

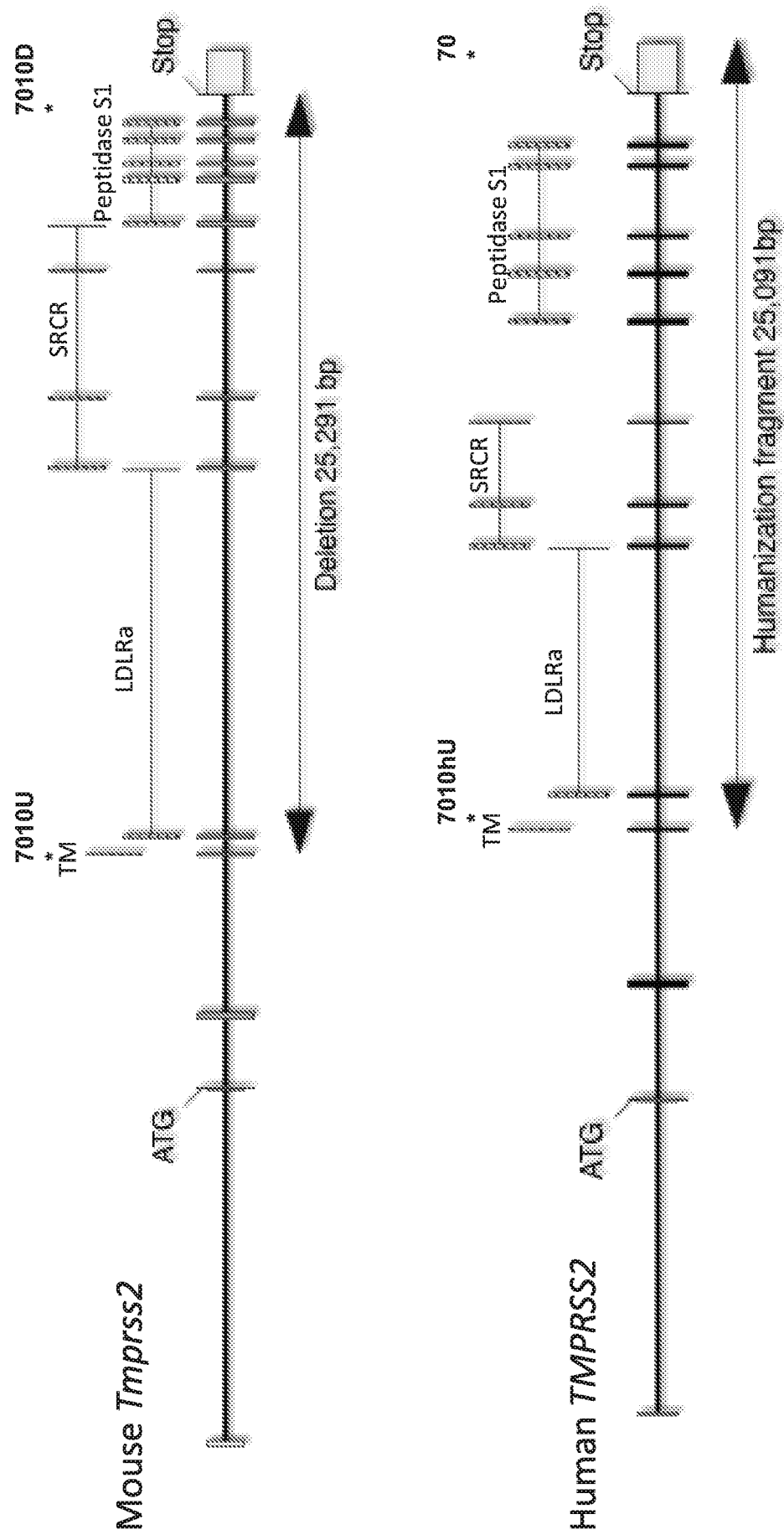


Figure 1A

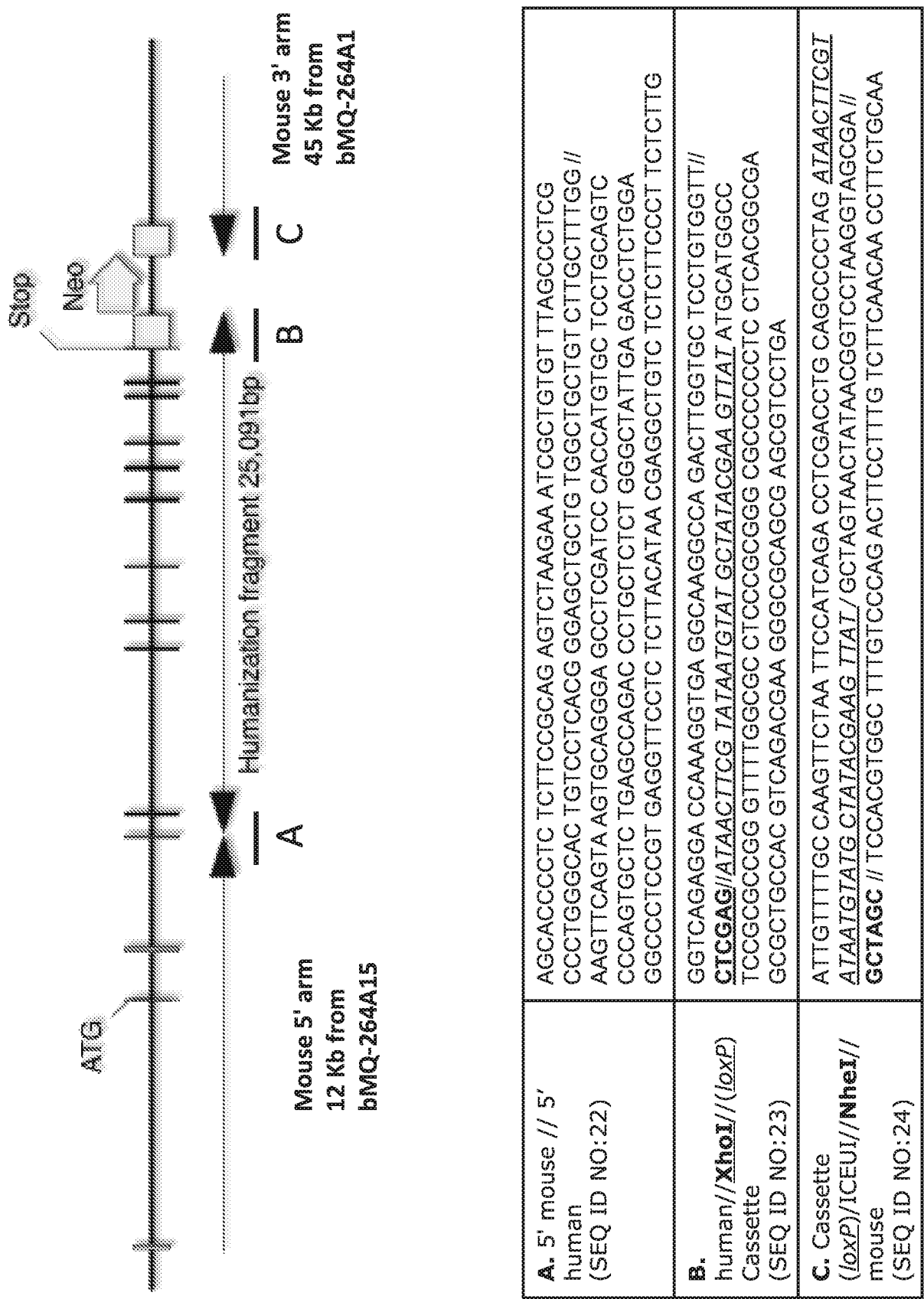
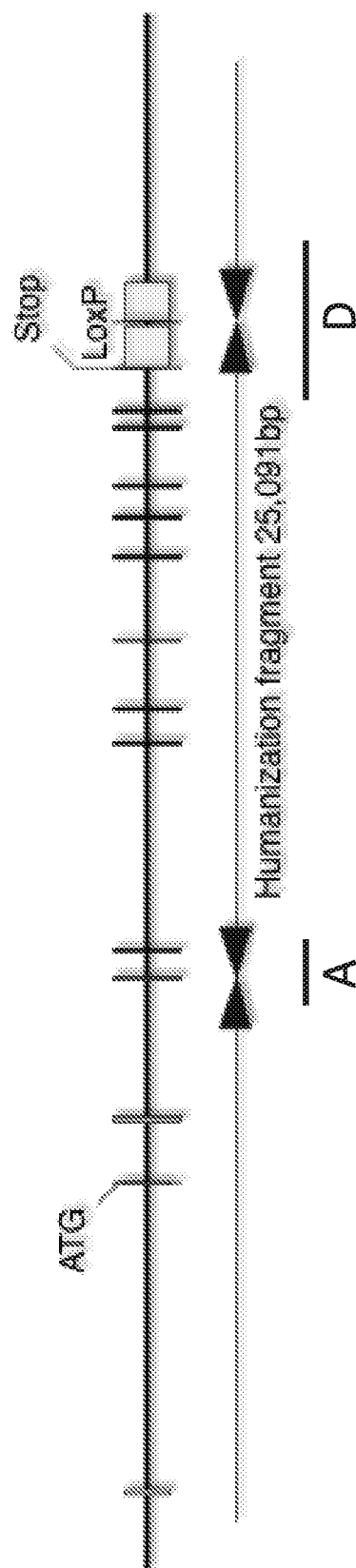


Figure 1B



A. 5' mouse // 5' human (SEQ ID NO:22)	AGCACCCCTC TCCTCCGAG AGCTAAGAA ATCGTGTGT TTAGCCCTCG CCCTGGGCAC TGTCCTCACG GGAGCTGCTG TGGCTGCTGT CTTGCTTTGG // AAGTTCAGTA AGTGCAGGGA GCCTCGATCC CACCATGTGC TCCTGCAGTC CCCAGTGCTC TGAGCCAGAC CCTGCTCTCT GGGCTATTGA GACCTCTGGA GGCCCTCCGT GAGGTTCCCTC TCTTACATAA CGAGGCTGTC TCTCTTCCCT TCCTTG
D. human// <u>XhoI</u> //(<u>loxP</u>) /ICEUI// <u>NheI</u> // mouse (SEQ ID NO:25)	GGTCAGAGGA CCAAAGGTGA GGCAAGGCCA GACTTGGTGC TCCTGTGGTT// <u>CTCGAG</u> //ATAACTTCG TATAATGTAT GCTATACGAA GTTAT /GCTAGTAACATAACGGTCTAAGGTAGCGA // GCTAGC // TCCACGTGGC TTTGTCCCAG ACTTCCTTTG TCTTCAACAA CCTTCTGCAA

