

FIG. 1A

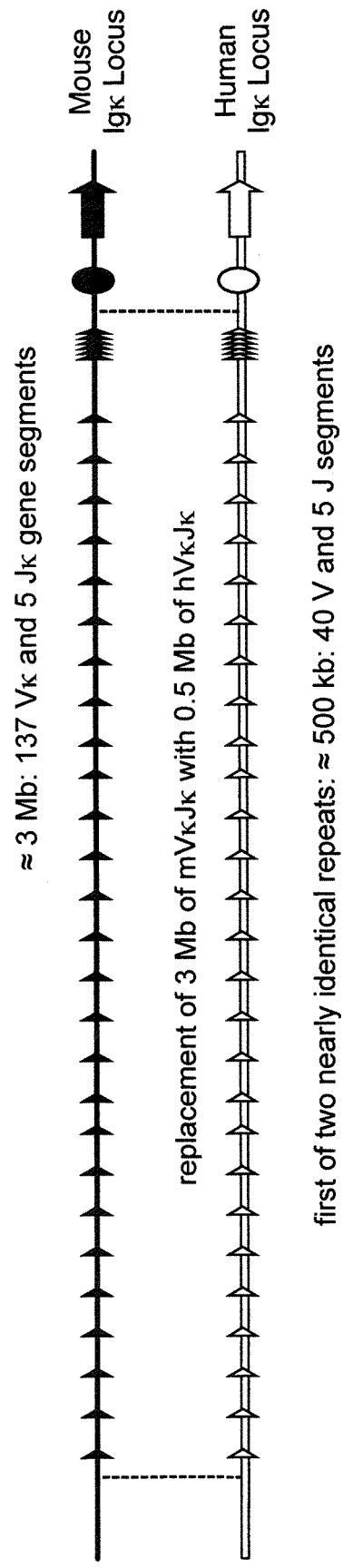


FIG. 1B

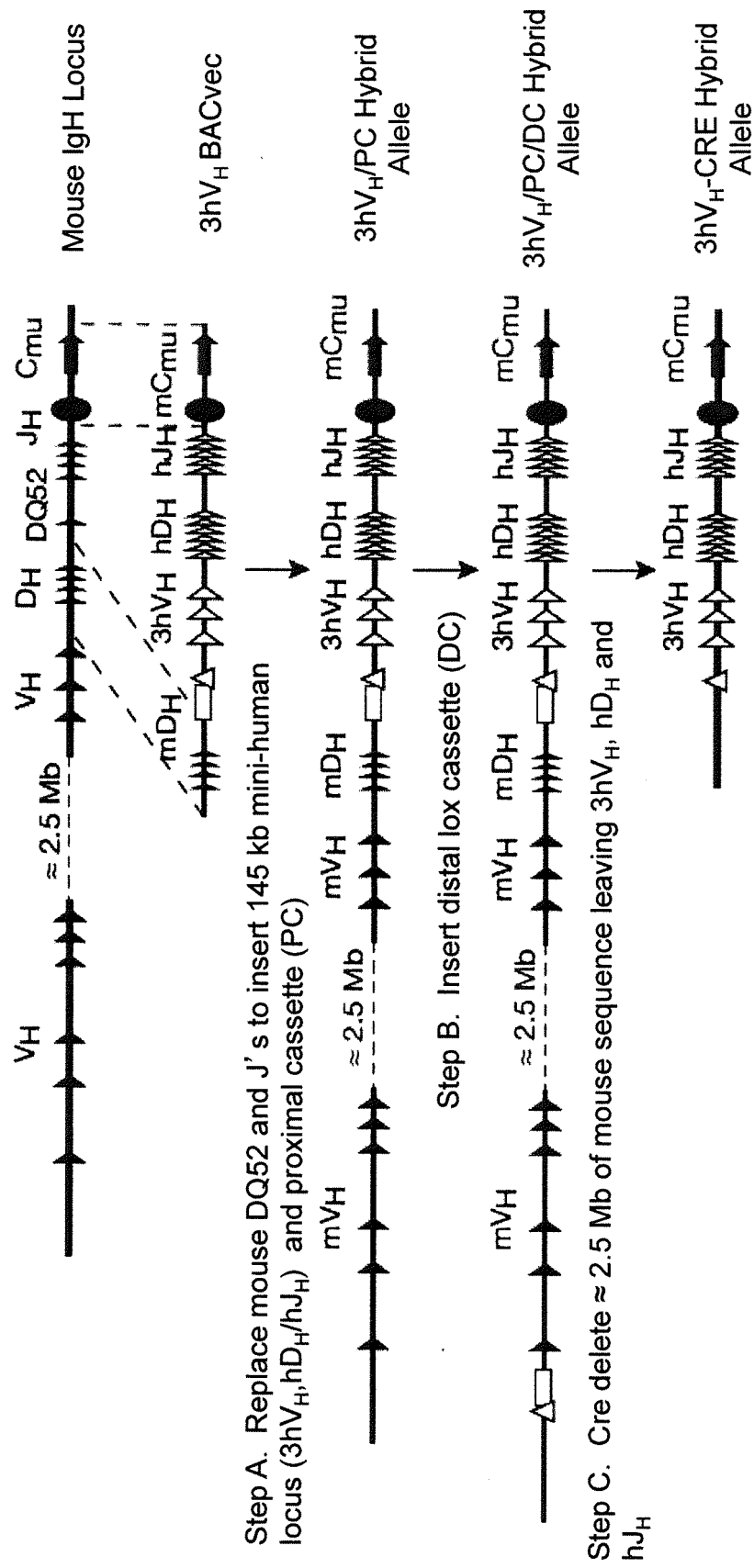


FIG. 2A

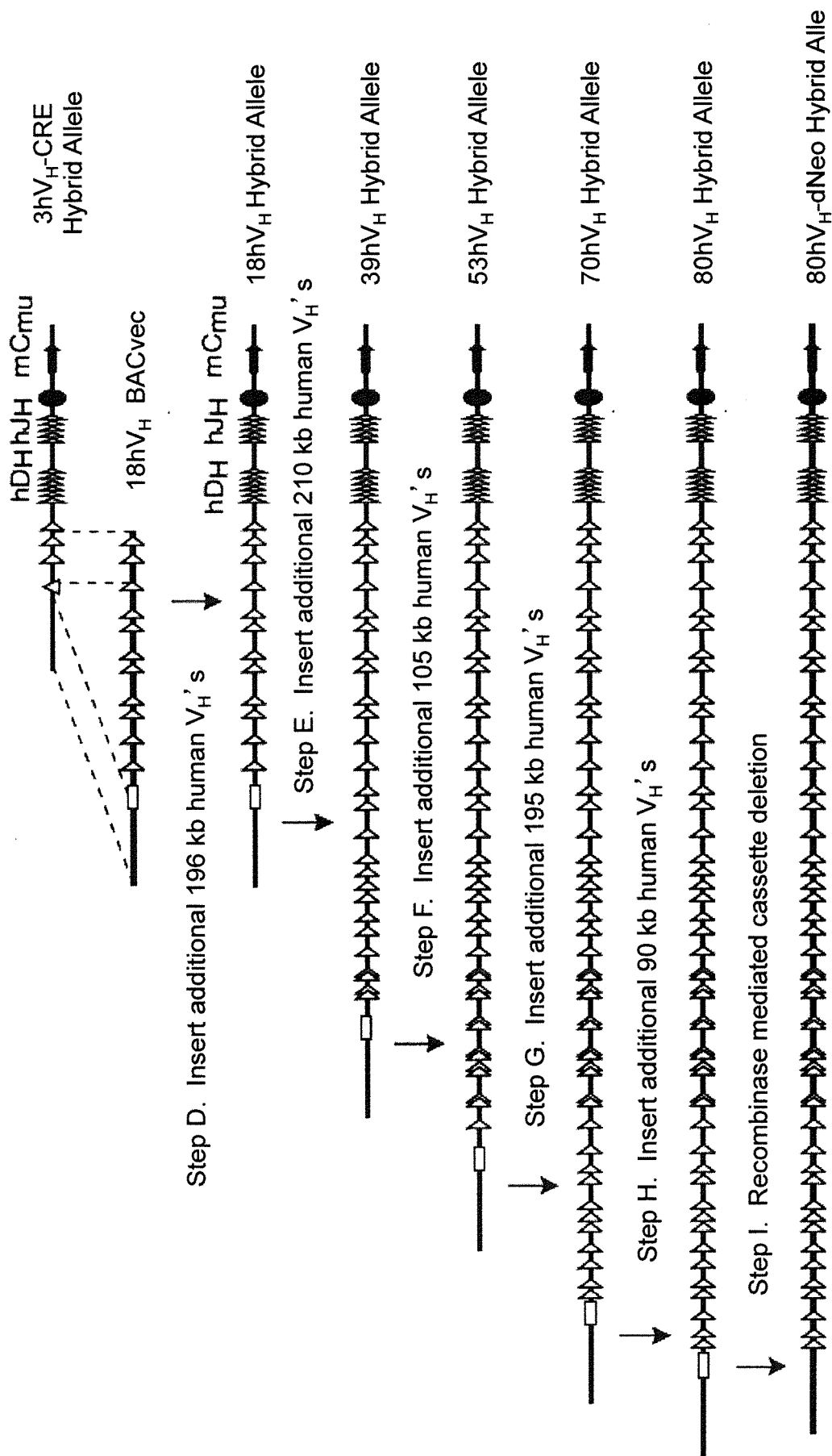


FIG. 2B

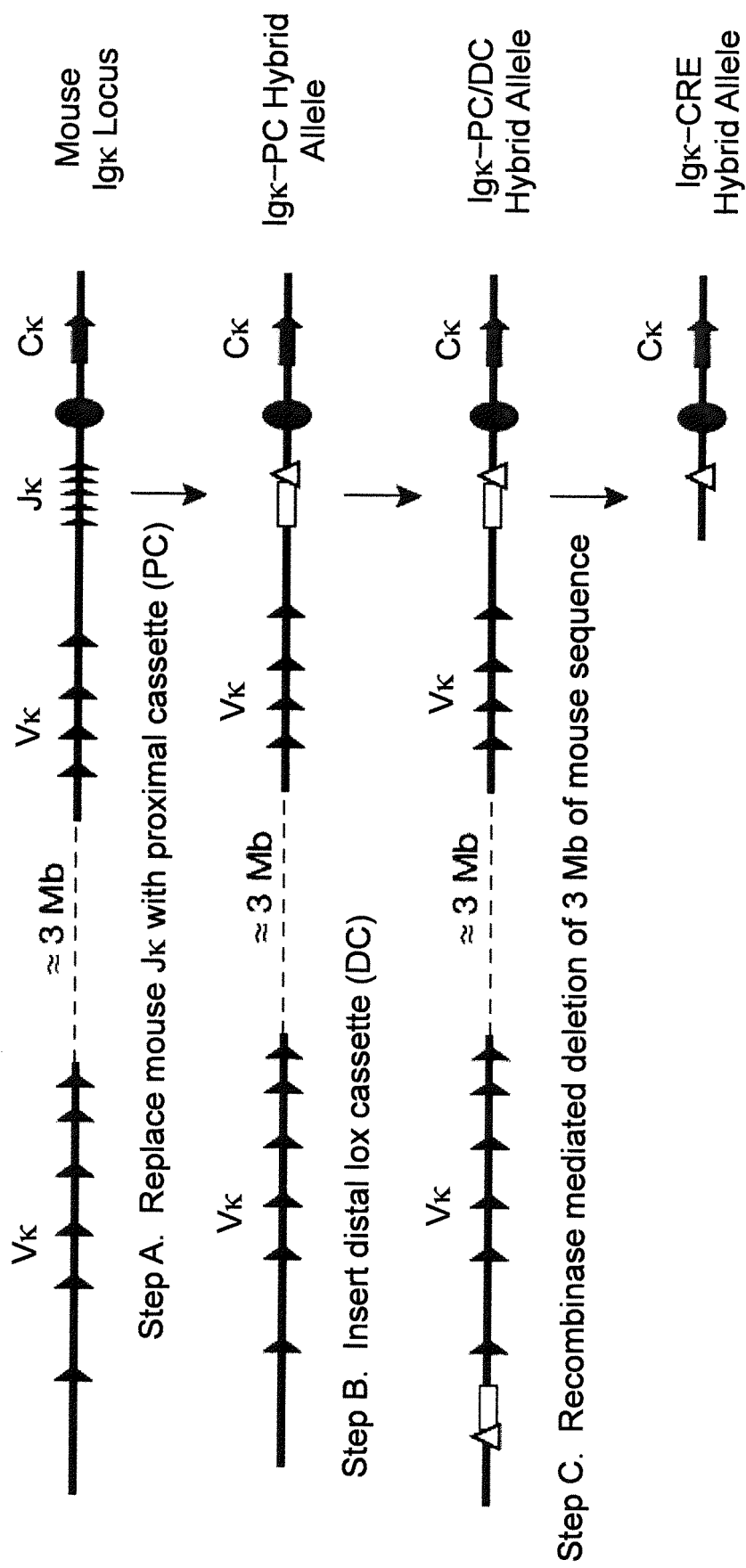


FIG. 2C

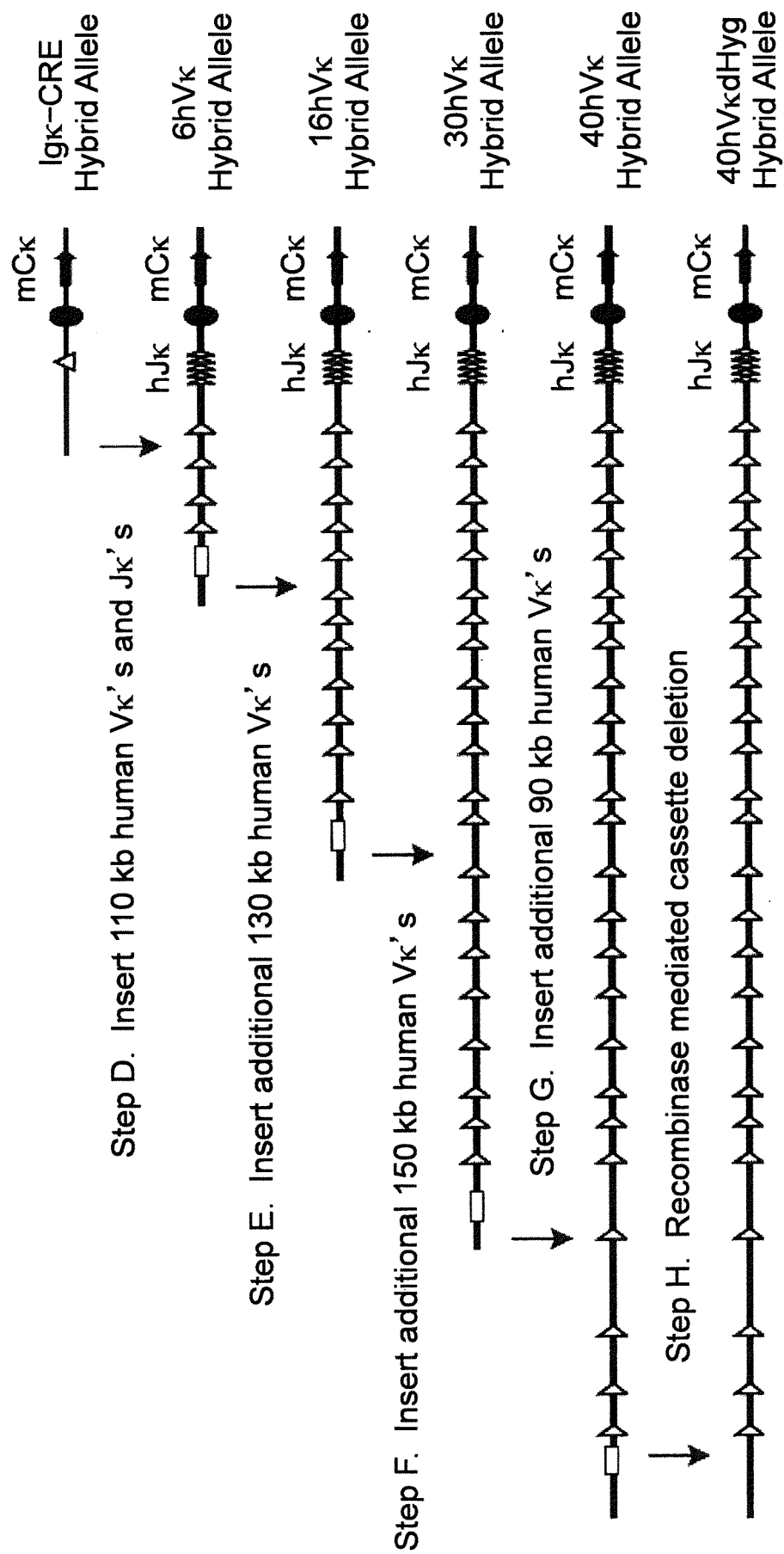


FIG. 2D

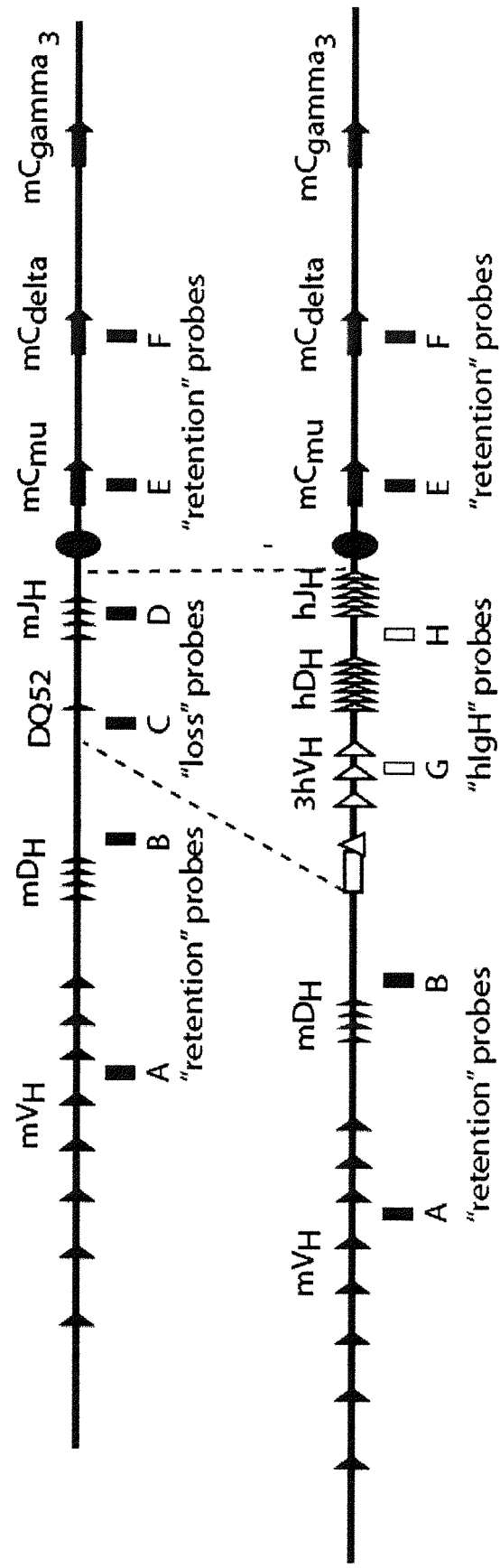


FIG. 3A

		A	B	C	D	E	F	G	H
Parental ES	Theoretical copy number	2	2	2	2	2	2	0	0
	Observed copy number	1.9	1.8	2.1	1.8	1.9	1.8	<0.01	<0.04
Modified ES	Theoretical copy number	2	2	1	1	2	2	1	1
	Observed copy number	1.9	2.4	1.0	1.0	2.0	1.9	+	+

FIG. 3B

	copy number	D	H
WT Mice	Theoretical	2	0
	Observed 1	1.71	< 0.01
	Observed 2	2.07	< 0.01
	Observed 3	2.16	< 0.01
	Observed 4	1.88	< 0.01
Het Mice	Theoretical	1	1
	Observed 1	1.22	1.04
	Observed 2	0.94	1.02
	Observed 3	0.85	0.95
	Observed 4	1.02	1.00
Homo Mice	Theoretical	0	2
	Observed 1	< 0.01	2.37
	Observed 2	< 0.01	2.22
	Observed 3	< 0.01	2.43
	Observed 4	< 0.01	1.93

