

FIG. 1

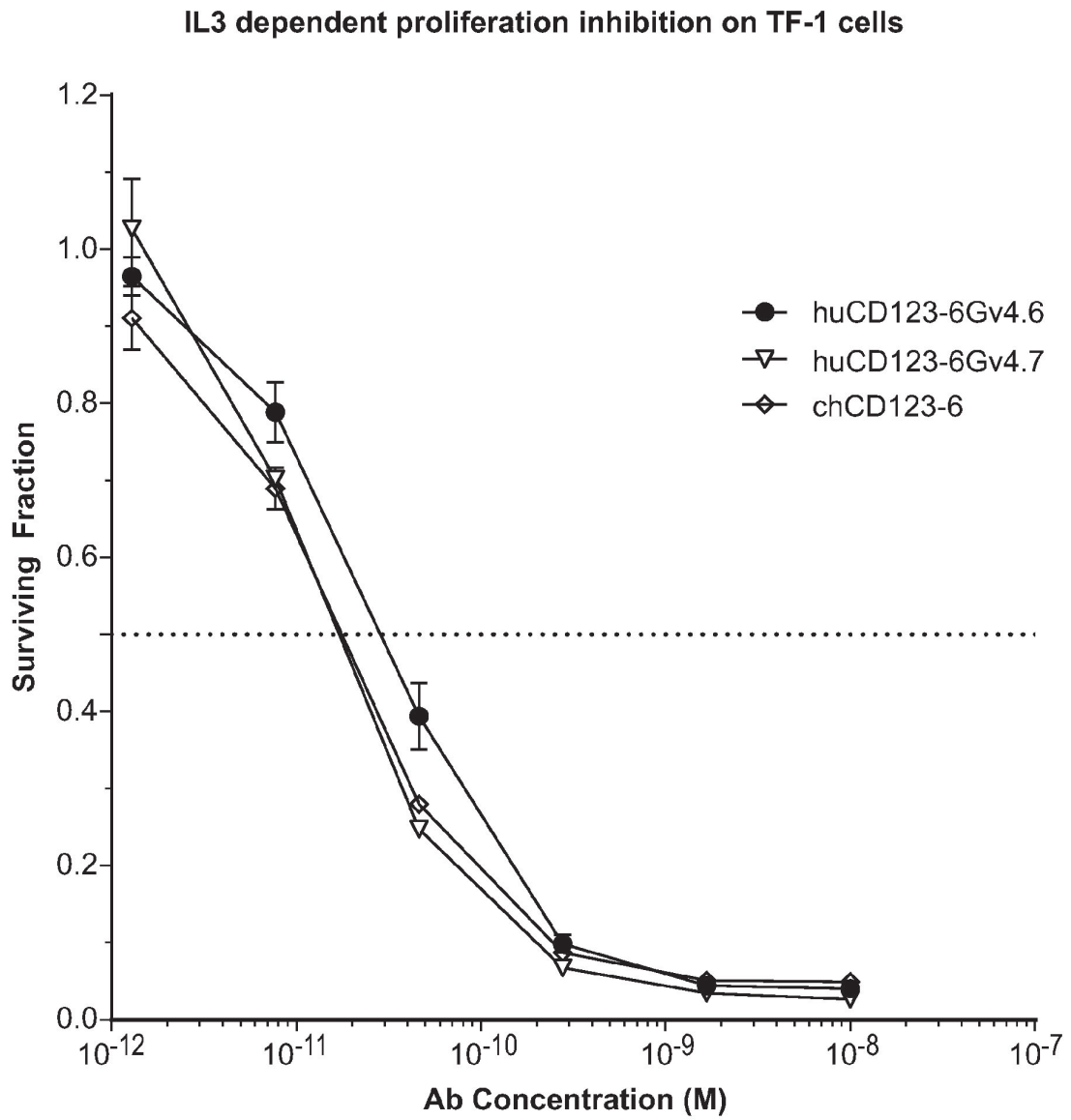


FIG. 2A

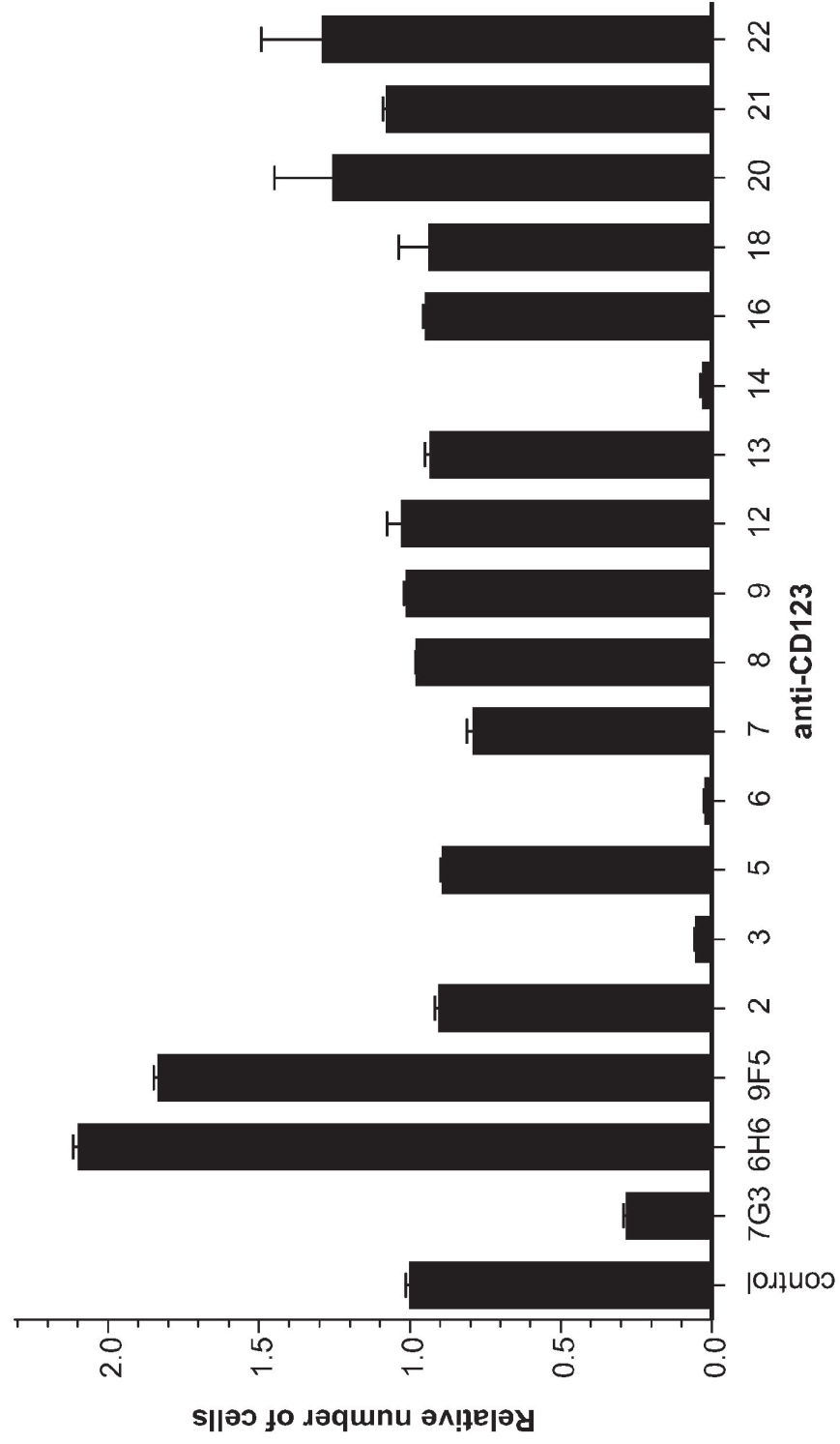


FIG. 2B

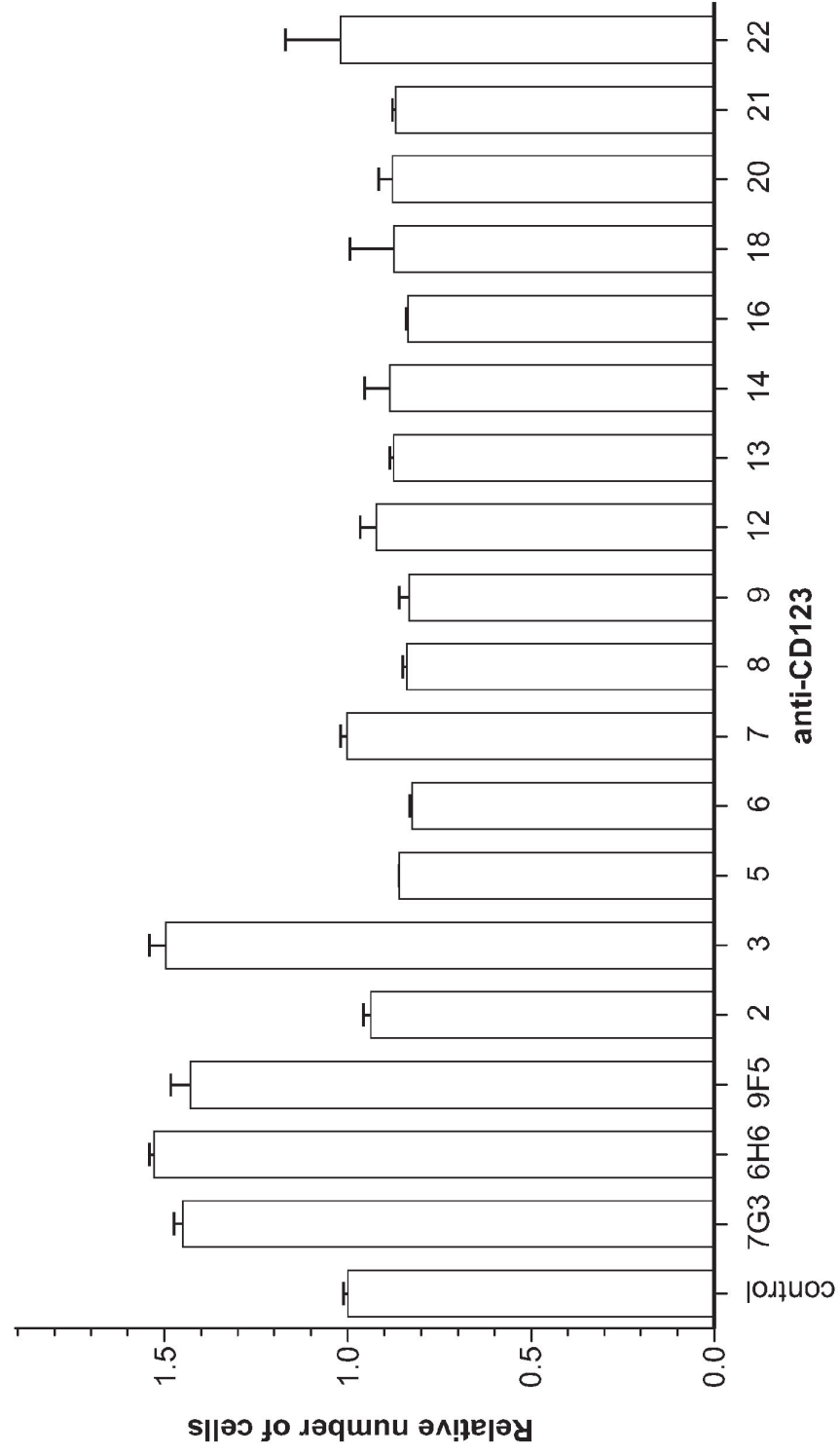


FIG. 3

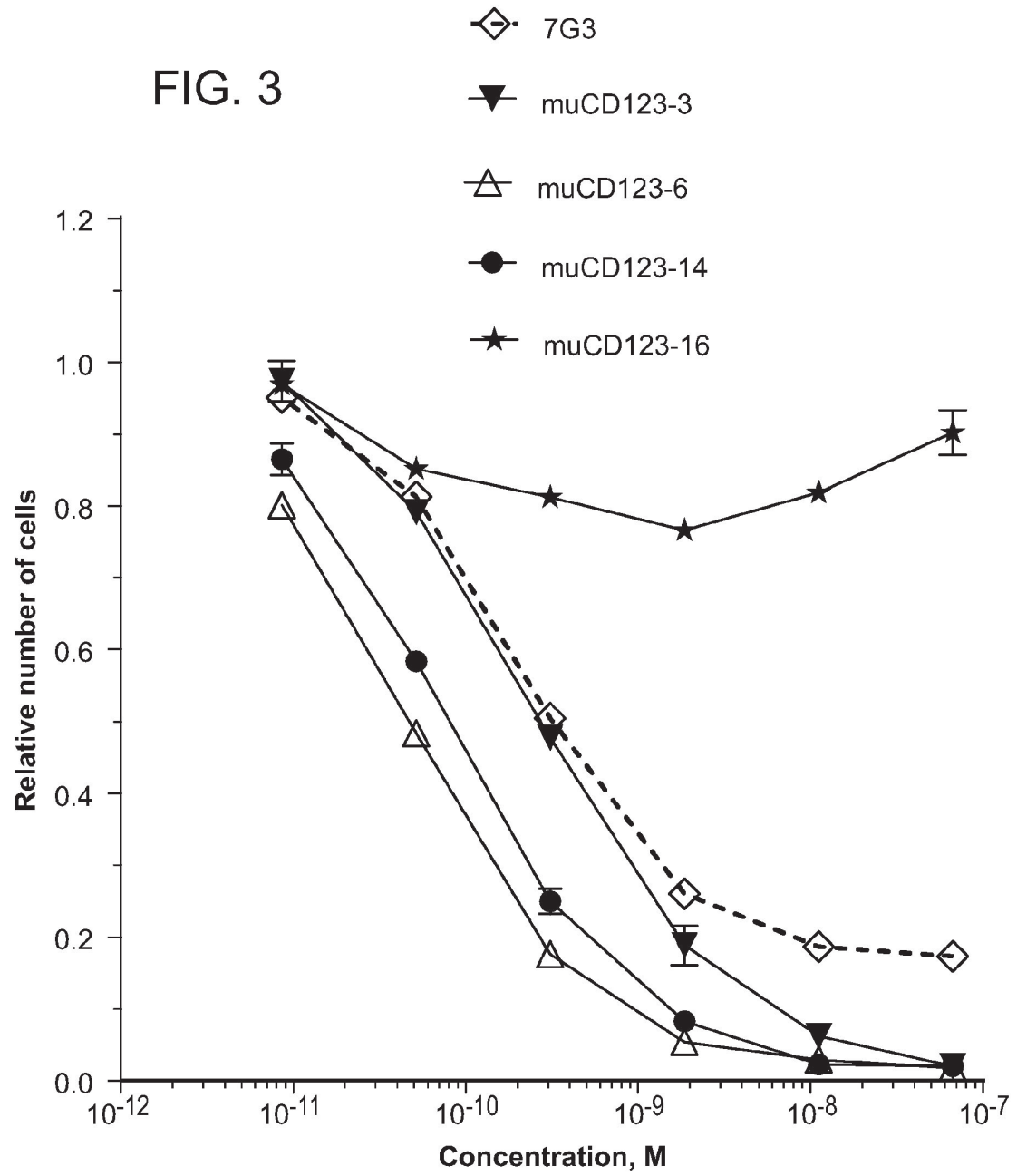


FIG. 4A

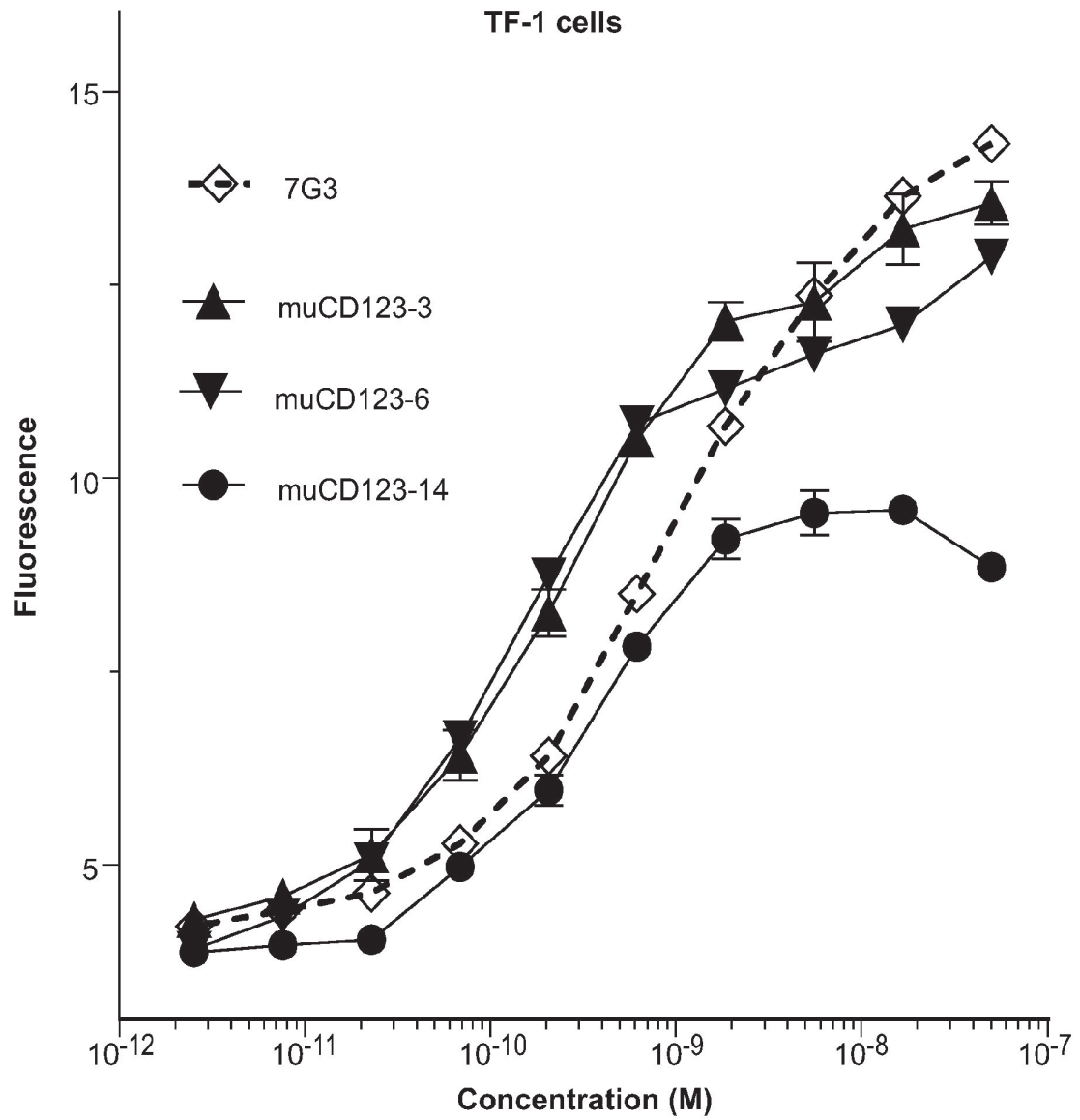


FIG. 4B

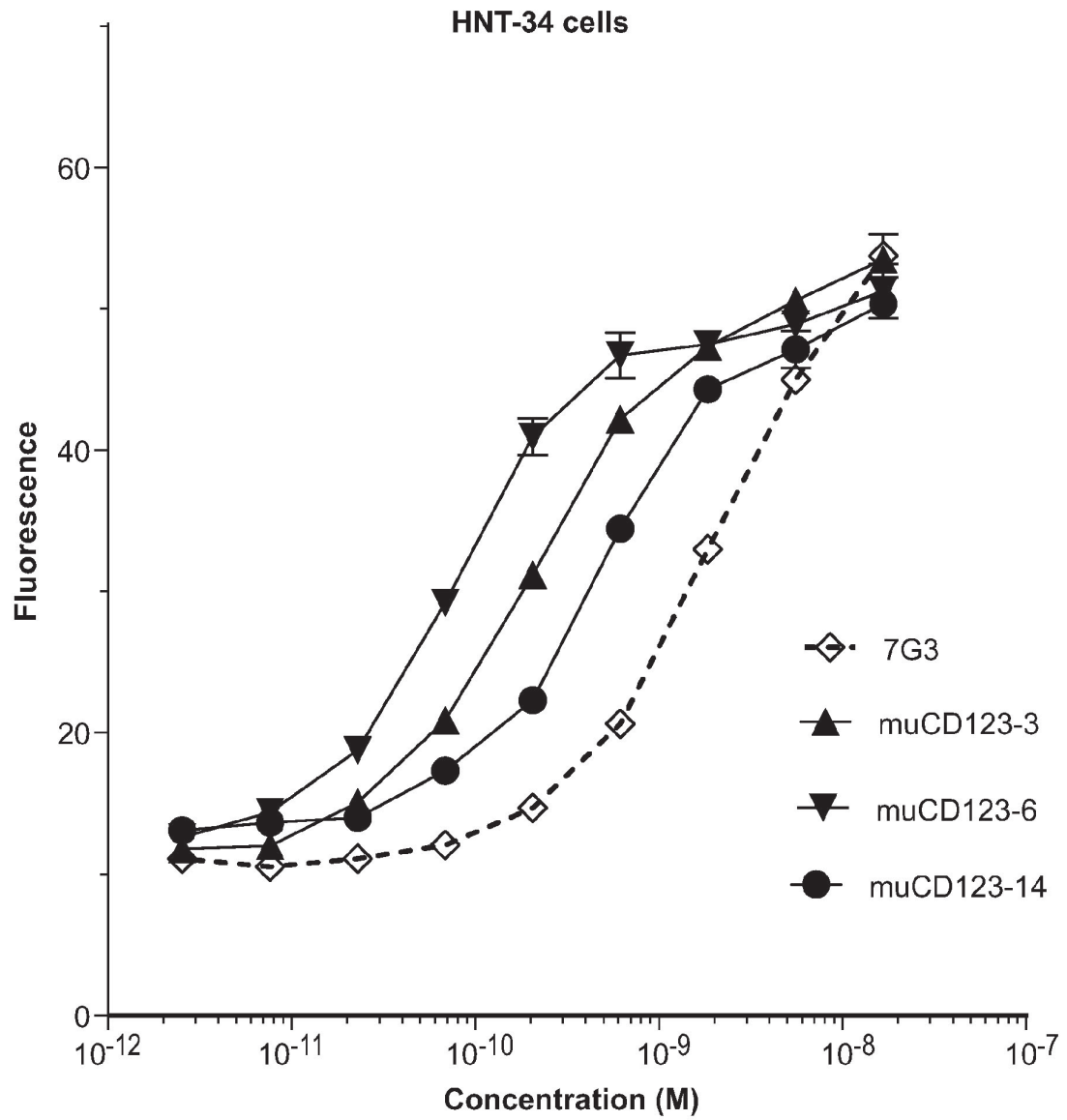


FIG. 5A

HNT-34 cells

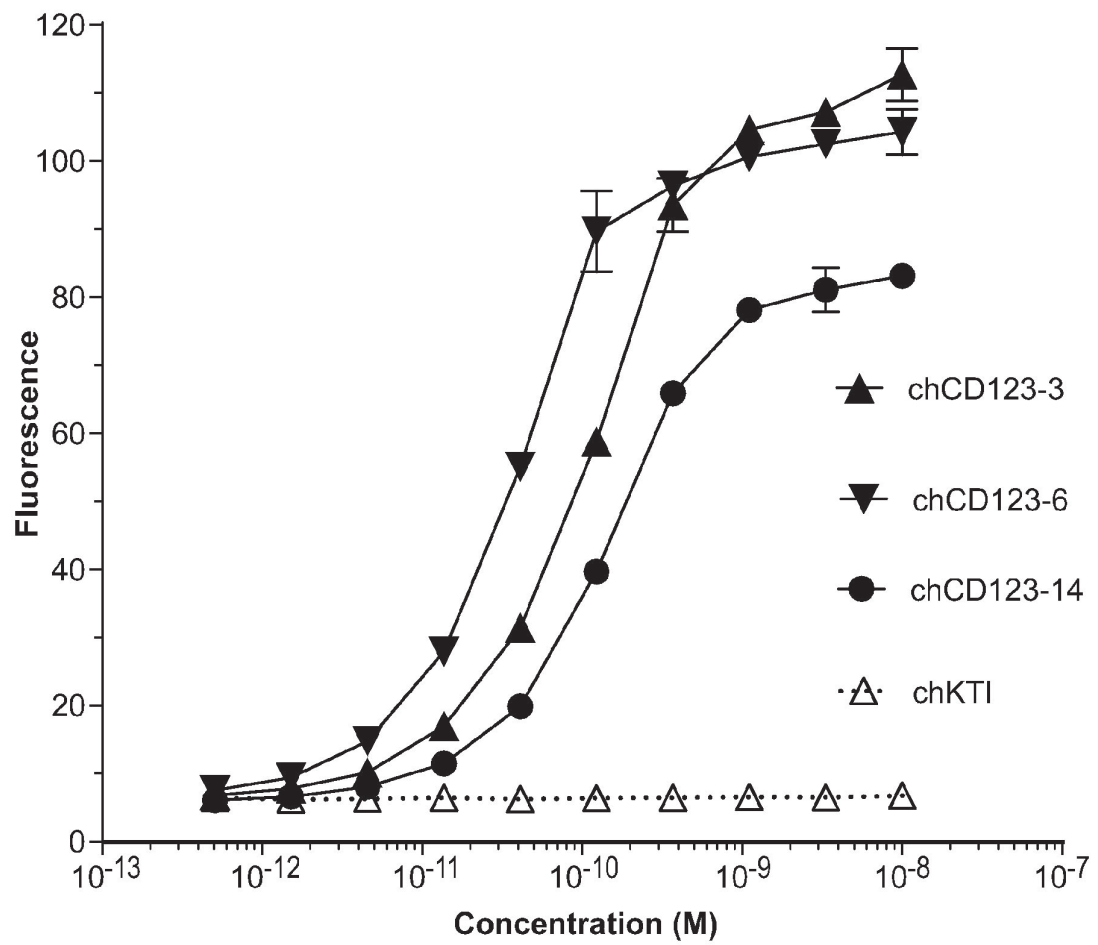


