

FIG. 1A

Amino acid sequence of wild type IL-21
QGQDRHMIRMRLDIVDQLKNYVNDLVPEFLPAPEDVETNCEWSAFSCFQKAQLKSANTGNNERIINVSIIKLLKRKPPSTNAGRQ
KHRLTCPSCDSYEKKPPKEFLERFKSLQKMIHQHLSSRTHGSEDS (SEQ ID NO: 1)

FIG. 1B

Amino acid sequence of IL-21R
CPDLVCYTDYLQTVICILEMWNLHPSTLTLTWQDQYEELKDEATCSLHRSAHNATHATYTCHMDV/FHFMADDIFSUNITDQSGNYS
QECGSFLLAESIKPAPPFNVTVTFSGQYNISWRSDYEDPAFYMLKGKLQYELQYRNRGDPWAVSPRRKLISVDSRSVSLPLEFRKDSY
ELQVRAGMPGSSYQGTWSEWSDPVIFQTQSEELKEGWNPHLLLLLLLV/FIPAFWSLKTHTPLWRLWKI/WAVSPERFFMPLYKG
CSGDFKKVWGAPFTGSSLELGPWSPVPSTLEVYSCHPPRSPAKRLQTELQEPAEIVESDGVKPSFWPTAQNSGG SAYSEERDRPY
GLVSDT VTVLDAEGPCTWPCSCEDDGYPALDLDAGLEPSPGLEDLLDAGTTVLSGCVSAGSPGLGGPLGSLLDRLKPPLADGED
WAGGLPWGGRSPGGVSESEAGSPLAGLDMDTFDSGFVGSDCSSPVECDFTSPGDEGPPRSYLRQWVV/IPPPLSSPGPQAS (SEQ
ID NO: 381)

FIG. 1C

Amino acid sequence of gamma common receptor
LNTTILTPNGNEDTTADFFLTTPPTDLSVSTLPLPEVQCFFVFNVEYMNCTWNSSEPPQPTNLTLHYWYKNSDNDKVQKCSHYLFSEE
ITSGCQLQKKEIHLYQTFVVLQDPPRPRRQATQMLKQLNLVIPWAPENLT LHKLSESQL ELNWNFLNHCLEHLVQYRTDWDHS
WTEQSVDYRHKFSLPSVDGQKRYTFRVRSRFPNLCGSAQHWSEWSHPHWGSNTSKENPFLFAEAVV/SVGSMLIISLVCVFWL
ERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPLYWAPPCYTLKPET
(SEQ ID NO: 382)

Amino acid number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Wild-type residue	Q	G	Q	D	R	H	M	I	R	M	R	Q	L	I	D	I	V	D	Q	L
Mutation position																				
Amino acid number	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Wild-type residue	K	N	Y	V	N	D	L	V	P	E	F	L	P	A	P	E	D	V	E	T
Mutation position																				
Amino acid number	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Wild-type residue	N	C	E	W	S	A	F	S	C	F	Q	K	A	Q	L	K	S	A	N	T
Mutation position																X				
Amino acid number	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Wild-type residue	G	N	N	E	R	I	I	N	V	S	I	K	K	L	K	R	K	P	P	S
Mutation position																				X
Amino acid number	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Wild-type residue	T	N	A	G	R	R	Q	K	H	R	L	T	C	P	S	C	D	S	Y	E
Mutation position	X	X	X	X	X	X	X	X	X	X	X	X								
Amino acid number	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Wild-type residue	K	K	P	P	K	E	F	L	E	R	F	K	S	L	L	Q	K	M	I	H
Mutation position																				
Amino acid number	121	122	123	124	125	126	127	128	129	130	131	132	133							
Wild-type residue	Q	H	L	S	S	R	I	H	G	S	E	D	S							
Mutation position																				