Figure 1C

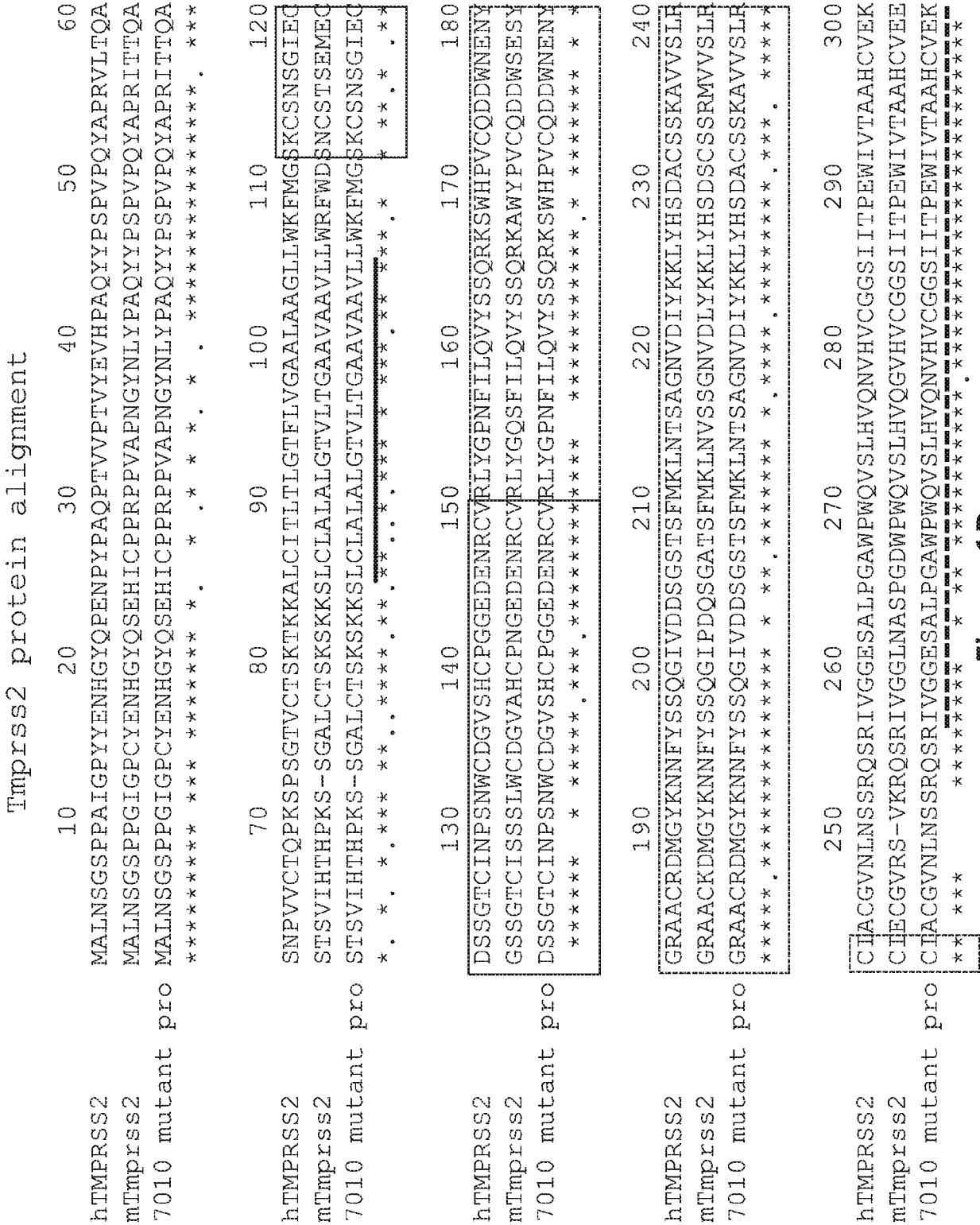


Figure 1D

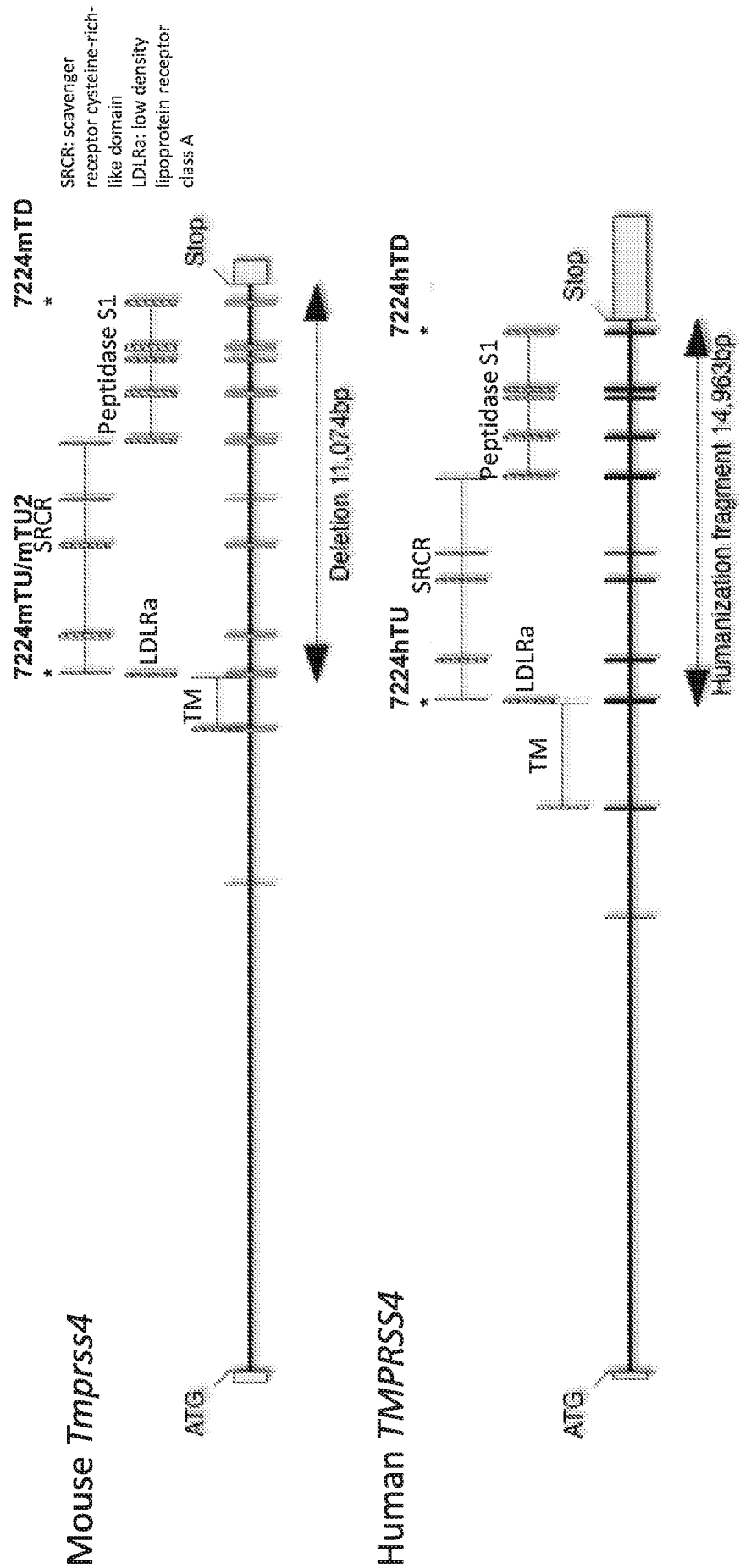


