

Figure 2

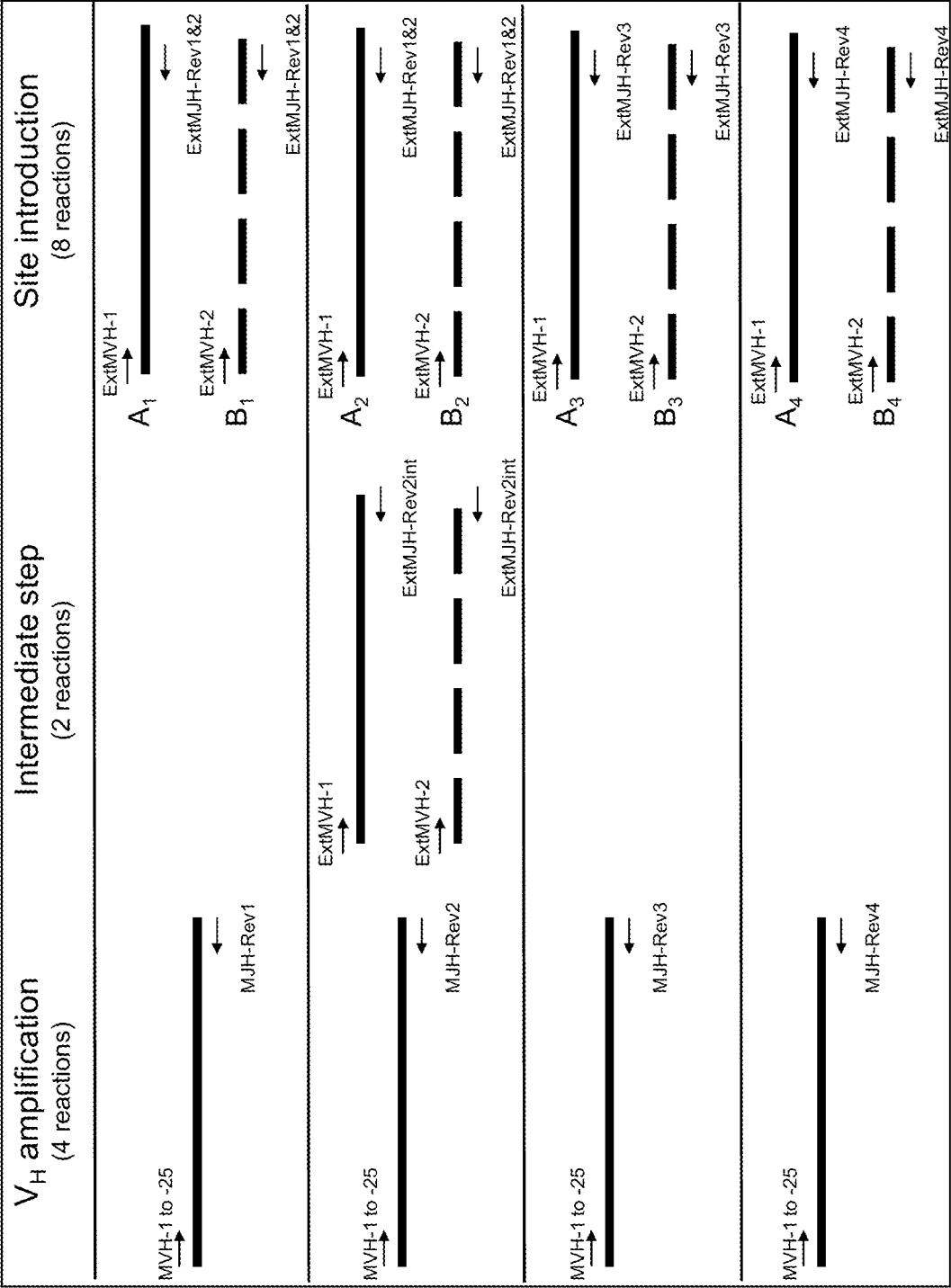


Figure 3

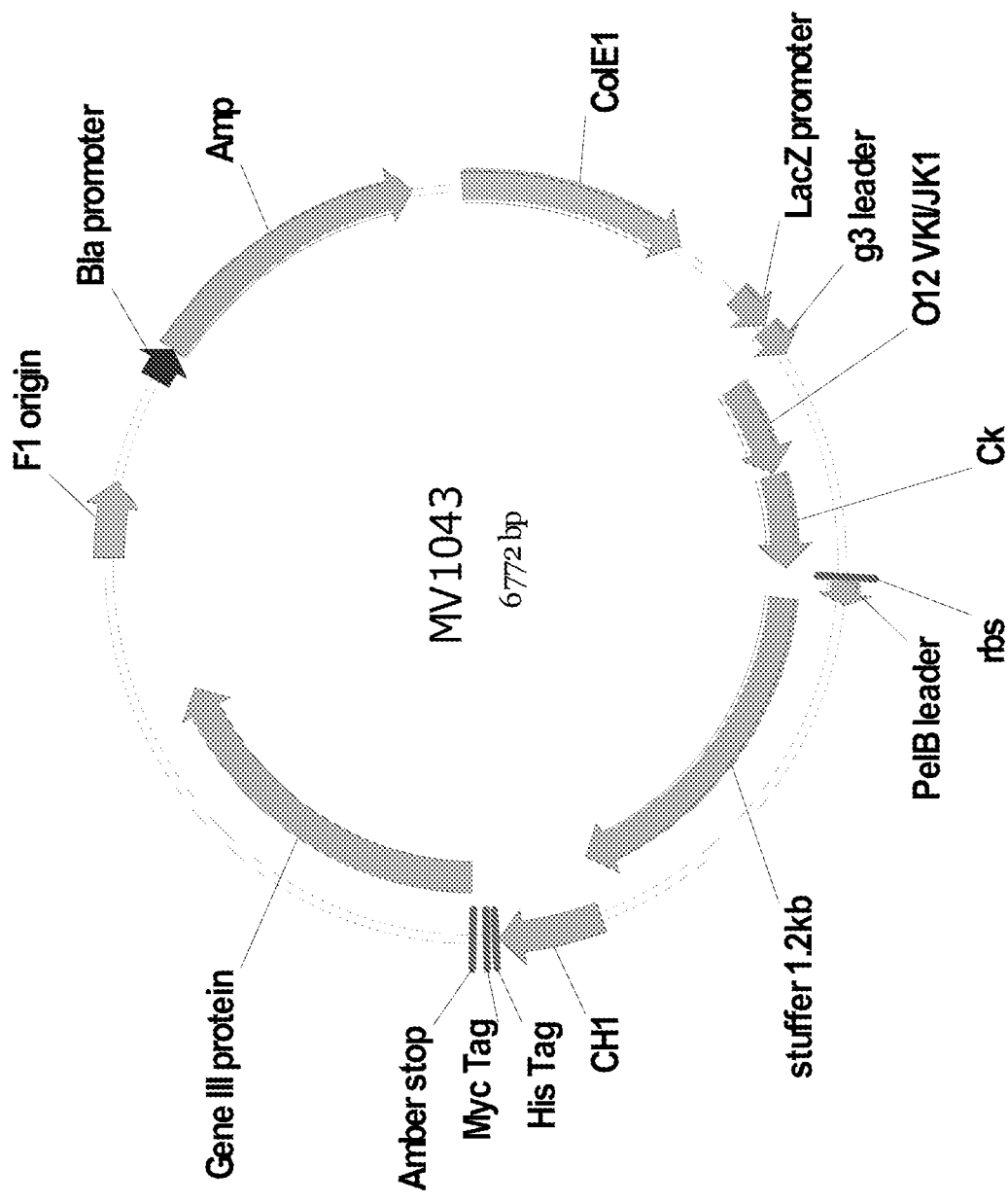


Figure 4

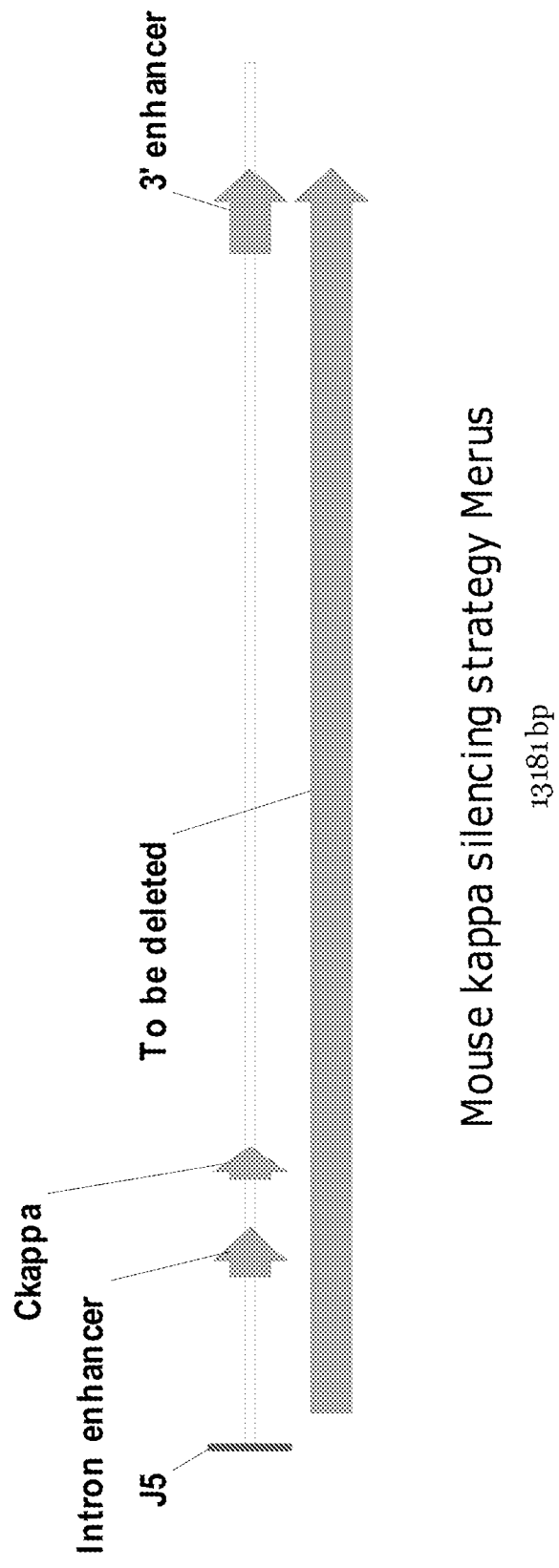


Figure 5

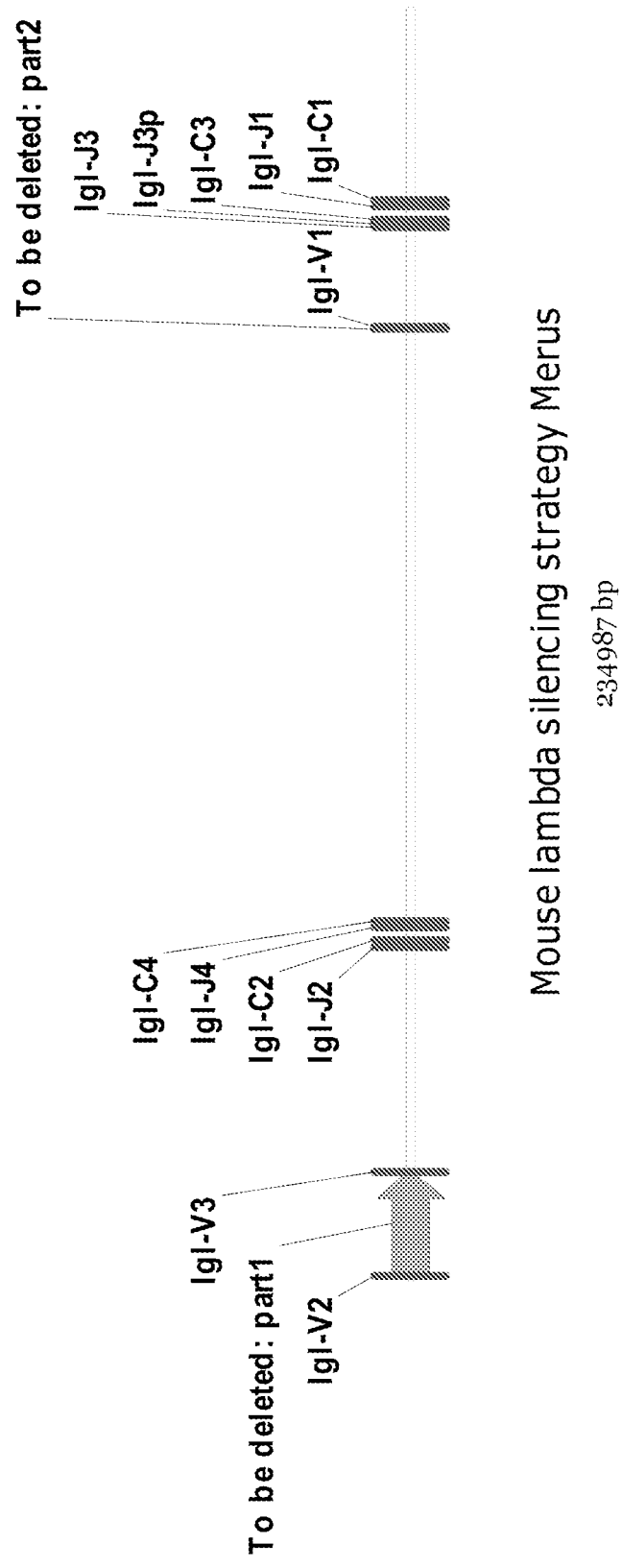


Figure 6

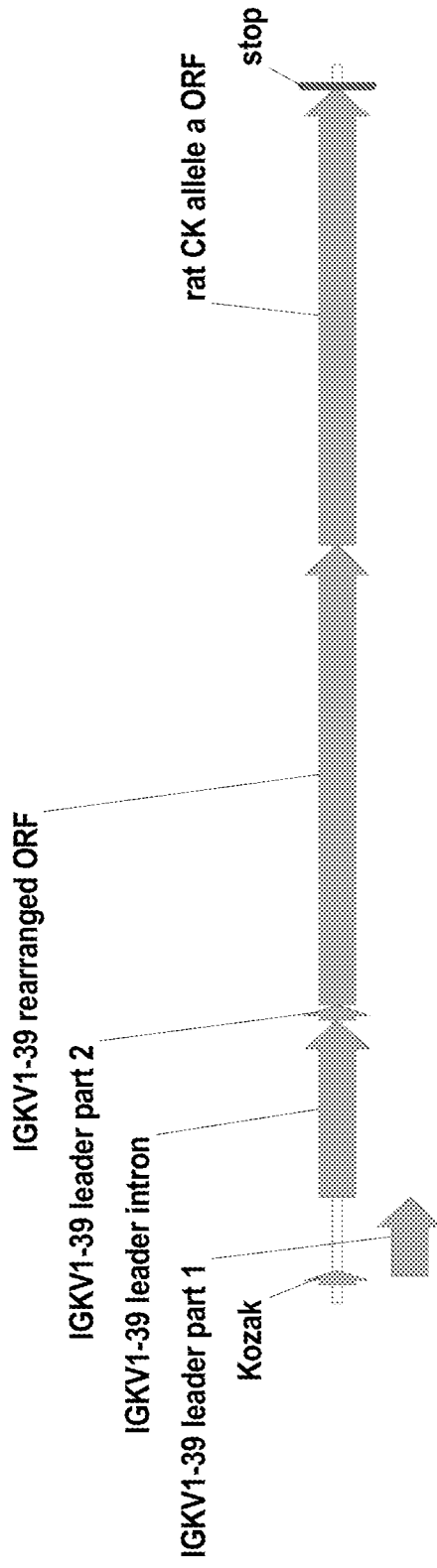


Figure 7

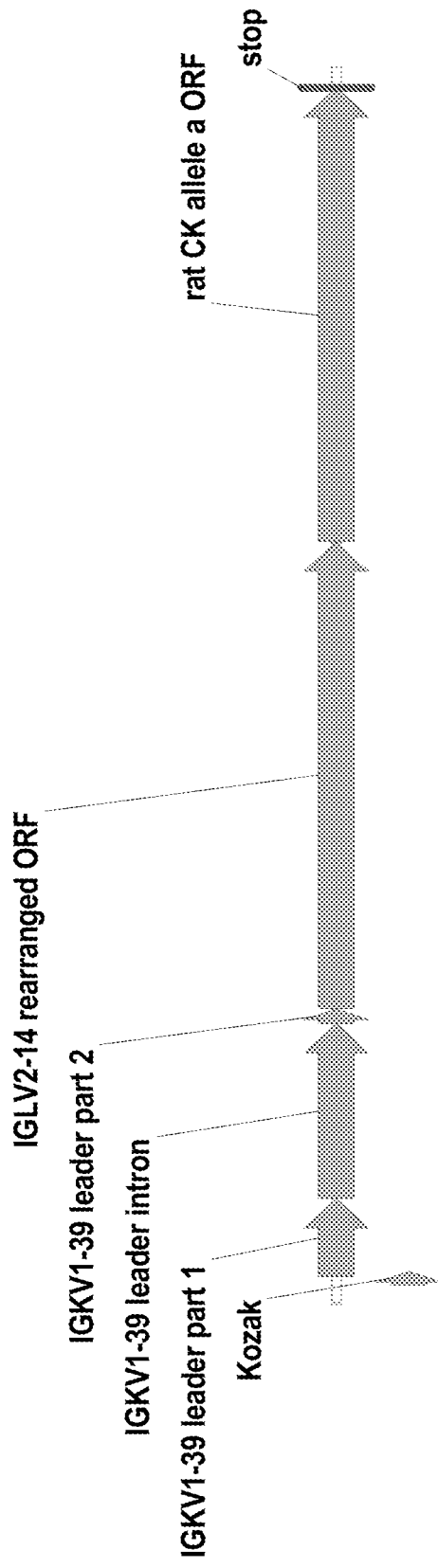


Figure 8

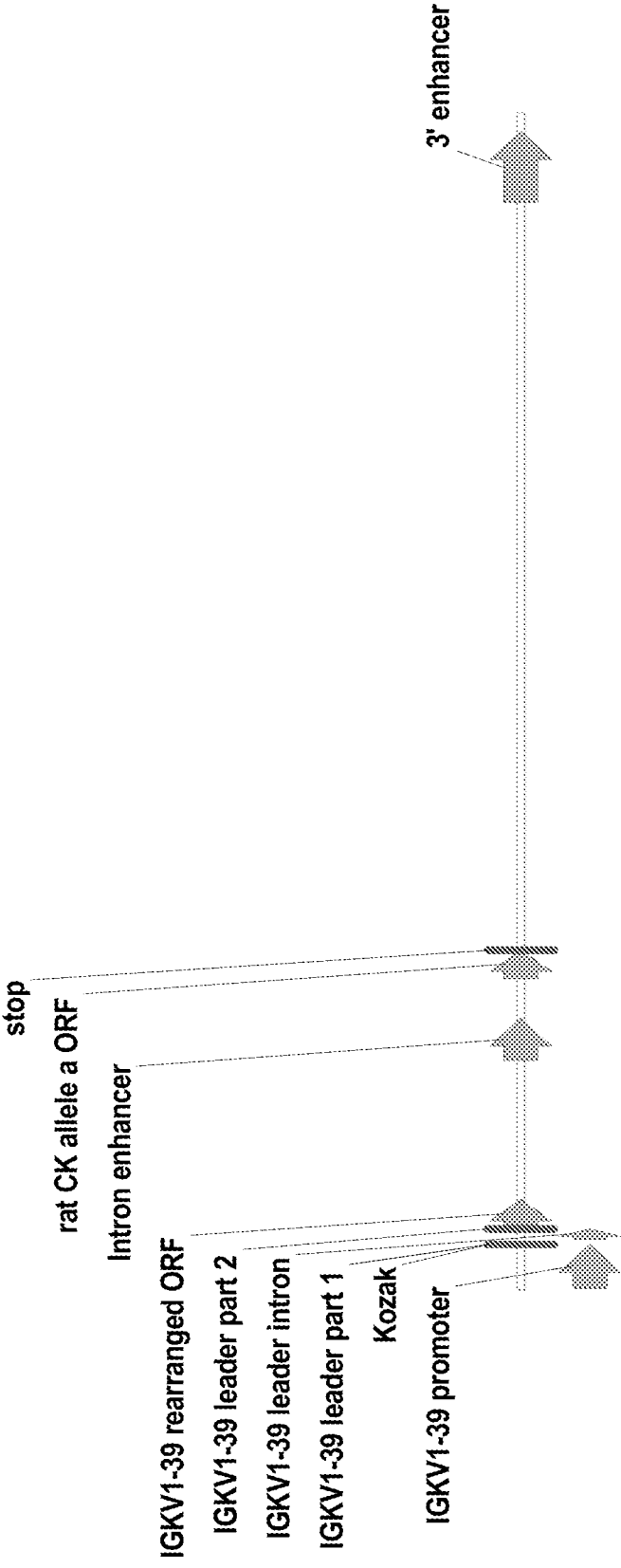


Figure 9

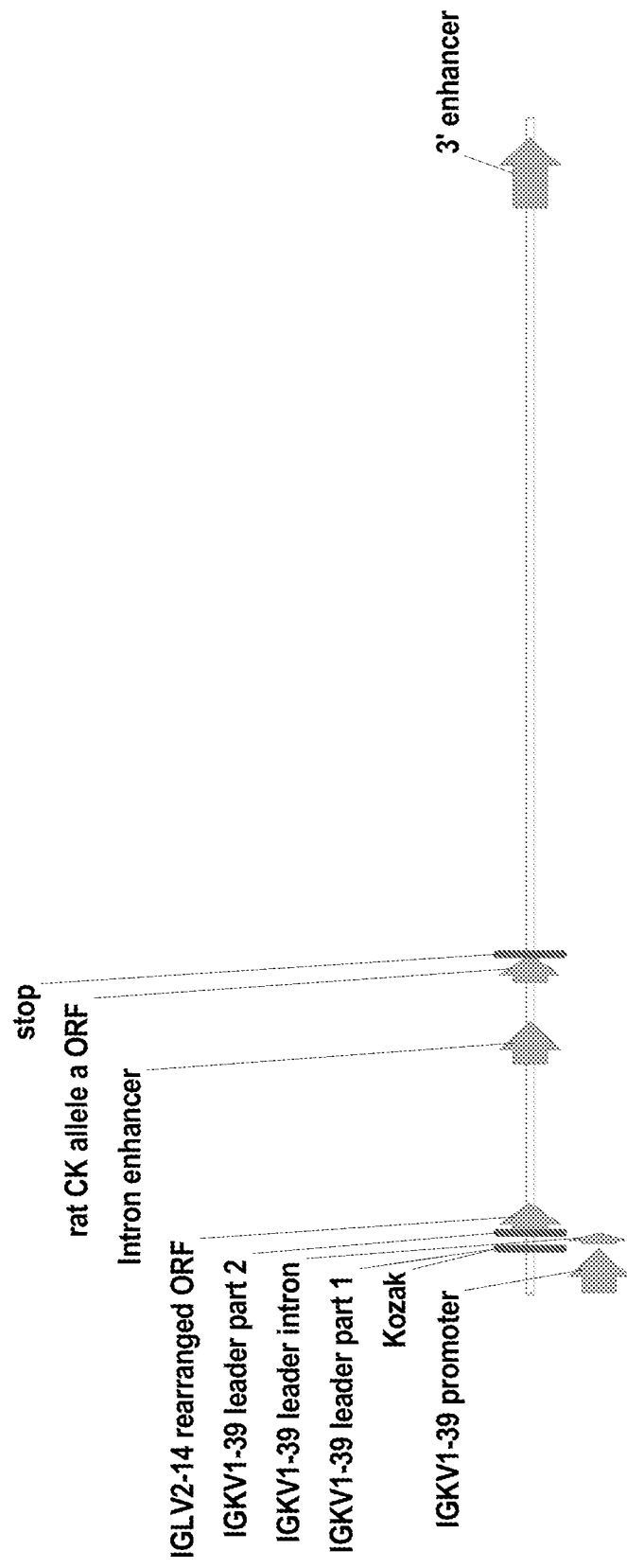


Figure 10

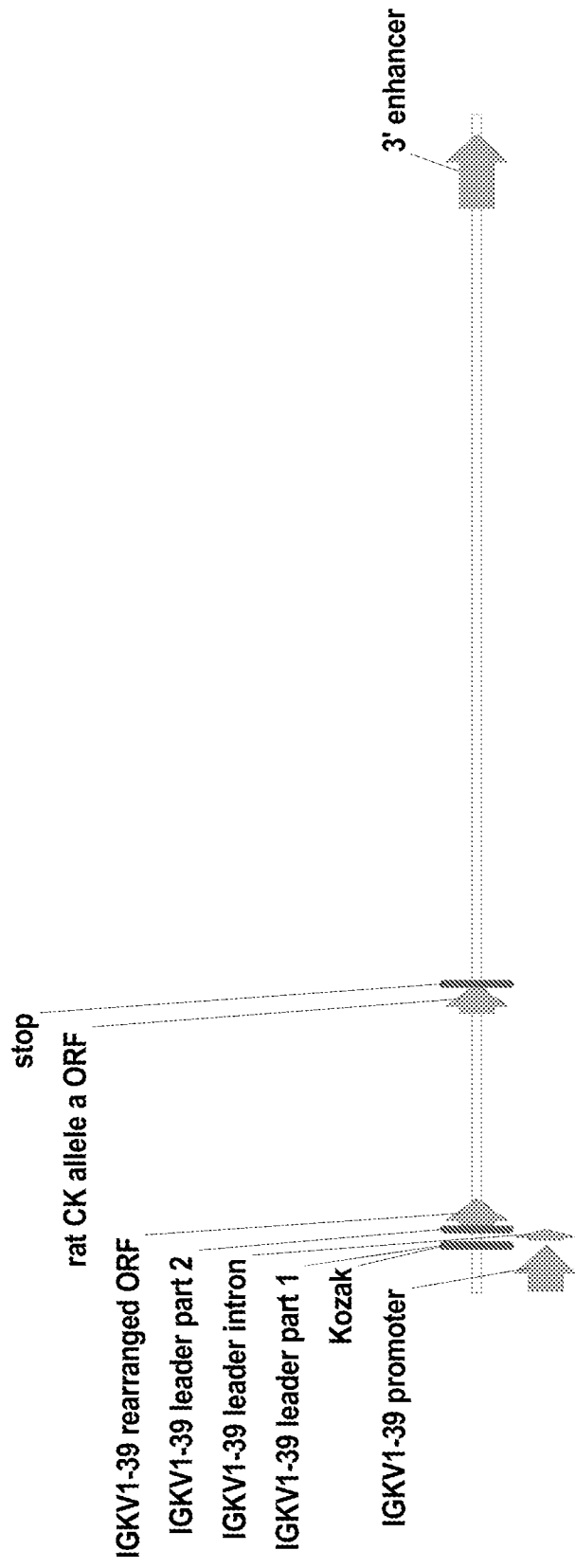


Figure 11

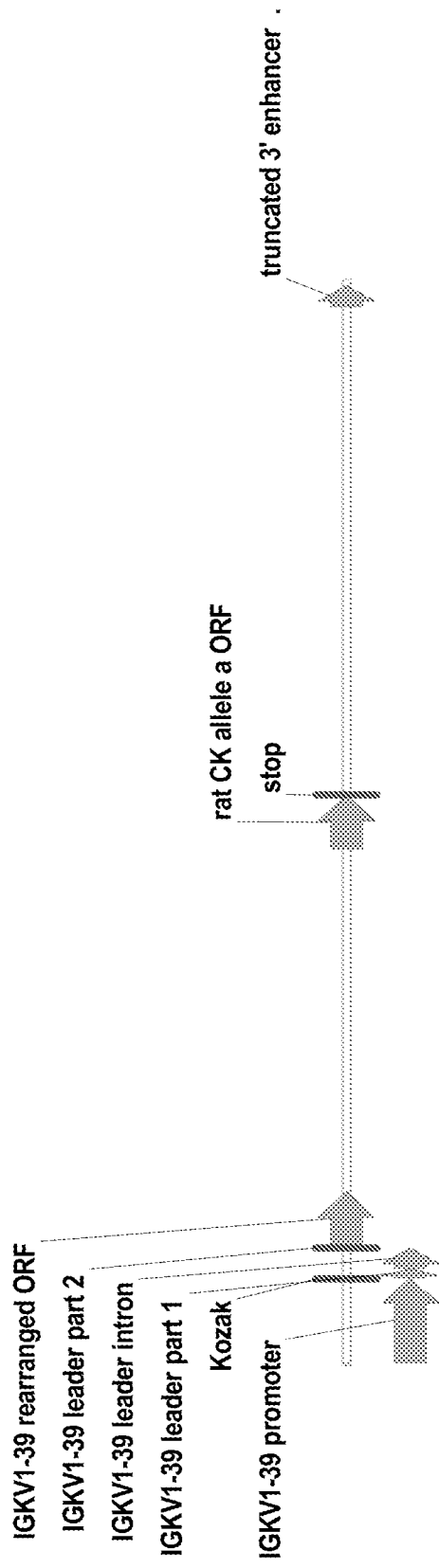


Figure 12

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

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

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

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

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

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

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

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

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

Figure 12 contd

1171 GTG AGA TTA GGG GCA AAA AGA GGC TTT AGT TGA GAG GAA AGT AAT TAA TAC TAT GGT CAC CAT CCA AGA GAT TGG ATC
 1249 GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1327 TTT GAG GGG GAT GAG ATA TGA AGG AAT TCC AGG ATA GAA AAG GGC AGT CAA GTT CAG CTC CTA AAA TGG ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA ATC AGC AGG ATG AAA CAG CGC AGT TTT GCA ATA AAA GTG GGA TAG CAG AGT TGA
 1483 GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT GCA ATA AAA GTG GGA TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC TTT TGT CTC CTA AGT TTT GAT GAC TAC AAA AAT CAG TAG TAT GTC CTG AAA TAA
 1639 TCA TTA AGC TGT TTG AAA GTA TGA CTG CTT GCC ATG TAG ATA CCA TTG CTT GCT GAA TCA GAA GAG GTG TGA CTC
 1717 TTA TTC TAA AAT TTG TCA CAA AAT GTC AAA ATT GTC AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT ACA GTT GGG
 1795 TTT TTC CTT TGT CTC ATT TCT ACA TGA AAG TAA ATT TGA AAT GAT CTT TTT TAT TAT AAG AGT AGA AAT ACA GTT GGG
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 1951 TTT TAT ATC GCC AGC AAT GGA CTG AAA CCG TCC GCA ACC TCT TCT TTA CAA CTG GAC CTC CGC GCT GTG CCA GCC
 2029 ATT TGG CGT TCA CCC TGC CGC TAA GGG CCA TGT GAA CCC CCG TTG TAG CAT CCC TTG CTC CGC GTG GAC CAC TTT CCT
 2107 GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG AGA AAA ACA
 2185 AGG AAA GGG TGA CTT ATT GGA GAT TTC AGA AAT AAA ATG CAT TTA TTA TAT TCC CTT ATT TTA ATT TTC TAT TAG
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 2653 AAA CTT TTG AAA CTA CTT TAG AGT CAT TAA GTT ATT TAA CCA CTT TTA ATT ACT TTA AAA TGA TGT CAA TTC CCT TTT
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 3121 TAT TCT TGG AAG AGA CAG GAG AAA ATG AAA GCC AGT TTC TGC TCT TGA ATT TTT TTT TTT TTT TTT TTT TTT TTT TCG
 3199 TCA GGA GTG TCA GAT AAA CTG GTC TGA ATC TCT GTC TGA AGC ATG GAA CTG AAA AGA ATG TAG TTT CAG GGA AGA AAG
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 3355 AAT AAC TTA GAA ACA ACA AGA TTG TAT ATA TGT GCA TCC TGG CCC CAT TGT TCC TTA TCT GTA GGG ATA AGC GTG CTT
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 3745 TGA CCC TGA CCA AGG TGG AGT ACG AGA GGC ACT TGT ACA ACC TGT ACA CCG AGG TGG TGC ACA CCA GCT COA GCC CCG
 3823 TGG TCA AGT CCT TCA ACC GGA ACG AGT GTT GAA GAC AAA GGT COT GAG ACG CCA CCA CCA CCA CCA CCA CCA CCA CCA
 3901 ATC TTC CCT TCT AAG GTC TTG GAG GCT TCC CCA CAA GCG ACC TAC CAC TGT TGC GGT GCT CCA AAC CTC CTC CCC ACC
 3979 TCC TTG TCC TCC TCC TCC CTT TCC TTG GCT TTT ATC ATG CTA ATA TTT GCA GAA AAT ATT CAA TAA AGT GAG TCT TTG
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 4447 AAG CAA TAG GAA AAT GTG GAA GCC CAT CAT AGT ACT TGG ACT TCA TCT GCT TTT GTG CTT TCA AGT TTT TAA ACA
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 4603 ACA CAC ATA CAT CAA AAT TTG GGA AAA GTT CTA CCA AGG TGA GAG CTG ATC ACC CCA CCA CCA CCA CCA CCA CCA CCA
 4681 ACA CCA GAA ACC TTA AGA AGC AAC CAG TAT TGA GAG ACT CAT TTA TGA AAG TCT AAA ACT GGA TAC AAC CAA AAT ATG
 4759 CAC CAA CAG TTA AAT TAT GAC ATG TTC ACA ATT GAG CTA TTA CTT AAG GAG AAT TAA AAT AAA ACT TAA GAG
 4837 CAT AGT TTA ATC TCA TAA ACA AGA TAA TAA GCA AAA CAA AAC ATT TTT TCA TCC ATG TAA GGT TAA AAG CAG GTA AAA

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		
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CCT	AAA	GTA	ATA	TCT	AAT	ACC	GAG	TGC	ATA	CAI	AAA	AGA	GGA	TAC	AAG	GAA	TGA	ATC	ATA	GTC	CAA	GGC	CAG	AAA	GAC		
AAT	AAA	GTA	GGA	GAT	CCA	GGA	TCA	AAI	CTC	COA	CAA	CCY	TGA	GCC	TTC	TAC	TAT	TCT	GCC	TTT	CAI	AGC	TCA	AAG	TAC		
AAA	ACA	CAI	AAT	TCA	AAC	ACA	TGA	TCC	CTC	CTY	GGG	GTC	TCT	TCC	TTC	ATG	CAI	CGA	ATT	AGA	AAI	AGC	CAT	GTA	TAA		
AAT	GAG	ATA	GGA	GAG	ACC	ATC	ATC	AAC	AGG	TCA	AAG	AAT	ATA	GGT	AAT	TTT	GTC	CTT	CCC	CTT	GGA	GGC	CCC	GAT	TCA		
GAT	GTA	GTA	GGA	GAG	GAC	ACT	AAG	GAC	ACT	AAC	AGT	GAC	TTT	TCC	CTG	CTC	CTT	CCC	TTT	CTC	AGT	CCA	CAT	AAG	GAT		
TCC	CTC	GTC	GGC	TCA	TCC	ACT	GAG	CAC	ACA	TTT	ACT	AAG	CAI	CTT	CTC	CTG	CTC	CTT	CTC	AGC	CTA	TAT	TAT	CCA	CTT		
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TTT	GAA	ACT	TCT	TTT	AAT	TGC	CTC	TAA	TCT	GCC	TAT	TAA	TAC	AAA	AAT	GCC	TCC	TCA	AAA	TAT	ATA	TTT	CTG	AGC	CTT		
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TGT	TAA	AAA	AAT	ATA	TAA	TGT	CAC	ATG	CTG	TAT	TCT	TTT	TAT	TTA	ACA	CTG	GTG	AAA	TTA	TAC	CAT	TAG	AGA	GAA	AAA		
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GGA	TCT	TCA	AGG	TCA	CAG	AAT	CAG	TGT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT	CTT		
