FIG. 1A

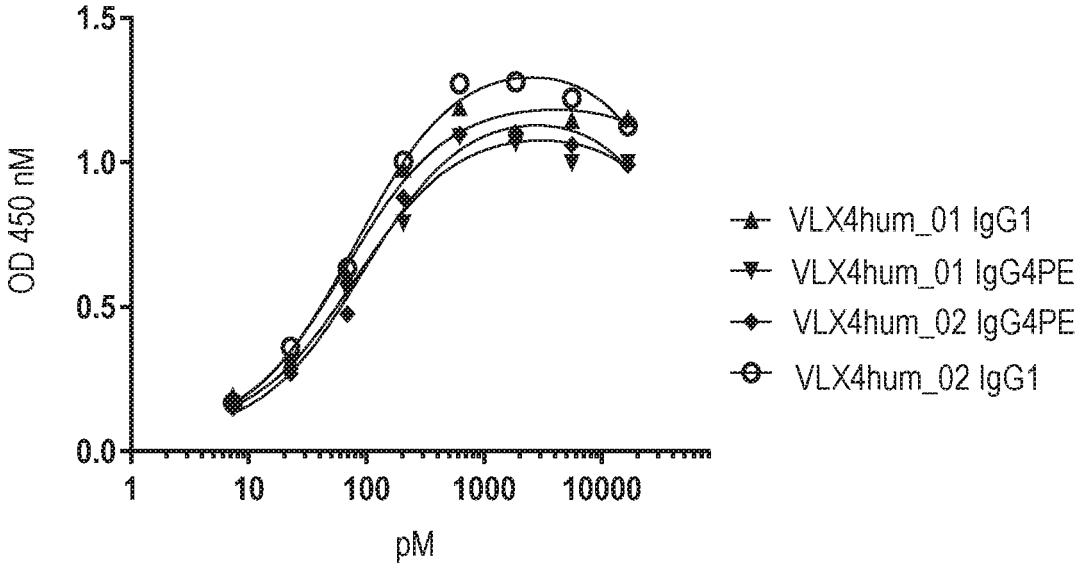
1.5
1.0
0.5
0.0
OD 450 nM
1
10
100
1000
10000
pM
VLX4hum_01 IgG1
VLX4hum_01 IgG4PE
VLX4hum_02 IgG4PE
VLX4hum_02 IgG1

FIG. 1B

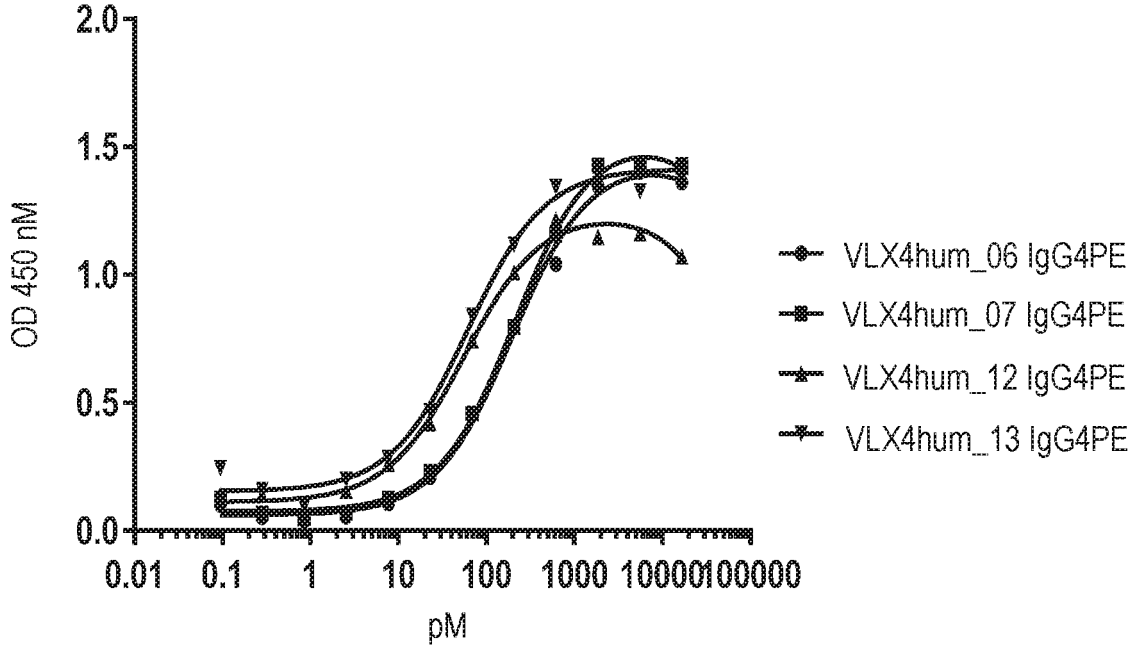
2.0
1.5
1.0
0.5
0.0
OD 450 nM
0.01
0.1
1
10
100
1000
10000
100000
pM
VLX4hum_06 IgG4PE
VLX4hum_07 IgG4PE
VLX4hum_12 IgG4PE
VLX4hum_13 IgG4PE