FIG. 3C

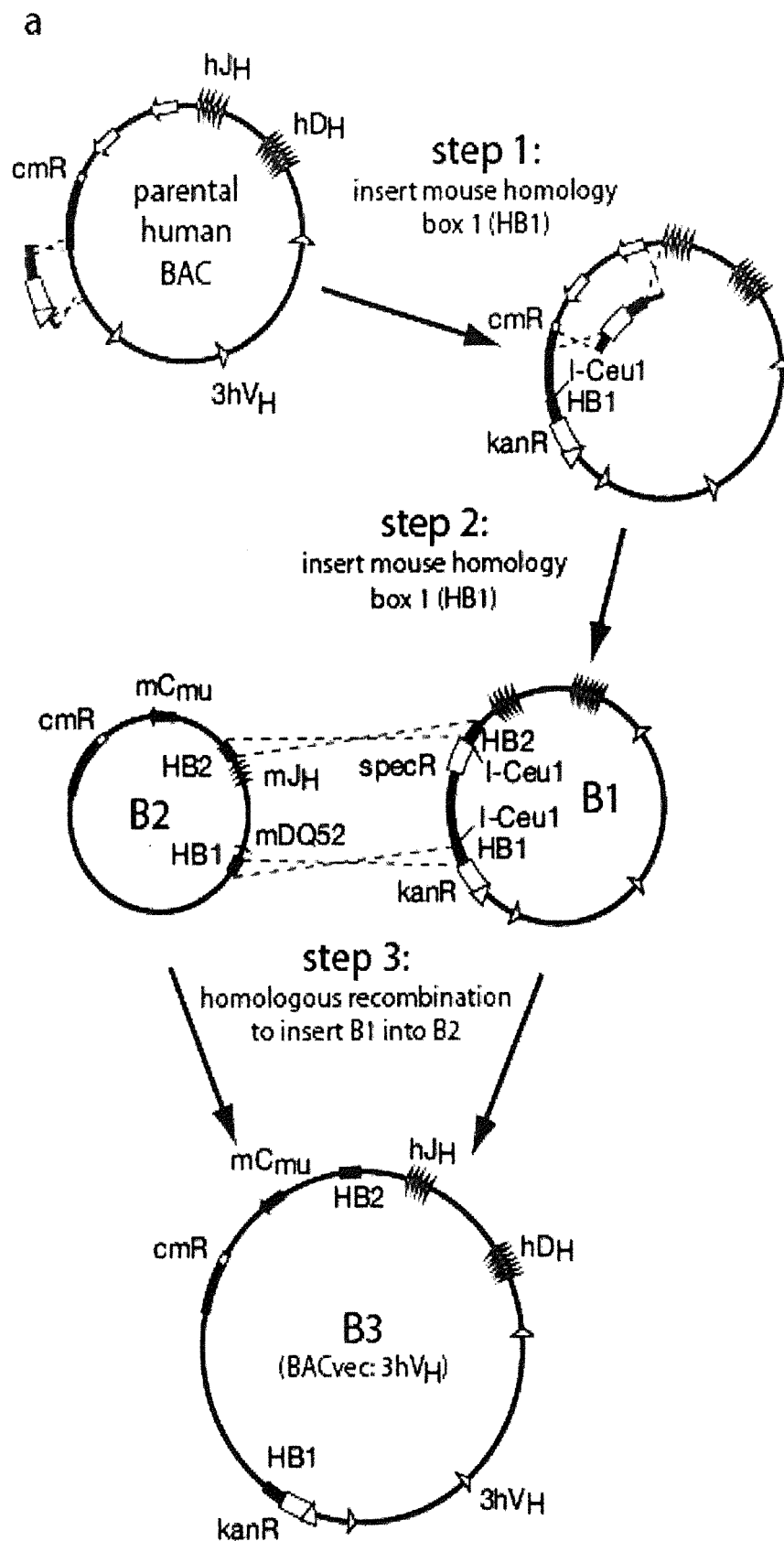


FIG. 4A

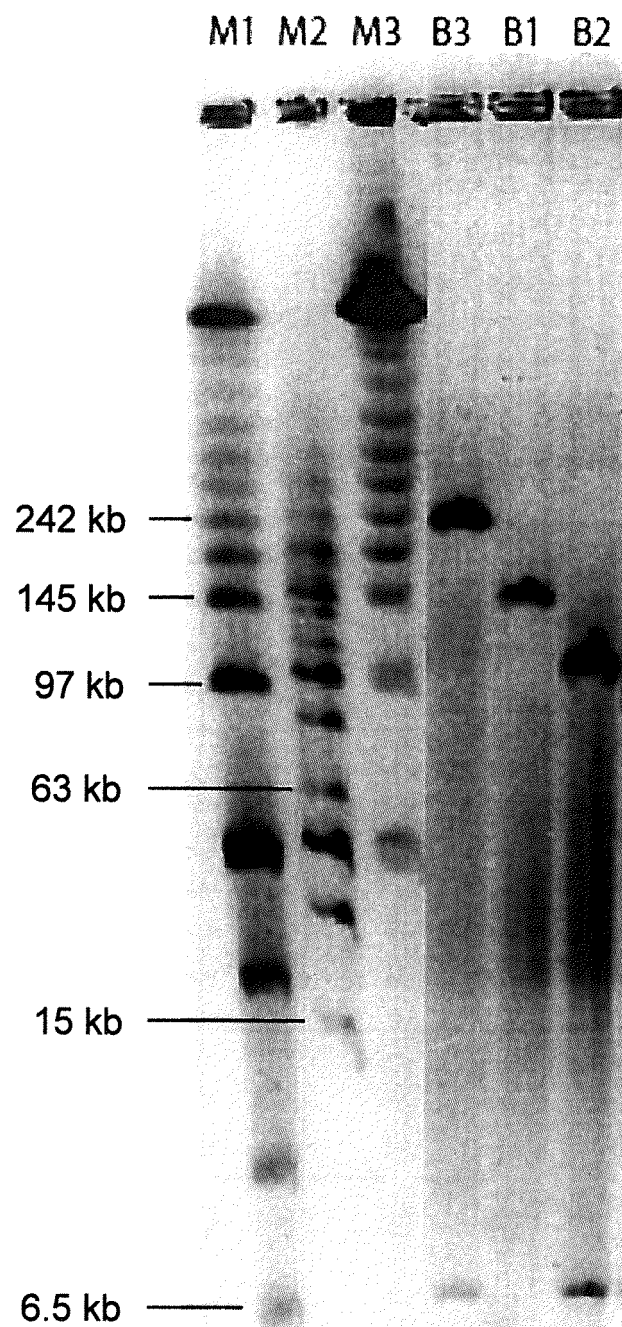


FIG. 4B

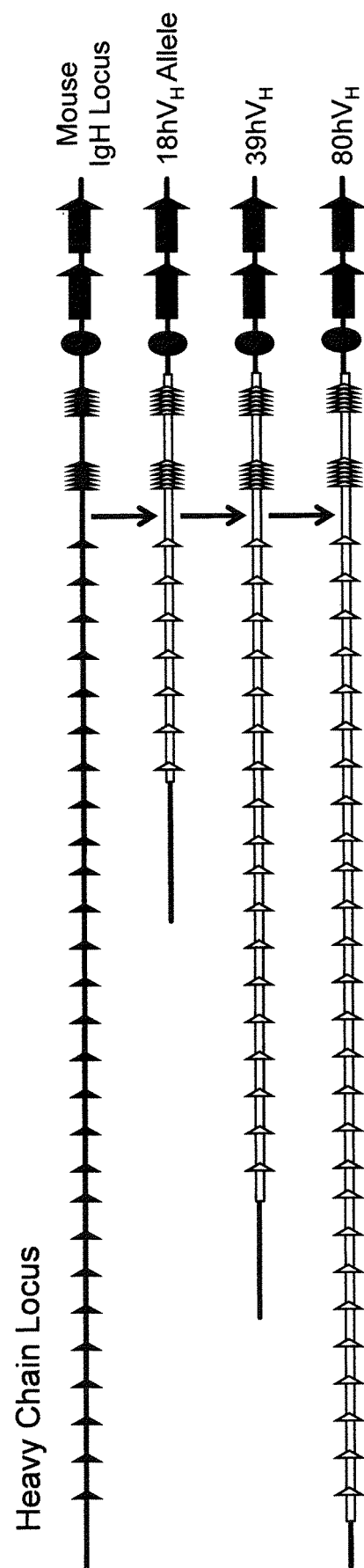


FIG. 5A

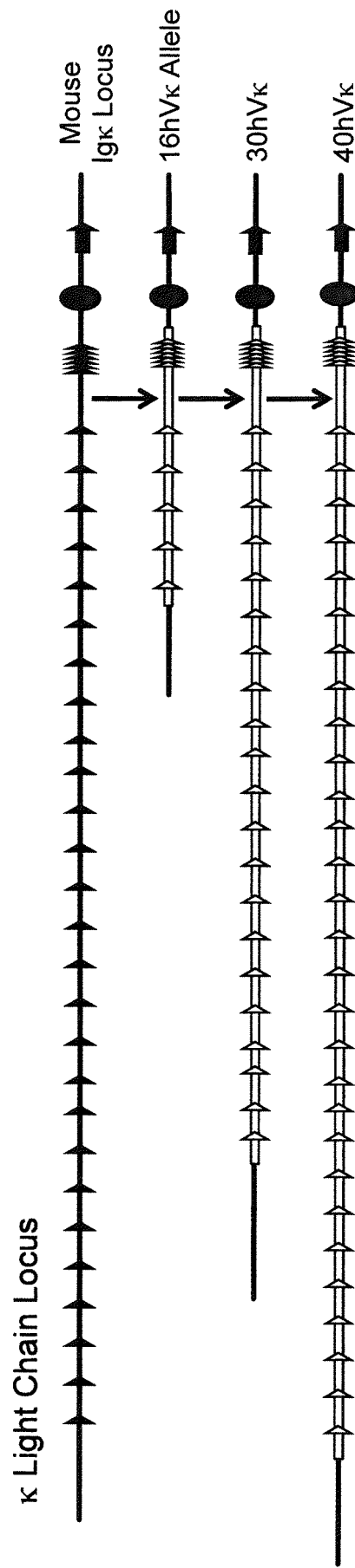


FIG. 5B

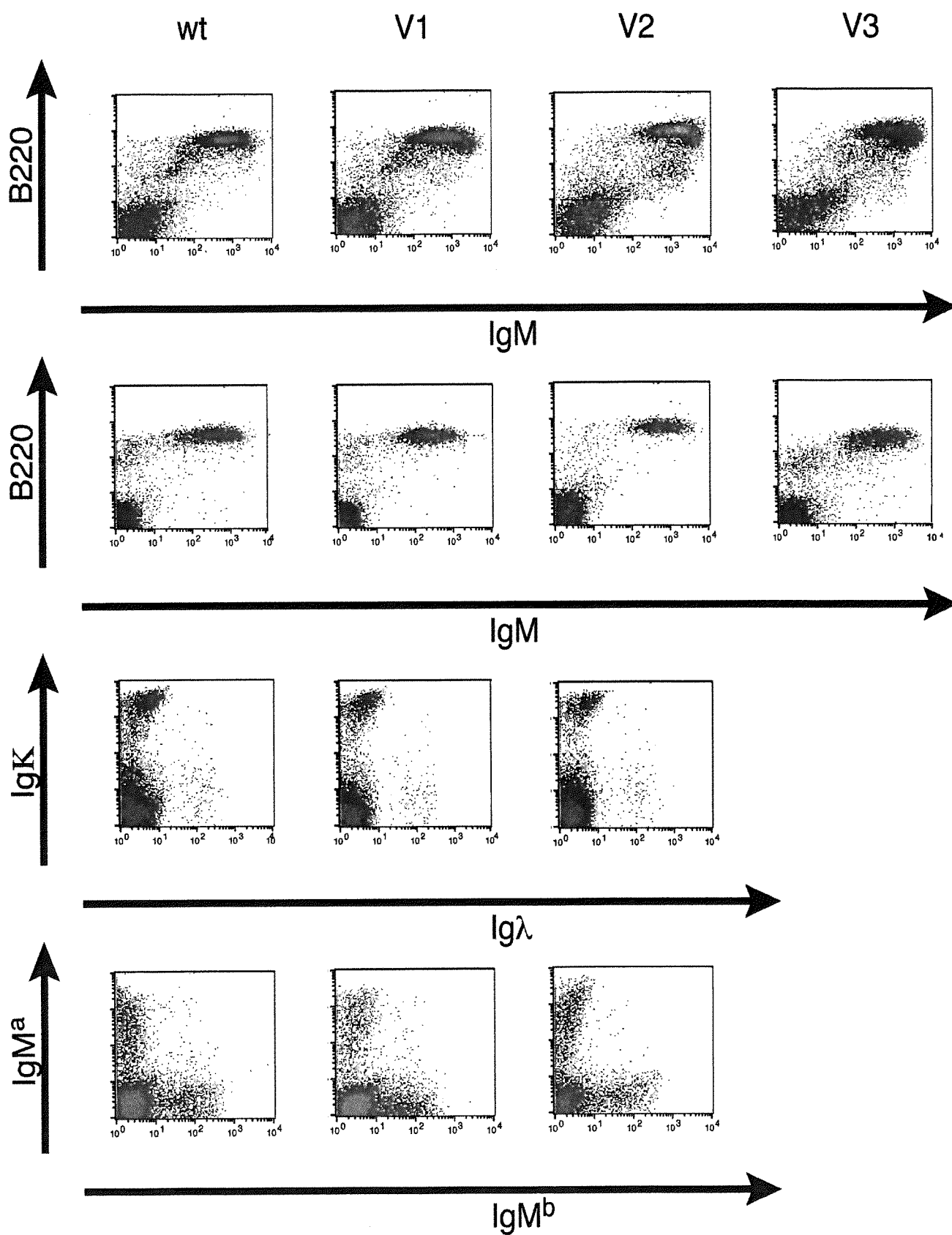


FIG. 6

3'V _H	N	D _H	N	5'J _H
(3-72) GCTAG	(D _H 1-26)	GGTATAGTGGGAGCTACTAC		
(3-9) GCAAAAG	CCCAGGGG	TAGTGGGgCCTAC	AGGC	CTTTTGATATC (3)
(3-7) GCGAGAGA	G	AGTGGGAGCTACTAC	ACCT	ATGCTTTTGATATC (3)
(4-59) GCGAGAG	GGAC	GGTATAGTGGGAaCTACT	GAGG	ACTTTGAtTAC (4)
(3-23) GCGAAA	CC	AGTGGGAGC	CCT	CTTTGACTAC (4)
		TAGTGGGAGCTACT	C	CTGGTTCGACCCC (5)
(4-34) GCGAGAGG	(D _H 1-7)	GGTATAACTGGAaCTAC		
(1-2) GCGAGAG	AGGAG	GGTATAACTGGAaCT	CGA	ATGCTTTTGATATC (3)
(3-23) GCGAAAGA	GA	TATAACTGGA	TGG	ACTACTTTTGACTAC (4)
(3-7) GCGAGAGA	G	GTATAACTGGAACcAC	CCC	TACTTTTGACTAC (4)
(4-59) GCGAG	GGGA	ATAACTGGAAC	TTTC'TTTT	CTTTGACTAC (4)
(4-39) GCGAGA	GG	TATAACTGGAaCT	CTCTGGG	TTTGACTAC (4)
		TAACTGGAaCT		CTTTGACTAC (4)
(3-30) GCGA	(D _H 3-10)	GTATTACTATGGTTCGGGGAGTTATTATAAC	CTC	TTGACTAC (4)
(1-2) GCGAGAGA	AAAGGGC	TACTATGGTTCGGGGAG	GAAGGT	CTACGGTATGGACGTC (6)
		TATTACTATGGTTCGGGGAGTTATTATAAC		
(1-2) GCGAGAGA	(D _H 6-6)	GAGTATAGCAGCTCGTCC		
(3-48) GCGAGA	GA	GTATAGCAG	TG	CTTTGACTAC (4)
(3-13) GCAAGAGA	GG	GAGTATAGCAGCTCGT	CTCGGG	TGACTAC (4)
		ATAGaAGCTCGCCC		TACTTTGACTAC (4)
(3-7) GCGAGAGA	(D _H 7-27)	CTAACTGGGGA		
(3-15) ACCAC	TCT	TGGGGA	AGG	CTAC (4)
(3-48) GCGAGA	CCA	TAACTGGGGA	GGG	TTTGACTAC (4)
	GATA	GGGGA		CCg (5)

FIG. 7A

3'V _K	N	5' J _K
(1-6) CAACAGAGTTatAGTACCCCTCC	GGA	GACG(1)
(1-9) CAACAGCTTAATAGTTACCCCTC		GGACG(1)
(1-9) CAACAGCTTAATAGTTACC		ATTCAC(3)
(1-9) CAACAttTTAATAGTTACCC		GCTCAC(4)
(3-15) CAGCAGTATAATAACTGGCCCTC		TCAC(4)
(1-17) CTACAGCATAATAGTTACCC		GTGGACG(1)
(1-17) CTACAGCATAATAGTTACCCCTC		GGACG(1)
(3-20) CAGCAGTATGGTAGCTCACCTC		GGACG(1)
(2-30) ATGCAAGGTACACACTGGCC		GTGGACG(1)
(2-30) ATGCAAGGtCACACTGGCC		GTACAC(2)
(2-30) ATGCAAGGTACACACTGGCC		GCTCAC(4)
(1-33) CAACAGTATGATAATCTCCCTCC		CACT(3)
(1-33) CAACAGTATGATAATCTCCC		ATTCAC(3)
(1-33) CAACAGTATGATAATCTCCC	CG	TCAC(4)
(1-33) CAACAGTATGATAATCTCCC		GATCAC(5)
(1-37) CAACGGAtTTACAATGCC	GA	CACC(5)
(1-39) CAACAGAGTTACAGTACCC	CA	TGTACAC(2)
(1-39) CAACAGAGTTACAGTACCCCTC		TCAC(4)
(1-39) CAACAGAGTTACAGTACTCCCTCC		CACT(4)

