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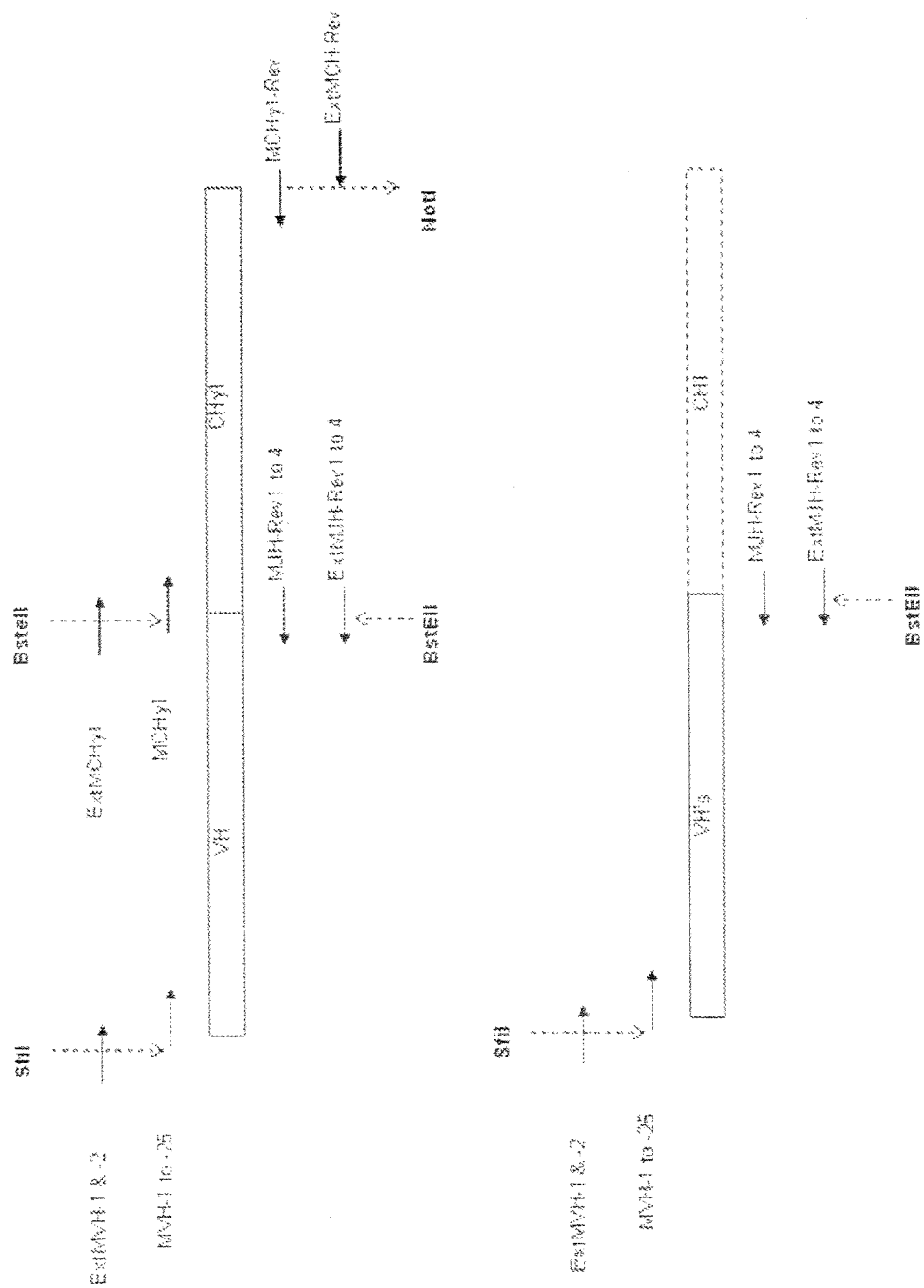


Figure 2

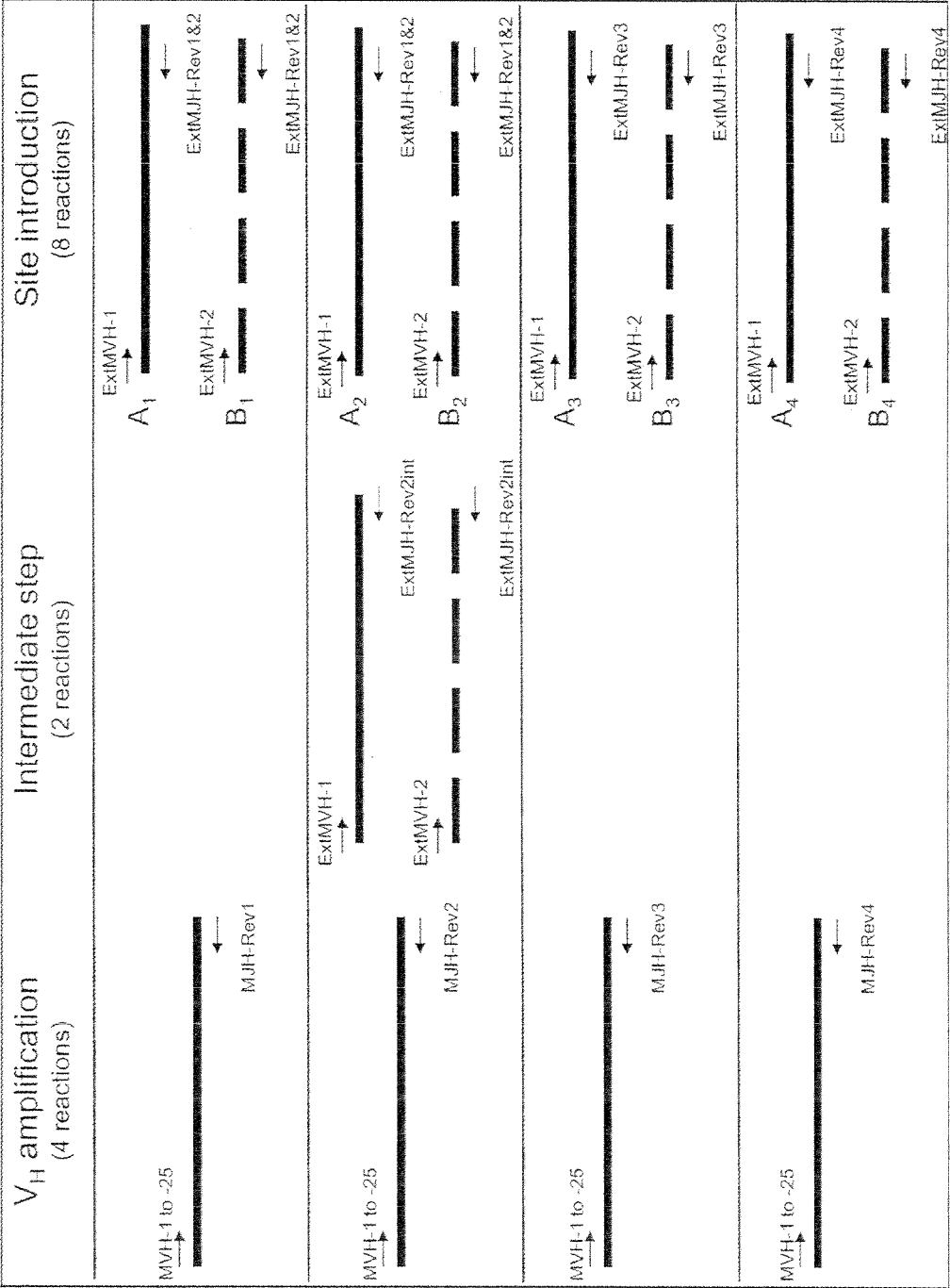


Figure 3

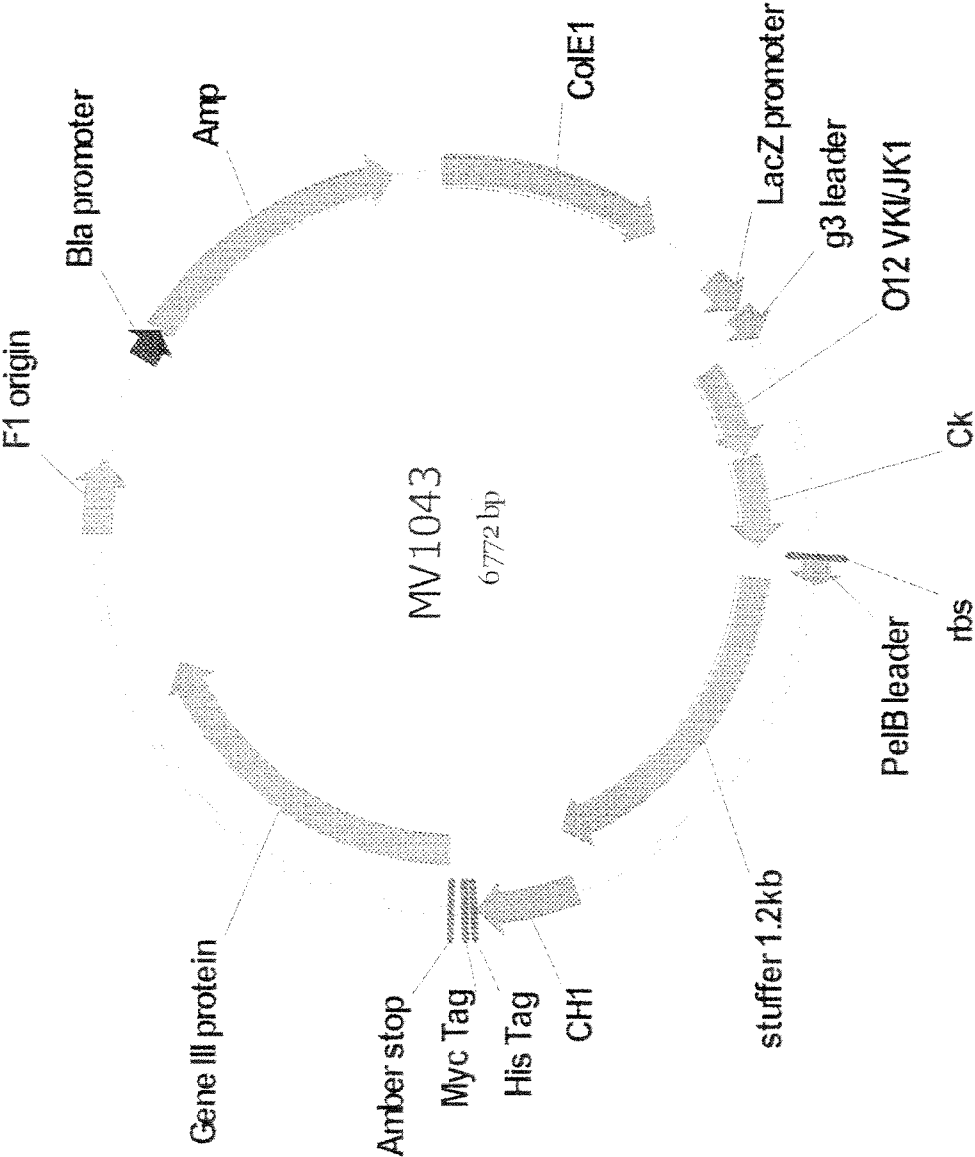


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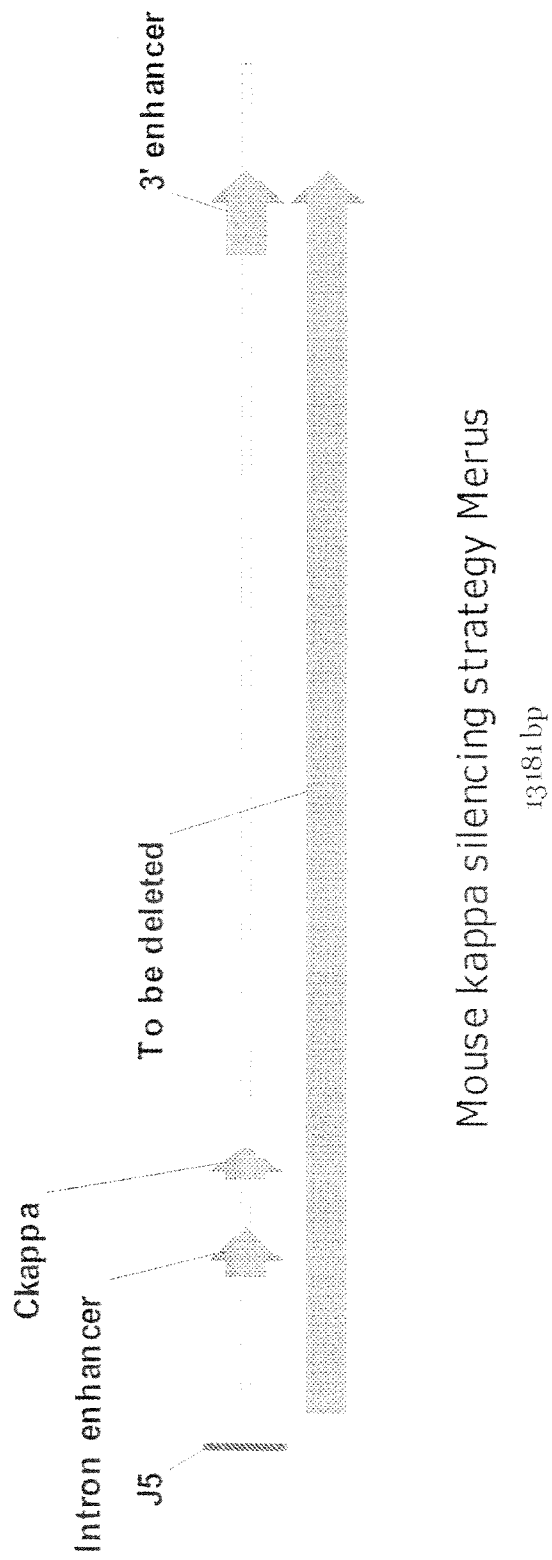


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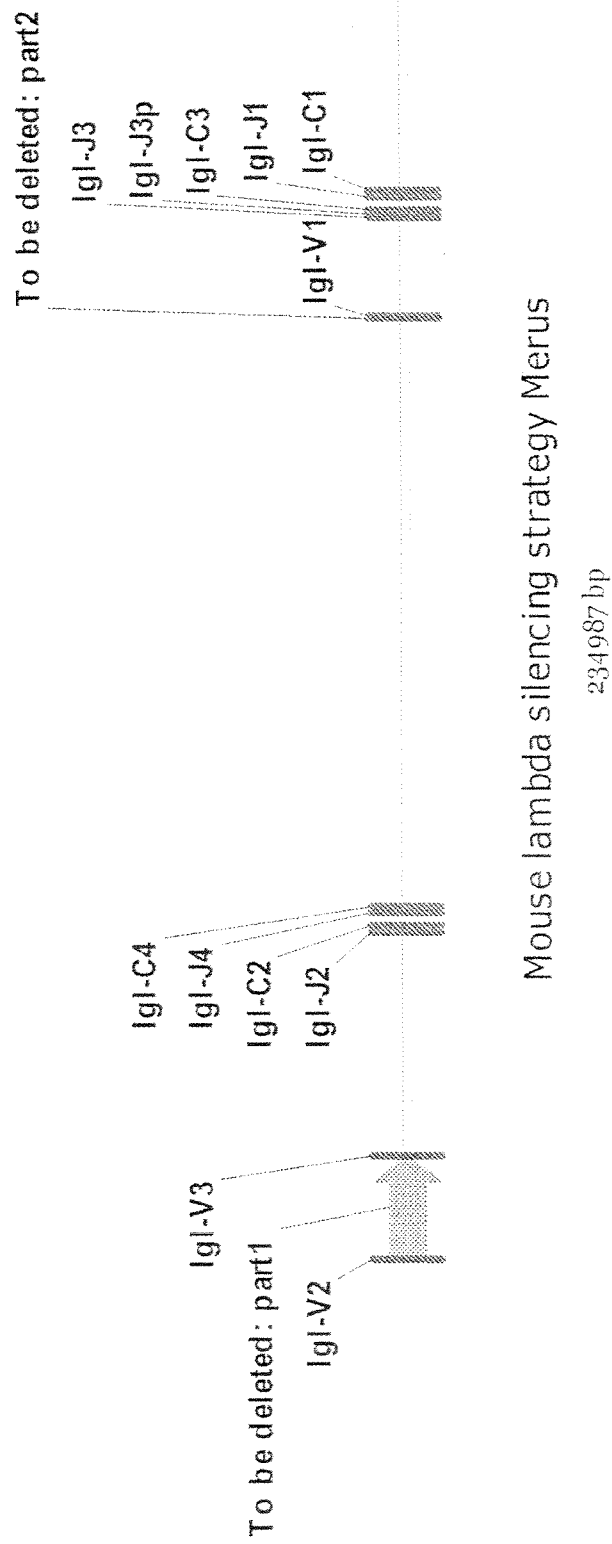


Figure 6

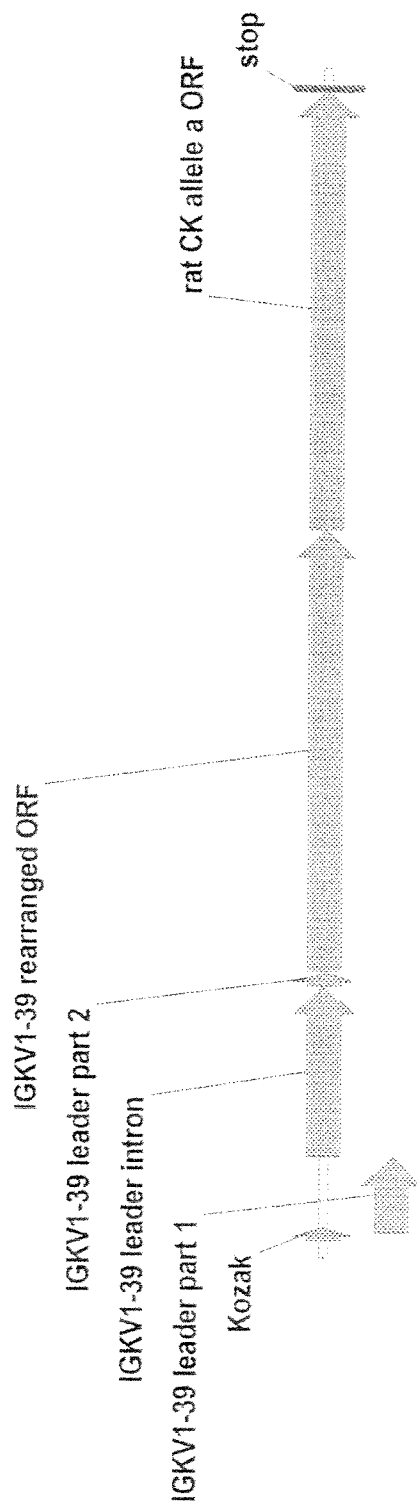


Figure 7

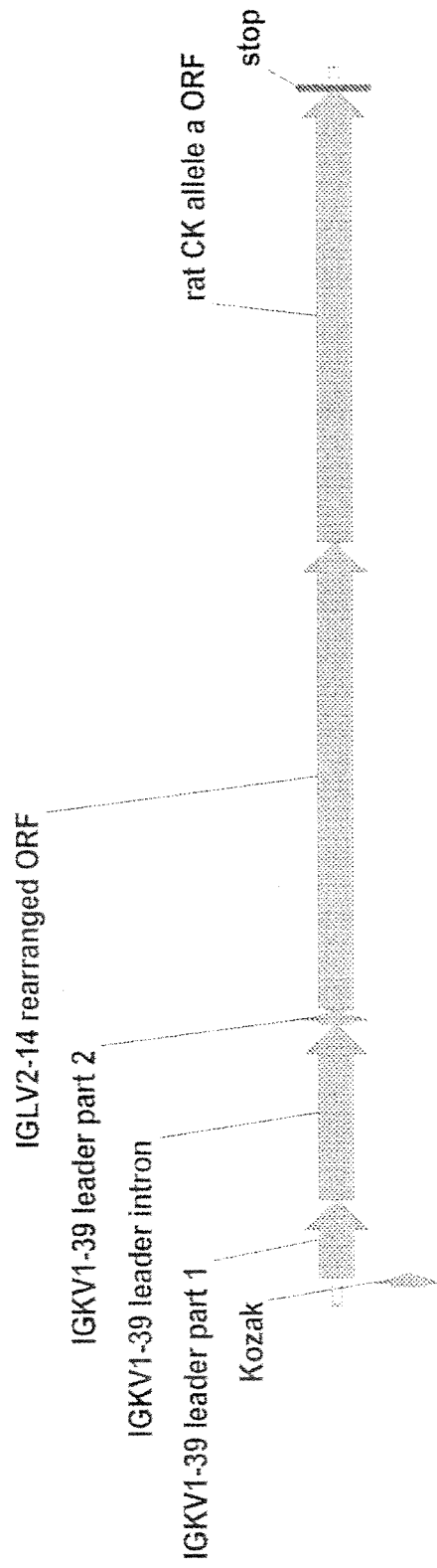


Figure 8

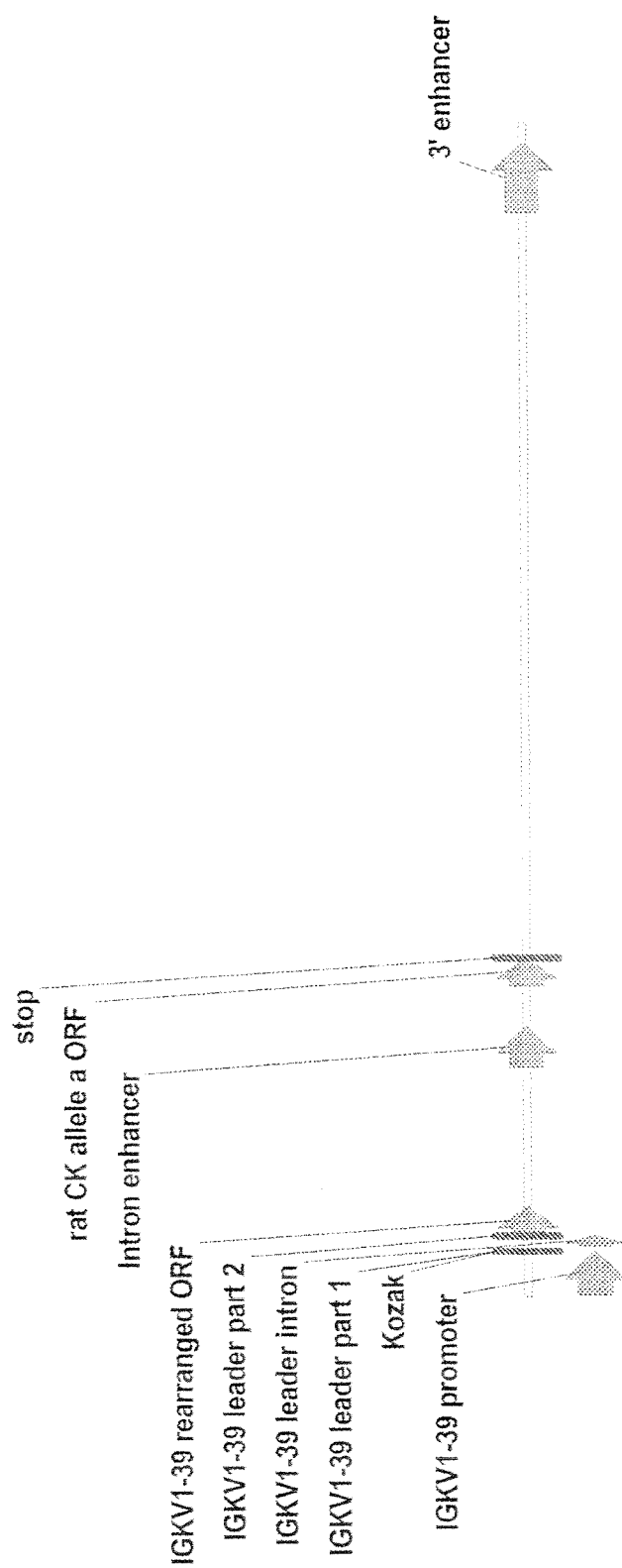


Figure 9

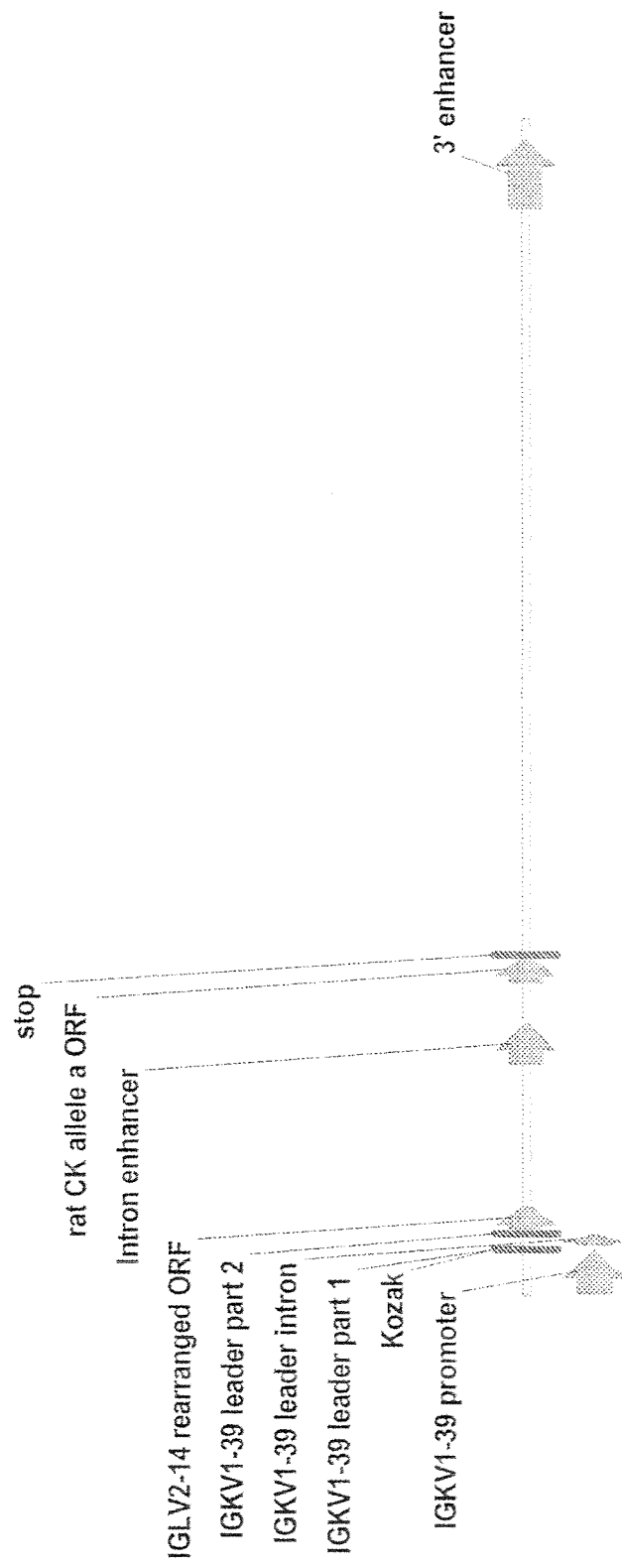


Figure 10

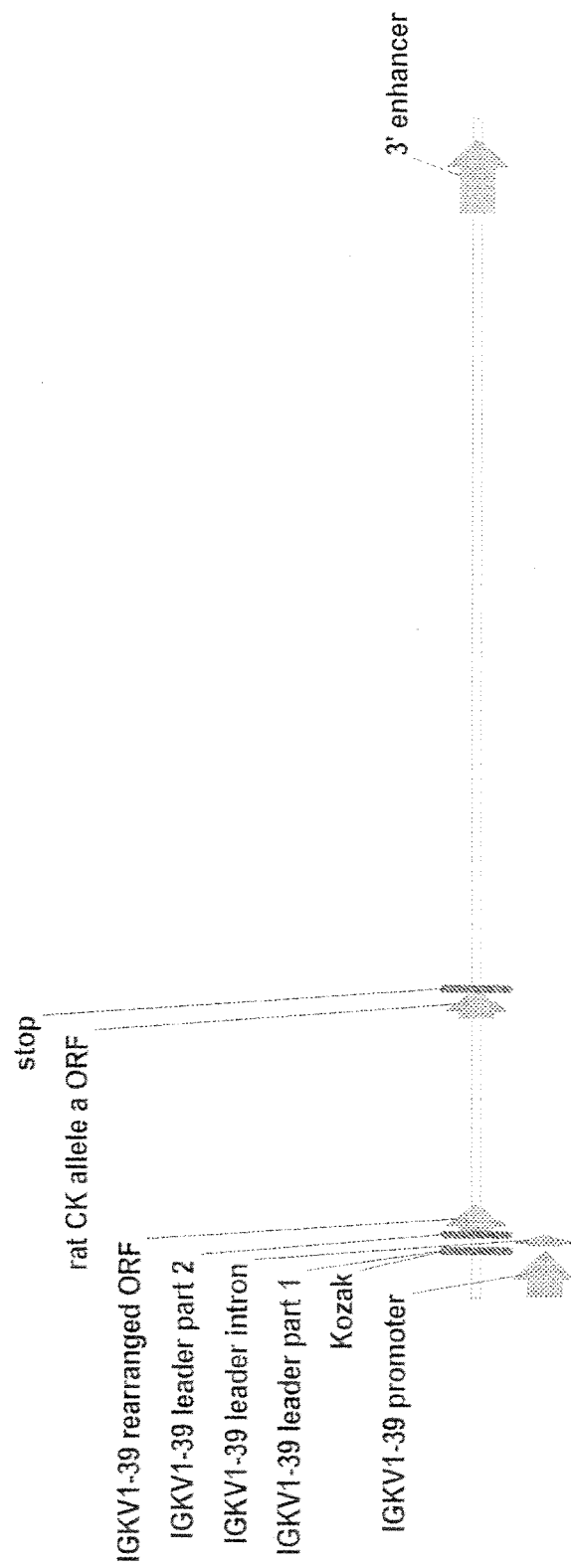


Figure 11

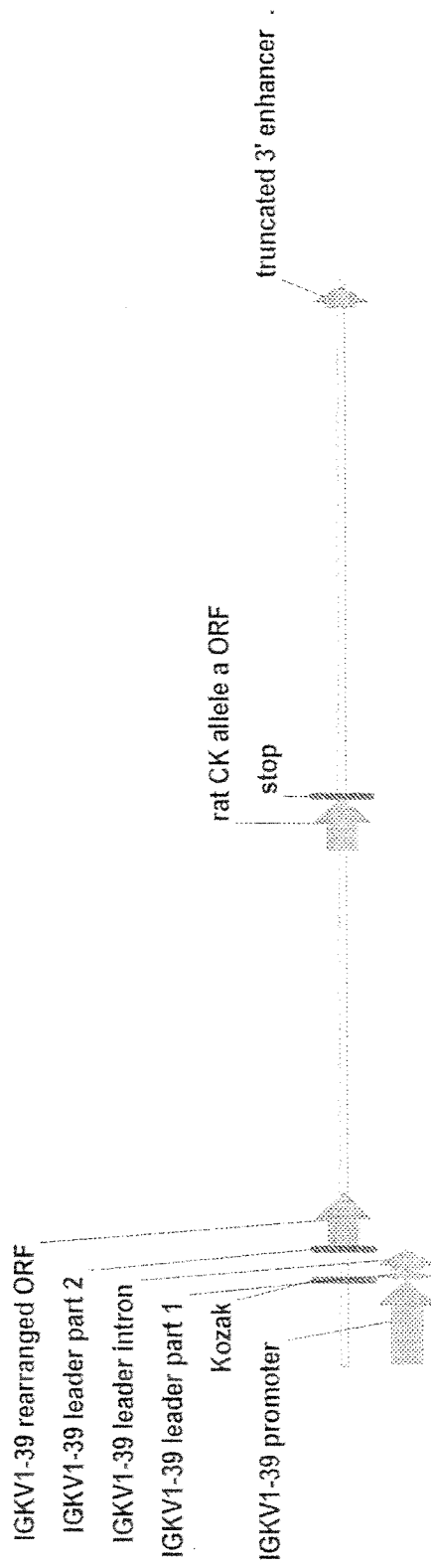


Figure 12

human germline IGKV1-39/J DNA	
1	GAC ATC CAG ATG ACC CAG AGC CCC AGC AGC CTG AGC GCC AGC GTG GGC GAC AGA GTG ACC ATC ACC TGC AGA GCC AGC
79	CAG AGC ATC AGC AGC TAC CTG AAC TGG TAT CAG CAG AAG CCC GGC AAG GCC CCC AAG CTG CTG ATC TAC GGC GGC AGC
157	TCC CTG CAG AGC GGC GTG CCC AGC AGA TTC AGC GGC AGC 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 GGC ACC CTG GGC CAG GGC ACC AAG GTG
313	GAG ATC AAG
human germline IGLV1-39/J Protein	
1	DIQMTQSPSS LSASVGRVT ITCRASQSI SYLNWYQQRP GRAPKLLIYA
51	ASSLQSGVPS RFGSGSGTD FTLTISLQEP EDFATYVCCQ SYSPPTFGQ
101	GTKVEIR
human germline IGLV2-14/J DNA	
1	CAG TCT GGC CTG ACC CAG CCC GGC 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 CCC AAG CTG ATG ATC TAC GAG
157	GTG TGC AAC AGA CCC AGC GGC GTG AGC AAC AGA TTC AGC GGC AGC AAG AGC GGC AAC ACC GGC CTG ACC ATC AGC
235	GGC CTC CAG GCT GAG GAC GAG GGC GAC TAC 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 SCSFGOSITI SCTGTSSDVG GYNVYVWYQQ HPGRAPKLLI
51	YEVSRNRFSGV SNRFGSGKSG NTASLTISGL QARDEADYYC SSYTSSSTLV
101	FGSGTKLTVL
Rat IGCK allele a DNA	
1	AGA GGC GAC GCC GCT CCC ACC GTG TCC ATC TTC CCC CCC AGC ATG GAA CAG CTG ACC TCT GGC GGA GCC ACC GTG GTG
79	TGC TTC GTG AAC AAC TTC TAC CCC AGA GAC ATC AGC GTG AAG TGG AAG ATC GAC GGC AGC GAG AGG GAC GGC GTG
157	CTG GAC AGC GTG ACC GAC CAG GAC AGC AAG GAC TCC ACC TAC ACC ATG AGC AGC ACC CTG AGC CTG ACC AAG GTG GAG
235	TAC GAG AGG CAC AAC CTG TAC ACC TGC GAG GTG CAG AAG ACC AGC TCC AGC CCC GTG GTG AAG TCC TTC AAC CGG
313	AAC GAG TCT
Rat IGCK allele a protein	
1	RADAAPTYSI FRPSMRQLTS GGATVVCVFN NFYPRDIEVK WKIKGSEQRD
51	GVLDSTVDQD SKDSTYSMSS TLSLTKVEYE RHMLYTCEVH HTYSSSPVVK
101	SPNRNEC

