

SEQUENCE LISTING

<110> Boehringer Ingelheim International GmbH

<120> Integration sites in CHO cells

<130> 113628P1140PC

<150> EP17185988.7

<151> 2017-08-11

<160> 14

<170> BiSSAP 1.3.6

<210> 1

<211> 19987

<212> DNA

<213> Cricetulus griseus

<220>

<223> Upstream integration locus

<400> 1

acagagaaac aagcaagaga gagatgagga ggggaccgat gttagcttta ccagttggtc	60
tggttaagaag agaaaccagg aagtggctgg tgaaggaact ttgggcaaag ctgcagagcc	120
agtgtgactg aagagtgggtg ctctgcagcc tggccaacct gagttcaaat ccagctctac	180
tcttaatcta cccggcctct gtttccagat ccactcatca caggaatggc ccacattggt	240
agaggggtgtg agagggtcagg gcttcttacg ctttctcctc tcttagccac tttttgcctg	300
agaaagttat gaaaggccct gtacaggtag atattaaaat agatatatgt taaatgttca	360
cttataataa agattaatth taaaatgata ttttttgta aaaatgaaac aatttgaata	420
ctaatgagct ggatgtgctt gtttagtttt tattcaatat ctgttttatt tatgagactg	480
taatttagtt acaatgtttc ttccttcctt tttctccctt caaactctcc ctgttacct	540
tccccactgc ttcaaatcct tggcctcttt tttgttaatt gttattgcac acacatatgt	600
atttgtatat acacatatat tcctaagcat aacttgctgg ggctgtataa tgttatttgt	660
atatatgttt tcagggtga ccatttggca ctgaacaacc agttgggtgta ctcttcccca	720
ggaagggccca cttctctgct cccagcttta ctgattgcc tgtcattctt tgtgtagggt	780

tgaggcctca tgggattaac cccatccagt ttggcatgtc aattggtgtc aaacttgttc	840
agcgcttggt tgggcagtca tgttggtgag acgttacagg tgtagcttct gatgttacta	900
ggagacacag tctcacaaca aactctctga ttctctggct cttacaattt ccagttccct	960
cttctgcaat attctctagc tttagatgca gaagtgtttt gtagatttat ccattgggac	1020
tggattccac agctctgcat tttgactggt tgtggttttc tgtagtggtc tctgttgcaa	1080
agagaaaattt ccttgatgaa aggtgaagaa tataatctgtg gttatatgaa caaatattta	1140
tagattgttg ttagggatta tgctggttta ataaattagt ggttatagat ttctcttcca	1200
ataaccacag ttttcctagc attgagtagt taggtaggat tccagtatca agcatgtttc	1260
ccctcttggt gaatgggtct taagtccaat tacagagctg ttggttacca ccaaggtatg	1320
tgtgctgcta ctgcaccgtg gggttatcat ggcatgctgg ttgttgccgt ggttcatagg	1380
tggcatagct ggataggatt gttggttgcc tccctctttt ggaagctttc atgggtgcctt	1440
ctggtaccat taaagctagt tctcagggag ggagcattta ggatatttcc agatcaaggg	1500
tctctgggac ctgtgtctga aatgtttggt gtcttaagca atagggattt acctttata	1560
tcttgaggat agccaagggc aatatgctta cataaatgat tgaatcttgt ctaatatattt	1620
ttctttttga gacagggctc cactgcatgt tcctggttgg cctggaacac actactttta	1680
gatcaggctg gcctcgaact agcagagatt cacttgtctc tgcattctca gttgactggg	1740
attaatggtg tgtgctatca tgcccagcca atcttggctg agtatttgat actttcagga	1800
tcaagtcagc aatgcaaaca gcaatattac atttttaagt gttttattta tctttatcca	1860
atcttcattt aattagttca tatattcata tattgtattt tgatcatctc caacccaaat	1920
cacctatccc attcccttta gaccctccca tattttcccc tcctctctca tatcctcttt	1980
atttttaata acccactgag tccacttagt gctgcttggt tgctcatggg tgaggggtgc	2040
tctgtgatag catgggcagc ctaccagcaa ccacccgcc tcaagagaaa agactctccc	2100
tcttccagca gccatcaact gccaaaagat cgcttgctgg gttgaagcct ctgagttcct	2160
cttgcattca cgctgggatg ttgacgggct tgatctcctg cagataatca tagctgtgag	2220
ttcaggagtg caacagctgt gtggtgtcca gaagatagca tttcaagcat ttctgttgt	2280

cttcctgctc ttacagtcta catccctctc ctttatgctt tctgagcctt ggtgaggaga	2340
aggggaaggaa gtagtgactt gacagaaatg tcacattcat ggctgaacac tgaaaagtca	2400
tttattatca gctcttacac aagttatgag tctgctgccc agtgaaaaac gaggtttctc	2460
tgagcaaggc tgagagcagc actaatatat agggttgtga atataaatat tttgaaggca	2520
gtttgacacg tcagtttagc aaaaacagta atagttccct ccacctctac cccagggcct	2580
ataagtttcc tagacatagg cttttgatga ggtacacagt accagacata aattacctgc	2640
tgtggaccgg gcttcaaacc caatcaagtg actggttact cccataactg tcatgccact	2700
attgtatcag gagttacttc ttgctaggca gttaattgtc atagcatgca tgatccacag	2760
gtgggtaaga ccattgatag cttttcttct ctagtagcct gaatagtacc ttctgtcact	2820
ctgaaaacta gctagtaggg aggaaacttc tagatcagtt ccatttcaat ttctccatgt	2880
ttgaaccaag tgtgtgatgt ctttagaaat agcatcttac catctagttg aggtgggcaa	2940
acaagagcaa tgacaatagt ctgtgttgtt ttagggggct ctaaagcttc ccagaccaat	3000
aacgataggg acatagccta tactttacat tgggattttc agttagtaac ttatgtcttc	3060
taggaacgca ctagccacct acgtaaggta cctgtgttca aactcctttt aaagttaaaa	3120
aaaagtagct tacaaaagtg cgtagtccat aggcttgtgt gtgtgtgtgt gtgtgtgtgt	3180
gtgtgtgtgt gtgtgtgtgt gtttgatata gggttttact atgtatccct gactaacctg	3240
gaactcacta tgtagacctt gaagtcacag agatccaact gccttacagg tatgtgccac	3300
cacttccata gttgccataa gtttttttaa aaaatatattt tttttcatac aactgcaaga	3360
accttaacat ggtgagccgg ctcttttacc tctccctgac ctccactatt ttgtgacagg	3420
ttctcatata taccaggctg gccttgaact tacagtgtag ctgagggtga ccttgaactg	3480
agtctcctgc gtgtgctgcc acaccagttt atacagtgcc aggaactaaa accaagactg	3540
tgcacgggaa gcaagcactt tgtcaactaa actacatttc caaggccctc aaaccatgat	3600
tctttttatt gaattttatt tattattatt tttttatttg agacaggatt cctctatgta	3660
gccctgactg tcctgggtact caatctgtag accaggctgg ccttgaactc agagattagc	3720
ctgcctctgc cttctgagta atgggtattaa aggggcacac catcacacct ggcctcaagc	3780

agcgattctt aaaattaaat atccaaacat aacacattcc aaaaatgtac taatttgta	3840
ctaatttgcc aaagaatgat gacaggaaaa tattaatagt ctttgtttc taggctggag	3900
agatggcttg gtaattaaaa gagcattagc tgctcttcta gaggaatgag gtccggttct	3960
cagtacccat atggcagccc atgcccacct gtaaattccag ttccaggga tccaattttc	4020
ctctggtttc tgagggccct tgcacacacc cttccccata tatatataat taaaaataaa	4080
aacaaatctt aaaaaaatta tgtttctact agagcagaaa actttgtgta tacagtga	4140
acgttgcaat tcttaacaca aaacagcctt gggcctgagg agggtttttag ccagcattca	4200
ttggcgcttg gagggataat ggctcggata gtgcaaagag cttgtctgtg cccagaaccc	4260
ccaaggctgc aggggaagttg tgtgacccca caccctgact cattgtgtgt tagcctttga	4320
attaatcttt ggttgtttgt tctgaaatct cttactattg ccaaagtttt gtgacactac	4380
cctccccgcc aatccagtta caaccccaca tagggttgta acacagtttg aaaaaccagg	4440
aattaggtag catgtgaaca atattcaata catttaattt cttcttgctt gcttgctggc	4500
tgcccttttt cttctcaga aggaattatg tgtctgtttt aaagctgggc aggtccagat	4560
cattcttcat cacttcattc aggggtgggc ctgtcctgag agactgattg gctccctgat	4620
ccagcattcc aggaatcgat ttcattgtct ccccaaagga aagtcctct gtgagtctag	4680
agctggtagc aaataactgg atgtgaatga tgggtccccc cttatttctg agacaggacc	4740
tcattcccat attaccagg cctcgaattg accctctgat cctcctacct catgtcctgg	4800
gattacaggt ctgcaccaat agactcagag acatgagtga tcttaaaggg ccatatgagt	4860
aagcctgaca aaggcgtgtg tctctcctgg taaggaatag aattgggtata tttttcttct	4920
ttctttcttt ctttctttct ttctttcttt ctttctttct ttctttcttc ctttctctct	4980
cttttttttt tgtaaagatc tatttatatt ttttaaacct ttatgtgcag gaggctttt	5040
cggtccctgt atgtatccgt gtgcctgggt cagtacagcc cttagatcta gagacagcca	5100
attgtgagcc accatgtggg tgctggaaaat taacacaggc cttttgcaag aacagccagt	5160
gctcttaacc acagagccat ctctgcagcc ctggtttctt ctttccagtg ctgcttctaa	5220
taacatgtat tggattcttg tgtatgtggc atgtgtgtgc tcatttgatc tgtgggttgg	5280

gatagtattc tgctacagat gagtagagtg gtgattaccc tgggtgaaga gcacatagtg	5340
aatgtggcta ctgtgacgct tgcttttcttt ctttggtaag ggacccagag tctggcctta	5400
ccacgctggg ccaatcagag tactttgtct ctctggctac ggggaggggc gggatgttgg	5460
ccaatagcag aatagctgaa ccaagcaggg ccaaccagag ttttcccctg cattagtaag	5520
cagatcctag gtttatatgg ctggatgaac acatttccta tgtatgtatg tatgtatgta	5580
tgtatgtatg tatgtatgta tgtatgtatg tgcgtatgta tgcttaattc cttgtggcct	5640
ctgaagctag atcactgatt gtgtgaatta ctgcaacact ttgtaaagac aagtttgttc	5700
atttattttg agaaatgtgc ttatgtaccc cagactggca gaggcttatc tccatgtctg	5760
gatcctgcct ccatttcccc tgggtaagga gtataccact gcatttatgg gatgctggag	5820
attaaacca ggatttcttt tcttttcttt ctttcttttc tttttttagc agatttttta	5880
aatttgaatt agaaacaaga ttgttttaca taacaatccc agttcccttc tccctcccgt	5940
cctcccctaa ccccttacc cccctccccg tcctccaact aaaaccctat ctatcacata	6000
tccttaaacc ctggatttct tgaatgctgg gcaagcaggc tagcaaaact gctttgttga	6060
cacacctttc tgtgatcctg tgagtttgtc tcttagctga agtgctgaat ataaccagca	6120
gcggtaaaaa gcctgaaaga tggattcttt tggatttgca acttgatgat tggtttccca	6180
gccaatcatc ctgggagagc gggaggcagc agcactaggt cagcagacta cttatactct	6240
gtcagtaagc ccagaagcag acaggagaat gaatgggtgc tgcacccggc tctcatcctc	6300
caggcctgcc tacttcccc agctgggccc cacatcctaa aagttatata gtttcccaa	6360
acagggaac cagatagggc caatggggac atttcctacc atcacactga ggattaaacc	6420
agggcttgctg ctactgggc atgtactcaa ccatagcgca agatccttag actttttttt	6480
ttttcttttt cttttctctt tctttctttc tttctttctt tctttctttt ttaggattca	6540
tttatttatt atatatacag tattctgctt gcatgtatac ctgcaggcca gagaggcac	6600
cagatcacat tatagatagt tgtgagctac catgtgggtg ctgggaattg aattcaggac	6660
ttctggaaga cctctgaacc atctctccag ttctcttagc tttttttttt tttttaaact	6720
ttctttattt tgaagcaggg tcttgtaaaa tagatttatt tatttattta tttatttatt	6780

tatttatttta tttatttagg tttctctgta gctttggaag ctgtccagga actagctctg	6840
tagacctagt taaagagcgt actccaccac cgcctgttg ctaaattgtt cttgaatctg	6900
tggccttccc acctcagcct cctgagttgc tagatcagat tttaaaaaag attagttgta	6960
gccgggcatt ggtgtcgcac gcctttaatc ccagcacacg ggaggcagag gcaggcggat	7020
ctctgtgagt tcgagaccag cctgggtctac aagagctagt tccaggacag cctccaaagc	7080
cacagagaaa ccctgtctcg aaaaacaaaa acaaaacaaa acaaaacaaa aacaaaacaa	7140
aaaaaagatt agttgtatit tgaattatgt atgtgtgtgt atttgagtgg ttatatgcag	7200
gtgtatgtat gtatgtgtgt atatgcagga gtgtttgtgt atgcagggtga tgccgggtgtg	7260
tgtgtgtgtg tgtgaatgta gatatgtagg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg	7320
tgtgtgtgta tgtgtaaata cacatgcaca cttgtgggtgg tcagaatcag gaagcatgga	7380
atccccctgg aactgggtgg tgtaagatgt ctagcatggg ggctgggaac ggaactctgg	7440
ttttctccaa gtatgggttc ttaattggct atctctgcag cccctgaaag attaaaaaca	7500
ttatggctgg gtttgtagtg tgcaccttta accagcactt atgaggcaga ggcagataga	7560
cagatttctg tgtttaaagc caggttggca actggtcagc caaggctaca cggtgagact	7620
ttgtctcaat aaacaaacaa acaaaacaaga atgagaataa taagataaag taagaatata	7680
ataaatgttt ttatttctgt gtgtttgagt gtgcacatgc atgtgagcac ctgccagaag	7740
aggcttctga tgtccaggag ctggagtitt aagcaatggg gagctacctg gtgcagggtgc	7800
tgggacctga actccagtcc tctgcaagag caccacaagc tctcaaccat tgagccatct	7860
cttcagcccc tgaaagggtct taattaataa aattaatgct aattattggg tcaagagtta	7920
agtccagatc caagtcttgg ctctttcact gtaactgatc tttgaaacca cttccttatg	7980
agtaacgtct taggttttaa gaacactgct cccactgagt cacctgtgtc actcctgaaa	8040
ctggctgagg tccctttctg gaatgaggaa cttcctgggt tcatggaaca caccaggaca	8100
tggctctcag gtgaccgctt ctgagaggac tgctaatacac tcatttatgt ggattcctct	8160
cagtgccagt gtcaccaagt aacagtgtcc tgagttccac tgttggtggc cctctctttt	8220
ggcaacttgg ggagcctggc ttcagcctca agcctaccta aactgaggc tttcgtactt	8280

gctaggacag cagccagcct ctggctaggg gaggccatga ggaattgaca gccagggcac	8340
agatactctg agctcttgat tcagacagca ggggtcggag ctctgaacat gagtgaggag	8400
ctgtgggatg tgggagcctg cctctagtcc tgacatctat gatgtggagg gacgggtgggc	8460
cagatagtag ctctgctcct ttcctgttct caggcaggga gtttaaaagg acagaggata	8520
aagaagtctg actggtttcg gtttaaaagta taaaatgttc ccctttgtga caccagaatg	8580
taataaacca tcgtcctttt gtgtgtacac aggctgactc tgatatatga catggaaaac	8640
cacgttttat gggcacattg aaagaacatt cattagctca tgatgcggca ccatgatcct	8700
agctgaaagg aagtatattt tagatgctcc acccagatta atactggagt ctgtcctgcc	8760
attgcaaact gaaaaatgag aacactccga ggttttcgca tagctatgga tcatgtgtgg	8820
tgacaagtgg atgagtaatc acaaatacta ctcaagaaca aaaagattct aagagaaaat	8880
aaagcaggaa ggagacaaac tagcattctt ggagaaaagaa ttgaaaaata tgcatagttg	8940
tagaatccca tagatgtgag tagggagact aatgcagcta atatactaag acagcaattt	9000
aattcttaaa tggaaaataca ggctgggtgtg tagctcagtg gtagagcgct tatccagcat	9060
gtgtgagact ctggcttcca tgccccaac caaaaagca aacatataca ggaagaaagc	9120
aggcacatct tagatgttcc acccagatta acattgcagt ctctcttgcc attacacatg	9180
gaactgagga cgagcagagg tttaggcata gttgtggagg aagcagcctc ttctagcatt	9240
ttaatggtaa ctgctataaa attatcatgt agattatttg atttgctatg tataattaaa	9300
atgcattgta attttaagac tctgacattt aaacacattt atactacttg gcaatgatgt	9360
agatcagttg ttattggact ttggatctcc agccccaaa taatgataca gagacttatt	9420
actaattatg aaagcttggc cttagcttag cttgtcccc aaagagctct tatagttgaa	9480
attaacctgt ttatattaat ctacattctg ccatgtagct cattacctct gctcagtacc	9540
gtatgtctga ctccatgggt aatgccacct ctcttattcc cagagttcct ctctccctgg	9600
aatccccacc tattctctcc tgcctaccta ttgaccactc agctctttgt taaatcaact	9660
agaaagtgcc ctgacagaga cacatcgtgt ccaaaaagat tatcccacag tagtcagcgg	9720
tgtttgtagg taagttgtag gtcagtggta gagtgcctgc ctagaatgta caaggtcctg	9780

