

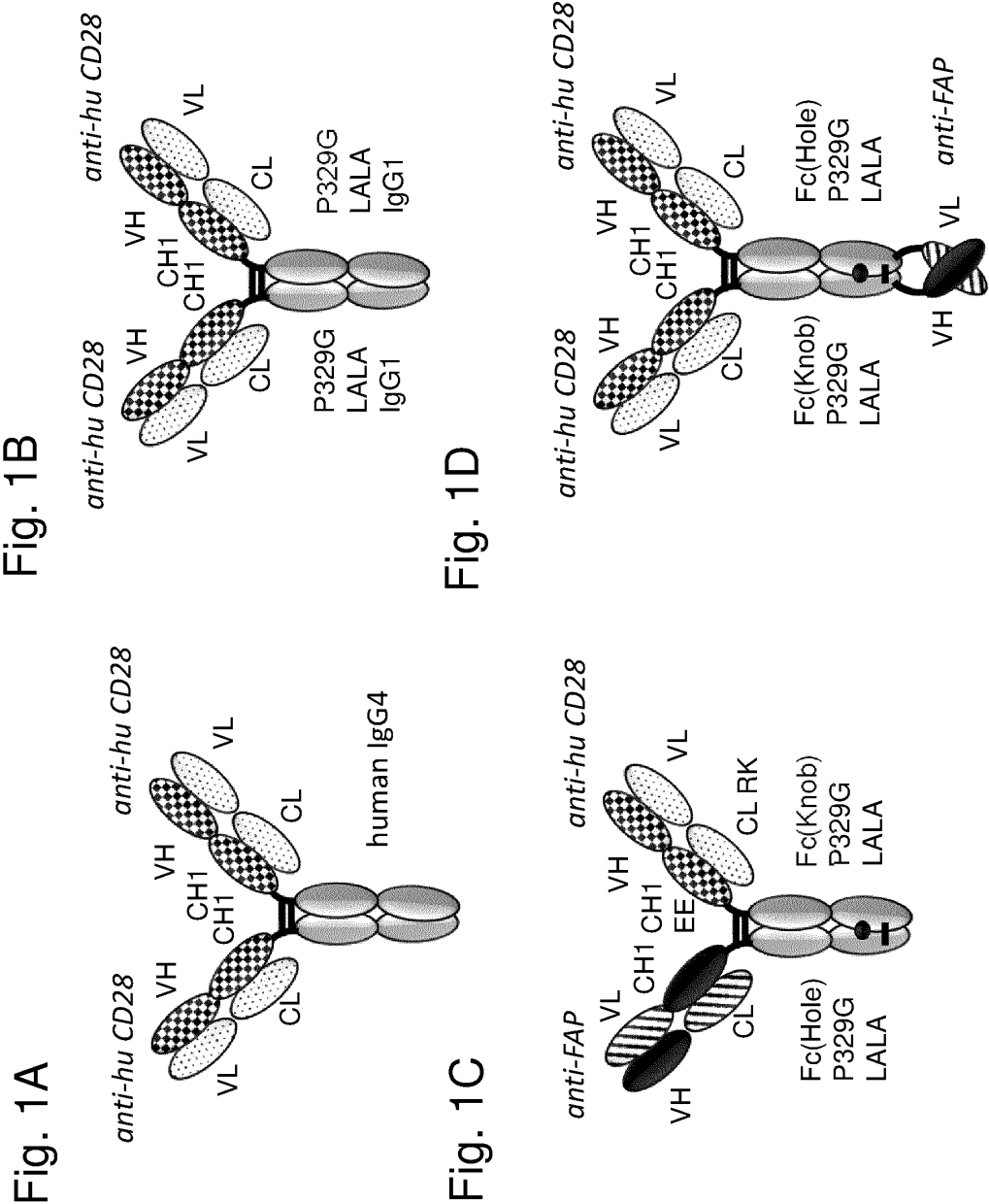


Fig. 1F

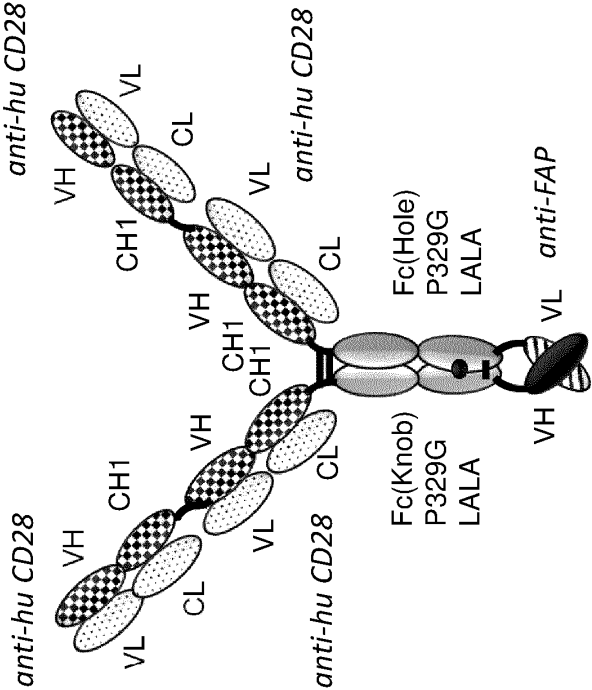


Fig. 1E

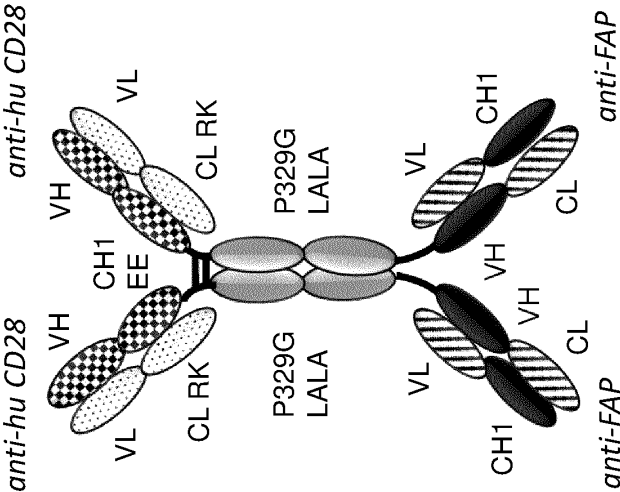


Fig. 1G

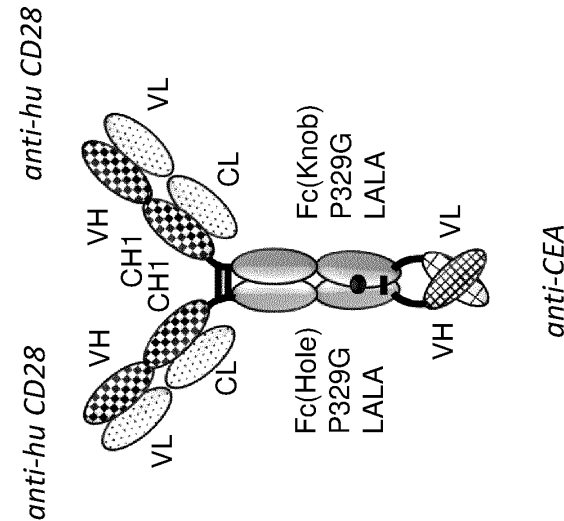
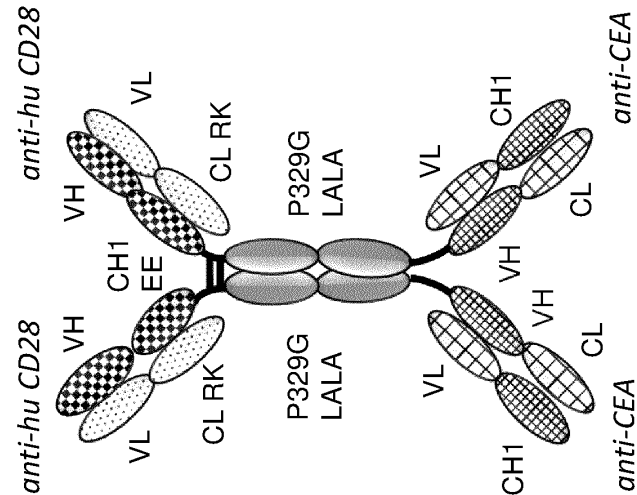


Fig. 1H



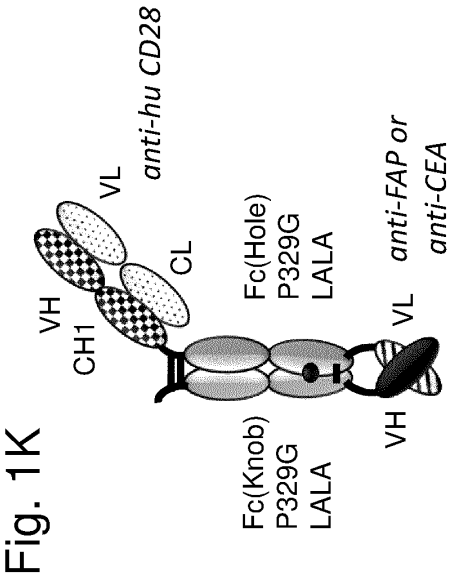
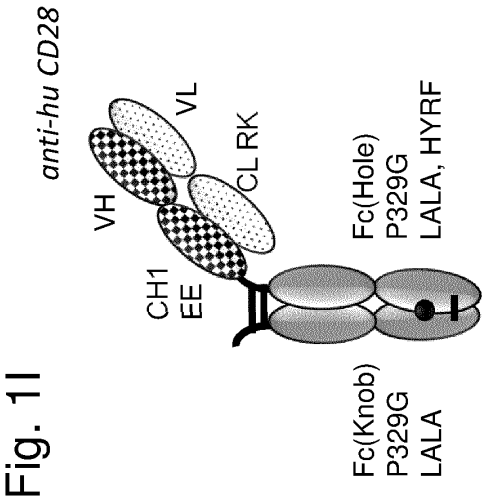
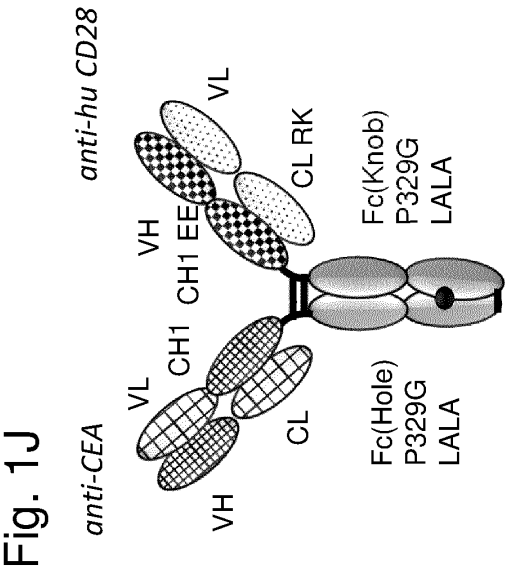