FIG. 7B

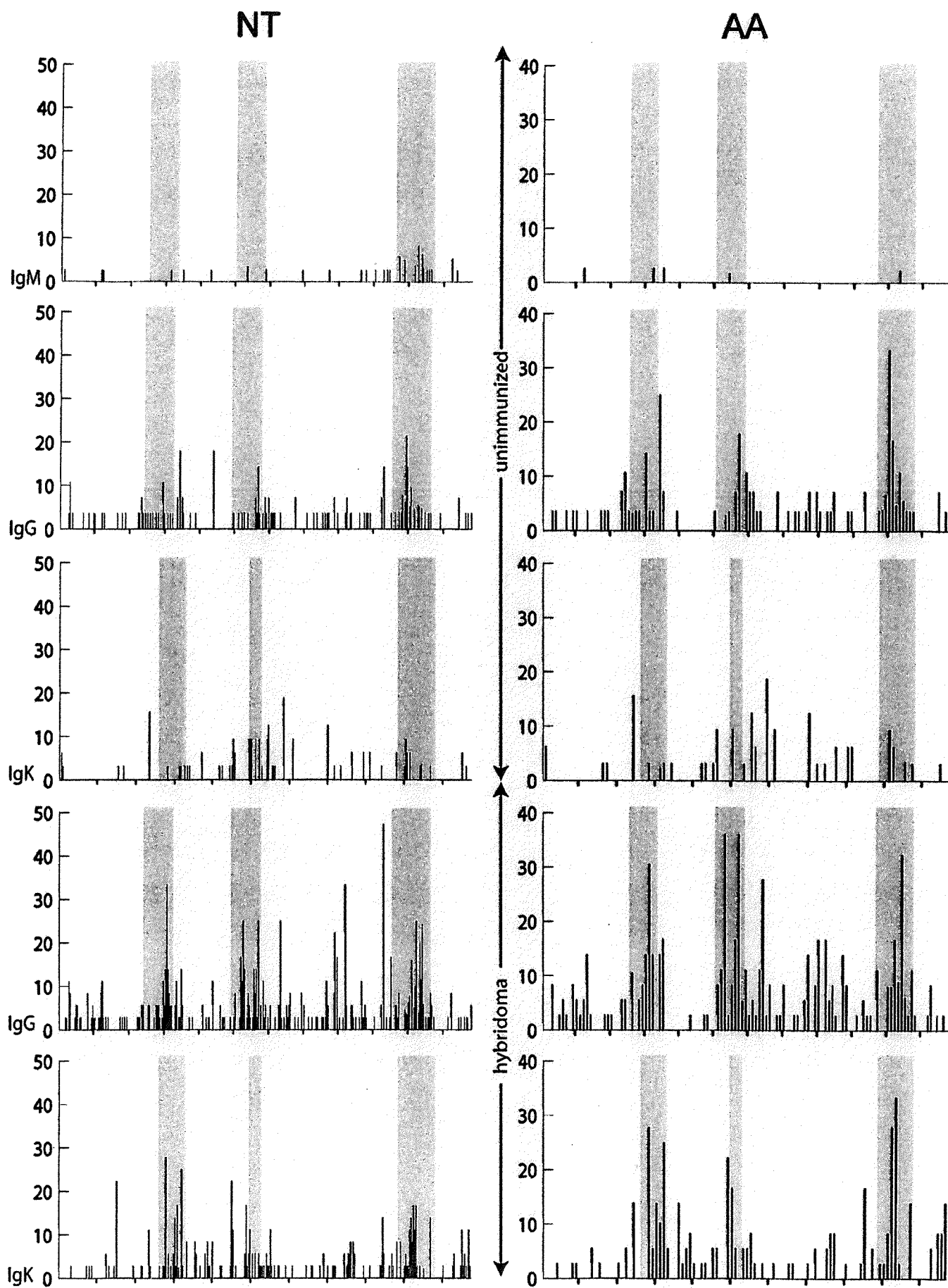


FIG. 8

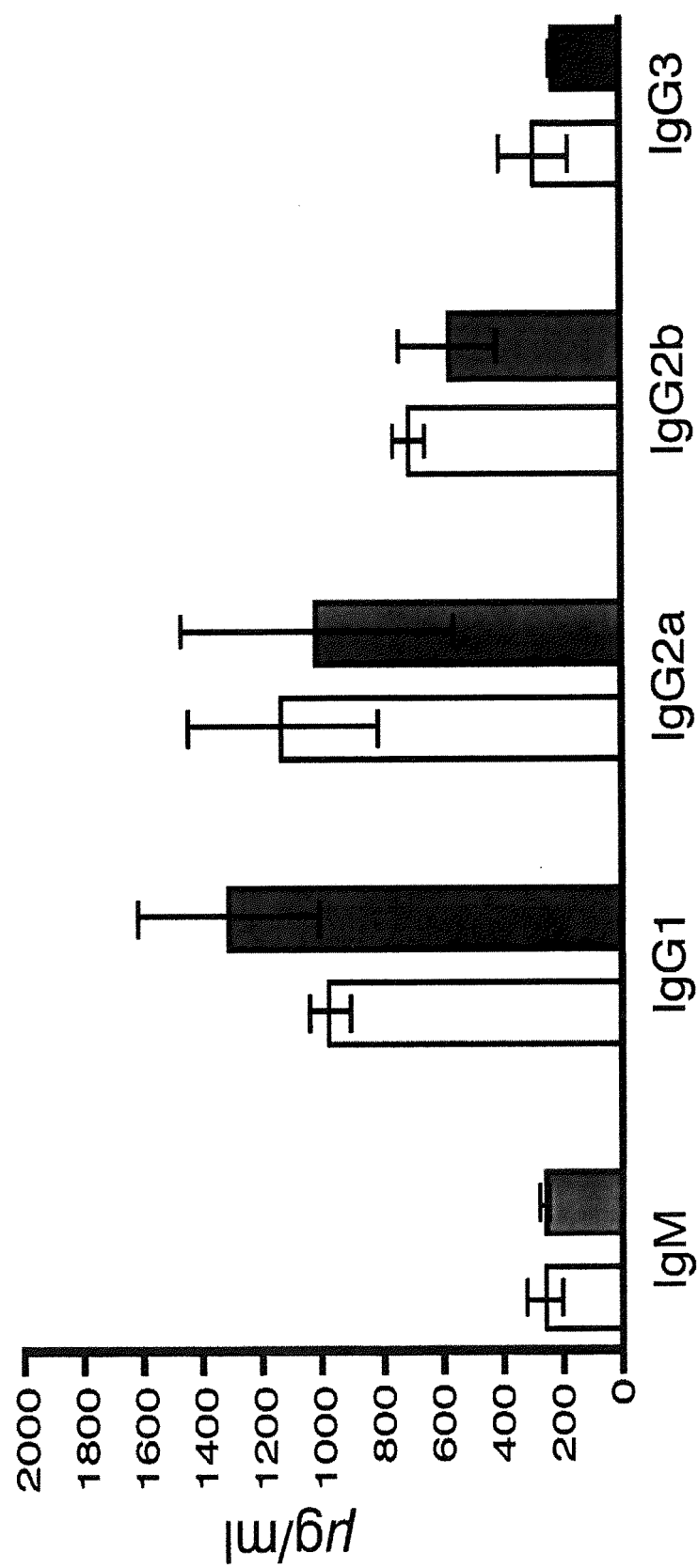


FIG. 9A

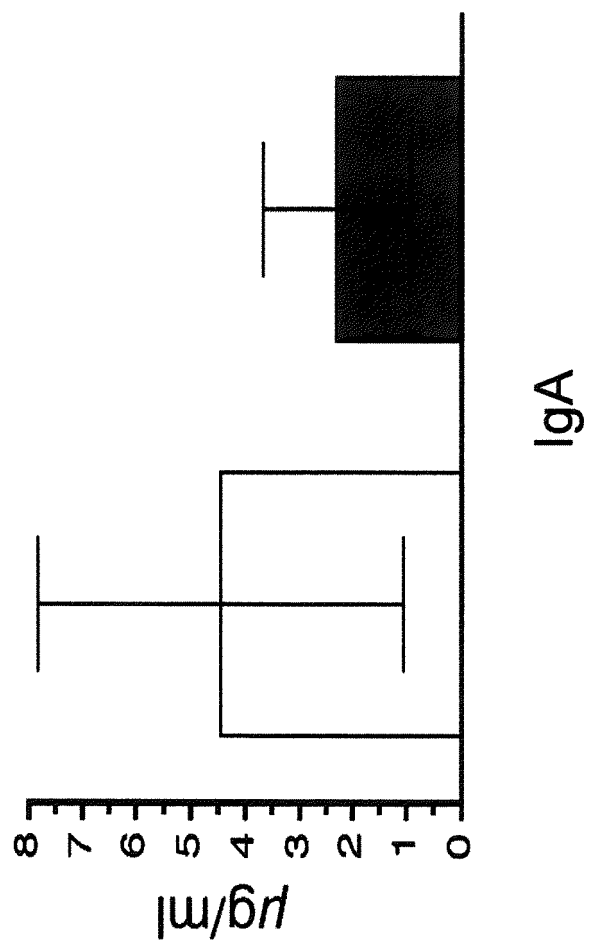


FIG. 9B

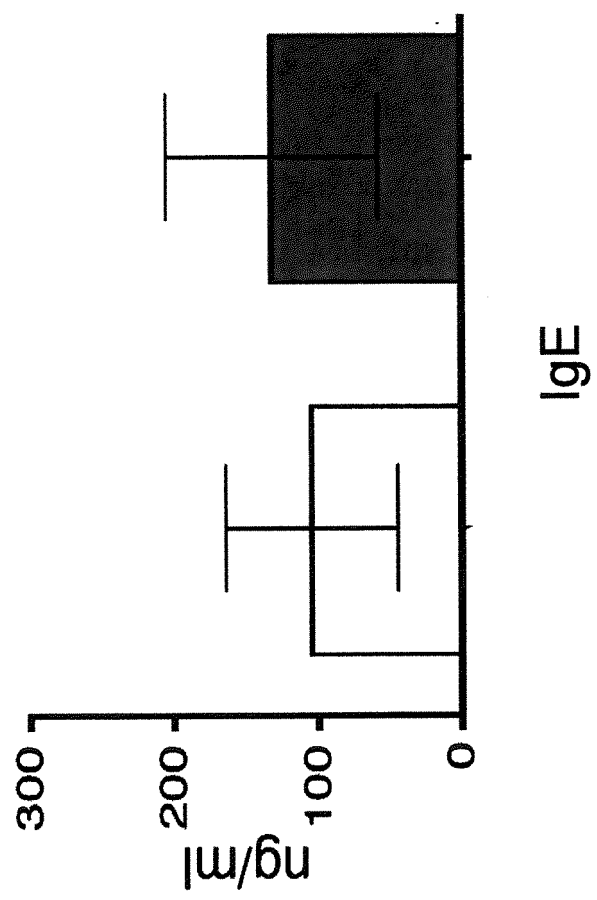


FIG. 9C

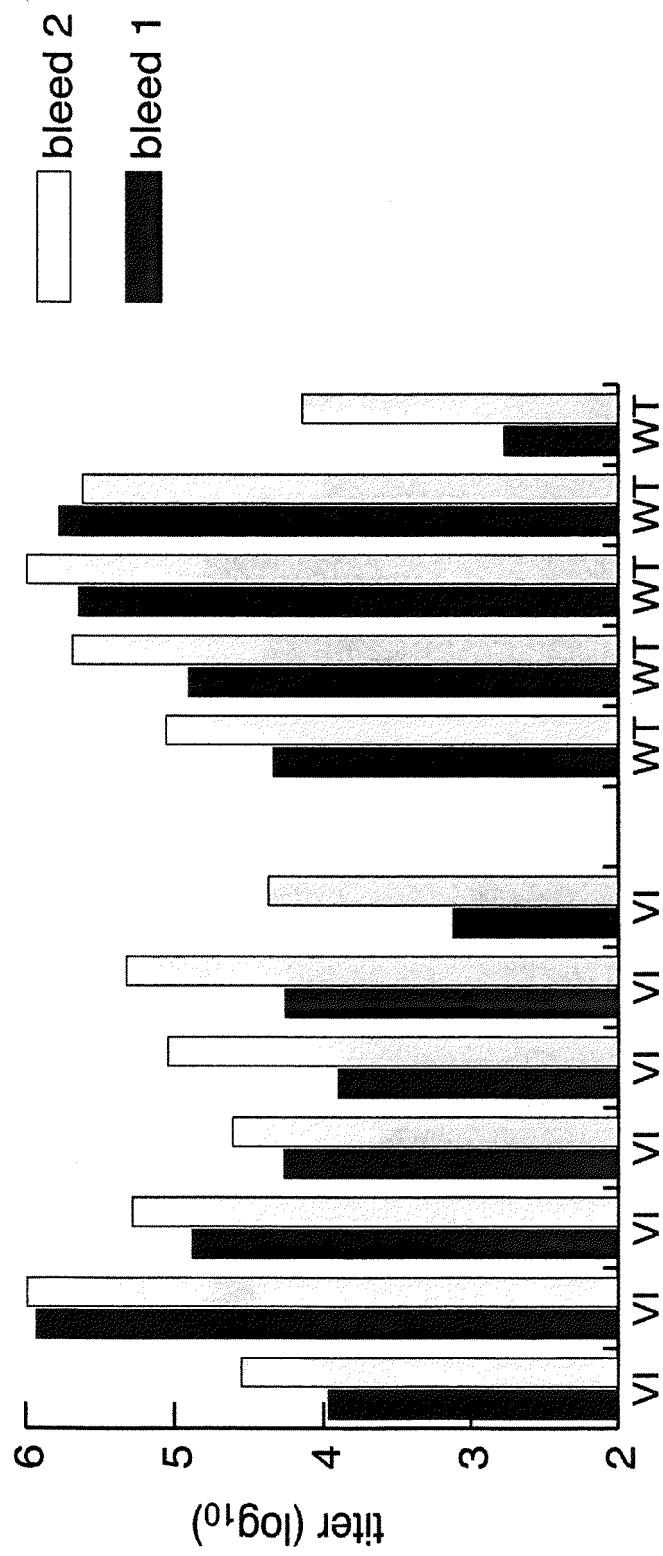


FIG. 10A

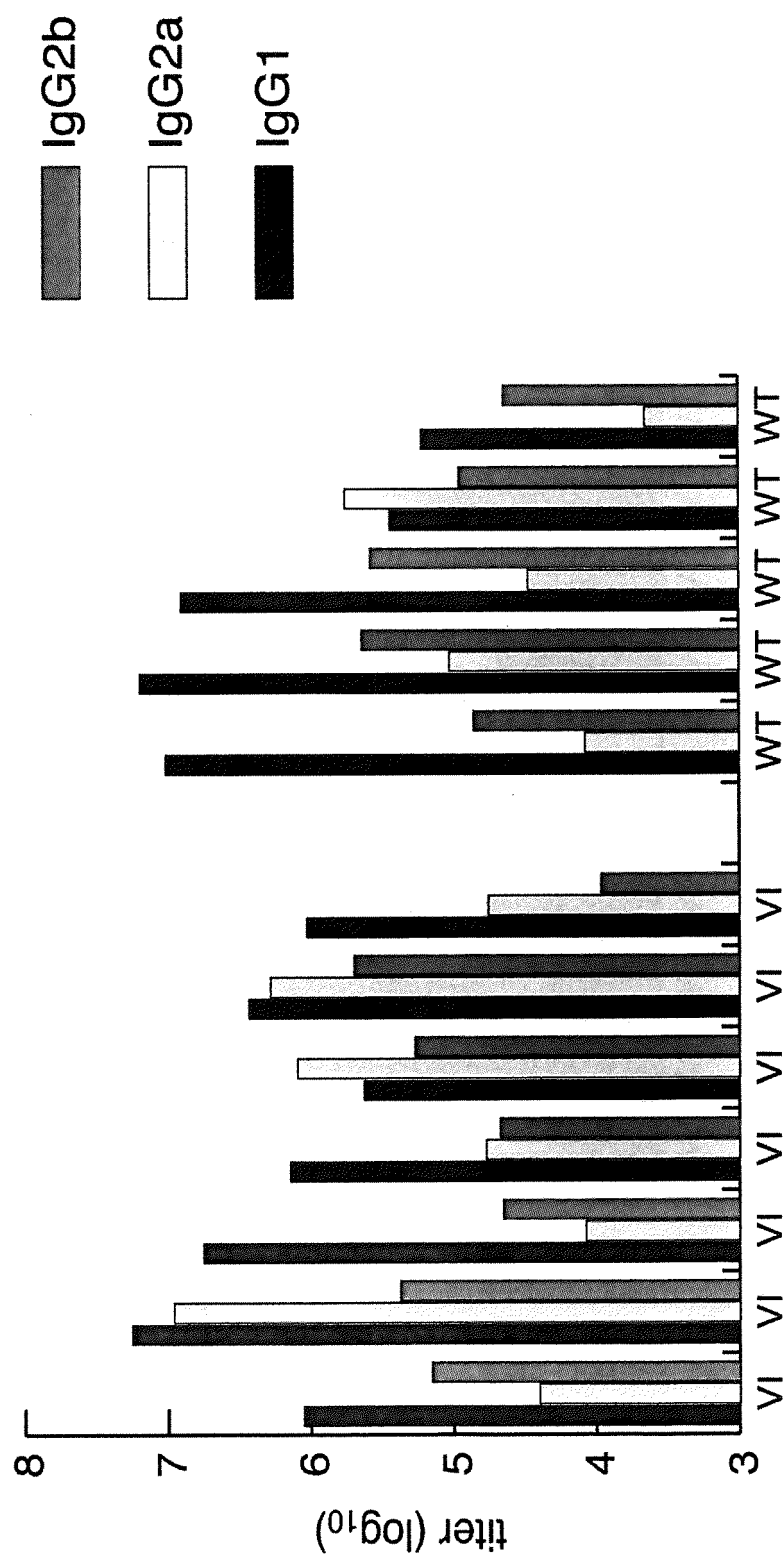


FIG. 10B

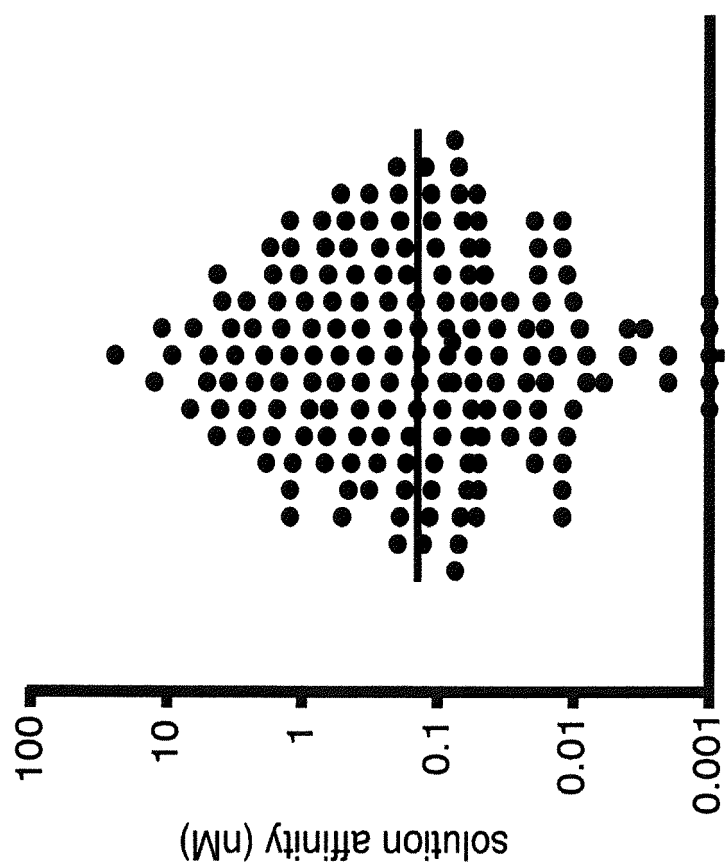


FIG. 11A

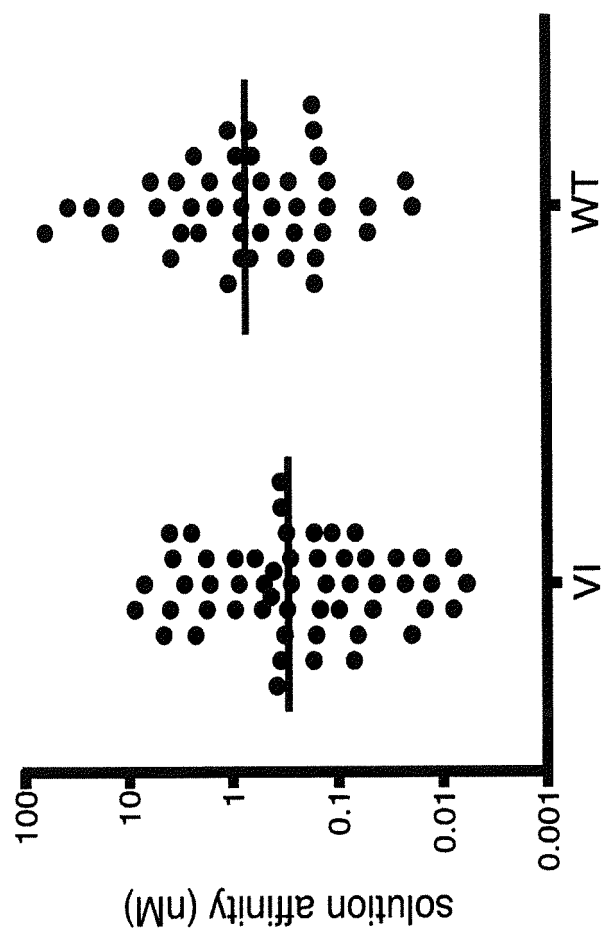


FIG. 11B

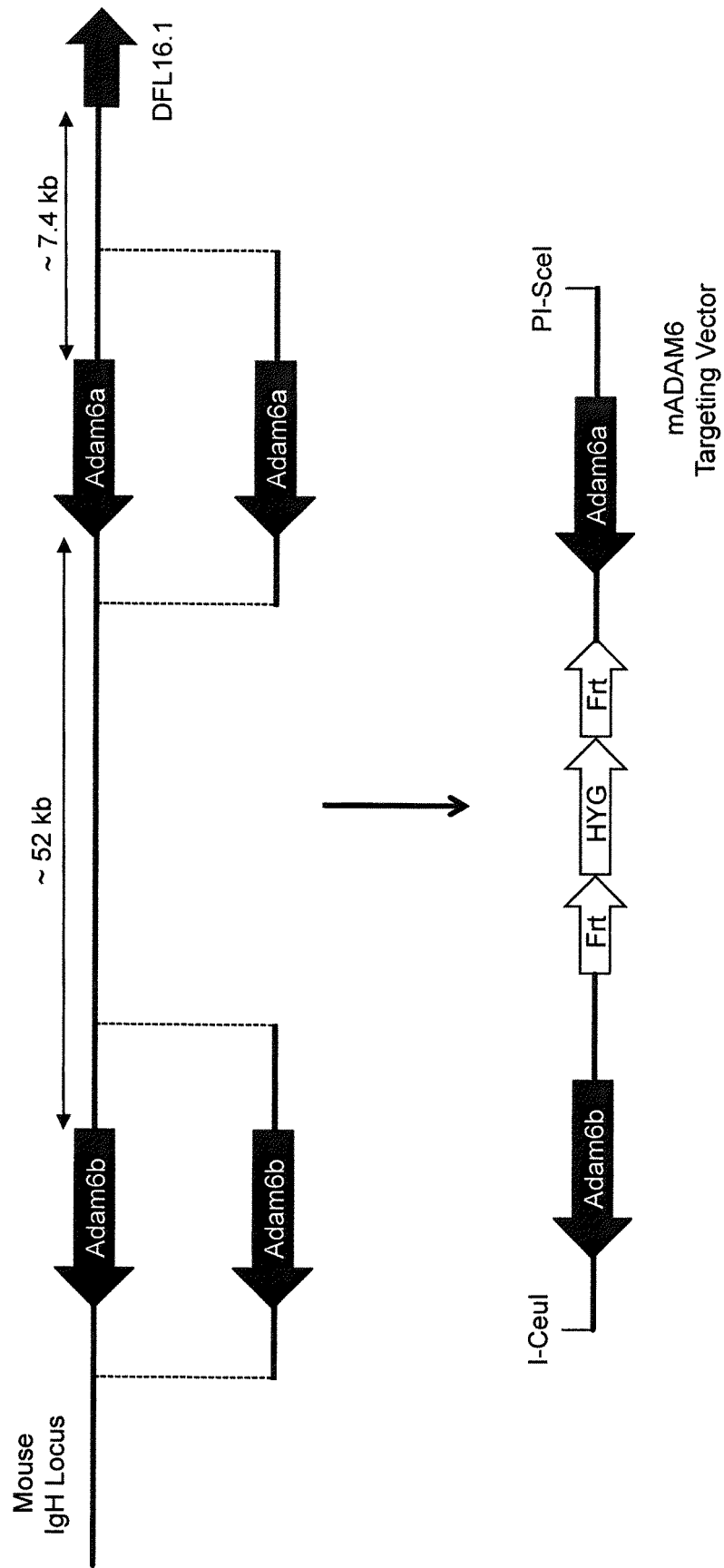


FIG. 12

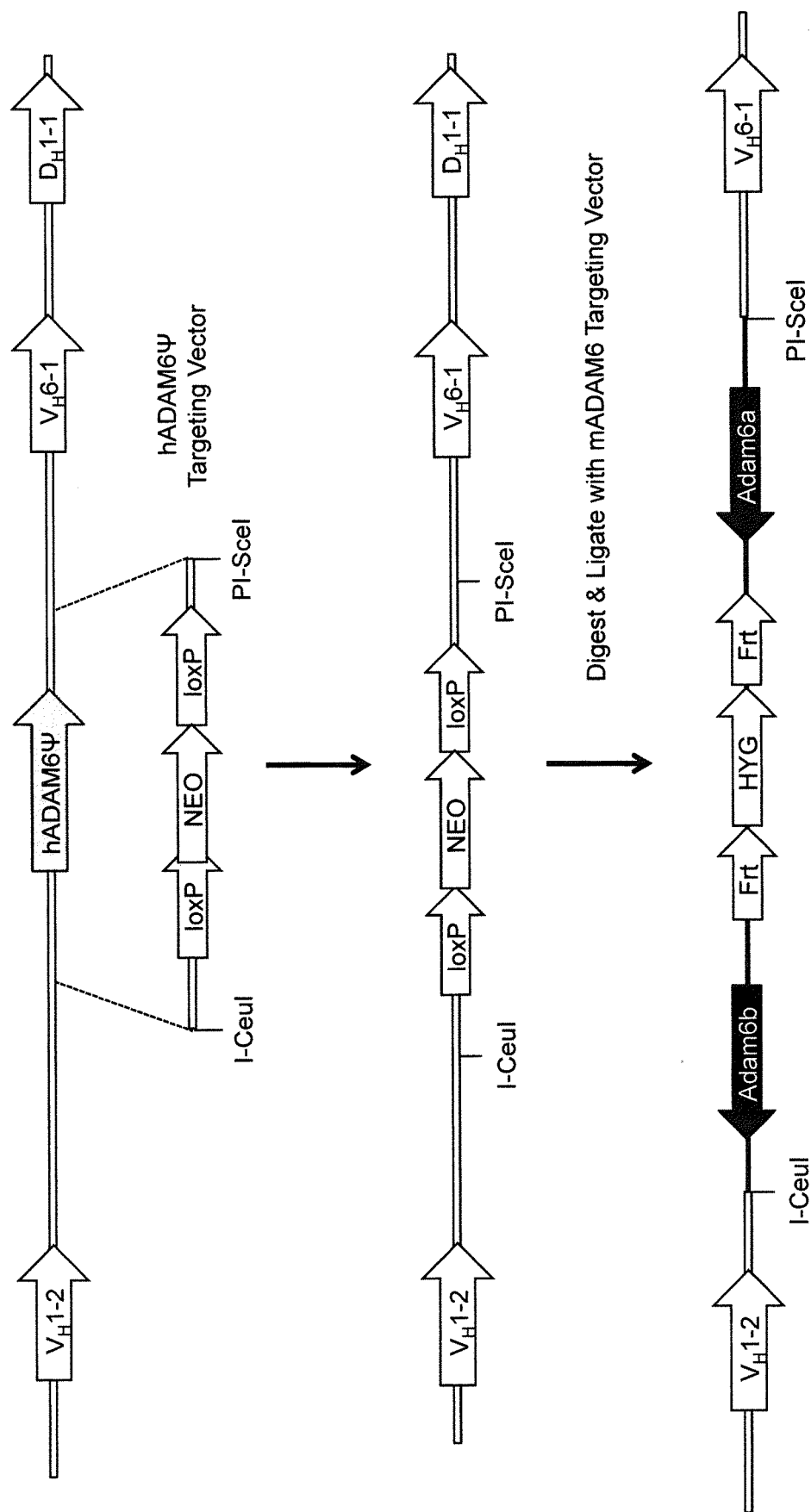


FIG. 13

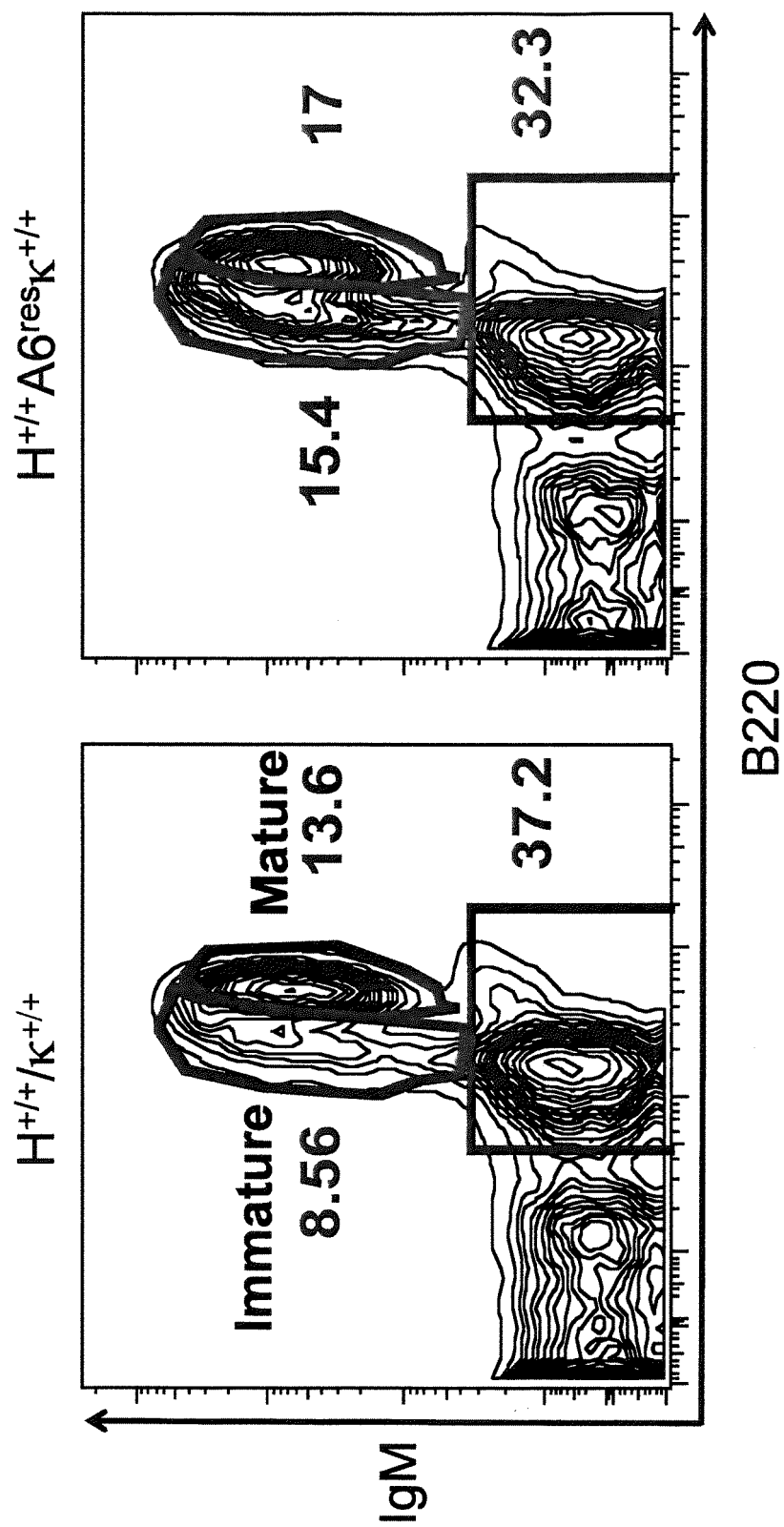


FIG. 14A

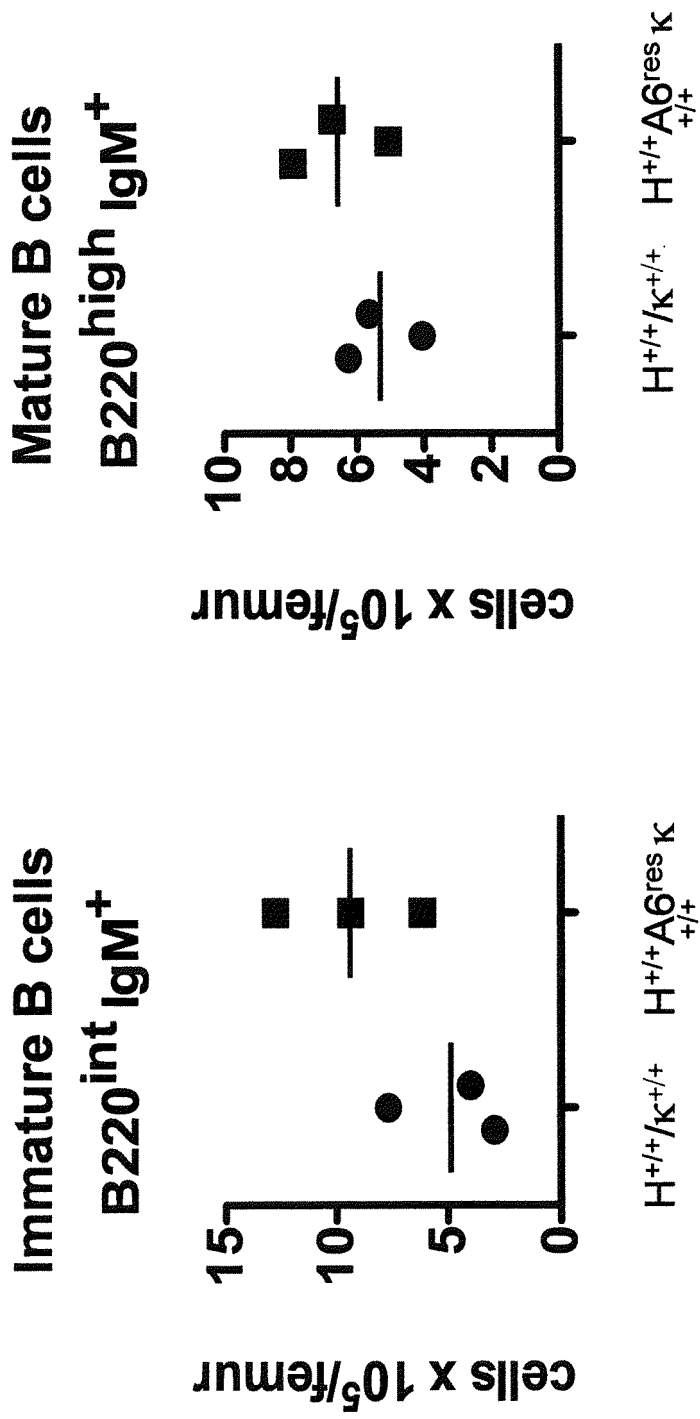


FIG. 14B

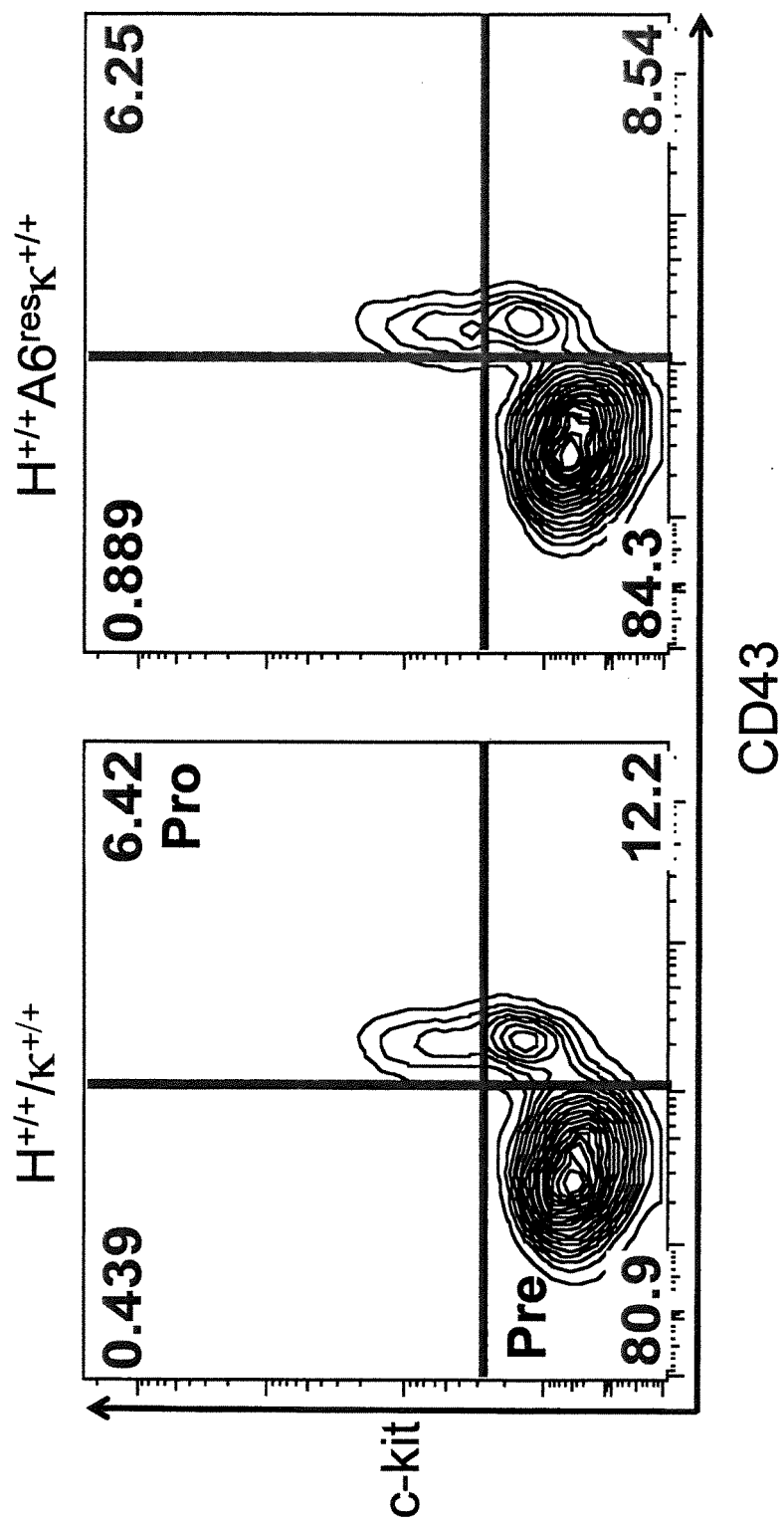


FIG. 15A

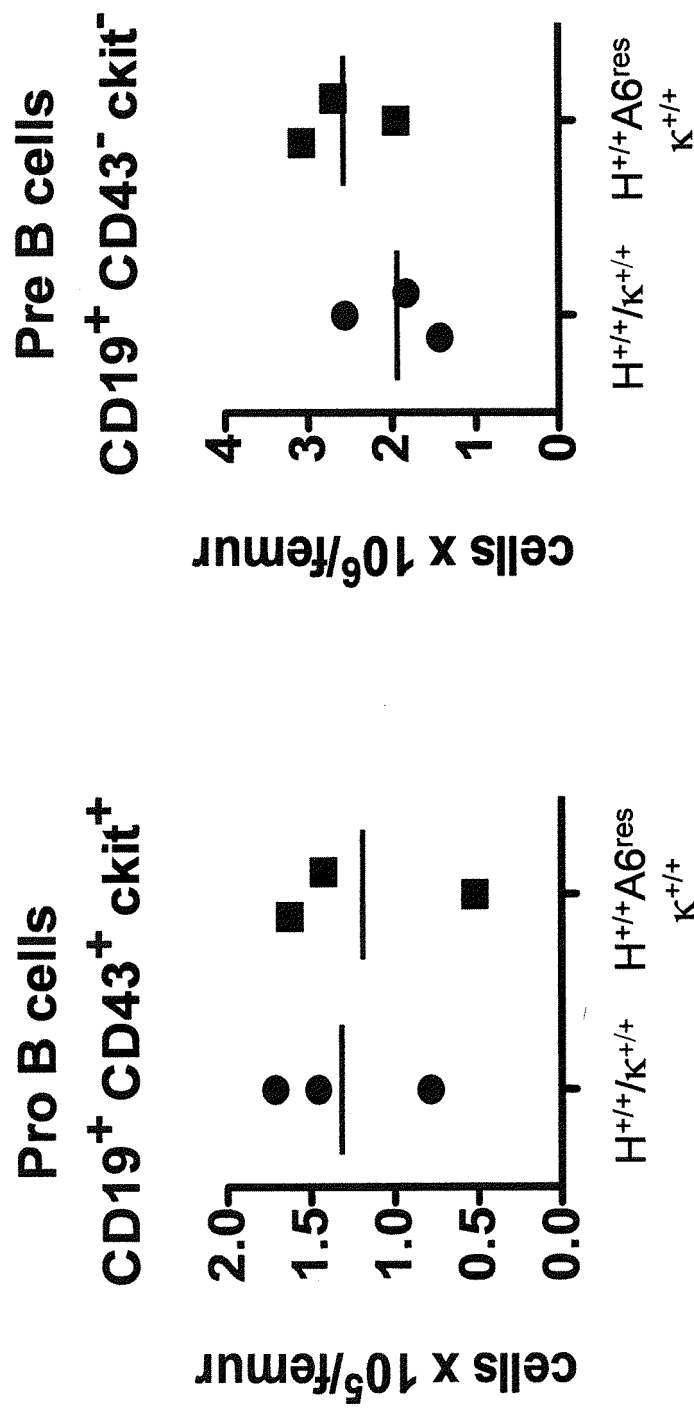


FIG. 15B

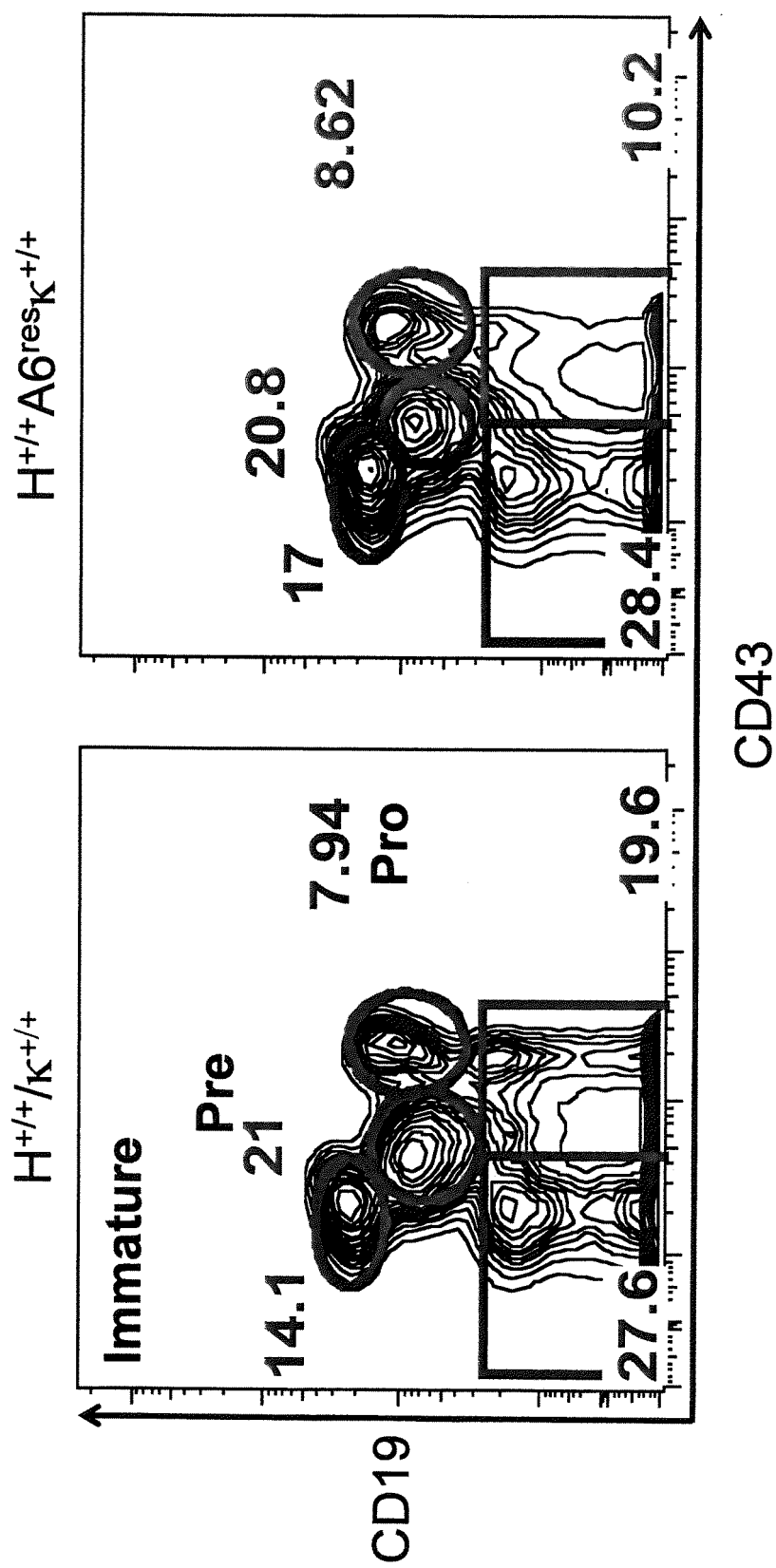


FIG. 16A

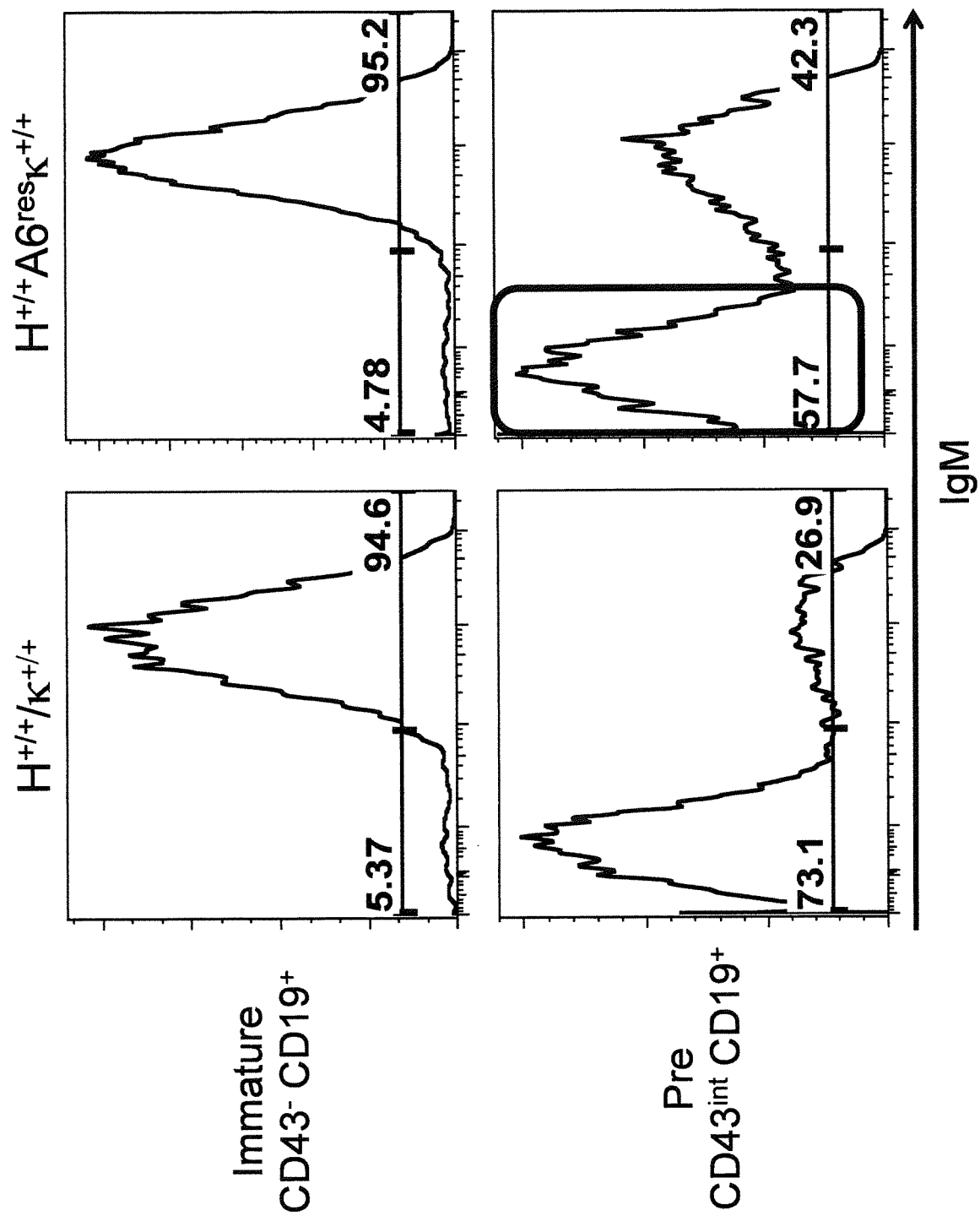


