

Anti-CD112R antibodies bind to CD112R

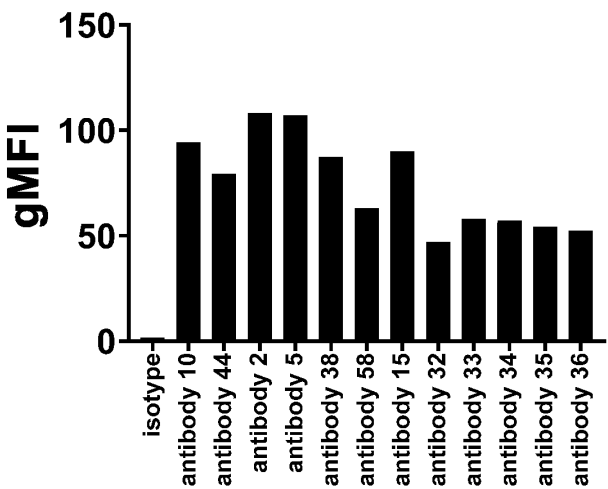


Fig. 1

Anti-CD112R antibodies block CD112 from binding to CD112R expressing cells

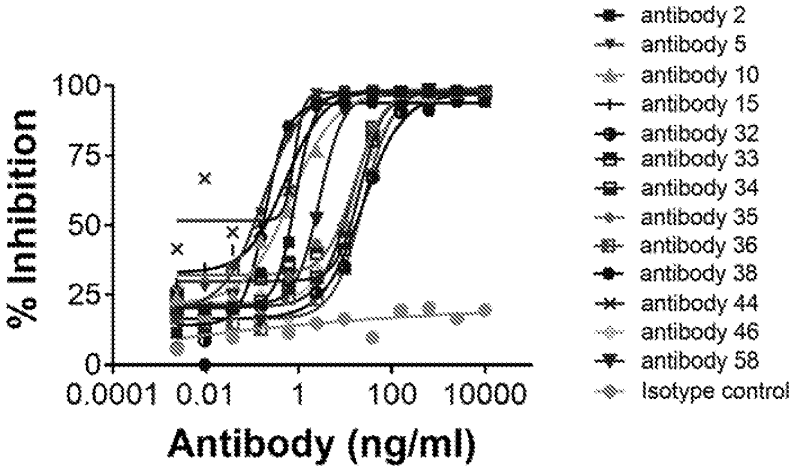


Fig. 2A

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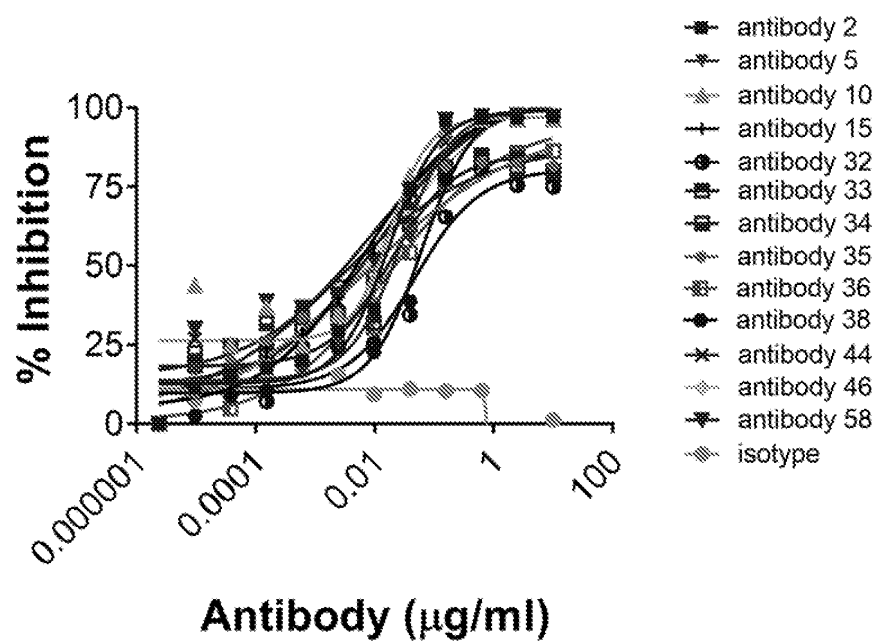


Fig. 2B

Anti-CD112R antibodies enhance NK cell mediated killing

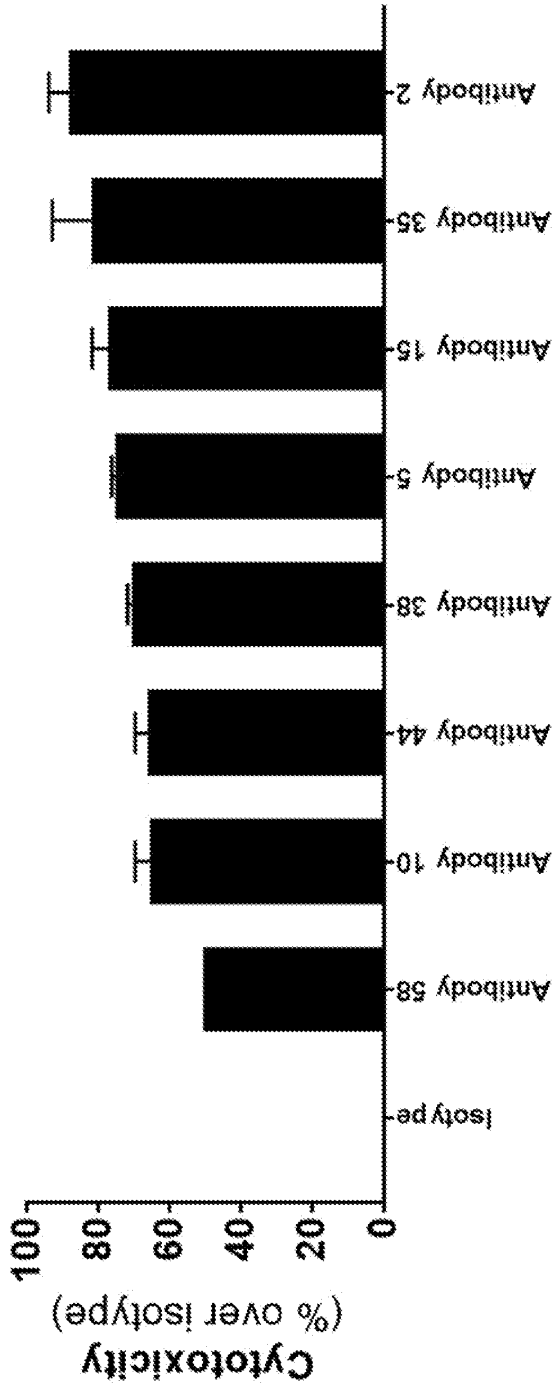


Fig. 3

Anti-CD112R antibodies enhance antigen driven activation of CD8+ T cells, as measured by IFN γ secretion