FIG. 5B

MOLM-13 cells

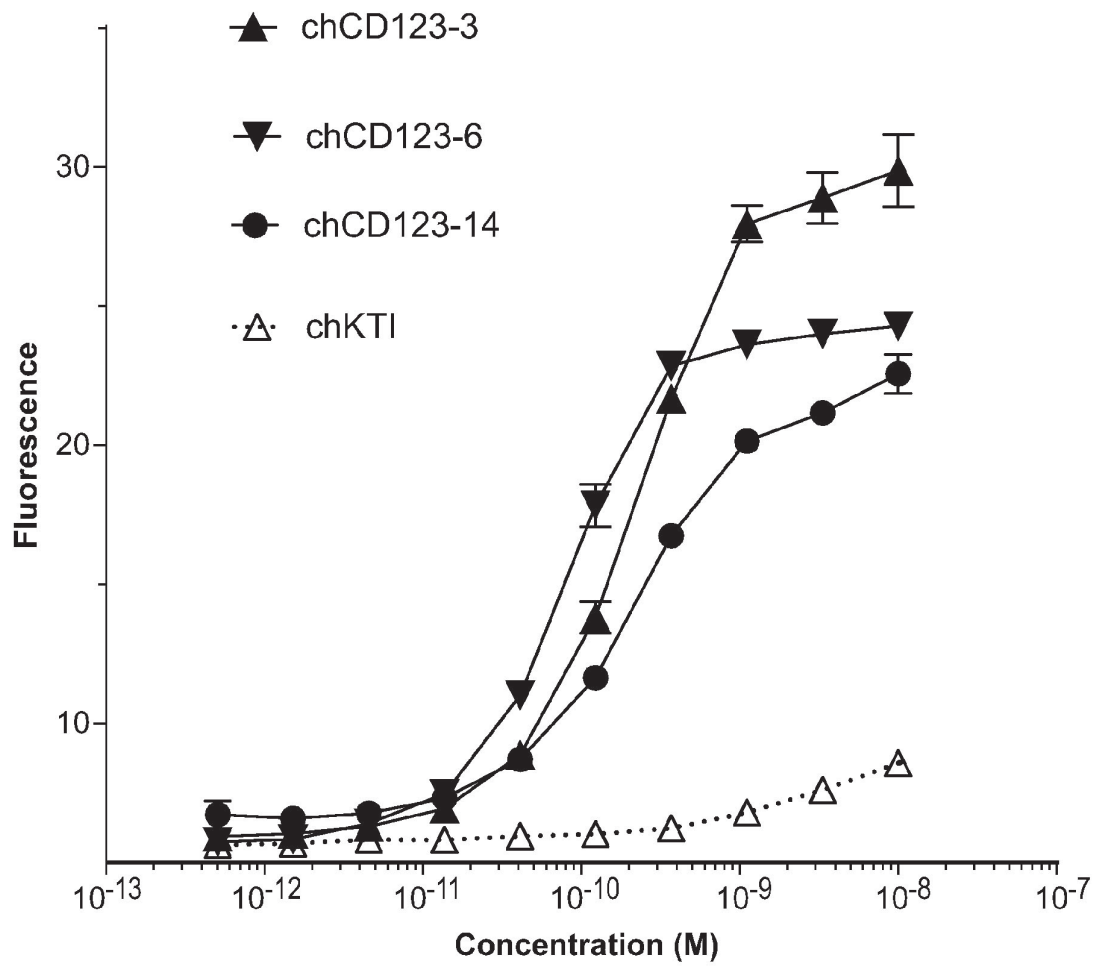


FIG. 6

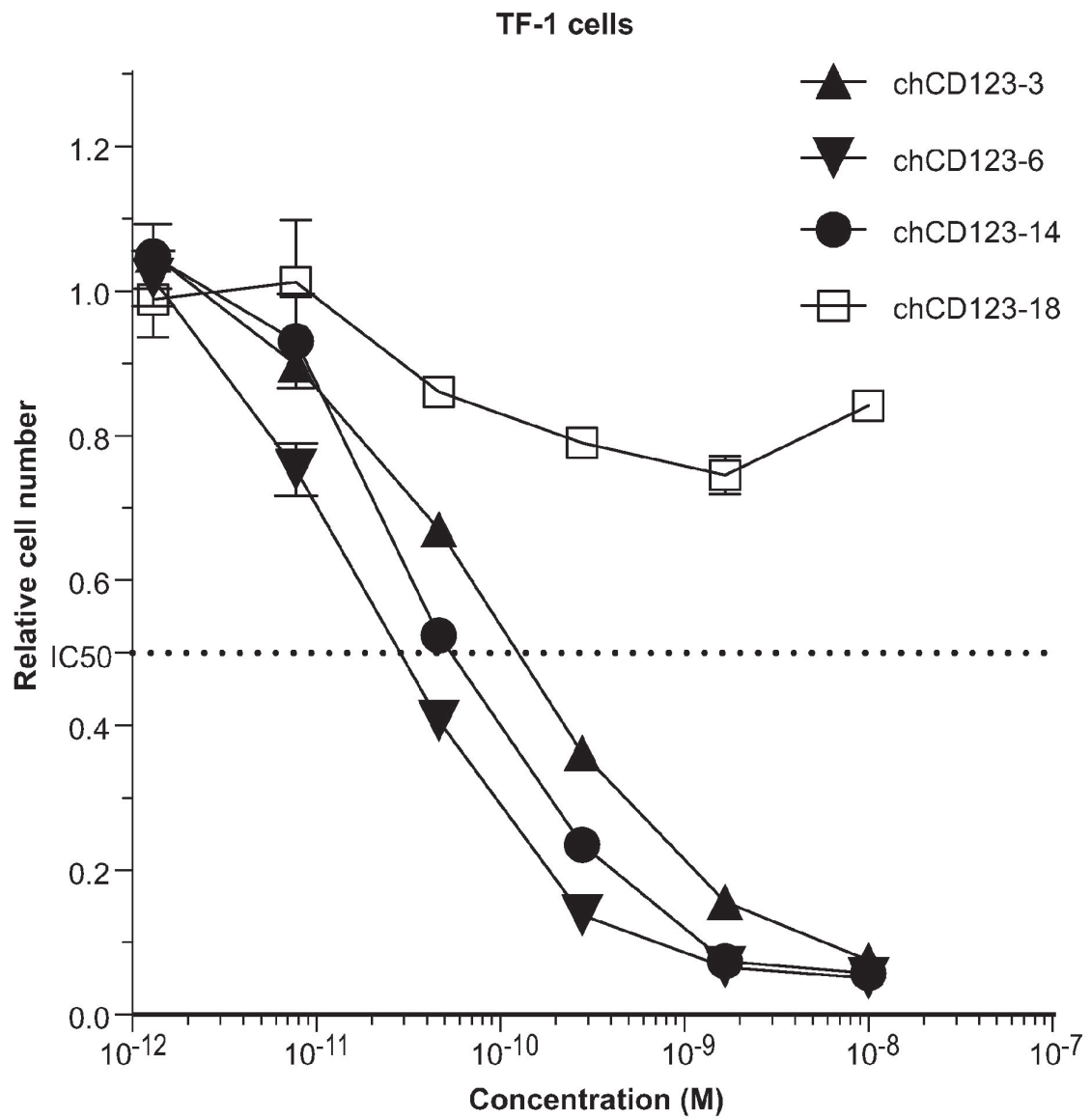


FIG. 7A

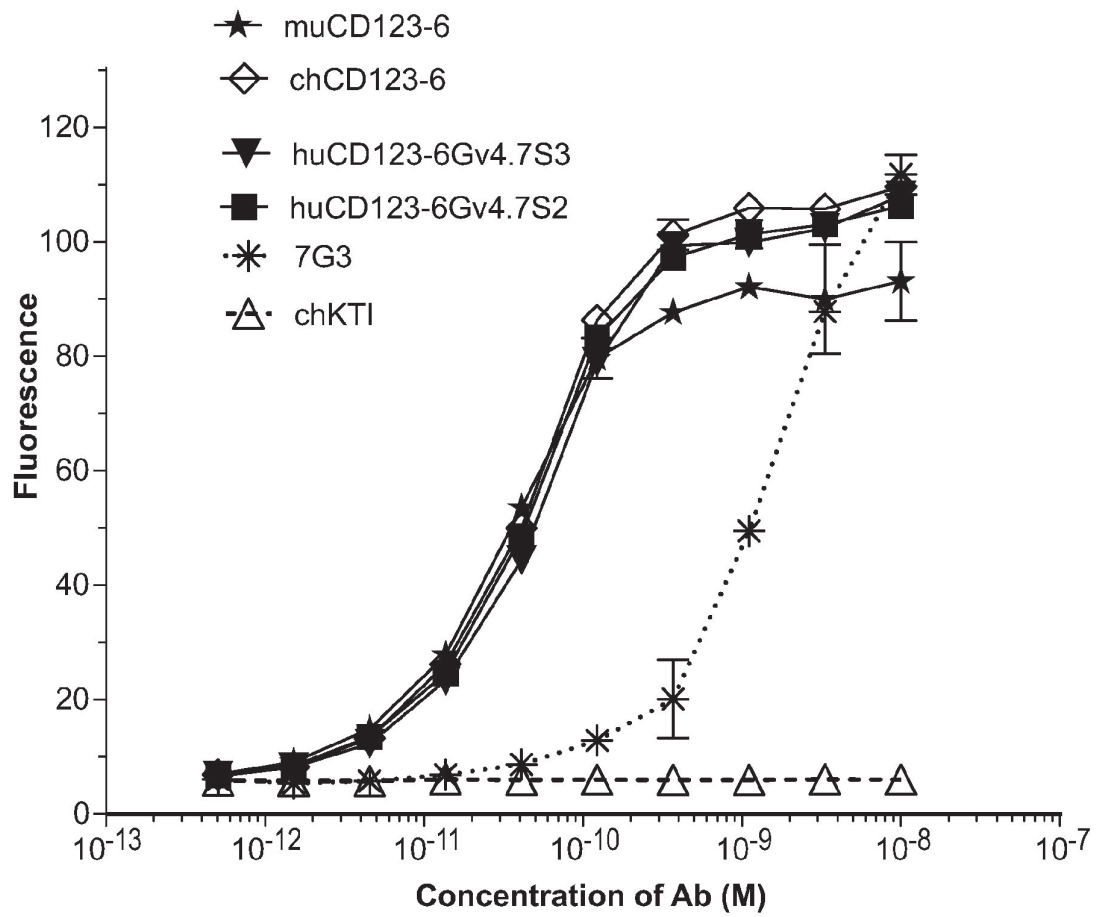


FIG. 7B

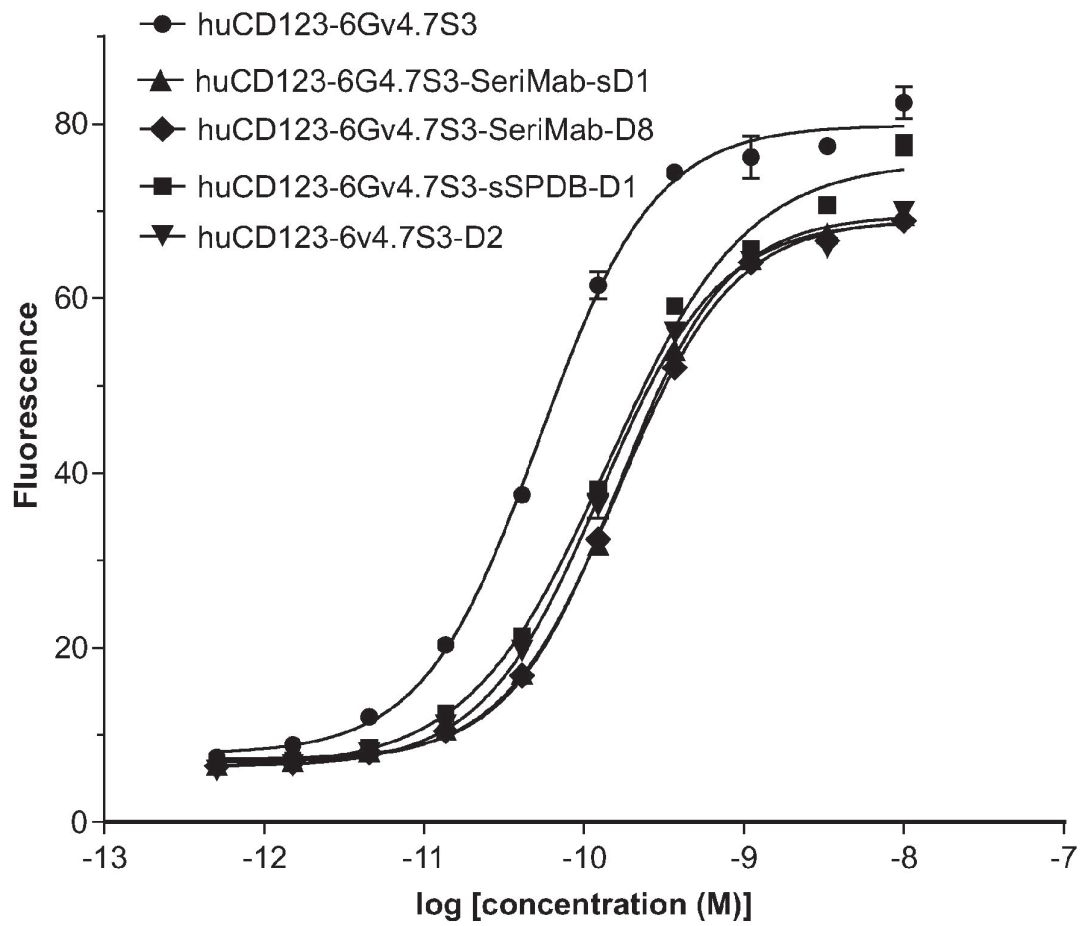


FIG. 7C

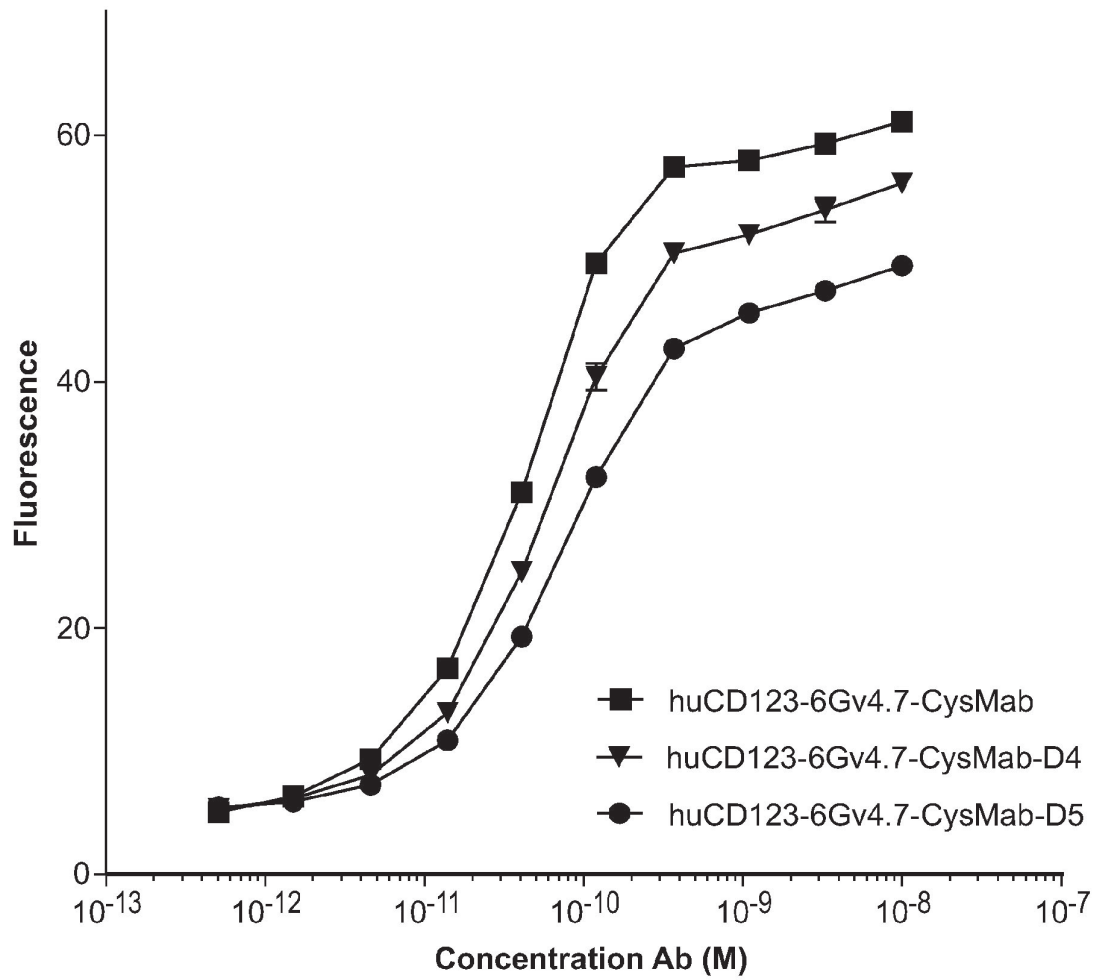


FIG. 8A

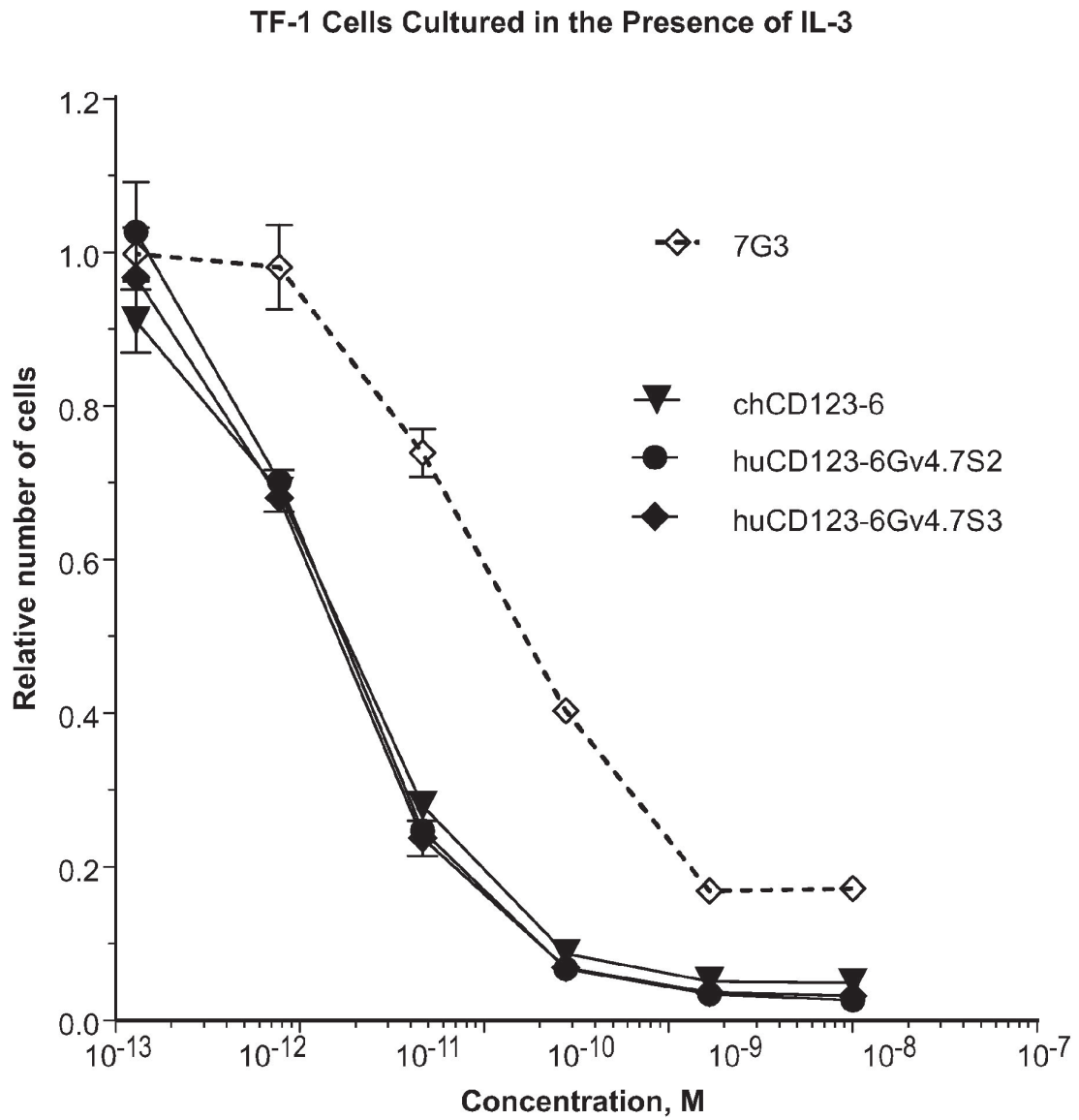


FIG. 8B

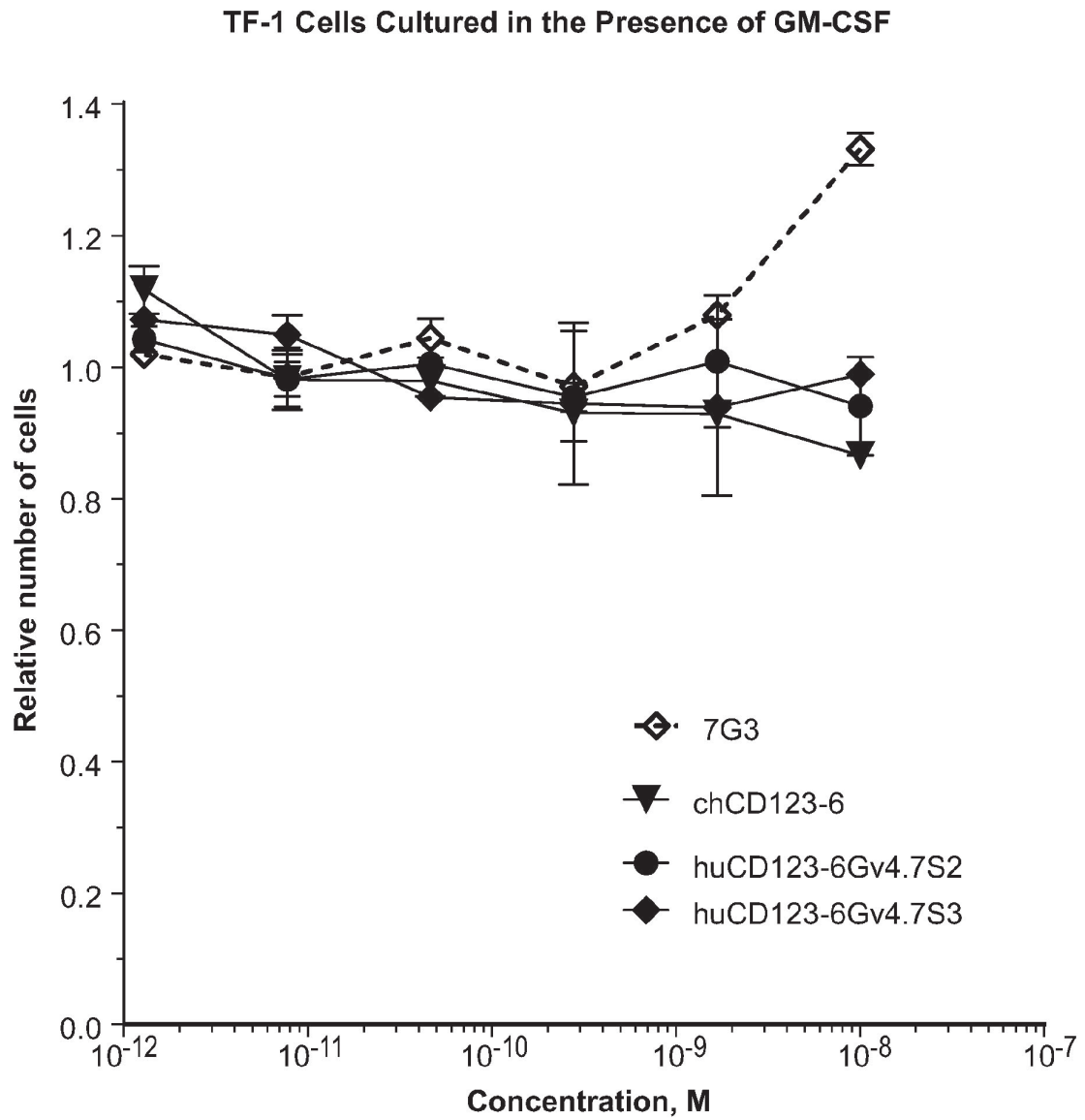


FIG. 9A