Fig. 1M

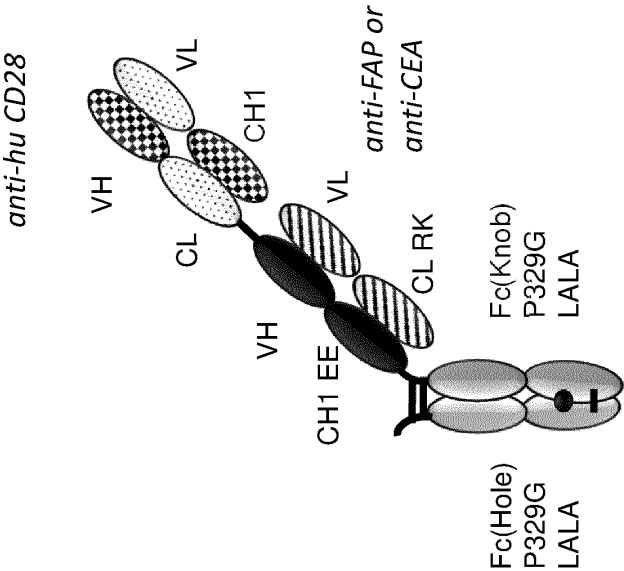


Fig. 1L

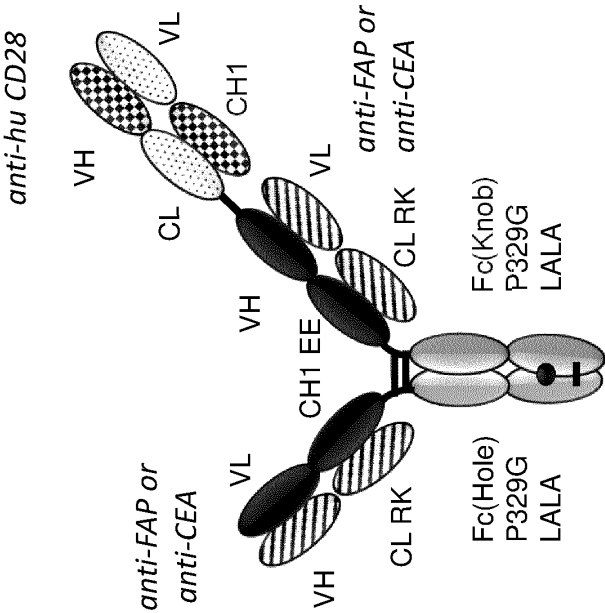


Fig. 1N

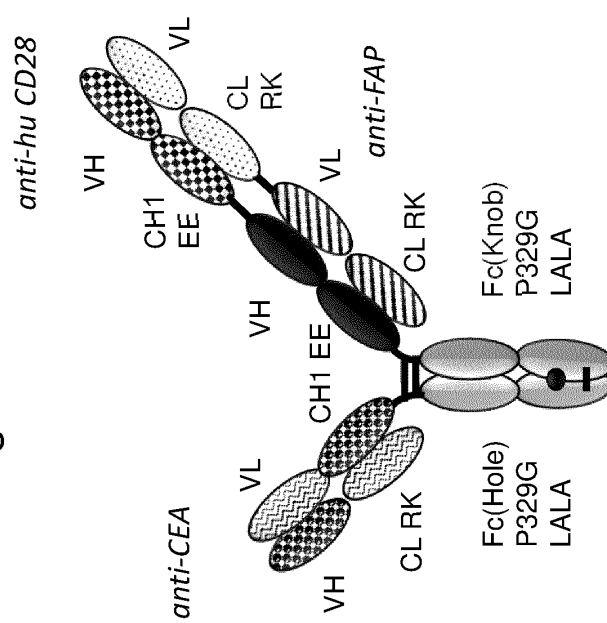


Fig. 2A

Binding to CD28

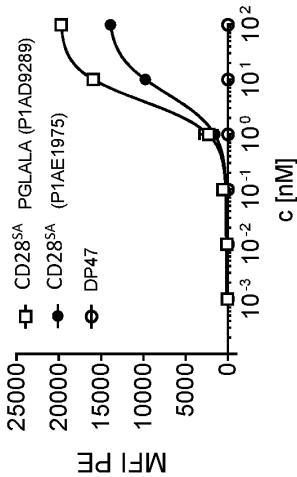


Fig. 2B

Binding to CD28

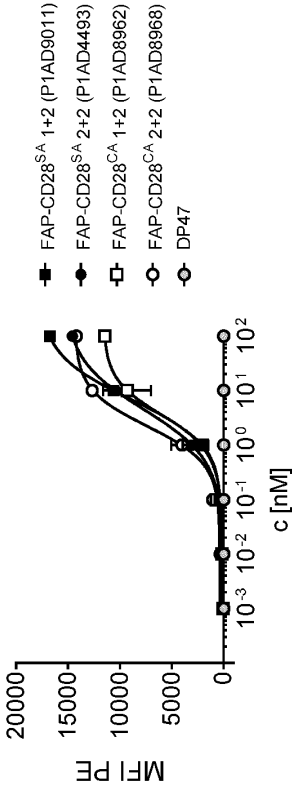


Fig. 2C

Binding to FAP

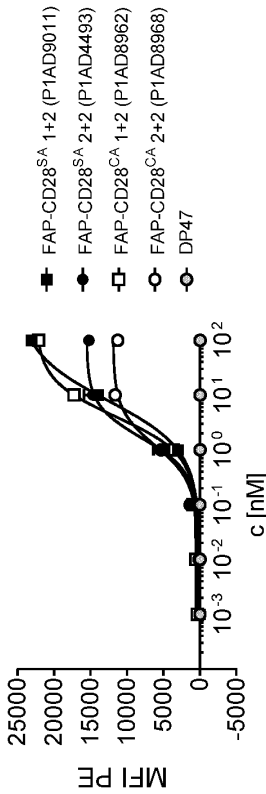


Fig. 2E

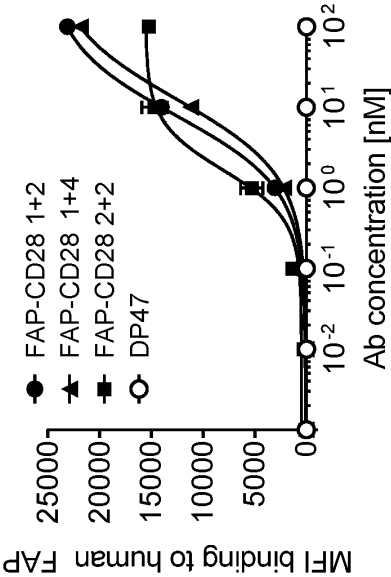


Fig. 2D

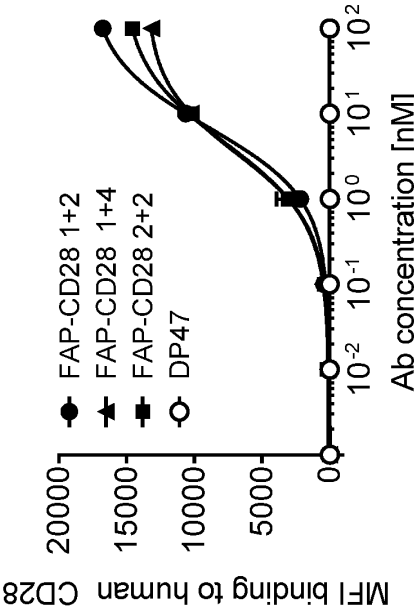


Fig. 2F

Binding to CD28

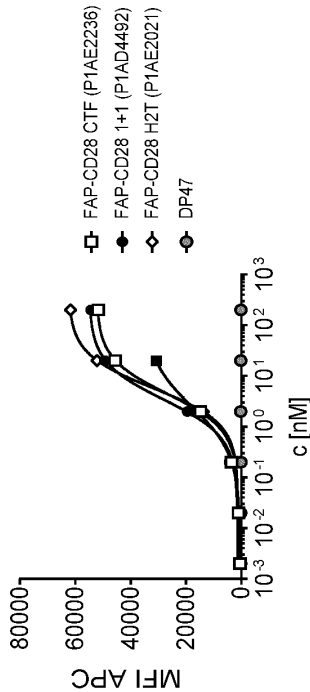


Fig. 2H

Binding to CD28

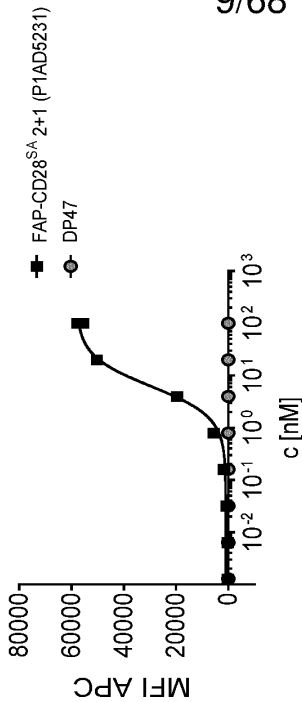


Fig. 2G

Binding to FAP

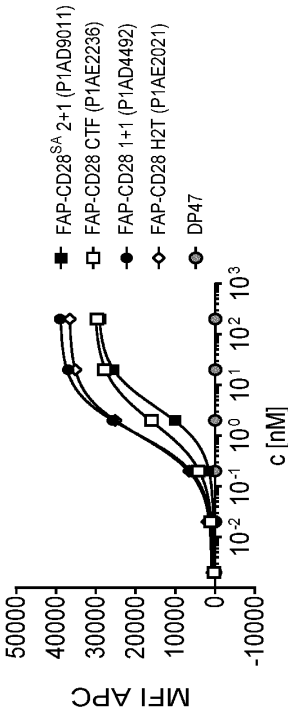


Fig. 2I

Binding to FAP

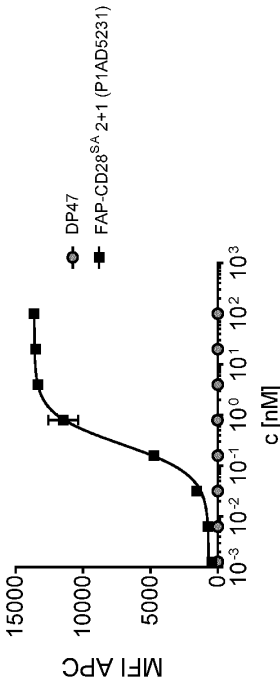


Fig. 3A

	CDR1	CDR2	CDR3
CD28 (3A)	QVQLVSGAEVKKPKGASVKVCKASGYTF	TSYYIHVRQAPGGGLEWIC	CIYFGNVTNTNNEKFKDRAITLVDTISISTAYMELSLRISDDTAVYFC
VH variant a	.....	.....S.....	SHYGLDNFVNGQGTITVTVSS.....
VH variant b	.....	.....S.....Q.....	H.....
VH variant c	.....	.....S.....Q.....	A.H.....
VH variant d	.....	.....S.....RDGQ.....	Y.....
VH variant e	.....	.....S.....Q.....	F.....
VH variant f	.....	.....S.....Q.....	H.....
VH variant g	.....	.....S.....R.Q.....	H.....
VH variant h	.....	.....S.....RD.Q.....	H.....
Herceptin VH	EVQLVESGGGLVQPGGSLRLSCAASGFTN	IKDTYIHVRQAPGKGLEWVAR	IRYPTNGYTRYADSVKGFRTISADTSKNTAYLQMNSLRARED
VH variant i	TFTSY.....	S.G.VN.....	T.SHYGLDNF.V.....T.....
VH variant j	TFTSY.....	S.G.VA.....	T.SHYGLDNF.V.....T.....

Fig. 3B

Fig. 3C

	CDR1	CDR2	CDR3
CD28 (3A)	DIQMTQSPSSLSASVGDRVTITC	HASQNIYVWLNIYQOKPGKAPKLLIYKASNLHT	GVPSRFSGSGSGTDFTLTISSLQPEDFATYYQQGQTPYTFGGGKVEIK
VL variant k	H.....	.....	.....A.....
VL variant l	F.....	.....	.....
VL variant m	Y.....	.....	.....
VL variant n	G.SNY.....	YT.S.S.....	.....
VL variant o	G.SNY.....	YT.S.S.....	.....
VL variant p	G.SNH.....	.....	.....
VL variant q	G.Y.....	.....	.....
VL variant r	G.S.Y.....	.....	.....
VL variant s	.....	.....	.....
Herceptin VL	DIQMTQSPSSLSASVGDRVTITC	RASQDVNTAVAWYQQKPGKAPKLLIYSASFLYS	GVPSRFSGSGSGTDFTLTISSLQPEDFATYYQQHYYTTPPTFGGKVEIK
VL variant t	NIYYWLN.....	K.N.N.....	GO.Y.Y.....L.....

Fig. 3D

Fig. 4B

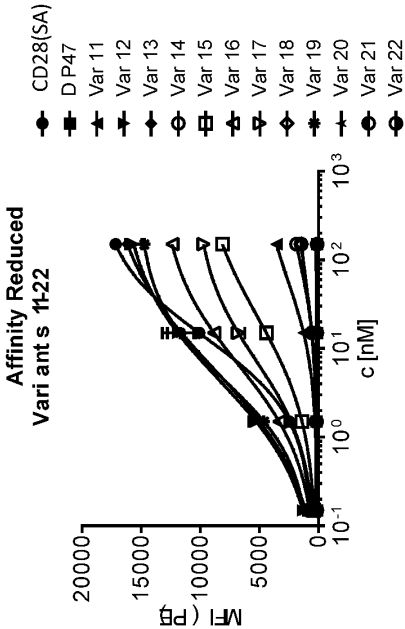


Fig. 4A

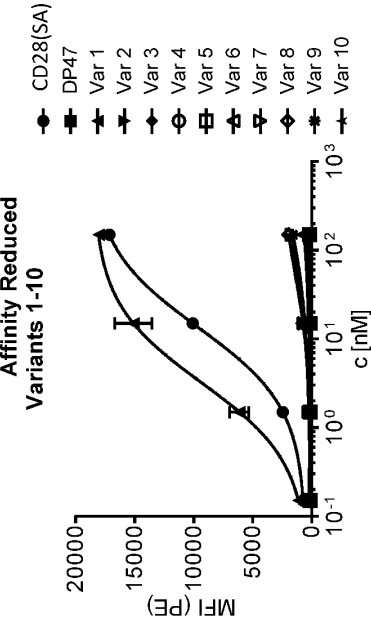


Fig. 4C

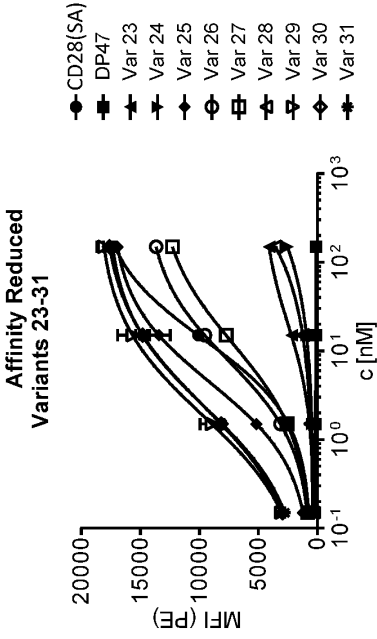


Fig. 4E

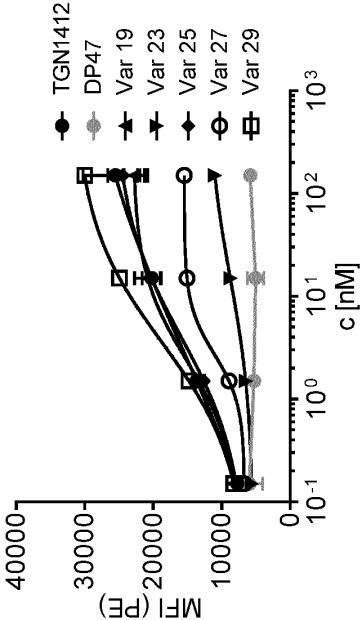


Fig. 4G

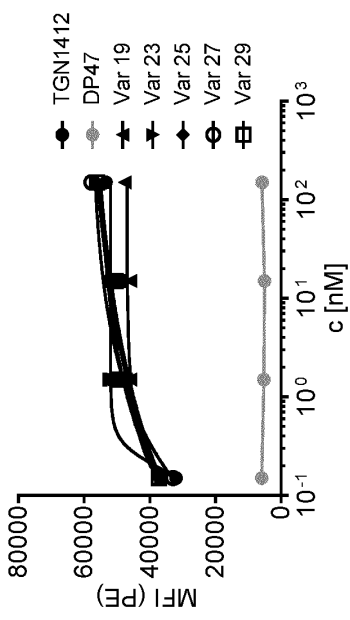


Fig. 4D

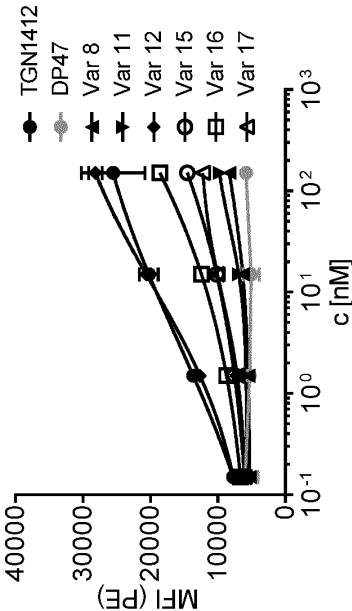


Fig. 4F

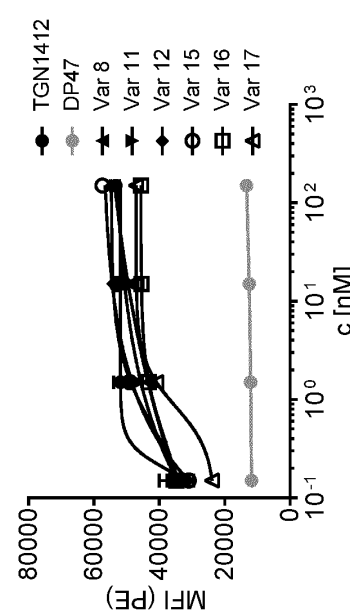


Fig. 4I

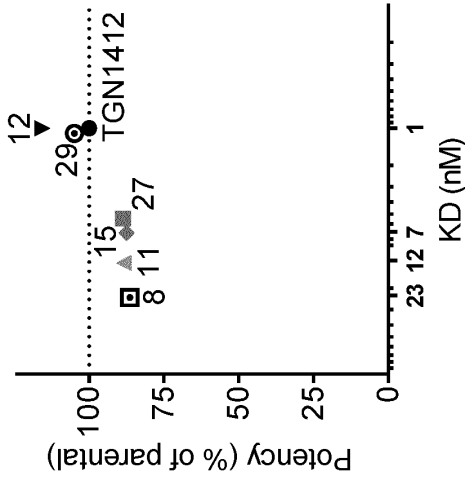


Fig. 4H

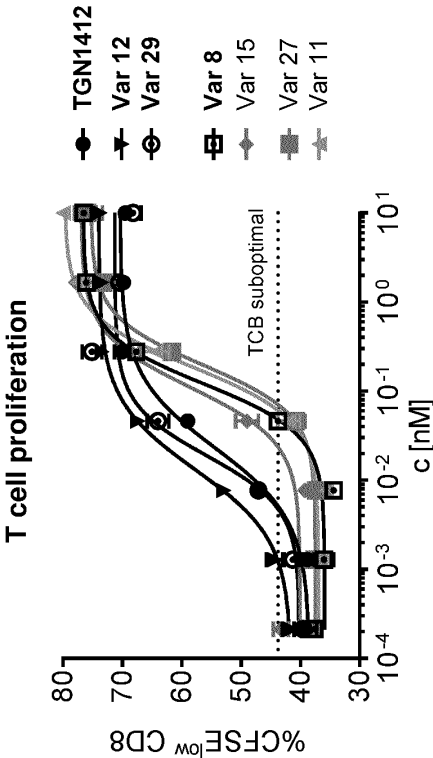


Fig. 4J

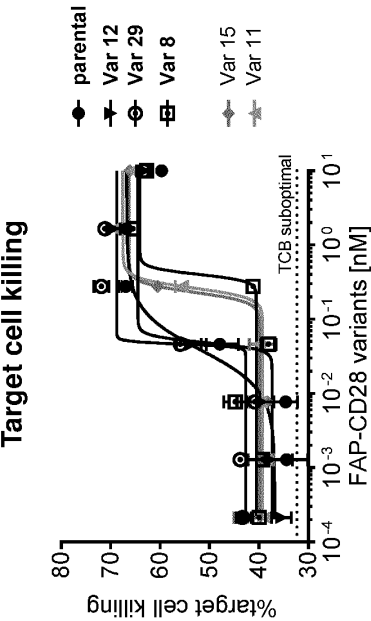


Fig. 5D

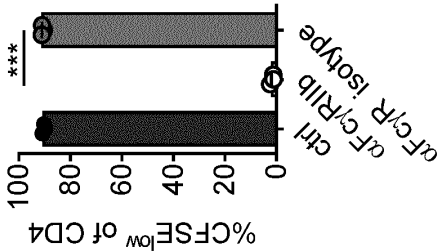


Fig. 5C

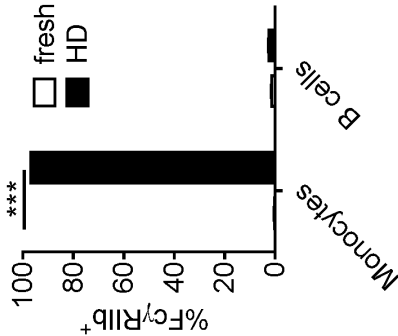


Fig. 5A

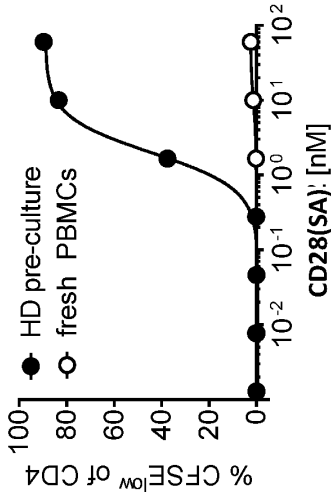


Fig. 5B

	fresh	HD
IL-1b	0.4	2.1
IL-2	1.6	3.1
IL-4	0.5	1.4
IL-5	0.5	9.2
IL-6	0.1	0.3
IL-10	1.2	6.7
IL-12 p70	1.0	1.0
IL-13	1.0	2971.1
IL-17	0.7	62.1
G-CSF	1.0	1.0
G-MCSF	0.9	393.4
IFN-γ	0.1	0.8
MCP-1	0.6	1.2
MIP-1b	0.4	33.2
TNF	1.2	27.9

