

FIG. 1A

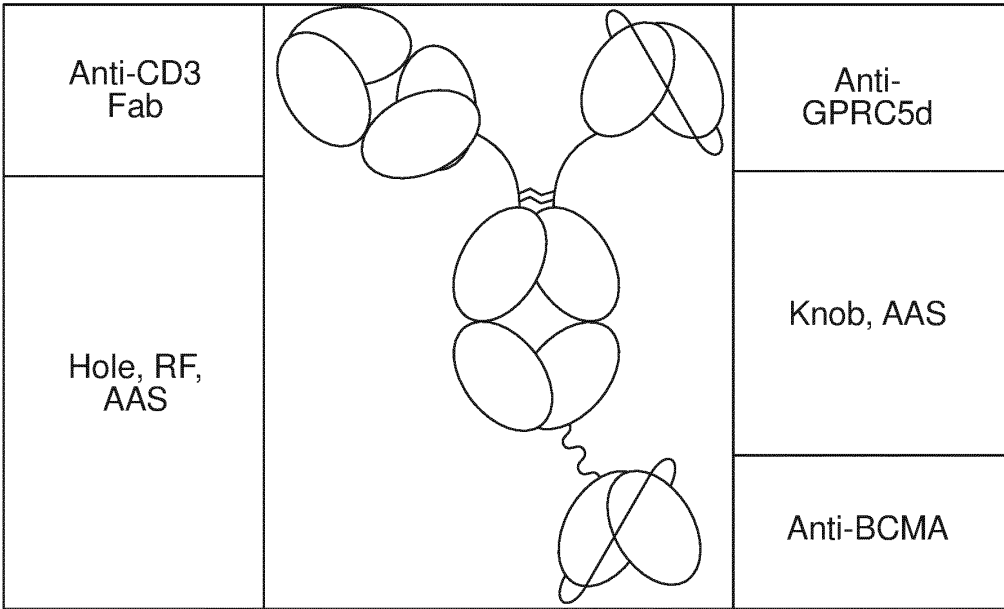
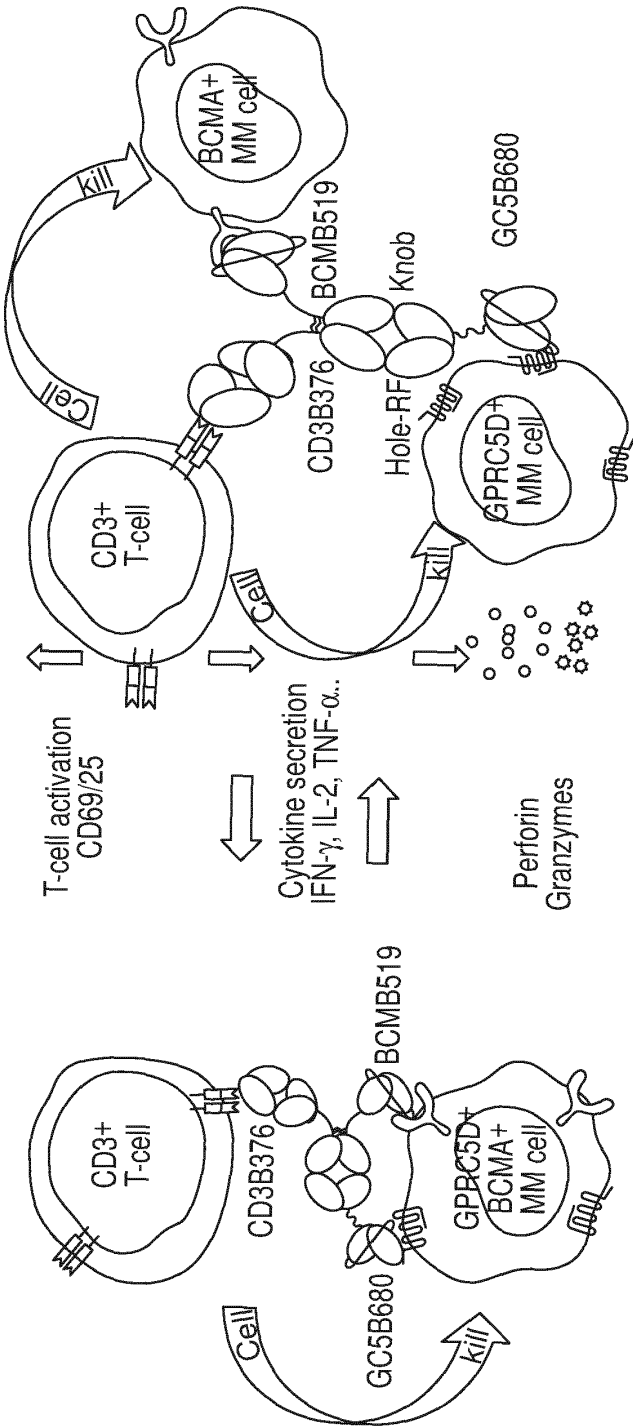


FIG. 1B



3/69

FIG. 2A

H929 WT

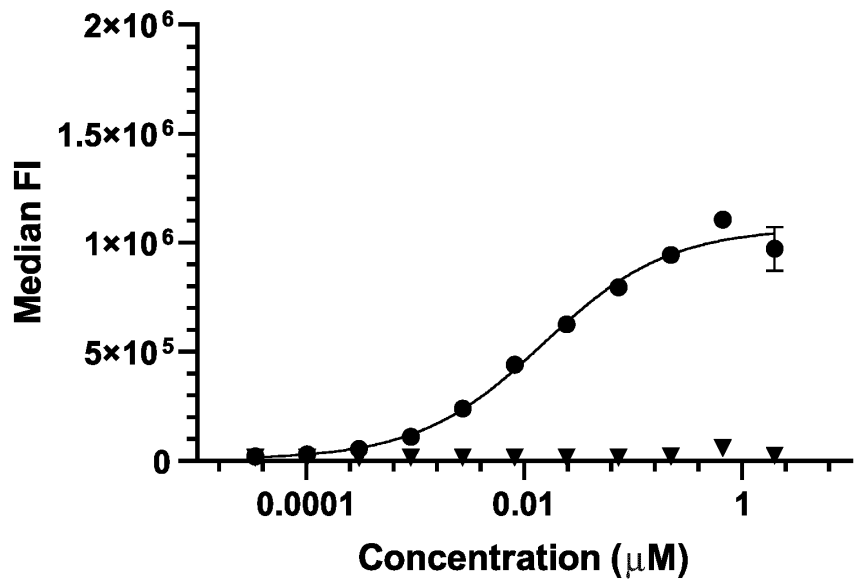
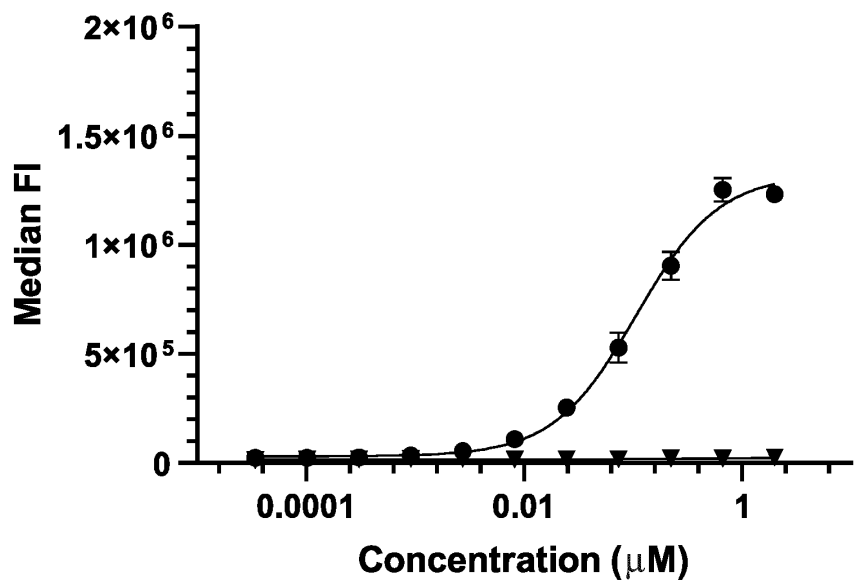
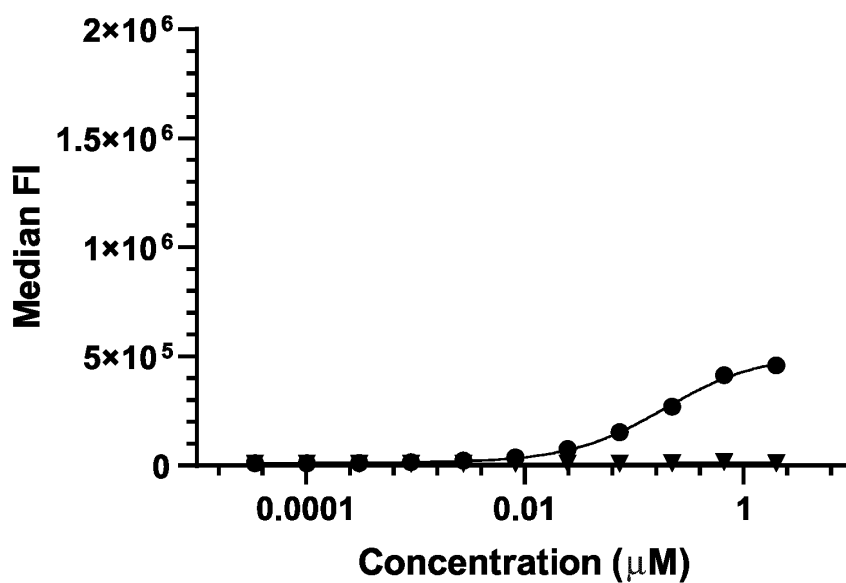
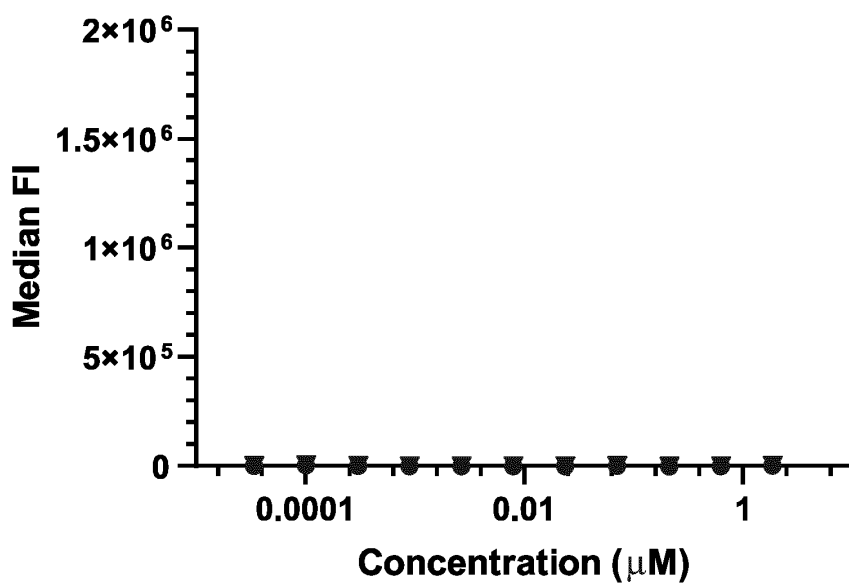


FIG. 2B

H929 GPRC5D KO



4/69

FIG. 2C**H929 BCMA KO****FIG. 2D****H929 GPRC5D/BCMA-KO**

5/69

FIG. 3A

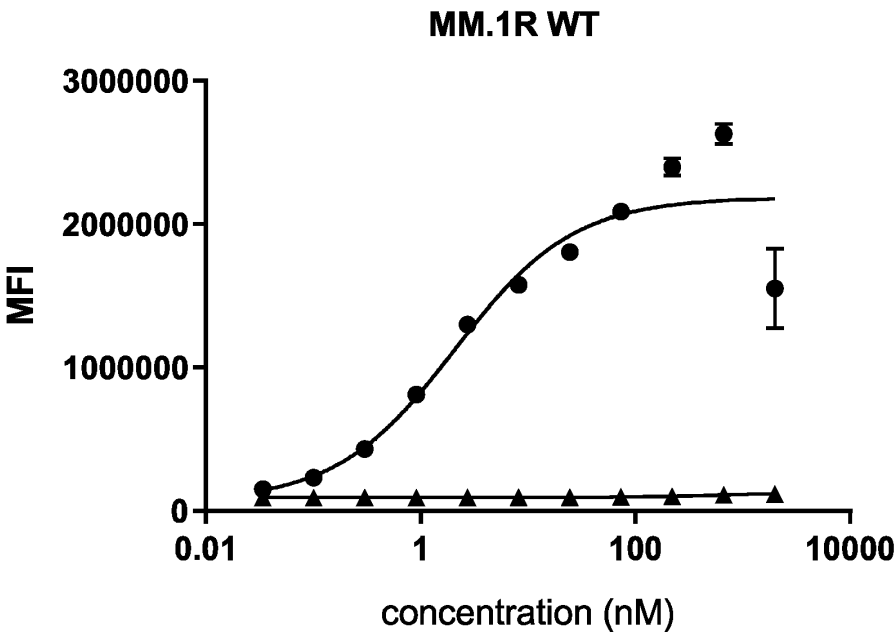
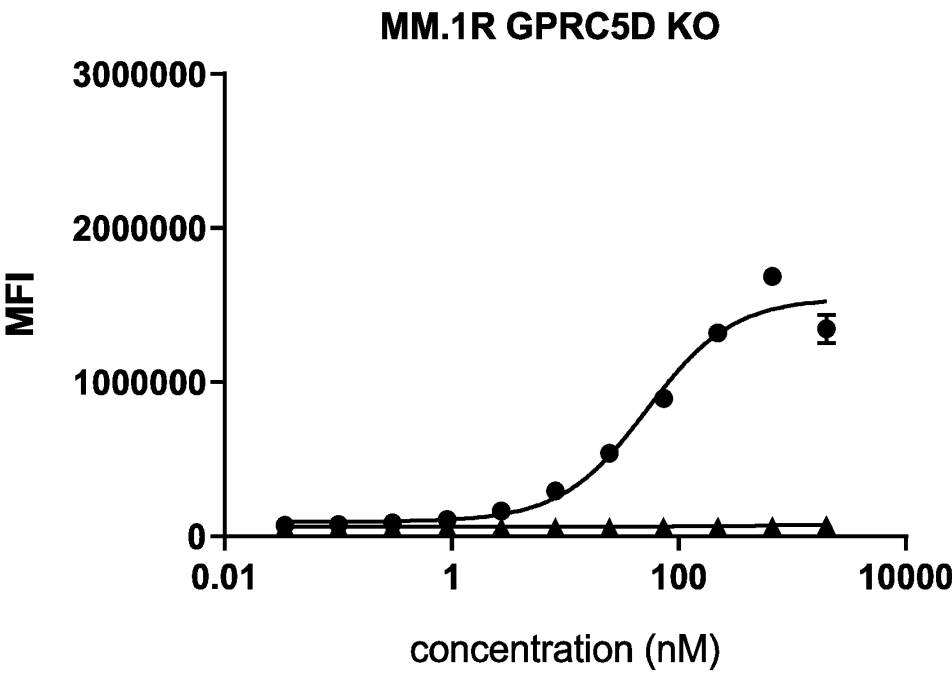


FIG. 3B



6/69

FIG. 3C

MM.1R BCMA KO

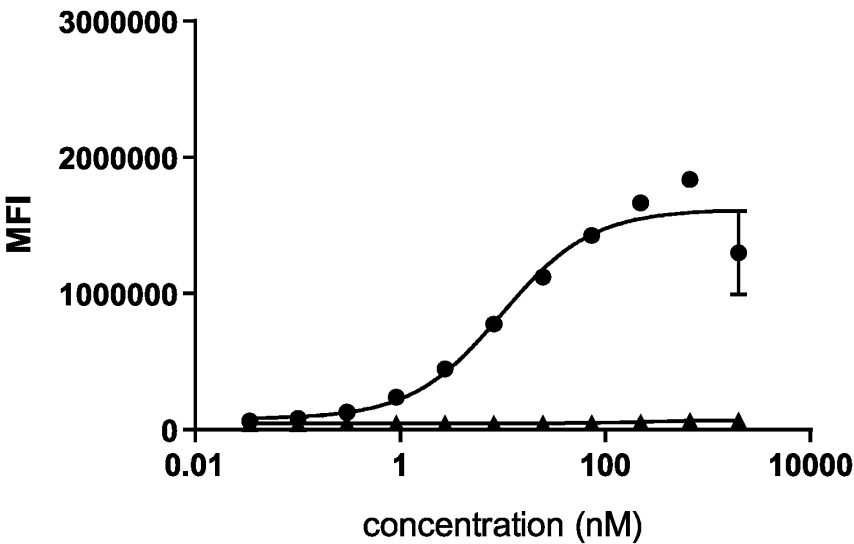
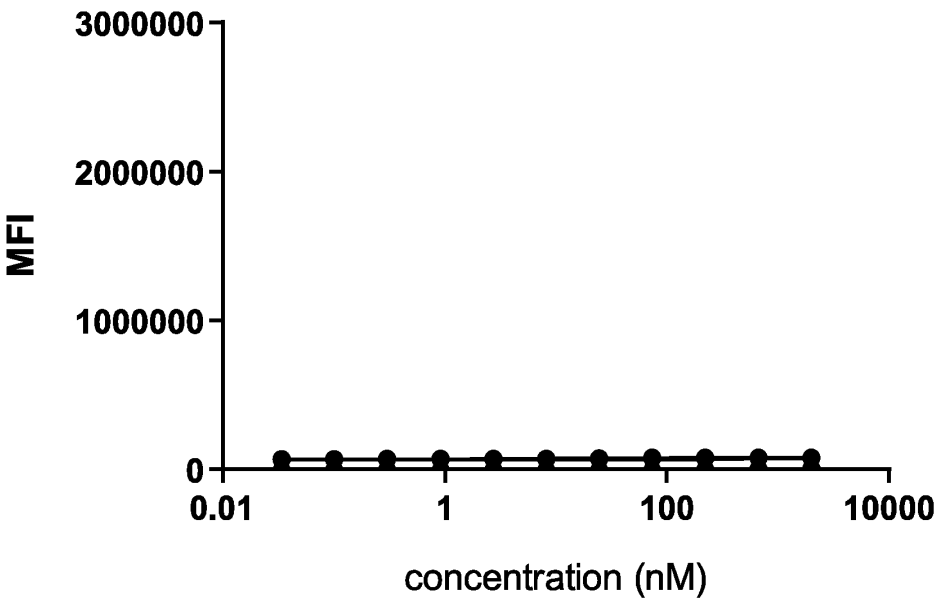


FIG. 3D

MM.1R BCMA/GPRC5D Double KO



7/69

FIG. 4A

Human Pan T D329335

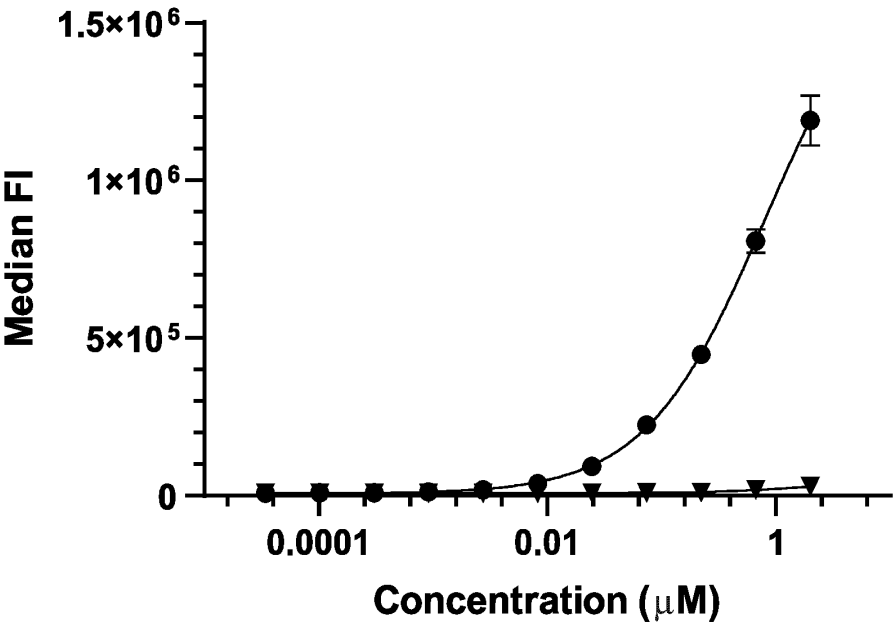
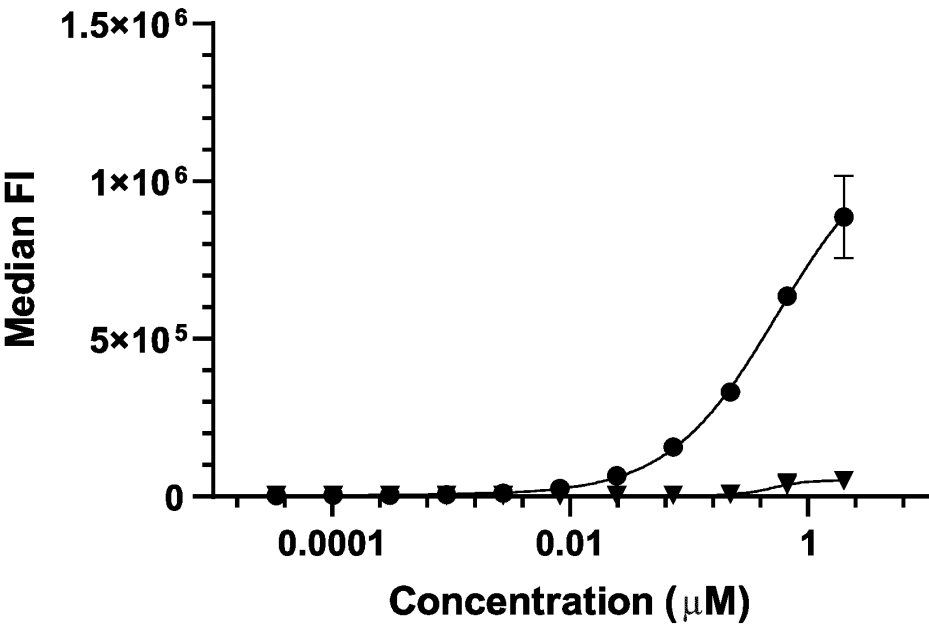
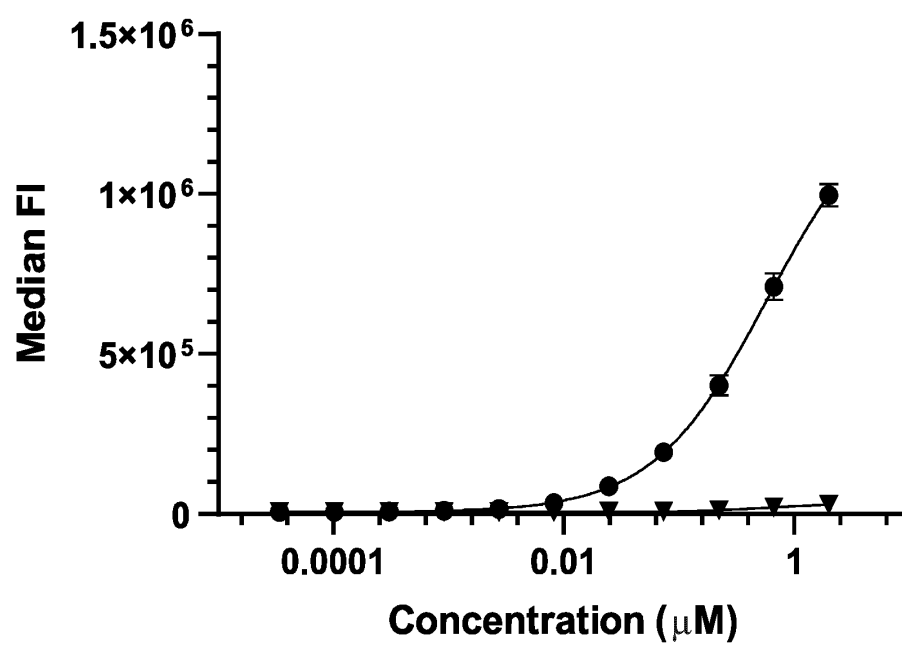