ggttcaagtt ctagcactgg agggaaaagag aggacaatgt ttgaataatg tctcatgcta	9840
tgaaagcatt tgctaatttg tattatttga agatttctaag gagacagcta tttaatatat	9900
atattgtatt gattcattag tattagaaaa taagtctgct tttctttatg gggcaccttt	9960
tagagaaagt gcattgaata tgctatttcc caattagtat taggaagttc acttaaaaaat	10020
cttctcactg ggagagatcg attagtattt caagcaagag cgagtgact ctgacatccc	10080
ctctccctaa tctggtttgt atactgacat cactcacaat caccatttct ctgcaaattt	10140
ccagttagcc cataaaaaaa tccagtgcct cgaaagttct ttggatgggt cagcaggagt	10200
ttgaatccct caaatgtcac agcggctttt aagcctattt ccttacaggc tgtcttcctt	10260
agcaatttaa ggaaacaaag agctgttgcc aaggaaaagt gagttgggtt tgtttgtttt	10320
gttttgtgtt agatatgtgg tgttttctga tgaagtctct gacacggatg acagtacat	10380
tggaatatgg aagtcctgta ctctgagaaa gatcacattt ctagatgatg cttttgccac	10440
tgattaactg gatctgcatg tgagtgatgg tttctaagct gtttagtgac agctgcatgt	10500
ggtgacacag ccggcaatcc tgtcacttgg gagtctgagg cagaaggatc ttgtgttgga	10560
agctgcttta ggttgcattg tgaggctctg ttcacaaggg agggggcggg aacaaaaatc	10620
cagaacagaa caaaacaatc aaccaaattg tatagtaaga cagcaacatt tctcaacttc	10680
agaaacagtt ttctgagtgg cattgtgacc ctgactagga aaggctgcat ccctggagct	10740
tccttctccc ctactgtta ctctgtaacc tcgtggctaa ggcagctctt cttcatttta	10800
tttgttcaca cttacctatc aatatgtaca cacacacaca cacacacaca cacacacaca	10860
cacacacaaa gttgggtgtc agaggacaat tgtgggaatc gcttctctcc tccccacgt	10920
ggggccctca ggttggcagc aagctctttg acctgctgag ctttctcact agccccactt	10980
tcccatcatt ttatgtcttt aatctgcctg attctgctgt acagtgaaag gcaagcattt	11040
gacaccagcc ttctgagctt cttcaaaaaa gtgtttgttc attaagtatt cagaatttgt	11100
ttactgatta ccaagagggt gttgggtatg ggagcccatt tcacaatgcc tttctctcct	11160
tttgggaatg gaacctaggt ctttttctct ccaggaaaat gctctaccac tcaactacag	11220
ctaccttatt cttttatatt ttcaaggcta tttgcgtctt tagttatctt tgtcttagtt	11280

tgttgcaaag gttgctgagg aagagatgca tagggttaaa tgcagggaaa gggggtcaga	11340
gtcccatact ctagggactt ccacgtgggtc atttcattgt gttctttcta atcagttttc	11400
actaggatgc aatgggtggtt ttgggtgggta gaggttgggg aaacaaggag tgtttttctt	11460
ttccttacct catccccctg aagaatgact caagtgaatg gttataaatg gcaacagaga	11520
gacagagaag gcaaagatct gagttttggg gtttggaggg tgctaattat tctcaccttc	11580
ttccctttga agttctgaga agaactcaag caggactccc aatcacagcc atggactaga	11640
tgatgtaatt tggagctgag gctatgttgt ggtttgaatg ttaattctct cctacaggct	11700
catttgtttg aagagttggt tcccagatgg tggcactatc ttgggagact gagagacctt	11760
ttggacttgg ggcctattta cagacttgag gatacagaag ttggcctcat agcccatcct	11820
cagggtacatc atgaactctc tgcttcctgg atggtaccct atacctcatg ctcccactgc	11880
caggaaacca cccacagtca caccttcctc tatgatggat taaatccacc ccaatcgtga	11940
aaccaaatag atccttcctc cttgaagttg tcaagggttg gttagagtga tgaggacata	12000
aagaatagag taatctgttt ctgttataga actgaccaca gcactcagga ggcagagaca	12060
gcttgggtcta cagagccagt tccaggatag ccagggcagt tacacagaga aaccctgtct	12120
caacaaacaa aagcaaaaaca aaaggaaacc aaaaccaaaa ccaaaacaaa ccacaacaaa	12180
aacaaactga ccatattgtt tttcgggtctt tggaggtggt ttttgggagg aatgtggaga	12240
aatttagaat tgtgggctag aagctgggcg ttgggtggtgc atgcctttaa tcccagcact	12300
cgggaggcag aggcagttgc atctctgtga gttcgagacc agcctggtct acaagagcta	12360
gttccaggac agcctccaaa gtcacagaga aaccctgtct cgaaaaacca aaaaaaaaaa	12420
aaaaaaaaaa aaaaaaaaaatg tgggctagaa aggccctaac attctgtagt cagagcttac	12480
tgggccattc tgatgagtgt tcaggagacc atactattga tagaaaaatg gacactgttc	12540
agattcatga ggatttagag tggcagtgc tgcctatgat ccaaattctt ggaaagtgga	12600
ggcaccagga ttgggagttc aaggatcatcc ttggctacac agcaagtttg aggccagctt	12660
gaactacaca atgaagtgtc tcaaaaaaga acaatgaaaa tcaaggaaaa acaaacaaaa	12720
ccaaatacac ctaaaaaaca aacaggaact gtagcagaca ctgggttaga caccatttat	12780

gttacgttca gataaagaaa ttggttatgt gttatttcct aaaactttga gtgaagttga	12840
attcagaagc aatagagtaa tttgttctgt agagaacatt gccagatggc acagcattca	12900
ggttgtcaca tgactgttga catgtgacaa ccgttagcta tgtttacagt gaaaattctg	12960
atcagatagt ggcttgaaaa aatgtggaag atgaggccgg gtgttggtgg cgcacacctt	13020
taatcccagc actcgggagg cacacagaga aaccctgtct cgaaaaacca aaaaagaaaa	13080
aaaaaagtgg aaaatgcaca gtttaatgtg cacaggacca tgagtcaagg taaagttgca	13140
gaaagagccg ataaggtttt tttgccgaca aagtagctac aattacaaag acaggaacac	13200
aattaaggat taactatgta tgcagcttgc tttggggcag taggaatggc acattaaagg	13260
caagatctac tccctgaagg cttcagggaa taaagctgta tacctgtctg ggagcattca	13320
tttgaaagga gagggtttgc aaaggagagt gcctccactt gggggtttct tgcttgaaaa	13380
tggctgtccc tgattaagtc acacaggcac ttggatacca cagccttagt ccaagtgggt	13440
caggctacat ttcaagttgg cagtaaaaaac ttggtgttat tttccgtgtg gtactggttt	13500
ggcagtcaaa caaaactcca ttcattgcaga ggccgatgga agtttgcacc aaggttatac	13560
aaagctgctg aggtcaggca atatgtaaca atgttacact ctccgcatgg agtcctggag	13620
tttgagccga ctgaatgaag ttgagcccag tttcagtggc catcccaggg gttatgagat	13680
gccagaaatt tggacttttg cagggactga aaagaccag gccatgaaag agcacacatg	13740
ctacagattg cagggctgga gggatgggag tgtataaacc tgttggagcc cagaagatgc	13800
tgtcatgatc tccagatgct ggtcatggcg tgttcagag tttggtgtct atctgtttga	13860
atttagtctt tctttagtgt ggtattcttt tgatattttc ccattccttc attttagagt	13920
gggtatgttt gtatcattgt acattgaaag tatgttactt ggtttttggg tttccagggg	13980
ctcttagcta aggattttatt ttgagtctca gaagagactt tggacttctg aactatgtta	14040
gaattttaag agtacaggaa ttttttggtc tttatttact tttcactttt ttgtgatata	14100
tatatatata tgttgtgtgtg tgttgttatt atataaattt atataataat acacacacac	14160
acacatattt gtatgaatac acgtggaaac cagaggcaag gttgcaatgt tttcctgaat	14220
cactgtctaa cttattatct gaggcagagt ctctcactga acctagagct catccattga	14280

ctagactaac tggcaatccc taacaatcct cctgtccccct gccccccagc actaggctta	14340
catgcatgtg ttgccatacc caactatttg tatgagttct gacaattcag actcagggttc	14400
tcaggtttga gcagcaatca ctttatgaac tgagtcatcc ccccagaaac tccagtgact	14460
tttaaaattg ttctgaatag tgaacggatc ctgcatttag ggatggctat gagaccgtcc	14520
agctaggtta tggttatggg ttgggtggga actgtcttcc acaagctcat gtgtttacaa	14580
acttgggtcca cagaaggtag tgctatttca gaaaactaag aaatcttttag aagatgggac	14640
ctagctaaag gaagtgggtc actgggagga gttacagcat tgccccgctt ctggttgact	14700
tctttgcttt ctggctgatg acatgatgta atcagtgcctt aagagtcctt ctatcccaac	14760
atggagttgc tcctgttttc aggctttcct catcaccatg aactgtacta tcttgaataa	14820
tgagtcaaaa caaattcttc tctcttaatt ttcttctttt aggtattttt atcacagtca	14880
tggggaaaagt aacttgtgaa ggtcaataag atctttgcag tgctttatgg gtacgcatgt	14940
ttcacctgta tgtttgtctc tgctctgtgt gtatgcagtg ctcaaggagg ccagaagagg	15000
gcactggatc tcctggaagt ggaattacag gttctggaaa cttgggtcct ctggaacaac	15060
agctagtgtc gtcaactgca gaaccaccta ccatgtttca agctccaaga gctatcagtc	15120
agtcagtcag tctgtctgtc tgtctgtctg tctgagtgtc tgtctgtctg tctaaatcat	15180
ggacagttgt gtagccattt cctcagaatt taaacatccc tctaaagccc aggcagtaaa	15240
caaaaagtta catatctcag gaagctccta aaacaagatt cgcagtggtg tctccctgca	15300
ggtaaagaag cagcaaggac ttctgtggag aggagacttg ttgatttgct gagctgcctg	15360
caagcagtcg aggggtgtcca atgggtgctgt tccaccagtt gttaagcatg ctaggggtggg	15420
cttttccata gtgcagcttt gtctgagcca tccatgctcc tgtgagtgag ttcaatacag	15480
acatttgctc accttgcccc aggaaaagtc acacctcccc acagacagaa gctgccaac	15540
cacaggctcc aggggggttg tagaggaagg gaacagagaa ggggtgccctt ctcgtgaggc	15600
tatgttggat gagaaggagc agcatctgtg ggaggggaga acagagtttt ctcattggagg	15660
tggagagggc acacgtggaa tgaattgttc cctcagaaga actcttctga ggaaggggtc	15720
atcaagctgc tccctttcca tcaaaagaag ggagtctctg gtggcactgg agagagctga	15780

tcccatggaa	tggtacaag	tcagttttca	gaaggttcag	gggttgggta	gaggactggg	15840
tgtatctgga	ggtaggatag	tccagggagg	agagaaggat	ttggctgtga	gggacagcac	15900
ttgagcctac	agccaccatc	tagcagacac	ttatttttgtg	ctaggcacta	gggaatggag	15960
ggtttcatga	agcttagcat	ttattttctag	tgggagagat	atttaaagtc	agaattaata	16020
aaaatgatgc	tatagagcca	tgagcaacag	gctgaggggac	tggctgggga	gcgctaagt	16080
gtgagcatgg	gcctgctcaa	gcatgcaggg	gacctgggaa	atggatttgg	ggctgaaccc	16140
agaggaaatg	acctttgagg	tgagctggaa	gggtgattaa	ggagcttgtg	ctggagctgg	16200
agagatggcc	taggggttaa	gagcacctgg	ctacttttcc	agaggacca	ggttcgaaga	16260
ctcacaacag	tctataaccc	agtccctggg	gtctgacacc	attttctggt	ttccttgggc	16320
actgtatgaa	tgtggcacac	agacatgcat	acattcagat	aaacactcat	gcatataaca	16380
taaaataata	aataaaatct	tcaaaaaaaaa	aaaaagaaag	aaaggaaatc	aaagaggctg	16440
atgggtggct	ccactgagga	aggctttcca	tgagagtaca	tggcatgggc	agaagttcag	16500
ggtcaggaaa	aagtatgacc	tataccacag	caaagttagt	gtgtcaagaa	tgggatgcca	16560
tgcttgggtc	tcctaaaagt	taggagaatt	cactgaatgc	tgtaatctga	agaaatttga	16620
acttttagag	ctgaggaggg	gttagtgtga	ggcccaggag	cagggtgga	ggagaatgca	16680
gctgggacag	atgatttgaa	agaggcctaa	agcagtgtgg	acagagacca	gtcatgctta	16740
gaaacaagca	ggctgaccag	acatctgggt	agcagccagg	ggaagcagga	ggctgggagg	16800
aagccaagcg	tctggtttgg	gtcacgggta	gatggcaatg	ttctttgtgg	cacaggggaa	16860
gcctggttct	tccatctgtc	tgcttcctga	ctccatcctt	gctctctgga	gactttgctc	16920
agctcctttt	cttgggtcccc	atggcaggat	gtttcctgtg	gtcgttcctt	ggggattagt	16980
agctctccta	ggttctgttt	tccaactctg	tctcattgcc	actcctggga	ctcagaggag	17040
aagttattat	ttgctagtgt	aatcactggg	gtgctttcag	gcaaggaaaa	aaagggagtg	17100
ctccctgacc	ctctgggtcc	tacccccctc	ccattgtcat	tcagcagcta	tagacaatgg	17160
taggcgtctg	atgtgggcga	gatctgggtc	ttgtgcagaa	atgaatgaga	tccagtcttt	17220
actgggagat	ggggagctga	caaagctttc	tgtttagtat	atttcaaata	caggctatgg	17280

tacatttgaa gtcaacagga aaaggtgcca ggagtggagg tgccgagaag acaggctcct	17340
ggaccccagt gtggccgaca cttgagacta ctttgctgga cagatggagg ttggtctgag	17400
cagcaactat ccttaaggcc ttctggcatc actggtggct ggagcatgca gatgtttaac	17460
actgctaagt cacctgtctt taaatTTTTT ctctccctt attggttggg tgggaacatg	17520
tcctggagcc ccaatTTTca tttctgtcaa gaagggtgag attgtccacc ttcctgggac	17580
tgccatcatga actatgtggg gccatctatg gaagcccttg acacatagta ggtactccga	17640
agccacagga atgcacacac ccttaggagc agcaatcaag aatgtaaggc atgggttctt	17700
acaagaatgt aacgaccatg ctacaagggg agactcatgg gtatgattta tagagcggat	17760
catgaatgaa ttaatgcaat ttgataagaa aaagaacttc aaagcttatt ttggggtgca	17820
tgggatatta aaagtgatcc tcgtggcgaa aaggcttagg ctctgagggtg tgggtaccact	17880
taccaacat tgcagggtga gccagggaca gcaccagac ttacacctgg ggcgctgcta	17940
gtgaggccat ttctcttttc attgaactgc tccccaaggg gtgagtgagc caacttgggc	18000
agtgtccagg ctcccatTTc tgacacctcc tgctgcccct aatcctaccc caggcataga	18060
aacgggttcc tgatatcagg tttccagttc agtccaccta ggcttttcag cagggactgt	18120
ccaggaaacc ctttctatgc gaagcagggtg tgggcgtggg aaggctcctt ggagatgaat	18180
caccgctgcc tcctccttgg tgaatcatgt tgaggcttgg gaacagctag ctggtggacc	18240
tgggtggggga agagcggaga actacattgc tatgacacat ctccaccacc agaaggcaga	18300
agagggatag gcaaaacgaa ccagcaactg ctgtcgctca gagcttggga gggggtggat	18360
ggaccgggag gactcagctg gggctggatg tgggcagtca gagcctggga tgcctccact	18420
gcctgcctct gtccctgctt ctttgctgga gtatgtcaga acagattggg gcttgggggg	18480
gtgctgtgag gggggtgggc tcatctaccc gatgttgtct gtcctgtgat gtccaagtgc	18540
agatgtccaa ggtcacacag agagtcagag aggcaagtca gtctgctttt cgaagtttca	18600
gaagcgttgc cactggatgg ggcacagatc tggcctccat gtctgagatg aaacacccgt	18660
ctgagggtgtc ctgctgcctc tgtacagccc cctctctcat cttgtccctc ctttctgct	18720
ttctctgtca ctatcgtgct ctctttgatc cattccctaa atttcttctt ttttggccga	18780

