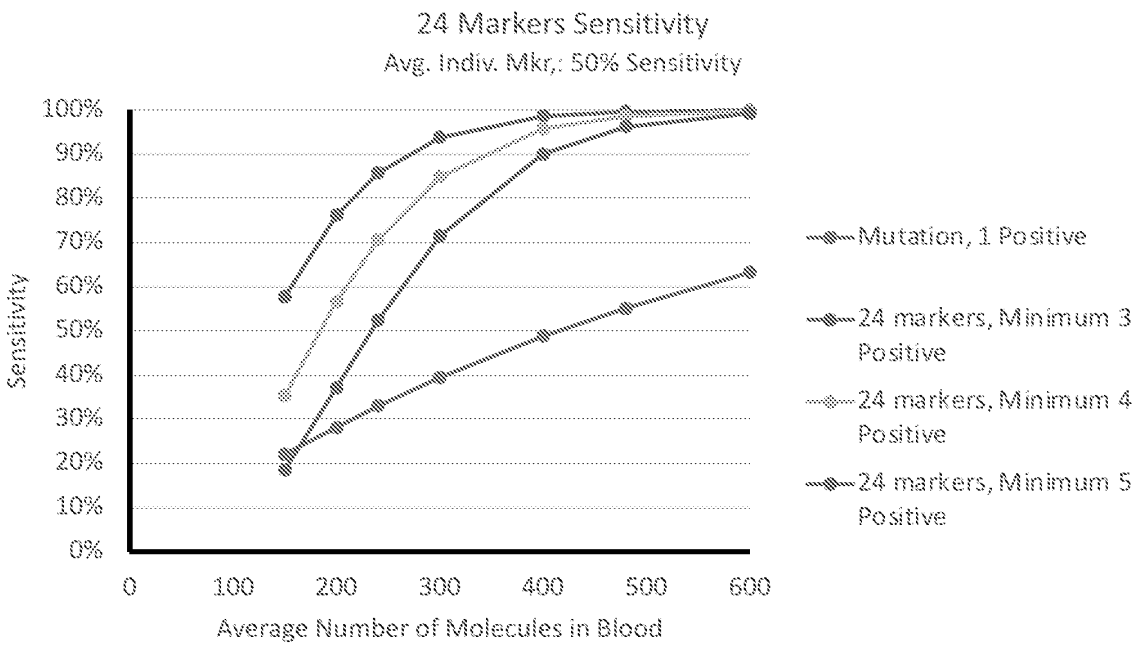
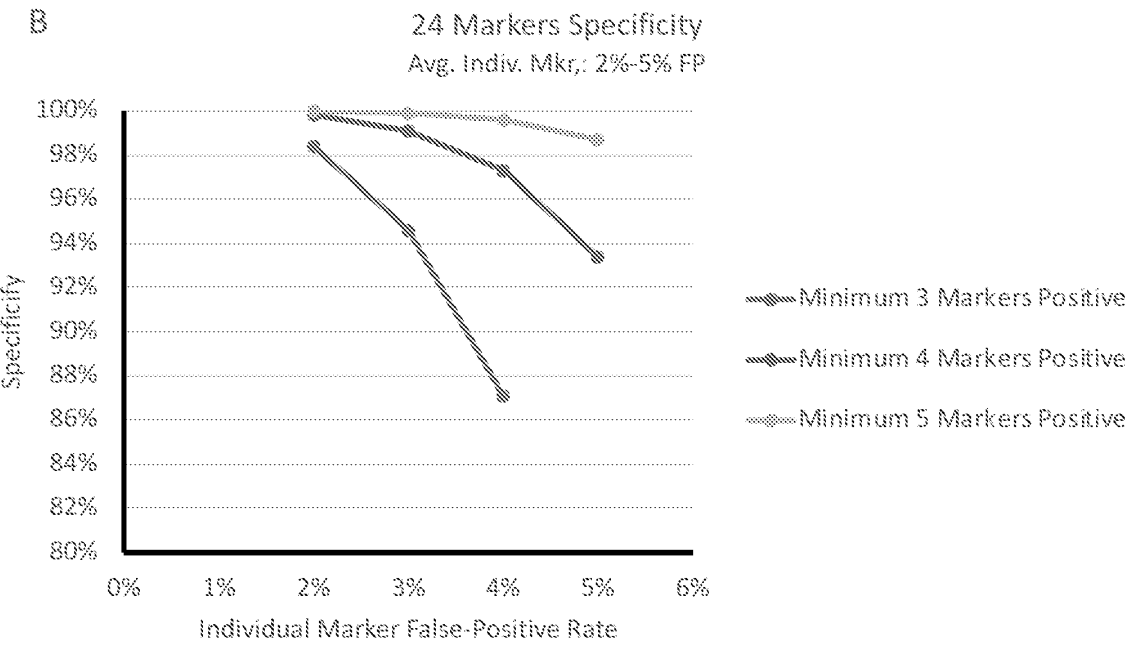


Figure 17

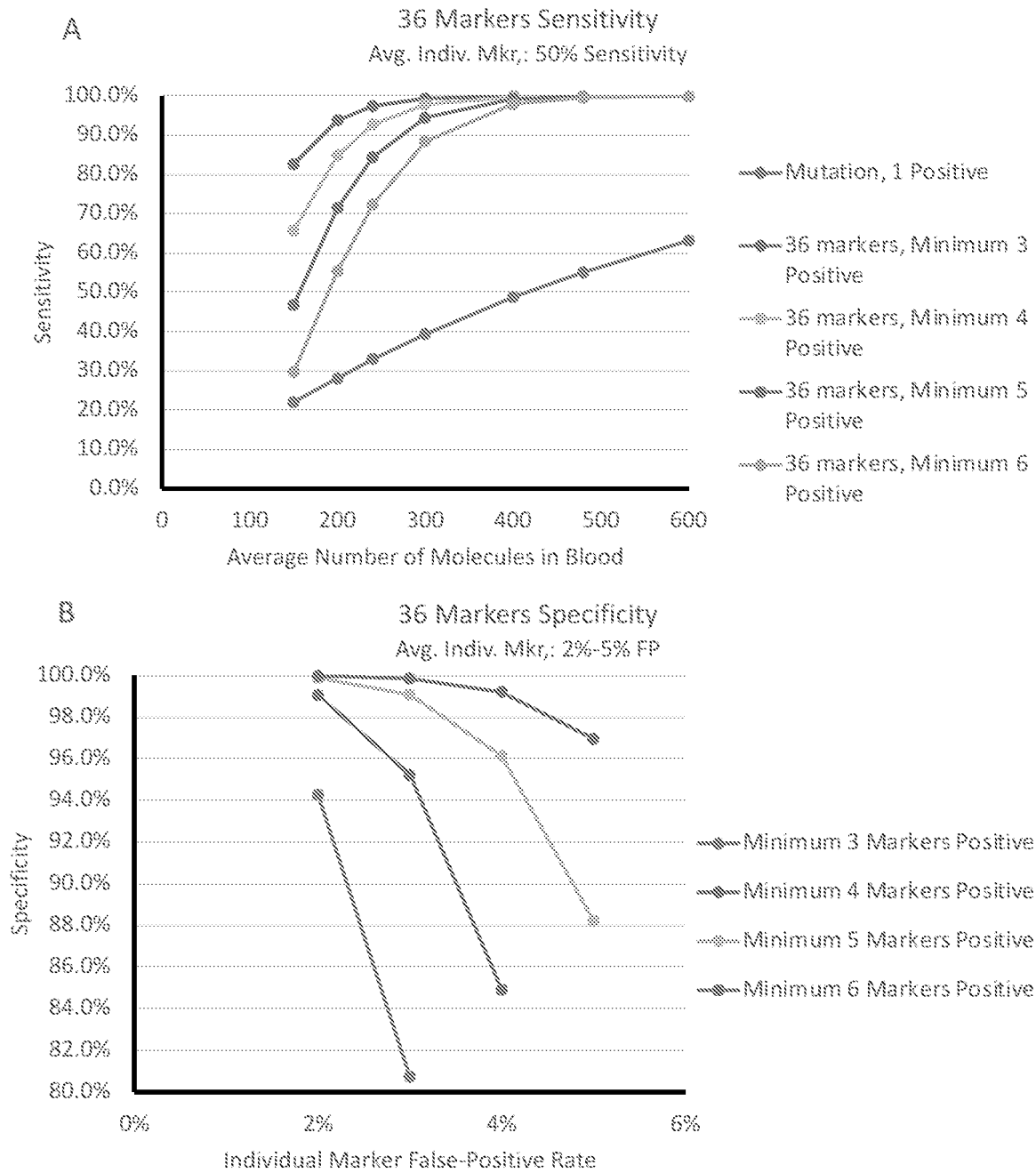
A



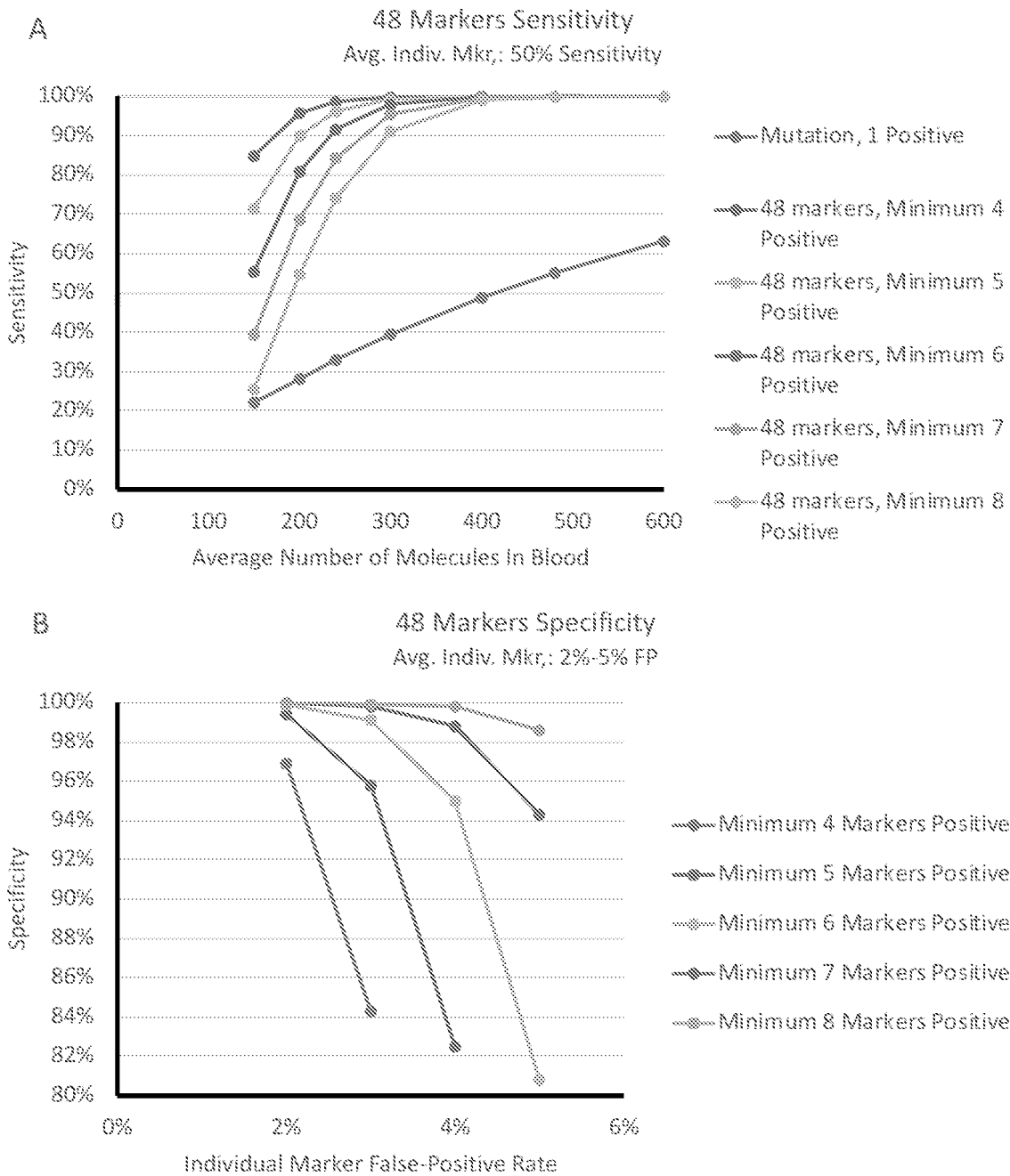
B



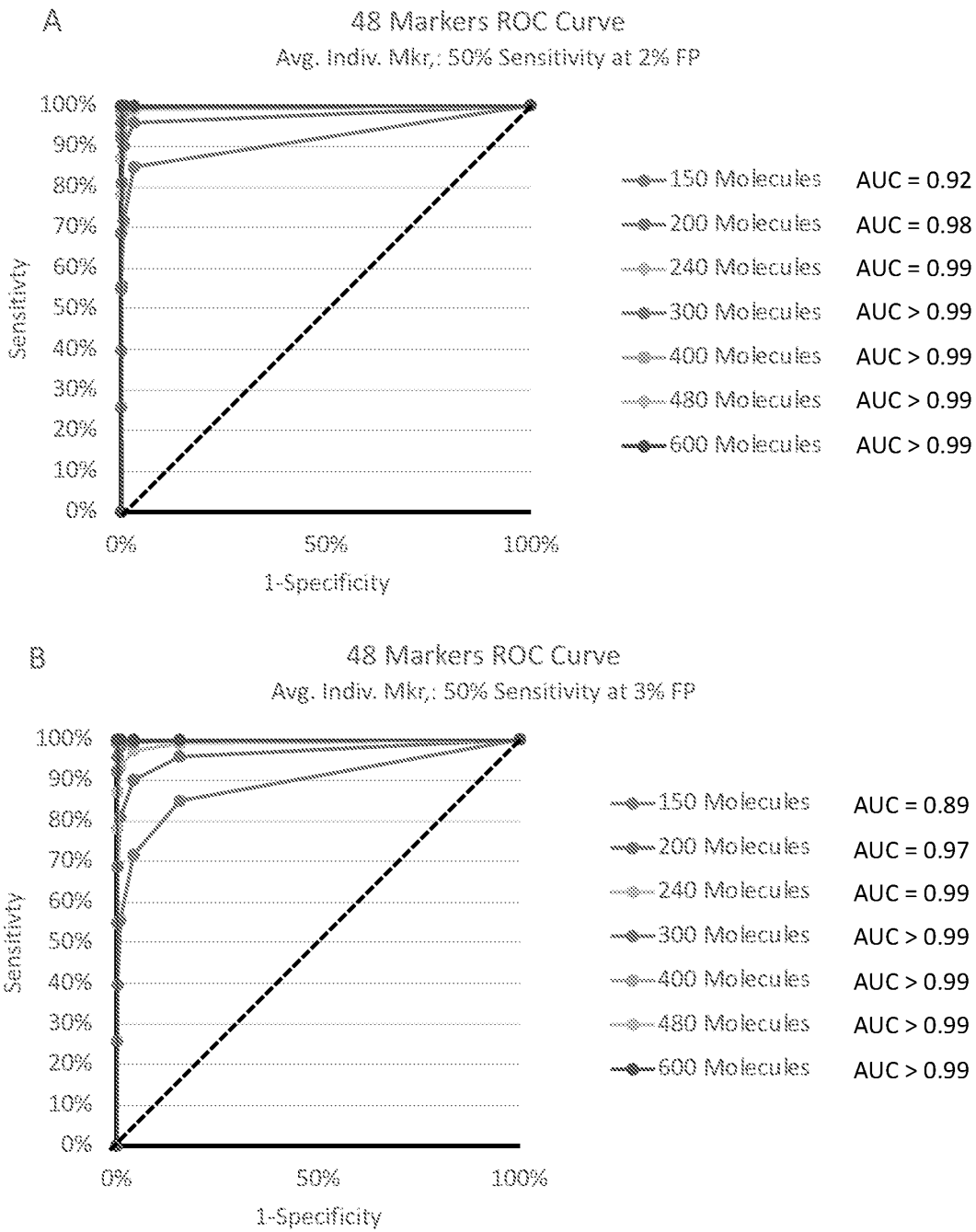
Figures 18A-B



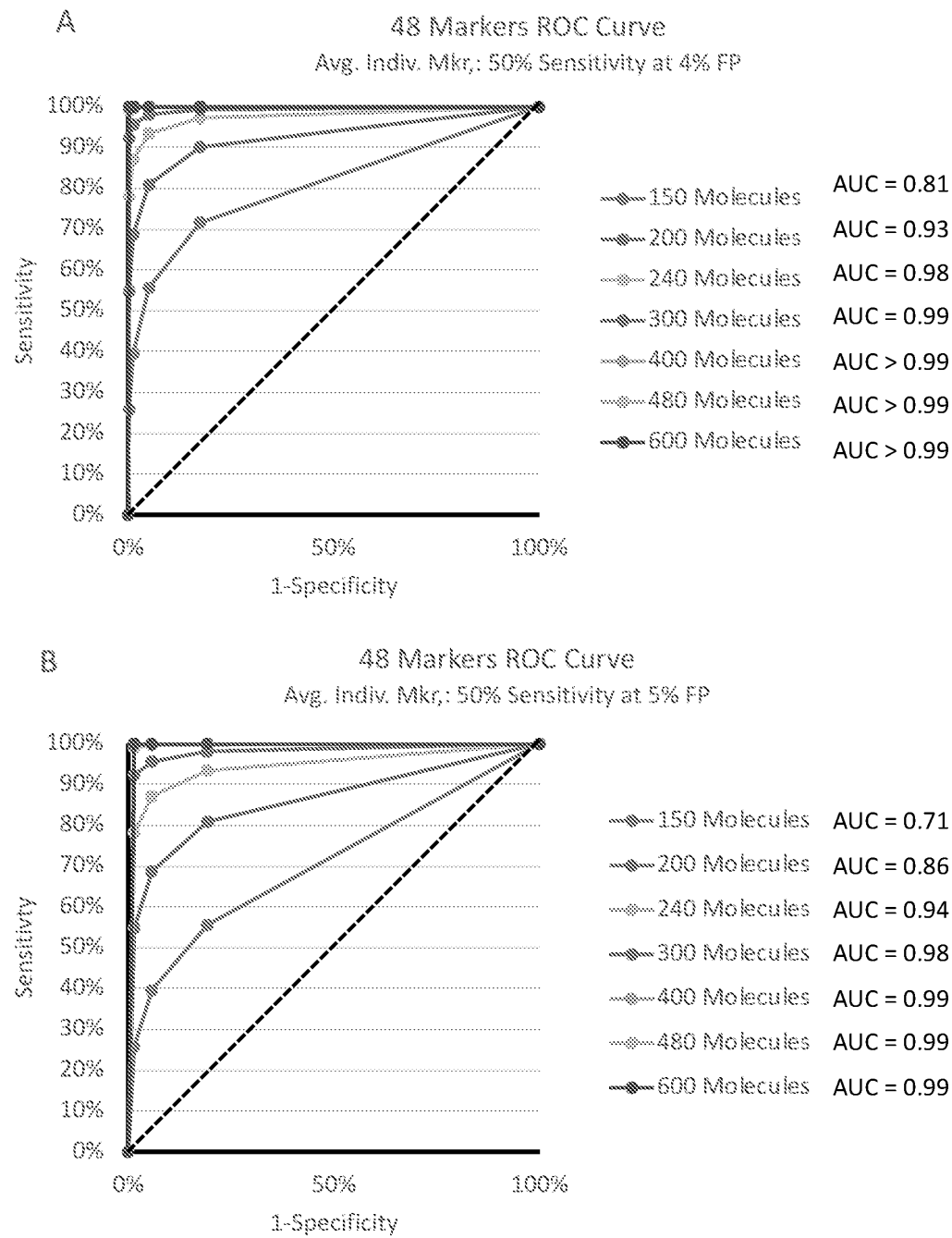
Figures 19A-B



Figures 20A-B



Figures 21A-B



Figures 22A-B

CRC miRNA markers

Order	Id	Order	Id
1	hsa-let-7f-1	32	hsa-mir-16-2
2	hsa-let-7f-2	33	hsa-mir-17
3	hsa-let-7g	34	hsa-mir-17-3p
4	hsa-mir-101-1	35	hsa-mir-181d
5	hsa-mir-101-2	36	hsa-mir-182
6	hsa-mir-107	37	hsa-mir-183
7	hsa-mir-10a	38	hsa-mir-185
8	hsa-mir-1-2	39	hsa-mir-196a-1
9	hsa-mir-1207	40	hsa-mir-199a-2
10	hsa-mir-1229	41	hsa-mir-199b
11	hsa-mir-1245	42	hsa-mir-19a
12	hsa-mir-1246	43	hsa-mir-19b
13	hsa-mir-125b	44	hsa-mir-19b-1
14	hsa-mir-126	45	hsa-mir-19b-2
15	hsa-mir-1290	46	hsa-mir-200c
16	hsa-mir-1296	47	hsa-mir-203
17	hsa-mir-135b	48	hsa-mir-20a
18	hsa-mir-136	49	hsa-mir-21
19	hsa-mir-141	50	hsa-mir-215
20	hsa-mir-142	51	hsa-mir-217
21	hsa-mir-143	52	hsa-mir-218-2
22	hsa-mir-144	53	hsa-mir-223
23	hsa-mir-148a	54	hsa-mir-224
24	hsa-mir-150	55	hsa-mir-224-3p
25	hsa-mir-151	56	hsa-mir-23a
26	hsa-mir-152	57	hsa-mir-24
27	hsa-mir-153-1	58	hsa-mir-24-2
28	hsa-mir-153-2	59	hsa-mir-26a-2
29	hsa-mir-15a	60	hsa-mir-26b
30	hsa-mir-15b	61	hsa-mir-27a
31	hsa-mir-16-1	62	hsa-mir-29a

Figure 23A

Order	Id	Order	Id
63	hsa-mir-29b-1	94	hsa-mir-454
64	hsa-mir-29b-2	95	hsa-mir-494
65	hsa-mir-29c	96	hsa-mir-495
66	hsa-mir-301a	97	hsa-mir-496
67	hsa-mir-30b	98	hsa-mir-542
68	hsa-mir-30e	99	hsa-mir-552
69	hsa-mir-31	100	hsa-mir-556
70	hsa-mir-32	101	hsa-mir-576-5p
71	hsa-mir-320a	102	hsa-mir-577
72	hsa-mir-335	103	hsa-mir-582
73	hsa-mir-337	104	hsa-mir-590
74	hsa-mir-33a	105	hsa-mir-592
75	hsa-mir-340	106	hsa-mir-598
76	hsa-mir-34a	107	hsa-mir-612
77	hsa-mir-369	108	hsa-mir-628
78	hsa-mir-374a	109	hsa-mir-653
79	hsa-mir-374b	110	hsa-mir-655
80	hsa-mir-376a-1	111	hsa-mir-660
81	hsa-mir-376c	112	hsa-mir-708
82	hsa-mir-379	113	hsa-mir-7-1
83	hsa-mir-380	114	hsa-mir-7-2
84	hsa-mir-411	115	hsa-mir-7-3
85	hsa-mir-421	116	hsa-mir-885-5p
86	hsa-mir-423-5p	117	hsa-mir-889
87	hsa-mir-424	118	hsa-mir-92a
88	hsa-mir-429	119	hsa-mir-933
89	hsa-mir-450a-1	120	hsa-mir-937
90	hsa-mir-450a-2	121	hsa-mir-95
91	hsa-mir-450b	122	hsa-mir-96
92	hsa-mir-451	123	hsa-mir-98
93	hsa-mir-452		

Figure 23B

CRC ncRNA markers

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1	LINC00115	chr1:826206-827522	ENSG00000225880.5
2	RP11-54O7.10	chr1:1008076-1008229	ENSG00000231702.2
3	RP11-465B22.3	chr1:1059734-1069355	ENSG00000217801.8
4	RP11-465B22.8	chr1:1169357-1170343	ENSG00000272141.1
5	RP4-758J18.13	chr1:1409096-1410618	ENSG00000272455.1
6	RP11-547D24.1	chr1:2013213-2015530	ENSG00000233542.1
7	RP11-22L13.1	chr1:3306636-3310096	ENSG00000272235.1
8	RP11-338N10.2	chr1:7698303-7698872	ENSG00000270035.1
9	RP11-338N10.3	chr1:7700704-7700970	ENSG00000269978.1
10	RP11-5P18.10	chr1:16035178-16040029	ENSG00000232456.1
11	EIF1AXP1	chr1:16685621-16686055	ENSG00000236698.1
12	RP5-1056L3.3	chr1:19608114-19608568	ENSG00000226396.1
13	LINC01355	chr1:23281309-23286752	ENSG00000261326.2
14	NPM1P39	chr1:27206930-27207796	ENSG00000225159.1
15	RP11-4K3 A.5	chr1:27325329-27325796	ENSG00000241547.1
16	SNHG3	chr1:28505980-28510892	ENSG00000242125.3
17	SNORA73B	chr1:28508559-28508762	ENSG00000200087.1
18	PRDX3P2	chr1:28526318-28527227	ENSG00000231468.2
19	SNHG12	chr1:28578538-28582983	ENSG00000197989.12
20	SNORD99	chr1:28578749-28578822	ENSG00000221539.1
21	RP4-604A21.1	chr1:28982278-28982608	ENSG00000225616.2
22	MATN1-AS1	chr1:30718504-30726827	ENSG00000186056.8
23	RP1-118J21.25	chr1:39788976-39790171	ENSG00000261798.1
24	RP1-228H13.5	chr1:40464319-40466767	ENSG00000260920.2
25	NFYC-AS1	chr1:40690380-40692066	ENSG00000272145.1
26	RP1-92O14.6	chr1:43385113-43389155	ENSG00000229431.1
27	KDM4A-AS1	chr1:43699765-43708138	ENSG00000236200.4
28	RP11-570P14.1	chr1:44122153-44122512	ENSG00000233514.1
29	RP11-269F19.2	chr1:44759037-44775810	ENSG00000225721.4
30	SNORD46	chr1:44776490-44776593	ENSG00000200913.1
31	SNORD38A	chr1:44777843-44777912	ENSG00000202031.1
32	CYP4A22-AS1	chr1:47096653-47179271	ENSG00000225506.2
33	RP11-296A18.5	chr1:51250603-51251472	ENSG00000233406.5
34	RPS13P2	chr1:52772194-52772648	ENSG00000228929.1
35	RP11-776H12.1	chr1:60540249-60640491	ENSG00000226476.2
36	RP11-436K8.1	chr1:60659631-60825584	ENSG00000231252.1
37	LINC01555	chr1:84628230-84635020	ENSG00000180869.4
38	RP11-384B12.3	chr1:87045875-87046700	ENSG00000225568.1
39	HSP90B3P	chr1:91642516-91644082	ENSG00000203914.4
40	GAPDHP29	chr1:94302038-94303022	ENSG00000178596.10
41	RP11-421L21.3	chr1:101025878-101087268	ENSG00000233184.5
42	RP4-575N6.2	chr1:101256274-101256616	ENSG00000228399.1
43	RP11-270C12.3	chr1:107505203-107505448	ENSG00000224550.1
44	RP11-552M11.4	chr1:111438638-111441364	ENSG00000243960.1
45	LINC01356	chr1:112820170-112850643	ENSG00000215866.6
46	RP3-522D1.1	chr1:112850028-112877871	ENSG00000224167.1
47	SLC16A1-AS1	chr1:112956415-112999496	ENSG00000226419.5
48	RP11-389O22.4	chr1:113168994-113169403	ENSG00000233839.1
49	PKMP1	chr1:114535995-114537840	ENSG00000236480.1
50	NAP1L4P1	chr1:116532936-116534092	ENSG00000177173.5

Figure 24A

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
51	U1	chr1:145465617-145465780	ENSG00000270722.1
52	LINC01138	chr1:148362995-148460150	ENSG00000274020.1
53	RP11-196G18.22	chr1:149844498-149849024	ENSG00000261716.1
54	BX470102.3	chr1:153533603-153535115	ENSG00000238279.1
55	RP11-422P24.9	chr1:153995632-153995960	ENSG00000231416.1
56	GBAP1	chr1:155213821-155227422	ENSG00000160766.13
57	RUSC1-AS1	chr1:155316863-155324176	ENSG00000225855.5
58	MSTO2P	chr1:155745829-155750137	ENSG00000203761.5
59	RP11-284F21.10	chr1:156641666-156644887	ENSG00000272405.1
60	RP11-404O13.1	chr1:158132044-158140639	ENSG00000231666.4
61	RP1-79C4.4	chr1:170667381-170669425	ENSG00000271811.1
62	GAS5	chr1:173863900-173868882	ENSG00000234741.6
63	RP1-35C21.2	chr1:177393287-177597709	ENSG00000227579.4
64	RP11-568K15.1	chr1:178006136-178037950	ENSG00000242193.8
65	RP11-568K15.2	chr1:178017127-178017343	ENSG00000276563.1
66	RASAL2-AS1	chr1:178091508-178093984	ENSG00000224687.1
67	RP11-533E19.7	chr1:179881607-179882595	ENSG00000272906.1
68	SMG7-AS1	chr1:183460874-183472265	ENSG00000232860.6
69	ERVMER61-1	chr1:187641226-187643860	ENSG00000230426.2
70	RP11-510N19.5	chr1:202011370-202015657	ENSG00000249007.1
71	PCAT6	chr1:202810954-202812156	ENSG00000228288.5
72	RP11-480I12.5	chr1:202851828-202861620	ENSG00000214796.7
73	SNRPGP10	chr1:205351247-205351471	ENSG00000235363.1
74	LEMD1-AS1	chr1:205373252-205387440	ENSG00000226235.1
75	MIR135B	chr1:205448291-205448403	ENSG00000199059.2
76	SNX25P1	chr1:211417025-211417934	ENSG00000236809.2
77	FDPS8	chr1:211660189-211661277	ENSG00000224763.1
78	PROX1-AS1	chr1:213817751-213988508	ENSG00000230461.7
79	RP11-478J18.2	chr1:213983793-213986419	ENSG00000274895.1
80	RP11-191N8.2	chr1:221827666-221840666	ENSG00000227925.1
81	RNU6-403P	chr1:221837334-221837437	ENSG00000200033.1
82	RP11-815M8.1	chr1:221880981-221978523	ENSG00000238042.4
83	RP11-400N13.2	chr1:221966341-221984964	ENSG00000228437.4
84	RP11-400N13.3	chr1:222041705-222064763	ENSG00000232679.1
85	RP11-504P24.8	chr1:223951388-223953439	ENSG00000272645.2
86	RP11-285F7.2	chr1:225840883-225846522	ENSG00000242861.1
87	RP11-396C23.2	chr1:226083639-226090292	ENSG00000225518.2
88	DUSP5P1	chr1:228650241-228651379	ENSG00000183929.7
89	RP5-1061H20.4	chr1:229258281-229271028	ENSG00000177788.5
90	RP5-858B6.3	chr1:230874846-230879015	ENSG00000223393.1
91	LINC01132	chr1:234724042-234731643	ENSG00000227630.2
92	LINC01348	chr1:235065479-235074220	ENSG00000280587.1
93	RP11-467I20.3	chr1:240636599-240637052	ENSG00000228844.1
94	RP11-278H7.5	chr1:244064330-244067909	ENSG00000279774.1
95	RP11-278H7.4	chr1:244068820-244093026	ENSG00000229960.1
96	AC144450.2	chr2:1620510-1625419	ENSG00000203635.2
97	AC018685.1	chr2:2641989-2656630	ENSG00000234929.1
98	TSSC1-IT1	chr2:3298341-3301465	ENSG00000224885.1
99	RNASEH1-AS1	chr2:3558492-3561745	ENSG00000234171.2
100	RP11-734K21.2	chr2:9103440-9105114	ENSG00000242136.1

Figure 24B

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
101	RP11-734K21.5	chr2:9106593-9109865	ENSG00000261104.1
102	RP11-95D17.1	chr2:9936360-9939590	ENSG00000269973.1
103	RP11-254F7.1	chr2:10021578-10022825	ENSG00000260476.1
104	AC079145.4	chr2:19990217-20004210	ENSG00000227210.1
105	RP11-443B20.1	chr2:24825610-24826717	ENSG00000271936.1
106	TRMT112P6	chr2:26028208-26028612	ENSG00000268412.2
107	GTF3C2-AS1	chr2:27335535-27342599	ENSG00000234945.6
108	AC074117.10	chr2:27356246-27367622	ENSG00000234072.1
109	DDX50P1	chr2:32201600-32203999	ENSG00000229816.1
110	AC016735.1	chr2:43001355-43006060	ENSG00000224739.2
111	RP11-89K21.1	chr2:44921077-44939199	ENSG00000259439.2
112	AC093732.1	chr2:47035279-47040524	ENSG00000233845.1
113	AC073283.7	chr2:47067822-47071204	ENSG00000225187.1
114	AC010967.2	chr2:52722677-52910020	ENSG00000228033.4
115	RP11-416L21.2	chr2:60682873-60683244	ENSG00000271134.1
116	AHSA2	chr2:61177418-61191203	ENSG00000173209.21
117	AC107081.5	chr2:61868432-61886082	ENSG00000236498.1
118	RP11-474G23.3	chr2:68252870-68253848	ENSG00000273064.1
119	RP11-44N22.3	chr2:73113018-73115907	ENSG00000272702.1
120	HMGAIIP8	chr2:74418122-74418442	ENSG00000233155.1
121	AC007099.1	chr2:75524068-75542706	ENSG00000231172.2
122	AC105399.2	chr2:77788382-77793087	ENSG00000237077.1
123	SNORD94	chr2:86135870-86136006	ENSG00000208772.1
124	AC133644.2	chr2:87439523-87459044	ENSG00000280721.1
125	LINC00152	chr2:87455368-87606805	ENSG00000222041.9
126	AC093616.4	chr2:87700984-87738105	ENSG00000234231.3
127	AC012671.2	chr2:88428078-88428615	ENSG00000224291.1
128	RP11-332H14.2	chr2:105334027-105337475	ENSG00000272994.1
129	AC023672.2	chr2:108049200-108052755	ENSG00000231221.1
130	AC019100.3	chr2:108167748-108217841	ENSG00000225328.1
131	RP11-443K8.1	chr2:108317725-108318611	ENSG00000261209.1
132	RP11-465O11.2	chr2:108367116-108367938	ENSG00000271070.1
133	MIR4435-1HG	chr2:111196350-111495100	ENSG00000172965.13
134	AC108463.2	chr2:111203964-111206215	ENSG00000227992.1
135	RP11-803D5.1	chr2:111321433-111324812	ENSG00000279191.1
136	Y RNA	chr2:112579484-112579584	ENSG00000207383.1
137	AC016745.3	chr2:113424495-113425324	ENSG00000234997.1
138	AC009404.2	chr2:117833937-117841658	ENSG00000236255.1
139	AC012363.4	chr2:120174885-120216544	ENSG00000224789.1
140	MTND4P26	chr2:120213631-120214989	ENSG00000234065.2
141	MTND5P28	chr2:120215181-120217279	ENSG00000223549.1
142	LINC01101	chr2:120464335-120466218	ENSG00000280409.1
143	AC133785.1	chr2:130830978-130836994	ENSG00000233221.5
144	AC073869.20	chr2:131442644-131444587	ENSG00000217950.4
145	AC093838.4	chr2:131492813-131521573	ENSG00000152117.16
146	C2orf27A	chr2:131722375-131767404	ENSG00000197927.11
147	AC093724.2	chr2:131723253-131724279	ENSG00000213222.3
148	AC064850.4	chr2:135510546-135511943	ENSG00000235651.1
149	DARS-AS1	chr2:135985176-136022593	ENSG00000231890.6
150	AC092484.1	chr2:145569294-145588024	ENSG00000225107.1

Figure 24C

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
151	AC012066.1	chr2:152389937-152390630	ENSG00000213197.3
152	AC012501.3	chr2:153420677-153421957	ENSG00000242575.1
153	AC012501.2	chr2:153421616-153593288	ENSG00000227400.2
154	AC005042.4	chr2:158658337-158735002	ENSG00000204380.3
155	RP11-452N17.1	chr2:164573741-164574054	ENSG00000277998.1
156	AC007277.3	chr2:170618628-170695374	ENSG00000213981.7
157	LINC01124	chr2:170712451-170714567	ENSG00000222033.1
158	EIF2S2P4	chr2:170751805-170752788	ENSG00000128692.8
159	AC007405.6	chr2:170771113-170778148	ENSG00000239467.4
160	AC007405.8	chr2:170816293-170818037	ENSG00000235934.1
161	AC007969.5	chr2:171517270-171517716	ENSG00000233762.3
162	AC104088.1	chr2:172315287-172323737	ENSG00000232555.1
163	MLK7-AS1	chr2:173166446-173282036	ENSG00000238133.5
164	AC092573.2	chr2:173338219-173356208	ENSG00000236391.3
165	RP11-796E10.1	chr2:173811076-173811392	ENSG00000270460.1
166	RP11-394I13.2	chr2:173968351-173969418	ENSG00000271151.1
167	RP11-438L19.1	chr2:183214319-183215400	ENSG00000272800.1
168	LINC01473	chr2:186032891-186083233	ENSG00000237877.5
169	AC013439.4	chr2:189486480-189487992	ENSG00000233996.1
170	AC092614.2	chr2:191229165-191246172	ENSG00000227542.1
171	AC064834.1	chr2:195448532-195478925	ENSG00000224099.1
172	PSMA2P3	chr2:202179297-202179971	ENSG00000227890.1
173	SNORD51	chr2:206161878-206161957	ENSG00000207047.2
174	PPP1R14BP2	chr2:207681590-207682033	ENSG00000213082.3
175	AC093850.2	chr2:215718043-215719424	ENSG00000230838.1
176	HSPA9P1	chr2:221961737-221963765	ENSG00000226666.1
177	AC012512.1	chr2:223704621-223705338	ENSG00000226539.1
178	SPATA3-AS1	chr2:230984368-230996032	ENSG00000238062.4
179	AC010148.1	chr2:234834315-234913384	ENSG00000235726.4
180	AC112721.1	chr2:237421420-237425276	ENSG00000222022.1
181	AC112721.2	chr2:237428920-237434822	ENSG00000222032.1
182	AC079612.1	chr2:239578301-239586094	ENSG00000196758.3
183	CAPN10-AS1	chr2:240582700-240586699	ENSG00000260942.1
184	RP11-97C16.1	chr3:3152942-3153435	ENSG00000271870.1
185	PNPT1P1	chr3:3981981-3984295	ENSG00000229241.1
186	LMCD1-AS1	chr3:7952805-8611924	ENSG00000227110.5
187	THUMP3-AS1	chr3:9349689-9398579	ENSG00000206573.7
188	PRRT3-AS1	chr3:9947404-9954787	ENSG00000230082.1
189	EMC3-AS1	chr3:9986893-10006990	ENSG00000180385.7
190	TPRXL	chr3:13937256-14082811	ENSG00000180438.13
191	LINC01267	chr3:14348451-14352568	ENSG00000251576.1
192	COL6A4P1	chr3:15151833-15205959	ENSG00000230524.7
193	AC090945.1	chr3:15878047-15879571	ENSG00000224728.1
194	AC104297.1	chr3:17871729-17872598	ENSG00000213383.2
195	RP11-384L8.1	chr3:32236688-32238578	ENSG00000261572.1
196	KRT18P15	chr3:32258940-32260230	ENSG00000234737.1
197	RPL30P4	chr3:32635222-32635554	ENSG00000237676.1
198	AC018359.1	chr3:34159334-34562877	ENSG00000226320.4
199	AC123023.1	chr3:34203244-34268811	ENSG00000236452.1
200	HSPD1P6	chr3:36767117-36784167	ENSG00000230067.3

Figure 24D

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
201	C3orf35	chr3:37386269-37435497	ENSG00000198590.10
202	HNRNPA1P21	chr3:39334979-39335939	ENSG00000228168.1
203	RP11-697K23.3	chr3:45749627-45750651	ENSG00000279017.1
204	LRRC2-AS1	chr3:46557398-46559694	ENSG00000268324.2
205	NRADDP	chr3:47011542-47013146	ENSG00000236409.1
206	RP11-447D11.3	chr3:47346950-47349073	ENSG00000280173.1
207	GPX1	chr3:49357176-49358600	ENSG00000233276.3
208	U73166.2	chr3:50260303-50263358	ENSG00000230454.1
209	RP11-168J18.6	chr3:52373652-52374882	ENSG00000239557.1
210	SNORD19	chr3:52689248-52689315	ENSG00000212493.1
211	SNORD19	chr3:52691378-52691453	ENSG00000222345.1
212	SNORD69	chr3:52692736-52692812	ENSG00000212452.1
213	RP11-884K10.7	chr3:53858994-53861576	ENSG00000271976.1
214	RP11-157F20.3	chr3:57078943-57080101	ENSG00000272202.1
215	RPL10AP6	chr3:61742455-61743106	ENSG00000226360.5
216	LINC00698	chr3:62950430-63125062	ENSG00000244342.4
217	RP11-383I23.2	chr3:99802699-99806058	ENSG00000273374.1
218	RP11-234A1.1	chr3:101576489-101576947	ENSG00000242299.1
219	RP11-18H7.1	chr3:120094895-120136783	ENSG00000242622.1
220	RP11-174O3.3	chr3:120349510-120367998	ENSG00000240661.1
221	NAP1LIP3	chr3:120805866-120806745	ENSG00000213371.4
222	FAM86JP	chr3:125916620-125930024	ENSG00000171084.14
223	RP11-390G14.1	chr3:126624792-126626061	ENSG00000248557.1
224	GATA2-AS1	chr3:128489212-128502348	ENSG00000244300.2
225	RP11-723O4.7	chr3:128914833-128915060	ENSG00000279507.1
226	RPL32P3	chr3:129382922-129399655	ENSG00000251474.5
227	TMCC1-AS1	chr3:129893871-129918575	ENSG00000271270.4
228	RP11-93K22.6	chr3:129954105-129969294	ENSG00000250643.1
229	FAM86HP	chr3:130099092-130111472	ENSG00000253540.4
230	LINC01210	chr3:137771949-137780878	ENSG00000239513.4
231	RP11-2A4.4	chr3:137791973-137796678	ENSG00000261146.1
232	RP11-343B5.1	chr3:142043623-142044198	ENSG00000233597.3
233	RP11-372E1.1	chr3:142827096-142827728	ENSG00000240950.1
234	TM4SF1-AS1	chr3:149377778-149386583	ENSG00000240541.2
235	RP11-278L15.2	chr3:149384179-149385800	ENSG00000243885.1
236	RP11-167H9.4	chr3:150039214-150213726	ENSG00000243944.4
237	RP11-674E16.4	chr3:155742142-155743726	ENSG00000214919.3
238	SETP14	chr3:155987304-155988176	ENSG00000240489.1
239	PA2G4P4	chr3:156809551-156810732	ENSG00000230457.3
240	KRT8P12	chr3:160565447-160569248	ENSG00000229320.3
241	RP11-373E16.1	chr3:170653846-170654259	ENSG00000213174.3
242	ATP5G1P4	chr3:172828736-172829176	ENSG00000227440.1
243	RP11-393N4.2	chr3:174377244-174378005	ENSG00000213169.3
244	KCNMB2-AS1	chr3:178526505-178860405	ENSG00000237978.4
245	YEATS2-AS1	chr3:183806457-183810783	ENSG00000233885.6
246	RP11-778D9.4	chr3:184149704-184150435	ENSG00000228205.1
247	RPL4P4	chr3:185417495-185418778	ENSG00000229638.1
248	RP11-573D15.2	chr3:186810880-186825521	ENSG00000232233.1
249	RPS20P14	chr3:186900198-186900557	ENSG00000223803.1
250	RP11-30O15.1	chr3:187796187-187805258	ENSG00000224049.1

Figure 24E

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
251	RP11-197K6.1	chr3:191557324-191590356	ENSG00000223812.4
252	RP11-480A16.1	chr3:195949188-195952695	ENSG000002260261.1
253	MF12-AS1	chr3:196999460-197004744	ENSG00000228109.1
254	RP11-440L14.1	chr4:762387-781849	ENSG00000249592.4
255	RP11-20120.4	chr4:1167778-1168174	ENSG00000273179.1
256	RP11-572O17.1	chr4:1712821-1713622	ENSG00000270195.1
257	STX18-AS1	chr4:4542131-4710938	ENSG00000247708.6
258	RP11-539L10.2	chr4:6687448-6690519	ENSG00000246526.2
259	GMPSP1	chr4:8174421-8174999	ENSG00000250471.2
260	RNPS1P1	chr4:11371975-11372892	ENSG00000250896.1
261	RP11-333E13.2	chr4:39973128-39973442	ENSG00000250568.1
262	PABPC1P1	chr4:39973444-39974338	ENSG00000231707.4
263	SNORA26	chr4:52713249-52713370	ENSG00000212588.1
264	RPS15AP17	chr4:62105660-62106049	ENSG00000225405.3
265	HMGAIIP2	chr4:73098822-73099145	ENSG00000248641.1
266	AC142293.3	chr4:74552584-74589481	ENSG00000249942.1
267	TXNP6	chr4:76958860-76959169	ENSG00000234036.4
268	RP11-127B20.3	chr4:82374301-82384027	ENSG00000272677.1
269	RP11-791G16.2	chr4:82494786-82496278	ENSG00000227304.3
270	THAP9-AS1	chr4:82893009-82900960	ENSG00000251022.5
271	RP11-742B18.1	chr4:87568035-87733956	ENSG00000249001.4
272	HSP90AB3P	chr4:87891843-87894015	ENSG00000183199.6
273	RP11-84C13.2	chr4:89119284-89119871	ENSG00000270720.1
274	RP11-428L21.2	chr4:92821986-92822918	ENSG00000249239.2
275	RP11-328K4.1	chr4:103256159-103453658	ENSG00000248740.4
276	LEF1-AS1	chr4:108167525-108256836	ENSG00000232021.5
277	AC113617.1	chr4:117360625-117372852	ENSG00000228358.4
278	KLHL2P1	chr4:119334329-119378233	ENSG00000250412.1
279	TECRP2	chr4:124462863-124463790	ENSG00000248565.2
280	RP11-420A23.1	chr4:128292751-128519394	ENSG00000251432.5
281	RP11-173E2.1	chr4:138560704-138561941	ENSG00000248795.1
282	RP11-223C24.2	chr4:142514446-142518983	ENSG00000251248.1
283	RP11-364L4.1	chr4:143349275-143350117	ENSG00000228981.3
284	HSPD1P5	chr4:144845625-144847344	ENSG00000249193.1
285	RP11-142A22.4	chr4:145335263-145340421	ENSG00000272727.1
286	RP11-752L20.3	chr4:147487971-147496062	ENSG00000280219.1
287	GTF2F2P1	chr4:147506091-147506765	ENSG00000251254.1
288	DKFZP434I0714	chr4:152536264-152539263	ENSG00000268471.4
289	RANP6	chr4:173633728-173634371	ENSG00000213370.3
290	RN7SL28P	chr4:184278936-184279233	ENSG00000244512.3
291	ADAM20P3	chr4:187746094-187748199	ENSG00000249162.1
292	RP11-310P5.1	chr5:602620-612210	ENSG00000249650.1
293	RP11-43F13.4	chr5:1005039-1006623	ENSG00000272347.1
294	LINC01511	chr5:1363582-1380067	ENSG00000250584.2
295	CTD-2256P15.1	chr5:10248325-10249915	ENSG00000248968.1
296	CCT6P2	chr5:14639426-14641018	ENSG00000250526.1
297	RP11-454P21.1	chr5:17684584-17955857	ENSG00000249937.4
298	HSPD1P1	chr5:21882585-21884310	ENSG00000213430.6
299	CTD-2108O9.4	chr5:38429892-38430160	ENSG00000248234.1
300	SNORD72	chr5:40832656-40832735	ENSG00000212296.1

Figure 24F

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
301	RP11-289K10.1	chr5:53413504-53414260	ENSG00000240052.1
302	RP11-506H20.1	chr5:55233934-55295201	ENSG00000251307.1
303	SNRPCP2	chr5:76376675-76377149	ENSG00000251235.3
304	NPM1P27	chr5:93682838-93683667	ENSG00000249353.2
305	RP11-138J23.1	chr5:104079911-104105403	ENSG00000251026.1
306	RN7SL255P	chr5:104260531-104260826	ENSG00000239808.3
307	RP11-313L6.2	chr5:104434772-104435499	ENSG00000278958.1
308	CCT5P1	chr5:115512077-115513694	ENSG00000250444.1
309	RP11-436H11.1	chr5:124808828-124809233	ENSG00000242814.2
310	KDELC1P1	chr5:128109486-128110994	ENSG00000250329.1
311	RP11-485M7.2	chr5:133052769-133052971	ENSG00000279691.1
312	C5orf66	chr5:135033280-135358219	ENSG00000224186.7
313	SNHG4	chr5:139274102-139283244	ENSG00000281398.1
314	CTB-35F21.2	chr5:139741349-139746223	ENSG00000249131.1
315	AC005592.2	chr5:142325293-142672001	ENSG00000231185.5
316	CTC-327F10.5	chr5:147886086-147886878	ENSG00000248362.1
317	CTC-327F10.4	chr5:147887112-147887704	ENSG00000251320.1
318	CTC-529P8.1	chr5:149063317-149109787	ENSG00000250072.4
319	GAPDHP40	chr5:159950493-159951498	ENSG00000248626.1
320	CTC-231O11.1	chr5:160468268-160487426	ENSG00000253522.3
321	RP11-67M9.1	chr5:166128498-166155439	ENSG00000254171.1
322	RP11-117L6.1	chr5:171365595-171367693	ENSG00000254256.1
323	SNORA70	chr5:171366118-171366252	ENSG00000206909.1
324	CTC-308K20.3	chr5:172975511-172976374	ENSG00000253785.1
325	CTB-43E15.2	chr5:173689459-173705849	ENSG00000253428.1
326	LINC01484	chr5:173707614-173746211	ENSG00000253686.1
327	LINC01485	chr5:173786790-173809039	ENSG00000254211.4
328	LINC01411	chr5:174336295-174532457	ENSG00000249306.4
329	GAPDHP71	chr5:174513305-174514307	ENSG00000213376.4
330	RP11-267A15.3	chr5:174618164-174625775	ENSG00000250256.1
331	CTD-253K18.2	chr5:174820027-174826324	ENSG00000251144.1
332	PRMT1P1	chr5:177265580-177266588	ENSG00000270706.1
333	PRR7-AS1	chr5:177438503-177447699	ENSG00000246334.2
334	RP11-423H2.1	chr5:177809407-177950732	ENSG00000170089.14
335	RP11-889L3.1	chr5:178055604-178056194	ENSG00000218227.3
336	RP11-443C10.1	chr5:179377531-179378761	ENSG00000253163.1
337	RP1-140K8.5	chr6:3904920-3911979	ENSG00000260604.2
338	RP3-380B8.4	chr6:5851506-5870220	ENSG00000233064.2
339	PKMP5	chr6:5972412-5974012	ENSG00000215057.4
340	RP11-69L16.5	chr6:7338839-7339568	ENSG00000220472.1
341	OFCC1	chr6:9596110-10211608	ENSG00000181355.19
342	TFAP2A-AS1	chr6:10409340-10416446	ENSG00000229950.1
343	BTN2A3P	chr6:26421391-26432383	ENSG00000124549.13
344	RP1-15D7.1	chr6:27652602-27652825	ENSG00000216676.2
345	LINC01012	chr6:27694035-27710222	ENSG00000281706.1
346	XXbac-BPG308K3.5	chr6:28837869-28839006	ENSG00000225173.1
347	ZNRD1-AS1	chr6:30001011-30061640	ENSG00000204623.7
348	HCG18	chr6:30287397-30327150	ENSG00000231074.7
349	RANP1	chr6:30485940-30486590	ENSG00000236603.2
350	RNU6-850P	chr6:31756951-31757053	ENSG00000252743.1

Figure 24G

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
351	Y RNA	chr6:31778817-31778905	ENSG00000201555.1
352	C6orf48	chr6:31834608-31839766	ENSG00000204387.11
353	SNORD48	chr6:31835263-31835326	ENSG00000201823.1
354	C2-AS1	chr6:31934474-31941724	ENSG00000281756.1
355	MIR6835	chr6:34240673-34240736	ENSG00000276404.1
356	MIR7111	chr6:35470508-35470579	ENSG00000276712.1
357	RP1-179N16.6	chr6:36146698-36197205	ENSG00000246982.5
358	RP1-278E11.3	chr6:39958414-39958833	ENSG00000180211.5
359	TREML3P	chr6:41208713-41217947	ENSG00000184106.7
360	FOXP4-AS1	chr6:41494853-41548621	ENSG00000234753.4
361	RP3-475N16.1	chr6:42940364-42948360	ENSG00000231113.2
362	RP11-480N24.3	chr6:43310231-43310357	ENSG00000219222.1
363	RP3-337H4.9	chr6:43519180-43519724	ENSG00000271754.1
364	RP3-337H4.6	chr6:43538822-43539703	ENSG00000219470.1
365	RP5-1120P11.1	chr6:43995723-44074652	ENSG00000237686.5
366	RP5-1120P11.3	chr6:44073913-44077952	ENSG00000231881.1
367	RP1-152L7.5	chr6:52665148-52669155	ENSG00000216775.2
368	RP11-59D5 B.2	chr6:63806836-63822642	ENSG00000236345.1
369	RP11-134K13.2	chr6:70608234-70609334	ENSG00000232389.1
370	PRDX2P4	chr6:100136064-100136663	ENSG00000213177.3
371	RP1-191J18.66	chr6:107957413-107959986	ENSG00000272476.1
372	RPL3P7	chr6:108004357-108005568	ENSG00000225093.1
373	RP5-1112D6.7	chr6:111297126-111298510	ENSG00000271789.1
374	RP11-346D19.1	chr6:113531118-113543793	ENSG00000236347.1
375	RP3-399L15.3	chr6:113969701-114471705	ENSG00000228624.6
376	RP3-486I3.4	chr6:116258493-116259115	ENSG00000233558.1
377	CBX3P9	chr6:116453014-116453565	ENSG00000217241.1
378	RPL5P18	chr6:127362513-127363403	ENSG00000220744.1
379	SNORD101	chr6:132815307-132815379	ENSG00000206754.1
380	SNORD100	chr6:132816802-132816877	ENSG00000221500.1
381	SNORA33	chr6:132817219-132817348	ENSG00000200534.1
382	RP3-325F22.5	chr6:136550661-136552554	ENSG00000272189.1
383	RP11-95M15.2	chr6:137705423-137707201	ENSG00000220412.1
384	RP11-390P2.4	chr6:138692548-138697288	ENSG00000225177.4
385	RP3-468K18.6	chr6:143858062-143858689	ENSG00000270890.1
386	RP11-350J20.12	chr6:149852462-149853192	ENSG00000273132.1
387	RAET1K	chr6:149998019-150005157	ENSG00000218358.2
388	RP1-276N6.2	chr6:160272617-160276130	ENSG00000230234.1
389	LPAL2	chr6:160453428-160511124	ENSG00000213071.9
390	RP11-351J23.1	chr6:167679626-167683787	ENSG00000203688.4
391	RP11-417E7.1	chr6:169158092-169162924	ENSG00000223485.1
392	RP11-417E7.2	chr6:169175304-169182740	ENSG00000261039.2
393	RP1-266L20.2	chr6:169725091-169725854	ENSG00000232640.1
394	AC091729.9	chr7:1160374-1165267	ENSG00000229043.2
395	ELFN1-AS1	chr7:1738630-1742291	ENSG00000236081.1
396	RNF216P1	chr7:4973988-5040675	ENSG00000196204.10
397	AC093620.5	chr7:5419827-5420767	ENSG00000241269.1
398	AC092171.2	chr7:5419846-5423122	ENSG00000188365.3
399	RP11-1275H24.1	chr7:5426277-5428927	ENSG00000234432.4
400	AC006483.5	chr7:5560743-5561055	ENSG00000228974.5

Figure 24H

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
401	PMS2CL	chr7:6710128-6753862	ENSG00000187953.9
402	RP5-1159O4.1	chr7:7552462-7566996	ENSG00000272894.4
403	AC007128.1	chr7:8262264-8344516	ENSG00000229970.3
404	RP4-594A5.1	chr7:8303741-8341343	ENSG00000272328.1
405	AC073333.8	chr7:16695871-16719898	ENSG00000235837.1
406	RP11-511H23.2	chr7:17940503-17942922	ENSG00000279048.1
407	PCMTD1P3	chr7:23721311-23721782	ENSG00000234800.2
408	CTD-2227E11.1	chr7:25948657-25949403	ENSG00000270933.1
409	RP1-170O19.17	chr7:27239243-27241228	ENSG00000253308.2
410	EVX1-AS	chr7:27241429-27247229	ENSG00000253405.1
411	AC004593.3	chr7:29199540-29208970	ENSG00000235669.1
412	AC018641.7	chr7:32456963-32457758	ENSG00000226468.2
413	DPY19L1P1	chr7:32580949-32761787	ENSG00000229358.3
414	RP9P	chr7:32916815-32943176	ENSG00000205763.12
415	AC009262.2	chr7:34209526-34256343	ENSG00000236212.1
416	NPSR1-AS1	chr7:34346512-34871582	ENSG00000197085.10
417	NCAPD2P1	chr7:34750253-34752053	ENSG00000230356.1
418	RP11-609L3.1	chr7:35971147-35971567	ENSG00000270889.1
419	AC011290.5	chr7:39569376-39570198	ENSG00000236015.1
420	LINC00265	chr7:39733632-39793092	ENSG00000188185.10
421	INHBA-AS1	chr7:41693916-41779388	ENSG00000224116.5
422	AC004453.8	chr7:44467897-44468304	ENSG00000146677.7
423	SNHG15	chr7:44983023-44986961	ENSG00000232956.7
424	RP4-725G10.3	chr7:56163145-56163533	ENSG00000230191.1
425	RP11-700P18.1	chr7:56288230-56291425	ENSG00000223559.1
426	CCT6P3	chr7:65038354-65074713	ENSG00000234585.5
427	LINC00174	chr7:66376044-66401338	ENSG00000179406.6
428	GS1-124K5.2	chr7:66409143-66490059	ENSG00000230189.5
429	GS1-124K5.4	chr7:66493706-66495474	ENSG00000237310.1
430	RP11-458F8.4	chr7:66902857-66906297	ENSG00000273142.1
431	NSUN5P2	chr7:72947581-72954790	ENSG00000106133.16
432	CTA-315H11.2	chr7:73609262-73611502	ENSG00000274080.1
433	NSUN5P1	chr7:75410322-75416787	ENSG00000223705.8
434	PMS2P3	chr7:75502930-75528148	ENSG00000127957.15
435	AC004980.7	chr7:76549360-76627982	ENSG00000205485.12
436	STEAP2-AS1	chr7:89882353-90211635	ENSG00000227646.6
437	OR7E38P	chr7:97966090-97967074	ENSG00000183444.10
438	AC004967.7	chr7:97969005-97972254	ENSG00000243554.1
439	MYH16	chr7:99238794-99311130	ENSG00000002079.11
440	AZGP1P1	chr7:99980762-99987535	ENSG00000214313.7
441	MIR25	chr7:100093560-100093643	ENSG00000207547.1
442	PMS2P1	chr7:100320992-100341908	ENSG00000078319.8
443	STAG3L5P	chr7:100336079-100351900	ENSG00000242294.5
444	STAG3L5P-PVRIG2P-PILRB	chr7:100336104-100367831	ENSG00000272752.4
445	RP11-126L15.4	chr7:100837314-100852616	ENSG00000236305.1
446	AZGP1P2	chr7:101287482-101289771	ENSG00000214252.4
447	RP11-132A1.4	chr7:101308346-101310985	ENSG00000232445.1
448	RP11-401L13.4	chr7:103141349-103141939	ENSG00000224415.1
449	S100A11P1	chr7:103262000-103262311	ENSG00000237632.3
450	CTA-276O3.4	chr7:103348601-103348771	ENSG00000235354.1

Figure 241

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
451	RP4-778K6.1	chr7:105244652-105244970	ENSG00000213361.2
452	RP5-884M6.1	chr7:106775011-106795564	ENSG00000228742.8
453	EIF3IP1	chr7:109959218-109960184	ENSG00000237064.1
454	ST7-OT4	chr7:116953899-117098806	ENSG00000214188.8
455	RP11-3L10.3	chr7:121440834-121441261	ENSG00000234985.2
456	FEZF1-AS1	chr7:122303658-122310077	ENSG00000230316.5
457	RP11-332K15.1	chr7:123456629-123459856	ENSG00000232524.1
458	AC000123.3	chr7:127349833-127350293	ENSG00000279265.1
459	RP11-20L24.1	chr7:127857852-127858488	ENSG00000240579.1
460	RP11-448A19.1	chr7:129604548-129611630	ENSG00000273329.1
461	RP11-2E11.9	chr7:130507660-130508282	ENSG00000270953.1
462	AC058791.1	chr7:130876809-130913310	ENSG00000226380.6
463	LINC-PINT	chr7:130941760-131110176	ENSG00000231721.5
464	AC009362.2	chr7:131242590-131242995	ENSG00000233287.1
465	RP11-634H22.1	chr7:139359032-139359566	ENSG00000273391.1
466	NDUFB2-AS1	chr7:140695336-140697077	ENSG00000240889.1
467	RP5-894A10.2	chr7:141652381-141656810	ENSG00000244701.1
468	RP4-800G7.2	chr7:149285281-149297312	ENSG00000244560.5
469	ZNF767P	chr7:149547154-149624752	ENSG00000133624.12
470	RP11-148K1.12	chr7:151074742-151076530	ENSG00000244151.1
471	PAXIP1-AS1	chr7:155003448-155005703	ENSG00000273344.1
472	AC144652.1	chr7:155295918-155297541	ENSG00000273117.1
473	AC009403.2	chr7:155611231-155645205	ENSG00000216895.7
474	AC021218.2	chr7:155962632-155966343	ENSG00000204876.4
475	AC005534.8	chr7:156654185-156657693	ENSG00000224903.1
476	MNX1-AS1	chr7:157010805-157016426	ENSG00000243479.3
477	PAICSP4	chr8:4787332-4788584	ENSG00000254244.1
478	RP11-10A14.9	chr8:9158063-9158621	ENSG00000279949.1
479	RP11-10A14.5	chr8:9189011-9202854	ENSG00000248538.5
480	RP11-589N15.2	chr8:11846154-11846391	ENSG00000269899.1
481	RP11-875O11.3	chr8:23071377-23074488	ENSG00000253616.4
482	RP11-1149O23.3	chr8:23224471-23230926	ENSG00000246582.2
483	EXTL3-AS1	chr8:28696198-28701464	ENSG00000246339.5
484	RP11-527N22.2	chr8:37405439-37406724	ENSG00000253746.1
485	RP11-150O12.1	chr8:37421341-37554183	ENSG00000253161.4
486	RP11-150O12.6	chr8:37516410-37517021	ENSG00000253414.2
487	RP11-150O12.3	chr8:37597480-37599858	ENSG00000254290.1
488	RP11-546K22.1	chr8:51961458-52022974	ENSG00000253844.1
489	RP11-1112C15.1	chr8:57978358-57984126	ENSG00000205293.3
490	PTTG3P	chr8:66767400-66768005	ENSG00000213005.3
491	SNHG6	chr8:66921684-66926398	ENSG00000245910.7
492	RP11-152C15.1	chr8:70103798-70104179	ENSG00000253173.3
493	RP11-434I12.3	chr8:73358913-73362788	ENSG00000253339.1
494	RP13-923O23.7	chr8:81696368-81698694	ENSG00000280193.1
495	RP11-219B4.3	chr8:85177522-85178150	ENSG00000254208.1
496	RP11-37B2.1	chr8:89609409-89757727	ENSG00000251136.7
497	RBM12B-AS1	chr8:93740121-93740773	ENSG00000279331.1
498	RP3-388N13.5	chr8:93915734-93916682	ENSG00000264448.3
499	KB-1208A12.3	chr8:98041726-98044121	ENSG00000245970.2
500	GAPDHP62	chr8:100550724-100551713	ENSG00000251013.1

Figure 24J

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
501	NACAP1	chr8:101361794-101372707	ENSG00000228224.3
502	TAGLN2P1	chr8:106697427-106698013	ENSG00000253676.1
503	RP11-851I7.2	chr8:119838736-119840385	ENSG00000279347.1
504	CTC-820M8.1	chr8:120635558-120638204	ENSG00000250290.1
505	RP11-713M15.2	chr8:120812219-120813359	ENSG00000272502.1
506	RNF139-AS1	chr8:124462485-124474576	ENSG00000245149.3
507	PCAT1	chr8:126847055-127021014	ENSG00000253438.2
508	CASC19	chr8:127185635-127203222	ENSG00000254166.1
509	CASC8	chr8:127289817-127482139	ENSG00000246228.5
510	CCAT2	chr8:127400399-127402150	ENSG00000280997.1
511	PVT1	chr8:127794533-128101253	ENSG00000249859.6
512	TMEM75	chr8:127946559-127948723	ENSG00000280055.1
513	RNU1-106P	chr8:127999131-127999294	ENSG00000207110.1
514	RP11-629O1.2	chr8:133573183-133573861	ENSG00000261220.2
515	RP11-642A1.2	chr8:140572142-140572812	ENSG00000279766.1
516	ERICD	chr8:140636281-140638283	ENSG00000280303.2
517	RP11-10J21.4	chr8:141252286-141253292	ENSG00000253307.1
518	CTD-3064M3.4	chr8:141389939-141392574	ENSG00000244998.1
519	CTD-3064M3.7	chr8:141434545-141437954	ENSG00000271959.1
520	RP13-582O9.5	chr8:143280161-143281690	ENSG00000253716.4
521	RHPN1-AS1	chr8:143366631-143368548	ENSG00000254389.3
522	RP11-661A12.9	chr8:143573490-143577397	ENSG00000255050.1
523	RP11-661A12.8	chr8:143578358-143583304	ENSG00000279605.1
524	RP11-429J17.5	chr8:143718246-143718891	ENSG00000254548.1
525	RP11-429J17.7	chr8:143758153-143771822	ENSG00000254973.1
526	CTD-3065J16.6	chr8:144049129-144051522	ENSG00000204791.7
527	CTD-3065J16.9	chr8:144078002-144079265	ENSG00000255224.1
528	CTD-2517M22.14	chr8:144495458-144505444	ENSG00000255182.2
529	RP11-307I14.2	chr9:4781475-4782078	ENSG00000220105.2
530	RPL4P5	chr9:7477045-7478320	ENSG00000230207.1
531	RP11-109M17.2	chr9:10948372-10948481	ENSG00000270372.1
532	AKAP8P1	chr9:11011748-11013096	ENSG00000234146.1
533	LDHAP4	chr9:14921337-14922334	ENSG00000214110.3
534	RP11-146N23.1	chr9:19200335-19201046	ENSG00000232176.1
535	RP11-378I6.1	chr9:19926094-19929937	ENSG00000261402.1
536	IFNWP19	chr9:21455484-21456049	ENSG00000238271.2
537	MIR31HG	chr9:21455642-21559669	ENSG00000171889.3
538	RP11-70L8.4	chr9:21858910-21861926	ENSG00000265194.1
539	RBMXP2	chr9:30689105-30690272	ENSG00000215210.3
540	SLC25A6P2	chr9:31253901-31254777	ENSG00000232203.3
541	TCEA1P4	chr9:32979560-32980403	ENSG00000236184.1
542	LAGE3P1	chr9:33019682-33020165	ENSG00000225693.1
543	RP11-571F15.3	chr9:34223984-34224628	ENSG00000233668.1
544	RP11-112J3.16	chr9:35772163-35790432	ENSG00000227388.2
545	RP11-613M10.6	chr9:37509150-37510299	ENSG00000234160.1
546	FKBP4P6	chr9:42384805-42386136	ENSG00000268234.1
547	CNN2P4	chr9:42972386-42973289	ENSG00000213816.3
548	RPL35AP21	chr9:71589601-71589933	ENSG00000229814.1
549	RP11-82L18.2	chr9:89088604-89109934	ENSG00000224945.1
550	RP13-93L13.2	chr9:89449558-89450754	ENSG00000231799.2

Figure 24K

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
551	RP11-435O5.4	chr9:95514045-95514520	ENSG00000271659.1
552	RPS2P35	chr9:100116755-100117651	ENSG00000238172.2
553	RP11-220D10.1	chr9:108626833-108627150	ENSG00000169253.3
554	YBX1P6	chr9:109532830-109534332	ENSG00000213539.4
555	RP11-356B19.11	chr9:127366770-127367397	ENSG00000271833.1
556	SNORA65	chr9:127448501-127448630	ENSG00000201302.1
557	PTGES2-AS1	chr9:128128529-128130628	ENSG00000232850.3
558	LINC00963	chr9:129483451-129513683	ENSG00000204054.10
559	RP11-492E3.2	chr9:129575409-129584556	ENSG00000227619.1
560	RP11-426A6.5	chr9:135503273-135506447	ENSG00000226706.1
561	C9orf163	chr9:136483495-136486067	ENSG00000196366.3
562	SNHG7	chr9:136721366-136728184	ENSG00000233016.5
563	RP11-216L13.21	chr9:136728953-136729855	ENSG00000274356.1
564	RP11-216L13.19	chr9:136799223-136810042	ENSG00000273066.4
565	RP11-229P13.15	chr9:137052662-137053375	ENSG00000236394.2
566	RP13-463N16.6	chr10:5594991-5596118	ENSG00000242147.1
567	RP11-536K7.3	chr10:5934270-5945900	ENSG00000232807.2
568	RP11-186N15.3	chr10:12244751-12247845	ENSG00000228302.2
569	STAM-AS1	chr10:17641284-17643878	ENSG00000260589.1
570	RP11-305E6.4	chr10:30302826-30306066	ENSG00000259994.1
571	HSD17B7P2	chr10:38356380-38378505	ENSG00000099251.13
572	ZNF37BP	chr10:42513510-42552822	ENSG00000234420.6
573	RP11-351D16.3	chr10:43136824-43138334	ENSG00000273008.1
574	RP11-445N18.3	chr10:45073146-45073541	ENSG00000228462.1
575	PARPG1	chr10:45854093-45972154	ENSG00000239883.7
576	RP11-170M17.1	chr10:63664664-63990568	ENSG00000228566.1
577	RP11-170M17.2	chr10:63902451-63903245	ENSG00000213609.3
578	RP11-9E13.4	chr10:68424560-68424997	ENSG00000234806.1
579	RP11-227H15.5	chr10:69265342-69268148	ENSG00000231748.1
580	RP11-152N13.16	chr10:73124573-73125532	ENSG00000272599.2
581	RP11-574K11.24	chr10:73742995-73744230	ENSG00000279088.1
582	LINC00858	chr10:84279980-84294659	ENSG00000229404.4
583	RP11-77P6.2	chr10:86521945-86525101	ENSG00000227896.2
584	RP11-380G5.3	chr10:87945502-87946024	ENSG00000213613.2
585	NHP2P1	chr10:92216332-92216793	ENSG00000105988.6
586	RP11-108L7.15	chr10:101060029-101061005	ENSG00000273162.1
587	RP11-190J1.3	chr10:101704652-101708401	ENSG00000224817.1
588	RPARP-AS1	chr10:102449817-102461106	ENSG00000269609.4
589	SH3PXD2A-AS1	chr10:103745966-103755423	ENSG00000280693.1
590	ADD3-AS1	chr10:109940104-110008381	ENSG00000203876.8
591	CTAGE7P	chr10:130106046-130108481	ENSG00000233122.2
592	RP11-326C3.2	chr11:287305-288987	ENSG00000255026.1
593	RP11-326C3.13	chr11:325703-326294	ENSG00000270030.1
594	RP11-496I9.1	chr11:557595-560107	ENSG00000254815.4
595	AP006621.5	chr11:777578-784297	ENSG00000255284.1
596	AC068580.7	chr11:1776930-1778388	ENSG00000230834.1
597	H19	chr11:1995163-2001470	ENSG00000130600.14
598	KCNQ1OT1	chr11:2608328-2699994	ENSG00000269821.1
599	SNORA45B	chr11:8685439-8685569	ENSG00000212607.1
600	CTD-2371O3.3	chr11:9459556-9460702	ENSG00000268403.2

Figure 24L

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
601	RP11-466H18.1	chr11:16974693-16975013	ENSG00000244398.1
602	RP1-239B22.5	chr11:17380649-17383531	ENSG00000260196.1
603	BBOX1-AS1	chr11:27047186-27220113	ENSG00000254560.4
604	HSP90AA2P	chr11:27888838-27891033	ENSG00000224411.3
605	RP1-89D4.1	chr11:33237008-33237409	ENSG00000241255.1
606	RP1-68D18.4	chr11:35210343-35214985	ENSG00000255443.1
607	AP001258.4	chr11:59130133-59143015	ENSG00000245571.5
608	AP000442.1	chr11:59616429-59639861	ENSG00000255139.1
609	RP11-794G24.1	chr11:61539516-61542259	ENSG00000256443.1
610	RPLP0P2	chr11:61615036-61639449	ENSG00000243742.4
611	RP11-727F15.9	chr11:62832234-62834043	ENSG00000256690.1
612	SNHG1	chr11:62851988-62855914	ENSG00000255717.5
613	RP11-783K16.5	chr11:64245964-64248217	ENSG00000256940.1
614	RP11-783K16.13	chr11:64246939-64249494	ENSG00000257086.1
615	MALAT1	chr11:65497762-65506516	ENSG00000251562.6
616	SSSCA1-AS1	chr11:65568482-65570423	ENSG00000260233.3
617	RP11-658F2.3	chr11:66761575-66762399	ENSG00000213409.4
618	RPL37P2	chr11:67682772-67683058	ENSG00000239559.2
619	FAM86C2P	chr11:67791648-67805336	ENSG00000160172.9
620	IFITM9P	chr11:69303412-69303807	ENSG00000213275.2
621	RP11-211G23.2	chr11:69371463-69372511	ENSG00000260877.1
622	AP000487.5	chr11:70372246-70398488	ENSG00000246889.2
623	RP11-660L16.2	chr11:71448674-71452157	ENSG00000254682.1
624	SNORD15B	chr11:75404421-75404566	ENSG00000207445.1
625	RP11-535A19.1	chr11:75800877-75803415	ENSG00000254814.1
626	RP11-727A23.5	chr11:83184491-83193794	ENSG00000247137.7
627	GAPDHP70	chr11:88408179-88409223	ENSG00000249489.1
628	SCARNA9	chr11:93721513-93721865	ENSG00000254911.3
629	RP11-178H8.7	chr11:93726654-93729805	ENSG00000279696.1
630	RP11-732A21.3	chr11:102109827-102110457	ENSG00000277459.1
631	RP11-817J15.2	chr11:102606916-102628070	ENSG00000256916.1
632	RP11-832N8.1	chr11:107908420-107908764	ENSG00000240652.1
633	RPL37AP8	chr11:111889199-111889474	ENSG00000176343.5
634	SNORD14E	chr11:123058077-123058161	ENSG00000200879.1
635	RP11-598F7.5	chr12:164664-166321	ENSG00000256694.1
636	RP11-598F7.6	chr12:166856-182399	ENSG00000256540.1
637	RP4-816N1.7	chr12:2797136-2803938	ENSG00000258092.1
638	RP11-253E3.3	chr12:3041437-3044950	ENSG00000250899.3
639	DSTNP2	chr12:6884682-6885786	ENSG00000248593.3
640	SCARNA12	chr12:6967337-6967606	ENSG00000238795.1
641	CIRL-AS1	chr12:7108052-7122501	ENSG00000205885.6
642	RP11-273B20.1	chr12:7129079-7131198	ENSG00000256967.1
643	PTMAP4	chr12:9239986-9240331	ENSG00000231503.4
644	RP11-22B23.1	chr12:9277235-9313241	ENSG00000111788.10
645	DDX12P	chr12:9418673-9448229	ENSG00000214826.5
646	RP11-267J23.4	chr12:12111163-12111489	ENSG00000198134.3
647	RP11-180M15.7	chr12:12718973-12719521	ENSG00000275560.1
648	RP11-392P7.6	chr12:12927726-12984645	ENSG00000247498.8
649	PDCD5P1	chr12:19413153-19413461	ENSG00000255909.1
650	RP11-424C20.2	chr12:20551590-20553012	ENSG00000256663.1

Figure 24M

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
651	ARNTL2-AS1	chr12:27389789-27446625	ENSG00000245311.2
652	LINC00941	chr12:30795681-30802711	ENSG00000235884.3
653	DDX11-AS1	chr12:31020763-31073847	ENSG00000245614.3
654	RP11-843B15.4	chr12:32109076-32109602	ENSG00000277342.1
655	RP11-817I4.1	chr12:32339368-32340724	ENSG00000274964.1
656	RP11-817I4.2	chr12:32352349-32354144	ENSG00000276115.1
657	RP11-278C7.1	chr12:32726383-32727387	ENSG00000257511.1
658	RP11-351C21.2	chr12:42361267-42361703	ENSG00000274943.1
659	PLEKHA8P1	chr12:45173064-45216041	ENSG00000134297.6
660	RP11-493L12.3	chr12:47237734-47279021	ENSG00000257925.1
661	RP11-493L12.6	chr12:47341614-47342089	ENSG00000258116.1
662	RP1-90J4.1	chr12:47415008-47420179	ENSG00000257906.1
663	RP1-228P16.1	chr12:48054813-48055591	ENSG00000240399.1
664	RP11-386G11.5	chr12:48998367-49019235	ENSG00000257913.2
665	RP11-386G11.10	chr12:49127782-49147869	ENSG00000258017.1
666	RP11-133N21.7	chr12:49595148-49595688	ENSG00000257243.1
667	RP11-469H8.6	chr12:49951512-49962924	ENSG00000257588.1
668	LINC00592	chr12:52210930-52223804	ENSG00000258279.2
669	RP11-680A11.5	chr12:53298655-53300314	ENSG00000257605.2
670	RP11-968A15.2	chr12:54262615-54279063	ENSG00000257596.1
671	RP11-153M3.1	chr12:56511002-56512703	ENSG00000257576.1
672	AGAP2-AS1	chr12:57726271-57728356	ENSG00000255737.2
673	RP11-631N16.4	chr12:62603909-62604399	ENSG00000275180.1
674	RPSAP52	chr12:65758020-65826997	ENSG00000241749.4
675	RP11-366L20.2	chr12:65851340-65882167	ENSG00000197301.6
676	RP11-1143G9.5	chr12:69326574-69331882	ENSG00000274979.1
677	RP11-785D18.3	chr12:70570969-70571440	ENSG00000277247.1
678	RP11-578B16.1	chr12:71448405-71448850	ENSG00000277223.1
679	RP11-186F10.2	chr12:71582293-71583852	ENSG00000257761.1
680	RP11-81H3.2	chr12:74133166-74402535	ENSG00000251138.5
681	RP11-585P4.5	chr12:75483454-75489820	ENSG00000257497.2
682	RP11-114H23.1	chr12:75563202-75984015	ENSG00000258077.2
683	RP11-114H23.3	chr12:75688794-75689096	ENSG00000258245.1
684	SNORA70	chr12:75689152-75689304	ENSG00000251893.2
685	RP11-114H23.2	chr12:75694010-75698816	ENSG00000258088.1
686	RP11-290L1.5	chr12:75964440-75967062	ENSG00000257329.1
687	RP11-290L1.3	chr12:76030494-76031378	ENSG00000257453.1
688	RP11-54A9.1	chr12:76259839-76305131	ENSG00000257219.4
689	RP11-390N6.1	chr12:78960258-79045644	ENSG00000257191.1
690	RP11-734K2.4	chr12:89525654-89548005	ENSG00000270344.2
691	TMPO-AS1	chr12:98512973-98516422	ENSG00000257167.2
692	HELLPAR	chr12:102197585-102402596	ENSG00000281344.1
693	FAM222A-AS1	chr12:109734166-109773508	ENSG00000255650.4
694	RP11-686G8.1	chr12:111581379-111581773	ENSG00000238168.5
695	LINC01234	chr12:113679459-113773683	ENSG00000249550.5
696	RP11-103B5.4	chr12:117002463-117003152	ENSG00000277840.1
697	NME2P1	chr12:120282303-120282716	ENSG00000123009.4
698	DYNLL1-AS1	chr12:120490328-120495940	ENSG00000248008.2
699	RP11-728G15.1	chr12:120629611-120641591	ENSG00000256008.2
700	RP13-942N8.1	chr12:123363868-123366113	ENSG00000256092.2

Figure 24N

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
701	RP11-972P1.10	chr12:123515275-123515513	ENSG00000274427.1
702	RP11-972P1.11	chr12:123519390-123519856	ENSG00000278112.1
703	RP11-486O12.2	chr12:123575891-123585115	ENSG00000247373.3
704	RP11-158L12.4	chr12:125138245-125141711	ENSG00000279233.1
705	RP11-474D1.4	chr12:130024493-130044956	ENSG00000261650.1
706	RP11-474D1.3	chr12:130033454-130045057	ENSG00000214039.7
707	RP11-474D1.1	chr12:130047132-130048376	ENSG00000256298.1
708	RP11-143E21.2	chr12:130121925-130122974	ENSG00000279193.1
709	RP11-143E21.3	chr12:130138693-130140768	ENSG00000276122.1
710	RP11-143E21.6	chr12:130249679-130266725	ENSG00000259862.1
711	RP11-200K12.3	chr12:130350996-130351707	ENSG00000279343.1
712	RP11-417L19.6	chr12:131934642-131934928	ENSG00000273568.1
713	EP400NL	chr12:132084283-132131639	ENSG00000185684.11
714	RPS11P5	chr12:132825701-132826184	ENSG00000232888.4
715	MRPL3P1	chr13:19304593-19305625	ENSG00000215349.2
716	RP11-172H24.4	chr13:20699307-20703718	ENSG00000278291.1
717	RP11-261P13.5	chr13:20712431-20714146	ENSG00000279135.1
718	RP11-261P13.6	chr13:20768876-20769375	ENSG00000275485.1
719	MIPEPP3	chr13:21298139-21306373	ENSG00000233325.3
720	ZDHHC20-IT1	chr13:21376977-21377874	ENSG00000236953.1
721	ANKRD20A19P	chr13:23939557-23946782	ENSG00000196593.8
722	IPO7P2	chr13:24122065-24123814	ENSG00000225674.1
723	PDX1-AS1	chr13:27833444-27921404	ENSG00000247381.2
724	ATP5EP2	chr13:27945206-27945590	ENSG00000180389.6
725	PAN3-AS1	chr13:28136843-28138193	ENSG00000261485.1
726	RP11-142E9.1	chr13:33846190-33850825	ENSG00000276672.1
727	MIR621	chr13:40810766-40810861	ENSG00000207652.1
728	LINC01050	chr13:42810366-42812562	ENSG00000271216.1
729	DGKZP1	chr13:43968424-43971199	ENSG00000179611.3
730	SNORA31	chr13:45337480-45337609	ENSG00000199477.1
731	COX4IP2	chr13:45671845-45672391	ENSG00000228869.1
732	NAP1L4P3	chr13:47763460-47764606	ENSG00000234145.1
733	DLEU2	chr13:49982552-50125720	ENSG00000231607.7
734	RP11-34F20.7	chr13:50125816-50128463	ENSG00000274270.1
735	MRPS31P5	chr13:52167709-52194465	ENSG00000243406.5
736	RP11-93H24.3	chr13:52651305-52652279	ENSG00000273723.1
737	LMO7-AS1	chr13:75604700-75635994	ENSG00000261105.4
738	RP11-173B14.4	chr13:75631271-75632135	ENSG00000228444.2
739	RBM26-AS1	chr13:79406309-79424328	ENSG00000227354.5
740	PTMAP5	chr13:81689911-81691072	ENSG00000214182.5
741	MIR17HG	chr13:91347820-91354579	ENSG00000215417.9
742	CLDN10-AS1	chr13:95479444-95533910	ENSG00000223392.1
743	DNAJC3-AS1	chr13:95648733-95676925	ENSG00000247400.3
744	UBAC2-AS1	chr13:99196377-99200710	ENSG00000228889.5
745	H2AFZP3	chr13:99215372-99215758	ENSG00000218502.3
746	LINC01232	chr13:99486962-99499306	ENSG00000280734.1
747	COX5BP6	chr13:100623875-100624429	ENSG00000237082.1
748	LINC00460	chr13:106376563-106378217	ENSG00000233532.4
749	RP11-54H7.4	chr13:109269634-109273838	ENSG00000275216.1
750	LINC00346	chr13:110863987-110870251	ENSG00000255874.2

Figure 240

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
751	RP11-88E10.5	chr13:112686769-112689815	ENSG00000274922.1
752	MCF2L-AS1	chr13:112967484-112968824	ENSG00000235280.2
753	GAS6-AS1	chr13:113815630-113845744	ENSG00000233695.2
754	DUXAP10	chr14:19062316-19115270	ENSG00000225210.4
755	LINC01296	chr14:19284653-19337730	ENSG00000244306.8
756	PRMT5-AS1	chr14:22918947-22926900	ENSG00000237054.8
757	Y RNA	chr14:31244761-31244861	ENSG00000202402.1
758	RP11-159D23.2	chr14:31925801-31930146	ENSG00000257472.1
759	RPS19P3	chr14:34568689-34569129	ENSG00000240463.1
760	HNRNPUP1	chr14:43300263-43300595	ENSG00000259051.1
761	RP11-326E7.1	chr14:49373966-49374383	ENSG00000258401.1
762	AL163953.2	chr14:53599832-53614026	ENSG00000225680.1
763	AL162759.1	chr14:53768942-53850882	ENSG00000235269.1
764	KTN1-AS1	chr14:55499278-55580110	ENSG00000186615.9
765	RPL7AP4	chr14:55543401-55544169	ENSG00000213641.4
766	RP11-307P22.1	chr14:60779978-60780595	ENSG00000258445.3
767	HSPE1P2	chr14:63601509-63601814	ENSG00000258645.2
768	RP11-544I20.2	chr14:64329431-64338599	ENSG00000214770.2
769	PTBP1P	chr14:65279267-65281166	ENSG00000259078.2
770	RP11-72M17.1	chr14:66212810-66509394	ENSG00000258561.1
771	MAGOH3P	chr14:68861762-68862525	ENSG00000270975.1
772	RP6-65G23.3	chr14:70810205-70815403	ENSG00000259153.1
773	RP1-14613.1	chr14:72929612-72929930	ENSG00000176043.5
774	CTD-3035D6.1	chr14:90766531-90766989	ENSG00000213315.5
775	RP11-529H20.3	chr14:92026566-92026887	ENSG00000259020.3
776	DICER1-AS1	chr14:95157645-95179933	ENSG00000235706.6
777	SNHG10	chr14:95532297-95534872	ENSG00000247092.5
778	SCARNA13	chr14:95533355-95533629	ENSG00000252481.1
779	LINC00618	chr14:96943579-96945394	ENSG00000225163.3
780	RP11-1029J19.4	chr14:101628984-101632530	ENSG00000258919.1
781	RP11-1029J19.5	chr14:101634454-101731108	ENSG00000258404.1
782	RP11-73M18.8	chr14:103696353-103697163	ENSG00000269958.1
783	RP11-521B24.4	chr14:105370418-105372918	ENSG00000279495.1
784	RPS20P33	chr14:105374618-105374971	ENSG00000242085.1
785	ARHGAP11B	chr15:30624494-30772993	ENSG00000187951.9
786	RP11-1008C21.1	chr15:37984766-38062340	ENSG00000259225.5
787	C15orf54	chr15:39250684-39254845	ENSG00000175746.6
788	FAM92A1P1	chr15:41163162-41164374	ENSG00000157021.9
789	RP11-23P13.6	chr15:41892793-41898575	ENSG00000174171.5
790	SORD2P	chr15:44826371-44884694	ENSG00000259479.5
791	AHCYP7	chr15:50417385-50418692	ENSG00000259465.2
792	RP11-108K3.1	chr15:51037488-51293912	ENSG00000259240.1
793	RP11-108K3.2	chr15:51315841-51321996	ENSG00000259306.2
794	CTD-2184D3.1	chr15:52095295-52095747	ENSG00000242327.1
795	LINC01169	chr15:66582190-66685794	ENSG00000259471.1
796	RPS24P16	chr15:67232446-67232837	ENSG00000242634.1
797	RP11-253M7.1	chr15:69396904-69415029	ENSG00000259426.4
798	RP11-106M3.3	chr15:72278867-72351794	ENSG00000261460.1
799	ANP32BP1	chr15:75321397-75322693	ENSG00000259790.1
800	CTD-2562G15.3	chr15:75452964-75453947	ENSG00000276744.1

Figure 24P

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
801	SCARNA15	chr15:82752884-82757208	ENSG00000252690.3
802	GOLGA2P7	chr15:84199311-84230136	ENSG00000225151.9
803	HMGB1P8	chr15:89135547-89136495	ENSG00000259699.2
804	RP11-661P17.1	chr15:91408708-91605211	ENSG00000258551.4
805	CTD-2147F2.1	chr15:97295881-97432094	ENSG00000259485.1
806	CTD-2147F2.2	chr15:97370371-97521811	ENSG00000259664.2
807	RP11-20G13.3	chr15:99395179-99396593	ENSG00000259590.1
808	WASIR2	chr16:22910-25123	ENSG00000231439.4
809	Z97634.3	chr16:382097-392960	ENSG00000236829.8
810	LA16c-313D11.12	chr16:689001-692554	ENSG00000261659.2
811	LA16c-306A4.1	chr16:883780-885090	ENSG00000260022.1
812	TPSP2	chr16:1286351-1288837	ENSG00000260284.1
813	RP11-616M22.7	chr16:1294551-1299166	ENSG00000260710.1
814	LA16c-358B7.3	chr16:1317891-1322845	ENSG00000261505.1
815	LA16c-390E6.4	chr16:1451760-1452653	ENSG00000260051.1
816	LA16c-380F5.3	chr16:1553655-1554130	ENSG00000280231.1
817	LA16c-431H6.7	chr16:1688355-1690536	ENSG00000278987.1
818	LA16c-329F2.2	chr16:1707252-1707973	ENSG00000275092.1
819	AC005363.11	chr16:1971655-1971896	ENSG00000277602.1
820	RP11-304L19.1	chr16:2091436-2095433	ENSG00000259933.5
821	RP11-304L19.3	chr16:2094830-2097026	ENSG00000261123.1
822	SNORD60	chr16:2155023-2155105	ENSG00000206630.1
823	AC141586.5	chr16:2603350-2630494	ENSG00000215154.5
824	PRSS30P	chr16:2839568-2842744	ENSG00000172460.13
825	LA16c-325D7.1	chr16:2857898-2859726	ENSG00000263325.1
826	MMP25-AS1	chr16:3051096-3059370	ENSG00000261971.5
827	RP11-473M20.9	chr16:3076911-3087100	ENSG00000262370.4
828	ZNF213-AS1	chr16:3116042-3134882	ENSG00000263072.4
829	LA16c-360H6.1	chr16:3292879-3293403	ENSG00000279031.1
830	RP11-461A8.4	chr16:3650636-3651703	ENSG00000263235.1
831	LINC01569	chr16:4245825-4253789	ENSG00000262468.4
832	RP11-295D4.1	chr16:4335870-4337818	ENSG00000262712.1
833	RP11-295D4.3	chr16:4346694-4348648	ENSG00000280063.1
834	RP11-77H9.2	chr16:8848105-8860456	ENSG00000260276.2
835	RP11-485G7.6	chr16:11348143-11349321	ENSG00000262703.1
836	RP11-166B2.3	chr16:11881075-11882569	ENSG00000261560.1
837	NPIPP1	chr16:15104312-15123498	ENSG00000188599.16
838	CTB-193M12.5	chr16:15701237-15702118	ENSG00000280206.1
839	CRYM-AS1	chr16:21300849-21318591	ENSG00000189149.10
840	RRN3P1	chr16:21796106-21820410	ENSG00000248124.6
841	RP11-645C24.4	chr16:21938865-21945130	ENSG00000257408.1
842	CTD-2649C14.2	chr16:21950218-21951708	ENSG00000274460.1
843	CTD-2196E14.6	chr16:23568673-23569696	ENSG00000260751.2
844	CTD-2547G23.4	chr16:25257952-25261066	ENSG00000274925.1
845	AC002331.1	chr16:26584755-26594813	ENSG00000236481.1
846	RP11-57A19.2	chr16:28284885-28292064	ENSG00000246465.1
847	RP11-1348G14.8	chr16:28822431-28823969	ENSG00000275807.1
848	ATP2A1-AS1	chr16:28878957-28879920	ENSG00000260442.4
849	RP11-264B17.4	chr16:28973962-28978824	ENSG00000260367.2
850	RP11-426C22.4	chr16:29217170-29220031	ENSG00000259807.1

Figure 24Q

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
851	SLC7A5P1	chr16:29613104-29613640	ENSG00000260727.1
852	CDIPT-AS1	chr16:29863593-29868053	ENSG00000214725.6
853	FBXL19-AS1	chr16:30919319-30923269	ENSG00000260852.1
854	RP11-1072A3.3	chr16:30984630-30988270	ENSG00000279196.1
855	CLUHP3	chr16:31700590-31711986	ENSG00000131797.11
856	RP11-401P9.1	chr16:50551824-50553940	ENSG00000260029.2
857	RP11-401P9.7	chr16:50555355-50558719	ENSG00000278909.1
858	CRNDE	chr16:54918863-54929189	ENSG00000245694.7
859	RP11-322D14.2	chr16:57052505-57058497	ENSG00000260145.1
860	CTD-2600O9.1	chr16:57798186-57816946	ENSG00000187185.4
861	LINC00922	chr16:65284499-65576300	ENSG00000261742.4
862	LINC00920	chr16:66408524-66412135	ENSG00000246898.1
863	RP11-403P17.6	chr16:66565620-66566001	ENSG00000277978.1
864	RP11-615I2.2	chr16:68644248-68646168	ENSG00000260577.2
865	RP11-615I2.3	chr16:68651056-68651948	ENSG00000260860.2
866	HSPE1P5	chr16:68686399-68686670	ENSG00000261395.3
867	CTD-2033A16.3	chr16:69727013-69742563	ENSG00000262136.1
868	CTD-2033A16.2	chr16:69756536-69757937	ENSG00000260290.2
869	SMG1P7	chr16:70219574-70245616	ENSG00000261556.7
870	VAC14-AS1	chr16:70755098-70773251	ENSG00000214353.6
871	LINC01572	chr16:72283301-72665009	ENSG00000261008.5
872	RP5-991G20.1	chr16:72665170-72791624	ENSG00000259768.5
873	RPL18P13	chr16:76235055-76235623	ENSG00000244485.1
874	RP11-303E16.2	chr16:81030770-81031485	ENSG00000261061.1
875	RP11-568J23.1	chr16:85815873-85816536	ENSG00000214259.3
876	CTD-2015G9.2	chr16:86722091-86741059	ENSG00000261175.4
877	RP11-106D4.2	chr16:87470370-87474370	ENSG00000276337.1
878	RP11-863P13.3	chr16:88177298-88178941	ENSG00000261327.4
879	RP5-1142A6.9	chr16:88718615-88720459	ENSG00000260121.1
880	AC137932.4	chr16:89268104-89273044	ENSG00000268218.1
881	VPS9D1-AS1	chr16:89711856-89718165	ENSG00000261373.1
882	RP11-566K11.7	chr16:89906157-89918233	ENSG00000267048.1
883	AFG3L1P	chr16:89972586-90002161	ENSG00000223959.7
884	URAHP	chr16:90039761-90047773	ENSG00000222019.6
885	RP11-235E17.6	chr17:3655621-3658092	ENSG00000262903.1
886	RYKP1	chr17:4222091-4223828	ENSG00000263219.1
887	AC118754.4	chr17:4497394-4499674	ENSG00000229782.1
888	RP11-141J13.5	chr17:4610449-4617650	ENSG00000261863.1
889	CTC-524C5.2	chr17:5425139-5432876	ENSG00000263272.1
890	RP11-186B7.4	chr17:7572706-7582024	ENSG00000264772.4
891	RPL29P2	chr17:7754320-7754976	ENSG00000240480.1
892	RP11-849F2.9	chr17:8277763-8278436	ENSG00000269947.1
893	UBE2SP1	chr17:15704232-15704900	ENSG00000233966.1
894	RP11-416I2.1	chr17:17011914-17014990	ENSG00000260328.1
895	RPL13P12	chr17:17383377-17384012	ENSG00000215030.5
896	UBE2SP2	chr17:18677261-18677757	ENSG00000224126.2
897	SNORD3B-2	chr17:19063346-19064136	ENSG00000262074.5
898	SCDP1	chr17:20784645-20785725	ENSG00000226549.3
899	RP11-663N22.1	chr17:27237859-27241661	ENSG00000265246.1
900	RPL34P31	chr17:27274107-27274477	ENSG00000239223.3

Figure 24R

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
901	RP11-173M1.5	chr17:27351858-27352584	ENSG00000265683.1
902	RPS7P1	chr17:28467822-28468406	ENSG00000263266.2
903	AC010761.8	chr17:28721487-28722877	ENSG00000264577.1
904	RP11-68I3.7	chr17:29591703-29592241	ENSG00000264647.1
905	SUZ12P1	chr17:30709299-30790908	ENSG00000264538.5
906	CTD-2349P21.5	chr17:30729469-30731202	ENSG00000263603.1
907	RP1-41C23.4	chr17:31560132-31560573	ENSG00000278546.1
908	CTD-2095E4.3	chr17:32159311-32160371	ENSG00000280033.1
909	RP11-749I16.3	chr17:40113215-40115442	ENSG00000279199.1
910	RP11-58O9.2	chr17:40473554-40475289	ENSG00000279806.1
911	AC003958.2	chr17:41402416-41425049	ENSG00000234859.4
912	KRT41P	chr17:41406512-41411775	ENSG00000225438.1
913	RP11-156E6.1	chr17:41848518-41851447	ENSG00000259623.1
914	RP11-242D8.1	chr17:43164183-43170403	ENSG00000267002.1
915	RP13-890H12.2	chr17:45168800-45171584	ENSG00000267288.2
916	CRHR1-IT1	chr17:45620328-45648216	ENSG00000204650.12
917	SP2-AS1	chr17:47897330-47941410	ENSG00000234494.6
918	RP11-501C14.9	chr17:48899131-48899748	ENSG00000270781.1
919	RP11-481C4.2	chr17:51183191-51186403	ENSG00000279089.1
920	RP11-159D12.2	chr17:57989039-57994850	ENSG00000264112.1
921	BZRAP1-AS1	chr17:58325450-58415766	ENSG00000265148.4
922	SETP3	chr17:58476138-58476950	ENSG00000266648.1
923	CTD-2510F5.4	chr17:59202677-59203829	ENSG00000265415.1
924	RP11-329L6.2	chr17:64145970-64146476	ENSG00000266402.3
925	SNORD104	chr17:64146083-64146152	ENSG00000199753.1
926	RP13-104F24.2	chr17:64749663-64781707	ENSG00000215769.7
927	RP13-104F24.3	chr17:64750420-64751311	ENSG00000265298.1
928	RP11-927P21.4	chr17:64778842-64778937	ENSG00000265982.1
929	PLEKHM1P	chr17:64779259-64837154	ENSG00000214176.8
930	CTD-2535L24.3	chr17:65457541-65458408	ENSG00000263520.1
931	RP11-57A1.1	chr17:72425939-72428852	ENSG00000263680.2
932	AC011933.2	chr17:75338827-75339147	ENSG00000228007.1
933	RP11-552F3.10	chr17:75897060-75900148	ENSG00000267342.1
934	SNHG16	chr17:76557766-76565348	ENSG00000163597.13
935	SNHG20	chr17:77086716-77094990	ENSG00000234912.8
936	EIF5AP2	chr17:78157403-78159135	ENSG00000267679.1
937	RP11-559N14.5	chr17:78484882-78503056	ENSG00000267432.4
938	CTD-2357A8.3	chr17:78617389-78632057	ENSG00000267123.4
939	RP11-353N14.1	chr17:79800598-79802529	ENSG00000262768.2
940	RP11-353N14.2	chr17:79823452-79827704	ENSG00000262772.1
941	RP11-353N14.5	chr17:79915252-79926725	ENSG00000262585.1
942	RP11-353N14.4	chr17:79919357-79925462	ENSG00000262188.1
943	RP11-353N14.7	chr17:79952663-79952992	ENSG00000275516.1
944	CTD-2529O21.1	chr17:79991944-79992841	ENSG00000262172.1
945	RP11-334C17.3	chr17:80147250-80148596	ENSG00000279259.1
946	RP11-334C17.5	chr17:80200673-80205949	ENSG00000262580.4
947	CTD-2047H16.2	chr17:80315651-80316633	ENSG00000262979.1
948	AC027601.1	chr17:81228707-81233983	ENSG00000260005.5
949	TMEM105	chr17:81311270-81330674	ENSG00000185332.5
950	RP11-1055B8.1	chr17:81395609-81397144	ENSG00000279692.1

Figure 24S

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
951	RP11-498C9.4	chr17:81862778-81863102	ENSG00000278876.1
952	MAFG-AS1	chr17:81927829-81930753	ENSG00000265688.1
953	AC137723.5	chr17:81941869-81947601	ENSG00000235296.1
954	RP13-516M14.2	chr17:82214227-82217352	ENSG00000264548.1
955	RP13-638C3.3	chr17:82587313-82588411	ENSG00000262147.1
956	BOLA2P1	chr18:832238-832469	ENSG00000266575.1
957	RP11-672L10.5	chr18:856526-857045	ENSG00000264179.1
958	RP11-161I6.2	chr18:1883524-2240847	ENSG00000263745.4
959	DLGAP1-AS1	chr18:3593732-3598352	ENSG00000177337.6
960	DLGAP1-AS2	chr18:3603000-3608336	ENSG00000262001.1
961	RP11-874J12.4	chr18:3653410-3656282	ENSG00000266401.1
962	RP11-419J16.1	chr18:10125340-10144406	ENSG00000265554.1
963	RP11-703I16.3	chr18:12040101-12040300	ENSG00000266995.1
964	RP11-815J4.7	chr18:12067173-12068417	ENSG00000267533.1
965	FAM60BP	chr18:26255698-26256355	ENSG00000263829.1
966	DSG1-AS1	chr18:31343368-31426988	ENSG00000266729.4
967	SNHG22	chr18:49814023-49851059	ENSG00000267322.2
968	SNRPGP2	chr18:54406889-54407114	ENSG00000264350.1
969	CTD-2171N6.1	chr18:55105904-55124306	ENSG00000267013.4
970	RP11-126O1.4	chr18:58672613-58752730	ENSG00000267476.1
971	OACYLP	chr18:58996734-59069338	ENSG00000224367.5
972	NFE2L3P1	chr18:59969438-59971396	ENSG00000267497.1
973	ATP5G1P6	chr18:63496989-63497400	ENSG00000214318.3
974	AC006273.5	chr19:782755-785080	ENSG00000267530.2
975	CTB-25B13.9	chr19:1508375-1508963	ENSG00000267092.2
976	AC005256.1	chr19:1748056-1748745	ENSG00000267073.1
977	CTB-31O20.2	chr19:1874871-1876169	ENSG00000261526.2
978	AC005264.2	chr19:3141576-3155175	ENSG00000267551.3
979	CTB-50L17.5	chr19:4429689-4430934	ENSG00000267255.1
980	SNRPEP4	chr19:5576660-5576938	ENSG00000233270.1
981	CTD-3128G10.6	chr19:6748293-6751467	ENSG00000269680.1
982	CTD-3214H19.6	chr19:7633766-7636990	ENSG00000268204.1
983	CTD-3193O13.12	chr19:7898804-7903542	ENSG00000214248.2
984	C3P1	chr19:10037803-10074135	ENSG00000167798.15
985	CTD-2369P2.4	chr19:10259109-10260045	ENSG00000267105.1
986	CTD-2006C1.6	chr19:11648364-11652877	ENSG00000267500.1
987	CTD-2006C1.2	chr19:11987617-12046275	ENSG00000219665.7
988	CTD-2666L21.3	chr19:12260126-12260537	ENSG00000213293.4
989	AD000092.3	chr19:12894133-12894880	ENSG00000240616.1
990	CTD-3252C9.4	chr19:13834516-13836289	ENSG00000267519.3
991	EEF1DP1	chr19:14070342-14071237	ENSG00000228887.3
992	AC005785.2	chr19:15379076-15381194	ENSG00000268189.2
993	AC006128.2	chr19:15398696-15400356	ENSG00000279716.1
994	CTB-187L3.1	chr19:15515342-15516836	ENSG00000269765.2
995	CYP4F23P	chr19:15564074-15584709	ENSG00000269516.5
996	UCA1	chr19:15828961-15836320	ENSG00000214049.6
997	CTD-2231E14.2	chr19:16074293-16077395	ENSG00000279198.1
998	CTD-3222D19.12	chr19:16542746-16544814	ENSG00000269399.2
999	CTD-3222D19.8	chr19:16572624-16575340	ENSG00000279529.1
1000	CTD-2521M24.6	chr19:17414257-17422324	ENSG00000269481.1

Figure 24T

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1001	CTD-3131K8.2	chr19:17488990-17511889	ENSG00000269439.4
1002	MIR3189	chr19:18386562-18386634	ENSG00000264175.1
1003	AC005253.2	chr19:18557775-18561560	ENSG00000268030.1
1004	AC079466.1	chr19:28606688-28615229	ENSG00000266976.1
1005	AC007773.2	chr19:32390050-32405560	ENSG00000267213.4
1006	CTC-523E23.3	chr19:34949038-34951205	ENSG00000280106.1
1007	CTD-2527121.14	chr19:35014961-35025335	ENSG00000271032.1
1008	TMEM147-AS1	chr19:35540738-35546029	ENSG00000236144.5
1009	AC002116.7	chr19:36014508-36045972	ENSG00000267698.1
1010	RPL31P61	chr19:36901742-36902117	ENSG00000243297.2
1011	CTD-2540F13.2	chr19:38738284-38739863	ENSG00000267892.1
1012	IFNL3P1	chr19:39236433-39237293	ENSG00000268510.1
1013	RPL36P16	chr19:41169861-41170166	ENSG00000224476.3
1014	CTC-435M10.12	chr19:41373971-41374419	ENSG00000277744.1
1015	MIR6797	chr19:41869627-41869698	ENSG00000276926.1
1016	AC092066.1	chr19:44664131-44666158	ENSG00000279095.1
1017	AC007191.4	chr19:45714387-45717381	ENSG00000279407.1
1018	AC006262.5	chr19:46189166-46203083	ENSG00000268621.4
1019	IGFL1P1	chr19:46196238-46197323	ENSG00000268879.1
1020	CTC-453G23.5	chr19:48118432-48127706	ENSG00000269534.4
1021	AC018766.6	chr19:49852887-49854967	ENSG00000268047.1
1022	PTOV1-AS2	chr19:49856970-49859289	ENSG00000269352.1
1023	RPL37P23	chr19:52143043-52143336	ENSG00000243680.1
1024	TPM3P9	chr19:53431984-53444670	ENSG00000241015.2
1025	AC012314.8	chr19:54119511-54125343	ENSG00000237017.1
1026	AC008746.12	chr19:54438665-54439544	ENSG00000267838.2
1027	LENG8-AS1	chr19:54444813-54449045	ENSG00000226696.4
1028	CTD-253719.12	chr19:55661901-55674715	ENSG00000267523.1
1029	CTC-444N24.8	chr19:57261354-57262738	ENSG00000268713.1
1030	CTC-444N24.11	chr19:57304305-57308562	ENSG00000268205.1
1031	AC004076.5	chr19:57449689-57453011	ENSG00000276449.1
1032	CTD-2583A14.8	chr19:57867038-57868172	ENSG00000269867.1
1033	CTD-2583A14.11	chr19:57867885-57868834	ENSG00000270804.1
1034	AC010642.1	chr19:58278966-58315197	ENSG00000267216.1
1035	CTD-2619J13.13	chr19:58400221-58400679	ENSG00000268307.1
1036	CTD-2619J13.19	chr19:58440448-58445849	ENSG00000269473.1
1037	RP11-128M1.1	chr20:2207217-2213151	ENSG00000226644.4
1038	RP5-1009E24.8	chr20:3808357-3812434	ENSG00000275491.1
1039	LINC01433	chr20:4193065-4195943	ENSG00000230176.2
1040	LINC00658	chr20:5426895-5471094	ENSG00000226995.6
1041	RPS18P1	chr20:5532878-5533335	ENSG00000225831.1
1042	EIF4EP1	chr20:5548840-5549481	ENSG00000233578.1
1043	RP5-967N21.11	chr20:6000418-6000941	ENSG00000275632.1
1044	RP4-775C13.1	chr20:6213699-6215381	ENSG00000234241.1
1045	PA2G4P2	chr20:12380056-12381255	ENSG00000235698.1
1046	SNORD17	chr20:17962710-17962946	ENSG00000212232.1
1047	RPS19P1	chr20:18504633-18505066	ENSG00000214612.3
1048	RP1-198K11.5	chr20:21302731-21303704	ENSG00000275457.1
1049	RP3-322G13.7	chr20:23346941-23351486	ENSG00000234832.1
1050	XXYac-YX60D10.2	chr20:23772785-23776169	ENSG00000277975.1

Figure 24U

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1051	ZNF337-AS1	chr20:25624045-25678074	ENSG000000213742.5
1052	RP4-694B14.8	chr20:25680781-25681246	ENSG000000278383.1
1053	RP4-760C5.3	chr20:26008791-26010531	ENSG000000231081.1
1054	HML3-IT1	chr20:31563166-31564076	ENSG000000235313.1
1055	ABALON	chr20:31721507-31723409	ENSG000000281376.1
1056	RP5-836N17.4	chr20:32116171-32116629	ENSG000000275576.1
1057	RP5-1085F17.3	chr20:32856621-32858751	ENSG000000260257.2
1058	RPL31P2	chr20:33752167-33752543	ENSG000000230837.1
1059	RP4-785G19.5	chr20:34234840-34281173	ENSG000000250917.1
1060	CTD-3216D2.5	chr20:34281632-34286466	ENSG000000272945.1
1061	RP11-42O4.2	chr20:35174355-35174919	ENSG000000278367.1
1062	FAM83C-AS1	chr20:35285251-35285756	ENSG000000235214.1
1063	FER1L4	chr20:35558737-35607562	ENSG000000088340.14
1064	RPL37P1	chr20:35588324-35588607	ENSG000000227401.1
1065	LINC00657	chr20:36045622-36050960	ENSG000000260032.1
1066	DLGAP4-AS1	chr20:36507702-36573391	ENSG000000232907.6
1067	RP4-564F22.5	chr20:38406011-38416797	ENSG000000224635.1
1068	SNHG17	chr20:38420588-38435353	ENSG000000196756.10
1069	SNORA71B	chr20:38425083-38425354	ENSG000000235408.4
1070	SNORA71A	chr20:38427309-38427442	ENSG000000225091.3
1071	SNORA71C	chr20:38429670-38429803	ENSG000000201512.1
1072	SNORA71D	chr20:38433865-38433998	ENSG000000200354.1
1073	SNHG11	chr20:38446578-38450921	ENSG000000174365.18
1074	SNORA60	chr20:38449370-38449503	ENSG000000199266.1
1075	RP4-616B8.5	chr20:38955910-38956547	ENSG000000274825.1
1076	RP4-616B8.6	chr20:38962472-38962993	ENSG000000277581.1
1077	RP5-881L22.5	chr20:44347552-44355185	ENSG000000226812.2
1078	RP3-453C12.14	chr20:45345115-45345823	ENSG000000275894.1
1079	RP11-465L10.10	chr20:46013500-46022073	ENSG000000204044.6
1080	RPL13P2	chr20:46099518-46100176	ENSG000000213820.3
1081	RP1-101A2.1	chr20:46681676-46682375	ENSG000000273893.1
1082	ZFAS1	chr20:49278178-49295738	ENSG000000177410.11
1083	SNORD12B	chr20:49280319-49280409	ENSG000000222365.1
1084	SNRPF1	chr20:49729591-49729842	ENSG000000231878.1
1085	KRT18P4	chr20:49956745-49958032	ENSG000000229222.1
1086	LINC01272	chr20:50267486-50279795	ENSG000000224397.4
1087	LINC01270	chr20:50292720-50314922	ENSG000000203999.7
1088	LINC01429	chr20:51831797-51862912	ENSG000000227964.1
1089	RP54XP3	chr20:56601701-56602113	ENSG000000214541.3
1090	RP5-1059L7.1	chr20:57710183-57712780	ENSG000000278709.1
1091	RP5-907D15.4	chr20:58634772-58635738	ENSG000000268941.2
1092	RP11-157P1.4	chr20:62305432-62306325	ENSG000000226332.2
1093	RP5-908M14.9	chr20:62386303-62386970	ENSG000000273619.1
1094	RP5-908M14.10	chr20:62402236-62405935	ENSG000000275437.1
1095	RP5-908M14.5	chr20:62427827-62447621	ENSG000000233017.2
1096	WI2-87327B8.2	chr20:62596732-62603115	ENSG000000273812.1
1097	SLCO4A1-AS1	chr20:62663019-62666724	ENSG000000232803.1
1098	LINC00659	chr20:62774128-62775412	ENSG000000228705.1
1099	RP4-563E14.1	chr20:62928621-62929297	ENSG000000273759.1
1100	RP5-963E22.6	chr20:63218041-63218502	ENSG000000273821.1

Figure 24V

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1101	RP4-697K14.15	chr20:63543411-63543738	ENSG00000275812.1
1102	CTD-3184A7.4	chr20:63627227-63628824	ENSG00000232442.1
1103	RP4-591C20.9	chr20:63861212-63864293	ENSG00000268858.2
1104	MIR647	chr20:63942631-63942726	ENSG00000207554.1
1105	UCKL1-AS1	chr20:63953384-63956985	ENSG00000280213.1
1106	AF127577.8	chr21:14918534-14947096	ENSG00000235277.1
1107	LINC01549	chr21:17438890-17449185	ENSG00000232560.5
1108	RPL39P40	chr21:17500679-17500824	ENSG00000226580.1
1109	AP000695.4	chr21:36445731-36532408	ENSG00000233818.1
1110	AP000696.2	chr21:36632681-36637033	ENSG00000231324.1
1111	AP000697.6	chr21:36698773-36701564	ENSG00000224269.1
1112	DSCR9	chr21:37208503-37221736	ENSG00000230366.8
1113	SPATA20P1	chr21:38238227-38238664	ENSG00000231123.1
1114	AF064858.6	chr21:38863676-38956467	ENSG00000205622.8
1115	PCBP2P1	chr21:39171130-39172106	ENSG00000235701.1
1116	PLAC4	chr21:41175231-41185239	ENSG00000280109.1
1117	AP001628.6	chr21:42831040-42836477	ENSG00000225218.1
1118	AP001631.9	chr21:43140523-43141092	ENSG00000236663.1
1119	TRPM2-AS	chr21:44414588-44425272	ENSG00000230061.2
1120	TSPEAR-AS2	chr21:44517216-44525952	ENSG00000182912.6
1121	MCM3AP-AS1	chr21:46229217-46259390	ENSG00000215424.8
1122	AP001469.9	chr21:46251549-46254133	ENSG00000239415.1
1123	DUXAP8	chr22:15784959-15829984	ENSG00000206195.9
1124	LL22NC03-N14H11.1	chr22:15823197-15823890	ENSG00000272872.1
1125	AC004471.9	chr22:19121529-19124503	ENSG00000223461.1
1126	LINC01311	chr22:19171395-19172839	ENSG00000260924.2
1127	AC000067.1	chr22:19667023-19667555	ENSG00000225007.1
1128	LINC00896	chr22:20206397-20208524	ENSG00000236499.2
1129	TMEM191A	chr22:20701114-20704606	ENSG00000226287.6
1130	KB-1440D3.13	chr22:21661934-21662363	ENSG00000272954.1
1131	FBXW4P1	chr22:23262767-23265005	ENSG00000230701.2
1132	CRYBB2P1	chr22:25448105-25520854	ENSG00000100058.11
1133	CTA-445C9.14	chr22:26512537-26514568	ENSG00000261188.1
1134	RP1-40G4P.1	chr22:26886909-26887548	ENSG00000231369.1
1135	TTC28-AS1	chr22:27919376-28008581	ENSG00000235954.5
1136	RP1-102K2.8	chr22:30246205-30246998	ENSG00000268812.3
1137	CTA-963H5.5	chr22:30653877-30654814	ENSG00000250318.1
1138	RP1-90G24.10	chr22:32205115-32269666	ENSG00000242082.1
1139	CPSF1P1	chr22:32269381-32273110	ENSG00000214076.3
1140	RP5-1014D13.2	chr22:37876148-37895563	ENSG00000279738.1
1141	CTA-228A9.3	chr22:38090127-38091559	ENSG00000272720.1
1142	RP5-821D11.7	chr22:41831215-41834665	ENSG00000184068.2
1143	CYP2D7	chr22:42140203-42144577	ENSG00000205702.9
1144	CYP2D8P	chr22:42149886-42155001	ENSG00000226450.2
1145	OGFRP1	chr22:42269753-42275196	ENSG00000182057.4
1146	LINC01315	chr22:42364400-42369236	ENSG00000229891.1
1147	CTA-126B4.7	chr22:42438023-42446195	ENSG00000230107.1
1148	RRP7B	chr22:42555223-42582038	ENSG00000182841.11
1149	CTA-414D7.1	chr22:44102779-44116232	ENSG00000279175.1
1150	NUP50-AS1	chr22:45133020-45163781	ENSG00000226328.5

Figure 24W

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1151	CTA-217C2.2	chr22:45155539-45156011	ENSG00000273243.1
1152	CTA-941F9.10	chr22:45657019-45680130	ENSG00000280383.1
1153	MIRLET7BHG	chr22:46053869-46113928	ENSG00000197182.11
1154	RP3-439F8.1	chr22:46541495-46548196	ENSG00000234869.1
1155	CTA-29F11.1	chr22:46761894-46762563	ENSG00000260708.1
1156	CTA-384D8.36	chr22:50523926-50524780	ENSG00000272821.1
1157	MT-TM	chrM:4402-4469	ENSG00000210112.1
1158	LINC00106	chrX:1396427-1399402	ENSG00000236871.5
1159	ASMTL-AS1	chrX:1401769-1414028	ENSG00000236017.6
1160	CD99P1	chrX:2609348-2657229	ENSG00000223773.5
1161	RP11-459A10.1	chrX:6422092-6422701	ENSG00000237730.1
1162	RP11-120D5.1	chrX:10847877-11111141	ENSG00000234129.6
1163	CA5BP1	chrX:15674932-15703724	ENSG00000186312.9
1164	snoU2_19	chrX:20136306-20136385	ENSG00000201592.1
1165	RP11-298C3.2	chrX:25645722-25646327	ENSG00000228519.3
1166	HMGAI1P1	chrX:26748029-26749090	ENSG00000236683.3
1167	RP11-320G24.1	chrX:40262917-40287720	ENSG00000236393.1
1168	RP6-218J18.2	chrX:44029332-44030921	ENSG00000214019.2
1169	FDPSP5	chrX:44476027-44477422	ENSG00000215035.2
1170	RP5-1158E12.3	chrX:45848074-45851490	ENSG00000231566.1
1171	LINC01186	chrX:46325924-46327645	ENSG00000236751.1
1172	GAPDHP65	chrX:46439709-46440714	ENSG00000235587.2
1173	AF196972.3	chrX:48433201-48441619	ENSG00000235350.1
1174	RP11-1148L6.9	chrX:48568014-48574860	ENSG00000204620.3
1175	LL0XNC01-7P3.1	chrX:49273054-49275768	ENSG00000270012.1
1176	RP11-485B17.5	chrX:52448587-52451138	ENSG00000250084.1
1177	RP11-3D23.1	chrX:62779250-62780326	ENSG00000236852.1
1178	HNRNPDP1	chrX:64044305-64045058	ENSG00000232794.1
1179	RPS23P8	chrX:70962964-70963293	ENSG00000230629.2
1180	AL590762.11	chrX:71420083-71420514	ENSG00000213018.2
1181	SEPHS1P4	chrX:73769248-73770423	ENSG00000230146.1
1182	DDX3P1	chrX:74121012-74131923	ENSG00000232928.2
1183	AC004386.4	chrX:74376125-74376885	ENSG00000213269.2
1184	PABPC1P3	chrX:74583088-74583546	ENSG00000230673.3
1185	STIP1P3	chrX:86084716-86086339	ENSG00000225536.2
1186	HNRNPA1P26	chrX:100855288-100856379	ENSG00000239345.2
1187	HNRNPA1P27	chrX:100887636-100888590	ENSG00000233680.4
1188	LL0XNC01-131B10.2	chrX:100910712-100911489	ENSG00000179031.8
1189	DNAJA1P3	chrX:107351650-107352843	ENSG00000215007.3
1190	TDGF1P3	chrX:110520312-110523021	ENSG00000225366.4
1191	SNORA69	chrX:119787353-119787484	ENSG00000206622.1
1192	PA2G4P1	chrX:120868611-120869807	ENSG00000237828.1
1193	RP5-1052M9.1	chrX:124326175-124326258	ENSG00000226532.1
1194	FIRRE	chrX:131702650-131830643	ENSG00000213468.3
1195	FAM195CP	chrX:131795657-131796167	ENSG00000241418.1
1196	MIR503HG	chrX:134543337-134546632	ENSG00000223749.6
1197	RP11-1114A5.4	chrX:136840931-136847797	ENSG00000232611.1
1198	RP11-308D16.2	chrX:136909395-137021630	ENSG00000234062.6
1199	RP11-332E4.1	chrX:137324972-137325049	ENSG00000214748.2
1200	RP13-150K15.1	chrX:145630218-145632375	ENSG00000231093.1
1201	LINC00894	chrX:149938628-150224580	ENSG00000235703.4
1202	RP11-49C9.2	chrX:150114378-150116520	ENSG00000183171.5
1203	XX-FW83563B9.5	chrX:154396878-154398816	ENSG00000280195.1

Figure 24X

CRC Exon RNA sequence markers

Order	Exon	Gene
1	chr1:53711212-53712728:-	<i>LRP8</i>
2	chr1:92511089-92511217:+	<i>EPHX4</i>
3	chr1:92515874-92515977:+	<i>EPHX4</i>
4	chr1:92518067-92518215:+	<i>EPHX4</i>
5	chr1:92528612-92529093:+	<i>EPHX4</i>
6	chr1:150956757-150956870:+	<i>ANXA9</i>
7	chr1:150957062-150957152:+	<i>ANXA9</i>
8	chr1:150958812-150958891:+	<i>ANXA9</i>
9	chr1:150960348-150960432:+	<i>ANXA9</i>
10	chr1:150960567-150960662:+	<i>ANXA9</i>
11	chr1:150960759-150960817:+	<i>ANXA9</i>
12	chr2:113332424-113334727:+	<i>POLR1B</i>
13	chr2:174130778-174132736:+	<i>ZAK</i>
14	chr2:196599607-196602425:+	<i>SLC39A10</i>
15	chr3:190023503-190026228:-	<i>CLDN1</i>
16	chr3:190027958-190028042:-	<i>CLDN1</i>
17	chr3:190030661-190030825:-	<i>CLDN1</i>
18	chr3:190039773-190040215:-	<i>CLDN1</i>
19	chr4:57259531-57261714:-	<i>PPAT</i>
20	chr5:54273696-54275263:-	<i>ESM1</i>
21	chr5:54277825-54277974:-	<i>ESM1</i>
22	chr5:54281045-54281414:-	<i>ESM1</i>
23	chr5:73923235-73925817:-	<i>ENC1</i>
24	chr5:135398875-135399506:+	<i>TGFBI</i>
25	chr5:176882725-176883283:+	<i>PRR7</i>
26	chr6:1312675-1314992:+	<i>FOXQ1</i>
27	chr6:41617357-41617581:+	<i>MDFI</i>
28	chr6:41621057-41621981:+	<i>MDFI</i>
29	chr6:44220782-44221115:+	<i>HSP90AB1</i>
30	chr6:44221226-44221614:+	<i>HSP90AB1</i>
31	chr6:151203898-151204022:+	<i>MTHFD1L</i>
32	chr6:151206770-151206870:+	<i>MTHFD1L</i>
33	chr6:151208978-151209117:+	<i>MTHFD1L</i>
34	chr6:151247258-151247431:+	<i>MTHFD1L</i>
35	chr6:151281411-151281551:+	<i>MTHFD1L</i>
36	chr6:151330955-151331094:+	<i>MTHFD1L</i>
37	chr6:151336016-151336116:+	<i>MTHFD1L</i>
38	chr6:151336652-151336829:+	<i>MTHFD1L</i>
39	chr6:151355629-151355736:+	<i>MTHFD1L</i>
40	chr6:151358101-151358253:+	<i>MTHFD1L</i>
41	chr6:151413603-151413723:+	<i>MTHFD1L</i>
42	chr6:151422662-151423020:+	<i>MTHFD1L</i>
43	chr7:24836165-24839898:-	<i>OSBPL3</i>
44	chr7:24846395-24846521:-	<i>OSBPL3</i>
45	chr7:24849426-24849570:-	<i>OSBPL3</i>

Order	Exon	Gene
46	chr7:26217563-26217742:+	<i>NFE2L3</i>
47	chr7:26223321-26223404:+	<i>NFE2L3</i>
48	chr7:26224153-26226754:+	<i>NFE2L3</i>
49	chr7:36492086-36493398:+	<i>ANLN</i>
50	chr7:44608502-44608604:-	<i>DDX56</i>
51	chr7:56130706-56131682:+	<i>CCT6A</i>
52	chr7:73933739-73934049:+	<i>GTF2IRD1</i>
53	chr7:73935538-73935627:+	<i>GTF2IRD1</i>
54	chr7:73938401-73938484:+	<i>GTF2IRD1</i>
55	chr7:73944064-73944247:+	<i>GTF2IRD1</i>
56	chr7:73950497-73950605:+	<i>GTF2IRD1</i>
57	chr7:73953010-73953090:+	<i>GTF2IRD1</i>
58	chr7:73954209-73954298:+	<i>GTF2IRD1</i>
59	chr7:73959085-73959132:+	<i>GTF2IRD1</i>
60	chr7:73960074-73960139:+	<i>GTF2IRD1</i>
61	chr7:73961433-73961616:+	<i>GTF2IRD1</i>
62	chr7:73969504-73969553:+	<i>GTF2IRD1</i>
63	chr7:73969723-73969824:+	<i>GTF2IRD1</i>
64	chr7:73971969-73972052:+	<i>GTF2IRD1</i>
65	chr7:73973191-73973374:+	<i>GTF2IRD1</i>
66	chr7:73973957-73973985:+	<i>GTF2IRD1</i>
67	chr7:74004180-74004257:+	<i>GTF2IRD1</i>
68	chr7:74005154-74005346:+	<i>GTF2IRD1</i>
69	chr7:74009341-74009378:+	<i>GTF2IRD1</i>
70	chr7:74015371-74016918:+	<i>GTF2IRD1</i>
71	chr7:102957277-102957461:-	<i>DNAJC2</i>
72	chr7:105096962-105098373:-	<i>PUS7</i>
73	chr7:116435941-116438439:+	<i>MET</i>
74	chr7:138516129-138522905:-	<i>KIAA1549</i>
75	chr7:138524878-138525023:-	<i>KIAA1549</i>
76	chr7:138529062-138529219:-	<i>KIAA1549</i>
77	chr7:138545885-138546202:-	<i>KIAA1549</i>
78	chr7:138552721-138552874:-	<i>KIAA1549</i>
79	chr7:138554284-138554507:-	<i>KIAA1549</i>
80	chr7:138874067-138874550:+	<i>TTC26</i>
81	chr8:128902835-128903244:+	<i>PVT1</i>
82	chr8:129001408-129001537:+	<i>PVT1</i>
83	chr8:129108764-129108900:+	<i>PVT1</i>
84	chr8:129113226-129113498:+	<i>PVT1</i>
85	chr8:144826030-144828507:+	<i>LOC100128338</i>
86	chr10:1063015-1063704:+	<i>GTPBP4</i>
87	chr10:102752947-102754158:+	<i>C10orf2</i>
88	chr11:45945705-45945828:+	<i>GYLTL1B</i>
89	chr11:45946057-45946228:+	<i>GYLTL1B</i>
90	chr11:45946336-45946440:+	<i>GYLTL1B</i>

Figure 25A

Order	Exon	Gene	Order	Exon	Gene
91	chr11:45947590-45947702:+	<i>GYLTL1B</i>	136	chr15:81172057-81172195:+	<i>KIAA1199</i>
92	chr11:45947773-45947898:+	<i>GYLTL1B</i>	137	chr15:81173241-81173477:+	<i>KIAA1199</i>
93	chr11:45947914-45948148:+	<i>GYLTL1B</i>	138	chr15:81176516-81176695:+	<i>KIAA1199</i>
94	chr11:45948262-45948422:+	<i>GYLTL1B</i>	139	chr15:81180035-81180105:+	<i>KIAA1199</i>
95	chr11:45948866-45949144:+	<i>GYLTL1B</i>	140	chr15:81181042-81181137:+	<i>KIAA1199</i>
96	chr11:45949471-45949620:+	<i>GYLTL1B</i>	141	chr15:81181812-81181933:+	<i>KIAA1199</i>
97	chr11:45949728-45949923:+	<i>GYLTL1B</i>	142	chr15:81187331-81187463:+	<i>KIAA1199</i>
98	chr11:45950181-45950647:+	<i>GYLTL1B</i>	143	chr15:81188210-81188401:+	<i>KIAA1199</i>
99	chr11:60702724-60704630:+	<i>TMEM132A</i>	144	chr15:81199004-81199179:+	<i>KIAA1199</i>
100	chr11:66452721-66453911:-	<i>SPTBN2</i>	145	chr15:81201438-81201647:+	<i>KIAA1199</i>
101	chr11:66454465-66454638:-	<i>SPTBN2</i>	146	chr15:81212435-81212640:+	<i>KIAA1199</i>
102	chr11:66454898-66455118:-	<i>SPTBN2</i>	147	chr15:81213373-81213442:+	<i>KIAA1199</i>
103	chr11:66455475-66455550:-	<i>SPTBN2</i>	148	chr15:81214350-81214478:+	<i>KIAA1199</i>
104	chr11:66455640-66455782:-	<i>SPTBN2</i>	149	chr15:81216962-81217047:+	<i>KIAA1199</i>
105	chr11:66456124-66456320:-	<i>SPTBN2</i>	150	chr15:81217965-81218096:+	<i>KIAA1199</i>
106	chr11:66456567-66456651:-	<i>SPTBN2</i>	151	chr15:81221243-81221278:+	<i>KIAA1199</i>
107	chr11:66457276-66457414:-	<i>SPTBN2</i>	152	chr15:81221360-81221515:+	<i>KIAA1199</i>
108	chr11:66457510-66457754:-	<i>SPTBN2</i>	153	chr15:81224200-81224380:+	<i>KIAA1199</i>
109	chr11:66458755-66459129:-	<i>SPTBN2</i>	154	chr15:81225586-81225801:+	<i>KIAA1199</i>
110	chr11:66460007-66460211:-	<i>SPTBN2</i>	155	chr15:81229015-81229226:+	<i>KIAA1199</i>
111	chr11:66460441-66460571:-	<i>SPTBN2</i>	156	chr15:81230135-81230320:+	<i>KIAA1199</i>
112	chr11:66460657-66460917:-	<i>SPTBN2</i>	157	chr15:81234190-81234394:+	<i>KIAA1199</i>
113	chr11:66461610-66461834:-	<i>SPTBN2</i>	158	chr15:81234592-81234678:+	<i>KIAA1199</i>
114	chr11:66463748-66464011:-	<i>SPTBN2</i>	159	chr15:81235286-81235443:+	<i>KIAA1199</i>
115	chr12:3131010-3131183:+	<i>TEAD4</i>	160	chr15:81239306-81239406:+	<i>KIAA1199</i>
116	chr12:3147134-3147274:+	<i>TEAD4</i>	161	chr15:81241138-81243999:+	<i>KIAA1199</i>
117	chr12:3149273-3149425:+	<i>TEAD4</i>	162	chr16:4312537-4312702:-	<i>TFAP4</i>
118	chr12:3149531-3149841:+	<i>TEAD4</i>	163	chr16:67132613-67134956:+	<i>CBFB</i>
119	chr12:52562781-52565341:-	<i>KRT80</i>	164	chr16:68678151-68679327:+	<i>CDH3</i>
120	chr12:52565442-52565497:-	<i>KRT80</i>	165	chr16:68679539-68679653:+	<i>CDH3</i>
121	chr12:52566822-52566947:-	<i>KRT80</i>	166	chr16:68710288-68710373:+	<i>CDH3</i>
122	chr12:52567384-52567548:-	<i>KRT80</i>	167	chr16:68712037-68712180:+	<i>CDH3</i>
123	chr12:52574297-52574747:-	<i>KRT80</i>	168	chr16:68712404-68712559:+	<i>CDH3</i>
124	chr12:52579163-52579533:-	<i>KRT80</i>	169	chr16:68712665-68712809:+	<i>CDH3</i>
125	chr12:52585387-52585784:-	<i>KRT80</i>	170	chr16:68713702-68713877:+	<i>CDH3</i>
126	chr12:63037763-63042416:-	<i>PPMIH</i>	171	chr16:68714871-68714999:+	<i>CDH3</i>
127	chr12:64841885-64842461:+	<i>XPOT</i>	172	chr16:68716205-68716390:+	<i>CDH3</i>
128	chr13:28498393-28500451:+	<i>PDX1</i>	173	chr16:68718486-68718727:+	<i>CDH3</i>
129	chr14:23440412-23442777:-	<i>AJUBA</i>	174	chr16:68719108-68719253:+	<i>CDH3</i>
130	chr14:23443256-23443324:-	<i>AJUBA</i>	175	chr16:68721415-68721639:+	<i>CDH3</i>
131	chr14:23444048-23444099:-	<i>AJUBA</i>	176	chr16:68725623-68725829:+	<i>CDH3</i>
132	chr14:23444183-23444313:-	<i>AJUBA</i>	177	chr16:68729158-68729288:+	<i>CDH3</i>
133	chr14:23445665-23445727:-	<i>AJUBA</i>	178	chr16:68729680-68729826:+	<i>CDH3</i>
134	chr15:81166205-81166314:+	<i>KIAA1199</i>	179	chr16:68732094-68732957:+	<i>CDH3</i>
135	chr15:81171062-81171208:+	<i>KIAA1199</i>	180	chr16:87863630-87866631:-	<i>SLC7A5</i>

Figure 25B

Order	Exon	Gene	Order	Exon	Gene
181	chr16:89643947-89644129:+	<i>CPNE7</i>	226	chr20:61296286-61296440:+	<i>SLCO4A1</i>
182	chr16:89651872-89651961:+	<i>CPNE7</i>	227	chr20:61297732-61297927:+	<i>SLCO4A1</i>
183	chr16:89652095-89652193:+	<i>CPNE7</i>	228	chr20:61297737-61297973:-	<i>LOC100127888</i>
184	chr16:89653078-89653164:+	<i>CPNE7</i>	229	chr20:61299097-61299262:+	<i>SLCO4A1</i>
185	chr16:89653451-89653510:+	<i>CPNE7</i>	230	chr20:61299364-61299536:+	<i>SLCO4A1</i>
186	chr16:89656305-89656359:+	<i>CPNE7</i>	231	chr20:61299829-61299893:+	<i>SLCO4A1</i>
187	chr16:89657415-89657466:+	<i>CPNE7</i>	232	chr20:61300282-61300430:+	<i>SLCO4A1</i>
188	chr17:36827961-36831187:-	<i>C17orf96</i>	233	chr20:61303102-61303647:+	<i>SLCO4A1</i>
189	chr17:41605212-41606111:-	<i>ETV4</i>	234	chr20:61429939-61430020:+	<i>C20orf20</i>
190	chr17:41606503-41606604:-	<i>ETV4</i>	235	chr20:61430808-61431943:+	<i>C20orf20</i>
191	chr17:41606872-41607044:-	<i>ETV4</i>	236	chr21:38071991-38072221:+	<i>SIM2</i>
192	chr17:41607252-41607320:-	<i>ETV4</i>	237	chr21:38084833-38084922:+	<i>SIM2</i>
193	chr17:41607475-41607802:-	<i>ETV4</i>	238	chr21:38092122-38092230:+	<i>SIM2</i>
194	chr17:41610042-41610307:-	<i>ETV4</i>	239	chr21:38095346-38095431:+	<i>SIM2</i>
195	chr17:41610555-41610716:-	<i>ETV4</i>	240	chr21:38098420-38098619:+	<i>SIM2</i>
196	chr17:41611227-41611353:-	<i>ETV4</i>	241	chr21:38103346-38103452:+	<i>SIM2</i>
197	chr17:41613794-41613847:-	<i>ETV4</i>	242	chr21:38114018-38114165:+	<i>SIM2</i>
198	chr17:41622343-41622390:-	<i>ETV4</i>	243	chr21:38115688-38115856:+	<i>SIM2</i>
199	chr17:41622642-41622754:-	<i>ETV4</i>	244	chr21:38117029-38118218:+	<i>SIM2</i>
200	chr17:41622926-41623081:-	<i>ETV4</i>	245	chr22:24125598-24126502:+	<i>MMP11</i>
201	chr17:77768176-77769357:-	<i>CBX8</i>	246	chrX:118722307-118725272:-	<i>NKRF</i>
202	chr17:79887352-79888628:+	<i>MAFG-AS1</i>	247	chrX:154003470-154003548:+	<i>DKC1</i>
203	chr19:7963546-7966908:+	<i>LRRC8E</i>	248	chrX:154004462-154004599:+	<i>DKC1</i>
204	chr19:48907991-48908610:+	<i>GRIN2D</i>	249	chrX:154005074-154005963:+	<i>DKC1</i>
205	chr19:48917248-48917362:+	<i>GRIN2D</i>			
206	chr19:48917630-48917841:+	<i>GRIN2D</i>			
207	chr19:48918121-48918289:+	<i>GRIN2D</i>			
208	chr19:48919259-48919412:+	<i>GRIN2D</i>			
209	chr19:48922491-48922616:+	<i>GRIN2D</i>			
210	chr19:48922842-48923071:+	<i>GRIN2D</i>			
211	chr19:48925042-48925202:+	<i>GRIN2D</i>			
212	chr19:48945026-48945213:+	<i>GRIN2D</i>			
213	chr19:48945407-48945639:+	<i>GRIN2D</i>			
214	chr19:48945857-48948187:+	<i>GRIN2D</i>			
215	chr20:368655-368945:+	<i>TRIB3</i>			
216	chr20:371931-372223:+	<i>TRIB3</i>			
217	chr20:376842-378201:+	<i>TRIB3</i>			
218	chr20:43570772-43571854:-	<i>TOMM34</i>			
219	chr20:43572094-43572220:-	<i>TOMM34</i>			
220	chr20:47711269-47711500:+	<i>CSE1L</i>			
221	chr20:61287711-61288602:+	<i>SLCO4A1</i>			
222	chr20:61290029-61290119:+	<i>SLCO4A1</i>			
223	chr20:61291764-61291885:+	<i>SLCO4A1</i>			
224	chr20:61292416-61292527:+	<i>SLCO4A1</i>			
225	chr20:61296276-61296849:-	<i>LOC100127888</i>			