FIG. 2A

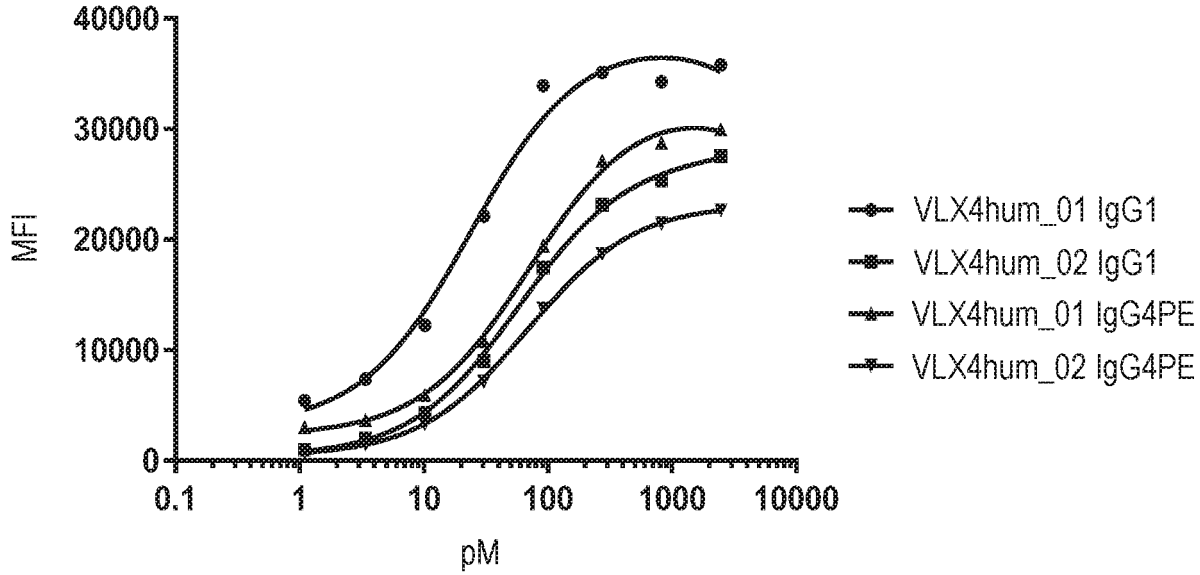
40000
30000
20000
10000
0
MFI
0.1
1
10
100
1000
10000
pM
VLX4hum_01 IgG1
VLX4hum_02 IgG1
VLX4hum_01 IgG4PE
VLX4hum_02 IgG4PE

FIG. 2B

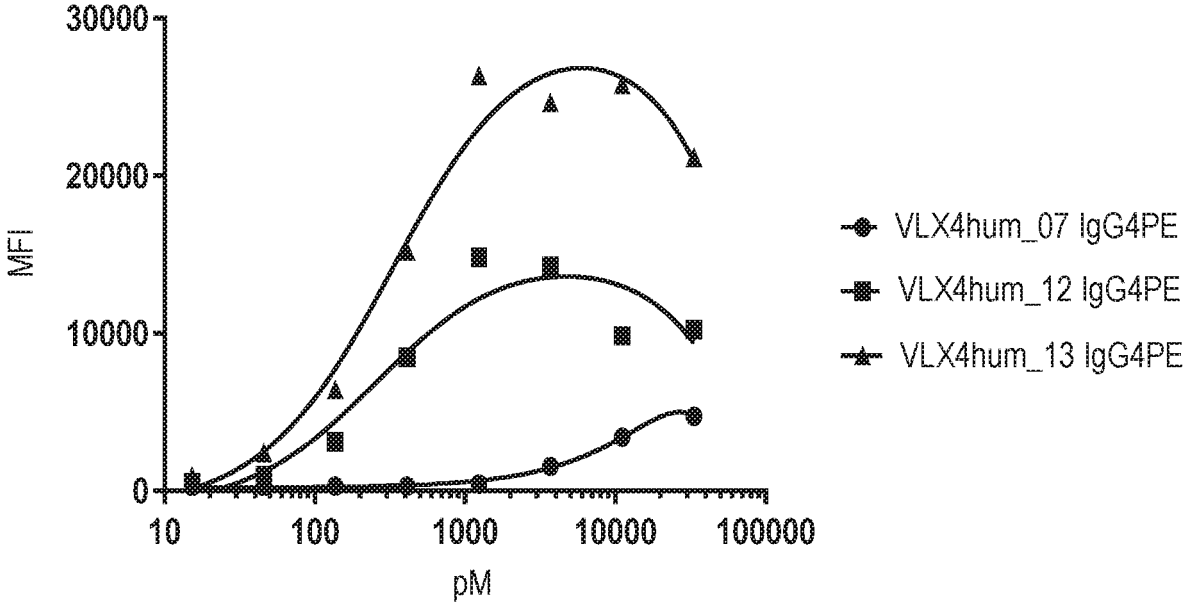
30000
20000
10000
0
MFI
10
100
1000
10000
100000
pM
VLX4hum_07 IgG4PE
VLX4hum_12 IgG4PE
VLX4hum_13 IgG4PE

FIG. 3A

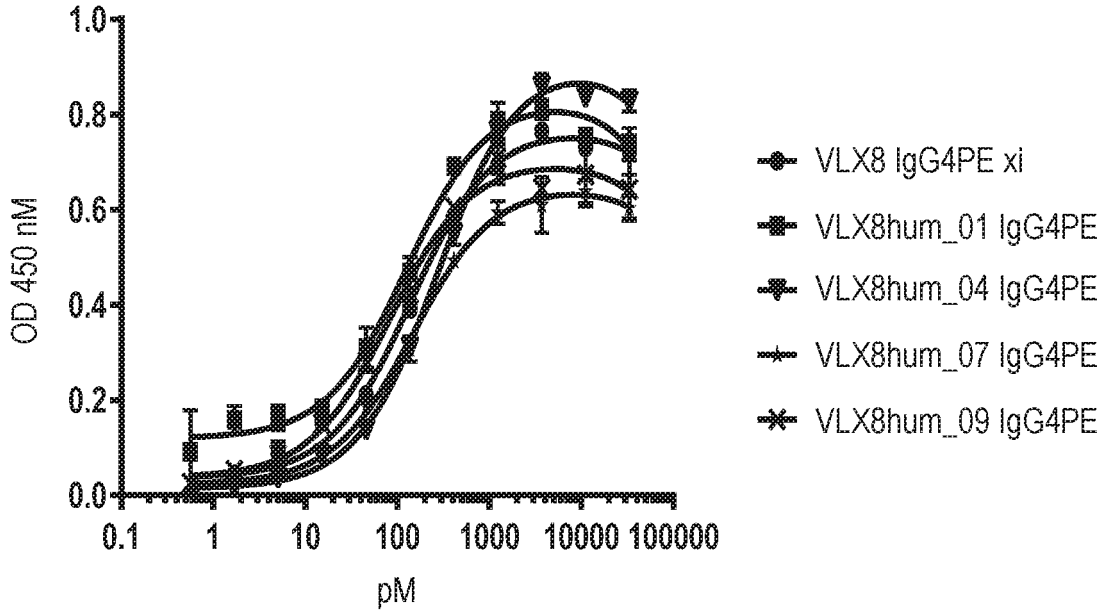
1.0
0.8
0.6
0.4
0.2
0.0
OD 450 nM
0.1
1
10
100
1000
10000
100000
pM
VLX8 IgG4PE xi
VLX8hum_01 IgG4PE
VLX8hum_04 IgG4PE
VLX8hum_07 IgG4PE
VLX8hum_09 IgG4PE