GAA	CTA	TAT	TCA	TAT	ATT	GTA	CCA	ATG	TCA	AAI	GCT	TAA	TTT	TGG	CTC	TAT	AGT	ATA	ATT	ATG	CAC	TAA	ATA	ACT	ATT		
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CAG	AAG	CAA	GCC	CCT	GCC	CAG	CAA	GCA	GSC	AGC	ACA	GAT	AAG	AGC	TAA	ACC	CAG	CAA	AGG	CCA	TGA	TAT	GCT	AAT	GAA	AAA	
CTA	CCT	TCA	AGG	TGG	TGT	TGC	TGA	CCT	AGT	GAA	CCA	GCC	CCA	AGC	TGT	GAG	CCC	CAA	TAG	CAC	AAA	GCT	ACT	GCC	CAA	AAA	
AGA	AAT	TAT	ACA	AAA	ATT	GGA	ACT	TTG	GGA	ATT	GTG	TGC	AGG	ATG	GCT	CTG	CTG	TAT	GCC	TGG	AAC	ACA	GCT	TCT	CTA	CTA	
TGT	TTT	GTA	TTG	ATA	CCA	GTC	CTC	TTC	CCT	CTT	GAT	ATA	TCT	GTT	TTG	CTT	TTA	TGT	TAG	CAT	AAT	ATA	AGG	AAT	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	TAC	AGC	TBA	AAA	

Figure 12 contd

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 9049 GGG GAG GGA GGG TGG AGA AAG AAT CTT ACT TCC AAG CTC TGA CTG TGG GAA CTC ACT ATA TAG ATC AGG CTT GAT
 9127 TCA CAT CAT AGA GAT CTG CCT TCT GCC CTT GCC TCC CAA GTG GGA ATA AAG GCA TAC ACC TCC ATG CCC AGA ACT AAT GTG
 9205 TCC CAA GTT TTA GCA AAA GAT TCT AGA CTT GAC ATT CAA TGA AGA TAG ACA TTA AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9283 GAG TTT ACC TGA ATC ATA CTC TAT ACT TTA TCA GAG ATT AAA TTA ACA TTT AAT AAT CCA GTG CCA GGC TAG AGG CAC
 9361 CAT TCA ATG GCA GTG TTT GCC ATC AUG CAT AGC CTT AGT CTT CAG TGC TGA AAG GCA TTG GGG GCA ATA TTA CTC ATT
 9439 ATA CAG ATG AGA AAC TGG GAA AGA CTT GCC TGA GAT TCT CTA CTG AAA GGC TGA GTT TGT GGC TTC TAG AAA CTC TTT
 9517 TAC TTT CAA TAT TTT TAA TGT ATA ATT TTT TTA TTT CCA CTG ATT TTA TTT TTT AAT AAT AAT AAT AAT AAT AAT AAT AAT AAT
 9595 ATG CAA TAA ACC AAA TAC ATG GAC AAA ATA CAA GAA TCA TAT GAT CAC CAC AAT GGA AGG AAA AAA GAA GAA GAA GAA GAA
 9673 AAA AGT CTT TGA TAA GAT TCA ACA TTC ATT CTT TTT TTA TTA GAT ATT TTC TTC ATT TAC ATT TCA AAT GCT ATC CCC
 9751 AAA GCC CCC TAT ACC TTC CCC TGC CCT GCT CCC CAA CCC ACC CAC TCC TGC TTT CTG GCC CTC GCA TTC CTC TCT ACT
 9829 GAG GCA TAT GAT CTT CAA AAA ACC AAG GGC CTC TCC TCT CAT TGG TGG CCG ACT AIT AGG CCA TCT TTT GCT ACA TAT
 9907 GCA ACT AGA GAC ACA GCT CTG GGG GTT ACT GGT TAG TTC ATA TTG TTA GTC CTC CTA TAG AGT TGC AGA CCC CTT TAG
 9985 CTC CTT GGA TAC TTT CTC TAG TTC CTT CAT TAG GGG CCC TGT GTC CCA TCC AAT AGA TGA CTG TGA GCA TCC ACT TCT
 10063 GTA TTT GCC AGG CAC TGG CAT AGC CTC ACG AGA AAG AGA GAG CTA TGT CAG GAT CCT GTC AGT AAA ATC TTT CTG GCA
 10141 TAT GCA ATA GTA TCT GGG TTT GGT GGT TGT TGT ATA TGG GAT GGA TCC CCA AGT GGA GCA GTC TCT GAA TGG TCC TTC CTT
 10219 CCA TCT CAG CTC CAA ACT TTG TCT CTA TAA CTC CTT CCA TGG GTA TTT TGT TCC CCA TTC TAA GAA GGA GTG AAG AAT
 10297 CCA CAG TTT GGT CTT COT TCT TGA GTT TCA TAT GAT GCA TCT TGG ATA TTC TAA GTT TCT GGG TTA ATA TCC ACG
 10375 TAT CAG TGA GTG CAT ATC ATG CGT GTT ATT TTG TGA TTA GTT TAC CTT CAG GAT ATC ATC CTC CAG ATG CAT CCA
 10453 TTT GCC TAA GAA TTT CAT TAA TTC CAT TAT TAT TGA ATA GTA CTC CAT TGT GAT ATA CCA CAT TAT TTT CTG
 10531 TAT CCA TTC CTC TGT TGA GGG GCA TCT GGG TTC TTT CCA GCT TCT GGC TAT TAT AAA TAA GGC TGC TAT GAG CAT AGC
 10609 GGA GCA TGT GTC CTT ATC AAG TTG GAA CAT CTT CTA GGT ATA TGC CCA GGA GAG ATA TTC CAA CAT AAT AAA GCT TAT
 10687 CCA TCA ACA TGC ATT CTT AAT AAA AGC CCT AGA ACA AGG AGG ACT GTA GGA AAC ATA TTC CAA CAT AAT AAA GCT TAT
 10765 GTA TGA CAA ACT CAT GAC CAA TAT CAT CCT AAT TGA ATA CCA TTA ATA AGC TCC ATT AAA ATC AGA GGA CTG CCC
 10843 ACT ATC CCT ACT TCT CAT CCA TAA TGA GAT TGA AGC ATT AGC TGG AGC AAT AAG GCA AGA GAA GGG ATA CAA ATG GGA
 10921 AAA TAT TAA GTC AAA TTG TTT TCA ATT GAA GAT TAT ATT ATC TTA TAC CCA ATT ACC TCA AAT TTT GAC TAG AAA AAT
 10999 TGT AGA AAT TAT CAA TAA TTT CAG CAA AGT GTT ATG ATG CAC CAT ATC CTT AIT CTT CTC CCC AGC TTC TGC TTG CTT
 11077 CTC TCT TCT TGC TCT TCA TCC TTT CTG TCC CAT CTG CCT GCA CTC TTG TCT CAA GAC TGA GTG CAG CGT GTA ACT
 11155 CTC CTG TGA CTG AGT ATC TCA CAA AAC GTT CTA CCT GCC AAA CCT GGA TGA GCC CTT TGT TCT TGT GAA GOT ATG AGG
 11233 CTC TCT ACA TAG ACT CAA GAA GGA AAT GAC AGG GAG GTA ATA ATG AAG TGG GGA AGG TCA TAG AGG CTA TTA GCA TTG CTC
 11311 CTG TGT GGC TCC TTA ATT TCT CAT ACT TCA CAC TGA GAT TGT AAC TGT GAC TCA TAG GTG AAG AAG CCA GAG CTA
 11389 AGG TTC TCA TAT TTG AGT GAT ATA GAA TGA GTA GAG CAG TAG TTC TCA AAC TAT GGG TCA TGA CTC CTT TAT GGG TCA
 11467 AAC TAC CCT TTC ACA CAG GGT GCA TAT CAG ATA TCC TAA TTT TAT ATA CAT ATA TAT ATG CAT ATG TAT ATA TAT ATA
 11545 TTT CAC AAC AGT AGG AAA ATT ATT TAG TAA TCA TTT TAT AGT TGT GGG TCA TGG CAA CAT GAG GAA CTG TAT TAA AGG
 11623 GTT GCA GCA TTA AGA TTG TTG AGA CCC ACT GTA ATA GAG AAT GAG CTT TAA GGC GCT ATA AGC CCC AAT GGA CCA
 11701 TGT GCC TTT TCC AAC ATT TGC CAC ATG GTA AGC TCT GTA TAG ACT TTT TAA AGA ACA TTG GTT TGT AAT TTT AAA TGG
 11779 ATA AGG GTC TTC ACT GTC TAT CAC CCA TCT ATA TAA TAA ATA CAT AAG TTT TGA TTC CAC CAT GGA TTC AAA TGC AAA
 11857 AAT CCT CAA CCT AAG ACA TAG CAG TGA AAC ATT GAT GAC CAA ATA GGA AAT CCA TGT AGA GAC CTT CTA TCT TCT GAT
 11935 GGC TCC ACA GGC ACC ATC TTG CAA CAG AGT TCT ACT TCA CCA GTA ATG ATA ATG AAT ACA GTG TCT CAA CTC CCA TTG
 12013 AAT CTT CAG GAA GCC CCT GAA ATG ACT TGT ACT ACA CCA TTT CTT AAA GAC AGA AAA CCT AAG ACT TAG AGG GAA TAA
 12091 ATG TCA TGC CTG AGA TCA TGC AAC CAA TTA AGT CCA ACT TGG CTT CAG GCA CAA TTC AAA AGC AAT GTT GTT
 12159 CCT TCA CTA CTT GTG TAT GGT TGC TGA TTC CCG AAG CAA AGT ATC AGT GAA TAT CCC TAG TGG GAA AAG ACT TGG
 12247 AAA TCA AAT GTC TCA TTT AAC AGA TTA GGA GAT GAA AGT GAT TGT TAG TTG TAC ACC CTT GTG ATC CCA TCG
 12325 CTA GGA AGA CTG AGG CAG GAA GTC CTC GAG CTC AAA CCA GCT TAG GCT ACA CAG AGA AAC TAT CTA AAA AAT AAT TAC