tttccacctg acttttttctc tgacctcttt gtcagcctcc agtctccatc cctgccctct	18840
ggggactttg cttctccatc ctttttctgg gtcccatg caggatgttt cctgtggcca	18900
ctcctcaggg attttagct ctctgaggct ctgttttcca actctgtctc attgccactc	18960
ctgggactca gagaagttat tatttactag tgtgatcact ggtgtgcttt caggcaggga	19020
gaaaagagac tccccttccc ccactccctg ctctaccta cccaccagtc ccagtgaccc	19080
ctgttgccag ttagcagtca taaaggctgg gcggcacctg gcgtgggcaa gatcctgtgc	19140
tcatgcagaa atgaataaga gccagcattc atcagtgagc tcaccacatg gctagggtga	19200
ggaaagtgga gtacacaagt gaatctgcct aaataggaag acgctaaaga gggggggatg	19260
gtgggggggc acaaggagtg ctttgtatgt gccagagcag gtagaaatgc aatccagttg	19320
ggtgagagaa gccttttaag tggccttcaa agggtagatg ggatctcagc aggagacacc	19380
tgtgtgggag tgtgggtaca ttgtgagcag cagggtcatc agcgaagcca agggctttgg	19440
cttcaccatg tgcttgtagc cttgttcact cagcgaggag tggcagggag gctggaaggc	19500
aggtgttagc gtgtggagtg tttcactgtg caccttatgg aagtgacaca atgttgtttc	19560
tgagcagaga ggggcctgcc gatggagggg cccctttgtt ccctgttggc ccctcctcgg	19620
ggtggagagt ttttattgcg ctctatctaa agaaggttgt gacaggaagg gaagcatcat	19680
gaggagggga ggaggggtac tcatgtgctt tgggaagtgg gcggcggggg gggggggggg	19740
caccgagcag agaggggcct gccgatggag gggccccctt gttccctgtt ggccccctct	19800
cgggggtggag agtttttatt gcgctctatc taaagaagggt tgtgacagga agggaagcat	19860
catgaggagg ggaggagggg tactcatgtg ctttgggaag tgggcggcgg ggggggggac	19920
gacaccctgg gtggcttggc aaaggcatag aagaggatac tggaggaccc aagacacact	19980
taatctg	19987

<210> 2

<211> 19001

<212> DNA

<213> *Cricetulus griseus*

<220>
<223> Downstream integration locus

<220>
<221> misc_feature
<222> 13163..13223
<223> /note="n = unknown"

<400> 2
gagtttcttg aaaaccttcc ttctctggta gcttcctggt ctactgcag tgagagggtc 60
cccgagccga cctccgtggc tctggaaaag tacgcttagg tcctcgtcca caccagttg 120
ttgattcttt gggatgatcg ccctcttgtg gacagaggca ggttgccat ggggaagcgg 180
gggtgtgggt gtgggtgtgg ggttgggagg tgggggcca ggaaggggaa aaggagcttg 240
gtggagagag ggaggaaaagt ctagttggct ttctgtgccc ctgaggaggg ggcaacaaag 300
atgaagctgg ggatgggagt caaagcttag gaagtctggg ctgttctagg ggagacacaa 360
ttcacttatt cagggaatgt cacatggggg catggttag tttccagcaa acaattggat 420
ttcatctgag gcacatttgt tacaagcaac tcaaggagg gcaggtttct gttaaaagag 480
gggaatctga gcctttccct ccagatacct ttccagggtt agaagaccaa gacagtcagc 540
ggggctcttg gaggggaggg ggagttgatt ggggtgcaga ggctggtggt ggaaagagat 600
gtctggtctc tcaggaggct gacaggctct gctgtgtgtg tgtggcccaa tgaagagagg 660
agcagaaggt gaagagtcca tctgcaaaat aaaacttcat ctttctgggt gtggtggtgc 720
accttttttt ctattttaaa gatttgattt atttattatg tataacaacat tctgcttcca 780
tgtatatctg cacaccagaa gagggcagca gatctcataa cggatggttg tgagccacca 840
tgtggttgct gggaattgaa ctgaggacct ctggaagagc tcttaacctc tgagccatct 900
ctccagcctt gtggtgcccc tttttaatgc cagcactcag gaggcagaga cagatgaatc 960
tctattgagt tctgggctag cctggtctac acatcgaatt gcaggccagt cagggtgca 1020
tagtgagaca cagtcttaat ggagaaaaag ggggtcggct taaaaaaaaa aacagaacaa 1080
aacaaagtga aataaaataa gtaacaaaac ttttgtctgg tttggggata tagtttaaaa 1140
ctgagaagtg aagaggcatt tacacgggaa attttggtgg gtgcagcagg cagggggtag 1200
aattgggtgt ggtcagggtgc aactgactg tttcatttat ccacaagatt tcaagttggc 1260

tcttgagcat ggcctagggt ccaggggaagg ggtagagctg gggacttggc agtagattcc	1320
ttcctctccc aaggggcatc cgccaccttt tcaggcttgt cagagcgagt ggctatgttg	1380
gtcagagggga gaggccctgc taccctttt cccgtagtag aggttctgtt cttccctccc	1440
actgcatact tggcagtaat cccatagtct agtcaccctt acacccatga tgctggaaca	1500
gcagcatctg tttccataaa gtggtcaggc cccagggtggg gggttggggt gagactggct	1560
caggatgcgt tactggtcct ctgtcaagca catctgaaac tgtcaagaac gaagcaccac	1620
ttcccacagt gtcagtgtcc cacagctctt gcatttgtac aaggagtcac tgtacctact	1680
gtggcctcat ctccgaagaa ttatgtctac tgtgtgttac taaccgcatt caagtgacag	1740
gacagagttg caggacctcc accaagggtg ggggaatagga gatctgggag ggactgcgcc	1800
ctcctgaccc agggccagctc ctctccagt ttctctgctg tttccagatt taatgtcact	1860
attccttctt tgtatcattc tcttaaagt tttaattaaa tatcgagaat atacaaacag	1920
cttatatatg acacctaaag tatacaaatt gcaacatgaa acacccactt taagaaacaa	1980
acatttggtt gagatggctc agtgggtaaa ggcatgtgct tccagcctgc tgacctgcat	2040
ttaattccta ggatccgcat ggtaaaagga gagtgcacac atgcatgtgc acacataaat	2100
aaatgcatgt aatataataa ataaataaac aggcttggag agatagctca gcagaggcct	2160
ggaactgggt tcccagcacc caagtgggca gctcacaaca gcctcaacgt cagatcagat	2220
gccctcttct ggccacagca tgcattgtgca ctcaattgca ctttttcccc ctccaacatg	2280
tatacacgtc taattaaaaa ctaaacttaa atctttaaaa gagagaaaca ctgtagaaga	2340
tatagagcga gtggctcaaa gggccagaga cacaccattt gtgcactgggt tcattaggga	2400
tataataaag gaaggagaac aagagcagga tggaaaaatat gcccagggcc aggcatgtga	2460
ggtggagtga agccactct tgccctcttt gggagctcta ctctcaagga acctctatca	2520
tccagctatc tgagccctct tatttgtttg gttttattca ggtctcatg cactcccaga	2580
agcccttgac cttgctattc cgtaagggt ggctctgctt tgaattcccc attctcttct	2640
ctctcccttc caagtgtga gattacaggt gcatgtcact atacctggct taagcctgat	2700
ccctgtaggt tatttataga aacttcatta ggaagcatga ttgattacat tcctagtc	2760

tgaccaagtt tgccttcagt cctggagggt ggccagggtggg gatgaaagtg tcaatcatct	2820
aacatctggg tctagttagg gttactattg ttatgatgaa acaccatgaa caaaagcaag	2880
gtggggagga aaagggtttat ttgtcttaca cttccatgta gtagtccatt actgaagcca	2940
gggcaggaac gcaaacaggg caggaacctg gagtcaggag ctgatgcaga ggccacagag	3000
gggtgctgct tactggcttg taccttatag cttgctcagt cttatagaac ccaagaccac	3060
cagctcaggg atggcaccat ccacaatgaa ctgggccctc ccccatgat cactaattaa	3120
gaaaacacgt tgcaggcttg actatagctc cttttattta ttttatatat tttatTTTTg	3180
agacaggatt tctctatgta accaccgtag ctatcctgga actacctctg tagaccaggc	3240
tggccttgaa ctcatagaga tctgactgcc tctgcctcct gagtgctggg attaaaggca	3300
agtgccacca ccatctgggt atagctcaac attatatTTT ctcaattggg gttcccttct	3360
ctcagatgac tctagcttgt gtcaagtttg acataaaaact gtctagtaca catataaaac	3420
actttcttat ctctctgtag atcccaaggg ttccagaaac ctttgggtgt ctgaaatggg	3480
aggaagacca taagtccact ttagaatgtc acagtacgtc tgtttctggc tttcttttcc	3540
ttttccccag ctgatctatt tcaatgccga tacaaggcat cccggtatat cttacaataa	3600
tgtttgagat ctcccacttg ttcttcattt gcaggatatt ttatctatta ttggcttctg	3660
ctttaagata tacactttag gggactggag agatgggtaa gagcgcttgc cttcccata	3720
gtggacttgg gttatggtag ttcacaaagg cctgaaactc cagttcctgg aggagctcat	3780
gccatcttct ggcacccgtg ggaactgcat gcatgtggta cacttacatg ccaacaagac	3840
accaatacac ataatacaaa aaatgaataa gccaggcacg gtagcacagg cttttcatct	3900
agcactcagc aggcagatct ctatgagttc caggctaact gaggctatgc agagagaccc	3960
tgtctcaaaa caaaataaaa caaaaccac acaacaacc tccctaagta aataaatacg	4020
atatatatat ttcagtgtga gatgttcaaa tccacaatgc aacatttttag aattttgttt	4080
ggcattgcat tgattctgta gagcaaatTT tggagaatat tgactcttca aacctatgaa	4140
catgattgat ctcttttctg tttgtttttt gagacagggt ttctctgtgt agccttggct	4200
gtcctggaac tagttctgta gatcacgctg gcctcaaact cagagatgtg tctgcctctg	4260

cctcccaagt gctgggatta aagatgtgtg catgccacca tgcctacatc tcttcatttt	4320
ttaagggtat tttcaatatc tttgaatgac atgttatcat ttctaattgtt taagaacttg	4380
tattagcttt ctggtgctgt aaaaaaagac atgagacata tctatttttag ttcagttttg	4440
aagacttaaa tccacggtag gttggccctg ttgcttttgg gtctttggca aggcagtgcg	4500
ctgtattggg agcccgtggt ggaacccttt gcccctatggc ctcgatgtga aagagaagag	4560
gaagggggcca gacccccaat atcccccttta aggctatgcc tccattgatg agaagaacgc	4620
tcactagttt ctacattttc accttgtgtg gtatgtgcta ggcaagcaaa agcacaaatc	4680
ttgtggttta aaatacttat tcatttgctc ccaccaagat tgtccctttg tgcaacctgt	4740
actagggtccc tagaaaaaaa cctaagggtca aaggacactg gtgtcatggc cactgctagt	4800
gctctgtcat cccaggagcc aagctccaca agccccacca ttctagcctc cagtcaagac	4860
tccaccctct tggcctgtgt ttagcaaagc ctctatgtac agctttgaat gtgtgtctgc	4920
ccttctcctg cccccctccc ttgaagtcca cccaggttat gtagagtctc accagcagtt	4980
ggcagaactt gtctctcagt ctaccctgct caggctccag acgttcttgc tgccgtggcc	5040
ttcaagggtcc catcttttga aagtcctccc agctcttcct catccccagc ctggaaatga	5100
gactttcaaa cccattatc gcctatgagt gttacgagtg tcaagctttt taaaggaagc	5160
tgctttgtag agatgtcaga gatgccagga aaggctgctc tcattgactg ctaatggaag	5220
tgtgaactgt tattactgtt tgagaaagta atatagcaag agccacttaa attaaatatg	5280
catgtgcccc gcaccagca gtatcacact ggggttcata ttattgaaat aaaagcatca	5340
tccctcaaag atgcaaatat ataaacactt gggtgaaaaat attaatgct ttcagtaggg	5400
ggagaaaaat gaagcgagga agggctctgc atctaggag ttagcaaaaag gctagaggaa	5460
ttgtggcgct tctcagaaca acatacgcta accttaaaaa gcaccagagt ctgctgtggt	5520
ggcacatgcc cctagtctca gcactcaaga tgtagaggca gggggaatcc tacaagtgtg	5580
aggccattct ggattttact gtgtccccat ctcagaagcc aggtgggtccc aaccctcata	5640
ggtagagctg tgggaagggc agaactccgg gaaggggtggg aaggagctag ctgtgctctt	5700
tttggagggtg tggtaggtga actgggagca aggaggaacc tgggagtcac tggctgttgc	5760

agaggatatgt ccaaagagtt cccctagtgc ccacacccta gcagtgccct ttcagagctt	5820
agggaggggca actcatttat gtccagaaga agagaggagt ggggaagccg tgggcttctg	5880
cttccatcct tctctcacag gacgactaga accaccaatc ggtaggacct tctgcctgca	5940
gggtcactta gagctttcag atggggaggg tctcacatgg tgcttcctct cagtgcacc	6000
cctcctccct cttcaaacct aaagctctgc gagctcacat tcatcccat ctcactcctt	6060
acagaaggat attcccactg tagtccctgg ggtgttagaa tgaagccgca tggcttttcc	6120
catgatgctt tgcttgacc cagcatggag gatgacagca cactgatccc cagtcttctt	6180
ttctgcatga aggctgttcc tgatttcctc atgagctatt tagaagaagg tccactatga	6240
cttccacctg ctccatgctc ttgccccctc gggttatttc ctccagagaa aagaattagt	6300
aagccaagat gtcacacacc cactagtata gcttcttttt ctatcacata tttatttatt	6360
ttgtgtgtgt gagagagaga gagagagagg gagggggagg gaagagagag agaggagag	6420
ggggagggag ggagagagag agaggagag ggaaaaggag aggagagagg gggagagaga	6480
ggaggagaca gagggagggg gagagagggg tggagggaga gagagaagga ggaagagaga	6540
ggtggcgggg agacactttt ttcggtgtaa tttatttatt tatttattta tttatttatt	6600
tatttatttt ttatatattt gagttacaaa caagattgaa ttacatgaca atcccagttc	6660
ccttctccct cccttcctcc ccccccccc aactaaaatc ctacctgtca tatgtccttt	6720
cttctaattc acacctgact caaaatttct gcttcctcat gacctctgca tccttccttt	6780
tcttcccttc tactctcat agcttcctcc cccctcttc catgttctca atttgctcag	6840
gggatgggta ccctctcccc ttctccaggg gacaaaagtt atctctttta gggcttactt	6900
tgtttactag tatctctggc agtgtggatt gtaggctggg aatcccttac tctgtgtcta	6960
aaatccgcat atgagtgagt acatatcatg tttgtctttt tgtgactggg ttacctctct	7020
cagaatggtt tctttgagtt ccatccattt tcctgcaa at ttcaagattc cattgttttt	7080
tttttttttc ctgctgagta gtactccatt gtgtaaatgt accacatttt ctctatccat	7140
tcttcggttg aggggcatct aggctgcttc cagtttctgg ctattacaaa taatgctgct	7200
atgaacattg ttgaacatat gtccttggtg tatgaatgtg cttcttttgg gtatatgcct	7260