FIG. 2

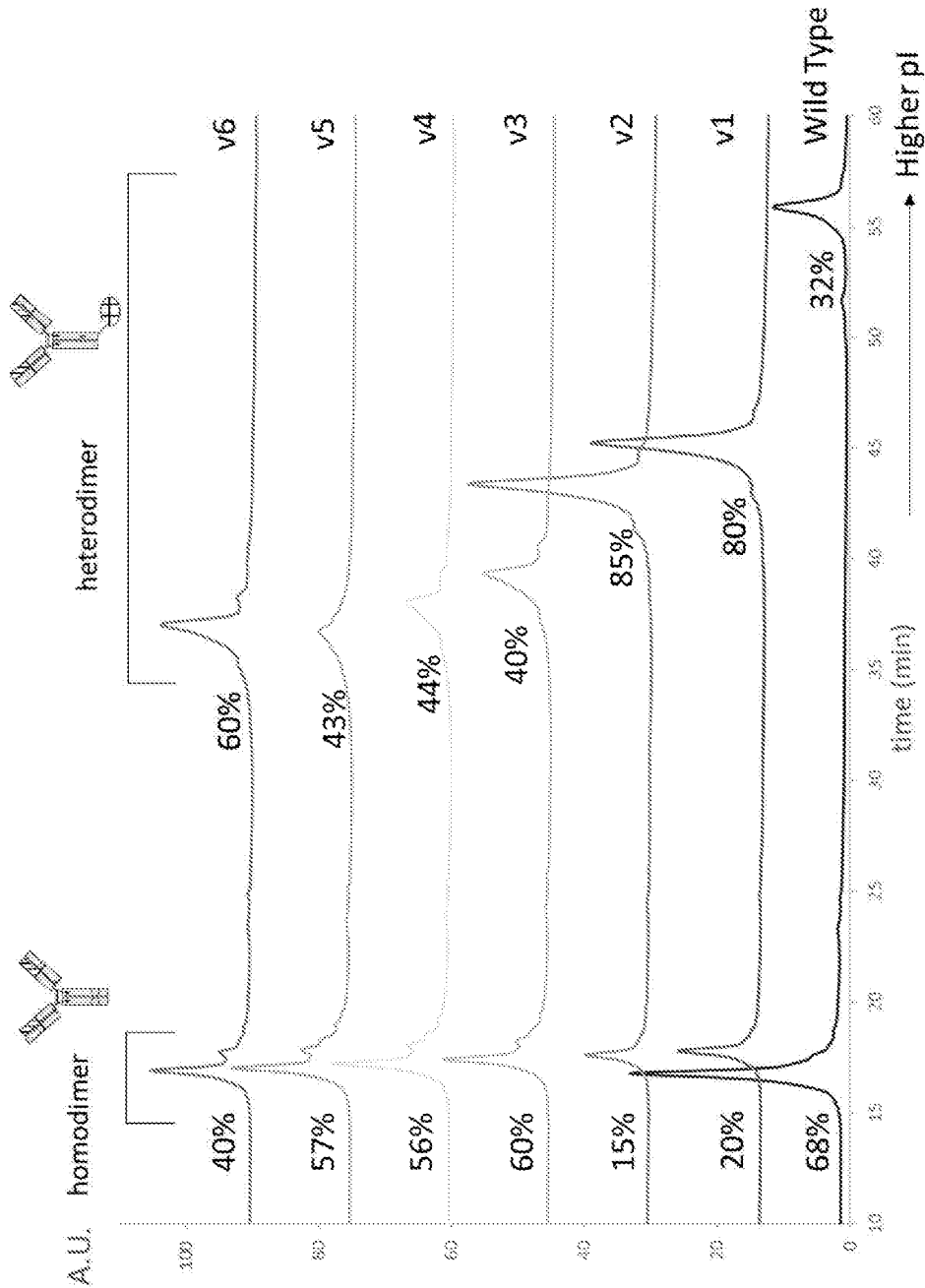


FIG. 3A

FIG. 3C

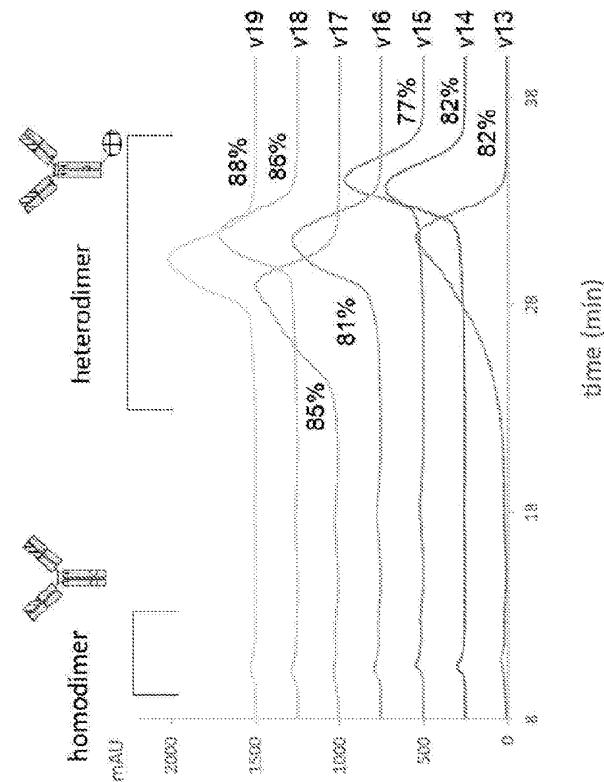


FIG. 3B

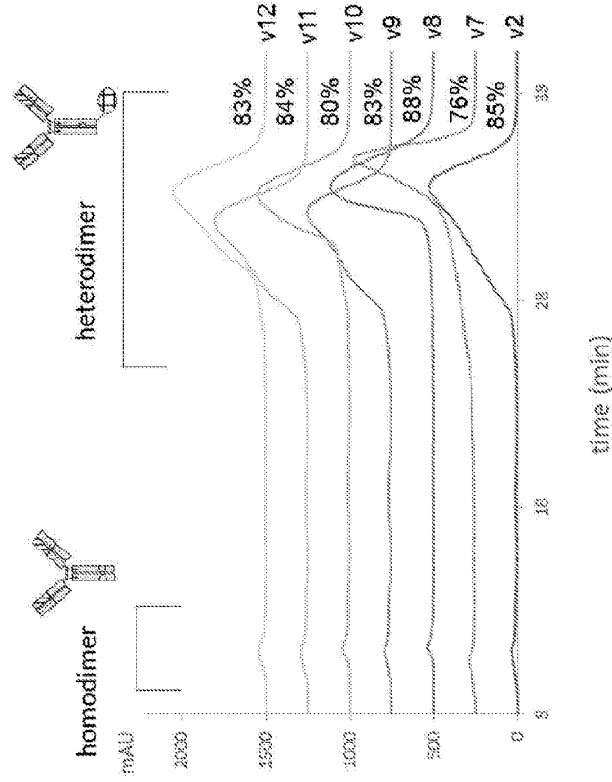


FIG. 3E

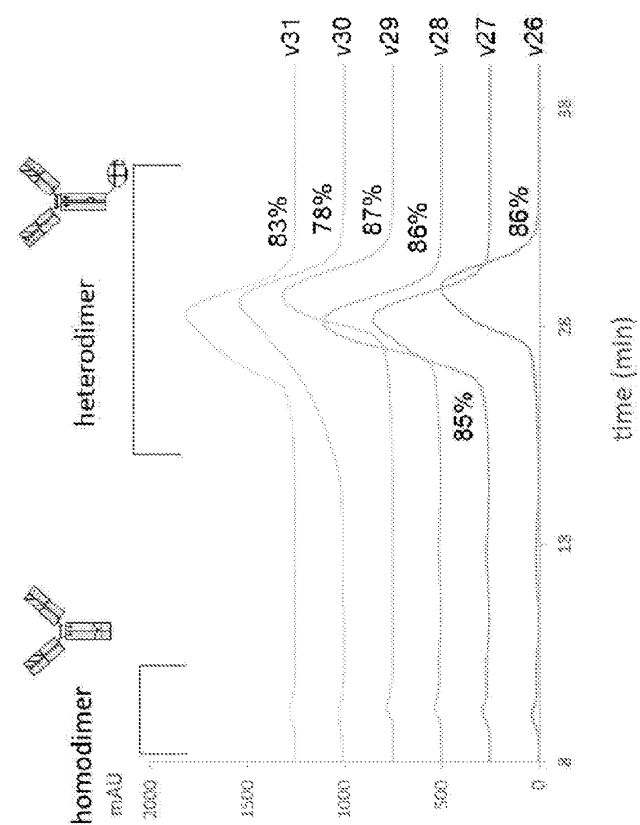


FIG. 3D

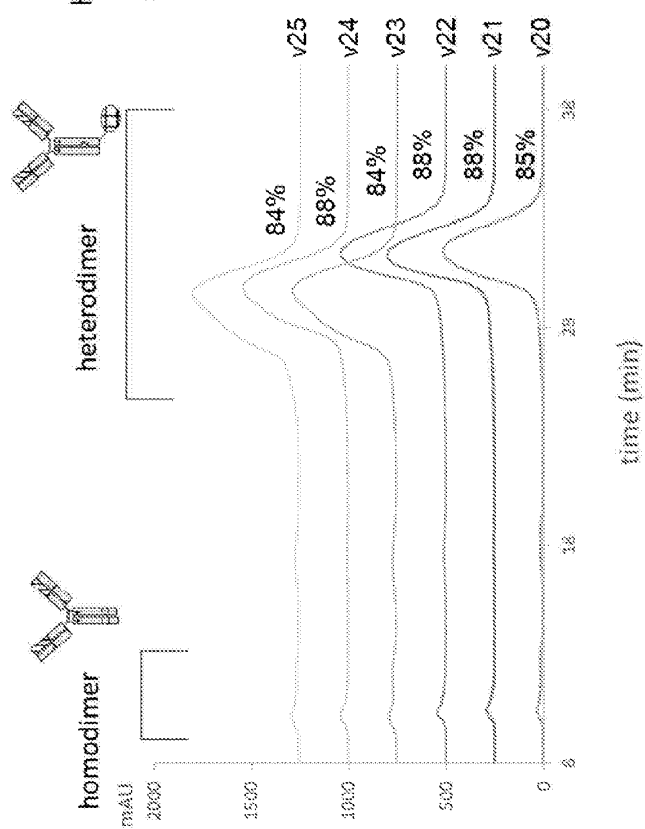


FIG. 3F

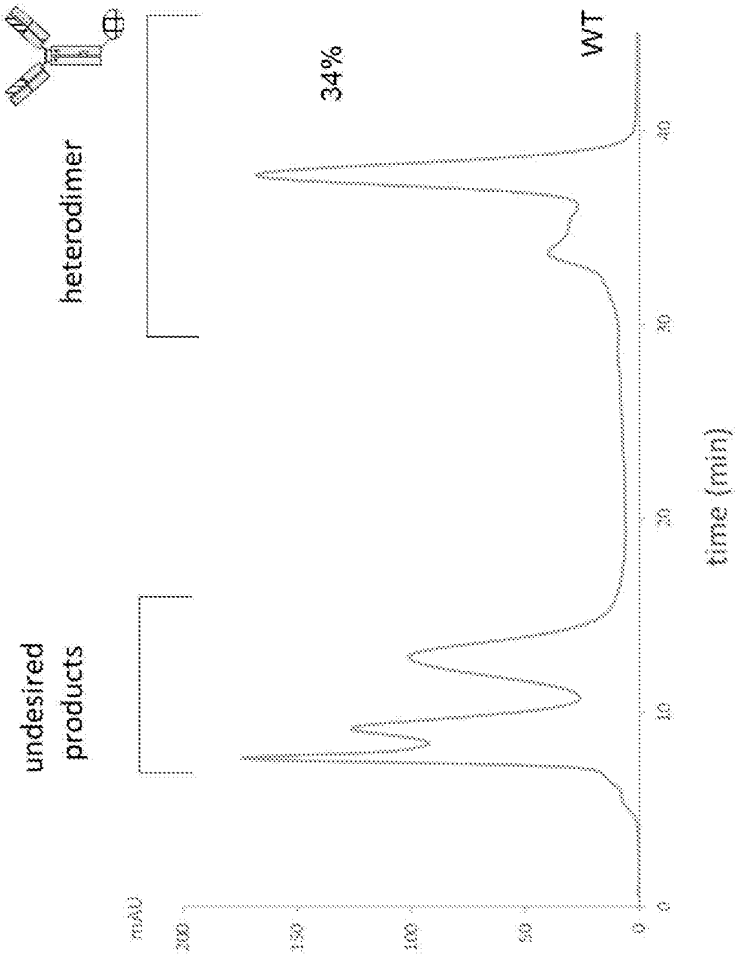


FIG. 4A

