

Figure 1

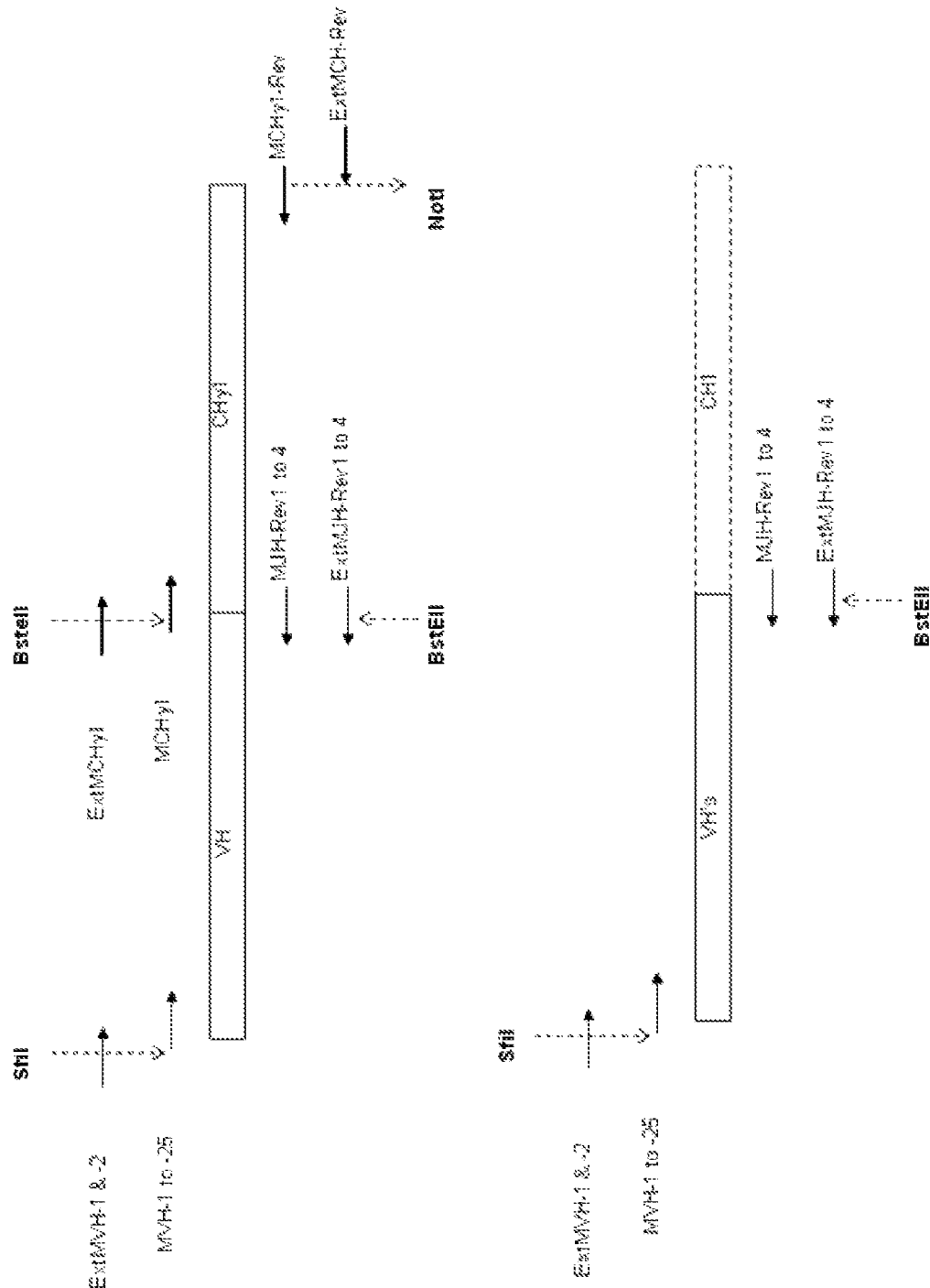


Figure 2

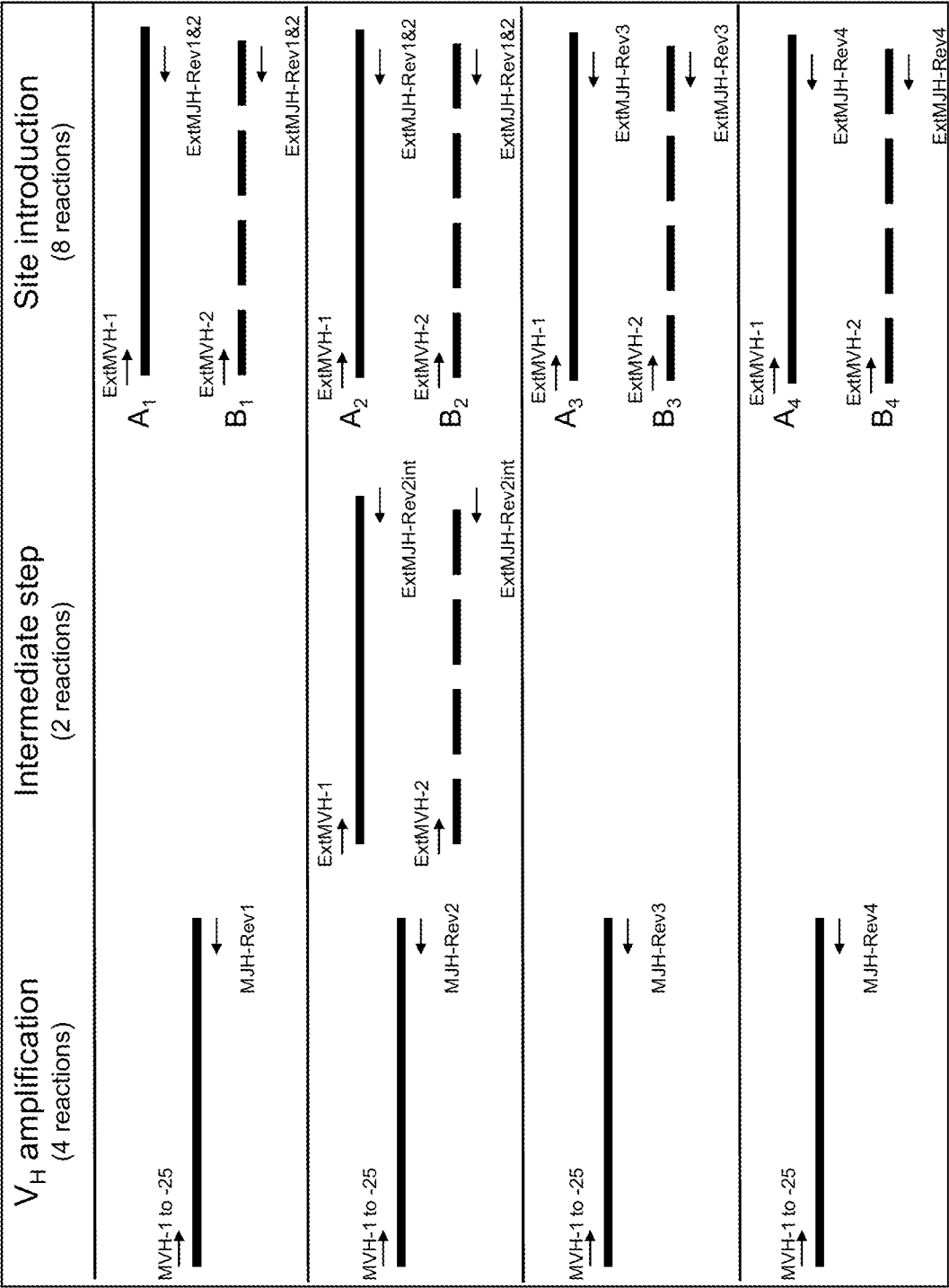


Figure 3

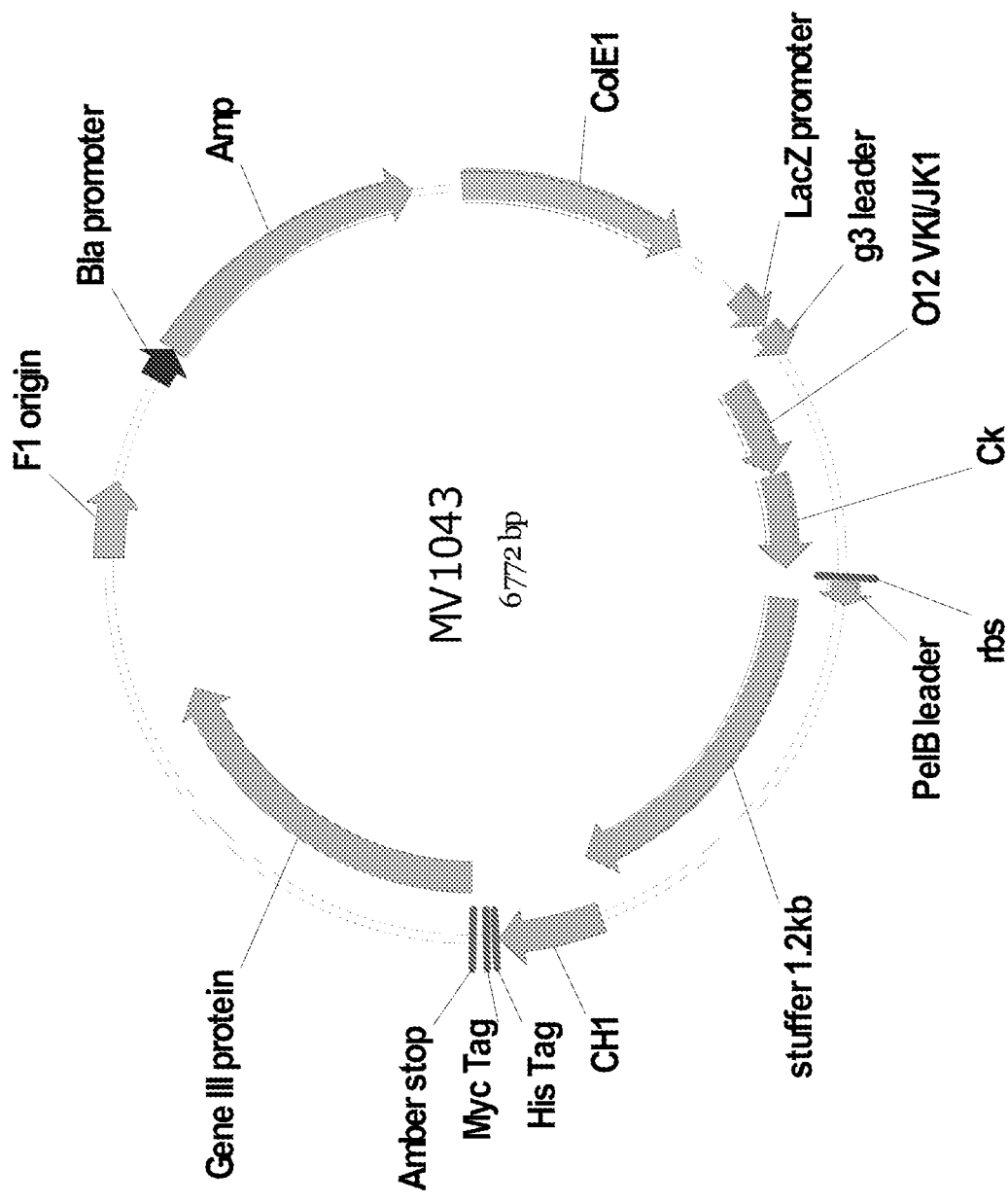


Figure 4

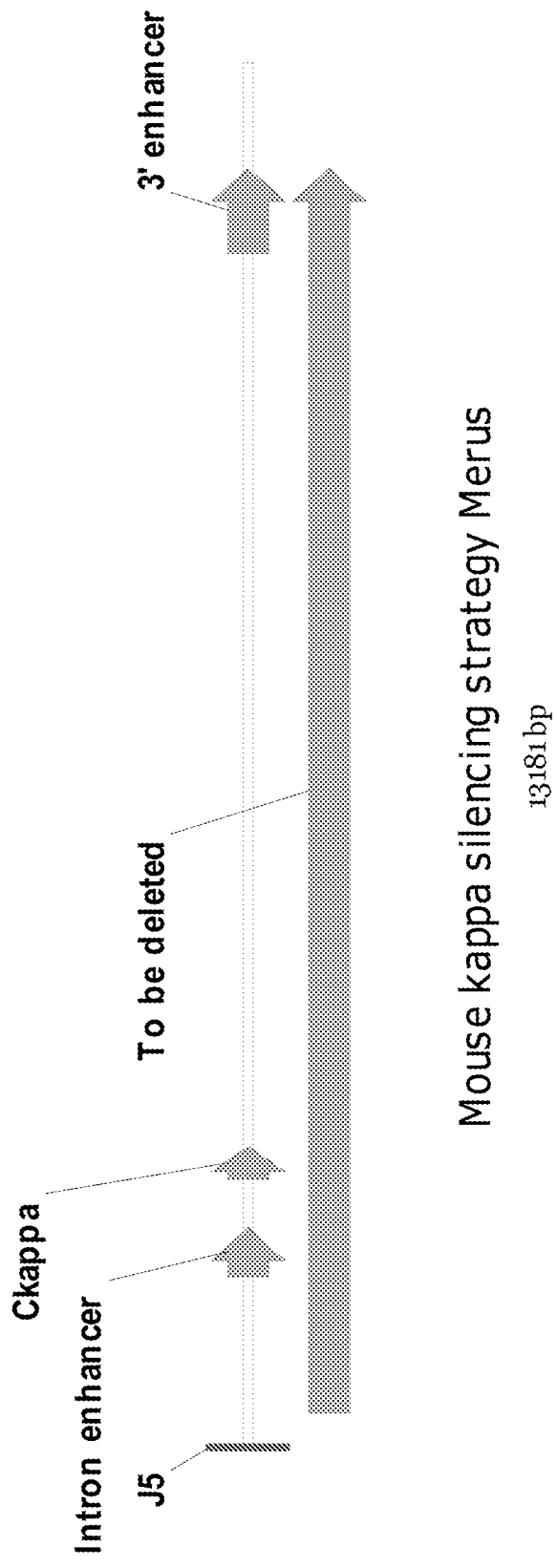


Figure 5

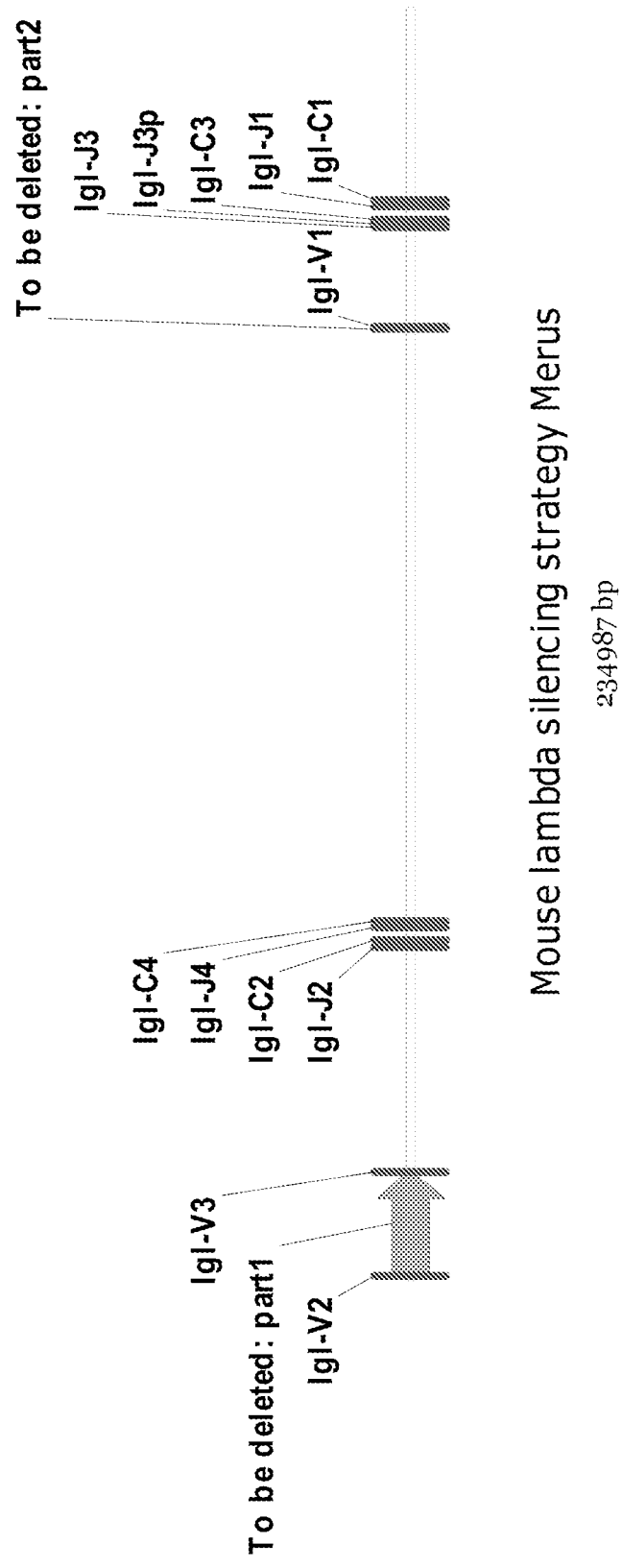


Figure 6

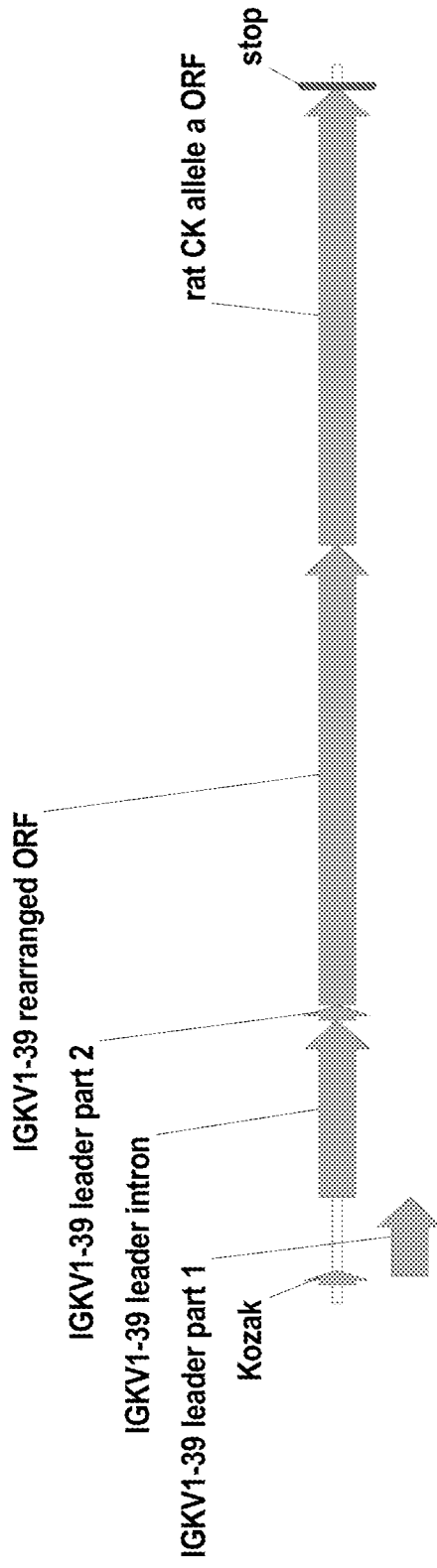


Figure 7

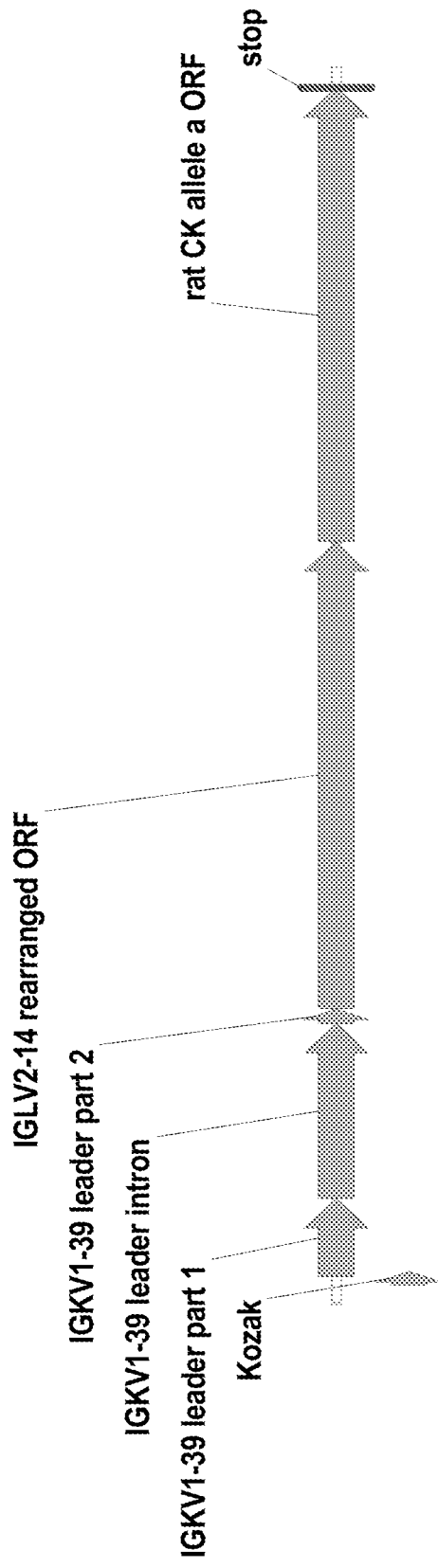


Figure 8

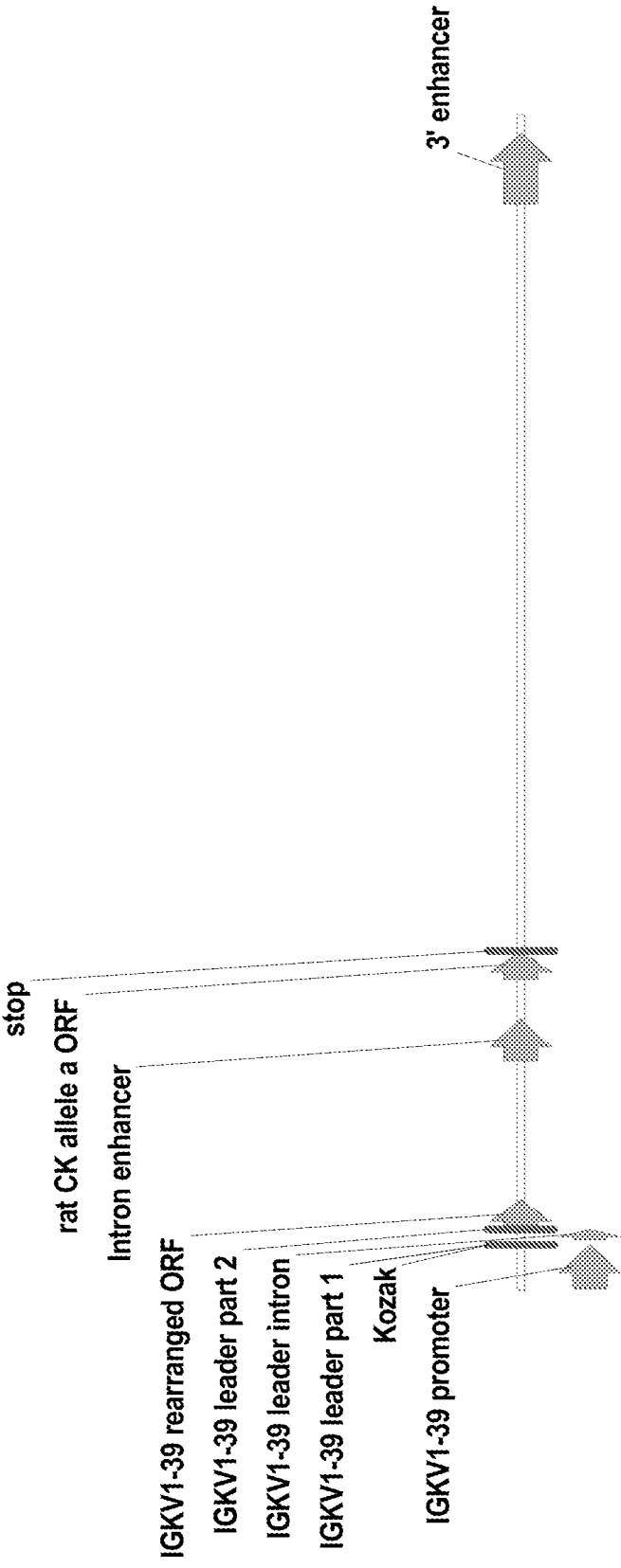


Figure 9

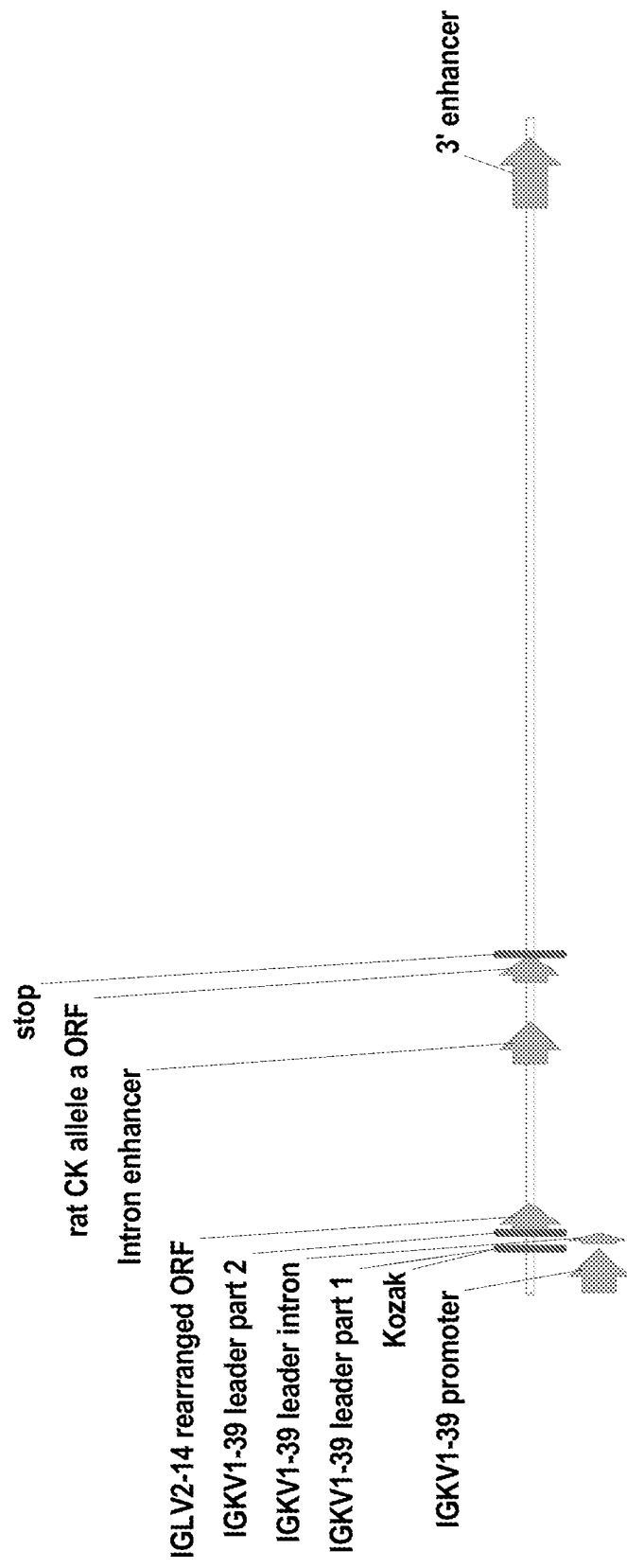


Figure 10

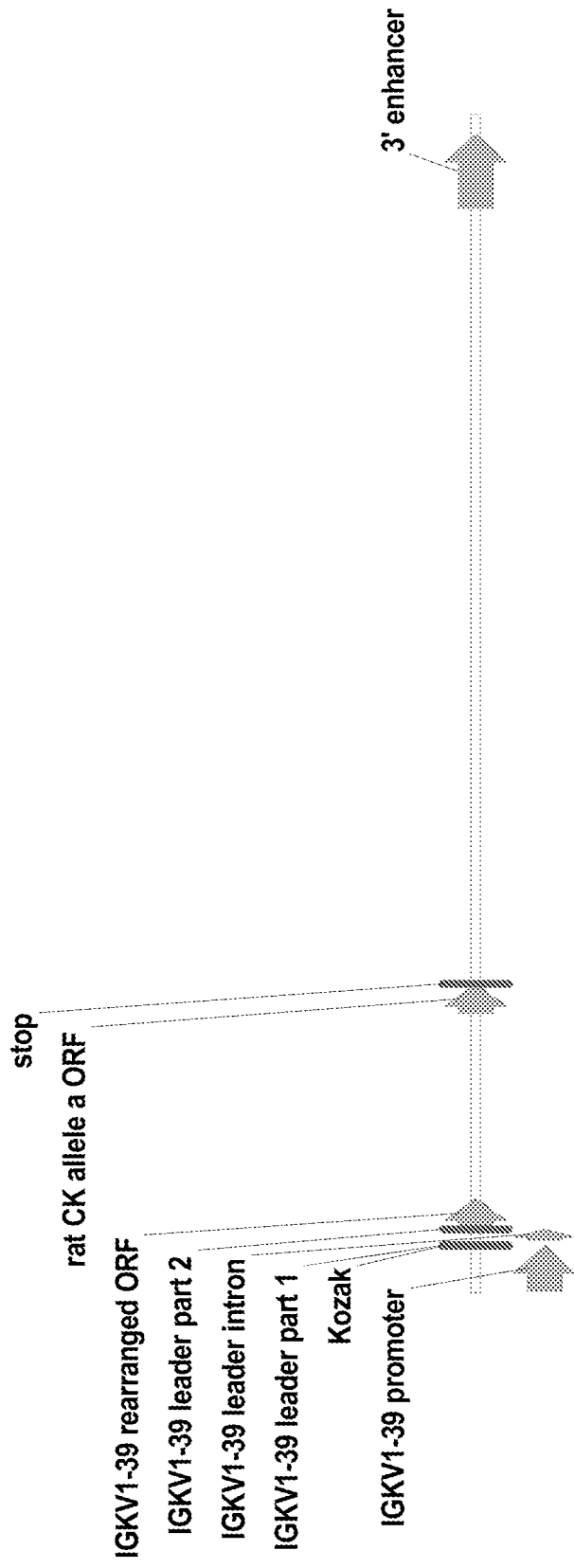


Figure 11

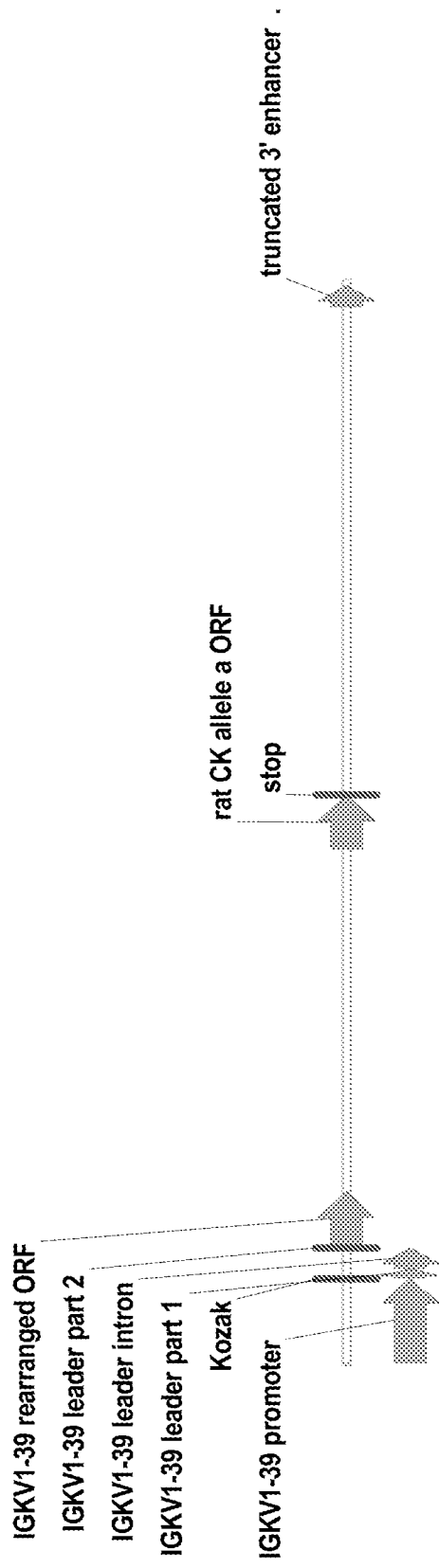


Figure 12

human germline IGV1-39/J DNA
1 GAC ATC CAG ATG ACC CAG AGC CCC AGC AGC CTG AGC GCC AGC GTG AGC TGC AGA GCC AGC
79 CAG AGC ATC AGC AGC TAC AAC TGG TAT CAG CAG AAG CCC AGC AAG GGC CTG ATC TAC GCC AGC
157 TCC CTG CAG AGC GGC GTG CCC AGC AGA TTC AGC GGC AGC GGC TCC GGC ACC GAC TTC ACC CTG ACC ATC AGC AGC CTG
235 CAG CCC GAG GAC TTC GCC ACC TAC TAC TGC CAG CAG AGC TAC AGC ACC CCC ACC TTT GGC CAG GGC ACC AAG GTG
313 GAG ATC AAG

human germline IGV1-39/J Protein
1 DIQMTQSPSS LSASVGRVT ITCRASQSS SYLNWYQQK GKAPKLLIYA
51 ASSLQSGVES RFSGSGTD FTLTISLQF EDFATYYCQQ SYSTPPTFGQ
101 GTXVEIK

human germline IGLV2-14/J DNA
1 CAG TCT GCC CTG ACC CAG CCC GCC TCT GTG TCT GGC AGC CCT GGC CAG AGC ATC ACC ATC AGC TGC ACC GGC ACC AGC
79 AGC GAC GTG GGC GGC TAC AAC TAC GTG TCC TGG TAT CAG CAG CAC CCC GGC AAG GCC CTG ATG ATC TAC GAG
157 GTG TCC AAC AGA CCC AGC GGC GTG AGC AAC AGA TTC AGC GGC AGC AAG AGC GGC AAC ACC GCC CTG ACC ATC AGC
235 GGC CTC CAG GCT GAG GAC GAG GCC GGC TAC TGC AGC AGC TAC ACC AGC AGC TCC ACC CTG GTG TTT GGC GGC GGA
313 ACA AAG CTG ACC GTG CTG

human germline IGLV2-14/J Protein
1 QSALTQPAV SGSPGOSITI SCTGTSSDVG GYNYVSWYQQ HPGRAPKLM I
51 YEVENRPSGV SNRFGSKSG NTASLTISGL QABDEADYYC SSYTSSSTLV
101 FGGTKLIVL

Rat IGCK allele a DNA
1 AGA GCC GAC GCC GCT CCC ACC GTG TCC ATC TTC CCC CCC AGC ATG GAA CAG CTG ACC TCT GGC GGA GCC ACC GTG GTC
79 TGC TTC GTG AAC AAC TTC TAC CCC AGA GAC ATC ACC GTG AAG TGG AAG ATC GAC GGC AGC GAG CAG AGG GAC GGC GTG
157 CTG GAC AGC GTG ACC GAC CAG GAC AGC AAG GAC TCC ACC TAC AGC ATG AGC ACC CTG AGC CTG ACC AAG GTG GAG
235 TAC GAG AGG CAC AAC CTG TAC ACC TGC GAG GTG GTG CAC AAG ACC AGC TCC AGC CCC GTG GTC AAG TCC TTC AAC CGG
313 AAC GAG TGT

Rat IGCK allele a protein
1 RADAAPTYSI FPSPMEOLTS GGATVVCVFN NFYPRDISVK WKIDGSEQRD
51 GVLDSVTDQD SKDSTYSMSS TSLSTKVEYE RHNLYTCEVH HNTSSSPVVK
101 SFNENEK

Figure 12 contd

IGKV1-39/J-Ck

```

1  GGT ACC GCG GCC ACC ATG GAC ATG AGA GTG ACC GGC CAG CTC CTG GGG CTC CTG CTA CTC TGG CTC CGA GGT AAG
79  GAT GGA GAA CAC TAG GAA TTT ACT CAG CCA GTG TGC TCA GTA CTG ACT GGA ACT TCA GGG AAG TTC TCT GAT AAC ATG
157 ATT AAT AGT AAG AAT ATT TGT TTT TAT GTT TCC AAT CTC AGG TGC CAG ATG TCA GTC TGC CCT GAC CCA GCC CGC CTC
235 CAG CTT GAG CGC CAG CGT GGG CGA AGT GAC CAT CAG CTG CAG AGC CAG CCA GAG CAT CAG CAG CTA CTT GCT GCT GGC CAG CAG
313 GTA TCA GCA GAA GCC CGG CAA GGC CCC CAA GCT GAT GAT CTA CGA GGT GTC CAA CAG ACC CAG CGC CGT GAG
391 ATT CAG CGG CAG CGG CTC CGG CAC CGA CTT CAC CTT GAC CAT CAG CAG CTT GCA GGC CCA GGT GGA GAT CAA GAG AGC CGA CGC TCC
469 CTG CCA GCA GAG CTA CAG CAC CCC CAG CAT GGA ACA GCT GAC CTC TGG CGG AGC CAC GGT GGT CTG CTT GGT GAA CAA CTT
547 CAC CTT GTC CAT CTT CCC CAG CAC CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
625 CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG GGA GGA CGG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
703 CCA GGA CAG CAA GGA CTC CAC CTA CAG CAT GAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
781 GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CAG CCC CGT GGT CAA GTC CTT CAA CCG GAA CGA GTG TTG AGC TAG
859 CGA GCT C