Fig. 6A

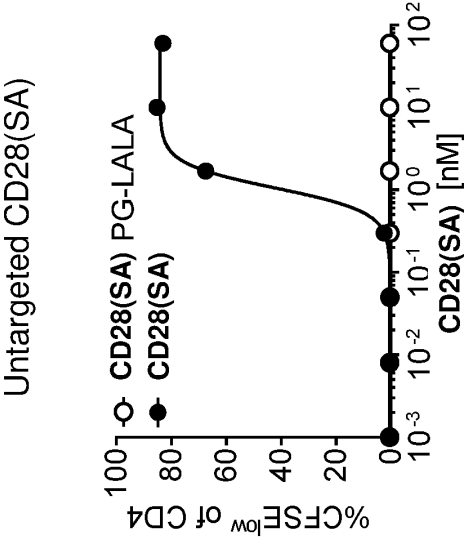


Fig. 6B

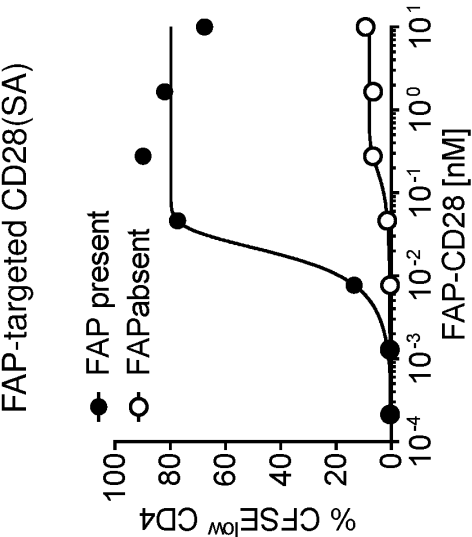


Fig. 7A

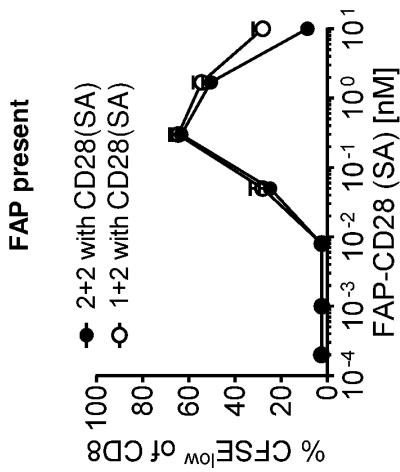


Fig. 7B

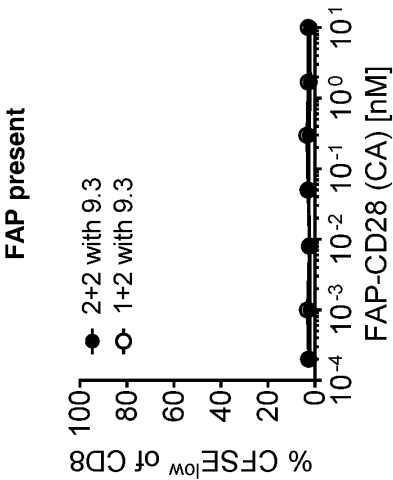


Fig. 7C

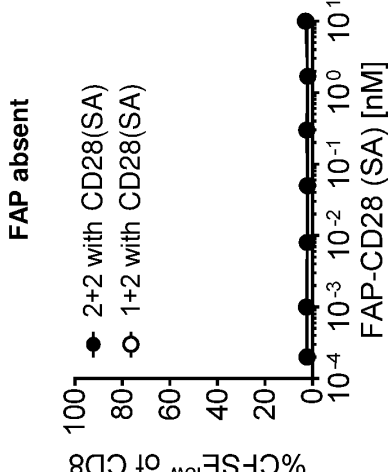


Fig. 7D

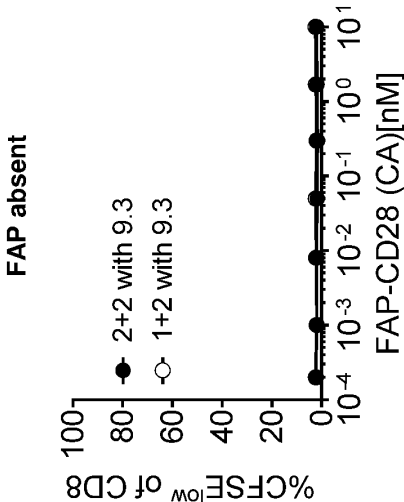


Fig. 7E

	FAP present				FAP absent				UT
	SA 1+2	SA 2+2	CA 1+2	CA 2+2	SA 1+2	SA 2+2	CA 1+2	CA 2+2	
IL-1b	20.7	28.5	4.0	1.3	1.1	1.4	0.9	0.8	1.0
IL-2	7.3	6.0	0.6	0.4	0.6	0.6	0.6	1.0	1.0
IL-4	6.1	5.3	1.6	0.9	0.9	0.9	0.9	1.0	1.0
IL-5	8.5	6.3	1.8	0.8	0.9	0.9	0.8	0.9	1.0
IL-6	29.3	26.6	5.7	0.6	0.4	0.5	0.2	0.3	1.0
IL-10	8.2	3.8	1.7	1.1	1.6	1.1	0.8	1.1	1.0
IL-12 p70	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
IL-13	1230.5	744.2	2.3	1.0	3.0	2.1	1.0	1.0	1.0
IL-17	58.4	47.0	2.5	0.8	0.9	1.5	0.6	0.8	1.0
G-CSF	3.9	8.3	2.0	1.0	1.0	1.0	1.0	1.0	1.0
G-MCSF	62.7	22.9	1.0	0.6	0.9	0.8	0.7	1.0	1.0
IFN-g	35.7	21.9	0.9	0.6	1.0	0.9	0.8	1.0	1.0
MCP-1	0.8	0.6	0.9	0.5	0.9	0.9	0.8	0.9	1.0
MIP-1b	9.8	8.3	0.5	0.3	0.4	0.5	0.3	1.2	1.0
TNF	98.9	77.4	2.6	1.1	1.2	1.4	0.9	1.0	1.0

