

FIGURE 1

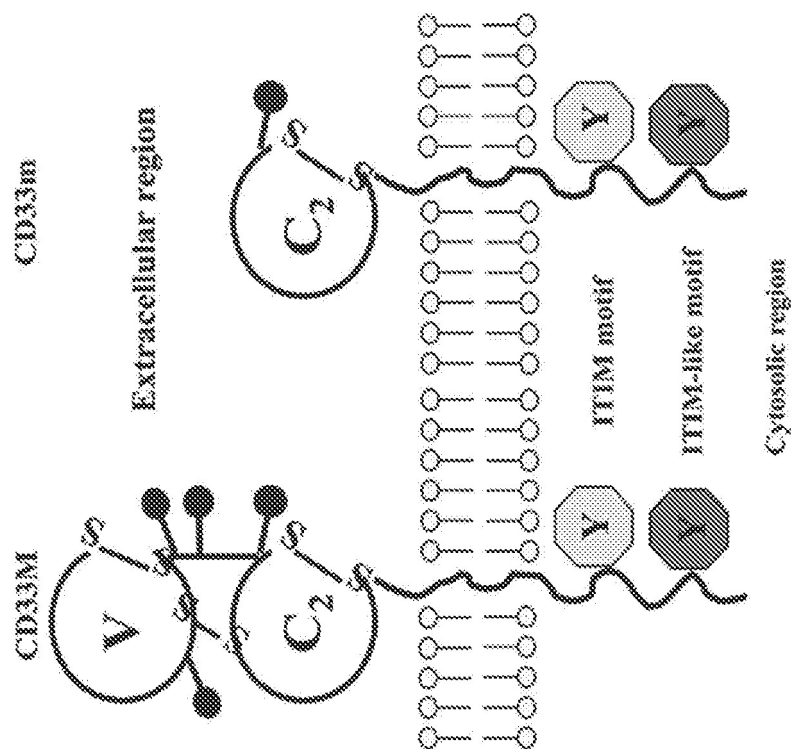


FIGURE 2

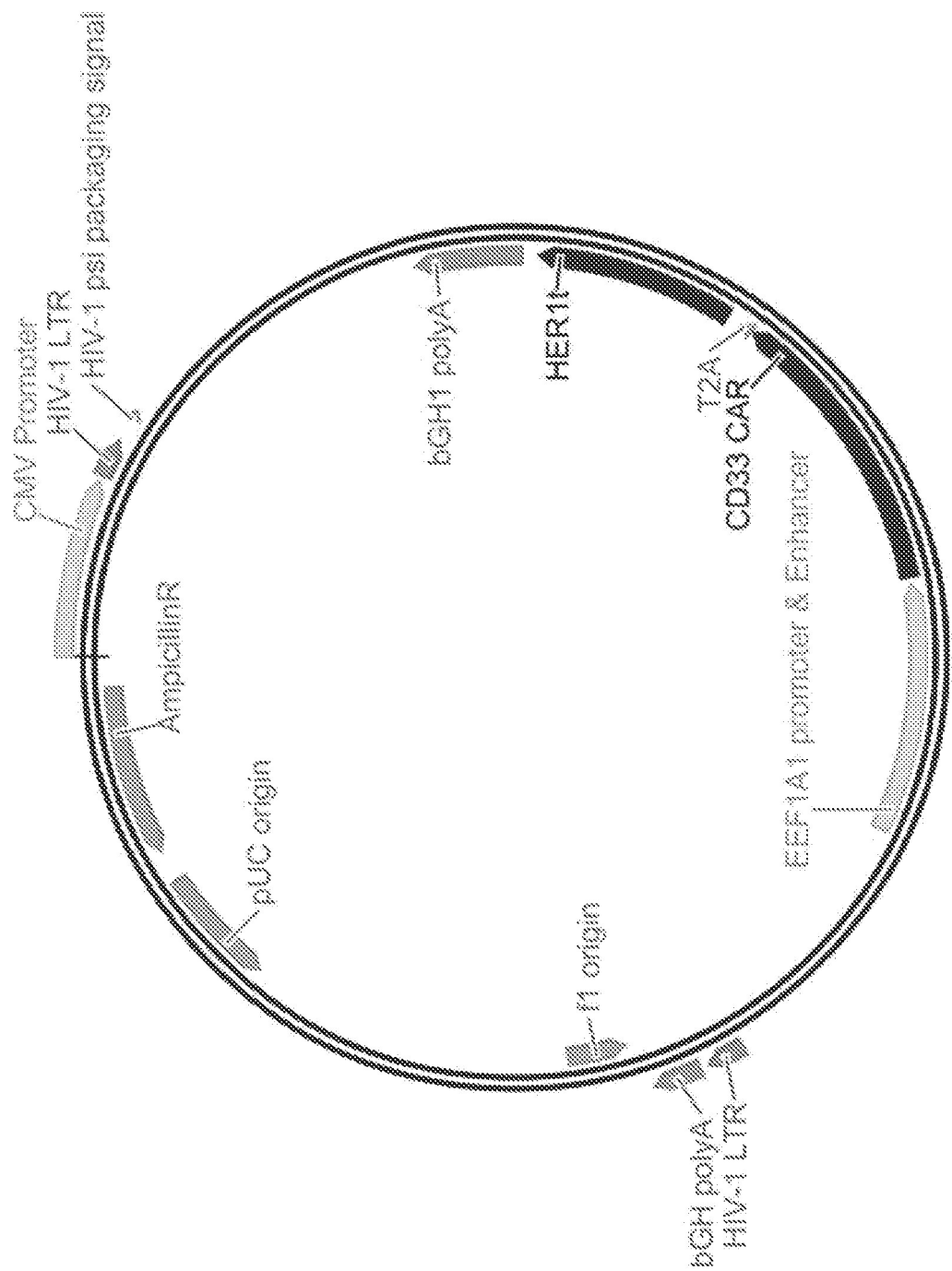


FIGURE 3

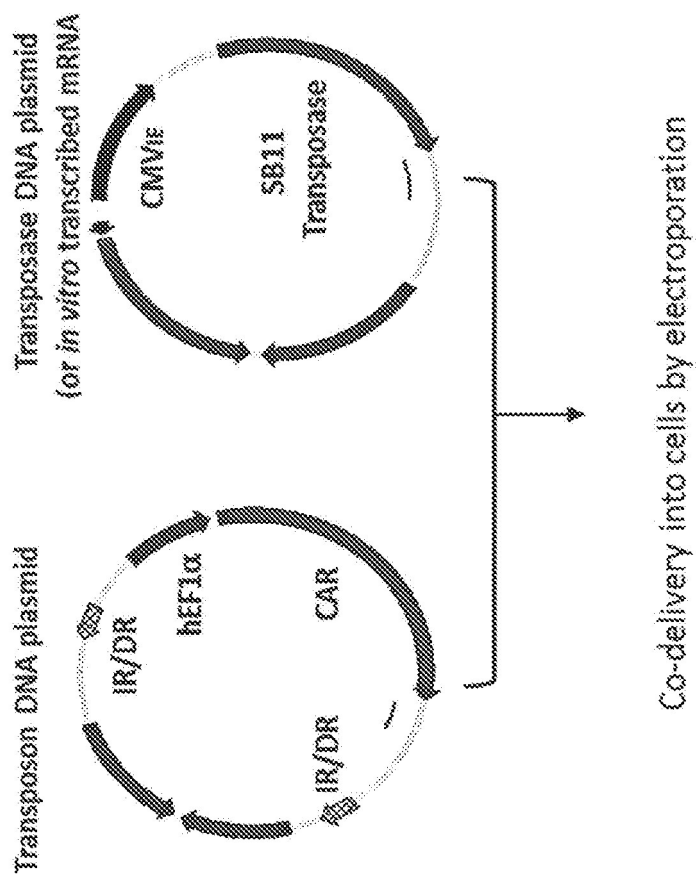
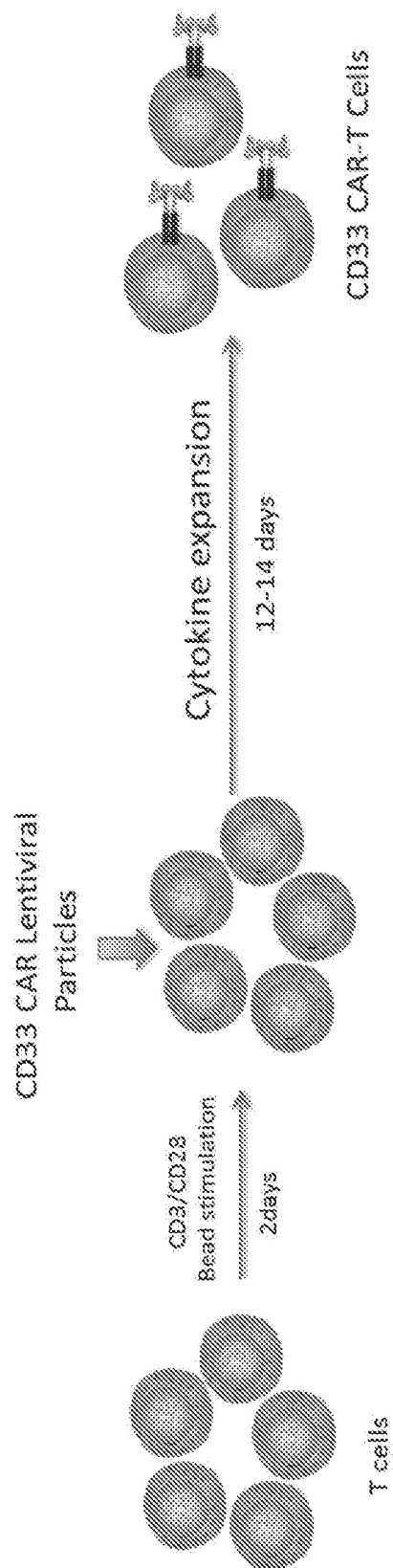


FIGURE 4



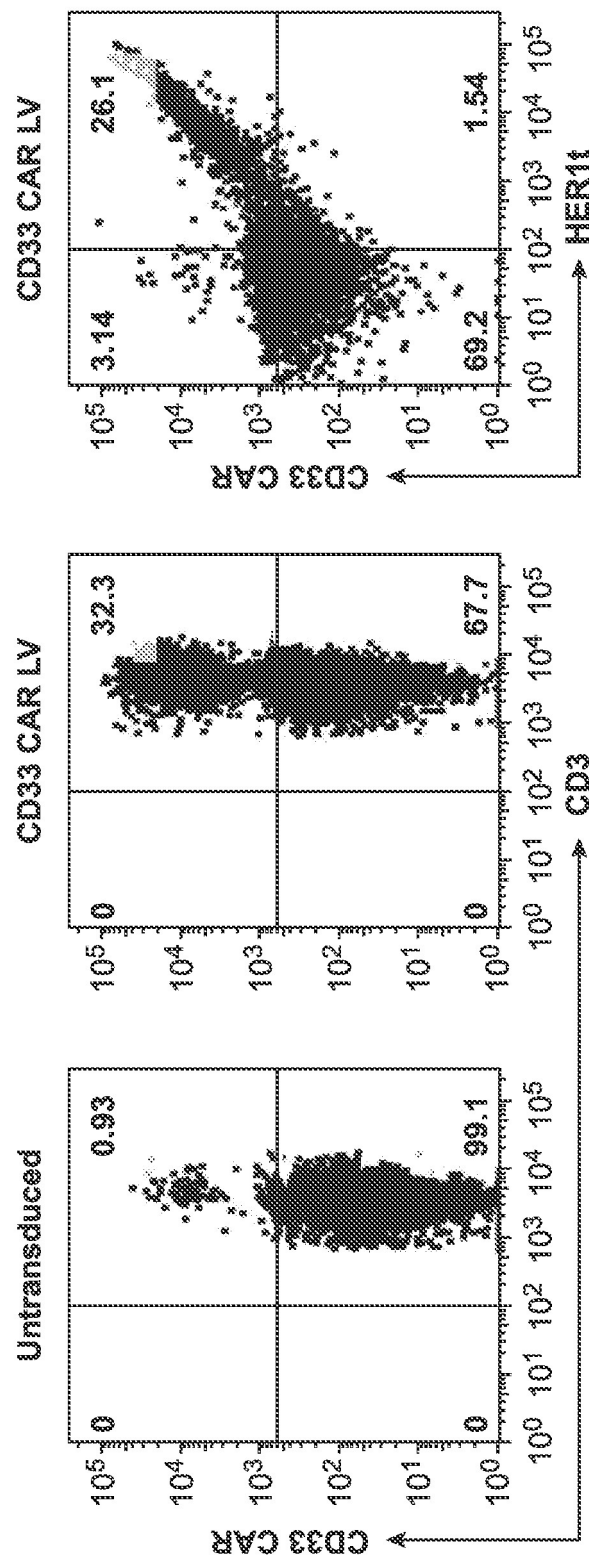


FIGURE 5

FIGURE 6

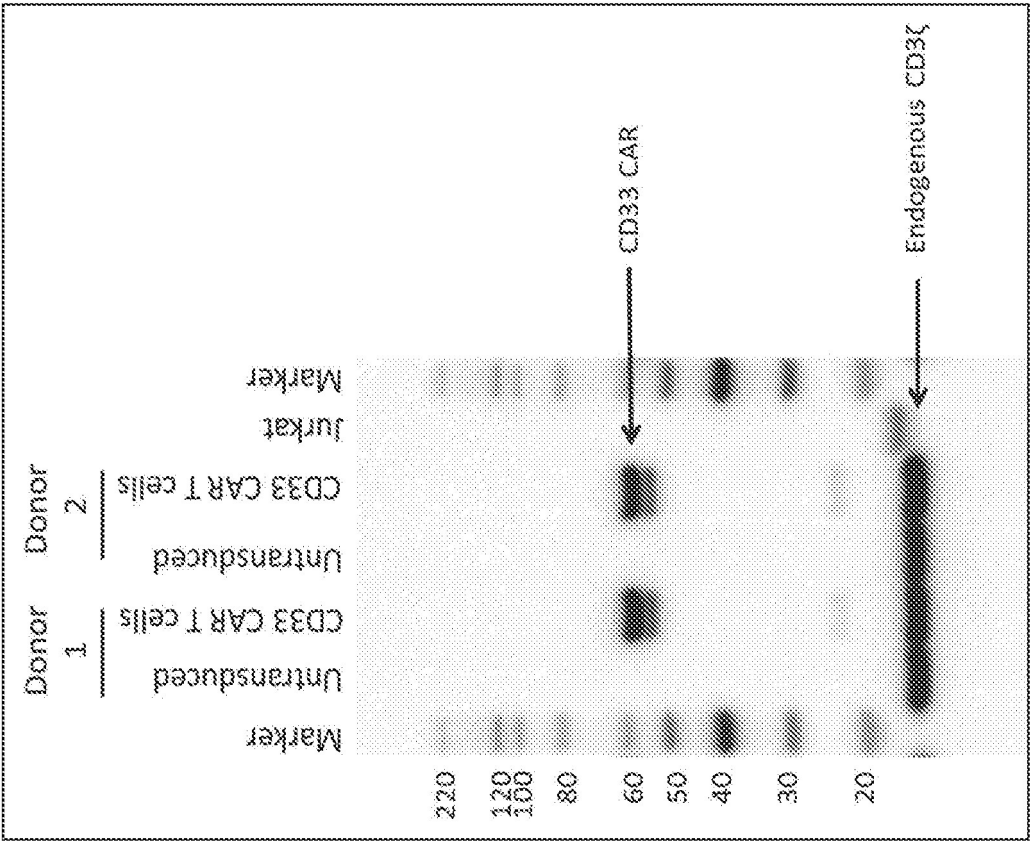


FIGURE 7

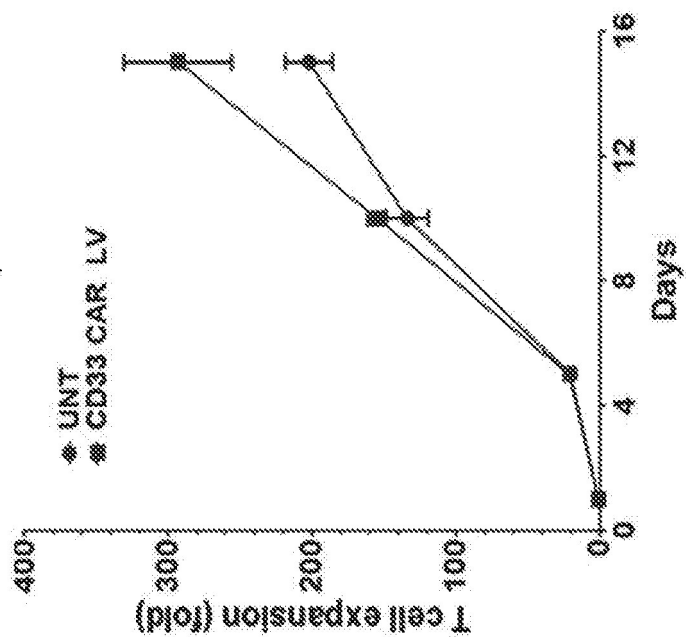
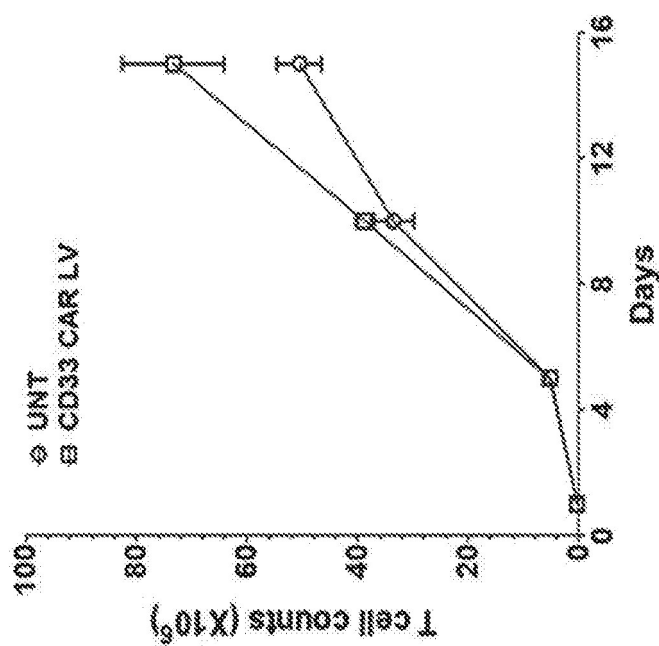
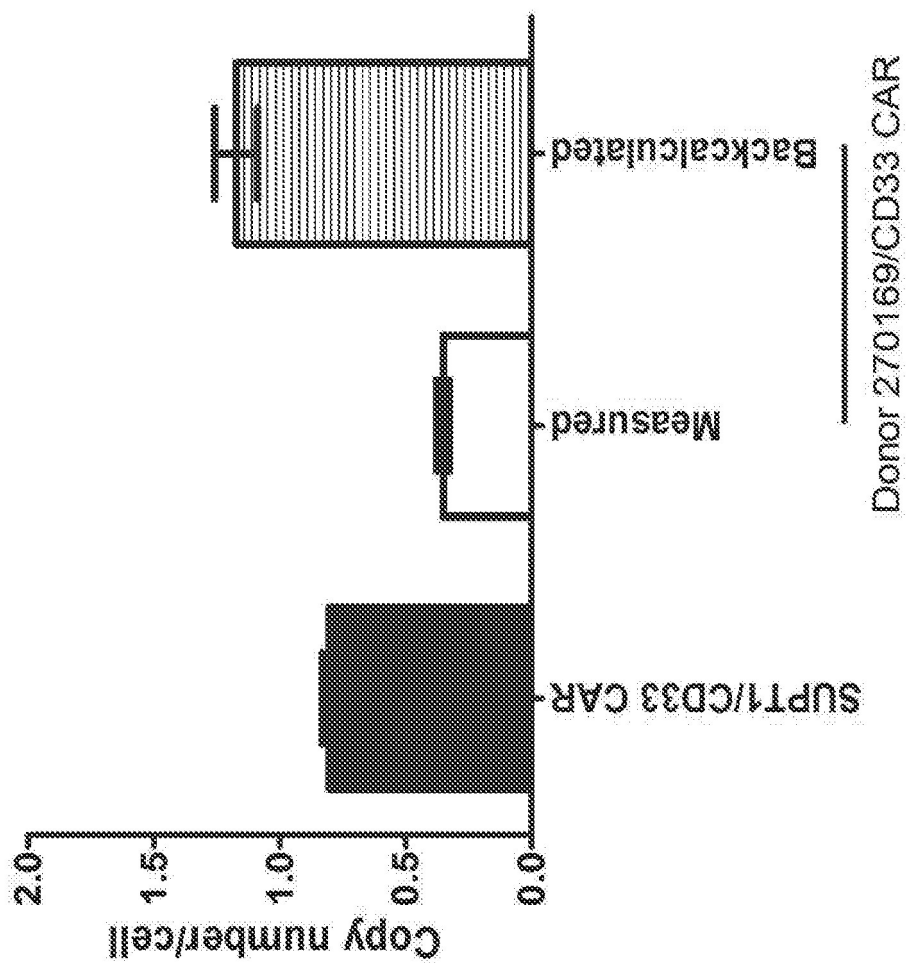