Figure 12 contd

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

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

Figure 12 contd

2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT ACT ATA ATC
 2575 CCA TAA TTT TGA AAA CTA TTT ATT TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 3653 GAC AGG AGA AAA TGA AAG CCA GTT GCT TGT ACC TTA TGT GCT TGT AGT CAG TAA CAT CAG TAA TAG TGT CAG
 2731 ATA AAC TGG TCT GAA TCT CTG TCT GAA GCA TGG AAC GAA TTT AGT TTC AGG GAA GAA TAG AAG GAA
 2809 GCC TGA GAA TAT CTT CAA AGG GTC AGA CTC AAT TTA CTT TCT AAA GAA GTA GCT AGG AAC TAG GGA ATA ACT TAG AAA
 2887 CAA CAA GAT TGT ATA TAT GTG CAT CCT GGC CCC AAT GTT CTT TAT CTG TAG GGA TAA GCG TGC TTT TTT GTG TGT CTG
 2965 TAT ATA ACA TAA CTG TTT ACA CAT AAT ACA CTT AAT CCA CAG CCA TTT TTT CAT ACC ATC CTC TGT GCT TCC
 3043 TTC CTC AGG GGC CGA GCG CTC CCA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CGA GAG GGA
 3121 CGT GGT CTG CTT CGT GAA CAA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CGA GAG GGA
 3199 CGG CGT GCT GGA CAG CGT GAC CGA GGA CTC CAC CTA CAG CAT GAG CAG CAC CCT GAG CTT GAC CTA
 3277 GGT GGA GTA CGA GAG GCA CAA CCT GTA CAC CTG CGA GGT GGT GCA CAA GAC CAG CTC CCG CAG CCC GGT GAT GTC CTT
 3355 CAA CCG GAA CGA GTG TTG AAG ACA AAG GTC CTG AGA CCG CAG CAG CTC CCG AGC TCC ATC CTA TCT TCC CTT CTA
 3433 AGG TCT TGG AGG CTT CCC CAC AAG CGA CCT ACC ACT GTT GCG GTG CTC CAA ACC TCC CCA CCT CTT CTT CTT CTT
 3511 CCT CCC TTT CTT TGG CTT TTA TCA TGC TAA TAT TTG CAG AAA ATA TTC AAT AAA GTG AGT CTT TGC ACT TGA GAT CTC
 3589 TGT CTT TCT TAC TAA ATG GTA ATC AGT TGT TTT TCC AGT TAC CTG GGT TTC TCT TCT AAA GAA GTT AAA TGT TTA
 3667 GTT GCC CTG AAA TCC ACC ACA CTT AAA GGA TAA ATA AAA CCC TCC ACT TGC TGT TCT TCT TCT TCT TCT TCT TCT
 3745 TCC TTT CTA AGG TTC AGG ACT ACT ATT CAT GGC TTA TTT CTC TGG GCC ATG GTA GGT TTG AGG AGG CAT ACT TCC TAG
 3823 TTT TCT TCC CCT AAG TCG TCA AAG TCC TGA AGG GGC ACA GTC TTT ACA AGC ACA TGT TCT GTA ATC TGA TTC AAC CTA
 3901 CCC AGT AAA CTT GGC GBA GCA AAG TAG AAT CAT TAT CAC AGG CAA AGG CAA CCT AAA TGT GCA AGC AAT AGG AAA
 3979 TTT TGG AAG CCC ATC ATA GTA CTT GGA CTT CAT CTG CTT TTG TGC CTT CAC TAA GTT TTT AAA CAT GAG CTG GCT CTT
 4057 ATC TGC CAT TGG CAA GGC TGG GCA CTA CCC ACA ACC TAC TTC AAG GAC CTC TAT ACC GTG AGA TTA CAC ACA TAC ATC
 4135 AAA AAT TGG GAA AAG TTC TAC CAA GCT GAG AGC TGA TAA ATA AAA CCC TCC ACT TGC TGT TCT TCT TCT TCT TCT TCT
 4213 TAA GAA GCA ACC AGT ATT GAG AGA CTC ATT TAT GAA AGT CTA AAA CTC GAT ACA ACC AAA ATG TCC ACC AAC AGT TAA
 4291 ATT ATG ACA TGT TCA CAA TTG AGC TAT TAC TTA ATA AGG AGA ATT AAT AAA ATA AAA CTT AAG AGC ATA GTT TAA TCT
 4369 CAT AAA CAA GAT AAT BAG CAA AAC AAA ACA TTT TTT CAT CCA TGT AAG TTT AAA AGC AGG TAA AAT TTA AAA TTA AGA
 4447 GAG ACA TAA GTT TTG AGG TAG CAA GAT GGA TCT ATG TTC CTG TAT ACT TCA TAA TAA CTT CAC CTA AAG AAA TAT
 4525 GTT ACT ATT GTG GAA TTG GGA TCT ATG TTC CTG TAT ATA TTG TAT ACT TCA TAA TAA CTT CAC CTA AAG AAA TAT
 4603 CTA ATA CCC AGT GCA TAC ATA AAA GAG GAT ACA AGG AAT GAA TCA TAT GTC AAC GGC ACA ATA AAG TAG GGG
 4681 ATC CAG GAT CAA ATC TCC CAC AAC CTT GAG CCT TCT ACT ATT CTG CCT TCC AGA GCT CAA AGT ACA AAA CAC ATA ATT
 4759 CAA ACA CAT GAT CCC TCC TTG GGG TCT CTT CTT TCA TGC ATC GAA TTA GAA ATA GCC ATG TAT AAA ATG AGA TAG AAG
 4837 AGA CCT TCA TCA ACA GGT CAA AGA ATA TAG GTA ATT TTG TCT GGG TAT GAA GAG CCC ACG TAT CAA AGG TTA CAT TAG
 4915 GGA AGG AAG AGG ACA CTA ACA GTG ACT TTC ATT CTC CCC CTG GAG GCC CCT GCA TTT AGT CCC TCG TGG GCT
 4993 CAT CCA CTC AGC ACA CAT TTA CTA AGC ATC TTC TCA GCC TAC ACT CTG AAG GCA GTG CAG AAT AAT AGT AGT GGA AAG GAC AGT
 5071 TCC CCC AGT TAA TAT GCA GTG CAG TTT CCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5149 CAC CAA ATA GGA GAG GGC AAC CCT TTG CCT TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC TCC
 5227 TTA ATT GCT TTT TTT TTA TTT GTG TTT TCA AAT AGC ATA ACC TTG TTC ATC CAT TTC TGG GAA CCA AAT TTA TCA ATC
 5305 AAC AGT GCC TCT AAT CTG GCT ATT AAT ACA AAA ATG CCT CCA AAT ATA TAT GTT CGA GTC TTA TCT AAA ACA GAA
 5383 CCC ACA ATA AAA AAG AAG GAA TAC ATA TAA GCA TTT ATA TTG GCA ACC TTG TGC TTT GTG AAA AAA ATA
 5461 TAA TCT AAT GTC ACA TGC TGT ATT CTT TTT TTT TAA CAC TGG TGA AAT TAT AAT AGC ACT AGA GAG AAA GAG GAC AGA TCA
 5539 CTG ATC CTA GGA TCT AGG GAT GTT ACA GAT AAG AAA ACA AAT GTG ACA AAG AGC TGT CAC AAG GAG GAT CTT CAA GGT
 5617 CAC AGA ATC ACT GTC TTG ATT TCA GTG GTG GTT ACA TAC ATT TAA TGT AAT AAA TTT TTG AAC TAT ATT CAT
 5695 ATA TTG TAC CAA TGT CAA ATG CTT AAT TTT GGC TCT ATA GTA TTA TGC ACT AAA TAA CTA TTT TTT GGA CAA AGA AAA
 5773 TGA TGT TTA CAT CAA AAG TGA GGC CAT ATT TGT TAG GAA CAT AAC TTA AAA ACC AAT TTG GAT AAT TAA TGA AAA GCC
 5851 ATT TTG TGT GCC TTG GCA TAT CAT GCT TAA GCT GTC ACC AGA TAG ATC TAA TAA GAC CTA AGC CTC AGA AGC AAG CCC
 5929 CTG CCC AGC AAG CAG GCA GAT ATA AGA GCT AAA CCC AGG ACA GGC CAT GAT ATG CTA ATG AAC TAC CTT CAA GGT
 6007 GGT GTT GCT GAC CTA GTG AAC CAG CCC CAA GCT GTG ACC AAT AGC ACA AAG CTA CTG CCC AAA GAA ATT ATA CAA
 6085 AAA TTG GAA CTT TGG GAA TGG TGT TGT ATG TGC TGC TGT ATG CTA GAG ACA CAG CTT CTC TAT GTT TTG TAT TGA
 6163 TAC CAG TCT AGA AGC TTC CAA AAC TTT CTC ACT GAA GAA GAT TCC CCA TGT GGG ACC CCT ACA GAC TCT TTT GCC CAA

Figure 12 contd

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

Figure 12 contd

9985 TTC ATT AAT TCA CTG TTT TTA ATT GCT GAA TAG TAC TCC ATT GTG TAA ATG TAC CAC ATT TTC TGT ATC CAT TCC TCT TCT
 10053 GTT GAG GGG CAT CTG GGT TCT TTC CAG CTT GAT TTT TAG GTA TAT TTC CAG AGG AAT TGC TGG ATC TTC CGG TAG TAC TAC GAG CAT CAT GTG TCC
 10141 TTA TCA AGT TGG AAC ATC TTT TAG GAA CAA GGA GGA CTA TAT TCC AAC ATA ATA AAG GTT ATG TAT CAA CAA CAT GCA
 10219 TTC TTA ATA AAA GCC CTA GAA CAA GGA GGA CTA TAT TCC AAC ATA ATA AAG GTT ATG TAT CAA CAA CAT GCA
 10297 ATG ACC AAT ATC ATC CTA AAT GAA TGA AAC CAT TAA TAA GCT CCA TTA AAA TCA GAG GAC TGC CCA CTA TCC CTA CTT
 10375 CTC ATC CAT AAT GAG ATT GAA GCA TTA GCT GGA GCA ATA AGG CAA GAG AAG GGA TAC AAA TGG GAA AAT ATT AAG TCA
 10453 AAT TGT TTT CAA TTG AAG AAT ATA TTA TCT TAT ACC CAA TGA TGC CTT CAA ATT TTG ACT AGA AAT GTA GAA AAT ATC
 10531 AAT AAT TTC AGC AAA GTG TTA TGA TGC ACC ACA TCC TTC TCC CCA GCT AGC TGC TAA CTC TCC TGT GAC TGA
 10609 CTT CAT CTT TTC TGT CTT TCC ATC TGC CTG CAC TCT TGT CTC AAG ACT GAG TGC AGC GTG TAA CTC TCC TGT GAC TGA
 10687 GTA TCT CAC AAA AGC TTC TAC CTG CCA AAC CTG GAT GAG CCC TTT GTC TTT CTG AAG CTA TGA GGC TCT CTA CAT AGA
 10765 CTC AAG AAG GAA ATG ACA GGG AGG AGG TAA TAA TGA AGT GGG GAA GGC TGA CAT TAG CAT TGC TCC TGT GTG CTT CCT
 10843 TAA TTT CTC ATA CTT CAC ACT GAG ATG TTA TTA ACT GTG ACT GAT AGG TGA AGC CAG TAA GGT TCT CAT ATT
 10921 TGA GTG TTA TAG AAT GAG TAG AGC AGT AGT TCT CAA ACT ATG GGT CAT GAC TCC TTT ATG GGT CAA ACT ACC CTT TCA
 10999 CAC AGG TTG CAT ATC AGA TAT CTT AAT TTT ATA TAC ATA TGC ATA TGT ATA TAT TTT CCA AAT GCA AAA ATC CTC AAC CTA
 11077 GGA AAA TTA TTT AGT AAT CAT TTT ATA GTT GTG GGT CAT GGC AAC ATA AGG AAC TGT AAT AAA GGG TTG CAG CAT TAG
 11253 ACA TTT GCC ACA TGG TAA GCT CTG TAT AGA CTT TTT AAA GAA CAT TGG TTT GTA ATT TTA AAT GGA TAA GGG TCT TCA
 11311 CTG TCT ATC ACC CAT CTA TAT AAT AAA TAC ATA AGT TTT GAT TCC ACC ATG GAT TCA AAT GCA AAA ATC CTC AAC CTA
 11389 AGA CAT AGC AGT GAA ACA TTT GGC TAC CAG TAA TGA ATA CAG TGT CTC AAC TCC CAT TGA ATC TTC AGG AAG
 11467 CCA TCT TGC AAC AGA GTT CTA CTT TGC TAC CAG TAA TGA ATA CAG TGT CTC AAC TCC CAT TGA ATC TTC AGG AAG
 11545 CCC CTG AAA TGA CTT GTA CTA CAC CAT TTC TTA AAG ACA GAA AAG CTA AGA CTT AGA GGG AAT AAA TGT CAT GCC TGA
 11623 GAT CAT GCA ACC AAT TAA GTG CCA CTT GGC CTG ATC AAG AGG CAC AAT TCA AAA GCA ATG TTG TTC CTT CAC TAG CTC
 11701 TTG TGT ATG GTT GCT GAT TCC GGA AGC AAA GTA TCA CTG AAT ATC CCT AGT GGG AAA AGA CTT GGA AAT CAA ATG TCT
 11779 CAT TTA ACA GAT TAG GAG ATG AAA CGG TAG ACT CTG TGT AGT TGT ACA CCC CTG TGA TCC CAT CGC TAG GAA GAC TGA
 11857 GGC AGG AAG TCC TCG AGC TCA AAC CAG CTT AGG CTA CAC AGA GAA ACT ATC TAA AAA ATA ATT ACT AAC TAC TTA ATA
 11935 GGA GAT TGG ATG TTA AGA TCT GGT CAC TAA GAG GCA GAA TTG AGA TTC GAA GCC AGT ATT TTC TAC CTG GTA TGT TTT
 12013 AAA TTG CAG TAA GGA TCT AAG TGT AGA TAT ATA ATA AGA TTC TAT TGA TCT CTG CAA CAA CAG AGA GTG TTA GAT
 12091 TTG TTT GGA AAA AAA TAT TAT CAG CCA ACA TCT TCT ACC ATT TCA GTA TAG CAC AGA GTA CCC ACC CAT ATC TCC CCA
 12159 CCC ATC CCC CAT ACC AGA CTG GTT ATT GAT TTT CAT GGT GAC TGG CCT GAG AAG ATT AAA AAA AGT AAT GCT ACC TTA
 12247 TTG GGA GTG TCC CAT GGA CCA AGA TAG CAA CTG TCA CCG TCA CCG TCC CAT CCT CCA ACA GCC TGG GTG CAC TCC ACA
 12325 AAC TGA AAA CAG AAC CTT AGG CAC ATC TGT TGC TTT CGC TCC CAT CTT CCT CCA ACA GCC TGG GTG CAC TCC ACA
 12403 CCC TTT CAA GTT TCC AAA GCC TCA TAC ACC TGC TCC CTA CCC CAG CAC CTG GCC AAG GCT GTA TCC AGC ACT GGG ATG
 12481 AAA ATG ATA CCC CAC CTC CAT CTT GTT TGA TAT TAC TCT ATC TCA AGC CCC AGG TTA GTC CCC AGT CCC AAT GCT TTT
 12559 GCA CAG TCA AAA CTC AAC TTG GAA TAA TCA GTA TCC TTG AAG AGT TCT GAT ATG GTC ACT GGG CCC ATA TAC CAT GTA
 12637 AGA CAT GTG GAA AAG ATG TTT CAT GGG GCC CAG ACA CGT TCT AGA AGT ACC TGA TGG CAA AAA ATA GTT GTG CTA
 12715 AAT AGT TTG GCC ATC TTT AGG CTG AGA GAC TAG GAA ATA CAG CGA TGG ACT ATA TCA GCA TTG CAG GAT AGT TGT CAG
 12793 TAA ACA CCC CAC AAC CCA TAA CAG AAG TAT TCT CTT ATA TCC CTT TTC CAT CCA TGT AGA TGG CTG TCT TCA
 12871 TAT TTG TTC TAG AGC GCC GGC C