```

IGLV2-14/J-Ck

```

1  GGT ACC GCG GCC ACC ATG GAC ATG AGA GTG ACC GGC CAG CTC CTG GGG CTC CTG CTA CTC TGG CTC CGA GGT AAG
79  GAT GGA GAA CAC TAG GAA TTT ACT CAG CCA GTG TGC TCA GTA CTG ACT GGA ACT TCA GGG AAG TTC TCT GAT AAC ATG
157 ATT AAT AGT AAG AAT ATT TGT TTT TAT GTT TCC AAT CTC AGG TGC CAG ATG TCA GTC TGC CCT GAC CCA GCC CGC CTC
235 TGT GTC TGG CAG CCC TGG CCA GAG CAT CAC CAT CAG CAG CGG CAC CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
313 GTC CTG GTA TCA GCA GCA CCC CGG CAA GGC CCC CAA GCT GAT GAT CTA CGA GGT GTC CAA CAG ACC CAG CGC CGT GAG
391 CAA CAG ATT CAG CGG CAG CAA GAG CGG CAA CAC CGC CAG CTT GAC CAT CAG CGG CTT CCA GGC TGA GGA CGA GGC CGA
469 CTA CTG CAG CAG CTA CAC CAG CAG CTC CAC CTT GGT GTT TGG CGG CAG AAC AAA GCT GAT GCT GGT GGT GGT GGT GGT
547 CGC CGC TCC CAG CGT GTC CAT CTT CCC CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
625 GAA CAA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CAG GGA GGA CGG CAG CAG CAG CAG CAG CAG
703 CGT GAC CAG CCA GGA CAG CAA GGA CTC CAC CTA CAG CAT GAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
781 GCA CAA CCT GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CAG CCC CGT GGT CAA GTC CTT CAA CCG GAA CGA GTG
859 TTG AGC TAG CGA GCT C

```

VKP-IGKV1-39/J-Ck

```

1  GGC GGG CCC ACA TGA AAC AAT GGG AAC CAT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GGA TTG TTA CTC
79  TCC ACA TCC CTT TAA GTA ACT TGA AGG CCT GAT AGA CCC ACC CTC TAA GAC TTC ATT AGA CAT TCC CTA CGA ATG GTT
157 ATA CTC TCC TGT ATA CTC CCA ATA CAA CTC TAA AAT ATA TTA TTC CAT ATA GTC CTT AGG TTT GTA TTA AAG TTT GAC
235 TTT TTT CTT TCA AAA TAT CTC TTG TCA CAA CAG CGG CTC TAG AGA GAA ATA CAT TCC CTC CAG GCA AAT CTA TGC TGC
313 GCT GGT CTG ACC TGG GAC CTT GGG GAC ATT GCC CTT GTG CTG AGT TAC TAA GAT GAG CCA GCC CTC CAG CTG TGC TCA
391 GCC TGC CCC ATG CCC TGC TGA TTG ATT TGC ATG TTC CAG AGC ACA GCC CCT GCT GAA GAC TTT TTT ATG GGC TGG
469 TCG CAC CCT GTG CAG GAG TCA GTC TCA GTC AGG AGC CAC CAT GGA CAT GAG AGT GCC CGC CCA GCT CCT GGG GCT CCT
547 GCT ACT CTG GCT CCG AGG TAA GGA TGG AGA ACA CTA GGA ATT TAC TCA GCC AGT GTG CTC AGT ACT GAC TGG AAC TTC
625 AGG GAA GTT CTC TGA TAA CAT GAT TAA TAG TAA GAA TAT TTG TTT TTA TGT TTC CAA TCT CAG GTG CCA GAT GTG ACA
703 TCC AGA TGA CCC AGA GCC CCA GCA GCG TGA GCG CCA GAG TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA
781 GCA TCA GCA GCT ACC TGA ACT GGT ATC AGC AGA AGC CCG GCA AGG CCC CCA AGC TGC TGA TCT ACG CCG CCA GCT CCC
859 TGC AGA GCG GCG TGC CCA GCA GAT TCA GCG CCA GCG ACT TCA CCA CCG CCA CCG CCA CCG CCA CCG CCA CCG CCA CCG CCA
937 CCG AGG ACT TCG CCA CCT ACT ACT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT
1015 TCA AAC GTA AGT ACA CTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
1093 GAA AAT CTT GAG AAA ATG GAG AGG GCT CAT TAT CAG TTG ACG TGG CAT ACA GTG TCA GAT TTT CTG TTT ATC AAG CTA

```

Figure 12 contd

1171 GTG AGA TTA GGG GCA AAA AGA GGC TTT AGT TGA GAG GAA AGT AAT TAA TAC TAT GGT CAC CAT CCA AGA GAT TGG ATC
 1249 GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1327 TTT GAG GGG GAT GAG ATA TGA AGG AAT TCC CAG ATG GAA AAG GGC TGA AGT CAA GTT CAG CTC CTA AAA TGG ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA ATC CAG AGG ATG AAA CAG CGC AGA TCG AAG GGC CTG GAG CTC TGA GAA
 1483 GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GGA TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC TTT TGT CTC CTA AGT TTT GAT GAC TAC AAA AAT CAG TAG TAT GTC CTG AAA TAA
 1639 TCA TTA AGC TGT TTG AAA GTA TGA CTG CTT GCC ATG TAG ATA CCA TTG CTT GCT GAA TCA TGA GAA GAG GTG TGA CTC
 1717 TTA TTC TAA AAT TTG TCA CAA AAT GTC AAA ATT GTC AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT ACA GTT GGG
 1795 TTT TTC CTT TGT CTC ATT TCT ACA TGA AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT ACA GTT GGG
 1873 TTT GAA CTA TAT GTT TTA ATG GCC AGT GTT TTG TAA GAC ATT TTG TCC TTT GTT CCA GTT ATT ACT CGA TTG TAA
 1951 TTT TAT ATC GCC AGC AAT GGA CTG AAA CCG TCC GCA ACC TCT TCT TTA CAA CTG GAC CTC CGC GCT GTG CCA GCC
 2029 ATT TGG CGT TCA CCC TGC CGC TAA GGG CCA TGT GAA CCC CCG TTG TAG CAT CCC TTG CTC CGC GTG GAC CAC TTT CCT
 2107 GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG AGA AAA ACA
 2185 AGG AAA GGG TGA CTT ATT GGA GAT TTC AGA AAT AAA ATG CAT TTA TTA TAT TCC CTT ATT TTA ATT TTC TAT TAG
 2263 GGA ATT AGA AAG GGC ATA AAC TGC TTT ATC CAG TGT TAT ATT AAA AGC TTA ATG TAT ATA TTT TAG AGG TAA AAT
 2341 CTA CAG CCA GCA AAA GTC ATG GTA AAT ATT CTT TGA CTG AAC TCT CAC TAA ACT CCT CTA AAT TAT ATG TCA TAT TAA
 2419 CTG GTT AAA TTA ATA TAA ATT TGT GAC ATG ACC TTA ACT GGT TAG GTA GGA TAT TTT TCT TCA TGC AAA AAT ATG ACT
 2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT ACT ATA ATC
 2575 CCA TAA TTT TGA AAA CTA TTT ATT AGC TTT TGT TGA CCC TTC CTT AGC CAA AGG CAA CTA TTT AAG GAC CCT TTA
 2653 AAA CTC TTG AAA CTA CTT TAG AGT CAT TAA GTT ATT TAA CCA CTT TTA ATT ACT TTA AAA TGA TGT CAA TTC CCT TTT
 2731 AAC TAT TAA TTT ATT TTA AGG GGG GAA AGG CTG CTC ATA ATT CTA TTG TTT TTC TTT TTT TTT TTT TTT TTT TCG
 2809 TTT TTA CTA CCT CTG TCA CCC AAG AGT TGG CAT CTC AAC AGA GGG GAC TTT CCG AGA GAC TTT CCG AGT GCT TTA
 2887 GAT CAG AAG TGA AGT CTG CCA GTT CCT CCT CAG AGG CAG GTG GCC CAG ATT ACA GTT GAC CTG TTC TGG TGT GGC TAA AAA
 2965 TTG TCC CAT GTG GTT ACA AAC CAT TAG ACC AGG GTC TGA TGA ATT GCT CAG AAT ATT TCT GGA CAC CCA AAT ACA GAC
 3043 CCT GGC TTA AGG CCC TGT CCA TAC AGT AGG TTT AGC TTG GCT ACA CCA BAG GAA GCC ATA CAG AGG CTA ATA TCA GAG
 3121 TAT TCT TGG AAG AGA CAG GAG AAA ATG AAA GCC AGT TTC TGC TCT TGT TGA TGT TGT TCA GAC TTC CAA ACA
 3199 TCA GGA GTG TCA GAT AAA CTG GTC ATC TCT TGA AGC ATG GAA CTG AAA AGA ATG TAG TTT CAG GGA AGA AAG
 3277 GCA ATA GAA GGA AGC CTG AGA ATA TCT TCA AAG GGT CAG ACT CAA TTT ACT TTC TAA AGA AGT AGC TAG GAA CTA GGG
 3355 AAT AAC TTA GAA ACA ACA AGA TTG TAT ATA TGT GCA TCC TGG CCC CAT TGT TCC TTA TCT GTA GGG ATA AGC GTG CTT
 3433 TTT TGT GTG TCT GTA TAT AAC ATA ACT GTT TAC ACA TAA TAC ACT GAA ATG GAG CCC TTC CTT TTT TTT TTT TTT TTT TTT
 3511 CCT CTG TGC TTT CTT CTT CAG GGG CCG ACG CTG CCA CCG TGT CCA TCT TCC CCC CCA GCA TGA GCA GCA CCC
 3589 CTG GCG GAG CCA CCG TGG TCT GCT TCG TGA ACA ACT TCT ACC CCA GAG ACA TCA GCG TGA AGT GGA AGA TGG ACG GCA
 3667 GCG AGC AGA GGG ACG GCG TGC TGA CCG AGC AGG ACA GCA AGG TGG TGC ACA GCT CCA CCA GCT CCA GCT CCA GCG CCG
 3745 TGA CCC TGA CCA AGG TGG AGT ACG AGA GGC ACA ACC TGT ACA CCG TGT GAG AGG TGG TGC ACA GCT CCA GCT CCA GCG CCG
 3823 TGG TCA AGT CCT TCA ACC GGA ACG AGT GTT GAA GAC AAA GGT COT GAG ACG CCA CCA CCA GCT CCA GCT CCA GCT CCA
 3901 ATC TTC CCT TCT AAG GTC TTG GAG GCT TCC CCA CAA GCG ACC TAC CAC TGT TGC GGT GCT CCA AAC CTC CTC CCC ACC
 3979 TCC TTG TCC TCC TCC TCC CTT TCC TTG GCT TTT ATC ATG CTA ATA TTT GCA GAA AAT ATT CAA TAA AGT GAG TCT TTG
 4057 CAC TTG AGA TCT GTG TCT TTC CTA CTA AAT GAT AGT AAT CAG TTG TTT TTC CAG TTA CTT GGT TTT CTC TTC TTA AGA
 4135 AGT TAA ATG TTT AGT TGC CCT GAA ATC CAC CAC ACT TAA AGG ATA AAA ACC CTC CAC TTG CCC TGG TTG GCT GTC
 4213 CAC TAC ATG GCA GTC CTT TCT AAG GTT CAC GAG TAC TAT TCA TGG CTT ATT TCT CTG GGC CAT GGT AGG TTT GAG GAG
 4291 GCA TAC TTC CTA GTT TTC CCT TAA GTC GTC AAA CTG AAG GAG GAC CTT TAC AAG CAC ATG TTC TGT AAT
 4369 CTG ATT CAA CCT ACC CAG TAA ACT TGG CGA AGC AAA GTA TCA TTA TCA CAG GAA GCA ACC TAA ATG TGC
 4447 AAG CAA TAG GAA AAT GTG GAA GCC CAT CAT AGT ACT TGG ACT TCA TCT GCT TTT GTG CTT TCA CTA AGT TTT TAA ACA
 4525 TGA CTT GGC TCC TAT CTG CCA TTG CCA AGG CTG GGC ACT ACC CAC AAC CTA CTT CAA GGA CCT CTA TAC CGT GAG ATT
 4603 ACA CCA ATA CTA CAA AAT TTG GGA AAA GTT CTA CCA AGG TGA GAG CTG ATC ACC CCA CTT TTA GGT GCT TAT CTC TGT
 4681 ACA CCA GAA ACC TTA AGA AGC AAC CAG TAT TGA GAG ACT CAT TTA TGA AAG TCT AAA ACT GGA TAC AAC CAA AAT ATG
 4759 CAC CAA CAG TTA AAT TAT GAC ATG TTC ACA ATT GAG CTA TTA CTT AAG GAG AAT TAA AAT AAA ACT TAA GAG
 4837 CAT AGT TTA ATC TCA TAA ACA AGA TAA TAA GCA AAA CAA AAC ATT TTT TCA TCC ATG TAA GGT TAA AAG CAG GTA AAA

Figure 12 contd

4915 TTT AAA ATT AAG AGA GAC ATA AGT TGT GGA ATT TTT GAG GTA GCA AGA TGG AAA CTC TGG GGC TTG GGG AAT GTT CTG TCT CTC TGT
 4933 ATG GGA TGT GAA AGT TAC TAT TGT GGA ATT GGG ATC TAT TAT GTA TAC TTT TTT ATA ATA ACT TCA
 5071 CCT AAA GAA ATA TCT AAT ACC GAG TAT ACC AAT GGA TAC AAA GGA TGA ATC CGT CAA GGC CAG AAA GAC
 5149 AAT AAA GTA GGG GAT CCA GGA TCA AAT CTC CAA CCA CTT TGA GGC TTC TAC TAT TCT GCC TTC CAG AGC TCA AAG TAC
 5227 AAA ACA CAT AAT TCA AAC ACA TGA TCC CTC CTT GGG GTC TCT TCC TTC ATG CAT CGA ATT AGA AAT AGC CAT GTA TAA
 5305 AAT GAG ATA GAA GAG ACC TTC ATC AAC AGG TCA AAG AAT ATA GGT AAT TTT GTC TGG GTA TGA AGC GCC CAC GTA TCA
 5383 AAG GTT ACA TTA GGG AAG GAA GAG GAC ACT AAT AGT AAG CCA TTT CAT TCT CCC CTT GGA GGC CCC TGC ATT TAG
 5461 TCC CTC GTG GGC TCA TCC ACT CAG CAC ACA TTT ACT AAG CAT CTT CTC AGC CTA CAC TCT GAA GGC AGT GCA GAA TAA
 5539 TGT TAG TGT CCC TTC CCC CAG TTA ATA TGC AGT CCA GTT TCC CTC CTG CTC CTT CCC TTT CTC AGT CCA CAT AAG GAT
 5617 GGG AAA GGA CAG TCA CCA AAT AGG AGA GGG CAA CCC TTT GGT TAC ATA CAT TTA AAT ATG TGA TAA AAT GTT GTT
 5695 TTT GAA ACT TCT TTT AAT TGC TTT TTT TTA ATT TGT TTT TTA TAG CAT AAC TCC TCA AAA TAT ATA TGT TCG AGT CTT
 5773 AAA TTT ATC AAT CAA CAG TGC TTT TTA TCT GGC TAT TAA TAC AAA AAT GGC TCC TCA AAA TAT ATA TGT AGC AAC CTT GTG CTT
 5851 ATC TAA AAC AGA ACC CAC AAT AAA AAA GAA GAA ATA CAT ATA AGC ATT TAT ATA ATT CTC AGC AAC CTT GTG CTT
 5929 TGT GAA AAA AAT ATA ATC TAA TGT CAC ATG CTG TAT TCT TTT TAT TTA ACA CTG GTG AAA TTA TAC CAT TAG AGA GAA
 6007 AGA GGA CAG ATC ACT GAT CCT AGG ATC TAG GGA TGT TAC AGA TAA GAA AAC AAA TGT GAC AAA GAG CTG TCA CAA GGA
 6085 GGA TCT TCA AGG TCA CAG AAT CAC TGT CTT GAT TTC AGT GGT TAC ATA CAT TTA AAT ATG TGA TAA AAT GTT GTT
 6163 GAA CTA TAT TCA TAT ATT GTA CCA ATG TCA AAT GCT TAA TTT TGG CTC TAT AGT ATA ATT ATG CAC TAA ATA ACT ATT
 6241 TGG ACA AAG AAA ATG ATG TTT ACA TCA AAG GTG AGG CCA TAT TTS TTA GGA ACA TAA CTT AAA AAG CAT TTT GGA TAA
 6319 CTA ATG AAA AGC CAT TTT GTG TGC CTT GGC ATA TGC CTA AGC TGT CAC CAG ATA GAT CTA ATA AGA CCT AAG CCT
 6397 CAG AAG CAA GCC CTT GCC CAG CAA GCA GGC AGC ACA GAT AAG AGC TAA ACC CAG GAC CCA TGA TAT GCT AAT GAA
 6475 CTA CCT TCA AGG TGG TGT TGC TGA CCT AGT GAA CCA GCC CCA AGC TGT GAG CCC CAA TAG CAC AAA GCT ACT GCC CAA
 6553 AGA AAT TAT ACA AAA ATT GGA ACT TTG GGA ATG GTG TGC AGG ATC GTC CTG CTG TAT TCG AAG ACA GCT TCT CTA
 6631 TGT TTT GTA TTG ATA CCA GTG TAG AAG CTT CCA AAA CTT TCT CAC TGA AGA TTA ACC CAG GAC CCA TGA TAT GCT AAT GAA
 6709 CTC TTT TGC CCA AAC AAC TGC TTC CTT GGT GTG ATA TCT GGT TTT TTT TGT TAG CAT AAT ATT ATA AGS AAT
 6787 GTT TGT GTG AAT AAA CCA AAC ATA TTT TAA AAG CAA ATA TTG TAT GCA CAT CCT AAT TGC TAA AAA GTT TAC AGC TAA
 6865 TAG TCC CAT GCT CTC CAC AAT ACT GGA TCC AAA TAA CAT CTT TCA ATT TCA ATG TTG GGC ATC TTT ACA GAG AGA AAG ACA
 6943 TTA AAA ATG AAG AGA CAT GCA GAG AGT GCA CCA TGC CAT CGT GGA AGA CTA AGT TGA CAC AAC TGT TAG TCA AAG
 7021 AGG ATT AAG GAC TTC CAG AAG CCA CCA AAG GGA GGT ATG AAG TGG TTT CTC CCT CAG AGT ATC CAG AGG AGA CTA
 7099 AAC CAA CCA ACA CCT TTT TGC TTA AGA CTT CTT GCC TTC AGG ACT GTG AGA AGG TAG CTT CCT ATT GTT CTA AGC CCC
 7177 AGT ATG TGG CAT TTT GTT AAG GTA GAG TCA AGA AAC CAA TAA AAT GCA GAC AGA CAA AAG GAT AGC TGA GTT TTC CAG
 7255 GCC CTT CTT TAT TTT TGG TTT TGT TGT TGG TGG TGG TGG TGA TGG TGG TTT TGT TGT TGT TGT TGT TGT TGT
 7333 TGG GGA GTT TTT TGG GGT TTT TTT GGG TTT TGT TTT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 7411 TTT TGT TTT TTG TTT TTT GTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 7489 TAA TGT CTA CAT CTC AGA GGG GAT CCT CTA ATT TCA AAT GAG CAG TAG CTC TCC ATT TTT AGC TCT TAT TTA TTC ATT
 7567 TAT TTA CTT ACT TAC TTA TTG TCT GTA GAT GAA AGA ATT TTG GAG TGG GAA AGG GTT CAT GAG CCC CCA GCA ACT AAT
 7645 GAG GAG CTA CAG ACA ATT GAT GTT TCT GGG GAA AGG AGA CTC AGT TTC TTT GAG AGT ATA GCT TCT GAT GGG TCA ACC
 7723 ATG TTC CTG TGG ATG TCA CAC CCA GGA GTA TGC AGA CAA CAG AAA ACA CTG GGA TTA ATG AGT TGT TTT AAA AAT AAA
 7801 AAA GGG CAT GAA GCT TGG GAT AGA AAT TAA GGA TAA ATA CAA TTA AAT ACA GGA AAT TCT GAA AGA ATT AAA AAC
 7879 ATT TCT TTT AAA AAA AAA TCC AGA ATT AGC TAT ACT TCT TCA AAA TTG CTT CTG GAG AAC TTT ACA AGT TAA ATA
 7957 AGT TAT ATT GTA GAA AAG GTA GAG AGG AGA ATA GTG GAA GAG AGA GAT AAG GAG ACT TCA AAA GSA GTG GAG GGA GAT
 8035 AGA GGA GAA AGC AGA AGC AAT GGC TGA TAG ACA CAG AAG AGG GAA CAG AAA GAA GAA GSA AGC CAG GAT
 8113 GGG TAT TTC TTT GCC TAT CTG TGA CTT TCT TAT TAT TGA TGA GTT CAA GGC TTA ATT CTT CAC TTG
 8191 TGC CAA CTC AAC AGA GTC TTT CTT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 8269 TTA TAG CAA TCC TGT TTA TAA CTG GGT AAC TTT GTG AAG GGA AGG TGC ACA CTG AGA TGT GCT ACA ACT TTT TAA
 8347 TAC AAA ATT TTG AAG AGT TTG TAC TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 8425 CAA GAT ACT AAT TCT ATA TAT ATG GGT TAA ATC ATA TTA ATA ATT TCA CAT GCT TAT TTT TAT TGT GGT
 8503 TTT CGA GAC AAG GTT TCT CTG TAT AGC CTT GGC TGT CTT GGA ACC CAC TTT GTA GAC CAG GCT GGC CTA CTC AGA
 8581 AAC CTA CCT GCC TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC

Figure 12 contd

8659 TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC
 8737 TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC
 8815 AAC TAT ATA TAT GTA TCA TTC TAT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT
 8893 AGT AAT CGC AAG TTG TAT TGT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT TGT TGT TAT
 8971 TTG CTT TGC TTT TGC TTT TGC CTT TGC TTT TGC CTT TGC TTT TGC CTT TGC TTT TGC CTT TGC TTT TGC CTT TGC TTT
 9049 GGG GAG GGA GGG TGG AGA AAG AAT CTT ACT ATC TGC CAA GTG GGA ATA AAG GCA TAC ACC TCC ATG CCC AGA TAG TGA
 9127 TCA CAT CAT AGA GAT CTG CCT TCT GCC CTT GAC ATT TTA TCA GAG ATT AAA TTA ACA TTT AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9205 TCC CAA GTT TTA GCA AAA GAT TCT AGA CTT GAT TAT ACT TTA TCA GAG ATT AAA TTA ACA TTT AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9283 GAG TTT ACC TGA ATC ATA CTC TAT ACT TTA TCA GAG ATT AAA TTA ACA TTT AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9361 CAT TCA ATG GCA GTG TTT GCC ATC AUG CAT AGG CTT AGT CTT CAG TGC TGA AAG GCA TTG GGG GCA ATA TTA CTC ATT
 9439 ATA CAG ATG AGA AAC TGG GAA AGA CTT GCC TGA GAT TCT CTA CTG AAA GGC TGA GTT TGT GGC TTC TAG AAA ATC TTT
 9517 TAC TTT CAA TAT TTT TAA TGT ATA ATT TTT TTA TTT CCA CTG ATT TTA TTT AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9595 ATG CAA TAA ACC AAA TAC ATG GAC AAA AAA ATA CAA GAA TCA TAT GAT CAC CTT AAT GGA AGG AAA AAA GAA GAA GAA
 9673 AAA AGT CTT TGA TAA GAT TCA ACA TTC ATT CTT TTT TTA TTA GAT ATT TTC TTC ATT TAC ATT TCA AAT GCT ATC CCC
 9751 AAA GCC CCC TAT ACC TTC CCC TGC CCT GCT CCC CAA CCC ACC CAC TCC TGC TTT CTG GCC CTT GCA TTC CTC TGT ACT
 9829 GAG GCA TAT GAT CTT CAA AAA ACC AAG GGC CTC TCC TCT CAT TGG TGG CCG ACT AIT AGG CCA TCT TTT GCT ACA TAT
 9907 GCA ACT AGA GAC ACA GCT CTG GGG GTT ACT GGT TAG TTC ATA TTG TTA GTC CTC CTA TAG AGT TGC AGA CCC CTT TAG
 9985 CTC CTT GGA TAC TTT CTC TAG TTC CTT CAT TAG GGG CCC TGT GTC CCA TCC AAT AGA TGA CTG TGA GCA TCC ACT TCT
 10063 GTA TTT GCC AGG CAC TGG CAT AGC CTC ACG AGA AAG AGA GAG CTA TGT CAG GAT CCT GTC AGT AAA ATC TTT CTG GCA
 10141 TAT TCA ATA GTA TCT GGG TTT GGT GGT TGT TGT ATA TGG GAT GGA TCC CCA AGT GGA GCA GTC TCT GAA TGG TCC TTC CTT
 10219 CCA TCT CAG CTC CAA ACT TTG TCT CTA TAA CTC CTT CCA TGG GTA TTT TGT TCC CCA TTC TAA GAA GGA GTG AAG AAT
 10297 CCA CAG TTT GGT CTT COT TCT TGA GTT TCA TAT GAT TCT GCA TCT TGG ATA TTC TAA GTT TCT GGG TTA ATA TCC ACG
 10375 TAT CAG TGA GTG CAT ATC ATG CTT GGT GTT ATT TTG TGA TTA GTT TAC CTT CAG GAT ATC ATC CTC CAG ATG CAT CCA
 10453 TTT GCC TAA GAA TTT CAT TAA TTC CAT TAT TAT TGC TGA ATA GTA CTC CAT TGT GAT ATA CCA CAT TTT CTG
 10531 TAT CCA TTC CTC TGT TGA GGG GCA TCT GGG TTC TTT CCA GCT TCT GGC TAT TAT AAA TAA GGC TGC TAT GAG CAT AGC
 10609 GGA TCA TGT GTC CTT ATC AAG TTG GAA CAT CTT CTA GGT ATA TGC CCA GGA GAG ATA TTC CAA CAT AAT AAA GCT TAT
 10687 CCA TCA ACA TGC ATT CTT AAT AAA AGC CCT AGA ACA AGG AGG ACT GGA AAG CTA TTA CTC CAG GAT ATC ATC AAA GCT TAT
 10765 GTA TGA CAA ACT CAT GAC CAA TAT CAT CCT AAT TGA ATA CCA TTA ATA AGC TCC ATT AAA ATC AGA GGA CTG CCC
 10843 ACT ATC CCT ACT TCT CAT CCA TAA TGA GAT TGA AGC ATT AGC TGG AGC AAT AAG GCA AGA GAA GGC ATA CAA ATG GGA
 10921 AAA TAT TAA GTC AAA TTG TTT TCA ATT GAA GAT TAT ATT ATC TTA TAC CCA ATT ACC TCA AAT TTT GAC TAG AAA AAT
 10999 TGT AGA AAT TAT CAA TAA TTT CAG CAA AGT GTT ATG ATG CAC CAT ATC CTT AIT CTT CTC CCC AGC TTC TGC TTG CTT
 11077 CTC TCT TGT TGC TCT TCA TCC TTT CTG TCC CAT CTG CCT GCA CTC TTG TCT CAA GAC TGA GTG CAG CGT GTA ACT
 11155 CTC CTG TGA CTG AGT ATC TCA CAA AAC GTT CTA CCT GCC AAA CCT GGA TGA GCC CTT TGT TCT TGT GAA GCT ATG AGG
 11233 CTC TCT ACA TAG ACT CAA GAA GGA AAT GAC AGG GAG GTA ATA ATG AAG TGG GGA AGG TCA TAG GTG AAG AAG CCA GAG CTC
 11311 CTG TGT GGC TCC TTA ATT TCT CAT ACT TCA CAC TGA GAT TGT AAC TGT GAC TCA TAG GTG AAG AAG CCA GAG CTA
 11389 AGG TTC TCA TAT TTG AGT GTT ATA GAA TGA GTA GAG CAG TAG TTC TCA AAC TAT GGG TCA TGA CTC CTT TAT GGG TCA
 11467 AAC TAC CCT TTC ACA CAG GTT GCA TAT CAG ATA TCC TAA TTT TAT ATA CAT ATA TAT ATG CAT ATG TAT ATA TAT ATA
 11545 TTT CAC AAC AGT AGG AAA ATT ATT TAG TAA TCA TTT TAT AGT TGT GGG TCA TGG CAA CAT GAG GAA CTG TAT TAA AGG
 11623 GTT GCA GCA TTA AGA TTG TTG AGA CCC ACT GTA ATA GAG AAT GAG CTT TAA GGC GCT ATA AGG CCC AAT GGA CCA
 11701 TGT GCC TTT TCC AAC ATT TGC CAC ATG GTA AGC TCT GTA TAG ACT TTT TAA AGA ACA TTG GTT TGT AAT TTT AAA TGG
 11779 ATA AGG GTC TTC ACT GTC TAT CAC CCA TCT ATA TAA TAA ATA CAT AAG TTT TGA TTC CAC CAT GGA TTC AAA TGC AAA
 11857 AAT CCT CAA CCT AAG ACA TAG CAG TGA AAC ATT GAT GAC CAA ATA GGA AAT CCA TGT AGA GAC CTT CTA TCT TCT GAT
 11935 GGC TCC ACA GGC ACC ATC TTG CAA CAG AGT TCT ACT TCA CCA GTA ATG ATA ATG AAT ACA GTG TCT CAA CTC CTG CCA TTG
 12013 AAT CTT CAG GAA GCC CCT GAA ATG ATG ACT TGT ACT ACA CCA TTT CTT AAA GAC AGA AAA GCT AAG ACT TAG AGG GAA TAA
 12091 ATG TCA TGC CTG AGA TCA TGC AAC CAA TTA AGT CCA ACT TGG CTT CAG GCA CAA TTC AAA AGC AAT GTT GTT
 12169 CCT TCA CTA CTT GTG TAT GGT TGC TGA TTC CCG AAG CAA AGT ATC AGT GAA TAT CCC TAG TGG GAA AAG ACT TGG
 12247 AAA TCA AAT GTC TCA TTT AAC AGA TTA GGA GAT GAA AGT GAT TAC ACC TGT TAG TTG TAC ACC CCG TAG ATC CCA TCG
 12325 CTA GGA AGA CTG AGG CAG GAA GTC CTC GAG CTC AAA CCA GCT TAG GCT ACA CAG AGA AAC TAT CTA AAA AAT AAT TAC

Figure 12 contd

12403 TAA CTA CTT AAT AAG AGA TTG GAT GTT AAG ATC TGG TCA CTA AGA GGC AGA ATT GAG ATT CGA AGC CAG TAT TTT CTA
 12481 CCT GGT ATG TTT TAA ATT GCA GTA AGG ATC TAA GTG TAG ATA TAT AAT AAT AAG ATT CTA TTG ATC TCT GCA ACA ACA
 12559 GAG AGT GTT AGA TTT GTT TGG AAA AAA ATA TTA TCA TAC TAT TAC CAT TTC CAT AGT ATA GCA CAG AGT ACC CAC
 12637 CCA TAT CTC CCC ACC CAT CCC CCA TAC CAG ACT GGT TAT TGA TTT TGA TGG TGA CTG GCC TGA GAA GAT TAA AAA AAG
 12715 TAA TGC TAC CTT ATT GGG AGT GTC CCA TGG ACC AAG ATA GCA ACT GTC ATA GCT ACC GTC ACA CTG CTT TGA TCA AGA
 12793 AGA CCC TTT GAG GAA CTG AAA CCA GAA CCT TAG GCA CAT CTG TTG CTT TCG CTC CCA TCC TCC AAC AGC CTG GGT
 12871 GGT GCA CTC CAC ACC CTT TCA AGT TTT CAA AGT CTC ATA CAC CTG CCT ACC CCA CCT GGC CAA GGC TGT ATC
 12949 CAG CAC TGG GAT GAA AAT GAT ACC CCA CCT CCA TCT TGT TTG ATA TTA CTC TAT CTC AAG CCC CAG GTT AGT CCC CAG
 13027 TCC CAA TGC TTT TGC ACA GTC AAA ACT CAA CTT GGA ATA ATC AGT ATC CTT GAA GAG TTC TGA TAT GGT CAC TGG GCC
 13105 CAT ATA CCA TGT AAG ACA TGT GGA AAA GAT GTT TCA TGG GGC CCA GAC ACG TTC TAG AAG TAC CTG AGA GTG GCA AAA
 13183 AAT AGT TGT GCT AAA TAG TTT GGC CAT CTT TAG GCT GAG AGA CTA GGA AAT ACA GCG ATG GAC TAT ATC AGC ATT GCA
 13261 GGA TAG TTG TCA GTA AAC ACC CCA CAA CCC ATA GCA GAA GTA TTC TCT TCT TTC TAT ATC CCT TTT CCA TCC ATG TAG
 13339 ATG GCT GTC TTC ATA TTT GTT CTA GAC GGC CGG CC

VKP-IGKV1-39/J-ck-Δ1

1 GGC CGG CCC ACA TGA AAC AAT GGG AAC CAT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GGA TTG TTA CTC
 79 TCC ACA TCC CTT TAA GTA ACT TGA AGG CCT GAT AGA CCC ACC CTC TTA GAC TTC AIT AGA CAT TCC CTA CGA ATG GTT
 157 ATA CTC TCC TGT ATA CTC CCA ATA CAA CTC TAA AAT ATA TTA TTC CAT ATA GTC CTT AGG TTT GTA TTA AAG TTT GAC
 235 TTT TTT CTT TCA AAA TAT CCA TAT TGA TGA CAA CAG CGG CTC TAG AGA GAA ATA CAT TCC CTC CAG GCA AAT CTA TGC TGC
 313 GCT GGT CTG ACC TGG GAC CCT GGG GAC ATT GCC CTT GTG CTG AGT TAC TAA GAT GAG CCA GCC CTG CAG CTG TGC TCA
 391 GGC TGC CCC ATG CCC TGC TGA TTG AIT TGC ATT TGC AGC ACA GCC CCC TGC GAA GAC TTT TTT ATG GGC TGG
 469 TCG CAC CTT GTG CAG GAG TCA GTC TCA GTC AGG AGC CAC CAT GGA CAT GAG AGT GCC CCG CCA GCT CCT GGG GCT CCT
 547 GCT ACT CTG GCT CCG AGG TAA GGA TGG AGA ACA CTA GGA AIT TAC TCA GCC AGT GTG CTC AGT GAC TGG AAC TTC
 625 AGG GAA GTT CTC TGA TAA CAT GAT TAA TAG TAA TTT TTA TGT TTC CAA TCT CAG GTG CCA GAT GTG ACA
 703 TCC AGA TGA CCC AGA GCC CCA GCA ACT GGA GGC CCA GCG TGG GCG AGA GAG TGA CCA TCT GCA GAG CCA GCC AGA
 781 GCA TGA GCA CCA CTT ACC TGA ACT GGT ATC AGC CCG GCA AGS CCC CCA AGC TGC TGA TCT ACG CCG CCA GCT CCC
 859 TGC AGA GCG GCG TGC CCA GCA GAT TCA GCG GCA GCG GCT CCG GCA CCG ACT TCA CCC TGA CCA TCA GCA GCC TGC AGC
 937 CCG AGG ACT TCG CCA CTT ACT ACT GGC AGC AGA GCT ACA GCA CCC CCC CCA CTT TCG GCC AGG GCA CCA AGG TGG AGA
 1015 TCA AAC GTA AGT ACA CTT TTC TCA TCT TTT ATG TGT AAG ACA CAG GGT TTC ATG TTA GGA GTT AAA GTC AGT TCA
 1093 GAA AAT CTT GAG AAA ATG GAG AGG GCT CAT TAT CAG TTG ACG TGG CAT ACA GTG TCA GAT TTT CTG TTT ATC AAG CTA
 1171 GTG AGA TTA GGG GCA AAA AGA GGC TTT AGT TGA GAG GAA AGT AAT TAA TAC TAT GGT CAC CAT CCA AGA GAT TGG ATC
 1249 GGA GAA TAA GCA TGA GTA GTT AIT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1327 TTT GGA GGG GAT GAG GAA TGA AGG AAC TTC AGG ATA GAA AAG GGC TGA AGT CAA GTT CAG CTC CTA AAA TGG ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA ATG ACC CAG AGG ATG AAA CAG CGC AGA TCA AAG AGG GGC CTG GAG CTC TGA GAA
 1483 GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GGA TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC TTT TGT CTC CTA AGT TTT TAT GAC TAC AAA AAT CAG TAG TAT GTC CTG AAA TAA
 1639 TCA TTA AGC TGT TTG AAA GTA TGA CTG CTT GCT CCC ATG TAG ATA CCA TGG CTT GCT GAA TAA TCA GAA GAG GTG TGA
 1717 TTA TTC TAA AAT TTG TCA CAA AAT GTC AAA ATG AGA GAC TCT GTA CAG AGT CTT TGA CAG ACA GCT CAA GGG GTT
 1795 TTT TTC CTT TGT CTC ATT TCT ACA TGA AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT ACA GTT GGG
 1873 TTT GAA CTA TAT GTT TTA ATG GCC ACG GTT TTG TAA GAC AAT TTG TCC TTT GTT TTT CCA GTT ACT CCA TTG TAA
 1951 TTT TAT ATC GCC AAT GGA CTG AAA CCG TCC GCA ACC TCT TCT TTA CAA CTG GGT GAC CTC GCG GCT GTG CCA GCC
 2029 AIT TGG CGT TCA CCC TGC CCG TAA GGC CCA TGG GAA CCC CTG TAG CAT CCC TTG CTC CGC GTG GAC CAC TTT CCT
 2107 GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG AGA AAA ACA
 2185 AGG AAA GGG TGA CTT AIT GGA GAT TTC AGA AAT AAA ATG CTA TTA TTA TTA TCC CTT AIT TTA ATT TTC TAT TAG
 2263 GGA ATT AGA AAG GGC ATA AAC TGC TTT ATC CAG TGT TAT ATT AAA AGC TTA ATG TAT ATA TTT TAG AGG TAA AAT
 2341 CTA GAG CCA GCA AAA GTC ATG AAT CTT TGA CTG AAC TCT CAC TAA ACT CCT CTA AAT ATG TCA TAT TAA
 2419 CTG GTT AAA TTA ATA TAA AIT TGT GAC ATG ACC TTA ACT GGT TAG GTA GGA TAT TTT TCT TCA TGC AAA AAT ATG ACT