Fig. 8A

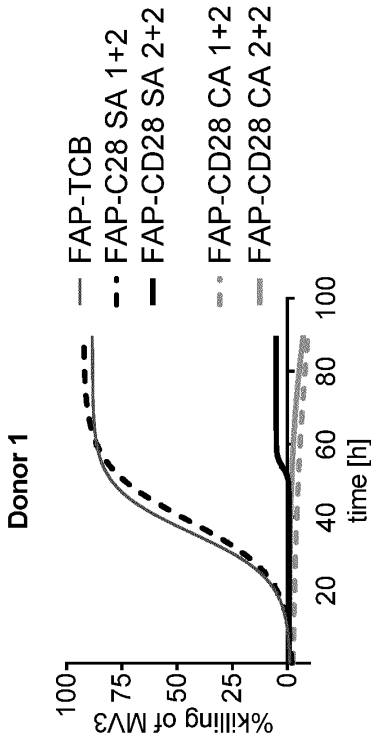


Fig. 8B

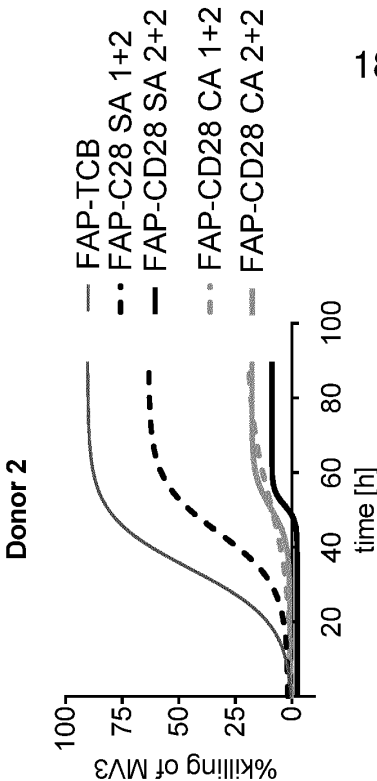


Fig. 8C

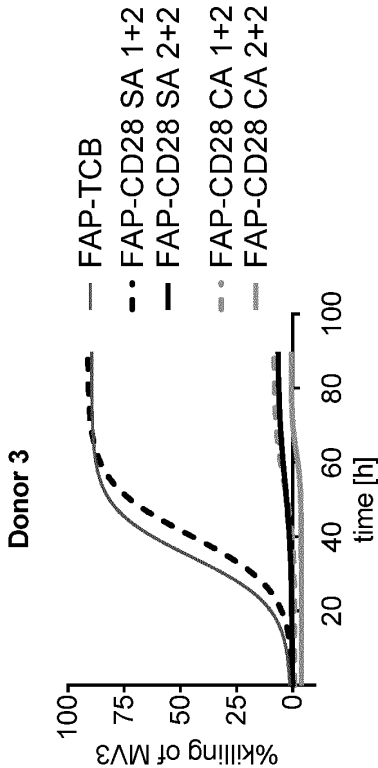


Fig. 8D

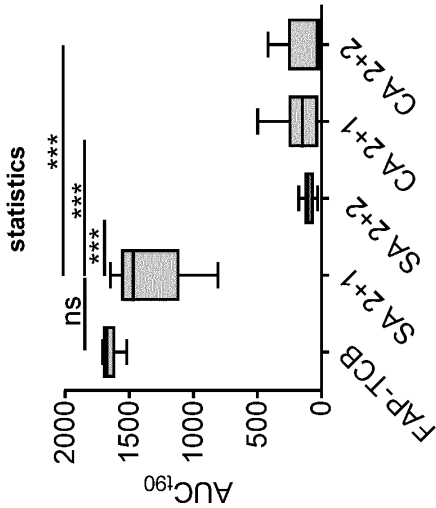


Fig. 9B

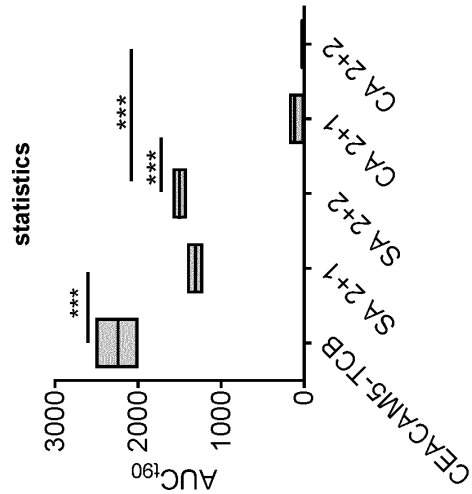


Fig. 9A

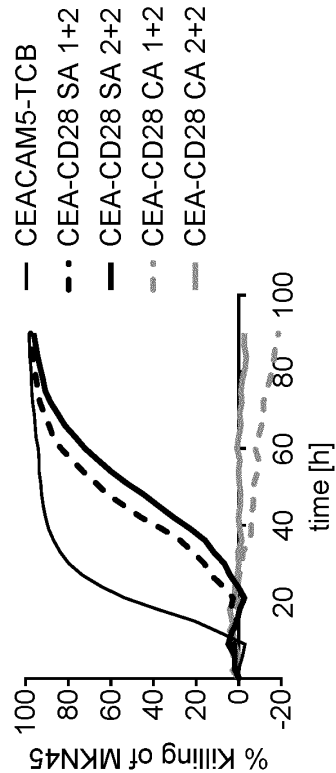


Fig. 10A

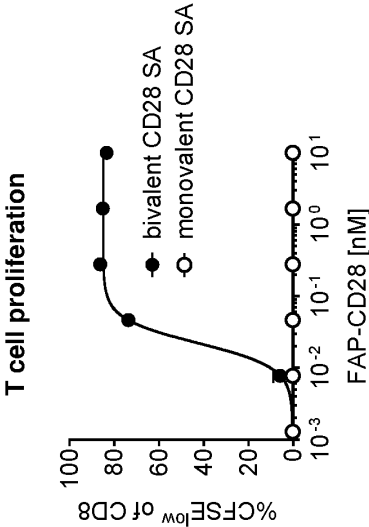


Fig. 10B

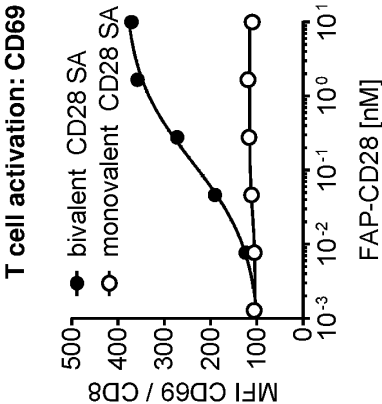


Fig. 10C

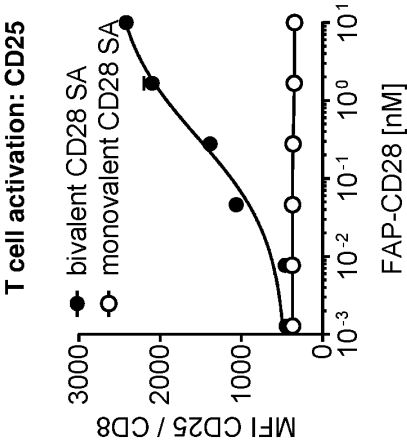


Fig. 11A

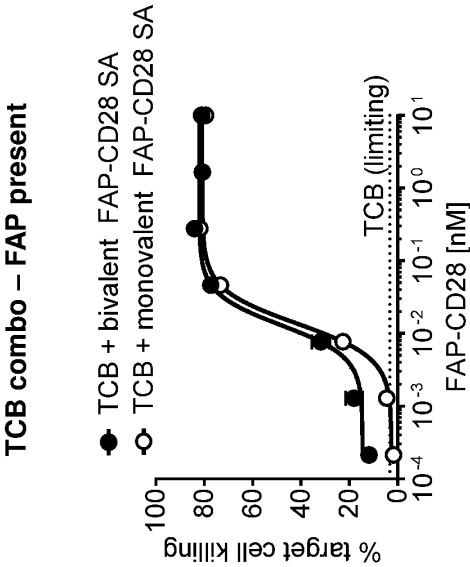


Fig. 11B

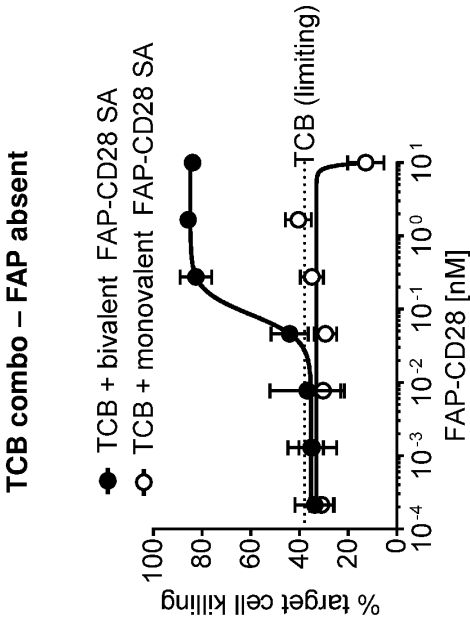


Fig. 12A

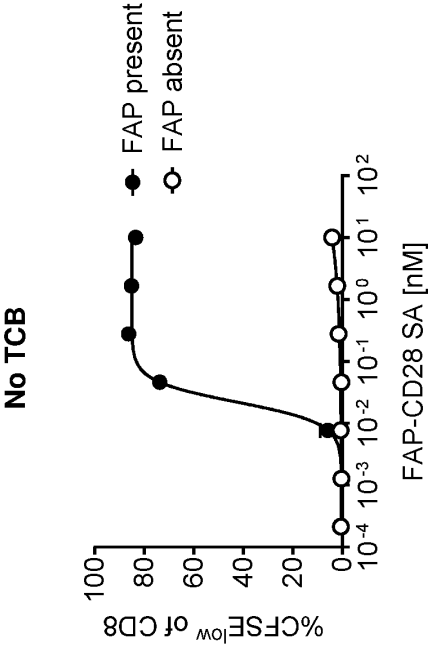


Fig. 12B

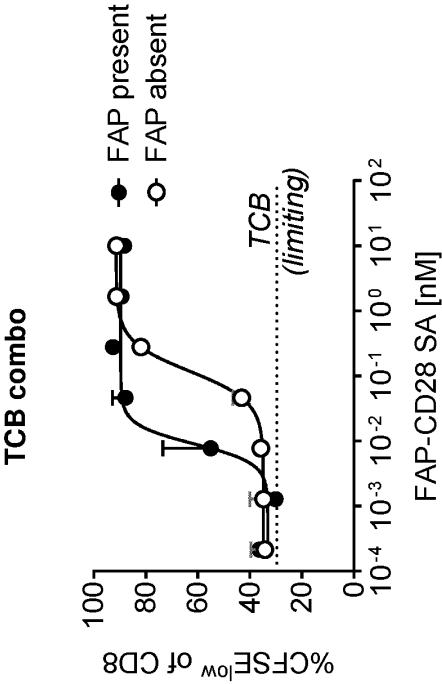


Fig. 13B

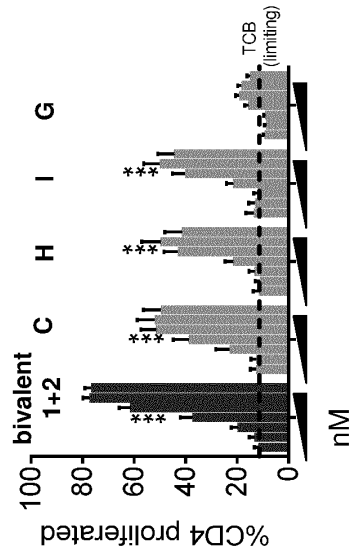


Fig. 13A

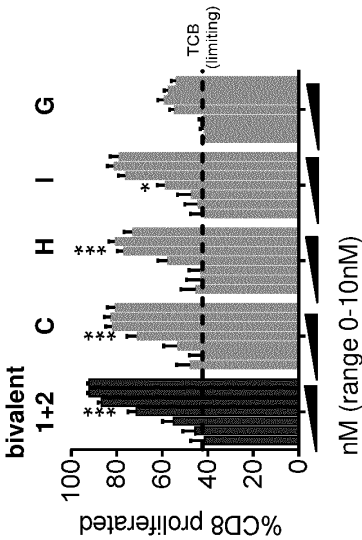


Fig. 13C

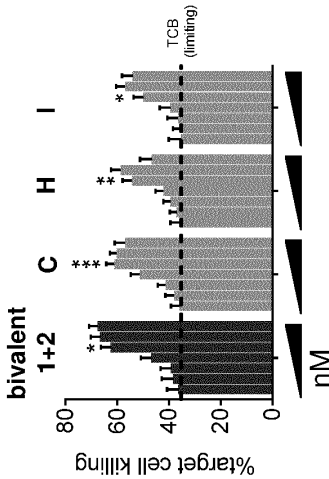


Fig. 14

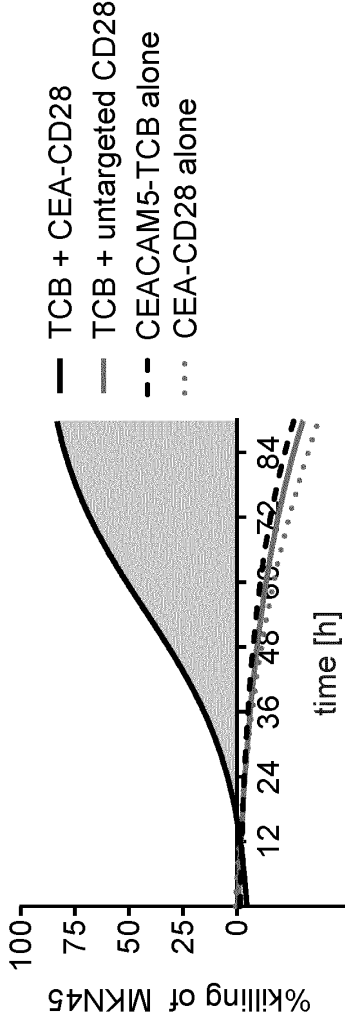


Fig. 15

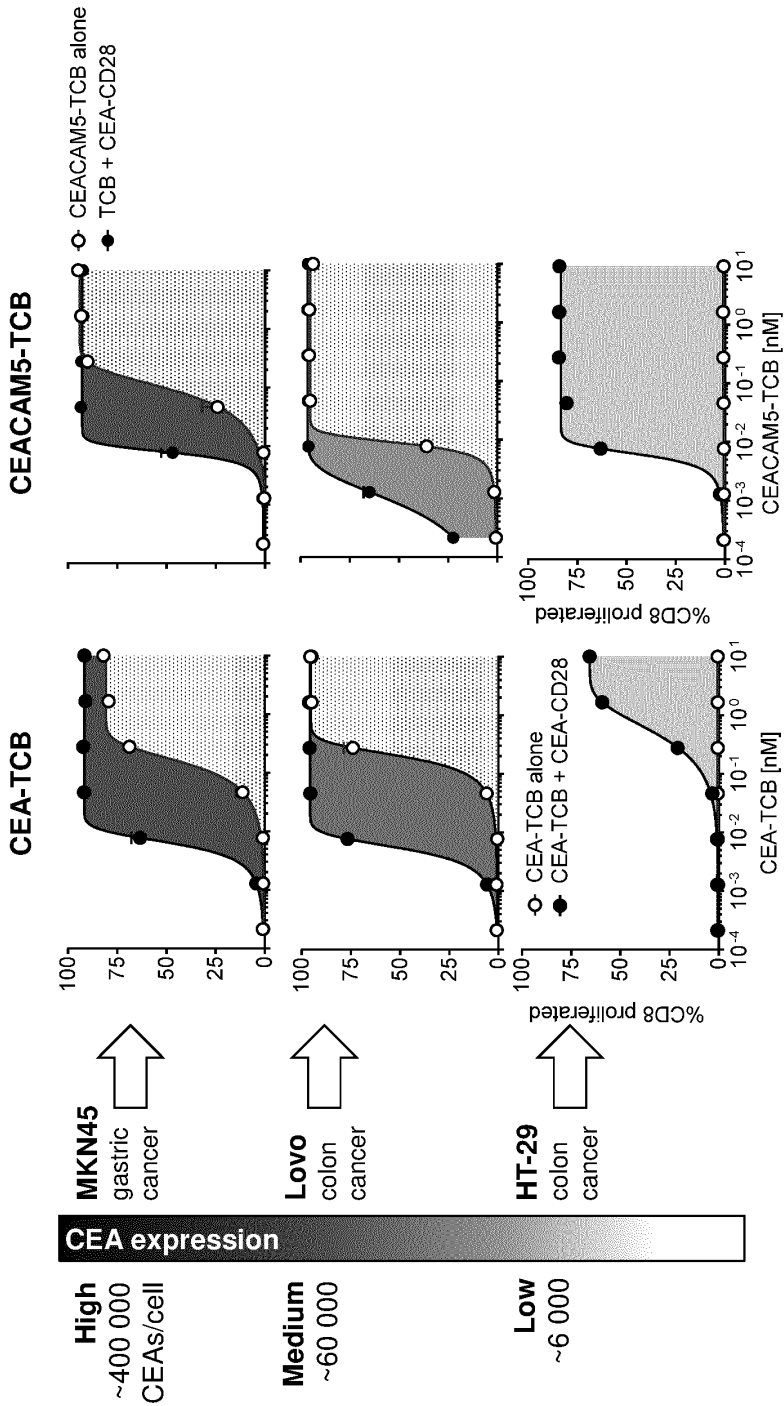


Fig. 16

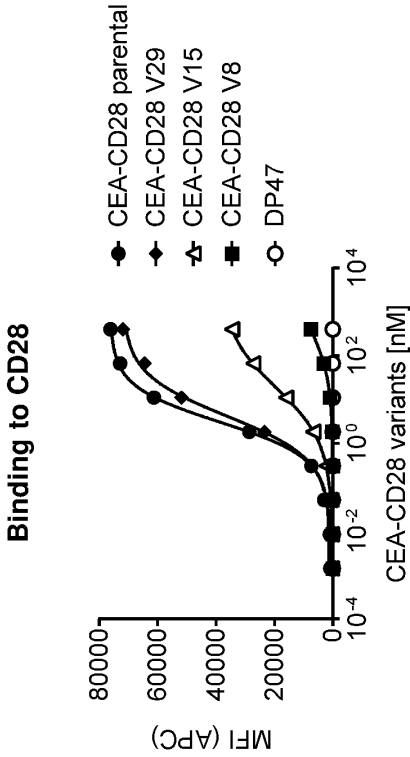


Fig. 17B

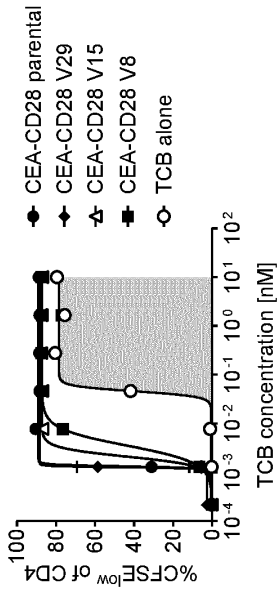


Fig. 17A

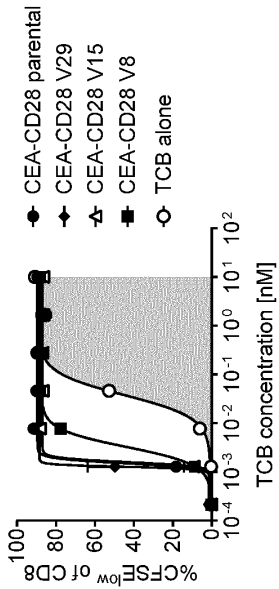


Fig. 17C

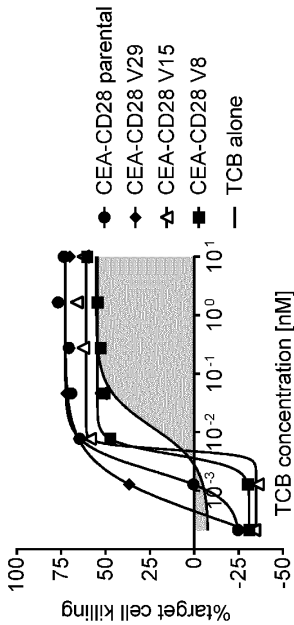
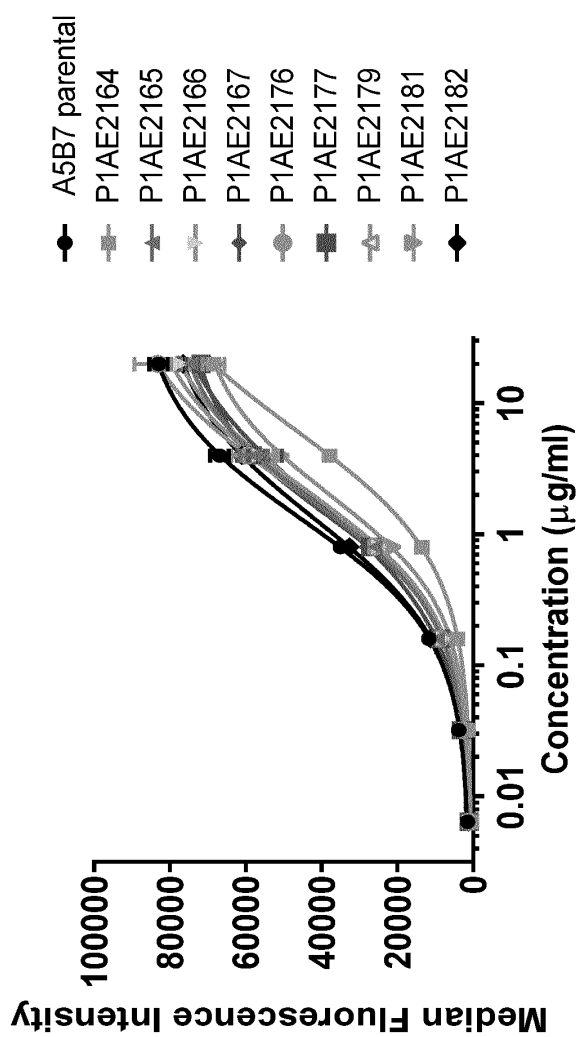


Fig. 18



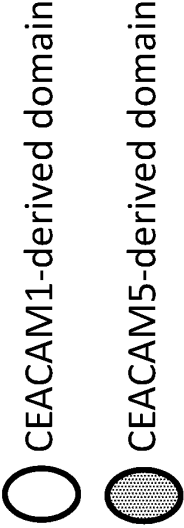
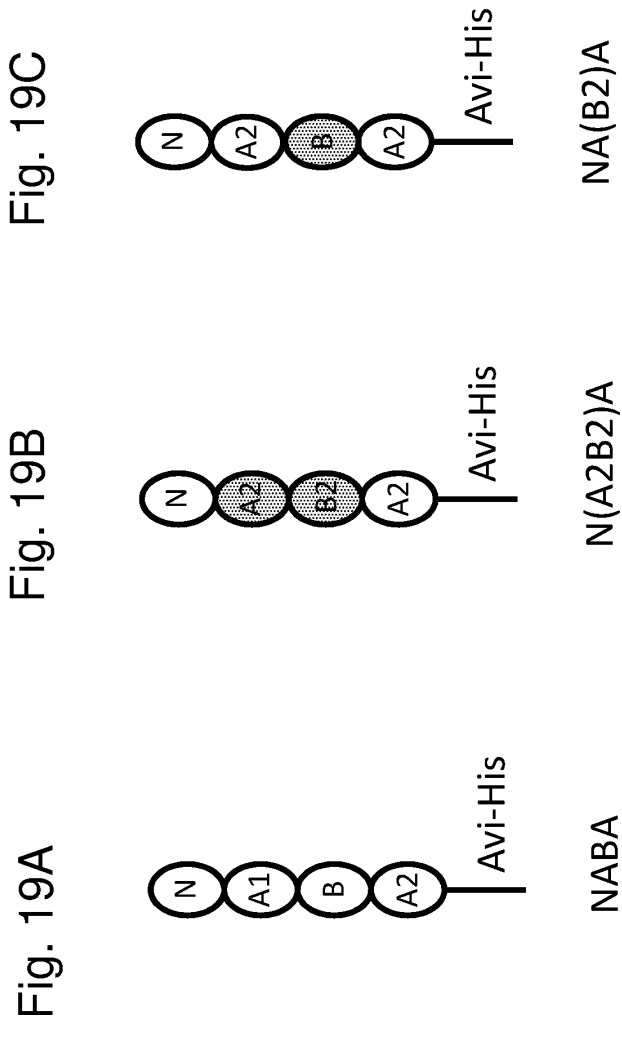


Fig. 20A

```
VH (A5H1EL1D)
EVQLLESGGG LVQPGGSLRL SCAASGFTFT DYYMNWVRQA PGKGLEWIGF IGKCANAYTT
X XXXX X
EYSASVKGRF TISRDKSKNT LYLOMNSLRA EDTATYYCTR DRGIRFYFDY WQGQTITVTSS
X XXXXX XXXXXXXXXXXX
```

Fig. 20B

```
VL (A5H1EL1D)
EIVLTQSPAT LSLSPGERAT LSCRASSVT YIHWYQKPG QAPRSWIYAT SNLASGIPAR
X XXXXX X
FSGSGSGTDF TLTISSEPE DFAVYQCQHW SSKPPTFGQG TKLEIK
XXXX X XXXXXXXX
```

Fig. 21A

CDRH1/H2 affinity maturation library

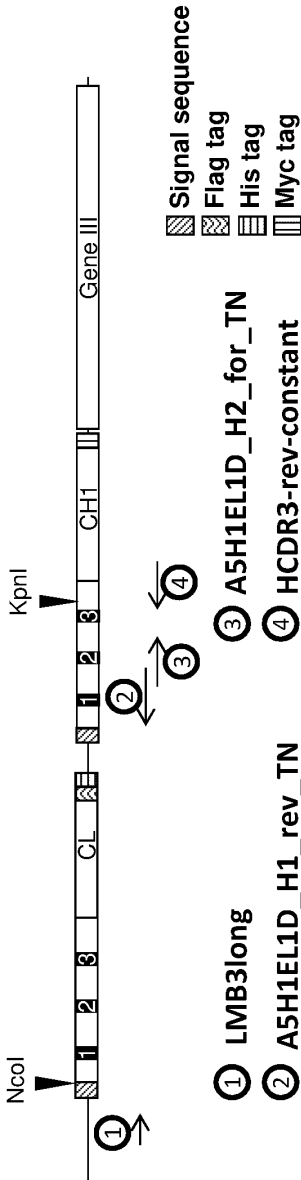
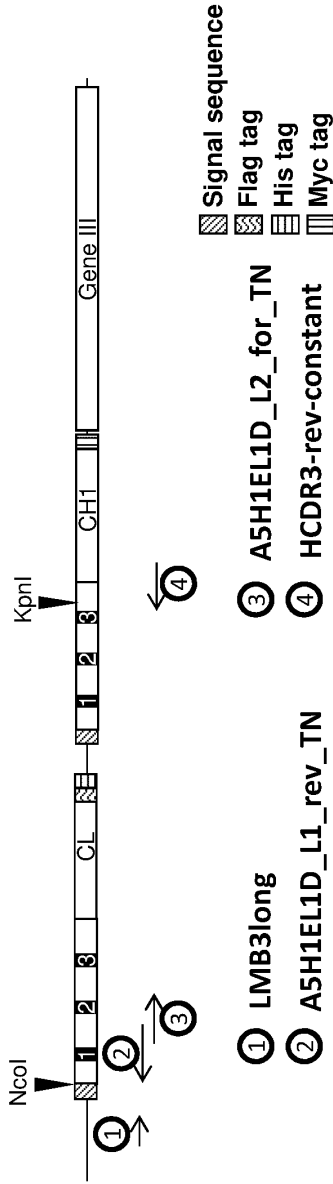
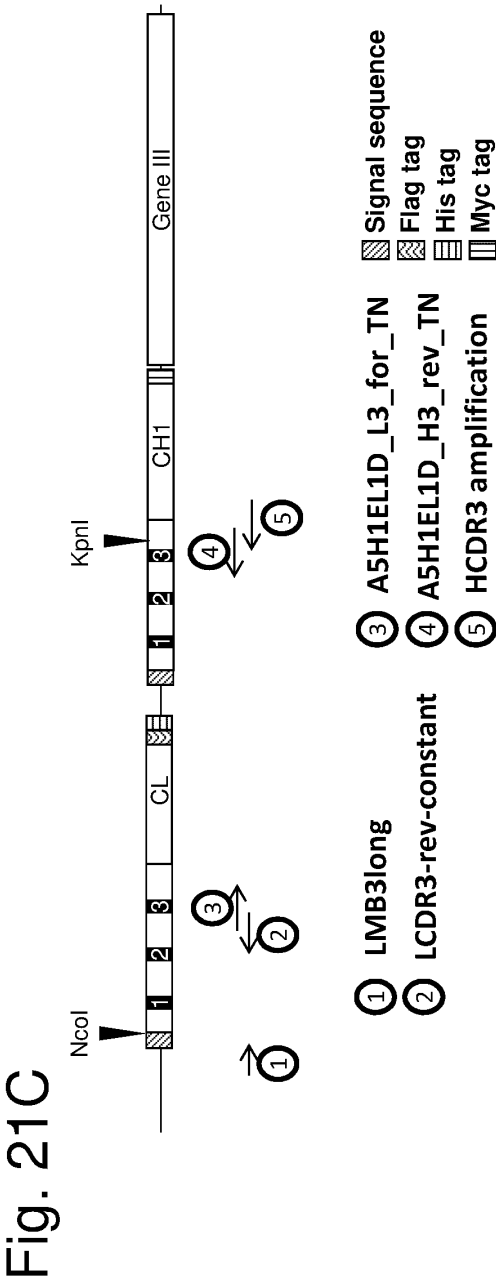


Fig. 21B

CDRL1/H2 affinity maturation library





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Fig. 22A

VH			CDR1	CDR2	CDR3
Parental			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P006.038			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.097			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.103			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P002.139			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P001.177			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.102			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.103-combo1			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.103-combo2			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.102-combo1			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P005.102-combo2			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P006.038-combo1			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		
P006.038-combo2			EVQLLESGGGLVQPGGSLRLISCAASGFTFTDYNNWVRQAPGKGLIEWLQFIGNKANAYTTEYSASVKGRFTISRDKSKNTLYLQMNSIRAEADTATYYCTDRGLRFYFDYWGQGITTVTVSS		

Fig. 22B

VL			CDR1	CDR2	CDR3
Parental			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P006.038			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.097			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.103			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P002.139			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P001.177			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.102			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.103-combo1			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.103-combo2			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.102-combo1			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P005.102-combo2			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P006.038-combo1			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		
P006.038-combo2			EIVLTQSPATLSLSPGERATLSCRASSSVTYIHNYQKPKQAPRSMIVATSNLASGIPARFSGSGSGTDFTLTISILEPEDEFAVYVYQHWSKRPPTFGGQTKLEIK		