Figure 12 contd

IGKV1-39/J-CK		1	GGT ACC GCG GCC GGC ACC ATG GAC ATG AGA GTG AGG GGC 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 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 TGA CAT CCA GAT SAC CCA GAG CCC CAG		
235	CAG CCT GAG GCG CAG CGT GGG CGA CAG AGT GAC CAT CAC CTG CAG CAG CCA GAG CAT CCA GAG CAG CCG GCT GGC CAG CAG		
313	GTA TCA GCA GAA GCG CCG CAA GGT GCT GAT CTA CGC GGC CAG CTC CCT GCA GAG CAG CCG GCT GGC CAG CAG		
391	ATT CAG CCG CAG CCG CTC CCG CAC CGA CTT CAC CCT GAC CAT CAG CAG CCT GCA GGC CTA GGA CTT CSC CAC CTA CTA		
469	CTG CCA GCA GAG CTA CAG CAC CCC CCG CAC CTT CCG CCA GAG CAC CAA GGT GGA GAT CAA GAG AGC CGA CCG CCG TCC		
547	CAC GGT GTC CAT CTT CCC CCG CAG CAJ GGA ACA GCT GAC CTC TGG CCG AGC CAC GGT GGT CTG CTT GGT GAA CAA CTT		
625	CTA CCC CAG AGA CAT CAG GGT GAA GTG GAA GAT CGA CCG CAG CGA GCA GAG CAG CCG GGT GGT GGA CAG CAG CAG		
703	CGA GGA CAG CAA GGA CTC CAC CAT GAG CAG CAC CCT GAG CCT GAC CAA GGT GGA GTA CGA GAG GCA CAA CCT		
781	GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CAG CCC GGT GGT CAA GTC CTT CAA CCG GAA GGA GTG TTG AGC TAG		
859	CGA GCT C		
IGLV2-14/J-CK		1	GGT ACC GCG GCC GGC ACC ATG GAC ATG AGA GTG CCC 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 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 TGA CAT CCA GAT SAC CCA GAG CCC CAG		
235	TGT GTC TGG CAG CCG TGG CCA GAG CAT CAC CAT CAG CTG CAC CCG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG		
313	GTC CTG GTA TCA GCA GCA CCC CCG CAA GGC CCC CAA GCT GAT CTA CGA GGT GTC CAA CAG ACC CAG CCG CCG CAG		
391	CAA CAG ATT CAG CCG CAG CAA GAG CCG CAA CAC CCG CAG CTT GAC CAT CAG CCG CCT CCA GGC TGA GGA CCA GGC CCA		
469	CTA CTA CTG CAG CAG CTA CAC CAG CAG CTC CAC CCT GGT GTT TGG CCG CAG AAC AAA GCT GAT GGT GGT GGT GGT GGT		
547	CGC CGC TCC CAC CAG CAG CAG 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 CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG		
703	GAT GAC CGA CCA GGA CAG CAA GGA CTC CAC CTA CAG CAT GAG CAG CAC CCT GAG CCT GAC CAA GGT GGA GTA CGA GAG		
781	GCA CAA CCT GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CAG CCC GGT GGT CAA GTC CTT CAA CCG GAA CCA GTG		
859	TTG AGC TAG CGA GCT C		
VKP-IGKV1-39/J-CK		1	GGC CAG 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 CTT GAT AGA CCC ACC CTC TAA GAC TTC ATT AGA CAT TCC CTA CGA ATG GTT		
157	ATA CTC TCC TGT ATA CTA CAA CTC TAA AAT ATB 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 CCG CTC TAG AGA GAA ATA CAT TCC CTC CAG GCA AAT CTA TGC TGC		
313	GCT GGT CTG ACC TGG GAC CCI GGG GAC ATT GGC CCI GTG CTG AGT TAC TAA GAT GAG CCA GGC CAG CTG TGC TGC TCA		
391	GCC TGC CCC ATG CCC TGC TGA TTG ATT TGC ATG TTG CAG AGC ACA GGC CCC TGC CCT GAA GAC TTT TTT ATG GGC TGG		
469	TGC CAC CCT GTG CAG GAG TCA GTC AGG TAA GGA TGG AGA CCA CTA GGA ATT TAC TCA GGC CAT GAG AGT GGC CCA GCT CTT GGG GCT CTT		
547	GCT ACT CTG GGT CCG AGG TAA GGA TGG AGA CCA CTA GGA ATT TAC TCA GGC CAT GAG AGT GGC CCA GCT CTT GGG GCT CTT		
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 GGC CCA GCA GGC TGA GCG TGG GCG ACA GAG TGA CCA CCA CCA GAG CCA GAG CCA GAG CCA GAG		
781	GCA TCA GCA GCT ACC TGA ACT GGT ATC AGC AGA GGC CCA AGG CCC CCA TGC TCA TCT AGC CCG CCA GCT CCC		
859	TGC AGA GCG GCG TGC CCA GCA GAT TCA GCG GCA GCG GCT CCG GCA CCG ACT TCA CCA TCA CCA GCA GCG TGC AGC		
937	CGS AGG ACT TCG CCA CCT ACT ACT GCG AGC AGA GCT ACA GCA CCC CCC CCA CCT TCG GCC AGG GCA CCA AGG TGG AGA		
1015	TCA AAC GTA AGT ACA CTT TTT TCA TCT TTT ATG TGT AAG ACA CAG GTT TTC ATG TTA GGA GTT AAG GTC AGT TCA		
1093	GAA AAT CTT GNG AAA ATG AAG AGG GCT CAT TAT CAG TTG AGC TGS CMT 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 TAT GGT CAC CAT CCA AGA GAT TGG ATC
 1249 GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG 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 ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA AGG ATG AAA CAG CGC AGA TGA AAG AGC GGC CTG GAG CTC TGA GAA
 1483 GAG AAG GAG ACT CAT CGG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GSA TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC TTT GGT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GSA TAG CAG AGT TGA
 1639 TCA TTA AGC TGT TTG AAA GTT TGA GTT TCC GCA ACT TCT TCT TTA CAA CTG GGT GAC CAT CCC TTG CTC CGC GGT GTG CCA GGC
 1717 TTA TTC TTA ANT TTG TCA CAA AAT GTC AAA ATG AGA GAC TCT GTA SGA AGG AGT CCT 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 GGT
 1873 TTT GAA CTA TAT GTT TTA ATG GGC ACG GTT TTG TAA GAC AAT TTG TCC TCT TTT TTC CCA GTT ATT ACT CGA TTG TAA
 1951 TTT TAT ATC GGC ACG AAT GGA CTG AAA CGG TCC GCA ACC TCT TCT TTA CAA CTG GGT GAC CAT CCC TTG CTC CGC GGT GTG CCA GGC
 2029 ATT TGG CGT TCA CCC TGC TAA GGG CCA TGT GAA CCC CGG GGT TAG CAT CCC TTG CTC CGC GGT GAC CAT CCC TTG CTC
 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 GCA GAT TTC AGA AAT AAA ATG CAT TTA TTA TTA TAT TCC CTT AAT 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 AYA AYC TTT TAG AGG TAA ANT
 2341 CTA CAG CCA GCA AAA GTC ATG GTA AAT 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 AAG 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 GTT TGA CCC TTC CCT 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 AAT TGA TGT CAA TTC CCT TTT
 2731 AAC TAT TAA TTT ATT TTA AGG GGG GAA AGG CTG CTC ATA AAT CTA TTG TTT TTC TTG GTA AAG AAC TCT CAG TTT TCG
 2809 TTT TTA CTA CCT CTG TCA CCC AAG AGT TGG CAT CTC AAC AGA GGG GAC TTT CCG AGA GGC CAT CTG GCA GTT GCT TAA
 2887 GAT CAG BAG TGA AGT CTG CCA GTT CCT CCC AGG CAG GTG GGC CAG ATT ACA GTT GAT CTG TTC TGG TGT GGC TAA AAA
 2955 TTG TCC CAT GTG GTT ACA AAC CAT TAG AAT AGG GTC TGA TGA ATT CTT CAG AAT ATT TCT SGA CAG CCA AAT AAT ACA GAC
 3033 COT GGC TTA AGS CCG TGT CLA TAC AGT ASG TTT AGC TTG GCT ACA CCA BAG GAA GGC ATR CAG ASG CTA ATA TCA GAG
 3121 TAT TCT TGG AAG AGA CAG GAG AAA AGT TTC TGT TGC TCT TAC TAT TTG TTT TTC TTG GTA AAG AAC TCT CAG TTT TCG
 3199 TCA GGA GTG TCA AAT AAA CTG GTC TGA ATT TCT GTG TGA AGC ATG GAA CTG AAA AGA ATG TAG TTT CAG GGA AGA AAG
 3277 GCA ATA GAA GSA 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 CCA 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 GTT ACT TCA TAC CAT
 3511 CCT CTG TGC TTT CTT CAG GGG CCG ACG CTC CCA CCG TGT CLA TCT TCC CCA GCA TGG AAC AGC TGA CCT
 3589 CTG GCG GAG CCA CCG TGG TCT GCT TCG TGA ACA ACT TCT ACC CCA GAG ACA TGA GGG TGA AGT GSA AGA TCG ACG GCA
 3667 TGG TCA AGT CTT TCA ACC GSA ACG AGT GTT GBA GAC AAA GGT CCT GAG ACG CCA CCA GCT CCC CAG CAT CCT
 3745 TGA GGC TGA CCA AGG TGG AGT ACG AGA GGC ACA ACC TGT ACTA CCG AGG TGG TGC ACA AGA CCA GCT CCC CAG CAT CCT
 3823 ATC TTC CTT TCT AAG GTC TTG GAG GCT TCC CCA CAA GCG ACC TAC CAC TGT TGC GGT GCT CCA AAC CTC CTC CCC ACC
 3901 TCC TTC TCC TCC TCC CTT TCC TTG CTT ATC ATG CTA ATT TTA GCA GAA AAT AIT CAA TAA AGT GAG TCT TTG
 4057 CAC TTG AGA TCT CTG TCT TTA CTA AAT GGT AGT AAT CAG TTG TTT TTC CAG TTA CTT GGG TTT CTC TTC TAA AGA
 4135 AGT TAA ATG TTT AGT TGC CCT GAA ATC CAG CAC AAT TAA AGG ATA AAT AAA ACT CTC CAG TTG CCG TTG TGT GCT GTC
 4213 CAC TAC ATG GCA GTC CTT TCT AAG GTT CAC GAG TAC TAT TCA TGG CTT ATT TCT CAG CAT GGT AGG TTT GAG GAG
 4291 GCA TAC TTC CTA GTT TTC TTC CCC TAA GTG GTC AAA GTC CAG AAA GTT TGA TCA TTA TCA CAG GAA GCA AAG CCA ACC TAA ATG TGC
 4369 CTG AAT CAA CCT ACC CAG TAA ACT TGG GSA AGC AAA GTA GCA TCA TTA TCA CAG GAA GCA AAG CCA AAG CCA ACC TAA ATG TGC
 4447 AAG CAA TAG GAA AAT GTG GAA GCC CAT CAT AGT ACT TGG ACT TCA TCT TTT GTG CTT TCA CTA AGT TTT TAA ACA
 4525 TGA CTT GGC TCC TAT CTG CCA TTG GCA AGT GGT GGC ACT ACC CAC CTA CTT CAA GGT CTA TAC TAC CGT GAG ATT
 4603 ACA CAC ATA CAT CAA AAT TTG GGA AAA GTT CTA CCA AGC TGA GAG CTG ATC ACC CCA CTC TTA GGT GCT TAT CTC TGT
 4681 ACA CCA GAA ACC TTA AGA AGC AAC CAG TAT TGA AAG TAT TGA AAG TAT TGA TAA AAT AAA ACT TAA GAG
 4759 CAC CAA CAG TTA AAT TAT GAC ATG TTC ACA ACT GAG CTA TTA CTT AAT BAG GAG AAT TAA TAA AAT AAA ACT TAA GAG
 4837 CAT AGT TTA ATC TCA TAA ACA AGA TAA TAA TCA TCC ATG TAA GTT TAA AAG CAG GTA AAA

Figure 12 contd

4915 TTT AAA ATT AAG AGA GAC ATA AGT TTT GAG GTA GCA AGA TGG AAA CTC TGG GGC TTG GGG AAT GTT CTG TCT CTC TGT
 4993 ATG GGA TGT GAA AGT TAC TAT TGT GGA ATT GGT CTT CTT CTT AAG GAA TAC AAT ATA TAC TTC ATA ATA ACT TCA
 5071 CCF AAA GAA ATA TCT BAT ACC CAG TGC ATA CAT AAA AGA GAA TAC AAG GAR TGA ATC ATA CGT CAA GGC CAG AAA GAC
 5149 AAT AAA GTA GGG GAT CCA GGA TCA AAT CTC CCA CCA CCA TAC TAC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5227 AAA ACA CAT AAT TCA AAC ACA TGA TCC CTT GGG GTC TCT TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5305 AAT GAG ATA GAA GAG ACC TTC AAT AAC AGG TCA AAG AAT ATA GGT AAT TTT GTC TGG GTA TGA AGA GGC CAC GTA TCA
 5383 AAG GTT ACA TTA GGG AAG GAG GAC AAT AAC AGT GAC TTT CAT TCT CCC CTT CTT GGA GGC CAC TCC AAT 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 TCC CAG TTA ATA TGA TGC AGT AGT CTT CCC TTT CTC AGT CCA CAT AAG GAT GAT
 5617 GGS AAA GGA CAG TCA CCA AAT AAG AGA GGG CAA CCC TTT GGC TTT CTA CTT CTT GAG AAT GHA CAT TAT TAT CCA CTT
 5695 TTT GAA ACT TCT TTT AAT TGC TTT TTT TTA ATT TGT TTT TTT AAA TGG CAT AAC CTT CAT CCA TTT CTG GGA ACC
 5773 AAA TTT ATC AAT CAA CAG TGC CTC TAA TCT GGC TAT TAA TAC AAA AAT GCC TCC TCA AAA TAT ATA TGT TCG AGT CTT
 5851 ATC TAA AAC AGA ACC CAC AAT ABA AAA GAA GAA AAT ATA CAT ATA AGC ATT TAT AIA ATT CTG AGC AAC CTT GTG CTT
 5929 TGT GAA AAA AAT ATA ATC TAA TGT CAC AAT CTG TAT TCT TTT TAT TTA ACA CTG GIG AAA TTA TAC CAT TBA AGA GAA
 6007 AGA GGA CAG ATC ACT GAT CTT AGG ATC TAG GGA TGT TAC ABA TAA GAA AAC AAA TGT GAC AAA GAG CTG TCA CAA GGA
 6085 GGA TCT TCA AGG TCA CAG AAT CAC TGT TCT GAT TTT GGT GGT TAC ATA CAT TTA AAT ATG TGA TAA AAT GTT GTT
 6163 GAA CTA TAT TCA TAT AAT GTA CCA ATG TCA AAT GCT TAA TTT TGG CTC TAT AGT ATA ATT ATG CAC TAA AUA ACT ATT
 6241 TGG ACA AAG AAA ATG ATG TTT ACA TCA AAG GTG AGG CCA TAT TTT TTA GGA ACA TAA CTT AAA AAC CAT TTT TTT GGA TAA
 6319 CTA ATG AAA AEC CAT TTT GTG TGC CTT GGC ATA TCA TGC CTA AGC TGT CAC CAG ATA GAT CTA ATA AGA CCA CCA CCA CCA
 6397 CAG AAG CAA GCC CTT GCC CAG CAA GCA GSC AGC ACA GAT AAG AGC TBA ACC CAG GAC AGG CCA TGA TAT GCT AAT GAA
 6475 CTA CTT TCA AGG TGG TGT TGC TGA CTT AGT GAA CCA GCC CCA AGC TGT GAG CCC CAA TAG CAC AAA GCT ACT GGC CAA
 6553 AGA AAT TAT ACA AAA ATT GGA ACT TTG GGA ATG TGC AGG ATC GCT CTG CTG TAT TGG AAC ACA GCT TCT TCT CTA
 6631 TGT TTT GTA TGA TGA ATG CCA GTC TGA AAG CTT CCA AAA CTT TCT CAC TGA AGA ATC CCA TGC GAC CCC TAC AGA
 6709 CTC TTT TGC CCA AAC AAC TGC TCT CTT GGT GTG ATA TCT GGT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 6787 GTT TGT GTG AAT AAA CCA AAC ATA TTT TAA AAG CAA ATA TTT TAT GCA CAT CTT AAT TGC TAA AAA GTT TAC AAG TAA
 6865 TAG TCC CAT CTT CTC CAC AAT ACT GGA TCC AAA GTC CTA AIT TCA ATG TTG GGC AIT TTT ACA GAG AGA AAG ACA
 6943 TTA AAA ATG AAG AGA CAT GCA GAG AGT GCA CCA TGC CAT CGT GGA GAC AGA CTG AGA CAC AAG TGA CAC AAT TGT TAG TCA AAG
 7021 AAG ATT AAG GAC TTC CAG AAG CCA CCA AAG GAA GGA GGT ATG AAG TGG TTT CTC CTT CAG AGT ATC CAG AGG AGA CTA
 7099 AAC CAA CCA ACA CTT TTT TGC TTA AGA CTT CTT GCC TTC AGG ACT GTG AGA AGG TAG CTT CTT 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 TCT TAT TTT TGG TTT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 7333 TGG GGA GTT TTT TGT GGT TTT TTT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 7411 TTT TGT TTT TGT TTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT TTT GTT
 7489 TAA TGT CTA CAT CTC AGA GGG GAT CTT 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 AAT TTG GAG TGG GAA AGG GTT CAT GAG CCC CCA GCA ACT AAT
 7645 GAG GAG CTA CAG ACA AAT GAT GTT TCT GGS GAA AAG AGA CCA AGT TTC TTT GAG AAT ATA GCT TCT GAT GGG TCA ACC
 7723 ATG TTC CTG TGG CTG ATG TCA CAC CCA GGA GTA TGC AGA CAA CAG AAA CTG GAG 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 AAT AAT AAA AAC
 7879 AAT TCT TTT TTT AAA AAA TCC AGA AAT GCT TCT TCA TAA TTG CTT CTG GAG AAC TTT CAG AGT TTT ACA AGT TAA ATA
 7957 AGT TAT ATT GTA GAA AAG GTA GAG AGG AGA ATA GTG GAA GAT AAG GAG ACT TCA AAA GSA GTS GAG GAG GAT
 8035 AAG GGA GAA AGC AGA AGC AAT GGC TGA TAG ACA CAG AAT AAG AGG GAA CAG AAG GAA GAA AGC CAG GAT
 8113 GGG TAT TTC TTT GCC TAT CTG TGA CTT GGC AAT TAT TGA GTT CAA GGC TTA AAT CTT CAC TTT
 8191 TGC CAA CTC AAC AGA GTC TTT CTT TAT AAC CAG GCC CCC AGT ATG CTC ATG TCA GGT CTT CTT AAT TTC
 8269 TTA TAG CAA TCC TGT TTA TAA CTG GGT AAC TTT GTG AAG GGA AGG AAG TGC ACA TGA TGT AAT AAT AAT TTC TAA
 8347 TAC AAA ATT TTG AAG AGT TTG TAC AAT GTA TGT ATA AAT AAT TAA TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 8425 CAA GAT ACT AAT TCT ATA TAT ATG GGT TAA ATT ATA ATA AGT TTA TCA CAT GCT TAT TTT TAT TAT TAT TAT TAT TAT
 8503 TTT GGA GAC AGG GTT TCT CTG TAT AGC CTT GGC TGT GGC ACC CAC TTT GTA GAC CAG GCT GGC CTC AAA CTC AGA
 8581 AAC CTA CTT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC TCT TCT GCC

Figure 12 contd

8652 TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC TCT GCC
 8757 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 TTT ATA TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 8893 AGT AAT CGC AAG TTG TAT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 8971 TTG CTT TGC TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT TTT GCT
 9049 GGG GAG GGA GGG TGG AGA AAG AAT CTT ACT AIG AAG CTC TGA CTG TCC TGG GAA CTC AAT ATA TAG AIC AGG CTT GAT
 9127 TCA ACT CAT AGA GAT CTG CTT TCT TCT GCC TCC CAA GTG CTG GGA ATA AAG CCA TAC ACC TCC ATG CCG AGA TAG TGA
 9205 TCC CAA GTT TTA GCA AAA GTT TCT AGA CTT GAC ATT AAT CGA TGG AGA TAG ACA TGA ATT ACA CAA AGA ACT AAT GUG
 9383 GAG TTT ACC TGA ATC ATA CTC TAT ACT TTA TCA GAG ATT AAA TTA ACA TTT AAT CCA GTG CCA GGC TAG AGS CAC
 9361 CAT TCA AIG GCA GUG TTT GCG ATC AIG CAT AGG CTT AGT CTT CAG TGC TGA AAG GCA TTG GGG GCA ATA TTA CFC ATT
 9439 ATA CAG ATG AGA AAC TGG GAA AGA CTT GCC TCA GAT TCT CTA CUG AAA GGC TGA GTT TGT GGC TTC TAG AAA ATC TTT
 9517 TAC TTT CAA TAT TTT TTA TGT ATA ATT TTT TTA TTT CCA CTG AIT TTA TTT TTT AAC AAT TAT AAG AAA TAA
 9595 ATG CAA TAA ACC ABA TAC AIG GAC AAA AAA ATA CAA GAA TCA TAT GAT CAC CTC AAT GGA AGG AAA AAA GAA AGA
 9673 AAA AGT CTT TGA TAA GAT TCA ACA TTC AAT TTT TTA TTA GAT AIT TTC TTC AAT TAC AAT TCA AAT GGT ATC CCC
 9751 AAA GCC CCC TAT ACC TTC CCC TGC CCT GCT CCC CAA CCC ACC CAC TCC TGC TTT CTG GGC TTA TCC CAG TTC CAC TAT
 9829 GAG GCA TAT GAT CTT CAA AAA ACC AAG GGC CTC TCC TCT CAT TGG TGG CCG ACT AIT AAG 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 CAP TAG GGG CCC TGT GTC CCA TCC AAT AGA TGA CTG TGA GCA TCC ACT TCT
 10053 GTA TTT GCC AGG CAC TGG CAT ABO CTC ACG AGA AAG AGA GAG CTA TGT CAG GAT CCT GTC AGT AAA ATC TTT CTG GCA
 10141 TAT GCA ATA GTA TCT GGG TTT GGT GGT 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 TCT TGA GTT TCA TAT GTT GCA TCT TGG AIA TTC TGT GGG TTA ATA TCC ACG
 10297 CCA CAC TTT GGT CTT CTT CTT TCT TGA GTT TCA TAT GTT GCA TCT TGG AIA TTC TGT GGG TTA ATA TCC ACG
 10375 TAT CAG TGA GUG CAT ATC ATG CGT GTT ATT TTG TGA TTA GTT TAC CTC ACT CAG GAT GAT AIC CTC CAG AIG CAT CCA
 10453 TTT GGC TAA GAA TTT CAT TAA TTC ACT GTT TTT AAT TGC TGA ATA GTA CTC CAT TGT GTA AAT ATA CCA CAT TTT CTG
 10531 TAT CCA TTC CTC TGT TGA GGG GCA TCT GGG TTC TTT CCA GCT TCT GGT TAT TAT AAA TAA GGC TGC TAT GAG CAT AGC
 10609 GGA GCA TGT GTC CTT ATC AAG TTG AAG CAT CTT CTA GGT ATA TGC CCA GGA GAG GAA TTG CTG GAT CTT CUG GTA GTA
 10687 CCA TCA ACA TGC ATT CTT AAT AAA AGC CCT AGA ACA AGG AGG ACT GTA GGA AAC ATA TTC CAA CAT AAT AAA GGT TAT
 10765 GTA TGA CAA ACT CAT GAC CAA TAT CAT CCT AAA TGA ATG AAA CCA TTA ATA AGC TCC ATT AAA AIC AGA GGA CTG CCC
 10843 ACT ATC CCT ACT TCT CAT CCA TAA TGA GAT TGA AGC AAT AGC TGG AGC AAT AAG GCA AGA GAA GGG ATA ATG GGA
 10921 AAA TAT TAA GTC AAA TTG TTT TCA ATT GAA GAT TAT ATT ATC TTA TAC CCA ATG ACC TCA AAT TTT GAC TAG AAA AAT
 10999 TGT AGA AAT TAT CAA TAA TTT CAG CAA AGT GTT AIG ATG CAC CAC AIC CTT AIT CTT CTC CCC AGC TTC TGC TTS CTT
 11077 CTC TCT TCT TGC TCT TCA TCC TTT CTG TCC TTC CAT CTG CQT GCA CTC TGA GAC TGA GTG CAG CQT GTA ACT
 11155 CTC CTG TGA CTG AGT ATC TCA AAA AAC GTT CTA CCT GCC ABA CCT GGA TGA GCC CTT TGT TCT TCT GAA GCT AIG AGS
 11233 CTC TCT ACA TAG ACT CAA GAA GGA AAT GAC AGG GAG GGT ATA ATG AAG TGG GGA AGG CTG ACA TTA GCA TTG CTC
 11311 CTG TGT GSC TCC TTA ATT TCT CAT ACT TCA CAC TGA GAT GTT AAT AAC TGT GAC TCA TAG GTG AAG AAG CCA GAG CTA
 11389 AGG TTC TUA TAT TTG AGT GTT ATA GAA TGA GTA GAG CAG TAG TTC TCA AAC TAT GGT TCA TGA CTC CTT TAT GGG TCA
 11467 AAC TAC CTT TTC ACA CAG GTT GCA TAT CAG ATA TCC TAA TTT TAT ATA CAT 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 AGS
 11623 GTT GCA GCA TTA GGA ATG TTG AGA CCC ACT GTA ATG AAT GAG GCT TAA GGC AGC AAT AAG CCA 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 ABB 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 TGT TAT GAT
 11935 GGC TCC ACA GAC ACC ATC TTG CAA CAG AGT TCT ACT TTG CTA CCA GTA ATG AAT ACA GTG TCT CAA CTC CUG CCA TTG
 12013 AAT CTT CAG GAA GCC COT GAA ATG ACT TGT ACT ACA CCA CTT CTT AAA GAC AAT AAG ACT TAG AGG GAA TAA
 12091 ATG TCA TGC CTG AGA TCA TGC AAC CAA TTA AGT CCA ACT TGG CCT GAT CAA GAG GCA CAA TTC AAA AGC AAT GTT GTT
 12159 CCT TCA CTA GCT CTT GTG TAT GGT TGC TGA TTC GGG AAG ACA AGT AAT CCC TAG TGG GAA AGC ACT TGG
 12247 AAA TCA AAT GTC TCA TTT AAC AGA TTA GAA GAT GAA ACG GTA GAC TCT GTG TAG TGG ACC CCT GTG AIC 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

[illegible]