aggagtggaa ttgctggatc ttgtgggggg ggagacactt ttgagagctg tttccttctg	7320
ccatgtgggtc ccagggattg aactctgatc atcaagtttg cctgcaggcc cttttaccca	7380
caggaccatc tccctgaccc atttcttcgt ttaacaaagc taaaatgcct tacagtgtgc	7440
accagtggt gagtgagtat cttccccatt ttctttttaa gagaaaaaca gcctagtttt	7500
cctcttctgt ttttgtaaaa acagccttat tcagggtataa ttcacacgcc acaaactgac	7560
cctatgaaag tgttcagtaa ttcagtgccg agtatgatgt atcacacctg tgaccctggc	7620
actcgagagg cagaagcggg aggcccacca cacattagag gccagcctag gctacacagt	7680
gaatgtcagg ccagacaggg gcatataatg agattctgcc tcaaaaagca ctcccgaacc	7740
cagacaccct caaaatgttc agtgttgtaa atttttaaga atacgttttg gtgttttact	7800
tgtatgtata tctgtgagct actgtgcggg gctgggaaaa atcaggggcc tctactctga	7860
actgctgagc cacctctcca ggtccgatgg agagggtgtt aataagcttg gcattctgta	7920
agcttcacca cgatttgatt tcagggtattt taatcccttt agcaacctga tgcccattgg	7980
cagtccttcc ctctggcctc tgacagccac caactttccg tctctatgca tttgtctact	8040
cggggaattg catataaatg aaccactcag tagcctttca cgactacttc acttgttttc	8100
agttcatttc tgctgcagca cacatcagca cttagtctt tttatgagta gcatcccata	8160
tgtacatgct acaatgtgtt catatatgta caatggctga tgaacatctg tgttatttct	8220
acatttaaaa aaaatgctgt tctaaacatg agtgttcaca tagggtttgt gcagatacat	8280
ttccaattca tctgctgagg gacatatgca ggcatggatg agctccttct tgtgcacaga	8340
aagcaaatta catggatttt cacatcgctc accctctttg tgaggtagaa acaaggcat	8400
taccgtggcc cttggtttcc tgtgagcttc ttatcagggt caacctcatt agtgctgtac	8460
aattctacct ccactattgg ggtgtttggc tcagtctcca aacacacttt ccagtccaca	8520
tatcttctga gcagagcaga gaagacctat ttgtctacaa cctgggagaa tccagctgtc	8580
tgatctgtgg gtggtgctga gaagtacagc tcaccagaaa taggggtcct caggccatgc	8640
tgccacagtg gttcttgcca ggcttagcag aagtgttatg taggtgcctc aatgcccttc	8700
ccagagcttt ctgaagctgg gagggcaaag gagcctcaga ggccctgctg tgttagtaca	8760

gtcacagtag ctgcataaag aaacaaaaaag ccccaagaaa caaaaatcac ctgctgagtg	8820
aaatccccta atgaaccag cagctgggag gcaggaggca ggctgccaag gtcaccatag	8880
caaccagaaa cagagccttt catacagtct ccctgactct tcagagagaa agacctgtgg	8940
acctctttgt gaccttttgg cttctcttgg ctgctcaggt tgtttcccct ctcatcccag	9000
gtttgacaac tcttctctga ttggtgatac ttttcccacc ttatttgcac acccatatgc	9060
agctagctag ctcccctacc cccgcccctg cacatctatg aatcttggca gagctagagg	9120
tgctccagga gccaccaag gaggaagaga aggaagactt caaagcctgc cccctgggtg	9180
gccagcagcc tgattccaga tgttcctgct tgctccagag atccttcctg aagacttcag	9240
ggctctggctc ctccctggct tgctcattgg agaaggaaga atgccttcca gaatcaccag	9300
ggacaaagag tagaagggtcc ttgggtccaa ggcttctgcc ctggtcagga agcttgctgg	9360
attccaggat ttgatgagca ggtgcagtgc aggtgcaggt gagggacttg tgtttgtctc	9420
agcctccaag attcttctca cttggtgacc tacagatggg aatttccctc tgcagcagct	9480
tttaccctct gagactagtc ttctgagctc agcagctcca aactttcaga cccgctttgg	9540
agacttgaga ttccagcttt ggagatccaa tgctccagag atctgtgact tcagccttct	9600
cggaggcctg ctggagacag aaggcctgct tctgttattc ccattgctgc cctgcaggct	9660
tgctccacaa ggcagcagtg ttggcacaag aaggcctcca gcctttgaag ttttaacaat	9720
tcccagaatt ctaacacttc tcagagctag taccacagtg ctagcttaaa cctttgccat	9780
ttaaatcctg catggaccac ctgtttaaat ttttatccta tttaaaggga actaacaatg	9840
aagtaccccc cccccctgca atttgtactc gtcactgccc actccatcgt ggaggaagac	9900
ggaacaaaaa cctgggttga gacagatggg ggtctctgct gattgttcca gaagggtgt	9960
ctgtggtaaa aagttagggt ttggaatatg cagaattaag ctgaagcctc attgtgagct	10020
tggtgtggtg ctcatgcctg acttcgggaa cttagaagtc aagggtgggag aattaccagg	10080
agttccaggc caggatggcc tacacagtgg gcaagacagg gctacagtga gaccgtctca	10140
accaaactaa accaaaccta ccatgccaca tgaaaacaaa acaaagcaga tcaagcccac	10200
aaaacaaaat aaccccagat tggaacaaaa ccatatcaaa tcttcccttt gccttagatg	10260

tgggcatagc tgtgtggagg ctgaaaaaat tctcaaggct cagtttggtc atcttcaaat	10320
ggagataaac atggcttcct gttagggatg ctttgtgggt gaaaggaaaag aaagcattta	10380
catcccttag catcaaatag agttaatgat aactattgct ggtgtagtaa aaatgttact	10440
agttagtata gtaaatactt atgaggtagt ggtagagta ggttgaaagg caatagcagt	10500
accattccac aattagatcc ctcaaaaactc gaggtgggtg aggggtgggtt gggagccgag	10560
aggccatcac ttctttttat atttatttat ttattttattt atttatttat ttattttattt	10620
ggtttttcga gacagggttt ctctgtgtag ctttggggcc tatcctggca ctgctctgg	10680
agaccaggct ggctcaaac tcacagagat ccgcctgcct ctgcctcctg agtgctggga	10740
ttaaaggcgt gcgccaccaa cgcccagccg aggccatcac ttctatggag gagaaaacct	10800
catgttggtg gctggctcag gaggtaccag ggttctgggt agcatcaggc tgaagggacc	10860
aggcctgggg ctgagaccag aagtagtgag caaaagtgtg agcaaacagt gactgaagtg	10920
ggacatgggg gcagggtcct tttaagggaac acggggatcc ttctttcaaa ccttgtaaac	10980
acgacaccag caccgcgaaag ctgatggatg ggatagtata ggaataaaca tgataacctgt	11040
gcaaatagaa gttgtcccca gaagaatgcc attttgtaac cgttcaaaaa agtcagccac	11100
agggccacag ggcccagctg tcaccagctg ttgctatctt ttttttttgc tgtaaacagt	11160
aagaacaaaa ctcaacaaaa gatggaagcc agctggggca gaggaggcg gaggtgtgag	11220
cccactgtat caggagggtc tgcagagggg agcgcttggg gagggagtgg gctgtgggag	11280
gctgttgaga cgcttcagg aggagatgcg tgtggatgcg ggcatccaga agaagcagtg	11340
tggccagtca gaggaggagg ctggcatgaa tgacactgta atgccatcta caggggcgag	11400
ggactggtga ccaagggtggc aacagtcata gacagtggat atgggctgtg gtggacagtc	11460
aggcctgcac ttctgaggg ataagggcag ggccagcaac cttcacaaga aaattgaaaa	11520
gccactcagt attccagata aaaaaactcaa actgaaaatt ccaggctctt ccgccccagc	11580
aatgatgggt tttcatattg tcttccaagg ctcttatgtc atcatatggt gactcacacg	11640
gctgggcatt ttatattttt tacttgacct gtggcatata ttgccccac cacatgcata	11700
aagtattccg ggtacagtag aagggtcct ctccactaca ccaagaatcc gggggtgccc	11760

attgctgtat agttgtctta ggggtctcag ggaagctgtc ctgctggtgt gtgtgtctgg	11820
ctgtgcaggt ctggctttcc ctgggcagag cagcaagagg gatttgaaca gagaccaaag	11880
ggttgaagaa tgaagggtca gccagaagag ctgtaggtgt accctacctc caggggtaca	11940
gtttctcttg ccctgaatcc cagcatcccc agagggtgac tgtggtctct ttgatattct	12000
tccaaccctg caagttccaa gtctccagac ctcaccccct tgtggacacc ctggtccttt	12060
tctgtttttt ttcctgacaa cccccaaatc tctttatcct ccactataga aaccagtggt	12120
taactgaggt ttaaacgtag agcaatggga aaaccggttg agcctgggag gcctcattct	12180
tagtgattgt tacagggggc aaaagggtcaa tacttgtact tatatgtttc acacggcagt	12240
aaaatatgga tggatacttt gtattttatg tagaagtttc cagaacctgt taagtgactg	12300
gaacaacata cttaatatat tttgaaaaaa attagaaaga tactataaaa aatcacataa	12360
aaggggaaaa aataactccc ctacccccaa tcttcaacta agcaagaagt tccttggtgcc	12420
ttctcttagc tcaggtgaga gatgctcagt ctgctccagg gggctgctct tttattgcag	12480
tcctccctcc ccaccctgag gacagcactc gtgtttcctc atcaagtctt cccaggaaaag	12540
catgattacc attttaatgt tagaaagagc tatttgctgc tgccatgcag tggttgctaa	12600
tgtcccttcc tcctggacac ttgaggctgt ttctggttgc acttctctga attaccgagg	12660
gcttggtggag actctactaa caaaagcagc ttcaccagca ctgactttcc acagcaggag	12720
gcttcatcag atccctcact tctgtgactt gtgctgagtc ctgcctagtt tgtcattttg	12780
ttttgacaag ccattcattt ctgcagccca gagccacagt gttagttag gaacactcac	12840
atctaactgt ttgaaacttg actgtttgct gatttacaaa tttggtagta aaaactactc	12900
caaggtggag ccaggggata gctcagatgg ggtcccctta aaaagctgtg tgtggtggtg	12960
agtgcctaga atcccagaac tggggaggtg accagtctta gagattccct aggactccct	13020
gaccagtcac cttagcctac ttagcaagcc ccaggccaat gagaaacccc atcttaaaaa	13080
aaaagggggg ggggtggtttc tcagttttta cagataacat ctataacaca gctctcacc	13140
tgaggtttag ggatcatttt ggnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	13200
nnnnnnnnnn nnnnnnnnnn nnnagtggaa agattgtaag agccagaggg acaggaagtt	13260

tgctatgaga ttggtgggga catcgggtga gttgcagcaa atctcctgtg gccttcagat	13320
gctatttgac agtttgctta gctttgggtt ggtaggaact agtggctctgt cactacactt	13380
caggagggtt tacaagacag tcataggaag ttaagtgaga cacagggccca gaaatgaatg	13440
gttattaagg gaactaacga tagtctgaga tagtttggct ctaggtctgc acggttctga	13500
tgcttaatca caaagctctg agcagtccgt ccagcttggt gatctgtaac aggtgtggct	13560
tcttttctgg aaacttcagt tcatactccc tattccaaat gtaggagtgt aagacgctcc	13620
ctttctcctt tgtgtccccg tctgagctca gagcctgagg gcaggaatga tggagcccac	13680
aggatctgca caggtgagga gactgtcttc ctcttctcca tcagacagga ggaagctgat	13740
cagcccaggg tgtctcattc cccatccttt agcacctcct gctggccact ctatccccat	13800
tcatgtggtc ctgccagggt gtgctaaggg atctctgggg gagcccagtg gtcagctagt	13860
ttggacatta gctggttgga gcagaagtca gaccggtttg ttcctctcag ggtaagtta	13920
ttgggctaca gcagagcata ggctcccgta gggaagagct gagctaagct tttctgtgcc	13980
agaaagctat gcttttctgt atctgccgtg ttgcagttga atgtgctttt gttctctcag	14040
gccaaactga tcctgtaatt caaacctcc atgggcttca gccacaggcc aggtcctaac	14100
tctaagtttg cacagtaagc cctccgcagt tgggtctctg gttctttcag ttcattttct	14160
gcagtttgta ctttttctct gggccaaagt ttacagctgg gcagaaagat tcctggacac	14220
acacataaac caaacaaaa cattcccaaa ccccccaac ccaataaaaa cacatcccct	14280
cccaataaac cccccaaat ctttctgtc agttatcttg agaaacctgg gtcttgatgg	14340
gatgtgtggg caagggtcca ttgacctgac ggtgcaggca gaggcatcac agtcctctga	14400
gagactagct attgaaaaca agcaaaaaat gcacctggac ataacaaagc cagtgttaac	14460
acgttacaaa gaggatgcta agggcagata aatggggggag aatgtgtatc tttcatgcag	14520
aaaattttgt tgcaatgtag caattttgtt tgctaacagg tatttttagga gaaaatgatc	14580
taacagcact aaactggaga caaggcatct actaacctca ctcggtagag cccagcctgt	14640
actgcactgc tgctggcaaa ggagcctggt ccatgccaca ctcgggactg ccctcttctg	14700
atcctgcacc cttccacct ccctgtcatg ttccaaccct cccgaccttc tataaccagc	14760

tgaatgttgt ccactcagt acatctcagg tcctgggctc tccactgtcc tgatgtgttc	14820
agttcctctc caacagtcct tgcttcaaga ggatgactct ggtttgcaag actgtccttc	14880
cttcactccc cccttcttcc tatctctccc ttgaatatga actgagatac ttgtgaaagg	14940
gccacatcac gtcctcttcc atttagcgta agtcctgcca catagtgggt gctcagtaaa	15000
tcttggtc caacgaaggag gggtgtgggg aaaagggtg ggggtgggt tgtggaggga	15060
agggtgctttt aggtaggagt ctgatccatg aacgtcttgg agaagtgagcc agaaagatga	15120
agcatgtgag attaggcctc atgggtgtgc ctgtgagact tcagtcacgg ggcaggggtg	15180
cctgtgagtc atcgtctcag ggatacctgg agggatcagt tctgaatgct gcattcattg	15240
ttgcgttcct gagtcaggta gagcagggtgc ctatgagtca cgatcactga cttcctgaag	15300
tgcaaagca cacgagacct tggtctcttc aaacaacaca ctcccagcca ccatgctcta	15360
ccatggataa aatcatggct ggccccatag ctttcttagt gtctctgagc tcatgacttc	15420
caggggtaga gtctatctga aggtctctat accagttcca gtcaaagggc ttctactgct	15480
ccagctgagc ctgccctgca gtggggaggg gacatgtggg aagccttttc attcttttag	15540
tcacctgtcc ccacactatg tgtctgcttg cttttctaag tagggggaat agagacacaa	15600
gtctccatcc aactgttgt cctgtaggta ggccctatth tttagggatc tttatctgac	15660
cttgggtctc caacaattac cctccacccc catcagatag cagcacagtt gagccatttt	15720
tcctcattgg ctttggggca ggcagctttt catttttaga atgtctcaca caccagtcag	15780
gatctgtttt ctttatthtc cattcacgac ccagctcaag tcaattgaga ggttctctta	15840
gagagcctct cgcttggtct gtggacacag tgcctgctct cctcctctat gggagtgagg	15900
tgggaacaaa tggcatcctc ctaacaccca gctctctctc tgaataatcc cagactgtct	15960
ttttcttgag ggcaggagag gtttattgtt tgctttgggg ttaacctcct atctaattcc	16020
catagaggac caagagcttc tctagaaagc ttgaaacat attcccttta cctgctattc	16080
ggggccactg taatcaaagc agtgccaata tttagcttcc tgtgtcattg ggggtctgggg	16140
aatgagtga tgaatggaat tatagttggg aggtctcagg gtagtttcct ccaggagtga	16200
gaaatgaggc taataggagg agagaaggct ggcaaggagg cagcaaaagg ggctcagctc	16260

tgggttcccc tggggcagac ttggaggctt gggcttgaac ccgccatctt gccagctgtg	16320
tgctcttggg aaatgtactt gttttctgtg caagttgcct catcttgaaa actcagacaa	16380
tcatagaagc tgccacacag cgctagtcca tttgcaatta tgtcttcttc aggagatgct	16440
ttatgtcagg tgtcagcatt gttggaatga ttgatcctta aaggccaggg ctagcgtgcc	16500
agcaggtcag agagtgggtg ggagggtgaga gtcctggggg gaggaatttg gtgtagaaga	16560
gaagtgggtg tctggctcct ggtggagtgg ctcttgagga agaaagctga agctgagcac	16620
tggtcaggct atgctgcata tgggtctcag cctgtcctgg aggatggagc tcagcctgtc	16680
ctggaagatg gaccacatcc tgcatgccag tgtctccacc gctgtctgtg agggccttcc	16740
attcagcctc aggcctggag agggccccag tggccagggt cttgtgcact ctaagtctgt	16800
ttttttccca ccccatcttc agggccagct cttacctcag gccacagtc acaggggcct	16860
ggcctgggct catgggaact gattcatggc tctggcttct cttttgcctg gcttggagat	16920
ggaaatgctt gttcatggag ctagtgaagg agaccagctg cacagctgca tgaagctggt	16980
gagtccaatg ggactgggtg gtagttacaa aggacccagt aagttctgaa taccagagg	17040
agggttggaa ggctagggtg tccttgctgt catccttgca ctcagtgtca tctgtccagc	17100
cactaccctc ttacctttct gatgctttgc ccctcatttc tagggcaaca atctttctga	17160
tttccatgca ctctggcca tgctttaaaa tctaatactg agttaccaca gtgtggctgt	17220
gtgactacag acctggatgg tcctgggtccc ttcatgccag gaggcctgga taagcctctt	17280
gtgtgtactt ccccaaagtt ctgacatgca ggaggcaccg tacagcagcc catgattgca	17340
gtgtgggtta gcacacatag ctgatgaaac aagatgacac ttgtagctga ccctgggggt	17400
agagtgagag ggtgtggtta cttgagggtg agtttggaac cccattagag ttccagtaag	17460
acaaggctga ggatgtgagg ggaaaggggt gctgaccctg agctgacacc ctctgaaatg	17520
ttctgaggaa gtggaatcct ctggttattt tacacaccac caactcctca caaacgaagc	17580
atcagagggt gtccctttct ccaagccttt aatctagctt ttgtggatgc tgtcacctg	17640
accacagtga ctgttcaaag aggtggacat gtgacctgaa tcagaccaat cagagctgta	17700
aattaacctg gtcttttatt cctaagggtta taaaatcaca atatgaaaaa tattcctagt	17760

