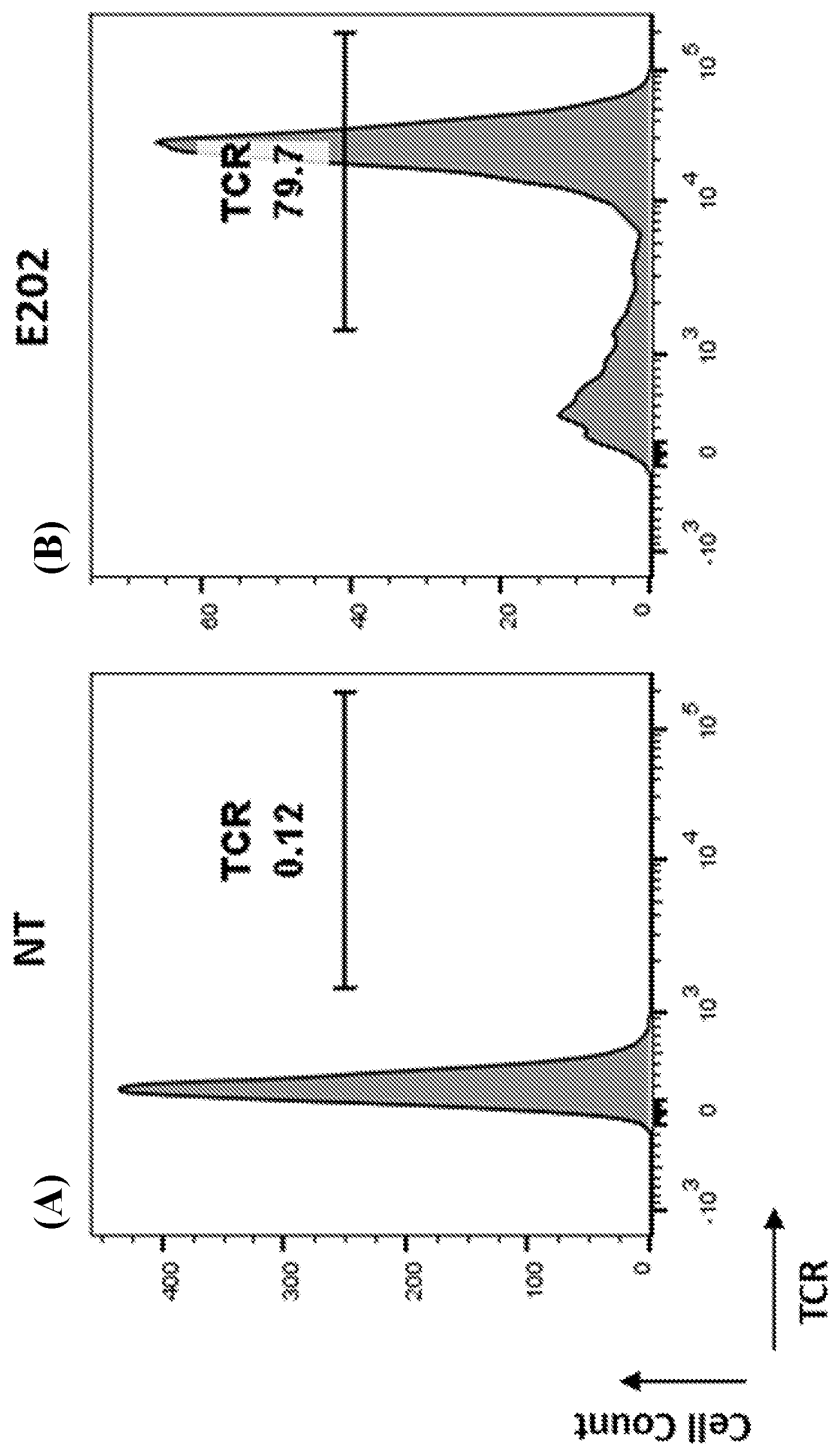
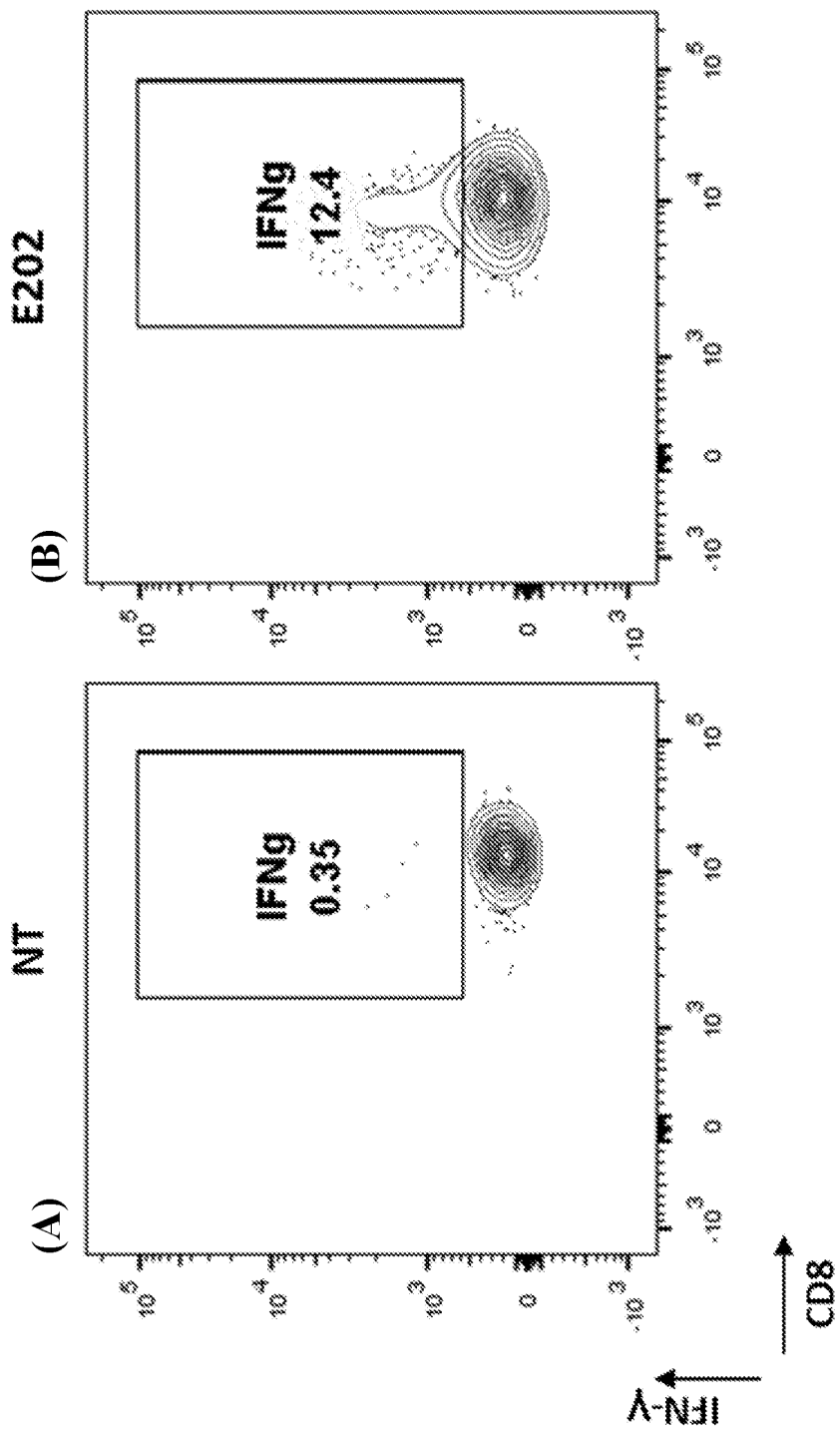


FIG. 1



FIGS. 2A-2B



FIGS. 3A-3B

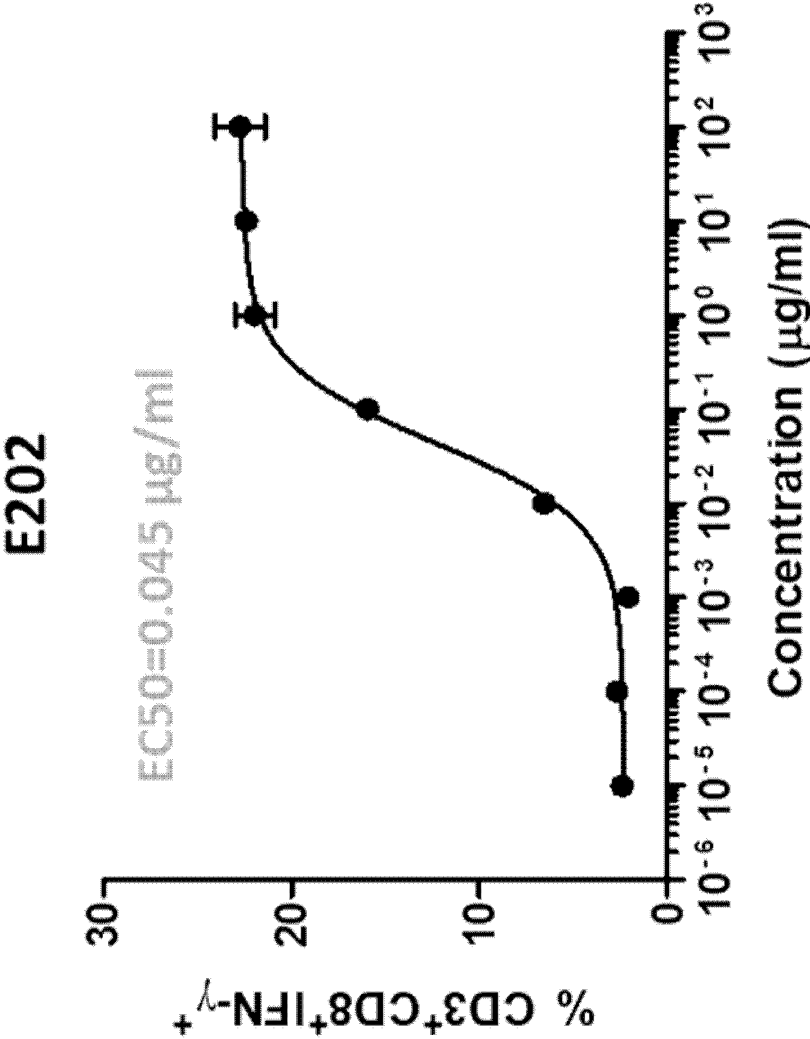


FIG. 4

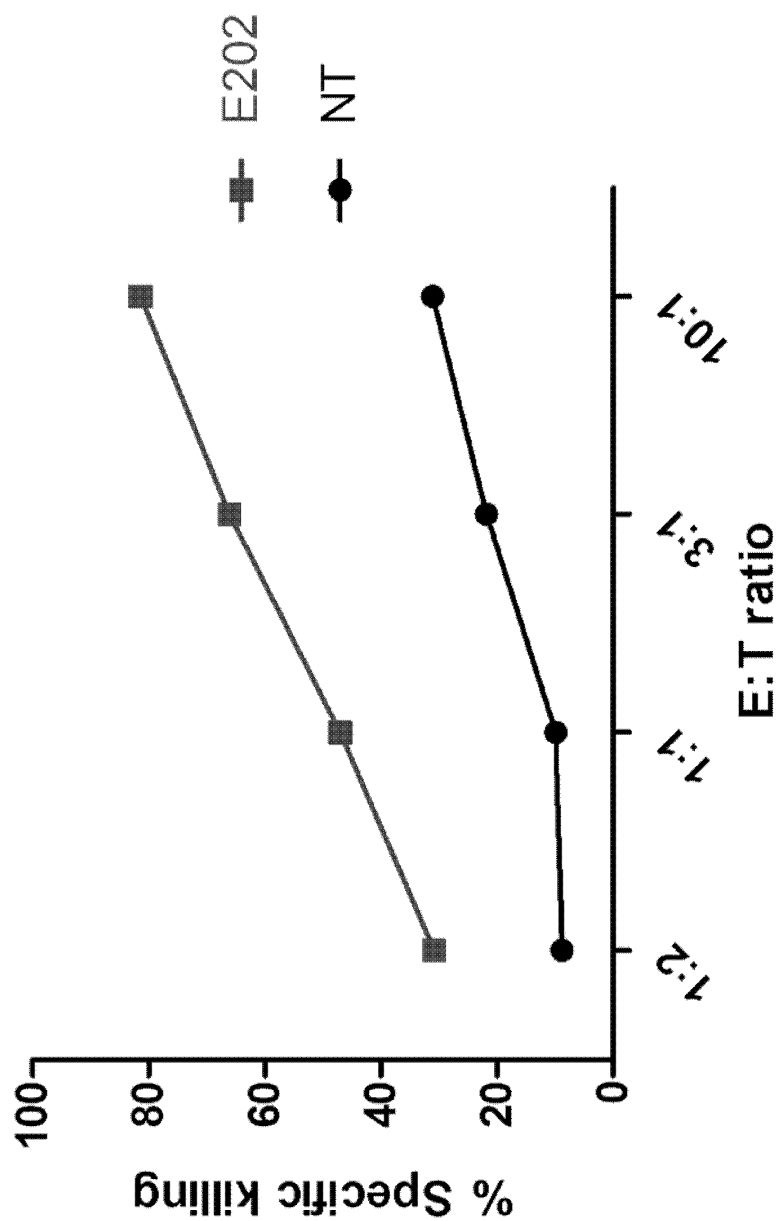
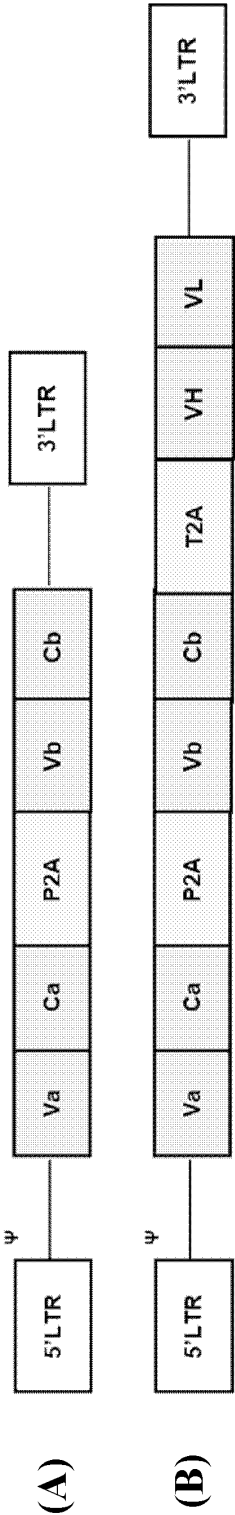
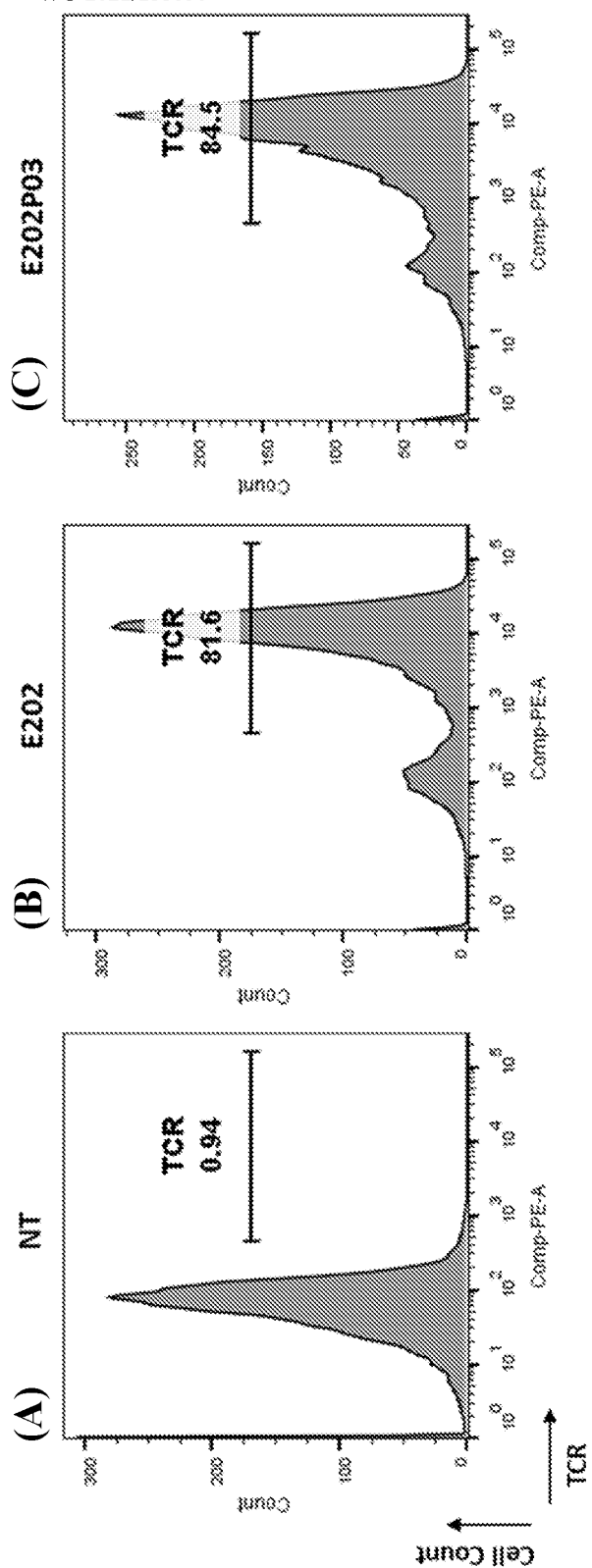


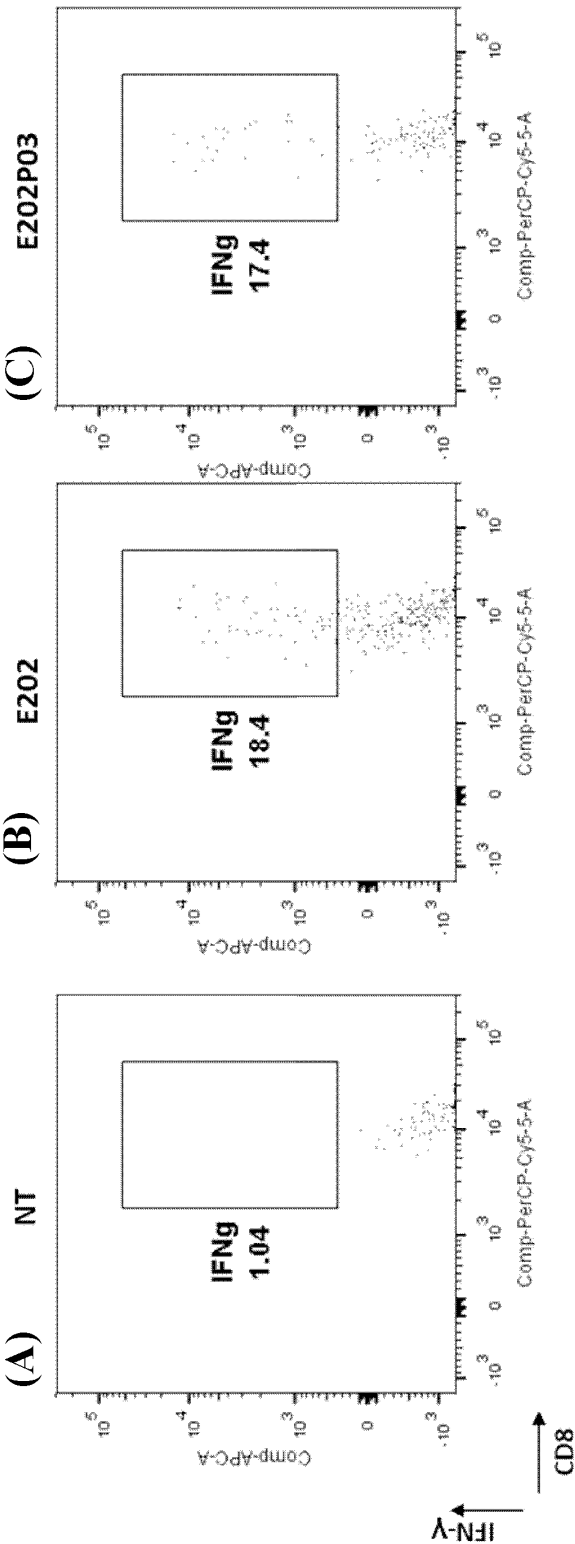
FIG. 5



FIGS. 6A-6B



FIGS. 7A-7C



FIGS. 8A-8C

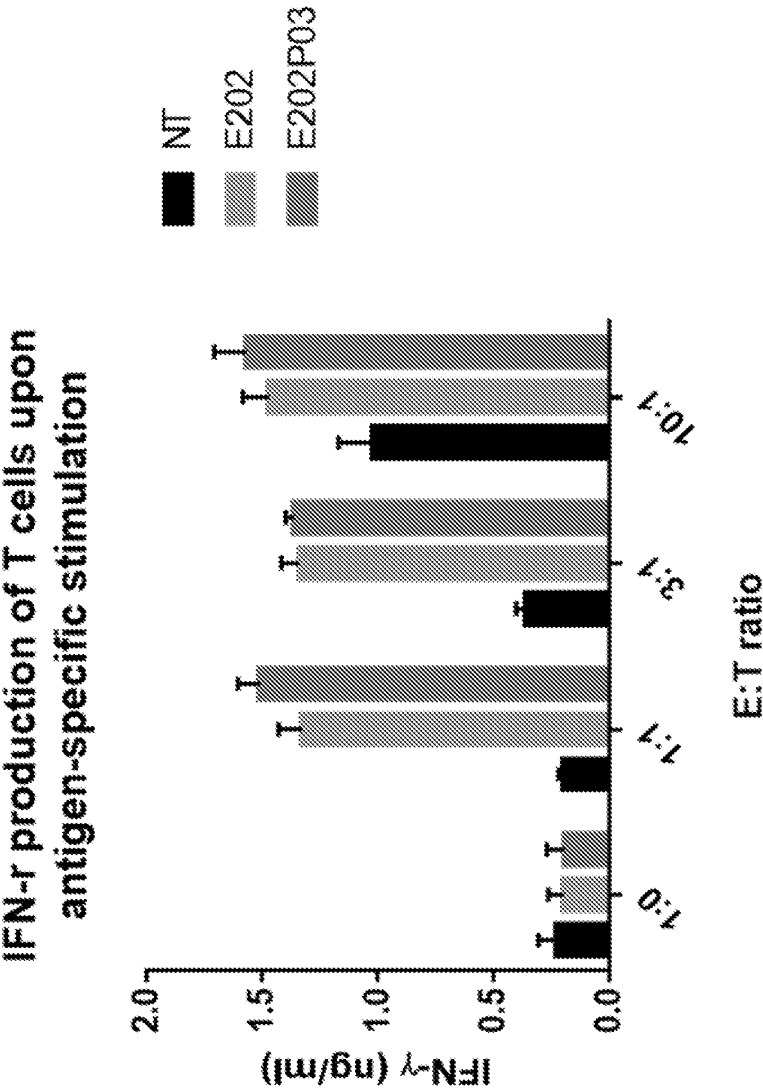
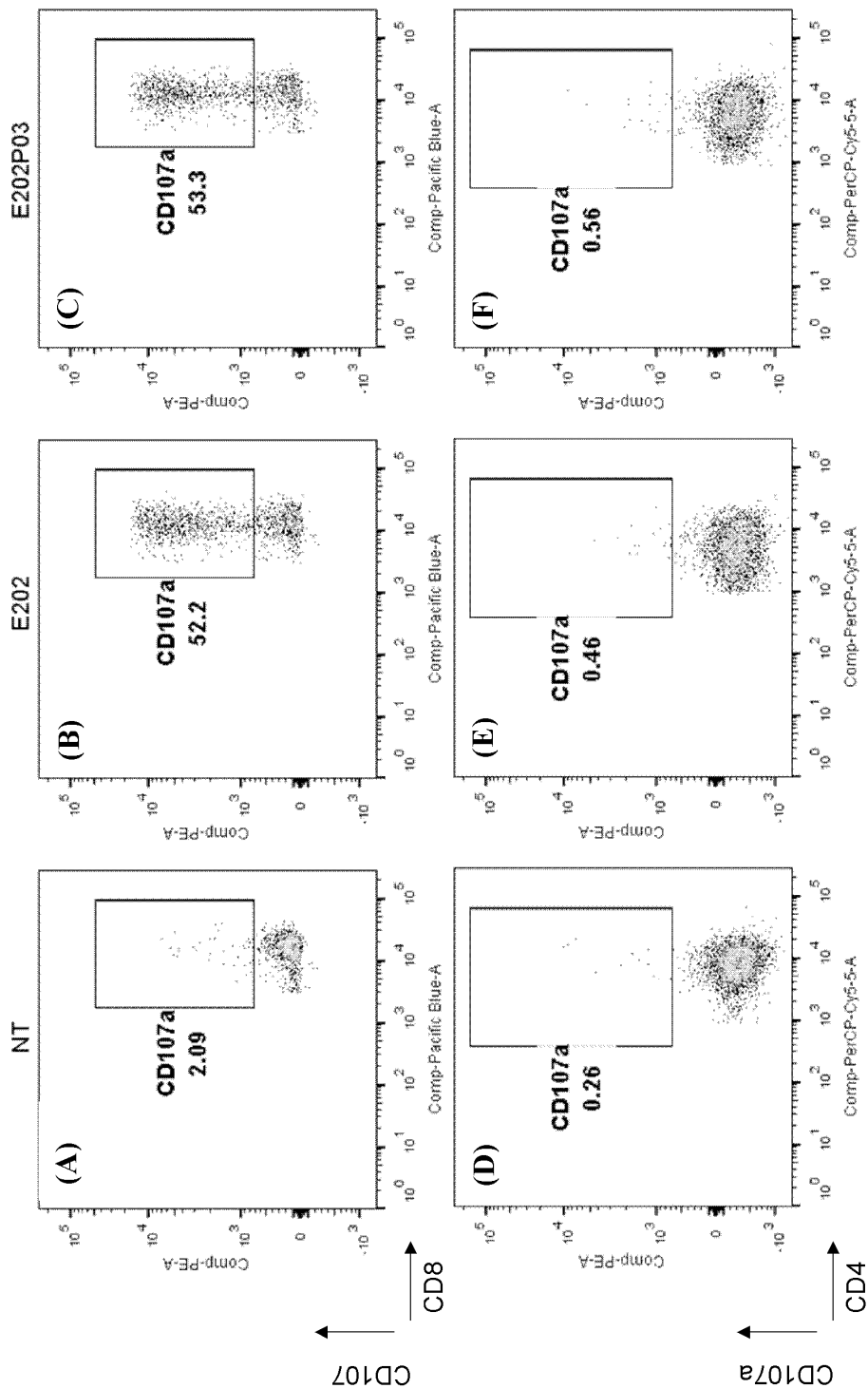