FIGURE 8



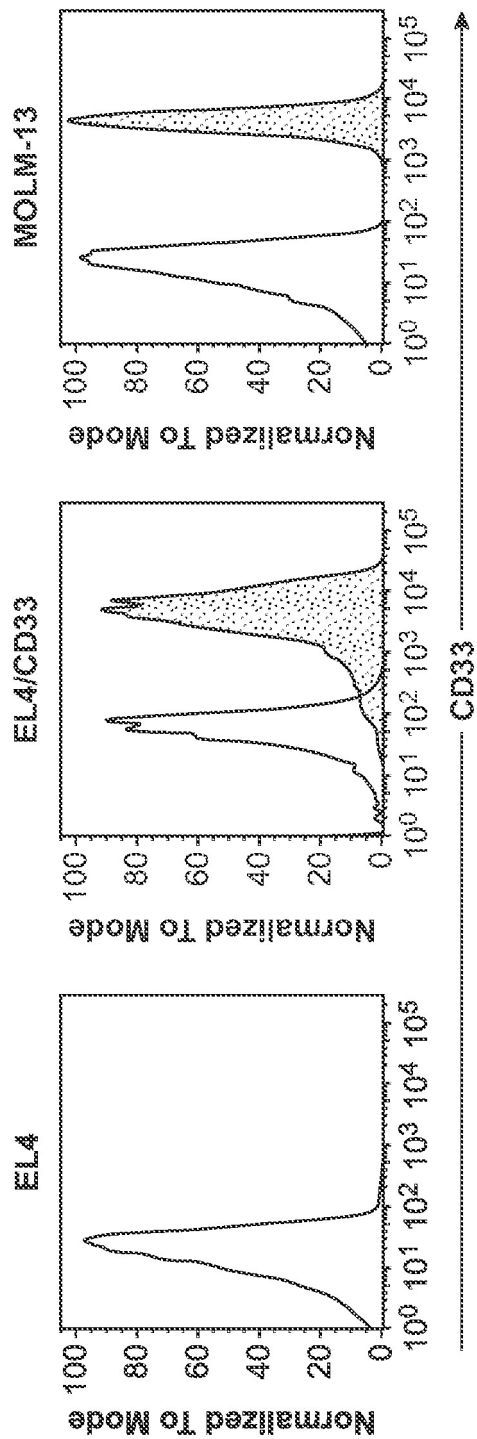


FIGURE 9A

10:1 E:T Ratio

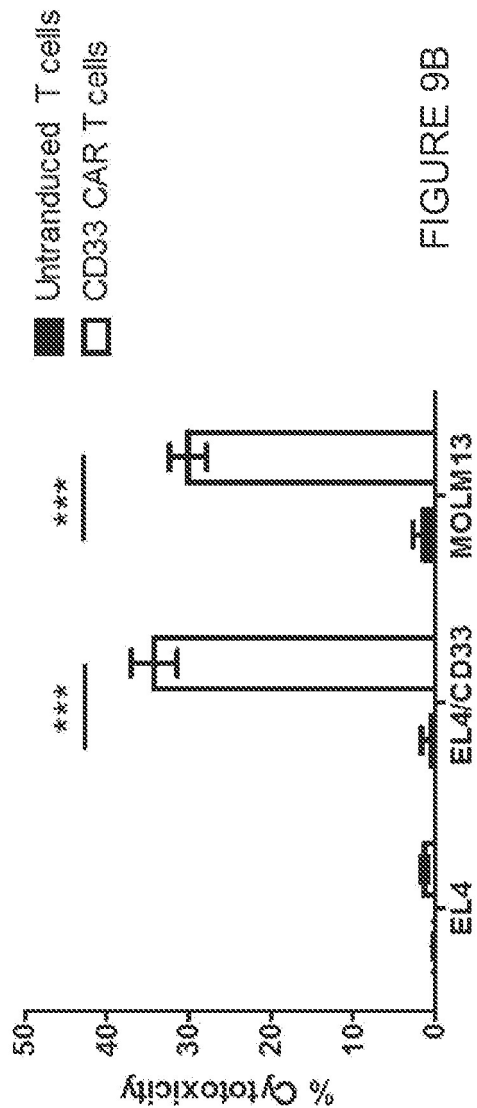


FIGURE 9B

FIGURE 9C

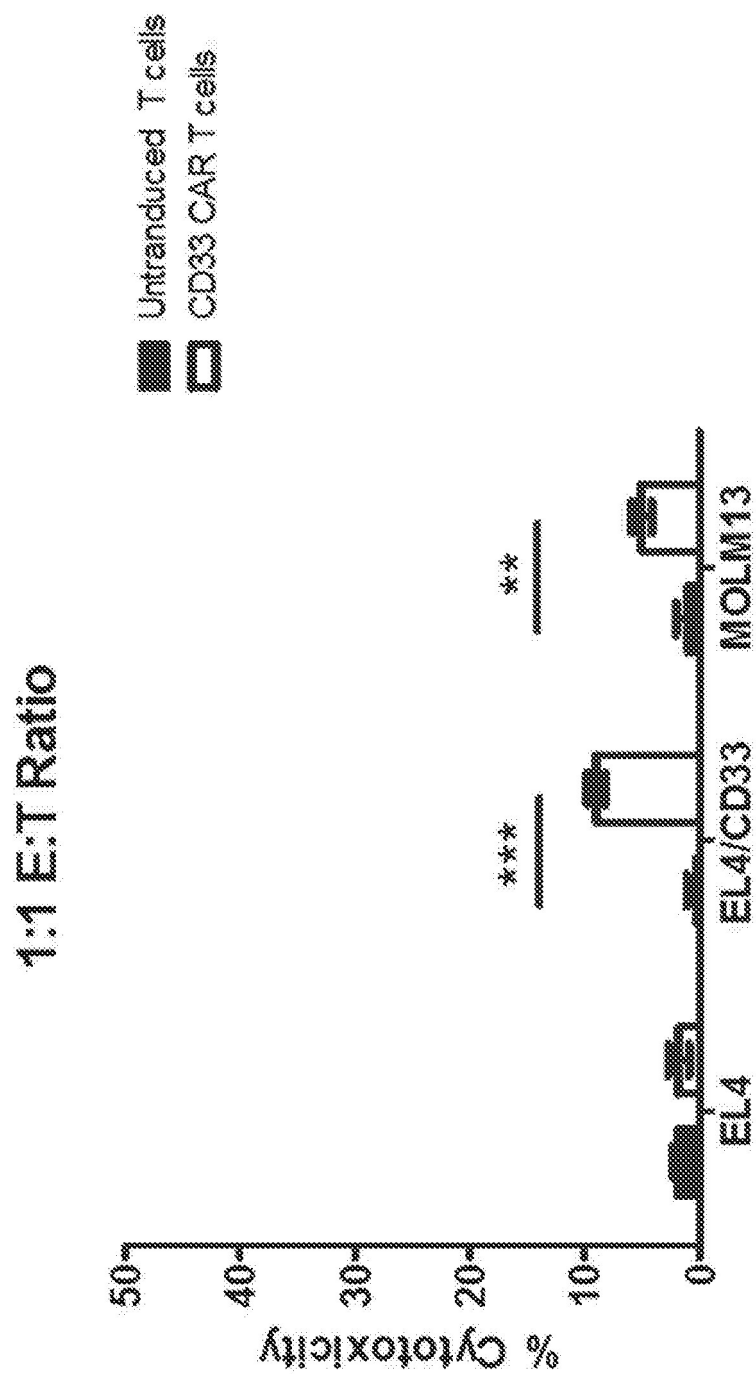


FIGURE 10A

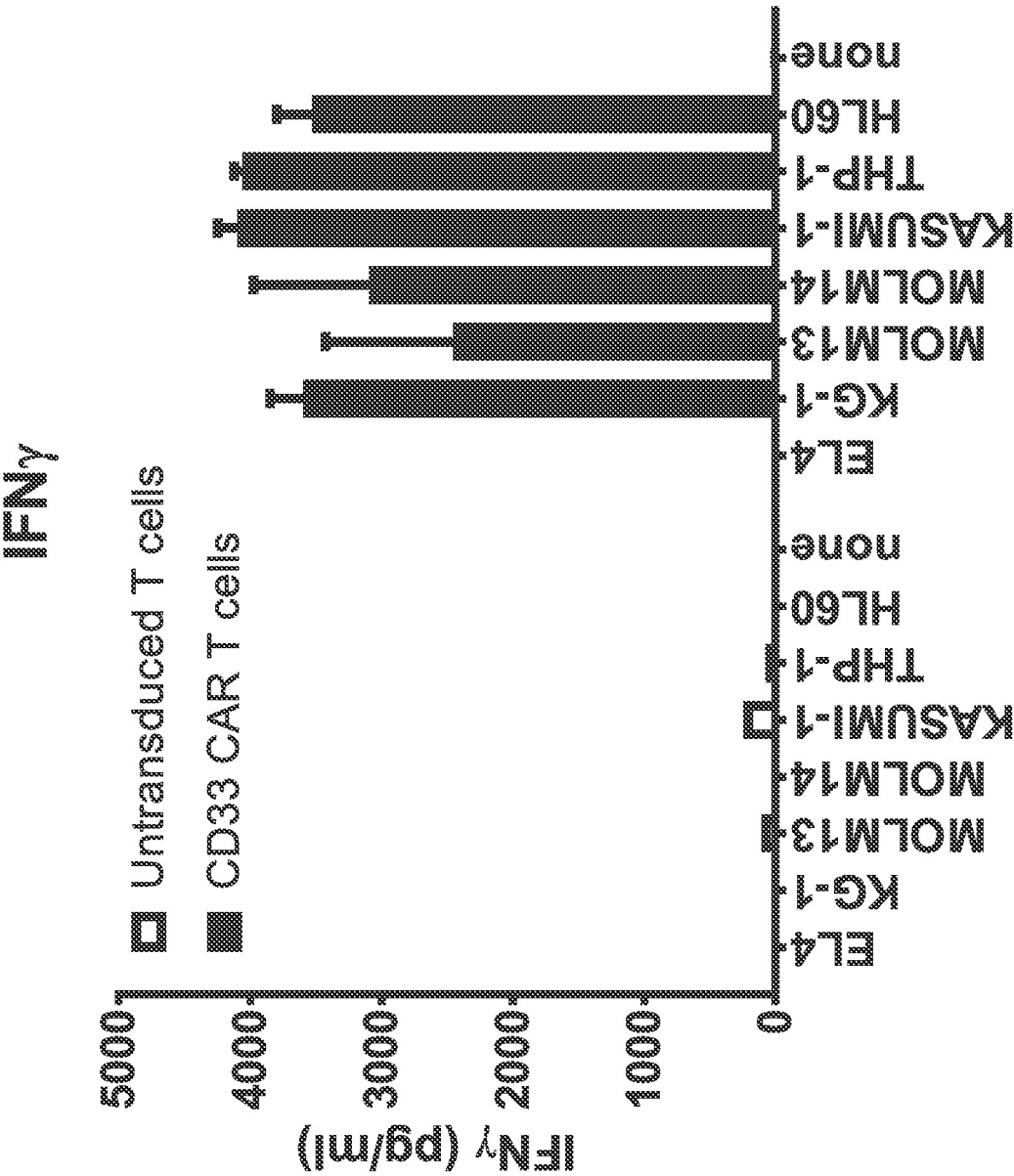


FIGURE 10B

TNF

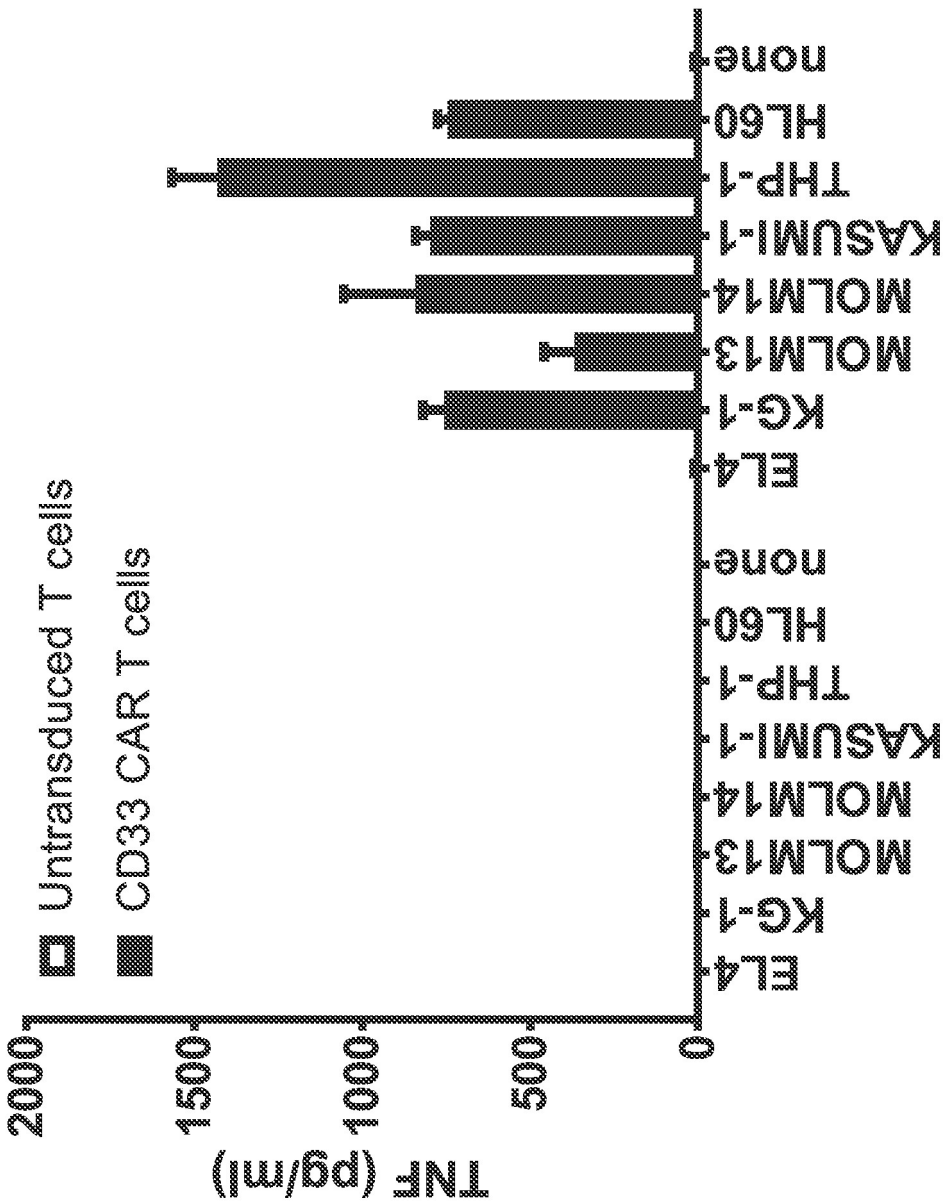


FIGURE 10C

IL-2

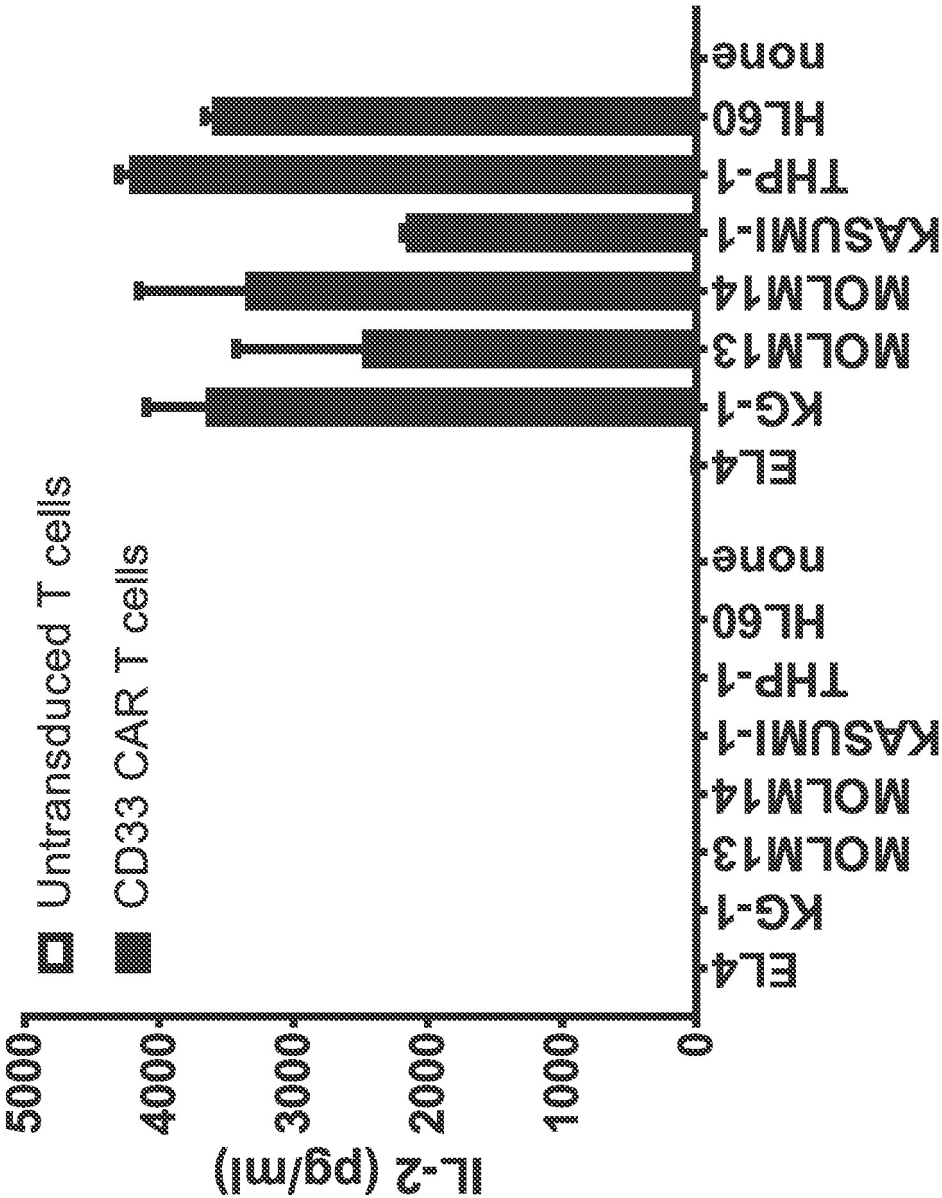


FIGURE 11

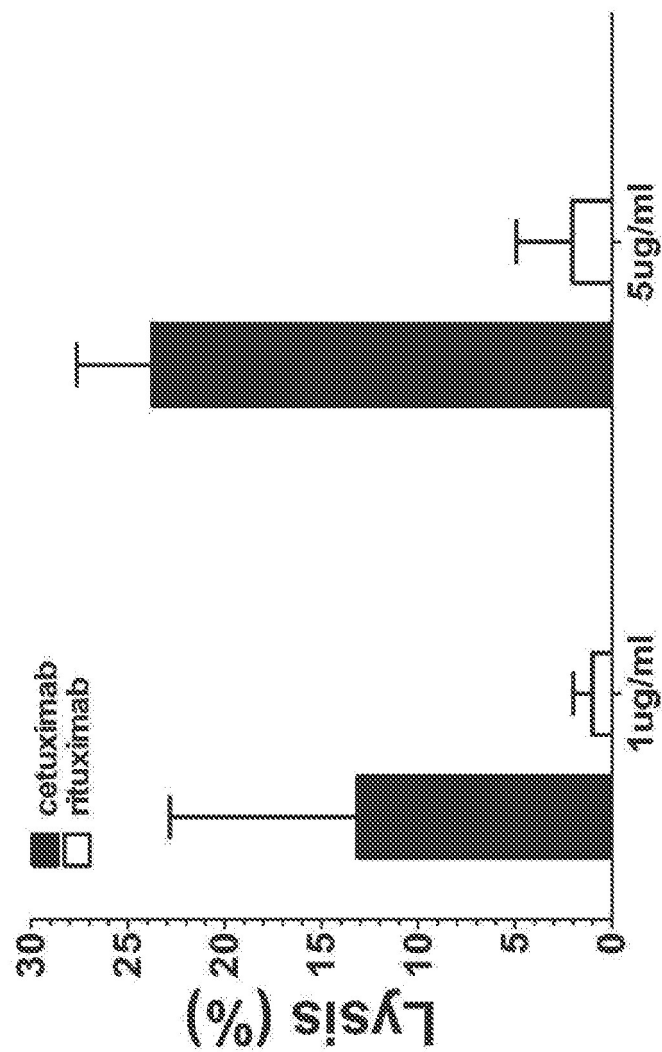
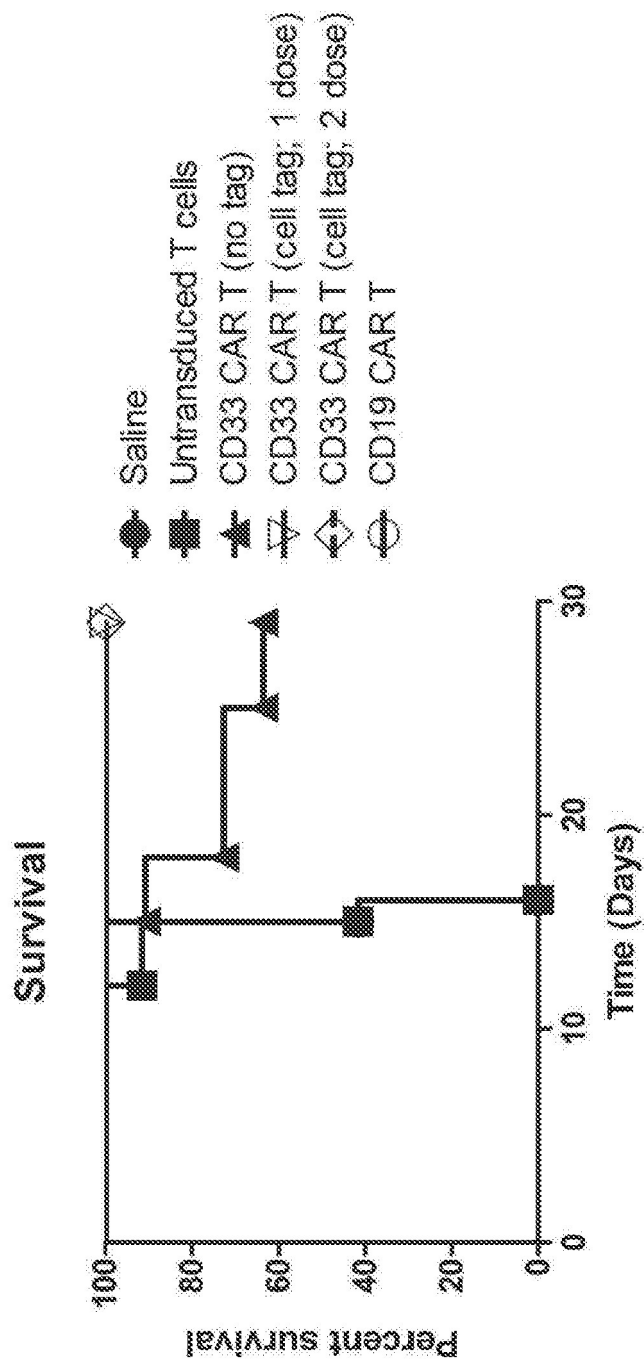