gtgacagagg aagaagaaat taacacacat aataaccact gactatagaa aaagaaggag	17820
cattcagagg acaaattattg catcttcaga gaggcagggg cagtggggca tgtgggggca	17880
tgtgttcagg aaatgatttt ggtggagatg attgcacaga gagctgggtt ataatgttgt	17940
atgagcacct ttgcattgca aattagcata tatagctttc catcgagtag cgggtgtaaac	18000
tccataggcc ttttgttttag caagagaaac tccacaaggc aattggaaac caaatgatac	18060
agaaactgtg caagccatgg tctaggaaga aagcacattg aaaacatgct attggacaaa	18120
tgatattgaa cgtcttaatg gttttagttt accagatggg gacaacaaag tacttttagac	18180
ttggtgactt ccccggtgctg gaagctggca agtttcaaag gaccagaaga ttcattgttt	18240
ggtgaggcct atttcttggg gcatagtagt ttttagttgt tttcatccct agtccccctc	18300
ctcatctccc tccctctctt attgaaccct tcttccagca aaacccccctc ctattttcat	18360
gtctttgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgaccact gggcttaatt	18420
agagttcttg ccagagagtg agtgggatgt tattttctgg aggatgggga acttactggc	18480
tctacgatga agaaaatgga caccgtctac cataatagct gctaacttct catagtccct	18540
cagggagggtg gtcattggat ccttccccta tccatgttga aatgttgaag agtacagtca	18600
tgtgcacgtc ttgttcagggt gaacacagct gtgttgaggt catgtctgga agaggctttt	18660
ttggatgcgt ccttatatag cagaaggatg aaggaacact ggggttcact aattcagtca	18720
tagggctctgt acctgcacag cctaattgcc cagtaatact gggggctaag ctttgacata	18780
tggaattggg ggctgtgggt ggcatagaca gcggtctata gcgaaatgaa gggaaaaagc	18840
gtttactttg cttaaaccat gaaagtccaa ggttgagatc atagatcact agacaaggag	18900
tgaagagtta actgtgcaat ttctgcctgt gtggcaagtg gtaatgatgc tgcaatttgt	18960
agctctacca tcccatacat ggtgtgtttg gcttccagtt g	19001

<210> 3

<211> 7318

<212> DNA

<213> *Cricetulus griseus*

<220>
 <223> Upstream side cluster

<220>
 <221> misc_feature
 <222> 1303..1359
 <223> /note="n = unknown"

<400> 3
 ggatcccaac actgccactt atgactgaac tctgggcact cgcttatagt gtgtttcctc 60
 atggggatgt gaatagtcct ctcataggag gaggacggga cacacgaagt tcttactgga 120
 aagcctgaca cctgtgttac ctagtaagtgaagttgaat gaaaatgagg acattgatata 180
 ggtggaagag aagggttttta ttgtagatat gaggagagaga gcagccagag gcatctggaa 240
 gaggccagac tgaacagggc cagcagaata gaccagacca tgagagaaga gagagggaca 300
 agagagggga ccaggaaagg cgaggaccaa gaggacaaag aagaaccaag agagcatgtg 360
 gcaaaaatgg cgggttatata aggaaccata gctggggaaa gggaagcaaa gctcaagggc 420
 tggagagggt taggggtggga gtgggggtaa gaagtgtga gaggagccag gactttgtat 480
 cagggtacttg caatggagag agcctggctt tggtaggcta aataggcacc acagttagcc 540
 atgtgtctgg ggggtttctt gggatctgac attccagtct tttgttgat gataacgagt 600
 gatgtaatct cttctgtaac tgcttcttag ttaaaattgg ggcattgttg ttgggggcct 660
 aagaaggctg gaagtttggg caaaggctgg gaagagaaga gtgcaggctg gaggacatct 720
 gttttgctta ctgccaggt tctgagggac cacctggggc tagtgaagtg caggctgctt 780
 tggagtagtc taggatttcc aagaaacacc tggagctgga gcgttgagg cagttttgga 840
 gcgggtctcca ctccagctga taagaaatct gctggggcag gtgtagacta gggacagaag 900
 gtaaagttaa ggagcttagg ggaaattttt atcttgggtg tacatttgaa acttccaggc 960
 ccatggctcct ggtagttgca gtgacagtac agggagaggt ggggagttgg gggcggggga 1020
 gtaggtatca agaccagggg agagagagaa atcttacct taggaatagg caggtaggga 1080
 aactttgttt gacctgtgag aagtggaccc aagtctcaca actccctgaa gcttacaaga 1140
 acattttaag tttatagata aaaattttat atatattagc attatcagtc tttgtaatct 1200
 gtactgaaat ccacattgta gaaaaagcag ctggctcaca cttcaagtc acaataaaag 1260

cttggaacc	gcccgc	cccc	ccgcccc	cc	accatgatga	ggnnnnnnnn	nnnnnnnnnn	1320
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnna	t	gatgagtt	aaagcacgaa	1380	
catgctttcc	tctatccaga	agactgggtg	tataaaaaca	cttttaaggc	catacttaga	1440		
aaacaaccag	acaggtggta	gtggtacatg	cctttaattc	cagcacttgg	gaggtagagg	1500		
caggcagaat	tctgtgagtc	tgaggccagc	ctggtctaca	aagggagttc	caggacagcc	1560		
aggactgtta	tctagagaaa	cctccctgtc	ttgaaaaacc	aaaacccaag	ccaaacagaa	1620		
tcaaaacaaa	acaccttttt	agaccctcac	aactaactta	agctttcaca	tcctttacat	1680		
cttgcacgca	tataaacttc	actttttcag	acccttagaa	cttatacaag	cttcaaacct	1740		
ttctttctac	ccaaacattt	actatgagac	acacgtggtt	ggttcctgag	agcagtcatt	1800		
gcaaagcaag	ttccttttaa	taaaggaata	gtaaaaagtt	acactgaaac	ctgttttggg	1860		
agtttatctt	tttcagtgtg	aagtcttcca	ggaagataaa	gtctgtctac	ctttctcagc	1920		
gggataccta	gtagctcata	tcatatgaaa	tggactgacc	aagcagctgc	agccttggag	1980		
aaggaactga	tttgcttgct	gctgttaaca	taaagctaca	gttagtcatc	aacagtatcg	2040		
gagactcgag	agggataaat	tatagcagaa	agttaatcca	aatggcccct	gtaccagtta	2100		
aagtgacaga	tttattggct	acctagatgg	ttagcctaag	tgttccatgg	tggtcttgat	2160		
ggctttgttg	ggggcagaag	tatttgggtc	ttggctgtca	cacaggatag	cattaaatct	2220		
tcagctacca	cacaggacaa	cattgggtct	tggctgctag	accagagat	atgagagatt	2280		
ttcctgtgga	ggaagacctt	ggaaaactgg	cataccttga	tgaggaagag	taggatagtc	2340		
aaccaacaa	tgtccacagc	ttgggcagaa	acattgtggt	tgaggcatgg	gtcagttctt	2400		
tgcccagtgg	ttagtgttac	cacaatctag	gtggagtagt	ctgtgcccc	ttatcttctt	2460		
tggagacttt	agggtcattg	ctaggggtgg	cagttctggt	tatcacagga	agtttttttt	2520		
ctattaaaca	tttaaagtgc	catattcagc	agatctctga	ggagtttgag	gaccatcatc	2580		
tattaagtat	acttgagtta	aggaagcttt	acctggtttc	agttacttgc	tttaggctta	2640		
accttgaaaa	acatatagag	agcccagtgg	tggcgcatgt	tgggaggcag	aggcaggtgg	2700		
atctctgaga	gttcgagacc	agcctgggtc	acaataacta	gttccaggac	agcctctaaa	2760		

gccacggaga aacccagtct caaaaaacca aaacaacaac aacaacaaaa caaaaaccca	2820
aaaacccaaa ccaaataaaa ccatatgcag aaggctaaat aaaacttgct cctgtaaaca	2880
aattgcattt gtacttagta tggcttatga gcatagtttt gagtaaagaa tttgatcatt	2940
tataaggtgt ctggctgttg acttgcatgt ctttaattatc tttaacagta tacaacaagt	3000
tagtacttat ttttaaaaaa taagatcagg attttatgat tttagccctg ttaagtttga	3060
gcattaaaaa ttgaagttta agaaacttta gcatcaaaat gaaactttaa accataaata	3120
aattctgcag agagaccggg gacttaacaa aaccataaat acagtccaag ggggattggc	3180
aaccttattt cttgatcctt tttttttttt tctttttgag atggggtttc tctgtatagt	3240
tttggctgga actcactcta tagacaaggc tgtccttgaa ctcacagaga tctgccacct	3300
gcctgcctct gcctcctgag agctttaaac ctgacatctt gatcctttta tagtaaaaga	3360
ctacagaatc agtttcttgc atgattcagt ttattccaga agacagagct tagaaaagtt	3420
agcaaagaag aagaggtagg acttacatct gcaagtcagc tactgttaac ctgagtggat	3480
cttaggaatt tataaacctt atttatcaaa tacacattat ttatcaaact tgttgtttag	3540
tatttaaaat gttccagaag cctggatttg aacagttagt aaagacaaaa gcagtttagc	3600
ttatgtctca atgaaggggc cagctcccct ttcggcagtc ataacggccg aacacgtgct	3660
ctatgacctt gtcctagaca ctagaaaagtc agatgcctgc ctcttgacaa ggaaccaatc	3720
agaagttagc tgggtggcgct atgctttacg accctgggtg tactttcgga caagcacaca	3780
gcaatgatgc agagcatagc aaccacccta tgggccataa caaccagttg gccaatcaac	3840
acagggaag ccctccaagc ctggagggtta caccaatagt gaccctttgc gtacccttag	3900
acactccccct tacgctgccc tataagatct cggtcctgtg gcttctcaga gtcttttgcg	3960
agccctccgc catggagggt gggtgaaaga cccaagctaa catgggggtta gctcgtaaaa	4020
ttacaataaa gcctcatgca gtttgagcc agctctcaaa tctgcctggt gatttgggtg	4080
actgtggtcg tggcctggga ccccgatac ctgagttttc cggggggggtc taacaaatcc	4140
aagttacata tatagtattg tctaaacaag aatagaatca ttgctggtct gtggtggtcc	4200
atgcttttaa tctcagcatt tgggaggcag aggcagtctg atttctgtga gttcaaggct	4260

agtctggtct acagaacgag ttccaggaca ggctccaaag ctacacagag aaacctgtc	4320
ttgaaaaaca aacagacaaa caaaaaaccc aaatacacac acacacacac acacacatac	4380
acacacttat atatgttgca gcaaattaaa attacctatg tatagatttg taaatataaa	4440
ccttttgta taagtittaa gttaaatttt gttacagatt ttaaaaacat acccaatgaa	4500
tttacaaatt ttgaggtaa caacatagtc ttaagatatt ttttgagaac agaaagcaaa	4560
gaaacagtaa agataatttt tttccagaca gggtttctct atgtagccct gaaactcact	4620
ctgcagacca ggctggcctc aaactcagag attctcctgt ttctgctggc ctagtgctgg	4680
gattaaaggc atgtgtcctc actggctgag ataaaagatt ttaagagtg gaaaatagaa	4740
aaaccttaag agttgagact tttttggaag ttagggggag agaaagtta gatatgagat	4800
ttgggggaatc atttgttgt gcagtggcag aggttggtac catatgagag tatttgaaac	4860
cccgtaatat tgtcaagttt tggctgttga ttgagctgta ctgagaccaa gccgtttgca	4920
gtaagacacg aggctttaat gaagtctcta agtctgagga agaagagaga aaagggtcat	4980
ataaggccca ggagaatgta aggaagcagt ggggcttcca ggtggaagct gagagacaga	5040
aggaacaagg gtcacagaca gggactccgc ctgagggagg attccaatat ttagagggcc	5100
cagaaggatg aaaggaagcc atgggactgc aattcctagg gagaggggaa gaagttccag	5160
gaacagtgga gaacaaagga agcagaggag gtgtcatgat gataaggatt tcaacctggg	5220
gcatcccaa tggaactgag agacttgtca gagagaaatg tcctagatca tagaggagag	5280
gcatcathtt ccatgtgata ggggctcggg aggatgagag gagctttctg gcataccagt	5340
gtggcttttg tagtaataat agacaaatta ggcaactcca gggtgacact tactcagtag	5400
aggagaagag acaagtgggt agatcagcta gaggagaaaa cagctggagt ggactaggag	5460
aggcttttgt gagaaggga ggttccagta gaacagtggg tccaaactt cccaatgctg	5520
caacccttta atacagttcc tcatgttgtg gtgaccctca atcataaaat tattttcatt	5580
gatacttcat aactgtaatt ttgctattgt tatgaatcat aatgtaaatg tctgtgtttt	5640
ctgatggtct taggcaaccc tgtgaaaggg ttatttgacc cccagagggg ttgtgacca	5700
caggttgaga accactgcaa tagagggaga ggagtaagta gcagagagat gcccaagtgg	5760

ttgttgcctt caagggcaca gcaggcacca ggagccacac agacgctttc tgagtagatg	5820
agaagagatg gatagttaga acagggtggag gggagaaaaag aatgaagagg caggctgtag	5880
aatttgtagt caaatgtgat ggggtggcaga agccaacaga aacaaatgat ctgtacatac	5940
ttcagtagag tcaaatcagc aggttgggtt tgtaagaga gaggctgac caataaaaaa	6000
atggagtaca gatctaaaca gagaattctc aacagaaaaat ctcatatggt ggaaagacac	6060
ttaaggaaat gctcaatatc cttagtcatt agggaaatgc aaattgaaac aactctgaga	6120
taccatctta cactgatcag aatggctaag atcaaaaaca ccaaagacag cttatgctgg	6180
agaggatgtg gagtaagggg aacactcttg cattgctggt gggagtgcaa acttgtcaat	6240
ttctcagaaa attagcaatc aacctacctc aagaccctgc gatacatact tttgggcata	6300
tacccatgta ctcatattac aaggatattt gctcaactat gttcacagca acattattca	6360
taatagccag atcttagaaa caacctagat gccctcaac caaagaatgg ataaagaaaa	6420
tgtggcacat ttacacaatg gactactact cagcagtaaa caacaatgac atcctaaaat	6480
ttgcaggcaa atggacagaa ctagaaaaaa aaaaaacaca aatgagttag gtaaccagaa	6540
aagacaaata tagtatgtac tcacttataa gtggatgcca gacataaagc aaaagatacc	6600
cagcctataa tccacaaccc tagagaagct agaactctct tccagaaaca gatagaagca	6660
gatgcagaaa tccacaacta accattgggc tgagttcctg gagtacaatc aaagtgaagg	6720
aggagtgaat atatgaacaa aggagtcaag accatgggtg ggaaaccac agaatacgtg	6780
gaccggagct agtgagagat cactgactca ggtctgacaa atggggaacc tgcataagac	6840
tgacctgact cccttaatat agatgacagt ggtgtggttg gggtaatata tgaggccact	6900
gacaatgggt ccaagttcta actctaattg gcaaaactgac ttagtggagc ccattctata	6960
ccctgctcag tctagacaca ggggtggggg ggggtggaga ggtaccttgg tcctgcctca	7020
aggagatgat gggacagact tagacttcct agggaaaggc ttcccttctc tgaggagcag	7080
atgggagggt gggggggcag tggggggagc agaaggagag gaggaggaag ggggaactgg	7140
gattggaatg caaaaaatta attaaattga gaaagagaga gagagagaga gaggctgagc	7200
cccttggaag gaaggaggat catatgtgcc ctctggggtt tcgaacatca gatgaatgaa	7260

aacgaagggtg aggacattga ctgctcctag gtcaggctga ggagagggtt ttattgta 7318

<210> 4

<211> 27456

<212> DNA

<213> *Cricetulus griseus*

<220>

<223> Main cluster coding area

<220>

<221> misc_feature

<222> 25795..26498

<223> /note="n = unknown"