FIG. 9



FIGS. 10A-10F

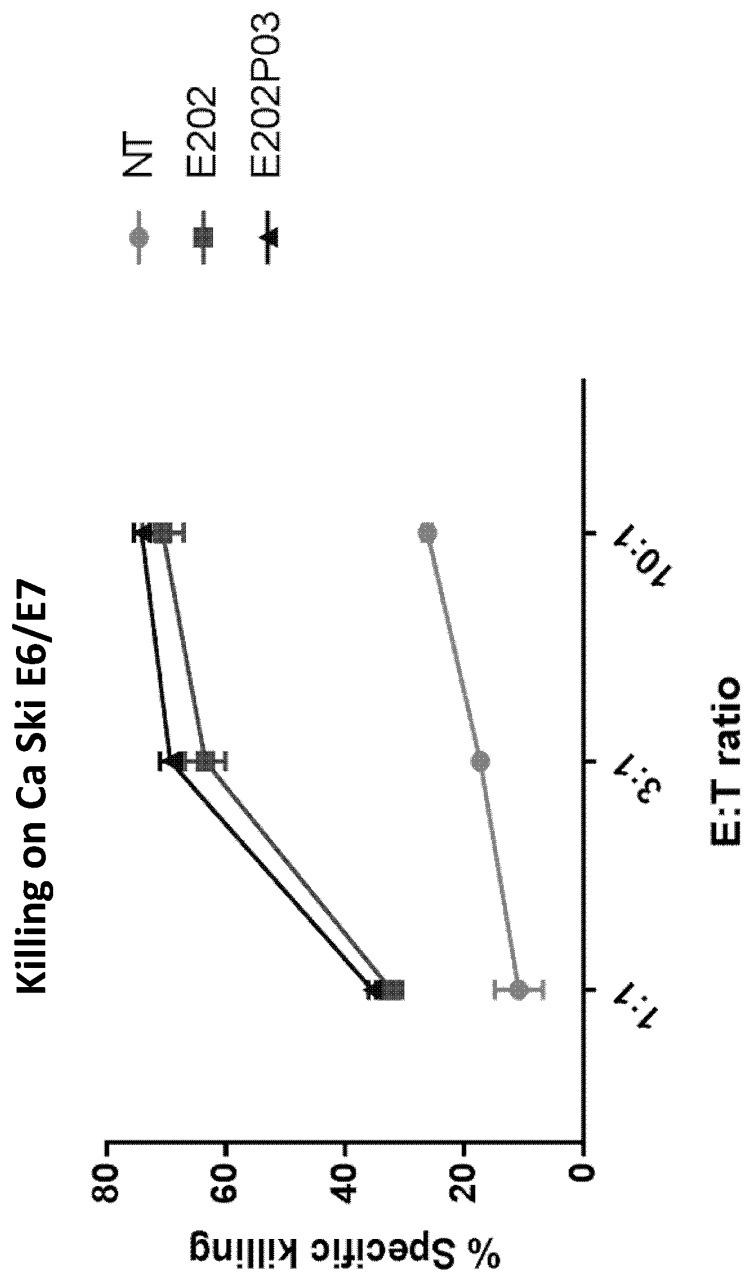


FIG. 11

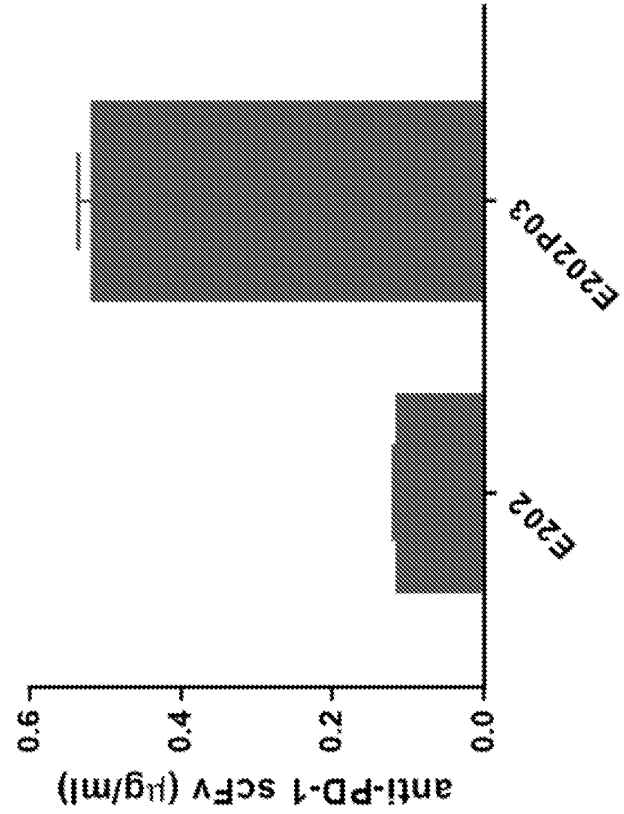


FIG. 12

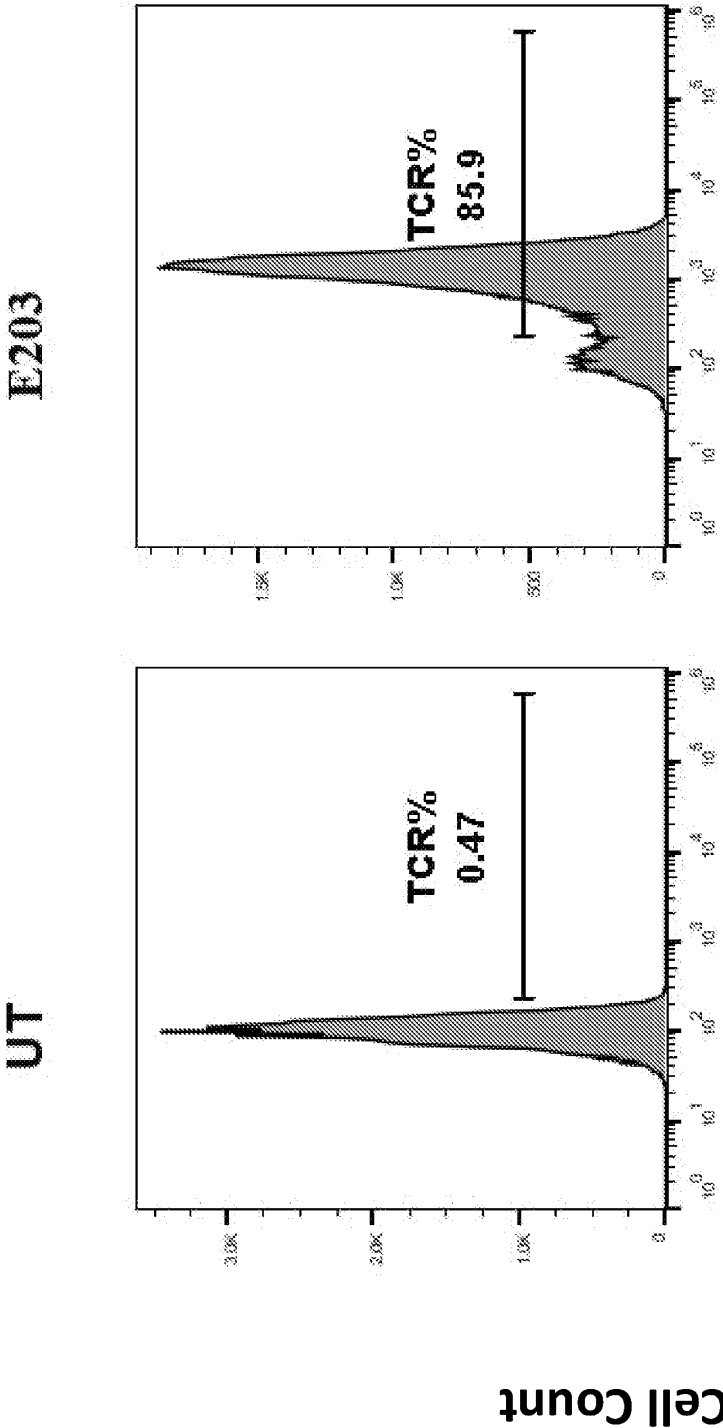


FIG. 13B

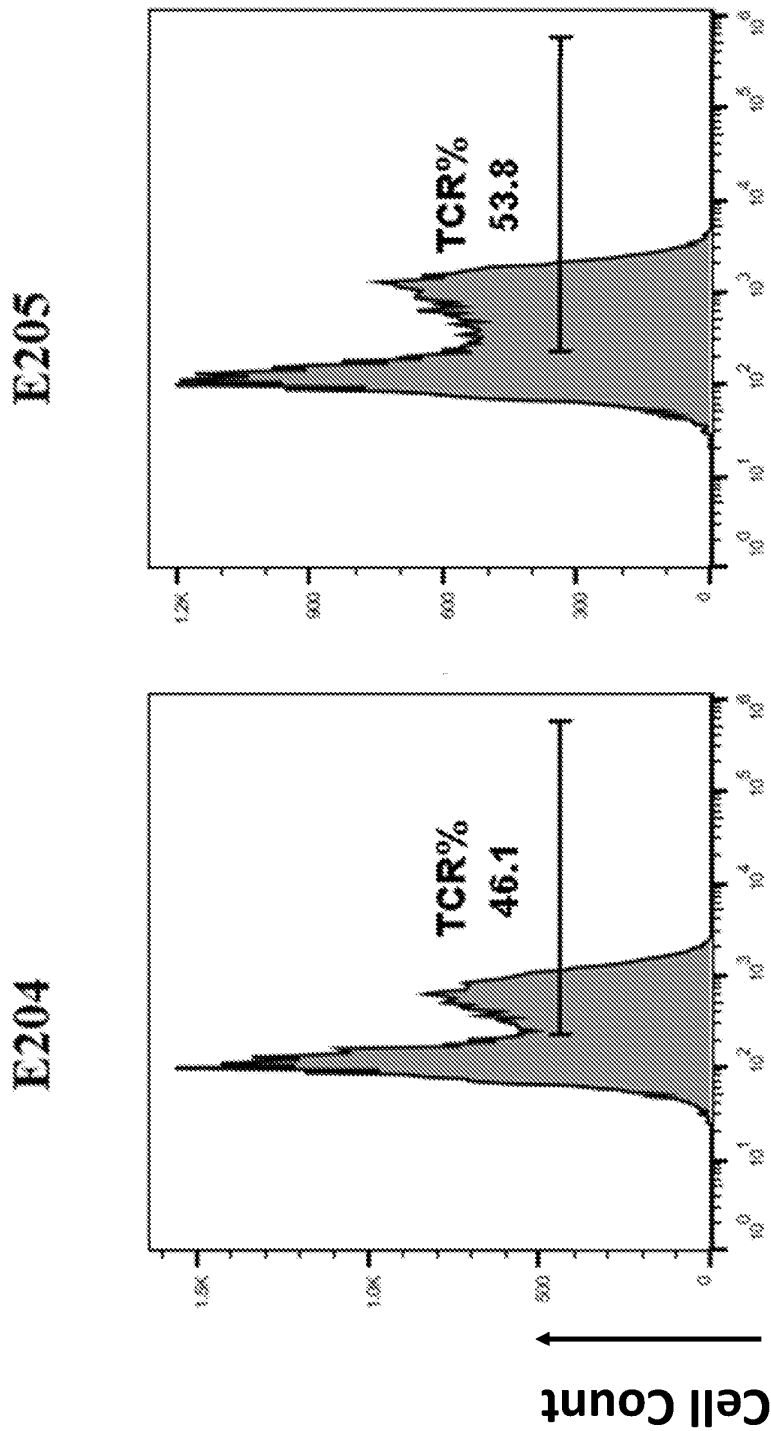
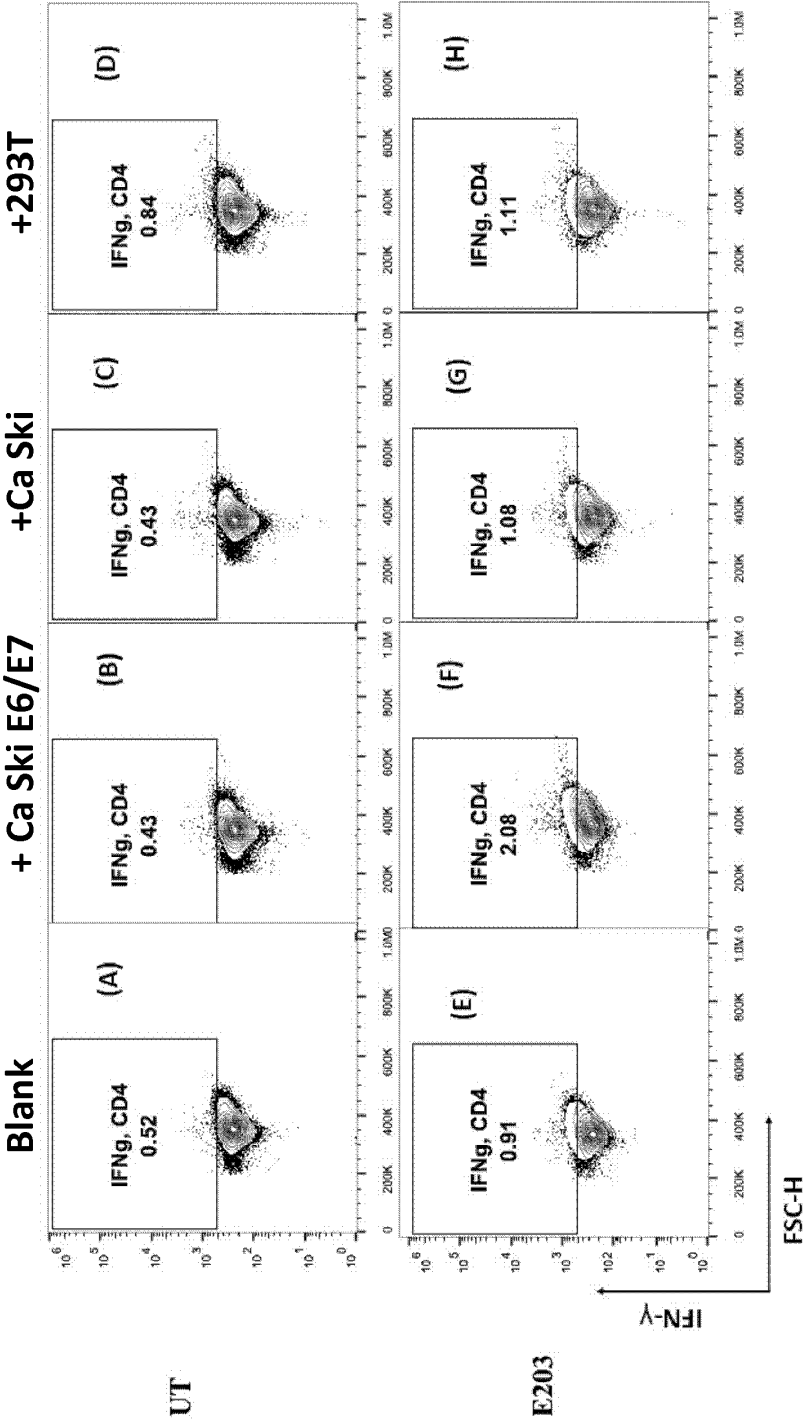
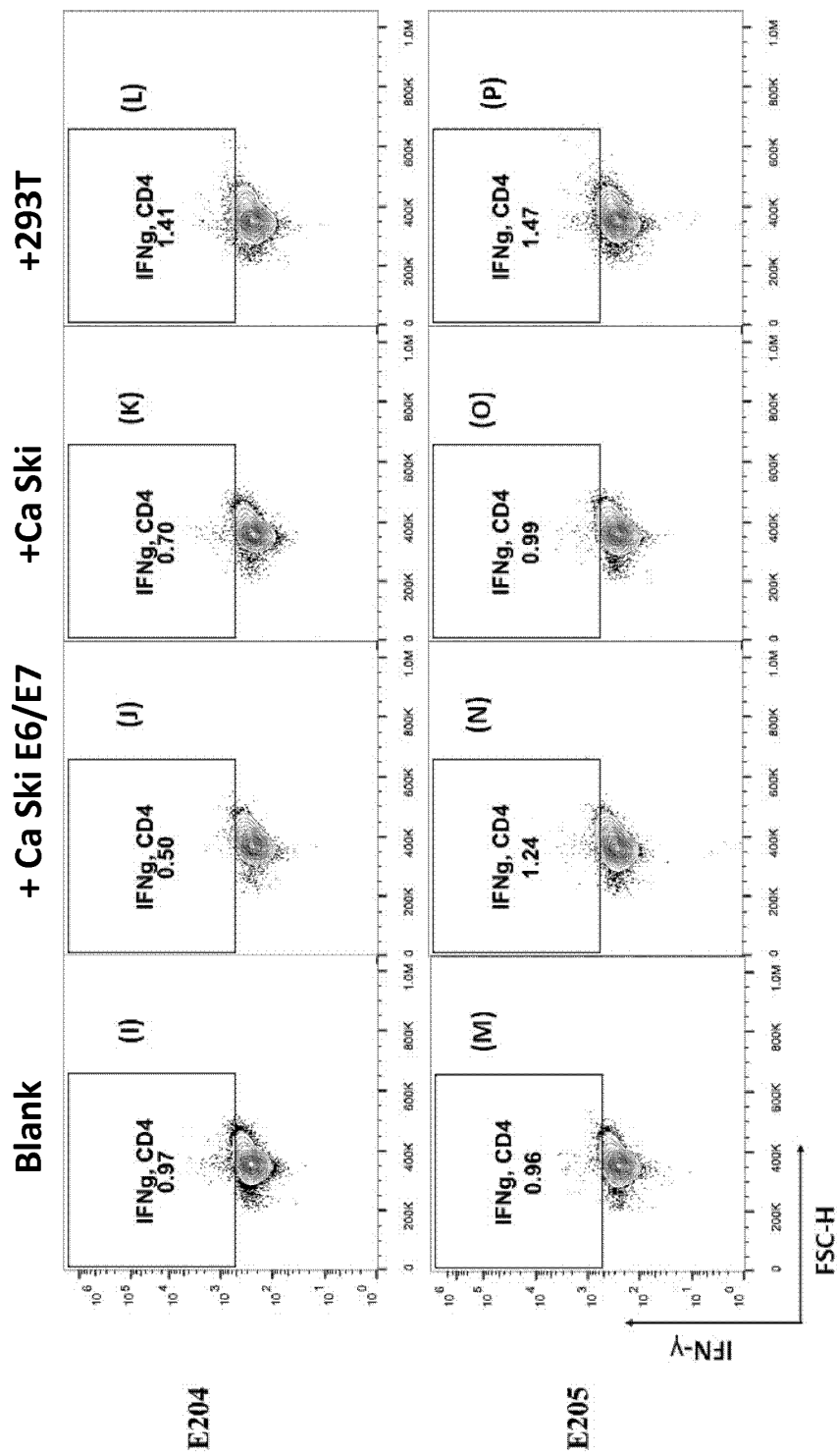