FIG. 4B

Human Pan T D327645



8/69

FIG. 4C**Human Pan T D326589**

9/69

FIG. 5A

D329335

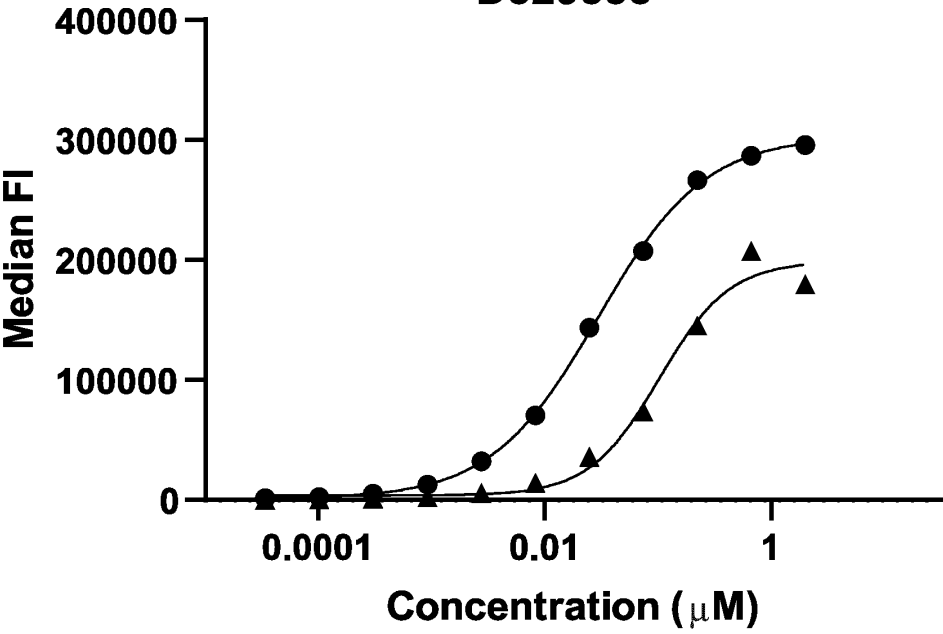


FIG. 5B

D327645

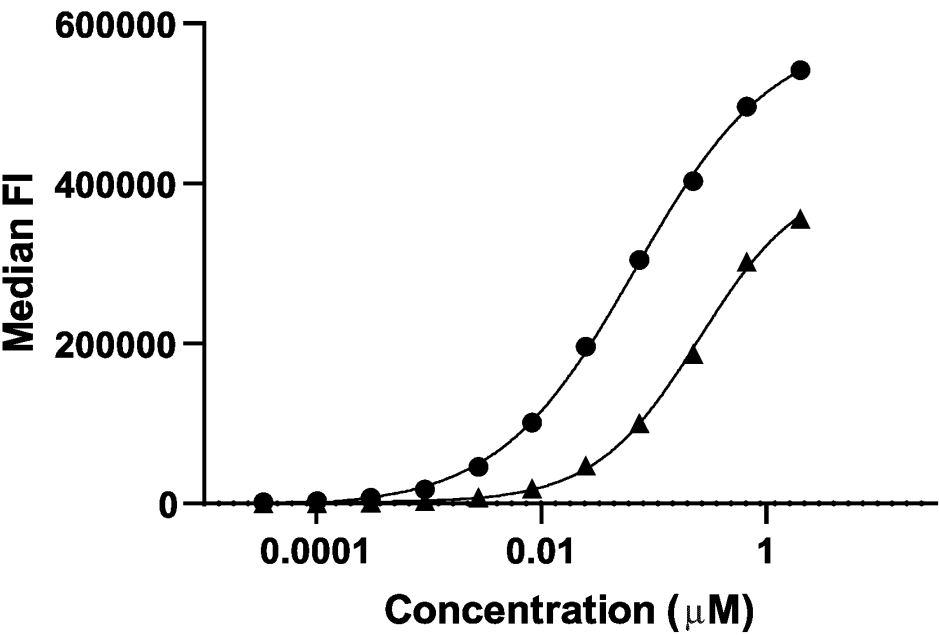
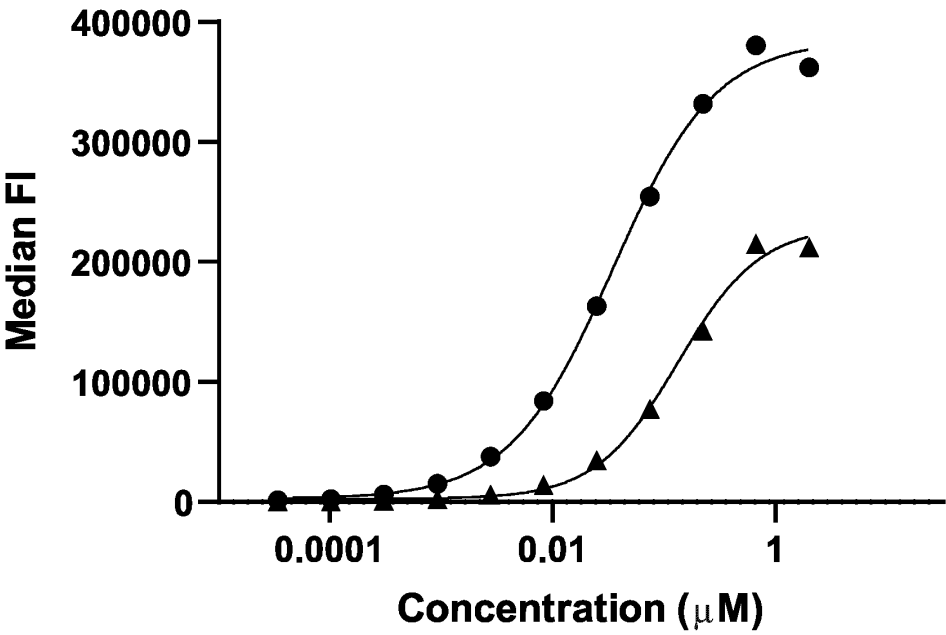


FIG. 5C

D326589



11/69

FIG. 6A

H929 WT, BGCB463.003 vs .004

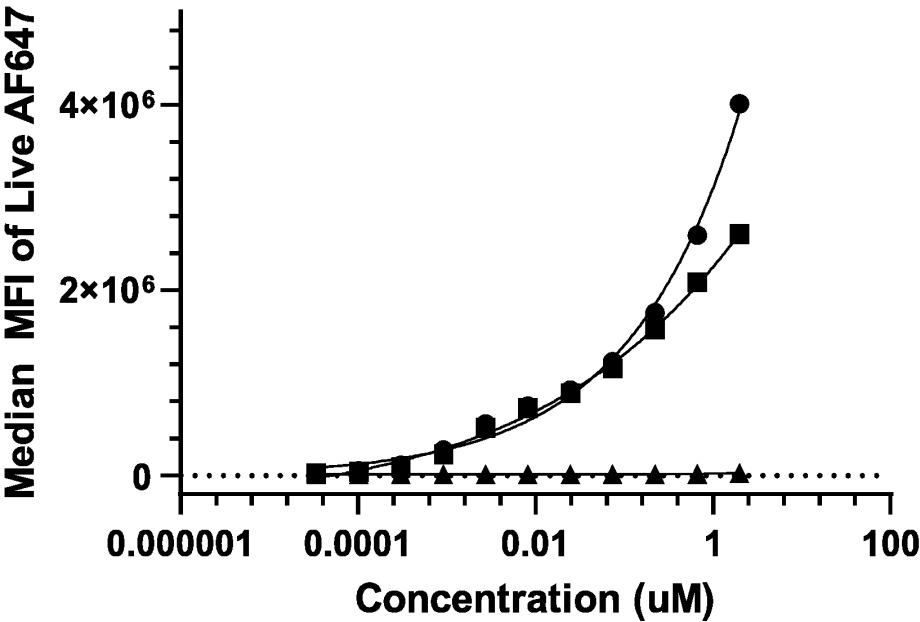
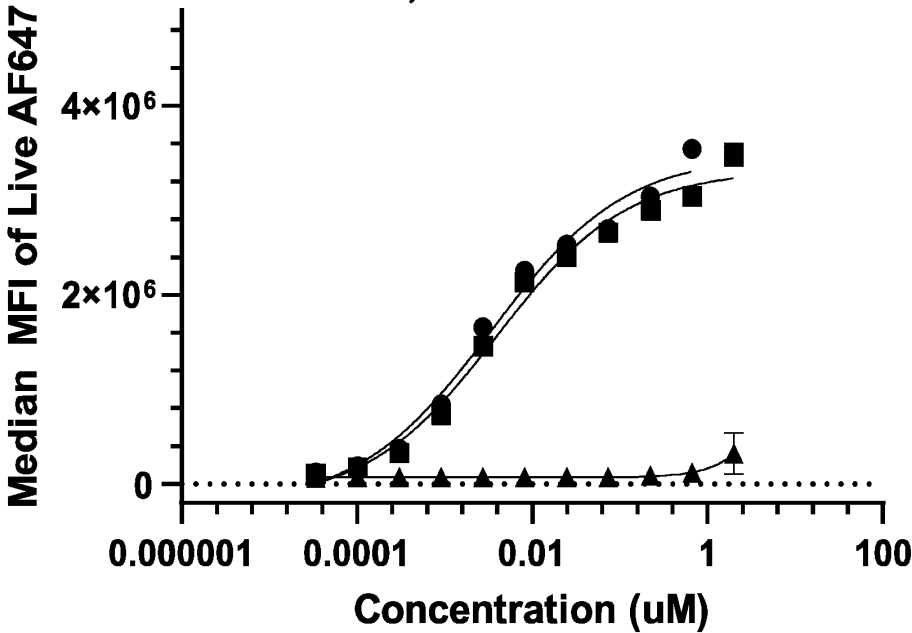
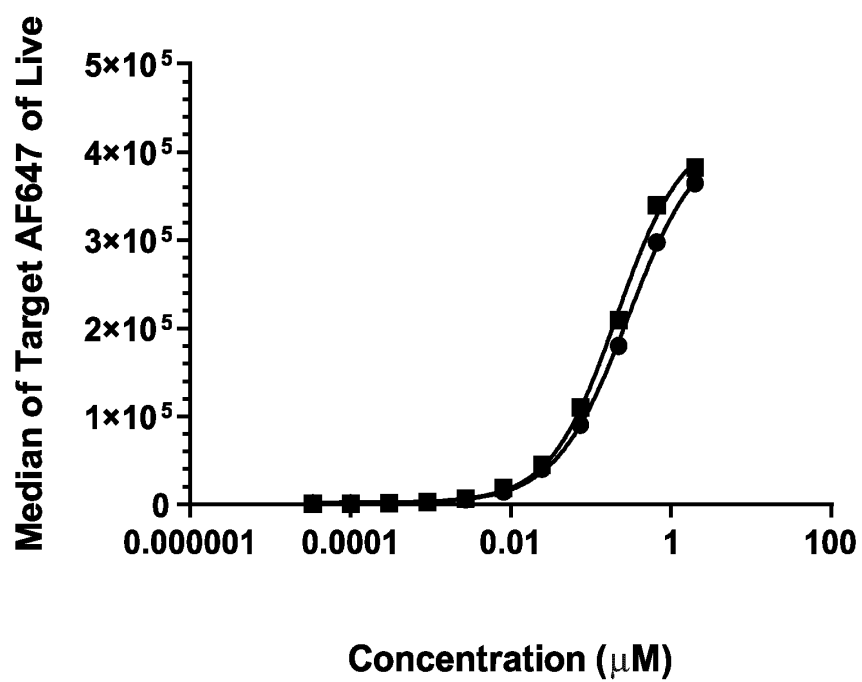


FIG. 6B

MM1R WT, BGCB463.003 vs .004



12/69

FIG. 6C**Pan T donor D329335**

13/69

FIG. 7A

H929 WT

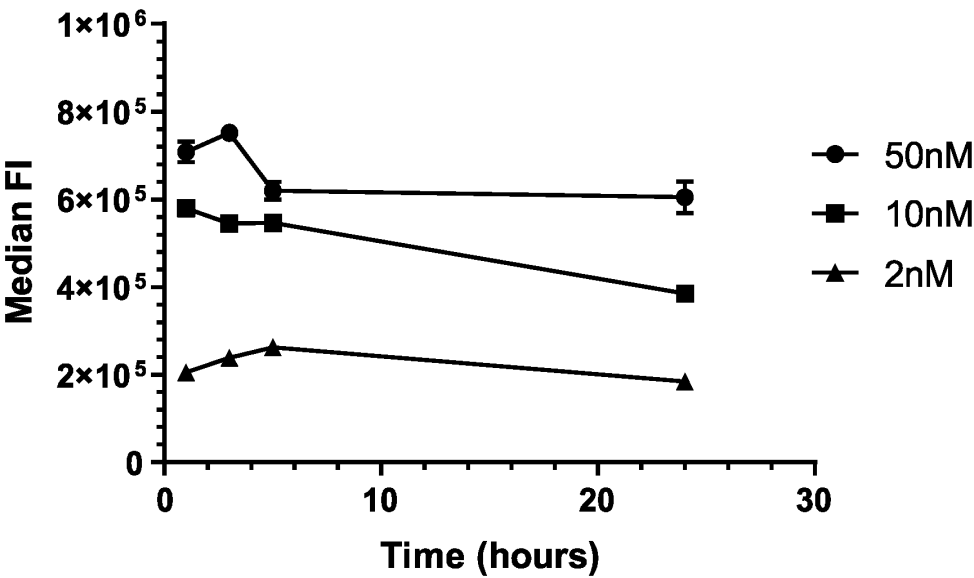
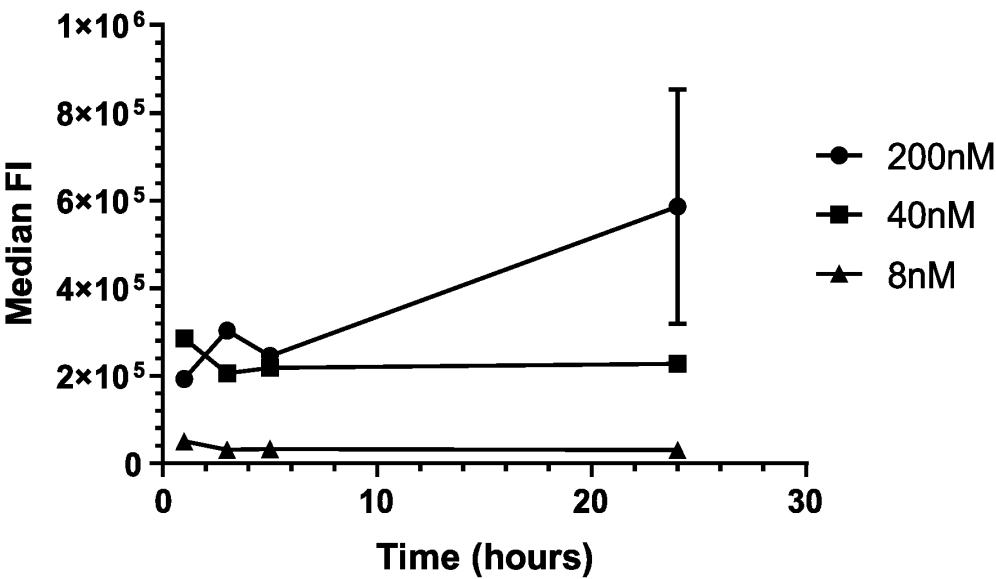


FIG. 7B

H929 GPRC5D-KO



14/69

FIG. 7C

H929 BCMA-KO

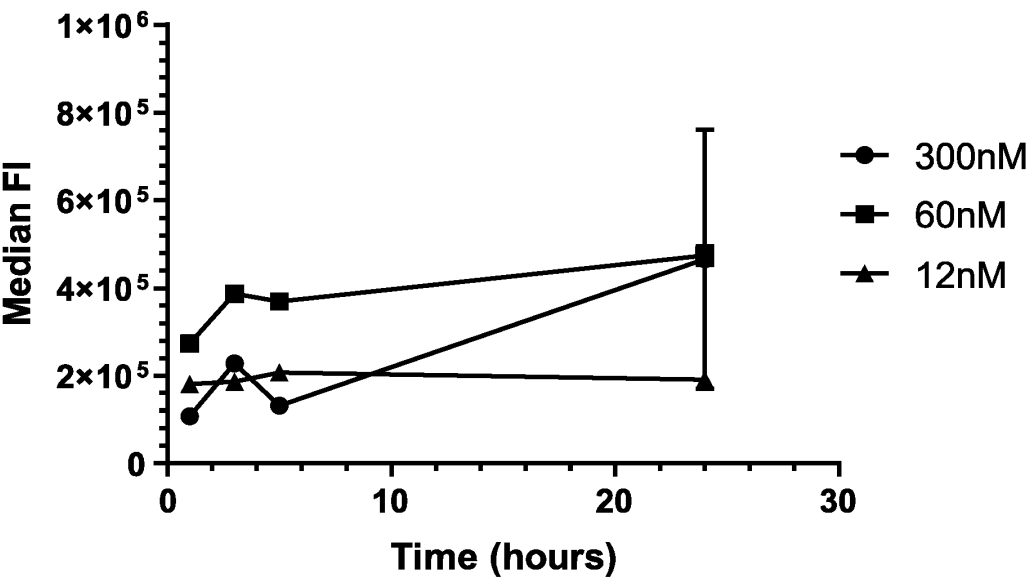
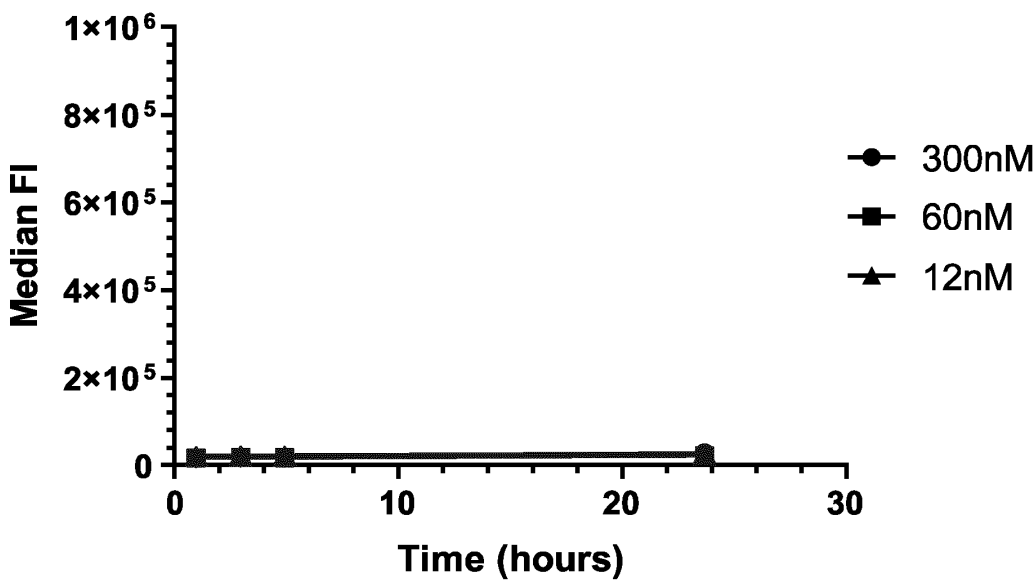


FIG. 7D

H929 GPRC5D/BCMA-KO



15/69

FIG. 8A

MM1R WT

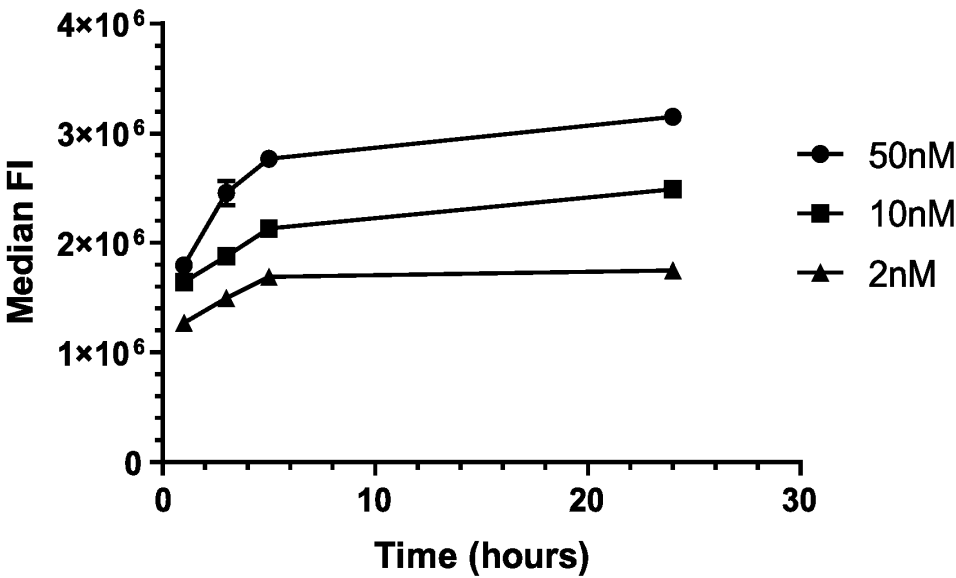
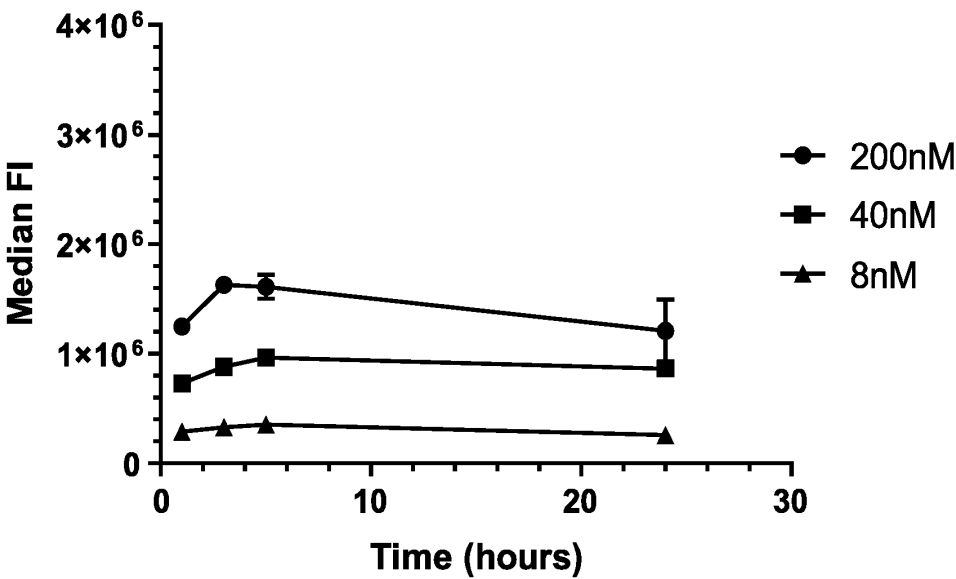


FIG. 8B

MM1R GPRC5D-KO



16/69

FIG. 8C

MM1R BCMA-KO

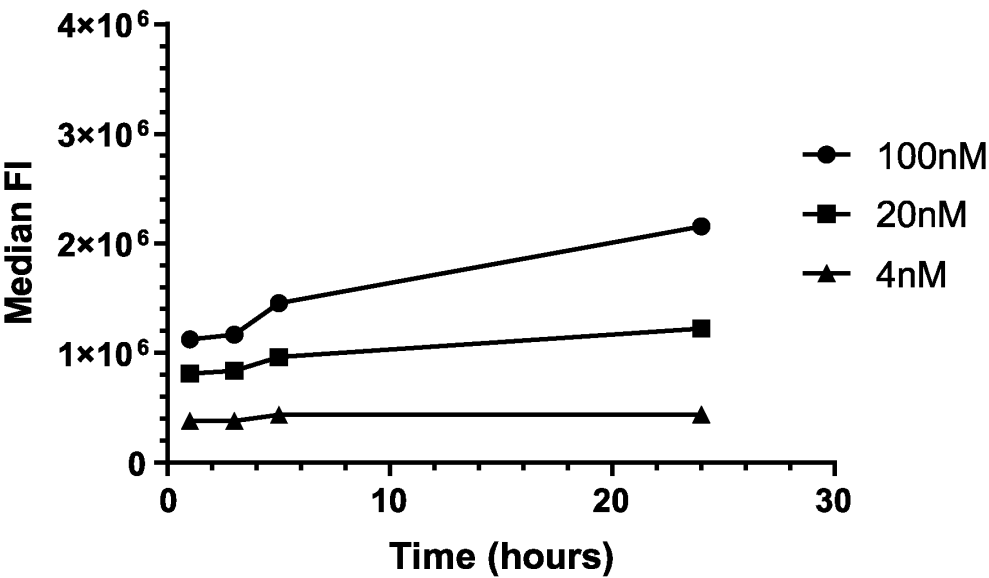
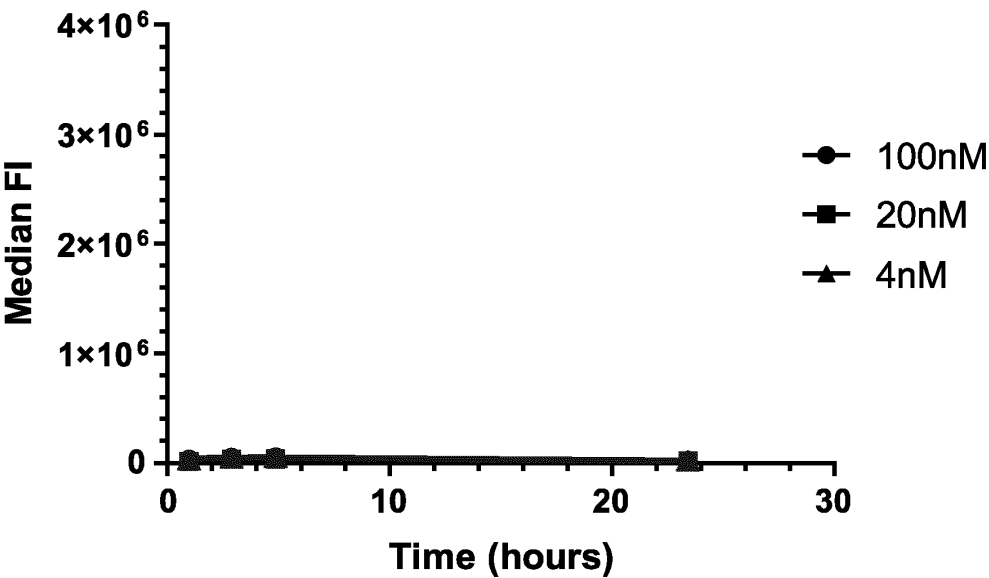


FIG. 8D

MM1R GPRC5D/BCMA-KO



17/69

FIG. 9A
K562-Hum GPRC5D

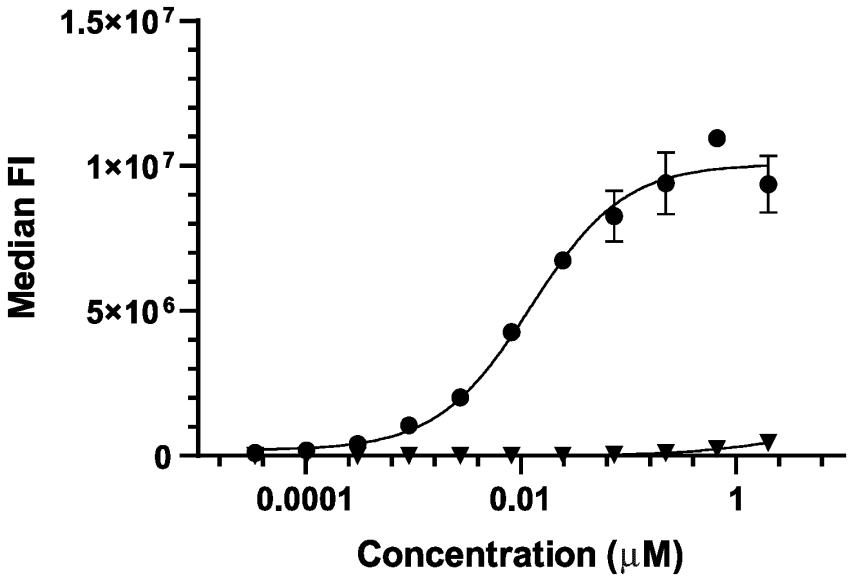
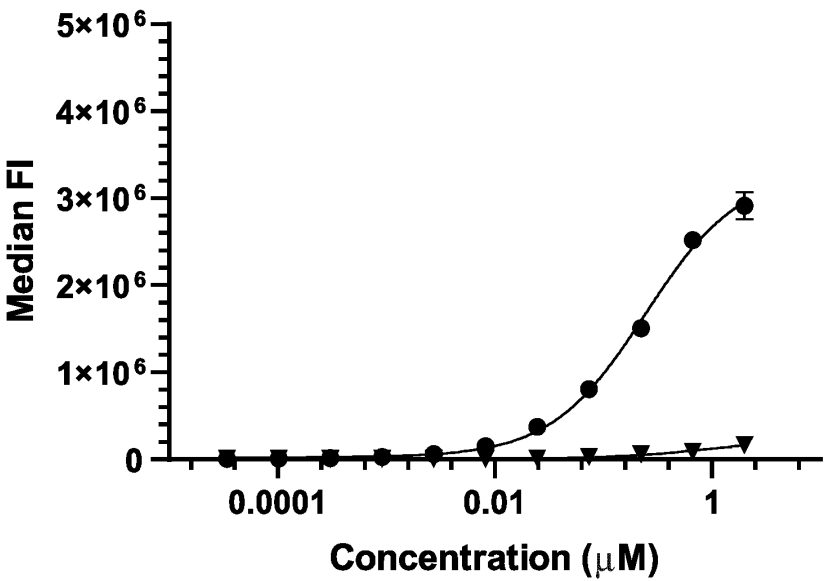