FIGURE 12



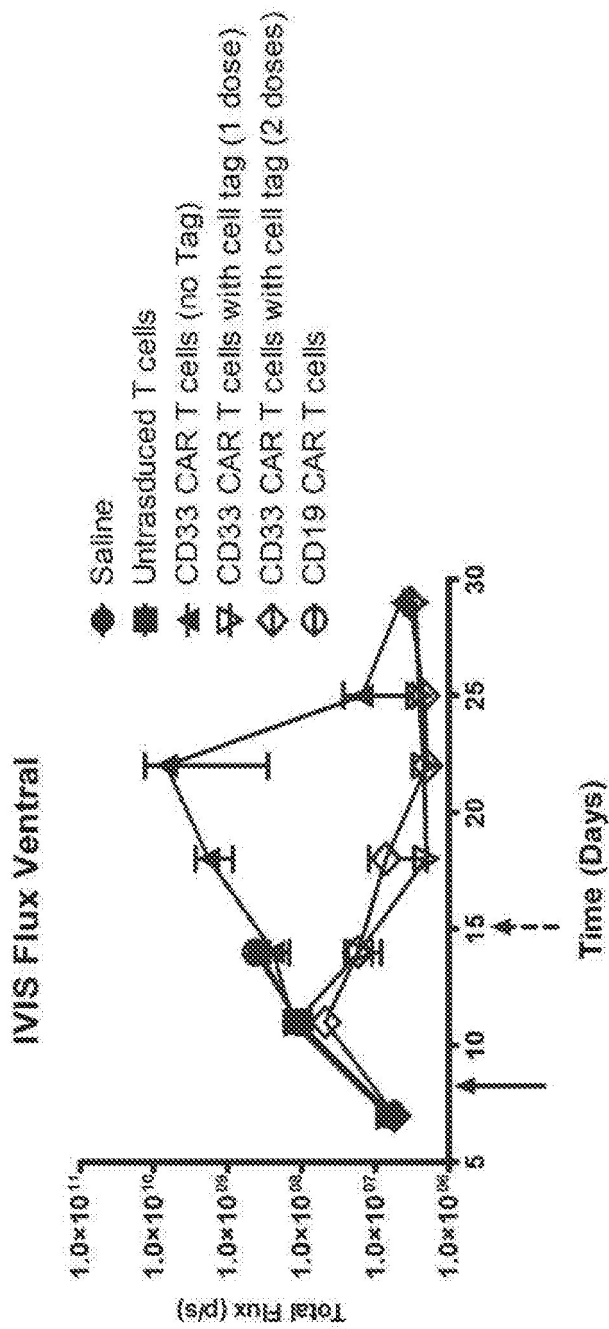


FIGURE 13A

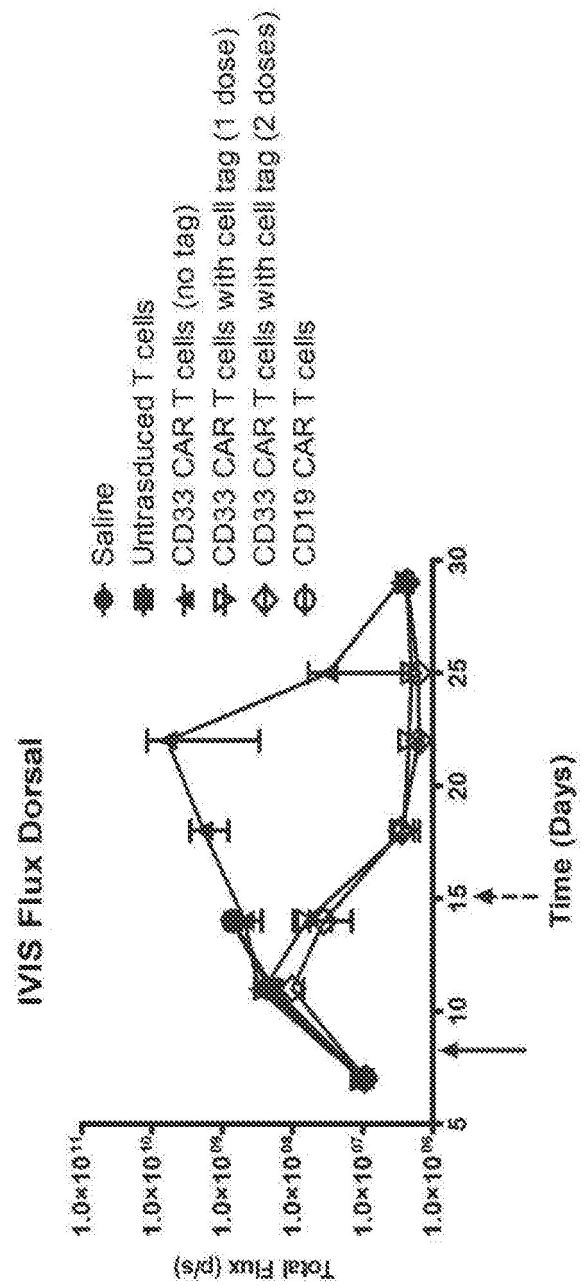


FIGURE 13B

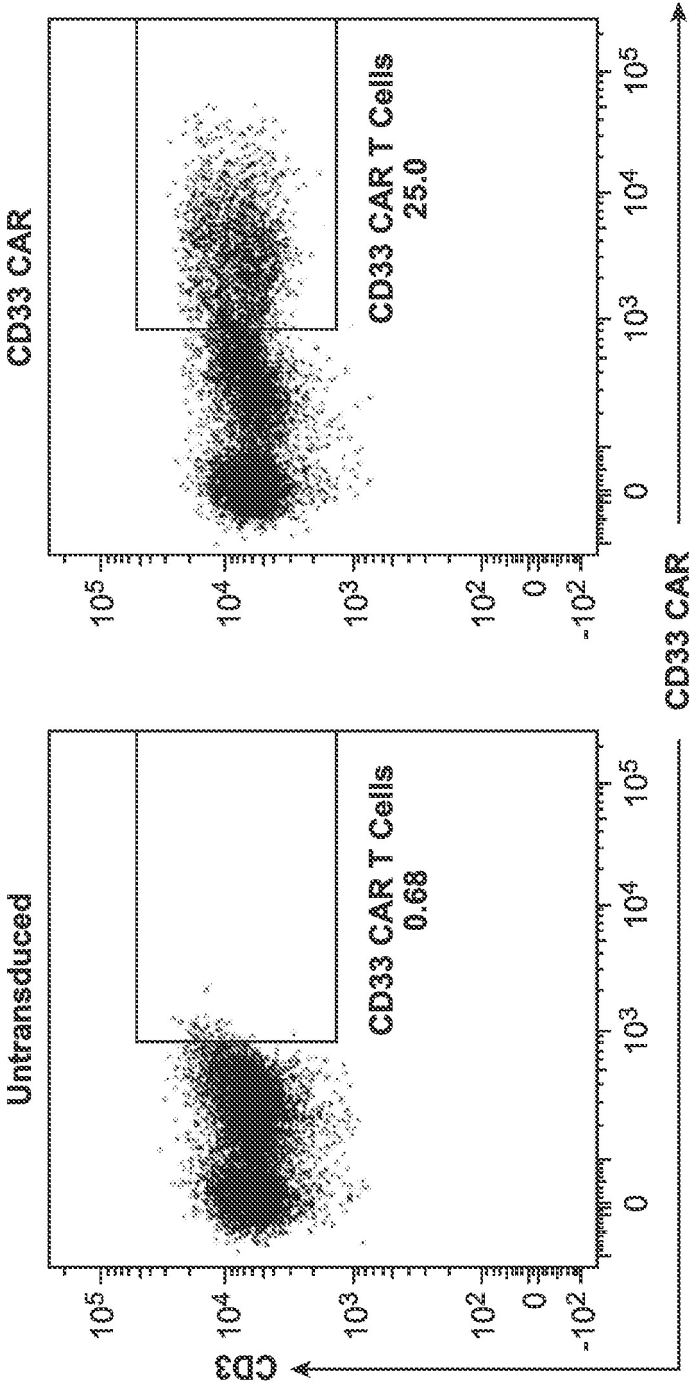


FIGURE 14A

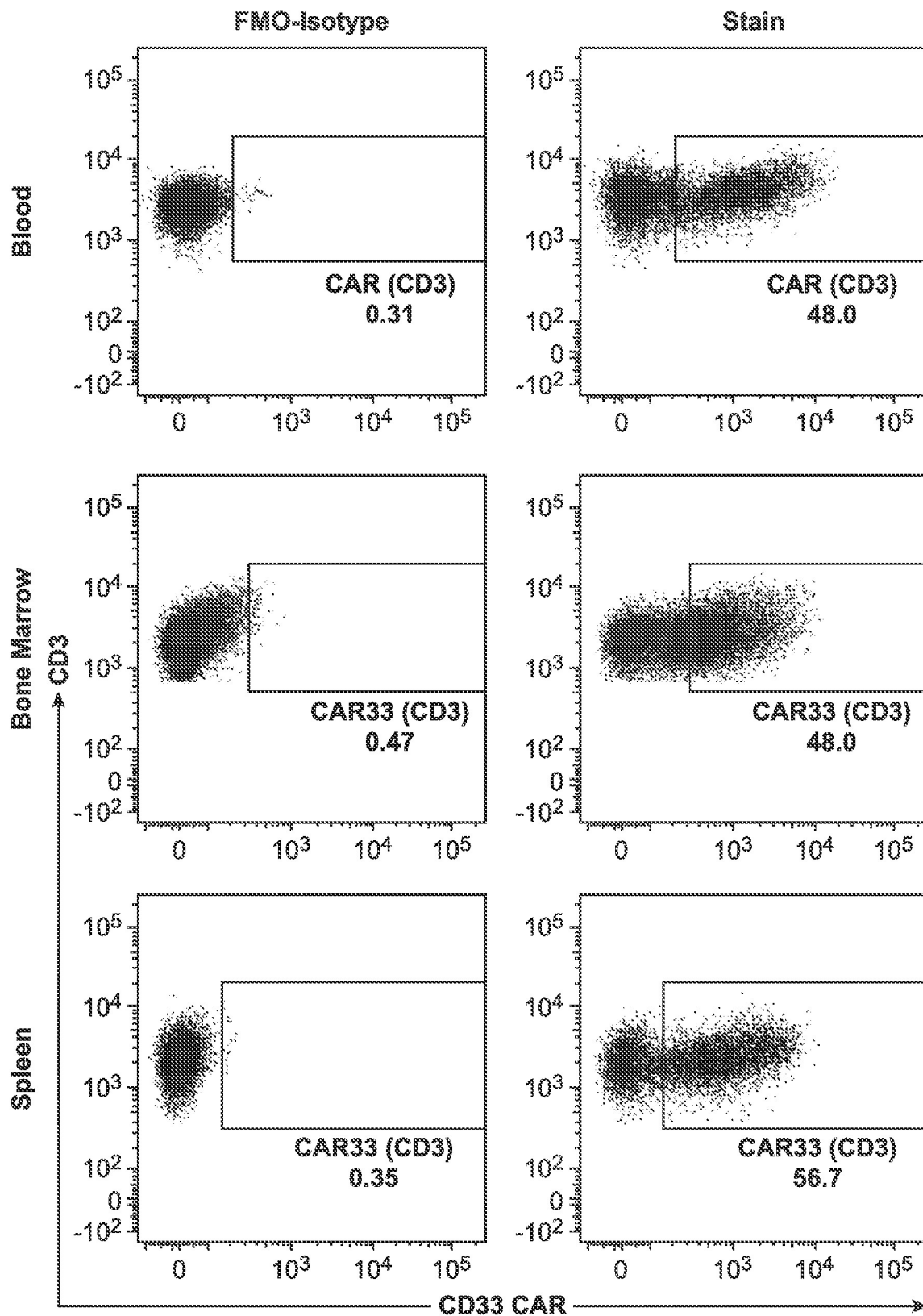
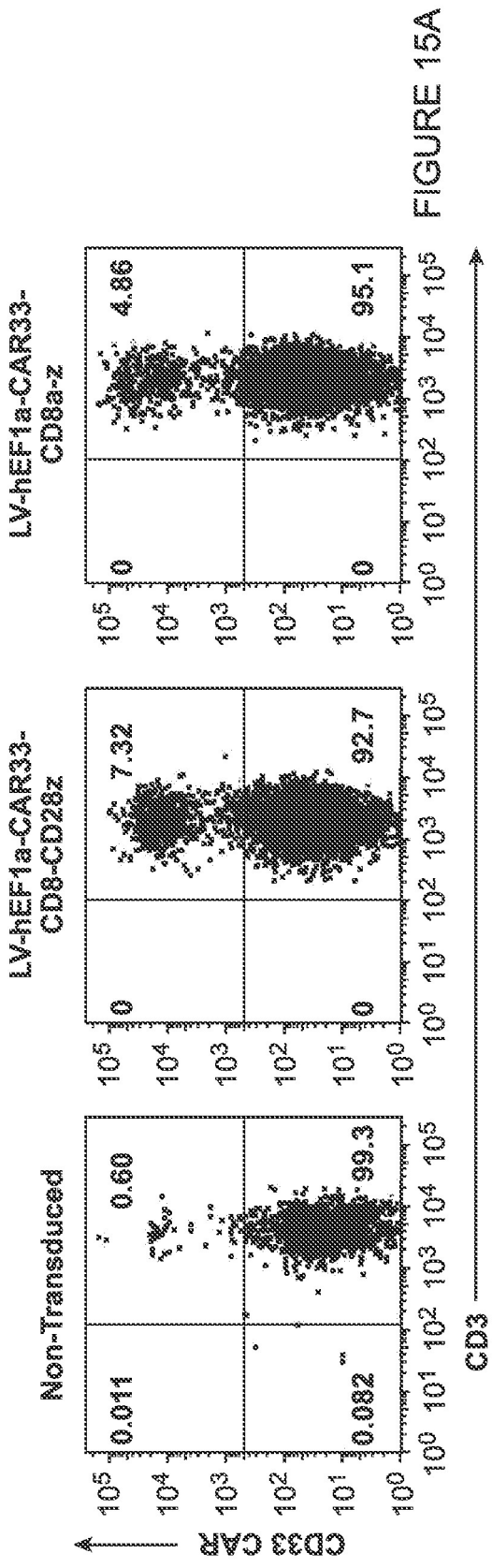
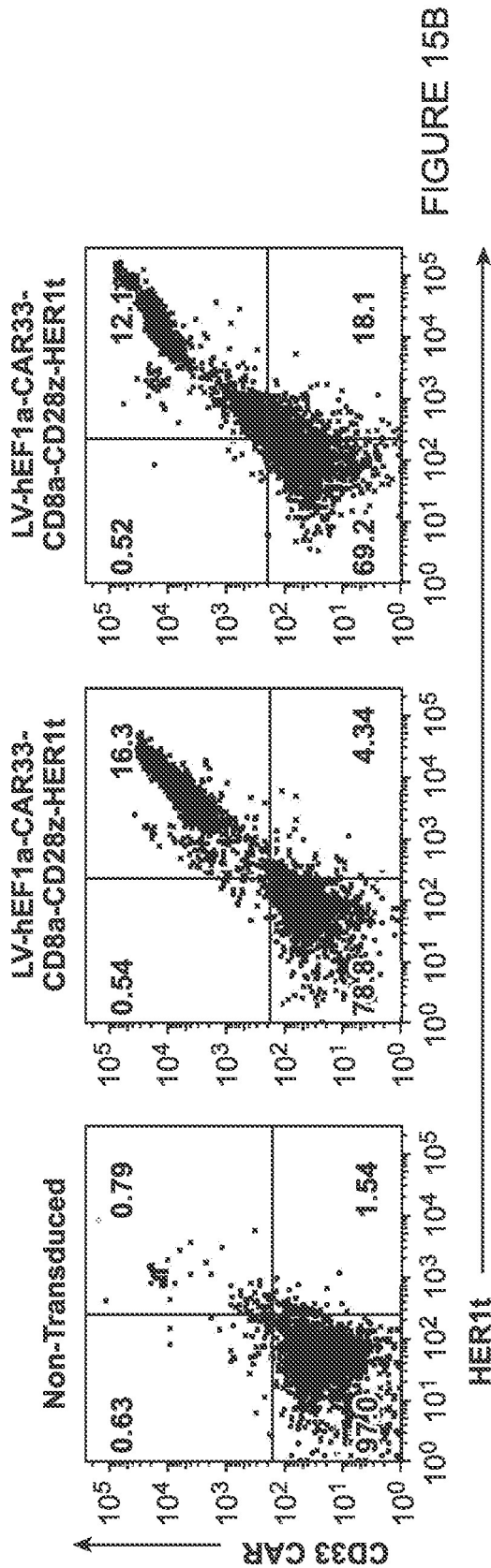


FIGURE 14B



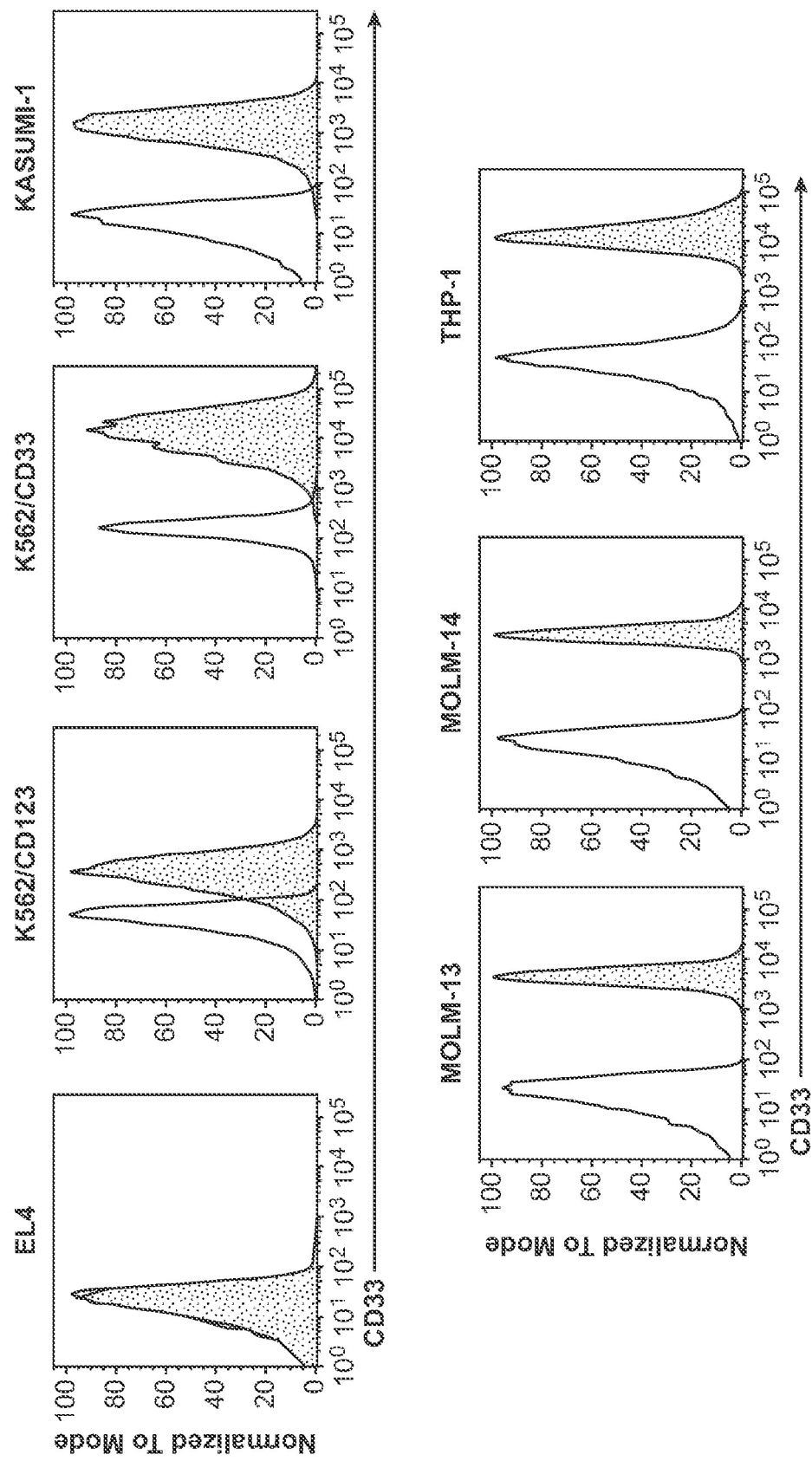
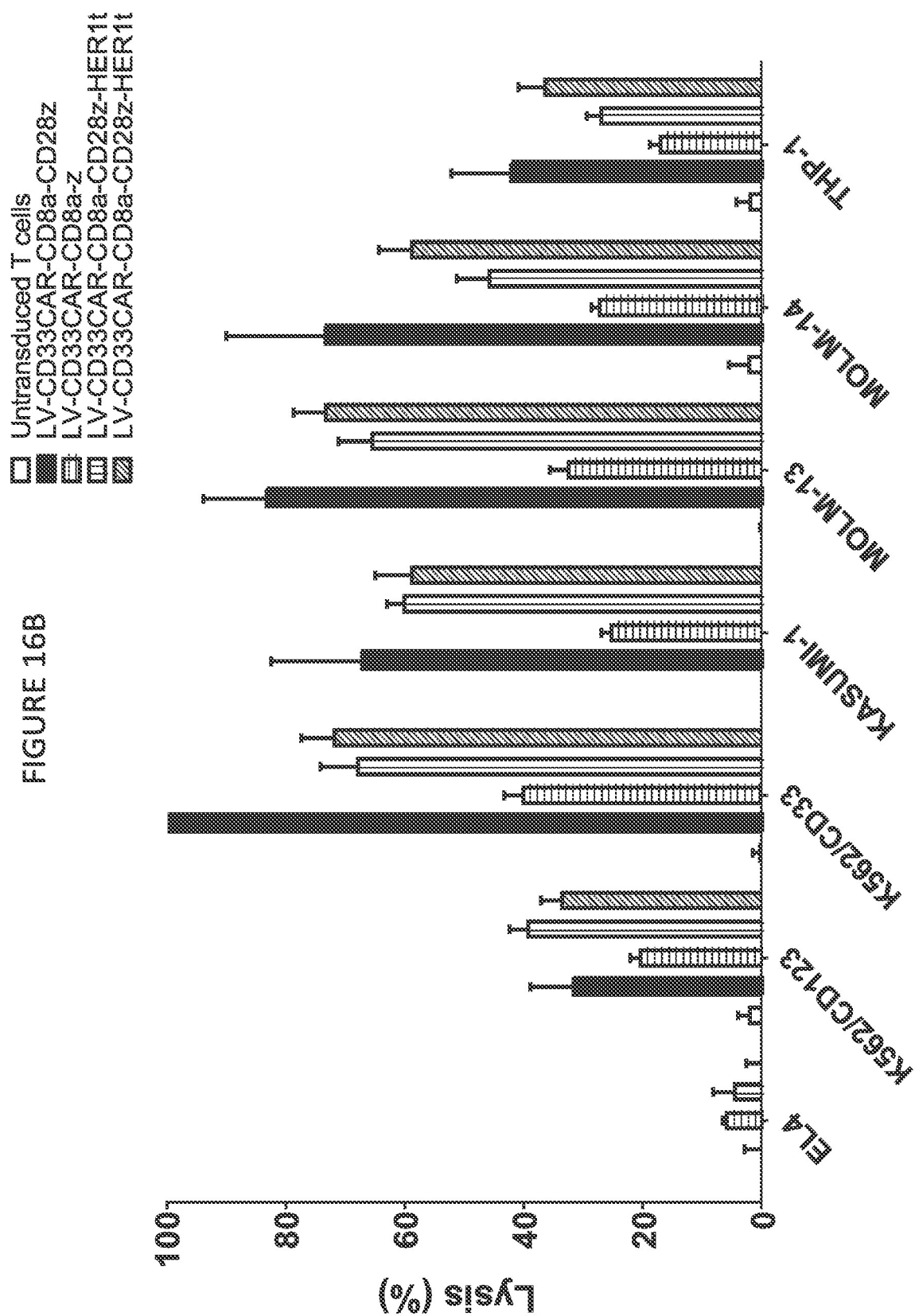