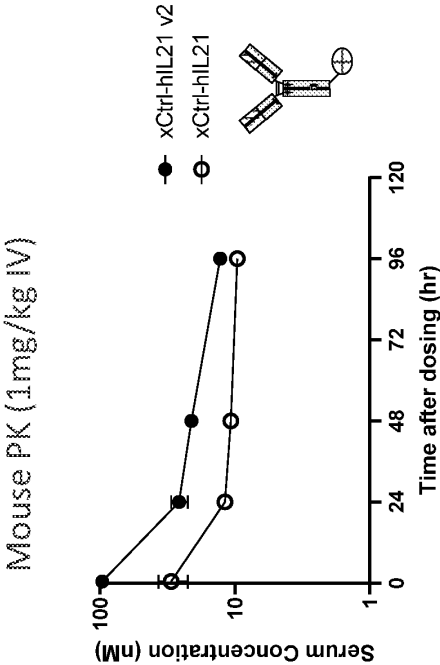


FIG. 4B

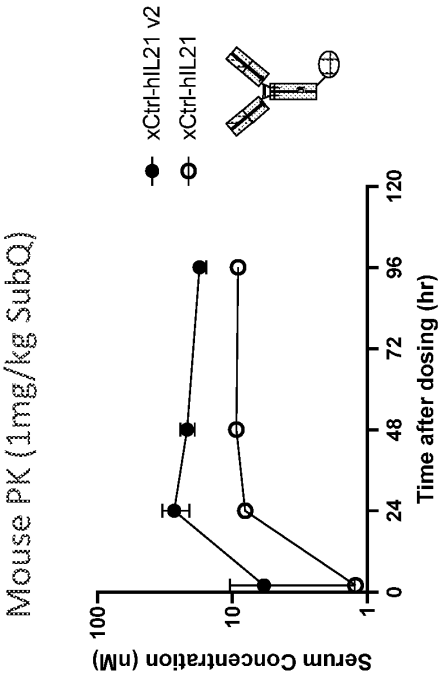


FIG. 4D

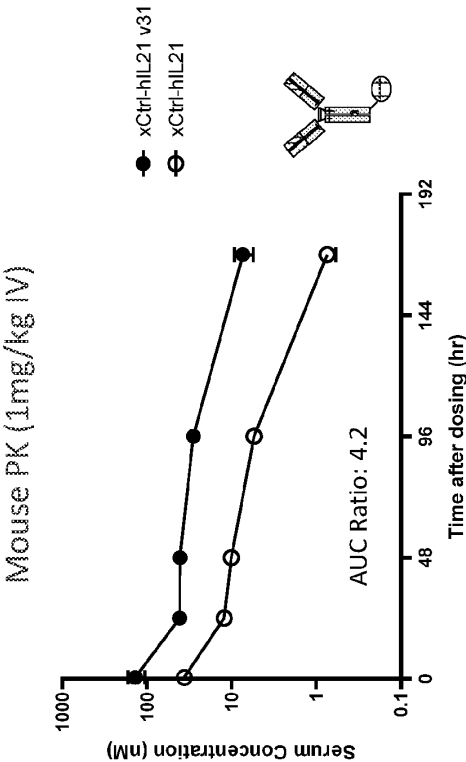


FIG. 4C

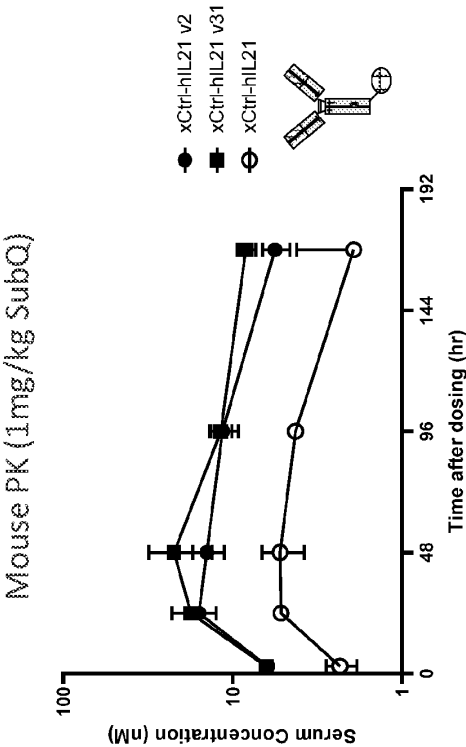


FIG. 5B

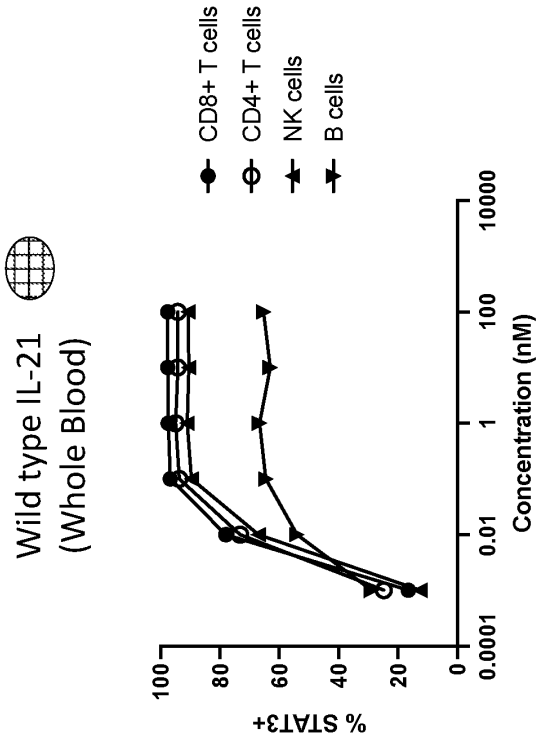


FIG. 5A

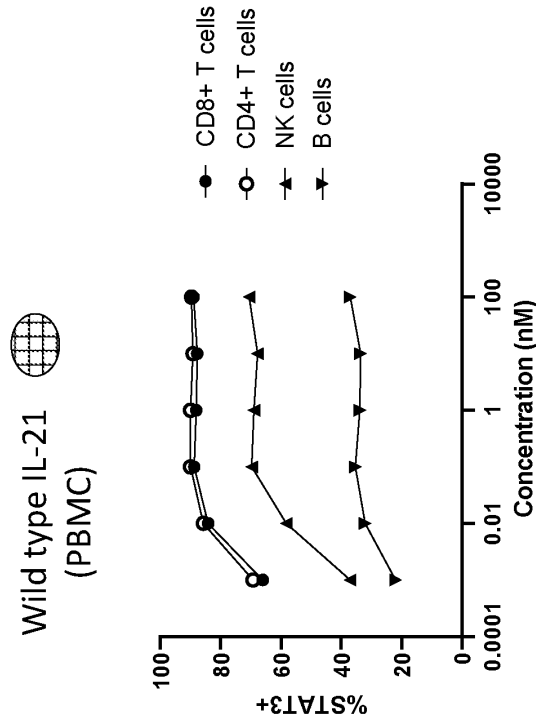
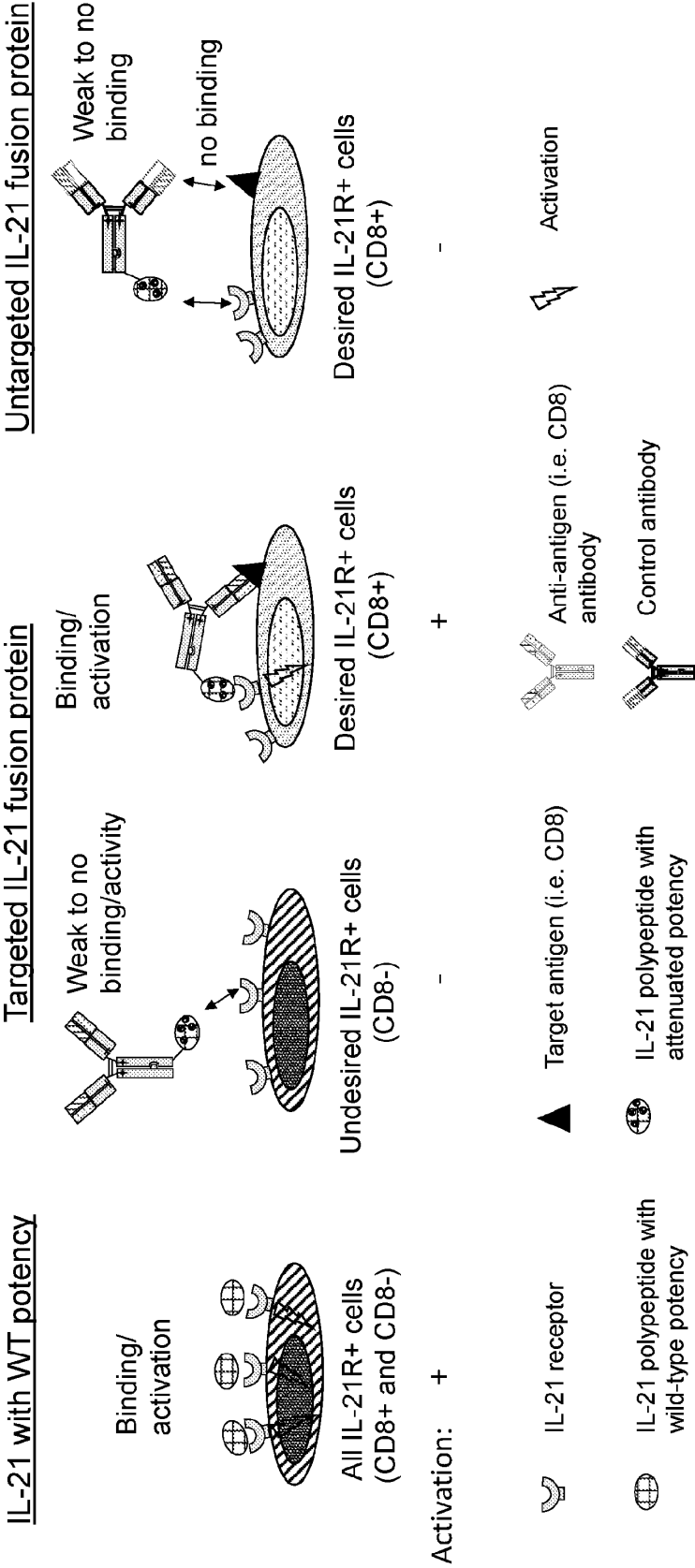