Figure 12 contd

2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT ACT ATA ATC
 2575 CCA TAA TTT TGA AAA CTA TTT ATT TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 2653 GAC AGG AGA AAA TGA AAG CCA GTT GCT GCT ACC TTA TGT GGT GGT TGT GGT CAG TAA CAT CAG TAG TGT CAG
 2731 ATA AAC TGG TCT GAA TCT CTG TCT GAA GCA TGG AAC TGA AAA GAA TTT AGT TTT CAG GAA GAA TAG AAG GAA
 2809 GCC TGA GAA TAT CTT CAA AGG GTC AGA CTC AAT TTA CTT TCT AAA GAA GTA GCT AGG AAC TAG GGA ATA ACT TAG AAA
 2887 CAA CAA GAT TGT ATA TAT GTG CAT CCT GGC CCC AAT GTT CTT TAT CTG TAG GGA TAA GCG TGC TTT TTT GTG TGT CTG
 2965 TAT ATA ACA TAA CTG TTT ACA CAT AAT ACA CAT AAT CCA CTT TGG AGC CCT TTC TTG TTT CAT ACC ATC CTC TGT GCT TCC
 3043 TTC CTC AGG GGC CGA GCG CTC CCA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CGA GAG GGA
 3121 CGT GGT CTG CTT CGT GAA CAA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CGA GAG GGA
 3199 CGG CGT GCT GGA CAG CGT GAC CGA GGA CTC CAC CTA CAG CAT GAG CAG CAC CCT GAG CTT GAC CTA
 3277 GGT GGA GTA CGA GAG GCA CAA CCT GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CCG CAG CCC GGT CAA GTC CTT
 3355 CAA CCG GAA CGA GTG TTG AAG ACA AAG GTC CTG AGA CGC CAC CAG CTC CCC AGC TCC ATC CTA TCT TCC CTT CTA
 3433 AGG TCT TGG AGG CTT CCC CAC AAG CGA CCT ACC ACT GTT GCG GTG CTC CAA ACC TCC CCA CCT CTT CTT CTT CTT
 3511 CCT CCC TTT CTT TGG CTT TTA TCA TGC TAA TAT TTG CAG AAA ATA TTC AAT AAA GTG AGT CTT TGC ACT TGA GAT CTC
 3589 TGT CTT TCT TAC TAA ATG GTA ATC AGT TGT TTT TCC AGT TAC CTG GGT TTC TCT TCT AAA GAA GTT AAA TGT TTA
 3667 GTT GCC CTG AAA TCC ACC ACA CTT AAA GGA TAA ATA AAA CCC TCC ACT TGC TGT TTT CTT TCT TCT AAA TGT TTA
 3745 TCC TTT CTA AGG TTC AGG ACT ACT ATT CAT GGC TTA TTT CTC TGG GCC ATG GTA GGT TTG AGG AGG CAT ACT TCC TAG
 3823 TTT TCT TCC CCT AAG TCG TCA AAG TCC TGA AGG GGC ACA GTC TTT ACA AGC ACA TGT TCT GTA ATC TGA TTC AAC CTA
 3901 CCC AGT AAA CTT GGC GBA GCA AAG TAG AAT CAT TAT CAC AGG CAA AGS CAA CCT AAA TGT GCA AGC AAT AGG AAA
 3979 TTT TGG AAG CCC ATC ATA GTA CTT GGA CTT CAT CTG CTT TTG TGC CTT CAC TAA GTT TTT AAA CAT GAG CTG GCT CTT
 4057 ATC TGC CAT TGG CAA GGC TGG GCA CTA CCC ACA ACC TAC TTC AAG GAC CTC TAT ACC GTG AGA TTA CAC ACA TAC ATC
 4135 AAA AAT TGG GAA AAG TTC TAC CAA GCT GAG AGC TGA TCA CCC CAC TCT TAG GTG CTT ATC TCT GTA CAC CAG AAA CCT
 4213 TAA GAA GCA ACC AGT ATT GAG AGA CTC ATT TAT GAA AGT CTA AAA CTG GAT ACA ACC AAA ATG TCC ACC AAC AGT TAA
 4291 ATT ATG ACA TGT TCA CAA TTG AGC TAT TAC TTA ATA AGG AGA ATT AAT AAA ATA AAA CTT AAG AGC ATA GTT TAA TCT
 4369 CAT AAA CAA GAT AAT BAG CAA AAC AAA ACA TTT TTT CAT CCA TGT AAG TTT AAA AGC AGG TAA AAT TTA AAA TTA AGA
 4447 GAG ACA TAA GTT TTG AGG TAG CAA GAT GGA TCT ATG TTC CTG TAT ATA TTG TAT ACT TCA TAA TAA CTT CAC CTA AAG AAA TAT
 4525 GTT ACT ATT GTG GAA TTG GGA TCT ATG TTC CTG TAT ATA TTG TAT ACT TCA TAA TAA CTT CAC CTA AAG AAA TAT
 4603 CTA ATA CCC AGT GCA TAC ATA AAA GAG GAT ACA AGG AAT GAA TCA TAT GTC AAT AAA ATA AAA CTT AAG AGC ATA GTT TAA TCT
 4681 ATC CAG GAT CAA ATC TCC CAC AAC CTT GAG CCT TCT TCA TGC ATC GAA TTA GAA ATA GCC ATG TAT AAA ATG AGA TAG AAG
 4759 CAA ACA CAT GAT CCC TCC TTG GGG TCT CTT CTT TCA TGC ATC GAA TTA GAA ATA GCC ATG TAT AAA ATG AGA TAG AAG
 4837 AGA CCT TCA TCA ACA GGT CAA AGA ATA TAG GTA ATT TTG TCT GGG TAT GAA GAG CCC ACG TAT CAA AGG TTA CAT TAG
 4915 GGA AGG AAG AGG ACA CTA ACA GTG ACT TTC ATT CTC CCC CTG GAG GCC CCT GCA TTT AGT CCC TCG TGG GCT
 4993 CAT CCA CTC AGC ACA CAT TTA CTA AGC ATC TTC TCA GCC TAC ACT CTG AAG GCA GTG CAG AAT AAT AGT ATG GGA AAG GAC AGT
 5071 TCC CCC AGT TAA TAT GCA GTG CAG TTT CCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5149 CAC CAA ATA GGA GAG GGC AAC CCT TTG CCT TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5227 TTA ATT GCT TTT TTT TTA TTT GTG TTT TCA AAT AGC ATA ACC TTG TTC ATC CAT TTC TGG GAA CCA AAT TTA TCA ATC
 5305 AAC AGT GCC TCT AAT CTG GCT ATT AAT ACA AAA ATG CCT CTT CAA AAT ATA TAT GTT CGA GTC TTA TCT AAA ACA GAA
 5383 CCC ACA ATA AAA AAG AAG GAA TAC ATA TAA GCA TTT ATA TTG GCA ACC TTG TGC TTT GTG AAA AAA ATA
 5461 TAA TCT AAT GTC ACA TGC TGT ATT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 5539 CTG ATC CTA GGA TCT AGG GAT GTT ACA GAT AAG AAA ACA AAT GTG ACA AAG AGC TGT CAC AAG GAG GAT CTT CAA GGT
 5617 CAC AGA ATC ACT GTC TTG ATT TCA GTG GTG GTT ACA TAC AAT TAA TGT TGT AAA ATG TTT TTG TTT AAT ATT CAT
 5695 ATA TTG TAC CAA TGT CAA ATG CTT AAT TTT GGC TCT ATA GTA TTA TTA TGC ACT AAA TAA CTA TTT TTT GGA CAA AGA AAA
 5773 TGA TGT TTA CAT CAA AAG TGA GGC CAT ATT TGT TAG GAA CAT AAC TTA AAA ACC AAT TTG GAT AAT TAA TGA AAA GCC
 5851 ATT TTG TGT GCC TTG GCA TAT CAT GCT TAA GCT GTC ACC AGA TAG ATC TAA TAA GAC CTA AGC CTC AGA AGC AAG CCC
 5929 CTG CCC AGC AAG CAG GCA GAT ATA AGA GCT AAA CCC AGG ACA GGC CAT GAT ATG CTA ATG AAC TAC CTT CAA GGT
 6007 GGT GTT GCT GAC CTA GTG AAC CAG CCC CAA GCT GTG ACC AAT AGC ACA AAG CTA CTG CCC AAA GAA ATT ATA CAA
 6085 AAA TTG GAA CTT TGG GAA TGG TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 6163 TAC CAG TCT AGA AGC TTC CAA AAC TTT CTC ACT GAA GAA GAT TCC CCA TGT GGG ACC CCT ACA GAC TCT TTT TTT TTT TTT

Figure 12 contd

6241 ACA ACT GCT TCC CTC CTG GTG TGA TAT CTG TTT TGC TTT TAT GTT AGC ATA ATA TTA TAA GGA ATG TTT GTG TGA ATA
 6319 AAC CAA ACA TAT TTT AAA AGC AAA TAT TGT ATG CAC ATC CTA ATT GCT AAA BAG TTT ACA GCT BAT AGT CCC ATG CTC
 6397 TCC ATG ATA CTG GAT CCA AAT AAG TCC TAA TTT CAA TGT TGG GCA TCT TTA CAG AGA GAA CAT TAA AAA TGA AGA
 6475 GAC ATG CAG AGA GTG CAC CAT GCC ATC GTG CAG ACA AGT TGA TCC CTC AGA GTA TCC AGA GGA GAC TAA ACC AAC CAA CAC
 6553 TCC AGA AGC CAC CAA AGG AAG GAG GTA TGA AGT GGT TTC TCC CTC AGA GTA TCC AGA GGA GAC TAA ACC AAC CAA CAC
 6631 CTT TTT GCT TAA GAC TTC TTG CCT TCA GGA CTG TGA GAA GGT AGC TTT CCA TTG TTC TAA GCC CCA GTA TGT GGC ATT
 6709 TTG TTA AGG TAG AGT CAA GAA ACC AAT AAA ATG CAG ACA GAC AAA AGG ATA GCT GAG TTT TCC AGG CCC CTT CTT
 6787 ATT TTT GGT TTT GTT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT
 6865 GGG GTT TTT TTG GGT TTT GTT TTT GTT GGT TTT GTT GGT TTT GTT GGT TTT GTT GGT TTT GTT GGT TTT GTT
 6943 TTT TTG TTT TTT TGA GAC AGT GTT TCT CTG TAT AGC CCT GGT TTT CCA TTT TGA GCT CTT GGT GGT TTT GTT GGT TTT GTT
 7021 TCA GAG GGG ATC CTC TAA TTT CAA ATG AGC AGT AGC TCT CCA TTT TTA GCT CTT ATT TAT TCA TTT ATT TAC TTA CTT
 7099 ACT TAT TGT CTG TAG ATA GAA TTT TGG AGT GGG AAA GGG TTC ATG AGC CCC CAG CAA CTA ATG AGG AGC TAC AGA
 7177 CAA TTG ATG TTT CTG GGG AAA GGA GAC TCA GTT TCT TTG AGA GTA TAG CTT CTG ATG GGT CAA CCA TGT TCC TGT GGC
 7255 TGA TGT CAC ACC CAG GAG TAT GCA GAC AAC AGA AAC TGG AGT TAA TGA GGT GTT TTA AAA ATA AAA AAG GGC ATG AAG
 7333 CTT GGG ATA GAA ATT AAG GAT AAA TAC AAT TAA ATA CAG GAA ATT CTG AAA GAA TTA ATA ACA TTT CTT TTT TTA
 7411 AAA AAA AAT CCA GAA TTA GCT ATG CTT CTT CAA AAT TGC TTC TGG AGA ACT TTA CAA GTT AAA TAA GTT ATA TTG TAG
 7489 AAA AGG TAG AGA GGA GAA TAG TGG AAG AGA GAG ATA AGG AGA CTT CAA AAG GAG TGG AGG GAG ATA GAG GAG AAG
 7567 GCA GAA GCA ATG GCT GAT AGA CAC AGG ATA AGA GGG AAC AGA AAG GAG AAA GAG GAA GCC AGG ATG GGT ATT TCT TTG
 7645 CCT ATC TGT GAC TTG CAC ATG GTC TTG GCA ATT ATT GAT GAG TTC AAG GCT TAA TTC ACT TGT GCT AAC TCA ACA
 7723 GAG TCT TTC TTT CTT ATA ACC AGG CCC CCA GTA TGC TAT ATG TAT CAG GTC CTC TTA TCT CTT TAT AGC AAT CCT
 7801 GTT TAT AAC TGG GTA ACT TTG TGA AGG GAA GGA AGT GCA CAC TGA GAT GTG CTA CAA CTT TTT AAT ACA AAA TTT TGA
 7879 AGA GTT TGT ACA ATG TAT GTA TTA TTA ATA ATT AAT ATG CAC ATT AGA TTT TGA TTT CAA CTC AAG ATA CTA ATT
 7957 CTA TAT ATA TGG GTT AAA TCA ATA TAT TAA TAA GTT TAA TTT CAC ATT CTT ATT TTT GTG GGT TTC GAG ACA GGG
 8035 TTT CTC TGT ATA GCC CTG GCT GTC GAA CTT TGG TAG ACC AGG CTC TCA AAC TCA AAG ACC TAC TAC CTC
 8113 CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT
 8191 CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT
 8269 CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT CTG CCT
 8347 TCT CAT TCT ATT TCT ATC AGA TAG GAC TGT GTA GAC TGT GCT AAA CTA ATA AAT GTG CCC TCA AAA GAT ATC GCA AGT
 8425 TGT ATT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT GTT
 8503 CTT TGC TTT GCT TTG CTT TGC TTT GCT TTG CTT TGC TTT TGT TTT TGG GTT TTT TTC CGG GGG AGG GAG GGT
 8581 GGA GAA AGA ATC TTA CTA TGA AGC TCT GAC TGT TGT TGC TAT AGA TCA GGC TTG ATT CAA CTC ATA GAG
 8659 ATC TGC CTT CTT CTG CCT CCC AAG TGC TGG GAA TAA AGG CAT ACA CCT CCA TGC CCA GAT AGT GAT CCC AAG TTT TAG
 8737 CAA AAG TTT CTA GAC TTG ACA TTA ATC GAT GGA TAT AAT TAA CAC AAA GAA CTA ATG TGG AGT TTA CCT GAA
 8815 TCA TAC TCT ATA CTT TAT CAG AGA TTA AAT TAA CAT TTA ATA ATC TGC TGC CAG GCT AGA GGC ACC ATT CAA TGG CAG
 8893 TGT TTG CCA TCA TGC ATA GGC TTA GTC TTG AGT GCT GAA AGG CAT TGG GGG CAA TAT TAC TCA TTA TAC AGA TGA GAA
 8971 ACT GGG AAA GAC TTG CCT CAG ATT CTC TAC TGA AAG GCT GAG TTT GTG GCT TCT AGA AAA TCT TTT ACT TTC AAT ATT
 9049 TTT AAT GTA TAA TTT TTT TAT TTT CAC TGA TTT TAT TTT TTA ACA TTT ATA AGA AAT AAA TGC AAT AAA CCA
 9127 AAT ACA TGG ACA AAA TAC AAG AAT CAT ATG ATC ACC TCA ATG GAA GGA AAA AAG AAA GAA AAA GTC TTT GAT
 9205 AAG ATT CAA CAT TCA TTC TTT TTT TAT TAT TTT TCA TTT CAA TTT CAA ATG CTA TCC CCA AAG CCC CCT ATA
 9283 CCT TCC CCT GGC CTG CTC CCC AAC CCA CCC ACT CCT GCT TTC TGG CCC TGG CAT TCC TCT GTA CTG AGG CAT ATG ATC
 9361 TTC AAA AAA CCA AGG GGC TCT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 9439 CAG CTT TGG GGG TTA CTG GTT AGT TCA TAT TGT TAG TCC TCC TAT AAG GAT GCA GAC CCC TTT AGC TCC TTG GAT ACT
 9517 TTC TCT AGT TCC TTC ATT AGG GGC CTT GTG TCC CAT CCA ATA GAT GAG TGT GAG CAC CTT CTG TAT TTG CCA GGC
 9595 ACT GGC ATA GCC TCA CGA GAA AGA GAG AGC TAT GTC AGG ATC CTG TCA GTA AAA TCT TTC TGG CAT ATG CAA TAG TAT
 9673 CTG GGT TTG GTG GTT GTA TAT GGG ATG GAT CCC CAA GTG CAG TCT CTG AAT GGT TCC TCC CAT CTC AGC TCC
 9751 AAA CTT TGT CTC TAT AAC TCC TTC CAT GGG TAT TTT GTT CCC CAT TCT AAG AAG GAG TGA AGA ATC CAC ACT TTG GTC
 9829 TTC CTT CTT GAT TTT CAT ATG TTG CAT TTT GGA TAT TCT AAG TTT CTG GGT TAA TAT CCA GGT ATC AGT GAG TGC
 9907 ATA TCA TGC GTG TTA TTT TGT GAT TAG TTT ACC TCA CTC AGG ATG ATA TCC TCC AGA TGC ATC CAT TTG CCT AAG AAT

Figure 12 contd

9985 TTC ATT AAT TCA CTG TTT TTA ATT GCT GAA TAG TAC TCC ATT GTG TAA ATG TAC CAC ATT TTC TGT ATC CAT ATC TCC TCT
 10053 GTT GAG GGG CAT CTG GGT TCT TTC TCT TTT TAG GTA TAT TTC CAG CTT GCT CTG GCT ATG AGC ATA GCG GAG CAT CAT GTG TCC
 10141 TTA TCA AGT TGG AAC ATC TTT TAG GAA GAT GCG CAG GAG AAT TGC TGG ATC TTC CGG TAG TAC TAC CAT CAA CAT GCA
 10219 TTT ATA ATA AAA GCC CTA GAA CAA GGA GGA TAT TCC AAC ATA ATA AAG GTT ATG TAT GAC AAA ATC CTC
 10297 ATG ACC AAT ATC ATC CTA AAT GAA TGA AAC CAT TAA TAA GCT CCA TTA AAA TCA GAG GAC TGC CCA CTA TCC CTA CTT
 10375 CTC ATC CAT AAT GAG ATT GAA GCA TTA GCT GGA GCA ATA AGG CAA GAG AAG GGA TAC AAA TGG GAA AAT ATT AAG TCA
 10453 AAT TGT TTT CAA TTG AAG AAT ATA TTA TCT TAT ACC CAA TGA TGC CTT CAA ATT TTG ACT AGA AAT GTA GAA AAT ATC
 10531 AAT AAT TTC AGC AAA GTG TTA TGA TGC ACC ACA TCC TTC TCC CCA GTT TGC TCC TCT TCT CTT CTT GCT
 10609 CTT CAT CTT TTC TGT CTT TCC ATC TGC CTG CAC TCT TGT CTC AAG ACT GAG TGC AGC GTG TAA CTC TCC TGT GAC TGA
 10687 GTA TCT CAC AAA AGC TTC TAC CTG CCA AAC CTG GAT GAG CCC TTT GTC TTT CTG AAG CTA TGA GGC TCT CTA CAT AGA
 10765 CTC AAG AAG GAA ATG ACA GGG AGG AGG TAA TAA TGA AGT GGG GAA GGC TGA CAT TAG CAT TGC TGT GTG GCT CCT
 10843 TAA TTT CTC ATA CTT CAC ACT GAG ATG TTA TTA ACT GTG ACT AGC TGA AGA AGC CAG TAA GGT TCT CAT ATT
 10921 TGA GTG TTA TAG AAT GAG TAG AGC AGT AGT TCT CAA ACT ATG GGT CAT GAC TCC TTT ATG GGT CAA ACT ACC CTT TCA
 10999 CAC AGG TTG CAT ATC AGA TAT CCT AAT TTT ATA TAC ATA TGC ATA TGT ATA TAT TTT CCA AAT GCA AAA ATC CTC AAC CTA
 11077 GGA AAA TTA TTT AGT AAT CAT TTT ATA GTT GTG GGT CAT GGC AAC ATA AGG AAC TGT AAT AAA GGG TTG CAG CAT TAG
 11155 GAA TGT TGA GAC CCA CTG TAA TAG AGA ATG AGG CTT AAG GCA GGG CTA TAA AGC CCA ATG GAC CAT GTG CTT TTT CCA
 11233 ACA TTT GCC ACA TGG TAA GCT CTG TAT AGA CTT TTT AAA GAA CAT TGG TTT GTA ATT TTA AAT GGA TAA GGG TCT TCA
 11311 CTG TCT ATC ACC CAT CTA TAT AAT AAA TAC ATA AGT TTT GAT TCC ACC ATG GAT TCA AAT GCA AAA ATC CTC AAC CTA
 11389 AGA CAT AGC AGT GAA CTA TTT TGC TAC CAG TAA TGA ATA CAG TGT CTC AAC TCC CAT TGA ATC TTC AGG AAG
 11467 CCA TCT TGC AAC AGA GTT CTA CTT TGC TAC CAG TAA TGA ATA CAG TGT CTC AAC TCC CAT TGA ATC TTC AGG AAG
 11545 CCC CTG AAA TGA CTT GTA CTA CAC CAT TTC TTA AAG ACA GAA AAG CTA AGA CTT AGA GGG AAT AAA TGT CAT GCC TGA
 11623 GAT CAT GCA ACC AAT TAA GTG CCA CTT GGC CTG ATC AAG AGG CAC AAT TCA AAA GCA ATG TTG TTC CTT CAC TAG CTC
 11701 TTG TGT ATG GTT GCT GAT TCC GGA AGC AAA GTA TCA CTG AAT ATC CCT AGT GGG AAA AGA CTT GGA AAT CAA ATG TCT
 11779 CAT TTA ACA GAT TAG GAG ATG AAA CGG TAG ACT CTG TGT AGT TGT ACA CCC CTG TGA TCC CAT CGC TAG GAA GAC TGA
 11857 GGC AGG AAG TCC TCG AGC TCA AAC CAG CTT AGG CTA CAC AGA GAA ACT ATC TAA AAA ATA ATT ACT AAC TAC TTA ATA
 11935 GGA GAT TGG ATG TTA AGA TCT GGT CAC TAA GAG GCA GAA TTG AGA TTC GAA GCC AGT ATT TTC TAC CTG GTA TGT TTT
 12013 AAA TTG CAG TAA GGA TCT AAG TGT AGA TAT ATA ATA AGA TTC TAT TGA TCT CTG CAA CAA CAG AGA GTG TTA GAT
 12091 TTG TTT GGA AAA AAA TAT TAT CAG CCA ACA TCT TCT ACC ATT TCA GTA TAG CAC AGA GTA CCC ACC CAT ATC TCC CCA
 12159 CCC ATC CCC CAT ACC AGA CTG GTT ATT GAT TTT CAT GGT GAC TGG CCT GAG AAG ATT AAA AAA AGT AAT GCT ACC TTA
 12247 TTG GGA GTG TCC CAT GGA CCA AGA TAG CAA CTG TCA CCG TCA CAC TGC TTT GAT CAA GAA GAC CCT TTG AGG
 12325 AAC TGA AAA CAG AAC CTT AGG CAC ATC TGT TGC TTT CGC TCC CAT CTT CCT CCA ACA GCC TGG GTG CAC TCC ACA
 12403 CCC TTT CAA GTT TCC AAA GCC TCA TAC ACC TGC TCC CTA CCC CAG CAC CTG GCC AAG GCT GTA TCC AGC ACT GGG ATG
 12481 AAA ATG ATA CCC CAC CTC CAT CTT GTT TGA TAT TAC TCT ATC TCA AGC CCC AGG TTA GTC CCC AGT CCC AAT GCT TTT
 12559 GCA CAG TCA AAA CTC AAC TTG GAA TAA TCA GTA TCC TTG AAG AGT TCT GAT ATG GTC ACT GGG CCC ATA TAC CAT GTA
 12637 AGA CAT GTG GAA AAG ATG TTT CAT GGG GCC CAG ACA CGT TCT AGA AGT ACC TGA TGG CAA AAA ATA GTT GTG CTA
 12715 AAT AGT TTG GCC ATC TTT AGG CTG AGA GAC TAG GAA ATA CAG CGA TGG ACT ATA TCA GCA TTG CAG GAT AGT TGT CAG
 12793 TAA ACA CCC CAC AAC CCA TAA CAG AAG TAT TCT CTT ATA TCC CTT TTC CAT CCA TGT AGA TGG CTG TCT TCA
 12871 TAT TTG TTC TAG AGC GCC GGC C

Figure 12 contd

VKP-IGKV1-39/J-Ck-Δ2

1 GGC CGG CCC ACA TGA AAC AAT GGG AAC CAT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GGA TTG TTA CTC
 79 TCC ACA TCC CTT TAA GTA ACT TGA AGG CCT GAT AGA CCC ACC CTC TAA GAC TTC ATT AGA CAT TCC CTA CGA ATG GTT
 157 ATA CTC TCC TGT ATA CTC CCA ATA CAA TAT CTT TGA TTT GAT ATA GAT TTT GAT TTA TTA GAT TTT GAT TTT GAT
 235 TTT TTT CTT TCA AAA TAT CTC TTG TCA CAA CAG CGG CTC TAG AGA GAA ATA CAT TCC CTC CAG GCA AAT CTA TGC TGC
 313 GCT GGT CTG ACC TGG GAC CTT GGG GAC ATT CTT GGT GAT TAA GAT TAA GAT TAA GAT TAA GAT TAA GAT TAA GAT
 391 GCC TGC CCC ATG TGC TGA TTG ATT TGC ATG TTC CAG AGC ACA GCC CCC TGC CCT GAA GAC TTT TTT ATG GGC TGG
 469 TCG CAC CCT GTG CAG GAG TCA GTC TGA AGG AGC CAC CAT GGA CAT GGA CAT GGA CAT GGA CAT GGA CAT GGA CAT
 547 GCT ACT CTG GCT CCG AGG TAA GGA TGG AGA ACA CTA GGA ATT TAC TAC TAC TAC TAC TAC TAC TAC TAC TAC TAC
 625 AGG GAA GTT CTC TGA TAA CAT GAT TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA
 703 TCC AGA TGA CCC AGA GCC CCA GCA GCC TGA GCG CCA GCG TGG GCG ACA GAG TGA CCA TCA CCT GCA GAG CCA GCC AGA
 781 GCA TCA GCA GCT ACC TGA ACT GGT ATC AGC AGA AGC CCG GCA AGG CCC CCA AGC TGC TGT AGC CCG CCA GCT CCC
 859 TGC AGA GCG GCG TGC CCA GCA GAT TCA GCG GCA GCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG
 937 CCG AGG ACT TCG CCA CCT ACT ACT GCC AGC AGA GCT ACA GCA CCC CCC CCG CCG CCG CCG CCG CCG CCG CCG CCG
 1015 TCA AAC GTA AGT ACA CTT TTG TCA TCT TTT ATG TGT AAG ACA CAG GAT TTC ATG TTA GGA GTT AAA GTC AGT TCA
 1093 GAA AAT CTT GAG AAA ATG GAG AGG GCT CAT CAG TTG AGC TGG CAT ACA GTG TCA GAT TTT CTG TTT ATC AAG CTA
 1171 GTG GCA TAA GGA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1249 GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1327 TTT GGA GGG GAT GAG GAA TGA AGG AAC TTC AGG ATA GAA AAG GCG TGA AGT CAA GTT CAG CTC CTA AAA TGG ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA ATG ACC CAG AGG ATG AAA CAG CGC AGA TGA AAG AGG GGC CTG GAG CTC TGA GAA
 1483 GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT TCA ATA AAA GAG TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC CTA AGT TTT TAT GAC TAC AAA AAT CAG TAG TAT GTC CTG AAA TAA
 1639 TCA TTA AGC TGT TTG AAG GTA TGA CTG CTT GCT GCC ATG TAG ATA CCA TGG CTT GGT GAA TAA TCA GAA GAG GTG TGA CTC
 1717 TTA TTA TAA AAT TTG TCA CAA AAT GTC AAA ATG AGA GAC TCT GTA GCG AGT GGT TGA CAG ACA GCT CAA GGG GTT
 1795 TTT TTT TGT TGT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 1873 TTT GAA CTA TAT GTT TTA ATG GCC ACG GTT TTG TAA GAC ATT TGG TCC TTT GTT TTT CCA GTT ATT ACT CGA TTG TAA
 1951 TTT TAT ATC GCC AGC AAT GGA CTG AAA CCG TCC GCA ACC TCT TCT TTA CAA CTG GGT GAC CTC GCG GCT GTG CCA GCG
 2029 ATT TGG CGT TCA CCC TGC CGC TAA GGG CCA TGT GAA CCC CGG TAG CAT CCC TTG CTC CGC GTG GAC CAC TTT CCT
 2107 GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG AGA AAA ACA
 2185 AGG AAA GGG TGA CTT ATT GGA GAT TTC AGA AAT AAA ATG CAT TTA TTA TAT TCC CTT ATT TTA ATT TTC TAT TAG
 2263 GGA ATT AGA AAG GGC ATA AAC TGC TTT ATC TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 2341 CTA CAG CCA GCA AAA GTC ATG GTA AAT ATT CTT TGA CTG AAC TCT CAC TAA ACT CCT CTA AAT TAT ATG TCA TAT TAA
 2419 CTG GTT AAA TTA ATA TAA ATT TGT GAC ATG ACC TTA ACT GGT TAG GTA GGA TAT TTT TCT TCA TGC AAA AAT ATG ACT
 2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT ACT ATA ATC
 2575 CCA TAA TTT TGA AAA CTA TTT ATT TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 2653 GAC AGG AGA AAA TGA AAG CCA GTT TCT GCT CTT ACC TTA TGT GCT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 2731 ATA AAC TGG TCT GAA TCT CTG TCT GAA GCA TGG AAC TGA AAA GAA TGT AGT TTC AGG GAA GAA TAG AAG GAA
 2809 GCC TGA GAA TAT CTT CAA AGG GTC AGA CTC AAT TTA CTT TCT AAA GAA GTA GCT AGG AAC TAG GGA ATA ACT TAG AAA
 2887 CAA CAA GAT TGT ATA TAT GTG CAT CTT GGC CCC ATT GGT CTT TAG GGA TAA GCG TGC TTT TTT GTG TGT CTG
 2965 TAT ATA ACA TAA CTG TTT ACA CAT AAT ACA CTG AAA TGG AGC CCT TCC TTG TTA CTT CAT ACC ATC CTC TGT GCT TCC
 3043 TTC CTC AGG GGC CCA GCG CCG TCC CAC CAT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CCA GAG GGA
 3121 CGT GGT CTG CTT CGT GAA CAA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CCA GAG GGA
 3199 CGG GGT GCT GGA CAG CGT GAC CCA GGA CCA GGA CTC CAC CTA CAG CAT GAG CAC CCT GAG CCA GAG CCA GAG CCA
 3277 GGT GGA GTA CGA GAG GCA CAA CCT GTA CAC CTG CGA GGT GGT GCA CAA GAC CAT CTC CCG CCG CCG CCG CCG CCG
 3355 CAA CCG GAA CGA GTG TTG AAG ACA AAG GTC CTG AGA GCG CAC CAG CTC CCG AGC TCC ATC CTA TCT TCC CTT CTA
 3433 AGG TCT TGG AGG CTT CCC CAC AAG CGA CCT ACC ACT GTT GCG GTG CTC CAA ACC TCC TCC CCA CCT CTT CTT CTT CTT
 3511 CCT CCC TTT CCT TGG CTT TTA TCA TGC TAA TAT TTG CAG AAA ATA TTC AAT AAA GTG AGT CTT TGC ACT TGA GAT CTC

Figure 12 contd

3589 TGT CTT TCT TAC TAA ATG GTA ATC AGT TGT TTT TCC AGT TAC CTG GGT TTC TCT TCT AAA GAA GTT AAA TGT TTA
 3657 GTT GCC CTG AAA TCC ACC ACA CTT AAA GGA TAA ATA AAA CCC ACT TGC CCT GGT TGG CTG TCC ACT ACA TGG CAG
 3745 TCC TTT TTA AGG TTC ACC AAG TCG TCA AAG TCT AAG TCT AAG TCA TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 3823 TTT TCT TCC CCT AAG TCG TCA AAG TCT AAG TCT AAG TCT AAG TCT AAG TCT AAG TCT AAG TCT AAG TCT AAG TCT
 3901 CCC AGT AAA CTT GGC GAA GCA AAG TAG AAT CAT TAT CAC AGG AAG CAA AGG CAA CCT AAA TGT GCA AGC AAT AGG AAA
 3979 ATG TGG AAG CCC ATC ATA GTA CTT GCA CTT CAT CTG CTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 4057 ATG TGC CAT TGG CAA GGC TGG GCA CTA CCC ACA ACC TAC TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 4135 AAA ATT TGG GAA AAG TTC TAC CAA GCT GAG AGC TGA TCA CCC CAC TCT TAG GTG CTT ATC CAC CAG AAA CCT
 4213 TAA GAA GCA ACC AGT ATT GAG AGA CTC ATT TAT GAA AGT CTA AAA CTG GAT ACA ACC AAA ATG TCC ACC AAC AGT TAA
 4291 ATT AUG ACA TGT TCA CAA TTG AGC TAT TAC TTA ATA AGG AGA ATT AAA ATA AAA CTT AAG AGC ATA GTT TAA TCT
 4369 CAT AAA CAA GAT AAT AAG CAA AAC AAA ACA TTT TTT CAT CCA TGT AAG TTT AAA AGC AGG TAA AAT TTA AAA TTA AGA
 4447 GAG ACA TAA GTT TTG AGG TAG CAA GAT GGA AAC TCT TGT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 4525 GTT ACT ATT GTG GAA TTG GGA TCT ATG TTT CTC TAT ATA TTG TAT ACT TCA TAA TAA CTT CAC CTA AAG AAA TAT
 4603 CTA ATA CCC AGT GCA TAC ATA AAA GAG GAT ACA AGG AAT GAA TCA TAC TCC CCT TCC AGC GCT CAA AGC ACA ATA AAG TAG GGG
 4681 ATC CAG GAT CAA ATC TCC CAC AAC CTT GAG CTT TCT ACT ATT CTC CCT TCC AGC GCT CAA AGC ACA ATA AAG TAG GGG
 4759 CAA ACA CAT GAT CCC TCC TTG GGG TCT CTT CCT TCA TGC ATC GAA TTA GAA ATA GCC ATG TAT AAA ATG AGA TAG AAG
 4837 AGA CCT TCA TCA ACA GGT CAA AGA ATA TAG GTA ATT TTG TCT GGG TAT GAA GAG CCC ACG TAT CAA AGG TTA CAT TAG
 4915 GGA AGG AAG AGG ACA CTA ACA GTG ACT TTC ATT CTC CCC CTC TTC CTG AAG GCA GTG CAG AAT AAT GTT AGT GTC CCT
 4993 CAT CCA CTC AGC ACA CAT TTA CTA AGC ATC TTC TCA GCC TAC ACT CTG AAG GCA GTG CAG AAT AAT GTT AGT GTC CCT
 5071 TCC CCC AGT TAA TAT GCA GTC CAG TTT CCC TGC TCC TTT CTC TCA GTC CAC ATA AGG ATG ATG GGA AAG GAC AGT
 5149 CAC CAA ATA GGA GAG GGC AAC CCT TTG CCT TCC TAC CTC TTG AGA ATG TAC ATT ATT ATC CAC TTT TTG AAA CTT CTT
 5227 TTA ATT GCT TTT TTT TAA TTT GTC TTT TCA AAT AGC ATA ACC TTG TTT ATC CAT GTT GGA CCA AAT TTA TCA ATC
 5305 AAC AGT GCC TCT AAT CAT CTG GCT ATT AAT ACA AAA ATG CCT CCT CAA AAT ATA TAT GTT CGA GTC TTA TCT AAA ACA GAA
 5383 CCC ACA ATA AAA AAG AAG AAA TAC TAA GCA TTT ATA TAA TTG TGA GCA ACC TTG TGC TTT GTG AAA AAA ATA
 5461 TAA TCT AAT GTC ACA TGC TGT ATT CTT TTT ATT TAA CAC TGG TGA AAT TAT ACC ATT AGA GAG AAA GAG GAC AGA TCA
 5539 CTG ATC CTA GGA TCT AGG GAT GTT ACA GAT GTT ACA AAT GTG ACA AAG AGC TGT CAC AAG GAG GAT CTT CAA GGT
 5617 CAC AGA ATC ACT GTC TTT TTA ATT TCA GTG GTG GTT ACA TAC ATT TAA TTG TGT GAT AAA ATG TTG TTT TTT TTT TTT
 5695 ATA TTG TAC CAA TGT CAA ATG CTT AAT TTT GGC TCT ATA GTA TAA TTA TGC ACT AAA TAA CTA TTT GGA CAA AGA AAA
 5773 TGA TGT TTA CAT CAA AGG TGA GGC CAT ATT TGT TAG GAA CAT AAC TTA AAA ACC ATT TTG GAT AAC TAA TGA AAA GCC
 5851 ATT TTG TGT GGC TTG GCA TAT CAT GCC TAA GCT GTC ACC AGA TAG ATC TAA TAA GAC CTA AGC AGC AAG CCC
 5929 CTG CCC AGC AAG CAG GCA GCA CAG ATA AGA GCT AAA CCC AGG ACA GGC CAT GAT ATG CTA ATG AAC TAC CTT CAA GGT
 6007 GGT GTT GCT GAC CTA GTG AAC CAG CCC CAA GCT GTG AGC CCC AAT AGC ACA AAG CTA CTG CCC AAA GAA ATT ATA CAA
 6085 AAA TTG GAA CTT TGG GAA TGG TGT GCA GGA TCG CTC TGT ATG CCT GGA ACA CAG CTT CTC TAT GTT TTG TAT TGA
 6163 TAC CAG TCT AGA AGC TTC CAA AAC TTT CTC ACT GAA GAT TCC CCA TGT GGG ACC CCT ACA GAC TCT TTT GCC CAA
 6241 ACA ACT GCT TCC CTC CTG GTG TGA TCA TGG ACC AAG ATA GCA ACT GTC ACC GTC CAC CTT TTT TTT TTT TTT TTT
 6319 AGA CCC TTT GAG GAA CTG AAA ACA GAA CCT TAG GCA CAT CTG TTG CTT TCG CTC CCA TCC TCC AAC AGC ATG GCT
 6397 GTC TTC ATA TTT GTT CTA GAC GGC CGG CC

VKP-IGLV2-14/J-CK

1 GGC CGG CCC ACA TGA AAC AAT GGG AAC CAT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GGA TTG TTA CTC
 79 TCC ACA TCC CTT TAA GTA ACT TGA AGG CCT GAT AGA CCC ACC CTC TAA GAC TTC ATT AGC TCC CTA CGA ATG GTT
 157 ATA CTC TCC TGT ATA CTC CCA ATA CAA CTC TAA AAT ATA TTA TTC CAT ATA GTC CTT AGG TTT GTA TTA AAG TTT GAC
 235 TTT TTT CTT TCA AAA TAT CTT TTG TCA AAT CAG CGG CTC TAG GAA AAT TCC TCC CAG GCA AAT CTA TGC TGC
 313 GCT GGT CTG ACC TGG GAC CCT GGG GAC ATT GCC CTT GTG CTG AGT TAC TAA GAT GAG CCA GCC CTG CAG CTG TGC TCA
 391 GCC TGC CCC ATG CCC TGC TGA TTG ATT TGC ATT TCC CAG AGC ACA CCC TGC CTT GAA GAC TTT TTT ATG GGC TGG
 469 TCG CAC CTT GTG CAG GAG TCA GTC GTC AGG AGC CAC CAT GGA CAT GAG AGT GCC CGC CCA GCT CCT GGG GCT CCT
 547 GCT ACT CTG GCT CCG AGG TAA GGA TGG AGA ACA CTA GGA ATT TAC TCA GGC AGT GTG CTC AGT ACT GAC TGG AAC TTC