FIG. 13D

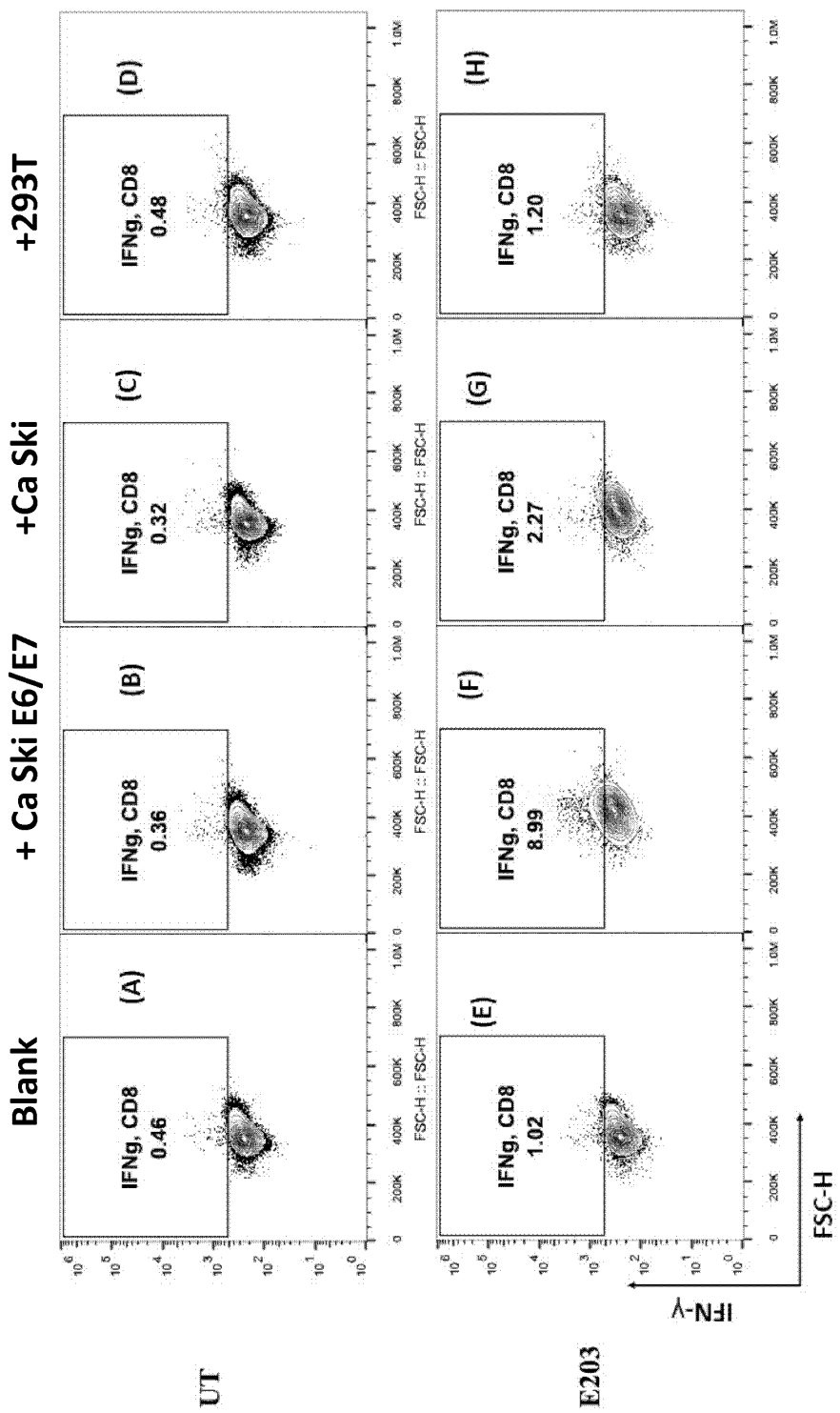
FIG. 13C



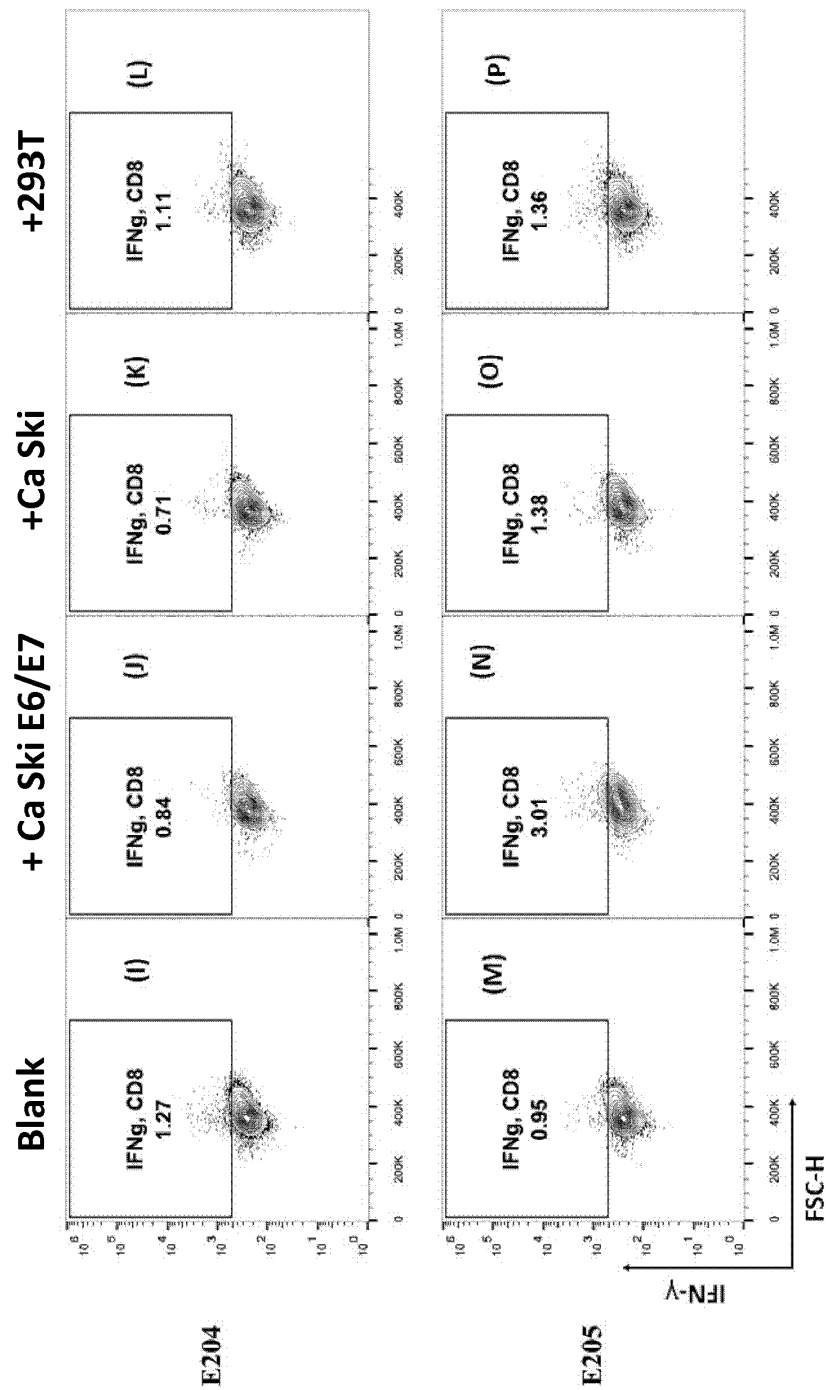
FIGS. 14A-14H



FIGS. 14I-14P



FIGS. 15A-15H



FIGS. 15I-15P

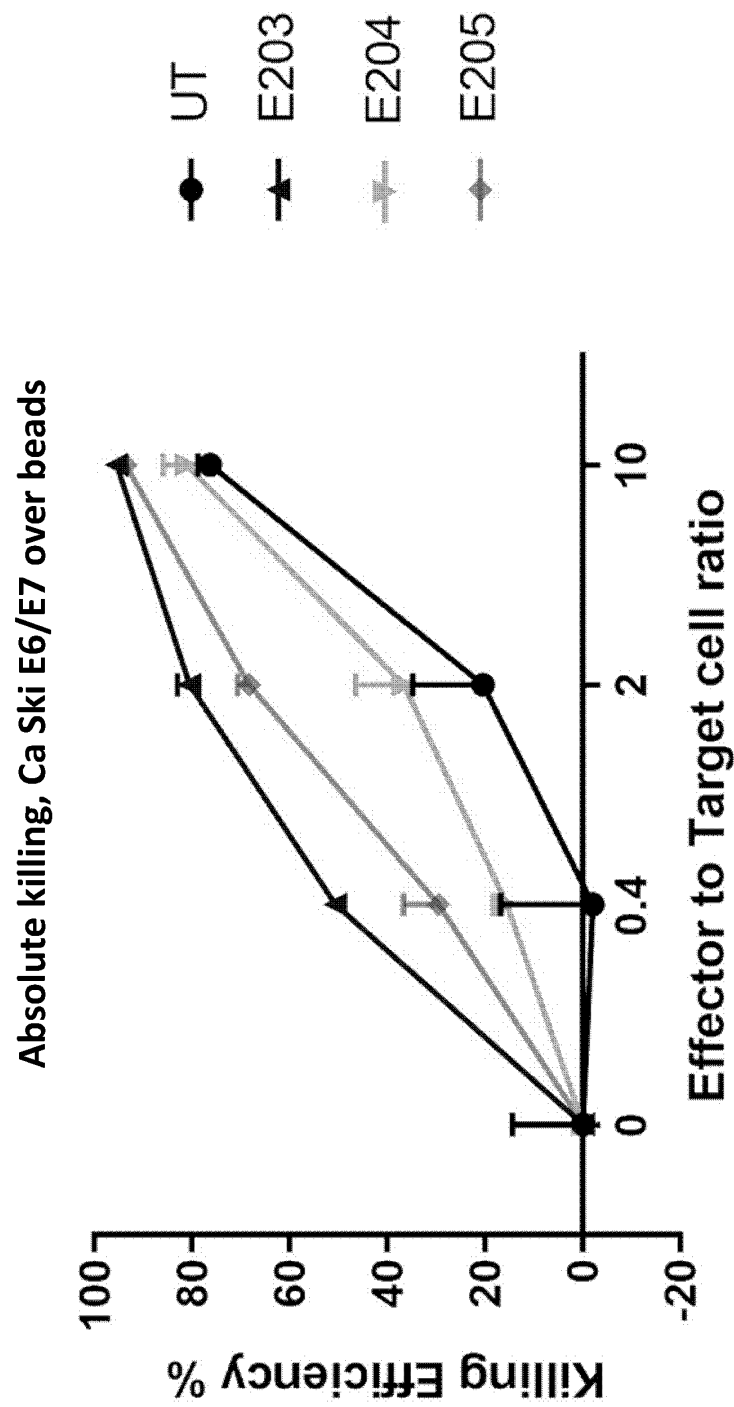


FIG. 16A

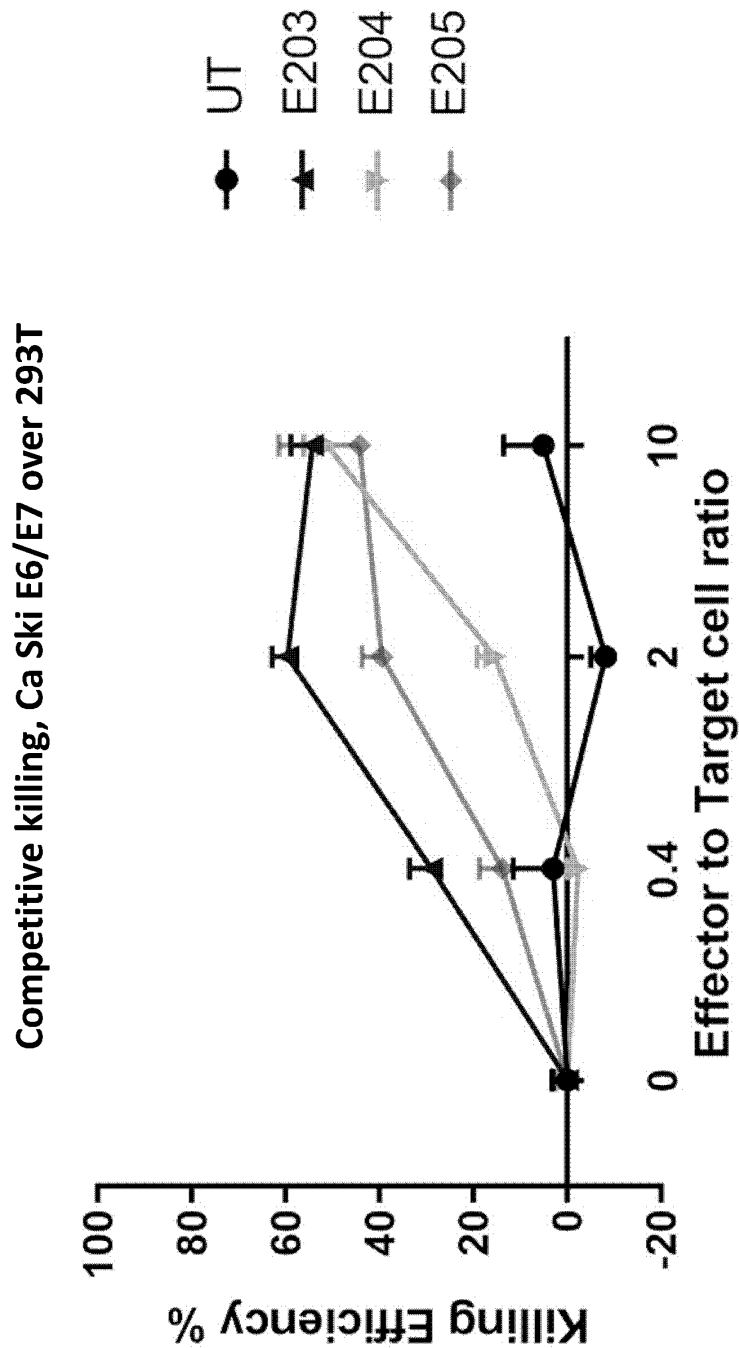


FIG. 16B

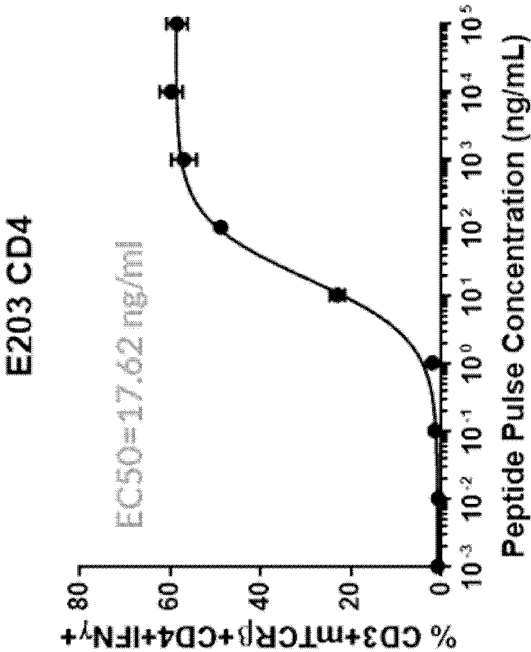


FIG. 17B

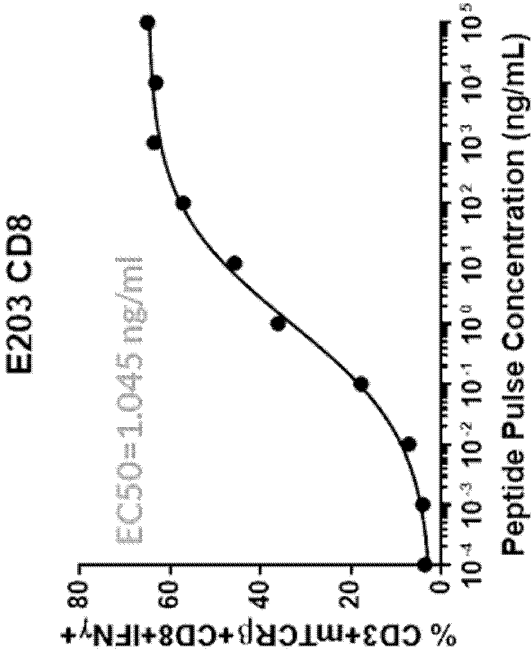


FIG. 17A

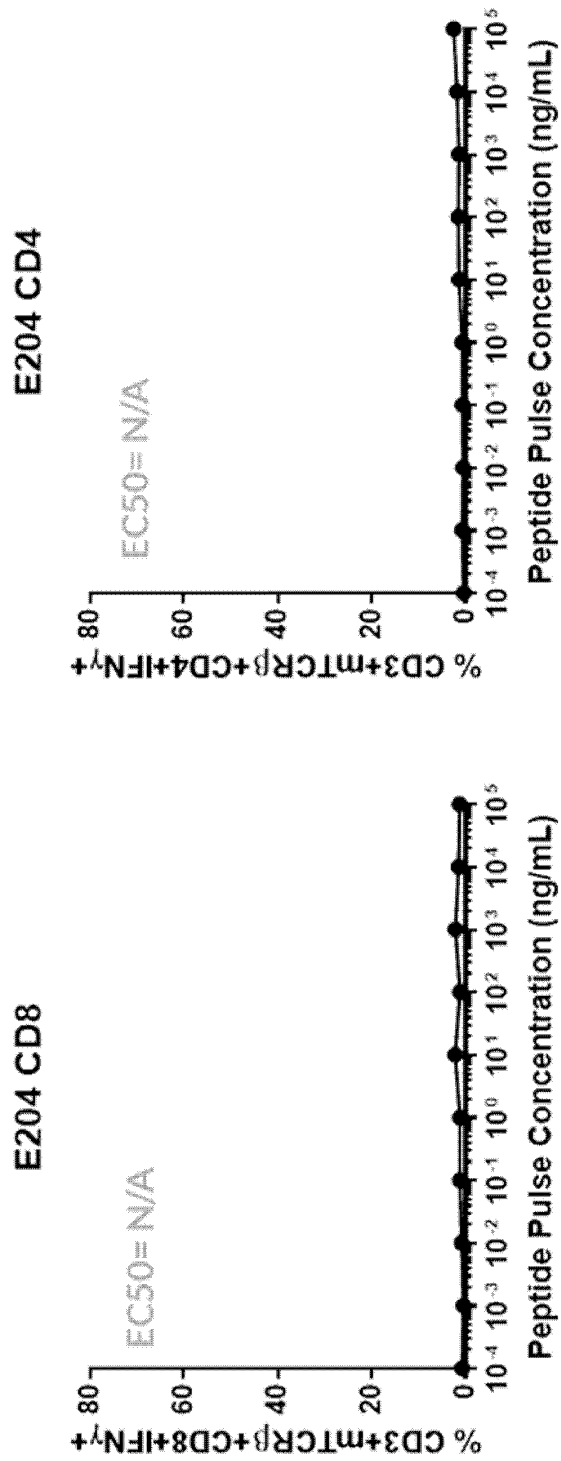


FIG. 18A

FIG. 18B

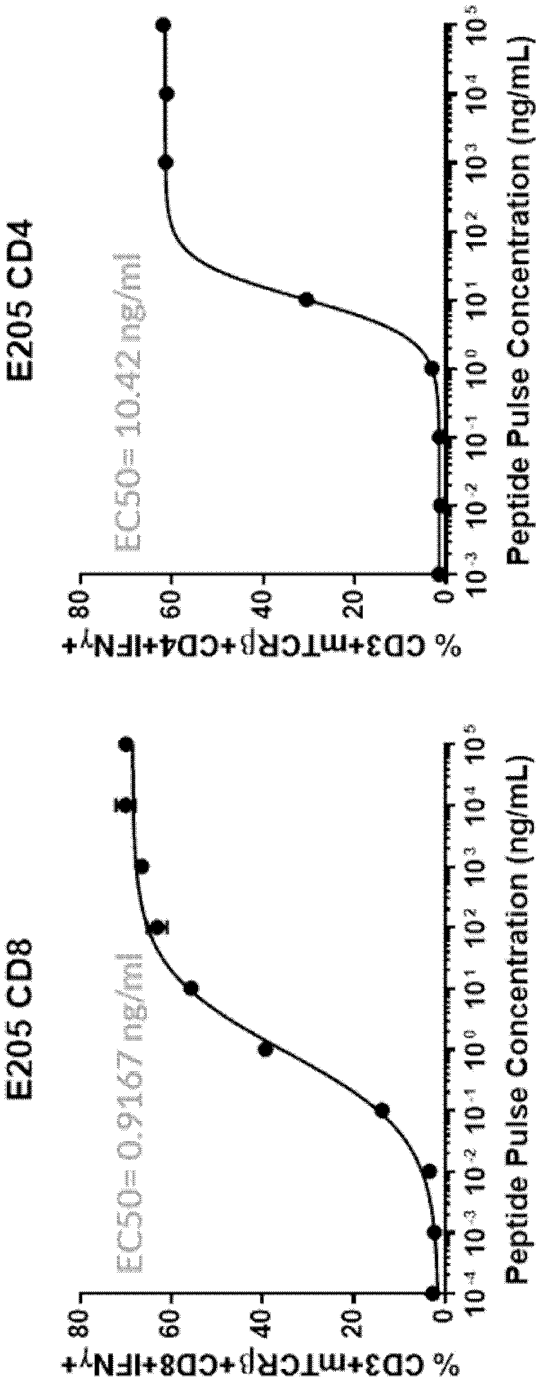


FIG. 19A

FIG. 19B

	CDR1 α	SEQ ID	CDR2 α	SEQ ID	CDR3 α	SEQ ID	CDR1 β	SEQ ID	CDR2 β	SE Q ID	CDR3 β	SEQ ID	TRA_VJ	TRB_VDJ
E202	TSSDYY	5	QEAYKQ QN	6	AYRDSR GSTLGR LY	7	MDHEN	8	SYDVKM	9	ASSLWGR KNTEAF	10	TRAV38- 2/DV8*01, TRAJ18*01	TRBV28*01, TRBD1*01, TRBJ1-1*01
E203	NIATNDY	27	GYKTK	28	LALSMD SSYKLI	29	SGHDY	30	FNNNVP	31	ASSLAQR SAPEAF	32	TRAV4*01, TRAJ12*01	TRBV12-4*01, TRBD2*02, TRBJ1-1*01
E204	NIATNDY	33	GYKTK	34	LVGDGN MVLQTS	35	SGHDY	36	FNNNVP	37	ASSLAQR SAPEAF	38	TRAV4*01, TRAJ17*01	TRBV12-4*01, TRBD2*02, TRBJ1-1*01
E205	SVFSS	39	VVTGGEV	40	AGVSAR LM	41	SQVTM	42	ANQGSE A	43	SAVGGPK VPGAEAF	44	TRAV27*01, TRAJ31*01	TRBV29-1*01, TRBD2*02, TRBJ1-1*01

FIG. 20

FIG. 21**Variable region of the alpha chain of E202 TCR (SEQ ID NO: 1)**

AQTVTQSQPEMSVQEAETVTL SCTYDTSESDYYLFWKQPPSRQMILVIRQEAYKQQNATENRFSVNFQK
AAKSFSLKISDSQLGDAAMYFCAYRDSRGSTLGRLYFGRGTQLTVWP

Variable region of the beta chain of E202 TCR (SEQ ID NO: 2)

DVKVTQSSRYLVKRTGEKVFLECVQDMDHENMFWYRQDPGLGLRLIYFSYDVKMKEKGDIPGYSVSREK
KERFSLILESASTNQTSMYLCASSLWGRKNTEAFFGQGTRLTVV

Nucleic acid sequence encoding alpha chain variable region of E202 TCR (SEQ ID NO: 3)

GCACAAACTGTAACCTCAGTCACAGCCCCGAGATGAGCGTACAGGAAGCTGAAACCGTAACCTTGTCATGTA
CCTATGACACGAGCGAAAGTGACTACTACCTCTTCTGGTACAAGCAGCCGCCGAGCAGACAAATGATACT
CGTGATCCGGCAGGAAGCCTACAAGCAACAAAATGCGACCGAGAACAGGTTTCAGCGTCAATTTCCAAAAG
GCTGCTAAGAGTTTCTCTTTGAAAATCAGTGACTCACAGCTCGGGGACGCCGCAATGTACTTTTGCGCTT
ATCGGGATAGTCGCGGTTCAACCCTTGGAAGACTCTATTTTGGCAGAGGGACACAACCTACCCGTGTGGCC
T

Nucleic acid sequence encoding beta chain variable region of E202 TCR (SEQ ID NO: 4)

GACGTGAAGGTCAGTCTAGTAGATACTTGGTCAAAAAGAACGGGTGAAAAGGTCTTTCTTGAATGCG
TCCAAGACATGGATCACGAGAATATGTTCTGGTATAGGCAGGATCCGGGCCTCGGTCTGAGGCTCATATA
CTTTAGTTATGACGTAAAAATGAAAGAGAAAGGCGATATTCCTGAAGGGTACTCAGTGTCCAGAGAGAAA
AAAGAGAGGTTTCAGCCTTATTCTGGAGTCAGCGTCTACGAACCAGACTTCAATGTATCTGTGTGCTAGTT
CCTTGTGGGGCAGAAAAAACACTGAGGCCTTCTTCGGTCAAGGTACCAGACTTACAGTAGTG