FIGURE 16A



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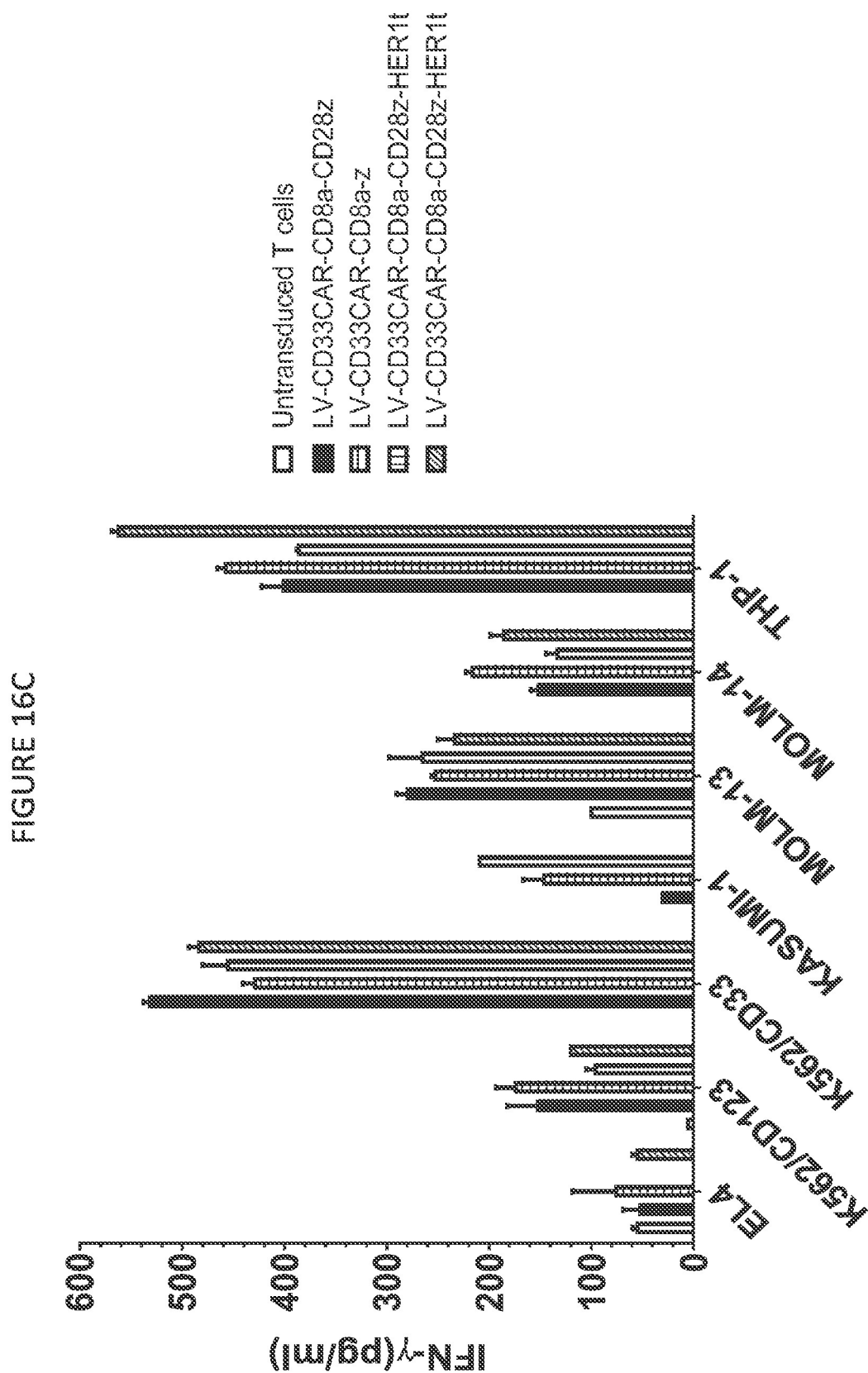
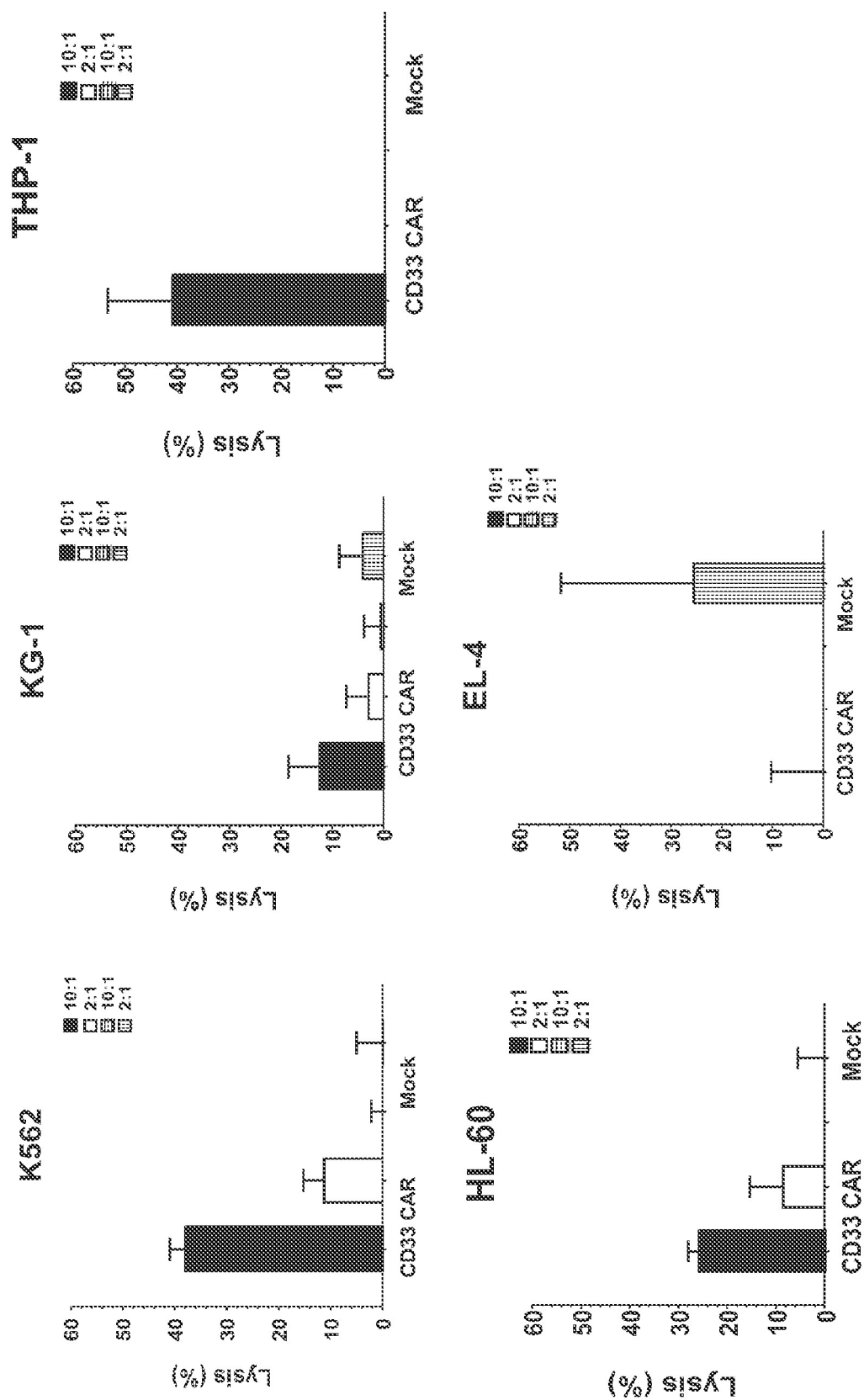


FIGURE 17



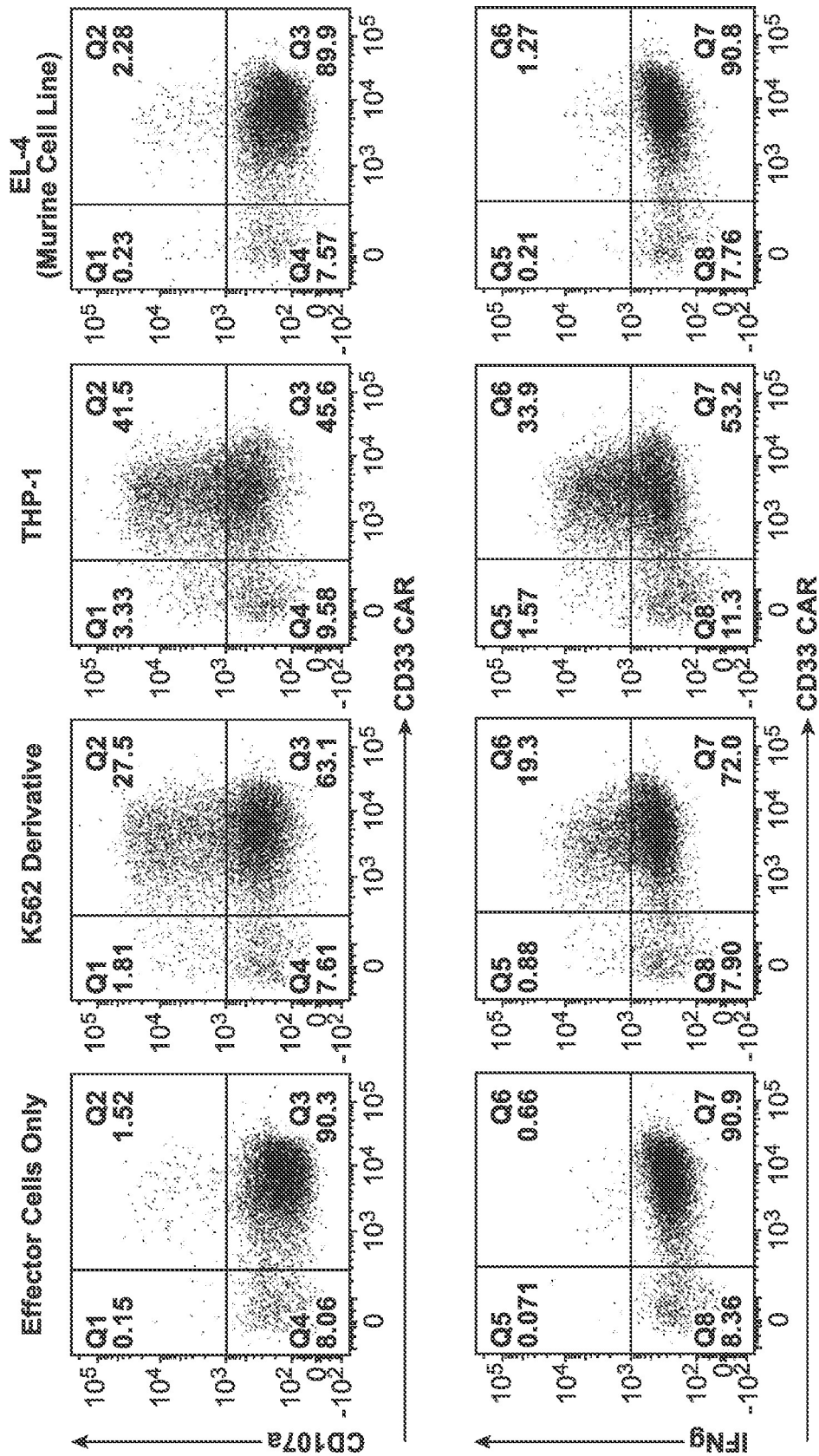


FIGURE 18

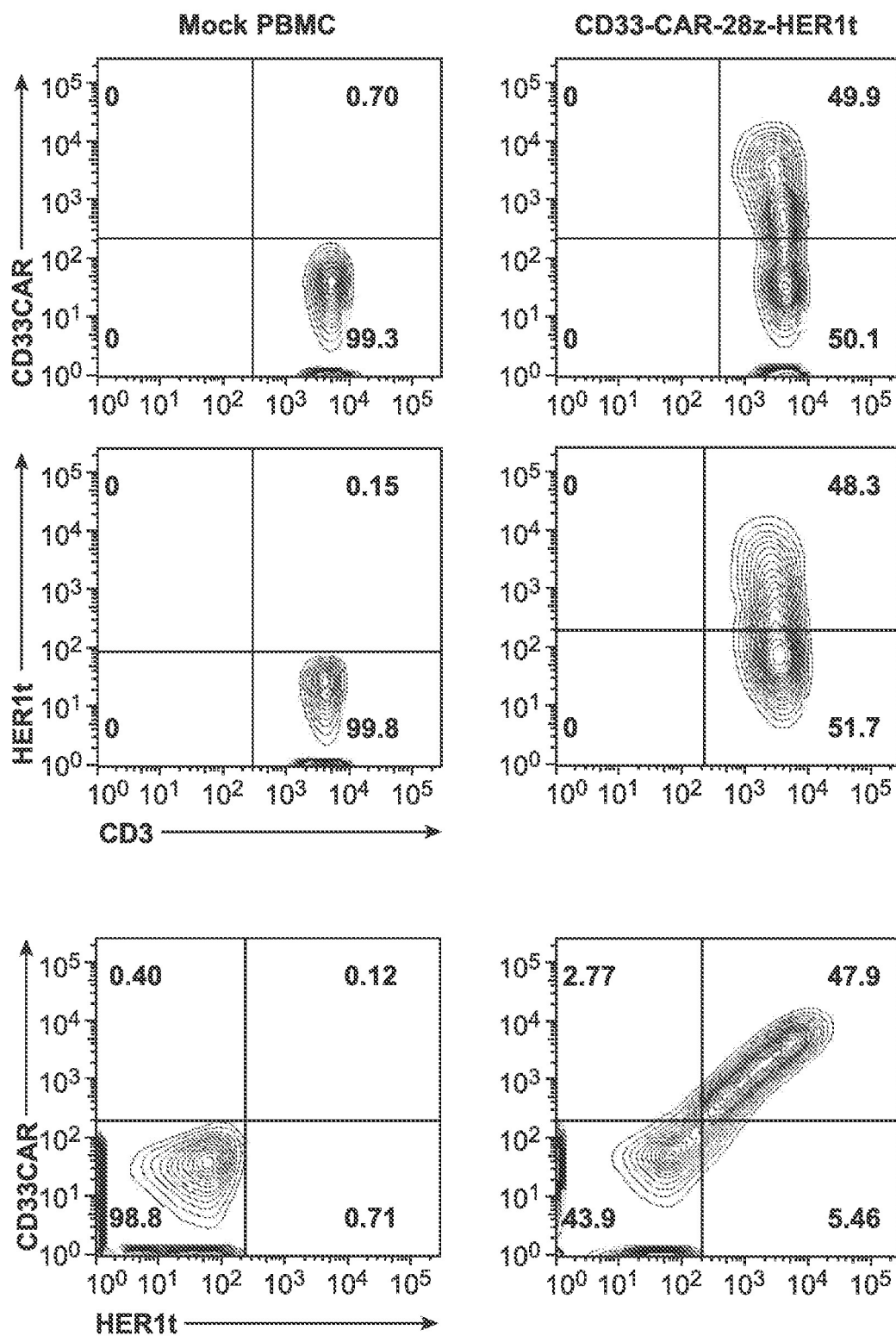


FIGURE 19

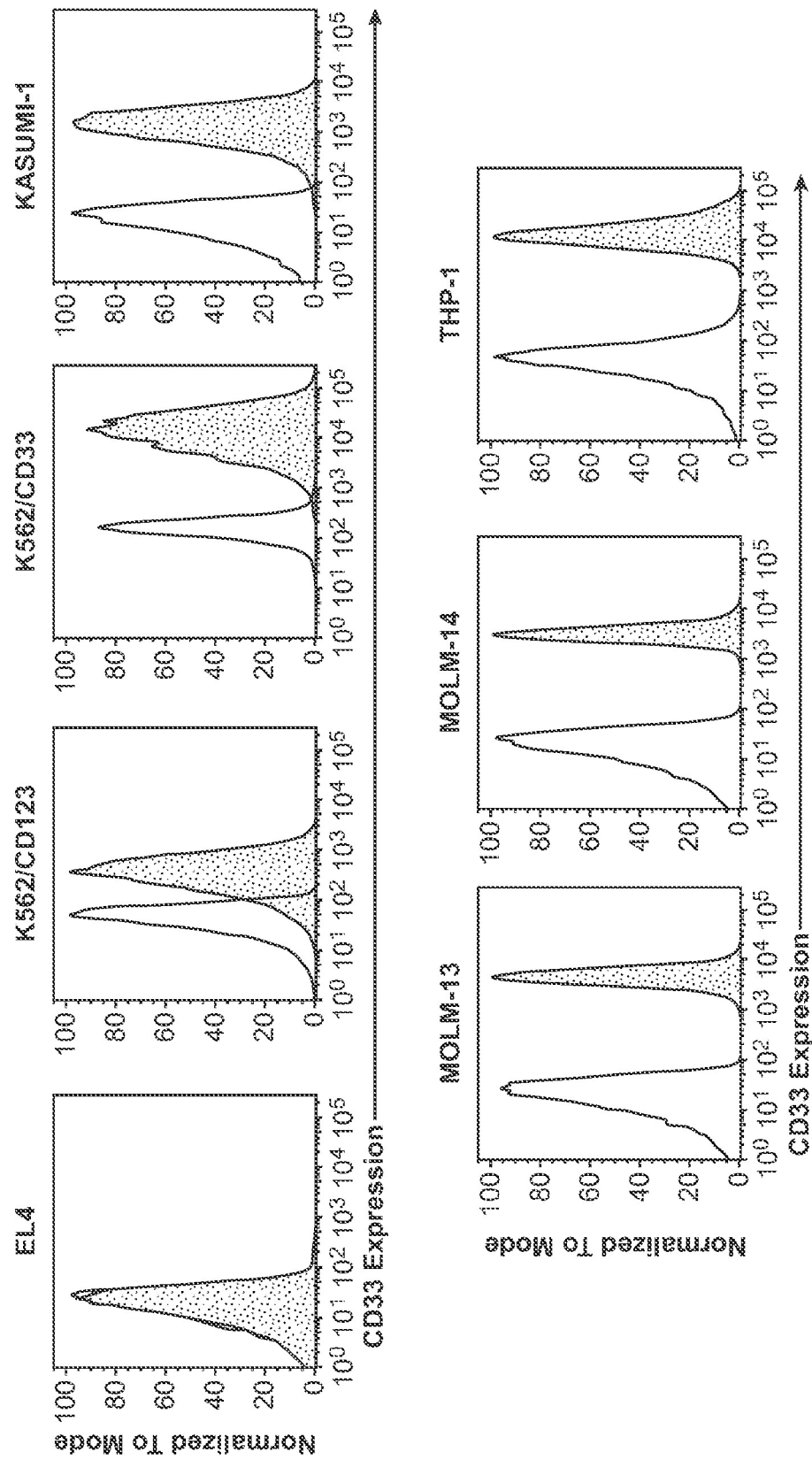


FIGURE 20A

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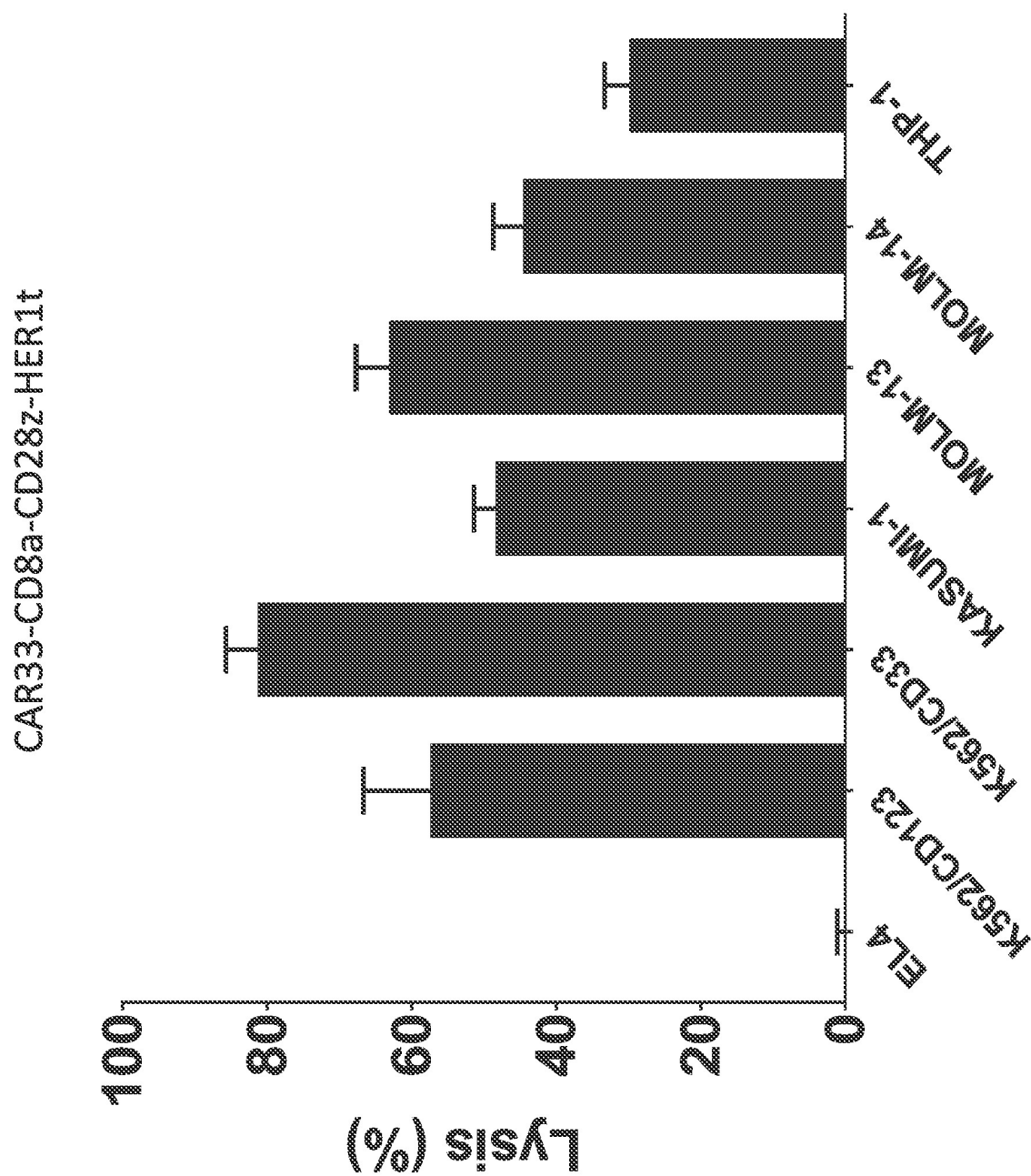