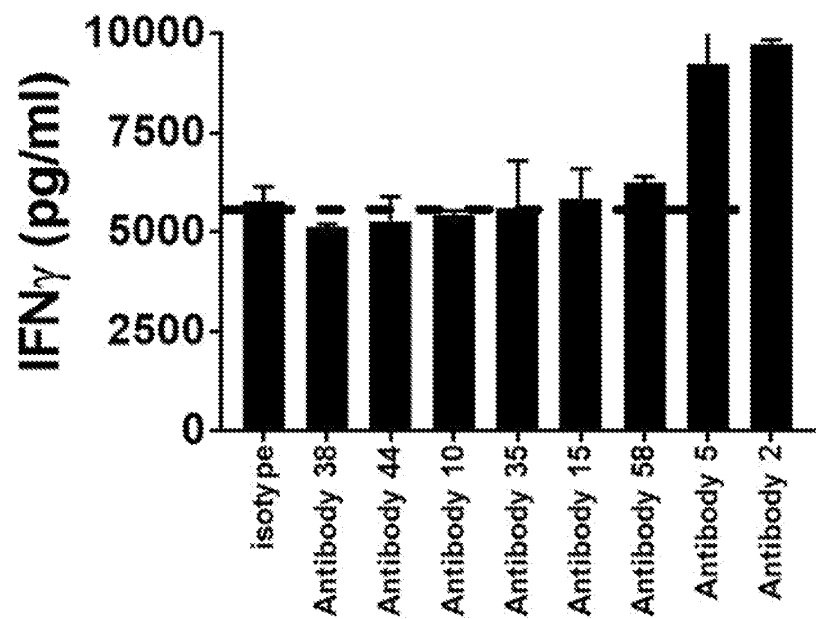


Fig. 4

In vivo efficacy of CD112R and Tigit combination blockade

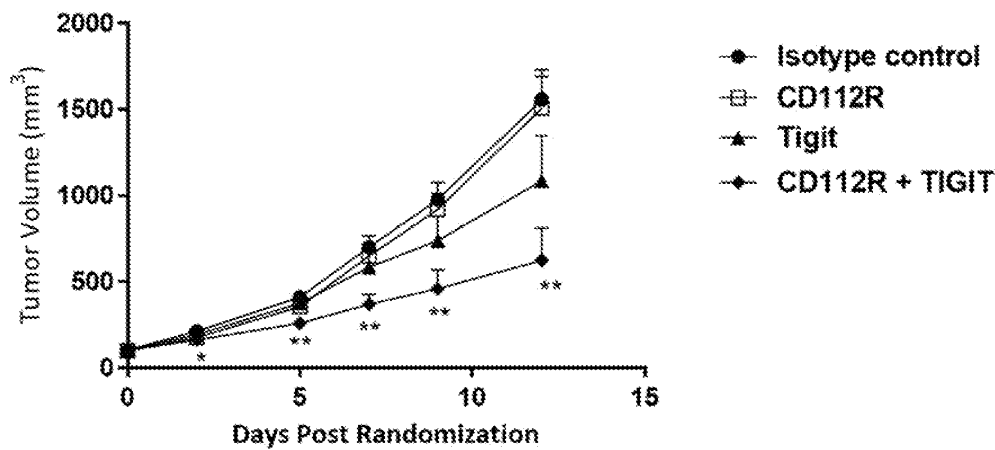


Fig. 5

Increased expression of CD112R in PBMCs following anti-CD3 activation

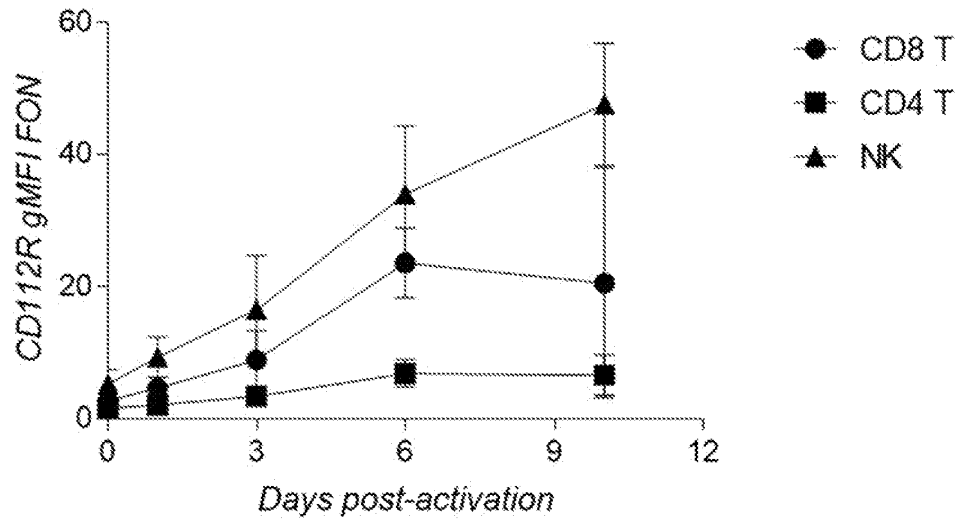


Fig. 6

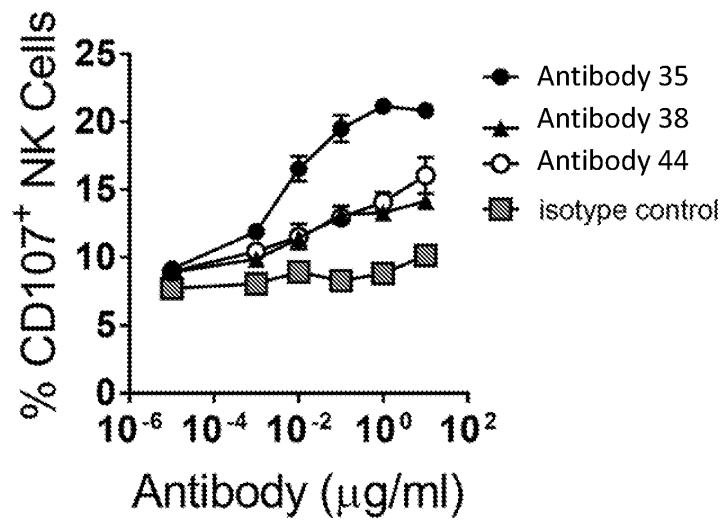