Figure 25C

CRC mRNA protein encoding markers

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
1	ACAN	15q26.1	aggrecan	NP_037359	E7EX88 E7ENV9
2	ACTR3B	7q36.1	ARP3 actin-related protein 3 homolog B (yeast)	NP_065178	Q9P1U1 Q59GD5
3	ADAM12	10q26	ADAM metalloproteinase domain 12	NP_067673	O43184 U5NE98 A8K6G4
4	ADAMTS6	5q13	ADAM metalloproteinase with thrombospondin type 1 motif, 6	NP_922932	Q9UKP5 Q5IR90
5	AMPD2	1p13.3	adenosine monophosphate deaminase 2	NP_981949	Q01433 A0A024R098 B2RB47
6	ANKRD13B	17q11.2	ankyrin repeat domain 13B	NP_689558	Q86YJ7 A0A024QZ29 B3KS27
7	ANLN	7p15-p14	anillin, actin binding protein	NP_061155	Q9NQW6 A0A024RA49 A8K5D9
8	ANXA4	2p13	annexin A4	NP_001144	P09525 Q6LES2
9	APLN	Xq25	Apelin	NP_059109	Q9ULZ1
10	AREG	4q13.3	amphiregulin	NP_001648	P15514
11	ARNTL2	12p12.2-p11.2	aryl hydrocarbon receptor nuclear translocator-like 2	NP_064568	Q8WYA1
12	ASPHD1	16p11.2	aspartate beta-hydroxylase domain containing 1	NP_859069	Q5U4P2
13	ATAD2	8q24.13	ATPase family, AAA domain containing 2	NP_054828	Q6PL18 A0A024R9G7
14	ATG9B	7q36	ATG9 autophagy related 9 homolog B (S. cerevisiae)	NP_775952	Q674R7
15	ATIC	2q35	5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase	NP_004035	P31939 V9HWH7
16	ATP11A	13q34	ATPase, class VI, type 11A	NP_115565	P98196 Q6PJ25 E9PEJ6 Q659C3
17	BAG4	8p11.23	BCL2-associated athanogene 4	NP_004865	O95429
18	BFSP1	20p12.1	beaded filament structural protein 1, filensin	NP_001265537	Q12934 B7ZAD2 B7Z999
19	BIRC5	17q25.3	baculoviral inhibitor of apoptosis repeat-containing 5 or survivin	NP_001159	O15392 A0A0B4J1S3 H3BLT4
20	BYSL	6p21.1	bystin-like	NP_004044	Q13895
21	C10orf2	10q24	chromosome 10 open reading frame 2	NP_068602	Q96RR1 Q9H6V3 E5KSY5
22	C11orf84	11q13.1	chromosome 11 open reading frame 84	NP_612480	Q9BUA3
23	C12orf11 or INTS13	12p11.23	integrator complex subunit 13		
24	C16orf46	16q23.2	chromosome 16 open reading frame 46	NP_689550	Q6P387
25	C17orf96	17q12	chromosome 17 open reading frame 96	NP_001124149	A6NHQ4
26	C19orf28 or MFSD12	19p13.3	major facilitator superfamily domain containing 12	NP_778148	Q6NUT3
27	C19orf48	19q13.33	chromosome 19 open reading frame 48	NP_954858	Q6RUI8 A0A024R4G9
28	C1orf135 or AUNIP	1p36.11	aurora kinase A and ninein interacting protein	NP_076942	Q9H7T9
29	C1orf170	1p36.33	chromosome 1 open reading frame 170		
30	C1R	12p13	complement component 1, r subcomponent	NP_001724	P00736
31	C20orf20 or MARGBP	20q13.33	MARG domain binding protein		

Figure 26A

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
32	C2CD4A	15q22.2	C2 calcium-dependent domain containing 4A	NP_997205	Q8NCU7
33	C2orf70	2p23.3	chromosome 2 open reading frame 70	NP_001098989	A6NJV1
34	C5orf34	5p12	chromosome 5 open reading frame 34	NP_940968	Q96MH7
35	C6orf223	6p21.1	chromosome 6 open reading frame 223	NP_694978	Q8N319
36	C7orf40 or SNHG15	7p13	small nucleolar RNA host gene 15		
37	C7orf68 or HILPDA	7q32.1	hypoxia inducible lipid droplet associated	NP_037464	Q9Y5L2
38	CBFB	16q22.1	core-binding factor, beta subunit	NP_074036	Q13951 A0A024R6X2
39	CBX2	17q25.3	chromobox homolog 2		
40	CBX3	7p15.2	chromobox homolog 3	NP_057671	Q13185 A4D177 B8ZZ43
41	CBX4	17q25.3	chromobox homolog 4	NP_003646	O00257
42	CBX8	17q25.3	chromobox homolog 8	NP_065700	Q9HC52
43	CCDC150	2q33.1	coiled-coil domain containing 150	NP_001074008	Q8NCX0 B8ZZ14
44	CCDC19	1q23.2	coiled-coil domain containing 19		
45	CCDC78	16p13.3	coiled-coil domain containing 78	NP_001026907	A2IDD5
46	CCDC86	11q12.2	coiled-coil domain containing 86	NP_077003	Q9H6F5
47	CCND1	11q13	cyclin D1		
48	CCT3	1q23	chaperonin containing TCP1, subunit 3 (gamma)	NP_005989	B3KX11 Q59H77 P49368
49	CCT6A	7p11.2	chaperonin containing TCP1, subunit 6A (zeta 1)	NP_001753	A0A024RDL1 P40227
50	CD209	19p13.2	CD209 molecule	NP_066978	Q9NNX6 M0R0P0 X6RB12 B4E2A8 B2R907
51	CD3EAP	19q13.3	CD3e molecule, epsilon associated protein	NP_036231	O15446
52	CD44	11p13	CD44 molecule (Indian blood group)	NP_001189486	P16070
53	CDC25B	20p13	cell division cycle 25 homolog B (S. pombe)	NP_068659	P30305 B4DIG0 B3KS38 G8JLH2 E1YMX4 Q6MZW8 B4DRC3 B4DQZ3
54	CDH3	16q22.1	cadherin 3, type 1, P-cadherin (placental)	NP_001784	P22223
55	CEACAM5	19q13.2	carcinoembryonic antigen related cell adhesion molecule	NP_004354	P06731 A0A024R0K5 Q53G30
56	CELSR3	3p21.31	cadherin, EGF LAG seven-pass G-type receptor 3 (flamingo homolog, Drosophila)	NP_001398	Q9NYQ7
57	CEP72	5p15.33	centrosomal protein 72kDa	NP_060610	Q9P209
58	CGREF1	2p23.3	cell growth regulator with EF-hand domain 1		
59	CKAP2	13q14	cytoskeleton associated protein 2	NP_060674	Q8WWK9
60	CLDN1	3q28-q29	claudin 1	NP_066924	Q95832 A5JSJ9
61	CLEC4M	19p13.2	C-type lectin domain family 4 member M	NP_055072	Q9H2X3 H7BXU4 B4E2Z5
62	CLIC1	6p21.3	chloride intracellular channel 1	NP_001279	O00299 Q5SRT3 Q53FB0

Figure 26B

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
63	CLIC4	1p36.11	chloride intracellular channel 4	NP_039234	Q9Y696 Q6FIC5
64	CLU	8p21-p12	clusterin	NP_001822	P10909
65	CNTD2	19q13.2	cyclin N-terminal domain containing 2	NP_079153	Q9H8S5
66	COL10A1	6q21-q22	collagen, type X, alpha 1	NP_000484	Q03692
67	COL11A1	1p21	collagen, type XI, alpha 1	NP_542197	P12107 Q59HB5
68	COL7A1	3p21.1	collagen, type VII, alpha 1	NP_000085	Q02388 Q59F16
69	CPNE7	16q24.3	copine VII	NP_705900	Q9UBL6
70	CSE1L	20q13	CSE1 chromosome segregation 1-like (yeast)	NP_001307	P55060
71	CST1	20p11.2	cystatin SN	NP_001889	P01037
72	CST4	20p11.2	cystatin S	NP_001890	P01036
73	CTHRC1	8q22.3	collagen triple helix repeat containing 1	NP_612464	Q96CG8
74	CTSD	11p15.5	cathepsin D	NP_001900	P07339 V9HWI3
75	CXCL8	4q13.3	C-X-C motif chemokine ligand 8	NP_000575	P10145 A0A024RDA5
76	CYP27B1	12q13.3-q14	cytochrome P450, family 27, subfamily B, polypeptide 1	NP_000776	O15528
77	DCUN1D5	11q22.3	DCN1, defective in cullin neddylation 1, domain containing 5 (S. cerevisiae)	NP_115675	Q9BTE7 A0A024R3A2 B4DP84
78	DDN	12q13	dendrin	NP_055901	Q94850
79	DDX10	11q22-q23	DEAD (Asp-Glu-Ala-Asp) box polypeptide 10	NP_004389	Q13206
80	DDX31	9q34.2	DEAD (Asp-Glu-Ala-Asp) box polypeptide 31	NP_619526	Q9H8H2
81	DDX55	12q24.31	DEAD (Asp-Glu-Ala-Asp) box polypeptide 55	NP_065987	Q8NHQ9 A0A024RBS0 Q8TEC9
82	DDX56	7p13	DEAD (Asp-Glu-Ala-Asp) box polypeptide 56	NP_061955	Q9NY93
83	DKC1	Xq28	dyskeratosis congenita 1, dyskerin	NP_001354	Q60832
84	DKK3	11p15.2	dickkopf WNT signaling pathway inhibitor 3	NP_056965	Q9UBP4
85	DNAJC2	7q22-q32	DnaJ (Hsp40) homolog, subfamily C, member 2	NP_055192	Q99543
86	DPP4	2q24.2	dipeptidyl peptidase 4	NP_001926	P27487
87	DSCC1	8q24.12	defective in sister chromatid cohesion 1 homolog (S. cerevisiae)	NP_076999	Q9BVC3
88	E2F5	8q21.2	E2F transcription factor 5, p130-binding	NP_001942	Q15329
89	ECT2	3q26.1-q26.2	Epithelial cell transforming sequence 2 oncogene	NP_060568	Q9H8V3
90	EGFL6	Xp22	EGF-like-domain, multiple 6	NP_056322	Q8IUX8
91	EGFR	7p12	epidermal growth factor receptor	NP_958441	P00533
92	EIF2S2	20q11.2	eukaryotic translation initiation factor 2, subunit 2 beta, 38kDa	NP_003899	P20042 Q6IBR8
93	EIF3B	7p22	eukaryotic translation initiation factor 3, subunit B	NP_003742	P55884 A0A024R821

Figure 26C

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
94	ENC1	5q13	ectodermal-neural cortex 1 (with BTB-like domain)	NP_003624	O14682 Q53XS2
95	ENO2 or NSE	12p13.31	enolase 2		P09104
96	EPHX4	1p22.1	epoxide hydrolase 4	NP_775838	Q8IUS5
97	ESM1	5q11	endothelial cell-specific molecule 1	NP_008967	Q9NQ30
98	ETV4	17q21	ets variant 4	NP_001977	P43268
99	FAM176A or EVA1A	2p12	eva-1 homolog A, regulator of programmed cell death	NP_115557	Q9H8M9
100	FAM40B or STRIP2	7q32.1	striatin interacting protein 2	NP_065755	Q9ULQ0
101	FAM89A	1q42.2	family with sequence similarity 89, member A	NP_940954	Q96G17
102	FANCB	Xp22.2	Fanconi anemia, complementation group B	NP_689846	Q8NB91 A0A024RBW1
103	FAP	2q24.2	fibroblast activation protein alpha	NP_004451	B4DLR2 Q12884
104	FASLG	1q24.3	Fas ligand	NP_001289675	Q53ZZ1 P48023
105	FJX1	11p13	four jointed box 1 (Drosophila)	NP_055159	Q86VR8
106	FLT3LG	19q13.33	fms related tyrosine kinase 3 ligand	NP_001450	P49771 B7ZLY4
107	FOXA1	14q21.1	forkhead box A1	NP_004487	P55317
108	FOXQ1	6p25	forkhead box Q1	NP_150285	Q9C009
109	FTSJ1	Xp11.23	FtsJ homolog 1 (E. coli)	NP_803188	B7Z4K4 A0A024QYX5 B3KN91 Q9UET6
110	FTSJ2	7p22	FtsJ homolog 2 (E. coli)	NP_037525	Q9UI43 V9HWJ9
111	FUT1	19q13.33	fucosyltransferase 1 (galactoside 2-alpha-L-fucosyltransferase, H blood group)	NP_000139	P19526 Q6IZA2
112	FXYD5	19q13.12	FXYD domain containing ion transport regulator 5	NP_659003	Q96DB9 F5H4X8
113	GABRD	1p36.3	gamma-aminobutyric acid (GABA) A receptor, delta	NP_000806	O14764 A8K496
114	GAD1	2q31	glutamate decarboxylase 1 (brain, 67kDa)	NP_038473	Q99259 Q8IVA8
115	GARS	7p15	glycyl-tRNA synthetase	NP_002038	P41250
116	GDF15	19p13.11	growth differentiation factor 15	NP_004855	Q99988
117	GLS2	12q13	glutaminase 2 (liver, mitochondrial)	NP_037399	Q9UI32 A0A087X004
118	GMPS	3q25.31	guanine monophosphate synthetase	NP_003866	P49915
119	GRHL1	2p25.2	grainyhead-like 1 (Drosophila)	NP_937825	Q9NZI5
120	GRHL2	8q22.3	grainyhead like transcription factor 2	NP_079191	Q6ISB3
121	GRHL3	1p36	grainyhead-like 3 (Drosophila)	NP_937817	Q8TE85
122	GRIN1	9q34.3	glutamate ionotropic receptor NMDA type subunit 1	NP_067544	Q05586 Q5VSF9 Q59GW0
123	GRIN2A	16p13.2	glutamate ionotropic receptor NMDA type subunit 2A	NP_001127880	Q12879 Q547U9 Q59EW6
124	GRIN2B	12p13.1	glutamate ionotropic receptor NMDA type subunit 2B	NP_000825	Q13224

Figure 26D

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
125	GRIN2C	17q25.1	glutamate ionotropic receptor NMDA type subunit 2C	NP_001265482	Q14957 H0Y2V8 Q81W23 O15398
126	GRIN2D	19q13.33	glutamate ionotropic receptor NMDA type subunit 2D	NP_000827	O15399 Q59G17
127	GRP	18q21.32	gastrin releasing peptide	NP_002082	P07492
128	GTF2IRD1	7q11.23	GTF2I repeat domain containing 1	NP_057412	Q9UHL9 E9PFE2
129	GTPBP4	10p15-p14	GTP binding protein 4	NP_036473	Q9BZE4 D2CFK9
130	GYLTL1B	11p11.12	glycosyltransferase-like 1B	NP_689525	Q8N3Y3 E9PIZ2 B3KP69
131	HAGHL	16p13.3	hydroxyacylglutathione hydrolase-like		
132	HAUS6	9p22.1	HAUS augmin-like complex, subunit 6	NP_060115	Q7Z4H7
133	HDAC5	17q21	histone deacetylase 5	NP_005465	Q9UQL6
134	HOXB13	17q21.2	homeobox B13	NP_006352	Q92826 Q4KR72
135	HSP90AB1	6p12	heat shock protein 90kDa alpha (cytosolic), class B member 1	NP_031381	P08238 A0A024RD80 Q6PK50 B4DGL0
136	HSPD1	2q33.1	heat shock 60kDa protein 1 (chaperonin)	NP_955472	P10809 A0A024R3X4
137	IGFBP2	2q35	insulin-like growth factor binding protein 2, 36kDa	NP_000588	P18065
138	IL23A	12q13.13	interleukin 23, alpha subunit p19	NP_057668	Q9NPF7
139	IL6ST	5q11.2	interleukin 6 signal transducer	NP_786943	P40189 Q17RA0 A0A0A0N0L2
140	IMPDH1	7q31.3-q32	IMP (inosine 5'-monophosphate) dehydrogenase 1	NP_899066	P20839 B3KRZ3
141	IMPDH2	3p21.2	IMP (inosine 5'-monophosphate) dehydrogenase 2	NP_000875	P12268
142	INHBA	7p15-p13	inhibin, beta A	NP_002183	P08476 A4D1W7
143	JUB or AJUBA	14q11.2	ajuba LIM protein	NP_932352	Q96IF1
144	KAT2A	17q12-q21	K(lysine) acetyltransferase 2A	NP_066564	Q92830
145	KCNJ14	19q13	potassium inwardly-rectifying channel, subfamily J, member 14	NP_037480	Q9UNX9
146	KIAA1199	15q25.1	KIAA1199		
147	KIAA1257	3q21.3	KIAA1257	NP_065792	Q9ULG3
148	KIAA1549	7q34	KIAA1549	NP_065961	Q9HCM3
149	KIF14	1q32.1	kinesin family member 14	NP_055690	Q15058
150	KIF26B	1q44	kinesin family member 26B	NP_060482	Q2KJY2
151	KLHL35	11q13.4	kelch-like 35 (Drosophila)	NP_001034637	Q6PF15
152	KLK2	19q13.41	kallikrein-related peptidase 2	NP_005542	P20151 A0A024R4N3 A0A024R4J4 B4DU77
153	KLK3 or PSA	19q13.41	kallikrein-related peptidase 3		
154	KLK6	19q13.3	kallikrein-related peptidase 6	NP_002765	Q92876 A0A024R4J8
155	KLKB1	4q35	kallikrein B, plasma (Fletcher factor) 1	NP_000883	P03952
156	KRT23	17q21.2	keratin 23 (histone deacetylase inducible)		

Figure 26E

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
157	KRT80	12q13.13	keratin 80	NP_872313	Q6KB66
158	LEMD1	1q32.1	LEM domain containing 1		
159	LOC646851 or FAM227A	22q13.1	family with sequence similarity 227 member A	NP_001277959	F5H4B4
160	LOC92659 or MAFG-DT	17q25.3	MAFG divergent transcript		
161	LRG1	19p13.3	leucine-rich alpha-2-glycoprotein 1	NP_443204	P02750 Q68CK4
162	LRP8	1p32.3	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor		
163	LRR8E	19p13.2	leucine rich repeat containing 8 family, member E	NP_079337	Q6NSJ5
164	LYAR	4p16.3	Ly1 antibody reactive homolog (mouse)	NP_060286	Q9NX58
165	MAGEA4	Xq28	melanoma antigen family A4	NP_002353	P43358 A0A024RC12
166	MC1R	16q24.3	melanocortin 1 receptor (alpha melanocyte stimulating hormone receptor)	NP_002377	Q01726 Q1JUL4
167	MDFI	6p21	MyoD family inhibitor	NP_005577	Q99750 A0A024RCY2 B1AKB6
168	MDM2	12q14.3-q15	MDM2 proto-oncogene, E3 ubiquitin protein ligase	NP_002383	Q00987 G3XA89 A7UKX8 A0A08KB75 Q96DS0 A7UKX9 A7UKX7
169	MET	7q31	met proto-oncogene (hepatocyte growth factor receptor)	NP_001120972	P08581 A0A024R728 A0A024R759 B4DLF5
170	MEX3A	1q22	mex-3 homolog A (C. elegans)	NP_001087194	A1L020
171	MGC14436 or FAM222A-AS1	12q24.11	FAM222A antisense RNA 1		
172	MKI67IP or NIFK	2q14.3	nucleolar protein interacting with the FHA domain of MKI67	NP_115766	Q9BYG3
173	MMP11	22q11.23	matrix metalloproteinase 11 (stromelysin 3)	NP_005931	P24347 B3KQS8
174	MMP7	11q21-q22	matrix metalloproteinase 7 (matrilysin, uterine)	NP_002414	P09237
175	MSX1	4p16.2	Msh homeobox 1	NP_002439	P28360
176	MSX2	5q35.2	msh homeobox 2	NP_002440	P35548
177	MTBP	8q24.1-q24.2	Mdm2, transformed 3T3 cell double minute 2, p53 binding protein (mouse) binding protein, 104kDa	NP_071328	Q96DY7
178	MTHFD1L	6q25.1	methylenetetrahydrofolate dehydrogenase (NADP+-dependent) 1-like	NP_056255	Q6UB35 B7ZM99 A0A087WV M4 B2RD24
179	MUC16	19p13.2	mucin 16, cell surface associated	NP_078966	Q8WX17 B5ME49 B3KY81
180	NAA25	12q24.13	N(alpha)-acetyltransferase 25, NatB auxiliary subunit	NP_079229	Q14CX7
181	NAT10	11p13	N-acetyltransferase 10 (GCN5-related)	NP_078938	Q9H0A0
182	NEBL	10p12	nebulin	NP_998734	O76041 Q59FZ8
183	NFE2L3	7p15.2	nuclear factor (erythroid-derived 2)-like 3	NP_004280	Q9Y4A8
184	NFXL1	4p12	nuclear transcription factor, X-box binding-like 1		
185	NKD2	5p15.3	naked cuticle homolog 2 (Drosophila)	NP_149111	Q969F2
186	NKRF	Xq24	NFKB repressing factor	NP_060014	O15226 A3F769 A3F768
187	NMB	15q25.2-q25.3	neuromedin B	NP_995580	P08949

Figure 26F

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
188	NNMT	11q23.2	nicotinamide N-methyltransferase	NP_006160	P40261 Q6FH49
189	NOB1	16q22.1	NIN1/RPN12 binding protein 1 homolog (S. cerevisiae)	NP_054781	Q9ULX3
190	NOL8	9q22.32	nucleolar protein 8	NP_060418	Q76FK4 A6H8Z4
191	NOLC1	10q24.32	nucleolar and coiled-body phosphoprotein 1	NP_004732	Q14978 Q96J17 B2RAU8
192	NONO	Xq13.1	non-POU domain containing, octamer-binding	NP_031389	Q15233
193	NOP2	12p13	NOP2 nucleolar protein homolog (yeast)	NP_006161	P46087
194	NOP58	2q33.1	NOP58 ribonucleoprotein homolog (yeast)	NP_057018	Q9Y2X3
195	NOTUM	17q25.3	notum pectinacetyltransferase homolog (Drosophila)	NP_848588	Q6P988
196	NUFIP1	13q14	nuclear fragile X mental retardation protein interacting protein 1	NP_036477	Q9UHK0
197	NYCO16 or UTP14A	Xq26.1	UTP14A, small subunit processome component	NP_006640	Q9BVJ6
198	OSBPL3	7p15.3	oxysterol binding protein-like 3	NP_663162	Q9H4L5
199	OTX1	2p15	orthodenticle homeobox 1	NP_055377	P32242 B4DM62
200	OXTR	3p25	oxytocin receptor	NP_000907	P30559 B2R9L7
201	PAICS	4q12	phosphoribosylaminoimidazole carboxylase, phosphoribosylaminoimidazole succinocarboxamide synthetase		
202	PALB2	16p12.1	partner and localizer of BRCA2	NP_078951	Q86YC2
203	PAQR4	16p13	progesterone and adiponectin receptor family member IV	NP_689554	Q8N4S7 I3L1A2 I3L265
204	PDCD2L	19q13.11	programmed cell death 2-like	NP_115722	Q9BRP1
205	PDX1	13q12.1	pancreatic and duodenal homeobox 1	NP_000200	P52945
206	PHF16 or JADE3	Xp11.3	jade family PHD finger 3	NP_055550	Q92613 A0A024R1A2
207	PKM	15q23	pyruvate kinase M1/2	NP_872271	P14618 B4DNK4 V9HWP8 A0A024R5Z9
208	PLEKHA9 or PLEKHA8P1	12q12	pleckstrin homology domain containing A8		
209	PLEKHN1	1p36.33	pleckstrin homology domain containing, family N member 1	NP_115505	Q494U1
210	PLSCR1	3q23	phospholipid scramblase 1	NP_066928	Q15162
211	POLR1B	2q13	polymerase (RNA) I polypeptide B, 128kDa	NP_061887	Q9H9Y6 B7Z1W6
212	POU5F1B	8q24.21	POU class 5 homeobox 1B	NP_001153014	Q06416
213	PPAT	4q12	Phosphoribosyl pyrophosphate amidotransferase	NP_002694	Q06203 A8K4H7 Q59G63
214	PPM1H	12q14.1	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1H	NP_065751	Q9ULR3
215	PRDM12	9q33-q34	PR domain containing 12	NP_067632	Q9H4Q4
216	PRDX6	1q25.1	peroxiredoxin 6	NP_004896	P30041 V9HWC7
217	PRPF4	9q31-q33	PRP4 pre-mRNA processing factor 4 homolog (yeast)	NP_004688	Q43172 Q5T1M7
218	PRR19	19q13.2	proline rich 19	NP_954979	A6NJB7

Figure 26G

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
219	PRR7	5q35.3	proline rich 7 (synaptic)	NP_085044	Q8TB68 A0A024R7R8
220	PRSS22	16p13.3	protease, serine, 22	NP_071402	Q9GZN4
221	PUS7	7q22.3	pseudouridylate synthase 7 homolog (S. cerevisiae)	NP_061915	Q96PZ0 B3KY42 B3KRB2
222	PVT1	8q24	Pvt1 oncogene (non-protein coding)		
223	QSOX2	9q34.3	quiescin Q6 sulfhydryl oxidase 2	NP_859052	Q6ZRP7
224	RAD54B	8q22.1	RAD54 homolog B (S. cerevisiae)	NP_036547	Q95073 Q9Y620 A0A087X0H2
225	RAE1	20q13.31	RAE1 RNA export 1 homolog (S. pombe)	NP_003601	P78406
226	RBM28	7q32.2	RNA binding motif protein 28	NP_060547	Q9NW13 A0A024R753
227	RFC3	13q13.2	replication factor C (activator 1) 3, 38kDa	NP_853536	P40938 A0A024RDQ8
228	RHPN1	8q24.3	rhophilin, Rho GTPase binding protein 1	NP_443156	Q8TCX5
229	RIPK2	8q21	receptor-interacting serine-threonine kinase 2	NP_003812	Q43353
230	RPGRIP1L	16q12.2	RPGRIP1-like	NP_056087	Q68CZ1 H3BV03 A0A087WX34
231	RPH3AL	17p13.3	rabphilin 3A-like (without C2 domains)	NP_008918	Q9UNE2 A8K7D5
232	RPL36	19p13.3	ribosomal protein L36		
233	RUVBL1	3q21	RuvB-like 1 (E. coli)	NP_003698	Q9Y265
234	S100A11	1q21	S100 calcium binding protein A11	NP_005611	V9HWH9 P31949
235	S100A2	1q21	S100 calcium binding protein A2	NP_005969	P29034
236	SALL4	20q13.2	Sal-like 4 (Drosophila)	NP_065169	Q9UJQ4
237	SCRN1	7p14.3	secernin 1	NP_055581	A0A090N7T9 A0A024RA21 Q12765
238	SEC61B	9q22.33	Sec61 translocon beta subunit	NP_006799	P60468
239	SET	9q34	SET nuclear oncogene	NP_003002	A0A024R895 Q5VXV3 A0A0C4DFV9 Q01105
240	SFTA2	6p21.3	surfactant associated 2	NP_995326	Q6UW10
241	SH3TC2	5q32	SH3 domain and tetratricopeptide repeats 2	NP_078853	Q8TF17
242	SHISA2	13q12.13	shisa homolog 2 (Xenopus laevis)	NP_001007539	Q6UW14
243	SIM2	21q22.2	single-minded homolog 2 (Drosophila)	NP_033664	Q14190
244	SLC39A10	2q33.1	solute carrier family 39 (zinc transporter), member 10	NP_065075	A0A024R3W5 Q05C42 Q9ULF5
245	SLC4A11	20p13	solute carrier family 4, sodium borate transporter, member 11	NP_114423	Q8NBS3
246	SLC6A6	3p25.1	solute carrier family 6 (neurotransmitter transporter, taurine), member 6	NP_003034	Q59GD7 A0A087WY96 B4E140 P31641
247	SLC7A5	16q24.3	solute carrier family 7 (cationic amino acid transporter, y+ system), member 5	NP_003477	Q01650
248	SLCO4A1	20q13.1	Solute carrier organic anion transporter family, member 4A1	NP_057438	Q96BD0
249	SLMO1	18p11.21	slowmo homolog 1 (Drosophila)	NP_006544	Q96N28

Figure 26H

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
250	SMOX	20p13	spermine oxidase	NP_787036	Q9NWM0
251	SMYD5	2p12	SMYD family member 5	NP_006053	Q6GMV2
252	SND1	7q31.3	staphylococcal nuclease and tudor domain containing 1	NP_055205	Q7KZF4
253	SNORD1C	17q25.1	small nucleolar RNA, C/D box 1C		
254	SNTB1	8q23-q24	syntrophin, beta 1 (dystrophin-associated protein A1, 59kDa, basic component 1)	NP_066301	Q13884
255	SOX4	6p22.3	SRY (sex determining region Y)-box 4	NP_003098	Q06945
256	SPATA12	3p21.2	spermatogenesis associated 12	NP_859078	Q7Z6I5
257	SPERT	13q14.13	spermatid associated	NP_689932	Q8NA61
258	SPTBN2	11q13.2	spectrin, beta, non-erythrocytic 2	NP_008877	Q15020
259	SSB	2q31.1	Sjogren syndrome antigen B (autoantigen La)	NP_003133	P05455
260	STOML2 or SLP2	9p13.3	stomatin like 2	NP_038470	A0A087WYB4 Q9UJZ1
261	STRA6	15q24.1	stimulated by retinoic acid gene 6 homolog (mouse)	NP_071764	B3KPB8 Q9BX79
262	TAF1A	1q42	TATA box binding protein (TBP)-associated factor, RNA polymerase I, A, 48kDa	NP_647603	B4DS21 A8K4K5 Q15573
263	TAF1D	11q21	TATA box binding protein (TBP)-associated factor, RNA polymerase I, D, 41kDa	NP_077021	A0A024R3A9 Q9H5J8
264	TEAD4	12p13.3-p13.2	TEA domain family member 4	NP_958851	Q15561
265	TESC	12q24.22	Tescalcin	NP_060369	Q96BS2
266	TEX10	9q31.1	testis expressed 10	NP_060216	A0A024R169 Q9NXF1
267	TFAP2A	6p24	transcription factor AP-2 alpha (activating enhancer binding protein 2 alpha)	NP_003211	P05549
268	TFAP4	16p13	transcription factor AP-4 (activating enhancer binding protein 4)	NP_003214	Q01664
269	TFF3	21q22.3	trefoil factor 3 (intestinal)	NP_003217	A0A0A6YYJ4 Q07654
270	TGFB1	5q31	transforming growth factor, beta-induced, 68kDa	NP_000349	Q15582
271	TGIF2	20q11.23	TGFB-induced factor homeobox 2	NP_068581	Q9GZN2
272	THUMP2	2p22.2	THUMP domain containing 2	NP_079540	D6W593 Q969Z2 Q9BTF0
273	TIGD1	2q37.1	tigger transposable element derived 1	NP_663748	Q96MW7
274	TMEM132A	11q12.2	transmembrane protein 132A	NP_821174	Q24JP5
275	TMEM206	1q32.3	transmembrane protein 206	NP_060722	B4DHQ5 Q9H813
276	TOMM34	20q12-q13.1	translocase of outer mitochondrial membrane 34	NP_006800	Q15785
277	TP53	17p13.1	tumor protein p53	NP_001263690	P04637 K7PPA8 A0A087X1Q1 A0A087WT22 A0A087WXZ1 H2EHT1 Q53GA5
278	TPM1	15q22.1	tropomyosin 1 (alpha)	NP_001288218	B7Z596 H7BY11 Q6ZN40 B7Z722 O15513 D9YZV5 A0A024R5W6 F5H7S3 D9YZV4 D9YZV7 P09493
279	TPM2	9p13	tropomyosin 2 (beta)	NP_998839	A7XZE4 Q5TCU3 V9HW25 P07951
280	TPM3	1q21.2	tropomyosin 3	NP_705935	A0A087WWU8 J3KN67 B4DQ80 P06753

Figure 261

Order	Gene Symbol	Chromosome Band	Gene Title	Protein Accession (representative)	UniProt IDs
281	TPM4	19p13.1	tropomyosin 4	NP_003281	V9HW56 P67936
282	TPX2	20q11.2	TPX2, microtubule-associated, homolog (Xenopus laevis)	NP_036244	Q643R0 Q9ULW0
283	TRIB3	20p13-p12.2	tribbles homolog 3 (Drosophila)	NP_066981	J3KR25 B4DMM9 Q96RU7
284	TRIP13	5p15	thyroid hormone receptor interactor 13	NP_004228	Q15645
285	TTC26	7q34	tetratricopeptide repeat domain 26	NP_079202	A0AVF1 B7Z2T3 B7Z1H0
286	TTR	18q12.1	transthyretin	NP_000362	E9KL36 P02766
287	UBE2I	16p13.3	ubiquitin-conjugating enzyme E2I (UBC9 homolog, yeast)	NP_919237	B0QYN7 A8K503 P63279
288	UCN2	3p21.3	urocortin 2	NP_149976	Q96RP3
289	ULBP1	6q25	UL16 binding protein 1		
290	ULBP2	6q25	UL16 binding protein 2	NP_079493	Q9BZM5
291	UTP14A	Xq26.1	UTP14, U3 small nucleolar ribonucleoprotein, homolog A (yeast)	NP_006640	Q9BVJ6
292	VWA2	10q25.3	von Willebrand factor A domain containing 2	NP_001258975	Q5GFL6
293	VWF	12p13.3	von Willebrand factor	NP_000543	P04275
294	WDR3	1p12	WD repeat domain 3	NP_006775	Q5TDG3 Q9UNX4
295	WDR43	2p23.3	WD repeat domain 43	NP_055946	Q15061
296	WDR66	12q24.31	WD repeat domain 66	NP_653269	Q8TBY9
297	WDR74	11q12.3	WD repeat domain 74	NP_060563	Q6RFH5
298	WDR75	2q32.2	WD repeat domain 75	NP_115544	Q8IWA0
299	WNT2	7q31	wingless-type MMTV integration site family member 2	NP_003382	P09544
300	XPO5	6p21.1	exportin 5		
301	XPOT	12q14.1	exportin, tRNA (nuclear export receptor for tRNAs)	NP_009166	A8KA19 O43592
302	XRCC2	7q36	X-ray repair complementing defective repair in Chinese hamster cells 2	NP_005422	O43543
303	YTHDF1	20q13.33	YTH domain family, member 1	NP_060268	Q9BYJ9
304	ZBTB12	6p21.31	zinc finger and BTB domain containing 12	NP_862825	Q9Y330
305	ZC3H8	2q13	zinc finger CCCH-type containing 8	NP_115883	Q8N5P1
306	ZC3HAV1L	7q34	zinc finger CCCH-type, antiviral 1-like	NP_542391	Q96H79
307	ZMYND19	9q34.3	zinc finger, MYND-type containing 19	NP_612471	Q96E35
308	ZNF280C	Xq25	zinc finger protein 280C	NP_060136	Q8ND82
309	ZNF473	19q13.33	zinc finger protein 473	NP_056243	A0A024QZ11 Q8WTR7
310	ZNF643 or ZFP69B	1p34.2	ZFP69 zinc finger protein B	NP_075558	D3DPV3 Q9UJL9
311	ZSWIM4	19p13.13	zinc finger, SWIM-type containing 4	NP_075560	Q9HA55 Q9H7M6

Figure 26J

CRC secreted Protein markers

Order	Protein	UniProt ID	Order	Protein	UniProt ID
1	A disintegrin and metalloproteinase with thrombospondin motifs 6	Q9UKP5	34	Hepatocyte growth factor receptor	P08581
2	Aggrecan core protein	E7ENV9	35	Hypoxia-inducible lipid droplet-associated protein	Q9Y5L2
3	Aggrecan core protein	E7EX88	36	Inhibin beta A chain	P08476
4	Alpha(1,2)fucosyltransferase	Q6LZA2	37	Inhibin, beta A (Activin A, activin AB alpha polypeptide)	A4D1W7
5	Apelin	Q9ULZ1	38	Insulin-like growth factor-binding protein 2	P18065
6	Brain-specific serine protease 4	Q9GZN4	39	Interleukin-23 subunit alpha	Q9NPF7
7	CA-11-19		40	Interleukin-6 receptor subunit beta	P40189
8	CA-125		41	Interleukin-8	P10145
9	Carcinoembryonic antigen-related cell adhesion molecule 5 variant (Fragment)	Q53G30	42	Kallikrein-2	P20151
10	Cathepsin D	P07339	43	Kallikrein-6	Q92876
11	CD209 antigen	Q9NNX6	44	Leucine-rich alpha-2-glycoprotein	Q68CK4
12	cDNA FLJ31267 fis, clone KIDNE2006053, highly similar to Glycosyltransferase-like protein LARGE2 (EC 2.4.-.-)	B3KP69	45	Leucine-rich alpha-2-glycoprotein	P02750
13	cDNA FLJ77564	A8K6G4	46	Matrilysin	P09237
14	Clusterin	P10909	47	Matrix metalloproteinase 11 (Stromelysin 3), isoform CRA b	B3KQS8
15	Collagen alpha-1(VII) chain	Q02388	48	Mucin-16	Q8WXI7
16	Collagen alpha-1(X) chain	Q03692	49	Neuromedin-B	P08949
17	Collagen alpha-1(XI) chain	P12107	50	NKG2D ligand 2	Q9BZM5
18	Collagen triple helix repeat-containing protein 1	Q96CG8	51	Phosphoribosyl pyrophosphate amidotransferase proprotein variant (Fragment)	Q59G63
19	Complement C1r subcomponent	P00736	52	Plasma kallikrein	P03952
20	C-type lectin domain family 4 member M	Q9H2X3	53	Protein notum homolog	Q6P988
21	Cystatin-S	P01036	54	Protein Wnt-2	P09544
22	Cystatin-SN	P01037	55	Seprase	B4DLR2
23	Dickkopf-related protein 3	Q9UBP4	56	SLC39A10 protein (Fragment)	Q05C42
24	Disintegrin and metalloproteinase domain-containing protein 12	O43184	57	Stromelysin-3	P24347
25	Endothelial cell-specific molecule 1	Q9NQ30	58	Sulfhydryl oxidase 2	Q6ZRP7
26	Epidermal growth factor receptor	P00533	59	Surfactant-associated protein 2	Q6UW10
27	Epidermal growth factor-like protein 6	Q8IUX8	60	Transforming growth factor-beta-induced protein ig-h3	Q15582
28	Epididymis tissue sperm binding protein Li 4a	E9KL36	61	Transthyretin	P02766
29	Fms-related tyrosine kinase 3 ligand	P49771	62	Trefoil factor 3	Q07654
30	Four-jointed box protein 1	Q86VR8	63	Urocortin-2	Q96RP3
31	Gastrin-releasing peptide	P07492	64	von Willebrand factor	P04275
32	Glycosyltransferase-like protein LARGE2	E9PIZ2	65	von Willebrand factor A domain-containing protein 2	Q5GFL6
33	Growth/differentiation factor 15	Q99988			

Figure 27

CRC Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1	Chr1: 969257_969258	<i>AGR1</i>	46	Chr1: 36043014_36043015	<i>TFAP2E</i>
2	Chr1: 975551_975552	<i>AGR1</i>	47	Chr1: 36043084_36043085	<i>TFAP2E</i>
3	Chr1: 1144658_1144659	<i>Non Coding Region</i>	48	Chr1: 36043633_36043634	<i>TFAP2E</i>
4	Chr1: 1306946_1306947	<i>Non Coding Region</i>	49	Chr1: 37499547_37499548	<i>GRIK3</i>
5	Chr1: 1565856_1565857	<i>MIB2</i>	50	Chr1: 38100811_38100812	<i>RSPO1</i>
6	Chr1: 1566699_1566700	<i>MMP23B,MMP23A</i>	51	Chr1: 38230779_38230780	<i>EPHA10</i>
7	Chr1: 2222253_2222254	<i>SKI</i>	52	Chr1: 39025249_39025250	<i>Non Coding Region</i>
8	Chr1: 2232166_2232167	<i>SKI</i>	53	Chr1: 39270149_39270150	<i>Non Coding Region</i>
9	Chr1: 2984869_2984870	<i>PRDM16,FLJ42875</i>	54	Chr1: 42217077_42217078	<i>HIVEP3</i>
10	Chr1: 2987645_2987646	<i>PRDM16</i>	55	Chr1: 44031300_44031301	<i>PTPRF</i>
11	Chr1: 3100343_3100344	<i>PRDM16</i>	56	Chr1: 44873064_44873065	<i>RNF220</i>
12	Chr1: 3663531_3663532	<i>KLAA0495</i>	57	Chr1: 44873229_44873230	<i>RNF220</i>
13	Chr1: 6088550_6088551	<i>KCNAB2</i>	58	Chr1: 46951318_46951319	<i>Non Coding Region</i>
14	Chr1: 6520354_6520355	<i>ESPN</i>	59	Chr1: 46951354_46951355	<i>Non Coding Region</i>
15	Chr1: 6526051_6526052	<i>TNFRSF25</i>	60	Chr1: 47701206_47701207	<i>Non Coding Region</i>
16	Chr1: 7692367_7692368	<i>CAMTA1</i>	61	Chr1: 47911449_47911450	<i>Non Coding Region</i>
17	Chr1: 8457758_8457759	<i>RERE</i>	62	Chr1: 48058985_48058986	<i>Non Coding Region</i>
18	Chr1: 9486780_9486781	<i>Non Coding Region</i>	63	Chr1: 48191031_48191032	<i>Non Coding Region</i>
19	Chr1: 9689803_9689804	<i>Non Coding Region</i>	64	Chr1: 48450020_48450021	<i>Non Coding Region</i>
20	Chr1: 12123262_12123263	<i>TNFRSF8</i>	65	Chr1: 49242513_49242514	<i>AGBL4,BEND5</i>
21	Chr1: 12123313_12123314	<i>TNFRSF8</i>	66	Chr1: 49242519_49242520	<i>AGBL4,BEND5</i>
22	Chr1: 13910796_13910797	<i>PDPN</i>	67	Chr1: 50882006_50882007	<i>Non Coding Region</i>
23	Chr1: 16023706_16023707	<i>PLEKHM2</i>	68	Chr1: 50884480_50884481	<i>DMRTA2</i>
24	Chr1: 18957020_18957021	<i>PAX7</i>	69	Chr1: 50886782_50886783	<i>DMRTA2</i>
25	Chr1: 18957632_18957633	<i>PAX7</i>	70	Chr1: 53099053_53099054	<i>FAM159A</i>
26	Chr1: 18959268_18959269	<i>PAX7</i>	71	Chr1: 53527665_53527666	<i>PODN</i>
27	Chr1: 19254031_19254032	<i>IFFO2</i>	72	Chr1: 53527693_53527694	<i>PODN</i>
28	Chr1: 19254731_19254732	<i>IFFO2</i>	73	Chr1: 57889035_57889036	<i>DAB1</i>
29	Chr1: 19803932_19803933	<i>CAPZB</i>	74	Chr1: 57889604_57889605	<i>DAB1</i>
30	Chr1: 25349006_25349007	<i>Non Coding Region</i>	75	Chr1: 58715539_58715540	<i>DAB1</i>
31	Chr1: 26377899_26377900	<i>TRIM63</i>	76	Chr1: 58715553_58715554	<i>DAB1</i>
32	Chr1: 27070873_27070874	<i>ARID1A</i>	77	Chr1: 65731432_65731433	<i>DNAJC6</i>
33	Chr1: 27687074_27687075	<i>MAP3K6</i>	78	Chr1: 65731738_65731739	<i>DNAJC6</i>
34	Chr1: 28213800_28213801	<i>Non Coding Region</i>	79	Chr1: 67217826_67217827	<i>TCTEX1D1</i>
35	Chr1: 29585898_29585899	<i>PTPRU</i>	80	Chr1: 67217853_67217854	<i>TCTEX1D1</i>
36	Chr1: 31230601_31230602	<i>LAPTM5</i>	81	Chr1: 67218165_67218166	<i>TCTEX1D1</i>
37	Chr1: 31230846_31230847	<i>LAPTM5</i>	82	Chr1: 67773719_67773720	<i>IL12RB2</i>
38	Chr1: 32716773_32716774	<i>LCK</i>	83	Chr1: 70032907_70032908	<i>Non Coding Region</i>
39	Chr1: 34629400_34629401	<i>CSMD2</i>	84	Chr1: 70034475_70034476	<i>Non Coding Region</i>
40	Chr1: 34630153_34630154	<i>CSMD2</i>	85	Chr1: 70034491_70034492	<i>Non Coding Region</i>
41	Chr1: 34630944_34630945	<i>CSMD2</i>	86	Chr1: 72748124_72748125	<i>NEGR1</i>
42	Chr1: 35351340_35351341	<i>DLGAP3</i>	87	Chr1: 76080727_76080728	<i>Non Coding Region</i>
43	Chr1: 35395663_35395664	<i>Non Coding Region</i>	88	Chr1: 76081962_76081963	<i>Non Coding Region</i>
44	Chr1: 35395821_35395822	<i>Non Coding Region</i>	89	Chr1: 77333138_77333139	<i>ST6GALNAC5</i>
45	Chr1: 36043002_36043003	<i>TFAP2E</i>	90	Chr1: 77333159_77333160	<i>ST6GALNAC5</i>

Figure 28A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	Chr1: 77334207_77334208	<i>ST6GALNAC5</i>	136	Chr1: 153518384_153518385	<i>SI00A4</i>
92	Chr1: 77747875_77747876	<i>AK5</i>	137	Chr1: 154298335_154298336	<i>ATP8B2</i>
93	Chr1: 77748129_77748130	<i>AK5</i>	138	Chr1: 154475173_154475174	<i>TDRD10,SHE</i>
94	Chr1: 86622628_86622629	<i>COL24A1</i>	139	Chr1: 156066986_156066987	<i>Non Coding Region</i>
95	Chr1: 87598069_87598070	<i>LOC339524</i>	140	Chr1: 156358231_156358232	<i>Non Coding Region</i>
96	Chr1: 87617350_87617351	<i>LOC339524</i>	141	Chr1: 156405924_156405925	<i>Non Coding Region</i>
97	Chr1: 88921473_88921474	<i>Non Coding Region</i>	142	Chr1: 156626749_156626750	<i>BCAN</i>
98	Chr1: 91191001_91191002	<i>Non Coding Region</i>	143	Chr1: 156829691_156829692	<i>NTRK1,INSRR</i>
99	Chr1: 91196332_91196333	<i>Non Coding Region</i>	144	Chr1: 158150649_158150650	<i>CD1D</i>
100	Chr1: 91300215_91300216	<i>Non Coding Region</i>	145	Chr1: 160807694_160807695	<i>CD244</i>
101	Chr1: 91870362_91870363	<i>HFM1</i>	146	Chr1: 161039681_161039682	<i>ARHGAP30</i>
102	Chr1: 91870382_91870383	<i>HFM1</i>	147	Chr1: 161039690_161039691	<i>ARHGAP30</i>
103	Chr1: 98511258_98511259	<i>Non Coding Region</i>	148	Chr1: 161039695_161039696	<i>ARHGAP30</i>
104	Chr1: 98511789_98511790	<i>MIR137</i>	149	Chr1: 161228674_161228675	<i>PCP4L1</i>
105	Chr1: 101004638_101004639	<i>GPR88</i>	150	Chr1: 165414544_165414545	<i>RXRG</i>
106	Chr1: 101004934_101004935	<i>GPR88</i>	151	Chr1: 167598958_167598959	<i>RCSD1</i>
107	Chr1: 101702602_101702603	<i>SIPR1</i>	152	Chr1: 167601275_167601276	<i>RCSD1</i>
108	Chr1: 107683725_107683726	<i>NTNG1</i>	153	Chr1: 167682922_167682923	<i>Non Coding Region</i>
109	Chr1: 107683775_107683776	<i>NTNG1</i>	154	Chr1: 169396635_169396636	<i>C1orf114</i>
110	Chr1: 107684339_107684340	<i>NTNG1</i>	155	Chr1: 169396637_169396638	<i>C1orf114</i>
111	Chr1: 107684425_107684426	<i>NTNG1</i>	156	Chr1: 169396706_169396707	<i>C1orf114</i>
112	Chr1: 108507468_108507469	<i>VAV3</i>	157	Chr1: 169396785_169396786	<i>C1orf114</i>
113	Chr1: 108508185_108508186	<i>VAV3</i>	158	Chr1: 169396858_169396859	<i>C1orf114</i>
114	Chr1: 108508207_108508208	<i>VAV3</i>	159	Chr1: 170630558_170630559	<i>Non Coding Region</i>
115	Chr1: 111098150_111098151	<i>Non Coding Region</i>	160	Chr1: 171810376_171810377	<i>DNM3</i>
116	Chr1: 111217194_111217195	<i>KCNA3</i>	161	Chr1: 181452044_181452045	<i>CACNA1E</i>
117	Chr1: 111217497_111217498	<i>KCNA3</i>	162	Chr1: 190447290_190447291	<i>FAM5C</i>
118	Chr1: 111217712_111217713	<i>KCNA3</i>	163	Chr1: 200008026_200008027	<i>NR5A2</i>
119	Chr1: 111217715_111217716	<i>KCNA3</i>	164	Chr1: 202128682_202128683	<i>PTPN7</i>
120	Chr1: 114414340_114414341	<i>PTPN22</i>	165	Chr1: 202129204_202129205	<i>PTPN7</i>
121	Chr1: 115880865_115880866	<i>NGF</i>	166	Chr1: 202129255_202129256	<i>PTPN7</i>
122	Chr1: 117057968_117057969	<i>CD58</i>	167	Chr1: 203598761_203598762	<i>ATP2B4</i>
123	Chr1: 119530600_119530601	<i>TBX15</i>	168	Chr1: 203643084_203643085	<i>ATP2B4</i>
124	Chr1: 119532195_119532196	<i>TBX15</i>	169	Chr1: 204328843_204328844	<i>PLEKHA6</i>
125	Chr1: 119532925_119532926	<i>TBX15</i>	170	Chr1: 204653629_204653630	<i>LRRN2</i>
126	Chr1: 147790806_147790807	<i>Non Coding Region</i>	171	Chr1: 206732715_206732716	<i>RASSF5</i>
127	Chr1: 150123734_150123735	<i>PLEKHO1</i>	172	Chr1: 206748850_206748851	<i>RASSF5</i>
128	Chr1: 150254280_150254281	<i>C1orf51</i>	173	Chr1: 207818395_207818396	<i>CRIL</i>
129	Chr1: 150254546_150254547	<i>C1orf51</i>	174	Chr1: 208084456_208084457	<i>CD34</i>
130	Chr1: 150254869_150254870	<i>C1orf51</i>	175	Chr1: 209929546_209929547	<i>TRAF3IP3</i>
131	Chr1: 151129298_151129299	<i>TNFAIP8L2</i>	176	Chr1: 209929622_209929623	<i>TRAF3IP3</i>
132	Chr1: 151129844_151129845	<i>TNFAIP8L2</i>	177	Chr1: 214153294_214153295	<i>Non Coding Region</i>
133	Chr1: 151810887_151810888	<i>LOC100132111,C2CD4D</i>	178	Chr1: 218520792_218520793	<i>TGFB2</i>
134	Chr1: 151810893_151810894	<i>LOC100132111,C2CD4D</i>	179	Chr1: 220702225_220702226	<i>MARK1</i>
135	Chr1: 151811364_151811365	<i>LOC100132111,C2CD4D</i>	180	Chr1: 221050459_221050460	<i>Non Coding Region</i>

Figure 28B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
181	Chr1: 221051758_221051759	<i>HLX</i>	226	Chr2: 39893080_39893081	<i>TMEM178</i>
182	Chr1: 221886639_221886640	<i>DUSP10</i>	227	Chr2: 40678691_40678692	<i>SLC8A1</i>
183	Chr1: 226865321_226865322	<i>ITPKB</i>	228	Chr2: 45155991_45155992	<i>Non Coding Region</i>
184	Chr1: 226924846_226924847	<i>ITPKB</i>	229	Chr2: 45169548_45169549	<i>SIX3</i>
185	Chr1: 228604240_228604241	<i>TRIM17</i>	230	Chr2: 45169562_45169563	<i>SIX3</i>
186	Chr1: 228652478_228652479	<i>Non Coding Region</i>	231	Chr2: 45233528_45233529	<i>SIX2</i>
187	Chr1: 228652528_228652529	<i>Non Coding Region</i>	232	Chr2: 45233773_45233774	<i>SIX2</i>
188	Chr1: 229543112_229543113	<i>Non Coding Region</i>	233	Chr2: 45238442_45238443	<i>Non Coding Region</i>
189	Chr1: 229568252_229568253	<i>ACTA1</i>	234	Chr2: 47797488_47797489	<i>KCNK12</i>
190	Chr1: 232862025_232862026	<i>Non Coding Region</i>	235	Chr2: 47797963_47797964	<i>KCNK12</i>
191	Chr1: 234350051_234350052	<i>SLC35F3</i>	236	Chr2: 56411534_56411535	<i>CCDC85A</i>
192	Chr1: 237205174_237205175	<i>RYR2</i>	237	Chr2: 58656064_58656065	<i>Non Coding Region</i>
193	Chr1: 237205999_237206000	<i>RYR2</i>	238	Chr2: 63275509_63275510	<i>LOC100132215</i>
194	Chr1: 240255486_240255487	<i>FMN2</i>	239	Chr2: 63283013_63283014	<i>OTX1</i>
195	Chr1: 241587609_241587610	<i>Non Coding Region</i>	240	Chr2: 63283967_63283968	<i>OTX1</i>
196	Chr1: 244013006_244013007	<i>Non Coding Region</i>	241	Chr2: 63284132_63284133	<i>OTX1</i>
197	Chr1: 247712237_247712238	<i>Clorf150</i>	242	Chr2: 66653254_66653255	<i>Non Coding Region</i>
198	Chr1: 247712239_247712240	<i>Clorf150</i>	243	Chr2: 66660874_66660875	<i>Non Coding Region</i>
199	Chr2: 468179_468180	<i>Non Coding Region</i>	244	Chr2: 66673316_66673317	<i>MEIS1</i>
200	Chr2: 5836111_5836112	<i>SOX11</i>	245	Chr2: 66803033_66803034	<i>Non Coding Region</i>
201	Chr2: 5836256_5836257	<i>SOX11</i>	246	Chr2: 66810606_66810607	<i>Non Coding Region</i>
202	Chr2: 7058390_7058391	<i>RNF144A</i>	247	Chr2: 68546467_68546468	<i>CNRIP1</i>
203	Chr2: 7058432_7058433	<i>RNF144A</i>	248	Chr2: 68546507_68546508	<i>CNRIP1</i>
204	Chr2: 10220886_10220887	<i>CYS1</i>	249	Chr2: 68546579_68546580	<i>CNRIP1</i>
205	Chr2: 20865651_20865652	<i>GDF7</i>	250	Chr2: 68546899_68546900	<i>CNRIP1</i>
206	Chr2: 25439110_25439111	<i>Non Coding Region</i>	251	Chr2: 68547052_68547053	<i>CNRIP1</i>
207	Chr2: 25499764_25499765	<i>DNMT3A</i>	252	Chr2: 68547088_68547089	<i>CNRIP1</i>
208	Chr2: 29337988_29337989	<i>CLIP4</i>	253	Chr2: 68961987_68961988	<i>ARHGAP25</i>
209	Chr2: 29338100_29338101	<i>CLIP4</i>	254	Chr2: 68962012_68962013	<i>ARHGAP25</i>
210	Chr2: 29338109_29338110	<i>CLIP4</i>	255	Chr2: 69001774_69001775	<i>ARHGAP25</i>
211	Chr2: 29338113_29338114	<i>CLIP4</i>	256	Chr2: 69001799_69001800	<i>ARHGAP25</i>
212	Chr2: 29338121_29338122	<i>CLIP4</i>	257	Chr2: 69001854_69001855	<i>ARHGAP25</i>
213	Chr2: 29338258_29338259	<i>CLIP4</i>	258	Chr2: 69001870_69001871	<i>ARHGAP25</i>
214	Chr2: 29338432_29338433	<i>CLIP4</i>	259	Chr2: 69002111_69002112	<i>ARHGAP25</i>
215	Chr2: 29339076_29339077	<i>CLIP4</i>	260	Chr2: 70313417_70313418	<i>PCBP1</i>
216	Chr2: 29339091_29339092	<i>CLIP4</i>	261	Chr2: 71298920_71298921	<i>NAGK</i>
217	Chr2: 30144579_30144580	<i>ALK</i>	262	Chr2: 73151595_73151596	<i>EMX1</i>
218	Chr2: 31360693_31360694	<i>GALNT14</i>	263	Chr2: 74743437_74743438	<i>TLX2</i>
219	Chr2: 31360817_31360818	<i>GALNT14</i>	264	Chr2: 85362030_85362031	<i>TCF7L1</i>
220	Chr2: 31361104_31361105	<i>GALNT14</i>	265	Chr2: 87755371_87755372	<i>NCRNA00152</i>
221	Chr2: 31457043_31457044	<i>EHD3</i>	266	Chr2: 95691255_95691256	<i>MAL</i>
222	Chr2: 31806042_31806043	<i>SRD5A2</i>	267	Chr2: 97193289_97193290	<i>Non Coding Region</i>
223	Chr2: 37875836_37875837	<i>CDC42EP3</i>	268	Chr2: 97193524_97193525	<i>Non Coding Region</i>
224	Chr2: 38301756_38301757	<i>CYP11B1</i>	269	Chr2: 99553442_99553443	<i>C2orf55</i>
225	Chr2: 39893078_39893079	<i>TMEM178</i>	270	Chr2: 100938444_100938445	<i>LONRF2</i>

Figure 28C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
271	Chr2: 100938813_100938814	<i>LONRF2</i>	316	Chr2: 175546916_175546917	<i>WIPF1</i>
272	Chr2: 101034257_101034258	<i>CHST10</i>	317	Chr2: 175547056_175547057	<i>WIPF1</i>
273	Chr2: 102090444_102090445	<i>RFX8</i>	318	Chr2: 176956678_176956679	<i>HOXD13</i>
274	Chr2: 105470561_105470562	<i>POU3F3</i>	319	Chr2: 177030150_177030151	<i>HOXD3</i>
275	Chr2: 105479054_105479055	<i>Non Coding Region</i>	320	Chr2: 182321373_182321374	<i>ITGA4</i>
276	Chr2: 105760890_105760891	<i>Non Coding Region</i>	321	Chr2: 182321786_182321787	<i>ITGA4</i>
277	Chr2: 106415145_106415146	<i>NCK2</i>	322	Chr2: 182322268_182322269	<i>ITGA4</i>
278	Chr2: 106776775_106776776	<i>UXSI</i>	323	Chr2: 182322749_182322750	<i>ITGA4</i>
279	Chr2: 106777038_106777039	<i>UXSI</i>	324	Chr2: 182548807_182548808	<i>Non Coding Region</i>
280	Chr2: 109647956_109647957	<i>Non Coding Region</i>	325	Chr2: 185462408_185462409	<i>ZNF804A</i>
281	Chr2: 109648931_109648932	<i>Non Coding Region</i>	326	Chr2: 187713902_187713903	<i>ZSWIM2</i>
282	Chr2: 113874068_113874069	<i>IL1RN</i>	327	Chr2: 187713986_187713987	<i>ZSWIM2</i>
283	Chr2: 113931518_113931519	<i>LOC440839,PSD4</i>	328	Chr2: 193059230_193059231	<i>TMEFF2</i>
284	Chr2: 113931525_113931526	<i>LOC440839,PSD4</i>	329	Chr2: 193059645_193059646	<i>TMEFF2</i>
285	Chr2: 115920612_115920613	<i>DPP10</i>	330	Chr2: 193059717_193059718	<i>TMEFF2</i>
286	Chr2: 119600002_119600003	<i>EN1</i>	331	Chr2: 198063653_198063654	<i>ANKRD44</i>
287	Chr2: 119606746_119606747	<i>EN1</i>	332	Chr2: 198063759_198063760	<i>ANKRD44</i>
288	Chr2: 119916017_119916018	<i>CIQL2</i>	333	Chr2: 198063781_198063782	<i>ANKRD44</i>
289	Chr2: 121104400_121104401	<i>INHBB</i>	334	Chr2: 198120525_198120526	<i>Non Coding Region</i>
290	Chr2: 127413831_127413832	<i>GYPC</i>	335	Chr2: 202125212_202125213	<i>CASP8</i>
291	Chr2: 127414381_127414382	<i>GYPC</i>	336	Chr2: 206551364_206551365	<i>NRP2</i>
292	Chr2: 127414827_127414828	<i>GYPC</i>	337	Chr2: 207507096_207507097	<i>LOC200726</i>
293	Chr2: 127644075_127644076	<i>Non Coding Region</i>	338	Chr2: 208989248_208989249	<i>CRYGD</i>
294	Chr2: 127783168_127783169	<i>Non Coding Region</i>	339	Chr2: 208989382_208989383	<i>CRYGD</i>
295	Chr2: 127839539_127839540	<i>BIN1</i>	340	Chr2: 219847136_219847137	<i>FEV</i>
296	Chr2: 128433373_128433374	<i>LIMS2</i>	341	Chr2: 220112465_220112466	<i>STK16</i>
297	Chr2: 131792772_131792773	<i>ARHGEF4</i>	342	Chr2: 220174201_220174202	<i>PTPRN</i>
298	Chr2: 139537197_139537198	<i>NXP2</i>	343	Chr2: 220299740_220299741	<i>SPEG</i>
299	Chr2: 143886326_143886327	<i>ARHGAP15</i>	344	Chr2: 220307073_220307074	<i>SPEG</i>
300	Chr2: 144694405_144694406	<i>Non Coding Region</i>	345	Chr2: 220307207_220307208	<i>SPEG</i>
301	Chr2: 144695257_144695258	<i>Non Coding Region</i>	346	Chr2: 220361467_220361468	<i>Non Coding Region</i>
302	Chr2: 145281942_145281943	<i>Non Coding Region</i>	347	Chr2: 220417030_220417031	<i>OBSL1</i>
303	Chr2: 149633226_149633227	<i>KIF5C</i>	348	Chr2: 222435214_222435215	<i>EPHA4</i>
304	Chr2: 149634141_149634142	<i>KIF5C</i>	349	Chr2: 222435351_222435352	<i>EPHA4</i>
305	Chr2: 158300475_158300476	<i>CYTIP</i>	350	Chr2: 223162881_223162882	<i>CCDC140,PAX3</i>
306	Chr2: 158300485_158300486	<i>CYTIP</i>	351	Chr2: 223163809_223163810	<i>CCDC140,PAX3</i>
307	Chr2: 161264607_161264608	<i>RBMS1</i>	352	Chr2: 223167400_223167401	<i>CCDC140</i>
308	Chr2: 164593221_164593222	<i>FIGN</i>	353	Chr2: 227288518_227288519	<i>Non Coding Region</i>
309	Chr2: 171573223_171573224	<i>SP5</i>	354	Chr2: 230578216_230578217	<i>DNER</i>
310	Chr2: 171674855_171674856	<i>GAD1</i>	355	Chr2: 233180415_233180416	<i>DIS3L2</i>
311	Chr2: 172945274_172945275	<i>MAP1D</i>	356	Chr2: 233499070_233499071	<i>EFHD1</i>
312	Chr2: 172972840_172972841	<i>Non Coding Region</i>	357	Chr2: 238535910_238535911	<i>LRRFIP1</i>
313	Chr2: 175191045_175191046	<i>Non Coding Region</i>	358	Chr2: 242743588_242743589	<i>GAL3ST2</i>
314	Chr2: 175208588_175208589	<i>Non Coding Region</i>	359	Chr3: 238392_238393	<i>CHL1</i>
315	Chr2: 175208605_175208606	<i>Non Coding Region</i>	360	Chr3: 9821816_9821817	<i>TADA3</i>

Figure 28D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
361	Chr3: 16555379_16555380	<i>RFTN1</i>	406	Chr3: 138665984_138665985	<i>FOXL2.C3orf72</i>
362	Chr3: 27771766_27771767	<i>Non Coding Region</i>	407	Chr3: 138666054_138666055	<i>FOXL2.C3orf72</i>
363	Chr3: 32859438_32859439	<i>TRIM71</i>	408	Chr3: 138666144_138666145	<i>FOXL2.C3orf72</i>
364	Chr3: 37034473_37034474	<i>EPM2AIP1,MLH1</i>	409	Chr3: 138679512_138679513	<i>Non Coding Region</i>
365	Chr3: 42947690_42947691	<i>ZNF662</i>	410	Chr3: 138679578_138679579	<i>Non Coding Region</i>
366	Chr3: 43431343_43431344	<i>ANO10</i>	411	Chr3: 139258939_139258940	<i>RBP1</i>
367	Chr3: 44037128_44037129	<i>Non Coding Region</i>	412	Chr3: 139653872_139653873	<i>CLSTN2</i>
368	Chr3: 44063593_44063594	<i>Non Coding Region</i>	413	Chr3: 140770549_140770550	<i>SPSB4</i>
369	Chr3: 44063832_44063833	<i>Non Coding Region</i>	414	Chr3: 140770588_140770589	<i>SPSB4</i>
370	Chr3: 44626538_44626539	<i>ZNF660</i>	415	Chr3: 140770599_140770600	<i>SPSB4</i>
371	Chr3: 44727069_44727070	<i>Non Coding Region</i>	416	Chr3: 140770608_140770609	<i>SPSB4</i>
372	Chr3: 49843809_49843810	<i>UBA7</i>	417	Chr3: 140771786_140771787	<i>SPSB4</i>
373	Chr3: 50313021_50313022	<i>SEMA3B</i>	418	Chr3: 142682378_142682379	<i>PAQR9</i>
374	Chr3: 50313693_50313694	<i>SEMA3B</i>	419	Chr3: 142682652_142682653	<i>PAQR9</i>
375	Chr3: 51990575_51990576	<i>GPR62</i>	420	Chr3: 142839022_142839023	<i>CHST2</i>
376	Chr3: 55517853_55517854	<i>WNT5A</i>	421	Chr3: 142839837_142839838	<i>CHST2</i>
377	Chr3: 56789110_56789111	<i>ARHGEF3</i>	422	Chr3: 142839991_142839992	<i>CHST2</i>
378	Chr3: 62356962_62356963	<i>FEZF2</i>	423	Chr3: 150102779_150102780	<i>Non Coding Region</i>
379	Chr3: 68981866_68981867	<i>FAM19A4</i>	424	Chr3: 150803669_150803670	<i>MED12L</i>
380	Chr3: 87040286_87040287	<i>VGLL3</i>	425	Chr3: 150804063_150804064	<i>MED12L</i>
381	Chr3: 96532043_96532044	<i>EPHA6</i>	426	Chr3: 159756793_159756794	<i>Non Coding Region</i>
382	Chr3: 96533290_96533291	<i>EPHA6</i>	427	Chr3: 169384519_169384520	<i>Non Coding Region</i>
383	Chr3: 111852156_111852157	<i>GCET2</i>	428	Chr3: 172165884_172165885	<i>GHSR</i>
384	Chr3: 111852227_111852228	<i>GCET2</i>	429	Chr3: 172166517_172166518	<i>GHSR</i>
385	Chr3: 112931194_112931195	<i>BOC</i>	430	Chr3: 179168677_179168678	<i>GNB4</i>
386	Chr3: 118955844_118955845	<i>B4GALT4</i>	431	Chr3: 179168760_179168761	<i>GNB4</i>
387	Chr3: 119528656_119528657	<i>NR1I2</i>	432	Chr3: 179754239_179754240	<i>PEX5L</i>
388	Chr3: 119528956_119528957	<i>NR1I2</i>	433	Chr3: 179754533_179754534	<i>PEX5L</i>
389	Chr3: 120004186_120004187	<i>Non Coding Region</i>	434	Chr3: 183273245_183273246	<i>KLHL6</i>
390	Chr3: 121379745_121379746	<i>HCLSI</i>	435	Chr3: 183273442_183273443	<i>KLHL6</i>
391	Chr3: 121379777_121379778	<i>HCLSI</i>	436	Chr3: 184301730_184301731	<i>Non Coding Region</i>
392	Chr3: 121379791_121379792	<i>HCLSI</i>	437	Chr3: 185080816_185080817	<i>MAP3K13</i>
393	Chr3: 121903520_121903521	<i>CASR</i>	438	Chr3: 185080905_185080906	<i>MAP3K13</i>
394	Chr3: 124860686_124860687	<i>SLC12A8</i>	439	Chr3: 186079142_186079143	<i>DGKG</i>
395	Chr3: 128211686_128211687	<i>GATA2</i>	440	Chr3: 192126849_192126850	<i>FGF12</i>
396	Chr3: 128212273_128212274	<i>GATA2</i>	441	Chr3: 192126935_192126936	<i>FGF12</i>
397	Chr3: 128720433_128720434	<i>CCDC48</i>	442	Chr3: 194117679_194117680	<i>GP5</i>
398	Chr3: 128720884_128720885	<i>CCDC48</i>	443	Chr3: 194118985_194118986	<i>GP5</i>
399	Chr3: 129693370_129693371	<i>TRH</i>	444	Chr3: 194408516_194408517	<i>FAM43A</i>
400	Chr3: 129693385_129693386	<i>TRH</i>	445	Chr3: 194408845_194408846	<i>FAM43A</i>
401	Chr3: 129693586_129693587	<i>TRH</i>	446	Chr3: 195488725_195488726	<i>MUC4</i>
402	Chr3: 132757087_132757088	<i>TMEM108</i>	447	Chr3: 195623347_195623348	<i>TNK2</i>
403	Chr3: 132757106_132757107	<i>TMEM108</i>	448	Chr4: 570361_570362	<i>Non Coding Region</i>
404	Chr3: 134369939_134369940	<i>KY</i>	449	Chr4: 1195318_1195319	<i>LOC100130872, LOC100130872-SPON2</i>
405	Chr3: 138658554_138658555	<i>Non Coding Region</i>	450	Chr4: 2788986_2788987	<i>Non Coding Region</i>

Figure 28E

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
451	Chr4: 2933715 2933716	<i>MFSD10</i>	496	Chr4: 90758797 90758798	<i>SNCA</i>
452	Chr4: 4387917 4387918	<i>D4S234E</i>	497	Chr4: 90815973 90815974	<i>MMRN1</i>
453	Chr4: 4388505 4388506	<i>D4S234E</i>	498	Chr4: 96471105 96471106	<i>UNC5C</i>
454	Chr4: 5052526 5052527	<i>STK32B</i>	499	Chr4: 101111261 101111262	<i>DDIT4L</i>
455	Chr4: 5053504 5053505	<i>STK32B</i>	500	Chr4: 111555440 111555441	<i>PITX2</i>
456	Chr4: 5710319 5710320	<i>EVC2</i>	501	Chr4: 122301816 122301817	<i>QRFPR</i>
457	Chr4: 5710407 5710408	<i>EVC2</i>	502	Chr4: 122302226 122302227	<i>QRFPR</i>
458	Chr4: 5710411 5710412	<i>EVC2</i>	503	Chr4: 122686432 122686433	<i>TMEM155, LOC100192379</i>
459	Chr4: 5712937 5712938	<i>EVC</i>	504	Chr4: 122686453 122686454	<i>TMEM155, LOC100192379</i>
460	Chr4: 5892072 5892073	<i>CRMP1</i>	505	Chr4: 122686456 122686457	<i>TMEM155, LOC100192379</i>
461	Chr4: 6201430 6201431	<i>JAKMIP1</i>	506	Chr4: 122686493 122686494	<i>TMEM155, LOC100192379</i>
462	Chr4: 6202558 6202559	<i>JAKMIP1</i>	507	Chr4: 123748386 123748387	<i>FGF2</i>
463	Chr4: 7195206 7195207	<i>SORCS2</i>	508	Chr4: 126237371 126237372	<i>FAT4</i>
464	Chr4: 8037325 8037326	<i>ABLM2</i>	509	Chr4: 126237373 126237374	<i>FAT4</i>
465	Chr4: 10459219 10459220	<i>ZNF518B</i>	510	Chr4: 134067789 134067790	<i>Non Coding Region</i>
466	Chr4: 10686413 10686414	<i>CLNK</i>	511	Chr4: 134067896 134067897	<i>Non Coding Region</i>
467	Chr4: 13524143 13524144	<i>Non Coding Region</i>	512	Chr4: 134068777 134068778	<i>Non Coding Region</i>
468	Chr4: 13530269 13530270	<i>Non Coding Region</i>	513	Chr4: 134070369 134070370	<i>PCDH10</i>
469	Chr4: 13540946 13540947	<i>Non Coding Region</i>	514	Chr4: 134070416 134070417	<i>PCDH10</i>
470	Chr4: 13546151 13546152	<i>NKX3-2</i>	515	Chr4: 142054254 142054255	<i>RNF150</i>
471	Chr4: 13546157 13546158	<i>NKX3-2</i>	516	Chr4: 144621898 144621899	<i>FREM3</i>
472	Chr4: 15780306 15780307	<i>CD38</i>	517	Chr4: 144621945 144621946	<i>FREM3</i>
473	Chr4: 24802340 24802341	<i>SOD3</i>	518	Chr4: 144621952 144621953	<i>FREM3</i>
474	Chr4: 37246827 37246828	<i>KLAA1239</i>	519	Chr4: 147569938 147569939	<i>Non Coding Region</i>
475	Chr4: 40198392 40198393	<i>RHOH</i>	520	Chr4: 154681197 154681198	<i>RNF175</i>
476	Chr4: 40198595 40198596	<i>RHOH</i>	521	Chr4: 154709878 154709879	<i>SFRP2</i>
477	Chr4: 40858984 40858985	<i>APBB2</i>	522	Chr4: 154711070 154711071	<i>SFRP2</i>
478	Chr4: 40859251 40859252	<i>APBB2</i>	523	Chr4: 154712422 154712423	<i>Non Coding Region</i>
479	Chr4: 40859280 40859281	<i>APBB2</i>	524	Chr4: 155254497 155254498	<i>DCHS2</i>
480	Chr4: 41258910 41258911	<i>UCHL1</i>	525	Chr4: 156297854 156297855	<i>MAP9</i>
481	Chr4: 41883890 41883891	<i>Non Coding Region</i>	526	Chr4: 156680400 156680401	<i>GUCY1B3</i>
482	Chr4: 42399851 42399852	<i>SHISA3</i>	527	Chr4: 156680769 156680770	<i>GUCY1B3</i>
483	Chr4: 54965863 54965864	<i>GSX2</i>	528	Chr4: 166794786 166794787	<i>TLL1</i>
484	Chr4: 55097576 55097577	<i>PDGFRA</i>	529	Chr4: 166795524 166795525	<i>TLL1</i>
485	Chr4: 55991782 55991783	<i>KDR</i>	530	Chr4: 172734276 172734277	<i>GALNTL6</i>
486	Chr4: 55991850 55991851	<i>KDR</i>	531	Chr4: 174450408 174450409	<i>NBLA00301,HAND2</i>
487	Chr4: 55991860 55991861	<i>KDR</i>	532	Chr4: 174451443 174451444	<i>NBLA00301,HAND2</i>
488	Chr4: 57522493 57522494	<i>HOPX</i>	533	Chr4: 175750637 175750638	<i>GLRA3</i>
489	Chr4: 57522632 57522633	<i>HOPX</i>	534	Chr4: 176922779 176922780	<i>GPM6A</i>
490	Chr4: 71860600 71860601	<i>DCK</i>	535	Chr4: 176986950 176986951	<i>WDR17</i>
491	Chr4: 73434856 73434857	<i>ADAMTS3</i>	536	Chr4: 176987174 176987175	<i>WDR17</i>
492	Chr4: 81106414 81106415	<i>PRDM8</i>	537	Chr4: 183062301 183062302	<i>MGC45800</i>
493	Chr4: 81187798 81187799	<i>FGF5</i>	538	Chr4: 183063459 183063460	<i>MGC45800</i>
494	Chr4: 84034390 84034391	<i>PLAC8</i>	539	Chr4: 183369754 183369755	<i>ODZ3</i>
495	Chr4: 89378894 89378895	<i>HERC5</i>	540	Chr4: 184827754 184827755	<i>STOX2</i>

Figure 28F

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
541	Chr4: 185456125_185456126	<i>Non Coding Region</i>	586	Chr5: 54516805_54516806	<i>Non Coding Region</i>
542	Chr4: 185941601_185941602	<i>HELT</i>	587	Chr5: 63802491_63802492	<i>RGS7BP</i>
543	Chr4: 186559412_186559413	<i>SORBS2</i>	588	Chr5: 63986392_63986393	<i>FAM159B</i>
544	Chr5: 528580_528581	<i>Non Coding Region</i>	589	Chr5: 63986656_63986657	<i>FAM159B</i>
545	Chr5: 1445567_1445568	<i>SLC6A3</i>	590	Chr5: 63986793_63986794	<i>FAM159B</i>
546	Chr5: 1667643_1667644	<i>Non Coding Region</i>	591	Chr5: 71015523_71015524	<i>CARTPT</i>
547	Chr5: 1875886_1875887	<i>Non Coding Region</i>	592	Chr5: 71404593_71404594	<i>MAP1B</i>
548	Chr5: 1883005_1883006	<i>IRX4</i>	593	Chr5: 72528296_72528297	<i>Non Coding Region</i>
549	Chr5: 1931620_1931621	<i>Non Coding Region</i>	594	Chr5: 72595685_72595686	<i>Non Coding Region</i>
550	Chr5: 2038899_2038900	<i>Non Coding Region</i>	595	Chr5: 72595741_72595742	<i>Non Coding Region</i>
551	Chr5: 2038922_2038923	<i>Non Coding Region</i>	596	Chr5: 76010658_76010659	<i>F2R</i>
552	Chr5: 3595728_3595729	<i>IRX1</i>	597	Chr5: 82768488_82768489	<i>VCAN</i>
553	Chr5: 3596704_3596705	<i>IRX1</i>	598	Chr5: 88180146_88180147	<i>MEF2C</i>
554	Chr5: 3597487_3597488	<i>IRX1</i>	599	Chr5: 92909429_92909430	<i>FLJ42709</i>
555	Chr5: 5139853_5139854	<i>ADAMTS16</i>	600	Chr5: 92930813_92930814	<i>Non Coding Region</i>
556	Chr5: 5139866_5139867	<i>ADAMTS16</i>	601	Chr5: 94956017_94956018	<i>GPR150</i>
557	Chr5: 7850070_7850071	<i>C5orf49</i>	602	Chr5: 100236841_100236842	<i>ST8SLA4</i>
558	Chr5: 7850203_7850204	<i>C5orf49</i>	603	Chr5: 101632310_101632311	<i>SLCO4C1</i>
559	Chr5: 11904110_11904111	<i>CTNND2</i>	604	Chr5: 101632314_101632315	<i>SLCO4C1</i>
560	Chr5: 11904114_11904115	<i>CTNND2</i>	605	Chr5: 101632327_101632328	<i>SLCO4C1</i>
561	Chr5: 17218278_17218279	<i>BASP1,LOC285696</i>	606	Chr5: 101632341_101632342	<i>SLCO4C1</i>
562	Chr5: 31854651_31854652	<i>PDZD2</i>	607	Chr5: 115152485_115152486	<i>CDO1</i>
563	Chr5: 31855185_31855186	<i>PDZD2</i>	608	Chr5: 127873980_127873981	<i>FBN2</i>
564	Chr5: 32709200_32709201	<i>Non Coding Region</i>	609	Chr5: 131792825_131792826	<i>C5orf56</i>
565	Chr5: 32709301_32709302	<i>Non Coding Region</i>	610	Chr5: 131991993_131991994	<i>Non Coding Region</i>
566	Chr5: 32711429_32711430	<i>NPR3</i>	611	Chr5: 134363324_134363325	<i>Non Coding Region</i>
567	Chr5: 33936232_33936233	<i>RXFP3</i>	612	Chr5: 136834464_136834465	<i>SPOCK1</i>
568	Chr5: 33936253_33936254	<i>RXFP3</i>	613	Chr5: 136834492_136834493	<i>SPOCK1</i>
569	Chr5: 36690259_36690260	<i>Non Coding Region</i>	614	Chr5: 136834877_136834878	<i>SPOCK1</i>

Figure 28G

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
570	Chr5: _36690657_36690658	<i>Non Coding Region</i>	615	Chr5: _140787504_140787505	<i>PCDHGB1,PCDHGB3,PCDHGB2,PCDHGA8,PCDHGA9,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
571	Chr5: _37834958_37834959	<i>GDNF</i>	616	Chr5: _140787507_140787508	<i>PCDHGB1,PCDHGB3,PCDHGB2,PCDHGA8,PCDHGA9,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
572	Chr5: _37836748_37836749	<i>GDNF</i>	617	Chr5: _140797172_140797173	<i>PCDHGA10,PCDHGA8,PCDHGB3,PCDHGB2,PCDHGB1,PCDHGA9,PCDHGB7,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
573	Chr5: _37839829_37839830	<i>GDNF</i>	618	Chr5: _140855562_140855563	<i>PCDHGC3,PCDHGA8,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGB3,PCDHGB2,PCDHGB1,PCDHGA9,PCDHGB7,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
574	Chr5: _37840075_37840076	<i>GDNF</i>	619	Chr5: _140855582_140855583	<i>PCDHGC3,PCDHGA8,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGB3,PCDHGB2,PCDHGB1,PCDHGA9,PCDHGB7,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
575	Chr5: _38258333_38258334	<i>EGFLAM</i>	620	Chr5: _141262801_141262802	<i>Non Coding Region</i>
576	Chr5: _38258884_38258885	<i>EGFLAM</i>	621	Chr5: _141395447_141395448	<i>Non Coding Region</i>
577	Chr5: _38556435_38556436	<i>LIFR</i>	622	Chr5: _145720024_145720025	<i>POU4F3</i>
578	Chr5: _42424525_42424526	<i>GHR</i>	623	Chr5: _146258546_146258547	<i>PPP2R2B</i>
579	Chr5: _42951192_42951193	<i>Non Coding Region</i>	624	Chr5: _150593684_150593685	<i>CCDC69</i>
580	Chr5: _42994709_42994710	<i>Non Coding Region</i>	625	Chr5: _156680241_156680242	<i>ITK</i>
581	Chr5: _44389406_44389407	<i>FGF10</i>	626	Chr5: _156696351_156696352	<i>CYFIP2</i>
582	Chr5: _49737182_49737183	<i>EMB</i>	627	Chr5: _156698854_156698855	<i>CYFIP2</i>
583	Chr5: _50265443_50265444	<i>Non Coding Region</i>	628	Chr5: _159933856_159933857	<i>Non Coding Region</i>
584	Chr5: _54397592_54397593	<i>GZMA</i>	629	Chr5: _169064024_169064025	<i>DOCK2</i>
585	Chr5: _54516487_54516488	<i>Non Coding Region</i>	630	Chr5: _169064451_169064452	<i>DOCK2</i>

Figure 28H

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
631	Chr5: 169533347_169533348	<i>FOXI1</i>	676	Chr6: 26240528_26240529	<i>HIST1H4F</i>
632	Chr5: 169724590_169724591	<i>LCP2</i>	677	Chr6: 26240920_26240921	<i>HIST1H4F</i>
633	Chr5: 169724768_169724769	<i>LCP2</i>	678	Chr6: 26240939_26240940	<i>HIST1H4F</i>
634	Chr5: 170738274_170738275	<i>TLX3</i>	679	Chr6: 27173753_27173754	<i>Non Coding Region</i>
635	Chr5: 170739179_170739180	<i>Non Coding Region</i>	680	Chr6: 27173991_27173992	<i>Non Coding Region</i>
636	Chr5: 170740870_170740871	<i>Non Coding Region</i>	681	Chr6: 27463347_27463348	<i>Non Coding Region</i>
637	Chr5: 171605778_171605779	<i>STK10</i>	682	Chr6: 28493661_28493662	<i>GPX5</i>
638	Chr5: 172659730_172659731	<i>NKX2-5</i>	683	Chr6: 28510339_28510340	<i>Non Coding Region</i>
639	Chr5: 174159039_174159040	<i>Non Coding Region</i>	684	Chr6: 28603033_28603034	<i>Non Coding Region</i>
640	Chr5: 175223982_175223983	<i>CPLX2</i>	685	Chr6: 28603059_28603060	<i>Non Coding Region</i>
641	Chr5: 175792498_175792499	<i>ARL10</i>	686	Chr6: 28603230_28603231	<i>Non Coding Region</i>
642	Chr5: 175793049_175793050	<i>ARL10</i>	687	Chr6: 28603779_28603780	<i>Non Coding Region</i>
643	Chr5: 176799366_176799367	<i>RGS14</i>	688	Chr6: 28956247_28956248	<i>Non Coding Region</i>
644	Chr5: 177412718_177412719	<i>Non Coding Region</i>	689	Chr6: 28956268_28956269	<i>Non Coding Region</i>
645	Chr5: 178771776_178771777	<i>ADAMTS2</i>	690	Chr6: 29521602_29521603	<i>Non Coding Region</i>
646	Chr5: 180017349_180017350	<i>SCGB3A1</i>	691	Chr6: 29521751_29521752	<i>Non Coding Region</i>
647	Chr5: 180230767_180230768	<i>MGAT1</i>	692	Chr6: 29521756_29521757	<i>Non Coding Region</i>
648	Chr5: 180230959_180230960	<i>MGAT1</i>	693	Chr6: 29595653_29595654	<i>GABBR1</i>
649	Chr5: 180231026_180231027	<i>MGAT1</i>	694	Chr6: 29760164_29760165	<i>HCG4</i>
650	Chr5: 180231058_180231059	<i>MGAT1</i>	695	Chr6: 29760410_29760411	<i>HCG4</i>
651	Chr5: 180231084_180231085	<i>MGAT1</i>	696	Chr6: 29760505_29760506	<i>HCG4</i>
652	Chr6: 391208_391209	<i>IRF4</i>	697	Chr6: 29795815_29795816	<i>HLA-G</i>
653	Chr6: 391764_391765	<i>IRF4</i>	698	Chr6: 29943480_29943481	<i>HCG9</i>
654	Chr6: 391936_391937	<i>IRF4</i>	699	Chr6: 30095728_30095729	<i>Non Coding Region</i>
655	Chr6: 393239_393240	<i>IRF4</i>	700	Chr6: 30139634_30139635	<i>TRIM15</i>
656	Chr6: 393616_393617	<i>IRF4</i>	701	Chr6: 30139903_30139904	<i>TRIM15</i>
657	Chr6: 475074_475075	<i>Non Coding Region</i>	702	Chr6: 30227883_30227884	<i>HLA-L</i>
658	Chr6: 1379694_1379695	<i>Non Coding Region</i>	703	Chr6: 30418941_30418942	<i>Non Coding Region</i>
659	Chr6: 1391265_1391266	<i>FOXF2</i>	704	Chr6: 30418985_30418986	<i>Non Coding Region</i>
660	Chr6: 1625111_1625112	<i>GMDS</i>	705	Chr6: 30419070_30419071	<i>Non Coding Region</i>
661	Chr6: 6004207_6004208	<i>NRN1</i>	706	Chr6: 30649909_30649910	<i>KIAA1949</i>
662	Chr6: 10382828_10382829	<i>Non Coding Region</i>	707	Chr6: 30650844_30650845	<i>KIAA1949</i>
663	Chr6: 10391412_10391413	<i>Non Coding Region</i>	708	Chr6: 30652202_30652203	<i>KIAA1949</i>
664	Chr6: 10422322_10422323	<i>Non Coding Region</i>	709	Chr6: 30652376_30652377	<i>KIAA1949</i>
665	Chr6: 10882240_10882241	<i>GCM2</i>	710	Chr6: 30652396_30652397	<i>KIAA1949</i>
666	Chr6: 11382553_11382554	<i>NEDD9</i>	711	Chr6: 30652399_30652400	<i>KIAA1949</i>
667	Chr6: 11382556_11382557	<i>NEDD9</i>	712	Chr6: 30652688_30652689	<i>KIAA1949</i>
668	Chr6: 11382769_11382770	<i>NEDD9</i>	713	Chr6: 31527889_31527890	<i>Non Coding Region</i>
669	Chr6: 13428522_13428523	<i>GFOD1</i>	714	Chr6: 31527893_31527894	<i>Non Coding Region</i>
670	Chr6: 13428657_13428658	<i>GFOD1</i>	715	Chr6: 31527920_31527921	<i>Non Coding Region</i>
671	Chr6: 13455261_13455262	<i>GFOD1</i>	716	Chr6: 31528154_31528155	<i>Non Coding Region</i>
672	Chr6: 14735175_14735176	<i>Non Coding Region</i>	717	Chr6: 31554199_31554200	<i>LST1</i>
673	Chr6: 25042090_25042091	<i>Non Coding Region</i>	718	Chr6: 31554548_31554549	<i>LST1</i>
674	Chr6: 25042495_25042496	<i>Non Coding Region</i>	719	Chr6: 31783322_31783323	<i>HSPA1A,HSPA1L</i>
675	Chr6: 25042497_25042498	<i>Non Coding Region</i>	720	Chr6: 31783455_31783456	<i>HSPA1A,HSPA1L</i>

Figure 28I

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
721	Chr6: 31783466_31783467	<i>HSPA1A,HSPAIL</i>	766	Chr6: 106429316_106429317	<i>Non Coding Region</i>
722	Chr6: 31783468_31783469	<i>HSPA1A,HSPAIL</i>	767	Chr6: 106429443_106429444	<i>Non Coding Region</i>
723	Chr6: 31783482_31783483	<i>HSPA1A,HSPAIL</i>	768	Chr6: 108488335_108488336	<i>NR2E1</i>
724	Chr6: 31831489_31831490	<i>SLC44A4,NEU1</i>	769	Chr6: 108489977_108489978	<i>NR2E1</i>
725	Chr6: 32813084_32813085	<i>TAP1,PSMB8</i>	770	Chr6: 110679107_110679108	<i>C6orf186</i>
726	Chr6: 32813441_32813442	<i>TAP1,PSMB8</i>	771	Chr6: 117086850_117086851	<i>FAM162B</i>
727	Chr6: 32813448_32813449	<i>TAP1,PSMB8</i>	772	Chr6: 117086931_117086932	<i>FAM162B</i>
728	Chr6: 32813522_32813523	<i>TAP1,PSMB8</i>	773	Chr6: 118228078_118228079	<i>SLC35F1</i>
729	Chr6: 32813531_32813532	<i>TAP1,PSMB8</i>	774	Chr6: 119131733_119131734	<i>Non Coding Region</i>
730	Chr6: 32813544_32813545	<i>TAP1,PSMB8</i>	775	Chr6: 124124275_124124276	<i>NKAIN2</i>
731	Chr6: 32813582_32813583	<i>TAP1,PSMB8</i>	776	Chr6: 127440000_127440001	<i>RSP03</i>
732	Chr6: 34112818_34112819	<i>Non Coding Region</i>	777	Chr6: 127440510_127440511	<i>RSP03</i>
733	Chr6: 39282393_39282394	<i>KCNK17</i>	778	Chr6: 133562056_133562057	<i>EYA4</i>
734	Chr6: 41341601_41341602	<i>Non Coding Region</i>	779	Chr6: 134638871_134638872	<i>SGK1</i>
735	Chr6: 41528395_41528396	<i>FOXP4</i>	780	Chr6: 137814728_137814729	<i>OLIG3</i>
736	Chr6: 41528502_41528503	<i>FOXP4</i>	781	Chr6: 138145161_138145162	<i>Non Coding Region</i>
737	Chr6: 41528531_41528532	<i>FOXP4</i>	782	Chr6: 149803206_149803207	<i>ZC3H12D</i>
738	Chr6: 41528750_41528751	<i>FOXP4</i>	783	Chr6: 149803426_149803427	<i>ZC3H12D</i>
739	Chr6: 41528785_41528786	<i>FOXP4</i>	784	Chr6: 149803444_149803445	<i>ZC3H12D</i>
740	Chr6: 41606439_41606440	<i>MDF1</i>	785	Chr6: 151562026_151562027	<i>AKAP12</i>
741	Chr6: 42072147_42072148	<i>C6orf132</i>	786	Chr6: 152129388_152129389	<i>ESR1</i>
742	Chr6: 42738967_42738968	<i>Non Coding Region</i>	787	Chr6: 152957910_152957911	<i>SYNE1</i>
743	Chr6: 42739021_42739022	<i>Non Coding Region</i>	788	Chr6: 152957999_152958000	<i>SYNE1</i>
744	Chr6: 42739049_42739050	<i>Non Coding Region</i>	789	Chr6: 153451251_153451252	<i>RGS17</i>
745	Chr6: 43253097_43253098	<i>TTBK1</i>	790	Chr6: 159590059_159590060	<i>FND1C1</i>
746	Chr6: 45387917_45387918	<i>RUNX2</i>	791	Chr6: 166582310_166582311	<i>T</i>
747	Chr6: 45387932_45387933	<i>RUNX2</i>	792	Chr6: 166582393_166582394	<i>T</i>
748	Chr6: 55444061_55444062	<i>HMGCLL1</i>	793	Chr6: 166666838_166666839	<i>Non Coding Region</i>
749	Chr6: 56819429_56819430	<i>BEND6,DST</i>	794	Chr6: 166721155_166721156	<i>PRR18</i>
750	Chr6: 71666682_71666683	<i>B3GAT2</i>	795	Chr6: 167275809_167275810	<i>RPS6KA2</i>
751	Chr6: 73331114_73331115	<i>KCNQ5</i>	796	Chr6: 168768014_168768015	<i>Non Coding Region</i>
752	Chr6: 73331238_73331239	<i>KCNQ5</i>	797	Chr6: 168768113_168768114	<i>Non Coding Region</i>
753	Chr6: 73331405_73331406	<i>KCNQ5</i>	798	Chr6: 168939666_168939667	<i>SMOC2</i>
754	Chr6: 73332073_73332074	<i>KCNQ5</i>	799	Chr6: 170463397_170463398	<i>Non Coding Region</i>
755	Chr6: 84562892_84562893	<i>RIPPLY2</i>	800	Chr7: 641337_641338	<i>PRKAR1B</i>
756	Chr6: 85474028_85474029	<i>TBX18</i>	801	Chr7: 644219_644220	<i>PRKAR1B</i>
757	Chr6: 91321019_91321020	<i>Non Coding Region</i>	802	Chr7: 644302_644303	<i>PRKAR1B</i>
758	Chr6: 91321150_91321151	<i>Non Coding Region</i>	803	Chr7: 1270558_1270559	<i>Non Coding Region</i>
759	Chr6: 99282348_99282349	<i>POU3F2</i>	804	Chr7: 1705861_1705862	<i>Non Coding Region</i>
760	Chr6: 99284027_99284028	<i>POU3F2</i>	805	Chr7: 1709580_1709581	<i>Non Coding Region</i>
761	Chr6: 100912940_100912941	<i>SIMI</i>	806	Chr7: 1959989_1959990	<i>MAD1L1</i>
762	Chr6: 100912946_100912947	<i>SIMI</i>	807	Chr7: 1960073_1960074	<i>MAD1L1</i>
763	Chr6: 105389599_105389600	<i>Non Coding Region</i>	808	Chr7: 2445727_2445728	<i>CHST12</i>
764	Chr6: 105584551_105584552	<i>BVES</i>	809	Chr7: 2445843_2445844	<i>CHST12</i>
765	Chr6: 105584709_105584710	<i>BVES</i>	810	Chr7: 3134557_3134558	<i>Non Coding Region</i>

Figure 28J

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
811	Chr7: 4848934 4848935	<i>RADIL</i>	856	Chr7: 45019005 45019006	<i>MYO1G</i>
812	Chr7: 4848939 4848940	<i>RADIL</i>	857	Chr7: 45066738 45066739	<i>CCM2</i>
813	Chr7: 4922708 4922709	<i>RADIL</i>	858	Chr7: 45066841 45066842	<i>CCM2</i>
814	Chr7: 6576152 6576153	<i>GRID2IP</i>	859	Chr7: 45066858 45066859	<i>CCM2</i>
815	Chr7: 6576353 6576354	<i>GRID2IP</i>	860	Chr7: 45066895 45066896	<i>CCM2</i>
816	Chr7: 8482614 8482615	<i>NXPH1</i>	861	Chr7: 45067057 45067058	<i>CCM2</i>
817	Chr7: 19146032 19146033	<i>Non Coding Region</i>	862	Chr7: 45067319 45067320	<i>CCM2</i>
818	Chr7: 19147157 19147158	<i>Non Coding Region</i>	863	Chr7: 45197441 45197442	<i>RAMP3</i>
819	Chr7: 19156086 19156087	<i>TWIST1</i>	864	Chr7: 49813031 49813032	<i>VWC2</i>
820	Chr7: 19157193 19157194	<i>TWIST1</i>	865	Chr7: 49813033 49813034	<i>VWC2</i>
821	Chr7: 19157263 19157264	<i>TWIST1</i>	866	Chr7: 49814435 49814436	<i>VWC2</i>
822	Chr7: 19157296 19157297	<i>TWIST1</i>	867	Chr7: 49815365 49815366	<i>VWC2</i>
823	Chr7: 19158647 19158648	<i>TWIST1</i>	868	Chr7: 50343883 50343884	<i>IKZF1</i>
824	Chr7: 19158664 19158665	<i>TWIST1</i>	869	Chr7: 50727932 50727933	<i>GRB10</i>
825	Chr7: 19158747 19158748	<i>TWIST1</i>	870	Chr7: 54609776 54609777	<i>VSTM2A</i>
826	Chr7: 19812570 19812571	<i>TMEM196</i>	871	Chr7: 66096806 66096807	<i>KCTD7</i>
827	Chr7: 21583304 21583305	<i>DNAH11</i>	872	Chr7: 69064093 69064094	<i>AUTS2</i>
828	Chr7: 21583438 21583439	<i>DNAH11</i>	873	Chr7: 69064801 69064802	<i>AUTS2</i>
829	Chr7: 24323799 24323800	<i>NPY</i>	874	Chr7: 70597058 70597059	<i>WBSCR17</i>
830	Chr7: 24323840 24323841	<i>NPY</i>	875	Chr7: 71800987 71800988	<i>CALN1</i>
831	Chr7: 27208285 27208286	<i>Non Coding Region</i>	876	Chr7: 71801793 71801794	<i>CALN1</i>
832	Chr7: 30722114 30722115	<i>CRHR2</i>	877	Chr7: 75443174 75443175	<i>CCL24</i>
833	Chr7: 30722320 30722321	<i>CRHR2</i>	878	Chr7: 86273718 86273719	<i>GRM3</i>
834	Chr7: 30722327 30722328	<i>CRHR2</i>	879	Chr7: 89748294 89748295	<i>DPY19L2P4</i>
835	Chr7: 32338150 32338151	<i>Non Coding Region</i>	880	Chr7: 93205136 93205137	<i>CALCR</i>
836	Chr7: 32802765 32802766	<i>Non Coding Region</i>	881	Chr7: 93519473 93519474	<i>TFPI2</i>
837	Chr7: 35293759 35293760	<i>TBX20</i>	882	Chr7: 93519855 93519856	<i>TFPI2</i>
838	Chr7: 35296968 35296969	<i>Non Coding Region</i>	883	Chr7: 93520012 93520013	<i>TFPI2</i>
839	Chr7: 36764019 36764020	<i>AOAH</i>	884	Chr7: 93520024 93520025	<i>TFPI2</i>
840	Chr7: 36764140 36764141	<i>AOAH</i>	885	Chr7: 96650668 96650669	<i>DLX5</i>
841	Chr7: 37487633 37487634	<i>ELMO1</i>	886	Chr7: 96652115 96652116	<i>DLX5</i>
842	Chr7: 37488253 37488254	<i>ELMO1</i>	887	Chr7: 98246001 98246002	<i>NPTX2</i>
843	Chr7: 38670412 38670413	<i>AMPH</i>	888	Chr7: 98467380 98467381	<i>TMEM130</i>
844	Chr7: 38670804 38670805	<i>AMPH</i>	889	Chr7: 100488942 100488943	<i>ACHE</i>
845	Chr7: 38670985 38670986	<i>AMPH</i>	890	Chr7: 101006063 101006064	<i>EMID2</i>
846	Chr7: 38670987 38670988	<i>AMPH</i>	891	Chr7: 102066852 102066853	<i>PRKRIP1</i>
847	Chr7: 38671001 38671002	<i>AMPH</i>	892	Chr7: 102067162 102067163	<i>Non Coding Region</i>
848	Chr7: 41739742 41739743	<i>INHBA,LOC285954</i>	893	Chr7: 106505772 106505773	<i>PIK3CG</i>
849	Chr7: 42267547 42267548	<i>GLI3</i>	894	Chr7: 108095719 108095720	<i>NRCAM</i>
850	Chr7: 42267719 42267720	<i>GLI3</i>	895	Chr7: 112726538 112726539	<i>GPR85</i>
851	Chr7: 42267747 42267748	<i>GLI3</i>	896	Chr7: 116964012 116964013	<i>WNT2</i>
852	Chr7: 44143993 44143994	<i>AEBP1</i>	897	Chr7: 127672458 127672459	<i>LRRC4, SND1</i>
853	Chr7: 45018658 45018659	<i>MYO1G</i>	898	Chr7: 129913310 129913311	<i>CPA2</i>
854	Chr7: 45018789 45018790	<i>MYO1G</i>	899	Chr7: 132262353 132262354	<i>PLXNA4</i>
855	Chr7: 45018849 45018850	<i>MYO1G</i>	900	Chr7: 134143971 134143972	<i>AKR1B1</i>

Figure 28K

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
901	Chr7: 142494773_142494774	<i>Non Coding Region</i>	946	Chr8: 23563925_23563926	<i>NKX2-6</i>
902	Chr7: 142494914_142494915	<i>Non Coding Region</i>	947	Chr8: 23564025_23564026	<i>NKX2-6</i>
903	Chr7: 142494953_142494954	<i>Non Coding Region</i>	948	Chr8: 23564156_23564157	<i>NKX2-6</i>
904	Chr7: 142494985_142494986	<i>Non Coding Region</i>	949	Chr8: 23564193_23564194	<i>NKX2-6</i>
905	Chr7: 143579951_143579952	<i>FAM115A</i>	950	Chr8: 24814137_24814138	<i>NEFL</i>
906	Chr7: 143580147_143580148	<i>FAM115A</i>	951	Chr8: 25901017_25901018	<i>EBF2</i>
907	Chr7: 145813008_145813009	<i>CNTNAP2</i>	952	Chr8: 25909326_25909327	<i>Non Coding Region</i>
908	Chr7: 149411652_149411653	<i>KRBA1</i>	953	Chr8: 25909599_25909600	<i>Non Coding Region</i>
909	Chr7: 149487338_149487339	<i>SSPO</i>	954	Chr8: 26723584_26723585	<i>ADRA1A</i>
910	Chr7: 149917263_149917264	<i>Non Coding Region</i>	955	Chr8: 30890617_30890618	<i>WRN,PURG</i>
911	Chr7: 150147922_150147923	<i>GIMAP8</i>	956	Chr8: 30890620_30890621	<i>WRN,PURG</i>
912	Chr7: 150147988_150147989	<i>GIMAP8</i>	957	Chr8: 30890632_30890633	<i>WRN,PURG</i>
913	Chr7: 150329449_150329450	<i>GIMAP6</i>	958	Chr8: 32405792_32405793	<i>NRG1</i>
914	Chr7: 150413801_150413802	<i>GIMAP1</i>	959	Chr8: 32406928_32406929	<i>NRG1</i>
915	Chr7: 150653001_150653002	<i>KCNH2</i>	960	Chr8: 37823409_37823410	<i>ADRB3</i>
916	Chr7: 151107257_151107258	<i>WDR86</i>	961	Chr8: 38578802_38578803	<i>Non Coding Region</i>
917	Chr7: 151107261_151107262	<i>WDR86</i>	962	Chr8: 38586066_38586067	<i>TACC1</i>
918	Chr7: 151107285_151107286	<i>WDR86</i>	963	Chr8: 38627889_38627890	<i>TACC1</i>
919	Chr7: 152622455_152622456	<i>Non Coding Region</i>	964	Chr8: 38628105_38628106	<i>TACC1</i>
920	Chr7: 155166290_155166291	<i>Non Coding Region</i>	965	Chr8: 38645408_38645409	<i>TACC1</i>
921	Chr7: 155167038_155167039	<i>Non Coding Region</i>	966	Chr8: 41167107_41167108	<i>SFRP1</i>
922	Chr7: 156798258_156798259	<i>MNX1</i>	967	Chr8: 41424982_41424983	<i>Non Coding Region</i>
923	Chr7: 157461310_157461311	<i>PTPRN2</i>	968	Chr8: 41754181_41754182	<i>ANK1</i>
924	Chr7: 157461368_157461369	<i>PTPRN2</i>	969	Chr8: 41755140_41755141	<i>ANK1</i>
925	Chr7: 158937494_158937495	<i>VIPR2</i>	970	Chr8: 48100410_48100411	<i>Non Coding Region</i>
926	Chr7: 158937610_158937611	<i>VIPR2</i>	971	Chr8: 49468828_49468829	<i>Non Coding Region</i>
927	Chr8: 494721_494722	<i>C8orf42</i>	972	Chr8: 49468988_49468989	<i>Non Coding Region</i>
928	Chr8: 688417_688418	<i>Non Coding Region</i>	973	Chr8: 53851156_53851157	<i>NPBWR1</i>
929	Chr8: 9760877_9760878	<i>LOC157627</i>	974	Chr8: 53852030_53852031	<i>NPBWR1</i>
930	Chr8: 9760880_9760881	<i>LOC157627</i>	975	Chr8: 53852184_53852185	<i>NPBWR1</i>
931	Chr8: 9761171_9761172	<i>MIR124-1,LOC157627</i>	976	Chr8: 53852422_53852423	<i>NPBWR1</i>
932	Chr8: 9762100_9762101	<i>MIR124-1,LOC157627</i>	977	Chr8: 53852446_53852447	<i>NPBWR1</i>
933	Chr8: 10587604_10587605	<i>SOX7</i>	978	Chr8: 54164161_54164162	<i>OPRK1</i>
934	Chr8: 11204681_11204682	<i>TDH</i>	979	Chr8: 54792627_54792628	<i>RGS20</i>
935	Chr8: 11205166_11205167	<i>TDH</i>	980	Chr8: 55367611_55367612	<i>Non Coding Region</i>
936	Chr8: 15397729_15397730	<i>TUSC3</i>	981	Chr8: 55367627_55367628	<i>Non Coding Region</i>
937	Chr8: 21645923_21645924	<i>GFRA2</i>	982	Chr8: 55372111_55372112	<i>SOX17</i>
938	Chr8: 21646662_21646663	<i>GFRA2</i>	983	Chr8: 55379248_55379249	<i>Non Coding Region</i>
939	Chr8: 21771252_21771253	<i>DOK2</i>	984	Chr8: 56852290_56852291	<i>LYN</i>
940	Chr8: 21771258_21771259	<i>DOK2</i>	985	Chr8: 57025662_57025663	<i>MOS</i>
941	Chr8: 21771278_21771279	<i>DOK2</i>	986	Chr8: 57069688_57069689	<i>Non Coding Region</i>
942	Chr8: 22960385_22960386	<i>TNFRSF10C</i>	987	Chr8: 57069907_57069908	<i>Non Coding Region</i>
943	Chr8: 22960572_22960573	<i>TNFRSF10C</i>	988	Chr8: 57070013_57070014	<i>Non Coding Region</i>
944	Chr8: 22960820_22960821	<i>TNFRSF10C</i>	989	Chr8: 58907821_58907822	<i>FAM110B</i>
945	Chr8: 22961088_22961089	<i>TNFRSF10C</i>	990	Chr8: 59058585_59058586	<i>FAM110B</i>

Figure 28L

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
991	Chr8: 59058656_59058657	<i>FAM110B</i>	1036	Chr8: 116679763_116679764	<i>TRPS1</i>
992	Chr8: 59058660_59058661	<i>FAM110B</i>	1037	Chr8: 121137288_121137289	<i>COL14A1</i>
993	Chr8: 65281496_65281497	<i>Non Coding Region</i>	1038	Chr8: 129005526_129005527	<i>PVT1</i>
994	Chr8: 65291513_65291514	<i>MIR124-2</i>	1039	Chr8: 129005567_129005568	<i>PVT1</i>
995	Chr8: 65492792_65492793	<i>BHLHE22</i>	1040	Chr8: 132054555_132054556	<i>Non Coding Region</i>
996	Chr8: 65494451_65494452	<i>BHLHE22</i>	1041	Chr8: 134072526_134072527	<i>TG,SLA</i>
997	Chr8: 67344553_67344554	<i>ADHFE1</i>	1042	Chr8: 134072611_134072612	<i>TG,SLA</i>
998	Chr8: 67344556_67344557	<i>ADHFE1</i>	1043	Chr8: 140715540_140715541	<i>KCNK9</i>
999	Chr8: 67344588_67344589	<i>ADHFE1</i>	1044	Chr8: 140716991_140716992	<i>Non Coding Region</i>
1000	Chr8: 67344642_67344643	<i>ADHFE1</i>	1045	Chr8: 143532613_143532614	<i>Non Coding Region</i>
1001	Chr8: 67344665_67344666	<i>ADHFE1</i>	1046	Chr8: 143533499_143533500	<i>Non Coding Region</i>
1002	Chr8: 67344720_67344721	<i>ADHFE1</i>	1047	Chr8: 143533532_143533533	<i>Non Coding Region</i>
1003	Chr8: 67344936_67344937	<i>ADHFE1</i>	1048	Chr8: 143858636_143858637	<i>LYNX1</i>
1004	Chr8: 67345006_67345007	<i>ADHFE1</i>	1049	Chr8: 145106299_145106300	<i>OPLAH</i>
1005	Chr8: 67875033_67875034	<i>Non Coding Region</i>	1050	Chr8: 145106438_145106439	<i>OPLAH</i>
1006	Chr8: 67875261_67875262	<i>Non Coding Region</i>	1051	Chr8: 145106582_145106583	<i>OPLAH</i>
1007	Chr8: 67940950_67940951	<i>LRRC67</i>	1052	Chr9: 6645686_6645687	<i>GLDC</i>
1008	Chr8: 69244510_69244511	<i>Non Coding Region</i>	1053	Chr9: 37027384_37027385	<i>PAX5</i>
1009	Chr8: 70982039_70982040	<i>PRDM14</i>	1054	Chr9: 77112896_77112897	<i>RORB</i>
1010	Chr8: 72469507_72469508	<i>Non Coding Region</i>	1055	Chr9: 79633737_79633738	<i>FOXB2</i>
1011	Chr8: 72754953_72754954	<i>MSC</i>	1056	Chr9: 80524371_80524372	<i>GNAQ</i>
1012	Chr8: 72756155_72756156	<i>MSC</i>	1057	Chr9: 89763370_89763371	<i>C9orf170</i>
1013	Chr8: 72756341_72756342	<i>MSC</i>	1058	Chr9: 92137791_92137792	<i>Non Coding Region</i>
1014	Chr8: 72917350_72917351	<i>Non Coding Region</i>	1059	Chr9: 100611516_100611517	<i>Non Coding Region</i>
1015	Chr8: 75897297_75897298	<i>CRISPLD1</i>	1060	Chr9: 100616469_100616470	<i>FOXE1</i>
1016	Chr8: 77595321_77595322	<i>ZFXH4,LOC100192378</i>	1061	Chr9: 112810402_112810403	<i>PALM2-AKAP2,AKAP2</i>
1017	Chr8: 85097056_85097057	<i>RALYL</i>	1062	Chr9: 124461599_124461600	<i>DAB2IP</i>
1018	Chr8: 89339622_89339623	<i>MMP16</i>	1063	Chr9: 124461640_124461641	<i>DAB2IP</i>
1019	Chr8: 95229872_95229873	<i>CDH17</i>	1064	Chr9: 124462172_124462173	<i>DAB2IP</i>
1020	Chr8: 97158015_97158016	<i>GDF6</i>	1065	Chr9: 124462182_124462183	<i>DAB2IP</i>
1021	Chr8: 97158052_97158053	<i>GDF6</i>	1066	Chr9: 124889019_124889020	<i>Non Coding Region</i>
1022	Chr8: 97170666_97170667	<i>GDF6</i>	1067	Chr9: 130540941_130540942	<i>SH2D3C</i>
1023	Chr8: 97171827_97171828	<i>GDF6</i>	1068	Chr9: 132382433_132382434	<i>C9orf50</i>
1024	Chr8: 97172012_97172013	<i>GDF6</i>	1069	Chr9: 132650648_132650649	<i>FNBP1</i>
1025	Chr8: 97172961_97172962	<i>GDF6</i>	1070	Chr9: 132652889_132652890	<i>FNBP1</i>
1026	Chr8: 97173526_97173527	<i>GDF6</i>	1071	Chr9: 133536345_133536346	<i>Non Coding Region</i>
1027	Chr8: 97505764_97505765	<i>SDC2</i>	1072	Chr9: 134148648_134148649	<i>FAM78A</i>
1028	Chr8: 97506251_97506252	<i>SDC2</i>	1073	Chr9: 134151519_134151520	<i>FAM78A</i>
1029	Chr8: 102149838_102149839	<i>Non Coding Region</i>	1074	Chr9: 135037323_135037324	<i>NTNG2</i>
1030	Chr8: 104512858_104512859	<i>RIMS2</i>	1075	Chr9: 137160473_137160474	<i>Non Coding Region</i>
1031	Chr8: 104513083_104513084	<i>RIMS2</i>	1076	Chr10: 1778844_1778845	<i>ADARB2</i>
1032	Chr8: 104513909_104513910	<i>RIMS2</i>	1077	Chr10: 1779835_1779836	<i>ADARB2</i>
1033	Chr8: 105235606_105235607	<i>RIMS2</i>	1078	Chr10: 7450355_7450356	<i>SFMBT2</i>
1034	Chr8: 105235943_105235944	<i>RIMS2</i>	1079	Chr10: 7451822_7451823	<i>SFMBT2</i>
1035	Chr8: 116660586_116660587	<i>TRPS1</i>	1080	Chr10: 7452598_7452599	<i>SFMBT2</i>

Figure 28M

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1081	Chr10: 7708670_7708671	<i>ITIH5</i>	1126	Chr10: 88126291_88126292	<i>GRID1</i>
1082	Chr10: 8078038_8078039	<i>Non Coding Region</i>	1127	Chr10: 88126853_88126854	<i>GRID1</i>
1083	Chr10: 8096650_8096651	<i>FLJ45983,GATA3</i>	1128	Chr10: 91295299_91295300	<i>SLC16A12</i>
1084	Chr10: 8096991_8096992	<i>GATA3</i>	1129	Chr10: 93393030_93393031	<i>PPPIR3C</i>
1085	Chr10: 8097689_8097690	<i>GATA3</i>	1130	Chr10: 94822908_94822909	<i>CYP26C1</i>
1086	Chr10: 8102583_8102584	<i>GATA3</i>	1131	Chr10: 100993583_100993584	<i>HPSE2</i>
1087	Chr10: 11206221_11206222	<i>CUGBP2</i>	1132	Chr10: 100993587_100993588	<i>HPSE2</i>
1088	Chr10: 11206320_11206321	<i>CUGBP2</i>	1133	Chr10: 101292766_101292767	<i>NKX2-3</i>
1089	Chr10: 11206792_11206793	<i>CUGBP2</i>	1134	Chr10: 102419245_102419246	<i>Non Coding Region</i>
1090	Chr10: 11206813_11206814	<i>CUGBP2</i>	1135	Chr10: 102484232_102484233	<i>Non Coding Region</i>
1091	Chr10: 11206868_11206869	<i>CUGBP2</i>	1136	Chr10: 102497666_102497667	<i>Non Coding Region</i>
1092	Chr10: 11206870_11206871	<i>CUGBP2</i>	1137	Chr10: 102508286_102508287	<i>PAX2</i>
1093	Chr10: 11207437_11207438	<i>CUGBP2</i>	1138	Chr10: 102893980_102893981	<i>TLX1</i>
1094	Chr10: 11208339_11208340	<i>CUGBP2</i>	1139	Chr10: 102894120_102894121	<i>TLX1</i>
1095	Chr10: 14701815_14701816	<i>FAM107B</i>	1140	Chr10: 102894148_102894149	<i>TLX1</i>
1096	Chr10: 15761854_15761855	<i>ITGAS</i>	1141	Chr10: 102899285_102899286	<i>Non Coding Region</i>
1097	Chr10: 17271006_17271007	<i>VTM</i>	1142	Chr10: 102900365_102900366	<i>Non Coding Region</i>
1098	Chr10: 17271519_17271520	<i>VTM</i>	1143	Chr10: 103603563_103603564	<i>KCNIP2</i>
1099	Chr10: 22542024_22542025	<i>Non Coding Region</i>	1144	Chr10: 103603722_103603723	<i>KCNIP2</i>
1100	Chr10: 22625465_22625466	<i>Non Coding Region</i>	1145	Chr10: 103603810_103603811	<i>KCNIP2</i>
1101	Chr10: 23463094_23463095	<i>Non Coding Region</i>	1146	Chr10: 103603812_103603813	<i>KCNIP2</i>
1102	Chr10: 23982480_23982481	<i>KIAA1217</i>	1147	Chr10: 105036611_105036612	<i>INA</i>
1103	Chr10: 26727318_26727319	<i>APBB1IP</i>	1148	Chr10: 105036727_105036728	<i>INA</i>
1104	Chr10: 27548180_27548181	<i>Non Coding Region</i>	1149	Chr10: 105452352_105452353	<i>SH3PXD2A</i>
1105	Chr10: 29096857_29096858	<i>Non Coding Region</i>	1150	Chr10: 106088702_106088703	<i>ITPRIP</i>
1106	Chr10: 30338246_30338247	<i>KIAA1462</i>	1151	Chr10: 106088711_106088712	<i>ITPRIP</i>
1107	Chr10: 43947405_43947406	<i>ZNF487</i>	1152	Chr10: 106089003_106089004	<i>ITPRIP</i>
1108	Chr10: 44788812_44788813	<i>Non Coding Region</i>	1153	Chr10: 106398816_106398817	<i>Non Coding Region</i>
1109	Chr10: 44880545_44880546	<i>CXCL12</i>	1154	Chr10: 106400667_106400668	<i>SORCS3</i>
1110	Chr10: 48438724_48438725	<i>GDF10</i>	1155	Chr10: 106400686_106400687	<i>SORCS3</i>
1111	Chr10: 48439229_48439230	<i>GDF10</i>	1156	Chr10: 106400702_106400703	<i>SORCS3</i>
1112	Chr10: 50716478_50716479	<i>ERCC6</i>	1157	Chr10: 108924366_108924367	<i>SORCS1</i>
1113	Chr10: 50817810_50817811	<i>SLC18A3,CHAT</i>	1158	Chr10: 118030970_118030971	<i>GFRA1</i>
1114	Chr10: 52833909_52833910	<i>PRKG1</i>	1159	Chr10: 118031864_118031865	<i>GFRA1</i>
1115	Chr10: 57390306_57390307	<i>Non Coding Region</i>	1160	Chr10: 118031870_118031871	<i>GFRA1</i>
1116	Chr10: 64575442_64575443	<i>EGR2</i>	1161	Chr10: 118032879_118032880	<i>GFRA1</i>
1117	Chr10: 70847399_70847400	<i>SRGN</i>	1162	Chr10: 118032892_118032893	<i>GFRA1</i>
1118	Chr10: 70849854_70849855	<i>SRGN</i>	1163	Chr10: 118032905_118032906	<i>GFRA1</i>
1119	Chr10: 73496014_73496015	<i>CDH23,C10orf105</i>	1164	Chr10: 118033115_118033116	<i>GFRA1</i>
1120	Chr10: 81002218_81002219	<i>ZMIZ1</i>	1165	Chr10: 118033370_118033371	<i>GFRA1</i>
1121	Chr10: 81002480_81002481	<i>ZMIZ1</i>	1166	Chr10: 118892581_118892582	<i>VAX1</i>
1122	Chr10: 82116571_82116572	<i>DYDC2,DYDC1</i>	1167	Chr10: 118922887_118922888	<i>Non Coding Region</i>
1123	Chr10: 83636249_83636250	<i>NRG3</i>	1168	Chr10: 119000927_119000928	<i>SLC18A2</i>
1124	Chr10: 88123453_88123454	<i>GRID1</i>	1169	Chr10: 119292062_119292063	<i>EMX2OS</i>
1125	Chr10: 88126089_88126090	<i>GRID1</i>	1170	Chr10: 119295770_119295771	<i>EMX2OS</i>

Figure 28N

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1171	Chr10: 119304487 119304488	<i>EMX2OS,EMX2</i>	1216	Chr11: 20618399 20618400	<i>Non Coding Region</i>
1172	Chr10: 119310288 119310289	<i>Non Coding Region</i>	1217	Chr11: 20691126 20691127	<i>NELL1</i>
1173	Chr10: 121277385 121277386	<i>RGS10</i>	1218	Chr11: 20691161 20691162	<i>NELL1</i>
1174	Chr10: 121301765 121301766	<i>RGS10</i>	1219	Chr11: 20691341 20691342	<i>NELL1</i>
1175	Chr10: 123922970 123922971	<i>TACC2</i>	1220	Chr11: 30607068 30607069	<i>MPED2</i>
1176	Chr10: 123923066 123923067	<i>TACC2</i>	1221	Chr11: 31821388 31821389	<i>PAX6</i>
1177	Chr10: 123923081 123923082	<i>TACC2</i>	1222	Chr11: 31827084 31827085	<i>PAX6</i>
1178	Chr10: 123923273 123923274	<i>TACC2</i>	1223	Chr11: 32355022 32355023	<i>Non Coding Region</i>
1179	Chr10: 123923881 123923882	<i>TACC2</i>	1224	Chr11: 32456912 32456913	<i>WT1,WT1</i>
1180	Chr10: 131768928 131768929	<i>Non Coding Region</i>	1225	Chr11: 32457124 32457125	<i>WT1,WT1</i>
1181	Chr10: 131769581 131769582	<i>Non Coding Region</i>	1226	Chr11: 32457127 32457128	<i>WT1,WT1</i>
1182	Chr10: 133110244 133110245	<i>TCERG1L</i>	1227	Chr11: 32457158 32457159	<i>WT1,WT1</i>
1183	Chr10: 133110349 133110350	<i>TCERG1L</i>	1228	Chr11: 32457162 32457163	<i>WT1,WT1</i>
1184	Chr10: 134901294 134901295	<i>GPR123</i>	1229	Chr11: 33890371 33890372	<i>LMO2</i>
1185	Chr10: 134901297 134901298	<i>GPR123</i>	1230	Chr11: 35441088 35441089	<i>SLC1A2</i>
1186	Chr10: 135043492 135043493	<i>UTF1</i>	1231	Chr11: 43602847 43602848	<i>MIR129-2</i>
1187	Chr10: 135043506 135043507	<i>UTF1</i>	1232	Chr11: 43602879 43602880	<i>MIR129-2</i>
1188	Chr10: 135139100 135139101	<i>CALY</i>	1233	Chr11: 43963907 43963908	<i>LOC387763</i>
1189	Chr11: 627152 627153	<i>SCT</i>	1234	Chr11: 44332653 44332654	<i>ALX4</i>
1190	Chr11: 627175 627176	<i>SCT</i>	1235	Chr11: 44332664 44332665	<i>ALX4</i>
1191	Chr11: 637170 637171	<i>DRD4</i>	1236	Chr11: 46382725 46382726	<i>DGKZ</i>
1192	Chr11: 637173 637174	<i>DRD4</i>	1237	Chr11: 46383066 46383067	<i>DGKZ</i>
1193	Chr11: 637175 637176	<i>DRD4</i>	1238	Chr11: 46383209 46383210	<i>DGKZ</i>
1194	Chr11: 2161473 2161474	<i>IGF2,IGF2AS,INS-IGF2</i>	1239	Chr11: 46414626 46414627	<i>Non Coding Region</i>
1195	Chr11: 2162183 2162184	<i>IGF2,IGF2AS,INS-IGF2</i>	1240	Chr11: 47416487 47416488	<i>Non Coding Region</i>
1196	Chr11: 2162211 2162212	<i>IGF2,IGF2AS,INS-IGF2</i>	1241	Chr11: 47416535 47416536	<i>Non Coding Region</i>
1197	Chr11: 2321770 2321771	<i>TSPAN32,C11orf21</i>	1242	Chr11: 57250469 57250470	<i>Non Coding Region</i>
1198	Chr11: 2321780 2321781	<i>TSPAN32,C11orf21</i>	1243	Chr11: 58343318 58343319	<i>LPXN</i>
1199	Chr11: 2321800 2321801	<i>TSPAN32,C11orf21</i>	1244	Chr11: 60738995 60738996	<i>CD6</i>
1200	Chr11: 2322642 2322643	<i>TSPAN32,C11orf21</i>	1245	Chr11: 60739005 60739006	<i>CD6</i>
1201	Chr11: 2322781 2322782	<i>TSPAN32,C11orf21</i>	1246	Chr11: 60739019 60739020	<i>CD6</i>
1202	Chr11: 2554562 2554563	<i>KCNQ1</i>	1247	Chr11: 60739172 60739173	<i>CD6</i>
1203	Chr11: 6440065 6440066	<i>APBB1</i>	1248	Chr11: 60739178 60739179	<i>CD6</i>
1204	Chr11: 6668214 6668215	<i>DCHS1</i>	1249	Chr11: 60739183 60739184	<i>CD6</i>
1205	Chr11: 8040551 8040552	<i>Non Coding Region</i>	1250	Chr11: 61283968 61283969	<i>SYT7</i>
1206	Chr11: 8103017 8103018	<i>TUB</i>	1251	Chr11: 61322922 61322923	<i>SYT7</i>
1207	Chr11: 9623178 9623179	<i>Non Coding Region</i>	1252	Chr11: 61595807 61595808	<i>FADS2</i>
1208	Chr11: 10327870 10327871	<i>ADM</i>	1253	Chr11: 61596307 61596308	<i>FADS2</i>
1209	Chr11: 12030289 12030290	<i>DKK3</i>	1254	Chr11: 63321562 63321563	<i>HRASLS2</i>
1210	Chr11: 14926738 14926739	<i>Non Coding Region</i>	1255	Chr11: 63768032 63768033	<i>MACROD1</i>
1211	Chr11: 15136456 15136457	<i>INSC</i>	1256	Chr11: 63828713 63828714	<i>MACROD1</i>
1212	Chr11: 18813544 18813545	<i>PTPN5</i>	1257	Chr11: 63974860 63974861	<i>FERMT3</i>
1213	Chr11: 19366714 19366715	<i>Non Coding Region</i>	1258	Chr11: 63974955 63974956	<i>FERMT3</i>
1214	Chr11: 20185267 20185268	<i>Non Coding Region</i>	1259	Chr11: 64059054 64059055	<i>KCNK4</i>
1215	Chr11: 20229517 20229518	<i>Non Coding Region</i>	1260	Chr11: 64059307 64059308	<i>KCNK4</i>

Figure 280

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1261	Chr11: 64108241_64108242	<i>CCDC88B</i>	1306	Chr11: 112833773_112833774	<i>NCAM1</i>
1262	Chr11: 64621386_64621387	<i>EHD1</i>	1307	Chr11: 115531033_115531034	<i>Non Coding Region</i>
1263	Chr11: 65407734_65407735	<i>SIPA1</i>	1308	Chr11: 115630889_115630890	<i>Non Coding Region</i>
1264	Chr11: 65408445_65408446	<i>SIPA1</i>	1309	Chr11: 115631116_115631117	<i>Non Coding Region</i>
1265	Chr11: 65408496_65408497	<i>SIPA1</i>	1310	Chr11: 117801492_117801493	<i>TMPRSS13</i>
1266	Chr11: 65601328_65601329	<i>SNX32</i>	1311	Chr11: 119293385_119293386	<i>THY1</i>
1267	Chr11: 65661516_65661517	<i>FOSL1</i>	1312	Chr11: 119293601_119293602	<i>THY1</i>
1268	Chr11: 67039119_67039120	<i>ADRBK1</i>	1313	Chr11: 119293869_119293870	<i>THY1</i>
1269	Chr11: 67171191_67171192	<i>TBCID10C</i>	1314	Chr11: 120435056_120435057	<i>Non Coding Region</i>
1270	Chr11: 67171200_67171201	<i>TBCID10C</i>	1315	Chr11: 122848098_122848099	<i>Non Coding Region</i>
1271	Chr11: 67171476_67171477	<i>TBCID10C</i>	1316	Chr11: 123066560_123066561	<i>ASAM</i>
1272	Chr11: 67171585_67171586	<i>TBCID10C</i>	1317	Chr11: 123301171_123301172	<i>Non Coding Region</i>
1273	Chr11: 67177034_67177035	<i>TBCID10C</i>	1318	Chr11: 124629580_124629581	<i>ESAM</i>
1274	Chr11: 67177103_67177104	<i>TBCID10C</i>	1319	Chr11: 124735105_124735106	<i>ROBO3</i>
1275	Chr11: 69632335_69632336	<i>FGF3</i>	1320	Chr11: 124790875_124790876	<i>HEPACAM</i>
1276	Chr11: 69634372_69634373	<i>FGF3</i>	1321	Chr11: 125036385_125036386	<i>PKNOX2</i>
1277	Chr11: 69704700_69704701	<i>Non Coding Region</i>	1322	Chr11: 125365004_125365005	<i>FEZ1</i>
1278	Chr11: 69830611_69830612	<i>Non Coding Region</i>	1323	Chr11: 125774082_125774083	<i>PUS3,DDX25</i>
1279	Chr11: 69919990_69919991	<i>Non Coding Region</i>	1324	Chr11: 126226007_126226008	<i>ST3GAL4</i>
1280	Chr11: 70211301_70211302	<i>PPFIA1</i>	1325	Chr11: 128563027_128563028	<i>FLII</i>
1281	Chr11: 70211531_70211532	<i>PPFIA1</i>	1326	Chr11: 128563685_128563686	<i>FLII</i>
1282	Chr11: 70961872_70961873	<i>Non Coding Region</i>	1327	Chr11: 128564106_128564107	<i>FLII</i>
1283	Chr11: 71955332_71955333	<i>PHOX2A</i>	1328	Chr11: 128564180_128564181	<i>FLII</i>
1284	Chr11: 71955599_71955600	<i>PHOX2A</i>	1329	Chr11: 128564756_128564757	<i>FLII</i>
1285	Chr11: 72295535_72295536	<i>PDE2A</i>	1330	Chr11: 128564874_128564875	<i>FLII</i>
1286	Chr11: 75379864_75379865	<i>MAP6</i>	1331	Chr11: 132934554_132934555	<i>OPCML</i>
1287	Chr11: 78673073_78673074	<i>ODZ4</i>	1332	Chr11: 133825519_133825520	<i>IGSF9B</i>
1288	Chr11: 78673100_78673101	<i>ODZ4</i>	1333	Chr11: 133906693_133906694	<i>LOC100128239</i>
1289	Chr11: 91958458_91958459	<i>Non Coding Region</i>	1334	Chr11: 134146253_134146254	<i>GLB1L3</i>
1290	Chr11: 91958799_91958800	<i>Non Coding Region</i>	1335	Chr11: 134146676_134146677	<i>GLB1L3</i>
1291	Chr11: 94501384_94501385	<i>AMOTL1</i>	1336	Chr12: 55401116_55401117	<i>NTF3</i>
1292	Chr11: 94501387_94501388	<i>AMOTL1</i>	1337	Chr12: 6571347_6571348	<i>TAPBPL</i>
1293	Chr11: 94501461_94501462	<i>AMOTL1</i>	1338	Chr12: 6664872_6664873	<i>IFFO1</i>
1294	Chr11: 94501467_94501468	<i>AMOTL1</i>	1339	Chr12: 6665108_6665109	<i>IFFO1</i>
1295	Chr11: 94501718_94501719	<i>AMOTL1</i>	1340	Chr12: 6665288_6665289	<i>IFFO1</i>
1296	Chr11: 104034619_104034620	<i>PDGFD</i>	1341	Chr12: 6665330_6665331	<i>IFFO1</i>
1297	Chr11: 104034754_104034755	<i>PDGFD</i>	1342	Chr12: 6665370_6665371	<i>IFFO1</i>
1298	Chr11: 105481319_105481320	<i>GRIA4</i>	1343	Chr12: 6665424_6665425	<i>IFFO1</i>
1299	Chr11: 105481322_105481323	<i>GRIA4</i>	1344	Chr12: 6881595_6881596	<i>LAG3</i>
1300	Chr11: 105481406_105481407	<i>GRIA4</i>	1345	Chr12: 6881601_6881602	<i>LAG3</i>
1301	Chr11: 106889334_106889335	<i>GUCY1A2</i>	1346	Chr12: 6881624_6881625	<i>LAG3</i>
1302	Chr11: 106889364_106889365	<i>GUCY1A2</i>	1347	Chr12: 6881629_6881630	<i>LAG3</i>
1303	Chr11: 107462437_107462438	<i>ELMOD1,LOC643923</i>	1348	Chr12: 7060187_7060188	<i>PTPN6</i>
1304	Chr11: 111383515_111383516	<i>BTG4,MIR34C,MIR34B</i>	1349	Chr12: 7060263_7060264	<i>PTPN6</i>
1305	Chr11: 111809582_111809583	<i>DIXDC1</i>	1350	Chr12: 7060386_7060387	<i>PTPN6</i>

Figure 28P

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1351	Chr12: 7060569_7060570	<i>PTPN6</i>	1396	Chr12: 54393460_54393461	<i>HOXC9</i>
1352	Chr12: 8542839_8542840	<i>LOC389634</i>	1397	Chr12: 54408664_54408665	<i>Non Coding Region</i>
1353	Chr12: 15113093_15113094	<i>ARHGDIIB</i>	1398	Chr12: 54424679_54424680	<i>HOXC5,HOXC4</i>
1354	Chr12: 15374303_15374304	<i>RERG</i>	1399	Chr12: 54447584_54447585	<i>HOXC4</i>
1355	Chr12: 15374457_15374458	<i>RERG</i>	1400	Chr12: 54447873_54447874	<i>HOXC4</i>
1356	Chr12: 15374560_15374561	<i>RERG</i>	1401	Chr12: 54812000_54812001	<i>ITGA5</i>
1357	Chr12: 15374577_15374578	<i>RERG</i>	1402	Chr12: 54812085_54812086	<i>ITGA5</i>
1358	Chr12: 15475342_15475343	<i>PTPRO</i>	1403	Chr12: 54812606_54812607	<i>ITGA5</i>
1359	Chr12: 15475690_15475691	<i>PTPRO</i>	1404	Chr12: 54891491_54891492	<i>NCKAPIL</i>
1360	Chr12: 24715478_24715479	<i>SOX5</i>	1405	Chr12: 54891634_54891635	<i>NCKAPIL</i>
1361	Chr12: 24715864_24715865	<i>SOX5</i>	1406	Chr12: 54891636_54891637	<i>NCKAPIL</i>
1362	Chr12: 25055262_25055263	<i>BCAT1</i>	1407	Chr12: 56415271_56415272	<i>IKZF4</i>
1363	Chr12: 25055967_25055968	<i>BCAT1</i>	1408	Chr12: 57873704_57873705	<i>ARHGAP9</i>
1364	Chr12: 29936174_29936175	<i>TMTC1</i>	1409	Chr12: 57998762_57998763	<i>DTX3</i>
1365	Chr12: 39299326_39299327	<i>CPNE8</i>	1410	Chr12: 57998786_57998787	<i>DTX3</i>
1366	Chr12: 39299364_39299365	<i>CPNE8</i>	1411	Chr12: 58021917_58021918	<i>B4GALNT1</i>
1367	Chr12: 41086365_41086366	<i>CNTN1</i>	1412	Chr12: 58026010_58026011	<i>B4GALNT1</i>
1368	Chr12: 45444895_45444896	<i>DBX2</i>	1413	Chr12: 62585031_62585032	<i>FAM19A2</i>
1369	Chr12: 45445115_45445116	<i>DBX2</i>	1414	Chr12: 62585204_62585205	<i>FAM19A2</i>
1370	Chr12: 46609063_46609064	<i>SLC38A1</i>	1415	Chr12: 62585877_62585878	<i>FAM19A2</i>
1371	Chr12: 47609357_47609358	<i>LOC100233209, FAM113B</i>	1416	Chr12: 62586267_62586268	<i>FAM19A2</i>
1372	Chr12: 47610220_47610221	<i>LOC100233209, FAM113B</i>	1417	Chr12: 64062498_64062499	<i>DPY19L2</i>
1373	Chr12: 48207862_48207863	<i>HDAC7</i>	1418	Chr12: 64062564_64062565	<i>DPY19L2</i>
1374	Chr12: 48398056_48398057	<i>COL2A1</i>	1419	Chr12: 64062724_64062725	<i>DPY19L2</i>
1375	Chr12: 48398370_48398371	<i>COL2A1</i>	1420	Chr12: 64784483_64784484	<i>C12orf56</i>
1376	Chr12: 48398374_48398375	<i>COL2A1</i>	1421	Chr12: 65515276_65515277	<i>WIF1</i>
1377	Chr12: 48398380_48398381	<i>COL2A1</i>	1422	Chr12: 65515290_65515291	<i>WIF1</i>
1378	Chr12: 48591994_48591995	<i>Non Coding Region</i>	1423	Chr12: 65515470_65515471	<i>WIF1</i>
1379	Chr12: 49484169_49484170	<i>DHH</i>	1424	Chr12: 66123127_66123128	<i>Non Coding Region</i>
1380	Chr12: 50297581_50297582	<i>FAIM2</i>	1425	Chr12: 66275988_66275989	<i>HMG2</i>
1381	Chr12: 50297777_50297778	<i>FAIM2</i>	1426	Chr12: 72667398_72667399	<i>LOC283392,TRHDE</i>
1382	Chr12: 50297793_50297794	<i>FAIM2</i>	1427	Chr12: 72667493_72667494	<i>LOC283392,TRHDE</i>
1383	Chr12: 50297945_50297946	<i>FAIM2</i>	1428	Chr12: 81471754_81471755	<i>ACSS3</i>
1384	Chr12: 51717865_51717866	<i>BIN2</i>	1429	Chr12: 81471884_81471885	<i>ACSS3</i>
1385	Chr12: 51717960_51717961	<i>BIN2</i>	1430	Chr12: 85305408_85305409	<i>SLC6A15</i>
1386	Chr12: 51717978_51717979	<i>BIN2</i>	1431	Chr12: 85667353_85667354	<i>Non Coding Region</i>
1387	Chr12: 51718011_51718012	<i>BIN2</i>	1432	Chr12: 95941988_95941989	<i>USP44</i>
1388	Chr12: 51718088_51718089	<i>BIN2</i>	1433	Chr12: 103889772_103889773	<i>C12orf42</i>
1389	Chr12: 51718108_51718109	<i>BIN2</i>	1434	Chr12: 103889789_103889790	<i>C12orf42</i>
1390	Chr12: 51718112_51718113	<i>BIN2</i>	1435	Chr12: 104444006_104444007	<i>GLT8D2</i>
1391	Chr12: 52400907_52400908	<i>GRASP</i>	1436	Chr12: 104850326_104850327	<i>CHST11</i>
1392	Chr12: 52401214_52401215	<i>GRASP</i>	1437	Chr12: 104850759_104850760	<i>CHST11</i>
1393	Chr12: 52627047_52627048	<i>KRT7</i>	1438	Chr12: 104850767_104850768	<i>CHST11</i>
1394	Chr12: 54088972_54088973	<i>Non Coding Region</i>	1439	Chr12: 104851909_104851910	<i>CHST11</i>
1395	Chr12: 54345862_54345863	<i>Non Coding Region</i>	1440	Chr12: 104852439_104852440	<i>CHST11</i>