Fig. 23A

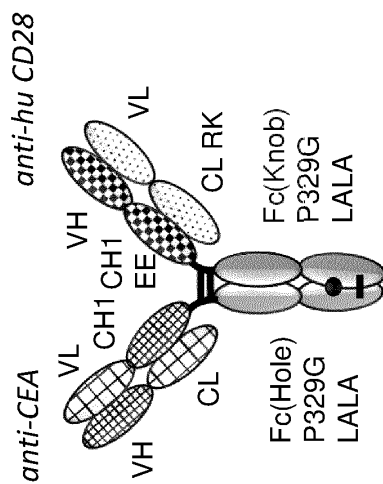


Fig. 23B

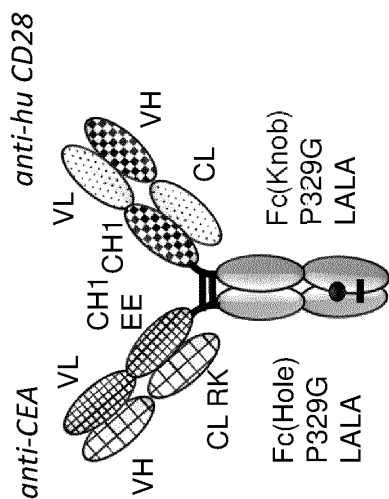


Fig. 23C

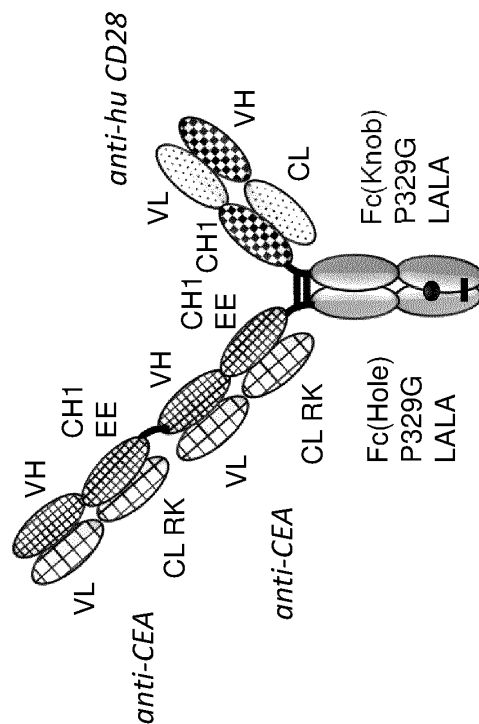


Fig. 23D

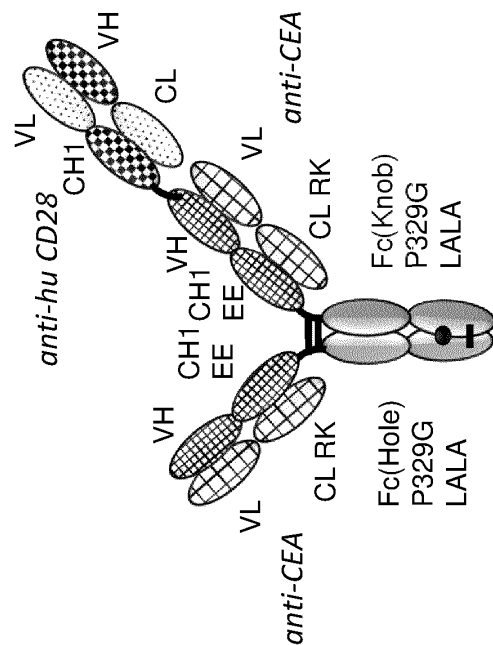


Fig. 24

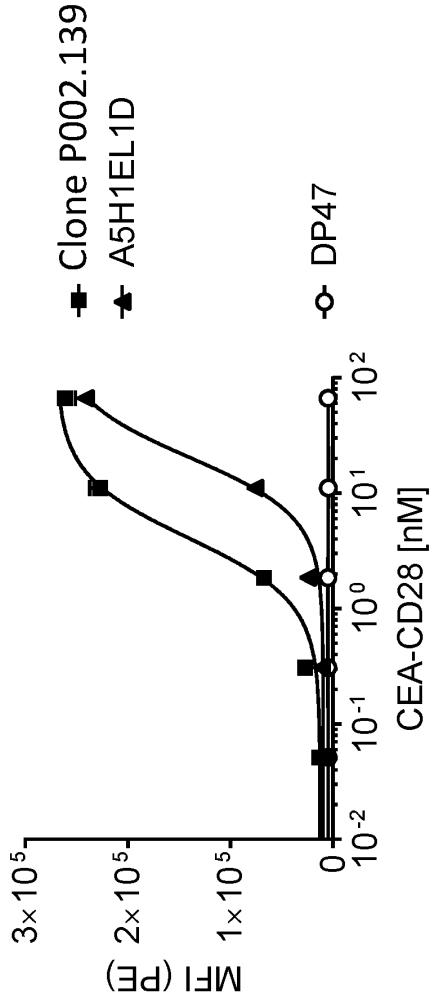


Fig. 25A

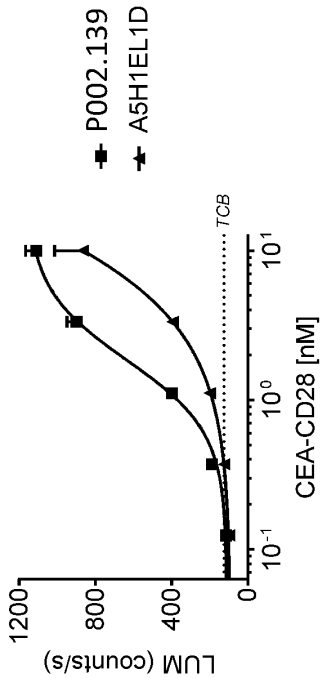


Fig. 25B

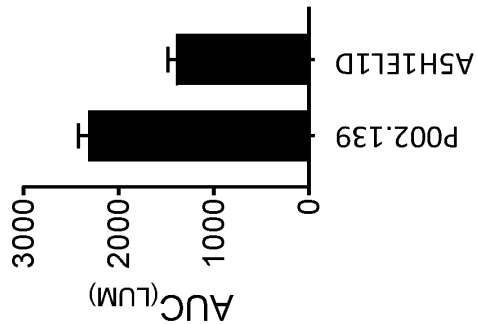
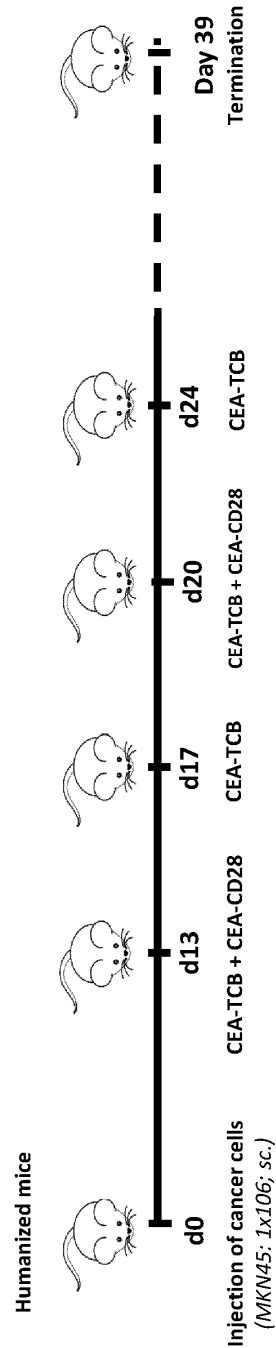


Fig. 26



Group	No. of animals	Compound	Dose (mg/kg)	Therapy	No. of treatments
A	11	Vehicle	--	i.v.	4 (once weekly)
B	11	CEA-TCB	2.5	i.v.	8 (twice weekly)
C	11	CEA-TCB + CEA-CD28 (T8466)	2.5	i.v.	8 (twice weekly)
D	11	CEA-TCB + CEA-CD28 (A5H1EL1D)	1 2.5	i.v.	4 (once weekly) 8 (twice weekly)

Fig. 27A

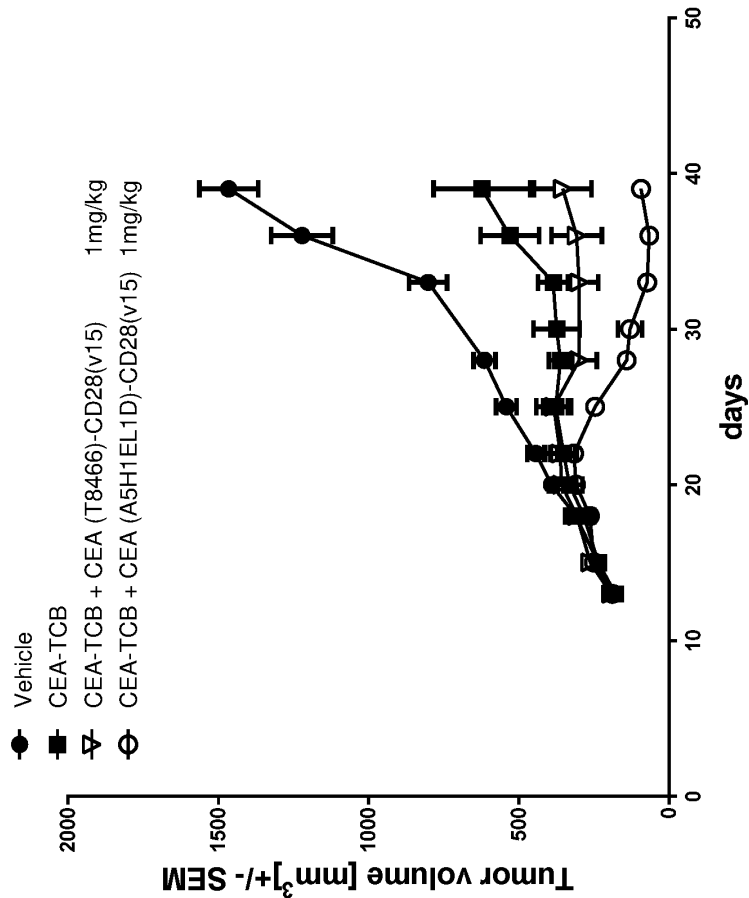


Fig. 27B

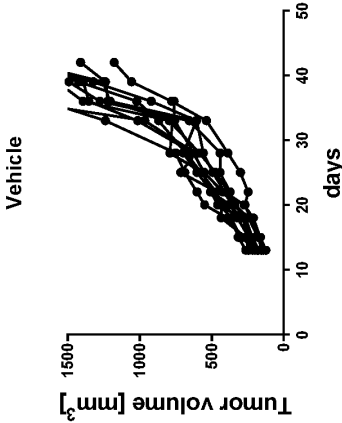


Fig. 27C

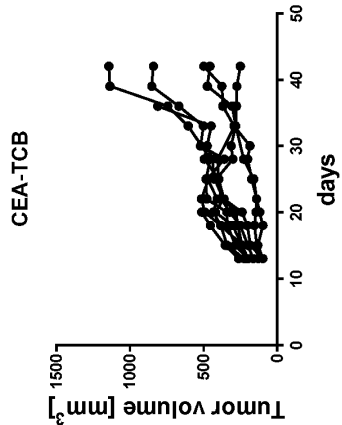


Fig. 27D

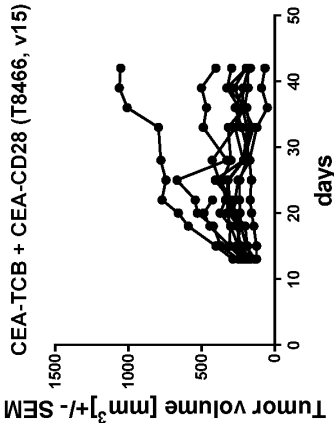


Fig. 27E

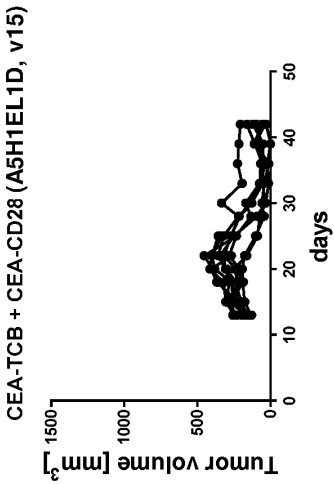
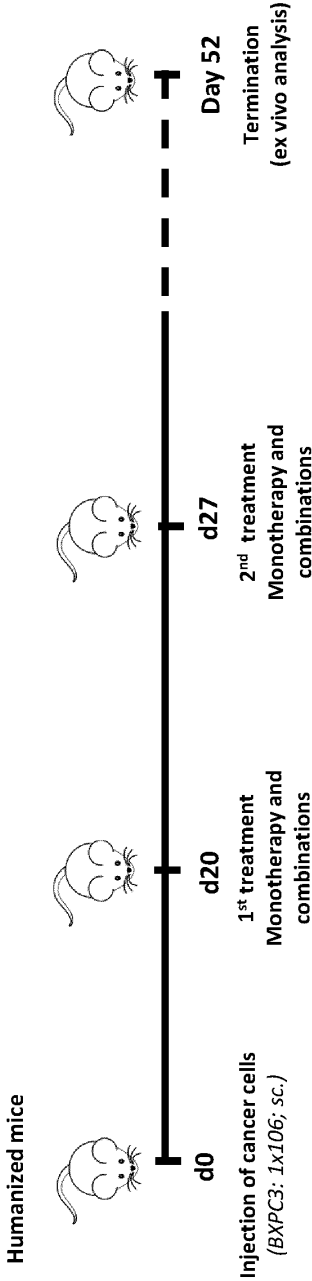


Fig. 28



Group	No. of animals	Compound	Dose (mg/kg)	Therapy	No. of treatments
A	10	Vehicle	--	i.v.	5 (once weekly)
B	10	CEACAM5-TCB	2.5	i.v.	5 (once weekly)
C	10	CEACAM5-TCB + a-PD-L1	2.5 1	i.v.	5 (once weekly)
D	10	CEACAM5-TCB + a-PD-L1 + CEA-CD28 (SA Variant 8)	2.5 1	i.v.	5 (once weekly)
E	10	CEACAM5-TCB + a-PD-L1 + CEA-CD28 (SA Variant 15)	2.5 1	i.v.	5 (once weekly)
F	10	CEACAM5-TCB + a-PD-L1 + CEA-CD28 (SA Variant 29)	2.5 1	i.v.	5 (once weekly)