FIG. 16B

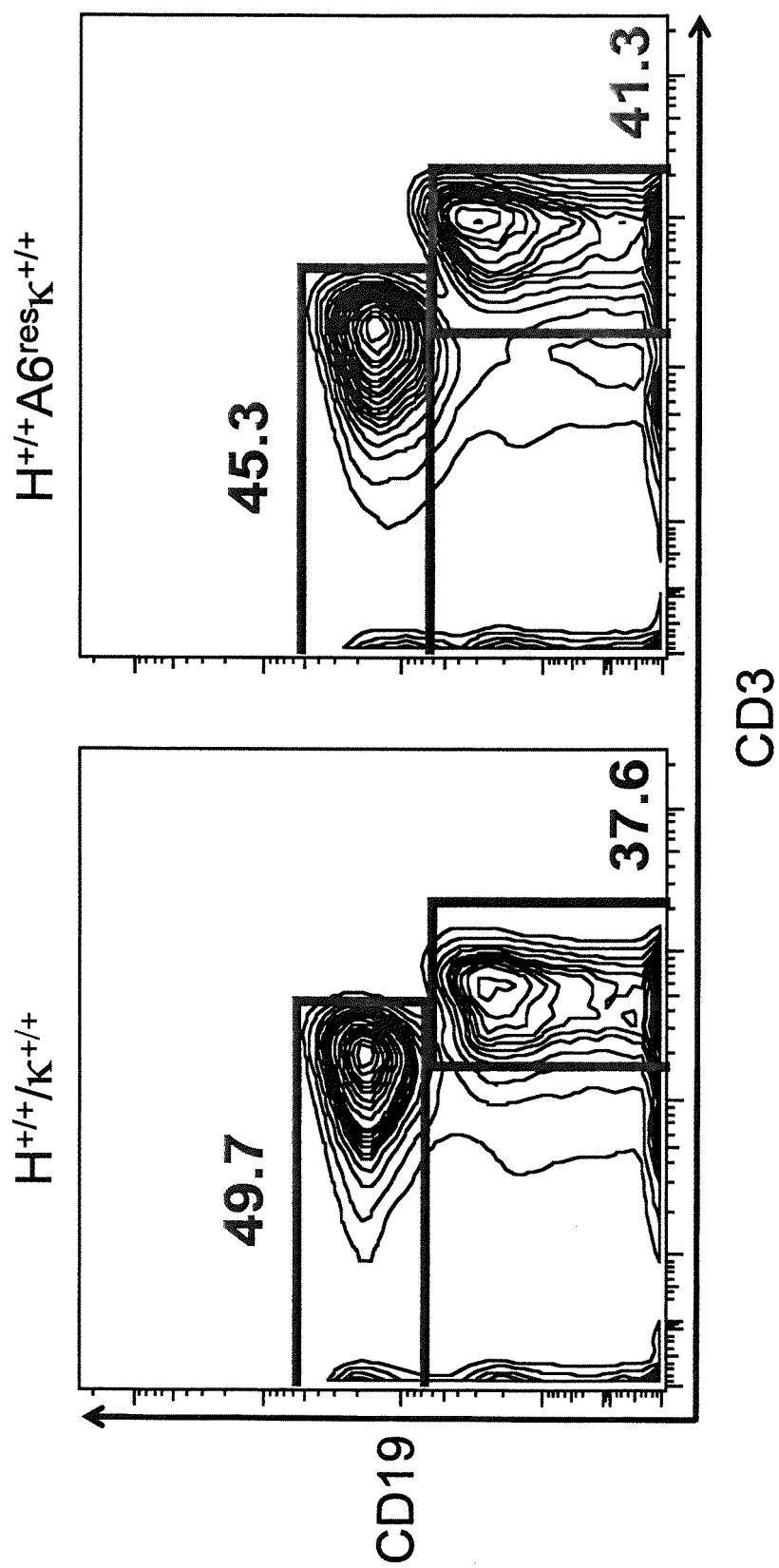


FIG. 17A

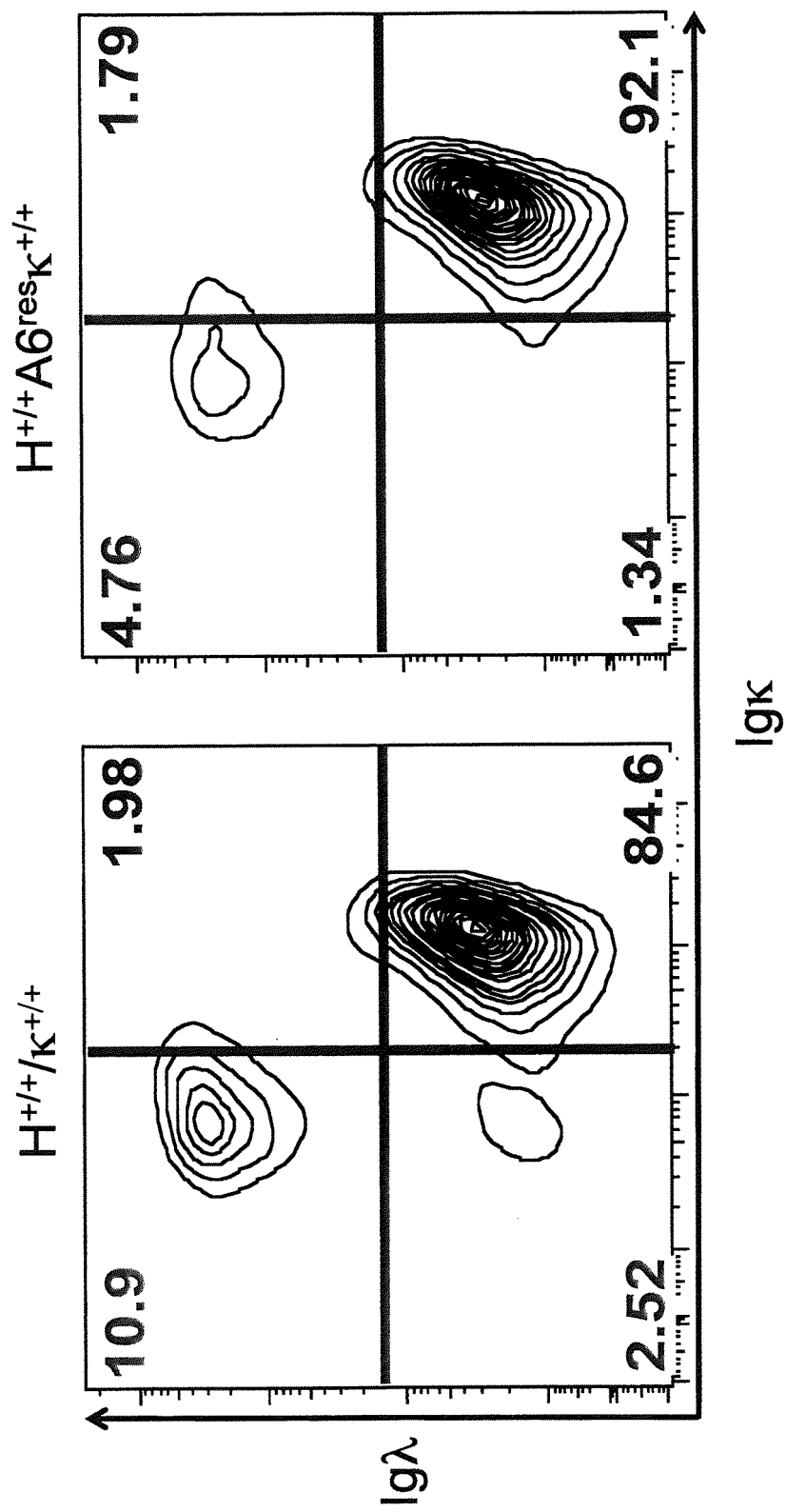


FIG. 17B

FIG. 17C

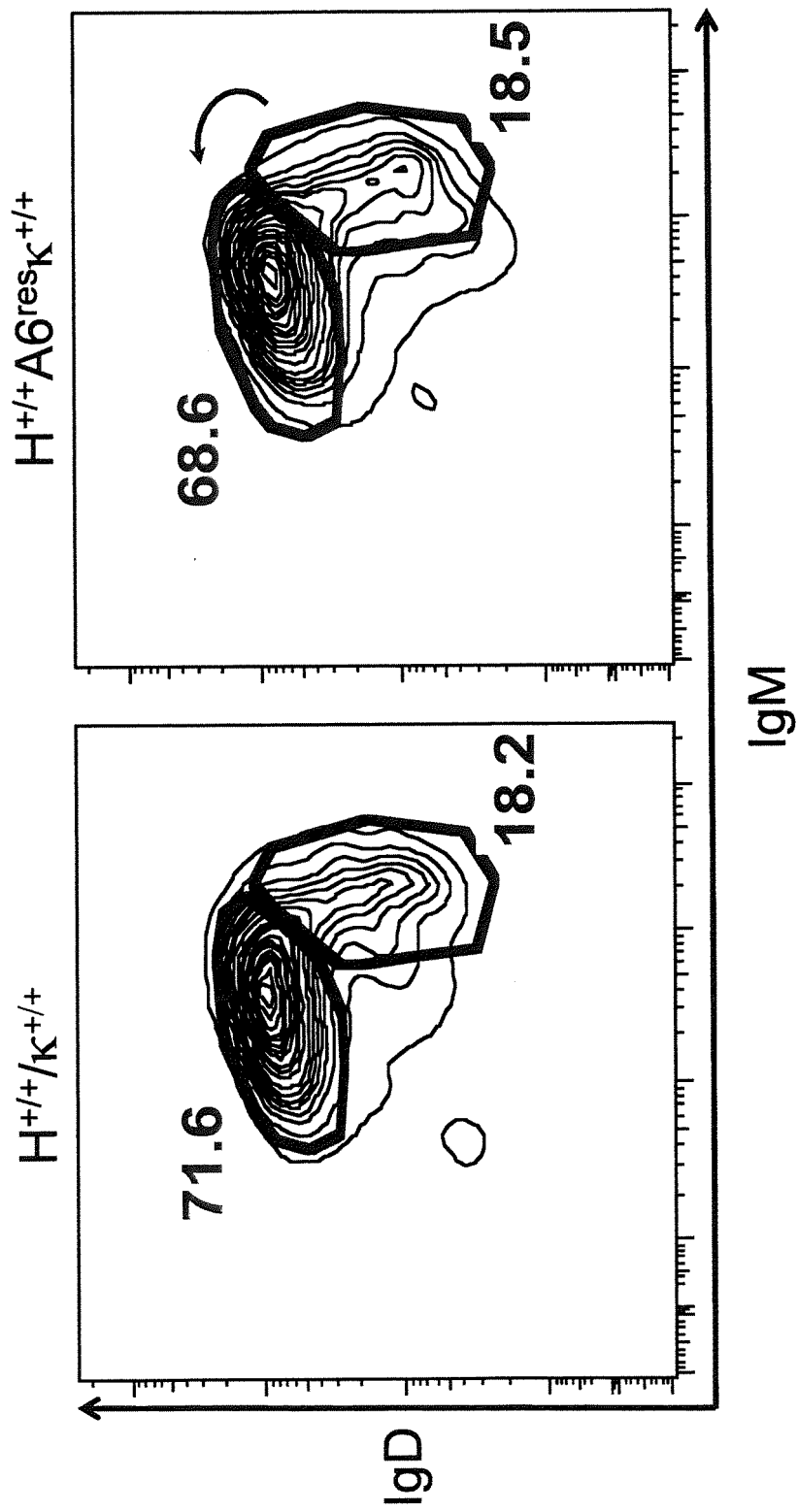


FIG. 18A

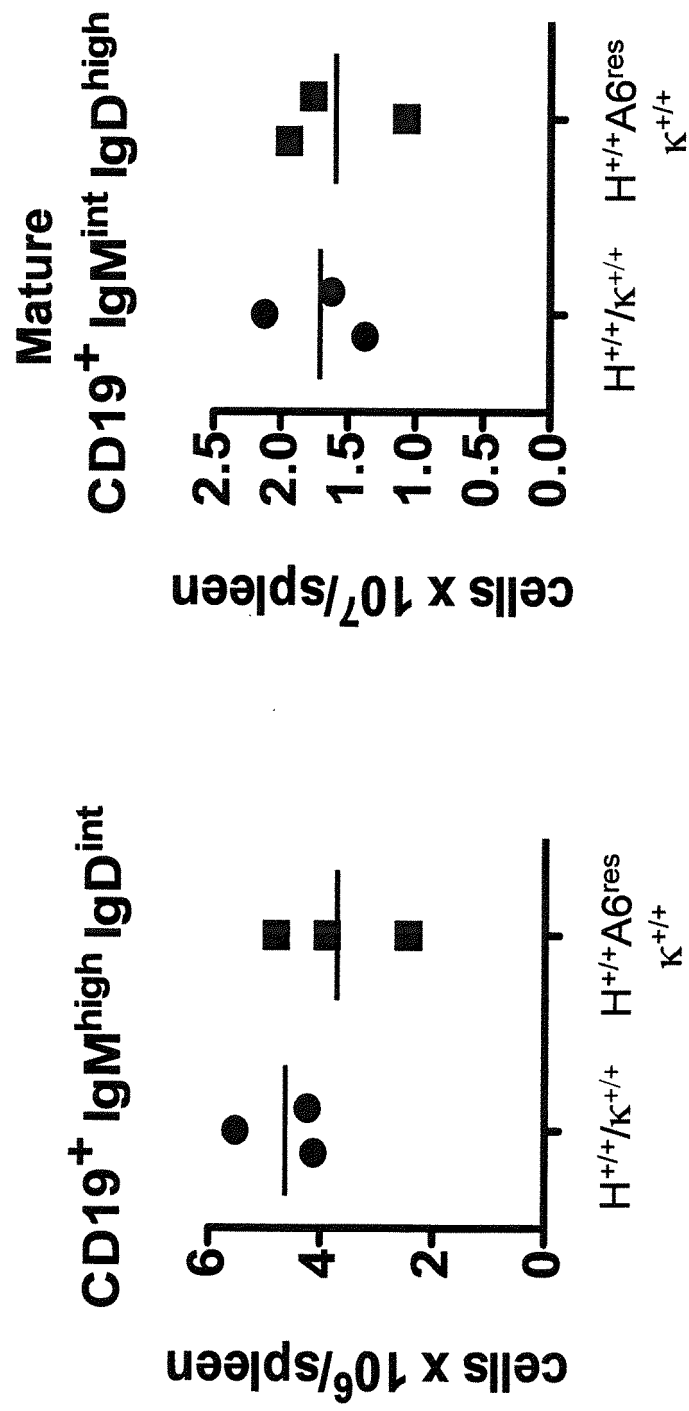


FIG. 18B

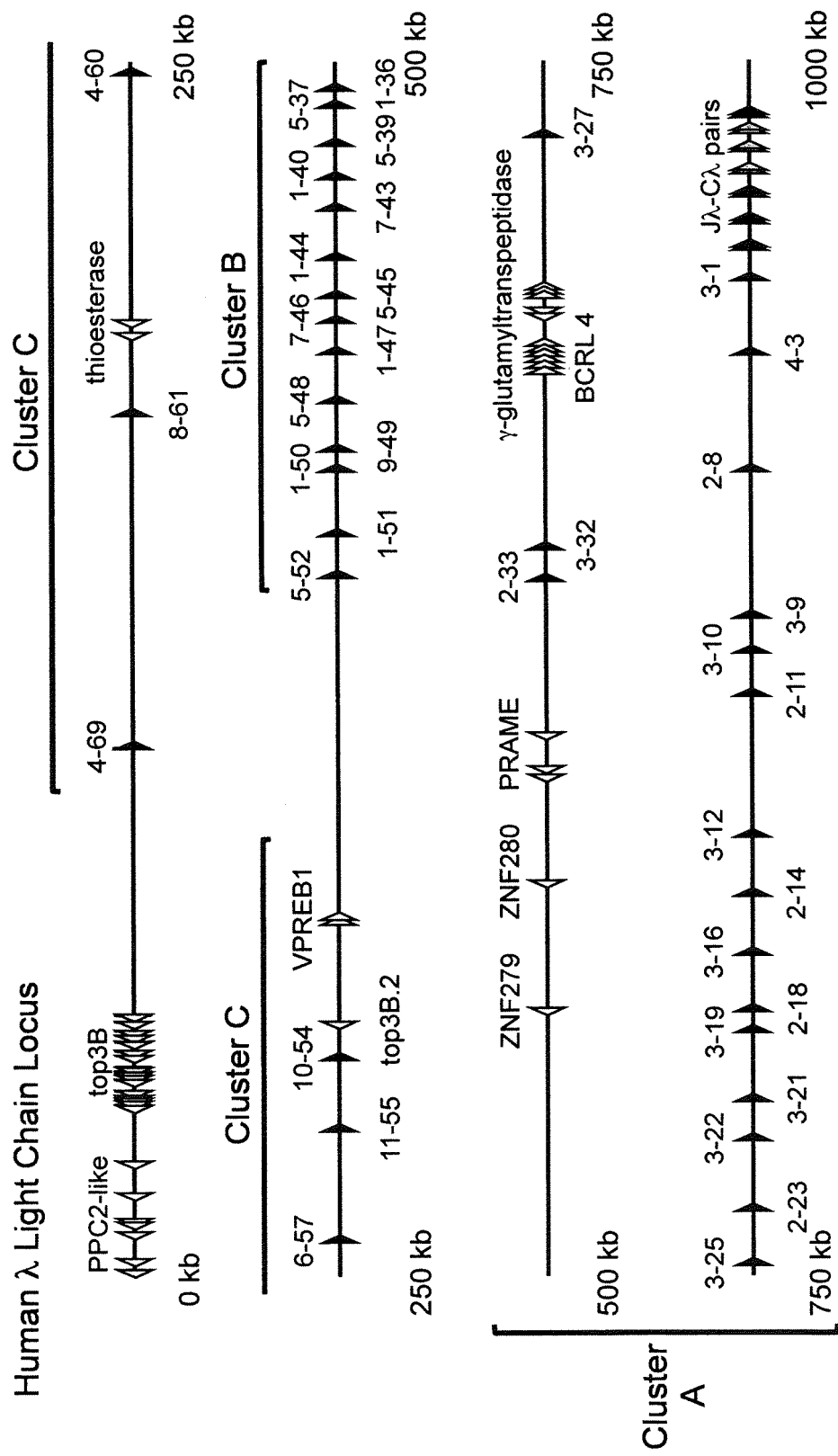


FIG. 19

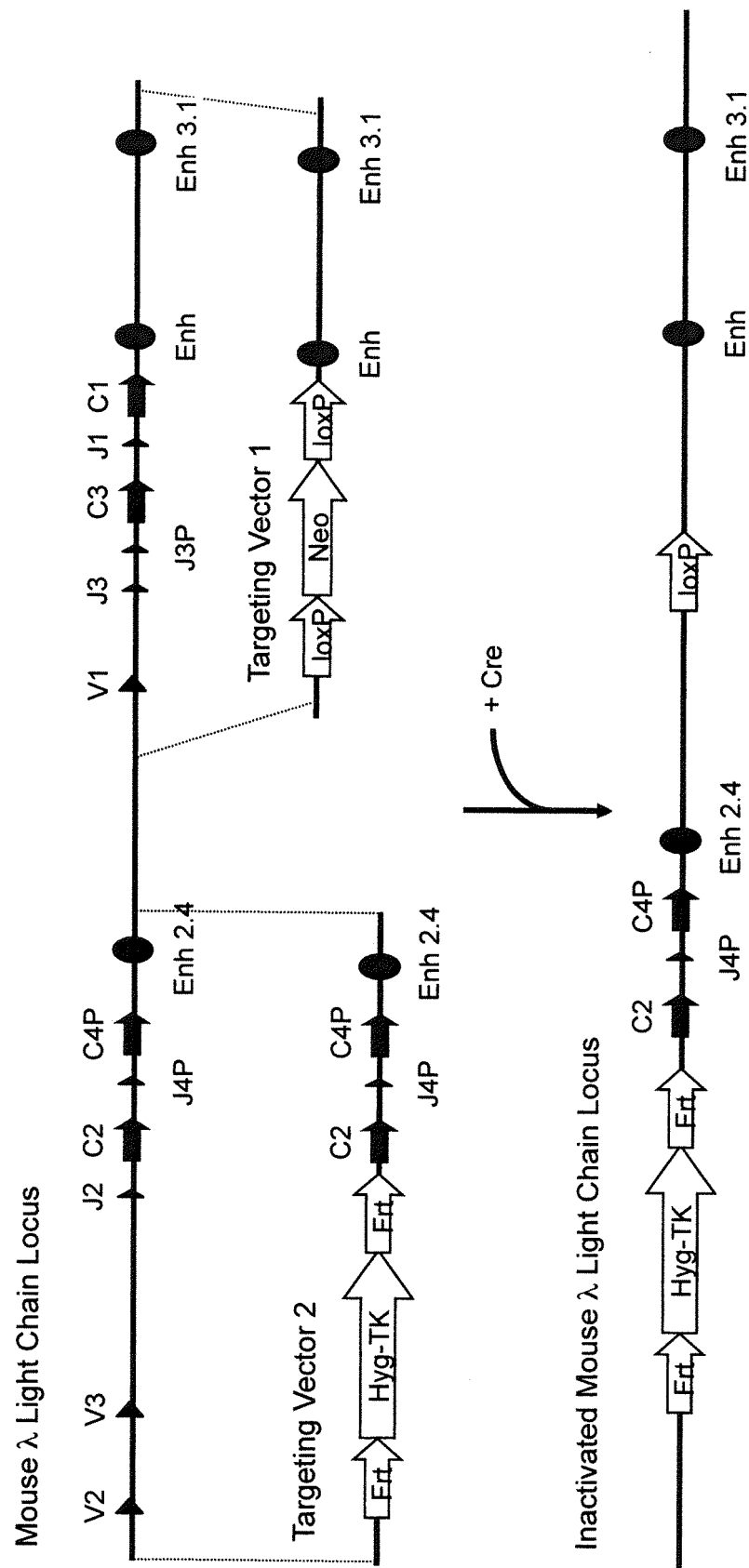


FIG. 20

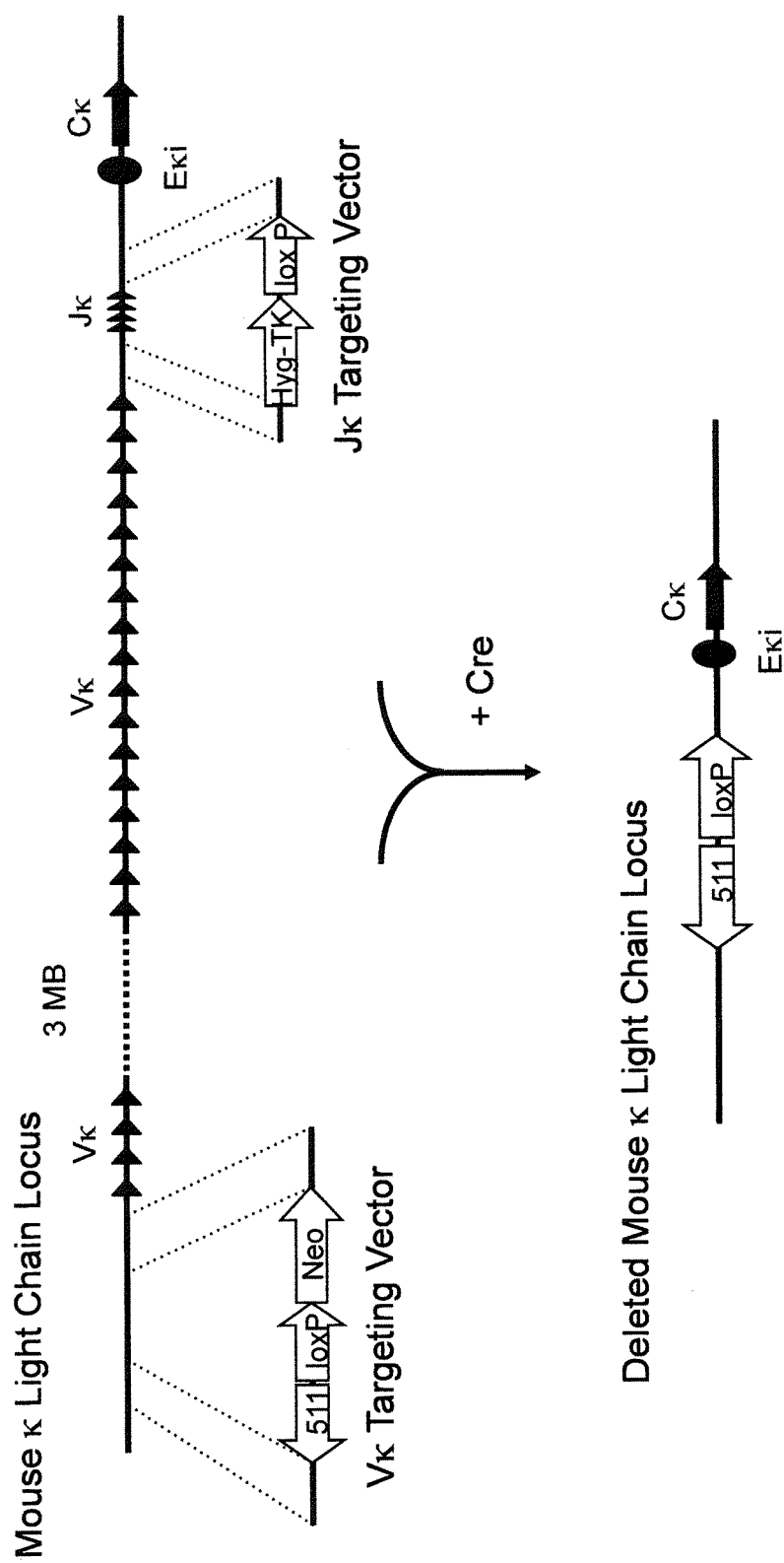


FIG. 21

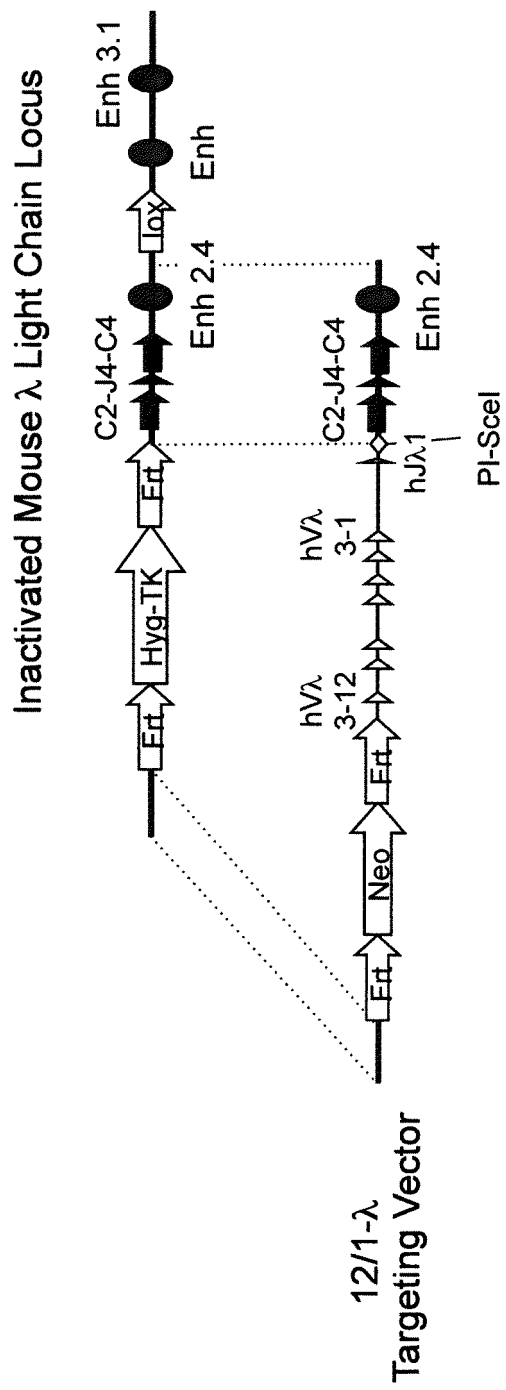


FIG. 22A

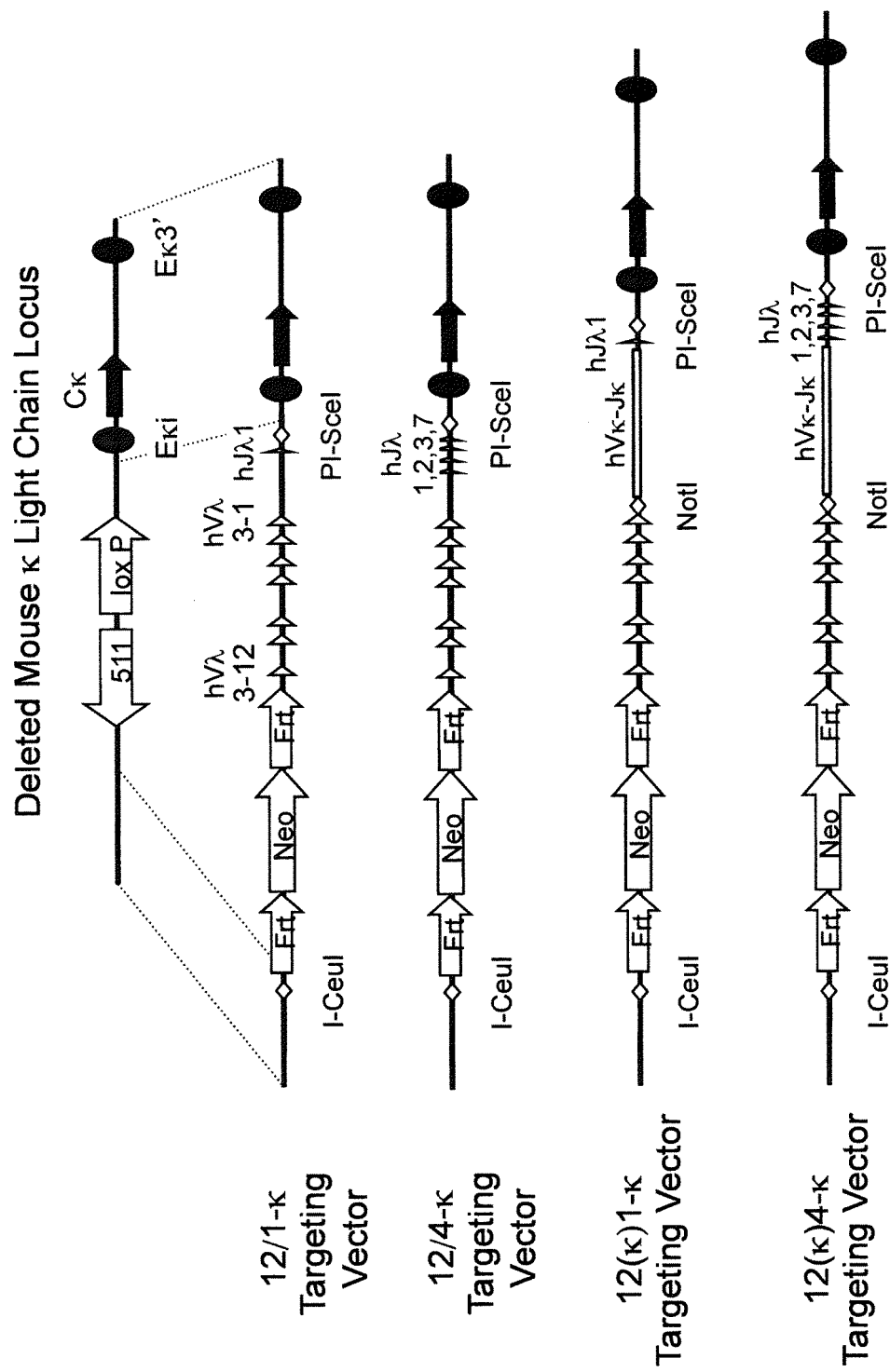


FIG. 22B

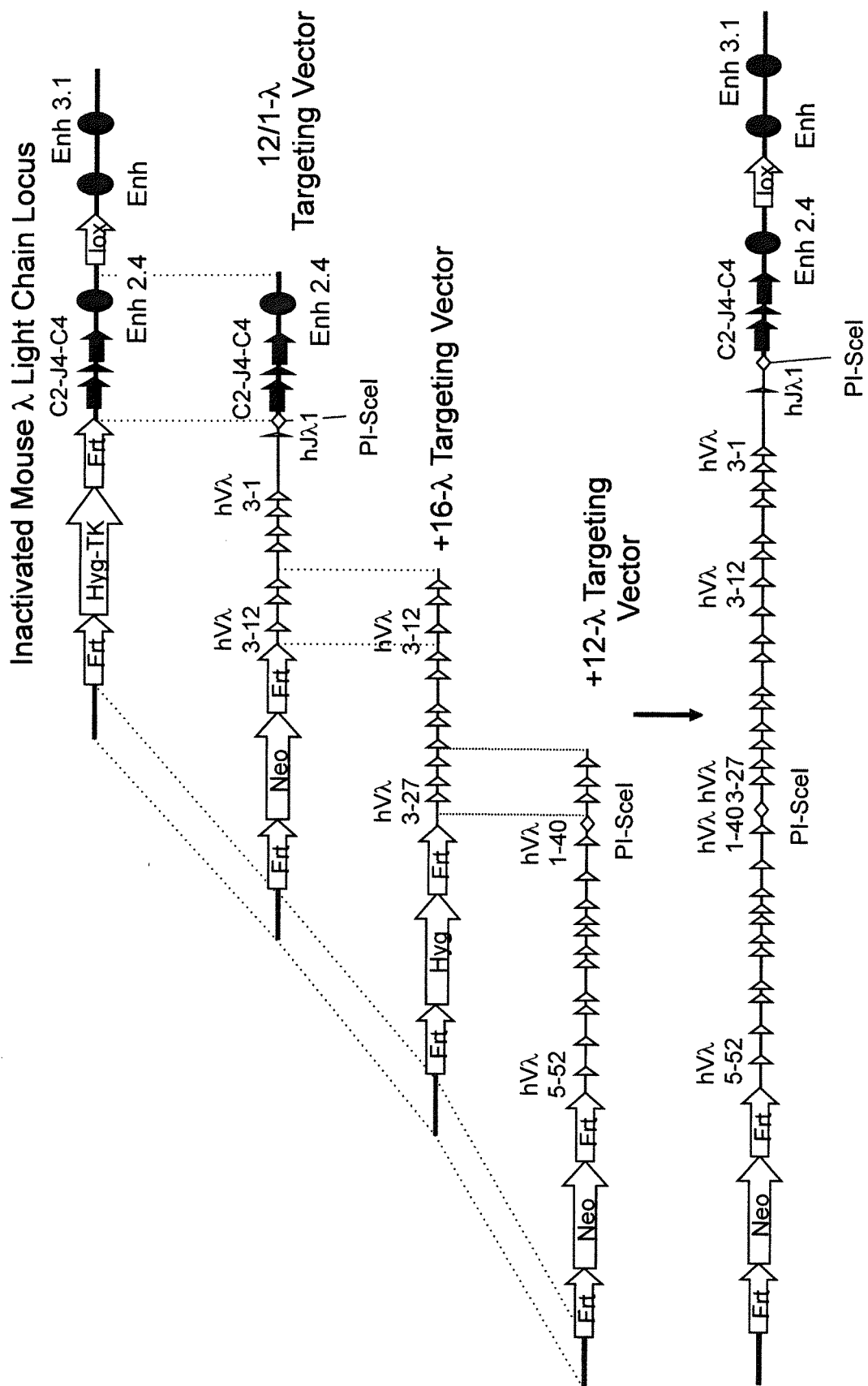


FIG. 23A

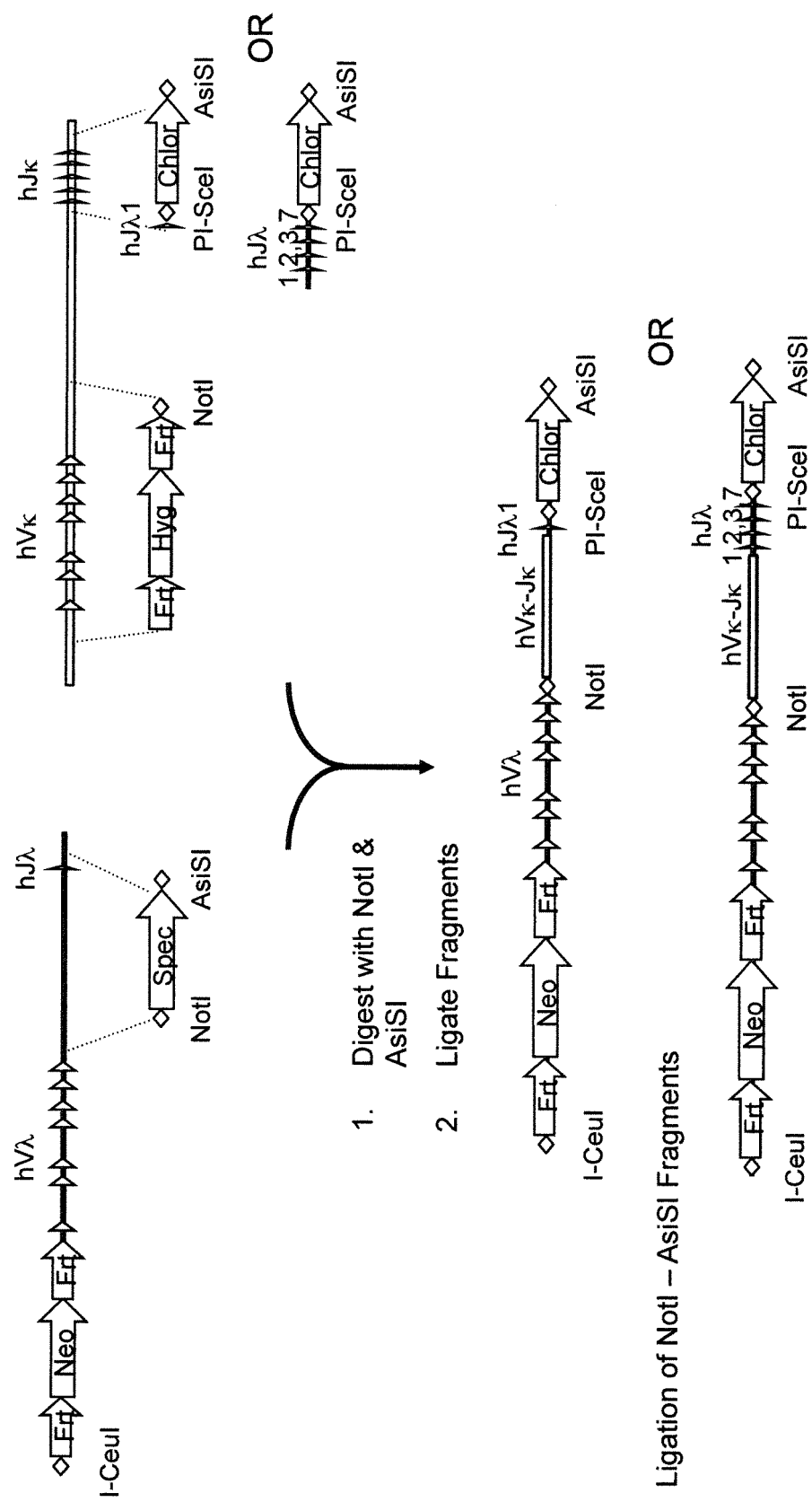


FIG. 24

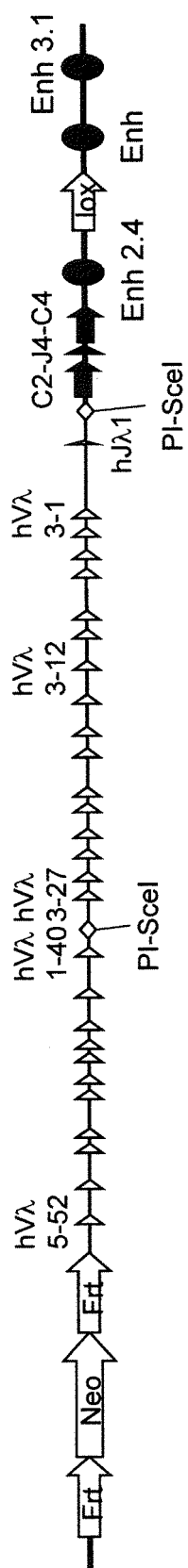


FIG. 25A

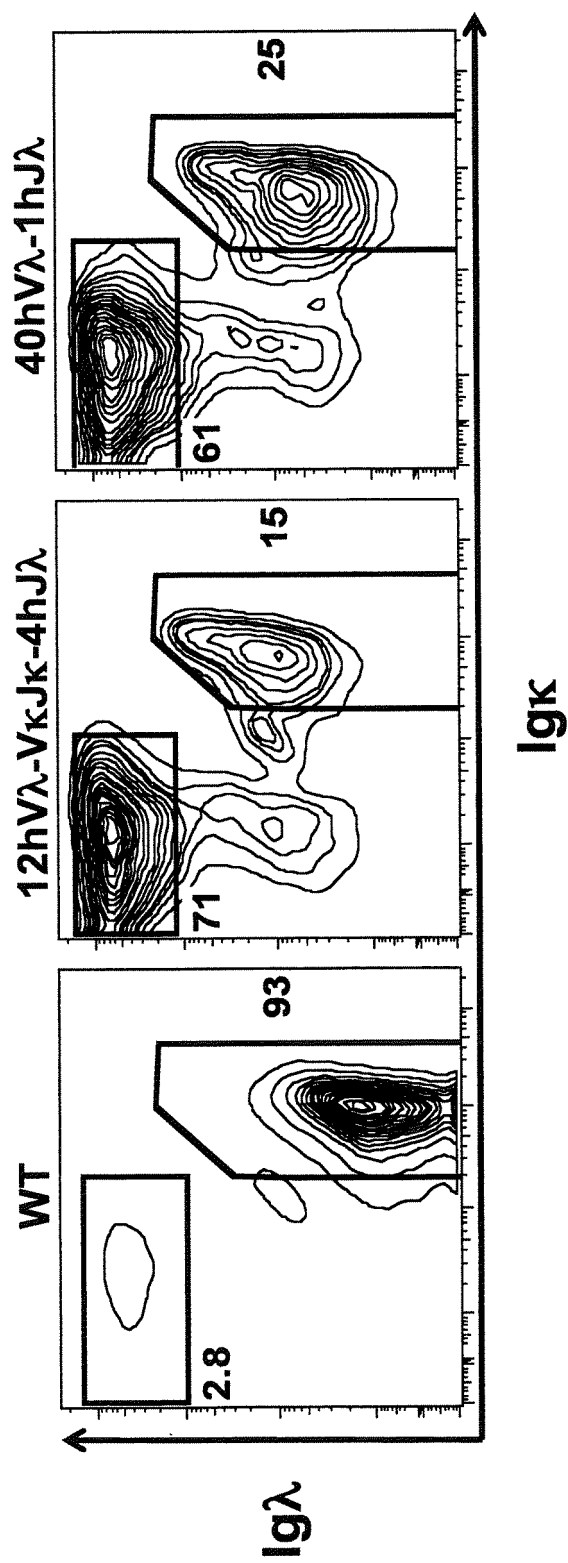


FIG. 26A

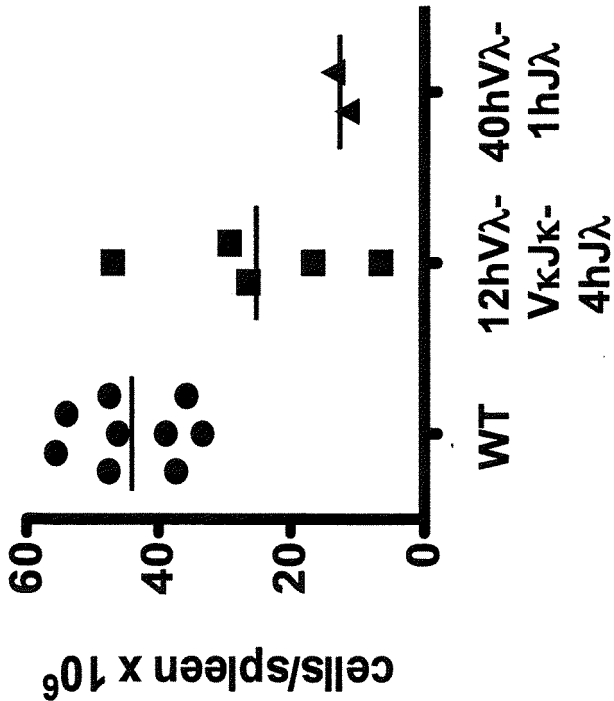


FIG. 26B

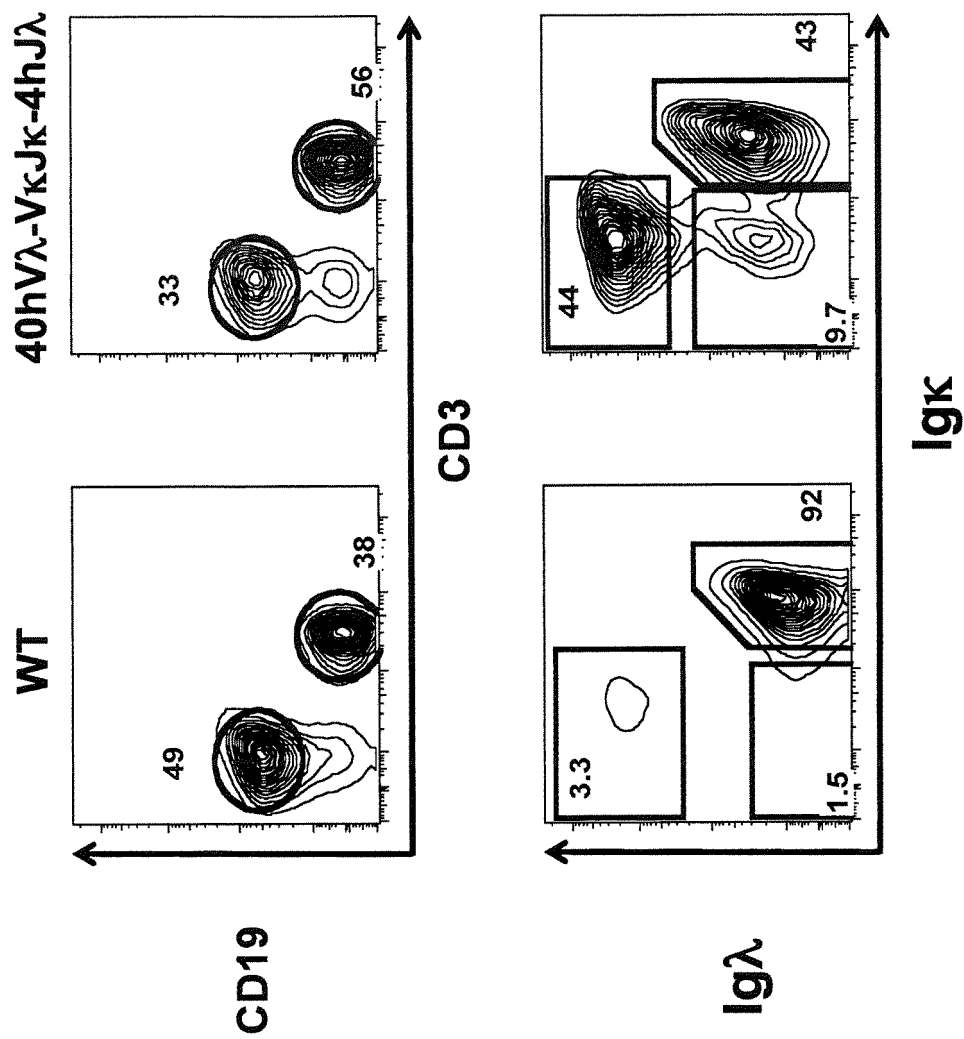


FIG. 27A

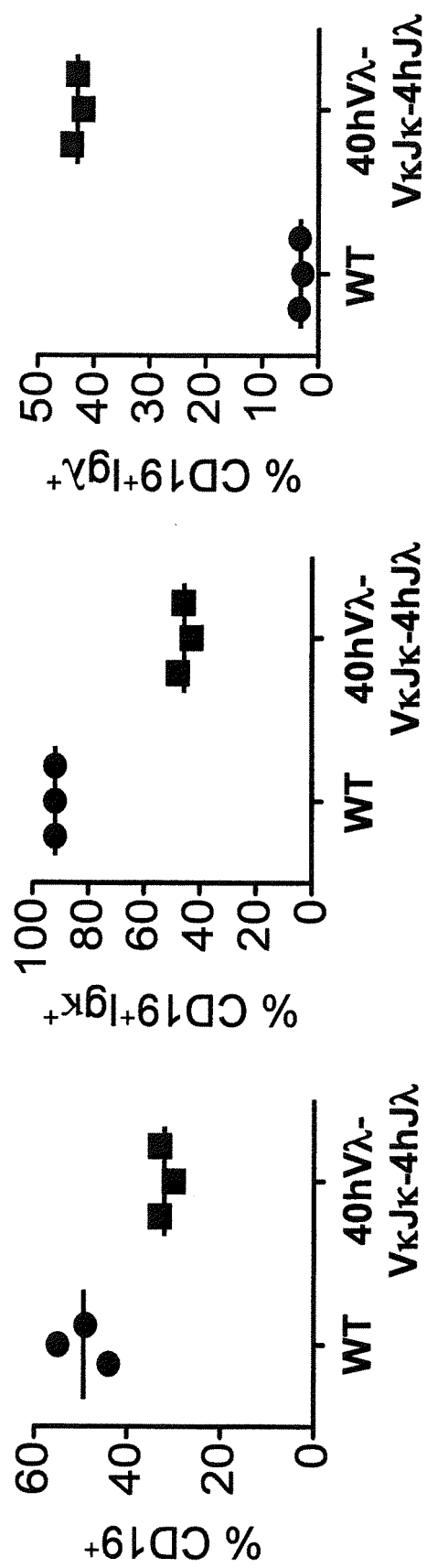