Figure 12 contd

VKP-IGKV1-39/J-Ck-Δ2

1 GGC CGG CCC ACA TGA AAC AAT GGG AAC CAT GTG ACA ATC ACA GAG GTG TTG TTA CTA TAG CAA AAG GGA TTG TTA CTC
 79 TCC ACA TCC CTT TAA GTA ACT TGA AGG CCT GAT AGA CCC ACC CTC TAA GAC TTC ATT AGA CAT TCC CTA CGA ATG GTT
 157 ATA CTC TCC TGT ATA CTC CCA ATA CAA TAT TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA TTA
 235 TTT TTT CTT TCA AAA TAT CTC TTG TCA CAA CAG CGG CTC TAG AGA GAA ATA CAT TCC CTC CAG GCA AAT CTA TGC TGC
 313 GCT GGT CTG ACC TGG GAC CTT GGG GAC ATT CCG CTT GTG CTG AGT TAA GAT TAA GAT TAA GAT TAA GAT TAA GAT TAA
 391 GCC TGC CCC ATG TGC TTG ATT TGC ATG TTT CAG AGC ACA GCC CCC TGC CCT GAA GAC TTT TTT ATG GGC TGG
 469 TCG CAC CTT GTG CAG GAG TCA GTC TGA AGG AGC CAC CAT GGA ATT TAC TAC GGC AGA GAG TGA CCA TCA CCT GCA GAG CCA GCC AGA
 547 GCT ACT CTG GCT CCG AGG TAA GGA TGG AGA ACA CTA GGA ATT TAC TAC TTT TTA TGT TTT CAA TCT CAG GTG CCA GAT GTG AGA
 625 AGG GAA GTT CTC TGA TAA CAT GAT TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA TAA
 703 TCC AGA TGA CCC AGA GCC CCA GCA GCC TGA GCG CCA GCG TGG GCG ACA GAG TGA CCA TCA CCT GCA GAG CCA GCC AGA
 781 GCA TCA GCA GCT ACC TGA ACT GGT ATC AGC AGA AGC CCG GCA AGG CCC CCA CGC ACT TCA CCC TGA CCA TCA GCA GCC TGC AGC
 859 TGC AGA GCG GCG TGC CCA GCA GAT TCA GCG GCA GCG CCG CCG CCA CCC CCA CCT TCG GCC AGG CCA CCA AGG TGG AGA
 937 CCG AGG ACT TCG CCA CCT ACT ACT GCC AGC AGA GCT ACA GCA CCC CCG CCA CCT TCG GCC AGG CCA CCA AGG TGG AGA
 1015 TCA AAC GTA AGT ACA CTT TTG 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 CAG TTG AGC TGG CAT ACA GTG TCA GAT TTT CTG TTT ATC AAG CTA
 1171 GTG GCA TAA GAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1249 GGA GAA TAA GCA TGA GTA GTT ATT GAG ATC TGG GTC TGA CTG CAG GTA GCG TGG TCT TCT AGA CGT TTA AGT GGG AGA
 1327 TTT GGA GGG GAT GAG GAA TGA AGG AAC TTC AGG ATA GAA AAG GCG TGA AGT CAA GTT CAG CTC CTA AAA TGG ATG TGG
 1405 GAG CAA ACT TTG AAG ATA AAC TGA ATG ACC CAG AGG ATG AAA CAG CGC AGA TGA AAG AGG GGC CTG GAG CTC TGA GAA
 1483 GAG AAG GAG ACT CAT CCG TGT TGA GTT TCC ACA AGT ACT GTC TTG AGT TTT TCA ATA AAA GAG GGC TAG CAG AGT TGA
 1561 GTG AGC CGT AGG CTG AGT TCT CTC CTA AGT TTT TAT GAC TAC AAA AAT CAG TAG TAT GTC CTG AAA TAA
 1639 TCA TTA AGC TGT TTG AA8 GTA TGA CTG CTG GCT GCC ATG TAG ATA CCA TGG CTT GGT GAA TAA TCA GAA GAG GTG TGA CTC
 1717 TTA TTA TAA AAT TTG TCA CAA AAT GTC AAA ATG AGA GAC TCT GTA GCA ACG AGT CCT TGA CAG ACA GCT CAA GGG GTT
 1795 TTT TTT TGT TGT CTT ATT TCT ACA TGA AAG TAA AAT GAT GAT CTT TTT TAT TAT TAT TAT TAT TAT TAT TAT TAT TAT
 1873 TTT GAA CTA TAT GTT TTA ATG GCC ACG GTT TTG TAA GAC ATT TGG TCC TTT GTT TTT CCA GTT ATT ACT CGA TTG TAA
 1951 TTT TAT ATC GCC AGC AAT GGA CTG AAA CCG TCC GCA ACC TCT TCT TTA CAA CTG GGT GAC CTC GCG GCT GTG CCA GCC
 2029 ATT TGG CGT TCA CCC TGC CGC TAA GGG CCA TGT GAA CCC CGG TAG CAT CCC TTG CTC CGC GTG GAC CAC TTT CCT
 2107 GAG GCA CAG TGA TAG GAA CAG AGC CAC TAA TCT GAA GAG AAC AGA GAT GTG ACA GAC TAC ACT AAT GTG AGA AAA ACA
 2185 AGG AAA GGG TGA CTT ATT GGA GAT TTC AGA AAT AAA ATG CAT TTA TTA TAT TCC CTT ATT TTA ATT TTC TAT TAG
 2263 GGA ATT AGA AAG GGC ATA AAC TGC TTT ATG TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 2341 CTA CAG CCA GCA AAA GTC ATG GTA AAT ATT CTT TGA CTG AAC TCT CAC TAA ACT CCT CTA AAT TAT ATG TCA TAT TAA
 2419 CTG GTT AAA TTA ATA TAA ATT TGT GAC ATG ACC TTA ACT GGT TAG GTA GGA TAT TTT TCT TCA TGC AAA AAT ATG ACT
 2497 AAT AAT AAT TTA GCA CAA AAA TAT TTC CCA ATA CTT TAA TTC TGT GAT AGA AAA ATG TTT AAC TCA GCT ACT ATA ATC
 2575 CCA TAA TTT TGA AAA CTA TTT ATT TGG CTA CAC CAA AGG AAG CCA TAC AGA GGC TAA TAT CAG AGT ATT CTT GGA AGA
 2653 GAC AGG AGA AAA TGA AAG CCA GTT TCT GCT CTT ACC TTA TGT GCT TGT TGT TGT TGT TGT TGT TGT TGT TGT TGT
 2731 ATA AAC TGG TCT GAA TCT CTG TCT GAA GCA TGG AAC TGA AAA GAA TGT AGT TTC AGG GAA GAA AGG CAA TAG AAG GAA
 2809 GCC TGA GAA TAT CTT CAA AGG GTC AGA CTC AAT TTA CTT TCT AAA GAA GTA GCT AGG AAC TAG GGA ATA ACT TAG AAA
 2887 CAA CAA GAT TGT ATA TAT GTG CAT CTT GGC CCC ATT GGT CTT TAG GGA TAA GCG TGC TTT TTT GTG TGT CTG
 2965 TAT ATA ACA TAA CTG TTT ACA CAT AAT ACA CTG AAA TGG AGC CCT TCC TTG TTA CTT CAT ACC ATC CTC TGT GCT TCC
 3043 TTC CTC AGG GGC CCA CCG CTT CTT CCG CAG CAT CTT CCG CAG CAT GGA ACA CAG TAC GAT CAC CTC TGG CCG AGC CAC
 3121 CGT GGT CTG CTT CGT GAA CAA CTT CTA CCC CAG AGA CAT CAG CGT GAA GTG GAA GAT CGA CGG CAG CCA GAG GGA
 3199 CGG GGT GCT GGA CAG CGT GAC CGA CCA GGA CTA CAG CTA CAG CAC CCA GAG CAC CCT GAG CAC CCT GAG CCA
 3277 GGT GGA GTA CGA GAG GCA CAA CCG TTA CAC CTG CGA GGT GGT GCA CAA GAG CAC CTC CCG CCG GTT CAA GTC CTT
 3355 CAA CCG GAA CGA GTG TTG AAG ACA AAG GTC CTG AGA GGC CAC CAG CTC CCC AGC TCC ATC CTA TCT TCC CTT CTA
 3433 AGG TCT TGG AGG CTT CCC CAC AAG CGA CCT ACC ACT GTT GCG GTG CTC CAA ACC TCC TCC CCA CCT CTT CTT CTT CTT
 3511 CCT CCC TTT CCT TGG CTT TTA TCA TGC TAA TAT TTG CAG AAA ATA TTC AAT AAA GTG AGT CTT TGC ACT TGA GAT CTC

Figure 12 contd

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

VKP-IGLV2-14/J-CK

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

52.5	AGG	GAA	GTT	CTC	TGA	TAA	CAT	GAT	TAA	TAG	TAA	GAA	TAT	TTG	TTT	TTA	TGT	TTT	CTC	CAA	TCT	CAG	GTG	CCA	GAT	GTC	AGT
70.3	CTG	CCC	TGA	CCC	AGC	CGC	CCT	CTG	TGT	CTG	GCA	GCC	CTG	GCC	AGA	GCA	TCA	TCA	GCT	GCA	CCG	GCA	CCG	CCA	GCA	GCG	TGT
78.1	ACG	TGG	GCG	GCT	ACA	ACT	ACG	TGT	CCT	GGT	ATC	AGC	AGC	ACC	CGA	GCA	AGG	CCC	CCG	ACA	AGC	TGA	TGA	TCT	ACG	AGG	TCG
85.9	CCA	ACA	GAC	CCA	GCG	TGA	GCA	GAT	TCA	GCG	GCA	AGA	GCG	GCA	AGA	GCG	GCA	AGC	CCA	CCG	CCA	TCA	TCA	CGC	GCC	GCC	GCC
93.7	TCC	AGG	CTG	AGG	ACG	AGG	CCG	ACT	ACT	ACT	GCA	GCA	GCT	ACA	CCA	GCA	GCT	CCA	CCC	TGG	TGT	TTG	GCG	GCG	GAA	CAA	
110.15	AGC	TGA	CCG	TGC	TGC	GTA	AGT	ACA	CTT	TTT	TCT	TTT	ATG	TGT	AAG	ACA	CAG	ATC	TTT	ATG	TTT	CTT	ATG	TTA	GGA	GTT	AAA
118.93	ATC	AGG	CTA	GAA	AAT	CTT	GAG	AAA	ATG	GAG	GCT	GCT	TAT	CAG	TTG	ACG	TGG	CAT	ACA	GTG	TCA	GAT	TTT	CTG	TTT	CTG	TTT
126.71	GAT	TGG	ATC	GGA	GAA	TAA	TAA	GCA	TGA	GTA	GTT	ATT	GAG	ATC	TGG	GTG	TGA	CTG	CAG	GTA	GCG	TGT	TCT	AGA	CGT	TTA	
134.49	AGT	GCG	AGA	TTT	GGA	GGG	GAT	GAG	GAA	TGA	AGT	AAC	TTC	AGG	ATA	GAA	AAG	GCG	TGA	AGG	CAA	GTT	CAG	CTC	TCA	AAA	
142.27	TGG	ATG	TGG	GAG	CAA	ACT	TTG	AAG	ATA	AAC	TGA	ATG	ACC	CAG	AGG	ATA	AAA	CAG	CGC	AGA	TCA	AAG	AGG	GCG	CTG	GAG	
150.05	CTC	TGA	GAA	GAG	AAG	GAG	ACT	CAT	CCG	TGT	TGA	GTT	TCC	ACA	AGT	ACT	GTC	TTG	AGT	TTT	GCA	ATA	AAA	GCT	GGA	TAG	
157.83	CAG	AGT	TGA	GTG	AGC	CGT	AGG	CTG	AGT	TCT	CTC	TTT	TGT	TGT	CTC	CTA	AGT	TTT	TAT	GAC	TAC	AAA	AAT	CAG	TAG	TAT	GTG
165.61	CTG	GAA	TAA	TCA	TTA	AGC	TGT	TTG	AAA	GTA	TGA	CTG	CTT	GCC	ATG	TAG	ATA	CCA	TGG	CTT	GCT	GAA	TCA	GAA	GAG	GAG	
173.39	ATG	TGA	CTC	TTA	TTC	TAA	AAT	TTG	TCA	CAA	AAI	ATG	AAA	ATG	AGA	TCT	TGA	GGA	ACT	TGA	CAG	ACT	TGA	CAG	ACT	GCT	
181.17	CAA	GGG	GTT	TTT	CTC	TAT	TGT	CTC	ATT	TCT	ACA	TGA	AAG	TAA	ATT	TGA	AAT	GAT	CTT	TTT	TAT	TAT	AAG	AGT	AGA	AAT	
188.95	ACA	GTT	GGG	TTT	GAA	CTA	TAT	GTT	TTA	ATG	GCC	ACG	GTT	TTG	TAA	GAC	ATT	TGG	TCC	TTT	GTT	TTC	CCA	GTT	ATT	ACT	
196.73	CGA	TTG	TAA	TTT	TAT	ATG	GCC	AGC	AAT	GGA	CTG	AAA	CGG	TCC	GCA	ACC	TCT	TTA	CAA	CTG	GTT	GAC	CTC	GCG	GCT	CTC	
204.51	GTC	ACA	GCC	ATT	TSG	CGT	TCA	CCC	TGC	CGC	CCA	TGT	GAA	CCC	CCG	GAG	TAG	CAT	CCC	CTG	TAG	CAI	CCG	GTG	GAC	GAC	
212.29	CAC	TTT	CCG	ATT	GCA	CAG	TGA	TAG	GAA	CAG	ACC	CAC	TAA	TCT	GAA	GAG	NAC	AGA	GAT	ACA	GAC	TAC	ACT	AAI	GTG	GTG	
220.07	AGA	AAA	ACA	AGG	AAA	GGG	TGA	CTT	ATT	GGA	GAT	TTT	AGA	AAT	AAA	ATG	CAI	TTA	TTA	TAT	TCC	CTT	ATT	TTA	ATT	ATT	
227.85	TTT	TAT	TAG	GGA	ATT	ACA	AAG	GGC	ATA	AAC	TGC	TTT	ATC	CAG	TGT	TAT	ATT	AAA	AGC	TAT	ATA	ATG	TAT	ATA	TTT	TAG	
235.63	AGG	TAA	AAT	CTA	CAG	ACA	AAA	ATA	TAA	ATT	TGT	GAC	ATG	ACC	TTA	ACT	TGT	TGA	GGA	TAT	TTT	TCT	TCA	TGC	AAA	ATG	
243.41	AAT	ATG	ACT	AAT	AAT	AAT	ATA	TAA	ATA	AAA	TAT	TTT	TTC	CCA	ATA	CTT	TAA	TTT</									

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

8113	AGC	CAG	GAT	GGG	TAT	TTC	TTT	GCC	TAT	CTG	TGA	CTT	GCA	CAT	GGT	CTT	GGC	AAT	TAT	TGA	TGA	GTT	CA	GGC	TTA	ATT	
8191	CTT	AAC	TTG	CTC	CAA	CTC	AGA	AGT	TTT	CTT	CTT	TCT	TAT	AAT	CAG	GCC	CCC	ATG	ATG	CTC	ATG	TAT	GTA	TCA	GCT	CCT	
8269	CTT	ATC	TTC	TTA	TAG	CAA	TTC	TGT	TTA	TAA	CTG	GGT	ATA	CAG	TAT	GTG	AGA	AGG	AGG	ATG	CTC	ACA	TGT	AGT	ACT	ACA	
8347	ACT	TTT	TAA	TAC	AAA	ATT	TTG	AAG	AGT	TTG	TAC	AAT	ATA	ATT	AAT	AAT	TAA	TAT	TAT	CTA	CTG	ACT	TAG	ACT	TTG	TTG	
8425	ATT	TCA	ACT	CAA	GAT	ACT	AAT	TCT	ATA	TAT	ATG	GGT	TAA	ATC	AA	ATA	TTA	ATA	AGT	TTA	ATT	TCA	CAT	GCT	TAT	TTT	
8501	TAT	TGT	GGT	TTT	CGA	GAC	AGG	GTT	TCT	CTG	TCT	CTG	AGC	CCT	GGC	TGT	CCT	GGG	ACC	CAC	TTT	GTA	GAC	CAG	GCT	GCC	CTC
8581	AAA	CTC	AGA	AAT	CTA	CCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	TCT
8659	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	TCT
8737	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	GCC	TCT	TCT
8815	AAA	TTT	TTA	AA	ACT	TTT	ATA	TAT	GTG	TCA	TTT	TTT	TAT	TTT	TAT	CAG	ATA	GGA	CTG	TGT	AGA	CTG	TGC	TAA	ACT	AAA	TGT
8893	GCC	CTC	AAA	AGT	AAT	AGC	AAG	TTG	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	TGT	CTT
8971	TGC	TTT	GCT	TTG	CTT	TGC	TTT	GCT	TTG	CTT	TGC	TTT	GCT	TTG	CTT	TGC	TTT	GCT	TTG	CTT	TGC	TTT	TTT	TTT	GCT	TTG	GCT
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	ATC
9127	AGG	CTT	GAT	TCA	ACT	ACT	AGA	GAT	CTG	CCT	TCT	TCT	GCC	TCC	CAA	GTG	CTG	GGA	ATA	AAG	GCA	TAC	ACC	TCC	ATG	CCC	CCC
9205	AGA	TAG	TGA	TCC	CAA	GTT	TTA	GCA	AAA	GT	TCT	AGA	CTT	AGA	CTT	AGA	CTT	CGA	TGG	AGA	TAT	ACA	TGA	ATT	ACA	CTA	AGC
9283	ACT	AAT	GTG	GAT	TTT	ACC	TGA	ATC	ATA	CTC	TAT	ACT	TTA	TCA	GAG	ATT	AAA	TTA	ACA	TTA	ACT	AA	ACT	CCA	GTG	CCA	GGC
9361	TAG	AGG	CAC	CAT	TCA	ATG	GCA	GTG	TTT	GCC	ATC	ATG	CAT	AGG	CTT	AGT	CTT	CAG	TGC	TGA	AAG	GCA	TTG	GGG	GCA	ATA	
9439	TTA	CTC	ATT	ATA	CAG	ATG	AGA	AAC	TGG	GAA	AGA	CTT	GCC	TCA	GAT	TCT	CTA	CTG	AAA	GGC	TGA	GTT	TGT	GCT	TTC	TAG	TAG
9517	AAA	ATC	TTT	TAC	TTT	CAA	TAT	TTT	TAA	TGT	ATA	ATT	TTT	TTA	TTT	CTA	CTG	ATA	TTT	TTT	TTT	TTT	TTT	TTT	TTT	TAT	TAT
9595	AAG	AAA	TAA	ATG	CAA	TAA	ACC	AAA	TAT	ATG	GAC	AAA	AAA	ATA	CAA	GAA	TCA	TAT	GAT	CAC	CTC	AA	AAA	GGA	AGG	AAA	AAA
9673	AAA	GAA	AGA	AAA	AGT	CTT	TGA	TAA	GAT	TCA	ACA	TTT	CTT	TTT	TTT	TTA	TTA	GAT	ATT	TTT	TTT	TTT	TTT	TAT	TCA	AAT	
9751	GCT	ATC	CCC	AAA	GCC	CCC	TAT	ACC	TTC	CCC	TGC	CCT	GCT	CCC	CAA	CCC	ACC	CAC	TCC	TGC	TGT	TTT	CTG	GCC	CTG	GCA	TTT
9829	CTC	TGT	ACT	GAG	GCA	TAT	GAT	CA	CTT	CAA	AAA	ACC	AA	AGC	GGC												

[illegible]