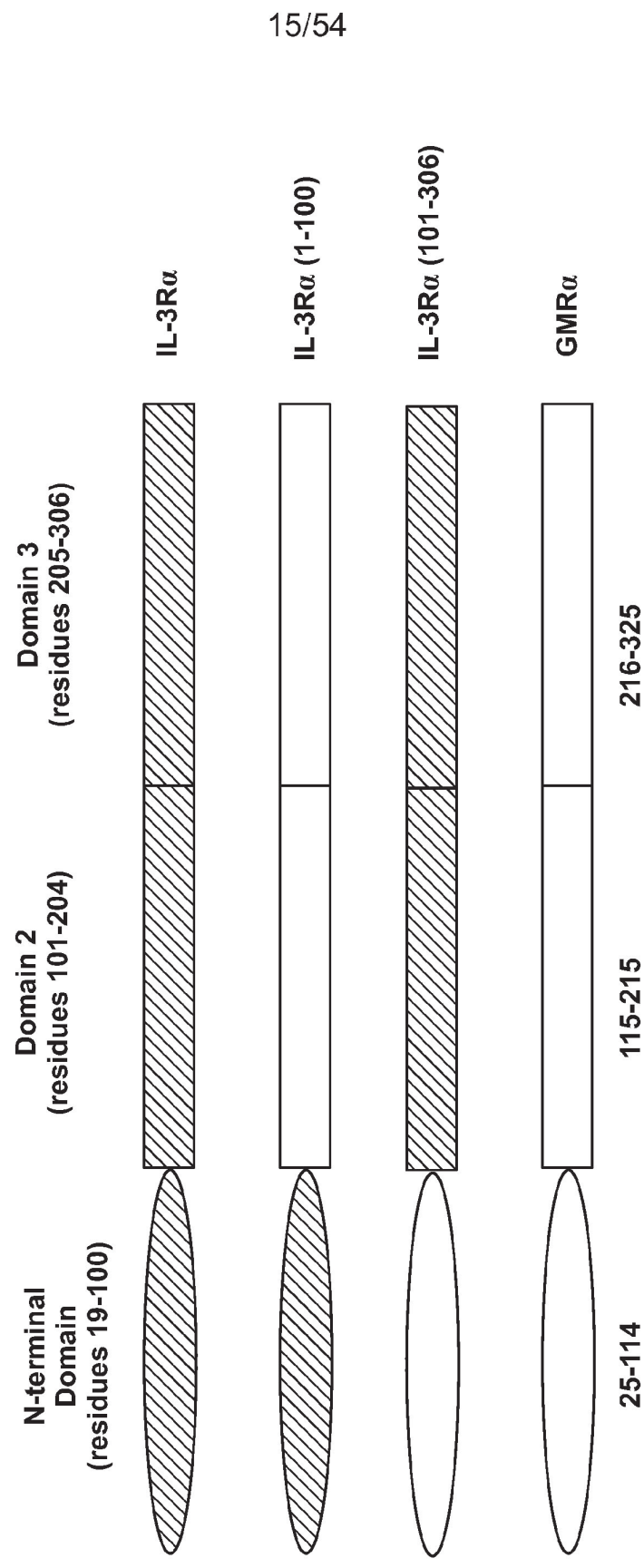
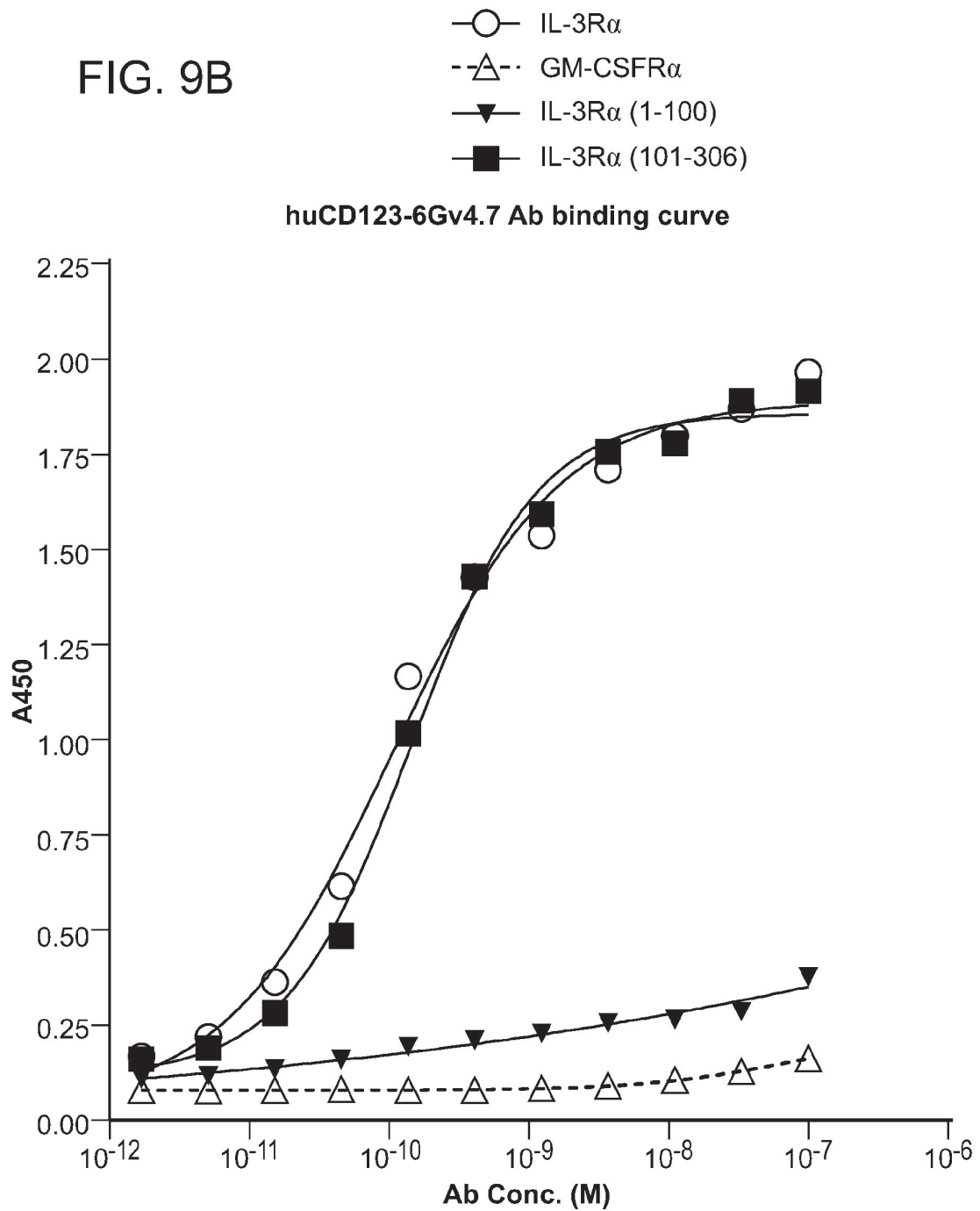
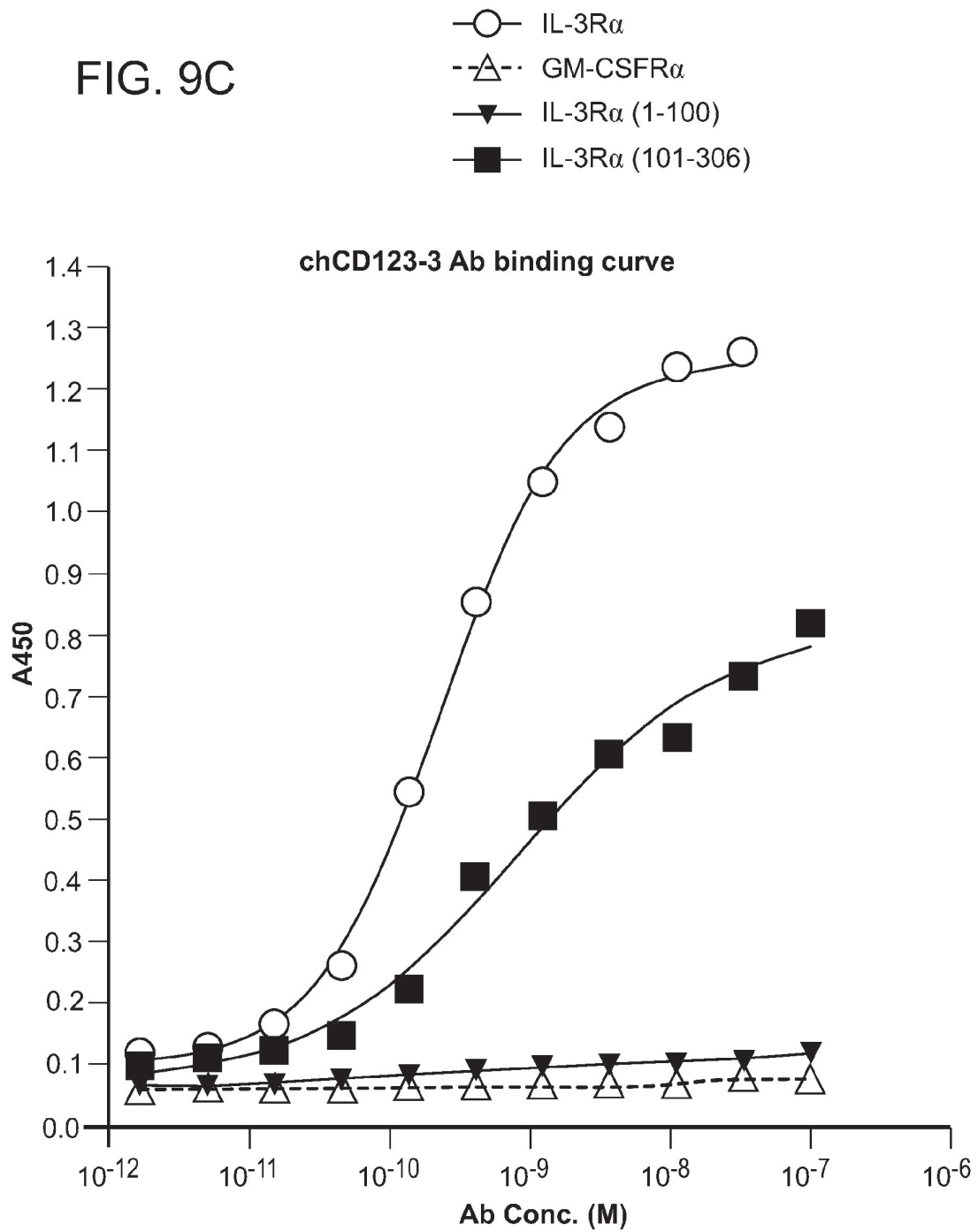


FIG. 9B



	EC ₅₀
IL-3R α	1.06E-10
IL-3R α (101-306)	1.45E-10

FIG. 9C



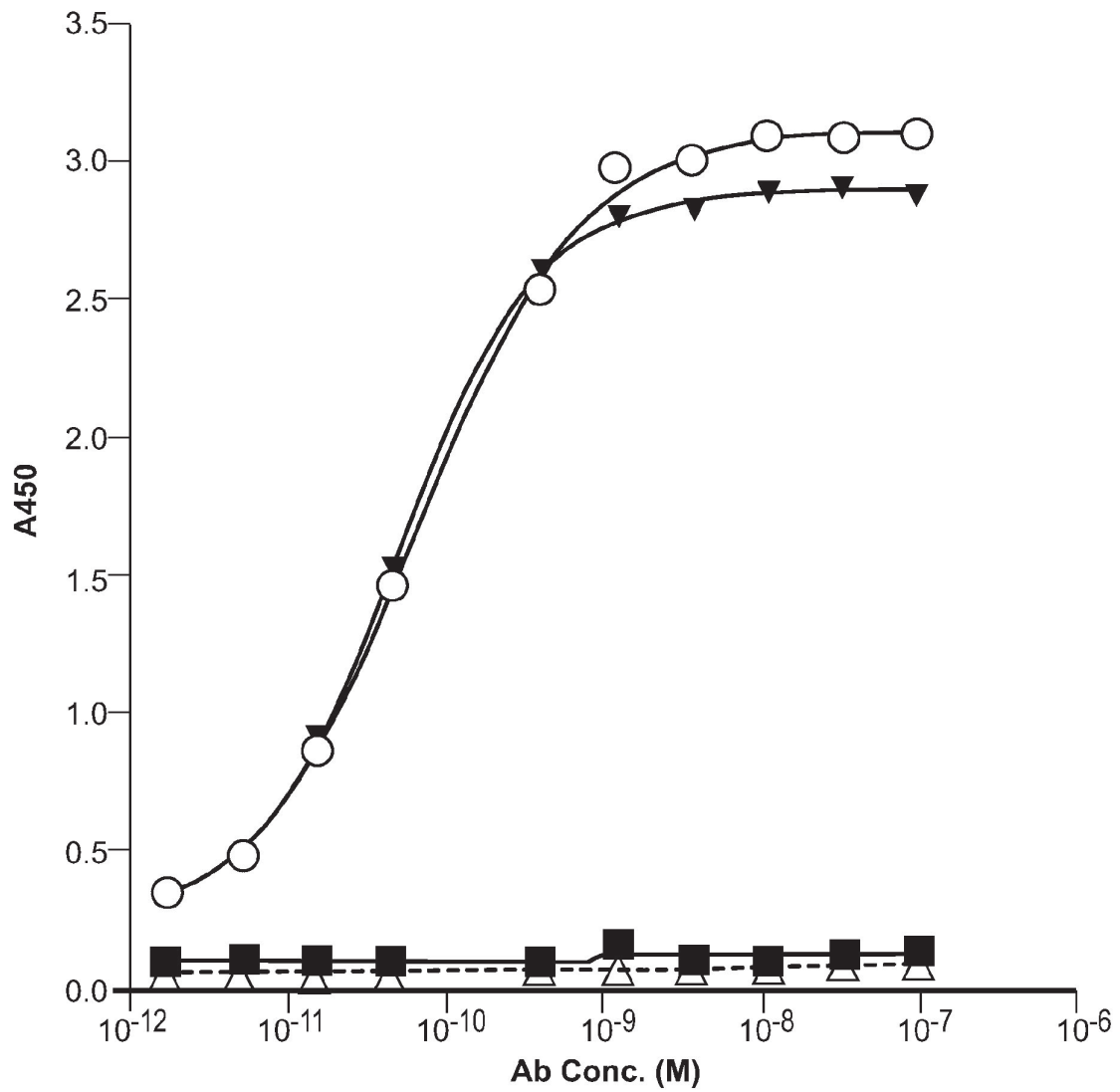
	EC ₅₀
IL-3R α	2.74E-10
IL-3R α (101-306)	8.52E-10

18/54

FIG. 9D

- IL-3R α
- -△- - GM-CSFR α
- ▼— IL-3R α (1-100)
- IL-3R α (101-306)