FIG. 6



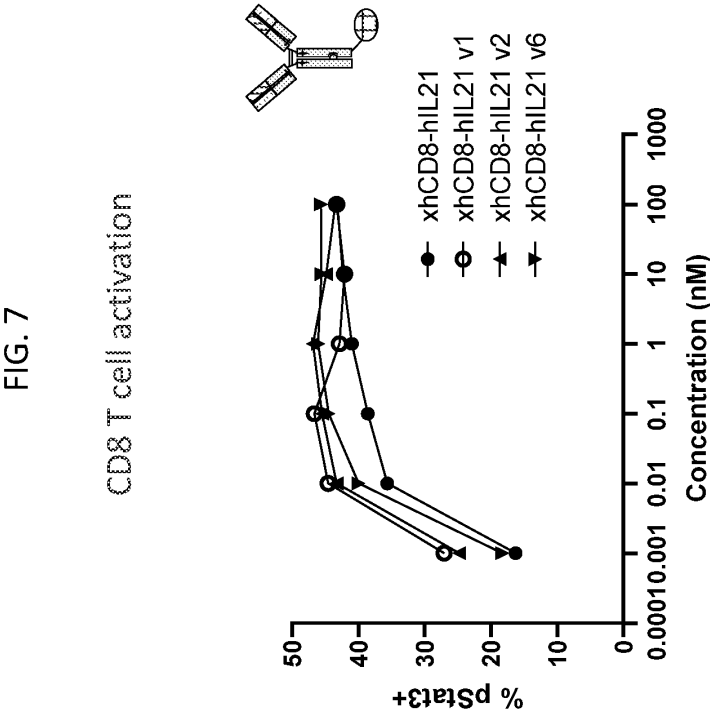


FIG. 8A

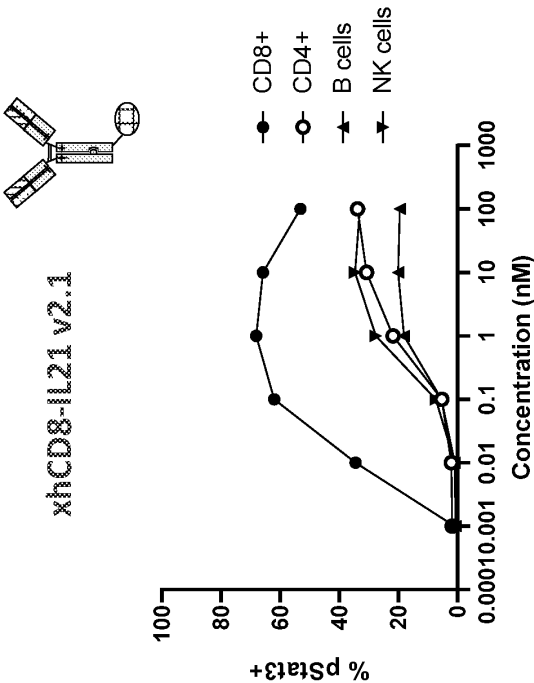


FIG. 8B

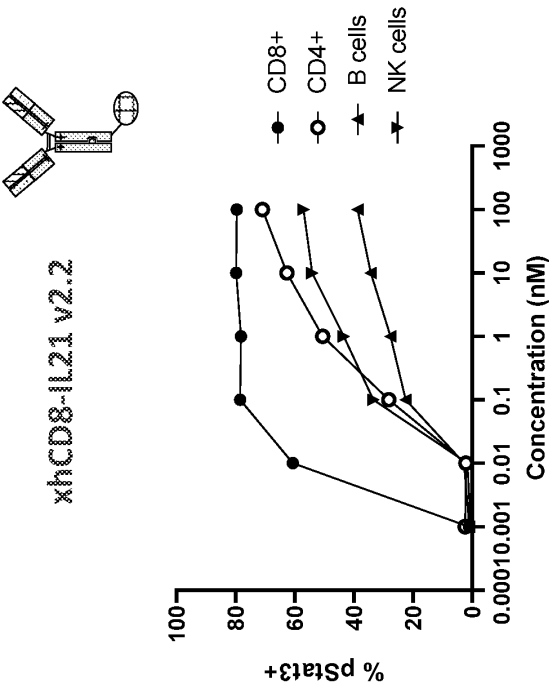


FIG. 8C

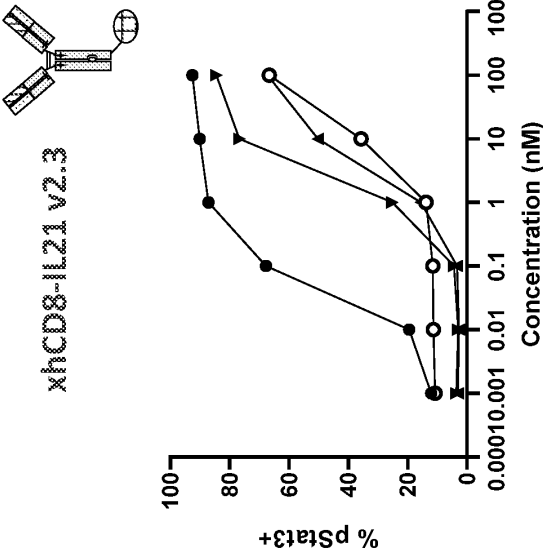


FIG. 8D

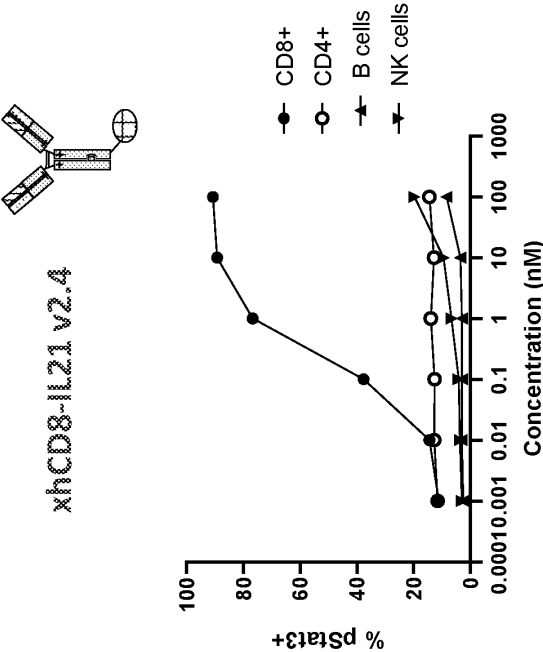


FIG. 8E

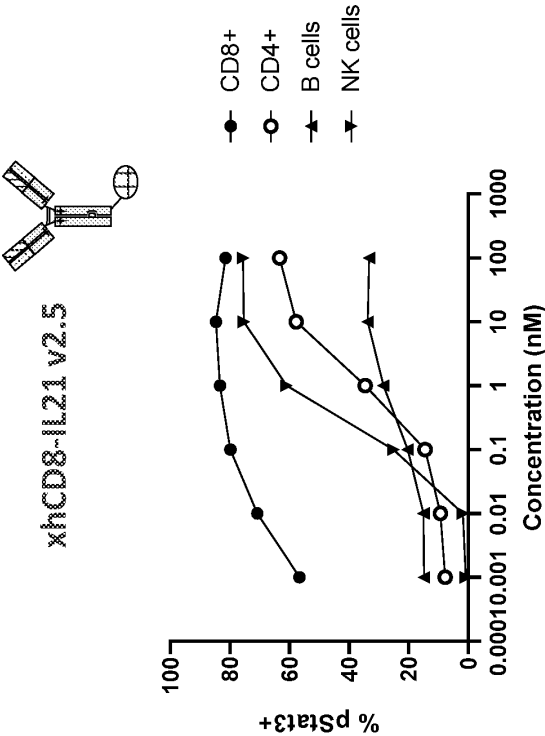


FIG. 8F

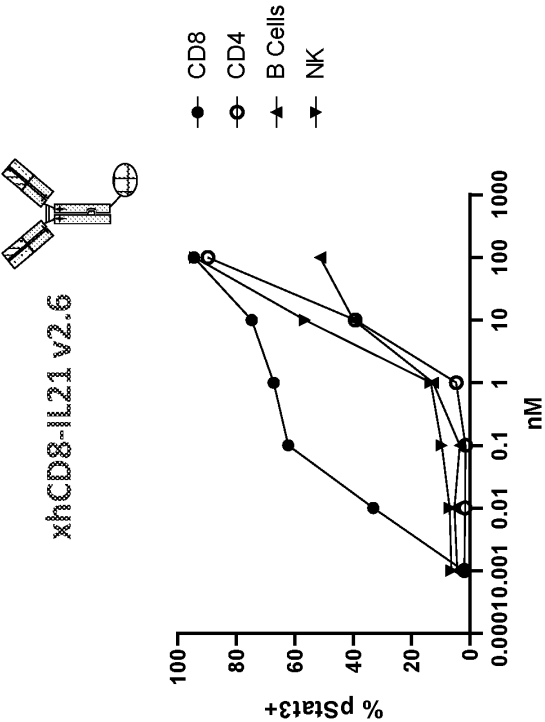


FIG. 9B

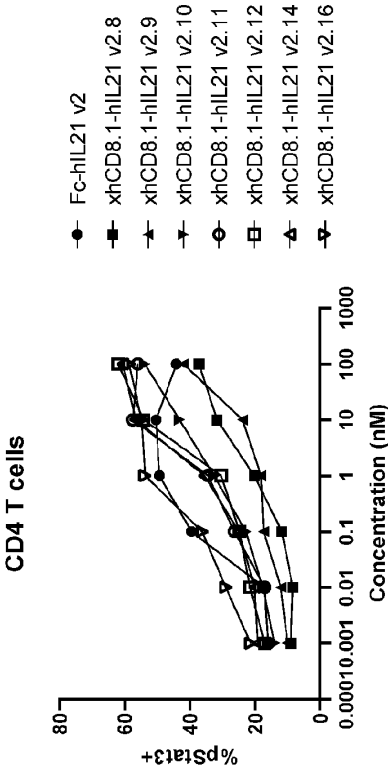


FIG. 9A

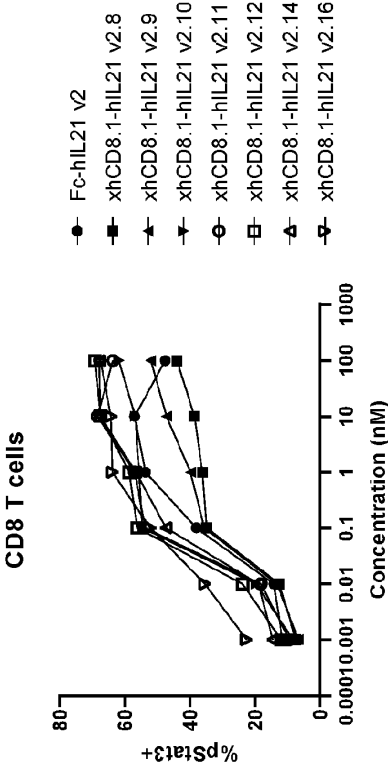


FIG. 9C

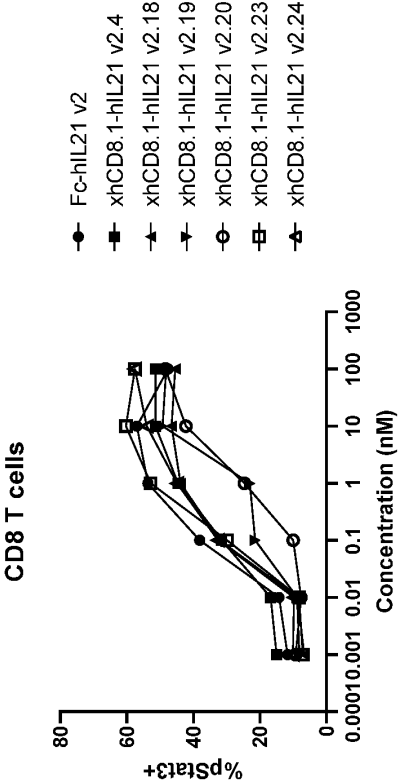


FIG. 9D

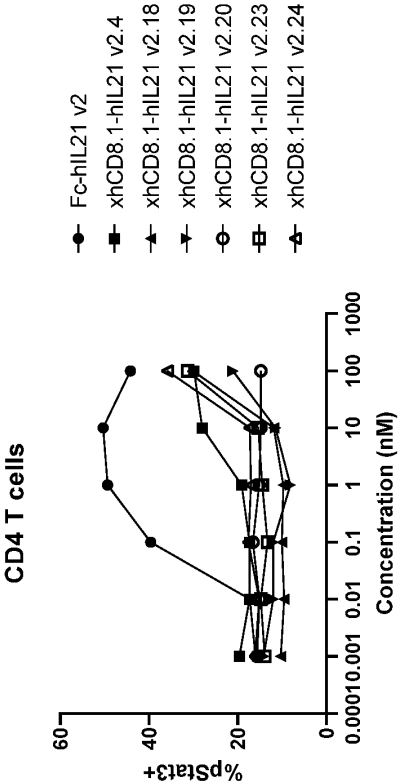


FIG. 9F

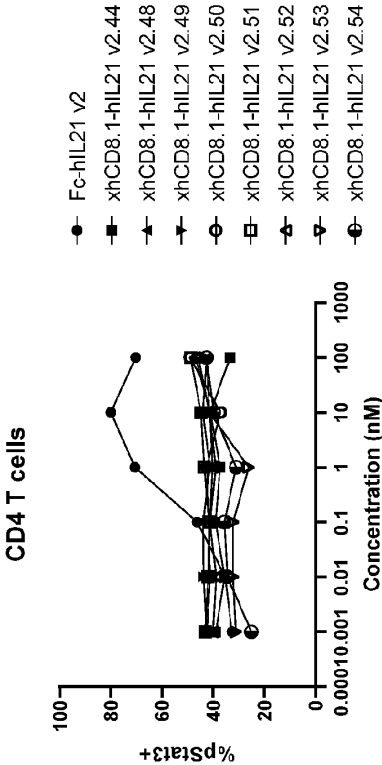


FIG. 9E

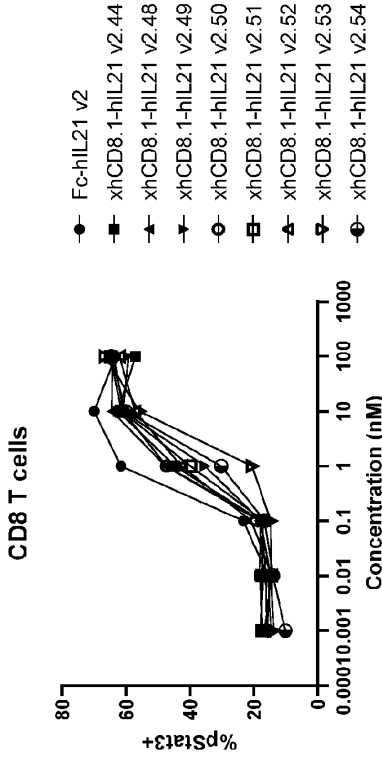


FIG. 9G

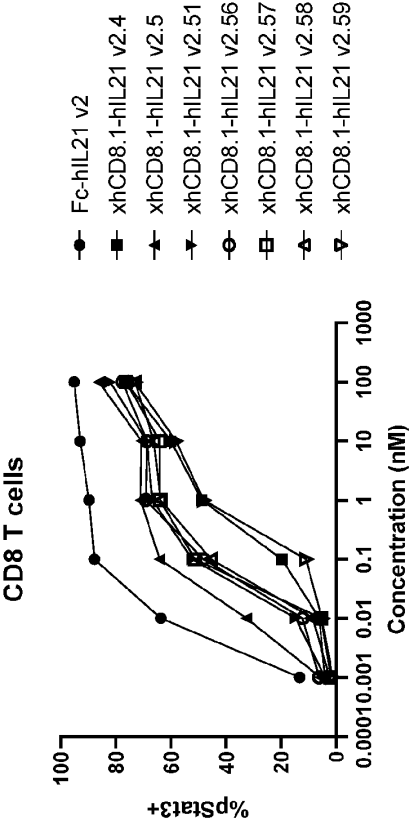


FIG. 9H

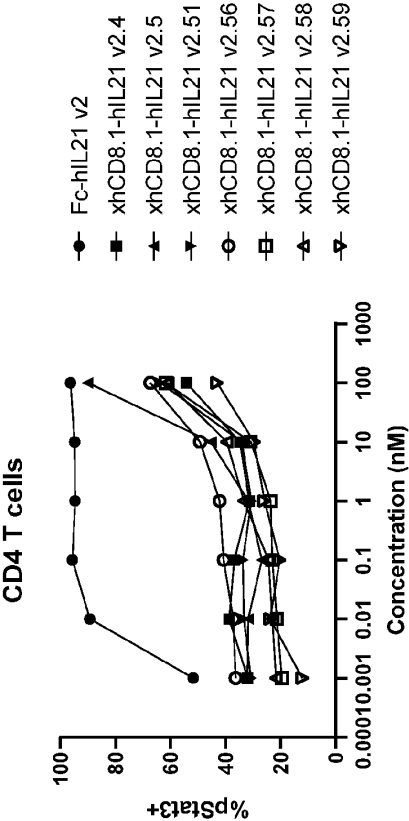


FIG. 10B

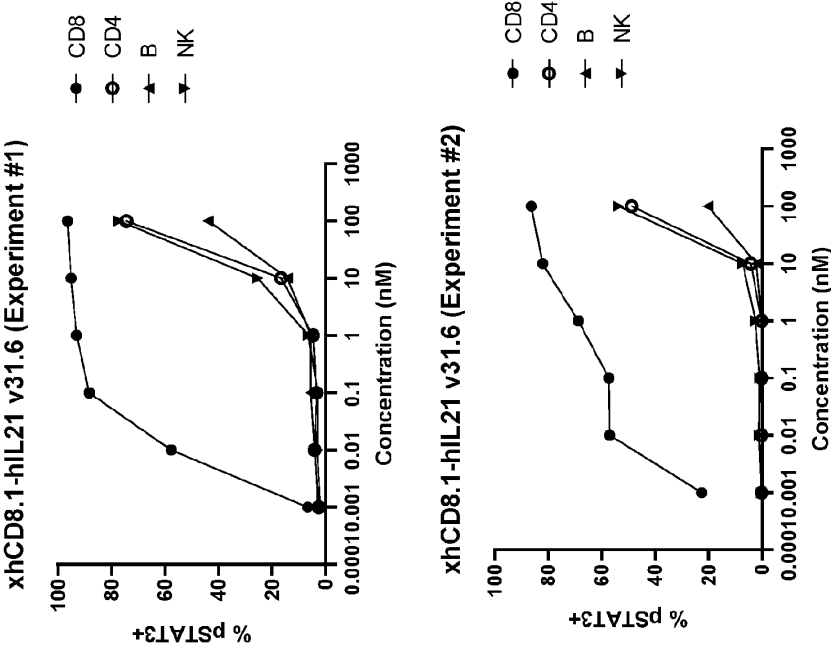