FIG. 27B

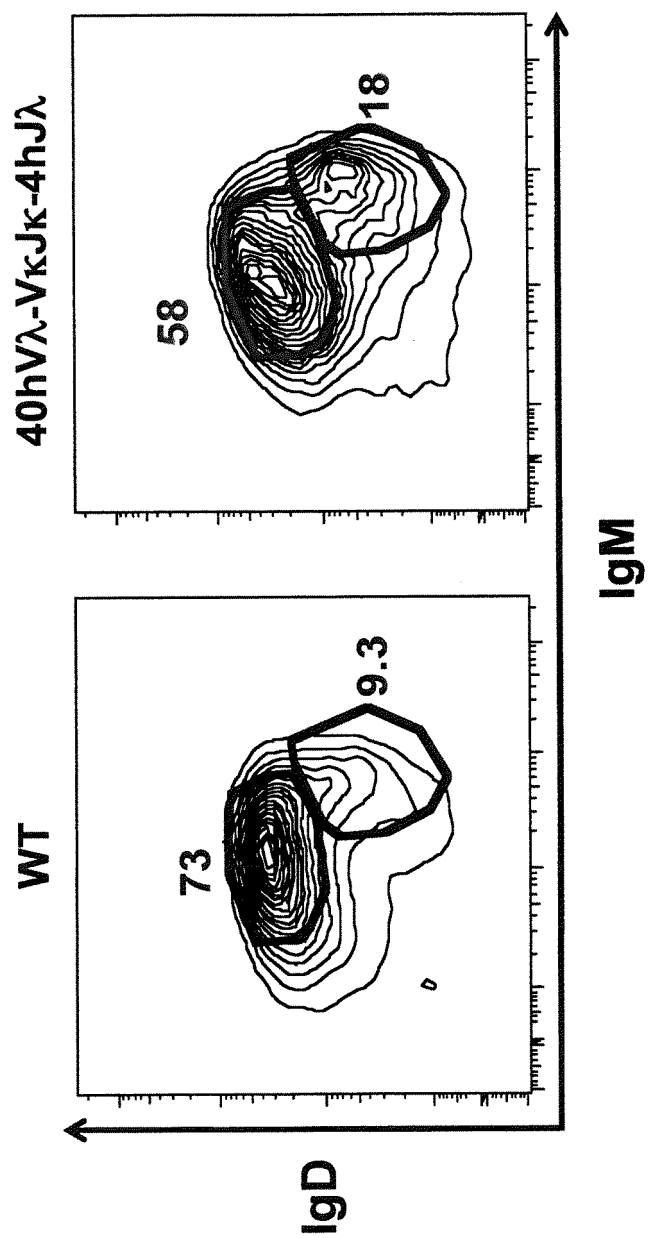


FIG. 27C

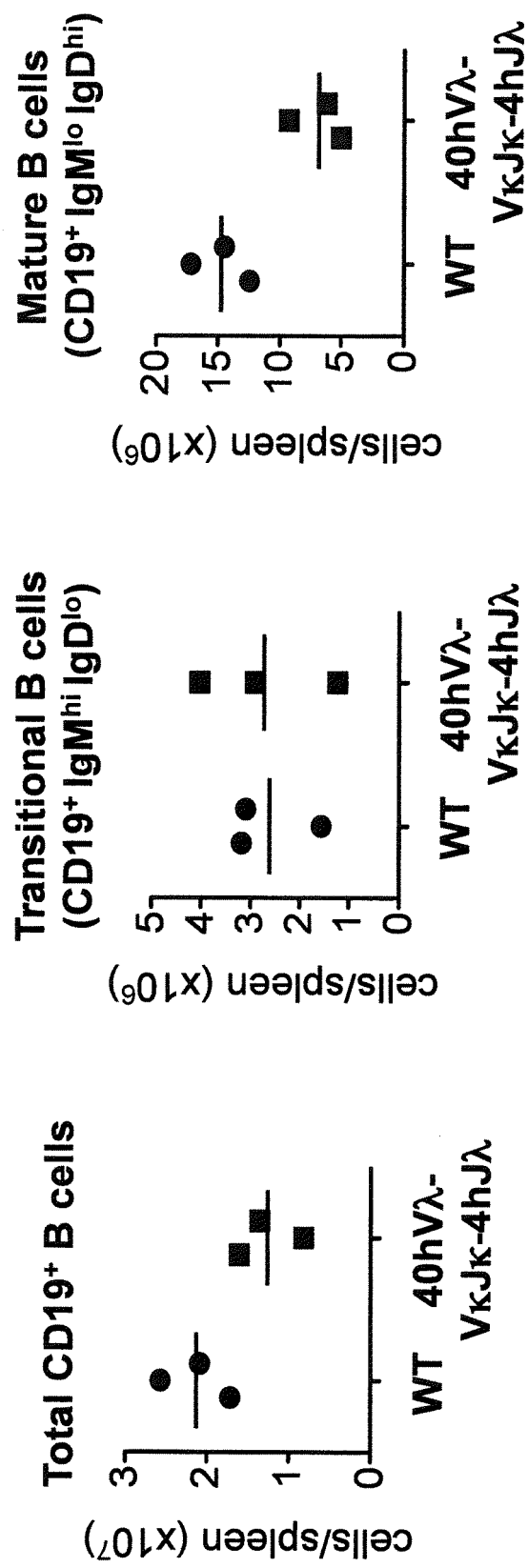


FIG. 27D

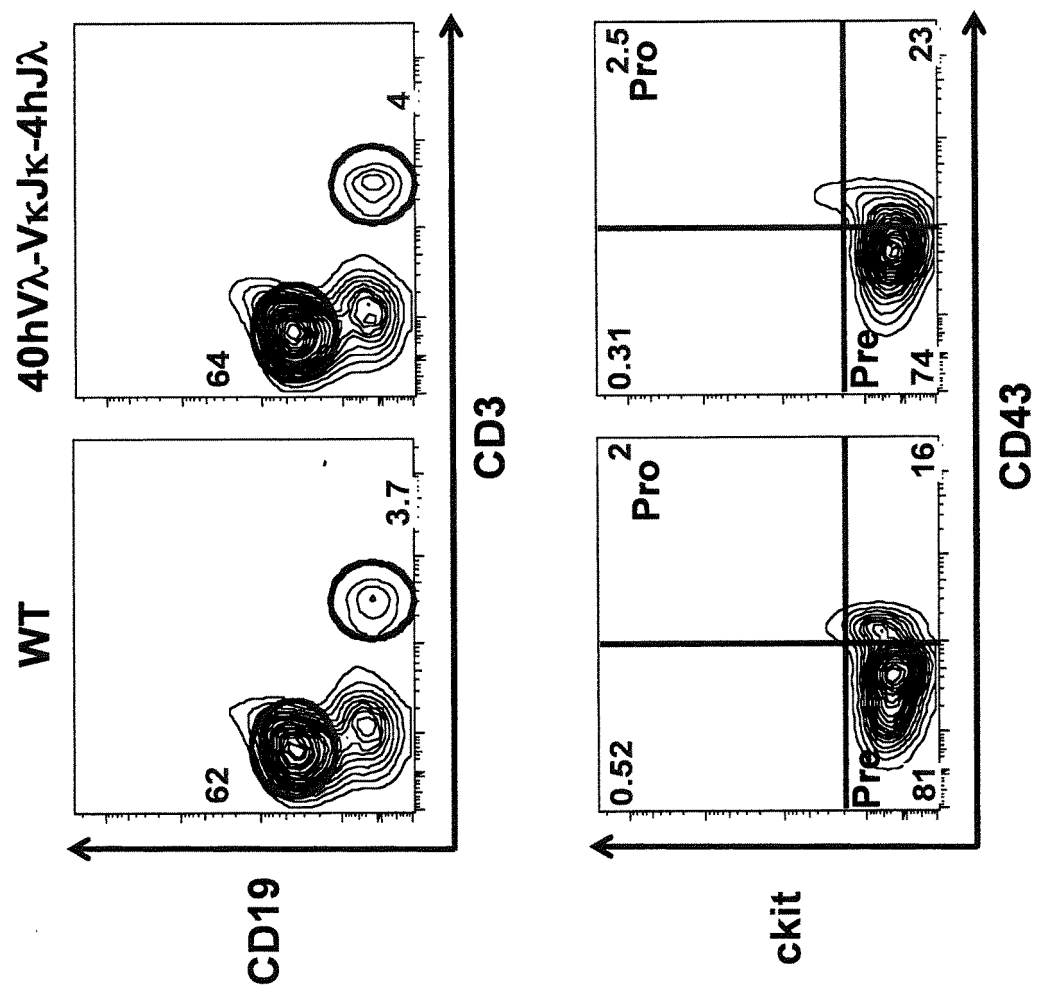


FIG. 28A

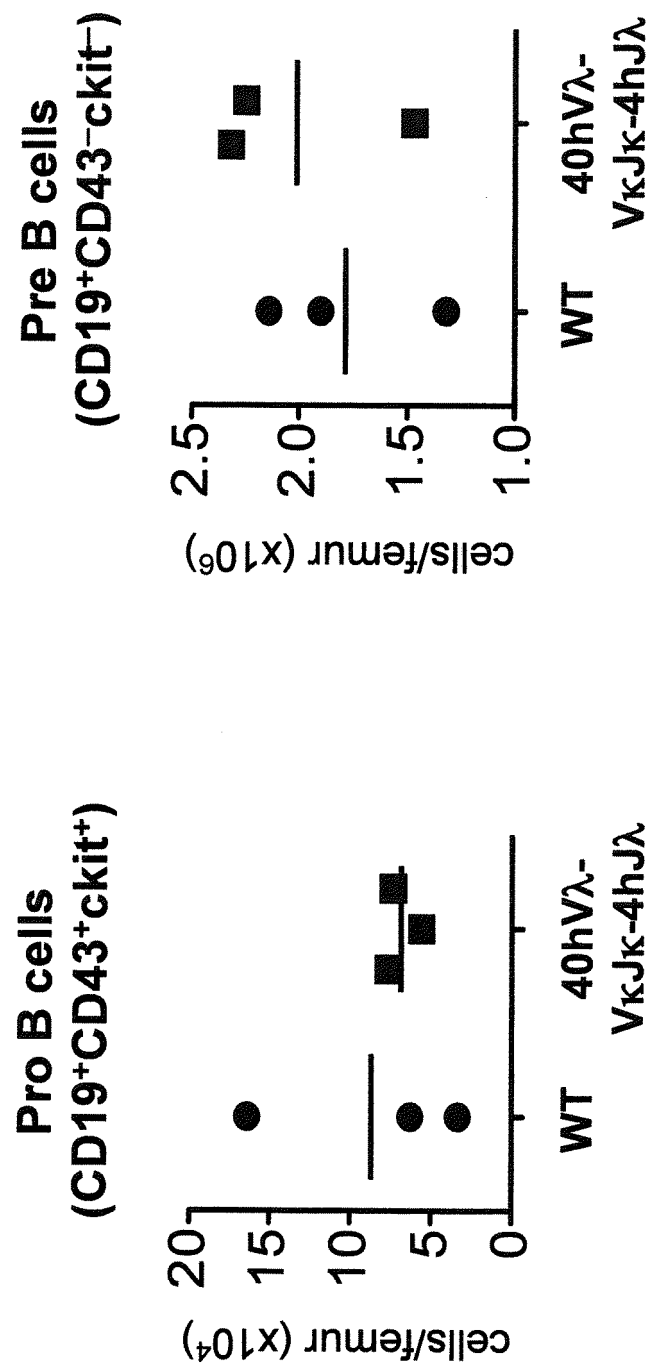


FIG. 28B

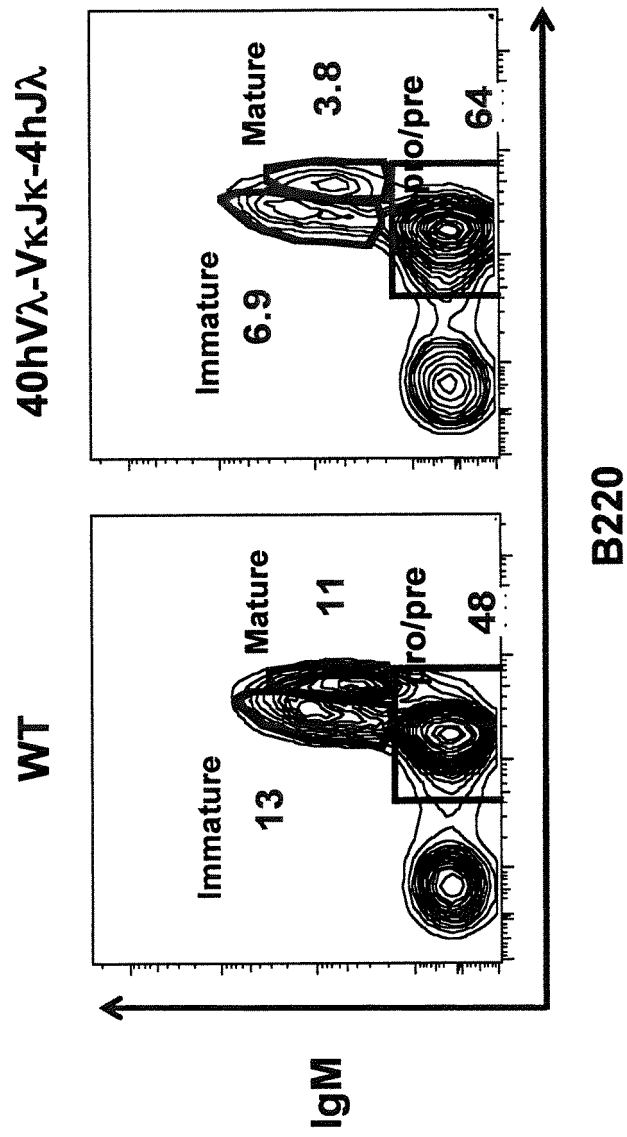


FIG. 28C

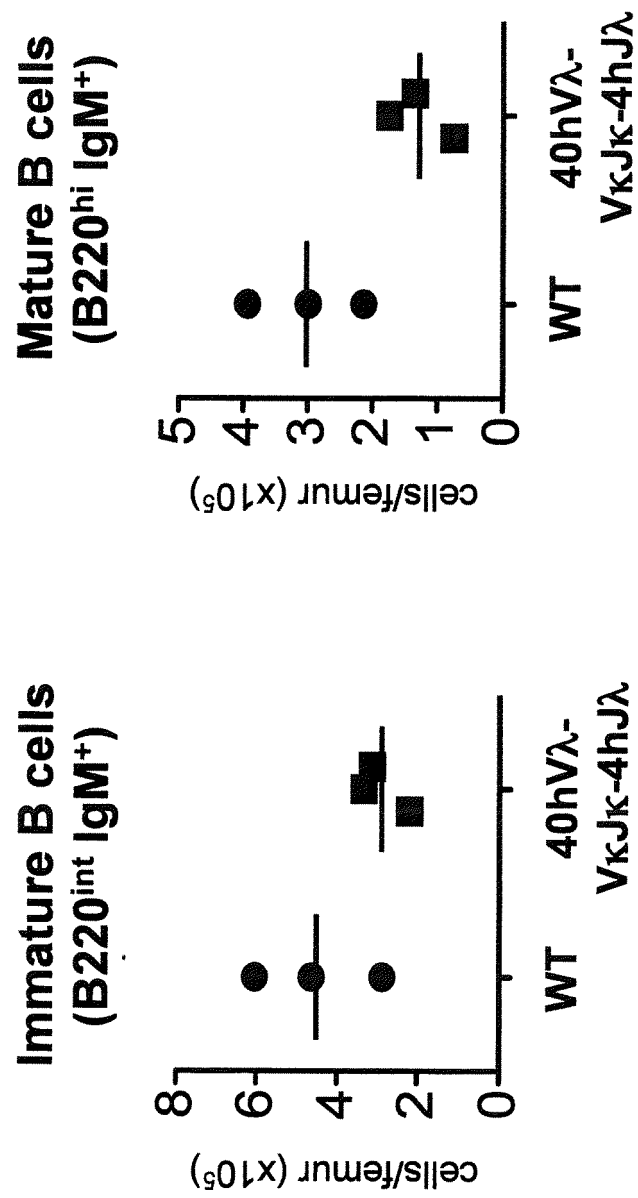


FIG. 28D

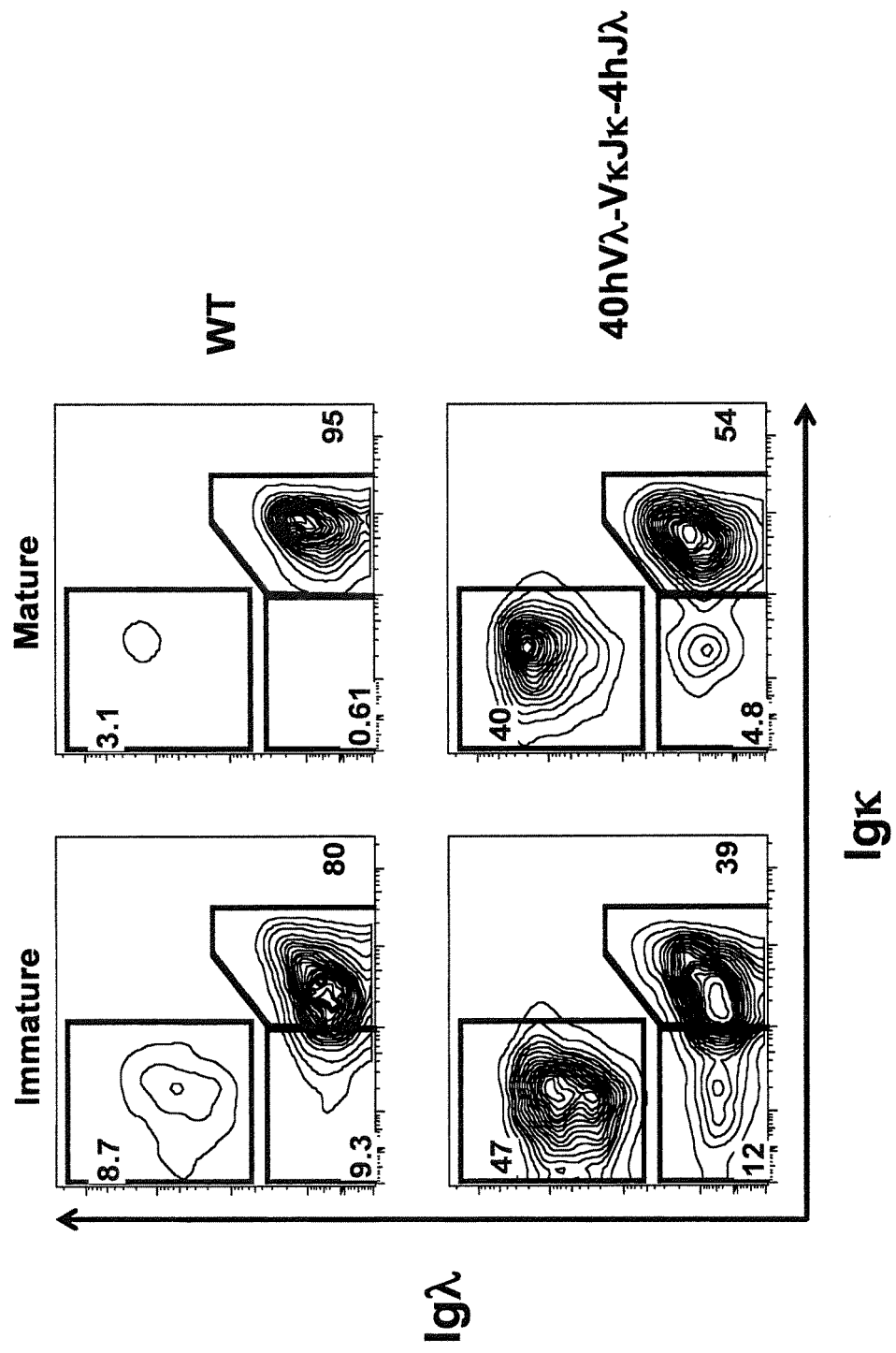


FIG. 28E

	3' Human V λ	Human J λ 1	5' Mouse C κ
A6	GCAACAATT	tCGTCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
B6	GCAACAATT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
F6	GCAACAATT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
B7	GCAACAATT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
E7	GCAACAAT	GTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
F7	GCAACAATT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