Fig. 7

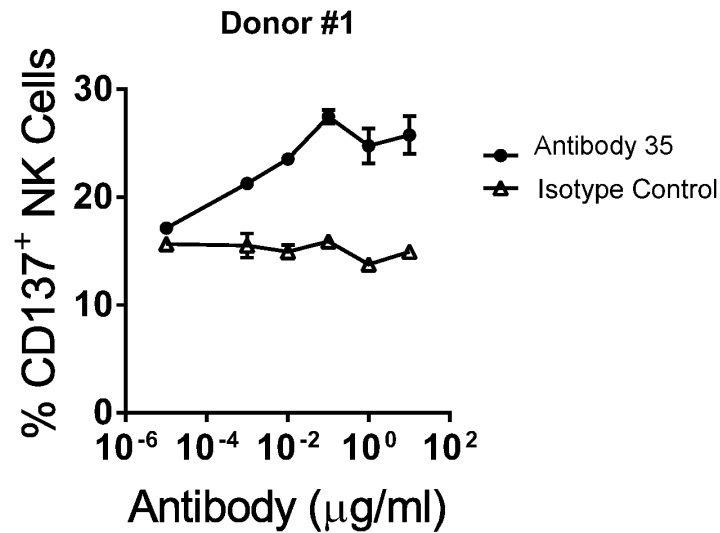


Fig. 8A

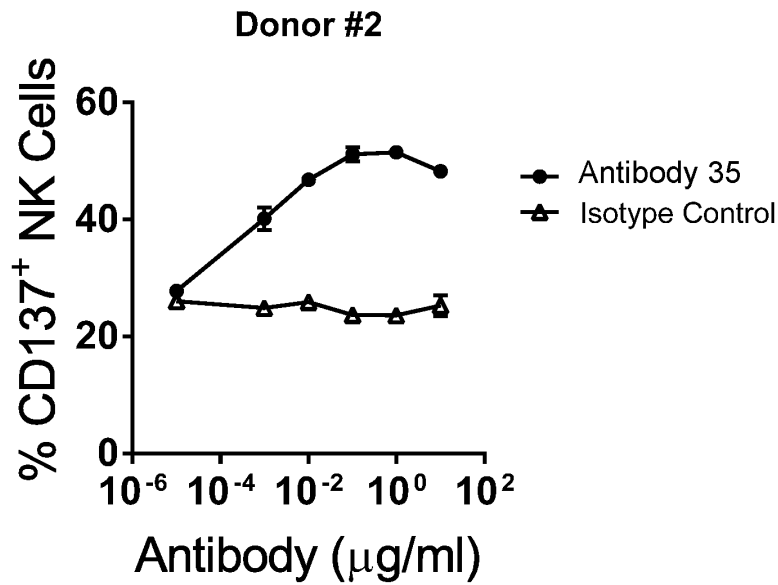


Fig. 8B

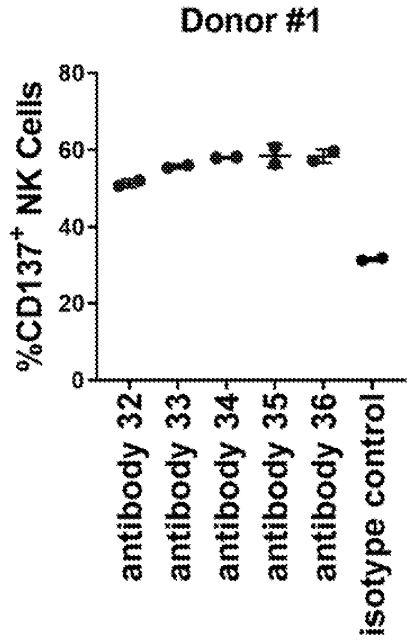


Fig. 8C

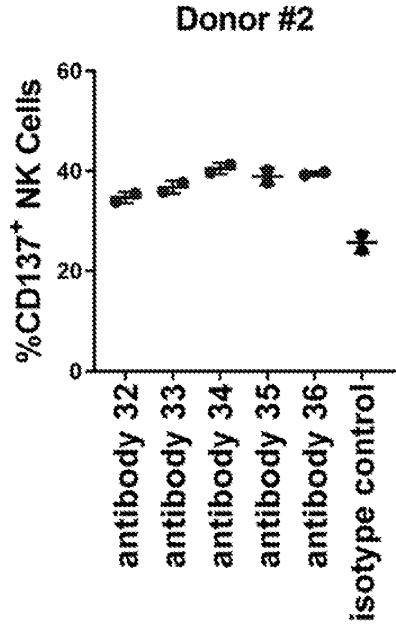


Fig. 8D

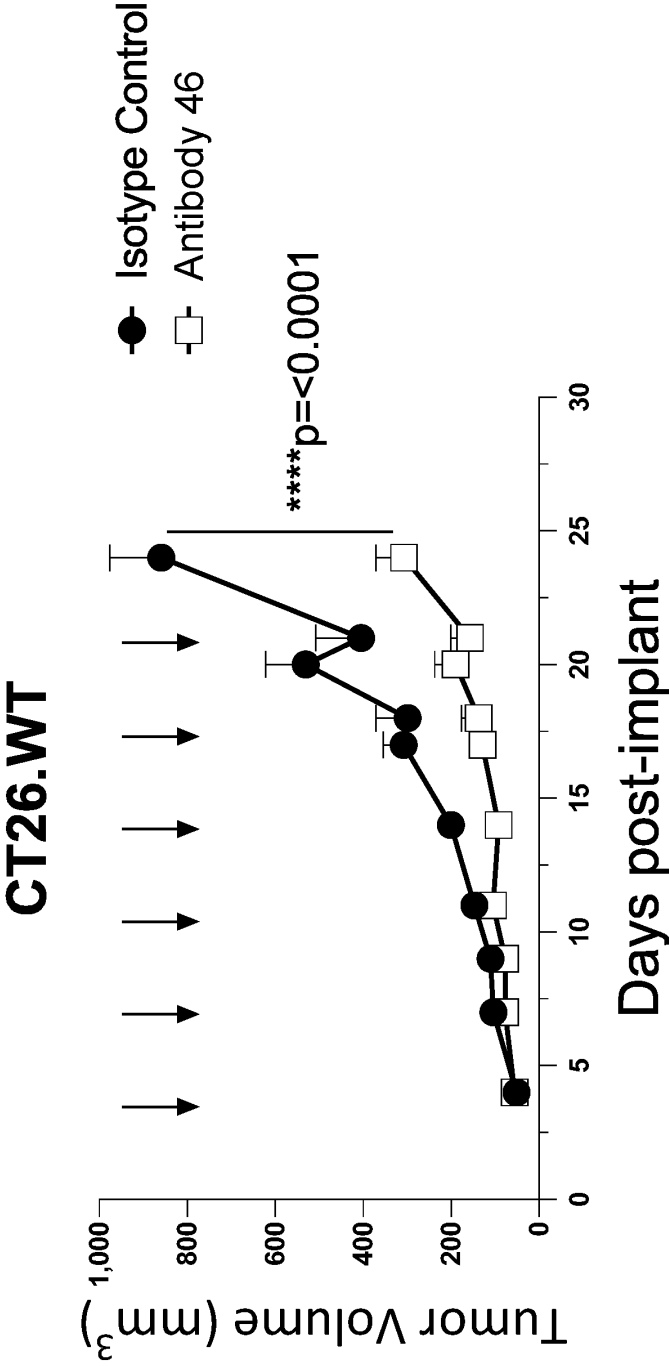


Fig. 9

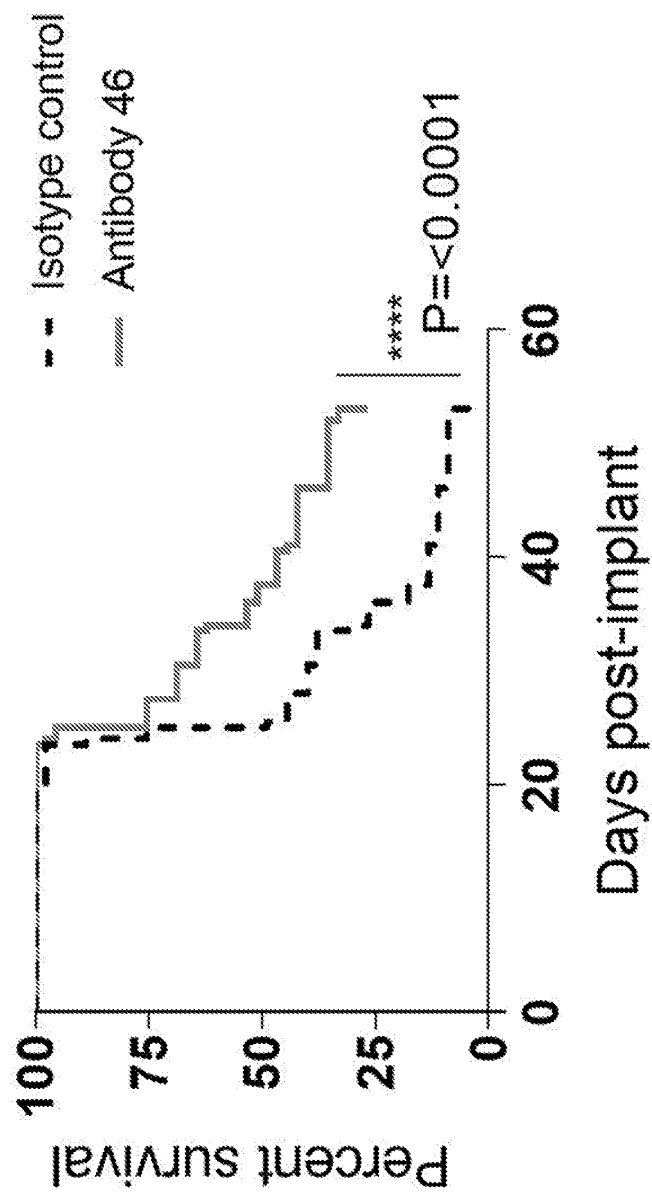