FIG. 10A

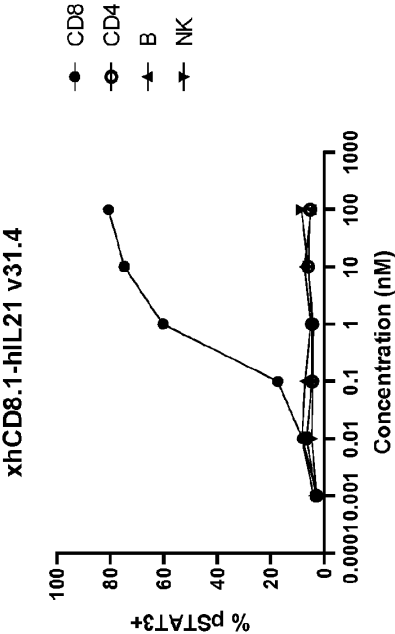


FIG. 10D

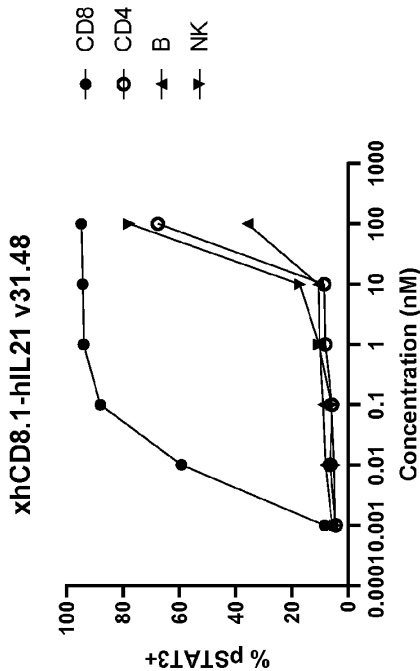


FIG. 10C

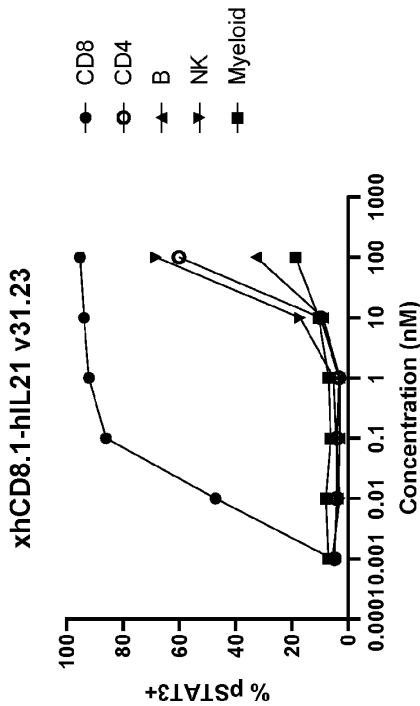


FIG. 10F

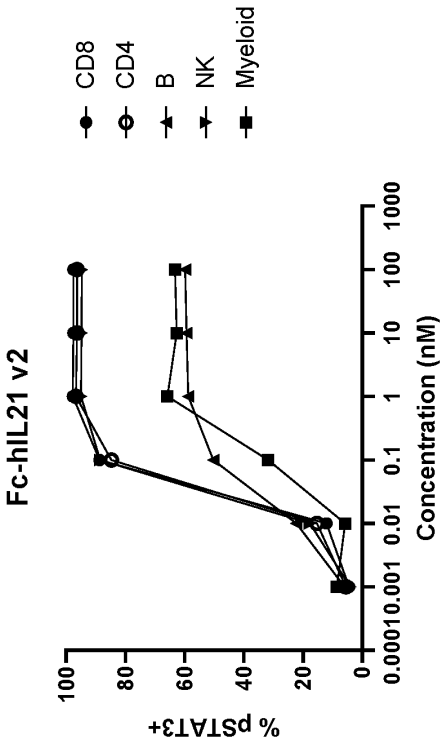


FIG. 10E

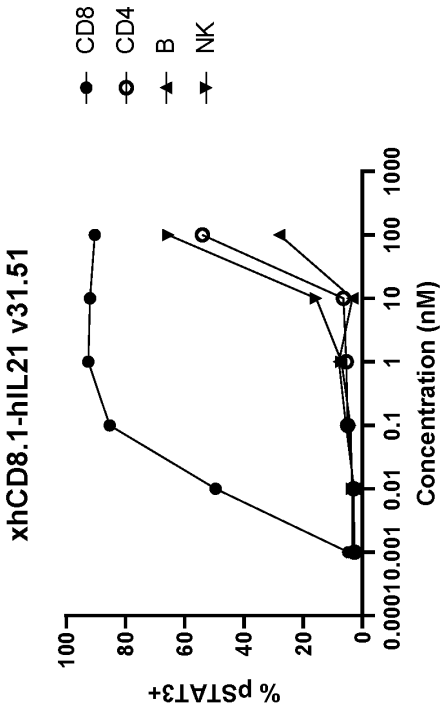


FIG. 11A

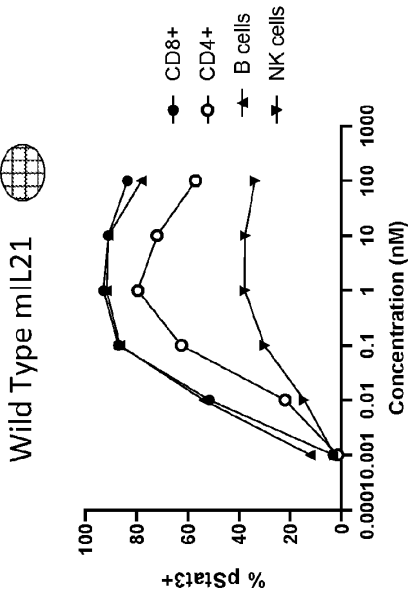


FIG. 11B

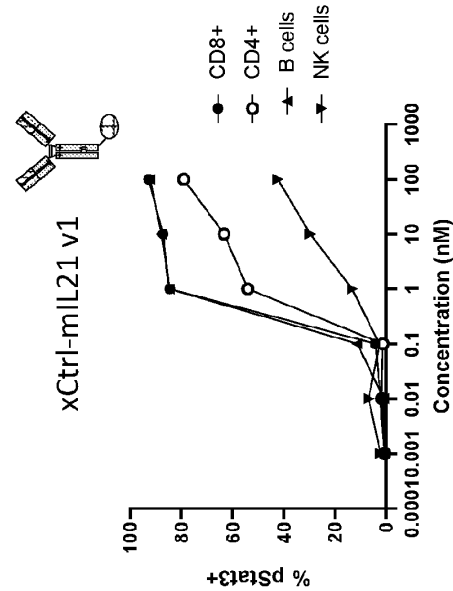


FIG. 11C

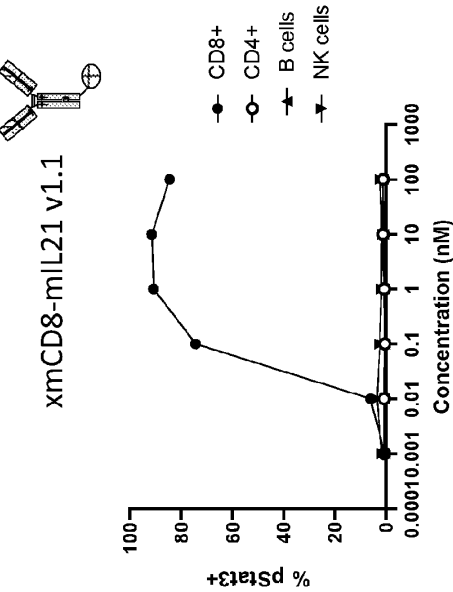


FIG. 12

MC38 Tumor Growth Curves

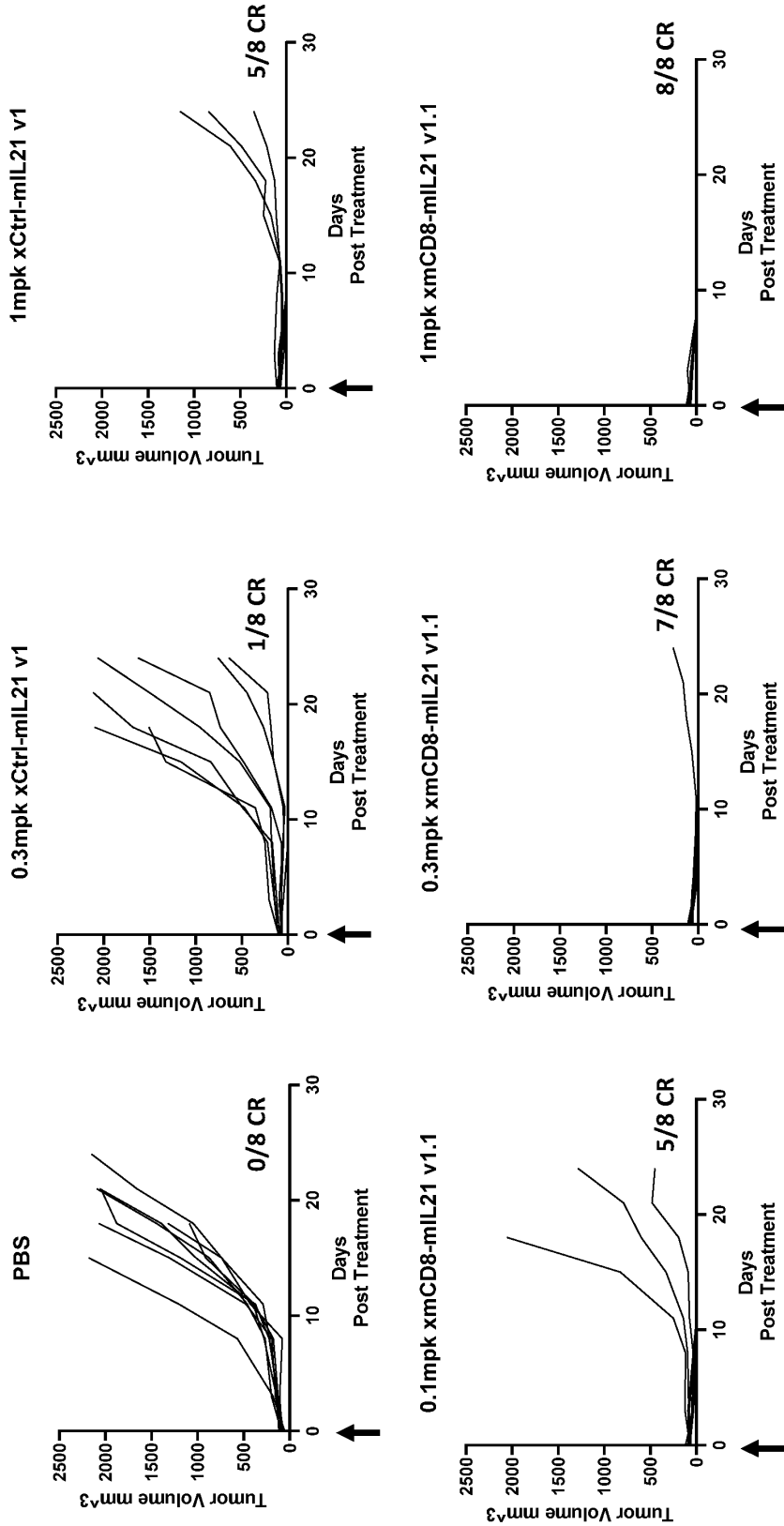


FIG. 13A

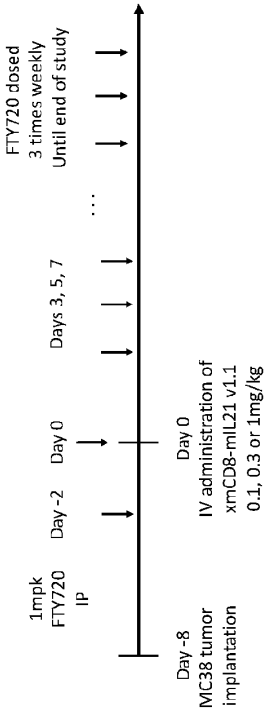


FIG. 13B

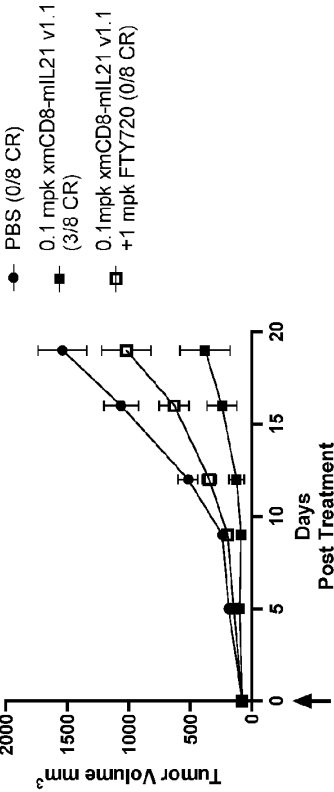


FIG. 13C

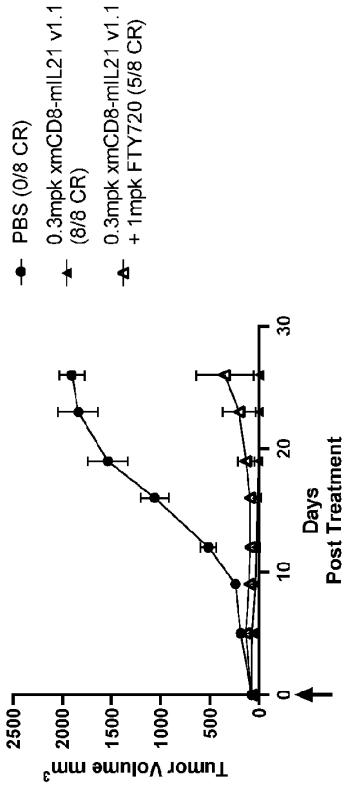


FIG. 13D

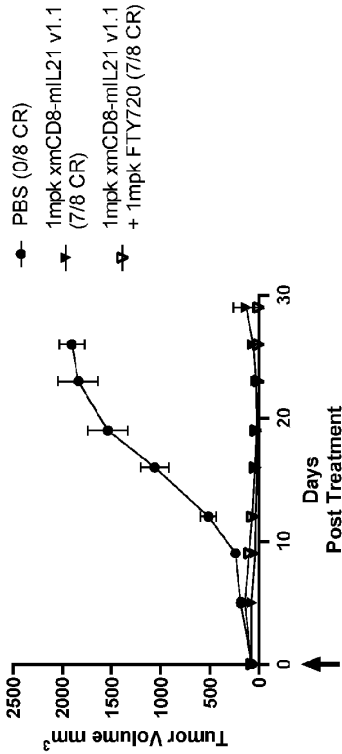
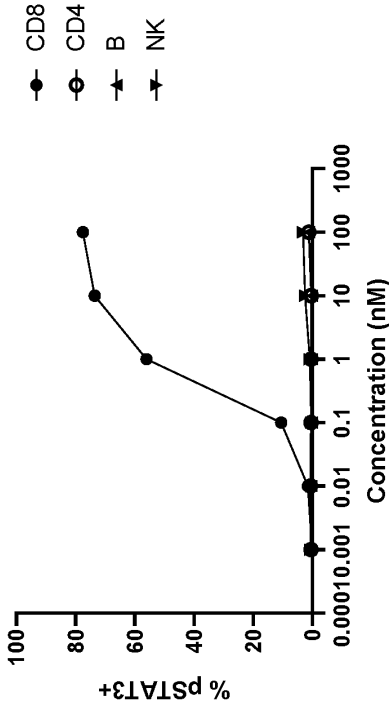


FIG. 14A

xhCD8.1-hIL21 v31.4
(Experiment #1)



xhCD8.1-hIL21 v31.4
(Experiment #2)