Vkp-IGKV1-39/J-Ck-Δ1

1	GCG	CGG	CCC	ACA	TGA	AAC	AAT	GGS	AAC	CAT	GTS	ACA	ATC	ACA	GAG	GTG	TTG	TTA	CTA	TAG	CAA	AAG	GGG	TTG	TTA	CTC		
79	TCC	ACA	TCC	CTT	TAA	GTA	ACT	TGA	AGG	CCT	GAT	AGA	CCC	ACC	CTC	TAA	GAC	ATC	ATT	AGA	TCC	TAT	CCA	ATG	GTT			
157	ATA	CTC	TCC	TCT	ATA	CTC	CCA	ATT	ATA	TAA	TAT	ATA	TTC	TAT	TAT	CTC	ATT	AGG	TTT	TAT	TTA	ATG	TTT	GAC	TAC			
235	TTT	TTT	CTT	TCA	AAA	TAT	CTC	TTG	TCA	CAA	CAG	CGG	ATC	ATA	CAI	TCC	CTC	CAG	GCA	AAT	CTA	ATG	TTT	GAC	TAC			
313	GCT	GGT	CTG	ACC	TGG	GAC	CTT	GCG	GAC	ATT	GCC	CTT	GTS	CTG	AGT	TAC	TAA	GAT	GAG	CCA	GCC	CTG	CAG	TTC	TCA			
391	GCC	TGC	CTC	ATC	CCC	TGG	TGA	TTG	ATT	TGC	ATG	ATC	GAG	ACC	ACA	GCC	CCC	TGC	GAT	GAA	GAC	TTT	TTT	ATG	GSC	TGS		
469	TGC	CAC	CCT	GTG	CAG	GAG	TCA	GTC	TCA	GTC	AGG	CAC	CAC	CAA	ATT	TAC	TOA	GCC	AGT	GTG	CTC	AGT	ACT	GAC	TGG	AAC	TTG	
547	GCT	ATT	CTG	GCT	CGG	AGG	TAA	GGA	TGG	AGA	ACA	CTA	GGA	ATT	TAT	TTG	TTT	TTA	TGT	TTC	CAA	TCT	CAG	GTG	GAT	GTG	ACG	ATC
625	AGG	GAA	GTT	CTC	TGA	TAA	CAT	TAA	TAG	TAA	GAA	TAT	TAT	TTG	TTT	TTA	TGT	TTC	CAA	TCT	CAG	GTG	CCA	GAT	GTG	ACG	ATC	
703	TCC	ACA	TGA	CCC	AGA	GCC	CCA	GCA	GCC	CTA	GCG	CTA	GCG	TGG	GGG	CGG	ACA	TCA	TCT	AGG	TGA	CCA	TCT	GCA	GAC	CCA	AGG	AGA
781	GCA	TGA	GCA	GCT	ACC	TGA	ACT	GGT	ATC	AGC	AGA	AGC	CGG	CGA	AGE	CCC	ACA	AGC	TGC	TGA	TCT	ACG	CCG	CCA	GCT	CCC	CTC	CCG
859	TGC	AGA	GCG	GCG	TGC	CTA	GCA	GAT	TCA	GCG	GCA	GCG	GCT	CGG	GCA	CCG	ACT	TCA	CCC	TGA	CCA	TCA	TCA	GCA	GCC	TGC	AGC	AGA
937	CCG	AGC	GTA	AGT	CTA	CTT	ACT	ACT	GCC	AGA	GCG	AGC	ACT	ACA	GCA	CCC	CCC	CCA	CTT	TGC	GGC	AGG	GCA	CCA	AGG	TGG	AGA	AGA
1015	TCA	AAC	GTA	AGT	ACA	CTT	TTT	TTT	TTT	ATG	TAT	AAG	ACA	CAG	GTT	TTT	ATC	ATG	TGA	GGA	GTT	AAA	GTT	AAA	GTT	ATC	TCA	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	CTA	
1171	GTG	AGA	TTA	GCG	GCA	AAA	AGA	GCG	TTT	AGT	TGA	GAG	GAA	AGT	AAT	TAA	TAC	TAT	GCT	CAC	CAT	CCA	AGA	GAT	TGG	ATC	ATC	ATC
1249	GGA	GAA	TAA	GCA	TGA	GTA	GTT	ATT	GAG	ATT	TGG	GTC	CTA	CTG	CAG	GTA	CGG	TGG	TCT	TCT	AGA	CGT	TTA	AGT	GGG	AGA	AGA	
1327	TTT	GGA	GCG	GAT	GAG	GAA	TGA	AGG	AAC	ATC	AGG	ATA	GAA	AAG	GGC	TGA	AGT	CAG	CTC	CTA	ATA	TGG	ATC	TGG	ATC	TGG	ATC	
1405	GAG	CAA	ACT	TTG	AAG	ATA	ATC	TGA	ATG	ACC	CAG	AGG	ATG	AAA	CAG	CGC	ATG	PCA	AMG	AGG	GGC	CTG	GAG	CTC	TGA	GAA	GAA	
1483	GAG	AAG	GAG	ACT	CTT	CCG	TGT	GTA	GTT	TCC	ACA	AGT	ACT	GTG	TTG	AGT	TTG	AGT	TGA	AGG	GGG	CTG	GAG	CTC	TGA	GAA	GAA	
1561	GTG	AGC	CGT	AGG	CTG	AGT	ACT	CTC	CTT	CTC	TTT	CTC	CTA	AGT	TTT	TAT	GAC	TAC	AAA	AAT	CAG	TAT	TAT	CTG	AAA	TAA	TAA	
1639	CTA	TTA	AGC	TGT	TTG	AAA	GTA	TGA	CTG	CTT	GCC	ATG	TAG	ATA	CCA	TGG	CTT	GCT	GAA	TAA	TCA	TCA	GAA	GAG	GTG	TGA	CTC	
1717	TTA	TTT	TAA	AAT	TTG	TCA																						

Figure 12 contd

2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA 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
3553 GAC AGG AGA AAA TGA AAG CCA TGT GCT CTT ACC TTA TGT GAT GGT CAG AGT CCA AAA CAT CAG CAG TGT CAG
2731 ATA AAC TGG TCT GAA TCT CTG TCT GAA TGA AAA GAA TGT AGT TTC AGG CAA AGG CAA TAG TAG 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
2837 CAA CAA GAT TGT ATA TAT GTG CAT CCT GGC CCC AAT GGT TAT CTG TAG GGA TAA GGG TGC TTT TTT GTG GCT CTG
2945 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
3033 TTC CTC AGG GGC CTA GGC CCG TCC CAC CAG CCA CCA GGA CAG CAC CTC CAC CAT GAG CAG CAC CTT GAG CTT GAG CCA
3121 GGT GGT CTT GGT GAA CAA CTT CTA CCC CAG AGA CAT CAG CAG GAA GTG AAA GAT CCA GAG CAG CCA GAG CAG GCA
3199 GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT
3277 GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT GGT
3355 CAA CCG GAA CCA GTG TTG AAG ACA AAG GTC CTG AGA GGC CAC CAC CAG CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC
3433 AGG TCT TGG AGG CTT CCC CAC AAG CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA
3511 CCT CCG 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 AAA GAA GTT AAA TGT TTA
3657 GGT GCC CTG AAA TCC ACC ACA CTT AAA GGA TAA ATA AAA CCC TCC ACT TGC CTT GGT TGG CTG TCC ACT ACA TGG CAG
3745 TCC TTT CTA AGG TTC ACG AGT ACT AAT CAT GGC TTA TTT CTG TGG GGC ATG GTA GGT TTG AGG AGG CAT ACT TCC TAG
3823 TTT TCT TCC CTT 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 GAA GCA AAG TAG AAT CAT TAT CAC AGG AAG CAA AGG CAA CCA TGT GCA AGC AAT AGG AAA
3979 ATG 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 GAG CTC TAT ACC GTG AGA TTA CAG ACA TAC ATC
4135 AAA ATT TGG GAA AAG TTC TAC CAA GCT GAG AGC TGA TCA CCC CAC TCT TAG GTG CTT ATC TCT GTA CAC CAG AAA CTT
4213 TAA GAA GCA ACC AGT AAT GAG AGA CTC AAT TAT GAA AGT CTA AAA CAT AAT AAA ATA AAG CTT AAG AGC ATA GUT TAA TCT
4291 ATT ATG ACA TGT TCA CAA TTG AGC TAT TAC TTA ATA AGG AAT AAA AAT AAA AAG TTA AAT TTA AAA TTA AGA
4369 CAT AAA CAA GAT AAT AAG CAA AAT 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 GGG GAT TGG GGA ATG TTC TGT CTT TCT GTA TGG GAT GTG AAA
4525 GTT ACT ATT GTG GAA TTG GGA TCT ATG TTG TTT CTT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT
4601 ATC CAG GAT CAA ATC TCC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC CAC
4679 CAA ACA CAT GAT CCC TCC TTG GGG TCT CTT CTT TCA TGC ATC GAA TTA GAA ATA GGC TAT GAA GAG CCC AAT CAA AGG TTA CAT TAG
4757 GGA AGG AAG AGG ACA CTA ACR GTG ACT TTC ATT CTC CCC CTT CTC GAG GGC CCA TTT AAA AGC TAT CCA AGG TTA CAT TAG
4835 CAT CCA CTC AGC ACA CAT TTA CTA AGC ATC TTC TCA GGC TAC ACT CTC AGG GCA GTG CAG AAT AAT GGT AGT GTC CTT
4915 TCC CTC AGT TAA TAT GCA GTC CAG TTT CCG TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
5071 CAC CAA ATA GGA GAG GGC AAC CTT TTG CTT TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
5149 TTA ATT GCT TTT TTT TTA TTT GTC TTT TCA AAT AGC ATA ACC TTG TTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
5227 AAC AGT GCC TCT AAT CTG GCT ATT AAT ACA AAA ATG CCT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
5305 CCC ACA ATA AAA AAG AAG AAA GAA TAC ATA TAA TTT TTA TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
5383 TAA TCT AAT GTC ACA TGC TGT ATT CTT TTT ATT TTA CAC TGG TGA AAT TAT ACC ATT AGA GAG AAA GAG CAC AGA TCA
5461 CTG ATC CTA GGA TCT AGG GAT GTT ACA GAT AAT GTG ACR AAG AGC TGT CAC AAG AGG AGG GAT CTT CAA GGT
5539 CAC AGA ATC ATC GTT ATT TCA GTG GTG GAT TAC TAT TTA TGT AAT TTA TGT AAT TTA TGT AAT TTA TGT AAT TTA TGT
5617 ATA TTG TAC CAA TGT CAA ATG CTT AAT TTT GSC TCT ATA TAA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA
5695 TGA TGT TTA CAT CAA AGG TGA GGC CAT ATT TGT TAT GAA CAT AAT TTA AAA ACC ATT TTG GAT AAC TAA TGA AAA GCC
5773 ATT TTG TGT GGC TTG GCA TAT CAT GGC TAA GCT GTC ACC AGA TAG TAA TAA GAC CTA AGC CTC AGA AGC AAG CAC
5851 CTG CCC AGC AAG CAG GCA CAG ATA AGA GCT AAA CCG AAG ACA GGC CAT ATG ATG AAC TAC CTT CAA GGT
5929 GGT GTT GCT GAC CTA GTG AAC CAG CCC CAG AGC CCG AAT AGC ACA CAG CTA CTG CCC AAA GAA ATT ATA CAA
6007 AAA TTG GAA CTT TGG GAA TGG TGT GCA GGA TCG CTC TGT CTC TAT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
6085 TAC CAG TCT AGA AGC TTC CAA AAC TTT CTC ACT GAA GAA GAT TCC CCA TGT GGG ACC CTT ACA GAC TCT TTT GCC CAA
6163

Figure 12 contd

6241 ACA ACT GCT TCC CTG 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 AGC CAC ATC CTA ATT GCT AAA AAG TTT ACA GCT AAT AGT CCC ATG CTC
 6397 TCC ACA ATA CTG GAT CCA AAT AAG TCC TAA TTT CAA TGT TGG GCA TCT TTA CAG AGA GAA AGA CAT TAA AAA TGA TGA AGA
 6475 GAC ATG CAG AGA GTG CAC CAT GCC ATC CAC CAT GGC ATC CAC CAT GGC ATC CAC CAT GGC ATC CAC CAT GGC ATC
 6553 TCC AGA AGC CAC CAA AAG AAG GAG GTA TGA AGT GGT TTC TCC CTG AGA GTA TCC AGA GGA TAA ACC AAC CAA CAC
 6631 CTT TTT GCT TTA GAC TTC TTG CTT TCA GGA CTG TGA GAA GGT AGC ATC TTA TTG TTA GGC CCA GTA TGT GGC ATT
 6709 TTG TTA AGS TAG AGT CAA GAA ACC AAT AAA ATG CAG ACA GAC AAA AGG ATA GCT GAT TTT TCC AGG CCC TTC CTT CTT
 6787 ATT TTT GGT TTT GGT GGT 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 GGT TTT GGT TTT GGT TTT GGT TTT GGT TTT GGT TTT GGT TTT GGT TTT GGT TTT GGT
 6933 TTT TTG TTT TTT TGA GAC AGT GGT TCT CTG TAT AGC CTT GGC TGT CCI GGA GTT CCT TCT AIC TCT AAT GTC TAC AIC
 7021 TCA GAG GGG ATC CTC TAA TTT CAA ATG AGC AGT AGC TCT CCA TTT TTA GCT CTT APT TAT TCA TTT ATT TAC TTA CTT
 7039 ACT TAT TGT CTG TAG ATG AAA 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 CAG TAT GCA GAC AAC AGA AAC TGG AGT TAA TGA GTT TTT 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 AAA 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 TGA TAG TGG AAG AGA GAG ATA AGG AGA CTT CAA AAG GAG TGG AGG GAG ATA GAG GAG GAG AAA
 7567 GCA GAA GCA ATG GCT GAT AGA CAC AGS ATA AGA GGG AAC AGA AAG GAG AAA GGC AGG ATG GGT AIT TCT TTG
 7645 CCT AIC TGT GAC TTG CAC ATG GTC TTG GCA ATT ATT GAT GAG TTC AAG GCT TAA TTC TTT ACT TGT GGC AAC TCA ACA
 7723 GAG TCT TTC TTT CTT ATA ACC AGS CCC CCA GTA TGC TCA TGT ATG TAT CAG GTC CTC TTA TCT TAT AGC AAT CCT
 7801 GTT TAT AAC TGG GTA ACT TTG TGA AGS GAA GGA AGT GCA CAC TGA GAT GTG CTA CAA GTT TTT AAT ACA AAA TTT TGA
 7879 AGA GAT TGT ACA ATG TAT GTA TAA TTA ATA ATT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT
 7957 CTA TAT ATA TGG GTT AAA TCA ATA TAT TAA TAA GTT TAA TTT CAC ATG CTT ATT ATT GTG GTT TTC GAG ACA GGG
 8035 TTT CTC TGT ATA GCC CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT
 8113 CAG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT
 8191 CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT
 8269 CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT CTG CTT
 8347 TCT CAT TCT ATT TCT ATC AGA TAG GAC TGT GCT ARA CTA ATA AAT GTG CCC TCA AAA GTA AIC GCA AGT
 8425 TGT ATT GTT GTT GTT TTG CTT TGC TTT GCT TTG TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT
 8503 CTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT TGC TTT
 8581 GAA GAA AGA ATC TTA CTA TGA AGC TCT GAC TGT TGT GGT AAC TCA TAT AGA TCA GGC TTG TTT TGC TTT TGC TTT TGC TTT
 8659 ATC TGC CTT CTT CTG CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 8737 CAA AAG TTT CTA GAC TTS ACA TTA ATC GAT GGA GAT AGA CAA GAA TTA 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 CAG TGC CAG GCT AGA GGC ACC ATT CAA TGG CAG
 8893 TGT TTG CCA TCA TGC ATA GGC TTA GTC TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 8971 ACT GGG AAA GAC TTG CTT CAG ATT CTC TAC TGA AAG GCT GAT TTT GTG GCT TCT AGA AAA TCT TTT ACT TTT AAT AAT
 9049 TTT AAT GTA TAA TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 9127 AAT ACA TGG ACA AAA TAC AAG AAT CAT ATG ATC ACC TCA ATG GAA GAA AAA AAA AAA AAA AAA AAA AAA AAA AAA
 9205 AAG ATT CAA CAT TCA TTC TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 9283 CTT TCC CTT GGC CTG CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 9361 TTC AAA AAA CCA AGG GCT TCT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT CTT
 9439 CAG CTC TGG GGG TTA CTG GTT AGT TCA TAT TGT TAG TCC TCC TAT AGA GTT GCA GAC CCC TTT AGC TCC TTG GAT ACT
 9517 TTC TCT AGT TCC TTC ATT AGG GGC CTT GTG TCC CAT CCA ATA GAC TGT GAT CAT CCA CTT CTG TAT TTG CCA GGC
 9595 ACT GGC ATA GCC TCA CCA GAA AGA GAG AGC TAT GTC AGG ATC CTG TCA GTA AAA TCT TTC TGG CAT ATG CTA TAG TAT
 9673 CAG GGT TTG GTS GPT GTA TAT GGG ATG GAT CCC CAA GTG GAG CBG TCT CTG AAT GGT TCT TCC TTC CAT CTC AGC TCC
 9751 AAA CTT TCT CTC TAT AAC TCC TTC CAT GGG TAT TTT GGT CCC CAT TCT AAG AAG GAG TGA AGA ATC CAC ACT TTG GTC
 9829 TCC CTT CTT GAG TTT CAT ATG TTG CAT CTT GGA TAT TCT AAG TTT CTG GGT TAA TAT CCA GGT AIC 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

5985	TTC	ATT	AAT	TCA	CTG	TTT	TTA	ATT	GCT	GAA	TAG	TAC	TCC	ATT	TTC	TGT	ATC	CAT	TCC	TCT
10633	GTT	TAG	GGG	CAT	CTG	GCT	TCT	TCT	CTG	CAG	TAT	CTG	CTT	ATT	ATG	AAT	ANG	GCT	GCT	ATG
10634	TTA	TCA	GGT	TGG	AAC	ATC	TTG	CTC	CAG	GAG	AGC	ATC	ITC	CGS	TAG	TAC	GAT	CAA	CAT	
10639	TTT	ATA	AAA	GCC	CTA	GAA	CAA	GGA	GTA	GGA	CTG	TAG	AAA	ATA	TCC	AAC	AAT	ATG	TAT	
10647	ATG	ACC	AAT	ATC	ATA	AAT	GAA	TGA	AAC	CAT	TAA	TAA	CTT	CCA	ITA	AAA	TCA	GAG	GAC	
10635	CTC	AAT	CAT	AAT	GAG	ATT	GAA	GCA	TTA	GCT	GGG	ACT	GAA	TAC	AAA	TGG	GAA	AAT	ATT	
10642	AAT	TGT	TTT	CAA	TTG	AGG	ATT	ATA	TTA	TCT	TAT	ACC	CAA	TGA	CAA	ACT	TTG	ACA	AAT	
10641	AAT	AAT	ATC	AGC	AAA	GTG	TTA	TGA	TGC	ACC	ACA	TCC	TTA	TTC	TIC	CCA	GCT	TCT	CTT	
10649	CTT	CAT	CCT	TTG	TGT	CCT	TCC	ATC	TGC	CTG	CAC	TCT	TGT	CTC	AAG	ACT	GAG	TGC	TAT	
10657	GTA	TCT	CAC	AAA	ACG	TTC	TAC	CTG	TCA	ACT	GAT	GAG	CCC	TTT	CTG	AAA	CTA	TGA	GGC	
10745	TTC	AAG	AAG	GAA	ATG	ACA	GGG	AGG	AGS	TAA	TAA	TGA	AGT	GGG	GAA	GGC	TGA	CAT	TAG	
10843	TAA	TTT	CTC	ATA	CTT	CAT	AGC	ACT	GAG	ATG	TTA	TTA	CTT	CTG	ACT	AGG	TGA	AGA	AGC	
10921	TGA	GTT	TTA	TAG	AAT	CAG	TAG	AGT	AGT	AGT	TCT	CAA	ACT	GAT	CTT	ATG	GCT	CBA	ACT	
10939	CAC	AGS	TTG	CAT	ATC	AGA	TAT	CCT	AAT	TTT	ATA	TAC	ATA	TAT	ATA	TAT	ATA	TAT	ATC	
11077	GGG	AAA	TTA	TTT	AGT	AAT	CAT	TTT	ATA	GTT	GTT	GCT	CAT	GSC	ATA	AAA	GGG	TTG	CAG	
11155	GAA	TGT	TGA	GAC	CCA	CTG	TAA	TAG	AGA	ATT	AGG	CTG	AGA	CTA	TAA	AGC	ACA	ATG	GAC	
11233	ACA	TTT	GCC	ACA	TGG	TAA	GCT	CTG	TAT	AGA	CTT	TTT	AAA	GAA	CAI	TGG	TTT	GTA	ATT	
11311	CTG	TCT	ATC	ACC	CAT	CTA	TAT	ATA	ATA	TAA	TAC	ATA	ACT	TTT	GAT	TCC	ACC	ATG	GAT	
11319	AGA	CAT	AGC	GAT	GAA	ACA	TTG	ATG	ACC	AAA	TAG	AAA	ATC	CTA	TGA	GAG	ACC	TTT	CAT	
11367	CCA	TCT	TGC	AAC	AGA	GTT	CTA	CTT	TGC	TAC	CAG	TAA	TGA	ATA	CAG	TGT	CTC	AAC	TCC	
11445	CCC	CTG	AAA	TGA	CTT	CTA	CTA	CAA	CAI	TTT	TTA	AAG	ACA	GAA	AGA	CTA	AGA	GGG	AAA	
114623	GAT	CAT	GCA	ACC	AAT	TAA	GTC	CAA	CTT	GGC	CTG	ATC	AAG	AGG	CAC	AAI	TCA	AAA	GCA	
11761	TTG	TGT	ATG	GTT	GCT	GAT	TCC	GSA	AGC	AAA	GTA	TCA	GTT	ATC	CTT	AGT	GGG	AAA	AGA	
11779	CAT	TTA	ACA	GAT	TAG	GAG	ATG	AAA	CGG	TAT	ACT	AGS	CTA	ACT	CCC	CTG	TGA	TCC	CAT	
11857	GGC	AGG	AGG	ITC	TCG	AGC	TCA	AGC	TCA	AGC	CAG	CTT	AGS	CTA	AGC	AAA	ATA	AAT	ACT	
11935	GGA	GAT	TGG	ATG	TTA	AGA	TCT	GGT	CAC	TAA	GAG	GCA	GAA	TTG	AGA	TTG	GAA	GCC	AGT	
12013	AAA	TTG	CAG	TAA	GGA	TCT	AGT	TAG	TGT	AGA	TAT	ATA	ATA	ATA	AGA	TAT	TGA	TCT	CTG	
12091	TTG	TTT	GGG	AAA	AAA	TAT	TAT	CAG	CCA	ACA	TCT	TCT	ACC	ATT	TCA	GTA	TAG	CAC	AGA	
12169	CCC	ATC	CCC	CAT	ACC	AGA	CTG	GTT	ATT	GAT	TTT	CAT	GST	GAC	TGG	CCT	GGG	AAG	AAT	
12347	TTG	GGA	GTC	TCC	CAT	GGA	CCA	AGA	TAG	CAA	CTA	TAG	CTA	CGC	TCA	CAC	TGC	TTT	GAT	
12325	AAC	TGA	AAA	CAG																

Figure 12 contd

VKP-IGKV1-39/J-CK-A2

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

Figure 12 contd

3583 TGT CTT TCT TAC TAA ATG GTA ATC AGT TGT TTT TCC AGT TAC CTG GGT TTC TCT TCT TAA GAA GTT AAA TGT TTA
 3587 GTT GGC CTG AAA TCC ACC ACA CTT AAA GGA TAA ATA AAA CCC TCC ACT TGC CCT GGT TGG CTG TCC ACT ACA TGG CAG
 3745 TCC TTT CTA AGG TTC CAG AGT ACT AAT 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 GAG ACA GTC TTT ACA AGC ACA TGT TCT GGA ATC TGA TTC AAC CTA
 3901 CCC AGT AAA CTT GGC GAA GCA AGT TAG AAT CAT TAT CAC AAG GAG CAA CCT AAA TGT GCA AGC AAT AGG AAA
 3979 ATG TGG AAG CCC ATC ATA GTA CTT GGA CTT CAT CTG CTT TTG TGC CTT CAC TAA GTT TTT AAA CAT GAG CTG GCT CCT
 4057 ATC TGC CAT TGG CAA GGC TGG GCA CTA CCG ACA ACC TAC TTC AAG GAC CTC CAT ACC GGT AGA TTA CAC ACA TAC ATC
 4135 AAA ATT TGG GAA AAG TTC TAC CAA GCT GAG AGC TGA TCA CCG CAC TCT TAG GTG CTT ATG TCG CAC CAG AAA CCT
 4213 TAA GAA GCA ACC AGT ATT GAG AGA CTC ATT TAT GAA AGT CTA AAA 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 NAA ATA AAA CTT AAG AGC ATA GTT TAA TCT
 4369 CAT AAA CAA GAT AAT AAG CAA AAC AAA ACA TTT TTT CAT COA TGT AAG TTT AAA AGC AAG TAA AAT TTA AAA TTA AGA
 4447 GAG ACA TAA GTT TTG AGG TAG CAA GAT GGA AAC TCT GGG GCT TGG GGA AIG TTC TGT CTC TCT GTA TGG GAT GAG AAA
 4525 GTT ACT ATT GTG GAA TTG GGA TCT AIG TTT CTC CTG TAT ATA TTG TAT ACT TCA TTA TAA CTT CAC CTA AAG AAA TAT
 4603 CTA ATA CCC AGT GCA TAC ATA AAA GAG GAT ACA AGG AAT GAA TCA TAC GTC AAG GCC AUA AAG ACA ATA AAG TAG GGG
 4681 ATC CAG GAT CAA ATC TCC CAC AAC CTT GAG CTT TCT ACT AAT CTC CCT TCC AGA GCT CAA AAT ACA AAA CAC ATA ATT
 4759 CAA ACA CAT GAT CCC TCC TTG GGG TCT CTT CCT TCA TGC ATC GAA TTA GRA ATA GTC ATG TAT AAA ATG AGA TAG AAG
 4837 AGA CCT TCA TCA ACA GGT CAA AGA ATA TAG GTA AAT TTG TCT GGG TAT GAA GAG CCC AGT TAT CAA AGG TTA CAT TAG
 4915 GGA AGG AAG AGG ACA CTA ACA GTG ACT TTC ATT CTC CCC CTC TTC CTG GAG GGC CCT GCA TTT AAT CCG TCG TGG GCT
 4993 CAT CCA CTC AGC ACA CAT TTA CTA AGC ATC TTC TCA GCC TAC ACT CTG AAG SCA GTG CAG AAT AAT GTT AGT GTC CCT
 5071 TCC CCC AGT TAA TAT GCA GTC CAG TTT CCC TGC TCC CTT TCC TAC CTC TTG AGA AUG TAC AAT ATT AGC CAC GTG AAG GAC AGT
 5149 CAC CAA ATA GGA GAG GGC AAC CCT TTG CTT TCC TAC CTC TCG AGA AUG TAC AAT ATT AGC CAC TTT TTG AAA CTT CTT
 5227 TTA ATT GCT TTT TTT TAA TTT GTC TTT TCA AAT AGC AUA ACC TTG TTC AIC CAT TTC TGG GAA CCA AAT TTA TCA ATC
 5305 AAC AGT GCC TCT AAT CTG GCT AAT AAT ACA AAA AUG CCT CCA AAT ATA TAT GTT CCA GTC TTA TCT AAA ACA GAA
 5383 CCC ACA ATA AAA AAG AAG AAA GAA TAC ATA TAA GCA TTT ATA TTA TTC TGA SCA ACC TTG TGC TTT GTG AAA ATA
 5461 TAA TCT AAT GTC ACA TGC TGT AAT CTT TTT ATT TAA CAC TGG TGA AAT TAT AAT ACA AAG AAT AAT GAG AAA GAA GAC ABA TCA
 5539 CTG ATC CTA GGA TCT AGG GAT GTT ACA GAT AAG AAA ACA AAT GTG ACA AAG AGC TGT CAC AAG SAG GAT CTT CAA GGT
 5617 CAC AGA ATC ACT GTC TTG ATT TCA GTG GTG GTT ACA TAC ATA TAA TGT GAT AAC TTG TGG AAC TAT ATT CAT
 5695 ATA TTG TAC CAA TGT CAA ATG CTT AAT TTT GGC TCT ATA GTA TAA TTA TGC ACT AAA TTA CTA TTT GCA CAA AGA AAA
 5773 TGA TGT TTA CAT CAA AGG TGA GGC CAT ATT TGT TAG GAA CAT AAC TTA ABA ACC AIT TTG GAT AAC TAA TGA AAA GCC
 5851 ATT TTG TGT GCC TTG GCA TAT CAT GCC TAA GCT GTC ACC AGA TNG ATC TAA TAA GAC CTA AGC CTC AGA AGC AAG CCC
 5929 CTG CCC AGC AAG CAG GCA GCA CAG ATA AGA GCT AAA CCC AGG ACA GGC CAT GAT AIG CTA ATG AAC TAC CTT CAA GGT
 6007 GGT GCT GAC CTA GTG AAC CAG CCC CCA 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 TGT GTC TGG TGT AIG CTT GGA ACA CAG CTT CTC TAT GTT TTG TAT TGA
 6163 TAC CAG TCT AGA AGC TTC CAA AAC TTT CTC ACT GAA GAA TCC CCA TGT GGG ACC CCT ACA GAG TCT TTT GCC CAA
 6241 ACA ACT GCT TCC CTC CTG GTG TGA TCA TGG ACC AAG ATA GCA ACT GTC ATA GGT ACC GTC ACA CTG CTT TGA TCA AGA
 6319 AGA CCC TTT GAG GAA CTG AAA ACA GAA CCT TAG GCA CAT CTG TTG CTT TCG CTC CCA TCC TCC AAC AGC AIG GCT
 6397 GTC TTC ATA TTT GTT CTA GAC GGC CGG CC