Fig. 10A

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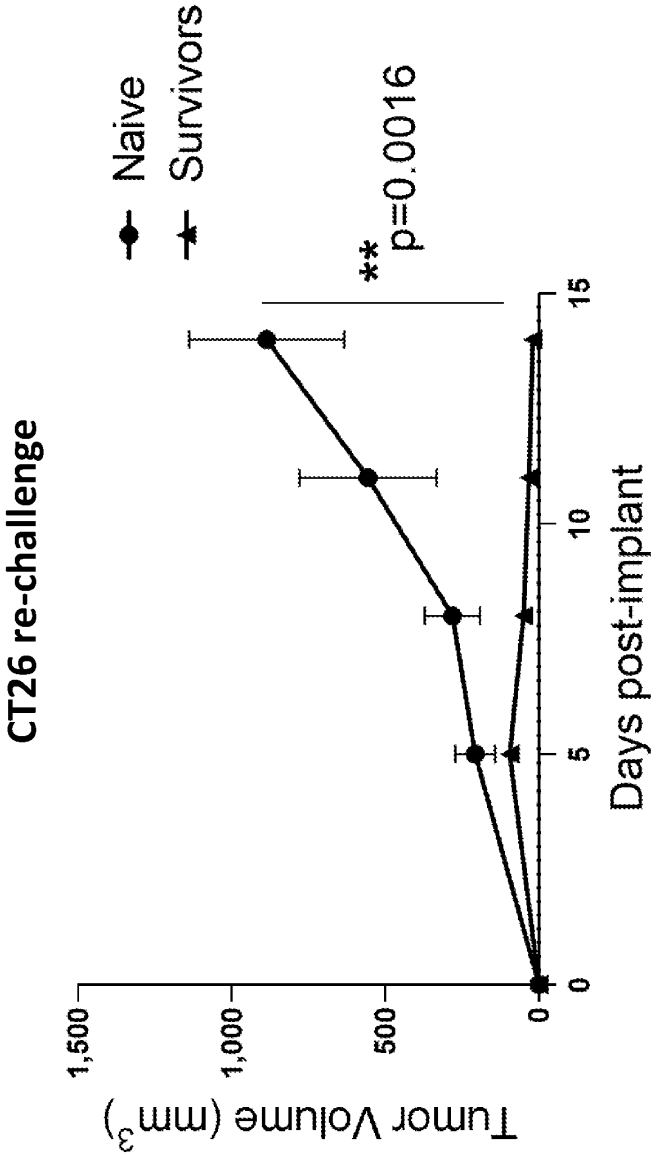


Fig. 10B

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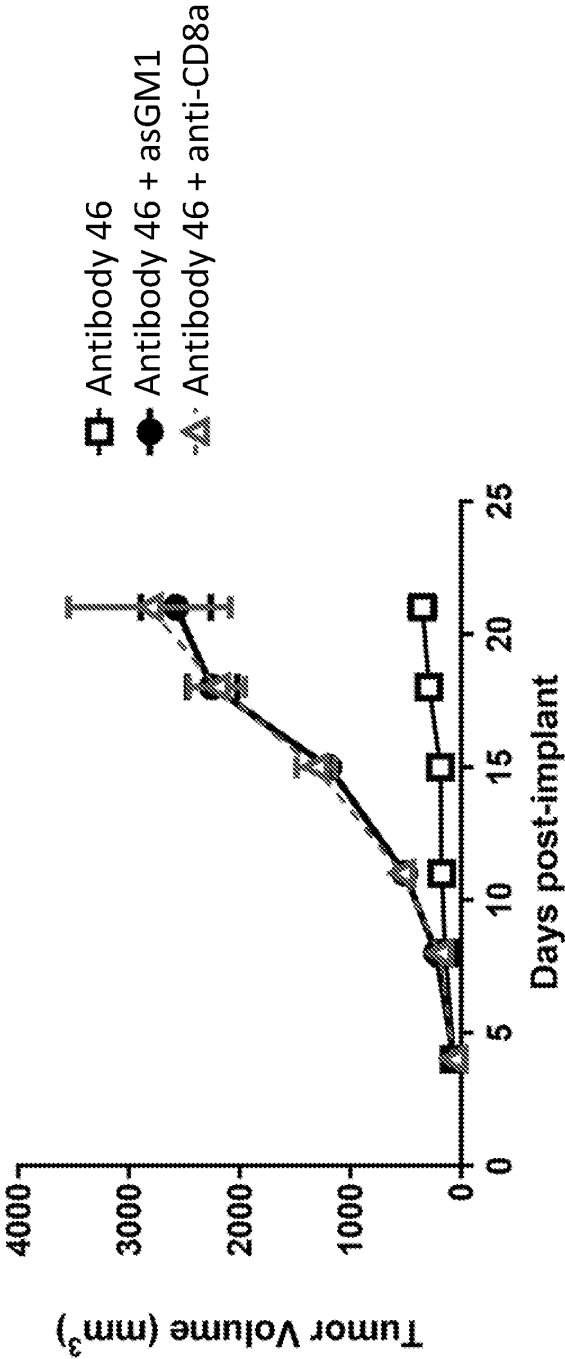


Fig. 11

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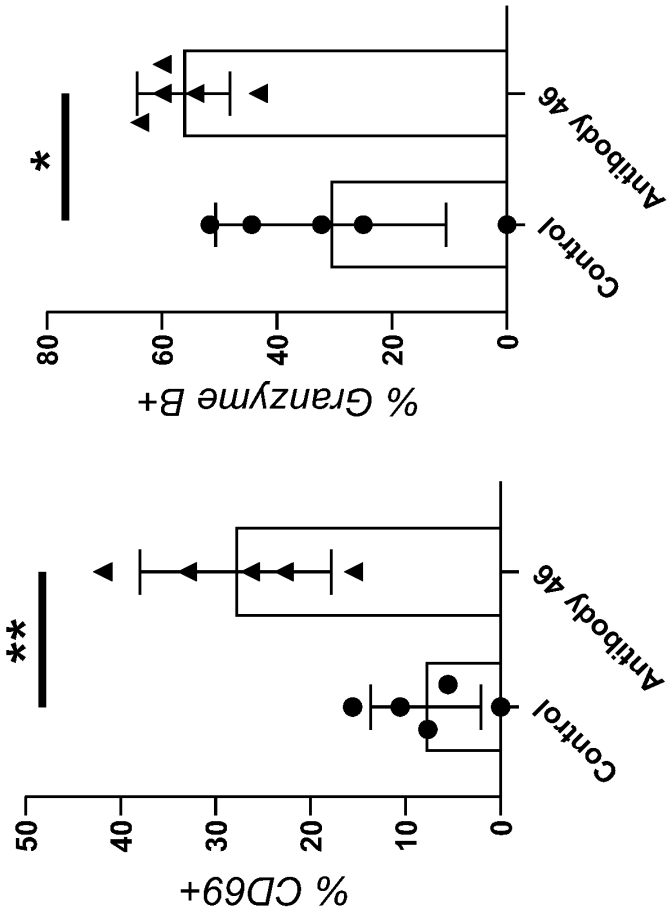