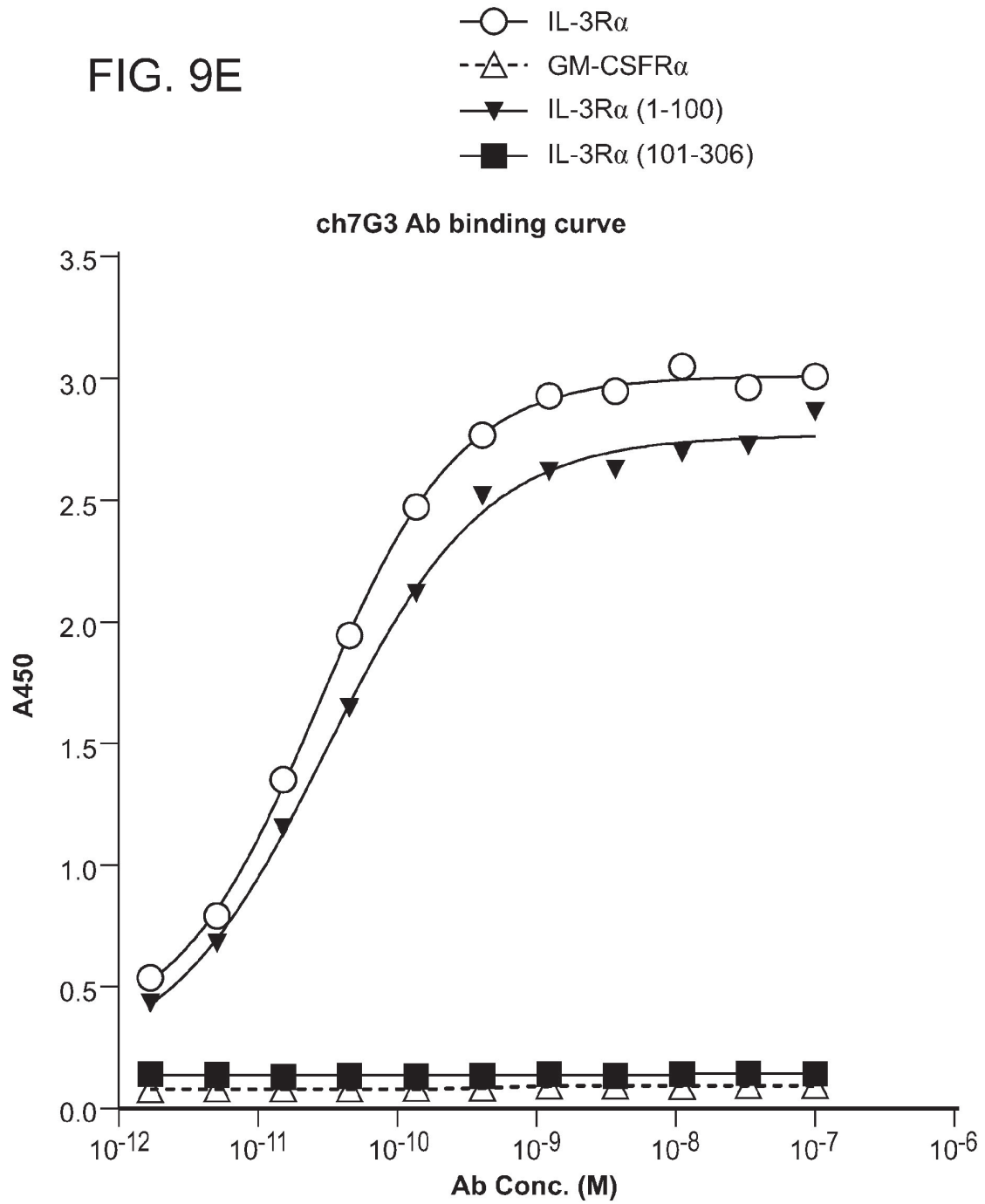
chCD123-14 Ab binding curve



	EC ₅₀
IL-3R α	6.55E-10
IL-3R α (1-100)	4.79E-10

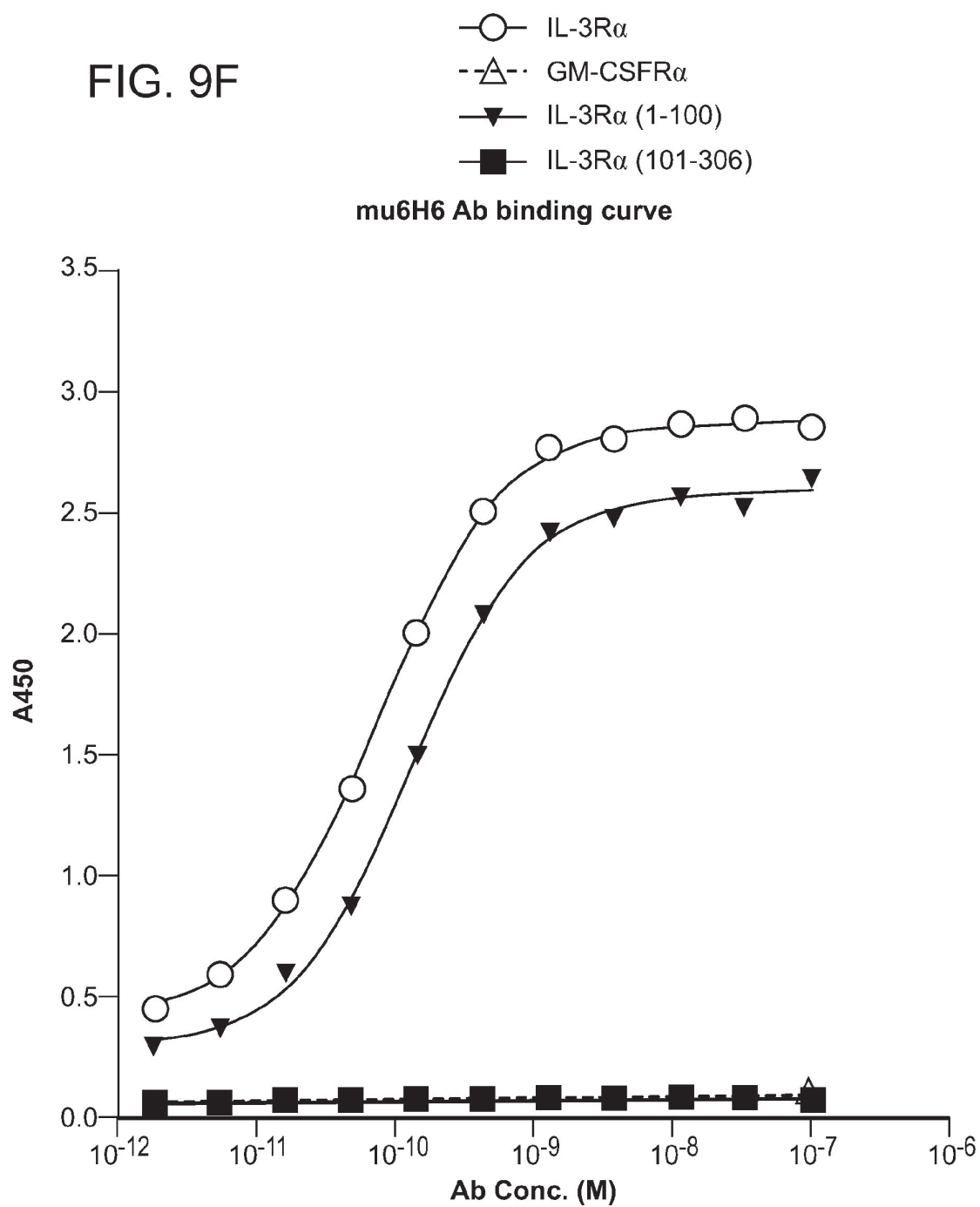
19/54

FIG. 9E



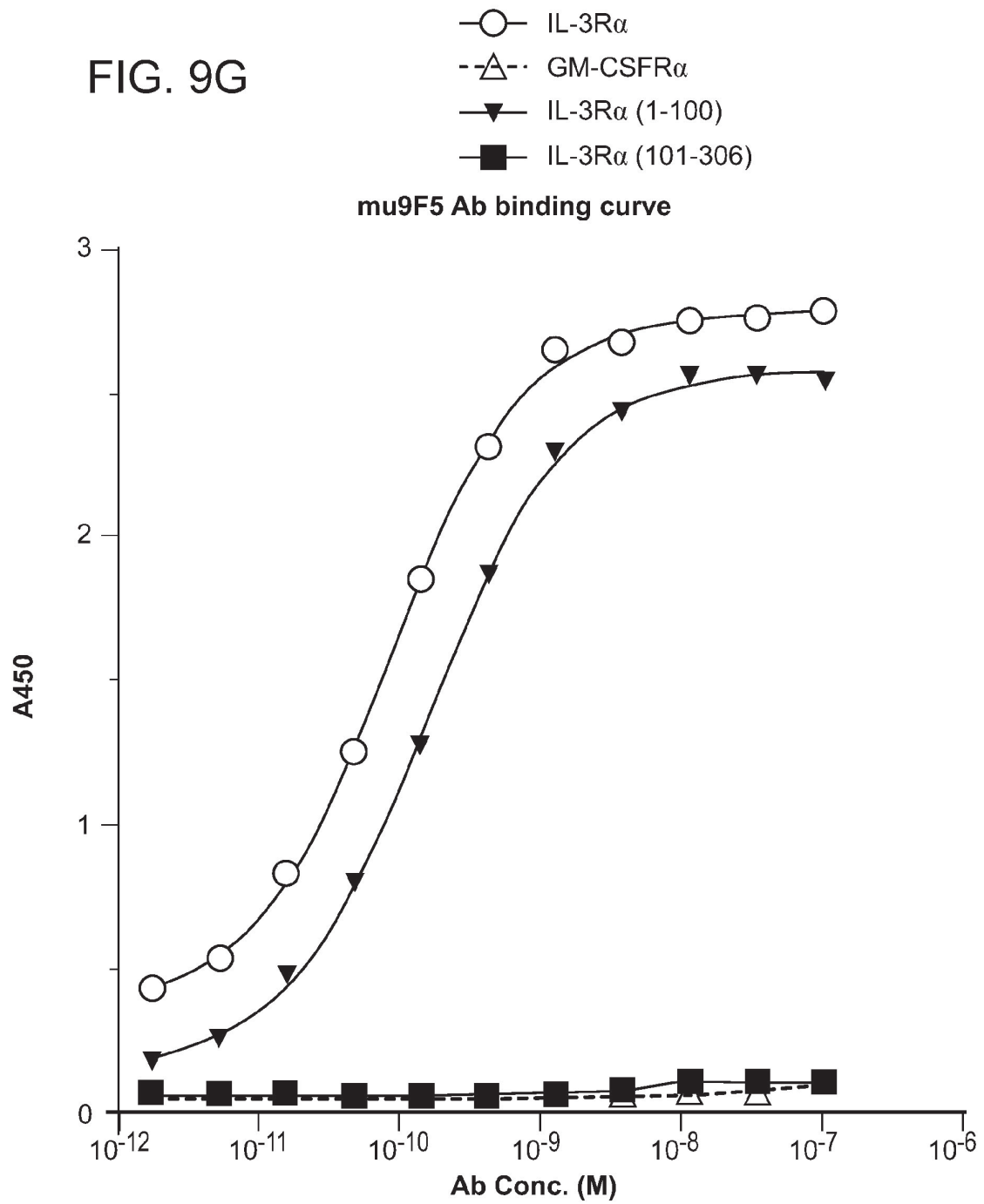
	EC ₅₀
IL-3R α	2.701E-11
IL-3R α (1-100)	3.061E-11

FIG. 9F



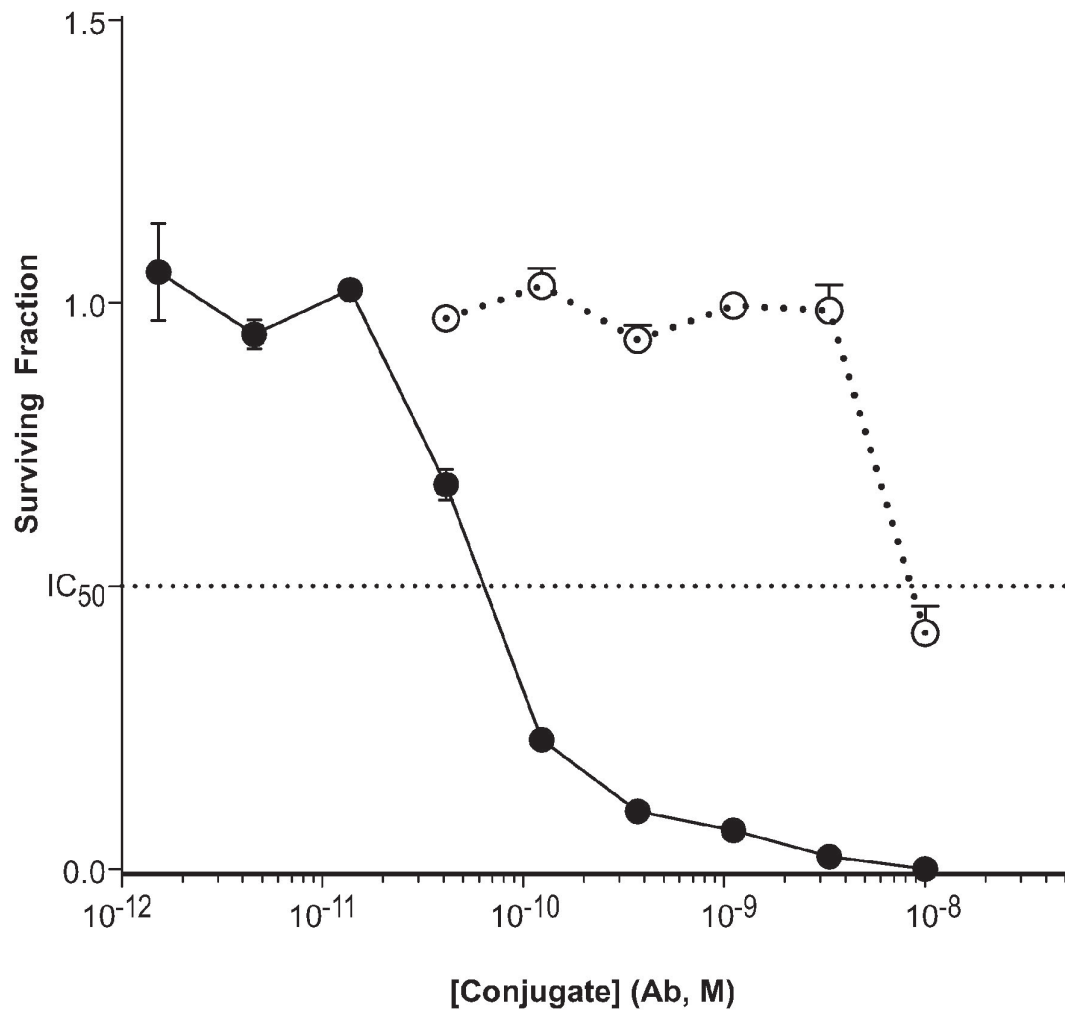
	EC ₅₀
IL-3R α	7.2E-11
IL-3R α (1-100)	1.22E-10

FIG. 9G



	EC ₅₀
IL-3R α	8.12E-11
IL-3R α (1-100)	1.52E-10

FIG. 10



● huCD123-6Rv1.1-CX1-1-DM1

○ huCD123-6Rv1.1-CX1-1-DM1 with blocking concentration (500nM) of huCD123-6

FIG. 11A

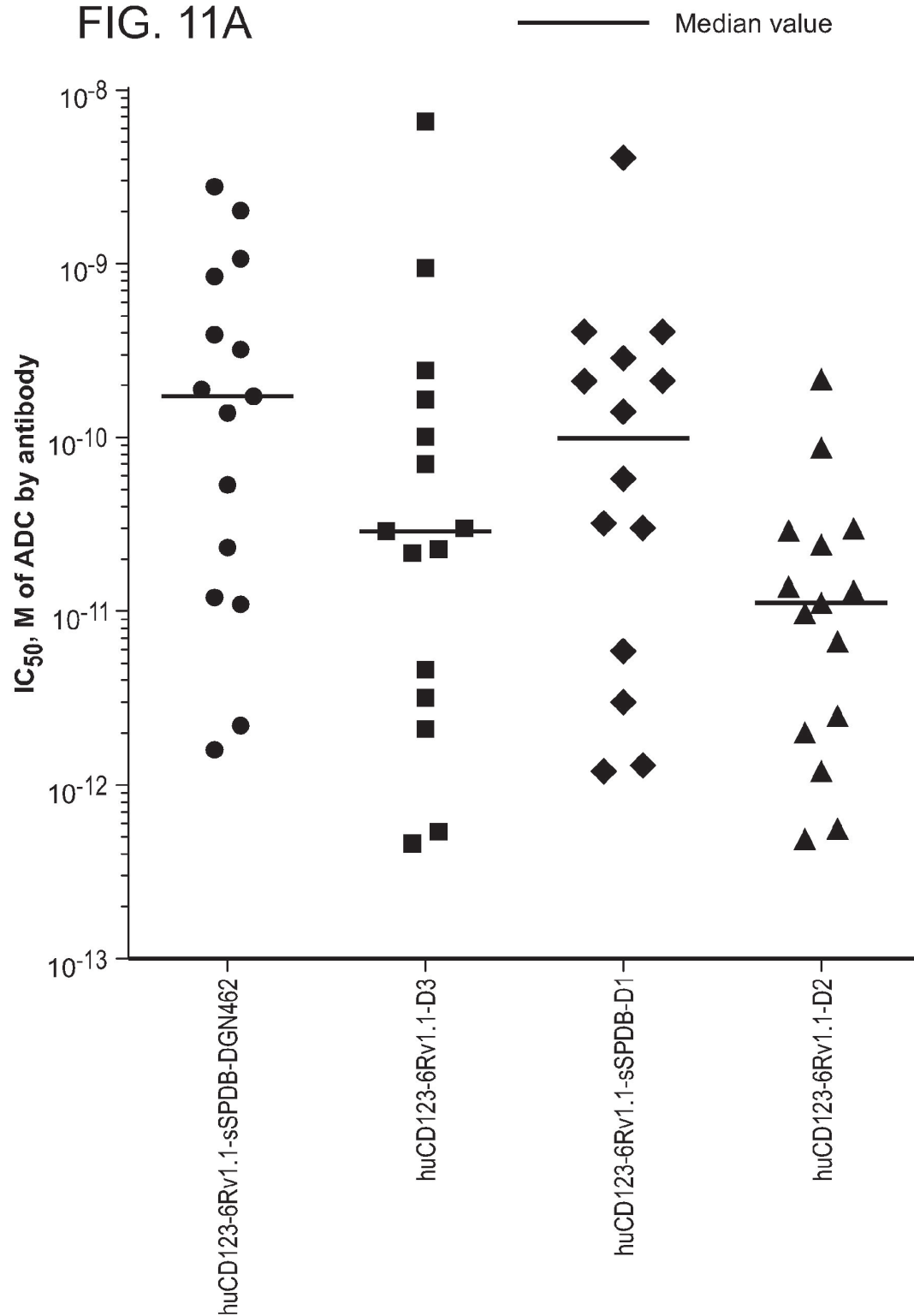


FIG. 11B

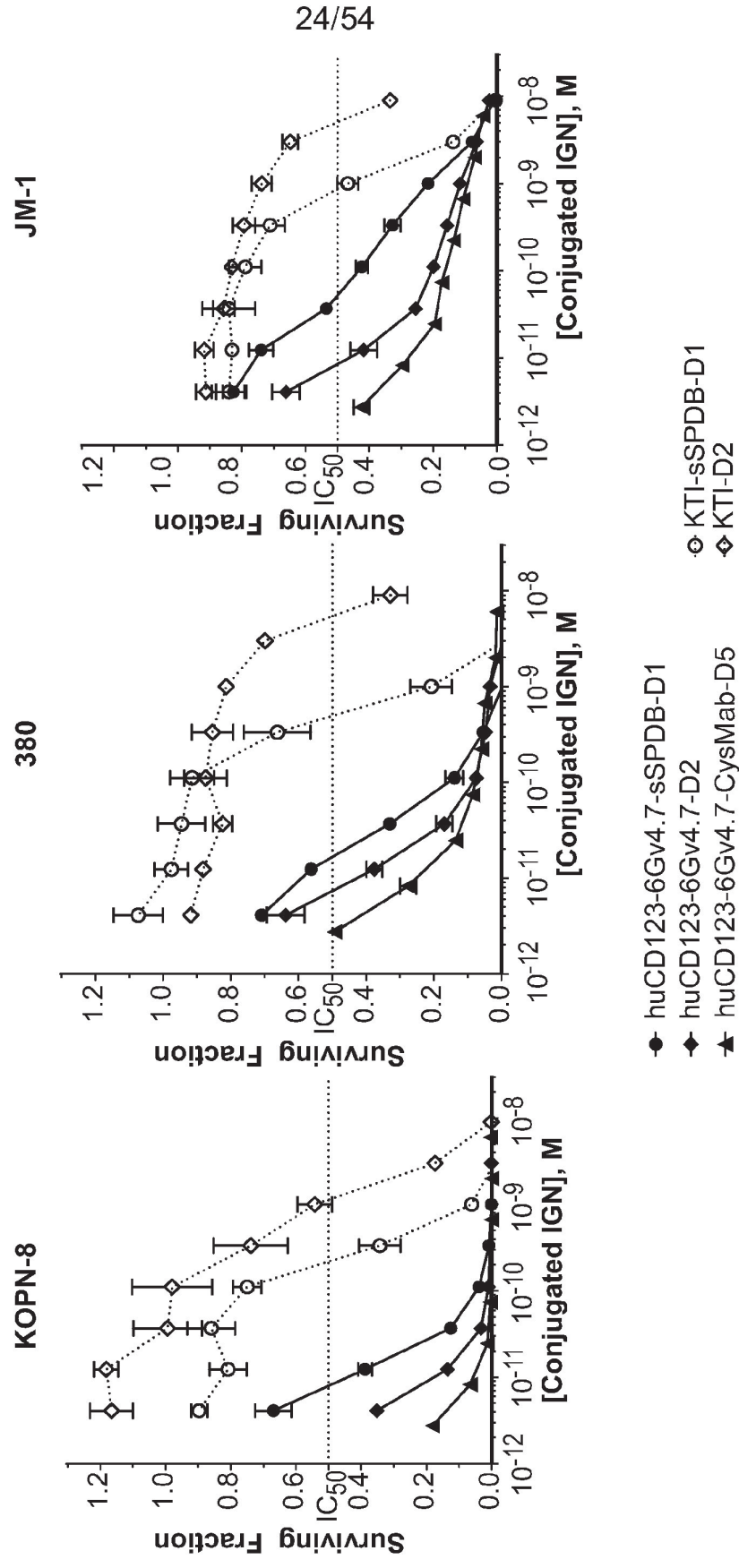


FIG. 11C

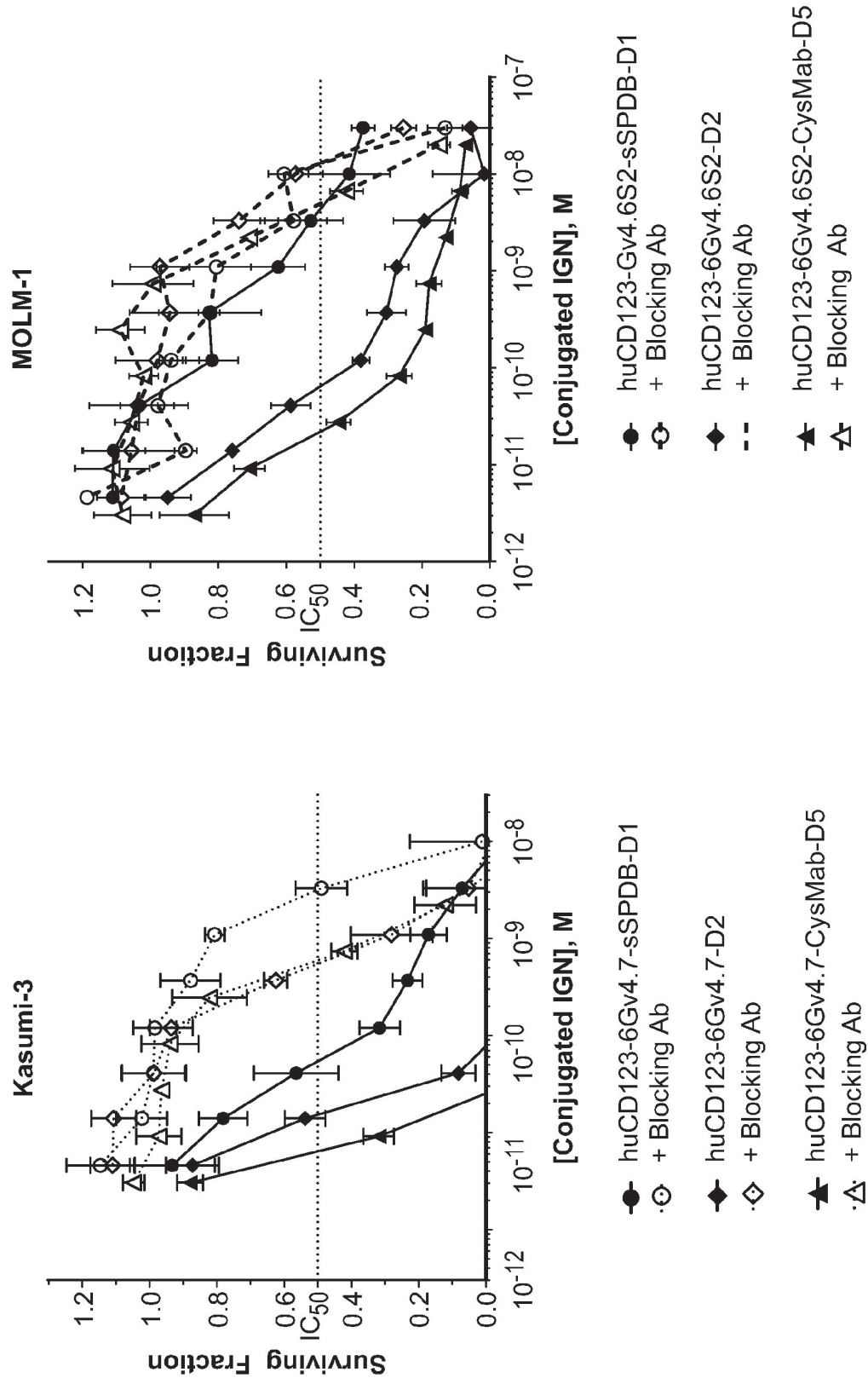
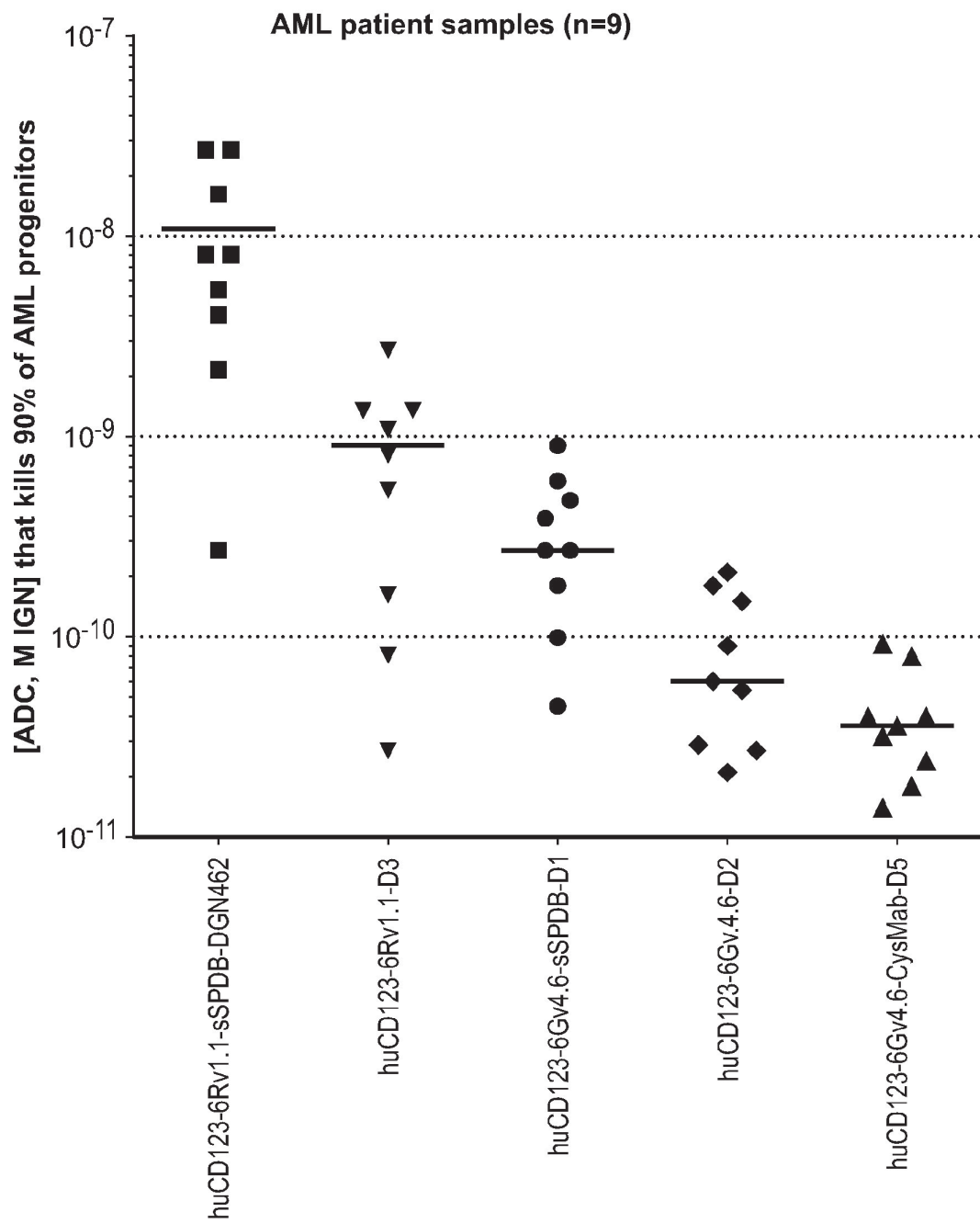