C8	GCAACAATT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
E12	CAAGTCGGTT	gTGTCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
1-4	TGAGTGCT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
1-20	TGAGTGCg	gcctttTtTtGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
3B43	CTGAATGGT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
5-8	AGTGGTAAT	CATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
5-19	AGTGGTGCT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
1010	AGCAGCACT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
11A1	AGCAGCGCT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATCTTC
7A8	GGTGGTGCT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCC
3A3	AGTAGCACT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
2-7	AGCAGCACT	TATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCTg	GGGCTGATGCTGCACCA
FWR4		F G T G T K V T V L G A D A A P T V S I F	

FIG. 29

	3' Human Vλ	Human Jλ	5' Mouse Cκ
5-2	CAGCCTGAGTGGTTC	TGTGTTTCGGAGGAGGCACCCGGCTGACCGCCCTCG	GGGCTGATGCTGCACCAACTGTATCCATC
2-5	CAGCCTGAGTGGTT	ATGCTTTCGGAACTGGGACCAAGGTCAACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
1-3	CAGCCTGAATGGT	GCTGTTTCGGAGGAGGCACCCAGCTGACCGCCCTCG	GGGCTGATGCTGCACCAACTGTATCCATC
4B-1	CAGCCTGAGTGGTC	GGGTGTTTCGGCGGAGGGACCAAGCTGACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
3B-5	CAGCAGCACTGC	TGTGTTTCGGAGGAGGCACCCAGCTGACCGCCCTCG	GGGCTGATGCTGCACCAACTGTATCCATC
7A-1	CAGCAGTGGTAAT	GCTGTTTCGGAGGAGGCACCCAGCTGACCGCCCTCG	GGGCTGATGCTGCACCAACTGTATCCATC
5-1	CAGCAGTGGTAATCATAG	GGTGTTCGGCGGAGGACCAAGCTGACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
4A-1	CAGCCTGAGTGGTT	ATGTCCTTCGGAACTGGGACCAAGGTCAACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