Figure 12 contd

625 AGG GAA GTT CTC TGA TAA CAT GAT TAA TAG TAA GAA TAT TTG TTT TTA TGT TTC CAA TCT CAG GTG CCA GAT GTC AGT
 703 CTG CCC TGA CCC AGC COG CCT CTG TGT CTG GCA GCC CTG GCG AGA TCA TCA CCA GCA GCG AGT
 781 ACG TGG GCG GCT ACA ACT TGT TGT CCT GGT CTG AGC ACC CCG GCA AGG CCA AGC TGA TGT ACG AGG TGT
 859 CCA ACA GAC CCA GCG GCG TGA GCA ACA GAT TCA GCG GCA GCG GCA CCG CCA GCG TGA CCA TCA GCG GCG
 937 TCC AGG CTG AGG AGC AGG CCG ACT ACT ACT GCA GCA GCT ACA CCA GCA GCT CCA CCC TGG TGT TTG GCG GAA CAA
 1015 AGC TGA CCG TGC GTA AGT ACA CTT TTT ATG TGT AAG ACA CCG TGT TTC ATG TTA GGA GTT AAA
 1093 GTC AGT TCA GAA AAT CTT GAG AAA ATG GAG AGC GCT CAT TAT GAG TTG ACG TGT CAG CAT ACA GTG TCA GAT TTT CTG TTT
 1171 ATC AAG CTA GTG AGA TTA GGG GCA AAA AGA GGC TTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA
 1249 GAT TGG ATC GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA
 1327 AGT GGG AGA TTT GGA GGG GAT GAG GAA TGA AGG AAC TTC AGG ATA GAA AAG GGC TGA AGT CAA GTT CAG CTC CTA AAA
 1405 TGG ATG TGG GAG CAA ACT TTG AAG ATA AAC TGA ATG ACC CAG AGG ATA AAG CAG CGC AGT TCA AAG AGG GGC CTG GAG
 1483 CTC TGA GAA GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GGA TAG
 1561 CAG AGT TGA GTG AGC CGT AGG CTG AGT TCT CTC TTT TGT CTC CTA AGT TTT TAT GAC TAC AAA AAT CAG TAG TAT GTC
 1639 CTG AAA TAA TCA TTA AGC TGT TTG AAA GTA TGA CTG CTT GCC ATG TAG ATA CCA TGG CTT GCT GAA TAA TCA GAA GAG
 1717 GTG TGA CTC TTA TTC TAA AAT TTG TCA CAA AAT GTC AAA ATG AGA GGC TCT GTA GGA CCG AGT CCT TGA CAG ACA GCT
 1795 CAA GGG GTT TTT TTC CTT TGT CTC ATT TCT ACA TGA AAG TAA AAT TGA AAT GAT CTT TTT TAT AAG AGT AGA AAT
 1873 ACA GTT GGG TTT GAA CTA TAT GTT TTA ATG GCC ACG GTT TTG TAA GAC AIT TGG TCC TTT GTT TTT CCA GTT AIT ACT
 1951 CGA TTG TAA TTT TAT ATC GCC AGC AAT GGA CTG AAA CCG TCC GCA ACC TCT TTA CAA CTG GGT GAC CTC GCG GCT
 2029 GTG CCA GCC ATT TGG CGT TCA CCC TGC CGC TAA GGG CCA TGT GAA CCC CCG GCG TAG CAT CCC TTG CTC CCG GTG GAC
 2107 CAC TTT CTT GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG
 2185 AGA AAA ACA AGG AAA GGG TGA CTT ATT GGA GAT TTC AGA AAT AAA ATG CAT TTA TTA TAT TCC CTT ATT TTA AIT
 2263 TTC TAT TAG GCA ATT AGA AAG GGC ATA AAC TGC TTT ATC CAG TGT TAT AIT AAA AGC TAA ATG TAT ATA ATC TTT TAG
 2341 AGG TAA AAT CTA CAG CCA GCA AAA GTC ATG GTA AAT ATT CTT TGA CTG AAC TCT CAC TAA ACT CCT CTA AAT TAT ATG
 2419 TCA TAT TAA CTG GTT AAA TTA ATA TAA ATT GTG GAC ATG ACC TTA ACT GTT TAG GTA GGA TAT TTT TCT TCA TGC AAA
 2497 AAT ATG ACT AAT AAT BAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT
 2575 ACT ATA ATC CCA TAA TTT TGA AAA CTA CTT TAG AGT CAT TAA GTT TGT TGA CCC TCT AGC CAA AGG CAA CTA TTT AAG
 2653 GAC CCT TTA AAA CTC TTG AAA CTA CTT TAG AGT CAT TAA GTT ATT TAA CCA CTT TTA ATT ACT TTA AAA TGA TCT CAA
 2731 TTC CTT TTT AAC TAT TAA TTT ATT TTA AGG GGG GAA AGG CTG CTC ATA AAT CTA TTG TTT TTC TTG GTA AAG AAC TCT
 2809 CAG TTT TCG TTT TTA CTA CCT CTG TCA CCC BAG AGT TGG CAT CTC AAC AGA GGG GAC TTT CCG AGA GGC CAT CTG GCA
 2887 GTT GCT TAA GAT CAG AAG TGA AGT CTG CCA CCT CCG CAG GTG GCC CAG AAT ACA GTT GAC CTG TTC TGG TGT
 2965 GGC TAA AAA TTG TCC CAT GTG GTT ACA AAC CAT TAG ACC AGG GTC TGA TGA AIT GCT CAG AAT AIT TCT GGA CAC CCA
 3043 AAT ACA GAC CCT GGC TTA AGG CCC TGT CCA TAC AGT AGG TTT AGC TTG GCT ACA CCA AAG GAA GCC ATA CAG AGG CTA
 3121 ATA TCA GAG TAT TCT TGG AAG AGA CAG GAG AAA ATG AAA GCC AGT TTC TGT TGC TCT TAC CTT ATG TGC TGT TCA GAC
 3199 TCC CAA ACA TCA GGA GTG TCA GAT AAA CTG GTC TGA ATC TCT TCA AAG GGT CAG ACT CAA TTT ACT TTC TAA AGA ATG TAG TTT CAG
 3277 GGA AGA AAG GCA ATA GAA GAG AGC CTG AGA ATA TCT TCA AAG GGT CAG ACT CAA TTT ACT TTC TAA AGA ATG TAG TTT CAG
 3355 GAA CTA GGG AAT AAC TTA GAA ACA ACA AGA TTG TAT ATA TGT GCA TCC TGG CCC CAT TGT TCC TTA TCT GTA GGG ATA
 3433 AGC GTG CTT TTT TGT GTG TCT GTA TAT AAC ATA ACT GTT TAC ACA TAA TAC ACT GAA ATG GAG CCC TTC CTT GTT ACT
 3511 TCA TAC CAT CCT CTG TGC TTT CTT CCT CAG GGG CCG AGC CCG CTC CCA CCG TGT CCA TCT TCC CCC CCA GCA TGG AAC
 3589 AGC TCA CCT CTG GCG GAG CCA CCG TGG TCT TCG TCA ACA ACT TCT ACC CCA GAG ACA TCA CCG TGA ACT GGA AGA
 3667 TCG ACG GCA GCG AGC AGA GGG ACG GCG TGC TGG ACA GCG ACC AGG ACA GCA AGG ACT CCA CCT ACA GCA TGA
 3745 GCA GCA CCC TGA GCC TGA CCA AGG TGG AGT AGC AGA GAC ACC TGT ACA CCG AGG TGG TGC TCA ACA GCA GCT
 3823 CCA GCC CCG TGG TCA AGT CCT TCA ACC GGA ACG AGT GTT GAA GAC AAA GGT CCT GAG ACG CCA CCA GCT CCC CAG
 3901 CTC CAT CTT ATC TTC CTT TCT AAG CTT TTG GAG GCT TCC CCA CAA GCG ACT TAC CAC TGT TGC GGT GCT CCA AAC CTC
 3979 CTC CCC ACC TCC TTC TCC TCC CTT TCC TTG GCT TTT ATC ATG CTA ATA TTT GCA GAA AAT ATT CAA TAA AGT
 4057 GAG TCT TTG CAC TTG AGA TCT CTG TTA CTA AAT GGT AAT CAG TTG TTT TTC CAG TTA CCT GGG TTT CTC
 4135 TTC TAA AGA AGT TAA ATG TTT AGT TGC CCT GAA ATC CAC CAC AGT ATA AAT AAA ACC CTC CAC TTG CCC TGG
 4213 TTG CCT GTC CAC TAC ATG GTC CTT TCT TCT AAG GTT CAC GAG TAC TCA TGG CTT TCT TCT GGT CAT GGT AGG
 4291 TTT GAG GAG GCA TAC TTC CTA GTT TTC CCA GTC AAA GTC CTG AAG GGG GAC AGT CTT TAC AAG CAC ATG

Figure 12 contd

4369 TTC TGT AAT CTG AAT CAA CCT ACC CAG TAA ACT TGG CGA AGC AAA GTA GAA TCA TTA TCA CAG GAA GCA AAG GCA ACC
 4447 TAA ATG TGC AAG CAA TAG GAA AAT GTG GAA GCC CAT CAT AGT ACT TGG ACT TCA TCT GCT TTT GTG CCT TCA CTA AGT
 4525 TTT TAA ACA TGA GCT GGC TCC TAT CTG CCA ATG GTG GCA AGG CTG GGC ACT ACC CAC AAC CTA CTT CAA GAG CTT CTA TAC
 4603 CGT GAG ATT ACA CAC ATA CAC CAT CAA AAT TTG CCA AGT TGA GAG CTG ACC CTA CTC TTA GGT GCT
 4681 TAT CTC TGT ACA CCA GAA ACC TTA AGA AGC AAC CAG TAT TGA GAG ACT CAT TTA TGA AAG TCT AAA ACT GGA TAC AAC
 4759 CAA AAT GTC CAC CAA CAG TTA AAT TAT GAC ATG TTC ACA ATT GAG CTA TTA CTT AAT AAG GAG AAT TAA TAA AAT AAA
 4837 ACT TAA GAG CAT AGT TTA ATC TCA TAC ACA GAA TAA TGA GCA AAA CAA AAC ATT TTT TCA TCC ATG TAA GTT TAA AAG
 4915 CAG GTA AAA TTT AAA ATT AAG AGA GAC ATA AGT TTT GAG GTA GCA AGA TGG AAA CTT CTT CTT GTA TAT ATT GTA TAC TTC ATA
 4993 TCT CTC TGT ATG GGA TGT GAA AGT TAC TAT TGT GGA ATT GGG ATC TAT GTT CTT CTT GTA TAT ATT GTA TAC TTC ATA
 5071 ATA ACT TCA CCT AAA GAA ATA TCT AAT ACC CAG TGC ATA CAA AAC CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA
 5149 CAG AAA GAC AAT AAA GTA GGG GAT CCA GGA TCA AAT CTC CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA
 5227 TCA AAG TAC AAA ACA CAT AAT TCA AAC ACA TGA TCC CTC CTT GGG GTC TCT TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5305 CAT GTA TAA AAT GAG ATA GAA GAG ACC TTC ATC AAC AGG TCA AAG AAT ATA GGT AAT TTT GTC TGG GTA TGA AGA GCC
 5383 CAC GTA TCA AAG GTT ACA TTA GGG AAG GAA GAG GAC ACT AAC AGT GAC TTT CAT TCT CCC CCT CTT GGA GGC CCC
 5461 TGC AIT TAG TCC CTC GTG GGC TCA TCC ACT CAG CAC ACA TTT ACT AAG CAT CTT CTC AGC CTA CAC TCT GAA GGC AGT
 5539 GCA GAA TAA TGT TAG TGT CCC TTC CCC CAG TTA ATA TGC AGT CCA GTT TCC CTC CTC CTT CCC TTT CTC AGT CCA CAT
 5617 AAG GAT GAT GGG AAA GGA CAG TCA CCA AAT AGG AGA GGG CAA CCC TTT GCC TTC CTA CCT CTT GAG AAT GTA CAT TAT
 5695 TAT CCA CTT TTT GAA ACT TCT AAT TGC TAT TGT CTT TTC ABA TAG CAT AAC CTT GGT CAT CCA TTT
 5773 CTG GGA ACC AAA TTT ATC AAT CAA CAG TGC TAA TCT GGC TAT TAA TAC AAA AAT AAT GCC TCC TCA AAA TAT ATA TGT
 5851 TCG AGT CTT ATC TAA AAC AGA ACC CAC AAT AAA GAA GAA AGA ATA CAT ATA AGC ATT TAT ATA ATT CTG AGC AAC
 5929 CTT GTG CTT TGT GAA AAA AAT ATA ATC TAA TGT CAC ATG CTG TAT TCT TTT TAT TTA ACA CTG GTG AAA TTA TAC CAT
 6007 TAG AGA GAA AGA GGA CAG ATC ACT GAT CCT AGG ATC TAG GGA TGT TAC AGA TAA GAA AAA TGT GAC AAA GAG CTG
 6085 TCA CAA GGA GGA TCT TCA AGG TCA CAG AAT CAC TGT CTT GAT TGC AAT TGC AAT TGC AAT TGC AAT TGC AAT TGC AAT
 6163 AAT GTT GTT GAA CTA TAT TCA TAT AIT GTA CAG TCA AAT GCT TAA TTT TGG CTC TAT AGT ATA ATT ATG CAC TAA
 6241 ATA ACT ATT TGG ACA BAG AAA ATG AUG TTT ACA TCA AAG GTG AGG CCA TAT TTG TTA GGA ACA TAA CTT AAA AAC CAT
 6319 TTT GGA TAA CTA ATG AAA AGC CAT TTT GTG TGC CTT GGC ATA TCA TGC CAT AGC TAA ACC CAG GAC CCA TGA TAT
 6397 CCT AAG CCT CAG AAG CAA GCC CCT GCC CAG CCA GCA GGC AGC ACA GAT AAG AGC TAA ACC CAG GAC CCA TGA TAT
 6475 GCT AAT GAA CTA CCT TCA AGG TGG TGT TGC TGA CCT AGT GAA CCA GGC CCA AGC TGT GAG CCC CAA TAG CAC AAA GCT
 6553 ACT GCC CAA AGA AAT TAT ACA AAA ATT GGA ACT TTG GGA ATG GTG TGC AGG ATC GCT CTG TAT GCC TGG AAC ACA
 6631 GCT TCT CTA TGT TTT GTA TTG ATA CCA GTC TAG AAG CTT CCA AAA CTT TCT CAC TGA AGA TTC CCC ATG TGG GAC
 6709 CCC TAC AGA CTC TTT TGC CCA AAC TGC TTT CCT GGT GTG ATA TCT GTT TTG CTT TTA TGT TAG CAT AAT AIT
 6787 ATA AGG AAT GTT TGT GTG AAT AAA CCA AAC ATA TTT TAA AAG CAA ATA TTG TAT GCA CAT CCT AAT TGC TAA AAA GTT
 6865 TAC AGC TAA TAG TCC CAT GCT CTC CAC AAT ACT GAG TCC AAA TAA GTG CTA ATT TCA ATG TTG GGC ATC TTT ACA GAG
 6943 TAG TCA AAG AGG ATT AAG GAC TTC CAG AAG CCA CCA AAG GAA TCC AAA TAA GTG CAT CGT GGA GAC AGA CTG AAC TGT
 7021 AGG AGA CTA AAC CCA CCT TTT TGC TTA AGA CTT CTT GGC ACT GTG AGA AGG TAG CTT CCT AYT GTT
 7099 CTA AGC CCC AGT ATG TGG CAT TTT GTT AAG TGA CAG TCA AGA AAC CAA TAA AAT GCA GAC CAA AAG GAT AGC TGA
 7177 TTT TTC CAG GCC CTT CCT TCT TAT TTT TGG TTT TGT TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG
 7255 TGT TTT GTT TGG GGA GTT TTT TGG TTT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 7333 TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 7411 TGT TTG CTT TTT TGT TTT TTG TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 7489 TTC TAT CTC TAA TGT CTA CAT CTC AGA GGG GAT CCT CAT AAT TCA AAT TCA AAT TTT GAG TGG GAA AGG GTT CAT GAG CCC CCA
 7567 TTA TTC ATT TAT TTA TTT ACT TAC TTA TTG TCT GTA GAT GAA AGA AIT TTG GAG TGG GAA AGG GTT CAT GAG CCC CCA
 7645 GCA ACT AAT GAG GAG CTA CAG ACA ATT GAT GTT TCT GGG GAA AGG AGA CTC AGT TTC TTT GAG AGT ATA GCT TCT GAT
 7723 GGG TCA ACC ATG TTC CTG TGG GAT GAA GCT TGG GAT TCA CAC CCA GGA GTA TGC AGA CAA CAG AAA CTG GAG TTA ATG AGT TGT TTT
 7801 AAA AAT AAA AAA GGG CAT GAA GCT TGG GAT TCA CAG CCA CCA GGA TTA AAT ACA GGA AAT TCT GAA AAG AAT
 7879 AAT AAA AAT ATT TCT TTT TTT AAA AAA TCC AGA AAT AGC TAT TCT TCT TCA AAA TTG CTT CTG GAG AAC TTT ACA
 7957 AGT TAA ATA TAT ATT GTA GAA GAG AGG AGA ATA GTG GAA GAT AAG GAG ACT TCA AAA GGA GTG
 8035 GAG GGA GAT AGA GGA GGA GAA AGC AGA AGC AAT GGC TGA TAG ACA CAG GAT AAG AGG GAA CAG AAA GGA GAA AGA GGA

Figure 12 contd

8113 AGC CAG GAT GGG TAT TTC TTT GCC TAT CTG TGA CTT GCA CAT GGT CTT GGC AAT TAT TGA TGA GTT CAA GGC TTA ATT
 8131 CTT CAC TTG TGC CAA CTC AAC AGA GTC TTT CTT TGT TTA TAA TGC TGT AAT AAC CAG GCC CCC AGT ATG CTC ATG TAT GTA TCA GGT CCT
 8269 CTT ATC TCC TTA TAG CAA TCC TGT TTA TAA TGC TGT AAG AGT TTG TAC AAT ATA TGT ATA ATT AAT TAA TAT TAT CTA GGT ATT TTG
 8347 ACT TTT TAA TAC AAA ATT TTG AAG AGT TTG TAC AAT ATA TGT ATA ATT AAT TAA TAT TAT TAT CTA GGT ATT TTG
 8425 ATT TCA ACT CAA GAT ACT AAT TCT ATA TAT ATG GGT TAA ATC AAT ATA TTA ATA AGT TTA ATT TCA CAT GCT TAT TTT
 8503 TAT TGT GGT TTT CGA GAC AGG GTT CTT CTG TAT AGC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT
 8581 AAA CTT AGA AAC CTA CTT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT
 8659 GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT
 9373 GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT
 8915 AAA TTT TTA AAC TTT ATA TAT GTG TCA TTT TAT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 8893 GCC CTC AAA AGT AAT CCG AAG TTG TAT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 8971 TGC TTT GCT TTG CTT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 9049 TTT TTT CCG GGG GAG GGA GGG TGG AGA AAG AAT CTT ACT ATG AAG CTC TGA CTG TCC TGG GAA CTC ACT ATA TAG ATC
 9127 AGG CTT GAT TCA ACT CAT AGA GAT CTG CTT TCT TCT GCC TCC CAA GTG CTG GGA ATA AAG GCA TAC ACC TCC ATG CCC
 9205 AGA TAG TGA TCC CAA GTT TTA GCA AAA GTT TCT AGA CTT GAC ATT AAT CGA TGG AGA TAG ACA TGA ATT ACA CAA AGA
 9283 ACT AAT GTG GAG TTT ACC TGA ATC ATA CTC TAT ACT TTA TCA GAG ATT AAA TTA ACA TTT AAT AAT CCA GTG CCA GGC
 9361 TAG AGG CAC CAT TCA ATG GCA GTG TTT GCC ATC ATG CAT AGG CTT AGT CTT CAG TGC TGA AAG GCA TTG GGG GCA ATA
 9439 TTA CTC ATT ATA CAG ATG AGA AAC TGG GAA AGA CTT GCC TCA GAT TCT CTA CTG AAA GGC TGA GTT TGT GGC TTC TAG
 9517 AAA ATC TTT TAC TTT CAA TAT TTT TAA TGT ATA ATT TTA TTT CCA CTG ATT TTA TTT TTT TTT TTT TTT TTT TTT TTT
 9595 AAG AAA TAA ATG CAA TAA ACC AAA TAC ATG GAC AAA AAA ATA CAA GAA TCA TAT GAT CAC CTC AAT GGA AGG AAA AAA
 9673 AAA GAA AGA AAA AGT CTT TGA TAA GAT TCA ACA TTC ATT CTT TTT TTA TTA GAT ATT TTC TTT TTT TTT TTT TTT TTT
 9751 GCT ATC CCC AAA GCC CCC TAT ACC TTC CCC TCT GCC CCA ACC CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA
 9829 CTC TGT ACT GAG GCA TAT GAT CTT CAA AAA ACC AAG GCC CTC TCC TCT CAT TGG TGG CCG ACT ATT AGG CCA TCT TTT
 9907 GCT ACA TAT GCA ACT AGA GAC ACA GGT CTT GGG GTT ACT GGT TAG TTT ATA TTG TTA CTC CTC CTA TAG AGT TGC AGA
 9985 CCC CTT TAG CTC CTT GGA TAC TTT CTC TAG TTT CTC TAT TAG GGG CCC TGT CTC CCA TCC AAT AGA TGA CTG TGA GCA
 10063 TCC ACT TCT GTA TTT GCC AGG CAC TCA TCT GGT TAT AGC CTC AGG AGA GAG TGA TGT CAG GAT CTT GTC AGT AAA ATC
 10141 TTT CTG GCA TAT GCA ATA GTA TCT GGG TTT GGT TGT ATA TGG GAT GGA TCC CCA AGT GGA GCA GTC TCT GAA TGG
 10219 TCC TTC CTT CCA TCT CAG CTC CAA ACT TTG CTT ATA TAA CTC CTT CCA TGG GTA TTT TGT TCC CCA TTC TAA GAA GGA
 10297 GTG AAG AAT CCA CAC TTT GGT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 10375 ATA TCC ACG TAT CAG TGA GTG CAT ATC ATG CGT GTT ATT TTG TGA TTA GTT TAC CTC ACT CAG GAT GAT ATC CTC CAG
 10453 ATG CAT CCA TTT GCC TAA GAA TTT CAT TAA TTC ACT GTT TTT AAT TGC TGA ATA GTA CTC CAT TGT GTA AAT GTA CCA
 10531 CAT TTT CTG TAT CCA TTC CTC TGT TGA GGG GCA TCT GGG TTC TTT CCA GCT TCT GGC TAT TAT AAA TAA GGC TGC TAT
 10609 GAG CAT AGC GGA GCA TGT GTC CTT ATC AAG TTG GAA CAT CTT CTA GGT ATA TGC CCA GAG ACT GTA GGA AAT TTC CAA CAT AAT
 10765 AAA GGT TAT GTA TGA CAA ACT CAT GAC CAA TAT AAT AAA AGC CTT AGA ACA AGG AGT GTA GGA AAT AAT AAT AAT
 10843 GGA CTG CCC ACT ATC CTT ACT TCT CAT CCA TAA TGA GAT TGA AGC ATT AGC TGG AGC AAT AAG GCA AGA GGA GGA ATA
 10921 CAA ATG GGA AAA TAT TAA GTG AAA TTG TTT TCA ATT GAA GAT TAT ATT ATC TTA TAC CCA ATG ACC TCA AAT TTT GAC
 10999 TAG AAA AAT TGT AGA AAT TAT CAA TAA TTT TCA AAA AGT GTT ATG CAC CAT CTT ATT CTT CTT CTT CTT CTT CTT CTT
 11077 TGC TTG CTT CTC TCT TGT TGC TCT TTT TGA TCC TTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 11155 CGT GTA ACT CTC CTG TGA CTG AGT ATC TCA CAA AAC CTT CTA CTT GCC AAA CTT GGA TGA GGC CTT TGT TCT TCT GAA
 11233 GCT ATG AGG CTC TCT ACA TAG ACT CAA GAA GGA AAT ACT CAA GAG GAG GGA ATA ATG AAG TGG GGA AGG CTG ACA TTA
 11311 GCA TTG CTC CTG TGT GGC TCC TTA ATT TCT CAT ACT TCA CAC TGA GAT GTT AAT AAC TGT GAC TCA TAG GTG AAG AAG
 11389 CCA GAG CTA AGG TTC TCA TAT TTG AGT GTT ATA GAA TGA GAG CAG TAG TTC TCA AAC TAT GGG TCA TGA TGA CTC CTT
 11467 TAT GGG TCA AAC TAC CTT TTC ACA CAG GTT GCA TAT CAG ATA TCC TAA TTT TAT TAT ATA CAT ATA TAT ATG CAT ATG TAT
 11545 ATA TAT ATA TTT CAC AAC AGT AGG AAA ATT ATT TAG TAA TCA TTT TAT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 11623 TAT TAA AGG GTT GCA GCA TTA GGA ATG TTG AGA CCC ACT GTA ATA GAG AAT GAG GCT TAA GGC GCT ATA AAG CCC
 11701 AAT GGA CCA TGT GCT TTT TCC AAC ATT TGC CAC ATG GTA AGC TAT GFA TAG ACT TTT TAA AGA ACA TTG GTT TGT AAT
 11779 TTT AAA TGG ATA AGG GTC TTC ACT GTC TAT CAC CCA TCT ATA TAA TAA ATA CAT AAG TTT TGA TTC CAC CAT GGA TTC

[illegible]

pSELECT-IGKV1-39/J-Ck

1	CGC	GCC	GCA	ATA	AAA	TAT	CTT	TAT	TTT	CAT	TAC	ATC	TGT	GTG	TTG	GTT	TTT	TGT	GTG	AAT	CGT	AAC	TAA	CAT	ACG	CTC
2	TCC	ATC	AAA	ACA	AAA	CGA	AAT	AAA	ACA	AAC	TAG	CAA	AAT	AGG	CTG	TCC	CCA	GTG	CAA	GAT	CGC	TAA	CCA	GAA	CAT	TTC
3	TCT	ATC	GAA	ACA	TCT	CGG	ATC	GCT	CGC	GTG	CCC	GTG	CCG	AGT	GGG	CAG	ACA	CAT	CGC	CCA	CAG	TCC	CCG	AGA	AGT	TGG
4	GGG	GAG	GGG	TGG	GCA	ATT	GAA	CGG	GCT	AGG	GAA	GGG	GGG	TAA	ACT	GGG	AAA	GTG	ATG	TCG	TGT	TCT	ACT	GGC		
5	TCC	GCC	TTT	TTC	CCG	AGG	GTG	GGG	GAG	AAC	CGT	ATA	TAA	GTG	CAG	TAG	TCG	CCG	TGA	ACG	TTT	TTC	GCA	ACG	GCT	
6	TTG	CCG	CCA	GAA	CAC	AGC	TGA	AGC	TTC	CGC	CTC	GCA	TCT	CTC	CTT	CAC	CGC	CCC	GCC	CTA	CCT	GAG	GCC	GCC		
7	ATC	CAG	GCC	GTC	TGA	GTC	GTC	CGC	CTC	CCG	CTT	CCG	GTG	CGT	CTT	CAA	CTG	CGT	CCG	CCG	TCT	AGG	TAA	GTT	ATT	
8	TAA	AGC	TCA	GGT	GGA	GAC	CGG	GCC	TTT	GTC	CGG	CGC	TCC	CTT	GGA	GCC	TAC	CTA	GAC	TCA	GCC	GGC	TCT	COA	CGC	TTT
9	GCC	TGA	CCC	TGC	TTG	CTC	AAC	TCT	ATG	TTT	CTG	TTT	CTG	TTT	CTG	TTT	TGC	GCC	GTT	ACA	GAT	CCA	AGC	TGT	GAC	CGG
10	CGC	CTA	CCT	GAG	ATC	ACC	GGC	GTG	TCG	ACG	ACA	CCA	TGG	ACA	TGA	GAG	TGC	CCC	AGC	TCC	TGG	GGC	TCC	TGC	TAC	
11	TCT	GTC	TCC	GAG	GTA	AGG	ATG	GAG	AAC	AGC	AAT	TTA	CTC	AGC	CAG	TGT	GCT	CAG	TGA	TCT	GAA	CTT	GAG	CGA	GGA	
12	AGT	TCT	CTG	ATA	ACA	TGA	TTA	ATA	GTA	AGA	ATA	TTT	GTT	ATG	TTT	CCA	ATC	TCA	GGT	GCC	AGA	TGT	GAC	ATC	CAG	
13	ATG	ACC	CAG	CTG	CCC	ACG	CTG	AGC	GCC	AGC	GTG	GGC	GAG	AGA	GTC	ACC	ATC	ACC	TGC	AGA	GCC	AGC	CAG	ACG	ATC	
14	AGC	AGC	TAC	CTG	AAC	TGG	TAT	CAG	AGC	CCC	GGC	AAG	GCC	CCC	AAG	CTG	ATC	CTG	ATC	TGC	GCC	GCC	AGC	TCC	CTG	CAG
15	AGC	GGC	GTG	CCC	AGC	AGA	TTT	AGC	GGC	AGC	GGC	TCC	GGC	ACC	GAC	TTT	ACC	CTG	ACC	ATC	AGC	AGC	CTG	CAG	CCC	GAG
16	GAC	TTT	GCC	ACC	TAC	TAC	TGC	CAG	CAG	ATC	TAC	AGC	ACC	CCC	CCC	ACC	TTT	GGC	CAG	GGC	ACC	ACC	GTG	GAG	ATC	AAG
17	AGA	GCC	GAC	GCC	GCT	CCC	ACC	GTG	TCC	ATC	TTT	CCC	CCC	AGC	ATG	GAA	CAT	CTG	ACC	TCT	GGC	AGA	GCC	ACC	GTG	GTG
18	TGC	TTT	CTG	AAC	AAC	TTT	TAC	CCC	AGA	GAC	ATA	AGC	CTG	ATG	TGG	ATG	ATC	GAG	ATC	GAG	GGC	GAG	GAC	GGC	GTG	
19	CTG	GAC	AGC	GTG	ACC	GAC	CAG	GAC	AGC	AAG	GAC	TCC	ACC	TAC	AGC	ATG	AGC	AGC	ACC	CTG	AGC	CTG	ACC	BAG	GTG	GAG
20	TAC	GAG	AGC	TAC	AAC	CTG	TAC	ACC	TGC	GAG	GTG	GTG	CAG	AAG	ACC	AGC	TCC	AGC	CCC	GTG	AAG	TCC	TTT	AAC	CGG	
21	AAC	GAG	TGT	TGA	GCT	AGC	TGC	CCA	ATG	ATA	AGA	TAC	ATT	GAT	GAT	TTT	GGA	CAA	ACT	ATA	ATG	ATG	ATG	CAG	TGA	TGA
22	AAA	AAA	TGC	TTT	ATT	TGT	GAA	AIT	TGT	GAT	GCT	ATT	GCT	TTA	TTT	GTA	ACC	ATT	ATA	AGC	TGC	ACT	AAA	CAA	GTT	AAC
23	AAC	AAC	AAT	TGC	ATT	CAT	TTT	ATG	TTT	CAG	GTT	CAG	GGG	GAG	GTG	TGG	GAG	GTT	TTT	TAA	AGG	TAA	AAC	CTC	TAC	TAC
24	AAA	TGT	GGT	ATG	GAA	TTT	CAT	AAA	AAT	ACA																

1951	AGT	TTA	AGA	TAT	AGT	GTA	TTT	TCC	CAA	GGT	TTG	AAC	TAG	CTC	TTC	ATT	TCT	TTA	TGT	TTT	AAA	TGC	ACT	GAC	CTC	CCA
2029	CAT	TCC	CTT	TTT	AGT	AAA	ATA	TTC	AGA	AAT	BAT	TTA	AAT	ACA	TCA	TTG	CAA	TGA	AAA	TAA	ATG	TTT	TTT	ATT	AGG	CAG
2107	AAT	TGA	GAT	GCT	CAA	GGC	CCT	TCA	TAA	TAT	CCC	CCA	GTT	TAG	TAT	TTG	GAC	TGA	GGG	AAA	AGA	GGA	ACC	TTT	AAT	AGA
2185	AAT	TGG	ACA	AGA	AGA	CGA	GCT	TCT	AGC	AAA	GAA	TTC	TGC	ACT	CAT	TCC	TTT	GCC	CTC	GCA	CGA	ATG	CTG	GGG	CGT	CGG
2263	TTT	CCA	CTA	TGC	GCG	AGT	ACT	TCT	ACA	CAG	CCA	TGC	GTC	CAG	ACG	GCC	GGG	CTT	CTG	CGG	GCG	ATT	TGT	GTA	GCG	CCG
2341	ACA	GTC	CCG	GCT	CCG	GAT	CGG	ACG	ATT	GCG	TGC	CAT	CGA	CCC	TGC	GCC	CAA	TGT	GCA	TCA	TGC	AAA	TTG	CCG	TGA	ACC
2419	AAG	CTC	TGA	TAG	AGT	TGG	TCA	ATA	ATG	CGG	AGC	ATA	TAC	GCC	CGG	AGC	GCG	GGC	GAT	CCT	GCA	AGC	TCC	GGA	TGC	
2497	CTC	CGC	TGC	AGG	TAG	CGC	GTC	TGC	TCC	ATC	CAA	GCC	AAC	GAC	GGC	CTC	CAG	AAG	AAT	ATG	TTC	GCG	ACC	TGC	TAT	
2575	TGG	GAA	TCC	CCG	AAC	ATC	GCC	TGC	CTC	CAG	TCA	ATG	ACC	GCT	GTT	ATG	CGG	CCA	TTG	TCC	GTC	AGG	ACA	TTG	TTG	GAG
2653	CCG	AAA	TCC	GCG	TGC	AGG	TGC	CGG	ACT	TTC	GGG	CAG	TGA	TAC	ACA	TGG	GGG	ATC	AGC	TCA	CGA	GCC	TGC	TGC	GCG	
2731	ACG	GAC	GCA	CTG	ACG	GTG	TGC	TCC	ATC	ACA	GTT	TGC	CAG	TGA	TAC	ACA	TGG	GGG	TCA	GCA	ATC	CCG	CAT	ATG	AAA	TCA
2809	CGC	CAT	GTA	GTG	TAT	TGA	CCG	ATT	CTC	TGC	GGT	CCG	AAT	GGG	CCG	AAC	CCG	CTC	GTC	TGG	CTA	AGA	TGC	GCC	GCA	GCG
2887	ATC	GCA	TCC	ATG	AGC	TCC	GCG	ACG	GGT	TGC	AGA	ACA	GCG	GGC	AGT	TGC	GTT	TCA	GGC	AGG	TCT	TGC	AAC	GTG	ACA	CCC
2965	TGT	GCA	CGG	CGG	GAG	ATG	CAA	TAG	GTC	AGG	CTC	TGC	CTG	AAT	TCC	CCA	ATG	TCA	AGC	ATC	TCC	GGA	ATC	GGG	AGC	GCG
3043	GCC	GAT	GCA	AAG	TGC	CGA	TAA	ACA	TAA	CGA	TCT	TTG	TAG	AAA	CCA	TGC	GGG	CTA	TTT	ACC	CGG	AGG	ACA	TAT	CCA	
3121	GCG	CCT	CCA	TGC	AAG	CTG	AAA	GCA	CGA	GAT	TCT	TGC	CCC	TCC	GAG	AGC	TGC	ATC	AGC	TGC	GAG	ACT	TGG	AAA		
3199	TTT	TGC	ATC	AGA	AAC	TTC	TGC	ACA	GAC	GTG	CGG	GTG	AGT	TCA	GGC	TTT	TTC	ATG	ATG	GCC	CTC	CTA	TAG	TGA	GTC	GTA
3277	TTA	TAC	TAT	GCC	GAT	ATA	CTA	TGC	GCA	TGA	TTA	ATT	GTC	AAA	ACA	ACG	TGG	ATG	GCG	TTT	CCA	GCT	TAT	CTG	AGC	GTT
3355	CAC	TAA	ACG	AGC	TCT	GCT	TAT	ATA	GAC	CTC	CCA	CCG	TAC	ACG	CCG	ACT	GCC	ACT	TTG	GCT	CAA	TGG	GCG	GGA	GTT	GTT
3433	ACG	AAA	TTT	TGG	AAA	GTC	CCG	TTG	ATT	TAC	TAG	TCA	AAA	CAA	ACT	CCC	ATT	GAC	GTC	AAT	GGG	GTG	GAG	ACT	TGG	AAA
3511	TCC	CCG	TGA	GTC	AAA	CCG	CTA	TCC	ACG	CCC	ATT	GAT	GTA	CTG	CCA	AAA	CCG	CAT	CAT	GGT	AAT	AGC	GAT	GAC	TAA	
3589	TAC	GTA	GAT	GTA	CTG	CCA	AGT	AGG	AAA	GTC	CCA	TAA	GAT	CTA	GTG	CGC	ATC	ATG	CGC	GGG	CCA	TTT	ACC	GTC		
3667	ATT	GAC	GTC	AAT	AGG	GGG	CGT	AGT	TGG	CAI	ATG	ATA	CAG	TTG	ATG	TGC	CAA	GTG	GCG	AGT	TTA	CCG	TAA	ATA	CTC	
3745	CAC	CCA	TTG	ACG	TCA	ATG	ATA																			