FIG. 3B

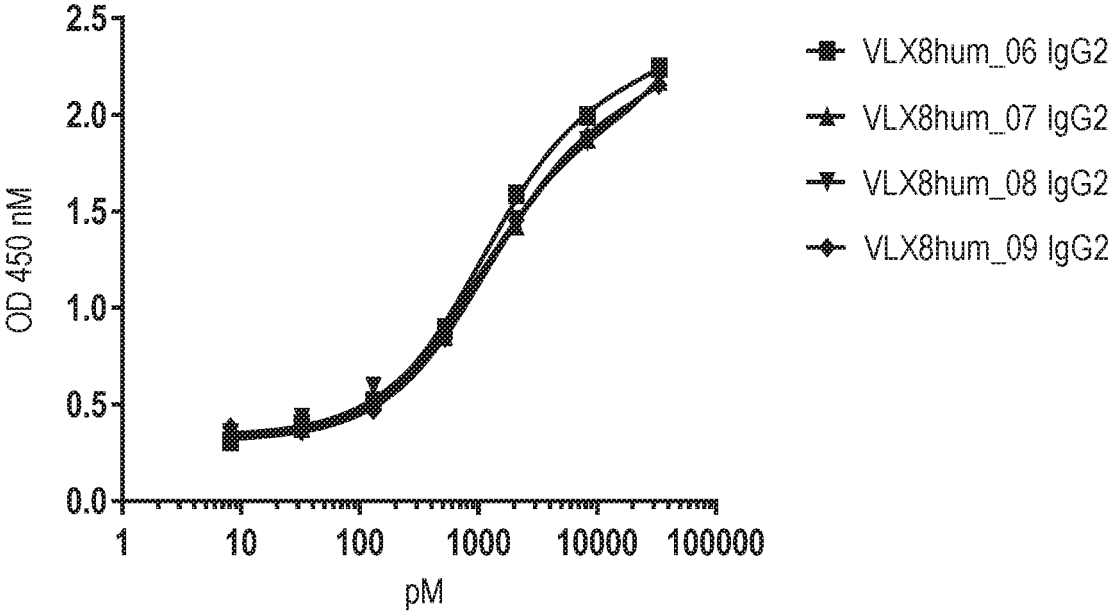
2.5
2.0
1.5
1.0
0.5
0.0
OD 450 nM
1
10
100
1000
10000
100000
pM
VLX8hum_06 IgG2
VLX8hum_07 IgG2
VLX8hum_08 IgG2
VLX8hum_09 IgG2

FIG. 4A

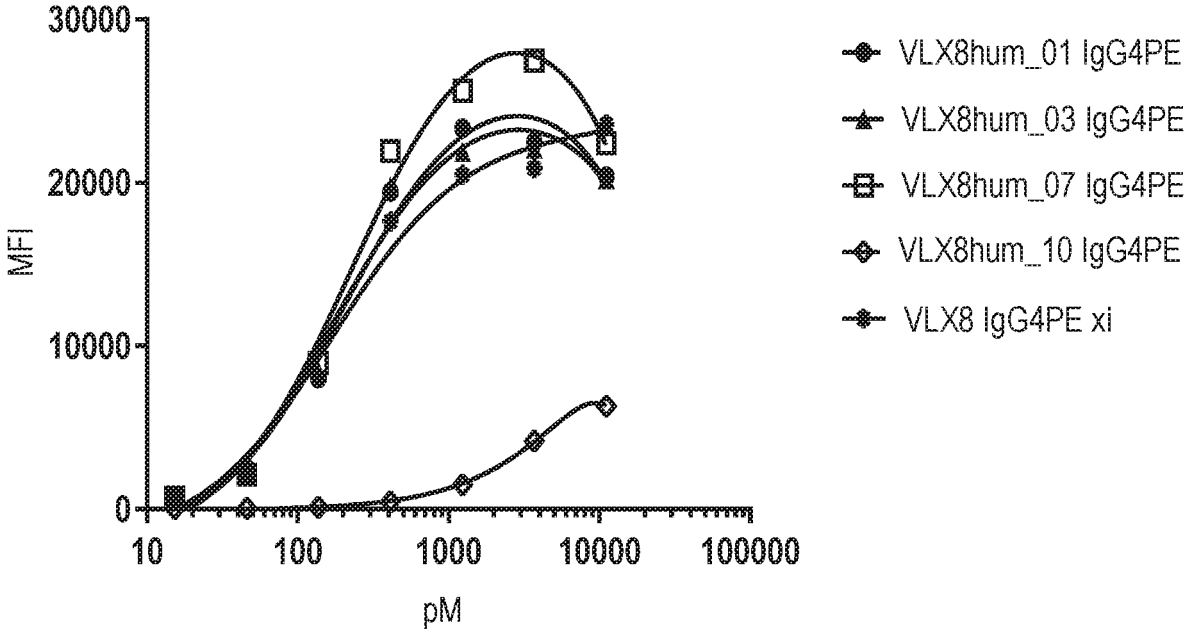
30000
20000
10000
0
MFI
10
100
1000
10000
100000
pM
VLX8hum_01 IgG4PE
VLX8hum_03 IgG4PE
VLX8hum_07 IgG4PE
VLX8hum_10 IgG4PE
VLX8 IgG4PE xi