Vkl-IGLV2-14/J-Ck
 1 GGC CGG CCC ACA TGA AAC AAT GGG AAC CMT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GSA TTG TTA CTC
 73 TCC ACA TCC TGT TAA GTA ACT TGA AGG CTT GAT AAG CCC ACC CTC TAA GAC TTC ATT AGG TTT GTA TTA AAG TTT GAC
 137 ATA CTC TCC TGT ATA CTC CCA ATA CAA CTC TAA AAT ATA TTA TTC CAT ATA GTG CTT ATT AGC TTT GAT TTA AAG TTT GAC
 235 TTT TCT CCA AAA TAT CTC TTG TCA CAA CAG CGG CTA TAG AGA ATA TAT TCC CTC CAG GCA AAT CTA TGC TGC
 313 GCT GGT CTG ACC TGG GAC CCT GGG GAC ATT GCC CCT GTG CTG AGT TAC TAA GAT GAG CCA GCC CTG CAG CTG TGC TCA
 391 GCC TGC CCC ATG CCC TGC TGA TTG ATT TTT AGG GAC TTT TTT AIG GGC TGG
 469 TCG CAC CTT GTG CAG GAG TCA GTC AAT GGC AAT GGA CAT GAG AAT GGC CCA GCT CCT GGC GCT CCT
 547 GCT ACT CTG GCT CCG AGS TAA GGA TGG AGA ACA CTA GGA AIT TAC TCA GCC 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
 793 CTG CCC TGA CCC ABC GCT CCT CTG TGT CTG GCA GGC CTG GCC AGA GCA TCA CCA GCT GCA CCG GCA GAT GTC AGC
 781 ACG TGG GCG GCT ACA ACT ACG TGT CCT GGT ATC AGC AGC ACC CCG GCA AGC CCG GCA TGA TGA TCT ACG AGG TGT
 559 CCA ACA GAC CCA GCG GCG TGA GCA ACA GAT TCA GCA GCA GCG ACA CCG GCA GCG TGA CCA TCA CCA GCG GCC
 937 TCC AGG CTG AGG ACG 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 GTG AGT ACA CTT TTC TCA TCT TTT ATG TGG ACG ACA CAG GTT TTC ATG TTA GGA GTT AAA
 1033 GTC AGT TCA GAA AAT CTT GAG AAA ATG GAG AGG GGT CAT TAT CAG TTG ACG TGG CAT ACA GTG TCA GAT TTT CTG TTT
 1171 ATC AAG CTA GAG AGA TTA GGG GCA AAA GGC TTT GAT TGA GAG AAT AAT TAA TAC TAT GGT TCT TCT AGA CGT TTA
 1249 GAT TGG ATC GGA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA CCG TGS TCT TCT AGA CGT TTA
 1127 AGT GGG AGA TTT GGA GGG GAT GAG GAA TGA AGS AAT 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 CAG AGG ATG AAA CAG CCG AGA TCA AAG AGG GGC CTG GAG
 1483 CTC TGA GAA GAG ARG GAG ACT CAT CCG TCT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GGA TAG
 1561 CAG AGT TGA GTG AGC CCG AGG CTG AGT TCT CTC TTT TGT CTC CTA AGT TTT TAT GAC TAC AAA AAT CAG TAG TAT GTC
 1639 CAG AAA TAA TCA TTA AGC TGT TTG AAA GFA TGA CTC TTT GCT 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 AIG AGA GAC TCT GTA GGA ACG AGT CCT TGA CAG ACA GCT
 1795 CAG GGG GTT TTT TTC CTT TGT CTC ATT TCT ACA TGA AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT
 1873 ACA GTT GGG TTT GAA CTA TAT GTT TTA ATG GCC ACG GTT TIG TAA GAC ATT TGG TCC TTT GGT TTC CCA GTT AAT ACT
 1951 CGA TTG TAA TTT TAT ATC GCC AGC AAT GGA CTG AAA CAG TCC GCA ACC TCT TCT TTA CAA CTG GGT GAC CTC GCG GCT
 2029 GTG CCA GGC ATT TGG CGT TCA CCG TGC CCG TAA GGG CCA TGT GAA CCC CCG GGG TAG CAT CCG TTG CTC CCG GTG GAC
 2107 CAC TTT CCG GAG GGA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAS 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 ATT
 2263 TTC TAT TAG GGA ATT AGA AAG GGC ATA AAC TGC TTT AUC CAG TCT TAT AIT AAA AGC TTA ATG TAT ATA AIT TTT TAG
 2341 AGG TAA AAT CTA CAG CCA AAA GTC ATT TCT GAC AIG ACC CTA ACT GGT TAG GGA TAT TTT TCT TCA TGC AAA
 2419 TCA TAT TAA CTG GTT AAA TTA ATA TAA ATT TCT GAC AIG ACC CTA ACT GGT TAG GGA TAT TTT TCT TCA TGC AAA
 3497 AAT AUC ACT AAT AAT AAT TTA GCA CAA AAT TAT TTC CCA ATA CTT TAA TTC TGT GAT AAA ATG AAA ATG TTT AAC TCA GCT
 2575 ACT ATA ATC CCA TAA TTT TGA AAA CTA TTT ATT AGC TTT TGT TGA CCC TTC CCG CAA AGG CAA CTA TTT AAG
 2653 GAC CCT TTA AAA CTC TTG AAA CTA CTT TAG AGT CNT TAA GTT ATT TAA CCA CTT TTA ATT ACT TTA AAA TGA TGT CAA
 2731 TTC CCT TTT AAC TAT TAA TTT ATT TTA AGG GGG GAA AGG CTG CTC ATA ATT CTA TTG TTT TTG TTA AAG AAC TCT
 2809 CAG TTT TCG TTT TTA CTA CCT CTG TCA CCG RAG AGT TGG CAT CTC AAC AGA GGG GAC TTT CCG AGA GGC CAT CTG GCA
 3887 GGT GCT TAA GAT CAG AAG TGA AGT CTG CCA GTT CCT CCG AGG CAG GTG GCC CAG AAT ACA GTT GAC CTG TTC TGG TGT
 2955 GGC TAA AAA TTG TCC CAT GTG GPT ACA AAC CAT TAG ACC AGG GTC TGA TGA ATT 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 ARG GAR GCC ATA CAG AGG CTA
 3121 ATA TCA GAG TAT TCT TGG AAG AGA CAG GAG AAA ATG AAA GCC AGT TTC TGC TCT TAC CTT ATG TGC TTG TGT TCA GAC
 3199 TCC CAA ACA TCA GGA GTG TCA GAT AAA CTG GTC TGA AUC TCT GTC TGA AGC ATG GAA CTG AAA AGA ATG TAG TTT CAG
 3277 GGA AGA AAG GCA ATA GAA GGA AGC CTG AGA ATA TCT TCA AAG GGT CAG ACT CAA TTT ACT TTC TRA AGA AGT AGC TAG
 3355 GAA CTA GGG AAT AAC TTA GAA ACA ACA AGA TUG TAT ATA TGT GCA TTC TGG CCC CAT TGT TCC TTA TCT GTA GGG ATA
 3433 AGC GTG CTT TTT TGT GTG TCT GTA TAT AAC ATA ACT GAT TAC ACA TAA TAC ACT GAA ATG GAG CCC TTC CTT GTT ACT
 3511 TCA TAC CAT CCT CTG TGC TTT CCT CCG GGG CCG AGC CCG CTC CCA TCT TCC CCC CCA TCA TCG TGA AGT GGA AGA
 3589 AGC TGA CCT CTG GCG GAG CCA CCG TGG TCT GCT TCG TGA ACA ACT TCT ACC CCA GAG ACA TCA CCG TGA AGT GGA AGA
 3667 TCG ACG GCA GCG AGC AGA GGG ACG CCG TGG TGG TGA CCG AGC ACA CCG AGG ACT CCA GCG AGG TGG TGC ACA AGA TGA
 3745 GCA GCA CCC TGA GGC TGA CCA AGG TGG ACT ACG AGA CCG TGT TGT ACG AGT TGT TGA CCG AGG TGG TGC ACA AGA TGA
 3823 CCA GCC CCG TGG TCA AGT CTT TCA ACC GAA ACG AGT GAT GAA GAC AAA GGT CTT GAG ACG CCA CCA GCT CCC CAG
 3901 CTC CAT ATC TTC CTT TCT AAG GTC TTG GAG GAT TCC CCA CAG ACC TAC TAT TGC GGT GCT CCA AAC CTC
 3979 CTC CCC ACC TCC TTC TCC TCC TCC TCT TTT ATC ATG CTA ATA TTT GCA GAA AAT AIT CAA TAA AGT
 4057 GAG TCT TTG CAC TTG AGA TCT CTC TCT TTC CTA AAT GGT AGT AAT CAG TTG TTT TTC CAG TTA CCT GGG TTT CTC
 4135 TTC TTA AGA AGT TAA ATG TTT AGT TGC CCT GAA ATC CAC CAC ACT TAA AGG ATA AAT AAA ACC CTC CAC TTG CCC TGG
 4213 TTG GCT GTC CAC TAC ATG GCA GTC CTT TCT AAG GTT CAC GAG TAC TAT TCA TGG CTT AIT TCT CTG GGC CAT GGT AGG
 4291 TTT GAG GAG GCA TAC TTC CTA GPT TTC TTA GTC AAA GTC CTG AAG GGG GAC AGT CTT TAC AAG CAC AIG

Figure 12 contd

4363 TTC TGT BAF CTG ATT CAA CCT ACC CAG TAA ACT TGG CGA AGC AAA GTA GAA TCA TTA TCA CAG GAA GCA AAG GCA AOC
 4447 TAA AUG TGC AAG CAA TAG GAA AAT GTG GAA GGC CAT CAT AGT ACT TSG ACT TCA TCT GCT TTT GTG CCT TCA CTA AGT
 4525 TTT TAA ACA TGA GCT GGC TAT CTG CAG TGA ACC CAT CAA GAT TTT TGA GAG CTA CTT CAA GGA CCT CTA TAC
 4603 CGT GAG ATT ACA CAC ATA CAT CAA BAF TTT TGA GAA GAT TTT TGA GAG CTA CTT CAA GGA CTA CTT CAA GGA CTA CTT
 4681 TAT CTC TGT AOB CCA GAA ACC TTA AGA AGC AAC CAG TAT TGA GAG ACT CAT TTA TGA AAT TCT AAA ACT GGA TAC AAC
 4759 CAA AAT GTC CAC CAA CAG TTA AAT TAT GAC ATT TAT GAG CTA TTA CTT AAT AAG GAG AAT TAA AAT AAA
 4837 ACT TAA GAG CAT AGT TTA ATC TCA TBA ACA AGA TBA TAA GCA AAA CAA AAT TTT TCA TCC ATG TAA GTT TAA AAG
 4915 CAG GTA AAA TTT AAA ATT AAG AGA GAC ATA AGT TTT TGA GTA CCA AGA TGA AAA CTT TGG GGC TTG GGS AAT GAT CTT
 4993 TCT CTC TGT NTG GGA TGT GAA AGT TAC TAT TGT GGA ATT GGT ATC TAT GGT CTT GTA TAT ATT GTA TAC TTC ATA
 5071 ATA ACT TCA CTT AAA GAA ATA TCT AAT ACC CAG TGC AIA CAT AAA AGA GGA TAC AAG GAA TGA ATC ATA CGT CAA GGC
 5149 CAG AAA GAC AAT AAA GTA GGG GAT CCA GGA TCA AAT CTC CCA CAA CTT TGA GCC TTC TAC TAT TCT GCC TTC CAG AGC
 5227 TCA AAG TAC ABA ACA CAT BAF TCA BAC ACA TCA TCC CTC CTT GGG GTC TCT TCC TTC ATG CAT CGA ATT AGA AAT AGC
 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 ABA GGC
 5383 CAC GTA TCA AAG GTT ACA TTA GGG AAG GAA GAG CAC ACT AAC AGT GAC TTT CAT TCT CTT CTT GGA GGC CCC
 5461 TGC ATT TAG TCC CTC GHS 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 CCG TTC CCG CAG TTA ATA TGC AGT ACA GTT TCC CTG 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 CTT CTT GAG AAT GTA CAT TAT
 5695 TAT CCA CTT TTT GAA ACT TCT TTT AAT TGC TTT TTT TTA ATT TGT CTT TTC ABA TAG CAT AAC CTT GTT CAT CCA TTT
 5773 CTG GGA ACC AAA TTT ATC AAT CAA CAG TGC CTC TAA TCT GGC TAT TAA TAC AAA AAT GGC TCC TCA AAA TAT ATA TGT
 5851 TCG BGT CTT ATC TAA AAC AGA ACC CAC AAT AAA AAA 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 AAT CTG TAT TCT TTT TAT TTA ACA CTG GUG AAA TTA TAC CAT
 6007 TAG AGA GAA GGA CAG ATC ACT CAT CTT AGS ATC TAG GGA TGT TAC AGA TAA GAA AAC AAA TGT GAC AAA GAG CTG
 6085 TCA CAA GGA GGA TCT TCA AGG TCA CAG AAT CAG TGT CTT GAT TGT AGT TAC ATB CAT TTA AAT AUG TGA TAA
 6163 AAT GTT GTT GAA CTA TAT TCA TAT TCA TAT TCA CCA ATG TCA AAT GCT TAA TTT TGG CTC TAT AGT ATA ATT ATG CAC TAA
 6241 ATA ACT ATT TGS ACA AAG AAA ATG ATG 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 CTA AGC TGT CAC CAG AUA GAT CTA ATA AGA
 6397 CCT AAG CTT CAG AAG CAA GCC CTT GCC CAG CAA GCA GGC ASC ACA GAT AAG AGC TAA ACC CAG GAC AGG CCA TGA TAT
 6475 GCT AAT GAA CTA CTT TCA AGG TGG TGT TGC TGA CTT AGT GAA CCA GCC CCA AGC TGT GAG CCC CAA TAG CAC AAA GCT
 6553 ACT GCC CAA AGA AAT TAT ACA AAA ATT GGA ACT TTG GSA ATG GTG TGC AGG ATC GCT CTG 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 AGR AGA TTC CCC ATG TSG GAC
 6709 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
 6855 TAC AGC TAA TAG TCC CAT GCT CTC CAC AAT ACT GSA TCC AAA TAA GTC CTA ATT TCA ATG TTG GGC ATC TTT ACA GAG
 6943 AGA AAG ACA TTA AAA ATG AAG AGA CAT GCA GAG AGT GCA CCA TGC CAT CGT GGA GAC AGA CTG AAG TGA CAC AAC TGT
 7021 TAG TCA AAG AGG AAT AAG GAC TTC CAG AAG CCA CCA AAG GAA GGA GGT ATG AAG TGG TTT CTC CTT CAG AGT ATC CAG
 7099 AAG AGA CTA AAC CAA CCA CCA CTT TTT TGC TTA ASA CTT CTT GCC TTC AGG ACT GTG AGA AGG TAG CTT CTT ATT GTT
 7177 CTA AGC CUC AGT ATG TGG CAT TTT GTT AAG GTA GAS TCA ASA CAA TAA AAT GCA GAG AGA CAA AAG GAT AGC TGA
 7255 GTT TTC CAG GCC CTT CTT TAT TTT TGG TTT TGT TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG
 7333 TGT TTT GTT TGG GGA GTT TTT TGG GGT TTT TTT 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 GTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 7489 TTT TTT CTT TAA TGT CTA CAT CTC AGA GGG GAT CTT CTT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT
 7567 GCA ACT AAT GAG GAG CTA CAG ACA ATT GAT GTT TCT TCT GGG GAA AGG AGA CTC AGT TTT GAG AGT ATA GCT TCT TCT TCT
 7645 GGG TCA ACC ATG TTC CTG TCG ATG TCA CAC CCA CCA GTA TGC AGA CAA CAG AAA CTG GAG TTA ATG ACT TGT TTT
 7723 AAA AAT AAA AAA GGG CAT GAA GCT TGG GAT AGA AAT TAA GGA TAA ATA CAA TTA AAT ACA GGA AAT TCT GAA AGA AAT
 7801 TTT TTT CTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT TTT
 7879 AAT AAA AAC ATT TCT TTT TTT AAA AAA TCC AGA AAT AGC TAT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT
 7957 AGT TAA ATA AGT TAT ATT GTA GAA AAG GTA GAG AGG AGA ATA GTG GAA GAG AGA GAT AAG GAG ACT TCA AAA GGA GTG
 8035 GAG GGA GAT AGA GGA GAA AAG AGC ASA AGC AAT GGC TGA TAG ACA CAG GAT AAG AAG GAA CAG AAA GGA GGA AGA GGA

Figure 12 contd

8113 AGC CAG GAT GGG TAT TTC TTT GGC TAT CTG TGA CTT GCA CAT GGT CTT GGC AAT TAT TGA TGA GGT CAA GGC TTA ATT
 8191 CTT CAC TTG TGC CAA CTC AAC AGA GTC TTT CTT TCT TAT AAC CAG GCC CCG AGT ATG CTC ATG TAT GTA TCA GGT CCT
 8269 CTT ATC TCC TTA TAG CAA TCC TGT TGT TTA TAA CTG GGT AAC TTT GTG AAG GGA AGG AAT TAA TAT TAT GCA CTT TAG ATT TTG
 8347 ACT TTT TAA TAC AAA ATT TTG AAG AGT TTG TAC AAT GTA TGT AAT TAA TAT TAT GCA CTT TAG 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 TCT CTG TAT AGC CTT GGC TGT CTT GGA ACC CAC TTT GTA GAC CAG GCT GGC CTC
 8581 AAA CTC AGA AAG CTA CTT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT
 8659 GGC TCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT
 8737 GGC TCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT GCT
 8815 AAA TTT TTA ANC TTT ATA TAT GTC TCA TTC TAT CAG ATA GGA CTG TGT AGA CTG TGC TAA ACT AAT AAA TGT
 8893 GGC CTC AAA AGT AAT CGC AAG TTG TAT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 8971 TGC TTT GCT TTG CTT TGC TTT GCT TTG CTT 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 AAG CTT GAT TCA ACT CAA AGA GAT CTG CTT TCT GCT TCC CAA GTC CTG GGA ATA AAG GCA TAC ACC TCC ATG CCG
 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 GGC 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 GGC TCA GAT TCT CTA CTG AAA GGC TGA GGT TGT GGC TTC TAG
 9517 AAA ATC TTT TAC TTT CAA TAT TTT TAA TGT ATA ATT TTT 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 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 TTT TTT TTT TTT TTT TTT TTT
 9751 GCT ATC CCC AAA GGC CCC TAT ACC TTC CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG CCG
 9829 GCT ACT GAG GCA TAT GAT CTT CAA AAA ACC AAG GGC CTC TCC TCT CAT TGG TGG CCG ACT AIT AGG CCA TCT TTT
 9907 GCT ACA TAT GCA ACT AGA GAC ACA GCT CTT GGG GTT ACT GGT TAG ATA CTC CTC TTA TAG AGT TGC AGA
 9985 CCC CTT TAG CTC CTT GGA TAC TTT CTC TAG TTC CTT CAT TAG GGG CCC TGT GTC CCA TCC AAT AGA TGA CTG TGA GCA
 10063 TCC ACT TCT GTA TTT GGC AGG CAC TGG CAT AGC CTC ACG AGA AGA GAG CTA TGT GTC GAT CCG GAT CCG AAT GGA AAT
 10141 TTT CTG GCA TAT GCA ATA GTA TCT GGG TTT GGT TGT TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA TGA
 10219 TCC TTC CTT CCA TCT CAG CTC CAA ACT TTG TCT CTA TAA CTC CTT CCA TGG GTA TTT TGT TCC CCA TTC TAA GAA GGA
 10297 GTG AAG AAT CCA CAC TTT GGT CTT CTT TCT TGA GTT TCA TAT GTT GCA TCT TGG ATA TTC TTA GTT TCT GGG TTA
 10375 ATA TCC ACG TAT CAG TGA GTG CAT ATC ATG GGT GTT ATT TTG TGA TTA GTT TAC CTC ACT CAG GAT GAT ATC CTC CAG
 10453 ATG CAT CCA TTT GGC TAA GAA TTT CAT TAA TTC ACT GTT TTT AAT TGC TGA ATA GTC 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 TAA TGA GGC TGC TAT
 10609 GAG CAT AGC GGA GCA TGT GTC CTT ATC AAG TTG GAA CAT CTT CTA GGT ATA TGC CCA GGA GAA TTS CTG GAT CTT
 10687 CCG GTA GTA CCA TCA TCA TGC ATT CTT AAT AAA AGC CCG AGA ACA AGG AGG ACT GTA GGA AAC ATA TTC CAA CAT AAT
 10765 AAA GGT TAT GTA TGA CAA ACT CAT GAC CAA TAT CAT CCG AAT TGA ATG AAA CCA TTA ATG AGC TCC ATT AAA ATC AGA
 10843 GGA CTG CCC ACT ATC CCG TAT CCA TAA TGA GAT TGA AGC AAT AGG TGG AGC AAT AAG GCA AGA GAA GGG ATA
 10921 CBA ATG GGA AAA TAT TAA GTC AAA TTG TTT TCA AAT TAT TAT ATT ATC TTA TAC CCA ATG ACC TCA AAT TTT GAC
 10999 TAG AAA AAT TGT AGA AAT TAT CAA TAA TTT CAG CAA AGT GTT ATG ATG CAC CAT CTT CTT CTC CCC AGC TTC
 11077 TGC TTG CTT CTT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT TCT
 11155 CGT GTA ACT CTC CTG TGA CTG AGT ATC TCA CAA AAC GGT CTA CCG AAA CCG TGA TGA GGC CTT TGT CTT TCT GAA
 11233 GCT ATG AGG CTC TCT ACA TGG AGT CAA GGA AAT GAC GAG GAG GTA ATA 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 AAT TAT TAT TAT TAT TAT TAT TAT
 11389 CCA GAG CTA AGG TTC TCT TCA TAT TTG AGT GTT AIA GAA TGA GAG CAG TAG TTT TCA AAC TAT GGG TCA TAG GTG AAG AAG
 11467 TAT GGG TCA AAC TAC CTT TTC ACA CAG GTT GCA TAT CAG ATA TCC TAA TTT 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 AGT TGT GGG TCA TGG CAA CAT GAG GAA CTG
 11623 TAT TAA AGG GTT GCA GCA TTA GGA ATG TTG AGA CCC ACT GTA ATA GAG AAT GAG GCT TTA GGC AGT ATA AAG CCC
 11701 AAT GGA CCA TGT GCT TTT TCC AAC ATT TGC CAC ATG GTA AGT TCT TAG ACT TTT TTA AGA ACA TTG GTT TGT AAT
 11779 TTT AAA TGG ATA AGG GTC TTC ACT GTC TAT CAC CCA TCT ATA TAA TAA CAT AAG TTT TGA TTC CAC CAT GGA TTC

Figure 12 contd

11857 AAA TGC AAA AAT CCT CAA CCT AAG ACA TAG CAG TGA AAC ATT GAT GAC CAA ATA GGA AAT CCA TGT AGA GAC CTT CTA
11935 TCT TCT GAT GGC TCC ACA GGC ACC ATC ATT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT
12013 CTG CCA TGG ATG ATG TCA TGC ATG TCA TGC AAT CCA TTA AGT CCA ACT TGG CCA GAA GAA GAA GAA GAA GAA GAA GAA
12091 AGG GAA TAA ATG TCA TGC ATG TCA TGC AAT CCA TTA AGT CCA ACT TGG CCA GAA GAA GAA GAA GAA GAA GAA GAA
12169 BAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT
12247 AAG ACT TGG AAA TCA TTA AAT GTC TCA TTA AAT GTC TCA TTA AAT GTC TCA TTA AAT GTC TCA TTA AAT GTC TCA TTA
12325 ATC CCA TCG CTA GGA AGA CTG AGG CAG GAA GTC CCA GCT TAG GCT CCA GCT TAG GCT CCA GCT TAG GCT CCA GCT TAG
12403 AAT AAT TAC TAA CTA CTT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT
12481 TAT TTT CTA CTT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT
12559 GCA ACA ACA GAG AGT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT
12637 AGT ACC CAC CCA TAT CTC CCC ACC CAT CCC CCA TAC CAG ACT GGT TAT TGA TTT TCA TCG TGA CCG TCG TCG TCG TCG
12715 TAA AAA AAG TAA TGC TAC CTT ATT GGG AGT GTC CCA TGG ACC AAG ATA GCA ACT GTC ATA GCT ACC GTC ACA CTG CTT
12793 TGA TCA AGA AGA CCC TTT GAG GAA CTG AAA ACA GAA CCT TAG GCA CAT CTG TTG CTT TCG CTC CCA TCC TCC TCC AAC
12871 AGC CTG GGT GGT GCA CTC CAC ACC CTT TCA AGT TTC CAA AGC CTC ATA CAC CTG CTC COT ACC CCA GCA CCA COT GGC CAA
12949 GGC TGT ATC CAG CAC TGG GAT GAA AAT GAT ACC CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA CCA
13027 AGT CCC CAG TCC CAA TGC TTT TGC ACA GTC AAA ACT CAA CTT GGA ATA ATC AGT ATC CTT GAA GAG TTC TGA TAT GGT
13105 CAC TGG GGC CAT ATA CCA TGT TGT AAG ACA TGT GGA AAA GAT GAT TCA TGG GGC CCA GAC ACH TTC TAG AAG TAC CTG AGA
13183 GTG GCA AAA AAT AGT GGT GCT AAA TAG TTT GGC CAT CTT TAG GCT GAG AGA CTA GGA AAT ACA GCG AAG GAC TAT ATC
13261 AGC ATT GCA GGA TAG TTG TCA GTA ABC ACC CCA CAA CCC ATA ACA GAA GTA TTC TCT TCT TTC TAT ATC COT TTT CCA
13339 TCC ATG TAG ATG GCT GTC TTC ATA TTT GTT CTA GAC GGC GCG CC

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

Figure 12 contd

1951 AGT TTA AGA TAT AGT ATA TTT TCC CAA GGT TTG AAC TAG CTC TTC ATT TCT TTA TGT TTT AAA TGC ACT GAC CTC CCA
2039 CAT TCC CTT TTT AGT AAA ATA TTC AGA AAT AAT TTA AAT ACA TCA TTA TTA TTT TTT TTT ATT AGS CAG
2107 AAT CCA GAT GCT CAA GGC CTT TCA TAA TAT CCC CCA GTT TAG TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA
2185 AAT TGG ACA GCA AGA AGA GCA GCT TCT AGC GAA TTC TCG ACT CAT TCC TTT GGC CTA GCA GCA GCA GCA GCA GCA
2283 TTT CCA CTA TCG GCG AGT ACT TCT ACA CAG CCA TCG GTC CAG AGC GGC GGT CTT CTT CCG GCG ATT TGT GTA GCG CCG
2341 ACA GTC CCG GCT CCG GAT CCG AGT CCG CCA TAT CCA TCG AAA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA
2419 AAG CTC TGA TAG AGT TGG TCA AGA CCA ATG CCG AGC ATA TAC CCG GCG AGC GGC GAT CTT GCA AGC TCC GGA TGC
2437 CTC GTC TCG AAG TAG GGC GTC TGC TGC TTA CAA GGC AAC CAC GGC CTC CAG AAG AAT TTA TTA TTA TTA TTA TTA TTA
2575 TGG GAA TCC CCG AAC ATC GGC TCG CTC CAG TCA ATG ACC GCT GTT ATG GCG CCA TTG TCC GTC AGS ACA TTG TTG GAG
2653 CCG AAA TCC CCG TGC AGC AGG TGC CCG ACT TCG GGG CAG TCC TCG GGC CAA AGC ATC TCA TCG AGA GGC TCG GCG
2731 ACG GAG GCA CTC ACG GTG TCG TCC ATG ACA GTT TGC CAG TGA TAC ACA TGG GGA TCA GCA ATC GCG CAT ATG AAA TCA
2809 CCG CAT GTA GTG TAT TGA CCG ATT CTT TGC GGT CCG AAT GGG CCG AAC CCG CTC GTC TCG CTA AGA TCG GCC GCA GCG
2887 ATC GCA TCC ATG AGC TCC GCG ACG GGT TGC AGA ACA GCG GGC AGT TCG GTT TCA GGC AGC TCT TCG AAC ATC GGS AGC GCG
2965 TGT GCA CCG GCG GAG ATG CAA TAG GTC AGS CTC TCG CTG AAT TCC CCA ATG TCA AGC ACT TCC GCA ATC GGS AGC GCG
3043 GGC GAT GCA AAG TGC CCA TAA ACA TAA CCA TCT TTG TAG AAA CCA TCG GCG CAG CTA TTT ACC CCG AGS ACA TAT CCA
3121 CCG CTT CTT ACA TCG AAG CTG AAA GCA GAT TCT TCG CCC TCC GAG AGC TGC ATC AGG TCG GAG ACG CTG TCG AAC
3199 TTT TCG ATC AGA AAC TTC TCG ACA GAC GTC GCG GTG AGT TCA GGC TTT TTC ATG ATG GGC CTC CTA TAG TGA GTC GTA
3277 TTA TAC TAT GGC GAT ATA CTA TGC CCA TGA TTA ATT GTC AAA ACA GCG TGG ATG GCG TCT CCA GCT TAT CTG ACG GTT
3355 CAC TAA ACG AGC TCT GCT TAT ATA GAC CTC CCA CCG TAC ACG CCT ALC GGC CAT TTG CBT CAA TGG GSC GSA GTT GTT
3433 ACG ACA TTT TGG AAA GTC CCG TTG ATT TAC TAG TCA AAA CAA ACT CCC ATT GAC GTC AAT GSG 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 GGT CAT GTA CTG GGC ATA AGC CCA GCG GCG CTA TTA CCG TAA ATA CTC
3667 ATT GAC GTC AAT AGS GCG GGT ACT TGS CAT TAC TGG GGT TAC TAT GSG AAC ADA CBT CAT TTA TCA CBT CAA TGG GCG GAG
3745 CAC CCA TTG ACG TCA ATG GAA AST CCC TAT TGG GGT TAC TAT GGT AAC ADA CBT CAT TTA TCA CBT CAA TGG GCG GAG
3823 GTC GTT GGG CCG TCA GCC AGG CCG GCT ATT TAC GGT AAG TTA TGT AAT GCG AGS TTA ATT AAG AAC ATG TGA GCA
3901 AAA GGC CAG CAA AAG GCG AGS AAC GGT AAA AAG GCG GCG TTG CTG GCG TTT TTC CAT AGS CTC CCG CCG CTT GAC GAG
3979 CAT CAC AAA ANT CGA CCG TCA AGT CAG AGG TGG CCA AAC CCG ACA GGA CTA TAA TAC CAG GCG TTT CCG CCG GAG
4057 AGC TCC CTC GTG CCG TCT CTT CCG ACC CTG CCG CTT ACC GGA TAC CTG TCC GCG TTT CTC CCG TCG GGA AGC GTG
4135 CCG CCG GTT CAG CCG GAC CCG TGC GGT TTA TCC GGT AAC TAT CCG AGT TCG GTG TAG GTC GGT CCG TCC AAG CCG GAC CAA
4213 CCA CTG GCA GCA GCC ACT GGT AAC AGG ATT AGC AGA GCG AGG TAT CTC AGT TCG GTG TAG GTC GGT CCG TCC AAG CCG GAC TTA TGG
4291 CCT AAC TAC GGC TAC ACT AGA AGA ACA GTA TTT GGT ATC TGC GCT CTG AAG CCA GTT ACC TTC GGA AAA AGA GTT
4369 GGT AGC TCT TGA TCC GGC AAA CAA ACC ACC GCT GGT AGC GGT TTT TTT GTT TGC AAG CAG CAT ATT ACG CCG AGA
4447 AAA ARA GGA TCT CAA GAA GAT CCT TIG ATC TTT TCT ACG GGG TCT GAC GCT CAG TGG AAC GAA AAC TCA CBT TAA GGG
4525 ATT TTG GTC ATG GCT AGT TAA TTA ACA TTT AAA TCA