FIGURE 20B

Figure 21

Sequence Name	SEQ ID NO	Sequence
hM195 VL (aa)	1	DIQMTQSPSSLSASVGDRVTITCRASESVDNYGISFMNWFQKPGKAPKL LIYAASNQGSQVPSRFSGSGSGTDFLTITSSLPDDFATYYCQQSKEVPW TFGQGTKVEIK
hM195 VL (nt)	2	Gacattcagatgacccagtcctccgagctctctgtccgcatcagtaggagacaggg tcaccatcacatgcagagccagcgaaagtgtcgacaattatggcattagctttat gaactgggttccaacagaaacccgggaaggctcctaagcttctgatttacgctgca tccaaccaaggctccgggggtaccctctcgcttctcaggcagtggaatctgggacag acttcactctcaccatttcactctctgcagcctgatgacttcgcaacctattactg tcagcaaagtaaggaggttccgtggacgttcgggtcaagggaaccaagggtggagatc aaa
hM195 VH (aa)	3	QVQLVQSGAEVKKPKGSSVKVSKASGYTFTDYNMHWVRQAPGQGLEWIGY IYPYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDAVYYCARGR PAMDYWGQGLTVVSS
hM195 VH (nt)	4	Caggttcagctgggtgcagtcctggagctgaggtgaagaagcctgggagctcagtga aggtttccctgcaaagcttctggctacaccttcactgactacaacatgcactgggt gaggcaggctcctggccaaggcctggaatggattggatatatttatccttacaat gggtgggtaccggctacaaccagaagttcaagagcaaggccacaattacagcagacg agagtactaacacagcctacatggaaactctccagcctgaggtctgaggacactgc agtctattactgcgcaagagggcgccccgctatggactactggggccaagggact ctgggtcactgtctcttca
(G4S)3 Linker (nt)	5	Ggtggcgggtggctcgggcgggtgggtgggtcgggtggcggcgggatct
(G4S)3 Linker (aa)	6	GGGSGGGSGGGGS
hM195 scFv with linker (nt)	7	Gacattcagatgacccagtcctccgagctctctgtccgcatcagtaggagacaggg tcaccatcacatgcagagccagcgaaagtgtcgacaattatggcattagctttat gaactgggttccaacagaaacccgggaaggctcctaagcttctgatttacgctgca tccaaccaaggctccgggggtaccctctcgcttctcaggcagtggaatctgggacag acttcactctcaccatttcactctctgcagcctgatgacttcgcaacctattactg tcagcaaagtaaggaggttccgtggacgttcgggtcaagggaaccaagggtggagatc aaaGgtggcgggtggctcgggcgggtgggtgggtcgggtggcggcgggatctcagggtc agctgggtgcagtcctggagctgaggtgaagaagcctgggagctcagtgaaaggttc ctgcaaagcttctggctacaccttcactgactacaacatgcactgggtgaggcag gctcctggccaaggcctggaatggattggatatatttatccttacaatgggtggta ccggctacaaccagaagttcaagagcaaggccacaattacagcagacgagagtac taacacagcctacatggaactctccagcctgaggtctgaggacactgcagtcctat

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
		tactgcgcaagagggcgccccgctatggactactggggccaagggactctggtca ctgtctcttca
hM195 scFv with linker (aa)	8	DIQMTQSPSSLSASVGDRVTITCRASESDNYGISFMNWFQQKPGKAPKL LIYAASNQGGSGVPSRFSGSGSGTDFTLTISSLQPDFFATYYCQQSKEVPW TFGQGTKEIKGGGGSGGGGSGGGGSGVQLVQSGAEVKKPGSSVKVSCKA SGYTFDYNMHWRQAPGQGLEWIGYIYPYNGGTGYNQKFKSKATITADE STNTAYMELSSLRSEDTAVVYCARGRPAMDYWGQGTLLTVSS
M2H12 VH (aa)	9	QVQLQQSGPELVRPGTFVKISCKASGYFTNYD INWVNQRPGQGLEWIGWIYPGDGSTKYNEKF KAKATLTADKSSSTAYLQLNNLTSENSAVYFCAS GYEDAMDYWGQGTSTVTVSS
M2H12 VL (aa)	10	DIKMTQSPSSMYASLGERVIINCKASQDINSYLS WFQQKPGKSPKTLIYRANRLVDGVPSRFSGSG SGQDYSLTISLLEYEDMGIIYCLQYDEFPLTFGA GTKLELKR
DRB2 VH (aa)	11	EVKLQESGPELVKPGASVKMSCKASGYKFTDYV VHWLKQKPGQGLEWIGYINPYNDGTKYNEKF KGKATLTSDKSSSTAYMEVSSLTSEDSAVVYCA RDYRYEVGMDYWGQGTSTVTVSS
DRB2 VL (aa)	12	DIVLTQSPITMSASPGERVMTCTASSSVNYIH WYQQKSGDSPLRWIFDTSKVASGVPARFSGSG SGTSYSLTISTMEAEDAATYYCQQWRSYPLTFG DGTRLELKRADAAPTQS
My9-6 VH (aa)	13	QVQLQQPGAQEVKPGASVKMSCKASGYFTFS YYIHWIKQTPGQGLEWVGVIYPGNDISYNQK FKGKATLTADKSSSTAYMQLSSLTSEDSAVVYCA AREVRLRYFDVWGAGTTVTVSS
My9-6 VL (aa)	14	NIMLTQSPSSLAVSAGEKVTMSCKSSQSVFFSS SQKNYLAWYQQIPGQSPKLLIYWASTRESGVP DRFTGSGSGTDFTLTISVQSEDLAIYYCHQYLS SRTFGGGKLEIKR
GM-CSFRa signal peptide (nt)	15	Atgctgctgctggtgaccagcctgctgctgtgtgagctgccccaccccgcccttc tgctgatcccc
GM-CSFRa signal peptide (aa)	16	MLLLVTSLLLCELPHPAFLLIP
CD8alpha TM (nt)	17	Atctacatctgggcccctctggccggcacctgtggcgtgctgctgctgagcctgg tcacaccctgtactgcaaccaccggaat

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
CD8alpha TM (aa)	18	IYIWAPLAGTCGVLLLLSLVITLYCNHRN
CD28 TM (nt)	19	Ttttgggtgctgggtgggtgggtgggtggagtcctggcttgctatagcttgctagtaa cagtggcctttattattttctgggtg
CD28 TM (aa)	20	FWVLVWGGVLACYSLLVTVAFIIFWV
CD8alpha hinge (nt)	21	Aagcccaccaccaccctgcccctagacctccaaccccagcccctacaatcgcca gccagcccctgagcctgaggcccgaaagcctgtagacctgccgctggcggagccgt gcacaccagaggcctggatttcgcctgcgac
CD8alpha hinge (aa)	22	KPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGAVHTRGLDFACD
4-1BB signaling domain (nt)	23	Aagagaggccggaagaaactgctgtacatcttcaagcagcccttcatgcccgcg tgacagaccaccaggaagaggacggctgcagctgcccgttccccgaggaagagga aggcggctgcgaactg
4-1BB signaling domain (aa)	24	KRGRKKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEEGGCEL
CD3 ζ signaling domain (nt)	25	Cgggtgaagttcagccggagcgccgacgcccctgcctaccagcagggccagaacc agctgtacaacgagctgaacctgggcccggaggaggagtagcagctgctggacaa gcccagaggccgggaccctgagatgggcccgaagccccggagaaagaacctcag gagggcctgtataacgaactgcagaaagacaagatggccgaggcctacagcgaga tcggcatgaaggcgagcggcggaggggcaaggggccacgacggcctgtaccaggg cctgagcaccgccaccaaggatacctacgacgcccctgcacatgcaggccctgccc ccaga
CD3 ζ signaling domain (aa)	26	RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPEMGGKPR RKNPQEGLYNELQDKMAEAYSEIGMKGERRRRGKGDGLYQGLSTATKDT YDALHMQALPPR
CD28 signaling domain(nt)	27	Aggagcaagcggagcagaggcggccacagcgactacatgaacatgacccccgga ggcctggccccaccgggaagcactaccagccctacggccctcccagggaacttcgc cgccctaccggagc
CD28 signaling domain (aa)	28	RSKRSRGGHSDYMNMTPRRPGPTRKHYPYAPPRDFAAYRS
T2A (nt)	29	GAGGGCAGAGGAAGTCTTCTAACATGCGGTGACGTGGAGGAGAATCCCGGCCCT
T2A (aa)	30	EGRGSLTTCGDVEENPGP

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
HER1t (nt)	31	<p>Cgcaaagtgtgtaacggaataggtatttggtgaatttaaagactcactctccataa atgctacgaatattaaacacttcaaaaactgcacctccatcagtgggcgatctcca catcctgccggtggcatttaggggtgactccttcacacatactcctcctctggat ccacaggaactggatattctgaaaaccgtaaaggaaatcacaggggtttttgctga ttcagggttgccctgaaaacaggacggacctccatgcctttgagaacctagaaat catacgcggcaggaccaagcaacatggtcagttttctcttgagtcgtcagcctg aacataacatccttgggattacgctccctcaaggagataagtgatggagatgtga taatttcaggaaacaaaaatttgtgctatgcaaatacaataaactggaaaaaact gtttgggacctccggtcagaaaacaaaaattataagcaacagaggtgaaaaacagc tgcaaggccacaggccaggtctgccatgcccttgctctccccgagggctgctggg gcccggagcccagggaactgcgtctcttgcgggaatgtcagccgaggcagggaatg cgtggacaagtgcaccttctggagggtgagccaagggaagtttgggagaactct gagtgcatcacagtgccacccagagtgccctgcctcaggccatgaacatcacctgca caggacggggaccagacaactgtatccagtgtgcccactacattgacggcccca ctgcgtcaagacctgcccggcaggagtcagggagaaaaacaacacctgggtctgg aagtacgcagacgccggccatgtgtgccacctgtgccatccaaactgcacctacg gatgcactggggccagggtcttgaaggctgtccaacgaatgggcctaagatcccgtc catcgccactgggatgggtgggggcccctcctcttgctgctgggtgggtggccctgggg atcggcctcttcacg</p>
HER1t (aa)	32	<p>RKVCNGIGIGEFKDSLINATNIKHFKNCTISGDLHILPVAFRGDSFTH TPPLDPQELDILKTVKEITGFLLIQAWPENRTDLHAFENLEIRGRKQH GQFSLAVVSLNITSLGLRSLKEISDGDVIISGNKNLCYANTINWKKLFGT SGQKTKIISNRGENSCKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGR ECVDKCNLLEGEPREFVENSECIQCHPECLPQAMNITCTGRGPDNCIQCA HYIDGPHCVKTCAPGVMGENNTLVWKYADAGHVCHLCHPNCTYGTGPGGL EGCPTNGPKIPSIATGMVGALLLLLVVALGIGLFM</p>
IgK signal peptide (nt)	33	Atgaggctccctgctcagctcctggggctgctaattgctctgggtcccaggatcca gtggg
IgK signal peptide (aa)	34	MRLPAQLLGLLMLWPGSSG
FL CD20 (nt)	35	<p>Atgacaacaccagaaattcagtaaatgggactttcccggcagagccaatgaaag gccctattgctatgcaatctggtccaaaaccactcttcaggaggatgtcttcact ggtgggccccacgcaaagcttcttcacatgagggaatctaagactttgggggctgtc cagattatgaatgggctcttccacattgccctgggggggtcttctgatgatcccag cagggatctatgcacccatctgtgtgactgtgtggtagccctctctggggaggcat tatgtatattatttccggatcactcctggcagcaacaggagaaaaaactccaggaag tgtttgggtcaaaggaaaaatgataatgaattcattgagcctctttgctgccattt ctggaatgattctttcaatcatggacatacttaataataaaatttccattttt aaaaatggagagtctgaattttatttagagctcacacaccatatattaacatatac</p>

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
		aactgtgaaccagctaataccctctgagaaaaactccccatctaccaataactgtt acagcatacaatctctgttcttgggcattttgtcagtgatgctgatctttgcctt cttcaggaacttgtaatagctggcatcgttgagaatgaatggaaaaagaacgtgc tccagacccaaatctaacatagttctcctgtcagcagaagaaaaaaaaagaacaga ctattgaaataaaaagaagaagtgggtgggctaactgaaacatcttcccaaccaa gaatgaagaagacattgaaattattccaatccaagaagaggaagaagaagaaca gagacgaactttccagaacctccccaagatcaggaatctcaccaatagaaaatg acagctctcct
FL CD20 (aa)	36	MTTPRNSVNGTFPAEPMKGPIAMQSGPKPLFRMSSLVGPTQSFMMRESK TLGAVQIMNGLFHIALGGLLMIPAGIYAPICVTWYPLWGGIMYIISGSL LAATEKNSRKCLVKGKIMNSLSLFAAISGMILSIMDILNIKISHFLKME SLNFIRAHTPYINIYNCEPANPSEKNPSTQYCYSIQSLFLGILSVMLIF AFFQELVIAGIVENEWKRTCSRPKSNIVLLSAEEKKEQTIEIKEEVVGLT ETSSQPKNEEDIEIPIQEEEEETETNFPPEPPQDQESSPIENDSSP
mbIL-15 (aa)	37	MDWTWILFLVAAATRVHSNWNVISDLKKIEDLIQSMHIDATLYTESDVHPCKV TAMKC FLLELQVISLES GDASIHDTVENLIILANNSLSSNGNVTESGCKECEEELEKNIK EFLQS FVHIVQMFINTSSGGGSGGGGSGGGGSGGGGSGGGSLQITCPPPMSEHADIWVK SYSLY SRERYICNSGFKRKAGTSSLTECVLNKATNVAHWTPSLKICIRDPALVHQRAPP STVTT AGVTPQPESLSPSGKEPAASSPSSNNTAATTAAIVPGSQLMPSPSTGTTEISS HESSH GTPSQTTAKNWELTASASHQPPGVYPQGHSDTTVAISTSTVLLCGLSAVSL LACY LKSRQ TPPLASVEMEAMEALPVTWGTSSRDEDLENC SHHL
hM195scFv- CD8a- CD28m-Z	38	atgctgctgctgggtgaccagcctgctgctgtgtgagctgccccacccgcctttc tgctgatccccgacattcagatgaccagctctccgagctctctgtccgcatcagt aggagacaggggtcaccatcacatgcagagccagcgaaagtgtcgacaattatggc attagctttatgaactgggtccaacagaaacccgggaaggctcctaagcttctga tttacgctgcatccaaccaaggctccggggtaccctctcgttctcaggcagtggt atctgggacagacttcactctcaccatttcctctcgtcagcctgatgacttcgca acctattactgtcagcaaagtaaggaggttcctgtggacgttcgggtcaaggggacca agggtggagatcaaagggtggcgggtggctcgggagggtgggtcgggtggcggcgg atctcaggttcagctgggtgcagctggagctggaggtgaagaagcctgggagctca gtgaagggttctcgtcaaagcttctggctacaccttcactgactacaacatgcact gggtgaggcaggctcctggccaaggcctggaatggattggatatatttatcctta caatgggtgggtaccggctacaaccagaagtccaagagcaaggccacaattacagca gacgagagtactaacaacagcctacatggaactctccagcctgagggtctgaggaca ctgcagctctattactgcgcaagagggcgccccgctatggactactggggccaagg

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv- CD8a- CD28m-Z	39	MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTVITCRASES VDNYGISFMNWFQKPGKAPKLLIYAASNQSGVPSRFSGSGSGTDFTLT ISSLPDDFATYYCQQSKEVPWTFGQGTKEIKGGGSGGGGSGGGGSGQV QLVQSGAEVKKPGSSSVKVSCKASGYTFTDYNMHWRQAPGQGLEWIGYIY PYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDTAVYYCARGRPA MDYWGGTGLTVVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNRSKRSRGGHSD YMNMTPRRPGPTRKHYQPYAPPRDFAAYRSRVKFSRSADAPAYQQGQNQL YNELNLGRREEYDVLDRRGRDPEMGGKPRRKNPQEGLYNELQKDKMAEA YSEIGMKGERRRGKGGHDGLYQLSTATKDTYDALHMQALPPR
hM195scFv- CD8a-Z	40	atgctgctgctgggtgaccagcctgctgctgtgtgagctgccccaccccgctttc tgctgatccccgacattcagatgacccagctctccgagctctctgtccgcatcagt aggagacagggtcaccatcacatgcagagccagcgaaggtgtcgacaattatggc attagctttatgaactggttccaacagaaacccgggaaggctcctaagcttctga tttacgctgcatccaaccaaggctccgggggtaccctctcgcttctcaggcagtg atctgggacagacttcactctcaccatttcactctctgcagcctgatgacttcgca acctattactgtcagcaaagtaaggagggttcctgggagcttcgggtcaagggacca agggtggagatcaaagggtggcgggtggctcgggcgggtgggtgggtggcgccgg atctcagggttcagctgggtgcagctctggagctgaggtgaagaagcctgggagctca gtgaagggtttcctgcaaagcttctggctacaccttcactgactacaacatgcact gggtgaggcaggctcctggccaaggcctggaatggattggatatattatcctta caatgggtggtaccggctacaaccagaagttcaagagcaaggccacaattacagca gacgagagtactaacacagcctacatggaactctccagcctgagggtctgaggaca ctgcagctctattactgcgcaagaggggcggcccgctatggactactggggccaagg gactctgggtcactgtctcttcaaagcccaccaccacccctgcccctagacctcca accccagccccctacaatcgccagccagccccctgagcctgaggccccgaagcctgta gacctgccgctggcggagccgtgcacaccagaggcctggatttcgcctgcgacat ctacatctgggccccctctggccggcacctgtggcgtgctgctgctgagcctggtc atcacccctgtactgcaaccaccggaatcgggtgaagttcagccggagcggcgacg

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv- CD8a-Z	41	MLLLVTSLLLCELHPAFLLIPDIQMTQSPSSLSASVGDRTITCRASES VDNYGISFMNWFQQKPKAPKLLIYAASNQSGVPSRFSGS6SGTDFTLT ISSLPDDFATYYCQQSKEVPWTFGQGTKVEIKGGGSGGGGSGGGGSGV QLVQSGAEVKKPKGSSVKVSKASGYTFTDYNMHWVQAPGQGLEWIGYIY PYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDTAVYYCARGPA MDYWGGTGLTVTVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLLSLVITLYCNHRNRVKFSRSADAP AYQQGQNQLYNELNLGRREEYDVLDKRRGRDPEMGGKPRRKNPQEGLYNE LQKDKMAEAYSEIGMKGERRRGKGHDGLYQGLSTATKDTYDALHMQALPP R
hM195scFv- CD8a- CD28m-Z- T2A-GM- CSFRasp.HE R1t	42	ATGCTGCTGCTGGTGACCAGCCTGCTGCTGTGTGAGCTGCCCCACCCCGCCTTTC TGCTGATCCCCGACATTCAGATGACCCAGTCTCCGAGCTCTCTGTCCGCATCAGT AGGAGACAGGGTCACCATCACATGCAGAGCCAGCGAAAGTGTCGACAATTATGGC ATTAGCTTTATGAACTGGTTCCAACAGAAACCCGGGAAGGCTCCTAAGCTTCTGA TTTACGCTGCATCCAACCAAGGCTCCGGGGTACCCTCTCGCTTCTCAGGCAGTGG ATCTGGGACAGACTTCACTCTCACCATTTCATCTCTGCAGCCTGATGACTTCGCA ACCTATTACTGTGAGCAAAGTAAGGAGGTTCCGTGGACGTTCCGGTCAAGGGACCA AGGTGGAGATCAAAGGTGGCGGTGGCTCGGGCGGTGGTGGGTGGGTCGGGTCGGCGG ATCTCAGGTTTCAGCTGGTGAGTCTGGAGCTGAGGTGAAGAAGCCTGGGAGCTCA GTGAAGGTTTCTGCAAAGCTTCTGGCTACACCTTCACTGACTACAACATGCACT GGGTGAGGCAGGCTCCTGGCCAAGGCTGGAATGGATTGGATATATTTATCCTTA CAATGGTGGTACCGGCTACAACCAGAAAGTTCAAGAGCAAGGCCACAATTACAGCA GACGAGAGTACTAACACAGCCTACATGGAACCTCCAGCCTGAGGTCTGAGGACA CTGCAGTCTATTACTGCGCAAGAGGGCGCCCCGCTATGGACTACTGGGGCCAAGG GACTCTGGTCACTGTCTCTTCAAAGCCCACCACCACCCCTGCCCTAGACCTCCA ACCCAGCCCCCTACAATCGCCAGCCAGCCCCTGAGCCTGAGGCCCGAAGCCTGTA GACCTGCCGCTGGCGGAGCCGTGCACACCAGAGGCCTGGATTTGCGCTGCGACAT CTACATCTGGGCCCTCTGGCCGGCACCTGTGGCGTGCTGCTGCTGAGCCTGGTC ATCACCTGTACTGCAACCACCGGAATAGGAGCAAGCGGAGCAGAGGCGGCCACA GCGACTACATGAACATGACCCCCCGGAGGCCTGGCCCCACCCGGAAGCACTACCA GCCCTACGCCCTCCCAGGACTTCGCCGCCCTACCGGAGCCGGGTGAAGTTCAGC CGGAGCGCCGACGCCCTGCCTACCAGCAGGGCCAGAACCAGCTGTACAACGAGC TGAACCTGGGCGGAGGGAGGAGTACGACGTGCTGGACAAGCGGAGAGGCCGGGA CCCTGAGATGGGCGGCAAGCCCCGGAGAAAGAACCTCAGGAGGGCCTGTATAAC GAACTGCAGAAAGACAAGATGGCCGAGGCCTACAGCGAGATCGGCATGAAGGGCG AGCGGCGGAGGGGCAAGGGCCACGACGGCCTGTACCAGGGCCTGAGCACCGCCAC