FIG. 9B
K562-Hum BCMA



18/69

FIG. 9C

K562-Cyno GPRC5D

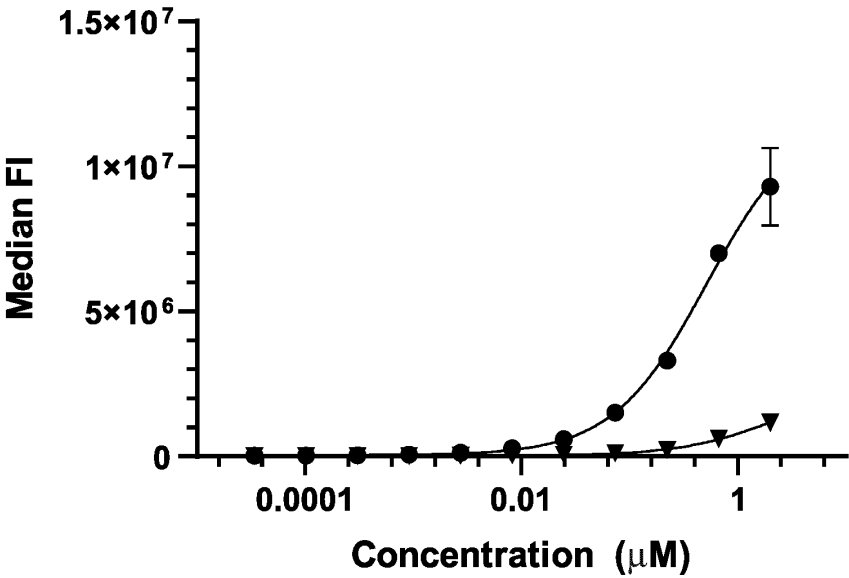


FIG. 9D

K562-Cyno BCMA

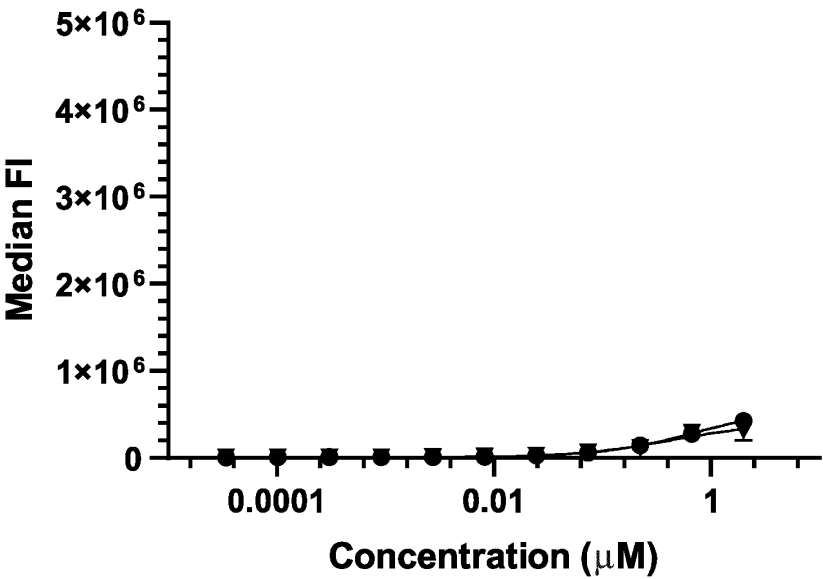


FIG. 9E

	BGCB463 EC50 (nM) Run 1	BGCB463 EC50 (nM) Run 2	EC50 AVE	BGCB463 EC90 (nM) Run 1	BGCB463 EC90 (nM) Run 2	EC90 AVE
Human GPCR5D	12.5	49.7	31.1	142.6	208.7	175.7
Cyno GPCR5D	435.1	309.7	372.4	2989.8	2058.6	2524.2
Human BCMA	248.0	45.8	146.9	2333.8	192.5	1263.2
Cyno BCMA	No fit	No fit	No fit	No fit	No fit	No fit

FIG. 10A

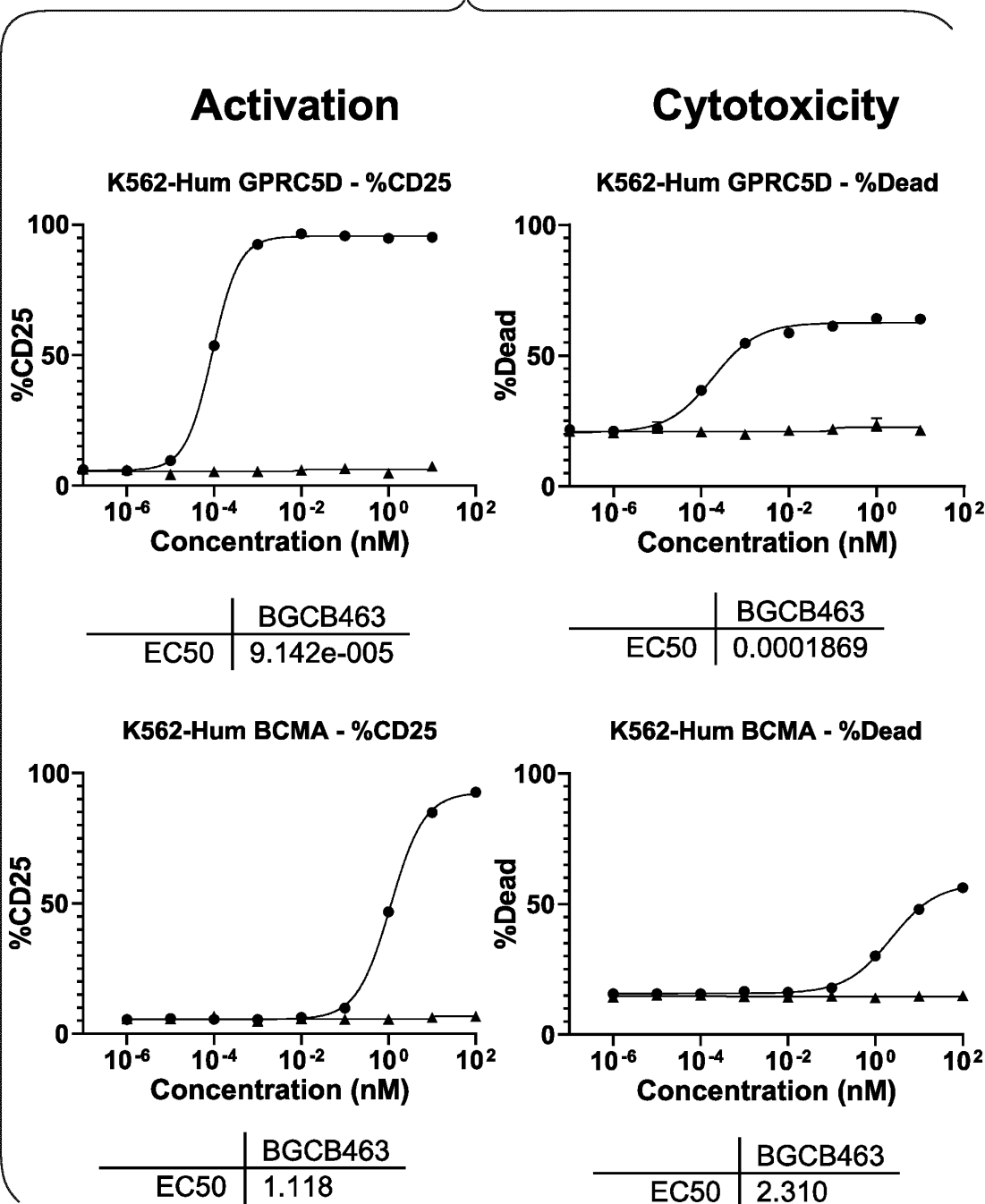


FIG. 10B

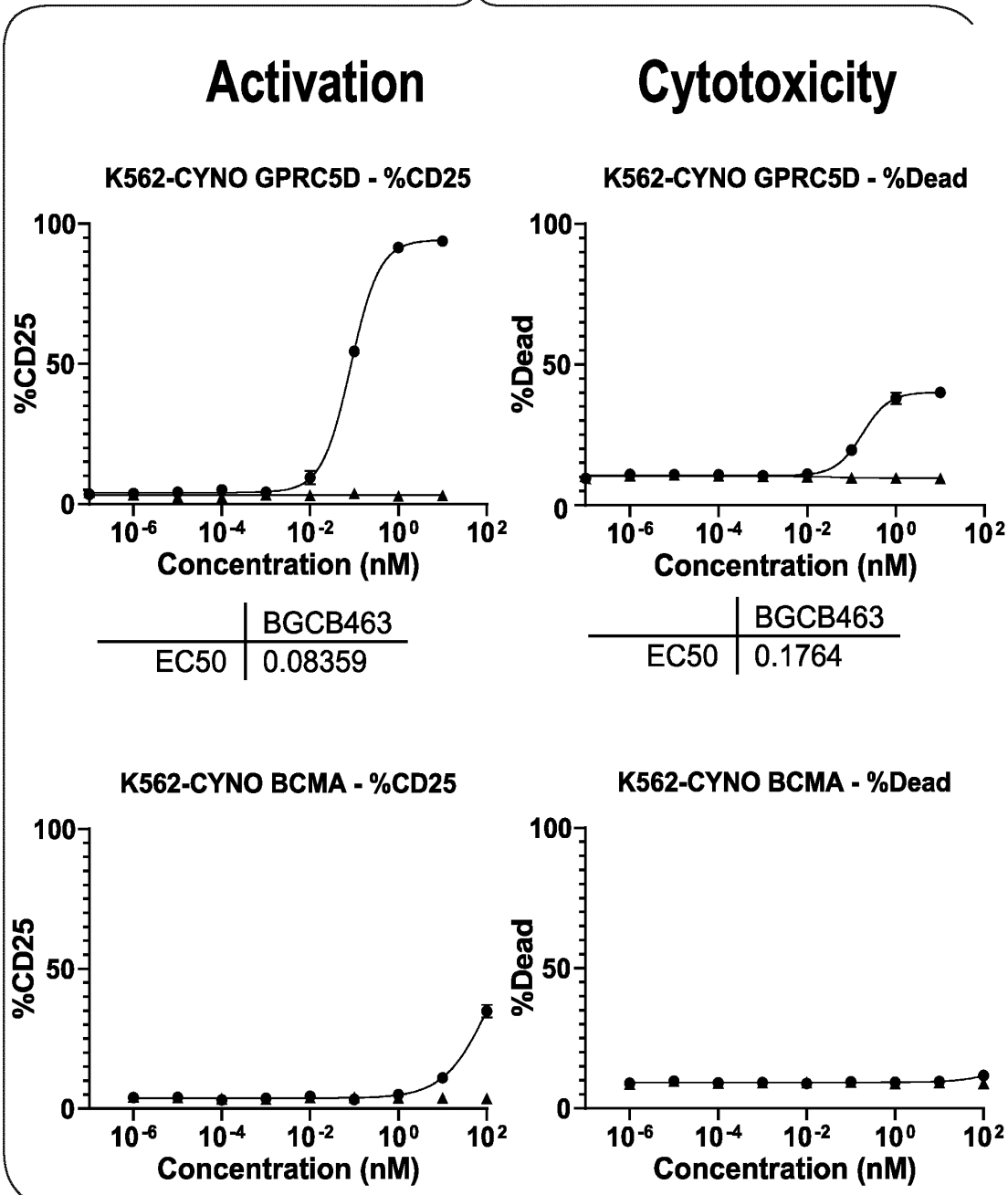


FIG. 11

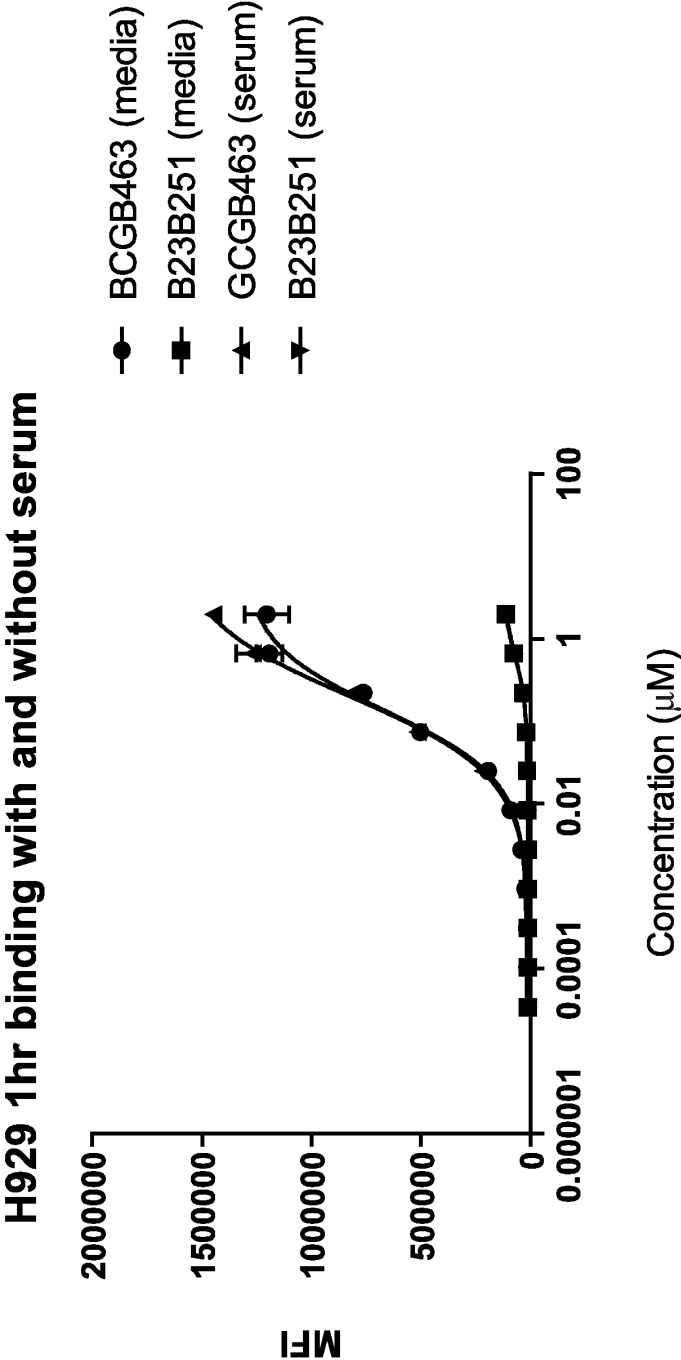


FIG. 12

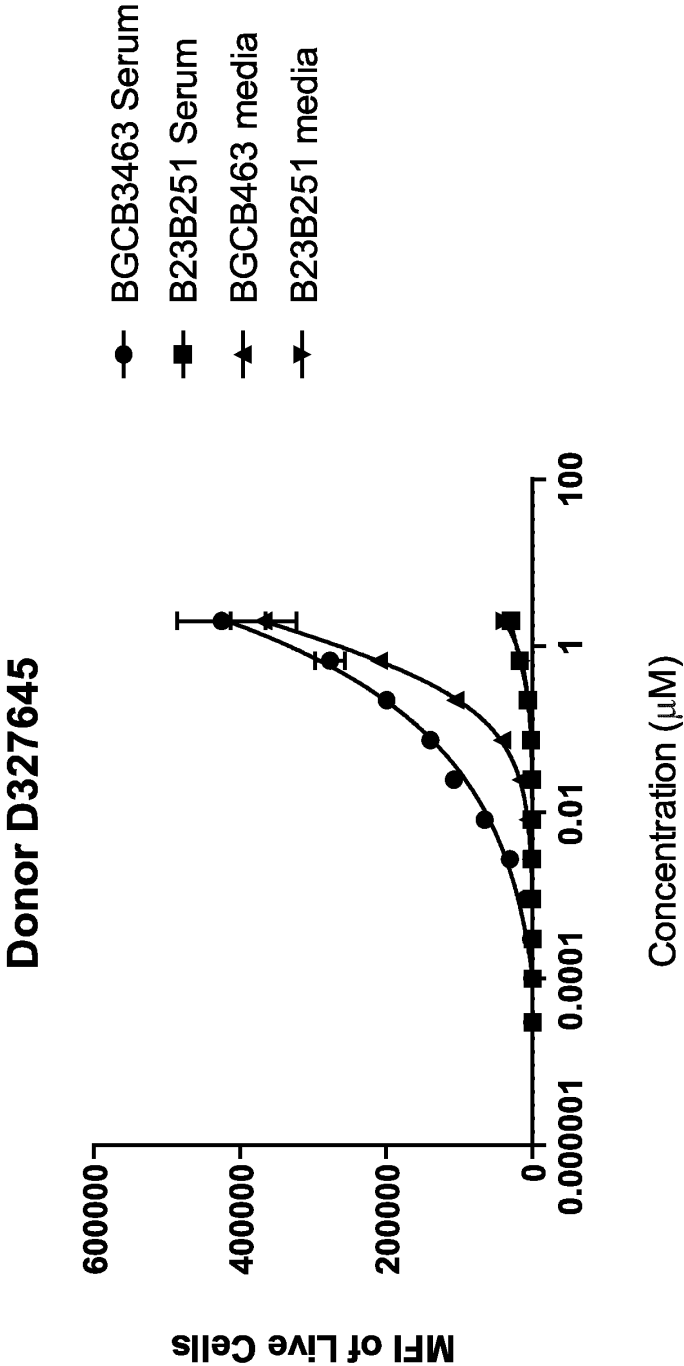


FIG. 13A

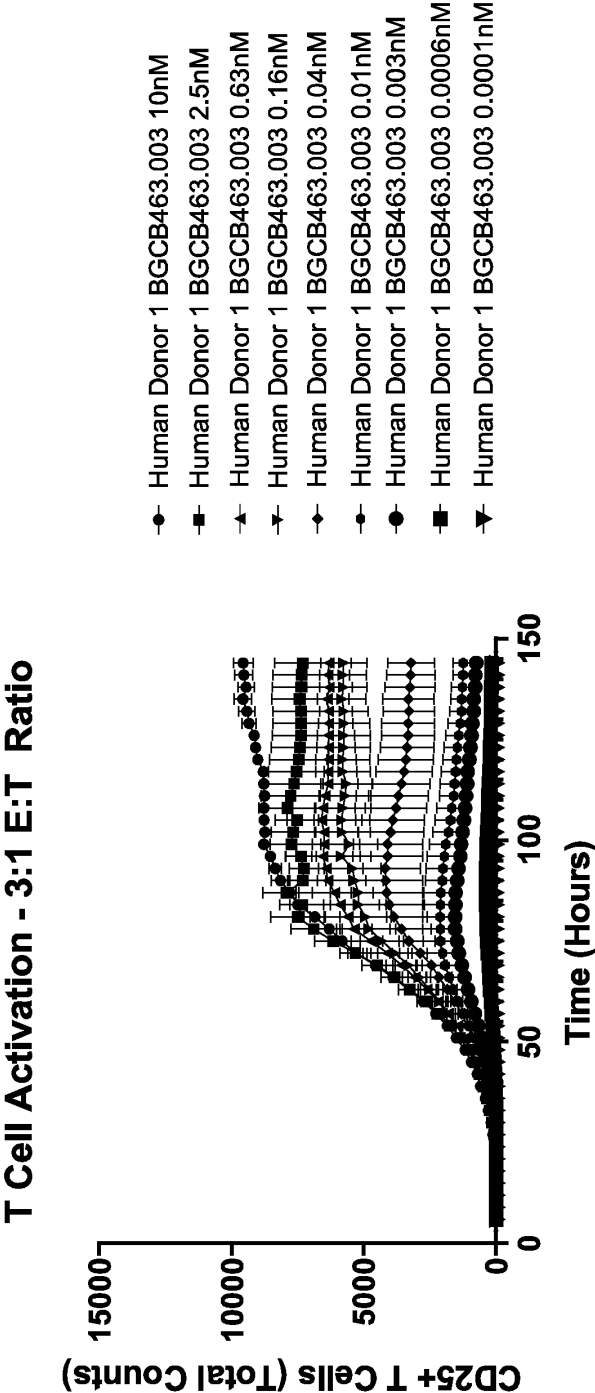
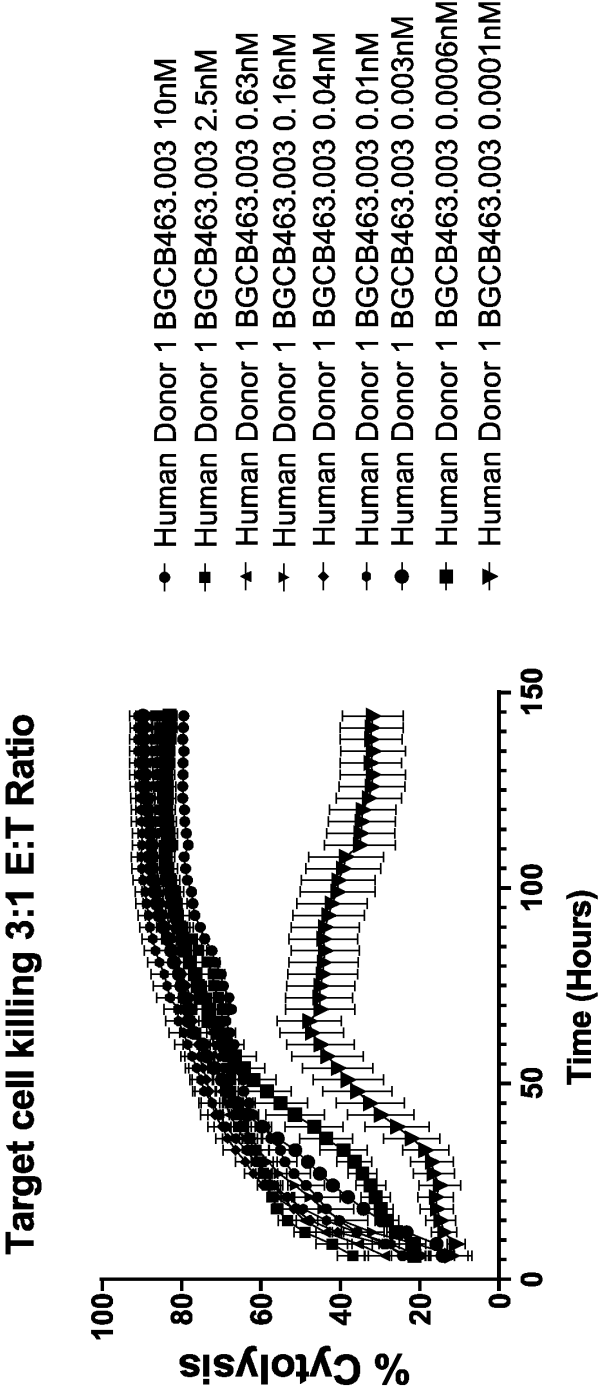


FIG. 13B



26/69

FIG. 14A

1:1-%Cytolysis - BGCB463

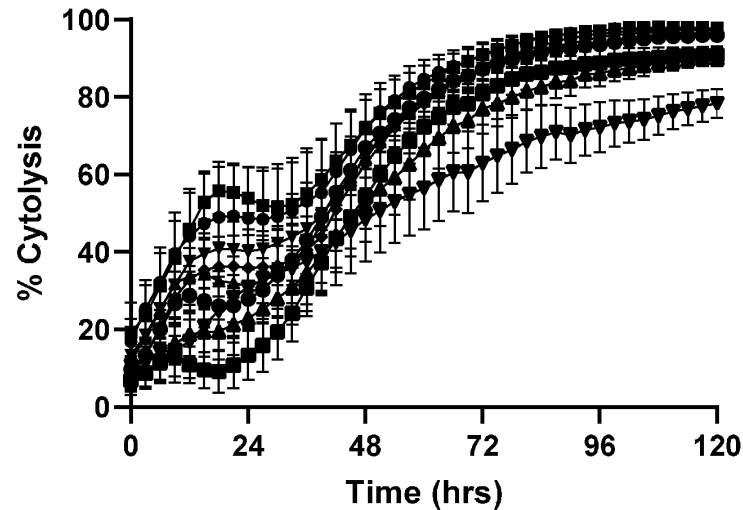
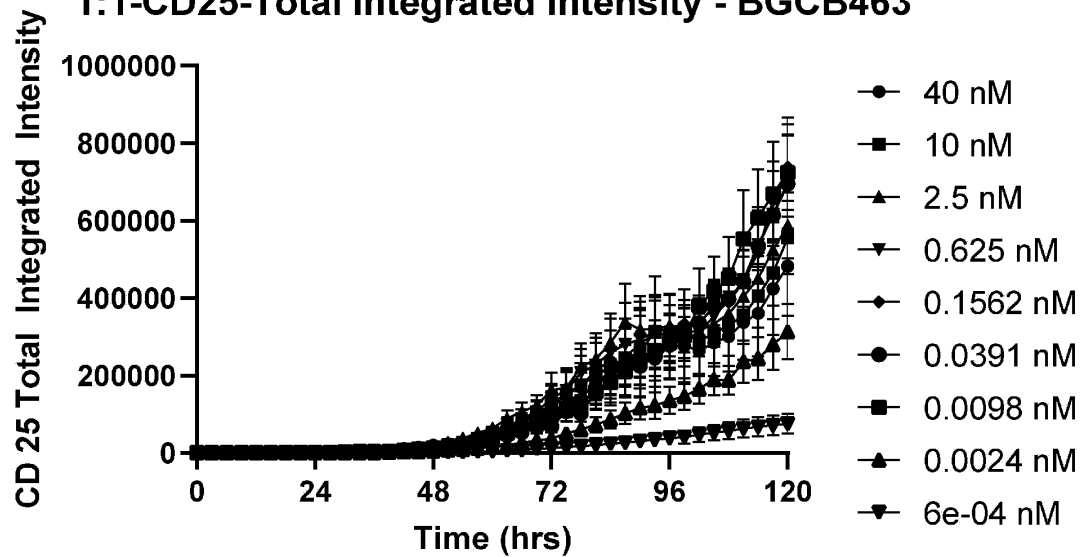