Figure 2A

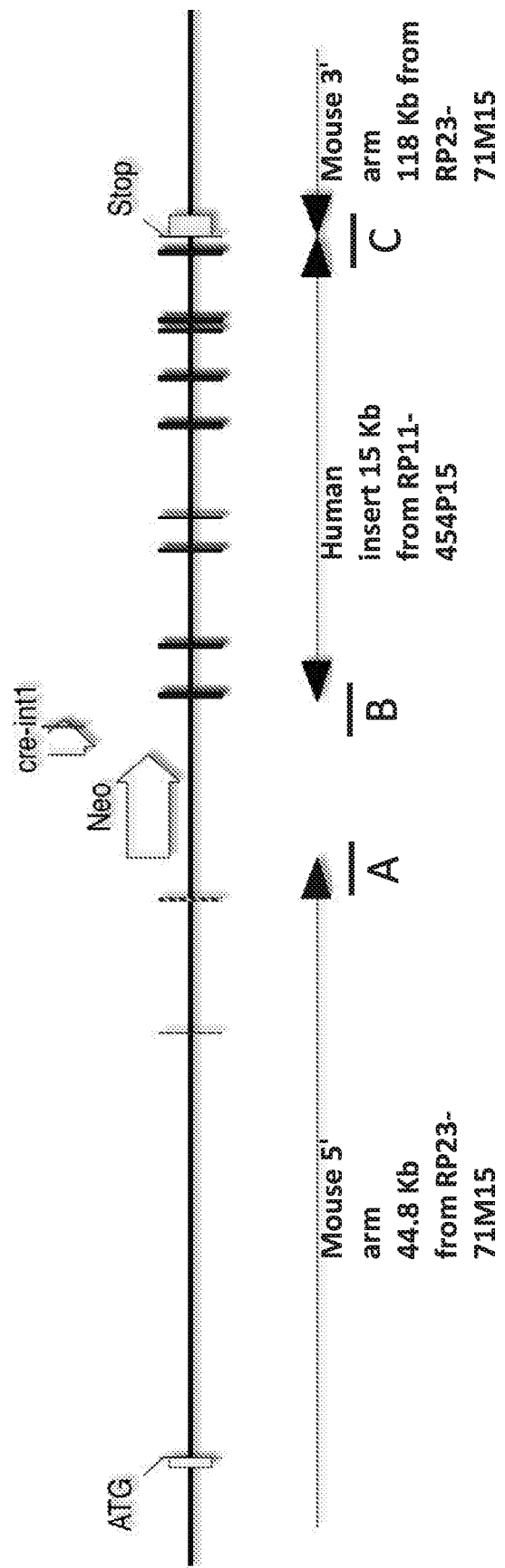
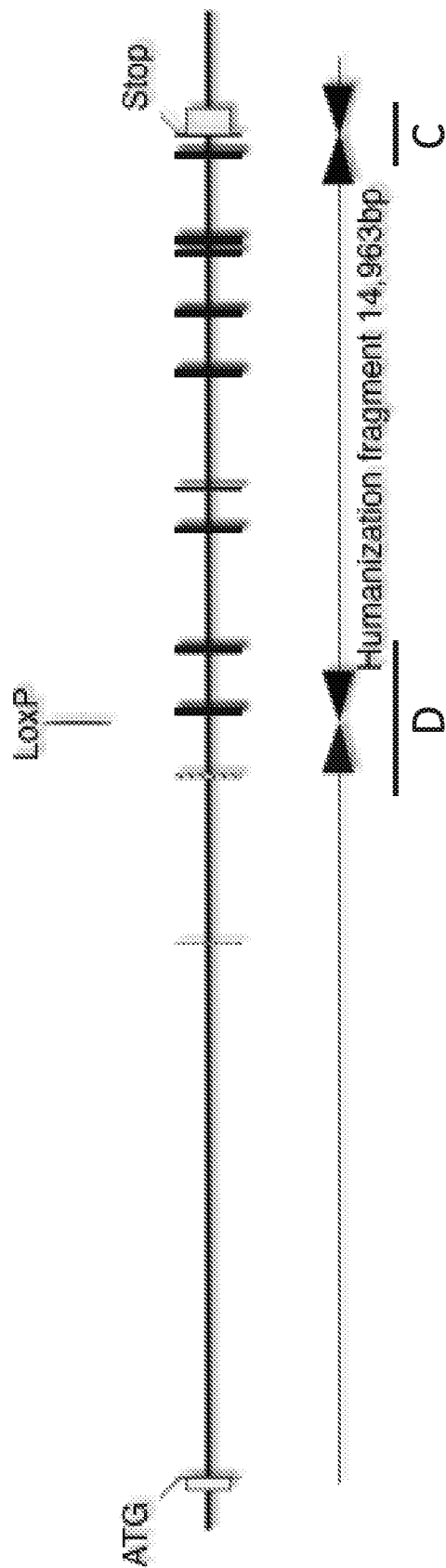