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

1951	AGT	TTA	AGA	TAT	AGT	GTA	TTT	TCC	CAA	GGT	TTG	AAC	TAG	CTC	TTC	ATT	TCT	TTA	TGT	TTT	AAA	TGC	ACT	GAC	CTC	CCA	
2029	CAT	TCC	CTT	TTT	AGT	AAA	ATA	TTC	TAA	AAT	BAT	TTA	AAT	ACA	TCA	TTG	CAA	TAG	TGG	GAC	TAA	ATG	TTT	TTT	ATT	AGG	CAG
21607	AAT	TGG	ACA	GCA	AGA	AGC	CGT	TCT	AGC	GAA	TTT	CCA	GTT	TAG	TAG	TTC	TAG	TGG	GAC	TTA	GGG	AAA	GGA	ACC	TTT	AAT	AGA
21815	AAT	TGG	ACA	GCA	AGA	AGC	CGT	TCT	AGC	GAA	TTT	CCA	GTT	TAG	TAG	TTC	TAG	TGG	GAC	TTA	GGG	AAA	GGA	ACC	TTT	AAT	AGA
22263	TTT	CCA	CTA	TGC	GCG	AGT	ACT	TCT	ACA	CAG	CCA	TGC	GTC	CAG	ACG	GCC	GCG	CTT	CTG	CGG	GCG	ATT	TGT	GTA	CGC	CCG	
23241	ACA	GTC	CGG	GCT	CGG	AGT	ATT	GCG	TGG	CAT	CGA	CCC	TGC	CGC	CAA	GCG	AGC	GCT	GCA	TCA	TGC	AAA	TTG	CCG	TCA	ACC	
24419	AAG	CTC	TGA	TAG	AGT	GAT	TGA	ACA	ATG	CGG	AGC	ATG	TAC	CCC	CGG	AGC	AGC	CTC	CAG	AAG	BAT	ATG	TTC	AGC	TCC	GGA	TGC
25275	CTC	CGC	TGC	AGT	TAG	CGC	GTC	TGC	TCC	ATC	CAA	GCC	AAC	CAG	GCC	AGC	GCC	AGC	CTC	CAG	AAG	ATG	TTC	AGC	TCC	GGA	TGC
26253	TGG	GAA	TCC	CCG	AAC	ATC	GCC	TGC	CTC	CAG	TCA	ATG	ACC	GCT	GTT	ATG	CGG	CCA	TTG	TCC	GTC	AGG	ACA	TTG	TTG	TGG	GAG
27231	CCG	AAA	TCC	CGC	TGC	AGG	TGC	CGC	ACT	TTC	GGG	CAG	TCA	TGC	CGC	CAA	AGG	ATC	AGA	TCA	TGC	AGA	CGC	TGC	TGC	GCG	
28209	ACG	GAC	GCA	CTG	ACG	GTG	TGC	TCC	ATC	ACA	GTT	TGC	CAG	TGA	TAC	ACA	TGG	GGA	TCA	GCA	GCA	ATC	CGC	CAT	ATG	AAA	TCA
29363	CGC	GAT	GTA	GTG	TAT	TGA	CCG	ATT	CTT	TGC	GGT	CCG	AGT	GGG	CCG	AAC	CCG	CTC	GTC	TGG	CTA	AGA	TGC	GCC	GCA	GCG	
30287	ATC	GCA	TCC	ATG	AGC	TCC	CGC	ACG	GGT	TGC	AGA	ACA	GCG	GSC	AGT	TGC	GTT	TCA	GGC	AGG	TCT	TGC	AAC	GTG	ACA	CCC	
31321	TGT	GCA	CGG	CGG	GAG	ATC	CAA	TAG	GTC	AGG	CTC	TGC	ATG	TCC	CCA	ATG	ATG	ATG	ATG	ATG	ATG	ATG	ATG	ATG	ATG	ATG	ATG
32343	GCC	GAT	GCA	AAG	TGC	CGA	TAA	ACA	TAA	CGA	TCT	TTG	TAG	AAA	CCA	TGC	GGC	CAG	CTA	TTT	ACC	CGC	AGG	ACA	TAT	CCA	
33321	CGC	CTT	ACA	TGC	AAG	CTG	AAA	GCA	CGA	GAT	TCT	TGC	CCC	TCC	GAG	AGC	TGC	ATC	AGC	TGC	AGG	TGC	AGG	CTG	TGC	AAC	
34319	TTT	TGC	ATC	AGA	AAC	TTC	TGC	ACA	GAC	GTG	CGC	GTG	AGT	TCA	GGC	TTT	TTC	ATG	ATG	ATG	GCC	CTC	CTA	TAG	TGA	GTC	GTA
35277	TTA	TAC	TAT	GCC	GAT	ATA	CTA	TGC	ACA	TGA	TTA	ATT	GTC	AAA	ACA	GCA	CGC	TGG	ATG	GCG	CTT	CCA	GCT	TAT	CTG	AGC	GTT
36335	CAC	TBA	ACG	AGC	TCT	GCT	TAT	ATA	GAC	CTC	CCA	CCG	TAC	ACG	CCG	ACT	GCC	ACT	TTG	CGT	CAA	TGG	GGC	GGA	GTT	GTT	
37443	ACG	ACA	TTT	TGG	AAA	GTC	CCG	TTG	ATT	TAC	TAA	CAA	CAA	ACT	CCC	ATT	GAC	CTC	AAAT	GGG	CTG	GGG	GAG	ACT	TGG	AAA	
38511	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		
39569	TAC	GTA	GAT	GTA	CTG	ACA	AGT	AGG	AAA	GTG	CCA	TAA	GAT	CTA	GTG	GGC	ATA	ATG	CGC	GGG	CCA	TTT	ACC	GTC	CTC		
40667	ATT	GAC	GTC	AAT	AGG	GGG	CGT	ACT	GGG	CGT	ACT	ATA	CTG</														

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Figure 12 contd

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

Figure 12 contd

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

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

[illegible]

Figure 12 contd

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

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

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

Figure 12 contd

6865 AGC GGT TTG ACT CAC GGG GAT TTC CAA GTC TCC ACC CCA TTG ACG TCA ATG GGA GTT TGT TTT GGC ACC AAA ATC AAC
 6943 GGG ACT TTC CAA AAT GTC GTA ACA ACT CCG CCC CAT TGA CGC AAA TGG GCG GTA GGC GTG TAC GGT GGG AGG TCT ATA
 7021 TAA GCA GAG CTC GTT TAG TGA ACC GTC AGA TCG CCT TAG GAC GCC ATC TAC GGT TCG TCG TGA ATT AGG CGC GCC GTC GAG GTT
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 7177 ATC GAT CCG ACC GAC GCG TTC GCG AGA GGC CGC AAT TCC CTA GCC ACC AIG GCA TGC CCT GGC TTC CTG TGG GCA CTT
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Figure 13

A

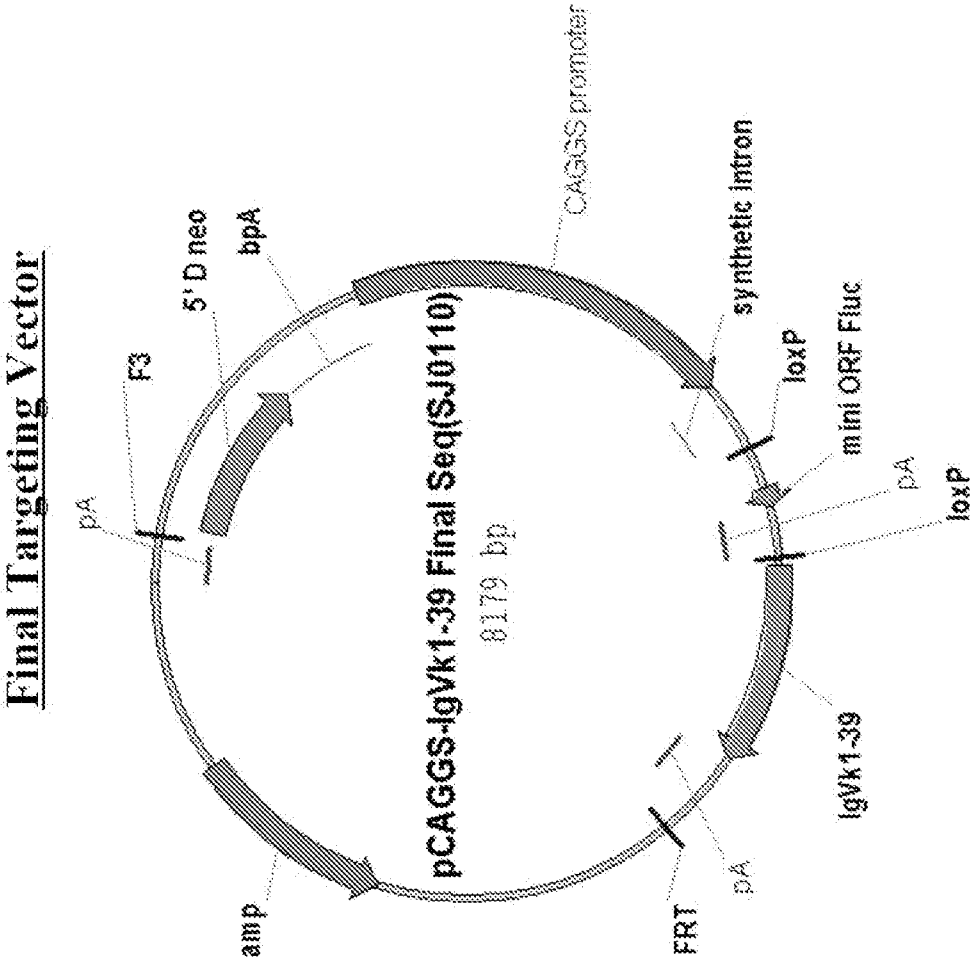


Figure 13 contd

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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

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Figure 13 contd

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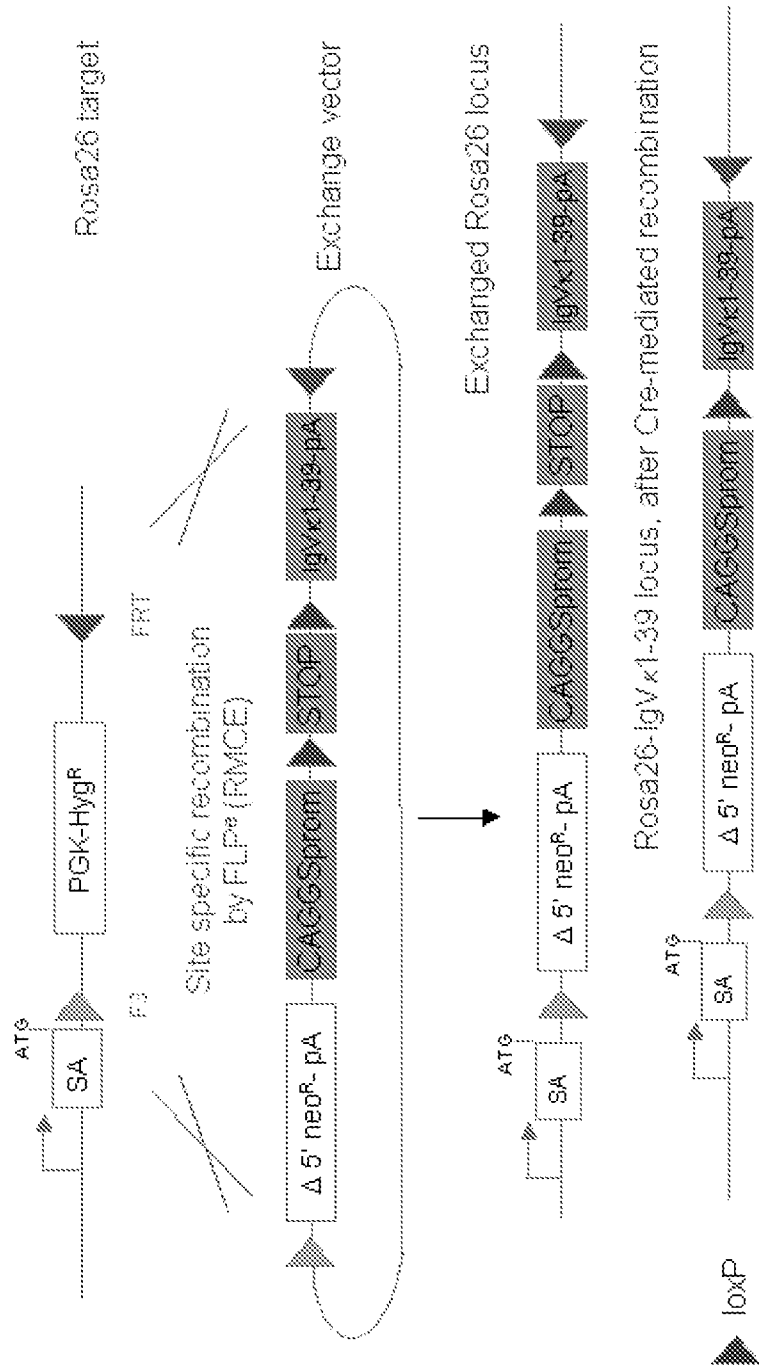
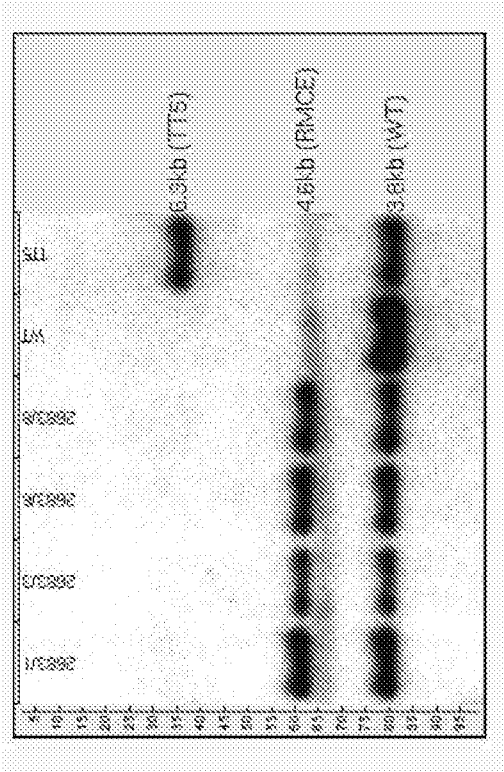


Figure 14

A



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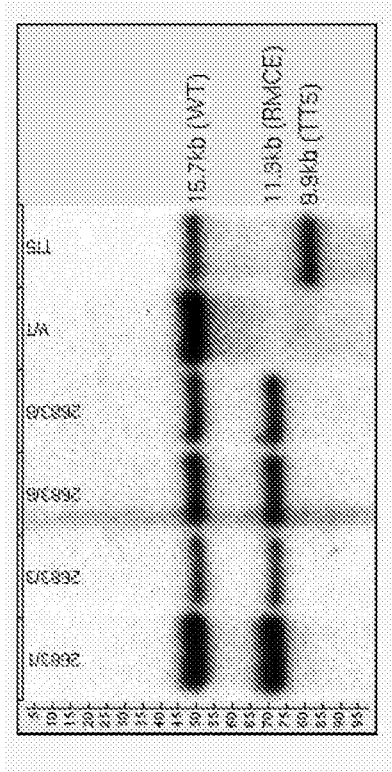


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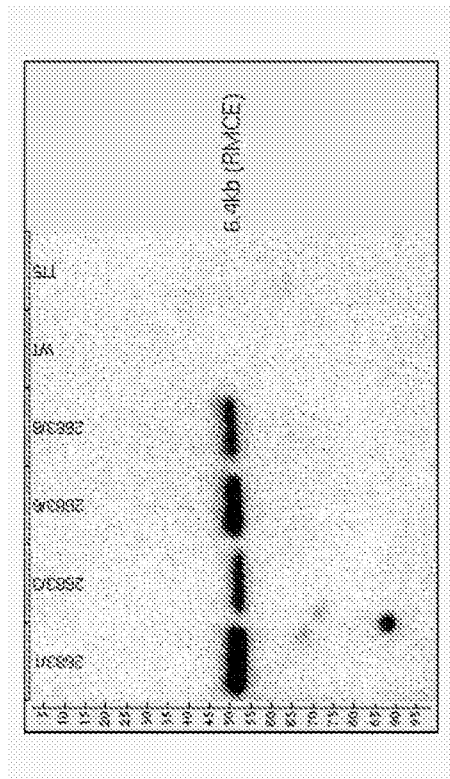


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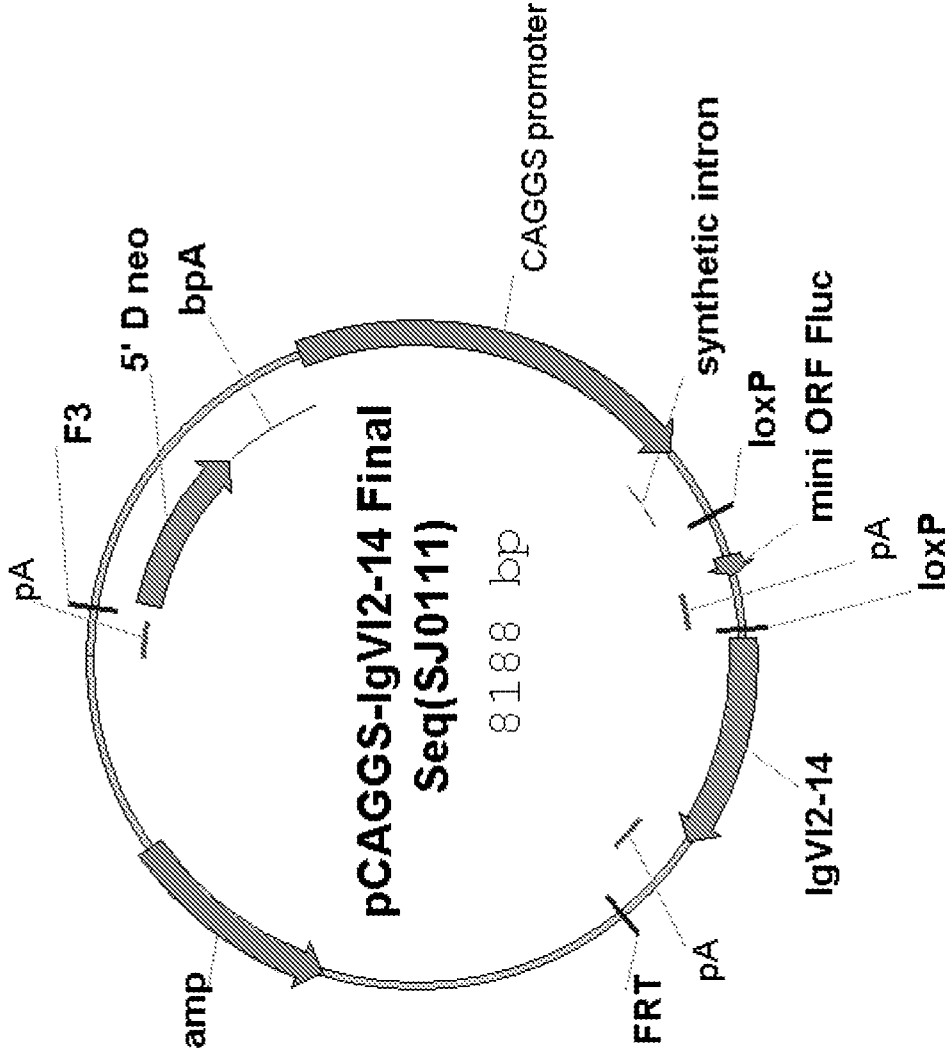