FIG. 14B

1:1-CD25-Total Integrated Intensity - BGCB463



27/69

FIG. 14C

5:1-%Cytolysis - BGCB463

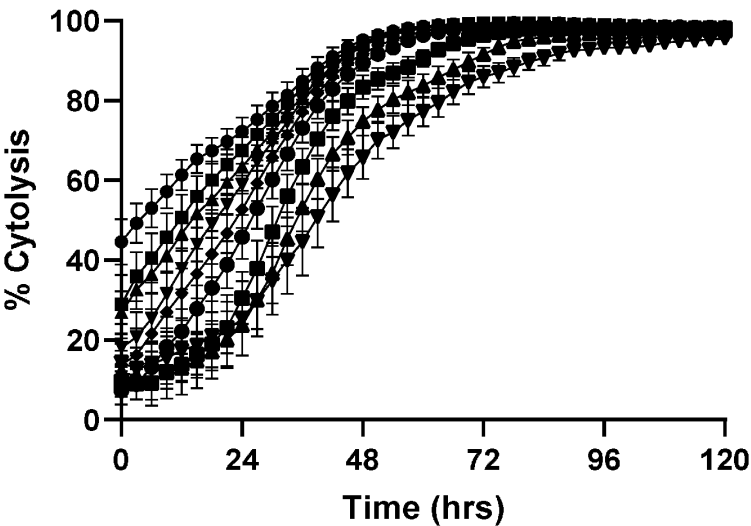
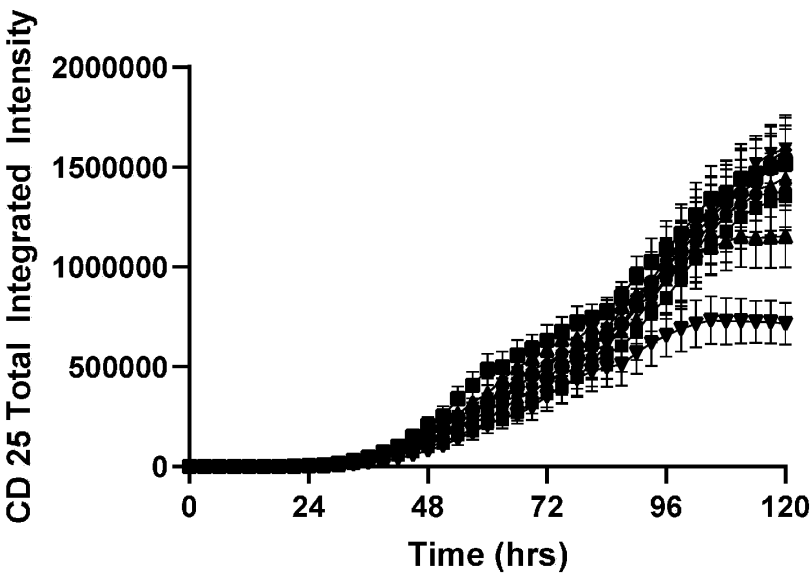


FIG. 14D

5:1-CD25-Total Integrated Intensity - BGCB463



28/69

FIG. 14E

5:1-%Cytolysis - Isotype (B23B251)

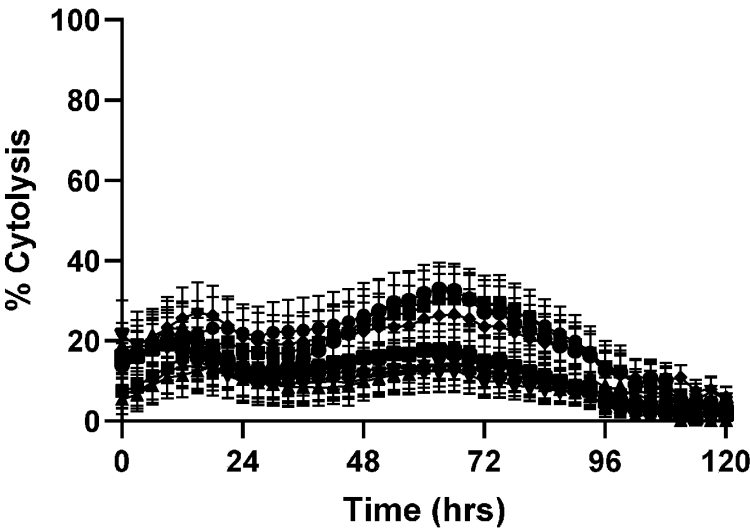


FIG. 14F

5:1-CD25-Total Integrated Intensity - Isotype (B23B251)

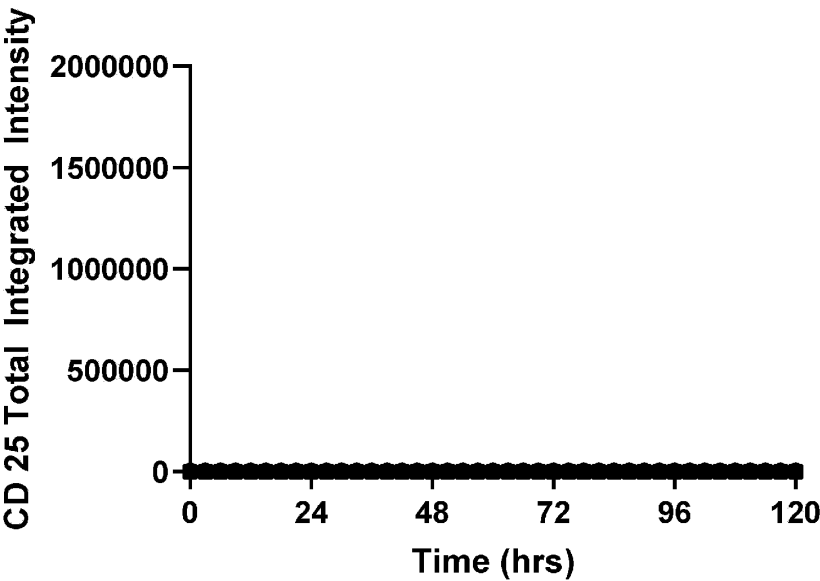


FIG. 15A

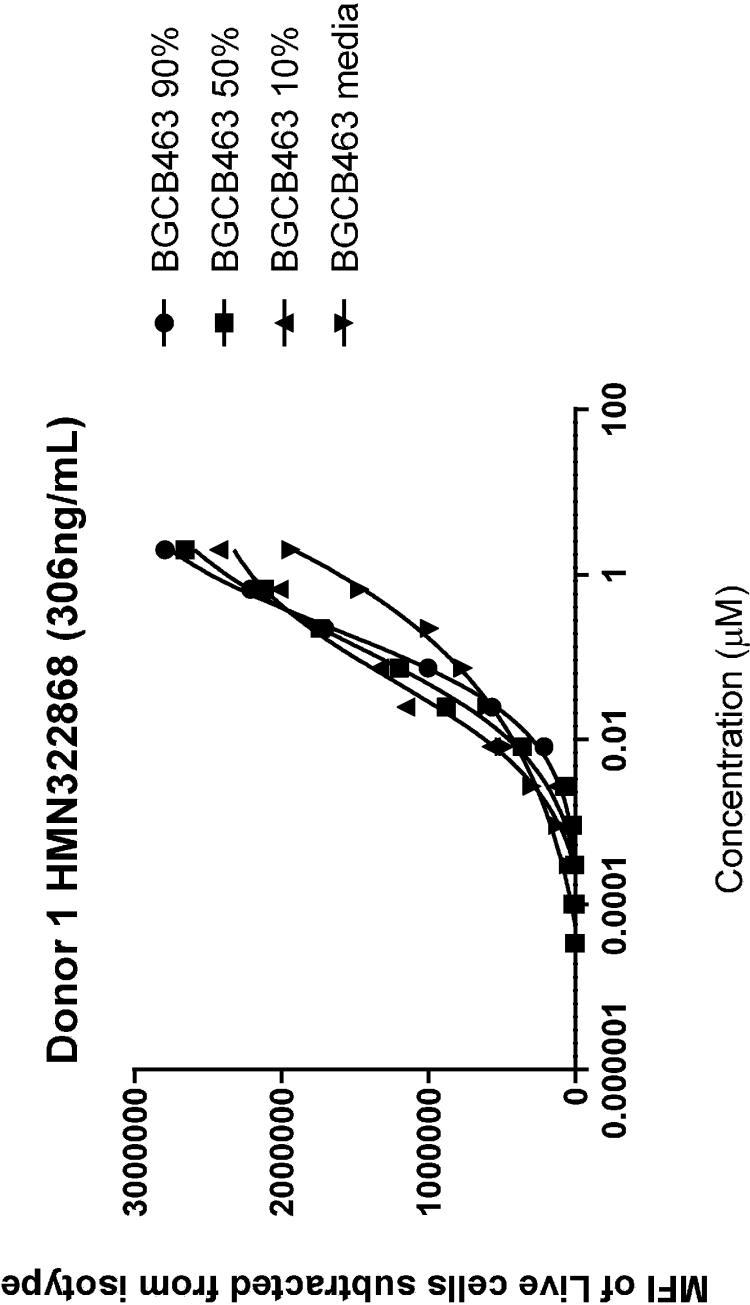


FIG. 15B

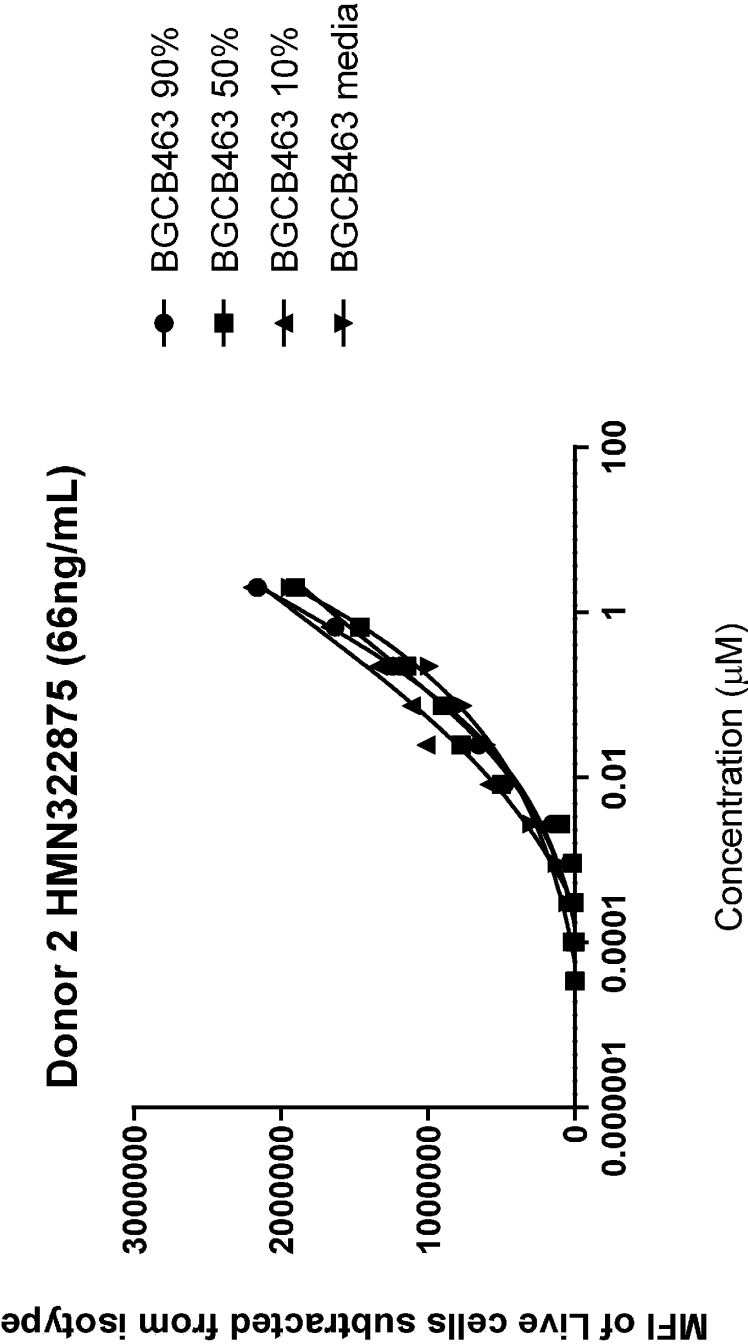


FIG. 15C

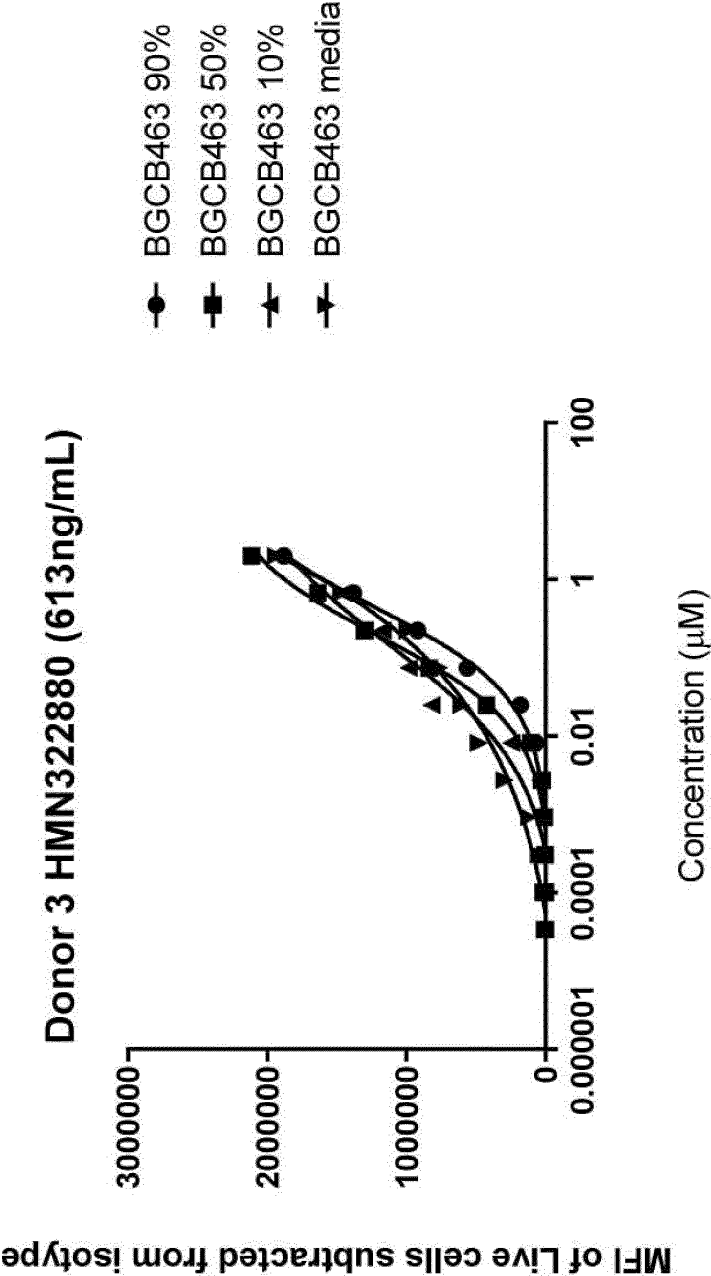


FIG. 15D

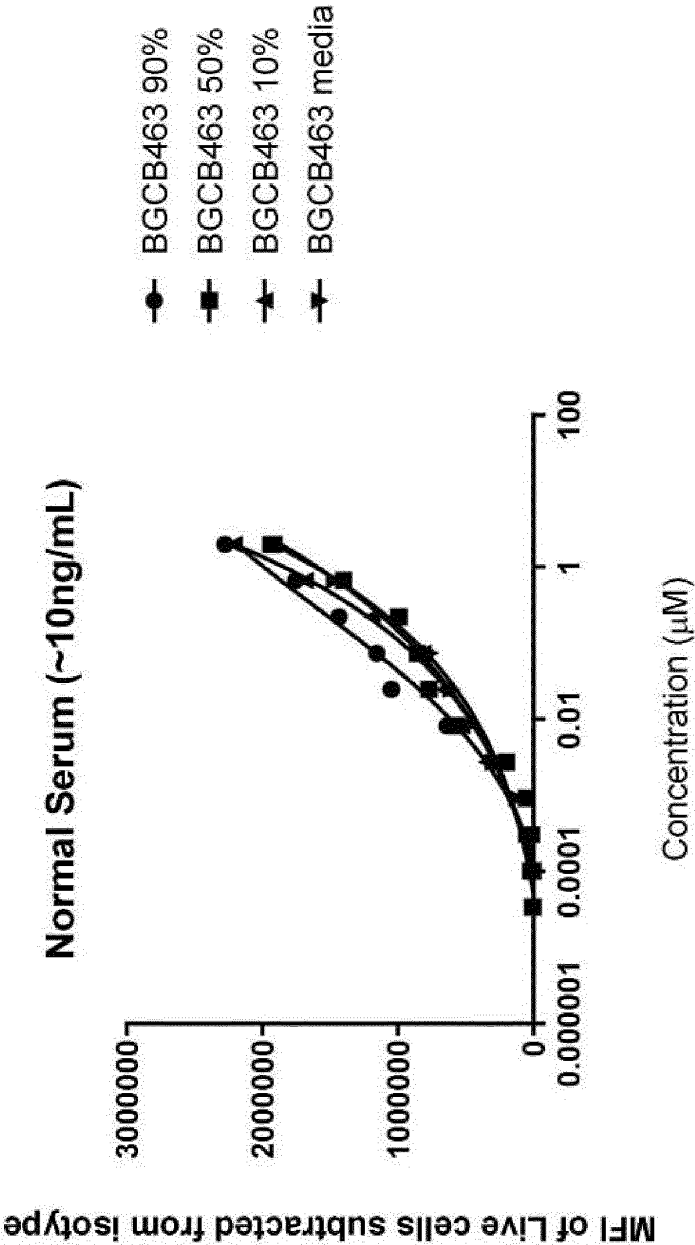


FIG. 16

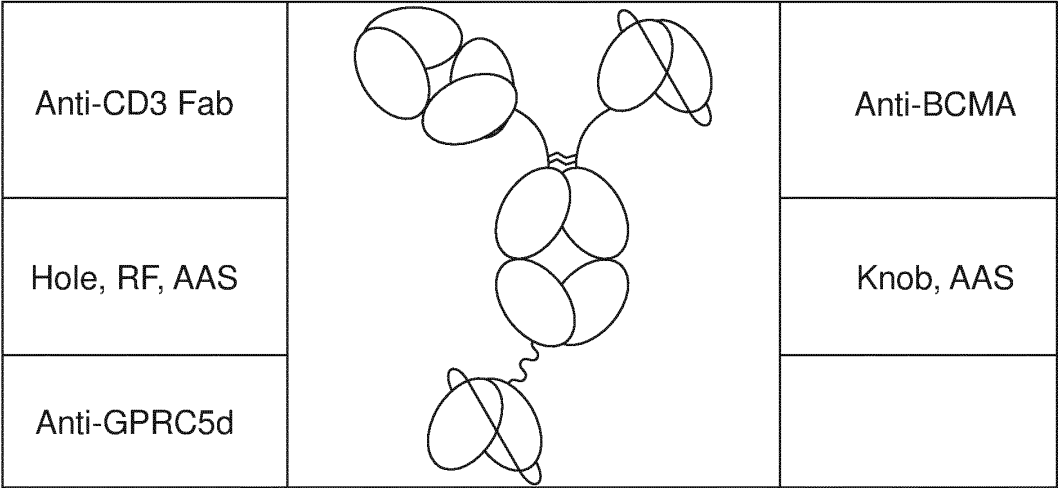


FIG. 17A

BCMA⁺ GPRC5D⁺ cells

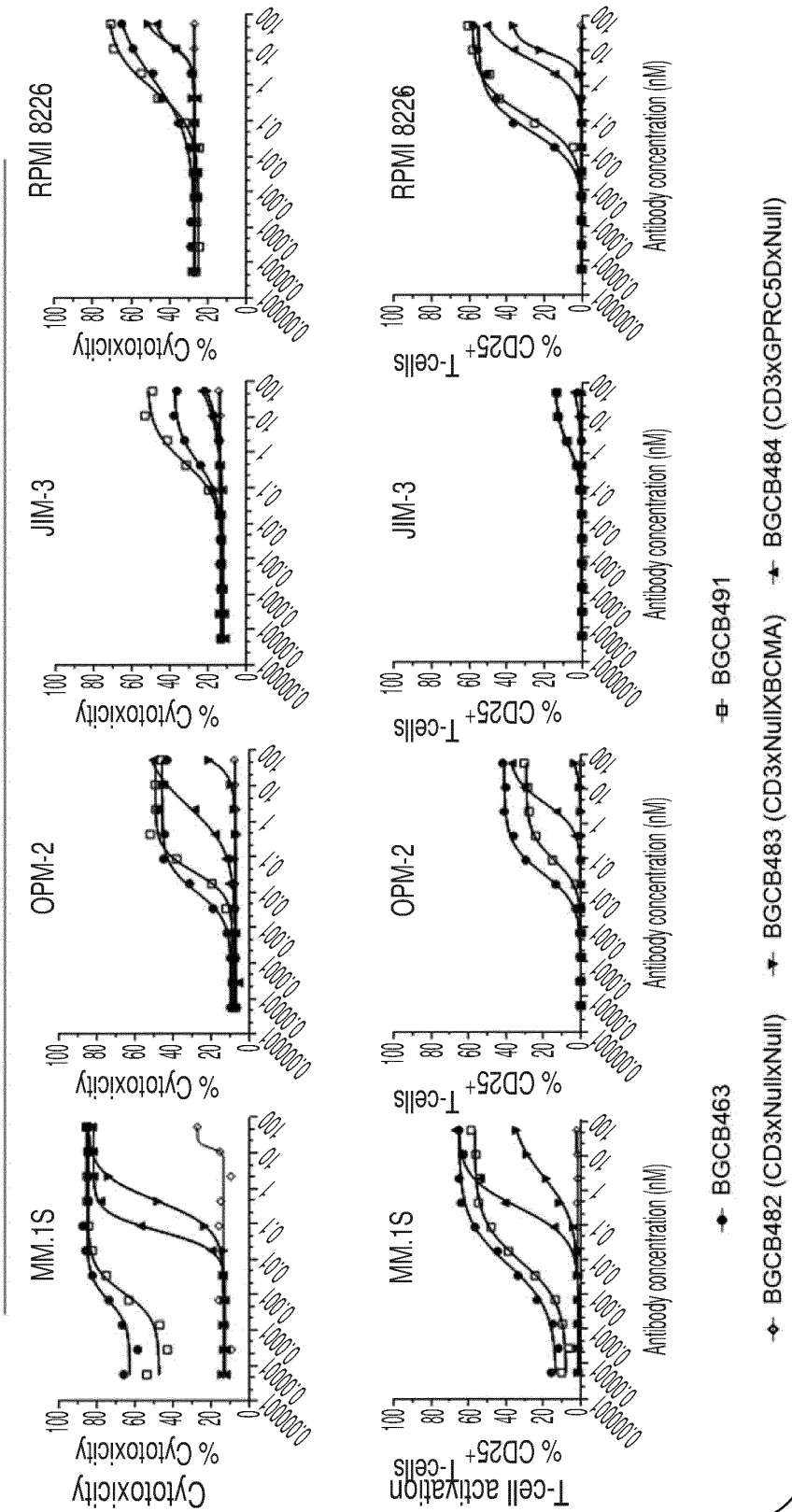


FIG. 17B

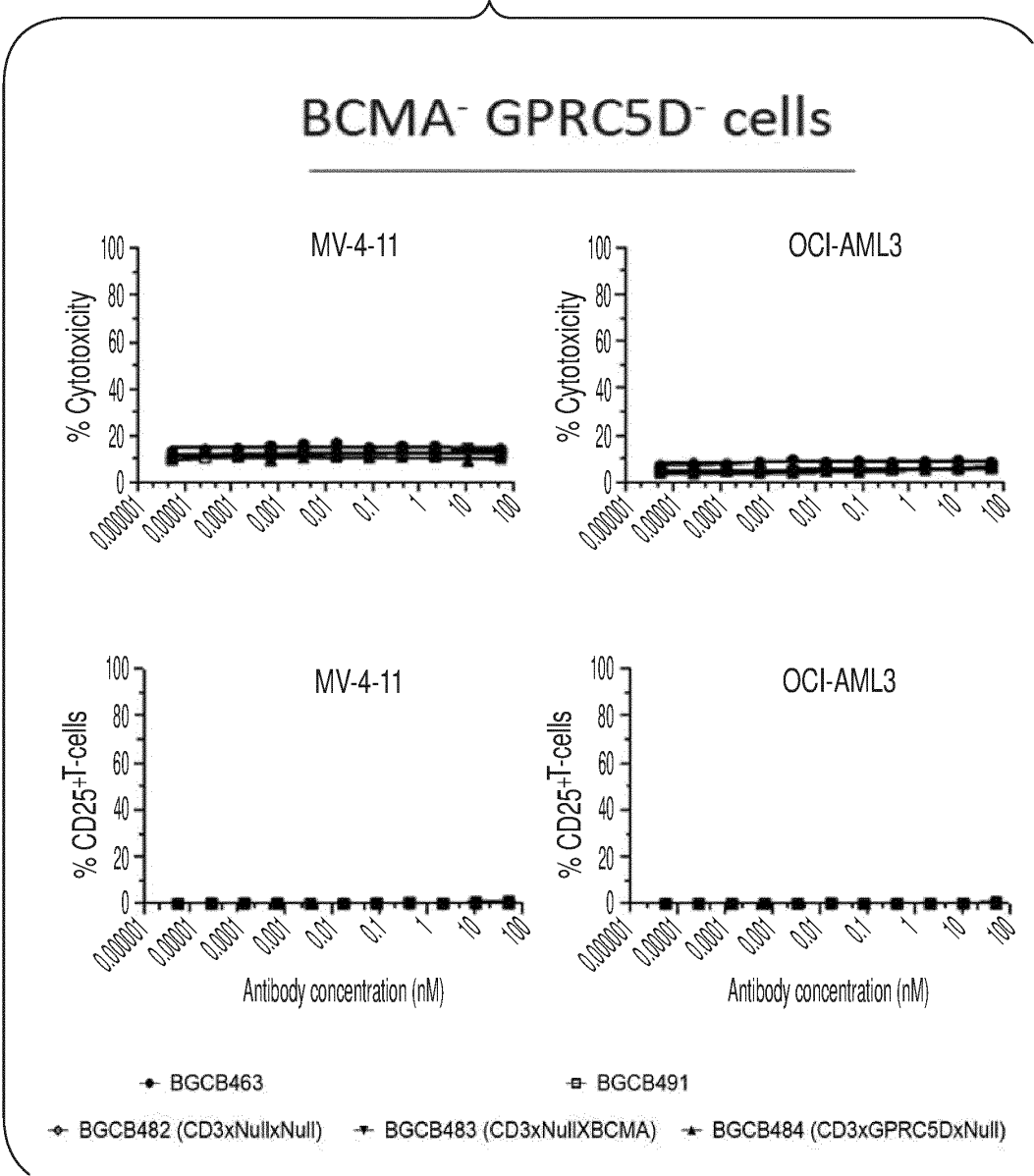
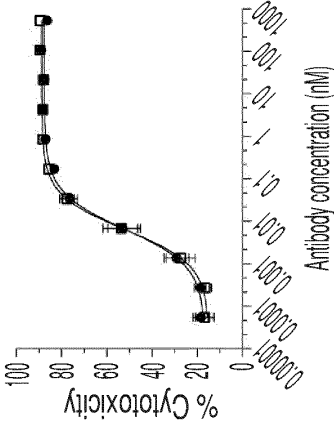