FIG. 4B

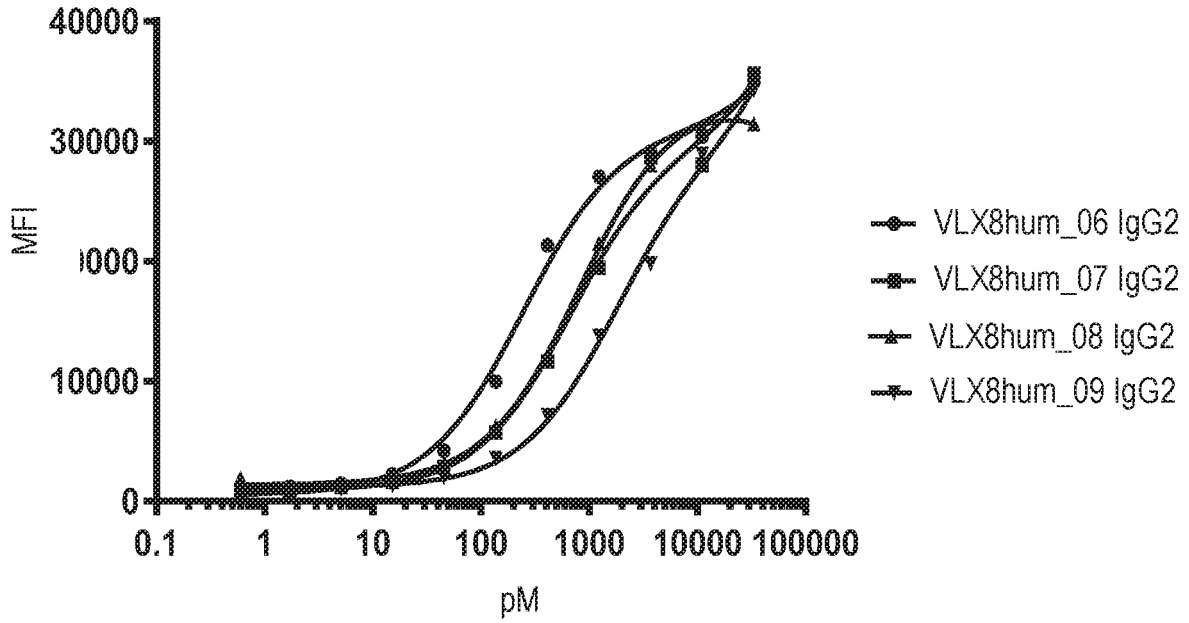
40000
30000
10000
0
MFI
0.1
1
10
100
1000
10000
100000
pM
VLX8hum_06 IgG2
VLX8hum_07 IgG2
VLX8hum_08 IgG2
VLX8hum_09 IgG2

FIG. 5A

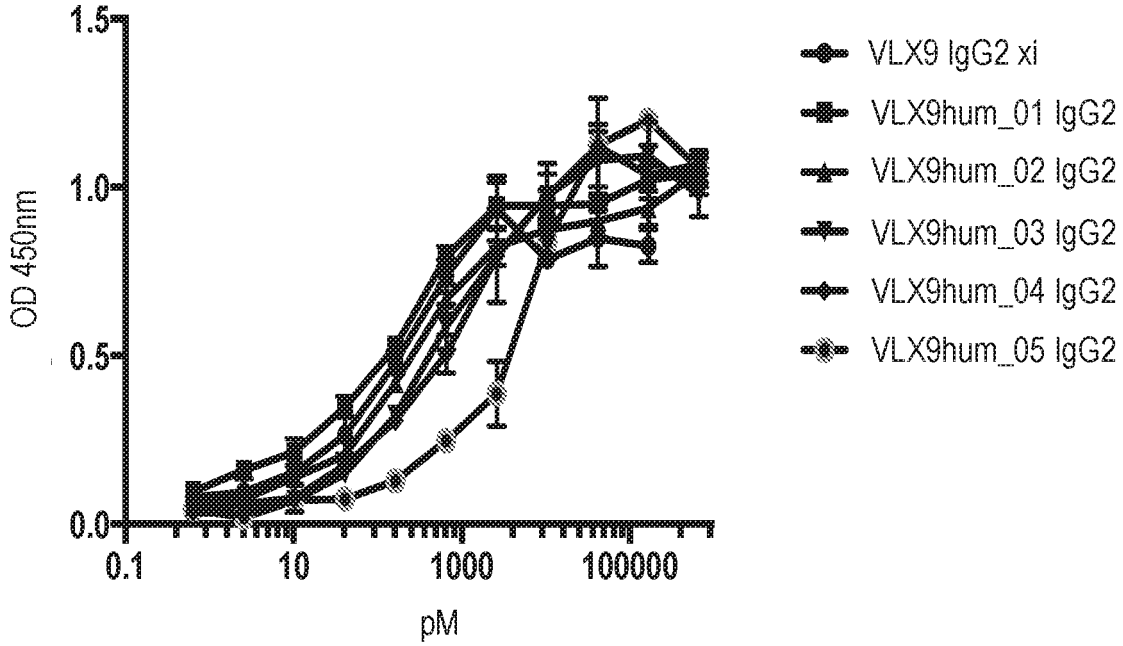
1.5
1.0
0.5
0.0
OD 450nm
0.1
10
1000
100000
pM
VLX9 IgG2 xi
VLX9hum_01 IgG2
VLX9hum_02 IgG2
VLX9hum_03 IgG2
VLX9hum_04 IgG2
VLX9hum_05 IgG2

FIG. 5B

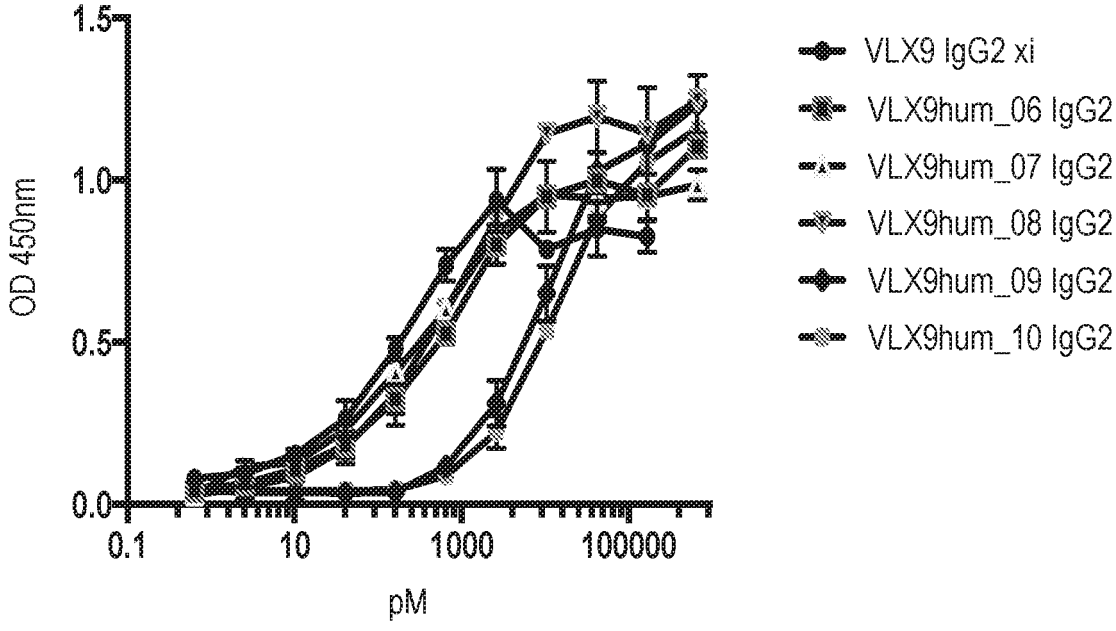
1.5
1.0
0.5
0.0
OD 450nm
0.1
10
1000
100000
pM
VLX9 IgG2 xi
VLX9hum_06 IgG2
VLX9hum_07 IgG2
VLX9hum_08 IgG2
VLX9hum_09 IgG2
VLX9hum_10 IgG2