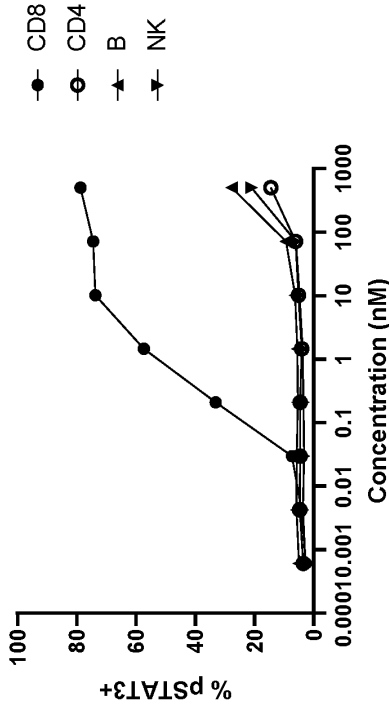


FIG. 14B

xhCD8.1-hIL21 v31.6

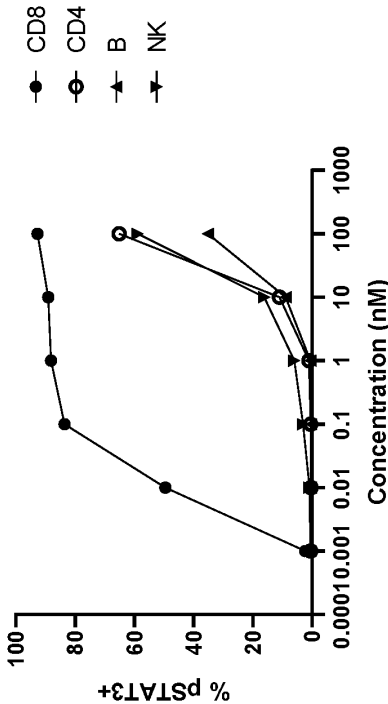
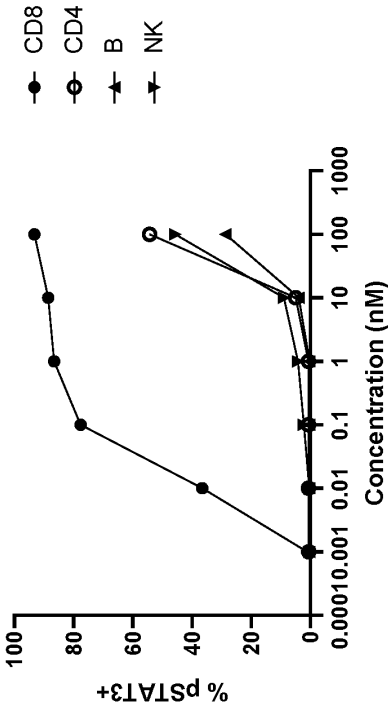


FIG. 14C

xhCD8.1-hIL21 v31.23
(Experiment #1)



xhCD8.1-hIL21 v31.23
(Experiment #2)

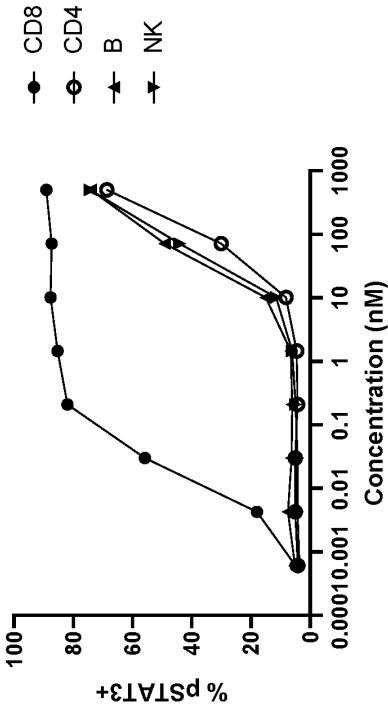


FIG. 14D

xhCD8.1-hIL21 v31.48

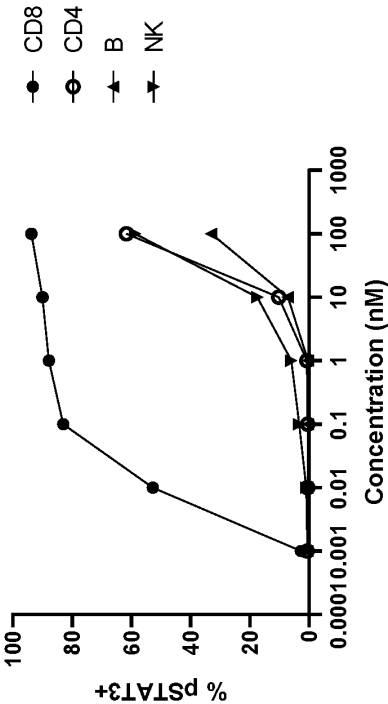


FIG. 14F

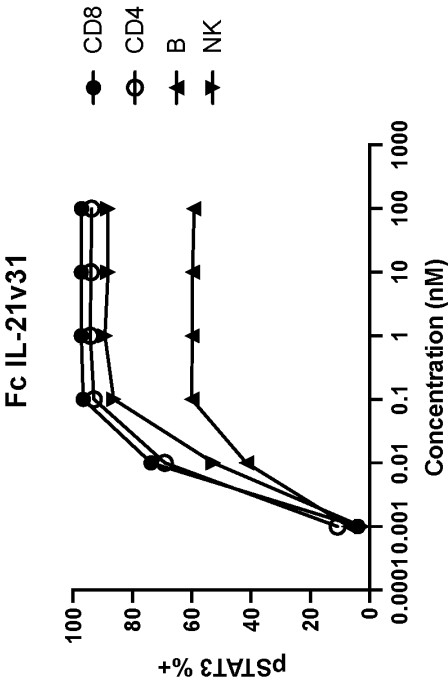


FIG. 14E

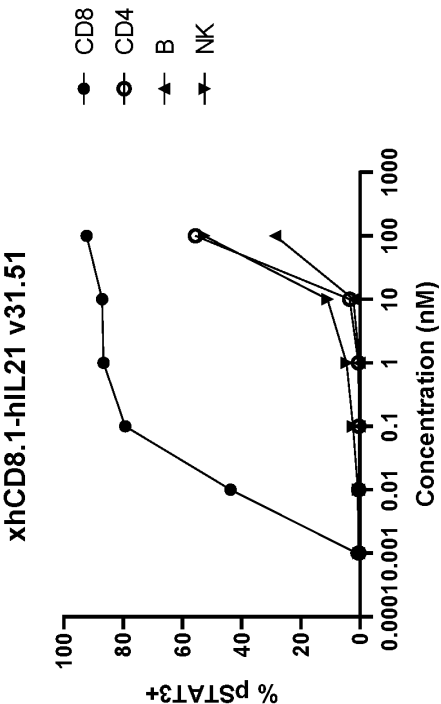


FIG. 15B

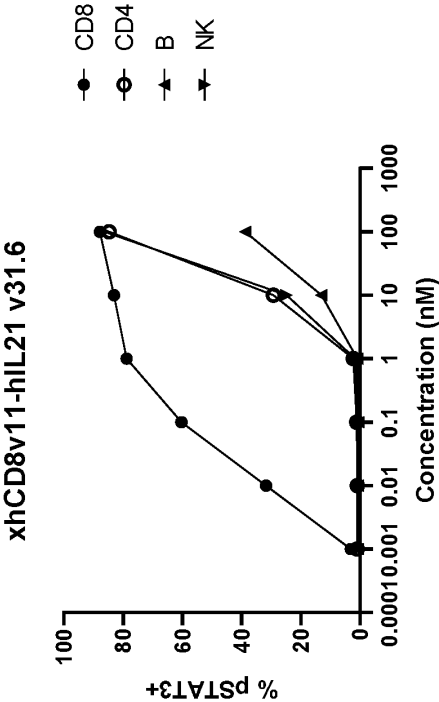


FIG. 15A

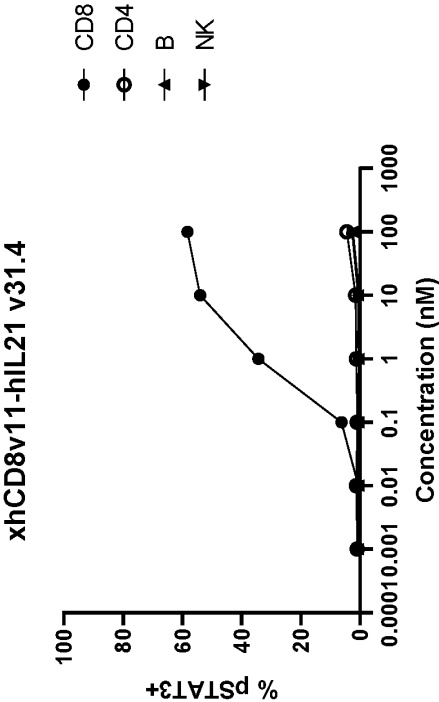
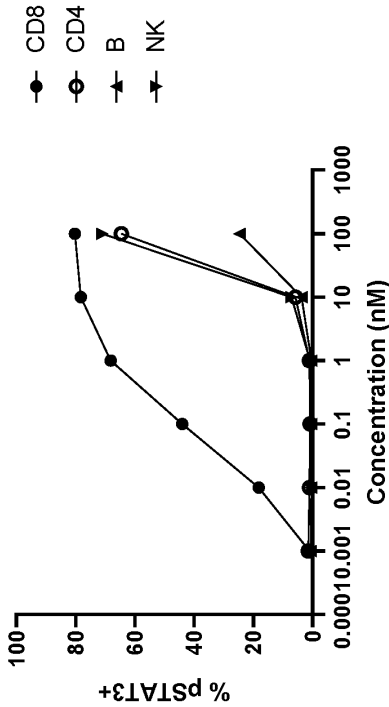


FIG. 15C

xhCD8v11-hIL21 v31.23
(Experiment #1)



xhCD8v11-hIL21 v31.23
(Experiment #2)