Figure 15 contd

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```

Figure 15 contd

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Figure 15 contd

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Figure 15 contd

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Figure 15 contd

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Figure 15 contd

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Figure 15 contd

C

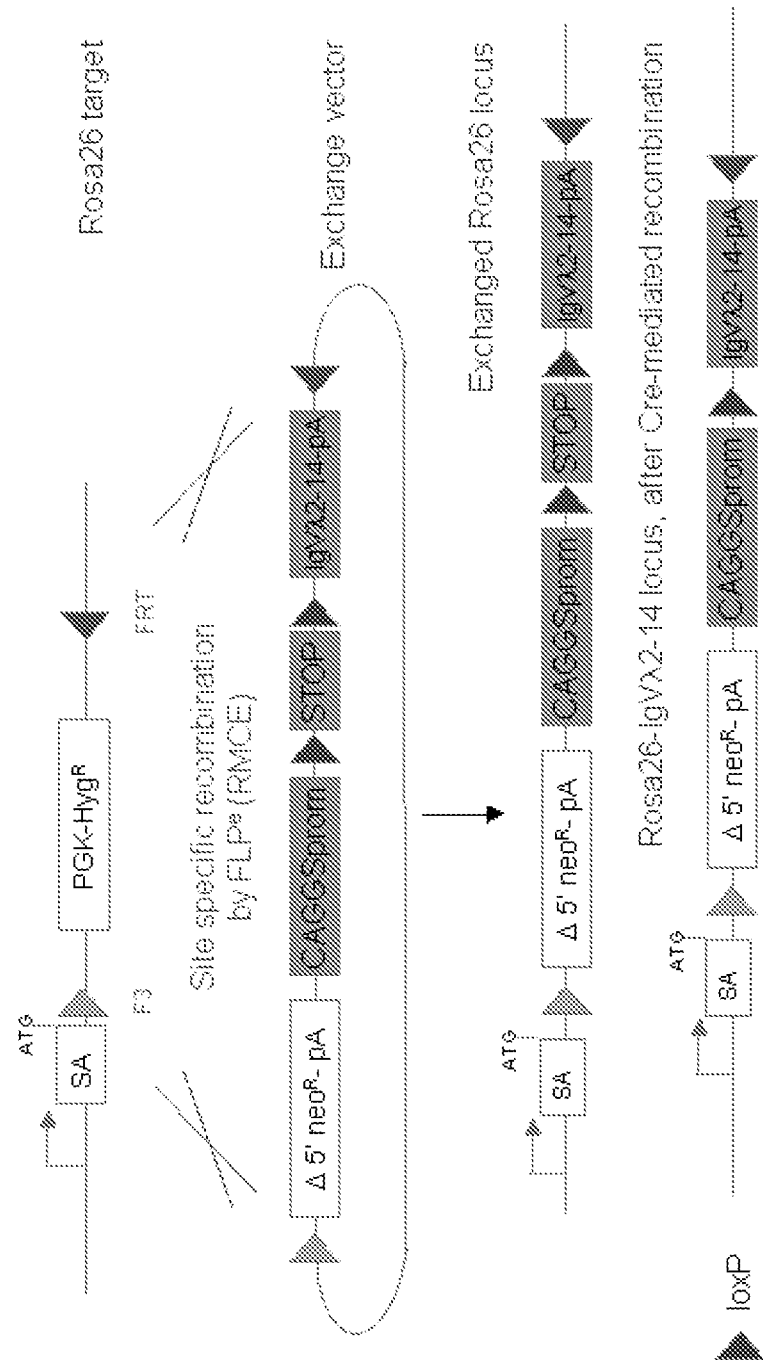


Figure 16

A

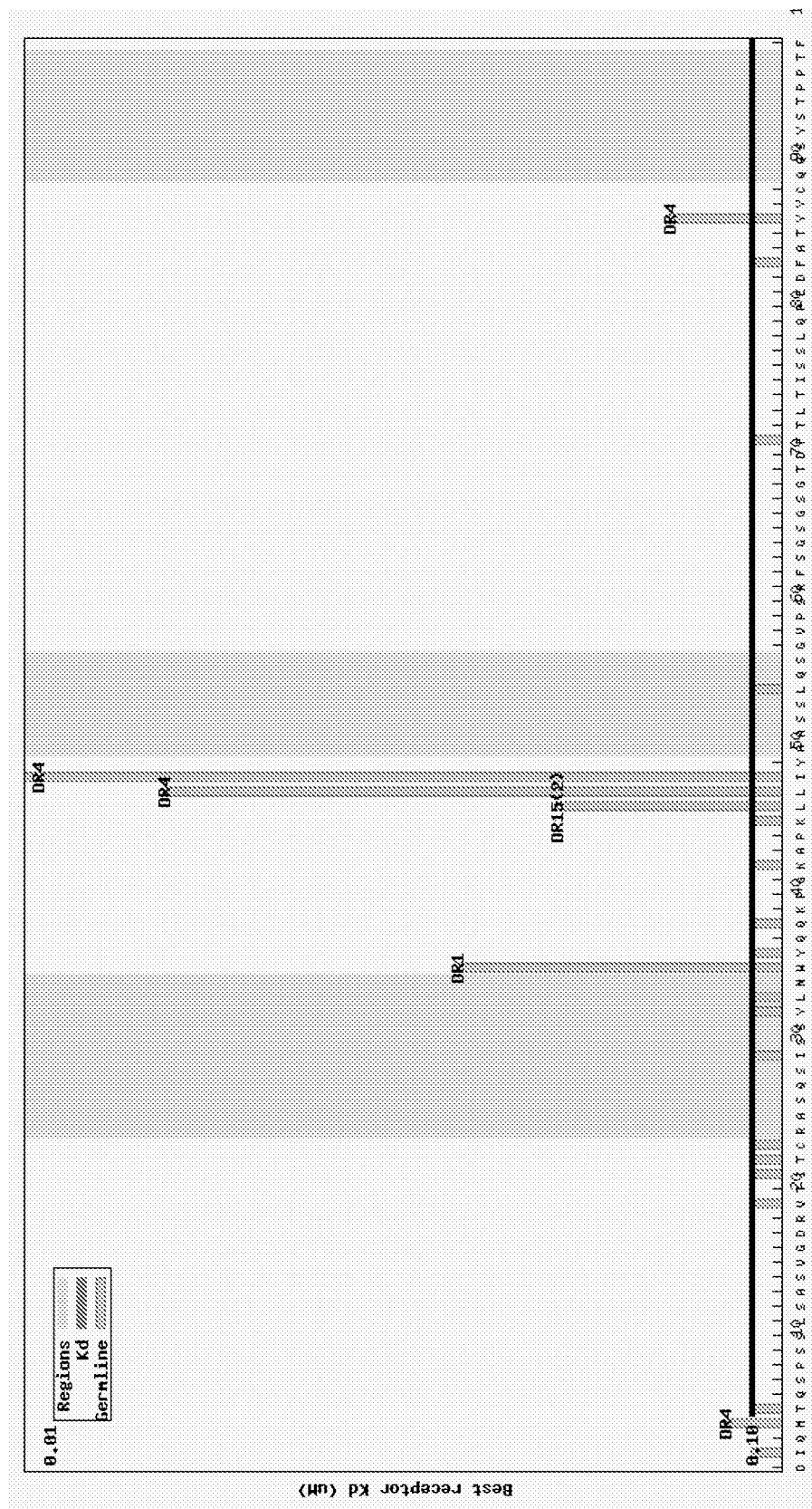