Figure 2B



D. mouse// Sall /Xh oI /(loxP) /ICEUI// NheI // human (SEQ ID NO:41)	CCAGTCAGGG ACACACATGC TCACACGCCG GCCACCCGC ACACACTACA // GTCGAG //ATAACTTCG TATAATGIAT GCTATACGAA GTTAT /GCTAGTAACTATAACGGTCCTAAGGTAGCGA// GCTAGC // CAAGTCTGTG TGCTACCAAG TAGCAAAACT GAGCCTGGAA CTCACACATG
C. human//mouse (SEQ ID NO:40)	TAATCTGACT TTCTCTTCAT CCGTCTCTCT TATTCTAGGC TGAGCTGTAA // CGCTGCCGTC CCCCACATCC AGAAGCTGCT TCCCTTCAGA CCTACCTACG

Figure 2C

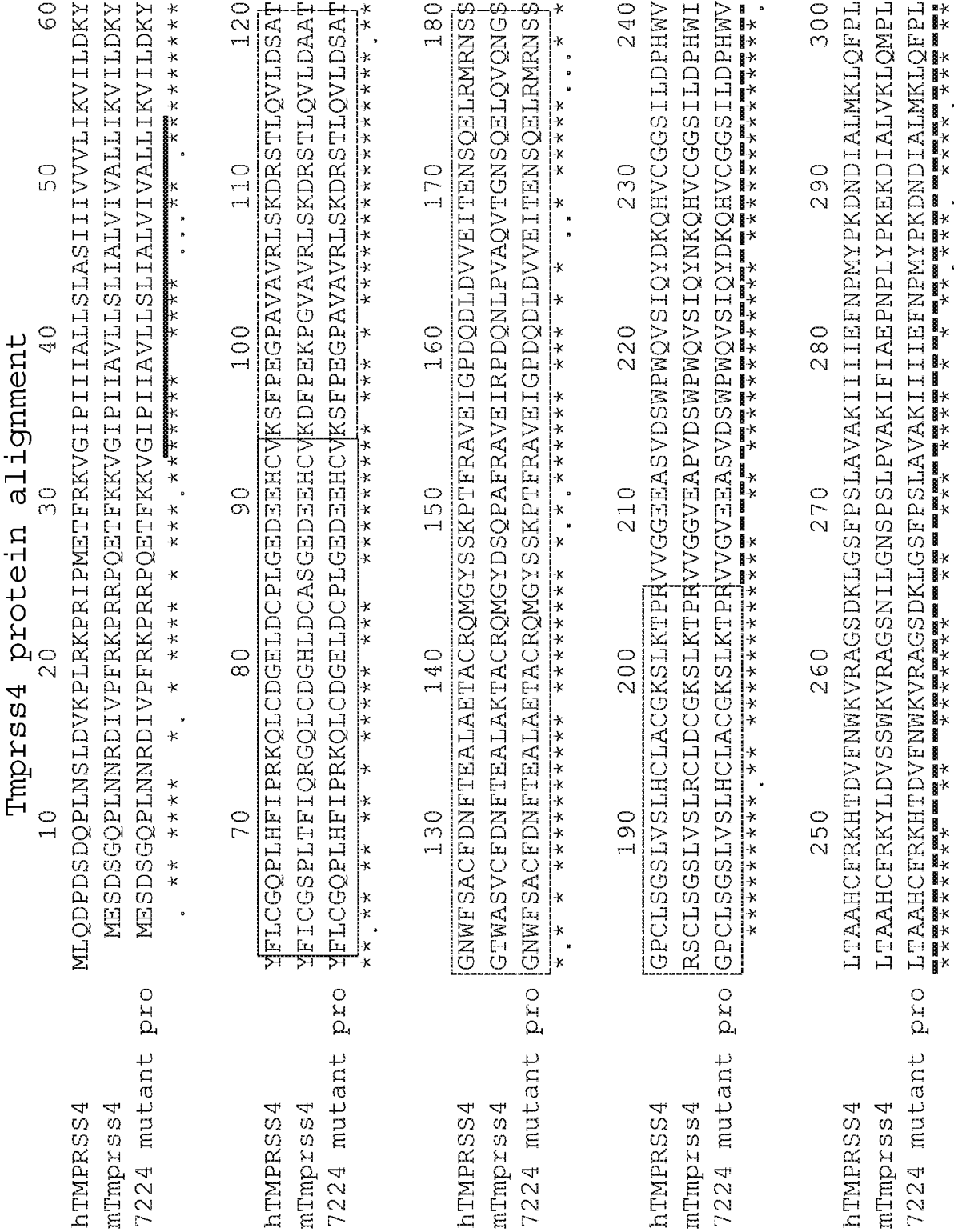


Figure 2D

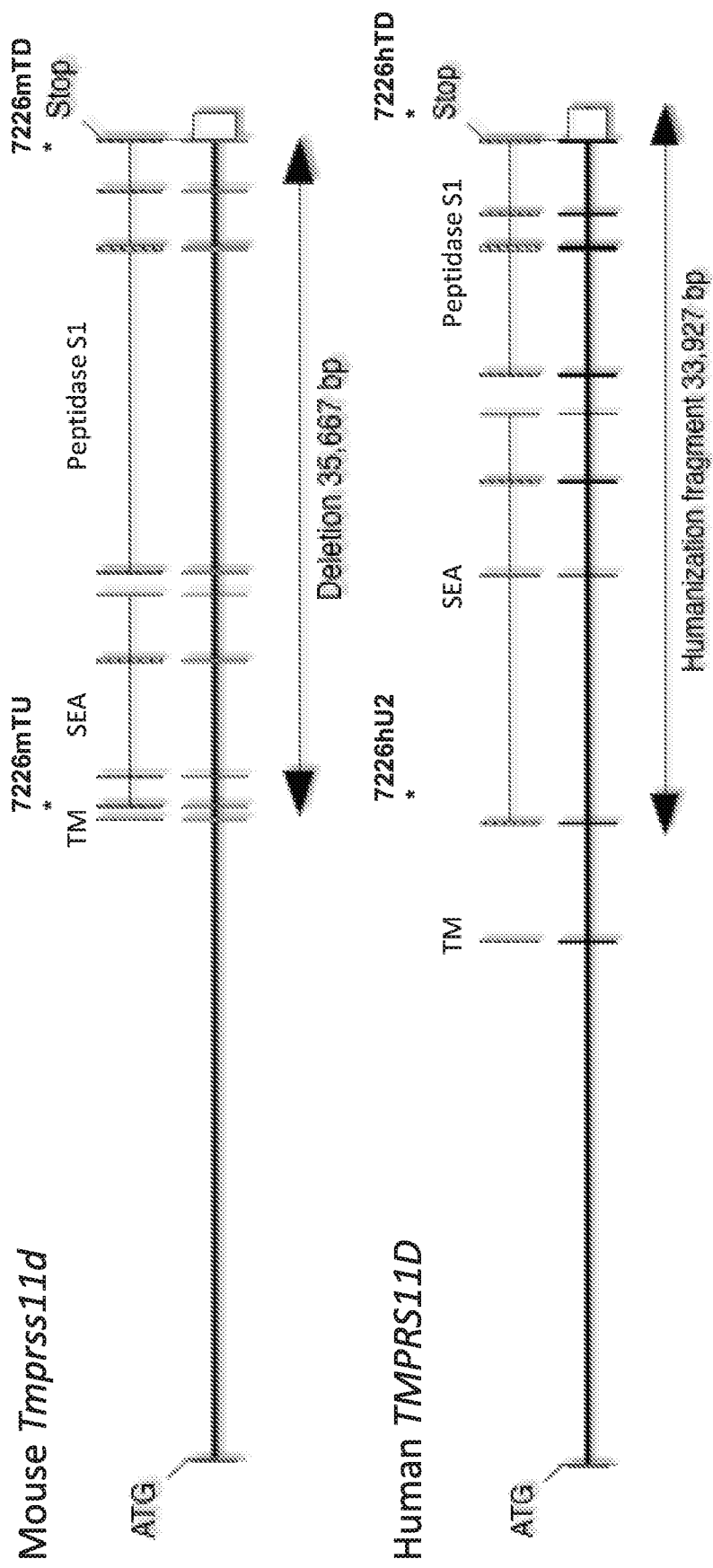
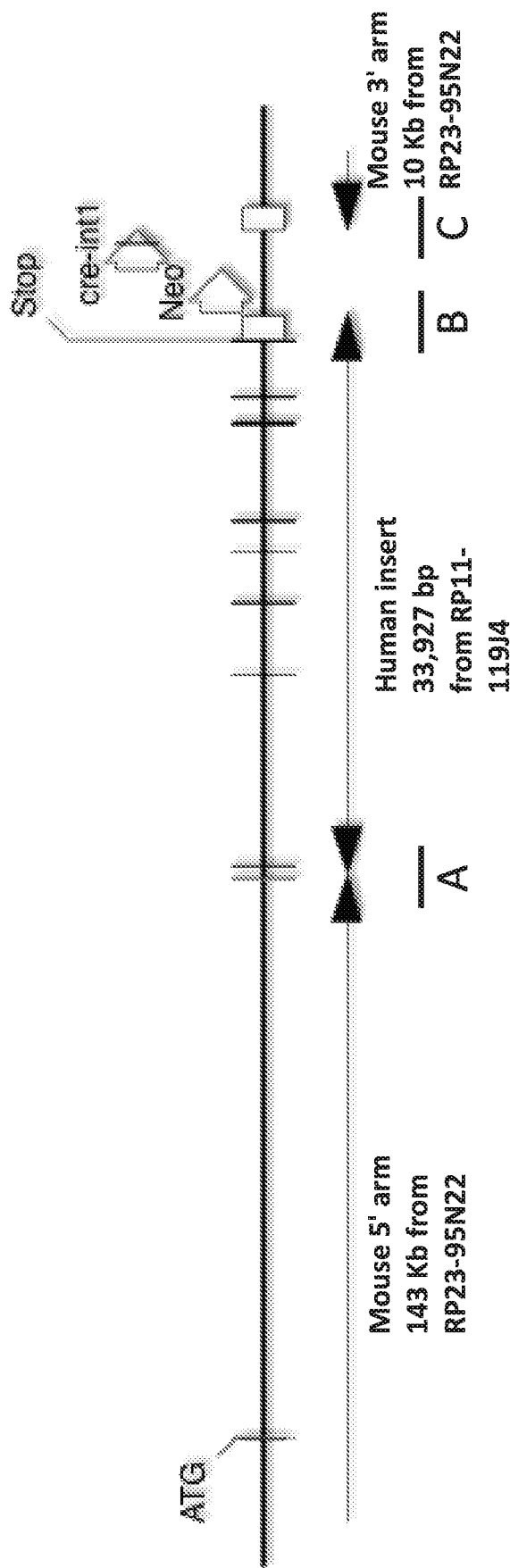
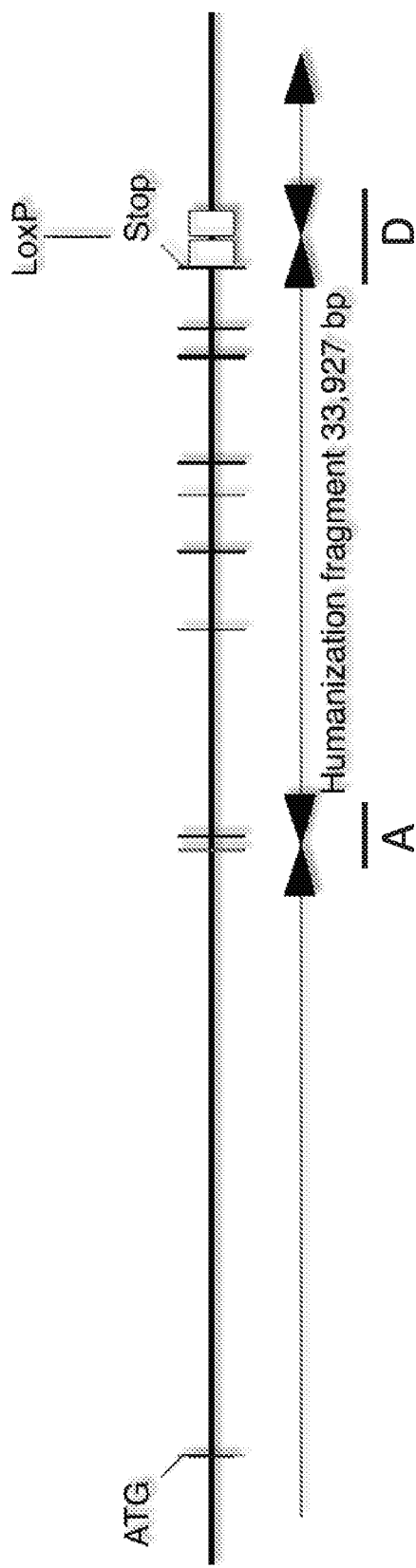