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv- CD8a- CD28m-Z- T2A-GM- CSFRasp.HE R1t	43	MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTITCRASES VDNYGISFMNWFQKPKGAPKLLIYAASNQSGVPSRFSGSGSGTDFTLT ISSLQPDGFATYYCQQSKVPWTFGQGTKVEIKGGGSGGGGSGGGGSGQV QLVQSGAEVKKPGSSSVKVSCKASGYTFDYNMHWRQAPGQGLEWIGYIY PYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDTAVYYCARGRPA MDYWGQGTLLTVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNRSKRSRGHSD YMNMTPRRPGPTRKHYPYAPPRDFAAYRSRVKFSRSADAPAYQQGQNQL YNELNLGRREEYDVLDRRGRDPEMGGKPRRKNPQEGLYNELQKDKMAEA YSEIGMKGERRRGKGDGLYQGLSTATKDTYDALHMQALPPRLEGGGEGR GSLLTCGDVEENPGPRMLLLVTSLLLCELPHPAFLLIPRKVCNGIGIGEF KDSL SINATNIKHFKNCTSIGDLHILPVAFRGDSFTHTPPLDPQELDIL KTVKEITGFLLIQAWPENRTDLHAFENLEIIRGRKQHQGQFSLAVVSLNI TSLGLRSLKEISDGDVVISGNKNLCYANTINWKKLFGTSGQKTKIISNRG ENSKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGRECVDKCNLLEGE PREFVENSECIQCHPECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKTC PAGVMGENNTLVWKYADAGHVCHLCHPNCTYGCTGPGLEGCPNTPGPKIPS IATGMVGALLLLLVVALGIGLFM
hM195scFv	44	Atgctgctgctggtgaccagcctgctgctgtgtgagctgccccaccccgctttc tgctgatccccgacattcagatgacccagctctccgagctctctgtccgcatcagt

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv	45	MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTITCRASES VDNYGISFMNWFQKPGKAPKLLIYAASNQSGVPSRFSGSGSGTDFTLT TSSLQPDFFATYYCQQSKEVPWTFGQGTIKVEIKGGGSGGGGSGGGGSGQV QLVQSGAEVKKPGSSSVKVSCKASGYTFDYNMHWVRQAPGQGLEWIGYIY PYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDTAVYYCARGRPA MDYWGQGT LVTVSS
hM195scFv- CD8a-4- 1BB-Z	46	atgctgctgctgggtgaccagcctgctgctgtgtgagctgccccacccgcctttc tgctgatccccgacattcagatgacccagctctccgagctctctgtccgcatcagt aggagacaggggtcaccatcacatgcagagccagcgaaagtgtcgacaattatggc attagctttatgaactgggtccaacagaaacccgggaaggctcctaagcttctga tttacgctgcatccaaccaaggctccgggggtaccctctcgccttctcaggcagtg atctgggacagacttcactctcaccatttcactctcgcagcctgatgacttcgca acctattactgtcagcaaagtaaggagggttcctgtggacgttcgggtcaagggacca agggtggagatcaaagggtggcgggtggctcgggcgggtgggtgggtcgggtggcgccg atctcagggttcagctgggtgcagctcggagctgagggtgaagaagcctgggagctca gtgaagggtttcctgcaaagcttctggctacaccttcactgactacaacatgcact gggtgaggcaggctcctggccaaggcctggaatggattggatatatttatcctta caatgggtgggtaccggctacaaccagaagttcaagagcaaggccacaattacagca gacgagagtactaacaacagcctacatggaactctccagcctgagggtctgaggaca ctgcagctctattactgcgcaagagggcgccccgctatggactactggggccaagg gactctgggtcactgtctcttcaaaagcccaccaccacccctgccccagacctcca acccagccccctacaatcgccagccagccccctgagcctgaggccccgaagcctgta gacctgccgctggcggagccgtgcacaccagaggcctggatttcgcctgcgacat ctacatctgggccccctctggccggcacctgtggcgtgctgctgctgagcctgggtc atcacctgtactgcaaccaccggaataagagaggccggaagaaactgctgtaca tcttcaagcagcccttcctgcccgggtgcagaccaccaggaagaggacgggtc cagctgccggttccccgaggaagagggaaggcgggtgcgaactgcgggtgaagttc agccggagcggcagccccctgcctaccagcagggccagaaccagctgtacaacg agctgaacctggggccggaggaggaggtacgacgtgctggacaagcggagaggccg

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv- CD8a-4- 1BB-Z	47	MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTITCRASES VDNYGISFMNWFQKPKGKAPKLLIYAASNQGSVPSRFSGSVSGTDFTLT ISSLPDDFATYYCQSQKEVPWTFGQGTKVEIKGGGSGGGSGGGGSQV QLVQSGAEVKKPGSSVKVSKASGYTFTDYNMHWRQAPGQGLEWIGYIY PYNGGTGYNQKFSKATITADESTNTAYMELSSLRSEDAVYYCARGPA MDYWGGTLTVVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNKRGRKLLYIF KQPFMRPVQTTQEEDGCSRFPPEEEEGGCELRVKFSRSADAPAYQQGQNG LYNELNLGRREEYDVLDRRGRDPEMGGKPRRKNPQEGLYNELQDKMAE AYSEIGMKGERRRGKHDGLYQGLSTATKDTYDALHMQALPPR
hM195scFv- CD8a-4- 1BB-Z-T2A- GM- CSFRasp.HE R1t	48	atgctgctgctggtgaccagcctgctgctgtgtgagctgccccaccccgctttc tgctgatccccgacattcagatgaccagctctcagagctctctgtccgcacagt aggagacagggtcaccatcacatgcagagccagcgaagtgctgacaattatggc attagctttatgaactggttccaacagaaacccgggaaggctcctaagcttctga tttacgctgcatccaaccaaggctccgggggtaccctctcgttctcaggcagtg atctgggacagacttcactctcaccatttcactctctgcagcctgatgacttcgca acctattactgtcagcaaagtaaggagggttcctgaggcgttcgggtcaagggaacca agggtggagatcaaagggtggcgggtgggtcgggagggtgggtgggtggcgagg atctcagggttcagctggtgcagctctggagctgagggtgaagaagcctgggagctca gtgaagggtttcctgcaaagcttctggctacaccttcactgactacaacatgcact gggtgaggcaggctcctggccaaggcctggaatggattggatatatttatcctta caatgggtggtaccggctacaaccagaagtcaaggagcaaggccacaattacagca gacgagagtactaacacagcctacatggaactctccagcctgagggtctgaggaca ctgcagctctattactgcgcaagaggggcgccccgctatggactactggggccaagg gactctggtcactgtctcttcaaaagccaccaccacccctgcccctagacctcca accccagccccctacaatcgccagccagccccctgagcctgaggcccgaagcctgta gacctggcgtggcggagccgtgcacaccagaggcctggatttcgcctgcgacat ctacatctgggccccctctggccggcacctgtggcgtgctgctgctgagcctggtc atcacctgtactgcaaccaccggaataagagaggccggaagaaactgctgtaca tcttcaagcagcccttcatgcggccccgtgcagaccacccagggaaggagcggctg cagctgccggttccccgaggaagaggaaggcggctgcgaactgcgggtgaagttc agccggagcggcagcggcctgacctaccagcaggggccagaaccagctgtacaacg agctgaacctgggcccggaggaggagtagcagctgctggacaagcggagaggccg ggaccctgagatgggaggcaagccccggagaaagaacctcaggagggcctgtat aacgaactgcagaaagacaagatggccgaggcctacagcgagatcggcatgaagg gagagcggcggaggggcaagggccacgacggcctgtaccaggccctgagcaccgc caccaaggatacctacgacgccctgcacatgcaggccctgccccccagactcgag ggcggcggagaggggcagaggaagtcttctaacaatgcgggtgacgtggaggagaatc

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
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hM195scFv- CD8a-4- 1BB-Z-T2A- GM- CSFRasp.HE R1t	49	MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTITCRASES VDNYGISFMNWFQKPGKAPKLLIYAASNQSGVPSRFSGSGSGTDFTLT ISLQPDDEFATYYCQQSKEVPWTFGGTKVEIKGGGSGGGGSGGGGSGV QLVQSGAEVKKPGSSVKVSKASGYFTDYNMHWRQAPGGLEWIGYIY PYNGGTGYNQKFKSKATITADESTNTAYMELSSLRSEDTAVYYCARGPA MDYWGQGLTVTVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNKRGRKLLYIF KQPFMRPVQTTQEEDGCSRFPPEEEGGCELRVKFSRSADAPAYQQGQNG LYNELNLGRREEYDVLDRRGRDPEMGGKPRRKNPQEGLYNELQDKMAE AYSEIGMKGERRRGKGGHGLYQGLSTATKDTYDALHMQALPPRLEGGGEG RGSLLTCGDVEENPGPRMLLLVTSLLLCELPHPAFLLIPRKVCNGIGIGE FKDSLINATNIKHFNCTISISGDLHILPVAFRGDSFHTPPLDPQELDI LKTVEITGFLLIQAWPENRTDLHAFENLEIIRGRTKQHGGQFSLAVVSLN ITSLGLRSLKEISDGDVIISGNKLCYANTINWKKLFGTSGQKTKIISNR GENSCKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGREGVDKCNLLEG EPREFVENSECIQCHPECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKT CPAGVMGENNTLVWKYADAGHVCHLCHPNCTYGCTGPGLEGCPNGPKIP SIATGMVGALLLLLVALGIGLFM
hM195scFv- CD8a-4- 1BB-Z- T2A.FL	50	ATGCTGCTGCTGGTGACCAGCCTGCTGCTGTGTGAGCTGCCCCACCCCGCCTTTC TGCTGATCCCCGACATTAGATGACCCAGTCTCCGAGCTCTCTGTCCGCATCAGT AGGAGACAGGGTCACCATCACATGCAGAGCCAGCGAAAGTGTGCACAATTATGGC ATTAGCTTTATGAAGTGGTTCACAGAAACCCGGGAAGGCTCCTAAGCTTCTGA

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
CD20		<p>TTTACGCTGCATCCAACCAAGGCTCCGGGGTACCCTCTCGCTTCTCAGGCAGTGG ATCTGGGACAGACTTCACTCTCACCATTTCATCTCTGCAGCCTGATGACTTCGCA ACCTATTACTGTGAGCAAAGTAAGGAGGTTCCGTGGACGTTCCGGTCAAGGGACCA AGGTGGAGATCAAAGGTGGCGGTGGCTCGGGCGGTGGTGGGTGGGTGGCGGCGG ATCTCAGGTTTCACTGGTGCAGTCTGGAGCTGAGGTGAAGAAGCCTGGGAGCTCA GTGAAGGTTTCTGCAAAGCTTCTGGCTACACCTTCACTGACTACAACATGCACT GGGTGAGGCAGGCTCCTGGCCAAGGCTTGAATGGATTGGATATATTTATCCTTA CAATGGTGGTACCGGCTACAACCAGAAAGTTCAAGAGCAAGGCCACAATTACAGCA GACGAGAGTACTAACACAGCCTACATGGAACCTCCAGCCTGAGGTCTGAGGACA CTGCAGTCTATTACTGCGCAAGAGGGCGCCCCGCTATGGACTACTGGGGCCAAGG GACTCTGGTCACTGTCTTCAAAGCCCACCACCACCCCTGCCCTAGACCTCCA ACCCAGCCCCCTACAATCGCCAGCCAGCCCCTGAGCCTGAGGCCCGAAGCCTGTA GACCTGCCGCTGGCGGAGCCGTGCACACCAGAGGCCTGGATTTGCGCTGCGACAT CTACATCTGGGCCCTCTGGCCGGCACCTGTGGCGTGCTGCTGCTGAGCCTGGTC ATCACCTGTACTGCAACCACCGGAATAAGAGAGGCCGGAAGAAACTGCTGTACA TCTTCAAGCAGCCCTTCATGCGGCCCGTGACAGACCACCCAGGAAGAGGACGGCTG CAGCTGCCGTTTCCCCGAGGAAGAGGAAGGCGGCTGCGAACTGCGGGTGAAGTTC AGCCGGAGCGCCGACGCCCTGCCTACCAGCAGGGCCAGAACCAGCTGTACAACG AGCTGAACCTGGGCCGGAGGGAGGAGTACGACGTGCTGGACAAGCGGAGAGGCCG GGACCCTGAGATGGGCGGCAAGCCCCGGAGAAAGAACCTCAGGAGGGCCTGTAT AACGAACTGCAGAAAGACAAGATGGCCGAGGCCCTACAGCGAGATCGGCATGAAGG GCGAGCGGCGGAGGGGCAAGGGCCACGACGGCCTGTACCAGGGCCTGAGCACCGC CACCAAGGATACCTACGACGCCCTGCACATGCAGGGCCTGCCCCAGACTCGAG GGCGGCGGAGAGGGCAGAGGAAGTCTTCTAACATGCGGTGACGTGGAGGAGAATC CCGGCCCTAGGATGACAACACCCAGAAATTCAGTAAATGGGACTTTCCGGCAGA GCCAATGAAAGGCCCTATTGCTATGCAATCTGGTCCAAAACCACTCTTCAGGAGG ATGTCTTCACTGGTGGGCCCCACGCAAAGCTTCTTCATGAGGGAATCTAAGACTT TGGGGGCTGTCCAGATTATGAATGGGCTCTTCCACATTGCCCTGGGGGGTCTTCT GATGATCCAGCAGGGATCTATGCACCCATCTGTGTGACTGTGTGGTACCCTCTC TGGGGAGGCATTATGTATATTATTTCCGGATCACTCCTGGCAGCAACGGAGAAAA ACTCCAGGAAGTGTTTGGTCAAAGGAAAAATGATAATGAATTCATTGAGCCTCTT TGCTGCCATTTCTGGAATGATTCTTTCAATCATGGACATACTTAATATTAATAATT TCCATTTTTTAAAAATGGAGAGTCTGAATTTTATTAGAGCTCACACACCATATA TTAACATATACAACGTGAACCAGCTAATCCCTCTGAGAAAAACTCCCCATCTAC CCAATACTGTTACAGCATACAATCTCTGTTCTTGGGCATTTTGTGAGTGATGCTG ATCTTTGCCTTCTTCCAGGAACCTGTAATAGCTGGCATCGTTGAGAATGAATGGA AAAGAACGTGCTCCAGACCCAAATCTAACATAGTTCTCCTGTCAGCAGAAGAAAA AAAAGAACAGACTATTGAAATAAAAGAAGAAGTGGTTGGGCTAACTGAAACATCT TCCCAACCAAAGAATGAAGAAGACATTGAAATTATTCCAATCCAAGAAGAGGAAG AAGAAGAAACAGAGACGAACCTTCCAGAACCCTCCCAAGATCAGGAATCCTCACC AATAGAAAATGACAGCTCTCCT</p>
hM195scFv- CD8a-4-	51	<p>MLLLVTSLLLCELPHPAFLLIPDIQMTQSPSSLSASVGDRTVITCRASES VDNYGISFMNWFQKPKAPKLLIYAASNQGSQVPSRFSGSFGSDFTLT</p>

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
1BB-Z-T2A.FL CD20		ISSLQPDDFATYYCQQSKEVPWTFGQGTKVEIKGGGGSGGGGSGGGGSQV QLVQSGAEVKKPGSSSVKVSCKASGYFTDYNMHWVRQAPGGGLEWIGYIY PYNGGTGYNQFKFSKATITADESTNTAYMELSSLRSEDTAVYYCARGRPA MDYWQGGLTVTVSSKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGA VHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRNKRGRKKLLYIF KQPFMRPVQTTQEEDGCSCRFPEEEEGGCELRVKFSRSADAPAYQQGQNG LYNELNLGRREEYDVLDKRRGRDPEMGGKPRRKNPQEGLYNELQKDKMAE AYSEIGMKGERRRGKGDGLYQGLSTATKDTYDALHMQALPPRLEGGGEG RGSLLTCGDVEENPGPRMTTPRNSVNGTFPAEPMKGPIAMQSGPKPLFR RMSSLVGPTQSFFMRESKTLGAVQIMNGLFHIALGGLLMIPAGIYAPICV TVWYPLWGGIMYIISGSLAATEKNSRKCLVKGKMIMNSLSLFAAISGMI LSIMDILNIKISHFLKMESLNFIRAHTPYINIYNCEPANPSEKNSPSTQY CYSIQSLFLGILSVMLIFAFFQELVIAGIVENEWKRTCSRPKSNIVLLSA EEKKEQTIEIKEEVVGLTETSSQPKNEEDIEIPIQEEEEEEETETNFPEP PQDQESSPIENDSSP
human CD33 (M1-R287)	52	Atgccgctgctgctactgctgcccctgctgtgggcagggggcccttggtatggatc caaatttctggctgcaagtgcaggagtcagtgacgggtacaggaggggtttgtgcgt cctcgtgcccctgcactttcttccatcccataccctactacgacaagaactcccca gttcattggttactggttccgggaaggagccattatatccagggaactctccagtgg ccacaaacaagctagatcaagaagtagcaggaggagactcagggcagattccgcct ccttggggatcccagtaggaacaactgctccctgagcatcgtagacgccaggagg agggataatggttcatacttcttccggatggagagagggaagtaccaaatacagtt acaaatctccccagctctctgtgcatgtgacagacttgacccacaggcccaaat cctcatccctggcactctagaacccggccacttcaaaaaacctgacctgctctgtg tcctgggcctgtgtagcagggaacacccccgatcttctcctggttgtcagctgcc ccacctccctgggccccaggactactcactcctcggtgctcataatcacccacg gccccaggaccacggcaccaacctgacctgtcagggtgaagttcgctggagctggt gtgactacggagagaacctccagctcaacgtcacctatgttccacagaacccaa caactggtatctttccaggagatggctcagggaaacaagagaccagagcaggagt ggttcatggggccattggaggagctggtgttacagccctgctcgtctttgtctc tgccctcatcttctcatagtggaagaccacaggagg
human CD33 (M1-R287)	53	MPLLLLLPLWAGALAMPNFWLQVQESVTVQEGLCVLPCTFFHPIPIYY DKNSPVHGYWFRGAIISRDSPVATNKLDQEVQEETQGRFRLGDPSRNN CSLSIVDARRRDNGSYFFRMERGSTKYSYKSPQLSVHVTDLTHRPKILIP GTLEPGHSKNLTCVSWACEQGTPIFSWLSAAPTSLGPRTHSSVLIIT PRPDHGTNLTCQVKFAGAGVTTERTIQLNVTYVPQNPTTGIFPGDGS GK QETRAGVVHGAIGGAGVTALLALCLCLIFFIVKTHRR
HER1t- 1	54	RKVCNGIGIGIEFKDLSINATNIKHFKNCTSIISGDLHILPVAFRGDSFTH TPPLDPQELDILKTVKEITGFLLIQAWPENRTDLHAFENLEIIRGRKQH GQFSLAVVSLNITSLGLRSLKEISDGDVIISGNKNLCYANTINWKKLFGT SGQKTKIISNRGENSCKATGQVCHALCSPEGCWGPEPRDCVSGGGGSGGG

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
		GSGGGGSGGGGSFWLVVGGVLACYSLLVTVAFIIFWVRSKRS
HER1t-1	55	cgcaaagtgtgtaacggaataggtatttggtgaatttaaagactcactctccataa atgctacgaatattaaacacttcaaaaactgcacctccatcagtgggcgatctcca catcctgccggtggcatttaggggtgactccttcacacatactcctcctctggat ccacaggaactggatattctgaaaaccgtaaaggaaatcacaggggttttctga ttcaggcttggcctgaaaacaggacggacctccatgcctttgagaacctagaaat catacgcggcaggaccaagcaacatgggtcagttttctcttgagtcgtcagcctg aacataacatccttgggattacgctccctcaaggagataagtgatggagatgtga taatttcaggaacaaaaatttctgctatgcaaatacaataaactggaaaaaact gtttgggacctccggtcagaaaaacaaaattataagcaacagaggtgaaaacagc tgcaaggccacaggccaggtctgccatgccttgctctccccgagggctgctggg gcccggagcccaggagactgctctctggtggcggtggctcgggcggtgggtggg gggtggcgggatctggtggcggtggctcgttttgggtgctggtgggtgggtgg ggagtcctggcttgctatagcttgctagtaacagtggtcctttatttttctggg tgaggagtaagaggagc
CD20t-1	56	MTTPRNSVNGTFPAEPMKGPIAMQSGPKPLFRMSSLVGPTQSFFMRESK TLGAVQIMNGLFHIALGGLMIPAGIYAPICVTWYPLWGGIMYIISGSL LAATEKNSRKCLVKGMIMNSLSLFAAISGMILSIMDILNIKISHFLKME SLNFIRAHTPYINIYNCEPANPSEKNPSTQYCYSIQSLFLGILSVMLIF AFFQELVIAGIVENEWKRTCSPKSNIVLLSAEEKKEQTIEIKEEVVGLT ETSSQPKNEEDIE
Cd20t-1	57	atgaccacaccacggaactctgtgaatggcaccttcccagcagagccaatgaagg gaccaatcgcaatgcagagcggaccaagcctctgtttcggagaatgagctccct ggtgggcccacccagtccttctttatgagagagtctaagacactgggcgcctg cagatcatgaacggactgttccacatcgccctgggaggactgctgatgatcccag ccggcatctacgcccctatctgctgaccgtgtggtaccctctgtggggcgcat catgtatatcatctccggctctctgctggccgccacagagaagaacagcaggaag tgtctggtgaagggcaagatgatcatgaatagcctgtccctgtttgccgcatct ctggcatgatcctgagcatcatggacatcctgaacatcaagatcagccacttct gaagatggagagcctgaacttcacagagcccacaccccttacatcaacatctat aattgcgagcctgccaaccatccgagaagaattctccaagcacacagtactgtt attccatccagtcctctgttcttgggcatcctgtctgtgatgctgatctttgcctt ctttcaggagctggtcatcgccggcatcgtggagaacgagtggaagaggacctgc agccgccccaaagtccaatctgtgctgtgtccgccgaggagaagaaggagcaga caatcgagatcaaggaggaggtgggtgggcctgaccgagacatctagccagcctaa gaatgaggaggatatcgag
DNAX- activation protein 10 (DAP 10)	58	ctgtgctgcacgcccacgcccagccccgcccgaagaatggcaaagtctacatca acatgccaggcaggggc