VH of anti-PD-1 scFV (SEQ ID NO: 11)

QVQLVQSGAEVKKPGASVKVSCKASGYTFTNYYMYWVRQAPGQGLEWIGGINPSNGGTNFKNEKFNKATM
TVDKSTSTAYMELSSLRSEDTAVYYCTRRDYNIDGGFDYWGQGLTVTVSS

VL of anti-PD-1 scFV (SEQ ID NO: 12)

DIVLTQSPATLSLSPGERATLSCRASKSVSTSGFNMYHWYQQKPGQAPRLLIFLASNLASGVPARFSGSG
SGTDFTLTISLLEPEDFAVYYCQHGRELPLTFGQGTKLEI

Nucleic acid sequence encoding VH of anti-PD-1 scFv (SEQ ID NO: 13)

CAAGTCCAGCTTGTACAAAGCGGTGCCGAAGTAAAAAACCGGGCGCAAGCGTCAAGGTTTCATGCAAGG
CGAGTGGATACACCTTTACCAACTATTACATGTACTGGGTGCGGCAGGCACCCGGGCAGGGACTGGAATG
GATCGGTGGTATTAACCCAAGTAATGGTGGTACAAATTTCAACGAAAAGTTTAAGAACAAAGCGACGATG
ACAGTAGACAAATCTACAAGTACCGCATACATGGAGCTGAGCTCACTGAGATCTGAGGACACCGCAGTCT
ATTACTGCACACGGCGAGATTACAATTACGATGGAGGGTTCGACTACTGGGGCCAAGGGACTTTGGTGAC
TGATCCTCC

Nucleic acid sequence encoding VL of anti-PD-1 scFv (SEQ ID NO: 14)

GACATCGTCCTTACGCAAAGCCCGGCGACCCTCAGTTTGAGCCCTGGGGAAAGAGCAACGCTGTCTTGTA
GAGCATCCAAATCAGTCTCAACTTCTGGTTTTAATTACATGCACTGGTATCAACAGAAGCCAGGACAAGC
ACCTAGATTGCTGATCTTTCTGGCGTCAAATCTGGCCTCTGGCGTTCAGCCCGGTTTAGCGGTTCTGGA
AGCGGAACGGACTTTACCCTTACCATATCATCACTCGAACCAGAGGACTTTGCGGTATATTACTGCCAAC
ATGGACGGGAGCTGCCCTTGACGTTTGGTCAAGGAACGAAGTTGGAGATA

Amino acid sequence of full-length alpha chain of E202 TCR (SEQ ID NO: 15)

AQTVTQSQPEMSVQEAETVTLSTYDTSESDYYLFWYKQPPSRQMILVIRQEAYKQQNATENRFSVNFQK
AAKSFSLKISDSQLGDAAMYFCAYRDSRGSTLGRLYFGRGTQLTVWPDIONPEPAVYQLKDPQRSQDSTLC
LFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKNGAIAWSNQTSFTCQDIFKETNACYPSSDVPCDA
TLTEKSFETDMNLFQNL SVMGLRILL LK VAGFNLLMTLR LWSS

Amino acid sequence of full-length beta chain of E202 TCR (SEQ ID NO: 16)

DVKVTQSSRYLVKRTGEKVFLECVQDMDHENMFYWRQDPGLGLRLIYFSYDVKMKEKGDIPGYSVSREK
KERFSLILESASTNQTSMYLCASSLWGRKNTEAFFGQGTRLTVVEDLRNVTTPKVSLEFEP SKAEIANKQK
ATLVCLARGFFPDHVELSWVNGKEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNP RNHFR CQVQF
HGLSEEDKWPEGSPKPVTONISAEAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMA
MVKRKNS

Nucleic acid sequence encoding full-length alpha chain of E202 TCR (SEQ ID NO: 17)

GCACAAACTGTAACCTCAGTCACAGCCCGAGATGAGCGTACAGGAAGCTGAAACCGTAACCTTGTCATGTA
CCTATGACACGAGCGAAAGTGACTACTACCTCTTCTGGTACAAGCAGCCGCCGAGCAGACAAATGATACT
CGTGATCCGGCAGGAAGCCTACAAGCAACAAAATGCGACCGAGAACAGGTTTCAGCGTCAATTTCCAAAAG
GCTGCTAAGAGTTTCTCTTTGAAAATCAGTGACTCACAGCTCGGGGACGCCGCAATGTACTTTTGCCTT
ATCGGGATAGTCGCGGTTCAACCCCTGGAAGACTCTATTTTGGCAGAGGGACACAACCTACCCGTGTGGCC
TGACATCCAGAATCCAGAGCCAGCCGTGTACCAGCTGAAGGACCCTAGGAGCCAGGACTCTACCCTCTGC
CTGTTACCCGACTTCGACAGCCAGATCAACGTGCCCAAGACAATGGAGAGCGGCACCTTCATCACCGACA
AGACCGTGCTGGACATGAAGGCTATGGACAGCAAGAGCAACGGAGCCATCGCTTGAGCAACCAGACCAG

CTTCACTTGCCAGGACATCTTCAAGGAGACCAACGCTTGCTACCCCTCTAGCGACGTGCCTTGCGACGCC
ACACTGACAGAGAAGAGCTTCGAGACCGACATGAACCTGAACTTCCAGAACCTGAGCGTGATGGGCCTGA
GAATCCTGCTGCTGAAGGTGGCCGGATTCAACCTGCTGATGACCCTGAGGCTGTGGTCTTCC

Nucleic acid sequence encoding full-length beta chain of E202 TCR (SEQ ID NO: 18)

GACGTGAAGGTCACTCAGTCTAGTAGATACTTGGTCAAAAAGAACGGGTGAAAAGGTCTTTCTTGAATGCG
TCCAAGACATGGATCACGAGAATATGTTCTGGTATAGGCAGGATCCGGGCCTCGGTCTGAGGCTCATATA
CTTTAGTTATGACGTAAAAATGAAAGAGAAAGGCGATATTCCTGAAGGGTACTCAGTGTCCAGAGAGAAA
AAAGAGAGGTTTACGCTTATTCTGGAGTCAGCGTCTACGAACCAGACTTCAATGTATCTGTGTGCTAGTT
CCTTGTGGGGCAGAAAAAACTGAGGCCTTCTTCGGTCAAGGTACCAGACTTACAGTAGTGGAGGACCT
ACGTAACGTGACCCCTCCAAGGTGTCCCTGTTTCGAGCCTAGCAAGGCCGAGATCGCCAACAAGCAGAAG
GCCACACTCGTCTGCCTGGCTAGAGGCTTCTTCCCAGACCACGTGGAGCTGTCTTGGTGGGTGAACGGCA
AGGAGGTGCACTCAGGAGTGTCTACCGACCCTCAGGCCTACAAGGAGAGCAACTACAGTACTGCCTGTC
CTCCAGACTCAGGGTCTGCGCCACCTTTTGGCACAAACCTCGGAACCACTTCCGTGTCAGGTCCAGTTC
CACGGCCTGTCCGAGGAAGACAAGTGGCCAGAGGGCTCTCCTAAGCCAGTGACACAGAACATCAGCGCCG
AGGCTTGGGGAAGAGCCGATTGCGGAATCACCAGCGCCTCTTACCAGCAGGGAGTGCTGTGCTAGCTACCAT
CCTGTACGAGATCCTGCTGGGCAAGGCCACACTGTACGCAGTGCTGGTGTCCACTCTGGTCTGTATGGCT
ATGGTGAAGCGGAAGAACAGC

E6 epitope (SEQ ID NO: 19)

TIHDIILECV

Nucleic acid sequence encoding full-length E202 TCR (SEQ ID NO: 20)

ATGGCATGCCCAGGCTTTCTCTGGGCCCTCGTAATCAGCACCTGTCTTGAATTTTCTATGGCACAAACTG
TAACTCAGTCACAGCCCGAGATGAGCGTACAGGAAGCTGAAACCGTAACCTTGTCTATGTACCTATGACAC
GAGCGAAAGTGACTACTACCTCTTCTGGTACAAGCAGCCGCCGAGCAGACAAATGATACTCGTGATCCGG
CAGGAAGCCTACAAGCAACAAAATGCGACCGAGAACAGGTTTACGCGTCAATTTCCAAAAGGCTGCTAAGA
GTTTCTCTTTGAAAATCAGTGACTCACAGCTCGGGGACGCCGCAATGTACTTTTGGCCTTATCGGGATAG
TCGCGGTTCAACCCTTGGAAGACTCTATTTTGGCAGAGGGACACAACCTACCGTGTGGCCTGACATCCAG
AATCCAGAGCCAGCCGTGTACCAGCTGAAGGACCCTAGGAGCCAGGACTCTACCCTCTGCCTGTTACCG
ACTTCGACAGCCAGATCAACGTGCCCCAAGACAATGGAGAGCGGCACCTTCATCACCGACAAGACCGTGCT
GGACATGAAGGCTATGGACAGCAAGAGCAACGGAGCCATCGCTTGGAGCAACCAGACCAGCTTCACTTGC
CAGGACATCTTCAAGGAGACCAACGCTTGCTACCCCTCTAGCGACGTGCCTTGGCAGGCCACACTGACAG
AGAAGAGCTTCGAGACCGACATGAACCTGAACCTCCAGAACCTGAGCGTGATGGGCCTGAGAATCCTGCT
GCTGAAGGTGGCCGGATTCAACCTGCTGATGACCCTGAGGCTGTGGTCTTCCCGAGCTAAACGAGGCTCA
GGCGCGACGAACCTTTAGTTTGCTGAAGCAAGCTGGGGATGTAGAGGAAAATCCGGGTCCCATGGGTATCC
GCCTTTTGTGCCGGGTAGCTTTTTGTTTTTGGCAGTGGGCCTTGTAGACGTGAAGGTCACTCAGTCTAG
TAGATACTTGGTCAAAAAGAACGGGTGAAAAGGTCTTTCTTGAATGCGTCCAAGACATGGATCACGAGAAT
ATGTTCTGGTATAGGCAGGATCCGGGCCTCGGTCTGAGGCTCATATACTTTAGTTATGACGTAAAAATGA
AAGAGAAAGGCGATATTCCTGAAGGGTACTCAGTGTCCAGAGAGAAAAAAGAGAGGTTTACGCTTATTCT
GGAGTCAGCGTCTACGAACCAGACTTCAATGTATCTGTGTGCTAGTTCTTGTGGGGCAGAAAAAACT

GAGGCCTTCTTCGGTCAAGGTACCAGACTTACAGTAGTGGAGGACCTACGTAACGTGACCCCTCCCAAGG
TGTCCCTGTTTCGAGCCTAGCAAGGCCGAGATCGCCAACAAGCAGAAGGCCACACTCGTCTGCCTGGCTAG
AGGCTTCTTCCCAGACCACGTGGAGCTGTCTTGGTGGGTGAACGGCAAGGAGGTGCACTCAGGAGTGTCT
ACCGACCTCAGGCCTACAAGGAGAGCAACTACAGTACTGCCTGTCTCCAGACTCAGGGTCTGCGCCA
CCTTTTGGCACAACCTCGGAACCACTTCCGCTGTCTCAGGTCCAGTTCACGGCCTGTCCGAGGAAGACAA
GTGGCCAGAGGGCTCTCCTAAGCCAGTGACACAGAACATCAGCGCCGAGGCTTGGGGAAGAGCCGATTGC
GGAATCACCAGCGCTCTTACCAGCAGGGAGTGTCTGTCAGCTACCATCCTGTACGAGATCCTGCTGGGCA
AGGCCACACTGTACGCAGTGTCTGGTGTCCACTCTGGTCTGATGGCTATGGTGAAGCGGAAGAACAGC

P2A sequence (SEQ ID NO:21)

RAKRGSGATNFSLLKQAGDVEENPGP

**Single chain anti-PD1 (vH+linker+vL) amino acid sequence
(SEQ ID NO: 22)**

QVQLVQSGAEVKKPGASVKVSCASGYFTFTNYMYWVRQAPGQGLEWIGGINPSNGGTNFKNEFKNKATM
TVDKSTSTAYMELSSLRSEDTAVYYCTRRDYNDDGGFDYWGQGLTVTVSSGGGSGGGGSGGGGSDIVLT
QSPATLSLSPGERATLSCRASKSVSTSGFNYMHWYQQKPGQAPRLLIFLASNLASGVPARFSGSGSGTDF
TLTISSLEPEDFAVYYCQHGRELPLTFGQGTKLEI

**Single chain anti-PD1 (vH+linker+vL) nucleic acid sequence
(SEQ ID NO: 23)**

CAAGTCCAGCTTGTACAAAGCGGTGCCGAAGTGAAAAAACCGGGCGCAAGCGTCAAGGTTTCATGCAAGG
CGAGTGGATACACCTTTACCAACTATTACATGTACTGGGTGCGGCAGGCACCCGGGCAGGGACTGGAATG
GATCGGTGGTATTAACCCAAGTAATGGTGGTACAAATTTCAACGAAAAGTTTAAAGAACAAAGCGACGATG
ACAGTAGACAAATCTACAAGTACCGCATACATGGAGCTGAGCTCACTGAGATCTGAGGACACCGCAGTCT
ATTACTGCACACGGCGAGATTACAATTACGATGGAGGGTTCGACTACTGGGGCCAAGGGACTTTGGTGAC
TGTATCTCCGGCGGCGGAGGGTCAGGTGGAGGAGGAAGCGGTGGAGGAGGTAGTGACATCGTCCTTACG
CAAAGCCCCGGCGACCTCAGTTTGAGCCCTGGGGAAAGAGCAACGCTGTCTTGTAGAGCATCCAAATCAG
TCTCAACTTCTGGTTTTTAATTACATGCACTGGTATCAACAGAAGCCAGGACAAGCACCTAGATTGCTGAT
CTTTCTGGCGTCAAATCTGGCCTCTGGCGTTCCAGCCCGGTTTAGCGGTTCTGGAAGCGGAACGGACTTT
ACCTTACCATATCATCACTCGAACCAGAGGACTTTGCGGTATATTACTGCCAACATGGACGGGAGCTGC
CCTTGACGTTTGGTCAAGGAACGAAGTTGGAGATA

**E202 TCR + anti-PD1 amino acid sequence
(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL)
(SEQ ID NO: 24)**

MACPGFLWALVISTCLEFSMAQTVTQSQPEMSVQEAETVTLSTYDTSESDYYLFWYKQPPSRQMILVIR
QEAYKQONATENRFSVNFQKAASFSLKISDSQLGDAAMYFCAYRDSRGSTLGRLYFGRGTQLTVWPDIQ
NPEPAVYQLKDPRSQDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKNGAIAWSNQTSTFC
QDIFKETNACYPPSSDVPDATLLEKSFETDMNLFQNLVSMGLRILLKLVAGFNLLMTLRLWSSRAKRG
GATNFSLLKQAGDVEENPGPMGIRLLCRVAFCLAVGLVDVKVTQSSRYLVKRTGEKVFLECVQDMDHEN
MFWYRQDPGLGLRLIYFSYDVKMKEKGDIPGYSVSREKKERFSLILESASTNQTSMYLCASSLWGRKNT
EAFFGQGRTLTVVEDLRNVTTPKVSLFEPKAEIANQKATLVCLARGFFPDHVELSWVWNGKEVHSGVS
TDPQAYKESNYSYCLSSRLRVCATFWHNPRNHFRCVQVFHGLSEEDKWPEGSPKPVTONISAEAWGRADC
GITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVKRKNSRAKRGSGEGRGSLLTCGDVEENPG

PMYRMQLLSICIALSLALVTNSQVQLVQSGAEVKKPGASVKVSKASGYTFNYYMYWVRQAPGQGLEWIG
GINPSNGGTNFNEKFKNKATMTVDKSTSTAYMELSSLRSEDTAVYYCTRRDYNVDGGFDYWGQGLTVTS
SGGGSGGGSGGGSDIVLTQSPATLSLSPGERATLSCRASKSVSTSGFNMYHWYQQKPGQAPRLLIFL
ASNLASGVPARFSGSGSGTDFTLTITSSLEPEDFAVYYCQHGRELPLTFGQGTKLEI

E202 TCR + anti-PD1 nucleic acid sequence**(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL)****(SEQ ID NO: 25)**

ATGGCATGCCAGGCTTCTCTGGGCCCTCGTAATCAGCACCTGTCTTGAATTTCTATGGCACAACTG
TAACTCAGTCACAGCCCAGATGAGCGTACAGGAAGCTGAAACCGTAACCTTGTCTGTACCTATGACAC
GAGCGAAAGTGACTACTACCTCTTCTGGTACAAGCAGCCGCCGAGCAGACAAATGATACTCGTGATCCGG
CAGGAAGCCTACAAGCAACAAAATGCGACCGAGAACAGGTTTCAGCGTCAATTTCCAAAAGGCTGCTAAGA
GTTTCTCTTTGAAAATCAGTGACTCACAGCTCGGGGACGCCGCAATGTACTTTTGCCTTATCGGGATAG
TCGCGGTTCAACCTTGGAAAGACTCTATTTTGGCAGAGGGACACAACTCACCGTGTGGCCTGACATCCAG
AATCCAGAGCCAGCCGTGTACCAGCTGAAGGACCTAGGAGCCAGGACTCTACCTCTGCCTGTTCACCG
ACTTCGACAGCCAGATCAACGTGCCAAGACAATGGAGAGCGGCACCTTCATCACCGACAAGACCGTGCT
GGACATGAAGGCTATGGACAGCAAGAGCAACGGAGCCATCGCTTGGAGCAACCAGACCAGCTTCACTTGC
CAGGACATCTTCAAGGAGACCAACGCTTGCTACCCCTCTAGCGACGTGCCTTGCGACGCCACACTGACAG
AGAAGAGCTTCGAGACCGACATGAACCTGAACCTCCAGAACCTGAGCGTGATGGGCCTGAGAATCCTGCT
GCTGAAGGTGGCCGATTCAACCTGCTGATGACCTGAGGCTGTGGTCTTCCCGAGCTAAACGAGGCTCA
GGCGCGACGAACCTTGTGCTGAAGCAAGCTGGGGATGTAGAGGAAAATCCGGGTCCCATGGGTATCC
GCCTTTTGTGCCGGGTAGCTTTTTGTTTTTTGGCAGTGGGCCTTGTAGACGTGAAGGTCACTCAGTCTAG
TAGATACTTGGTCAAAAGAACGGGTGAAAAGTCTTTCTTGAATGCGTCCAAGACATGGATCACGAGAAT
ATGTTCTGGTATAGGCAGGATCCGGGCCTCGGTCTGAGGCTCATATACTTTAGTTATGACGTAAAAATGA
AAGAGAAAGGCGATATTCCTGAAGGGTACTCAGTGTCCAGAGAGAAAAAGAGAGGTTTCAGCCTTATTCT
GGAGTCAGCGTCTACGAACCAGACTTCAATGTATCTGTGTGCTAGTTTCTTGTGGGCGAGAAAAAACACT
GAGGCCTTCTTCGGTCAAGGTACCAGACTTACAGTAGTGGAGGACCTACGTAACGTGACCCCTCCCAAGG
TGTCCCTGTTTCGAGCCTAGCAAGGCCGAGATCGCCAACAAGCAGAAGGCCACACTCGTCTGCCTGGCTAG
AGGCTTCTTCCAGACCAGTGGAGCTGTCTTGGTGGGTGAACGGCAAGGAGGTGCACTCAGGAGTGTCT
ACCGACCTCAGGCCTACAAGGAGAGCAACTACAGCTACTGCCTGTCCTCCAGACTCAGGGTCTGCGCCA
CCTTTTGGCACAACCTCGGAACCACTTCCGCTGTGAGGTCCAGTTCACGGCCTGTCCGAGGAAGACAA
GTGGCCAGAGGGCTCTCCTAAGCCAGTGACACAGAACATCAGCGCCGAGGCTTGGGGAAGAGCCGATTGC
GGAATCACCGCGCCTCTTACCAGCAGGGAGTGTCTGTGAGCTACCATCCTGTACGAGATCCTGCTGGGCA
AGGCCACACTGTACGCAGTGTGCTGGTGTCCACTCTGGTCTGTGATGGCTATGGTGAAGCGGAAGAACAGCAG
AGCCAAGCGGGGCTCTGGCGAGGGCAGAGGCTCTCTGCTGACCTGCGGAGATGTGGAAGAAAATCCCGGC
CCTATGTACAGAAATGCAGCTGTTGTCTTGTATTGCCCTTTCTCTCGCCCTCGTAACAAATTCACAAGTCC
AGCTTGTACAAAGCGGTGCCGAAGTGAAAAAACGGGCGCAAGCGTCAAGGTTTCATGCAAGGCGAGTGG
ATACACCTTTACCAACTATTACATGTACTGGGTGCGGACGGCACCCGGGCGAGGACTGGAATGGATCGGT
GGTATTAACCCAAGTAATGGTGGTACAAATTTCAACGAAAAGTTTAAGAACAAAGCGACGATGACAGTAG
ACAAATCTACAAGTACCGCATACATGGAGCTGAGCTCACTGAGATCTGAGGACACCCGAGTCTATTACTG
CACACGGCGAGATTACAATTACGATGGAGGGTTCGACTACTGGGGCCAAGGGACTTTGGTGAAGTGTATCC
TCCGGCGGGCGAGGGTCAGGTGGAGGAGGAAGCGGTGGAGGAGGTAGTGACATCGTCTTACGCAAAGCC
CGGCGACCTCAGTTTGAAGCCCTGGGGAAAGAGCAACGCTGTCTTGTAGAGCATCCAAATCAGTCTCAAC
TTCTGGTTTTAATTACATGCACTGGTATCAACAGAGCCAGGACAAGCACCTAGATTGCTGATCTTTCTG
GCGTCAAATCTGGCCTCTGGCGTTCCAGCCCGGTTTAGCGGTTCTGGAAGCGGAACGGACTTTACCCTTA
CCATATCATCACTCGAACCAGAGGACTTTGGGTATATTACTGCCAACATGGACGGGAGCTGCCCTTGAC
GTTTGGTCAAGGAACGAAGTTGGAGATA

Nucleic acid sequence of full-length vector sequence of E202 TCR (SEQ ID NO: 26)

TGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATT
ACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACG
AAAACCTCACGTAAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTA
AAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATC
AGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAGA
TAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACC
GGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTA
TCCGCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGC
GCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATTACGCTC
CGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGT
CCTCCGATCGTTGTGCAAGTAAGTTGGCCGAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATT
CTCTTACTGTCTATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGA
ATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGCAGA
ACTTTAAAAGTGCTCATCATTGGAACCGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTGA
GATCCAGTTCGATGTAACCCACTCGTGACCCAACTGATCTTCAGCATCTTTTACTTTCACCAGCGTTTC
TGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATA
CTCATACTCTTCCTTTTCAATATTATTGAAGCATTATCAGGGTTATTGTCTCATGAGCGGATACATAT
TTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGT
CTAAGAAACCATTATTATCATGACATTAACCTATAAAAAATAGGCGTATCACGAGGCCCTTTCGTCTCGCG
CGTTTCGGTGATGACGGTGAAAACCTCTGACACATGCAGCTCCCGGAGACGGTCACAGCTGTCTGCTAAG
CGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTACGCGGGTGTTGGCGGGTGTCGGGGCTGGCTTAA
CTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCGGTGTGAAATACCGCACAGATGCGTA
AGGAGAAAATACCGCATCAGGCGCCATTTCGCCATTAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGC
GGGCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAAGTTGGGTAACGCC
AGGGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGAATTAGTACTCTAGCTTAAGTAACGCCAT
TTTGCAAGGCATGGAATAACATAACTGAGAATAGAGAAGTTCAGATCAAGGTTAGGAACAGAGAGACAG
CAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCTGCCCCGGCTCAGGGCCAAGAACAGTTGG
AACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCTGCCCCGGCTCAGGGCCAAGAACA
GATGGTCCCCAGATGCGGTCCCGCCCTCAGCAGTTTCTAGAGAACCATCAGATGTTTCCAGGGTGCCCCA
AGGACCTGAAATGACCTGTGCCTTATTTGAACTAACCAATCAGTTCGCTTCTCGCTTCTGTTTCGCGCGC
TTCTGTCTCCCCGAGCTCAATAAAAGAGCCCAACCCCTCACTCGGCGCGCCAGTCTCCGATAGACTGC
GTCGCCCCGGGTACCCGTATTCCCAATAAAGCCTCTTGCTGTTTGCATCCGAATCGTGGACTCGCTGATCC
TTGGGAGGGTCTCCTCAGATTGATTGACTGCCACCTCGGGGGTCTTTTCAATTGGAGGTTCCACCGAGAT
TTGGAGACCCCTGCCAGGGACCACCGACCCCCCGCGGGGAGGTAAGCTGGCCAGCGGTGCTTTTCGTGT
CTGTCTCTGTCTTTGTGCGTGTGTTGTGCCGGCATCTAATGTTTGCGCCTGCGTCTGTACTAGTTGGCTAA
CTAGATCTGTATCTGGCGGTCCCGCGGAAGAACTGACGAGTTTCGTATTCCCGGCCGAGCCCCCTGGGAGA
CGTCCCAGCGGCTCGGGGGCCCGTTTTGTGGCCCATCTGTATCAGTTAACCTACCCGAGTCGGACTTT
TTGGAGCTCCGCCACTGTCCGAGGGGTACGTGGCTTTGTTGGGGGACGAGAGACAGACACTTCCCGCC
CCCGTCTGAATTTTTGCTTTCGGTTTTACGCCGAAACCGCGCCGCGCGTCTTGCTGTCTGCAGCATCGTT
CTGTGTTGTCTCTGTCTGACTGTGTTTCTGTATTTGTCTGAAAATTAGCTCGACAAAGTTAAGTAATAGT
CCCTCTCTCCAAGCTCACTTACAGGCGGCCGCGCCACCATGGCATGCCAGGCTTTCTCTGGGCCCTCGT
AATCAGCACCTGTCTTGAATTTTCTATGGCACAACTGTAACCTAGTCACAGCCGAGATGAGCGTACAG
GAAGCTGAAACCGTAACCTTGTCATGTACCTATGACACGAGCGAAAGTGACTACTACCTCTTCTGGTACA
AGCAGCCGCCGAGCAGACAAATGATACTCGTGATCCGCGAGGAAGCCTACAAGCAACAAAATGCGACCGA
GAACAGGTTACGCGTCAATTTCCAAAAGGCTGCTAAGAGTTTCTCTTTGAAAATCAGTGACTCACAGCTC

GGGGACGCCGCAATGTACTTTTGGCGTTATCGGGATAGTCGCGGTTCAACCCTTGGAAGACTCTATTTTG
GCAGAGGGACACAACCTACCGTGTGGCCTGACATCCAGAATCCAGAGCCAGCCGTGTACCAGCTGAAGGA
CCCTAGGAGCCAGGACTCTACCCCTCTGCCTGTTACCGACTTCGACAGCCAGATCAACGTGCCCAAGACA
ATGGAGAGCGGCACCTTCATCACCGACAAGACCGTGCTGGACATGAAGGCTATGGACAGCAAGAGCAACG
GAGCCATCGCTTGGAGCAACCAGACCAGCTTCACCTGCCAGGACATCTTCAAGGAGACCAACGCTTGCTA
CCCCCTCTAGCGACGTGCCTTGGCAGGCCACACTGACAGAGAAGAGCTTCGAGACCGACATGAACCTGAAC
TTCCAGAACCTGAGCGTGATGGGCCTGAGAATCCTGCTGCTGAAGGTGGCCGGATTCAACCTGCTGATGA
CCCTGAGGCTGTGGTCTTCCCGAGCTAAACGAGGCTCAGGCGCGACGAACCTTTAGTTTGTCTGAAGCAAGC
TGGGGATGTAGAGGAAAAATCCGGGTCCCATGGGTATCCGCCCTTTTGTGCCGGGTAGCTTTTGTTTTTTG
GCAGTGGGCCTTGTAGACGTGAAGGTCAGTCTAGTAGATACTTGGTCAAAAAGAACGGGTGAAAAGG
TCTTTCTTGAATGCGTCCAAGACATGGATCACGAGAATATGTTCTGGTATAGGCAGGATCCGGGCCTCGG
TCTGAGGCTCATATACTTTAGTTATGACGTAAAAATGAAAAGAGAAAGGCGATATTCTGAAGGGTACTCA
GTGTCCAGAGAGAAAAAGAGAGGTTTACGCTTATTCTGGAGTCAGCGTCTACGAACCAGACTTCAATGT
ATCTGTGTGCTAGTTCCCTTGTGGGGCAGAAAAACACTGAGGCCTTCTTCGGTCAAGGTACCAGACTTAC
AGTAGTGGAGGACCTACGTAACGTGACCCCTCCCAAGGTGTCCCTGTTTCGAGCCTAGCAAGGCCGAGATC
GCCAACAAGCAGAAGGCCACACTCGTCTGCCTGGCTAGAGGCTTCTTCCCAGACCACGTGGAGCTGTCTT
GGTGGGTGAACGGCAAGGAGGTGCACTCAGGAGTGTCTACCGACCTCAGGCCTACAAGGAGAGCAACTA
CAGCTACTGCCTGTCTCCAGACTCAGGGTCTGCGCCACCTTTTGGCACAACCCTCGGAACCCTTCCGC
TGTCAGGTCCAGTTCCACGGCCTGTCCGAGGAAGACAAGTGGCCAGAGGGCTCTCCTAAGCCAGTGACAC
AGAACATCAGCGCCGAGGCTTGGGGAAGAGCCGATTGCGGAATCACCAGCGCCTCTTACCAGCAGGGAGT
GCTGTACAGCTACCATCCTGTACGAGATCCTGCTGGGCAAGGCCACACTGTACGCAGTGCTGGTGTCCACT
CTGGTCTGTATGGCTATGGTGAAGCGGAAGAACAGCTAGGAATTCGAGCATCTTACCGCCATTTATTCCC
ATATTTGTTCTGTTTTTCTTGATTTGGGTATACATTTAAATGTTAATAAAACAAAATGGTGGGGCAATCA
TTTACATTTTATGGGATATGTAATTACTAGTTACAGGTGATTGCCACAAGACAAACATGTTAAGAACTT
TCCCGTTATTTACGCTCTGTTCTGTAAATCAACCTCTGGATTACAAAATTTGTGAAAGATTGACTGATA
TTCTTAACTATGTTGCTCCTTTTACGCTGTGTGGATATGCTGCTTTAATGCCTCTGTATCATGCTATTGC
TTCCCGTACGGCTTTTCGTTTTCTCCTCCTTGTATAAATCCTGGTTGCTGTCTCTTTATGAGGAGTTGTGG
CCCGTTGTCCGTCAACGTGGCGTGGTGTGCTCTGTGTTTGTGCTGACGCAACCCCACTGGCTGGGGCATTG
CCACCACCTGTCAACTCCTTTCTGGGACTTTTCGTTTCCCCCTCCCGATCGCCACGGCAGAACTCATCGC
CGCCTGCCTTGCCCGCTGCTGGACAGGGGCTAGGTTGCTGGGCACTGATAATTCCGTGGTGTGTGCGGG
AAGCTCAGTCTCTTTCCATGGCTGCTCGCCTGTGTTGCCAACTGGATCCTGCGCGGGACGTCCTTCTGCT
ACGTCCTCTCGGCTCTCAATCCAGCGGACCTCCCTTCCCGAGGCTTCTGCCGTTCTGCGGCTCTCCC
GCGTCTTCGCTTTTCGGCTCCGACGAGTCGGATCTCCCTTTGGGCCGCTCCCGCCTGTTTTCGCTCGG
CGTCCGGTCCGTGTTGCTTGGTCTGTACCTGTGCAGAATTGCGAACCATGGATTCCACCGTGAACCTTGT
CTCCTGGCATGCAAATCGTCAACTTGGCATGCCAAGAATAATTCCGATCCAAGCTTAGGCCTGCTCGCTT
TCTTGCTGTCCCATTTCTATTAAAGGTTCTTTGTTCCCTAAGTCCAACCTACTAACTGGGGGATATTAT
GAAGGGCCTTGAGCATCTGGATTCTGCCTAGCGCTAAGCTTAACACGAGCCATAGATAGAATAAAAGATT
TTATTTAGTCTCCAGAAAAAGGGGGGAATGAAAGACCCACCTGTAGGTTTGGCAAGCTAGCTTAAGTAA
CGCCATTTTGCAAGGCATGGAAAATACATAACTGAGAATAGAGAAGTTTCAGATCAAGGTTAGGAACAGAG
AGACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCTTCCCCGGCTCAGGGCCAAGAAC
AGTTGGAACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCTTCCCCGGCTCAGGGCCA
AGAACAGATGGTCCCAGATGCGGTCCCGCCCTCAGCAGTTTCTAGAGAACCATCAGATGTTTCCAGGGT
GCCCCAAGGACCTGAAATGACCTGTGCCTTATTTGAACTAACCAATCAGTTGCTTCTCGCTTCTGTTT
GCGCGCTTCTGCTCCCCGAGCTCAATAAAAGAGCCACAACCCCTCACTCGGCGCGCCAGTCCCTCCGATA
GACTGCGTCGCCCCGGGTACCCGTGTTCTCAATAAACCTCTTGCAGTTGCATCCGACTCGTGGTCTCGCT
GTTCTTGGGAGGGTCTCCTCTGAGTGATTGACTGCCCACCTCGGGGGTCTTTTATTCTCGAGCAGCTTG
GCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCGCTCACAATTTCCACACAACATACGAG
CCGGAAGCATAAAGTGTAAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTC

ACTGCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGA
GGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCGGCTGC
GGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAA
GAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTCCAT
AGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGAC
TATAAAGATAACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTAC
CGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTC
AGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGCG
CCTTATCCGGTAACCTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCAC
TGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTAC
GGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGT

Variable region of the alpha chain of E203 TCR (SEQ ID NO: 45)

LAKTTQPI SMDSYEGQEVNITCSHNNIATNDYITWYQQFPSQGPRFIIQGYKTKVTNEVASLFI PADRK
STLSLPRVSLSDTAVYYCLALSMDSSYKLIFGSGTRLLVRP

Variable region of the beta chain of E203 TCR (SEQ ID NO: 46)

DAGVIQSPRHEVTEMGQEVTLRCKPISGHDYLFWYRQTMMRGLELLIYFNNNVPIDDSGMPEDR
FSAKMPNASFSTLKIQPSEPRDSAVYFCASSLAQRSAPAEAFFGQGTRLTVV

Variable region of the alpha chain of E204 TCR (SEQ ID NO: 47)

LAKTTQPI SMDSYEGQEVNITCSHNNIATNDYITWYQQFPSQGPRFIIQGYKTKVTNEVASLFI
PADRKSTLSLPRVSLSDTAVYYCLVGDGNMVLQTSSSLELALCLLSSQ

Variable region of the beta chain of E204 TCR (SEQ ID NO: 48)

DAGVIQSPRHEVTEMGQEVTLRCKPISGHDYLFWYRQTMMRGLELLIYFNNNVPIDDSGMPEDR
FSAKMPNASFSTLKIQPSEPRDSAVYFCASSLAQRSAPAEAFFGQGTRLTVV

Variable region of the alpha chain of E205 TCR (SEQ ID NO: 49)

TQLEQSPQFLSIQEGENLTVYCNSSSVFSSLQWYRQEPGEGPVLLVTVVTGGEVKKLKRITFQ
FGDARKDSSLHITAAQPGDTGLYLCAGVSARLMFGDGTQLVVKP

Variable region of the beta chain of E205 TCR (SEQ ID NO: 50)

SAVISQKPSRDICQRGTSLTIIQCQVDSQVTMMFWYRQQPGQSLTLIATANQGSEATYESGFVID
KFPISRPNLTFSTLTVSNMSPEDSSIYLCSAVGGPKVPGAEAFFGQGTRLTVV

Amino acid sequence of full-length alpha chain of E203 TCR (SEQ ID NO: 51)

LAKTTPISMDSYEGQEVNITCSHNNIATNDYITWYQQFPSQGPRFIIQGYKTKVTNEVASLFI PADRKSTLSLPRVSLSDTAVYYCLALSMDSSYKLIFGSGTRLVLRPDIQNPEPAVYQLKDPRSQDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKSNGAIAWSNQTSFTCQDIFKETNACYPSSDVPCDATLTEKSFETDMNLFQNLSVMGLRILLKLVAGFNLLMTLRLWSS

Amino acid sequence of full-length beta chain of E203 TCR (SEQ ID NO: 52)

DAGVIQSPRHEVTEMGQEVTLRCKPISGHDYLFWYRQTMMRGLELLIYFNNNVPIDDSGMPEDRFSKMPNASFSTLKIQPSEPRDSAVYFCASSLAQRSAPAEFFGQGTRLTVVEDLRNVTTPKVSLFEP SKAEIANKQKATLVCLARGFFPDHVELSWVNGKEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHRCQVQFHGLSEEDKWPEGSPKPVTONISAEAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVVRKNS

Amino acid sequence of full-length alpha chain of E204 TCR (SEQ ID NO: 53)

LAKTTPISMDSYEGQEVNITCSHNNIATNDYITWYQQFPSQGPRFIIQGYKTKVTNEVASLFI PADRKSTLSLPRVSLSDTAVYYCLVGDGNMVLQTSSSLELALCLLSSQDIQNPEPAVYQLKDPRSQDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKSNGAIAWSNQTSFTCQDIFKETNACYPSSDVPCDATLT EKS FETDMNLFQNLSVMGLRILLKLVAGFNLLMTLRLWSS

Amino acid sequence of full-length beta chain of E204 TCR (SEQ ID NO: 54)

DAGVIQSPRHEVTEMGQEVTLRCKPISGHDYLFWYRQTMMRGLELLIYFNNNVPIDDSGMPEDRFSKMPNASFSTLKIQPSEPRDSAVYFCASSLAQRSAPAEFFGQGTRLTVVEDLRNVTTPKVSLFEP SKAEIANKQKATLVCLARGFFPDHVELSWVNGKEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHRCQVQFHGLSEEDKWPEGSPKPVTONISAEAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVVRKNS

Amino acid sequence of full-length alpha chain of E205 TCR (SEQ ID NO: 55)

TQLLEQSPQFLSIQEGENLTVYCNSSSVFSSLQWYRQEPGEGPVLLVTVVTGGEVKKLRKLTQFGDARKDSSLHITAAQPGDTGLYLCAGVSARLMFGDGTQLVVKPDIQNPEPAVYQLKDPRSQDSTLCLFTDFDSQI NVPKTMESGTFITDKTVLDMKAMDSKSNGAIAWSNQTSFTCQDIFKETNACYPSSDVPCDATLTEKSFETDMNLFQNLSVMGLRILLKLVAGFNLLMTLRLWSS

Amino acid sequence of full-length beta chain of E205 TCR (SEQ ID NO: 56)

SAVISQKPSRDICQRGTSLTIQCVDSQVTMMFWYRQQPGQSLTLIATANQGSEATYESGFVIDKFPISR
PNLTFSTLTVSNMSPEDSSIIYLC SAVGGPKVPGAEAFFGQGTRLTVVEDLRNVT PPKVSLFEP SKAEIAN
KQKATLVCLARGFFPDHVELSWVNGKEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHFRCQ
VQFHGLSEEDKWPEGSPKPVTONISAEAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLV
VMAMVKKRNS

Nucleic acid sequence encoding full-length alpha chain of E203 TCR (SEQ ID NO: 57)

CTTGCCAAGACTACACAGCCTATTTCAATGGATAGTTACGAGGGTCAAGAAGTGAATATAACGTGCTCTC
ACAACAACATAGCCACTAACGATTATATTACATGGTATCAGCAGTTCCTGTCCTCAAGGACCCAGGTTTCAT
AATTCAGGGCTACAAAACAAAAGTCACTAATGAAGTCGCGTCCCTGTTTCATACCTGCGGATCGAAAGAGT
TCAACTCTTAGTCTCCCCGAGTCAGTCTGTCCGACACCGCTGTATATTACTGTCTTGCTCTGTCCATGG
ACTCTTCTATAAATTGATTTTCGGCTCTGGCACTCGGCTTCTCGTCCGGCCGgacatccagaatccaga
gccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgcctgttcaccgacttcgac
agccagatcaacgtgcccaagacaatggagagcgccaccttcacaccgacaagaccgtgctggacatga
aggctatggacagcaagagcaacggagccatcgcttgagcaaccagaccagcttcacttgccaggacat
cttcaaggagaccaacgcttgctaccctctagcgagctgccttgcgacgccacactgacagagaagagc
ttcgagaccgacatgaacctgaacttcagaacctgagcgatgggcctgagaatcctgctgctgaagg
tggcgggattcaacctgctgatgacctgaggctgtggtcttcc

Nucleic acid sequence encoding full-length beta chain of E203 TCR (SEQ ID NO: 58)

GACGCCGGTGTTATTTCAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTA
AACCCATATCAGGGCATGATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCAT
TTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCT
AATGCGAGCTTCTCACTCTGAAAATTCAACCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAA
GCTCACTGGCACAGCGATCCGCCCCGTAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTCgagga
cctacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcag
aaggccacactcgtctgcctggctagaggcttcttcccagaccagtgagctgtcttggtgggtgaacg
gcaaggaggtgcaactcaggagtgctaccgacctcaggcctacaaggagagcaactacagctactgcct
gtcctccagactcagggctctgcgccaccttttggcacaacctcggaaccacttccgctgtcaggtccag
ttccacggcctgtccgaggaagacaagtgccagagggctctcctaagccagtgcacagaaacatcagcg
ccgaggcttggggaagagccgattgcggaatcaccagcgccctcttaccagcaggagtgctgtcagctac
catcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctggtgtccactctggtcgtgatg
gctatggtgaagcggaagaacagc

Nucleic acid sequence encoding full-length alpha chain of E204 TCR (SEQ ID NO: 59)

CTGGCGAAAACGACACAACCTATCTCTATGGATAGTTACGAGGGCCAAGAGGTCAACATAACCTGTTCCC
ACAACAATATAGCCACCAATGATTACATTACATGGTATCAACAATTTCCCTCCCAAGGCCCCCGATTTCAT

TATACAGGGTTATAAAACGAAGGTGACAAATGAGGTAGCGAGTCTGTTTCATTCCAGCGGATCGAAAATCC
AGTACGCTCTCCTTGCCCCGCGTGTCTTGTCCGATACCGCTGTGTACTACTGCCTCGTTGGAGACGGGA
ATATGGTGGTACTCCAGACCAGTTCTAGTCTTGAGCTTGCTTTGTGTCTTCTTTCCAGCCAGgacatcca
gaatccagagccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgcctgttcacc
gacttcgacagccagatcaacgtgcccagacaatggagagcggcaccttcatcaccgacaagaccgtgc
tggacatgaaggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttg
ccaggacatcttcaaggagaccaacgcttgctaccctctagcgacgtgccttgcgacgccacactgaca
gagaagagcttcgagaccgacatgaacctgaacttcagaacctgagcgtgatgggcctgagaatcctgc
tgctgaagggtggccgattcaacctgctgatgacctgaggtgaggtgtggtcttcc

Nucleic acid sequence encoding full-length beta chain of E204 TCR (SEQ ID NO: 60)

GACGCCGGTGTATTATTCAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTA
AACCCATATCAGGGCATGATTATCTTCTTGTGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCAT
TTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCT
AATGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAA
GCTCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTCgagga
cctacgtaacgtgaccctcccaagggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcag
aaggccacactcgtctgcctggctagaggcttcttcccagaccacgtggagctgtcttgggtgggtgaacg
gcaaggaggtgcactcaggagtgctaccgaccctcaggcctacaaggagagcaactacagctactgcct
gtcctccagactcagggtctgcgccaccttttggcacaacctcggaaccacttccgctgtcagggtccag
ttccacggcctgtccgaggaagacaagtggccagagggtctcctaagccagtgcacagaaacatcagcg
ccgaggcttggggaagaccgattgcggaatcaccagcgctcttaccagcaggagtgctgtcagctac
catcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctggtgtccactctggtcgtgatg
gctatggtgaagcggaagaacagc

Nucleic acid sequence encoding full-length alpha chain of E205 TCR (SEQ ID NO: 61)

ACTCAACTGCTTGAACAAAGCCCTCAGTTCTTGTCTATCCAGGAGGGTGAGAATCTTACAGTGTATTGTA
ACAGCAGCTCCGTGTTTTCTCACTGCAATGGTACCGACAAGAACCAGGTGAGGGACCAGTACTCTTGGT
TACGGTGGTAACCGCGGGGAAGTAAAAAACTTAAACGCCTCACCTTTCAATTTGGAGATGCCAGAAAG
GACAGCAGTCTTACATTACAGCCGCGCAACCAGGAGATACTGGCCTCTATCTTTGCGCAGGCGTAAGCG
CCCGGCTGATGTTTGGTGACGGGACACAACCTGTAGTAAAGCCGgacatccagaatccagagccagccgt
gtaccagctgaaggaccctaggagccaggactctaccctctgcctgttcaccgacttcgacagccagatc
aacgtgcccagacaatggagagcggcaccttcatcaccgacaagaccgtgctggacatgaaggctatgg
acagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttgccaggacatcttcaagga
gaccaacgcttgctaccctctagcgacgtgccttgcgacgccacactgacagagaagagcttcgagacc
gacatgaacctgaacttcagaacctgagcgtgatgggcctgagaatcctgctgctgaagggtggccggat
tcaacctgctgatgacctgaggtgtggtcttcc

Nucleic acid sequence encoding full-length beta chain of E205 TCR (SEQ ID NO: 62)

TCCGCCGTGATTTACAGAAGCCGTCCAGAGACATCTGCCAACGAGGAACGTCTCTTACAATACAGTGCC
AAGTCGATTCCCAAGTAACGATGATGTTTTGGTACAGACAGCAGCCAGGACAGTCACTGACGCTCATAGC
TACCGCGAATCAAGGTAGTGAAGCCACCTATGAGTCCGGGTTTCGTTATAGATAAGTTCCTATCTCTCGC
CCCAATCTTACATTTAGCACGTTGACAGTTTCAAACATGTCCCCGAAGATAGCAGTATCTACCTTTGTA
GTGCTGTAGGTGGGCCAAAAGTCCCCGGTGCTGAAGCGTTTTTTGGGCAAGGAACCCGATTGACCGTAGT
Ggaggacctacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaac
aagcagaaggccacactcgtctgctggctagaggcttcttcccagaccacgtggagctgtcttggtggg
tgaacggcaaggaggtgactcaggagtgctaccgaccctcaggcctacaaggagagcaactacagcta
ctgctgtcctccagactcagggtctgcgccaccttttggcacaaccctcggaaccacttccgctgtcag
gtccagttccacggcctgtccgaggaagacaagtggccagagggtctcctaagccagtgcacagaca
tcagcgccgaggttggggaagagccgattgcggaatcaccagcgccctctaccagcagggagtgctgtc
agctaccatcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctggtgtccactctggtc
gtgatggctatggtgaagcggaagaacagc

Nucleic acid sequence encoding full-length E203 TCR (SEQ ID NO: 63)