Figure 3A



A. mouse // human (SEQ ID NO:57)	GACCATTTTA AGGTTTGTGCT TGGTTGTTTT GGAGGGAGGG TGGTGCTTTG // CTAATGGTGA ATTACTAACT CCTCAATAAA GAATATTATT TGAATAAATT
B. human// <u>XhoI</u> // (<u>loxP</u>) Cassette (SEQ ID NO:58)	GCTGCTTTT AATCCAGCGC TATAATTGAG GCAAGCGTCC AGCTTGACAC// <u>CTCGAG</u> // <u>ATAACITTCG TATAATGTA</u> <u>T GCTATACGAA GTTAT</u> ATGCATGGCC TCCGCGCCGG GTTTTGGCGC CTCGCGCGG CGCCCCCTC CTCACGGCGA GCGCTGCCAC GTCAGACGAA GGCGCAGCG AGCGTCCTGA
C. Cassette (<u>loxP</u>)/ICEUI// <u>N</u> <u>heI</u> //mouse (SEQ ID NO:59)	ATTGTTTTGC CAAGTTCTAA TTCCATCAGA CCTCGACCTG CAGCCCCCTAG <u>ATAACTTCGT</u> <u>ATAATGTATG CTATACGAAG TTAT</u> /GCTAGTACTATAACGGTCCTAAGGTAGCGA // <u>GCTAGC</u> //TGCAACCGAG GAAAAACGT GCCATGAGGT CTCTGTATCC AAGTGTGACT