Fig. 12B

Fig. 12A

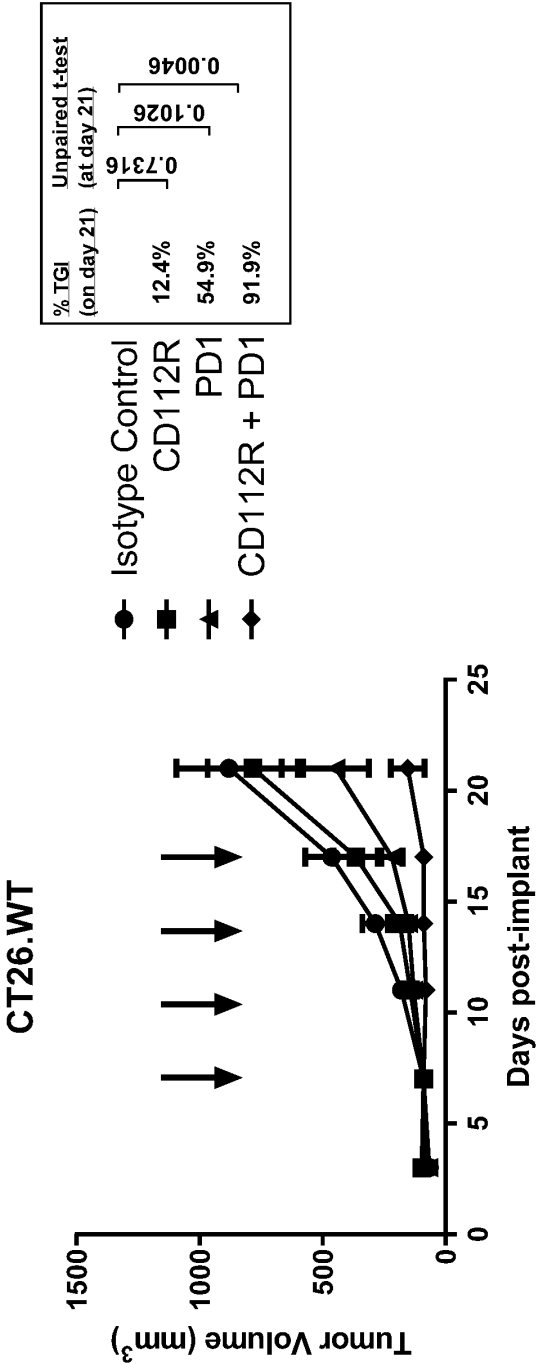


Fig. 13A

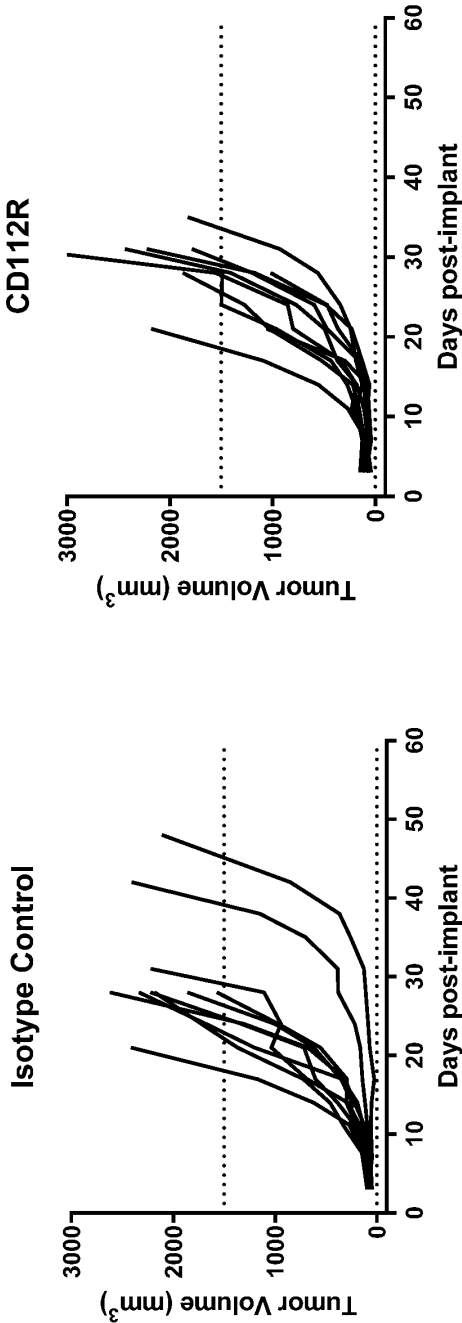


Fig. 13C

Fig. 13B

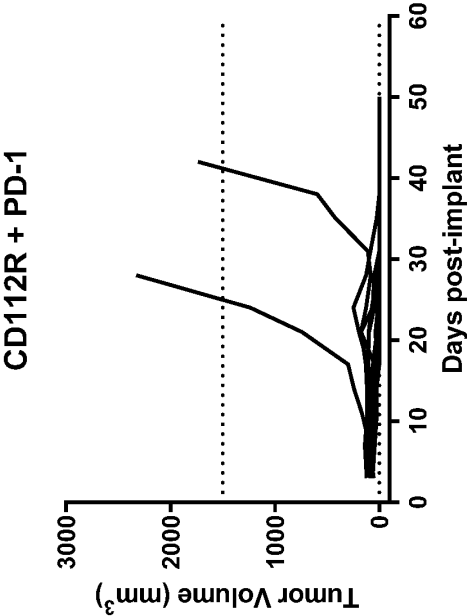


Fig. 13E

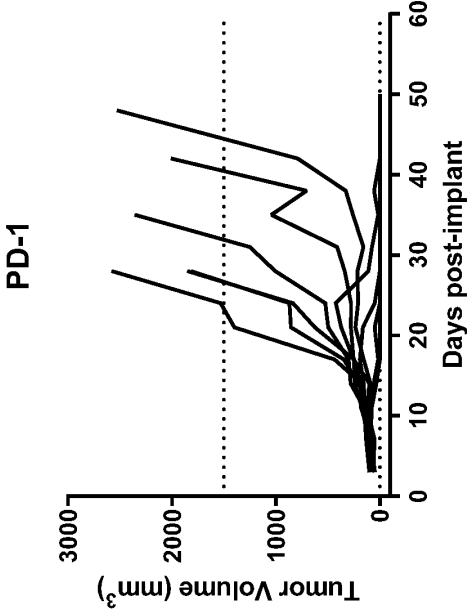


Fig. 13D

Group	Tumor-free survivors (out of 10)
Isotype control	0
CD112R	0
PD-1	4
CD112R + PD-1	8

Fig. 13F

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36H1	GTFATYAIS	9	77.78%
44H1	GTFDNYYIS	9	66.67%
33H1	GTFGNY AIS	9	77.78%
47H1	GTFSNYAIS	9	88.89%
35H1	GTFSSAAIS	9	88.89%
34H1	GTFSSAAIS	9	88.89%
32H1	GTFSSY AIS	9	100%
38H1	FTFSGH LMS	9	44.44%
10H1	FTFDDYAVH	9	44.44%
2H1	FTFSEYTMN	9	44.44%
5H1	FTFSDYAMI	9	55.56%
58H1	FTFGDYAMS	9	55.56%
46H1	FTFGDYAMS	9	55.56%
15H1	FTFGDVAMS	9	44.44%

Fig. 14A

35H2	--NIIPIVGIAN YAQKFQG	17	82.35%
33H2	--GIIPIPGIAN YAQKFQG	17	88.24%
36H2	--GIFPLSGTANYA QKFQG	17	88.24%
34H2	--GIFPISGHANYA QKFQG	17	88.24%
32H2	--GIIPISGTANYA QKFQG	17	100%
44H2	--GIFPIFGTANYA QKFQG	17	88.24%
47H2	--GIIPIFGTANYA QKFQG	17	94.12%
58H2	FIGSKFYGGETEY TASVKG	19	23.53%
15H2	YIGSKAYGGETEY TASVKG	19	23.53%
46H2	FIGSKAYGGTTEY TASVKG	19	29.41%
10H2	--GISWSSGLIGYADSVKG	17	41.18%
2H2	--AIVGSGDSTYYADSVKG	17	23.53%
5H2	--AISGGGESTYYADSVKG	17	23.53%
38H2	--AISGSAGETYYADSVKG	17	29.41%

Fig. 14B

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15H3	-ARAGHSYG---SIASNWFDP	17	31.25%
35H3	--ARDTGRG---YTRHFWFDP	16	100%
32H3	--ARDTGRG---YTRHFWFDP	16	100%
33H3	--ARDTGRG---YTRHFWFDP	16	100%
34H3	--ARDTGRG---YTRHFWFDP	16	100%
36H3	--ARDTGRG---YTRHFWFDP	16	100%
38H3	--ARDAYDDWSGWADWYFDL	19	31.25%
44H3	AREVGHY-----SGSPYYMDV	16	7.14%
10H3	AKG--PPT-----YQDYFDL--	13	18.18%
2H3	--AKDYSSG---DWIDYGMDV	16	25%
5H3	--AKDYSSG---DWIDYGMDV	16	25%
58H3	ARG-----P---RRYTYGMDV	13	9.09%
46H3	ARG-----P---RRYTYGMDV	13	9.09%
47H3	ARGRGALAL---VGPYYGMDV	18	12.50%