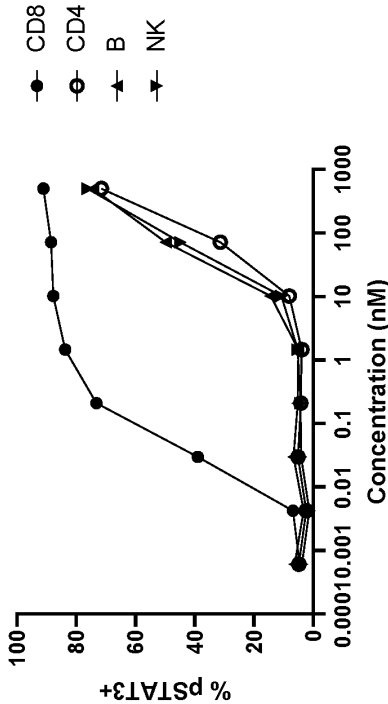


FIG. 15D

xhCD8v11-hIL21 v31.51

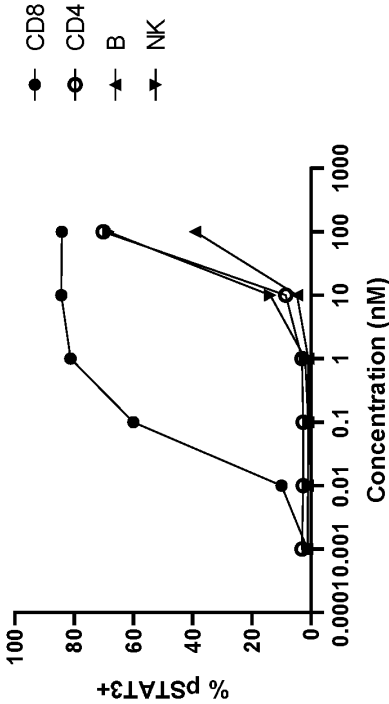


FIG. 16B

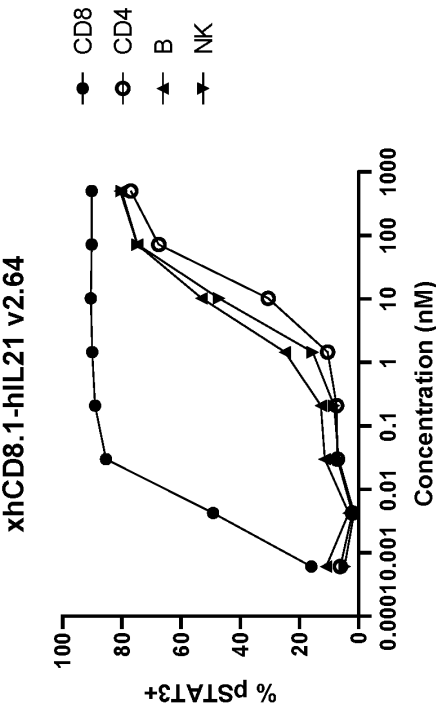


FIG. 16A

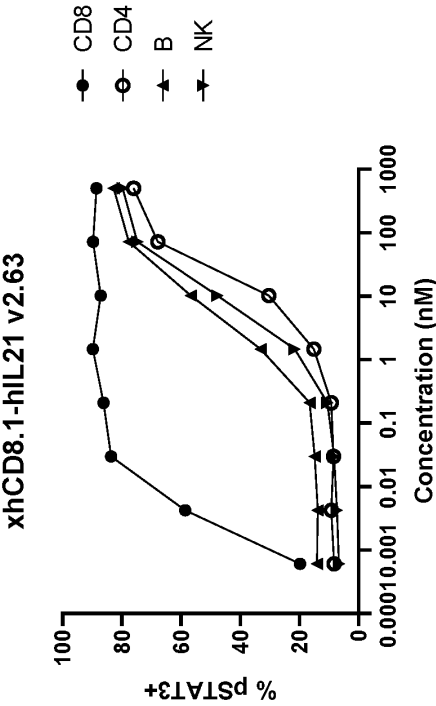


FIG. 16C

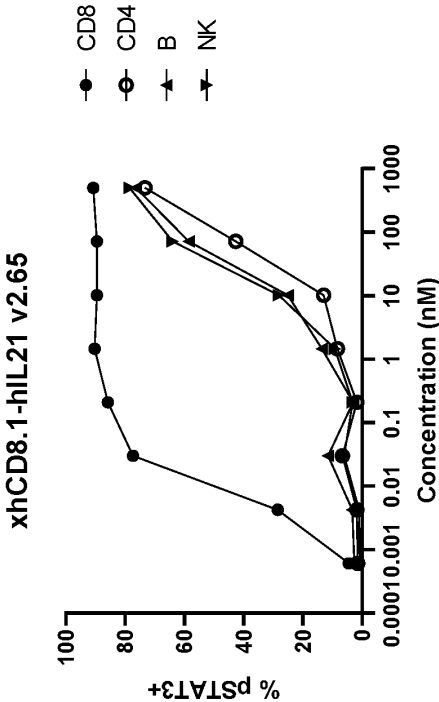


FIG. 17A

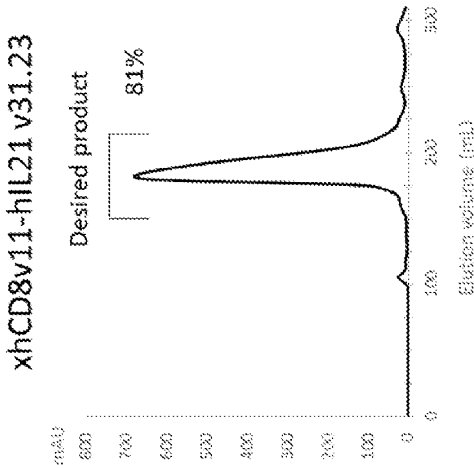


FIG. 17B

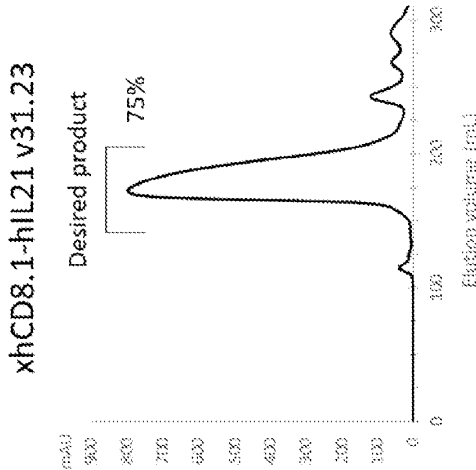


FIG. 17C

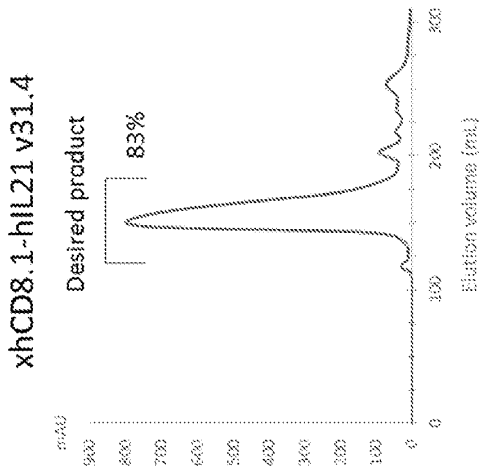
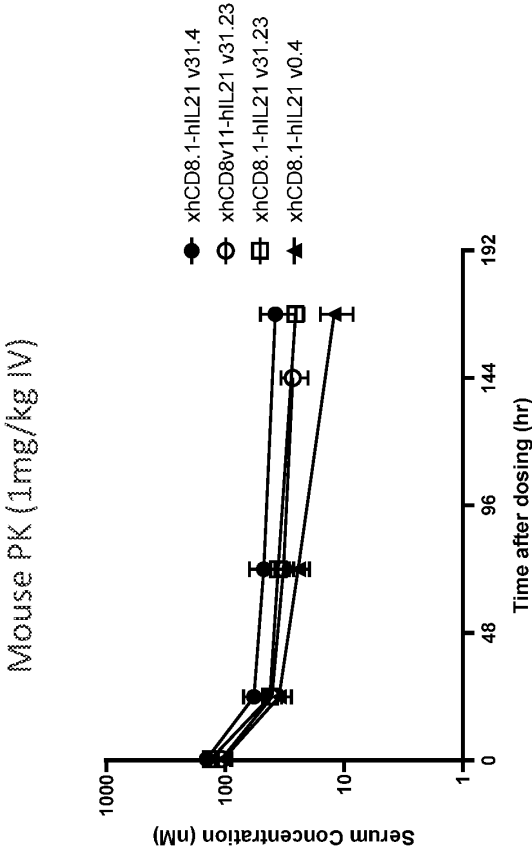


FIG. 18



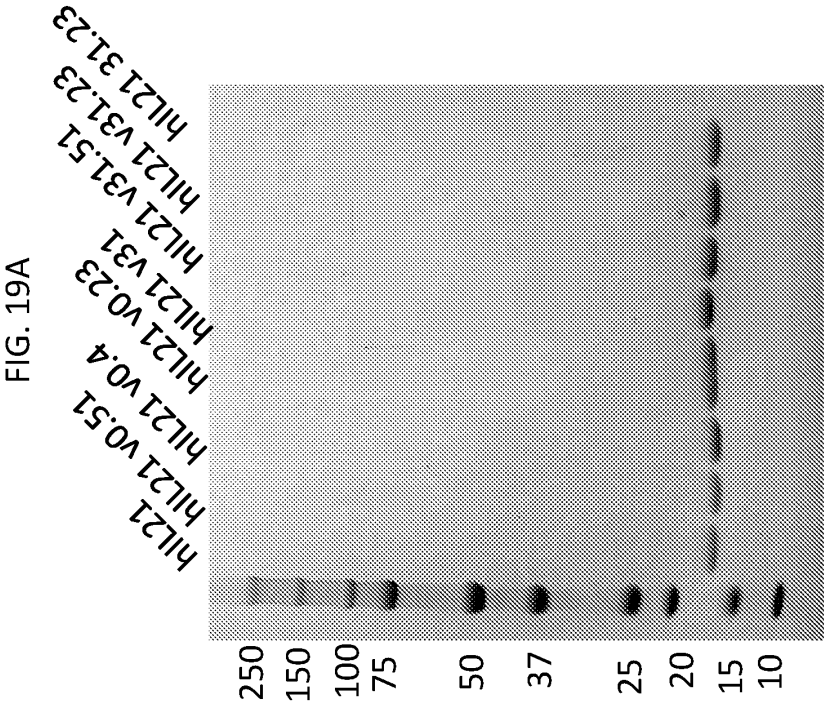


FIG. 19B

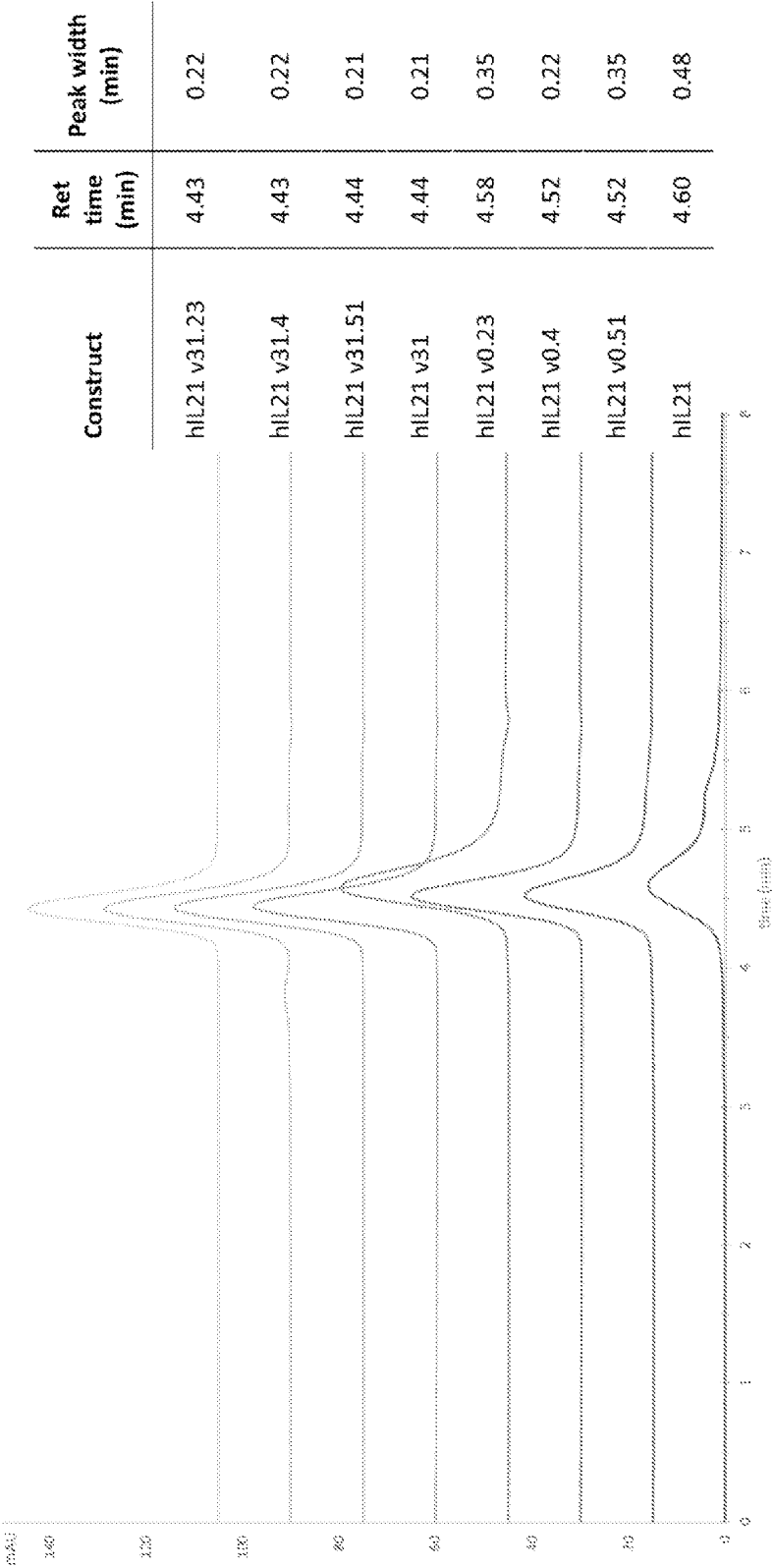
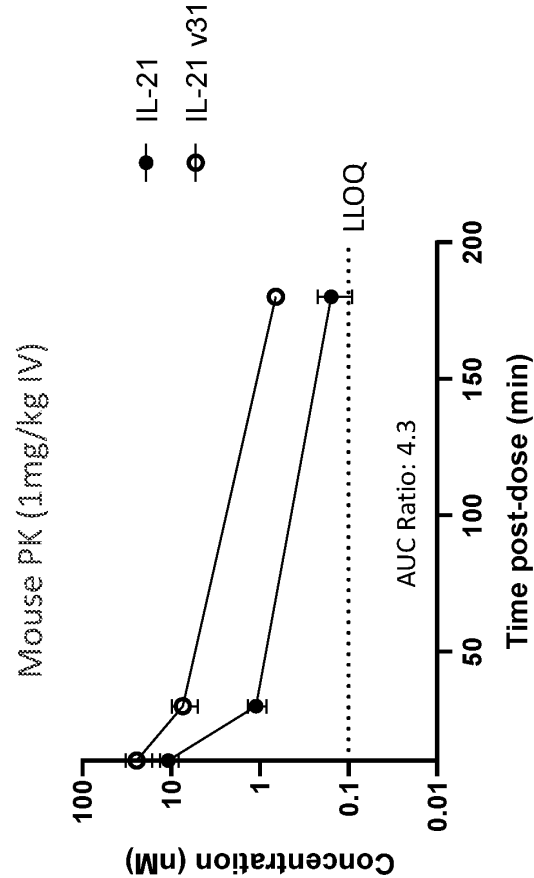