Fig. 29

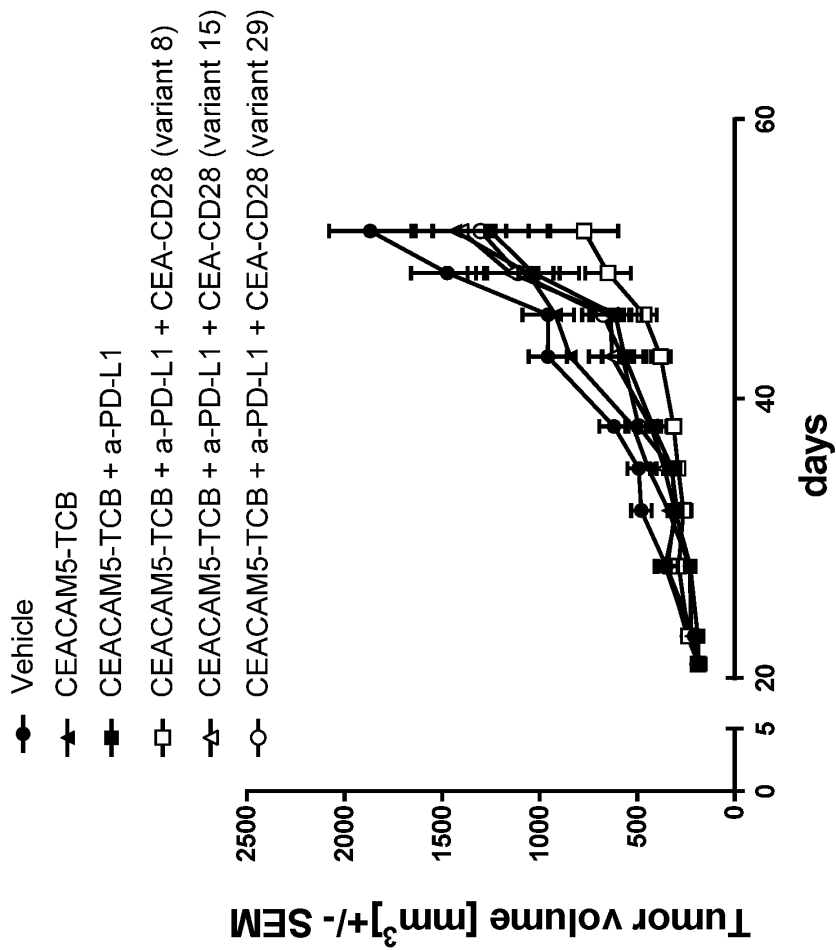


Fig. 30A

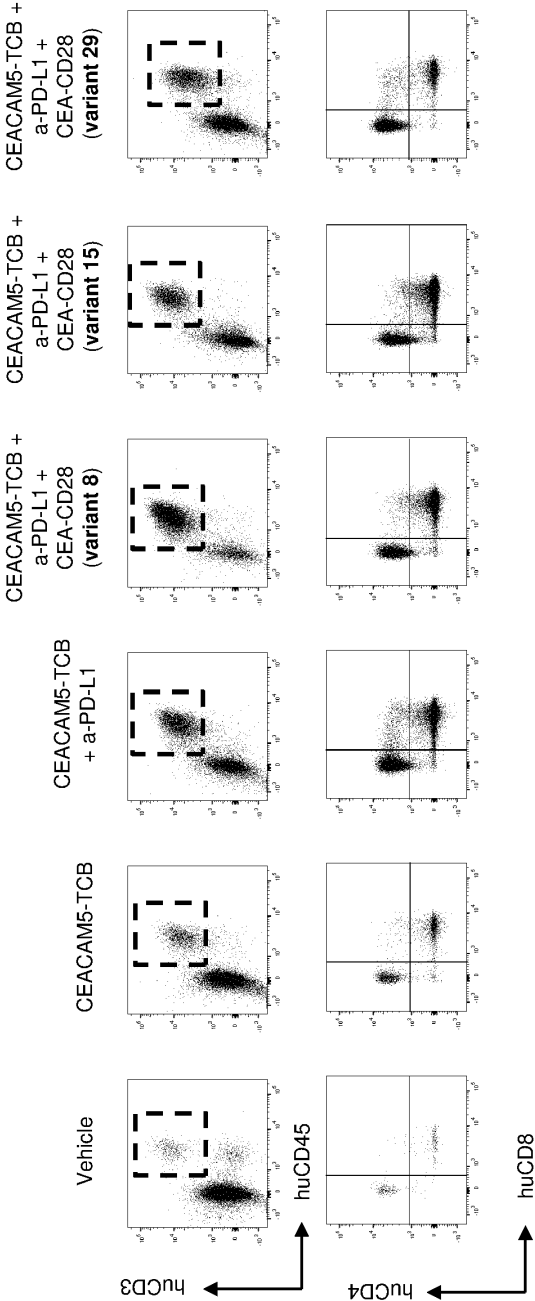


Fig. 30B

Fig. 30C

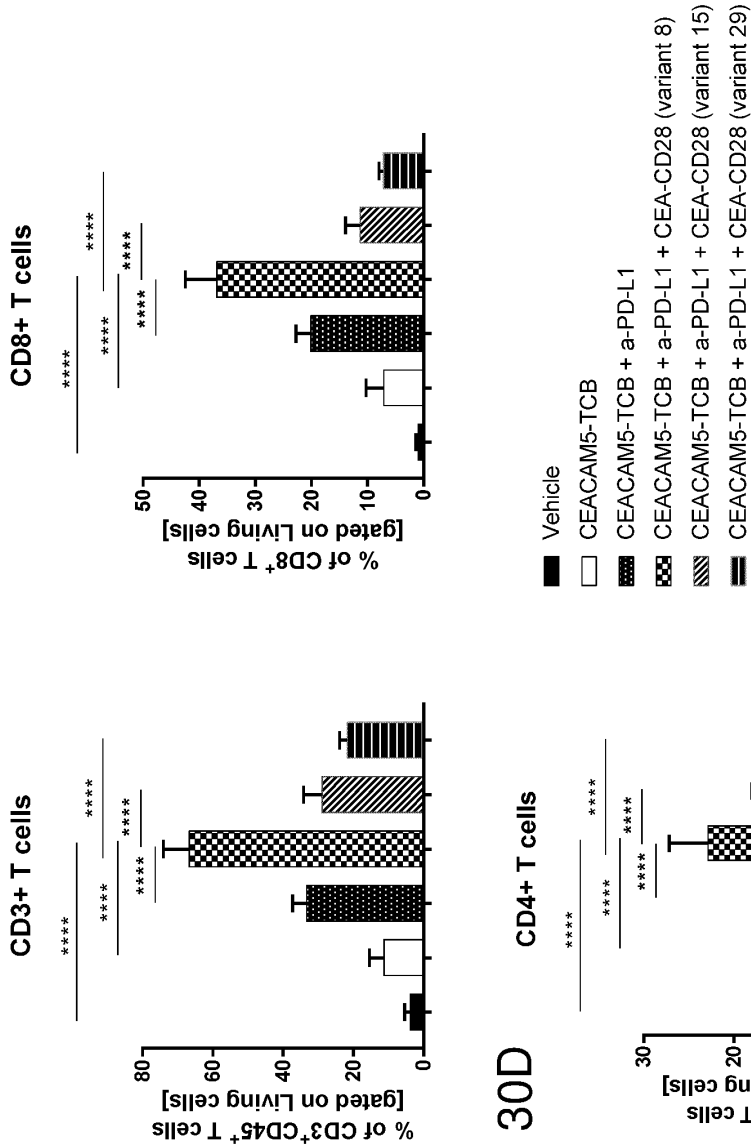


Fig. 30D

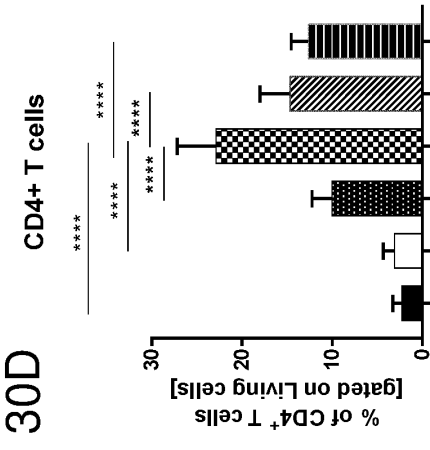
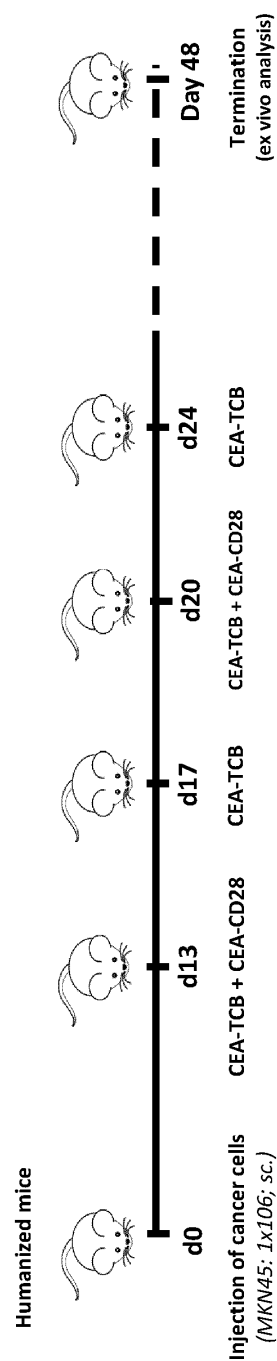


Fig. 31



Group	No. of animals	Compound	Dose (mg/kg)	Therapy	No. of treatments
A	10	Vehicle	--	i.v.	4 (once weekly)
B	10	CEA-TCB	2.5	i.v.	8 (twice weekly)
C	10	CEA-TCB + CEA-CD28 (SA_Variant 8)	2.5 1	i.v.	8 (twice weekly) 4 (once weekly)

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Fig. 32

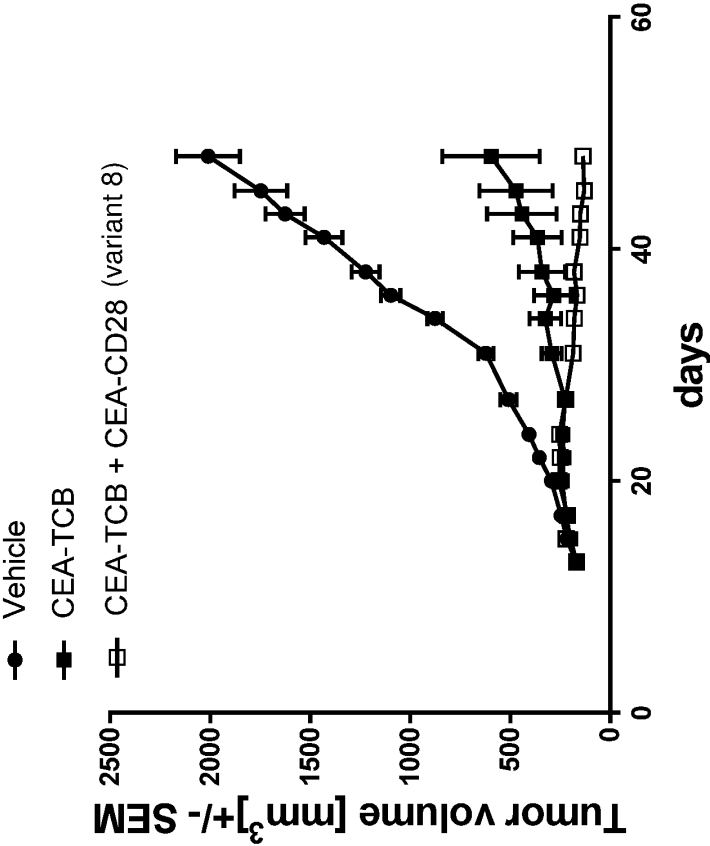


Fig. 33A

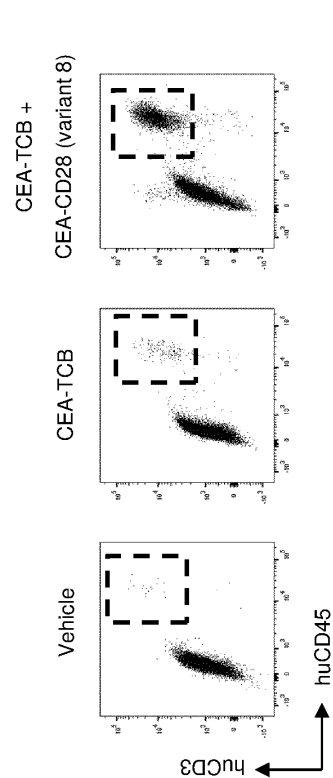


Fig. 33B

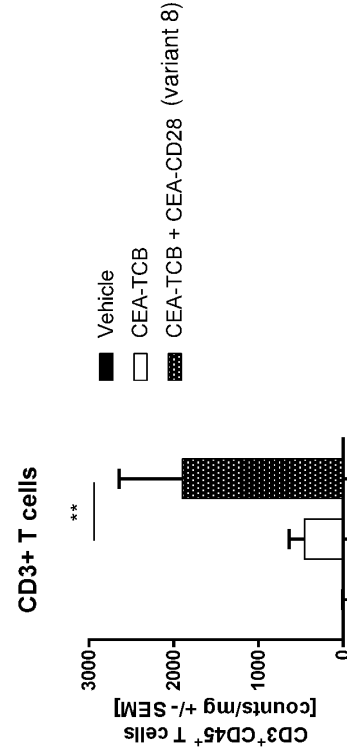


Fig. 34A

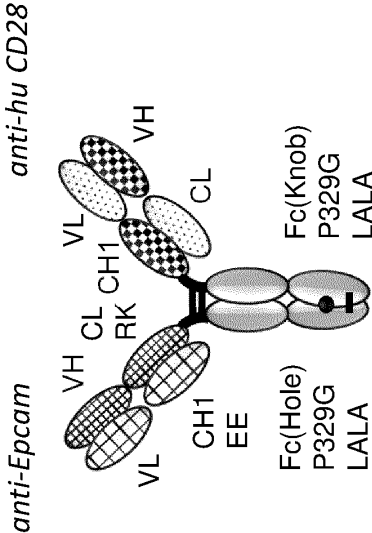


Fig. 34B

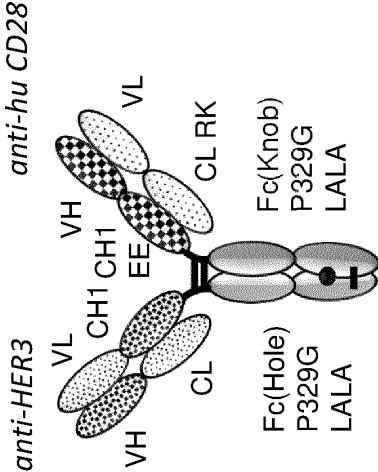


Fig. 34C

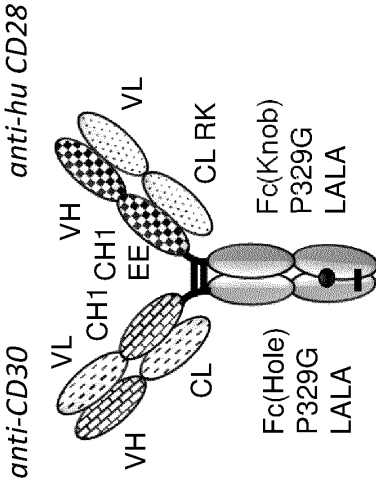


Fig. 34D

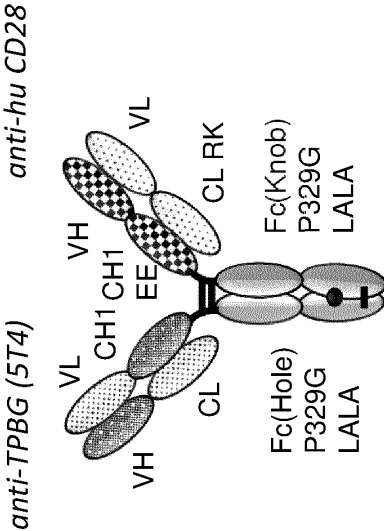


Fig. 35A

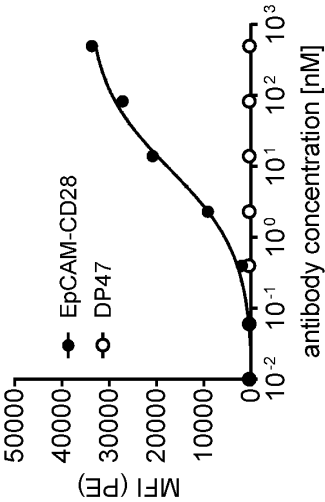


Fig. 35B

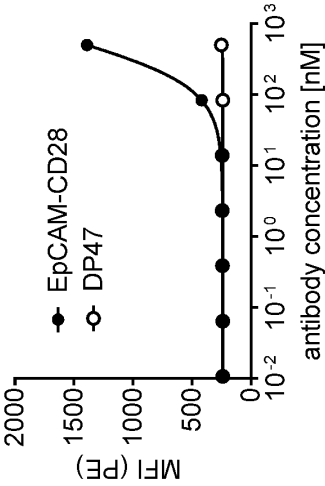


Fig. 35C

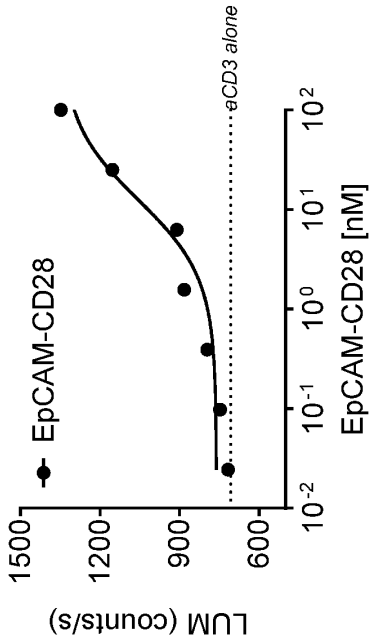


Fig. 36A

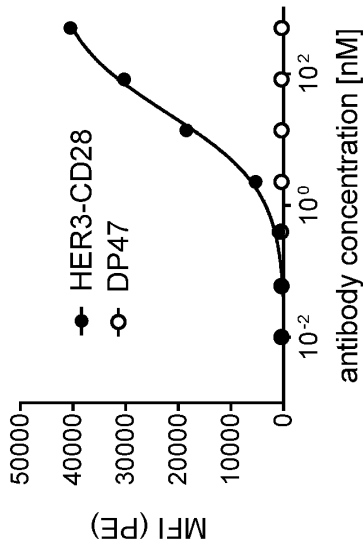


Fig. 36B

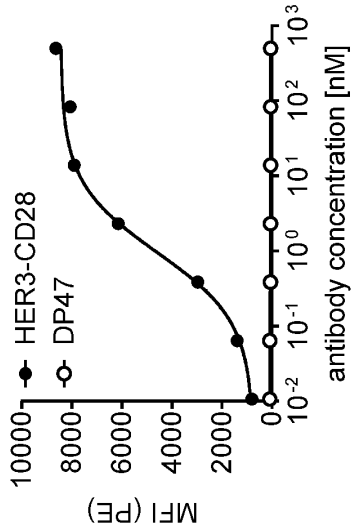


Fig. 36C

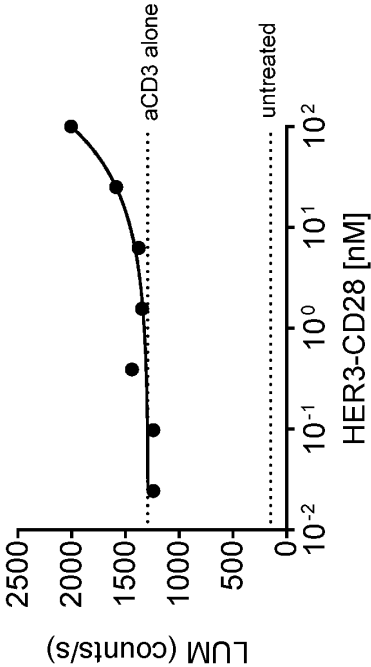


Fig. 37A

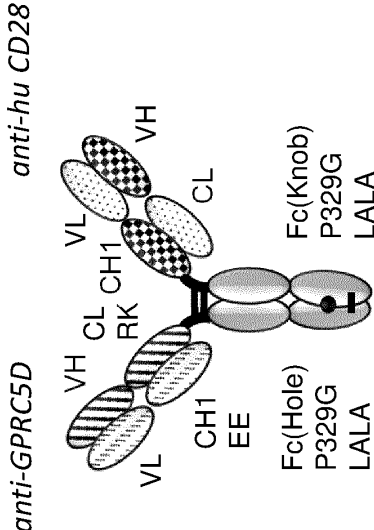


Fig. 37B

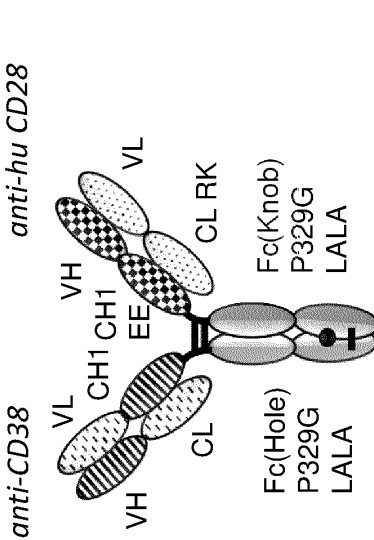


Fig. 37C

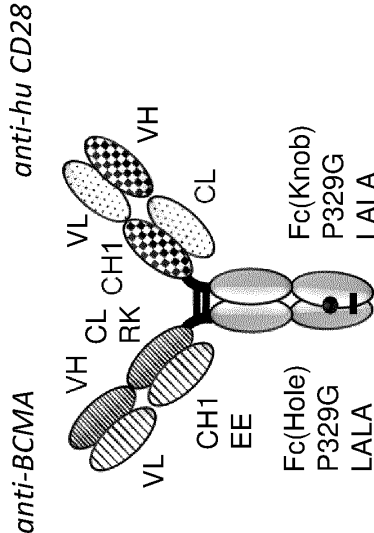


Fig. 37D

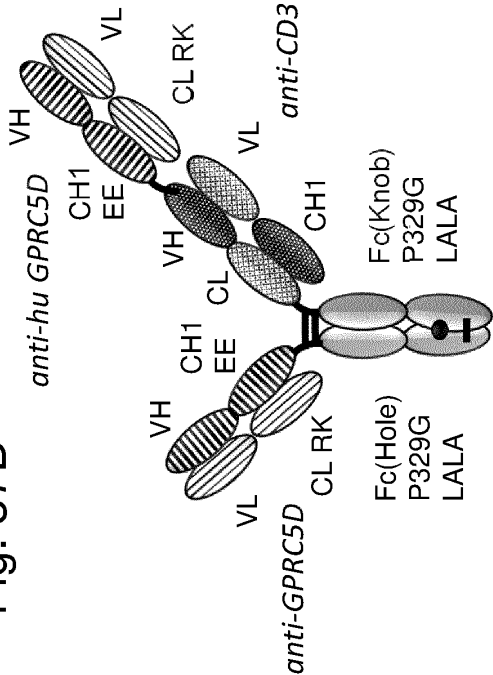


Fig. 38A

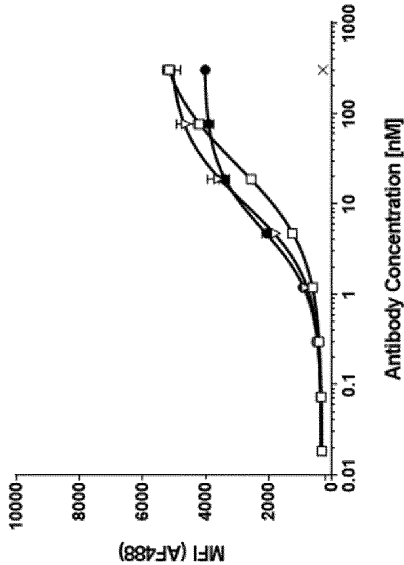


Fig. 38B

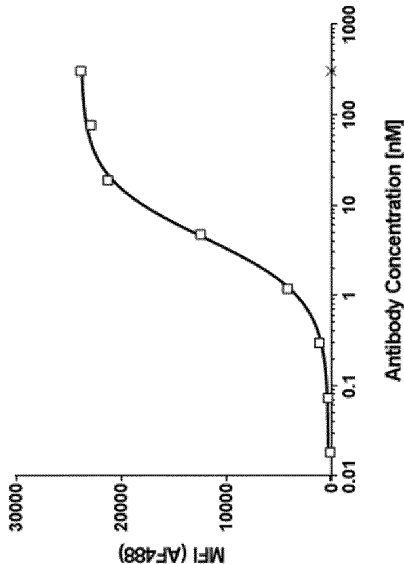


Fig. 38C

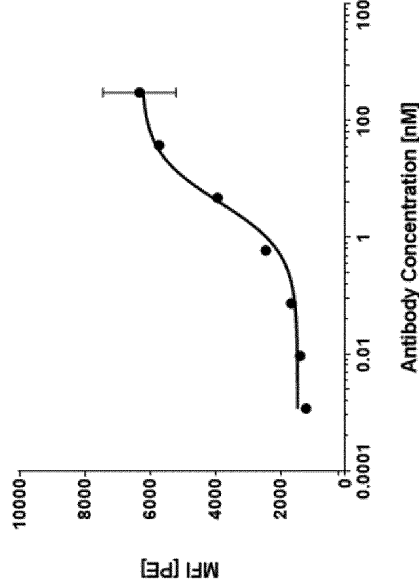
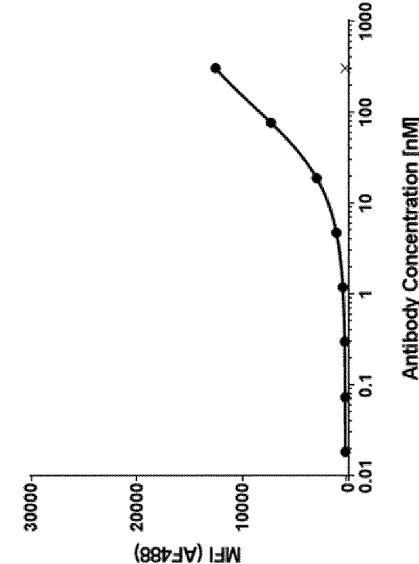