Fig. 14C

10L1	RASQSVS-----RYLA	11	72.73%
38L1	RASQSVS-----RYLA	11	72.73%
44L1	RASQSIN-----SWLA	11	72.73%
2L1	QASQDIS-----NYLN	11	72.73%
5L1	QASQDIS-----NYLN	11	72.73%
58L1	RASQSIG-----SYLN	11	100%
15L1	RASQSIG-----SYLN	11	100%
35L1	RASQSIG-----SYLN	11	100%
46L1	RASQSIG-----SYLN	11	100%
32L1	RASQSIG-----SYLN	11	100%
33L1	RASQSIG-----SYLN	11	100%
34L1	RASQSIG-----SYLN	11	100%
36L1	RASQSIG-----SYLN	11	100%
47L1	RSSQSLHSHNGYNYLD	16	54.55%

Fig. 14D

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47L2	LGSHRAS	7	28.57%
2L2	DASNLAT	7	42.86%
5L2	DASNLAT	7	42.86%
10L2	DASNRAT	7	28.57%
38L2	DASNRAT	7	28.57%
44L2	DASSLES	7	71.43%
58L2	AASSLQS	7	100%
35L2	AASSLQS	7	100%
46L2	AASSLQS	7	100%
32L2	AASSLQS	7	100%
33L2	AASSLQS	7	100%
34L2	AASSLQS	7	100%
36L2	AASSLQS	7	100%
15L2	GASSLQS	7	85.71%

Fig. 14E

47L3	-MQALRAPT-	8	0%
15L3	-QQGFYTPWT	9	14.29%
44L3	QQVGPYL--T	8	28.57%
58L3	QQSSTPL--T	8	42.86%
46L3	QQSSTPL--T	8	42.86%
35L3	QQSDILYT--	8	100%
32L3	QQSDILYT--	8	100%
33L3	QQSDILYT--	8	100%
34L3	QQSDILYT--	8	100%
36L3	QQSDILYT--	8	100%
10L3	QQVSFFPPIT	10	25%
2L3	QQFDLLPPT-	9	50%
5L3	QQFDLLPPT-	9	50%
38L3	QQVSLLPPT-	9	37.5%

Fig. 14F

20/28

FR1

36VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
33VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
35VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
32VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
34VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
44VH	QVQLVQSGAEVKKPGSSVKVSCKASG	100%
47VH	EVQLVQSGAEVKKPGSSVKVSCKASG	96.15%
58VH	EVQLVESGGGLVQPGRSLRLSCTASG	53.85%
46VH	EVQLVESGGGLVQPGRSLRLSCTASG	53.85%
15VH	EVQLVESGGGLVQPGRSLRLSCTASG	53.85%
10VH	EVQLVESGGGLVQPGRSLRLSCAASG	53.85%
38VH	EVQLLESGGGLVQPGGSLRLSCAASG	50%
2VH	EVQLVESGGGLVKPGGSLRLSCAASG	57.69%
5VH	EVQLLESGGGLVQPGGSLRLSCAASG	50%

Fig. 15AFR2

36VH	WVRQAPGQGLEWMG	100%
33VH	WVRQAPGQGLEWMG	100%
35VH	WVRQAPGQGLEWMG	100%
32VH	WVRQAPGQGLEWMG	100%
34VH	WVRQAPGQGLEWMG	100%
44VH	WVRQAPGQGLEWMG	100%
47VH	WVRQAPGQGLEWMG	100%
58VH	WFRQAPGKGLEWVG	78.57%
46VH	WFRQAPGKGLEWVG	78.57%
15VH	WFRQAPGKGLEWVG	78.57%
10VH	WV-----WVS	60%
38VH	WVRQAPGKGLEWVS	78.57%
2VH	WVRQAPGKGLEWVS	78.57%
5VH	WVRQAPGKGLEWVS	78.57%

Fig. 15B

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FR3

36VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
33VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
35VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
32VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
34VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
44VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
47VH	RVTITADESTSTAYMELSSLRSED	TAVYYC	100%
58VH	RFTISRDGSKSIAYLQMNSLKTED	TAVYYC	60%
46VH	RFTISRDGSKSIAYLQMNSLKTED	TAVYYC	60%
15VH	RFTISRDGSKSIAYLQMNSLKTED	TAVYYC	60%
10VH	RFTISRDNAKNSLYLQMNSLRAED	TAVYYC	53.33%
38VH	RFTISRDNKNTLYLQMNSLRAED	TAVYYC	60%
2VH	RFTISRDNKNTLYLQMNSLRAED	TAVYYC	60%
5VH	RFTISRDNKNTLYLQMNSLRAED	TAVYYC	60%

Fig. 15C**FR4**

36VH	WGQGTTLVTVSS	100%
33VH	WGQGTTLVTVSS	100%
35VH	WGQGTTLVTVSS	100%
32VH	WGQGTTLVTVSS	100%
34VH	WGQGTTLVTVSS	100%
44VH	WGKGTTVTVSS	81.82%
47VH	WGQGTTVTVSS	90.91%
58VH	WGQGTTVTVSS	90.91%
46VH	WGQGTTVTVSS	90.91%
15VH	WGQGTTLVTVSS	100%
10VH	WGRGTLVTVSS	90.91%
38VH	WGRGTLVTVSS	90.91%
2VH	WGQGTTVTVSS	90.91%
5VH	WGQGTTVTVSS	90.91%

Fig. 15D

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FR1

47VL	DIVMTQSPLSLPVTTPGEPASISC	52.17%
10VL	EIVLTQSPATLSLSPGERATLSC	52.17%
38VL	EIVLTQSPATLSLSPGERATLSC	52.17%
2VL	DIQMTQSPSSLSASVGDRVTITC	100%
5VL	DIQMTQSPSSLSASVGDRVTITC	100%
44VL	DIQMTQSPSTLSASVGDRVTITC	95.65%
15VL	DIQMTQSPSSLSASVGDRVTITC	100%
58VL	DIQMTQSPSSLSASVGDRVTITC	100%
46VL	DIQMTQSPSSLSASVGDRVTITC	100%
35VL	DIQMTQSPSSLSASVGDRVTITC	100%
32VL	DIQMTQSPSSLSASVGDRVTITC	100%
33VL	DIQMTQSPSSLSASVGDRVTITC	100%
34VL	DIQMTQSPSSLSASVGDRVTITC	100%
36VL	DIQMTQSPSSLSASVGDRVTITC	100%

Fig. 15E**FR2**

47VL	WYLQKPGQSPQLLIY	76.33%
10VL	WYQQKPGQAPRLIY	86.67%
38VL	WYQQKPGQAPRLIY	86.67%
2VL	WYQQKPGKAPKLLIY	100%
5VL	WYQQKPGKAPKLLIY	100%
44VL	WYQQKPGKAPKLLIS	93.33%
15VL	WYQQKPGKAPKLLIY	100%
58VL	WYQQKPGKAPKLLIY	100%
46VL	WYQQKPGKAPKLLIY	100%
35VL	WYQQKPGKAPKLLIY	100%
32VL	WYQQKPGKAPKLLIY	100%
33VL	WYQQKPGKAPKLLIY	100%
34VL	WYQQKPGKAPKLLIY	100%
36VL	WYQQKPGKAPKLLIY	100%

Fig. 15F

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FR3

47VL	GVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC	71.88%
10VL	GIPAREFSGSGSGTDFTLTISLLEPEDFAVYYC	87.5%
38VL	GIPAREFSGSGSGTDFTLTISLLEPEDFAVYYC	87.5%
2VL	GVPSRFSGSGSGTDFTFTISSLQPEDIATYYC	93.75%
5VL	GVPSRFSGSGSGTDFTFTISSLQPEDIATYYC	93.75%
44VL	GVPSRFSGSGSGTEFTLTISLQPDDEFATYYC	93.75%
15VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
58VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
46VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
35VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
32VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
33VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
34VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%
36VL	GVPSRFSGSGSGTDFTLTISLQPEDFATYYC	100%