Figure 16 contd
C

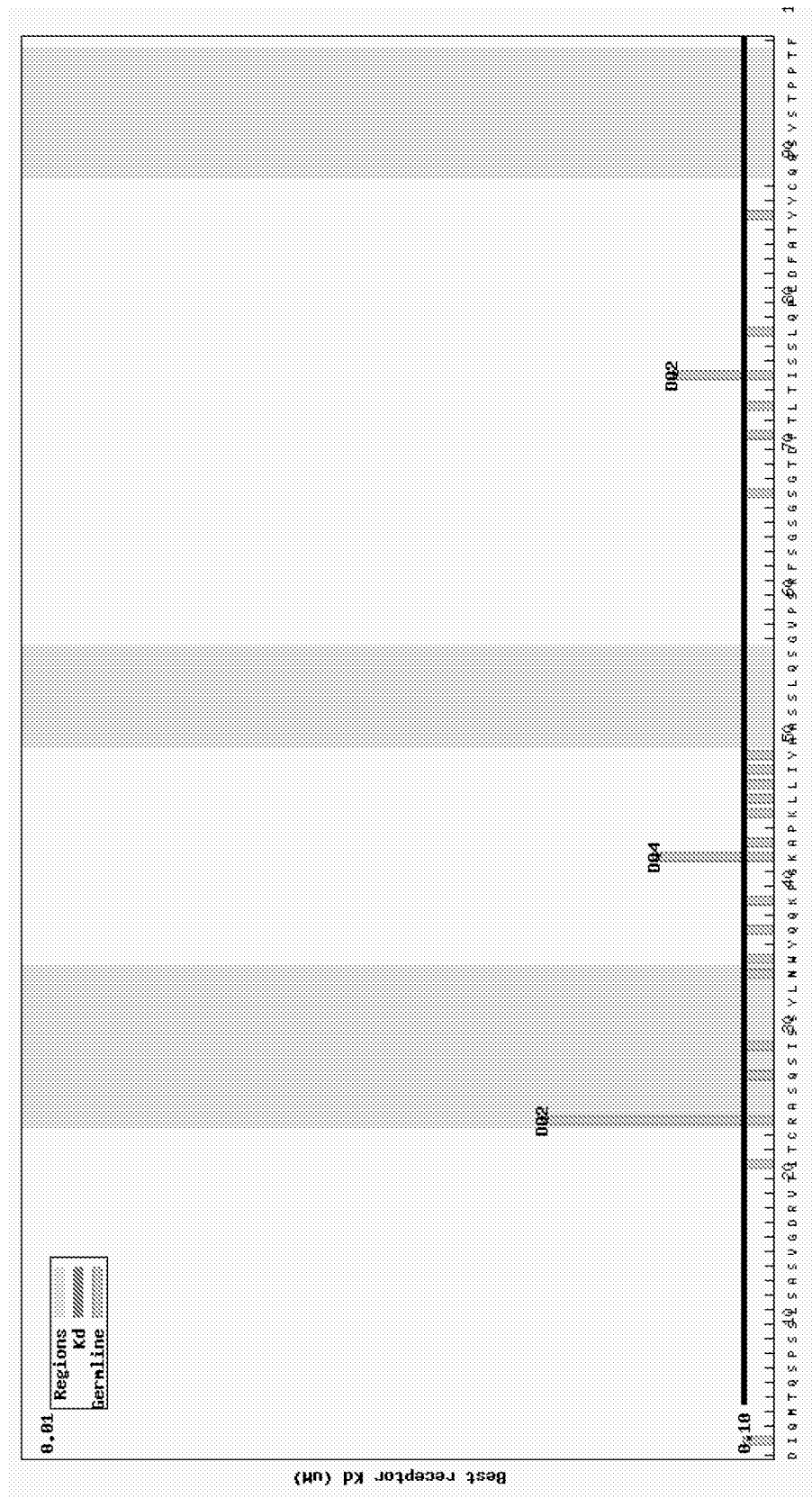


Figure 17

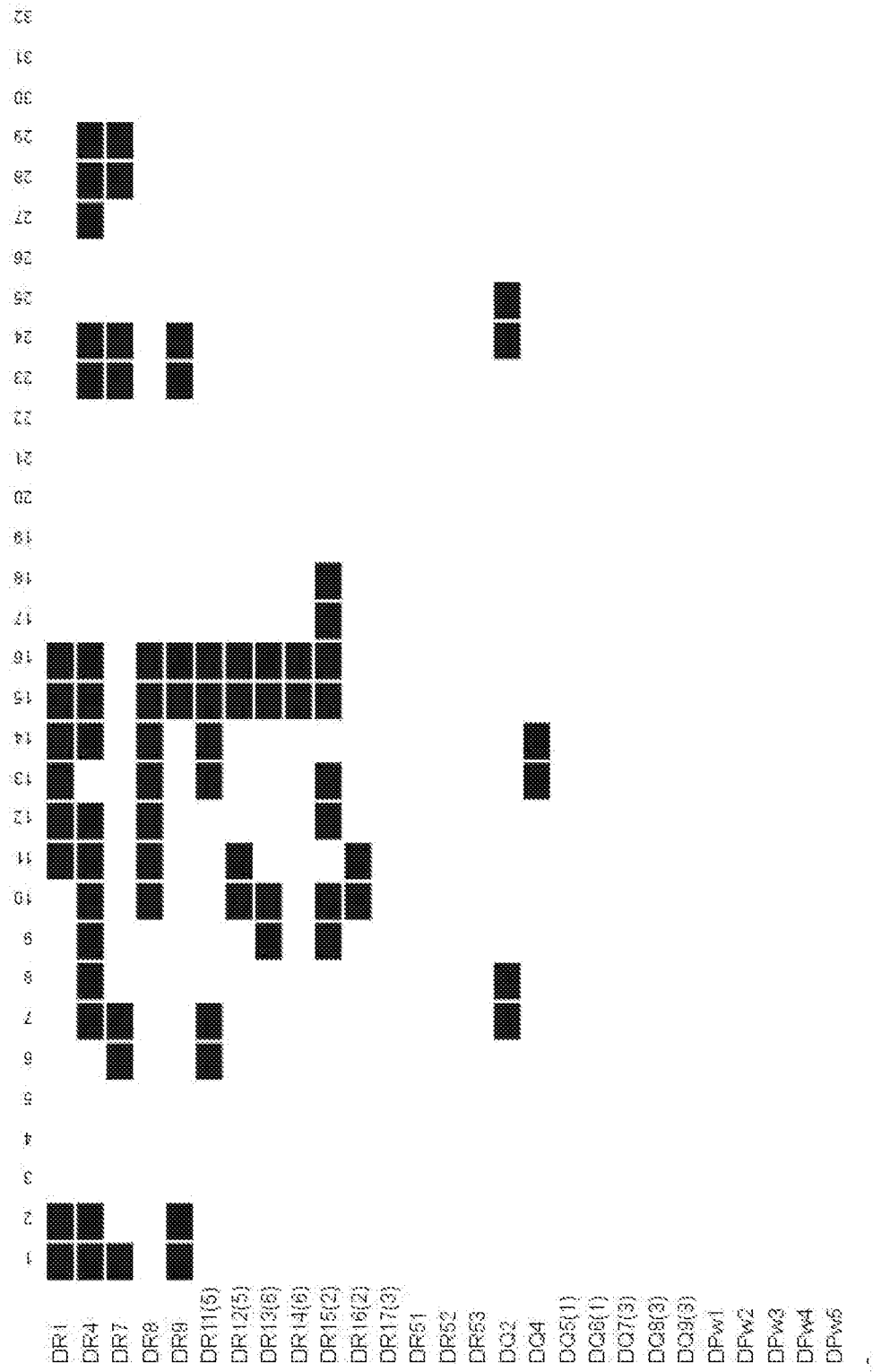


Figure 18

A

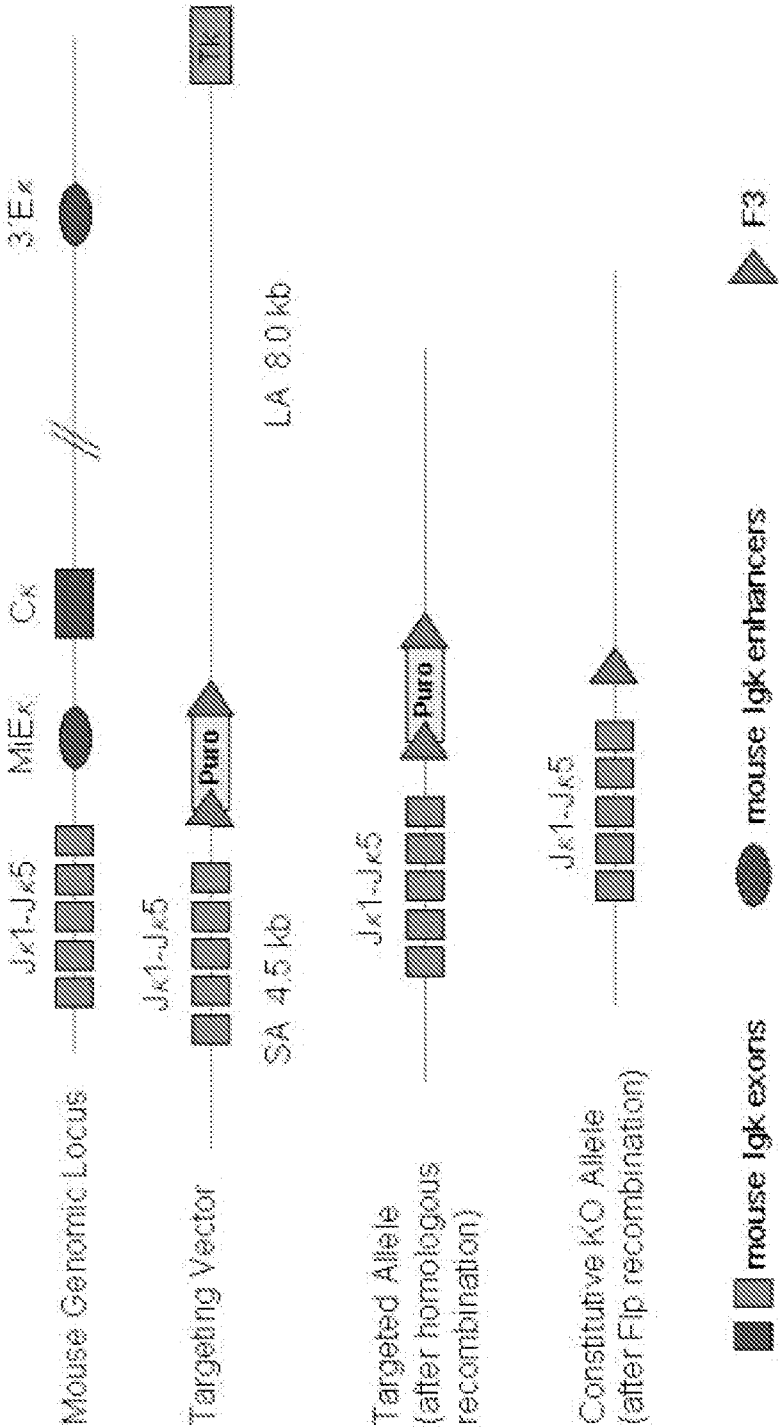


Figure 18 contd

B

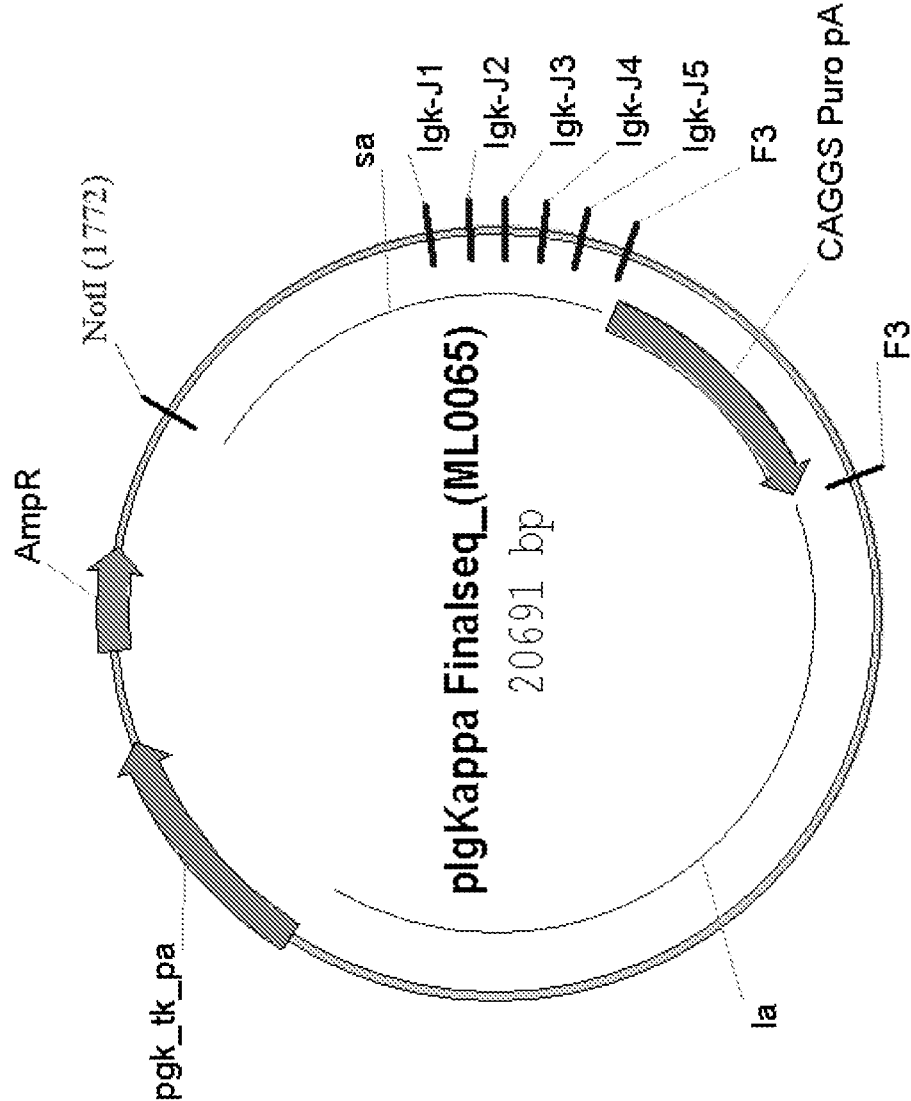


Figure 19

A

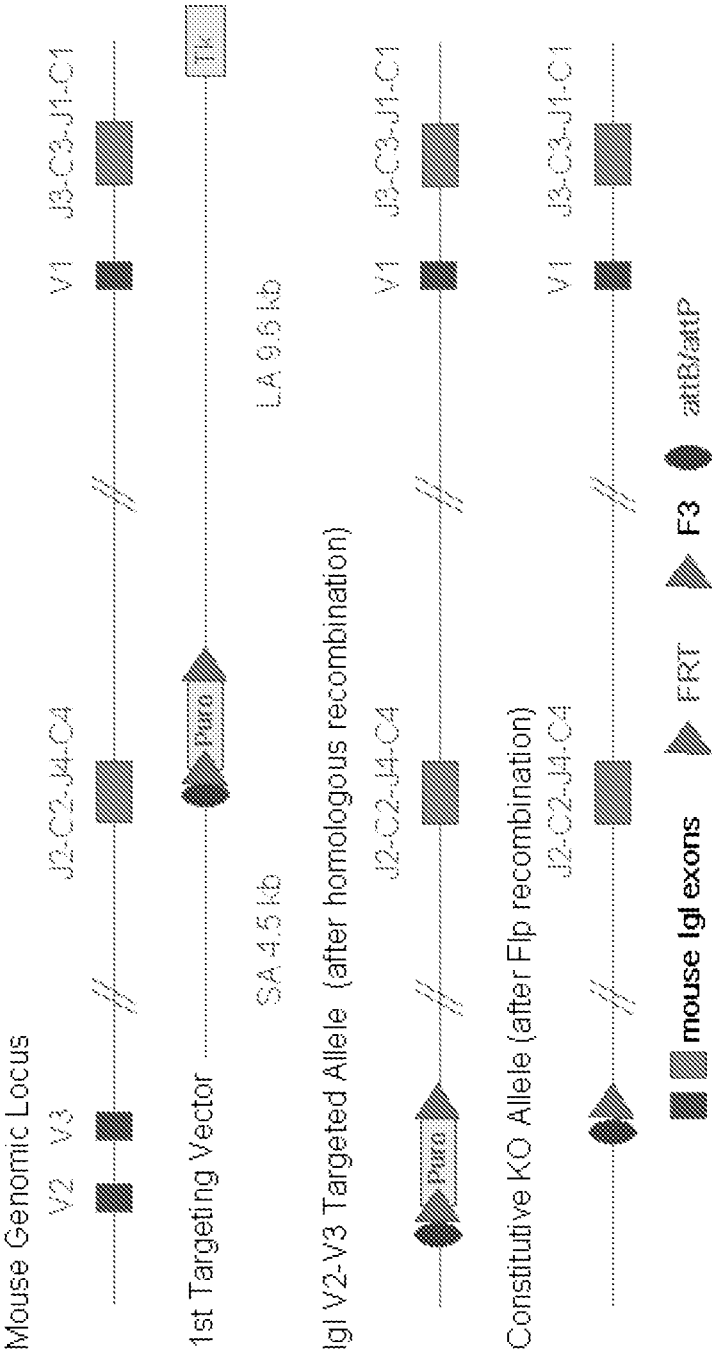


Figure 19 contd

B

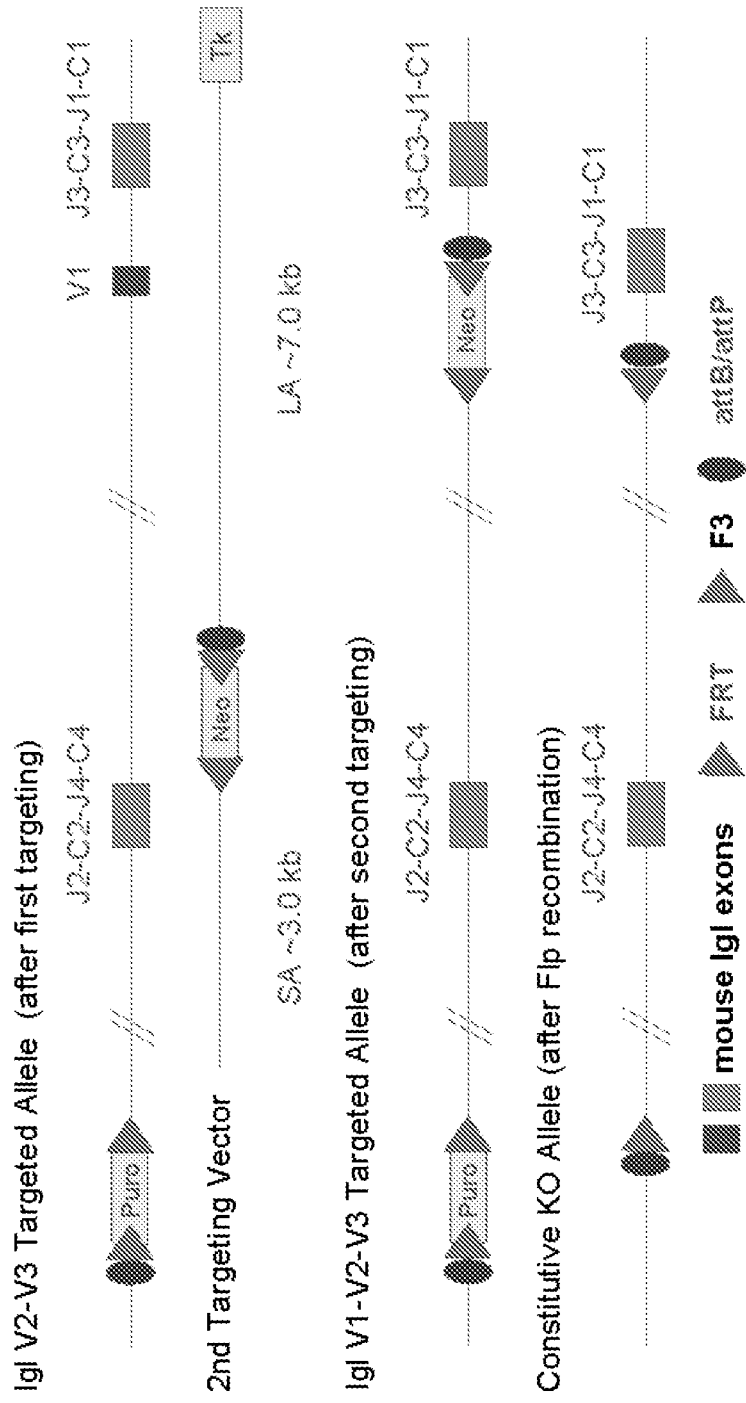


Figure 20

A

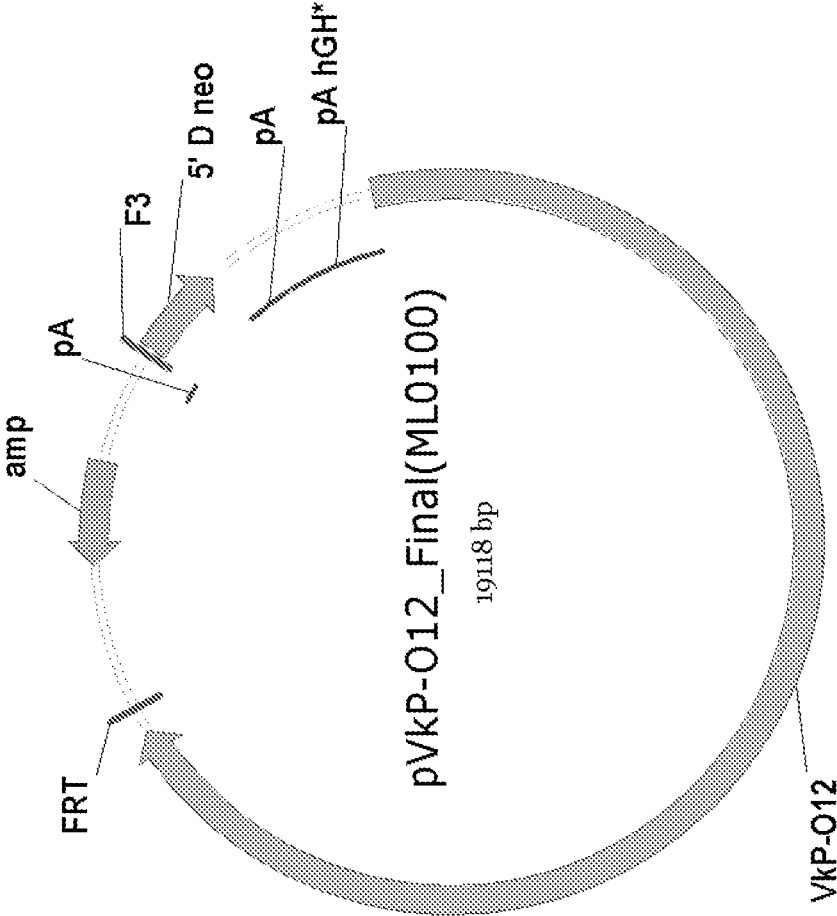


Figure 20 contd

B

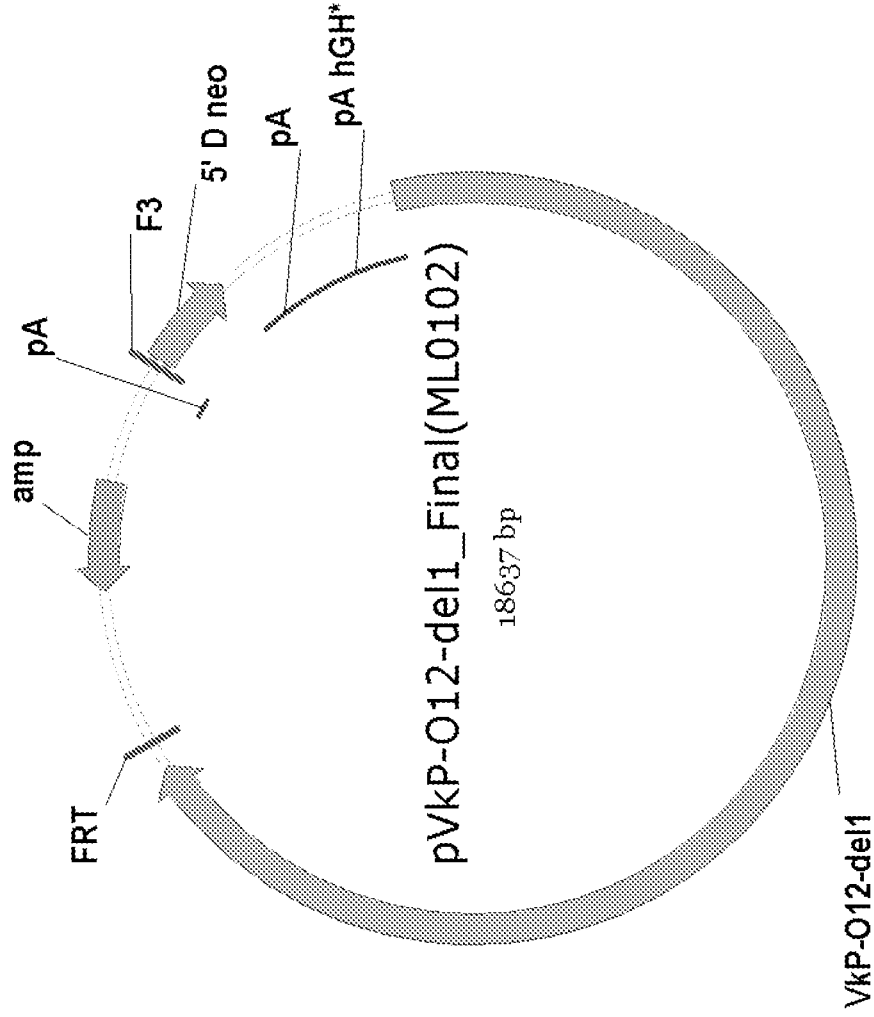


Figure 20 contd

C

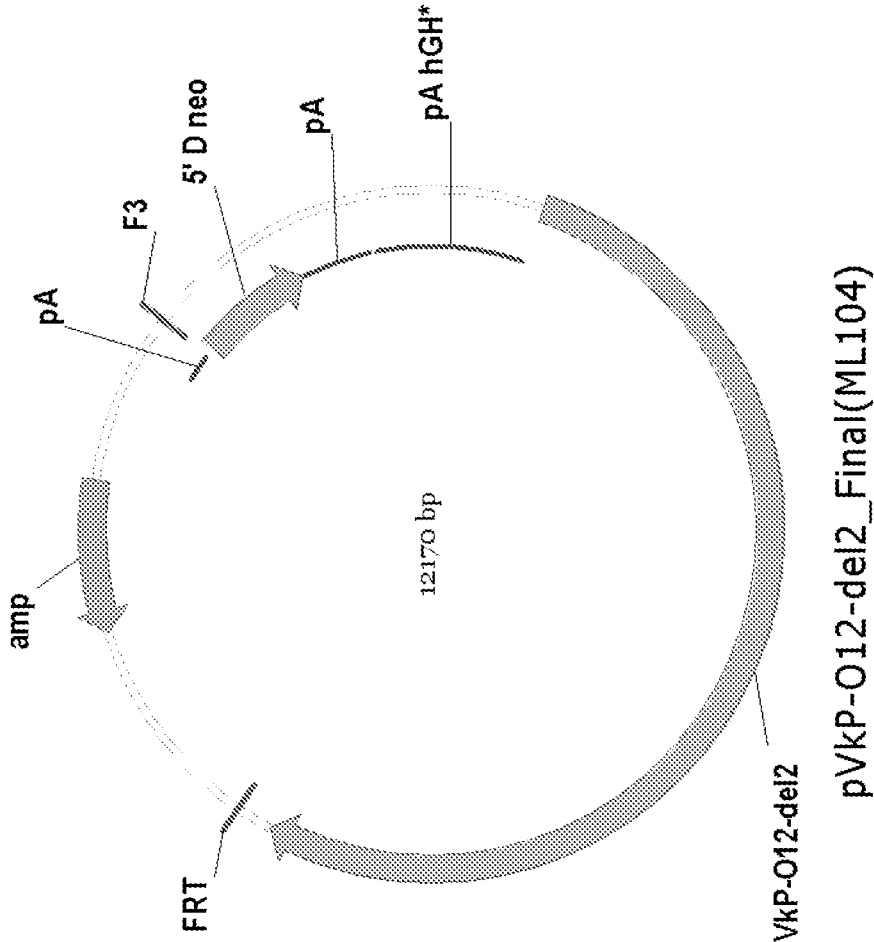