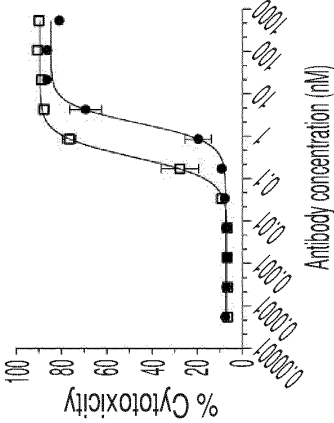
FIG. 18A

72 hours incubation

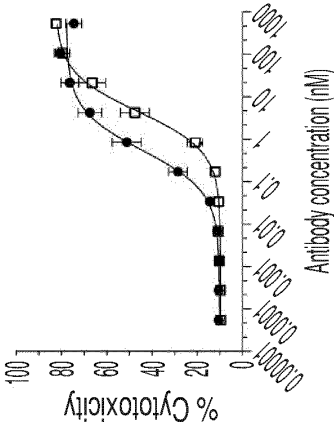
H929 WT



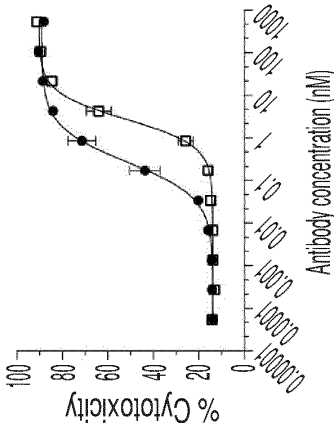
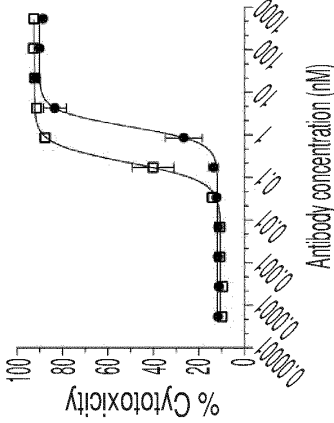
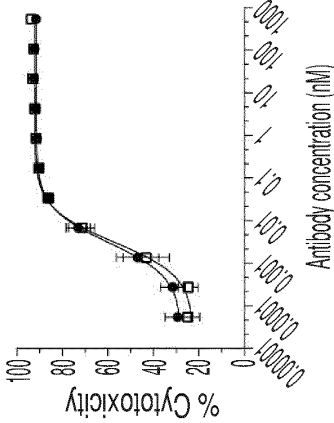
GPRC5D KO



BCMA KO



96 hours incubation

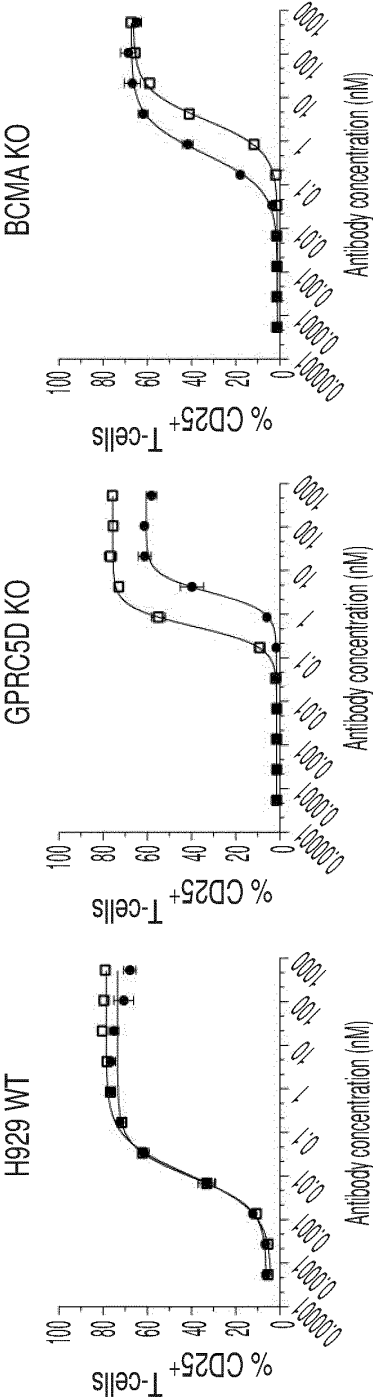


● BGCB463

■ BGCB491

FIG. 18B

72 hours incubation



96 hours incubation

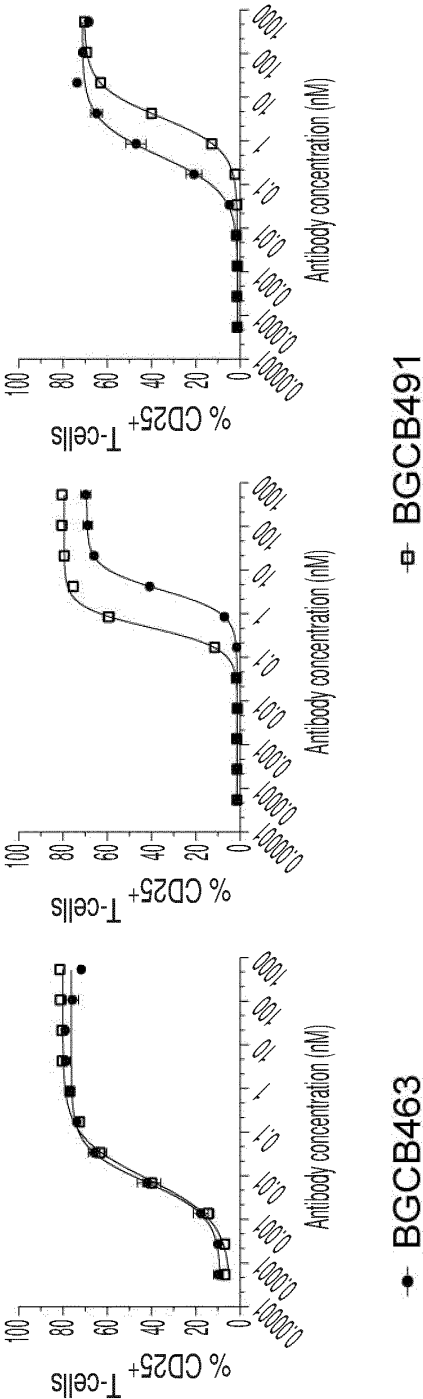


FIG. 19

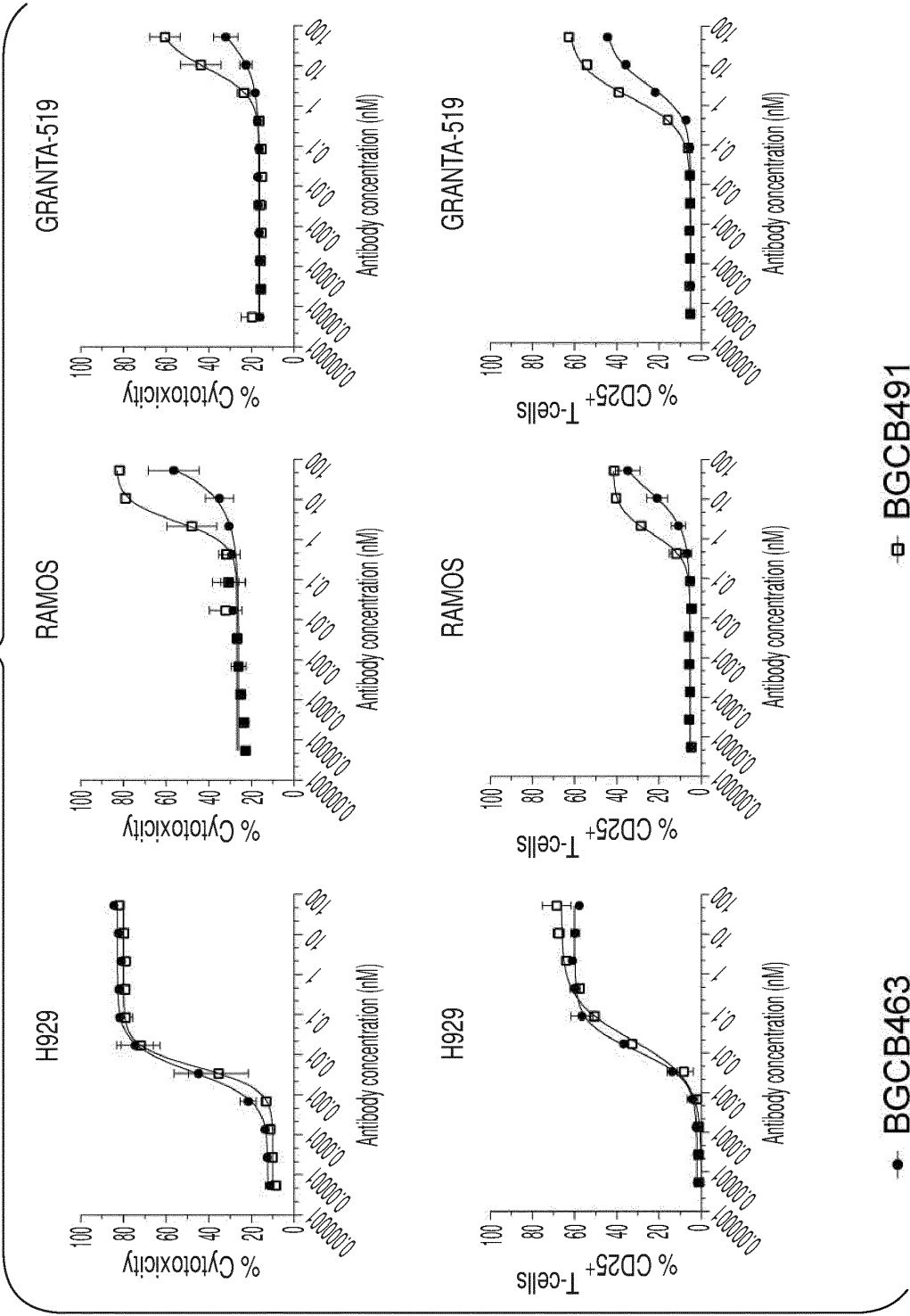
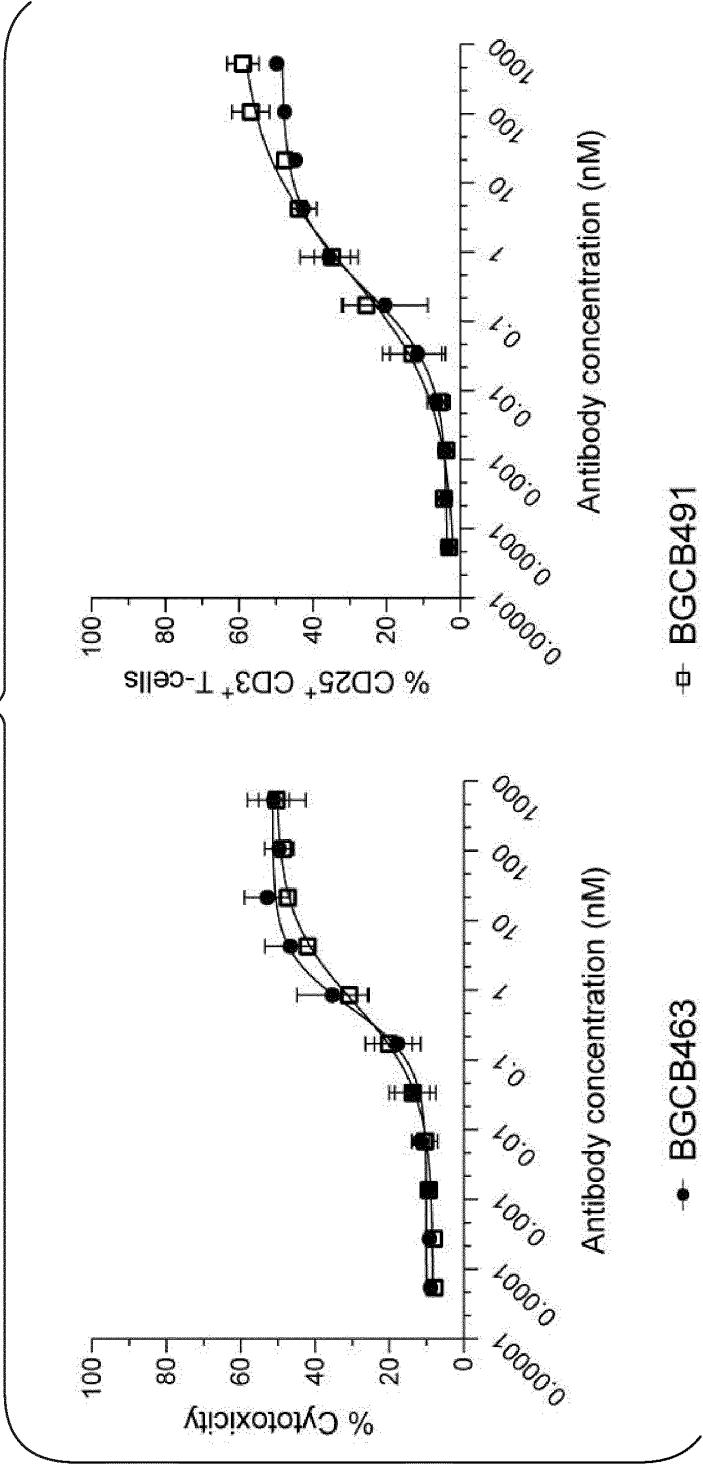


FIG. 20



40/69

FIG. 21A

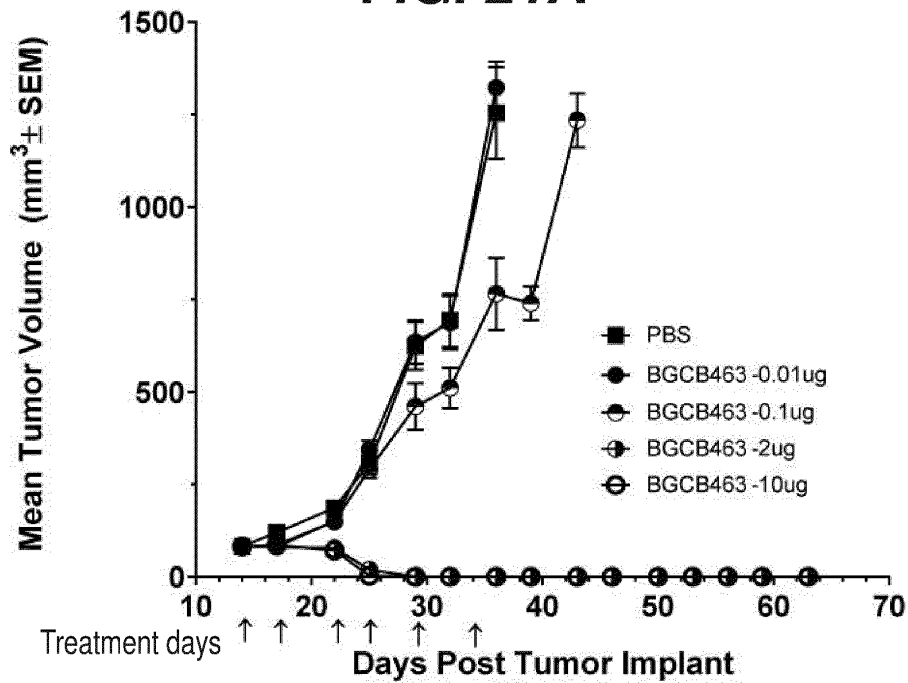
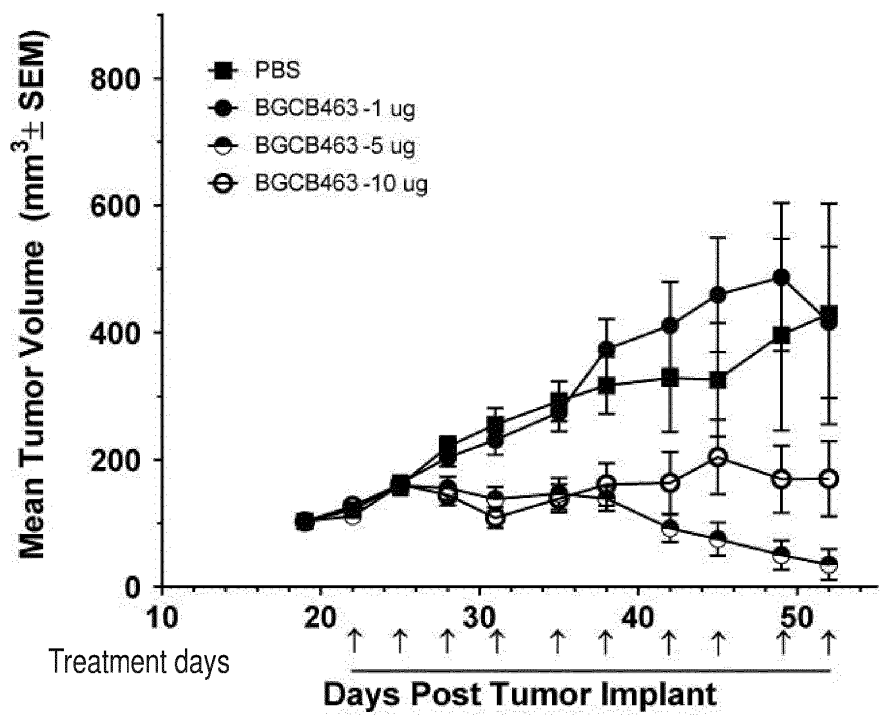


FIG. 21B



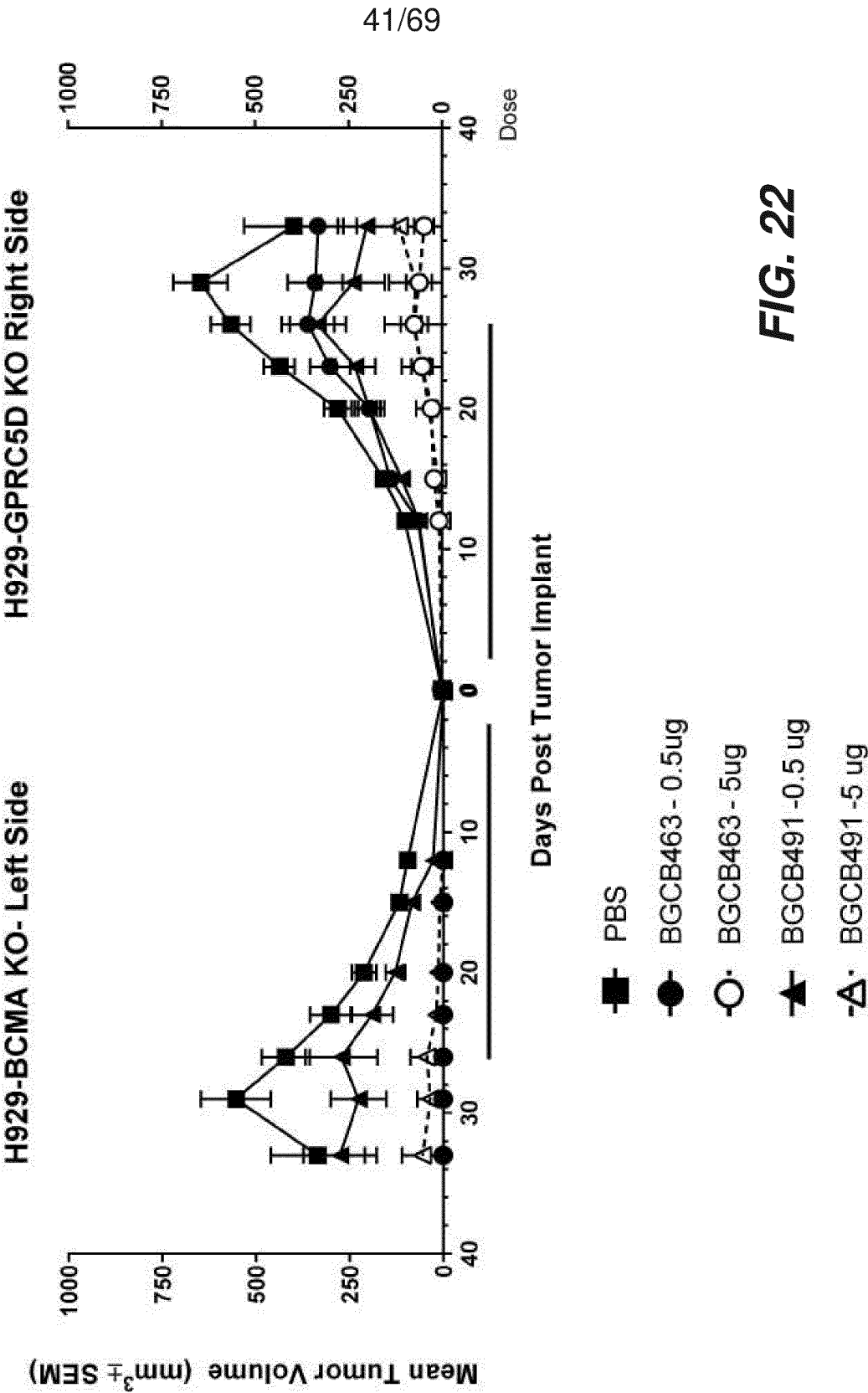
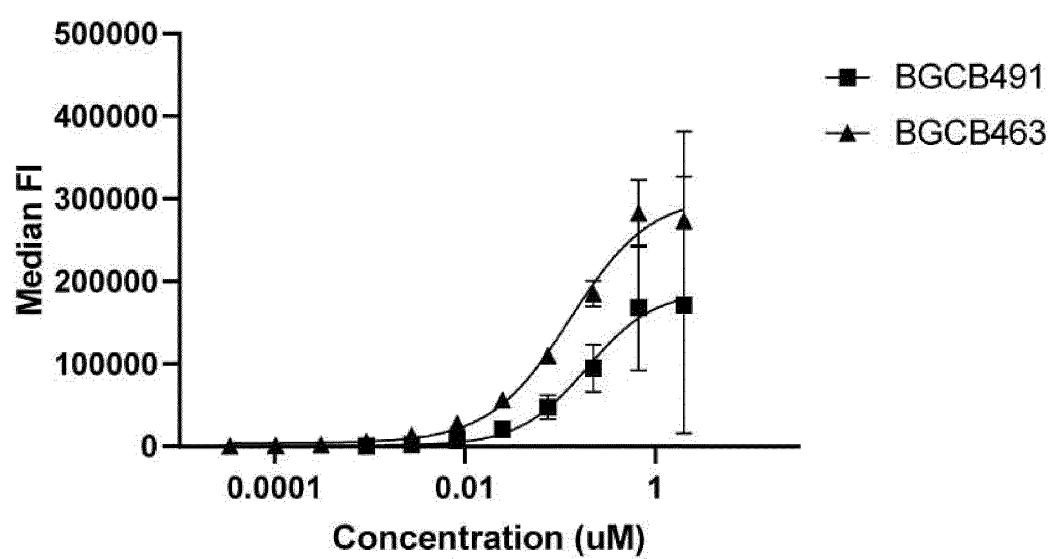


FIG. 22

42/69

FIG. 23

43/69

FIG. 24A

H929 WT

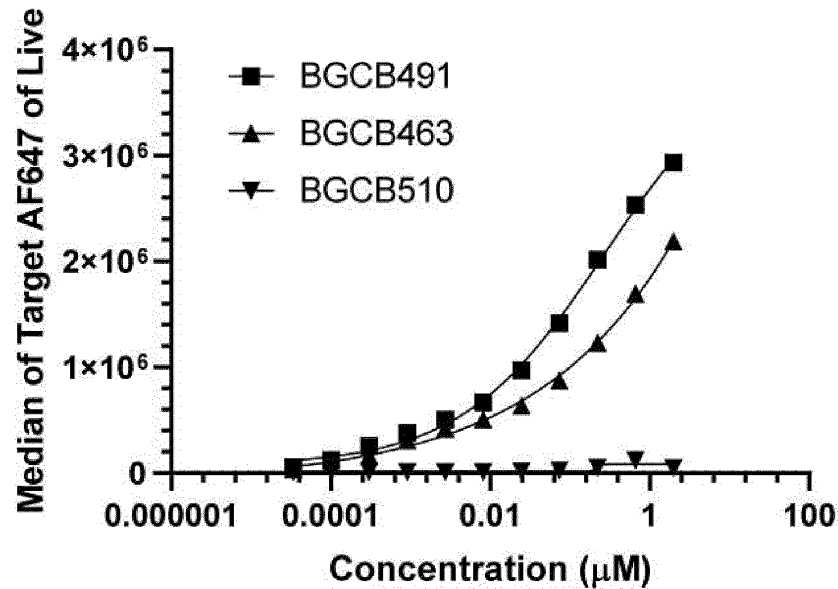
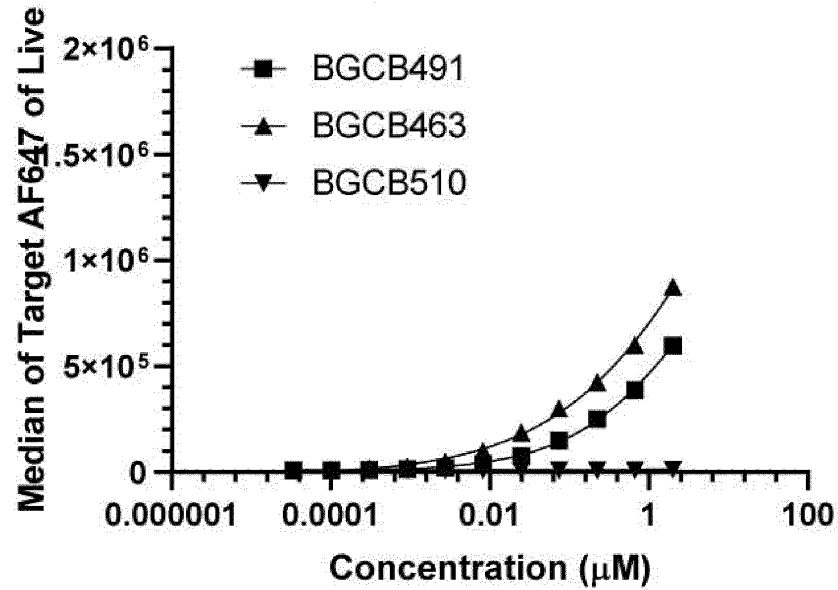