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

Figure 12 cont'd

791 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
 859 AGT TCT CTG ATA ACA TGA TTA ATA GGA ATG TTT TTT ATG TTT CCA ATC TCA GGT GGC AGA TGT AGC ACC AGC AGC GAC GTG
 937 CTG ACC CAG CCC GAC TAC TGT TCC TGG TAT CAG CAG CAC CCC GGC AGC AAG GCC CAG CTG AIG ATC TAC GAG GTG TCC AAC
 1035 GGC GGC TAC AAC TAC GAG TCC TGT TGG TAT CAG CAG CAC CCC GGC AGC AAG GCC CAG CTG AIG ATC TAC GAG GTG TCC AAC
 1093 AGA CCC AGC GGC GTG AGC AAC AGA TTC AGC GGC AGC AAC ACC GCC AGC CTG ACC ATC GGC GGC GGC AGA AAC CTG
 1171 GCT GAG GAC GAG GCC GAC TAC TAC TGC AGC AGC TAC ACC AGC AGC TCC ACC CTG GTG TTT GGC GGC GGC AGA AAC CTG
 1243 ACC GTG CTG AGA GCC GAC GCC GCT CCC ACC ACT TTT CAC CCC AGC GAC ATG TGC AGC GGC AGC AGC GGC AGC GAG AGG
 1327 ACC GTG GTG TGC TGC GTG AAC AAC TCT TAC TAC CCC AGA GAC ATC CCG GTG AGC TGG AGC ATG CAC 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 AGG CAC AAC CTG TAC ACC TGC GAG GTG GTC CAC AAG ACC AGC TCC AGC GTC GTG AAG TCC
 1561 TTC AAC CCG AAC GAG TGT TGA GCT AGC TGG 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 ACC ATC TCC TGC ACT GGA ACC AGC AGT GAC GTT
 1615 GGT GGT TAT ABC TAT GTC TCC TGG TAC CAA CAG CAC CCA GGC AAA GGC CCC AAA CTC ATG ATT TAT GAG GTC AAT AAT
 1693 CCG CCC TCA GGG GTT AAT GGC TTT TCT GGC TCC AAG TCT GGC AAC ACG ACG TCC CTC AGC AAT TCT GGG CTC CAG
 1371 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 GTG CTA CCG GCT GAT GCT GCA CCA ACT GTA TCC ATC TTC CCA CCA TCC ATG GAA CAG TTA ACA TCT GGA GGT GCC
 1327 ACA GTG GTG TGC TTC GTG AAC AAC TTC TAT CCC AGA GAC ATC AGT GTC AAG TGG AAG AYT GAT GGC AGT GAA CAA CCA
 1405 GAT GGT GTG CTG GAC AGT GTT ACT GAT CAG GAC AGC AAG GAC AAG AAG TGG AAG AYT GAT GGC AGT GAA CAA CCA
 1483 AAG GTT GAA TAT GAA AGG CAT AAC CTC TAT ACC TGT GAG GTT GTT 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 GAT GAG TTT GGA CAA ACC ACA ACT AGA
 1717 CAA GTT AAC AAC AAC AAT TGC ATT CAT TTT ATG TTT CAG GGT CAG GGG GAG GTG TGG GAG GTT ATT TAA AGC AAG TAA
 1795 AAC CTC TAC AAA TGT GGT ATG GAA TTC TAA AAT ACA GCA TAG CAA AAC TTT AAC CTC CAA ATC AAG CCT CTA CTT GAA
 1873 TCC TTT TCT GAG GGA TGA ATA AGG CAT AGS CAT CAG GGG CTG TTG CCA ATG TGC ATT AGC TGT TTG CAG CCT CAC CTT
 1951 CTT TCA TGG AGT GTA AGA TAT AGT GTA TTT TCC CAA GGT TTG CAG TAG CTC ATT TCT TTA TGT TTT AAA TGC ACT
 2029 GAC CTC CCA CAT TCC CTT TTT AAT AAA ATA TTC AGA AAT AAT TTA AAT ACA TCA TTG CAA TGA GGG AAC AAA GGA ACC
 2107 AAT AGG CAG AAT CCA GAT GCT CAA GGC CCT TCA TAA TAT CCC CCA GTT TAG TAG TTG GAC TTA GGA CAA TAA ATG TTT TTT
 2185 TTT AAT AGA AAT TGG ACA GCA AGA AAG CCA GCT TCT AGC GAA TTC TCG ACT CAT TCC TTT GCC CTC GGA CAA GTG CTG
 2263 GGA GGC CCG ACA GTG CCG GCT CCG GAT CCG ACG AAT GCG TCG CAT CGA CCC TGC GCC CAA GCT GCA TCA TCG AAA TTG
 2341 CCG TCA ACC AAG CTC TGA TAG AGT TGG TCA AGA CUA ATG CCG AGC ATA TAC GCC CAG CAG CCG GGC GAT CCT GCA AGC
 2419 TCC GGA TCC CTC GGC TCG AAG TAG CCG GTC TGC TGC TCC ATA CAA GCC AAC CAC GGC CTC CAG AAG AAG ATG TTG GGG
 2507 ACC TCG TAT TGG GAA TCC CCG AAC ATC GCC CTC CAG TCA ATG ACC GCT GTT ATG CCG CCA TTG TCC GTC AGG ACA
 2585 TTG TTG GAG CCG AAA TCC CCG TGC ACG AGG TGC CCG ACT TCG GGG CAG TCC TCG GCC CBA AGC ATC AGC TCA TCG AGA
 2663 GGC TGC GCG ACG GAC CCA CTG ACG GTG TCG TCC ATC ACA GTT TGC CAG TGA TAC ACA TGG GGA TCA GCA ATC GCG CAT
 2741 ATG AAA TCA CCG CAT GTA GTG TAT TGA CCG AAT CTT TSC GGT CCG AAT GGG CCG AAC CCG CTC GTC TTG CTA AGA TCG
 2819 GCT GCA GCG ATC GCA TCC ATG AGC TCC CCG ACG GGT TGC AGA ACA GCG GGC AGT TCC ATG TCA AGC AGT TCC TCG AAC
 2897 GTG ACA CCC TGT GCA CCG CCG GAG ATG CAA TAG GTG AAG CTC TCG CTG AAT TCC CCA ATG TCA AGC ACT TCC GGA ATC
 2975 GGG AGC GCG GCC GAT GCA AAG TGC CCG TAA ACA TAA CBA TCT TTG TAG AAA CCA TCG GCG CAG CTA TTT ACC CCG AGG
 3053 ACA TAT CCA CCG CCT CTT ACA TCG AAG CCA GCA CGB GAT TCT TCG CCG TCC GCG AAG TGC ATC AGC TCG GAG ACG
 3131 CTG TCG AAC TTT TCG ATC AGA AAC TTC TCG ACA GAC GTG AGT TCA GGC TTT TTT ATG ATG GGC CCG CTC CTA TAG
 3209 TGA GTG GTA TTA TAC TAT GCT GAT ATA CTA TGC CAG TGA TTA ATG AAA ACA GCG TGG ATG GGC TCT CCA GCT TAT
 3287 CTG ACG GTT CAC TAA ACG AGC TCT GAT TAT ATA GAC CTA CCG TAC ACG CCT ACC GGC CAT TTG CGT CAA TGG GGC
 3365 GGA GTT GTT ACG ACA TTT TCG AAA GTC TTG ATT TAC TAG TCA AAA CAA ACT CCC ATT GAC GTC AAT GGG GTG GAG
 3443 ACT TGG AAA TCC CCG TGA GTC AAA CCG CTA TCC ACG CCC ATT GTT GTA CTG CCA AAA CCG CAT CAT GGT AAT AGC
 3521 GAT GAC TAA TAC GTA GAT GTA CTG CCA AGT AGG AAA GTC CCA TAA GGT CAT GTA CTG GGC ATA ATG CCA GGC GGC CCA
 3599 TTT ACC GTC ATT GAC GTG AAT AGG GGG CBT ACT TGG CAT ATG ATA CAG TTG ATG TAC TGC CAA GTG GGT AGT TTA CCG
 3677 TTA ATA CTC CAC CCA TTG ACG TCA ATG GAA AGT CCC TAT TGG CBT TAC TAT GGG AAC ATA CBT CAT TAT TGA CBT CAA
 3755

Figure 12 contd

3622 TGG GCG GGG GTC GPT GGG CCG TCA GCG AGG CCG GGC AAT TAC CGT AAG TTA TGT AAC GCC TGC AGG TTA ATT AAG AAC
 3661 ATG TGA GCA AAA GGC CAG CAA MAG GCC AGG BAC CGT AAA AAG GCC GCG TTG CTG GCG TTT TTC CAT AGG CTC GCG CCC
 3979 CCF GAC GAG CAT CAC AAA AAT CGA TCC CTA AGT CAG AGG TGG CCG AAC CCG ACA GGA CTA TAA AGA TAC CAG GCG TTT
 4057 CCC CCF GGA AGC TCC CTC GCG CCG TCT GGT CCG ACC CTG CCG CTT ACC GGA TAC CCG TTT CTC CTT CTC CCG TCG
 4135 GGA AGC GTG GCG CTT TCT CAT AGC TCA CCG TGT AGG TBT CTC AGT TCG GTG TAG GTC GGT CCG TCC AAC CCG GTA AGA CAC
 4213 GTG CAC GAA CCC CCG GTT CAG CCG GAC TGC TGC TTA TCC GGT AAC TAT CBT CIT GAG TCC AAC CCG GGT ACA GAG TTC TTG
 4291 GAC TTA TCS CCA CTC GCA GCA GCC ACT GGT BAC AGG ATT AGC GGA GCG AGG TAT GTA GGC GGT GCT ACA GAG TTC TTG
 4369 AAG TGG TGG CCT AAC TAC GGC TAC ACT AGA AGA ACA GTA TTT GGT AIC TSC GCT CTG CTG AAG CCA GTT ACC TTC GGA
 4447 AAA AGA GTT GGT AGC TCT TGA TCC GGC AAA CAA ACC GCT AGC GGT GGT TTT TTT GGT TGC AAG CAG CAG AIT
 4525 ACG CCG AGA AAA AAG GGA TCT CAA GAA GAT CCT TTG AIC TTT TCT ACG GCG TCT GAC GCT CAG TGG AAC GAA AAC TCA
 4603 CGT TAA GGG AIT TTG GTC ATG GCT ACT TAA TTA ACA TTT AAA TCA

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1 CTT GAT TTG GGT GAT GGT TCA CGT AGT GGG CCA TCG CCC TGA TAG ACG GTT TTT CCG 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 AAT TCG GTC PAT TGS TTA AAA AAT BAC CTG AIT TAA CAA AAA TTT AAC GCG AAT TTT AAC AAA ATA TTA
 235 ACG TTT ACA AIT TTA TGG TGC AGT CTC AGT ACA ATC TCG TCT GAT GCC GCA TAG TTA AGC CAG CCC CGA CAC CCG CCA
 313 ACA CCC GCT GAC GCG CCC TGA CCG GCT TGT TGT CTC CCG AAA CCG GAG ACA GGA GGC CTC GTG ATA CCG CTA TTT TTA TGG
 391 TGC ATG TGT CAG AGG TTT TCA CCG TCA TCA CCG AAA CCG GAG ACA GGA GGC CTC GTG ATA CCG CTA TTT TTA TGG
 459 GTT AAT GTC ATG ATA ATA ATG GGT TCT TAT ACG TCA GGT GGC ACT TTT CCG GCA AAT GTG CCG GAA ACC CTT ATT TGT
 517 TTA TTT TTC TAA ATA CAT TCA AAT AIG TAT CCG CTC AIG AGA CAA TAA CCC TGA TAA ATG CTT CAA TAA TAT TGA AAA
 625 AAG AAG AGT ATG AGT AIT CAA CAT TTC CGT GTC CCC CTT ATT CCC TTT TTT CCG GCR TTT TGC CTT CTT GTT TTT GCT
 703 CAC CCA GAA ACG CTG GTG AAA GTA AAA GAT TTG GAT CAG TTT GGT GCC GGT TAC ATC GAA CTG GAT CTC
 859 GGC GCG GTA TTA TCC CGT APT GAC GGC GGS CAA GAG CAA CTC GTG ACA GTA AGA GAA TTA TGC AGT GGT GCU AHA ACC ATG
 937 GAG TAC TCA CCA GTC ACA GAA AAG CAT CTT ACG GAT GGC ATG ACA GTA AGA GAA TTA TGC AGT GGT GCU AHA ACC ATG
 1015 AGT GAT AAT AAC ACT CCG GCC AAC TTA CTT CTG ACA ACG ATC GGA GGA CCG AAG CAG CTA ACC GCT TTT TTT CAC AAC ATG
 1093 GGG GAT CAT GTA ACT CCG CTT GAT CGT TGG GAA CCG GAG CTA GAT GAA GCC ATA CCA AAC GAC GAG CBT TTT TTT CAC AAC ATG
 1171 ATG CCT GTA GCA ATG GCA ACA CCG TTG CCG AAA CTA TTA ACT GAC GAA CTA CTT ACT CTA GCT TCC CCG CAA CAA TTA
 1249 ATA GAC TGG ATG GAG GCG GAT AAA GTT GCA GGA CCA CTT CTG CCG TCG GCG CTT CCG GCT GGC TGG TTT ATT GCT GAT
 1317 AAA TCT GGA GCC GGT GAG CBT GGS TCT CCG GGT ATC ATT GCA GCA CTC GAG CTA GAT GGT AAG CCC TCC CCG TCA CTG ATT
 1405 GTT ATC TAC ACG ACG GGS AGT CAG GCA ACT ATG GAT GAA CAA AAT AGA CAG ATC GCT GAG ATA GGT GAT GGT 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 CBT GAG TTT TCG TCC CAC TGA GCG TCA GAC
 1639 CCC GTA GAA AAG ATC AAA GGA TCT TCT TGA GAT CTT TTT CTG CCG GTA ATC TGC TCG CAA ACA AAA CCA
 1717 CCG CTA CCA GCG GTG GTT TGT TTG CCG GAT CAA GAG CTA CTA ACT CTT TTT CCG AAG GTA ACT GGC TTC AGC AGA GCG
 1795 CAG ATA CCA AAT ACT GTT CTT CTA GTG TAG CCG TAG TTA GAG CAC CAC TTC AAG AAC TCT GTA GCA CCG CCT ACA TAC
 1873 CTC GCT CTG CTA ATC CTG TTA CCA GTG GCT GCT GCC AGT GGC GAT AGT TCG TGT TTT ACC GCG TTG GAC TCA AGA CCA
 1951 TGG TTA CCG GAT AAG CCG CAG CCG TCG TGA AGC GGT TCG TGC ATA CAG CCC AGC TTS GAG CCA AGC ACC TAC
 2029 ACC GAA CTG AGA TAC CTA CAG CCG GTG GGA AAG CCG CCG CTT CCC GAG AGA AAG CCG GAC AGG TAT CCG
 2107 GTA AGC GGC AGG GTC GGA ACA GGA GAG CCG ACG AGG GAG CTT CCA GCG GGA AGC CCG TGG TAT TAT AGT CCT GTC
 2185 GGG TTT CCG CAC CTC TCA CTT GAG CBT TTT TGG TGA TGT TCG TGA GGS GCG AGC CTA TGS AAA AAC GCU AGC
 2263 AAC CCG GCT TTT TTA CCG TTC CTG GCC TTT TGG TGG CTT GCT CAC ATG TTC TTT CCG TTA TCT CTT GAT TCT
 2341 GTG GAT AAC CBT ATT ACC GCC TTT GAG TGA GCT GAT ACC GCT CCG AGC CAG ACC GAG CCG TCA GTG
 2419 AGC GAG GAA GCG GAA GAG CCG CCA ATA CCG CCG CTT CCG CCG CBT CAT TAA TCG AGC TGG CAC
 2497 GAC AGG TTT CCG GAC TGG AAA CCG GGC AGT GAG GCA AIT AAT GTG AGT TAG CTC ACT CAT TAG GCA CCC CAG
 2575 GCT TTA CAC TTT ATG CTT CCG GCT CBT ANG TTG TGT GGA AIT GTG AGC GGA TAA CAA TTT CAC ACA GGA AAC AGC TAT

Figure 12 contd

2653 GAC CAT GAT TAC GCC AAG CTT TGG AGC CTT TTT TTT GGA GAT TTT CAA GGT GAA AAA ATT ATN ATT CCG AAT TCC TTT
 2731 AGT TGT TCC TTT CTA TTC TCA CRG TGC ACA GAT CCA AAT GAC CCA GTC TCC ATC CTT CTT TGC ATC TGT AGG AGA
 2809 CAG AGT CAC CAT CAC TTG CCG GGC AAG TCA CAG CAT TAG CAG TCA GAA ACC ACG GAA ACC ACG GAA AGC
 2887 CCC TAA GCT CTT GAT CTA TGC TGC ATC CAG TTT GCA AAG TGG GGT CCC ATC AAG GTT CAG TGG ATC TGG GAC
 2965 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 TCC
 3043 TCC AAC GTT CCG CCA AGG CAC CAA GCT CCA CAG TAC TAC TGT GGT CTT CAT CTT CCG GGC ATC
 3121 TGA TGA GCA GTT GAA ATC TGG AAC TGC CTC TGT TGT TGT GGT GGT GAA TAA CTT CTA TCC CAG AGA GGC CAA AGT ACA
 3199 GTG GAA GGT GGA TAA CCG CTT CCA ATC GGC TAA CTT CCA GGA GAG TGT GAA TCA GGA GGA CAA GGA CAG CAC CTA
 3277 CAG CTT CAG CAG CAC CTT GAC GCT GAG CAA AGC AGA CTA CCA GAA ACA CAA AGT CTA CCG CTG CCA AGT CAC CCA TCA
 3355 GGG CTT GAG CTC GCC GGT CAC AAA GAG CTT CAA CAG GGG AGA GTG TTA GTA AGG CCG GGC AAT TCT APT TCA AGG AGA
 3433 CAG TCA TAA TGA AAT ACC TAT TGC CTA CCG CAG CCG GTG GAT TGT TAT TAC TGG CCG AGC CCG CCA TGG CCA TGC
 3511 CTG CTT GCC GAA TAT CAT GGT GGA AAA TGG CCG CTT TTT TGG ATG CAT CCA CTG TGG CCG GCT GGG TGT GGC GCA CCG
 3589 CTA TCA GGA CAT AGC GTT GGC TAC CCG TGA TAT TGC TGA AGA GCT TGG CCG CCA ATG GGC TGA CCG CTT CTT GGT GCT
 3657 TTA CCG TAT CCG CCG TCC CCA TTC GCA GCG CAT CCG CTT CTA TCG CTT TCT TGA CCA GTT CTT CTG AGC GGC ACT CTG
 3735 GGG TTC GGT GCT ACG AGA TTT CCA TTC CAC CCG CCG CTT CTA TGA AGG GTT GGG AAT CGT TTT CCG GCA CCG
 3823 CCG CTG GAT GAT CTT CCA CCG CCG GGA TCT CAT GGT GGA GTT CTT CCG CCA CTT GGT TAT TGC AGC TTA TAA
 3901 TGG TTA CAA ATA AAG CAA TAG CAT CAC AAA TTT CAC AAA TAA AGC ATY TTT TTC ACT GGA TTC TAG TGG TTT GTC
 4057 GTT TCC TGT GTG AAA TTG TTA TCC GCT CAC AAT TCC ACA CAA CAT AGC AGC CCG BAG CAT AAA GTG TAA AGC CTG GGG
 4135 TGC CTA ATG AGT GAG CTA ACT CAC AAT TGC GTT GCG CTC ACT GGC CCG CTT CCA GAG CTT GGC GTA ATC ATG ATC ATA GCT
 4213 GAA TTG CAT GAA GAA TCT GCT TAG GGT TAG GCG TTT TGC GCT TCG CTA GGT CAA TAT TGG CCA TTA GCC ATA
 4291 TTA TTC ATT GGT TAT ATA GCA TAA ATC AAT ATT GGC TAT TGG CCA TTG CAT ACG TTG TAT CCA TAT CAT AAT ATG TAC
 4369 ATT TAT ATT GGC TCA TGT CCA ACA TTA CCG CAG TTC CCA TGT TAA TTG ACT AGT TAT TAA TAG TAA TCA ATT ACG
 4447 GGG TCA TTA GTT CAT AGC CCA TAT ATG GAG TTC CCG GGT ACA TAA CTT ACG GTA AAT GAC CCG CTT GSC TGA CCG CCC
 4525 AAC GAC CCG CCG CCA TTG ACG TCA ATA ATG ACG TAT GGT CAC ATA GTA ACG CCA ATA GAG ACT TTC CAT TGA CCG CAA
 4603 TGG GTG GAG TAT TTA CCG TAA ACT GGC CAC TTG GCA GTA CAT CAA GTG TAT CAT ATG CCA AGT ACG CCC CTT AAT GAC
 4681 GTC ANT GAC GGT CAC CGT CTC AAG CCG CTC CAC CAA GGG CCG ATC GGT CTT CCG CTT GSC ACC CTC CTC CAA GAG CAC
 4759 CTC TGG GGG CAC AGC GGC CTT GGT CAA GGA CTA CTT CCG CCA ACC GGT GAC GGT GTC GTG GAA CTC AGG
 4837 CCG CTT GAC CAG CCG GGT CCA CAC CTT CCG GGC TGT CCA GTC CTC AGC ACT CTA CTC CTT CAG CAG CGT AGT GAC
 4915 GGT GCC CTC CAG CAG CTT GGG CAC CCA GAC CTA CAT CTG CAA CGT GAA TCA CCA GGC ACT CTA CTC CTT CAG CAG CGT AGT GAC
 4993 GAA AGT TGA GCC CAA ATC TTG TGC GGC CCG ACA TCA TCA TCA CCA TCA CCA GGC GGC AGA ACA AAT ACT CAT CTC AGA
 5071 AGA GSA TCT GAA TGG GGC CCG ATA GAC TGT TGA AGT TTG TTT AGC AAA ACC TCA TAC AGA AAA TTC ATT TAC TAA CGT
 5149 CTG GAA AGA CCA AAT TTT AGA TCG TTA CCG TAA CTA TGA GGG CTG TGT GTG GAA TGC TAC AGG CAG CAG CAG CAG CAG CAG
 5227 TAC TGG TGA CCA AAC TCA GTG TTA CCG TAC ATG GGT TCC TAT TGC GCT TGC TAT CCC TGA AAA TGA GGG TGG TGG CTC
 5305 TGA GGG TGG CCG TTC TGA GGG TGG CCG TTC TGA GGG TGG CCG TAC TGA GGG TGG CCG TAC TAA ACC TCC TGA AAA CCG CCG TAA TCC TTC
 5383 GGG CTA TAC TTA TAT CAA CCC TCT CCA CCG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
 5461 TCT TGA GGA GTC TCA GCC TCT TAA TAC TTT CAT GTT TCA GAA TAA TAG GTT CCG AAA TAG GCA GGG TGC ATT AAC TGT
 5539 TTA TAC GGG CAC TGT TAC TCA AGC CAC TGA CCC CCG TTA AAC TTA TTA CCA GTA CAC TCC TGT ATC ATC AAA AGC CAT
 5617 GTA TGA CCG TTA CTG GAA CCG TAA ATT CAG AGA CTG CCG TTT CCA TTC TGG CTT TAA TGA GGA TCC ATT CGT TTG TGA
 5695 ATA TCA AGG CCA ATC GTC TGA CTT GCC TCA ACC TCC TGT CAA TGC TGG TGG CCG CTC TGA AGG TGG CCG CTC TGA TGG CCG
 5773 CTC TGA GGG TGG CCG CCG TGA GGG TGG CCG CTC TGA AGG TGG CCG CTC TGA AGG TGG CCG CTC TGA AGG TGG CCG CTC
 5851 CCG TGG CCG CTC CCG TTC CCG TGA TTT TGA TTA TGA AAA AAT GGC AAA CCG TAA TAA GAG TAC TTA CCG TGA TGG
 5929 CCA TGA AAA CCG GCT ACA GTC TGA CCG TAA AGG CAA ACT TGA TTC TGT CCG TAC TTA CCG TAC TTA CCG TAC TTA CCG
 6007 TTT CAT TGG TGA CGT TTC CCG CTT TGC TAA TGG TGC TAC TGG TGA TTT TGC TGA TTT TGC TGA TTT TGC TGA TTT TGC
 6085 TCA AGT CCG TGA CCG TGA TAA TTC ACC TTT AAT GAA TTA TTT CCG TCA ATA TTT ACC TTC TTT GGC TCA GTC GGT TGA
 6163 ATG TCG CCC TTA TGT CTT TGG CCG TGG TAA ACC ATA TGA AAT TTC TAT TGA TTG TGA CAA AAT AAA CTT ATT CCG TGG
 6241 GGT CTT TGC GTT TCT TTT ATA TGT TGC CAC CTT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 6319 GTC TTA ATA AGA ATT CAC TGG CCG TGG TTT TAC AAC GTC ACT GGG AAA ACC CTG CCG TTA CCC AAC TTA ATC GCC

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6397	TTG	CAG	CAC	ATC	CCC	CTT	TGG	CCA	GCT	GGC	GTA	ATA	GCG	AAG	AGG	CCC	GCA	CCG	ATC	GCC	CTT	CCC	AAC	AGT	TGC	GCA	
6398	GCC	TGA	ATG	GCG	AAT	GCG	CTG	TGA	TGC	GGT	AJT	TTT	TCC	TTA	CGC	ATC	TGT	TGT	GGG	GTA	TTT	CAC	ACC	GAC	TAC	GTC	AAA
6399	GCA	ACC	ATA	GTA	GCC	GCC	CTC	GCG	GCC	GCT	GCG	ATT	AAG	CGC	GCG	TGT	GST	GST	TAC	GCG	CAT	GAC	CGT	GAC	TCA	ACT	
6400	TGC	CAG	CGC	CTT	AGC	GCC	CGC	TCC	TTT	CTC	TTT	CTT	CCC	TTT	CTT	CTT	CGC	GAT	GTT	GCG	CGT	TCC	CCG	TAC	AGC		
6401	TCT	AAA	TGG	GCG	GCT	CCC	TTT	AGG	GTT	CCG	ATT	TAG	TGC	TIT	ACG	GCA	CCT	CGA	CCC	CAA	AAA	A					
1	TAC	TCT	TCC	TTT	TTT	CTC	AAT	ATT	ATT	GAA	GCA	TTT	ATC	AGG	GTT	ATT	GTC	TCA	TGA	GCG	GAT	ACA	TAT	TTG	AAT	GTA	TTT
2	AGA	AAA	ATA	ABC	AAA	TAG	GGG	TTT	CGC	GCA	CAT	TTT	CTC	CCC	GAA	AMG	TGC	CAC	CTG	AGG	TGG	ACG	GAT	CGG	GAG	ATC	TCC
3	CGA	TCC	CTT	ATG	GTG	CAC	TCT	CAG	TAC	TAC	AAT	CTG	CTC	TBA	TGC	CGC	ATA	GTT	AAA	CCA	GTA	TCT	GCT	CCC	TGC	TTG	TGT
4	TCT	GGA	GCT	CGC	TGA	GTA	TTG	GCG	GAG	CAA	AAT	TTA	AGC	TAC	AAC	AAG	AGC	AGA	AGG	CTT	AGG	CAA	TTG	CAT	GAA	GAA	
5	TCT	GCT	TAG	GCT	TAG	GCT	TTG	TGC	GCT	GCT	TCG	CTA	GGT	GGT	CAA	TAT	TGG	CCA	TTA	GCC	ATA	TTA	TTT	ATT	GGT	TAC	TAT
6	ATA	GCA	TAA	ATC	AAT	ATT	GAT	GAT	TGG	CCA	TTG	CTA	ATC	AAAT	ATG	TAC	ATA	ATT	ATG	TAC	ATT	TAAT	ATT	GGT	TCC	TCA	
7	TGT	CCA	ACA	TTA	CCG	CCA	TGT	TGA	CAT	TGA	TTA	TTG	ACT	AGT	TAT	TAA	TAG	TAA	TCA	ATT	ACG	GGG	TCA	TTA	GTT	CAT	
8	AGC	ACC	TAT	ATG	GAG	TTT	CGC	GTT	ACA	TAA	CTT	ACG	GTA	AAT	GGC	CCG	CCT	GCG	TGA	CAG	CCG	ACC	AAC	GAC	CCG	CGC	CCA
9	TTG	ACG	TCA	ATA	ANG	ACG	TAT	GTT	CCC	ATA	GTA	ACG	CCA	ATA	GGG	ACT	TTT	CT	ACT	TGG	CAG	TAC	TAC	GTA	TTT	GTC	ATC
10	CGG	TAA	ACT	GCC	CAC	TTG	GCA	GTA	CAT	CAA	GTG	TAT	CAT	ATG	CCA	AGT	ACG	CCC	CTT	ATT	GAC	CTC	ATT	GAC	CTC	GGT	AAA
11	TGG	CCC	GCC	TGG	CAT	TAT	GCC	CAG	TAC	ATC	ATA	TGG	AGC	TTT	CTT	ACT	TGG	CAG	TAC	TAC	TAC	GTA	TTT	GTC	ATC		
12	GCT	ATT	ACC	ATG	GAT	CTT	TGG	AGT	TTG	TTT	TGG	CAC	CAA	AAT	CAA	CGG	GGC	TTT	GGA	TTG	GAC	TCA	CGG	GAT	CAA	AGT	
13	CTC	CAC	CCC	ATT	GAC	ATC	GGC	GAT	GGG	AGT	TTG	TGG	CAC	CAA	AAT	CAA	CGG	GGC	TTT	CTA	AAA	TGT	GGT	GGT	AAC	TCC	
14	GCC	CCA	TTG	ACG	CAA	ATG	GGC	GAT	GGC	GGT	AGG	GGT	GTA	CGG	GAT	ATA	AGA	AGC	CAC	CGG	GGC	TCC	AGT	CTC	GGT	CAG	
15	ATC	GCC	TGG	AGA	AGC	CAI	CAA	CGC	TGT	TTT	GAT	GAC	CTC	ATG	AGA	AGC	CAC	CGG	GGC	TTG	AGC	TCC	AGC	CTC	GGC	GCG	GAA
16	GCG	TGC	ATT	GGA	AGC	CTG	GTA	CGG	GTG	AAT	TGG	CCG	GCC	CGC	GAT	ATC	GAT	CGC	ACC	ACC	GAC	GCG	TTC	GCG			
17	AGA	GCC	CGC	ART	TCC	CTA	GCC	ACC	ATG	GGA	TGG	AGC	TGT	ATC	ATC	CTC	TTT	CTG	GTA	CTG	CTG	CTG	GCC	CAG	CGC	GCC	
18	ATG	GGG	CGG	AGA	ATG	GSC	ACA	GGC	AGT	GGG	CGG	GAT	TAG	GGG	CGG	GAT	TAG	GGG	AGT	TAG	GGG						