<400> 4

tgctgtgcag gctgggtcccc atggtgaccc tggcagagta ctgggggtcc cattctgcta 60

gctctcagat ttcagtgggg tcaccatcct catctccctc gtgccgcctg gtgaggggct 120

tcacactggg gcttgtgggg tgggttttct ggctgcagct ctggccctgg ggagcagggt 180

gtgccgctga ctcaccacct gggcatctgg gcctggaacc atgggtgagt caccacagcac 240

tgggggagca gagagaggct gcttgaagtc tggagaggga agagaactgg gcccacagga 300

agggtgggtg ctactgggga tgggataaag agcagaaggg ggcagtgtgg agtctgaagt 360

cttgagggtca gctcttccct gaggcccagt tgaaggacac agtgtttgtt tttctccatg 420

aagaagacac tggggacagg tgagggcctg agggatagcc atggttgggt tcaggctcct 480

gttttcagct cgggggttggg gagccattcc caccactca cttttctgtg aaagaaagaa 540

gacgagggtc atgtctcctt ttcttcctct tttgcattct atacagactg ctgctcactg 600

cgtctgtgcc tgggtgcggaa caattgccgt tgctcatttt gcagtagttt taagcacacc 660

cactcacttt gctaccctct ttaagaggga ttctggtgcc ggacattcaa aacaaaataa 720

acacaaaaag atttcttaga cctcctgaca tcgtcctcta gatgcctcca gctgctcttt 780

tggacccggc tttctaaggg tggcctggac tgattctctc catctctttc tgtctctctc 840

actcacacgc acatgcaccc atgagcacag gctgtgaagt ttcctccac cctgtgtccc 900

tgcaccctct gacacaggac ggagctgtga ctcacaggca tactatgaga accaggcttg 960

gaatgattct ctaggcccc gaaaaaaagc tgtccccca cccccacccc cagtccctga	1020
ctaggctccc ctttcccaca atgcctctgt ctcttgctg aggctgggt gagctcaggg	1080
atgcccttgg ctgggcctgg aggatcctcc agttgggtgct gaggccagta ctgtctgaga	1140
gggagtggac aagagggagt gagcccagta gaaggatgtc agattttatc aagatcaggt	1200
tgggacaggt tctgtttccc aaaaatgaca aactggaggc cagtctggca tataattccc	1260
tgcccttggga gtcttggtta ctttgctccc tcctgggcat ctctgcaacc tggttgtgag	1320
tgtctctgtc ctacagagga cctgggtttc gatctttgtt ccgatatctt gatccttgtc	1380
catgtagttt tctctgcctt ccaagtggga tctcccattt gaaggactct ctgtgaagtt	1440
ttgaatggga gggccttacc cagattcctc tgccagggct tagtggttaa tctgtggtct	1500
gttctcctat ctctgggaga ggtctctgtg tttctcactt tagatatgtc catctacagc	1560
cccatttttg gggtttaggc ctaggactag gtcattggta tgtaaggagg gcttttataa	1620
gaatccctag tttgagccag atgcaactgc aaaggagtgt atttgtaatc ccgcactcag	1680
gagactgagg taggaaagtc atgaagtcaa ggtctgactg ggctgcacag caagatgttg	1740
tcacaaaaac aatcaacact aagtttgttt tgcttttgct tttgcaaagt cctggattct	1800
gttaggacta agaagccaaa gatagacttt cagtgcctag ccctgactgg ttcctgggcc	1860
ctgtgtggtg gcagagcctt gcccagggt gcttccggtg cttttcaaag tgggtgaggg	1920
tggggctggc agggcagggc aggcctggca gggaacaccc aaggctcctc tggccttacc	1980
ctggaacca cccaatattt ttagaggaat ttggaaaaag tgacttctga actctgacct	2040
catctcttca gcatctagcc tgatcccaag atactagcca ttacatttt ttagttctaa	2100
ccccaacaga atccttcctg atggggaggg tgttcagtct cctccatcct gccatctgtc	2160
tgcaaagagc ctgcctgtca ccagagggga gtccctgggtc taaaggagga agcattcctg	2220
cctaaggag cttcccttta gatggcagag actctgattt tagtagatta gagtttgggc	2280
aaaggttctg cctcttcagg gagcctcata cttctggact gttcccatgg ctactgccaa	2340
gctctacatt cctggcacag ataggagtca aattgagact ctagtcatcc tgcaacctcc	2400
tcctgtcccc tctctgcctc ctaaagacac tcaagtaggg aggcctaccc tcagaagtgt	2460

gtccttagga cacaagggtc tgctttatgt gactcccaga ccacaggaga ggtttaacat	2520
ctgattacag tgtgaagcag cagtgtggac ccgaatcctt ggggaggcac agttccaggg	2580
caggatgcag gcactgactt gccattccta gaggggctta gtggagcaga agcaggcctt	2640
gtagactggc cttgtagact gttcttttgt gtctcaagat ccaagatgtc cagtcccctg	2700
gaagaggcca tggatgtgac ggtctccacc ttccacaagt actccagtca agagggtgac	2760
aagttcaaac tcagcaaggg aaagatgaag gaacttttga ataaggaact gcctagtgtt	2820
gtaggggtaa gtgaggcagg cccaaaggga agagtcccgg agagtggggg tgggggcagg	2880
acacaggaca caggacacag agtaaatcctt ttccagcttt cattctcaag gtgccagtgc	2940
caggggtgggg ctcaggatct ctctatcagc tttcatttca cctgttcttg ggggtggctgt	3000
taggtctaca tgtgaatggg cttattgatg gctgttgcct tctgtattcc tgagcacatt	3060
gctgttgggg acttcagagt ccatcagtct aatcctgtta tttgctagtt gaacagtcac	3120
aaactcacag aagggtagca gctggcccag ggtcacagga ggacataact agggcattaa	3180
tttctccttt tattttacac atgtatatgg caagccaaga aagtgttcag agagaatgaa	3240
ttctagctaa gacatgcacc ctgggacttt tgcaaatgag atacagctag ctctcatttg	3300
cttcctgccc tagagtcagg tctcaggccg taatatatga agcaggtttt tttttttttt	3360
gcttcatttg ggggttagctc tctcattggt gtggctggat taaaaagttt gtcttttctg	3420
aattcatcct gctgatgcag ggggcagaaa gctttgattt ttctcatcgt caggatgaag	3480
ctgggctcta gtggagggtg gagttacagt ctgaggaaca cccagcatcc ttcactccag	3540
caggagtgtt ggagactctt atatcacaca tctgtctgtc tgtcctcact ggccttcttg	3600
gtacctcact ggggtcgaac ctgactgtcc agtgaggaga ggacactgga ggctgctgta	3660
aaggggaggt tttggtgggt ggtagggcag ggaccagctt ggtgatagct cccctgcctg	3720
tcactttcag gagaaggagg atgaggaggg gctagagaag ctgatgggcg accttgatga	3780
gaacagtgcac tggcactgtt tctggcactc attgctatga tgtgcaatga cttcttcctg	3840
gggtccccag cctggccctg gagtagagag ctccactctc tgtcacatgt cttcttggct	3900
aacggggctc tctatctttc tgaatcttgt actaaataaa cttttgtttg tttgttcatt	3960

tgtggatgat attgcaatgg ctagcgatgc tttgtgcttc tgctagatca gtcaaagggc	4020
tggaacaga aattgctatg atttccaaaa ctttctgctc tccaactctc ctgaggccaa	4080
aggctctgct cttttggatt tcacataaac atcaagaaag tgggcttctc tctttttatt	4140
accatgaaca aaggccatth gccccagagg tcctgcctgg ctttgtctcc cagccctaca	4200
tatgtagaga ggtcagagca ctgagagcaa gtggctgtcc catggtttgt cactgggctc	4260
catcctcctc ttcagagctc tgtctgctct actctgcaag tggccacac acatcagagt	4320
ttcccaggga aaagagaaaa cagtcagaaa agcactgcct ttacttgtgt ttttatggtt	4380
attatccatc tcctctttta ttaaaaaaac aacagctttt ttccccttct cttaatgt	4440
caacatcccc agctagaagt agccatatta ctttgctaag ccccaaaaga ttaggtgaa	4500
gccctgcaca gagaggctcat ttctgccata ttaacaaggc aaaggctctt gaggacaaag	4560
tttttcagct ctcatcatca ctctgtcttc cacctagagc atggacaatg agacttggag	4620
gtatagcagc cgtgttgtga tcaggaatca acaaacacgg tatagcggaa cgtgttgtgt	4680
aggtttaaag aacaaaacaa tgaaaggaca ctagatttca catgtgtccc tgggccctct	4740
acccaacccc aactacctac agcagactta ttatgtaaaa tgattaaaga cactgtcagc	4800
caagttttct acaatttacc gctgaaaata aaactccaaa ttagtaaaga atttgacatt	4860
gtggatatat atttgttgt gtgtgttgt gtgtgttgt gtgtgatgag ggtgttgtgt	4920
atgctgtggt gtacatgtga agattagatg acaactcctt tatgtgggtt cctcctgaat	4980
ctgatttgtg caaatctcaa tgatttgtgc aatgaataaa ctacagcaga agtgatacag	5040
ctccctaagg tatgtcagaa gctaagggcc atgctctgag aagccacac tatgtgagga	5100
gacaagttgg acctttcttc cctgggactg tcctccgtgt gtgagccact tggagagtag	5160
atcacacaga gttctgaaga ggaggcaggg gcccggtgag aggccttgtg acagcaactt	5220
agtctcagtg ccctgtcctc cctacacatc tagggctggg agacaaggcc aggcaggccc	5280
tctgggacaa atggtttctt tccatggtaa taaaaagaga gaagcccacc ttcttgacac	5340
ctgttgagaga gggatcggta agtatgagag tcatgatgcc agtaattagc atcctggggc	5400
agttctcaaa gtcctgtga gcacactgtc atttcagccc catggtaagt ccaaaggggc	5460

tatcattaata gctttttttac agatgggaaa gcagagaggg gcagcttcag ccattttgtgg	5520
agtgtctgctt ctgactaggt acttggccta ctcatgcagc agccatttaa tcctcaccat	5580
acctgtggat gaaacagagg ctgcaagaca ttaaggacta gtgtctggac ttgacctaaa	5640
tctataagaa aactcctcat ccctgtggga cactgggctg gcagactggg cctctttcta	5700
ctttctgaag ctatctccag aactttgggc tttgtgtgac ctggagggga cctggctgaa	5760
tatggttcag atgtacccgg tacattaacc cggagtcaca gggagatggg acctccttgc	5820
agggtggttt ctctgtgaac tctaattttt cttttagtgt tgcatgggtg caggctcctc	5880
ggttttggat ttggacagtc agttgggcta gcaagaccag acttaccttg ctgcctccaa	5940
ggtttcacac acttggagag gttccaaagt ggctaaacat tccttttggg atttgacaaa	6000
ctgacatcag actgttgaat ccagactaac aagcctctct cttccttgtg ctgaggcaga	6060
ggaggggtctg gacatcactc tgcttgtcag ggatctgtgg ccagatctcc cccactcctc	6120
ctggaattgt gctgggatga gaaatgtagc aagctcacct cctgttatac caccatttta	6180
ttgtgtggct caaccacaga aaggctctcta atgctctgtg gaaaggaaga ttgaaggcca	6240
agggtagtta attgccacat ccaagctgat tgcttgctca gccactcaga ctggagccca	6300
gggaacaaga caagtaaaaa gtaaaaagat ctagtccaga aaaacagaag gatggtcgga	6360
tagacatcac cttaatccag cagtcaaggc ctttctatcg ttaaacaaga gggaaaagatg	6420
ttcgccatag ataggggttg cttccgattc cctgtaccct cctcgtgatc tggagtagga	6480
cattgtgcag tcacaaggca gtgatgtgtc tgtgaatctt gaaaacatct tagttactct	6540
tatcttgggtg tctttagtct tggaccggga ggaaagaggt tagggtaagt tgctcttgtc	6600
ctgggagtcc aggcaaatat tcaccaaagt actaatgtgt ctatgtgcat agttcagcag	6660
aatctgaccc aaaggttaag gcagcacagg agacaagcac aaatagtgga agcccctggc	6720
attttcacc ttattttatt atttatttga gacaagacat tgctatgaaa cctaggttgt	6780
gctcaaactt tcagcgatca tcctgcctta gccttcccag ttctaagagt agagcatgca	6840
gtgccaacct tgattgtatc ttgtggtagt catccattag aactcccga ggaccagagg	6900
ggcagtgtgt acagtgaagt ggcttcctta ggtgactttt gttttgtttt tttgagacag	6960

ggtttctctg ttagccctg actgtcctgg aacttgttct gtagatcagg ctggcctcaa	7020
actcacaggg atccgcctgc ctctgcctcc tgagtgtctg gattaaaggt atatgtcact	7080
ggtgcccagc acctaggtga cttttagtct aattaaatcc gtgtgtcttt tacatcatga	7140
atcttgatcc cattcattcc ctgtcccttc acatcagccc tctgccccta cacgcccctt	7200
gaaataaaac aaaatttaag agaaaaaaga aaaaaattaa gggaaaaatt taaaatatct	7260
cattatggaa gctgcagtgt gacccagtga gccacacagt aaacacatat agctttactt	7320
gcaagtgttc attgcagagt cattgggtctg gttcaaggcc tctgatttct actacactgt	7380
caacactggg cccactagc gctcttcttc catgccctgt tctcgccctg tgttgtggag	7440
gtcctgcagc attgggtctg tgggtctggt cccttcgtgt gctccagcag atcacagggc	7500
agaccaaatac ataaccctgg gtctgggcct gagcaactgt gtagttgggtc cgctagatga	7560
gaactaggga aagctctccc atgtttacaa ctttagggct ggctcgtcca cacctgggct	7620
aacagggttg gttctctgct cttataccac agggggcagc tctccctcct gtccctggca	7680
ttgaaggga ggggtggagg gtggggggga gggtaatagg gacagttctc ccatgcttac	7740
aattctaggg ctggctcacc tatgcctgtg ccagggtgtga tgggccagggt gtgtgggtggg	7800
ggctaggtga cttttataat tttaagccag aaatgtcagt tgaattagga gacttgctta	7860
gctcatcgcc tccaaagcta ctgattttca aagtcaacta agagcaagca aagcttgaat	7920
ttttagatgg ctccaccctt aagaacaccc acataccacc gagttatggg ttctgggaca	7980
atgggatgaa ctggtaccct actccacagc tccacgtgg gtcacttgat tgctctacca	8040
actcgctgtt ctcatctgtg cagtggacac aaccagccac tggcttgatt ttcagagcaa	8100
gcagtagatc taatctctgc aggctcttct tggctcctagc ttagattctc ttcccttttt	8160
ctagctccaa ttctgtagct tcagctccgg ttccaaattc ctccctggcc ccagtgtctg	8220
tcccggtaat cagatactcc tttccatatg ttctccatcc ttggcccaga agatcagaaa	8280
ggagggtgat tgtttcagtc aagttaactt aacctcatgg ggccattaga tttgggtggt	8340
cactttggct ttagggctcg ggcccccttg ccagaaataa attgagtgtc cagattcttg	8400
ggacactcta tcttattttt ccctgagggtg caggatcaga cactgccctt tagaggggtg	8460

atgtgttttc cagggatctt aggcgatggt ggtgatatgt aggagccaga ggggagccaa	8520
gggagagtca gggtttcggc ttgtaagaag tcctgccaga tcggctagca tctgctttcg	8580
cctttgcaca ctctcttgct gatcttttga ggtgatgctc ctagccgcat ttctcagcgg	8640
tcagctcacc tgtcctcggg gagctatgca aggtgagggc tcagcctaag ggtggagatg	8700
gagcatgtgt gtgggagaga gtgggaagga aggaggatga ctctagtcca ggccctggaa	8760
ctggtgtcca cttctgcgca ttgggggtcac ccgcaagaaa gggcttctgg gtagatgctg	8820
gaaaacttcc aggatgacag gaagatacca ggtactttaa gaaggttttt tgggaacaag	8880
ggaagagaat ttagagtcct gacctccatc tttgtggagg cagaagctga gaaagatgac	8940
ccggtgagga aggtctgggt ccactgttcc catgtaggga attcagtgtg ttctgttgag	9000
ttagacttgg gggccagagc cctcacattg cctcagtaac aactagtaac aaaaagtact	9060
ttgaaaaaaaa tttttgagac aagatctcac tatgtacttc tgactggctt gaaacttgct	9120
atgtagacta ggctgggctt gaactcacca agatcaactt gtccctgccca ttcaagtgct	9180
gggatgaaag acctgctcta tcatacaagg caatactttg gattcttagg gtaagaatct	9240
tccaaaccct cttcagagat aaggaaatta tatttctaac aaggaaattc aatctctaac	9300
aaatcttcaa acatgttgaa gtcaggtggt gagcagggat ggaattttga gtgaaggcca	9360
attaagtgtt ctttccatgt gcattaagtg ttttttccat gtgcatcctc caaccccaca	9420
tctctaccaa gacaagtctc ttagcctctc ccagctttct ccccatggac aaagatgcag	9480
tgttcctagg agctgtggct gtgcccagga gcaggaaggg ctgttggata agaaagtggg	9540
ctcaggagct aggctatgga actctccagc ttattaaaca ttagtttggt attgtctggt	9600
tctcccacta gattgtcatt tcccttgaga gggctctcgt ctgttttggt tatgctatac	9660
cccggatgcc tagtatcagt gcctctaatt acttgatatga atagtgaata tcgagtctgc	9720
cactcactag ttacatgacc ctgggtaagt cactacctcc ctgggttagc atttaccaag	9780
tccttactat attttagcaa catttggtcc atgagcctgg cttgtgataa actccacaat	9840
aaccctatga gatggctact acttttattt ccatcaatca ggaaaatcag gtcccaagag	9900
tggagatgac ttgcttaagg tgactggtgg ctgggtgggaa taagtcattg acctagaagc	9960