Figure 21 continued

Sequence Name	SEQ ID NO	Sequence
Signaling Domain		
DNAX-activation protein 10 (DAP10) Signaling Domain	59	LCARPRRSPAQEDGKVYINMPGRG
DNAX-activation protein 12 (DAP12) Signaling Domain	60	tacttcctggggccggctgggtccctcgggggagggggctgcggaggcagcgaccc ggaaacagcgatatcactgagaccgagtcgccttatcaggagctccagggtcagag gtcggatgtctacagcgacctcaacacacagaggccgtattacaaa
DNAX-activation protein 12 (DAP12) Signaling Domain	61	YFLGRLVPRGRGAAEAATRKQRITETESPYQELQGQRSDVYSDLNTQRPYYK

FIGURE 22A-1

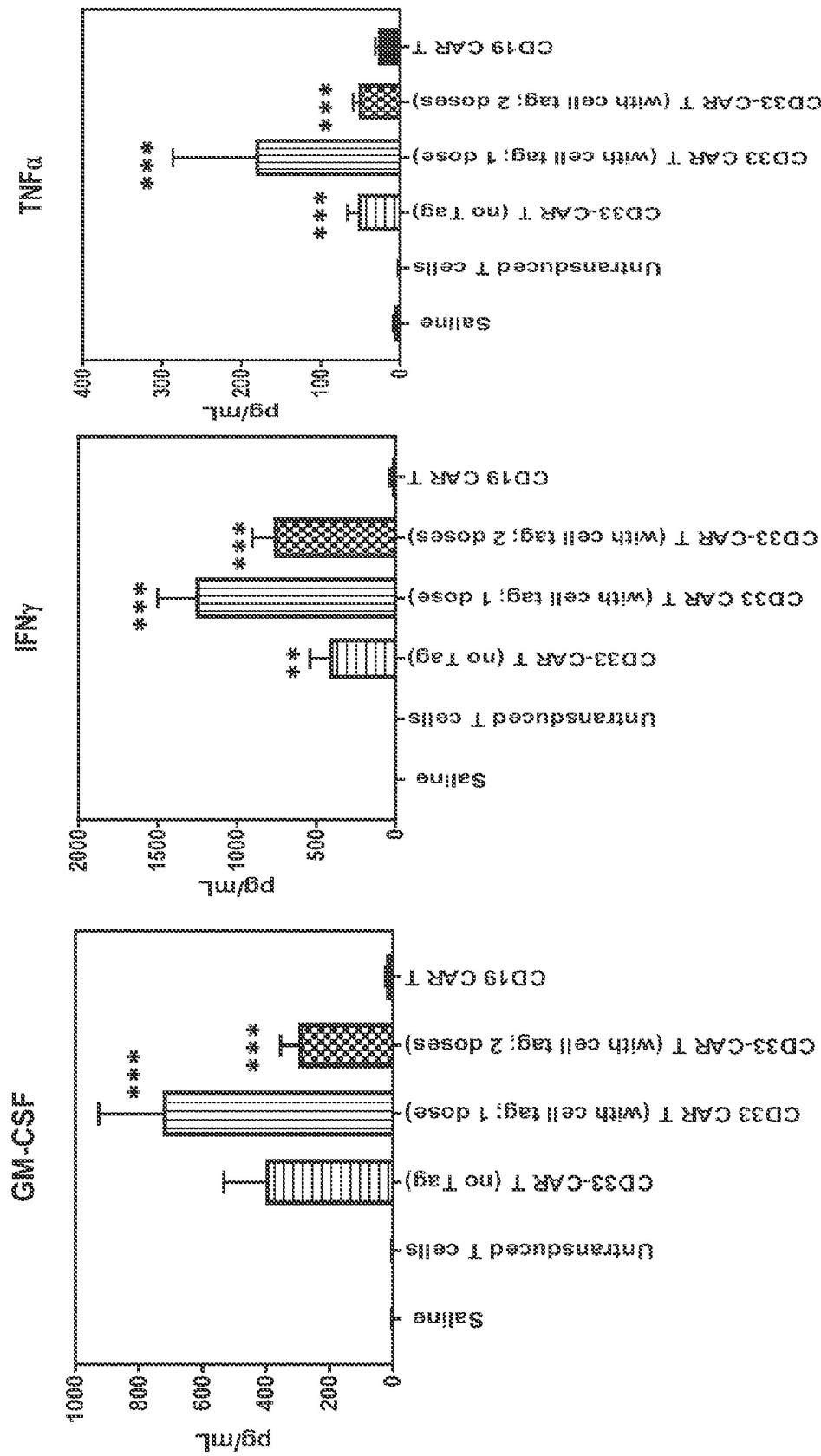
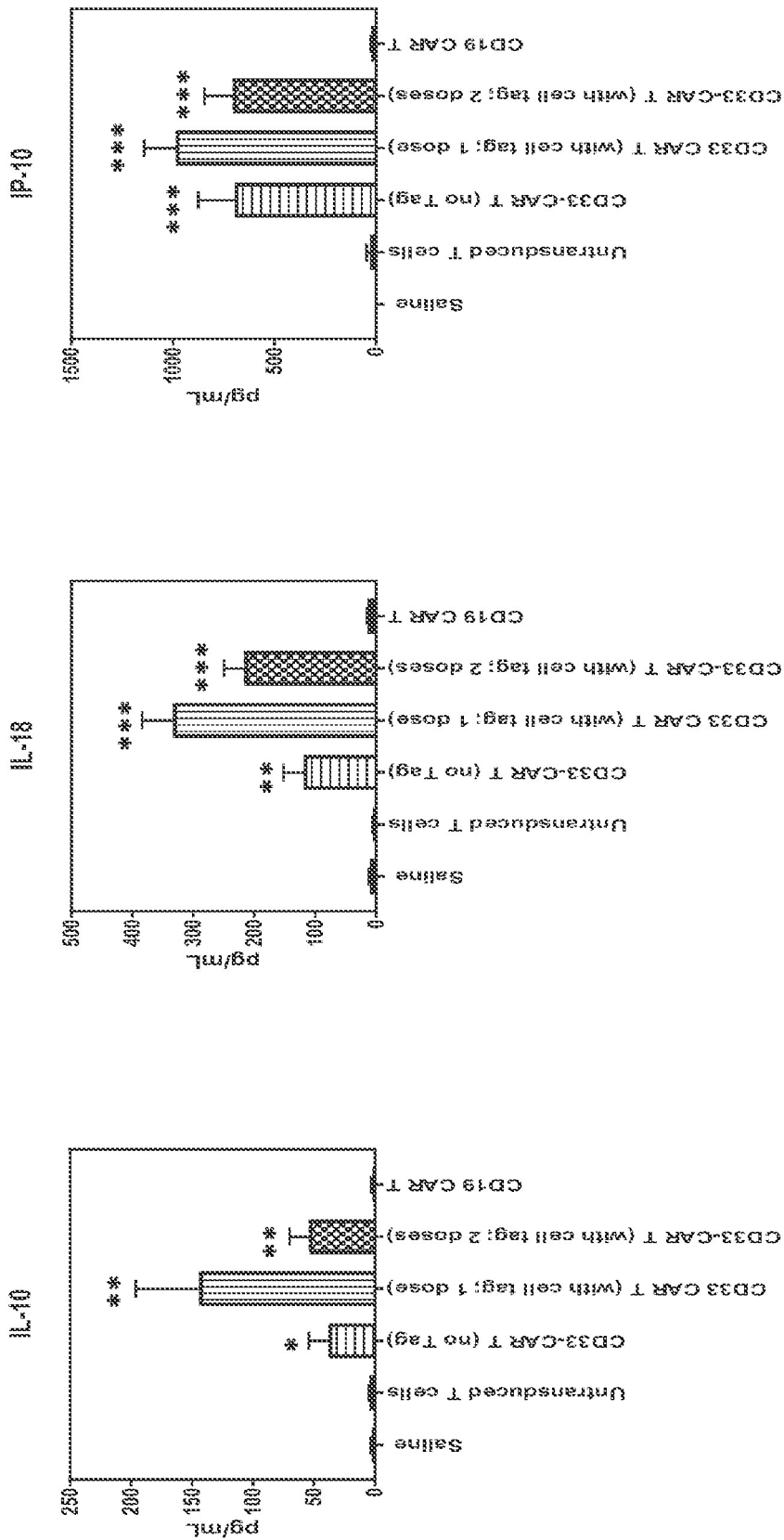


FIGURE 22A-2



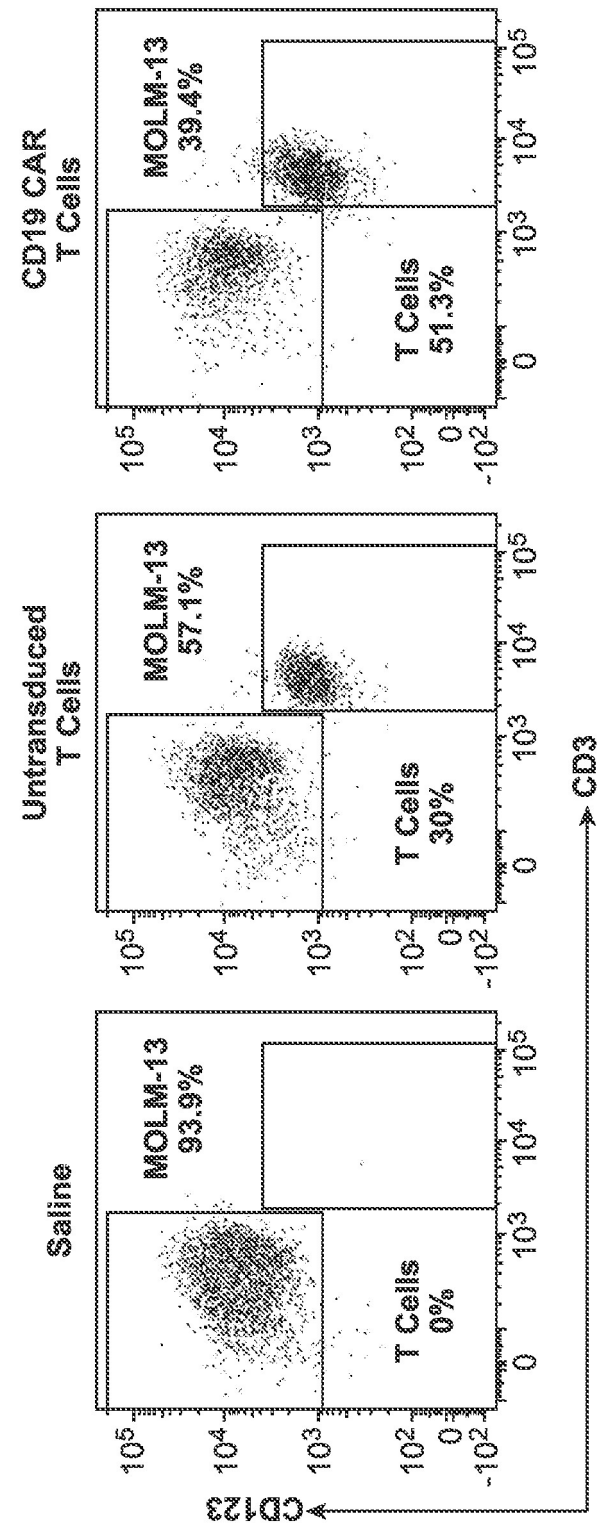


FIGURE 22B-1

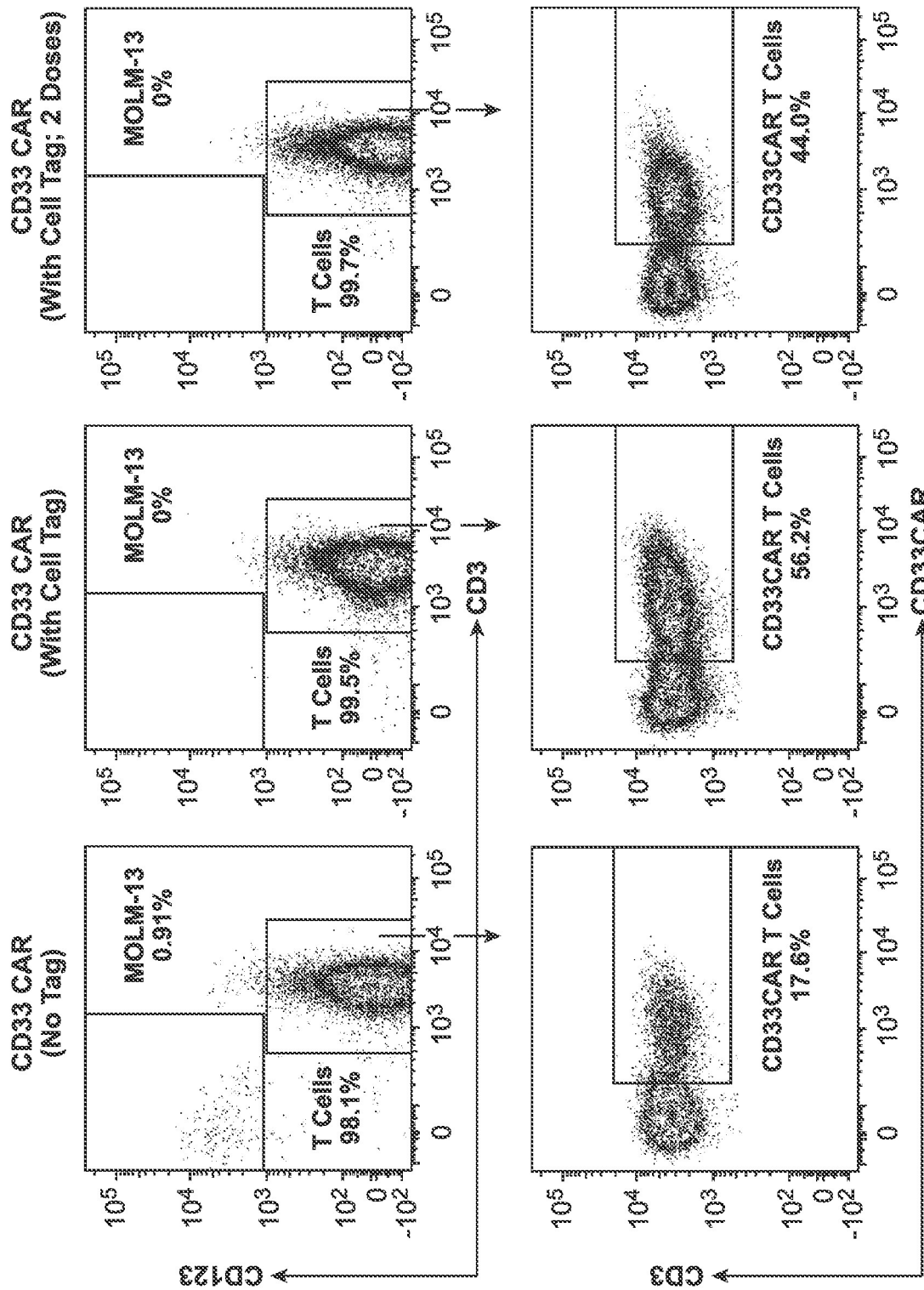
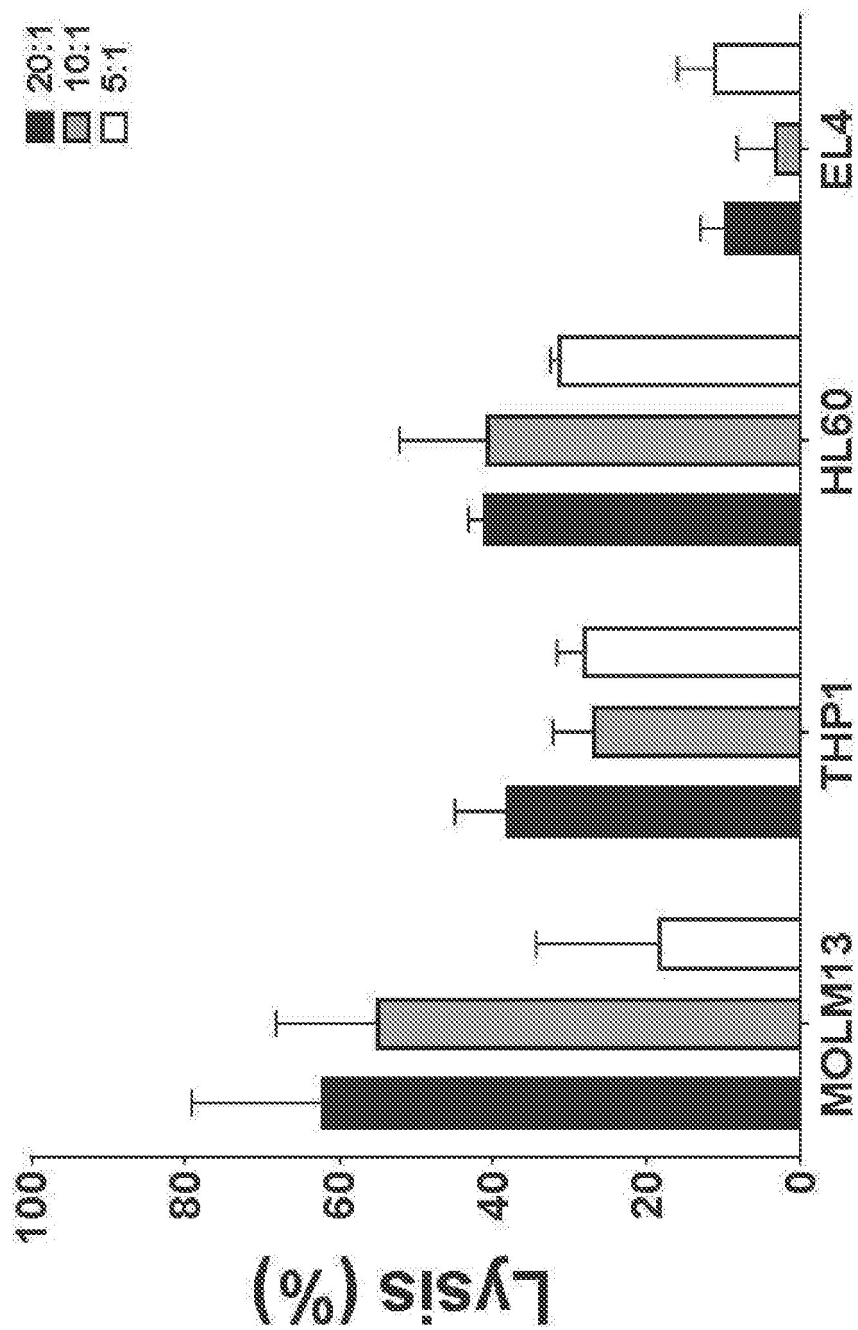