Figure 12 contd

3121 GTG ACA AAA CTC ACA CAT GCC CAC GGT GCC CAG CAC CTG AGG TCA CAT GCG TGG GGG GAC CGT CAG TCT TCC TCT TCC ACC CCA
 3139 AAC CCA AGS ACA CCC TCA TGA TCT CCC GGA CCC CTG AGG TCA CAT GCG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG TGG
 3277 AGG TCA AGT TCA ACT AGT TGG TGG TCA GCG TCC TCA CCG TCG AGG TGC ATA AGT CCA AGA CAA AGC CGC GGG AGG AGC AGC AGC
 3335 GCA GGT ACC GTG TGG TCA GCG TCC TCA CCG TCG AGG TGC ATA AGT CCA AGA CAA AGC CGC GGG AGG AGC AGC AGC AGC AGC
 3433 CCA ACA AAG CCC TCC CAG CCC CCA TCG AGA AAA CCA TCT CCA AAG CCA AAG GGC AGC AGC AGC AGC AGC AGC AGC AGC AGC
 3511 CCC TGC CCC CAT CCC GGG AGG AGA TGA CCA AGA AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC
 3589 ACA TCG CCG TGG AGT GGG AGA GCA ATG GGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC
 3667 GCT CCT TCT TCT ATA GCA AGC TCA CCG TGG AGG AGA GGT GGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC AGC
 3745 TGC ATG AGS CTC TGC ACA ACC ACT ACA CCG AGA AGA GGC TCT CCG TGT CTC CCG GTA AAT GAG TTT MAC GGA TCT TAA
 3823 TTA ATC GGA GCT CCG TAC CAA GCT TAA GTT TAA ACC GCT GAT CAG CCT CCA CTG TCC TTT CCT AAT AAA ATG AGG AAA
 3901 TTG TTT GCG CTT CCG CCG TGC TCT CTT TGA CCC TGG AAG GTG CCA CTC CCA CTG TCC TTT CCT AAT AAA ATG AGG AAA
 3979 TTG CAT CCG ATT GTC TGA GTA GGT GTC ATT CTA TTC TGG GGG GTG GGG TGG GGC AGC AGA CCA CCG CTC CCG TGG AGC
 4057 AAG ACA ATA GCA GGC ATG CTG GGG ATG CAG TGG GCT CTA TGG GGT CTT CTG AGG CCG AAA GAA CCA CCA GGT GGT CTA GGG
 4135 GGT ATC CCG ACG CCG CTT GTA GCG GCG CAT TAA GCG CCG GGG GTG TGG TGG TGA CCG GGA TGA CCG CTA CAC TAT
 4213 CUA GGG CCT AGC GCG TCC TCT TTT CCG TTT CCG TTT CCG CAC GTT CCG CCG CTT TCC CCG TCA AGC TTT
 4291 AAA TCG GGG GCT CCG TTT AGG GTT CCG ATT TAG TGG TTT ACG GCA CCT CGA CCC CAA AAA ACT TGA TTA GGG TGA TGG
 4369 TTC AGG TAG TGG GCC ATC GCC CTG ATA GAC GGT TTT TCG CCG TTT GAC GTT GGA GTG CAC GTT CTT TAA TAG TGG ACT
 4447 CTT GTT CCA AAG TGG AAC AAC ACT CAA CCC TAT CTC GGT CTA TTC TTT TGA TTT ATG AGG GAT TTT GCG GAT TTT GCG
 4525 CTA TTG GTT AAA AAA TGA GCT GAT TTA ACA AAA ATT TAA CCG GAA TTA ATT CTG TGG AAT GTG TGT TAG TTA GGG TGT
 4603 GGA AAG TCC CCA GGC TCC CUA GCA GGC AGA AGT ATG CAA AGC ATG CAT CTC AAT TAG TCA GCA ACC AGS TGT GSA AAG
 4691 TCC CCA GGC TCC CCA GCA GGC AGA AGT ATG CAA AGC ATG CAT CTC AAT TAG TCA GCA ACC AGA GTC CCG CCC CTA ACT
 4759 CCG CCG ATC CCG CCG CTA ACT CCG CCG AGT TCC GCC CAT TCT CCG CCG CAT GGC TGA CUA ATT TTT TTT TAT TAT GCA
 4837 GAG GCC GAG GCC GCT TCT GCG TCT GAG CTA TCG AGG TAG TGA GGA GGC TTT TTT GGA GGC CTA GGC TTT TGT TGT AAA
 4915 AAG CTC CCG GGA GCT TGG ATA TCC ATT TTC GGA TCT GAT CAA GAG ACA GGA TGA TCG TTT CCG ATG ATT GAA CAA
 4993 GAT GGA TTG CAC GCA GGT TCT CCG GCG GCT TGG GTG GAG AGC CTA TTC GGC TAT GAC CAA CBA CCA AAT GAA GGC
 5071 TGC TCT GAT GCC GCG GTG TTC CCG GTG TCA CCG CAG GGG CCG CCG GTT TTT GTT AGC ACC GAC CTG TCC GGT GCG
 5149 CTG AAT GAA CTG CAG GAC GCA CCG CCG CTA TCG TGG CTG GCC AGC AGC GGT CTT TCG GCA GCT GTG CTG GAC
 5227 GTT GTC ACT GAA GCG GGA AGG GAC TGG CTG CTA TTG GGC GAA GTG CCG GAG CAG GTT TTT GTT AGC ACC GAC CTG TCC GGT GCG
 5305 CCT GCC GAG AAA GTA TCC ATC ATG GAT GAT GCA ATG CCG CCG GTG CAT ACG CTT GAT CCG GCT ACC TGC CCA TTC GAC
 5383 CAC CAA GCG AAA CAT CCG ATC GAG CCA GCA GGT ACT CCG ATG GAA GGC GGT GTT GTC GAT CAG GAT GAT CTG GAC GAA
 5461 GAG CAT CAG GGG CTC GCG CCA GCC GAA CCG TTT GCG AGC CTA AAG GUG CCG ATG CCC GAC GGC GAG GAT CTC GTT GTG
 5539 ACC CAT GGC GAT GCC TGC TTG CCG AAT ATC ATG GTG GAA AAT GGC CCG TTT TCT GGA TTC ATC GAC TGT GGC CCG CTG
 5617 GGT GTG GCG GAC CCG TAT CAG GAC ATA CCG TTG GCT ACC CGT GAT AIT GCT GAA GAG CTT GGC GGC GAA TGG GCT TTT
 5695 CCG TTC CTC GTG CTT TAC GGT ATC GCC GCT CCC GAT TCG CAG CCG ATC GCC TTC TAT GAA AGG TTG GGC TTC GGA ATC
 5773 TGA GCG GGA CTC TGG GGT TCG GTG CTA GGA GAT TTC GAT TCC ACC GCC TTC TAT GAA AGG TTG GGC TTC GGA ATC
 5851 GTT TTC CCG GAC ACC GCG TGG ATG ATC CTC CAG CCG GGG GAT CTC AIG CTG GAG TTC TTC GCG CAC CCC AAC TTS TTT
 5929 ATT GCA GCT TAT AAT GGT TAC AAA TAA AGC AAT AGC ATC ACA AAT TTC ACA AAT AMA GCA TTT TTT TCA CTG CAT TCT
 6007 AGT TGT GGT TTG TCC AAA CTC ATC AAT GTA TCT TAT CCG CTC ACA ATT CCA CAC AAT ATA CCG AGC AGC ATA AAG
 6085 TCA TGG TCA TAG CTG TTT CCT GTG TGA AAT TGT TAT CCG CTC AGA TTA ATT GCG TTG CCG TCG CCG GAT TTC CAG TCG GGA
 6163 TGT AAA GCG TGG GGT GCC TGA TGA ATG AGC TAA CTC ACA TTA ATT GCG TTG CCG TCG CCG GAT TTC CAG TCG GGA
 6241 AAC CTG TCG TGC CAG AAT TGC ATG AGG AGT TTT GCG GTG CTT CCG TAG GTG GTC AAT AAT
 6319 GGC CAT TAG CCA TAT TAT TCA TTG GTT ATA TAG CAT AAA TCA ATA TTG GCT ATT GGC CAT TGC ATA CCG TGT ATC CAT
 6397 ATC ATA ATA TGT ACA TTT AFA TTG GCT CAT GTC CAA CAT TAC CCG TTA CAT AAT AAC TTA CCG TAA ATG GCG CCG
 6475 AGT AAT CAA TTA CCG GGT CAT TAG TTC ATA GCC CAT ATA TGA CCG GTT ATG TTC CCA TAG TAA CCG CAA TAG GGA CTT
 6553 CTG GCT GAC CCG CCA ACG ACC CCC GAT TGA CGT CAA TAA TGA CCG GTT ATG TTC CCA TAG TAA CCG CAA TAG GGA CTT
 6631 TCC ATT GAC GTC AAT GGG TGG AGT ATT TAC GGT AAA CTT GCG CAG TAC ATC AAG TGT ATC ATA TGC CAA GTA
 6709 CCG CCG CTA TTA ACG TCA AAT GGC CCG CCG ATT ATG CCG AGT ACA TGA CCT TAT GGS ACT TTC CTA
 6787 CTT GGC AGT ACA TCT ACG TAT TAG TCA TCG CTA TTA CCA TGG TGA TGC GGT TTT GGC AGT ACA TCA ATG GGC GTG GAT

Figure 12 contd

6865 AGC GGT TTG ACT CAG GGG GAT TTC CAA GTC TCC ACC TGA TTG AGS TCA ATG GGA GGT TGT TTT GGC ACC AAA ATC AAC
 6943 GGG ACT TTC CAA AAT GTC GTA ACA ACT CCG CAT TCA CCG BAA TGG GCG GTA GGT TAC TGT GGT GGG AGG TCT ATA
 7221 TAA GCA GAG CTC GTT TAG TGA ACC GTC GAG GAC GGC APC CAC GCT GGT TAC CCG TGA APT AGG GCG GTC GAG GGT
 7399 GGG ACC GAT CCA GGC TCC GCG GCG ACC AAT TCC CTA GGC ACC ATG GCA TGC CTT GGC CTT GGC TTC TGG GCA CTT
 7177 ATC GAT CCG ACC TGT CTT GAA TTC TCC ATG GAT GAC GGC AAT AGC AGT TAC TTA AAT TGG TAT CAG CAG AAA CCA GGG
 7255 GAT ATC TCC ACC TGT CTT GAA TTC TCC ATG GAT GAC GGC AAT AGC AGT TAC TTA AAT TGG TAT CAG CAG AAA CCA GGG
 7333 GGA GAC GAT CCA GTC ACC ATC ACT TGC CCG GCA AGT CAG AGC AAT AGC AGT TAC TTA AAT TGG TAT CAG CAG AAA CCA GGG
 7411 AAA GCC CTT ABG CTC ATC TAT GCT GCA TCC AGT TTG CAA AGT GGG GTC CCA TCA AGS TTC AGT GGT GGT GGA TCT
 7489 GGG ACA GAT TTC ACT CTC ACC ATC AGC AGT CTG CAA CTT GAA GAT TTT GCG CCG CTA GGA AGA AAC TCA
 7567 ACC CTT CCA AGC TTC GGC CAA GGG ACC AAG GIG GAG ATC AAA GGT AAG TGC ACT TTG CCG CCG CTA GGA AGA AAC TCA
 7645 AAA CAT CAA GAT TTT AAA TAC GCT TCT TGG TCT CTT TAT AAT TAT CTG GGA TAA GCA TGC TGT TTT CTG TCT GTC
 7723 CTT AAC ATG CCG TGT GAT TAT CCG CAA ACA CAC CCA AGS GCA GAA CTT TGT TAC TTA AAC ACC ATC CTG TTT GCT
 7801 TCT TTC CTC AGS AAC TGT GGC TGC ACC ATC TGT CTT CAT CTT CCG GGC ATC TGA TGA GCA GTT GAA ATC TGG AAC TGC
 7879 CTC TGT TGT GTG CTT GCT GAA TAA CTT CTA TCC CAG AGA GGC CAA AGT ACA GTG GAA GGT GCA CCA CTT CCA ATC
 7957 GGG TAA CTC CCA GGA GAG TGT CAC AGA GCA GGA CAG CAA GGA CAG CAC CTA CAG CCA CTT CAG CCA CTT CCA ATC
 8035 CAA AGC AGA CTA CCA GAA ACA CAA AGT CTA CCG CTG CCA AGT CAC CCA TCA GCG CCA CTT CAG CCA CTT CCA ATC
 8113 CTT CAA CAG GGG AGA GTG TTA GGT TTA ACG GAT CCG AGC TCG GTA CCA AGC TCA AGT TTA AAC CCG TGA TCA GCC TCG
 8191 ACT GTG CTT TCT AGT TGC CAG CCA TCT GTT GTT TGC CCG TCC CCG GTC TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 8269 ACT GTC CTT TCC TAA TAA AAT GAG GAA AAT GAC AAT AGC AGG CAT GCT GAG GAT GCG GTG GGC TCT AUG GCT TCT GAG
 8347 GGG CAG GAC AGC AAG GGG GAG GAT TGG GAA GAC AAT AGC AGG CAT GCT GAG GAT GCG GTG GGC TCT AUG GCT TCT GAG
 8425 CCG TCA CTC AGT TGT TCC ATA GGC TCC GCG CCG CCG AGC AGC ATC CCA AAA AGC AAA AGC AAA AGC AAA AGC AAA AGC
 8503 CCG GAA ACC CCA CAG GAC TAT AAA GAT ACC AGG CPT TTC CCG CCG GAA GCT CCG CCG CCG CCG CCG CCG CCG CCG
 8581 TAT CCA CAG AAT CAG GGG ATA ACG CAG GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA GAA
 8659 CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT
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 8971 GTA ACT ATC CTC TTG AGT CCA ACC CCG TAA GAC AGC ACT TAT CCG CAG CAG CCA CCG CAG CAG CCA CCG CAG CAG CCA
 9049 GAG CCA GGT ATG TAG GCG GTG CTA CAG AGT TCT TGA AGT GGT GGC CTA ACT CCG GCA AAA AGC AAA AGC AAA AGC AAA
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 9205 GTA CCG GTG GGT TTT TTG TTT GCA AGC AGC AGA TTA CCG GCA AAA AGC AAA AGC AAA AGC AAA AGC AAA AGC AAA
 9283 CTA CCG GGT CTG ACG CTC AGT GGA ACG AAA ACT CAC GYT AAG GGA TTT TGG TCA TGA GAT TAT CAA AAA AGC AAA AGC AAA
 9361 CTT AGA TCC TTT TAA ATT AAA AAT GAA GAT TTA AAT CAA TCT AAA GTA TAT AAG AGT AAA CTT GGT CAG ACA GGT ACC
 9439 AAT GCT TAA TCA GTG AGG CAC CTA TCT CAG CCA TCT CAG CCA TCT CAG CCA TCT CAG CCA TCT CAG CCA TCT CAG CCA
 9517 AGA TAA CTA CCA TAC GAG AGG GCT TAC CAT CTG GCG CCA GTG CAG TGA TAC CCG GAG ACC CAC GCT CAG CCG CTC
 9595 CAG ATT TAT CAG CAA TAA ACC AGC CAG CCG GAA GGG CCG AGC GCA GAA GTG GTC CTA CCG CAT TAT CCG CTT CCA TCC
 9673 AGT CTA TTA ATT GGT GCG GGG AAG CTA GAG TAA GTA GTT CCG CAG TTA ATA GTT TGC GCA ACG TTG TTG CCA TTG CTA
 9751 CAG GCA TCG TGG TGT CAG GCT CCG GTT TTG GTA TGG CTT CAT CAG GCT CCG GAT CCG GAT CCG GAT CCG GAT CCG GAT
 9829 GAT CCG CCA TGT TGT GCA AAA AAG CCG TTA GCT CCG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
 9907 TAT CAC TCA TGG TTA TGG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
 9985 AGT ACT CAA CCA AGT CTT TCT GAG AAT AGT GTA TGC GGC CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG CAG
 10063 CCG CCG 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 CCG TGT TGA GAT CCA GTT CCA TGT AAC CCA CTC GTG CAG CCA ACT GAT CTT CAG CAT CTT TTA CTT TCA CCA GCG TTT
 10219 CCG GGT GAG CAA AAA CAG GAA GGC AAA ATG CCG CAA AAA AGG GAA TAA GGG CCA CAC GGA AAT GGT GAA TAC TCA

Figure 13
A

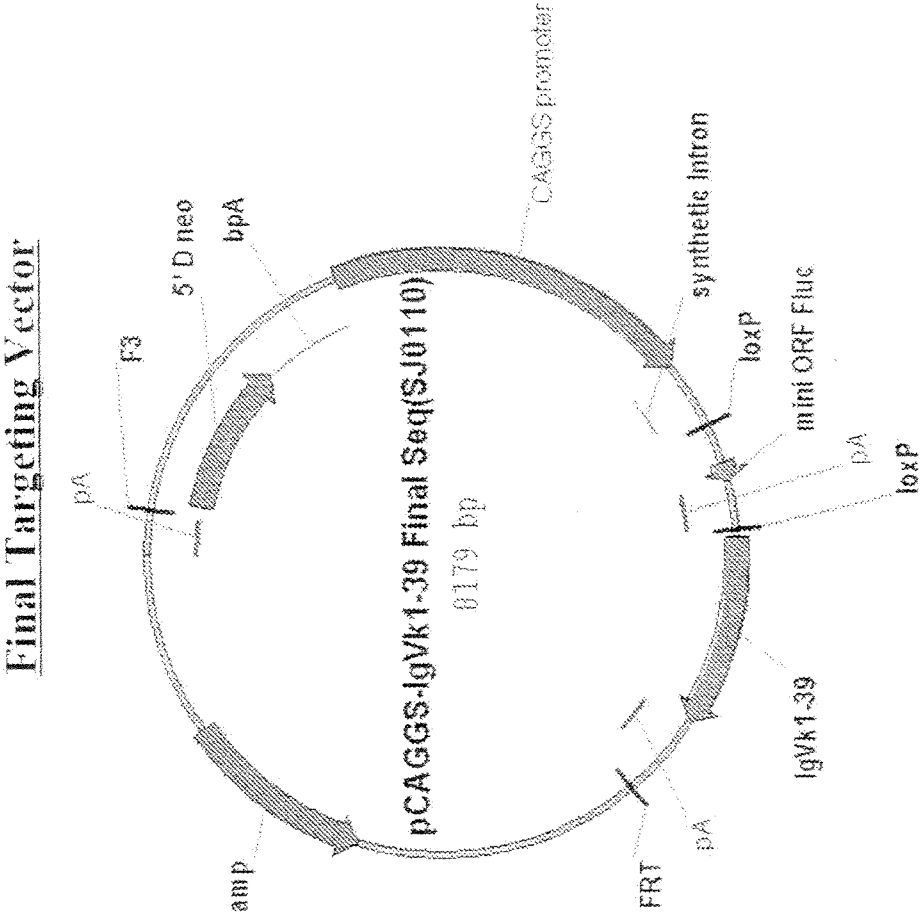


Figure 13 contd

B

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 121 aatgaccttg gggaggggga aggcagaaat gaccttgggg gaggggggagg ccagaatgag
 181 gcgaggatcc ggagaagtgc ctattccgaa gttccatttc ttcaaatagt ataggaaact
 241 cgttcgaggg atcgggcatt gaacaagatg gattgcacgc aggttctccg gcgccttggg
 301 tggagagggt attcggctat gactgggcac aacagacaat cggctgctct gatgcgcgcg
 361 tgttccggct gtcagcgcag gggcgcgcgg ttctttttgt caagaccgac ctgtccgggtg
 421 ccttgaatga actgcaggac gaggcagcgc ggttatctgt gctggccacg acggggcgttc
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Figure 13 contd

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Figure 13 contd

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Figure 13 contd

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Figure 13 contd

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Figure 13 contd

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Figure 13 contd

C

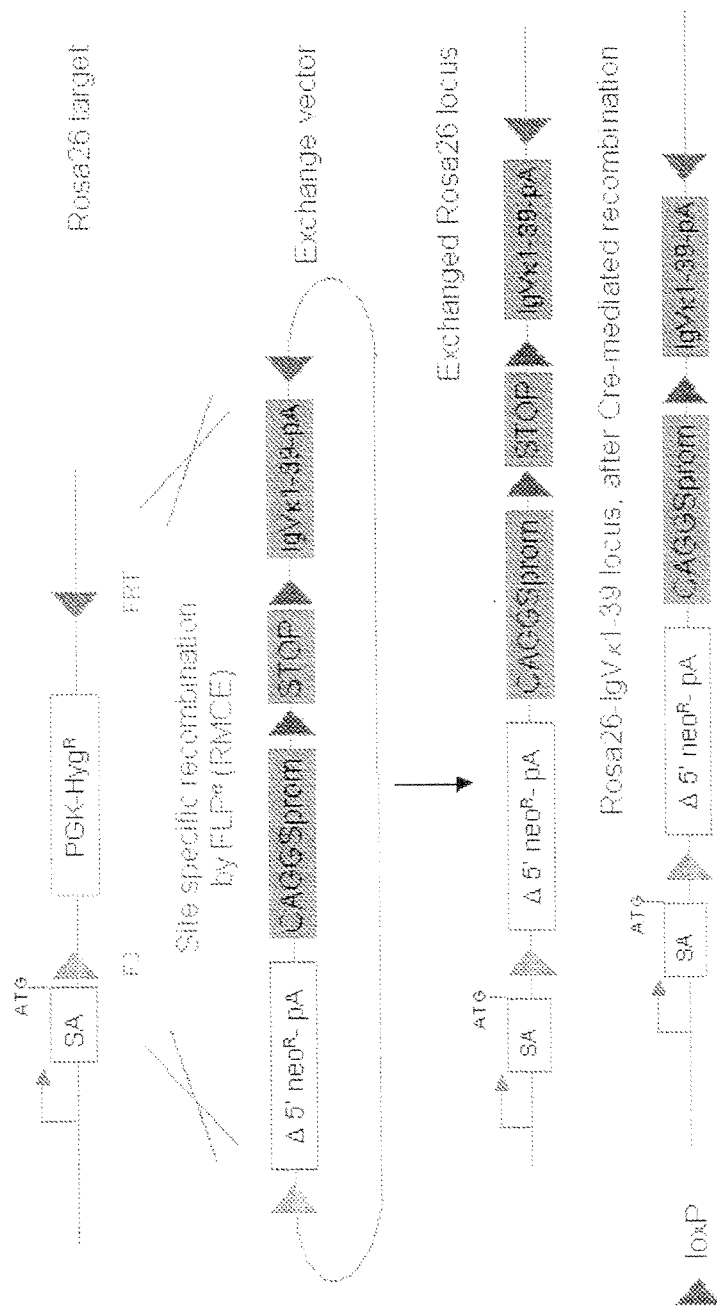
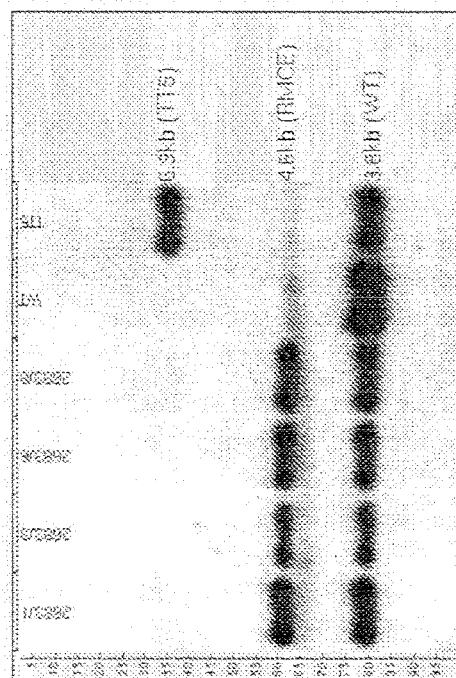


Figure 14

A



B

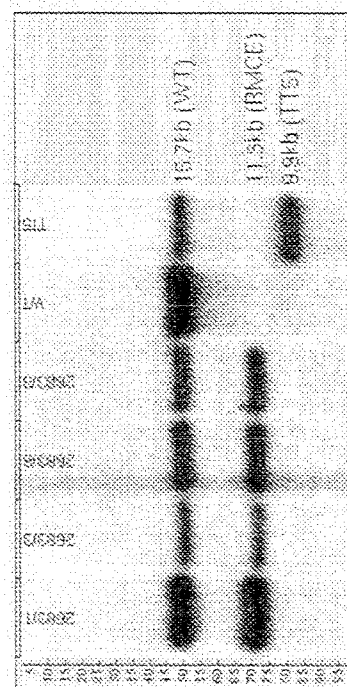


Figure 14 contd

C

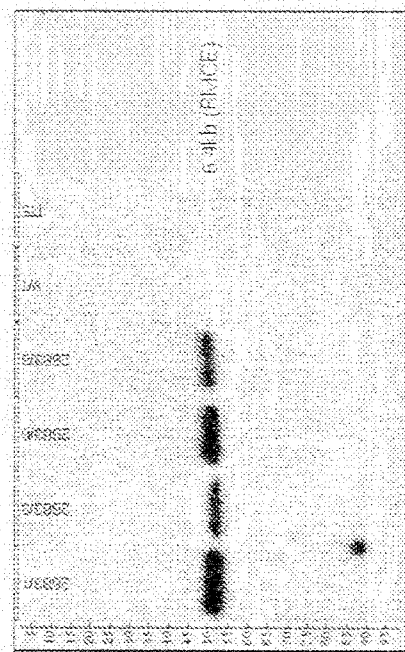


Figure 15
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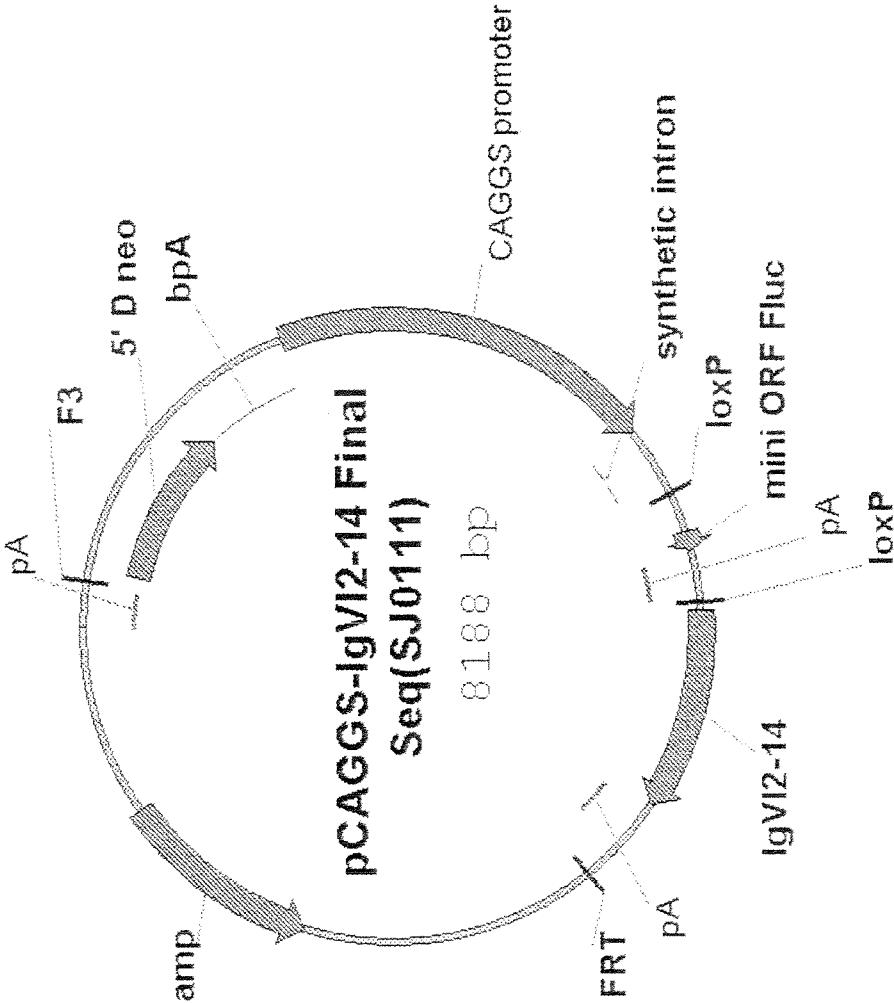


Figure 15 contd

B

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Figure 15 contd

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Figure 15 contd

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Figure 15 contd -48/72-

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 5161 atgcccgtcc gcgatatatga gctccgaacc tctgcctcg ccgcgcgcg tgcctcgtcg
 5221 ccgcgcgcgc gccatggaat cgcgcggta accgaagttc ctatactttc tagagaatatg
 5281 gaacttcgga atagggaactt caagccggtc ccagcttttt gtccctttta gtgagggtta
 5341 atttcgagct tggcgtaatc atgggtcatg ctgtttcctg tgtgaaattg ttatccgctc
 5401 acaattccac acaacatacg agccgggagc ataaagtgtg aagcctgggg tgcctaataga
 5461 gtgagctaac tcacattaat tgcgttgcgc tcactgcccg ctttccagtc gggaaaacctg
 5521 tctgtccagc tgcattaatg aatcggccaa cgcgcgggga gaggcggttt gcgtattggg
 5581 cgtcttccg ctctctcgt cactgactcg ctgcgctcgg tgcgttcggt gcggcgagcg
 5641 gtatcagctc actcaaaagg ggtataacgg ttatccacag aatcagggga taacgcagga
 5701 aagaacatgt gagcaaaaag ccagcaaaa gccaggaaac gtaaaaaagg cgcgttgcgtg
 5761 gcgtttttcc ataggctccg cccctctgac ggcctcaca aaaatcgacg ctcaagtcag
 5821 aggtggcgaa acccgacagg actataaaga taccaggcgt tccccctgg aagtcctc
 5881 gtgcgtctc ctgttcgac cctgcgcctt accggatacc tgcctgcctt tctcccttcg
 5941 ggaagcgtgg cgttttctca tagctcagc tgtaggatc tcagttcgtt gtaggctgtt
 6001 cgtcccaagc tgggtgtgtg gacgaaccc cccgttcagc ccgaccgctg cgccttatcc

Figure 15 contd
-49/72-

6061 ggtaactatc gtcttgagtc caaccgggta agaacagact tatcgccact ggacgcagcc
 6121 actgggtaaca ggattagcag agcgaggatc gtaggcytyt ctacagagtt ctltgaagtgg
 6181 tggcctaact acggtacac tagaaggaca gtatttggta tctggctctt gctgaagcca
 6241 gttaccttcy gaaaaagat tggtagctct tgcctggca acaaacccac cgtggtagc
 6301 ggtgggtttt ttgtttgcaa gcagcagatt acgcgcagaa aaaaaggatc tcaagaagat
 6361 cctttgatct tttctacggg gtctgaagct cagtggaaag aaaactcacg ttaagggatt
 6421 ttgggtcatga gattatcaaa aaggatcttc acctagatcc ttttaaatla aaatgaagt
 6481 ttttaaatcaa tctaaagtat atatgagtaa acttggctcg acagttacca atgcttaatc
 6541 agtgaggcac ctatctcagc gatctgtcta tttcgttcat ccatagttgc ctgactcccc
 6601 gtctgtgtag taactacgat acgggagggc ttaccatctg gcccagtgcc tgcattgata
 6661 ccgcgagacc cagctccacc ggctccagat ttatcagcaa taaaccagcc agcgggaagg
 6721 gccgagcgca gaagtggctc tgcacattta tccgcctcca tccagctctat taattgttgc
 6781 cggggaagcta gagtaagtag ttgcgccagt aatagtttgc gcaacgttgc tggcatttgc
 6841 acaggcatcg tgggtgcacg ctctgtcttt ggtatggctt cattcagctc cggttcccaa
 6901 cgatcaagcc gagttacatg atccccatg ttgtgcaaaa aagcgggttag ctcttcgggt
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 7201 tottcggggc gaaaactctc aaggatctta ccgtgttga gatccagttc gatgtaacct
 7261 actcgtgcac ccaactgac ttacgcatct tttactttca ccagcgtttc tgggtgagca
 7321 aaaaacaggaa ggcataatgc cgcataaaag ggaataaagg cgacacggaa atgttgaata
 7381 ctcatactct tctttttca atattattga agcatttacc aggtttattg totcatgagc
 7441 ggatacatat ttgaatgtat ttgaaaaaat aaacaaatag gggttccgcg cacatttccc
 7501 cgaaaaagtc cacctaaaat gtaagcgta atattttgtt aaatttcgcg ttaaattttt
 7561 gttaaatcag ctcatttttt aaccaatagg ccgaaatcgg caaaatccct tataaatcaa

Figure 15 contd

-50/72-

7621 aagaatagac cgaataggg ttgagtgtg ttccagtttg gaacaagagt ccactattaa
7681 agaactgga ctcaacgtc aaaggcgaa aaaccgtcta tcaggcgat ggccactac
7741 gtgaaccatc accctaatac agtttttttg ggtcgaggtg ccgtaaagca ctaaaatcggg
7801 accctaaagg gagccccga tttagagctt gacgggggaaa gccggcggaac gtggcgagaa
7861 aggaaggga gaaagcgaaa ggagcgggcg ctaggcgct ggcaagtgtg gcggtcacgc
7921 tgcgcgtaac caccacacc gccgcgctta atgcgcgct acaggcgcg tccatttcgc
7981 cattcaggct gcgaactgt tgggaaggcg gatcggtycg ggctctctcg ctattacgcc
8041 agctggcgaa aggggatgt gctgcaaggc gattaagtgt ggtaacgcca gggttttccc
8101 agtcacgacg ttgtaaaacg acggccagtg agcgcgctga atacgactca ctataggggcg
8161 aattgggggt aactaagtaa ggatcgag