aaattaattg ctggatcatct ctggatcctc cttttgctgc tgtgtgacca tctctgtcct	10020
gtgtcccaaa ctgctcataa ctcccttgcca ataaaaacagg gctaatacaca gctcttcctt	10080
ccttttgcct ccattgctca ctccccctcac ccacatggct ggcaacctcc aggaggagat	10140
ggtaggcctgg gcaaagctgg gtgctgggtc cagggtgagg tcaagggtc tcagactgcc	10200
catacaggca tgagggtttt gtcactggcc aggaactcag gctgctcttc tccttctggt	10260
gctcttctgg gtgttttttc ccttttcttt tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg	10320
tgtgtgtgtg tgtgtgtgtg tgtgtgtgca cactcatgtg acatggaagc ttaggggttg	10380
ggagtgaaca gagaggaggc agcaggagag gaggattttc acatctgggtg aatgggtggtc	10440
tgacctttgc cagctaagaa tggcaggga tgcctggacag aattaaaaatg atctttttca	10500
aaacatcaaa gaataacaag gtattaagag aaagccagaa cagacatggt gtcacacacc	10560
tttgatccca acagaggcag aggcagggtg atctctgtga atttgagtca gcctggtcta	10620
catagtgagc tctaggatag ccggggctat gtagagagac tctgtctcat aaaacaaaac	10680
aaaacaagcc ctttgtgtct agagagatgg ctgagagggt aggagtactt gctgtttttt	10740
gccgaggact cagctttggt tcccagcacc cacatcgtgg ctcaaaccc cctattactc	10800
tagttttagg gcatccaaca ccctcttctg accttcctgg gagaaggcat gtgtaggcac	10860
tcattcacac atgtaaaata aaaataaatg catctaaaaa aacagtttca gaagaagaaa	10920
ggaagaaatg aggaaagtaa aagaaagaaa gaagaaaaga aagaaagaaa gaaaggaaga	10980
aagagagact ctaccagaat ctctggagag attgttttagc tgtaaagcg tgtactgctt	11040
ttgcagagga ccagagtttg gtccttagca cccacattag gtgactcaca accacctgta	11100
accccatctc catggggggac tcaacgtctg tgacctctgt gggtagcctgc actaatgtgc	11160
acatcactga tgcacataca caaaagtaaa aataagtaaa aacaacaaaa aacaaaacaa	11220
acacctcata aaaaaactta ggtgatggca aaatctggga agttgagtag ggaacctgag	11280
ggctcttggc aagcctaaac ttgaatttgg gtttgatgat ctggggagtg aggaagacaa	11340
agttggagcc cagggtcac acaggagggg acaaaagtag acagacgatg ccgaaccccc	11400
atggggcaac tctcttaagc taaaaggcaa atgaatgctc taccctctgg actgcttgga	11460

aagttgacct agtgctaagc agagcagcag gctatgaaac cagtttcctc aggagctggg	11520
gacatgccag ctctcacctg aatctgtggc ccaaattcat ccacatcact gggagtagag	11580
aggcaagaaa gttcaagccc tgacagctgg aggctcccca ggaggaactc ccttcctcta	11640
ggtctcgaiaa atacctcacc acgatttcct ccagtgaiaa aagcaattca cagccaaagg	11700
ccaccaaaaca ctctgtgatc tggaggctgg gcacagaggg tgtcctatgg cctcagactt	11760
ctcacctgta aatagggggc ttagccagggt gttcccaagg tctgccctgt acagggactc	11820
tggagggtaca acttaagaga atccaaggta tgttcccatt ttgtattctg ggtatcttta	11880
tgacaaagag ctcaggagag ggatgtatgt ggctggaagt ggctaccaga aagctgttgc	11940
ctgttctccg ctttagggaa gggcagtggt aatgagttgg gagggtgtc tgagactcag	12000
actgggtctt tgatctgtgc gttgctaggt ggggtgggtgg cctgtaatag aagctactga	12060
gggaagaagg caggggaccc tgggggcagc ctcagtgtt acctacttgg gtccttataa	12120
ttgctccctt catctcttga gaggctacaa atagggacac ccagttgtta ggctcctaca	12180
gctgagacac cagcagcagt ggtgagtgtg gctgtttggg aacagctttg ggctaggtgt	12240
tggggcagct caggtaccta tccacagcta gcctgctcct ggatacaggg cccgggtatg	12300
gaagcagaaa ggttaagtta ggaggatgat ggtgaggaaa atcagatgtg gtgaactcag	12360
aggttccctt gaacactaag ggtctgtagg agtttggcct ggggagtggt cccaggcaaa	12420
atgcccactg atgtggggac agtggcctag ctatggttct gatgcagacc ttaagtgagc	12480
tccttgtctc tttgcttcat tcttggggat gaggttgggac aggccagggc ttctgaaata	12540
gcaacagaag tggtgccatg caggctggga ggtgctcaga agggctctga ggtgctgagc	12600
tcttgggatc atggcccttc cctctattcg gatatggatc cttgttccgg cctgggctgt	12660
catgaagaag tagaccccag caatgcttgc cacttctgcc catccccata cttccttgct	12720
gcccatttgc tcccagcaga ggaaactcac caagtcttgg ctctggctgc cctgtgctgc	12780
aggactccag tccctgaggg agtgaagagt gaggcattgg actcacatgg aaacaactct	12840
attgcctctc ggccctgcca gggtttgccc aggcctggatg ggcaatggaa gggaacaaca	12900
gaaagggggc gaggggaagg attctaggaa gtgcttcct cccatcagag tgggggactt	12960

ttctcaaagc cttcttttctg tgtaagact acccccaccc cctcagttcc aggggaaggg	13020
aggatggctg taagattggg caggtcataa acgagtagat ctgtgagctg atgaacttct	13080
cagagaccgt ctggtccaca tttctgacta ggccctgtgag gccgcattaa cccactttac	13140
agaaaagaca attgagaccc agagagaaac agttcaccca gggctgcaga gtgagcaaga	13200
ggatgagggt ccccaactgc aggggaagaag gccaaagtga gtggcagggg atccccctcaa	13260
gctaccatcc ctactgacat tagcctcgct agggcaaagc agcactgggc agggcttcct	13320
gagcaaggct tacaggatgg agcttcagggt gcccatgggg cagaggtatt taggaccagg	13380
gactgcatcg tgcccaatgg ggagacagag ttcccaggag ttggggtgag aaaggacttg	13440
agggaatcag agctcagtga gggngaaggt gacagagtgt gatattctgt tcctgaggaa	13500
tttatggaaa tgttggggaa atgaaacgtc tgtccagaaa aatcacaaca ggcacaatgg	13560
ggaggtgaat cagtgtgggt atgtgtggta tgtgtgtatg tgggtgtgtgt gtgtatgggt	13620
gtgtgtgtgt gtgtgagtgt gtgtatgtgc ggtgtgtgtg tatgtgggtgt gtgtgtgtgt	13680
gtgagtatga atgtgtgtat aagtcagtgt tgtgttgagt gtgtgtatgt gtggtatgtg	13740
tgtatgtgggt gggtttgtat gtgtgtatgt gtttgagtgt gtgatgtgtg tatgtgtgggt	13800
gtgtgtgtat gtgtgtgagt atatgtgtgt gtgtgagtgt gtgtatatgt gatgtatgtg	13860
tgagtgtgta tgtgtgggtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtaa	13920
gcagttgtca agggagggttg ctcagaggaa gggaaacttc agcatgggtgg aagttgacag	13980
gtttggaatt agctcctggg aaacactgac ttggctttcc ttgtgagtca catccctttt	14040
ttgtgacagt gaggatgacc cggcccctgg agcaggcagt agctgccatc gtgtgcacct	14100
tccaggagta tgctgggcgc tgtggggaca agtacaagat ctgtcagtcg gagctcaagg	14160
agctgctgca gaaggagctg cccacttgga ccccggtgag caccttcata ccccttcccc	14220
ctagtgaag gtaccacttg gactctgcaa agaatggcct gggaccaaac accagcatag	14280
ggcagcaaga gggagaggct ggactgtgga ggggggacac gaggaagtga gctgacatgg	14340
ctgcatgagc ctcagcaaaa tggaatgtaa agtaggggtga cagggccaga tgttggtggc	14400
gcacgccttt aatcccagca ctcagaagac agaggcaggg ggatatctgt gcgtttgagg	14460

ccagcctggg	ctatagagca	agttccagga	caggctccaa	aacaatccag	agaaaccctg	14520
tctcgaaaaa	ccaaaaaaac	tgaaaaacca	aaaaaccaaa	aagaaacaaa	acaaaaaccaa	14580
aaaacaaaaa	aggagggtga	cagtcactct	tactgtcctg	tggataatac	ctatctcata	14640
gcaaactctc	catggcaagg	agtcggtgct	cagcaagtga	gccgagaagc	agggtctggga	14700
gatgggtgtc	ttatcaggat	gggtaggatg	aggttggccc	ccaggagggt	gtggttggga	14760
atggggcagg	cccaccctcg	gaggggagtg	gcgtggaaag	ctgcttaggc	tcctcatccc	14820
aggtttcctg	accttccctt	ctcatccctt	ccacagagtg	agttccggga	gtgtgactac	14880
aataaattca	tgagtgttct	ggataccaac	aaggactgcg	aggtaggactt	tggggagtac	14940
gtgcgcgcgc	ttgccagcct	ctgtctctac	tgccacgagt	acttcaaaga	ctgccccctt	15000
gagccccctt	gccccagta	gcctctgatc	cagaagggtg	tgccattctg	gaaggtcagg	15060
gtctgctcta	gtgctccgtc	tttgtccctg	aggatgatcct	gagtgtgtag	ccacaccctt	15120
cctaccctct	ctgtggtatc	ctttcagtcg	gggcttgcca	ggccctgat	gtgctaaccc	15180
tggctactca	tgcacagtag	aagctttcct	agggatgtca	aagtagtgag	gggtggaaca	15240
gtagcttctc	ttcttggaag	ggagaacatt	tgctctctca	ctttggaggc	tcagccatgt	15300
gcacactgtg	gcaggggcct	gctcaactcc	taataaagaa	atgtcagctt	ggcttggttt	15360
ggttcttctg	atgggacaca	ctggattttg	ggactgagtc	cttgggagtc	tttaccctc	15420
tatgttccat	atcgctggag	gaaggcagct	gaaggcaggg	gccctaaagg	cagttccaga	15480
ccccatagga	atgcataagt	ctcagtattc	agtaggaagg	tggggccatt	acaagtcccc	15540
atcaggtgag	gctgggggtc	tttgtctcca	tctctctgtc	ccctgtcttg	aggtaggaagc	15600
ccttgttttg	ggctttctag	gagggcaaga	ggctccttgg	gagaaactca	gtacttgtga	15660
ttagagcatc	gaggatatgtg	ggatatgggtg	tggcatagct	gtgggaaacc	agagagcagt	15720
agcaatagga	ttggggcctc	tgaggtatatt	gctgccagcc	agggagggag	cctctgtatt	15780
tactgcaagg	ggaaaaggat	actttgagtc	agtcctcatc	tctgaaacca	cagcccctga	15840
gggtcccaag	ttcccatttc	tgaccattgc	tcaatccccg	tatttgtacc	ccatccttag	15900
agattaatcc	tgactcccca	ttttacctgt	ttctcctgta	actctcttct	ccaagctgag	15960

tgttcaaacc tgaatgctcc catcagcccc aataccctcc ctggaccttc tacccattca	16020
tgaacctcga ggcctcatta ctgccctaac tccatcacgc cctcttaggc gtttcccact	16080
taatacctag ggtggtacca aggccccctcc cgacttgcca gtcttcactc tgggtcttac	16140
tgagcgtgac agagagctgt ttaggctgga gagaagggtc gactgtccca ctggccgggg	16200
tcacctcccc aattcctggg ccatacattt ccatattccc ctcttgccca tcacctcccc	16260
atcttctttc ctgtggccca catcccatgc ccatgttgcc ctttctcaaa gcttccttaa	16320
aagttggctg agctgtggct actgggtggt atccacacca ttcaggcttc tcgtgtccac	16380
tggggcttac tcaatgctcg cctgtgcctg ctgggtagta ggaagcttgg ttctcaggtt	16440
gggctggtgg aggggcctgt gacatttact acatcagcca acagtaggaa catagtatcc	16500
aagctcccc catcccctgc atgggcaggg cccagcagag tataaatagg gcagacattt	16560
gagctttccc caaacctctc tgttcagcac ttcctctctc tgggtctggt gagttgtgtt	16620
ggcttcatag cagtattagt ggtgtcagag gctgaggctg ggacaggaga aaggagggt	16680
tctggggaga cagatgtttt tactagatcc agatgagaga ttctgatgtg gaggctttgt	16740
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtctgtgtgt	16800
ctgtgtgtct gtgtgtgtct gtgtgtgttg cacaagaatg aaaacagcaa caaaaagggtg	16860
tatagatgcc atttgagctc tcaagatttc taagatgctg aggcttacac gtgttggtgc	16920
tacagtgtac atctgtgttt gggagccatg gatagggtacc ctgatgggtg tttgctgggt	16980
cattcaagcc agtgtgtgcg ggaaagcagg tgcaggaagc aaagtgaggg aacatgtagg	17040
ctttcttctt aacgtttaaa cttcagttat ttatttgtgt gcatgcatgc gtgggttggg	17100
gatggggggc tcatgccaag gtgcacttgt ggaggtaaga gggcaacttg tgggaggag	17160
tcagtctgct ctttctacca tgggctctgg ggatcaaact caggccatca agcttagtgg	17220
caggcacctc tacttacagg ctaccactcc agcactcacc tgtagacttc tgtgttcata	17280
ttagtgcctt atggacatcc agcaccacag gtcaagagag cctggcttcc ccaccctccc	17340
cttgtgcccc tacctctgcc acctcatctc actcctcact aagctggtca ataggcagct	17400
gggttttttc cgctgtgggc ccatgggcag gcagccagca gccgcgcca atgctgggag	17460

ggggaagaac gggccagagc ctggtgcttg tggttgagct gagcaaggac ggaaaaactgc	17520
tgttggtgag gccaggcccg aggacagtca gcccaaaagc tgctggcacg aatctccaga	17580
gattgtatgg taggctctgc atgtttcaga gccc aaagca tacacgacca tcttgccatt	17640
agtgggtccc actcctctga tctctctggg aatgaggaca gtctcctgaa gtgttcctag	17700
agggtagggtt ggaatggagc atttaaaatg ggggcagaat gagtctatga cttgggtgat	17760
gagcagtgcc acatagccag ttcttgatac actgttggtg tgggttgggt aaggctacct	17820
ttgtgtctcc tgcccctagc tctcaactgt caccatggaa tacccttag aagaggccct	17880
ggatatgatg gtgtctacct tccacaaata ctcaggcaaa gaggtgata agttcaagct	17940
caacaagtct gagctgaagg agctgctgac caggaggctg cctagctttt tgggggtgag	18000
tgggtcctgc ctgtgtattt catgtgtggt gcatccccag gaggagggtg ggactctggt	18060
aggtagtgcc tagctacagt tggcgtatat ctctaagggtg gggaaatgga ggttgagag	18120
cttgctccgg gtgcttggtg tggaaccaca gtgaaccatc tatccctcat tagccctcag	18180
ctgagagaag gcttagaatg aacacaaccg aagagacaga gaaaaagcaa aacaactgcc	18240
taacatagtc agtgtctgaa ctgcaggcta gatcaggact gttggcaaga gaaattgagt	18300
ttctgtttgt gaagacacga tgggtggaggc acacaaacac ctgcagagtc tctcctcaat	18360
aacaccttgc attagttaat ttaatgcac actgccatgg ctgctaccta atgagataat	18420
taaagcaaac aaggagaaga tgtggtcctc cccgttccca gctacctcaa gtgcccgcac	18480
ctagggcaca tcctcctcta catagcttag tccaaggct tcctgagtgc ccagaggcac	18540
tcagggtgtc ctgaacacct ggctggaggc agagatctag cttgggtctg gcttctaact	18600
gttcttcttc tactcccaga aaaagagaga tgaagcagga ttccagaagc tgatgagcaa	18660
cctggacagc aacagggata acgaagtaga cttccaggag tactgcgtct tcctgtcctg	18720
cattgccatg atgtgcaatg aattctttga aggctgcca gataaacagc cccggaagaa	18780
gtgaagactc tgcagatgaa gtgtgggggc gtggtcttcg ggaggagggg gctcttcct	18840
tttggctctg agcatagtgc cttactctgg cttcttcata catatgcaca atgctgagcg	18900
agttcaataa agagtcttga aactatgtgc tgttgccata gagactggag attgtgggtt	18960