FIGURE 22B-2

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FIGURE 22C



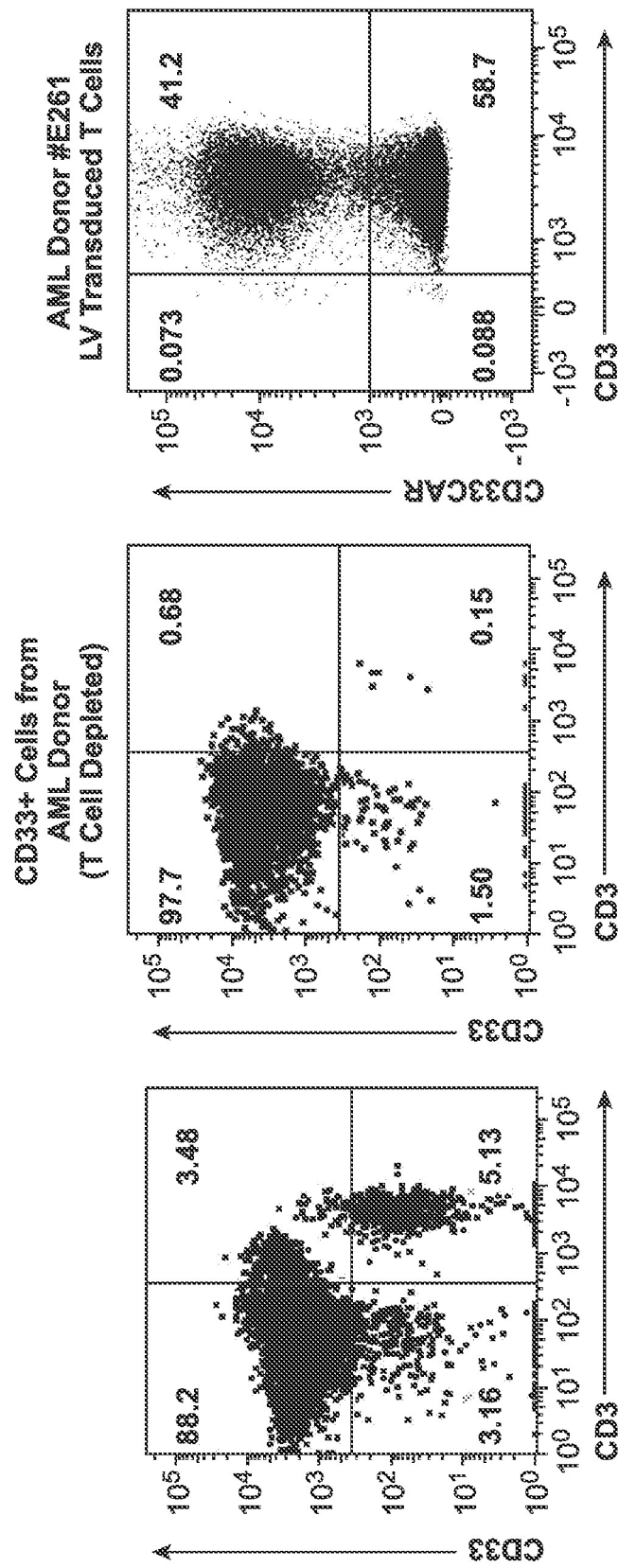


FIGURE 23A

FIGURE 23B

FIGURE 23C

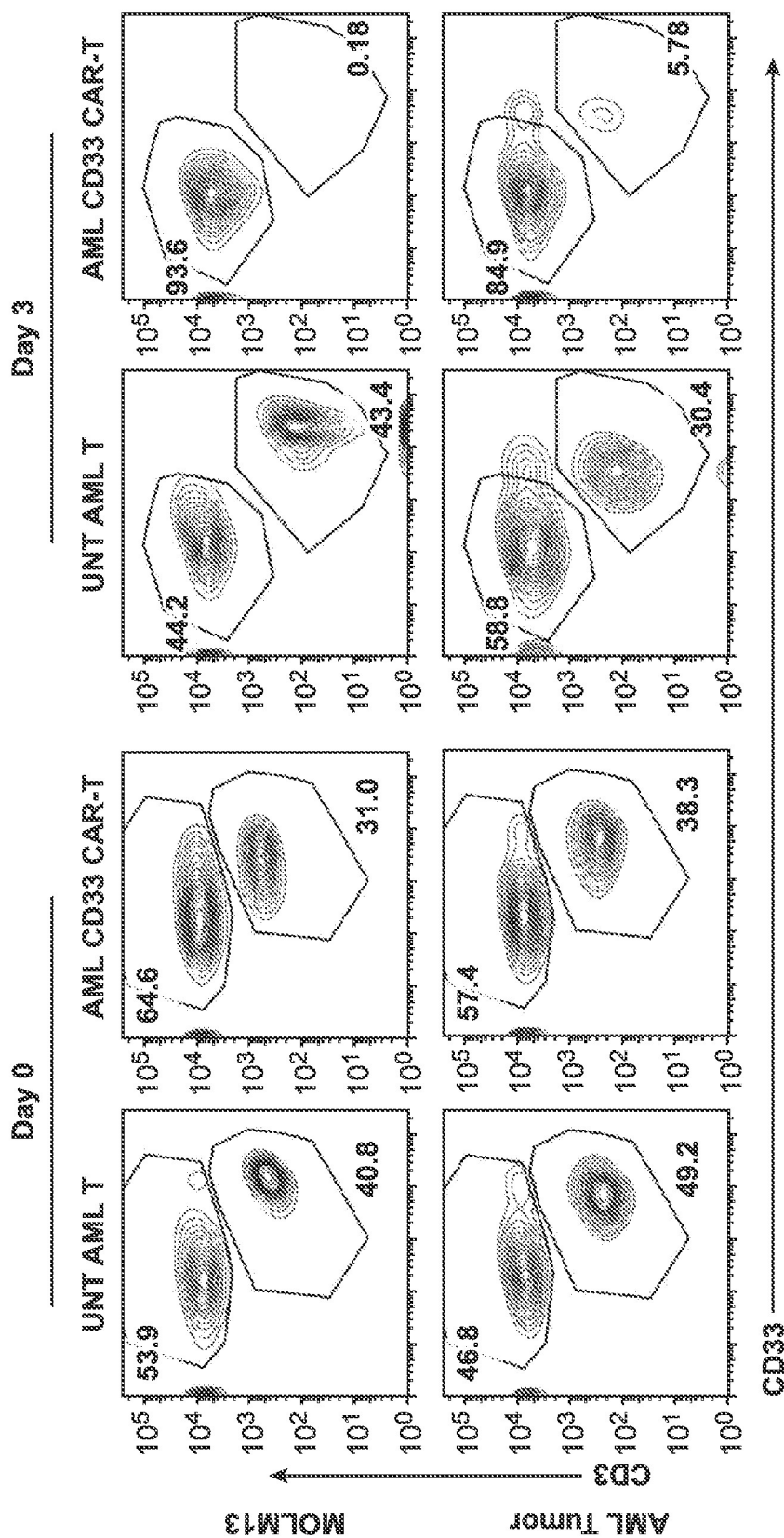


FIGURE 23D

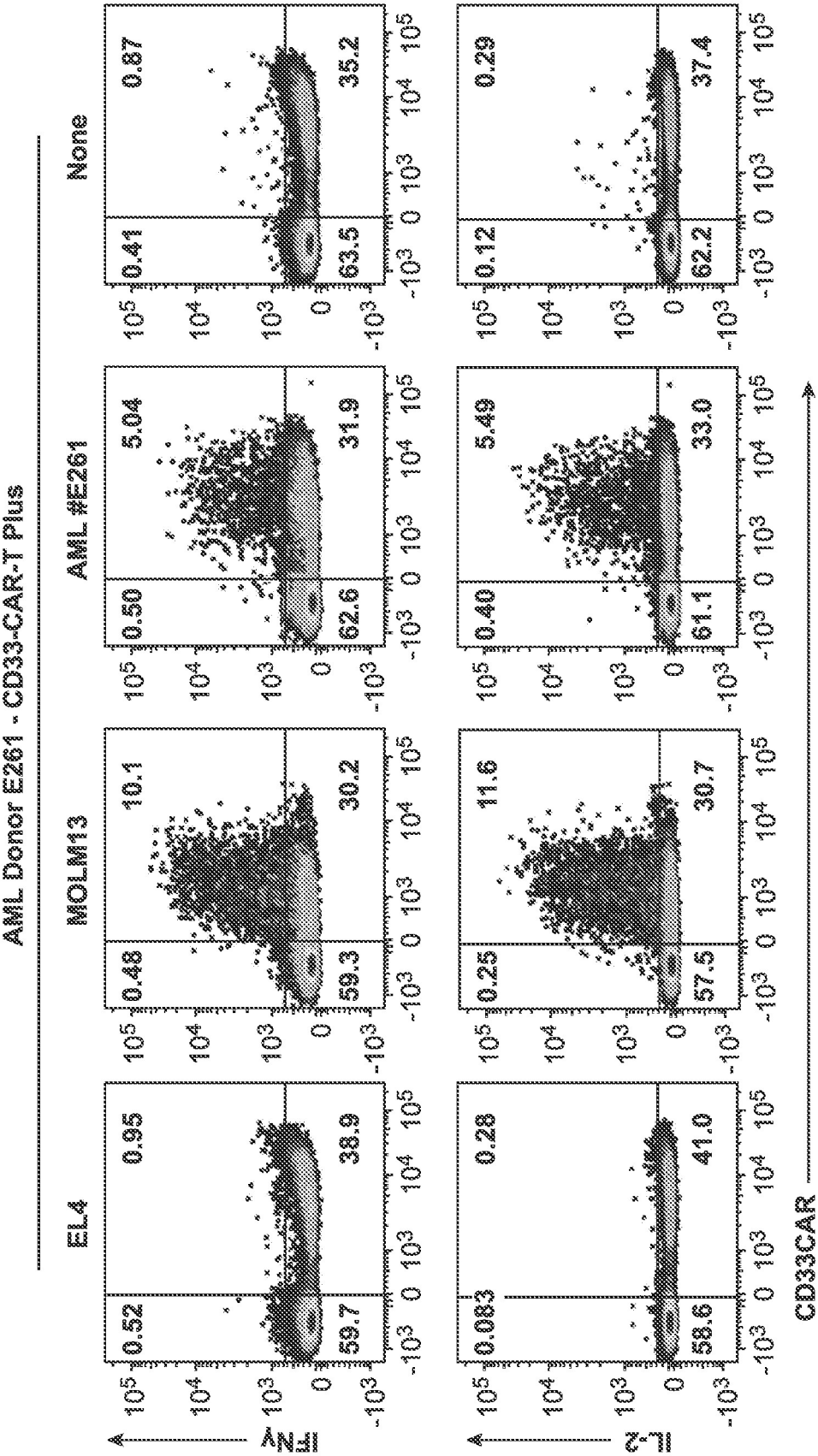


FIGURE 23E

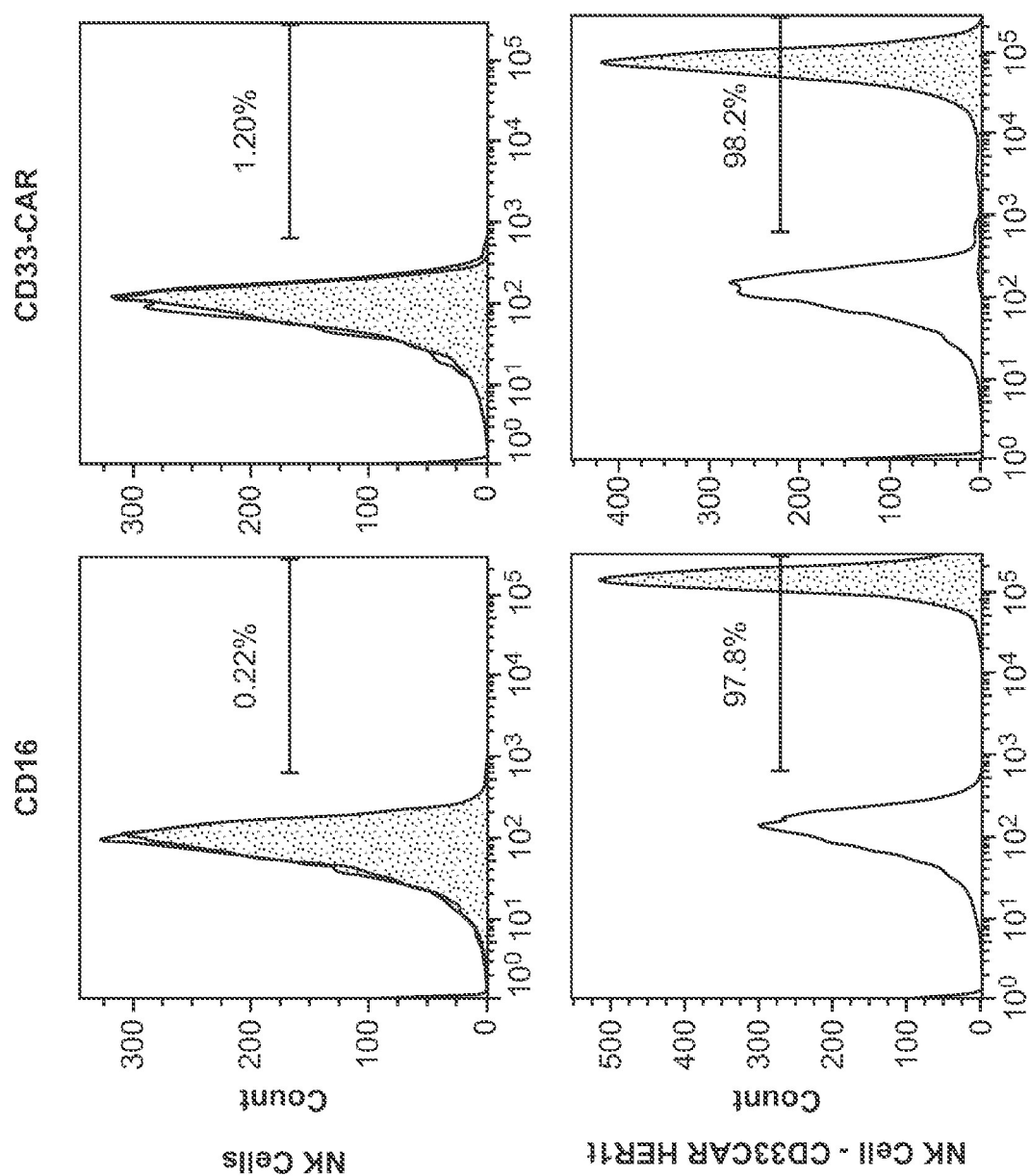


FIGURE 24

FIGURE 25

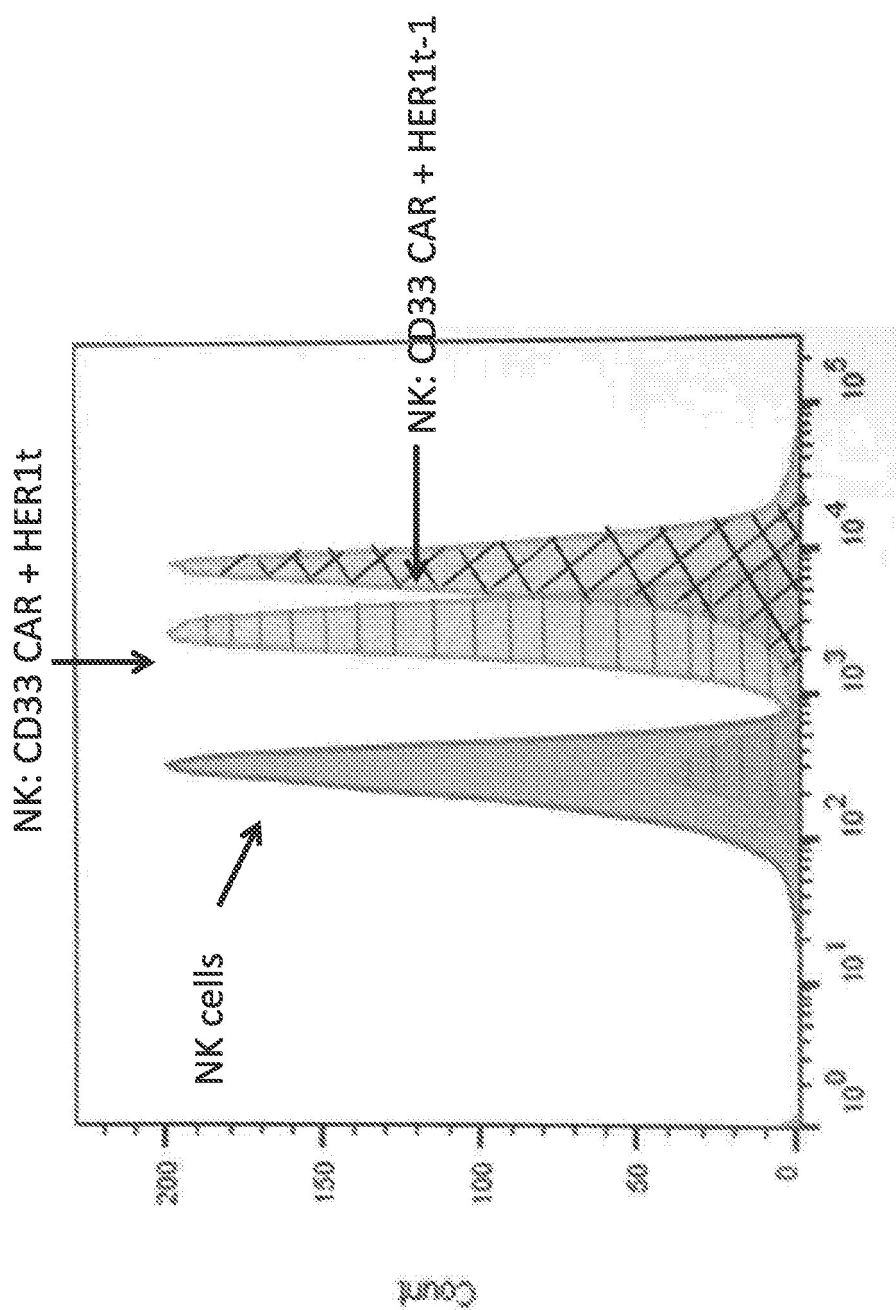


FIGURE 26

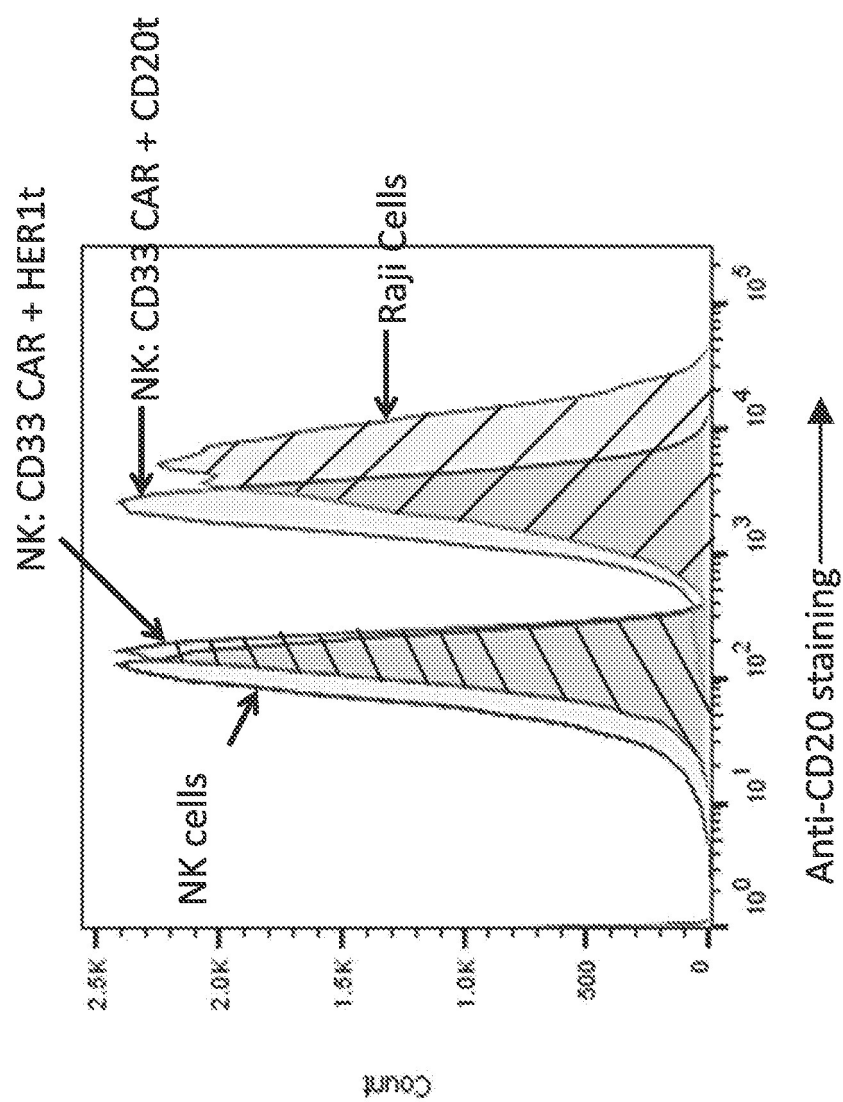


FIGURE 27

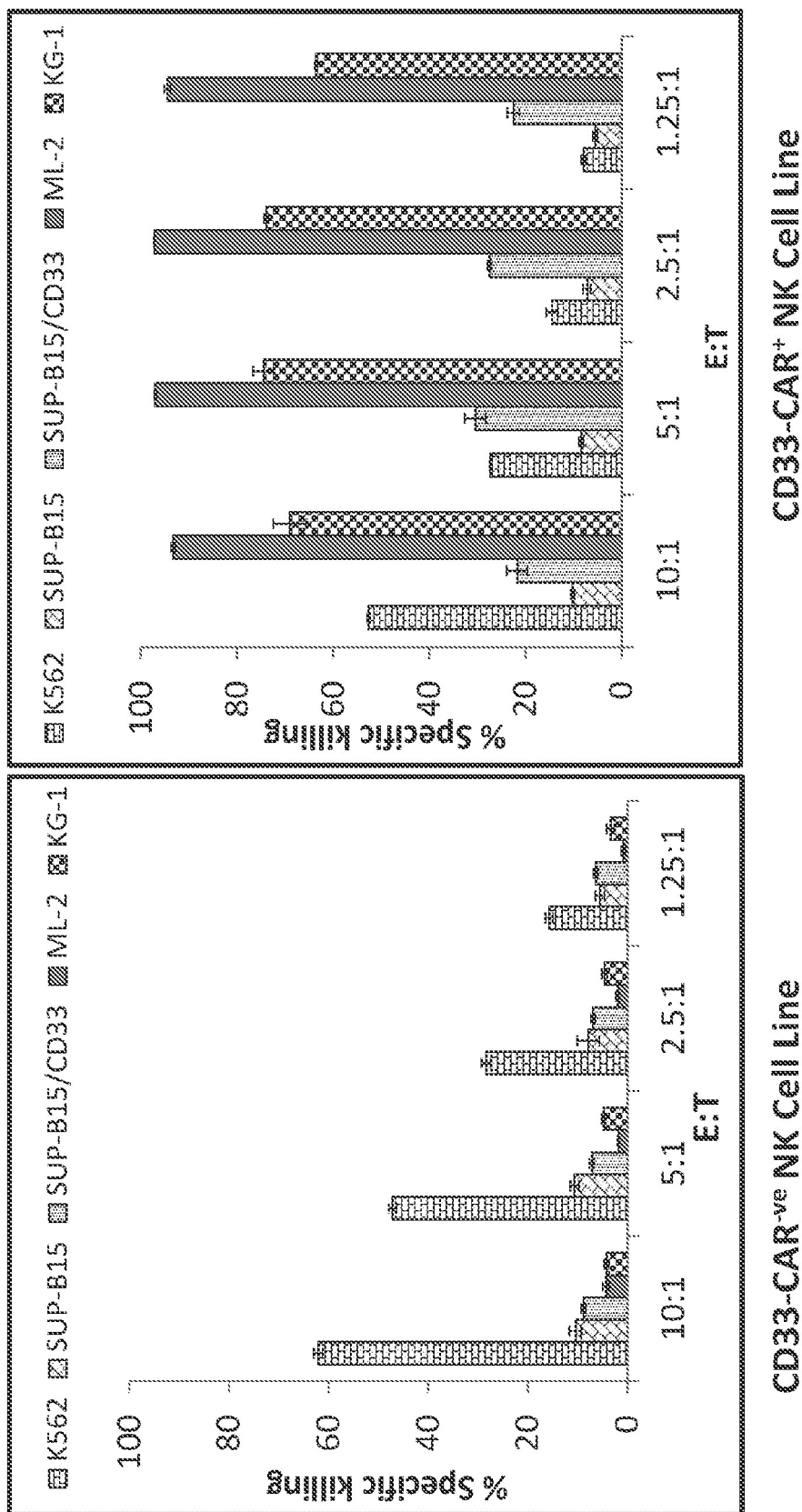


FIGURE 28