Figure 28Q

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1441	Chr12: 105114399_105114400	<i>CHST11</i>	1486	Chr13: 36920332_36920333	<i>SPG20</i>
1442	Chr12: 109028385_109028386	<i>SELPLG</i>	1487	Chr13: 37004617_37004618	<i>CCNA1</i>
1443	Chr12: 111471192_111471193	<i>CUX2</i>	1488	Chr13: 37005501_37005502	<i>CCNA1</i>
1444	Chr12: 111472183_111472184	<i>CUX2</i>	1489	Chr13: 37005570_37005571	<i>CCNA1</i>
1445	Chr12: 113013048_113013049	<i>Non Coding Region</i>	1490	Chr13: 37006107_37006108	<i>CCNA1</i>
1446	Chr12: 113229374_113229375	<i>RPH3A</i>	1491	Chr13: 37006127_37006128	<i>CCNA1</i>
1447	Chr12: 113494422_113494423	<i>DTX1</i>	1492	Chr13: 37006611_37006612	<i>CCNA1</i>
1448	Chr12: 113541915_113541916	<i>RASAL1</i>	1493	Chr13: 43148935_43148936	<i>TNFSF11</i>
1449	Chr12: 113901210_113901211	<i>LHX5</i>	1494	Chr13: 44360259_44360260	<i>ENOX1</i>
1450	Chr12: 113901529_113901530	<i>LHX5</i>	1495	Chr13: 46425508_46425509	<i>SLAH3</i>
1451	Chr12: 114075881_114075882	<i>Non Coding Region</i>	1496	Chr13: 46756209_46756210	<i>LCP1</i>
1452	Chr12: 114843296_114843297	<i>TBX5</i>	1497	Chr13: 47468154_47468155	<i>HTR2A</i>
1453	Chr12: 115103960_115103961	<i>Non Coding Region</i>	1498	Chr13: 50070550_50070551	<i>PHF11</i>
1454	Chr12: 115105290_115105291	<i>Non Coding Region</i>	1499	Chr13: 53313174_53313175	<i>LECT1</i>
1455	Chr12: 117798954_117798955	<i>NOS1</i>	1500	Chr13: 53313529_53313530	<i>LECT1</i>
1456	Chr12: 120032374_120032375	<i>TMEM233</i>	1501	Chr13: 53420425_53420426	<i>PCDH8</i>
1457	Chr12: 120799725_120799726	<i>MSI1</i>	1502	Chr13: 58204224_58204225	<i>Non Coding Region</i>
1458	Chr12: 122096667_122096668	<i>MORN3</i>	1503	Chr13: 78493066_78493067	<i>EDNRB</i>
1459	Chr12: 122227872_122227873	<i>RHOF</i>	1504	Chr13: 78493100_78493101	<i>EDNRB</i>
1460	Chr12: 124941423_124941424	<i>NCOR2</i>	1505	Chr13: 78493305_78493306	<i>EDNRB</i>
1461	Chr12: 124941871_124941872	<i>NCOR2</i>	1506	Chr13: 78493313_78493314	<i>EDNRB</i>
1462	Chr12: 124942016_124942017	<i>NCOR2</i>	1507	Chr13: 78493564_78493565	<i>EDNRB</i>
1463	Chr12: 124942176_124942177	<i>NCOR2</i>	1508	Chr13: 79170146_79170147	<i>Non Coding Region</i>
1464	Chr12: 124950784_124950785	<i>NCOR2</i>	1509	Chr13: 79170303_79170304	<i>Non Coding Region</i>
1465	Chr12: 124950938_124950939	<i>NCOR2</i>	1510	Chr13: 84456171_84456172	<i>SLITRK1</i>
1466	Chr12: 130389010_130389011	<i>TMEM132D</i>	1511	Chr13: 84456258_84456259	<i>SLITRK1</i>
1467	Chr12: 133464327_133464328	<i>CHFR</i>	1512	Chr13: 88325384_88325385	<i>SLITRK5</i>
1468	Chr12: 133464857_133464858	<i>CHFR</i>	1513	Chr13: 92051400_92051401	<i>GPC5</i>
1469	Chr12: 133481390_133481391	<i>Non Coding Region</i>	1514	Chr13: 95364675_95364676	<i>SOX21</i>
1470	Chr12: 133484853_133484854	<i>Non Coding Region</i>	1515	Chr13: 96204854_96204855	<i>CLDN10</i>
1471	Chr13: 20768560_20768561	<i>GJB2</i>	1516	Chr13: 99880947_99880948	<i>UBAC2</i>
1472	Chr13: 20806732_20806733	<i>GJB6</i>	1517	Chr13: 99910587_99910588	<i>UBAC2,GPR18</i>
1473	Chr13: 23733862_23733863	<i>Non Coding Region</i>	1518	Chr13: 100310841_100310842	<i>CLYBL</i>
1474	Chr13: 25621027_25621028	<i>Non Coding Region</i>	1519	Chr13: 102569815_102569816	<i>FGF14</i>
1475	Chr13: 25745784_25745785	<i>FAM123A</i>	1520	Chr13: 102569876_102569877	<i>FGF14</i>
1476	Chr13: 28366759_28366760	<i>GSX1</i>	1521	Chr13: 103046930_103046931	<i>FGF14</i>
1477	Chr13: 28497117_28497118	<i>PDX1</i>	1522	Chr13: 103047053_103047054	<i>FGF14</i>
1478	Chr13: 28498384_28498385	<i>PDX1</i>	1523	Chr13: 103047225_103047226	<i>FGF14</i>
1479	Chr13: 28500882_28500883	<i>Non Coding Region</i>	1524	Chr13: 103052828_103052829	<i>FGF14</i>
1480	Chr13: 28503373_28503374	<i>Non Coding Region</i>	1525	Chr13: 108519318_108519319	<i>FAM155A</i>
1481	Chr13: 28674451_28674452	<i>FLT3</i>	1526	Chr13: 109149011_109149012	<i>Non Coding Region</i>
1482	Chr13: 29107069_29107070	<i>Non Coding Region</i>	1527	Chr13: 110958977_110958978	<i>COL4A2,COL4A1</i>
1483	Chr13: 36705446_36705447	<i>DCLK1</i>	1528	Chr13: 110993493_110993494	<i>COL4A2</i>
1484	Chr13: 36919674_36919675	<i>SPG20</i>	1529	Chr13: 112758491_112758492	<i>Non Coding Region</i>
1485	Chr13: 36919819_36919820	<i>SPG20</i>	1530	Chr13: 114896683_114896684	<i>RASA3</i>

Figure 28R

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1531	Chr14: 22004993_22004994	<i>SALL2</i>	1576	Chr14: 100438647_100438648	<i>Non Coding Region</i>
1532	Chr14: 22694547_22694548	<i>Non Coding Region</i>	1577	Chr14: 100438737_100438738	<i>Non Coding Region</i>
1533	Chr14: 23834977_23834978	<i>EFS</i>	1578	Chr14: 100438957_100438958	<i>Non Coding Region</i>
1534	Chr14: 24803873_24803874	<i>ADCY4</i>	1579	Chr14: 100531591_100531592	<i>EVL</i>
1535	Chr14: 24803903_24803904	<i>ADCY4</i>	1580	Chr14: 101924596_101924597	<i>Non Coding Region</i>
1536	Chr14: 24803917_24803918	<i>ADCY4</i>	1581	Chr14: 105310421_105310422	<i>Non Coding Region</i>
1537	Chr14: 24803925_24803926	<i>ADCY4</i>	1582	Chr14: 105393171_105393172	<i>PLD4</i>
1538	Chr14: 24804339_24804340	<i>ADCY4</i>	1583	Chr15: 26108263_26108264	<i>ATP10A</i>
1539	Chr14: 29254680_29254681	<i>C14orf23</i>	1584	Chr15: 26108796_26108797	<i>ATP10A</i>
1540	Chr14: 36003741_36003742	<i>INSM2</i>	1585	Chr15: 27216088_27216089	<i>GABRG3</i>
1541	Chr14: 36989550_36989551	<i>NKX2-1</i>	1586	Chr15: 28342183_28342184	<i>OCA2</i>
1542	Chr14: 48145108_48145109	<i>MDGA2</i>	1587	Chr15: 28352098_28352099	<i>Non Coding Region</i>
1543	Chr14: 51561293_51561294	<i>TRIM9</i>	1588	Chr15: 28983117_28983118	<i>WHAMML2</i>
1544	Chr14: 52536436_52536437	<i>NID2</i>	1589	Chr15: 29077493_29077494	<i>Non Coding Region</i>
1545	Chr14: 54687160_54687161	<i>Non Coding Region</i>	1590	Chr15: 34806592_34806593	<i>Non Coding Region</i>
1546	Chr14: 54687314_54687315	<i>Non Coding Region</i>	1591	Chr15: 34807050_34807051	<i>Non Coding Region</i>
1547	Chr14: 57283436_57283437	<i>OTX2OS1</i>	1592	Chr15: 34807143_34807144	<i>Non Coding Region</i>
1548	Chr14: 60975964_60975965	<i>SLX6</i>	1593	Chr15: 37170381_37170382	<i>LOC145845</i>
1549	Chr14: 60976285_60976286	<i>SLX6</i>	1594	Chr15: 37170454_37170455	<i>LOC145845</i>
1550	Chr14: 60978161_60978162	<i>SLX6</i>	1595	Chr15: 37172509_37172510	<i>LOC145845</i>
1551	Chr14: 70014873_70014874	<i>Non Coding Region</i>	1596	Chr15: 37387438_37387439	<i>MEIS2</i>
1552	Chr14: 70041283_70041284	<i>Non Coding Region</i>	1597	Chr15: 37390284_37390285	<i>MEIS2</i>
1553	Chr14: 70653719_70653720	<i>SLC8A3</i>	1598	Chr15: 38988755_38988756	<i>C15orf53</i>
1554	Chr14: 70653919_70653920	<i>SLC8A3</i>	1599	Chr15: 41793881_41793882	<i>ITPKA</i>
1555	Chr14: 70653964_70653965	<i>SLC8A3</i>	1600	Chr15: 41794412_41794413	<i>ITPKA</i>
1556	Chr14: 75800941_75800942	<i>Non Coding Region</i>	1601	Chr15: 45670865_45670866	<i>GATM,LOC145663</i>
1557	Chr14: 75801023_75801024	<i>Non Coding Region</i>	1602	Chr15: 48938347_48938348	<i>FBN1</i>
1558	Chr14: 75988800_75988801	<i>BATF</i>	1603	Chr15: 51385891_51385892	<i>TNFAIP8L3</i>
1559	Chr14: 75988820_75988821	<i>BATF</i>	1604	Chr15: 53083532_53083533	<i>ONECUT1</i>
1560	Chr14: 77504561_77504562	<i>Non Coding Region</i>	1605	Chr15: 53097777_53097778	<i>Non Coding Region</i>
1561	Chr14: 77736904_77736905	<i>NGB</i>	1606	Chr15: 55881044_55881045	<i>PYGO1</i>
1562	Chr14: 77737146_77737147	<i>NGB</i>	1607	Chr15: 60296996_60296997	<i>FOXBI</i>
1563	Chr14: 85996202_85996203	<i>FLRT2</i>	1608	Chr15: 61520873_61520874	<i>RORA</i>
1564	Chr14: 92413706_92413707	<i>FBLN5</i>	1609	Chr15: 65689298_65689299	<i>IGDCC4</i>
1565	Chr14: 93532563_93532564	<i>ITPK1,NCRNA00203</i>	1610	Chr15: 68122139_68122140	<i>LBXCOR1</i>
1566	Chr14: 93532632_93532633	<i>ITPK1,NCRNA00203</i>	1611	Chr15: 70828097_70828098	<i>Non Coding Region</i>
1567	Chr14: 94254726_94254727	<i>PRIMA1</i>	1612	Chr15: 73661652_73661653	<i>HCN4</i>
1568	Chr14: 95235026_95235027	<i>GSC</i>	1613	Chr15: 74421535_74421536	<i>ISLR2,LOC283731</i>
1569	Chr14: 95235125_95235126	<i>GSC</i>	1614	Chr15: 74726561_74726562	<i>SEMA7A</i>
1570	Chr14: 95235127_95235128	<i>GSC</i>	1615	Chr15: 77287656_77287657	<i>PSTPIP1</i>
1571	Chr14: 95236123_95236124	<i>GSC</i>	1616	Chr15: 78632572_78632573	<i>CRABP1</i>
1572	Chr14: 96342250_96342251	<i>Non Coding Region</i>	1617	Chr15: 79383167_79383168	<i>RASGRF1</i>
1573	Chr14: 97685386_97685387	<i>Non Coding Region</i>	1618	Chr15: 79383924_79383925	<i>RASGRF1</i>
1574	Chr14: 97685576_97685577	<i>Non Coding Region</i>	1619	Chr15: 79575048_79575049	<i>ANKRD34C</i>
1575	Chr14: 100259341_100259342	<i>EML1</i>	1620	Chr15: 79576216_79576217	<i>ANKRD34C</i>

Figure 28S

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1621	Chr15: 81586571_81586572	<i>IL16</i>	1666	Chr16: 28074980_28074981	<i>GSG1L</i>
1622	Chr15: 81589248_81589249	<i>IL16</i>	1667	Chr16: 28075269_28075270	<i>GSG1L</i>
1623	Chr15: 83316640_83316641	<i>CPEB1</i>	1668	Chr16: 28995882_28995883	<i>LAT</i>
1624	Chr15: 83776420_83776421	<i>TM6SF1</i>	1669	Chr16: 28996053_28996054	<i>LAT</i>
1625	Chr15: 83776422_83776423	<i>TM6SF1</i>	1670	Chr16: 28996329_28996330	<i>LAT</i>
1626	Chr15: 83877070_83877071	<i>HDGFRP3</i>	1671	Chr16: 28996362_28996363	<i>LAT</i>
1627	Chr15: 83953744_83953745	<i>BNC1</i>	1672	Chr16: 28996449_28996450	<i>LAT</i>
1628	Chr15: 84115811_84115812	<i>SH3GL3</i>	1673	Chr16: 28996533_28996534	<i>LAT</i>
1629	Chr15: 84115895_84115896	<i>SH3GL3</i>	1674	Chr16: 29086271_29086272	<i>RRN3P2</i>
1630	Chr15: 84115969_84115970	<i>SH3GL3</i>	1675	Chr16: 29674618_29674619	<i>SPN</i>
1631	Chr15: 86233220_86233221	<i>AKAP13</i>	1676	Chr16: 29674959_29674960	<i>SPN</i>
1632	Chr15: 86233236_86233237	<i>AKAP13</i>	1677	Chr16: 29674972_29674973	<i>SPN</i>
1633	Chr15: 88800567_88800568	<i>NTRK3</i>	1678	Chr16: 29675160_29675161	<i>SPN</i>
1634	Chr15: 89922328_89922329	<i>LOC254559</i>	1679	Chr16: 29675846_29675847	<i>SPN</i>
1635	Chr15: 89952499_89952500	<i>Non Coding Region</i>	1680	Chr16: 29676003_29676004	<i>SPN</i>
1636	Chr15: 92398112_92398113	<i>SLCO3A1</i>	1681	Chr16: 29676071_29676072	<i>SPN</i>
1637	Chr15: 92937735_92937736	<i>ST8SLA2</i>	1682	Chr16: 29756951_29756952	<i>C16orf54</i>
1638	Chr15: 92937992_92937993	<i>ST8SLA2</i>	1683	Chr16: 29757318_29757319	<i>C16orf54</i>
1639	Chr15: 93631754_93631755	<i>RGMA</i>	1684	Chr16: 29757323_29757324	<i>C16orf54</i>
1640	Chr15: 96895341_96895342	<i>Non Coding Region</i>	1685	Chr16: 29757334_29757335	<i>C16orf54</i>
1641	Chr15: 98836248_98836249	<i>Non Coding Region</i>	1686	Chr16: 29757344_29757345	<i>C16orf54</i>
1642	Chr15: 101420636_101420637	<i>ALDH1A3</i>	1687	Chr16: 29757375_29757376	<i>C16orf54</i>
1643	Chr16: 215960_215961	<i>HBM</i>	1688	Chr16: 30197211_30197212	<i>CORO1A</i>
1644	Chr16: 2041512_2041513	<i>SYNGR3</i>	1689	Chr16: 30393854_30393855	<i>SEPT_1</i>
1645	Chr16: 2737356_2737357	<i>KCTD5</i>	1690	Chr16: 30904573_30904574	<i>BCL7C,MIR762</i>
1646	Chr16: 2765843_2765844	<i>PRSS27</i>	1691	Chr16: 31021933_31021934	<i>STX1B</i>
1647	Chr16: 3237991_3237992	<i>Non Coding Region</i>	1692	Chr16: 31228059_31228060	<i>TRIM72,PYDC1</i>
1648	Chr16: 3627497_3627498	<i>NLRC3</i>	1693	Chr16: 31228202_31228203	<i>TRIM72,PYDC1</i>
1649	Chr16: 3628412_3628413	<i>NLRC3</i>	1694	Chr16: 49312033_49312034	<i>Non Coding Region</i>
1650	Chr16: 10133501_10133502	<i>GRIN2A</i>	1695	Chr16: 49312238_49312239	<i>CBLN1</i>
1651	Chr16: 11327141_11327142	<i>Non Coding Region</i>	1696	Chr16: 49475615_49475616	<i>Non Coding Region</i>
1652	Chr16: 12996046_12996047	<i>SHISA9</i>	1697	Chr16: 51184379_51184380	<i>SALL1</i>
1653	Chr16: 12996234_12996235	<i>SHISA9</i>	1698	Chr16: 51184562_51184563	<i>SALL1</i>
1654	Chr16: 16156039_16156040	<i>ABCC1</i>	1699	Chr16: 51184786_51184787	<i>SALL1</i>
1655	Chr16: 21294947_21294948	<i>CRYM</i>	1700	Chr16: 51186260_51186261	<i>SALL1</i>
1656	Chr16: 23846893_23846894	<i>PRKCB</i>	1701	Chr16: 54407990_54407991	<i>Non Coding Region</i>
1657	Chr16: 23847325_23847326	<i>PRKCB</i>	1702	Chr16: 54408014_54408015	<i>Non Coding Region</i>
1658	Chr16: 23848439_23848440	<i>PRKCB</i>	1703	Chr16: 54970523_54970524	<i>Non Coding Region</i>
1659	Chr16: 25703528_25703529	<i>HS3ST4</i>	1704	Chr16: 55690130_55690131	<i>SLC6A2</i>
1660	Chr16: 25704505_25704506	<i>HS3ST4</i>	1705	Chr16: 55690381_55690382	<i>SLC6A2</i>
1661	Chr16: 25704507_25704508	<i>HS3ST4</i>	1706	Chr16: 56224901_56224902	<i>GNAO1,LOC283856</i>
1662	Chr16: 28074384_28074385	<i>GSG1L</i>	1707	Chr16: 56228442_56228443	<i>GNAO1,DKFZP434H168</i>
1663	Chr16: 28074388_28074389	<i>GSG1L</i>	1708	Chr16: 56228467_56228468	<i>GNAO1,DKFZP434H168</i>
1664	Chr16: 28074462_28074463	<i>GSG1L</i>	1709	Chr16: 56228498_56228499	<i>GNAO1,DKFZP434H168</i>
1665	Chr16: 28074670_28074671	<i>GSG1L</i>	1710	Chr16: 56697229_56697230	<i>Non Coding Region</i>

Figure 28T

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1711	Chr16: 58019123_58019124	<i>TEPP</i>	1756	Chr17: 27038886_27038887	<i>PROCA1</i>
1712	Chr16: 66612955_66612956	<i>CMTM2,CMTM1</i>	1757	Chr17: 27039032_27039033	<i>PROCA1</i>
1713	Chr16: 66613266_66613267	<i>CMTM2</i>	1758	Chr17: 27940509_27940510	<i>ANKRD13B</i>
1714	Chr16: 66638293_66638294	<i>CMTM3</i>	1759	Chr17: 32484259_32484260	<i>ACCN1</i>
1715	Chr16: 66638412_66638413	<i>CMTM3</i>	1760	Chr17: 33701321_33701322	<i>SLFN11</i>
1716	Chr16: 66638433_66638434	<i>CMTM3</i>	1761	Chr17: 33701350_33701351	<i>SLFN11</i>
1717	Chr16: 66638438_66638439	<i>CMTM3</i>	1762	Chr17: 33867795_33867796	<i>Non Coding Region</i>
1718	Chr16: 67197186_67197187	<i>FBXL8,HSF4</i>	1763	Chr17: 35293930_35293931	<i>LHX1</i>
1719	Chr16: 67428898_67428899	<i>ZDHHC1,TPPP3</i>	1764	Chr17: 35294476_35294477	<i>LHX1</i>
1720	Chr16: 77822419_77822420	<i>VAT1L</i>	1765	Chr17: 35294481_35294482	<i>LHX1</i>
1721	Chr16: 86541480_86541481	<i>Non Coding Region</i>	1766	Chr17: 35294491_35294492	<i>LHX1</i>
1722	Chr16: 86544339_86544340	<i>FOXF1</i>	1767	Chr17: 37321490_37321491	<i>ARL5C</i>
1723	Chr16: 86599745_86599746	<i>FOXC2</i>	1768	Chr17: 37914349_37914350	<i>Non Coding Region</i>
1724	Chr16: 86600326_86600327	<i>FOXC2</i>	1769	Chr17: 38347603_38347604	<i>RAPGEFL1</i>
1725	Chr16: 86601133_86601134	<i>FOXC2</i>	1770	Chr17: 38347816_38347817	<i>RAPGEFL1</i>
1726	Chr16: 86613067_86613068	<i>FOXL1</i>	1771	Chr17: 38721675_38721676	<i>CCR7</i>
1727	Chr16: 86962747_86962748	<i>Non Coding Region</i>	1772	Chr17: 42467307_42467308	<i>ITGA2B</i>
1728	Chr16: 87736062_87736063	<i>LOC100129637</i>	1773	Chr17: 43047733_43047734	<i>Non Coding Region</i>
1729	Chr16: 87736388_87736389	<i>LOC100129637</i>	1774	Chr17: 43299826_43299827	<i>FMNL1</i>
1730	Chr16: 88767261_88767262	<i>RNF166</i>	1775	Chr17: 43339223_43339224	<i>C17orf46, LOC100133991</i>
1731	Chr16: 88769854_88769855	<i>RNF166</i>	1776	Chr17: 43339328_43339329	<i>C17orf46, LOC100133991</i>
1732	Chr16: 88769970_88769971	<i>RNF166</i>	1777	Chr17: 43339497_43339498	<i>C17orf46, LOC100133991</i>
1733	Chr16: 88770558_88770559	<i>RNF166</i>	1778	Chr17: 43861104_43861105	<i>CRHR1</i>
1734	Chr16: 90092755_90092756	<i>GAS8</i>	1779	Chr17: 43862032_43862033	<i>CRHR1</i>
1735	Chr17: 1626575_1626576	<i>WDR81</i>	1780	Chr17: 44897431_44897432	<i>WNT3</i>
1736	Chr17: 4618322_4618323	<i>ARRB2</i>	1781	Chr17: 44929245_44929246	<i>WNT9B</i>
1737	Chr17: 4802735_4802736	<i>C17orf107,CHRNE</i>	1782	Chr17: 45810610_45810611	<i>TBX21</i>
1738	Chr17: 4847601_4847602	<i>RNF167</i>	1783	Chr17: 45810865_45810866	<i>TBX21</i>
1739	Chr17: 5403879_5403880	<i>LOC728392</i>	1784	Chr17: 45867446_45867447	<i>Non Coding Region</i>
1740	Chr17: 5404508_5404509	<i>LOC728392</i>	1785	Chr17: 46802888_46802889	<i>HOXB13</i>
1741	Chr17: 5487376_5487377	<i>NLRP1</i>	1786	Chr17: 47074576_47074577	<i>IGF2BP1</i>
1742	Chr17: 6616867_6616868	<i>SLC13A5</i>	1787	Chr17: 47653306_47653307	<i>NXPH3</i>
1743	Chr17: 6616883_6616884	<i>SLC13A5</i>	1788	Chr17: 48070891_48070892	<i>DLX3</i>
1744	Chr17: 7240223_7240224	<i>ACAP1</i>	1789	Chr17: 54675137_54675138	<i>Non Coding Region</i>
1745	Chr17: 7554681_7554682	<i>ATP1B2</i>	1790	Chr17: 55213563_55213564	<i>Non Coding Region</i>
1746	Chr17: 7976456_7976457	<i>ALOX12B</i>	1791	Chr17: 55952063_55952064	<i>CUEDC1</i>
1747	Chr17: 8230350_8230351	<i>Non Coding Region</i>	1792	Chr17: 56408197_56408198	<i>Non Coding Region</i>
1748	Chr17: 8533218_8533219	<i>MYH10</i>	1793	Chr17: 56408688_56408689	<i>MIR142</i>
1749	Chr17: 8533391_8533392	<i>MYH10</i>	1794	Chr17: 56408694_56408695	<i>MIR142</i>
1750	Chr17: 10024297_10024298	<i>GAS7</i>	1795	Chr17: 56408804_56408805	<i>MIR142</i>
1751	Chr17: 10101581_10101582	<i>GAS7</i>	1796	Chr17: 56409518_56409519	<i>MIR142</i>
1752	Chr17: 13505558_13505559	<i>HS3ST3A1</i>	1797	Chr17: 59478068_59478069	<i>TBX2</i>
1753	Chr17: 14212480_14212481	<i>HS3ST3B1</i>	1798	Chr17: 59534998_59534999	<i>TBX4</i>
1754	Chr17: 19483367_19483368	<i>Non Coding Region</i>	1799	Chr17: 66597500_66597501	<i>FAM20A</i>
1755	Chr17: 19881632_19881633	<i>AKAP10</i>	1800	Chr17: 70216332_70216333	<i>Non Coding Region</i>

Figure 28U

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1801	Chr17: 70723386_70723387	<i>SLC39A11</i>	1846	Chr18: 5543271_5543272	<i>EPB41L3</i>
1802	Chr17: 71161258_71161259	<i>SSTR2</i>	1847	Chr18: 5543548_5543549	<i>EPB41L3</i>
1803	Chr17: 72352897_72352898	<i>BTBD17</i>	1848	Chr18: 5544169_5544170	<i>EPB41L3</i>
1804	Chr17: 72588412_72588413	<i>CD300LD,C17orf77</i>	1849	Chr18: 5544231_5544232	<i>EPB41L3</i>
1805	Chr17: 72755647_72755648	<i>SLC9A3R1</i>	1850	Chr18: 7116977_7116978	<i>LAMA1</i>
1806	Chr17: 72889549_72889550	<i>FADS6</i>	1851	Chr18: 7118077_7118078	<i>LAMA1</i>
1807	Chr17: 73584068_73584069	<i>MYO15B</i>	1852	Chr18: 11752089_11752090	<i>GNAL</i>
1808	Chr17: 73584070_73584071	<i>MYO15B</i>	1853	Chr18: 18821913_18821914	<i>GREB1L</i>
1809	Chr17: 73584360_73584361	<i>MYO15B</i>	1854	Chr18: 20811408_20811409	<i>CABLES1</i>
1810	Chr17: 73584617_73584618	<i>MYO15B</i>	1855	Chr18: 22929205_22929206	<i>ZNF521</i>
1811	Chr17: 73749654_73749655	<i>ITGB4</i>	1856	Chr18: 22930271_22930272	<i>ZNF521</i>
1812	Chr17: 73749694_73749695	<i>ITGB4</i>	1857	Chr18: 22930283_22930284	<i>ZNF521</i>
1813	Chr17: 74511719_74511720	<i>Non Coding Region</i>	1858	Chr18: 25755942_25755943	<i>CDH2</i>
1814	Chr17: 74533969_74533970	<i>CYGB</i>	1859	Chr18: 25756510_25756511	<i>CDH2</i>
1815	Chr17: 74533976_74533977	<i>CYGB</i>	1860	Chr18: 34833938_34833939	<i>BRUNOL4</i>
1816	Chr17: 75369091_75369092	<i>SEPT_9</i>	1861	Chr18: 35146766_35146767	<i>BRUNOL4</i>
1817	Chr17: 75369484_75369485	<i>SEPT_9</i>	1862	Chr18: 44337922_44337923	<i>ST8SLA5</i>
1818	Chr17: 75369657_75369658	<i>SEPT_9</i>	1863	Chr18: 53257019_53257020	<i>TCF4</i>
1819	Chr17: 75401367_75401368	<i>SEPT_9</i>	1864	Chr18: 53446528_53446529	<i>Non Coding Region</i>
1820	Chr17: 75441392_75441393	<i>SEPT_9</i>	1865	Chr18: 53446784_53446785	<i>Non Coding Region</i>
1821	Chr17: 75471308_75471309	<i>SEPT_9</i>	1866	Chr18: 54789058_54789059	<i>Non Coding Region</i>
1822	Chr17: 76126301_76126302	<i>TMC6,TMC8</i>	1867	Chr18: 56887271_56887272	<i>GRP</i>
1823	Chr17: 76126702_76126703	<i>TMC6,TMC8</i>	1868	Chr18: 56935199_56935200	<i>RAX</i>
1824	Chr17: 76127217_76127218	<i>TMC6,TMC8</i>	1869	Chr18: 56941246_56941247	<i>RAX</i>
1825	Chr17: 76355202_76355203	<i>SOC3</i>	1870	Chr18: 65184398_65184399	<i>DSEL</i>
1826	Chr17: 76361166_76361167	<i>Non Coding Region</i>	1871	Chr18: 67067867_67067868	<i>DOK6</i>
1827	Chr17: 76755745_76755746	<i>CYTH1</i>	1872	Chr18: 67067893_67067894	<i>DOK6</i>
1828	Chr17: 76775543_76775544	<i>CYTH1</i>	1873	Chr18: 73167671_73167672	<i>Non Coding Region</i>
1829	Chr17: 76921845_76921846	<i>TIMP2</i>	1874	Chr18: 74961737_74961738	<i>GALR1</i>
1830	Chr17: 77179709_77179710	<i>HRNBP3</i>	1875	Chr18: 74961968_74961969	<i>GALR1</i>
1831	Chr17: 77721631_77721632	<i>Non Coding Region</i>	1876	Chr18: 76738999_76739000	<i>SALL3</i>
1832	Chr17: 78452048_78452049	<i>Non Coding Region</i>	1877	Chr19: 1401310_1401311	<i>GAMT</i>
1833	Chr17: 79259283_79259284	<i>SLC38A10</i>	1878	Chr19: 1401767_1401768	<i>GAMT</i>
1834	Chr17: 79259383_79259384	<i>SLC38A10</i>	1879	Chr19: 1401775_1401776	<i>GAMT</i>
1835	Chr17: 79259536_79259537	<i>SLC38A10</i>	1880	Chr19: 1401781_1401782	<i>GAMT</i>
1836	Chr17: 79259699_79259700	<i>SLC38A10</i>	1881	Chr19: 1467952_1467953	<i>APC2</i>
1837	Chr17: 80260329_80260330	<i>Non Coding Region</i>	1882	Chr19: 2085297_2085298	<i>MOBK12A</i>
1838	Chr17: 80358850_80358851	<i>C17orf101</i>	1883	Chr19: 2085301_2085302	<i>MOBK12A</i>
1839	Chr17: 80358876_80358877	<i>C17orf101</i>	1884	Chr19: 2085483_2085484	<i>MOBK12A</i>
1840	Chr17: 80407031_80407032	<i>C17orf62</i>	1885	Chr19: 2253398_2253399	<i>JSRP1</i>
1841	Chr17: 80407590_80407591	<i>C17orf62</i>	1886	Chr19: 3178844_3178845	<i>SIPR4</i>
1842	Chr17: 80549621_80549622	<i>FOCK2</i>	1887	Chr19: 3178955_3178956	<i>SIPR4</i>
1843	Chr18: 904851_904852	<i>ADCYAP1</i>	1888	Chr19: 3179364_3179365	<i>SIPR4</i>
1844	Chr18: 904920_904921	<i>ADCYAP1</i>	1889	Chr19: 3179828_3179829	<i>SIPR4</i>
1845	Chr18: 5197327_5197328	<i>LOC642597</i>	1890	Chr19: 3180035_3180036	<i>SIPR4</i>

Figure 28V

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1891	Chr19: 4327106_4327107	<i>STAP2</i>	1936	Chr19: 31848008_31848009	<i>Non Coding Region</i>
1892	Chr19: 4327350_4327351	<i>STAP2</i>	1937	Chr19: 31848130_31848131	<i>Non Coding Region</i>
1893	Chr19: 4328759_4328760	<i>STAP2</i>	1938	Chr19: 34113398_34113399	<i>CHST8</i>
1894	Chr19: 4328818_4328819	<i>STAP2</i>	1939	Chr19: 36233324_36233325	<i>TMEM149</i>
1895	Chr19: 4916593_4916594	<i>UHRF1</i>	1940	Chr19: 36233380_36233381	<i>TMEM149</i>
1896	Chr19: 4916783_4916784	<i>UHRF1</i>	1941	Chr19: 36233447_36233448	<i>U2AF1L4, TMEM149</i>
1897	Chr19: 4916983_4916984	<i>UHRF1</i>	1942	Chr19: 36523584_36523585	<i>CLIP3</i>
1898	Chr19: 5339092_5339093	<i>PTPRS</i>	1943	Chr19: 36909413_36909414	<i>ZFP82</i>
1899	Chr19: 6773074_6773075	<i>VAV1</i>	1944	Chr19: 37096148_37096149	<i>ZNF529, ZNF382</i>
1900	Chr19: 11532175_11532176	<i>CCDC151</i>	1945	Chr19: 37096321_37096322	<i>ZNF529, ZNF382</i>
1901	Chr19: 11689715_11689716	<i>ACP5</i>	1946	Chr19: 37096323_37096324	<i>ZNF529, ZNF382</i>
1902	Chr19: 12203349_12203350	<i>ZNF788</i>	1947	Chr19: 37096329_37096330	<i>ZNF529, ZNF382</i>
1903	Chr19: 12724912_12724913	<i>ZNF791</i>	1948	Chr19: 37157565_37157566	<i>ZNF461</i>
1904	Chr19: 13123217_13123218	<i>NFLX</i>	1949	Chr19: 37407123_37407124	<i>ZNF829, ZNF568</i>
1905	Chr19: 13124604_13124605	<i>NFLX</i>	1950	Chr19: 37407284_37407285	<i>ZNF829, ZNF568</i>
1906	Chr19: 13125084_13125085	<i>NFLX</i>	1951	Chr19: 37464066_37464067	<i>Non Coding Region</i>
1907	Chr19: 13207602_13207603	<i>NFLX</i>	1952	Chr19: 37997471_37997472	<i>ZNF793</i>
1908	Chr19: 13215292_13215293	<i>Non Coding Region</i>	1953	Chr19: 37997730_37997731	<i>ZNF793</i>
1909	Chr19: 13617091_13617092	<i>CACNA1A</i>	1954	Chr19: 37997817_37997818	<i>ZNF793</i>
1910	Chr19: 13617584_13617585	<i>CACNA1A</i>	1955	Chr19: 37997867_37997868	<i>ZNF793</i>
1911	Chr19: 14550846_14550847	<i>PKN1</i>	1956	Chr19: 37997991_37997992	<i>ZNF793</i>
1912	Chr19: 14550855_14550856	<i>PKN1</i>	1957	Chr19: 38747201_38747202	<i>PPP1R14A</i>
1913	Chr19: 14550997_14550998	<i>PKN1</i>	1958	Chr19: 39108609_39108610	<i>MAP4K1, EIF3K</i>
1914	Chr19: 15090872_15090873	<i>Non Coding Region</i>	1959	Chr19: 39108672_39108673	<i>MAP4K1, EIF3K</i>
1915	Chr19: 15218713_15218714	<i>SYDE1</i>	1960	Chr19: 41595975_41595976	<i>CYP2A13</i>
1916	Chr19: 15580721_15580722	<i>PGLYRP2</i>	1961	Chr19: 42636817_42636818	<i>POU2F2</i>
1917	Chr19: 17008650_17008651	<i>CPAMD8</i>	1962	Chr19: 42703609_42703610	<i>DEDD2</i>
1918	Chr19: 17392770_17392771	<i>ANKLE1</i>	1963	Chr19: 42703763_42703764	<i>DEDD2</i>
1919	Chr19: 17392923_17392924	<i>ANKLE1</i>	1964	Chr19: 42703852_42703853	<i>DEDD2</i>
1920	Chr19: 17957106_17957107	<i>JAK3</i>	1965	Chr19: 42828156_42828157	<i>TMEM145</i>
1921	Chr19: 18113604_18113605	<i>ARRDC2</i>	1966	Chr19: 46996516_46996517	<i>PNMAL2</i>
1922	Chr19: 18118666_18118667	<i>ARRDC2</i>	1967	Chr19: 48021503_48021504	<i>Non Coding Region</i>
1923	Chr19: 18540208_18540209	<i>SSBP4</i>	1968	Chr19: 48752990_48752991	<i>CARD8</i>
1924	Chr19: 18901666_18901667	<i>COMP</i>	1969	Chr19: 48918116_48918117	<i>GRIN2D</i>
1925	Chr19: 19322778_19322779	<i>NCAN</i>	1970	Chr19: 48918205_48918206	<i>GRIN2D</i>
1926	Chr19: 21106053_21106054	<i>ZNF85</i>	1971	Chr19: 48984071_48984072	<i>CYTH2</i>
1927	Chr19: 22018958_22018959	<i>ZNF43</i>	1972	Chr19: 49838777_49838778	<i>CD37</i>
1928	Chr19: 22034523_22034524	<i>Non Coding Region</i>	1973	Chr19: 50031017_50031018	<i>RCN3</i>
1929	Chr19: 30016147_30016148	<i>VSTM2B</i>	1974	Chr19: 50031246_50031247	<i>RCN3</i>
1930	Chr19: 30019529_30019530	<i>VSTM2B</i>	1975	Chr19: 50037661_50037662	<i>RCN3</i>
1931	Chr19: 31841555_31841556	<i>TSHZ3</i>	1976	Chr19: 51142933_51142934	<i>SYT3</i>
1932	Chr19: 31841663_31841664	<i>TSHZ3</i>	1977	Chr19: 51162508_51162509	<i>Non Coding Region</i>
1933	Chr19: 31841952_31841953	<i>Non Coding Region</i>	1978	Chr19: 51830960_51830961	<i>IGLON5</i>
1934	Chr19: 31842873_31842874	<i>Non Coding Region</i>	1979	Chr19: 51925128_51925129	<i>Non Coding Region</i>
1935	Chr19: 31847970_31847971	<i>Non Coding Region</i>	1980	Chr19: 52873106_52873107	<i>ZNF880</i>

Figure 28W

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1981	Chr19: 52873125_52873126	<i>ZNF880</i>	2026	Chr20: 23030250_23030251	<i>THBD</i>
1982	Chr19: 53636108_53636109	<i>ZNF415</i>	2027	Chr20: 23066944_23066945	<i>CD93</i>
1983	Chr19: 53758031_53758032	<i>ZNF677</i>	2028	Chr20: 23066999_23067000	<i>CD93</i>
1984	Chr19: 54024110_54024111	<i>ZNF331</i>	2029	Chr20: 25058429_25058430	<i>VSX1</i>
1985	Chr19: 54412993_54412994	<i>Non Coding Region</i>	2030	Chr20: 25062447_25062448	<i>VSX1</i>
1986	Chr19: 54926431_54926432	<i>TTYH1</i>	2031	Chr20: 30640256_30640257	<i>HCK</i>
1987	Chr19: 54926805_54926806	<i>TTYH1</i>	2032	Chr20: 34356200_34356201	<i>Non Coding Region</i>
1988	Chr19: 55593580_55593581	<i>EPSL1</i>	2033	Chr20: 34894648_34894649	<i>Non Coding Region</i>
1989	Chr19: 55766853_55766854	<i>SAPSI</i>	2034	Chr20: 35258570_35258571	<i>SLA2</i>
1990	Chr19: 55836752_55836753	<i>TMEM150B</i>	2035	Chr20: 35274570_35274571	<i>SLA2</i>
1991	Chr19: 56879554_56879555	<i>ZNF542</i>	2036	Chr20: 35274595_35274596	<i>SLA2</i>
1992	Chr19: 56879645_56879646	<i>ZNF542</i>	2037	Chr20: 35274627_35274628	<i>SLA2</i>
1993	Chr19: 56904965_56904966	<i>ZNF582</i>	2038	Chr20: 35274639_35274640	<i>SLA2</i>
1994	Chr19: 56989543_56989544	<i>ZNF667</i>	2039	Chr20: 36012946_36012947	<i>SRC</i>
1995	Chr19: 57049695_57049696	<i>ZFP28</i>	2040	Chr20: 37353126_37353127	<i>SLC32A1</i>
1996	Chr19: 58095595_58095596	<i>ZIK1</i>	2041	Chr20: 37433745_37433746	<i>PPP1R16B</i>
1997	Chr19: 58095659_58095660	<i>ZIK1</i>	2042	Chr20: 37433765_37433766	<i>PPP1R16B</i>
1998	Chr19: 58220370_58220371	<i>ZNF154</i>	2043	Chr20: 37433803_37433804	<i>PPP1R16B</i>
1999	Chr19: 58220494_58220495	<i>ZNF154</i>	2044	Chr20: 37434158_37434159	<i>PPP1R16B</i>
2000	Chr19: 58238850_58238851	<i>ZNF671</i>	2045	Chr20: 37434167_37434168	<i>PPP1R16B</i>
2001	Chr19: 58238928_58238929	<i>ZNF671</i>	2046	Chr20: 37434229_37434230	<i>PPP1R16B</i>
2002	Chr19: 58238987_58238988	<i>ZNF671</i>	2047	Chr20: 37434950_37434951	<i>PPP1R16B</i>
2003	Chr19: 58239012_58239013	<i>ZNF671</i>	2048	Chr20: 41817903_41817904	<i>PTPRT</i>
2004	Chr19: 58458769_58458770	<i>ZNF256</i>	2049	Chr20: 41818358_41818359	<i>PTPRT</i>
2005	Chr19: 58458917_58458918	<i>ZNF256</i>	2050	Chr20: 41818756_41818757	<i>PTPRT</i>
2006	Chr19: 58609361_58609362	<i>ZSCAN18</i>	2051	Chr20: 41818770_41818771	<i>PTPRT</i>
2007	Chr19: 58951599_58951600	<i>ZNF132</i>	2052	Chr20: 42875779_42875780	<i>GDAP1L1</i>
2008	Chr19: 58951602_58951603	<i>ZNF132</i>	2053	Chr20: 42875931_42875932	<i>GDAP1L1</i>
2009	Chr20: 2539552_2539553	<i>TMC2</i>	2054	Chr20: 43439387_43439388	<i>RIMS4</i>
2010	Chr20: 2781262_2781263	<i>CPXMI</i>	2055	Chr20: 43439400_43439401	<i>RIMS4</i>
2011	Chr20: 3052692_3052693	<i>OXT</i>	2056	Chr20: 44937426_44937427	<i>Non Coding Region</i>
2012	Chr20: 3063238_3063239	<i>AVP</i>	2057	Chr20: 44941542_44941543	<i>Non Coding Region</i>
2013	Chr20: 3662948_3662949	<i>ADAM33</i>	2058	Chr20: 45142244_45142245	<i>ZNF334</i>
2014	Chr20: 3713345_3713346	<i>HSPA12B</i>	2059	Chr20: 45142258_45142259	<i>ZNF334</i>
2015	Chr20: 4795886_4795887	<i>RASSF2</i>	2060	Chr20: 47935683_47935684	<i>Non Coding Region</i>
2016	Chr20: 4804052_4804053	<i>RASSF2</i>	2061	Chr20: 50720908_50720909	<i>ZFP64</i>
2017	Chr20: 6033205_6033206	<i>LRRN4</i>	2062	Chr20: 53092233_53092234	<i>DOK5</i>
2018	Chr20: 8112754_8112755	<i>PLCB1</i>	2063	Chr20: 53092334_53092335	<i>DOK5</i>
2019	Chr20: 8112972_8112973	<i>PLCB1</i>	2064	Chr20: 55500670_55500671	<i>Non Coding Region</i>
2020	Chr20: 8113573_8113574	<i>PLCB1</i>	2065	Chr20: 55964998_55964999	<i>RBM38</i>
2021	Chr20: 10199302_10199303	<i>SNAP25</i>	2066	Chr20: 55965077_55965078	<i>RBM38</i>
2022	Chr20: 10199536_10199537	<i>SNAP25</i>	2067	Chr20: 55965245_55965246	<i>RBM38</i>
2023	Chr20: 21492914_21492915	<i>NKX2-2</i>	2068	Chr20: 57224919_57224920	<i>STX16</i>
2024	Chr20: 21682362_21682363	<i>Non Coding Region</i>	2069	Chr20: 57225195_57225196	<i>STX16</i>
2025	Chr20: 23029806_23029807	<i>THBD</i>	2070	Chr20: 58179847_58179848	<i>PHACTR3</i>

Figure 28X

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
2071	Chr20: 61050914_61050915	<i>GATA5</i>	2116	Chr22: 23480087_23480088	<i>RTDR1</i>
2072	Chr20: 61051021_61051022	<i>GATA5</i>	2117	Chr22: 24038523_24038524	<i>LOC91316.RGL4</i>
2073	Chr20: 61051029_61051030	<i>GATA5</i>	2118	Chr22: 24823514_24823515	<i>ADORA2A</i>
2074	Chr20: 61051032_61051033	<i>GATA5</i>	2119	Chr22: 25678988_25678989	<i>Non Coding Region</i>
2075	Chr20: 61051036_61051037	<i>GATA5</i>	2120	Chr22: 28196834_28196835	<i>MNI</i>
2076	Chr20: 61051039_61051040	<i>GATA5</i>	2121	Chr22: 30661949_30661950	<i>OSM</i>
2077	Chr20: 61051341_61051342	<i>GATA5</i>	2122	Chr22: 30662987_30662988	<i>OSM</i>
2078	Chr20: 61051348_61051349	<i>GATA5</i>	2123	Chr22: 30662994_30662995	<i>OSM</i>
2079	Chr20: 61051432_61051433	<i>GATA5</i>	2124	Chr22: 30663007_30663008	<i>OSM</i>
2080	Chr20: 61051561_61051562	<i>GATA5</i>	2125	Chr22: 30663316_30663317	<i>OSM</i>
2081	Chr20: 61638149_61638150	<i>BHLHE23</i>	2126	Chr22: 37882078_37882079	<i>MFNG</i>
2082	Chr20: 61638574_61638575	<i>BHLHE23</i>	2127	Chr22: 37962569_37962570	<i>CDC42EP1</i>
2083	Chr20: 61638588_61638589	<i>BHLHE23</i>	2128	Chr22: 39784481_39784482	<i>Non Coding Region</i>
2084	Chr20: 61808888_61808889	<i>MIR124-3</i>	2129	Chr22: 39853885_39853886	<i>MGAT3</i>
2085	Chr20: 61810624_61810625	<i>Non Coding Region</i>	2130	Chr22: 44258572_44258573	<i>SULT4A1</i>
2086	Chr20: 61886079_61886080	<i>NKAIN4.FLJ16779</i>	2131	Chr22: 45064471_45064472	<i>PRR5</i>
2087	Chr20: 62103400_62103401	<i>KCNQ2</i>	2132	Chr22: 45065052_45065053	<i>PRR5</i>
2088	Chr20: 62198872_62198873	<i>PRIC285</i>	2133	Chr22: 45405061_45405062	<i>PHF21B</i>
2089	Chr20: 62199156_62199157	<i>PRIC285</i>	2134	Chr22: 45405627_45405628	<i>PHF21B</i>
2090	Chr20: 62199181_62199182	<i>PRIC285</i>	2135	Chr22: 46263207_46263208	<i>Non Coding Region</i>
2091	Chr20: 62673890_62673891	<i>Non Coding Region</i>	2136	Chr22: 47187343_47187344	<i>TBC1D22A</i>
2092	Chr20: 62733901_62733902	<i>Non Coding Region</i>	2137	Chr22: 50453437_50453438	<i>Non Coding Region</i>
2093	Chr21: 27011788_27011789	<i>JAM2</i>	2138	Chr22: 50623687_50623688	<i>TRABD</i>
2094	Chr21: 27012615_27012616	<i>JAM2</i>	2139	Chr22: 50623692_50623693	<i>TRABD</i>
2095	Chr21: 27945125_27945126	<i>CYYR1</i>	2140	ChrX: 6145730_6145731	<i>NLGN4X</i>
2096	Chr21: 28339442_28339443	<i>ADAMTSS</i>			
2097	Chr21: 28339907_28339908	<i>ADAMTSS</i>			
2098	Chr21: 32716090_32716091	<i>TLAM1</i>			
2099	Chr21: 34398199_34398200	<i>OLIG2</i>			
2100	Chr21: 34398222_34398223	<i>OLIG2</i>			
2101	Chr21: 34398226_34398227	<i>OLIG2</i>			
2102	Chr21: 34442360_34442361	<i>OLIG1</i>			
2103	Chr21: 36421467_36421468	<i>RUNX1</i>			
2104	Chr21: 36421472_36421473	<i>RUNX1</i>			
2105	Chr21: 36421503_36421504	<i>RUNX1</i>			
2106	Chr21: 38078767_38078768	<i>SIM2</i>			
2107	Chr21: 38083149_38083150	<i>SIM2</i>			
2108	Chr21: 39870704_39870705	<i>ERG</i>			
2109	Chr21: 45336673_45336674	<i>AGPAT3</i>			
2110	Chr21: 45336903_45336904	<i>AGPAT3</i>			
2111	Chr21: 46352084_46352085	<i>Non Coding Region</i>			
2112	Chr21: 47518747_47518748	<i>COL6A2</i>			
2113	Chr22: 18217141_18217142	<i>BID</i>			
2114	Chr22: 19754125_19754126	<i>TBX1</i>			
2115	Chr22: 20790985_20790986	<i>SCARF2</i>			

Figure 28Y

CRC Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
1	Chr1: 966966-971238	<i>AGRN</i>	46	Chr1: 47908712-47912020	<i>Non Coding Region</i>
2	Chr1: 974496-981305	<i>AGRN</i>	47	Chr1: 48057793-48060230	<i>Non Coding Region</i>
3	Chr1: 1144568-1146878	<i>Non Coding Region</i>	48	Chr1: 48189756-48191992	<i>Non Coding Region</i>
4	Chr1: 1308140-1312039	<i>Non Coding Region</i>	49	Chr1: 48448870-48451144	<i>Non Coding Region</i>
5	Chr1: 1563421-1571006	<i>MIB2</i>	50	Chr1: 49241371-49243810	<i>AGBL4, BEND5</i>
6	Chr1: 2221198-2223569	<i>SKI</i>	51	Chr1: 50880884-50883103	<i>Non Coding Region</i>
7	Chr1: 2231310-2233617	<i>SKI</i>	52	Chr1: 50883228-50892471	<i>DMRTA2</i>
8	Chr1: 2982925-2988962	<i>PRDM16, FLJ42875</i>	53	Chr1: 53097629-53100303	<i>FAM159A</i>
9	Chr1: 3101540-3104352	<i>PRDM16</i>	54	Chr1: 53526572-53529974	<i>PODN</i>
10	Chr1: 3661963-3665085	<i>KIAA0495</i>	55	Chr1: 57886963-57891637	<i>DAB1</i>
11	Chr1: 6085244-6087494	<i>KCNAB2</i>	56	Chr1: 58714272-58717095	<i>DAB1</i>
12	Chr1: 6519584-6522955	<i>ESPN</i>	57	Chr1: 65730411-65732849	<i>DNAJC6</i>
13	Chr1: 6524996-6527228	<i>TNFRSF25</i>	58	Chr1: 67217079-67219293	<i>TCTEX1D1</i>
14	Chr1: 7691231-7693503	<i>CAMTA1</i>	59	Chr1: 67772329-67774767	<i>IL12RB2</i>
15	Chr1: 8456795-8458721	<i>RERE</i>	60	Chr1: 70031967-70035495	<i>Non Coding Region</i>
16	Chr1: 9487937-9490249	<i>Non Coding Region</i>	61	Chr1: 72747471-72750736	<i>NEGR1</i>
17	Chr1: 9686125-9688367	<i>Non Coding Region</i>	62	Chr1: 76079454-76081808	<i>Non Coding Region</i>
18	Chr1: 12122488-12125148	<i>TNFRSF8</i>	63	Chr1: 76080378-76083365	<i>Non Coding Region</i>
19	Chr1: 13909137-13911868	<i>PDPN</i>	64	Chr1: 77332111-77335534	<i>ST6GALNAC5</i>
20	Chr1: 16022570-16024842	<i>PLEKHM2</i>	65	Chr1: 77746314-77749224	<i>AK5</i>
21	Chr1: 18955895-18960829	<i>PAX7</i>	66	Chr1: 86620278-86623871	<i>COL24A1</i>
22	Chr1: 19253055-19255007	<i>IFFO2</i>	67	Chr1: 87596543-87599515	<i>LOC339524</i>
23	Chr1: 19802883-19804981	<i>CAPZB</i>	68	Chr1: 88920477-88922469	<i>Non Coding Region</i>
24	Chr1: 25348052-25349960	<i>Non Coding Region</i>	69	Chr1: 91189489-91193804	<i>Non Coding Region</i>
25	Chr1: 26376903-26378895	<i>TRIM63</i>	70	Chr1: 91299979-91302891	<i>Non Coding Region</i>
26	Chr1: 27069755-27071991	<i>ARID1A</i>	71	Chr1: 91868876-91871390	<i>HFM1</i>
27	Chr1: 27686024-27688743	<i>MAP3K6</i>	72	Chr1: 98509966-98512710	<i>Non Coding Region</i>
28	Chr1: 28212887-28214713	<i>Non Coding Region</i>	73	Chr1: 101003471-101006885	<i>GPR88</i>
29	Chr1: 29584897-29587598	<i>PTPRU</i>	74	Chr1: 101701445-101703745	<i>SIPR1</i>
30	Chr1: 31229615-31231587	<i>LAPTM5</i>	75	Chr1: 107681889-107685463	<i>NTNG1</i>
31	Chr1: 32712918-32715186	<i>LCK</i>	76	Chr1: 108506251-108508841	<i>VAV3</i>
32	Chr1: 34627783-34631976	<i>CSMD2</i>	77	Chr1: 111097066-111099362	<i>Non Coding Region</i>
33	Chr1: 35349878-35352854	<i>DLGAP3</i>	78	Chr1: 111215244-111218937	<i>KCNA3</i>
34	Chr1: 35393747-35397206	<i>Non Coding Region</i>	79	Chr1: 114413363-114415317	<i>PTPN22</i>
35	Chr1: 36041432-36044444	<i>TFAP2E</i>	80	Chr1: 115879167-115882332	<i>NGF</i>
36	Chr1: 37497377-37501624	<i>GRIK3</i>	81	Chr1: 117057046-117058890	<i>CD58</i>
37	Chr1: 38098677-38101864	<i>RSPO1</i>	82	Chr1: 119528819-119533196	<i>TBX15</i>
38	Chr1: 38228838-38231888	<i>EPHA10</i>	83	Chr1: 147788652-147791094	<i>Non Coding Region</i>
39	Chr1: 39024260-39026238	<i>Non Coding Region</i>	84	Chr1: 150120695-150124078	<i>PLEKHO1</i>
40	Chr1: 39268729-39271251	<i>Non Coding Region</i>	85	Chr1: 150253365-150255637	<i>C1orf51</i>
41	Chr1: 42216025-42218129	<i>HIVEP3</i>	86	Chr1: 151128241-151130355	<i>TNFAIP8L2</i>
42	Chr1: 44030286-44032853	<i>PTPRF</i>	87	Chr1: 151809460-151812684	<i>LOC100132111, C2CD4D</i>
43	Chr1: 44870109-44875047	<i>RNF220</i>	88	Chr1: 153517261-153519507	<i>S100A4</i>
44	Chr1: 46950168-46952792	<i>Non Coding Region</i>	89	Chr1: 154297205-154299544	<i>ATP8B2</i>
45	Chr1: 47695504-47699197	<i>Non Coding Region</i>	90	Chr1: 154473107-154476699	<i>TDRD10, SHE</i>

Figure 29A

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
91	Chr1: 156065916-156068056	<i>Non Coding Region</i>	136	Chr2: 466849-469659	<i>Non Coding Region</i>
92	Chr1: 156357050-156359252	<i>Non Coding Region</i>	137	Chr2: 5835068-5838643	<i>SOX11</i>
93	Chr1: 156404160-156407350	<i>Non Coding Region</i>	138	Chr2: 7056530-7059433	<i>RNF144A</i>
94	Chr1: 156626342-156628576	<i>BCAN</i>	139	Chr2: 10218802-10222016	<i>CYS1</i>
95	Chr1: 156827804-156832102	<i>NTRK1,INSRR</i>	140	Chr2: 20864289-20868589	<i>GDF7</i>
96	Chr1: 158149620-158152503	<i>CD1D</i>	141	Chr2: 25437725-25440276	<i>Non Coding Region</i>
97	Chr1: 160806686-160808702	<i>CD244</i>	142	Chr2: 25498763-25501429	<i>DNMT3A</i>
98	Chr1: 161038658-161040704	<i>ARHGAP30</i>	143	Chr2: 29336983-29339909	<i>CLIP4</i>
99	Chr1: 161227477-161230028	<i>PCP4L1</i>	144	Chr2: 30141831-30145624	<i>ALK</i>
100	Chr1: 165413452-165415636	<i>RXRG</i>	145	Chr2: 31359321-31362821	<i>GALNT14</i>
101	Chr1: 167598464-167600839	<i>RCSL1</i>	146	Chr2: 31455740-31458653	<i>EHD3</i>
102	Chr1: 167682477-167684917	<i>Non Coding Region</i>	147	Chr2: 31804293-31807403	<i>SRD5A2</i>
103	Chr1: 169395621-169397869	<i>C1orf114</i>	148	Chr2: 37874753-37876919	<i>CDC42EP3</i>
104	Chr1: 170629456-170631851	<i>Non Coding Region</i>	149	Chr2: 38300276-38305518	<i>CYP11B1</i>
105	Chr1: 171809467-171812325	<i>DNM3</i>	150	Chr2: 39892121-39894496	<i>TMEM178</i>
106	Chr1: 181450311-181453049	<i>CACNA1E</i>	151	Chr2: 40677477-40679717	<i>SLC8A1</i>
107	Chr1: 190446200-190448380	<i>FAM5C</i>	152	Chr2: 45154195-45158049	<i>Non Coding Region</i>
108	Chr1: 200007392-200010047	<i>NR5A2</i>	153	Chr2: 45168505-45172884	<i>SIX3</i>
109	Chr1: 202128104-202130304	<i>PTPN7</i>	154	Chr2: 45234511-45238792	<i>SIX2</i>
110	Chr1: 203597471-203644187	<i>ATP2B4</i>	155	Chr2: 45239372-45242579	<i>Non Coding Region</i>
111	Chr1: 204327717-204329969	<i>PLEKHA6</i>	156	Chr2: 47795923-47800166	<i>KCNK12</i>
112	Chr1: 204653132-204655885	<i>LRRN2</i>	157	Chr2: 56409865-56413539	<i>CCDC85A</i>
113	Chr1: 206729397-206731908	<i>RASSF5</i>	158	Chr2: 58654977-58657151	<i>Non Coding Region</i>
114	Chr1: 206747772-206749928	<i>RASSF5</i>	159	Chr2: 63273475-63280430	<i>LOC100132215</i>
115	Chr1: 207817389-207819952	<i>CRIL</i>	160	Chr2: 63281514-63284122	<i>OTX1</i>
116	Chr1: 208083098-208085513	<i>CD34</i>	161	Chr2: 63282936-63285147	<i>OTX1</i>
117	Chr1: 209928577-209930515	<i>TRAF3IP3</i>	162	Chr2: 66651691-66655218	<i>Non Coding Region</i>
118	Chr1: 214152214-214154668	<i>Non Coding Region</i>	163	Chr2: 66660118-66662657	<i>Non Coding Region</i>
119	Chr1: 218518057-218520674	<i>TGFB2</i>	164	Chr2: 66671431-66674636	<i>MEIS1</i>
120	Chr1: 220700507-220703348	<i>MARK1</i>	165	Chr2: 66801890-66805831	<i>Non Coding Region</i>
121	Chr1: 221049448-221051864	<i>Non Coding Region</i>	166	Chr2: 66807568-66810404	<i>Non Coding Region</i>
122	Chr1: 221050966-221054673	<i>HLX</i>	167	Chr2: 68545339-68548111	<i>CNRIP1</i>
123	Chr1: 221885725-221887553	<i>DUSP10</i>	168	Chr2: 68961019-69002868	<i>ARHGAP25</i>
124	Chr1: 226923560-226927553	<i>ITPKB</i>	169	Chr2: 70312200-70316490	<i>PCBP1</i>
125	Chr1: 228602706-228605567	<i>TRIM17</i>	170	Chr2: 71294160-71297002	<i>NAGK</i>
126	Chr1: 228650447-228653529	<i>Non Coding Region</i>	171	Chr2: 73150200-73153060	<i>EMX1</i>
127	Chr1: 229541943-229544770	<i>Non Coding Region</i>	172	Chr2: 74739455-74744795	<i>TLX2</i>
128	Chr1: 229566206-229571684	<i>ACTA1</i>	173	Chr2: 85358956-85363593	<i>TCF7L1</i>
129	Chr1: 232861119-232862931	<i>Non Coding Region</i>	174	Chr2: 87754380-87756362	<i>NCRNA00152</i>
130	Chr1: 234348884-234351471	<i>SLC35F3</i>	175	Chr2: 95689857-95693431	<i>MAL</i>
131	Chr1: 237204126-237207644	<i>RYR2</i>	176	Chr2: 97191977-97194383	<i>Non Coding Region</i>
132	Chr1: 240253959-240258063	<i>FMN2</i>	177	Chr2: 99551185-99554831	<i>C2orf55</i>
133	Chr1: 241586601-241588883	<i>Non Coding Region</i>	178	Chr2: 100936779-100940059	<i>LONRF2</i>
134	Chr1: 244011712-244014245	<i>Non Coding Region</i>	179	Chr2: 101032606-101035296	<i>CHST10</i>
135	Chr1: 247711325-247713149	<i>C1orf150</i>	180	Chr2: 102089370-102092130	<i>REFX8</i>

Figure 29B

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
181	Chr2: 105467851-105474488	<i>POU3F3</i>	226	Chr2: 208987834-208990269	<i>CRYGD</i>
182	Chr2: 105477600-105480188	<i>Non Coding Region</i>	227	Chr2: 219845291-219848137	<i>FEV</i>
183	Chr2: 105759109-105762018	<i>Non Coding Region</i>	228	Chr2: 220108984-220111488	<i>STK16</i>
184	Chr2: 106414105-106416185	<i>NCK2</i>	229	Chr2: 220172870-220175283	<i>PTPRN</i>
185	Chr2: 106775741-106777809	<i>UXSI</i>	230	Chr2: 220298483-220301243	<i>SPEG</i>
186	Chr2: 109646955-109649230	<i>Non Coding Region</i>	231	Chr2: 220305855-220308096	<i>SPEG</i>
187	Chr2: 113873016-113875120	<i>IL1RN</i>	232	Chr2: 220360462-220364254	<i>Non Coding Region</i>
188	Chr2: 113930379-113932430	<i>LOC440839, PSD4</i>	233	Chr2: 220415863-220418869	<i>OBSL1</i>
189	Chr2: 115917737-115921765	<i>DPP10</i>	234	Chr2: 222435034-222439941	<i>EPHA4</i>
190	Chr2: 119598458-119601966	<i>EN1</i>	235	Chr2: 223161946-223164912	<i>CCDC140, PAX3</i>
191	Chr2: 119913126-119917663	<i>C1QL2</i>	236	Chr2: 223166205-223168560	<i>CCDC140</i>
192	Chr2: 121100800-121105534	<i>INHBB</i>	237	Chr2: 227287523-227289513	<i>Non Coding Region</i>
193	Chr2: 127412696-127415171	<i>GYPC</i>	238	Chr2: 230577062-230580981	<i>DNER</i>
194	Chr2: 127642800-127645104	<i>Non Coding Region</i>	239	Chr2: 233179385-233181445	<i>DIS3L2</i>
195	Chr2: 127782081-127784311	<i>Non Coding Region</i>	240	Chr2: 233496826-233500727	<i>EFHD1</i>
196	Chr2: 127838615-127840463	<i>BIN1</i>	241	Chr2: 238534561-238537840	<i>LRRFIP1</i>
197	Chr2: 128432010-128434490	<i>LIMS2</i>	242	Chr2: 242741598-242744758	<i>GAL3ST2</i>
198	Chr2: 131791237-131794189	<i>ARHGEF4</i>	243	Chr3: 237391-241140	<i>CHL1</i>
199	Chr2: 139536692-139539650	<i>NXPH2</i>	244	Chr3: 9820903-9822729	<i>TADA3</i>
200	Chr2: 143885389-143887263	<i>ARHGAP15</i>	245	Chr3: 16553327-16556413	<i>RFTN1</i>
201	Chr2: 144693666-144696180	<i>Non Coding Region</i>	246	Chr3: 27770638-27772942	<i>Non Coding Region</i>
202	Chr2: 145280736-145283269	<i>Non Coding Region</i>	247	Chr3: 32857194-32861506	<i>TRIM71</i>
203	Chr2: 149631682-149634882	<i>KIF5C</i>	248	Chr3: 37033228-37036356	<i>EPM2AIP1, MLH1</i>
204	Chr2: 158299349-158301601	<i>CYTIP</i>	249	Chr3: 42946480-42949170	<i>ZNF662</i>
205	Chr2: 161262871-161265460	<i>RBMS1</i>	250	Chr3: 43430249-43432437	<i>ANO10</i>
206	Chr2: 164591917-164594511	<i>FIGN</i>	251	Chr3: 44035407-44042104	<i>Non Coding Region</i>
207	Chr2: 171568877-171574904	<i>SP5</i>	252	Chr3: 44062314-44064837	<i>Non Coding Region</i>
208	Chr2: 171671310-171676447	<i>GAD1</i>	253	Chr3: 44625325-44627794	<i>ZNF660</i>
209	Chr2: 172943988-172946384	<i>MAP1D</i>	254	Chr3: 44725928-44728237	<i>Non Coding Region</i>
210	Chr2: 172971804-172974242	<i>Non Coding Region</i>	255	Chr3: 49839103-49842191	<i>UBA7</i>
211	Chr2: 175189866-175193123	<i>Non Coding Region</i>	256	Chr3: 50311687-50315419	<i>SEMA3B</i>
212	Chr2: 175207415-175210076	<i>Non Coding Region</i>	257	Chr3: 51988763-51991639	<i>GPR62</i>
213	Chr2: 175545862-175548880	<i>WIPF1</i>	258	Chr3: 55516658-55518939	<i>WNT5A</i>
214	Chr2: 176955504-176957707	<i>HOXD13</i>	259	Chr3: 56787961-56790259	<i>ARHGEF3</i>
215	Chr2: 177028413-177030941	<i>HOXD3</i>	260	Chr3: 62355773-62358315	<i>FEZF2</i>
216	Chr2: 182320761-182324029	<i>ITGA4</i>	261	Chr3: 68979783-68983035	<i>FAM19A4</i>
217	Chr2: 182546873-182550177	<i>Non Coding Region</i>	262	Chr3: 87038610-87041516	<i>VGLL3</i>
218	Chr2: 185462208-185464589	<i>ZNF804A</i>	263	Chr3: 96531023-96534625	<i>EPHA6</i>
219	Chr2: 187712846-187715069	<i>ZSWIM2</i>	264	Chr3: 111851137-111853175	<i>GCET2</i>
220	Chr2: 193057995-193061812	<i>TMEFF2</i>	265	Chr3: 112929437-112932506	<i>BOC</i>
221	Chr2: 198062660-198064646	<i>ANKRD44</i>	266	Chr3: 118958339-118960934	<i>B4GALT4</i>
222	Chr2: 198119444-198121606	<i>Non Coding Region</i>	267	Chr3: 119527920-119530159	<i>NR1I2</i>
223	Chr2: 202124077-202126347	<i>CASP8</i>	268	Chr3: 120002883-120005426	<i>Non Coding Region</i>
224	Chr2: 206548599-206552316	<i>NRP2</i>	269	Chr3: 121378698-121380792	<i>HCLS1</i>
225	Chr2: 207505774-207508422	<i>LOC200726</i>	270	Chr3: 121901742-121904645	<i>CASR</i>

Figure 29C

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
271	Chr3: 124859569-124862019	<i>SLC12A8</i>	316	Chr4: 13529847-13532244	<i>Non Coding Region</i>
272	Chr3: 128204495-128213274	<i>GATA2</i>	317	Chr4: 13542562-13547494	<i>Non Coding Region</i>
273	Chr3: 128718865-128722245	<i>CCDC48</i>	318	Chr4: 15778998-15781729	<i>CD38</i>
274	Chr3: 129692127-129695841	<i>TRH</i>	319	Chr4: 24800109-24802902	<i>SOD3</i>
275	Chr3: 132755985-132758895	<i>TMEM108</i>	320	Chr4: 37244250-37247979	<i>KIAA1239</i>
276	Chr3: 134368464-134371242	<i>KY</i>	321	Chr4: 40197316-40199468	<i>RHOH</i>
277	Chr3: 138655627-138660107	<i>Non Coding Region</i>	322	Chr4: 40857884-40860162	<i>APBB2</i>
278	Chr3: 138662718-138667346	<i>FOXL2, C3orf72</i>	323	Chr4: 41257759-41260867	<i>UCHL1</i>
279	Chr3: 138678244-138680579	<i>Non Coding Region</i>	324	Chr4: 41882492-41885570	<i>Non Coding Region</i>
280	Chr3: 139256712-139258949	<i>RBP1</i>	325	Chr4: 42398152-42401802	<i>SHISA3</i>
281	Chr3: 139652430-139656115	<i>CLSTN2</i>	326	Chr4: 54965163-54969063	<i>GSX2</i>
282	Chr3: 140768886-140772080	<i>SPSB4</i>	327	Chr4: 55095185-55101331	<i>PDGFRA</i>
283	Chr3: 142680137-142684268	<i>PAQR9</i>	328	Chr4: 55990402-55993171	<i>KDR</i>
284	Chr3: 142836885-142841838	<i>CHST2</i>	329	Chr4: 57520621-57523703	<i>HOPX</i>
285	Chr3: 150101829-150103729	<i>Non Coding Region</i>	330	Chr4: 71858158-71860884	<i>DCK</i>
286	Chr3: 150801996-150806168	<i>MED12L</i>	331	Chr4: 73433855-73436321	<i>ADAMTS3</i>
287	Chr3: 159755632-159757997	<i>Non Coding Region</i>	332	Chr4: 81103761-81106527	<i>PRDM8</i>
288	Chr3: 169385268-169388187	<i>Non Coding Region</i>	333	Chr4: 81186494-81188913	<i>FGF5</i>
289	Chr3: 172164372-172167738	<i>GHSR</i>	334	Chr4: 84029630-84032309	<i>PLAC8</i>
290	Chr3: 179167735-179170593	<i>GNB4</i>	335	Chr4: 89377223-89379948	<i>HERC5</i>
291	Chr3: 179753520-179756245	<i>PEX5L</i>	336	Chr4: 90757008-90759870	<i>SNCA</i>
292	Chr3: 183272151-183274339	<i>KLHL6</i>	337	Chr4: 90814904-90817042	<i>MMRN1</i>
293	Chr3: 184300117-184303134	<i>Non Coding Region</i>	338	Chr4: 96468456-96470667	<i>UNC5C</i>
294	Chr3: 185079679-185081953	<i>MAP3K13</i>	339	Chr4: 101110146-101112497	<i>DDIT4L</i>
295	Chr3: 186077710-186081111	<i>DGKG</i>	340	Chr4: 111553965-111556504	<i>PITX2</i>
296	Chr3: 192124821-192128994	<i>FGF12</i>	341	Chr4: 122300567-122303290	<i>QRFPR</i>
297	Chr3: 194116601-194119988	<i>GP5</i>	342	Chr4: 122684860-122687565	<i>TMEM155, LOC100192379</i>
298	Chr3: 194405440-194410045	<i>FAM43A</i>	343	Chr4: 123746740-123749980	<i>FGF2</i>
299	Chr3: 195487595-195490381	<i>MUC4</i>	344	Chr4: 126234895-126239930	<i>FAT4</i>
300	Chr3: 195621187-195624033	<i>TNK2</i>	345	Chr4: 134068162-134071442	<i>Non Coding Region</i>
301	Chr4: 567513-571488	<i>Non Coding Region</i>	346	Chr4: 142052327-142055601	<i>RNF150</i>
302	Chr4: 1194231-1196405	<i>LOC100130872, LOC100130872-SPON2</i>	347	Chr4: 144619822-144623218	<i>FREM3</i>
303	Chr4: 2787882-2790090	<i>Non Coding Region</i>	348	Chr4: 147569029-147570847	<i>Non Coding Region</i>
304	Chr4: 2932644-2934879	<i>MFSD10</i>	349	Chr4: 154679774-154682377	<i>RNF175</i>
305	Chr4: 4386593-4390919	<i>D4S234E</i>	350	Chr4: 154708512-154711827	<i>SFRP2</i>
306	Chr4: 5052230-5055092	<i>STK32B</i>	351	Chr4: 154711073-154713706	<i>SFRP2</i>
307	Chr4: 5708985-5711495	<i>EVC2</i>	352	Chr4: 155253130-155255603	<i>DCHS2</i>
308	Chr4: 5712035-5714451	<i>EVC</i>	353	Chr4: 156296601-156299094	<i>MAP9</i>
309	Chr4: 5890981-5893365	<i>CRMP1</i>	354	Chr4: 156679095-156682386	<i>GUCY1B3</i>
310	Chr4: 6199912-6203724	<i>JAKMIP1</i>	355	Chr4: 166793545-166796341	<i>TLL1</i>
311	Chr4: 7193537-7196467	<i>SORCS2</i>	356	Chr4: 172732734-172736118	<i>GALNTL6</i>
312	Chr4: 8036339-8038311	<i>ABLIM2</i>	357	Chr4: 174449046-174452469	<i>NBLA00301, HAND2</i>
313	Chr4: 10457129-10460353	<i>ZNF518B</i>	358	Chr4: 175749330-175751584	<i>GLRA3</i>
314	Chr4: 10685328-10687498	<i>CLNK</i>	359	Chr4: 176921473-176923820	<i>GPM6A</i>
315	Chr4: 13523062-13527083	<i>Non Coding Region</i>	360	Chr4: 176985921-176988360	<i>WDR17</i>

Figure 29D

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
361	Chr4: _183061278-183063481	<i>MGC45800</i>	406	Chr5: _94954630-94958244	<i>GPR150</i>
362	Chr4: _183368276-183371459	<i>ODZ3</i>	407	Chr5: _100235567-100237955	<i>ST8SLA4</i>
363	Chr4: _184825253-184829177	<i>STOX2</i>	408	Chr5: _101631049-101633373	<i>SLCO4C1</i>
364	Chr4: _185455221-185457029	<i>Non Coding Region</i>	409	Chr5: _115150348-115153713	<i>CDO1</i>
365	Chr4: _185938222-185943747	<i>HELT</i>	410	Chr5: _127871563-127875945	<i>FBN2</i>
366	Chr4: _186559031-186561361	<i>SORBS2</i>	411	Chr5: _131791870-131793780	<i>C5orf56</i>
367	Chr5: _527383-529982	<i>Non Coding Region</i>	412	Chr5: _131990554-131993304	<i>Non Coding Region</i>
368	Chr5: _1443678-1447648	<i>SLC6A3</i>	413	Chr5: _134362092-134366146	<i>Non Coding Region</i>
369	Chr5: _1666187-1669081	<i>Non Coding Region</i>	414	Chr5: _136833016-136836146	<i>SPOCK1</i>
370	Chr5: _1873907-1880032	<i>Non Coding Region</i>	415	Chr5: _140786447-140789044	<i>PCDHGB1,PCDHGB3,PCDHGB2,PCDHGA8,PCDHGA9,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
371	Chr5: _1880924-1888743	<i>IRX4</i>	416	Chr5: _140796162-140798701	<i>PCDHGA10,PCDHGA8,PCDHGB3,PCDHGB2,PCDHGB1,PCDHGA9,PCDHGB7,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>
372	Chr5: _1929754-1932986	<i>Non Coding Region</i>	417	Chr5: _140854386-140857620	<i>PCDHGC3,PCDHGA8,PCDHGA10,PCDHGA11,PCDHGA12,PCDHGB3,PCDHGB2,PCDHGB1,PCDHGA9,PCDHGB7,PCDHGB6,PCDHGB5,PCDHGB4,PCDHGA2,PCDHGA3,PCDHGA1,PCDHGA6,PCDHGA7,PCDHGA4,PCDHGA5</i>

Figure 29E

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
373	Chr5: 2037527-2039949	<i>Non Coding Region</i>	418	Chr5: 141261988-141264195	<i>Non Coding Region</i>
374	Chr5: 3593467-3604054	<i>IRX1</i>	419	Chr5: 141391360-141393587	<i>Non Coding Region</i>
375	Chr5: 5138441-5141941	<i>ADAMTS16</i>	420	Chr5: 145717289-145721095	<i>POU4F3</i>
376	Chr5: 7848945-7851439	<i>C5orf49</i>	421	Chr5: 146256346-146259575	<i>PPP2R2B</i>
377	Chr5: 11902550-11905703	<i>CTNND2</i>	422	Chr5: 150592778-150594590	<i>CCDC69</i>
378	Chr5: 17216788-17220021	<i>BASPI,LOC285696</i>	423	Chr5: 156679149-156681333	<i>ITK</i>
379	Chr5: 31854003-31856426	<i>PDZD2</i>	424	Chr5: 156691812-156694749	<i>CYFIP2</i>
380	Chr5: 32708910-32715450	<i>Non Coding Region</i>	425	Chr5: 156697931-156699777	<i>CYFIP2</i>
381	Chr5: 33935168-33939309	<i>RFXP3</i>	426	Chr5: 159932904-159934808	<i>Non Coding Region</i>
382	Chr5: 36689207-36691658	<i>Non Coding Region</i>	427	Chr5: 169063270-169065702	<i>DOCK2</i>
383	Chr5: 37833671-37836128	<i>GDNF</i>	428	Chr5: 169532080-169534534	<i>FOXI1</i>
384	Chr5: 37835747-37841726	<i>GDNF</i>	429	Chr5: 169723640-169725540	<i>LCP2</i>
385	Chr5: 38256825-38260136	<i>EGFLAM</i>	430	Chr5: 170734169-170740863	<i>TLX3</i>
386	Chr5: 38555222-38558563	<i>LIFR</i>	431	Chr5: 170740603-170743751	<i>Non Coding Region</i>
387	Chr5: 42423338-42426047	<i>GHR</i>	432	Chr5: 171604653-171606903	<i>STK10</i>
388	Chr5: 42950076-42953410	<i>Non Coding Region</i>	433	Chr5: 172658049-172661277	<i>NKX2-5</i>
389	Chr5: 42993626-42995936	<i>Non Coding Region</i>	434	Chr5: 174157680-174160729	<i>Non Coding Region</i>
390	Chr5: 44388468-44390344	<i>FGF10</i>	435	Chr5: 175222609-175225679	<i>CPLX2</i>
391	Chr5: 49735607-49738300	<i>EMB</i>	436	Chr5: 175791355-175794505	<i>ARL10</i>
392	Chr5: 50264085-50266737	<i>Non Coding Region</i>	437	Chr5: 176798454-176800278	<i>RGS14</i>
393	Chr5: 54396616-54398568	<i>GZMA</i>	438	Chr5: 177411534-177413753	<i>Non Coding Region</i>
394	Chr5: 54515267-54517919	<i>Non Coding Region</i>	439	Chr5: 178769724-178773794	<i>ADAMTS2</i>
395	Chr5: 63800781-63803605	<i>RGS7BP</i>	440	Chr5: 180016099-180020062	<i>SCGB3A1</i>
396	Chr5: 63985189-63987974	<i>FAM159B</i>	441	Chr5: 180228375-180231147	<i>MGAT1</i>
397	Chr5: 71013917-71016715	<i>CARTPT</i>	442	Chr6: 390188-394790	<i>IRF4</i>
398	Chr5: 71401877-71405868	<i>MAP1B</i>	443	Chr6: 473935-476213	<i>Non Coding Region</i>
399	Chr5: 72528099-72530976	<i>Non Coding Region</i>	444	Chr6: 1378693-1381014	<i>Non Coding Region</i>
400	Chr5: 72593147-72596808	<i>Non Coding Region</i>	445	Chr6: 1388139-1392393	<i>FOXF2</i>
401	Chr5: 76010120-76013292	<i>F2R</i>	446	Chr6: 1623185-1626468	<i>GMDS</i>
402	Chr5: 82767387-82770268	<i>VCAN</i>	447	Chr6: 6001471-6006125	<i>NRN1</i>
403	Chr5: 88178866-88181258	<i>MEF2C</i>	448	Chr6: 10382525-10385114	<i>Non Coding Region</i>
404	Chr5: 92905239-92909875	<i>FLJ42709</i>	449	Chr6: 10389038-10391565	<i>Non Coding Region</i>
405	Chr5: 92929529-92931830	<i>Non Coding Region</i>	450	Chr6: 10421321-10423648	<i>Non Coding Region</i>

Figure 29F

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
451	Chr6: 10881926-10884149	<i>GCM2</i>	496	Chr6: 56817873-56821308	<i>BEND6,DST</i>
452	Chr6: 11381416-11383690	<i>NEDD9</i>	497	Chr6: 71664360-71668132	<i>B3GAT2</i>
453	Chr6: 13427509-13429535	<i>GFOD1</i>	498	Chr6: 73329942-73334109	<i>KCNQ5</i>
454	Chr6: 14734212-14736138	<i>Non Coding Region</i>	499	Chr6: 84561820-84564758	<i>RIPPLY2</i>
455	Chr6: 25041098-25043082	<i>Non Coding Region</i>	500	Chr6: 85471702-85475132	<i>TBX18</i>
456	Chr6: 25041458-25043532	<i>Non Coding Region</i>	501	Chr6: 91319890-91322219	<i>Non Coding Region</i>
457	Chr6: 25041498-25043496	<i>Non Coding Region</i>	502	Chr6: 99278317-99284842	<i>POU3F2</i>
458	Chr6: 26239697-26241951	<i>HIST1H4F</i>	503	Chr6: 100911071-100914337	<i>SIM1</i>
459	Chr6: 27172690-27174816	<i>Non Coding Region</i>	504	Chr6: 105387190-105390545	<i>Non Coding Region</i>
460	Chr6: 27172849-27175133	<i>Non Coding Region</i>	505	Chr6: 105583148-105586621	<i>BVES</i>
461	Chr6: 27462176-27464379	<i>Non Coding Region</i>	506	Chr6: 106428111-106430772	<i>Non Coding Region</i>
462	Chr6: 28492600-28494722	<i>GPX5</i>	507	Chr6: 108484671-108491539	<i>NR2E1</i>
463	Chr6: 28509432-28511246	<i>Non Coding Region</i>	508	Chr6: 110677854-110680108	<i>C6orf186</i>
464	Chr6: 28601853-28604295	<i>Non Coding Region</i>	509	Chr6: 117084739-117087942	<i>FAM162B</i>
465	Chr6: 28955106-28957578	<i>Non Coding Region</i>	510	Chr6: 118227042-118230811	<i>SLC35F1</i>
466	Chr6: 29520110-29522833	<i>Non Coding Region</i>	511	Chr6: 119130644-119132822	<i>Non Coding Region</i>
467	Chr6: 29594298-29596795	<i>GABBR1</i>	512	Chr6: 124123177-124126309	<i>NKAIN2</i>
468	Chr6: 29758946-29761903	<i>HCG4</i>	513	Chr6: 127438265-127442072	<i>RSPO3</i>
469	Chr6: 29794553-29797594	<i>HLA-G</i>	514	Chr6: 133561086-133564586	<i>EYA4</i>
470	Chr6: 29943402-29946169	<i>HCG9</i>	515	Chr6: 134637797-134640021	<i>SGK1</i>
471	Chr6: 30094173-30096610	<i>Non Coding Region</i>	516	Chr6: 137813355-137816202	<i>OLIG3</i>
472	Chr6: 30138718-30141263	<i>TRIM15</i>	517	Chr6: 138144094-138146228	<i>Non Coding Region</i>
473	Chr6: 30226320-30229255	<i>HLA-L</i>	518	Chr6: 149802279-149804133	<i>ZC3H12D</i>
474	Chr6: 30417844-30420630	<i>Non Coding Region</i>	519	Chr6: 149802353-149804535	<i>ZC3H12D</i>
475	Chr6: 30648925-30655934	<i>KIAA1949</i>	520	Chr6: 149802447-149804405	<i>ZC3H12D</i>
476	Chr6: 31526790-31529050	<i>Non Coding Region</i>	521	Chr6: 151560283-151563550	<i>AKAP12</i>
477	Chr6: 31526879-31528907	<i>Non Coding Region</i>	522	Chr6: 152127822-152130771	<i>ESR1</i>
478	Chr6: 31526931-31528847	<i>Non Coding Region</i>	523	Chr6: 152956810-152959472	<i>SYNE1</i>
479	Chr6: 31527167-31529141	<i>Non Coding Region</i>	524	Chr6: 153449992-153453792	<i>RGS17</i>
480	Chr6: 31553288-31555110	<i>LST1</i>	525	Chr6: 159588636-159592319	<i>FNDC1</i>
481	Chr6: 31781872-31786190	<i>HSPA1A,HSPAL</i>	526	Chr6: 166578973-166584423	<i>T</i>
482	Chr6: 31829299-31831948	<i>SLC44A4,NEU1</i>	527	Chr6: 166665837-166668541	<i>Non Coding Region</i>
483	Chr6: 32810494-32812839	<i>TAP1,PSMB8</i>	528	Chr6: 166719239-166723275	<i>PRR18</i>
484	Chr6: 34110735-34114944	<i>Non Coding Region</i>	529	Chr6: 167274720-167277626	<i>RPS6KA2</i>
485	Chr6: 39280135-39283215	<i>KCNK17</i>	530	Chr6: 168764814-168767041	<i>Non Coding Region</i>
486	Chr6: 41339667-41343543	<i>Non Coding Region</i>	531	Chr6: 168770137-168772640	<i>Non Coding Region</i>
487	Chr6: 41527266-41529900	<i>FOXP4</i>	532	Chr6: 168935452-168937664	<i>SMOC2</i>
488	Chr6: 41603583-41607663	<i>MDF1</i>	533	Chr6: 170462269-170464525	<i>Non Coding Region</i>
489	Chr6: 42071032-42073701	<i>C6orf132</i>	534	Chr7: 643181-645461	<i>PRKAR1B</i>
490	Chr6: 42737915-42740127	<i>Non Coding Region</i>	535	Chr7: 1268165-1283864	<i>Non Coding Region</i>
491	Chr6: 42737936-42739998	<i>Non Coding Region</i>	536	Chr7: 1702861-1711517	<i>Non Coding Region</i>
492	Chr6: 42738126-42739972	<i>Non Coding Region</i>	537	Chr7: 1958868-1961110	<i>MAD1L1</i>
493	Chr6: 43251734-43254476	<i>TTBK1</i>	538	Chr7: 2441792-2445011	<i>CHST12</i>
494	Chr6: 45386346-45389164	<i>RUNX2</i>	539	Chr7: 3133415-3135699	<i>Non Coding Region</i>
495	Chr6: 55442732-55445092	<i>HMGCLL1</i>	540	Chr7: 4847251-4850204	<i>RADIL</i>

Figure 29G

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
541	Chr7: 4921707-4924576	<i>RADIL</i>	586	Chr7: 108094401-108098206	<i>NRCAM</i>
542	Chr7: 6574923-6577389	<i>GRID2IP</i>	587	Chr7: 112725548-112727528	<i>GPR85</i>
543	Chr7: 8480974-8483762	<i>NXPPI</i>	588	Chr7: 116961841-116965803	<i>WNT2</i>
544	Chr7: 19144872-19147256	<i>Non Coding Region</i>	589	Chr7: 127670158-127673853	<i>LRRC4, SND1</i>
545	Chr7: 19145923-19148308	<i>Non Coding Region</i>	590	Chr7: 129912246-129914374	<i>CPA2</i>
546	Chr7: 19155050-19159042	<i>TWIST1</i>	591	Chr7: 132259474-132263527	<i>PLXNA4</i>
547	Chr7: 19811569-19814005	<i>TMEM196</i>	592	Chr7: 134142115-134145063	<i>AKR1B1</i>
548	Chr7: 21581443-21584313	<i>DNAH11</i>	593	Chr7: 142493563-142496248	<i>Non Coding Region</i>
549	Chr7: 24322558-24326080	<i>NPY</i>	594	Chr7: 143581125-143583610	<i>FAM115A</i>
550	Chr7: 27207871-27210616	<i>Non Coding Region</i>	595	Chr7: 145812030-145815084	<i>CNTNAP2</i>
551	Chr7: 30720372-30723445	<i>CRHR2</i>	596	Chr7: 149409858-149413351	<i>KRBA1</i>
552	Chr7: 32336983-32339725	<i>Non Coding Region</i>	597	Chr7: 149486283-149488769	<i>SSPO</i>
553	Chr7: 32800484-32802972	<i>Non Coding Region</i>	598	Chr7: 149915640-149919264	<i>Non Coding Region</i>
554	Chr7: 35291985-35295674	<i>TBX20</i>	599	Chr7: 150146886-150148958	<i>GIMAP8</i>
555	Chr7: 35295921-35299218	<i>Non Coding Region</i>	600	Chr7: 150328343-150330555	<i>GIMAP6</i>
556	Chr7: 36763117-36764921	<i>AOAH</i>	601	Chr7: 150416414-150419018	<i>GIMAP1</i>
557	Chr7: 37486354-37489672	<i>ELMO1</i>	602	Chr7: 150651807-150654080	<i>KCNH2</i>
558	Chr7: 38669439-38672008	<i>AMPH</i>	603	Chr7: 151105244-151108808	<i>WDR86</i>
559	Chr7: 41738732-41740752	<i>INHBA, LOC285954</i>	604	Chr7: 152621343-152624305	<i>Non Coding Region</i>
560	Chr7: 42266546-42268823	<i>GLI3</i>	605	Chr7: 155163557-155168854	<i>Non Coding Region</i>
561	Chr7: 44142887-44145099	<i>AEBP1</i>	606	Chr7: 156794355-156800394	<i>MXN1</i>
562	Chr7: 45017515-45019801	<i>MYO1G</i>	607	Chr7: 157460391-157462229	<i>PTPRN2</i>
563	Chr7: 45065757-45067719	<i>CCM2</i>	608	Chr7: 158935507-158939492	<i>VIPR2</i>
564	Chr7: 45196181-45198807	<i>RAMP3</i>	609	Chr8: 493155-497083	<i>C8orf42</i>
565	Chr7: 49812008-49816752	<i>VWC2</i>	610	Chr8: 685830-690496	<i>Non Coding Region</i>
566	Chr7: 50342757-50345519	<i>IKZF1</i>	611	Chr8: 9759750-9762643	<i>LOC157627</i>
567	Chr7: 50726951-50728913	<i>GRB10</i>	612	Chr8: 9761661-9765748	<i>MIR124-1, LOC157627</i>
568	Chr7: 54608734-54611140	<i>VSTM2A</i>	613	Chr8: 10586304-10592109	<i>SOX7</i>
569	Chr7: 66092348-66095174	<i>KCTD7</i>	614	Chr8: 11203825-11206689	<i>TDH</i>
570	Chr7: 69061374-69066037	<i>AUTS2</i>	615	Chr8: 15396636-15399287	<i>TUSC3</i>
571	Chr7: 70595228-70599382	<i>WBSCR17</i>	616	Chr8: 21643908-21648845	<i>GFRA2</i>
572	Chr7: 71799757-71803768	<i>CALN1</i>	617	Chr8: 21768694-21771080	<i>DOK2</i>
573	Chr7: 75442228-75444120	<i>CCL24</i>	618	Chr8: 22959384-22961927	<i>TNFRSF10C</i>
574	Chr7: 86272798-86274638	<i>GRAM3</i>	619	Chr8: 23561475-23566175	<i>NKX2-6</i>
575	Chr7: 89746892-89750036	<i>DPY19L2P4</i>	620	Chr8: 24811946-24815299	<i>NEFL</i>
576	Chr7: 93203085-93205381	<i>CALCR</i>	621	Chr8: 25899562-25906842	<i>EBF2</i>
577	Chr7: 93518366-93521184	<i>TFPI2</i>	622	Chr8: 25908292-25910686	<i>Non Coding Region</i>
578	Chr7: 96649221-96652551	<i>DLX5</i>	623	Chr8: 26720642-26725566	<i>ADRA1A</i>
579	Chr7: 98244805-98248759	<i>NPTX2</i>	624	Chr8: 30889630-30891604	<i>WRN, PURG</i>
580	Chr7: 98466023-98469058	<i>TMEM130</i>	625	Chr8: 32404407-32407901	<i>NRG1</i>
581	Chr7: 100488981-100491365	<i>ACHE</i>	626	Chr8: 37821486-37825008	<i>ADRB3</i>
582	Chr7: 101004899-101008443	<i>EMID2</i>	627	Chr8: 38577687-38579917	<i>Non Coding Region</i>
583	Chr7: 102065702-102068002	<i>PRKRIP1</i>	628	Chr8: 38585064-38587068	<i>TACC1</i>
584	Chr7: 102066220-102068104	<i>Non Coding Region</i>	629	Chr8: 38643473-38646760	<i>TACC1</i>
585	Chr7: 106507057-106509733	<i>PIK3CG</i>	630	Chr8: 41164852-41168140	<i>SFRP1</i>

Figure 29H

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
631	Chr8: 41423341-41426300	<i>Non Coding Region</i>	676	Chr8: 143530118-143535495	<i>Non Coding Region</i>
632	Chr8: 41752340-41756250	<i>ANK1</i>	677	Chr8: 143857279-143860411	<i>LYNX1</i>
633	Chr8: 48099163-48101914	<i>Non Coding Region</i>	678	Chr8: 145102285-145109027	<i>OPLAH</i>
634	Chr8: 49467683-49469959	<i>Non Coding Region</i>	679	Chr9: 6644080-6646975	<i>GLDC</i>
635	Chr8: 53850701-53855426	<i>NPBWR1</i>	680	Chr9: 37025222-37029014	<i>PAX5</i>
636	Chr8: 54162303-54165443	<i>OPRK1</i>	681	Chr9: 77111712-77114583	<i>RORB</i>
637	Chr8: 54790845-54796141	<i>RGS20</i>	682	Chr9: 79632326-79637030	<i>FOXB2</i>
638	Chr8: 55365180-55368628	<i>Non Coding Region</i>	683	Chr9: 80523239-80525503	<i>GNAQ</i>
639	Chr8: 55369170-55373525	<i>SOX17</i>	684	Chr9: 89762336-89764767	<i>C9orf170</i>
640	Chr8: 55377928-55381186	<i>Non Coding Region</i>	685	Chr9: 92136795-92138787	<i>Non Coding Region</i>
641	Chr8: 56851276-56853304	<i>LYN</i>	686	Chr9: 100609696-100612517	<i>Non Coding Region</i>
642	Chr8: 57024546-57027543	<i>MOS</i>	687	Chr9: 100614234-100618510	<i>FOXEL</i>
643	Chr8: 57068687-57071047	<i>Non Coding Region</i>	688	Chr9: 112809858-112812128	<i>PALM2-AKAP2, AKAP2</i>
644	Chr8: 58906001-58908822	<i>FAM110B</i>	689	Chr9: 124460797-124463190	<i>DAB2IP</i>
645	Chr8: 59057167-59060414	<i>FAM110B</i>	690	Chr9: 124887949-124890382	<i>Non Coding Region</i>
646	Chr8: 65280903-65284043	<i>Non Coding Region</i>	691	Chr9: 130539846-130542036	<i>SH2D3C</i>
647	Chr8: 65289108-65291946	<i>MIR124-2</i>	692	Chr9: 132381432-132384004	<i>C9orf50</i>
648	Chr8: 65491935-65495452	<i>BHLHE22</i>	693	Chr9: 132651350-132653715	<i>FNBP1</i>
649	Chr8: 67343497-67345989	<i>ADHFE1</i>	694	Chr9: 133533534-133543394	<i>Non Coding Region</i>
650	Chr8: 67872388-67876600	<i>Non Coding Region</i>	695	Chr9: 134150853-134154015	<i>FAM78A</i>
651	Chr8: 67939691-67941997	<i>LRR67</i>	696	Chr9: 135035713-135039933	<i>NTNG2</i>
652	Chr8: 69241920-69244803	<i>Non Coding Region</i>	697	Chr9: 137159400-137161546	<i>Non Coding Region</i>
653	Chr8: 70980873-70985888	<i>PRDM14</i>	698	Chr10: 1777784-1781018	<i>ADARB2</i>
654	Chr8: 72467560-72470561	<i>Non Coding Region</i>	699	Chr10: 7448376-7456339	<i>SFMBT2</i>
655	Chr8: 72754783-72757667	<i>MSC</i>	700	Chr10: 7707524-7709816	<i>ITIH5</i>
656	Chr8: 72916305-72918641	<i>Non Coding Region</i>	701	Chr10: 8076829-8079378	<i>Non Coding Region</i>
657	Chr8: 75895528-75898116	<i>CRISPLD1</i>	702	Chr10: 8090374-8099329	<i>FLJ45983, GATA3</i>
658	Chr8: 77593255-77595860	<i>ZFX4, LOC100192378</i>	703	Chr10: 8099384-8101768	<i>GATA3</i>
659	Chr8: 85095759-85098247	<i>RALYL</i>	704	Chr10: 11206178-11208980	<i>CUGBP2</i>
660	Chr8: 89338965-89341481	<i>MMP16</i>	705	Chr10: 14700680-14702950	<i>FAM107B</i>
661	Chr8: 95228915-95230829	<i>CDH17</i>	706	Chr10: 15760423-15763101	<i>ITGA8</i>
662	Chr8: 97155763-97159030	<i>GDF6</i>	707	Chr10: 17269430-17273617	<i>VIM</i>
663	Chr8: 97170805-97173022	<i>GDF6</i>	708	Chr10: 22539707-22543739	<i>Non Coding Region</i>
664	Chr8: 97171634-97174880	<i>GDF6</i>	709	Chr10: 22622350-22626875	<i>Non Coding Region</i>
665	Chr8: 97504747-97508607	<i>SDC2</i>	710	Chr10: 23461224-23464889	<i>Non Coding Region</i>
666	Chr8: 102148868-102150808	<i>Non Coding Region</i>	711	Chr10: 23981382-23983589	<i>KIAA1217</i>
667	Chr8: 104509870-104514913	<i>RIMS2</i>	712	Chr10: 26726061-26728992	<i>APBB1IP</i>
668	Chr8: 105234384-105236979	<i>RIMS2</i>	713	Chr10: 27546668-27549402	<i>Non Coding Region</i>
669	Chr8: 116659432-116661747	<i>TRPS1</i>	714	Chr10: 29095724-29097990	<i>Non Coding Region</i>
670	Chr8: 116678698-116680936	<i>TRPS1</i>	715	Chr10: 30337216-30339276	<i>KIAA1462</i>
671	Chr8: 121136099-121138778	<i>COL14A1</i>	716	Chr10: 43949884-43952437	<i>ZNF487</i>
672	Chr8: 129004430-129006622	<i>PVT1</i>	717	Chr10: 44787811-44790120	<i>Non Coding Region</i>
673	Chr8: 132051203-132055749	<i>Non Coding Region</i>	718	Chr10: 44878714-44883391	<i>CXCL12</i>
674	Chr8: 134071619-134073433	<i>TG, SLA</i>	719	Chr10: 48437411-48440320	<i>GDF10</i>
675	Chr8: 140713585-140719259	<i>KCNK9</i>	720	Chr10: 50715559-50717397	<i>ERCC6</i>

Figure 29I

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
721	Chr10: 50816601-50821356	<i>SLC18A3,CHAT</i>	766	Chr11: 2320706-2322834	<i>TSPAN32,C11orf21</i>
722	Chr10: 52832539-52835752	<i>PRKG1</i>	767	Chr11: 2554405-2556618	<i>KCNQ1</i>
723	Chr10: 57389343-57392215	<i>Non Coding Region</i>	768	Chr11: 6438863-6441732	<i>APBB1</i>
724	Chr10: 64573660-64579778	<i>EGR2</i>	769	Chr11: 6667255-6669173	<i>DCHS1</i>
725	Chr10: 70846498-70848300	<i>SRGN</i>	770	Chr11: 8039409-8042558	<i>Non Coding Region</i>
726	Chr10: 73494938-73497090	<i>CDH23,C10orf105</i>	771	Chr11: 8101358-8103913	<i>TUB</i>
727	Chr10: 81001109-81004687	<i>ZMIZ1</i>	772	Chr11: 9622178-9624178	<i>Non Coding Region</i>
728	Chr10: 82115202-82118120	<i>DYDC2,DYDC1</i>	773	Chr11: 10326013-10330831	<i>ADM</i>
729	Chr10: 83632820-83636729	<i>NRG3</i>	774	Chr11: 12028737-12031841	<i>DKK3</i>
730	Chr10: 88121924-88128364	<i>GRID1</i>	775	Chr11: 14925471-14928770	<i>Non Coding Region</i>
731	Chr10: 91293947-91296925	<i>SLC16A12</i>	776	Chr11: 15135058-15137545	<i>INSC</i>
732	Chr10: 93391667-93394147	<i>PPP1R3C</i>	777	Chr11: 18811572-18815079	<i>PTPN5</i>
733	Chr10: 94819026-94824252	<i>CYP26C1</i>	778	Chr11: 19365653-19369234	<i>Non Coding Region</i>
734	Chr10: 100992820-100995188	<i>HPSE2</i>	779	Chr11: 20183570-20186497	<i>Non Coding Region</i>
735	Chr10: 101291436-101293851	<i>NKX2-3</i>	780	Chr11: 20228502-20230532	<i>Non Coding Region</i>
736	Chr10: 102418147-102420668	<i>Non Coding Region</i>	781	Chr11: 20617197-20620920	<i>Non Coding Region</i>
737	Chr10: 102483200-102485476	<i>Non Coding Region</i>	782	Chr11: 20689579-20692845	<i>NELL1</i>
738	Chr10: 102496154-102498675	<i>Non Coding Region</i>	783	Chr11: 30605004-30609128	<i>MPPED2</i>
739	Chr10: 102506482-102510646	<i>PAX2</i>	784	Chr11: 31819060-31822416	<i>PAX6</i>
740	Chr10: 102892660-102896059	<i>TLX1</i>	785	Chr11: 31826696-31828921	<i>PAX6</i>
741	Chr10: 102898177-102900489	<i>Non Coding Region</i>	786	Chr11: 32353760-32356484	<i>Non Coding Region</i>
742	Chr10: 103602166-103604642	<i>KCNIP2</i>	787	Chr11: 32453874-32458311	<i>WT1,WIT1</i>
743	Chr10: 105035628-105039084	<i>INA</i>	788	Chr11: 33889357-33892495	<i>LMO2</i>
744	Chr10: 105451338-105454230	<i>SH3PXD2A</i>	789	Chr11: 35439375-35442882	<i>SLC1A2</i>
745	Chr10: 106087658-106089746	<i>ITPRIP</i>	790	Chr11: 43601545-43604215	<i>MIR129-2</i>
746	Chr10: 106398567-106403812	<i>Non Coding Region</i>	791	Chr11: 43962626-43967048	<i>LOC387763</i>
747	Chr10: 108922780-108925805	<i>SORCS1</i>	792	Chr11: 44331314-44333757	<i>ALX4</i>
748	Chr10: 118029732-118035230	<i>GFRA1</i>	793	Chr11: 46381712-46383738	<i>DGKZ</i>
749	Chr10: 118891161-118893639	<i>VAX1</i>	794	Chr11: 46409921-46415687	<i>Non Coding Region</i>
750	Chr10: 118921351-118924520	<i>Non Coding Region</i>	795	Chr11: 47415357-47417598	<i>Non Coding Region</i>
751	Chr10: 118999435-119002530	<i>SLC18A2</i>	796	Chr11: 57248946-57251848	<i>Non Coding Region</i>
752	Chr10: 119292917-119298675	<i>EMX2OS</i>	797	Chr11: 58344673-58348321	<i>LPXN</i>
753	Chr10: 119300321-119306368	<i>EMX2OS,EMX2</i>	798	Chr11: 60737928-60740062	<i>CD6</i>
754	Chr10: 119310204-119313104	<i>Non Coding Region</i>	799	Chr11: 61282864-61285147	<i>SYT7</i>
755	Chr10: 121276453-121278317	<i>RGS10</i>	800	Chr11: 61321732-61324285	<i>SYT7</i>
756	Chr10: 121300478-121304169	<i>RGS10</i>	801	Chr11: 61593996-61597710	<i>FADS2</i>
757	Chr10: 123921850-123924542	<i>TACC2</i>	802	Chr11: 63320554-63322570	<i>HRASLS2</i>
758	Chr10: 131760169-131772696	<i>Non Coding Region</i>	803	Chr11: 63765058-63829748	<i>MACROD1</i>
759	Chr10: 133108193-133112052	<i>TCERG1L</i>	804	Chr11: 63973829-63976048	<i>FERMT3</i>
760	Chr10: 134900198-134903619	<i>GPR123</i>	805	Chr11: 64057808-64061118	<i>KCNK4</i>
761	Chr10: 135042221-135045560	<i>UTF1</i>	806	Chr11: 64108822-64111228	<i>CCDC88B</i>
762	Chr10: 135137682-135140717	<i>CALY</i>	807	Chr11: 64620207-64623246	<i>EHD1</i>
763	Chr11: 625728-629037	<i>SCT</i>	808	Chr11: 65407344-65409631	<i>SIPA1</i>
764	Chr11: 635906-641628	<i>DRD4</i>	809	Chr11: 65600069-65602551	<i>SNX32</i>
765	Chr11: 2157951-2163484	<i>IGF2,IGF2AS,INS-IGF2</i>	810	Chr11: 65656874-65659970	<i>FOSL1</i>

Figure 29J

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
811	Chr11: 67038074-67040164	<i>ADRBK1</i>	856	Chr12: 6663425-6666336	<i>IFFO1</i>
812	Chr11: 67167616-67170098	<i>TBC1D10C</i>	857	Chr12: 6881855-6884184	<i>LAG3</i>
813	Chr11: 67175945-67178169	<i>TBC1D10C</i>	858	Chr12: 7059274-7061100	<i>PTPN6</i>
814	Chr11: 69631033-69635710	<i>FGF3</i>	859	Chr12: 8541555-8544334	<i>LOC389634</i>
815	Chr11: 69705778-69708017	<i>Non Coding Region</i>	860	Chr12: 15112174-15114012	<i>ARHGDIB</i>
816	Chr11: 69830571-69833484	<i>Non Coding Region</i>	861	Chr12: 15372986-15375514	<i>RERG</i>
817	Chr11: 69918916-69921064	<i>Non Coding Region</i>	862	Chr12: 15474318-15476901	<i>PTPRO</i>
818	Chr11: 70210277-70212325	<i>PPFIA1</i>	863	Chr12: 24713956-24717243	<i>SOX5</i>
819	Chr11: 70210569-70212493	<i>PPFIA1</i>	864	Chr12: 25054599-25057246	<i>BCAT1</i>
820	Chr11: 70961173-70965161	<i>Non Coding Region</i>	865	Chr12: 29934995-29938433	<i>TMTC1</i>
821	Chr11: 71953816-71956659	<i>PHOX2A</i>	866	Chr12: 39298248-39300629	<i>CPNE8</i>
822	Chr11: 72294167-72296875	<i>PDE2A</i>	867	Chr12: 41085522-41088102	<i>CNTN1</i>
823	Chr11: 75377416-75380882	<i>MAP6</i>	868	Chr12: 45443202-45446386	<i>DBX2</i>
824	Chr11: 78672007-78674213	<i>ODZ4</i>	869	Chr12: 46608101-46610025	<i>SLC38A1</i>
825	Chr11: 91956635-91961290	<i>Non Coding Region</i>	870	Chr12: 47608271-47610443	<i>LOC100233209, FAM113B</i>
826	Chr11: 94500366-94503696	<i>AMOTL1</i>	871	Chr12: 48205721-48208126	<i>HDAC7</i>
827	Chr11: 104033536-104036058	<i>PDGFD</i>	872	Chr12: 48396889-48399731	<i>COL2A1</i>
828	Chr11: 105480126-105482422	<i>GRIA4</i>	873	Chr12: 48590977-48593785	<i>Non Coding Region</i>
829	Chr11: 106887323-106891203	<i>GUCY1A2</i>	874	Chr12: 49482601-49485255	<i>DHH</i>
830	Chr11: 107460743-107463648	<i>ELMOD1, LOC643923</i>	875	Chr12: 50296580-50298988	<i>FAIM2</i>
831	Chr11: 111382168-111384892	<i>BTG4, MIR34C, MIR34B</i>	876	Chr12: 51716888-51718842	<i>BIN2</i>
832	Chr11: 111806607-111809203	<i>DIXDC1</i>	877	Chr12: 52399467-52402696	<i>GRASP</i>
833	Chr11: 112831524-112835490	<i>NCAM1</i>	878	Chr12: 52625793-52628577	<i>KRT7</i>
834	Chr11: 115528997-115531548	<i>Non Coding Region</i>	879	Chr12: 54088211-54090413	<i>Non Coding Region</i>
835	Chr11: 115629398-115632117	<i>Non Coding Region</i>	880	Chr12: 54344563-54346916	<i>Non Coding Region</i>
836	Chr11: 117800500-117802484	<i>TMPRSS13</i>	881	Chr12: 54392374-54395648	<i>HOXC9</i>
837	Chr11: 119292320-119294943	<i>THY1</i>	882	Chr12: 54407426-54409713	<i>Non Coding Region</i>
838	Chr11: 120433822-120436940	<i>Non Coding Region</i>	883	Chr12: 54423610-54426173	<i>HOXC5, HOXC4</i>
839	Chr11: 122846494-122849608	<i>Non Coding Region</i>	884	Chr12: 54446744-54449091	<i>HOXC4</i>
840	Chr11: 123065517-123067986	<i>ASAM</i>	885	Chr12: 54810981-54813202	<i>ITGA5</i>
841	Chr11: 123300049-123303149	<i>Non Coding Region</i>	886	Chr12: 54890426-54892556	<i>NCKAP1L</i>
842	Chr11: 124627367-124630590	<i>ESAM</i>	887	Chr12: 56414209-56416333	<i>IKZF4</i>
843	Chr11: 124734069-124737465	<i>ROBO3</i>	888	Chr12: 57868075-57871182	<i>ARHGAP9</i>
844	Chr11: 124789814-124792354	<i>HEPACAM</i>	889	Chr12: 57997861-57999663	<i>DTX3</i>
845	Chr11: 125033896-125037426	<i>PKNOX2</i>	890	Chr12: 58020294-58023037	<i>B4GALNT1</i>
846	Chr11: 125364137-125367319	<i>FEZ1</i>	891	Chr12: 58024661-58028056	<i>B4GALNT1</i>
847	Chr11: 125773292-125775584	<i>PUS3, DDX25</i>	892	Chr12: 62583768-62587268	<i>FAM19A2</i>
848	Chr11: 126224355-126227073	<i>ST3GAL4</i>	893	Chr12: 64060836-64063774	<i>DPY19L2</i>
849	Chr11: 128561671-128566011	<i>FLII</i>	894	Chr12: 64783010-64785664	<i>C12orf56</i>
850	Chr11: 132933059-132935291	<i>OPCML</i>	895	Chr12: 65513878-65516863	<i>WIF1</i>
851	Chr11: 133824337-133828457	<i>IGSF9B</i>	896	Chr12: 66121788-66124328	<i>Non Coding Region</i>
852	Chr11: 133905735-133908359	<i>LOC100128239</i>	897	Chr12: 66275006-66276970	<i>HMG A2</i>
853	Chr11: 134144559-134148180	<i>GLB1L3</i>	898	Chr12: 72664683-72668551	<i>LOC283392, TRHDE</i>
854	Chr12: 5538895-5541703	<i>NTF3</i>	899	Chr12: 81470569-81473119	<i>ACSS3</i>
855	Chr12: 6570272-6572422	<i>TAPBPL</i>	900	Chr12: 85304200-85306422	<i>SLC6A15</i>

Figure 29K

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
901	Chr12: 85666340-85668366	<i>Non Coding Region</i>	946	Chr13: 50069022-50071719	<i>PHF11</i>
902	Chr12: 95940906-95943979	<i>USP44</i>	947	Chr13: 53312127-53315045	<i>LECT1</i>
903	Chr12: 103888148-103890843	<i>C12orf42</i>	948	Chr13: 53418897-53423872	<i>PCDH8</i>
904	Chr12: 104443100-104444912	<i>GLT8D2</i>	949	Chr13: 58202586-58205322	<i>Non Coding Region</i>
905	Chr12: 104849253-105115323	<i>CHST11</i>	950	Chr13: 78491425-78494382	<i>EDNRB</i>
906	Chr12: 109027341-109029429	<i>SELPLG</i>	951	Chr13: 79169114-79172231	<i>Non Coding Region</i>
907	Chr12: 111470061-111474546	<i>CUX2</i>	952	Chr13: 84452664-84454897	<i>SLITRK1</i>
908	Chr12: 113012099-113014529	<i>Non Coding Region</i>	953	Chr13: 88325600-88327919	<i>SLITRK5</i>
909	Chr12: 113228353-113230395	<i>RPH3A</i>	954	Chr13: 92050153-92052716	<i>GPC5</i>
910	Chr12: 113493389-113496534	<i>DTX1</i>	955	Chr13: 95362152-95367051	<i>SOX21</i>
911	Chr12: 113540697-113543086	<i>RASAL1</i>	956	Chr13: 96203691-96206496	<i>CLDN10</i>
912	Chr12: 113899750-113907442	<i>LHX5</i>	957	Chr13: 99879931-99881963	<i>UBAC2</i>
913	Chr12: 114074847-114076915	<i>Non Coding Region</i>	958	Chr13: 99909500-99911674	<i>UBAC2, GPR18</i>
914	Chr12: 114842022-114844610	<i>TBX5</i>	959	Chr13: 100309204-100311446	<i>CLYBL</i>
915	Chr12: 115101687-115104982	<i>Non Coding Region</i>	960	Chr13: 102567425-102570495	<i>FGF14</i>
916	Chr12: 115103848-115106548	<i>Non Coding Region</i>	961	Chr13: 108518292-108522063	<i>FAM155A</i>
917	Chr12: 117797076-117800448	<i>NOS1</i>	962	Chr13: 109146798-109150019	<i>Non Coding Region</i>
918	Chr12: 120030494-120034212	<i>TMEM233</i>	963	Chr13: 110957891-110961590	<i>COL4A2, COL4A1</i>
919	Chr12: 120798372-120800912	<i>MSI1</i>	964	Chr13: 110992508-110994478	<i>COL4A2</i>
920	Chr12: 122095559-122097775	<i>MORN3</i>	965	Chr13: 112757598-112761491	<i>Non Coding Region</i>
921	Chr12: 122229903-122233359	<i>RHOF</i>	966	Chr13: 114896358-114899516	<i>RASA3</i>
922	Chr12: 124940314-124942584	<i>NCOR2</i>	967	Chr14: 22003937-22006049	<i>SALL2</i>
923	Chr12: 124949705-124951939	<i>NCOR2</i>	968	Chr14: 22693463-22695631	<i>Non Coding Region</i>
924	Chr12: 130386609-130390139	<i>TMEM132D</i>	969	Chr14: 23833435-23836947	<i>EFS</i>
925	Chr12: 133462807-133465858	<i>CHFR</i>	970	Chr14: 24802678-24805353	<i>ADCY4</i>
926	Chr12: 133483658-133486739	<i>Non Coding Region</i>	971	Chr14: 29253365-29256069	<i>C14orf23</i>
927	Chr13: 20765208-20768779	<i>GJB2</i>	972	Chr14: 36001598-36006013	<i>INSM2</i>
928	Chr13: 20805016-20807867	<i>GJB6</i>	973	Chr14: 36985362-36991576	<i>NKX2-1</i>
929	Chr13: 23732808-23735816	<i>Non Coding Region</i>	974	Chr14: 48142433-48146589	<i>MDGA2</i>
930	Chr13: 25619937-25622554	<i>Non Coding Region</i>	975	Chr14: 51559116-51563487	<i>TRIM9</i>
931	Chr13: 25742998-25747127	<i>FAM123A</i>	976	Chr14: 52533581-52537722	<i>NID2</i>
932	Chr13: 28365549-28369505	<i>GSX1</i>	977	Chr14: 54686134-54688186	<i>Non Coding Region</i>
933	Chr13: 28497226-28500046	<i>PDX1</i>	978	Chr14: 54686313-54688315	<i>Non Coding Region</i>
934	Chr13: 28500859-28503090	<i>Non Coding Region</i>	979	Chr14: 57282967-57285558	<i>OTX2OS1</i>
935	Chr13: 28502057-28504374	<i>Non Coding Region</i>	980	Chr14: 60974732-60979180	<i>SIX6</i>
936	Chr13: 28673227-28676170	<i>FLT3</i>	981	Chr14: 70013543-70015993	<i>Non Coding Region</i>
937	Chr13: 29105576-29108254	<i>Non Coding Region</i>	982	Chr14: 70040213-70042662	<i>Non Coding Region</i>
938	Chr13: 36704040-36706707	<i>DCLK1</i>	983	Chr14: 70654095-70657077	<i>SLC8A3</i>
939	Chr13: 36918737-36922004	<i>SPG20</i>	984	Chr14: 75799836-75802046	<i>Non Coding Region</i>
940	Chr13: 37004581-37007453	<i>CCNA1</i>	985	Chr14: 75799929-75802117	<i>Non Coding Region</i>
941	Chr13: 43147277-43150282	<i>TNFSF11</i>	986	Chr14: 75987889-75989733	<i>BATF</i>
942	Chr13: 44358858-44362696	<i>ENOX1</i>	987	Chr14: 77503622-77505500	<i>Non Coding Region</i>
943	Chr13: 46424374-46426642	<i>SLAH3</i>	988	Chr14: 77735733-77738772	<i>NGB</i>
944	Chr13: 46755071-46757347	<i>LCPI1</i>	989	Chr14: 85995494-85997958	<i>FLRT2</i>
945	Chr13: 47467229-47469079	<i>HTR2A</i>	990	Chr14: 92412581-92415324	<i>FBLN5</i>

Figure 29L

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
991	Chr14: 93531457-93533669	<i>ITPK1, NCRNA00203</i>	1036	Chr15: 84114762-84117921	<i>SH3GL3</i>
992	Chr14: 94252952-94256733	<i>PRIMA1</i>	1037	Chr15: 86232136-86234304	<i>AKAP13</i>
993	Chr14: 95233612-95237569	<i>GSC</i>	1038	Chr15: 88798522-88802017	<i>NTRK3</i>
994	Chr14: 96341209-96344570	<i>Non Coding Region</i>	1039	Chr15: 89919793-89923768	<i>LOC254559</i>
995	Chr14: 97684059-97686946	<i>Non Coding Region</i>	1040	Chr15: 89951271-89954061	<i>Non Coding Region</i>
996	Chr14: 100258160-100260542	<i>EML1</i>	1041	Chr15: 92395013-92398682	<i>SLCO3A1</i>
997	Chr14: 100436381-100439863	<i>Non Coding Region</i>	1042	Chr15: 92935677-92939521	<i>ST8SIA2</i>
998	Chr14: 100530519-100532663	<i>EVL</i>	1043	Chr15: 93630428-93634173	<i>RGMA</i>
999	Chr14: 101922575-101926995	<i>Non Coding Region</i>	1044	Chr15: 96894306-96896729	<i>Non Coding Region</i>
1000	Chr14: 105308690-105311500	<i>Non Coding Region</i>	1045	Chr15: 98835137-98837359	<i>Non Coding Region</i>
1001	Chr14: 105392036-105394306	<i>PLD4</i>	1046	Chr15: 101418261-101422133	<i>ALDH1A3</i>
1002	Chr15: 26106503-26109818	<i>ATP10A</i>	1047	Chr16: 213343-217720	<i>HBM</i>
1003	Chr15: 27214951-27217856	<i>GABRG3</i>	1048	Chr16: 2040825-2044026	<i>SYNGR3</i>
1004	Chr15: 28338774-28343442	<i>OCA2</i>	1049	Chr16: 2736416-2738296	<i>KCTD5</i>
1005	Chr15: 28350606-28354102	<i>Non Coding Region</i>	1050	Chr16: 2764619-2766855	<i>PRSS27</i>
1006	Chr15: 28981669-28984497	<i>WHAMML2</i>	1051	Chr16: 3237805-3240492	<i>Non Coding Region</i>
1007	Chr15: 29076251-29078684	<i>Non Coding Region</i>	1052	Chr16: 3626433-3628561	<i>NLR3</i>
1008	Chr15: 34805490-34808382	<i>Non Coding Region</i>	1053	Chr16: 10132364-10134638	<i>GRIN2A</i>
1009	Chr15: 37171473-37174018	<i>LOC145845</i>	1054	Chr16: 11326008-11328234	<i>Non Coding Region</i>
1010	Chr15: 37386386-37388614	<i>MEIS2</i>	1055	Chr16: 12993574-12998690	<i>SHISA9</i>
1011	Chr15: 38987823-38989687	<i>C15orf53</i>	1056	Chr16: 16155017-16157061	<i>ABCC1</i>
1012	Chr15: 41792562-41796305	<i>ITPKA</i>	1057	Chr16: 21293980-21296414	<i>CRYM</i>
1013	Chr15: 45668970-45672029	<i>GATM, LOC145663</i>	1058	Chr16: 23845941-23849102	<i>PRKCB</i>
1014	Chr15: 48935810-48939577	<i>FBN1</i>	1059	Chr16: 25701955-25705631	<i>HS3ST4</i>
1015	Chr15: 51384861-51388203	<i>TNFAIP8L3</i>	1060	Chr16: 28072817-28076296	<i>GSG1L</i>
1016	Chr15: 53079458-53084699	<i>ONECUT1</i>	1061	Chr16: 28994976-28996788	<i>LAT</i>
1017	Chr15: 53096561-53099476	<i>Non Coding Region</i>	1062	Chr16: 29085220-29087434	<i>RRN3P2</i>
1018	Chr15: 55878792-55882228	<i>PYGO1</i>	1063	Chr16: 29674845-29677120	<i>SPN</i>
1019	Chr15: 60295135-60299520	<i>FOXB1</i>	1064	Chr16: 29755968-29757934	<i>C16orf54</i>
1020	Chr15: 61519423-61522716	<i>RORA</i>	1065	Chr16: 30193747-30196357	<i>CORO1A</i>
1021	Chr15: 65688142-65690362	<i>IGDCC4</i>	1066	Chr16: 30388035-30391631	<i>SEPT_1</i>
1022	Chr15: 68114485-68123575	<i>LBXCOR1</i>	1067	Chr16: 30904549-30906783	<i>BCL7C, MIR762</i>
1023	Chr15: 70827082-70829112	<i>Non Coding Region</i>	1068	Chr16: 31020986-31022880	<i>STX1B</i>
1024	Chr15: 73658860-73663015	<i>HCN4</i>	1069	Chr16: 31224956-31229264	<i>TRIM72, PYDC1</i>
1025	Chr15: 74418870-74424044	<i>ISLR2, LOC283731</i>	1070	Chr16: 49310413-49313308	<i>Non Coding Region</i>
1026	Chr15: 74724323-74727487	<i>SEMA7A</i>	1071	Chr16: 49474558-49476672	<i>Non Coding Region</i>
1027	Chr15: 77286731-77288581	<i>PSTPIP1</i>	1072	Chr16: 51182699-51189763	<i>SALL1</i>
1028	Chr15: 78631669-78634108	<i>CRABP1</i>	1073	Chr16: 54406885-54409143	<i>Non Coding Region</i>
1029	Chr15: 79380804-79385209	<i>RASGRF1</i>	1074	Chr16: 54407062-54408918	<i>Non Coding Region</i>
1030	Chr15: 79575059-79577270	<i>ANKRD34C</i>	1075	Chr16: 54969301-54973846	<i>Non Coding Region</i>
1031	Chr15: 81588232-81590264	<i>IL16</i>	1076	Chr16: 55688598-55691895	<i>SLC6A2</i>
1032	Chr15: 83314116-83318541	<i>CPEB1</i>	1077	Chr16: 56223731-56225980	<i>GNAO1, LOC283856</i>
1033	Chr15: 83774861-83777922	<i>TM6SF1</i>	1078	Chr16: 56695892-56698293	<i>Non Coding Region</i>
1034	Chr15: 83874648-83878079	<i>HDGFRP3</i>	1079	Chr16: 58017400-58020471	<i>TEPP</i>
1035	Chr15: 83950980-83954930	<i>BNC1</i>	1080	Chr16: 66611749-66614412	<i>CMTM2, CMTM1</i>

Figure 29M

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
1081	Chr16: 66637254-66640561	<i>CMTM3</i>	1126	Chr17: 44927287-44930690	<i>WNT9B</i>
1082	Chr16: 67195792-67200988	<i>FBXL8,HSF4</i>	1127	Chr17: 45809589-45812388	<i>TBX21</i>
1083	Chr16: 67426284-67429950	<i>ZDHHC1,TPPP3</i>	1128	Chr17: 45866103-45868744	<i>Non Coding Region</i>
1084	Chr16: 77821375-77824134	<i>VAT1L</i>	1129	Chr17: 46801790-46804076	<i>HOXB13</i>
1085	Chr16: 86540430-86546228	<i>Non Coding Region</i>	1130	Chr17: 47071820-47077042	<i>IGF2BP1</i>
1086	Chr16: 86598355-86603649	<i>FOXC2</i>	1131	Chr17: 47652211-47655369	<i>NXP3</i>
1087	Chr16: 86611188-86614821	<i>FOXL1</i>	1132	Chr17: 48069698-48073654	<i>DLX3</i>
1088	Chr16: 86964271-86966496	<i>Non Coding Region</i>	1133	Chr17: 54673873-54676232	<i>Non Coding Region</i>
1089	Chr16: 87735652-87737907	<i>LOC100129637</i>	1134	Chr17: 55212599-55214527	<i>Non Coding Region</i>
1090	Chr16: 88764041-88766399	<i>RNF166</i>	1135	Chr17: 55950987-55953139	<i>CUEDC1</i>
1091	Chr16: 88771237-88774195	<i>RNF166</i>	1136	Chr17: 56407245-56409149	<i>Non Coding Region</i>
1092	Chr16: 90087915-90090413	<i>GAS8</i>	1137	Chr17: 59472060-59484266	<i>TBX2</i>
1093	Chr17: 1626745-1630897	<i>WDR81</i>	1138	Chr17: 59530723-59536254	<i>TBX4</i>
1094	Chr17: 4612400-4615423	<i>ARRB2</i>	1139	Chr17: 66595072-66598578	<i>FAM20A</i>
1095	Chr17: 4801265-4806402	<i>C17orf107,CHRNE</i>	1140	Chr17: 70215346-70217318	<i>Non Coding Region</i>
1096	Chr17: 4849942-4854907	<i>RNF167</i>	1141	Chr17: 70722349-70724423	<i>SLC39A11</i>
1097	Chr17: 5402131-5405602	<i>LOC728392</i>	1142	Chr17: 71159922-71163350	<i>SSTR2</i>
1098	Chr17: 5486298-5488454	<i>NLRP1</i>	1143	Chr17: 72351827-72354798	<i>BTBD17</i>
1099	Chr17: 6615422-6618471	<i>SLC13A5</i>	1144	Chr17: 72587360-72589464	<i>CD300LD,C17orf77</i>
1100	Chr17: 7239301-7241145	<i>ACAP1</i>	1145	Chr17: 72754558-72756736	<i>SLC9A3R1</i>
1101	Chr17: 7553139-7556338	<i>ATP1B2</i>	1146	Chr17: 72888349-72891060	<i>FADS6</i>
1102	Chr17: 7975342-7977570	<i>ALOX12B</i>	1147	Chr17: 73582838-73587337	<i>MYO15B</i>
1103	Chr17: 8229195-8231941	<i>Non Coding Region</i>	1148	Chr17: 73748618-73751178	<i>ITGB4</i>
1104	Chr17: 8532004-8535933	<i>MYH10</i>	1149	Chr17: 74510783-74512655	<i>Non Coding Region</i>
1105	Chr17: 10023321-10103440	<i>GAS7</i>	1150	Chr17: 74532281-74535566	<i>CYGB</i>
1106	Chr17: 13502829-13506559	<i>HS3ST3A1</i>	1151	Chr17: 75367688-75371506	<i>SEPT_9</i>
1107	Chr17: 14211363-14213788	<i>HS3ST3B1</i>	1152	Chr17: 75397284-75399527	<i>SEPT_9</i>
1108	Chr17: 19482305-19484687	<i>Non Coding Region</i>	1153	Chr17: 75440383-75442401	<i>SEPT_9</i>
1109	Chr17: 19879676-19882633	<i>AKAP10</i>	1154	Chr17: 76126521-76129406	<i>TMC6,TMC8</i>
1110	Chr17: 27037084-27039919	<i>PROCA1</i>	1155	Chr17: 76353818-76358038	<i>SOC3</i>
1111	Chr17: 27938298-27941770	<i>ANKRD13B</i>	1156	Chr17: 76360065-76362267	<i>Non Coding Region</i>
1112	Chr17: 32483007-32485280	<i>ACCN1</i>	1157	Chr17: 76754808-76779390	<i>CYTH1</i>
1113	Chr17: 33699989-33702657	<i>SLFN11</i>	1158	Chr17: 76919684-76922961	<i>TIMP2</i>
1114	Chr17: 33866708-33868882	<i>Non Coding Region</i>	1159	Chr17: 77177828-77181229	<i>HRNBP3</i>
1115	Chr17: 35290899-35301875	<i>LHX1</i>	1160	Chr17: 77720246-77723497	<i>Non Coding Region</i>
1116	Chr17: 37320482-37323099	<i>ARL5C</i>	1161	Chr17: 78448507-78453783	<i>Non Coding Region</i>
1117	Chr17: 37909088-37912190	<i>Non Coding Region</i>	1162	Chr17: 79258282-79260537	<i>SLC38A10</i>
1118	Chr17: 38346533-38348765	<i>RAPGEFL1</i>	1163	Chr17: 80259390-80261268	<i>Non Coding Region</i>
1119	Chr17: 38720636-38722714	<i>CCR7</i>	1164	Chr17: 80360614-80363151	<i>C17orf101</i>
1120	Chr17: 42461135-42464579	<i>ITGA2B</i>	1165	Chr17: 80407294-80409879	<i>C17orf62</i>
1121	Chr17: 43046547-43048954	<i>Non Coding Region</i>	1166	Chr17: 80544433-80546658	<i>FOXK2</i>
1122	Chr17: 43297725-43300640	<i>FMNL1</i>	1167	Chr18: 903578-910574	<i>ADCYAP1</i>
1123	Chr17: 43338124-43340832	<i>C17orf46,LOC100133991</i>	1168	Chr18: 5195243-5198389	<i>LOC642597</i>
1124	Chr17: 43859684-43863928	<i>CRHR1</i>	1169	Chr18: 5542437-5545241	<i>EPB41L3</i>
1125	Chr17: 44894800-44898025	<i>WNT3</i>	1170	Chr18: 7115852-7119241	<i>LAMA1</i>