Fig. 15G**FR4**

47VL	FGGGTKVEIK	100%
10VL	FGGGTKVEIK	100%
38VL	FGGGTKVEIK	100%
2VL	FGGGTKVEIK	100%
5VL	FGGGTKVEIK	100%
44VL	FGGGTKVEIK	100%
15VL	FGGGTKVEIK	100%
58VL	FGGGTKVEIK	100%
46VL	FGGGTKVEIK	100%
35VL	FGGGTKVEIK	100%
32VL	FGGGTKVEIK	100%
33VL	FGGGTKVEIK	100%
34VL	FGGGTKVEIK	100%
36VL	FGGGTKVEIK	100%

Fig. 15H

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Variable Region Sequences

36VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFATYAI SWVRQAPGQGLEWMGGIF--PLSGTA
 33VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFGNIAI SWVRQAPGQGLEWMGGII--PIPGIA
 35VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFSSAAI SWVRQAPGQGLEWMGNII--PIVGIA
 32VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFSSYAI SWVRQAPGQGLEWMGGII--PISGTA
 34VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFSSAAI SWVRQAPGQGLEWMGGIF--PISGHA
 44VH QVQLVQSGAEVKKPGSSVKVSCKASGGTFDNYI SWVRQAPGQGLEWMGGIF--PIFGTA
 47VH EVQLVQSGAEVKKPGSSVKVSCKASGGTFSNYAI SWVRQAPGQGLEWMGGII--PIFGTA
 58VH EVQLVESGGGLVQPGRSLRLSCTASGFTFGDYAMSWFRQAPGKGLEWVGFIGSKFYGGET
 46VH EVQLVESGGGLVQPGRSLRLSCTASGFTFGDYAMSWFRQAPGKGLEWVGFIGSKAYGGTT
 15VH EVQLVESGGGLVQPGRSLRLSCTASGFTFGDVAMSWFRQAPGKGLEWVGFIGSKAYGGTT
 10VH EVQLVESGGGLVQPGRSLRLSCAASGFTFDDYAVHWVRQAPGKGLEWVSGIS--WSSGLI
 38VH EVQLLESGGGLVQPGGSLRLSCAASGFTFSGHLMWVRQAPGKGLEWVSAIS--GSAGET
 2VH EVQLVESGGGLVKPGGSLRLSCAASGFTFSEYTMNWVRQAPGKGLEWVSAIV--GSGDST
 5VH EVQLLESGGGLVQPGGSLRLSCAASGFTFSDYAMIWVRQAPGKGLEWVSAIS--GGGEST

36VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARDTGRG--YT-RHFWFDPWGQ
 33VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARDTGRG--YT-RHFWFDPWGQ
 35VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARDTGRG--YT-RHFWFDPWGQ
 32VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARDTGRG--YT-RHFWFDPWGQ
 34VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARDTGRG--YT-RHFWFDPWGQ
 44VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCAREVGHY--SG-SPYYMDVWGK
 47VH NYAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARGRGALALVG-PYYGMDVWGQ
 58VH EYTSVKGRFTISRDSKSIAYLQMNSLKTEDTAVYYCARGPRRY--TY----GMDVWGQ
 46VH EYTSVKGRFTISRDSKSIAYLQMNSLKTEDTAVYYCARGPRRY--TY----GMDVWGQ
 15VH EYTSVKGRFTISRDSKSIAYLQMNSLKTEDTAVYYCARAGHSY--GSIASNWFDPWGQ
 10VH GYADSVKGRFTISRDNKNSLYLQMNSLRAEDTAVYYCAKGPPT-----YQDYFDLWGR
 38VH YYADSVKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCARDAYYDDWSGWADWYFDLWGR
 2VH YYADSVKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCAKDYSSGD---WIDYGMDVWGQ
 5VH YYADSVKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCAKDYSSGD---WIDYGMDVWGQ

36VH	GTLVTVSS	123	96.75%
33VH	GTLVTVSS	123	96.75%
35VH	GTLVTVSS	123	96.75%
32VH	GTLVTVSS	123	100%
34VH	GTLVTVSS	123	97.56%
44VH	GTTVTVSS	123	84.55%
47VH	GTTVTVSS	125	86.99%
58VH	GTTVTVSS	122	55.00%
46VH	GTTVTVSS	122	55.83%
15VH	GTLVTVSS	126	55.28%
10VH	GTLVTVSS	120	54.17%
38VH	GTLVTVSS	126	53.66%
2VH	GTTVTVSS	123	54.55%
5VH	GTTVTVSS	123	53.72%

Fig. 16A

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47VL	DIVMTQSPSLSPVTPGEPASISCRSSQSLHNSGNYLDWYLQKPGQSPQLLIYLGSHRA		
10VL	EIVLTQSPATLSLSPGERATLSCRASQSV-----SRYLAWYQQKPGQAPRLLIYDASNRA		
38VL	EIVLTQSPATLSLSPGERATLSCRASQSV-----SRYLAWYQQKPGQAPRLLIYDASNRA		
2VL	DIQMTQSPSSLSASVGDRVTTITCQASQDI-----SNYLNWYQQKPGKAPKLLIYDASNLA		
5VL	DIQMTQSPSSLSASVGDRVTTITCQASQDI-----SNYLNWYQQKPGKAPKLLIYDASNLA		
44VL	DIQMTQSPSTLSASVGDRVTTITCRASQSI-----NSWLAWYQQKPGKAPKLLISDASSLE		
15VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYGASSLQ		
58VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
46VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
35VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
32VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
33VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
34VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
36VL	DIQMTQSPSSLSASVGDRVTTITCRASQSI-----SSYLNWYQQKPGKAPKLLIYAASSLQ		
47VL	SGVPDRFSGSGSGTDFTLTKISRVEAEDVGVIYCMQA--LRAPTFGGGTKVEIK	111	62.26%
10VL	TGIPARFSGSGSGTDFTLTISLLEPEDFAVYYCQQVSFFPPITFGGGTKVEIK	108	71.7%
38VL	TGIPARFSGSGSGTDFTLTISLLEPEDFAVYYCQQVSLPP--TFGGGTKVEIK	107	72.38%
2VL	TGVPSRFSGSGSGTDFTFTISSLPEDIATYYCQQF-DLLPPTFGGGTKVEIK	107	86.79%
5VL	TGVPSRFSGSGSGTDFTFTISSLPEDIATYYCQQF-DLLPPTFGGGTKVEIK	107	86.79%
44VL	SGVPSRFSGSGSGTEFTLTISLQPDDEFATYYCQQV--GPYLTFGGGTKVEIK	106	86.79%
15VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQG-FYTPWTFGGGTKVEIK	107	94.34%
58VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--STPLTFGGGTKVEIK	106	96.23%
46VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--STPLTFGGGTKVEIK	106	96.23%
35VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--DILYTFGGGTKVEIK	106	100%
32VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--DILYTFGGGTKVEIK	106	100%
33VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--DILYTFGGGTKVEIK	106	100%
34VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--DILYTFGGGTKVEIK	106	100%
36VL	SGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQS--DILYTFGGGTKVEIK	106	100%