FIG. 6

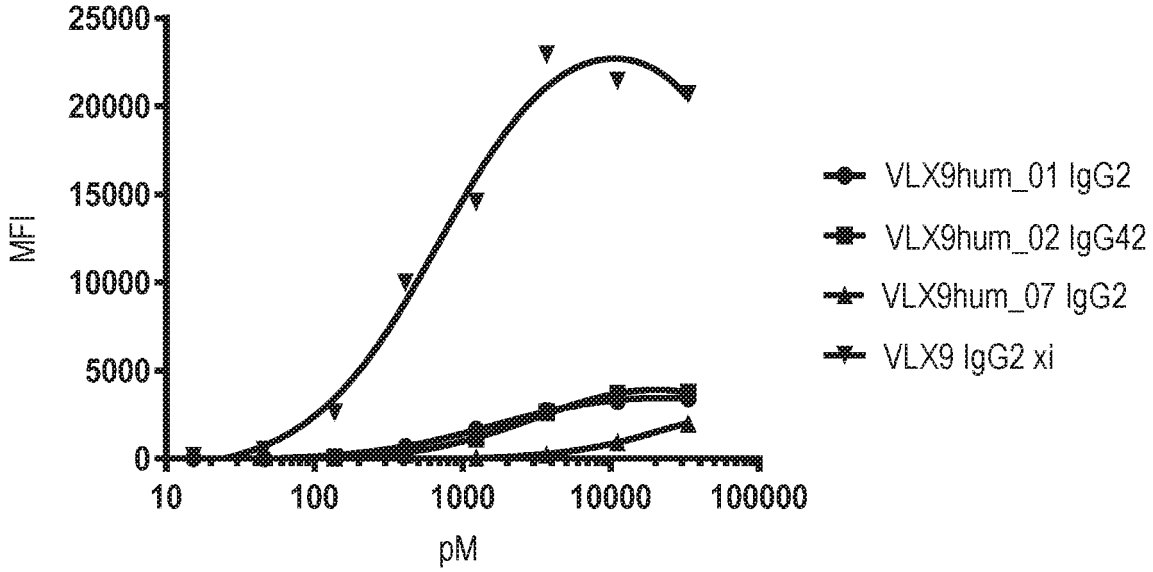
25000
20000
15000
10000
5000
0
MFI
10
100
1000
10000
100000
pM
VLX9hum_01 IgG2
VLX9hum_02 IgG42
VLX9hum_07 IgG2
VLX9 IgG2 xi

FIG. 7

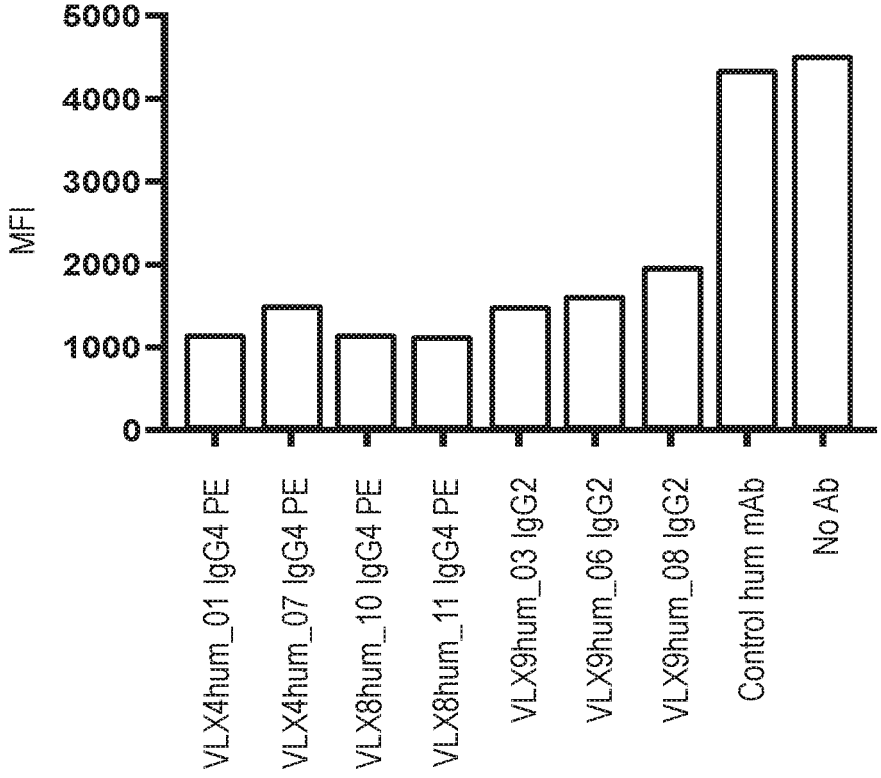
5000
4000
3000
2000
1000
0
MFI
VLX4hum_01 IgG4 PE
VLX4hum_07 IgG4 PE
VLX8hum_10 IgG4 PE
VLX8hum_11 IgG4 PE
VLX9hum_03 IgG2
VLX9hum_06 IgG2
VLX9hum_08 IgG2
Control hum mAb
No Ab