FIG. 20



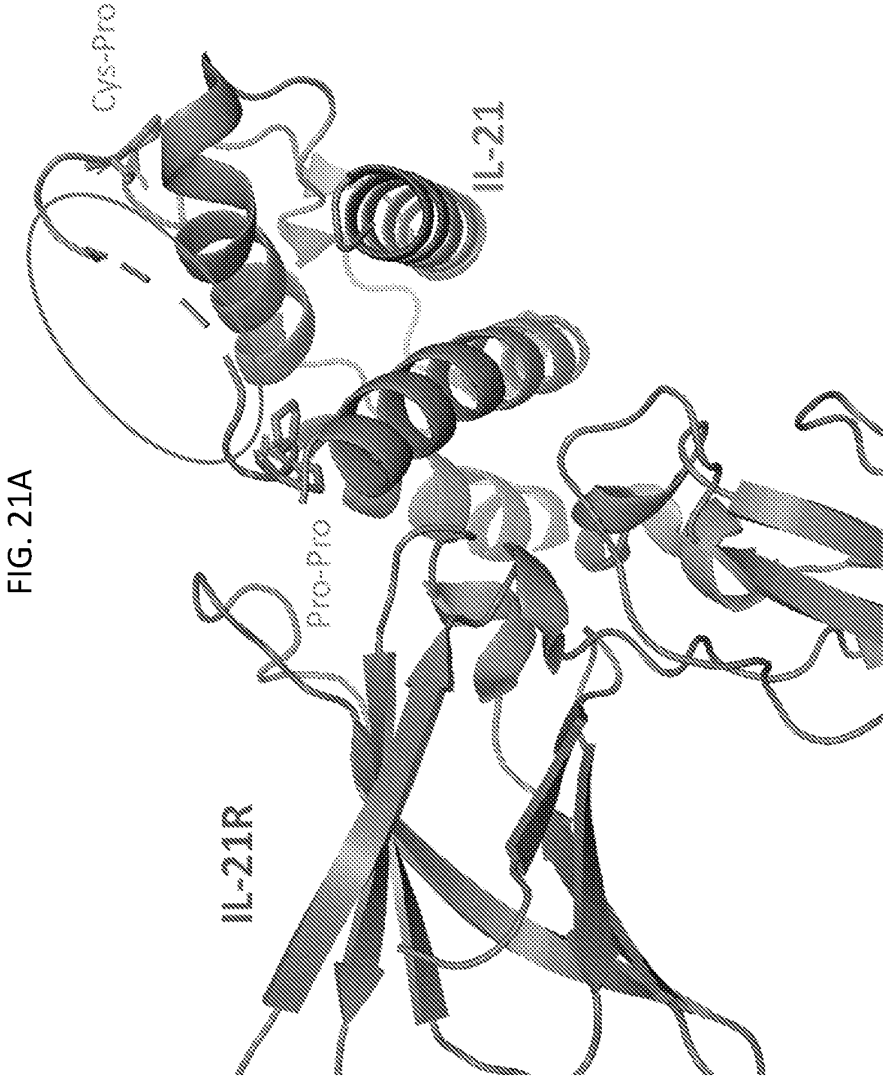


FIG. 21B

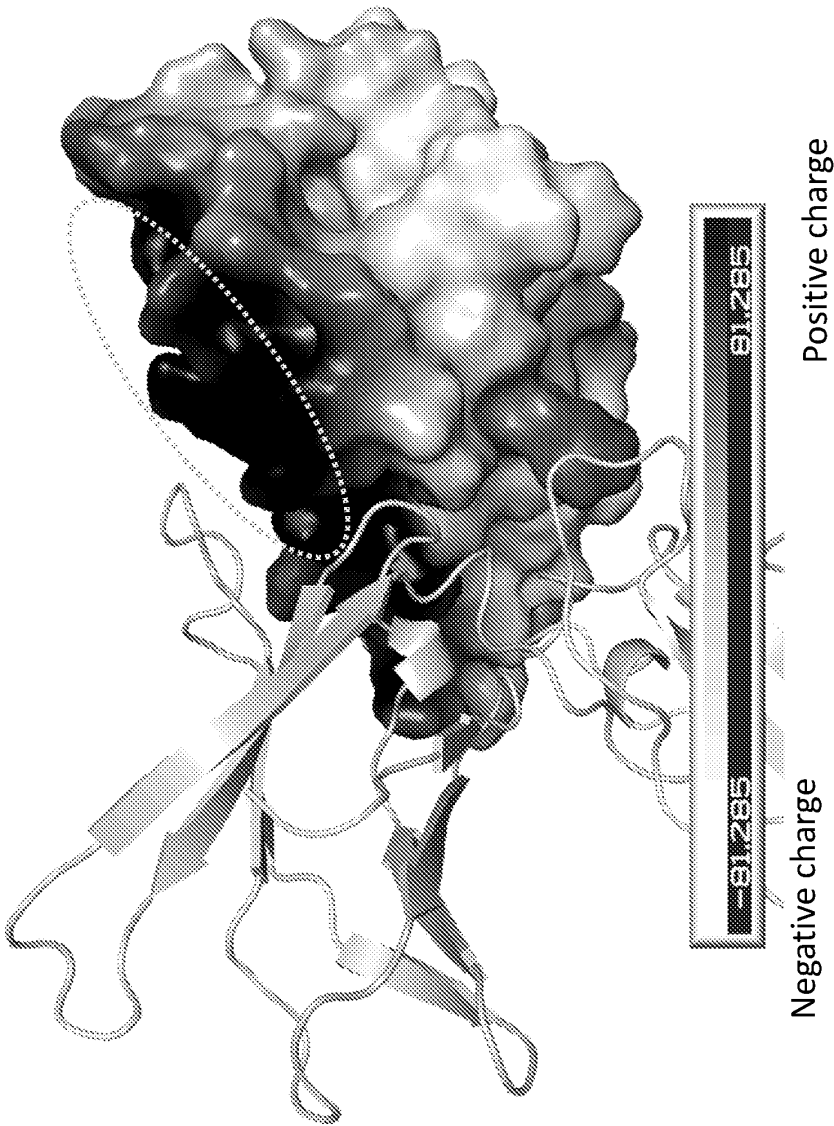


FIG. 22

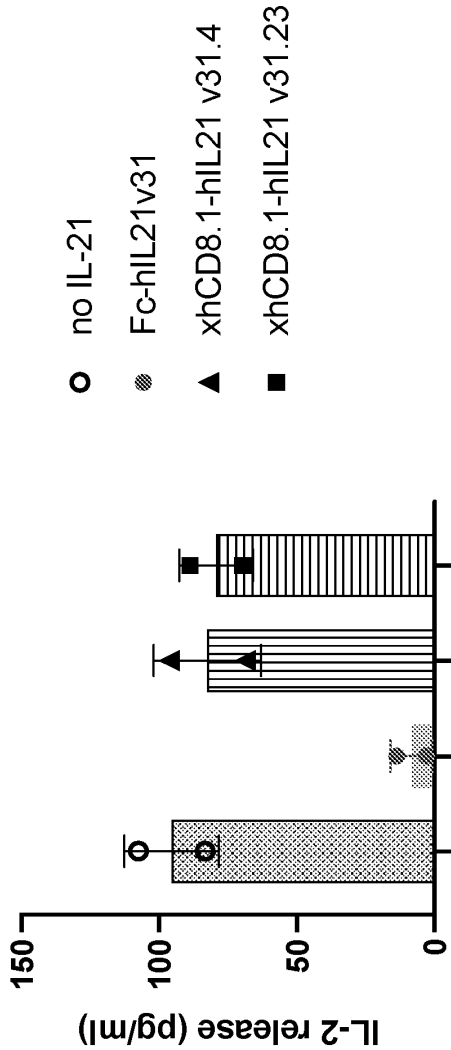


FIG. 23A

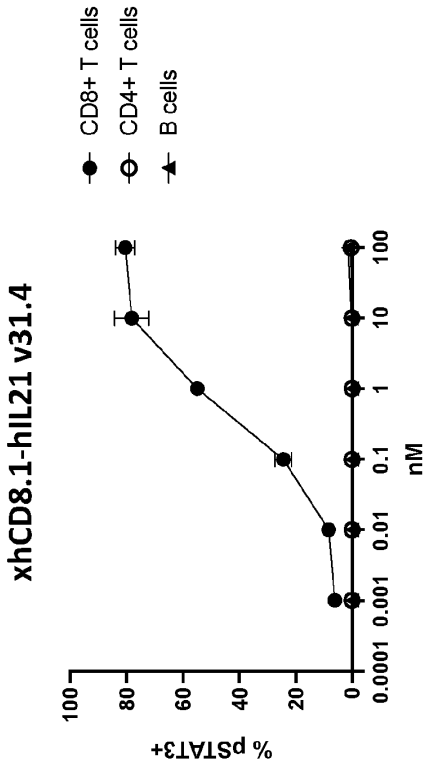


FIG. 23B

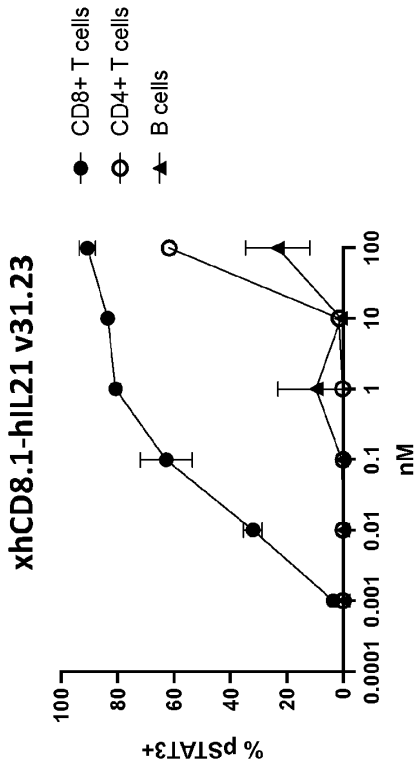


FIG. 23C

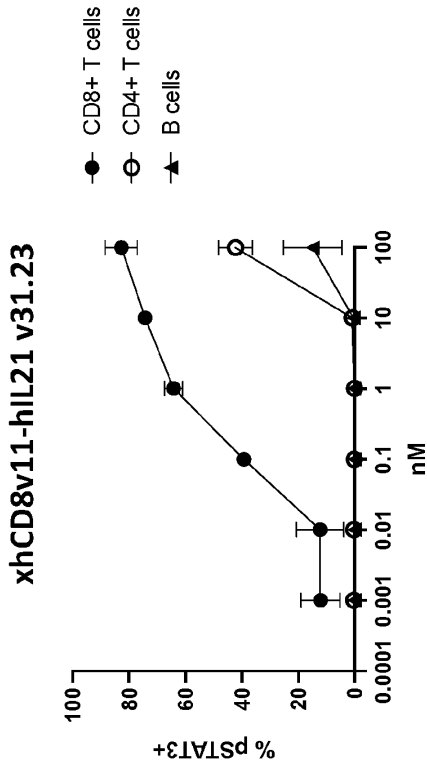


FIG. 23D

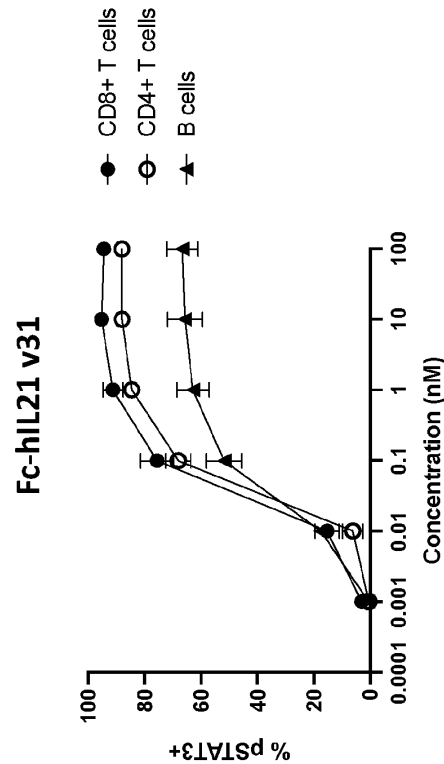


FIG. 24