FIG. 24B

H929 BCMA-KO



44/69

FIG. 24C

H929 GPRC5d-KO

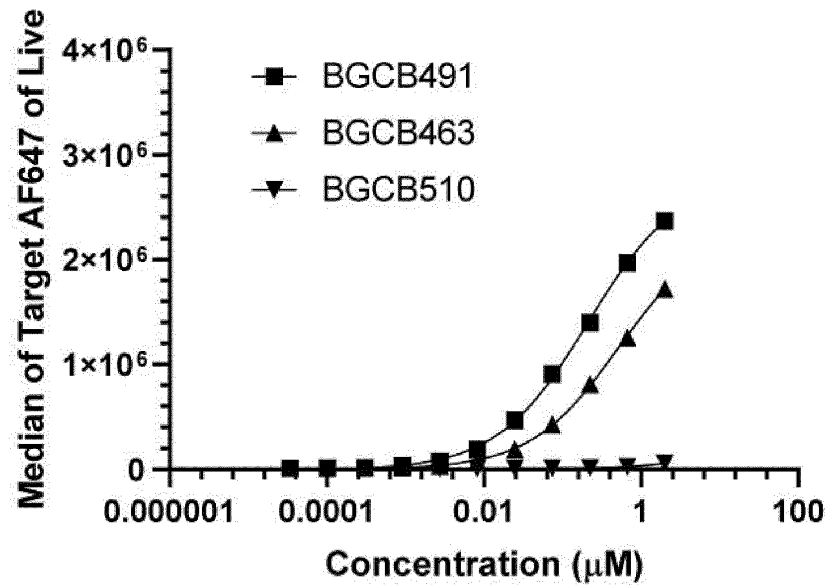
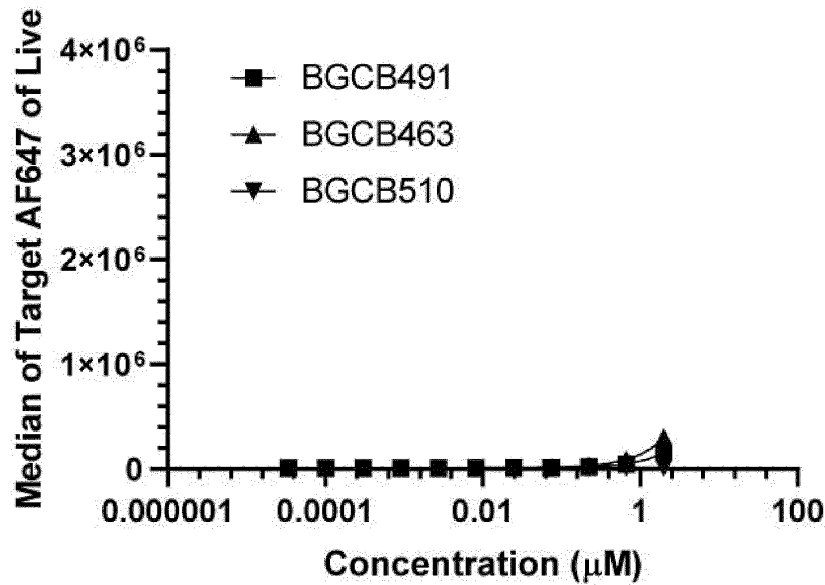
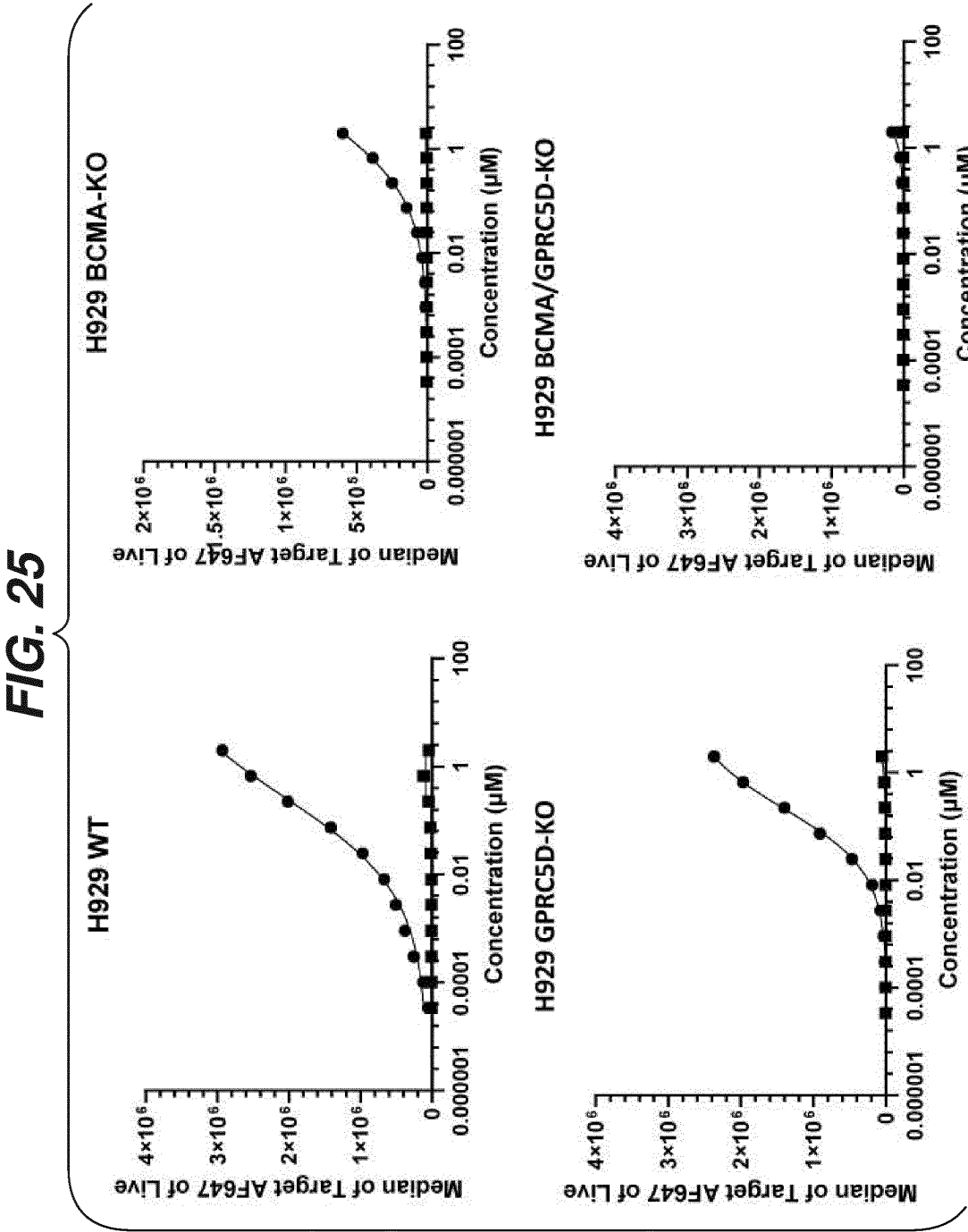


FIG. 24D

H929 BCMA/GPRC5d-KO





46/69

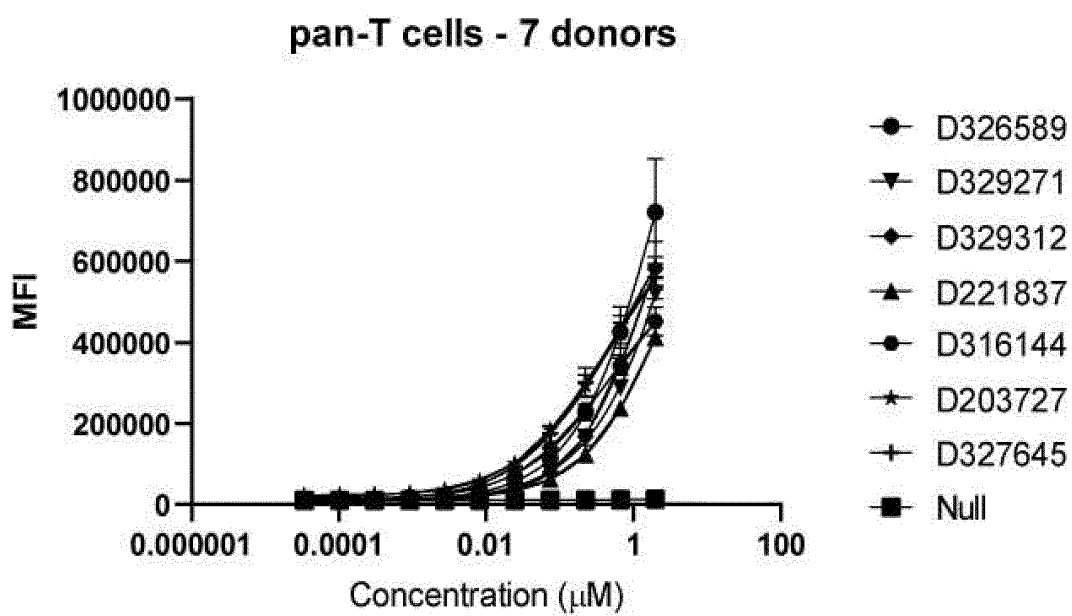
FIG. 26

FIG. 27

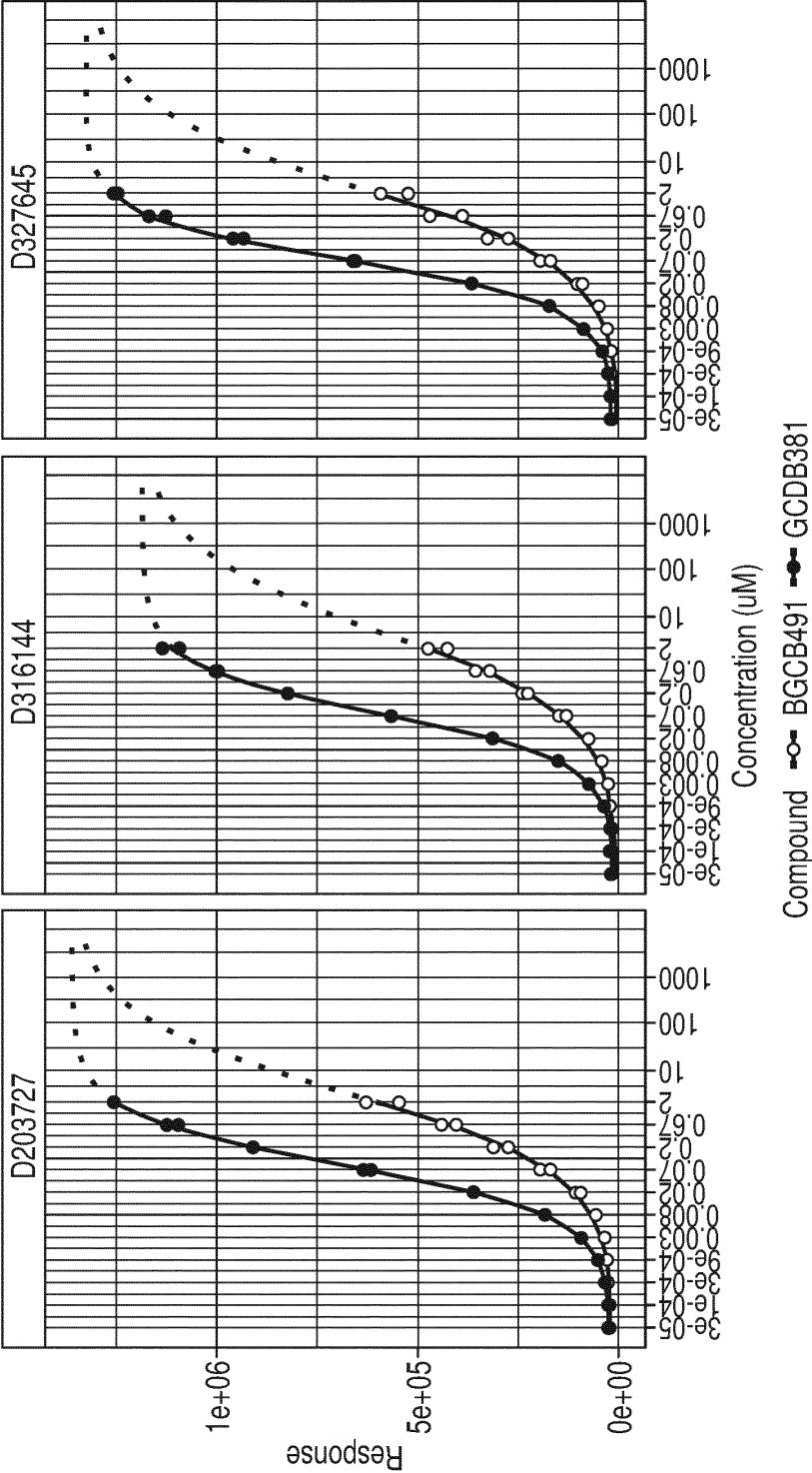


FIG. 28A

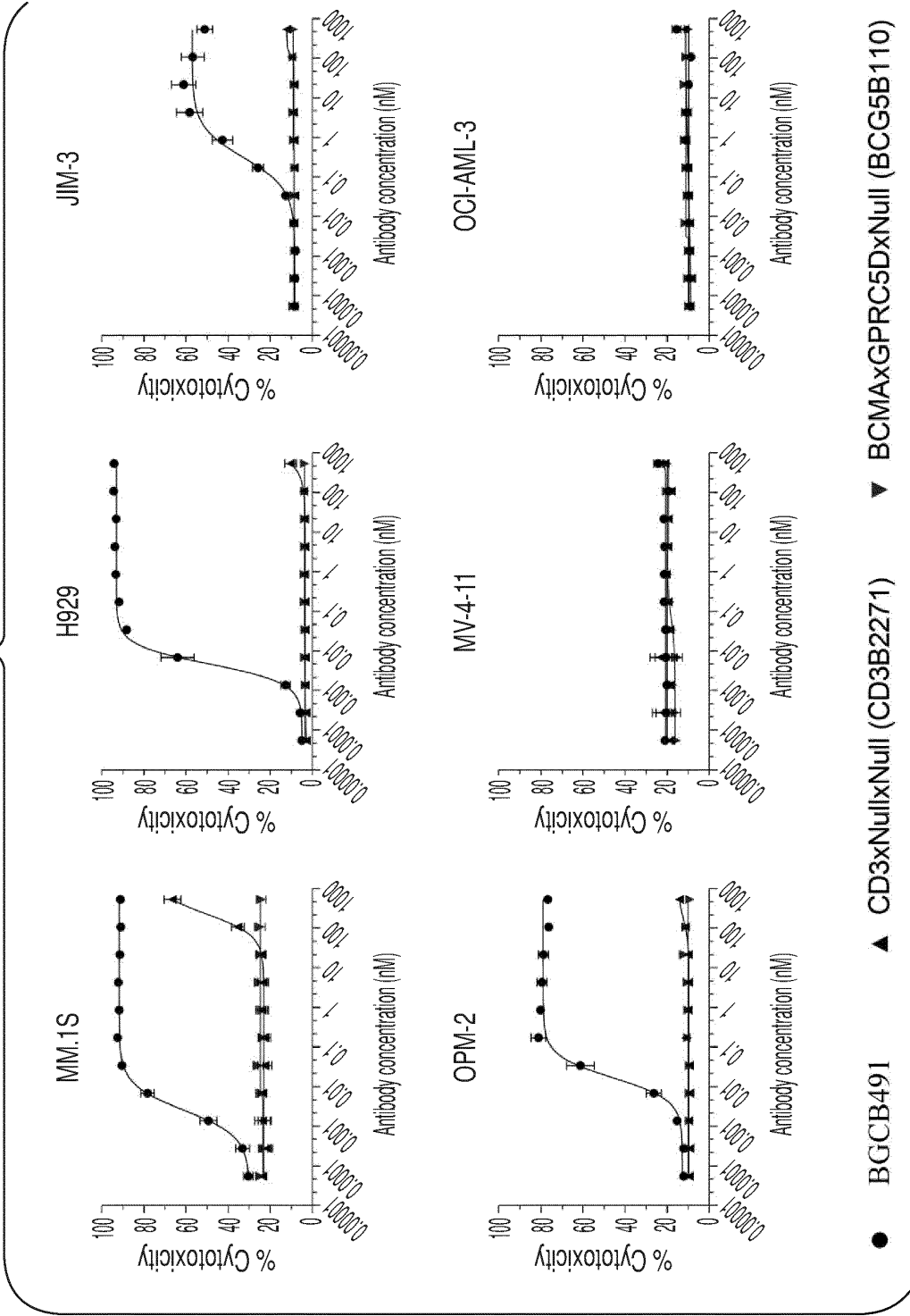
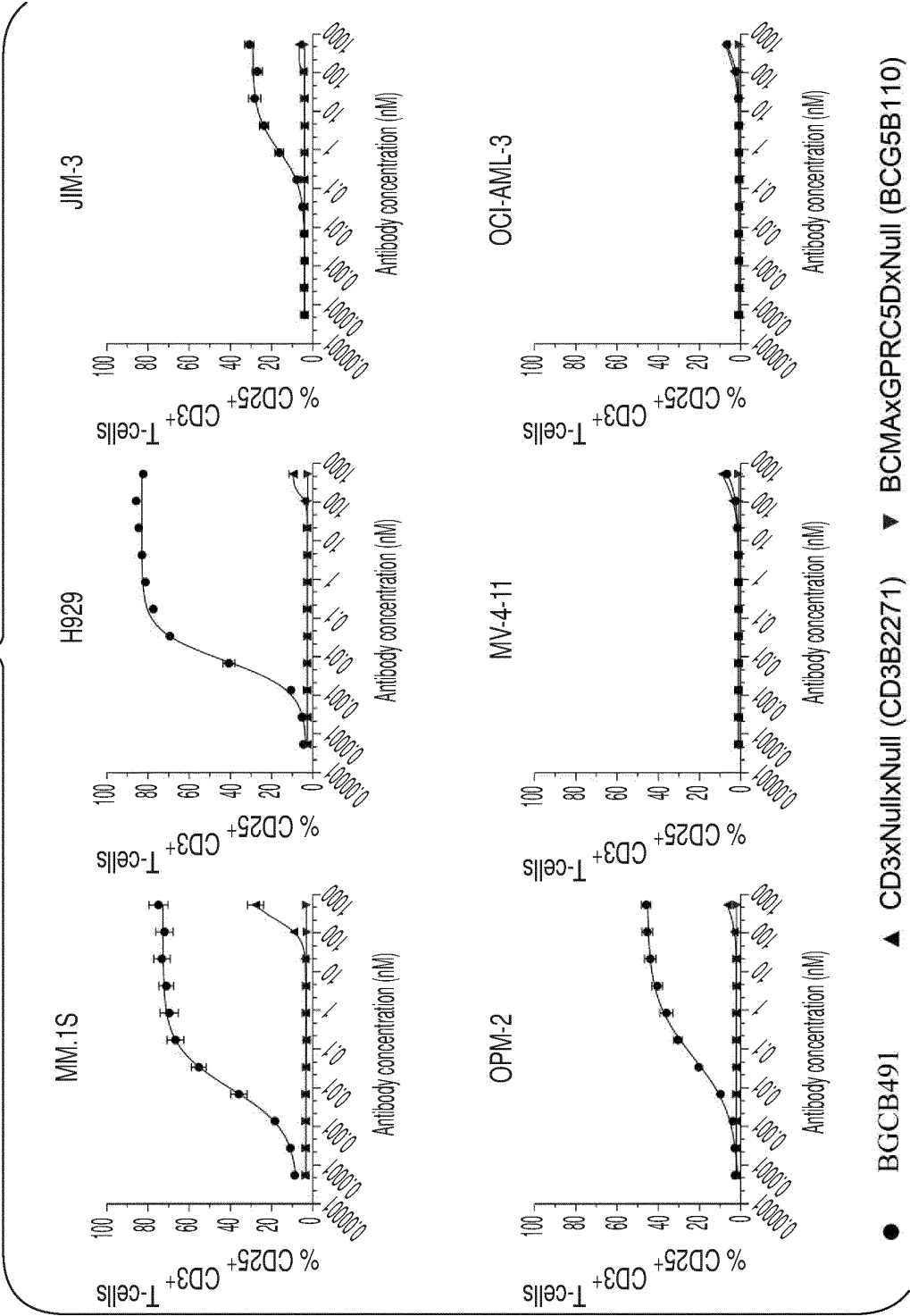