ATGGCAACTGGTTCAAGAACCTCACTTTTGCTTGCATTTCGGCCTGCTTTGCCTCCCGTGGCTGCAAGAAG
CCTCTGCTCTTGCCAAGACTACACAGCCTATTTCAATGGATAGTTACGAGGGTCAAGAAGTGAATATAAC
GTGCTCTCACAAACATAGCCACTAACGATTATATTACATGGTATCAGCAGTTCCTCGTCCCAAGGACCC
AGGTTTCATAATTCAGGGCTACAAAACAAAAGTCACTAATGAAGTCGCGTCCCTGTTTCATACCTGCGGATC
GAAAGAGTTCAACTCTTAGTCTCCCCCGAGTCAGTCTGTCCGACACCGCTGTATATTACTGTCTTGCTCT
GTCCATGGACTCTTCTATAAATTGATTTTCGGCTCTGGCACTCGGCTTCTCGTCCGGCCGgacatccag
aatccagagccagccgtgtaccagctgaaggacctaggagccaggactctacctctgctgttcaccg
acttcgacagccagatcaacgtgcccagacaatggagagcggcaccttcaccgacaagaccgtgct
ggacatgaaggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttgc
caggacatcttcaaggagaccaacgcttgctacctcttagcgacgtgccttgcgacgccacactgacag
agaagagcttcgagaccgacatgaacctgaactccagaacctgagcgtgatgggcctgagaatcctgct
gctgaagggtggccgattcaacctgctgatgacctgaggctgtggtcttcccagcgtaaacgagggtca
ggcgcgacgaactttagtttgcgaagcaagctggggtatgtagaggaaaatccgggtcccATGGCTACCG
GCTCTCGAACCAGTTTGCTCTTGCGTTTGGGCTGTTGTGTCTTCTTGCTCTCAAGAGGGGAGTGCCGA
CGCCGGTGTTATTCAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTAAA
CCCATATCAGGGCATGATTATCTTCTTGTGACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCATTT
ACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCTAA
TGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAAGC
TCACTGGCACAGCGATCCGCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTCgaggacc
tacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcagaa
ggccacactcgtctgctggctagaggcttcttcccagaccacgtggagctgtcttggtgggtgaacggc
aaggaggtgactcaggagtgctaccgaccctcaggcctacaaggagagcaactacagctactgcctgt
cctccagactcagggtctgcgccaccttttggcacaaccctcggaaccacttccgctgtcaggtccagtt
ccacggcctgtccgaggaagacaagtggccagagggtctcctaagccagtgcacagaaacatcagcgcc
gaggcttggggaagagccgattgcggaatcaccagcgccctctaccagcagggagtgctgtcagctacca
tcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctggtgtccactctggctgatggc
tatggtgaagcggaagaacagc

Nucleic acid sequence encoding full-length E204 TCR (SEQ ID NO: 64)

ATGGCGACAGGATCTAGGACTTCCCTCCTCCTTGCCATTCGGGCTCTTGTGCTTGCCGTGGTTGCAGGAAG
CTAGCGCCCTGGCGAAAAACGACACAACCTATCTCTATGGATAGTTACGAGGGCCAAGAGGTCAACATAAC
CTGTTCCCAACAATATAGCCACCAATGATTACATTACATGGTATCAACAATTTCCCTCCCAAGGCCCC
CGATTCAATTATACAGGGTTATAAACGAAGGTGACAAATGAGGTAGCGAGTCTGTTCAATCCAGCGGATC
GAAAATCCAGTACGCTCTCCTTGCCCCGCGTGCTCTGTCCGATACCGCTGTGTACTACTGCCTCGTTGG
AGACGGGAATATGGTGGTACTCCAGACCAGTTCTAGTCTTGAGCTTGCTTTGTGTCTCTTTCCAGCCAG
gacatccagaatccagagccagcgcgtgtaccagctgaaggaccctaggagccaggactctaccctctgcc
tggtcaccgacttcgacagccagatcaacgtgcccagacaatggagagcggcaccttcatcaccgacaa
gaccgtgctggacatgaaggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagc
ttcacttgccaggacatcttcaaggagaccaacgcttgctaccctctagcgacgtgccttgagcagccca
cactgacagagaagagcttcgagaccgacatgaacctgaacttcagaacctgagcgtgatgggcctgag
aatcctgctgctgaaggtggccggattcaacctgctgatgacctgaggctgtggtcttcccagagctaaa
cgaggctcaggcgcgacgaacttttagtttgctgaagcaagctggggatgtagaggaaaatccgggtcccA
TGGCTACCGGCTCTCGAACCAGTTTGCTCTTGGCGTTTGGGCTGTTGTGTCTTCTTGCTCTCAAGAGGG
GAGTGCCGACGCCGGTGTTATTCACTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTG
AGGTGTAAACCCATATCAGGGCATGATTATCTTCTTGGTACAGACAAACCATGATGCGGGGTCTGGAGC
TCCTCATTTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAA
GATGCCTAATGCGAGCTTCTCAACTCTGAAAATTCAACCTCTGAGCCCCGCGACTCCGCTGTTTACTTT
TGTGCAAGCTCACTGGCACAGCGATCCGCCCTGAAGCTTCTTCGGGCAGGGTACCCGATTGACAGTTG
TCgaggacctacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccagatcgccaa
caagcagaaggccacactcgtctgcctggctagaggcttcttcccagaccacgtggagctgtcttggtgg
gtgaacggcaaggaggtgcactcaggagtgctaccgaccctcaggcctacaaggagagcaactacagct
actgcctgtcctccagactcagggtctgcgccaccttttggcacaacctcggaaccacttccgctgtca
ggtccagttccacggcctgtccgaggaagacaagtggccagagggctctcctaagccagtgcacagaaac
atcagcgccgaggcttggggaagagccgattgcggaatcaccagcgccctcttaccagcaggagtgctgt
cagctaccatcctgtacagatcctgctgggcaaggccacactgtacgcagtgctggtgtccaactctggt
cgtgatggctatggtgaagcggaagaacagc

Nucleic acid sequence encoding full-length E205 TCR (SEQ ID NO: 65)

ATGGCTACTGGGTCACGAACAAGTCTTTTGTGGCTTTTGGGCTGCTTTGCTTGCCCTGGCTTCAGGAAG
CTAGCGGACTCAACTGCTTGAACAAAGCCCTCAGTTCTTGTCTATCCAGGAGGGTGAGAATCTTACAGT
GTATTGTAACAGCAGCTCCGTGTTTTCTCTACTGCAATGGTACCGACAAGAACCAGGTGAGGGACCGTA
CTCTTGGTTACGGTGGTAACCGGCGGGGAAGTAAAAAACTTAAACGCCTCACCTTTCAATTTGGAGATG
CCAGAAAGGACAGCAGTCTTCACATTACAGCCGCGCAACCAGGAGATACTGGCCTCTATCTTTGCGCAGG
CGTAAGCGCCCGGCTGATGTTTGGTGACGGGACACAACCTGTAGTAAAGCCGgacatccagaatccagag
ccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgcctgttcaccgacttcgaca
gccagatcaacgtgcccagacaatggagagcggcaccttcatcaccgacaagaccgtgctggacatgaa
ggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttgccaggacatc
ttcaaggagaccaacgcttgctaccctctagcgacgtgccttgcgacgccacactgacagagaagagct
tcgagaccgacatgaacctgaacttcagaacctgagcgtgatgggcctgagaatcctgctgctgaaggt
ggccggattcaacctgctgatgacctgaggctgtggtcttcccagctaaacgaggctcaggcgcgacg
aactttagtttgctgaagcaagctggggatgtagaggaaaatccgggtcccATGGCTACTGGTAGCCGGA
CAAGCCTTCTCCTTGCAATTGGACTTCTCTGTCTCCCGTGCTTCAAGAGGGTAGCGCTCCGCCGTGAT
TTCACAGAAGCCGTCCAGAGACATCTGCCAACGAGGAACGTCTCTTACAATACAGTGCCAAGTCGATTCC
CAAGTAACGATGATGTTTTGGTACAGACAGCAGCAGGACAGTCACTGACGCTCATAGCTACCGCGAATC
AAGGTAGTGAAGCCACCTATGAGTCCGGGTTCTGTATAGATAAGTTCCCTATCTCTGCCCCAATCTTAC

ATTTAGCACGTTGACAGTTTCAAACATGTCCCCGAAGATAGCAGTATCTACCTTTGTAGTGCTGTAGGT
GGGCCAAAAGTCCCCGGTGCTGAAGCGTTTTTTGGGCAAGGAACCCGATTGACCGTAGTGgaggacctac
gtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcagaaggc
cacactcgtctgctggctagaggcttcttcccagaccacgtggagctgtcttggtgggtgaacggcaag
gaggtgcactcaggagtgtctaccgacccctcaggcctacaaggagagcaactacagctactgctgtcct
ccagactcagggtctgcgccaccttttggcacaaccctcggaaccacttccgctgtcaggtccagttcca
cggcctgtccgaggaagacaagtggccagagggtctcctaagccagtgcacacagaacatcagcgccgag
gcttggggaagagccgattgcggaatcaccagcgccctctaccagcaggagtgctgtcagctaccatcc
tgtacgagatcctgctgggcaaggccacactgtacgcagtgctgggtgtccactctggtcgtgatggctat
ggtgaagcggaagaacagc

**Nucleic acid sequence of full-length vector sequence of E203 TCR (SEQ
ID NO: 66)**

tggtagctcttgatccggcaaacaaccacccgctggtagcgggtgggttttttgtttgcaagcag
cagattacgcgcagaaaaaaggatctcaagaagatcctttgatcttttctacggggtctgacg
ctcagtggaacgaaaactcacgttaagggattttggcatgagattatcaaaaaggatcttcac
ctagatccttttaattaaaaatgaagttttaaatcaatctaaagtatatatgagtaaacttgg
tctgacagttaccaatgcttaatcagtgaggcacctatctcagcgatctgtctatttcgttcat
ccatagttgctgactccccgtcgtgtagataactacgatacgggaggggttaccatctggccc
cagtgctgcaatgataccgcgagacccacgctcaccgggtccagatttatcagcaataaaccag
ccagccggaagggccgagcgcagaagtggtcctgcaactttatccgcctccatccagctctatta
attgttgccgggaagctagagtaagtagttcgccagttaatagtttgcgcaacggtgttgccat
tgctacaggcatcgtgggtgtcacgctcgtcgtttggtagtggttcattcagctccgggtcccaa
cgatcaaggcgagttacatgatcccccattgtgtgcaaaaaagcgggttagctccttcgggtcctc
cgatcgttgctcagaagtaagttggccgcagtggttatcactcatggttatggcagcactgcataa
ttctcttactgtcatgccatccgtaagatgcttttctgtgactgggtgagtactcaaccaagtca
ttctgagaatagtgtatgcggcgaccgagttgctcttgccggcggtcaatacgggataataaccg
cgccacatagcagaactttaaaagtgtcatcattggaaaacgttcttcggggcgaaaactctc
aaggatcttaccgctgttgagatccagttcgatgtaaccactcgtgcacccaactgatcttca
gcatcttttactttcaccagcggttctgggtgagcaaaaacaggaaggcaaaatgccgcaaaaa
aggaataagggcgacacggaaatgttgaatactcatactcttcctttttcaatattattgaag
catttatcagggttattgtctcatgagcggatataatattgaatgtatttagaaaaataaaca
ataggggttccgcgcacatttccccgaaaagtgccacctgacgtctaagaaaccattattatca
tgacattaacctataaaaaataggcggtatcacgaggccctttcgtctcgcgcgtttcgggtgatga
cgggtgaaaacctctgacacatgcagctcccggagacggtcacagcttgtctgtaagcggatgcc
gggagcagacaagccgtcagggcgcggtcagcgggtgttgggcggtgtcggggtcggcttaact
atgcggcatcagagcagattgtactgagagtgaccatatacggtgtgaaataccgcacagatg
cgtaaggagaaaaataccgcacagggcgccattcgccattcaggctgcgcaactgttggggaagg
cgatcgggtgcgggcctcttcgctattacgccagctggcgaaagggggatgtgctgcaaggcgat
taagttgggtaacgccagggttttcccagtcacgacgttgtaaaacgacggccagtgaaatagt
actctagcttaagtaacgccattttgcaaggcatggaaaatacataactgagaatagagaagtt
cagatcaaggttaggaacagagagacagcagaatatgggccaacaggatatctgtggtaagca
gttcctgccccgggtcagggccaagaacagttggaacagcagaatatgggccaacaggatatc

ttgtgtaagcaggttctctgcccggtcagggtccaagaacagatggtccccagatgcggtccgcg
 cctcagcagtttctagagaaccatcagatgtttccagggtgccccaaggacctgaaatgacct
 gtgccttatttgaactaaccaatcagttcgcttctcgcttctgttcgcgcgcttctgctcccc
 agctcaataaaaagagcccacaacccctcactcggcgcgcagtcctccgatagactgcgtgcgc
 cgggtaccgctattcccaataaagcctcttgctgtttgcatccgaatcgtggactcgctgatcc
 ttgggagggtctcctcagattgattgactgccacctcgggggtctttcatttgagggtccac
 cgagatttgagacccctgcccagggaaccaccgaccccccgccgggaggtgaagctggccagcg
 gtcgtttcgtgtctgtctctgtctttgtgcgtgtttgtgccggcatctaatgtttgcgcctgc
 tctgtactagttggctaactagatctgtatctggcgggtccgcgcgaagaactgacgagttcgta
 ttccccggcgcagccctgggagacgtcccagcggcctcgggggcccgttttgtggcccattct
 gtatcagttaacctaccgcagtcggactttttggagctccgccactgtccgaggggtacgtggc
 tttgttgggggacgagagacagagacacttcccgcctcgtctgaatttttgccttcggtttta
 cgccgaaaccgcgcgcgcgtcttgctgtctgcagcatcgttctgtgttgctctgtctgactg
 tgtttctgtatttgcgtgaaaattagctcgacaaagttaagtaatagtcctctctccaagctc
 acttacaggcggcgcgcgcaccATGGCAACTGGTTCAAGAACCTCACTTTTGCTTGCATTTCGGC
 CTGCTTTGCCTCCCGTGGCTGCAAGAAGCCTTGCTCTTGCCAAGACTACACAGCCTATTTCAA
 TGGATAGTTACGAGGGTCAAGAAGTGAATATAACGTGCTCTCACAACAACATAGCCACTAACGA
 TTATATTACATGGTATCAGCAGTTCCCGTCCCAAGGACCCAGGTTCAATAATCAGGGCTACAAA
 AAAAAAGTCACTAATGAAGTCGCGTCCCTGTTTCATACCTGCGGATCGAAAGAGTTCAACTCTTA
 GTCTCCCCCGAGTCAGTCTGTCCGACACCGCTGTATATTACTGTCTTGCTCTGTCCATGGACTC
 TTCCTATAAATTGATTTTCGGCTCTGGCACTCGGCTTCTCGTCCGGCCGgacatccagaatcca
 gagccagccgtgtaccagctgaaggacctaggagccaggactctacctctgcctgttccaccg
 acttcgacagccagatcaacgtgcccaagacaatggagagcggcaccttcatcaccgacaagac
 cgtgctggacatgaaggctatggacagcaagagcaacggagccatcgcttggagcaaccagacc
 agcttcacttgcaggacatcttcaaggagaccaacgcttgctacctctctagcgacgtgcctt
 gcgacgccacactgacagagaagagcttcgagaccgacatgaacctgaacttccagaacctgag
 cgtgatgggcctgagaatcctgctgctgaagggtggccggattcaacctgctgatgacctgagg
 ctgtggtcttcccagctaaacgagggtcaggcgcgcagcaactttagtttgctgaagcaagctg
 gggatgtagaggaaaatcggggtcccATGGCTACCGGCTCTCGAACCAAGTTTGCTCTTGCGT
 TGGGCTGTTGTGTCTTCTTGTCTCCAAGAGGGGAGTGCCGACGCCGGTGTTATTCAGTCCCCA
 CGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTAAACCCATATCAGGGCATG
 ATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCATTTACTTCAACAA
 CAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCAATGCG
 AGCTTCTCAACTCTGAAAATTC AACCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAA
 GCTCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGT
 Cgaggacctacgtaacgtgaccttcccgaaggtgtccctgttcgagcctagcaaggccgagatc
 gccaaacaagcagaaggccacactcgtctgcctggctagaggcttcttcccagaccacgtggagc
 tgtcttgggtgggtgaacggcaaggaggtgcactcaggagtgtctaccgacctcaggcctacaa
 ggagagcaactacagctactgcctgtcctccagactcagggtctgcgccaccttttggcacaac
 cctcggaaccttccgctgtcaggtccagttccacggcctgtccgaggaagacaagtggccag
 agggctctcctaagccagtgacacagaacatcagcgcgcgaggttggggaagagccgattgcgg
 aatcaccagcgcctcttaccagcagggaagtgtgtgcagctaccatcctgtacgagatcctgctg
 ggcaaggccacactgtacgcagtgctgggtgtccactctggctcgtgatggctatggtgaagcggg
 agaacagctaggaattcgagcatcttaccgccatttattcccatatttgttctgtttttcttgc

tttgggtatacattttaaatgttaataaaaacaaaatggtggggcaatcatttacattttatggga
tatgtaattactagttcaggtgtattgccacaagacaaaacatgttaagaaactttcccgttatt
tacgctctgttcctgttaatcaacctctggattacaaaatttgtgaaagattgactgatattct
taactatggtgctccttttacgctgtgtggatatgctgctttaatgcctctgtatcatgctatt
gcttcccgtacggctttcgttttctcctccttgataaaatcctgggtgctgtctctttatgagg
agttgtggcccgttgctcgtcaacgtggcgtggtgtgctctgtgtttgctgacgcaacccccac
tggctggggcattgccaccacctgtcaactcctttctgggactttcgctttccccctcccgatc
gccacggcagaactcatcgccgctgccttgcccgtgctggacaggggctaggttgcgtgggca
ctgataaattcgtggtgttgctgggggaagctgacgtcctttccatggctgctcgctgtgttg
caactggatcctgcgcgggaagctccttctgctacgtccctcggtctcaatccagcggacctc
ccttcccaggaccttctgcgggttctgcggcctctcccgctcttgcgtttcggcctccgacga
gtcggatctccctttgggcgcctccccgcctgtttcgctcggcgtccgggtccgtgttgcttg
gtcgtcacctgtgcagaattgcgaaccatggattccaccgtgaactttgtctcctggcatgcaa
atcgtcaacttggcatgccagaataaattcggtatccaagcttaggcctgctcgctttcttgcgtg
tccattttctattaaaggttcctttgttcctaaagtccaactactaaactgggggatattatga
agggccttgagcatctggattctgcctagcgctaagcttaacacgagccatagatagaataaaa
gattttatttagtctccagaaaaaggggggaatgaaagacccacctgtaggtttggcaagcta
gcttaagtaacgccattttgcaaggcatggaaaatacataactgagaatagagaagttcagatc
aaggttaggaacagagagacagcagaatatgggccaacaggatatctgtggttaagcagttcct
gccccggctcagggccaagaacagttggaacagcagaatatgggccaacaggatatctgtggt
aagcagttcctgccccggctcagggccaagaacagatggtccccagatgcggtcccgcctcag
cagtttctagagaaccatcagatgtttccaggggtgccccaggacctgaaatgacctgtgcct
tatttgaactaaccaatcagttcgcttctcgcttctgttcgcgcgcttctgctccccgagctca
ataaaagagcccacaacccctcactcggcgcgccagtccctccgatagactgcgtcgcccggtta
cccggtttctcaataaacctccttgcagttgcatccgactcgtggtctcgctgttccttgggag
ggctcctctgagtgattgactgccacctcgggggtctttcattctcgagcagcttggcgtaa
tcatggtcatagctgtttcctgtgtgaaattgttatccgctcacaattccacacaacatacagag
ccggaagcataaagtgtaaagcctgggggtgcctaatgagttagctaaactcacattaattgcgtt
gcgtcactgcccgtttccagtcgggaaacctgtcgtgccagctgcattaatgaatcggccaa
cgcgcggggagaggcggtttgcgtattgggcgctcttcgcttctcctcgctcactgactcgctgc
gctcggtcgttcggtgcggcgagcggtatcagctcactcaaaggcggttaatacggttatccac
agaatcaggggataacgcaggaaagaacatgtgagcaaaaggccagcaaaaggccaggaaccgt
aaaaaggccgcttgctggcggtttttccataggctccgccccctgaagagcatcacaaaaatc
gacgctcaagtcagaggtggcgaaacccgacaggactataaagataccaggcggtttccccctgg
aagctccctcgctgcgtctcctgttccgacctgcccgttaccggataacctgtccgcctttctc
ccttcgggaagcgtggcgctttctcatagctcacgctgtaggtatctcagttcggtgtaggtcg
ttcgctccaagctgggctgtgtgcacgaacccccgttcagcccagcgtgcgccttatccgg
taactatcgtcttgagtcacaacccggtaagacacgacttatcgccactggcagcagccactggt
aacaggattagcagagcgaggtatgtaggcggtgctacagagttcttgaagtggcgcctaact
acggctacactagaagaacagtatattggtatctgcgctctgctgaagccagttaccttcggaaa
aagagt