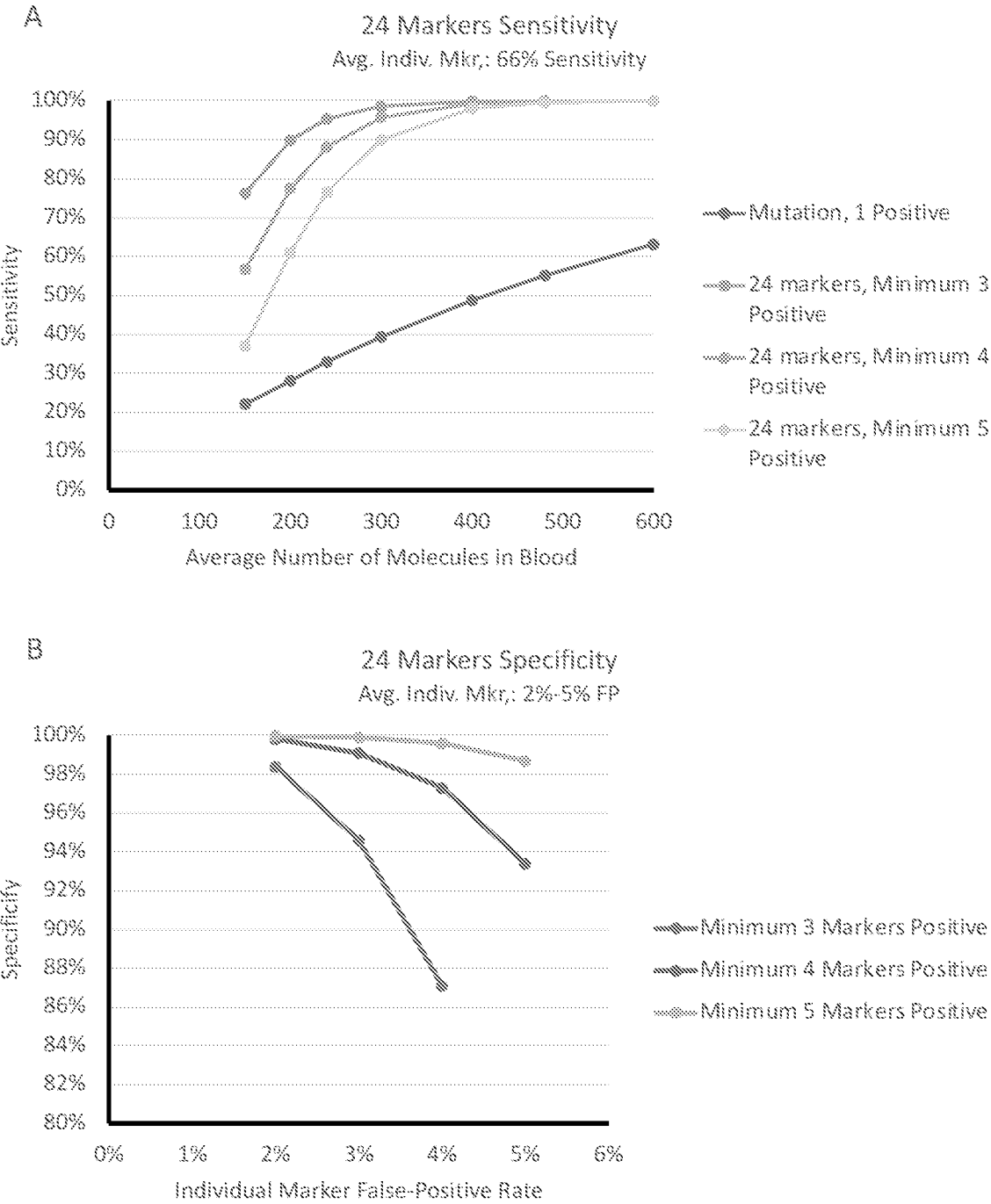
Figure 29N

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
1171	Chr18: 11749953-11753756	<i>GNAL</i>	1216	Chr19: 18117741-18120553	<i>ARRDC2</i>
1172	Chr18: 18820383-18824349	<i>GREB1L</i>	1217	Chr19: 18538781-18541341	<i>SSBP4</i>
1173	Chr18: 20810280-20812536	<i>CABLES1</i>	1218	Chr19: 18898037-18903284	<i>COMP</i>
1174	Chr18: 22929018-22931904	<i>ZNF521</i>	1219	Chr19: 19321675-19323916	<i>NCAN</i>
1175	Chr18: 25754414-25759175	<i>CDH2</i>	1220	Chr19: 21104962-21107144	<i>ZNF85</i>
1176	Chr18: 34832554-34835606	<i>BRUNOL4</i>	1221	Chr19: 22017594-22019827	<i>ZNF43</i>
1177	Chr18: 35143907-35148628	<i>BRUNOL4</i>	1222	Chr19: 22033394-22035943	<i>Non Coding Region</i>
1178	Chr18: 44336510-44339100	<i>STSLA5</i>	1223	Chr19: 30014781-30022367	<i>VSTM2B</i>
1179	Chr18: 53256018-53258309	<i>TCF4</i>	1224	Chr19: 31838635-31844049	<i>TSHZ3</i>
1180	Chr18: 53446074-53448842	<i>Non Coding Region</i>	1225	Chr19: 31846946-31849209	<i>Non Coding Region</i>
1181	Chr18: 54787959-54790194	<i>Non Coding Region</i>	1226	Chr19: 34111279-34115353	<i>CHST8</i>
1182	Chr18: 56886091-56888665	<i>GRP</i>	1227	Chr19: 36230186-36233219	<i>TMEM149</i>
1183	Chr18: 56933833-56937827	<i>RAX</i>	1228	Chr19: 36522391-36524887	<i>CLIP3</i>
1184	Chr18: 56938624-56942540	<i>RAX</i>	1229	Chr19: 36908281-36910854	<i>ZFP82</i>
1185	Chr18: 65182237-65185014	<i>DSEL</i>	1230	Chr19: 37094680-37097589	<i>ZNF529,ZNF382</i>
1186	Chr18: 67066509-67070168	<i>DOK6</i>	1231	Chr19: 37156632-37159119	<i>ZNF461</i>
1187	Chr18: 73166402-73168920	<i>Non Coding Region</i>	1232	Chr19: 37405931-37408463	<i>ZNF829,ZNF568</i>
1188	Chr18: 74960556-74964822	<i>GALR1</i>	1233	Chr19: 37462991-37465606	<i>Non Coding Region</i>
1189	Chr18: 76736005-76742244	<i>SALL3</i>	1234	Chr19: 37996790-37999125	<i>ZNF793</i>
1190	Chr19: 1400092-1402784	<i>GAMT</i>	1235	Chr19: 38745638-38748379	<i>PPP1R14A</i>
1191	Chr19: 1464206-1472241	<i>APC2</i>	1236	Chr19: 39108432-39110862	<i>MAP4K1,EIF3K</i>
1192	Chr19: 2084223-2086379	<i>MOBK12A</i>	1237	Chr19: 41594895-41597140	<i>CYP2A13</i>
1193	Chr19: 2084577-2086389	<i>MOBK12A</i>	1238	Chr19: 42636277-42638684	<i>POU2F2</i>
1194	Chr19: 2249560-2254959	<i>JSRP1</i>	1239	Chr19: 42702604-42704976	<i>DEDD2</i>
1195	Chr19: 3177741-3180986	<i>SIPR4</i>	1240	Chr19: 42826743-42830149	<i>TMEM145</i>
1196	Chr19: 4325878-4328380	<i>STAP2</i>	1241	Chr19: 46995327-46999437	<i>PNMAL2</i>
1197	Chr19: 4327658-4329865	<i>STAP2</i>	1242	Chr19: 48016717-48019782	<i>Non Coding Region</i>
1198	Chr19: 4915560-4917784	<i>UHRF1</i>	1243	Chr19: 48751899-48754081	<i>CARD8</i>
1199	Chr19: 5337788-5340130	<i>PTPRS</i>	1244	Chr19: 48917115-48919340	<i>GRIN2D</i>
1200	Chr19: 6772045-6774103	<i>VAV1</i>	1245	Chr19: 48982562-48985175	<i>CYTH2</i>
1201	Chr19: 11532198-11534619	<i>CCDC151</i>	1246	Chr19: 49840187-49842628	<i>CD37</i>
1202	Chr19: 11688417-11690768	<i>ACP5</i>	1247	Chr19: 50029981-50032300	<i>RCN3</i>
1203	Chr19: 12202028-12204503	<i>ZNF788</i>	1248	Chr19: 50036078-50038670	<i>RCN3</i>
1204	Chr19: 12720532-12723116	<i>ZNF791</i>	1249	Chr19: 51141284-51143986	<i>SYT3</i>
1205	Chr19: 13119986-13125368	<i>NFLX</i>	1250	Chr19: 51160923-51163514	<i>Non Coding Region</i>
1206	Chr19: 13214244-13216543	<i>Non Coding Region</i>	1251	Chr19: 51829064-51832145	<i>IGLON5</i>
1207	Chr19: 13615752-13618267	<i>CACNA1A</i>	1252	Chr19: 51923999-51926413	<i>Non Coding Region</i>
1208	Chr19: 14550998-14553255	<i>PKN1</i>	1253	Chr19: 52872084-52874572	<i>ZNF880</i>
1209	Chr19: 15089016-15091873	<i>Non Coding Region</i>	1254	Chr19: 53634625-53637230	<i>ZNF415</i>
1210	Chr19: 15216951-15219617	<i>SYDE1</i>	1255	Chr19: 53756819-53759148	<i>ZNF677</i>
1211	Chr19: 15579382-15581863	<i>PGLYRP2</i>	1256	Chr19: 54022868-54025560	<i>ZNF331</i>
1212	Chr19: 17006101-17009857	<i>CPAMD8</i>	1257	Chr19: 54411710-54414087	<i>Non Coding Region</i>
1213	Chr19: 17391383-17394775	<i>ANKLE1</i>	1258	Chr19: 54926902-54929225	<i>TTYH1</i>
1214	Chr19: 17957490-17959808	<i>JAK3</i>	1259	Chr19: 55590905-55594980	<i>EPS8L1</i>
1215	Chr19: 18110566-18113481	<i>ARRDC2</i>	1260	Chr19: 55768269-55771875	<i>SAPSI</i>

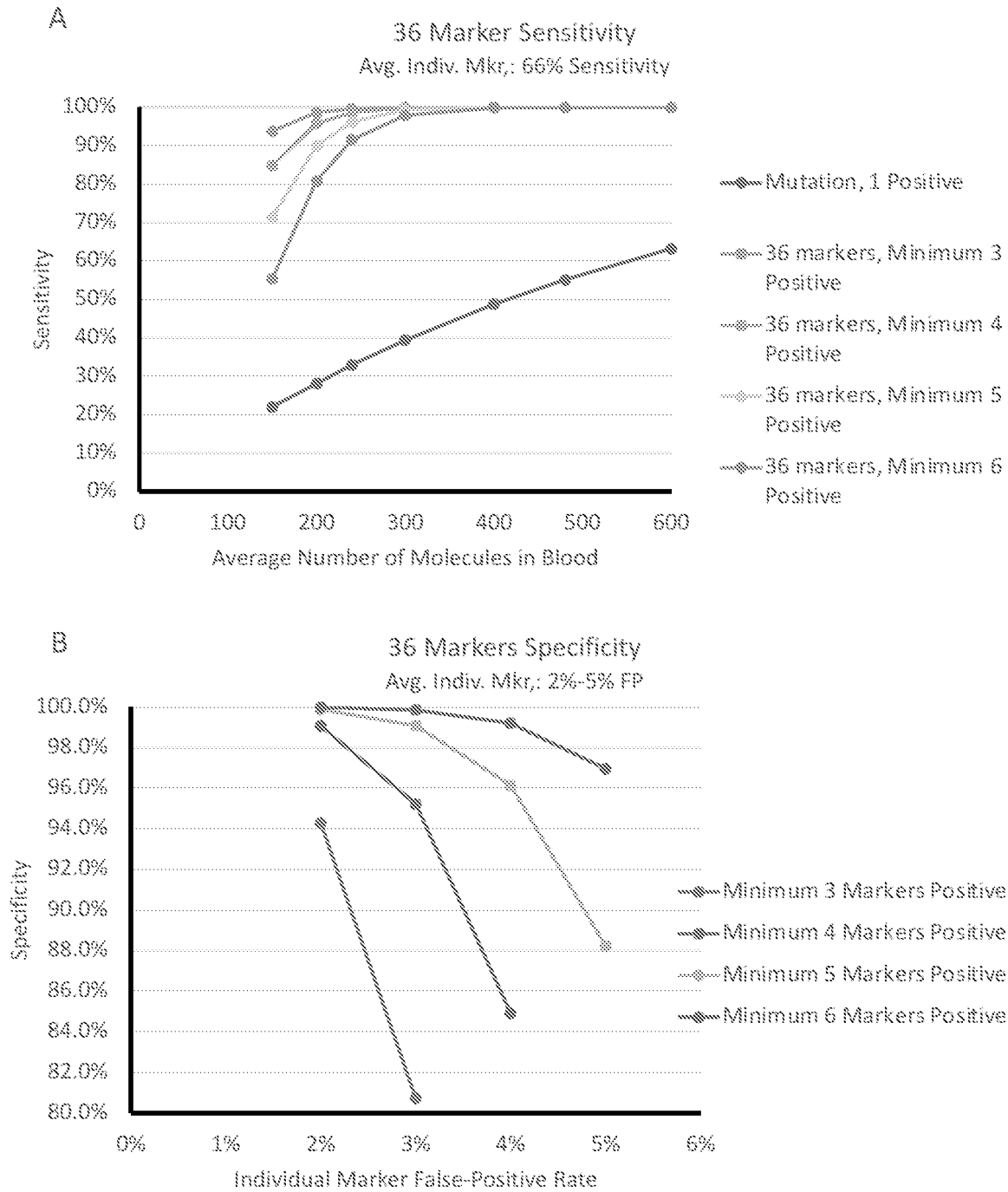
Figure 290

Order	Coordinates of Region (hg19)	Gene	Order	Coordinates of Region (hg19)	Gene
1261	Chr19: 55835823-55837681	<i>TMEM150B</i>	1306	Chr20: 57223695-57227322	<i>STX16</i>
1262	Chr19: 56878417-56880995	<i>ZNF542</i>	1307	Chr20: 58178808-58181787	<i>PHACTR3</i>
1263	Chr19: 56903636-56906355	<i>ZNF582</i>	1308	Chr20: 61048361-61052897	<i>GATA5</i>
1264	Chr19: 56987313-56990741	<i>ZNF667</i>	1309	Chr20: 61635171-61640055	<i>BHLHE23</i>
1265	Chr19: 57048675-57051646	<i>ZFP28</i>	1310	Chr20: 61805254-61811867	<i>MIR124-3</i>
1266	Chr19: 58093739-58096764	<i>ZIK1</i>	1311	Chr20: 61883644-61887387	<i>NKAIN4, FLJ16779</i>
1267	Chr19: 58219189-58221517	<i>ZNF154</i>	1312	Chr20: 62101541-62104995	<i>KCNQ2</i>
1268	Chr19: 58237585-58240028	<i>ZNF671</i>	1313	Chr20: 62192966-62199985	<i>PRIC285</i>
1269	Chr19: 58457686-58460219	<i>ZNF256</i>	1314	Chr20: 62199085-62201320	<i>PRIC285</i>
1270	Chr19: 58608338-58610988	<i>ZSCAN18</i>	1315	Chr20: 62672792-62675131	<i>Non Coding Region</i>
1271	Chr19: 58950214-58953250	<i>ZNF132</i>	1316	Chr20: 62732463-62735322	<i>Non Coding Region</i>
1272	Chr20: 2538133-2540877	<i>TMC2</i>	1317	Chr21: 27010624-27013398	<i>JAM2</i>
1273	Chr20: 2779978-2782497	<i>CPXM1</i>	1318	Chr21: 27944010-27946646	<i>CYYR1</i>
1274	Chr20: 3051097-3054103	<i>OXT</i>	1319	Chr21: 28336856-28341237	<i>ADAMTS5</i>
1275	Chr20: 3062005-3065146	<i>AVP</i>	1320	Chr21: 32715044-32717485	<i>TIAM1</i>
1276	Chr20: 3661310-3664187	<i>ADAM33</i>	1321	Chr21: 34394128-34401245	<i>OLIG2</i>
1277	Chr20: 3712159-3714515	<i>HSPA12B</i>	1322	Chr21: 34441206-34445543	<i>OLIG1</i>
1278	Chr20: 4794773-4796999	<i>RASSF2</i>	1323	Chr21: 36420527-36422479	<i>RUNX1</i>
1279	Chr20: 4802013-4805146	<i>RASSF2</i>	1324	Chr21: 38078941-38082833	<i>SIM2</i>
1280	Chr20: 6031675-6034517	<i>LRRN4</i>	1325	Chr21: 39869594-39871814	<i>ERG</i>
1281	Chr20: 8111884-8114592	<i>PLCB1</i>	1326	Chr21: 45335990-45337816	<i>AGPAT3</i>
1282	Chr20: 10199088-10201384	<i>SNAP25</i>	1327	Chr21: 46350328-46353911	<i>Non Coding Region</i>
1283	Chr20: 21484932-21497714	<i>NKX2-2</i>	1328	Chr21: 47516651-47519999	<i>COL6A2</i>
1284	Chr20: 21682744-21685420	<i>Non Coding Region</i>	1329	Chr22: 18216056-18218226	<i>BID</i>
1285	Chr20: 23027403-23033218	<i>THBD</i>	1330	Chr22: 19752312-19756013	<i>TBX1</i>
1286	Chr20: 23065842-23068046	<i>CD93</i>	1331	Chr22: 20789638-20793665	<i>SCARF2</i>
1287	Chr20: 25057288-25059726	<i>VSX1</i>	1332	Chr22: 23482997-23485309	<i>RTDR1</i>
1288	Chr20: 25060761-25063928	<i>VSX1</i>	1333	Chr22: 24037489-24039557	<i>LOC91316, RGL4</i>
1289	Chr20: 30638908-30641786	<i>HCK</i>	1334	Chr22: 24818537-24821810	<i>ADORA2A</i>
1290	Chr20: 34358673-34361250	<i>Non Coding Region</i>	1335	Chr22: 25677576-25680273	<i>Non Coding Region</i>
1291	Chr20: 34892891-34896214	<i>Non Coding Region</i>	1336	Chr22: 28191793-28199592	<i>MN1</i>
1292	Chr20: 36011595-36014439	<i>SRC</i>	1337	Chr22: 30661898-30664076	<i>OSM</i>
1293	Chr20: 37351130-37358372	<i>SLC32A1</i>	1338	Chr22: 37881061-37883095	<i>MFNG</i>
1294	Chr20: 37433206-37436592	<i>PPP1R16B</i>	1339	Chr22: 37961481-37963819	<i>CDC42EP1</i>
1295	Chr20: 41816475-41820212	<i>PTPRT</i>	1340	Chr22: 39783354-39786104	<i>Non Coding Region</i>
1296	Chr20: 42874764-42877184	<i>GDAP1L1</i>	1341	Chr22: 39852323-39855065	<i>MGAT3</i>
1297	Chr20: 43437737-43440546	<i>RIMS4</i>	1342	Chr22: 44256942-44259612	<i>SULT4A1</i>
1298	Chr20: 44934932-44938310	<i>Non Coding Region</i>	1343	Chr22: 45063159-45066092	<i>PRR5</i>
1299	Chr20: 44940342-44942569	<i>Non Coding Region</i>	1344	Chr22: 45402036-45407372	<i>PHF21B</i>
1300	Chr20: 45141000-45143337	<i>ZNF334</i>	1345	Chr22: 46261065-46264747	<i>Non Coding Region</i>
1301	Chr20: 47933839-47936684	<i>Non Coding Region</i>	1346	Chr22: 47188484-47190707	<i>TBC1D22A</i>
1302	Chr20: 50720310-50722912	<i>ZFP64</i>	1347	Chr22: 50452056-50455137	<i>Non Coding Region</i>
1303	Chr20: 53090733-53093993	<i>DOK5</i>	1348	Chr22: 50622164-50626226	<i>TRABD</i>
1304	Chr20: 55499347-55502102	<i>Non Coding Region</i>	1349	ChrX: 6143120-6146906	<i>NLGN4X</i>
1305	Chr20: 55963916-55966271	<i>RBM38</i>			

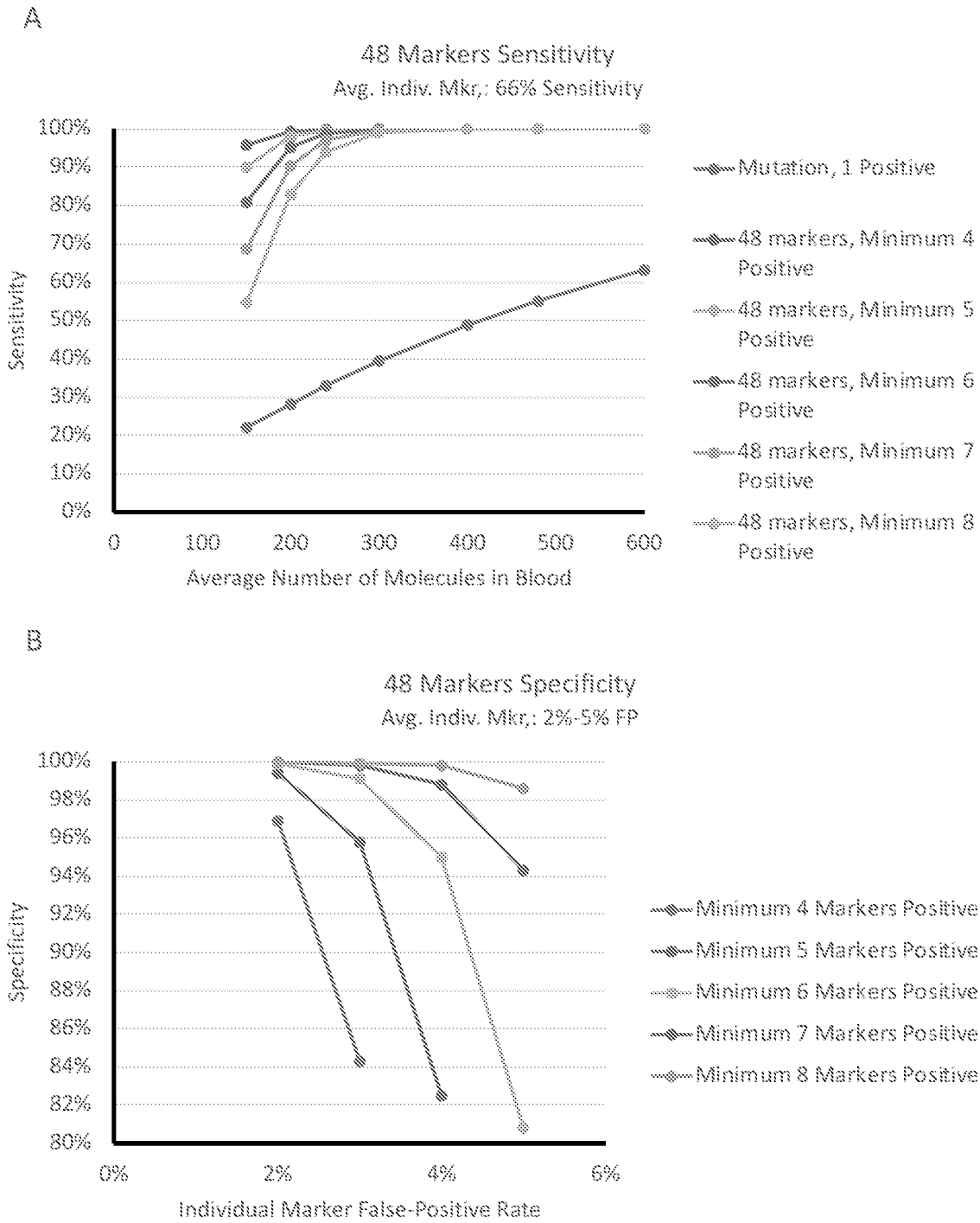
Figure 29P



Figures 30A-B



Figures 31A-B



Figures 32A-B

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12 Markers, Sensitivity & Specificity
Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

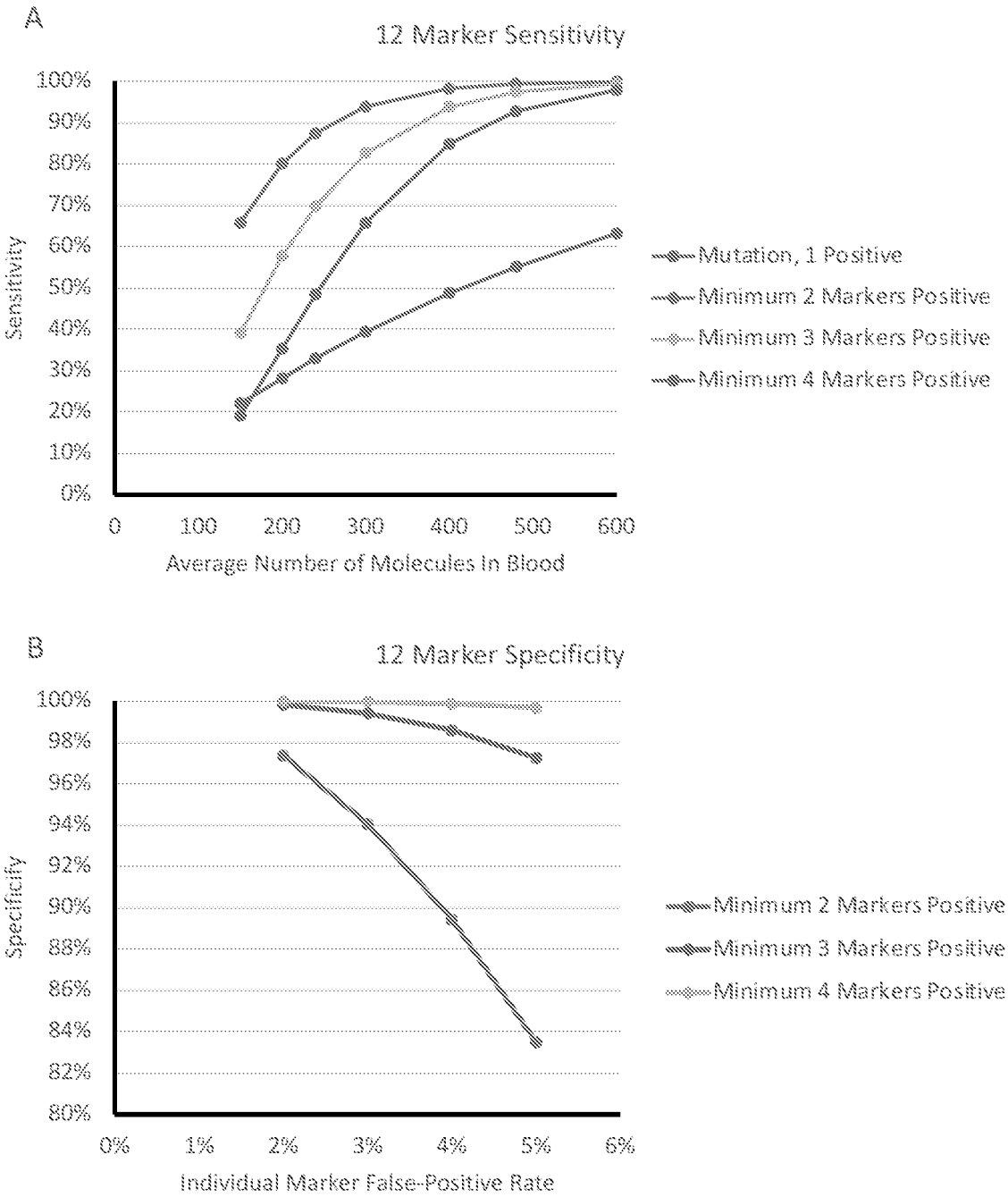


Figure 33A-B

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18 Markers, Sensitivity & Specificity

Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

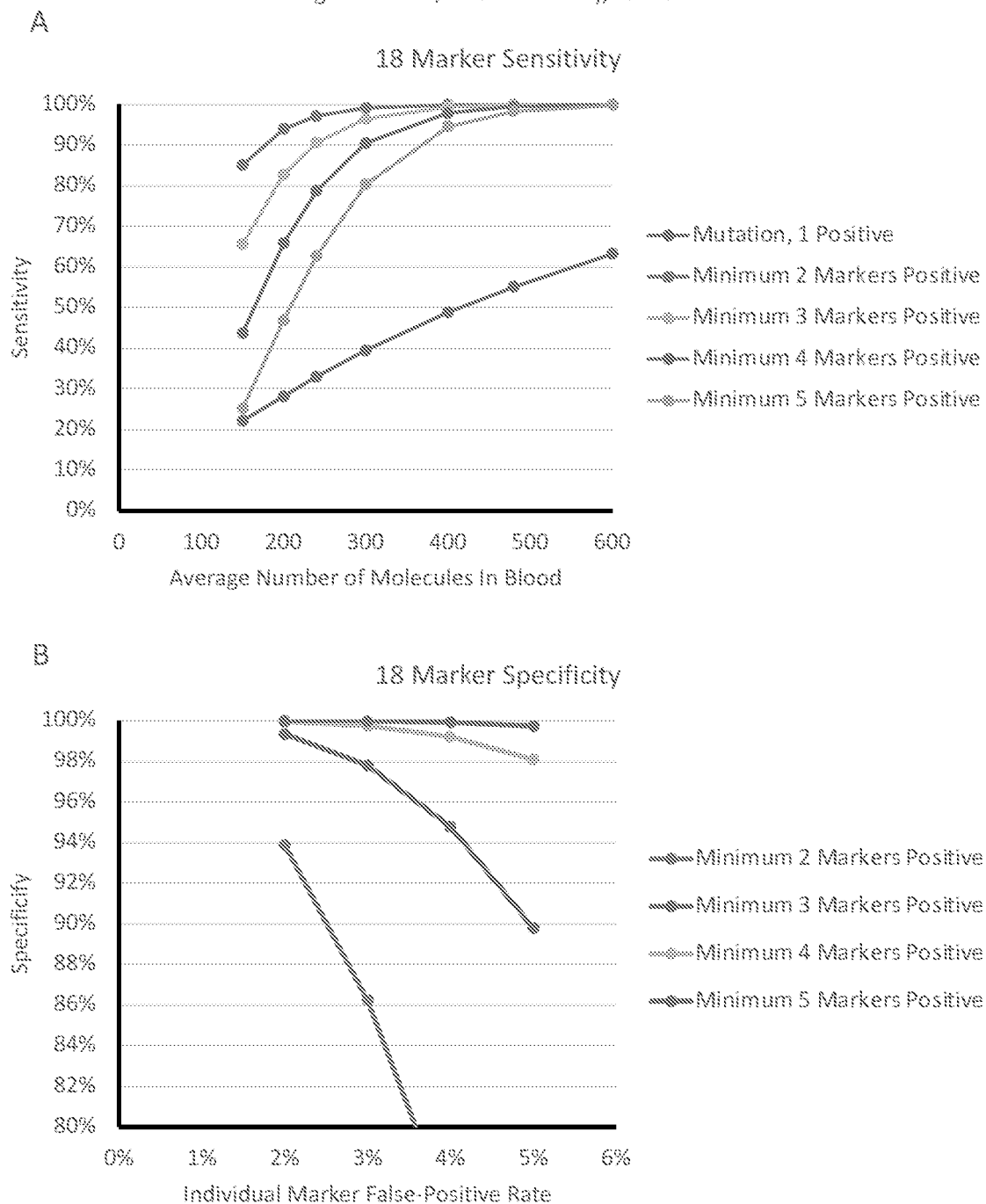


Figure 34A-B

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24 Markers, Sensitivity & Specificity
Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

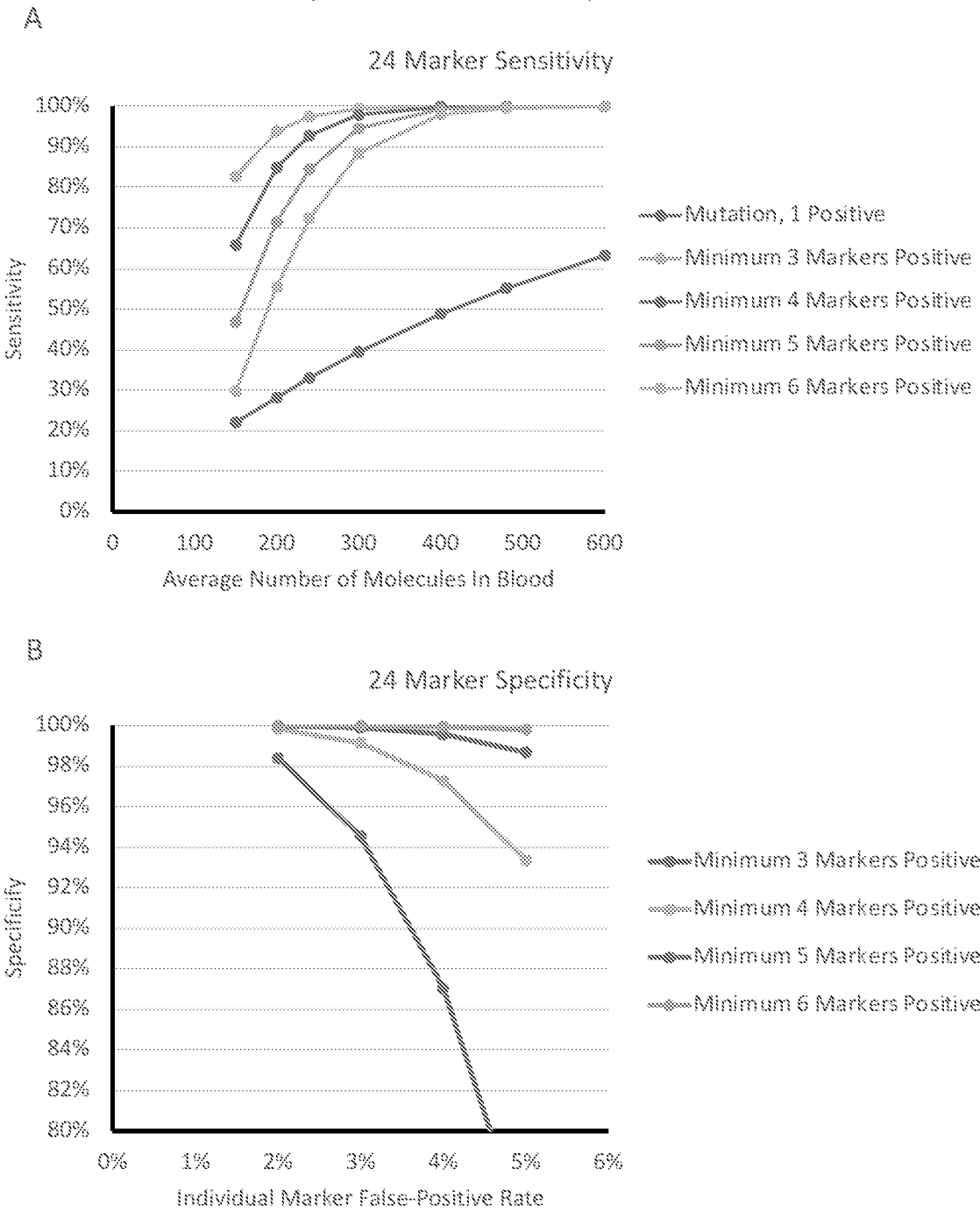


Figure 35A-B

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32 Markers, Sensitivity & Specificity
Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

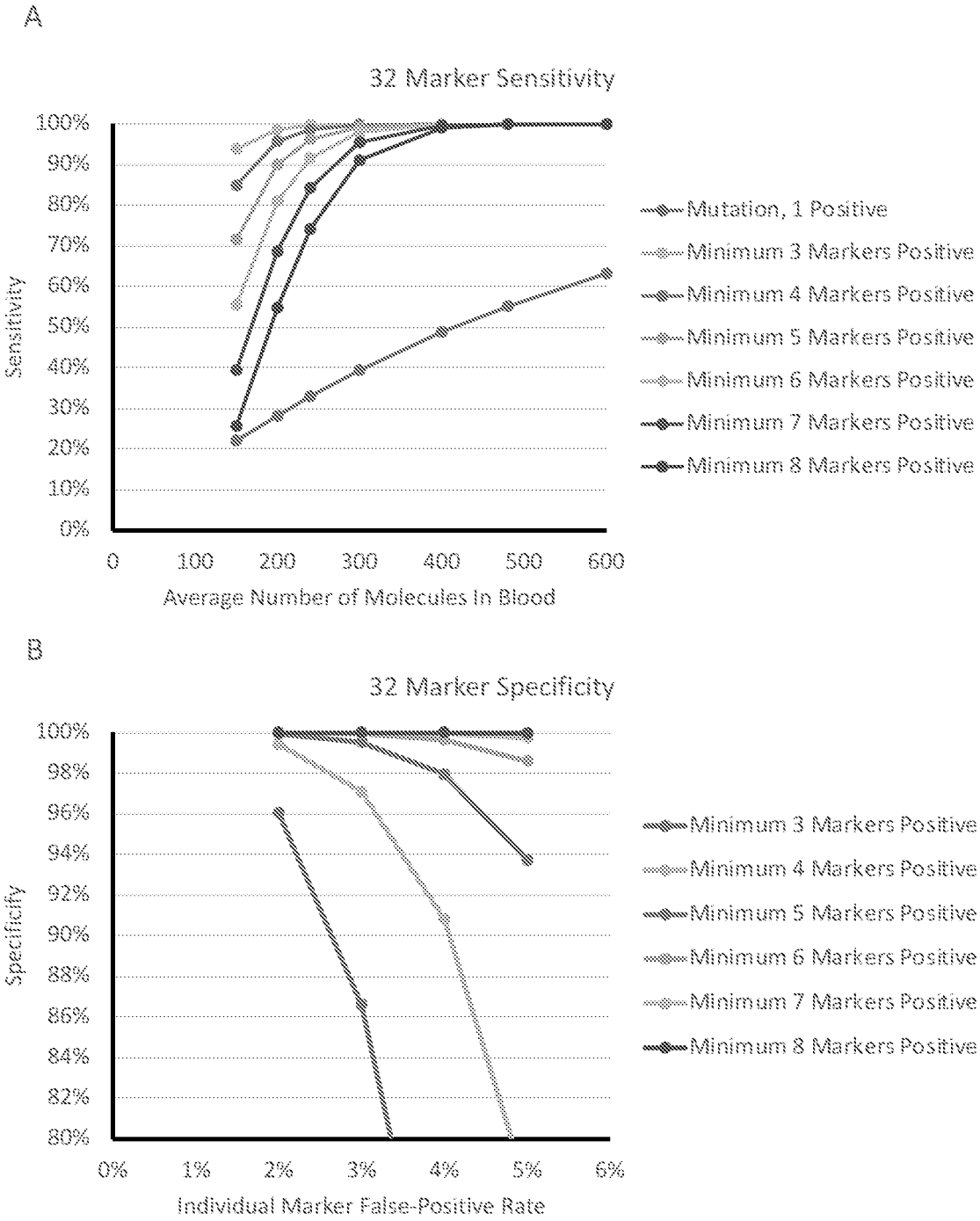


Figure 36A-B

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36 Markers, Sensitivity & Specificity
Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

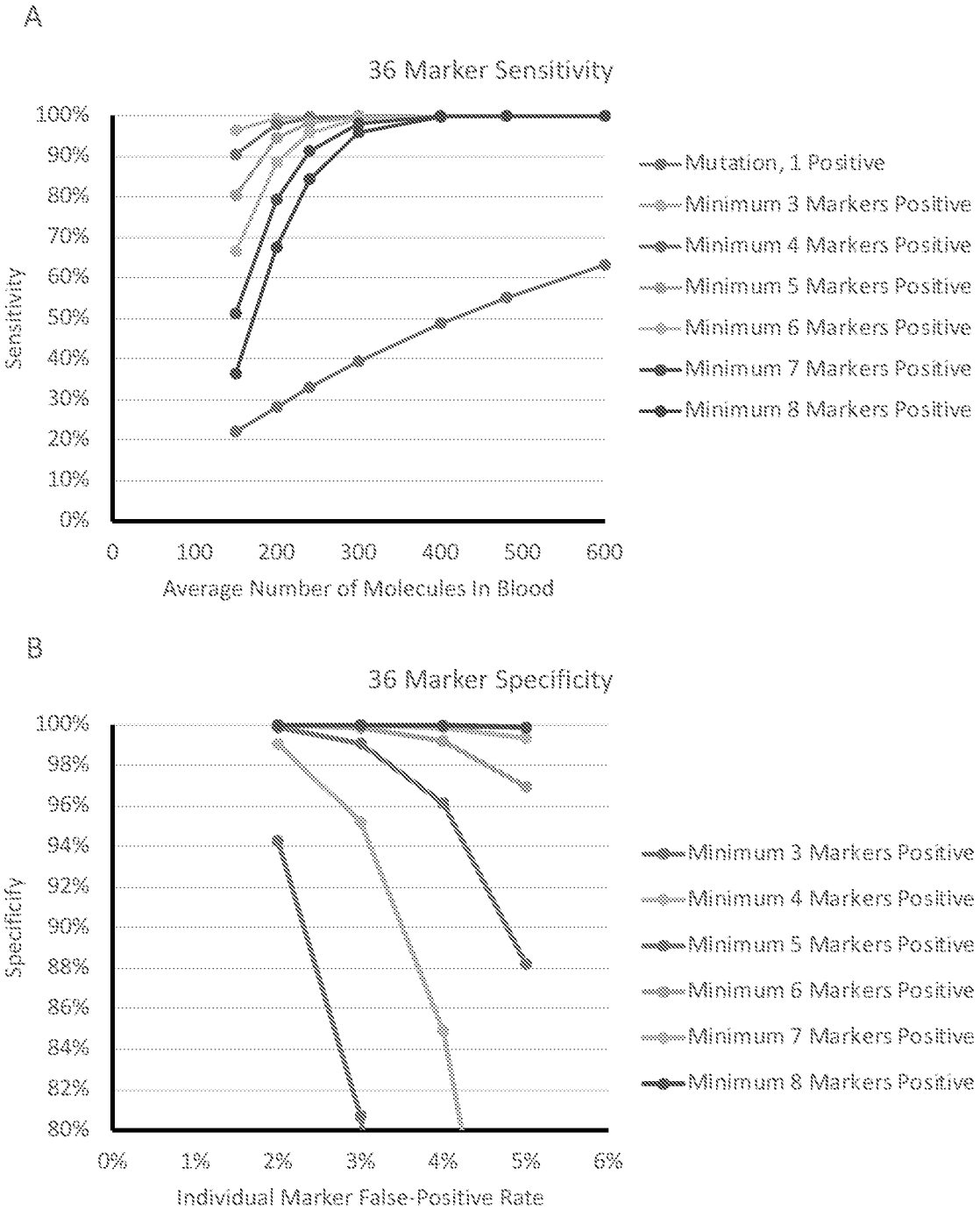


Figure 37A-B

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48 Markers, Sensitivity & Specificity
Avg. Indiv. Mkr.: 75% Sensitivity, 2%-5%FP

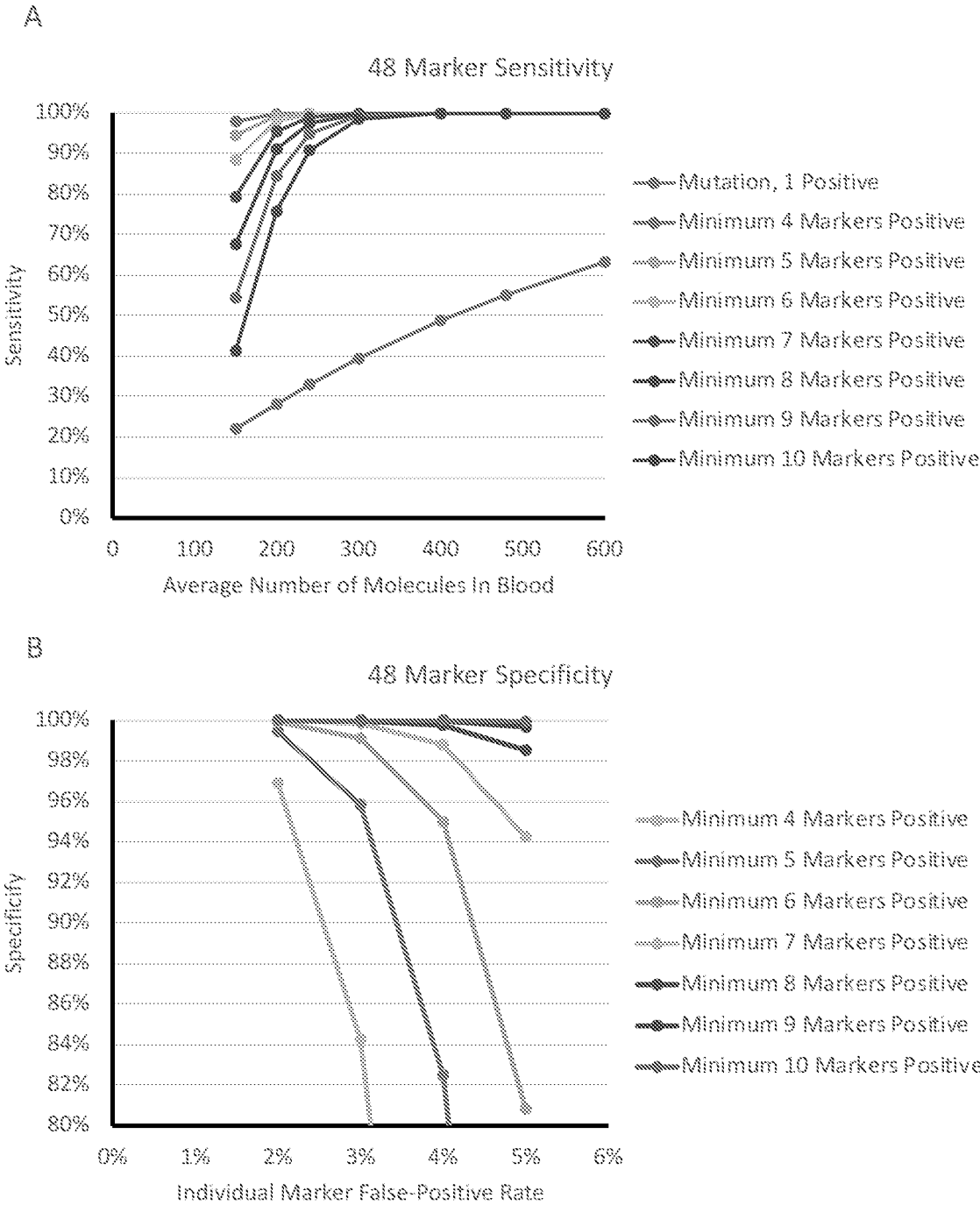


Figure 38A-B

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Solid tumors ncRNA markers

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1	RP11-54O7.18	chr1:1062208-1063288	ENSG00000273443.1
2	RP4-758J18.13	chr1:1409096-1410618	ENSG00000272455.1
3	SNORD99	chr1:28578749-28578822	ENSG00000221539.1
4	RP1-228H13.5	chr1:40464319-40466767	ENSG00000260920.2
5	CYP4A22-AS1	chr1:47096653-47179271	ENSG00000225506.2
6	RP11-196G18.22	chr1:149844498-149849024	ENSG00000261716.1
7	SNORA2	chr2:10155072-10155206	ENSG00000206647.1
8	RP11-443B20.1	chr2:24825610-24826717	ENSG00000271936.1
9	AC074117.10	chr2:27356246-27367622	ENSG00000234072.1
10	YEATS2-AS1	chr3:183806457-183810783	ENSG00000233885.6
11	RP11-480A16.1	chr3:195949188-195952695	ENSG00000260261.1
12	RP11-572O17.1	chr4:1712821-1713622	ENSG00000270195.1
13	LEF1-AS1	chr4:108167525-108256836	ENSG00000232021.5
14	RP11-138J23.1	chr5:104079911-104105403	ENSG00000251026.1
15	TFAP2A-AS1	chr6:10409340-10416446	ENSG00000229950.1
16	RP3-337H4.9	chr6:43519180-43519724	ENSG00000271754.1
17	RAET1K	chr6:149998019-150005157	ENSG00000218358.2
18	AC007128.1	chr7:8262264-8344516	ENSG00000229970.3
19	PMS2P3	chr7:75502930-75528148	ENSG00000127957.15
20	RNF139-AS1	chr8:124462485-124474576	ENSG00000245149.3
21	PVT1	chr8:127794533-128101253	ENSG00000249859.6
22	CTD-3065J16.9	chr8:144078002-144079265	ENSG00000255224.1
23	RP11-435O5.2	chr9:95414834-95426796	ENSG00000237857.2
24	RP11-152N13.16	chr10:73124573-73125532	ENSG00000272599.2
25	RP11-564D11.3	chr10:122879851-122898024	ENSG00000255624.2
26	CTD-2371O3.3	chr11:9459556-9460702	ENSG00000268403.2
27	RP11-540A21.2	chr11:9754770-9759533	ENSG00000245522.2
28	RPLP0P2	chr11:61615036-61639449	ENSG00000243742.4
29	DDX11-AS1	chr12:31020763-31073847	ENSG00000245614.3
30	RP11-680A11.5	chr12:53298655-53300314	ENSG00000257605.2
31	RP11-968A15.2	chr12:54262615-54279063	ENSG00000257596.1
32	MRPL40P1	chr12:67351436-67352039	ENSG00000256037.1
33	RP11-34F20.7	chr13:50125816-50128463	ENSG00000274270.1
34	RP11-93H24.3	chr13:52651305-52652279	ENSG00000273723.1
35	SNHG10	chr14:95532297-95534872	ENSG00000247092.5
36	ARHGAP11B	chr15:30624494-30772993	ENSG00000187951.9
37	RP11-932O9.10	chr15:30648797-30649529	ENSG00000269974.1
38	CTD-2574D22.4	chr16:29919634-29921905	ENSG00000260114.2
39	RP11-199F11.2	chr17:7685260-7686371	ENSG00000262251.1
40	UBE2SP1	chr17:15704232-15704900	ENSG00000233966.1
41	RP11-138I1.3	chr17:16440479-16440952	ENSG00000266651.1
42	UBE2SP2	chr17:18677261-18677757	ENSG00000224126.2
43	SNORD7	chr17:35573657-35573753	ENSG00000207297.1
44	RP5-890E16.2	chr17:48045141-48048073	ENSG00000263412.1
45	RP11-353N14.1	chr17:79800598-79802529	ENSG00000262768.2
46	RP5-836N17.4	chr20:32116171-32116629	ENSG00000275576.1
47	RP5-908M14.10	chr20:62402236-62405935	ENSG00000275437.1
48	LINC01311	chr22:19171395-19172839	ENSG00000260924.2
49	RP3-323A16.1	chr22:35160947-35215025	ENSG00000279184.1

Figure 39

Solid Tumor Exon RNA sequence markers

Order	Exon	Gene	Order	Exon	Gene
1	chr1:1455928-1455997:+	ATAD3A	46	chr1:156532926-156533104:-	IQGAP3
2	chr1:38167426-38167490:+	CDCA8	47	chr1:161142017-161142121:-	B4GALT3
3	chr1:38173994-38175389:+	CDCA8	48	chr1:161143395-161143867:-	B4GALT3
4	chr1:43630314-43630476:-	EBNA1BP2	49	chr1:163317553-163317728:+	NUF2
5	chr1:43824692-43825067:+	CDC20	50	chr1:163318735-163318870:+	NUF2
6	chr1:43825161-43825309:+	CDC20	51	chr1:165865427-165865569:+	UCK2
7	chr1:43825396-43825492:+	CDC20	52	chr1:165872419-165872516:+	UCK2
8	chr1:43825640-43825768:+	CDC20	53	chr1:165875158-165875206:+	UCK2
9	chr1:43825864-43826060:+	CDC20	54	chr1:165876921-165877337:+	UCK2,MIR3658
10	chr1:43826170-43826264:+	CDC20	55	chr1:173825804-173825879:+	DARS2
11	chr1:43826404-43826632:+	CDC20	56	chr1:197053258-197053556:-	ASPM
12	chr1:43827866-43827983:+	CDC20	57	chr1:197055933-197056102:-	ASPM
13	chr1:43828622-43828871:+	CDC20	58	chr1:197057250-197057562:-	ASPM
14	chr1:45228018-45228123:+	KIF2C	59	chr1:197059060-197059214:-	ASPM
15	chr1:45228217-45228330:+	KIF2C	60	chr1:197059326-197059518:-	ASPM
16	chr1:45232498-45232621:+	KIF2C	61	chr1:197059980-197060171:-	ASPM
17	chr1:45232769-45233436:+	KIF2C	62	chr1:202300786-202301088:-	UBE2T
18	chr1:46739810-46739888:+	RAD54L	63	chr1:202302138-202302221:-	UBE2T
19	chr1:46740210-46740389:+	RAD54L	64	chr1:203830727-203830871:+	SNRPE
20	chr1:47715811-47717594:-	STIL	65	chr1:203831310-203831350:+	SNRPE
21	chr1:47728575-47728788:-	STIL	66	chr1:203832791-203832853:+	SNRPE
22	chr1:47737748-47737913:-	STIL	67	chr1:211836115-211836994:-	NEK2
23	chr1:145764595-145765434:-	GPR89A	68	chr1:211842455-211842674:-	NEK2
24	chr1:154959942-154961487:+	FLAD1	69	chr1:211848726-211848967:-	NEK2
25	chr1:154962036-154962183:+	FLAD1	70	chr1:214817900-214820743:+	CENPF
26	chr1:155182176-155182358:+	MTX1	71	chr1:214822018-214822170:+	CENPF
27	chr1:155216997-155217746:-	FAM189B	72	chr1:214825053-214825229:+	CENPF
28	chr1:156281832-156282012:-	CCT3	73	chr1:214826171-214826332:+	CENPF
29	chr1:156286957-156287038:-	CCT3	74	chr1:214828584-214828746:+	CENPF
30	chr1:156287206-156287338:-	CCT3	75	chr1:214830276-214830752:+	CENPF
31	chr1:156495198-156496391:-	IQGAP3	76	chr1:214832193-214832371:+	CENPF
32	chr1:156497744-156497852:-	IQGAP3	77	chr1:214836934-214837912:+	CENPF
33	chr1:156498301-156498402:-	IQGAP3	78	chr1:225152181-225152311:+	DNAH14
34	chr1:156498708-156498874:-	IQGAP3	79	chr1:242048616-242048809:+	EXO1
35	chr1:156499897-156500109:-	IQGAP3	80	chr1:245927343-245927451:-	SMYD3
36	chr1:156500952-156501039:-	IQGAP3	81	chr1:247162650-247162742:-	ZNF695,ZNF670-ZNF695
37	chr1:156502772-156502898:-	IQGAP3	82	chr1:247163214-247163376:-	ZNF695,ZNF670-ZNF695
38	chr1:156503565-156503667:-	IQGAP3	83	chr1:247171208-247171355:-	ZNF695
39	chr1:156503801-156503933:-	IQGAP3	84	chr2:10729169-10729416:-	NOL10
40	chr1:156504293-156504525:-	IQGAP3	85	chr2:27014999-27015108:+	CENPA
41	chr1:156504955-156505039:-	IQGAP3	86	chr2:70516482-70516504:-	SNRPG
42	chr1:156506973-156507113:-	IQGAP3	87	chr2:111398884-111399041:-	BUB1
43	chr1:156509630-156509782:-	IQGAP3	88	chr2:113495444-113496625:-	CKAP2L
44	chr1:156510500-156510708:-	IQGAP3	89	chr2:169727402-169728065:-	SPC25
45	chr1:156521497-156521660:-	IQGAP3	90	chr2:169730095-169730193:-	SPC25

Figure 40A

Order	Exon	Gene	Order	Exon	Gene
91	chr2:169732582-169732686:-	SPC25	136	chr3:183963256-183963403:-	ALG3
92	chr2:169733748-169733894:-	SPC25	137	chr3:183967445-183967678:+	ECE2
93	chr2:169745736-169745801:-	SPC25	138	chr3:183975261-183975544:+	ECE2
94	chr2:169745897-169746043:-	SPC25	139	chr3:183976076-183976546:+	ECE2
95	chr2:169746828-169746944:-	SPC25	140	chr3:184082754-184082837:+	POLR2H
96	chr2:198351310-198351922:-	HSPD1	141	chr3:184082921-184083014:+	POLR2H
97	chr2:198352582-198352760:-	HSPD1	142	chr3:184084505-184084588:+	POLR2H
98	chr2:198353041-198353215:-	HSPD1	143	chr3:184085965-184086363:+	POLR2H
99	chr2:198353726-198353971:-	HSPD1	144	chr3:186301654-186301765:+	DNAJB11
100	chr2:198364721-198365163:+	HSPE1-MOB4,HSPE1	145	chr3:186302219-186302378:+	DNAJB11
101	chr2:198367763-198367852:+	HSPE1	146	chr3:196311004-196315928:+	FBXO45
102	chr2:201440034-201440184:+	SGOL2	147	chr4:1976363-1976486:+	SCARNA22
103	chr2:203748332-203748464:-	WDR12	148	chr4:104035612-104035709:-	CENPE
104	chr2:234745487-234746298:-	HJURP	149	chr4:104037734-104037846:-	CENPE
105	chr2:234749255-234750851:-	HJURP	150	chr4:104053850-104054053:-	CENPE
106	chr2:234756043-234756107:-	HJURP	151	chr4:122739199-122739332:-	CCNA2
107	chr2:234763030-234763212:-	HJURP	152	chr4:154318371-154318485:+	MND1
108	chr2:242625184-242625292:-	DTYMK	153	chr5:896780-896909:+	TRIP13
109	chr3:48198668-48200575:-	CDC25A	154	chr5:901456-901546:+	TRIP13
110	chr3:48673902-48675665:-	CELSR3	155	chr5:904263-904335:+	TRIP13
111	chr3:48680987-48681363:-	CELSR3	156	chr5:907245-907308:+	TRIP13
112	chr3:48685274-48685429:-	CELSR3	157	chr5:908103-908189:+	TRIP13
113	chr3:52109250-52110001:-	POC1A	158	chr5:908470-909047:+	TRIP13
114	chr3:52130585-52130728:-	POC1A	159	chr5:911958-912111:+	TRIP13
115	chr3:52156395-52156493:-	POC1A	160	chr5:914580-914692:+	TRIP13
116	chr3:52159129-52159197:-	POC1A	161	chr5:916019-916088:+	TRIP13
117	chr3:52172185-52172318:-	POC1A	162	chr5:917123-918158:+	TRIP13
118	chr3:52179862-52179977:-	POC1A	163	chr5:1320731-1320846:-	CLPTM1L
119	chr3:52183226-52183405:-	POC1A	164	chr5:1798500-1799061:-	MRPL36
120	chr3:122078437-122078766:-	CCDC58	165	chr5:10260904-10261023:+	CCT5
121	chr3:122081815-122081874:-	CCDC58	166	chr5:10261672-10262312:+	CCT5
122	chr3:122087023-122087169:-	CCDC58	167	chr5:10263246-10263426:+	CCT5
123	chr3:122090522-122090647:-	CCDC58	168	chr5:10264768-10266500:+	CCT5
124	chr3:124462762-124464038:+	UMPS	169	chr5:34925331-34925785:+	BRX1
125	chr3:127816143-127816341:-	RUVBL1	170	chr5:59892740-59893741:-	DEPDC1B
126	chr3:139077586-139077654:-	COPB2	171	chr5:59894902-59895087:-	DEPDC1B
127	chr3:155652705-155652835:+	GMPS	172	chr5:59899218-59899394:-	DEPDC1B
128	chr3:155654127-155654299:+	GMPS	173	chr5:68467097-68467279:+	CCNB1
129	chr3:172537938-172539263:+	ECT2	174	chr5:68470078-68470236:+	CCNB1
130	chr3:183960117-183960464:-	ALG3	175	chr5:68470704-68470940:+	CCNB1
131	chr3:183960601-183960745:-	ALG3	176	chr5:68471224-68471364:+	CCNB1
132	chr3:183961342-183961418:-	ALG3	177	chr5:68473066-68473183:+	CCNB1
133	chr3:183961579-183961784:-	ALG3	178	chr5:68473351-68474066:+	CCNB1
134	chr3:183962389-183962509:-	ALG3	179	chr5:137515349-137515534:+	KIF20A
135	chr3:183962566-183963146:-	ALG3	180	chr5:137517298-137517417:+	KIF20A

Figure 40B

Order	Exon	Gene	Order	Exon	Gene
181	chr5:137518012-137518150:+	KIF20A	226	chr7:5528809-5529843:-	
182	chr5:137518275-137518462:+	KIF20A	227	chr7:6061880-6064432:-	EIF2AK1
183	chr5:137518550-137518679:+	KIF20A	228	chr7:44154287-44154544:-	POLD2
184	chr5:137518858-137519052:+	KIF20A	229	chr7:44154894-44154995:-	POLD2
185	chr5:137519159-137519270:+	KIF20A	230	chr7:44155365-44155492:-	POLD2
186	chr5:137519377-137519445:+	KIF20A	231	chr7:44155714-44155871:-	POLD2
187	chr5:137519651-137519794:+	KIF20A	232	chr7:44156029-44156109:-	POLD2
188	chr5:137519928-137520093:+	KIF20A	233	chr7:54823472-54823574:-	SEC61G
189	chr5:137520201-137520365:+	KIF20A	234	chr7:54825188-54825287:-	SEC61G
190	chr5:137520496-137520635:+	KIF20A	235	chr7:56020872-56021011:+	MRPS17
191	chr5:137521201-137521399:+	KIF20A	236	chr7:56022602-56023031:+	MRPS17
192	chr5:137521650-137521741:+	KIF20A	237	chr7:72983279-72985302:-	TBL2
193	chr5:137521983-137522120:+	KIF20A	238	chr7:76057955-76058950:+	ZP3
194	chr5:137522785-137523403:+	KIF20A	239	chr7:76062787-76062964:+	ZP3
195	chr5:137620959-137621530:-	CDC25C	240	chr7:96324110-96324203:-	SHFM1
196	chr5:137621711-137621822:-	CDC25C	241	chr7:96339000-96339203:-	SHFM1
197	chr5:137622186-137622319:-	CDC25C	242	chr7:97923386-97923423:-	BAIAP2L1
198	chr5:137622858-137622956:-	CDC25C	243	chr7:97933508-97933688:-	BAIAP2L1
199	chr5:137625190-137625252:-	CDC25C	244	chr7:97935751-97935828:-	BAIAP2L1
200	chr5:137626328-137626429:-	CDC25C	245	chr7:97937001-97937208:-	BAIAP2L1
201	chr5:137627659-137627805:-	CDC25C	246	chr7:97939757-97939904:-	BAIAP2L1
202	chr5:137666676-137666907:-	CDC25C	247	chr7:100304444-100305122:+	POP7
203	chr5:137667284-137667516:-	CDC25C	248	chr7:100797686-100797798:+	AP1S1
204	chr5:159849215-159849410:+	PTTG1	249	chr7:100802340-100802477:+	AP1S1
205	chr5:159849716-159849900:+	PTTG1	250	chr7:100803800-100804556:+	AP1S1
206	chr5:159851244-159851337:+	PTTG1	251	chr7:158439152-158439255:-	NCAPG2
207	chr5:159854722-159854880:+	PTTG1	252	chr7:158443524-158443664:-	NCAPG2
208	chr5:162898191-162898277:+	HMMR	253	chr8:74872000-74872053:-	TCEB1
209	chr5:162918118-162918949:+	HMMR	254	chr8:104442840-104442917:+	DCAF13
210	chr5:170833401-170833729:+	NPM1	255	chr8:104453683-104453846:+	DCAF13
211	chr5:176022803-176026878:-	GPRIN1	256	chr8:144679049-144679310:-	EEF1D
212	chr6:10414300-10415284:+	LOC100130275	257	chr8:144686083-144688052:-	PYCRL
213	chr6:33371506-33371906:+	KIFC1	258	chr8:144689123-144689302:-	PYCRL
214	chr6:33374369-33374442:+	KIFC1	259	chr8:144690232-144690296:-	PYCRL
215	chr6:33374577-33374652:+	KIFC1	260	chr8:144806104-144807177:-	FAM83H
216	chr6:33377423-33377697:+	KIFC1	261	chr8:144807180-144807326:-	FAM83H
217	chr6:34393573-34393792:-	RPS10	262	chr8:144826030-144828507:+	LOC100128338
218	chr6:41899134-41899294:+	BYSL	263	chr8:145267897-145268366:+	HEATR7A
219	chr6:80746192-80746316:+	TTK	264	chr8:145582844-145583083:+	SLC52A2
220	chr6:80749413-80749589:+	TTK	265	chr8:145654165-145654719:-	TONSL
221	chr6:80749913-80749997:+	TTK	266	chr8:145655787-145655920:-	TONSL
222	chr6:80750323-80750420:+	TTK	267	chr8:145656461-145656534:-	TONSL
223	chr6:80751836-80752237:+	TTK	268	chr8:145660400-145660553:-	TONSL
224	chr7:1606970-1607486:-	PSMG3	269	chr8:145660551-145660823:+	
225	chr7:1608760-1609629:-	PSMG3	270	chr8:145661041-145661801:-	TONSL

Figure 40C

Order	Exon	Gene	Order	Exon	Gene
271	chr8:145662134-145662378:+		316	chr12:49717387-49717535:+	TROAP
272	chr8:145662140-145662303:-	TONSL	317	chr12:49717628-49717820:+	TROAP
273	chr8:145665734-145665859:-	TONSL	318	chr12:49717938-49718169:+	TROAP
274	chr8:145666101-145666253:-	TONSL	319	chr12:49719530-49719667:+	TROAP
275	chr8:145666349-145666494:-	TONSL	320	chr12:49719859-49719941:+	TROAP
276	chr9:36633099-36633197:+	MELK	321	chr12:49720992-49721113:+	TROAP
277	chr9:36642994-36643080:+	MELK	322	chr12:49722710-49722838:+	TROAP
278	chr9:36651743-36651874:+	MELK	323	chr12:49723928-49725190:+	TROAP
279	chr9:36657238-36657360:+	MELK	324	chr12:50382945-50384126:-	RACGAP1
280	chr9:36663547-36665578:+	MELK	325	chr12:56504966-56505093:+	PA2G4
281	chr9:36669307-36669403:+	MELK	326	chr12:56704742-56704838:-	CNPY2
282	chr9:36670995-36671163:+	MELK	327	chr12:56704995-56705198:-	CNPY2
283	chr9:36674831-36674934:+	MELK	328	chr12:112847215-112847443:-	RPL6
284	chr9:36677157-36677678:+	MELK	329	chr12:122690865-122692083:+	B3GNT4
285	chr9:91926113-91926266:+	CKS2	330	chr13:21727735-21729289:-	SKA3
286	chr9:140483111-140483170:-	ZMYND19	331	chr13:21729832-21729950:-	SKA3
287	chr9:140484665-140484937:-	ZMYND19	332	chr13:21732061-21732264:-	SKA3
288	chr10:58118317-58118220:-	ZWINT	333	chr13:21735929-21736014:-	SKA3
289	chr10:58118317-58118485:-	ZWINT	334	chr13:21742127-21742538:-	SKA3
290	chr10:58118566-58118708:-	ZWINT	335	chr13:21746478-21746643:-	SKA3
291	chr10:62538220-62538426:+	CDK1	336	chr13:100634319-100635393:+	ZIC2
292	chr10:62553635-62554604:+	CDK1	337	chr13:100637200-100637363:+	ZIC2
293	chr10:94410158-94410274:+	KIF11	338	chr13:100637577-100639018:+	ZIC2
294	chr10:95287707-95288847:+	CEP55	339	chr14:50116903-50117159:-	POLE2
295	chr10:129899522-129899965:-	MKI67	340	chr14:54875463-54875507:+	CDKN3
296	chr11:6701616-6703633:-	MRPL17	341	chr14:54878202-54878424:+	CDKN3
297	chr11:6703978-6704046:-	MRPL17	342	chr14:54882617-54882648:+	CDKN3
298	chr11:62623518-62623853:+	SLC3A2	343	chr14:54884566-54884669:+	CDKN3
299	chr11:64844927-64846659:-	CDCA5	344	chr14:54886710-54886932:+	CDKN3
300	chr11:68517658-68518167:-	MTL5	345	chr14:55614836-55615191:-	DLGAP5
301	chr11:77811988-77812241:-	ALG8	346	chr14:55617517-55617566:-	DLGAP5
302	chr12:2966850-2968829:-	FOXMI	347	chr14:55618413-55618659:-	DLGAP5
303	chr12:2973486-2973661:-	FOXMI	348	chr14:55619308-55619365:-	DLGAP5
304	chr12:2973849-2973921:-	FOXMI	349	chr14:55621335-55621524:-	DLGAP5
305	chr12:2974521-2974565:-	FOXMI	350	chr14:55625240-55625459:-	DLGAP5
306	chr12:2975559-2975687:-	FOXMI	351	chr14:55629689-55629793:-	DLGAP5
307	chr12:2977729-2977920:-	FOXMI	352	chr14:55636117-55636277:-	DLGAP5
308	chr12:2981262-2981413:-	FOXMI	353	chr14:55637420-55637505:-	DLGAP5
309	chr12:2983143-2983691:-	FOXMI	354	chr14:55642064-55642190:-	DLGAP5
310	chr12:6957972-6958362:-	CDCA3	355	chr14:55642612-55642736:-	DLGAP5
311	chr12:6958487-6958593:-	CDCA3	356	chr15:40477366-40477580:+	BUB1B
312	chr12:6958729-6959022:-	CDCA3	357	chr15:40477752-40477843:+	BUB1B
313	chr12:6959631-6959760:-	CDCA3	358	chr15:40488746-40488975:+	BUB1B
314	chr12:6959997-6960173:-	CDCA3	359	chr15:40685394-40686488:+	C15orf23
315	chr12:49716971-49717132:+	TROAP	360	chr15:41021703-41021832:+	RAD51

Figure 40D

Order	Exon	Gene	Order	Exon	Gene
361	chr15:41022051-41022172:+	RAD51	406	chr16:53734551-53734642:-	RPGRIP1L
362	chr15:41023253-41024354:+	RAD51	407	chr16:81045535-81045715:+	CENPN
363	chr15:41601468-41602047:-	OIP5	408	chr16:81047741-81047786:+	CENPN
364	chr15:44058926-44059108:+	PDIA3	409	chr16:81050931-81050990:+	CENPN
365	chr15:44060687-44060795:+	PDIA3	410	chr16:81051363-81051439:+	CENPN
366	chr15:44062448-44062527:+	PDIA3	411	chr16:81053705-81053881:+	CENPN
367	chr15:44062721-44062778:+	PDIA3	412	chr16:81056360-81056486:+	CENPN
368	chr15:44063303-44064803:+	PDIA3	413	chr16:88874523-88875665:+	CDT1
369	chr15:59397320-59397491:+	CCNB2	414	chr17:6348357-6348724:+	FAM64A
370	chr15:59399521-59399649:+	CCNB2	415	chr17:26905391-26905546:-	SPAG5
371	chr15:59406917-59407075:+	CCNB2	416	chr17:26905690-26905770:-	SPAG5
372	chr15:59409427-59409567:+	CCNB2	417	chr17:26910871-26911004:-	SPAG5
373	chr15:59415716-59415826:+	CCNB2	418	chr17:26911168-26911270:-	SPAG5
374	chr15:64657213-64658274:-	KIAA0101	419	chr17:26911351-26911498:-	SPAG5
375	chr15:64668942-64669104:-	KIAA0101	420	chr17:26911670-26911763:-	SPAG5
376	chr15:64673157-64673237:-	KIAA0101	421	chr17:26912337-26912429:-	SPAG5
377	chr15:89858513-89858620:+	FANCI	422	chr17:26912882-26913016:-	SPAG5
378	chr15:91509274-91510432:-	PRC1	423	chr17:26913108-26913200:-	SPAG5
379	chr15:91512677-91512853:-	PRC1	424	chr17:34858937-34859040:-	MYO19
380	chr15:91513634-91513744:-	PRC1	425	chr17:34869472-34869568:-	MYO19
381	chr15:91517366-91517476:-	PRC1	426	chr17:38152436-38152591:+	PSMD3
382	chr15:91517815-91517961:-	PRC1	427	chr17:38153583-38153633:+	PSMD3
383	chr15:91519906-91520001:-	PRC1	428	chr17:38457080-38457282:+	CDC6
384	chr15:91522388-91522524:-	PRC1	429	chr17:38457720-38457860:+	CDC6
385	chr15:91523472-91523619:-	PRC1	430	chr17:38544798-38545899:-	TOP2A
386	chr15:91537637-91537804:-	PRC1	431	chr17:38546217-38546416:-	TOP2A
387	chr16:101558-101645:-	POLR3K	432	chr17:38547758-38547892:-	TOP2A
388	chr16:103476-103625:-	POLR3K	433	chr17:38552535-38552717:-	TOP2A
389	chr16:2510817-2511225:+	C16orf59	434	chr17:38554810-38554893:-	TOP2A
390	chr16:3022794-3023065:-	PKMYT1	435	chr17:49230920-49231023:+	NME1-NME2,NME1
391	chr16:3024551-3024657:-	PKMYT1	436	chr17:76181136-76181246:-	TK1
392	chr16:3026665-3027032:-	PKMYT1	437	chr17:76210277-76210508:+	BIRC5
393	chr16:3029649-3029937:-	PKMYT1	438	chr17:76210321-76210508:-	
394	chr16:3030287-3030474:-	PKMYT1	439	chr17:76210761-76210870:-	
395	chr16:8941581-8943512:+	PMM2	440	chr17:76210761-76211064:+	BIRC5
396	chr16:23690201-23690661:+	PLK1	441	chr17:76212745-76212862:+	BIRC5
397	chr16:23691405-23691573:+	PLK1	442	chr17:76212745-76212862:-	
398	chr16:23692235-23692379:+	PLK1	443	chr17:76219545-76220783:-	
399	chr16:23693385-23693478:+	PLK1	444	chr17:76219546-76221715:+	BIRC5
400	chr16:23695191-23695410:+	PLK1	445	chr18:2578926-2579028:+	NDC80
401	chr16:23698790-23698945:+	PLK1	446	chr18:19192260-19192404:+	SNRPD1
402	chr16:23699989-23700066:+	PLK1	447	chr18:19202686-19202762:+	SNRPD1
403	chr16:23700559-23700713:+	PLK1	448	chr19:11257831-11257965:-	SPC24
404	chr16:23700815-23700997:+	PLK1	449	chr19:11258494-11258570:-	SPC24
405	chr16:23701181-23701688:+	PLK1	450	chr19:11258689-11258793:-	SPC24

Figure 40E

Order	Exon	Gene	Order	Exon	Gene
451	chr19:11259770-11260027:-	SPC24	496	chr20:44444493-44444552:+	UBE2C
452	chr19:12921131-12921218:+	RNASEH2A	497	chr20:44445348-44445594:+	UBE2C
453	chr19:18423414-18423512:-	LSM4	498	chr20:54944445-54945396:-	AURKA
454	chr19:19035042-19035117:+	DDX49	499	chr20:54945541-54945715:-	AURKA
455	chr19:33073101-33073138:+	PDCD5	500	chr20:54948464-54948612:-	AURKA
456	chr19:33075856-33075917:+	PDCD5	501	chr22:19471385-19471528:+	CDC45
457	chr19:34900066-34900415:+	PDCD2L	502	chr22:19486624-19486674:+	CDC45
458	chr19:34912424-34912572:+	PDCD2L	503	chr22:19492885-19493004:+	CDC45
459	chr19:34916895-34917070:+	PDCD2L	504	chr22:19494909-19495040:+	CDC45
460	chr19:36581347-36581422:+	WDR62	505	chr22:19495289-19495387:+	CDC45
461	chr19:39422973-39423657:+	MRPS12	506	chr22:19496053-19496214:+	CDC45
462	chr19:45395650-45395717:+	TOMM40	507	chr22:19502272-19502571:+	CDC45
463	chr19:45396094-45396186:+	TOMM40	508	chr22:19504050-19504168:+	CDC45
464	chr19:45397037-45397138:+	TOMM40	509	chr22:19504337-19504416:+	CDC45
465	chr19:45397218-45397323:+	TOMM40	510	chr22:19506367-19506432:+	CDC45
466	chr19:45403987-45404109:+	TOMM40	511	chr22:19508004-19508134:+	CDC45
467	chr19:46192491-46192605:-	SNRPD2	512	chr22:41652025-41652109:-	RANGAP1
468	chr19:55912650-55913130:-	UBE2S	513	chr22:41652195-41652294:-	RANGAP1
469	chr19:55915656-55915846:-	UBE2S	514	chr22:41676937-41678518:-	RANGAP1
470	chr19:55918183-55918330:-	UBE2S	515	chr22:50927469-50927578:+	MIOX
471	chr19:55918955-55919325:-	UBE2S	516	chrX:69521750-69521916:+	KIF4A
472	chr20:25206135-25207360:+	ENTPD6	517	chrX:69572450-69572506:+	KIF4A
473	chr20:30326904-30327424:+	TPX2	518	chrX:69573472-69573657:+	KIF4A
474	chr20:30345210-30345385:+	TPX2	519	chrX:69594001-69594104:+	KIF4A
475	chr20:30347860-30347982:+	TPX2	520	chrX:69595054-69595198:+	KIF4A
476	chr20:30354359-30354485:+	TPX2	521	chrX:69595950-69596068:+	KIF4A
477	chr20:30358146-30358274:+	TPX2	522	chrX:69606468-69606551:+	KIF4A
478	chr20:30359363-30359485:+	TPX2	523	chrX:69607034-69607147:+	KIF4A
479	chr20:30363670-30363791:+	TPX2	524	chrX:69615521-69615676:+	KIF4A
480	chr20:30365290-30365441:+	TPX2	525	chrX:69615799-69615899:+	KIF4A
481	chr20:30366616-30366787:+	TPX2	526	chrX:69622416-69622545:+	KIF4A
482	chr20:30370052-30370193:+	TPX2	527	chrX:69623714-69623884:+	KIF4A
483	chr20:30371508-30371724:+	TPX2	528	chrX:69624565-69624672:+	KIF4A
484	chr20:30380538-30380633:+	TPX2	529	chrX:69625678-69625755:+	KIF4A
485	chr20:30381651-30381827:+	TPX2	530	chrX:69626109-69626204:+	KIF4A
486	chr20:30382205-30382351:+	TPX2	531	chrX:69626743-69626925:+	KIF4A
487	chr20:30385207-30385318:+	TPX2	532	chrX:69637738-69637854:+	KIF4A
488	chr20:30386168-30386355:+	TPX2	533	chrX:69639511-69639633:+	KIF4A
489	chr20:30388773-30389603:+	TPX2	534	chrX:69639912-69640735:+	KIF4A
490	chr20:30753098-30755061:+	TM9SF4	535	chrX:119744866-119744933:+	MCTS1
491	chr20:32263293-32264785:-	E2F1	536	chrX:150151893-150152064:+	
492	chr20:32676117-32677711:-	EIF2S2	537	chrX:48760889-48762759:-	
493	chr20:44441255-44442103:+	UBE2C			
494	chr20:44443023-44443109:+	UBE2C			
495	chr20:44444029-44444384:+	UBE2C			

Figure 40F

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Solid Tumor mRNA protein coding markers

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
1	ACLY	17q21.2	ATP citrate lyase	P53396
2	ACTL6A	3q26.33	actin-like 6A	O96019
3	ACYPI	14q24.3	acylphosphatase 1, erythrocyte (common) type	P07311
4	ANLN	7p15-p14	anillin, actin binding protein	Q9NQW6
5	AP1S1	7q22.1	adaptor-related protein complex 1, sigma 1 subunit	P61966
6	ARHGAP11A	15q13.3	Rho GTPase activating protein 11A	Q6P4F7
7	ASF1B	19p13.12	anti-silencing function 1B histone chaperone	Q9NVP2
8	ASPM	1q31	asp (abnormal spindle) homolog, microcephaly associated (Drosophila)	Q8IZT6
9	ATAD3B	1p36.33	ATPase family, AAA domain containing 3B	Q5T9A4
10	ATXN2L	16p11	ataxin 2-like	Q8WWM7
11	AURKA	20q13	aurora kinase A	O14965
12	AURKB	17p13.1	aurora kinase B	AIM1
13	AZI1	17q25.3	5-azacytidine induced 1	Q9UPN4
14	B3GNT4	12q24	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 4	Q9C0J1
15	BIRC5	17q25.3	baculoviral IAP repeat containing 5	O15392
16	BLM	15q26.1	Bloom syndrome, RecQ helicase-like	P54132
17	BOLA2	16p11.2	bolA family member 2	BOLA2B
18	BOP1	8q24.3	block of proliferation 1	Q14137
19	BRX1	5p13.2	BRX1, biogenesis of ribosomes, homolog (S. cerevisiae)	Q8TDN6
20	BUB1	2q13	BUB1 mitotic checkpoint serine/threonine kinase	O43683
21	BUB1B	15q15	BUB1 mitotic checkpoint serine/threonine kinase B	O60566
22	BUB3	10q24	BUB3 mitotic checkpoint protein	O43684
23	BYSL	6p21.1	bystin-like	Q13895
24	C15orf42/TICRR	15q26.1	TOPBP1 interacting checkpoint and replication regulator	Q7Z2Z1
25	C16orf59	16p13.3	chromosome 16 open reading frame 59	Q7L2K0
26	C16orf88/KNOP1	16p12.3	lysine rich nucleolar protein 1	Q1ED39
27	C19orf40	19q13.11	chromosome 19 open reading frame 40	Q9BTP7
28	C19orf48	19q13.33	chromosome 19 open reading frame 48	Q6RUI8
29	C1orf159	1p36.33	chromosome 1 open reading frame 159	Q96HA4
30	C1orf35	1q42.13	chromosome 1 open reading frame 35	Q9BU76
31	C20orf20/MRGBP	20q13.33	MRG domain binding protein	Q9NV56
32	C4orf21	4q25	chromosome 4 open reading frame 21	Q86YA3
33	C4orf46	4q32.1	chromosome 4 open reading frame 46	Q504U0
34	CABLES2	20q13.33	Cdk5 and Abl enzyme substrate 2	Q9BTV7
35	CALR	19p13.3-p13.2	calreticulin	P27797
36	CBX2	17q25.3	chromobox homolog 2	Q14781
37	CBX3	7p15.2	chromobox homolog 3	Q13185
38	CBX8	17q25.3	chromobox homolog 8	Q9HC52
39	CCDC77	12p13.33	coiled-coil domain containing 77	Q9BR77
40	CCDC86	11q12.2	coiled-coil domain containing 86	Q9H6F5
41	CCDC99/SPDL1	5q35.1	spindle apparatus coiled-coil protein 1	Q96EA4
42	CCNA2	4q27	cyclin A2	P20248
43	CCNB1	5q12	cyclin B1	P14635
44	CCNB2	15q21.3	cyclin B2	O95067
45	CCNE1	19q12	cyclin E1	P24864

Figure 41A

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
46	CCNE2	8q22.1	cyclin E2	O96020
47	CCT2	12q14	chaperonin containing TCP1, subunit 2 (beta)	P78371
48	CCT3	1q23	chaperonin containing TCP1, subunit 3 (gamma)	P49368
49	CCT5	5p15.2	chaperonin containing TCP1, subunit 5 (epsilon)	P48643
50	CCT6A	7p11.2	chaperonin containing TCP1, subunit 6A (zeta 1)	P40227
51	CD3EAP	19q13.3	CD3e molecule, epsilon associated protein	CAST
52	CDC20	1p34.1	cell division cycle 20	Q12834
53	CDC25A	3p21	cell division cycle 25A	P30304
54	CDC25C	5q31	cell division cycle 25C	P30307
55	CDC45	22q11.21	cell division cycle 45	O75419
56	CDC6	17q21.3	cell division cycle 6	Q99741
57	CDCA2	8p21.2	cell division cycle associated 2	Q69YH5
58	CDCA3	12p13.31	cell division cycle associated 3	Q99618
59	CDCA5	11q13.1	cell division cycle associated 5	Q96FF9
60	CDCA8	1p34.3	cell division cycle associated 8	Q53HL2
61	CDH24	14q11.2	cadherin 24, type 2	Q86UP0
62	CDK1	10q21.2	cyclin-dependent kinase 1	P06493
63	CDK4	12q13	cyclin-dependent kinase 4	P11802
64	CDKN3	14q22	cyclin-dependent kinase inhibitor 3	CDK3
65	CDT1	16q24.3	chromatin licensing and DNA replication factor 1	Q9H211
66	CENPA	2p23.3	centromere protein A	P49450
67	CENPE	4q24-q25	centromere protein E, 312kDa	Q02224
68	CENPF	1q41	centromere protein F, 350/400kDa	P49454
69	CENPH	5p15.2	centromere protein H	Q9H3R5
70	CENPI	Xq22.1	centromere protein I	Q92674
71	CENPK	5q12.3	centromere protein K	Q9BS16
72	CENPL	1q25.1	centromere protein L	Q8N0S6
73	CENPO	2p23.3	centromere protein O	Q9BU64
74	CEP55	10q24.1	centrosomal protein 55kDa	Q53EZ4
75	CEP72	5p15.33	centrosomal protein 72kDa	Q9P209
76	CHAF1A	19p13.3	chromatin assembly factor 1, subunit A (p150)	Q13111
77	CHAF1B	21q22.2	chromatin assembly factor 1, subunit B (p60)	MPP7
78	CHRNA5	15q24	cholinergic receptor, nicotinic, alpha 5 (neuronal)	P30532
79	CTHF18	16p13.3	CTF18, chromosome transmission fidelity factor 18 homolog (S. cerevisiae)	Q8WVB6
80	CKAP2L	2q13	cytoskeleton associated protein 2-like	Q8IYA6
81	CKS2	9q22	CDC28 protein kinase regulatory subunit 2	P33552
82	CLSPN	1p34.3	claspin	Q9HAW4
83	CPNE7	16q24.3	copine VII	Q9UBL6
84	CPSF3	2p25.1	cleavage and polyadenylation specific factor 3, 73kDa	Q9UKF6
85	CTHRC1	8q22.3	collagen triple helix repeat containing 1	Q96CG8
86	CYP27B1	12q13.3-q14	cytochrome P450, family 27, subfamily B, polypeptide 1	O15528
87	DAP3	1q22	death associated protein 3	P51398
88	DARS2	1q25.1	aspartyl-tRNA synthetase 2, mitochondrial	Q6PI48
89	DAZAP1	19p13.3	DAZ associated protein 1	Q96EP5
90	DBF4	7q21.3	DBF4 homolog (S. cerevisiae)	Q9UBU7

Figure 41B

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
91	DCAF13	8q22.3	DDB1 and CUL4 associated factor 13	Q9NV06
92	DDX27	20q13.13	DEAD (Asp-Glu-Ala-Asp) box polypeptide 27	Q96GQ7
93	DDX31	9q34.2	DEAD (Asp-Glu-Ala-Asp) box polypeptide 31	Q9H8H2
94	DDX55	12q24.31	DEAD (Asp-Glu-Ala-Asp) box polypeptide 55	Q8NHQ9
95	DDX56	7p13	DEAD (Asp-Glu-Ala-Asp) box helicase 56	
96	DENR	12q24.31	density-regulated protein	O43583
97	DEPDC1B	5q12	DEP domain containing 1B	Q8WUY9
98	DHX34	19q13.3	DEAH (Asp-Glu-Ala-His) box polypeptide 34	Q14147
99	DHX37	12q24.31	DEAH (Asp-Glu-Ala-His) box polypeptide 37	Q81Y37
100	DKC1	Xq28	dyskeratosis congenita 1, dyskerin	O60832
101	DLGAP5	14q22.3	discs, large (Drosophila) homolog-associated protein 5	Q15398
102	DMBX1	1p34.1	diencephalon/mesencephalon homeobox 1	Q8NFW5
103	DNA2	10q21.3-q22.1	DNA replication helicase/nuclease 2	P51530
104	DNAJB11	3q27	DnaJ (Hsp40) homolog, subfamily B, member 11	Q9UBS4
105	DNAJC2	7q22-q32	DnaJ (Hsp40) homolog, subfamily C, member 2	Q99543
106	DNAJC9	10q22.3	DnaJ (Hsp40) homolog, subfamily C, member 9	Q8WXX5
107	DNMT3B	20q11.2	DNA (cytosine-5-)-methyltransferase 3 beta	Q9UBC3
108	DPF1	19q13.12	D4, zinc and double PHD fingers family 1	Q92782
109	DPH2	1p34	DPH2 homolog (S. cerevisiae)	Q9BQC3
110	DSCC1	8q24.12	DNA replication and sister chromatid cohesion 1	Q9BVC3
111	DTL	1q32	denticleless E3 ubiquitin protein ligase homolog (Drosophila)	Q9NZJ0
112	DTYMK	2q37	deoxythymidylate kinase (thymidylate kinase)	P23919
113	E2F1	20q11	E2F transcription factor 1	Q01094
114	E2F3	6p22	E2F transcription factor 3	O00716
115	EBNA1BP2	1p35-p33	EBNA1 binding protein 2	Q99848
116	ECT2	3q26.1-q26.2	epithelial cell transforming sequence 2 oncogene	Q9H8V3
117	EIF2S2	20q11.2	eukaryotic translation initiation factor 2, subunit 2 beta, 38kDa	P20042
118	EIF3B	7p22	eukaryotic translation initiation factor 3, subunit B	P55884
119	ELAVL1	19p13.2	ELAV like RNA binding protein 1	Q15717
120	EME1	17q21.33	essential meiotic structure-specific endonuclease 1	Q96AY2
121	ERCC6L	Xq13.1	excision repair cross-complementing rodent repair deficiency, complementation group 6-like	Q2NKKX8
122	ESCO2	8p21.1	establishment of sister chromatid cohesion N-acetyltransferase 2	Q56NI9
123	EXO1	1q42-q43	exonuclease 1	Q9UQ84
124	EZH2	7q35-q36	enhancer of zeste homolog 2 (Drosophila)	Q15910
125	FAM111B	11q12.1	family with sequence similarity 111, member B	Q6SJ93
126	FAM54A/MTFR2	6q23.3	mitochondrial fission regulator 2	Q6P444
127	FAM64A	17p13.2	family with sequence similarity 64, member A	Q9BSJ6
128	FAM72A	1q32.1	family with sequence similarity 72, member A	Q5TYM5
129	FAM72B	1p12	family with sequence similarity 72, member B	Q86X60
130	FAM72D	1q21.1	family with sequence similarity 72, member D	Q6L9T8
131	FAM83H	8q24.3	family with sequence similarity 83, member H	Q6ZRV2
132	FANCA	16q24.3	Fanconi anemia, complementation group A	O15360
133	FANCD2	3p25.3	Fanconi anemia, complementation group D2	Q9BXW9
134	FANCG	9p13	Fanconi anemia, complementation group G	O15287
135	FANCI	15q26.1	Fanconi anemia, complementation group I	Q9NV11

Figure 41C

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
136	FBXL19	16p11.2	F-box and leucine-rich repeat protein 19	Q6PCT2
137	FBXL6	8q24.3	F-box and leucine-rich repeat protein 6	Q8N531
138	FBXO43	8q22.3	F-box protein 43	Q4G163
139	FEN1	11q12	flap structure-specific endonuclease 1	P39748
140	FLAD1	1q22	flavin adenine dinucleotide synthetase 1	Q8NFF5
141	FOXM1	12p13	forkhead box M1	MPP2
142	GAD1	2q31	glutamate decarboxylase 1 (brain, 67kDa)	Q99259
143	GINS2	16q24.1	GINS complex subunit 2 (Psf2 homolog)	Q9Y248
144	GINS4	8p11.21	GINS complex subunit 4 (Sld5 homolog)	Q9BRT9
145	GPC2	7q22.1	glypican 2	Q8N158
146	GPR19	12p12.3	G protein-coupled receptor 19	Q15760
147	GPRIN1	5q35.2	G protein regulated inducer of neurite outgrowth 1	Q7Z2K8
148	GSG2	17p13	germ cell associated 2 (haspin)	Q8TF76
149	GTPBP3	19p13.2	GTP binding protein 3 (mitochondrial)	Q969Y2
150	GTPBP4	10p15-p14	GTP binding protein 4	Q9BZE4
151	GTSE1	22q13.2-q13.3	G-2 and S-phase expressed 1	Q9NYZ3
152	H2AFX	11q23.3	H2A histone family, member X	P16104
153	HAGHL	16p13.3	hydroxyacylglutathione hydrolase-like	Q6PII5
154	HAUS5	19q13.12	HAUS augmin-like complex, subunit 5	O94927
155	HDGF	1q21-q23	hepatoma-derived growth factor	P51858
156	HGS	17q25	hepatocyte growth factor-regulated tyrosine kinase substrate	O14964
157	HIST1H2BL	6p22.1	histone cluster 1, H2bl	Q99880
158	HIST1H2BO	6p22.1	histone cluster 1, H2bo	P23527
159	HIST1H3J	6p22.1	histone cluster 1, H3j	
160	HIST1H4I	6p22.1	histone cluster 1, H4i	
161	HIST2H2BF	1q21.2	histone cluster 2, H2bf	Q5QNW6
162	HIST2H3D	1q21.2	histone cluster 2, H3d	HIST2H3C
163	HJURP	2q37.1	Holliday junction recognition protein	Q8NCD3
164	HMMR	5q34	hyaluronan-mediated motility receptor (RHAMM)	Q75330
165	HNRNPA2B1	7p15	heterogeneous nuclear ribonucleoprotein A2/B1	P22626
166	HOXC13	12q13.13	homeobox C13	P31276
167	HSF2BP	21q22.3	heat shock transcription factor 2 binding protein	Q75031
168	IL11	19q13.3-q13.4	interleukin 11	P20809
169	ILF2	1q21.3	interleukin enhancer binding factor 2	Q12905
170	ILF3	19p13.2	interleukin enhancer binding factor 3, 90kDa	Q12906
171	INTS8	8q22.1	integrator complex subunit 8	Q75QN2
172	IQGAP3	1q21.3	IQ motif containing GTPase activating protein 3	Q86V13
173	IRAK1	Xq28	interleukin-1 receptor-associated kinase 1	P51617
174	KCNK9	8q24.3	potassium channel, subfamily K, member 9	Q9NPC2
175	KIAA0101	15q22	KIAA0101	Q15004
176	KIF11	10q24.1	kinesin family member 11	P52732
177	KIF14	1q32.1	kinesin family member 14	Q15058
178	KIF15	3p21.31	kinesin family member 15	Q9NS87
179	KIF18B	17q21.31	kinesin family member 18B	Q86Y91
180	KIF20A	5q31	kinesin family member 20A	Q95235

Figure 41D

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
181	KIF23	15q23	kinesin family member 23	Q02241
182	KIF2C	1p34.1	kinesin family member 2C	Q99661
183	KIF4A	Xq13.1	kinesin family member 4A	O95239
184	KIF4B	5q33.2	kinesin family member 4B	Q2VIQ3
185	KIFC1	6p21.32	kinesin family member C1	Q9BW19
186	KIFC2	8q24.3	kinesin family member C2	Q96AC6
187	KLHL17	1p36	kelch-like family member 17	Q6TDP4
188	KPNA2	17q24.2	karyopherin alpha 2 (RAG cohort 1, importin alpha 1)	P52292
189	KPNB1	17q21.32	karyopherin (importin) beta 1	Q14974
190	KRI1	19p13.2	KRI1 homolog (S. cerevisiae)	Q8N9T8
191	LMNB1	5q23.2	lamin B1	P20700
192	LMNB2	19p13.3	lamin B2	Q03252
193	MAD2L1	4q27	MAD2 mitotic arrest deficient-like 1 (yeast)	Q13257
194	MCM10	10p13	minichromosome maintenance complex component 10	Q7L590
195	MCM7	7q21.3-q22.1	minichromosome maintenance complex component 7	MCM2
196	MELK	9p13.1	maternal embryonic leucine zipper kinase	Q14680
197	METTL1	12q13	methytransferase like 1	Q9UBP6
198	MEX3A	1q22	mex-3 RNA binding family member A	A1L020
199	MIF	22q11.23	macrophage migration inhibitory factor (glycosylation-inhibiting factor)	P14174
200	MKI67	10q26.2	marker of proliferation Ki-67	P46013
201	MLF1IP	4q35.1	MLF1 interacting protein	Q71F23
202	MMP10	11q22.3	matrix metalloproteinase 10 (stromelysin 2)	P09238
203	MMP9	20q12-q13	matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)	P14780
204	MND1	4q31.3	meiotic nuclear divisions 1 homolog (S. cerevisiae)	Q9BWT6
205	MORC2	22q12.2	MORC family CW-type zinc finger 2	Q9Y6X9
206	MRPL17	11p15.5-p15.4	mitochondrial ribosomal protein L17	Q9NRX2
207	MSTO1	1q22	misato 1, mitochondrial distribution and morphology regulator	Q9BUK6
208	MTL5	11q13.2-q13.3	metallothionein-like 5, testis-specific (tesmin)	Q9Y4I5
209	MYBL2	20q13.1	v-myb avian myeloblastosis viral oncogene homolog-like 2	P10244
210	MYO19	17q21.1	myosin XIX	Q96H55
211	NAA10	Xq28	N(alpha)-acetyltransferase 10, NatA catalytic subunit	P41227
212	NACC1	19p13.13	nucleus accumbens associated 1, BEN and BTB (POZ) domain containing	Q96RE7
213	NCAPG	4p15.32	non-SMC condensin I complex, subunit G	CAPG
214	NCAPG2	7q36.3	non-SMC condensin II complex, subunit G2	Q86X12
215	NCAPH	2q11.2	non-SMC condensin I complex, subunit H	Q15003
216	NCBP2	3q29	nuclear cap binding protein subunit 2, 20kDa	P52298
217	NEIL3	4q34	nei endonuclease VIII-like 3 (E. coli)	Q8TAT5
218	NEK2	1q32-q42	NIMA-related kinase 2	P51955
219	NFE2L3	7p15.2	nuclear factor, erythroid 2-like 3	Q9Y4A8
220	NOL10	2p25.1	nucleolar protein 10	Q9BSC4
221	NOL11	17q24.2	nucleolar protein 11	Q9H8H0
222	NOP2	12p13	NOP2 nucleolar protein	P46087
223	NOP56	20p13	NOP56 ribonucleoprotein	O00567
224	NOP58	2q33.1	NOP58 ribonucleoprotein	Q9Y2X3
225	NR2C2AP	19p13.11	nuclear receptor 2C2-associated protein	Q86WQ0

Figure 41E

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
226	NSUN5	7q11.23	NOP2/Sun domain family, member 5	Q96P11
227	NUDT1	7p22	nudix (nucleoside diphosphate linked moiety X)-type motif 1	P36639
228	NUF2	1q23.3	NUF2, NDC80 kinetochore complex component	Q9BZD4
229	NUP37	12q23	nucleoporin 37kDa	Q8NHF4
230	NUP85	17q25	nucleoporin 85kDa	Q9BW27
231	NUP93	16q13	nucleoporin 93kDa	Q8N1F7
232	NUSAP1	15q14	nucleolar and spindle associated protein 1	Q9BXS6
233	OBFC2B/NABP2	12q13.3	nucleic acid binding protein 2	Q9BQ15
234	OIP5	15q14	Opa interacting protein 5	O43482
235	OR2B6	6p22.1	olfactory receptor, family 2, subfamily B, member 6	P58173
236	PAFAH1B3	19q13.1	platelet-activating factor acetylhydrolase 1b, catalytic subunit 3 (29kDa)	Q15102
237	PAQR4	16p13	progesterone and adipoQ receptor family member IV	Q8N4S7
238	PASK	2q37.3	PAS domain containing serine/threonine kinase	Q96RG2
239	PDAP1	7q	PDGFA associated protein 1	Q13442
240	PKMYT1	16p13.3	protein kinase, membrane associated tyrosine/threonine 1	MYT1
241	PLK1	16p	polo-like kinase 1	P53350
242	PLXNA3	Xq28	plexin A3	P51805
243	PMS2	7p22.1	PMS2 postmeiotic segregation increased 2 (S. cerevisiae)	P54278
244	PODNL1	19p13.12	podocan-like 1	Q6PEZ8
245	POLD1	19q13.3	polymerase (DNA directed), delta 1, catalytic subunit	P28340
246	POLQ	3q13.3	polymerase (DNA directed), theta	POLH
247	POLR2H	3q28	polymerase (RNA) II (DNA directed) polypeptide H	P52434
248	POLR3K	16p13.3	polymerase (RNA) III (DNA directed) polypeptide K, 12.3 kDa	Q9Y2Y1
249	POP1	8q22.2	processing of precursor 1, ribonuclease P/MRP subunit (S. cerevisiae)	Q99575
250	PPEF1	Xp22	protein phosphatase, EF-hand calcium binding domain 1	O14829
251	PPIA	7p13	peptidylprolyl isomerase A (cyclophilin A)	P62937
252	PPIH	1p34.1	peptidylprolyl isomerase H (cyclophilin H)	O43447
253	PPM1G	2p23.3	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1G	O15355
254	PPP1R14B	11q13	protein phosphatase 1, regulatory (inhibitor) subunit 14B	Q96C90
255	PRAME	22q11.22	preferentially expressed antigen in melanoma	P78395
256	PRC1	15q26.1	protein regulator of cytokinesis 1	O43663
257	PRDM12	9q33-q34	PR domain containing 12	Q9H4Q4
258	PRPF19	11q12.2	pre-mRNA processing factor 19	Q9UMS4
259	PRR19	19q13.2	proline rich 19	A6NJB7
260	PSMG3	7p22.3	proteasome (prosome, macropain) assembly chaperone 3	Q9BT73
261	PTBP1	19p13.3	polypyrimidine tract binding protein 1	P26599
262	PTTG1	5q35.1	pituitary tumor-transforming 1	Q95997
263	PUS7	7q22.3	pseudouridylate synthase 7 homolog (S. cerevisiae)	Q96PZ0
264	QSOX2	9q34.3	quiescin Q6 sulfhydryl oxidase 2	Q6ZRP7
265	R3HDM1	2q21.3	R3H domain containing 1	Q15032
266	RACGAP1	12q13	Rac GTPase activating protein 1	Q9H0H5
267	RAD51	15q15.1	RAD51 recombinase	Q06609
268	RAD51AP1	12p13.2-p13.1	RAD51 associated protein 1	Q96B01
269	RAD54L	1p32	RAD54-like (S. cerevisiae)	Q92698
270	RAN	12q24.33	RAN, member RAS oncogene family	P62826

Figure 41F

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Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
271	RANGAP1	22q13	Ran GTPase activating protein 1	P46060
272	RCC2	1p36.13	regulator of chromosome condensation 2	Q9P258
273	RDM1	17q11.2	RAD52 motif 1	Q8NG50
274	RELL2	5q31.3	RELT-like 2	Q8NC24
275	RFC2	7q11.23	replication factor C (activator 1) 2, 40kDa	P35250
276	RFC3	13q13.2	replication factor C (activator 1) 3, 38kDa	P40938
277	RFC4	3q27	replication factor C (activator 1) 4, 37kDa	P35249
278	RHEBL1	12q13.12	Ras homolog enriched in brain like 1	Q8TA17
279	RNASEH2A	19p13.13	ribonuclease H2, subunit A	Q75792
280	RNFT2	12q24.22	ring finger protein, transmembrane 2	Q96EX2
281	RPUSD1	16p13.3	RNA pseudouridylylate synthase domain containing 1	Q9UJJ7
282	RRM2	2p25-p24	ribonucleotide reductase M2	P31350
283	RUVBL1	3q21	RuvB-like AAA ATPase 1	Q9Y265
284	SAAL1	11p15.1	serum amyloid A-like 1	Q96ER3
285	SASS6	1p21.3	spindle assembly 6 homolog (C. elegans)	Q6UVJ0
286	SGOL1	3p24.3	shugoshin-like 1 (S. pombe)	Q5FBB7
287	SGOL2	2q33.2	shugoshin-like 2 (S. pombe)	Q562F6
288	SHCBP1	16q11	SHC SH2-domain binding protein 1	Q8NEM2
289	SKA1	18q21.1	spindle and kinetochore associated complex subunit 1	Q96BD8
290	SKA3	13q11	spindle and kinetochore associated complex subunit 3	Q8LX90
291	SLC25A39	17q12	solute carrier family 25, member 39	Q9BZJ4
292	SMC1B	22q13	structural maintenance of chromosomes 1B	Q8NDV3
293	SMPD4	2q21.1	sphingomyelin phosphodiesterase 4, neutral membrane (neutral sphingomyelinase-3)	Q9NXE4
294	SNRPA1	15q26.3	small nuclear ribonucleoprotein polypeptide A'	P09661
295	SNRPB	20p13	small nuclear ribonucleoprotein polypeptides B and B1	P14678
296	SNRPC	6p21	small nuclear ribonucleoprotein polypeptide C	P09234
297	SNRPD1	18q11.2	small nuclear ribonucleoprotein D1 polypeptide 16kDa	P62314
298	SPC24	19p13.2	SPC24, NDC80 kinetochore complex component	Q8NBT2
299	SPC25	2q31.1	SPC25, NDC80 kinetochore complex component	SPCS2
300	SPP1	4q22.1	secreted phosphoprotein 1	P10451
301	SRRT	7q21	serrate RNA effector molecule homolog (Arabidopsis)	Q9BXP5
302	STIL	1p32	SCL/TAL1 interrupting locus	Q15468
303	SUV420H2	19q13.42	suppressor of variegation 4-20 homolog 2 (Drosophila)	Q86Y97
304	TACC3	4p16.3	transforming, acidic coiled-coil containing protein 3	Q9Y6A5
305	TBRG4	7p13	transforming growth factor beta regulator 4	Q969Z0
306	TCF3	19p13.3	transcription factor 3	TCF7L1
307	TELO2	16p13.3	telomere maintenance 2	Q9Y4R8
308	TERT	5p15.33	telomerase reverse transcriptase	O14746
309	TEX19	17q25.3	testis expressed 19	Q8NA77
310	TH1L/NELFCD	20q13.32	negative elongation factor complex member C/D	Q8LXH7
311	THOC6	16p13.3	THO complex 6 homolog (Drosophila)	Q86W42
312	TIGD1	2q37.1	tigger transposable element derived 1	Q96MW7
313	TIGD5	8q24.3	tigger transposable element derived 5	Q53EQ6
314	TIMELESS	12q13.3	timeless circadian clock	Q9UNS1
315	TIPIN	15q22.31	TIMELESS interacting protein	Q9BVW5

Figure 41G

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Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
316	TK1	17q23.2-q25.3	thymidine kinase 1, soluble	P04183
317	TMEM206	1q32.3	transmembrane protein 206	Q9H813
318	TMEM69	1p34.1	transmembrane protein 69	Q5SWH9
319	TOMM40	19q13	translocase of outer mitochondrial membrane 40 homolog (yeast)	O96008
320	TOP2A	17q21-q22	topoisomerase (DNA) II alpha 170kDa	P11388
321	TPX2	20q11.2	TPX2, microtubule-associated	Q9ULW0
322	TRAF2	9q34	TNF receptor-associated factor 2	Q12933
323	TRAIP	3p21.31	TRAF interacting protein	Q9BWF2
324	TRIM11	1q42.13	tripartite motif containing 11	Q96F44
325	TRIM28	19q13.4	tripartite motif containing 28	Q13263
326	TRIM59	3q26	tripartite motif containing 59	Q8IWR1
327	TRIP13	5p15	thyroid hormone receptor interactor 13	Q15645
328	TROAP	12q13.12	trophinin associated protein	Q12815
329	TTK	6q13-q21	TTK protein kinase	P33981
330	TTYH3	7p22	twenty family member 3	Q9C0H2
331	TUBB3	16q24.3	tubulin, beta 3 class III	Q13509
332	UBE2C	20q13.12	ubiquitin-conjugating enzyme E2C	O00762
333	UBE2O	17q25.1	ubiquitin-conjugating enzyme E2O	Q9C0C9
334	UBE2S	19q13.43	ubiquitin-conjugating enzyme E2S	Q16763
335	UBE2T	1q32.1	ubiquitin-conjugating enzyme E2T (putative)	Q9NPD8
336	UCK2	1p32	uridine-cytidine kinase 2	Q9BZX2
337	UHRF1	19p13.3	ubiquitin-like with PHD and ring finger domains 1	Q96T88
338	UTP18	17q21.33	UTP18 small subunit (SSU) processome component homolog (yeast)	Q9Y5J1
339	WDR4	21q22.3	WD repeat domain 4	P57081
340	WDR67/TBC1D31	8q24.13	TBC1 domain family member 31	Q96DN5
341	WDR75	2q32.2	WD repeat domain 75	Q8IWA0
342	WDR85/DPH7	9q34.3	diphthamide biosynthesis 7	Q9BTV6
343	WDR90	16p13.3	WD repeat domain 90	Q96KV7
344	WHSC1	4p16.3	Wolf-Hirschhorn syndrome candidate 1	O96028
345	XPO5	6p21.1	exportin 5	Q9HAV4
346	XPO6	16p11.2	exportin 6	Q96QU8
347	XPOT	12q14.1	exportin, tRNA	O43592
348	XRCC2	7q36	X-ray repair complementing defective repair in Chinese hamster cells 2	O43543
349	YDJC	22q11.21	YdjC homolog (bacterial)	A8MPS7
350	ZBTB9	6p21.31	zinc finger and BTB domain containing 9	Q96C00
351	ZC3H3	8q24.3	zinc finger CCCH-type containing 3	Q8LXZ2
352	ZIC2	13q32	Zic family member 2	O95409
353	ZNF200	16p13.3	zinc finger protein 200	P98182
354	ZNF643/ZFP69B	1p34.2	ZFP69 zinc finger protein B	Q9UJL9
355	ZNF695	1q44	zinc finger protein 695	Q8IW36
356	ZNF707	8q24.3	zinc finger protein 707	Q96C28
357	ZWILCH	15q22.31	zwilch kinetochore protein	Q9H900
358	ZWINT	10q21-q22	ZW10 interacting kinetochore protein	O95229

Figure 41H

Solid Tumor Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Solid Tumor Markers			Preferred Solid Tumor Markers	
1	Chr01: 110611465 110611466	<i>ALX3</i>	46	Chr03: 44063593 44063594	<i>Non Coding Region</i>
2	Chr01: 111217497 111217498	<i>KCNA3</i>	47	Chr03: 50378191 50378192	<i>RASSF1</i>
3	Chr01: 12227825 12227826	<i>TNFRSF1B</i>	48	Chr04: 42153708 42153709	<i>BEND4</i>
4	Chr01: 154475139 154475140	<i>TDRD10, SHE</i>	49	Chr05: 115152413 115152414	<i>CDO1</i>
5	Chr01: 155290607 155290608	<i>RUSC1, C1orf104</i>	50	Chr05: 11904114 11904115	<i>CTNND2</i>
6	Chr01: 156405438 156405439	<i>Non Coding Region</i>	51	Chr05: 134827512 134827513	<i>Non Coding Region</i>
7	Chr01: 169396635 169396636	<i>C1orf114</i>	52	Chr05: 171538557 171538558	<i>STK10</i>
8	Chr01: 170630558 170630559	<i>Non Coding Region</i>	53	Chr05: 40681137 40681138	<i>PTGER4</i>
9	Chr01: 170637723 170637724	<i>PRRX1</i>	54	Chr05: 43018282 43018283	<i>Non Coding Region</i>
10	Chr01: 200009830 200009831	<i>NR5A2</i>	55	Chr05: 58335681 58335682	<i>PDE4D</i>
11	Chr01: 207818395 207818396	<i>CRIL</i>	56	Chr05: 67547334 67547335	<i>PIK3R1</i>
12	Chr01: 213090203 213090204	<i>Non Coding Region</i>	57	Chr05: 72595741 72595742	<i>Non Coding Region</i>
13	Chr01: 219347410 219347411	<i>LYPLAL1</i>	58	Chr05: 72732486 72732487	<i>Non Coding Region</i>
14	Chr01: 223302861 223302862	<i>TLR5</i>	59	Chr06: 105584551 105584552	<i>BVES</i>
15	Chr01: 231113419 231113420	<i>ARV1, TTC13</i>	60	Chr06: 152128865 152128866	<i>ESR1</i>
16	Chr01: 29586418 29586419	<i>PTPRU</i>	61	Chr06: 26240528 26240529	<i>HIST1H4F</i>
17	Chr01: 44883362 44883363	<i>RNF220</i>	62	Chr06: 27107019 27107020	<i>HIST1H4L, HIST1H2BK</i>
18	Chr01: 47999163 47999164	<i>Non Coding Region</i>	63	Chr06: 28175446 28175447	<i>Non Coding Region</i>
19	Chr01: 50884480 50884481	<i>DMRTA2</i>	64	Chr06: 28956609 28956610	<i>Non Coding Region</i>
20	Chr01: 61623366 61623367	<i>NFLA</i>	65	Chr06: 30139641 30139642	<i>TRIM15</i>
21	Chr01: 66999588 66999589	<i>SGIP1</i>	66	Chr06: 41978288 41978289	<i>CCND3</i>
22	Chr01: 77334207 77334208	<i>ST6GALNAC5</i>	67	Chr06: 6004207 6004208	<i>NRN1</i>
23	Chr01: 91196332 91196333	<i>Non Coding Region</i>	68	Chr06: 75794800 75794801	<i>COL12A1</i>
24	Chr02: 119591144 119591145	<i>Non Coding Region</i>	69	Chr06: 75917560 75917561	<i>Non Coding Region</i>
25	Chr02: 127413831 127413832	<i>GYPC</i>	70	Chr07: 100488942 100488943	<i>ACHE</i>
26	Chr02: 175208605 175208606	<i>Non Coding Region</i>	71	Chr07: 113722758 113722759	<i>Non Coding Region</i>
27	Chr02: 176987465 176987466	<i>HOXD9</i>	72	Chr07: 127672458 127672459	<i>LRRRC4, SND1</i>
28	Chr02: 176994665 176994666	<i>HOXD8</i>	73	Chr07: 128531106 128531107	<i>KCP</i>
29	Chr02: 177021826 177021827	<i>Non Coding Region</i>	74	Chr07: 143580147 143580148	<i>FAM115A</i>
30	Chr02: 219738314 219738315	<i>WNT6</i>	75	Chr07: 149917263 149917264	<i>Non Coding Region</i>
31	Chr02: 233368543 233368544	<i>Non Coding Region</i>	76	Chr07: 155597842 155597843	<i>SHH</i>
32	Chr02: 238600061 238600062	<i>LRRFIP1</i>	77	Chr07: 27192061 27192062	<i>Non Coding Region</i>
33	Chr02: 26395448 26395449	<i>FAM59B</i>	78	Chr07: 27204981 27204982	<i>HOXA9</i>
34	Chr02: 45240563 45240564	<i>Non Coding Region</i>	79	Chr07: 27208285 27208286	<i>Non Coding Region</i>
35	Chr02: 71192445 71192446	<i>ATP6V1B1</i>	80	Chr07: 27213610 27213611	<i>HOXA10</i>
36	Chr02: 74743437 74743438	<i>TLX2</i>	81	Chr07: 27225058 27225059	<i>HOXA11A, HOXA11</i>
37	Chr02: 85811432 85811433	<i>VAMP5</i>	82	Chr07: 27286075 27286076	<i>EVX1</i>
38	Chr02: 97203640 97203641	<i>ARID5A</i>	83	Chr07: 30722320 30722321	<i>CRHR2</i>
39	Chr03: 121903520 121903521	<i>CASR</i>	84	Chr07: 37488253 37488254	<i>ELMO1</i>
40	Chr03: 129693489 129693490	<i>TRH</i>	85	Chr07: 42267747 42267748	<i>GLI3</i>
41	Chr03: 139258939 139258940	<i>RBP1</i>	86	Chr07: 95025836 95025837	<i>PON3</i>
42	Chr03: 172165884 172165885	<i>GHSR</i>	87	Chr07: 96650171 96650172	<i>DLX5</i>
43	Chr03: 179168760 179168761	<i>GNB4</i>	88	Chr08: 101822108 101822109	<i>Non Coding Region</i>
44	Chr03: 181421427 181421428	<i>SOX2OT</i>	89	Chr08: 104512858 104512859	<i>RIMS2</i>
45	Chr03: 184099432 184099433	<i>CHRD</i>	90	Chr08: 116679763 116679764	<i>TRPS1</i>

Figure 42A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	Chr08: 134511683 134511684	<i>ST3GAL1</i>	136	Chr14: 23834891 23834892	<i>EFS</i>
92	Chr08: 55367627 55367628	<i>Non Coding Region</i>	137	Chr14: 24803873 24803874	<i>ADCY4</i>
93	Chr08: 72917350 72917351	<i>Non Coding Region</i>	138	Chr14: 29254530 29254531	<i>C14orf23</i>
94	Chr08: 9760880 9760881	<i>LOC157627</i>	139	Chr14: 37125531 37125532	<i>PAX9</i>
95	Chr10: 101605988 101605989	<i>ABCC2</i>	140	Chr14: 38067622 38067623	<i>Non Coding Region</i>
96	Chr10: 102587110 102587111	<i>PAX2</i>	141	Chr14: 52735421 52735422	<i>PTGDR</i>
97	Chr10: 104434010 104434011	<i>ARL3</i>	142	Chr14: 60952945 60952946	<i>C14orf39</i>
98	Chr10: 106400565 106400566	<i>SORCS3</i>	143	Chr15: 101420636 101420637	<i>ALDH1A3</i>
99	Chr10: 119590608 119590609	<i>Non Coding Region</i>	144	Chr15: 41787780 41787781	<i>ITPKA</i>
100	Chr10: 122708532 122708533	<i>Non Coding Region</i>	145	Chr15: 45479755 45479756	<i>SHF</i>
101	Chr10: 129845660 129845661	<i>PTPRE</i>	146	Chr15: 75251491 75251492	<i>Non Coding Region</i>
102	Chr10: 15761854 15761855	<i>ITGA8</i>	147	Chr15: 76634516 76634517	<i>ISL2</i>
103	Chr10: 22625465 22625466	<i>Non Coding Region</i>	148	Chr15: 83953880 83953881	<i>BNC1</i>
104	Chr10: 45914688 45914689	<i>ALOX5</i>	149	Chr15: 96515411 96515412	<i>Non Coding Region</i>
105	Chr10: 57390306 57390307	<i>Non Coding Region</i>	150	Chr16: 23847325 23847326	<i>PRKCB</i>
106	Chr10: 81002218 81002219	<i>ZMIZ1</i>	151	Chr16: 49312033 49312034	<i>Non Coding Region</i>
107	Chr11: 10477847 10477848	<i>AMPD3</i>	152	Chr16: 88700818 88700819	<i>Non Coding Region</i>
108	Chr11: 105481317 105481318	<i>GRIA4</i>	153	Chr17: 26699169 26699170	<i>SARM1</i>
109	Chr11: 119227328 119227329	<i>USP2</i>	154	Chr17: 36204489 36204490	<i>LOC284100</i>
110	Chr11: 120435056 120435057	<i>Non Coding Region</i>	155	Chr17: 42287971 42287972	<i>UBTF</i>
111	Chr11: 123301490 123301491	<i>Non Coding Region</i>	156	Chr17: 53341243 53341244	<i>HLF</i>
112	Chr11: 124790875 124790876	<i>HEPACAM</i>	157	Chr17: 73584617 73584618	<i>MYO15B</i>
113	Chr11: 133906693 133906694	<i>LOC100128239</i>	158	Chr17: 75369219 75369220	<i>SEPTIN9</i>
114	Chr11: 14926738 14926739	<i>Non Coding Region</i>	159	Chr18: 3499253 3499254	<i>DLGAP1</i>
115	Chr11: 2162183 2162184	<i>IGF2,IGF2AS,INS-IGF2</i>	160	Chr18: 54789058 54789059	<i>Non Coding Region</i>
116	Chr11: 2292691 2292692	<i>ASCL2</i>	161	Chr18: 904920 904921	<i>ADCYAP1</i>
117	Chr11: 406901 406902	<i>SIGIRR</i>	162	Chr19: 11532175 11532176	<i>CCDC151</i>
118	Chr11: 43602847 43602848	<i>MIR129-2</i>	163	Chr19: 11533499 11533500	<i>CCDC151</i>
119	Chr11: 57250469 57250470	<i>Non Coding Region</i>	164	Chr19: 13124776 13124777	<i>NFIX</i>
120	Chr11: 7695528 7695529	<i>CYB5R2</i>	165	Chr19: 16999614 16999615	<i>F2RL3</i>
121	Chr11: 830320 830321	<i>EFCAB4A</i>	166	Chr19: 17008650 17008651	<i>CPAMD8</i>
122	Chr12: 113541915 113541916	<i>RASAL1</i>	167	Chr19: 17392923 17392924	<i>ANKLE1</i>
123	Chr12: 114843296 114843297	<i>TBX5</i>	168	Chr19: 17403313 17403314	<i>ABHD8</i>
124	Chr12: 122519674 122519675	<i>MLXIP</i>	169	Chr19: 22034418 22034419	<i>Non Coding Region</i>
125	Chr12: 52401214 52401215	<i>GRASP</i>	170	Chr19: 37096323 37096324	<i>ZNF529,ZNF382</i>
126	Chr12: 52627047 52627048	<i>KRT7</i>	171	Chr19: 50004294 50004295	<i>MIR150</i>
127	Chr12: 52652377 52652378	<i>Non Coding Region</i>	172	Chr19: 58858806 58858807	<i>AIBG</i>
128	Chr12: 54421033_54421034	<i>HOXC5,HOXC4,HOXC6</i>	173	Chr20: 30639305_30639306	<i>HCK</i>
129	Chr12: 54447584 54447585	<i>HOXC4</i>	174	Chr20: 36932553 36932554	<i>BPI</i>
130	Chr12: 8088818 8088819	<i>SLC2A3</i>	175	Chr20: 45142244 45142245	<i>ZNF334</i>
131	Chr13: 41548815 41548816	<i>ELF1</i>	176	Chr20: 62369445 62369446	<i>LIME1</i>
132	Chr13: 53312966 53312967	<i>LECT1</i>	177	Chr22: 19754448 19754449	<i>TBX1</i>
133	Chr13: 79177782 79177783	<i>POU4F1</i>	178	Chr22: 38221187 38221188	<i>GALR3</i>
134	Chr13: 96204856 96204857	<i>CLDN10</i>	179	Chr22: 46367617 46367618	<i>WNT7B</i>
135	Chr14: 105512306 105512307	<i>Non Coding Region</i>			

Figure 42B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Alternative markers: Low to no CRC		224	Chr01: 27028974 27028975	<i>ARID1A</i>
180	Chr01: 1072902 1072903	<i>Non Coding Region</i>	225	Chr01: 27668325 27668326	<i>SYTL1</i>
181	Chr01: 1079561 1079562	<i>Non Coding Region</i>	226	Chr01: 28996561 28996562	<i>GMEB1</i>
182	Chr01: 1079622 1079623	<i>Non Coding Region</i>	227	Chr01: 29586414 29586415	<i>PTPRU</i>
183	Chr01: 110610899 110610900	<i>ALX3</i>	228	Chr01: 29586418 29586419	<i>PTPRU</i>
184	Chr01: 115642150 115642151	<i>Non Coding Region</i>	229	Chr01: 32170929 32170930	<i>COL16A1</i>
185	Chr01: 12227825 12227826	<i>TNFRSF1B</i>	230	Chr01: 32171050 32171051	<i>COL16A1</i>
186	Chr01: 14057606 14057607	<i>PRDM2</i>	231	Chr01: 32180356 32180357	<i>Non Coding Region</i>
187	Chr01: 149719536 149719537	<i>Non Coding Region</i>	232	Chr01: 32410211 32410212	<i>Non Coding Region</i>
188	Chr01: 151693261 151693262	<i>C1orf230</i>	233	Chr01: 42611386 42611387	<i>Non Coding Region</i>
189	Chr01: 151812421 151812422	<i>LOC100132111, C2CD4D</i>	234	Chr01: 44883362 44883363	<i>RNF220</i>
190	Chr01: 151812435 151812436	<i>LOC100132111, C2CD4D</i>	235	Chr01: 46958801 46958802	<i>Non Coding Region</i>
191	Chr01: 153330200 153330201	<i>SI00A9</i>	236	Chr01: 47695138 47695139	<i>TAL1</i>
192	Chr01: 154377091 154377092	<i>IL6R</i>	237	Chr01: 47999163 47999164	<i>Non Coding Region</i>
193	Chr01: 155290607 155290608	<i>RUSC1, C1orf104</i>	238	Chr01: 5526684 5526685	<i>Non Coding Region</i>
194	Chr01: 156405438 156405439	<i>Non Coding Region</i>	239	Chr01: 6086448 6086449	<i>KCNAB2</i>
195	Chr01: 159880327 159880328	<i>Non Coding Region</i>	240	Chr01: 6086483 6086484	<i>KCNAB2</i>
196	Chr01: 16489048 16489049	<i>Non Coding Region</i>	241	Chr01: 61623366 61623367	<i>NFIA</i>
197	Chr01: 165323692 165323693	<i>LMX1A</i>	242	Chr01: 6508028 6508029	<i>ESPN</i>
198	Chr01: 167417043 167417044	<i>CD247</i>	243	Chr01: 66999588 66999589	<i>SGIP1</i>
199	Chr01: 17027832 17027833	<i>ESPN</i>	244	Chr01: 7023625 7023626	<i>CAMTA1</i>
200	Chr01: 170637723 170637724	<i>PRRX1</i>	245	Chr01: 76540574 76540575	<i>ST6GALNAC3</i>
201	Chr01: 170640675 170640676	<i>PRRX1</i>	246	Chr01: 848379 848380	<i>Non Coding Region</i>
202	Chr01: 17577455 17577456	<i>PADI3</i>	247	Chr01: 90309410 90309411	<i>LRRCS8</i>
203	Chr01: 200009830 200009831	<i>NR5A2</i>	248	Chr01: 90309559 90309560	<i>LRRCS8</i>
204	Chr01: 2064691 2064692	<i>PRKCZ</i>	249	Chr01: 91196332 91196333	<i>Non Coding Region</i>
205	Chr01: 2064819 2064820	<i>PRKCZ</i>	250	Chr01: 92150549 92150550	<i>TGFBR3</i>
206	Chr01: 207999258 207999259	<i>Non Coding Region</i>	251	Chr01: 976168 976169	<i>AGRN</i>
207	Chr01: 211500971 211500972	<i>TRAF5</i>	252	Chr02: 105470561 105470562	<i>POU3F3</i>
208	Chr01: 213090203 213090204	<i>Non Coding Region</i>	253	Chr02: 111875790 111875791	<i>ACOXL</i>
209	Chr01: 214159131 214159132	<i>Non Coding Region</i>	254	Chr02: 111875934 111875935	<i>Non Coding Region</i>
210	Chr01: 217309794 217309795	<i>ESRRG</i>	255	Chr02: 111877065 111877066	<i>BCL2L1</i>
211	Chr01: 219347410 219347411	<i>LYPLAL1</i>	256	Chr02: 113450279 113450280	<i>Non Coding Region</i>
212	Chr01: 219347458 219347459	<i>LYPLAL1</i>	257	Chr02: 119594696 119594697	<i>Non Coding Region</i>
213	Chr01: 219834537 219834538	<i>Non Coding Region</i>	258	Chr02: 119606746 119606747	<i>EN1</i>
214	Chr01: 2222419 2222420	<i>SKI</i>	259	Chr02: 119607885 119607886	<i>Non Coding Region</i>
215	Chr01: 223302861 223302862	<i>TLR5</i>	260	Chr02: 127783168 127783169	<i>Non Coding Region</i>
216	Chr01: 226288430 226288431	<i>Non Coding Region</i>	261	Chr02: 134325873 134325874	<i>NCKAP5</i>
217	Chr01: 231113419 231113420	<i>ARV1, TTC13</i>	262	Chr02: 160760825 160760826	<i>LY75</i>
218	Chr01: 23851471 23851472	<i>E2F2</i>	263	Chr02: 160761244 160761245	<i>LY75</i>
219	Chr01: 240255486 240255487	<i>FMN2</i>	264	Chr02: 160761556 160761557	<i>LY75</i>
220	Chr01: 246733057 246733058	<i>CNST</i>	265	Chr02: 160761622 160761623	<i>LY75</i>
221	Chr01: 248020632 248020633	<i>TRIM58</i>	266	Chr02: 162283705 162283706	<i>Non Coding Region</i>
222	Chr01: 248020812 248020813	<i>TRIM58</i>	267	Chr02: 173327921 173327922	<i>ITGA6</i>
223	Chr01: 26611453 26611454	<i>UBXN11</i>	268	Chr02: 175193377 175193378	<i>Non Coding Region</i>

Figure 42C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
269	Chr02: 175208588 175208589	<i>Non Coding Region</i>	314	Chr02: 80530255 80530256	<i>LRRTM1, CTNNA2</i>
270	Chr02: 175208605 175208606	<i>Non Coding Region</i>	315	Chr02: 85107320 85107321	<i>C2orf89</i>
271	Chr02: 176976802 176976803	<i>Non Coding Region</i>	316	Chr02: 85811432 85811433	<i>VAMP5</i>
272	Chr02: 176987462 176987463	<i>HOXD9</i>	317	Chr02: 85980500 85980501	<i>ATOX8</i>
273	Chr02: 176987465 176987466	<i>HOXD9</i>	318	Chr02: 85980533 85980534	<i>ATOX8</i>
274	Chr02: 176993632 176993633	<i>HOXD8</i>	319	Chr02: 96990762 96990763	<i>ITPR1PL1</i>
275	Chr02: 176994665 176994666	<i>HOXD8</i>	320	Chr02: 97203640 97203641	<i>ARID5A</i>
276	Chr02: 177021826 177021827	<i>Non Coding Region</i>	321	Chr03: 107318032 107318033	<i>BBX</i>
277	Chr02: 177023716 177023717	<i>Non Coding Region</i>	322	Chr03: 111261010 111261011	<i>CD96</i>
278	Chr02: 177029921 177029922	<i>HOXD3</i>	323	Chr03: 113252640 113252641	<i>SIDT1</i>
279	Chr02: 177039862 177039863	<i>Non Coding Region</i>	324	Chr03: 122296369 122296370	<i>PARP15</i>
280	Chr02: 177043255 177043256	<i>Non Coding Region</i>	325	Chr03: 138658554 138658555	<i>Non Coding Region</i>
281	Chr02: 192711481 192711482	<i>SDPR</i>	326	Chr03: 138658704 138658705	<i>Non Coding Region</i>
282	Chr02: 19561612 19561613	<i>Non Coding Region</i>	327	Chr03: 147124417 147124418	<i>ZIC4</i>
283	Chr02: 200334137 200334138	<i>FLJ32063</i>	328	Chr03: 157821407 157821408	<i>SHOX2</i>
284	Chr02: 208491939 208491940	<i>Non Coding Region</i>	329	Chr03: 16523047 16523048	<i>RFTN1</i>
285	Chr02: 217217837 217217838	<i>MARCHF4</i>	330	Chr03: 181421427 181421428	<i>SOX2OT</i>
286	Chr02: 219735876 219735877	<i>WNT6</i>	331	Chr03: 181437299 181437300	<i>SOX2OT</i>
287	Chr02: 219736549 219736550	<i>WNT6</i>	332	Chr03: 184099432 184099433	<i>CHRD</i>
288	Chr02: 219738314 219738315	<i>WNT6</i>	333	Chr03: 193506005 193506006	<i>Non Coding Region</i>
289	Chr02: 220117599 220117600	<i>TUBA4A, TUBA4B</i>	334	Chr03: 194024145 194024146	<i>LOC100131551</i>
290	Chr02: 223162881 223162882	<i>CCDC140, PAX3</i>	335	Chr03: 46448579 46448580	<i>CCRL2</i>
291	Chr02: 227288327 227288328	<i>Non Coding Region</i>	336	Chr03: 46448631 46448632	<i>CCRL2</i>
292	Chr02: 233368543 233368544	<i>Non Coding Region</i>	337	Chr03: 46448671 46448672	<i>CCRL2</i>
293	Chr02: 238582364 238582365	<i>LRRFIP1</i>	338	Chr03: 46448753 46448754	<i>CCRL2</i>
294	Chr02: 238600061 238600062	<i>LRRFIP1</i>	339	Chr03: 46448868 46448869	<i>CCRL2</i>
295	Chr02: 25142229 25142230	<i>ADCY3</i>	340	Chr03: 46448920 46448921	<i>CCRL2</i>
296	Chr02: 25518238 25518239	<i>DNMT3A</i>	341	Chr03: 46448963 46448964	<i>CCRL2</i>
297	Chr02: 25585619 25585620	<i>Non Coding Region</i>	342	Chr03: 47029335 47029336	<i>NBEAL2</i>
298	Chr02: 26395448 26395449	<i>FAM59B</i>	343	Chr03: 49057884 49057885	<i>MIR425, DALRD3, NDUFAF3</i>
299	Chr02: 26395458 26395459	<i>FAM59B</i>	344	Chr03: 5018817 5018818	<i>Non Coding Region</i>
300	Chr02: 29537776 29537777	<i>ALK</i>	345	Chr03: 50377988 50377989	<i>RASSF1</i>
301	Chr02: 43422121 43422122	<i>Non Coding Region</i>	346	Chr03: 50378191 50378192	<i>RASSF1</i>
302	Chr02: 45162036 45162037	<i>Non Coding Region</i>	347	Chr03: 50378292 50378293	<i>RASSF1</i>
303	Chr02: 45169548 45169549	<i>SIX3</i>	348	Chr03: 50378407 50378408	<i>RASSF1</i>
304	Chr02: 45169562 45169563	<i>SIX3</i>	349	Chr03: 50378413 50378414	<i>RASSF1</i>
305	Chr02: 45169681 45169682	<i>SIX3</i>	350	Chr03: 50378423 50378424	<i>RASSF1</i>
306	Chr02: 45240563 45240564	<i>Non Coding Region</i>	351	Chr03: 50378425 50378426	<i>RASSF1</i>
307	Chr02: 62798365 62798366	<i>Non Coding Region</i>	352	Chr03: 50378431 50378432	<i>RASSF1</i>
308	Chr02: 63284066 63284067	<i>OTX1</i>	353	Chr03: 50378527 50378528	<i>RASSF1</i>
309	Chr02: 63284574 63284575	<i>Non Coding Region</i>	354	Chr03: 50378611 50378612	<i>RASSF1, ZMYND10</i>
310	Chr02: 71192118 71192119	<i>ATP6V1B1</i>	355	Chr03: 53190593 53190594	<i>Non Coding Region</i>
311	Chr02: 71192445 71192446	<i>ATP6V1B1</i>	356	Chr03: 5470909 5470910	<i>Non Coding Region</i>
312	Chr02: 73151595 73151596	<i>EMX1</i>	357	Chr03: 65582925 65582926	<i>MAGI1</i>
313	Chr02: 74782684 74782685	<i>DOK1</i>	358	Chr03: 73620925 73620926	<i>PDZRN3</i>

Figure 42D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
359	Chr03: 9904411 9904412	<i>Non Coding Region</i>	404	Chr05: 43017561 43017562	<i>Non Coding Region</i>
360	Chr04: 166414666 166414667	<i>CPE</i>	405	Chr05: 43017685 43017686	<i>Non Coding Region</i>
361	Chr04: 174254281 174254282	<i>HMGB2</i>	406	Chr05: 43018282 43018283	<i>Non Coding Region</i>
362	Chr04: 185747981 185747982	<i>ACSL1</i>	407	Chr05: 43018443 43018444	<i>Non Coding Region</i>
363	Chr04: 186434993 186434994	<i>PDLIM3</i>	408	Chr05: 55219492 55219493	<i>Non Coding Region</i>
364	Chr04: 54960232 54960233	<i>Non Coding Region</i>	409	Chr05: 58334676 58334677	<i>PDE4D</i>
365	Chr04: 6690702 6690703	<i>Non Coding Region</i>	410	Chr05: 58335681 58335682	<i>PDE4D</i>
366	Chr04: 6944071 6944072	<i>TBC1D14</i>	411	Chr05: 67547334 67547335	<i>PIK3R1</i>
367	Chr04: 76555980 76555981	<i>CDKL2</i>	412	Chr05: 72732486 72732487	<i>Non Coding Region</i>
368	Chr04: 81124600 81124601	<i>PRDM8</i>	413	Chr05: 74231171 74231172	<i>Non Coding Region</i>
369	Chr04: 85402870 85402871	<i>Non Coding Region</i>	414	Chr05: 76145809 76145810	<i>S100Z</i>
370	Chr04: 85417612 85417613	<i>NKX6-1</i>	415	Chr05: 95159365 95159366	<i>GLRX</i>
371	Chr05: 100240048 100240049	<i>ST8SLA4</i>	416	Chr06: 10385903 10385904	<i>Non Coding Region</i>
372	Chr05: 101632310 101632311	<i>SLCO4C1</i>	417	Chr06: 10422322 10422323	<i>Non Coding Region</i>
373	Chr05: 101632314 101632315	<i>SLCO4C1</i>	418	Chr06: 108145420 108145421	<i>SCML4</i>
374	Chr05: 101632321 101632322	<i>SLCO4C1</i>	419	Chr06: 134499419 134499420	<i>SGK1</i>
375	Chr05: 101632327 101632328	<i>SLCO4C1</i>	420	Chr06: 136359046 136359047	<i>PDE7B</i>
376	Chr05: 112073433 112073434	<i>APC</i>	421	Chr06: 1384491 1384492	<i>Non Coding Region</i>
377	Chr05: 112073570 112073571	<i>APC</i>	422	Chr06: 1386087 1386088	<i>Non Coding Region</i>
378	Chr05: 134827355 134827356	<i>Non Coding Region</i>	423	Chr06: 151188081 151188082	<i>MTHFD1L</i>
379	Chr05: 134827512 134827513	<i>Non Coding Region</i>	424	Chr06: 152623094 152623095	<i>SYNE1</i>
380	Chr05: 138676787 138676788	<i>PAIP2</i>	425	Chr06: 1606394 1606395	<i>Non Coding Region</i>
381	Chr05: 139080952 139080953	<i>Non Coding Region</i>	426	Chr06: 164088958 164088959	<i>Non Coding Region</i>
382	Chr05: 139081063 139081064	<i>Non Coding Region</i>	427	Chr06: 166582206 166582207	<i>T</i>
383	Chr05: 141931455 141931456	<i>Non Coding Region</i>	428	Chr06: 168197410 168197411	<i>C6orf123</i>
384	Chr05: 153862394 153862395	<i>Non Coding Region</i>	429	Chr06: 25138551 25138552	<i>CMAH</i>
385	Chr05: 170739179 170739180	<i>Non Coding Region</i>	430	Chr06: 25962567 25962568	<i>TRIM38</i>
386	Chr05: 17119012 17119013	<i>Non Coding Region</i>	431	Chr06: 26614649 26614650	<i>Non Coding Region</i>
387	Chr05: 171538334 171538335	<i>STK10</i>	432	Chr06: 27101763 27101764	<i>HIST1H2BJ</i>
388	Chr05: 171538557 171538558	<i>STK10</i>	433	Chr06: 27107002 27107003	<i>HIST1H4L,HIST1H2BK</i>
389	Chr05: 172655925 172655926	<i>Non Coding Region</i>	434	Chr06: 27107019 27107020	<i>HIST1H4L,HIST1H2BK</i>
390	Chr05: 175961105 175961106	<i>RNF44</i>	435	Chr06: 27782484 27782485	<i>HIST1H2BM,HIST1H2AJ</i>
391	Chr05: 176024005 176024006	<i>GPRIN1</i>	436	Chr06: 27841230 27841231	<i>HIST1H3L,HIST1H4L</i>
392	Chr05: 176326365 176326366	<i>HK3</i>	437	Chr06: 27858545 27858546	<i>HIST1H3J</i>
393	Chr05: 176784688 176784689	<i>RGS14</i>	438	Chr06: 28175446 28175447	<i>Non Coding Region</i>
394	Chr05: 176784719 176784720	<i>RGS14</i>	439	Chr06: 28557400 28557401	<i>Non Coding Region</i>
395	Chr05: 37835168 37835169	<i>GDNF</i>	440	Chr06: 28557411 28557412	<i>Non Coding Region</i>
396	Chr05: 38257541 38257542	<i>EGFLAM</i>	441	Chr06: 28557518 28557519	<i>Non Coding Region</i>
397	Chr05: 40681137 40681138	<i>PTGER4</i>	442	Chr06: 28956609 28956610	<i>Non Coding Region</i>
398	Chr05: 40681893 40681894	<i>PTGER4</i>	443	Chr06: 29894737 29894738	<i>HCG4P6</i>
399	Chr05: 40682069 40682070	<i>PTGER4</i>	444	Chr06: 29894820 29894821	<i>HCG4P6</i>
400	Chr05: 42951192 42951193	<i>Non Coding Region</i>	445	Chr06: 29895074 29895075	<i>Non Coding Region</i>
401	Chr05: 42952113 42952114	<i>Non Coding Region</i>	446	Chr06: 30458158 30458159	<i>HLA-E</i>
402	Chr05: 42992774 42992775	<i>Non Coding Region</i>	447	Chr06: 31705409 31705410	<i>CLIC1</i>
403	Chr05: 42995203 42995204	<i>Non Coding Region</i>	448	Chr06: 32160455 32160456	<i>GPSM3</i>