Figure 15 contd
-51/72-

C

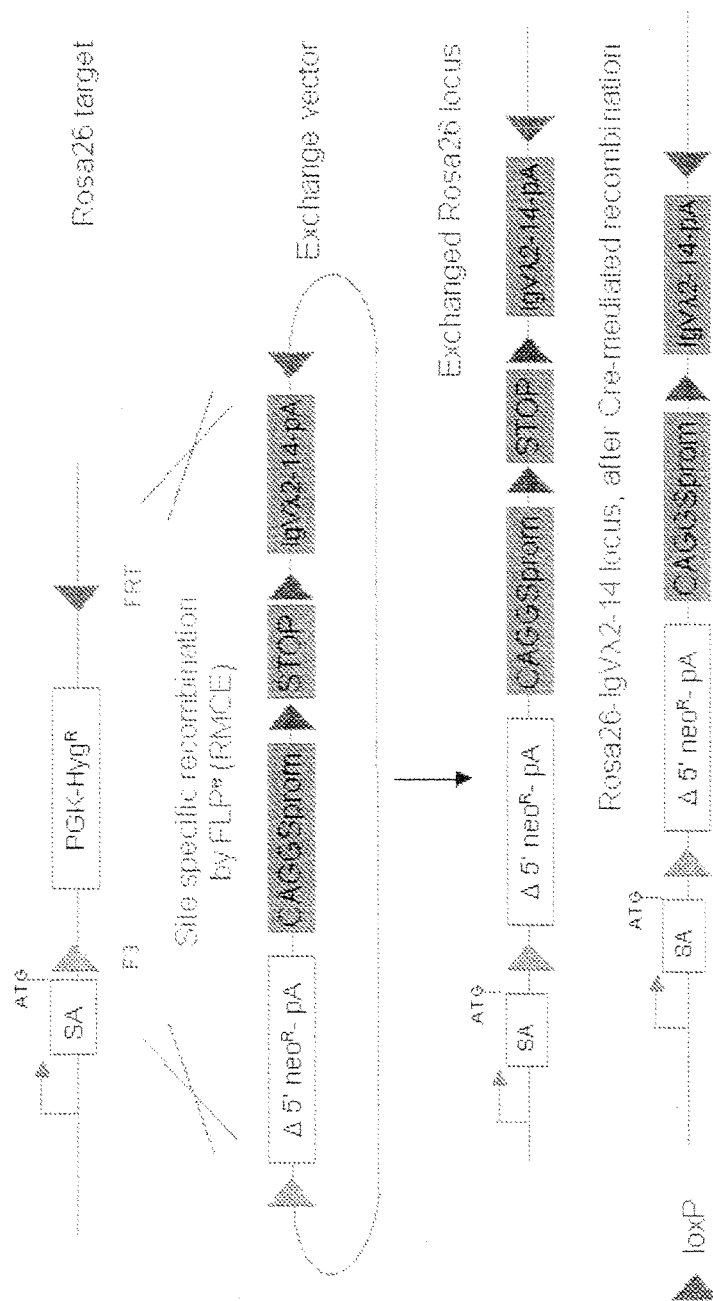


Figure 16

~~52/72~~

A

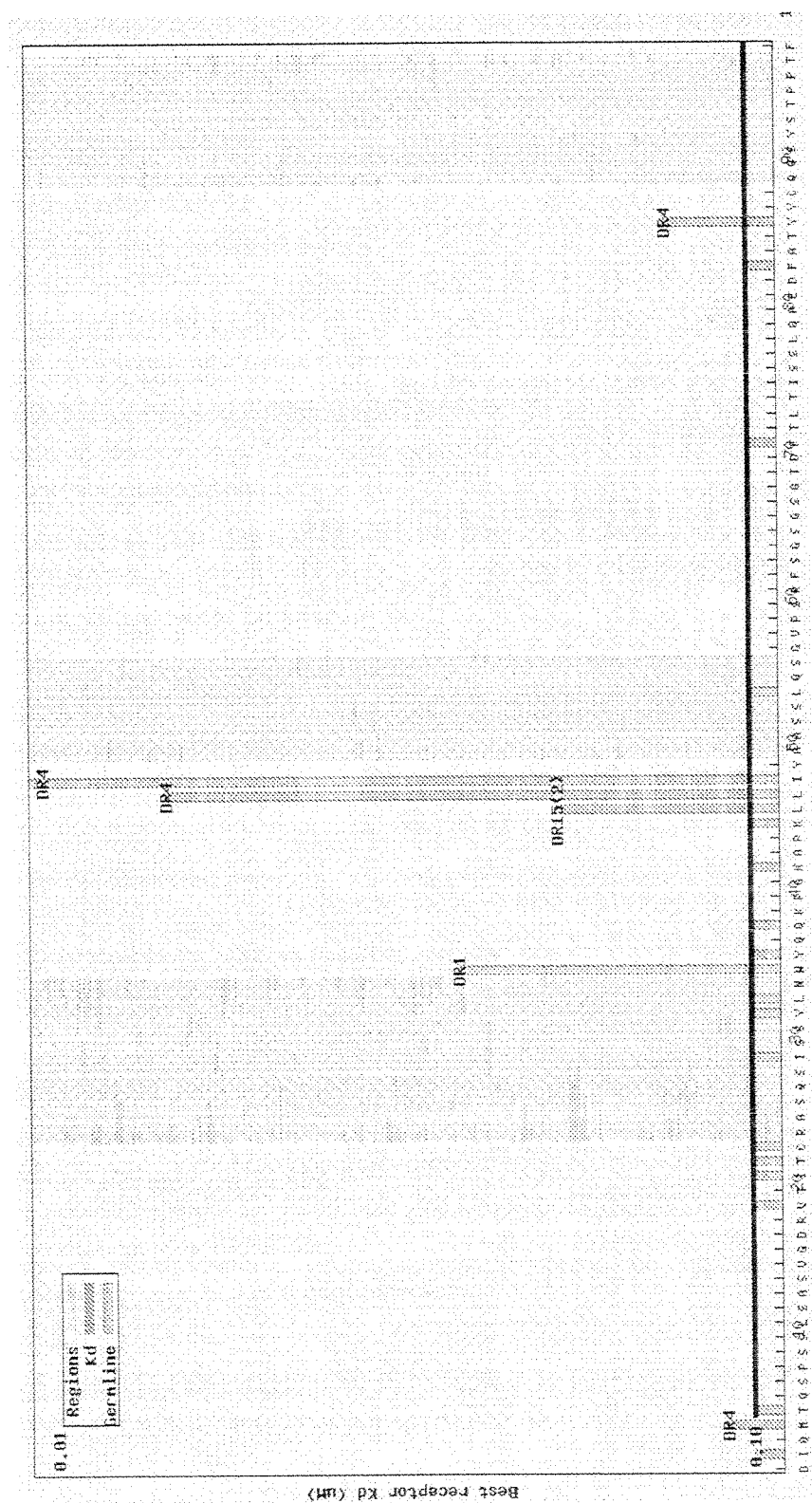


Figure 16 contd

~~53/72~~

3

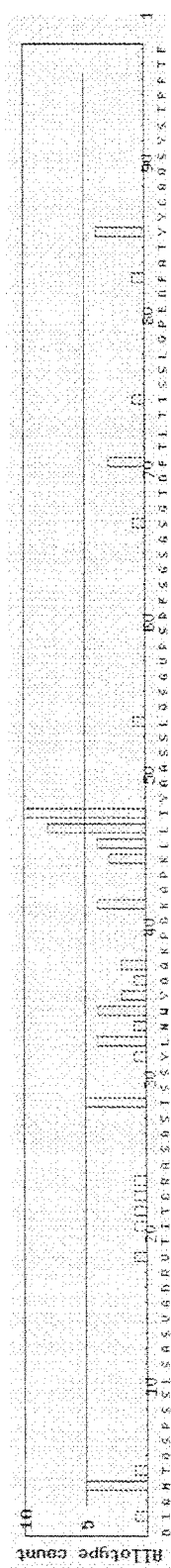
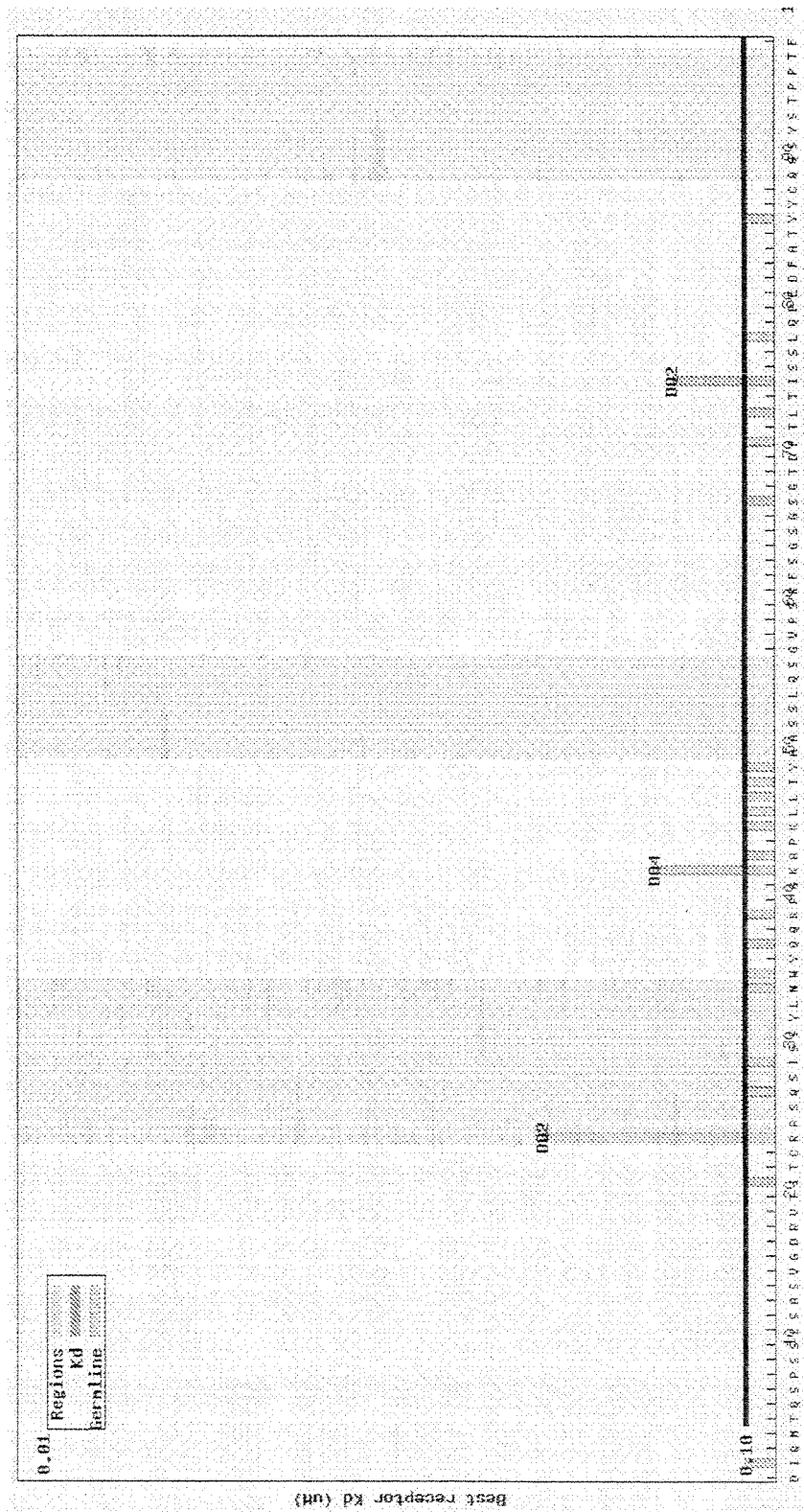


Figure 16 contd

C



-55/72-

Figure 17

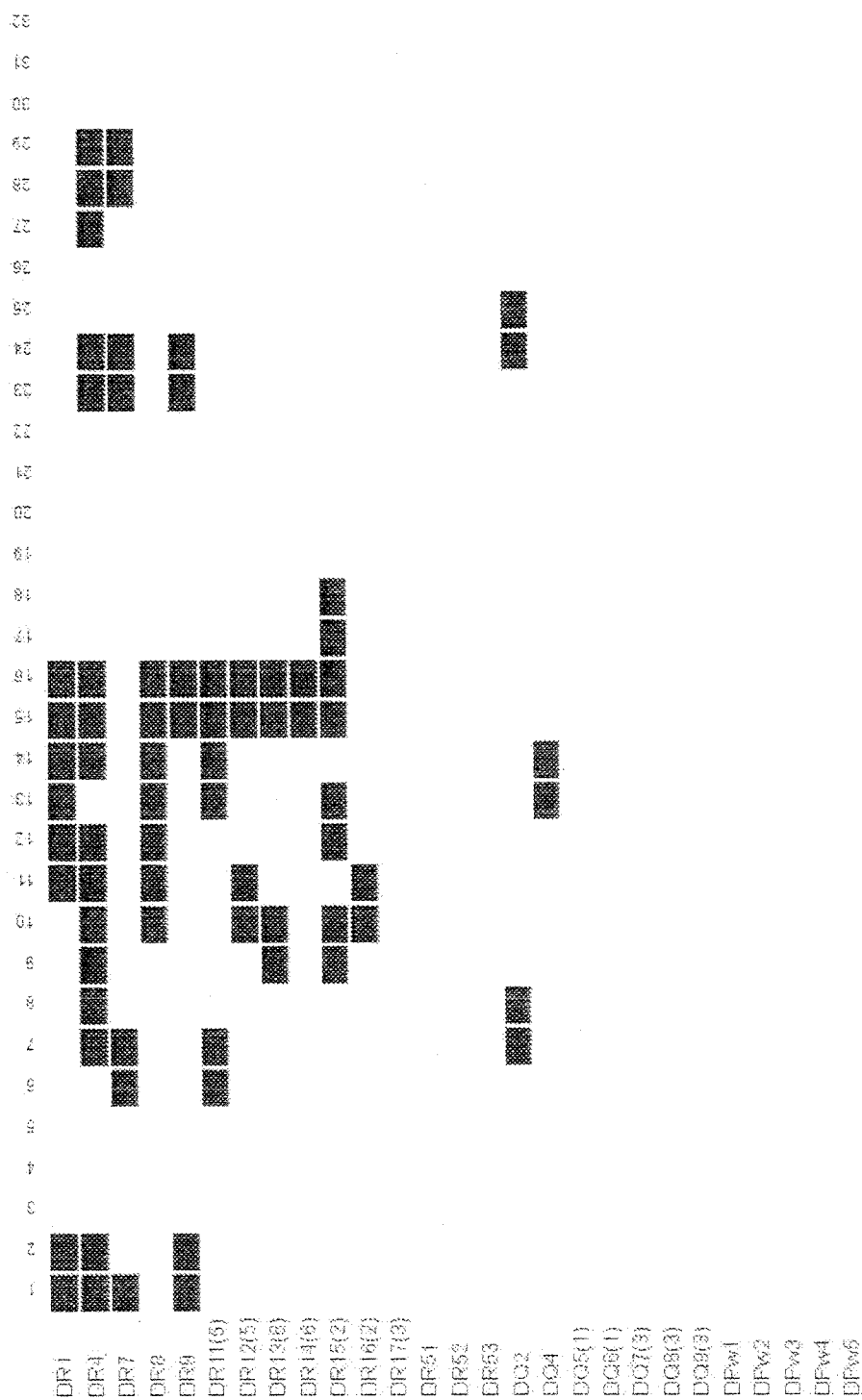
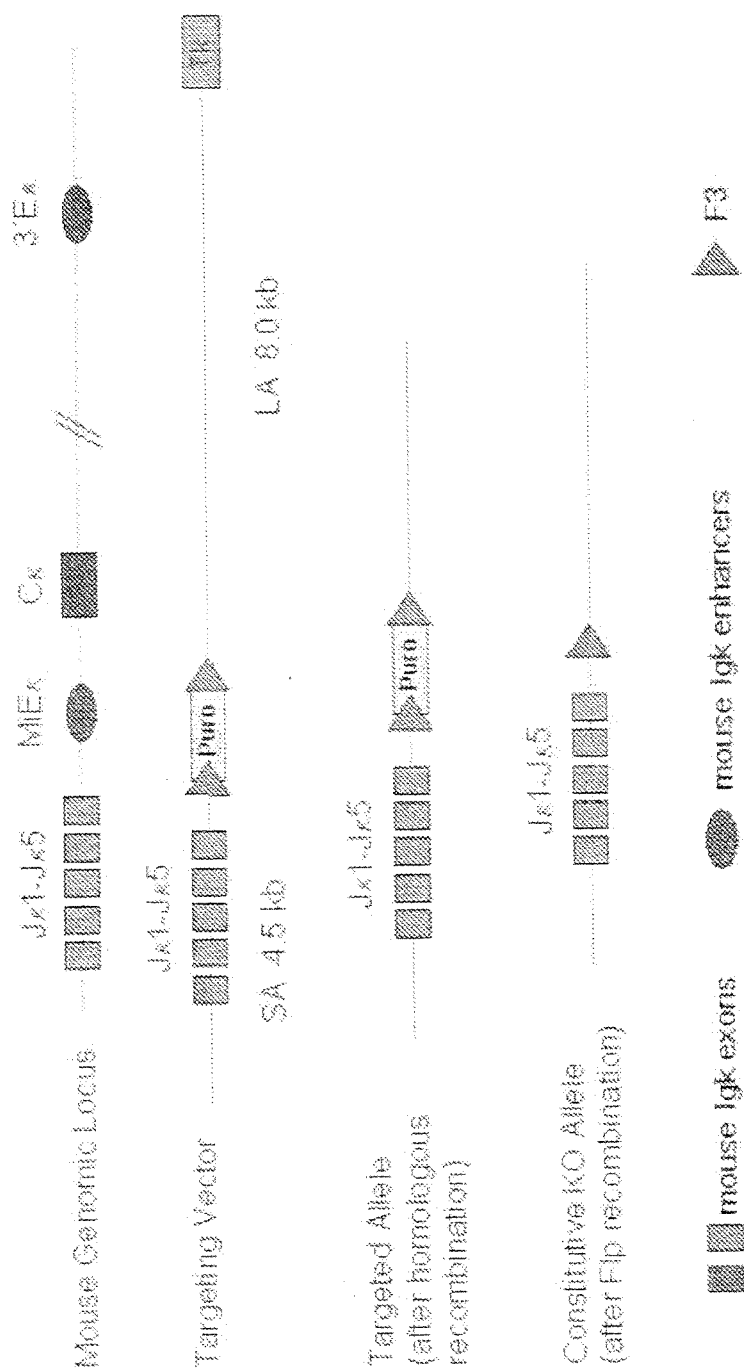


Figure 18

A



57/72

Figure 18 contd

B

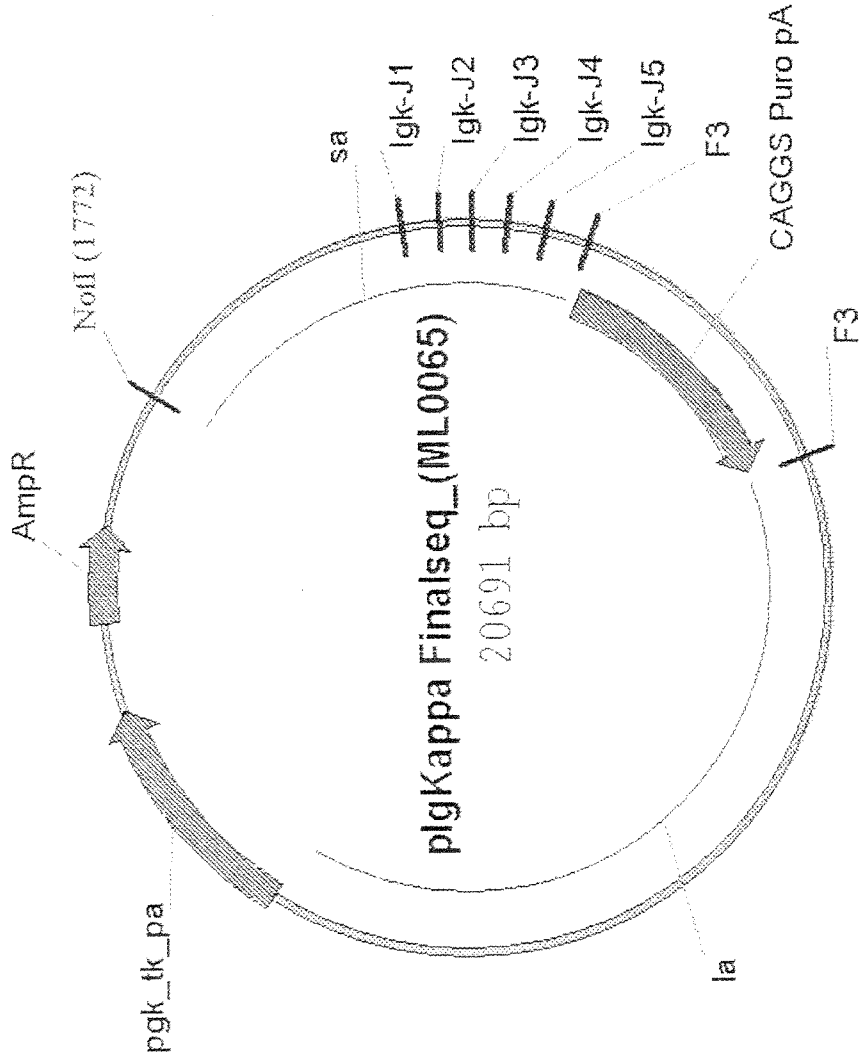


Figure 19 -58/72-

A

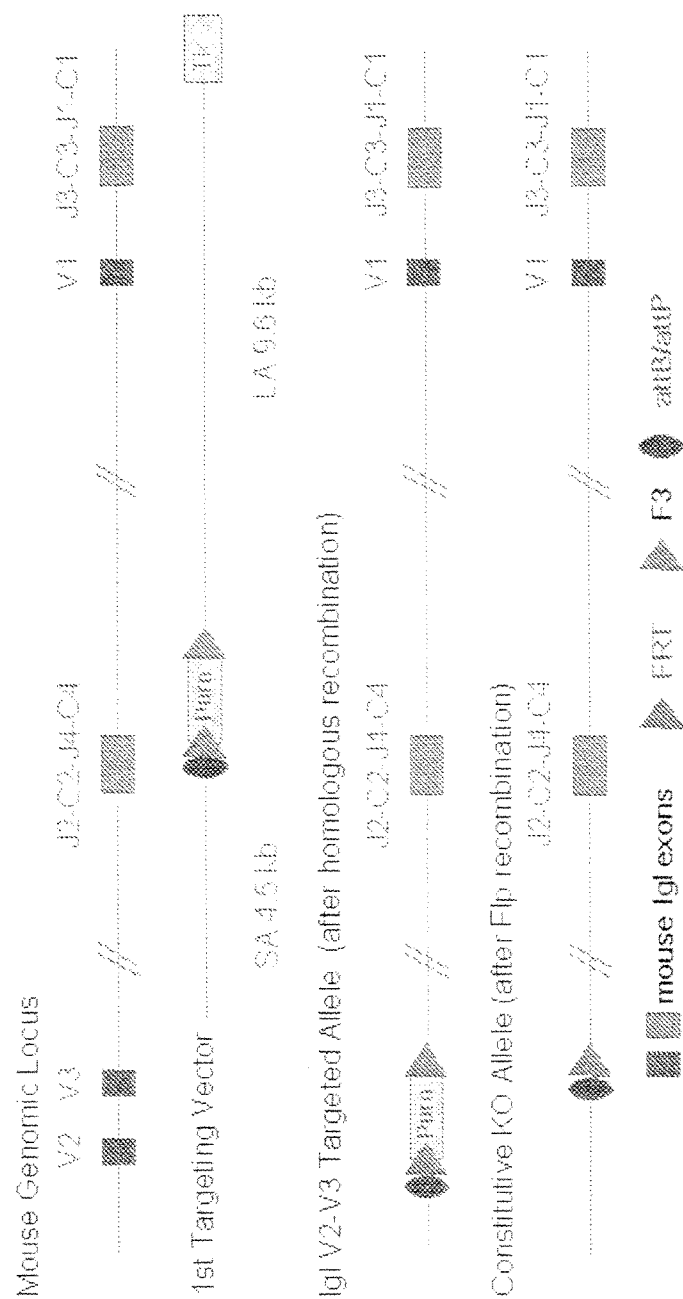
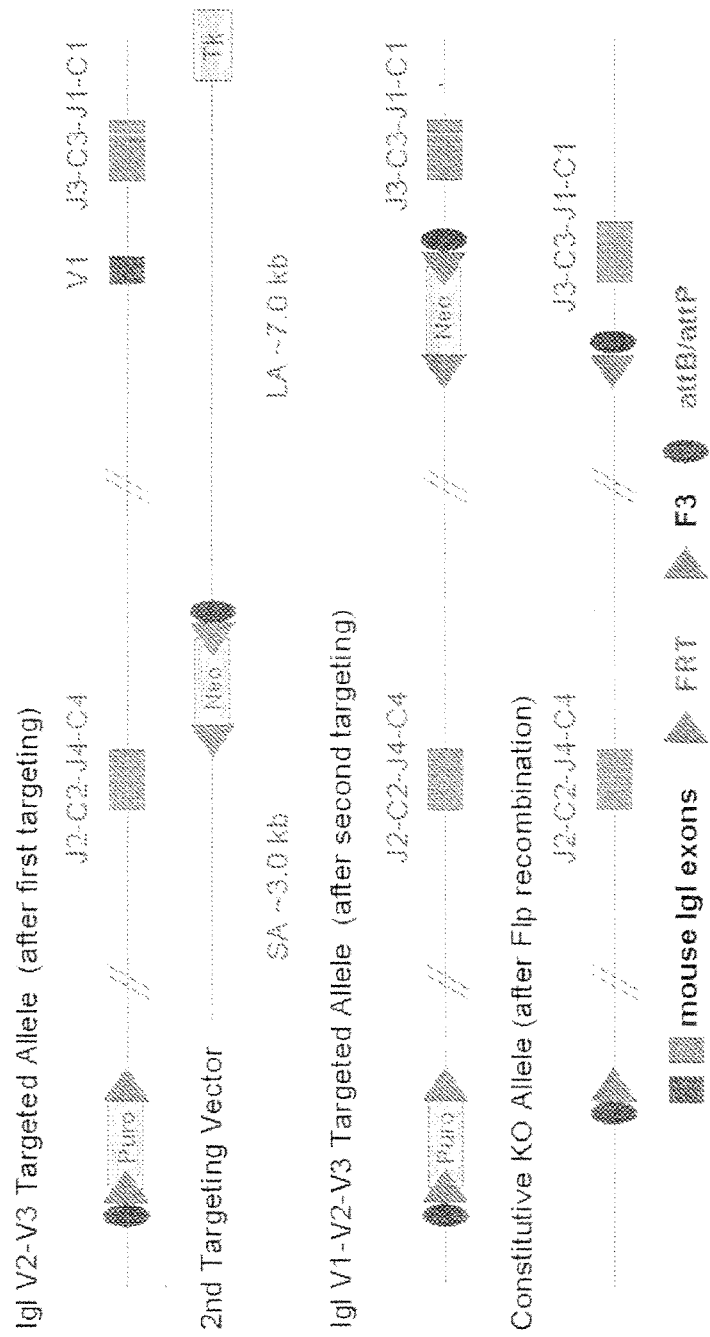