FIG. 8

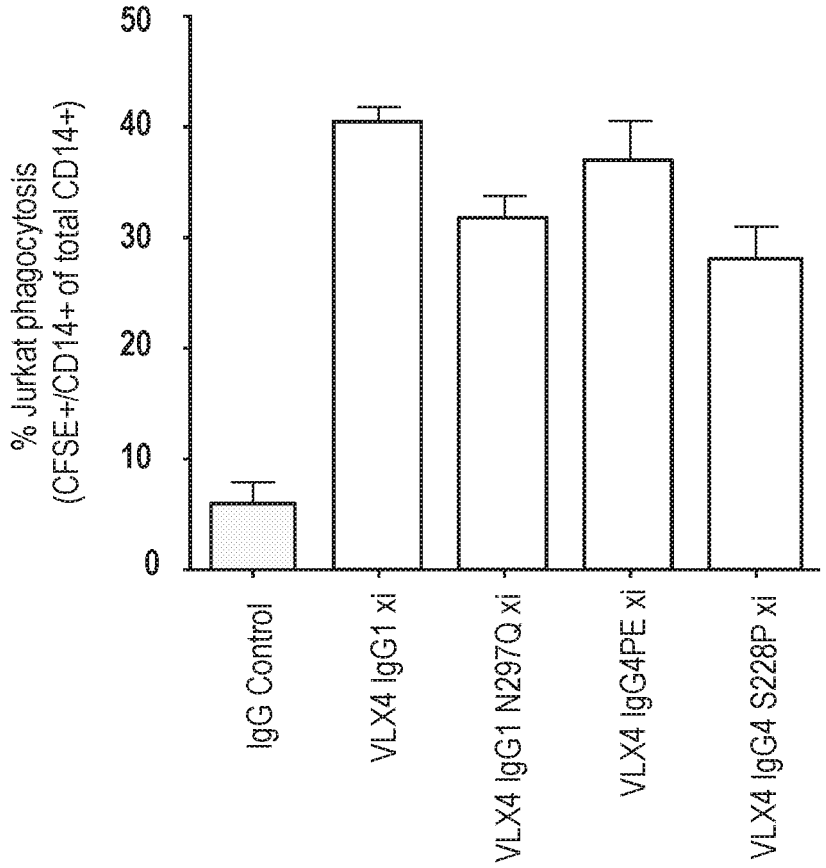
% Jurkat phagocytosis
(CFSE+/CD14+ of total CD14+)
50
40
30
20
10
0
IgG Control
VLX4 IgG1 xi
VLX4 IgG1 N297Q xi
VLX4 IgG4PE xi
VLX4 IgG4 S228P xi

FIG. 9A

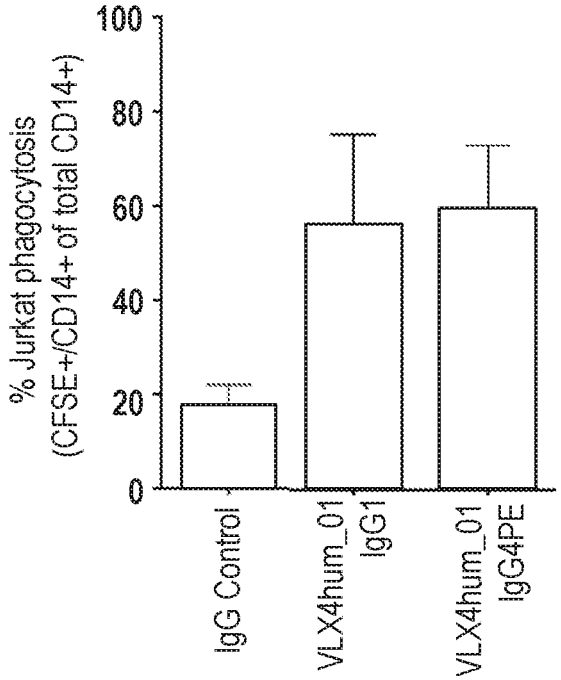
% Jurkat phagocytosis
(CFSE+/CD14+ of total CD14+)
100
80
60
40
20
0
IgG Control
VLX4hum_01 IgG1
VLX4hum_01 IgG4PE

FIG. 9B

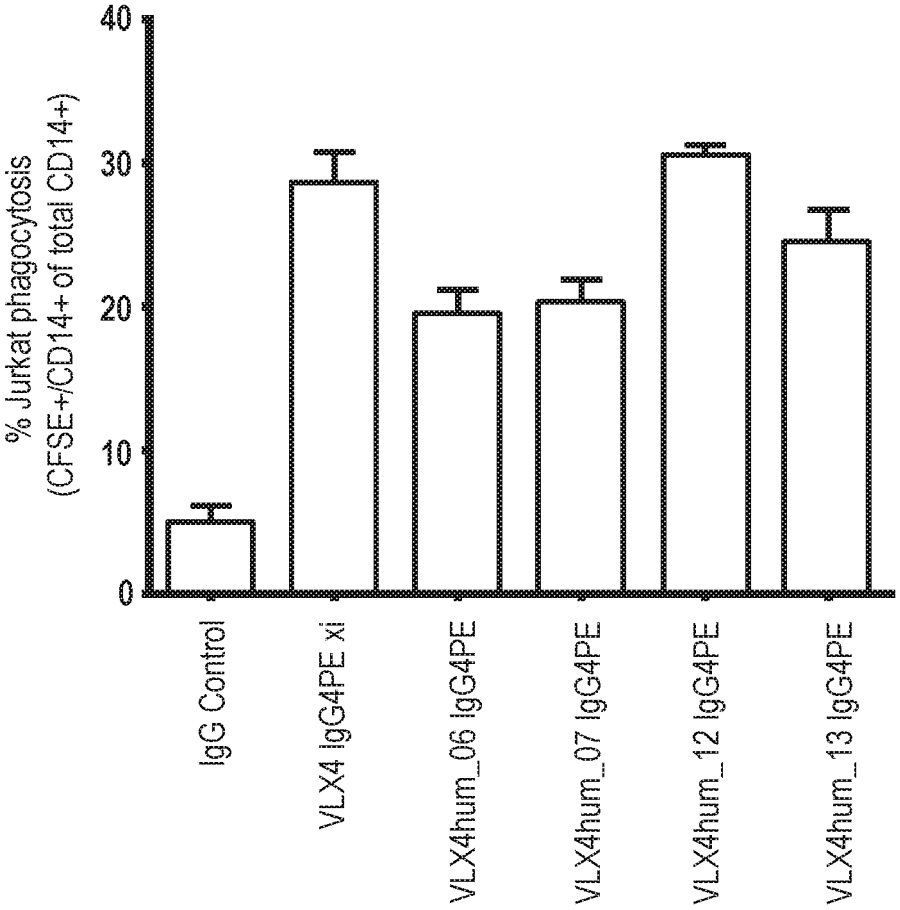
% Jurkat phagocytosis
(CFSE+/CD14+ of total CD14+)
40
30
20
10
0
IgG Control
VLX4 IgG4PE xi
VLX4hum_06 IgG4PE
VLX4hum_07 IgG4PE
VLX4hum_12 IgG4PE
VLX4hum_13 IgG4PE