pSelect-IGLV2-14/J-Ck

Figure 12 contd

781 TCT GGC TCC GAG GTA AGG ATG GAG AAC ACT AGG AAT TTA CTC AGC CAG TGT GCT CAG TAC TGA CTG GAA CTT CAG GGA
 853 AGT TCT CTG ATA ACA TGA TTA ATA GTA AGA AAT TTT GTT TTT ATG TTT CCA ATC TCA GGT GCC AGA TGT CAG TCT GCC
 937 CTG ACC CAG CCC GCT TCT GTC TCC TGG TAT CAG CAC CCC GGC AATC AGC ATC AGC TGC ACC GGC ACC AGC GAC GTG
 1015 GGC GGC TAC AAC TAC TCC TCC TGG TAT CAG CAC CCC GGC AATC AGC ATC AGC TGC ACC GGC ACC AGC GAC GTG
 1093 AGA CCC AGC GGC GTG AGC AAC AGA TTC AGC GGC AGC AGC GGC AAC ACC ACC AGC CTG ACC ATC AGC GGC CTC CAG
 1171 GCT GAG GAC GAG GGC TAC TAC TCC AGC AGC TAC AGC AGC TCC ACC CTG GTG TTT GGC GGC GGA ACA AAG CTG
 1243 ACC GTG CTG AGA GCC GAC GCT GCT GCT ACC ACC GTG TCC ATC TTC CCC CCC AGC AGT GAA CAG CTG ACC TCT GGC GGA GCC
 1327 ACC GTG GTC TGC TTC GAG AAC AAC TTC TAC CCC AGA GAC ATC AGC GAC TGG AAG TGG AAG ATG AGC AGC ACC CTG AGC CTG ACC
 1405 GAC GGC GTG CTG GAC AGC GTG ACC GAC CAG GAC AGC AAG GAC TCC ACC TAC AGC ATG AGC AGC ACC CTG AGC CTG ACC
 1483 AAG GTG GAG TAC GAG AGC CAC AAC CTG TAC AGC TGC GAG GTG GTG CAC AAG ACC AGC TCC AGC CCC GTG GTC AAG TTC
 1561 TTC AAC CGG AAC GAG TGT TGA GCT AGT TGC CCA GAC ATG ATA AGA TAC ATT GAT GAG TTT GGA CAA ACC ACA ACT AGA
 937 CTG ACT CAG CCT GCC TCC GTG TCT GGG TCT CCT GGA CAG TCG ATC ATC TCC TGC ACT GGA ACC AGC AGT GAC GTT
 1015 GGT GGT TAT AAC TAT GTC TCC TGG TAC CAA CAG CAC CCA GGC AAA GGC CCC ACC AAA CTC ATG ATT TAT GAG GTC AGT AAT
 1093 CGG CCC TCA GGG GTT TCT AAT CGC TTC TCT GGC TCC AAG TCT GGC AAC AGC AGC ACT CTC GTA TTC GGC GGA GGC ACC AAG CTG
 1171 GCT GAG GAC GAG GCT GAT TAT TAC TGC AGC TCA TAT ACA AGC AGC ACT CTC GTA TTC GGC GGA GGC ACC AAG CTG
 1249 ACC GTC CTA CGG GCT GAT GCT GCA CCA ACT GTA TCC ATC TTC CCA CCA TCC ATG GAA CAG TTA ACA TCT GGT GCC
 1327 ACA GTC GTG TGC TTC GTG AAC AAC TTC TAT CCC AGA GAC ATC AGT GTC AAG TGG AAG ATT GAT GGC AGT GAA CAA CGA
 1405 GAT GGT GTC CTG GAC AGT GTT ACT GAT CAG GAC AGC AAA GAC AGC AGC TAC AGC AGT AGC AGC ACC CTC TCG TTG ACC
 1483 AAG GTT GAA TAT GAA AGG CAT AAC CTC TAT ACC TGT GAG GTT GAT CAT AAG ACA TCA TCC TCA CCC GTC GTC AAG AGC
 1561 TTC AAC AGG AAT GAG TGT TAG GCT AGC TGG CCA GAC ATG ATA AGA TAC ATT GAT GAG TTT GGA CAA ACC ACA ACT AGA
 1639 ATG CAG TGA AAA TGC TTT ATT TGT GAA ATT TGT GAT GCT ATT GCT TTA TTT GTA ACC ATT ATA AGC TGC AAT AAA
 1717 CAA GTT AAC AAC AAC AAT TGC ATT CAT TTT ATG TTT CAG GGG GAG GTG TGG GAG GTT TTT TAA AGC AAG TAA
 1795 TCC TTT TCT GAG GGA TGA ATA AGG CAT AGC GAT CAG GGG CTG TTG CCA ATG TGC ATT AGC TGT TTG CAG CCT CAC CTG
 1951 CTT TCA TGG AGT TTA AGA TAT AGT GTA TTT TCC CAA GGT TTG AAC TAG CTC TTC ATT TCT TTA TGT TTT AAA TGC ACT
 2029 GAC CTC CCA CAT TCC CTT TTT AGT AAA ATA TTC AGA AAT AAT TTA AAT ACA TCA TTG CAA TGA AAA TAA ATG TTT TTT
 2107 ATT AGG CAG AAT CCA GAT GCT CAA GGC CCT TCA TAA TAT CCC CCA GTT TAG TAG TTG GAC TTA GGG AAC AAA GGA ACC
 2185 TTT AAT AGA AAT TGG ACA GCA AGA AAG CAG GAT CAG GGG CTG TTG CCA ATG TGC ATT AGC TGT TTG CAG CCT CAC CTG
 2263 GGG CGT CGG TTT CCA CTA TCG GCG AGT ACT TCT ACA CAG CCA TCG GTC CAG AGC GCG GGT CAG CCG CTT CTG GCG ATT TGT
 2341 GTA CGC CCG ACA GTC CCG GCT CCG GAT CCG AGT TCG TCA AGA CCA ATG CGG AGC ATA TAC GCC CGG AGC GGC GAT CCT GCA AGC
 2419 CCG TCA ACC AAG CTC TGA TAG AGT TGG TCA AGA CCA ATG CGG AGC ATA TAC GCC CGG AGC GGC GAT CCT GCA AGC
 2497 TCC GGA TGC CTC CGC TCG AAG TAG CGC GTC TGC TCC ATA CAA GGC AAC CAC GGC CTC CAG AAG AAG ATG TTG GCG
 2575 ACC TCG TAT TGG GAA TCC CCG AAC ATC GCC TCG CTC CAG TCA ATG ACC GCT TGT ATG CGG CCA TTG TCC GTC AGG ACA
 2653 TTG TTG GAG CCG AAA TCC CCG TGC AGC AGG TGC CCG ACT TCG GGG CAG TCC TCG GCC CAA AGC ATC AGC TCA TCG AGA
 2731 GGC TGC GCG ACG GAC GCA CTG ACG GTG TCG TCC ATC ACA GTT TGC CAG TGA TAC ACA TGG GGA TCA GCA ATC GCG CAT
 2809 ATG AAA TCA CGC CAT GTA GTG TAT TGA CCG ATT CTT TGC GGT CCG AAT GGG CCG AAC CCG CTC GTC TGG CTA AGA TCG
 2887 GCC GCA CCG ATC GCA TCC ATG AGC TCC CCG ACG GGT TGC AGA ACA GCG GCG AGT TCG GTT TCA GGC AGG TCT TGC AAC
 2965 GTG ACA CCC TGT GCA CCG CCG GAG ATG CAA TAG GTC AGG CTC TCG GTG AAT TCC CCA ATG TCA AGC ACT TCC GGA ATC
 3043 GGG AGC CCG GCC GAT GCA AAG TGC CGA TAA ACA TAA CCA TCT TTG TAG AAA CCA TCG CCG CAG CTA TTT ACC CCG AGG
 3121 ACA TAT CCA CCG CCT CCT ACA TCG AAG CTG AAA GCA GAT TCT TCG CCC TCC GAG AGC TGC ATC AGG TCG GAG ACG
 3199 CTG TCG AAC TTT TCG ATC AGA AAT TTC TCG ACA GAC GTC CCG GTG AGT TCA GGC TTT TTC ATG ATG GCC CTC CTA TAG
 3277 TGA GTC GTA TTA TAC TAT GCC GAT ATA CTA TGC CGA TGA TTA ATT GTC AAA ACA GCG TGG ATG GCG TCT CCA GCT TAT
 3355 CTG ACG GTT CAC TAA ACG AGC TCT TAT ATA GAC CTC CCA CCG TAC ACG CCG CAT ACC GCT TGT CCA TGG GGC
 3433 GGA GTT GTT ACG ACA TTT TGG AAA GTC CCG TTG TAT TAG TCA AAA CAA ACT CCC ATT GAC GTC AAT GGG GTG GAG
 3511 ACT TGG AAA TCC CCG TGA GTC AAA CCG CTA TCC ACG CCC ATT GAT GTA CTG CCA AAA CCG CAT CAT GGT AAT AGC
 3583 GAT GAC TAA TAC GTA GAT GTA CTG CCA AGT AGG AAA GTC CCA TAA GGT CAT GTA CTG GGC ATA ATG CCA GGC GGG CCA
 3667 TTT ACC GTC ATT GAC GTC AAT AGG GGG GGT ATT TGG ATG TAC TGC CAA GTG GGC AGT TTA CCG
 3745 TAA ATA CTC CAC CCA TTG ACG TCA ATG GAA AGT CCC TAT TGG CGT TAC TAT GGG AAC ATA CGT CAT TAT TGA CGT CAA

Figure 12 contd

3823 TGG GCG GGG GTC GTT GGG CCG TCA GCC AGG CGG GCC ATT TAC CGT AAG TTA TGT AAC GCC TGC AGG TTA ATT AAG AAC
 3901 ATG TGA GCA AAA GGC CAG CAA AAG GCC AGG AAC CGT AAA AAG GCC GTG TTG CTG GCG TTT TTC CAT AGG CTC GCG CCC
 3979 CCT GAC GAG CAT CAC AAA AAT CGA CGC TCT CCG AGG TGG CGA AAT CCG ACA GGA CTA AGA TAC CAG GCG TTT
 4057 CCC CCI GGA AGC TCC CTC GTG CGC TCT CCG AGT ACA ATC AGC TAG TTA AGC CAG CCC GCA CAC CCG CCG CCA
 4135 GGA AGC GTG GCG CTT TCT CAT AGC TCA CGC TGT AGG TAT CTC AGT TCG GTG TAG GTC GTT CGC TCC AAG CTG GGC TGT
 4213 GTG CAC GAA CCC CCG GTT CAG CCC GAC CGC TGC GCC TTA TCC GGT AAC TAT CGT CTT GAG TCC AAC CCG GTA AGA CAC
 4291 GAC TTA TCG CCA CTG GAC GCA GCC ACT GGT AAC AGG TAT AGC AGA GCG AGG TAT GTA GGC GGT GCT ACA GAG TTC TTG
 4369 AAG TGG TGG CCT AAC TAC GGC TAC ACT AGA ACA GTA TTT GGT ATC TGC CTG AAG CCA GTT ACC TTC GGA
 4447 AAA AGA GTT GGT AGC TCT TGA TCC GGC AAA CAA ACC ACC GCT GGT AGC GGT TTT TTT TGT TGC AAG CAG CAG ATT
 4525 ACG CGC AGA AAA AAG TCT CAA GAA GAT CCT TTG ATC TTT TCT ACG GGG TCT GAC GCT CAG TGG AAC GAA AAC TCA
 4603 CGT TAA GGG ATT TTG GTC ATG GCT AGT TAA TTA ACA TTT AAA TCA

MV1043

1 CTT GAT TTG GGT GAT GGT TCA CGT AGT GGG CCA TCG CCC TGA TAG ACG GTT TTT CGC CCT TTG ACG TTG GAG TCC ACG
 79 TTC TTT AAT AGT GGA CTC TTG TTC CAA ACT GGA ACA ACA CTC AAC TCT ATC TCG GGC TAT TCT TTT GAT TTA TAA GGG
 157 ATT TTG CCG ATT TCG GTC TAT TGG TTA AAA AAT GAG CTG ATT TAA CAA AAA TTT AAC GCG AAT TTT AAC AAA ATA TTA
 235 ACG TTT ACA ATT TTA TGG TGC AGT CTC AGT ACA ATC AGC TAG TTA AGC CAG CCC GCA CAC CCG CCA
 313 ACA CCC GCT GAC GCG CCC TGA CCG GCT TGT CTC CCG GCA TCC GCT TAC AGA CAA GCT GTG ACC GTC TCC GGG AGC
 391 TGC ATG TGT CAG AGG TTT TCA CCG AAA CGC GCG AGA CGA AAG GGC CTC GTG ATA CGC CTA TTT TTA TAG
 459 GTT AAT GTC ATG ATA ATA ATG GTT TCT TAG ACG TCA GGT GGC ACT TTT CGS GGA AAT GTG CGC GGA ACC CCT ATT TGT
 547 TTA TTT TTC TAA ATA CAT TCA AAT ATG TAT CCG CTC ATG AGA CAA TAA CCC TGA TAA ATG CTT CAA TAA TAT TGA AAA
 625 AGG AAG AGT ATG AGT ATT CAA CAT TTC CGT GTC CCC CTT ATT CCC TTT TTT CGC GCA TTT TGC CTT CCT GTT TTT GCT
 703 CAC CCA GAA ACG CTG GTG AAA GTA AAA GAT GAT CAG TTG GCT GCC GTG GCG GAT TAC ATC GAA CTT GAA CTG GAT CTC
 781 AAC AGC GGT AAG ATC CTT GAG AGT TTT CGC CCC GAA GAA CGT TTT CCA ATG ATG AGC ACT TTT AAA GTT CTG CTA TGT
 859 GAG CGG GTA TTA TCC CGT ATT GAC GCC GGG CCA GAG CAA CAC GAT GGC ATG ACA GTA AGA GAA TTA TGC AGT GCT GGC ATA ACC ATG
 937 GAG TAC TCA CCA GTC ACA GAA AAG CAT CTT ACG GAT GGC ATG ACA GTA AGA GAA TTA TGC AGT GCT GGC ATA ACC ATG
 1015 AGT GAT AAC ACT GCG GCC AAC TTA CTT CTG ACA ACG ATC GGA GGA CCG AAG GAG CTA ACC GCT TTT TTG CAC AAC AIG
 1093 GGG GAT CAT GTA ACT CGC CTT GAT CTT TGG GAA CCG GAG CTG AAT GAA GCC ATA CCA AAC GAC GAG CGT GAC ACC ACG
 1171 ATG CCT GTA GCA ATG GCA ACA ACG TTG CGC AAA CTA TTA ACT GGC GAA CTA CTT ACT CTA GCT TCC CGG CAA CAA TTA
 1249 ATA GAC TGG ATG GAG GCG GAT AAA GTT GCA GGA CCA CTT CTG GCG TCG GCC CTT CCG GCT GGC ATA GGT GGC TCA CTG ATT
 1327 AAA TCT GGA GCC GGT GAG CGT GGG TCT CGC GGT ATC ATT GCA GCA CTG GGG CCA GAT GGT AAG CCC TCC CGT ATC GTA
 1405 GTT ATC TAC ACG ACG GCG AGT CAG GCA ACT ATG GAT GAA CGA NAT AGA CAG ATC GCT GAG ATA GGT GGC TCA CTG ATT
 1483 AAG CAT TGG TAA CTG TCA GAC CAA GTT TAC TCA TAT ATA CTT TAG ATT GAT TTA AAA CTT CAT TTT TAA TTT AAA AGG
 1561 ATC TAG GTG AAG ATC CTT TTT GAT AAT CTC ATG ACC AAA ATC CCT TAA CGT GAG TTT TCG TTC CAC TGA GCG TCA GAC
 1639 CCC GTA GAA AAG ATC AAA GGA TCT TCT TGA GAT CCT TTT CTG CCG GTA ATC TGC TGC TTA CAA ACA AAA CCA
 1717 CCG CTA CCA CCG GTG GTT TGT TTG CCG GAT CAA GAT CTA ACT CTT TTT CCG AAG GTA ACT GGC TTC AGC AGA GCG
 1795 CAG ATA CCA AAT ACT GTT CTT CTA GTG TGA CCG TAG TTA GGC CAC CAC TTC AAG AAC TCT GTA GCA CCG CTT ACA TAC
 1873 CTC CTT CTG CTA ATC CTG TTA CCA GTG GCT GCT GCC GAT AAG TCG TGT TGT ACC GGT TTT GAC TTG GAC TCA AGA CCA
 1951 TAG TTA CCG GAT AAG GCG CAG CCG TCG GGC TGA ACG GGG GGT TCG TGC ATA CAG CCC AGC TTG GAG CGA ACG ACC TAC
 2029 ACC GAA CTG AGA TAC CTA CAG CGT GAG CTA TGA GAA GCG CCG CTT CCC GAA GCG AAG AGA CCG GAC AGG TAT CCG
 2107 GTA AGC GGC AGG GTC GGA ACA GGA GAG CCG AGC GAG CTT CCA GCG GGA AAC GCC TGG TAT CTT TAT AGT CCT GTC
 2185 GGG TTT CGC CAC CTC TGA CTT GAG CCG TTT TTG TGA TGC TCG TGA GCG CGG AGC CTA TGG AAA AAC GGC AGC
 2263 AAC GCG GCC TTT TTA CCG TTC CTG GCC TTT TGC TGG CCT TTT GCT CAC ATG TTC CCT GCG TTA TCC CCT GAT TCT
 2341 GTG GAT AAC CCG ATT ACC GCC TTT GAG TGA GAT GAT GCT CGC GCG ACC GAG CCG AGC GAG TCA GTG
 2419 AGC AGG GAA CCG GAG CCG CCA ATA CCG AAA CCG CCT CTC GCG AGT ATT CAT TAA TGC AGC TCG CAC
 2497 GAC AGG TTT CCC GAC TGG AAA GCG GGC AGT GAG CCA AAT GTG ATG TAG CTG ACT CAT TAG GCA CCC CAG
 2575 GCT TTA CAC TTT ATG CTT CCG GCT CGT ATG TTG TGT GGA ATT GTG AGC GGA TAA CAA TTT CAC ACA GGA AAC AGC TAT

GAC	CAT	GAT	TAC	GCC	AAG	CTT	TGG	AGC	CTT	TTT	TTT	GGA	GAT	TTT	CAG	CGT	GAA	AAA	AAT	ATT	ATC	GTC	ATC	TGT	TCC	TTT
AGT	TGT	TCC	TTT	CTA	TTT	TCA	TGC	ACA	GAT	CCA	AAT	GAC	CAT	TAG	CAG	CAT	CTT	AAA	TTG	GTA	TCA	GCA	ACC	AGG	AGA	AGC
CAG	AGT	CAT	CAT	CAC	TTG	CCG	GGC	AAG	TCA	GAT	TAG	CAG	CAT	TAG	CAG	GGT	CCC	ATC	AAA	TTG	GTA	TCA	GCA	ACC	AGG	AGA
CCC	TAA	GCT	CGT	GAT	CTA	TGC	ATC	CAG	TTT	GCA	AGG	TGG	GCT	CCC	ATC	AAA	TTG	GTA	TCA	GCA	ACC	AGG	AGA	AGC	AGC	
AGA	TTT	CAC	TCT	CAC	CAT	CAG	CAG	TCT	GCA	ACC	TGA	AGA	TTT	TGC	AAC	TTA	CTA	CTG	TCA	ACA	GAG	TTA	CAG	TAC	CCC	
TCC	AAC	GTT	CGG	CCA	AGG	GAC	CAA	GCT	CGA	GAT	CAA	AGT	TAC	TGT	GGC	TGC	ACC	ATC	TGT	CTT	CAT	CTT	CCC	GCC	ATC	
TGA	TGA	GCA	GTT	GAA	ATC	TGG	AAC	TGC	CTC	TGT	TGT	CTG	CCT	GAT	GAA	TAA	CTT	CTA	TGC	CAG	AGA	GGC	CAA	AGT	ACA	
GTG	GAA	GTT	GAA	TAA	CGC	CCT	GAC	CTC	GAG	TAA	CTC	CGA	GGA	TGT	CAC	CTA	GGA	GCA	GGA	CTA	GGC	CAA	AGC	CAC	CTA	
CAG	CCT	CAG	CAG	CAC	CCT	GAC	GCT	GAG	CNA	AGC	AGA	CTA	CGA	AGA	ACA	CAA	AGT	CTA	CGC	CTG	CGA	AGT	CAC	CCA	TCA	
GGG	CCT	GAG	TCT	GCC	CGT	CAC	AAA	GAG	CTT	CAA	CAG	GGG	AGA	GTG	TTA	GTA	AGC	CGC	GGC	AAI	TCT	ATT	TCA	AGG	AGA	
CAG	TCA	TAA	TGA	ATC	ACC	TAT	TGC	CTA	TGG	CAG	CCG	CTG	GAT	TGT	TAT	CAG	CTG	CGG	CCC	AGC	CGC	CCA	TGG	CAG	TGC	
CTG	TTT	GCC	GRA	TAT	CAT	GGT	GGA	AAA	TGG	CCG	CTT	CTC	TTG	TGG	ATT	CAT	TGA	CTG	TGG	GCT	GGG	TGT	GGC	CGA	CGC	
CTA	TCA	GGA	CAT	AGC	GTT	GGC	TAC	CCG	TGA	TAT	TGC	TGA	AGA	GCT	TGG	CGG	CGA	ATG	GGC	TGA	CCG	CTT	CCT	GCT	CTG	
TTA	CGG	TAT	CGC	CGC	TCC	CGA	TTT	GCA	GCG	CAT	CGC	CAT	CGC	CTT	CTA	TCG	CGT	CTT	TCGA	CGA	GTT	CTT	CGT	AGC	ACT	
GGG	TTT	GCT	GCT	ACG	AGA	TTT	CGA	TTT	CAG	CGC	CTT	CTA	TGA	AAG	GTT	CAG	AGT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	
GGG	CTG	GAT	GAT	CGT	CGA	TCT	CAT	GCT	GGA	GTT	CTT	CGC	CCA	CCC	CAA	CTT	GTT	TAT	TGC	AGC	TGA	CGT	CTT	CTT	CTT	
TGG	TTA	CAA	ATA	AAG	CAA	TAG	CAT	CAC	AAA	TTT	CAC	AAA	TAA	AGC	ATT	TTT	TTT	ACT	GCA	TTT	TAG	TTG	TGG	TTT	GTC	
CAA	ACT	CAT	CAA	TGT	ATC	TTA	TCA	TGT	CTG	TAT	ACC	GTC	GAC	CTC	TAG	CAT	GAG	CTT	GGC	GTA	ATG	ATG	GTC	ATA	GCT	
GTT	TCC	TGT	GTT	AAA	TTG	TTA	TCC	GCT	CAC	AAA	TTC	ACA	CAA	CAT	ACG	AGC	AGC	AGC	AGC	AGC	AGC	TAA	AGC	CTG	GGG	
TGC	TTA	ATG	AGT	GAG	CTA	ACT	CAC	ATT	AAT	TGC	TTT	CGC	CTC	ACT	GCC	CGC	TTT	COA	GTC	AAA	CCT	GTC	ATG	GTC	CCA	
GAA	TTG	CAT	GAA	GAA	TCT	GCT	TAG	GGT	TAG	CGG	TTT	TGC	GCT	GCT	TGC	CTA	GGT	GGT	CAA	TAT	TGG	CCA	TTA	GCC	ATA	
TTA	TTT	ATT	GCT	TAT	ATA	GCA	TAA	ATC	AAT	ATT	GGC	TAT	TGG	CAT	TTG	CAT	ACG	TTG	TAT	CCA	TAT	CAT	ATA	ATT	ATG	
ATT	TAT	ATT	GGC	TCA	TGT	CCA	ATA	TTA	CCG	CCA	TGT	TGA	CAT	TGA	TTA	TTG	CTA	AGT	TAT	TAA	TAG	TAA	TOA	ATT	ACG	
GGG	TCA	TTA	GTT	CAT	AGC	CCA	TAT	ATG	CCA	TAT	GGC	GTT	ACA	TAA	CTT	ACG	GTA	AAT	GGC	CGC	GTC	GGC	TGA	CCG	CCC	

Figure 12 contd

6397 TTG CAG CAC ATC CCC CTT TCG CCA GCT GGC GTA ATA GCG AAG AGG CCC GCA CCG ATC GCC CTT CCC AAC AGT TGC GCA
 6475 GCC TGA ATG GCG AAT GGC GCC TGA TGC GGT ATT TTC TCC TTA CCG ATC TGT GCG GTA TTT CAC ACC GCA TAC GTC AAA
 6553 TGC ACC ATA GTA CGC CCG TAG CGG CGC ATT AAG CGC GGC GGT TAC GCG CAG CGT GAC CAT GAA ACT
 6631 TGC CAG CGC CTT AGC GCC CCG TCC TTT CGC TTT CGT GCG CAC GAT GCG CGT TCC CCG TCA AGC
 6709 TCT AAA TCG GGG GCT CCC TTT AGG GTT CCG ATT TAG TGC TTT ACG GCA CCT CGA CCC CAA AAA A

MV1057

1. TAC TCT TCC TTT TTC AAT ATT ATT GAA GCA TTT ATC AGG GTT ATT GTG TCA TGA GCG GAT ACA TAT TTG AAT GTA TTT
 73 AGA AAA ATA AAC AAA TAG GGG TTC CGC GCA CAT TTC CCC GAA AAG TGC CAC CTG ACC TCG AGT GAT CGG GAG ATC TCC
 157 CGA TCC CCT ATG GTG CAC TCT CAG TAC TGT CAG AAT CTG CTC TGA TGC CGC ATA GTT AAG CCA GTA TCT GCT CCC TGC TTG TGT
 235 GTT GGA GGT CGC TGA GTA GTG CGC GAG CAA AAT TTA AGC TAC AAC AAG GCA AGG CTT GAC CAA ITG CAT GAA GAA
 313 TCT GCT TAG GGT TAG GCG TTT TGC GCT GCT TCG CTA GGT GGT CAA TAT TGG CCA TTA GCC ATA TTA TTC ATT GGT TAT
 391 ATA GCA TAA ATC AAT ATT GGC TAT TGG CCA TTG CAT ACG TTG TAT CCA TAT CAT AAT ATG TAC ATT TAT ATT GGC TCA
 469 TGT CCA ACA TTA CCG CCA TGT TGA CAT TGA TTT ACT AGT TAT TAA TAG TAA TCA ATT ACG GGG TCA TTA GTT CAT
 547 AGC CCA TAT ATG GAG TTC CGC GTT ACA TAA CTT ACG GTA AAT GGC CCG CCG TGA CCG CCC AAC GAC CCC CGC CCA
 625 TTG ACG TCA ATA ATG ACG TAT GTT CCC ATA GTA ACG CCA ATA GGG ACT TTC CAT TGA CGT CAA TGG GTG GAG TAT TTA
 703 CGG TAA ACT GCC CAC TTG GCA GTA CAT CAA GTG TAT CAT ATG CCA AGT ACG CCC CTT GAC CTC AAT GAC GGT AAA
 781 TGG CCC GCC TGG CAT TAT GCC CAG TAC ATG ACC TTA TGG GAC TTT CCT ACT TGG CAG TAC ATC CGG TTT GAC TCA CGG GGA TTT CCA AGT
 859 GCT ATT ACC ATG GTG ATG CCG TTT TGG CAG TAC ATC AAT GGG CGT GGA TAG CAG TTT GAC TCA CGG GGA TTT CCA AGT
 937 CTC CAC CCC ATT GAC GTC AAT GGG AGT TTG TTT TGG CAC CAA AAT CAA CGS GAC TTT CCA AAA TGT CGT AAC AAC TCC
 1015 GCC CCA TTG ACG CAA ATG GGC GGT AGT CTA CGG TGG GAG GTC TAT ATA AGA AGA GGT TTA GTG AAC CGT CAG
 1093 ATC CCC TGG AGA CGC CAT CCA CGC TGT TTT GAC CTC CAC GAG CAC GCA TCC AGC CTC CGC GGC CGG GAA
 1171 CGG TGC ATT GGA AGC TTG GTA CCG GTT AAT TGG CCG GCC CGC GAG GTT ATC CAT CCG ACC GAC GCG TTC GCG
 1249 AGA GGC CGC AAT TCC CTA GCC ACC ATG GGA TGG AGC TGT ATC CTC TTC TTG GTA CTG CTG CTG GCG GAC TAT GGT TGC TGA
 1327 ATG GGG CGG AGA ATG GGC GAG ACT GCG TGG CAC GAG AGG TTT CCC GAG TGG AAA GCG GGC AGT GAG CGC AAC GCA AAT AAT GTG
 1405 CTA ATT GAG ATG CGG ATC CCG TGG CAC GAC AGG TTT CCC GAG TGG AAA GCG GGC AGT GAG CGC AAC GCA AAT AAT GTG
 1483 AGT TAG CTC ACT CAT TAG GCA CCC CAG GCT TTA CAC TTT ATG CTT CCG GCT ATG TTG TGT GGA ATT GTG AGC GGA
 1561 TAA CAA TTT CAC ACA GGA AAC AGC TAT GAC CAT GAT TAC GCC AAG CTT GGG CTG CAG GTT CTT TCC GCC TCA GAA GCC
 1639 ATA GAG CCC ACC GCA TCC CCA GCA TGC CTG CTA TTG TCT TCC CAA TCC TCC TCC TTG TCG TCC TCG ACC CCA CCC
 1717 CCC AGA ATA GAA TGA CAC CTA CTC AGA CAA TGC GAT GCA ATT TCC TCA TTT TAT TAG GAA AGG ACA GTG GGA GTG GCA
 1795 CCT TCC AGG GTC AAG GAA GGC ACG GGG GAG GGG CAA ACA GAT GGC TGG CAA CTA GAA GGC ACA GTC GAG GCT GAT
 1873 CAG CGA GCT CTA GAT CAT CGA TGC ATG GGG TCG TGC GCT CCT TTC GGT CCG CTC GGT GGC GGT GAC GGT GAA GCC GAG
 1951 GGC ACC GGG CTT GCG GGT CAT GCA CCA GGT GCG GCG TCC TTC GGG CAC CTC GAC GTC GGC GGT GAC GGT GAA GCC GAG
 2029 CCG CTC GTA GAA GGG GAG GTT GCG GGG CGC GGA GGT CTC CAG GAA GGG GGC CAC CCC GGC CTC GCG CTC CAC
 2107 TCC GGG GAG CAC GAC GGC GCT GCC CAG ACC CTT GCC CTG GTG GTC GGG CGA GAC GCC GAC GGT GGC CAG GAA CCA CGC
 2185 GGG CTC CTT GGG CTG GCG CGC CAG GAG GGT TTC CAT CTG TTG CTG CGC GGT CCA GAC CGC CAC CGC GGT GGC GGC
 2263 CAT GCG CGG GCC GAT CTC GGC GAA CAC CGC CCC TTC GAT CTC CGG GGT CCA GAC CGC CAC CGC GGT GGC
 2341 GTC GTC CGC GAC CCA CAC CTT GCC GAT GTC GAG CGC GGT GAG GAA GAG TTC TTG CAG CTC GGT CAC CGT CTC
 2419 CAG TGC TAG CAC CAA GGG CCC ATC GGT CTT CCC CCT GGC ACC CTC CTC CAA GAG CAC CTC TGG GGG CAC AGC GGC CCT
 2497 GGG CTT CCT GGT CAA GGA CTA CTT CCC CCG AGT GAT GTC GAG CTA CTC CAG CAG CGT GGT GGC CCG CCG GGT GGC
 2575 CAC CTT CCC GGC TGT CCT ACA GTC CTC CAG ACT CTA CTC CAG CAG CGT GGT GGC CCG CTC CAG CAG CTT GGG
 2653 CAC CCA GAC CTA CAT CTG CAA CGT GAA TCA CAA GCC CAG CAA CAG GGT TGG TGA GAG GGC AGC
 2731 ACA GGG AGG GAG GGT GTC TGC TGG AAG CCA GGC TCA GCG CTC CCG GCT ATG CAG TCC CAG TCC
 2809 AGG GCA GCA AGG CAG GCC CCG TCT TCA CGC GGT CTC TGC CCG CAC TCA TGC TCA GGG AGA GGG TCT
 2887 TCT GGC TTT TTC CCC AGG CTC TGG GCA GGC TAG GTC CCC CTA ACC CAG GCC CAC ACA AAG GGG CAG GTG
 2965 CTG GCG TCA GAC CTG CCA AGC ATA TCC GGG AGG ACC CTG CCC ACC TAA GCC CCA CCC AAA GGC CAA ACT CTC
 3043 CAC TCC CTC AGC TCG GAC ACC TTC TCT CCT CCC AGA TTC CAG TAA CTC CCA ATC TTC TCT CTG CAG AGC CCA AAT CTT

GTG	ACA	AAA	CTC	ACA	CAT	GCC	CAC	GAT	GCC	CAG	CAC	CTG	AAC	TCC	TGG	GGG	GAC	CGT	CAG	TCT	TCC	TCT	TCC	CCC	CAA		
AAC	CCA	AGS	ACA	CCC	TCA	TGA	TCT	TGA	TGG	ACG	CCC	CTG	AGG	TCA	CAT	CGC	TGG	TGG	TGG	ACG	TGA	GCC	ACG	AAG	ACC	CTG	
AGG	TCA	AGT	TCA	ACT	AGT	TGG	ACG	GCG	GCG	TGG	AGG	TGC	ATA	ATC	CCA	AGA	CMA	AGC	CGC	GGG	AGC	AGC	AGT	AGA	ACA	ACA	
GCA	CGT	ACC	GTG	TCA	GCG	TCC	TCA	COG	TCA	COG	TGC	TGC	ATG	ACT	GGC	TGA	ATG	GCA	AGT	ACA	AGT	ACA	AGT	GCA	AGG	TCT	
CCA	ACA	AAG	CCC	TCC	CAG	CCC	CCA	TGG	AGA	ADA	CCA	TCT	CCA	AAG	CCA	AAG	GGC	AGC	CCC	GAG	AAC	CAC	AGG	TGT	ACA	ACA	
CCC	TGC	CCC	CAT	CCC	GGG	AGG	AGA	TGA	CCA	AGA	ACC	AGG	TCA	CGC	TGA	CCT	GCC	TGG	TCA	AAG	GCT	TCT	ATC	CCA	GCG	ACA	
ACA	TGC	COG	TGG	AGT	AGA	GCA	ATG	GGC	AGA	TGA	GGC	CGG	ACG	ACA	ACT	AGA	AGA	CGC	CTC	COG	TTC	TGG	ACT	CCG	ACG	ACA	
GCT	CCT	TCT	TCC	TCT	ATA	GCA	AGC	TCA	COG	TGG	ACA	AGA	GCA	GGT	GGC	AGC	AGC	GGG	ACA	COG	TCT	TCT	CAT	GCT	CCG	TGA	
TGC	ATG	AGG	CTC	TGC	ACA	ACC	ACT	ACA	CGC	AGA	AGC	TCT	CCC	TGT	CTC	CGG	GTA	AAT	GAG	TTT	AAC	GGG	TCT	TAA	ACA	ACA	
TTA	ATC	CGA	GCT	CGG	TAC	CAA	GCT	TAA	GTT	TAA	ACC	GCT	GAT	CAG	CCT	CGA	CTG	TTC	CTT	CTA	GTT	GCC	AGC	CAT	CTG	ACA	
TTG	TTT	GCC	CCT	CCC	CTG	TGC	CTT	TGA	CTT	TTA	CTC	TGG	AAG	GTG	CCA	CTC	CCA	CTG	TCC	TTT	CCT	AAT	AAA	ATG	AGG	AAA	
TTG	ACA	ATA	GCA	GGC	ATG	CTG	GGG	ATG	CGG	TGG	GCT	CTA	TGG	CTT	CTG	AGG	CGG	AAA	GAA	CCA	GCT	GGG	GCT	CTA	GGG	ACA	
AAG	ACA	ATA	GCA	GGC	ATG	CTG	GGG	ATG	CGG	TGG	GCT	CTA	TGG	CTT	CTG	AGG	CGG	AAA	GAA	CCA	GCT	GGG	GCT	CTA	GGG	ACA	
GGT	ATC	CCC	ACG	CGC	CCT	GTA	CGC	GCG	CAT	TAA	GCG	CGG	CTG	TGG	TGG	TTA	CGC	GCG	TGA	COG	TGA	CCG	CAT	CAC	ATG	TTG	
ACA	GCG	CCT	AGC	CGC	CGC	TCC	TCT	CGC	TTT	CTG	TTT	CCC	TTC	CTT	CTC	CGC	CAC	GCT	CGC	CGG	CTT	TCC	CCG	TCA	AGC	TCT	
AAA	TGC	GGG	GCT	CCC	TTT	ACG	ATT	TAT	TGC	TTT	ACG	GCA	CCT	CGA	CCC	CAA	AAA	ACT	TGA	TTA	GGG	TGA	GGG	TGA	TCG	TTG	
TTG	ACG	TAG	TGG	GCC	ATC	GCC	CTG	ATA	GAC	GGT	TTT	TGC	CCC	TTT	GAC	GTT	GGA	GTC	CAC	GTT	CTT	TAA	TAG	TGG	ACT	TTG	
CTT	GTT	CCA	AAC	TGG	ACA	AAC	GAT	CAA	CCC	TAT	CTC	GGT	CTA	TTC	TTT	TGA	TTT	ATA	AGG	GAT	TTT	GCC	GAT	TTC	GCC	TTG	
CTA	TTG	GTT	AAA	AAA	TGA	GCT	GAT	TTA	ACA	AGT	TAA	CGC	GAA	TTA	ATT	CTG	TGG	AAT	GTG	TGT	CAG	TTA	GAG	TTA	GGG	TGT	
GGG	AAG	TCC	CCA	GGC	TCC	CCA	GCA	GGC	AGA	AGT	ATG	CAA	AGC	ATG	CAT	CTC	AAT	TAG	TCA	GCA	ACC	ATA	GTC	CCC	CTA	ACT	
COG	CCC	ATC	COG	CCC	CTA	ACT	CGC	CCC	AGT	TTC	GCC	CAT	TCT	CCG	CCC	CAT	GCG	CAT	GCG	TGA	GCA	ACC	AGG	TGT	GGA	AAG	
GAG	CCC	GAG	GCC	GCC	TCT	GCC	TCT	GAG	CTA	TTC	CAG	AAG	TAG	TGA	GGG	AGA	GCG	TAT	GAC	TGG	GCT	CAG	TTA	GGG	TGT	TTG	
AAG	CTC	COG	GGA	GCT	TGG	ATA	TCC	ATT	TTG	GGA	TCT	AGG	ACA	AGG	ACA	GGA	TGA	TTC	TTT	GGA	GGC	TAT	GTC	AGG	TTT	TGG	AAA
GAT	GGA	TTG	CAC	GCA	GCT	TCT	CCG																				