Figure 42E

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
449	Chr06: 32407838 32407839	<i>HLA-DRA</i>	494	Chr07: 27196286 27196287	<i>HOXA7</i>
450	Chr06: 35265341 35265342	<i>DEF6</i>	495	Chr07: 27196302 27196303	<i>HOXA7</i>
451	Chr06: 35265379 35265380	<i>DEF6</i>	496	Chr07: 27197614 27197615	<i>HOXA7</i>
452	Chr06: 35265411 35265412	<i>DEF6</i>	497	Chr07: 27204005 27204006	<i>HOXA9</i>
453	Chr06: 35265544 35265545	<i>DEF6</i>	498	Chr07: 27204349 27204350	<i>HOXA9</i>
454	Chr06: 35265555 35265556	<i>DEF6</i>	499	Chr07: 27204981 27204982	<i>HOXA9</i>
455	Chr06: 35265616 35265617	<i>DEF6</i>	500	Chr07: 27205217 27205218	<i>HOXA9</i>
456	Chr06: 35265624 35265625	<i>DEF6</i>	501	Chr07: 27205224 27205225	<i>HOXA9</i>
457	Chr06: 35265643 35265644	<i>DEF6</i>	502	Chr07: 27205230 27205231	<i>HOXA9</i>
458	Chr06: 35265759 35265760	<i>DEF6</i>	503	Chr07: 27208285 27208286	<i>Non Coding Region</i>
459	Chr06: 35420754 35420755	<i>FANCE</i>	504	Chr07: 27213610 27213611	<i>HOXA10</i>
460	Chr06: 36973448 36973449	<i>FGD2</i>	505	Chr07: 27225058 27225059	<i>HOXA11AS,HOXA11</i>
461	Chr06: 41472382 41472383	<i>Non Coding Region</i>	506	Chr07: 27225523 27225524	<i>HOXA11AS,HOXA11</i>
462	Chr06: 41908262 41908263	<i>CCND3</i>	507	Chr07: 27225528 27225529	<i>HOXA11AS,HOXA11</i>
463	Chr06: 41978288 41978289	<i>CCND3</i>	508	Chr07: 27240758 27240759	<i>HOXA13</i>
464	Chr06: 45645497 45645498	<i>Non Coding Region</i>	509	Chr07: 27242044 27242045	<i>Non Coding Region</i>
465	Chr06: 50808699 50808700	<i>TFAP2B</i>	510	Chr07: 30951432 30951433	<i>AQP1</i>
466	Chr06: 52439807 52439808	<i>TRAM2</i>	511	Chr07: 32802694 32802695	<i>Non Coding Region</i>
467	Chr06: 6004207 6004208	<i>NRN1</i>	512	Chr07: 33080615 33080616	<i>NT5C3</i>
468	Chr06: 6007670 6007671	<i>NRN1</i>	513	Chr07: 37960317 37960318	<i>EPDR1</i>
469	Chr06: 7107108 7107109	<i>RREB1</i>	514	Chr07: 45025620 45025621	<i>SNORA9,C7orf40</i>
470	Chr06: 7137908 7137909	<i>RREB1</i>	515	Chr07: 64349133 64349134	<i>Non Coding Region</i>
471	Chr06: 73330208 73330209	<i>KCNQ5</i>	516	Chr07: 64349557 64349558	<i>Non Coding Region</i>
472	Chr06: 75794800 75794801	<i>COL12A1</i>	517	Chr07: 64349706 64349707	<i>Non Coding Region</i>
473	Chr06: 75917560 75917561	<i>Non Coding Region</i>	518	Chr07: 73417264 73417265	<i>Non Coding Region</i>
474	Chr06: 91004452 91004453	<i>BACH2</i>	519	Chr07: 76828885 76828886	<i>CCDC146,FGL2</i>
475	Chr07: 100042467 100042468	<i>Non Coding Region</i>	520	Chr07: 95025836 95025837	<i>PON3</i>
476	Chr07: 100203506 100203507	<i>PCOLCE</i>	521	Chr07: 96650171 96650172	<i>DLX5</i>
477	Chr07: 113722758 113722759	<i>Non Coding Region</i>	522	Chr07: 96654782 96654783	<i>DLX5</i>
478	Chr07: 113723162 113723163	<i>Non Coding Region</i>	523	Chr07: 98311382 98311383	<i>Non Coding Region</i>
479	Chr07: 113723569 113723570	<i>Non Coding Region</i>	524	Chr07: 99595276 99595277	<i>Non Coding Region</i>
480	Chr07: 127671193 127671194	<i>LRRC4,SND1</i>	525	Chr08: 101822108 101822109	<i>Non Coding Region</i>
481	Chr07: 128531106 128531107	<i>KCP</i>	526	Chr08: 124173385 124173386	<i>Non Coding Region</i>
482	Chr07: 128809228 128809229	<i>Non Coding Region</i>	527	Chr08: 125721998 125721999	<i>MTSS1</i>
483	Chr07: 130126024 130126025	<i>MEST</i>	528	Chr08: 134511683 134511684	<i>ST3GAL1</i>
484	Chr07: 151078646 151078647	<i>WDR86</i>	529	Chr08: 134581043 134581044	<i>ST3GAL1</i>
485	Chr07: 151078750 151078751	<i>WDR86</i>	530	Chr08: 1414952 1414953	<i>Non Coding Region</i>
486	Chr07: 151330230 151330231	<i>PRKAG2</i>	531	Chr08: 145013249 145013250	<i>PLEC1</i>
487	Chr07: 155597842 155597843	<i>SHH</i>	532	Chr08: 145013478 145013479	<i>PLEC1</i>
488	Chr07: 158620335 158620336	<i>ESYT2</i>	533	Chr08: 2023251 2023252	<i>MYOM2</i>
489	Chr07: 23508189 23508190	<i>IGF2BP3</i>	534	Chr08: 2023317 2023318	<i>MYOM2</i>
490	Chr07: 2551513 2551514	<i>LFNG</i>	535	Chr08: 24151625 24151626	<i>ADAM28</i>
491	Chr07: 26193109 26193110	<i>NFE2L3</i>	536	Chr08: 49612450 49612451	<i>Non Coding Region</i>
492	Chr07: 27192061 27192062	<i>Non Coding Region</i>	537	Chr08: 61917230 61917231	<i>Non Coding Region</i>
493	Chr07: 27192246 27192247	<i>Non Coding Region</i>	538	Chr08: 82192519 82192520	<i>FABP5</i>

Figure 42F

539	Chr08: 99951730 99951731	<i>Non Coding Region</i>	584	Chr11: 120435056 120435057	<i>Non Coding Region</i>
540	Chr08: 99952047 99952048	<i>Non Coding Region</i>	585	Chr11: 2292691 2292692	<i>ASCL2</i>
541	Chr09: 112810402 112810403	<i>PALM2-AKAP2,AKAP2</i>	586	Chr11: 2548282 2548283	<i>KCNQ1</i>
542	Chr09: 112812363 112812364	<i>PALM2-AKAP2,AKAP2</i>	587	Chr11: 268976 268977	<i>Non Coding Region</i>
543	Chr09: 126777673 126777674	<i>LHX2</i>	588	Chr11: 31841524 31841525	<i>Non Coding Region</i>
544	Chr09: 136603716 136603717	<i>SARDH</i>	589	Chr11: 406829 406830	<i>SIGIRR</i>
545	Chr09: 140172089 140172090	<i>C9orf167</i>	590	Chr11: 406901 406902	<i>SIGIRR</i>
546	Chr09: 27528300 27528301	<i>MOBKLL2B</i>	591	Chr11: 415088 415089	<i>SIGIRR</i>
547	Chr09: 34591041 34591042	<i>CNTFR</i>	592	Chr11: 46370729 46370730	<i>DGKZ</i>
548	Chr09: 38339335 38339336	<i>Non Coding Region</i>	593	Chr11: 46389307 46389308	<i>DGKZ</i>
549	Chr09: 79627216 79627217	<i>Non Coding Region</i>	594	Chr11: 47290613 47290614	<i>MADD</i>
550	Chr09: 96721468 96721469	<i>Non Coding Region</i>	595	Chr11: 61062910 61062911	<i>VWCE</i>
551	Chr10: 100206094 100206095	<i>HPS1</i>	596	Chr11: 627152 627153	<i>SCT</i>
552	Chr10: 101605988 101605989	<i>ABCC2</i>	597	Chr11: 67184596 67184597	<i>ATPGDI</i>
553	Chr10: 101606026 101606027	<i>ABCC2</i>	598	Chr11: 67351608 67351609	<i>GSTP1</i>
554	Chr10: 102586999 102587000	<i>PAX2</i>	599	Chr11: 68622739 68622740	<i>Non Coding Region</i>
555	Chr10: 102587110 102587111	<i>PAX2</i>	600	Chr11: 720859 720860	<i>EPSSL2</i>
556	Chr10: 102589102 102589103	<i>PAX2</i>	601	Chr11: 76382149 76382150	<i>LRRC32</i>
557	Chr10: 104434010 104434011	<i>ARL3</i>	602	Chr11: 7695528 7695529	<i>CYB5R2</i>
558	Chr10: 112624555 112624556	<i>Non Coding Region</i>	603	Chr12: 100751051 100751052	<i>SLC17A8</i>
559	Chr10: 114136053 114136054	<i>ACSL5</i>	604	Chr12: 111844676 111844677	<i>SH2B3</i>
560	Chr10: 114136073 114136074	<i>ACSL5</i>	605	Chr12: 113416061 113416062	<i>OAS2</i>
561	Chr10: 119304487 119304488	<i>EMX2OS,EMX2</i>	606	Chr12: 113416518 113416519	<i>OAS2</i>
562	Chr10: 119590450 119590451	<i>Non Coding Region</i>	607	Chr12: 114836014 114836015	<i>TBX5</i>
563	Chr10: 119590608 119590609	<i>Non Coding Region</i>	608	Chr12: 116997079 116997080	<i>MAP1LC3B2</i>
564	Chr10: 122708532 122708533	<i>Non Coding Region</i>	609	Chr12: 116997535 116997536	<i>MAP1LC3B2</i>
565	Chr10: 122708739 122708740	<i>Non Coding Region</i>	610	Chr12: 122277360 122277361	<i>Non Coding Region</i>
566	Chr10: 129845660 129845661	<i>PTPRE</i>	611	Chr12: 122519674 122519675	<i>MLXIP</i>
567	Chr10: 133484610 133484611	<i>Non Coding Region</i>	612	Chr12: 130529951 130529952	<i>Non Coding Region</i>
568	Chr10: 134872255 134872256	<i>Non Coding Region</i>	613	Chr12: 131996019 131996020	<i>Non Coding Region</i>
569	Chr10: 16933505 16933506	<i>CUBN</i>	614	Chr12: 132657819 132657820	<i>Non Coding Region</i>
570	Chr10: 22625465 22625466	<i>Non Coding Region</i>	615	Chr12: 278159 278160	<i>IQSEC3</i>
571	Chr10: 45914688 45914689	<i>ALOX5</i>	616	Chr12: 3309495 3309496	<i>TSPAN9</i>
572	Chr10: 56711107 56711108	<i>Non Coding Region</i>	617	Chr12: 3309708 3309709	<i>TSPAN9</i>
573	Chr10: 63510947 63510948	<i>C10orf107</i>	618	Chr12: 3862575 3862576	<i>EFCAB4B</i>
574	Chr10: 79687289 79687290	<i>LOC100128292,DLG5</i>	619	Chr12: 3862597 3862598	<i>EFCAB4B</i>
575	Chr10: 88730946 88730947	<i>AGAP11</i>	620	Chr12: 46663660 46663661	<i>SLC38A1</i>
576	Chr10: 99798430 99798431	<i>Non Coding Region</i>	621	Chr12: 49391363 49391364	<i>DDN</i>
577	Chr11: 10477399 10477400	<i>AMPD3</i>	622	Chr12: 52317302 52317303	<i>Non Coding Region</i>
578	Chr11: 10477452 10477453	<i>AMPD3</i>	623	Chr12: 52317475 52317476	<i>Non Coding Region</i>
579	Chr11: 10477461 10477462	<i>AMPD3</i>	624	Chr12: 52652377 52652378	<i>Non Coding Region</i>
580	Chr11: 10477847 10477848	<i>AMPD3</i>	625	Chr12: 53601015 53601016	<i>ITGB7</i>
581	Chr11: 104916075 104916076	<i>CARD16,CASP1</i>	626	Chr12: 53601050 53601051	<i>ITGB7</i>
582	Chr11: 118481025 118481026	<i>PHLDB1</i>	627	Chr12: 54071111 54071112	<i>ATP5G2</i>
583	Chr11: 119227328 119227329	<i>USP2</i>	628	Chr12: 54132568 54132569	<i>Non Coding Region</i>

Figure 42G

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
629	Chr12: 54357530 54357531	<i>HOTAIR</i>	674	Chr14: 24808787 24808788	<i>RIPK3</i>
630	Chr12: 54389891 54389892	<i>Non Coding Region</i>	675	Chr14: 24808987 24808988	<i>RIPK3</i>
631	Chr12: 54398809 54398810	<i>Non Coding Region</i>	676	Chr14: 24809068 24809069	<i>RIPK3</i>
632	Chr12: 54408664 54408665	<i>Non Coding Region</i>	677	Chr14: 24809073 24809074	<i>RIPK3</i>
633	Chr12: 54409321 54409322	<i>HOXC5,HOXC4,HOXC6</i>	678	Chr14: 24809226 24809227	<i>RIPK3</i>
634	Chr12: 54409491 54409492	<i>HOXC5,HOXC4,HOXC6</i>	679	Chr14: 24809297 24809298	<i>RIPK3</i>
635	Chr12: 54421033 54421034	<i>HOXC5,HOXC4,HOXC6</i>	680	Chr14: 24809442 24809443	<i>RIPK3</i>
636	Chr12: 54446944 54446945	<i>HOXC4</i>	681	Chr14: 37125531 37125532	<i>PAX9</i>
637	Chr12: 57618943 57618944	<i>NXPH4</i>	682	Chr14: 50527872 50527873	<i>Non Coding Region</i>
638	Chr12: 58013458 58013459	<i>SLC26A10</i>	683	Chr14: 52734525 52734526	<i>PTGDR</i>
639	Chr12: 58013475 58013476	<i>SLC26A10</i>	684	Chr14: 52735421 52735422	<i>PTGDR</i>
640	Chr12: 58013636 58013637	<i>SLC26A10</i>	685	Chr14: 54423807 54423808	<i>BMP4</i>
641	Chr12: 58013645 58013646	<i>SLC26A10</i>	686	Chr14: 57283436 57283437	<i>OTX2OS1</i>
642	Chr12: 58021309 58021310	<i>B4GALNT1</i>	687	Chr14: 60618622 60618623	<i>DHRS7</i>
643	Chr12: 58135833 58135834	<i>AGAP2</i>	688	Chr14: 61104967 61104968	<i>Non Coding Region</i>
644	Chr12: 6184355 6184356	<i>VWF</i>	689	Chr14: 62035475 62035476	<i>Non Coding Region</i>
645	Chr12: 70083096 70083097	<i>BEST3</i>	690	Chr14: 62218076 62218077	<i>Non Coding Region</i>
646	Chr12: 8088818 8088819	<i>SLC2A3</i>	691	Chr14: 76009633 76009634	<i>BATF</i>
647	Chr12: 98793604 98793605	<i>Non Coding Region</i>	692	Chr15: 31727289 31727290	<i>Non Coding Region</i>
648	Chr13: 100608263 100608264	<i>Non Coding Region</i>	693	Chr15: 33011166 33011167	<i>GREM1</i>
649	Chr13: 100641867 100641868	<i>Non Coding Region</i>	694	Chr15: 41787780 41787781	<i>ITPKA</i>
650	Chr13: 100641900 100641901	<i>Non Coding Region</i>	695	Chr15: 42262356 42262357	<i>EHD4</i>
651	Chr13: 100643312 100643313	<i>Non Coding Region</i>	696	Chr15: 43414974 43414975	<i>Non Coding Region</i>
652	Chr13: 108922274 108922275	<i>TNFSF13B</i>	697	Chr15: 45479755 45479756	<i>SHF</i>
653	Chr13: 113623300 113623301	<i>MCF2L</i>	698	Chr15: 55543264 55543265	<i>RAB27A</i>
654	Chr13: 20767968 20767969	<i>GJB2</i>	699	Chr15: 60690826 60690827	<i>ANXA2</i>
655	Chr13: 20768138 20768139	<i>GJB2</i>	700	Chr15: 70785399 70785400	<i>Non Coding Region</i>
656	Chr13: 24844846 24844847	<i>SPATA13</i>	701	Chr15: 75076251 75076252	<i>CSK</i>
657	Chr13: 24844852 24844853	<i>SPATA13</i>	702	Chr15: 75082885 75082886	<i>CSK</i>
658	Chr13: 24844896 24844897	<i>SPATA13</i>	703	Chr15: 75251491 75251492	<i>Non Coding Region</i>
659	Chr13: 28491615 28491616	<i>Non Coding Region</i>	704	Chr15: 76627666 76627667	<i>ISL2</i>
660	Chr13: 28527255 28527256	<i>Non Coding Region</i>	705	Chr15: 76630095 76630096	<i>ISL2</i>
661	Chr13: 28544760 28544761	<i>CDX2</i>	706	Chr15: 76633627 76633628	<i>ISL2</i>
662	Chr13: 41548815 41548816	<i>ELF1</i>	707	Chr15: 76633981 76633982	<i>ISL2</i>
663	Chr13: 43566618 43566619	<i>EPSTI1</i>	708	Chr15: 76634516 76634517	<i>ISL2</i>
664	Chr13: 43566642 43566643	<i>EPSTI1</i>	709	Chr15: 81292171 81292172	<i>MESDC1</i>
665	Chr13: 50202547 50202548	<i>ARL11</i>	710	Chr15: 89949776 89949777	<i>Non Coding Region</i>
666	Chr13: 50202570 50202571	<i>ARL11</i>	711	Chr15: 93617030 93617031	<i>RGMA</i>
667	Chr13: 79176272 79176273	<i>POU4F1</i>	712	Chr15: 96515411 96515412	<i>Non Coding Region</i>
668	Chr13: 79176572 79176573	<i>POU4F1</i>	713	Chr16: 19980811 19980812	<i>Non Coding Region</i>
669	Chr13: 79177467 79177468	<i>POU4F1</i>	714	Chr16: 23847325 23847326	<i>PRKCB</i>
670	Chr13: 79177782 79177783	<i>POU4F1</i>	715	Chr16: 27378982 27378983	<i>Non Coding Region</i>
671	Chr13: 98794470 98794471	<i>FARP1</i>	716	Chr16: 27461445 27461446	<i>IL21R</i>
672	Chr14: 100613518 100613519	<i>DEGS2</i>	717	Chr16: 29086428 29086429	<i>RRN3P2</i>
673	Chr14: 105512306 105512307	<i>Non Coding Region</i>	718	Chr16: 31488238 31488239	<i>TGFB1I1</i>

Figure 42H

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
719	Chr16: 4363832 4363833	<i>Non Coding Region</i>	764	Chr17: 56406294 56406295	<i>BZRAP1</i>
720	Chr16: 50300322 50300323	<i>Non Coding Region</i>	765	Chr17: 56414613 56414614	<i>Non Coding Region</i>
721	Chr16: 54316049 54316050	<i>Non Coding Region</i>	766	Chr17: 56415478 56415479	<i>Non Coding Region</i>
722	Chr16: 56672387 56672388	<i>MT1A</i>	767	Chr17: 57719682 57719683	<i>CLTC</i>
723	Chr16: 69597925 69597926	<i>NFAT5</i>	768	Chr17: 59480674 59480675	<i>TBX2</i>
724	Chr16: 72821498 72821499	<i>ZFXH3</i>	769	Chr17: 59480730 59480731	<i>TBX2</i>
725	Chr16: 85784062 85784063	<i>C16orf74</i>	770	Chr17: 62777648 62777649	<i>LOC146880</i>
726	Chr16: 85932666 85932667	<i>IRF8</i>	771	Chr17: 62777693 62777694	<i>LOC146880</i>
727	Chr16: 86232457 86232458	<i>Non Coding Region</i>	772	Chr17: 62777761 62777762	<i>LOC146880</i>
728	Chr16: 88700818 88700819	<i>Non Coding Region</i>	773	Chr17: 62777777 62777778	<i>LOC146880</i>
729	Chr16: 88717134 88717135	<i>CYBA</i>	774	Chr17: 63225392 63225393	<i>Non Coding Region</i>
730	Chr16: 88717374 88717375	<i>CYBA</i>	775	Chr17: 66255427 66255428	<i>ARSG</i>
731	Chr16: 88717456 88717457	<i>CYBA</i>	776	Chr17: 7239821 7239822	<i>ACAP1</i>
732	Chr16: 88717472 88717473	<i>CYBA</i>	777	Chr17: 75567635 75567636	<i>Non Coding Region</i>
733	Chr16: 88717646 88717647	<i>CYBA</i>	778	Chr17: 75877811 75877812	<i>FLJ45079</i>
734	Chr16: 89006367 89006368	<i>CBFA2T3</i>	779	Chr17: 76128481 76128482	<i>TMC6,TMC8</i>
735	Chr16: 89006455 89006456	<i>CBFA2T3</i>	780	Chr17: 76128522 76128523	<i>TMC6,TMC8</i>
736	Chr16: 89778301 89778302	<i>C16orf7</i>	781	Chr17: 76128556 76128557	<i>TMC6,TMC8</i>
737	Chr16: 89778660 89778661	<i>C16orf7</i>	782	Chr17: 7621545 7621546	<i>DNAH2</i>
738	Chr17: 1992954 1992955	<i>SMG6</i>	783	Chr17: 7621575 7621576	<i>DNAH2</i>
739	Chr17: 19976820 19976821	<i>Non Coding Region</i>	784	Chr17: 76662056 76662057	<i>Non Coding Region</i>
740	Chr17: 27893407 27893408	<i>ABHD15</i>	785	Chr17: 80186266 80186267	<i>SLC16A3</i>
741	Chr17: 3438918 3438919	<i>TRPV3</i>	786	Chr17: 80186273 80186274	<i>SLC16A3</i>
742	Chr17: 3438933 3438934	<i>TRPV3</i>	787	Chr17: 80186275 80186276	<i>SLC16A3</i>
743	Chr17: 35078971 35078972	<i>Non Coding Region</i>	788	Chr17: 80186336 80186337	<i>SLC16A3</i>
744	Chr17: 35293930 35293931	<i>LHX1</i>	789	Chr17: 80255419 80255420	<i>Non Coding Region</i>
745	Chr17: 35294476 35294477	<i>LHX1</i>	790	Chr17: 80255457 80255458	<i>Non Coding Region</i>
746	Chr17: 35294481 35294482	<i>LHX1</i>	791	Chr17: 9143174 9143175	<i>NTN1</i>
747	Chr17: 35294491 35294492	<i>LHX1</i>	792	Chr18: 2906032 2906033	<i>EMILIN2</i>
748	Chr17: 36105337 36105338	<i>HNF1B</i>	793	Chr18: 29265842 29265843	<i>B4GALT6</i>
749	Chr17: 36204489 36204490	<i>LOC284100</i>	794	Chr18: 3499093 3499094	<i>DLGAP1</i>
750	Chr17: 36715074 36715075	<i>SRCIN1</i>	795	Chr18: 3499253 3499254	<i>DLGAP1</i>
751	Chr17: 36715953 36715954	<i>SRCIN1</i>	796	Chr18: 56976186 56976187	<i>CPLX4</i>
752	Chr17: 36728456 36728457	<i>SRCIN1</i>	797	Chr19: 1074727 1074728	<i>HMHA1</i>
753	Chr17: 37028650 37028651	<i>LASP1</i>	798	Chr19: 1132256 1132257	<i>SBNO2</i>
754	Chr17: 3819880 3819881	<i>P2RX1</i>	799	Chr19: 1132294 1132295	<i>SBNO2</i>
755	Chr17: 40089267 40089268	<i>TTC25</i>	800	Chr19: 1132313 1132314	<i>SBNO2</i>
756	Chr17: 42287971 42287972	<i>UBTF</i>	801	Chr19: 1132339 1132340	<i>SBNO2</i>
757	Chr17: 43306802 43306803	<i>FMNL1</i>	802	Chr19: 1132372 1132373	<i>SBNO2</i>
758	Chr17: 43392165 43392166	<i>MAP3K14</i>	803	Chr19: 1132389 1132390	<i>SBNO2</i>
759	Chr17: 44896877 44896878	<i>WNT3</i>	804	Chr19: 1132537 1132538	<i>SBNO2</i>
760	Chr17: 46797042 46797043	<i>Non Coding Region</i>	805	Chr19: 11532175 11532176	<i>CCDC151</i>
761	Chr17: 48050274 48050275	<i>DLX4</i>	806	Chr19: 11533499 11533500	<i>CCDC151</i>
762	Chr17: 48351821 48351822	<i>TMEM92</i>	807	Chr19: 13124776 13124777	<i>NFIX</i>
763	Chr17: 53341243 53341244	<i>HLF</i>	808	Chr19: 13275288 13275289	<i>Non Coding Region</i>

Figure 42I

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
809	Chr19: 14168210 14168211	<i>PALM3</i>	854	Chr21: 42880714 42880715	<i>TPMRSS2</i>
810	Chr19: 14169966 14169967	<i>PALM3</i>	855	Chr21: 46340905 46340906	<i>ITGB2</i>
811	Chr19: 14785849 14785850	<i>EMR3</i>	856	Chr21: 46898137 46898138	<i>COL18A1</i>
812	Chr19: 16181372 16181373	<i>TPM4</i>	857	Chr22: 19711007 19711008	<i>SEPT5,GP1BB</i>
813	Chr19: 16189360 16189361	<i>TPM4</i>	858	Chr22: 19753364 19753365	<i>TBX1</i>
814	Chr19: 16999576 16999577	<i>F2RL3</i>	859	Chr22: 19754251 19754252	<i>TBX1</i>
815	Chr19: 16999614 16999615	<i>F2RL3</i>	860	Chr22: 19754448 19754449	<i>TBX1</i>
816	Chr19: 17346367 17346368	<i>NR2F6</i>	861	Chr22: 19879176 19879177	<i>TXNRD2</i>
817	Chr19: 17346507 17346508	<i>NR2F6</i>	862	Chr22: 37813098 37813099	<i>ELFN2</i>
818	Chr19: 17403176 17403177	<i>ABHD8</i>	863	Chr22: 38221187 38221188	<i>GALR3</i>
819	Chr19: 17403313 17403314	<i>ABHD8</i>	864	Chr22: 39493114 39493115	<i>APOBEC3H</i>
820	Chr19: 17403529 17403530	<i>ABHD8</i>	865	Chr22: 46366859 46366860	<i>WNT7B</i>
821	Chr19: 17958736 17958737	<i>JAK3</i>	866	Chr22: 46367617 46367618	<i>WNT7B</i>
822	Chr19: 17958825 17958826	<i>JAK3</i>	867	Chr22: 46454012 46454013	<i>LOC150381</i>
823	Chr19: 1857004 1857005	<i>KLF16</i>	868	Chr22: 46770195 46770196	<i>CELSR1</i>
824	Chr19: 3136076 3136077	<i>GNA15</i>	869	Chr22: 46770253 46770254	<i>CELSR1</i>
825	Chr19: 35786821 35786822	<i>MAG</i>	870	ChrX: 106161451 106161452	<i>CLDN2</i>
826	Chr19: 36132627 36132628	<i>ETV2</i>	871	ChrX: 109936239 109936240	<i>CHRD1</i>
827	Chr19: 38183259 38183260	<i>ZNF781</i>		Alternative markers: High in CRC, other cancers	
828	Chr19: 38183262 38183263	<i>ZNF781</i>	872	Chr01: 110611465 110611466	<i>ALX3</i>
829	Chr19: 3822189 3822190	<i>ZFR2</i>	873	Chr01: 111217194 111217195	<i>KCNA3</i>
830	Chr19: 38701994 38701995	<i>DPF1</i>	874	Chr01: 111217406 111217407	<i>KCNA3</i>
831	Chr19: 42927074 42927075	<i>LIPE</i>	875	Chr01: 111217497 111217498	<i>KCNA3</i>
832	Chr19: 50004294 50004295	<i>MIR150</i>	876	Chr01: 111217691 111217692	<i>KCNA3</i>
833	Chr19: 50004444 50004445	<i>MIR150</i>	877	Chr01: 111217712 111217713	<i>KCNA3</i>
834	Chr19: 51670432 51670433	<i>SIGLECP3</i>	878	Chr01: 114697113 114697114	<i>SYT6</i>
835	Chr19: 908894 908895	<i>C19orf22</i>	879	Chr01: 119532195 119532196	<i>TBX15</i>
836	Chr20: 21081901 21081902	<i>Non Coding Region</i>	880	Chr01: 119543336 119543337	<i>Non Coding Region</i>
837	Chr20: 23123952 23123953	<i>Non Coding Region</i>	881	Chr01: 119549263 119549264	<i>Non Coding Region</i>
838	Chr20: 3053037 3053038	<i>OXT</i>	882	Chr01: 119550803 119550804	<i>Non Coding Region</i>
839	Chr20: 30639305 30639306	<i>HCK</i>	883	Chr01: 1475675 1475676	<i>C1orf70</i>
840	Chr20: 36932553 36932554	<i>BPI</i>	884	Chr01: 151810893 151810894	<i>LOC100132111,C2CD4D</i>
841	Chr20: 42544728 42544729	<i>TOX2</i>	885	Chr01: 154475139 154475140	<i>TDRD10,SHE</i>
842	Chr20: 48061990 48061991	<i>KCNB1</i>	886	Chr01: 154475173 154475174	<i>TDRD10,SHE</i>
843	Chr20: 55200146 55200147	<i>Non Coding Region</i>	887	Chr01: 156130826 156130827	<i>SEMA4A</i>
844	Chr20: 56025683 56025684	<i>Non Coding Region</i>	888	Chr01: 1566699 1566700	<i>MMP23B,MMP23A</i>
845	Chr20: 62369445 62369446	<i>LIME1</i>	889	Chr01: 169396635 169396636	<i>C1orf114</i>
846	Chr20: 62369462 62369463	<i>LIME1</i>	890	Chr01: 169396637 169396638	<i>C1orf114</i>
847	Chr21: 36399146 36399147	<i>RUNX1</i>	891	Chr01: 169396706 169396707	<i>C1orf114</i>
848	Chr21: 36399226 36399227	<i>RUNX1</i>	892	Chr01: 169396712 169396713	<i>C1orf114</i>
849	Chr21: 36399258 36399259	<i>RUNX1</i>	893	Chr01: 169396785 169396786	<i>C1orf114</i>
850	Chr21: 38120350 38120351	<i>SIM2</i>	894	Chr01: 169396834 169396835	<i>C1orf114</i>
851	Chr21: 39878866 39878867	<i>ERG</i>	895	Chr01: 169396858 169396859	<i>C1orf114</i>
852	Chr21: 42733825 42733826	<i>MX2</i>	896	Chr01: 169396868 169396869	<i>C1orf114</i>
853	Chr21: 42733894 42733895	<i>MX2</i>	897	Chr01: 170630558 170630559	<i>Non Coding Region</i>

Figure 42J

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
898	Chr01: 18959268 18959269	<i>PAX7</i>	943	Chr02: 119599748 119599749	<i>EN1</i>
899	Chr01: 190447290 190447291	<i>FAM5C</i>	944	Chr02: 119600002 119600003	<i>EN1</i>
900	Chr01: 200008026 200008027	<i>NR5A2</i>	945	Chr02: 127413831 127413832	<i>GYPC</i>
901	Chr01: 207818395 207818396	<i>CRIL</i>	946	Chr02: 127414108 127414109	<i>GYPC</i>
902	Chr01: 221050491 221050492	<i>Non Coding Region</i>	947	Chr02: 127414381 127414382	<i>GYPC</i>
903	Chr01: 228652338 228652339	<i>Non Coding Region</i>	948	Chr02: 131721692 131721693	<i>ARHGEF4</i>
904	Chr01: 228652478 228652479	<i>Non Coding Region</i>	949	Chr02: 139537197 139537198	<i>NXP2</i>
905	Chr01: 228652528 228652529	<i>Non Coding Region</i>	950	Chr02: 171678954 171678955	<i>GAD1</i>
906	Chr01: 229543112 229543113	<i>Non Coding Region</i>	951	Chr02: 172972840 172972841	<i>Non Coding Region</i>
907	Chr01: 229568252 229568253	<i>ACTA1</i>	952	Chr02: 176956678 176956679	<i>HOXD13</i>
908	Chr01: 237205174 237205175	<i>RYR2</i>	953	Chr02: 177030150 177030151	<i>HOXD3</i>
909	Chr01: 237205409 237205410	<i>RYR2</i>	954	Chr02: 182321489 182321490	<i>ITGA4</i>
910	Chr01: 243646318 243646319	<i>SDCCAG8</i>	955	Chr02: 182321496 182321497	<i>ITGA4</i>
911	Chr01: 2987645 2987646	<i>PRDM16</i>	956	Chr02: 185462408 185462409	<i>ZNF804A</i>
912	Chr01: 36043352 36043353	<i>TFAP2E</i>	957	Chr02: 206551364 206551365	<i>NRP2</i>
913	Chr01: 44031300 44031301	<i>PTPRF</i>	958	Chr02: 208989248 208989249	<i>CRYGD</i>
914	Chr01: 44873064 44873065	<i>RNF220</i>	959	Chr02: 208989382 208989383	<i>CRYGD</i>
915	Chr01: 44873229 44873230	<i>RNF220</i>	960	Chr02: 220299740 220299741	<i>SPEG</i>
916	Chr01: 4714974 4714975	<i>AJAP1</i>	961	Chr02: 220361467 220361468	<i>Non Coding Region</i>
917	Chr01: 47911449 47911450	<i>Non Coding Region</i>	962	Chr02: 220361609 220361610	<i>Non Coding Region</i>
918	Chr01: 47911508 47911509	<i>Non Coding Region</i>	963	Chr02: 222435214 222435215	<i>EPHA4</i>
919	Chr01: 48058985 48058986	<i>Non Coding Region</i>	964	Chr02: 223161771 223161772	<i>CCDC140,PAX3</i>
920	Chr01: 48059173 48059174	<i>Non Coding Region</i>	965	Chr02: 223162049 223162050	<i>CCDC140,PAX3</i>
921	Chr01: 50882006 50882007	<i>Non Coding Region</i>	966	Chr02: 228736253 228736254	<i>WDR69</i>
922	Chr01: 50884480 50884481	<i>DMRTA2</i>	967	Chr02: 233499070 233499071	<i>EFHD1</i>
923	Chr01: 50886782 50886783	<i>DMRTA2</i>	968	Chr02: 237416338 237416339	<i>IQCA1</i>
924	Chr01: 50886949 50886950	<i>DMRTA2</i>	969	Chr02: 238864632 238864633	<i>Non Coding Region</i>
925	Chr01: 58715539 58715540	<i>DAB1</i>	970	Chr02: 239140318 239140319	<i>LOC643387,LOC151174</i>
926	Chr01: 63785544 63785545	<i>Non Coding Region</i>	971	Chr02: 242743588 242743589	<i>GAL3ST2</i>
927	Chr01: 6526325 6526326	<i>TNFRSF25,PLEKHG5</i>	972	Chr02: 25439110 25439111	<i>Non Coding Region</i>
928	Chr01: 67217853 67217854	<i>TCTEX1D1</i>	973	Chr02: 45029004 45029005	<i>Non Coding Region</i>
929	Chr01: 67217886 67217887	<i>TCTEX1D1</i>	974	Chr02: 45155991 45155992	<i>Non Coding Region</i>
930	Chr01: 67218135 67218136	<i>TCTEX1D1</i>	975	Chr02: 45231382 45231383	<i>Non Coding Region</i>
931	Chr01: 67218165 67218166	<i>TCTEX1D1</i>	976	Chr02: 468179 468180	<i>Non Coding Region</i>
932	Chr01: 77334207 77334208	<i>ST6GALNAC5</i>	977	Chr02: 63281139 63281140	<i>OTX1</i>
933	Chr01: 91183051 91183052	<i>BARHL2</i>	978	Chr02: 63283967 63283968	<i>OTX1</i>
934	Chr01: 91300215 91300216	<i>Non Coding Region</i>	979	Chr02: 66667101 66667102	<i>MEIS1</i>
935	Chr01: 9712928 9712929	<i>C1orf200,PIK3CD</i>	980	Chr02: 66667433 66667434	<i>MEIS1</i>
936	Chr01: 98511258 98511259	<i>Non Coding Region</i>	981	Chr02: 66809923 66809924	<i>Non Coding Region</i>
937	Chr01: 98511523 98511524	<i>Non Coding Region</i>	982	Chr02: 66810606 66810607	<i>Non Coding Region</i>
938	Chr01: 98511789 98511790	<i>MIR137</i>	983	Chr02: 74743437 74743438	<i>TLX2</i>
939	Chr01: 99470129 99470130	<i>LPPR5</i>	984	Chr02: 86263270 86263271	<i>POLR1A</i>
940	Chr02: 105459164 105459165	<i>Non Coding Region</i>	985	Chr02: 97193289 97193290	<i>Non Coding Region</i>
941	Chr02: 105461096 105461097	<i>Non Coding Region</i>	986	Chr03: 119528956 119528957	<i>NR1I2</i>
942	Chr02: 119591144 119591145	<i>Non Coding Region</i>	987	Chr03: 119529158 119529159	<i>NR1I2</i>

Figure 42K

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
988	Chr03: 121903520 121903521	CASR	1033	Chr04: 155254602 155254603	DCHS2
989	Chr03: 128202176 128202177	GATA2	1034	Chr04: 169799087 169799088	PALLD
990	Chr03: 128720884 128720885	CCDC48	1035	Chr04: 172734276 172734277	GALNTL6
991	Chr03: 129693385 129693386	TRH	1036	Chr04: 174430614 174430615	Non Coding Region
992	Chr03: 129693489 129693490	TRH	1037	Chr04: 174450408 174450409	NBLA00301,HAND2
993	Chr03: 129693586 129693587	TRH	1038	Chr04: 175133151 175133152	Non Coding Region
994	Chr03: 129694057 129694058	TRH	1039	Chr04: 42153708 42153709	BEND4
995	Chr03: 129694487 129694488	TRH	1040	Chr04: 4870486 4870487	Non Coding Region
996	Chr03: 133393454 133393455	Non Coding Region	1041	Chr04: 57522493 57522494	HOPX
997	Chr03: 138679512 138679513	Non Coding Region	1042	Chr04: 57522632 57522633	HOPX
998	Chr03: 138679578 138679579	Non Coding Region	1043	Chr04: 57522801 57522802	HOPX
999	Chr03: 139258939 139258940	RBP1	1044	Chr04: 779568 779569	CPLX1
1000	Chr03: 141516271 141516272	GRK7	1045	Chr04: 779691 779692	CPLX1
1001	Chr03: 141516291 141516292	GRK7	1046	Chr04: 81189927 81189928	FGF5
1002	Chr03: 169378764 169378765	MECOM	1047	Chr05: 100239919 100239920	ST8SIA4
1003	Chr03: 172165884 172165885	GHSR	1048	Chr05: 100240059 100240060	ST8SIA4
1004	Chr03: 172166517 172166518	GHSR	1049	Chr05: 110406506 110406507	TSLP
1005	Chr03: 179168677 179168678	GNB4	1050	Chr05: 115152413 115152414	CDO1
1006	Chr03: 179168760 179168761	GNB4	1051	Chr05: 115152431 115152432	CDO1
1007	Chr03: 184301468 184301469	Non Coding Region	1052	Chr05: 115152485 115152486	CDO1
1008	Chr03: 184301730 184301731	Non Coding Region	1053	Chr05: 115152492 115152493	CDO1
1009	Chr03: 185080816 185080817	MAP3K13	1054	Chr05: 115152494 115152495	CDO1
1010	Chr03: 192126165 192126166	FGF12	1055	Chr05: 119041114 119041115	CTNND2
1011	Chr03: 194408845 194408846	FAM43A	1056	Chr05: 134363324 134363325	Non Coding Region
1012	Chr03: 27765232 27765233	EOMES	1057	Chr05: 134825791 134825792	Non Coding Region
1013	Chr03: 27765409 27765410	Non Coding Region	1058	Chr05: 135266135 135266136	FBXL21
1014	Chr03: 32859377 32859378	TRIM71	1059	Chr05: 137225191 137225192	PKD2L2
1015	Chr03: 38035642 38035643	VILL	1060	Chr05: 140787504 140787505	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1016	Chr03: 44063593 44063594	Non Coding Region	1061	Chr05: 140787507 140787508	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1017	Chr03: 44063832 44063833	Non Coding Region	1062	Chr05: 140797172 140797173	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1018	Chr03: 62356962 62356963	FEZF2	1063	Chr05: 140797234 140797235	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1019	Chr04: 10459219 10459220	ZNF518B	1064	Chr05: 140797280 140797281	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1020	Chr04: 111555440 111555441	PITX2	1065	Chr05: 140800586 140800587	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1021	Chr04: 13524143 13524144	Non Coding Region	1066	Chr05: 140800929 140800930	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1022	Chr04: 13530269 13530270	Non Coding Region	1067	Chr05: 140864733 140864734	PCDHGB1,PCDHGB3, PCDHGB2, etc.
1023	Chr04: 13532951 13532952	Non Coding Region	1068	Chr05: 145720024 145720025	POU4F3
1024	Chr04: 13540946 13540947	Non Coding Region	1069	Chr05: 149535650 149535651	PDGFRB
1025	Chr04: 13543985 13543986	NKX3-2	1070	Chr05: 151066484 151066485	SPARC
1026	Chr04: 1396593 1396594	Non Coding Region	1071	Chr05: 151066486 151066487	SPARC
1027	Chr04: 140656749 140656750	MAML3	1072	Chr05: 158532401 158532402	Non Coding Region
1028	Chr04: 140656794 140656795	MAML3	1073	Chr05: 16180055 16180056	MARCHF11
1029	Chr04: 140656926 140656927	MAML3	1074	Chr05: 169064024 169064025	DOCK2
1030	Chr04: 147561775 147561776	POU4F2	1075	Chr05: 169064451 169064452	DOCK2
1031	Chr04: 147569938 147569939	Non Coding Region	1076	Chr05: 170740870 170740871	Non Coding Region
1032	Chr04: 155254497 155254498	DCHS2	1077	Chr05: 172659730 172659731	NKX2-5

Figure 42L

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1078	Chr05: 176107427 176107428	<i>Non Coding Region</i>	1123	Chr06: 152129388 152129389	<i>ESR1</i>
1079	Chr05: 177412718 177412719	<i>Non Coding Region</i>	1124	Chr06: 159590059 159590060	<i>FNDC1</i>
1080	Chr05: 178594097 178594098	<i>ADAMTS2</i>	1125	Chr06: 1624978 1624979	<i>GMDS</i>
1081	Chr05: 179220795 179220796	<i>LTC4S</i>	1126	Chr06: 1625111 1625112	<i>GMDS</i>
1082	Chr05: 1875886 1875887	<i>Non Coding Region</i>	1127	Chr06: 166582393 166582394	<i>T</i>
1083	Chr05: 1876168 1876169	<i>Non Coding Region</i>	1128	Chr06: 26240528 26240529	<i>HIST1H4F</i>
1084	Chr05: 1876337 1876338	<i>Non Coding Region</i>	1129	Chr06: 26240579 26240580	<i>HIST1H4F</i>
1085	Chr05: 2756113 2756114	<i>Non Coding Region</i>	1130	Chr06: 26240782 26240783	<i>HIST1H4F</i>
1086	Chr05: 2757244 2757245	<i>Non Coding Region</i>	1131	Chr06: 26240920 26240921	<i>HIST1H4F</i>
1087	Chr05: 3596704 3596705	<i>IRX1</i>	1132	Chr06: 26240939 26240940	<i>HIST1H4F</i>
1088	Chr05: 3597487 3597488	<i>IRX1</i>	1133	Chr06: 26745662 26745663	<i>Non Coding Region</i>
1089	Chr05: 37834672 37834673	<i>GDNF</i>	1134	Chr06: 27173633 27173634	<i>Non Coding Region</i>
1090	Chr05: 37834958 37834959	<i>GDNF</i>	1135	Chr06: 27173753 27173754	<i>Non Coding Region</i>
1091	Chr05: 42994709 42994710	<i>Non Coding Region</i>	1136	Chr06: 27173991 27173992	<i>Non Coding Region</i>
1092	Chr05: 42994776 42994777	<i>Non Coding Region</i>	1137	Chr06: 27463217 27463218	<i>Non Coding Region</i>
1093	Chr05: 528580 528581	<i>Non Coding Region</i>	1138	Chr06: 27463347 27463348	<i>Non Coding Region</i>
1094	Chr05: 528621 528622	<i>Non Coding Region</i>	1139	Chr06: 27513092 27513093	<i>Non Coding Region</i>
1095	Chr05: 54516487 54516488	<i>Non Coding Region</i>	1140	Chr06: 27513479 27513480	<i>Non Coding Region</i>
1096	Chr05: 54516805 54516806	<i>Non Coding Region</i>	1141	Chr06: 27647713 27647714	<i>Non Coding Region</i>
1097	Chr05: 72528111 72528112	<i>Non Coding Region</i>	1142	Chr06: 28411287 28411288	<i>ZSCAN23</i>
1098	Chr05: 72594461 72594462	<i>Non Coding Region</i>	1143	Chr06: 28458175 28458176	<i>Non Coding Region</i>
1099	Chr05: 72595685 72595686	<i>Non Coding Region</i>	1144	Chr06: 28603230 28603231	<i>Non Coding Region</i>
1100	Chr05: 72595741 72595742	<i>Non Coding Region</i>	1145	Chr06: 28603779 28603780	<i>Non Coding Region</i>
1101	Chr05: 87967845 87967846	<i>LOC645323</i>	1146	Chr06: 28778226 28778227	<i>Non Coding Region</i>
1102	Chr06: 100912940 100912941	<i>SIM1</i>	1147	Chr06: 28956247 28956248	<i>Non Coding Region</i>
1103	Chr06: 100912946 100912947	<i>SIM1</i>	1148	Chr06: 28956268 28956269	<i>Non Coding Region</i>
1104	Chr06: 10382828 10382829	<i>Non Coding Region</i>	1149	Chr06: 28956731 28956732	<i>Non Coding Region</i>
1105	Chr06: 10391412 10391413	<i>Non Coding Region</i>	1150	Chr06: 29521143 29521144	<i>Non Coding Region</i>
1106	Chr06: 105389599 105389600	<i>Non Coding Region</i>	1151	Chr06: 29521162 29521163	<i>Non Coding Region</i>
1107	Chr06: 105584551 105584552	<i>BVES</i>	1152	Chr06: 29521568 29521569	<i>Non Coding Region</i>
1108	Chr06: 106429316 106429317	<i>Non Coding Region</i>	1153	Chr06: 29521602 29521603	<i>Non Coding Region</i>
1109	Chr06: 106429443 106429444	<i>Non Coding Region</i>	1154	Chr06: 29521695 29521696	<i>Non Coding Region</i>
1110	Chr06: 108488335 108488336	<i>NR2E1</i>	1155	Chr06: 29521751 29521752	<i>Non Coding Region</i>
1111	Chr06: 108495678 108495679	<i>NR2E1</i>	1156	Chr06: 29521756 29521757	<i>Non Coding Region</i>
1112	Chr06: 10881925 10881926	<i>GCM2</i>	1157	Chr06: 29760164 29760165	<i>HCG4</i>
1113	Chr06: 10882240 10882241	<i>GCM2</i>	1158	Chr06: 29795815 29795816	<i>HLA-G</i>
1114	Chr06: 10882336 10882337	<i>GCM2</i>	1159	Chr06: 29943414 29943415	<i>HCG9</i>
1115	Chr06: 134210307 134210308	<i>TCF21</i>	1160	Chr06: 29943480 29943481	<i>HCG9</i>
1116	Chr06: 137809529 137809530	<i>Non Coding Region</i>	1161	Chr06: 30095728 30095729	<i>Non Coding Region</i>
1117	Chr06: 137814728 137814729	<i>OLIG3</i>	1162	Chr06: 30139634 30139635	<i>TRIM15</i>
1118	Chr06: 1379694 1379695	<i>Non Coding Region</i>	1163	Chr06: 30139641 30139642	<i>TRIM15</i>
1119	Chr06: 1384591 1384592	<i>Non Coding Region</i>	1164	Chr06: 30139880 30139881	<i>TRIM15</i>
1120	Chr06: 150286508 150286509	<i>ULBP1</i>	1165	Chr06: 30139903 30139904	<i>TRIM15</i>
1121	Chr06: 152128471 152128472	<i>ESR1</i>	1166	Chr06: 30140018 30140019	<i>TRIM15</i>
1122	Chr06: 152128865 152128866	<i>ESR1</i>	1167	Chr06: 32116905 32116906	<i>PRRT1</i>

Figure 42M

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1168	Chr06: 35108921 35108922	<i>TCP11</i>	1213	Chr07: 54612475 54612476	<i>VSTM2A</i>
1169	Chr06: 391764 391765	<i>IRF4</i>	1214	Chr07: 6703803 6703804	<i>Non Coding Region</i>
1170	Chr06: 391936 391937	<i>IRF4</i>	1215	Chr07: 70597058 70597059	<i>WBSCR17</i>
1171	Chr06: 41341601 41341602	<i>Non Coding Region</i>	1216	Chr07: 8482614 8482615	<i>NXPH1</i>
1172	Chr06: 42738967 42738968	<i>Non Coding Region</i>	1217	Chr07: 96650323 96650324	<i>DLX5</i>
1173	Chr06: 42739021 42739022	<i>Non Coding Region</i>	1218	Chr07: 96650668 96650669	<i>DLX5</i>
1174	Chr06: 43253097 43253098	<i>TBKI</i>	1219	Chr07: 96654788 96654789	<i>DLX5</i>
1175	Chr06: 50692252 50692253	<i>TFAP2D</i>	1220	Chr07: 98246001 98246002	<i>NPTX2</i>
1176	Chr06: 5994956 5994957	<i>Non Coding Region</i>	1221	Chr08: 104512858 104512859	<i>RIMS2</i>
1177	Chr06: 5994982 5994983	<i>Non Coding Region</i>	1222	Chr08: 11561724 11561725	<i>GATA4</i>
1178	Chr06: 78172337 78172338	<i>HTR1B</i>	1223	Chr08: 116660586 116660587	<i>TRPS1</i>
1179	Chr06: 85474028 85474029	<i>TBX18</i>	1224	Chr08: 116679763 116679764	<i>TRPS1</i>
1180	Chr07: 100073936 100073937	<i>TSC22D4</i>	1225	Chr08: 132054555 132054556	<i>Non Coding Region</i>
1181	Chr07: 100488942 100488943	<i>ACHE</i>	1226	Chr08: 140715540 140715541	<i>KCNK9</i>
1182	Chr07: 1270558 1270559	<i>Non Coding Region</i>	1227	Chr08: 143545789 143545790	<i>BAI1</i>
1183	Chr07: 127672458 127672459	<i>LRRC4, SND1</i>	1228	Chr08: 144650730 144650731	<i>C8orf73</i>
1184	Chr07: 127672473 127672474	<i>LRRC4, SND1</i>	1229	Chr08: 23563925 23563926	<i>NKX2-6</i>
1185	Chr07: 127672658 127672659	<i>SND1</i>	1230	Chr08: 23564025 23564026	<i>NKX2-6</i>
1186	Chr07: 143579951 143579952	<i>FAM115A</i>	1231	Chr08: 23564156 23564157	<i>NKX2-6</i>
1187	Chr07: 143580147 143580148	<i>FAM115A</i>	1232	Chr08: 23564193 23564194	<i>NKX2-6</i>
1188	Chr07: 149487338 149487339	<i>SSPO</i>	1233	Chr08: 23564591 23564592	<i>NKX2-6</i>
1189	Chr07: 149917263 149917264	<i>Non Coding Region</i>	1234	Chr08: 23567310 23567311	<i>Non Coding Region</i>
1190	Chr07: 155167038 155167039	<i>Non Coding Region</i>	1235	Chr08: 24771125 24771126	<i>NEFM</i>
1191	Chr07: 156797242 156797243	<i>Non Coding Region</i>	1236	Chr08: 38586066 38586067	<i>TACCI</i>
1192	Chr07: 156798258 156798259	<i>MXI1</i>	1237	Chr08: 49468828 49468829	<i>Non Coding Region</i>
1193	Chr07: 157481628 157481629	<i>PTPRN2</i>	1238	Chr08: 53851156 53851157	<i>NPBWR1</i>
1194	Chr07: 158937494 158937495	<i>VIPR2</i>	1239	Chr08: 53852030 53852031	<i>NPBWR1</i>
1195	Chr07: 19146032 19146033	<i>Non Coding Region</i>	1240	Chr08: 55367627 55367628	<i>Non Coding Region</i>
1196	Chr07: 19158647 19158648	<i>TWIST1</i>	1241	Chr08: 55379248 55379249	<i>Non Coding Region</i>
1197	Chr07: 19158664 19158665	<i>TWIST1</i>	1242	Chr08: 56852290 56852291	<i>LYN</i>
1198	Chr07: 19158692 19158693	<i>TWIST1</i>	1243	Chr08: 57025662 57025663	<i>MOS</i>
1199	Chr07: 19158747 19158748	<i>TWIST1</i>	1244	Chr08: 57069907 57069908	<i>Non Coding Region</i>
1200	Chr07: 19183732 19183733	<i>Non Coding Region</i>	1245	Chr08: 57070013 57070014	<i>Non Coding Region</i>
1201	Chr07: 24323799 24323800	<i>NPY</i>	1246	Chr08: 65281496 65281497	<i>Non Coding Region</i>
1202	Chr07: 24323840 24323841	<i>NPY</i>	1247	Chr08: 65283263 65283264	<i>Non Coding Region</i>
1203	Chr07: 27286075 27286076	<i>EVX1</i>	1248	Chr08: 65291513 65291514	<i>MIR124-2</i>
1204	Chr07: 30722320 30722321	<i>CRHR2</i>	1249	Chr08: 67873799 67873800	<i>Non Coding Region</i>
1205	Chr07: 30722327 30722328	<i>CRHR2</i>	1250	Chr08: 70982039 70982040	<i>PRDM14</i>
1206	Chr07: 35293759 35293760	<i>TBX20</i>	1251	Chr08: 72469507 72469508	<i>Non Coding Region</i>
1207	Chr07: 35296968 35296969	<i>Non Coding Region</i>	1252	Chr08: 72754469 72754470	<i>MSC</i>
1208	Chr07: 37488253 37488254	<i>ELMO1</i>	1253	Chr08: 72754953 72754954	<i>MSC</i>
1209	Chr07: 42267719 42267720	<i>GLI3</i>	1254	Chr08: 72917350 72917351	<i>Non Coding Region</i>
1210	Chr07: 42267747 42267748	<i>GLI3</i>	1255	Chr08: 77595321 77595322	<i>ZFH4, LOC100192378</i>
1211	Chr07: 49813033 49813034	<i>VWC2</i>	1256	Chr08: 85097056 85097057	<i>RALYL</i>
1212	Chr07: 49813065 49813066	<i>VWC2</i>	1257	Chr08: 86350889 86350890	<i>CA3</i>

Figure 42N

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Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1258	Chr08: 86350919 86350920	CA3	1303	Chr10: 123923081 123923082	TACC2
1259	Chr08: 97157856 97157857	GDF6	1304	Chr10: 131758786 131758787	EBF3
1260	Chr08: 97170666 97170667	GDF6	1305	Chr10: 131768928 131768929	Non Coding Region
1261	Chr08: 97171827 97171828	GDF6	1306	Chr10: 133110244 133110245	TCERG1L
1262	Chr08: 9760869 9760870	LOC157627	1307	Chr10: 133110349 133110350	TCERG1L
1263	Chr08: 9760877 9760878	LOC157627	1308	Chr10: 15761854 15761855	ITGA8
1264	Chr08: 9760880 9760881	LOC157627	1309	Chr10: 22542024 22542025	Non Coding Region
1265	Chr08: 98290310 98290311	TSPYL5	1310	Chr10: 22542145 22542146	Non Coding Region
1266	Chr09: 100611516 100611517	Non Coding Region	1311	Chr10: 22634432 22634433	SPAG6
1267	Chr09: 117150495 117150496	AKNA	1312	Chr10: 22634439 22634440	SPAG6
1268	Chr09: 124461599 124461600	DAB2IP	1313	Chr10: 26727318 26727319	APBB1IP
1269	Chr09: 124461640 124461641	DAB2IP	1314	Chr10: 44788812 44788813	Non Coding Region
1270	Chr09: 124461998 124461999	DAB2IP	1315	Chr10: 50605613 50605614	Non Coding Region
1271	Chr09: 124462172 124462173	DAB2IP	1316	Chr10: 57389779 57389780	Non Coding Region
1272	Chr09: 124462182 124462183	DAB2IP	1317	Chr10: 57390306 57390307	Non Coding Region
1273	Chr09: 126776180 126776181	LHX2	1318	Chr10: 57390704 57390705	Non Coding Region
1274	Chr09: 37002685 37002686	PAX5	1319	Chr10: 8097331 8097332	GATA3
1275	Chr09: 79633737 79633738	FOXB2	1320	Chr10: 8097689 8097690	GATA3
1276	Chr09: 91849710 91849711	Non Coding Region	1321	Chr10: 8098005 8098006	GATA3
1277	Chr10: 100993583 100993584	HPSE2	1322	Chr10: 81001957 81001958	ZMIZ1
1278	Chr10: 100993587 100993588	HPSE2	1323	Chr10: 81002218 81002219	ZMIZ1
1279	Chr10: 100993589 100993590	HPSE2	1324	Chr10: 81002480 81002481	ZMIZ1
1280	Chr10: 100993597 100993598	HPSE2	1325	Chr10: 81002615 81002616	ZMIZ1
1281	Chr10: 102419245 102419246	Non Coding Region	1326	Chr10: 88123453 88123454	GRID1
1282	Chr10: 102497354 102497355	Non Coding Region	1327	Chr10: 94822908 94822909	CYP26C1
1283	Chr10: 102893980 102893981	TLX1	1328	Chr11: 105481317 105481318	GRIA4
1284	Chr10: 102894120 102894121	TLX1	1329	Chr11: 105481319 105481320	GRIA4
1285	Chr10: 102894148 102894149	TLX1	1330	Chr11: 105481322 105481323	GRIA4
1286	Chr10: 102899285 102899286	Non Coding Region	1331	Chr11: 105481406 105481407	GRIA4
1287	Chr10: 102900130 102900131	Non Coding Region	1332	Chr11: 115531033 115531034	Non Coding Region
1288	Chr10: 102900365 102900366	Non Coding Region	1333	Chr11: 119293863 119293864	THY1
1289	Chr10: 102900491 102900492	Non Coding Region	1334	Chr11: 119293869 119293870	THY1
1290	Chr10: 103603722 103603723	KCNIP2	1335	Chr11: 123066560 123066561	ASAM
1291	Chr10: 103603812 103603813	KCNIP2	1336	Chr11: 123301171 123301172	Non Coding Region
1292	Chr10: 105037503 105037504	JNA	1337	Chr11: 123301490 123301491	Non Coding Region
1293	Chr10: 105452352 105452353	SH3PXD2A	1338	Chr11: 124790875 124790876	HEPACAM
1294	Chr10: 106398816 106398817	Non Coding Region	1339	Chr11: 125036385 125036386	PKNOX2
1295	Chr10: 106400565 106400566	SORCS3	1340	Chr11: 125774082 125774083	PUS3,DDX25
1296	Chr10: 106400667 106400668	SORCS3	1341	Chr11: 133906693 133906694	LOC100128239
1297	Chr10: 106400686 106400687	SORCS3	1342	Chr11: 14926738 14926739	Non Coding Region
1298	Chr10: 106400702 106400703	SORCS3	1343	Chr11: 20229517 20229518	Non Coding Region
1299	Chr10: 108924366 108924367	SORCS1	1344	Chr11: 20618399 20618400	Non Coding Region
1300	Chr10: 11207527 11207528	CUGBP2	1345	Chr11: 2162183 2162184	IGF2,IGF2AS,INS-IGF2
1301	Chr10: 118030970 118030971	GFRA1	1346	Chr11: 31821388 31821389	PAX6
1302	Chr10: 118892581 118892582	VAX1	1347	Chr11: 31827084 31827085	PAX6

Figure 450

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1348	Chr11: 31848649 31848650	<i>Non Coding Region</i>	1393	Chr12: 54447584 54447585	<i>HOXC4</i>
1349	Chr11: 32456912 32456913	<i>WTT1, WTT1</i>	1394	Chr12: 54447873 54447874	<i>HOXC4</i>
1350	Chr11: 32459428 32459429	<i>WTT1</i>	1395	Chr12: 54812000 54812001	<i>ITGA5</i>
1351	Chr11: 32459626 32459627	<i>WTT1</i>	1396	Chr12: 54812085 54812086	<i>ITGA5</i>
1352	Chr11: 43602845 43602846	<i>MIR129-2</i>	1397	Chr12: 58021917 58021918	<i>B4GALNT1</i>
1353	Chr11: 43602847 43602848	<i>MIR129-2</i>	1398	Chr12: 62585031 62585032	<i>FAM19A2</i>
1354	Chr11: 43602857 43602858	<i>MIR129-2</i>	1399	Chr12: 62585204 62585205	<i>FAM19A2</i>
1355	Chr11: 43602879 43602880	<i>MIR129-2</i>	1400	Chr12: 62585877 62585878	<i>FAM19A2</i>
1356	Chr11: 43602920 43602921	<i>MIR129-2</i>	1401	Chr12: 65515470 65515471	<i>WIF1</i>
1357	Chr11: 43602965 43602966	<i>MIR129-2</i>	1402	Chr12: 66275988 66275989	<i>HMGA2</i>
1358	Chr11: 44332653 44332654	<i>ALX4</i>	1403	Chr12: 85667353 85667354	<i>Non Coding Region</i>
1359	Chr11: 44332664 44332665	<i>ALX4</i>	1404	Chr12: 95941988 95941989	<i>USP44</i>
1360	Chr11: 57250469 57250470	<i>Non Coding Region</i>	1405	Chr13: 109149011 109149012	<i>Non Coding Region</i>
1361	Chr11: 61322922 61322923	<i>SYT7</i>	1406	Chr13: 112758491 112758492	<i>Non Coding Region</i>
1362	Chr11: 637170 637171	<i>DRD4</i>	1407	Chr13: 21520468 21520469	<i>Non Coding Region</i>
1363	Chr11: 637173 637174	<i>DRD4</i>	1408	Chr13: 25320133 25320134	<i>Non Coding Region</i>
1364	Chr11: 637175 637176	<i>DRD4</i>	1409	Chr13: 25745784 25745785	<i>FAM123A</i>
1365	Chr11: 63768032 63768033	<i>MACROD1</i>	1410	Chr13: 28498384 28498385	<i>PDX1</i>
1366	Chr11: 63828346 63828347	<i>MACROD1</i>	1411	Chr13: 28500882 28500883	<i>Non Coding Region</i>
1367	Chr11: 69704700 69704701	<i>Non Coding Region</i>	1412	Chr13: 28503373 28503374	<i>Non Coding Region</i>
1368	Chr11: 71955322 71955323	<i>PHOX2A</i>	1413	Chr13: 29107069 29107070	<i>Non Coding Region</i>
1369	Chr11: 71955332 71955333	<i>PHOX2A</i>	1414	Chr13: 53312966 53312967	<i>LECT1</i>
1370	Chr11: 71955599 71955600	<i>PHOX2A</i>	1415	Chr13: 53313174 53313175	<i>LECT1</i>
1371	Chr11: 78673073 78673074	<i>ODZ4</i>	1416	Chr13: 53313529 53313530	<i>LECT1</i>
1372	Chr11: 79152821 79152822	<i>ODZ4</i>	1417	Chr13: 53420386 53420387	<i>PCDH8</i>
1373	Chr11: 830320 830321	<i>EFCAB4A</i>	1418	Chr13: 53422777 53422778	<i>PCDH8</i>
1374	Chr12: 113541915 113541916	<i>RASAL1</i>	1419	Chr13: 53422780 53422781	<i>PCDH8</i>
1375	Chr12: 114843296 114843297	<i>TBX5</i>	1420	Chr13: 58204224 58204225	<i>Non Coding Region</i>
1376	Chr12: 114847438 114847439	<i>TBX5</i>	1421	Chr13: 79170146 79170147	<i>Non Coding Region</i>
1377	Chr12: 115102726 115102727	<i>Non Coding Region</i>	1422	Chr13: 79170303 79170304	<i>Non Coding Region</i>
1378	Chr12: 115103351 115103352	<i>Non Coding Region</i>	1423	Chr13: 79171053 79171054	<i>Non Coding Region</i>
1379	Chr12: 120799725 120799726	<i>MSI1</i>	1424	Chr13: 84456171 84456172	<i>SLITRK1</i>
1380	Chr12: 133481390 133481391	<i>Non Coding Region</i>	1425	Chr13: 84456258 84456259	<i>SLITRK1</i>
1381	Chr12: 25055967 25055968	<i>BCAT1</i>	1426	Chr13: 96204856 96204857	<i>CLDN10</i>
1382	Chr12: 5019933 5019934	<i>KCNA1</i>	1427	Chr13: 96205184 96205185	<i>CLDN10</i>
1383	Chr12: 50297581 50297582	<i>FAIM2</i>	1428	Chr14: 101924596 101924597	<i>Non Coding Region</i>
1384	Chr12: 50297588 50297589	<i>FAIM2</i>	1429	Chr14: 102554977 102554978	<i>HSP90AA1</i>
1385	Chr12: 50297777 50297778	<i>FAIM2</i>	1430	Chr14: 23834891 23834892	<i>EFS</i>
1386	Chr12: 50297793 50297794	<i>FAIM2</i>	1431	Chr14: 23834977 23834978	<i>EFS</i>
1387	Chr12: 50297945 50297946	<i>FAIM2</i>	1432	Chr14: 24045549 24045550	<i>JPH4</i>
1388	Chr12: 52401214 52401215	<i>GRASP</i>	1433	Chr14: 24803873 24803874	<i>ADCY4</i>
1389	Chr12: 52627047 52627048	<i>KRT7</i>	1434	Chr14: 24803917 24803918	<i>ADCY4</i>
1390	Chr12: 54088972 54088973	<i>Non Coding Region</i>	1435	Chr14: 24803925 24803926	<i>ADCY4</i>
1391	Chr12: 54345862 54345863	<i>Non Coding Region</i>	1436	Chr14: 24804339 24804340	<i>ADCY4</i>
1392	Chr12: 54428171 54428172	<i>HOXC5, HOXC4</i>	1437	Chr14: 29254530 29254531	<i>C14orf23</i>

Figure 42P

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1438	Chr14: 29254680 29254681	<i>C14orf23</i>	1483	Chr16: 55512822 55512823	<i>MMP2</i>
1439	Chr14: 38067622 38067623	<i>Non Coding Region</i>	1484	Chr16: 55690381 55690382	<i>SLC6A2</i>
1440	Chr14: 48145108 48145109	<i>MDGA2</i>	1485	Chr16: 66612955 66612956	<i>CMTM2,CMTM1</i>
1441	Chr14: 52536436 52536437	<i>NID2</i>	1486	Chr16: 66613278 66613279	<i>CMTM2</i>
1442	Chr14: 54687160 54687161	<i>Non Coding Region</i>	1487	Chr16: 86541480 86541481	<i>Non Coding Region</i>
1443	Chr14: 57264287 57264288	<i>Non Coding Region</i>	1488	Chr16: 86600326 86600327	<i>FOXC2</i>
1444	Chr14: 60952196 60952197	<i>C14orf39</i>	1489	Chr16: 86613067 86613068	<i>FOXL1</i>
1445	Chr14: 60952945 60952946	<i>C14orf39</i>	1490	Chr16: 86963079 86963080	<i>Non Coding Region</i>
1446	Chr14: 60974039 60974040	<i>Non Coding Region</i>	1491	Chr17: 17626790 17626791	<i>RAI1</i>
1447	Chr14: 60975964 60975965	<i>SIX6</i>	1492	Chr17: 17627194 17627195	<i>RAI1</i>
1448	Chr14: 60976285 60976286	<i>SIX6</i>	1493	Chr17: 19881632 19881633	<i>AKAP10</i>
1449	Chr14: 60977300 60977301	<i>SIX6</i>	1494	Chr17: 26699169 26699170	<i>SARM1</i>
1450	Chr14: 60978161 60978162	<i>SIX6</i>	1495	Chr17: 27038861 27038862	<i>PROCA1</i>
1451	Chr14: 70014873 70014874	<i>Non Coding Region</i>	1496	Chr17: 27038886 27038887	<i>PROCA1</i>
1452	Chr14: 70653719 70653720	<i>SLC8A3</i>	1497	Chr17: 27220101 27220102	<i>FLOT2</i>
1453	Chr14: 70653919 70653920	<i>SLC8A3</i>	1498	Chr17: 27940509 27940510	<i>ANKRD13B</i>
1454	Chr14: 70653964 70653965	<i>SLC8A3</i>	1499	Chr17: 32484259 32484260	<i>ACCN1</i>
1455	Chr14: 95235125 95235126	<i>GSC</i>	1500	Chr17: 36734911 36734912	<i>SRCIN1</i>
1456	Chr15: 101420636 101420637	<i>ALDH1A3</i>	1501	Chr17: 37321490 37321491	<i>ARL5C</i>
1457	Chr15: 29077493 29077494	<i>Non Coding Region</i>	1502	Chr17: 38347603 38347604	<i>RAPGEFL1</i>
1458	Chr15: 30517589 30517590	<i>Non Coding Region</i>	1503	Chr17: 38347816 38347817	<i>RAPGEFL1</i>
1459	Chr15: 37390284 37390285	<i>MEIS2</i>	1504	Chr17: 40825980 40825981	<i>PLEKHH3</i>
1460	Chr15: 41794747 41794748	<i>ITPKA</i>	1505	Chr17: 43339223 43339224	<i>C17orf46,LOC100133991</i>
1461	Chr15: 51385891 51385892	<i>TNFAIP8L3</i>	1506	Chr17: 43339328 43339329	<i>C17orf46,LOC100133991</i>
1462	Chr15: 53083532 53083533	<i>ONECUT1</i>	1507	Chr17: 43339497 43339498	<i>C17orf46,LOC100133991</i>
1463	Chr15: 65688530 65688531	<i>IGDCC4</i>	1508	Chr17: 43339512 43339513	<i>C17orf46,LOC100133991</i>
1464	Chr15: 68122139 68122140	<i>LBXCOR1</i>	1509	Chr17: 46802871 46802872	<i>HOXB13</i>
1465	Chr15: 83953744 83953745	<i>BNC1</i>	1510	Chr17: 46802888 46802889	<i>HOXB13</i>
1466	Chr15: 83953780 83953781	<i>BNC1</i>	1511	Chr17: 59529618 59529619	<i>Non Coding Region</i>
1467	Chr15: 83953880 83953881	<i>BNC1</i>	1512	Chr17: 59534998 59534999	<i>TBX4</i>
1468	Chr15: 86233236 86233237	<i>AKAP13</i>	1513	Chr17: 61778366 61778367	<i>LIMD2</i>
1469	Chr15: 89922328 89922329	<i>LOC254559</i>	1514	Chr17: 70216332 70216333	<i>Non Coding Region</i>
1470	Chr15: 89952499 89952500	<i>Non Coding Region</i>	1515	Chr17: 7287740 7287741	<i>TNK1</i>
1471	Chr16: 2041512 2041513	<i>SYNGR3</i>	1516	Chr17: 73584068 73584069	<i>MYO15B</i>
1472	Chr16: 21294947 21294948	<i>CRYM</i>	1517	Chr17: 73584070 73584071	<i>MYO15B</i>
1473	Chr16: 2765843 2765844	<i>PRSS27</i>	1518	Chr17: 73584108 73584109	<i>MYO15B</i>
1474	Chr16: 30904573 30904574	<i>BCL7C,MIR762</i>	1519	Chr17: 73584360 73584361	<i>MYO15B</i>
1475	Chr16: 31580299 31580300	<i>CSDAP1</i>	1520	Chr17: 73584617 73584618	<i>MYO15B</i>
1476	Chr16: 3237991 3237992	<i>Non Coding Region</i>	1521	Chr17: 75369091 75369092	<i>SEPTIN9</i>
1477	Chr16: 49312033 49312034	<i>Non Coding Region</i>	1522	Chr17: 75369219 75369220	<i>SEPTIN9</i>
1478	Chr16: 49312238 49312239	<i>CBLN1</i>	1523	Chr17: 75369484 75369485	<i>SEPTIN9</i>
1479	Chr16: 50699167 50699168	<i>Non Coding Region</i>	1524	Chr17: 75369657 75369658	<i>SEPTIN9</i>
1480	Chr16: 50699197 50699198	<i>Non Coding Region</i>	1525	Chr17: 76355202 76355203	<i>SOC3</i>
1481	Chr16: 51184379 51184380	<i>SALL1</i>	1526	Chr17: 76921845 76921846	<i>TIMP2</i>
1482	Chr16: 55363058 55363059	<i>IRX6</i>	1527	Chr17: 7976456 7976457	<i>ALOX12B</i>

Figure 42Q

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1528	Chr17: 8868834 8868835	<i>PIK3R5</i>	1573	Chr19: 50031273 50031274	<i>RCN3</i>
1529	Chr18: 11752089 11752090	<i>GNAL</i>	1574	Chr19: 52956771 52956772	<i>ZNF578</i>
1530	Chr18: 22929205 22929206	<i>ZNF521</i>	1575	Chr19: 53758031 53758032	<i>ZNF677</i>
1531	Chr18: 31739207 31739208	<i>NOL4</i>	1576	Chr19: 54412993 54412994	<i>Non Coding Region</i>
1532	Chr18: 43355414 43355415	<i>Non Coding Region</i>	1577	Chr19: 54926431 54926432	<i>TTYH1</i>
1533	Chr18: 44337853 44337854	<i>ST8SLA5</i>	1578	Chr19: 54926514 54926515	<i>TTYH1</i>
1534	Chr18: 44337922 44337923	<i>ST8SLA5</i>	1579	Chr19: 54926805 54926806	<i>TTYH1</i>
1535	Chr18: 53446784 53446785	<i>Non Coding Region</i>	1580	Chr19: 56905152 56905153	<i>ZNF382</i>
1536	Chr18: 54789058 54789059	<i>Non Coding Region</i>	1581	Chr19: 58095595 58095596	<i>ZIK1</i>
1537	Chr18: 56941246 56941247	<i>RAX</i>	1582	Chr19: 58095659 58095660	<i>ZIK1</i>
1538	Chr18: 73167671 73167672	<i>Non Coding Region</i>	1583	Chr19: 58220370 58220371	<i>ZNF154</i>
1539	Chr18: 74961968 74961969	<i>GALR1</i>	1584	Chr19: 58220494 58220495	<i>ZNF154</i>
1540	Chr18: 76738999 76739000	<i>SALL3</i>	1585	Chr19: 58238850 58238851	<i>ZNF671</i>
1541	Chr18: 904851 904852	<i>ADCYAP1</i>	1586	Chr19: 58858806 58858807	<i>A1BG</i>
1542	Chr18: 904920 904921	<i>ADCYAP1</i>	1587	Chr19: 58951599 58951600	<i>ZNF132</i>
1543	Chr19: 13617091 13617092	<i>CACNA1A</i>	1588	Chr19: 58951778 58951779	<i>ZNF132</i>
1544	Chr19: 15218713 15218714	<i>SYDE1</i>	1589	Chr19: 58951885 58951886	<i>ZNF132</i>
1545	Chr19: 15580721 15580722	<i>PGLYRP2</i>	1590	Chr20: 21492914 21492915	<i>NKX2-2</i>
1546	Chr19: 16394638 16394639	<i>Non Coding Region</i>	1591	Chr20: 21682362 21682363	<i>Non Coding Region</i>
1547	Chr19: 17008650 17008651	<i>CPAMD8</i>	1592	Chr20: 25062447 25062448	<i>V5X1</i>
1548	Chr19: 17392923 17392924	<i>ANKLE1</i>	1593	Chr20: 2781262 2781263	<i>CPXAM1</i>
1549	Chr19: 18540330 18540331	<i>SSBP4</i>	1594	Chr20: 36012946 36012947	<i>SRC</i>
1550	Chr19: 20349275 20349276	<i>Non Coding Region</i>	1595	Chr20: 37353096 37353097	<i>SLC32A1</i>
1551	Chr19: 22034418 22034419	<i>Non Coding Region</i>	1596	Chr20: 37353126 37353127	<i>SLC32A1</i>
1552	Chr19: 24154607 24154608	<i>Non Coding Region</i>	1597	Chr20: 37434167 37434168	<i>PPP1R16B</i>
1553	Chr19: 31843948 31843949	<i>Non Coding Region</i>	1598	Chr20: 37434229 37434230	<i>PPP1R16B</i>
1554	Chr19: 31847970 31847971	<i>Non Coding Region</i>	1599	Chr20: 42875779 42875780	<i>GDAP1L1</i>
1555	Chr19: 31848310 31848311	<i>Non Coding Region</i>	1600	Chr20: 45142244 45142245	<i>ZNF334</i>
1556	Chr19: 36523584 36523585	<i>CLIP3</i>	1601	Chr20: 50720731 50720732	<i>ZFP64</i>
1557	Chr19: 37096148 37096149	<i>ZNF529,ZNF382</i>	1602	Chr20: 50720908 50720909	<i>ZFP64</i>
1558	Chr19: 37096321 37096322	<i>ZNF529,ZNF382</i>	1603	Chr20: 57224919 57224920	<i>STX16</i>
1559	Chr19: 37096323 37096324	<i>ZNF529,ZNF382</i>	1604	Chr20: 57225195 57225196	<i>STX16</i>
1560	Chr19: 37096329 37096330	<i>ZNF529,ZNF382</i>	1605	Chr20: 59827212 59827213	<i>CDH4</i>
1561	Chr19: 3786583 3786584	<i>MATK</i>	1606	Chr20: 59828528 59828529	<i>CDH4</i>
1562	Chr19: 39108609 39108610	<i>MAP4K1,EIF3K</i>	1607	Chr20: 61585924 61585925	<i>SLC17A9</i>
1563	Chr19: 39108672 39108673	<i>MAP4K1,EIF3K</i>	1608	Chr20: 61638574 61638575	<i>BHLHE23</i>
1564	Chr19: 42828156 42828157	<i>TMEM145</i>	1609	Chr20: 61886079 61886080	<i>NKAIN4,FLJ16779</i>
1565	Chr19: 4328745 4328746	<i>STAP2</i>	1610	Chr21: 27945125 27945126	<i>CYYR1</i>
1566	Chr19: 46996516 46996517	<i>PNMAL2</i>	1611	Chr21: 34398199 34398200	<i>OLIG2</i>
1567	Chr19: 48918116 48918117	<i>GRIN2D</i>	1612	Chr21: 34398222 34398223	<i>OLIG2</i>
1568	Chr19: 48918205 48918206	<i>GRIN2D</i>	1613	Chr21: 34398226 34398227	<i>OLIG2</i>
1569	Chr19: 48984071 48984072	<i>CYTH2</i>	1614	Chr21: 34398532 34398533	<i>OLIG2</i>
1570	Chr19: 49250439 49250440	<i>IZUMO1</i>	1615	Chr21: 38069950 38069951	<i>Non Coding Region</i>
1571	Chr19: 50031017 50031018	<i>RCN3</i>	1616	Chr21: 38076869 38076870	<i>SIM2</i>
1572	Chr19: 50031246 50031247	<i>RCN3</i>	1617	Chr21: 38077673 38077674	<i>SIM2</i>

Figure 42R

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Order	Coordinate of CpG (hg19)	Gene
1618	Chr21: 38078767_38078768	<i>SIM2</i>
1619	Chr21: 38079615_38079616	<i>SIM2</i>
1620	Chr21: 38080526_38080527	<i>SIM2</i>
1621	Chr21: 38083149_38083150	<i>SIM2</i>
1622	Chr22: 25678988_25678989	<i>Non Coding Region</i>
1623	Chr22: 30720496_30720497	<i>TBC1D10A</i>
1624	Chr22: 50623687_50623688	<i>TRABD</i>
1625	Chr22: 50623692_50623693	<i>TRABD</i>

Figure 42S

Solid Tumor Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Solid Tumor Markers			Preferred Solid Tumor Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	46	chr05:11903550-11904703	<i>CTNND2</i>
2	chr01:111216244-111217937	<i>KCNA3</i>	47	chr05:134827285-134827644	<i>Non Coding Region</i>
3	chr01:12226876-12227712	<i>TNFRSF1B</i>	48	chr05:40679502-40682081	<i>PTGER4</i>
4	chr01:154474107-154475699	<i>TDRD10,SHE</i>	49	chr05:43017968-43018668	<i>Non Coding Region</i>
5	chr01:155290606-155291001	<i>RUSC1,C1orf104</i>	50	chr05:58334836-58335881	<i>PDE4D</i>
6	chr01:156405160-156406350	<i>Non Coding Region</i>	51	chr05:72594147-72595808	<i>Non Coding Region</i>
7	chr01:169396621-169396869	<i>C1orf114</i>	52	chr05:72732365-72733732	<i>Non Coding Region</i>
8	chr01:170630456-170630851	<i>Non Coding Region</i>	53	chr06:105584148-105585621	<i>BVES</i>
9	chr01:170633274-170634178	<i>PRRX1</i>	54	chr06:152128822-152129771	<i>ESR1</i>
10	chr01:200009807-200010036	<i>NR5A2</i>	55	chr06:26240697-26240951	<i>HIST1H4F</i>
11	chr01:207818389-207818952	<i>CRIL</i>	56	chr06:27107138-27107394	<i>HIST1H4L,HIST1H2BK</i>
12	chr01:219347109-219347572	<i>LYPLAL1</i>	57	chr06:28175282-28175605	<i>Non Coding Region</i>
13	chr01:231113871-231114873	<i>ARV1,TTC13</i>	58	chr06:28956106-28956578	<i>Non Coding Region</i>
14	chr01:29585897-29586598	<i>PTPRU</i>	59	chr06:30139718-30140263	<i>TRIM15</i>
15	chr01:44883136-44884272	<i>RNF220</i>	60	chr06:6002471-6005125	<i>NRN1</i>
16	chr01:47998899-47999517	<i>Non Coding Region</i>	61	chr06:75794880-75795088	<i>COL12A1</i>
17	chr01:50884228-50891471	<i>DMRTA2</i>	62	chr06:75914705-75916387	<i>Non Coding Region</i>
18	chr01:66998728-66999060	<i>SGIP1</i>	63	chr07:100489981-100490365	<i>ACHE</i>
19	chr01:77333111-77334534	<i>ST6GALNAC5</i>	64	chr07:113724924-113727795	<i>Non Coding Region</i>
20	chr01:91190489-91192804	<i>Non Coding Region</i>	65	chr07:127671158-127672853	<i>LRRC4,SND1</i>
21	chr02:119592602-119593845	<i>Non Coding Region</i>	66	chr07:128530629-128531356	<i>KCP</i>
22	chr02:127413696-127414171	<i>GYPC</i>	67	chr07:143582125-143582610	<i>FAM115A</i>
23	chr02:175208415-175209076	<i>Non Coding Region</i>	68	chr07:149916640-149918264	<i>Non Coding Region</i>
24	chr02:176986424-176988291	<i>HOXD9</i>	69	chr07:155595692-155599414	<i>SHH</i>
25	chr02:176993479-176995557	<i>HOXD8</i>	70	chr07:27190274-27191115	<i>Non Coding Region</i>
26	chr02:177024501-177025692	<i>Non Coding Region</i>	71	chr07:27203915-27206462	<i>HOXA9</i>
27	chr02:219738081-219738788	<i>WNT6</i>	72	chr07:27208871-27209616	<i>Non Coding Region</i>
28	chr02:233367780-233368577	<i>Non Coding Region</i>	73	chr07:27212416-27214396	<i>HOXA10</i>
29	chr02:238599857-238601430	<i>LRRFIP1</i>	74	chr07:27225050-27225629	<i>HOXA11AS,HOXA11</i>
30	chr02:26395416-26395620	<i>FAM59B</i>	75	chr07:27284639-27286237	<i>EVX1</i>
31	chr02:45240372-45241579	<i>Non Coding Region</i>	76	chr07:30721372-30722445	<i>CRHR2</i>
32	chr02:71192094-71192495	<i>ATP6V1B1</i>	77	chr07:37487354-37488672	<i>ELMO1</i>
33	chr02:74740455-74743795	<i>TLX2</i>	78	chr07:42267546-42267823	<i>GLI3</i>
34	chr02:85811340-85811855	<i>VAMP5</i>	79	chr07:95025559-95026122	<i>PON3</i>
35	chr02:97202313-97203787	<i>ARID5A</i>	80	chr07:96650221-96651551	<i>DLX5</i>
36	chr03:121902742-121903645	<i>CASR</i>	81	chr08:104510870-104513913	<i>RIMS2</i>
37	chr03:129693127-129694841	<i>TRH</i>	82	chr08:116679698-116679936	<i>TRPS1</i>
38	chr03:139257712-139257949	<i>RBP1</i>	83	chr08:55366180-55367628	<i>Non Coding Region</i>
39	chr03:172165372-172166738	<i>GHSR</i>	84	chr08:72917305-72917641	<i>Non Coding Region</i>
40	chr03:179168735-179169593	<i>GNB4</i>	85	chr08:9760750-9761643	<i>LOC157627</i>
41	chr03:184099095-184099582	<i>CHRD</i>	86	chr10:102586125-102588109	<i>PAX2</i>
42	chr03:44063314-44063837	<i>Non Coding Region</i>	87	chr10:106399567-106402812	<i>SORCS3</i>
43	chr03:50377803-50378540	<i>RASSF1</i>	88	chr10:122708510-122708899	<i>Non Coding Region</i>
44	chr04:42152766-42154984	<i>BEND4</i>	89	chr10:15761423-15762101	<i>ITGA8</i>
45	chr05:115151348-115152713	<i>CDO1</i>	90	chr10:22623350-22625875	<i>Non Coding Region</i>

Figure 43A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	chr10:45914374-45914883	<i>ALOX5</i>	136	chr17:26698359-26699557	<i>SARM1</i>
92	chr10:57390343-57391215	<i>Non Coding Region</i>	137	chr17:42287692-42288392	<i>UBTF</i>
93	chr10:81002109-81003687	<i>ZMIZ1</i>	138	chr17:53342198-53343061	<i>HLF</i>
94	chr11:105481126-105481422	<i>GRILA4</i>	139	chr17:73583838-73586337	<i>MYO15B</i>
95	chr11:119227096-119227758	<i>USP2</i>	140	chr17:75368688-75370506	<i>SEPTIN9</i>
96	chr11:120434822-120435940	<i>Non Coding Region</i>	141	chr18:3498941-3499358	<i>DLGAP1</i>
97	chr11:123301049-123302149	<i>Non Coding Region</i>	142	chr18:54788959-54789194	<i>Non Coding Region</i>
98	chr11:124790814-124791354	<i>HEPACAM</i>	143	chr18:904578-909574	<i>ADCYAP1</i>
99	chr11:133906735-133907359	<i>LOC100128239</i>	144	chr19:11533198-11533619	<i>CCDC151</i>
100	chr11:14926471-14927770	<i>Non Coding Region</i>	145	chr19:13124569-13124788	<i>NFIX</i>
101	chr11:2158951-2162484	<i>IGF2,IGF2AS,INS-IGF2</i>	146	chr19:17000627-17001398	<i>F2RL3</i>
102	chr11:2290104-2292932	<i>ASCL2</i>	147	chr19:17007101-17008857	<i>CPAMD8</i>
103	chr11:406491-407871	<i>SIGIRR</i>	148	chr19:17392383-17393775	<i>ANKLE1</i>
104	chr11:43602545-43603215	<i>MIR129-2</i>	149	chr19:17403039-17403570	<i>ABHD8</i>
105	chr11:57249946-57250848	<i>Non Coding Region</i>	150	chr19:22034394-22034943	<i>Non Coding Region</i>
106	chr11:7694711-7695685	<i>CY5R2</i>	151	chr19:37095680-37096589	<i>ZNF529,ZNF382</i>
107	chr11:829284-833558	<i>EFCAB4A</i>	152	chr19:58858453-58859223	<i>A1BG</i>
108	chr12:113541697-113542086	<i>RASAL1</i>	153	chr20:30639908-30640786	<i>HCK</i>
109	chr12:114843022-114843610	<i>TBX5</i>	154	chr20:45142000-45142337	<i>ZNF334</i>
110	chr12:122516193-122517207	<i>MLXIP</i>	155	chr20:62368955-62371962	<i>LIME1</i>
111	chr12:52400467-52401696	<i>GRASP</i>	156	chr22:19753312-19755013	<i>TBX1</i>
112	chr12:52626793-52627577	<i>KRT7</i>	157	chr22:38220589-38221619	<i>GALR3</i>
113	chr12:52652018-52652743	<i>Non Coding Region</i>	158	chr22:46366726-46368726	<i>WNT7B</i>
114	chr12:54423427-54423712	<i>HOXC5,HOXC4,HOXC6</i>	Alternative markers: Low to no CRC		
115	chr12:54447744-54448091	<i>HOXC4</i>	159	chr01:1072369-1072847	<i>Non Coding Region</i>
116	chr13:53313127-53314045	<i>LECT1</i>	160	chr01:149719314-149719640	<i>Non Coding Region</i>
117	chr13:79175610-79177985	<i>POU4F1</i>	161	chr01:151693991-151694282	<i>C1orf230</i>
118	chr13:96204691-96205496	<i>CLDN10</i>	162	chr01:151812253-151812525	<i>LOC100132111,C2CD4D</i>
119	chr14:105512055-105512307	<i>Non Coding Region</i>	163	chr01:154377670-154378445	<i>IL6R</i>
120	chr14:23834435-23835947	<i>EFS</i>	164	chr01:165323486-165323811	<i>LMX1A</i>
121	chr14:24803678-24804353	<i>ADCY4</i>	165	chr01:17025923-17027942	<i>ESPNP</i>
122	chr14:29254365-29255069	<i>C14orf23</i>	166	chr01:2064628-2064855	<i>PRKCZ</i>
123	chr14:37125219-37125661	<i>PAX9</i>	167	chr01:211500151-211500636	<i>TRAF5</i>
124	chr14:38067446-38069207	<i>Non Coding Region</i>	168	chr01:214160798-214161034	<i>Non Coding Region</i>
125	chr14:52734207-52735486	<i>PTGDR</i>	169	chr01:217310749-217311178	<i>ESRRG</i>
126	chr14:60951976-60952946	<i>C14orf39</i>	170	chr01:2222198-2222569	<i>SKI</i>
127	chr15:101419261-101421133	<i>ALDH1A3</i>	171	chr01:240254959-240257063	<i>FMN2</i>
128	chr15:41785616-41788539	<i>ITPKA</i>	172	chr01:246729207-246730276	<i>CNST</i>
129	chr15:45479509-45480498	<i>SHF</i>	173	chr01:248020330-248021252	<i>TRIM58</i>
130	chr15:75251467-75251773	<i>Non Coding Region</i>	174	chr01:32169537-32169869	<i>COL16A1</i>
131	chr15:76632262-76635515	<i>ISL2</i>	175	chr01:32180131-32180487	<i>Non Coding Region</i>
132	chr15:83951980-83953930	<i>BNC1</i>	176	chr01:32410188-32410630	<i>Non Coding Region</i>
133	chr16:23846941-23848102	<i>PRKCB</i>	177	chr01:42611485-42611691	<i>Non Coding Region</i>
134	chr16:49311413-49312308	<i>Non Coding Region</i>	178	chr01:46954793-46957121	<i>Non Coding Region</i>
135	chr16:88700455-88701573	<i>Non Coding Region</i>	179	chr01:47696504-47698197	<i>TAL1</i>

Figure 43B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
180	chr01:6086244-6086494	KCNAB2	225	chr03:9904331-9904811	Non Coding Region
181	chr01:6507207-6509186	ESPN	226	chr04:174254683-174256538	HMGB2
182	chr01:7022001-7022308	CAMTA1	227	chr04:185746557-185747827	ACSL1
183	chr01:76540147-76540653	ST6GALNAC3	228	chr04:54957979-54958542	Non Coding Region
184	chr01:844299-845883	Non Coding Region	229	chr04:76555366-76556079	CDKL2
185	chr01:90308839-90309606	LRRC8D	230	chr04:81124468-81124845	PRDM8
186	chr01:975496-980305	AGRN	231	chr04:85402764-85403175	Non Coding Region
187	chr02:105468851-105473488	POU3F3	232	chr04:85417659-85420799	NKX6-1
188	chr02:111875206-111880965	ACOXL	233	chr05:100238722-100239138	ST8SLA4
189	chr02:119606569-119606826	EN1	234	chr05:101632049-101632373	SLCO4C1
190	chr02:119607378-119607910	Non Coding Region	235	chr05:138677333-138678248	PAIP2
191	chr02:127783081-127783311	Non Coding Region	236	chr05:139081001-139081202	Non Coding Region
192	chr02:160760604-160761452	LY75	237	chr05:153862142-153862451	Non Coding Region
193	chr02:162283581-162284677	Non Coding Region	238	chr05:170735169-170739863	Non Coding Region
194	chr02:175193398-175193764	Non Coding Region	239	chr05:172655840-172656202	Non Coding Region
195	chr02:176977284-176977540	Non Coding Region	240	chr05:175963498-175965116	RNF44
196	chr02:177029413-177029941	HOXD3	241	chr05:176023777-176024651	GPRIN1
197	chr02:177039551-177039951	Non Coding Region	242	chr05:37836747-37840726	GDNF
198	chr02:177042751-177043444	Non Coding Region	243	chr05:38257825-38259136	EGFLAM
199	chr02:19560963-19561650	Non Coding Region	244	chr05:42951076-42952410	Non Coding Region
200	chr02:200333687-200334172	FLJ32063	245	chr05:42992033-42992955	Non Coding Region
201	chr02:208489428-208491030	Non Coding Region	246	chr05:42995122-42995415	Non Coding Region
202	chr02:219736132-219736592	WNT6	247	chr06:10383525-10384114	Non Coding Region
203	chr02:220117937-220119334	TUBA4A,TUBA4B	248	chr06:10422321-10422648	Non Coding Region
204	chr02:223162946-223163912	CCDC140,PAX3	249	chr06:134497536-134497756	SGK1
205	chr02:25142472-25143689	ADCY3	250	chr06:1381743-1385211	Non Coding Region
206	chr02:45161427-45163058	Non Coding Region	251	chr06:151186747-151188112	MTHFD1L
207	chr02:45169505-45171884	SLX3	252	chr06:152623279-152623480	SYNE1
208	chr02:63283936-63284147	OTX1	253	chr06:1604606-1615866	Non Coding Region
209	chr02:63285949-63287097	Non Coding Region	254	chr06:164092861-164093113	Non Coding Region
210	chr02:73151200-73152060	EMX1	255	chr06:166579973-166583423	T
211	chr02:74781494-74782685	DOK1	256	chr06:168197142-168198164	C6orf123
212	chr02:80529677-80530846	LRRTM1,CTNNA2	257	chr06:25139920-25140246	CMAH
213	chr02:85107731-85108430	C2orf89	258	chr06:26614013-26614851	Non Coding Region
214	chr02:85980499-85982198	ATOH8	259	chr06:27100174-27101124	HIST1H2BJ
215	chr02:96990857-96991283	ITPRIPL1	260	chr06:27782247-27782485	HIST1H2BM,HIST1H2AJ
216	chr03:113251699-113252290	SIDT1	261	chr06:27841001-27841244	HIST1H3I,HIST1H4L
217	chr03:122296612-122296828	PARP15	262	chr06:27858166-27858564	HIST1H3J
218	chr03:138656627-138659107	Non Coding Region	263	chr06:28554863-28555124	Non Coding Region
219	chr03:147126988-147128999	ZIC4	264	chr06:29894140-29895117	HCG4P6
220	chr03:157821232-157821604	SHOX2	265	chr06:30457369-30458175	HLA-E
221	chr03:181437184-181437478	SOX2OT	266	chr06:31707489-31708336	CLIC1
222	chr03:49058325-49059986	MIR425,DALRD3,NDUF AF3	267	chr06:32163292-32164383	GPSM3
223	chr03:5019876-5022223	Non Coding Region	268	chr06:35419879-35420766	FANCE
224	chr03:53190509-53190764	Non Coding Region	269	chr06:41472816-41473291	Non Coding Region

Figure 43C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
270	chr06:41908745-41909711	<i>CCND3</i>	315	chr11:47291200-47291858	<i>MADD</i>
271	chr06:50810642-50810994	<i>TFAP2B</i>	316	chr11:61061751-61063063	<i>IVWCE</i>
272	chr06:52441269-52441793	<i>TRAM2</i>	317	chr11:626728-628037	<i>SCF</i>
273	chr06:6007387-6007797	<i>NRN1</i>	318	chr11:67182965-67183393	<i>ATPGD1</i>
274	chr06:7107075-7109854	<i>RREB1</i>	319	chr11:67350928-67351953	<i>GSTP1</i>
275	chr06:7141036-7141576	<i>RREB1</i>	320	chr11:68622722-68623252	<i>Non Coding Region</i>
276	chr06:73330942-73333109	<i>KCNQ5</i>	321	chr11:720561-721369	<i>EPSL2</i>
277	chr06:91004795-91006944	<i>BACH2</i>	322	chr11:76381449-76382295	<i>LRR32</i>
278	chr07:100201614-100203652	<i>PCOLCE</i>	323	chr12:111842938-111844392	<i>SH2B3</i>
279	chr07:128809089-128809393	<i>Non Coding Region</i>	324	chr12:114833911-114834210	<i>TBX5</i>
280	chr07:130126017-130126801	<i>MEST</i>	325	chr12:122277301-122277539	<i>Non Coding Region</i>
281	chr07:151078462-151079536	<i>WDR86</i>	326	chr12:130526915-130527117	<i>Non Coding Region</i>
282	chr07:158621005-158622747	<i>ESYT2</i>	327	chr12:3308812-3310270	<i>TSPAN9</i>
283	chr07:23508184-23509712	<i>IGF2BP3</i>	328	chr12:3862068-3862606	<i>EFCAB4B</i>
284	chr07:26191794-26192757	<i>NFE2L3</i>	329	chr12:46661054-46663408	<i>SLC38A1</i>
285	chr07:27195601-27196567	<i>HOXA7</i>	330	chr12:49390617-49392441	<i>DDN</i>
286	chr07:27198182-27198514	<i>HOXA7</i>	331	chr12:54071053-54071265	<i>ATP5G2</i>
287	chr07:27238690-27240311	<i>HOXA13</i>	332	chr12:54132148-54132353	<i>Non Coding Region</i>
288	chr07:32801484-32801972	<i>Non Coding Region</i>	333	chr12:54359658-54359906	<i>HOTAIR</i>
289	chr07:37960316-37961046	<i>EPDR1</i>	334	chr12:54387825-54388732	<i>Non Coding Region</i>
290	chr07:45025958-45026626	<i>SNORA9,C7orf40</i>	335	chr12:54399412-54399654	<i>Non Coding Region</i>
291	chr07:64349424-64350151	<i>Non Coding Region</i>	336	chr12:54408426-54408713	<i>Non Coding Region</i>
292	chr07:96653467-96654199	<i>DLX5</i>	337	chr12:57618769-57619402	<i>NXP4</i>
293	chr07:99595206-99595505	<i>Non Coding Region</i>	338	chr12:58013171-58013652	<i>SLC26A10</i>
294	chr08:124172800-124173541	<i>Non Coding Region</i>	339	chr12:58021294-58022037	<i>B4GALNT1</i>
295	chr08:134581969-134584875	<i>ST3GAL1</i>	340	chr12:58130870-58132047	<i>AGAP2</i>
296	chr08:145016417-145016916	<i>PLEC1</i>	341	chr13:100608122-100609686	<i>Non Coding Region</i>
297	chr08:82192378-82193685	<i>FABP5</i>	342	chr13:100641334-100642188	<i>Non Coding Region</i>
298	chr08:99952020-99954686	<i>Non Coding Region</i>	343	chr13:113622737-113623660	<i>MCF2L</i>
299	chr09:112810858-112811128	<i>PALM2-AKAP2,AKAP2</i>	344	chr13:20766208-20767779	<i>GJB2</i>
300	chr09:126773246-126780953	<i>LHX2</i>	345	chr13:28491488-28492518	<i>Non Coding Region</i>
301	chr09:140172613-140176105	<i>C9orf167</i>	346	chr13:28527755-28528996	<i>Non Coding Region</i>
302	chr09:27528357-27528725	<i>MOBK12B</i>	347	chr13:28544524-28544890	<i>CDX2</i>
303	chr09:34589113-34591978	<i>CNTFR</i>	348	chr13:43566074-43566508	<i>EPST11</i>
304	chr09:79628910-79629393	<i>Non Coding Region</i>	349	chr13:98794398-98796241	<i>FARP1</i>
305	chr09:96720586-96723189	<i>Non Coding Region</i>	350	chr14:100615540-100615946	<i>DEGS2</i>
306	chr10:102590122-102590402	<i>PAX2</i>	351	chr14:24808635-24808992	<i>RIPK3</i>
307	chr10:119301321-119305368	<i>EMX2OS,EMX2</i>	352	chr14:54420184-54422958	<i>BMP4</i>
308	chr10:79685719-79686507	<i>LOC100128292,DLG5</i>	353	chr14:57283967-57284558	<i>OTX2OS1</i>
309	chr10:88730554-88731632	<i>AGAP11</i>	354	chr14:61103978-61104663	<i>Non Coding Region</i>
310	chr11:118478235-118481896	<i>PHLDB1</i>	355	chr14:62217725-62218077	<i>Non Coding Region</i>
311	chr11:31841315-31842003	<i>Non Coding Region</i>	356	chr14:76012830-76013204	<i>BATF</i>
312	chr11:416419-417650	<i>SIGIRR</i>	357	chr15:33009530-33011696	<i>GREM1</i>
313	chr11:46368650-46369660	<i>DGKZ</i>	358	chr15:42264156-42264861	<i>EHD4</i>
314	chr11:46389074-46389378	<i>DGKZ</i>	359	chr15:60690708-60690930	<i>ANXA2</i>

Figure 43D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
360	chr15:75074425-75075146	CSK	405	chr19:13273652-13274116	Non Coding Region
361	chr15:76627523-76627838	ISL2	406	chr19:14168142-14168512	PALM3
362	chr15:76630029-76630970	ISL2	407	chr19:16178396-16178609	TPM4
363	chr15:81292793-81295609	MESDC1	408	chr19:16186789-16188275	TPM4
364	chr15:89949373-89951130	Non Coding Region	409	chr19:17346165-17346886	NR2F6
365	chr15:93615622-93617185	RGMA	410	chr19:17958490-17958808	JAK3
366	chr16:29086220-29086434	RRN3P2	411	chr19:1856725-1857443	KLF16
367	chr16:31487152-31488967	TGFB1I1	412	chr19:35786551-35786962	MAG
368	chr16:4363935-4364151	Non Coding Region	413	chr19:36134153-36135781	ETV2
369	chr16:54315602-54316104	Non Coding Region	414	chr19:38182793-38183327	ZNF781
370	chr16:56671937-56672530	MT1A	415	chr19:3821974-3822278	ZFR2
371	chr16:69599437-69600736	NFAT5	416	chr19:38700333-38700577	DPF1
372	chr16:72821140-72821592	ZFH3	417	chr19:42927285-42928598	LIPE
373	chr16:85783862-85785131	C16orf74	418	chr19:911689-911996	C19orf22
374	chr16:85932121-85932942	IRF8	419	chr20:21080929-21082824	Non Coding Region
375	chr16:88716989-88717606	CYBA	420	chr20:3052097-3053103	OXT
376	chr16:89006334-89008600	CBFA2T3	421	chr20:42543097-42545137	TOX2
377	chr16:89777018-89778789	C16orf7	422	chr20:55200279-55206789	Non Coding Region
378	chr17:27893086-27896078	ABHD15	423	chr21:36398960-36399259	RUNX1
379	chr17:3438841-3439046	TRPV3	424	chr21:38119793-38120742	SIM2
380	chr17:35078631-35078972	Non Coding Region	425	chr21:42878751-42880674	TMRSS2
381	chr17:35291899-35300875	LHX1	426	chr21:46897841-46898158	COL18A1
382	chr17:36105334-36105583	HNF1B	427	chr22:19709081-19712106	SEPT5,GP1BB
383	chr17:36715691-36715995	SRCIN1	428	chr22:37815803-37816477	ELFN2
384	chr17:36728633-36729284	SRCIN1	429	chr22:46457095-46458028	LOC150381
385	chr17:37025737-37027104	LASP1	430	chr22:46770433-46770871	CELSR1
386	chr17:40086751-40087098	TTC25		Alternative markers: High in CRC, other cancers	
387	chr17:43393891-43394938	MAP3K14	431	chr01:114696886-114697185	SYT6
388	chr17:44895800-44897025	WNT3	432	chr01:119531991-119532196	TBX15
389	chr17:46796234-46797292	Non Coding Region	433	chr01:119543056-119543454	Non Coding Region
390	chr17:48048953-48050616	DLX4	434	chr01:119549144-119551320	Non Coding Region
391	chr17:48350422-48350832	TMEM92	435	chr01:1476093-1476669	C1orf70
392	chr17:56401728-56402343	BZRAP1	436	chr01:151810460-151811684	LOC100132111,C2CD4D
393	chr17:59473060-59483266	TBX2	437	chr01:1564421-1570006	MMP23B,MMP23A
394	chr17:62774366-62777797	LOC146880	438	chr01:18956895-18959829	PAX7
395	chr17:66255192-66255556	ARSG	439	chr01:200008392-200009047	NR5A2
396	chr17:76127521-76128406	TMC6,TMC8	440	chr01:221050448-221050864	Non Coding Region
397	chr17:7620616-7621119	DNAH2	441	chr01:228651447-228652529	Non Coding Region
398	chr17:80186135-80189990	SLC16A3	442	chr01:229542943-229543770	Non Coding Region
399	chr17:80251357-80251673	Non Coding Region	443	chr01:229567206-229570684	ACTA1
400	chr17:9142980-9143839	NTN1	444	chr01:237205126-237206644	RYR2
401	chr18:2905950-2907348	EMILIN2	445	chr01:243646394-243646888	SDCCAG8
402	chr18:29264703-29265504	B4GALT6	446	chr01:2983925-2987962	PRDM16
403	chr18:56975842-56976160	CPLX4	447	chr01:36042432-36043444	TFAP2E
404	chr19:1074726-1075071	HMHAI	448	chr01:44031286-44031853	PTPRF

Figure 43E

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
449	chr01:44871109-44874047	<i>RNF220</i>	494	chr03:128719865-128721245	<i>CCDC48</i>
450	chr01:4713989-4716555	<i>AJAP1</i>	495	chr03:133393118-133393657	<i>Non Coding Region</i>
451	chr01:47909712-47911020	<i>Non Coding Region</i>	496	chr03:138679244-138679579	<i>Non Coding Region</i>
452	chr01:48058793-48059230	<i>Non Coding Region</i>	497	chr03:141516055-141516639	<i>GRK7</i>
453	chr01:50881884-50882103	<i>Non Coding Region</i>	498	chr03:169379437-169381056	<i>MECOM</i>
454	chr01:58715272-58716095	<i>DAB1</i>	499	chr03:184301117-184302134	<i>Non Coding Region</i>
455	chr01:63782394-63790471	<i>Non Coding Region</i>	500	chr03:192125821-192127994	<i>FGF12</i>
456	chr01:6525996-6526228	<i>TNFRSF25, PLEKHG5</i>	501	chr03:194406440-194409045	<i>FAM43A</i>
457	chr01:67218079-67218293	<i>TCTEX1D1</i>	502	chr03:27765196-27765675	<i>EOMES</i>
458	chr01:91183240-91184540	<i>BARHL2</i>	503	chr03:32858194-32860506	<i>TRIM71</i>
459	chr01:91300979-91301891	<i>Non Coding Region</i>	504	chr03:38035701-38036000	<i>VLL</i>
460	chr01:9711780-9713001	<i>C1orf200, PIK3CD</i>	505	chr03:62356773-62357315	<i>FEZF2</i>
461	chr01:98510966-98511710	<i>Non Coding Region</i>	506	chr04:10458129-10459353	<i>ZNF318B</i>
462	chr01:99469932-99470968	<i>LPPR5</i>	507	chr04:111554965-111555504	<i>PITX2</i>
463	chr02:105459127-105461770	<i>Non Coding Region</i>	508	chr04:13524062-13526083	<i>Non Coding Region</i>
464	chr02:119599458-119600966	<i>EN1</i>	509	chr04:13530847-13531244	<i>Non Coding Region</i>
465	chr02:131720819-131721867	<i>ARHGEF4</i>	510	chr04:13543562-13546494	<i>Non Coding Region</i>
466	chr02:139537692-139538650	<i>NXPH2</i>	511	chr04:1396291-1401730	<i>Non Coding Region</i>
467	chr02:171678546-171680358	<i>GAD1</i>	512	chr04:140655962-140657135	<i>MAML3</i>
468	chr02:172972804-172973242	<i>Non Coding Region</i>	513	chr04:147559205-147561901	<i>POU4F2</i>
469	chr02:176956504-176956707	<i>HOXD13</i>	514	chr04:155254130-155254603	<i>DCHS2</i>
470	chr02:182321761-182323029	<i>ITGA4</i>	515	chr04:169799086-169799625	<i>PALLD</i>
471	chr02:185463208-185463589	<i>ZNF804A</i>	516	chr04:172733734-172735118	<i>GALNTL6</i>
472	chr02:206549599-206551316	<i>NRP2</i>	517	chr04:174430386-174430861	<i>Non Coding Region</i>
473	chr02:208988834-208989269	<i>CRYGD</i>	518	chr04:174450046-174451469	<i>NBLA00301, HAND2</i>
474	chr02:220299483-220300243	<i>SPEG</i>	519	chr04:175135259-175135496	<i>Non Coding Region</i>
475	chr02:220361462-220363254	<i>Non Coding Region</i>	520	chr04:4868440-4869173	<i>Non Coding Region</i>
476	chr02:222436034-222438941	<i>EPHA4</i>	521	chr04:57521621-57522703	<i>HOPX</i>
477	chr02:223161531-223161919	<i>CCDC140, PAX3</i>	522	chr04:778661-780592	<i>CPLX1</i>
478	chr02:228736230-228736544	<i>WDR69</i>	523	chr04:81187494-81187913	<i>FGF5</i>
479	chr02:233497826-233499727	<i>EFHD1</i>	524	chr05:110408704-110409039	<i>TSLP</i>
480	chr02:237416090-237416382	<i>IQCA1</i>	525	chr05:134363092-134365146	<i>Non Coding Region</i>
481	chr02:238864315-238865170	<i>Non Coding Region</i>	526	chr05:134825398-134826496	<i>Non Coding Region</i>
482	chr02:239140096-239140659	<i>LOC643387, LOC151174</i>	527	chr05:135265848-135266517	<i>FBXL21</i>
483	chr02:242742598-242743758	<i>GAL3ST2</i>	528	chr05:137224986-137225477	<i>PKD2L2</i>
484	chr02:25438725-25439276	<i>Non Coding Region</i>	529	chr05:140787447-140788044	<i>PCDHGB1, PCDHGB3, PCDHGB2, etc.</i>
485	chr02:45028955-45029318	<i>Non Coding Region</i>	530	chr05:140797162-140797701	<i>PCDHGB1, PCDHGB3, PCDHGB2, etc.</i>
486	chr02:45155195-45157049	<i>Non Coding Region</i>	531	chr05:140800760-140801072	<i>PCDHGB1, PCDHGB3, PCDHGB2, etc.</i>
487	chr02:45231211-45231482	<i>Non Coding Region</i>	532	chr05:140864527-140864748	<i>PCDHGB1, PCDHGB3, PCDHGB2, etc.</i>
488	chr02:467849-468659	<i>Non Coding Region</i>	533	chr05:145718289-145720095	<i>POU4F3</i>
489	chr02:63281034-63281347	<i>OTX1</i>	534	chr05:158532294-158532502	<i>Non Coding Region</i>
490	chr02:66808568-66809404	<i>Non Coding Region</i>	535	chr05:16179064-16180420	<i>MARCHF11</i>
491	chr02:97192977-97193383	<i>Non Coding Region</i>	536	chr05:169064270-169064702	<i>DOCK2</i>
492	chr03:119528920-119529159	<i>NR1I2</i>	537	chr05:170741603-170742751	<i>Non Coding Region</i>
493	chr03:128205495-128212274	<i>GATA2</i>	538	chr05:172659049-172660277	<i>NKX2-5</i>

Figure 43F

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
539	chr05:176107068-176107521	<i>Non Coding Region</i>	584	chr06:78172231-78174088	<i>HTR1B</i>
540	chr05:177412534-177412753	<i>Non Coding Region</i>	585	chr06:85472702-85474132	<i>TBX18</i>
541	chr05:178593903-178594656	<i>ADAMTS2</i>	586	chr07:100075303-100075551	<i>TSC22D4</i>
542	chr05:179222608-179223825	<i>LTC4S</i>	587	chr07:1269165-1282864	<i>Non Coding Region</i>
543	chr05:1874907-1879032	<i>Non Coding Region</i>	588	chr07:149487283-149487769	<i>SSPO</i>
544	chr05:2748368-2757024	<i>Non Coding Region</i>	589	chr07:155164557-155167854	<i>Non Coding Region</i>
545	chr05:3594467-3603054	<i>IRX1</i>	590	chr07:156795355-156799394	<i>Non Coding Region</i>
546	chr05:37834671-37835128	<i>GDNF</i>	591	chr07:157476886-157486719	<i>PTPRN2</i>
547	chr05:42994626-42994936	<i>Non Coding Region</i>	592	chr07:158936507-158938492	<i>VIPR2</i>
548	chr05:528383-528982	<i>Non Coding Region</i>	593	chr07:19145872-19146256	<i>Non Coding Region</i>
549	chr05:54516267-54516919	<i>Non Coding Region</i>	594	chr07:19156050-19158042	<i>TWIST1</i>
550	chr05:72529099-72529976	<i>Non Coding Region</i>	595	chr07:19184221-19184686	<i>Non Coding Region</i>
551	chr05:87968635-87968907	<i>LOC645323</i>	596	chr07:24323558-24325080	<i>NPY</i>
552	chr06:100912071-100913337	<i>SIMI</i>	597	chr07:35292985-35294674	<i>TBX20</i>
553	chr06:10390038-10390565	<i>Non Coding Region</i>	598	chr07:35296921-35298218	<i>Non Coding Region</i>
554	chr06:105388190-105389545	<i>Non Coding Region</i>	599	chr07:49813008-49815752	<i>VWC2</i>
555	chr06:106429111-106429772	<i>Non Coding Region</i>	600	chr07:54612324-54612558	<i>VSTM2A</i>
556	chr06:108485671-108490539	<i>NR2E1</i>	601	chr07:6703503-6704075	<i>Non Coding Region</i>
557	chr06:108495654-108495986	<i>NR2E1</i>	602	chr07:70596228-70598382	<i>WSCR17</i>
558	chr06:10881846-10882051	<i>GCM2</i>	603	chr07:8481974-8482762	<i>NXP1</i>
559	chr06:10882926-10883149	<i>GCM2</i>	604	chr07:98245805-98247759	<i>NPTX2</i>
560	chr06:134210639-134211218	<i>TCF21</i>	605	chr08:11559596-11562956	<i>GATA4</i>
561	chr06:137809342-137810204	<i>Non Coding Region</i>	606	chr08:116660432-116660747	<i>TRPS1</i>
562	chr06:137814355-137815202	<i>OLIG3</i>	607	chr08:132052203-132054749	<i>Non Coding Region</i>
563	chr06:1379693-1380014	<i>Non Coding Region</i>	608	chr08:140714585-140718259	<i>KCNK9</i>
564	chr06:150284682-150286515	<i>ULBP1</i>	609	chr08:143545445-143546178	<i>BAI1</i>
565	chr06:159589636-159591319	<i>FNDC1</i>	610	chr08:144651572-144652288	<i>CSorf73</i>
566	chr06:1624185-1625468	<i>GMDS</i>	611	chr08:23562475-23565175	<i>NKX2-6</i>
567	chr06:27463176-27463379	<i>Non Coding Region</i>	612	chr08:23567180-23567678	<i>Non Coding Region</i>
568	chr06:27647793-27648005	<i>Non Coding Region</i>	613	chr08:24770908-24772547	<i>NEFM</i>
569	chr06:28457568-28457926	<i>Non Coding Region</i>	614	chr08:49468683-49468959	<i>Non Coding Region</i>
570	chr06:28602853-28603295	<i>Non Coding Region</i>	615	chr08:53851701-53854426	<i>NPBWR1</i>
571	chr06:28781857-28782302	<i>Non Coding Region</i>	616	chr08:55378928-55380186	<i>Non Coding Region</i>
572	chr06:29521110-29521833	<i>Non Coding Region</i>	617	chr08:57025546-57026543	<i>MOS</i>
573	chr06:29759946-29760903	<i>HCG4</i>	618	chr08:57069687-57070047	<i>Non Coding Region</i>
574	chr06:29795553-29796594	<i>HLA-G</i>	619	chr08:65281903-65283043	<i>Non Coding Region</i>
575	chr06:29944402-29945169	<i>HCG9</i>	620	chr08:65290108-65290946	<i>MIR124-2</i>
576	chr06:30095173-30095610	<i>Non Coding Region</i>	621	chr08:67873388-67875600	<i>Non Coding Region</i>
577	chr06:32116590-32117229	<i>PRRT1</i>	622	chr08:70981873-70984888	<i>PRDM14</i>
578	chr06:35108801-35109499	<i>TCP11</i>	623	chr08:72468560-72469561	<i>Non Coding Region</i>
579	chr06:391188-393790	<i>IRF4</i>	624	chr08:72753874-72754755	<i>MSC</i>
580	chr06:41340667-41342543	<i>Non Coding Region</i>	625	chr08:72755783-72756667	<i>MSC</i>
581	chr06:43252734-43253476	<i>TTBK1</i>	626	chr08:77594255-77594860	<i>ZFH4,LOC100192378</i>
582	chr06:50692149-50692375	<i>TFAP2D</i>	627	chr08:85096759-85097247	<i>RALYL</i>
583	chr06:5994909-5995203	<i>Non Coding Region</i>	628	chr08:86350765-86351196	<i>CA3</i>

Figure 43G

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
629	chr08:97156763-97158030	<i>GDF6</i>	674	chr11:636906-640628	<i>DRD4</i>
630	chr08:97171805-97172022	<i>GDF6</i>	675	chr11:63766058-63768666	<i>MACROD1</i>
631	chr08:98289604-98290404	<i>TPSYL5</i>	676	chr11:69706778-69707017	<i>Non Coding Region</i>
632	chr09:100610696-100611517	<i>Non Coding Region</i>	677	chr11:71954816-71955659	<i>PHOX2A</i>
633	chr09:124461797-124462190	<i>DAB2IP</i>	678	chr11:78673007-78673213	<i>ODZ4</i>
634	chr09:37002489-37002957	<i>PAX5</i>	679	chr11:79148358-79152200	<i>ODZ4</i>
635	chr09:79633326-79636030	<i>FOXB2</i>	680	chr12:114845861-114847650	<i>TBX5</i>
636	chr10:100993820-100994188	<i>HPSE2</i>	681	chr12:115102687-115103982	<i>Non Coding Region</i>
637	chr10:102419147-102419668	<i>Non Coding Region</i>	682	chr12:120799372-120799912	<i>MSI1</i>
638	chr10:102497154-102497675	<i>Non Coding Region</i>	683	chr12:133484658-133485739	<i>Non Coding Region</i>
639	chr10:102893660-102895059	<i>TLX1</i>	684	chr12:25055599-25056246	<i>BCAT1</i>
640	chr10:102899177-102899489	<i>Non Coding Region</i>	685	chr12:5018585-5021171	<i>KCNA1</i>
641	chr10:102899822-102900263	<i>Non Coding Region</i>	686	chr12:50297580-50297988	<i>FAIM2</i>
642	chr10:103603166-103603642	<i>KCNIP2</i>	687	chr12:54089211-54089413	<i>Non Coding Region</i>
643	chr10:105036628-105038084	<i>INA</i>	688	chr12:54345563-54345916	<i>Non Coding Region</i>
644	chr10:105452338-105453230	<i>SH3PXD2A</i>	689	chr12:54427025-54428709	<i>HOXC5,HOXC4</i>
645	chr10:108923780-108924805	<i>SORCS1</i>	690	chr12:54811981-54812202	<i>ITGA5</i>
646	chr10:11207178-11207980	<i>CUGBP2</i>	691	chr12:62584768-62586268	<i>FAM19A2</i>
647	chr10:118030732-118034230	<i>GFRA1</i>	692	chr12:65514878-65515863	<i>WIF1</i>
648	chr10:118892161-118892639	<i>VAX1</i>	693	chr12:95941906-95942979	<i>USP44</i>
649	chr10:123922850-123923542	<i>TACC2</i>	694	chr13:109147798-109149019	<i>Non Coding Region</i>
650	chr10:131756690-131758787	<i>EBF3</i>	695	chr13:112758598-112760491	<i>Non Coding Region</i>
651	chr10:131761169-131771696	<i>Non Coding Region</i>	696	chr13:21520328-21520564	<i>Non Coding Region</i>
652	chr10:133109193-133111052	<i>TCERGIL</i>	697	chr13:25319668-25322255	<i>Non Coding Region</i>
653	chr10:22540707-22542739	<i>Non Coding Region</i>	698	chr13:25743998-25746127	<i>FAM123A</i>
654	chr10:22634000-22634862	<i>SPAG6</i>	699	chr13:28498226-28499046	<i>PDX1</i>
655	chr10:26727061-26727992	<i>APBB1IP</i>	700	chr13:28501859-28502090	<i>Non Coding Region</i>
656	chr10:44788811-44789120	<i>Non Coding Region</i>	701	chr13:28503057-28503374	<i>Non Coding Region</i>
657	chr10:50602989-50606783	<i>Non Coding Region</i>	702	chr13:29106576-29107254	<i>Non Coding Region</i>
658	chr10:8091374-8098329	<i>GATA3</i>	703	chr13:53419897-53422872	<i>PCDH8</i>
659	chr10:88122924-88127364	<i>GRID1</i>	704	chr13:58203586-58204322	<i>Non Coding Region</i>
660	chr10:94820026-94823252	<i>CYP26C1</i>	705	chr13:79170114-79171231	<i>Non Coding Region</i>
661	chr11:115529997-115530548	<i>Non Coding Region</i>	706	chr13:84453664-84453897	<i>SLITRK1</i>
662	chr11:119293320-119293943	<i>THY1</i>	707	chr14:101923575-101925995	<i>Non Coding Region</i>
663	chr11:123066517-123066986	<i>ASAM</i>	708	chr14:102552721-102554068	<i>HSP90AA1</i>
664	chr11:125034896-125036426	<i>PKNOX2</i>	709	chr14:24044886-24046760	<i>JPH4</i>
665	chr11:125774292-125774584	<i>PUS3,DDX25</i>	710	chr14:48143433-48145589	<i>MDGA2</i>
666	chr11:20618197-20619920	<i>Non Coding Region</i>	711	chr14:52534581-52536722	<i>NID2</i>
667	chr11:31820060-31821416	<i>PAX6</i>	712	chr14:57264638-57265561	<i>Non Coding Region</i>
668	chr11:31827696-31827921	<i>PAX6</i>	713	chr14:60973772-60974123	<i>Non Coding Region</i>
669	chr11:31848487-31848776	<i>Non Coding Region</i>	714	chr14:60975732-60978180	<i>SIX6</i>
670	chr11:32454874-32457311	<i>WT1,WT1</i>	715	chr14:70014543-70014993	<i>Non Coding Region</i>
671	chr11:32459422-32459878	<i>WT1</i>	716	chr14:70655095-70656077	<i>SLC8A3</i>
672	chr11:44332314-44332757	<i>ALX4</i>	717	chr14:95234612-95236569	<i>GSC</i>
673	chr11:61322732-61323285	<i>SYT7</i>	718	chr15:29077251-29077684	<i>Non Coding Region</i>

Figure 43H

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
719	chr15:30515266-30518445	<i>Non Coding Region</i>	764	chr18:31739047-31739522	<i>NOL4</i>
720	chr15:37390175-37390380	<i>MEIS2</i>	765	chr18:43355318-43355698	<i>Non Coding Region</i>
721	chr15:41793562-41795305	<i>ITPKA</i>	766	chr18:44337510-44338100	<i>STSLA5</i>
722	chr15:51385861-51387203	<i>TNFAIP8L3</i>	767	chr18:53447074-53447842	<i>Non Coding Region</i>
723	chr15:53080458-53083699	<i>ONECUT1</i>	768	chr18:56939624-56941540	<i>RAX</i>
724	chr15:65688039-65688539	<i>IGDCC4</i>	769	chr18:73167402-73167920	<i>Non Coding Region</i>
725	chr15:68115485-68122575	<i>LBXCOR1</i>	770	chr18:74961556-74963822	<i>GALR1</i>
726	chr15:89920793-89922768	<i>LOC254559</i>	771	chr18:76737005-76741244	<i>SALL3</i>
727	chr15:89952271-89953061	<i>Non Coding Region</i>	772	chr19:13616752-13617267	<i>CACNA1A</i>
728	chr16:2041825-2043026	<i>SYNGR3</i>	773	chr19:15217951-15218617	<i>SYDE1</i>
729	chr16:21294980-21295414	<i>CRYM</i>	774	chr19:15580382-15580863	<i>PGLYRP2</i>
730	chr16:2765619-2765855	<i>PRSS27</i>	775	chr19:16394450-16394662	<i>Non Coding Region</i>
731	chr16:30905549-30905783	<i>BCL7C,MIR762</i>	776	chr19:18539781-18540341	<i>SSBP4</i>
732	chr16:31580070-31580317	<i>CSDAP1</i>	777	chr19:24154457-24154759	<i>Non Coding Region</i>
733	chr16:3238805-3239492	<i>Non Coding Region</i>	778	chr19:31843880-31844183	<i>Non Coding Region</i>
734	chr16:51183699-51188763	<i>SALL1</i>	779	chr19:31847946-31848209	<i>Non Coding Region</i>
735	chr16:55362737-55363287	<i>IRX6</i>	780	chr19:36523391-36523887	<i>CLIP3</i>
736	chr16:55513220-55513526	<i>MMP2</i>	781	chr19:3785511-3786653	<i>MATK</i>
737	chr16:55689598-55690895	<i>SLC6A2</i>	782	chr19:39109432-39109862	<i>MAP4K1,EIF3K</i>
738	chr16:66612749-66613412	<i>CMTM2,CMTM1</i>	783	chr19:42827743-42829149	<i>TMEM145</i>
739	chr16:86541430-86545228	<i>Non Coding Region</i>	784	chr19:4328658-4328865	<i>STAP2</i>
740	chr16:86599355-86602649	<i>FOXC2</i>	785	chr19:46996327-46998437	<i>PNMAL2</i>
741	chr16:86612188-86613821	<i>FOXL1</i>	786	chr19:48918115-48918340	<i>GRIN2D</i>
742	chr16:86965271-86965496	<i>Non Coding Region</i>	787	chr19:48983562-48984175	<i>CYTH2</i>
743	chr17:17625605-17628500	<i>RAI1</i>	788	chr19:49253688-49254221	<i>IZUMO1</i>
744	chr17:19880676-19881633	<i>AKAP10</i>	789	chr19:50030981-50031300	<i>RCN3</i>
745	chr17:27038084-27038919	<i>PROCA1</i>	790	chr19:52956656-52957245	<i>ZNF578</i>
746	chr17:27224005-27224873	<i>FLOT2</i>	791	chr19:53757819-53758148	<i>ZNF677</i>
747	chr17:27939298-27940770	<i>ANKRD13B</i>	792	chr19:54412710-54413087	<i>Non Coding Region</i>
748	chr17:32484007-32484280	<i>ACCN1</i>	793	chr19:54927902-54928225	<i>TTYH1</i>
749	chr17:36734659-36735246	<i>SRCIN1</i>	794	chr19:56904636-56905355	<i>ZNF582</i>
750	chr17:37321482-37322099	<i>ARL5C</i>	795	chr19:58094739-58095764	<i>ZIK1</i>
751	chr17:38347533-38347765	<i>RAPGEFL1</i>	796	chr19:58220189-58220517	<i>ZNF154</i>
752	chr17:40827975-40828659	<i>PLEKHH3</i>	797	chr19:58238585-58239028	<i>ZNF671</i>
753	chr17:43339124-43339832	<i>C17orf46,LOC100133991</i>	798	chr19:58951214-58952250	<i>ZNF132</i>
754	chr17:46802790-46803076	<i>HOXB13</i>	799	chr20:21485932-21496714	<i>NKX2-2</i>
755	chr17:59528979-59530266	<i>Non Coding Region</i>	800	chr20:21683744-21684420	<i>Non Coding Region</i>
756	chr17:59531723-59535254	<i>TBX4</i>	801	chr20:25061761-25062928	<i>VSN1</i>
757	chr17:61776890-61778733	<i>LIMD2</i>	802	chr20:2780978-2781497	<i>CPXM1</i>
758	chr17:7287198-7287940	<i>TNK1</i>	803	chr20:36012595-36013439	<i>SRC</i>
759	chr17:76354818-76357038	<i>SOC3</i>	804	chr20:37352130-37357372	<i>SLC32A1</i>
760	chr17:76920684-76921961	<i>TIMP2</i>	805	chr20:37434206-37435592	<i>PPP1R16B</i>
761	chr17:8868469-8869372	<i>PIK3R5</i>	806	chr20:42875764-42876184	<i>GDAP1L1</i>
762	chr18:11750953-11752756	<i>GNAL</i>	807	chr20:50721310-50721912	<i>ZFP64</i>
763	chr18:22930018-22930904	<i>ZNF521</i>	808	chr20:57224695-57226322	<i>STX16</i>

Figure 431

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Order	Coordinate of CpG (hg19)	Gene
809	chr20:59826977-59828978	<i>CDH4</i>
810	chr20:61583891-61584222	<i>SLC17A9</i>
811	chr20:61636171-61639055	<i>BHLHE23</i>
812	chr20:61884644-61886387	<i>NKAIN4, FLJ16779</i>
813	chr21:27945010-27945646	<i>CYYR1</i>
814	chr21:34395128-34400245	<i>OLIG2</i>
815	chr21:38068193-38073891	<i>Non Coding Region</i>
816	chr21:38076762-38077685	<i>SIM2</i>
817	chr21:38079941-38081833	<i>SIM2</i>
818	chr22:25678576-25679273	<i>Non Coding Region</i>
819	chr22:30722572-30723218	<i>TBC1D10A</i>
820	chr22:50623164-50625226	<i>TRABD</i>

Figure 43J

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Group 1 Exon RNA sequence markers

Order	Exon	Gene
1	chr3:46568916-46569071:-	LRRC2
2	chr4:74962764-74963488:-	CXCL2
3	chr4:74964318-74964401:-	CXCL2
4	chr4:74964516-74964639:-	CXCL2
5	chr4:74964738-74964997:-	CXCL2
6	chr4:110661850-110662266:-	CFI
7	chr4:110663647-110663751:-	CFI
8	chr4:110667378-110667658:-	CFI
9	chr4:110670374-110670477:-	CFI
10	chr4:110670655-110670758:-	CFI
11	chr4:110681426-110681536:-	CFI
12	chr4:110681679-110681792:-	CFI
13	chr4:110682673-110683747:-	CFI
14	chr6:90374206-90374347:-	MDN1
15	chr6:90377733-90377870:-	MDN1
16	chr6:90380638-90380799:-	MDN1
17	chr6:90381919-90382082:-	MDN1
18	chr6:90382266-90382421:-	MDN1
19	chr6:90382955-90383181:-	MDN1
20	chr6:90383823-90384308:-	MDN1
21	chr6:90387289-90387415:-	MDN1
22	chr6:90388318-90388464:-	MDN1
23	chr6:90394595-90394704:-	MDN1
24	chr6:90395546-90395692:-	MDN1
25	chr6:90396621-90396742:-	MDN1
26	chr6:90399589-90399862:-	MDN1
27	chr6:168185221-168186176:-	C6orf123
28	chr13:41340882-41341169:-	MRPS31
29	chr13:42140962-42142441:-	KIAA0564

Figure 44

Group 1 Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 1 Markers			Preferred Group 1 Markers	
1	Chr01: 107683775 107683776	<i>NTNG1</i>	46	Chr06: 166582206 166582207	<i>T</i>
2	Chr01: 121261602 121261603	<i>LOC647121</i>	47	Chr07: 149411652 149411653	<i>KRBA1</i>
3	Chr01: 18957020 18957021	<i>PAX7</i>	48	Chr07: 149412290 149412291	<i>KRBA1</i>
4	Chr01: 240255486 240255487	<i>FMN2</i>	49	Chr07: 20817530 20817531	<i>Non Coding Region</i>
5	Chr01: 29138936 29138937	<i>OPRD1</i>	50	Chr07: 20817859 20817860	<i>Non Coding Region</i>
6	Chr01: 34630944 34630945	<i>CSMD2</i>	51	Chr07: 37487633 37487634	<i>ELMO1</i>
7	Chr01: 44883697 44883698	<i>RNF220</i>	52	Chr07: 37488428 37488429	<i>ELMO1</i>
8	Chr01: 50884544 50884545	<i>DMRTA2</i>	53	Chr07: 37960317 37960318	<i>EPDR1</i>
9	Chr01: 53068181 53068182	<i>GPX7</i>	54	Chr07: 54609776 54609777	<i>VSTM2A</i>
10	Chr01: 77333138 77333139	<i>ST6GALNAC5</i>	55	Chr07: 87257074 87257075	<i>ABCB1, RUNDC3B</i>
11	Chr02: 100938444 100938445	<i>LONRF2</i>	56	Chr07: 93519855 93519856	<i>TFPI2</i>
12	Chr02: 131792772 131792773	<i>ARHGEF4</i>	57	Chr08: 41754181 41754182	<i>ANK1</i>
13	Chr02: 175193377 175193378	<i>Non Coding Region</i>	58	Chr08: 65492792 65492793	<i>BHLHE22</i>
14	Chr02: 176957462 176957463	<i>HOXD13</i>	59	Chr09: 117267242 117267243	<i>DFNB31</i>
15	Chr02: 176976802 176976803	<i>Non Coding Region</i>	60	Chr09: 124889019 124889020	<i>Non Coding Region</i>
16	Chr02: 176994665 176994666	<i>HOXD8</i>	61	Chr09: 96715256 96715257	<i>BARX1</i>
17	Chr02: 176995556 176995557	<i>HOXD8</i>	62	Chr10: 118893174 118893175	<i>VAX1</i>
18	Chr02: 182548807 182548808	<i>Non Coding Region</i>	63	Chr10: 126136607 126136608	<i>NKX1-2</i>
19	Chr02: 29338432 29338433	<i>CLIP4</i>	64	Chr10: 17496239 17496240	<i>ST8SLA6</i>
20	Chr02: 29339076 29339077	<i>CLIP4</i>	65	Chr10: 18429760 18429761	<i>CACNB2</i>
21	Chr02: 66803033 66803034	<i>Non Coding Region</i>	66	Chr10: 90342738 90342739	<i>RNLS</i>
22	Chr02: 88751786 88751787	<i>FOXI3</i>	67	Chr10: 90342899 90342900	<i>RNLS</i>
23	Chr03: 140770345 140770346	<i>SPSB4</i>	68	Chr10: 90343166 90343167	<i>RNLS</i>
24	Chr03: 152553673 152553674	<i>P2RY1</i>	69	Chr10: 90343174 90343175	<i>RNLS</i>
25	Chr03: 181421427 181421428	<i>SOX2OT</i>	70	Chr10: 90343192 90343193	<i>RNLS</i>
26	Chr03: 69592090 69592091	<i>Non Coding Region</i>	71	Chr10: 90343204 90343205	<i>RNLS</i>
27	Chr03: 96532043 96532044	<i>EPHA6</i>	72	Chr10: 90343208 90343209	<i>RNLS</i>
28	Chr03: 96533290 96533291	<i>EPHA6</i>	73	Chr11: 126226007 126226008	<i>ST3GAL4</i>
29	Chr04: 37246827 37246828	<i>KIAA1239</i>	74	Chr11: 126226033 126226034	<i>ST3GAL4</i>
30	Chr05: 112073348 112073349	<i>APC</i>	75	Chr11: 128564756 128564757	<i>FLI1</i>
31	Chr05: 112073350 112073351	<i>APC</i>	76	Chr11: 128564874 128564875	<i>FLI1</i>
32	Chr05: 112073398 112073399	<i>APC</i>	77	Chr11: 94501718 94501719	<i>AMOTL1</i>
33	Chr05: 112073406 112073407	<i>APC</i>	78	Chr11: 94502388 94502389	<i>AMOTL1</i>
34	Chr05: 112073426 112073427	<i>APC</i>	79	Chr12: 113901210 113901211	<i>LHX5</i>
35	Chr05: 112073613 112073614	<i>APC</i>	80	Chr12: 54338937 54338938	<i>HOXC13</i>
36	Chr05: 11904110 11904111	<i>CTNND2</i>	81	Chr12: 8542839 8542840	<i>LOC389634</i>
37	Chr05: 170738274 170738275	<i>TLX3</i>	82	Chr13: 78493305 78493306	<i>EDNRB</i>
38	Chr05: 170739179 170739180	<i>Non Coding Region</i>	83	Chr13: 95620306 95620307	<i>Non Coding Region</i>
39	Chr05: 38556435 38556436	<i>LIFR</i>	84	Chr14: 51561293 51561294	<i>TRIM9</i>
40	Chr05: 42423947 42423948	<i>GHR</i>	85	Chr14: 52735421 52735422	<i>PTGDR</i>
41	Chr05: 5139853 5139854	<i>ADAMTS16</i>	86	Chr14: 57283436 57283437	<i>OTX2OS1</i>
42	Chr05: 5139866 5139867	<i>ADAMTS16</i>	87	Chr15: 33010399 33010400	<i>GREM1</i>
43	Chr06: 105584709 105584710	<i>BVES</i>	88	Chr15: 45670478 45670479	<i>GATM, LOC145663</i>
44	Chr06: 124124875 124124876	<i>NKAIN2</i>	89	Chr15: 76633627 76633628	<i>ISL2</i>
45	Chr06: 1384491 1384492	<i>Non Coding Region</i>	90	Chr15: 76633981 76633982	<i>ISL2</i>