FIG. 10A

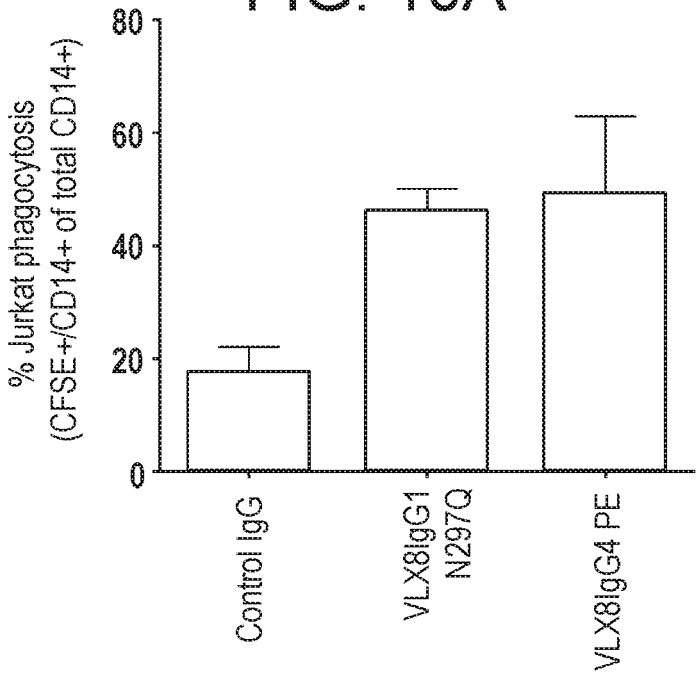

FIG. 10B

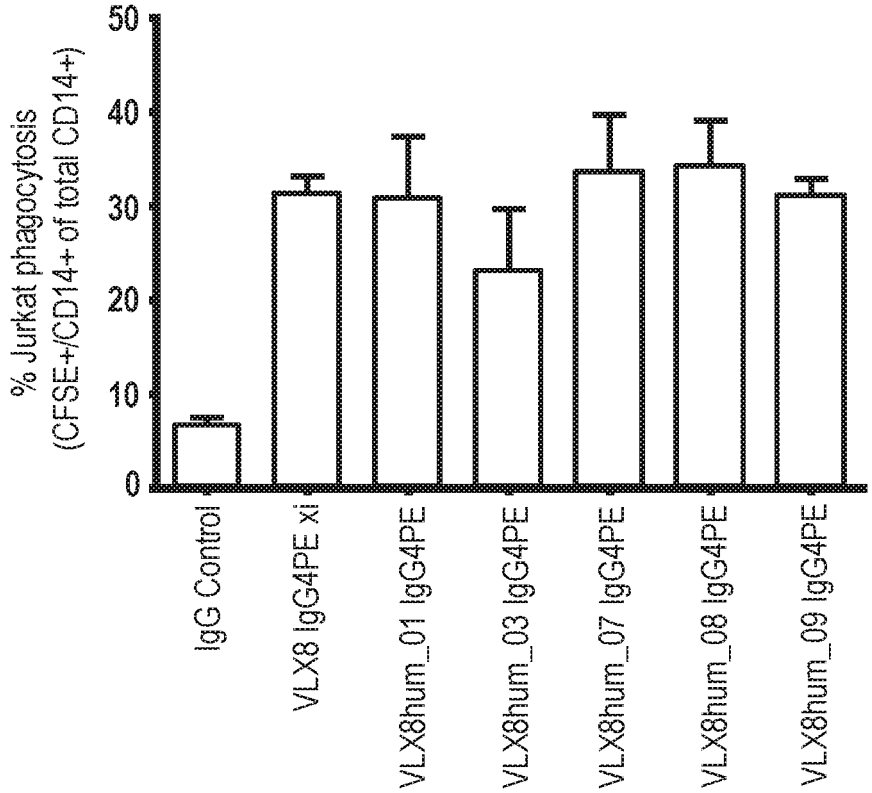

FIG. 11A

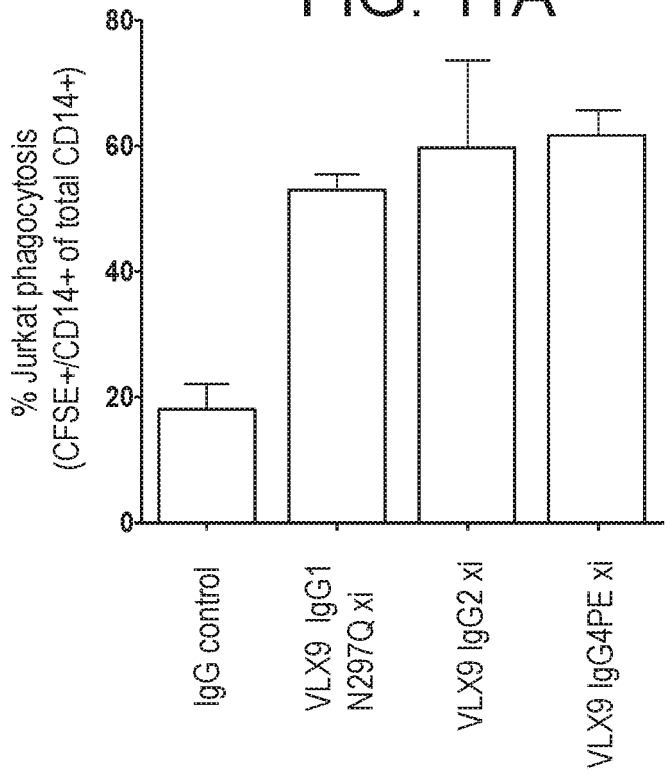