11A-1	CAGCAGCGCT	GTGGTATTTCGGCGGAGGACCAAGCTGACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
5-7	CTACTATGGTGGTGCTC	GGGTGTTTCGGCGGAGGACCAAGCTGACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
5-4	CTCCTATAGTGGTGCTCGa	GTATTTCGGCGGAGGACCAAGCTGACCGTCCCTAG	GGGCTGATGCTGCACCAACTGTATCCATC
2-3	GAGCAACTTCGTGT	CTGTGTTTCGGAGGAGGCACCCAGCTGACCGCCCTCG	GGGCTGATGCTGCACCAACTGTATCCATC
FWR4		F G G G T K L T V L G A D A A P T V S I	

FIG. 30

	3' Human Vλ	Human Jλ1	5' Mouse Cλ2
2D1	GCAGGCAGCAACAATTTa	aGTCTTCGGAACTGGGACCAAGGTCACCGTCCTAG	GTCAGCCCCAAGTCCACTCCCCACTCTC
2D9	GACAGCAGTGGTAATCAT	TATGTCTTCGGAACTGGGACCAAGGTCACCGTCCTAG	GTCAGCCCCAAGTCCACTCCCCACTCTC
3E15	GACAGCAGCACTGCC	GTCITTCGGAACTGGGACCAAGGTCACCGTCCTAG	GTCAGCCCCAAGTCCACTCCCCACTCTC
FWR4		F G T G T K V T V L G Q P K S T P T L	

FIG. 31