FIG. 11D



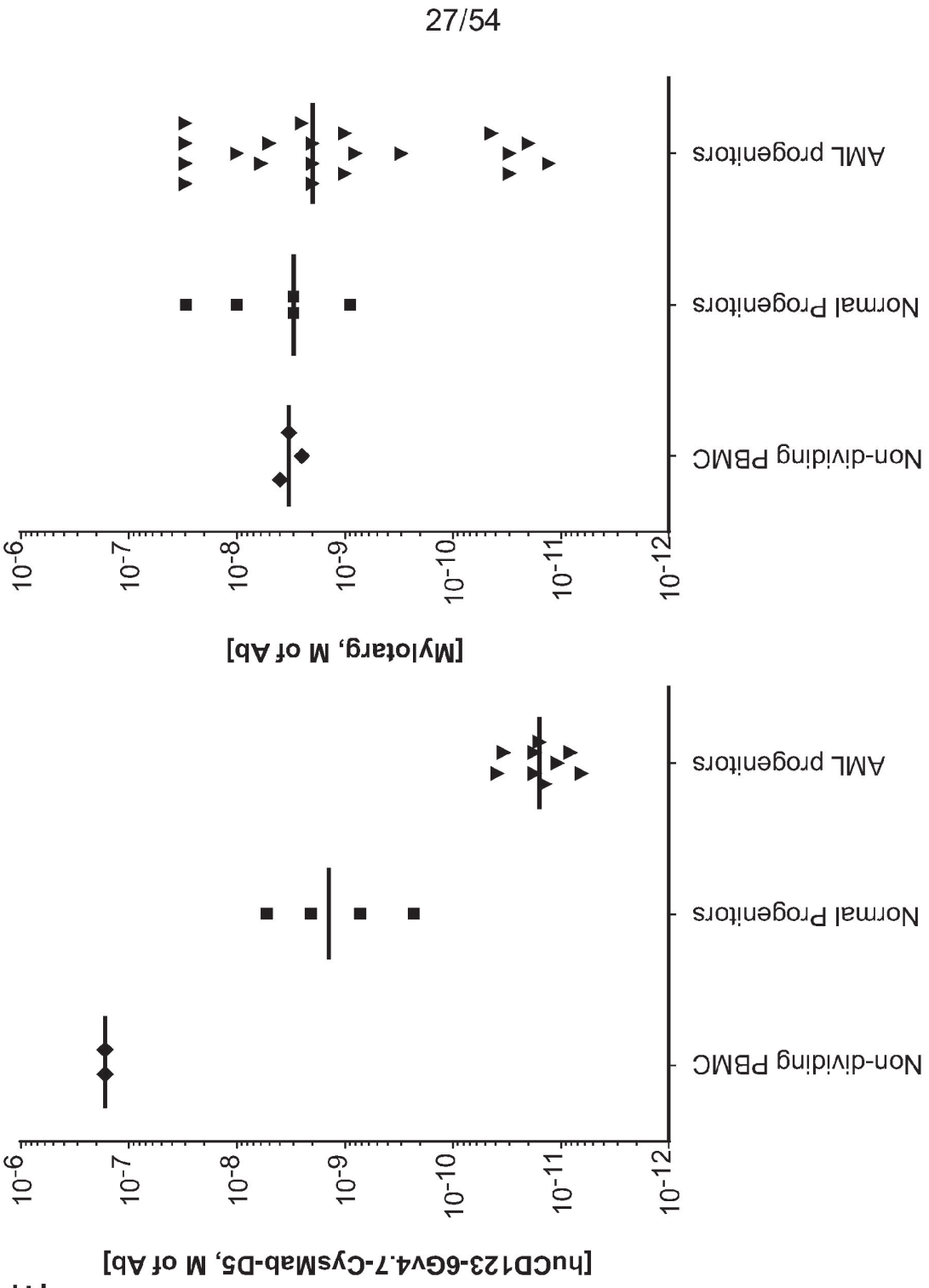


FIG. 11E

FIG. 12A

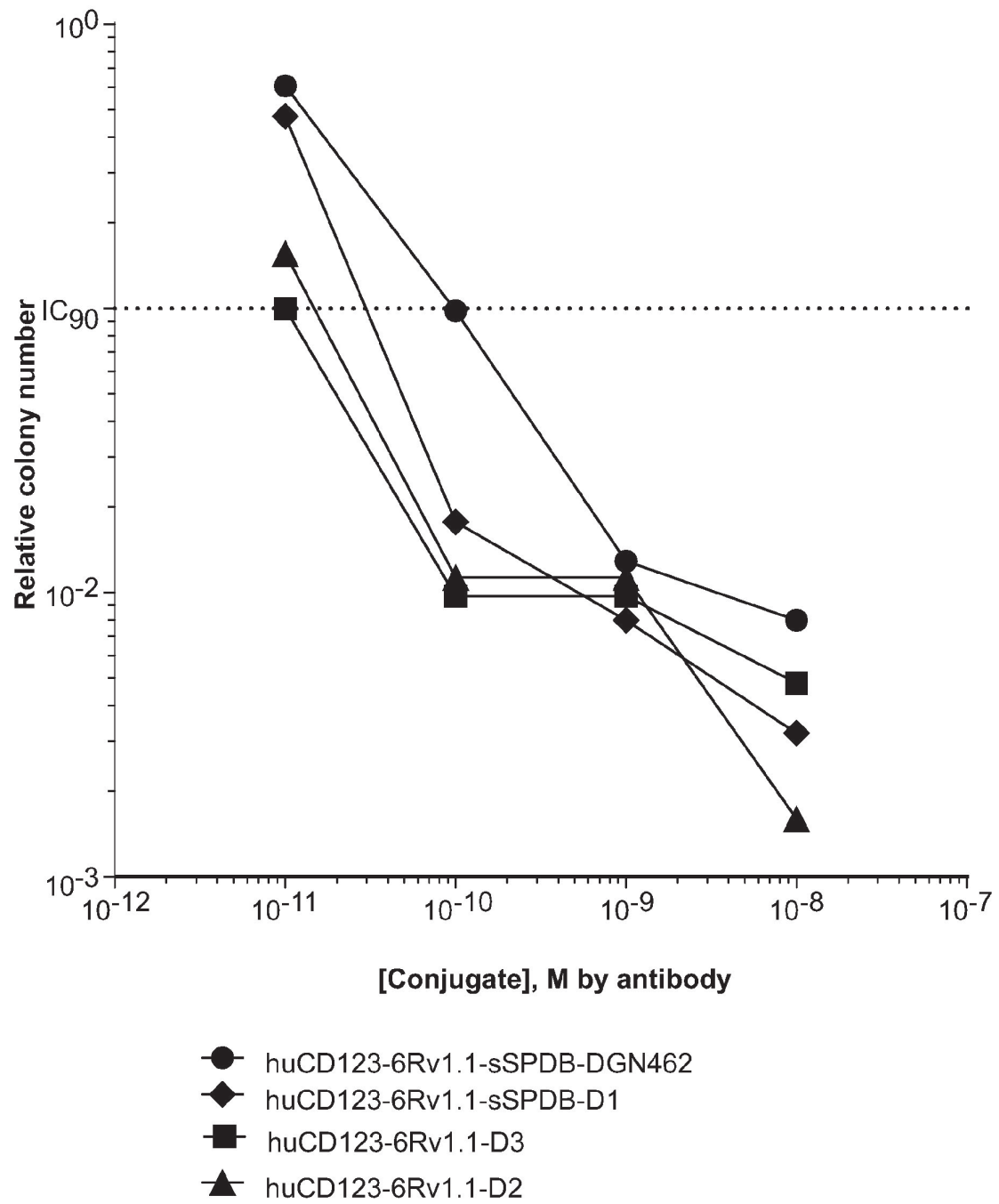


FIG. 12B

———— Median value

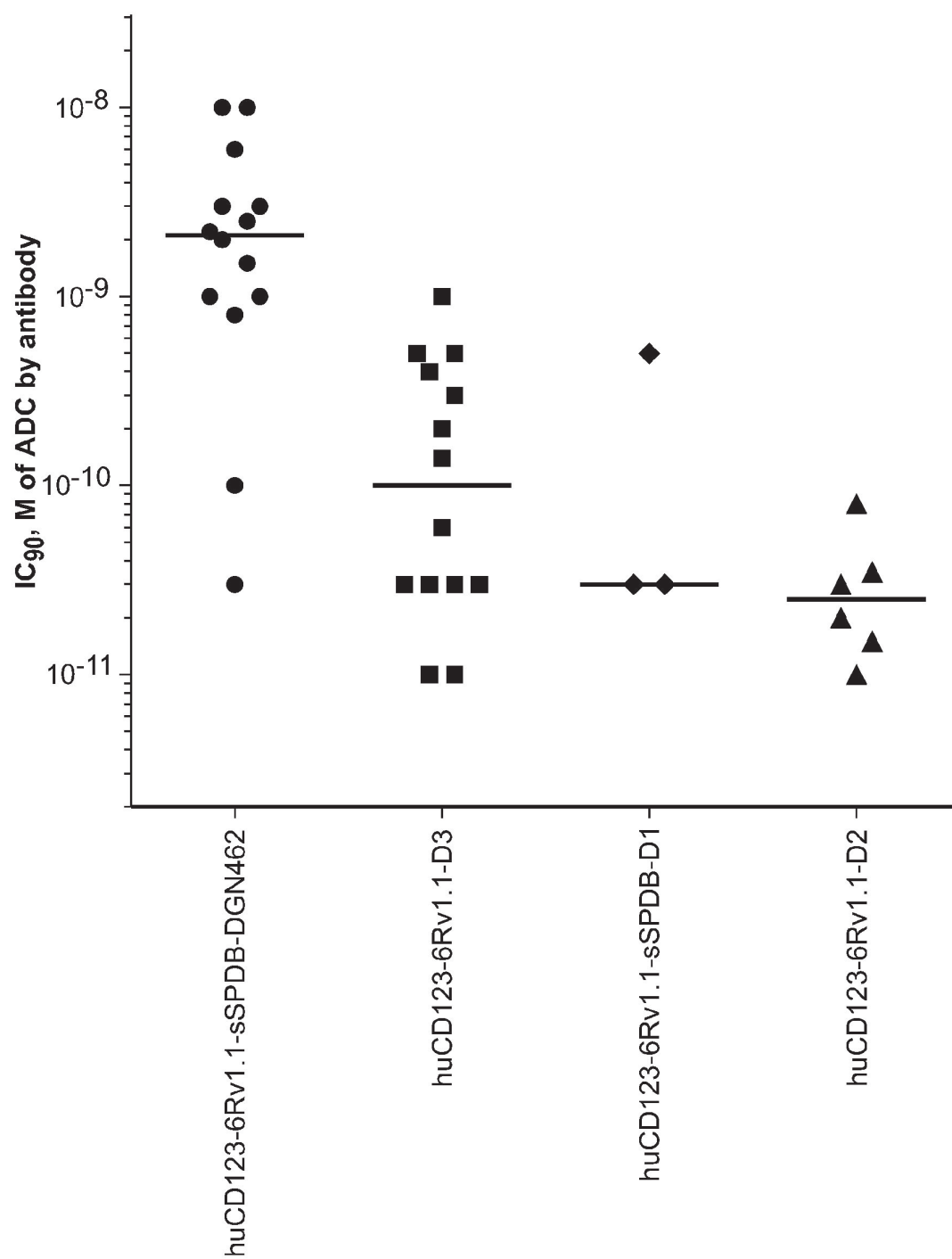


FIG. 13A

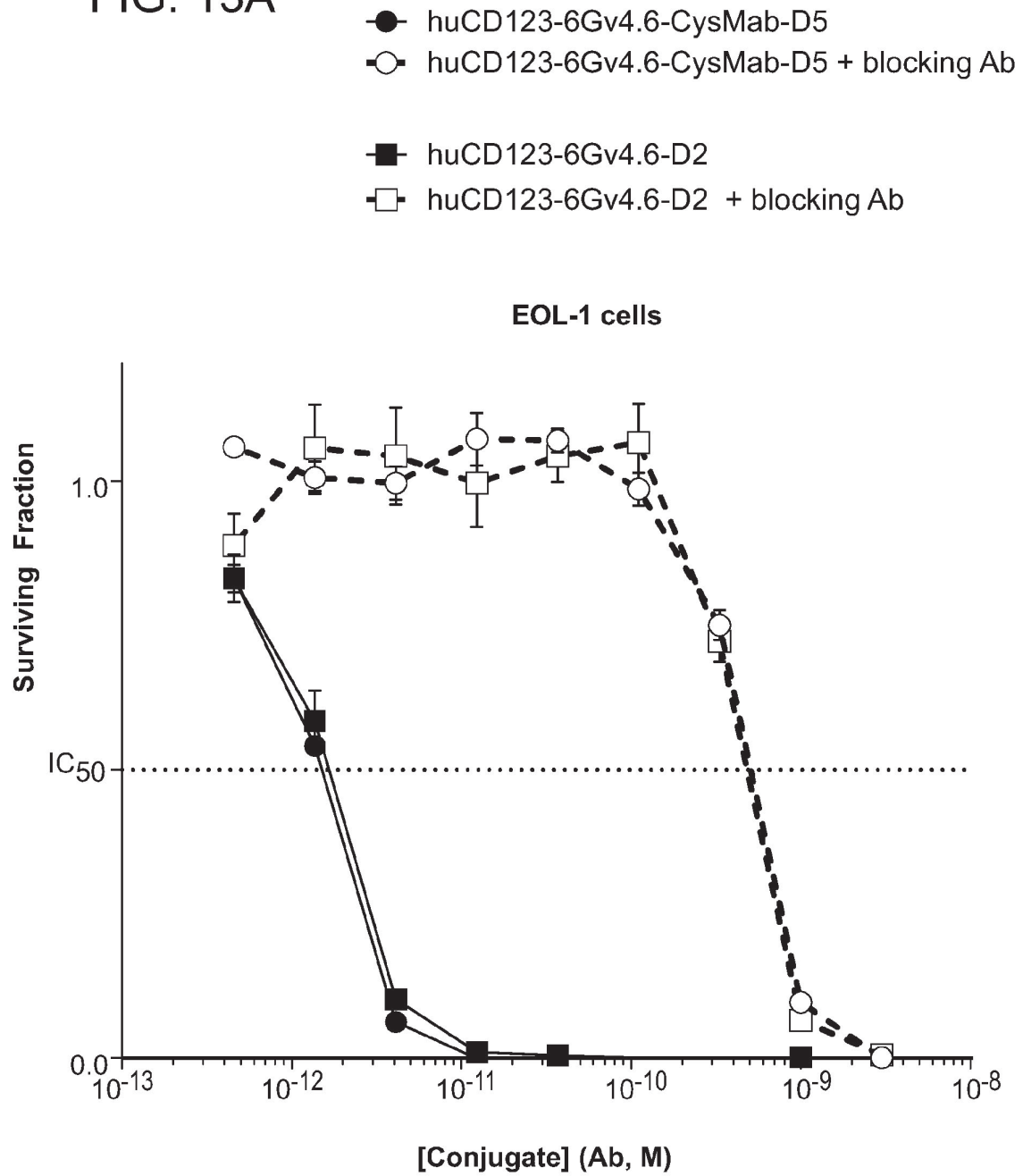


FIG. 13B

- huCD123-6Gv4.6-CysMab-D5
- huCD123-6Gv4.6-CysMab-D5 + blocking Ab
- huCD123-6Gv4.6-D2
- huCD123-6Gv4.6-D2 + blocking Ab