Figure 19 contd -59/72-

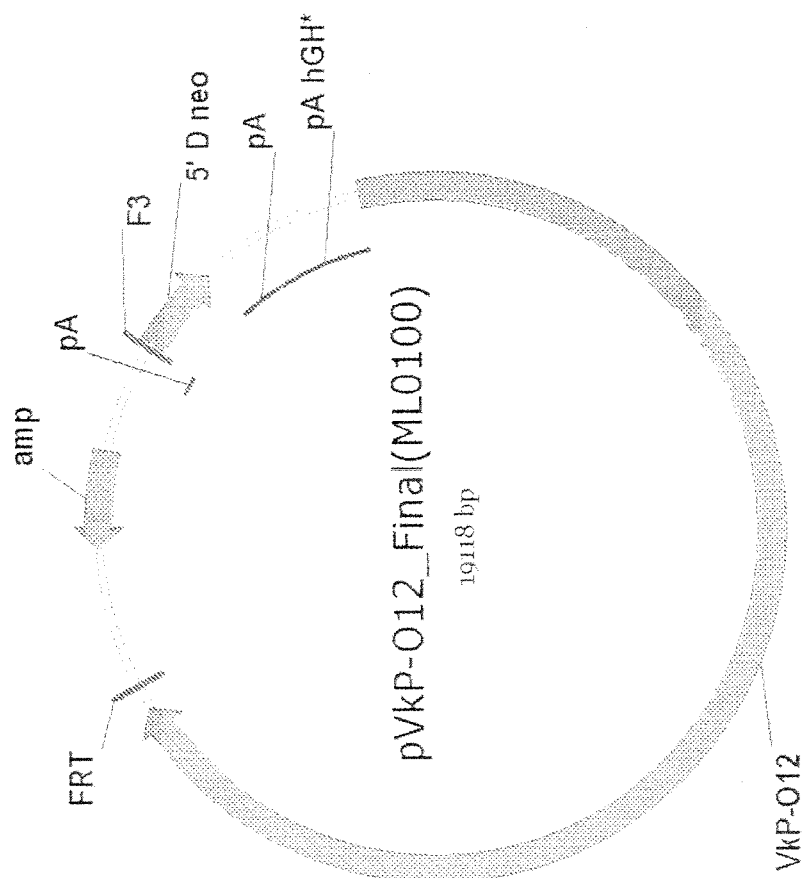
B



-60/72-

Figure 20

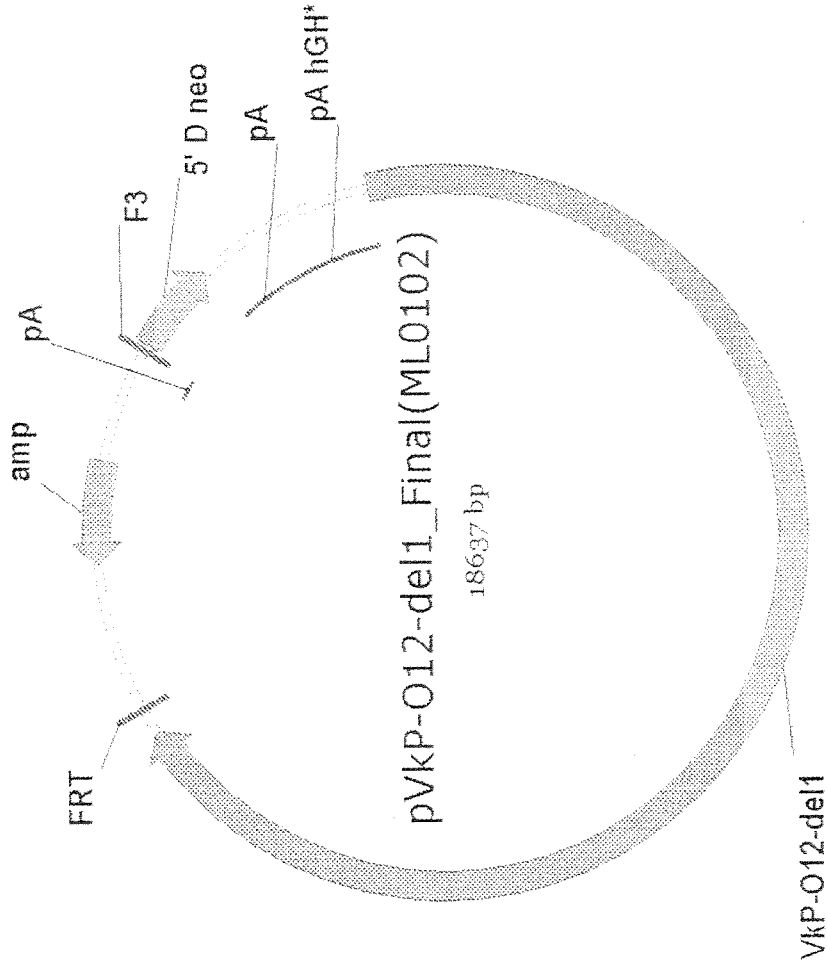
A



-61/72-

Figure 20 contd

B



-62/72-

Figure 20 contd

C

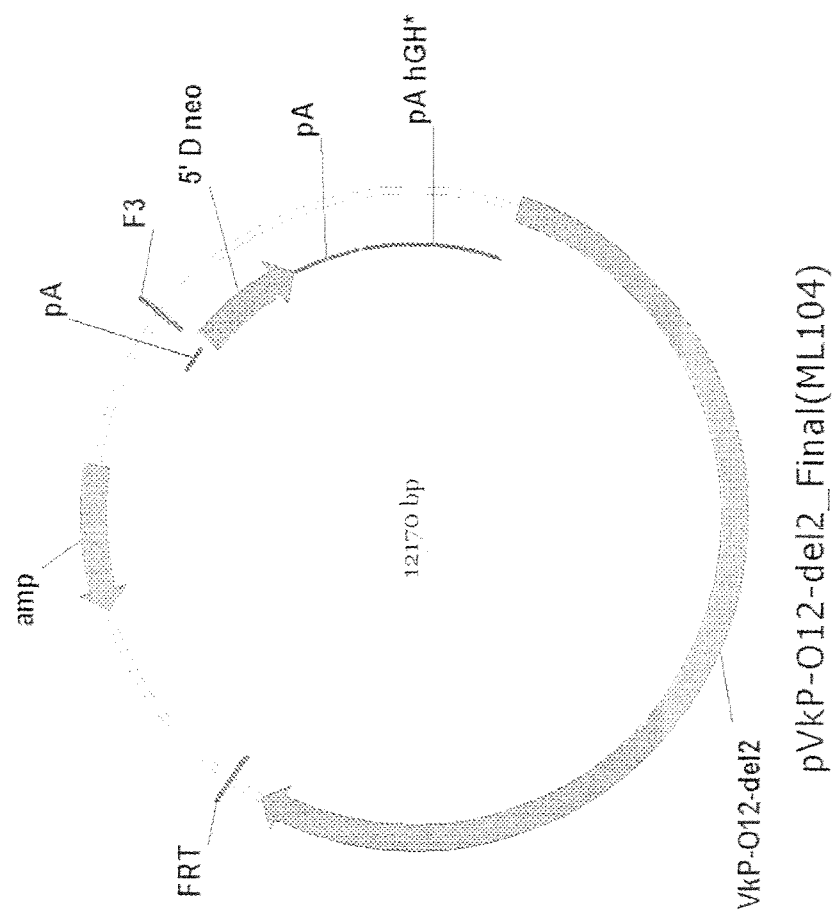
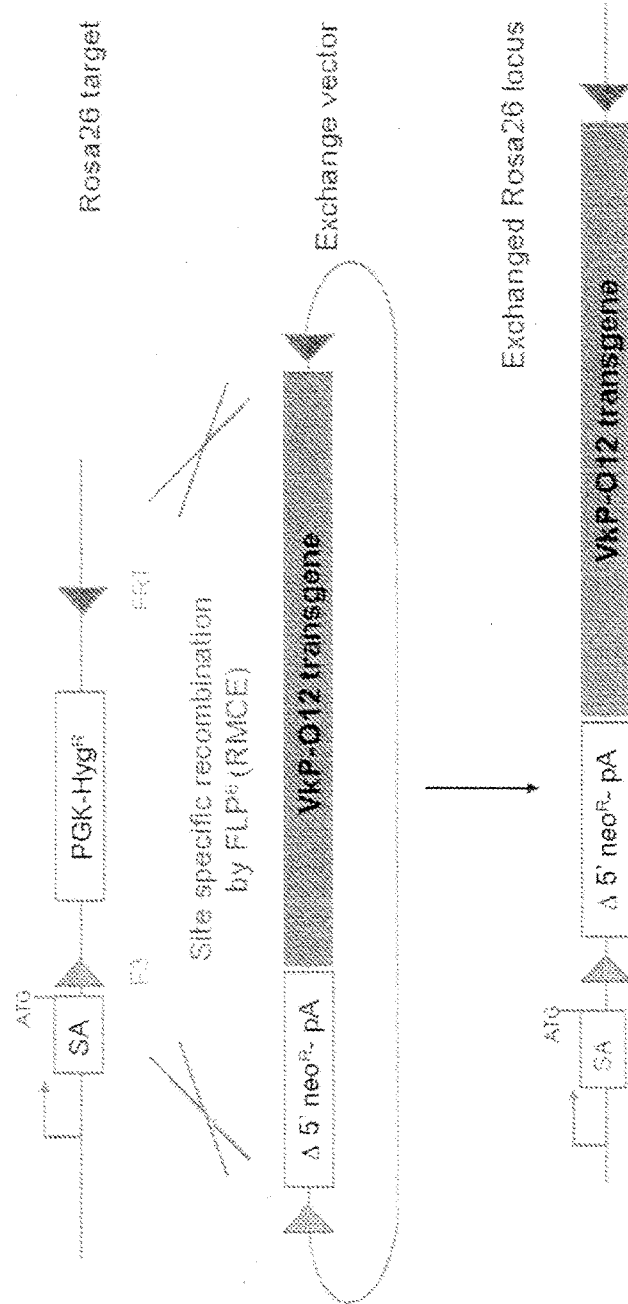


Figure 21

A



-64/72-

Figure 21 contd

B

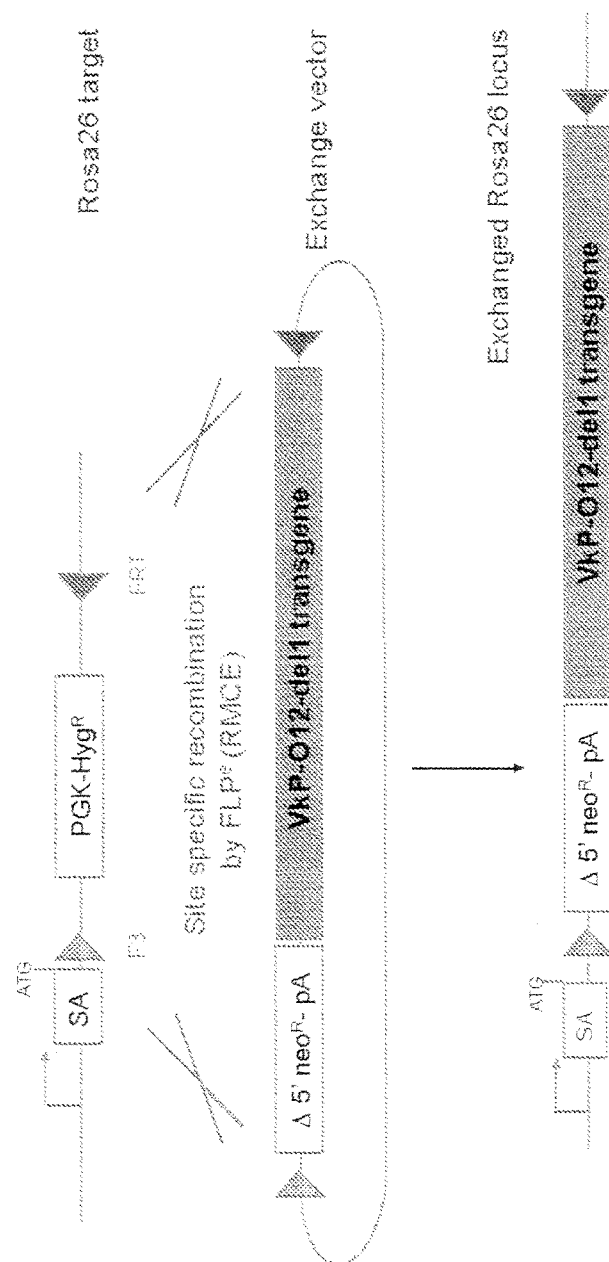


Figure 21 contd -65/72-

C

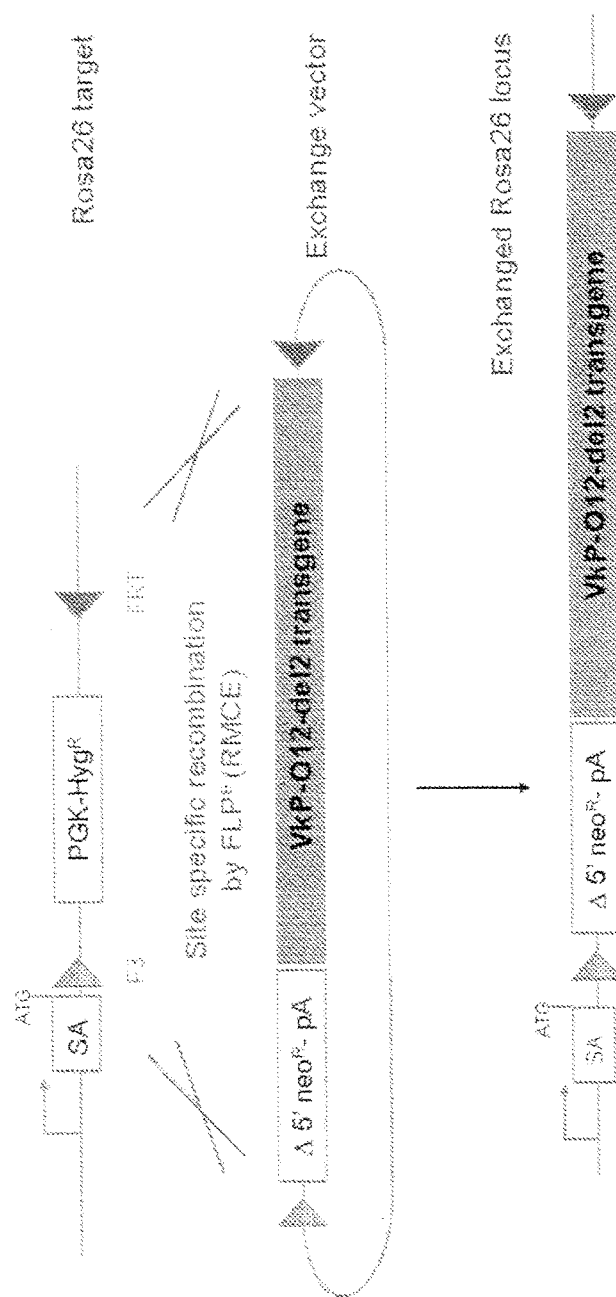


Figure 22

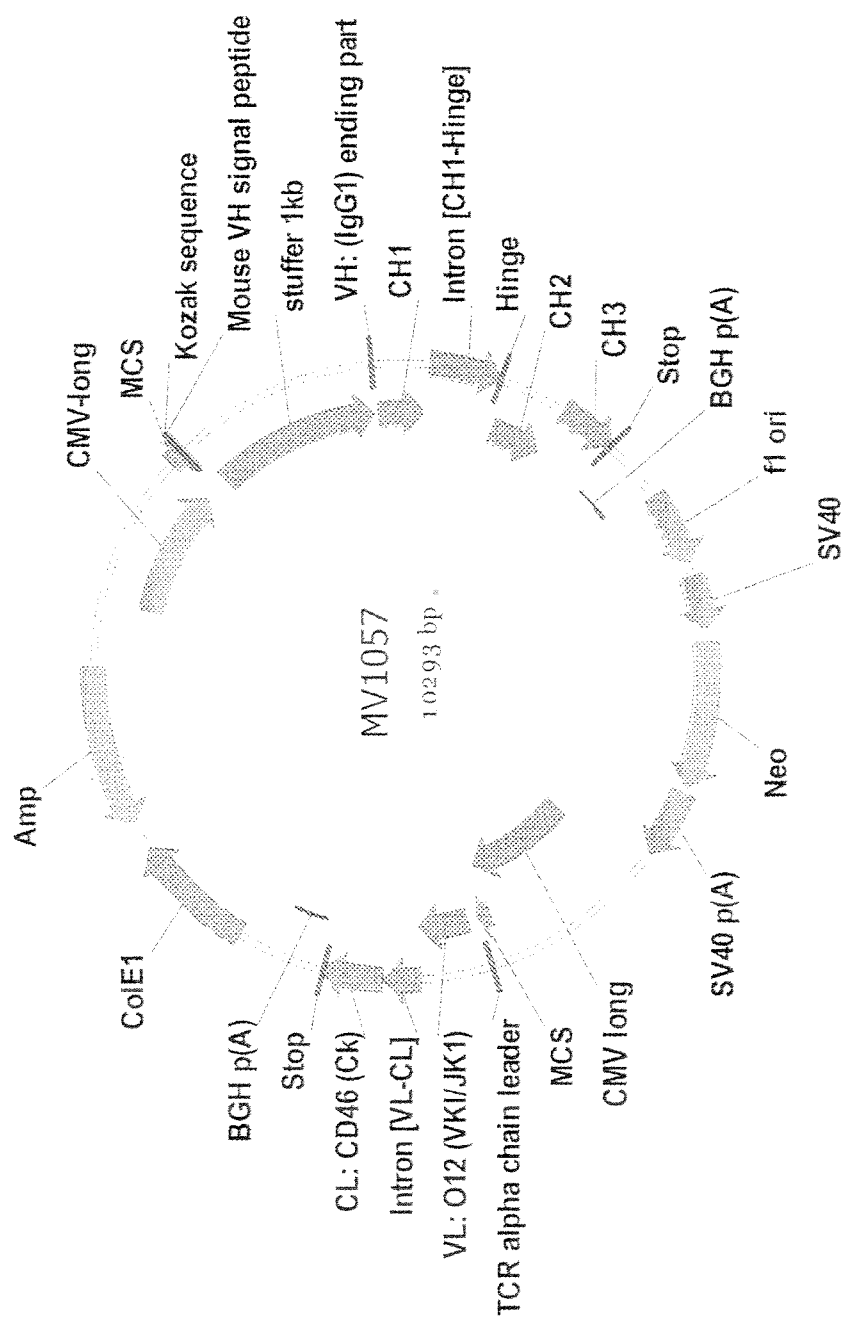


Figure 23

-67/72-

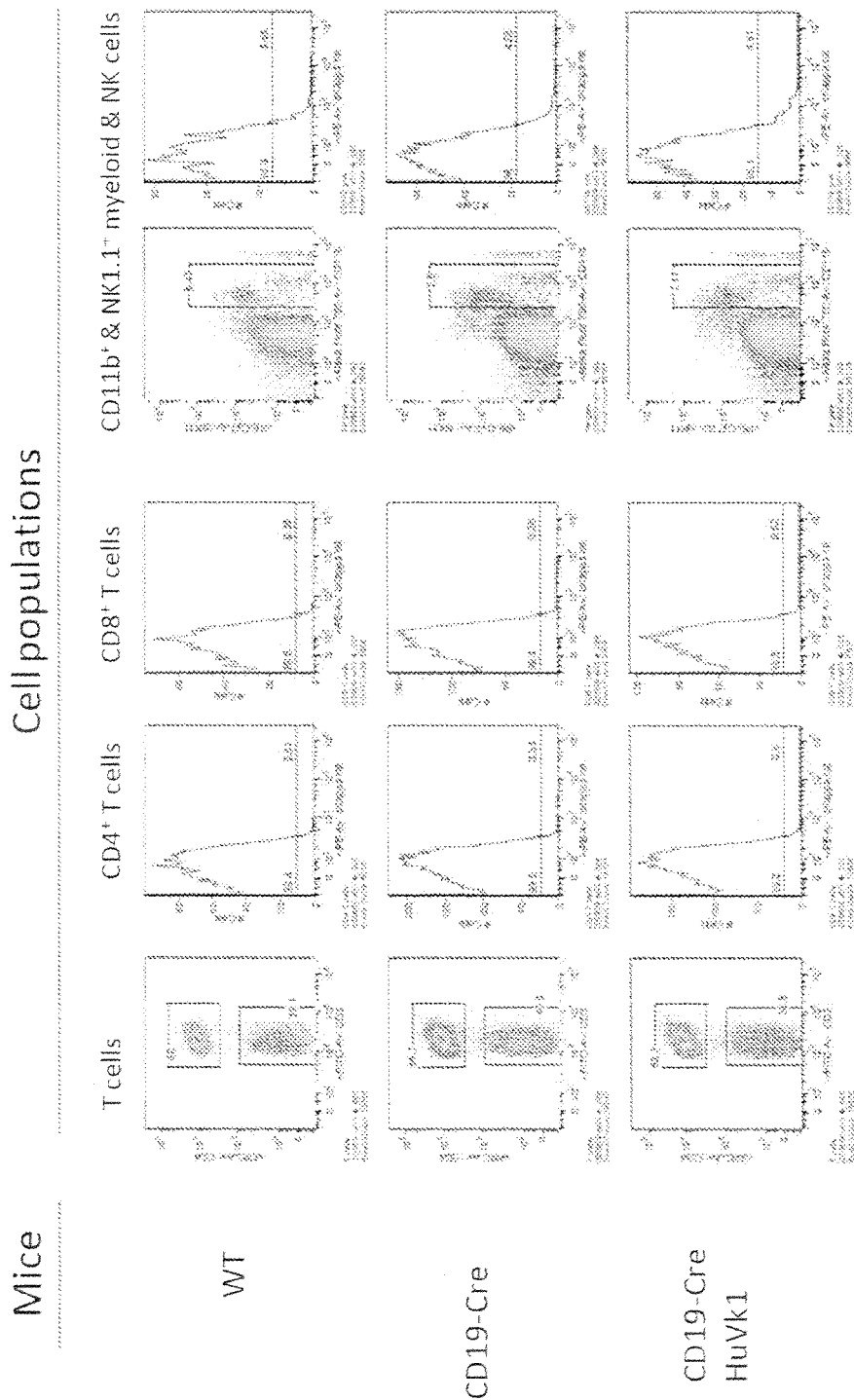


Figure 24

-68/72-

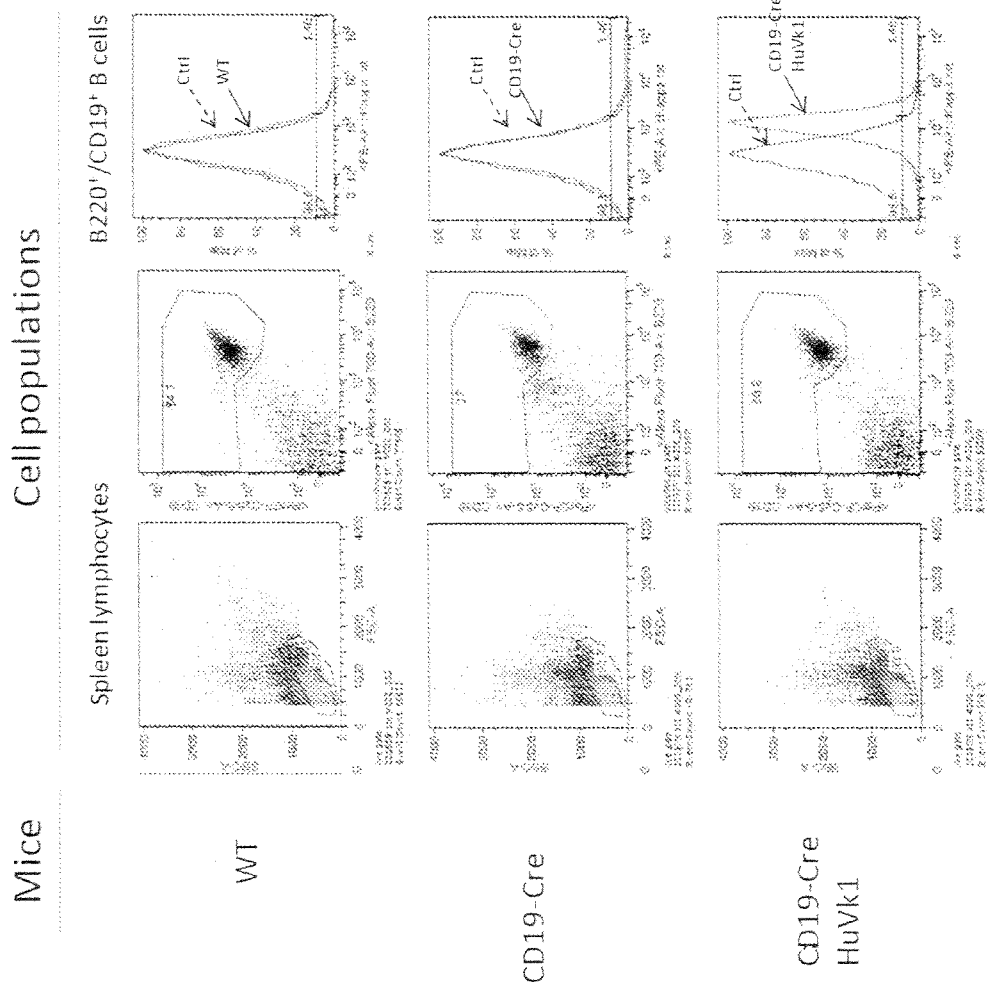


Figure 25

—69/72—

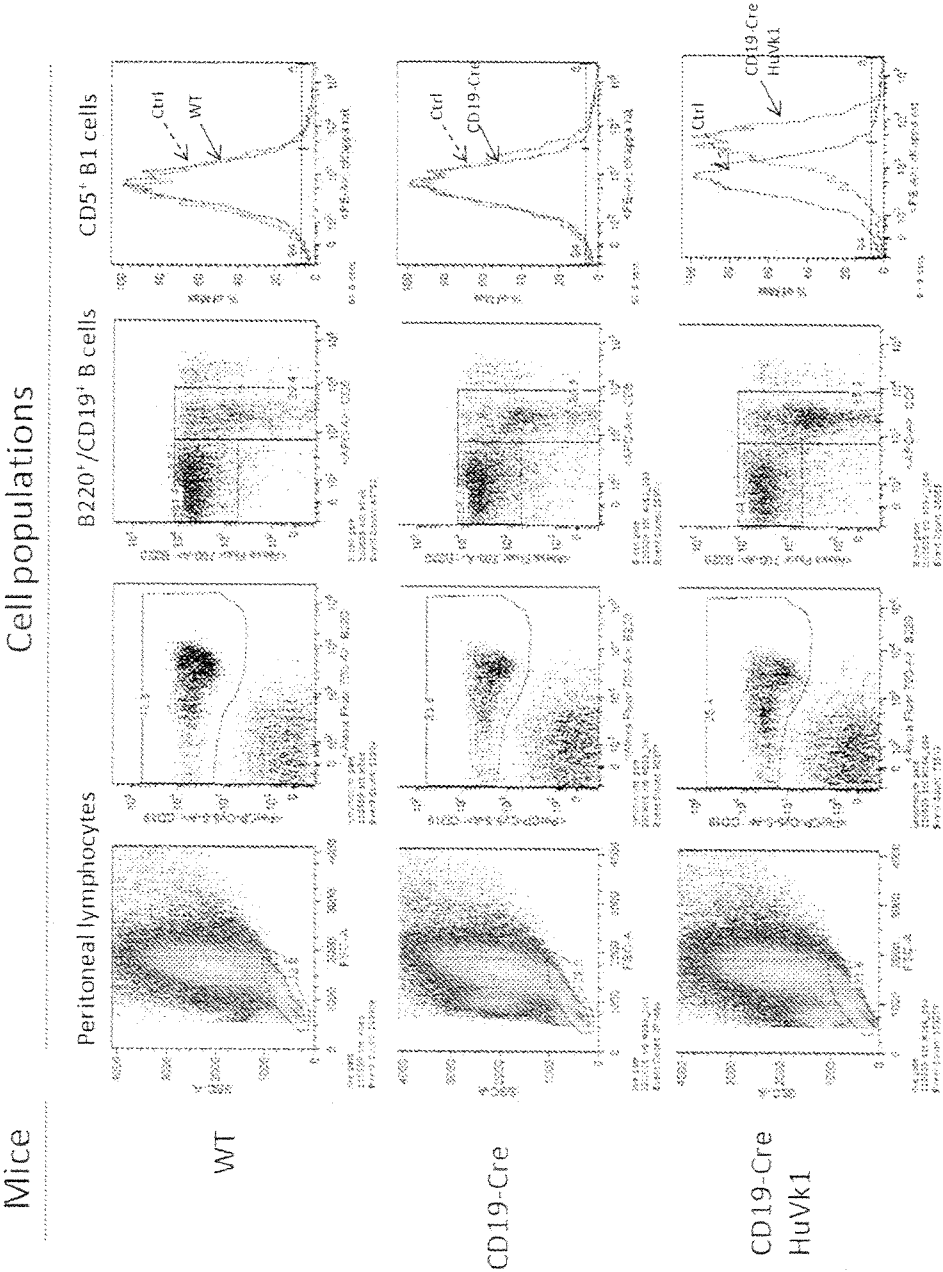


Figure 26

~~22702~~

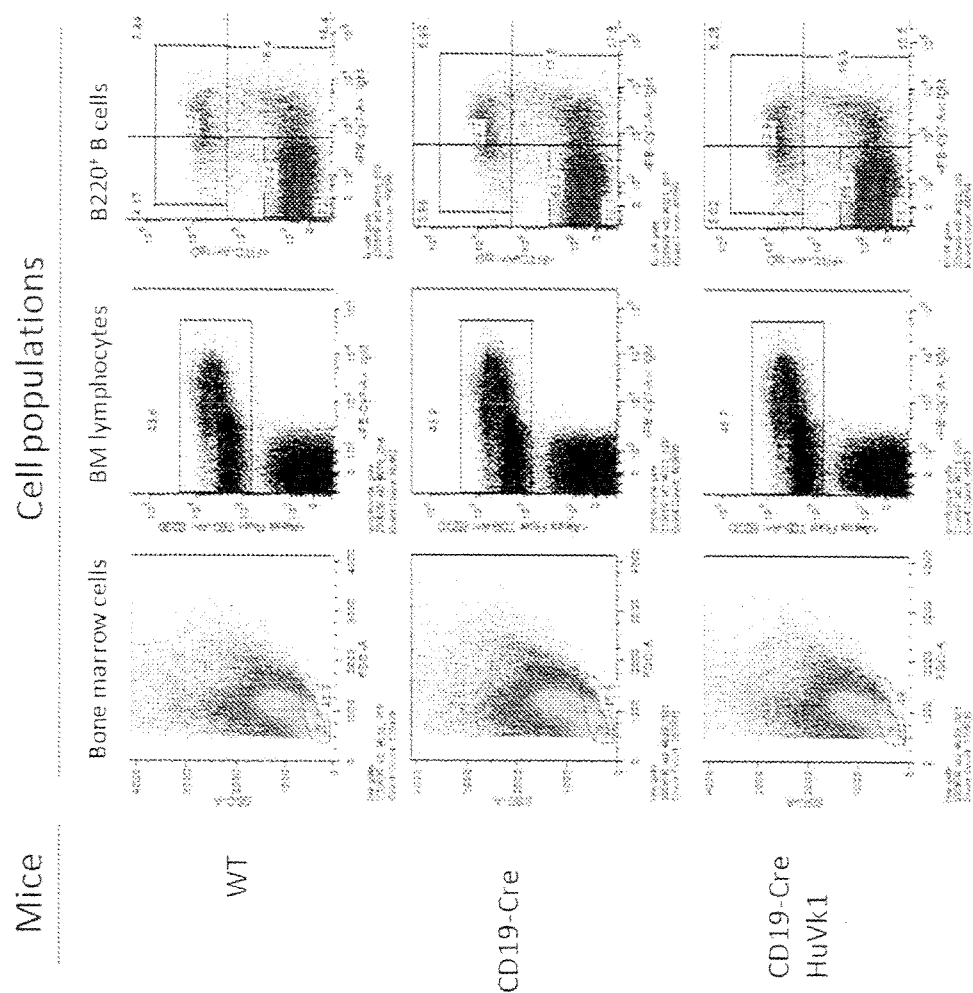


Figure 26 CONTD

B

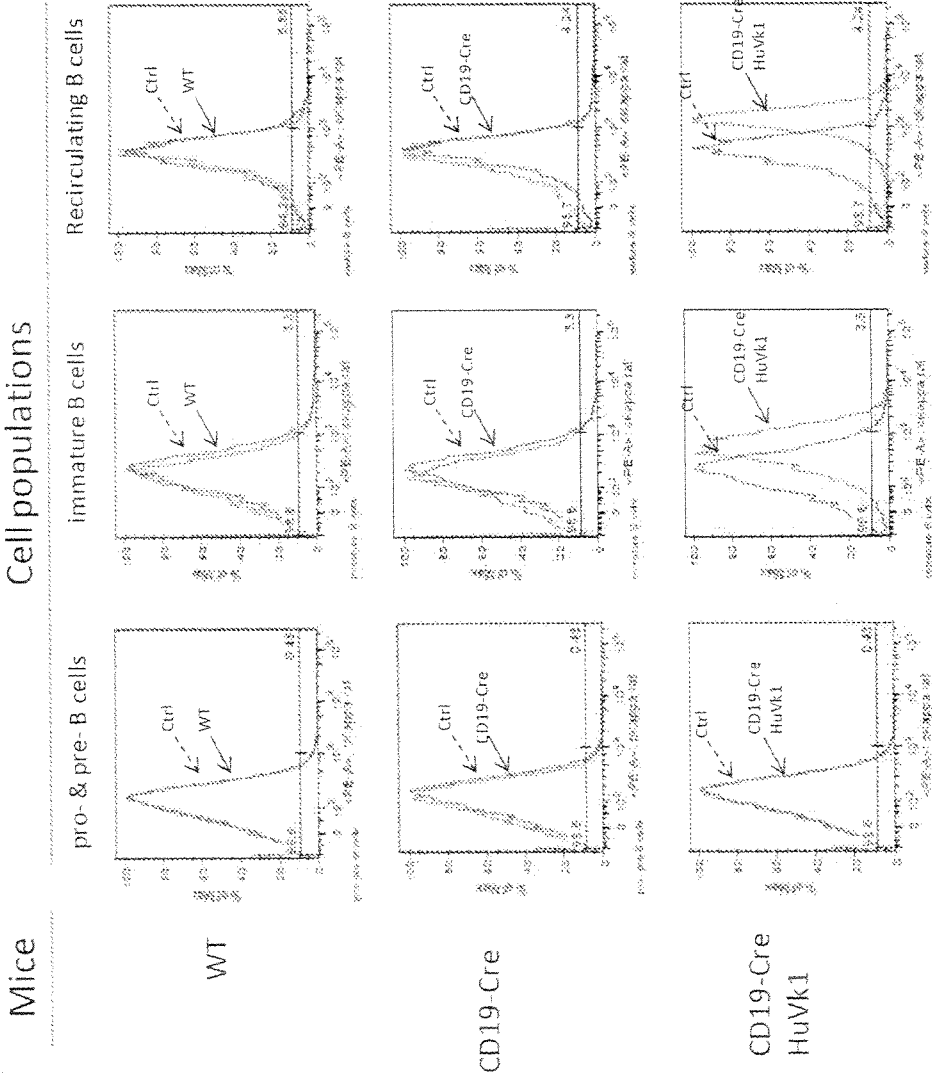


Figure 27

~~72/72~~

Mice

Cell populations