Fig. 16B

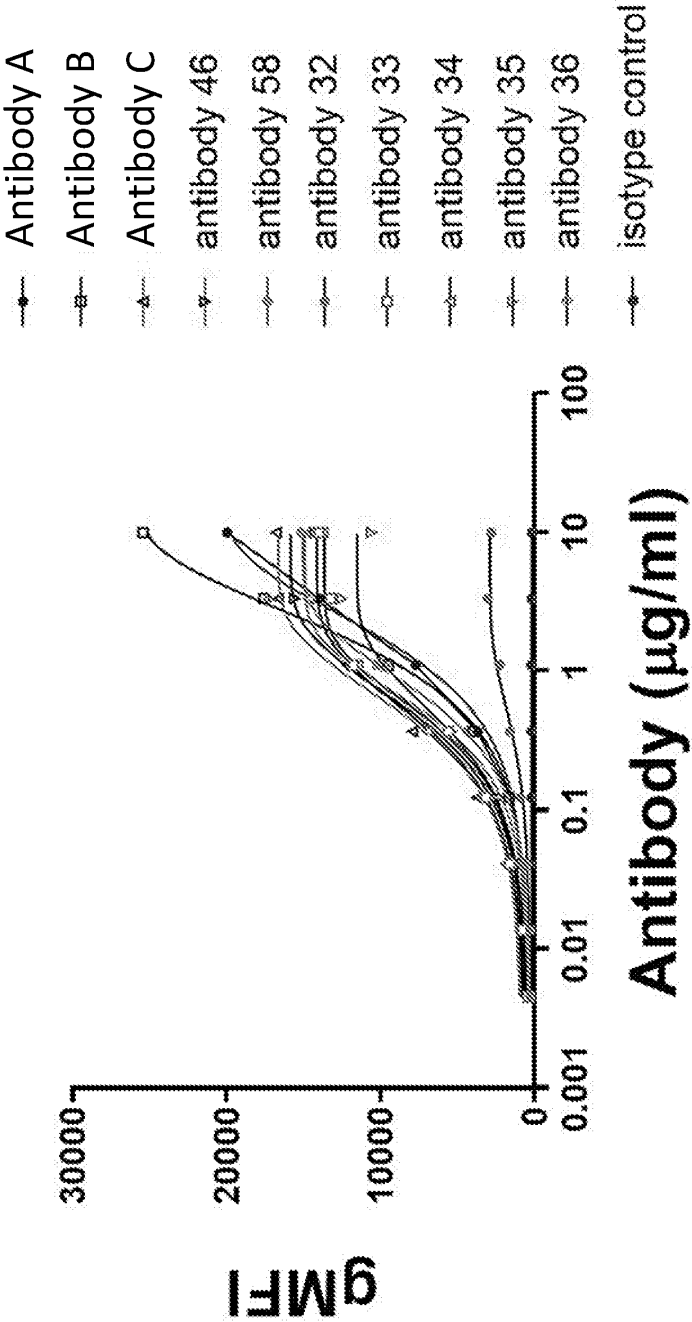


Fig. 17

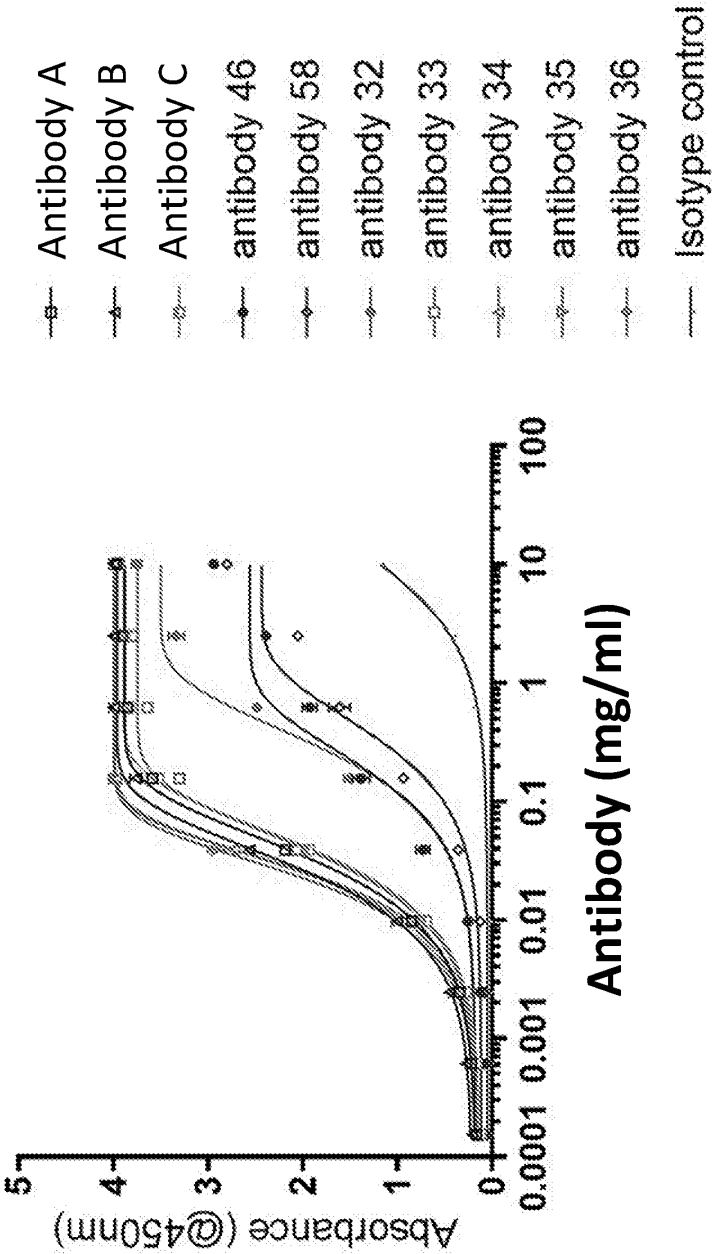


Fig. 18

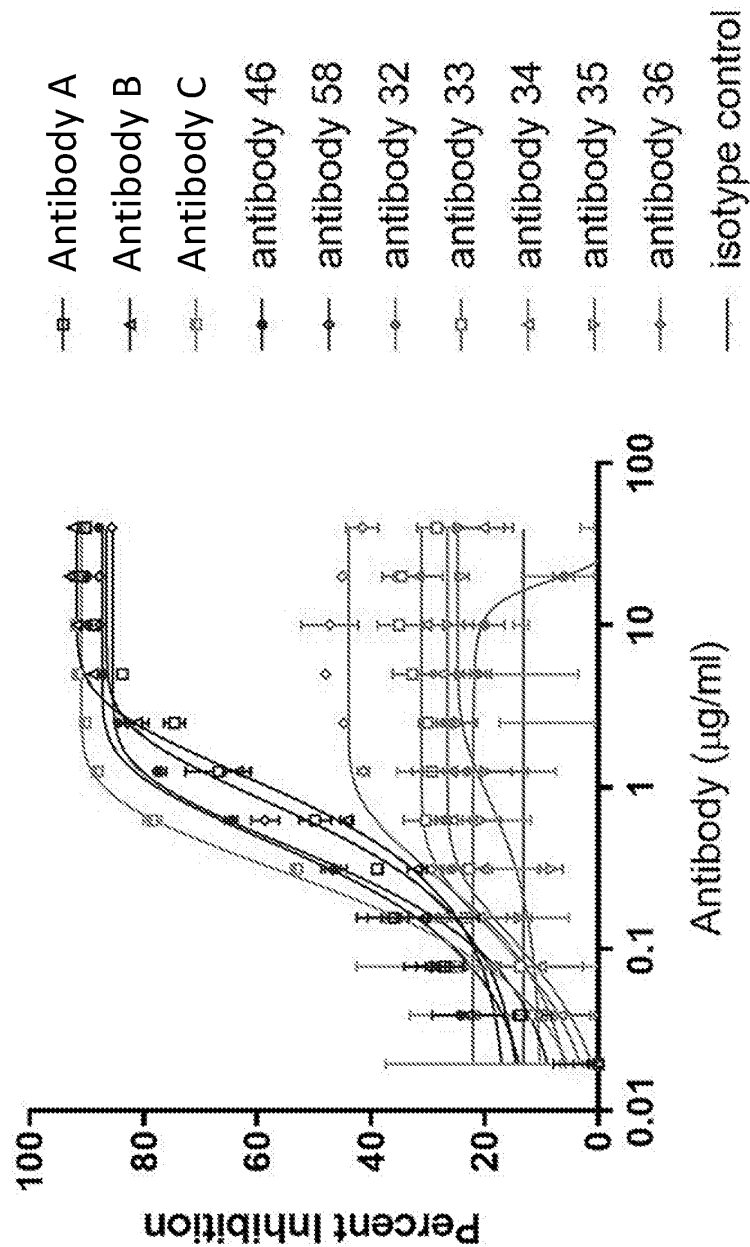


Fig. 19