Figure 12 contd

6865 AGC GGT TTG ACT CAC GGG GAT TTC CAA GTC TTC ACC CCA TTG ACG TCA ATG GGA GTT TGT TTT GGC ACC AAA ATC AAC
 6943 GGG ACT TTC CAA AAT GTC GTA ACA ACT CCG CCC CAT TGA CGC AAA TGG GCG GTA GGC GTG TAC GGT GGG AGG TCT ATA
 7021 TAA GCA GAG CTC GTT TAG TGA ACC GTC AGA TCG CTT TAG GAC GCC ATC TAC CAC GGT GTT TTG ACC TCT ATA GAA GAC ACC
 7099 GGG ACC GAT CCA GCT TCC GCG GGC AAC GGT GCA TTG GAA GCT TGG TGA ATT AGG CGC GCC GTC GAG GTT
 7177 ATC GAT CCG ACC GAC GCG TTC GCG AGA GGC CGC AAT TCC CTA GCC ACC AIG GCA TGC CCT GGC TTC CTG TGG GCA CTT
 7255 GTG ATC TCC ACC TGT CTT GAA TTC TCC ATG GCT GAC ATG ACC CAG TCT CCA TCC TCC CTG TCT GCA TCT GTA
 7333 GGA GAC AGA GTC ACC ATC ACT TGC CCG GCA AGT CAG AGC AAT AGC AGT TTA TAT TGG TAT CAG CAG AAA CCA GGG
 7411 AAA GCC CTT AAG CTC CTG ATC TAT GCT GCA TCC AGT TTG CAA AGT GGG TAC TCA TCA AGG TTC AGT GGT GGA TCT
 7489 GGG ACA GAT TTC ACT CTC ACC ATC AGC AGT CTG CAA CCT GAA GAT TTT GCA ACT TAC TAT TGT CAA CAG AGT TAC AGT
 7567 ACC CTT CCA ACG TTC GGC CAA GGG ACC AAG GTG GAG ATC AAA CGT AAG TGC ACT TTG CCG CCG CTA GGA AGA AAC TCA
 7645 AAA CAT CAA GAT TTT AAA TAC GCT TCT TGG TCT CCT TGC TAT AAT TAT CTG GGA TAA GCA TGC TGT TTT CTG TCT GTC
 7723 CCT AAC ATG CCC TGT GAT TAT CCG CAA ACA ACA CAC CAC AGG GCA CTT TGT TAC TTA AAC ACC ATC CTG TTT GCT
 7801 TCT TTC CTC AGG AAC TGT GGC TGC ACC ATC TGT CTT CAT CTT CCC GCC ATC TGA TGA GCA GTT GAA ATC TGG AAC TGC
 7879 CTC TGT TGT GTG CTT GGT GAA TAA CTT CTA TCC CAG AGA GGC CAA AGT ACA GTG GAA GGT GGA TAA C3C CCT CCA ATC
 7957 GGG TAA CTC CCA GGA GAG TGT CAC AGA GCA GAG CAG CAA GAG CAC CTA CAG CCT GAC GCT GAG
 8035 CAA AGC AGA CTA CCA GAA ACA CAA AGT CTA CGC CTG CGA AGT CAC CCA TCA GGG CCT GAG CTC GCC CAC AAA GAG
 8113 CTT CAA CAG GGG AGA GTG TTA GGT TTA ACG GAT CCG AGC TCG GTA CCA AGC TCA AGT TTA AAC CGC TGA TCA GCC TCG
 8191 ACT GTG CTT TGT TGC CAG CCA TCT GTT TGT TGC CCC TCC GGT CCT TTG ACC CTG GAA GGT GCC ACT CCC
 8259 ACT GTC CTT TCC TAA TBA AAT GAG GAA ATT GCA TCG CAT TGT CTG AGT AGS TGT CAT TCT ATT CTG GGG GGT GGG GTG
 8347 GGG CAG GAC AGC AAG GGG GAG GAT TGG GAA GAC AAT AGC AGG CAT GCT GGG GAT GCG GTG GGC TCT ATG GCT TCT GAG
 8425 GCG GAA AGA ACC AGC TGC ATT AAT GAA TCG GCC AAC CCG GCG GGA GAG GCG GTT TGC GTA TTG GGC GCT CTT CCG CTT
 8503 CCT CGC TCA CTG ACT CGC TGC GCT CCG TGC TGC GGC TGC GCG GAG CAG TAT CAG CCA AGT CAA AGG CCG TAA TAC AGT
 8581 TAT CCA CAG AAT CAG GGG ATA ACG CAG GAA AGA ACA TGT GAG CAA AAG GCC AAA AGC CCA GGA ACC GTA AAA AGG
 8659 CCG GGT TGC TGG C3T TTT TCC ATA GGC TCC CCC CTG AGC AGC ACA AAA ATC GAC GCT CAA GTG AGA GGT GGC
 8737 GAA ACC CGA CAG GAC TAT AAA GAT ACC AGG GGT TTC CCC CTG GAA GCT CCC TCG TGC GCT CTC CTG TTC CGA CCC TGC
 8815 CGC TTA CCG GAT ACC TGT CCG CTT TTC CCG GAA GCG TGG CGC TTT CTC ATA GCT CAC GCT GTA GGT ATC TCA
 8893 GTT CCG TGT AGG TCG TTC GCT CCA AGC TGG GCT GTG TGC ACG AAC CCC CCG TTC AGC CCG ACC GCT GCG CCT TAT CCG
 8971 GTA ACT ATC GTC TTG AGT CCA ACC CCG TAA GAC ACG ACT TAT CCG CAC TGG CAG CCA CTG GTA ACA GGA TTA GCA
 9049 GAG CGA GGT ATG TAG GCG GTG CTA CAG AGT TCT TGA AGT GGT GGC CTA ACT ACG GCT ACA CTA GAA CAG TAT TTG
 9127 GTA TCT GCG CTC TGC TGA AGC CAG TTA CCT TCG GAA AAA GAG TTG GTA GCT CTT GAT CCG GCA AAC CCA CCG CTG
 9205 GTA GCG GTG GTT TTT TTG TTT GCA AGC AGC TTA CGC GCA GAA AAA AAG GAT CTC AAG AAG ATC CTT TGA TCT TTT
 9283 CTA CCG GGT CTG ACG CTC AGT GGA ACG AAA ACT CAC GTT AAG GGA TTT TGG TCA TGA GAT TAT CAA AAA GGA TCT TCA
 9361 CCT AGA TCC TTT TAA ATT AAA AAT GAA GTT TTA AAT CAA TCT AAA GTA TAT ATG AGT AAA CTT GGT CTG ACA GTT ACC
 9439 AAT GCT TAA TCA TCG AGG CAC CTA TCT CAG CGA TCT GTC TAT TTC GTT CAT CCA TAG TTG CCT GAC TCC CCG TCG TGT
 9517 AGA TAA CTA CCA TAC GGG AGG GCT TAC CAT CTG GCC CCA CTG CTG CAA TGA TAC CGC GAG ACC CAC GCT CAC CGC CTC
 9595 CAG ATT TAT CAG CAA TBA ACC AGC CAG CCG GAA G3G CCG AGC GCA GAA GTG GTC CTG CAA CTT TAT CCG CCT CCA TCC
 9673 AGT CTA TTA ATT GTT GCG GGG AAG CTA GAT TAA GTA GTT C3C CAG TTA ATA GTT TGC CCA ACG TTG TTG CCA TTG CTA
 9751 CAG GCA TCG TGG TGT CAC GCT CGT GTT GTG GTA TGG CTT CAT TCA GCT CCG GTT CCC AAC GAT CAA GGC GAG TTA CAT
 9829 GAT CCC CCA TGT TGT GCA AAA AAG CCG TTA GGT CCG GTC CTA CCG TTG TCA GAA GTA AGT TGG CCG CAG TGT
 9907 TAT CAC TCA TGG TTA TGG CAG CAC TGC ATA ATT CTC TTA TGC CAT CCG TAA GAT GCT TTT CTG TGA CTG GTG
 9985 AGT ACT CAA CCA AGT CAT TCT GAG AAT AGT GTA TGC GGC CAG CCA GTT GCT CTT GCC CGG CGT CAA TAC GAG ATA ATA
 10063 CCG CGC CAC ATA GCA GAA CTT TAA AAG TGC TCA TCA TTG GAA AAC GYT CTT CCG GGC GAA AAC TCT CAA GGA TCT TAC
 10141 CGC TGT TGA GAT CCA GTT CCA TGT AAC CCA CTC GTG CAC CCA ACT GAT CTT CAG CAT CTT TTA CTA CCA GCG TTT
 10219 CTG GGT GAG CAA AAA CAG GAA GGC AAA ATG CCG CAA AAA AGG GAA TAA GGG CGA CAC GGA AAT GTT GAA TAC TCA

Figure 13

A

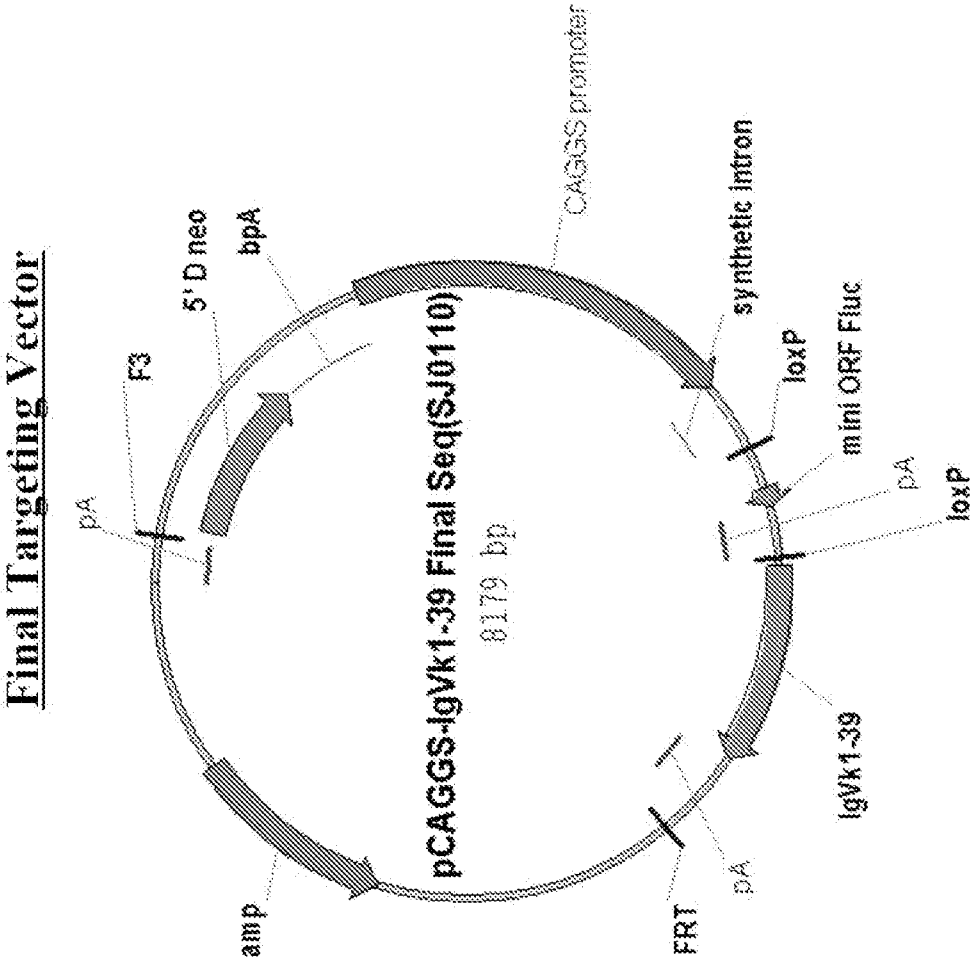


Figure 13 contd

B

1 atccaggcgc ggatcaataa aagatcatta ttttcaatag atctgtgtgt tggttttttg
 61 tgtgccttgg gggaggggga ggcagaaatg aggcgcggcc aagggggagg gggaggccag
 121 aatgaccttg ggggaggggg aggcagaat gaccttgggg gagggggagg ccagaatgag
 181 gcgcggatcc ggagaaagttc ctattccgaa gttoctattc ttcaaatagt ataggaaactt
 241 cgctcgaggg atcggccatt gaacaagatg gattgcaacg aggttctccg gccgcttggg
 301 tggagaggct attcggctat gactgggcac aacagacaat cggctgctct gatgccgcg
 361 tgttccggct gtcagcgcag gggcgcccgg ttcttttgt caagaccgac ctgtccggtg
 421 cccatgaatga actgcaggac gaggcagcgc ggctatctg gctggccacg acggggcgttc
 481 cttgcgcagc tgtgctcgac gttgtcactg aagcgggaag ggactggctg ctattgggog
 541 aagtgccggg gcaggatctc ctgtcatctc accttgctcc tgccgagaaa gtatccatca
 601 tggctgatgc aatgcggcgg ctgcatacgc ttgatccggc tacctgccc ttcgaccacc
 661 aagcgaataa tcgcatacgc cgagcaagta ctcgatgga agccgggtctt gtcgatacagg
 721 atgatctgga cgaagagcat caggggctcg cgccagccga actgttcgoc aggcacaagg
 781 cgcgcgatgcc cgacggcgag gatctctcg tgacctatgg cgatgcctgc ttgccgaata
 841 tcatggtgga aatggcgc ttttctggat tcatacactg tggccggctg ggtgtggcgg
 901 accgctatca ggacatagcg ttggctacc gtgatattgc tgaagagcct ggccggcgaat
 961 gggctgaccg cttcctcgtg cttacggta tcgcgcctcc cgattcgcag cgcatacgct
 1021 tctatcgctt tcttgacgag ttcttctgag gggatcgatc cgctgtaagt ctgcagaaat
 1081 tgatgatcta ttaacaata aagatgtcca ctaaaatgga agtttttctt gtcatacttt
 1141 gtaagaagg gtgagaacag agtacctaca ttttgaatgg aaggattgga gctacggggg
 1201 tgggggtggg gtgggattag ataaatgct gctctttact gaaggctctt tactattgct
 1261 ttatgataat gtttcatagt tggatatcat aatttaaaca agcaaaaacca aattaagggc
 1321 cagctcattc ctccactca tgatctatag atctatagat ctctcgtggg atcatgtttt
 1381 ttctcttgat tcccactttg tggttctaaag tactgtgggt tccaaatgtg tcagtttcat

Figure 13 contd

1441 agcctgaaga acgagatcag cagcctctgt tccacataca cttcattctc agtattgttt
 1501 tgccaagtgc taattccatc agaagctgac tctagatggc gcgtatgcag gttttcgaca
 1561 ttgattattg actagttatt aatagtaatc aattacgggg tcattagtgc atagcccata
 1621 tatggagttc cgcgttacat aacttaaggc aaatggccc cctggctgac cgcccaacga
 1681 cccccgcca ttgacgtcaa taatgaagta tgtcccata gtaacgccaa tagggacttt
 1741 ccattgacgt caatgggtgg agtatttaag gtaaaactgc cacttggcag tacatcaagt
 1801 gtatcatatg ccaagtacgc cccctattga cgtcaatgac ggtaaatggc ccgctggca
 1861 ttatgcccag tacatgacct tatgggactt tcctactlgg cagtacatct acgtattagt
 1921 catcgtatt accatggctg agtgagccc cactttctgc ttcaactctcc ccactctccc
 1981 cccctcccca ccccaattt tgtatttatt tatttttaa ttattttgtg cagcgtggg
 2041 ggcggggggg ggggggggcgc gcgccaggcg gggcgagggg cggggcgggg
 2101 cgaggcgagg aggtgcggcg gcagccaatc agagcggcgc gtcgcgaaa gttcccttta
 2161 tggcgaggcg gcggcgggcg cggccctata aaaaagcgaag cgcgcggcgg gcgggagtcg
 2221 ctgcgttgcc ttgcggccgt gccccgctcc gcgcgcgcgc ccccggtctc
 2281 gactgaccgc gttactccca caggtgagcg ggcgggacgg cccttctcct ccgggctgta
 2341 attagcgtt gggttaatga cggctcgttt cttttctgtg gctgcgtgaa agccttaaa
 2401 ggcctccggg gggccctttg tgcggggggg agcggctcgg ggggtgcgtg cgtgtgtgtg
 2461 tgcgtgggga gcgcgcgtg cggcccgctg tgcgcggcgg ctgtgagcgc tgcgggcgcg
 2521 gcgcgggggt ttgtgcgctc cgcgtgtgcg cgaggggagc gcggccgggg gcggtgcccc
 2581 gcggtgcggg ggggctgcga ggggaacaaa ggcgtgtg cgtggggggg
 2641 tgagcagggg gtgtgggcgc ggcggtcggg ctgtaacccc cccctccccg
 2701 agttgctgag cacggcccg cttcgggtgc ggggctcctg gcggggcgct gcgcggggct
 2761 cgccgtgccg ggcgggggggt ggcggcaggt gggggtgccg ggcggggcgc ggcggcctcg
 2821 ggcgggggag ggctcggggg aggggcggg cggcccgga gcgcggcg cgtgcgagc
 2881 gcggcgagcc gcagccattg ccttttatg taatcgtgc agagggcgca gggacttct
 2941 ttgtcccaaa tctgtgcga gccgaaatct gggaggcgcc gccgcacccc ctctagcggg

Figure 13 contd

3001 cgccggggcga agcgggtgcgg cgccgggcagg aaggaaatgg gcgggggaggg ccttcgtgcg
 3061 tcgcgcgcgc gccgtccctc tcctcctctc cagcctcggg gctgtccgcg gggggacggc
 3121 tgccttcggg ggggacgggg cagggcgggg ttccgcttct ggcgtgtgac cggcggctct
 3181 agaagcgttg ggtgagtac tccctcctca aagcgggcat gacttctgcg ctaagattgt
 3241 cagtttccaa aaacgaggag gatttgatat tcacctggcc cgcggtgatg cctttgagg
 3301 tggccgcgtc catctggtca gaaaagacaa tctttttgtt gtcaagcttg aggtgtggca
 3361 ggcttgagat ctggccatcc acttgagtga cattgacatc cactttgcct ttctctccac
 3421 aggtgtccac tcccagggcg gcctccggag cgatcgccga tccgcctagg caattgttta
 3481 aatcggccgg ccataacttc gtataatgta tgctatacga agttatggat cctcacagta
 3541 ggtggcatcg ttcccttctg actgcgcgc ccccgcatgc cgtcccgcga tattgagctc
 3601 cgaacctctc gccctgcgc cgcggtgct ccgtgcgcgc cgcgcgcga tggaaatcgaa
 3661 gccaccatgg atcttacggg aaaactcgac gcaagaaaaa tcagagagat cctcataaag
 3721 gtcaagaagg gcggaaaagat cgcctgtgtaa ttctagaccg gtctgagatc caggcgcgga
 3781 tcaataaaag atcattattt tcaatagatc tgtgtgttgg ttttttgtgt gccttggggg
 3841 aggggggaggc cagaatgagg cgcggccaag ggggaggggg aggccagaat gaccttgggg
 3901 gagggggagg ccagaatgac cttggggggag ggggaggcca gaatgaggcg cgcctccgtc
 3961 cgacctataa cttcgtataa tgtatgctat acgaagttaa ggcggccgcc accatggaca
 4021 tgagagtgcc cgcccagctc ctgggggtcc tgctactctg gctccgagggt aaggatggag
 4081 aacactagga atttactcag ccagtgtgct cagtactgac tggaaattca gggaaagtct
 4141 ctgataacat gattaatagt aagaatattt gtttttatgt ttccaatctc aggtgccaga
 4201 tgtgacatcc agatgaccca gagcccagc agcctgagcg ccagcgtggg cgacagagtg
 4261 accatcacct gcagagccag ccagagcatc agcagctacc tgaactggta tcagcagaag
 4321 cccggcaagg cccccaagct gctgatctac gccgccagct ccctgcagag cggcgtgccc
 4381 agcagattca gcggcagcgg ctccggcacc gacttcaccc tgaccatcag cagcctgcag
 4441 cccgaggact tcgccacctc ctactgcag cagagctaca gcaccccccc cacttcggc
 4501 cagggcacca aggtggagat caagagagcc gacgccgctc ccaccgtgtc catcttcccc

Figure 13 contd

4561 ccacagcatgg aacagctgac ctctggcgga gccaccgtgg tctgcttctg gaacaaacttc
 4621 taccocagag acatcagcgt gaagtggaaag atcgacggca gcgagcagag ggacggcgtg
 4681 ctggacagcg tgaccgacca ggacagcaag gactccacct acagcatgag cagcaccctg
 4741 agcctgacca aggtggagta cgagaggcac aacctgtaca cctgcgaggt ggtgcacaag
 4801 accagctoca gccccgtggt caagtccctc aaccggaacg agtgttgagc tagcttaaga
 4861 tttaaatagg ccggccgcgt cgacctcgag atccagggcg ggatcaataa aagatcatta
 4921 ttttcaatag atctgtgtgt tggttttttg tgtgccttgg gggaggggga ggcagaaatg
 4981 aggcgcggcc aagggggagg gggaggccag aatgaccttg ggggaggggg aggccagaat
 5041 gaccttgggg gagggggagg ccagaatgag gcgcggcccc ggttaccgag ctcgaaattag
 5101 tggatccctca cagtaggtgg catcgttccct ttctgactgc ccgccccccg catgcctcc
 5161 cgcgatattg agtcccgaa cctcgcct gccgcgcg gtgctccgc gccgcgcgcg
 5221 cgccatggaa tcgcgcgggt aaccgaagt cctatacttt ctagagaata ggaacttcgg
 5281 aataggaaact tcaagccggt acccagcttt tgttcccc tt agtgagggtt aatttcgagc
 5341 ttggcgtaat catggtcata gctgtttcct gtgtgaaatt gtatccgc cacaattcca
 5401 cacaacatac gagccgggag cataaagtgt aaagcctggg gtgcctaatt agtgagctaa
 5461 ctacattaa ttgcgttgcg ctactgccc gctttccagt cgggaaacct gtcgtgcag
 5521 ctgcattaat gaatcggcca acgcgcgggg agagggcgtt tgcgtatttg gcgctcttcc
 5581 gcttcctcgc tcactgactc gctgcgctcg gctgttcggc tgcggcgagc ggtatcagct
 5641 cactcaaaag cggtaatacg gttatccaca gaatcagggg ataacgcagg aaagaaacatg
 5701 tgagcaaaag gccagcaaaa ggccagggaac cgtaaaaagg ccgcgttgct ggcgttttc
 5761 cataggctcc gccccctga cgagcatcac aaaaatcgac gctcaagtca gaggtggcga
 5821 aacccgacag gactataaag ataccaggcg ttccccctg gaagctccct cgtgcgctct
 5881 cctgttcoga ccctgccgct taccggatac ctgtccgcct ttctcccttc gggaaagcgtg
 5941 gcgctttctc atagctcacg ctgtaggtat ctcagttcgg tgtaggctcg tcgctccaag
 6001 ctgggctgtg tgcacgaacc cccgltcag ccgaccgct gcgccttato cggtaactat
 6061 cgtcttgagt ccaaccgggt aagacacgac ttatgccac tggcagcagc cactggtaac

Figure 13 contd

6121 aggattagca gaggaggta ttaggcegt gctacagagt tcttgaagt gtggcctaac
 6181 tacgggtaca ctagaaggac agtatttgg atctgcgtc tgctgaagcc agttacctc
 6241 ggaataaagag ttggtagctc ttgatccgc aaacaaacca ccgctggtag cggtaggttt
 6301 ttgtgttgca agcagcagat tacgcgcaga aaaaaaggat ctcaagaaga tcccttgatc
 6361 ttttctacgg ggtctgacgc tcagtggaaac gaaaactcac gtaagggat ttgggtcatg
 6421 agattatcaa aaaggatctt cacctagatc cttttaaatt aaaaatgaag ttttaaatca
 6481 atctaaagta tatatgagta aacttggtct gacagttacc aatgcttaat cagtgaagca
 6541 cctatctcag cgatctgtct atttcgttca tccatagttg cctgactccc cgtcgtgtag
 6601 ataactacga tacggggaggg cttaccatct ggccccagt ctgcaatgat accgcgagac
 6661 ccacgctcac cggctccaga tttatcagca ataaaccagc cagccgggaa ggcggagcgc
 6721 agaagtggc ctgcaacttt atccgctcc atccagtcta ttaattgtt cggggaagct
 6781 agagtaagta gttcgccagt taatagtttg cgcaacgttg ttgccattgc tacaggcacc
 6841 gtggtgtcac gtcgtcgtt tggtaggct tcattcagct ccggttcccc acgatacagg
 6901 cgagttacat gatccccc atgtgtgcaaa aaagcgggta gtccttcgg tcctccgac
 6961 gttgtcagaa gtaagttggc cgagtggtta tcaactcagg ttatggcagc actgcataat
 7021 tctcttactg tcatgccatc cgttaagatgc ttttctgtga ctggtgagta ctcaaccacg
 7081 tcattctgag aatagtgtat gcggcgaccg agttgctctt gcccggcgtc aatacgggat
 7141 aataccgcgc cacatagcag aactttaaaa gtgctcatca ttggaaaaacg tcttcggggg
 7201 cgaaaactct caaggatctt accgctgttg agatccagtt cgatgtaacc cactcgtgca
 7261 cccaactgat ctccagcatc ttttacttcc accagcgtt ctgggtgagc aaaaacagga
 7321 aggcaaaatg ccgcaaaaaa gggaaataagg gcgacacgga aatggtgaat actcatactc
 7381 ttcctttttc aatattattg aagcatttat caggggttatt gtctcatgag cggatacata
 7441 tttgaatgta tttagaaaaa taaacaaata ggggttcgc gcacatttcc ccgaaaaagt
 7501 ccacctaaat tgtaagcgtt aatatttgt taaaattcgc gtaaaattt tgttaaatca
 7561 gctcattttt taaccaatag gccgaaatcg gcaaaatccc ttataaatca aaagaataga
 7621 ccgagatagg gttgagtgtt gttccagttt ggaacaagag tccactatta aagaacgtgg

Figure 13 contd

```
7681 actccaacgt caaagggcga aaaaccgtct atcagggcga tggccacta cgtgaaccat
7741 caccctaac aagttttttg gggtcgaggt gccgtaaagc actaaatcgg aaccctaaag
7801 ggagcccccg atttagagct tgacgggggaa agccggcgaa cgtggcgaga aaggaaggga
7861 agaaagcgaa aggagcgggc gctagggcgc tggcaagtgt agcggtcacg ctgcgcgtaa
7921 ccaccacac cgccgcgcctt aatgcgcgcg tacagggcgc gtcccatctg ccattcaggc
7981 tgcgcaactg ttgggaaggg cgatcgggtg gggcctcttc gctattacgc cagctggcga
8041 aaggggggatg tgctgcaagg cgattaaagt gggtaacgcc agggttttcc cagtcacgac
8101 gttgtaaaac gacggccagt gagcgcgcgt aatacgactc actatagggc gaattggggg
8161 taactaagta aggatcgag
```

Figure 13 contd

C

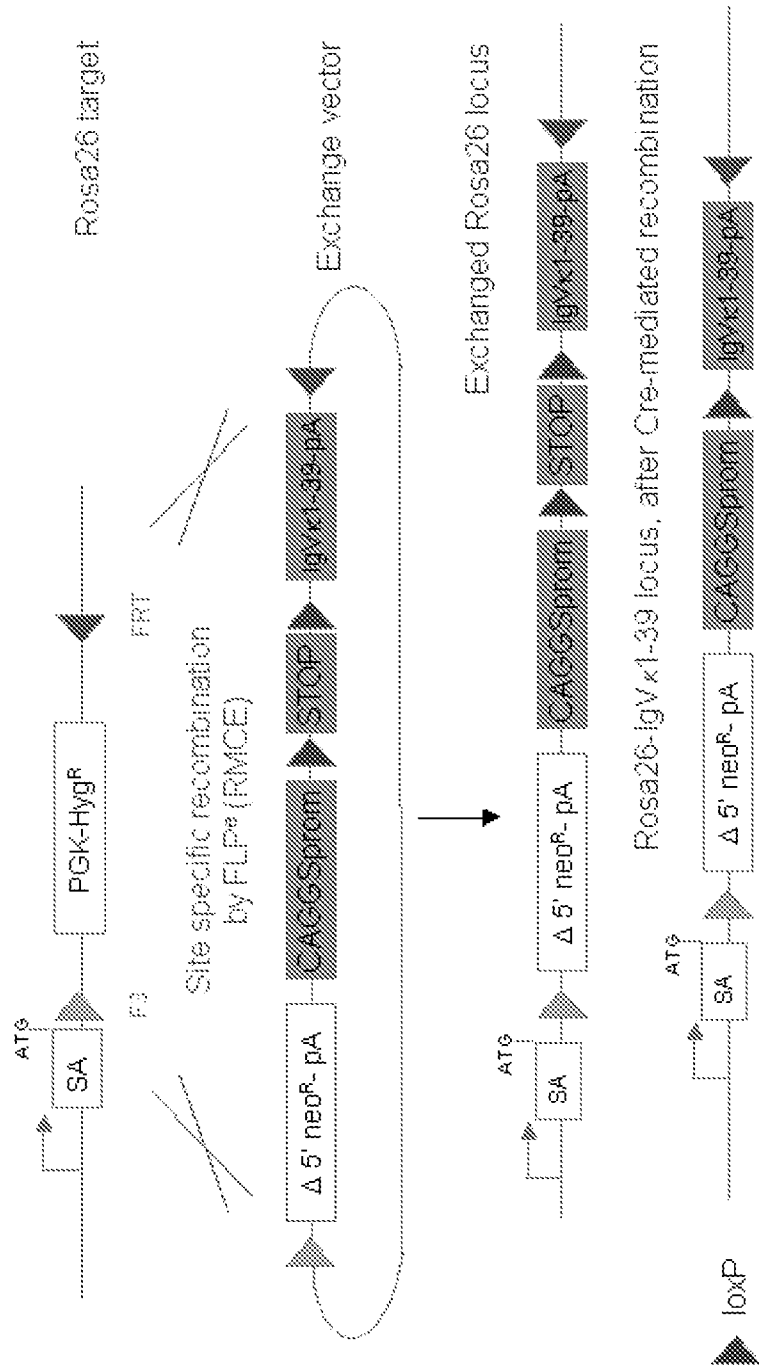
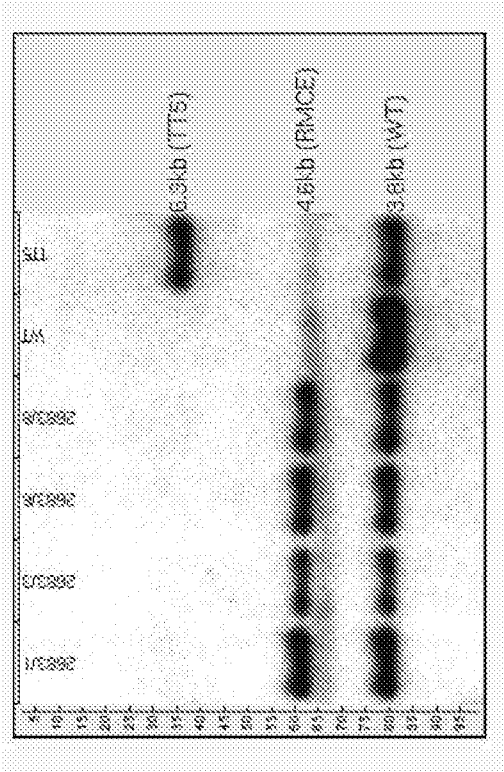


Figure 14

A



B

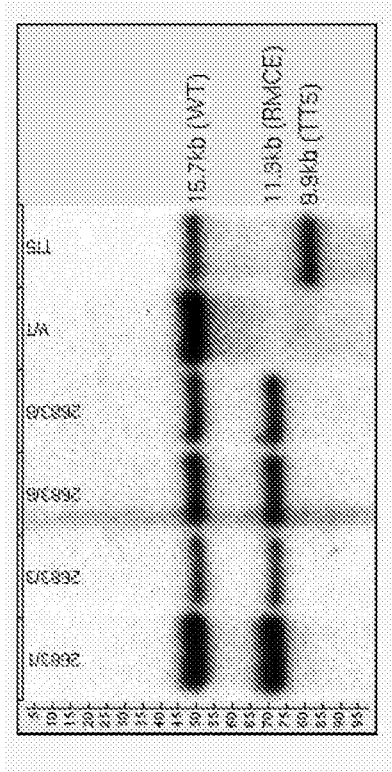


Figure 14 contd

C

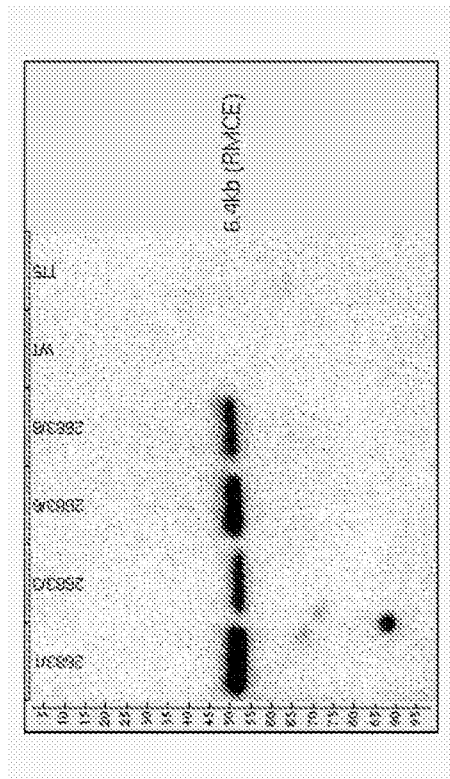


Figure 15

A

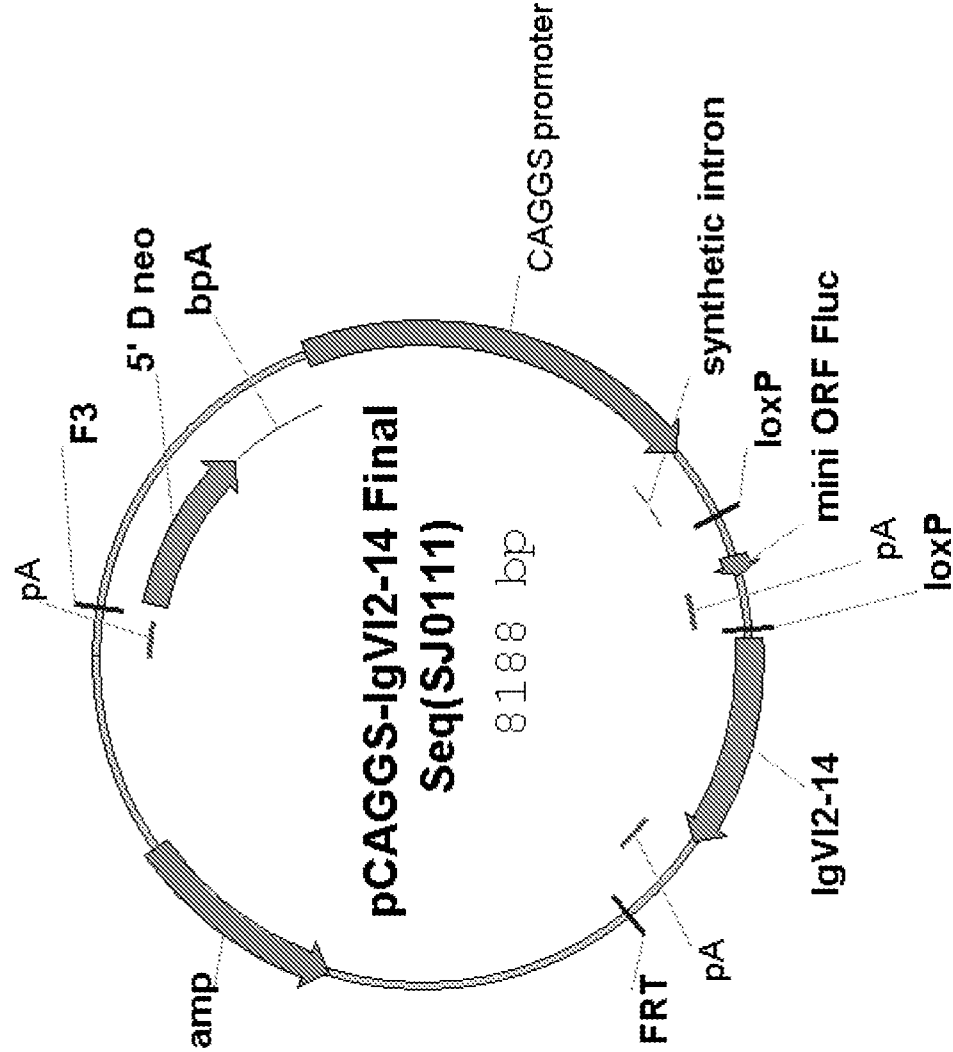


Figure 15 contd

B

```

1  atccaggcgc  ggatcaataa  aagatcatta  ttttcaatag  atctgtgtgt  tggttttttg
61  tgtgccttgg  gggaggggga  ggccagaatg  aggcgcggcc  aagggggagg  gggagggccag
121  aatgaccttg  ggggaggggg  agccagaat  gaccttgggg  gagggggagg  ccagaatgag
181  gcgcggatcc  ggagaagtgc  ctattcggaa  gtccctattc  ttcaaatagt  ataggaaactt
241  cgctcgaggg  atcgggccatt  gaacaagatg  gattgcacgc  aggttctccg  gccgcttggg
301  tggagaggct  attcggctat  gactggggac  aacagacaat  cggctgctct  gatgccgcg
361  tgttccggct  gtcagcgcac  gggcgcccg  ttctttttgt  caagaccgac  ctgtccggtg
421  ccctgaatga  actgcaggac  gaggcagcg  ggctatcgtg  gctggccacg  acgggcgttc
481  cttgcgcagc  tgtgctcgac  gttgtcactg  aagcggggaag  ggactggctg  ctattggggc
541  aagtgcgggg  gcaggatctc  ctgtcatctc  accttgctcc  tgccgagaaa  gtatccatca
601  tggctgatgc  aatgcggcgg  ctgcatacgc  ttgatccggc  tacctgccc  ttcgaccacc
661  aagcgaaaca  tcgcatcgag  cgagcatgta  ctcggatgga  agccgggtct  gtcgatcagg
721  atgatctgga  cgaagagcat  caggggctcg  cgccagccga  actgttcgcc  aggcctcaagg
781  cgcgcgatgc  cgacggcgag  gatctcgtcg  tgacccatgg  cgatgcctgc  ttgccgaata
841  tcatggtgga  aaatggccgc  tttcttggat  tcatcgactg  tggccggctg  ggtgtggcgg
901  accgctatca  ggacatagcg  ttggctacc  gtgatattgc  tgaagagctt  ggcggcgaaat
961  gggctgaccg  ctccctcgtg  ctttacggta  tcggcgctcc  cgattcgcag  cgcatacgct
1021  tctatcgctt  tcttgacgag  ttcttctgag  gggatcgatc  cgctgtaagt  ctgcagaaat
1081  tgatgatcta  ttaacaata  aagatgtcca  ctaaaatgga  agtttttctt  gtcatacttt
1141  gttaagaagg  gtgagaacag  agtacctaca  ttttgaatgg  aaggattgga  gctacggggg
1201  tgggggttgg  gtgggattag  ataaatgcct  gctctttact  gaaggctctt  tactattgct
1261  ttatgataat  gtttcatagt  tggatatcat  aatttaaca  agcaaaaaca  aattaagggc
1321  cagctcattc  ctcccactca  tgatctatag  atctatagat  ctctcgtggg  atcattgttt