gggtgttgag ggaggggtata tcacagggtata gtggtgggga ctgcgggggag ttgagctggg	19020
agttgagcct tgaggggaaca aaactagaaa gggttgggta ggggttgagt ggctgattta	19080
actagcatgc aagtgtgtgt gtgtgtgtgt gtgtgtgtgt gcgcgcacat acgtgcaaca	19140
aagaaaactt tgggaatact taaggcagaa gccaccagag gcttggcttg aaaggctcca	19200
gatgtgggaa gttagccagt ccaccaccct ctttctctc tccagatctg cctctgggct	19260
caaactgaag ttgggatggg attgaaggct acatctgttg ctggttggag tctggaggga	19320
agacaacggg cctgagtcac aaggaaggag tccagaagga tggggagggtg gactggcacc	19380
catccctgac atttatagtc caggctcctgc cctgctaccc attctagctc actagctcca	19440
aacagtggat taatcctttc ctgtccatgg ctggatgaag aagggcagta tagagagatc	19500
atttgtgaga acataaatct ctctctctct ctctctctct ctctctctct ctctctctct	19560
ctcagagaag acgtctcact cttgtagcca aagctagctt tgaacttctg atcctcctag	19620
ccagcttccc aagttctggg attacagacg tatgctacca tggctgactg aaatagccat	19680
tctcttaaca tactgtcccc atactcagag ggctctggga caggatctac tatttcttag	19740
aatcatgttg cttagaggag gacaagggac ctcaggaaaa taggtggggg tgggtaatgg	19800
cagtgaagca gatgatgggg agatgaccat agtttttagac agagttttgg ccatatgatc	19860
tgacaaagaa aatcgagatc cccatatcct cactctctca cccctagaac atgaggcaaa	19920
tgttgcttct ccttagggta ggcttacggg cagtgggtcc agagtgccaa gaatgggact	19980
gagattagat gtaaagccct tgcctctgtg atacagggat gcttaaggaa aggtaccac	20040
aagctgtctc aaggcagggt agtttgctct ccaagcttcc cttctcatca tatctgcttt	20100
tcgctccagc ctcaggggag tggggtaggt gactcagttg ttcccttgga gtttgactat	20160
agagacttag gtccaggcta agcaagccca tcttctcttt ttttgactc ccagtcaatc	20220
tgcccatctt tcatgggagt gtgctccccg gagcctcctc ctgcatcact ctctactttc	20280
ggaaaactcct gttgcttaga gacaagtctc tgctgtatca ctcgtgtaat agctgtgggtg	20340
gagtgacaaa gggggcagtg gagagggaact aggcaggcta gggtggaact ttagccaaga	20400
ttaggggtta tgcccctaac caaattctgt tcttagagtc atcgtgttcc cagaatgcag	20460

gaaactcacc ttgagccctg tgccacccat gcgtgactgt acctgaaact ggagcctctt	20520
ccacagtctc aacctagtcc tgaacctttc tttgaccctc ttccccaacc ctgaattctt	20580
agtcctctaa cccaggggtc ggtctctgac aactacttcc catcttttgc tttgtgtag	20640
ctagtgactt cagatgactg tccttggcag gaaatatctt ccttcactga tcccatccca	20700
agaatgggtc cttgtgcact tggaagggat gccaggatgg agggctctcaa tgtggagagg	20760
tatggggaga tttaccctgt gtttggactt tctactgttt cttttctgga gagcccaact	20820
tgcttttttc aacctattac ttcaccggat gtgaggttta gtaggaaaac gtggttcctg	20880
gtattgaaag tgtgtctgtc atggtggact ccatgtgcta cctccagccc tgttggtaaa	20940
cagcaagtca aactttccag agagggttcc cttccacctt ttctggattc ctcatatctc	21000
ggatcccttc tcattgggtc caccctcct gattctcctg ggctttgggg atgagggaat	21060
aaaagcagag agcattggta gggaggctgt ggctgcagcc tagattctcc tctgggttta	21120
cgtcttcctt ggtgagtcct tccttcggat gacctccttc atttctgctg ggccagcctg	21180
ggtgaggaag aatgtgacaa gacgtggaaa cctccacaaa gaaggcctga ccttgcaagt	21240
gggagcatgc ttagggagga gagggcagag tatttgtgat tgtgactaag gatttcctga	21300
gaagccaact ctaggagcaa gaaagctgag gcaggaggat catgagtttg agagtagtca	21360
taggatttat tgtgagatac tgtctcaggg agagagagaa ggggaagagga gggaggaagt	21420
cgggggggagc agagcctgct agcagaatca gcaagatgtt tctacagatg cttagagtcc	21480
ctttcttgcc ttgaactgtg gtccagctga gcctccatga ggtgggagaa gctgatgggtg	21540
tgggtggcag gagatgaatg atgggctcag tccagctcaa gaacttcttg ggttggaggt	21600
aagagtcagc aatttctccc caccctccta cctagcccag ggttctccac cagatctaca	21660
gaaacctcca gttctgtggc cattgtttcc ttccccttta agaggaagtg gtttttaaac	21720
ccgaaccaca caagcttcag ctgtctgctc ttttgggtggc gtgcctatgc tgacagaact	21780
gaagccatta ctcaaaccac acctctagag ccatatctca taagatcctg gccatgtcga	21840
taccaccctt tccccgcccc tgtcaggctg tgggtgaagt tctctgggca tcagactgga	21900
ggtcattagg caagtccagt cacctctctc ctgcttcctg ccgagatctt atctcccagt	21960

ttcagctcca accccctctg acccctggac tccttttttg cccctcccc ctcagtgaga	22020
cactctttca tttccagtga ctcagaggct ggagaaagga aggtgactag gtgagaactg	22080
tggctggaaa gccagagcct aaacttcatg gggaagagaa aaatcctgcc ccctcatctg	22140
ttgtagcagt tctttgggag aggctgtcct atacctctt tgttcctgga cctctctgtc	22200
agcacctctt gatcagggaa gcctgcagcc tcctttgggg gctggacatt ctactgctt	22260
tggctgggcc agtatatttg tcatggctct cattacaacc tgtctgtata tacgggatat	22320
tctcattggt gggatttggc ctactatagg gctcctggca atggcggttt ggaatggctg	22380
gtgaggagca ggcctagttt ctctagtgtc cattgtctcc tctcccactc cagagttcac	22440
gtcgtgatgg agactcctct tgagaaggcc ttgaccacca tggtcaccac tttccataaa	22500
tattcagggga gagagggtag caagctgacc ctgagtagga aagaactgaa ggagttgatc	22560
acgacagaat tgagtcttgc agaggtaggt gactgttctc tcatatacca cactacacat	22620
tctgagtacc ctttctggga gatgcccacc tacttgcagg gaactctagc ctaggcaaag	22680
ggcaggatgg ctgaagggcc agaggcagag gaagtgggtg acatctctgg ctaccaaggc	22740
tctagacctc tgtgctgggg gatgaatccg tctcactgga aaggaggcaa ggctgggggtg	22800
tgctactgcc tatgggaagc tatgggatca cataaaggag actttggtga tgggttgcat	22860
agcctatgtt agggatcttg agggtttggg ggatgtgggg taccggggtt ggctgtgtac	22920
aactcaagga tcaggattct tcttgattct tctctgtgcc tggcacagct aaggtgctaa	22980
gtgatactgt caagtaaact aacaggctaa tttatgaaca tggggtagga aggagacagc	23040
actgattcct attagatgga catgatggga gttgtggctg gctaacttga aggtctatga	23100
gatagagtaa ttgagcctta aatacatcag agaacttgct ccttgaggct gagctgaaat	23160
tccaggctag tctctgcacc aacctctat ctatctttac agtgaagttc caaattccac	23220
tgttcccca gggagagggt tccgggaaca tgtccatggg aagggtgaa acaggtgcca	23280
ctgttctcag gtctctctgc ggcttcccca aggcataatg agttcaccat gccttatata	23340
ttattctttc tttccttttt gagacaaagt ttctctgttg tagccttgggt tgttctggaa	23400
cttgctctgt agttcctgac caggctggct tccaactcac agagatccac ctgcctccat	23460

ttcctgagtg ccactgtgcc tggcctggca tatacatatt caataccaga aaccactctg	23520
ccatcctgga actaatgaag gtagagggac ctttgggtcca tcaggtgcta attactcagg	23580
gacagagccc caggggagga gtctagtctg gggaccagga tcatgttaca gagaggcagt	23640
ttccagcatc ctgggtatca acatcctgta tccaagggag acctggaact gaactgattt	23700
cgacagaggg agagcagggt ctacctgctt gtatttttctt gctccaccct aaggctctgt	23760
cttcaacttc ctagaggagc caggggtacag ggaccaaact gagaggacat ctggtgccag	23820
gctggagctg agggcatgct ggcttctcag ctccagtgtg ctgatcttac agagaagtat	23880
atagtgatgc ctgggtcctt ttccagcttg gccttacaat acggacaggt taagttggag	23940
acttggatga tgctcagggc tacagagcca ggactcaagc tgtttttagt agatatctgt	24000
ataaattgta gattataatt tctttggatg ggaagatgtc ccaggagcaa aggctaggct	24060
agccttcctc ttgtaattca tttaaaatca gcactcaggt catggacccc atttgggtgc	24120
aggtcccgtg taaagggtgtg ggttggggct gagctgctga gcagtctcct cccctgggc	24180
ccttgagaa gatgaaggag agcagcattg acaacttgat gaagagcctg gacaagaaca	24240
gcgaccagga gatcgacttc aaggagtact ctgtgttcct gaccacactg tgcatggcct	24300
acaatgactt cttcctagag gacaacaaat aagcacggtc ctctctaccc acacctgcag	24360
ctccttgtct ttccctctgc agcctcttaa actgctcctc ttacgcccct ggcccttctc	24420
tttctcatgg gtggattctt ccagtagaga aataaagccc tttccccctt tccatgtgtt	24480
ggttttgagg tggtttgtct ccgttggctg agtcagggga gaacagacag acattttgag	24540
ccattcagcc tcaggtcaca cacagggtggc ctgtgggtgc agggggtgga ctttcacccc	24600
actccactgt ccgtcctttg ttgtggacac tgttgaatgt gtcctggctt tgttctgcac	24660
tgtaaaacaa caaagctggc ccaggcattt gcatgctttc ccaggcagta aagacacaga	24720
gaaaacaatg agaaaaagcg tgttgggagt gaggagacca gggtgattgc agtgatgccc	24780
agtgggtctc agttggggca cagcccacag gaggccactc tggcagccct agtaaaaagg	24840
aaagacacga acttagcacc cttccaactg agtgactcca ggaggctaatt tccccctccc	24900
tcaacttcct cttctgaaga cttttcttca ggaggaaacg ttcaaaactt ttcacttaag	24960

atgataagta agcatgctgg ctgggctggg ctccattgtg tgcacattaa tttgtaagct	25020
gctctaaaga tgaacttcca ggcagtgagc tggaagaagc gagttagaca gaaatttatt	25080
gttgggtgggg gatgggtgtct gaaatccttt agactgtgtc cctccccctt ttttgagaca	25140
gggttttata tagcccaggt tggctcagaa ttctgcctcg tgggatcaac ctactgagct	25200
atatcccca gtcctaaact agtgagggtca aaccacccta tcagaggggt tgcctaagat	25260
catcggaaaa cacaagtatt tacactgaga ttcataacag tagcaaaatt acggtgtgaa	25320
gcagcagtga aaataatttt atgattgggg gacaccacaa catgagaatc tgtgtccaag	25380
ggcatagaa ttaggaaggt tgagaactat tagccaatct agtagaccac taggggcttc	25440
ccctccttcc ctggagctga ccttgccacc agagggcgac agcatcagtg aggttcccac	25500
tccccctcac attgatgtg actttaggga cacattgtgc tctgtctggc agatggccca	25560
gcacacatgc cggagtcacg agtcacgtgc cataagggca aactgaagta tggaaattag	25620
ggaaaactcg atgtctctgg tttgtgctgg tctcccagac cagggtcact aggctccctc	25680
atgccactcc caatccggga cagtcctggc agcagaggcg tggaaaactg aggggggtgt	25740
tgggggtgtgt tttgctagcc tcaggcgccg ggtggggctc ggggcggggc ggccnnnnnn	25800
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	25860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	25920
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	25980
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26040
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26100
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26160
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26220
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26280
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26340
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26400
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	26460

nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnga gtctgctttt ctgggggtgca	26520
ggaggggttcg ccctgggtgt gtcattgtcg tcgcagtgtg tggtcctgtc aggaagtgcc	26580
ctggagcagc ctccatctct tcctctgctc agtcatattc cccagctctc ttggaatccc	26640
tggagatcag tgttcagaca ccccaaagcc gcttccgttc ttacatccct gaccctagtt	26700
gccctgggct gcctgcacct gtgttggtta aggctagctg gttcagacag gcagcactga	26760
ctagccccctc tctgtcaaac agcttcttct agcccagtgg tcaattatgg catgccccct	26820
ggatcaggcc atcggccttc ttgtggccat cttccacaag tactctggta aagaggggtga	26880
caagcacacc ttgagcaaga aggagctgaa ggagctgac cagaaggagc tcaccattgg	26940
ctctgtaagt agccccctgcc caggttcccc ctccccacctc tgtccatcgg agcgctttta	27000
ctggcattta ctcttagttc ctgatcttac ttcccttgga gcttgatgc tcccagcctg	27060
ctgagggagg agcaggggct gagaagtaaa tcaaggtaaa tccaagctga aggcccatcc	27120
ttggtgacaa tgagcagaga cacttacatg aacaaggact tccagggaag gggtaaggaa	27180
tccagggcgc tggccaccac tgaacgtgga cgtctccttc taatgtatta gaaactgcag	27240
gatgctgaga ttgcaaggct gatggacgac ctggaccgca acaaggacca ggaagtaaac	27300
ttccaggagt atgtgcctt cctgggggcc ttggctttga tctacaatga agctctcaaa	27360
taaaatggga aggtagagat gccctttgga ggcttatctc agccaaatcc agtgggtgggt	27420
aattgtacaa taaatacttt gtttttggtta catcta	27456

<210> 5
 <211> 41
 <212> DNA
 <213> *Cricetulus griseus*

<220>
 <223> Targeted integration site ZFN 7

<400> 5	
tttgcttact gcccagggtc tgagggacca cctgggggcta g	41

<210> 6

<211> 42
<212> DNA
<213> *Cricetulus griseus*

<220>
<223> Targeted integration site ZFN 8

<400> 6
cagttccctc ttctgcaata ttctctagct ttagatgcag aa 42

<210> 7
<211> 42
<212> DNA
<213> *Cricetulus griseus*

<220>
<223> Targeted integration site ZFN 9

<400> 7
agcaactgct gtcgctcaga gcttgggagg gggtggatgg ac 42

<210> 8
<211> 42
<212> DNA
<213> *Cricetulus griseus*

<220>
<223> Targeted integration site ZFN 10

<400> 8
ccgcgcccaa tgctgggagg gggaagaacg ggccagagcc tg 42

<210> 9
<211> 43
<212> DNA
<213> *Cricetulus griseus*

<220>
<223> Targeted integration site ZFN 11

<400> 9
ctgggctgcc tgcacctgtg ttggctaagg ctagctggtt cag 43

<210> 10
<211> 42
<212> DNA
<213> Cricetulus griseus

<220>
<223> Targeted integration site ZFN 12

<400> 10
agcagcatct gtttccataa agtggtcagg ccccagggtgg gg 42

<210> 11
<211> 43
<212> DNA
<213> Cricetulus griseus

<220>
<223> Targeted integration site ZFN 13

<400> 11
cacaaactga ccctatgaaa gtgttcagta attcagtgcc gag 43

<210> 12
<211> 42
<212> DNA
<213> Cricetulus griseus

<220>
<223> Targeted integration site ZFN 14

<400> 12
ggcttctact gctccagctg agcctgccct gcagtgggga gg 42

<210> 13
<211> 57
<212> DNA
<213> Cricetulus griseus

<220>
<223> landing pad_upstream

<400> 13

aacagcctta ttcaggtata attcacacgc cacaaactga ccctatgaaa gtgttca 57

<210> 14

<211> 58

<212> DNA

<213> Cricetulus griseus

<220>

<223> landing_pad downstream

<400> 14

tgaaagtgtt cagtaattca gtgccgagta tgatgtatca cacctgtgac cctggcac 58