Nucleic acid sequence of full-length vector sequence of E204 TCR (SEQ ID NO: 67)

tggtagctcttgatccggcaaaacaaaccacgctggtagcggtgggtttttttgtttgcaagcagcagatt
acgcgcagaaaaaaaggatctcaagaagatcctttgatctttctacggggtctgacgctcagtggaaacg
aaaactcacgttaagggattttggtcatgagattatcaaaaaggatcttcacctagatccttttaatta
aaaatgaagtttttaaatcaatctaaagtatatatgagtaaacttggctctgacagttaccaatgcttaatc
agtgaggcacctatctcagcgatctgtctatttcgttcatccatagttgcctgactccccgtcgtgtaga
taactacgatacgggagggcttaccatctggccccagtgctgcaatgataccgcgagacccacgctcacc
ggctccagatttatcagcaataaaccagccagccggaaggccgagcgcagaagtggctcctgcaacttta
tccgctccatccagctctattaattgttgccgggaagctagagtaagtagttcgccagttaatagtttgc
gcaacggtgttgccattgctacagggcatcgtggtgtcacgctcgtcgtttggtagtggcttcattcagctc
cggttcccaacgatcaaggcgagttacatgatccccatggtgtgcaaaaaagcggtagctccttcggt
cctccgatcgttgtcagaagtaagttggccgcagtggtatcactcatgggttatggcagcactgcataatt
ctcttactgtcatgccatccgtaagatgcttttctgtgactggtagtactcaaccaagtcatctcgaga
atagtgtatgcggcgaccgagttgctcttgcccggcgctcaatacgggataataccgcgccacatagcaga
actttaaaagtgtcatcattggaaaacggtcttcggggcgaaaaactctcaaggatcttacccgctgttga
gatccagttcgatgtaaccactcgtgcacccaactgatcttcagcatcttttactttcaccagcgtttc
tgggtgagcaaaaacaggaaggcaaaatgccgcaaaaaagggaataaggcgacacggaaatgttgaata
ctcatactcttcttttcaatattattgaagcatttatcaggggtattgtctcatgagcggatacatat
ttgaatgtatttagaaaaataaacaatagggggtccgcgcacatttccccgaaaagtgccacctgacgt
ctaagaaaccattattatcatgacattaacctataaaaaataggcgtatcacgaggcccttcgtctcgcg
cgtttcggtgatgacggtgaaaacctctgacacatgcagctcccgagacggtcacagcttgtctgtaag
cggatgccgggagcagacaagccgctcagggcgcgctcagcgggtgttggcggtgtcggggtgtggcttaa
ctatgcggcatcagagcagattgtactgagagtgacccatatgcgggtgtgaaataccgcacagatgcgta
aggagaaaaataccgcatcaggcgccattcgccattcaggtcgcgcaactgttgggaaggcgcatcggtgc
gggcctcttcgctattacgccagctggcgaaagggggatgtgctgcaaggcgattaagttgggtaacgcc
agggttttcccgatcacgacggtgtaaaacgacggccagtgcaattagtagtcttagcttaagtaacgccat
tttgcaaggcatggaaaatacataaactgagaatagagaagttcagatcaagggttaggaacagagagacag
cagaatatggggccaaacaggatatctgtggtaagcagttcctgccccggctcaggggccaagaacagttgg
aacagcagaatatggggccaaacaggatatctgtggtaagcagttcctgccccggctcaggggccaagaaca
gatgggtcccagatgcggtcccgccctcagcagtttctagagaacctcagatgtttccagggtgccccca
aggacctgaaatgacctgtgccttatttgaactaaccaatcagttcgcttctcgcttctgttcgcgcgc
ttctgtctccccgagctcaataaaagagcccaaacccctcactcggcgcgccagtcctccgatagactgc
gtcgcgccgggtaccgctattcccaataaagcctcttgcgtgtttgcatccgaatcgtggactcgtgatcc
ttgggaggggtctcctcagattgattgactgccacctcgggggtctttcatttgagggtccaccgagat
ttggagacccctgccagggaaccacgaccccccgcgggaggtaagctggccagcggtcgtttcgtgt
ctgtctctgtctttgtgcgtgtttgtgcggcatctaatgtttgcgcctgcgtctgtactagttggctaa
ctagatctgtatctggcggtcccgcggaagaactgacgagttcgtattcccgccgcagccccctgggaga
cgtcccagcggcctcgggggcccgttttgtggccattctgtatcagttaacctacccgagtcggacttt
ttggagctccgccactgtccgaggggtacgtggctttgttgggggacgagagacagagacacttccggcc
cccgctctgaatttttgccttcgggttttacgccgaaaccgcgcgcgcgtcttgtctgctgcagcatcgtt
ctgtgttgcctctgtctgactgtgtttctgtatttgcgtgaaaattagctcgacaaagttaagtaatagt
ccctctctccaagctcacttacaggcgggccgcgcaccATGGCGACAGGATCTAGGACTTCCCTCCTCCT
TGCATTGGGCTCTTGTGCTTGCCGTGGTTGCAGGAAGCTAGCGCCCTGGCGAAAAACGACACAACCTATC
TCTATGGATAGTTACGAGGGCCAAGAGGTCAACATAACCTGTTCCCAACAATATAGCCACCAATGATT
ACATTACATGGTATCAACAATTTCCCTCCCAAGGCCCCGATTCAATTATACAGGGTTATAAAACGAAGGT
GACAAATGAGGTAGCGAGTCTGTTTCATTCCAGCGGATCGAAAAATCCAGTACGCTCTCCTTGCCCCGCGTG

TCCTTGTCGATACCGCTGTGTACTACTGCCTCGTTGGAGACGGGAATATGGTGGTACTCCAGACCAGTT
CTAGTCTTGAGCTTGCTTTGTGTCTTCTTTCCAGCCAGgacatccagaatccagagccagccgtgtacca
gctgaaggaccctaggagccaggaactctaccctctgcctgttcacccgacttcgacagccagatcaacgtg
cccaagacaatggagagcggcaccttcacccgacaagaccgtgctggacatgaaggctatggacagca
agagcaacggagccatcgcttggagcaaccagaccagcttcacttgccaggacatcttcaaggagacca
cgcttgctacccctctagcgacgtgccttgcgacgccacactgacagagaagagcttcgagaccgacatg
aacctgaacttcagaaacctgagcgtgatgggcctgagaatcctgctgctgaagggtggccggattcaacc
tgctgatgacctgaggtgtggtcttcccgagctaaacgaggtcaggcgcgacgaactttagtttgc
gaagcaagctgggatgtagaggaaaaatccgggtcccATGGCTACCGGCTCTCGAACCAGTTTGCTCTTG
GCGTTTGGGCTGTTGTGTCTTCTTGTCTCCAAGAGGGGAGTGCCGACGCCGGTGTTATTCAGTCCCCAC
GGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTAAACCCATATCAGGGCATGATTATCT
CTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCATTTACTTCAACAACAATGTGCCAATA
GACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCTAATGCGAGCTTCTCAACTCTGAAAA
TTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAAGCTCACTGGCACAGCGATCCGCCCC
TGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTCgaggacctacgtaacgtgacccctcccaag
gtgtccctgttcgagcctagcaaggccgagatcgccaacaagcagaaggccacactcgtctgcctggcta
gaggcttcttccagaccagtgagctgtcttgggtgggtgaacggcaaggaggtgcactcaggagtgtc
taccgaccctcaggcctacaaggagagcaactacagctactgcctgtcctccagactcagggtctgcgcc
accttttggcacaaccctcggaaccacttccgctgtcaggtccagttccacggcctgtccgaggaagaca
agtggccagagggctctcctaagccagtgcacagaaacatcagcgccgagggttggggaagagccgattg
cggaatcaccagcgctcttaccagcagggagtgtgtcagctaccatcctgtacgagatcctgctgggc
aaggccacactgtacgagtgctggtgtccactctggtcgatggctatggtgaagcggaagaacagct
aggaattcgagcatcttaccgccatttattcccatatttgttctgttttcttgatttgggtatacattt
aatgttaataaaaacaaaatgggtggggcaatcatttacattttatgggatatgtaattactagttcaggt
gtattgccacaagacaaacatgttaagaaacttcccgttatttacgctctgttcctgttaatcaacctc
tggattacaaaatttgtgaaagattgactgatattcttaactatgttgctccttttacgctgtgtggata
tgctgctttaatgctctgtatcatgtattgcttcccgtaaggcttctgttttctcctccttgtataaa
tcctgggtgctgtctctttatgaggagtgtgtggcccggtgtccgtaacgtggcggtgtgtctgtgt
ttgtgacgcaacccccactgggtggggcattgccaccacctgtcaactcctttctgggacttctgcctt
ccccctcccgatcgccacggcagaactcatcgccgctgccttgcgcgctgctggacaggggctaggttg
ctgggcactgataattccgtgggtgtgtcggggaagctgacgtcctttccatggctgctcgctgtgttg
ccaactggatcctgcgcgggacgtccttctgtacgtcccttcggctctcaatccagcggacctcccttc
ccgaggccttctgcgggtctctgcggcctctcccgctcttgccttccggcctccgacgagtcggatctcc
ctttgggcgcctccccgcctgttctgcctcggcgtccgggtccgtgttgcttgggtcgtcacctgtgcaga
attgogaaccatggattccaccgtgaactttgtctcctggcatgcaaatcgtcaacttggcatgccaaga
ataattcggatccaagcttaggcctgctcgcttcttgcctgtccatttctattaaagggtcccttgttc
cctaagtccaactactaaaactgggggatattatgaaggcccttgagcatctggattctgcctagcgctaa
gcttaacacgagccatagatagaataaaaagattttatttagtctccagaaaaaggggggaatgaaagacc
ccacctgtaggtttggcaagctagcttaagtaacgccattttgcaaggcatggaaaaacataaactgaga
atagagaagttcagatcaagggttaggaacagagagacagcagaatatgggccaacacaggatctgtggt
aagcagttcctgccccggctcagggccaagaacagttggaacagcagaatatgggccaacacaggatct
gtggtaagcagttcctgccccggctcagggccaagaacagatggtcccagatgcggtcccgcctcagc
agtttctagagaaccatcagatgtttccagggtgccccaggacctgaaatgacctgtgccttatttga
actaaccaatcagttcgcttctcgcttctgttcgcgcgcttctgctccccgagctcaataaaagagccca
caaccctcactcggcgccagtcctccgatagactgcgtcgccgggtaccctgttctcaataaacc
ctcttgagttgcatccgactcgtggtctcgctgttcttgggaggggtctcctctgagtgattgactgcc
cacctcgggggtctttcattctcgagcagcttggcgtaatcatggtcatagctgttctcgtgtgaaatt
gttatccgctcacaattccacacaacatacagagccggaagcataaagtgtaaagcctgggggtgcctaag

agtgagctaactcacattaattgcggttgcgctcactgcccgtttccagtcgggaaacctgtcggtgccag
ctgcattaatgaatcgccaacgcgcggggagaggcggtttgcgattgggcgctcttccgcttcctcgc
tcaactgactcgctgcgctcggtcggttcggctgcggcgagcggtatcagctcactcaaaggcggttaatacg
gttatccacagaatcaggggataacgcaggaaagaacatgtgagcaaaaggccagcaaaaggccaggaaac
cgtaaaaaggccgcggttgcgtggcggtttttccataggctccgccccctgacgagcatcacaaaaatcgac
gctcaagtcagaggtggcgaaacccgacaggactataaagataaccaggcggtttccccctggaagctccct
cgtgcgctctcctgttccgacctgcccgttaccggataacctgtccgctttctcccttcgggaagcgtg
gcgctttctcatagctcacgctgtaggtatctcagttcgggtgtaggtcggtcgctccaagctgggctgtg
tgcacgaacccccggttcagcccgaccgctgcgccttatccggtaactatcgtcttgagtccaacccggt
aagacacgacttatcgccactggcagcagccactggttaacaggattagcagagcgaggtatgtaggcggt
gctacagagttcttgaagtggcctaactacggctacactagaagaacagtatcttggtatctgcgctc
tgctgaagccagttaccttcggaaaaagagt

**Nucleic acid sequence of full-length vector sequence of E205 TCR (SEQ
ID NO: 68)**

tggtagctcttgatccggcaaaacaaaccacgctggtagcggtgggttttttgtttgcaagcagcagatt
acgcgcagaaaaaaaggatctcaagaagatcctttgatctttctacggggtctgacgctcagtggaacg
aaaactcacgttaagggttttgggtcatgagattatcaaaaaggatcttcacctagatccttttaatta
aaaatgaagttttaatcaatctaaagtatatatgagtaaacttggctcgacagttaccaatgcttaatc
agtgaggcacctatctcagcgatctgtctatcttcggtcatccatagttgcctgactccccgtcggtgtaga
taactacgatacgggaggggttaccatctggccccagtgctgcaatgataccgcgagacccacgctcacc
ggctccagatttatcagcaataaaccagccagccggaaggcgagcgagcagaagtggctcctgcaacttta
tccgctccatccagctcattaattgttgccgggaagctagagtaagtagttcgccagttaatagtttgc
gcaacggttggttgccattgctacaggcatcgtgggtgcacgctcgctcggttggtatggcttcattcagctc
cgggtcccaacgatcaaggcgagttacatgatccccatgttggtgcaaaaaagcggttagctccttcggt
cctccgatcgttgtcagaagtaagttggccgcagtggtatcactcatggttatggcagcactgcataatt
ctcttactgtcatgccatccgtaagatgcttttctgtgactgggtgagtaactcaaccaagtcattctgaga
atagtgtagcggcgaccgagttgctcttgcccggcgctcaatacgggataataccgcgccacatagcaga
actttaaaagtgtcatcattggaacacgttcttcggggcgaaaactctcaaggatcttacgctgttgga
gatccagttcgatgtaacccactcgtgcacccaactgatcttcagcatcttttactttcaccagcggttc
tgggtgagcaaaaacaggaaggcaaaatgccgcaaaaaagggaataaggcgacacggaaatgttgaaata
ctcatactcttctttttcaatattattgaagcatttatcaggggttattgtctcatgagcggatacatat
ttgaatgtatttagaaaaataaacaatagggttccgcgcacatttccccgaaaagtgccacctgacgt
ctaagaaaccattattatcatgacattaacctataaaaaataggcgatcacgaggcccttcgtctcgcg
cgtttcgggtgatgacggtgaaaacctctgacacatgcagctcccgagacggtcacagcttctgtgtaag
cggatgccgggagcagacaagcccgtcagggcgcgctcagcgggtgttgccgggtgtcggggtggcttaa
ctatgcggcacagagcagattgtactgagagtgaccatgatgggtgtgaaataccgcacagatgcgta
aggagaaaaataccgcacagcgccattcgccattcaggctgcgcaactgttggaaggcgatcggtgc
gggctcttcgctattacgccagctggcgaaaggggatgtgctgcaaggcgattaaagttgggtaacgcc
agggttttccagtcacgacggttgtaaaacgacggccagtgattagtactctagcttaagtaacgccat
tttgcaaggcatggaataacataactgagaatagagaagttcagatcaaggttaggaacagagagacag
cagaatatgggccaacaggatatctgtggttaagcagttcctgccccgggtcagggccaaagaacagttgg
aacagcagaatatgggccaacaggatatctgtggttaagcagttcctgccccgggtcagggccaaagaaca
gatgggtcccagatgcggtcccgcctcagcagtttctagagaaccatcagatgtttccagggtgccccca
aggacctgaaatgacctgtgccttatttgaactaaccaatcagttcgcttctcgcttctgttcgcgcgc
ttctgctccccgagctcaataaaagagcccaaacccctcactcggcgcgccagtcctccgatagactgc

gtcgcccggtaccggtattcccaataaagcctcttgctggttgcatccgaatcgtggactcgctgatcc
ttgggaggggtctcctcagattgattgactgccacctcgggggtctttcatttgagggtccaccgagat
ttggagacccctgccagggaaccaacgaccccccccgccgggaggttaagctggccagcggtcggttcgtgt
ctgtctctgtctttgtgcgtggttgccggcatctaatgtttgcccctgcgtctgtactagttggctaa
ctagatctgtatctggcggtcccgcggaagaactgacgagttcgtattcccggccgcagccctgggaga
cgtcccagcggtcctcggggcccgttttggtggccattctgtatcagttaacctacccgagtcggacttt
ttggagctccgccactgtccgaggggtacgtggctttgttgggggacgagagacagagacacttcccgcc
cccgctctgaatttttgctttcggttttacgccgaaccgcgcgcgcgtcttgctctgctgcagcatcggt
ctgtgttctctctgtctgactgtgtttctgtatttgctctgaaaattagctcgacaaagttaagtaatagt
ccctctctccaagctcacttacaggcgccgcgcgcaccATGGCTACTGGGTACGACAAGTCTTTTGT
GGCTTTTGGGCTGCTTTGCTTGCCCTGGCTTCAGGAAGCTAGCGCGACTCAACTGCTTGAACAAAGCCCT
CAGTTCTTGTCTATCCAGGAGGGTGAGAATCTTACAGTGTATTGTAACAGCAGCTCCGTGTTTTCTCAC
TGCAATGGTACCGACAAGAACCAGGTGAGGGACCACTCTTGGTTACGGTGGTAACCGGCGGGGAAGT
AAAAAACTTAAACGCCCTACCTTTCAATTTGGAGATGCCAGAAAGGACAGCAGTCTTACATTACAGCC
GCGCAACCAGGAGATACTGGCCTCTATCTTTGCGCAGGCGTAAGCGCCCGGCTGATGTTTGGTGACGGGA
CACAACCTGTAGTAAAGCCGgacatccagaatccagagccagccgtgtaccagctgaaggaccctaggag
ccaggactctaccctctgcctgttcaccgacttcgacagccagatcaacgtgcccagacaatggagagc
ggcacccttcatcaccgacaagaccgtgctggacatgaaggctatggacagcaaggaacaggagccatcg
cttgaggaaccagaccagcttcacttgccaggacatctcaaggagaccaacgcttgctaccctctag
cgacgtgccttgcgacgccacactgacagagaagagcttcgagaccgacatgaacctgaacttccagaac
ctgagcgtgatgggcctgagaatcctgctgctgaaggtggccggttcaacctgctgatgacctgagggc
tgtgggtcttcccagctaaacgaggtcagggcgcgagaaacttagtttgctgaagcaagctggggatgt
agaggaaaatccgggtcccATGGCTACTGGTAGCCGGACAAGCCTTCTCCTTGCATTGGACTTCTCTGT
CTCCCGTGTCTTCAAGAGGGTAGCGCTCCGCCGTGATTTACAGAAGCCGTCCAGAGACATCTGCCAAC
GAGGAACGTCTCTTACAATACAGTGCCAAGTCGATTCCCAAGTAACGATGATGTTTTGGTACAGACAGCA
GCCAGGACAGTCACTGACGCTCATAGCTACCGCGAATCAAGGTAGTGAAGCCACCTATGAGTCCGGGTTT
GTTATAGATAAGTTCCTTATCTCTCGCCCCAATCTTACATTTAGCACGTTGACAGTTTCAAACATGTCCC
CCGAAGATAGCAGTATCTACCTTTGTAGTGCTGTAGGTGGGCCAAAAGTCCCCGGTGCTGAAGCGTTTTT
TGGGCAAGGAACCCGATTGACCGTAGTGgaggacctacgtaacgtgaccttcccagggtgtccctgttc
gagcctagcaaggccgagatcgccaacaagcagaaggccacactcgtctgcctggctagaggcttcttcc
cagaccagtgaggctgtcttggtgggtgaacggcaaggaggtgcactcaggagtgctaccgacctca
ggcctacaaggagagcaactacagctactgcctgtcctccagactcagggtctgcgccaccttttggcac
aacctcggaaccacttccgctgtcaggtccagttccacggcctgtccgaggaagacaagtggccagagg
gctctcctaagccagtgacacagaacatcagcgccgaggttggggaagagccgattgcggaatcaccag
cgctcttaccagcagggagtgctgtcagctaccatcctgtacgagatcctgctgggcaaggccacactg
tacgcagtgctggtgtccactctggtcgtgatggctatgggtgaagcggaagaacagctaggaattcgagc
atcttaccgccattttatcccatatttggtctgttttcttgatttgggtatacatttaaatgttaataa
aacaatatggtggggcaatcatttacattttatgggatatgaattactagttcaggtgtattgccacaa
gacaaacatgttaagaaactttcccggtattttacgctctgttccctgttaatcaacctctggattacaaaa
tttgtgaaagattgactgatattcttaactatgttgctccttttacgctgtgtggatagctgctttaat
gcctctgtatcatgctattgcttcccgtaaggctttcggtttctcctccttgataaaatcctgggtgctg
tctctttatgaggagttgtggcccggttgccgtcaacgtggcggtggtgtgctctgtgtttgctgacgcaa
ccccactggctggggcattgccaccacctgtcaactcctttctgggactttcgcttccccctcccgat
cgccacggcagaactcatcgccgcctgccttgcccgctgctggacaggggctaggtgctgggcaactgat
aattccgtgggtgtgtcggggaagctgacgtcctttccatggctgctcgccgtgtgttgccaactggatcc
tgcgcgggagctccttctgctacgtcccttcggctctcaatccagcggaacctccttcccagggccttct
gccggttctgcggcctctcccgcgtcttcgctttcgccctccgacgagtcggatctccctttggggcgcc
tccccgcctgtttcgccctcggcgtccgggtccgtgttgcttggctcgtcacctgtgcagaattgcgaacct

ggattccaccgtgaactttgtctcctggcatgcaaactcgtaacttggcatgccagaataattcggatc
caagcttaggcctgctcgctttcttgcgtgccattttctattaaagggtcctttgttccctaagtcacac
tactaaactgggggatattatgaagggccttgagcatctggattctgcctagcgctaagcttaacacgag
ccatagatagaataaaaagattttatttagtctccagaaaaagggggaatgaaagacccacacctgtaggt
ttggcaagctagcttaagtaacgccattttgcaaggcatggaaaatacataaactgagaatagagaagttc
agatcaagggttaggaacagagagacagcagaatatggggccaaacaggatatctgtggtaagcagttcctg
ccccggctcagggccaagaacagttggaacagcagaatatggggccaaacaggatatctgtggtaagcagtt
tctgccccggctcagggccaagaacagatgggtcccagatgcgggtcccgccctcagcagtttctagaga
accatcagatgtttccagggtgcccccaaggacctgaaatgacctgtgccttatttgaactaaccaatca
gttcgcttctcgcttctgttcgcgcgcttctgtctccccgagctcaataaaaagagcccaacccctcact
cggcgcgcagtcctccgatagaactgcgtcgccgggtaccggtgttctcaataaaccctcttgagttg
catccgactcgtggtctcgctgttccttgggagggtctcctctgagtgattgactgccacacctgggggt
ctttcattctcgagcagcttggcgtaatcatggtcatagctgtttcctgtgtgaaattgttatccgctca
caattccacacaacatacagagccggaagcataaagtgtaaagcctgggggtgcctaagtgagtgagtaact
cacattaattgcgttgcgtcactgcccgctttccagtcgggaaacctgtcgtgccagctgcattaatga
atcgggccaacgcgcggggagagggcgtttgcgtattgggcgtcttccgcttccctcgctcactgactcgc
tgcgctcggtcggtcggtcggcgcgagcggatcagctcactcaaaggcggtaatacgggttatccacaga
atcaggggataaacgcaggaaagaacatgtgagcaaaaggccagcaaaaggccaggaaccgtaaaaaggcc
gcgttgctggcggtttttccataggctccgccccctgacgagcatcacaaaaatcgacgctcaagtcaga
gggtggcgaaacccgacaggactataaagataccaggcgtttccccctggaagctccctcgtgcgctctcc
tgttccgacctgcccgttaccggatacctgtccgcctttctcccttcgggaagcgtggcgctttctcat
agctcacgctgtaggtatctcagttcggtgtaggtcggtcgctccaagctgggctgtgtgcacgaacccc
ccgttcagcccagaccgtgcgccttatccggttaactatcgctttagtccaacccggtaagacacgactt
atcgccactggcagcagccactggtaacaggattagcagagcgaggtatgtaggcggtgctacagagttc
ttgaagtgggtggcctaactacggctacactagaagaacagtatattggtatctgcgctctgctgaagccag
ttaccttcggaaaaagagt

E203 TCR + anti-PD1 amino acid sequence**(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 69)**

MATGSRTSLLLAFLGLCLPWLQEASALAKTTQPISMSDSYEGQEVNITCSHNNIATNDYITWYQQFSPSQGP
RFIIQGYKTKVTNEVASLFIADRKSSLSLPRVSLSDTAVYYCLALSMDSSYKLIFGSGTRLLVRPDIQ
NPEPAVYQLKDPRSQDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKNGAIAWSNQTSFTC
QDIFKETNACYPSSDVPDATLTEKSFETDMNLNFQNL SVMGLRILLKLVAGFNLLMTLRLWSSRAKRG
GATNFSLLKQAGDVEENPGPMATGSRTSLLLAFLGLCLPCLQEGSADAGVIQSPRHEVTEMQEVTLRCK
PISGHDYLFWYRQTM MRGLELLIYFNNNVPIDDSGMPEDRFSAKMPNASFSTLKIQSEPRDSAVYFCAS
SLAQRSAPFAFFGQGTRLTVVEDLRNVTTPPKVSLFEP SKAEIANKQKATLVCLARGFFPDHVELSWWVNG
KEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHFRQVQFHGLSEEDKWPEGSPKPVTQNISA
EAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVKRKNRAKRGSGEGRGSLLTC
GDVEENPGPMYRMQLLSCLIALSLALVTNSQVQLVQSGAEVVKPGASVKVSKKASGYTFTNYYMYWVRQAP
QGGLIEWIGGINPSNGGTNFNEKFKNKATMTVDKSTSTAYMELSSLRSEDTAVYYCTRRDYN YDGGFDYWG
QGT LVTVSSGGGSGGGGSGGGGSDIVLTQSPATLSLSPGERATLSCRASKSVSTSGFNMYMHYQQKPGQ
APRLLI FLASNLASGVPARFSGSGSGTDFTLTITSSLEPEDFAVYYCQHGRELPLTFGQGTKLEI

E204 TCR + anti-PD1 amino acid sequence**(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 70)**