```

Figure 15 contd

1381 ttctcttgat tccactttg tggttctaag tactgtgggt tccaaatgtg tcagtttccat
 1441 agcctgaaga acgagatcag cagcctctgt tccacataca cttcattctc agtattgttt
 1501 tgcctgaagttc taattccatc agaagctgac tctagatggc gcgtatgcag gttttcagaca
 1561 ttgattattg actagttatt aatagtaatc aattacgggg tcattagttc atagcccata
 1621 tatggagttc cgcgttacat aacttaagggt aaatggcccc cctggctgac cgcctcaacga
 1681 cccccgccca ttgacgtcaa taatgaagta tgttcccata gtaacgcca tagggacttt
 1741 ccattgacgt caatgggtgg agtatttaag gtaaaactgc cacttggcag tacatcaagt
 1801 gtatcatatg ccaagtacgc cccctattga cgtcaaatgac ggtaaatggc cgccttggca
 1861 ttatgcccag tacatgacct tatgggactt tcctacttgg cagtacatct acgtattagt
 1921 catcgctatt accatggctg aggtgagccc cactttctgc ttcaactctcc ccactctccc
 1981 cccctcccca cccccaattt tgtatttatt tattttttaa ttattttgtg cagcgatggg
 2041 ggcggggggg gggggggggc gcgccaggcg gggcgggggg gggcgagggg cggggcgggg
 2101 cgaggcggaag aggtgcggcg gcagccaatc agagcggcg ctcctgaaa gtttctttta
 2161 tggcgaggcg gcggcgggcg cggccctata aaaaagcgaag cgcgcggcg gcggggagtcg
 2221 ctgcgttgcc ttgcgcccg gtcccgctcc gcgccgcctc gcgccgcctc ccccggtctc
 2281 gactgaccgc gttactccca caggtgagcg ggcgggacgg ccttctct cggggctgta
 2341 attagcgctt ggtttaatga cggctcgttt cttttctgtg gctgcgtgaa agccttaaa
 2401 ggcctcggga gggccctttg tgcggggggg agcggctcgg ggggtgcgtg cgtgtgtgtg
 2461 tgcgtgggga gcgccgcgtg cggcccgcg cggccggcg cgtgagcgc tgcggggcg
 2521 gcgcggggct ttgtgcgtc cgcgtgtgcg cgaggggagc gcggccgggg gcggtgcccc
 2581 gcggtgcggg ggggctgcga ggggaacaaa ggcctgcgtc ggggtgtgtg cgtggggggg
 2641 tgagcagggg gtgtgggcgc ggcgtcggg ctgtaacccc cccctccccg cccctccccg
 2701 agttgctgag caccggcccc cttcgggtgc ggggtcctgt gcggggcggtg gcgcggggct
 2761 cgcctgccc ggcgggggggt ggcggaaggt ggggtgtgcc ggcggggcg ggcgcctcgt
 2821 ggcgggggag ggctcggggg aggggcggcg cggccccga gcgcggcg cgtcgaggc
 2881 gcggcgagcc gcagccattg cctttattg taatcgtgcg agagggcgca gggacttctc

Figure 15 contd

2941 ttgtccaaa tctgtcgga gccgaaatct gggaggcgcc gccgacccc ctctagcggg
 3001 cgcggggcga agcgggtcgg gcggggcagg aggaaatgg gcggggaggg ccttcgtcg
 3061 tcgcgcgcgc gccgtccct tctccctctc cagccctcgg gctgtccgc gggggacggc
 3121 tgccttcggg ggggacggg caggcgggg ttccggttct ggcgtgtgac cggcggtctt
 3181 agaagcgtg gggtagtac tccctctcaa aagcgggcat gacttctgcg ctaagattgt
 3241 cagtttccaa aaacgaggag gatttgatat tcacctggcc cgcggtgatg cctttgaggg
 3301 tggccgcgtc catctggtca gaaaagacaa tcttttgtt gtcaagcttg aggtgtggca
 3361 ggccttgagat ctggccatc acttgagtga cattgacatc cactttgcct ttctccac
 3421 aggtgtccac tcccaggcg gccctcggag cgatcgccga tccgcctagg caattgttta
 3481 aatcggccgg ccataactc gtataatgta tgctatacga agttatggat cctcacagta
 3541 ggtggcatcg ttcccttctg actgcccgc cccgcgcgc cgtcccgcga tattgagctc
 3601 cgaacctctc gccctgcgc cgcgggtgct cgtcgccgc cgcgcgcga tggaaatcgaa
 3661 gccaccatgg atcttaccg aaaactcgac gcaagaaaaa tcagagagat cctcataaag
 3721 gtcaagaagg gcggaaagat cgcggtgtaa ttctagaccg gtctgagatc caggcgcgga
 3781 tcaataaaa atcattattt tcaatagatc tgtgtgttg ttttttgtt gccttggggg
 3841 agggggaggc cagaatgagg cgcggccaa ggggaggggg aggccagaat gaccttgggg
 3901 gagggggagg ccagaatgac ctctgggggag ggggagggcca gaatgaggcg cgcctccgt
 3961 cgacctataa ctctgtataa tgtatgctat acgaagttat ggcggccgcc accatggaca
 4021 tgagagtgc cgcacagctc ctggggctcc tgctactctg gctccgaggt aaggatggag
 4081 aacactagga atttactcag ccagtgctc cagtactgac tggaacttca ggaagtctt
 4141 ctgataacat gattaatagt aagaatattt gtttttatgt ttccaatctc aggtgccaga
 4201 tgtcagctcg cctgaccca gccgcctct gtgtctggca gccctggcca gagcatcacc
 4261 atcagctgca ccggcaccag cagcgacgtg ggcggctaca actacgtgtc ctggtatcag
 4321 cagcaccccg gcaaggcccc caagctgatg atctacgagg tgtccaacag acccagcggc
 4381 gtgagcaaca gattcagcgg cagcaagagc ggcaacaccg ccagcctgac catcagcggc
 4441 ctccaggctg aggacgaggc cgactactac tgcagcagct acaccagcag ctccaccctg

Figure 15 contd

4501 gtgtttggcg gcggaacaaa gctgaccgtg ctgagagccg acgccgctcc caccgtgtcc
 4561 atcttccccc ccagcatgga acagctgacc tctggcggag ccaccgtggc ctgcttcgtg
 4621 aacaaacttct accccagaga catcagcgtg aagtggaaaga tcgacggcag cgagcagagg
 4681 gacggcgtgc tggacagcgt gaccgaccag gacagcaagg actccacctc cagcatgagc
 4741 agcacccctga gcctgaccaa ggtggagtag gagaggcaca acctgtacac ctgcgagggtg
 4801 gtgcacaaga ccagctccag ccccggtggtc aagtccttca accggaacga gtgttgagct
 4861 agcttaagat ttaaataggc cgcccgctc gacctcgaga tccaggcgcg gatcaataaa
 4921 agatcattat ttccaataga tctgtgtgtt ggttttttgt gtgccttggg ggagggggag
 4981 gccagaatga ggcgcggcca agggggaggg ggaggccaga atgaccttgg ggagggggga
 5041 ggccagaatg accttggggg agggggaggc cagaatgagg cgcgcccccg ggtaccgagc
 5101 tcgaattagt ggatcctcac agtaggtggc atcgttccct tctgactgcc cgccccccgc
 5161 atgcccgtccc gcgatatatga gctcgaacc tctcgccctg ccgcgcgcgg tgcctccgtc
 5221 ccgcgcgcgc gccatggaat cgcccggtc accgaagttc ctatactttc tagagaataag
 5281 gaacttcgga ataggaaactt caagccggtc cccagctttt gtcccttta gtgaggggtta
 5341 atttcgagct tggcgtaatc atggtcatag ctgtttcctg tgtgaaattg ttatccgctc
 5401 acaattccac acaacatacg agccgggagc ataaagtga aagcctgggg tgcctaatga
 5461 gtgagctaac tcacattaat tgcgttggc tcactgcccg ctctccagtc gggaaaacctg
 5521 tcgtgccagc tgcattaatg aatcggccaa cgccggggga gaggcgggtt gcgtatttggg
 5581 cgctcttcgg ctctcctcgt cactgactcg ctgcgctcgg tcgttcgggt gcggcgagcg
 5641 gtatcagctc actcaaaagg ggtaatcgg ttatccacag aatcagggga taacycagga
 5701 aagaacatgt gagcaaaaagg ccagcaaaag gccagggaacc gtaaaaaagg cggtttgtg
 5761 gcgtttttcc ataggctccg cccccctgac gagcatcaca aaaatcgacg ctcaagtacg
 5821 aggtggcgaa acccgacagg actataaaga taccaggcgt tccccctgg aagctccctc
 5881 gtgcgctctc ctgttccgac cctgcgctt accggatacc tgcgcgctt tctcccttgc
 5941 ggaagcgtgg cgctttctca tagctcagc tgtaggtatc tcaggtcggc gtaggctcgt
 6001 cgctccaaag tgggctgtgt gcacgaaccc ccggttcagc ccgaccgctg cgccttatcc

Figure 15 contd

6061 ggtaactatc gtcttgagtc caaccgggta agacacgact tatcgccact ggagcagcgc
 6121 actgggtaaca ggattagcag agcagggtat gtaggcggtg ctacagagtt cttgaagtgg
 6181 tggcctaact acggctacac tagaaggaca gtatbtggta tctgcgctct gctgaagcca
 6241 gttaccttcg gaaaaagagt tggtagctct tgatcgggca acaaaaccac cgctggtagc
 6301 ggtgggtttt ttgtttgcaa gcagcagatt acgcgcagaa aaaaaggatc tcaagaagat
 6361 cctttgatct tttctacggg gtctgacgct cagtggaaacg aaactcacg ttaagggtatt
 6421 ttggtcatga gattatcaaa aaggatcttc acctagatcc ttttaaatla aaaatgaagt
 6481 tttaaatcaa tctaaagtat atatgagtaa acttgggtctg acagttacca atgcttaatc
 6541 agtgaggcac ctatctcagc gatctgtcta tttcgttcat ccatagttgc ctgactcccc
 6601 gtcgtgtaga taactacgat acgggagggc ttaccatctg gcccacgtgc tgcattgata
 6661 ccgcgagacc cacgctcacc ggctccagat ttatcagcaa taaaccagcc agccggaaagg
 6721 gccgagcgca gaagtggctc tgcaacttta tccgcctcca tccagttctat taattgttgc
 6781 cggggaagcta gagtaagtag ttccgccagtt aatagtttgc gcaacgttgt tgcatttgc
 6841 acaggcatcg tgggtgtcacg ctcgctgctt ggtatggctt cattcagctc cggttcccaa
 6901 cgatcaaggc gagttacatg atcccccatg ttgtgcaaaa aagcgggttag ctcttcgggt
 6961 cctccgatacg ttgtcagaag taagttggcc gcagtggtat cactcatggt tatggcagca
 7021 ctgcataatt ctcttactgt catgccatcc gtaagatgct tttctgtgac tggtaggtac
 7081 tcaaccaagt cattctgaga atagtgtatg cggcgaccga gttgctcttg cccggcgta
 7141 atacgggata ataccgcgcc acatagcaga actttaaaaag tgctcatcat tggaaaaacgt
 7201 tcttcggggc gaaaaactctc aaggatctta ccgctgttga gatccagttc gatgtaacc
 7261 actcgtgcac ccaactgac ttcagcatct tttactttca ccagcgtttc tgggtgagca
 7321 aaaacaggaa ggcaaaaatgc cgcaaaaaaag ggaataaagg cgacacggaa atgttgaata
 7381 ctcatactct tcctttttca atattattga agcatttatac aggtttattg totcatgagc
 7441 ggatacatat ttgaatgtat ttgaaaaaat aaacaaatag gggttccgcg cacatttccc
 7501 cgaaaagtgc cacctaaatt gtaagcgta atattttgtt aaaaatcgcg taaaattttt
 7561 gttaaatcag ctcatttttt aaccaatagg ccgaaatcgg caaaatccct tataaatcaa

Figure 15 contd

```
7621 aagaatagac cgagataggg ttgagtgttg ttccagtttg gaacaagagt ccactattaa
7681 agaacgtgga ctccaacgtc aaagggcgaa aaaccgtcta tcagggcgat ggccactac
7741 gtgaaccatc accctaatac agtttttttg ggtcgaggtg ccgtaaagca ctaaaatcggg
7801 accctaaagg gagccccga tttagagctt gacgggggaaa gccggcggaac gtggcgagaaa
7861 aggaagggaa gaaagcgaaa ggagcgggag ctagggcgct ggcaagtgtg gcggtcacgc
7921 tgcgcgtaac caccacacc gccgcgctta atgcgccgt acagggcgcg tccattcgc
7981 cattcaggct gcgcaactgt tgggaagggc gatcgggtgc ggctctcttcg ctattacgcc
8041 agctggcgaa aggggggatgt gctgcaaggc gattaagttag ggtaacgcca gggttttccc
8101 agtcacgacg ttgtaaaacg acggccagtg agcgcgcgta atacgactca ctatagggcg
8161 aattgggggt aactaagtaa ggatcgag
```