Figure 45A

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Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	Chr15: 76634516 76634517	<i>ISL2</i>	135	Chr01: 111217575 111217576	<i>KCNA3</i>
92	Chr15: 78913147 78913148	<i>CHRNA3</i>	136	Chr01: 111217715 111217716	<i>KCNA3</i>
93	Chr16: 56224901 56224902	<i>GNAO1,LOC283856</i>	137	Chr01: 114696350 114696351	<i>SYT6</i>
94	Chr16: 86599745 86599746	<i>FOXC2</i>	138	Chr01: 115880865 115880866	<i>NGF</i>
95	Chr17: 33701353 33701354	<i>SLFN11</i>	139	Chr01: 115881044 115881045	<i>NGF</i>
96	Chr17: 3438933 3438934	<i>TRPV3</i>	140	Chr01: 119530600 119530601	<i>TBX15</i>
97	Chr17: 41832753 41832754	<i>SOST</i>	141	Chr01: 119530677 119530678	<i>TBX15</i>
98	Chr17: 41832873 41832874	<i>SOST</i>	142	Chr01: 12123262 12123263	<i>TNFRSF8</i>
99	Chr17: 43339589 43339590	<i>C17orf46,LOC100133991</i>	143	Chr01: 12123308 12123309	<i>TNFRSF8</i>
100	Chr18: 32847566 32847567	<i>ZNF397OS</i>	144	Chr01: 12123313 12123314	<i>TNFRSF8</i>
101	Chr18: 5543548 5543549	<i>EPB41L3</i>	145	Chr01: 121261404 121261405	<i>LOC647121</i>
102	Chr19: 31841663 31841664	<i>TSHZ3</i>	146	Chr01: 121261602 121261603	<i>LOC647121</i>
103	Chr19: 36909413 36909414	<i>ZFP82</i>	147	Chr01: 13910209 13910210	<i>PDPN</i>
104	Chr19: 37407284 37407285	<i>ZNF829,ZNF568</i>	148	Chr01: 13910569 13910570	<i>PDPN</i>
105	Chr19: 37464066 37464067	<i>Non Coding Region</i>	149	Chr01: 13910698 13910699	<i>PDPN</i>
106	Chr19: 38183055 38183056	<i>ZNF781</i>	150	Chr01: 13910796 13910797	<i>PDPN</i>
107	Chr19: 38183259 38183260	<i>ZNF781</i>	151	Chr01: 150254869 150254870	<i>C1orf51</i>
108	Chr19: 38183262 38183263	<i>ZNF781</i>	152	Chr01: 154298335 154298336	<i>ATP8B2</i>
109	Chr19: 51925128 51925129	<i>Non Coding Region</i>	153	Chr01: 156626749 156626750	<i>BCAN</i>
110	Chr19: 53696649 53696650	<i>ZNF665</i>	154	Chr01: 156627099 156627100	<i>BCAN</i>
111	Chr19: 56879559 56879560	<i>ZNF542</i>	155	Chr01: 159141440 159141441	<i>CADM3</i>
112	Chr19: 56879645 56879646	<i>ZNF542</i>	156	Chr01: 16085371 16085372	<i>FBLIM1</i>
113	Chr19: 56904901 56904902	<i>ZNF582</i>	157	Chr01: 16085642 16085643	<i>FBLIM1</i>
114	Chr19: 56989543 56989544	<i>ZNF667</i>	158	Chr01: 165414379 165414380	<i>RXRG</i>
115	Chr19: 57078765 57078766	<i>ZNF470</i>	159	Chr01: 165414544 165414545	<i>RXRG</i>
116	Chr19: 57862627 57862628	<i>ZNF304</i>	160	Chr01: 171810376 171810377	<i>DNM3</i>
117	Chr19: 57862638 57862639	<i>ZNF304</i>	161	Chr01: 179712591 179712592	<i>FAM163A</i>
118	Chr20: 13200980 13200981	<i>ISM1</i>	162	Chr01: 181287803 181287804	<i>Non Coding Region</i>
119	Chr20: 23029640 23029641	<i>THBD</i>	163	Chr01: 18958924 18958925	<i>PAX7</i>
120	Chr20: 23029806 23029807	<i>THBD</i>	164	Chr01: 196577709 196577710	<i>KCNT2</i>
121	Chr20: 23030250 23030251	<i>THBD</i>	165	Chr01: 207669716 207669717	<i>CRI</i>
122	Chr20: 61638588 61638589	<i>BHLHE23</i>	166	Chr01: 208084415 208084416	<i>CD34</i>
123	Chr21: 38119946 38119947	<i>SIM2</i>	167	Chr01: 208084436 208084437	<i>CD34</i>
124	Chr21: 38120350 38120351	<i>SIM2</i>	168	Chr01: 208084456 208084457	<i>CD34</i>
125	Chr22: 45405627 45405628	<i>PHF21B</i>	169	Chr01: 224805287 224805288	<i>CNIH3</i>
Alternative markers: High in CRC for Group 1 set			170	Chr01: 228651908 228651909	<i>Non Coding Region</i>
126	Chr01: 101004638 101004639	<i>GPR88</i>	171	Chr01: 229543554 229543555	<i>Non Coding Region</i>
127	Chr01: 101004934 101004935	<i>GPR88</i>	172	Chr01: 231297103 231297104	<i>Non Coding Region</i>
128	Chr01: 101702602 101702603	<i>SIPRI</i>	173	Chr01: 234040833 234040834	<i>SLC35F3</i>
129	Chr01: 107683532 107683533	<i>NTNG1</i>	174	Chr01: 234350051 234350052	<i>SLC35F3</i>
130	Chr01: 108507078 108507079	<i>VAV3</i>	175	Chr01: 237205999 237206000	<i>RYR2</i>
131	Chr01: 108507468 108507469	<i>VAV3</i>	176	Chr01: 246952508 246952509	<i>LOC149134</i>
132	Chr01: 108508067 108508068	<i>VAV3</i>	177	Chr01: 33219593 33219594	<i>KIAA1522</i>
133	Chr01: 108508185 108508186	<i>VAV3</i>	178	Chr01: 33219687 33219688	<i>KIAA1522</i>
134	Chr01: 108508207 108508208	<i>VAV3</i>	179	Chr01: 35395541 35395542	<i>Non Coding Region</i>

Figure 45B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
180	Chr01: 35395663 35395664	<i>Non Coding Region</i>	225	Chr02: 11052558 11052559	<i>KCNF1</i>
181	Chr01: 35395821 35395822	<i>Non Coding Region</i>	226	Chr02: 115920612 115920613	<i>DPP10</i>
182	Chr01: 3663531 3663532	<i>KIAA0495</i>	227	Chr02: 119916017 119916018	<i>C1QL2</i>
183	Chr01: 3663832 3663833	<i>KIAA0495</i>	228	Chr02: 120281813 120281814	<i>SCTR</i>
184	Chr01: 37499547 37499548	<i>GRIK3</i>	229	Chr02: 131721099 131721100	<i>ARHGEF4</i>
185	Chr01: 38100811 38100812	<i>RSPO1</i>	230	Chr02: 131792772 131792773	<i>ARHGEF4</i>
186	Chr01: 38230779 38230780	<i>EPHA10</i>	231	Chr02: 137522960 137522961	<i>Non Coding Region</i>
187	Chr01: 38510933 38510934	<i>POU3F1</i>	232	Chr02: 144694405 144694406	<i>Non Coding Region</i>
188	Chr01: 39270149 39270150	<i>Non Coding Region</i>	233	Chr02: 144695078 144695079	<i>Non Coding Region</i>
189	Chr01: 44873057 44873058	<i>RNF220</i>	234	Chr02: 144695179 144695180	<i>Non Coding Region</i>
190	Chr01: 46951318 46951319	<i>Non Coding Region</i>	235	Chr02: 144695257 144695258	<i>Non Coding Region</i>
191	Chr01: 46951354 46951355	<i>Non Coding Region</i>	236	Chr02: 145274201 145274202	<i>ZEB2</i>
192	Chr01: 48190979 48190980	<i>Non Coding Region</i>	237	Chr02: 145274441 145274442	<i>ZEB2</i>
193	Chr01: 48191031 48191032	<i>Non Coding Region</i>	238	Chr02: 145275322 145275323	<i>ZEB2</i>
194	Chr01: 49242513 49242514	<i>AGBL4,BEND5</i>	239	Chr02: 145277596 145277597	<i>ZEB2</i>
195	Chr01: 49242519 49242520	<i>AGBL4,BEND5</i>	240	Chr02: 145281942 145281943	<i>Non Coding Region</i>
196	Chr01: 53099053 53099054	<i>FAM159A</i>	241	Chr02: 154728210 154728211	<i>GALNT13</i>
197	Chr01: 53099248 53099249	<i>FAM159A</i>	242	Chr02: 154729917 154729918	<i>GALNT13</i>
198	Chr01: 57888796 57888797	<i>DAB1</i>	243	Chr02: 164593221 164593222	<i>FIGN</i>
199	Chr01: 57889035 57889036	<i>DAB1</i>	244	Chr02: 171674855 171674856	<i>GAD1</i>
200	Chr01: 57889475 57889476	<i>DAB1</i>	245	Chr02: 1748337 1748338	<i>PXDN</i>
201	Chr01: 57889604 57889605	<i>DAB1</i>	246	Chr02: 177054306 177054307	<i>HOXD1</i>
202	Chr01: 57890317 57890318	<i>DAB1</i>	247	Chr02: 182321786 182321787	<i>ITGA4</i>
203	Chr01: 58715499 58715500	<i>DAB1</i>	248	Chr02: 182322268 182322269	<i>ITGA4</i>
204	Chr01: 58715532 58715533	<i>DAB1</i>	249	Chr02: 182322279 182322280	<i>ITGA4</i>
205	Chr01: 58715553 58715554	<i>DAB1</i>	250	Chr02: 182322501 182322502	<i>ITGA4</i>
206	Chr01: 58716033 58716034	<i>DAB1</i>	251	Chr02: 182322749 182322750	<i>ITGA4</i>
207	Chr01: 67773719 67773720	<i>IL12RB2</i>	252	Chr02: 182548807 182548808	<i>Non Coding Region</i>
208	Chr01: 70034475 70034476	<i>Non Coding Region</i>	253	Chr02: 185462397 185462398	<i>ZNF804A</i>
209	Chr01: 70034491 70034492	<i>Non Coding Region</i>	254	Chr02: 185462493 185462494	<i>ZNF804A</i>
210	Chr01: 75601120 75601121	<i>LHX8</i>	255	Chr02: 187713902 187713903	<i>ZSWIM2</i>
211	Chr01: 76080727 76080728	<i>Non Coding Region</i>	256	Chr02: 187713986 187713987	<i>ZSWIM2</i>
212	Chr01: 77333138 77333139	<i>ST6GALNAC5</i>	257	Chr02: 193059230 193059231	<i>TMEFF2</i>
213	Chr01: 77333159 77333160	<i>ST6GALNAC5</i>	258	Chr02: 193059405 193059406	<i>TMEFF2</i>
214	Chr01: 77333198 77333199	<i>ST6GALNAC5</i>	259	Chr02: 193059645 193059646	<i>TMEFF2</i>
215	Chr01: 77334045 77334046	<i>ST6GALNAC5</i>	260	Chr02: 193059717 193059718	<i>TMEFF2</i>
216	Chr01: 86622628 86622629	<i>COL24A1</i>	261	Chr02: 207507096 207507097	<i>LOC200726</i>
217	Chr01: 98511629 98511630	<i>MIR137</i>	262	Chr02: 210636398 210636399	<i>UNC80</i>
218	Chr01: 99470207 99470208	<i>LPPR5</i>	263	Chr02: 217236040 217236041	<i>MARCHF4</i>
219	Chr01: 99470618 99470619	<i>LPPR5</i>	264	Chr02: 217559867 217559868	<i>IGFBP5</i>
220	Chr02: 100938444 100938445	<i>LONRF2</i>	265	Chr02: 218621320 218621321	<i>DIRC3</i>
221	Chr02: 100938799 100938800	<i>LONRF2</i>	266	Chr02: 220174201 220174202	<i>PTPRN</i>
222	Chr02: 10220886 10220887	<i>CYS1</i>	267	Chr02: 220299900 220299901	<i>SPEG</i>
223	Chr02: 105461368 105461369	<i>Non Coding Region</i>	268	Chr02: 223167400 223167401	<i>CCDC140</i>
224	Chr02: 108602906 108602907	<i>SLC5A7</i>	269	Chr02: 223168453 223168454	<i>CCDC140</i>

Figure 45C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
270	Chr02: 230578216 230578217	<i>DNER</i>	315	Chr02: 97193524 97193525	<i>Non Coding Region</i>
271	Chr02: 238535910 238535911	<i>LRRFIP1</i>	316	Chr02: 98962900 98962901	<i>CNGA3</i>
272	Chr02: 242743214 242743215	<i>GAL3ST2</i>	317	Chr02: 98963134 98963135	<i>CNGA3</i>
273	Chr02: 242743476 242743477	<i>GAL3ST2</i>	318	Chr02: 98963768 98963769	<i>CNGA3</i>
274	Chr02: 242743702 242743703	<i>Non Coding Region</i>	319	Chr03: 10857798 10857799	<i>SLC6A11</i>
275	Chr02: 29337988 29337989	<i>CLIP4</i>	320	Chr03: 10858003 10858004	<i>SLC6A11</i>
276	Chr02: 29338100 29338101	<i>CLIP4</i>	321	Chr03: 120169783 120169784	<i>FSTL1</i>
277	Chr02: 29338109 29338110	<i>CLIP4</i>	322	Chr03: 120169821 120169822	<i>FSTL1</i>
278	Chr02: 29338113 29338114	<i>CLIP4</i>	323	Chr03: 128210000 128210001	<i>GATA2</i>
279	Chr02: 29338121 29338122	<i>CLIP4</i>	324	Chr03: 128210888 128210889	<i>GATA2</i>
280	Chr02: 29338258 29338259	<i>CLIP4</i>	325	Chr03: 128211096 128211097	<i>GATA2</i>
281	Chr02: 29338432 29338433	<i>CLIP4</i>	326	Chr03: 128211540 128211541	<i>GATA2</i>
282	Chr02: 29339076 29339077	<i>CLIP4</i>	327	Chr03: 128211686 128211687	<i>GATA2</i>
283	Chr02: 29339091 29339092	<i>CLIP4</i>	328	Chr03: 128212269 128212270	<i>GATA2</i>
284	Chr02: 30144152 30144153	<i>ALK</i>	329	Chr03: 128212273 128212274	<i>GATA2</i>
285	Chr02: 30144579 30144580	<i>ALK</i>	330	Chr03: 128720433 128720434	<i>CCDC48</i>
286	Chr02: 31360693 31360694	<i>GALNT14</i>	331	Chr03: 13114803 13114804	<i>IOSEC1</i>
287	Chr02: 31360817 31360818	<i>GALNT14</i>	332	Chr03: 132757087 132757088	<i>TMEM108</i>
288	Chr02: 31457043 31457044	<i>EHF3</i>	333	Chr03: 132757090 132757091	<i>TMEM108</i>
289	Chr02: 31806042 31806043	<i>SRD5A2</i>	334	Chr03: 132757102 132757103	<i>TMEM108</i>
290	Chr02: 40678691 40678692	<i>SLC8A1</i>	335	Chr03: 132757106 132757107	<i>TMEM108</i>
291	Chr02: 40678760 40678761	<i>SLC8A1</i>	336	Chr03: 132757267 132757268	<i>TMEM108</i>
292	Chr02: 40679519 40679520	<i>SLC8A1</i>	337	Chr03: 13324132 13324133	<i>Non Coding Region</i>
293	Chr02: 40679582 40679583	<i>SLC8A1</i>	338	Chr03: 134369919 134369920	<i>KY</i>
294	Chr02: 47797488 47797489	<i>KCNK12</i>	339	Chr03: 134369939 134369940	<i>KY</i>
295	Chr02: 50574624 50574625	<i>NRXN1</i>	340	Chr03: 134515856 134515857	<i>EPHB1</i>
296	Chr02: 56150925 56150926	<i>EFEMP1</i>	341	Chr03: 137480102 137480103	<i>Non Coding Region</i>
297	Chr02: 5836111 5836112	<i>SOX11</i>	342	Chr03: 137486265 137486266	<i>Non Coding Region</i>
298	Chr02: 5836256 5836257	<i>SOX11</i>	343	Chr03: 137487932 137487933	<i>Non Coding Region</i>
299	Chr02: 66653254 66653255	<i>Non Coding Region</i>	344	Chr03: 140770549 140770550	<i>SPSB4</i>
300	Chr02: 66803033 66803034	<i>Non Coding Region</i>	345	Chr03: 140770588 140770589	<i>SPSB4</i>
301	Chr02: 68546467 68546468	<i>CNRIP1</i>	346	Chr03: 140770599 140770600	<i>SPSB4</i>
302	Chr02: 68546507 68546508	<i>CNRIP1</i>	347	Chr03: 140770608 140770609	<i>SPSB4</i>
303	Chr02: 68546579 68546580	<i>CNRIP1</i>	348	Chr03: 140771786 140771787	<i>SPSB4</i>
304	Chr02: 68546899 68546900	<i>CNRIP1</i>	349	Chr03: 142838847 142838848	<i>CHST2</i>
305	Chr02: 68547052 68547053	<i>CNRIP1</i>	350	Chr03: 142838938 142838939	<i>CHST2</i>
306	Chr02: 68547088 68547089	<i>CNRIP1</i>	351	Chr03: 142839022 142839023	<i>CHST2</i>
307	Chr02: 7058390 7058391	<i>RNF144A</i>	352	Chr03: 142839578 142839579	<i>CHST2</i>
308	Chr02: 7058432 7058433	<i>RNF144A</i>	353	Chr03: 142839837 142839838	<i>CHST2</i>
309	Chr02: 71693389 71693390	<i>DYSF</i>	354	Chr03: 142839903 142839904	<i>CHST2</i>
310	Chr02: 73430374 73430375	<i>NOTO</i>	355	Chr03: 142839991 142839992	<i>CHST2</i>
311	Chr02: 87017591 87017592	<i>CD8A</i>	356	Chr03: 147127143 147127144	<i>ZIC1</i>
312	Chr02: 946648 946649	<i>SNTG2</i>	357	Chr03: 14852659 14852660	<i>Non Coding Region</i>
313	Chr02: 95691255 95691256	<i>MAL</i>	358	Chr03: 159756793 159756794	<i>Non Coding Region</i>
314	Chr02: 97193174 97193175	<i>Non Coding Region</i>	359	Chr03: 159756929 159756930	<i>Non Coding Region</i>

Figure 45D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
360	Chr03: 173303193 173303194	<i>NLGN1</i>	405	Chr04: 107955762 107955763	<i>DKK2</i>
361	Chr03: 179754239 179754240	<i>PEX5L</i>	406	Chr04: 107956955 107956956	<i>DKK2</i>
362	Chr03: 179754521 179754522	<i>PEX5L</i>	407	Chr04: 107957362 107957363	<i>DKK2</i>
363	Chr03: 179754533 179754534	<i>PEX5L</i>	408	Chr04: 110223967 110223968	<i>COL25A1</i>
364	Chr03: 179754613 179754614	<i>PEX5L</i>	409	Chr04: 110223969 110223970	<i>COL25A1</i>
365	Chr03: 179755086 179755087	<i>PEX5L</i>	410	Chr04: 111562545 111562546	<i>Non Coding Region</i>
366	Chr03: 185080905 185080906	<i>MAP3K13</i>	411	Chr04: 122301740 122301741	<i>ORFPR</i>
367	Chr03: 185080997 185080998	<i>MAP3K13</i>	412	Chr04: 122301816 122301817	<i>ORFPR</i>
368	Chr03: 186079142 186079143	<i>DGKG</i>	413	Chr04: 122302226 122302227	<i>ORFPR</i>
369	Chr03: 192126742 192126743	<i>FGF12</i>	414	Chr04: 122686038 122686039	<i>TMEM155,LOC100192379</i>
370	Chr03: 192126849 192126850	<i>FGF12</i>	415	Chr04: 122686269 122686270	<i>TMEM155,LOC100192379</i>
371	Chr03: 192126935 192126936	<i>FGF12</i>	416	Chr04: 122686432 122686433	<i>TMEM155,LOC100192379</i>
372	Chr03: 192126960 192126961	<i>FGF12</i>	417	Chr04: 122686453 122686454	<i>TMEM155,LOC100192379</i>
373	Chr03: 194408516 194408517	<i>FAM43A</i>	418	Chr04: 122686456 122686457	<i>TMEM155,LOC100192379</i>
374	Chr03: 238392 238393	<i>CHL1</i>	419	Chr04: 122686493 122686494	<i>TMEM155,LOC100192379</i>
375	Chr03: 27771766 27771767	<i>Non Coding Region</i>	420	Chr04: 122686564 122686565	<i>TMEM155,LOC100192379</i>
376	Chr03: 28616682 28616683	<i>Non Coding Region</i>	421	Chr04: 126237371 126237372	<i>FAT4</i>
377	Chr03: 32859407 32859408	<i>TRIM71</i>	422	Chr04: 126237373 126237374	<i>FAT4</i>
378	Chr03: 32859417 32859418	<i>TRIM71</i>	423	Chr04: 134067789 134067790	<i>Non Coding Region</i>
379	Chr03: 32859438 32859439	<i>TRIM71</i>	424	Chr04: 134068777 134068778	<i>Non Coding Region</i>
380	Chr03: 33259889 33259890	<i>SUSD5</i>	425	Chr04: 134069670 134069671	<i>PCDH10</i>
381	Chr03: 36422209 36422210	<i>STAC</i>	426	Chr04: 134070369 134070370	<i>PCDH10</i>
382	Chr03: 38036034 38036035	<i>VILL</i>	427	Chr04: 134070389 134070390	<i>PCDH10</i>
383	Chr03: 44037128 44037129	<i>Non Coding Region</i>	428	Chr04: 134070416 134070417	<i>PCDH10</i>
384	Chr03: 44037189 44037190	<i>Non Coding Region</i>	429	Chr04: 134070437 134070438	<i>PCDH10</i>
385	Chr03: 44626538 44626539	<i>ZNF660</i>	430	Chr04: 13537872 13537873	<i>Non Coding Region</i>
386	Chr03: 46506292 46506293	<i>LTF</i>	431	Chr04: 142053623 142053624	<i>RNF150</i>
387	Chr03: 46506481 46506482	<i>LTF</i>	432	Chr04: 142054254 142054255	<i>RNF150</i>
388	Chr03: 46506483 46506484	<i>LTF</i>	433	Chr04: 144621898 144621899	<i>FREM3</i>
389	Chr03: 46923937 46923938	<i>PTH1R</i>	434	Chr04: 144621945 144621946	<i>FREM3</i>
390	Chr03: 48693882 48693883	<i>CELSR3</i>	435	Chr04: 144621952 144621953	<i>FREM3</i>
391	Chr03: 48694018 48694019	<i>CELSR3</i>	436	Chr04: 144621971 144621972	<i>FREM3</i>
392	Chr03: 48699012 48699013	<i>CELSR3</i>	437	Chr04: 148402574 148402575	<i>EDNRA</i>
393	Chr03: 62359392 62359393	<i>FEZF2</i>	438	Chr04: 154680909 154680910	<i>RNF175</i>
394	Chr03: 68981011 68981012	<i>FAM19A4</i>	439	Chr04: 154681197 154681198	<i>RNF175</i>
395	Chr03: 68981852 68981853	<i>FAM19A4</i>	440	Chr04: 154710475 154710476	<i>SFRP2</i>
396	Chr03: 68981854 68981855	<i>FAM19A4</i>	441	Chr04: 154710598 154710599	<i>SFRP2</i>
397	Chr03: 68981866 68981867	<i>FAM19A4</i>	442	Chr04: 154712422 154712423	<i>Non Coding Region</i>
398	Chr03: 68981877 68981878	<i>FAM19A4</i>	443	Chr04: 156297854 156297855	<i>MAP9</i>
399	Chr03: 68981890 68981891	<i>FAM19A4</i>	444	Chr04: 156297942 156297943	<i>MAP9</i>
400	Chr03: 69591803 69591804	<i>Non Coding Region</i>	445	Chr04: 156680400 156680401	<i>GUCY1B3</i>
401	Chr03: 69592049 69592050	<i>Non Coding Region</i>	446	Chr04: 156680769 156680770	<i>GUCY1B3</i>
402	Chr03: 69592090 69592091	<i>Non Coding Region</i>	447	Chr04: 156681047 156681048	<i>GUCY1B3</i>
403	Chr03: 71802594 71802595	<i>EIF4E3,GPR27</i>	448	Chr04: 157997526 157997527	<i>GLRB</i>
404	Chr03: 79816949 79816950	<i>ROBO1</i>	449	Chr04: 166794971 166794972	<i>TLL1</i>

Figure 45E

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
450	Chr04: 166795260 166795261	<i>TLL1</i>	495	Chr04: 7195206 7195207	<i>SORCS2</i>
451	Chr04: 166795524 166795525	<i>TLL1</i>	496	Chr04: 81186901 81186902	<i>FGF5</i>
452	Chr04: 168155219 168155220	<i>SPOCK3</i>	497	Chr04: 81187125 81187126	<i>FGF5</i>
453	Chr04: 175139081 175139082	<i>Non Coding Region</i>	498	Chr04: 81187798 81187799	<i>FGF5</i>
454	Chr04: 175750637 175750638	<i>GLRA3</i>	499	Chr04: 81187906 81187907	<i>FGF5</i>
455	Chr04: 176922779 176922780	<i>GPM6A</i>	500	Chr04: 96470887 96470888	<i>UNC5C</i>
456	Chr04: 176986950 176986951	<i>WDR17</i>	501	Chr04: 96471105 96471106	<i>UNC5C</i>
457	Chr04: 176987020 176987021	<i>WDR17</i>	502	Chr05: 100238819 100238820	<i>STSLA4</i>
458	Chr04: 176987174 176987175	<i>WDR17</i>	503	Chr05: 127873980 127873981	<i>FBN2</i>
459	Chr04: 176987313 176987314	<i>WDR17</i>	504	Chr05: 128300708 128300709	<i>SLC27A6</i>
460	Chr04: 17783294 17783295	<i>FAM184B</i>	505	Chr05: 128301083 128301084	<i>SLC27A6</i>
461	Chr04: 17783322 17783323	<i>FAM184B</i>	506	Chr05: 135265931 135265932	<i>FBXL21</i>
462	Chr04: 17783331 17783332	<i>FAM184B</i>	507	Chr05: 136834464 136834465	<i>SPOCK1</i>
463	Chr04: 184826704 184826705	<i>STOX2</i>	508	Chr05: 136834492 136834493	<i>SPOCK1</i>
464	Chr04: 184827754 184827755	<i>STOX2</i>	509	Chr05: 136834877 136834878	<i>SPOCK1</i>
465	Chr04: 185941601 185941602	<i>HELT</i>	510	Chr05: 140306208 140306209	<i>PCDHA2,PCDHA3,PCDHA1, etc.</i>
466	Chr04: 40858984 40858985	<i>APBB2</i>	511	Chr05: 140892370 140892371	<i>PCDHGB3,PCDHGB2,PCDHGB1, etc.</i>
467	Chr04: 40859249 40859250	<i>APBB2</i>	512	Chr05: 141262801 141262802	<i>Non Coding Region</i>
468	Chr04: 40859251 40859252	<i>APBB2</i>	513	Chr05: 1445561 1445562	<i>SLC6A3</i>
469	Chr04: 41883164 41883165	<i>Non Coding Region</i>	514	Chr05: 1445567 1445568	<i>SLC6A3</i>
470	Chr04: 41883879 41883880	<i>Non Coding Region</i>	515	Chr05: 146257484 146257485	<i>PPP2R2B</i>
471	Chr04: 41883890 41883891	<i>Non Coding Region</i>	516	Chr05: 146258463 146258464	<i>PPP2R2B</i>
472	Chr04: 42154140 42154141	<i>BEND4</i>	517	Chr05: 146258512 146258513	<i>PPP2R2B</i>
473	Chr04: 42154840 42154841	<i>BEND4</i>	518	Chr05: 146258522 146258523	<i>PPP2R2B</i>
474	Chr04: 4388505 4388506	<i>D4S234E</i>	519	Chr05: 146258546 146258547	<i>PPP2R2B</i>
475	Chr04: 5052526 5052527	<i>STK32B</i>	520	Chr05: 1667643 1667644	<i>Non Coding Region</i>
476	Chr04: 5053341 5053342	<i>STK32B</i>	521	Chr05: 168728270 168728271	<i>SLIT3</i>
477	Chr04: 5053496 5053497	<i>STK32B</i>	522	Chr05: 172661859 172661860	<i>NKX2-5</i>
478	Chr04: 5053504 5053505	<i>STK32B</i>	523	Chr05: 172670879 172670880	<i>Non Coding Region</i>
479	Chr04: 55097476 55097477	<i>PDGFRA</i>	524	Chr05: 172671526 172671527	<i>Non Coding Region</i>
480	Chr04: 55097576 55097577	<i>PDGFRA</i>	525	Chr05: 174115696 174115697	<i>Non Coding Region</i>
481	Chr04: 55098359 55098360	<i>PDGFRA</i>	526	Chr05: 174871289 174871290	<i>DRD1</i>
482	Chr04: 55991782 55991783	<i>KDR</i>	527	Chr05: 175792973 175792974	<i>ARL10</i>
483	Chr04: 55991850 55991851	<i>KDR</i>	528	Chr05: 178017571 178017572	<i>COL23A1</i>
484	Chr04: 55991860 55991861	<i>KDR</i>	529	Chr05: 178017578 178017579	<i>COL23A1</i>
485	Chr04: 55991943 55991944	<i>KDR</i>	530	Chr05: 178771776 178771777	<i>ADAMTS2</i>
486	Chr04: 570361 570362	<i>Non Coding Region</i>	531	Chr05: 178771781 178771782	<i>ADAMTS2</i>
487	Chr04: 5710319 5710320	<i>EVC2</i>	532	Chr05: 178772203 178772204	<i>ADAMTS2</i>
488	Chr04: 5710407 5710408	<i>EVC2</i>	533	Chr05: 180017349 180017350	<i>SCGB3A1</i>
489	Chr04: 5710411 5710412	<i>EVC2</i>	534	Chr05: 180100963 180100964	<i>Non Coding Region</i>
490	Chr04: 5712937 5712938	<i>EVC</i>	535	Chr05: 1883005 1883006	<i>IRX4</i>
491	Chr04: 5713100 5713101	<i>EVC</i>	536	Chr05: 1883214 1883215	<i>IRX4</i>
492	Chr04: 5892072 5892073	<i>CRMP1</i>	537	Chr05: 1883940 1883941	<i>IRX4</i>
493	Chr04: 5892208 5892209	<i>CRMP1</i>	538	Chr05: 1931620 1931621	<i>Non Coding Region</i>
494	Chr04: 62065809 62065810	<i>Non Coding Region</i>	539	Chr05: 19988288 19988289	<i>CDH18</i>

Figure 45F

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
540	Chr05: 19988366 19988367	<i>CDH18</i>	585	Chr06: 117086479 117086480	<i>FAM162B</i>
541	Chr05: 19988368 19988369	<i>CDH18</i>	586	Chr06: 117086850 117086851	<i>FAM162B</i>
542	Chr05: 3197730 3197731	<i>Non Coding Region</i>	587	Chr06: 117086931 117086932	<i>FAM162B</i>
543	Chr05: 32711429 32711430	<i>NPR3</i>	588	Chr06: 118228869 118228870	<i>SLC35F1</i>
544	Chr05: 32713290 32713291	<i>NPR3</i>	589	Chr06: 127440000 127440001	<i>RSPO3</i>
545	Chr05: 32713723 32713724	<i>NPR3</i>	590	Chr06: 127440510 127440511	<i>RSPO3</i>
546	Chr05: 33892223 33892224	<i>ADAMTS12</i>	591	Chr06: 133562035 133562036	<i>EYA4</i>
547	Chr05: 33936232 33936233	<i>RXFP3</i>	592	Chr06: 133562056 133562057	<i>EYA4</i>
548	Chr05: 33936253 33936254	<i>RXFP3</i>	593	Chr06: 133562193 133562194	<i>EYA4</i>
549	Chr05: 33936307 33936308	<i>RXFP3</i>	594	Chr06: 133562246 133562247	<i>EYA4</i>
550	Chr05: 33936322 33936323	<i>RXFP3</i>	595	Chr06: 133562461 133562462	<i>EYA4</i>
551	Chr05: 33936362 33936363	<i>RXFP3</i>	596	Chr06: 134211114 134211115	<i>TCF21</i>
552	Chr05: 3595728 3595729	<i>IRX1</i>	597	Chr06: 134638871 134638872	<i>SGK1</i>
553	Chr05: 36066972 36066973	<i>UGT3A2</i>	598	Chr06: 1391265 1391266	<i>FOXF2</i>
554	Chr05: 37836748 37836749	<i>GDNF</i>	599	Chr06: 151562026 151562027	<i>AKAP12</i>
555	Chr05: 37838563 37838564	<i>GDNF</i>	600	Chr06: 152128537 152128538	<i>ESR1</i>
556	Chr05: 37839829 37839830	<i>GDNF</i>	601	Chr06: 152129400 152129401	<i>ESR1</i>
557	Chr05: 37840075 37840076	<i>GDNF</i>	602	Chr06: 152957910 152957911	<i>SYNE1</i>
558	Chr05: 38258333 38258334	<i>EGFLAM</i>	603	Chr06: 152957999 152958000	<i>SYNE1</i>
559	Chr05: 38258884 38258885	<i>EGFLAM</i>	604	Chr06: 159590231 159590232	<i>FNDC1</i>
560	Chr05: 38556435 38556436	<i>LIFR</i>	605	Chr06: 1625238 1625239	<i>GMDS</i>
561	Chr05: 44389406 44389407	<i>FGF10</i>	606	Chr06: 1625457 1625458	<i>GMDS</i>
562	Chr05: 44389848 44389849	<i>FGF10</i>	607	Chr06: 163836718 163836719	<i>QKI</i>
563	Chr05: 49736988 49736989	<i>EMB</i>	608	Chr06: 166580952 166580953	<i>T</i>
564	Chr05: 49737182 49737183	<i>EMB</i>	609	Chr06: 166666838 166666839	<i>Non Coding Region</i>
565	Chr05: 50265443 50265444	<i>Non Coding Region</i>	610	Chr06: 166667504 166667505	<i>Non Coding Region</i>
566	Chr05: 5139853 5139854	<i>ADAMTS16</i>	611	Chr06: 28411030 28411031	<i>ZSCAN23</i>
567	Chr05: 5139855 5139856	<i>ADAMTS16</i>	612	Chr06: 28411240 28411241	<i>ZSCAN23</i>
568	Chr05: 5139866 5139867	<i>ADAMTS16</i>	613	Chr06: 28411271 28411272	<i>ZSCAN23</i>
569	Chr05: 63802280 63802281	<i>RGS7BP</i>	614	Chr06: 28411423 28411424	<i>ZSCAN23</i>
570	Chr05: 63802491 63802492	<i>RGS7BP</i>	615	Chr06: 28510339 28510340	<i>Non Coding Region</i>
571	Chr05: 63986392 63986393	<i>FAM159B</i>	616	Chr06: 28603059 28603060	<i>Non Coding Region</i>
572	Chr05: 63986656 63986657	<i>FAM159B</i>	617	Chr06: 28677272 28677273	<i>Non Coding Region</i>
573	Chr05: 63986793 63986794	<i>FAM159B</i>	618	Chr06: 28793219 28793220	<i>Non Coding Region</i>
574	Chr05: 71015523 71015524	<i>CARTPT</i>	619	Chr06: 29760410 29760411	<i>HCG4</i>
575	Chr05: 76249776 76249777	<i>CRHBP</i>	620	Chr06: 29760505 29760506	<i>HCG4</i>
576	Chr05: 82768488 82768489	<i>VCAN</i>	621	Chr06: 29760832 29760833	<i>HCG4</i>
577	Chr06: 108486007 108486008	<i>NR2E1</i>	622	Chr06: 30095762 30095763	<i>Non Coding Region</i>
578	Chr06: 10887185 10887186	<i>SYCP2L</i>	623	Chr06: 30418789 30418790	<i>Non Coding Region</i>
579	Chr06: 10887587 10887588	<i>SYCP2L</i>	624	Chr06: 30419070 30419071	<i>Non Coding Region</i>
580	Chr06: 11044106 11044107	<i>ELOVL2</i>	625	Chr06: 31783455 31783456	<i>HSPA1A,HSPA1L</i>
581	Chr06: 110679107 110679108	<i>C6orf186</i>	626	Chr06: 34112818 34112819	<i>Non Coding Region</i>
582	Chr06: 110797233 110797234	<i>SLC22A16</i>	627	Chr06: 3752849 3752850	<i>C6orf145</i>
583	Chr06: 110797497 110797498	<i>SLC22A16</i>	628	Chr06: 391189 391190	<i>IRF4</i>
584	Chr06: 110797506 110797507	<i>SLC22A16</i>	629	Chr06: 391208 391209	<i>IRF4</i>

Figure 45G

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
630	Chr06: 391743 391744	<i>IRF4</i>	675	Chr07: 151107400 151107401	<i>WDR86</i>
631	Chr06: 393239 393240	<i>IRF4</i>	676	Chr07: 151107637 151107638	<i>WDR86</i>
632	Chr06: 393616 393617	<i>IRF4</i>	677	Chr07: 152622455 152622456	<i>Non Coding Region</i>
633	Chr06: 41606317 41606318	<i>MDFI</i>	678	Chr07: 152622815 152622816	<i>Non Coding Region</i>
634	Chr06: 41606770 41606771	<i>MDFI</i>	679	Chr07: 155166290 155166291	<i>Non Coding Region</i>
635	Chr06: 44529081 44529082	<i>Non Coding Region</i>	680	Chr07: 156871234 156871235	<i>Non Coding Region</i>
636	Chr06: 56716884 56716885	<i>DST</i>	681	Chr07: 157482508 157482509	<i>PTPRN2</i>
637	Chr06: 62995523 62995524	<i>KHDRBS2</i>	682	Chr07: 157485230 157485231	<i>PTPRN2</i>
638	Chr06: 62996130 62996131	<i>KHDRBS2</i>	683	Chr07: 158937610 158937611	<i>VIPR2</i>
639	Chr06: 62996183 62996184	<i>KHDRBS2</i>	684	Chr07: 158938060 158938061	<i>VIPR2</i>
640	Chr06: 73331114 73331115	<i>KCNQ5</i>	685	Chr07: 19147157 19147158	<i>Non Coding Region</i>
641	Chr06: 73331238 73331239	<i>KCNQ5</i>	686	Chr07: 19156086 19156087	<i>TWIST1</i>
642	Chr06: 73331290 73331291	<i>KCNQ5</i>	687	Chr07: 19157193 19157194	<i>TWIST1</i>
643	Chr06: 73331405 73331406	<i>KCNQ5</i>	688	Chr07: 19157263 19157264	<i>TWIST1</i>
644	Chr06: 73332073 73332074	<i>KCNQ5</i>	689	Chr07: 19157296 19157297	<i>TWIST1</i>
645	Chr06: 84417933 84417934	<i>SNAP91</i>	690	Chr07: 19157304 19157305	<i>TWIST1</i>
646	Chr06: 84418724 84418725	<i>SNAP91</i>	691	Chr07: 19157634 19157635	<i>TWIST1</i>
647	Chr06: 84419202 84419203	<i>SNAP91</i>	692	Chr07: 19157938 19157939	<i>TWIST1</i>
648	Chr06: 84419329 84419330	<i>SNAP91</i>	693	Chr07: 19158001 19158002	<i>TWIST1</i>
649	Chr06: 84562892 84562893	<i>RIPPLY2</i>	694	Chr07: 19812570 19812571	<i>TMEM196</i>
650	Chr06: 85473773 85473774	<i>TBX18</i>	695	Chr07: 21583304 21583305	<i>DNAH11</i>
651	Chr06: 85484717 85484718	<i>Non Coding Region</i>	696	Chr07: 24323675 24323676	<i>NPY</i>
652	Chr06: 87647370 87647371	<i>HTR1E</i>	697	Chr07: 24323764 24323765	<i>NPY</i>
653	Chr06: 91321019 91321020	<i>Non Coding Region</i>	698	Chr07: 28449847 28449848	<i>CREB5</i>
654	Chr06: 94127427 94127428	<i>EPHA7</i>	699	Chr07: 30721888 30721889	<i>CRHR2</i>
655	Chr07: 101006052 101006053	<i>EMID2</i>	700	Chr07: 30722114 30722115	<i>CRHR2</i>
656	Chr07: 101006063 101006064	<i>EMID2</i>	701	Chr07: 32338150 32338151	<i>Non Coding Region</i>
657	Chr07: 103630086 103630087	<i>RELN</i>	702	Chr07: 37487633 37487634	<i>ELMO1</i>
658	Chr07: 108097436 108097437	<i>NRCAM</i>	703	Chr07: 38670412 38670413	<i>AMPH</i>
659	Chr07: 112726538 112726539	<i>GPR85</i>	704	Chr07: 38670804 38670805	<i>AMPH</i>
660	Chr07: 1272512 1272513	<i>UNCX</i>	705	Chr07: 38670957 38670958	<i>AMPH</i>
661	Chr07: 1272710 1272711	<i>UNCX</i>	706	Chr07: 38670985 38670986	<i>AMPH</i>
662	Chr07: 127744553 127744554	<i>Non Coding Region</i>	707	Chr07: 38670987 38670988	<i>AMPH</i>
663	Chr07: 142494595 142494596	<i>Non Coding Region</i>	708	Chr07: 38671001 38671002	<i>AMPH</i>
664	Chr07: 142494773 142494774	<i>Non Coding Region</i>	709	Chr07: 41739742 41739743	<i>INHBA,LOC285954</i>
665	Chr07: 142494914 142494915	<i>Non Coding Region</i>	710	Chr07: 43153223 43153224	<i>HECW1</i>
666	Chr07: 142494953 142494954	<i>Non Coding Region</i>	711	Chr07: 43153595 43153596	<i>HECW1</i>
667	Chr07: 142494985 142494986	<i>Non Coding Region</i>	712	Chr07: 44143993 44143994	<i>AEBP1</i>
668	Chr07: 149411652 149411653	<i>KRBA1</i>	713	Chr07: 44143998 44143999	<i>AEBP1</i>
669	Chr07: 149412290 149412291	<i>KRBA1</i>	714	Chr07: 44144434 44144435	<i>AEBP1</i>
670	Chr07: 150653001 150653002	<i>KCNH2</i>	715	Chr07: 45197441 45197442	<i>RAMP3</i>
671	Chr07: 150710730 150710731	<i>ATG9B,NOS3</i>	716	Chr07: 49813031 49813032	<i>VWC2</i>
672	Chr07: 151107257 151107258	<i>WDR86</i>	717	Chr07: 49815365 49815366	<i>VWC2</i>
673	Chr07: 151107261 151107262	<i>WDR86</i>	718	Chr07: 49815502 49815503	<i>VWC2</i>
674	Chr07: 151107285 151107286	<i>WDR86</i>	719	Chr07: 4998470 4998471	<i>MMD2</i>

Figure 45H

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
720	Chr07: 50343361 50343362	<i>IKZF1</i>	765	Chr08: 25907218 25907219	<i>Non Coding Region</i>
721	Chr07: 50343883 50343884	<i>IKZF1</i>	766	Chr08: 25909599 25909600	<i>Non Coding Region</i>
722	Chr07: 54609776 54609777	<i>VSTM2A</i>	767	Chr08: 26723584 26723585	<i>ADRA1A</i>
723	Chr07: 69064801 69064802	<i>AUTS2</i>	768	Chr08: 32405792 32405793	<i>NRG1</i>
724	Chr07: 71800987 71800988	<i>CALN1</i>	769	Chr08: 32406928 32406929	<i>NRG1</i>
725	Chr07: 71801793 71801794	<i>CALN1</i>	770	Chr08: 37823409 37823410	<i>ADRB3</i>
726	Chr07: 752149 752150	<i>PRKAR1B</i>	771	Chr08: 38645408 38645409	<i>TACC1</i>
727	Chr07: 89748294 89748295	<i>DPY19L2P4</i>	772	Chr08: 41167107 41167108	<i>SFRP1</i>
728	Chr07: 90226284 90226285	<i>Non Coding Region</i>	773	Chr08: 41754172 41754173	<i>ANK1</i>
729	Chr07: 93519473 93519474	<i>TFPI2</i>	774	Chr08: 41754181 41754182	<i>ANK1</i>
730	Chr07: 93519855 93519856	<i>TFPI2</i>	775	Chr08: 494721 494722	<i>C8orf42</i>
731	Chr07: 93520012 93520013	<i>TFPI2</i>	776	Chr08: 53852184 53852185	<i>NPBWR1</i>
732	Chr07: 93520024 93520025	<i>TFPI2</i>	777	Chr08: 53852422 53852423	<i>NPBWR1</i>
733	Chr07: 93520183 93520184	<i>TFPI2</i>	778	Chr08: 53852443 53852444	<i>NPBWR1</i>
734	Chr07: 93520269 93520270	<i>TFPI2</i>	779	Chr08: 53852446 53852447	<i>NPBWR1</i>
735	Chr07: 93520275 93520276	<i>TFPI2</i>	780	Chr08: 53853604 53853605	<i>Non Coding Region</i>
736	Chr07: 93520288 93520289	<i>TFPI2</i>	781	Chr08: 54164161 54164162	<i>OPRK1</i>
737	Chr07: 98467380 98467381	<i>TMEM130</i>	782	Chr08: 54164310 54164311	<i>OPRK1</i>
738	Chr08: 104513083 104513084	<i>RIMS2</i>	783	Chr08: 55367466 55367467	<i>Non Coding Region</i>
739	Chr08: 104513909 104513910	<i>RIMS2</i>	784	Chr08: 55367611 55367612	<i>Non Coding Region</i>
740	Chr08: 105235606 105235607	<i>RIMS2</i>	785	Chr08: 55372111 55372112	<i>SOX17</i>
741	Chr08: 105235943 105235944	<i>RIMS2</i>	786	Chr08: 55379034 55379035	<i>Non Coding Region</i>
742	Chr08: 109094581 109094582	<i>RSPO2</i>	787	Chr08: 57069688 57069689	<i>Non Coding Region</i>
743	Chr08: 109094880 109094881	<i>RSPO2</i>	788	Chr08: 58907821 58907822	<i>FAM110B</i>
744	Chr08: 109095782 109095783	<i>RSPO2</i>	789	Chr08: 60032607 60032608	<i>TOX</i>
745	Chr08: 11204681 11204682	<i>TDH</i>	790	Chr08: 65711369 65711370	<i>CYP7B1</i>
746	Chr08: 11205166 11205167	<i>TDH</i>	791	Chr08: 67344553 67344554	<i>ADHFE1</i>
747	Chr08: 116660697 116660698	<i>TRPS1</i>	792	Chr08: 67344556 67344557	<i>ADHFE1</i>
748	Chr08: 121137288 121137289	<i>COL14A1</i>	793	Chr08: 67344588 67344589	<i>ADHFE1</i>
749	Chr08: 140715557 140715558	<i>KCNK9</i>	794	Chr08: 67344642 67344643	<i>ADHFE1</i>
750	Chr08: 140715646 140715647	<i>KCNK9</i>	795	Chr08: 67344665 67344666	<i>ADHFE1</i>
751	Chr08: 143533499 143533500	<i>Non Coding Region</i>	796	Chr08: 67344720 67344721	<i>ADHFE1</i>
752	Chr08: 143533532 143533533	<i>Non Coding Region</i>	797	Chr08: 67345006 67345007	<i>ADHFE1</i>
753	Chr08: 143591819 143591820	<i>BAIL</i>	798	Chr08: 67875033 67875034	<i>Non Coding Region</i>
754	Chr08: 143858612 143858613	<i>LYNX1</i>	799	Chr08: 67875261 67875262	<i>Non Coding Region</i>
755	Chr08: 143858636 143858637	<i>LYNX1</i>	800	Chr08: 67875441 67875442	<i>Non Coding Region</i>
756	Chr08: 144241434 144241435	<i>LY6H</i>	801	Chr08: 687384 687385	<i>Non Coding Region</i>
757	Chr08: 15397729 15397730	<i>TUSC3</i>	802	Chr08: 688018 688019	<i>Non Coding Region</i>
758	Chr08: 16884364 16884365	<i>EFHA2</i>	803	Chr08: 688417 688418	<i>Non Coding Region</i>
759	Chr08: 16885270 16885271	<i>EFHA2</i>	804	Chr08: 69243510 69243511	<i>Non Coding Region</i>
760	Chr08: 17270604 17270605	<i>MTMR7</i>	805	Chr08: 69244510 69244511	<i>Non Coding Region</i>
761	Chr08: 22960820 22960821	<i>TNFRSF10C</i>	806	Chr08: 72755784 72755785	<i>MSC</i>
762	Chr08: 23572029 23572030	<i>Non Coding Region</i>	807	Chr08: 72756058 72756059	<i>MSC</i>
763	Chr08: 24770342 24770343	<i>NEFM</i>	808	Chr08: 72756155 72756156	<i>MSC</i>
764	Chr08: 24814137 24814138	<i>NEFL</i>	809	Chr08: 72756341 72756342	<i>MSC</i>

Figure 45I

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
810	Chr08: 72756812 72756813	MSC	855	Chr10: 105036701 105036702	INA
811	Chr08: 72756839 72756840	MSC	856	Chr10: 105036727 105036728	INA
812	Chr08: 72756863 72756864	MSC	857	Chr10: 111216426 111216427	Non Coding Region
813	Chr08: 73163696 73163697	Non Coding Region	858	Chr10: 11206792 11206793	CUGBP2
814	Chr08: 75897297 75897298	CRISPLD1	859	Chr10: 11206813 11206814	CUGBP2
815	Chr08: 77594256 77594257	ZFHx4.LOC100192378	860	Chr10: 11206838 11206839	CUGBP2
816	Chr08: 77594595 77594596	ZFHx4.LOC100192378	861	Chr10: 11206892 11206893	CUGBP2
817	Chr08: 85095498 85095499	RALYL	862	Chr10: 11207437 11207438	CUGBP2
818	Chr08: 91997810 91997811	Non Coding Region	863	Chr10: 11207907 11207908	CUGBP2
819	Chr08: 97157756 97157757	GDF6	864	Chr10: 11207969 11207970	CUGBP2
820	Chr08: 97172961 97172962	GDF6	865	Chr10: 118031654 118031655	GFRA1
821	Chr08: 97173526 97173527	GDF6	866	Chr10: 118031864 118031865	GFRA1
822	Chr08: 97505764 97505765	SDC2	867	Chr10: 118031870 118031871	GFRA1
823	Chr08: 97506251 97506252	SDC2	868	Chr10: 118031950 118031951	GFRA1
824	Chr08: 9761171 9761172	MIR124-1.LOC157627	869	Chr10: 118032081 118032082	GFRA1
825	Chr08: 9762716 9762717	Non Coding Region	870	Chr10: 118032330 118032331	GFRA1
826	Chr08: 9762850 9762851	Non Coding Region	871	Chr10: 118032626 118032627	GFRA1
827	Chr08: 9763558 9763559	Non Coding Region	872	Chr10: 118032879 118032880	GFRA1
828	Chr08: 9763739 9763740	Non Coding Region	873	Chr10: 118032892 118032893	GFRA1
829	Chr08: 9763877 9763878	Non Coding Region	874	Chr10: 118032905 118032906	GFRA1
830	Chr09: 100615201 100615202	FOXE1	875	Chr10: 118034031 118034032	GFRA1
831	Chr09: 100616469 100616470	FOXE1	876	Chr10: 118892423 118892424	VAX1
832	Chr09: 101706617 101706618	COL15A1	877	Chr10: 119000927 119000928	SLC18A2
833	Chr09: 112403301 112403302	PALM2	878	Chr10: 124895886 124895887	HMX3
834	Chr09: 117267242 117267243	DFNB31	879	Chr10: 129535786 129535787	FOXL2
835	Chr09: 129485542 129485543	Non Coding Region	880	Chr10: 131768098 131768099	Non Coding Region
836	Chr09: 132382433 132382434	C9orf50	881	Chr10: 133796164 133796165	BNIP3
837	Chr09: 132382812 132382813	C9orf50	882	Chr10: 134000124 134000125	DPYSL4
838	Chr09: 133536345 133536346	Non Coding Region	883	Chr10: 134901294 134901295	GPR123
839	Chr09: 137299285 137299286	RXRA	884	Chr10: 134901297 134901298	GPR123
840	Chr09: 139090991 139090992	LHX3	885	Chr10: 135043492 135043493	UTF1
841	Chr09: 37027384 37027385	PAX5	886	Chr10: 135043506 135043507	UTF1
842	Chr09: 71788748 71788749	TJP2	887	Chr10: 13933996 13933997	FRMD4A
843	Chr09: 71788759 71788760	TJP2	888	Chr10: 17271051 17271052	VIM
844	Chr09: 77112896 77112897	RORB	889	Chr10: 1778844 1778845	ADARB2
845	Chr09: 841850 841851	DMRT1	890	Chr10: 1779835 1779836	ADARB2
846	Chr09: 88137909 88137910	Non Coding Region	891	Chr10: 23216695 23216696	ARMC3
847	Chr10: 100992656 100992657	HPSE2	892	Chr10: 23463094 23463095	Non Coding Region
848	Chr10: 100993826 100993827	HPSE2	893	Chr10: 23488710 23488711	Non Coding Region
849	Chr10: 102484232 102484233	Non Coding Region	894	Chr10: 23982480 23982481	KIAA1217
850	Chr10: 102504039 102504040	PAX2	895	Chr10: 23983990 23983991	KIAA1217
851	Chr10: 102504226 102504227	PAX2	896	Chr10: 26504969 26504970	GAD2
852	Chr10: 102508286 102508287	PAX2	897	Chr10: 26506353 26506354	GAD2
853	Chr10: 103603869 103603870	KCNIP2	898	Chr10: 26727261 26727262	APBB1IP
854	Chr10: 105036611 105036612	INA	899	Chr10: 28034797 28034798	MKY

Figure 45J

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
900	Chr10: 43600497 43600498	<i>RET</i>	945	Chr11: 132934139 132934140	<i>OPCML</i>
901	Chr10: 50817810 50817811	<i>SLC18A3,CHAT</i>	946	Chr11: 133825519 133825520	<i>JGSF9B</i>
902	Chr10: 50818299 50818300	<i>SLC18A3,CHAT</i>	947	Chr11: 134146132 134146133	<i>GLB1L3</i>
903	Chr10: 50818707 50818708	<i>SLC18A3,CHAT</i>	948	Chr11: 134146253 134146254	<i>GLB1L3</i>
904	Chr10: 64578469 64578470	<i>EGR2</i>	949	Chr11: 134146676 134146677	<i>GLB1L3</i>
905	Chr10: 72043661 72043662	<i>Non Coding Region</i>	950	Chr11: 134281742 134281743	<i>B3GAT1</i>
906	Chr10: 74094697 74094698	<i>DNAJB12</i>	951	Chr11: 1410385 1410386	<i>BRSK2</i>
907	Chr10: 7450355 7450356	<i>SFMBT2</i>	952	Chr11: 1770066 1770067	<i>HCCA2.LOC402778</i>
908	Chr10: 7451822 7451823	<i>SFMBT2</i>	953	Chr11: 17741070 17741071	<i>MYOD1</i>
909	Chr10: 7452598 7452599	<i>SFMBT2</i>	954	Chr11: 18813544 18813545	<i>PTPN5</i>
910	Chr10: 7452950 7452951	<i>SFMBT2</i>	955	Chr11: 20180700 20180701	<i>DBX1</i>
911	Chr10: 7453329 7453330	<i>SFMBT2</i>	956	Chr11: 20185077 20185078	<i>Non Coding Region</i>
912	Chr10: 7708670 7708671	<i>ITIH5</i>	957	Chr11: 20185267 20185268	<i>Non Coding Region</i>
913	Chr10: 7708869 7708870	<i>ITIH5</i>	958	Chr11: 20690628 20690629	<i>NELL1</i>
914	Chr10: 8078038 8078039	<i>Non Coding Region</i>	959	Chr11: 20690682 20690683	<i>NELL1</i>
915	Chr10: 82116571 82116572	<i>DYDC2,DYDC1</i>	960	Chr11: 20690720 20690721	<i>NELL1</i>
916	Chr10: 83636249 83636250	<i>NRG3</i>	961	Chr11: 20690807 20690808	<i>NELL1</i>
917	Chr10: 83636325 83636326	<i>NRG3</i>	962	Chr11: 20691126 20691127	<i>NELL1</i>
918	Chr10: 88126853 88126854	<i>GRID1</i>	963	Chr11: 20691161 20691162	<i>NELL1</i>
919	Chr10: 91295045 91295046	<i>SLC16A12</i>	964	Chr11: 20691341 20691342	<i>NELL1</i>
920	Chr10: 91295299 91295300	<i>SLC16A12</i>	965	Chr11: 20691429 20691430	<i>NELL1</i>
921	Chr10: 91295317 91295318	<i>SLC16A12</i>	966	Chr11: 2162211 2162212	<i>IGF2,IGF2AS,INS-IGF2</i>
922	Chr11: 101454683 101454684	<i>TRPC6</i>	967	Chr11: 30607068 30607069	<i>MPPED2</i>
923	Chr11: 104034619 104034620	<i>PDGFD</i>	968	Chr11: 32457124 32457125	<i>WT1,WT1</i>
924	Chr11: 104034754 104034755	<i>PDGFD</i>	969	Chr11: 32457127 32457128	<i>WT1,WT1</i>
925	Chr11: 111383515 111383516	<i>BTG4,MIR34C,MIR34B</i>	970	Chr11: 32457158 32457159	<i>WT1,WT1</i>
926	Chr11: 112833773 112833774	<i>NCAM1</i>	971	Chr11: 32457162 32457163	<i>WT1,WT1</i>
927	Chr11: 115630889 115630890	<i>Non Coding Region</i>	972	Chr11: 33890371 33890372	<i>LMO2</i>
928	Chr11: 119293385 119293386	<i>THY1</i>	973	Chr11: 44330958 44330959	<i>ALX4</i>
929	Chr11: 119293601 119293602	<i>THY1</i>	974	Chr11: 46317036 46317037	<i>CREB3L1</i>
930	Chr11: 122848098 122848099	<i>Non Coding Region</i>	975	Chr11: 46317154 46317155	<i>CREB3L1</i>
931	Chr11: 122855029 122855030	<i>Non Coding Region</i>	976	Chr11: 46317577 46317578	<i>CREB3L1</i>
932	Chr11: 122855292 122855293	<i>Non Coding Region</i>	977	Chr11: 57194562 57194563	<i>SLC43A3</i>
933	Chr11: 124790815 124790816	<i>HEPACAM</i>	978	Chr11: 63768040 63768041	<i>MACROD1</i>
934	Chr11: 125757328 125757329	<i>HYLS1</i>	979	Chr11: 69632335 69632336	<i>FGF3</i>
935	Chr11: 126226007 126226008	<i>ST3GAL4</i>	980	Chr11: 69634372 69634373	<i>FGF3</i>
936	Chr11: 126226033 126226034	<i>ST3GAL4</i>	981	Chr11: 8190572 8190573	<i>RIC3</i>
937	Chr11: 128563027 128563028	<i>FLII</i>	982	Chr11: 8289974 8289975	<i>Non Coding Region</i>
938	Chr11: 128563685 128563686	<i>FLII</i>	983	Chr11: 830190 830191	<i>EFCAB4A</i>
939	Chr11: 128563903 128563904	<i>FLII</i>	984	Chr11: 91958458 91958459	<i>Non Coding Region</i>
940	Chr11: 128564106 128564107	<i>FLII</i>	985	Chr11: 91958799 91958800	<i>Non Coding Region</i>
941	Chr11: 128564180 128564181	<i>FLII</i>	986	Chr11: 94134580 94134581	<i>GPR83</i>
942	Chr11: 128564756 128564757	<i>FLII</i>	987	Chr11: 94134739 94134740	<i>GPR83</i>
943	Chr11: 128564874 128564875	<i>FLII</i>	988	Chr11: 94134756 94134757	<i>GPR83</i>
944	Chr11: 131780353 131780354	<i>NTM</i>	989	Chr11: 94501718 94501719	<i>AMOTL1</i>

Figure 45K

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
990	Chr11: 94502388 94502389	<i>AMOTL1</i>	1035	Chr12: 5153174 5153175	<i>KCNA5</i>
991	Chr12: 103352294 103352295	<i>ASCL1</i>	1036	Chr12: 52400907 52400908	<i>GRASP</i>
992	Chr12: 103352326 103352327	<i>ASCL1</i>	1037	Chr12: 54321653 54321654	<i>Non Coding Region</i>
993	Chr12: 103889772 103889773	<i>C12orf42</i>	1038	Chr12: 54393445 54393446	<i>HOXC9</i>
994	Chr12: 103889789 103889790	<i>C12orf42</i>	1039	Chr12: 54394116 54394117	<i>HOXC9</i>
995	Chr12: 104852355 104852356	<i>CHST11</i>	1040	Chr12: 5540116 5540117	<i>NTF3</i>
996	Chr12: 104852439 104852440	<i>CHST11</i>	1041	Chr12: 62586003 62586004	<i>FAM19A2</i>
997	Chr12: 1059459 1059460	<i>RAD52</i>	1042	Chr12: 62586267 62586268	<i>FAM19A2</i>
998	Chr12: 111471489 111471490	<i>CUX2</i>	1043	Chr12: 64062498 64062499	<i>DPY19L2</i>
999	Chr12: 111472183 111472184	<i>CUX2</i>	1044	Chr12: 64062526 64062527	<i>DPY19L2</i>
1000	Chr12: 113013048 113013049	<i>Non Coding Region</i>	1045	Chr12: 64062564 64062565	<i>DPY19L2</i>
1001	Chr12: 113494422 113494423	<i>DTX1</i>	1046	Chr12: 64062724 64062725	<i>DPY19L2</i>
1002	Chr12: 113494429 113494430	<i>DTX1</i>	1047	Chr12: 64784483 64784484	<i>C12orf56</i>
1003	Chr12: 113901210 113901211	<i>LHX5</i>	1048	Chr12: 65515276 65515277	<i>WIF1</i>
1004	Chr12: 113901529 113901530	<i>LHX5</i>	1049	Chr12: 65515290 65515291	<i>WIF1</i>
1005	Chr12: 114075881 114075882	<i>Non Coding Region</i>	1050	Chr12: 66123127 66123128	<i>Non Coding Region</i>
1006	Chr12: 114833912 114833913	<i>TBX5</i>	1051	Chr12: 72667150 72667151	<i>LOC283392,TRHDE</i>
1007	Chr12: 117798954 117798955	<i>NOS1</i>	1052	Chr12: 72667386 72667387	<i>LOC283392,TRHDE</i>
1008	Chr12: 117799083 117799084	<i>NOS1</i>	1053	Chr12: 72667398 72667399	<i>LOC283392,TRHDE</i>
1009	Chr12: 119419329 119419330	<i>SRRM4</i>	1054	Chr12: 72667493 72667494	<i>LOC283392,TRHDE</i>
1010	Chr12: 119419331 119419332	<i>SRRM4</i>	1055	Chr12: 81471754 81471755	<i>ACSS3</i>
1011	Chr12: 120032374 120032375	<i>TMEM233</i>	1056	Chr12: 81471757 81471758	<i>ACSS3</i>
1012	Chr12: 128850630 128850631	<i>TMEM132C</i>	1057	Chr12: 81471884 81471885	<i>ACSS3</i>
1013	Chr12: 129338484 129338485	<i>GLT1D1</i>	1058	Chr12: 81471938 81471939	<i>ACSS3</i>
1014	Chr12: 130389010 130389011	<i>TMEM132D</i>	1059	Chr12: 8171463 8171464	<i>Non Coding Region</i>
1015	Chr12: 130647004 130647005	<i>FZD10</i>	1060	Chr12: 85306021 85306022	<i>SLC6A15</i>
1016	Chr12: 132906010 132906011	<i>GALNT9</i>	1061	Chr12: 85306797 85306798	<i>SLC6A15</i>
1017	Chr12: 15475690 15475691	<i>PTPRO</i>	1062	Chr12: 8548978 8548979	<i>Non Coding Region</i>
1018	Chr12: 22487459 22487460	<i>STSLA1</i>	1063	Chr13: 102068530 102068531	<i>NALCN</i>
1019	Chr12: 25056083 25056084	<i>BCAT1</i>	1064	Chr13: 102069132 102069133	<i>NALCN</i>
1020	Chr12: 25102072 25102073	<i>BCAT1</i>	1065	Chr13: 102069169 102069170	<i>NALCN</i>
1021	Chr12: 25102274 25102275	<i>BCAT1</i>	1066	Chr13: 102569815 102569816	<i>FGF14</i>
1022	Chr12: 29936174 29936175	<i>TMTC1</i>	1067	Chr13: 102569876 102569877	<i>FGF14</i>
1023	Chr12: 41086227 41086228	<i>CNTN1</i>	1068	Chr13: 102569894 102569895	<i>FGF14</i>
1024	Chr12: 41086365 41086366	<i>CNTN1</i>	1069	Chr13: 103046930 103046931	<i>FGF14</i>
1025	Chr12: 41086800 41086801	<i>CNTN1</i>	1070	Chr13: 103047053 103047054	<i>FGF14</i>
1026	Chr12: 45444623 45444624	<i>DBX2</i>	1071	Chr13: 103047225 103047226	<i>FGF14</i>
1027	Chr12: 45444895 45444896	<i>DBX2</i>	1072	Chr13: 103052362 103052363	<i>FGF14</i>
1028	Chr12: 45445115 45445116	<i>DBX2</i>	1073	Chr13: 103052468 103052469	<i>FGF14</i>
1029	Chr12: 5018715 5018716	<i>KCNA1</i>	1074	Chr13: 103052828 103052829	<i>FGF14</i>
1030	Chr12: 5018798 5018799	<i>KCNA1</i>	1075	Chr13: 108519318 108519319	<i>FAM155A</i>
1031	Chr12: 5018805 5018806	<i>KCNA1</i>	1076	Chr13: 108520945 108520946	<i>FAM155A</i>
1032	Chr12: 5019017 5019018	<i>KCNA1</i>	1077	Chr13: 109149171 109149172	<i>Non Coding Region</i>
1033	Chr12: 5019482 5019483	<i>KCNA1</i>	1078	Chr13: 110958977 110958978	<i>COL4A2, COL4A1</i>
1034	Chr12: 50355307 50355308	<i>AQP5</i>	1079	Chr13: 112758379 112758380	<i>Non Coding Region</i>

Figure 45L

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1080	Chr13: 112758599 112758600	<i>Non Coding Region</i>	1125	Chr13: 78493313 78493314	<i>EDNRB</i>
1081	Chr13: 23733862 23733863	<i>Non Coding Region</i>	1126	Chr13: 78493349 78493350	<i>EDNRB</i>
1082	Chr13: 23734304 23734305	<i>Non Coding Region</i>	1127	Chr13: 78493365 78493366	<i>EDNRB</i>
1083	Chr13: 23734763 23734764	<i>Non Coding Region</i>	1128	Chr13: 78493561 78493562	<i>EDNRB</i>
1084	Chr13: 25621027 25621028	<i>Non Coding Region</i>	1129	Chr13: 78493564 78493565	<i>EDNRB</i>
1085	Chr13: 26043165 26043166	<i>ATP8A2</i>	1130	Chr13: 78493657 78493658	<i>EDNRB</i>
1086	Chr13: 26625396 26625397	<i>SHISA2</i>	1131	Chr13: 78493671 78493672	<i>EDNRB</i>
1087	Chr13: 26625766 26625767	<i>SHISA2</i>	1132	Chr13: 88324193 88324194	<i>SLITRK5</i>
1088	Chr13: 28366759 28366760	<i>GSX1</i>	1133	Chr13: 88324597 88324598	<i>SLITRK5</i>
1089	Chr13: 28371000 28371001	<i>Non Coding Region</i>	1134	Chr13: 88325384 88325385	<i>SLITRK5</i>
1090	Chr13: 28497117 28497118	<i>PDX1</i>	1135	Chr13: 93880842 93880843	<i>GPC6</i>
1091	Chr13: 29106422 29106423	<i>Non Coding Region</i>	1136	Chr13: 95359718 95359719	<i>Non Coding Region</i>
1092	Chr13: 36704955 36704956	<i>DCLK1</i>	1137	Chr13: 95364675 95364676	<i>SOX21</i>
1093	Chr13: 36705606 36705607	<i>DCLK1</i>	1138	Chr13: 95620306 95620307	<i>Non Coding Region</i>
1094	Chr13: 36919344 36919345	<i>SPG20</i>	1139	Chr13: 96204854 96204855	<i>CLDN10</i>
1095	Chr13: 36919409 36919410	<i>SPG20</i>	1140	Chr13: 96204873 96204874	<i>CLDN10</i>
1096	Chr13: 36919674 36919675	<i>SPG20</i>	1141	Chr14: 100438221 100438222	<i>Non Coding Region</i>
1097	Chr13: 36919819 36919820	<i>SPG20</i>	1142	Chr14: 100438647 100438648	<i>Non Coding Region</i>
1098	Chr13: 36920332 36920333	<i>SPG20</i>	1143	Chr14: 100438737 100438738	<i>Non Coding Region</i>
1099	Chr13: 37004617 37004618	<i>CCNA1</i>	1144	Chr14: 100438957 100438958	<i>Non Coding Region</i>
1100	Chr13: 37005570 37005571	<i>CCNA1</i>	1145	Chr14: 24803903 24803904	<i>ADCY4</i>
1101	Chr13: 37006107 37006108	<i>CCNA1</i>	1146	Chr14: 27066404 27066405	<i>NOVA1</i>
1102	Chr13: 37006127 37006128	<i>CCNA1</i>	1147	Chr14: 54687314 54687315	<i>Non Coding Region</i>
1103	Chr13: 37006133 37006134	<i>CCNA1</i>	1148	Chr14: 60975846 60975847	<i>SLX6</i>
1104	Chr13: 37006611 37006612	<i>CCNA1</i>	1149	Chr14: 62583919 62583920	<i>FLJ43390</i>
1105	Chr13: 37248078 37248079	<i>C13orf36</i>	1150	Chr14: 70041283 70041284	<i>Non Coding Region</i>
1106	Chr13: 37248305 37248306	<i>C13orf36</i>	1151	Chr14: 74707911 74707912	<i>VX2</i>
1107	Chr13: 43148684 43148685	<i>TNFSF11</i>	1152	Chr14: 76605056 76605057	<i>Non Coding Region</i>
1108	Chr13: 43149234 43149235	<i>TNFSF11</i>	1153	Chr14: 77736904 77736905	<i>NGB</i>
1109	Chr13: 46425508 46425509	<i>SLAH3</i>	1154	Chr14: 77737146 77737147	<i>NGB</i>
1110	Chr13: 49794635 49794636	<i>MLNR</i>	1155	Chr14: 85996202 85996203	<i>FLRT2</i>
1111	Chr13: 53420425 53420426	<i>PCDH8</i>	1156	Chr14: 85996751 85996752	<i>FLRT2</i>
1112	Chr13: 53422808 53422809	<i>PCDH8</i>	1157	Chr14: 96342250 96342251	<i>Non Coding Region</i>
1113	Chr13: 58205045 58205046	<i>PCDH17</i>	1158	Chr14: 96342747 96342748	<i>Non Coding Region</i>
1114	Chr13: 78492922 78492923	<i>EDNRB</i>	1159	Chr14: 96343119 96343120	<i>Non Coding Region</i>
1115	Chr13: 78493012 78493013	<i>EDNRB</i>	1160	Chr14: 97685060 97685061	<i>Non Coding Region</i>
1116	Chr13: 78493066 78493067	<i>EDNRB</i>	1161	Chr14: 97685274 97685275	<i>Non Coding Region</i>
1117	Chr13: 78493100 78493101	<i>EDNRB</i>	1162	Chr14: 97685386 97685387	<i>Non Coding Region</i>
1118	Chr13: 78493126 78493127	<i>EDNRB</i>	1163	Chr14: 97685576 97685577	<i>Non Coding Region</i>
1119	Chr13: 78493128 78493129	<i>EDNRB</i>	1164	Chr14: 97685823 97685824	<i>Non Coding Region</i>
1120	Chr13: 78493205 78493206	<i>EDNRB</i>	1165	Chr14: 97685945 97685946	<i>Non Coding Region</i>
1121	Chr13: 78493229 78493230	<i>EDNRB</i>	1166	Chr15: 26108263 26108264	<i>ATP10A</i>
1122	Chr13: 78493282 78493283	<i>EDNRB</i>	1167	Chr15: 26108663 26108664	<i>ATP10A</i>
1123	Chr13: 78493294 78493295	<i>EDNRB</i>	1168	Chr15: 26108674 26108675	<i>ATP10A</i>
1124	Chr13: 78493305 78493306	<i>EDNRB</i>	1169	Chr15: 26108683 26108684	<i>ATP10A</i>

Figure 45M

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1170	Chr15: 26108796 26108797	<i>ATP10A</i>	1215	Chr15: 88800567 88800568	<i>NTRK3</i>
1171	Chr15: 26108817 26108818	<i>ATP10A</i>	1216	Chr15: 88801004 88801005	<i>NTRK3</i>
1172	Chr15: 27216083 27216084	<i>GABRG3</i>	1217	Chr15: 92937735 92937736	<i>ST8SLA2</i>
1173	Chr15: 27216088 27216089	<i>GABRG3</i>	1218	Chr15: 93632730 93632731	<i>RGMA</i>
1174	Chr15: 28342183 28342184	<i>OCA2</i>	1219	Chr15: 98836248 98836249	<i>Non Coding Region</i>
1175	Chr15: 28352098 28352099	<i>Non Coding Region</i>	1220	Chr16: 10133501 10133502	<i>GRIN2A</i>
1176	Chr15: 28352347 28352348	<i>Non Coding Region</i>	1221	Chr16: 10276580 10276581	<i>GRIN2A</i>
1177	Chr15: 28352485 28352486	<i>Non Coding Region</i>	1222	Chr16: 10276799 10276800	<i>GRIN2A</i>
1178	Chr15: 28352558 28352559	<i>Non Coding Region</i>	1223	Chr16: 10276984 10276985	<i>GRIN2A</i>
1179	Chr15: 30484033 30484034	<i>Non Coding Region</i>	1224	Chr16: 1203997 1203998	<i>CACNA1H</i>
1180	Chr15: 33603312 33603313	<i>RYR3</i>	1225	Chr16: 12996046 12996047	<i>SHISA9</i>
1181	Chr15: 34786594 34786595	<i>Non Coding Region</i>	1226	Chr16: 12996234 12996235	<i>SHISA9</i>
1182	Chr15: 35047189 35047190	<i>GJD2</i>	1227	Chr16: 23847675 23847676	<i>PRKCB</i>
1183	Chr15: 45670478 45670479	<i>GATM,LOC145663</i>	1228	Chr16: 25703528 25703529	<i>HS3ST4</i>
1184	Chr15: 45670865 45670866	<i>GATM,LOC145663</i>	1229	Chr16: 25704505 25704506	<i>HS3ST4</i>
1185	Chr15: 45670872 45670873	<i>GATM,LOC145663</i>	1230	Chr16: 25704507 25704508	<i>HS3ST4</i>
1186	Chr15: 48937213 48937214	<i>FBN1</i>	1231	Chr16: 28074384 28074385	<i>GSGL</i>
1187	Chr15: 48937856 48937857	<i>FBN1</i>	1232	Chr16: 28074388 28074389	<i>GSGL</i>
1188	Chr15: 48938347 48938348	<i>FBN1</i>	1233	Chr16: 28074462 28074463	<i>GSGL</i>
1189	Chr15: 48938370 48938371	<i>FBN1</i>	1234	Chr16: 28075269 28075270	<i>GSGL</i>
1190	Chr15: 51385916 51385917	<i>TNFAIP8L3</i>	1235	Chr16: 31021933 31021934	<i>STX1B</i>
1191	Chr15: 55881044 55881045	<i>PYGO1</i>	1236	Chr16: 31228059 31228060	<i>TRIM72,PYDC1</i>
1192	Chr15: 74421535 74421536	<i>ISLR2,LOC283731</i>	1237	Chr16: 31228202 31228203	<i>TRIM72,PYDC1</i>
1193	Chr15: 79381867 79381868	<i>RASGRF1</i>	1238	Chr16: 3233068 3233069	<i>Non Coding Region</i>
1194	Chr15: 79382998 79382999	<i>RASGRF1</i>	1239	Chr16: 3237964 3237965	<i>Non Coding Region</i>
1195	Chr15: 79383167 79383168	<i>RASGRF1</i>	1240	Chr16: 51184562 51184563	<i>SALL1</i>
1196	Chr15: 79575048 79575049	<i>ANKRD34C</i>	1241	Chr16: 51184786 51184787	<i>SALL1</i>
1197	Chr15: 79576216 79576217	<i>ANKRD34C</i>	1242	Chr16: 51185001 51185002	<i>SALL1</i>
1198	Chr15: 83316640 83316641	<i>CPEB1</i>	1243	Chr16: 51185082 51185083	<i>SALL1</i>
1199	Chr15: 83316734 83316735	<i>CPEB1</i>	1244	Chr16: 51186211 51186212	<i>SALL1</i>
1200	Chr15: 83349420 83349421	<i>AP3B2</i>	1245	Chr16: 51186260 51186261	<i>SALL1</i>
1201	Chr15: 83776269 83776270	<i>TM6SF1</i>	1246	Chr16: 51190201 51190202	<i>Non Coding Region</i>
1202	Chr15: 83776271 83776272	<i>TM6SF1</i>	1247	Chr16: 55358458 55358459	<i>IRX6</i>
1203	Chr15: 83776420 83776421	<i>TM6SF1</i>	1248	Chr16: 55512870 55512871	<i>MMP2</i>
1204	Chr15: 83776446 83776447	<i>TM6SF1</i>	1249	Chr16: 55513480 55513481	<i>MMP2</i>
1205	Chr15: 83952345 83952346	<i>BNC1</i>	1250	Chr16: 55689901 55689902	<i>SLC6A2</i>
1206	Chr15: 83953068 83953069	<i>BNC1</i>	1251	Chr16: 55690130 55690131	<i>SLC6A2</i>
1207	Chr15: 84115811 84115812	<i>SH3GL3</i>	1252	Chr16: 56224793 56224794	<i>GNAO1,LOC283856</i>
1208	Chr15: 84115895 84115896	<i>SH3GL3</i>	1253	Chr16: 56228442 56228443	<i>GNAO1,DKFZP434H168</i>
1209	Chr15: 84115969 84115970	<i>SH3GL3</i>	1254	Chr16: 56228467 56228468	<i>GNAO1,DKFZP434H168</i>
1210	Chr15: 84116151 84116152	<i>SH3GL3</i>	1255	Chr16: 56228495 56228496	<i>GNAO1,DKFZP434H168</i>
1211	Chr15: 88798582 88798583	<i>NTRK3</i>	1256	Chr16: 56228498 56228499	<i>GNAO1,DKFZP434H168</i>
1212	Chr15: 88798666 88798667	<i>NTRK3</i>	1257	Chr16: 56228505 56228506	<i>GNAO1,DKFZP434H168</i>
1213	Chr15: 88798877 88798878	<i>NTRK3</i>	1258	Chr16: 58019123 58019124	<i>TEPP</i>
1214	Chr15: 88799707 88799708	<i>NTRK3</i>	1259	Chr16: 66638210 66638211	<i>CMTM3</i>

Figure 45N

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1260	Chr16: 66638293 66638294	<i>CMTM3</i>	1305	Chr17: 76228121 76228122	<i>LOC283999</i>
1261	Chr16: 66638320 66638321	<i>CMTM3</i>	1306	Chr17: 77178924 77178925	<i>HRNBP3</i>
1262	Chr16: 66638433 66638434	<i>CMTM3</i>	1307	Chr17: 77179455 77179456	<i>HRNBP3</i>
1263	Chr16: 66638438 66638439	<i>CMTM3</i>	1308	Chr17: 77721631 77721632	<i>Non Coding Region</i>
1264	Chr16: 67197129 67197130	<i>FBXL8,HSF4</i>	1309	Chr17: 77721989 77721990	<i>Non Coding Region</i>
1265	Chr16: 71264579 71264580	<i>HYDIN</i>	1310	Chr17: 78451563 78451564	<i>NPTX1</i>
1266	Chr16: 77468893 77468894	<i>ADAMTS18</i>	1311	Chr17: 78452048 78452049	<i>Non Coding Region</i>
1267	Chr16: 77822419 77822420	<i>VATIL</i>	1312	Chr17: 8533391 8533392	<i>MYH10</i>
1268	Chr16: 86529961 86529962	<i>Non Coding Region</i>	1313	Chr17: 8869213 8869214	<i>PIK3R5</i>
1269	Chr16: 86599745 86599746	<i>FOXC2</i>	1314	Chr17: 8906601 8906602	<i>Non Coding Region</i>
1270	Chr16: 86601133 86601134	<i>FOXC2</i>	1315	Chr17: 8907213 8907214	<i>Non Coding Region</i>
1271	Chr16: 86602083 86602084	<i>FOXC2</i>	1316	Chr17: 8907561 8907562	<i>Non Coding Region</i>
1272	Chr17: 10101581 10101582	<i>GAS7</i>	1317	Chr18: 11752592 11752593	<i>GNAL</i>
1273	Chr17: 10102558 10102559	<i>GAS7</i>	1318	Chr18: 12254175 12254176	<i>CIDEA</i>
1274	Chr17: 13505558 13505559	<i>HS3ST3A1</i>	1319	Chr18: 22930271 22930272	<i>ZNF521</i>
1275	Chr17: 14212480 14212481	<i>HS3ST3B1</i>	1320	Chr18: 22930283 22930284	<i>ZNF521</i>
1276	Chr17: 26699187 26699188	<i>SARM1</i>	1321	Chr18: 25755942 25755943	<i>CDH2</i>
1277	Chr17: 27940404 27940405	<i>ANKRD13B</i>	1322	Chr18: 31020511 31020512	<i>C18orf34</i>
1278	Chr17: 32905966 32905967	<i>C17orf102</i>	1323	Chr18: 35104868 35104869	<i>BRUNOL4</i>
1279	Chr17: 32907705 32907706	<i>TMEM132E,C17orf102</i>	1324	Chr18: 35147532 35147533	<i>Non Coding Region</i>
1280	Chr17: 32907919 32907920	<i>TMEM132E</i>	1325	Chr18: 53447211 53447212	<i>Non Coding Region</i>
1281	Chr17: 32908285 32908286	<i>TMEM132E</i>	1326	Chr18: 55108852 55108853	<i>ONECUT2</i>
1282	Chr17: 33701350 33701351	<i>SLFN11</i>	1327	Chr18: 5543548 5543549	<i>EPB41L3</i>
1283	Chr17: 33701353 33701354	<i>SLFN11</i>	1328	Chr18: 56887271 56887272	<i>GRP</i>
1284	Chr17: 33814163 33814164	<i>SLFN12L</i>	1329	Chr18: 56887279 56887280	<i>GRP</i>
1285	Chr17: 35165439 35165440	<i>Non Coding Region</i>	1330	Chr18: 56935199 56935200	<i>RAX</i>
1286	Chr17: 35297146 35297147	<i>LHX1</i>	1331	Chr18: 56940693 56940694	<i>RAX</i>
1287	Chr17: 38347659 38347660	<i>RAPGEFL1</i>	1332	Chr18: 59000800 59000801	<i>Non Coding Region</i>
1288	Chr17: 38347710 38347711	<i>RAPGEFL1</i>	1333	Chr18: 67067867 67067868	<i>DOK6</i>
1289	Chr17: 43339358 43339359	<i>C17orf46,LOC100133991</i>	1334	Chr18: 67067893 67067894	<i>DOK6</i>
1290	Chr17: 43339589 43339590	<i>C17orf46,LOC100133991</i>	1335	Chr18: 7116977 7116978	<i>LAMA1</i>
1291	Chr17: 43339594 43339595	<i>C17orf46,LOC100133991</i>	1336	Chr18: 7117321 7117322	<i>LAMA1</i>
1292	Chr17: 45929657 45929658	<i>SP6</i>	1337	Chr18: 7118077 7118078	<i>LAMA1</i>
1293	Chr17: 46811527 46811528	<i>Non Coding Region</i>	1338	Chr18: 76740258 76740259	<i>SALL3</i>
1294	Chr17: 48071845 48071846	<i>DLX3</i>	1339	Chr18: 904885 904886	<i>ADCYAP1</i>
1295	Chr17: 54675137 54675138	<i>Non Coding Region</i>	1340	Chr19: 12203349 12203350	<i>ZNF788</i>
1296	Chr17: 54675154 54675155	<i>Non Coding Region</i>	1341	Chr19: 12267308 12267309	<i>ZNF625</i>
1297	Chr17: 56234476 56234477	<i>MSX2P1</i>	1342	Chr19: 12267676 12267677	<i>ZNF625</i>
1298	Chr17: 64826184 64826185	<i>Non Coding Region</i>	1343	Chr19: 13617094 13617095	<i>CACNA1A</i>
1299	Chr17: 6616867 6616868	<i>SLC13A5</i>	1344	Chr19: 1467952 1467953	<i>APC2</i>
1300	Chr17: 6616883 6616884	<i>SLC13A5</i>	1345	Chr19: 15090242 15090243	<i>Non Coding Region</i>
1301	Chr17: 72348160 72348161	<i>KIF19</i>	1346	Chr19: 15090872 15090873	<i>Non Coding Region</i>
1302	Chr17: 75369939 75369940	<i>SEPTIN9</i>	1347	Chr19: 18118666 18118667	<i>ARRDC2</i>
1303	Chr17: 7554681 7554682	<i>ATP1B2</i>	1348	Chr19: 19322778 19322779	<i>NCAN</i>
1304	Chr17: 76227996 76227997	<i>LOC283999</i>	1349	Chr19: 19372387 19372388	<i>HAPLN4</i>

Figure 450

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1350	Chr19: 21106053 21106054	ZNF85	1395	Chr19: 56989543 56989544	ZNF667
1351	Chr19: 21646447 21646448	Non Coding Region	1396	Chr19: 57683712 57683713	Non Coding Region
1352	Chr19: 21658001 21658002	Non Coding Region	1397	Chr19: 57683885 57683886	Non Coding Region
1353	Chr19: 22034523 22034524	Non Coding Region	1398	Chr19: 57862627 57862628	ZNF304
1354	Chr19: 22605186 22605187	ZNF98	1399	Chr19: 57862638 57862639	ZNF304
1355	Chr19: 30016147 30016148	VSTM2B	1400	Chr19: 58238928 58238929	ZNF671
1356	Chr19: 30017829 30017830	VSTM2B	1401	Chr19: 58238987 58238988	ZNF671
1357	Chr19: 30866192 30866193	ZNF536	1402	Chr19: 58239012 58239013	ZNF671
1358	Chr19: 34113398 34113399	CHST8	1403	Chr19: 58609361 58609362	ZSCAN18
1359	Chr19: 34973644 34973645	WTIP	1404	Chr19: 58951602 58951603	ZNF132
1360	Chr19: 36822442 36822443	Non Coding Region	1405	Chr19: 7795619 7795620	CLEC4G
1361	Chr19: 36909413 36909414	ZFP82	1406	Chr19: 7853544 7853545	CLEC4GPI
1362	Chr19: 36909831 36909832	ZFP82	1407	Chr20: 10199302 10199303	SNAP25
1363	Chr19: 37096010 37096011	ZNF529,ZNF382	1408	Chr20: 10199536 10199537	SNAP25
1364	Chr19: 37096487 37096488	ZNF529,ZNF382	1409	Chr20: 21695334 21695335	PAX1
1365	Chr19: 37407152 37407153	ZNF829,ZNF568	1410	Chr20: 23029640 23029641	THBD
1366	Chr19: 37407284 37407285	ZNF829,ZNF568	1411	Chr20: 23029806 23029807	THBD
1367	Chr19: 37407374 37407375	ZNF829,ZNF568	1412	Chr20: 23030250 23030251	THBD
1368	Chr19: 37464066 37464067	Non Coding Region	1413	Chr20: 25058429 25058430	VX1
1369	Chr19: 37997471 37997472	ZNF793	1414	Chr20: 2781122 2781123	CPXM1
1370	Chr19: 37997867 37997868	ZNF793	1415	Chr20: 2781241 2781242	CPXM1
1371	Chr19: 37997991 37997992	ZNF793	1416	Chr20: 30063249 30063250	REM1
1372	Chr19: 41018880 41018881	SPTBN4	1417	Chr20: 30582838 30582839	XKR7
1373	Chr19: 41595975 41595976	CYP2A13	1418	Chr20: 30640256 30640257	HCK
1374	Chr19: 44952572 44952573	ZNF229	1419	Chr20: 34188940 34188941	FER1L4
1375	Chr19: 44952618 44952619	ZNF229	1420	Chr20: 34894648 34894649	Non Coding Region
1376	Chr19: 44952665 44952666	ZNF229	1421	Chr20: 37302636 37302637	Non Coding Region
1377	Chr19: 50037018 50037019	RCN3	1422	Chr20: 37353032 37353033	SLC32A1
1378	Chr19: 51111388 51111389	Non Coding Region	1423	Chr20: 37353117 37353118	SLC32A1
1379	Chr19: 51830477 51830478	IGLON5	1424	Chr20: 37355965 37355966	SLC32A1
1380	Chr19: 51830960 51830961	IGLON5	1425	Chr20: 37434231 37434232	PPP1R16B
1381	Chr19: 51924572 51924573	Non Coding Region	1426	Chr20: 37434552 37434553	PPP1R16B
1382	Chr19: 51925128 51925129	Non Coding Region	1427	Chr20: 37435119 37435120	PPP1R16B
1383	Chr19: 52873106 52873107	ZNF880	1428	Chr20: 39317034 39317035	MAFB
1384	Chr19: 52873125 52873126	ZNF880	1429	Chr20: 41817903 41817904	PTPRT
1385	Chr19: 52900974 52900975	ZNF528	1430	Chr20: 41818358 41818359	PTPRT
1386	Chr19: 52901124 52901125	ZNF528	1431	Chr20: 41818756 41818757	PTPRT
1387	Chr19: 53636108 53636109	ZNF415	1432	Chr20: 41818770 41818771	PTPRT
1388	Chr19: 53811940 53811941	Non Coding Region	1433	Chr20: 41818788 41818789	PTPRT
1389	Chr19: 54024110 54024111	ZNF331	1434	Chr20: 41818905 41818906	PTPRT
1390	Chr19: 54411773 54411774	Non Coding Region	1435	Chr20: 42875931 42875932	GDAP1LI
1391	Chr19: 56879559 56879560	ZNF542	1436	Chr20: 44941542 44941543	Non Coding Region
1392	Chr19: 56879645 56879646	ZNF542	1437	Chr20: 45142258 45142259	ZNF334
1393	Chr19: 56879933 56879934	ZNF542	1438	Chr20: 47934987 47934988	Non Coding Region
1394	Chr19: 56905032 56905033	ZNF582	1439	Chr20: 47935243 47935244	Non Coding Region

Figure 45P

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1440	Chr20: 47935683 47935684	<i>Non Coding Region</i>	1485	Chr22: 19138209 19138210	<i>GSC2</i>
1441	Chr20: 49639134 49639135	<i>KCNQ1</i>	1486	Chr22: 19511987 19511988	<i>CLDN5</i>
1442	Chr20: 53092233 53092234	<i>DOK5</i>	1487	Chr22: 25678615 25678616	<i>Non Coding Region</i>
1443	Chr20: 53092334 53092335	<i>DOK5</i>	1488	Chr22: 39853885 39853886	<i>MGAT3</i>
1444	Chr20: 53092781 53092782	<i>DOK5</i>	1489	Chr22: 44258572 44258573	<i>SULT4A1</i>
1445	Chr20: 55500670 55500671	<i>Non Coding Region</i>	1490	Chr22: 45405061 45405062	<i>PHF21B</i>
1446	Chr20: 57090013 57090014	<i>APCDD1L</i>	1491	ChrX: 6144633 6144634	<i>NLGN4X</i>
1447	Chr20: 58180241 58180242	<i>PHACTR3</i>	1492	ChrX: 6145346 6145347	<i>NLGN4X</i>
1448	Chr20: 61050914 61050915	<i>GATA5</i>	1493	ChrX: 6145730 6145731	<i>NLGN4X</i>
1449	Chr20: 61051021 61051022	<i>GATA5</i>	1494	ChrX: 8699141 8699142	<i>KAL1</i>
1450	Chr20: 61051029 61051030	<i>GATA5</i>		Alternative Markers: Lower in CRC for Group 1 set	
1451	Chr20: 61051032 61051033	<i>GATA5</i>	1495	Chr01: 107683775 107683776	<i>NTNG1</i>
1452	Chr20: 61051036 61051037	<i>GATA5</i>	1496	Chr01: 148854315 148854316	<i>Non Coding Region</i>
1453	Chr20: 61051039 61051040	<i>GATA5</i>	1497	Chr01: 152488093 152488094	<i>CRCT1</i>
1454	Chr20: 61051317 61051318	<i>GATA5</i>	1498	Chr01: 156405924 156405925	<i>Non Coding Region</i>
1455	Chr20: 61051341 61051342	<i>GATA5</i>	1499	Chr01: 181452044 181452045	<i>CACNA1E</i>
1456	Chr20: 61051348 61051349	<i>GATA5</i>	1500	Chr01: 18957020 18957021	<i>PAX7</i>
1457	Chr20: 61051423 61051424	<i>GATA5</i>	1501	Chr01: 224804222 224804223	<i>CNIH3</i>
1458	Chr20: 61051432 61051433	<i>GATA5</i>	1502	Chr01: 29138936 29138937	<i>OPRD1</i>
1459	Chr20: 61051438 61051439	<i>GATA5</i>	1503	Chr01: 34630944 34630945	<i>CSMD2</i>
1460	Chr20: 61051561 61051562	<i>GATA5</i>	1504	Chr01: 44883697 44883698	<i>RNF220</i>
1461	Chr20: 61638149 61638150	<i>BHLHE23</i>	1505	Chr01: 50799316 50799317	<i>Non Coding Region</i>
1462	Chr20: 61638420 61638421	<i>BHLHE23</i>	1506	Chr01: 50884544 50884545	<i>DMRTA2</i>
1463	Chr20: 61638433 61638434	<i>BHLHE23</i>	1507	Chr01: 53068181 53068182	<i>GPX7</i>
1464	Chr20: 61638518 61638519	<i>BHLHE23</i>	1508	Chr01: 65731738 65731739	<i>DNAJC6</i>
1465	Chr20: 61638588 61638589	<i>BHLHE23</i>	1509	Chr01: 91191001 91191002	<i>Non Coding Region</i>
1466	Chr20: 61806651 61806652	<i>Non Coding Region</i>	1510	Chr02: 127644075 127644076	<i>Non Coding Region</i>
1467	Chr20: 61808888 61808889	<i>MIR124-3</i>	1511	Chr02: 149633226 149633227	<i>KIF5C</i>
1468	Chr20: 61809557 61809558	<i>MIR124-3</i>	1512	Chr02: 176957462 176957463	<i>HOXD13</i>
1469	Chr20: 61809827 61809828	<i>MIR124-3</i>	1513	Chr02: 176995556 176995557	<i>HOXD8</i>
1470	Chr20: 61809932 61809933	<i>MIR124-3</i>	1514	Chr02: 45241110 45241111	<i>Non Coding Region</i>
1471	Chr20: 61810624 61810625	<i>Non Coding Region</i>	1515	Chr02: 47797963 47797964	<i>KCNK12</i>
1472	Chr20: 61885291 61885292	<i>NKAIN4,FLJ16779</i>	1516	Chr02: 88751786 88751787	<i>FOXI3</i>
1473	Chr20: 61886082 61886083	<i>NKAIN4,FLJ16779</i>	1517	Chr02: 88752056 88752057	<i>FOXI3</i>
1474	Chr20: 62103400 62103401	<i>KCNQ2</i>	1518	Chr03: 140770345 140770346	<i>SPSB4</i>
1475	Chr20: 8112972 8112973	<i>PLCB1</i>	1519	Chr03: 142682652 142682653	<i>PAOR9</i>
1476	Chr20: 8113573 8113574	<i>PLCB1</i>	1520	Chr03: 152553673 152553674	<i>P2RY1</i>
1477	Chr21: 19617873 19617874	<i>CHODL</i>	1521	Chr03: 16554910 16554911	<i>RFTN1</i>
1478	Chr21: 27011963 27011964	<i>JAM2</i>	1522	Chr03: 42947690 42947691	<i>ZNF662</i>
1479	Chr21: 27012176 27012177	<i>JAM2</i>	1523	Chr03: 96532043 96532044	<i>EPHA6</i>
1480	Chr21: 27012615 27012616	<i>JAM2</i>	1524	Chr03: 96533290 96533291	<i>EPHA6</i>
1481	Chr21: 28339442 28339443	<i>ADAMTS5</i>	1525	Chr04: 123748386 123748387	<i>FGF2</i>
1482	Chr21: 28339907 28339908	<i>ADAMTS5</i>	1526	Chr04: 154709878 154709879	<i>SFRP2</i>
1483	Chr21: 34399260 34399261	<i>OLIG2</i>	1527	Chr04: 37246827 37246828	<i>KIAI1239</i>
1484	Chr21: 47518747 47518748	<i>COL6A2</i>	1528	Chr04: 81952024 81952025	<i>BMP3</i>

Figure 45Q

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
1529	Chr05: 101632341 101632342	<i>SLCO4C1</i>	1574	Chr10: 118922841 118922842	<i>Non Coding Region</i>
1530	Chr05: 112073348 112073349	<i>APC</i>	1575	Chr10: 118922887 118922888	<i>Non Coding Region</i>
1531	Chr05: 112073350 112073351	<i>APC</i>	1576	Chr10: 119302053 119302054	<i>EMX2OS,EMX2</i>
1532	Chr05: 112073373 112073374	<i>APC</i>	1577	Chr10: 124896232 124896233	<i>HMX3</i>
1533	Chr05: 112073398 112073399	<i>APC</i>	1578	Chr10: 126136607 126136608	<i>NKX1-2</i>
1534	Chr05: 112073406 112073407	<i>APC</i>	1579	Chr10: 17496239 17496240	<i>ST8SLA6</i>
1535	Chr05: 112073426 112073427	<i>APC</i>	1580	Chr10: 18429749 18429750	<i>CACNB2</i>
1536	Chr05: 112073438 112073439	<i>APC</i>	1581	Chr10: 18429760 18429761	<i>CACNB2</i>
1537	Chr05: 112073538 112073539	<i>APC</i>	1582	Chr10: 23481385 23481386	<i>PTFLA</i>
1538	Chr05: 112073613 112073614	<i>APC</i>	1583	Chr10: 48438724 48438725	<i>GDF10</i>
1539	Chr05: 11904110 11904111	<i>CTNND2</i>	1584	Chr10: 48439229 48439230	<i>GDF10</i>
1540	Chr05: 15500833 15500834	<i>FBXL7</i>	1585	Chr10: 90342738 90342739	<i>RNLS</i>
1541	Chr05: 170738274 170738275	<i>TLX3</i>	1586	Chr10: 90342899 90342900	<i>RNLS</i>
1542	Chr05: 42423947 42423948	<i>GHR</i>	1587	Chr10: 90343166 90343167	<i>RNLS</i>
1543	Chr05: 42424525 42424526	<i>GHR</i>	1588	Chr10: 90343174 90343175	<i>RNLS</i>
1544	Chr06: 100051116 100051117	<i>Non Coding Region</i>	1589	Chr10: 90343192 90343193	<i>RNLS</i>
1545	Chr06: 100061307 100061308	<i>PRDM13</i>	1590	Chr10: 90343204 90343205	<i>RNLS</i>
1546	Chr06: 105584709 105584710	<i>BVES</i>	1591	Chr10: 90343208 90343209	<i>RNLS</i>
1547	Chr06: 117591684 117591685	<i>VGLL2</i>	1592	Chr10: 94834201 94834202	<i>CYP26A1</i>
1548	Chr06: 124124275 124124276	<i>NKAIN2</i>	1593	Chr11: 106889364 106889365	<i>GUCY1A2</i>
1549	Chr06: 124124875 124124876	<i>NKAIN2</i>	1594	Chr11: 58672888 58672889	<i>Non Coding Region</i>
1550	Chr06: 125284359 125284360	<i>STL</i>	1595	Chr11: 58673167 58673168	<i>Non Coding Region</i>
1551	Chr06: 1378868 1378869	<i>Non Coding Region</i>	1596	Chr12: 133484853 133484854	<i>Non Coding Region</i>
1552	Chr06: 153451251 153451252	<i>RGS17</i>	1597	Chr12: 39299364 39299365	<i>CPNE8</i>
1553	Chr06: 153452724 153452725	<i>RGS17</i>	1598	Chr12: 47224954 47224955	<i>Non Coding Region</i>
1554	Chr06: 88876741 88876742	<i>CNR1</i>	1599	Chr12: 54338937 54338938	<i>HOXC13</i>
1555	Chr06: 94129234 94129235	<i>EPHA7</i>	1600	Chr12: 8542839 8542840	<i>LOC389634</i>
1556	Chr07: 140773905 140773906	<i>Non Coding Region</i>	1601	Chr13: 112727521 112727522	<i>Non Coding Region</i>
1557	Chr07: 20817530 20817531	<i>Non Coding Region</i>	1602	Chr13: 28674451 28674452	<i>FLT3</i>
1558	Chr07: 20817859 20817860	<i>Non Coding Region</i>	1603	Chr13: 79177516 79177517	<i>POU4F1</i>
1559	Chr07: 27196302 27196303	<i>HOXA7</i>	1604	Chr13: 79177700 79177701	<i>POU4F1</i>
1560	Chr07: 37488428 37488429	<i>ELMO1</i>	1605	Chr13: 88323607 88323608	<i>SLITRK5</i>
1561	Chr07: 4922708 4922709	<i>RADIL</i>	1606	Chr14: 36003741 36003742	<i>INS2</i>
1562	Chr07: 49814435 49814436	<i>VWC2</i>	1607	Chr14: 36995009 36995010	<i>Non Coding Region</i>
1563	Chr07: 87230344 87230345	<i>ABCB1</i>	1608	Chr14: 51561293 51561294	<i>TRIM9</i>
1564	Chr07: 87257074 87257075	<i>ABCB1,RUNDC3B</i>	1609	Chr14: 52535973 52535974	<i>NID2</i>
1565	Chr08: 65492792 65492793	<i>BHLHE22</i>	1610	Chr14: 52536066 52536067	<i>NID2</i>
1566	Chr08: 72460135 72460136	<i>Non Coding Region</i>	1611	Chr15: 33010399 33010400	<i>GREM1</i>
1567	Chr08: 99439685 99439686	<i>KCNS2</i>	1612	Chr15: 60296996 60296997	<i>FOXB1</i>
1568	Chr09: 124889019 124889020	<i>Non Coding Region</i>	1613	Chr15: 78913147 78913148	<i>CHRNA3</i>
1569	Chr09: 96715256 96715257	<i>BARX1</i>	1614	Chr15: 83875703 83875704	<i>HDGFRP3</i>
1570	Chr10: 101292766 101292767	<i>NKX2-3</i>	1615	Chr15: 93631754 93631755	<i>RGMA</i>
1571	Chr10: 102497666 102497667	<i>Non Coding Region</i>	1616	Chr16: 28074980 28074981	<i>GSGIL</i>
1572	Chr10: 118893174 118893175	<i>VAX1</i>	1617	Chr16: 56224901 56224902	<i>GNAO1,LOC283856</i>
1573	Chr10: 118897847 118897848	<i>VAX1</i>	1618	Chr16: 86544339 86544340	<i>FOXFI</i>

Figure 45R

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Order	Coordinate of CpG (hg19)	Gene
1619	Chr17: 41832753_41832754	<i>SOST</i>
1620	Chr17: 41832873_41832874	<i>SOST</i>
1621	Chr17: 77179709_77179710	<i>HRNBPS</i>
1622	Chr17: 79448527_79448528	<i>Non Coding Region</i>
1623	Chr18: 32847566_32847567	<i>ZNF397OS</i>
1624	Chr18: 5197327_5197328	<i>LOC642597</i>
1625	Chr18: 5543271_5543272	<i>EPB41L3</i>
1626	Chr18: 5544169_5544170	<i>EPB41L3</i>
1627	Chr18: 74961727_74961728	<i>GALR1</i>
1628	Chr18: 74961737_74961738	<i>GALR1</i>
1629	Chr19: 30019529_30019530	<i>VSTM2B</i>
1630	Chr19: 30019647_30019648	<i>VSTM2B</i>
1631	Chr19: 31839734_31839735	<i>TSHZ3</i>
1632	Chr19: 31841555_31841556	<i>TSHZ3</i>
1633	Chr19: 31841663_31841664	<i>TSHZ3</i>
1634	Chr19: 31841952_31841953	<i>Non Coding Region</i>
1635	Chr19: 38183055_38183056	<i>ZNF781</i>
1636	Chr19: 53696649_53696650	<i>ZNF665</i>
1637	Chr19: 56904901_56904902	<i>ZNF582</i>
1638	Chr19: 57078765_57078766	<i>ZNF470</i>
1639	Chr20: 13200980_13200981	<i>ISM1</i>
1640	Chr20: 43439387_43439388	<i>RIMS4</i>
1641	Chr20: 43439400_43439401	<i>RIMS4</i>
1642	Chr20: 56803964_56803965	<i>Non Coding Region</i>
1643	Chr21: 34442360_34442361	<i>OLIG1</i>
1644	Chr21: 34442377_34442378	<i>OLIG1</i>
1645	Chr21: 38119946_38119947	<i>SIM2</i>
1646	Chr22: 45405627_45405628	<i>PHF21B</i>

Figure 45S

Grp 1 Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 1 Markers			Preferred Group 1 Markers	
1	chr01:107682889-107684463	<i>NTNG1</i>	47	chr10:118893527-118894432	<i>VAX1</i>
2	chr01:121260857-121261525	<i>LOC647121</i>	48	chr10:126135809-126138896	<i>NKX1-2</i>
3	chr01:18956895-18959829	<i>PAX7</i>	49	chr10:17495407-17496721	<i>STSLA6</i>
4	chr01:240254959-240257063	<i>FMN2</i>	50	chr10:18429125-18430234	<i>CACNB2</i>
5	chr01:29138501-29139348	<i>OPRD1</i>	51	chr10:90342528-90343221	<i>RNLS</i>
6	chr01:34628783-34630976	<i>CSMD2</i>	52	chr11:126225355-126226073	<i>ST3GAL4</i>
7	chr01:44883136-44884272	<i>RNF220</i>	53	chr11:128562671-128565011	<i>FLI1</i>
8	chr01:50884228-50891471	<i>DMRTA2</i>	54	chr11:94501366-94502696	<i>AMOTL1</i>
9	chr01:53067880-53068608	<i>GPX7</i>	55	chr12:113900750-113906442	<i>LHX5</i>
10	chr01:77333111-77334534	<i>ST6GALNAC5</i>	56	chr12:54338761-54339168	<i>HOXC13</i>
11	chr02:100937779-100939059	<i>LONRF2</i>	57	chr12:85425555-8543334	<i>LOC389634</i>
12	chr02:131792237-131793189	<i>ARHGEF4</i>	58	chr13:78492425-78493382	<i>EDNRB</i>
13	chr02:175193398-175193764	<i>Non Coding Region</i>	59	chr13:95619883-95620977	<i>Non Coding Region</i>
14	chr02:176957054-176958279	<i>HOXD13</i>	60	chr14:51560116-51562487	<i>TRIM9</i>
15	chr02:176977284-176977540	<i>Non Coding Region</i>	61	chr14:52734207-52735486	<i>PTGDR</i>
16	chr02:176993479-176995557	<i>HOXD8</i>	62	chr14:57283967-57284558	<i>OTX2OS1</i>
17	chr02:182547873-182549177	<i>Non Coding Region</i>	63	chr15:33009530-33011696	<i>GREM1</i>
18	chr02:29337983-29338909	<i>CLIP4</i>	64	chr15:45669970-45671029	<i>GATM,LOC145663</i>
19	chr02:66802890-66804831	<i>Non Coding Region</i>	65	chr15:76632262-76635515	<i>ISL2</i>
20	chr02:88751335-88752865	<i>FOXL3</i>	66	chr15:78912246-78913616	<i>CHRNA3</i>
21	chr03:140769886-140771080	<i>SPSB4</i>	67	chr16:56224731-56224980	<i>GNAO1,LOC283856</i>
22	chr03:152552602-152553712	<i>P2RY1</i>	68	chr16:86599355-86602649	<i>FOXC2</i>
23	chr03:69591011-69592050	<i>Non Coding Region</i>	69	chr17:33700989-33701657	<i>SLFN11</i>
24	chr03:96532023-96533625	<i>EPHA6</i>	70	chr17:3438841-3439046	<i>TRPV3</i>
25	chr04:37245250-37246979	<i>KIAA1239</i>	71	chr17:41832717-41833195	<i>SOST</i>
26	chr05:11903550-11904703	<i>CTNND2</i>	72	chr17:43339124-43339832	<i>C17orf46,LOC100133991</i>
27	chr05:170735169-170739863	<i>TLX3</i>	73	chr18:32847284-32848130	<i>ZNF397OS</i>
28	chr05:38556222-38557563	<i>LIFR</i>	74	chr18:5543437-5544241	<i>EPB41L3</i>
29	chr05:42424338-42425047	<i>GHR</i>	75	chr19:31839635-31843049	<i>TSHZ3</i>
30	chr05:5139441-5140941	<i>ADAMTS16</i>	76	chr19:36909281-36909854	<i>ZFP82</i>
31	chr06:105584148-105585621	<i>BVES</i>	77	chr19:37406931-37407463	<i>ZNF829,ZNF568</i>
32	chr06:124124177-124125309	<i>NKAIN2</i>	78	chr19:37463991-37464606	<i>Non Coding Region</i>
33	chr06:1381743-1385211	<i>Non Coding Region</i>	79	chr19:38182793-38183327	<i>ZNF781</i>
34	chr06:166579973-166583423	<i>T</i>	80	chr19:51924999-51925413	<i>Non Coding Region</i>
35	chr07:149410858-149412351	<i>KRBA1</i>	81	chr19:53696029-53696650	<i>ZNF665</i>
36	chr07:20817455-20818227	<i>Non Coding Region</i>	82	chr19:56879417-56879995	<i>ZNF542</i>
37	chr07:37487354-37488672	<i>ELMO1</i>	83	chr19:56904636-56905355	<i>ZNF582</i>
38	chr07:37960316-37961046	<i>EPDR1</i>	84	chr19:56988313-56989741	<i>ZNF667</i>
39	chr07:54609734-54610140	<i>VSTM2A</i>	85	chr19:57078365-57079301	<i>ZNF470</i>
40	chr07:87256958-87258444	<i>ABCB1,RUNDC3B</i>	86	chr19:57862441-57863236	<i>ZNF304</i>
41	chr07:93519366-93520184	<i>TFPI2</i>	87	chr20:13200670-13202616	<i>ISM1</i>
42	chr08:41753340-41755250	<i>ANK1</i>	88	chr20:23028403-23032218	<i>THBD</i>
43	chr08:65492935-65494452	<i>BHLHE22</i>	89	chr20:61636171-61639055	<i>BHLHE23</i>
44	chr09:117266468-117268094	<i>DFNB31</i>	90	chr21:38119793-38120742	<i>SIM2</i>
45	chr09:124888949-124889382	<i>Non Coding Region</i>	91	chr22:45403036-45406372	<i>PHF21B</i>
46	chr09:96713326-96718186	<i>BARX1</i>			

Figure 46A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Alternative markers: High in CRC for Group 1 set				
92	chr01:101004471-101005885	<i>GPR88</i>	136	chr01:70032967-70034495	<i>Non Coding Region</i>
93	chr01:101702445-101702745	<i>SIPR1</i>	137	chr01:75600674-75601415	<i>LHX8</i>
94	chr01:108507251-108507841	<i>VAV3</i>	138	chr01:76080454-76080808	<i>Non Coding Region</i>
95	chr01:111216244-111217937	<i>KCNA3</i>	139	chr01:86621278-86622871	<i>COL24A1</i>
96	chr01:114695136-114696672	<i>SYT6</i>	140	chr01:98510966-98511710	<i>MIR137</i>
97	chr01:115880167-115881332	<i>NGF</i>	141	chr01:99469932-99470968	<i>LPPR5</i>
98	chr01:119529819-119530712	<i>TBX15</i>	142	chr02:10219802-10221016	<i>CYS1</i>
99	chr01:12123488-12124148	<i>TNFRSF8</i>	143	chr02:105459127-105461770	<i>Non Coding Region</i>
100	chr01:13910137-13910868	<i>PDPN</i>	144	chr02:108602824-108603467	<i>SLC5A7</i>
101	chr01:150254365-150254637	<i>C1orf51</i>	145	chr02:11051858-11053476	<i>KCNF1</i>
102	chr01:154298205-154298544	<i>ATP8B2</i>	146	chr02:115918737-115920765	<i>DPP10</i>
103	chr01:156627342-156627576	<i>BCAN</i>	147	chr02:119914126-119916663	<i>C1QL2</i>
104	chr01:159141202-159141718	<i>CADM3</i>	148	chr02:120281661-120282211	<i>SCTR</i>
105	chr01:16085147-16085862	<i>FBLIM1</i>	149	chr02:131720819-131721867	<i>ARHGEF4</i>
106	chr01:171810467-171811325	<i>DNM3</i>	150	chr02:137522460-137523696	<i>Non Coding Region</i>
107	chr01:179711947-179713951	<i>FAM163A</i>	151	chr02:144694666-144695180	<i>Non Coding Region</i>
108	chr01:181287300-181287873	<i>Non Coding Region</i>	152	chr02:145273456-145275378	<i>ZEB2</i>
109	chr01:196577708-196578011	<i>KCNT2</i>	153	chr02:145281736-145282269	<i>Non Coding Region</i>
110	chr01:207669637-207670015	<i>CR1</i>	154	chr02:154727906-154728271	<i>GALNT13</i>
111	chr01:208084098-208084513	<i>CD34</i>	155	chr02:154729613-154729918	<i>GALNT13</i>
112	chr01:224803637-224805314	<i>CNIH3</i>	156	chr02:164592917-164593511	<i>FIGN</i>
113	chr01:228651447-228652529	<i>Non Coding Region</i>	157	chr02:171672310-171675447	<i>GAD1</i>
114	chr01:229542943-229543770	<i>Non Coding Region</i>	158	chr02:1746833-1748971	<i>PXDN</i>
115	chr01:231296559-231297345	<i>Non Coding Region</i>	159	chr02:177052957-177054350	<i>HOXD1</i>
116	chr01:234040298-234041457	<i>SLC35F3</i>	160	chr02:182321761-182323029	<i>ITGA4</i>
117	chr01:234349884-234350471	<i>SLC35F3</i>	161	chr02:185463208-185463589	<i>ZNF804A</i>
118	chr01:237205126-237206644	<i>RYR2</i>	162	chr02:187713846-187714069	<i>ZSWIM2</i>
119	chr01:246952214-246952511	<i>LOC149134</i>	163	chr02:193058995-193060812	<i>TMEFF2</i>
120	chr01:33219427-33220028	<i>KIAA1522</i>	164	chr02:207506774-207507422	<i>LOC200726</i>
121	chr01:35394747-35396206	<i>Non Coding Region</i>	165	chr02:210636344-210636935	<i>UNC80</i>
122	chr01:3662963-3664085	<i>KIAA0495</i>	166	chr02:217236025-217237129	<i>MARCHF4</i>
123	chr01:37498377-37500624	<i>GRIK3</i>	167	chr02:217559039-217559484	<i>JGFBP5</i>
124	chr01:38099677-38100864	<i>RSPO1</i>	168	chr02:218621279-218621498	<i>DIRC3</i>
125	chr01:38229838-38230888	<i>EPHA10</i>	169	chr02:220173870-220174283	<i>PTPRN</i>
126	chr01:38510102-38513642	<i>POU3F1</i>	170	chr02:220299483-220300243	<i>SPEG</i>
127	chr01:39269729-39270251	<i>Non Coding Region</i>	171	chr02:223167205-223167560	<i>CCDC140</i>
128	chr01:44871109-44874047	<i>RNF220</i>	172	chr02:223168653-223169008	<i>CCDC140</i>
129	chr01:46951168-46951792	<i>Non Coding Region</i>	173	chr02:230578062-230579981	<i>DNER</i>
130	chr01:48190756-48190992	<i>Non Coding Region</i>	174	chr02:238535561-238536840	<i>LRRFIP1</i>
131	chr01:49242371-49242810	<i>AGBL4,BEND5</i>	175	chr02:242742598-242743758	<i>GAL3ST2</i>
132	chr01:53098629-53099303	<i>FAM159A</i>	176	chr02:30142831-30144624	<i>ALK</i>
133	chr01:57887963-57890637	<i>DAB1</i>	177	chr02:31360321-31361821	<i>GALNT14</i>
134	chr01:58715272-58716095	<i>DAB1</i>	178	chr02:31456740-31457653	<i>EHD3</i>
135	chr01:67773329-67773767	<i>IL12RB2</i>	179	chr02:31805293-31806403	<i>SRD5A2</i>
			180	chr02:40678477-40678717	<i>SLC8A1</i>

Figure 46B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
181	chr02:47796923-47799166	KCNK12	226	chr03:48698335-48701667	CELSR3
182	chr02:50574045-50574817	NRXN1	227	chr03:62357639-62359774	FEZF2
183	chr02:56150340-56151180	EFEMP1	228	chr03:68980783-68982035	FAM19A4
184	chr02:5836068-5837643	SOX11	229	chr03:71802560-71804209	EIF4E3,GPR27
185	chr02:66652691-66654218	Non Coding Region	230	chr03:79815638-79815900	ROBO1
186	chr02:68546339-68547111	CNRIP1	231	chr04:107956555-107957453	DKK2
187	chr02:7057530-7058433	RNF144A	232	chr04:110222970-110224257	COL25A1
188	chr02:71693164-71694127	DYSF	233	chr04:111560563-111560808	Non Coding Region
189	chr02:73429283-73430647	NOTO	234	chr04:122301567-122302290	ORFPR
190	chr02:87015974-87018182	CD8A	235	chr04:122685860-122686565	TMEM155,LOC100192379
191	chr02:945686-946774	SNTG2	236	chr04:126235895-126238930	FAT4
192	chr02:95690857-95692431	MAL	237	chr04:134069162-134070442	Non Coding Region
193	chr02:97192977-97193383	Non Coding Region	238	chr04:13537646-13537973	Non Coding Region
194	chr02:98962873-98964187	CNGA3	239	chr04:142053327-142054601	RNF150
195	chr03:10857687-10858447	SLC6A11	240	chr04:144620822-144622218	FREM3
196	chr03:120169202-120170519	FSTL1	241	chr04:148402198-148402760	EDNRA
197	chr03:128205495-128212274	GATA2	242	chr04:154680774-154681377	RNF175
198	chr03:128719865-128721245	CCDC48	243	chr04:154709512-154710827	SFRP2
199	chr03:13114627-13115245	IQSEC1	244	chr04:154712073-154712706	Non Coding Region
200	chr03:132756985-132757895	TMEM108	245	chr04:156297601-156298094	MAP9
201	chr03:13323438-13324929	Non Coding Region	246	chr04:156680095-156681386	GUCY1B3
202	chr03:134369464-134370242	KY	247	chr04:157997166-157997686	GLRB
203	chr03:134514085-134515980	EPHB1	248	chr04:166794545-166795341	TLL1
204	chr03:137479995-137480197	Non Coding Region	249	chr04:168155005-168155765	SPOCK3
205	chr03:137487429-137488021	Non Coding Region	250	chr04:175135259-175135496	Non Coding Region
206	chr03:142837885-142840838	CHST2	251	chr04:175750330-175750584	GLRA3
207	chr03:147126988-147128999	ZIC1	252	chr04:176922473-176922820	GPM6A
208	chr03:14851829-14853094	Non Coding Region	253	chr04:176986921-176987360	WDR17
209	chr03:159756632-159756997	Non Coding Region	254	chr04:17782642-17783624	FAM184B
210	chr03:179754520-179755245	PEX5L	255	chr04:184826253-184828177	STOX2
211	chr03:186078710-186080111	DGKG	256	chr04:185939222-185942747	HELT
212	chr03:192125821-192127994	FGF12	257	chr04:40858884-40859162	APBB2
213	chr03:194406440-194409045	FAM43A	258	chr04:41883492-41884570	Non Coding Region
214	chr03:238391-240140	CHL1	259	chr04:42152766-42154984	BEND4
215	chr03:27771638-27771942	Non Coding Region	260	chr04:4387593-4389919	D4S234E
216	chr03:28616663-28617970	Non Coding Region	261	chr04:5053230-5054092	STK32B
217	chr03:32858194-32860506	TRIM71	262	chr04:55096185-55100331	PDGFRA
218	chr03:33259919-33260763	SUSD5	263	chr04:55991402-55992171	KDR
219	chr03:36421702-36422210	STAC	264	chr04:568513-570488	Non Coding Region
220	chr03:38035701-38036000	VILL	265	chr04:5709985-5710495	EVC2
221	chr03:44036407-44041104	Non Coding Region	266	chr04:5713035-5713451	EVC
222	chr03:44626325-44626794	ZNF660	267	chr04:5891981-5892365	CRMP1
223	chr03:46506161-46506416	LTF	268	chr04:62065883-62068801	Non Coding Region
224	chr03:46923265-46925182	PTH1R	269	chr04:7194537-7195467	SORCS2
225	chr03:48693118-48694768	CELSR3	270	chr04:81187494-81187913	FGF5

Figure 46C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
271	chr04:96469456-96469667	<i>UNC5C</i>	316	chr06:133562086-133563586	<i>EYA4</i>
272	chr04:96469859-96470994	<i>UNC5C</i>	317	chr06:134210639-134211218	<i>TCF21</i>
273	chr05:100238722-100239138	<i>ST8SLA4</i>	318	chr06:134638797-134639021	<i>SGK1</i>
274	chr05:127872563-127874945	<i>FBN2</i>	319	chr06:1389139-1391393	<i>FOXF2</i>
275	chr05:128300800-128301329	<i>SLC27A6</i>	320	chr06:151561283-151562550	<i>AKAP12</i>
276	chr05:135265848-135266517	<i>FBXL21</i>	321	chr06:152128822-152129771	<i>ESR1</i>
277	chr05:136834016-136835146	<i>SPOCK1</i>	322	chr06:152957810-152958472	<i>SYNE1</i>
278	chr05:140305712-140307193	<i>PCDHA2,PCDHA3,PCDHA1, etc</i>	323	chr06:159589636-159591319	<i>FNDCl</i>
279	chr05:140892913-140893189	<i>PCDHGB3,PCDHGB2,PCDHGB1, etc.</i>	324	chr06:1624185-1625468	<i>GMDS</i>
280	chr05:141262988-141263195	<i>Non Coding Region</i>	325	chr06:166666837-166667541	<i>Non Coding Region</i>
281	chr05:1444678-1446648	<i>SLC6A3</i>	326	chr06:28602853-28603295	<i>Non Coding Region</i>
282	chr05:146257346-146258575	<i>PPP2R2B</i>	327	chr06:29759946-29760903	<i>HCG4</i>
283	chr05:1667187-1668081	<i>Non Coding Region</i>	328	chr06:30095173-30095610	<i>Non Coding Region</i>
284	chr05:168727429-168728275	<i>SLIT3</i>	329	chr06:30418844-30419630	<i>Non Coding Region</i>
285	chr05:172661486-172662228	<i>NKX2-5</i>	330	chr06:31782872-31785190	<i>HSPA1A,HSPA1L</i>
286	chr05:172670829-172671824	<i>Non Coding Region</i>	331	chr06:34111735-34113944	<i>Non Coding Region</i>
287	chr05:174870753-174872345	<i>DRD1</i>	332	chr06:3750788-3752767	<i>C6orf145</i>
288	chr05:175792355-175793505	<i>ARL10</i>	333	chr06:391188-393790	<i>IRF4</i>
289	chr05:178016558-178017670	<i>COL23A1</i>	334	chr06:41604583-41606663	<i>MDF1</i>
290	chr05:178770724-178772794	<i>ADAMTS2</i>	335	chr06:41606994-41607238	<i>MDF1</i>
291	chr05:180017099-180019062	<i>SCGB3A1</i>	336	chr06:62995855-62996228	<i>KHDRBS2</i>
292	chr05:180100700-180101209	<i>Non Coding Region</i>	337	chr06:73330942-73333109	<i>KCNQ5</i>
293	chr05:1881924-1887743	<i>IRX4</i>	338	chr06:84417597-84419378	<i>SNAP91</i>
294	chr05:1930754-1931986	<i>Non Coding Region</i>	339	chr06:84562820-84563758	<i>RIPPLY2</i>
295	chr05:32709910-32714450	<i>NPR3</i>	340	chr06:85472702-85474132	<i>TBX18</i>
296	chr05:33892191-33892403	<i>ADAMTS12</i>	341	chr06:85482569-85484718	<i>Non Coding Region</i>
297	chr05:33936168-33938309	<i>RXFP3</i>	342	chr06:87647253-87647707	<i>HTRIE</i>
298	chr05:3594467-3603054	<i>IRX1</i>	343	chr06:91320890-91321219	<i>Non Coding Region</i>
299	chr05:37836747-37840726	<i>GDNF</i>	344	chr06:94126272-94129677	<i>EPHA7</i>
300	chr05:38257825-38259136	<i>EGFLAM</i>	345	chr07:101005899-101007443	<i>EMID2</i>
301	chr05:49736607-49737300	<i>EMB</i>	346	chr07:103629525-103630652	<i>RELN</i>
302	chr05:50265085-50265737	<i>Non Coding Region</i>	347	chr07:108095401-108097206	<i>NRCAM</i>
303	chr05:63801781-63802605	<i>RGS7BP</i>	348	chr07:1269165-1282864	<i>UNCX</i>
304	chr05:63986189-63986974	<i>FAM159B</i>	349	chr07:127744194-127744554	<i>Non Coding Region</i>
305	chr05:71014917-71015715	<i>CARTPT</i>	350	chr07:142494563-142495248	<i>Non Coding Region</i>
306	chr05:76249435-76250528	<i>CRHBP</i>	351	chr07:150652807-150653080	<i>KCNH2</i>
307	chr05:82768387-82769268	<i>VCAN</i>	352	chr07:150710349-150711333	<i>ATG9B,NOS3</i>
308	chr06:108485671-108490539	<i>NR2E1</i>	353	chr07:151106244-151107808	<i>WDR86</i>
309	chr06:10887184-10887622	<i>SYCP2L</i>	354	chr07:152622343-152623305	<i>Non Coding Region</i>
310	chr06:11043913-11045206	<i>ELOVL2</i>	355	chr07:155164557-155167854	<i>Non Coding Region</i>
311	chr06:110678854-110679108	<i>C6orf186</i>	356	chr07:156871054-156871297	<i>Non Coding Region</i>
312	chr06:110797297-110798201	<i>SLC22A16</i>	357	chr07:157476886-157486719	<i>PTPRN2</i>
313	chr06:117085739-117086942	<i>FAM162B</i>	358	chr07:158936507-158938492	<i>VIPR2</i>
314	chr06:118228042-118229811	<i>SLC35F1</i>	359	chr07:19146923-19147308	<i>Non Coding Region</i>
315	chr06:127439265-127441072	<i>RSPO3</i>	360	chr07:19156050-19158042	<i>TWIST1</i>

Figure 46D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
361	chr07:19812569-19813005	<i>TMEM196</i>	406	chr08:53851701-53854426	<i>NPBWR1</i>
362	chr07:21582443-21583313	<i>DNAH11</i>	407	chr08:54163303-54164443	<i>OPRK1</i>
363	chr07:24323558-24325080	<i>NPY</i>	408	chr08:55366180-55367628	<i>Non Coding Region</i>
364	chr07:28448716-28450028	<i>CREB5</i>	409	chr08:55370170-55372525	<i>SOX17</i>
365	chr07:30721372-30722445	<i>CRHR2</i>	410	chr08:55378928-55380186	<i>Non Coding Region</i>
366	chr07:32337983-32338725	<i>Non Coding Region</i>	411	chr08:57069687-57070047	<i>Non Coding Region</i>
367	chr07:38670439-38671008	<i>AMPH</i>	412	chr08:58907001-58907822	<i>FAM110B</i>
368	chr07:43152020-43153340	<i>HECW1</i>	413	chr08:60032532-60032746	<i>TOX</i>
369	chr07:45197181-45197807	<i>RAMP3</i>	414	chr08:65710990-65711722	<i>CYP7B1</i>
370	chr07:49813008-49815752	<i>VWC2</i>	415	chr08:67344497-67344989	<i>ADHFE1</i>
371	chr07:4998405-4998950	<i>MMD2</i>	416	chr08:67873388-67875600	<i>Non Coding Region</i>
372	chr07:50342895-50343456	<i>IKZF1</i>	417	chr08:686830-689496	<i>Non Coding Region</i>
373	chr07:50343757-50344519	<i>IKZF1</i>	418	chr08:69242920-69243803	<i>Non Coding Region</i>
374	chr07:69062374-69065037	<i>AUTS2</i>	419	chr08:72755783-72756667	<i>MSC</i>
375	chr07:71800757-71802768	<i>CALN1</i>	420	chr08:73163618-73164191	<i>Non Coding Region</i>
376	chr07:751712-752150	<i>PRKAR1B</i>	421	chr08:75896528-75897116	<i>CRISPLD1</i>
377	chr07:89747892-89749036	<i>DPY19L2P4</i>	422	chr08:77594255-77594860	<i>ZFH4,LOC100192378</i>
378	chr07:90225082-90226364	<i>Non Coding Region</i>	423	chr08:85096759-85097247	<i>RALYL</i>
379	chr07:98467023-98468058	<i>TMEM130</i>	424	chr08:91997230-91997906	<i>Non Coding Region</i>
380	chr08:104510870-104513913	<i>RIMS2</i>	425	chr08:97156763-97158030	<i>GDF6</i>
381	chr08:105235384-105235979	<i>RIMS2</i>	426	chr08:97172634-97173880	<i>GDF6</i>
382	chr08:109094485-109095849	<i>RSPO2</i>	427	chr08:97505747-97507607	<i>SDC2</i>
383	chr08:11204825-11205689	<i>TDH</i>	428	chr08:9760750-9761643	<i>MIR124-1,LOC157627</i>
384	chr08:116660432-116660747	<i>TRPS1</i>	429	chr08:9762661-9764748	<i>Non Coding Region</i>
385	chr08:121137099-121137778	<i>COL14A1</i>	430	chr09:100615234-100617510	<i>FOXE1</i>
386	chr08:140714585-140718259	<i>KCNK9</i>	431	chr09:101705907-101706682	<i>COL15A1</i>
387	chr08:143531118-143534495	<i>Non Coding Region</i>	432	chr09:112402767-112403349	<i>PALM2</i>
388	chr08:143591567-143592674	<i>BAI1</i>	433	chr09:129484841-129485887	<i>Non Coding Region</i>
389	chr08:143858279-143859411	<i>LYNX1</i>	434	chr09:132382432-132383004	<i>C9orf50</i>
390	chr08:144240761-144242113	<i>LY6H</i>	435	chr09:133534534-133542394	<i>Non Coding Region</i>
391	chr08:15397636-15398287	<i>TUSC3</i>	436	chr09:137299190-137299437	<i>RXRA</i>
392	chr08:16884363-16885339	<i>EFHA2</i>	437	chr09:139090420-139095472	<i>LHX3</i>
393	chr08:17270603-17271120	<i>MTMR7</i>	438	chr09:37026222-37028014	<i>PAX5</i>
394	chr08:22960384-22960927	<i>TNFRSF10C</i>	439	chr09:71788715-71789542	<i>TJP2</i>
395	chr08:23571922-23572208	<i>Non Coding Region</i>	440	chr09:77112712-77113583	<i>RORB</i>
396	chr08:24770908-24772547	<i>NEFM</i>	441	chr09:841374-843364	<i>DMRT1</i>
397	chr08:24812946-24814299	<i>NEFL</i>	442	chr09:88137609-88137985	<i>Non Coding Region</i>
398	chr08:25900562-25905842	<i>Non Coding Region</i>	443	chr10:100992156-100992687	<i>HPSE2</i>
399	chr08:25909292-25909686	<i>Non Coding Region</i>	444	chr10:100993820-100994188	<i>HPSE2</i>
400	chr08:26721642-26724566	<i>ADRA1A</i>	445	chr10:102484200-102484476	<i>Non Coding Region</i>
401	chr08:32405407-32406901	<i>NRG1</i>	446	chr10:102503913-102506146	<i>PAX2</i>
402	chr08:37822486-37824008	<i>ADRB3</i>	447	chr10:102507482-102509646	<i>PAX2</i>
403	chr08:38644473-38645760	<i>TACC1</i>	448	chr10:103603166-103603642	<i>KCNIP2</i>
404	chr08:41165852-41167140	<i>SFRP1</i>	449	chr10:105036628-105038084	<i>INA</i>
405	chr08:494155-496083	<i>C8orf42</i>	450	chr10:111216604-111217083	<i>Non Coding Region</i>

Figure 46E

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
451	chr10:11207178-11207980	<i>CUGBP2</i>	496	chr11:134281380-134282919	<i>B3GAT1</i>
452	chr10:118030732-118034230	<i>GFRA1</i>	497	chr11:1410119-1412346	<i>BRSK2</i>
453	chr10:118892161-118892639	<i>VAX1</i>	498	chr11:1768979-1770712	<i>HCCA2,LOC402778</i>
454	chr10:119000435-119001530	<i>SLC18A2</i>	499	chr11:17740789-17743779	<i>MYOD1</i>
455	chr10:124894075-124897366	<i>HMX3</i>	500	chr11:18812572-18814079	<i>PTPN5</i>
456	chr10:129534410-129537366	<i>FOXI2</i>	501	chr11:20181200-20182325	<i>DBX1</i>
457	chr10:131761169-131771696	<i>Non Coding Region</i>	502	chr11:20184570-20185497	<i>Non Coding Region</i>
458	chr10:133794898-133796598	<i>BNIP3</i>	503	chr11:20690579-20691845	<i>NELL1</i>
459	chr10:133998912-134001500	<i>DPYSL4</i>	504	chr11:2158951-2162484	<i>IGF2,IGF2AS,INS-IGF2</i>
460	chr10:134901198-134902619	<i>GPR123</i>	505	chr11:30606004-30608128	<i>MPPED2</i>
461	chr10:135043221-135044560	<i>UTF1</i>	506	chr11:32454874-32457311	<i>WT1,WT1</i>
462	chr10:13933482-13934184	<i>FRMD4A</i>	507	chr11:33890357-33891495	<i>LMO2</i>
463	chr10:17270430-17272617	<i>VIM</i>	508	chr11:44330542-44331761	<i>ALX4</i>
464	chr10:1778784-1780018	<i>ADARB2</i>	509	chr11:46316875-46317485	<i>CREB3L1</i>
465	chr10:23462224-23463889	<i>Non Coding Region</i>	510	chr11:57194340-57194650	<i>SLC43A3</i>
466	chr10:23487757-23488543	<i>Non Coding Region</i>	511	chr11:63766058-63768666	<i>MACROD1</i>
467	chr10:23982382-23982589	<i>KIAA1217</i>	512	chr11:69632033-69634710	<i>FGF3</i>
468	chr10:23983366-23984978	<i>KIAA1217</i>	513	chr11:8190226-8190671	<i>RIC3</i>
469	chr10:26504383-26507434	<i>GAD2</i>	514	chr11:8289532-8290322	<i>Non Coding Region</i>
470	chr10:26727061-26727992	<i>APBB1IP</i>	515	chr11:829284-833558	<i>EFCAB4A</i>
471	chr10:28030182-28035211	<i>MKX</i>	516	chr11:91957635-91960290	<i>Non Coding Region</i>
472	chr10:43600146-43601165	<i>RET</i>	517	chr11:94134226-94134848	<i>GPR83</i>
473	chr10:50817601-50820356	<i>SLC18A3,CHAT</i>	518	chr12:103351579-103352695	<i>ASCL1</i>
474	chr10:64574660-64578778	<i>EGR2</i>	519	chr12:103889148-103889843	<i>C12orf42</i>
475	chr10:72043446-72043886	<i>Non Coding Region</i>	520	chr12:104850253-104852395	<i>CHST11</i>
476	chr10:7449376-7455339	<i>SFMBT2</i>	521	chr12:1058481-1059430	<i>RAD52</i>
477	chr10:8077829-8078378	<i>Non Coding Region</i>	522	chr12:111471061-111471578	<i>CUX2</i>
478	chr10:82116202-82117120	<i>DYDC2,DYDC1</i>	523	chr12:111471960-111473546	<i>CUX2</i>
479	chr10:83633820-83635729	<i>NRG3</i>	524	chr12:113013099-113013529	<i>Non Coding Region</i>
480	chr10:88122924-88127364	<i>GRID1</i>	525	chr12:113494389-113495534	<i>DTX1</i>
481	chr10:91294947-91295925	<i>SLC16A12</i>	526	chr12:114833911-114834210	<i>TBX5</i>
482	chr11:101453357-101454684	<i>TRPC6</i>	527	chr12:117798076-117799448	<i>NOS1</i>
483	chr11:104034536-104035058	<i>PDGFD</i>	528	chr12:119419105-119419810	<i>SRRM4</i>
484	chr11:111383168-111383892	<i>BTG4,MIR34C,MIR34B</i>	529	chr12:120031494-120033212	<i>TMEM233</i>
485	chr11:112832524-112834490	<i>NCAM1</i>	530	chr12:128850549-128850755	<i>TMEM132C</i>
486	chr11:115630398-115631117	<i>Non Coding Region</i>	531	chr12:129337870-129338653	<i>GLT1D1</i>
487	chr11:119293320-119293943	<i>THY1</i>	532	chr12:130387609-130389139	<i>TMEM132D</i>
488	chr11:122847494-122848608	<i>Non Coding Region</i>	533	chr12:130645327-130648988	<i>FZD10</i>
489	chr11:122854930-122855582	<i>Non Coding Region</i>	534	chr12:132905449-132906206	<i>GALNT9</i>
490	chr11:124790814-124791354	<i>HEPACAM</i>	535	chr12:15475318-15475901	<i>PTPRO</i>
491	chr11:125757055-125758107	<i>HYLS1</i>	536	chr12:22486835-22488666	<i>ST8SIA1</i>
492	chr11:131780328-131781532	<i>NTM</i>	537	chr12:25055599-25056246	<i>BCAT1</i>
493	chr11:132934059-132934291	<i>OPCML</i>	538	chr12:25101607-25102073	<i>BCAT1</i>
494	chr11:133825337-133827457	<i>IGSF9B</i>	539	chr12:29935995-29937433	<i>TMTC1</i>
495	chr11:134145559-134147180	<i>GLB1L3</i>	540	chr12:41086522-41087102	<i>CNTN1</i>