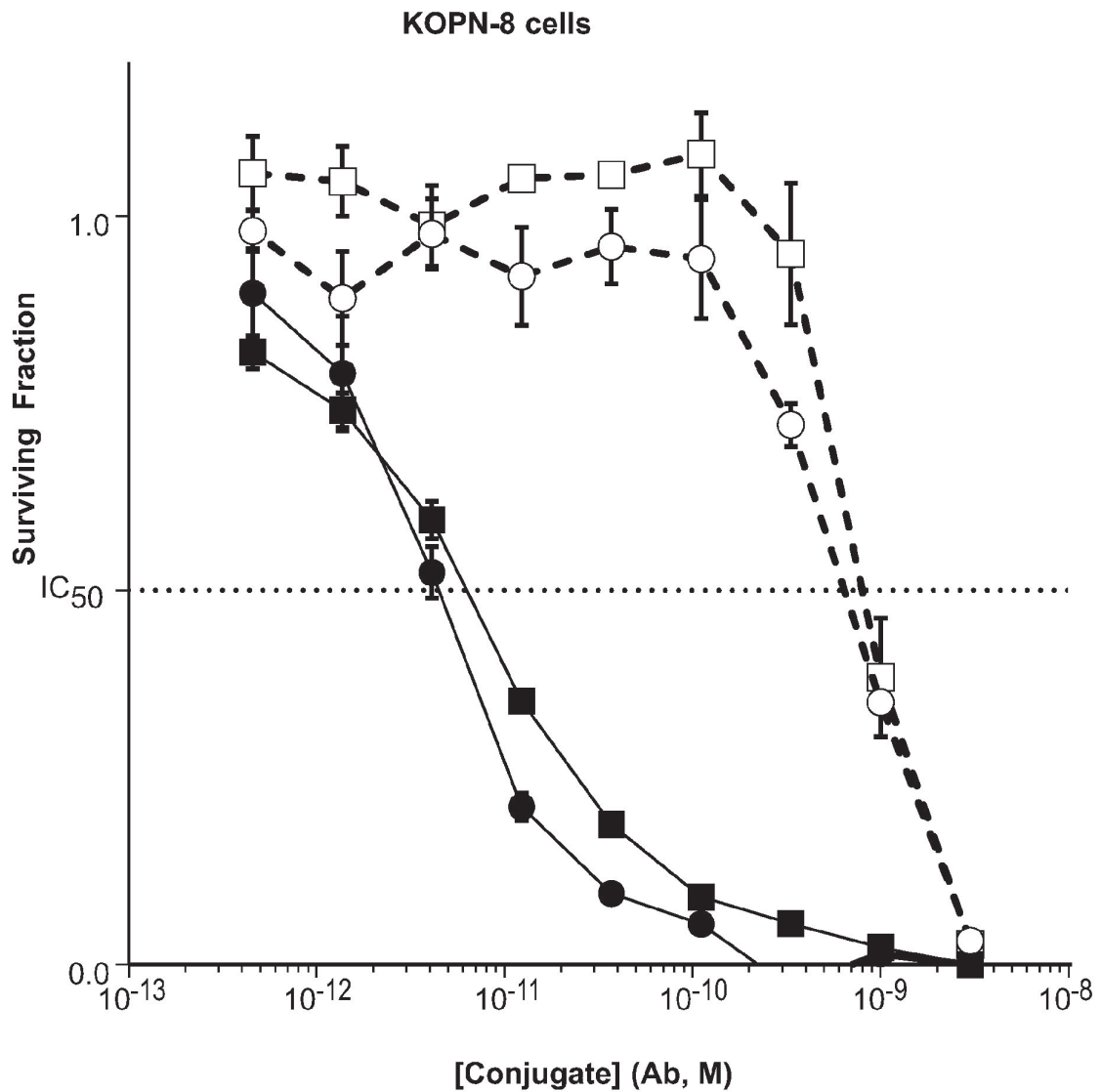


FIG. 13C

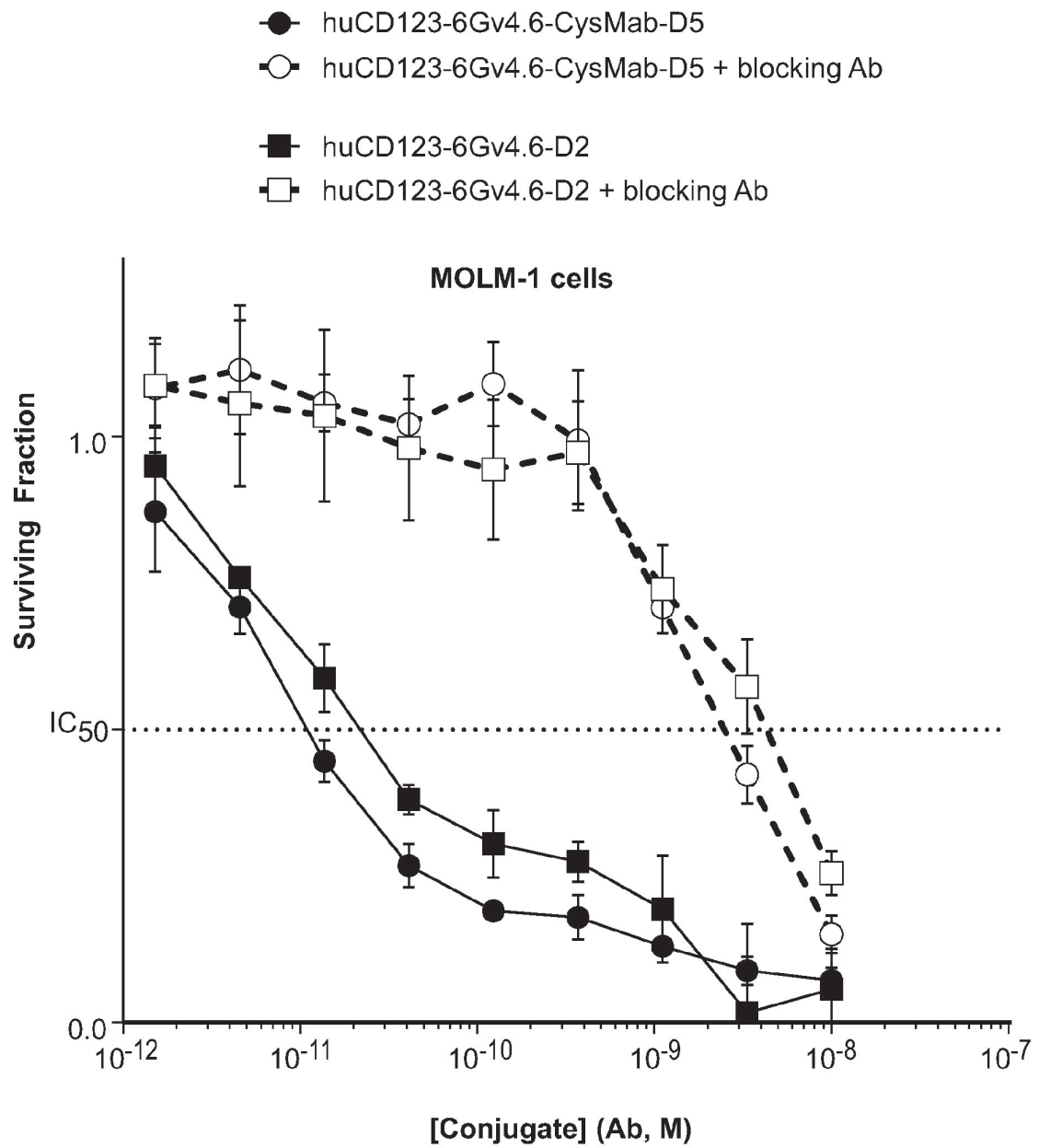


FIG. 14A

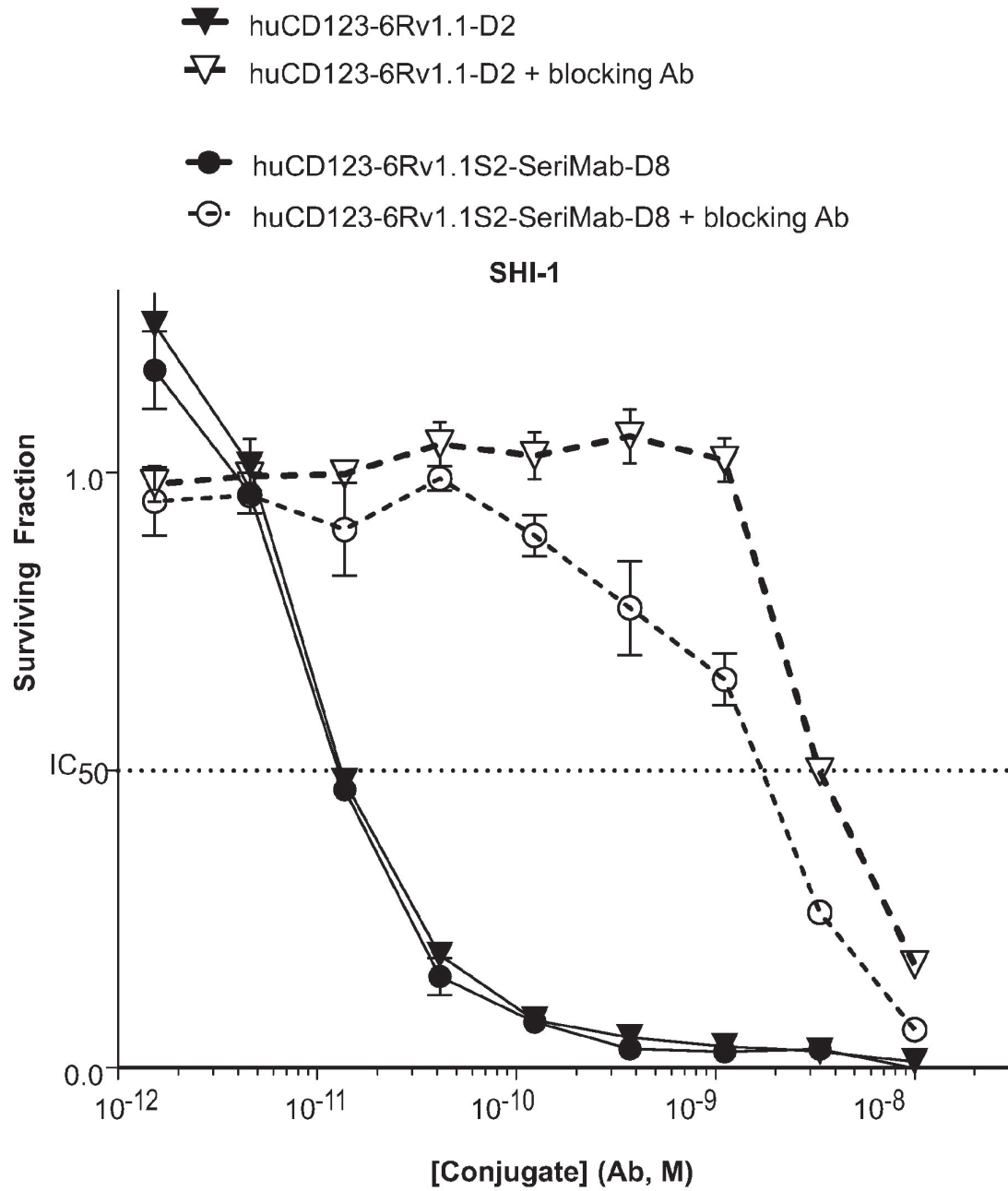


FIG. 14B

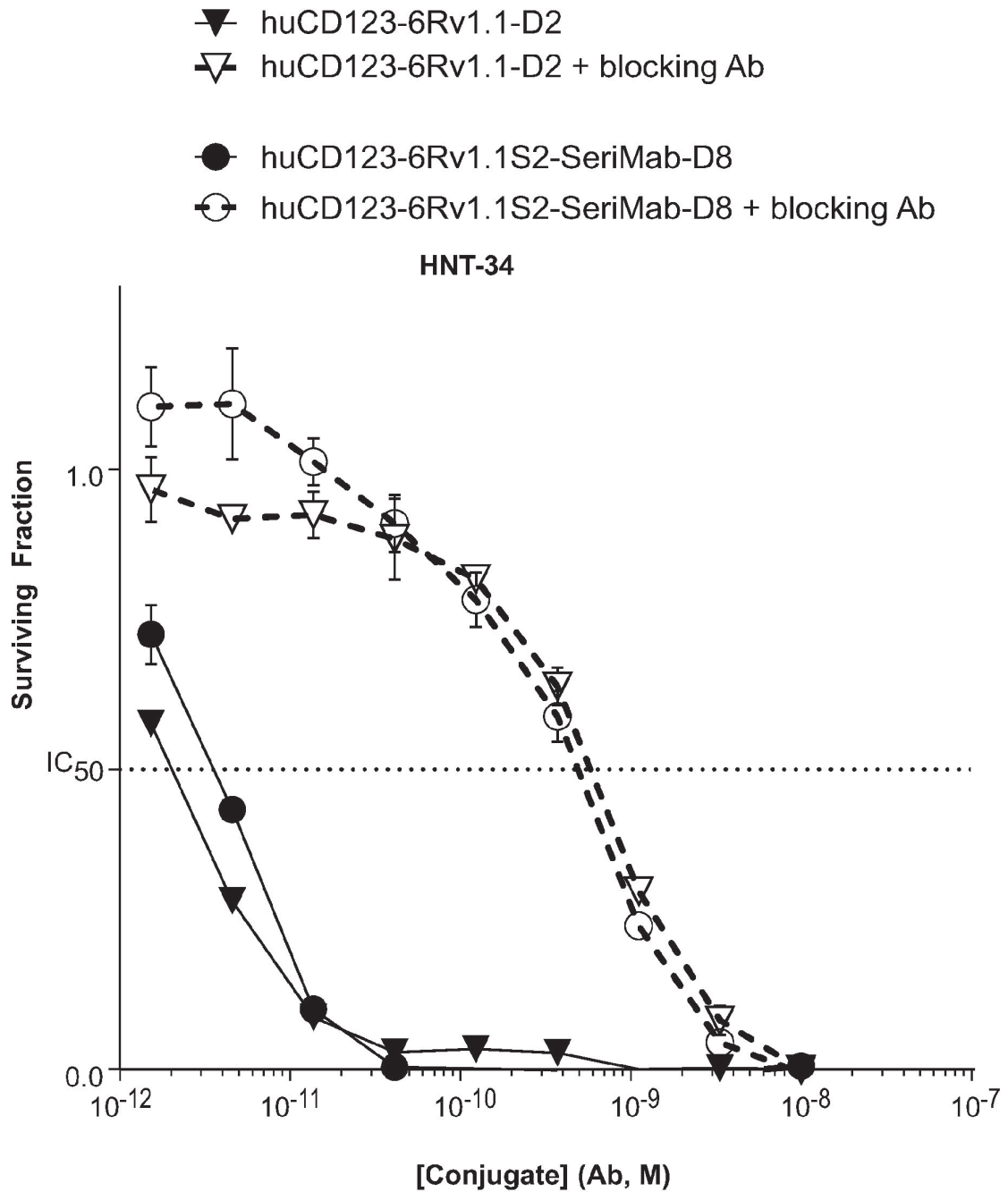
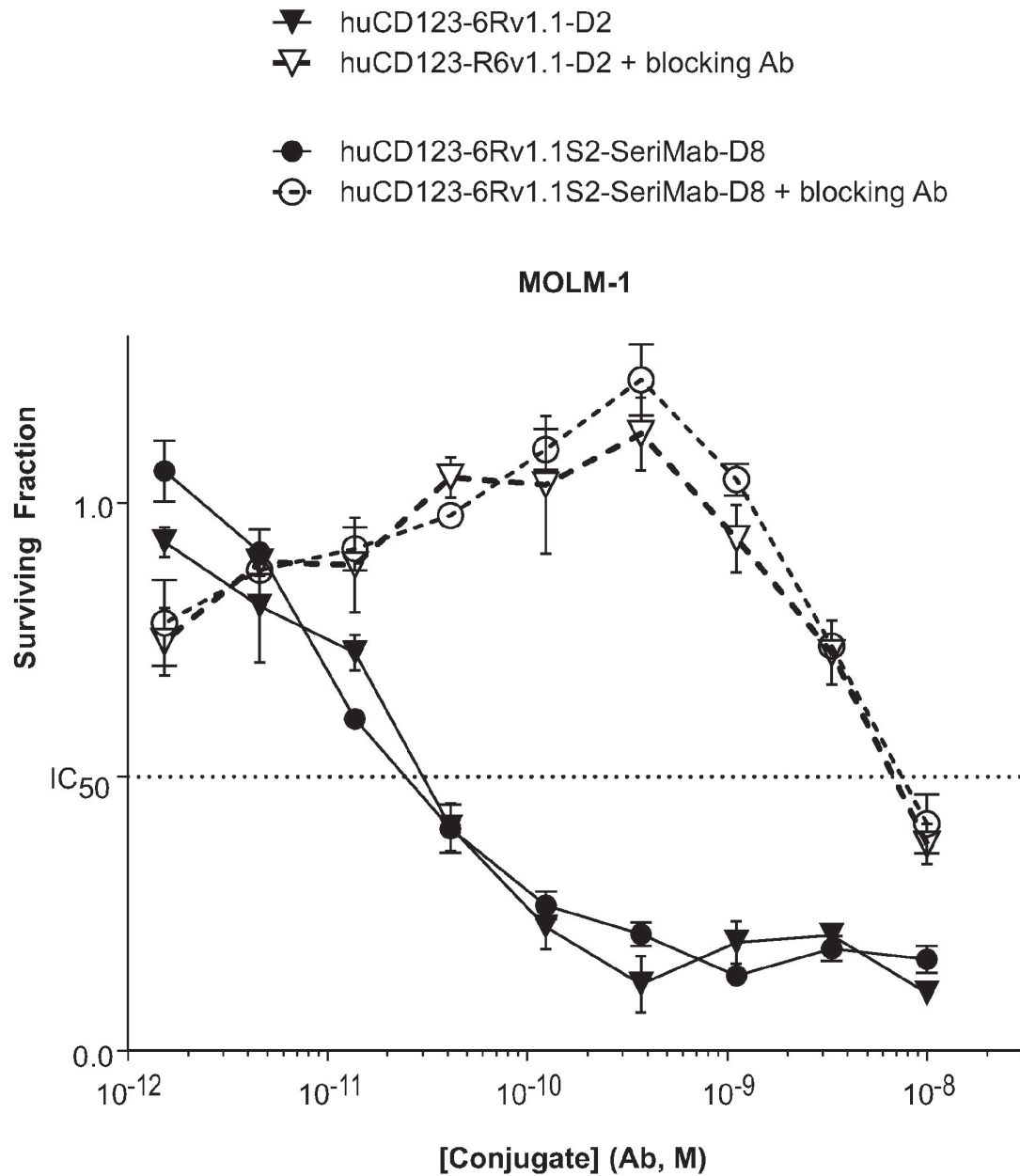


FIG. 14C



Scheme 1

[1] Unoxidized huCD123-6

$\xrightarrow[\text{25}^{\circ}\text{C, 30 minutes}]{\text{NaIO}_4, \text{50 equivalents}}$

[2] oxidized huCD123-6 (glyoxyl)

$\xrightarrow[\text{10 mM 4-Aminophenethyl alcohol, 10% v/v DMA}]{\text{NaOAc pH 5, 37}^{\circ}\text{C, 24 hr}}$ **[3]**

[4] Intermediate 1

$\xrightarrow[\text{25}^{\circ}\text{C, 6 hr}]{\text{[5] sDGN462, HEPES pH 8.5, 10% v/v DMA}}$

[6] huCD123-6-serimab-sDGN462

[3] Linker 1

[5]

sulfonated DGN462 or sDGN462

36/54

FIG. 16

Scheme 2

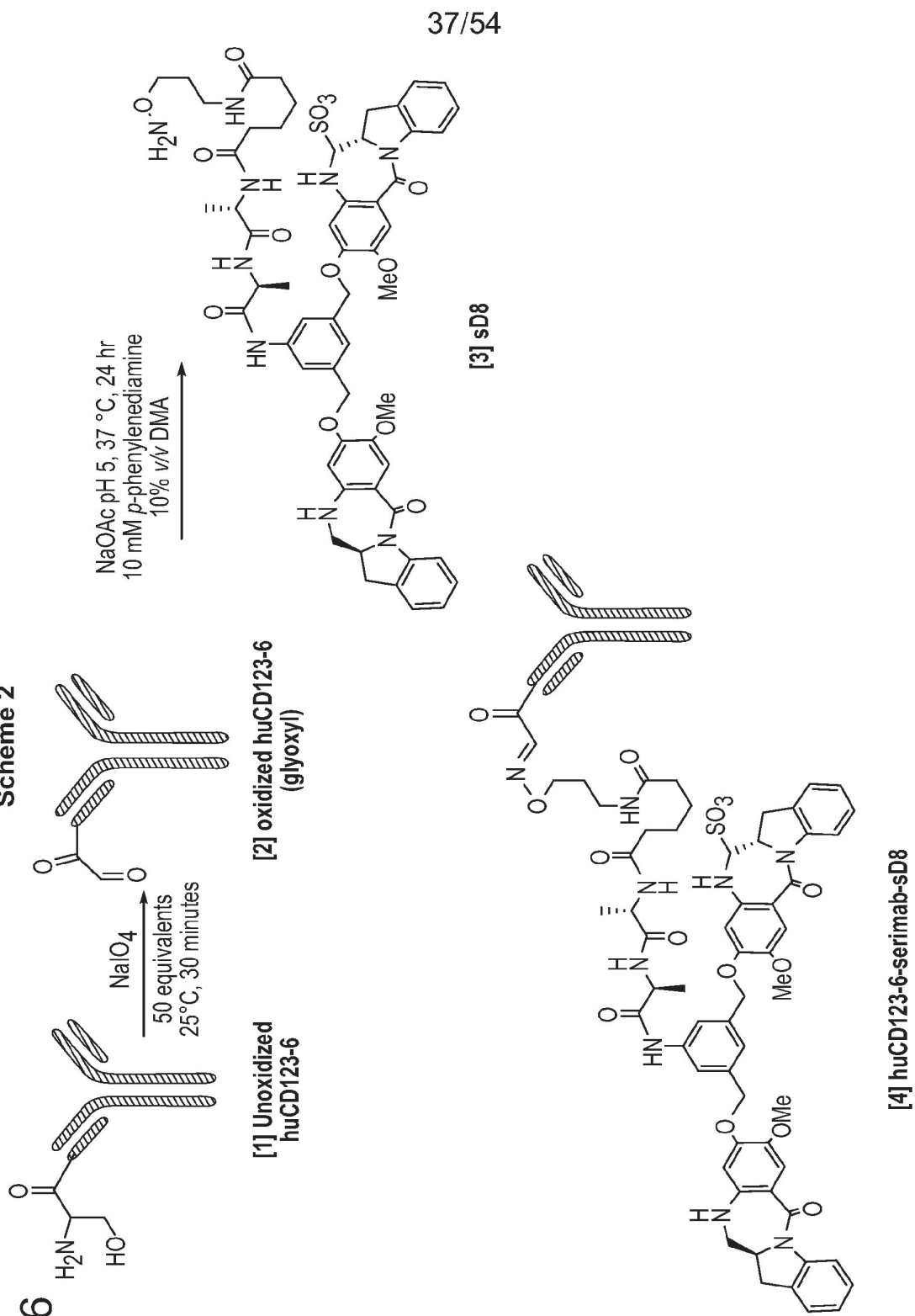


FIG. 17

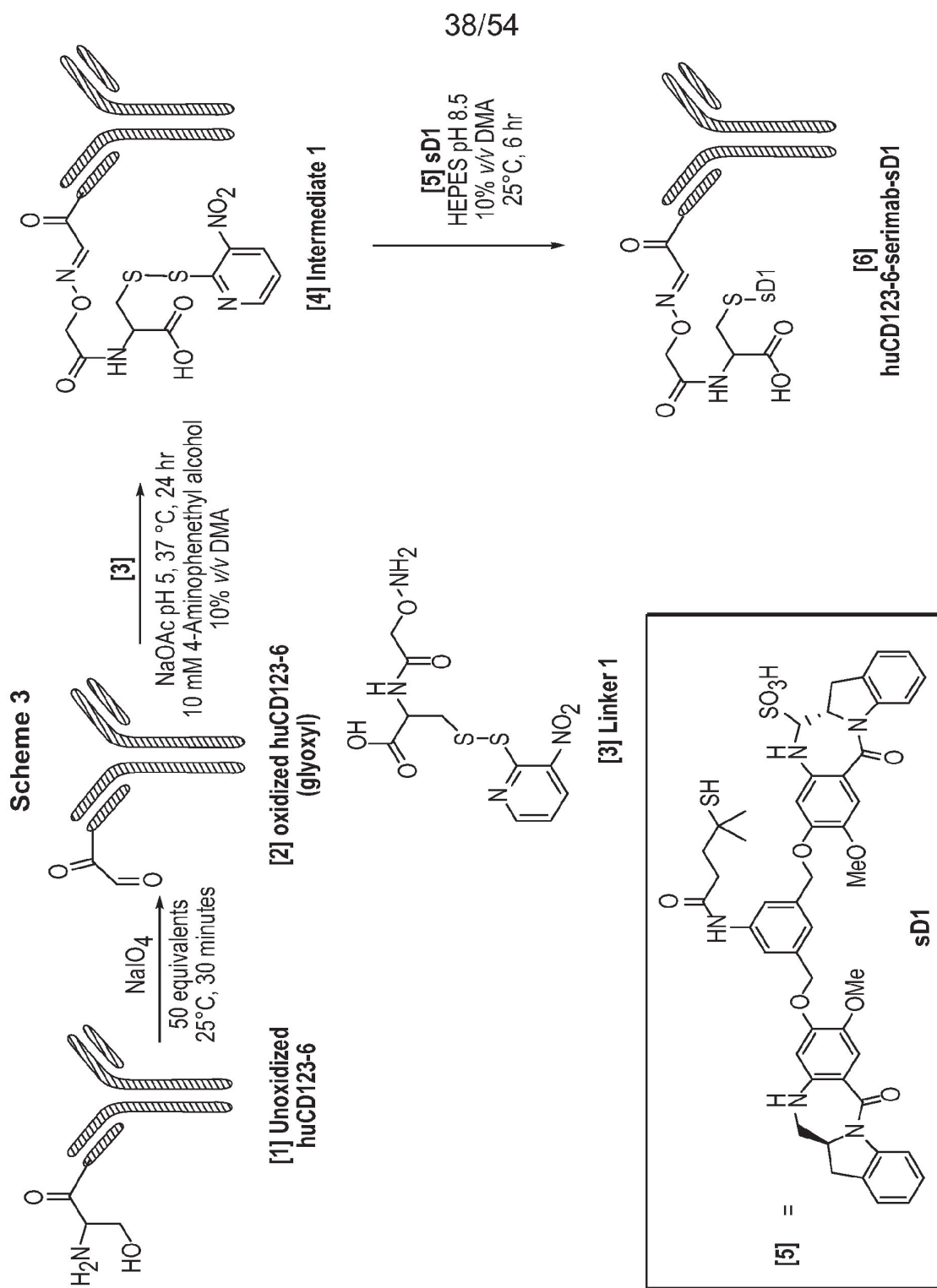


FIG. 18

Treatment Status	MDR status	CD33 ABC	CD123 ABC
Pre Treatment	neg	11,391	8,930
Pre Treatment	NT	4,320	2,000
Pre Treatment	pos	740	3,800
Pre Treatment	pos	3,500	4,200
Pre Treatment	neg	1,000	4,600
Pre Treatment	neg	6,111	1,360
Pre Treatment	pos	700	1,000
Pre Treatment	neg	10,500	2,600
Pre Treatment	pos	20,820	2,174
Pre Treatment	neg	10,513	16,118
Pre Treatment	pos	640	3,400
Refractory	pos	600	1,400
Relapsed	neg	28,907	6,793
Relapsed/Refractory	pos	28,782	2,252
Relapsed/Refractory	pos	9,268	11,132
Median		6,111	3,400