FIG. 28B



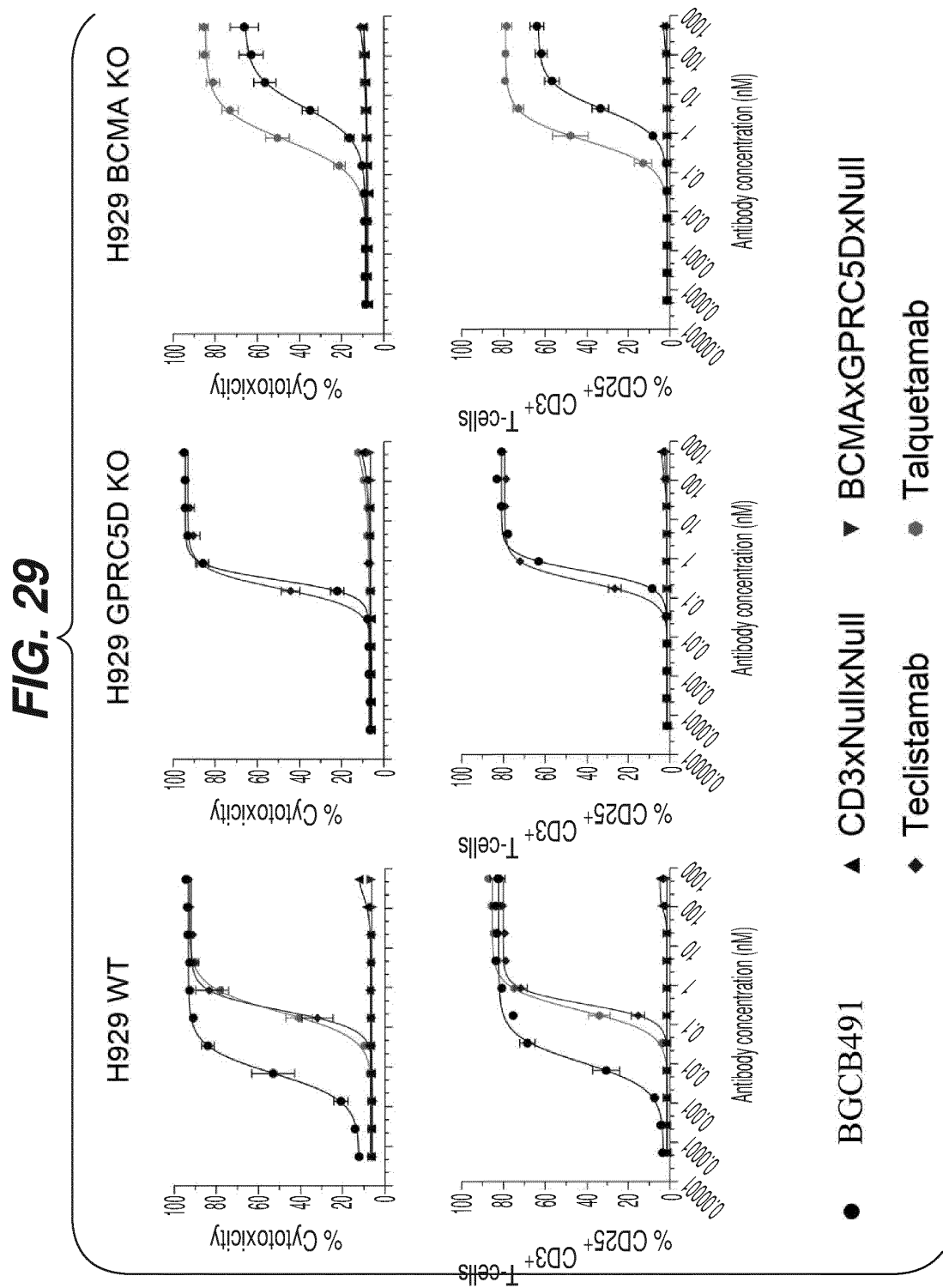


FIG. 30

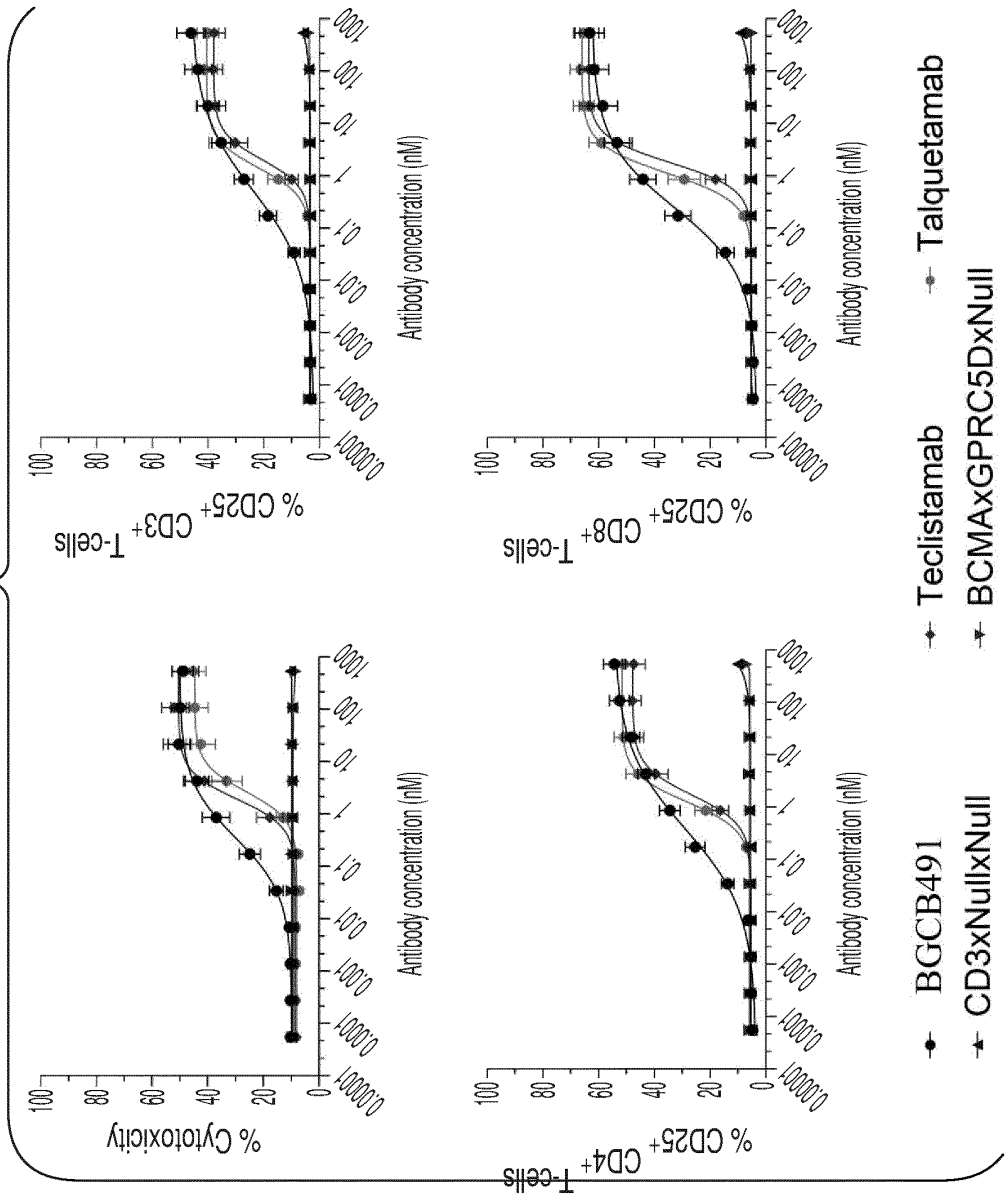


FIG. 31

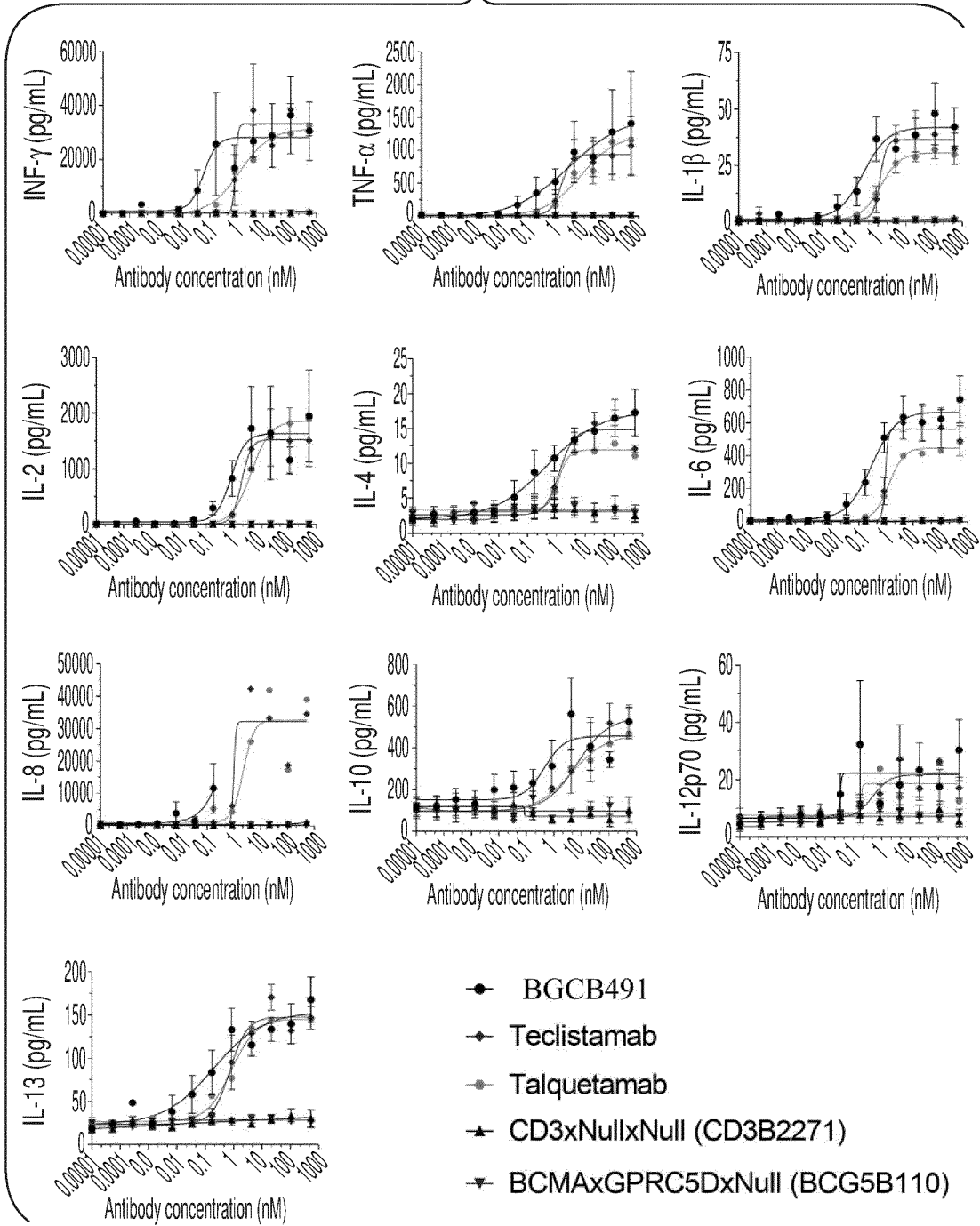




FIG. 33A

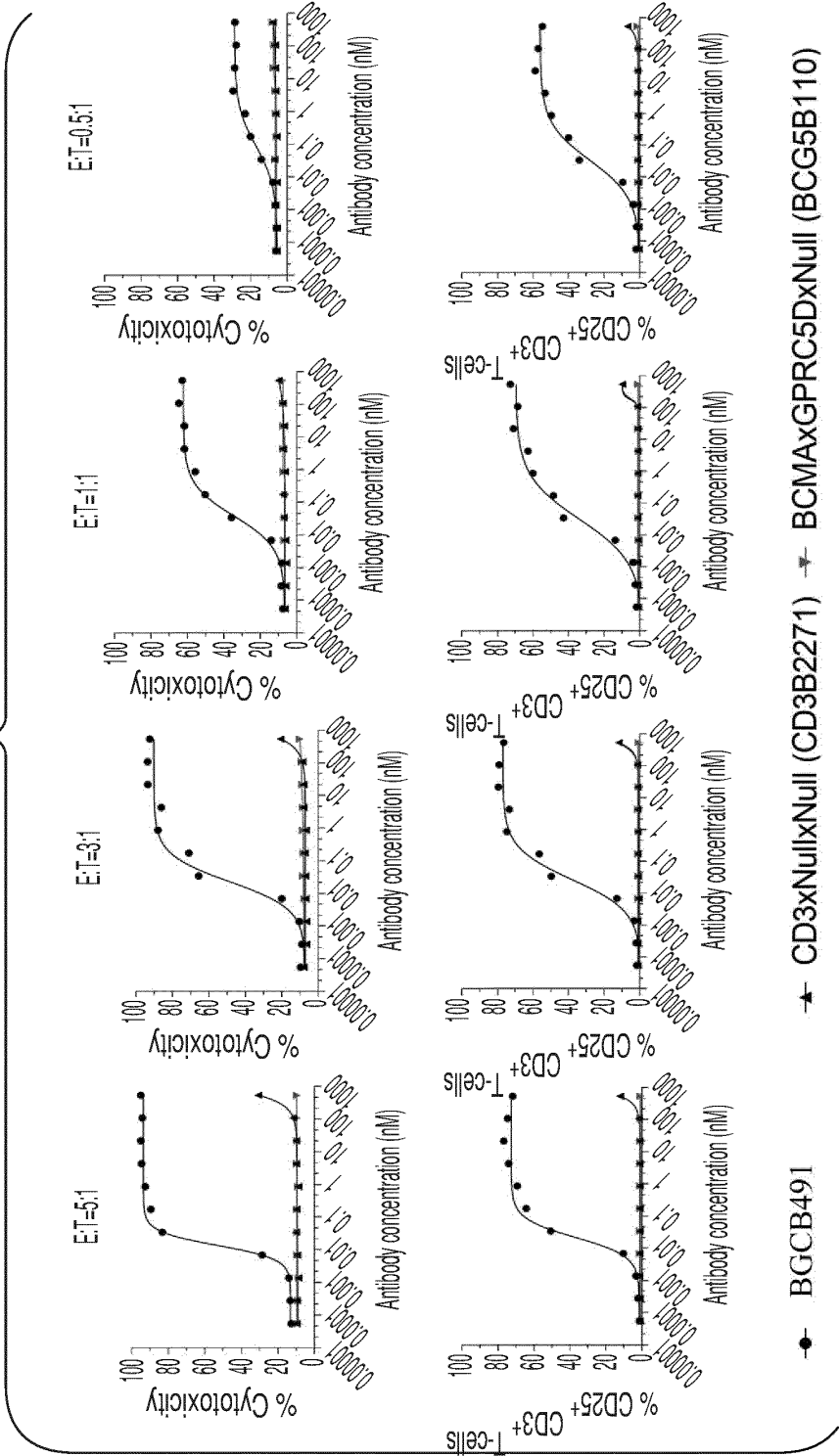


FIG. 33B

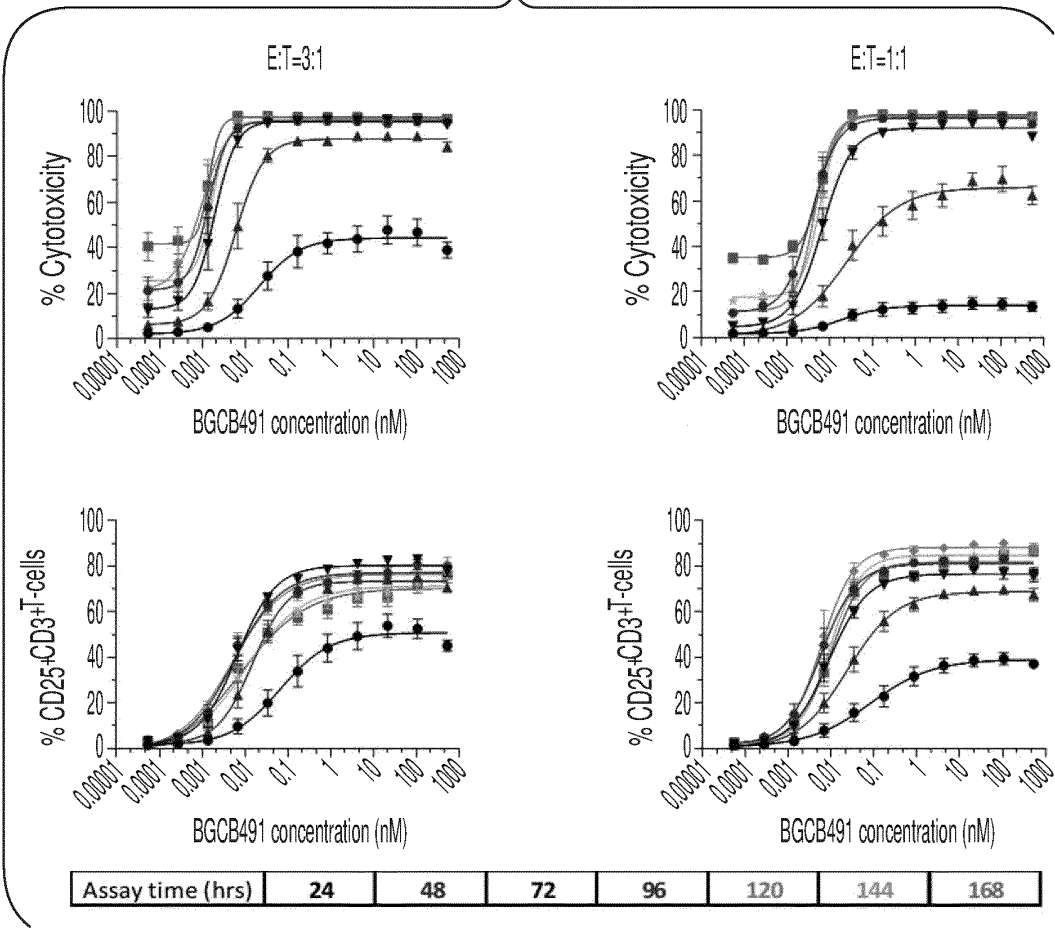


FIG. 34B

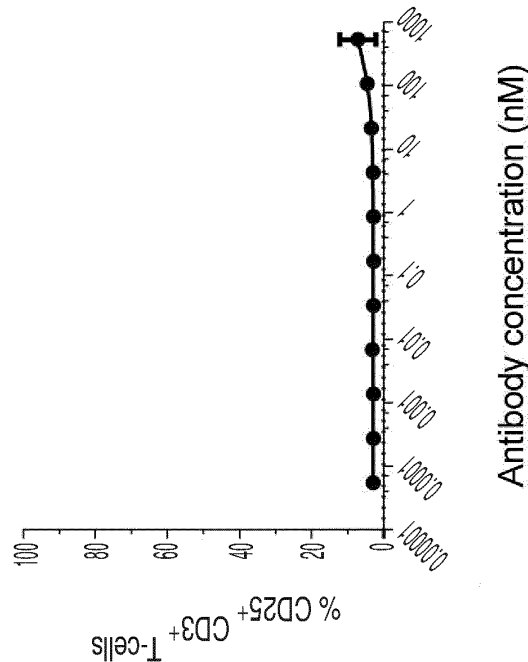


FIG. 34A

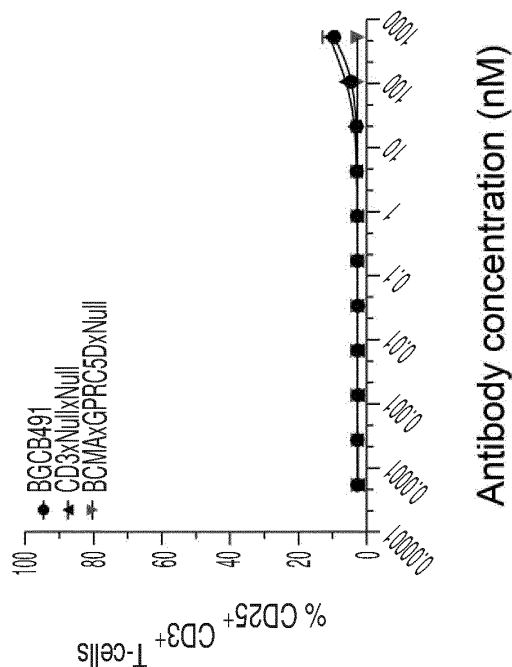


FIG. 34C

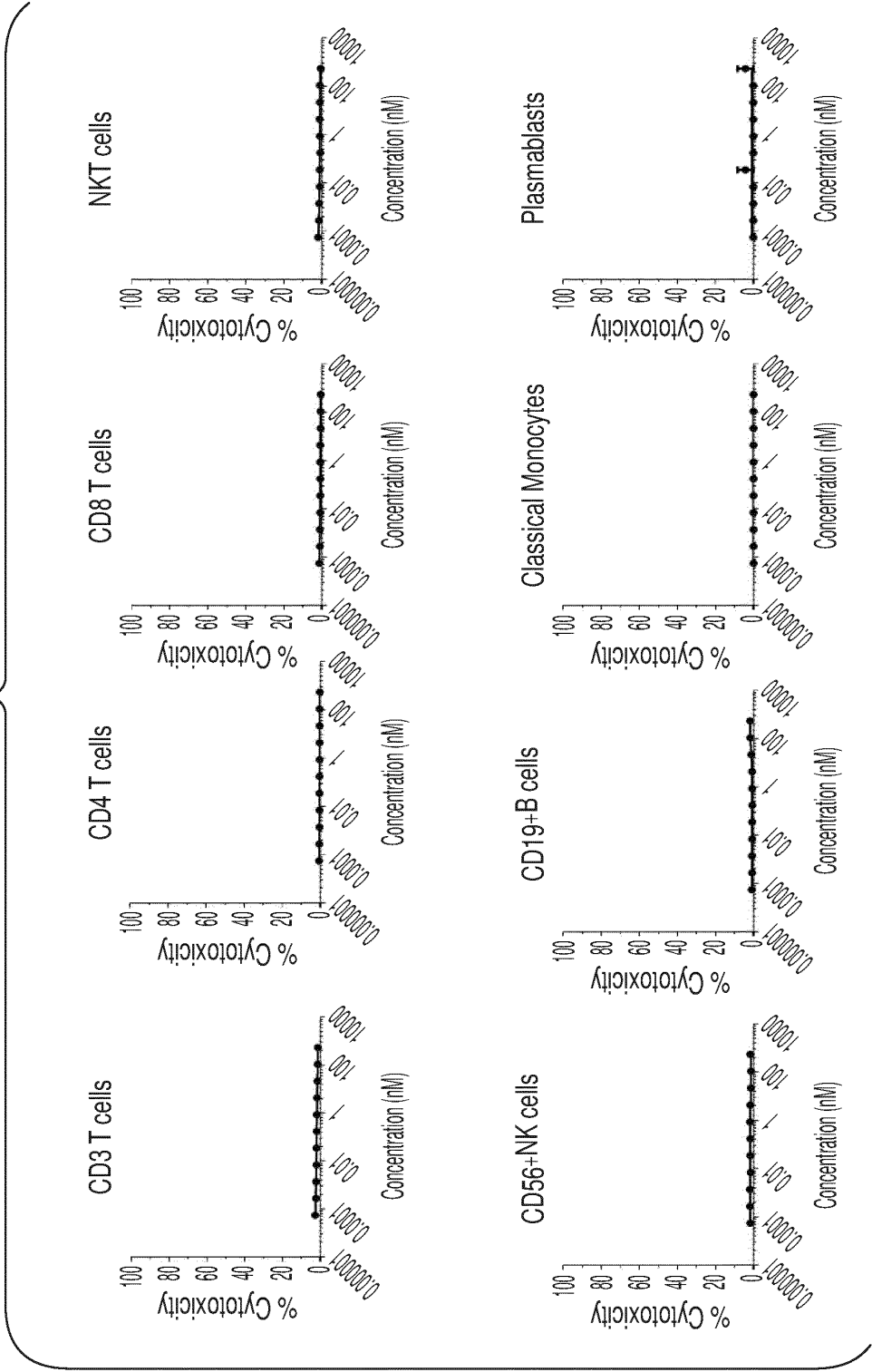


FIG. 35

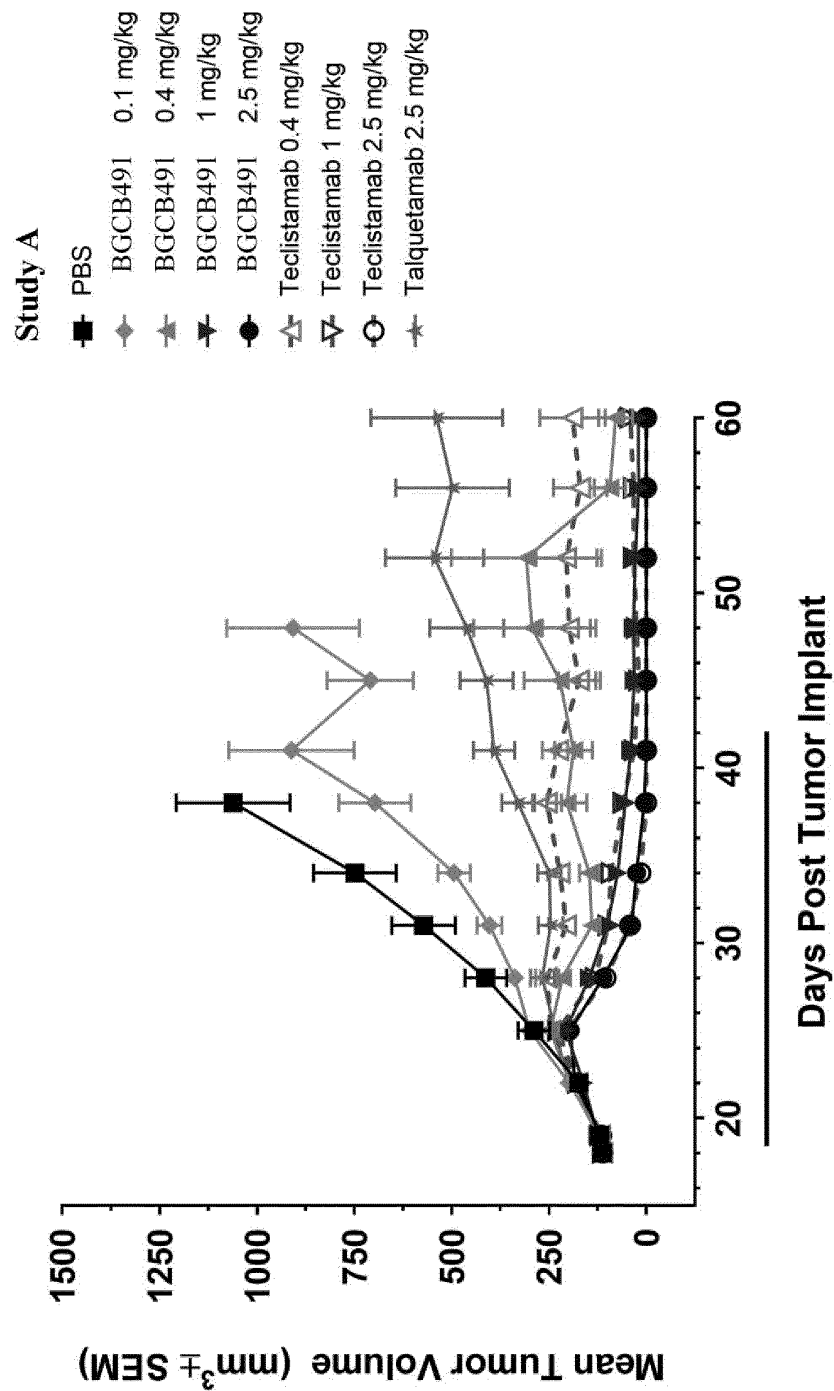


FIG. 36

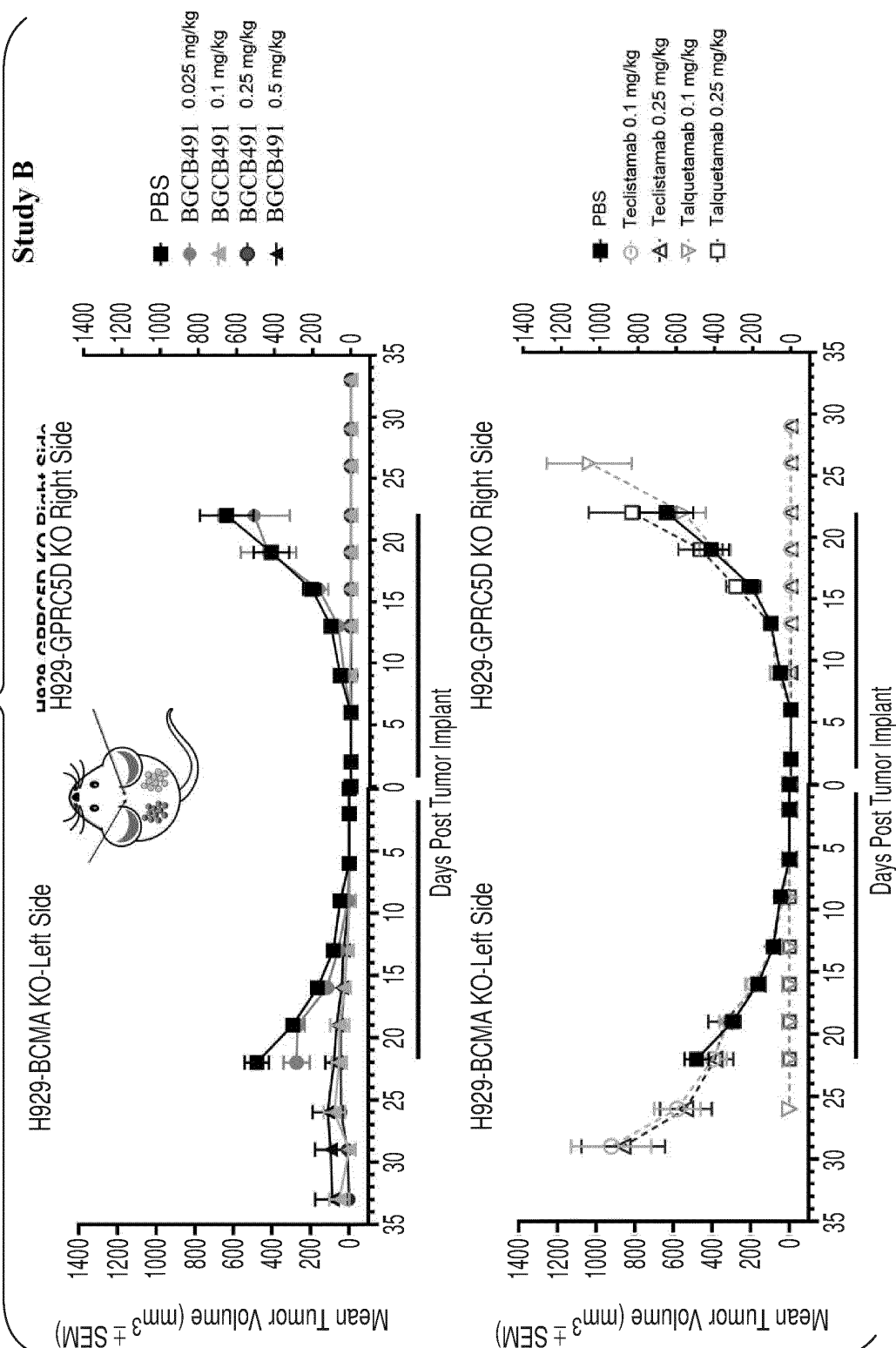


FIG. 37

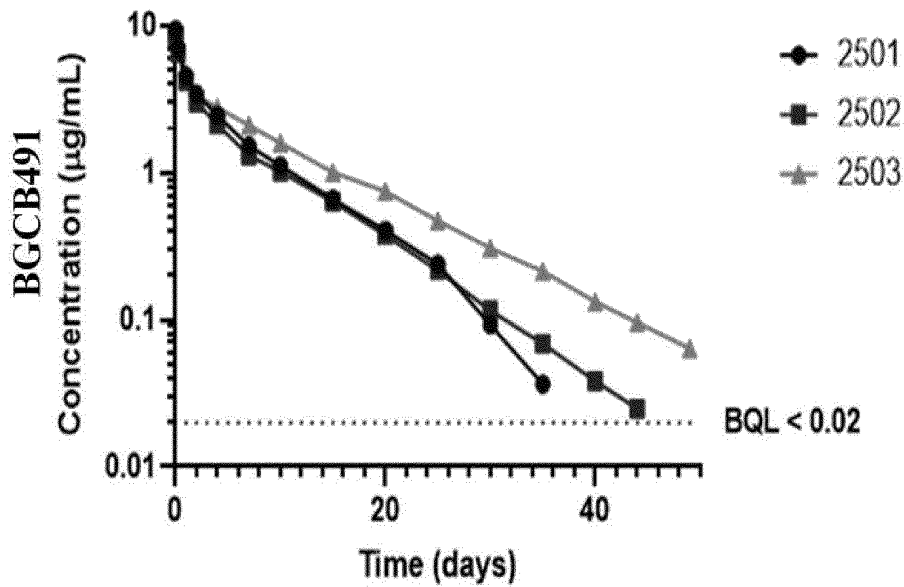
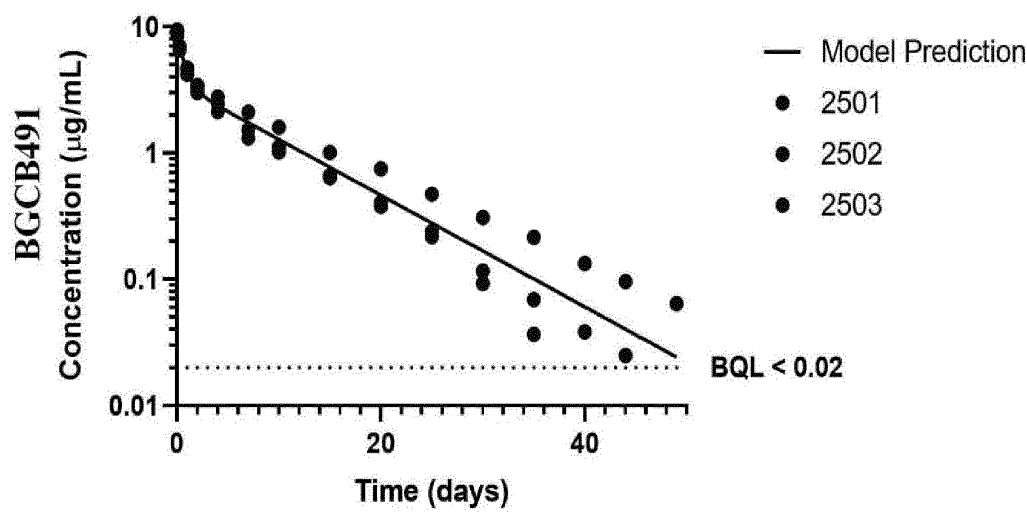