Figure 46F

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
541	chr12:45444202-45445386	<i>DBX2</i>	586	chr13:95359641-95359874	<i>Non Coding Region</i>
542	chr12:5018585-5021171	<i>KCNA1</i>	587	chr13:95363152-95366051	<i>SOX21</i>
543	chr12:50354839-50356163	<i>AQP5</i>	588	chr13:96204691-96205496	<i>CLDN10</i>
544	chr12:5153012-5154346	<i>KCNA5</i>	589	chr14:100437381-100438863	<i>Non Coding Region</i>
545	chr12:52400467-52401696	<i>GRASP</i>	590	chr14:24803678-24804353	<i>ADCY4</i>
546	chr12:54321301-54321721	<i>Non Coding Region</i>	591	chr14:27066313-27066578	<i>NOVA1</i>
547	chr12:54393374-54394648	<i>HOXC9</i>	592	chr14:60975732-60978180	<i>SLX6</i>
548	chr12:5539895-5540703	<i>NTF3</i>	593	chr14:62583679-62584279	<i>FLJ43390</i>
549	chr12:62584768-62586268	<i>FAM19A2</i>	594	chr14:70041213-70041662	<i>Non Coding Region</i>
550	chr12:64061836-64062774	<i>DPY19L2</i>	595	chr14:74706188-74708192	<i>VSX2</i>
551	chr12:64784010-64784664	<i>C12orf56</i>	596	chr14:76604999-76605268	<i>Non Coding Region</i>
552	chr12:65514878-65515863	<i>WIF1</i>	597	chr14:77736733-77737772	<i>NGB</i>
553	chr12:66122788-66123328	<i>Non Coding Region</i>	598	chr14:85996494-85996958	<i>FLRT2</i>
554	chr12:72665683-72667551	<i>LOC283392,TRHDE</i>	599	chr14:96342209-96343570	<i>Non Coding Region</i>
555	chr12:81471569-81472119	<i>ACSS3</i>	600	chr14:97685059-97685946	<i>Non Coding Region</i>
556	chr12:81711336-8171790	<i>Non Coding Region</i>	601	chr15:26107503-26108818	<i>ATP10A</i>
557	chr12:85306282-85306829	<i>SLC6A15</i>	602	chr15:27215951-27216856	<i>GABRG3</i>
558	chr12:8548855-8549512	<i>Non Coding Region</i>	603	chr15:28339774-28342442	<i>OCA2</i>
559	chr13:102068116-102069258	<i>NALCN</i>	604	chr15:28351606-28353102	<i>Non Coding Region</i>
560	chr13:102568425-102569495	<i>FGF14</i>	605	chr15:30483597-30484928	<i>Non Coding Region</i>
561	chr13:103046680-103047226	<i>FGF14</i>	606	chr15:33602816-33604003	<i>RYR3</i>
562	chr13:103052361-103052944	<i>FGF14</i>	607	chr15:34786492-34788138	<i>Non Coding Region</i>
563	chr13:108519292-108521063	<i>FAM155A</i>	608	chr15:35046443-35047480	<i>GJD2</i>
564	chr13:109147798-109149019	<i>Non Coding Region</i>	609	chr15:48936810-48938577	<i>FBN1</i>
565	chr13:110958891-110960590	<i>COL4A2, COL4A1</i>	610	chr15:51385861-51387203	<i>TNFAIP8L3</i>
566	chr13:112758598-112760491	<i>Non Coding Region</i>	611	chr15:55879792-55881228	<i>PYGO1</i>
567	chr13:23733808-23734816	<i>Non Coding Region</i>	612	chr15:74419870-74423044	<i>ISLR2, LOC283731</i>
568	chr13:25620937-25621554	<i>Non Coding Region</i>	613	chr15:79381804-79384209	<i>RASGRF1</i>
569	chr13:26042693-26043486	<i>ATP8A2</i>	614	chr15:79574830-79575211	<i>ANKRD34C</i>
570	chr13:26624725-26626265	<i>SHISA2</i>	615	chr15:79576059-79576270	<i>ANKRD34C</i>
571	chr13:28366549-28368505	<i>GSX1</i>	616	chr15:83315116-83317541	<i>CPEB1</i>
572	chr13:28371509-28371768	<i>Non Coding Region</i>	617	chr15:83348839-83349865	<i>AP3B2</i>
573	chr13:28498226-28499046	<i>PDX1</i>	618	chr15:83775861-83776922	<i>TM6SF1</i>
574	chr13:29106576-29107254	<i>Non Coding Region</i>	619	chr15:83951980-83953930	<i>BNC1</i>
575	chr13:36705040-36705707	<i>DCLK1</i>	620	chr15:84115762-84116921	<i>SH3GL3</i>
576	chr13:36919737-36921004	<i>SPG20</i>	621	chr15:88799522-88801017	<i>NTRK3</i>
577	chr13:37005581-37006453	<i>CCNA1</i>	622	chr15:92936677-92938521	<i>ST8SLA2</i>
578	chr13:37247949-37248463	<i>C13orf36</i>	623	chr15:93631428-93633173	<i>RGMA</i>
579	chr13:43148277-43149282	<i>TNFSF11</i>	624	chr16:10273943-10277424	<i>GRIN2A</i>
580	chr13:49794125-49795542	<i>MLNR</i>	625	chr16:1202414-1204624	<i>CACNA1H</i>
581	chr13:53419897-53422872	<i>PCDH8</i>	626	chr16:12994574-12997690	<i>SHISA9</i>
582	chr13:58206526-58208930	<i>PCDH17</i>	627	chr16:23846941-23848102	<i>PRKCB</i>
583	chr13:88323569-88324640	<i>SLITRK5</i>	628	chr16:25702955-25704631	<i>HS3ST4</i>
584	chr13:88326600-88326919	<i>SLITRK5</i>	629	chr16:28073817-28075296	<i>GSGIL</i>
585	chr13:93879245-93880877	<i>GPC6</i>	630	chr16:31225956-31228264	<i>TRIM72, PYDC1</i>

Figure 46G

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
631	chr16:3232835-3234048	<i>Non Coding Region</i>	676	chr18:35104533-35104942	<i>BRUNOL4</i>
632	chr16:3238805-3239492	<i>Non Coding Region</i>	677	chr18:35144907-35147628	<i>Non Coding Region</i>
633	chr16:51183699-51188763	<i>SALL1</i>	678	chr18:53447074-53447842	<i>Non Coding Region</i>
634	chr16:51189800-51190260	<i>Non Coding Region</i>	679	chr18:55103154-55108853	<i>ONECUT2</i>
635	chr16:55357521-55359040	<i>IRX6</i>	680	chr18:56887091-56887665	<i>GRP</i>
636	chr16:55513220-55513526	<i>MMP2</i>	681	chr18:56934833-56936827	<i>RAX</i>
637	chr16:55689598-55690895	<i>SLC6A2</i>	682	chr18:56939624-56941540	<i>RAX</i>
638	chr16:58018400-58019471	<i>TEPP</i>	683	chr18:59000683-59001692	<i>Non Coding Region</i>
639	chr16:66638254-66639561	<i>CMTM3</i>	684	chr18:67067509-67069168	<i>DOK6</i>
640	chr16:67196792-67199988	<i>FBXL8,HSF4</i>	685	chr18:7116852-7118241	<i>LAMA1</i>
641	chr16:71264360-71264659	<i>HYDIN</i>	686	chr18:76737005-76741244	<i>SALL3</i>
642	chr16:77468309-77469074	<i>ADAMTS18</i>	687	chr18:904578-909574	<i>ADCYAP1</i>
643	chr16:77822375-77823134	<i>VAT1L</i>	688	chr19:12203028-12203503	<i>ZNF788</i>
644	chr16:86530747-86532994	<i>Non Coding Region</i>	689	chr19:12266998-12267686	<i>ZNF625</i>
645	chr17:10101034-10102440	<i>GAS7</i>	690	chr19:13616752-13617267	<i>CACNA1A</i>
646	chr17:13503829-13505559	<i>HS3ST3A1</i>	691	chr19:1465206-1471241	<i>APC2</i>
647	chr17:14212363-14212788	<i>HS3ST3B1</i>	692	chr19:15090016-15090873	<i>Non Coding Region</i>
648	chr17:26698359-26699557	<i>SARM1</i>	693	chr19:18118741-18119553	<i>ARRDC2</i>
649	chr17:27939298-27940770	<i>ANKRD13B</i>	694	chr19:19322675-19322916	<i>NCAN</i>
650	chr17:32905965-32908951	<i>C17orf102</i>	695	chr19:19371675-19372393	<i>HAPLN4</i>
651	chr17:33814234-33814947	<i>SLFN12L</i>	696	chr19:21646328-21646536	<i>Non Coding Region</i>
652	chr17:35165323-35165983	<i>Non Coding Region</i>	697	chr19:21657569-21658035	<i>Non Coding Region</i>
653	chr17:35291899-35300875	<i>LHX1</i>	698	chr19:22034394-22034943	<i>Non Coding Region</i>
654	chr17:38347533-38347765	<i>RAPGEFL1</i>	699	chr19:30015781-30021367	<i>VSTM2B</i>
655	chr17:45928211-45928710	<i>SP6</i>	700	chr19:30865683-30866490	<i>ZNF536</i>
656	chr17:46810609-46810945	<i>Non Coding Region</i>	701	chr19:34112279-34114353	<i>CHST8</i>
657	chr17:48070698-48072654	<i>DLX3</i>	702	chr19:34972054-34973645	<i>WTIP</i>
658	chr17:54674873-54675232	<i>Non Coding Region</i>	703	chr19:36822395-36822690	<i>Non Coding Region</i>
659	chr17:56234321-56234827	<i>MSX2P1</i>	704	chr19:37095680-37096589	<i>ZNF529,ZNF382</i>
660	chr17:6616422-6617471	<i>SLC13A5</i>	705	chr19:37997790-37998125	<i>ZNF793</i>
661	chr17:72347924-72348322	<i>KIF19</i>	706	chr19:41018525-41019486	<i>SPTBN4</i>
662	chr17:75368688-75370506	<i>SEPTIN9</i>	707	chr19:41595895-41596140	<i>CYP2A13</i>
663	chr17:7554139-7555338	<i>ATP1B2</i>	708	chr19:44952416-44952809	<i>ZNF229</i>
664	chr17:76228110-76228380	<i>LOC283999</i>	709	chr19:50037078-50037670	<i>RCN3</i>
665	chr17:77178828-77180229	<i>HRNBP3</i>	710	chr19:51111184-51111519	<i>Non Coding Region</i>
666	chr17:77721246-77722497	<i>Non Coding Region</i>	711	chr19:51830064-51831145	<i>JGLON5</i>
667	chr17:78449507-78452783	<i>NPTX1</i>	712	chr19:52873084-52873572	<i>ZNF880</i>
668	chr17:8533004-8534933	<i>MYH10</i>	713	chr19:52900955-52901158	<i>ZNF528</i>
669	chr17:8868469-8869372	<i>PIK3R5</i>	714	chr19:53635625-53636230	<i>ZNF415</i>
670	chr17:8906236-8908080	<i>Non Coding Region</i>	715	chr19:53811620-53812011	<i>Non Coding Region</i>
671	chr18:11750953-11752756	<i>GNAL</i>	716	chr19:54023868-54024560	<i>ZNF331</i>
672	chr18:12254147-12255089	<i>CIDEA</i>	717	chr19:54411376-54411968	<i>Non Coding Region</i>
673	chr18:22930018-22930904	<i>ZNF521</i>	718	chr19:57683596-57683850	<i>Non Coding Region</i>
674	chr18:25755414-25758175	<i>CDH2</i>	719	chr19:58238585-58239028	<i>ZNF671</i>
675	chr18:31020510-31020847	<i>C18orf34</i>	720	chr19:58609338-58609988	<i>ZSCAN18</i>

Figure 46H

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
721	chr19:58951214-58952250	<i>ZNF132</i>	765	chr01:152487978-152488270	<i>CRCT1</i>
722	chr19:7794793-7796410	<i>CLEC4G</i>	766	chr01:156405160-156406350	<i>Non Coding Region</i>
723	chr19:7852932-7854557	<i>CLEC4GP1</i>	767	chr01:181451311-181452049	<i>CACNA1E</i>
724	chr20:10200088-10200384	<i>SNAP25</i>	768	chr01:50798667-50799536	<i>Non Coding Region</i>
725	chr20:21694472-21695344	<i>PAX1</i>	769	chr01:65731411-65731849	<i>DNAJC6</i>
726	chr20:25058288-25058726	<i>VSN1</i>	770	chr01:91190489-91192804	<i>Non Coding Region</i>
727	chr20:2780978-2781497	<i>CPXM1</i>	771	chr02:127643800-127644104	<i>Non Coding Region</i>
728	chr20:30062969-30063281	<i>REM1</i>	772	chr02:149632682-149633882	<i>KIF5C</i>
729	chr20:30582788-30583099	<i>XKR7</i>	773	chr02:45240372-45241579	<i>Non Coding Region</i>
730	chr20:30639908-30640786	<i>HCK</i>	774	chr03:142681137-142683268	<i>PAQR9</i>
731	chr20:34188719-34190267	<i>FER1L4</i>	775	chr03:16554327-16555413	<i>RFTN1</i>
732	chr20:34893891-34895214	<i>Non Coding Region</i>	776	chr03:42947480-42948170	<i>ZNF662</i>
733	chr20:37302813-37303388	<i>Non Coding Region</i>	777	chr04:123747740-123748980	<i>FGF2</i>
734	chr20:37352130-37357372	<i>SLC32A1</i>	778	chr04:81951941-81952808	<i>BMP3</i>
735	chr20:37434206-37435592	<i>PPP1R16B</i>	779	chr05:101632049-101632373	<i>SLCO4C1</i>
736	chr20:39316550-39319987	<i>MAFB</i>	780	chr05:15500076-15500923	<i>FBXL7</i>
737	chr20:41817475-41819212	<i>PTPRT</i>	781	chr06:100051018-100051972	<i>Non Coding Region</i>
738	chr20:42875764-42876184	<i>GDAP1L1</i>	782	chr06:100060979-100062657	<i>PRDM13</i>
739	chr20:44941342-44941569	<i>Non Coding Region</i>	783	chr06:117591533-117592279	<i>VGLL2</i>
740	chr20:45142000-45142337	<i>ZNF334</i>	784	chr06:125283124-125284389	<i>STL</i>
741	chr20:47934839-47935684	<i>Non Coding Region</i>	785	chr06:1378445-1379318	<i>Non Coding Region</i>
742	chr20:49639071-49640212	<i>KCNG1</i>	786	chr06:153450992-153452792	<i>RGS17</i>
743	chr20:53091733-53092993	<i>DOK5</i>	787	chr06:88875397-88877449	<i>CNR1</i>
744	chr20:55500347-55501102	<i>Non Coding Region</i>	788	chr07:140772358-140774560	<i>Non Coding Region</i>
745	chr20:57089460-57090237	<i>APCDD1L</i>	789	chr07:27195601-27196567	<i>HOXA7</i>
746	chr20:58179808-58180787	<i>PHACTR3</i>	790	chr07:4922707-4923576	<i>RADIL</i>
747	chr20:61049361-61051897	<i>GATA5</i>	791	chr07:87229551-87229890	<i>ABCB1</i>
748	chr20:61806254-61810867	<i>Non Coding Region</i>	792	chr08:72459564-72460523	<i>Non Coding Region</i>
749	chr20:61884644-61886387	<i>NKAIN4,FLJ16779</i>	793	chr08:99438692-99440425	<i>KCNS2</i>
750	chr20:62102541-62103995	<i>KCNQ2</i>	794	chr10:101292436-101292851	<i>NKX2-3</i>
751	chr20:8112884-8113592	<i>PLCB1</i>	795	chr10:102497154-102497675	<i>Non Coding Region</i>
752	chr21:19617098-19617874	<i>CHODL</i>	796	chr10:118895963-118898037	<i>VAX1</i>
753	chr21:27011624-27012398	<i>JAM2</i>	797	chr10:118922351-118923520	<i>Non Coding Region</i>
754	chr21:28337856-28340237	<i>ADAMTSS5</i>	798	chr10:119301321-119305368	<i>EMX2OS,EMX2</i>
755	chr21:34395128-34400245	<i>OLIG2</i>	799	chr10:23480697-23482455	<i>PTFLA</i>
756	chr21:47517651-47518999	<i>COL6A2</i>	800	chr10:48438411-48439320	<i>GDF10</i>
757	chr22:19136293-19138512	<i>GSC2</i>	801	chr10:94833272-94835256	<i>CYP26A1</i>
758	chr22:19510871-19512254	<i>CLDN5</i>	802	chr11:106888323-106890203	<i>GUCY1A2</i>
759	chr22:25678576-25679273	<i>Non Coding Region</i>	803	chr11:58672851-58673288	<i>Non Coding Region</i>
760	chr22:39853323-39854065	<i>MGAT3</i>	804	chr12:133484658-133485739	<i>Non Coding Region</i>
761	chr22:44257942-44258612	<i>SULT4A1</i>	805	chr12:39299248-39299629	<i>CPNE8</i>
762	chrX:6144120-6145906	<i>NLGN4X</i>	806	chr12:47224912-47225664	<i>Non Coding Region</i>
763	chrX:8698857-8700500	<i>KALI</i>	807	chr13:112726281-112728419	<i>Non Coding Region</i>
Alternative Markers: Lower in CRC for Group 1 set			808	chr13:28674227-28675170	<i>FLT3</i>
764	chr01:148853996-148855761	<i>Non Coding Region</i>	809	chr13:79175610-79177985	<i>POU4F1</i>

Figure 461

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Order	Coordinate of CpG (hg19)	Gene
810	chr14:36002598-36005013	<i>INSM2</i>
811	chr14:36993488-36994488	<i>Non Coding Region</i>
812	chr14:52534581-52536722	<i>NID2</i>
813	chr15:60296135-60298520	<i>FOXB1</i>
814	chr15:83875648-83877079	<i>HDGFRP3</i>
815	chr16:86541430-86545228	<i>FOXF1</i>
816	chr17:79448218-79448827	<i>Non Coding Region</i>
817	chr18:5196243-5197389	<i>LOC642597</i>
818	chr18:74961556-74963822	<i>GALR1</i>
819	chr20:43438737-43439546	<i>RIMS4</i>
820	chr20:56803282-56804112	<i>Non Coding Region</i>
821	chr21:34442206-34444543	<i>OLIG1</i>

Figure 46J

Group 2 Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 2 Markers			Preferred Group 2 Markers	
1	Chr01: 12227700 12227701	<i>TNFRSF1B</i>	48	Chr08: 23021690 23021691	<i>TNFRSF10D</i>
2	Chr01: 151694320 151694321	<i>C1orf230</i>	49	Chr09: 129388668 129388669	<i>LMX1B</i>
3	Chr01: 155043561 155043562	<i>Non Coding Region</i>	50	Chr09: 129445599 129445600	<i>LMX1B</i>
4	Chr01: 155043744 155043745	<i>Non Coding Region</i>	51	Chr10: 119294173 119294174	<i>EMX2OS</i>
5	Chr01: 179545091 179545092	<i>NPHS2</i>	52	Chr10: 119296297 119296298	<i>EMX2OS</i>
6	Chr01: 179545134 179545135	<i>NPHS2</i>	53	Chr10: 18429760 18429761	<i>CACNB2</i>
7	Chr01: 184633273 184633274	<i>Non Coding Region</i>	54	Chr11: 2292691 2292692	<i>ASCL2</i>
8	Chr01: 219347021 219347022	<i>LYPLAL1</i>	55	Chr11: 61062902 61062903	<i>VWCE</i>
9	Chr01: 219347458 219347459	<i>LYPLAL1</i>	56	Chr11: 71952356 71952357	<i>PHOX2A</i>
10	Chr01: 219834537 219834538	<i>Non Coding Region</i>	57	Chr11: 76033391 76033392	<i>Non Coding Region</i>
11	Chr01: 223937043 223937044	<i>CAPN2</i>	58	Chr11: 76382149 76382150	<i>LRRC32</i>
12	Chr01: 66999588 66999589	<i>SGIP1</i>	59	Chr12: 104609476 104609477	<i>TXNRD1</i>
13	Chr01: 997858 997859	<i>Non Coding Region</i>	60	Chr12: 104609609 104609610	<i>TXNRD1</i>
14	Chr02: 134325873 134325874	<i>NCKAP5</i>	61	Chr12: 116946163 116946164	<i>Non Coding Region</i>
15	Chr02: 219738314 219738315	<i>WNT6</i>	62	Chr12: 116946354 116946355	<i>Non Coding Region</i>
16	Chr02: 25354776 25354777	<i>EFR3B</i>	63	Chr12: 130529951 130529952	<i>Non Coding Region</i>
17	Chr02: 26407628 26407629	<i>FAM59B</i>	64	Chr12: 14134486 14134487	<i>GRIN2B</i>
18	Chr02: 26408167 26408168	<i>FAM59B</i>	65	Chr12: 52652377 52652378	<i>Non Coding Region</i>
19	Chr02: 71192445 71192446	<i>ATP6V1B1</i>	66	Chr13: 24844880 24844881	<i>SPATA13</i>
20	Chr02: 85811432 85811433	<i>VAMP5</i>	67	Chr14: 105512071 105512072	<i>Non Coding Region</i>
21	Chr03: 10207069 10207070	<i>IRAK2</i>	68	Chr14: 105512268 105512269	<i>Non Coding Region</i>
22	Chr03: 137484364 137484365	<i>SOX14</i>	69	Chr14: 105512306 105512307	<i>Non Coding Region</i>
23	Chr03: 157261086 157261087	<i>C3orf55</i>	70	Chr14: 52734325 52734326	<i>PTGDR</i>
24	Chr03: 9904557 9904558	<i>Non Coding Region</i>	71	Chr14: 55348681 55348682	<i>GCH1</i>
25	Chr04: 46391728 46391729	<i>GABRA2</i>	72	Chr15: 41787780 41787781	<i>ITPKA</i>
26	Chr05: 134827512 134827513	<i>Non Coding Region</i>	73	Chr15: 79502127 79502128	<i>MIR184</i>
27	Chr05: 138728685 138728686	<i>LOC389333</i>	74	Chr17: 36204489 36204490	<i>LOC284100</i>
28	Chr05: 138728704 138728705	<i>LOC389333</i>	75	Chr17: 42083264 42083265	<i>PYY,NAGS</i>
29	Chr05: 43019873 43019874	<i>Non Coding Region</i>	76	Chr17: 42091713 42091714	<i>TMEM101</i>
30	Chr05: 43020451 43020452	<i>Non Coding Region</i>	77	Chr17: 42091909 42091910	<i>TMEM101</i>
31	Chr05: 87976902 87976903	<i>LOC645323</i>	78	Chr17: 42092403 42092404	<i>TMEM101</i>
32	Chr06: 137810767 137810768	<i>Non Coding Region</i>	79	Chr17: 42287971 42287972	<i>UBTF</i>
33	Chr06: 168197667 168197668	<i>C6orf123</i>	80	Chr17: 58498871 58498872	<i>C17orf64</i>
34	Chr06: 26044220 26044221	<i>HIST1H3C,HIST1H2BB</i>	81	Chr17: 58498977 58498978	<i>C17orf64</i>
35	Chr06: 27064769 27064770	<i>Non Coding Region</i>	82	Chr18: 19745458 19745459	<i>Non Coding Region</i>
36	Chr06: 28175578 28175579	<i>Non Coding Region</i>	83	Chr18: 3499253 3499254	<i>DLGAP1</i>
37	Chr06: 3232246 3232247	<i>Non Coding Region</i>	84	Chr18: 3499253 3499254	<i>DLGAP1</i>
38	Chr06: 7107108 7107109	<i>RREB1</i>	85	Chr19: 11354132 11354133	<i>DOCK6</i>
39	Chr07: 100091181 100091182	<i>C7orf51</i>	86	Chr19: 12978611 12978612	<i>MAST1</i>
40	Chr07: 100091255 100091256	<i>C7orf51</i>	87	Chr19: 13209548 13209549	<i>NFLX</i>
41	Chr07: 100091364 100091365	<i>C7orf51</i>	88	Chr19: 19932543 19932544	<i>ZNF506</i>
42	Chr07: 100203350 100203351	<i>PCOLCE</i>	89	Chr19: 54410030 54410031	<i>PRKCG</i>
43	Chr07: 23514347 23514348	<i>Non Coding Region</i>	90	Chr19: 55592342 55592343	<i>EPS8L1</i>
44	Chr07: 3083338 3083339	<i>CARD11</i>	91	Chr20: 3052483 3052484	<i>OXT</i>
45	Chr07: 64349450 64349451	<i>Non Coding Region</i>	92	Chr22: 19711023 19711024	<i>SEPT5,GP1BB</i>
46	Chr07: 95025829 95025830	<i>PON3</i>	93	Chr22: 19711036 19711037	<i>SEPT5,GP1BB</i>
47	Chr07: 95025836 95025837	<i>PON3</i>			

Figure 47A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Alternative markers for Group 2 set		138	Chr03: 169482358 169482359	<i>Non Coding Region</i>
94	Chr01: 12227700 12227701	<i>TNFRSF1B</i>	139	Chr03: 170137240 170137241	<i>CLDN11</i>
95	Chr01: 151694320 151694321	<i>C1orf230</i>	140	Chr03: 62861142 62861143	<i>CADPS</i>
96	Chr01: 155043561 155043562	<i>Non Coding Region</i>	141	Chr03: 62861145 62861146	<i>CADPS</i>
97	Chr01: 155043744 155043745	<i>Non Coding Region</i>	142	Chr03: 9904557 9904558	<i>Non Coding Region</i>
98	Chr01: 156815274 156815275	<i>NTRK1,INSRR</i>	143	Chr04: 174431058 174431059	<i>Non Coding Region</i>
99	Chr01: 165322199 165322200	<i>LMX1A</i>	144	Chr04: 46391728 46391729	<i>GABRA2</i>
100	Chr01: 179545091 179545092	<i>NPHS2</i>	145	Chr05: 113697330 113697331	<i>KCNN2</i>
101	Chr01: 179545134 179545135	<i>NPHS2</i>	146	Chr05: 113697897 113697898	<i>KCNN2</i>
102	Chr01: 184633273 184633274	<i>Non Coding Region</i>	147	Chr05: 137475002 137475003	<i>NME5</i>
103	Chr01: 200011858 200011859	<i>NR5A2</i>	148	Chr05: 138728685 138728686	<i>LOC389333</i>
104	Chr01: 219347021 219347022	<i>LYPLAL1</i>	149	Chr05: 138728704 138728705	<i>LOC389333</i>
105	Chr01: 219347410 219347411	<i>LYPLAL1</i>	150	Chr05: 138729068 138729069	<i>LOC389333</i>
106	Chr01: 219347458 219347459	<i>LYPLAL1</i>	151	Chr05: 153862183 153862184	<i>Non Coding Region</i>
107	Chr01: 219834537 219834538	<i>Non Coding Region</i>	152	Chr05: 2751854 2751855	<i>C5orf38,IRX2</i>
108	Chr01: 223937043 223937044	<i>CAPN2</i>	153	Chr05: 43019873 43019874	<i>Non Coding Region</i>
109	Chr01: 232940990 232940991	<i>KIAA1383</i>	154	Chr05: 43020451 43020452	<i>Non Coding Region</i>
110	Chr01: 232941176 232941177	<i>KIAA1383</i>	155	Chr05: 57878390 57878391	<i>RAB3C</i>
111	Chr01: 232941253 232941254	<i>KIAA1383</i>	156	Chr05: 57878953 57878954	<i>RAB3C</i>
112	Chr01: 241520598 241520599	<i>RGS7</i>	157	Chr05: 87976889 87976890	<i>LOC645323</i>
113	Chr01: 29101952 29101953	<i>Non Coding Region</i>	158	Chr05: 87976902 87976903	<i>LOC645323</i>
114	Chr01: 38600119 38600120	<i>Non Coding Region</i>	159	Chr06: 137810767 137810768	<i>Non Coding Region</i>
115	Chr01: 76540168 76540169	<i>ST6GALNAC3</i>	160	Chr06: 166401464 166401465	<i>C6orf176,LOC441177</i>
116	Chr01: 76540222 76540223	<i>ST6GALNAC3</i>	161	Chr06: 168197667 168197668	<i>C6orf123</i>
117	Chr01: 76540438 76540439	<i>ST6GALNAC3</i>	162	Chr06: 26044220 26044221	<i>HIST1H3C,HIST1H2BB</i>
118	Chr01: 997858 997859	<i>Non Coding Region</i>	163	Chr06: 26045532 26045533	<i>HIST1H3C</i>
119	Chr02: 134325873 134325874	<i>NCKAP5</i>	164	Chr06: 26045534 26045535	<i>HIST1H3C</i>
120	Chr02: 155554688 155554689	<i>KCNJ3</i>	165	Chr06: 27064769 27064770	<i>Non Coding Region</i>
121	Chr02: 173099597 173099598	<i>Non Coding Region</i>	166	Chr06: 27858380 27858381	<i>HIST1H3J</i>
122	Chr02: 173100097 173100098	<i>Non Coding Region</i>	167	Chr06: 28175578 28175579	<i>Non Coding Region</i>
123	Chr02: 176988580 176988581	<i>HOXD9</i>	168	Chr06: 28367749 28367750	<i>ZSCAN12</i>
124	Chr02: 219735876 219735877	<i>WNT6</i>	169	Chr06: 29692009 29692010	<i>HLA-F</i>
125	Chr02: 219738314 219738315	<i>WNT6</i>	170	Chr06: 29692011 29692012	<i>HLA-F</i>
126	Chr02: 25354776 25354777	<i>EFR3B</i>	171	Chr06: 3232246 3232247	<i>Non Coding Region</i>
127	Chr02: 26407628 26407629	<i>FAM59B</i>	172	Chr06: 32920962 32920963	<i>HLA-DMA</i>
128	Chr02: 26408167 26408168	<i>FAM59B</i>	173	Chr06: 6320710 6320711	<i>F13A1</i>
129	Chr02: 43020169 43020170	<i>HAAO</i>	174	Chr06: 7107108 7107109	<i>RREB1</i>
130	Chr02: 74741136 74741137	<i>TLX2</i>	175	Chr06: 75794800 75794801	<i>COL12A1</i>
131	Chr02: 79739940 79739941	<i>CTNNA2</i>	176	Chr06: 78176085 78176086	<i>Non Coding Region</i>
132	Chr02: 85804732 85804733	<i>VAMP8</i>	177	Chr07: 100091181 100091182	<i>C7orf51</i>
133	Chr03: 10207069 10207070	<i>IRAK2</i>	178	Chr07: 100091255 100091256	<i>C7orf51</i>
134	Chr03: 137484364 137484365	<i>SOX14</i>	179	Chr07: 100091364 100091365	<i>C7orf51</i>
135	Chr03: 147140754 147140755	<i>Non Coding Region</i>	180	Chr07: 100202882 100202883	<i>PCOLCE</i>
136	Chr03: 157261086 157261087	<i>C3orf55</i>	181	Chr07: 100203350 100203351	<i>PCOLCE</i>
137	Chr03: 157261106 157261107	<i>C3orf55</i>	182	Chr07: 154862021 154862022	<i>HTR5A</i>

Figure 47B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
183	Chr07: 23514347 23514348	<i>Non Coding Region</i>	229	Chr17: 42091909 42091910	<i>TMEM101</i>
184	Chr07: 3083338 3083339	<i>CARD11</i>	230	Chr17: 42092187 42092188	<i>TMEM101</i>
185	Chr07: 37960317 37960318	<i>EPDR1</i>	231	Chr17: 42092247 42092248	<i>TMEM101</i>
186	Chr07: 64349450 64349451	<i>Non Coding Region</i>	232	Chr17: 42092315 42092316	<i>TMEM101</i>
187	Chr07: 95025829 95025830	<i>PON3</i>	233	Chr17: 42092370 42092371	<i>TMEM101</i>
188	Chr08: 23021690 23021691	<i>TNFRSF10D</i>	234	Chr17: 42092403 42092404	<i>TMEM101</i>
189	Chr09: 129388668 129388669	<i>LMX1B</i>	235	Chr17: 42092431 42092432	<i>TMEM101</i>
190	Chr09: 129445599 129445600	<i>LMX1B</i>	236	Chr17: 42092450 42092451	<i>TMEM101</i>
191	Chr09: 136930919 136930920	<i>BRD3</i>	237	Chr17: 42092472 42092473	<i>TMEM101</i>
192	Chr10: 119294173 119294174	<i>EMX2OS</i>	238	Chr17: 42092488 42092489	<i>TMEM101</i>
193	Chr10: 119296297 119296298	<i>EMX2OS</i>	239	Chr17: 46714130 46714131	<i>Non Coding Region</i>
194	Chr10: 18429760 18429761	<i>CACNB2</i>	240	Chr17: 58498871 58498872	<i>C17orf64</i>
195	Chr11: 61062902 61062903	<i>VWCE</i>	241	Chr17: 58498977 58498978	<i>C17orf64</i>
196	Chr11: 63656090 63656091	<i>MARK2</i>	242	Chr17: 59531696 59531697	<i>Non Coding Region</i>
197	Chr11: 71952356 71952357	<i>PHOX2A</i>	243	Chr17: 9143754 9143755	<i>NTN1</i>
198	Chr11: 76033391 76033392	<i>Non Coding Region</i>	244	Chr18: 19745458 19745459	<i>Non Coding Region</i>
199	Chr11: 76382149 76382150	<i>LRRC32</i>	245	Chr18: 3499253 3499254	<i>DLGAP1</i>
200	Chr12: 104609476 104609477	<i>TXNRD1</i>	246	Chr18: 5238589 5238590	<i>C18orf18,LOC339290</i>
201	Chr12: 104609609 104609610	<i>TXNRD1</i>	247	Chr19: 11354132 11354133	<i>DOCK6</i>
202	Chr12: 116946163 116946164	<i>Non Coding Region</i>	248	Chr19: 12978611 12978612	<i>MAST1</i>
203	Chr12: 116946354 116946355	<i>Non Coding Region</i>	249	Chr19: 13209548 13209549	<i>NFLX</i>
204	Chr12: 130529951 130529952	<i>Non Coding Region</i>	250	Chr19: 14542965 14542966	<i>PKN1</i>
205	Chr12: 14134486 14134487	<i>GRIN2B</i>	251	Chr19: 19932543 19932544	<i>ZNF506</i>
206	Chr12: 93966317 93966318	<i>SOCS2</i>	252	Chr19: 20278144 20278145	<i>ZNF486</i>
207	Chr12: 93966485 93966486	<i>SOCS2</i>	253	Chr19: 35531859 35531860	<i>HPN</i>
208	Chr13: 24844880 24844881	<i>SPATA13</i>	254	Chr19: 46283080 46283081	<i>DMPK</i>
209	Chr13: 28491590 28491591	<i>Non Coding Region</i>	255	Chr19: 50554451 50554452	<i>FLJ26850</i>
210	Chr13: 28492425 28492426	<i>Non Coding Region</i>	256	Chr19: 50836391 50836392	<i>Non Coding Region</i>
211	Chr14: 103655424 103655425	<i>Non Coding Region</i>	257	Chr19: 50836561 50836562	<i>Non Coding Region</i>
212	Chr14: 103655568 103655569	<i>Non Coding Region</i>	258	Chr19: 50836910 50836911	<i>Non Coding Region</i>
213	Chr14: 105512071 105512072	<i>Non Coding Region</i>	259	Chr19: 54410030 54410031	<i>PRKCG</i>
214	Chr14: 105512213 105512214	<i>Non Coding Region</i>	260	Chr19: 54485494 54485495	<i>CACNG8,MIR935</i>
215	Chr14: 105512268 105512269	<i>Non Coding Region</i>	261	Chr19: 54486058 54486059	<i>CACNG8</i>
216	Chr14: 105512306 105512307	<i>Non Coding Region</i>	262	Chr19: 55592342 55592343	<i>EPSSL1</i>
217	Chr14: 21101007 21101008	<i>Non Coding Region</i>	263	Chr19: 56915653 56915654	<i>ZNF583</i>
218	Chr14: 52734325 52734326	<i>PTGDR</i>	264	Chr19: 56915658 56915659	<i>ZNF583</i>
219	Chr14: 52734397 52734398	<i>PTGDR</i>	265	Chr19: 56915732 56915733	<i>ZNF583</i>
220	Chr14: 52735485 52735486	<i>PTGDR</i>	266	Chr19: 58011309 58011310	<i>ZNF773</i>
221	Chr14: 55348681 55348682	<i>GCH1</i>	267	Chr19: 6482062 6482063	<i>DENND1C</i>
222	Chr15: 33011166 33011167	<i>GREM1</i>	268	Chr20: 21503898 21503899	<i>Non Coding Region</i>
223	Chr15: 79502127 79502128	<i>MIR184</i>	269	Chr20: 3052483 3052484	<i>OXT</i>
224	Chr16: 72821566 72821567	<i>ZFH3</i>	270	Chr22: 19711023 19711024	<i>SEPT5,GP1BB</i>
225	Chr17: 33673036 33673037	<i>Non Coding Region</i>	271	Chr22: 19711036 19711037	<i>SEPT5,GP1BB</i>
226	Chr17: 36105239 36105240	<i>HNF1B</i>	272	Chr22: 39417451 39417452	<i>APOBEC3D</i>
227	Chr17: 42083264 42083265	<i>PYY,NAGS</i>	273	ChrX: 114957471 114957472	<i>Non Coding Region</i>
228	Chr17: 42091713 42091714	<i>TMEM101</i>			

Figure 47C

Group 2 Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 2 Markers			Preferred Group 2 Markers	
1	chr01:12226876-12227712	<i>TNFRSF1B</i>	46	chr12:104609397-104610172	<i>TXNRD1</i>
2	chr01:151693991-151694282	<i>C1orf230</i>	47	chr12:116946195-116946607	<i>Non Coding Region</i>
3	chr01:155043412-155043922	<i>Non Coding Region</i>	48	chr12:130526915-130527117	<i>Non Coding Region</i>
4	chr01:179544720-179545307	<i>NPHS2</i>	49	chr12:14134626-14135242	<i>GRIN2B</i>
5	chr01:184633223-184633663	<i>Non Coding Region</i>	50	chr12:52652018-52652743	<i>Non Coding Region</i>
6	chr01:219347109-219347572	<i>LYPLAL1</i>	51	chr14:105512055-105512307	<i>Non Coding Region</i>
7	chr01:223936342-223937044	<i>CAPN2</i>	52	chr14:52734207-52735486	<i>PTGDR</i>
8	chr01:66998728-66999060	<i>SGIP1</i>	53	chr15:41785616-41788539	<i>ITPKA</i>
9	chr01:999678-999911	<i>Non Coding Region</i>	54	chr17:42082027-42084972	<i>PYY,NAGS</i>
10	chr02:219738081-219738788	<i>WNT6</i>	55	chr17:42091712-42091948	<i>TMEM101</i>
11	chr02:25354283-25354777	<i>EFR3B</i>	56	chr17:42092143-42092432	<i>TMEM101</i>
12	chr02:26407422-26408253	<i>FAM59B</i>	57	chr17:42287692-42288392	<i>UBTF</i>
13	chr02:71192094-71192495	<i>ATP6V1B1</i>	58	chr17:58498711-58499332	<i>C17orf64</i>
14	chr02:85811340-85811855	<i>VAMP5</i>	59	chr18:19744936-19752363	<i>Non Coding Region</i>
15	chr03:10206449-10207024	<i>IRAK2</i>	60	chr18:3498941-3499358	<i>DLGAP1</i>
16	chr03:137482964-137484454	<i>SOX14</i>	61	chr19:11353960-11354362	<i>DOCK6</i>
17	chr03:157260666-157261224	<i>C3orf55</i>	62	chr19:12978359-12978785	<i>MAST1</i>
18	chr03:9904331-9904811	<i>Non Coding Region</i>	63	chr19:13208343-13210525	<i>NFIX</i>
19	chr04:46391903-46392572	<i>GABRA2</i>	64	chr19:54409966-54410200	<i>PRKCG</i>
20	chr05:134827285-134827644	<i>Non Coding Region</i>	65	chr19:55591905-55593980	<i>EPS8L1</i>
21	chr05:138727710-138730911	<i>LOC389333</i>	66	chr20:3052097-3053103	<i>OXT</i>
22	chr05:43017968-43018668	<i>Non Coding Region</i>	67	chr22:19709081-19712106	<i>SEPT5,GP1BB</i>
23	chr05:87976094-87976546	<i>LOC645323</i>	Alternative markers for Group 2 set		
24	chr06:137809342-137810204	<i>Non Coding Region</i>	68	chr01:156814881-156815792	<i>NTRK1,INSRR</i>
25	chr06:168197142-168198164	<i>C6orf123</i>	69	chr01:165321703-165322318	<i>LMX1A</i>
26	chr06:26044203-26044469	<i>HIST1H3C,HIST1H2BB</i>	70	chr01:200011400-200012055	<i>NR5A2</i>
27	chr06:27064628-27065004	<i>Non Coding Region</i>	71	chr01:232941054-232941707	<i>KIAA1383</i>
28	chr06:28175282-28175605	<i>Non Coding Region</i>	72	chr01:241520103-241520790	<i>RGS7</i>
29	chr06:3231595-3232289	<i>Non Coding Region</i>	73	chr01:29101790-29102069	<i>Non Coding Region</i>
30	chr06:7107075-7109854	<i>RREB1</i>	74	chr01:76540147-76540653	<i>ST6GALNAC3</i>
31	chr07:100091180-100091598	<i>C7orf51</i>	75	chr02:155554005-155556069	<i>KCNJ3</i>
32	chr07:100201614-100203652	<i>PCOLCE</i>	76	chr02:173099482-173100098	<i>Non Coding Region</i>
33	chr07:23513534-23514412	<i>Non Coding Region</i>	77	chr02:176989337-176989587	<i>HOXD9</i>
34	chr07:64349424-64350151	<i>Non Coding Region</i>	78	chr02:219736132-219736592	<i>WNT6</i>
35	chr07:95025559-95026122	<i>PON3</i>	79	chr02:43019665-43020509	<i>HAAO</i>
36	chr08:23021056-23021588	<i>TNFRSF10D</i>	80	chr02:74740455-74743795	<i>TLX2</i>
37	chr09:129386112-129389231	<i>LMX1B</i>	81	chr02:79739696-79740243	<i>CTNNA2</i>
38	chr09:129445270-129445548	<i>LMX1B</i>	82	chr03:147142181-147142391	<i>Non Coding Region</i>
39	chr10:119293917-119297675	<i>EMX2OS</i>	83	chr03:169482338-169483052	<i>Non Coding Region</i>
40	chr10:18429125-18430234	<i>CACNB2</i>	84	chr03:170136242-170137886	<i>CLDN11</i>
41	chr11:2290104-2292932	<i>ASCL2</i>	85	chr03:62859617-62861190	<i>CADPS</i>
42	chr11:61061751-61063063	<i>VWCE</i>	86	chr04:174430386-174430861	<i>Non Coding Region</i>
43	chr11:71952112-71952528	<i>PHOX2A</i>	87	chr05:113696516-113699195	<i>KCNN2</i>
44	chr11:76032911-76033392	<i>Non Coding Region</i>	88	chr05:153862142-153862451	<i>Non Coding Region</i>
45	chr11:76381449-76382295	<i>LRRC32</i>	89	chr05:2748368-2757024	<i>C5orf38,IRX2</i>

Figure 48A

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Order	Coordinate of CpG (hg19)	Gene
90	chr05:57878725-57879177	<i>RAB3C</i>
91	chr06:166401526-166402659	<i>C6orf176,LOC441177</i>
92	chr06:26045644-26046033	<i>HIST1H3C</i>
93	chr06:27858166-27858564	<i>HIST1H3J</i>
94	chr06:28367124-28367651	<i>ZSCAN12</i>
95	chr06:29691106-29692093	<i>HLA-F</i>
96	chr06:75794880-75795088	<i>COL12A1</i>
97	chr06:78172231-78174088	<i>Non Coding Region</i>
98	chr07:154861797-154862074	<i>HTR5A</i>
99	chr07:37960316-37961046	<i>EPDR1</i>
100	chr12:93963963-93967395	<i>SOCS2</i>
101	chr13:28491488-28492518	<i>Non Coding Region</i>
102	chr14:103655241-103655928	<i>Non Coding Region</i>
103	chr14:21100838-21101043	<i>Non Coding Region</i>
104	chr15:33009530-33011696	<i>GREM1</i>
105	chr16:72821140-72821592	<i>ZFH3</i>
106	chr17:36105334-36105583	<i>HNF1B</i>
107	chr17:46713926-46714131	<i>Non Coding Region</i>
108	chr17:59531723-59535254	<i>Non Coding Region</i>
109	chr17:9142980-9143839	<i>NTN1</i>
110	chr18:5237723-5238674	<i>C18orf18,LOC339290</i>
111	chr19:14542768-14543102	<i>PKN1</i>
112	chr19:35531780-35531991	<i>HPN</i>
113	chr19:46282544-46283127	<i>DMPK</i>
114	chr19:50554012-50554492	<i>FLJ26850</i>
115	chr19:50836390-50837447	<i>Non Coding Region</i>
116	chr19:54485303-54486322	<i>CACNG8,MIR935</i>
117	chr19:56915356-56915856	<i>ZNF583</i>
118	chr19:58011124-58011743	<i>ZNF773</i>
119	chr20:21501961-21503931	<i>Non Coding Region</i>
120	chrX:114959730-115005442	<i>Non Coding Region</i>

Figure 48B

Group 3 Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 3 Markers			Preferred Group 3 Markers	
1	Chr01: 110611465 110611466	<i>ALX3</i>	42	Chr07: 27205224 27205225	<i>HOXA9</i>
2	Chr01: 156405438 156405439	<i>Non Coding Region</i>	43	Chr07: 27205230 27205231	<i>HOXA9</i>
3	Chr01: 170630558 170630559	<i>Non Coding Region</i>	44	Chr07: 27208285 27208286	<i>Non Coding Region</i>
4	Chr01: 170637723 170637724	<i>PRRX1</i>	45	Chr07: 27213610 27213611	<i>HOXA10</i>
5	Chr01: 200009830 200009831	<i>NR5A2</i>	46	Chr07: 27225058 27225059	<i>HOXA11AS,HOXA11</i>
6	Chr01: 200011858 200011859	<i>NR5A2</i>	47	Chr07: 27225523 27225524	<i>HOXA11AS,HOXA11</i>
7	Chr01: 223302861 223302862	<i>TLR5</i>	48	Chr07: 27225528 27225529	<i>HOXA11AS,HOXA11</i>
8	Chr01: 226288430 226288431	<i>Non Coding Region</i>	49	Chr07: 42267747 42267748	<i>GLI3</i>
9	Chr01: 29586414 29586415	<i>PTPRU</i>	50	Chr07: 64349133 64349134	<i>Non Coding Region</i>
10	Chr01: 29586418 29586419	<i>PTPRU</i>	51	Chr07: 64349557 64349558	<i>Non Coding Region</i>
11	Chr01: 44883362 44883363	<i>RNF220</i>	52	Chr07: 96650171 96650172	<i>DLX5</i>
12	Chr01: 47999163 47999164	<i>Non Coding Region</i>	53	Chr08: 101822108 101822109	<i>Non Coding Region</i>
13	Chr02: 173099597 173099598	<i>Non Coding Region</i>	54	Chr08: 124173231 124173232	<i>Non Coding Region</i>
14	Chr02: 175208605 175208606	<i>Non Coding Region</i>	55	Chr10: 122708532 122708533	<i>Non Coding Region</i>
15	Chr02: 176987462 176987463	<i>HOXD9</i>	56	Chr10: 122708739 122708740	<i>Non Coding Region</i>
16	Chr02: 176987465 176987466	<i>HOXD9</i>	57	Chr11: 68622739 68622740	<i>Non Coding Region</i>
17	Chr02: 177001263 177001264	<i>Non Coding Region</i>	58	Chr11: 75527994 75527995	<i>UVRAG</i>
18	Chr02: 177021826 177021827	<i>Non Coding Region</i>	59	Chr12: 54409491 54409492	<i>HOXC5,HOXC4,HOXC6</i>
19	Chr02: 177039862 177039863	<i>Non Coding Region</i>	60	Chr12: 57618943 57618944	<i>NXPH4</i>
20	Chr02: 45240563 45240564	<i>Non Coding Region</i>	61	Chr15: 33011166 33011167	<i>GREM1</i>
21	Chr02: 62798365 62798366	<i>Non Coding Region</i>	62	Chr15: 45479755 45479756	<i>SHF</i>
22	Chr03: 107318032 107318033	<i>BBX</i>	63	Chr15: 75251491 75251492	<i>Non Coding Region</i>
23	Chr03: 181421427 181421428	<i>SOX2OT</i>	64	Chr15: 76633981 76633982	<i>ISL2</i>
24	Chr04: 16085606 16085607	<i>PROM1</i>	65	Chr16: 23847325 23847326	<i>PRKCB</i>
25	Chr04: 56813898 56813899	<i>CEP135</i>	66	Chr16: 31488238 31488239	<i>TGFB1I1</i>
26	Chr05: 153862183 153862184	<i>Non Coding Region</i>	67	Chr16: 56672387 56672388	<i>MT1A</i>
27	Chr05: 40681137 40681138	<i>PTGER4</i>	68	Chr16: 85932666 85932667	<i>IRF8</i>
28	Chr05: 40681893 40681894	<i>PTGER4</i>	69	Chr17: 3438933 3438934	<i>TRPV3</i>
29	Chr05: 42995203 42995204	<i>Non Coding Region</i>	70	Chr17: 46655394 46655395	<i>HOXB4</i>
30	Chr05: 72595741 72595742	<i>Non Coding Region</i>	71	Chr17: 46655588 46655589	<i>HOXB4</i>
31	Chr05: 72732486 72732487	<i>Non Coding Region</i>	72	Chr17: 46655818 46655819	<i>HOXB4</i>
32	Chr06: 6004207 6004208	<i>NRN1</i>	73	Chr17: 46655829 46655830	<i>HOXB4</i>
33	Chr07: 113722758 113722759	<i>Non Coding Region</i>	74	Chr17: 46655836 46655837	<i>HOXB4</i>
34	Chr07: 113723162 113723163	<i>Non Coding Region</i>	75	Chr17: 53341243 53341244	<i>HLF</i>
35	Chr07: 113723569 113723570	<i>Non Coding Region</i>	76	Chr19: 6482062 6482063	<i>DENND1C</i>
36	Chr07: 27192061 27192062	<i>Non Coding Region</i>	77	Chr20: 21081901 21081902	<i>Non Coding Region</i>
37	Chr07: 27192246 27192247	<i>Non Coding Region</i>	78	Chr20: 55200146 55200147	<i>Non Coding Region</i>
38	Chr07: 27195918 27195919	<i>HOXA7</i>	79	Chr22: 19754251 19754252	<i>TBX1</i>
39	Chr07: 27204005 27204006	<i>HOXA9</i>	80	Chr22: 19754448 19754449	<i>TBX1</i>
40	Chr07: 27204349 27204350	<i>HOXA9</i>	81	Chr22: 46366859 46366860	<i>WNT7B</i>
41	Chr07: 27204981 27204982	<i>HOXA9</i>	82	Chr22: 46367617 46367618	<i>WNT7B</i>

Figure 49

Group 3 Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 3 Markers			Preferred Group 3 Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	29	chr07:27208871-27209616	<i>Non Coding Region</i>
2	chr01:156405160-156406350	<i>Non Coding Region</i>	30	chr07:27212416-27214396	<i>HOXA10</i>
3	chr01:170630456-170630851	<i>Non Coding Region</i>	31	chr07:27225050-27225629	<i>HOXA11AS,HOXA11</i>
4	chr01:170633274-170634178	<i>PRRX1</i>	32	chr07:42267546-42267823	<i>GLI3</i>
5	chr01:200009807-200010036	<i>NR5A2</i>	33	chr07:64349424-64350151	<i>Non Coding Region</i>
6	chr01:200011400-200012055	<i>NR5A2</i>	34	chr07:96650221-96651551	<i>DLX5</i>
7	chr01:29585897-29586598	<i>PTPRU</i>	35	chr08:124172800-124173541	<i>Non Coding Region</i>
8	chr01:44883136-44884272	<i>RNF220</i>	36	chr10:122708510-122708899	<i>Non Coding Region</i>
9	chr01:47998899-47999517	<i>Non Coding Region</i>	37	chr11:68622722-68623252	<i>Non Coding Region</i>
10	chr02:173099482-173100098	<i>Non Coding Region</i>	38	chr11:75526396-75526926	<i>UVRAG</i>
11	chr02:175208415-175209076	<i>Non Coding Region</i>	39	chr12:54408426-54408713	<i>HOXC5,HOXC4,HOXC6</i>
12	chr02:176986424-176988291	<i>HOXD9</i>	40	chr12:57618769-57619402	<i>NXPH4</i>
13	chr02:177001221-177001783	<i>Non Coding Region</i>	41	chr15:33009530-33011696	<i>GREM1</i>
14	chr02:177024501-177025692	<i>Non Coding Region</i>	42	chr15:45479509-45480498	<i>SHF</i>
15	chr02:177039551-177039951	<i>Non Coding Region</i>	43	chr15:75251467-75251773	<i>Non Coding Region</i>
16	chr02:45240372-45241579	<i>Non Coding Region</i>	44	chr15:76632262-76635515	<i>ISL2</i>
17	chr04:16084195-16085735	<i>PROM1</i>	45	chr16:23846941-23848102	<i>PRKCB</i>
18	chr04:56814800-56815511	<i>CEP135</i>	46	chr16:31487152-31488967	<i>TGFB111</i>
19	chr05:153862142-153862451	<i>Non Coding Region</i>	47	chr16:56671937-56672530	<i>MT1A</i>
20	chr05:40679502-40682081	<i>PTGER4</i>	48	chr16:85932121-85932942	<i>IRF8</i>
21	chr05:42995122-42995415	<i>Non Coding Region</i>	49	chr17:3438841-3439046	<i>TRPV3</i>
22	chr05:72594147-72595808	<i>Non Coding Region</i>	50	chr17:46654053-46654369	<i>HOXB4</i>
23	chr05:72732365-72733732	<i>Non Coding Region</i>	51	chr17:46655215-46655604	<i>HOXB4</i>
24	chr06:6002471-6005125	<i>NRN1</i>	52	chr17:53342198-53343061	<i>HLF</i>
25	chr07:113724924-113727795	<i>Non Coding Region</i>	53	chr20:21080929-21082824	<i>Non Coding Region</i>
26	chr07:27190274-27191115	<i>Non Coding Region</i>	54	chr20:55200279-55206789	<i>Non Coding Region</i>
27	chr07:27195601-27196567	<i>HOXA7</i>	55	chr22:19753312-19755013	<i>TBX1</i>
28	chr07:27203915-27206462	<i>HOXA9</i>	56	chr22:46366726-46368726	<i>WNT7B</i>

Figure 50

Group 4 Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 4 Markers			Preferred Group 4 Markers	
1	Chr01: 1072642 1072643	<i>Non Coding Region</i>	36	Chr10: 45914276 45914277	<i>ALOX5</i>
2	Chr01: 244893503 244893504	<i>Non Coding Region</i>	37	Chr10: 73846858 73846859	<i>SPOCK2</i>
3	Chr01: 24648984 24648985	<i>GRHL3</i>	38	Chr11: 47208959 47208960	<i>PACSLN3</i>
4	Chr01: 29586299 29586300	<i>PTPRU</i>	39	Chr11: 67351490 67351491	<i>GSTP1</i>
5	Chr01: 41848436 41848437	<i>Non Coding Region</i>	40	Chr12: 54089497 54089498	<i>Non Coding Region</i>
6	Chr02: 21022587 21022588	<i>C2orf43</i>	41	Chr12: 54422350 54422351	<i>HOXC5,HOXC4,HOXC6</i>
7	Chr02: 232479675 232479676	<i>Non Coding Region</i>	42	Chr12: 54427636 54427637	<i>HOXC5,HOXC4</i>
8	Chr03: 170625872 170625873	<i>EIF5A2</i>	43	Chr12: 99139571 99139572	<i>ANKS1B</i>
9	Chr03: 196755973 196755974	<i>MF12</i>	44	Chr13: 113623233 113623234	<i>MCF2L</i>
10	Chr04: 8271391 8271392	<i>HTRA3</i>	45	Chr13: 28492425 28492426	<i>Non Coding Region</i>
11	Chr04: 87281281 87281282	<i>MAPK10</i>	46	Chr14: 24838008 24838009	<i>NFATC4</i>
12	Chr05: 131800430 131800431	<i>Non Coding Region</i>	47	Chr15: 70878049 70878050	<i>Non Coding Region</i>
13	Chr05: 150536851 150536852	<i>ANXA6</i>	48	Chr15: 90039822 90039823	<i>RHCG</i>
14	Chr05: 50263586 50263587	<i>Non Coding Region</i>	49	Chr15: 96888959 96888960	<i>Non Coding Region</i>
15	Chr05: 52778745 52778746	<i>FST</i>	50	Chr16: 68118754 68118755	<i>NFATC3</i>
16	Chr06: 106958303 106958304	<i>AIM1</i>	51	Chr17: 1131781 1131782	<i>Non Coding Region</i>
17	Chr06: 106958388 106958389	<i>AIM1</i>	52	Chr17: 18908220 18908221	<i>SLC5A10,FAM83G</i>
18	Chr06: 106958474 106958475	<i>AIM1</i>	53	Chr17: 18908235 18908236	<i>SLC5A10,FAM83G</i>
19	Chr06: 2903533 2903534	<i>SERPINB9</i>	54	Chr17: 18908235 18908236	<i>SLC5A10,FAM83G</i>
20	Chr06: 2903535 2903536	<i>SERPINB9</i>	55	Chr17: 18908242 18908243	<i>SLC5A10,FAM83G</i>
21	Chr06: 29692000 29692001	<i>HLA-F</i>	56	Chr17: 41363741 41363742	<i>TMEM106A</i>
22	Chr06: 29894831 29894832	<i>HCG4P6</i>	57	Chr17: 41363899 41363900	<i>TMEM106A</i>
23	Chr06: 29974251 29974252	<i>HLA-J,NCRNA00171</i>	58	Chr17: 42402882 42402883	<i>SLC25A39</i>
24	Chr06: 29974717 29974718	<i>HLA-J,NCRNA00171</i>	59	Chr17: 48503163 48503164	<i>ACSF2</i>
25	Chr06: 29974971 29974972	<i>HLA-J,NCRNA00171</i>	60	Chr17: 74965708 74965709	<i>Non Coding Region</i>
26	Chr06: 29975068 29975069	<i>HLA-J,NCRNA00171</i>	61	Chr17: 75447478 75447479	<i>SEPTIN9</i>
27	Chr06: 31831553 31831554	<i>SLC44A4,NEU1</i>	62	Chr17: 75447504 75447505	<i>SEPTIN9</i>
28	Chr07: 141211627 141211628	<i>Non Coding Region</i>	63	Chr17: 76355701 76355702	<i>SOCS3</i>
29	Chr07: 141211956 141211957	<i>Non Coding Region</i>	64	Chr19: 10397642 10397643	<i>ICAM4</i>
30	Chr07: 3018391 3018392	<i>CARD11</i>	65	Chr19: 11199917 11199918	<i>LDLR</i>
31	Chr08: 107669783 107669784	<i>OXR1</i>	66	Chr19: 16187631 16187632	<i>TPM4</i>
32	Chr08: 107669856 107669857	<i>OXR1</i>	67	Chr19: 17958647 17958648	<i>JAK3</i>
33	Chr10: 101280209 101280210	<i>Non Coding Region</i>	68	Chr19: 1857434 1857435	<i>KLF16</i>
34	Chr10: 3109053 3109054	<i>PFKP</i>	69	Chr19: 49200058 49200059	<i>FUT2</i>
35	Chr10: 43429459 43429460	<i>Non Coding Region</i>	70	Chr20: 50158057 50158058	<i>NFATC2</i>

Figure 51

Group 4 Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 4 Markers			Preferred Group 4 Markers	
1	chr01:1072369-1072847	<i>Non Coding Region</i>	28	chr12:54089211-54089413	<i>Non Coding Region</i>
2	chr01:244893441-244894366	<i>Non Coding Region</i>	29	chr12:54423427-54423712	<i>HOXC5,HOXC4,HOXC6</i>
3	chr01:24648202-24648985	<i>GRHL3</i>	30	chr12:54427025-54428709	<i>HOXC5,HOXC4</i>
4	chr01:29585897-29586598	<i>PTPRU</i>	31	chr12:99139386-99139769	<i>ANKS1B</i>
5	chr01:41847264-41849204	<i>Non Coding Region</i>	32	chr13:113622737-113623660	<i>MCF2L</i>
6	chr02:21022564-21022934	<i>C2orf43</i>	33	chr13:28491488-28492518	<i>Non Coding Region</i>
7	chr02:232478359-232479925	<i>Non Coding Region</i>	34	chr14:24837872-24838324	<i>NFATC4</i>
8	chr03:170625831-170626841	<i>EIF5A2</i>	35	chr15:70877380-70877958	<i>Non Coding Region</i>
9	chr03:196755677-196757374	<i>MF12</i>	36	chr15:90039464-90039984	<i>RHCG</i>
10	chr04:8271214-8272091	<i>HTRA3</i>	37	chr15:96888958-96889417	<i>Non Coding Region</i>
11	chr05:150537019-150537418	<i>ANXA6</i>	38	chr16:68118564-68119986	<i>NFATC3</i>
12	chr05:50265085-50265737	<i>Non Coding Region</i>	39	chr17:1131877-1133367	<i>Non Coding Region</i>
13	chr05:52777788-52777996	<i>FST</i>	40	chr17:18906909-18908243	<i>SLC5A10,FAM183G</i>
14	chr06:106958232-106958718	<i>AIM1</i>	41	chr17:41363727-41364273	<i>TMEM106A</i>
15	chr06:2903175-2903906	<i>SERPINB9</i>	42	chr17:42402787-42403266	<i>SLC25A39</i>
16	chr06:29691106-29692093	<i>HLA-F</i>	43	chr17:48503056-48503887	<i>ACSF2</i>
17	chr06:29894140-29895117	<i>HCG4P6</i>	44	chr17:74965089-74965303	<i>Non Coding Region</i>
18	chr06:29974220-29975369	<i>HLA-J,NCRNA00171</i>	45	chr17:75447477-75447821	<i>SEPTIN9</i>
19	chr06:31830299-31830948	<i>SLC44A4,NEU1</i>	46	chr17:76354818-76357038	<i>SOCS3</i>
20	chr08:107669777-107670591	<i>OXR1</i>	47	chr19:10397603-10398703	<i>ICAM4</i>
21	chr10:101279941-101280382	<i>Non Coding Region</i>	48	chr19:11200919-11201686	<i>LDLR</i>
22	chr10:3108650-3111419	<i>PFKP</i>	49	chr19:16186789-16188275	<i>TPM4</i>
23	chr10:43428167-43429460	<i>Non Coding Region</i>	50	chr19:17958490-17958808	<i>JAK3</i>
24	chr10:45914374-45914883	<i>ALOX5</i>	51	chr19:1856725-1857443	<i>KLF16</i>
25	chr10:73846806-73848233	<i>SPOCK2</i>	52	chr19:49199964-49200184	<i>FUT2</i>
26	chr11:47207188-47209176	<i>PACSIN3</i>	53	chr20:50158904-50159509	<i>NFATC2</i>
27	chr11:67350928-67351953	<i>GSTP1</i>			

Figure 52

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Group 5 ncRNA markers

Order	Gene ID	Coordinate (GRCh38)	ENSEMBL ID
1	AL365181.2	chr1:156597173-156599410	ENSG00000280316.1
2	SERTAD4-AS1	chr1:210231456-210234047	ENSG00000203706.7
3	RP11-333I13.1	chr2:46777783-46780245	ENSG00000260977.1
4	RP11-427M20.1	chr4:133871246-134010690	ENSG00000251388.1
5	CTB-35F21.4	chr5:139848290-139856389	ENSG00000250692.1
6	AC093668.2	chr7:102480080-102480165	ENSG00000271745.1
7	LINC00702	chr10:4201141-4243912	ENSG00000233117.2
8	RP11-455B2.9	chr10:15171036-15171278	ENSG00000228181.1
9	RP11-57H14.4	chr10:112823490-112827726	ENSG00000260917.1
10	RP11-288A5.2	chr10:127734562-127736996	ENSG00000279725.1
11	RP11-890B15.3	chr11:130866254-130870247	ENSG00000255455.2
12	RP11-131L12.4	chr12:118430147-118430699	ENSG00000275409.1
13	SACS-AS1	chr13:23418971-23428869	ENSG00000229558.2
14	RP11-227D13.1	chr15:48645951-48652016	ENSG00000259705.1
15	RP11-463O9.9	chr16:86520383-86523897	ENSG00000270020.1
16	CTC-429P9.1	chr19:16630743-16643942	ENSG00000269427.1
17	CTC-429P9.5	chr19:16639967-16640668	ENSG00000267904.1
18	AL022476.2	chr22:43038585-43052366	ENSG00000230319.1

Figure 53

Group 5 Exon RNA sequence markers

Order	Exon	Gene	Order	Exon	Gene
1	chr1:26487703-26489118:+	FAM110D	46	chr2:152973316-152977316:-	STAM2
2	chr1:38275239-38281238:-	MTF1	47	chr2:202241931-202245941:-	TRAK2
3	chr1:41512079-41512270:-	SCMH1	48	chr2:238678586-238678635:+	LRRFIP1
4	chr1:89578155-89578367:-	GBP2	49	chr2:238680724-238680841:+	LRRFIP1
5	chr1:89579699-89579979:-	GBP2	50	chr2:238681509-238681588:+	LRRFIP1
6	chr1:89582675-89582917:-	GBP2	51	chr2:238683001-238683105:+	LRRFIP1
7	chr1:89583260-89583456:-	GBP2	52	chr2:238688065-238690288:+	LRRFIP1
8	chr1:89585862-89585971:-	GBP2	53	chr2:239969865-239974832:-	HDAC4
9	chr1:89586826-89586953:-	GBP2	54	chr3:15111580-15116437:-	ZFYVE20
10	chr1:89587460-89587666:-	GBP2	55	chr3:16298569-16302336:-	DPH3
11	chr1:89591546-89591799:-	GBP2	56	chr3:42705729-42709072:+	ZBTB47
12	chr1:95362509-95363639:-	CNN3	57	chr3:43618184-43618753:-	ANO10
13	chr1:112256830-112259310:+		58	chr3:44619303-44619329:+	
14	chr1:115259538-115260837:-	CSDE1	59	chr3:45959396-45963332:-	FYCO1
15	chr1:115261234-115261366:-	CSDE1	60	chr3:49765536-49765711:-	IP6K1
16	chr1:154143889-154143964:-	TPM3	61	chr3:49770224-49770405:-	IP6K1
17	chr1:154841508-154842754:-	KCNN3	62	chr3:49775645-49775855:-	IP6K1
18	chr1:154918048-154919279:-	PBXIP1	63	chr3:49785251-49785601:-	IP6K1
19	chr1:155291479-155292921:+	RUSC1	64	chr3:50595463-50597168:-	C3orf18
20	chr1:156924684-156924713:-	ARHGEF11	65	chr3:50604894-50605182:-	C3orf18
21	chr1:156933312-156933386:-	ARHGEF11	66	chr3:52283190-52284614:+	PPM1M
22	chr1:208059883-208061463:-	CD34	67	chr3:52489524-52489750:+	NISCH
23	chr1:208062027-208062191:-	CD34	68	chr3:52510463-52510615:+	NISCH
24	chr1:208062506-208062558:-	CD34	69	chr3:52512113-52512298:+	NISCH
25	chr1:208062810-208062966:-	CD34	70	chr3:52512465-52512593:+	NISCH
26	chr1:208070838-208070918:-	CD34	71	chr3:52513765-52513878:+	NISCH
27	chr1:208072318-208072571:-	CD34	72	chr3:52521212-52522621:+	NISCH
28	chr1:208073166-208073348:-	CD34	73	chr3:52523352-52523694:+	NISCH
29	chr1:208084347-208084683:-	CD34	74	chr3:52524048-52524247:+	NISCH
30	chr1:219254319-219255285:-	LOC643723	75	chr3:52524721-52524849:+	NISCH
31	chr1:223175727-223179335:+	DISP1	76	chr3:52525368-52525529:+	NISCH
32	chr2:24369800-24369956:+	LOC375190	77	chr3:113005522-113006303:+	BOC
33	chr2:24384376-24384483:+	LOC375190	78	chr3:119360908-119361408:-	POPDC2
34	chr2:24387068-24387204:+	LOC375190	79	chr3:119367107-119367515:-	POPDC2
35	chr2:24392225-24392506:+	LOC375190	80	chr3:133651542-133653674:-	SLCO2A1
36	chr2:27848511-27850784:-	CCDC121	81	chr3:133654618-133654741:-	SLCO2A1
37	chr2:30573784-30575295:+		82	chr3:133657273-133657337:-	SLCO2A1
38	chr2:42946128-42946214:+		83	chr3:133661157-133661612:-	SLCO2A1
39	chr2:42950029-42950175:+		84	chr3:138117311-138117410:+	MRAS
40	chr2:56611401-56613308:+	CCDC85A	85	chr3:138119376-138119455:+	MRAS
41	chr2:66795799-66799890:+	MEIS1	86	chr3:138121012-138124376:+	MRAS
42	chr2:100625274-100625394:-	AFF3	87	chr3:156241616-156241736:+	KCNAB1
43	chr2:122407877-122407957:+	LOC254128	88	chr3:159570742-159571246:+	
44	chr2:149267629-149267704:+	MBD5	89	chr4:5016316-5016961:-	CYTL1
45	chr2:149270439-149271042:+	MBD5	90	chr4:17629629-17629791:+	

Figure 54A

Order	Exon	Gene	Order	Exon	Gene
91	chr4:25199090-25202440:+	LOC285540	136	chr6:17507872-17507957:+	CAP2
92	chr4:84406139-84406290:-	FAM175A	137	chr6:17514080-17514185:+	CAP2
93	chr4:88394490-88394955:-	SPARCL1	138	chr6:17539500-17539689:+	CAP2
94	chr4:88400582-88400730:-	SPARCL1	139	chr6:17541204-17541379:+	CAP2
95	chr4:88401524-88401672:-	SPARCL1	140	chr6:17543068-17543191:+	CAP2
96	chr4:88403576-88403712:-	SPARCL1	141	chr6:17543292-17543374:+	CAP2
97	chr4:88411425-88411545:-	SPARCL1	142	chr6:17551695-17551835:+	CAP2
98	chr4:88411912-88412030:-	SPARCL1	143	chr6:17556590-17558021:+	CAP2
99	chr4:88412770-88412842:-	SPARCL1	144	chr6:31367561-31368540:+	MICA
100	chr4:88414716-88415750:-	SPARCL1	145	chr6:90340152-90343402:+	ANKRD6
101	chr4:88416133-88416279:-	SPARCL1	146	chr6:117086310-117086418:-	FAM162B
102	chr4:88450193-88450655:-	SPARCL1	147	chr6:132778663-132781989:-	STX7
103	chr5:15936559-15939900:+	FBXL7	148	chr7:11414173-11415505:-	THSD7A
104	chr5:40711680-40716600:-	TTC33	149	chr7:28992976-28997497:-	TRIL
105	chr5:88014058-88018742:-	MEF2C	150	chr7:44078406-44078607:-	RASA4P
106	chr5:92953432-92956835:-	FAM172A,MIR2277	151	chr7:102133563-102133732:-	
107	chr5:102421704-102423876:-	GIN1	152	chr7:102133563-102133758:-	
108	chr5:118456666-118456834:+	DMXL1	153	chr7:102135725-102135837:-	
109	chr5:133496678-133496821:-	SKP1	154	chr7:102135770-102135837:-	
110	chr5:137273642-137276037:-	FAM13B	155	chr7:102256970-102257205:-	RASA4
111	chr5:138747381-138749961:-	DNAJC18	156	chr7:150936060-150936242:-	SMARCD3
112	chr5:138837342-138837392:-	ECSCR	157	chr7:150936710-150936832:-	SMARCD3
113	chr5:138837724-138837768:-	ECSCR	158	chr7:150937198-150937333:-	SMARCD3
114	chr5:138842195-138842320:-	ECSCR	159	chr7:150937511-150939064:-	SMARCD3
115	chr5:139231189-139231416:-	NRG2	160	chr8:59571858-59573985:+	
116	chr5:139232017-139232144:-	NRG2	161	chr9:35684243-35684312:-	TPM2
117	chr5:139235261-139235363:-	NRG2	162	chr9:35684485-35684547:-	TPM2
118	chr5:139266925-139267096:-	NRG2	163	chr9:35684988-35685336:-	TPM2
119	chr5:139505521-139508391:+	IGIP	164	chr9:35685431-35685548:-	TPM2
120	chr5:140027384-140027509:+	IK,MIR3655	165	chr9:35685644-35685777:-	TPM2
121	chr5:140081591-140081714:+	ZMAT2	166	chr9:35689143-35689268:-	TPM2
122	chr5:158122924-158126150:-	EBF1	167	chr9:35689701-35690054:-	TPM2
123	chr5:158134987-158135181:-	EBF1	168	chr9:35810880-35811054:-	SPAG8
124	chr5:158139162-158139341:-	EBF1	169	chr9:35829513-35829952:+	TMEM8B
125	chr5:158139978-158140155:-	EBF1	170	chr9:35841131-35841264:+	TMEM8B
126	chr5:158250184-158250325:-	EBF1	171	chr9:35841523-35841791:+	TMEM8B
127	chr5:158523982-158524138:-	EBF1	172	chr9:35842389-35842714:+	TMEM8B
128	chr5:158526353-158526788:-	EBF1	173	chr9:35852824-35852970:+	TMEM8B
129	chr5:158527690-158527846:+		174	chr9:35853138-35853254:+	TMEM8B
130	chr5:158542120-158544486:+		175	chr9:35853502-35854843:+	TMEM8B
131	chr5:169805167-169805977:-	KCNMB1	176	chr9:129265456-129269319:+	FAM125B
132	chr5:176918405-176918421:-	PDLIM7	177	chr9:132649466-132655393:-	FNBP1
133	chr6:292101-292560:+	DUSP22	178	chr10:16632619-16635495:-	RSU1
134	chr6:348103-348274:+	DUSP22	179	chr10:28339923-28343173:-	MPP7
135	chr6:17463227-17463304:+	CAP2	180	chr10:29756169-29758044:+	

Figure 54B

Order	Exon	Gene
181	chr10:29771762-29774635:+	
182	chr10:34398518-34399205:-	PARD3
183	chr10:34398809-34399990:+	
184	chr10:75196564-75198178:-	PPP3CB
185	chr10:93220184-93220322:+	HECTD2
186	chr10:93221011-93221113:+	HECTD2
187	chr10:96290959-96291217:+	TBC1D12
188	chr10:102307850-102313680:+	HIF1AN
189	chr10:112657786-112659763:+	PDCD4,MIR4680
190	chr10:114583255-114587482:+	
191	chr11:6416355-6416931:-	APBB1
192	chr11:6417009-6417192:-	APBB1
193	chr11:6417330-6417804:-	APBB1
194	chr11:6422219-6423212:-	APBB1
195	chr11:6423312-6424014:-	APBB1
196	chr11:10594638-10598122:-	MRVII
197	chr11:58391507-58393203:+	ZFP91-CNTF,CNTF
198	chr11:77926343-77930461:-	GAB2
199	chr11:104776175-104776284:-	LOC643733
200	chr11:104779562-104779735:-	LOC643733
201	chr11:117075683-117078178:+	
202	chr11:117075789-117077072:-	PCSK7
203	chr11:118938493-118938913:+	VPS11
204	chr11:118944510-118944661:+	VPS11
205	chr11:118947607-118947793:+	VPS11
206	chr11:134019041-134021649:+	JAM3
207	chr12:2934515-2936465:-	NRIP2
208	chr12:2936791-2936843:-	NRIP2
209	chr12:2937092-2937213:-	NRIP2
210	chr12:2937498-2937580:-	NRIP2
211	chr12:2943808-2944221:-	NRIP2
212	chr12:6105168-6105388:-	VWF
213	chr12:6125920-6126036:-	VWF
214	chr12:46119810-46121530:-	LOC400027
215	chr12:48134425-48134606:-	RAPGEF3
216	chr12:48137313-48137459:-	RAPGEF3
217	chr12:48541575-48543781:-	ASB8
218	chr12:52308223-52308369:+	ACVRL1
219	chr12:52309009-52309284:+	ACVRL1
220	chr12:53473095-53473138:-	SPRYD3
221	chr12:56086628-56086759:-	ITGA7
222	chr12:56086925-56087101:-	ITGA7
223	chr12:56087805-56087907:-	ITGA7
224	chr12:56088040-56088114:-	ITGA7
225	chr12:56088227-56088306:-	ITGA7

Order	Exon	Gene
226	chr12:56088399-56088479:-	ITGA7
227	chr12:56088562-56088754:-	ITGA7
228	chr12:56089306-56089421:-	ITGA7
229	chr12:56090067-56090216:-	ITGA7
230	chr12:56090683-56090852:-	ITGA7
231	chr12:56091000-56091061:-	ITGA7
232	chr12:56091235-56091330:-	ITGA7
233	chr12:56092167-56092360:-	ITGA7
234	chr12:56101261-56101686:-	ITGA7
235	chr12:56385881-56388478:+	RAB5B
236	chr12:108960966-108963158:+	ISCU
237	chr12:109915065-109915155:-	KCTD10
238	chr13:113633655-113634072:+	
239	chr14:21558205-21559299:-	ZNF219
240	chr14:21559570-21559701:-	ZNF219
241	chr14:21560024-21561449:-	ZNF219
242	chr14:21668240-21672514:-	LOC283624
243	chr14:21989234-21993788:-	SALL2
244	chr14:24792550-24792660:-	ADCY4
245	chr14:55004440-55004554:+	CGRRF1
246	chr14:55004781-55005332:+	CGRRF1
247	chr14:74500731-74500874:+	C14orf45
248	chr14:74507268-74507348:+	C14orf45
249	chr15:42705022-42709558:-	ZFP106
250	chr15:43484941-43485533:+	CCNDBP1
251	chr15:43486925-43488228:+	CCNDBP1
252	chr15:45490970-45491318:-	SHF
253	chr15:52100617-52108556:+	TMOD2
254	chr15:63893495-63894618:+	FBXL22
255	chr15:64429767-64436431:+	SNX1
256	chr15:65236849-65236944:+	ANKDD1A
257	chr15:65242062-65242193:+	ANKDD1A
258	chr15:65345675-65347612:-	RASL12
259	chr15:65350765-65350955:-	RASL12
260	chr15:65351683-65351756:-	RASL12
261	chr15:74890843-74891878:+	
262	chr15:74893933-74894236:+	
263	chr15:74895508-74895587:+	
264	chr15:74897274-74898074:+	
265	chr15:89060013-89060204:-	DET1
266	chr15:90443832-90445035:-	C15orf38
267	chr16:2156092-2156305:-	PKD1
268	chr16:2156399-2156678:-	PKD1
269	chr16:2157884-2158033:-	PKD1
270	chr16:12618559-12618698:+	SNX29

Figure 54C

Order	Exon	Gene	Order	Exon	Gene
271	chr16:49524522-49525215:-	ZNF423	316	chr18:32397926-32398294:+	DTNA
272	chr16:67942583-67943991:+	PSKH1	317	chr18:32400755-32400900:+	DTNA
273	chr17:6012927-6013086:+	WSCD1	318	chr18:32407557-32407640:+	DTNA
274	chr17:6014091-6014255:+	WSCD1	319	chr18:32428260-32428347:+	DTNA
275	chr17:6021308-6021508:+	WSCD1	320	chr18:32431795-32431892:+	DTNA
276	chr17:17083921-17083983:+	MPRIIP	321	chr18:32438249-32438362:+	DTNA
277	chr17:18149622-18149776:-	FLII	322	chr18:32443930-32444026:+	DTNA
278	chr17:18149908-18150142:-	FLII	323	chr18:32446075-32448774:+	DTNA
279	chr17:21142186-21146742:-	C17orf103	324	chr18:32455203-32455362:+	DTNA
280	chr17:40852294-40854610:-	EZH1	325	chr18:32459515-32459683:+	DTNA
281	chr17:40854895-40854979:-	EZH1	326	chr18:32462033-32462165:+	DTNA
282	chr17:40869994-40870085:-	EZH1	327	chr18:32467730-32471808:+	DTNA
283	chr17:40870472-40870635:-	EZH1	328	chr18:32885940-32890729:+	ZNF271
284	chr17:40914358-40914481:+	RAMP2	329	chr18:34801980-34805287:+	KIAA1328
285	chr17:40914615-40915057:+	RAMP2	330	chr18:77119354-77123359:+	ATP9B
286	chr17:41168324-41168565:-	VAT1	331	chr18:77133898-77134197:+	ATP9B
287	chr17:41843490-41847182:-	DUSP3	332	chr19:8483421-8483691:+	MAR.-2
288	chr17:42160133-42158250:-	HDAC5	333	chr19:8486673-8486900:+	MAR.-2
289	chr17:42160133-42160188:-	HDAC5	334	chr19:8491493-8491688:+	MAR.-2
290	chr17:42160913-42161020:-	HDAC5	335	chr19:8495542-8495751:+	MAR.-2
291	chr17:42161173-42161222:-	HDAC5	336	chr19:8503272-8503897:+	MAR.-2
292	chr17:42161923-42162043:-	HDAC5	337	chr19:9923907-9923950:-	
293	chr17:42162390-42162723:-	HDAC5	338	chr19:10908056-10908194:+	DNM2
294	chr17:42163940-42164105:-	HDAC5	339	chr19:12222061-12225491:+	ZNF788
295	chr17:42164780-42165064:-	HDAC5	340	chr19:15547617-15547940:-	WIZ
296	chr17:42165755-42165966:-	HDAC5	341	chr19:15558914-15559178:-	WIZ
297	chr17:42168638-42168860:-	HDAC5	342	chr19:18474201-18480763:+	PGPEP1
298	chr17:42170943-42171202:-	HDAC5	343	chr19:40519572-40523514:+	ZNF546
299	chr17:45129892-45131988:-		344	chr19:40899672-40904723:-	PRX
300	chr17:58233921-58234076:+	CA4	345	chr19:42875502-42875634:+	MEGF8
301	chr17:58234788-58234933:+	CA4	346	chr19:44038489-44038653:+	ZNF575
302	chr17:58235051-58235149:+	CA4	347	chr19:48578024-48578131:-	PLA2G4C
303	chr17:58235644-58235807:+	CA4	348	chr19:48581028-48581081:-	PLA2G4C
304	chr17:58236591-58236904:+	CA4	349	chr19:48588316-48588369:-	PLA2G4C
305	chr17:74084852-74085004:-	EXOC7	350	chr19:48591943-48591969:-	PLA2G4C
306	chr17:74708914-74712804:-	JMJD6	351	chr19:48593621-48593674:-	PLA2G4C
307	chr18:11883474-11884626:-	MPPE1	352	chr19:48598721-48598861:-	PLA2G4C
308	chr18:11884878-11885042:-	MPPE1	353	chr19:48601052-48601516:-	PLA2G4C
309	chr18:32259432-32259556:+	DTNA	354	chr19:48602928-48603117:-	PLA2G4C
310	chr18:32335940-32336007:+	DTNA	355	chr19:48607845-48607981:-	PLA2G4C
311	chr18:32345925-32346005:+	DTNA	356	chr19:48608590-48608708:-	PLA2G4C
312	chr18:32374001-32374214:+	DTNA	357	chr19:48613744-48614109:-	PLA2G4C
313	chr18:32386183-32386268:+	DTNA	358	chr19:50380829-50381001:+	TBC1D17
314	chr18:32391923-32392077:+	DTNA	359	chr19:50385298-50385409:+	TBC1D17
315	chr18:32395873-32395978:+	DTNA	360	chr19:50385499-50385657:+	TBC1D17

Figure 54D

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Order	Exon	Gene
361	chr19:50386021-50386149:+	TBC1D17
362	chr19:50386230-50386333:+	TBC1D17
363	chr20:420892-421033:-	TBC1D20
364	chr20:422232-422687:-	TBC1D20
365	chr21:27838529-27840953:-	CYYR1
366	chr21:34100426-34102972:+	GCFC1-AS1
367	chr21:34821089-34823170:-	TMEM50B
368	chr21:34961650-34962227:-	CRYZL1
369	chr21:34962147-34962227:-	CRYZL1
370	chr21:34963468-34963517:-	CRYZL1
371	chr21:34963468-34963677:-	CRYZL1
372	chr21:34968037-34968142:-	CRYZL1
373	chr21:34969586-34969707:-	CRYZL1
374	chr21:48055527-48055675:+	PRMT2
375	chr21:48063198-48063551:+	PRMT2
376	chr21:48064218-48064400:+	PRMT2
377	chr21:48068370-48068531:+	PRMT2
378	chr21:48069487-48069651:+	PRMT2
379	chr22:19428417-19431913:-	C22orf39
380	chr22:38142241-38142427:+	TRIOBP
381	chr22:38153620-38154145:+	TRIOBP
382	chr22:38155161-38155271:+	TRIOBP
383	chr22:38161677-38161824:+	TRIOBP
384	chr22:38164081-38164183:+	TRIOBP
385	chr22:38165035-38165194:+	TRIOBP
386	chr22:38165269-38165382:+	TRIOBP
387	chr22:38169790-38172562:+	TRIOBP
388	chr22:41791749-41795328:+	TEF
389	chrX:62854848-62858089:-	ARHGEF9
390	chrX:62898220-62898452:-	ARHGEF9
391	chrX:107169901-107174865:+	MID2
392	chrX:150868978-150870013:+	PRRG3
393	chr5:138784245-138784597:-	
394	chr5:138784767-138784865:-	

Figure 54E

Group 5 mRNA protein encoding markers

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
1	CA4	17q23.1	carbonic anhydrase IV	P22748
2	GPD1L	3p22.3	glycerol-3-phosphate dehydrogenase 1-like	Q8N335
3	PLCE1	10q23	phospholipase C, epsilon 1	Q9P212
4	GSN	9q33	gelsolin	P06396
5	MAPK3	16p11.2	mitogen-activated protein kinase 3	P27361
6	NRG2	5q23-q33	neuregulin 2	O14511
7	PAQR8	6p12	progesterone and adipoQ receptor family member VIII	Q8TEZ7
8	CAPN2	1q41-q42	calpain 2, (m/II) large subunit	P17655
9	ZNF219	14q11	zinc finger protein 219	Q9P2Y4
10	PLCD3	17q21	phospholipase C, delta 3	Q8N3E9
11	PLXNA2	1q32.2	plexin A2	O75051
12	APBB1	11p15	amyloid beta (A4) precursor protein-binding, family B, member 1 (Fe65)	O00213
13	PDE1C	7p15.1-p14.3	phosphodiesterase 1C, calmodulin-dependent 70kDa	Q14123
14	KCTD2	17q25.2	potassium channel tetramerization domain containing 2	Q14681
15	KCNMB1	5q34	potassium large conductance calcium-activated channel, subfamily M, beta member 1	Q16558
16	ACTG2	2p13.1	actin, gamma 2, smooth muscle, enteric	P63267
17	TMEM108	3q21	transmembrane protein 108	Q6UXF1
18	JPH2	20q12-q13.11	junctophilin 2	Q9BR39
19	TRIOBP	22q13.1	TRIO and F-actin binding protein	Q9H2D6
20	TMBIM1	2q35	transmembrane BAX inhibitor motif containing 1	Q969X1
21	PRRG3	Xq28	proline rich Gla (G-carboxyglutamic acid) 3 (transmembrane)	Q9BZD7
22	IP6K1	3p21.31	inositol hexakisphosphate kinase 1	Q92551
23	DTNA	18q12	dystrobrevin, alpha	Q9Y4J8
24	C6orf89	6p21.31	chromosome 6 open reading frame 89	BRAP
25	FLNC	7q32-q35	filamin C, gamma	Q14315
26	RASL12	15q11.2-q22.33	RAS-like, family 12	Q9NYN1
27	SMARCD3	7q35-q36	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3	Q6STE5
28	DACH2	Xq21.3	dachshund homolog 2 (Drosophila)	Q96NX9
29	BOC	3q13.2	BOC cell adhesion associated, oncogene regulated	Q9BWW1
30	KCTD10	12q24.12	potassium channel tetramerization domain containing 10	Q9H3F6
31	PRX	19q13.2	periaxin	Q9BXM0
32	CD59	11p13	CD59 molecule, complement regulatory protein	P13987
33	GAB2	11q13.4-q13.5	GRB2-associated binding protein 2	Q9UQC2
34	VPS39	15q14	vacuolar protein sorting 39 homolog (S. cerevisiae)	Q96JC1
35	POPDC2	3q13.33	popeye domain containing 2	Q9HBU9
36	HIF1AN	10q24	hypoxia inducible factor 1, alpha subunit inhibitor	Q9NWT6
37	IL17B	5q33.1	interleukin 17B	
38	HECTD2	10q23.32	HECT domain containing E3 ubiquitin protein ligase 2	Q5U5R9
39	NOV	8q24.12	nephroblastoma overexpressed	PLXNA1
40	TACC2	10q26	transforming, acidic coiled-coil containing protein 2	Q95359

Figure 55A

Order	Gene Symbol	Chromosome Band	Gene Title	UniProt ID
41	HDAC4	2q37.3	histone deacetylase 4	P56524
42	TPM2	9p13	tropomyosin 2 (beta)	P07951
43	DUSP22	6p25.3	dual specificity phosphatase 22	Q9NRW4
44	RGS5	1q23.1	regulator of G-protein signaling 5	O15539
45	TBC1D20	20p13	TBC1 domain family, member 20	Q96BZ9
46	MAP1A	15q15.3	microtubule-associated protein 1A	P78559
47	CD34	1q32	CD34 molecule	P28906
48	NRIP2	12p13.33	nuclear receptor interacting protein 2	Q9BQI9
49	EZH1	17q21.1-q21.3	enhancer of zeste homolog 1 (Drosophila)	Q92800
50	OPHN1	Xq12	oligophrenin 1	O60890
51	CXorf36	Xp11.3-p11.23	chromosome X open reading frame 36	Q9H7Y0
52	SLU7	5q33.3	SLU7 splicing factor homolog (S. cerevisiae)	O95391
53	SKP1	5q31	S-phase kinase-associated protein 1	P63208
54	DNAJC18	5q31.2	DnaJ (Hsp40) homolog, subfamily C, member 18	Q9H819
55	PKD1	16p13.3	polycystic kidney disease 1 (autosomal dominant)	P98161
56	LIMS3	2q13	LIM and senescent cell antigen-like domains 3	P0CW19
57	APOBEC2	6p21	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 2	Q9Y235
58	FAM175A	4q21.23	family with sequence similarity 175, member A	Q6UWZ7
59	ANKDD1A	15q22.31	ankyrin repeat and death domain containing 1A	Q495B1
60	MECP2	Xq28	methyl CpG binding protein 2 (Rett syndrome)	P51608
61	RUFY2	10q22.2	RUN and FYVE domain containing 2	Q8WXA3

Figure 55B

Group 5 Methylation markers, 50% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 5 Markers			Preferred Group 5 Markers	
1	Chr01: 113497999 113498000	<i>SLC16A1</i>	45	Chr10: 22625465 22625466	<i>Non Coding Region</i>
2	Chr01: 113498106 113498107	<i>SLC16A1</i>	46	Chr10: 72218642 72218643	<i>Non Coding Region</i>
3	Chr01: 14057606 14057607	<i>PRDM2</i>	47	Chr10: 81002218 81002219	<i>ZMIZ1</i>
4	Chr01: 154475139 154475140	<i>TDRD10,SHE</i>	48	Chr11: 119227328 119227329	<i>USP2</i>
5	Chr01: 160370208 160370209	<i>VANGL2</i>	49	Chr11: 119227328 119227329	<i>USP2</i>
6	Chr01: 203596940 203596941	<i>ATP2B4</i>	50	Chr11: 119227631 119227632	<i>USP2</i>
7	Chr01: 203597085 203597086	<i>ATP2B4</i>	51	Chr11: 120435056 120435057	<i>Non Coding Region</i>
8	Chr01: 228645486 228645487	<i>HIST3H2BB,HIST3H2A</i>	52	Chr11: 124790875 124790876	<i>HEPACAM</i>
9	Chr01: 47999163 47999164	<i>Non Coding Region</i>	53	Chr11: 13030873 13030874	<i>RASSF10</i>
10	Chr01: 61548783 61548784	<i>NFLA</i>	54	Chr11: 2292691 2292692	<i>ASCL2</i>
11	Chr02: 176994665 176994666	<i>HOXD8</i>	55	Chr11: 57250469 57250470	<i>Non Coding Region</i>
12	Chr02: 233368543 233368544	<i>Non Coding Region</i>	56	Chr11: 64993281 64993282	<i>SLC22A20</i>
13	Chr02: 238600061 238600062	<i>LRRFIP1</i>	57	Chr11: 7695528 7695529	<i>CYB5R2</i>
14	Chr02: 26395448 26395449	<i>FAM59B</i>	58	Chr12: 102872708 102872709	<i>IGF1</i>
15	Chr02: 74425580 74425581	<i>MTHFD2</i>	59	Chr12: 21810450 21810451	<i>LDHB</i>
16	Chr03: 179168760 179168761	<i>GNB4</i>	60	Chr12: 21810489 21810490	<i>LDHB</i>
17	Chr03: 184099432 184099433	<i>CHRD</i>	61	Chr12: 21810960 21810961	<i>LDHB</i>
18	Chr04: 10020634 10020635	<i>SLC2A9</i>	62	Chr12: 3862225 3862226	<i>EFCAB4B</i>
19	Chr04: 76555782 76555783	<i>CDKL2</i>	63	Chr13: 79177782 79177783	<i>POU4F1</i>
20	Chr04: 76555856 76555857	<i>CDKL2</i>	64	Chr14: 105830859 105830860	<i>PACS2</i>
21	Chr04: 89079587 89079588	<i>ABCG2</i>	65	Chr14: 21152735 21152736	<i>ANG,RNASE4</i>
22	Chr05: 43018282 43018283	<i>Non Coding Region</i>	66	Chr14: 51027861 51027862	<i>ATL1</i>
23	Chr06: 26031939 26031940	<i>HIST1H3B</i>	67	Chr14: 88789549 88789550	<i>KCNK10</i>
24	Chr06: 26250744 26250745	<i>HIST1H3F,HIST1H2BH</i>	68	Chr15: 45422095 45422096	<i>DUOX1,DUOX1A1</i>
25	Chr06: 26250936 26250937	<i>HIST1H3F,HIST1H2BH</i>	69	Chr15: 93617030 93617031	<i>RGMA</i>
26	Chr06: 26252265 26252266	<i>HIST1H3F,HIST1H2BH</i>	70	Chr15: 99194021 99194022	<i>IGF1R</i>
27	Chr06: 26271587 26271588	<i>HIST1H3G</i>	71	Chr16: 23847325 23847326	<i>PRKCB</i>
28	Chr06: 26271718 26271719	<i>HIST1H3G,HIST1H2BI</i>	72	Chr16: 86232457 86232458	<i>Non Coding Region</i>
29	Chr06: 26273556 26273557	<i>HIST1H2BI</i>	73	Chr16: 88700818 88700819	<i>Non Coding Region</i>
30	Chr06: 27840105 27840106	<i>HIST1H3I</i>	74	Chr17: 76732854 76732855	<i>CYTH1</i>
31	Chr06: 30139641 30139642	<i>TRIM15</i>	75	Chr19: 11532175 11532176	<i>CCDC151</i>
32	Chr06: 41978288 41978289	<i>CCND3</i>	76	Chr19: 13124776 13124777	<i>NFIX</i>
33	Chr06: 91004452 91004453	<i>BACH2</i>	77	Chr19: 17403313 17403314	<i>ABHD8</i>
34	Chr07: 100224470 100224471	<i>TFR2</i>	78	Chr19: 35633669 35633670	<i>FXSD7,FXSD1</i>
35	Chr07: 100230985 100230986	<i>TFR2</i>	79	Chr19: 35633794 35633795	<i>FXSD7,FXSD1</i>
36	Chr07: 100231278 100231279	<i>TFR2</i>	80	Chr19: 35633972 35633973	<i>FXSD7</i>
37	Chr07: 148982284 148982285	<i>ZNF783</i>	81	Chr19: 41316883 41316884	<i>Non Coding Region</i>
38	Chr07: 155597842 155597843	<i>SHH</i>	82	Chr19: 50554451 50554452	<i>FLJ26850</i>
39	Chr07: 27213610 27213611	<i>HOXA10</i>	83	Chr19: 54369681 54369682	<i>MYADM</i>
40	Chr08: 101661918 101661919	<i>SNX31</i>	84	Chr20: 44539966 44539967	<i>PLTP</i>
41	Chr08: 27183097 27183098	<i>PTK2B</i>	85	Chr20: 62185401 62185402	<i>C20orf195</i>
42	Chr08: 27183873 27183874	<i>PTK2B</i>	86	Chr20: 825240 825241	<i>FAM110A</i>
43	Chr10: 133484610 133484611	<i>Non Coding Region</i>	87	Chr22: 38221187 38221188	<i>GALR3</i>
44	Chr10: 21807211 21807212	<i>C10orf140</i>			

Figure 56A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Alternative markers for Group 5 set		132	Chr02: 24300158 24300159	<i>SF3B14</i>
88	Chr01: 113497999 113498000	<i>SLC16A1</i>	133	Chr02: 24300242 24300243	<i>SF3B14</i>
89	Chr01: 113498106 113498107	<i>SLC16A1</i>	134	Chr02: 264120 264121	<i>SH3YL1,ACP1</i>
90	Chr01: 12227700 12227701	<i>TNFRSF1B</i>	135	Chr02: 264164 264165	<i>SH3YL1,ACP1</i>
91	Chr01: 145395607 145395608	<i>Non Coding Region</i>	136	Chr02: 264178 264179	<i>SH3YL1,ACP1</i>
92	Chr01: 145395846 145395847	<i>Non Coding Region</i>	137	Chr02: 264199 264200	<i>SH3YL1,ACP1</i>
93	Chr01: 145455384 145455385	<i>Non Coding Region</i>	138	Chr02: 264204 264205	<i>SH3YL1,ACP1</i>
94	Chr01: 147245485 147245486	<i>GJA5</i>	139	Chr02: 42328740 42328741	<i>Non Coding Region</i>
95	Chr01: 151812710 151812711	<i>LOC100132111,C2CD4D</i>	140	Chr02: 44059094 44059095	<i>ABCG5</i>
96	Chr01: 154300117 154300118	<i>ATP8B2</i>	141	Chr02: 74425523 74425524	<i>MTHFD2</i>
97	Chr01: 160370208 160370209	<i>VANGL2</i>	142	Chr02: 74425580 74425581	<i>MTHFD2</i>
98	Chr01: 183188297 183188298	<i>LAMC2</i>	143	Chr02: 85134468 85134469	<i>Non Coding Region</i>
99	Chr01: 203259772 203259773	<i>Non Coding Region</i>	144	Chr02: 8724060 8724061	<i>Non Coding Region</i>
100	Chr01: 203596940 203596941	<i>ATP2B4</i>	145	Chr02: 9144629 9144630	<i>MBOAT2</i>
101	Chr01: 203597085 203597086	<i>ATP2B4</i>	146	Chr02: 96055142 96055143	<i>Non Coding Region</i>
102	Chr01: 203598330 203598331	<i>ATP2B4</i>	147	Chr03: 157824150 157824151	<i>SHOX2</i>
103	Chr01: 203598594 203598595	<i>ATP2B4</i>	148	Chr03: 183542750 183542751	<i>MAP6D1</i>
104	Chr01: 203598954 203598955	<i>ATP2B4</i>	149	Chr03: 183542914 183542915	<i>MAP6D1</i>
105	Chr01: 203599089 203599090	<i>ATP2B4</i>	150	Chr03: 183543564 183543565	<i>MAP6D1</i>
106	Chr01: 2144244 2144245	<i>Non Coding Region</i>	151	Chr03: 184099259 184099260	<i>CHRD</i>
107	Chr01: 21616619 21616620	<i>ECE1</i>	152	Chr03: 197281468 197281469	<i>BDH1</i>
108	Chr01: 228645486 228645487	<i>HIST3H2BB,HIST3H2A</i>	153	Chr03: 197281934 197281935	<i>BDH1</i>
109	Chr01: 230560318 230560319	<i>Non Coding Region</i>	154	Chr03: 197282691 197282692	<i>BDH1</i>
110	Chr01: 26686587 26686588	<i>Non Coding Region</i>	155	Chr03: 197282902 197282903	<i>BDH1</i>
111	Chr01: 26686703 26686704	<i>Non Coding Region</i>	156	Chr03: 197283111 197283112	<i>BDH1</i>
112	Chr01: 32410413 32410414	<i>Non Coding Region</i>	157	Chr03: 197283127 197283128	<i>BDH1</i>
113	Chr01: 32714308 32714309	<i>FAM167B</i>	158	Chr03: 38080635 38080636	<i>DLEC1</i>
114	Chr01: 41250062 41250063	<i>KCNQ4</i>	159	Chr03: 46671334 46671335	<i>Non Coding Region</i>
115	Chr01: 41250071 41250072	<i>KCNQ4</i>	160	Chr03: 49756736 49756737	<i>AMIGO3,RNF123</i>
116	Chr01: 41250117 41250118	<i>KCNQ4</i>	161	Chr03: 49757016 49757017	<i>AMIGO3,RNF123</i>
117	Chr01: 55008319 55008320	<i>Non Coding Region</i>	162	Chr03: 49757239 49757240	<i>AMIGO3,RNF123</i>
118	Chr01: 55008516 55008517	<i>Non Coding Region</i>	163	Chr03: 52567130 52567131	<i>NT5DC2</i>
119	Chr01: 61548783 61548784	<i>NFIA</i>	164	Chr03: 55524048 55524049	<i>Non Coding Region</i>
120	Chr01: 62761846 62761847	<i>KANK4</i>	165	Chr03: 72338583 72338584	<i>Non Coding Region</i>
121	Chr02: 128180829 128180830	<i>PROC</i>	166	Chr04: 10020555 10020556	<i>SLC2A9</i>
122	Chr02: 128180959 128180960	<i>PROC</i>	167	Chr04: 10020634 10020635	<i>SLC2A9</i>
123	Chr02: 128181325 128181326	<i>PROC</i>	168	Chr04: 113445029 113445030	<i>Non Coding Region</i>
124	Chr02: 131129567 131129568	<i>PTPN18</i>	169	Chr04: 41884631 41884632	<i>Non Coding Region</i>
125	Chr02: 131129811 131129812	<i>PTPN18</i>	170	Chr04: 76555634 76555635	<i>CDKL2</i>
126	Chr02: 131130131 131130132	<i>PTPN18</i>	171	Chr04: 76555772 76555773	<i>CDKL2</i>
127	Chr02: 131130468 131130469	<i>PTPN18</i>	172	Chr04: 76555777 76555778	<i>CDKL2</i>
128	Chr02: 160761413 160761414	<i>LY75</i>	173	Chr04: 76555782 76555783	<i>CDKL2</i>
129	Chr02: 177001263 177001264	<i>Non Coding Region</i>	174	Chr04: 76555856 76555857	<i>CDKL2</i>
130	Chr02: 233793088 233793089	<i>NGEF</i>	175	Chr04: 76556042 76556043	<i>CDKL2</i>
131	Chr02: 233793120 233793121	<i>NGEF</i>	176	Chr04: 89079587 89079588	<i>ABCG2</i>

Figure 56B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
177	Chr05: 138861847 138861848	<i>TMEM173</i>	222	Chr07: 100231278 100231279	<i>TFR2</i>
178	Chr05: 176784914 176784915	<i>RGS14</i>	223	Chr07: 102074615 102074616	<i>ORAI2</i>
179	Chr05: 176829639 176829640	<i>F12</i>	224	Chr07: 112430772 112430773	<i>TMEM168</i>
180	Chr05: 176830358 176830359	<i>F12</i>	225	Chr07: 112430779 112430780	<i>TMEM168</i>
181	Chr05: 176830667 176830668	<i>F12</i>	226	Chr07: 12755396 12755397	<i>Non Coding Region</i>
182	Chr05: 176831297 176831298	<i>F12</i>	227	Chr07: 138720989 138720990	<i>ZC3HAV1L</i>
183	Chr05: 176831638 176831639	<i>F12</i>	228	Chr07: 139929714 139929715	<i>Non Coding Region</i>
184	Chr05: 58571903 58571904	<i>PDE4D</i>	229	Chr07: 143042635 143042636	<i>CLCN1</i>
185	Chr06: 24360304 24360305	<i>Non Coding Region</i>	230	Chr07: 143042741 143042742	<i>CLCN1</i>
186	Chr06: 26031939 26031940	<i>HIST1H3B</i>	231	Chr07: 148982284 148982285	<i>ZNF783</i>
187	Chr06: 26235290 26235291	<i>HIST1H1D</i>	232	Chr07: 151106022 151106023	<i>WDR86</i>
188	Chr06: 26250685 26250686	<i>HIST1H3F,HIST1H2BH</i>	233	Chr07: 151330008 151330009	<i>PRKAG2</i>
189	Chr06: 26250744 26250745	<i>HIST1H3F,HIST1H2BH</i>	234	Chr07: 155283817 155283818	<i>Non Coding Region</i>
190	Chr06: 26250936 26250937	<i>HIST1H3F,HIST1H2BH</i>	235	Chr07: 155283886 155283887	<i>Non Coding Region</i>
191	Chr06: 26252265 26252266	<i>HIST1H3F,HIST1H2BH</i>	236	Chr07: 155597490 155597491	<i>SHH</i>
192	Chr06: 26271587 26271588	<i>HIST1H3G</i>	237	Chr07: 25896490 25896491	<i>Non Coding Region</i>
193	Chr06: 26271718 26271719	<i>HIST1H3G,HIST1H2BI</i>	238	Chr07: 27136424 27136425	<i>HOXA1</i>
194	Chr06: 26271827 26271828	<i>HIST1H3G,HIST1H2BI</i>	239	Chr07: 27195918 27195919	<i>HOXA7</i>
195	Chr06: 26272695 26272696	<i>HIST1H3G,HIST1H2BI</i>	240	Chr07: 27196153 27196154	<i>HOXA7</i>
196	Chr06: 26273556 26273557	<i>HIST1H2BI</i>	241	Chr07: 27209350 27209351	<i>MIR196B</i>
197	Chr06: 27774865 27774866	<i>HIST1H2AI</i>	242	Chr07: 27209582 27209583	<i>MIR196B</i>
198	Chr06: 27840105 27840106	<i>HIST1H3I</i>	243	Chr07: 27213984 27213985	<i>HOXA10</i>
199	Chr06: 27841352 27841353	<i>HIST1H3L,HIST1H4L</i>	244	Chr07: 855365 855366	<i>UNC84A</i>
200	Chr06: 27858380 27858381	<i>HIST1H3J</i>	245	Chr07: 87848292 87848293	<i>SRI</i>
201	Chr06: 30923241 30923242	<i>Non Coding Region</i>	246	Chr07: 87848358 87848359	<i>SRI</i>
202	Chr06: 30923243 30923244	<i>Non Coding Region</i>	247	Chr07: 99595437 99595438	<i>Non Coding Region</i>
203	Chr06: 30923306 30923307	<i>Non Coding Region</i>	248	Chr08: 101661918 101661919	<i>SNX31</i>
204	Chr06: 30923327 30923328	<i>Non Coding Region</i>	249	Chr08: 101661921 101661922	<i>SNX31</i>
205	Chr06: 30923370 30923371	<i>Non Coding Region</i>	250	Chr08: 11558334 11558335	<i>Non Coding Region</i>
206	Chr06: 30923545 30923546	<i>Non Coding Region</i>	251	Chr08: 11559156 11559157	<i>Non Coding Region</i>
207	Chr06: 30923672 30923673	<i>Non Coding Region</i>	252	Chr08: 142216031 142216032	<i>Non Coding Region</i>
208	Chr06: 33244976 33244977	<i>B3GALT4</i>	253	Chr08: 145013728 145013729	<i>PLEC1</i>
209	Chr06: 33245128 33245129	<i>B3GALT4</i>	254	Chr08: 145013910 145013911	<i>PLEC1</i>
210	Chr06: 33245163 33245164	<i>B3GALT4</i>	255	Chr08: 145013932 145013933	<i>PLEC1</i>
211	Chr06: 33245181 33245182	<i>B3GALT4</i>	256	Chr08: 22457446 22457447	<i>C8orf58</i>
212	Chr06: 33245328 33245329	<i>B3GALT4</i>	257	Chr08: 27182871 27182872	<i>PTK2B</i>
213	Chr06: 33245342 33245343	<i>B3GALT4</i>	258	Chr08: 27182889 27182890	<i>PTK2B</i>
214	Chr06: 33245359 33245360	<i>B3GALT4</i>	259	Chr08: 27182909 27182910	<i>PTK2B</i>
215	Chr06: 34203564 34203565	<i>HMGAI</i>	260	Chr08: 27182930 27182931	<i>PTK2B</i>
216	Chr06: 43044771 43044772	<i>PTK7</i>	261	Chr08: 27182965 27182966	<i>PTK2B</i>
217	Chr06: 52226698 52226699	<i>PAQR8</i>	262	Chr08: 27183097 27183098	<i>PTK2B</i>
218	Chr07: 100182075 100182076	<i>LRCH4</i>	263	Chr08: 27183342 27183343	<i>PTK2B</i>
219	Chr07: 100224470 100224471	<i>TFR2</i>	264	Chr08: 27183873 27183874	<i>PTK2B</i>
220	Chr07: 100230781 100230782	<i>TFR2</i>	265	Chr08: 37554832 37554833	<i>ZNF703</i>
221	Chr07: 100230985 100230986	<i>TFR2</i>	266	Chr09: 103235181 103235182	<i>TMEFF1</i>

Figure 56C

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
312	Chr12: 109729809 109729810	<i>FOXN4</i>	357	Chr14: 62217806 62217807	<i>Non Coding Region</i>
313	Chr12: 110511112 110511113	<i>Non Coding Region</i>	358	Chr14: 65016591 65016592	<i>C14orf50</i>
314	Chr12: 122277439 122277440	<i>HPD</i>	359	Chr14: 65016595 65016596	<i>C14orf50</i>
315	Chr12: 122277851 122277852	<i>HPD</i>	360	Chr14: 65170209 65170210	<i>PLEKHG3</i>
316	Chr12: 12868983 12868984	<i>CDKN1B</i>	361	Chr14: 74210521 74210522	<i>C14orf43</i>
317	Chr12: 133065906 133065907	<i>FBRSL1</i>	362	Chr14: 75039090 75039091	<i>LTBP2</i>
318	Chr12: 133065912 133065913	<i>FBRSL1</i>	363	Chr14: 88789549 88789550	<i>KCNK10</i>
319	Chr12: 133065924 133065925	<i>FBRSL1</i>	364	Chr15: 31684836 31684837	<i>Non Coding Region</i>
320	Chr12: 133065928 133065929	<i>FBRSL1</i>	365	Chr15: 41805273 41805274	<i>LTK</i>
321	Chr12: 133065939 133065940	<i>FBRSL1</i>	366	Chr15: 45002662 45002663	<i>B2M</i>
322	Chr12: 133065941 133065942	<i>FBRSL1</i>	367	Chr15: 45422095 45422096	<i>DUOX1,DUOXA1</i>
323	Chr12: 15114494 15114495	<i>ARHGDIB</i>	368	Chr15: 65341736 65341737	<i>OSTBETA</i>
324	Chr12: 21809973 21809974	<i>LDHB</i>	369	Chr15: 65341868 65341869	<i>OSTBETA</i>
325	Chr12: 21810092 21810093	<i>LDHB</i>	370	Chr15: 65341902 65341903	<i>OSTBETA</i>
326	Chr12: 21810139 21810140	<i>LDHB</i>	371	Chr15: 65341995 65341996	<i>OSTBETA</i>
327	Chr12: 21810450 21810451	<i>LDHB</i>	372	Chr15: 78556935 78556936	<i>DNAJA4</i>
328	Chr12: 21810489 21810490	<i>LDHB</i>	373	Chr15: 85278581 85278582	<i>Non Coding Region</i>
329	Chr12: 21810960 21810961	<i>LDHB</i>	374	Chr15: 90208810 90208811	<i>PLIN1</i>
330	Chr12: 3862221 3862222	<i>EFCAB4B</i>	375	Chr15: 90208915 90208916	<i>PLIN1</i>
331	Chr12: 3862225 3862226	<i>EFCAB4B</i>	376	Chr15: 96596349 96596350	<i>Non Coding Region</i>
332	Chr12: 3862417 3862418	<i>EFCAB4B</i>	377	Chr15: 99193929 99193930	<i>IGF1R</i>
333	Chr12: 3862423 3862424	<i>EFCAB4B</i>	378	Chr15: 99193993 99193994	<i>IGF1R</i>
334	Chr12: 3862428 3862429	<i>EFCAB4B</i>	379	Chr15: 99194021 99194022	<i>IGF1R</i>
335	Chr12: 3862444 3862445	<i>EFCAB4B</i>	380	Chr15: 99194431 99194432	<i>IGF1R</i>
336	Chr12: 3862457 3862458	<i>EFCAB4B</i>	381	Chr16: 29625235 29625236	<i>SLC7A5P1</i>
337	Chr12: 3862497 3862498	<i>EFCAB4B</i>	382	Chr16: 433504 433505	<i>LOC100134368</i>
338	Chr12: 47474262 47474263	<i>AMIGO2</i>	383	Chr16: 87943182 87943183	<i>CA5A</i>
339	Chr12: 47474763 47474764	<i>AMIGO2</i>	384	Chr16: 89641360 89641361	<i>CPNE7</i>
340	Chr12: 48207063 48207064	<i>HDAC7</i>	385	Chr17: 1390182 1390183	<i>MYO1C</i>
341	Chr12: 54070931 54070932	<i>ATP5G2</i>	386	Chr17: 29297757 29297758	<i>RNF135</i>
342	Chr12: 54427884 54427885	<i>HOXC5,HOXC4</i>	387	Chr17: 29297873 29297874	<i>RNF135</i>
343	Chr12: 54785003 54785004	<i>ZNF385A</i>	388	Chr17: 29298184 29298185	<i>RNF135</i>
344	Chr12: 54785171 54785172	<i>ZNF385A</i>	389	Chr17: 34091901 34091902	<i>C17orf50</i>
345	Chr12: 54785286 54785287	<i>ZNF385A</i>	390	Chr17: 36572011 36572012	<i>Non Coding Region</i>
346	Chr12: 54785320 54785321	<i>ZNF385A</i>	391	Chr17: 41985074 41985075	<i>MPP2</i>
347	Chr12: 56123961 56123962	<i>CD63</i>	392	Chr17: 41985183 41985184	<i>MPP2</i>
348	Chr12: 56123972 56123973	<i>CD63</i>	393	Chr17: 42084612 42084613	<i>NAGS</i>
349	Chr12: 98897216 98897217	<i>Non Coding Region</i>	394	Chr17: 43325791 43325792	<i>LOC100133991</i>
350	Chr14: 105830859 105830860	<i>PACS2</i>	395	Chr17: 46655394 46655395	<i>HOXB4</i>
351	Chr14: 105940377 105940378	<i>CRIP2</i>	396	Chr17: 46655588 46655589	<i>HOXB4</i>
352	Chr14: 21152735 21152736	<i>ANG,RNASE4</i>	397	Chr17: 46655818 46655819	<i>HOXB4</i>
353	Chr14: 51027861 51027862	<i>ATL1</i>	398	Chr17: 46655829 46655830	<i>HOXB4</i>
354	Chr14: 54423433 54423434	<i>BMP4</i>	399	Chr17: 46655836 46655837	<i>HOXB4</i>
355	Chr14: 60794590 60794591	<i>Non Coding Region</i>	400	Chr17: 61524073 61524074	<i>CYB561</i>
356	Chr14: 61188239 61188240	<i>SIX4</i>	401	Chr17: 61524292 61524293	<i>CYB561</i>

Figure 56D

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
402	Chr17: 61524304 61524305	<i>CYB561</i>	447	Chr19: 54369436 54369437	<i>MYADM</i>
403	Chr17: 62777744 62777745	<i>LOC146880</i>	448	Chr19: 54369447 54369448	<i>MYADM</i>
404	Chr17: 6659189 6659190	<i>XAF1</i>	449	Chr19: 54369471 54369472	<i>MYADM</i>
405	Chr17: 6659375 6659376	<i>XAF1</i>	450	Chr19: 54369556 54369557	<i>MYADM</i>
406	Chr17: 6659562 6659563	<i>XAF1</i>	451	Chr19: 54369571 54369572	<i>MYADM</i>
407	Chr17: 73083692 73083693	<i>SLC16A5</i>	452	Chr19: 54369576 54369577	<i>MYADM</i>
408	Chr17: 73083876 73083877	<i>SLC16A5</i>	453	Chr19: 54369681 54369682	<i>MYADM</i>
409	Chr17: 73083881 73083882	<i>SLC16A5</i>	454	Chr19: 54370796 54370797	<i>MYADM</i>
410	Chr17: 73083887 73083888	<i>SLC16A5</i>	455	Chr19: 54486058 54486059	<i>CACNG8</i>
411	Chr17: 73893206 73893207	<i>TRIM65</i>	456	Chr19: 55866412 55866413	<i>FAM71E2, COX6B2</i>
412	Chr17: 75315563 75315564	<i>SEPTIN9</i>	457	Chr19: 6740812 6740813	<i>TRIP10</i>
413	Chr17: 76732854 76732855	<i>CYTH1</i>	458	Chr19: 6740888 6740889	<i>TRIP10</i>
414	Chr17: 78992323 78992324	<i>Non Coding Region</i>	459	Chr19: 6740952 6740953	<i>TRIP10</i>
415	Chr17: 79482181 79482182	<i>Non Coding Region</i>	460	Chr19: 9896955 9896956	<i>Non Coding Region</i>
416	Chr17: 80291688 80291689	<i>SECTM1</i>	461	Chr19: 9896993 9896994	<i>Non Coding Region</i>
417	Chr17: 80291775 80291776	<i>SECTM1</i>	462	Chr20: 33759753 33759754	<i>PROCR</i>
418	Chr18: 55862627 55862628	<i>NEDD4L</i>	463	Chr20: 42137055 42137056	<i>Non Coding Region</i>
419	Chr18: 55862678 55862679	<i>NEDD4L</i>	464	Chr20: 44539966 44539967	<i>PLTP</i>
420	Chr19: 12978611 12978612	<i>MAST1</i>	465	Chr20: 62185401 62185402	<i>C20orf195</i>
421	Chr19: 12978624 12978625	<i>MAST1</i>	466	Chr20: 62285239 62285240	<i>STMN3</i>
422	Chr19: 13124215 13124216	<i>NFIX</i>	467	Chr20: 62711729 62711730	<i>OPRL1, RGS19</i>
423	Chr19: 18210017 18210018	<i>MAST3</i>	468	Chr20: 825052 825053	<i>FAM110A</i>
424	Chr19: 18499309 18499310	<i>GDF15</i>	469	Chr20: 825240 825241	<i>FAM110A</i>
425	Chr19: 19221316 19221317	<i>SLC25A42</i>	470	Chr20: 825408 825409	<i>FAM110A</i>
426	Chr19: 3434930 3434931	<i>NFIC</i>	471	Chr21: 26934197 26934198	<i>MIR155HG</i>
427	Chr19: 3434945 3434946	<i>NFIC</i>	472	Chr21: 26934576 26934577	<i>MIR155HG</i>
428	Chr19: 3435350 3435351	<i>NFIC</i>	473	Chr21: 26934682 26934683	<i>MIR155HG</i>
429	Chr19: 35633553 35633554	<i>FXVD7, FXVD1</i>	474	Chr21: 26934885 26934886	<i>MIR155HG</i>
430	Chr19: 35633669 35633670	<i>FXVD7, FXVD1</i>	475	Chr22: 31644282 31644283	<i>LIMK2</i>
431	Chr19: 35633794 35633795	<i>FXVD7, FXVD1</i>	476	Chr22: 39410396 39410397	<i>APOBEC3C</i>
432	Chr19: 35633972 35633973	<i>FXVD7</i>	477	Chr22: 40390957 40390958	<i>FAM83F</i>
433	Chr19: 35634229 35634230	<i>FXVD7</i>	478	Chr22: 42679577 42679578	<i>Non Coding Region</i>
434	Chr19: 35646150 35646151	<i>FXVD5</i>			
435	Chr19: 36389795 36389796	<i>NFKBID</i>			
436	Chr19: 36389833 36389834	<i>NFKBID</i>			
437	Chr19: 39440462 39440463	<i>FBXO17</i>			
438	Chr19: 39894767 39894768	<i>Non Coding Region</i>			
439	Chr19: 41316883 41316884	<i>Non Coding Region</i>			
440	Chr19: 43979464 43979465	<i>PHLDB3</i>			
441	Chr19: 48232988 48232989	<i>EHD2</i>			
442	Chr19: 48828835 48828836	<i>EMP3</i>			
443	Chr19: 49255779 49255780	<i>FUT1</i>			
444	Chr19: 50096610 50096611	<i>PRR12</i>			
445	Chr19: 50400885 50400886	<i>IL4I1</i>			
446	Chr19: 50554451 50554452	<i>FLJ26850</i>			

Figure 56E

Group 5 Methylation markers, 50% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 5 Markers			Preferred Group 5 Markers	
1	chr01:113497986-113498206	<i>SLC16A1</i>	46	chr11:7694711-7695685	<i>CYB5R2</i>
2	chr01:154474107-154475699	<i>TDRD10,SHE</i>	47	chr12:21810488-21810766	<i>LDHB</i>
3	chr01:160370112-160370658	<i>VANGL2</i>	48	chr12:3862068-3862606	<i>EFCAB4B</i>
4	chr01:203598471-203598853	<i>ATP2B4</i>	49	chr13:79175610-79177985	<i>POU4F1</i>
5	chr01:228645196-228646434	<i>HIST3H2BB,HIST3H2A</i>	50	chr14:105830605-105830846	<i>PACS2</i>
6	chr01:47998899-47999517	<i>Non Coding Region</i>	51	chr14:21152483-21152740	<i>ANG,RNASE4</i>
7	chr01:61548753-61549564	<i>NFLA</i>	52	chr14:51026872-51027570	<i>ATL1</i>
8	chr02:176993479-176995557	<i>HOXD8</i>	53	chr14:88789600-88790493	<i>KCNK10</i>
9	chr02:233367780-233368577	<i>Non Coding Region</i>	54	chr15:45421236-45422394	<i>DUOX1,DUOX1A1</i>
10	chr02:238599857-238601430	<i>LRRFIP1</i>	55	chr15:93615622-93617185	<i>RGMA</i>
11	chr02:26395416-26395620	<i>FAM59B</i>	56	chr15:99190446-99194559	<i>IGFIR</i>
12	chr02:74425444-74426423	<i>MTHFD2</i>	57	chr16:23846941-23848102	<i>PRKCB</i>
13	chr03:179168735-179169593	<i>GNB4</i>	58	chr16:88700455-88701573	<i>Non Coding Region</i>
14	chr03:184099095-184099582	<i>CHRD</i>	59	chr19:11533198-11533619	<i>CCDC151</i>
15	chr04:10020481-10021026	<i>SLC2A9</i>	60	chr19:13124569-13124788	<i>NFIX</i>
16	chr04:76555366-76556079	<i>CDKL2</i>	61	chr19:17403039-17403570	<i>ABHD8</i>
17	chr04:89079756-89080454	<i>ABCG2</i>	62	chr19:35633409-35633697	<i>FXYP7,FXYP1</i>
18	chr05:43017968-43018668	<i>Non Coding Region</i>	63	chr19:35633847-35634629	<i>FXYP7,FXYP1</i>
19	chr06:26031880-26032264	<i>HIST1H3B</i>	64	chr19:41316543-41317318	<i>Non Coding Region</i>
20	chr06:26250436-26250827	<i>HIST1H3F,HIST1H2BH</i>	65	chr19:50554012-50554492	<i>FLJ26850</i>
21	chr06:26251898-26252233	<i>HIST1H3F,HIST1H2BH</i>	66	chr19:54369387-54369809	<i>MYADM</i>
22	chr06:26271345-26271588	<i>HIST1H3G</i>	67	chr20:44539729-44540099	<i>PLTP</i>
23	chr06:26272470-26272696	<i>HIST1H3G,HIST1H2BI</i>	68	chr20:62185073-62185572	<i>C20orf195</i>
24	chr06:26273290-26273557	<i>HIST1H2BI</i>	69	chr20:825267-826276	<i>FAM110A</i>
25	chr06:27841001-27841244	<i>HIST1H3I</i>	70	chr22:38220589-38221619	<i>GALR3</i>
26	chr06:30139718-30140263	<i>TRIM15</i>	Alternative markers for Group 5 set		
27	chr06:91004795-91006944	<i>BACH2</i>	71	chr01:12226876-12227712	<i>TNFRSF1B</i>
28	chr07:100224270-100224558	<i>TFR2</i>	72	chr01:151810460-151811684	<i>LOC100132111,C2CD4D</i>
29	chr07:100230649-100231320	<i>TFR2</i>	73	chr01:154300975-154301528	<i>ATP8B2</i>
30	chr07:148982079-148982675	<i>ZNF783</i>	74	chr01:2144199-2144497	<i>Non Coding Region</i>
31	chr07:155595692-155599414	<i>SHH</i>	75	chr01:21616380-21617101	<i>ECE1</i>
32	chr07:27212416-27214396	<i>HOXA10</i>	76	chr01:230561103-230562702	<i>Non Coding Region</i>
33	chr08:101661671-101662022	<i>SNX31</i>	77	chr01:26686516-26687281	<i>Non Coding Region</i>
34	chr08:27183090-27183390	<i>PTK2B</i>	78	chr01:32410188-32410630	<i>Non Coding Region</i>
35	chr10:21805197-21805459	<i>C10orf140</i>	79	chr01:32713918-32714186	<i>FAM167B</i>
36	chr10:22623350-22625875	<i>Non Coding Region</i>	80	chr01:41249090-41250161	<i>KCNO4</i>
37	chr10:72218130-72218484	<i>Non Coding Region</i>	81	chr01:55007704-55008448	<i>Non Coding Region</i>
38	chr10:81002109-81003687	<i>ZMIZ1</i>	82	chr02:128180294-128181381	<i>PROC</i>
39	chr11:119227096-119227758	<i>USP2</i>	83	chr02:131129718-131130511	<i>PTPN18</i>
40	chr11:120434822-120435940	<i>Non Coding Region</i>	84	chr02:160760604-160761452	<i>LY75</i>
41	chr11:124790814-124791354	<i>HEPACAM</i>	85	chr02:177001221-177001783	<i>Non Coding Region</i>
42	chr11:13030330-13032584	<i>RASSF10</i>	86	chr02:233791783-233793922	<i>NGEF</i>
43	chr11:2290104-2292932	<i>ASCL2</i>	87	chr02:24300060-24300294	<i>SF3B14</i>
44	chr11:57249946-57250848	<i>Non Coding Region</i>	88	chr02:263400-265238	<i>SH3YL1,ACP1</i>
45	chr11:64993280-64993484	<i>SLC22A20</i>	89	chr02:42328300-42328827	<i>Non Coding Region</i>

Figure 57A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
90	chr02:44058765-44059232	<i>ABCG5</i>	136	chr09:112810858-112811128	<i>PALM2-AKAP2,AKAP2</i>
91	chr02:85132338-85133083	<i>Non Coding Region</i>	137	chr09:79073907-79074561	<i>GCNT1</i>
92	chr02:8723855-8724093	<i>Non Coding Region</i>	138	chr10:102882977-102883551	<i>TLX1NB</i>
93	chr02:9143127-9144630	<i>MBOAT2</i>	139	chr10:103879633-103880628	<i>LDB1</i>
94	chr02:96054894-96055143	<i>Non Coding Region</i>	140	chr10:113943283-113943657	<i>GPAM</i>
95	chr03:157822973-157823836	<i>SHOX2</i>	141	chr10:135089969-135090491	<i>ADAM8</i>
96	chr03:183542496-183543804	<i>MAP6D1</i>	142	chr10:17270430-17272617	<i>VIM</i>
97	chr03:197281605-197283128	<i>BDH1</i>	143	chr10:76584625-76586746	<i>Non Coding Region</i>
98	chr03:38080628-38081187	<i>DLEC1</i>	144	chr10:88730554-88731632	<i>AGAP11</i>
99	chr03:49755763-49757317	<i>AMIGO3,RNF123</i>	145	chr11:2158951-2162484	<i>IGF2,IGF2AS,INS-IGF2</i>
100	chr03:52567009-52568807	<i>NTSDC2</i>	146	chr11:66623620-66626614	<i>PC,LRFN4</i>
101	chr03:55520226-55522344	<i>Non Coding Region</i>	147	chr11:68778569-68778851	<i>MRGPRF</i>
102	chr04:113445022-113445350	<i>Non Coding Region</i>	148	chr11:69258149-69258544	<i>Non Coding Region</i>
103	chr04:41882450-41882964	<i>Non Coding Region</i>	149	chr11:73693702-73694802	<i>UCP2</i>
104	chr05:176829339-176829756	<i>F12</i>	150	chr11:75917271-75917926	<i>WNT11</i>
105	chr05:176830275-176831639	<i>F12</i>	151	chr11:77122736-77123088	<i>PAK1</i>
106	chr06:24360029-24360411	<i>Non Coding Region</i>	152	chr12:109729572-109729826	<i>FOXN4</i>
107	chr06:27775329-27776258	<i>HIST1H2AI</i>	153	chr12:122277301-122277539	<i>HPD</i>
108	chr06:27839698-27840069	<i>HIST1H3I,HIST1H4L</i>	154	chr12:12869798-12871248	<i>CDKN1B</i>
109	chr06:27858166-27858564	<i>HIST1H3J</i>	155	chr12:133065843-133066393	<i>FBRSL1</i>
110	chr06:30923208-30923624	<i>Non Coding Region</i>	156	chr12:47473177-47474120	<i>AMIGO2</i>
111	chr06:33244677-33245554	<i>B3GALT4</i>	157	chr12:48206721-48207126	<i>HDAC7</i>
112	chr06:34202567-34206193	<i>HMGAI</i>	158	chr12:54071053-54071265	<i>ATP5G2</i>
113	chr06:43044044-43045057	<i>PTK7</i>	159	chr12:54427025-54428709	<i>HOXC5,HOXC4</i>
114	chr06:52226753-52228006	<i>PAQR8</i>	160	chr12:54784900-54785238	<i>ZNF385A</i>
115	chr07:100183527-100184625	<i>LRCH4</i>	161	chr12:56122017-56123186	<i>CD63</i>
116	chr07:102073605-102074334	<i>ORAI2</i>	162	chr12:98897604-98897849	<i>Non Coding Region</i>
117	chr07:112429980-112430566	<i>TMEM168</i>	163	chr14:105940325-105941900	<i>CRIP2</i>
118	chr07:138720044-138721019	<i>ZC3H4V1L</i>	164	chr14:54420184-54422958	<i>BMP4</i>
119	chr07:139930065-139930356	<i>Non Coding Region</i>	165	chr14:60794576-60794867	<i>Non Coding Region</i>
120	chr07:143042508-143042867	<i>CLCN1</i>	166	chr14:61188116-61190772	<i>SIX4</i>
121	chr07:151106244-151107808	<i>WDR86</i>	167	chr14:62217725-62218077	<i>Non Coding Region</i>
122	chr07:155284018-155284356	<i>Non Coding Region</i>	168	chr14:65016516-65016909	<i>C14orf50</i>
123	chr07:25896713-25896925	<i>Non Coding Region</i>	169	chr14:65170876-65172007	<i>PLEKHG3</i>
124	chr07:27135342-27136736	<i>HOXA1</i>	170	chr15:31683984-31685824	<i>Non Coding Region</i>
125	chr07:27195601-27196567	<i>HOXA7</i>	171	chr15:41803443-41805531	<i>LTK</i>
126	chr07:27208871-27209616	<i>MIR196B</i>	172	chr15:45003460-45004345	<i>B2M</i>
127	chr07:855308-856747	<i>UNC84A</i>	173	chr15:78556405-78557542	<i>DNAJA4</i>
128	chr07:87849003-87849594	<i>SRI</i>	174	chr15:90208787-90209279	<i>PLIN1</i>
129	chr07:99595206-99595505	<i>Non Coding Region</i>	175	chr16:29624387-29625391	<i>SLC7A5P1</i>
130	chr08:11559596-11562956	<i>Non Coding Region</i>	176	chr16:431189-432810	<i>LOC100134368</i>
131	chr08:142215691-142216299	<i>Non Coding Region</i>	177	chr16:89641053-89643415	<i>CPNE7</i>
132	chr08:145016417-145016916	<i>PLEC1</i>	178	chr17:1390456-1390786	<i>MYO1C</i>
133	chr08:22457123-22457753	<i>C8orf58</i>	179	chr17:29298046-29298606	<i>RNF135</i>
134	chr08:37551944-37555922	<i>ZNF703</i>	180	chr17:34091136-34091919	<i>C17orf50</i>
135	chr09:103235171-103236627	<i>TMEFF1</i>	181	chr17:36575499-36575782	<i>Non Coding Region</i>

Figure 57B

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Order	Coordinate of CpG (hg19)	Gene
182	chr17:41984148-41985012	<i>MPP2</i>
183	chr17:42082027-42084972	<i>NAGS</i>
184	chr17:43324689-43325729	<i>LOC100133991</i>
185	chr17:46654053-46654369	<i>HOXB4</i>
186	chr17:46655215-46655604	<i>HOXB4</i>
187	chr17:61523000-61524470	<i>CYB561</i>
188	chr17:62774366-62777797	<i>LOC146880</i>
189	chr17:73083866-73084495	<i>SLC16A5</i>
190	chr17:73892496-73893448	<i>TRIM65</i>
191	chr17:79478235-79482426	<i>Non Coding Region</i>
192	chr17:80291020-80292394	<i>SECTM1</i>
193	chr18:55862653-55862873	<i>NEDD4L</i>
194	chr19:12978359-12978785	<i>MAST1</i>
195	chr19:13120986-13124368	<i>NFIX</i>
196	chr19:18209911-18210268	<i>MAST3</i>
197	chr19:18499097-18499697	<i>GDF15</i>
198	chr19:19221196-19221575	<i>SLC25A42</i>
199	chr19:3434929-3435417	<i>NFIC</i>
200	chr19:35645597-35646047	<i>FXRD5</i>
201	chr19:36389545-36389967	<i>NFKBID</i>
202	chr19:39440404-39441011	<i>FBXO17</i>
203	chr19:39894558-39894768	<i>Non Coding Region</i>
204	chr19:43979359-43979684	<i>PHLDB3</i>
205	chr19:48229072-48229507	<i>EHD2</i>
206	chr19:48824529-48825493	<i>EMP3</i>
207	chr19:49255778-49256495	<i>FUT1</i>
208	chr19:50096609-50096912	<i>PRR12</i>
209	chr19:54371854-54372990	<i>MYADM</i>
210	chr19:54485303-54486322	<i>CACNG8</i>
211	chr19:55865016-55865434	<i>FAM71E2,COX6B2</i>
212	chr19:6740669-6741203	<i>TRIP10</i>
213	chr19:9896563-9896994	<i>Non Coding Region</i>
214	chr20:33762403-33762774	<i>PROCR</i>
215	chr20:42135793-42137062	<i>Non Coding Region</i>
216	chr20:62283516-62284835	<i>STMN3</i>
217	chr20:62710769-62711745	<i>OPRL1,RGS19</i>
218	chr21:26934423-26934805	<i>MIR155HG</i>
219	chr22:40390484-40391490	<i>FAM83F</i>
220	chr22:42679333-42679893	<i>Non Coding Region</i>