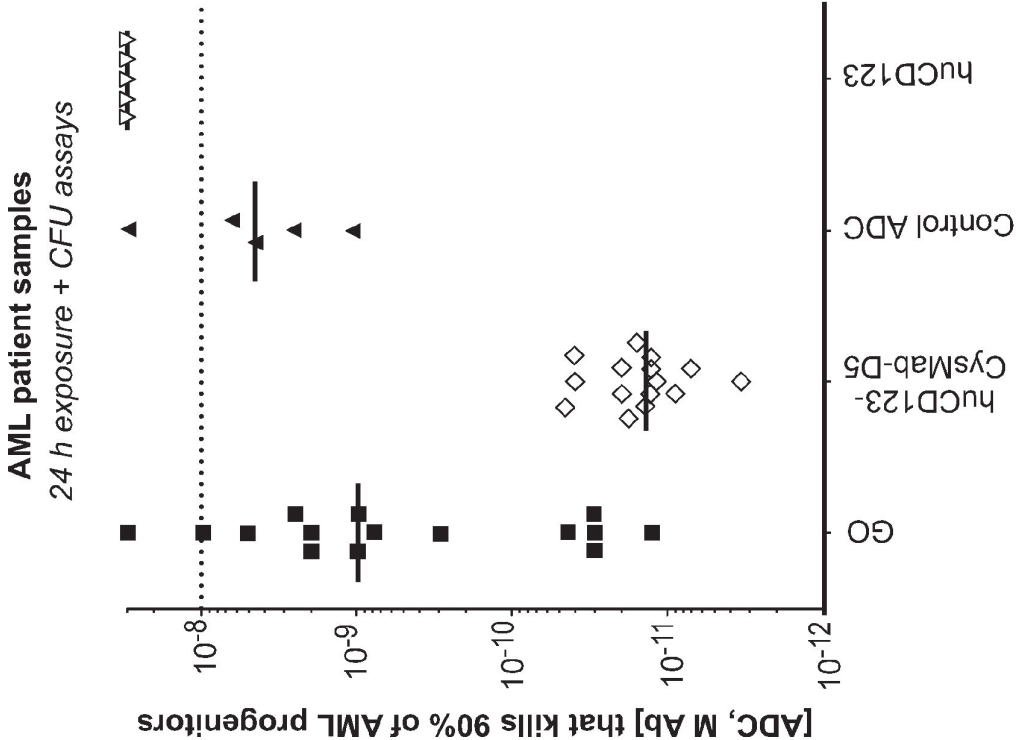


FIG. 19

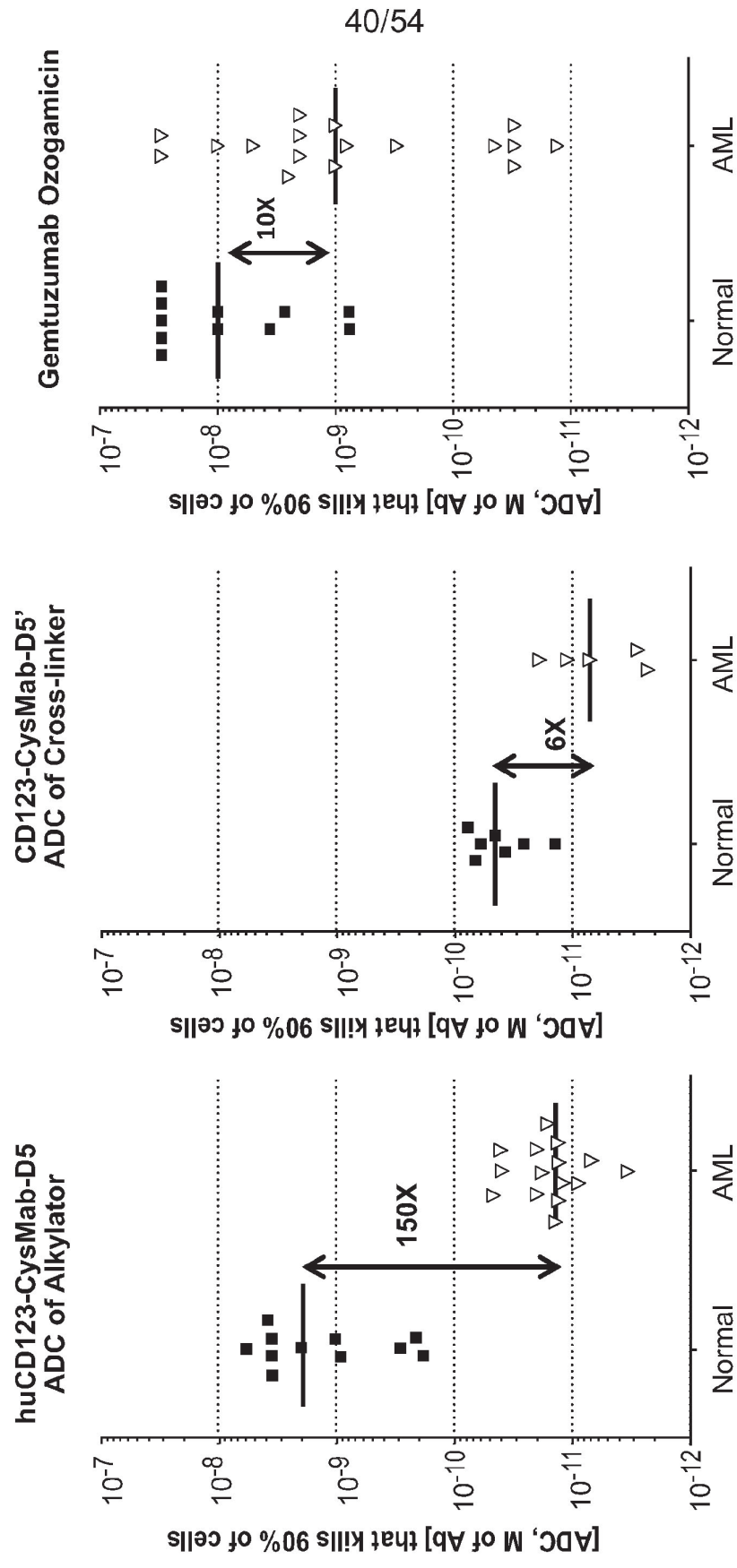
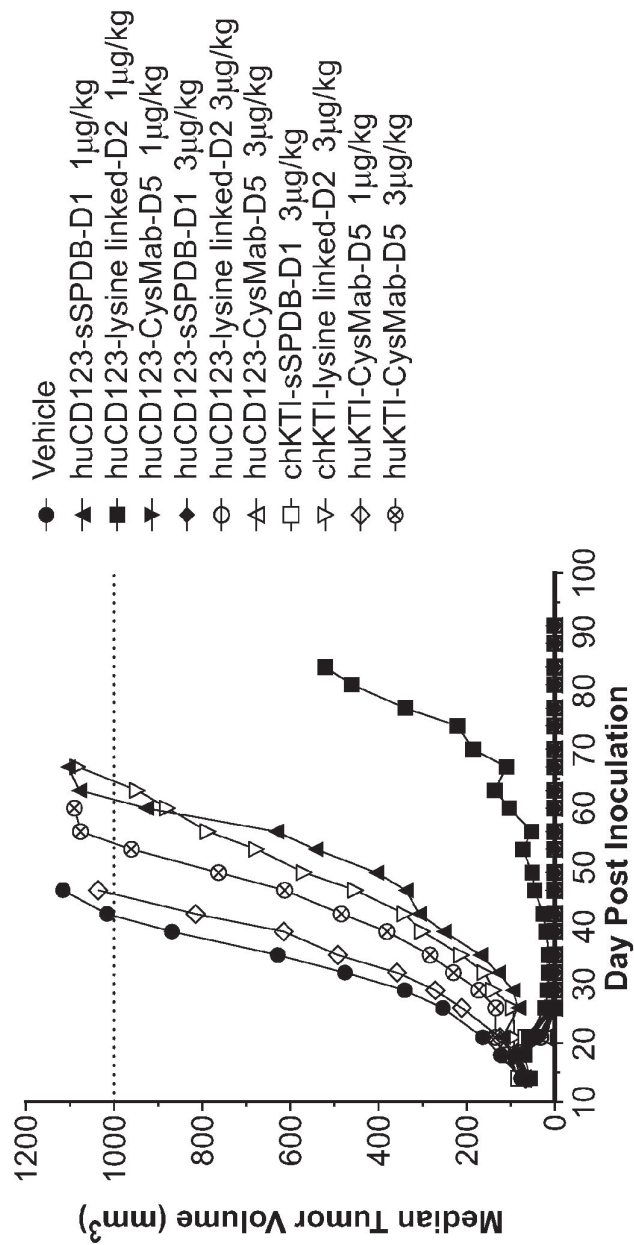


FIG. 20



Treatment Group	T/C	PR	CR
Vehicle	-	0/6	0/6
huCD123-sSPDB-D1 (1 µg/kg)	30%	0/6	0/6
huCD123-lysine linked-D2 (1 µg/kg)	3%	4/6	3/6
huCD123-CysMab-D5 (1 µg/kg)	0%	6/6	5/6
huCD123-sSPDB-D1 (3 µg/kg)	0%	6/6	6/6
huCD123-lysine linked-D2 (3 µg/kg)	0%	6/6	6/6
huCD123-CysMab-D5 (3 µg/kg)	0%	6/6	6/6
chKTI-sSPDB-D1 (3 µg/kg)	0%	6/6	6/6
chKTI-lysine linked-D2 (3 µg/kg)	34%	1/6	1/6
huKTI-CysMab-D5 (1 µg/kg)	80%	0/6	0/6
huKTI-CysMab-D5 (3 µg/kg)	48%	1/6	1/6