MATGSRTSLLLAFLGGLCLPWLQEASALAKTTQPISMSYEGQEVNITCSHNNIATNDYITWYQQFSPSQGP
RFIIQGYKTKVTNEVASLFI PADRKSSSTLSLPRVSLSDTAVYYCLVGDGNMVVLQTSSSLELALCLLSSQ
DIQNPEPAVYQLKDPKSDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKSNAGIAWSNQTS
FTCQDIFKETNACYPSSDVPCDATLTEKSFETDMNLFQNL SVMGLRILLKLVAGFNLLMTLRLWSSRAK
RGSGATNFSLLKQAGDVEENPGPMATGSRTSLLLAFLGGLCLPCLQEGSADAGVIQSPRHEVTEMGQEVTL
RCKPISGHDYLFWYRQTMRGLELLIYFNNVPI DDSCMPEDRFSAKMPNASFSTLKIQFSEPRDSAVYF
CASSLAQRSAPAEFFGQGTRLT VVEDLRNVTPPKVSLFEP SKAEIANKQKATLVCLARGFFPDHVELSWW
VNGKEVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHFRQCQVQFHGLSEEDKWPEGSPKPVTON
ISAEAWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVKRKNRAKRGSGEGRGS
LTCGDVEENPGPMYRMQLLSCLALSALVTNSQVQLVQSGAEVKKPGASVKVSCASGYTFITNYMYWVR
QAPGQGLEWIGGINP SNGGTNFNEKFKNKATMTVDKSTSTAYMELSSLRSEDTAVYYCTRRDYNDDGGFD
YWGQGLTVTVSSGGGGSGGGSGGGSDIVLTQSPATLSLSPGERATLSCRASKSVSTSGFNMYHWYQQK
PGQAPRLLIFLASNLASGVPARFSGSGSGTDFTLTITSSLEPEDFAVYYCQHGRELPLTFGQGTKLEI

E205 TCR + anti-PD1 amino acid sequence

(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 71)

MATGSRTSLLLAFLGGLCLPWLQEASATQLLEQSPQFLSIQEGENLTVYCNSSSVFSSLQWYRQEPGEGPV
LLVTVVTGGEVKKRLTFQFGDARKDSSLHITAAQPGDTGLYLCLAGVSARLMFGDGTQLVVKPDIQNPE
PAVYQLKDPKSDSTLCLFTDFDSQINVPKTMESGTFITDKTVLDMKAMDSKSNAGIAWSNQTSFTCQDI
FKETNACYPSSDVPCDATLTEKSFETDMNLFQNL SVMGLRILLKLVAGFNLLMTLRLWSSRAKRGSGAT
NFSLLKQAGDVEENPGPMATGSRTSLLLAFLGGLCLPCLQEGSASAVISQKPSRDICQRTSLTIQCQVDS
QVTMMFWYRQPGQSLTLIATANQGSSEATYESGVIDKFPISRPNLTFSTLTVSNMSPEDSSIYLC SAVG
GPKVPGAFAFFGQGTRLT VVEDLRNVTPPKVSLFEP SKAEIANKQKATLVCLARGFFPDHVELSWWVNGK
EVHSGVSTDPQAYKESNYSYCLSSRLRVCATFWHNPRNHFRQCQVQFHGLSEEDKWPEGSPKPVTONISAE
AWGRADCGITSASYQQGVLSATILYEILLGKATLYAVLVSTLVVMAMVKRKNRAKRGSGEGRGSLLTCG
DVEENPGPMYRMQLLSCLALSALVTNSQVQLVQSGAEVKKPGASVKVSCASGYTFITNYMYWVRQAPG
QGLEWIGGINP SNGGTNFNEKFKNKATMTVDKSTSTAYMELSSLRSEDTAVYYCTRRDYNDDGGFDYWGQ
GTLTVTVSSGGGGSGGGSGGGSDIVLTQSPATLSLSPGERATLSCRASKSVSTSGFNMYHWYQQKPGQA
PRLIFLASNLASGVPARFSGSGSGTDFTLTITSSLEPEDFAVYYCQHGRELPLTFGQGTKLEI

E203 TCR + anti-PD1 nucleic acid sequence

(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 72)

ATGGCAACTGGTTCAAGAACCTCACTTTTGCTTGCATTCGGCCTGCTTTGCCTCCCGTGGCTGCAAGAAG
CCTCTGCTCTTGCCAAGACTACACAGCCTATTTCAATGGATAGTTACGAGGGTCAAGAAGTGAATATAAC
GTGCTCTCACAAACATAGCCACTAACGATTATATTACATGGTATCAGCAGTTCCTCCGTCCTCAAGGACCC
AGGTTTCATAATTCAGGGCTACAAAACAAAAGTCACTAATGAAGTCGCGTCCCTGTTTCATACCTGCGGATC
GAAAGAGTTCAACTCTTAGTCTCCCCGAGTCAGTCTGTCCGACACCGCTGTATATTACTGTCTTGCTCT
GTCCATGGACTCTTCTATAAATTGATTTTCGGCTCTGGCACTCGGCTTCTCGTCCGGCCGgacatccag
aatccagagccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgctgttcaccg
acttcgacagccagatcaacgtgcccagacaatggagagcggcaccttcaccgacaagaccgtgct
ggacatgaaggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttgc
caggacatcttcaaggagaccaacgcttgctaccctctagcgacgtgccttgcgacgccacactgacag
agaagagcttcgagaccgacatgaacctgaactccaagaacctgagcgtgatgggacctgagaatcctgct
gctgaagggtggccgattcaacctgctgatgacctgaggctgtggtcttcccagactaaacgaggctca

ggcgcgacgaacttttagtttgctgaagcaagctggggatgtagaggaaaatccgggtcccATGGCTACCG
 GCTCTCGAACCAGTTTGCTCTTGGCGTTTGGGCTGTTGTGTCTTCCTTGCTCTCCAAGAGGGGAGTGCCGA
 CGCCGGTGTATTACAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTAAA
 CCCATATCAGGGCATGATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCATT
 ACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCTAA
 TGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAAGC
 TCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTCgaggacc
 tacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcagaa
 ggccacactcgtctgcctggctagaggcttctccagaccacgtggagctgtcttggtgggtgaacggc
 aaggaggtgactcaggagtgctaccgaccctcaggcctacaaggagagcaactacagctactgcctgt
 cctccagactcagggtctgcgccaccttttggcacaacctcggaaccacttccgctgtcaggtccagtt
 ccacggcctgtccgaggaagacaagtggccagagggtctcctaagccagtgcacacagaacatcagcgcc
 gaggttggggaagagccgattgcggaatcaccagcgctcttaccagcaggagtgctgtcagctacca
 tcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctggtgtccactcgtgctgatggc
 tatggtgaagcggagaacagcagagccaagcggggctctggcgagggcagaggctctcctgacactgc
 ggagatgtggaagaaaatcccgccctatgtacagaatgcagctgttgtcttgattgccctttctctcg
 ccctcgtaacaaattcaCAAGTCCAGCTTGTACAAAGCGGTGCCGAAGTGAAAAACCGGGCGCAAGCGT
 CAAGGTTTTCATGCAAGGCGAGTGGATACACCTTTACCAACTATTACATGTACTGGGTGCGGCAGGCACCC
 GGGCAGGGACTGGAATGGATCGGTGGTATTAACCCAAGTAATGGTGGTACAAATTTCAACGAAAAGTTTA
 AGAACAAAGCGACGATGACAGTAGACAAATCTACAAGTACCGCATACATGGAGCTGAGCTCACTGAGATC
 TGAGGACACCGCAGTCTATTACTGCACACGGCGAGATTACAATTACGATGGAGGGTTCGACTACTGGGGC
 CAAGGGACTTTGGTGACTGTATCCTCCGGCGGCGGAGGGTCAGGTGGAGGAGGAAGCGGTGGAGGAGGTA
 GTGACATCGTCTTACGCCAAAGCCCCGGCGACCCTCAGTTTGTAGCCCTGGGGAAAGAGCAACGCTGTCTTG
 TAGAGCATCCAAATCAGTCTCAACTTCTGGTTTTAATTACATGCACTGGTATCAACAGAAGCCAGGACAA
 GCACCTAGATTGCTGATCTTTCTGGCGTCAAATCTGGCCTCTGGCGTTCCAGCCCGTTTAGCGGTTCTG
 GAAGCGGAACGGACTTTACCTTACCATATCATCACTCGAACCAGAGGACTTTGCGGTATATTACTGCCA
 ACATGGACGGGAGCTGCCCTTGACGTTTGGTCAAGGAACGAAGTTGGAGATA

E204 TCR + anti-PD1 nucleic acid sequence

(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 73)

ATGGCGACAGGATCTAGGACTTCCCTCCTCTTGCAATTCGGGCTCTTGCTGCTTGGCGTGGTTGCAGGAAG
 CTAGCGCCCTGGCGAAAACGACACAACCTATCTCTATGGATAGTTACGAGGGCCAAGAGGTCAACATAAC
 CTGTTCCCAACAATATAGCCACCAATGATTACATTACATGGTATCAACAATTTCCCTCCCAAGGCCCC
 CGATTCAATTATACAGGGTTATAAAACGAAGGTGACAAATGAGGTAGCGAGTCTGTTCAATCCAGCGGATC
 GAAAATCCAGTACGCTCTCCTTGCCCCGCGTGTCTTGTCCGATACCGCTGTGTACTACTGCCTCGTTGG
 AGACGGGAATATGGTGGTACTCCAGACCAGTTCTAGTCTTGAGCTTGCTTTGTGTCTCTTTCCAGCCAG
 gacatccagaatccagagccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgcc
 tgttcaccgacttcgacagccagatcaacgtgccaagacaatggagagcggcacctcatcaccgacaa
 gaccgtgctggacatgaaggctatggacagcaagagcaacggagccatcgcttgagcaaccagaccagc
 ttcaacttgccaggacatcttcaaggagaccaacgcttgctacccctctagcgacgtgccttgcgacgcca
 cactgacagagaagagcttcgagaccgacatgaacctgaacttcagaacctgagcgtgatgggctgag
 aatcctgctgctgaagggtggccggattcaacctgctgatgacctgaggctgtggtcttcccgagctaaa
 cgaggctcaggcgcgacgaacttttagtttgctgaagcaagctggggatgtagaggaaaatccgggtcccA
 TGGCTACCGGCTCTCGAACCAGTTTGCTCTTGGCGTTTGGGCTGTTGTGTCTTCCTTGCTCTCCAAGAGGG
 GAGTGCCGACGCCGTGTTATTACAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTG
 AGGTGTAAACCATATCAGGGCATGATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGC

TCCTCATTTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAA
GATGCCTAATGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTT
TGTGCAAGCTCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTG
TCgaggacctacgtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaa
caagcagaaggccacactcgtctgcctggctagaggcttcttcccagaccacgtggagctgtcttgggtgg
gtgaacggcaaggaggtgcactcaggagtgtctaccgaccctcaggcctacaaggagagcaactacagct
actgcctgtcctccagactcaggggtctgcgccaccttttggcacaaccctcggaaccacttccgctgtca
gggtccagttccacggcctgtccgaggaagacaagtggccagaggggtctcctaagccagtgcacacagaac
atcagcgccgaggcttggggaagagccgattgcggaatcaccagcgcctcttaccagcagggagtgctgt
cagctaccatcctgtacgagatcctgctgggcaaggccacactgtacgcagtgctgggtgtccactctgggt
cgtgatggctatggtgaagcggaagaacagcagagccaagcggggtctggcgagggcagagggctctctg
ctgacctgcggagatgtggaagaaaatcccgccctatgtacagaatgcagctgttgtcttgattgcc
tttctctcgccctcgtaacaaattcaCAAGTCCAGCTTGTACAAAGCGGTGCCGAAGTAAAAAACCGGG
CGCAAGCGTCAAGGTTTCATGCAAGGCGAGTGGATACACCTTTACCAACTATTACATGTACTGGGTGCGG
CAGGCACCCGGGCAGGGACTGGAATGGATCGGTGGTATTAACCCAAGTAATGGTGGTACAAATTTCAACG
AAAAGTTTAAAGAACAAGCGACGATGACAGTAGACAAAATCTACAAGTACCGCATAACATGGAGCTGAGCTC
ACTGAGATCTGAGGACACCGCAGTCTATTACTGCACACGGCGAGATTACAATTACGATGGAGGGTTTCGAC
TACTGGGGCCAAGGGACTTTGGTGACTGTATCTCCGGCGGCGGAGGGTCAGGTGGAGGAGGAAGCGGTG
GAGGAGGTAGTGACATCGTCTTACGCAAAGCCCGCGACCTCAGTTTGAGCCCTGGGGAAAGAGCAAC
GCTGTCTTGTAGAGCATCAAATCAGTCTCAACTTCTGGTTTTAATTACATGCACTGGTATCAACAGAAG
CCAGGACAAGCACCTAGATTGCTGATCTTTCTGGCGTCAAATCTGGCCTCTGGCGTCCAGCCCGGTTTA
GCGGTTCTGGAAGCGGAACGGACTTTACCTTACCATATCATCACTCGAACCAGAGGACTTTGCGGTATA
TTACTGCCAACATGGACGGGAGCTGCCCTTGACGTTTGGTCAAGGAACGAAGTTGGAGATA

E205 TCR + anti-PD1 nucleic acid sequence**(Va+Ca+P2A+Vb+Cb+T2A+vH+linker+vL) (SEQ ID NO: 74)**

ATGGCTACTGGGTCACGAACAAGTCTTTTGTGGCTTTTGGGCTGCTTTGCTTGCCCTGGCTTCAGGAAG
CTAGCGCGACTCAACTGCTTGAACAAAGCCCTCAGTTCTTGTCTATCCAGGAGGGTGAGAACTTTACAGT
GTATTGTAACAGCAGCTCCGTGTTTTCTCCTCACTGCAATGGTACCGACAAGAACCAGGTGAGGGACCAGTA
CTCTTGTTTACGGTGGTAACCGGCGGGGAAGTAAAAAACTTAAACGCCTCACCTTTCAATTTGGAGATG
CCAGAAAGGACAGCAGTCTTCACATTACAGCCGCGCAACCAGGAGATACTGGCCTCTATCTTTGCGCAGG
CGTAAGCGCCCGGTGATGTTTGGTGACGGGACACAACCTTGTAGTAAAGCCGgacatccagaatccagag
ccagccgtgtaccagctgaaggaccctaggagccaggactctaccctctgcctgttcaccgacttcgaca
gccagatcaacgtgcccaagacaatggagagcggcaccttcatcaccgacaagaccgtgctggacatgaa
ggctatggacagcaagagcaacggagccatcgcttggagcaaccagaccagcttcacttgccaggacatc
ttcaaggagaccaacgcttgctaccctctagcgacgtgccttgcgacgccacactgacagagaagagct
tcgagaccgacatgaacctgaacttccagaacctgagcgtgatgggcctgagaatcctgctgctgaagggt
ggcgggattcaacctgctgatgacctgaggctgtgggtcttcccagctaaacgaggctcaggcgcgacg
aactttagtttgctgaagcaagctggggatgtagaggaaaatccgggtcccATGGCTACTGGTAGCCGGA
CAAGCCTTCTCCTTGCAATTGGACTTCTCTGTCTCCCGTGTCTTCAAGAGGGTAGCGCTCCGCCGTGAT
TTCACAGAAGCCGTCCAGAGACATCTGCCAACGAGGAACGTCTCTTACAATACAGTGCCAAGTCGATTCC
CAAGTAACGATGATGTTTTGGTACAGACAGCAGCCAGGACAGTCACTGACGCTCATAGCTACCGCGAATC
AAGGTAGTGAAGCCACCTATGAGTCCGGGTTCGTTATAGATAAGTTCCCTATCTCTCGCCCCAATCTTAC
ATTTAGCACGTTGACAGTTTCAAACATGTCCCCGAAGATAGCAGTATCTACCTTTGTAGTGCTGTAGGT
GGGCCAAAAGTCCCCGGTGCTGAAGCGTTTTTTGGGCAAGGAACCCGATTGACCGTAGTGgaggacctac
gtaacgtgacccctcccaaggtgtccctgttcgagcctagcaaggccgagatcgccaacaagcagaaggc

cacactcgtctgcctggctagaggcttcttcccagaccacgtggagctgtcttggagggtgaacggcaag
gagggtgcactcaggagtgtctaccgaccctcaggcctacaaggagagcaactacagctactgcctgtcct
ccagaactcagggtctgcgccaccttttggcacaacctcggaaccacttccgctgtcagggtccagttcca
cggcctgtccgaggaagacaagtggccagagggctctcctaagccagtgcacagaaacatcagcgccgag
gcttggggaagagccgattgcggaatcaccagcgctcttaccagcaggagtgctgtcagctaccatcc
tgtacgagatcctgtgggcaaggccacactgtacgcagtgctgggtgtccactctggctgtgatggctat
gggtgaagcggaagaacagcagagccaagcggggctctggcgagggcagaggctctctgtgacctgcgga
gatgtggaagaaaatcccggccctatgtacagaatgcagctgttgtcttgtattgcccttctctcgccc
tcgtaacaaattcaCAAGTCCAGCTTGTACAAAGCGGTGCCGAAGTGAAAAAACGGGCGCAAGCGTCAA
GGTTTCATGCAAGGCGAGTGGATACACCTTTACCAACTATTACATGTACTGGGTGCGGCAGGCACCCGGG
CAGGGACTGGAATGGATCGGTGGTATTAACCCAAGTAATGGTGGTACAAATTTCAACGAAAAGTTTAAGA
ACAAAGCGACGATGACAGTAGACAAATCTACAAGTACCGCATACATGGAGCTGAGCTCACTGAGATCTGA
GGACACCGCAGTCTATTACTGCACACGGCGAGATTACAATTACGATGGAGGGTTCGACTACTGGGGCCAA
GGGACTTTGGTGACTGTATCTCCGGCGGCGGAGGGTCAGGTGGAGGAGGAAGCGGTGGAGGAGGTAGTG
ACATCGTCCTTACGCAAAGCCCGGCGACCCTCAGTTTGAGCCCTGGGGAAAGAGCAACGCTGTCTTGTA
AGCATCCAAATCAGTCTCAACTTCTGGTTTTAATTACATGCACTGGTATCAACAGAAGCCAGGACAAGCA
CCTAGATTGCTGATCTTTCTGGCGTCAAATCTGGCCTCTGGCGTTCCAGCCCGGTTTAGCGGTTCTGGAA
GCGGAACGGACTTTACCCTTACCATATCATCACTCGAACCAGAGGACTTTGCGGTATATTACTGCCAACA
TGGACGGGAGCTGCCCTTGACGTTTGGTCAAGGAACGAAGTTGGAGATA

HPV E6 amino acid sequence (SEQ ID NO: 75)

MHQKRTAMFQDPQERPRKLPQLCTELQTTIHDIILECVYCKQQLLRREVYDFAFRDLICIVYRDGNPYAVC
DKCLKFYISKISEYRHYCYSLYGTTLEQQYNKPLCDLLIRCINCQKPLCPEEKQRHLDDKKQRFHNIRGRWT
GRCMSCCRSSRTRRETQL

GS linker-1 (SEQ ID NO: 76)

GGGGSGGGSGGGGS

GS linker-2 (SEQ ID NO: 77)

GGGS

Nucleic acid sequence encoding alpha chain variable region of E203 TCR (SEQ ID NO: 78)

CTTGCCAAGACTACACAGCCTATTTCAATGGATAGTTACGAGGGTCAAGAAGTGAATATAACGTGCTCTC
ACAACAACATAGCCACTAACGATTATATTACATGGTATCAGCAGTTCCCGTCCCAAGGACCCAGGTTTCAT
AATTCAGGGCTACAAAACAAAAGTCACTAATGAAGTCGCGTCCCTGTTTCATACCTGCGGATCGAAAGAGT
TCAACTCTTAGTCTCCCCGAGTCAGTCTGTCCGACACCGCTGTATATTACTGTCTGTCTGTCCATGG
ACTCTTCCTATAAATTGATTTTCGGCTCTGGCACTCGGCTTCTCGTCCGGCCG

Nucleic acid sequence encoding beta chain variable region of E203 TCR
(SEQ ID NO: 79)

GACGCCGGTGTTATTTCAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTA
AACCCATATCAGGGCATGATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCAT
TTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCT
AATGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAA
GCTCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTC

Nucleic acid sequence encoding alpha chain variable region of E204 TCR
(SEQ ID NO: 80)

CTGGCGAAAACGACACAACCTATCTCTATGGATAGTTACGAGGGCCAAGAGGTCAACATAACCTGTTCCC
ACAACAATATAGCCACCAATGATTACATTACATGGTATCAACAATTTCCCTCCCAAGGCCCCCGATTTCAT
TATACAGGGTTATAAAACGAAGGTGACAAATGAGGTAGCGAGTCTGTTTCATTCCAGCGGATCGAAAATCC
AGTACGCTCTCCTTGCCCCGCGTGCTCTTGTCCGATACCGCTGTGTACTACTGCCTCGTTGGAGACGGGA
ATATGGTGGTACTCCAGACCAGTTCTAGTCTTGAGCTTGCTTTGTGTCTTCTTCCAGCCAG

Nucleic acid sequence encoding beta chain variable region of E204 TCR
(SEQ ID NO: 81)

GACGCCGGTGTTATTTCAGTCCCCACGGCACGAGGTTACAGAGATGGGTCAAGAAGTCACATTGAGGTGTA
AACCCATATCAGGGCATGATTATCTCTTCTGGTACAGACAAACCATGATGCGGGGTCTGGAGCTCCTCAT
TTACTTCAACAACAATGTGCCAATAGACGACAGCGGAATGCCAGAAGACCGCTTCAGTGCTAAGATGCCT
AATGCGAGCTTCTCAACTCTGAAAATTCAACCCTCTGAGCCCCGCGACTCCGCTGTTTACTTTTGTGCAA
GCTCACTGGCACAGCGATCCGCCCCCTGAAGCCTTCTTCGGGCAGGGTACCCGATTGACAGTTGTC

Nucleic acid sequence encoding alpha chain variable region of E205 TCR
(SEQ ID NO: 82)

ACTCAACTGCTTGAACAAAGCCCTCAGTTCTTGTCTATCCAGGAGGGTGAGAATCTTACAGTGTATTGTA
ACAGCAGCTCCGTGTTTTCTCACTGCAATGGTACCGACAAGAACCAGGTGAGGGACCAGTACTCTTGGT
TACGGTGGTAACCGGCGGGGAAGTAAAAAACTTAAACGCCTCACCTTTCAATTTGGAGATGCCAGAAAG
GACAGCAGTCTTCATTACAGCCGCGCAACCAGGAGATACTGGCCTCTATCTTTGCGCAGGCGTAAGCG
CCCCGCTGATGTTTGGTGACGGGACACAACCTGTAGTAAAGCCG

Nucleic acid sequence encoding beta chain variable region of E205 TCR
(SEQ ID NO: 83)

TCCGCCGTGATTTACAGAAGCCGTCCAGAGACATCTGCCAACGAGGAACGTCTCTTACAATACAGTGCC
AAGTCGATTCCCAAGTAACGATGATGTTTTGGTACAGACAGCAGCCAGGACAGTCACTGACGCTCATAGC
TACCGCGAATCAAGGTAGTGAAGCCACCTATGAGTCCGGGTTCGTTATAGATAAGTTCCTATCTCTCGC
CCCAATCTTACATTTAGCACGTTGACAGTTTCAAACATGTCCCCGAAGATAGCAGTATCTACCTTTGTA
GTGCTGTAGGTGGGCCAAAAGTCCCCGGTGCTGAAGCGTTTTTTGGGCAAGGAACCCGATTGACCGTAGT
G