Figure 57C

Solid Tumor Methylation markers, 75% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Solid Tumor Markers			Preferred Solid Tumor Markers	
1	Chr01: 110610899 110610900	<i>ALX3</i>	46	Chr06: 137814728 137814729	<i>OLIG3</i>
2	Chr01: 110611465 110611466	<i>ALX3</i>	47	Chr06: 28956247 28956248	<i>Non Coding Region</i>
3	Chr01: 111217194 111217195	<i>KCNA3</i>	48	Chr06: 28956268 28956269	<i>Non Coding Region</i>
4	Chr01: 119532195 119532196	<i>TBX15</i>	49	Chr06: 29943401 29943402	<i>HCG9</i>
5	Chr01: 119532925 119532926	<i>TBX15</i>	50	Chr06: 29943480 29943481	<i>HCG9</i>
6	Chr01: 147790806 147790807	<i>Non Coding Region</i>	51	Chr07: 19158664 19158665	<i>TWIST1</i>
7	Chr01: 151811364 151811365	<i>LOC100132111, C2CD4D</i>	52	Chr07: 27208285 27208286	<i>Non Coding Region</i>
8	Chr01: 151811620 151811621	<i>LOC100132111, C2CD4D</i>	53	Chr07: 35293759 35293760	<i>TBX20</i>
9	Chr01: 214153294 214153295	<i>Non Coding Region</i>	54	Chr07: 42267719 42267720	<i>GLI3</i>
10	Chr01: 221050491 221050492	<i>Non Coding Region</i>	55	Chr07: 42267747 42267748	<i>GLI3</i>
11	Chr01: 36042986 36042987	<i>TFAP2E</i>	56	Chr07: 96650323 96650324	<i>DLX5</i>
12	Chr01: 36043352 36043353	<i>TFAP2E</i>	57	Chr07: 96652115 96652116	<i>DLX5</i>
13	Chr01: 67217826 67217827	<i>TCTEX1D1</i>	58	Chr08: 101822108 101822109	<i>Non Coding Region</i>
14	Chr01: 67217853 67217854	<i>TCTEX1D1</i>	59	Chr08: 23564025 23564026	<i>NKX2-6</i>
15	Chr01: 67217886 67217887	<i>TCTEX1D1</i>	60	Chr08: 23564156 23564157	<i>NKX2-6</i>
16	Chr01: 67217950 67217951	<i>TCTEX1D1</i>	61	Chr08: 23564193 23564194	<i>NKX2-6</i>
17	Chr01: 67218165 67218166	<i>TCTEX1D1</i>	62	Chr08: 70982039 70982040	<i>PRDM14</i>
18	Chr01: 91196332 91196333	<i>Non Coding Region</i>	63	Chr10: 103603563 103603564	<i>KCNIP2</i>
19	Chr01: 91300215 91300216	<i>Non Coding Region</i>	64	Chr10: 119292062 119292063	<i>EMX2OS</i>
20	Chr02: 171573223 171573224	<i>SP5</i>	65	Chr10: 119295770 119295771	<i>EMX2OS</i>
21	Chr02: 172972840 172972841	<i>Non Coding Region</i>	66	Chr10: 123922970 123922971	<i>TACC2</i>
22	Chr02: 177030150 177030151	<i>HOXD3</i>	67	Chr10: 123923081 123923082	<i>TACC2</i>
23	Chr02: 208989248 208989249	<i>CRYGD</i>	68	Chr10: 123923273 123923274	<i>TACC2</i>
24	Chr02: 38301756 38301757	<i>CYP11B1</i>	69	Chr10: 8097689 8097690	<i>GATA3</i>
25	Chr02: 45231226 45231227	<i>Non Coding Region</i>	70	Chr10: 8098005 8098006	<i>GATA3</i>
26	Chr02: 45231382 45231383	<i>Non Coding Region</i>	71	Chr11: 2292691 2292692	<i>ASCL2</i>
27	Chr02: 63281139 63281140	<i>OTX1</i>	72	Chr11: 31827084 31827085	<i>PAX6</i>
28	Chr02: 63283013 63283014	<i>OTX1</i>	73	Chr11: 627152 627153	<i>SCT</i>
29	Chr02: 63283967 63283968	<i>OTX1</i>	74	Chr12: 25055967 25055968	<i>BCAT1</i>
30	Chr02: 63284066 63284067	<i>OTX1</i>	75	Chr12: 54424679 54424680	<i>HOXC5, HOXC4</i>
31	Chr02: 63284132 63284133	<i>OTX1</i>	76	Chr12: 56415271 56415272	<i>IKZF4</i>
32	Chr03: 119528656 119528657	<i>NR112</i>	77	Chr12: 58021917 58021918	<i>B4GALNT1</i>
33	Chr03: 129693370 129693371	<i>TRH</i>	78	Chr12: 6665335 6665336	<i>IFFO1</i>
34	Chr03: 129693385 129693386	<i>TRH</i>	79	Chr12: 85671892 85671893	<i>Non Coding Region</i>
35	Chr03: 129693586 129693587	<i>TRH</i>	80	Chr13: 79170146 79170147	<i>Non Coding Region</i>
36	Chr04: 140656749 140656750	<i>MAML3</i>	81	Chr13: 79170303 79170304	<i>Non Coding Region</i>
37	Chr04: 183062301 183062302	<i>MGC45800</i>	82	Chr15: 31658323 31658324	<i>KLF13</i>
38	Chr04: 183063459 183063460	<i>MGC45800</i>	83	Chr15: 86233220 86233221	<i>AKAP13</i>
39	Chr04: 57522493 57522494	<i>HOPX</i>	84	Chr15: 86233236 86233237	<i>AKAP13</i>
40	Chr05: 134363324 134363325	<i>Non Coding Region</i>	85	Chr15: 89952499 89952500	<i>Non Coding Region</i>
41	Chr05: 140787507 140787508	<i>PCDHGB1, PCDHGB3, PCDHGB2, etc.</i>	86	Chr16: 29086271 29086272	<i>RRN3P2</i>
42	Chr06: 100912946 100912947	<i>SIMI</i>	87	Chr16: 3237991 3237992	<i>Non Coding Region</i>
43	Chr06: 10385903 10385904	<i>Non Coding Region</i>	88	Chr16: 66612955 66612956	<i>CMTM2, CMTM1</i>
44	Chr06: 10391412 10391413	<i>Non Coding Region</i>	89	Chr16: 66613266 66613267	<i>CMTM2</i>
45	Chr06: 106429316 106429317	<i>Non Coding Region</i>	90	Chr16: 66613278 66613279	<i>CMTM2</i>

Figure 58A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	Chr17: 59534998 59534999	<i>TBX4</i>	135	Chr05: 158532401 158532402	<i>Non Coding Region</i>
92	Chr17: 73584070 73584071	<i>MYO15B</i>	136	Chr05: 174159039 174159040	<i>Non Coding Region</i>
93	Chr17: 73584617 73584618	<i>MYO15B</i>	137	Chr05: 3597487 3597488	<i>IRX1</i>
94	Chr18: 54789058 54789059	<i>Non Coding Region</i>	138	Chr05: 37834672 37834673	<i>GDNF</i>
95	Chr19: 39108609 39108610	<i>MAP4K1,EIF3K</i>	139	Chr05: 42952113 42952114	<i>Non Coding Region</i>
96	Chr19: 4328759 4328760	<i>STAP2</i>	140	Chr05: 72528296 72528297	<i>Non Coding Region</i>
97	Chr19: 58220370 58220371	<i>ZNF154</i>	141	Chr05: 92938232 92938233	<i>Non Coding Region</i>
98	Chr19: 58220494 58220495	<i>ZNF154</i>	142	Chr06: 106429443 106429444	<i>Non Coding Region</i>
99	Chr20: 21682362 21682363	<i>Non Coding Region</i>	143	Chr06: 108488335 108488336	<i>NR2E1</i>
100	Chr20: 30639305 30639306	<i>HCK</i>	144	Chr06: 1386087 1386088	<i>Non Coding Region</i>
101	Chr20: 37434167 37434168	<i>PPP1R16B</i>	145	Chr06: 27107282 27107283	<i>HIST1H4I,HIST1H2BK</i>
102	Chr21: 38076869 38076870	<i>SIM2</i>	146	Chr06: 27173753 27173754	<i>Non Coding Region</i>
103	Chr21: 38078767 38078768	<i>SIM2</i>	147	Chr06: 28956731 28956732	<i>Non Coding Region</i>
104	Chr22: 50623687 50623688	<i>TRABD</i>	148	Chr06: 29521602 29521603	<i>Non Coding Region</i>
105	Chr22: 50623692 50623693	<i>TRABD</i>	149	Chr06: 29795815 29795816	<i>HLA-G</i>
Alternative solid tumor markers set 1			150	Chr06: 30139903 30139904	<i>TRIM15</i>
106	Chr01: 156405438 156405439	<i>Non Coding Region</i>	151	Chr06: 41528345 41528346	<i>FOXP4</i>
107	Chr01: 170630558 170630559	<i>Non Coding Region</i>	152	Chr06: 42739021 42739022	<i>Non Coding Region</i>
108	Chr01: 204653629 204653630	<i>LRRN2</i>	153	Chr06: 6004207 6004208	<i>NRN1</i>
109	Chr01: 221054825 221054826	<i>HLX</i>	154	Chr06: 75916963 75916964	<i>COL12A1</i>
110	Chr01: 228652528 228652529	<i>Non Coding Region</i>	155	Chr07: 1270558 1270559	<i>Non Coding Region</i>
111	Chr01: 44031300 44031301	<i>PTPRF</i>	156	Chr07: 24323799 24323800	<i>NPY</i>
112	Chr01: 44873229 44873230	<i>RNF220</i>	157	Chr07: 27225523 27225524	<i>HOXA11AS,HOXA11</i>
113	Chr01: 46958801 46958802	<i>Non Coding Region</i>	158	Chr08: 22562469 22562470	<i>Non Coding Region</i>
114	Chr01: 6526325 6526326	<i>TNFRSF25,PLEKHG5</i>	159	Chr08: 23563925 23563926	<i>NKX2-6</i>
115	Chr01: 87598069 87598070	<i>LOC339524</i>	160	Chr08: 72754953 72754954	<i>MSC</i>
116	Chr02: 105459164 105459165	<i>Non Coding Region</i>	161	Chr09: 100611516 100611517	<i>Non Coding Region</i>
117	Chr02: 175208605 175208606	<i>Non Coding Region</i>	162	Chr09: 37002685 37002686	<i>PAX5</i>
118	Chr02: 176979788 176979789	<i>Non Coding Region</i>	163	Chr10: 102894148 102894149	<i>TLX1</i>
119	Chr02: 19551860 19551861	<i>OSR1</i>	164	Chr10: 102899285 102899286	<i>Non Coding Region</i>
120	Chr02: 208491939 208491940	<i>Non Coding Region</i>	165	Chr10: 21783445 21783446	<i>C10orf114</i>
121	Chr02: 208989382 208989383	<i>CRYGD</i>	166	Chr10: 94822908 94822909	<i>CYP26C1</i>
122	Chr02: 223161771 223161772	<i>CCDC140,PAX3</i>	167	Chr11: 128565168 128565169	<i>FLI1</i>
123	Chr02: 45240563 45240564	<i>Non Coding Region</i>	168	Chr11: 14926738 14926739	<i>Non Coding Region</i>
124	Chr02: 72371261 72371262	<i>CYP26B1</i>	169	Chr11: 46383066 46383067	<i>DGKZ</i>
125	Chr03: 141516271 141516272	<i>GRK7</i>	170	Chr11: 67038414 67038415	<i>ADRBK1</i>
126	Chr03: 62356962 62356963	<i>FEZF2</i>	171	Chr11: 78673073 78673074	<i>ODZ4</i>
127	Chr04: 111555440 111555441	<i>PTX2</i>	172	Chr12: 133481390 133481391	<i>Non Coding Region</i>
128	Chr04: 155254497 155254498	<i>DCHS2</i>	173	Chr12: 30976001 30976002	<i>Non Coding Region</i>
129	Chr04: 174430614 174430615	<i>Non Coding Region</i>	174	Chr12: 52652377 52652378	<i>Non Coding Region</i>
130	Chr04: 3371928 3371929	<i>RGS12</i>	175	Chr12: 54088972 54088973	<i>Non Coding Region</i>
131	Chr04: 54960232 54960233	<i>Non Coding Region</i>	176	Chr12: 54345862 54345863	<i>Non Coding Region</i>
132	Chr04: 81189927 81189928	<i>FGF5</i>	177	Chr12: 54408664 54408665	<i>Non Coding Region</i>
133	Chr05: 140787504 140787505	<i>PCDHGB1,PCDHGB3,PCDHGB2, etc.</i>	178	Chr12: 85667353 85667354	<i>Non Coding Region</i>
134	Chr05: 140800929 140800930	<i>PCDHGA8,PCDHGA10,PCDHGA11, etc.</i>	179	Chr12: 85672623 85672624	<i>ALX1</i>

Figure 58B

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Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
180	Chr14: 70653719 70653720	<i>SLC8A3</i>	224	Chr03: 172166517 172166518	<i>GHSR</i>
181	Chr15: 101420636 101420637	<i>ALDH1A3</i>	225	Chr04: 147561775 147561776	<i>POU4F2</i>
182	Chr15: 37172509 37172510	<i>LOC145845</i>	226	Chr04: 155254602 155254603	<i>DCHS2</i>
183	Chr15: 51385891 51385892	<i>TNFAIP8L3</i>	227	Chr04: 5053504 5053505	<i>STK32B</i>
184	Chr15: 53083532 53083533	<i>ONECUT1</i>	228	Chr04: 5710319 5710320	<i>EVC2</i>
185	Chr15: 89922328 89922329	<i>LOC254559</i>	229	Chr05: 115152494 115152495	<i>CDO1</i>
186	Chr15: 96888433 96888434	<i>Non Coding Region</i>	230	Chr05: 136834464 136834465	<i>SPOCK1</i>
187	Chr16: 2765843 2765844	<i>PRSS27</i>	231	Chr05: 136834492 136834493	<i>SPOCK1</i>
188	Chr16: 30904573 30904574	<i>BCL7C,MIR762</i>	232	Chr05: 140800586 140800587	<i>PCDHGA8,PCDHGA10,PCDHGA11, etc.</i>
189	Chr16: 49312238 49312239	<i>CBLN1</i>	233	Chr05: 37839829 37839830	<i>GDNF</i>
190	Chr16: 54970523 54970524	<i>Non Coding Region</i>	234	Chr05: 5139853 5139854	<i>ADAMTS16</i>
191	Chr16: 55363058 55363059	<i>IRX6</i>	235	Chr06: 27173633 27173634	<i>Non Coding Region</i>
192	Chr16: 67197186 67197187	<i>FBXL8,HSF4</i>	236	Chr06: 27173991 27173992	<i>Non Coding Region</i>
193	Chr17: 27940509 27940510	<i>ANKRD13B</i>	237	Chr06: 32116905 32116906	<i>PRRT1</i>
194	Chr17: 59480730 59480731	<i>TBX2</i>	238	Chr06: 391936 391937	<i>IRF4</i>
195	Chr17: 7287740 7287741	<i>TNK1</i>	239	Chr06: 393239 393240	<i>IRF4</i>
196	Chr18: 22929205 22929206	<i>ZNF521</i>	240	Chr06: 393616 393617	<i>IRF4</i>
197	Chr19: 39108672 39108673	<i>MAP4K1,EIF3K</i>	241	Chr06: 75917560 75917561	<i>Non Coding Region</i>
198	Chr19: 4328818 4328819	<i>STAP2</i>	242	Chr07: 127671193 127671194	<i>LRR4,SND1</i>
199	Chr19: 48984071 48984072	<i>CYTH2</i>	243	Chr07: 127672458 127672459	<i>LRR4,SND1</i>
200	Chr20: 57224919 57224920	<i>STX16</i>	244	Chr07: 156798258 156798259	<i>MNX1</i>
201	Chr21: 36399226 36399227	<i>RUNX1</i>	245	Chr07: 158937610 158937611	<i>VIPR2</i>
202	Chr21: 38083149 38083150	<i>SIM2</i>	246	Chr07: 27205230 27205231	<i>HOXA9</i>
Alternative solid tumor markers set 2			247	Chr07: 27285563 27285564	<i>EVX1</i>
203	Chr01: 111217497 111217498	<i>KCNA3</i>	248	Chr07: 27285831 27285832	<i>EVX1</i>
204	Chr01: 154475173 154475174	<i>TDRD10,SHE</i>	249	Chr07: 27286075 27286076	<i>EVX1</i>
205	Chr01: 169396858 169396859	<i>C1orf114</i>	250	Chr07: 93519855 93519856	<i>TFPI2</i>
206	Chr01: 169396868 169396869	<i>C1orf114</i>	251	Chr08: 116679763 116679764	<i>TRPS1</i>
207	Chr01: 170640675 170640676	<i>PRRX1</i>	252	Chr08: 41167107 41167108	<i>SERP1</i>
208	Chr01: 228652478 228652479	<i>Non Coding Region</i>	253	Chr08: 41754181 41754182	<i>ANK1</i>
209	Chr01: 48058985 48058986	<i>Non Coding Region</i>	254	Chr08: 53852030 53852031	<i>NPBWR1</i>
210	Chr01: 67218135 67218136	<i>TCTEX1D1</i>	255	Chr08: 55379248 55379249	<i>Non Coding Region</i>
211	Chr01: 98511258 98511259	<i>Non Coding Region</i>	256	Chr08: 56852290 56852291	<i>LYN</i>
212	Chr01: 98511789 98511790	<i>MIR137</i>	257	Chr08: 65281496 65281497	<i>Non Coding Region</i>
213	Chr02: 127413831 127413832	<i>GYPC</i>	258	Chr08: 67344553 67344554	<i>ADHFE1</i>
214	Chr02: 139537197 139537198	<i>NXP2</i>	259	Chr08: 67344556 67344557	<i>ADHFE1</i>
215	Chr02: 177039862 177039863	<i>Non Coding Region</i>	260	Chr08: 67344665 67344666	<i>ADHFE1</i>
216	Chr02: 219736549 219736550	<i>WNT6</i>	261	Chr08: 67344720 67344721	<i>ADHFE1</i>
217	Chr02: 233368543 233368544	<i>Non Coding Region</i>	262	Chr08: 97172961 97172962	<i>GDF6</i>
218	Chr02: 45155991 45155992	<i>Non Coding Region</i>	263	Chr10: 102894120 102894121	<i>TLX1</i>
219	Chr02: 71192445 71192446	<i>ATP6V1B1</i>	264	Chr10: 103603722 103603723	<i>KCNIP2</i>
220	Chr02: 74743437 74743438	<i>TLX2</i>	265	Chr10: 108924366 108924367	<i>SORCS1</i>
221	Chr03: 140770599 140770600	<i>SPSB4</i>	266	Chr10: 22625465 22625466	<i>Non Coding Region</i>
222	Chr03: 142839991 142839992	<i>CHST2</i>	267	Chr10: 45914450 45914451	<i>ALOX5</i>
223	Chr03: 172165884 172165885	<i>GHSR</i>	268	Chr10: 45914525 45914526	<i>ALOX5</i>

Figure 58C

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Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
269	Chr10: 45914688 45914689	<i>ALOX5</i>	314	Chr19: 37096321 37096322	<i>ZNF529,ZNF382</i>
270	Chr10: 45914840 45914841	<i>ALOX5</i>	315	Chr19: 37096329 37096330	<i>ZNF529,ZNF382</i>
271	Chr11: 125774082 125774083	<i>PUS3,DDX25</i>	316	Chr19: 46996516 46996517	<i>PNMAL2</i>
272	Chr11: 128564874 128564875	<i>FLII</i>	317	Chr19: 49250439 49250440	<i>IZUMO1</i>
273	Chr11: 2162183 2162184	<i>IGF2,IGF2AS,INS-IGF2</i>	318	Chr19: 49250452 49250453	<i>IZUMO1</i>
274	Chr11: 43602879 43602880	<i>MIR129-2</i>	319	Chr19: 50031017 50031018	<i>RCN3</i>
275	Chr11: 57250469 57250470	<i>Non Coding Region</i>	320	Chr19: 58095595 58095596	<i>ZIK1</i>
276	Chr11: 69830611 69830612	<i>Non Coding Region</i>	321	Chr19: 58095659 58095660	<i>ZIK1</i>
277	Chr12: 117798954 117798955	<i>NOS1</i>	322	Chr19: 7927207 7927208	<i>EVT5L</i>
278	Chr12: 62585877 62585878	<i>FAM19A2</i>	323	Chr20: 2781262 2781263	<i>CPXM1</i>
279	Chr13: 23733862 23733863	<i>Non Coding Region</i>	324	Chr20: 37353126 37353127	<i>SLC32A1</i>
280	Chr13: 25621027 25621028	<i>Non Coding Region</i>	325	Chr20: 37434229 37434230	<i>PPP1R16B</i>
281	Chr13: 25745784 25745785	<i>FAM123A</i>	326	Chr20: 42875779 42875780	<i>GDAPIL1</i>
282	Chr13: 28498384 28498385	<i>PDX1</i>	327	Chr20: 61638574 61638575	<i>BHLHE23</i>
283	Chr13: 37006107 37006108	<i>CCNA1</i>			
284	Chr13: 58204224 58204225	<i>Non Coding Region</i>			
285	Chr14: 29254680 29254681	<i>C14orf23</i>			
286	Chr14: 37125914 37125915	<i>PAX9</i>			
287	Chr15: 29077493 29077494	<i>Non Coding Region</i>			
288	Chr15: 37390284 37390285	<i>MEIS2</i>			
289	Chr15: 41793881 41793882	<i>ITPKA</i>			
290	Chr15: 41794412 41794413	<i>ITPKA</i>			
291	Chr15: 45479755 45479756	<i>SHF</i>			
292	Chr15: 75251491 75251492	<i>Non Coding Region</i>			
293	Chr15: 76633627 76633628	<i>ISL2</i>			
294	Chr15: 76633981 76633982	<i>ISL2</i>			
295	Chr15: 76634516 76634517	<i>ISL2</i>			
296	Chr15: 83776422 83776423	<i>TM6SF1</i>			
297	Chr16: 49312033 49312034	<i>Non Coding Region</i>			
298	Chr16: 51184786 51184787	<i>SALL1</i>			
299	Chr16: 55690381 55690382	<i>SLC6A2</i>			
300	Chr16: 88700818 88700819	<i>Non Coding Region</i>			
301	Chr17: 37321490 37321491	<i>ARL5C</i>			
302	Chr17: 41364007 41364008	<i>TMEM106A</i>			
303	Chr17: 43339223 43339224	<i>C17orf46,LOC100133991</i>			
304	Chr17: 43339497 43339498	<i>C17orf46,LOC100133991</i>			
305	Chr17: 73584068 73584069	<i>MYO15B</i>			
306	Chr17: 75369657 75369658	<i>SEPTIN9</i>			
307	Chr17: 76921845 76921846	<i>TIMP2</i>			
308	Chr18: 56941246 56941247	<i>RAX</i>			
309	Chr18: 7116977 7116978	<i>LAMA1</i>			
310	Chr19: 18539756 18539757	<i>SSBP4</i>			
311	Chr19: 1857004 1857005	<i>KLF16</i>			
312	Chr19: 36523584 36523585	<i>CLIP3</i>			
313	Chr19: 37096148 37096149	<i>ZNF529,ZNF382</i>			

Figure 58D

Solid Tumor Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Solid Tumor Markers			Preferred Solid Tumor Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	46	chr10:123922850-123923542	<i>TACC2</i>
2	chr01:111216244-111217937	<i>KCNA3</i>	47	chr10:8091374-8098329	<i>GATA3</i>
3	chr01:119531991-119532196	<i>TBX15</i>	48	chr11:2290104-2292932	<i>ASCL2</i>
4	chr01:147789652-147790094	<i>Non Coding Region</i>	49	chr11:31827696-31827921	<i>PAX6</i>
5	chr01:151810460-151811684	<i>LOC100132111,C2CD4D</i>	50	chr11:626728-628037	<i>SCT</i>
6	chr01:214153214-214153668	<i>Non Coding Region</i>	51	chr12:25055599-25056246	<i>BCAT1</i>
7	chr01:221050448-221050864	<i>Non Coding Region</i>	52	chr12:54424610-54425173	<i>HOXC5,HOXC4</i>
8	chr01:36042432-36043444	<i>TFAP2E</i>	53	chr12:58021294-58022037	<i>B4GALNT1</i>
9	chr01:67218079-67218293	<i>TCTEX1D1</i>	54	chr12:6664425-6665336	<i>IFFO1</i>
10	chr01:91190489-91192804	<i>Non Coding Region</i>	55	chr12:85673878-85674700	<i>Non Coding Region</i>
11	chr01:91300979-91301891	<i>Non Coding Region</i>	56	chr13:79170114-79171231	<i>Non Coding Region</i>
12	chr02:171569877-171573904	<i>SP5</i>	57	chr15:89952271-89953061	<i>Non Coding Region</i>
13	chr02:172972804-172973242	<i>Non Coding Region</i>	58	chr16:29086220-29086434	<i>RRN3P2</i>
14	chr02:177029413-177029941	<i>HOXD3</i>	59	chr16:3238805-3239492	<i>Non Coding Region</i>
15	chr02:208988834-208989269	<i>CRYGD</i>	60	chr16:66612749-66613412	<i>CMTM2,CMTM1</i>
16	chr02:38301276-38304518	<i>CYP11B1</i>	61	chr17:59531723-59535254	<i>TBX4</i>
17	chr02:45231211-45231482	<i>Non Coding Region</i>	62	chr17:73583838-73586337	<i>MYO15B</i>
18	chr02:63281034-63281347	<i>OTX1</i>	63	chr18:54788959-54789194	<i>Non Coding Region</i>
19	chr02:63282514-63283122	<i>OTX1</i>	64	chr19:39109432-39109862	<i>MAP4K1,EIF3K</i>
20	chr02:63283936-63284147	<i>OTX1</i>	65	chr19:4328658-4328865	<i>STAP2</i>
21	chr03:119528920-119529159	<i>NR1I2</i>	66	chr19:58220189-58220517	<i>ZNF154</i>
22	chr03:129693127-129694841	<i>TRH</i>	67	chr20:21683744-21684420	<i>Non Coding Region</i>
23	chr04:140655962-140657135	<i>MAML3</i>	68	chr20:30639908-30640786	<i>HCK</i>
24	chr04:183062278-183062481	<i>MGC45800</i>	69	chr20:37434206-37435592	<i>PPP1R16B</i>
25	chr04:183063396-183066370	<i>MGC45800</i>	70	chr21:38076762-38077685	<i>SIM2</i>
26	chr04:57521621-57522703	<i>HOPX</i>	71	chr21:38079941-38081833	<i>SIM2</i>
27	chr05:134363092-134365146	<i>Non Coding Region</i>	72	chr22:50623164-50625226	<i>TRABD</i>
28	chr05:140787447-140788044	<i>PCDHGB1,PCDHGB3,PCDHGB2, etc.</i>		Alternative solid tumor markers set 1	
29	chr06:100912071-100913337	<i>SIM1</i>	73	chr01:156405160-156406350	<i>Non Coding Region</i>
30	chr06:10383525-10384114	<i>Non Coding Region</i>	74	chr01:170630456-170630851	<i>Non Coding Region</i>
31	chr06:10390038-10390565	<i>Non Coding Region</i>	75	chr01:204654132-204654885	<i>LRRN2</i>
32	chr06:106429111-106429772	<i>Non Coding Region</i>	76	chr01:221054554-221054888	<i>HLX</i>
33	chr06:137814355-137815202	<i>OLIG3</i>	77	chr01:228651447-228652529	<i>Non Coding Region</i>
34	chr06:28956106-28956578	<i>Non Coding Region</i>	78	chr01:44031286-44031853	<i>PTPRF</i>
35	chr06:29944402-29945169	<i>HCG9</i>	79	chr01:44871109-44874047	<i>RNF220</i>
36	chr07:19156050-19158042	<i>TWIST1</i>	80	chr01:46954793-46957121	<i>Non Coding Region</i>
37	chr07:27208871-27209616	<i>Non Coding Region</i>	81	chr01:6525996-6526228	<i>TNFRSF25,PLEKHG5</i>
38	chr07:35292985-35294674	<i>TBX20</i>	82	chr01:87597543-87598515	<i>LOC339524</i>
39	chr07:42267546-42267823	<i>GLI3</i>	83	chr02:105459127-105461770	<i>Non Coding Region</i>
40	chr07:96650221-96651551	<i>DLX5</i>	84	chr02:175208415-175209076	<i>Non Coding Region</i>
41	chr07:96651963-96652246	<i>DLX5</i>	85	chr02:176980765-176981423	<i>Non Coding Region</i>
42	chr08:23562475-23565175	<i>NKX2-6</i>	86	chr02:19551735-19551961	<i>OSR1</i>
43	chr08:70981873-70984888	<i>PRDM14</i>	87	chr02:208489428-208491030	<i>Non Coding Region</i>
44	chr10:103603166-103603642	<i>KCNIP2</i>	88	chr02:223161531-223161919	<i>CCDC140,PAX3</i>
45	chr10:119293917-119297675	<i>EMX2OS</i>	89	chr02:45240372-45241579	<i>Non Coding Region</i>

Figure 59A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
90	chr02:72371121-72375004	<i>CYP26B1</i>	135	chr12:54345563-54345916	<i>Non Coding Region</i>
91	chr03:141516055-141516639	<i>GRK7</i>	136	chr12:54408426-54408713	<i>Non Coding Region</i>
92	chr03:62356773-62357315	<i>FEZF2</i>	137	chr14:70655095-70656077	<i>SLC8A3</i>
93	chr04:111554965-111555504	<i>PITX2</i>	138	chr15:101419261-101421133	<i>ALDH1A3</i>
94	chr04:155254130-155254603	<i>DCSH2</i>	139	chr15:37172473-37173018	<i>LOC145845</i>
95	chr04:174430386-174430861	<i>Non Coding Region</i>	140	chr15:51385861-51387203	<i>TNFAIP8L3</i>
96	chr04:3374733-3374998	<i>RGS12</i>	141	chr15:53080458-53083699	<i>ONECUT1</i>
97	chr04:54957979-54958542	<i>Non Coding Region</i>	142	chr15:89920793-89922768	<i>LOC254559</i>
98	chr04:81187494-81187913	<i>FGF5</i>	143	chr15:96888958-96889417	<i>Non Coding Region</i>
99	chr05:140800760-140801072	<i>PCDHGA8,PCDHGA10,PCDHGA11, etc.</i>	144	chr16:2765619-2765855	<i>PRSS27</i>
100	chr05:158532294-158532502	<i>Non Coding Region</i>	145	chr16:30905549-30905783	<i>BCL7C,MIR762</i>
101	chr05:174158680-174159729	<i>Non Coding Region</i>	146	chr16:49311413-49312308	<i>CBLN1</i>
102	chr05:3594467-3603054	<i>IRX1</i>	147	chr16:54970301-54972846	<i>Non Coding Region</i>
103	chr05:37834671-37835128	<i>GDNF</i>	148	chr16:55362737-55363287	<i>IRX6</i>
104	chr05:42951076-42952410	<i>Non Coding Region</i>	149	chr16:67196792-67199988	<i>FBXL8,HSF4</i>
105	chr05:72529099-72529976	<i>Non Coding Region</i>	150	chr17:27939298-27940770	<i>ANKRD13B</i>
106	chr05:92939795-92940216	<i>Non Coding Region</i>	151	chr17:59473060-59483266	<i>TBX2</i>
107	chr06:108485671-108490539	<i>NR2E1</i>	152	chr17:7287198-7287940	<i>TNK1</i>
108	chr06:1381743-1385211	<i>Non Coding Region</i>	153	chr18:22930018-22930904	<i>ZNF521</i>
109	chr06:27107138-27107394	<i>HIST1H4I,HIST1H2BK</i>	154	chr19:48983562-48984175	<i>CYTH2</i>
110	chr06:29521110-29521833	<i>Non Coding Region</i>	155	chr20:57224695-57226322	<i>STX16</i>
111	chr06:29795553-29796594	<i>HLA-G</i>	156	chr21:36398960-36399259	<i>RUNX1</i>
112	chr06:30139718-30140263	<i>TRIM15</i>	Alternative solid tumor markers set 2		
113	chr06:41528266-41528900	<i>FOXP4</i>	157	chr01:154474107-154475699	<i>TDRD10,SHE</i>
114	chr06:6002471-6005125	<i>NRN1</i>	158	chr01:169396621-169396869	<i>C1orf114</i>
115	chr06:75914705-75916387	<i>COL12A1</i>	159	chr01:48058793-48059230	<i>Non Coding Region</i>
116	chr07:1269165-1282864	<i>Non Coding Region</i>	160	chr01:98510966-98511710	<i>Non Coding Region</i>
117	chr07:24323558-24325080	<i>NPY</i>	161	chr02:127413696-127414171	<i>GYPC</i>
118	chr07:27225050-27225629	<i>HOXA11A,HOXA11</i>	162	chr02:139537692-139538650	<i>NXP2</i>
119	chr08:22560949-22561271	<i>Non Coding Region</i>	163	chr02:177039551-177039951	<i>Non Coding Region</i>
120	chr08:72755783-72756667	<i>MSC</i>	164	chr02:219736132-219736592	<i>WNT6</i>
121	chr09:100610696-100611517	<i>Non Coding Region</i>	165	chr02:233367780-233368577	<i>Non Coding Region</i>
122	chr09:37002489-37002957	<i>PAX5</i>	166	chr02:45155195-45157049	<i>Non Coding Region</i>
123	chr10:102893660-102895059	<i>TLX1</i>	167	chr02:71192094-71192495	<i>ATP6V1B1</i>
124	chr10:102899177-102899489	<i>Non Coding Region</i>	168	chr02:74740455-74743795	<i>TLX2</i>
125	chr10:21783198-21786420	<i>C10orf114</i>	169	chr03:140769886-140771080	<i>SPSB4</i>
126	chr10:94820026-94823252	<i>CYP26C1</i>	170	chr03:142837885-142840838	<i>CHST2</i>
127	chr11:128562671-128565011	<i>FLI1</i>	171	chr03:172165372-172166738	<i>GHSR</i>
128	chr11:14926471-14927770	<i>Non Coding Region</i>	172	chr04:147559205-147561901	<i>POU4F2</i>
129	chr11:67033675-67034660	<i>ADRBK1</i>	173	chr04:5053230-5054092	<i>STK32B</i>
130	chr11:78673007-78673213	<i>ODZ4</i>	174	chr04:5709985-5710495	<i>EVC2</i>
131	chr12:133484658-133485739	<i>Non Coding Region</i>	175	chr05:115151348-115152713	<i>CDO1</i>
132	chr12:30975385-30976292	<i>Non Coding Region</i>	176	chr05:136834016-136835146	<i>SPOCK1</i>
133	chr12:52652018-52652743	<i>Non Coding Region</i>	177	chr05:37836747-37840726	<i>GDNF</i>
134	chr12:54089211-54089413	<i>Non Coding Region</i>	178	chr05:5139441-5140941	<i>ADAMTS16</i>

Figure 59B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
179	chr06:32116590-32117229	<i>PRRT1</i>	224	chr17:41363727-41364273	<i>TMEM106A</i>
180	chr06:391188-393790	<i>IRF4</i>	225	chr17:43339124-43339832	<i>C17orf46, LOC100133991</i>
181	chr07:127671158-127672853	<i>LRRC4, SND1</i>	226	chr17:75368688-75370506	<i>SEPTIN9</i>
182	chr07:156795355-156799394	<i>MXN1</i>	227	chr17:76920684-76921961	<i>TIMP2</i>
183	chr07:158936507-158938492	<i>VIPR2</i>	228	chr18:56939624-56941540	<i>RAX</i>
184	chr07:27203915-27206462	<i>HOXA9</i>	229	chr18:7116852-7118241	<i>LAMA1</i>
185	chr07:27284639-27286237	<i>EVX1</i>	230	chr19:18539781-18540341	<i>SSBP4</i>
186	chr07:93519366-93520184	<i>TFPI2</i>	231	chr19:1856725-1857443	<i>KLF16</i>
187	chr08:116679698-116679936	<i>TRPS1</i>	232	chr19:36523391-36523887	<i>CLIP3</i>
188	chr08:41165852-41167140	<i>SFRP1</i>	233	chr19:37095680-37096589	<i>ZNF529, ZNF382</i>
189	chr08:41753340-41755250	<i>ANK1</i>	234	chr19:46996327-46998437	<i>PNMAL2</i>
190	chr08:53851701-53854226	<i>NPBWR1</i>	235	chr19:49253688-49254221	<i>IZUMO1</i>
191	chr08:55378928-55380186	<i>Non Coding Region</i>	236	chr19:50030981-50031300	<i>RCN3</i>
192	chr08:65281903-65283043	<i>Non Coding Region</i>	237	chr19:58094739-58095764	<i>ZIK1</i>
193	chr08:67344497-67344989	<i>ADHFE1</i>	238	chr19:7926590-7928752	<i>EVT5L</i>
194	chr08:97172634-97173880	<i>GDF6</i>	239	chr20:2780978-2781497	<i>CPXM1</i>
195	chr10:108923780-108924805	<i>SORCS1</i>	240	chr20:37352130-37357372	<i>SLC32A1</i>
196	chr10:22623350-22625875	<i>Non Coding Region</i>	241	chr20:42875764-42876184	<i>GDAP1L1</i>
197	chr10:45914374-45914883	<i>ALOX5</i>	242	chr20:61636171-61639055	<i>BHLHE23</i>
198	chr11:125774292-125774584	<i>PUS3, DDX25</i>			
199	chr11:2158951-2162484	<i>IGF2, IGF2AS, INS-IGF2</i>			
200	chr11:43602545-43603215	<i>MIR129-2</i>			
201	chr11:57249946-57250848	<i>Non Coding Region</i>			
202	chr11:69831571-69832484	<i>Non Coding Region</i>			
203	chr12:117798076-117799448	<i>NOS1</i>			
204	chr12:62584768-62586268	<i>FAM19A2</i>			
205	chr13:23733808-23734816	<i>Non Coding Region</i>			
206	chr13:25620937-25621554	<i>Non Coding Region</i>			
207	chr13:25743998-25746127	<i>FAM123A</i>			
208	chr13:28498226-28499046	<i>PDX1</i>			
209	chr13:37005581-37006453	<i>CCNA1</i>			
210	chr13:58203586-58204322	<i>Non Coding Region</i>			
211	chr14:29254365-29255069	<i>C14orf23</i>			
212	chr14:37126786-37128274	<i>PAX9</i>			
213	chr15:29077251-29077684	<i>Non Coding Region</i>			
214	chr15:37390175-37390380	<i>MEIS2</i>			
215	chr15:41793562-41795305	<i>ITPKA</i>			
216	chr15:45479509-45480498	<i>SHF</i>			
217	chr15:75251467-75251773	<i>Non Coding Region</i>			
218	chr15:76632262-76635515	<i>ISL2</i>			
219	chr15:83775861-83776922	<i>TM6SF1</i>			
220	chr16:51183699-51188763	<i>SALL1</i>			
221	chr16:55689598-55690895	<i>SLC6A2</i>			
222	chr16:88700455-88701573	<i>Non Coding Region</i>			
223	chr17:37321482-37322099	<i>ARL5C</i>			

Figure 59C

Group 1 Methylation markers, 75% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 1 Markers			Preferred Group 1 Markers	
1	Chr01: 111217194 111217195	KCNA3	46	Chr08: 132054555 132054556	Non Coding Region
2	Chr01: 111217497 111217498	KCNA3	47	Chr08: 23564156 23564157	NKX2-6
3	Chr01: 119532195 119532196	TBX15	48	Chr08: 41754181 41754182	ANK1
4	Chr01: 44873229 44873230	RNF220	49	Chr08: 53851156 53851157	NPBWR1
5	Chr01: 50884480 50884481	DMRTA2	50	Chr08: 55379248 55379249	Non Coding Region
6	Chr01: 50886782 50886783	DMRTA2	51	Chr08: 65281496 65281497	Non Coding Region
7	Chr01: 67218165 67218166	TCTEX1D1	52	Chr08: 67344553 67344554	ADHFE1
8	Chr01: 91300215 91300216	Non Coding Region	53	Chr08: 67344720 67344721	ADHFE1
9	Chr02: 172972840 172972841	Non Coding Region	54	Chr08: 69244510 69244511	Non Coding Region
10	Chr02: 208989248 208989249	CRYGD	55	Chr08: 70982039 70982040	PRDM14
11	Chr02: 220299740 220299741	SPEG	56	Chr09: 100611516 100611517	Non Coding Region
12	Chr02: 468179 468180	Non Coding Region	57	Chr10: 102894148 102894149	TLX1
13	Chr02: 63283967 63283968	OTX1	58	Chr10: 108924366 108924367	SORCS1
14	Chr02: 74743437 74743438	TLX2	59	Chr10: 118892581 118892582	VAX1
15	Chr03: 129693385 129693386	TRH	60	Chr10: 123922970 123922971	TACC2
16	Chr03: 129693586 129693587	TRH	61	Chr10: 123923081 123923082	TACC2
17	Chr03: 142839991 142839992	CHST2	62	Chr10: 8097689 8097690	GATA3
18	Chr03: 62356962 62356963	FEZF2	63	Chr10: 94822908 94822909	CYP26C1
19	Chr04: 111555440 111555441	PITX2	64	Chr11: 125774082 125774083	PUS3,DDX25
20	Chr04: 57522493 57522494	HOPX	65	Chr11: 128564874 128564875	FLI1
21	Chr05: 136834464 136834465	SPOCK1	66	Chr11: 2162183 2162184	IGF2,IGF2AS,INS-IGF2
22	Chr05: 3596704 3596705	IRX1	67	Chr11: 31827084 31827085	PAX6
23	Chr05: 37834958 37834959	GDNF	68	Chr11: 43602847 43602848	MIR129-2
24	Chr05: 5139853 5139854	ADAMTS16	69	Chr11: 78673073 78673074	ODZ4
25	Chr06: 100912940 100912941	SMI1	70	Chr12: 133481390 133481391	Non Coding Region
26	Chr06: 106429316 106429317	Non Coding Region	71	Chr12: 25055967 25055968	BCAT1
27	Chr06: 106429443 106429444	Non Coding Region	72	Chr12: 54345862 54345863	Non Coding Region
28	Chr06: 137814728 137814729	OLIG3	73	Chr12: 58021917 58021918	B4GALNT1
29	Chr06: 166582393 166582394	T	74	Chr12: 62585031 62585032	FAM19A2
30	Chr06: 29521751 29521752	Non Coding Region	75	Chr12: 65515470 65515471	WIF1
31	Chr06: 29521756 29521757	Non Coding Region	76	Chr13: 25745784 25745785	FAM123A
32	Chr06: 30139903 30139904	TRIM15	77	Chr13: 28498384 28498385	PDX1
33	Chr06: 393239 393240	IRF4	78	Chr13: 58204224 58204225	Non Coding Region
34	Chr07: 127672458 127672459	LRRC4,SND1	79	Chr13: 79170146 79170147	Non Coding Region
35	Chr07: 149917263 149917264	Non Coding Region	80	Chr13: 79170303 79170304	Non Coding Region
36	Chr07: 158937610 158937611	VIPR2	81	Chr14: 24803873 24803874	ADCY4
37	Chr07: 19158647 19158648	TWIST1	82	Chr14: 70653964 70653965	SLC8A3
38	Chr07: 19158664 19158665	TWIST1	83	Chr15: 83776422 83776423	TM6SF1
39	Chr07: 30722320 30722321	CRHR2	84	Chr15: 89922328 89922329	LOC254559
40	Chr07: 35293759 35293760	TBX20	85	Chr15: 89952499 89952500	Non Coding Region
41	Chr07: 42267719 42267720	GLI3	86	Chr16: 51184786 51184787	SALL1
42	Chr07: 42267747 42267748	GLI3	87	Chr17: 27940509 27940510	ANKRD13B
43	Chr07: 70597058 70597059	WBSCR17	88	Chr17: 43339223 43339224	C17orf46,LOC100133991
44	Chr07: 93519855 93519856	TFPI2	89	Chr17: 59534998 59534999	TBX4
45	Chr07: 96650668 96650669	DLX5	90	Chr18: 56941246 56941247	RAX

Figure 60A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
91	Chr19: 36523584 36523585	<i>CLIP3</i>	135	Chr06: 42738967 42738968	<i>Non Coding Region</i>
92	Chr19: 37096323 37096324	<i>ZNF529,ZNF382</i>	136	Chr06: 42739021 42739022	<i>Non Coding Region</i>
93	Chr19: 39108609 39108610	<i>MAP4K1,EIF3K</i>	137	Chr06: 6004207 6004208	<i>NRN1</i>
94	Chr19: 53758031 53758032	<i>ZNF677</i>	138	Chr07: 19146032 19146033	<i>Non Coding Region</i>
95	Chr19: 58095595 58095596	<i>ZIK1</i>	139	Chr07: 24323799 24323800	<i>NPY</i>
96	Chr19: 58095659 58095660	<i>ZIK1</i>	140	Chr07: 35296968 35296969	<i>Non Coding Region</i>
97	Chr19: 58220370 58220371	<i>ZNF154</i>	141	Chr07: 38671001 38671002	<i>AMPH</i>
98	Chr19: 58220494 58220495	<i>ZNF154</i>	142	Chr07: 54609776 54609777	<i>VSTM2A</i>
99	Chr20: 21682362 21682363	<i>Non Coding Region</i>	143	Chr08: 23564025 23564026	<i>NKX2-6</i>
100	Chr20: 25062447 25062448	<i>VXX1</i>	144	Chr08: 41167107 41167108	<i>SFRP1</i>
101	Chr20: 2781262 2781263	<i>CPXM1</i>	145	Chr08: 55367627 55367628	<i>Non Coding Region</i>
102	Chr20: 37434167 37434168	<i>PPP1R16B</i>	146	Chr08: 56852290 56852291	<i>LYN</i>
103	Chr20: 61638574 61638575	<i>BHLHE23</i>	147	Chr08: 57025662 57025663	<i>MOS</i>
104	Chr20: 61638588 61638589	<i>BHLHE23</i>	148	Chr08: 65291513 65291514	<i>MIR124-2</i>
105	Chr22: 50623687 50623688	<i>TRABD</i>	149	Chr08: 67344665 67344666	<i>ADHFE1</i>
	Alternative markers for Group 1 set 1		150	Chr08: _72754953_72754954	<i>MSC</i>
106	Chr01: 154475173 154475174	<i>TDRD10,SHE</i>	151	Chr08: 97172961 97172962	<i>GDF6</i>
107	Chr01: 200008026 200008027	<i>NR5A2</i>	152	Chr09: 37002685 37002686	<i>PAX5</i>
108	Chr01: 229543112 229543113	<i>Non Coding Region</i>	153	Chr10: 100993583 100993584	<i>HPSE2</i>
109	Chr01: 44031300 44031301	<i>PTPRF</i>	154	Chr10: 102893980 102893981	<i>TLX1</i>
110	Chr01: 77333138 77333139	<i>ST6GALNAC5</i>	155	Chr10: 102894120 102894121	<i>TLX1</i>
111	Chr01: 98511258 98511259	<i>Non Coding Region</i>	156	Chr10: 118030970 118030971	<i>GFR1</i>
112	Chr01: 98511789 98511790	<i>MIR137</i>	157	Chr10: 44788812 44788813	<i>Non Coding Region</i>
113	Chr02: 139537197 139537198	<i>NXPH2</i>	158	Chr10: 81002480 81002481	<i>ZMIZ1</i>
114	Chr02: 176987465 176987466	<i>HOXD9</i>	159	Chr11: 14926738 14926739	<i>Non Coding Region</i>
115	Chr02: 208989382 208989383	<i>CRYGD</i>	160	Chr11: 71955332 71955333	<i>PHOX2A</i>
116	Chr02: 45240563 45240564	<i>Non Coding Region</i>	161	Chr12: 113901210 113901211	<i>LHX5</i>
117	Chr03: 128720884 128720885	<i>CCDC48</i>	162	Chr12: 117798954 117798955	<i>NOS1</i>
118	Chr03: 138679512 138679513	<i>Non Coding Region</i>	163	Chr12: 66275988 66275989	<i>HMG2</i>
119	Chr03: 172166517 172166518	<i>GHSR</i>	164	Chr12: 72667493 72667494	<i>LOC283392,TRHDE</i>
120	Chr03: 44063593 44063594	<i>Non Coding Region</i>	165	Chr12: 85667353 85667354	<i>Non Coding Region</i>
121	Chr04: 172734276 172734277	<i>GALNTL6</i>	166	Chr13: 25320133 25320134	<i>Non Coding Region</i>
122	Chr05: 115152485 115152486	<i>CDO1</i>	167	Chr13: 37006107 37006108	<i>CCNA1</i>
123	Chr05: 134363324 134363325	<i>Non Coding Region</i>	168	Chr13: 78493305 78493306	<i>EDNRB</i>
124	Chr05: 136834492 136834493	<i>SPOCK1</i>	169	Chr14: 29254680 29254681	<i>C14orf23</i>
125	Chr05: _140864733_140864734	<i>PCDHGA9,PCDHGA8,PCDHGA10, etc.</i>	170	Chr14: 48145108 48145109	<i>MDGA2</i>
126	Chr05: 1875886 1875887	<i>Non Coding Region</i>	171	Chr14: 54687160 54687161	<i>Non Coding Region</i>
127	Chr05: 1883005 1883006	<i>IRX4</i>	172	Chr14: 60976285 60976286	<i>SLX6</i>
128	Chr05: 3597487 3597488	<i>IRX1</i>	173	Chr14: 70014873 70014874	<i>Non Coding Region</i>
129	Chr05: 37839829 37839830	<i>GDNF</i>	174	Chr15: 101420636 101420637	<i>ALDH1A3</i>
130	Chr05: 5139866 5139867	<i>ADAMTS16</i>	175	Chr15: 29077493 29077494	<i>Non Coding Region</i>
131	Chr06: 29521602 29521603	<i>Non Coding Region</i>	176	Chr15: 53083532 53083533	<i>ONECUT1</i>
132	Chr06: 391936 391937	<i>IRF4</i>	177	Chr15: 86233236 86233237	<i>AKAP13</i>
133	Chr06: 393616 393617	<i>IRF4</i>	178	Chr16: 28074384 28074385	<i>GSG1L</i>
134	Chr06: 41606439 41606440	<i>MDF1</i>	179	Chr16: 3237991 3237992	<i>Non Coding Region</i>

Figure 60B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
180	Chr16: 49312238 49312239	<i>CBLN1</i>	224	Chr03: 132757106 132757107	<i>TMEM108</i>
181	Chr16: 55690381 55690382	<i>SLC6A2</i>	225	Chr03: 192126935 192126936	<i>FGF12</i>
182	Chr17: 32484259 32484260	<i>ACCN1</i>	226	Chr03: 68981866 68981867	<i>FAM19A4</i>
183	Chr17: 37321490 37321491	<i>ARL5C</i>	227	Chr04: 122686453 122686454	<i>TMEM155,LOC100192379</i>
184	Chr17: 38347603 38347604	<i>RAPGEFL1</i>	228	Chr04: 144621945 144621946	<i>FREM3</i>
185	Chr17: 73584617 73584618	<i>MYO15B</i>	229	Chr04: 41883890 41883891	<i>Non Coding Region</i>
186	Chr17: 75369657 75369658	<i>SEPTIN9</i>	230	Chr04: 5053504 5053505	<i>STK32B</i>
187	Chr18: 11752089 11752090	<i>GNAL</i>	231	Chr04: 5710319 5710320	<i>EVC2</i>
188	Chr18: 54789058 54789059	<i>Non Coding Region</i>	232	Chr05: 169064451 169064452	<i>DOCK2</i>
189	Chr18: 7116977 7116978	<i>LAMA1</i>	233	Chr05: 1931620 1931621	<i>Non Coding Region</i>
190	Chr18: 904920 904921	<i>ADCYAP1</i>	234	Chr05: 2756113 2756114	<i>Non Coding Region</i>
191	Chr19: 13617091 13617092	<i>CACNA1A</i>	235	Chr05: 38258333 38258334	<i>EGFLAM</i>
192	Chr19: 39108672 39108673	<i>MAP4K1,EIF3K</i>	236	Chr05: 63986793 63986794	<i>FAM159B</i>
193	Chr19: 48918205 48918206	<i>GRIN2D</i>	237	Chr05: 71015523 71015524	<i>CARTPT</i>
194	Chr19: 51925128 51925129	<i>Non Coding Region</i>	238	Chr06: 26240920 26240921	<i>HIST1H4F</i>
195	Chr19: 52956771 52956772	<i>ZNF578</i>	239	Chr06: 27173991 27173992	<i>Non Coding Region</i>
196	Chr19: 54926805 54926806	<i>TTYH1</i>	240	Chr06: 29943480 29943481	<i>HCG9</i>
197	Chr19: 56879645 56879646	<i>ZNF542</i>	241	Chr06: 43253097 43253098	<i>TTBK1</i>
198	Chr19: 56989543 56989544	<i>ZNF667</i>	242	Chr07: 100488942 100488943	<i>ACHE</i>
199	Chr19: 58238850 58238851	<i>ZNF671</i>	243	Chr07: 142494985 142494986	<i>Non Coding Region</i>
200	Chr20: 61886079 61886080	<i>NKAIN4,FLJ16779</i>	244	Chr07: 143579951 143579952	<i>FAM115A</i>
201	Chr22: 25678988 25678989	<i>Non Coding Region</i>	245	Chr07: 151107285 151107286	<i>WDR86</i>
Alternative markers for Group 1 set 2			246	Chr07: 38670804 38670805	<i>AMPH</i>
202	Chr01: 101004638 101004639	<i>GPR88</i>	247	Chr07: 41739742 41739743	<i>INHBA,LOC285954</i>
203	Chr01: 151810893 151810894	<i>LOC100132111,C2CD4D</i>	248	Chr07: 44143993 44143994	<i>AEBP1</i>
204	Chr01: 207818395 207818396	<i>CRIL</i>	249	Chr07: 69064801 69064802	<i>AUTS2</i>
205	Chr01: 208084456 208084457	<i>CD34</i>	250	Chr07: 71800987 71800988	<i>CALN1</i>
206	Chr01: 228652528 228652529	<i>Non Coding Region</i>	251	Chr07: 8482614 8482615	<i>NXP1</i>
207	Chr01: 229568252 229568253	<i>ACTA1</i>	252	Chr08: 143533532 143533533	<i>Non Coding Region</i>
208	Chr01: 237205999 237206000	<i>RYR2</i>	253	Chr08: 57070013 57070014	<i>Non Coding Region</i>
209	Chr01: 47911449 47911450	<i>Non Coding Region</i>	254	Chr08: 688417 688418	<i>Non Coding Region</i>
210	Chr01: 48058985 48058986	<i>Non Coding Region</i>	255	Chr08: 77595321 77595322	<i>ZFH4,LOC100192378</i>
211	Chr01: 58715539 58715540	<i>DAB1</i>	256	Chr08: 85097056 85097057	<i>RALYL</i>
212	Chr02: 119916017 119916018	<i>CIQL2</i>	257	Chr08: 97171827 97171828	<i>GDF6</i>
213	Chr02: 127414381 127414382	<i>GYPC</i>	258	Chr10: 103603722 103603723	<i>KCNIP2</i>
214	Chr02: 182322749 182322750	<i>ITGA4</i>	259	Chr10: 106398816 106398817	<i>Non Coding Region</i>
215	Chr02: 193059645 193059646	<i>TMEFF2</i>	260	Chr10: 106400686 106400687	<i>SORCS3</i>
216	Chr02: 206551364 206551365	<i>NRP2</i>	261	Chr10: 133110244 133110245	<i>TCERG1L</i>
217	Chr02: 207507096 207507097	<i>LOC200726</i>	262	Chr10: 23463094 23463095	<i>Non Coding Region</i>
218	Chr02: 220174201 220174202	<i>PTPRN</i>	263	Chr10: 23982480 23982481	<i>KIAA1217</i>
219	Chr02: 242743588 242743589	<i>GAL3ST2</i>	264	Chr10: 26727318 26727319	<i>APBB1IP</i>
220	Chr02: 31806042 31806043	<i>SRD5A2</i>	265	Chr10: 50605613 50605614	<i>Non Coding Region</i>
221	Chr02: 5836111 5836112	<i>SOX11</i>	266	Chr10: 50817810 50817811	<i>SLC18A3,CHAT</i>
222	Chr02: 68546467 68546468	<i>CNRIP1</i>	267	Chr10: 7451822 7451823	<i>SFMBT2</i>
223	Chr03: 119528956 119528957	<i>NR112</i>	268	Chr10: 8078038 8078039	<i>Non Coding Region</i>

Figure 60C

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Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
269	Chr10: 88123453 88123454	<i>GRID1</i>	314	Chr20: 36012946 36012947	<i>SRC</i>
270	Chr11: 105481322 105481323	<i>GRIA4</i>	315	Chr20: 37353126 37353127	<i>SLC32A1</i>
271	Chr11: 112833773 112833774	<i>NCAM1</i>	316	Chr20: 41817903 41817904	<i>PTPRT</i>
272	Chr11: 119293869 119293870	<i>THY1</i>	317	Chr20: 42875779 42875780	<i>GDAP1L1</i>
273	Chr11: 122848098 122848099	<i>Non Coding Region</i>	318	Chr20: 47935683 47935684	<i>Non Coding Region</i>
274	Chr11: 133906693 133906694	<i>LOC100128239</i>	319	Chr20: 53092334 53092335	<i>DOK5</i>
275	Chr11: 18813544 18813545	<i>PTPN5</i>	320	Chr20: 61051036 61051037	<i>GATA5</i>
276	Chr11: 20618399 20618400	<i>Non Coding Region</i>	321	Chr20: 61638149 61638150	<i>BHLHE23</i>
277	Chr11: 20691161 20691162	<i>NELL1</i>	322	Chr20: 8113573 8113574	<i>PLCB1</i>
278	Chr11: 69704700 69704701	<i>Non Coding Region</i>	323	Chr21: 28339907 28339908	<i>ADAMTSS5</i>
279	Chr12: 103889789 103889790	<i>C12orf42</i>	324	Chr21: 38078767 38078768	<i>SIM2</i>
280	Chr12: 111472183 111472184	<i>CUX2</i>			
281	Chr12: 113541915 113541916	<i>RASAL1</i>			
282	Chr12: 120799725 120799726	<i>MSI1</i>			
283	Chr12: 52401214 52401215	<i>GRASP</i>			
284	Chr12: 64062564 64062565	<i>DPY19L2</i>			
285	Chr12: 81471884 81471885	<i>ACSS3</i>			
286	Chr13: 102569876 102569877	<i>FGF14</i>			
287	Chr13: 109149011 109149012	<i>Non Coding Region</i>			
288	Chr13: 112758491 112758492	<i>Non Coding Region</i>			
289	Chr13: 23733862 23733863	<i>Non Coding Region</i>			
290	Chr13: 25621027 25621028	<i>Non Coding Region</i>			
291	Chr13: 28503373 28503374	<i>Non Coding Region</i>			
292	Chr13: 29107069 29107070	<i>Non Coding Region</i>			
293	Chr13: 36919819 36919820	<i>SPG20</i>			
294	Chr13: 37004617 37004618	<i>CCNA1</i>			
295	Chr13: 53313529 53313530	<i>LECT1</i>			
296	Chr13: 84456258 84456259	<i>SLITRK1</i>			
297	Chr14: 101924596 101924597	<i>Non Coding Region</i>			
298	Chr15: 28352098 28352099	<i>Non Coding Region</i>			
299	Chr15: 37390284 37390285	<i>MEIS2</i>			
300	Chr15: 51385891 51385892	<i>TNFAIP8L3</i>			
301	Chr15: 79383167 79383168	<i>RASGRF1</i>			
302	Chr15: 88800567 88800568	<i>NTRK3</i>			
303	Chr15: 98836248 98836249	<i>Non Coding Region</i>			
304	Chr16: 25704505 25704506	<i>HS3ST4</i>			
305	Chr16: 49312033 49312034	<i>Non Coding Region</i>			
306	Chr16: 56228467_56228468	<i>GNAO1, DKFZP434H168</i>			
307	Chr17: 19881632 19881633	<i>AKAP10</i>			
308	Chr19: 30016147 30016148	<i>VSTM2B</i>			
309	Chr19: 34113398 34113399	<i>CHST8</i>			
310	Chr19: 41595975 41595976	<i>CYP2A13</i>			
311	Chr20: 21492914 21492915	<i>NKX2-2</i>			
312	Chr20: 25058429 25058430	<i>VX1</i>			
313	Chr20: 34894648 34894649	<i>Non Coding Region</i>			

Figure 60D

Group 1 Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 1 Markers			Preferred Group 1 Markers	
1	chr01:111216244-111217937	KCNA3	47	chr08:70981873-70984888	PRDM14
2	chr01:119531991-119532196	TBX15	48	chr09:100610696-100611517	Non Coding Region
3	chr01:44871109-44874047	RNF220	49	chr10:102893660-102895059	TLX1
4	chr01:50884228-50891471	DMRTA2	50	chr10:108923780-108924805	SORCSI
5	chr01:67218079-67218293	TCFEX1D1	51	chr10:118892161-118892639	VAX1
6	chr01:91300979-91301891	Non Coding Region	52	chr10:123922850-123923542	TACC2
7	chr02:172972804-172973242	Non Coding Region	53	chr10:8091374-8098329	GATA3
8	chr02:208988834-208989269	CRYGD	54	chr10:94820026-94823252	CYP26C1
9	chr02:220299483-220300243	SPERG	55	chr11:125774292-125774584	PUS3,DDX25
10	chr02:467849-468659	Non Coding Region	56	chr11:128562671-128565011	FLII
11	chr02:63283936-63284147	OTX1	57	chr11:2158951-2162484	IGF2,IGF2AS,INS-IGF2
12	chr02:74740455-74743795	TLX2	58	chr11:31827696-31827921	PAX6
13	chr03:129693127-129694841	TRH	59	chr11:43602545-43603215	MIR129-2
14	chr03:142837885-142840838	CHST2	60	chr11:78673007-78673213	ODZ4
15	chr03:62356773-62357315	FEZF2	61	chr12:133484658-133485739	Non Coding Region
16	chr04:111554965-111555504	PITX2	62	chr12:25055599-25056246	BCAT1
17	chr04:57521621-57522703	HOPX	63	chr12:54345563-54345916	Non Coding Region
18	chr05:136834016-136835146	SPOCK1	64	chr12:58021294-58022037	B4GALNT1
19	chr05:3594467-3603054	IRX1	65	chr12:62584768-62586268	FAM19A2
20	chr05:37834671-37835128	GDNF	66	chr12:65514878-65515863	WIF1
21	chr05:5139441-5140941	ADAMTS16	67	chr13:25743998-25746127	FAM123A
22	chr06:100912071-100913337	SIMI	68	chr13:28498226-28499046	PDX1
23	chr06:106429111-106429772	Non Coding Region	69	chr13:58203586-58204322	Non Coding Region
24	chr06:137814355-137815202	OLIG3	70	chr13:79170114-79171231	Non Coding Region
25	chr06:166579973-166583423	T	71	chr14:24803678-24804353	ADCY4
26	chr06:29521110-29521833	Non Coding Region	72	chr14:70655095-70656077	SLC8A3
27	chr06:30139718-30140263	TRIM15	73	chr15:83775861-83776922	TM6SF1
28	chr06:391188-393790	IRF4	74	chr15:89920793-89922768	LOC254559
29	chr07:127671158-127672853	LRRC4,SND1	75	chr15:89952271-89953061	Non Coding Region
30	chr07:149916640-149918264	Non Coding Region	76	chr16:51183699-51188763	SALL1
31	chr07:158936507-158938492	VIPR2	77	chr17:27939298-27940770	ANKRD13B
32	chr07:19156050-19158042	TWIST1	78	chr17:43339124-43339832	C17orf46,LOC100133991
33	chr07:30721372-30722445	CRHR2	79	chr17:59531723-59535254	TBX4
34	chr07:35292985-35294674	TBX20	80	chr18:56939624-56941540	RAX
35	chr07:42267546-42267823	GLI3	81	chr19:36523391-36523887	CLIP3
36	chr07:70596228-70598382	WBSCR17	82	chr19:37095680-37096589	ZNF529,ZNF382
37	chr07:93519366-93520184	TFPI2	83	chr19:39109432-39109862	MAP4K1,EIF3K
38	chr07:96650221-96651551	DLX5	84	chr19:53757819-53758148	ZNF677
39	chr08:132052203-132054749	Non Coding Region	85	chr19:58094739-58095764	ZIK1
40	chr08:23562475-23565175	NKX2-6	86	chr19:58220189-58220517	ZNF154
41	chr08:41753340-41755250	ANK1	87	chr20:21683744-21684420	Non Coding Region
42	chr08:53851701-53854426	NPBWR1	88	chr20:25061761-25062928	V5X1
43	chr08:55378928-55380186	Non Coding Region	89	chr20:2780978-2781497	CPXM1
44	chr08:65281903-65283043	Non Coding Region	90	chr20:37434206-37435592	PPP1R16B
45	chr08:67344497-67344989	ADHFE1	91	chr20:61636171-61639055	BHLHE23
46	chr08:69242920-69243803	Non Coding Region	92	chr22:50623164-50625226	TRABD

Figure 61A

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Alternative markers for Group 1 set 1				
93	chr01:154474107-154475699	<i>TDRD10,SHE</i>	137	chr13:37005581-37006453	<i>CCNA1</i>
94	chr01:200008392-200009047	<i>NR5A2</i>	138	chr13:78492425-78493382	<i>EDNRB</i>
95	chr01:229542943-229543770	<i>Non Coding Region</i>	139	chr14:29254365-29255069	<i>C14orf23</i>
96	chr01:44031286-44031853	<i>PTPRF</i>	140	chr14:48143433-48145589	<i>MDGA2</i>
97	chr01:77333111-77334534	<i>ST6GALNAC5</i>	141	chr14:60975732-60978180	<i>SLX6</i>
98	chr01:98510966-98511710	<i>Non Coding Region</i>	142	chr14:70014543-70014993	<i>Non Coding Region</i>
99	chr02:139537692-139538650	<i>NXPH2</i>	143	chr15:101419261-101421133	<i>ALDH1A3</i>
100	chr02:176986424-176988291	<i>HOXD9</i>	144	chr15:29077251-29077684	<i>Non Coding Region</i>
101	chr02:45240372-45241579	<i>Non Coding Region</i>	145	chr15:53080458-53083699	<i>ONECUT1</i>
102	chr03:128719865-128721245	<i>CCDC48</i>	146	chr16:28073817-28075296	<i>GSG1L</i>
103	chr03:138679244-138679579	<i>Non Coding Region</i>	147	chr16:3238805-3239492	<i>Non Coding Region</i>
104	chr03:172165372-172166738	<i>GHSR</i>	148	chr16:49311413-49312308	<i>CBLN1</i>
105	chr03:44063314-44063837	<i>Non Coding Region</i>	149	chr16:55689598-55690895	<i>SLC6A2</i>
106	chr04:172733734-172735118	<i>GALNTL6</i>	150	chr17:32484007-32484280	<i>ACCN1</i>
107	chr05:115151348-115152713	<i>CDO1</i>	151	chr17:37321482-37322099	<i>ARL5C</i>
108	chr05:134363092-134365146	<i>Non Coding Region</i>	152	chr17:38347533-38347765	<i>RAPGEFL1</i>
109	chr05:140864527-140864748	<i>PCDHGA9,PCDHGA8,P CDHGA10, etc.</i>	153	chr17:73583838-73586337	<i>MYO15B</i>
110	chr05:1874907-1879032	<i>Non Coding Region</i>	154	chr17:75368688-75370506	<i>SEPTIN9</i>
111	chr05:1881924-1887743	<i>IRX4</i>	155	chr18:11750953-11752756	<i>GNAL</i>
112	chr05:37836747-37840726	<i>GDNF</i>	156	chr18:54788959-54789194	<i>Non Coding Region</i>
113	chr06:41604583-41606663	<i>MDF1</i>	157	chr18:7116852-7118241	<i>LAMA1</i>
114	chr06:6002471-6005125	<i>NRN1</i>	158	chr18:904578-909574	<i>ADCYAP1</i>
115	chr07:19145872-19146256	<i>Non Coding Region</i>	159	chr19:13616752-13617267	<i>CACNA1A</i>
116	chr07:24323558-24325080	<i>NPY</i>	160	chr19:48918115-48918340	<i>GRIN2D</i>
117	chr07:35296921-35298218	<i>Non Coding Region</i>	161	chr19:51924999-51925413	<i>Non Coding Region</i>
118	chr07:38670439-38671008	<i>AMPH</i>	162	chr19:52956656-52957245	<i>ZNF578</i>
119	chr07:54609734-54610140	<i>VSTM2A</i>	163	chr19:54927902-54928225	<i>TTYH1</i>
120	chr08:41165852-41167140	<i>SFRP1</i>	164	chr19:56879417-56879995	<i>ZNF542</i>
121	chr08:55366180-55367628	<i>Non Coding Region</i>	165	chr19:56988313-56989741	<i>ZNF667</i>
122	chr08:57025546-57026543	<i>MOS</i>	166	chr19:58238585-58239028	<i>ZNF671</i>
123	chr08:65290108-65290946	<i>MIR124-2</i>	167	chr20:61884644-61886387	<i>NKAIN4,FLJ16779</i>
124	chr08:72755783-72756667	<i>MSC</i>	168	chr22:25678576-25679273	<i>Non Coding Region</i>
125	chr08:97172634-97173880	<i>GDF6</i>		Alternative markers for Group 1 set 2	
126	chr09:37002489-37002957	<i>PAX5</i>	169	chr01:101004471-101005885	<i>GPR88</i>
127	chr10:100993820-100994188	<i>HPSE2</i>	170	chr01:151810460-151811684	<i>LOC100132111,C2CD4 D</i>
128	chr10:118030732-118034230	<i>GFRA1</i>	171	chr01:207818389-207818952	<i>CRIL</i>
129	chr10:44788811-44789120	<i>Non Coding Region</i>	172	chr01:208084098-208084513	<i>CD34</i>
130	chr10:81002109-81003687	<i>ZMIZ1</i>	173	chr01:228651447-228652529	<i>Non Coding Region</i>
131	chr11:14926471-14927770	<i>Non Coding Region</i>	174	chr01:229567206-229570684	<i>ACTA1</i>
132	chr11:71954816-71955659	<i>PHOX2A</i>	175	chr01:237205126-237206644	<i>RYR2</i>
133	chr12:113900750-113906442	<i>LHX5</i>	176	chr01:47909712-47911020	<i>Non Coding Region</i>
134	chr12:117798076-117799448	<i>NOS1</i>	177	chr01:48058793-48059230	<i>Non Coding Region</i>
135	chr12:72665683-72667551	<i>LOC283392,TRHDE</i>	178	chr01:58715272-58716095	<i>DAB1</i>
136	chr13:25319668-25322255	<i>Non Coding Region</i>	179	chr02:119914126-119916663	<i>C1QL2</i>
			180	chr02:127413696-127414171	<i>GYPC</i>

Figure 61B

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
181	chr02:182321761-182323029	<i>ITGA4</i>	226	chr10:26727061-26727992	<i>APBB1IP</i>
182	chr02:193058995-193060812	<i>TMEFF2</i>	227	chr10:50602989-50606783	<i>Non Coding Region</i>
183	chr02:206549599-206551316	<i>NRP2</i>	228	chr10:50817601-50820356	<i>SLC18A3,CHAT</i>
184	chr02:207506774-207507422	<i>LOC200726</i>	229	chr10:7449376-7455339	<i>SFMBT2</i>
185	chr02:220173870-220174283	<i>PTPRN</i>	230	chr10:8077829-8078378	<i>Non Coding Region</i>
186	chr02:242742598-242743758	<i>GAL3ST2</i>	231	chr10:88122924-88127364	<i>GRID1</i>
187	chr02:31805293-31806403	<i>SRD5A2</i>	232	chr11:105481126-105481422	<i>GRIA4</i>
188	chr02:5836068-5837643	<i>SOX11</i>	233	chr11:112832524-112834490	<i>NCAM1</i>
189	chr02:68546339-68547111	<i>CNRIP1</i>	234	chr11:119293320-119293943	<i>THY1</i>
190	chr03:119528920-119529159	<i>NR1I2</i>	235	chr11:122847494-122848608	<i>Non Coding Region</i>
191	chr03:132756985-132757895	<i>TMEM108</i>	236	chr11:133906735-133907359	<i>LOC100128239</i>
192	chr03:192125821-192127994	<i>FGF12</i>	237	chr11:18812572-18814079	<i>PTPN5</i>
193	chr03:68980783-68982035	<i>FAM19A4</i>	238	chr11:20618197-20619920	<i>Non Coding Region</i>
194	chr04:122685860-122686565	<i>TMEM155,LOC100192379</i>	239	chr11:20690579-20691845	<i>NELL1</i>
195	chr04:144620822-144622218	<i>FREM3</i>	240	chr11:69706778-69707017	<i>Non Coding Region</i>
196	chr04:41883492-41884570	<i>Non Coding Region</i>	241	chr12:103889148-103889843	<i>C12orf42</i>
197	chr04:5053230-5054092	<i>STK32B</i>	242	chr12:111471960-111473546	<i>CUX2</i>
198	chr04:5709985-5710495	<i>EVC2</i>	243	chr12:113541697-113542086	<i>RASAL1</i>
199	chr05:169064270-169064702	<i>DOCK2</i>	244	chr12:120799372-120799912	<i>MSI1</i>
200	chr05:1930754-1931986	<i>Non Coding Region</i>	245	chr12:52400467-52401696	<i>GRASP</i>
201	chr05:2748368-2757024	<i>Non Coding Region</i>	246	chr12:64061836-64062774	<i>DPY19L2</i>
202	chr05:38257825-38259136	<i>EGFLAM</i>	247	chr12:81471569-81472119	<i>ACSS3</i>
203	chr05:63986189-63986974	<i>FAM159B</i>	248	chr13:102568425-102569495	<i>FGF14</i>
204	chr05:71014917-71015715	<i>CARTPT</i>	249	chr13:109147798-109149019	<i>Non Coding Region</i>
205	chr06:26240697-26240951	<i>HIST1H4F</i>	250	chr13:112758598-112760491	<i>Non Coding Region</i>
206	chr06:29944402-29945169	<i>HCG9</i>	251	chr13:23733808-23734816	<i>Non Coding Region</i>
207	chr06:43252734-43253476	<i>TTBK1</i>	252	chr13:25620937-25621554	<i>Non Coding Region</i>
208	chr07:100489981-100490365	<i>ACHE</i>	253	chr13:28503057-28503374	<i>Non Coding Region</i>
209	chr07:142494563-142495248	<i>Non Coding Region</i>	254	chr13:29106576-29107254	<i>Non Coding Region</i>
210	chr07:143582125-143582610	<i>FAM115A</i>	255	chr13:36919737-36921004	<i>SPG20</i>
211	chr07:151106244-151107808	<i>WDR86</i>	256	chr13:53313127-53314045	<i>LECT1</i>
212	chr07:69062374-69065037	<i>AUTS2</i>	257	chr13:84453664-84453897	<i>SLITRK1</i>
213	chr07:71800757-71802768	<i>CALN1</i>	258	chr14:101923575-101925995	<i>Non Coding Region</i>
214	chr07:8481974-8482762	<i>NXPH1</i>	259	chr15:28351606-28353102	<i>Non Coding Region</i>
215	chr08:143531118-143534495	<i>Non Coding Region</i>	260	chr15:37390175-37390380	<i>MEIS2</i>
216	chr08:57069687-57070047	<i>Non Coding Region</i>	261	chr15:51385861-51387203	<i>TNFAIP8L3</i>
217	chr08:686830-6869496	<i>Non Coding Region</i>	262	chr15:79381804-79384209	<i>RASGRF1</i>
218	chr08:77594255-77594860	<i>ZFHX4,LOC100192378</i>	263	chr15:88799522-88801017	<i>NTRK3</i>
219	chr08:85096759-85097247	<i>RALYL</i>	264	chr16:25702955-25704631	<i>HS3ST4</i>
220	chr08:97171805-97172022	<i>GDF6</i>	265	chr16:56224731-56224980	<i>GNAO1,DKFZP434H168</i>
221	chr10:103603166-103603642	<i>KCNIP2</i>	266	chr17:19880676-19881633	<i>AKAP10</i>
222	chr10:106399567-106402812	<i>Non Coding Region</i>	267	chr19:30015781-30021367	<i>VSTM2B</i>
223	chr10:133109193-133111052	<i>TCERG1L</i>	268	chr19:34112279-34114353	<i>CHST8</i>
224	chr10:23462224-23463889	<i>Non Coding Region</i>	269	chr19:41595895-41596140	<i>CYP2A13</i>
225	chr10:23982382-23982589	<i>KIAA1217</i>	270	chr20:21485932-21496714	<i>NKX2-2</i>

Figure 61C

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Order	Coordinate of CpG (hg19)	Gene
271	chr20:25058288-25058726	<i>V/SX1</i>
272	chr20:34893891-34895214	<i>Non Coding Region</i>
273	chr20:36012595-36013439	<i>SRC</i>
274	chr20:37352130-37357372	<i>SLC32A1</i>
275	chr20:41817475-41819212	<i>PTPRT</i>
276	chr20:42875764-42876184	<i>GDAP1L1</i>
277	chr20:47934839-47935684	<i>Non Coding Region</i>
278	chr20:53091733-53092993	<i>DOK5</i>
279	chr20:61049361-61051897	<i>GATA5</i>
280	chr20:8112884-8113592	<i>PLCB1</i>
281	chr21:28337856-28340237	<i>ADAMTS5</i>
282	chr21:38079941-38081833	<i>SIM2</i>

Figure 61D

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Group 2 Methylation markers, 75% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 2 Markers			Preferred Group 2 Markers	
1	Chr01: 110610899 110610900	<i>ALX3</i>	56	Chr06: 108488335 108488336	<i>NR2E1</i>
2	Chr01: 119532925 119532926	<i>TBX15</i>	57	Chr06: 27173753 27173754	<i>Non Coding Region</i>
3	Chr01: 147790806 147790807	<i>Non Coding Region</i>	58	Chr06: 27173991 27173992	<i>Non Coding Region</i>
4	Chr01: 151810893 151810894	<i>LOC100132111, C2CD4D</i>	59	Chr06: 28956247 28956248	<i>Non Coding Region</i>
5	Chr01: 151811364 151811365	<i>LOC100132111, C2CD4D</i>	60	Chr06: 28956268 28956269	<i>Non Coding Region</i>
6	Chr01: 19278734 19278735	<i>IFFO2</i>	61	Chr06: 28956731 28956732	<i>Non Coding Region</i>
7	Chr01: 215255110 215255111	<i>KCNK2</i>	62	Chr06: 29943401 29943402	<i>HCG9</i>
8	Chr01: 217309794 217309795	<i>ESRRG</i>	63	Chr06: 32116905 32116906	<i>PRRT1</i>
9	Chr01: 221050491 221050492	<i>Non Coding Region</i>	64	Chr06: 75916963 75916964	<i>COL12A1</i>
10	Chr01: 221054825 221054826	<i>HLX</i>	65	Chr06: 75917560 75917561	<i>Non Coding Region</i>
11	Chr01: 36042986 36042987	<i>TFAP2E</i>	66	Chr07: 19158664 19158665	<i>TWIST1</i>
12	Chr01: 36043014 36043015	<i>TFAP2E</i>	67	Chr07: 27208285 27208286	<i>Non Coding Region</i>
13	Chr01: 36043352 36043353	<i>TFAP2E</i>	68	Chr08: 101822108 101822109	<i>Non Coding Region</i>
14	Chr01: 67217826 67217827	<i>TCTEX1D1</i>	69	Chr08: 134511683 134511684	<i>ST3GAL1</i>
15	Chr01: 67217853 67217854	<i>TCTEX1D1</i>	70	Chr08: 22562469 22562470	<i>Non Coding Region</i>
16	Chr01: 67217886 67217887	<i>TCTEX1D1</i>	71	Chr08: 23563925 23563926	<i>NKX2-6</i>
17	Chr01: 67217950 67217951	<i>TCTEX1D1</i>	72	Chr08: 23564025 23564026	<i>NKX2-6</i>
18	Chr01: 67218135 67218136	<i>TCTEX1D1</i>	73	Chr08: 23564193 23564194	<i>NKX2-6</i>
19	Chr01: 67218165 67218166	<i>TCTEX1D1</i>	74	Chr08: 70982039 70982040	<i>PRDM14</i>
20	Chr01: 91300215 91300216	<i>Non Coding Region</i>	75	Chr09: 79627216 79627217	<i>Non Coding Region</i>
21	Chr02: 171573223 171573224	<i>SP5</i>	76	Chr09: 79633737 79633738	<i>FOXB2</i>
22	Chr02: 172972840 172972841	<i>Non Coding Region</i>	77	Chr09: 79635912 79635913	<i>Non Coding Region</i>
23	Chr02: 208989248 208989249	<i>CRYGD</i>	78	Chr10: 102588315 102588316	<i>PAX2</i>
24	Chr02: 208989382 208989383	<i>CRYGD</i>	79	Chr10: 119292062 119292063	<i>EMX2OS</i>
25	Chr02: 218770270 218770271	<i>TNSI</i>	80	Chr10: 119295770 119295771	<i>EMX2OS</i>
26	Chr02: 219735876 219735877	<i>WNT6</i>	81	Chr10: 8097689 8097690	<i>GATA3</i>
27	Chr02: 219736549 219736550	<i>WNT6</i>	82	Chr11: 627152 627153	<i>SCT</i>
28	Chr02: 242743588 242743589	<i>GAL3ST2</i>	83	Chr12: 113541915 113541916	<i>RASAL1</i>
29	Chr02: 38301756 38301757	<i>CYP11B1</i>	84	Chr12: 130529951 130529952	<i>Non Coding Region</i>
30	Chr02: 45231226 45231227	<i>Non Coding Region</i>	85	Chr12: 30976001 30976002	<i>Non Coding Region</i>
31	Chr02: 63275509 63275510	<i>LOC100132215</i>	86	Chr12: 46767665 46767666	<i>SLC38A2</i>
32	Chr02: 63281139 63281140	<i>OTX1</i>	87	Chr12: 52652377 52652378	<i>Non Coding Region</i>
33	Chr02: 63283013 63283014	<i>OTX1</i>	88	Chr12: 54424679 54424680	<i>HOXC5, HOXC4</i>
34	Chr02: 63283967 63283968	<i>OTX1</i>	89	Chr12: 6665335 6665336	<i>IFFO1</i>
35	Chr02: 63284132 63284133	<i>OTX1</i>	90	Chr12: 85672623 85672624	<i>ALX1</i>
36	Chr02: 71192445 71192446	<i>ATP6V1B1</i>	91	Chr13: 79170146 79170147	<i>Non Coding Region</i>
37	Chr02: 86263270 86263271	<i>POLR1A</i>	92	Chr14: 33402027 33402028	<i>Non Coding Region</i>
38	Chr03: 119528656 119528657	<i>NR1H2</i>	93	Chr15: 101420636 101420637	<i>ALDH1A3</i>
39	Chr03: 129693370 129693371	<i>TRH</i>	94	Chr15: 31658323 31658324	<i>KLF13</i>
40	Chr03: 129693385 129693386	<i>TRH</i>	95	Chr15: 89952499 89952500	<i>Non Coding Region</i>
41	Chr03: 129693586 129693587	<i>TRH</i>	96	Chr16: 29086271 29086272	<i>RRN3P2</i>
42	Chr03: 141516458 141516459	<i>GRK7</i>	97	Chr16: 3222180 3222181	<i>Non Coding Region</i>
43	Chr04: 140656749 140656750	<i>MAML3</i>	98	Chr16: 66613266 66613267	<i>CMTM2</i>
44	Chr04: 159092536 159092537	<i>FAM198B</i>	99	Chr17: 7287740 7287741	<i>TNK1</i>
45	Chr04: 183062301 183062302	<i>MGC45800</i>	100	Chr18: 3499093 3499094	<i>DLGAP1</i>
46	Chr04: 183063459 183063460	<i>MGC45800</i>	101	Chr18: 54789058 54789059	<i>Non Coding Region</i>
47	Chr04: 85402397 85402398	<i>Non Coding Region</i>	102	Chr19: 58220370 58220371	<i>ZNF154</i>
48	Chr05: 100240223 100240224	<i>ST8SLA4</i>	103	Chr19: 58220494 58220495	<i>ZNF154</i>
49	Chr05: 134363324 134363325	<i>Non Coding Region</i>	104	Chr20: 30639305 30639306	<i>HCK</i>
50	Chr05: 174159039 174159040	<i>Non Coding Region</i>	105	Chr20: 39312290 39312291	<i>Non Coding Region</i>
51	Chr05: 92938232 92938233	<i>Non Coding Region</i>	106	Chr20: 55200146 55200147	<i>Non Coding Region</i>
52	Chr06: 100912940 100912941	<i>SIM1</i>	107	Chr21: 36399226 36399227	<i>RUNX1</i>
53	Chr06: 100912946 100912947	<i>SIM1</i>	108	Chr21: 46898137 46898138	<i>COL18A1</i>
54	Chr06: 10391412 10391413	<i>Non Coding Region</i>	109	Chr22: 50623687 50623688	<i>TRABD</i>
55	Chr06: 10422322 10422323	<i>Non Coding Region</i>	110	Chr22: 50623692 50623693	<i>TRABD</i>

Figure 62

Group 2 Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 2 Markers			Preferred Group 2 Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	41	chr06:29944402-29945169	<i>HCG9</i>
2	chr01:119531991-119532196	<i>TBX15</i>	42	chr06:32116590-32117229	<i>PRRT1</i>
3	chr01:147789652-147790094	<i>Non Coding Region</i>	43	chr06:75914705-75916387	<i>COL12A1</i>
4	chr01:151810460-151811684	<i>LOC100132111, C2CD4D</i>	44	chr07:19156050-19158042	<i>TWIST1</i>
5	chr01:19281948-19283883	<i>IFFO2</i>	45	chr07:27208871-27209616	<i>Non Coding Region</i>
6	chr01:215256051-215256636	<i>KCNK2</i>	46	chr08:22560949-22561271	<i>Non Coding Region</i>
7	chr01:217310749-217311178	<i>ESRRG</i>	47	chr08:23562475-23565175	<i>NKX2-6</i>
8	chr01:221050448-221050864	<i>Non Coding Region</i>	48	chr08:70981873-70984888	<i>PRDM14</i>
9	chr01:221054554-221054888	<i>HLX</i>	49	chr09:79628910-79629393	<i>Non Coding Region</i>
10	chr01:36042432-36043444	<i>TFAP2E</i>	50	chr09:79633326-79636030	<i>FOXB2</i>
11	chr01:67218079-67218293	<i>TCF7L1</i>	51	chr10:102590122-102590402	<i>PAX2</i>
12	chr01:91300979-91301891	<i>Non Coding Region</i>	52	chr10:119293917-119297675	<i>EMX2OS</i>
13	chr02:171569877-171573904	<i>SP5</i>	53	chr10:8091374-8098329	<i>GATA3</i>
14	chr02:172972804-172973242	<i>Non Coding Region</i>	54	chr11:626728-628037	<i>SCT</i>
15	chr02:208988834-208989269	<i>CRYGD</i>	55	chr12:113541697-113542086	<i>RASAL1</i>
16	chr02:219736132-219736592	<i>WNT6</i>	56	chr12:130526915-130527117	<i>Non Coding Region</i>
17	chr02:242742598-242743758	<i>GAL3ST2</i>	57	chr12:30975385-30976292	<i>Non Coding Region</i>
18	chr02:38301276-38304518	<i>CYP11B1</i>	58	chr12:46765134-46766633	<i>SLC38A2</i>
19	chr02:45231211-45231482	<i>Non Coding Region</i>	59	chr12:52652018-52652743	<i>Non Coding Region</i>
20	chr02:63274475-63279430	<i>LOC100132215</i>	60	chr12:54424610-54425173	<i>HOXC5, HOXC4</i>
21	chr02:63281034-63281347	<i>OTX1</i>	61	chr12:6664425-6665336	<i>IFFO1</i>
22	chr02:63282514-63283122	<i>OTX1</i>	62	chr12:85673878-85674700	<i>ALX1</i>
23	chr02:63283936-63284147	<i>OTX1</i>	63	chr13:79170114-79171231	<i>Non Coding Region</i>
24	chr02:71192094-71192495	<i>ATP6V1B1</i>	64	chr14:33402094-33404079	<i>Non Coding Region</i>
25	chr03:119528920-119529159	<i>NR112</i>	65	chr15:101419261-101421133	<i>ALDH1A3</i>
26	chr03:129693127-129694841	<i>TRH</i>	66	chr15:89952271-89953061	<i>Non Coding Region</i>
27	chr03:141516055-141516639	<i>GRK7</i>	67	chr16:29086220-29086434	<i>RRN3P2</i>
28	chr04:140655962-140657135	<i>MAML3</i>	68	chr16:3220438-3221356	<i>Non Coding Region</i>
29	chr04:183062278-183062481	<i>MGC45800</i>	69	chr16:66612749-66613412	<i>CMTM2</i>
30	chr04:183063396-183066370	<i>MGC45800</i>	70	chr17:7287198-7287940	<i>TNK1</i>
31	chr04:85402764-85403175	<i>Non Coding Region</i>	71	chr18:3498941-3499358	<i>DLGAP1</i>
32	chr05:100238722-100239138	<i>STSLA4</i>	72	chr18:54788959-54789194	<i>Non Coding Region</i>
33	chr05:134363092-134365146	<i>Non Coding Region</i>	73	chr19:58220189-58220517	<i>ZNF154</i>
34	chr05:174158680-174159729	<i>Non Coding Region</i>	74	chr20:30639908-30640786	<i>HCK</i>
35	chr05:92939795-92940216	<i>Non Coding Region</i>	75	chr20:39311378-39312435	<i>Non Coding Region</i>
36	chr06:100912071-100913337	<i>SIMI</i>	76	chr20:55200279-55206789	<i>Non Coding Region</i>
37	chr06:10390038-10390565	<i>Non Coding Region</i>	77	chr21:36398960-36399259	<i>RUNX1</i>
38	chr06:10422321-10422648	<i>Non Coding Region</i>	78	chr21:46897841-46898158	<i>COL18A1</i>
39	chr06:108485671-108490539	<i>NR2E1</i>	79	chr22:50623164-50625226	<i>TRABD</i>
40	chr06:28956106-28956578	<i>Non Coding Region</i>			

Figure 63

Group 3 Methylation markers, 75% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 3 Markers			Preferred Group 3 Markers	
1	Chr01: 110610899 110610900	ALX3	51	Chr07: 27204981 27204982	HOXA9
2	Chr01: 119532195 119532196	TBX15	52	Chr07: 27205230 27205231	HOXA9
3	Chr01: 119532925 119532926	TBX15	53	Chr07: 27208285 27208286	Non Coding Region
4	Chr01: 147790806 147790807	Non Coding Region	54	Chr07: 27225058 27225059	HOXA11AS,HOXA11
5	Chr01: 200009830 200009831	NR5A2	55	Chr07: 27225523 27225524	HOXA11AS,HOXA11
6	Chr01: 29586418 29586419	PTPRU	56	Chr07: 35293759 35293760	TBX20
7	Chr01: 36042986 36042987	TFAP2E	57	Chr07: 42267719 42267720	GLI3
8	Chr01: 36043014 36043015	TFAP2E	58	Chr07: 42267747 42267748	GLI3
9	Chr01: 50884480 50884481	DMRTA2	59	Chr07: 96650171 96650172	DLX5
10	Chr01: 50886782 50886783	DMRTA2	60	Chr07: 96650668 96650669	DLX5
11	Chr01: 91196332 91196333	Non Coding Region	61	Chr07: 96652115 96652116	DLX5
12	Chr02: 172972840 172972841	Non Coding Region	62	Chr08: 101822108 101822109	Non Coding Region
13	Chr02: 175208605 175208606	Non Coding Region	63	Chr08: 53851156 53851157	NPBWR1
14	Chr02: 176987465 176987466	HOXD9	64	Chr08: 70982039 70982040	PRDM14
15	Chr02: 177021826 177021827	Non Coding Region	65	Chr08: 72469507 72469508	Non Coding Region
16	Chr02: 177030150 177030151	HOXD3	66	Chr09: 100611516 100611517	Non Coding Region
17	Chr02: 208989248 208989249	CRYGD	67	Chr10: 118892581 118892582	VAX1
18	Chr02: 218770270 218770271	TNSI	68	Chr10: 122708532 122708533	Non Coding Region
19	Chr02: 38301756 38301757	CYP11B1	69	Chr10: 122708739 122708740	Non Coding Region
20	Chr02: 45231226 45231227	Non Coding Region	70	Chr10: 123922970 123922971	TACC2
21	Chr02: 45240563 45240564	Non Coding Region	71	Chr10: 123923066 123923067	TACC2
22	Chr02: 468179 468180	Non Coding Region	72	Chr10: 123923081 123923082	TACC2
23	Chr02: 63281139 63281140	OTX1	73	Chr10: 123923273 123923274	TACC2
24	Chr02: 63283013 63283014	OTX1	74	Chr10: 8097689 8097690	GATA3
25	Chr02: 63283967 63283968	OTX1	75	Chr11: 31827084 31827085	PAX6
26	Chr02: 63284066 63284067	OTX1	76	Chr11: 627152 627153	SCT
27	Chr02: 63284132 63284133	OTX1	77	Chr11: 67038414 67038415	ADRBK1
28	Chr02: 66809923 66809924	Non Coding Region	78	Chr12: 25055967 25055968	BCAT1
29	Chr03: 119528656 119528657	NR1I2	79	Chr12: 52652377 52652378	Non Coding Region
30	Chr03: 129693370 129693371	TRH	80	Chr12: 54088972 54088973	Non Coding Region
31	Chr03: 129693385 129693386	TRH	81	Chr13: 79170146 79170147	Non Coding Region
32	Chr03: 181421427 181421428	SOX2OT	82	Chr14: 60978161 60978162	SIX6
33	Chr03: 195488725 195488726	MUC4	83	Chr15: 41794412 41794413	ITPKA
34	Chr03: 62356962 62356963	FEZF2	84	Chr15: 86233220 86233221	AKAP13
35	Chr04: 140656749 140656750	MAML3	85	Chr15: 89952499 89952500	Non Coding Region
36	Chr04: 183062301 183062302	MGC45800	86	Chr16: 29086271 29086272	RRN3P2
37	Chr04: 57522493 57522494	HOPX	87	Chr16: 66612955 66612956	CMTM2,CMTM1
38	Chr05: 54516487 54516488	Non Coding Region	88	Chr16: 66613266 66613267	CMTM2
39	Chr05: 54516805 54516806	Non Coding Region	89	Chr17: 53341243 53341244	HLF
40	Chr05: 72528296 72528297	Non Coding Region	90	Chr19: 17008650 17008651	CPAMD8
41	Chr05: 72595741 72595742	Non Coding Region	91	Chr19: 31842873 31842874	Non Coding Region
42	Chr06: 100912940 100912941	SIM1	92	Chr19: 37096323 37096324	ZNF529,ZNF382
43	Chr06: 100912946 100912947	SIM1	93	Chr19: 38183262 38183263	ZNF781
44	Chr06: 10391412 10391413	Non Coding Region	94	Chr19: 4328818 4328819	STAP2
45	Chr06: 10422322 10422323	Non Coding Region	95	Chr19: 58220370 58220371	ZNF154
46	Chr06: 137814728 137814729	OLIG3	96	Chr20: 21682362 21682363	Non Coding Region
47	Chr06: 6004207 6004208	NRN1	97	Chr22: 19754125 19754126	TBX1
48	Chr07: 19158664 19158665	TWIST1	98	Chr22: 46367617 46367618	WNT7B
49	Chr07: 27192061 27192062	Non Coding Region	99	Chr22: 50623692 50623693	TRABD
50	Chr07: 27192246 27192247	Non Coding Region			

Figure 64

Group 3 Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 3 Markers			Preferred Group 3 Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	40	chr07:27203915-27206462	<i>HOXA9</i>
2	chr01:119531991-119532196	<i>TBX15</i>	41	chr07:27208871-27209616	<i>Non Coding Region</i>
3	chr01:147789652-147790094	<i>Non Coding Region</i>	42	chr07:27225050-27225629	<i>HOXA11AS,HOXA11</i>
4	chr01:200009807-200010036	<i>NR5A2</i>	43	chr07:35292985-35294674	<i>TBX20</i>
5	chr01:29585897-29586598	<i>PTPRU</i>	44	chr07:42267546-42267823	<i>GLI3</i>
6	chr01:36042432-36043444	<i>TFAP2E</i>	45	chr07:96650221-96651551	<i>DLX5</i>
7	chr01:50884228-50891471	<i>DMRTA2</i>	46	chr07:96651963-96652246	<i>DLX5</i>
8	chr01:91190489-91192804	<i>Non Coding Region</i>	47	chr08:53851701-53854426	<i>NPBWR1</i>
9	chr02:172972804-172973242	<i>Non Coding Region</i>	48	chr08:70981873-70984888	<i>PRDM14</i>
10	chr02:175208415-175209076	<i>Non Coding Region</i>	49	chr08:72468560-72469561	<i>Non Coding Region</i>
11	chr02:176986424-176988291	<i>HOXD9</i>	50	chr09:100610696-100611517	<i>Non Coding Region</i>
12	chr02:177024501-177025692	<i>Non Coding Region</i>	51	chr10:118892161-118892639	<i>VAX1</i>
13	chr02:177029413-177029941	<i>HOXD3</i>	52	chr10:122708510-122708899	<i>Non Coding Region</i>
14	chr02:208988834-208989269	<i>CRYGD</i>	53	chr10:123922850-123923542	<i>TACC2</i>
15	chr02:38301276-38304518	<i>CYP11B1</i>	54	chr10:8091374-8098329	<i>GATA3</i>
16	chr02:45231211-45231482	<i>Non Coding Region</i>	55	chr11:31827696-31827921	<i>PAX6</i>
17	chr02:45240372-45241579	<i>Non Coding Region</i>	56	chr11:626728-628037	<i>SCT</i>
18	chr02:467849-468659	<i>Non Coding Region</i>	57	chr11:67033675-67034660	<i>ADRBK1</i>
19	chr02:63281034-63281347	<i>OTX1</i>	58	chr12:25055599-25056246	<i>BCAT1</i>
20	chr02:63282514-63283122	<i>OTX1</i>	59	chr12:52652018-52652743	<i>Non Coding Region</i>
21	chr02:63283936-63284147	<i>OTX1</i>	60	chr12:54089211-54089413	<i>Non Coding Region</i>
22	chr02:66808568-66809404	<i>Non Coding Region</i>	61	chr13:79170114-79171231	<i>Non Coding Region</i>
23	chr03:119528920-119529159	<i>NRH2</i>	62	chr14:60975732-60978180	<i>SIX6</i>
24	chr03:129693127-129694841	<i>TRH</i>	63	chr15:41793562-41795305	<i>ITPKA</i>
25	chr03:195488595-195489381	<i>MUC4</i>	64	chr15:89952271-89953061	<i>Non Coding Region</i>
26	chr03:62356773-62357315	<i>FEZF2</i>	65	chr16:29086220-29086434	<i>RRN3P2</i>
27	chr04:140655962-140657135	<i>MAML3</i>	66	chr16:66612749-66613412	<i>CMTM2,CMTM1</i>
28	chr04:183062278-183062481	<i>MGC45800</i>	67	chr17:53342198-53343061	<i>HLF</i>
29	chr04:57521621-57522703	<i>HOPX</i>	68	chr19:17007101-17008857	<i>CPAMD8</i>
30	chr05:54516267-54516919	<i>Non Coding Region</i>	69	chr19:31839635-31843049	<i>Non Coding Region</i>
31	chr05:72529099-72529976	<i>Non Coding Region</i>	70	chr19:37095680-37096589	<i>ZNF529,ZNF382</i>
32	chr05:72594147-72595808	<i>Non Coding Region</i>	71	chr19:38182793-38183327	<i>ZNF781</i>
33	chr06:100912071-100913337	<i>SIM1</i>	72	chr19:4328658-4328865	<i>STAP2</i>
34	chr06:10390038-10390565	<i>Non Coding Region</i>	73	chr19:58220189-58220517	<i>ZNF154</i>
35	chr06:10422321-10422648	<i>Non Coding Region</i>	74	chr20:21683744-21684420	<i>Non Coding Region</i>
36	chr06:137814355-137815202	<i>OLIG3</i>	75	chr22:19753312-19755013	<i>TBX1</i>
37	chr06:6002471-6005125	<i>NRN1</i>	76	chr22:46366726-46368726	<i>WNT7B</i>
38	chr07:19156050-19158042	<i>TWIST1</i>	77	chr22:50623164-50625226	<i>TRABD</i>
39	chr07:27190274-27191115	<i>Non Coding Region</i>			

Figure 65

Group 4 Methylation markers, 75% sensitivity, CpG Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 4 Markers			Preferred Group 4 Markers	
1	Chr01: 110610899 110610900	<i>ALX3</i>	52	Chr08: 70982039 70982040	<i>PRDM14</i>
2	Chr01: 110611465 110611466	<i>ALX3</i>	53	Chr09: 112810402 112810403	<i>PALM2-AKAP2,AKAP2</i>
3	Chr01: 119532195 119532196	<i>TBX15</i>	54	Chr10: 102899285 102899286	<i>Non Coding Region</i>
4	Chr01: 156130826 156130827	<i>SEMA4A</i>	55	Chr10: 102900130 102900131	<i>Non Coding Region</i>
5	Chr01: 170630558 170630559	<i>Non Coding Region</i>	56	Chr10: 102900365 102900366	<i>Non Coding Region</i>
6	Chr01: 200008026 200008027	<i>NR5A2</i>	57	Chr10: 118892581 118892582	<i>VAX1</i>
7	Chr01: 200009830 200009831	<i>NR5A2</i>	58	Chr10: 45914450 45914451	<i>ALOX5</i>
8	Chr01: 44031300 44031301	<i>PTPRF</i>	59	Chr10: 45914840 45914841	<i>ALOX5</i>
9	Chr01: 50886782 50886783	<i>DMRTA2</i>	60	Chr10: 94822908 94822909	<i>CYP26C1</i>
10	Chr01: 67218165 67218166	<i>TCTEX1D1</i>	61	Chr11: 31827084 31827085	<i>PAX6</i>
11	Chr02: 19561612 19561613	<i>Non Coding Region</i>	62	Chr11: 47208959 47208960	<i>PAC3IN3</i>
12	Chr02: 208989248 208989249	<i>CRYGD</i>	63	Chr11: 627152 627153	<i>SCT</i>
13	Chr02: 223162881 223162882	<i>CCDC140,PAX3</i>	64	Chr11: 830190 830191	<i>EFCAB4A</i>
14	Chr02: 233499070 233499071	<i>EFHD1</i>	65	Chr11: 830320 830321	<i>EFCAB4A</i>
15	Chr02: 45240563 45240564	<i>Non Coding Region</i>	66	Chr12: 25055967 25055968	<i>BCAT1</i>
16	Chr03: 121903520 121903521	<i>CASR</i>	67	Chr12: 48591994 48591995	<i>Non Coding Region</i>
17	Chr03: 129693385 129693386	<i>TRH</i>	68	Chr12: 52401214 52401215	<i>GRASP</i>
18	Chr03: 139258939 139258940	<i>RBP1</i>	69	Chr12: 52652377 52652378	<i>Non Coding Region</i>
19	Chr03: 62356962 62356963	<i>FEZF2</i>	70	Chr12: 54345862 54345863	<i>Non Coding Region</i>
20	Chr04: 16085606 16085607	<i>PROM1</i>	71	Chr12: 58021917 58021918	<i>B4GALNT1</i>
21	Chr04: 16085702 16085703	<i>PROM1</i>	72	Chr12: 65515470 65515471	<i>WIF1</i>
22	Chr04: 57522493 57522494	<i>HOPX</i>	73	Chr13: 79170146 79170147	<i>Non Coding Region</i>
23	Chr04: 57522632 57522633	<i>HOPX</i>	74	Chr14: 24803873 24803874	<i>ADCY4</i>
24	Chr05: 170740870 170740871	<i>Non Coding Region</i>	75	Chr14: 24804339 24804340	<i>ADCY4</i>
25	Chr05: 1875886 1875887	<i>Non Coding Region</i>	76	Chr14: 60976285 60976286	<i>SLX6</i>
26	Chr05: 3596704 3596705	<i>IRX1</i>	77	Chr14: 70653919 70653920	<i>SLC8A3</i>
27	Chr05: 72595685 72595686	<i>Non Coding Region</i>	78	Chr14: 70653964 70653965	<i>SLC8A3</i>
28	Chr05: 72595741 72595742	<i>Non Coding Region</i>	79	Chr15: 45479755 45479756	<i>SHF</i>
29	Chr06: 106429316 106429317	<i>Non Coding Region</i>	80	Chr15: 51385916 51385917	<i>TNFAIP8L3</i>
30	Chr06: 106429443 106429444	<i>Non Coding Region</i>	81	Chr15: 51385970 51385971	<i>TNFAIP8L3</i>
31	Chr06: 108488335 108488336	<i>NR2E1</i>	82	Chr15: 75251491 75251492	<i>Non Coding Region</i>
32	Chr06: 108489977 108489978	<i>NR2E1</i>	83	Chr15: 76633364 76633365	<i>ISL2</i>
33	Chr06: 10882336 10882337	<i>GCM2</i>	84	Chr15: 89922328 89922329	<i>LOC254559</i>
34	Chr06: 137814728 137814729	<i>OLIG3</i>	85	Chr15: 89952499 89952500	<i>Non Coding Region</i>
35	Chr06: 166582393 166582394	<i>T</i>	86	Chr16: 21294947 21294948	<i>CRYM</i>
36	Chr06: 26240528 26240529	<i>HIST1H4F</i>	87	Chr16: 3237991 3237992	<i>Non Coding Region</i>
37	Chr06: 26240920 26240921	<i>HIST1H4F</i>	88	Chr17: 41363737 41363738	<i>TMEM106A</i>
38	Chr06: 26240939 26240940	<i>HIST1H4F</i>	89	Chr17: 41363741 41363742	<i>TMEM106A</i>
39	Chr06: 28603779 28603780	<i>Non Coding Region</i>	90	Chr17: 41364007 41364008	<i>TMEM106A</i>
40	Chr06: 29692009 29692010	<i>HLA-F</i>	91	Chr17: 59529618 59529619	<i>Non Coding Region</i>
41	Chr06: 29795815 29795816	<i>HLA-G</i>	92	Chr17: 7287740 7287741	<i>TNK1</i>
42	Chr06: 42738967 42738968	<i>Non Coding Region</i>	93	Chr17: 75369219 75369220	<i>SEPTIN9</i>
43	Chr07: 1270558 1270559	<i>Non Coding Region</i>	94	Chr17: 76921845 76921846	<i>TIMP2</i>
44	Chr07: 127672458 127672459	<i>LRRC4,SND1</i>	95	Chr18: 22929205 22929206	<i>ZNF521</i>
45	Chr07: 143579951 143579952	<i>FAM115A</i>	96	Chr19: 46800338 46800339	<i>HIF3A</i>
46	Chr07: 143580147 143580148	<i>FAM115A</i>	97	Chr19: 48984071 48984072	<i>CYTH2</i>
47	Chr07: 35293759 35293760	<i>TBX20</i>	98	Chr19: 58220370 58220371	<i>ZNF154</i>
48	Chr08: 124173231 124173232	<i>Non Coding Region</i>	99	Chr19: 58220494 58220495	<i>ZNF154</i>
49	Chr08: 23564025 23564026	<i>NKX2-6</i>	100	Chr20: 36012946 36012947	<i>SRC</i>
50	Chr08: 23564156 23564157	<i>NKX2-6</i>	101	Chr20: 37434167 37434168	<i>PPP1R16B</i>
51	Chr08: 53851156 53851157	<i>NPBWR1</i>	102	Chr20: 61585924 61585925	<i>SLC17A9</i>

Figure 66

Group 4 Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 4 Markers			Preferred Group 4 Markers	
1	chr01:110610265-110613303	<i>ALX3</i>	42	chr10:102899177-102899489	<i>Non Coding Region</i>
2	chr01:119531991-119532196	<i>TBX15</i>	43	chr10:102899822-102900263	<i>Non Coding Region</i>
3	chr01:170630456-170630851	<i>Non Coding Region</i>	44	chr10:118892161-118892639	<i>VAX1</i>
4	chr01:200008392-200009047	<i>NR5A2</i>	45	chr10:45914374-45914883	<i>ALOX5</i>
5	chr01:200009807-200010036	<i>NR5A2</i>	46	chr10:94820026-94823252	<i>CYP26C1</i>
6	chr01:44031286-44031853	<i>PTPRF</i>	47	chr11:31827696-31827921	<i>PAX6</i>
7	chr01:50884228-50891471	<i>DMRTA2</i>	48	chr11:47207188-47209176	<i>PAC3IN3</i>
8	chr01:67218079-67218293	<i>TCTEX1D1</i>	49	chr11:626728-628037	<i>SCT</i>
9	chr02:19560963-19561650	<i>Non Coding Region</i>	50	chr11:829284-833558	<i>EFCAB4A</i>
10	chr02:208988834-208989269	<i>CRYGD</i>	51	chr12:25055599-25056246	<i>BCAT1</i>
11	chr02:223162946-223163912	<i>CCDC140,PAX3</i>	52	chr12:48591977-48592785	<i>Non Coding Region</i>
12	chr02:233497826-233499727	<i>EFHD1</i>	53	chr12:52400467-52401696	<i>GRASP</i>
13	chr02:45240372-45241579	<i>Non Coding Region</i>	54	chr12:52652018-52652743	<i>Non Coding Region</i>
14	chr03:121902742-121903645	<i>CASR</i>	55	chr12:54345563-54345916	<i>Non Coding Region</i>
15	chr03:129693127-129694841	<i>TRH</i>	56	chr12:58021294-58022037	<i>B4GALNT1</i>
16	chr03:139257712-139257949	<i>RBP1</i>	57	chr12:65514878-65515863	<i>WIF1</i>
17	chr03:62356773-62357315	<i>FEZF2</i>	58	chr13:79170114-79171231	<i>Non Coding Region</i>
18	chr04:16084195-16085735	<i>PROM1</i>	59	chr14:24803678-24804353	<i>ADCY4</i>
19	chr04:57521621-57522703	<i>HOPX</i>	60	chr14:60975732-60978180	<i>SIX6</i>
20	chr05:170741603-170742751	<i>Non Coding Region</i>	61	chr14:70655095-70656077	<i>SLCSA3</i>
21	chr05:1874907-1879032	<i>Non Coding Region</i>	62	chr15:45479509-45480498	<i>SHF</i>
22	chr05:3594467-3603054	<i>IRX1</i>	63	chr15:51385861-51387203	<i>TNFAIP8L3</i>
23	chr05:72594147-72595808	<i>Non Coding Region</i>	64	chr15:75251467-75251773	<i>Non Coding Region</i>
24	chr06:106429111-106429772	<i>Non Coding Region</i>	65	chr15:76632262-76635515	<i>ISL2</i>
25	chr06:108485671-108490539	<i>NR2E1</i>	66	chr15:89920793-89922768	<i>LOC254559</i>
26	chr06:10882926-10883149	<i>GCM2</i>	67	chr15:89952271-89953061	<i>Non Coding Region</i>
27	chr06:137814355-137815202	<i>OLIG3</i>	68	chr16:21294980-21295414	<i>CRYM</i>
28	chr06:166579973-166583423	<i>T</i>	69	chr16:3238805-3239492	<i>Non Coding Region</i>
29	chr06:26240697-26240951	<i>HIST1H4F</i>	70	chr17:41363727-41364273	<i>TMEM106A</i>
30	chr06:28602853-28603295	<i>Non Coding Region</i>	71	chr17:59528979-59530266	<i>Non Coding Region</i>
31	chr06:29691106-29692093	<i>HLA-F</i>	72	chr17:7287198-7287940	<i>TNK1</i>
32	chr06:29795553-29796594	<i>HLA-G</i>	73	chr17:75368688-75370506	<i>SEPTIN9</i>
33	chr07:1269165-1282864	<i>Non Coding Region</i>	74	chr17:76920684-76921961	<i>TIMP2</i>
34	chr07:127671158-127672853	<i>LRRC4,SND1</i>	75	chr18:22930018-22930904	<i>ZNF521</i>
35	chr07:143582125-143582610	<i>FAM115A</i>	76	chr19:46800053-46800603	<i>HIF3A</i>
36	chr07:35292985-35294674	<i>TBX20</i>	77	chr19:48983562-48984175	<i>CYTH2</i>
37	chr08:124172800-124173541	<i>Non Coding Region</i>	78	chr19:58220189-58220517	<i>ZNF154</i>
38	chr08:23562475-23565175	<i>NKX2-6</i>	79	chr20:36012595-36013439	<i>SRC</i>
39	chr08:53851701-53854426	<i>NPBWR1</i>	80	chr20:37434206-37435592	<i>PPP1R16B</i>
40	chr08:70981873-70984888	<i>PRDM14</i>	81	chr20:61583891-61584222	<i>SLC17A9</i>
41	chr09:112810858-112811128	<i>PALM2-AKAP2,AKAP2</i>			

Figure 67

Group 5 Methylation markers, 75% sensitivity, CpG Regions

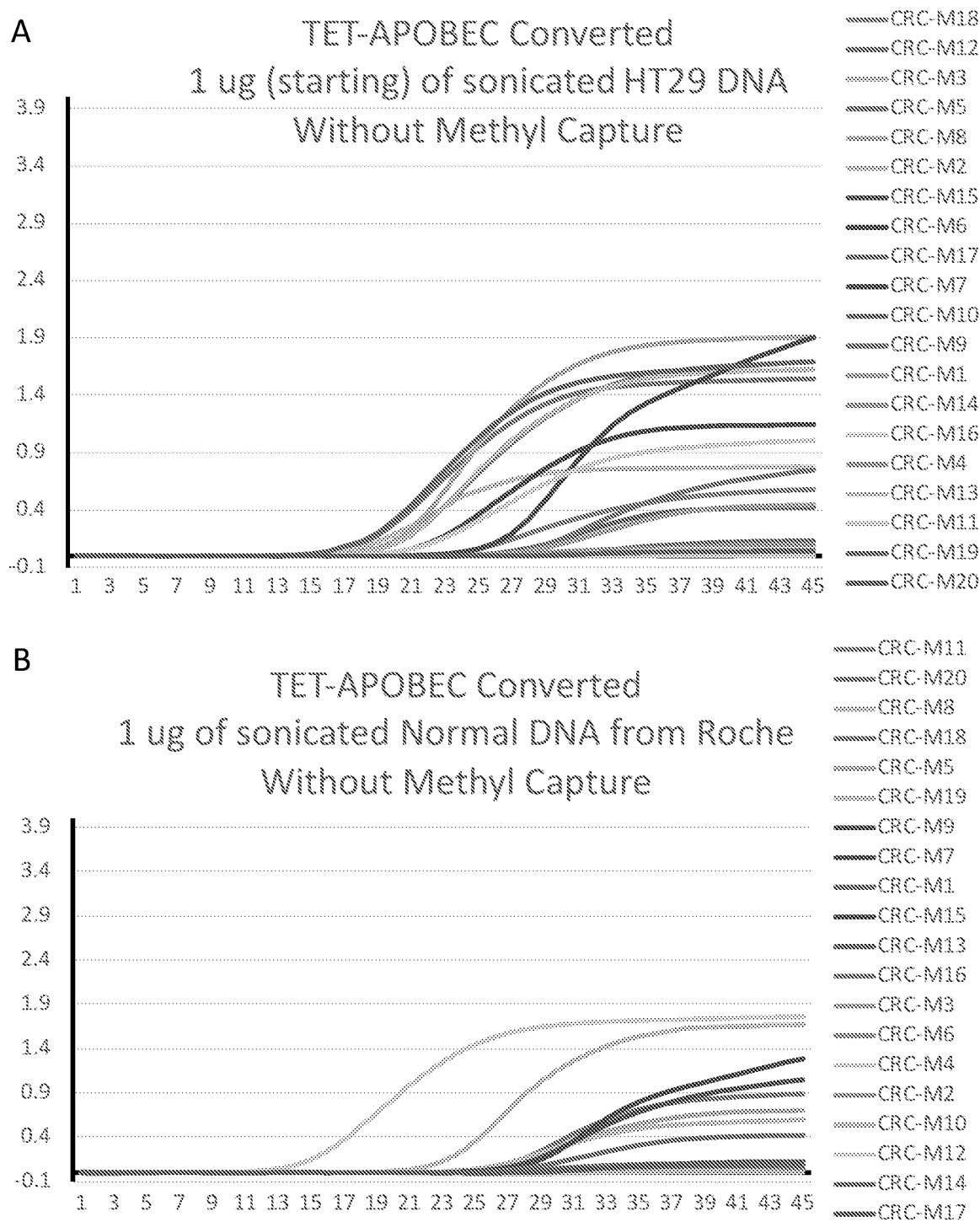
Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 5 Markers			Preferred Group 5 Markers	
1	Chr01: 111217194 111217195	<i>KCNA3</i>	42	Chr10: 21783445 21783446	<i>C10orf114</i>
2	Chr01: 119532925 119532926	<i>TBX15</i>	43	Chr10: 22625465 22625466	<i>Non Coding Region</i>
3	Chr01: 154475173 154475174	<i>TDRD10,SHE</i>	44	Chr10: 44788812 44788813	<i>Non Coding Region</i>
4	Chr01: 204653629 204653630	<i>LRRN2</i>	45	Chr10: 94822908 94822909	<i>CYP26C1</i>
5	Chr01: 214153294 214153295	<i>Non Coding Region</i>	46	Chr11: 119227328 119227329	<i>USP2</i>
6	Chr01: 248020632 248020633	<i>TRIM58</i>	47	Chr11: 2162183 2162184	<i>IGF2,IGF2AS,INS-IGF2</i>
7	Chr01: 67217826 67217827	<i>TCTEX1D1</i>	48	Chr11: 2292691 2292692	<i>ASCL2</i>
8	Chr01: 67217950 67217951	<i>TCTEX1D1</i>	49	Chr11: 31827084 31827085	<i>PAX6</i>
9	Chr02: 171573223 171573224	<i>SP5</i>	50	Chr11: 46383066 46383067	<i>DGKZ</i>
10	Chr02: 177030150 177030151	<i>HOXD3</i>	51	Chr11: 57250469 57250470	<i>Non Coding Region</i>
11	Chr02: 208989248 208989249	<i>CRYGD</i>	52	Chr11: 69830611 69830612	<i>Non Coding Region</i>
12	Chr02: 233368543 233368544	<i>Non Coding Region</i>	53	Chr12: 25055967 25055968	<i>BCAT1</i>
13	Chr02: 238600061 238600062	<i>LRRFIP1</i>	54	Chr12: 49942982 49942983	<i>KCNH3</i>
14	Chr02: 38301756 38301757	<i>CYP11B1</i>	55	Chr12: 56415271 56415272	<i>IKZF4</i>
15	Chr02: 45231226 45231227	<i>Non Coding Region</i>	56	Chr13: 28498384 28498385	<i>PDX1</i>
16	Chr02: 45240563 45240564	<i>Non Coding Region</i>	57	Chr14: 70653719 70653720	<i>SLC8A3</i>
17	Chr02: 63275509 63275510	<i>LOC100132215</i>	58	Chr15: 37172509 37172510	<i>LOC145845</i>
18	Chr02: 63281139 63281140	<i>OTX1</i>	59	Chr15: 41793881 41793882	<i>ITPKA</i>
19	Chr02: 63283013 63283014	<i>OTX1</i>	60	Chr15: 41794412 41794413	<i>ITPKA</i>
20	Chr02: 63283967 63283968	<i>OTX1</i>	61	Chr15: 86233220 86233221	<i>AKAP13</i>
21	Chr02: 63284132 63284133	<i>OTX1</i>	62	Chr16: 23847325 23847326	<i>PRKCB</i>
22	Chr02: 72371261 72371262	<i>CYP26B1</i>	63	Chr16: 2765843 2765844	<i>PRSS27</i>
23	Chr03: 119528656 119528657	<i>NR1I2</i>	64	Chr16: 29086271 29086272	<i>RRN3P2</i>
24	Chr03: 129693370 129693371	<i>TRH</i>	65	Chr16: 3237991 3237992	<i>Non Coding Region</i>
25	Chr03: 184099432 184099433	<i>CHRD</i>	66	Chr16: 66613266 66613267	<i>CMTM2</i>
26	Chr03: 184301730 184301731	<i>Non Coding Region</i>	67	Chr16: 86232457 86232458	<i>Non Coding Region</i>
27	Chr04: 183062301 183062302	<i>MGC45800</i>	68	Chr16: 88700818 88700819	<i>Non Coding Region</i>
28	Chr04: 3371928 3371929	<i>RGS12</i>	69	Chr17: 59480730 59480731	<i>TBX2</i>
29	Chr04: 57522493 57522494	<i>HOPX</i>	70	Chr17: 73584068 73584069	<i>MYO15B</i>
30	Chr05: 54516487 54516488	<i>Non Coding Region</i>	71	Chr17: 73584070 73584071	<i>MYO15B</i>
31	Chr05: 54516805 54516806	<i>Non Coding Region</i>	72	Chr17: 73584617 73584618	<i>MYO15B</i>
32	Chr06: 30139903 30139904	<i>TRIM15</i>	73	Chr19: 11532175 11532176	<i>CCDC151</i>
33	Chr06: 91004452 91004453	<i>BACH2</i>	74	Chr19: 17439877 17439878	<i>ANO8</i>
34	Chr07: 100488942 100488943	<i>ACHE</i>	75	Chr19: 18539756 18539757	<i>SSBP4</i>
35	Chr07: 127671193 127671194	<i>LRRC4,SND1</i>	76	Chr19: 31842873 31842874	<i>Non Coding Region</i>
36	Chr07: 127672458 127672459	<i>LRRC4,SND1</i>	77	Chr19: 39108609 39108610	<i>MAP4K1,EIF3K</i>
37	Chr07: 27208285 27208286	<i>Non Coding Region</i>	78	Chr19: 7927207 7927208	<i>EV15L</i>
38	Chr07: 35293759 35293760	<i>TBX20</i>	79	Chr20: 37434167 37434168	<i>PPP1R16B</i>
39	Chr08: 56852290 56852291	<i>LYN</i>	80	Chr22: 50623687 50623688	<i>TRABD</i>
40	Chr08: 70982039 70982040	<i>PRDM14</i>	81	Chr22: 50623692 50623693	<i>TRABD</i>
41	Chr10: 123922970 123922971	<i>TACC2</i>			

Figure 68

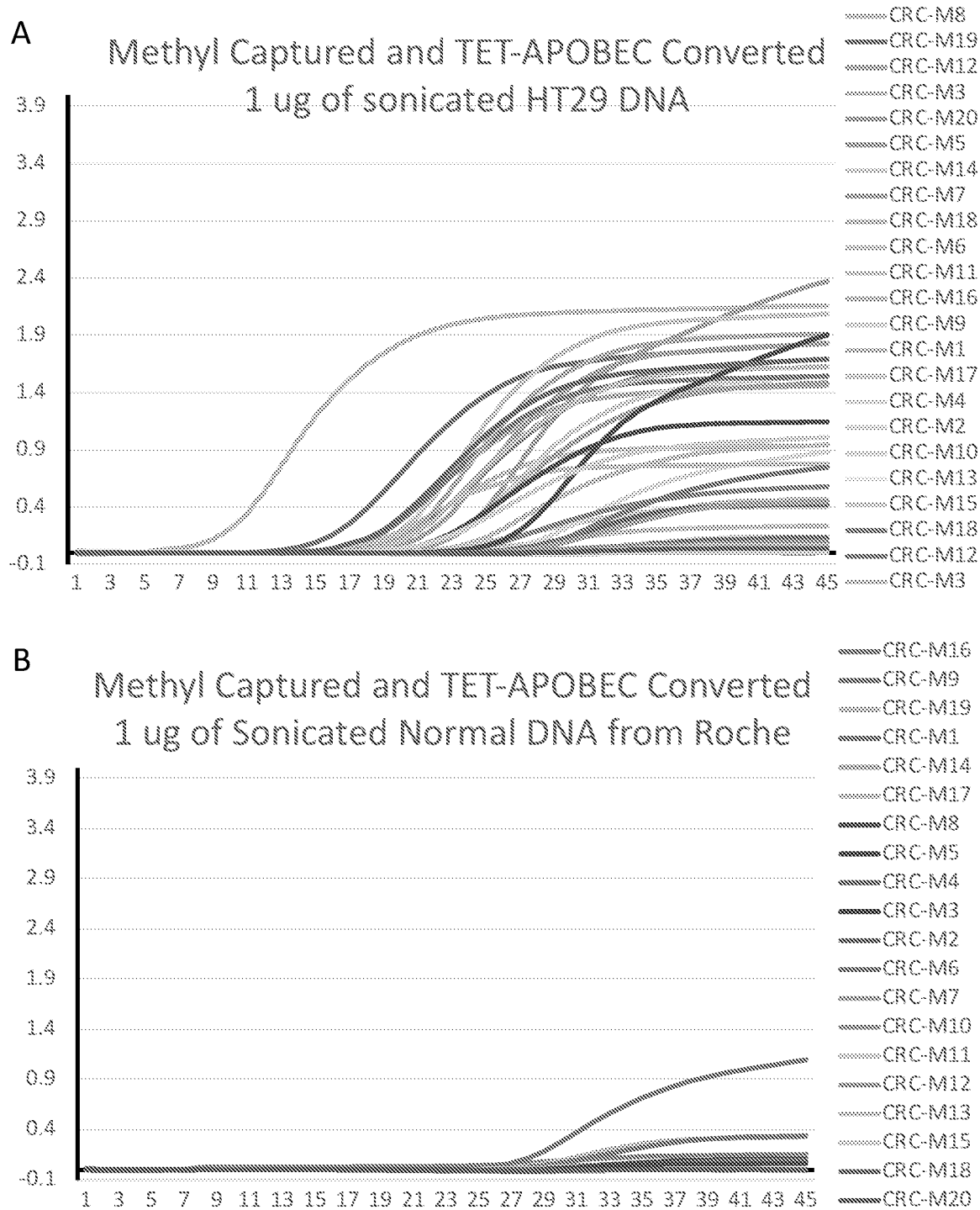
Group 5 Methylation markers, 75% sensitivity, Chromosomal Regions

Order	Coordinate of CpG (hg19)	Gene	Order	Coordinate of CpG (hg19)	Gene
	Preferred Group 5 Markers			Preferred Group 5 Markers	
1	chr01:111216244-111217937	<i>KCNA3</i>	35	chr08:70981873-70984888	<i>PRDM14</i>
2	chr01:119531991-119532196	<i>TBX15</i>	36	chr10:123922850-123923542	<i>TACC2</i>
3	chr01:154474107-154475699	<i>TDRD10,SHE</i>	37	chr10:21783198-21786420	<i>C10orf114</i>
4	chr01:204654132-204654885	<i>LRRN2</i>	38	chr10:22623350-22625875	<i>Non Coding Region</i>
5	chr01:214153214-214153668	<i>Non Coding Region</i>	39	chr10:44788811-44789120	<i>Non Coding Region</i>
6	chr01:248020330-248021252	<i>TRIM58</i>	40	chr10:94820026-94823252	<i>CYP26C1</i>
7	chr01:67218079-67218293	<i>TCTEX1D1</i>	41	chr11:119227096-119227758	<i>USP2</i>
8	chr02:171569877-171573904	<i>SP5</i>	42	chr11:2158951-2162484	<i>IGF2,IGF2AS,INS-IGF2</i>
9	chr02:177029413-177029941	<i>HOXD3</i>	43	chr11:2290104-2292932	<i>ASCL2</i>
10	chr02:208988834-208989269	<i>CRYGD</i>	44	chr11:31827696-31827921	<i>PAX6</i>
11	chr02:233367780-233368577	<i>Non Coding Region</i>	45	chr11:57249946-57250848	<i>Non Coding Region</i>
12	chr02:238599857-238601430	<i>LRRFIP1</i>	46	chr11:69831571-69832484	<i>Non Coding Region</i>
13	chr02:38301276-38304518	<i>CYP11B1</i>	47	chr12:25055599-25056246	<i>BCAT1</i>
14	chr02:45231211-45231482	<i>Non Coding Region</i>	48	chr12:49942786-49943435	<i>KCNH3</i>
15	chr02:45240372-45241579	<i>Non Coding Region</i>	49	chr13:28498226-28499046	<i>PDX1</i>
16	chr02:63274475-63279430	<i>LOC100132215</i>	50	chr14:70655095-70656077	<i>SLC8A3</i>
17	chr02:63281034-63281347	<i>OTX1</i>	51	chr15:37172473-37173018	<i>LOC145845</i>
18	chr02:63282514-63283122	<i>OTX1</i>	52	chr15:41793562-41795305	<i>ITPKA</i>
19	chr02:63283936-63284147	<i>OTX1</i>	53	chr16:23846941-23848102	<i>PRKCB</i>
20	chr02:72371121-72375004	<i>CYP26B1</i>	54	chr16:2765619-2765855	<i>PRSS27</i>
21	chr03:119528920-119529159	<i>NR1I2</i>	55	chr16:29086220-29086434	<i>RRN3P2</i>
22	chr03:129693127-129694841	<i>TRH</i>	56	chr16:3238805-3239492	<i>Non Coding Region</i>
23	chr03:184099095-184099582	<i>CHRD</i>	57	chr16:66612749-66613412	<i>CMTM2</i>
24	chr03:184301117-184302134	<i>Non Coding Region</i>	58	chr16:88700455-88701573	<i>Non Coding Region</i>
25	chr04:183062278-183062481	<i>MGC45800</i>	59	chr17:59473060-59483266	<i>TBX2</i>
26	chr04:3374733-3374998	<i>RGS12</i>	60	chr17:73583838-73586337	<i>MYO15B</i>
27	chr04:57521621-57522703	<i>HOPX</i>	61	chr19:11533198-11533619	<i>CCDC151</i>
28	chr05:54516267-54516919	<i>Non Coding Region</i>	62	chr19:17438054-17440318	<i>ANOS</i>
29	chr06:30139718-30140263	<i>TRIM15</i>	63	chr19:18539781-18540341	<i>SSBP4</i>
30	chr06:91004795-91006944	<i>BACH2</i>	64	chr19:31839635-31843049	<i>Non Coding Region</i>
31	chr07:100489981-100490365	<i>ACHE</i>	65	chr19:39109432-39109862	<i>MAP4K1,EIF3K</i>
32	chr07:127671158-127672853	<i>LRRC4,SND1</i>	66	chr19:7926590-7928752	<i>EVTSL</i>
33	chr07:27208871-27209616	<i>Non Coding Region</i>	67	chr20:37434206-37435592	<i>PPP1R16B</i>
34	chr07:35292985-35294674	<i>TBX20</i>	68	chr22:50623164-50625226	<i>TRABD</i>

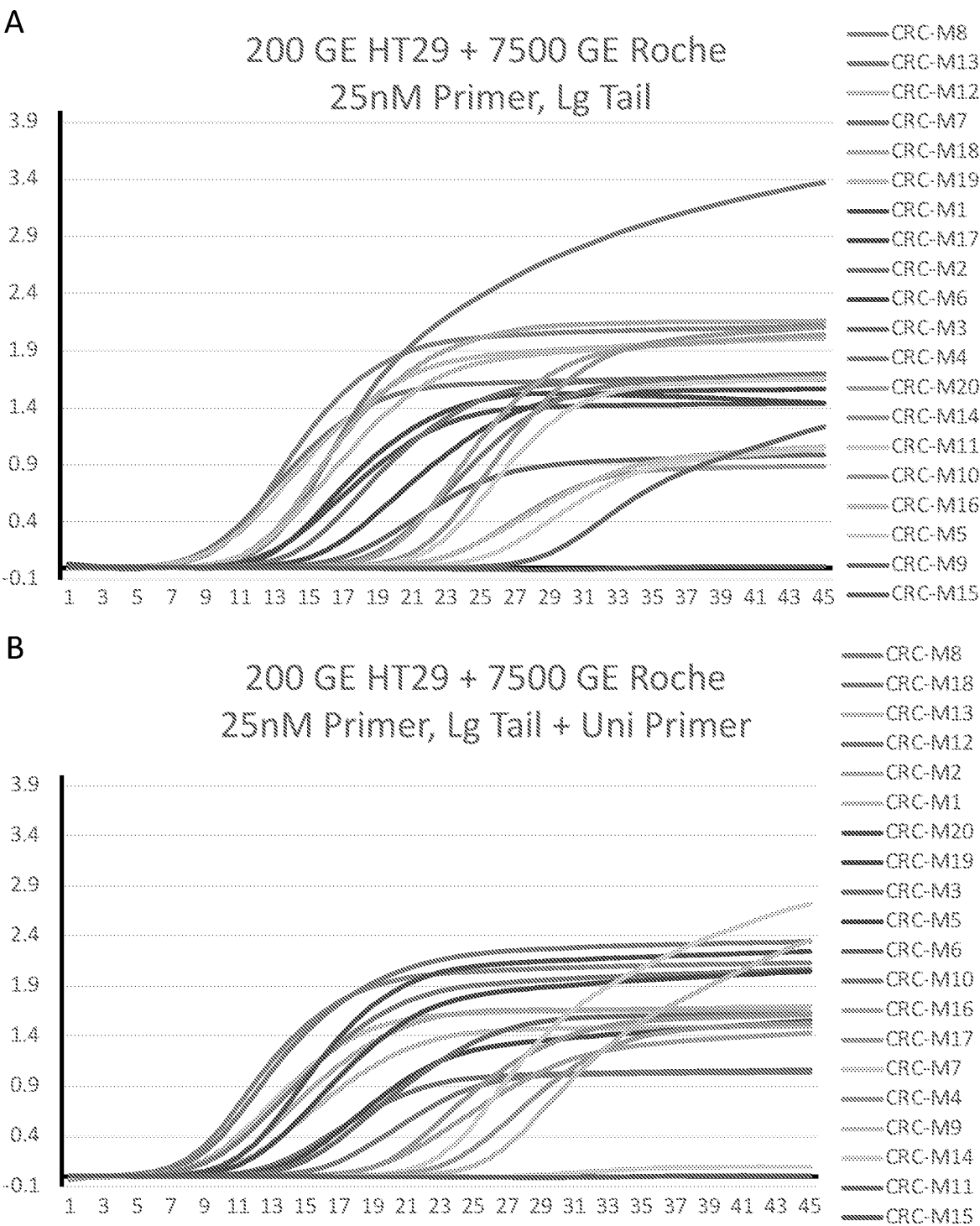
Figure 69



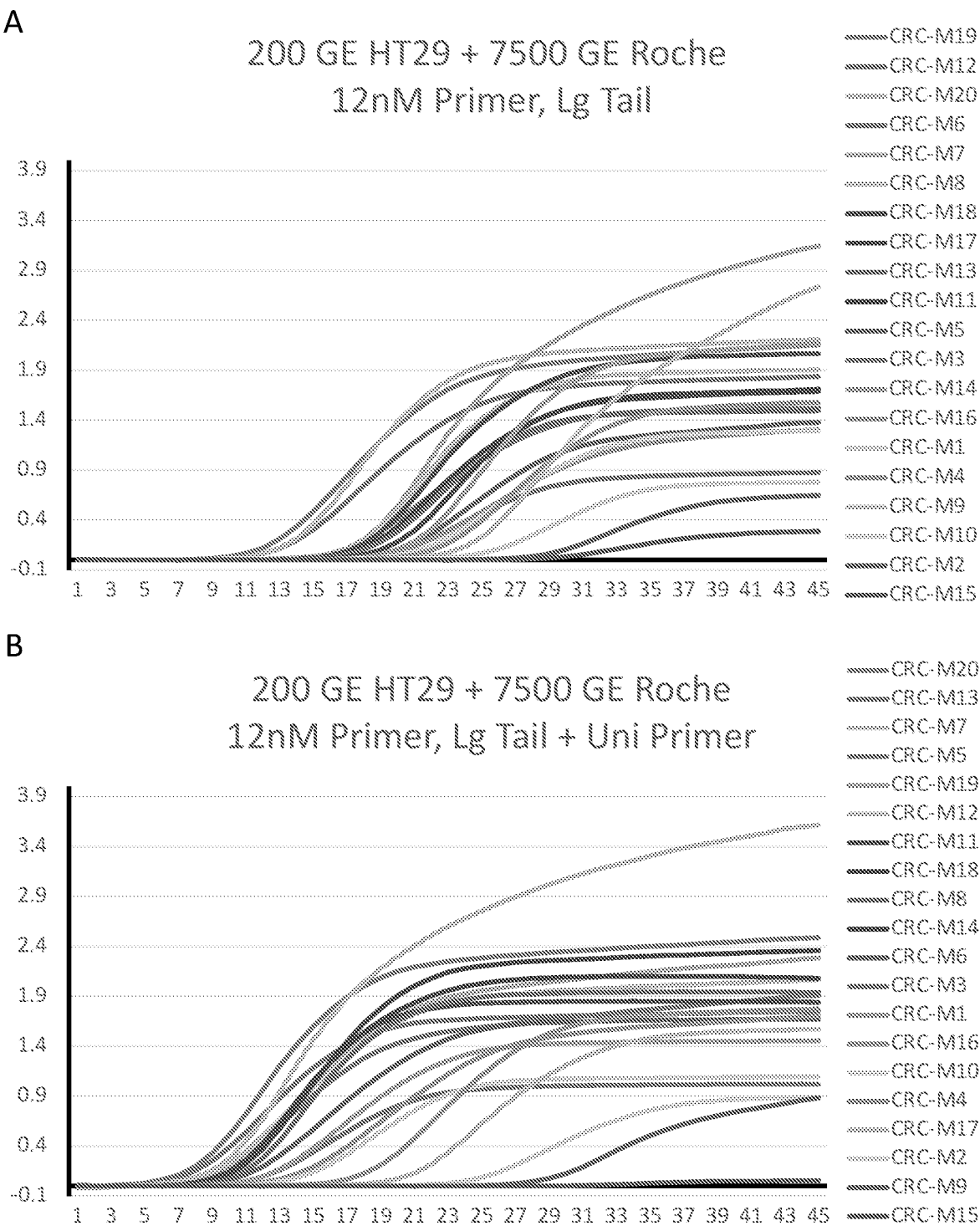
Figures 70A-B



Figures 71A-B



Figures 72A-B



Figures 73A-B