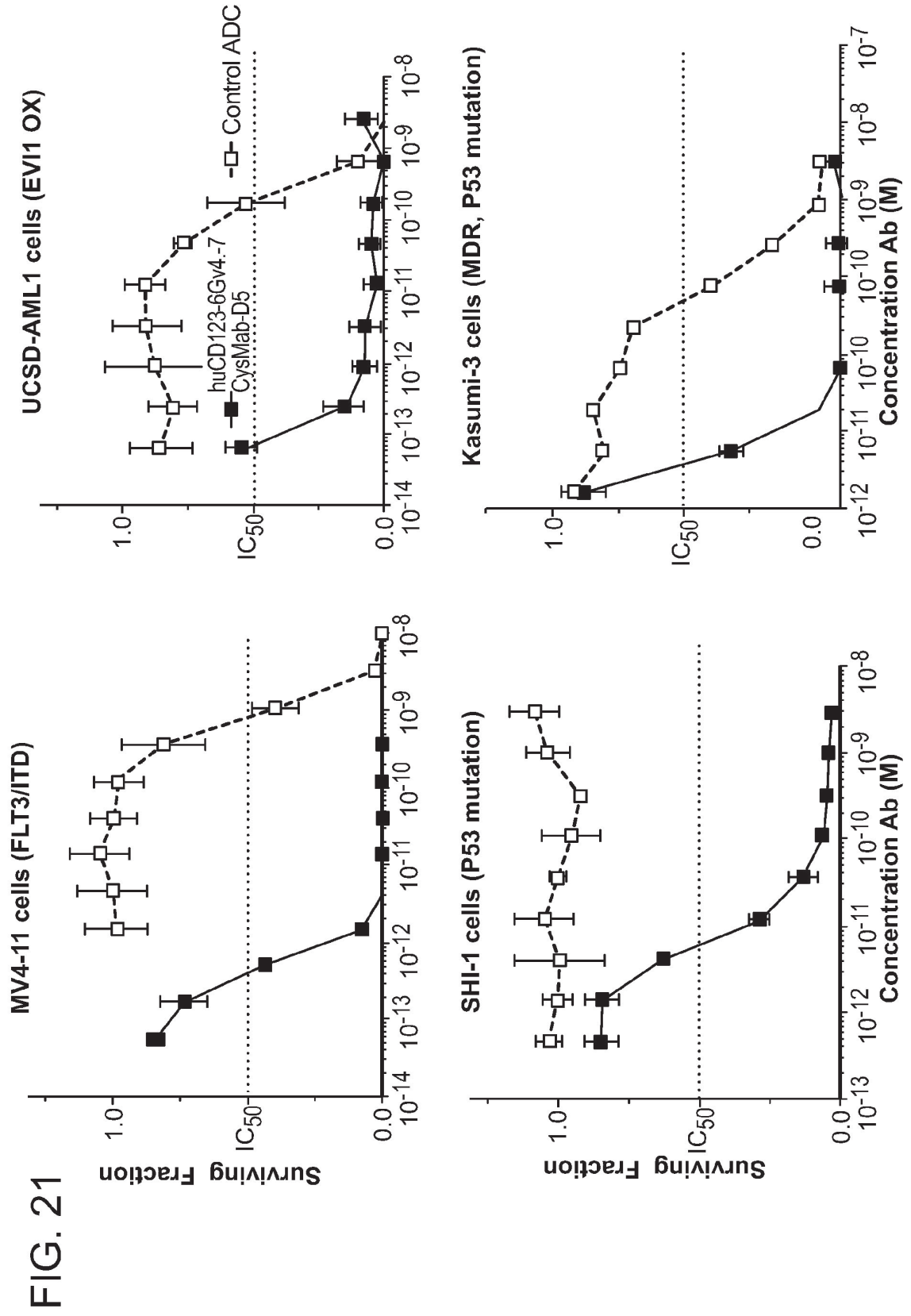


FIG. 22

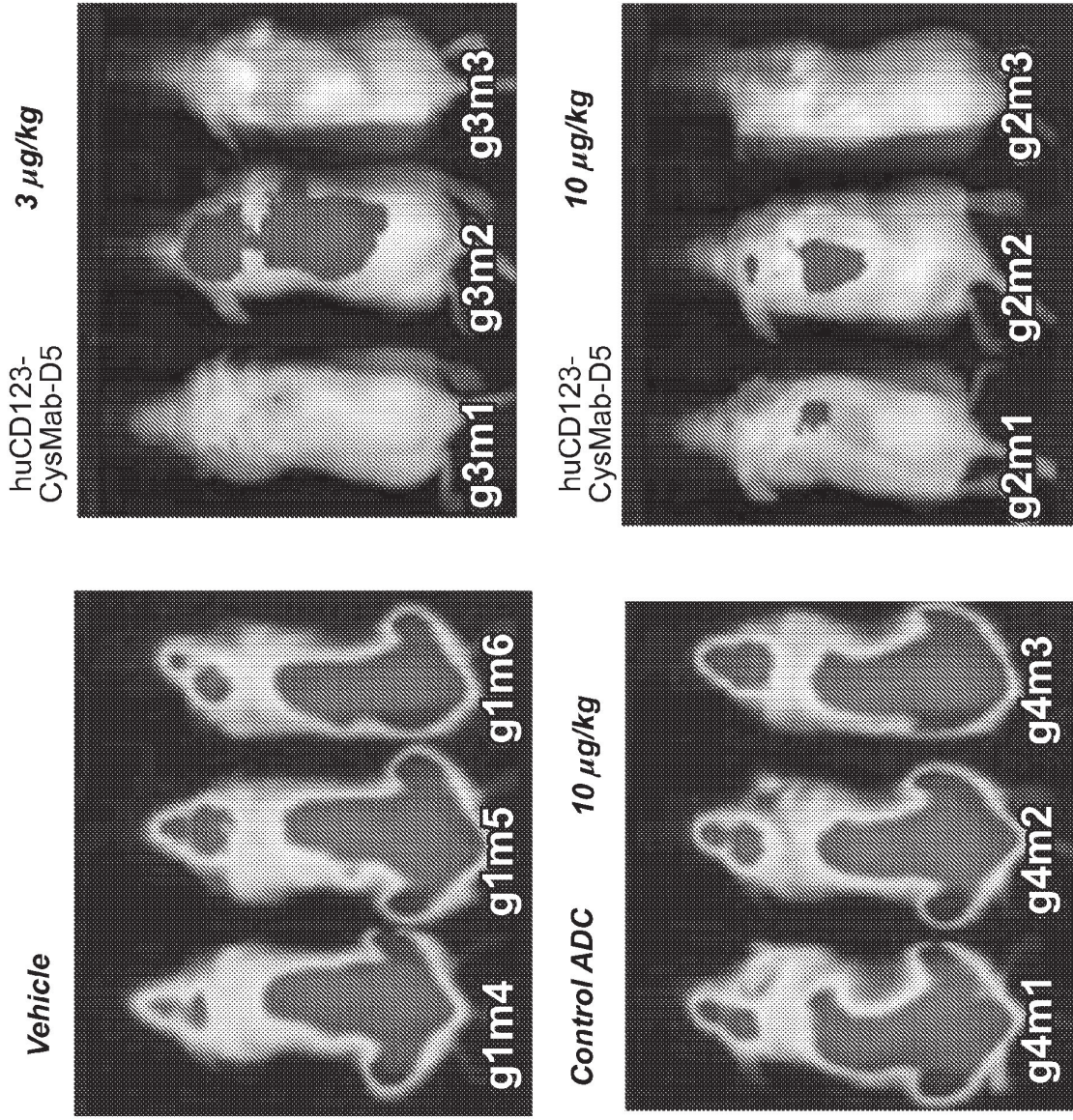


FIG. 23

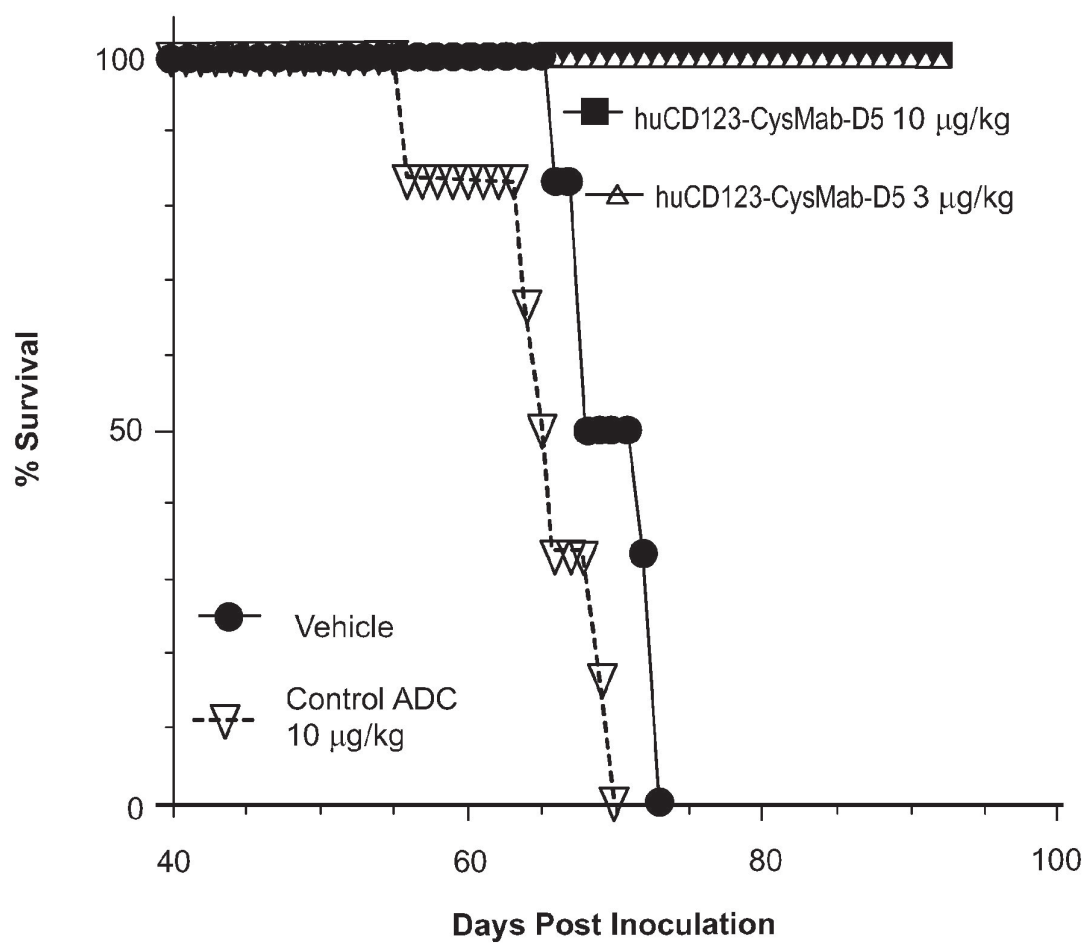


FIG. 24

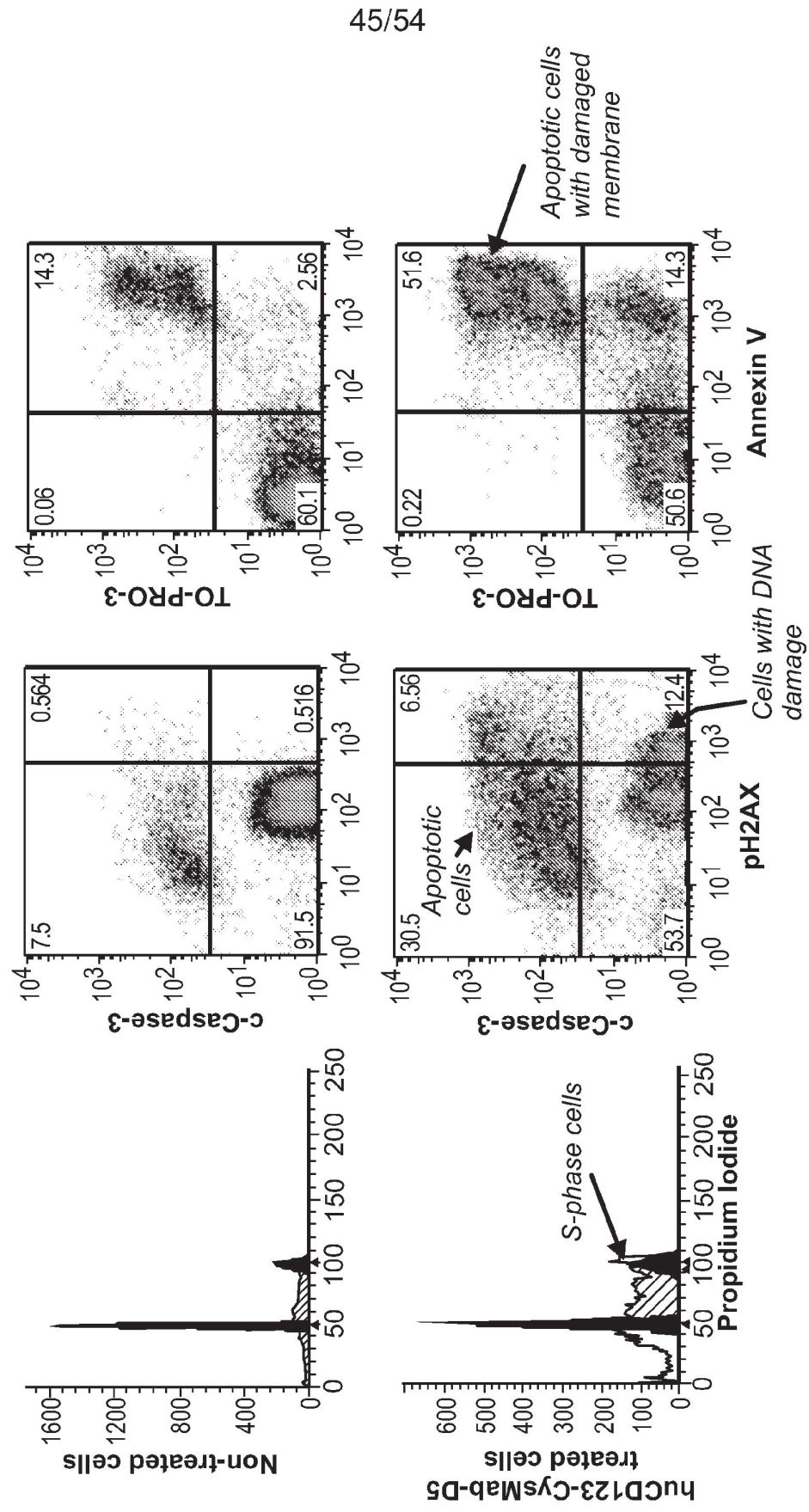


FIG. 25

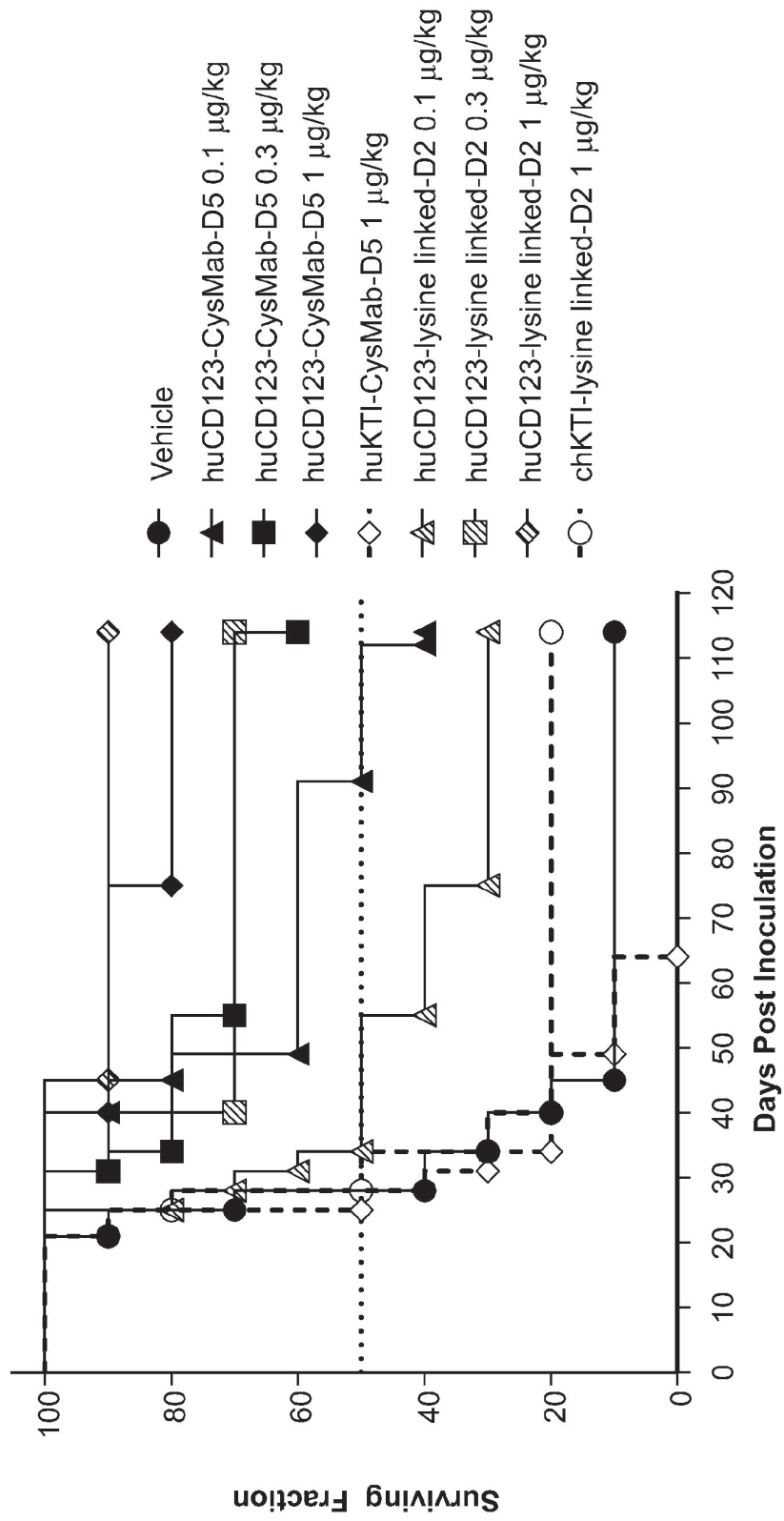


FIG. 26

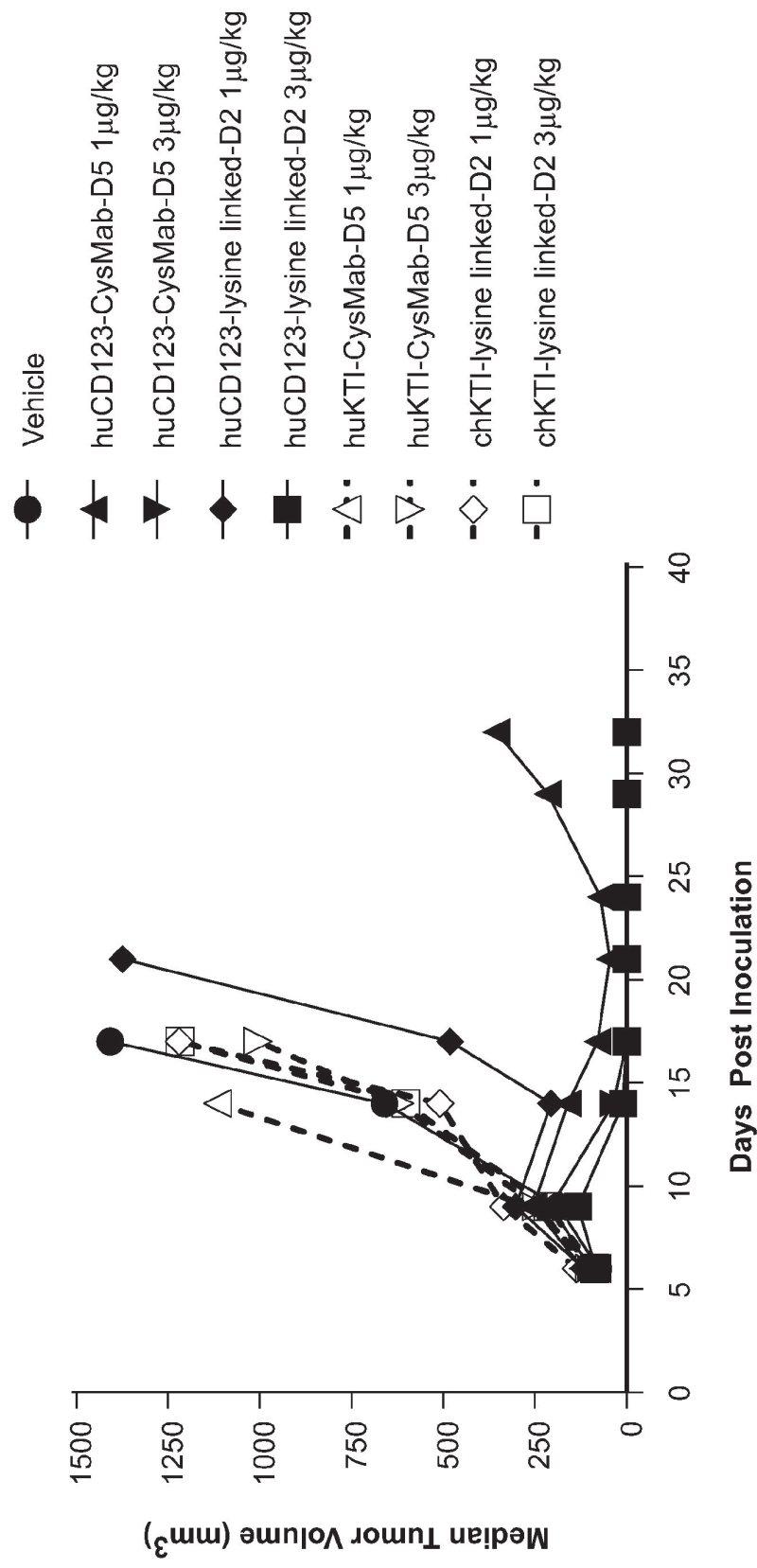
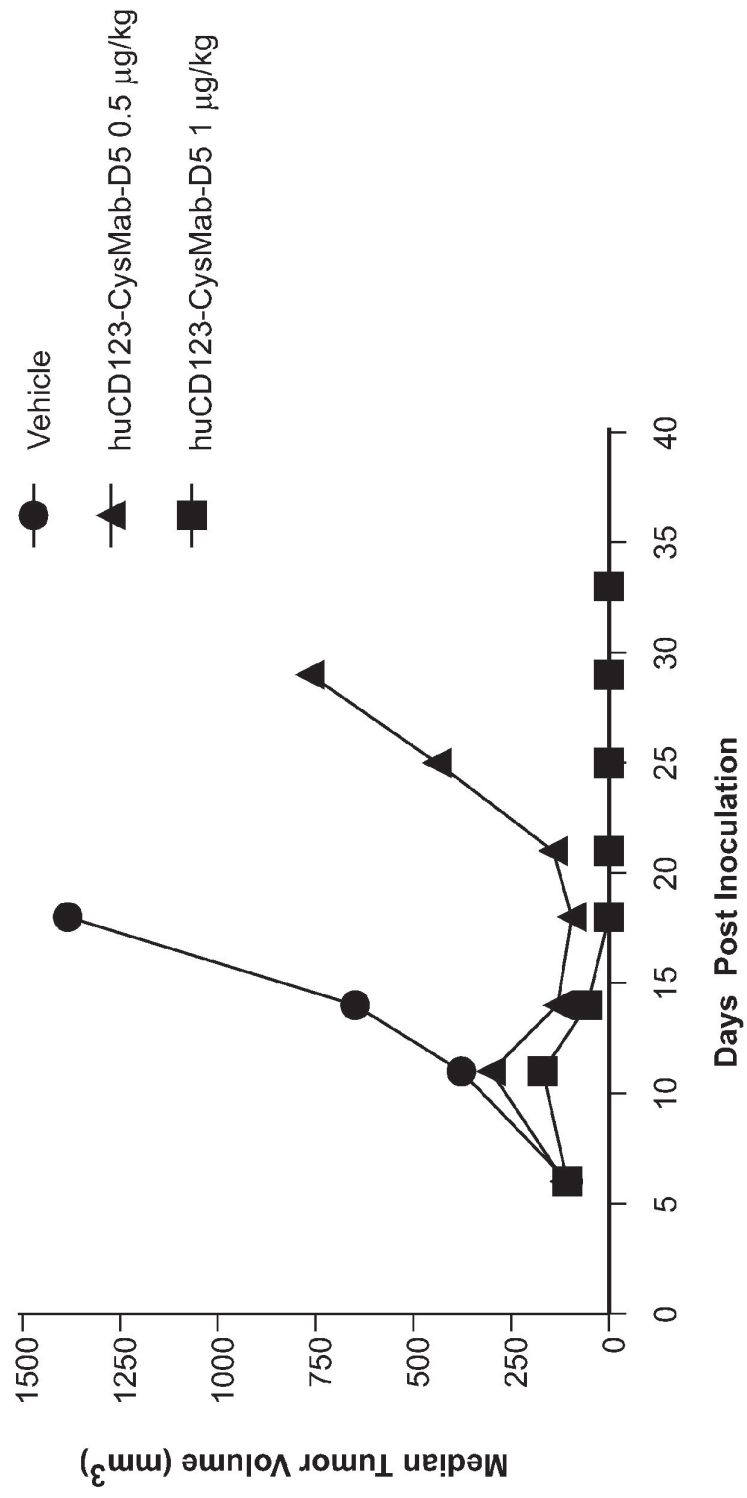


FIG. 27



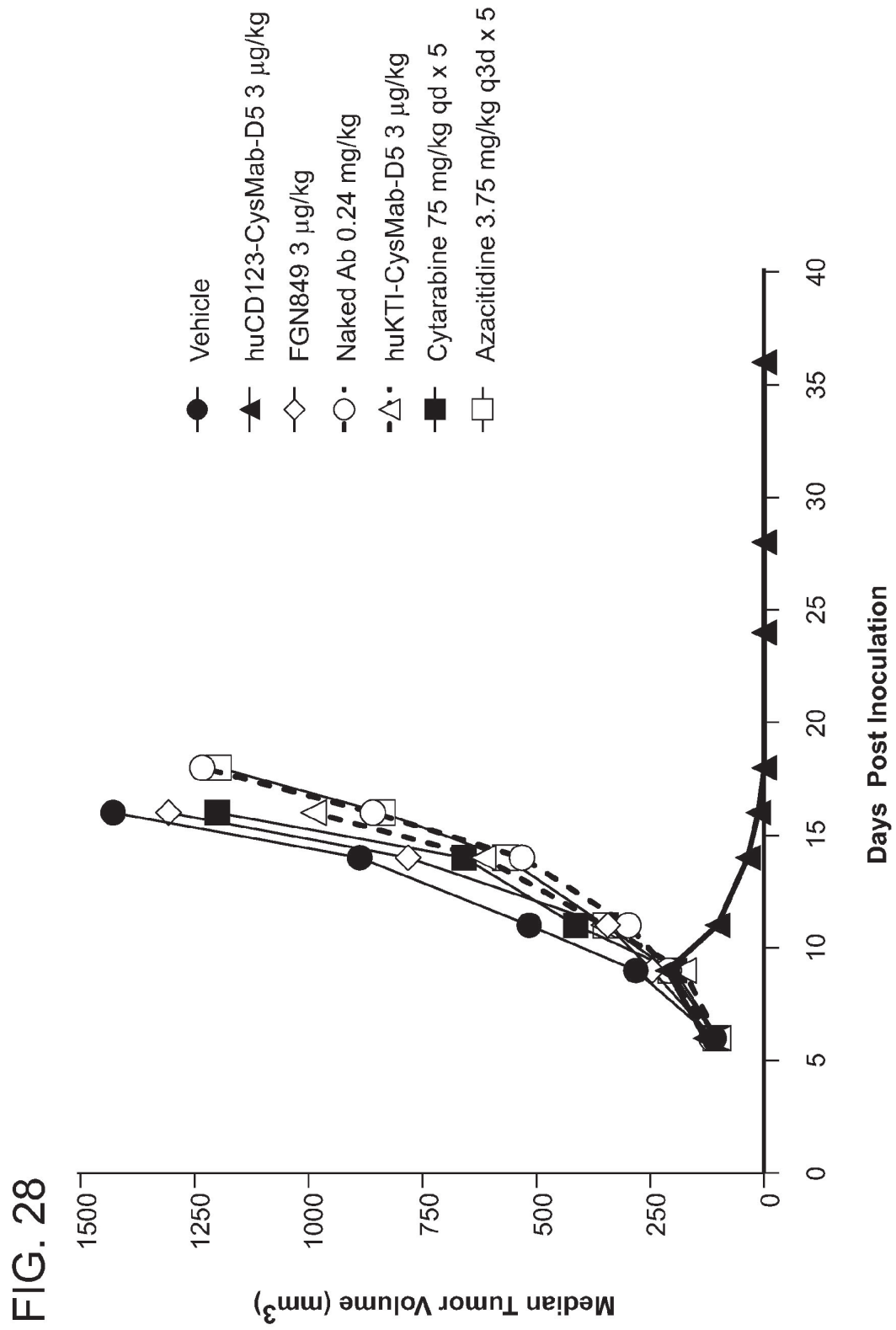


FIG. 29

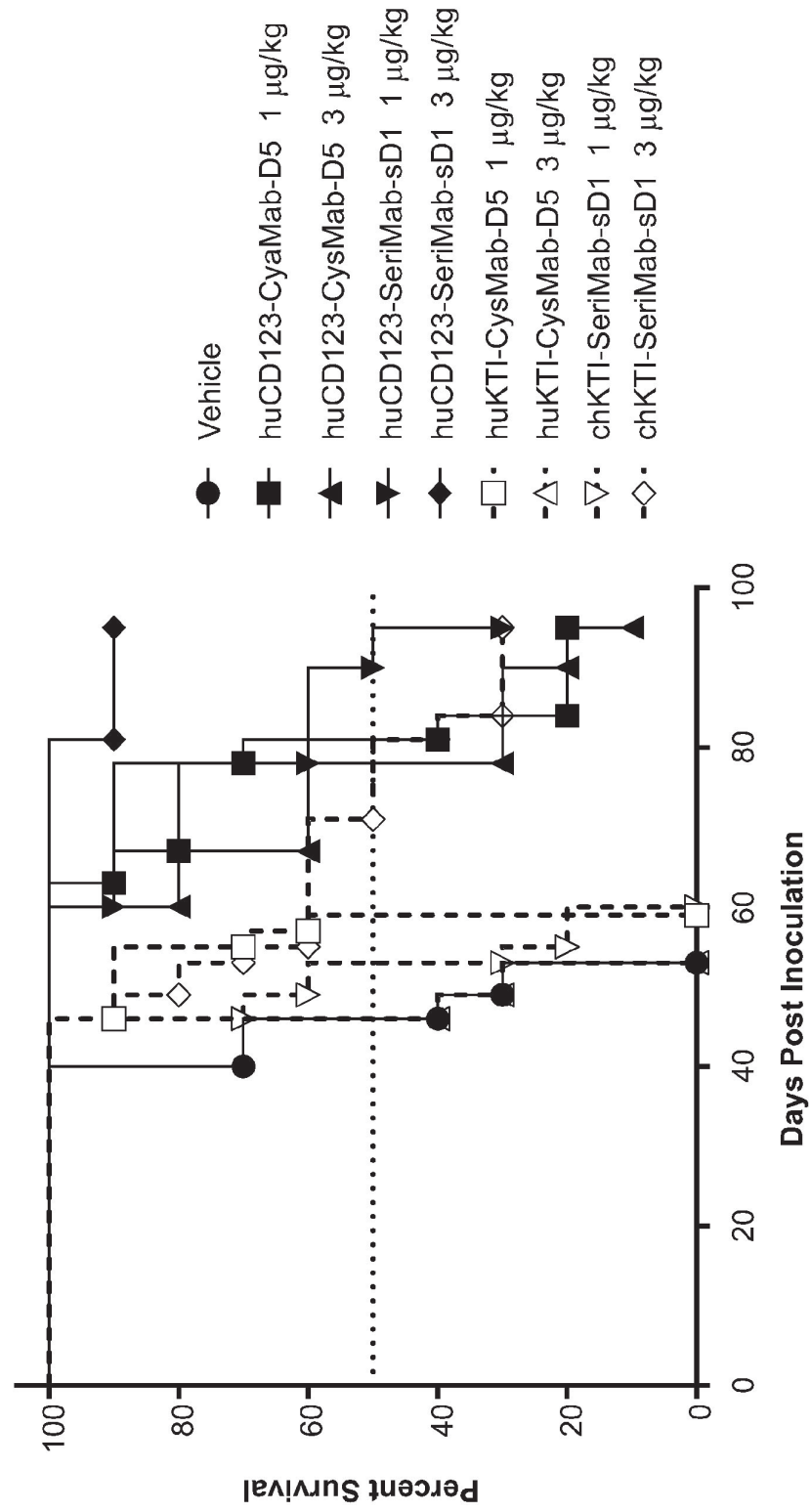
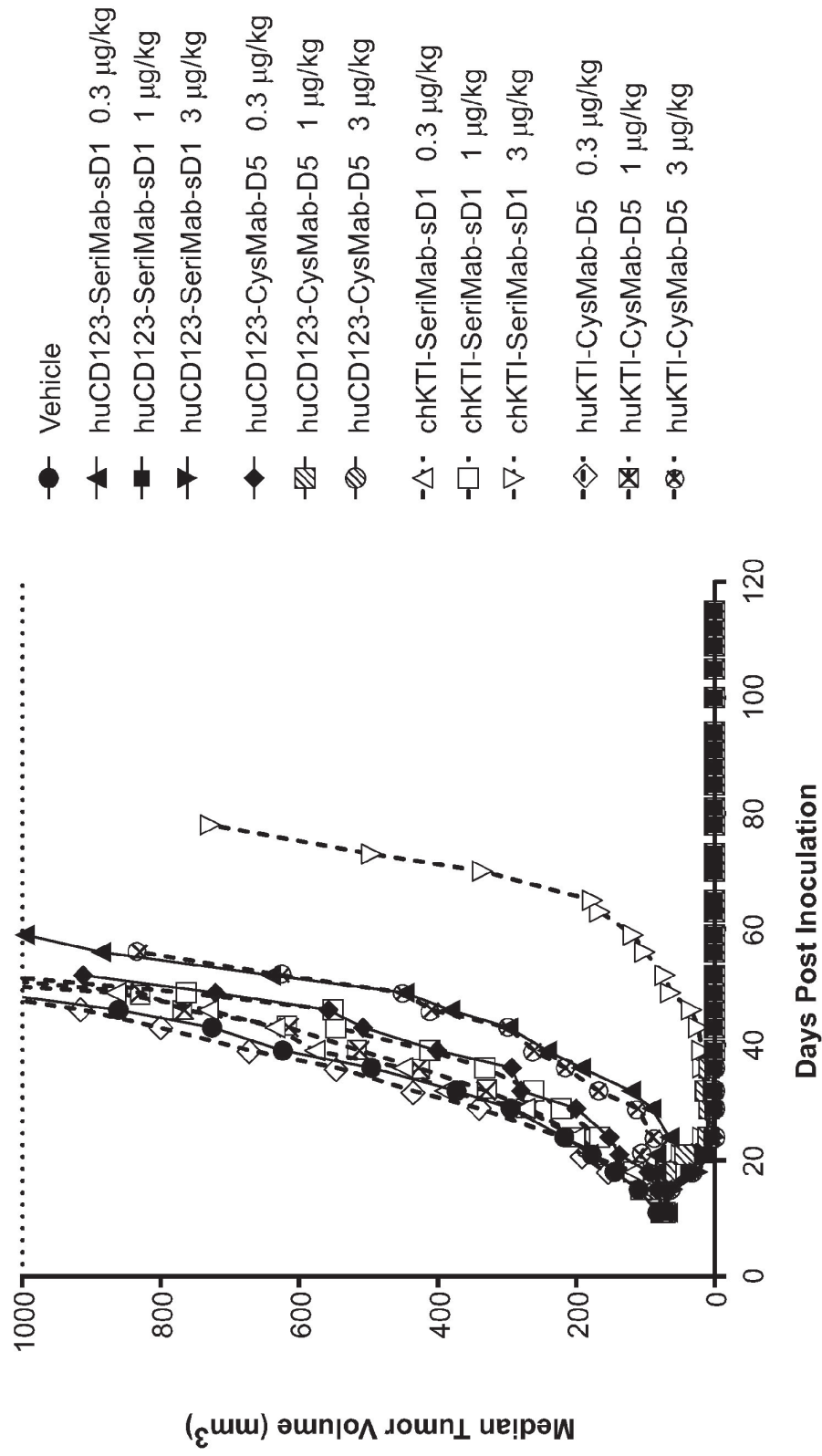


FIG. 30



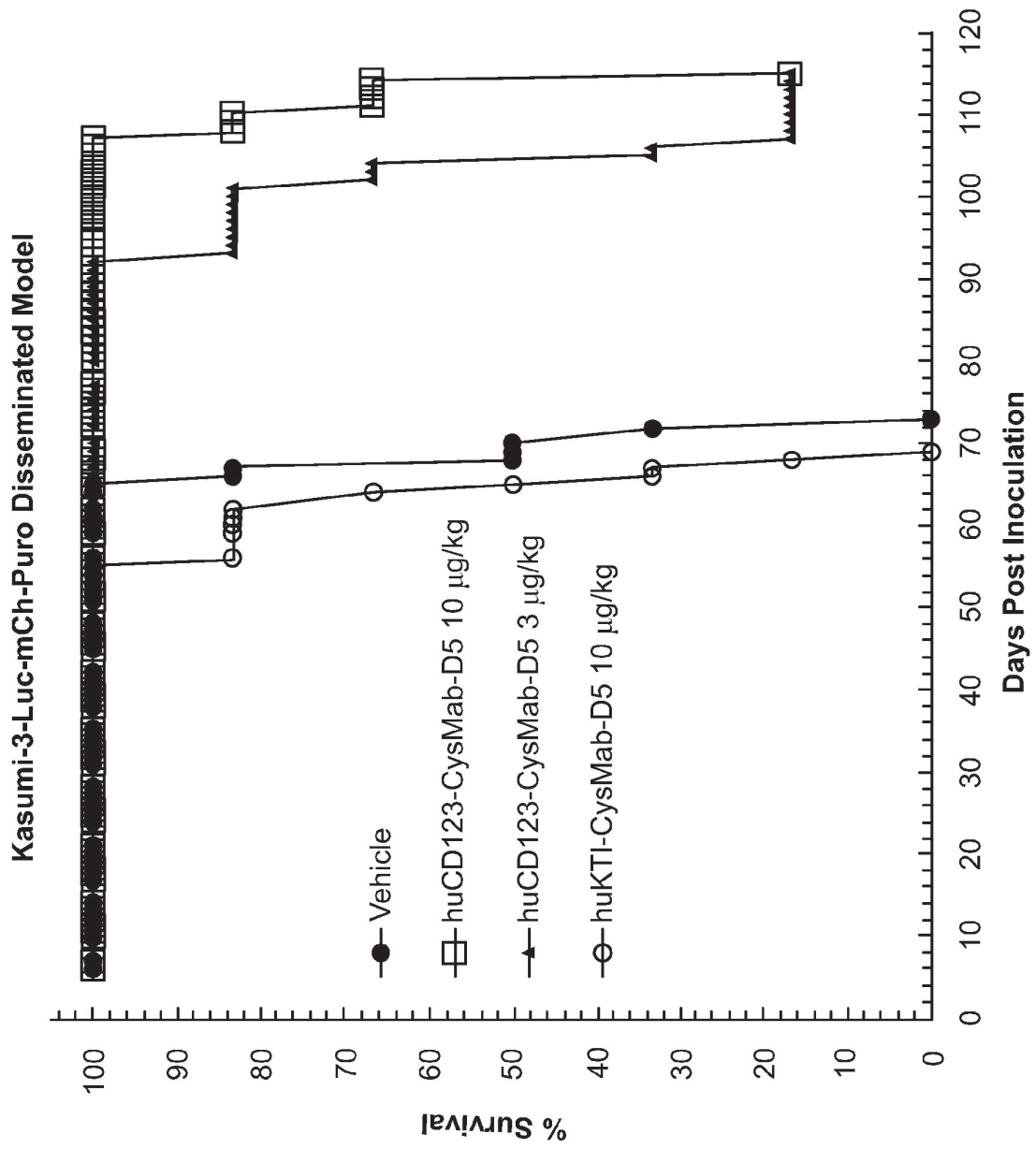


FIG. 31

FIG. 32