Figure 3B



A. mouse // human (SEQ ID NO:57)	GACCAATTTTA AGGTTTTTGCT TGGTTGTTTT GGAGGGAGGG TGGTGCTTTG // CTAATGGTGA ATTACTAACT CCTCAATAAA GAATATTATT TGAATAATT
D. human// <u>XhoI</u> //(<i>loxP</i>) /ICEUI// <u>NheI</u> //mouse (SEQ ID NO:60)	CCAGTCAGGG ACACACATGC TCACACGCCC GCCACCCGC ACACACTACA //CTCGAG//ATAACTTCG TATAATGTAT GCTATACGAA GTTAT /GCTAGTAACTATAACGGTCCCTAAGGTAGCGA // GCTAGC // TGCAACCCGAG GAAAAAACGT GCCATGAGGT CTCTGTATCC AAGTGTGACT

Figure 3C

Tmprssl1d protein alignment

	10	20	30	40	50	60
hTMPRSS11D	MYRPARVTSTSRFLNPYVVC	FI	VAGV	ILAV	TIALLVYFLAFDQ	KSYFYRSSFQLLNVE
mTmprssl1d	MYRPRPMLSPSRFFTPFA	VA	FVVI	ITVGLLAMAGLI	IHF	LAFDKKAIFYHSSFQILLNVE
7226 mutant	MYRPRPMLSPSRFFTPFA	VA	FVVI	ITVGLLAMAGLI	IHF	LAFDQKSYFYRSSFQLLNVE

	70	80	90	100	110	120
hTMPRSS11D	YNSQLNSPATQ	EYRTL	SGRIE	SLITK	TFKES	NLRNQFI
mTmprssl1d	YTEALNSPAT	THEYRTL	SERIE	AMITD	EF	RGSSSLKSEFIR
7226 mutant	YNSQLNSPATQ	EYRTL	SGRIE	SLITK	TFKES	NLRNQFI

	130	140	150	160	170	180
hTMPRSS11D	QFTRNNNGAS	MKSRIE	SVLRQ	MLN	SGN	LEINP
mTmprssl1d	RSSKRN	NRKVMK	TRIQSV	LRRLSS	SGN	LEIAPSNEIT
7226 mutant	QFTRNNNGAS	MKSRIE	SVLRQ	MLN	SGN	LEINP

	190	200	210	220	230	240
hTMPRSS11D	TLSEQRILG	GTEAEE	GSWPQ	VS	LR	LNNAH
mTmprssl1d	TLSEERI	IGGMQAE	PGDWP	QV	SLQ	LN
7226 mutant	TLSEQRILG	GTEAEE	GSWPQ	VS	LR	LNNAH

	250	260	270	280	290	300
hTMPRSS11D	TSGISTTF	PKLR	MRVR	NI	LI	HNNYK
mTmprssl1d	TFGVST	MSPR	LRVR	RAI	LAH	DGYSS
7226 mutant	TSGISTTF	PKLR	MRVR	NI	LI	HNNYK

Figure 3D

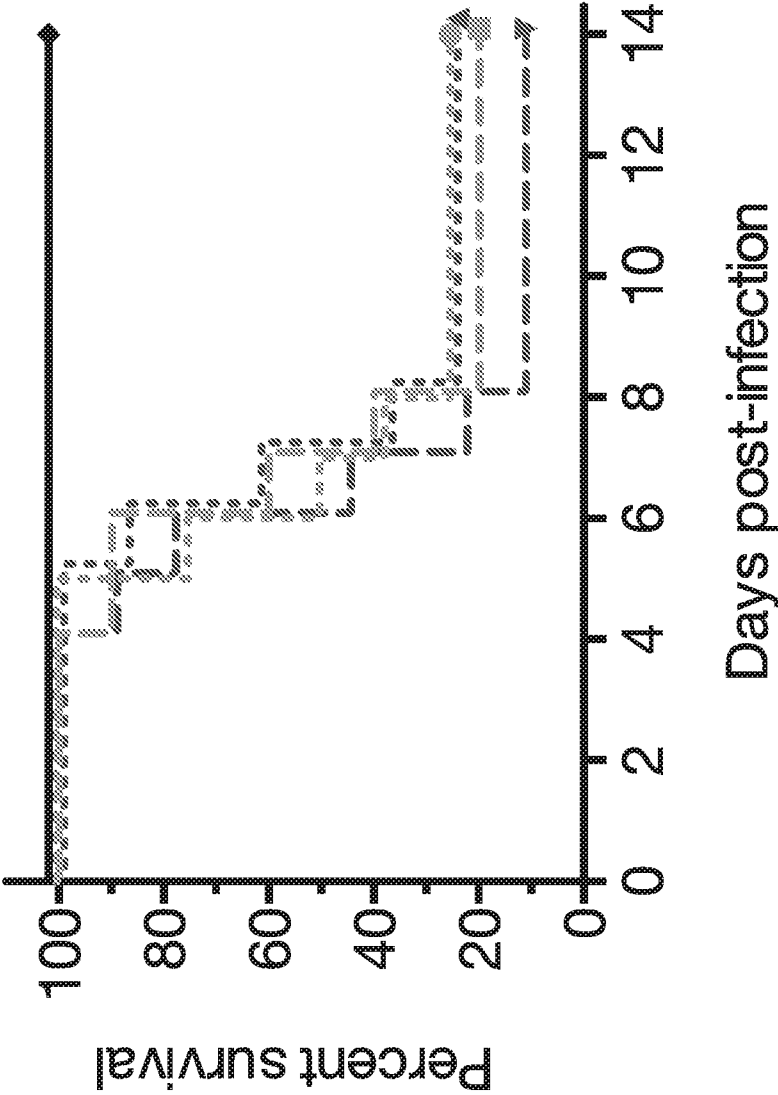


Figure 4