Figure 21

A

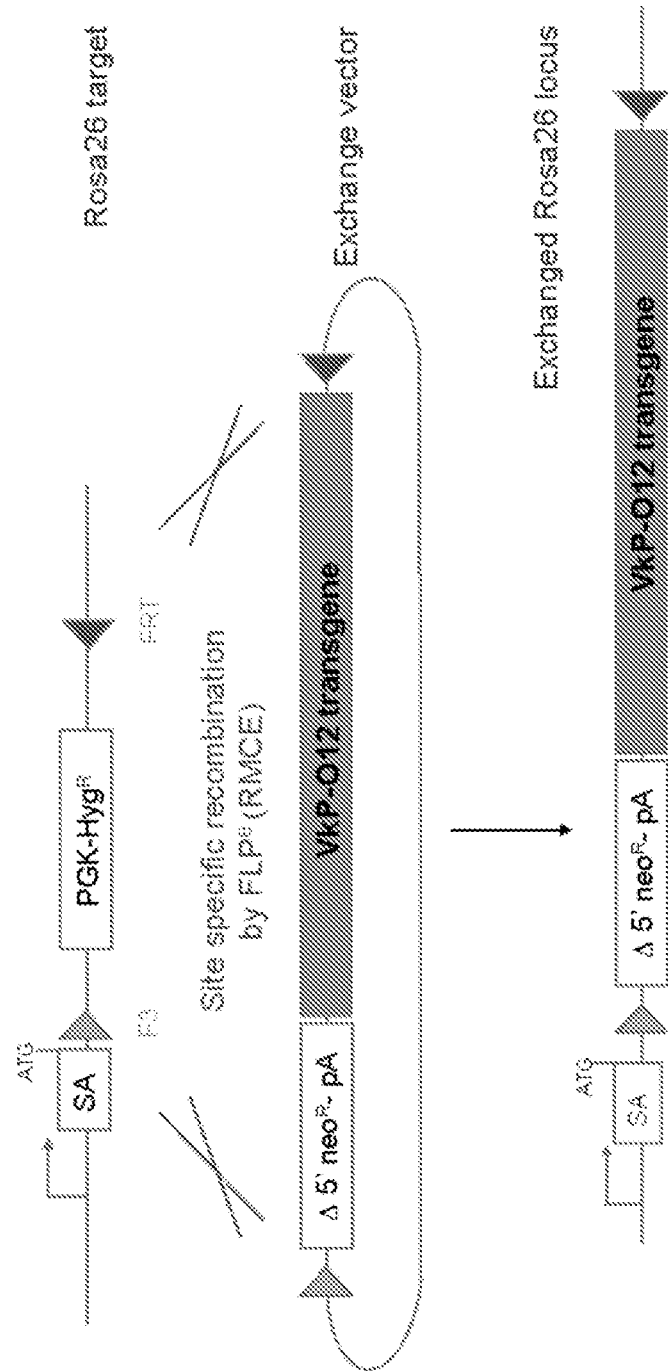


Figure 21 contd

B

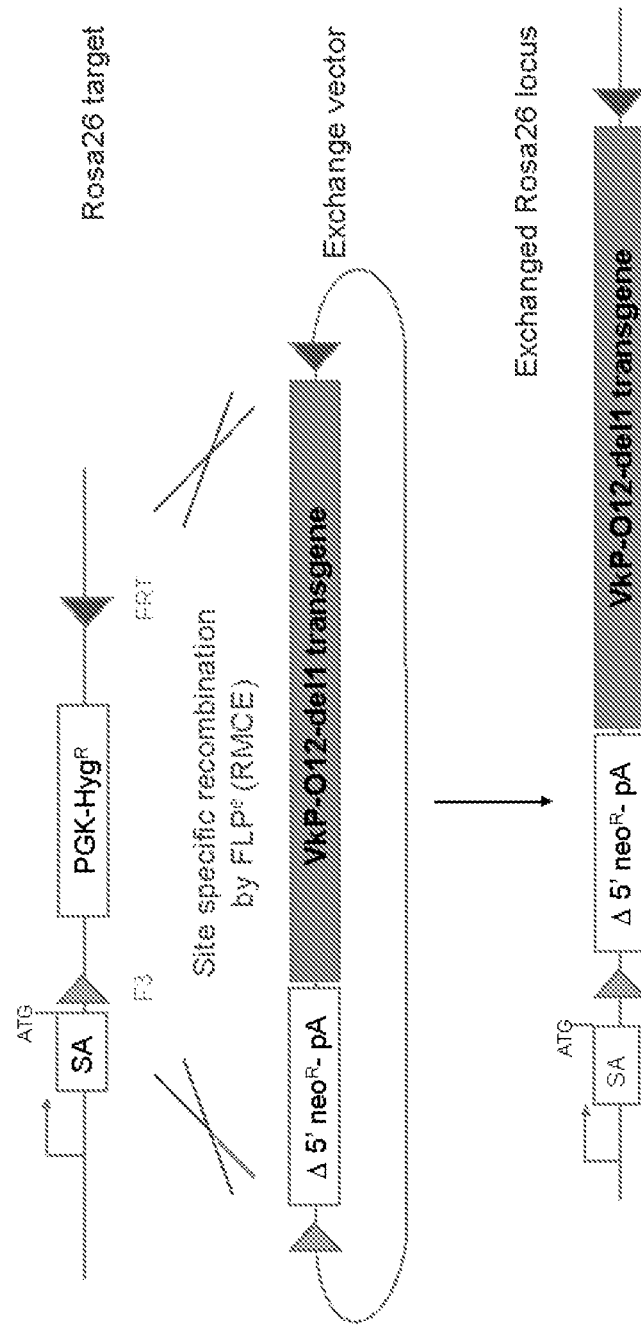


Figure 21 contd

C

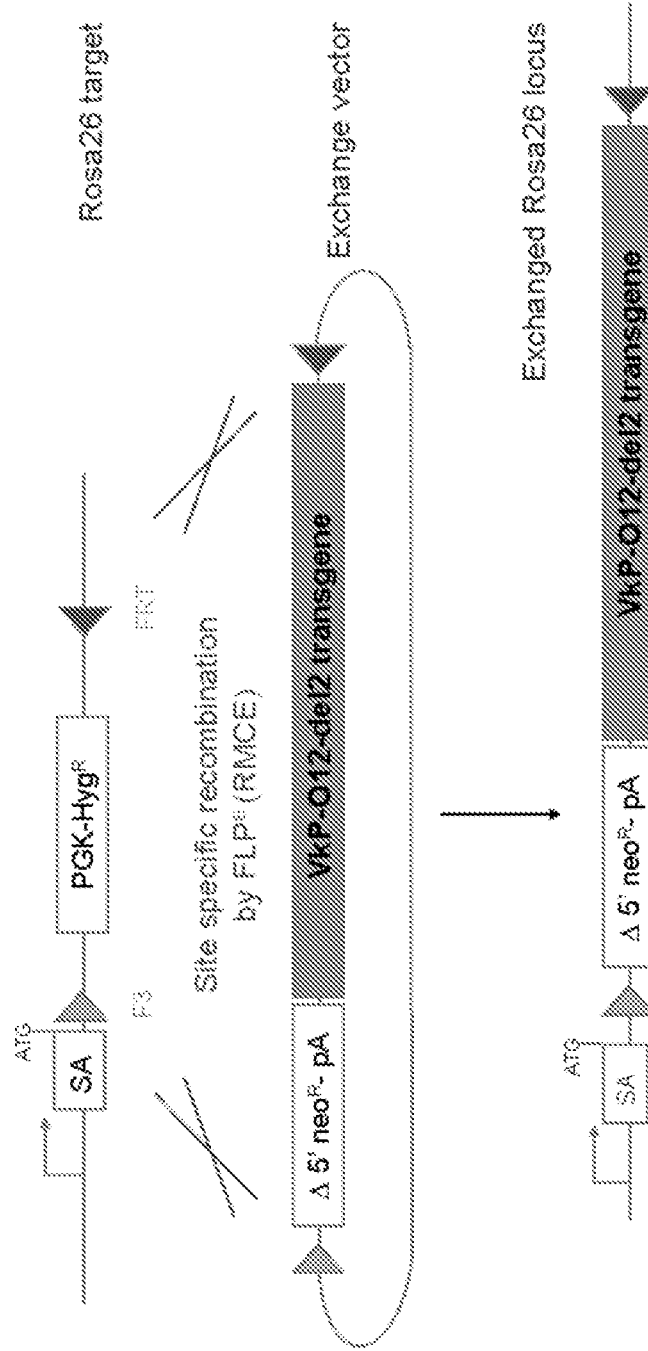


Figure 22

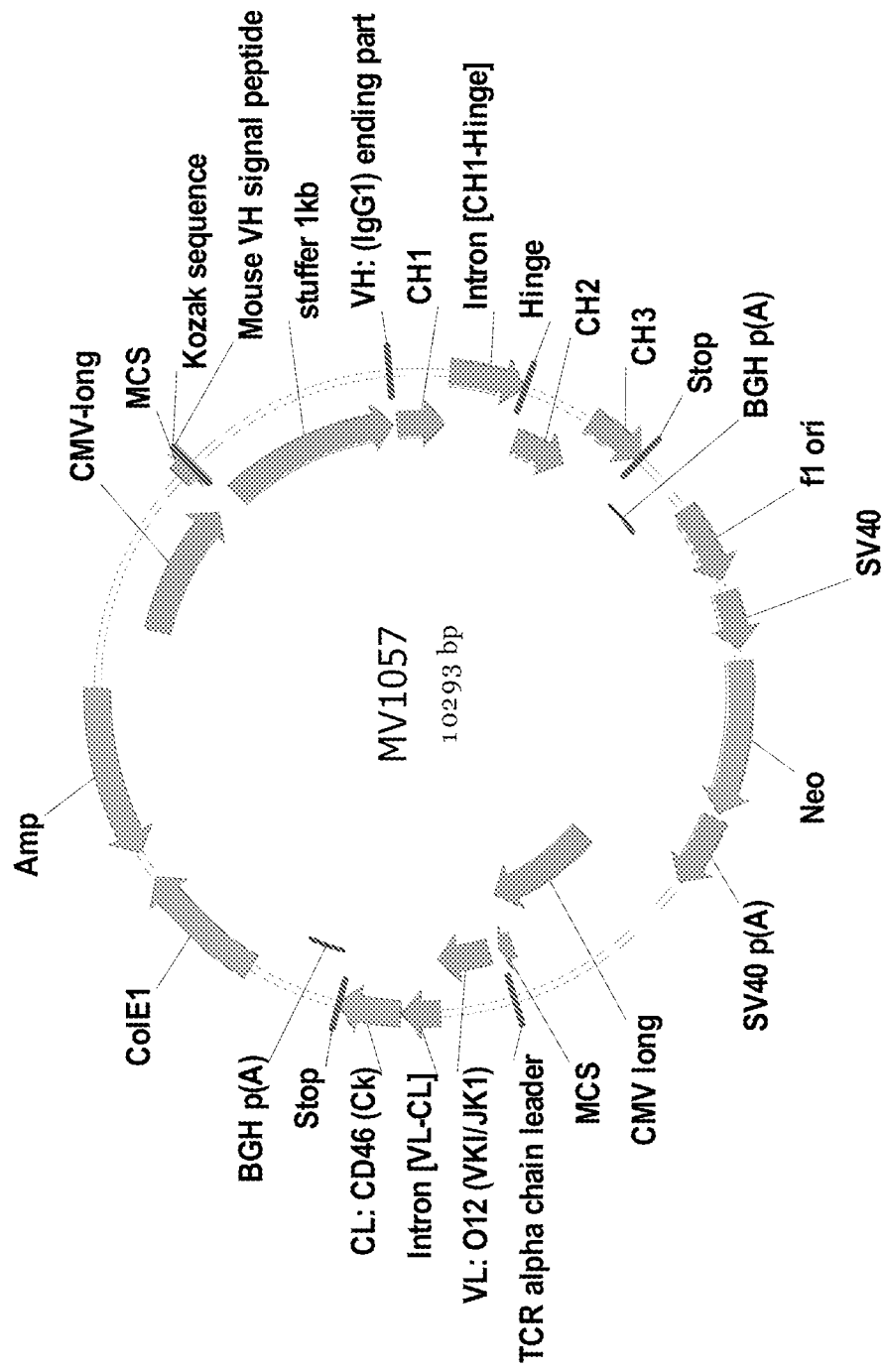


Figure 23

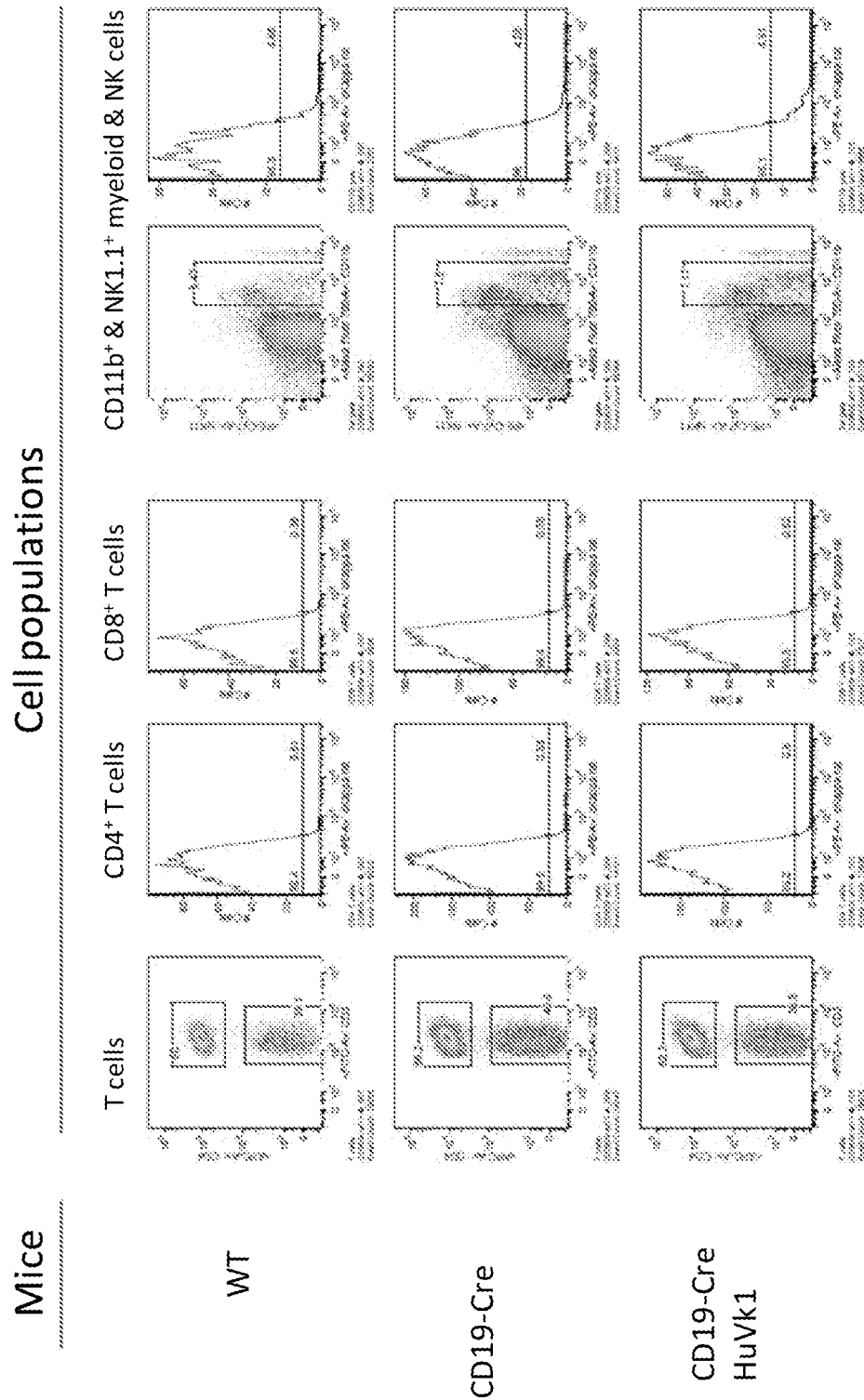


Figure 24

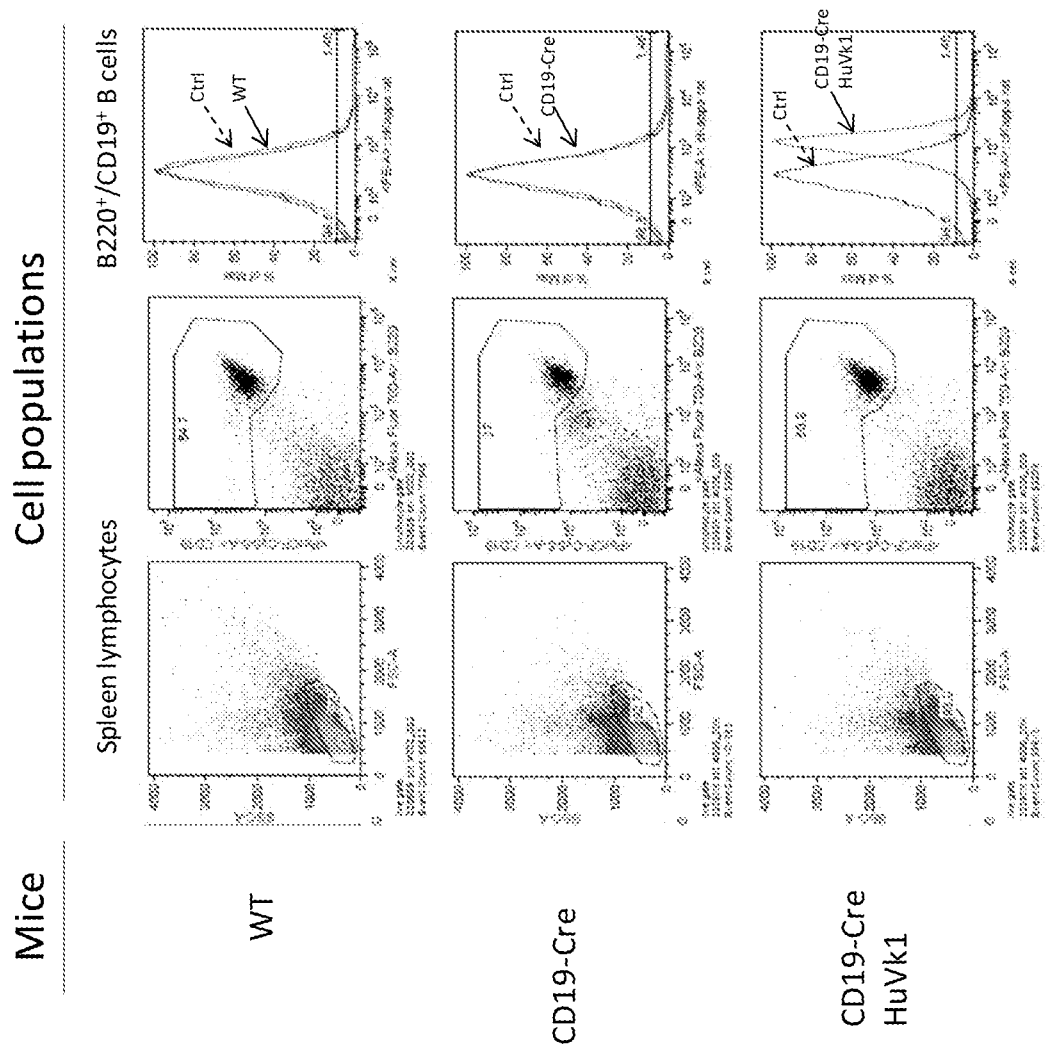


Figure 25

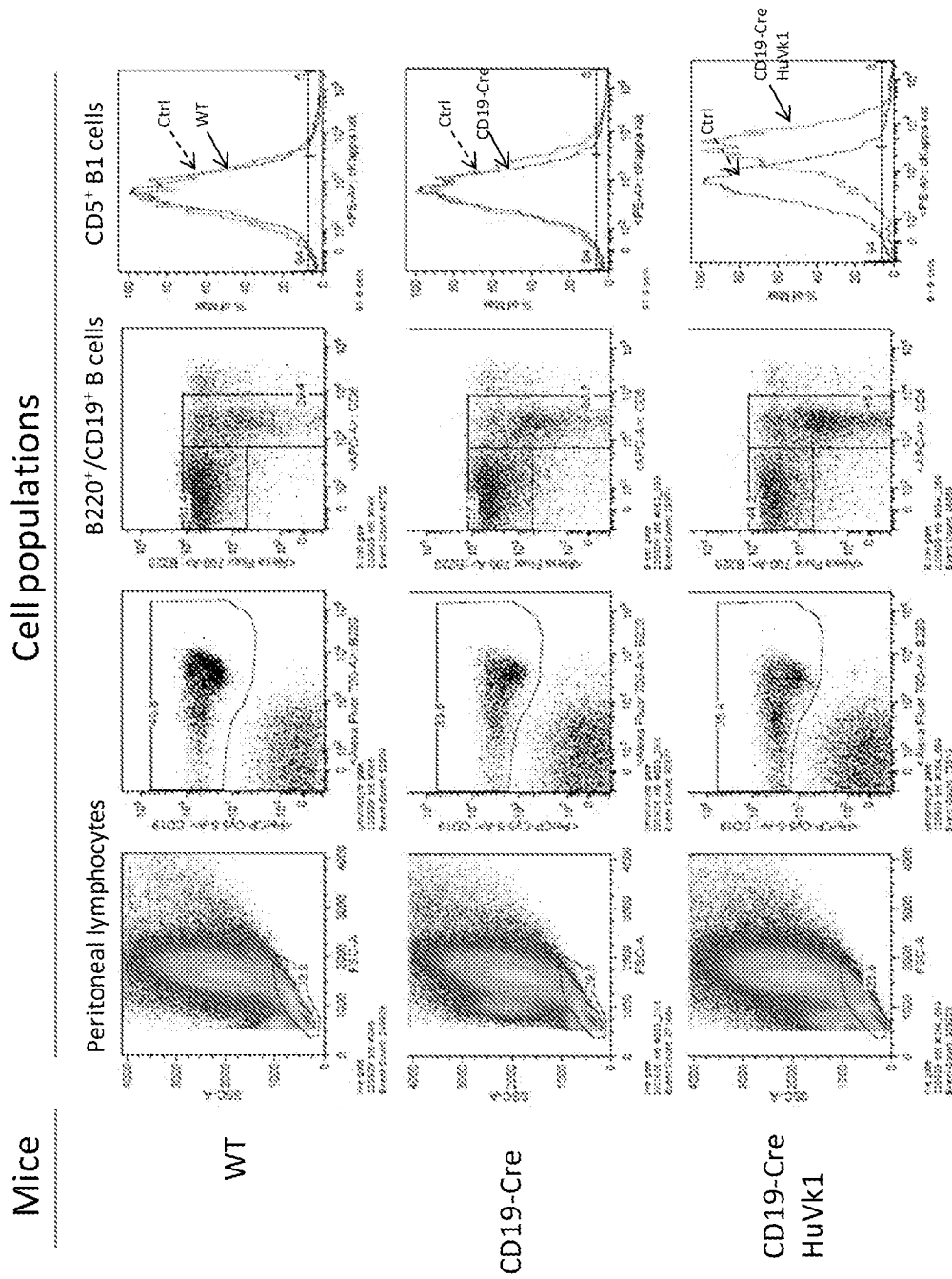


Figure 26

A

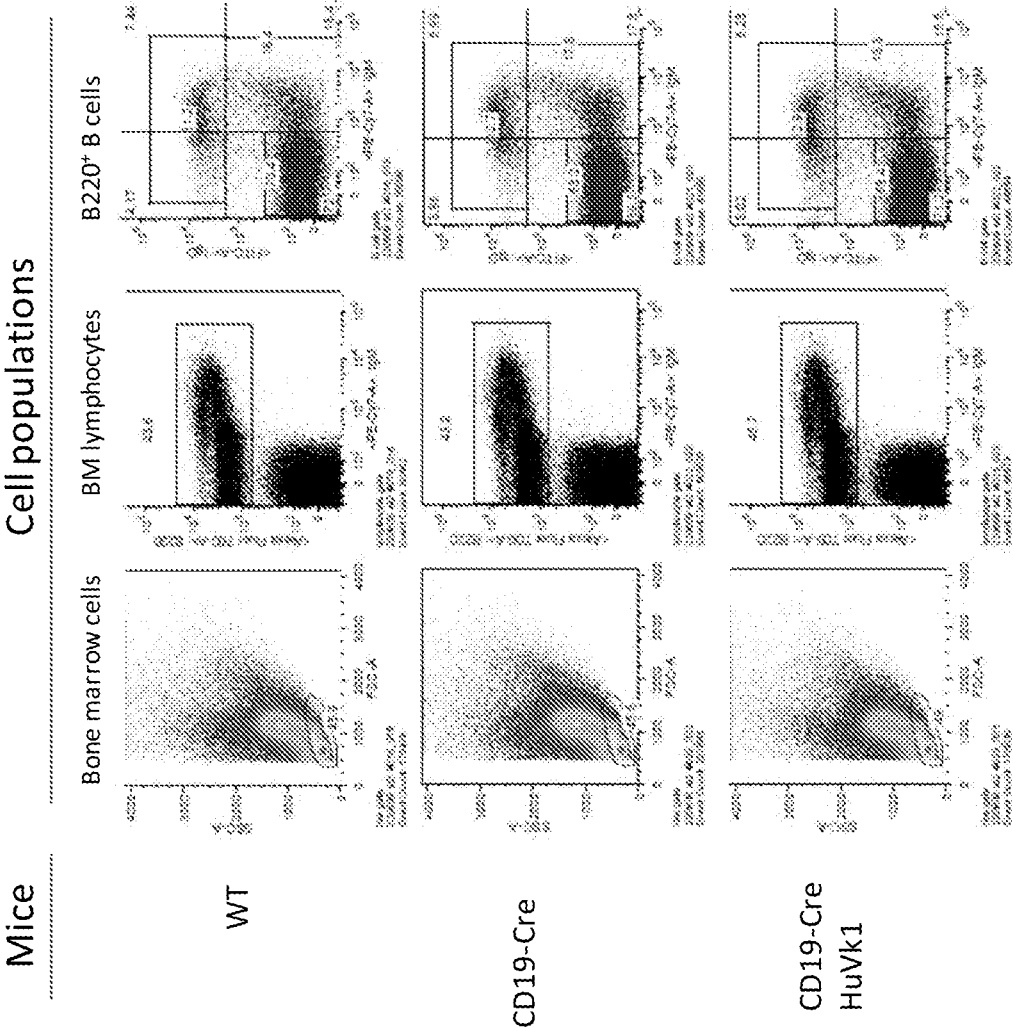
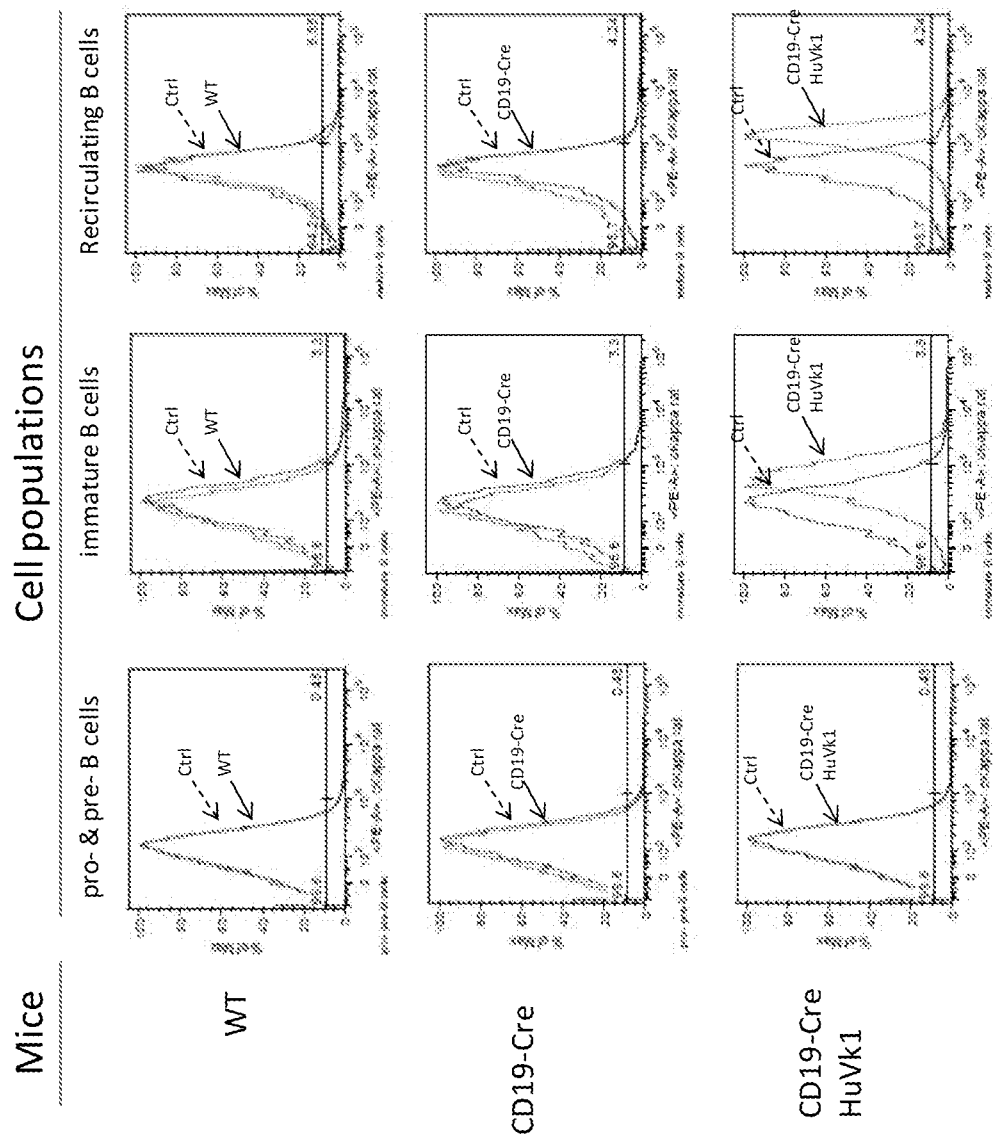


Figure 26 CONTD

B



Mice