Figure 15 contd

C

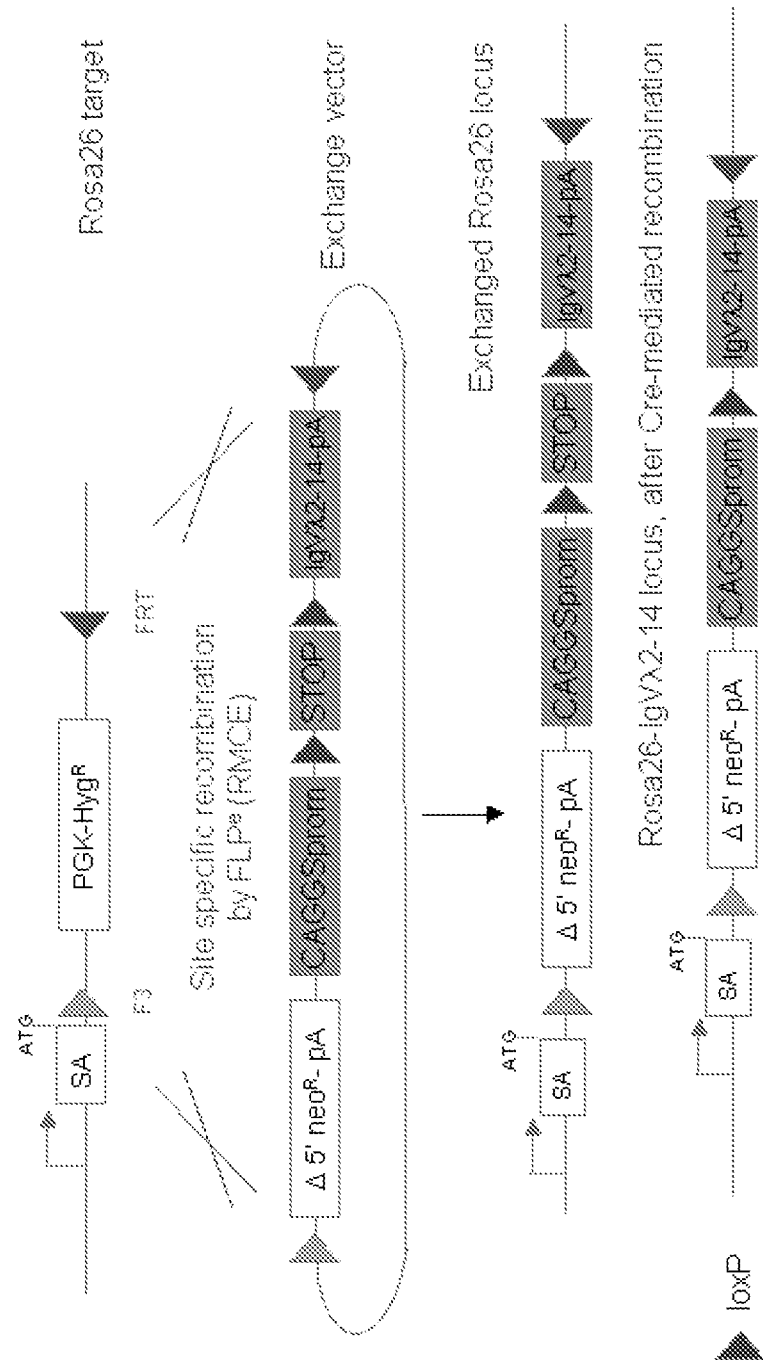


Figure 16

A

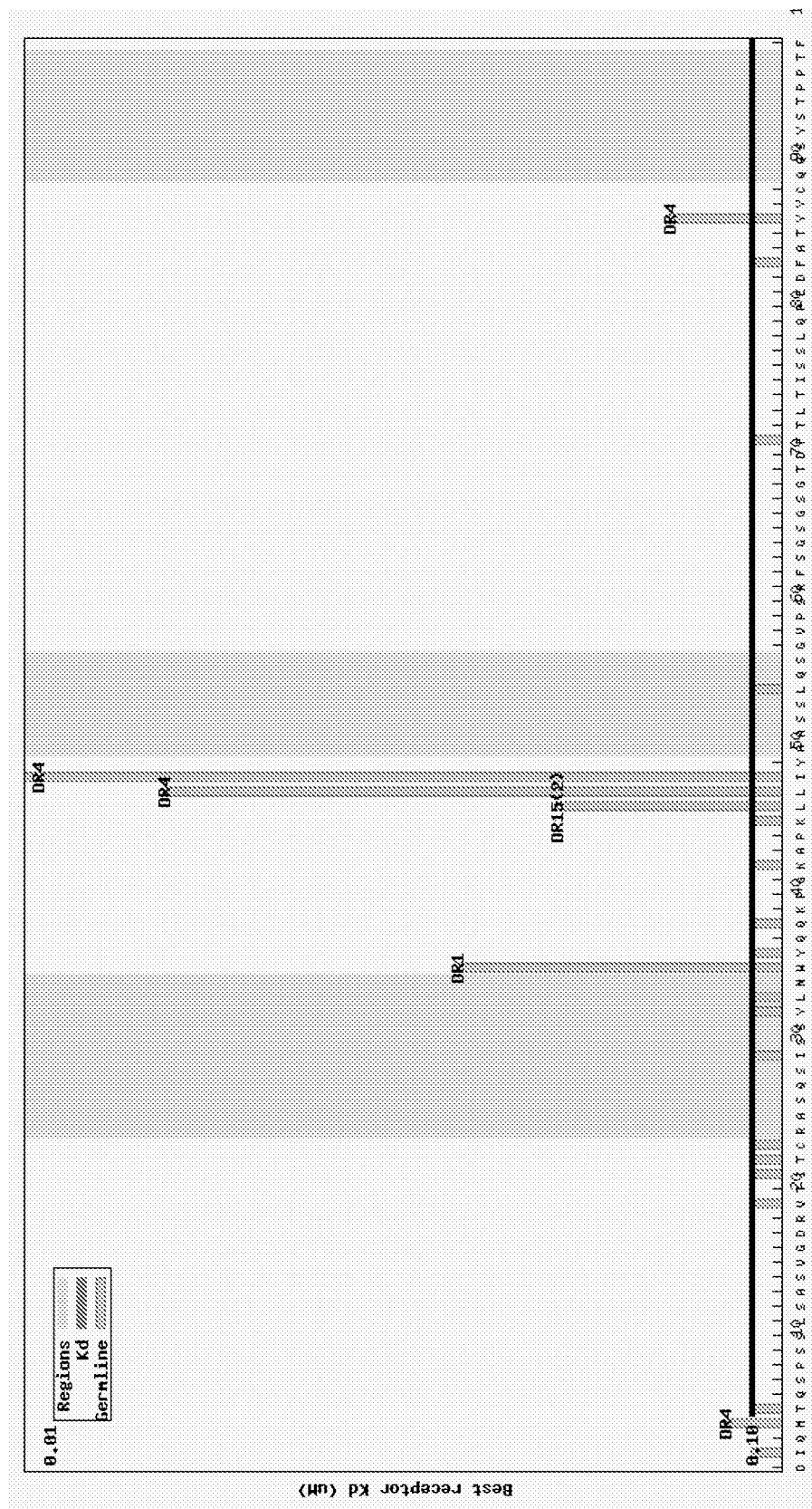


Figure 16 contd

B

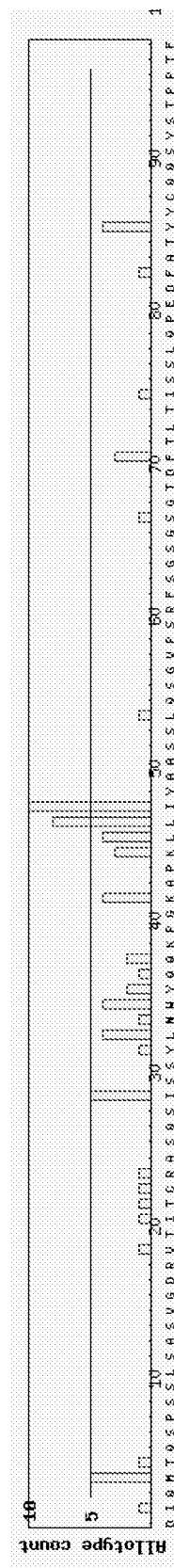


Figure 16 contd
C

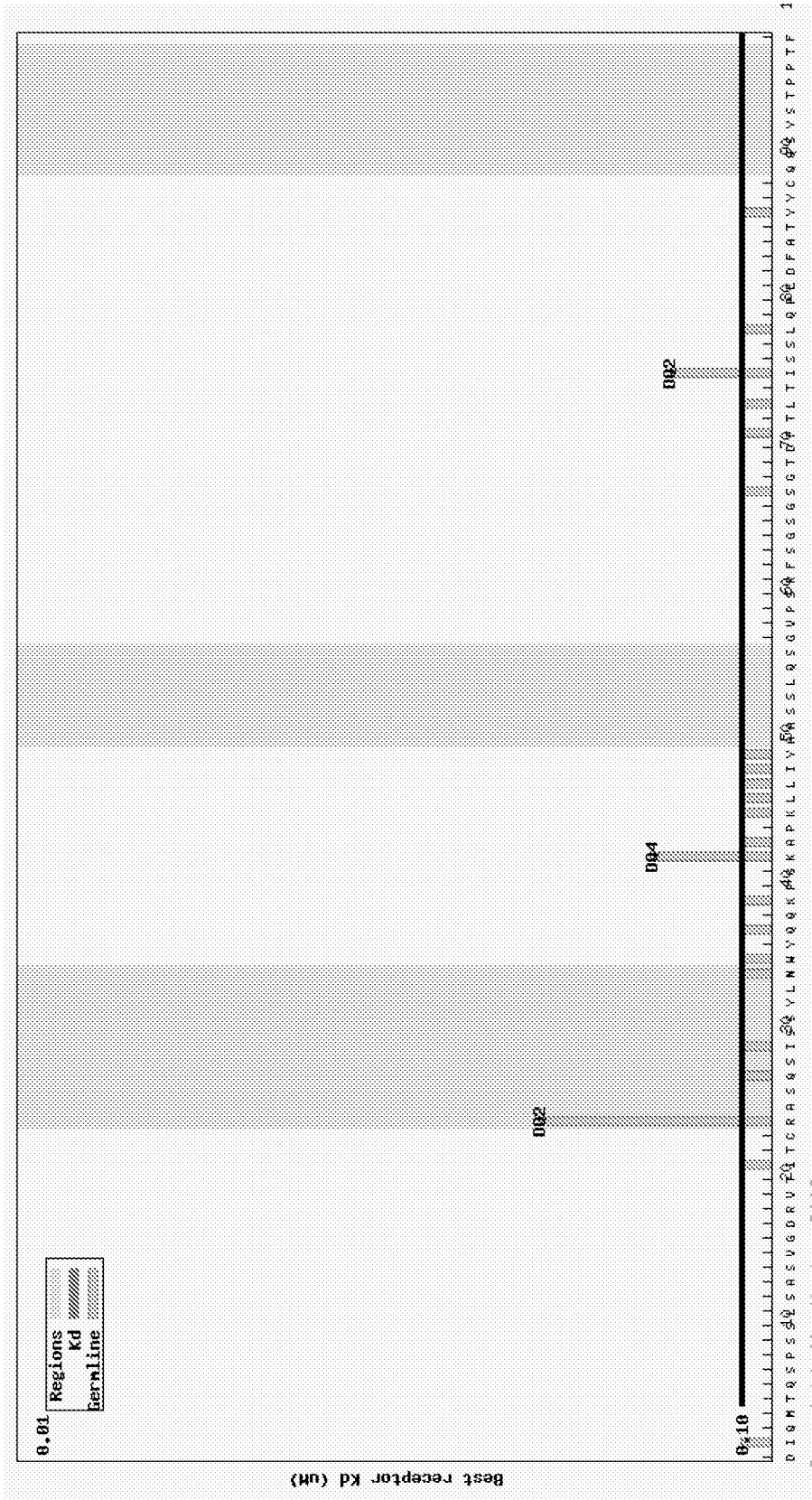


Figure 18

A

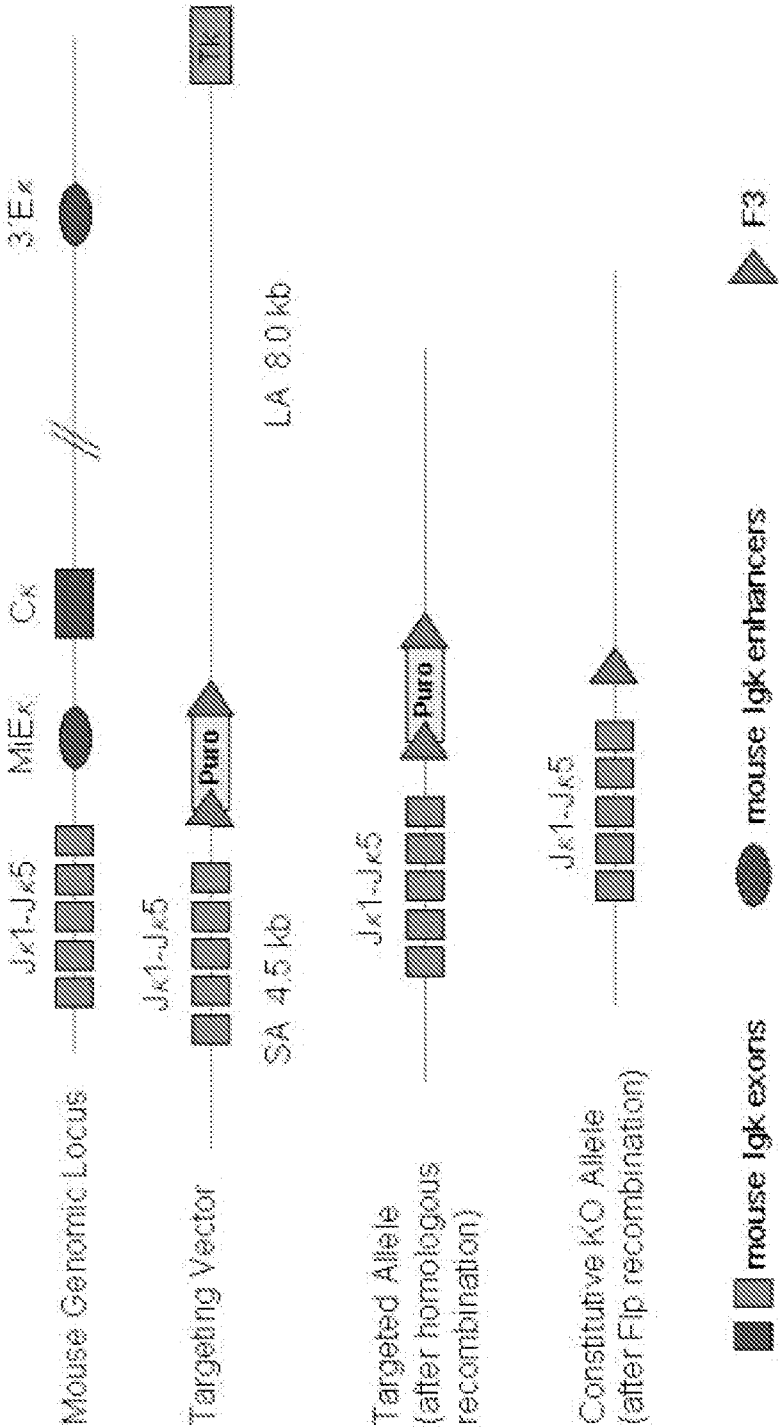


Figure 18 contd

B

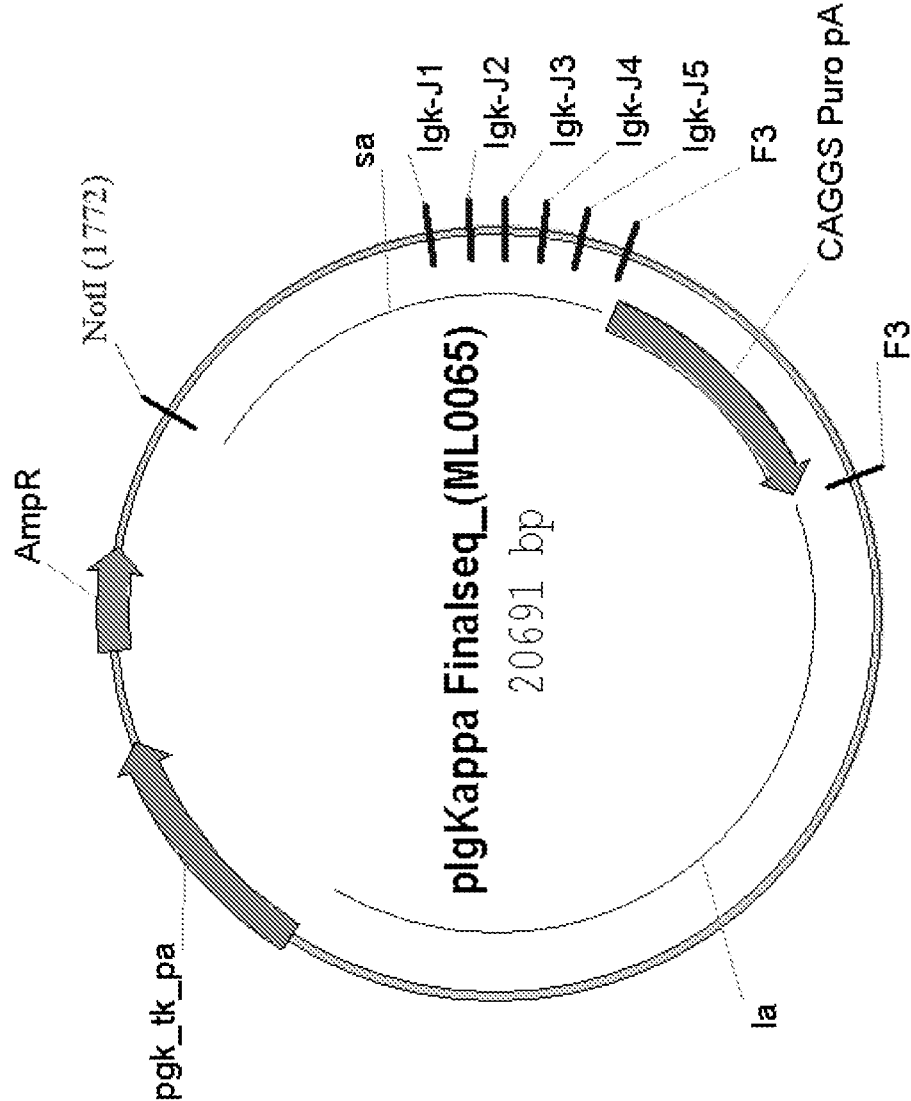


Figure 19
A

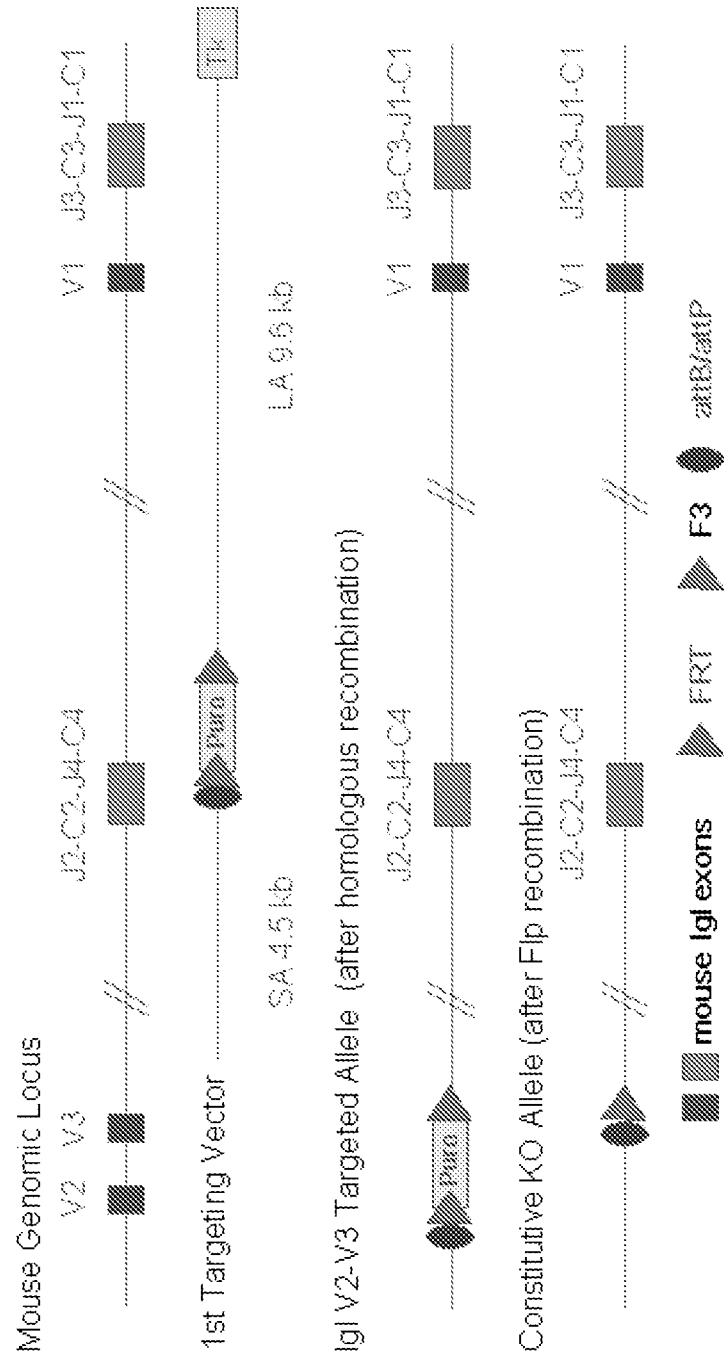


Figure 19 contd

B

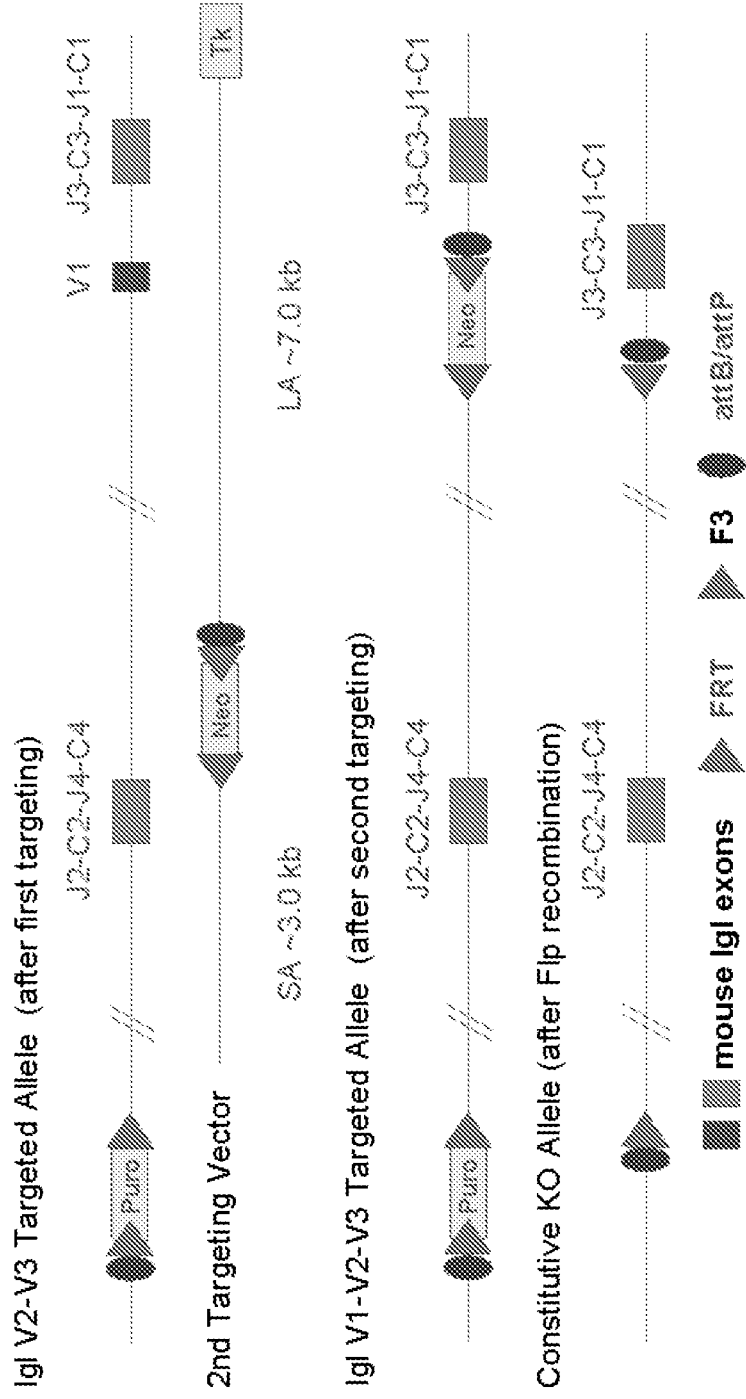


Figure 20

A

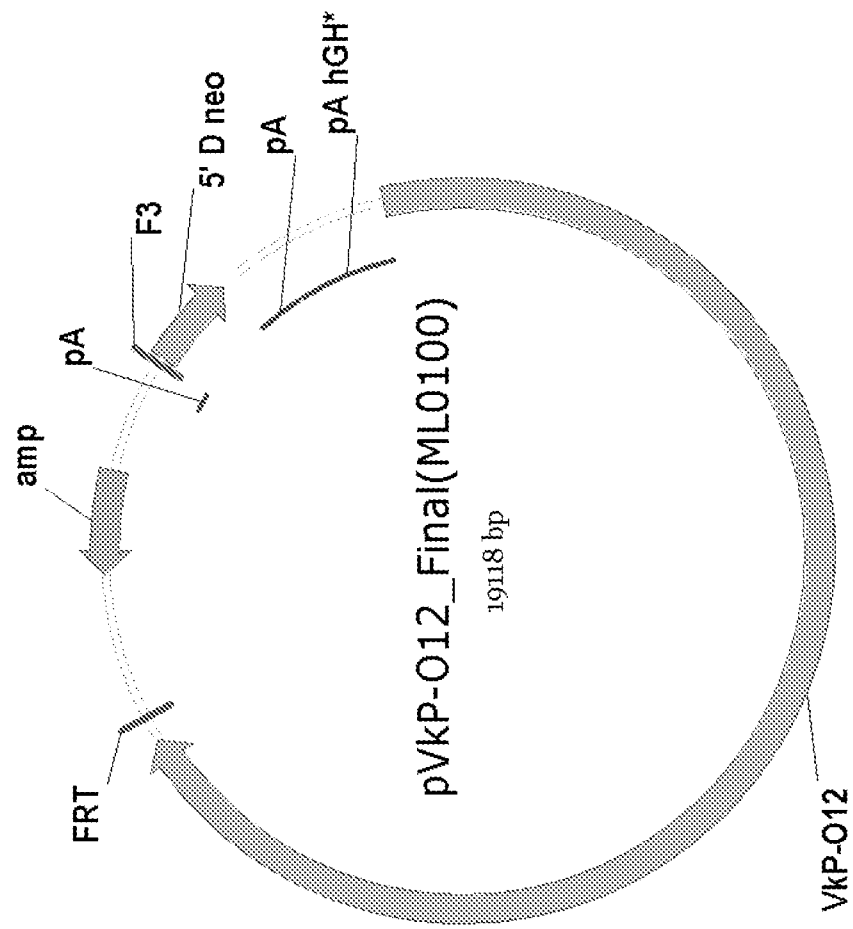


Figure 20 contd

B

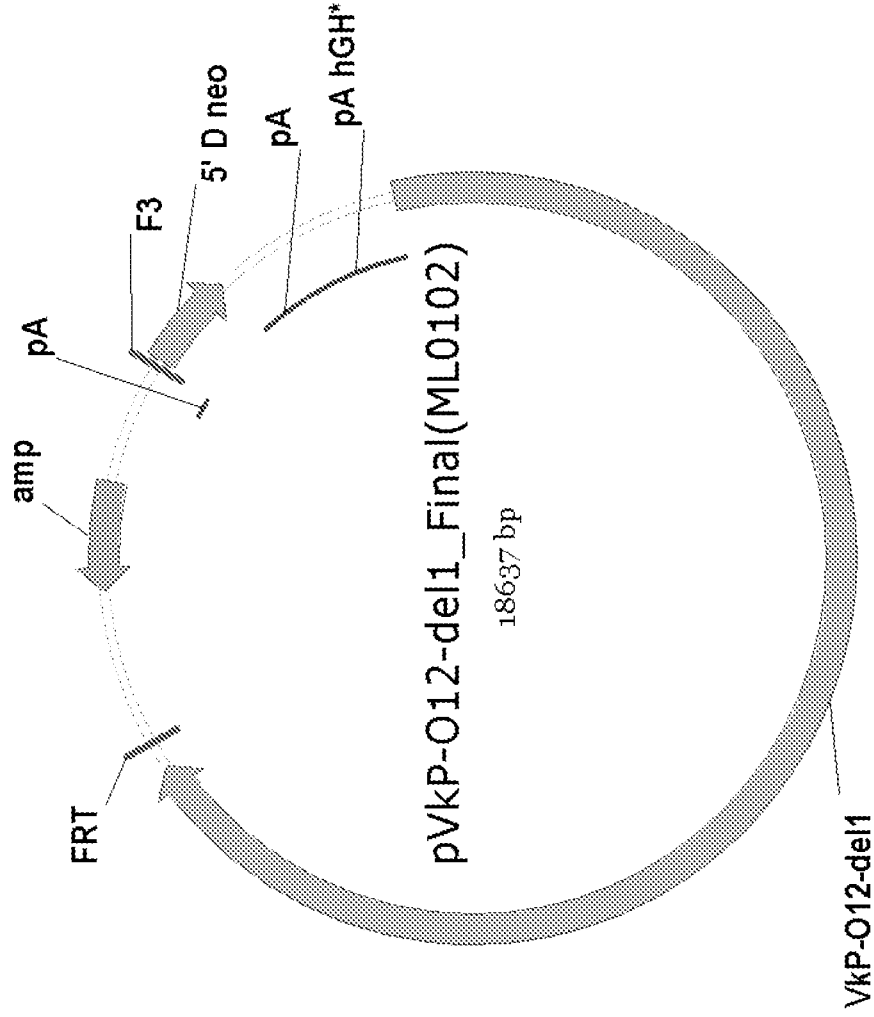


Figure 20 contd

C

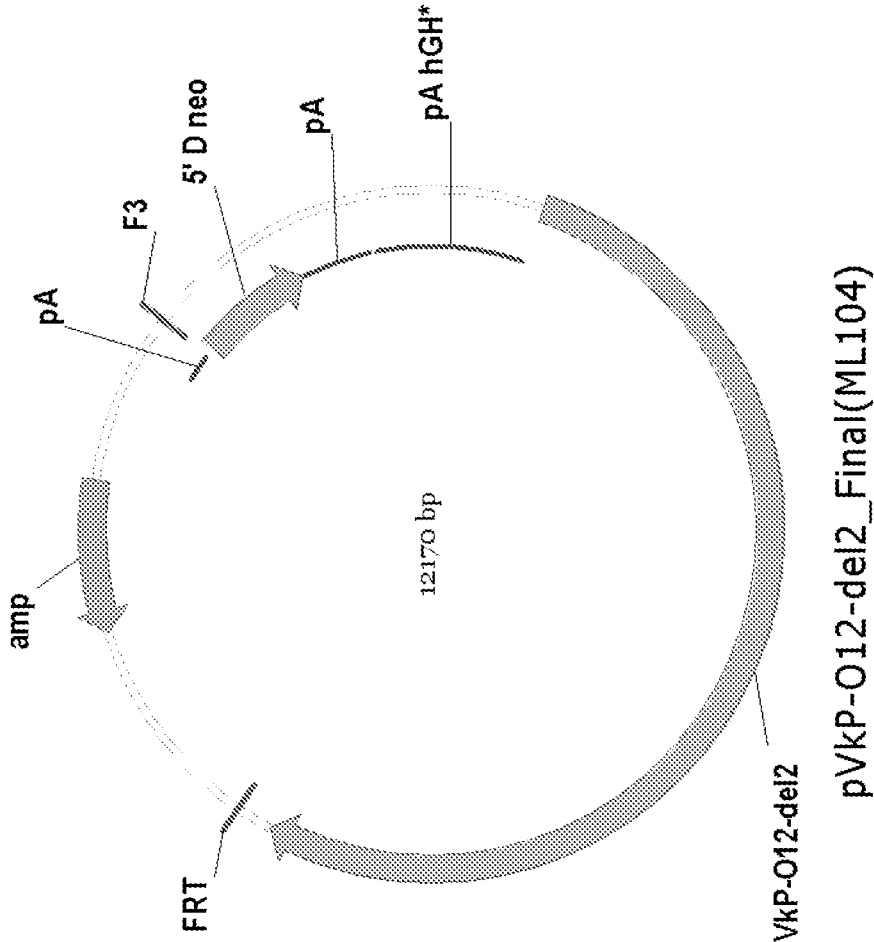


Figure 21

A

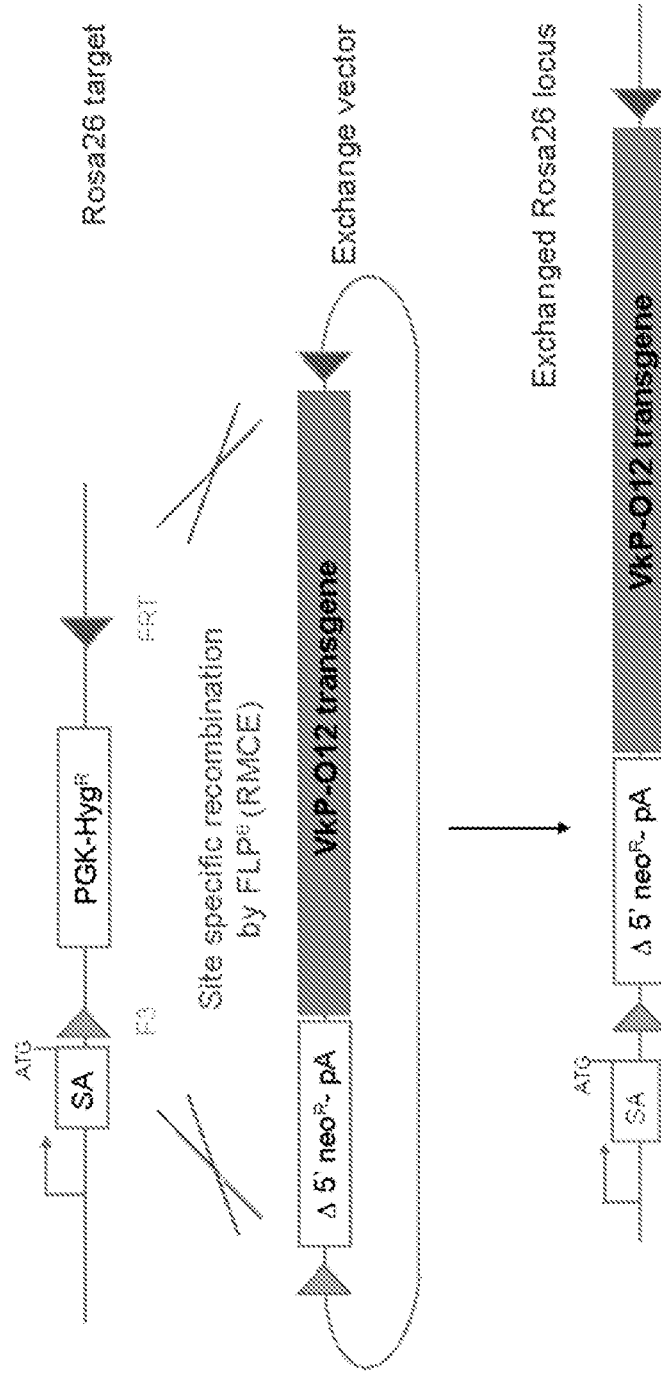


Figure 21 contd

B

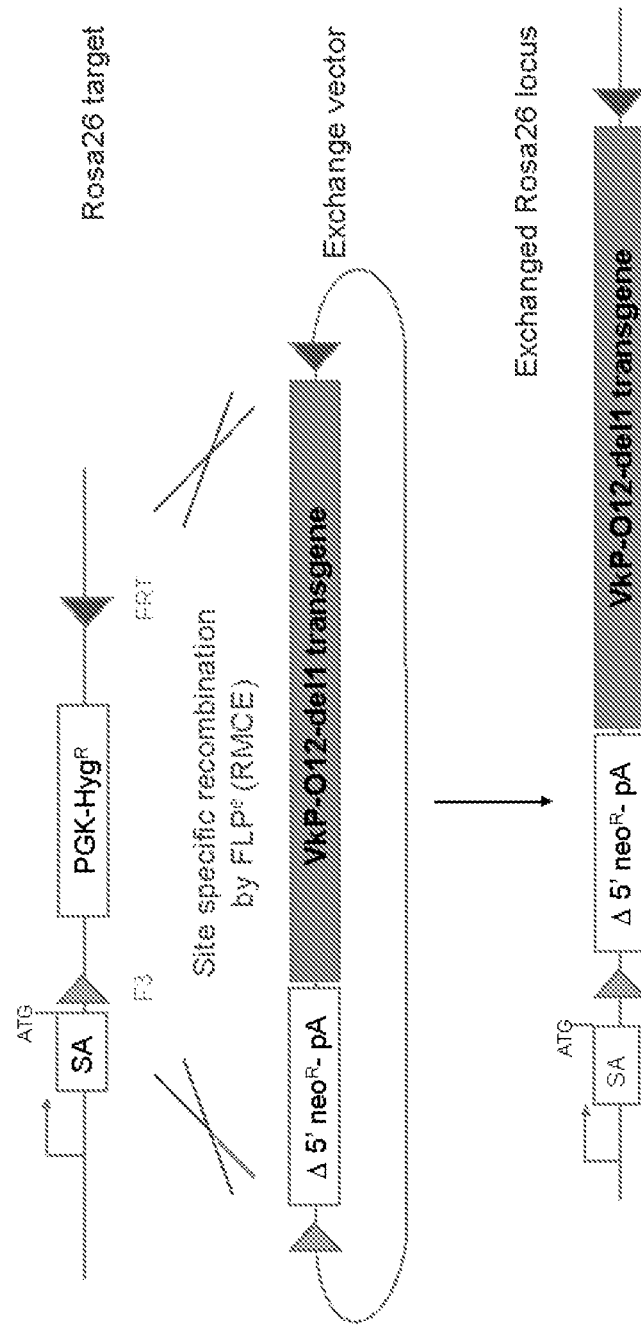


Figure 21 contd

C

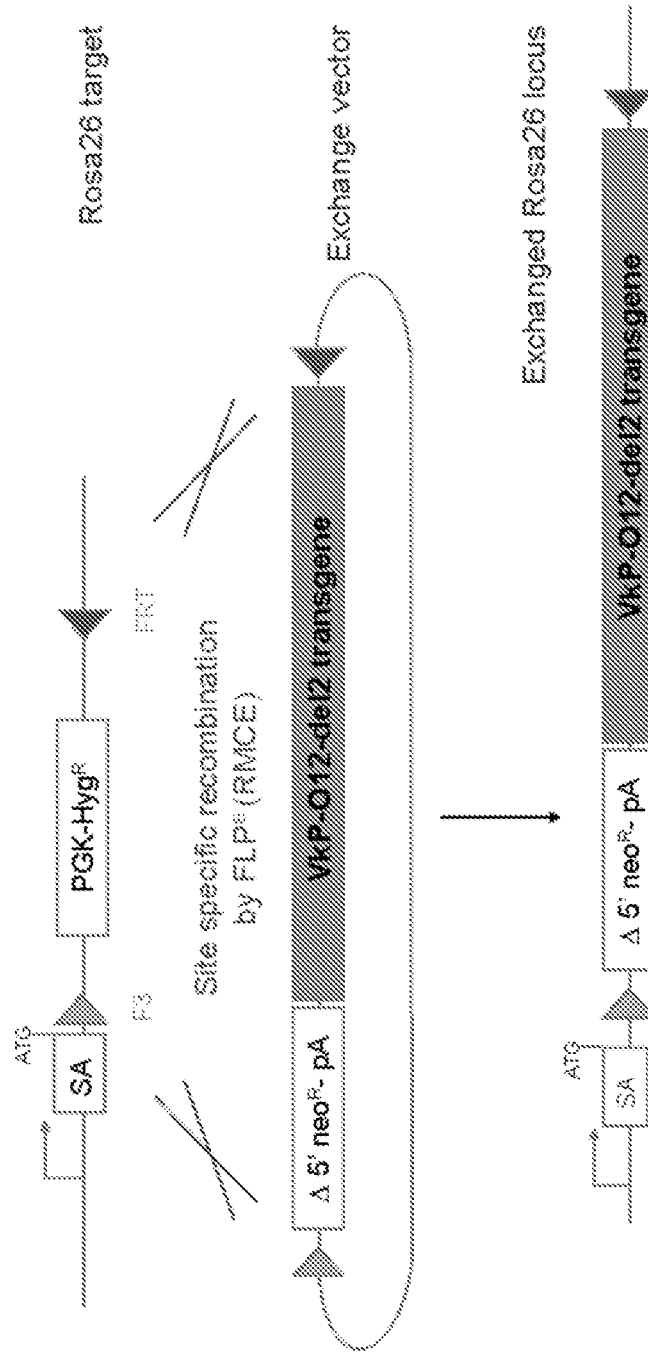


Figure 22

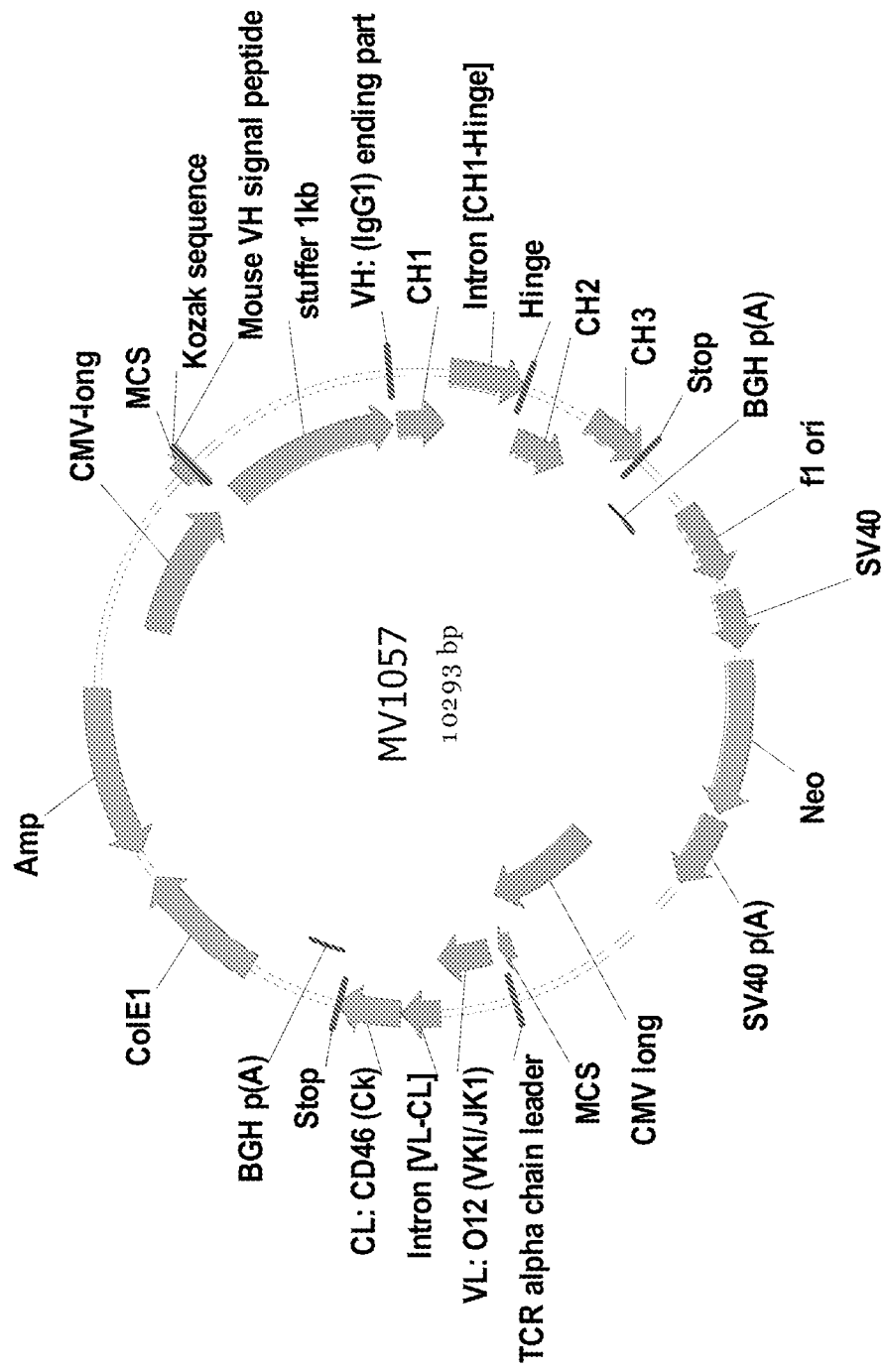


Figure 23

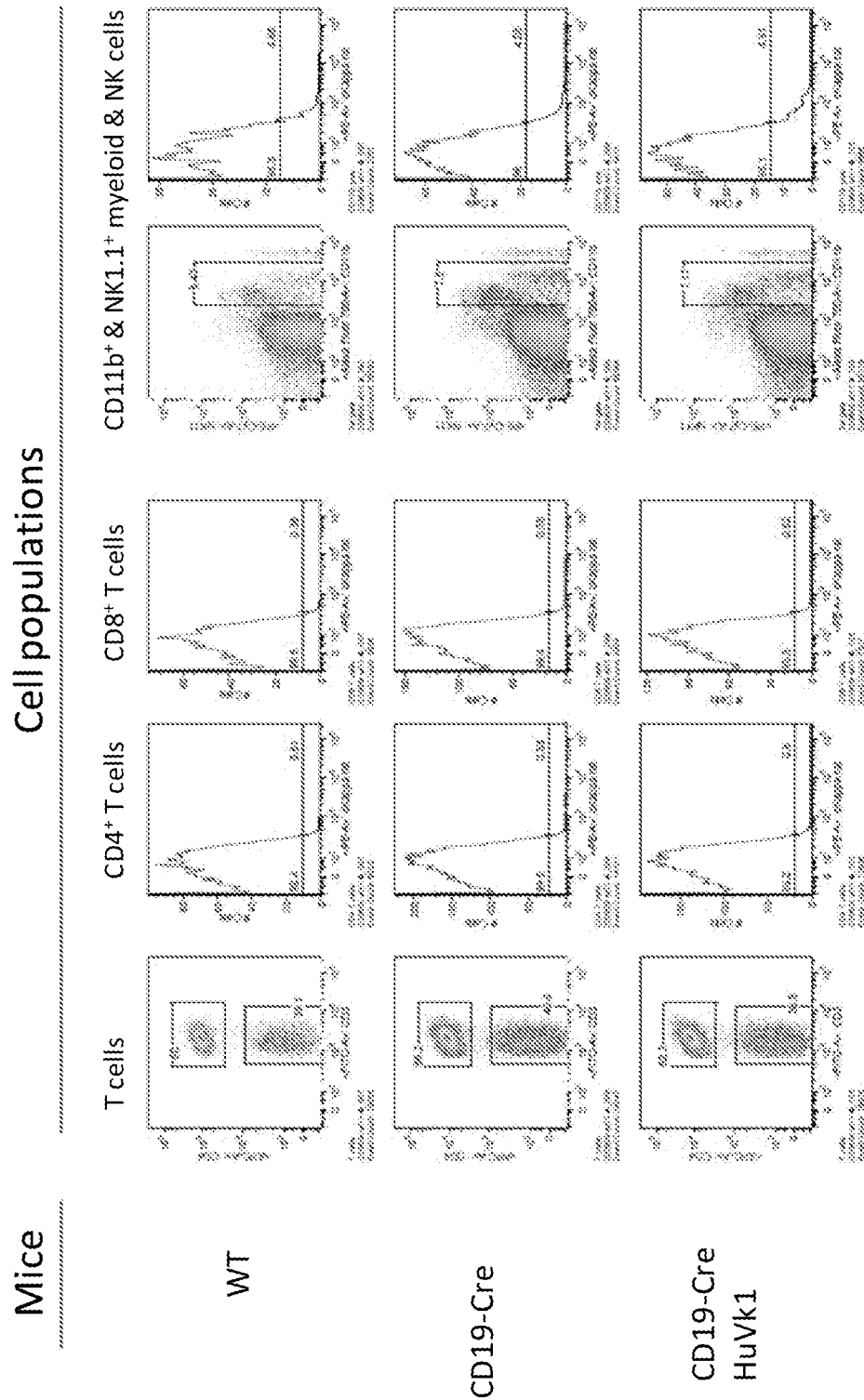


Figure 24

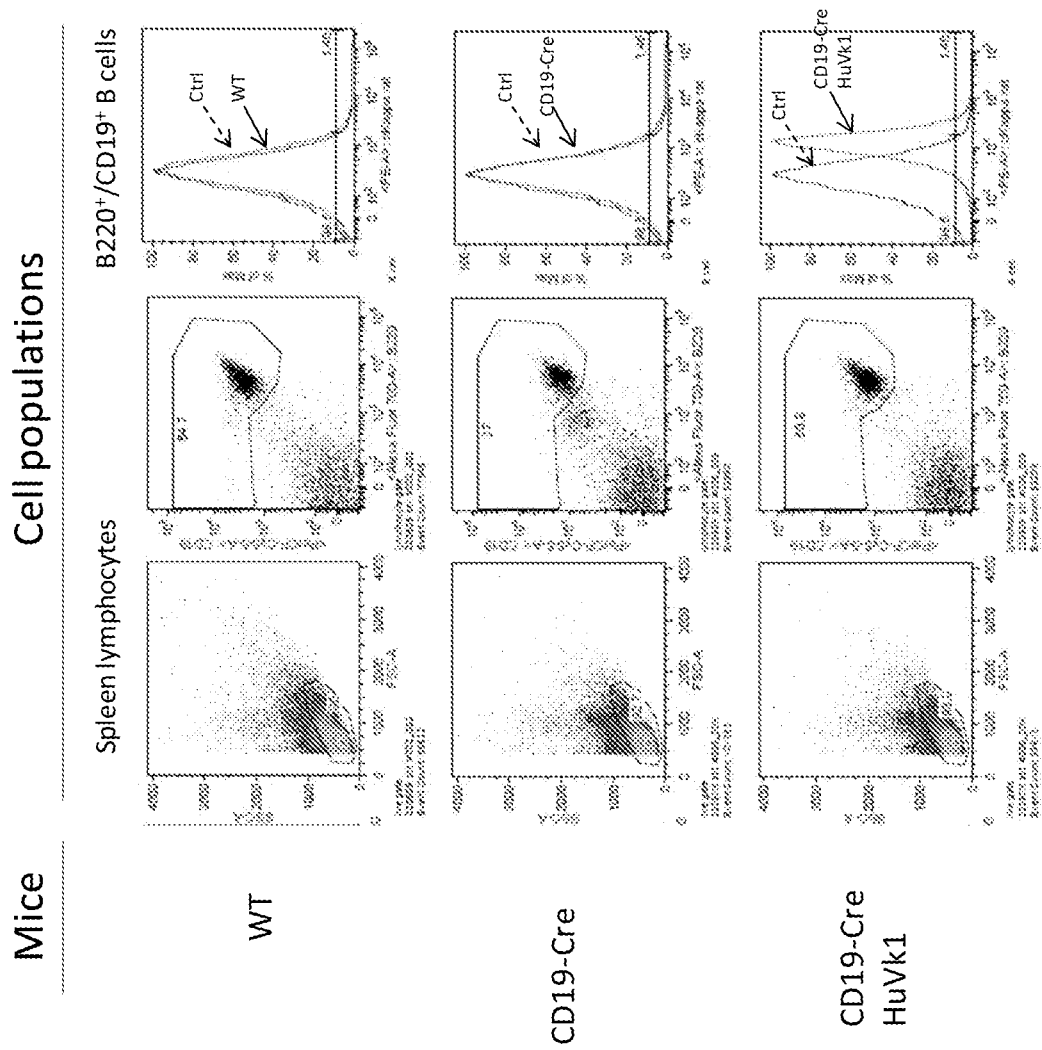


Figure 25

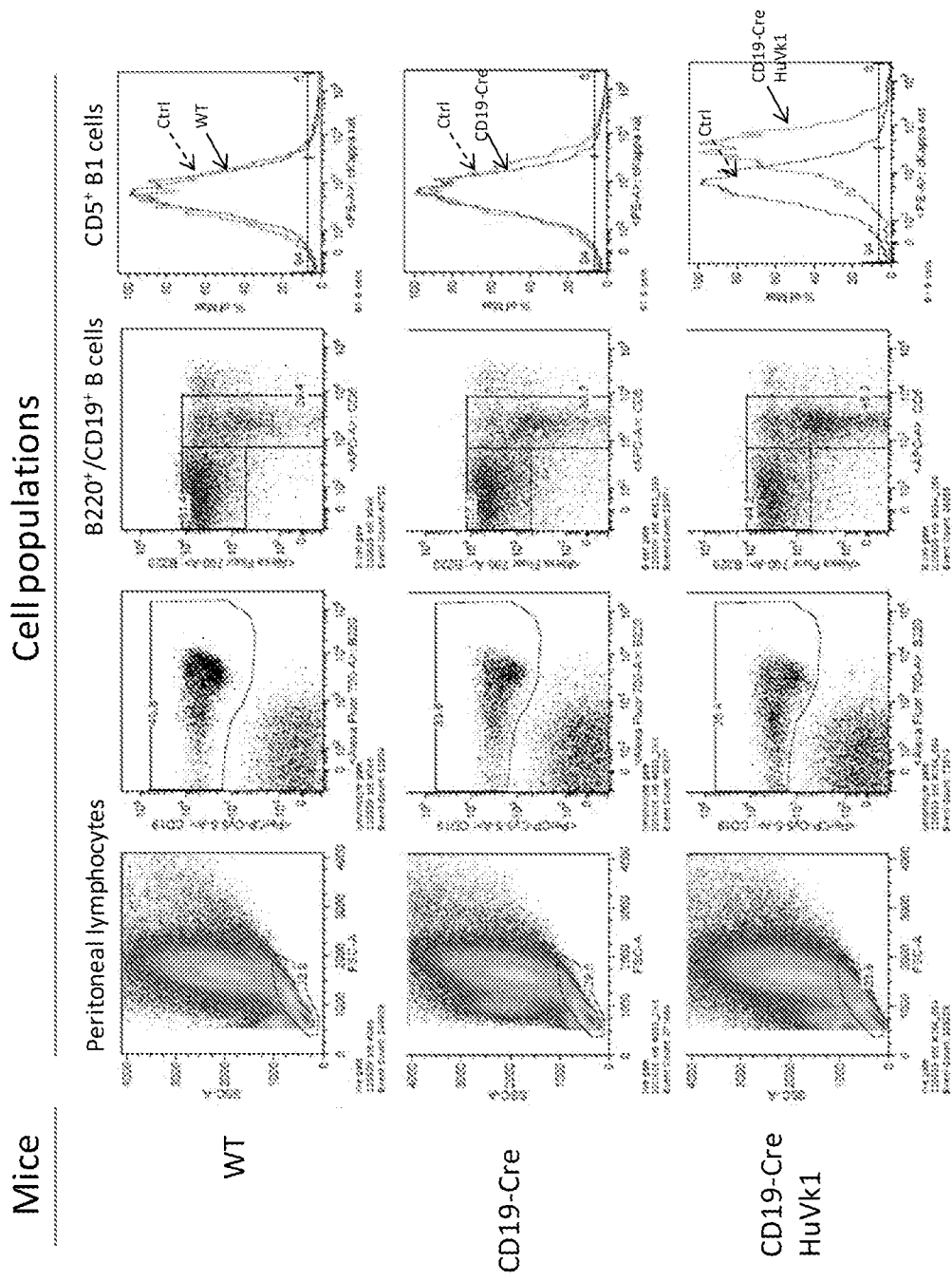


Figure 26

A

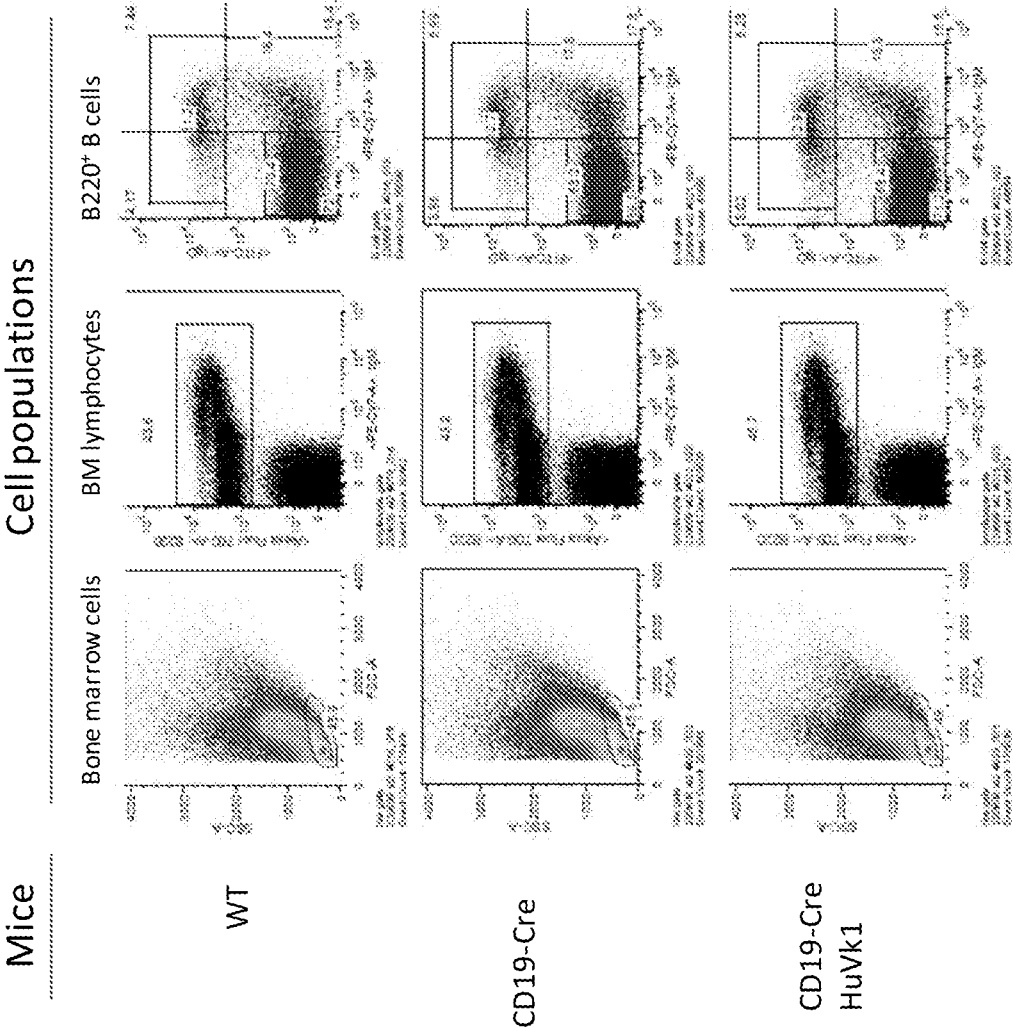


Figure 26 CONTD

B

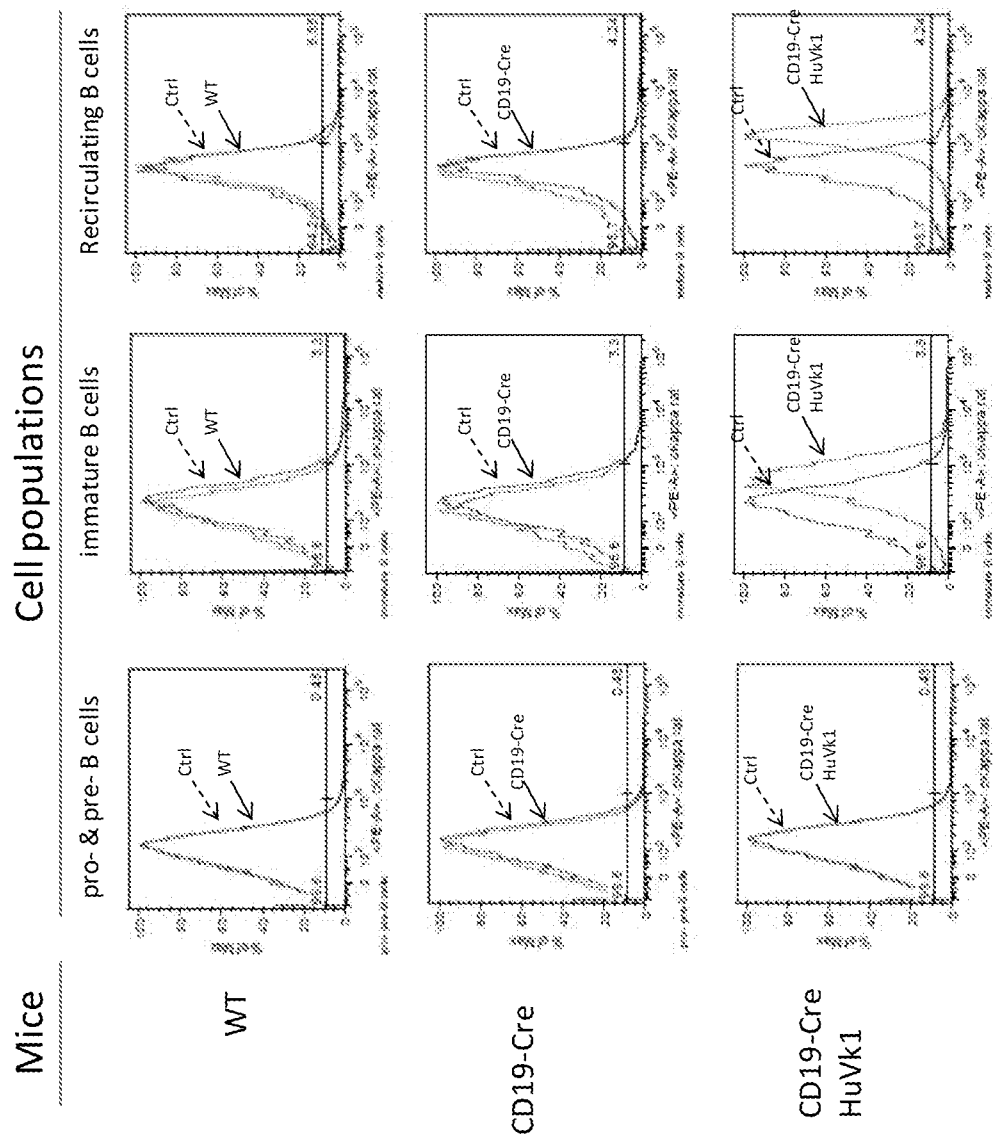


Figure 27