Fig. 38D



□ CD38-CD28 ▴ BCMA-CD28 ● GPRC5D-CD28 x sec Ab only

Fig. 38E

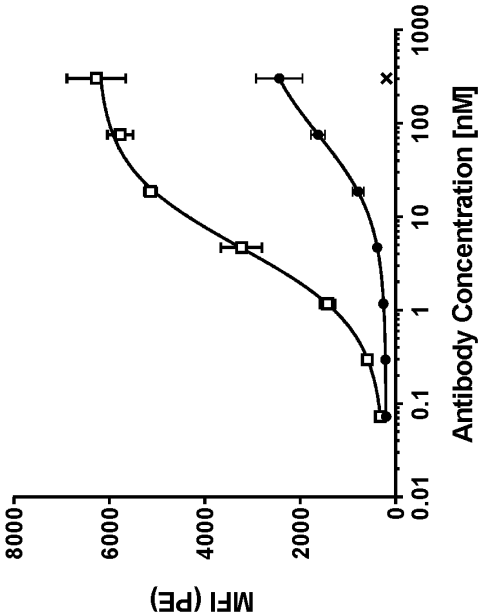


Fig. 38F

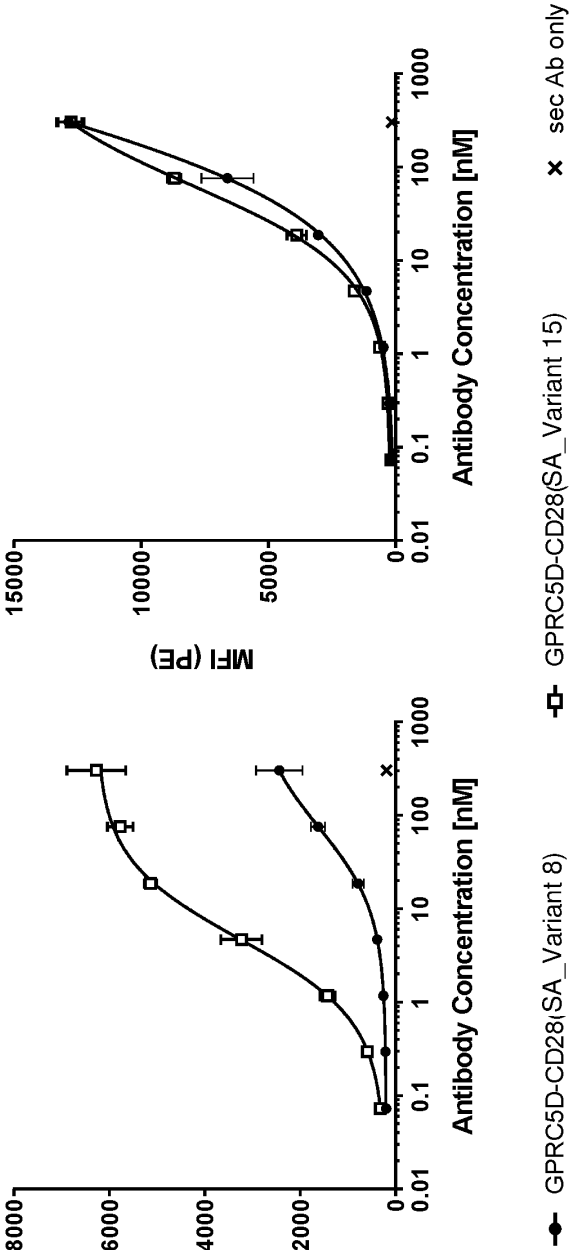


Fig. 39A

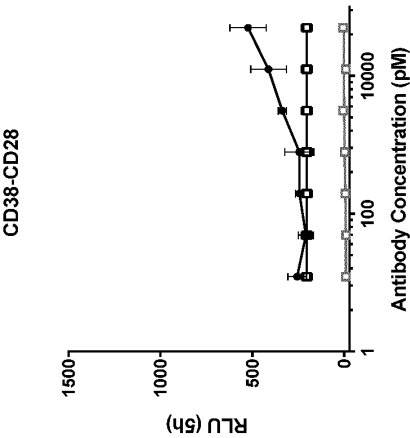


Fig. 39C

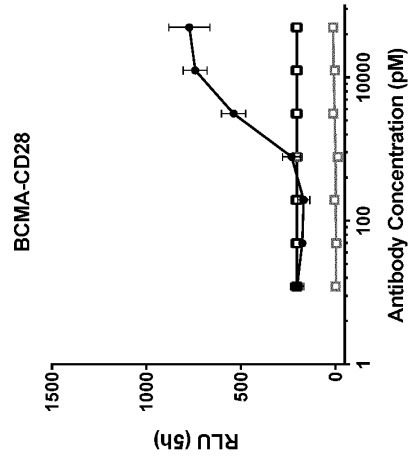


Fig. 39B

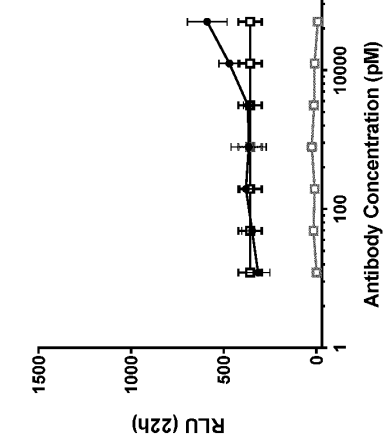
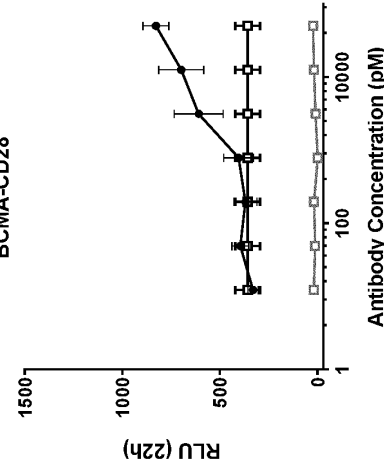


Fig. 39D



□ CD28 bs only □ GPRC5D-TCB only ● GPRC5D-TCB + CD28 bs

Fig. 39F

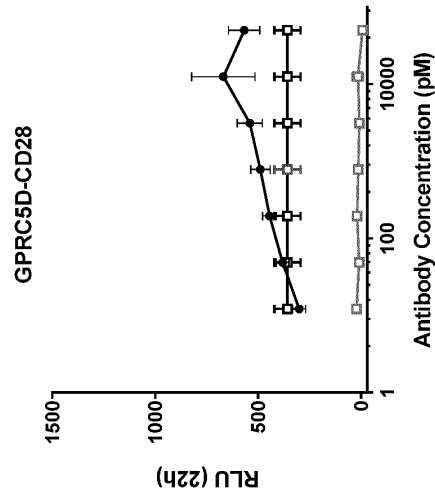
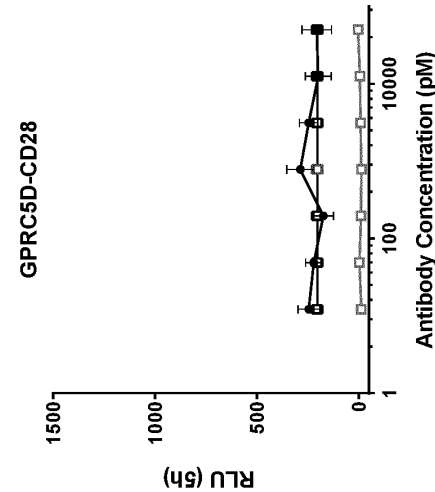