FIG. 38



61/69

FIG. 39A

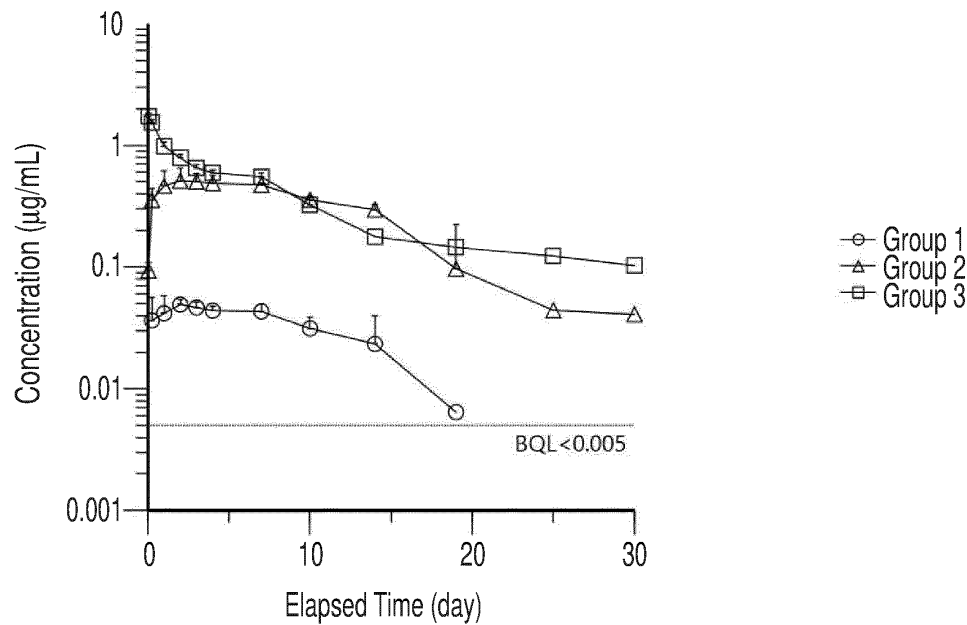


FIG. 39B

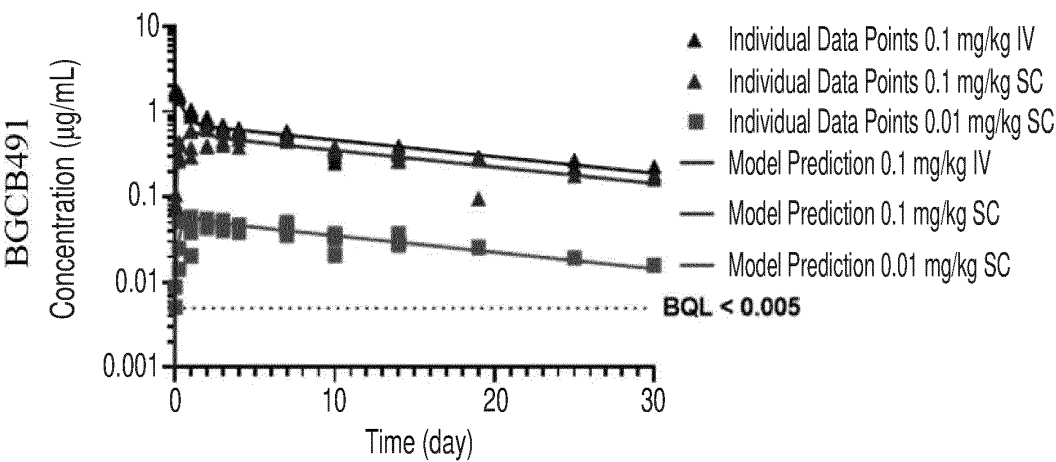
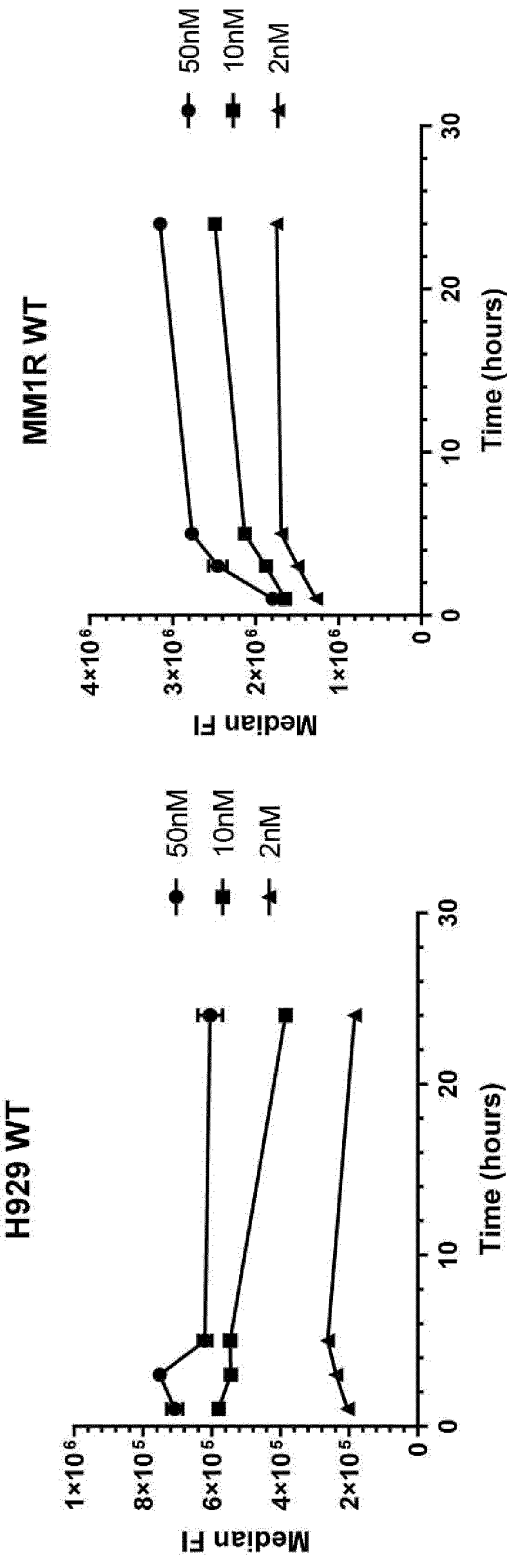


FIG. 40



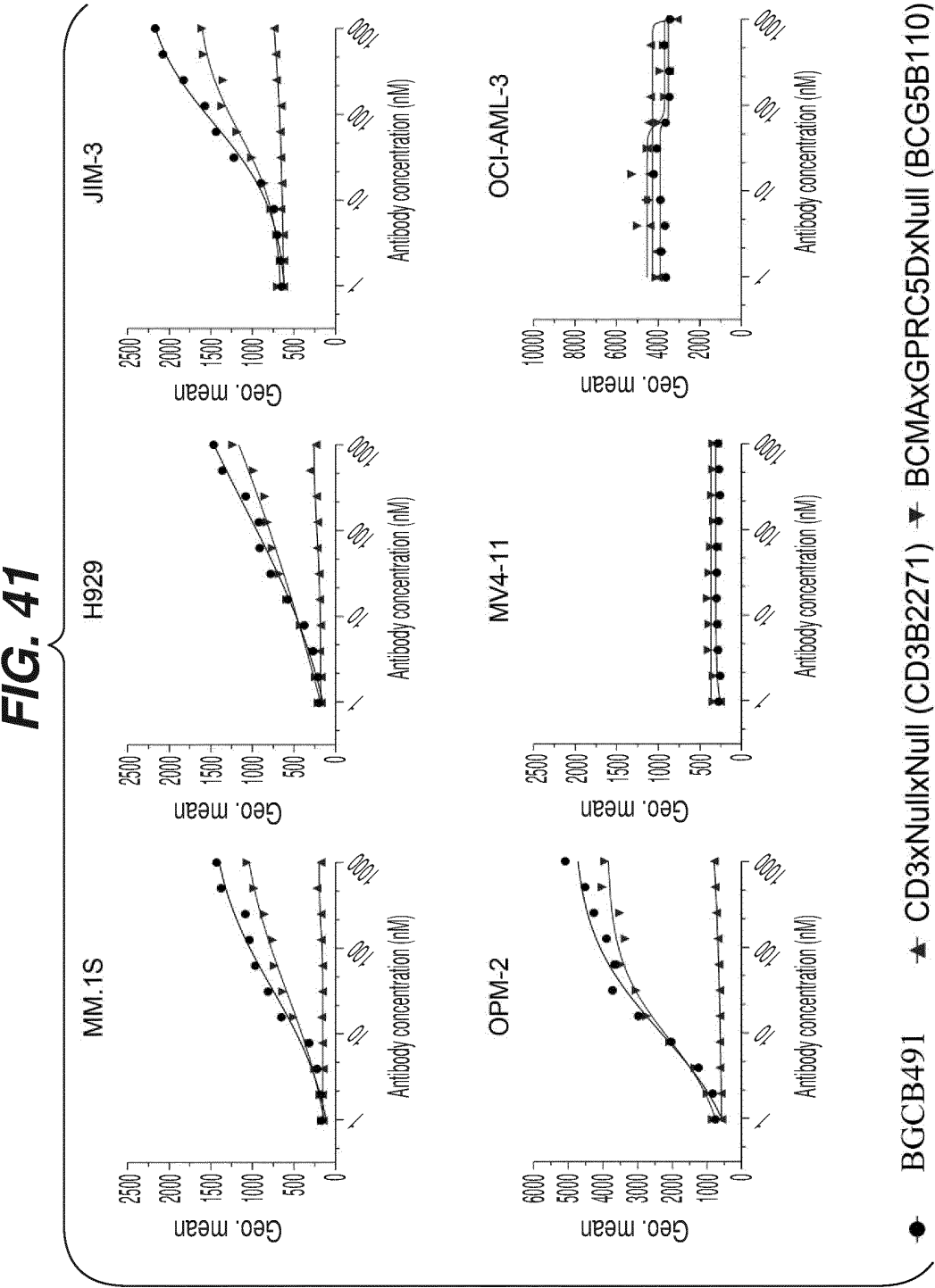


FIG. 42

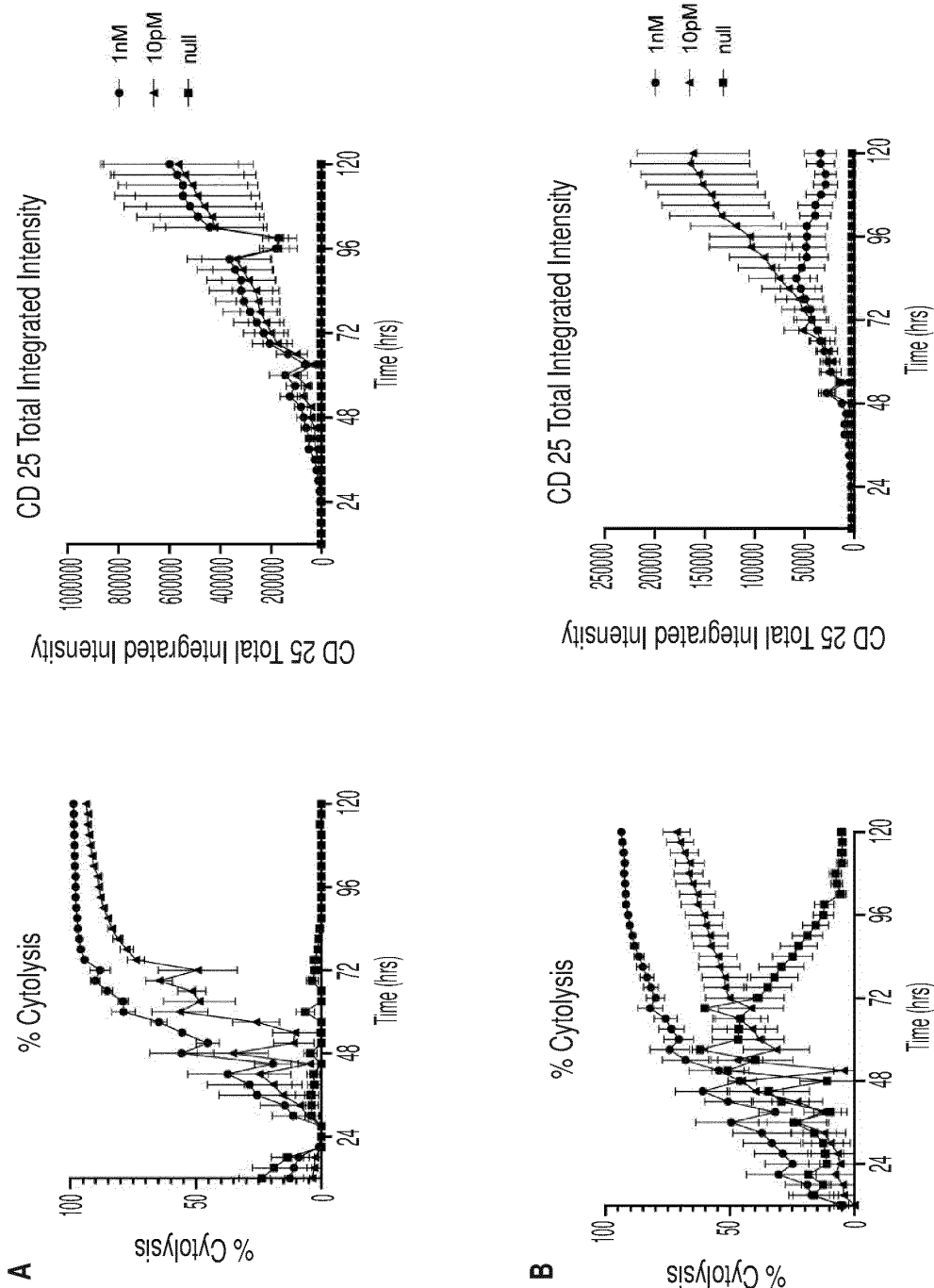


FIG. 43

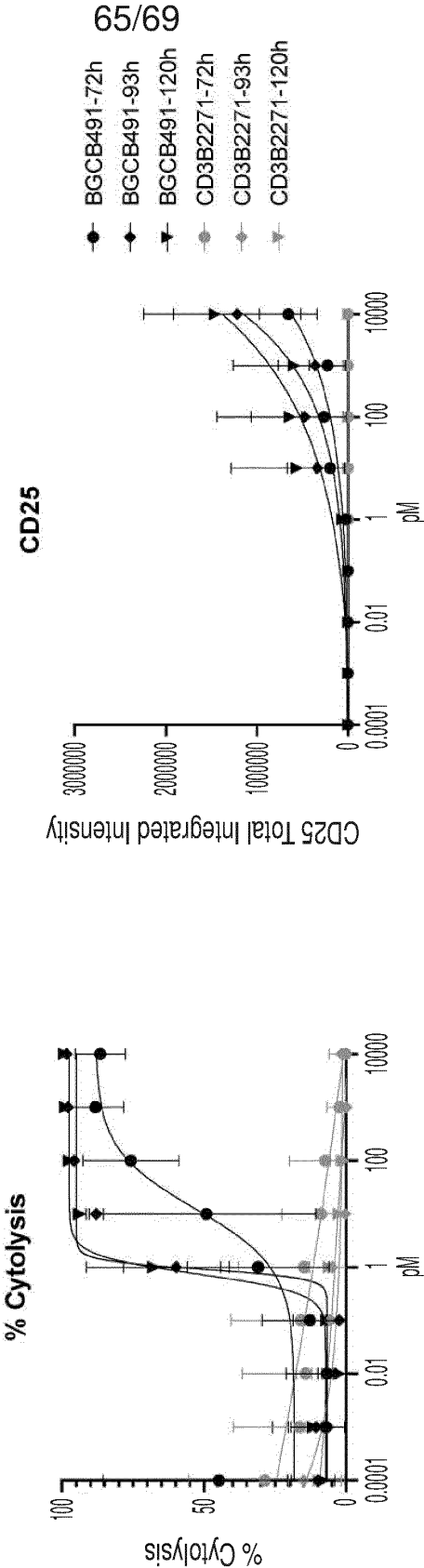
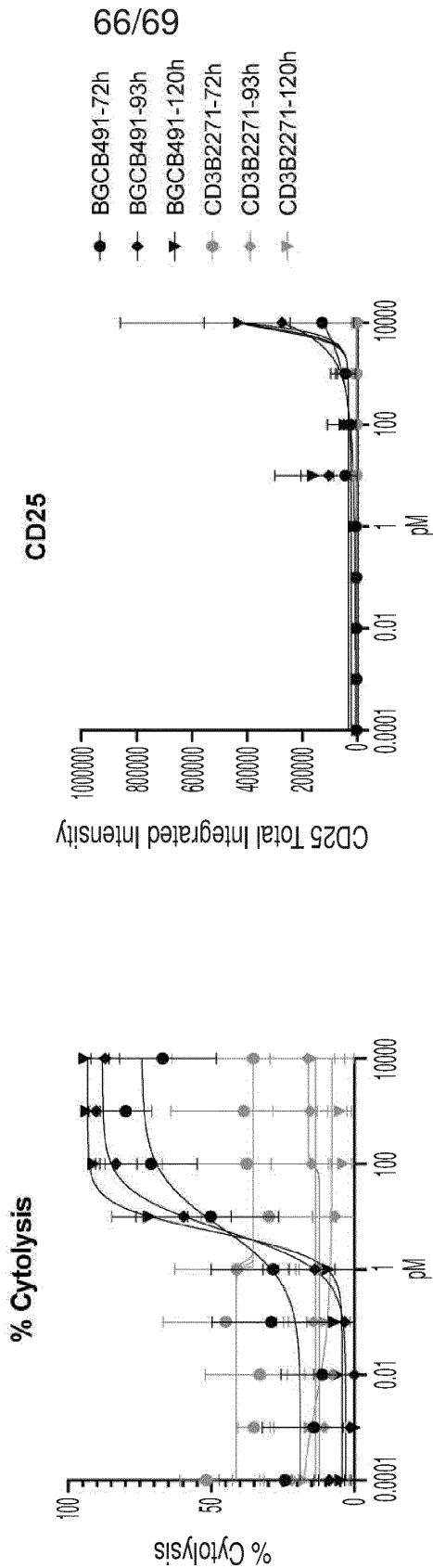


FIG. 44



67/69

FIG. 45

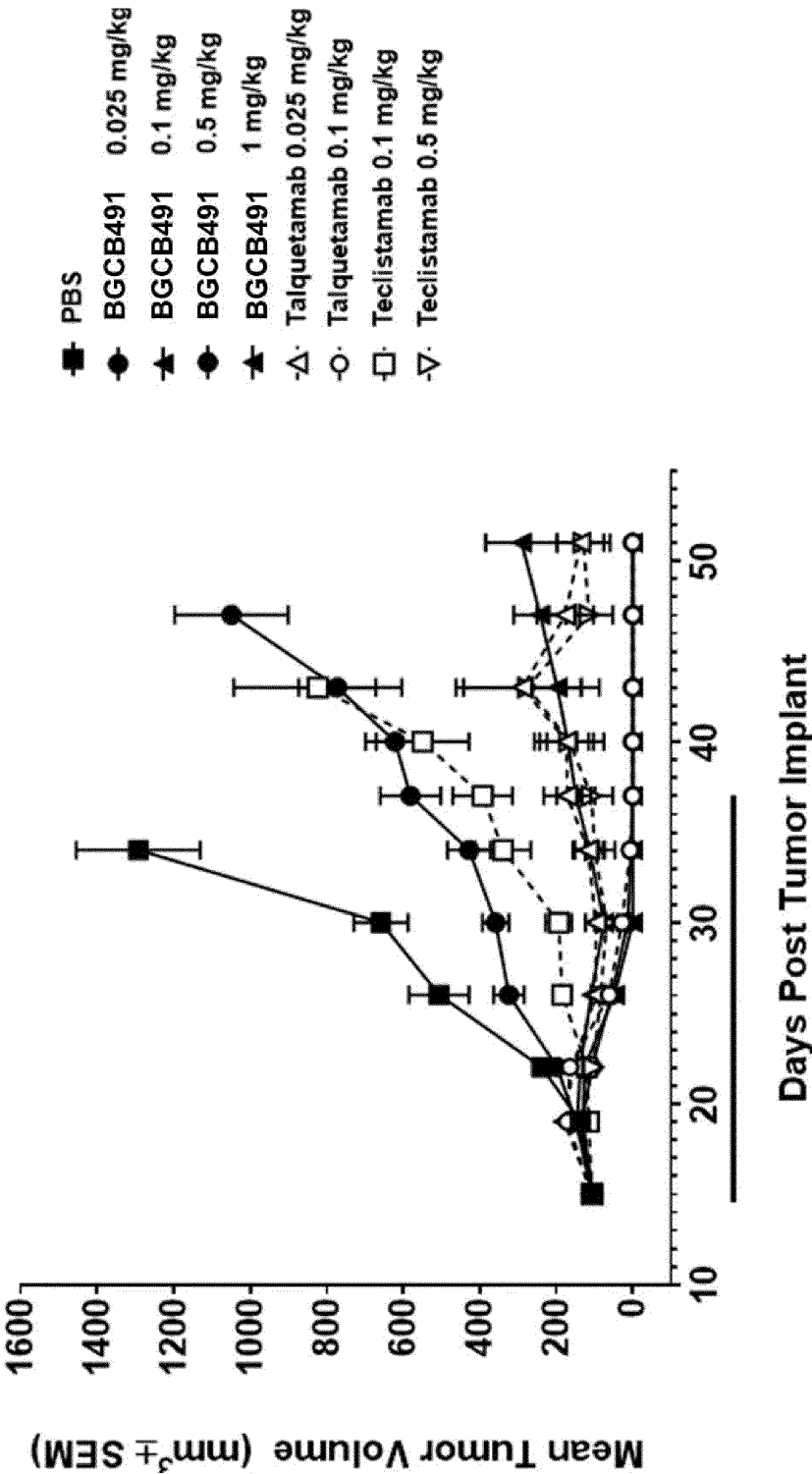


FIG. 46A

ID	Description	ScFv fitness % binding at 65C	Human BCMA	Cyno BCMA	H929, 1hr 37C		MM.1R, 1 hr 37C	scFv Tm		NSB
			KD (M)	KD (M)	EC50 (nM)	EC90 (nM)	EC50 (nM)	EC90 (nM)	°C	Multiple surfaces
BCMB601	BCMB519_L-H scFv	116%	2.80E-10	N.B	3.2	19	2.3	19	69	None

FIG. 46B

Compound ID	Description	CD3 arm	BCMA arm			% Tumor cell death		
			Clone	Source	EC50 (nM)	pM EC50	Max Kill %	pM EC90
GCDB147	BCMB519 scFv x CDB376 Fab	CD3B376	BCMB519	Ablexis	3.4	115	92	214

FIG. 47

Binder ID	Cell binding (1hr@37deg)	Kinetic binding	Cell binding (1hr@37deg)	Cyno cross- reactivity	Self- interaction	Hydrophobicity	NSBscFv Tm	Tm
	EC50(nM)	(37deg)	Bmax	Fold shift	(AC-SINS)	(aHIC)	Multiple surfaces	°C
GC5B680 N68S, S69T	6-24	Increasing	++++	no difference	Low	Low	None	71 (scFv)
GC5B596 (1st gen DuoBody parental)	Weak	Stable	Weak	Not cross-react	High	Low	None	68 (Tm1)