Fig. 39E



CD28 bs only GPRC5D-TCB only GPRC5D-TCB + CD28 bs

Fig. 40A

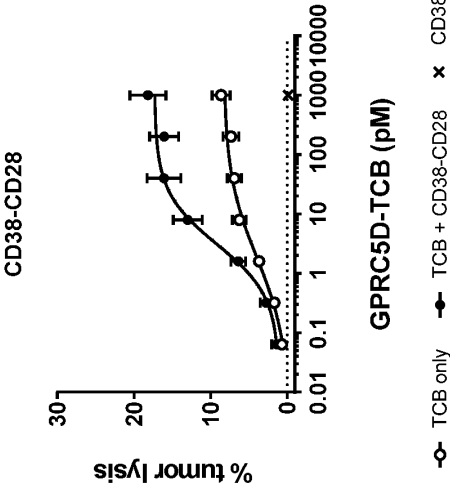


Fig. 40B

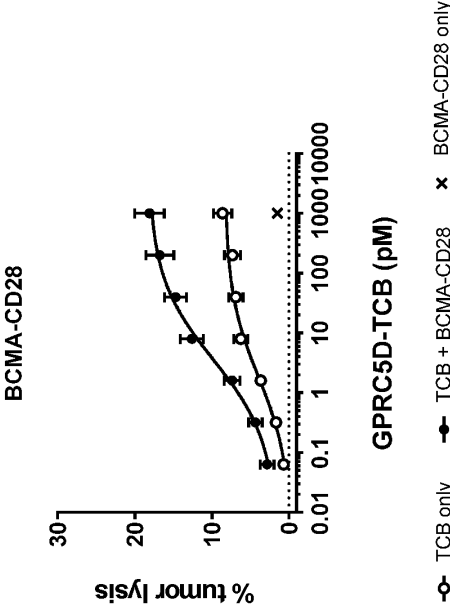


Fig. 40C

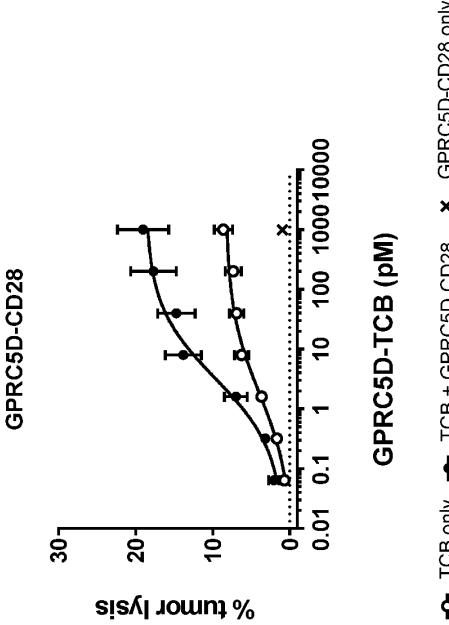


Fig. 41B

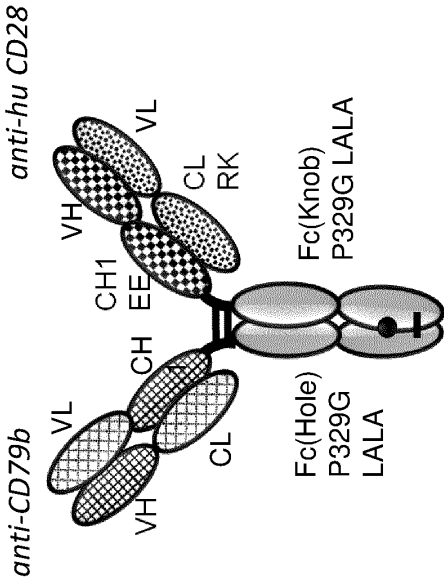


Fig. 41A

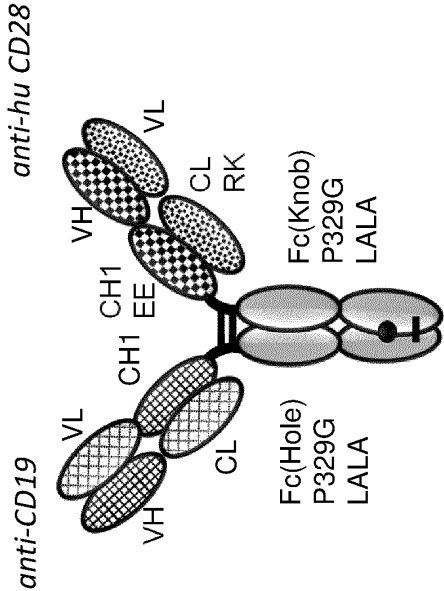


Fig. 42

CD79b (huMA79b.v28) - CD28 (v15) 1+1

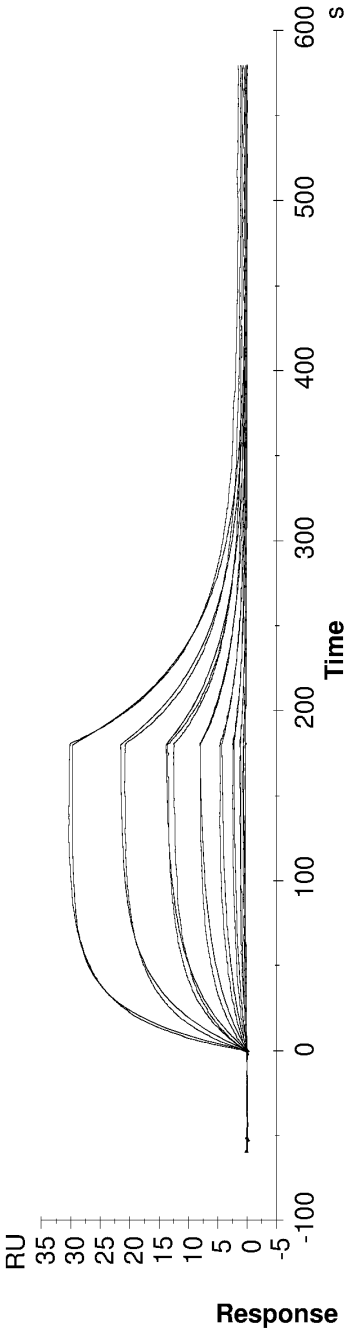


Fig. 43A

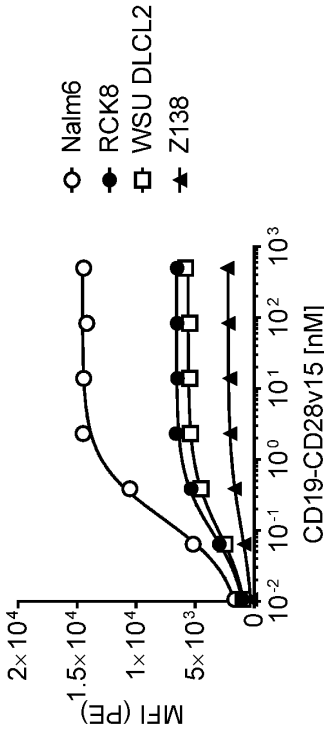


Fig. 43B

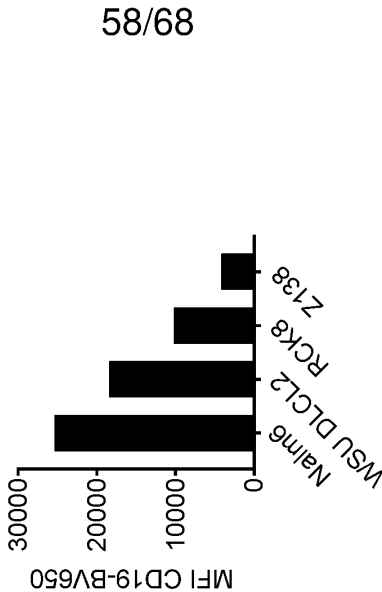


Fig. 44A

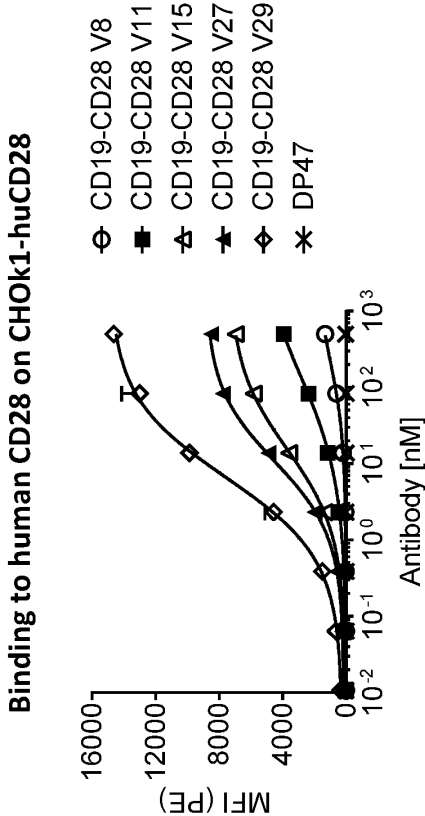


Fig. 44B

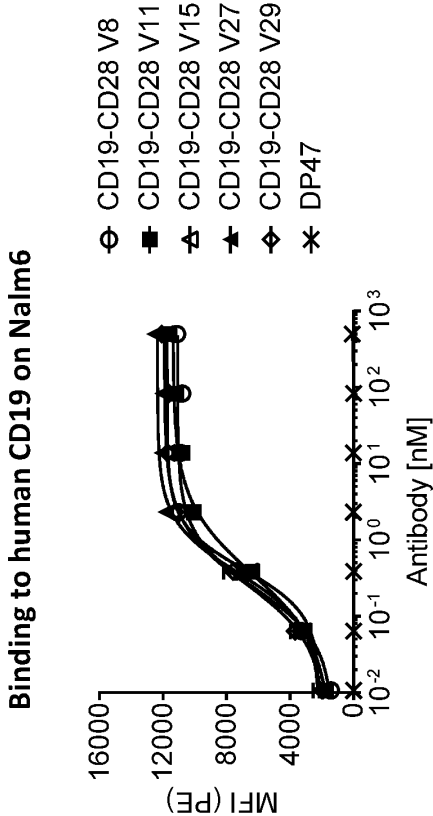


Fig. 45B

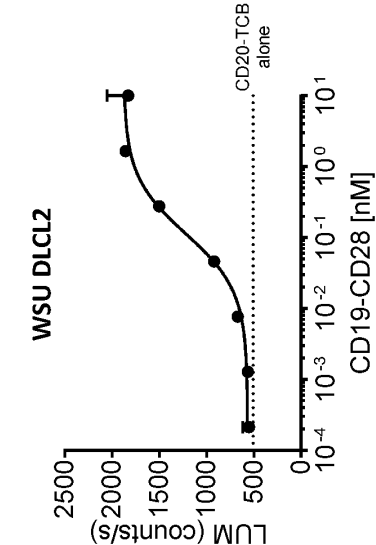


Fig. 45D

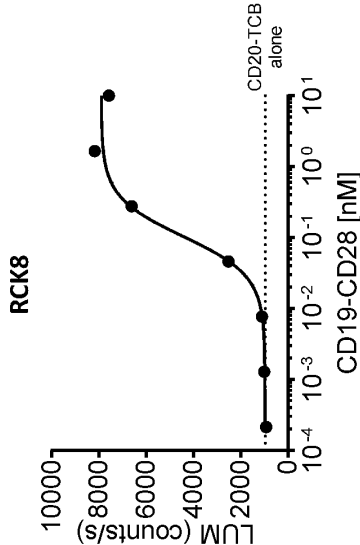


Fig. 45A

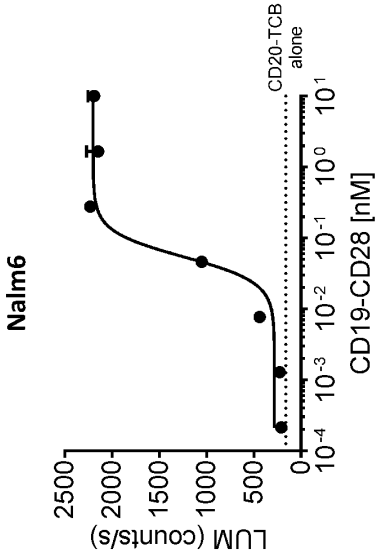


Fig. 45C

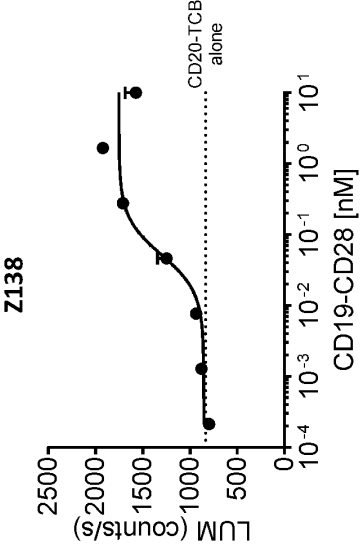


Fig. 46

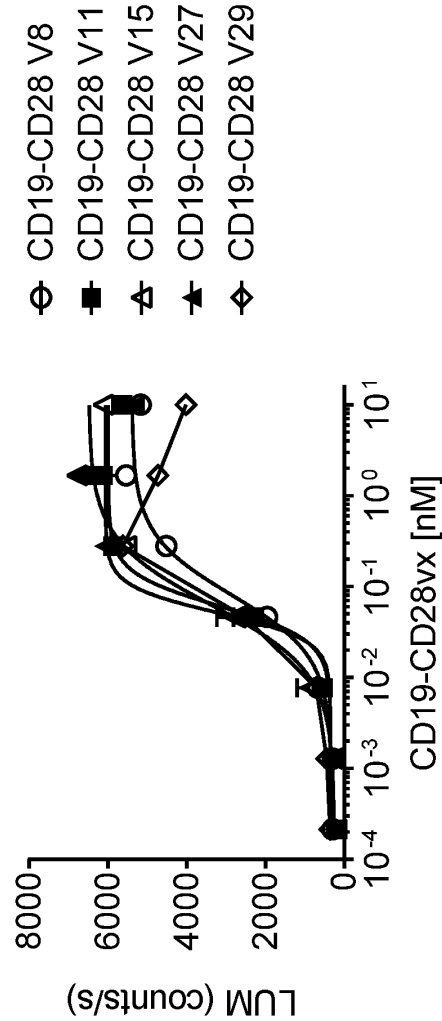


Fig. 47

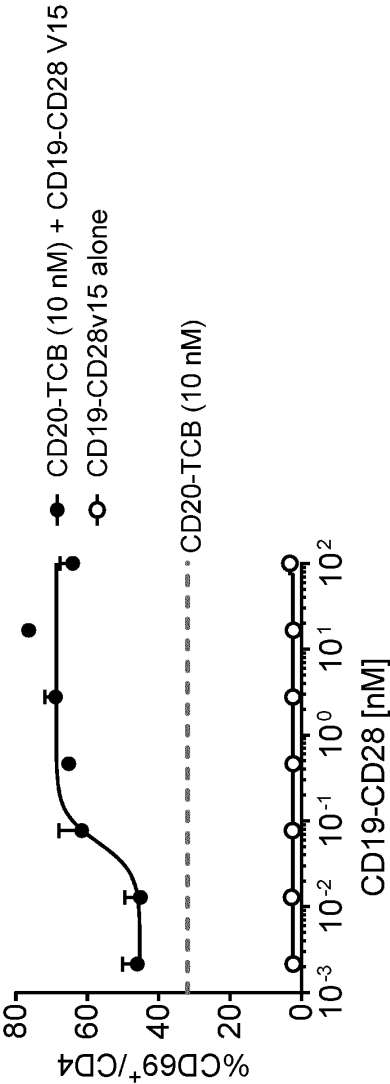


Fig. 48B

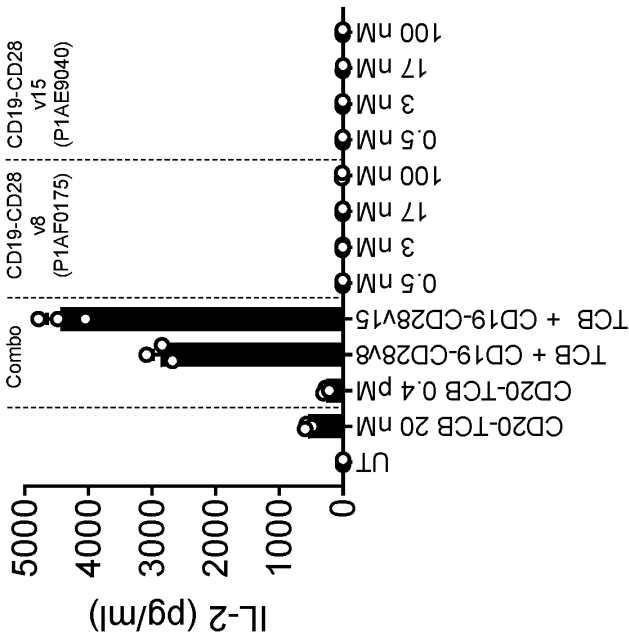


Fig. 48A

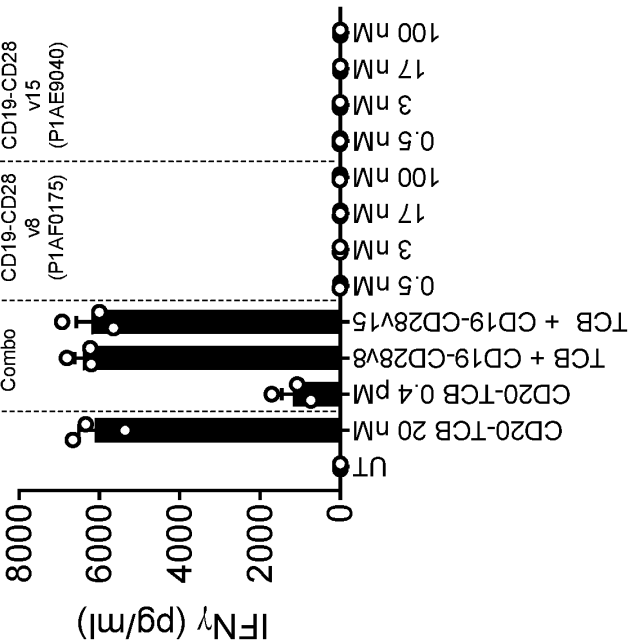


Fig. 48D

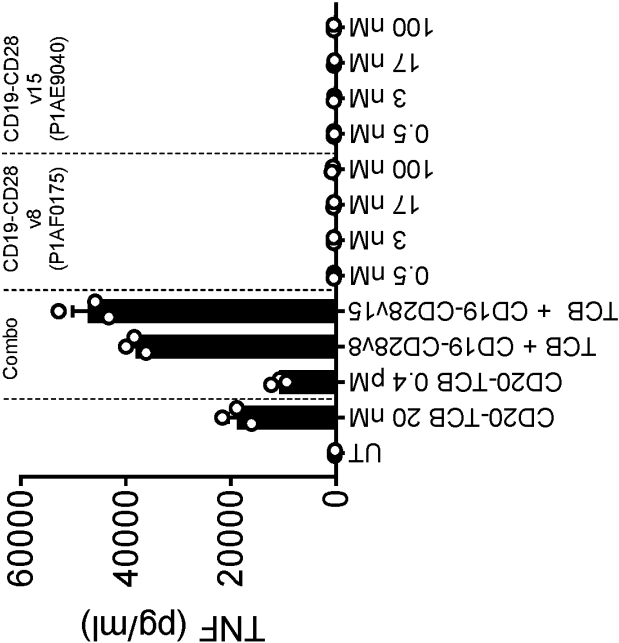


Fig. 48C

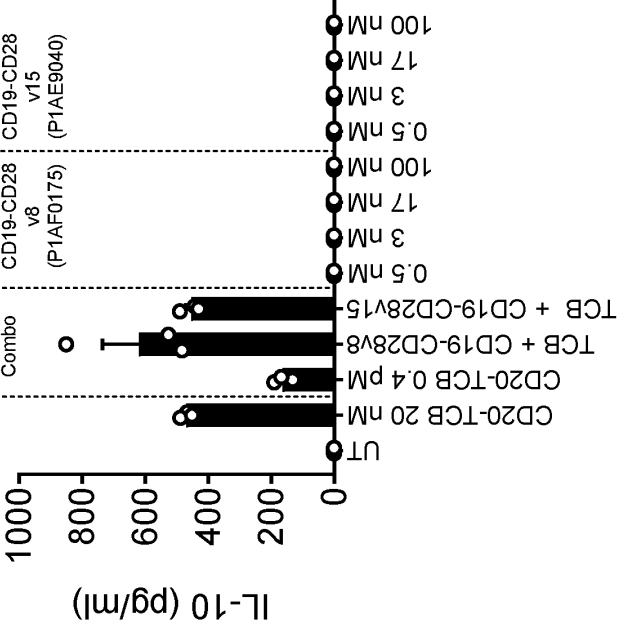


Fig. 49A

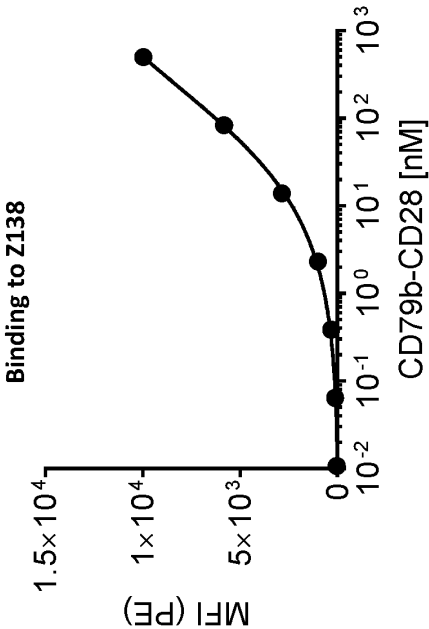
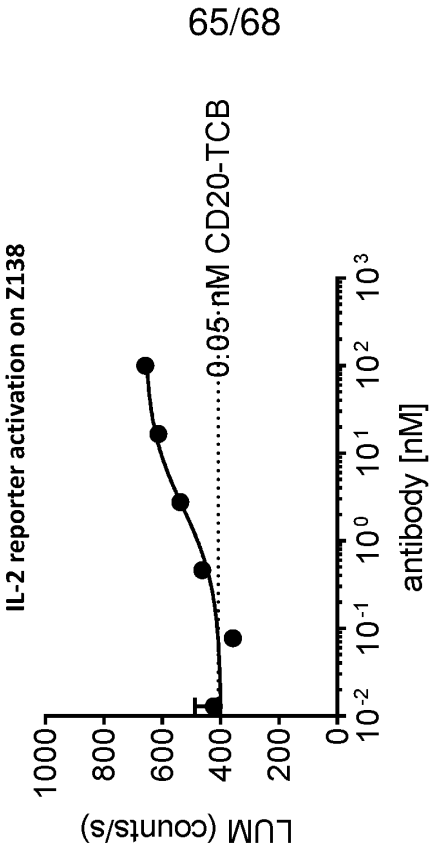
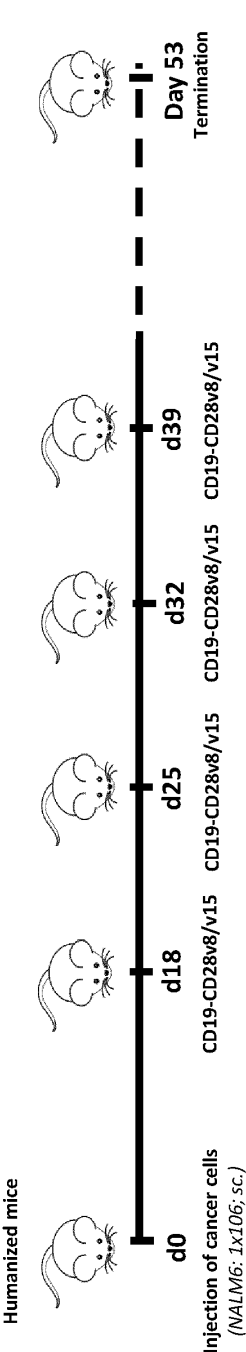


Fig. 49B



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Fig. 50



Group	No. of animals	Compound	Dose (mg/kg)	Therapy	No. of treatments
A	10	Vehicle	--	i.v.	5 (once weekly)
B	10	CD19-CD28v15	3	i.v.	5 (once weekly)
C	10	CD19-CD28v8	3	i.v.	5 (once weekly)

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Fig. 51A

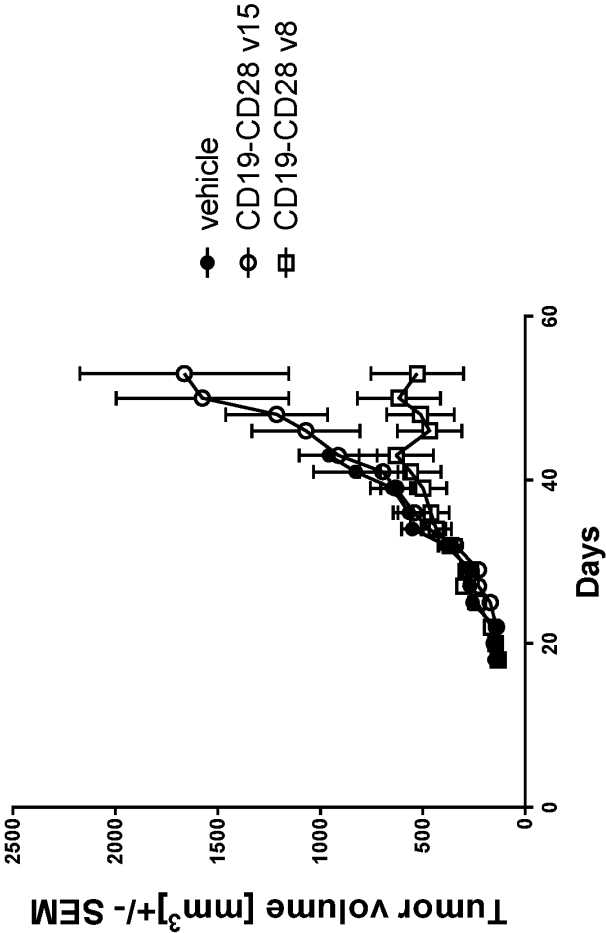


Fig. 51B

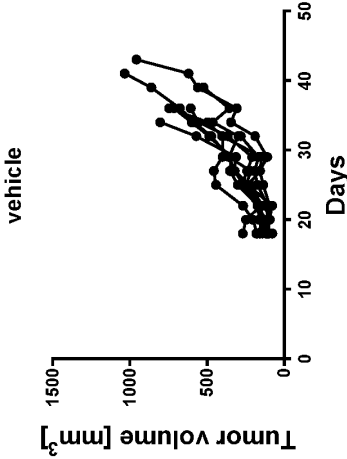


Fig. 51C

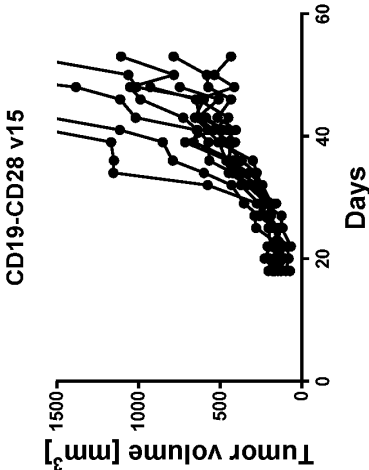


Fig. 51D