FIG. 11B

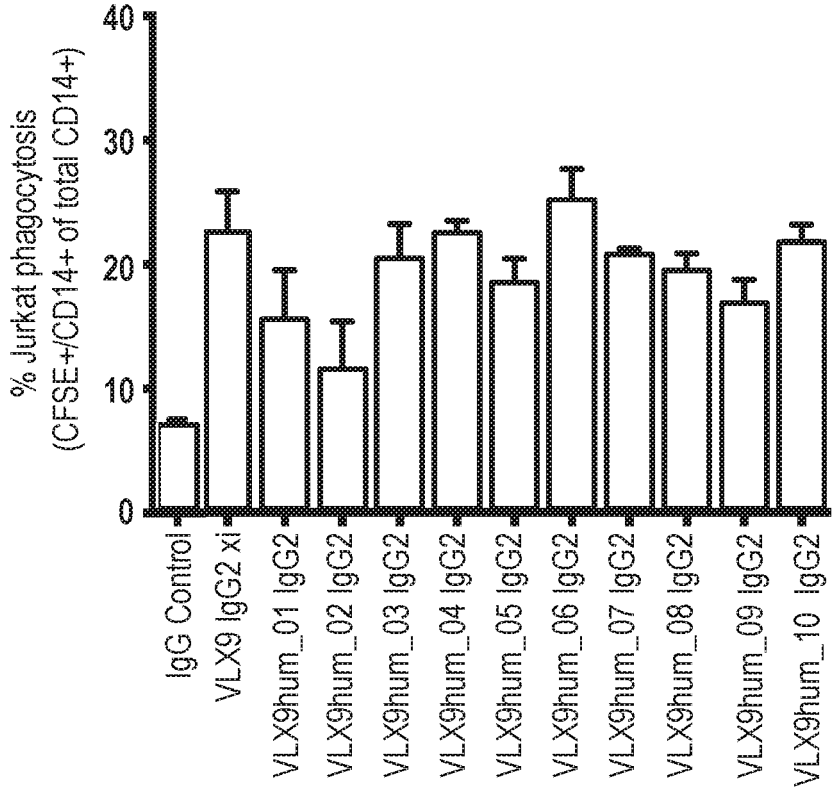

FIG. 12A

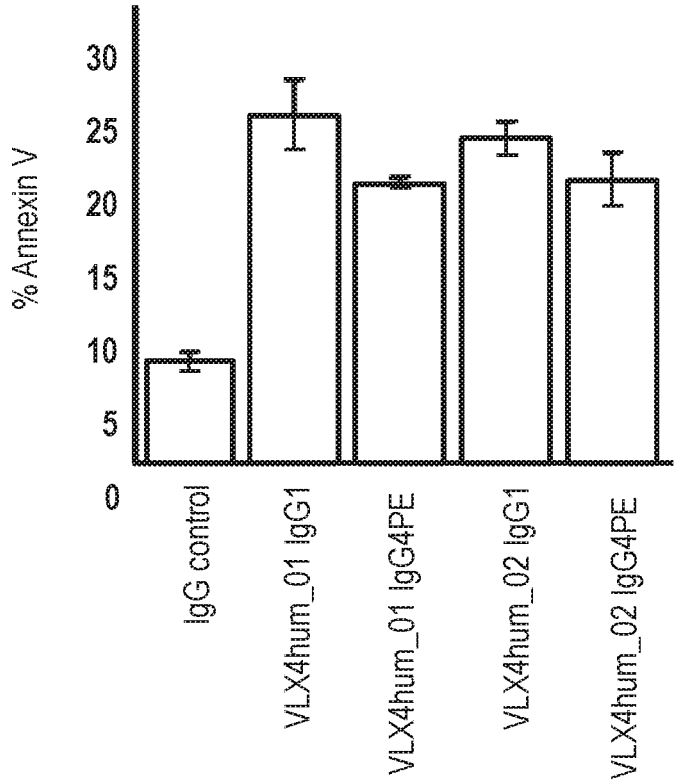

FIG. 12B

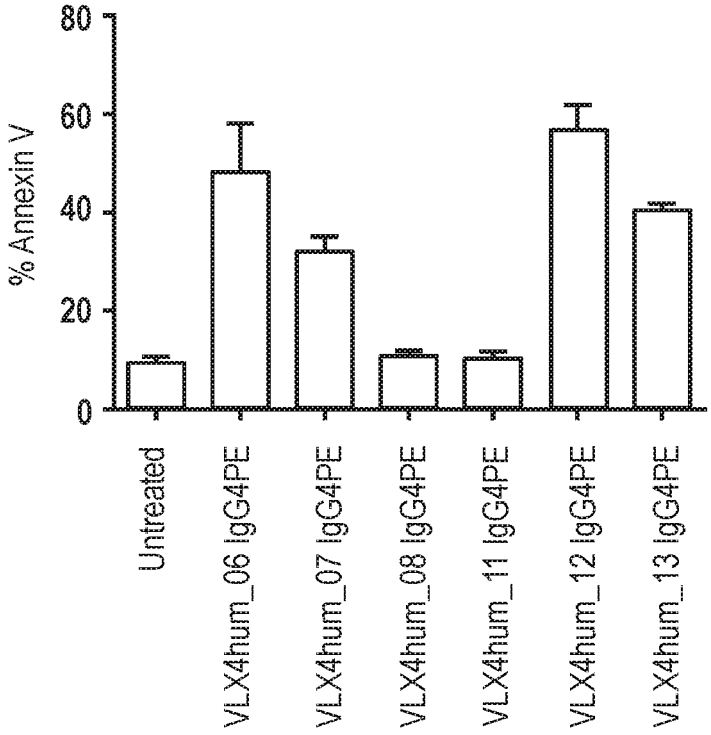

FIG. 13A

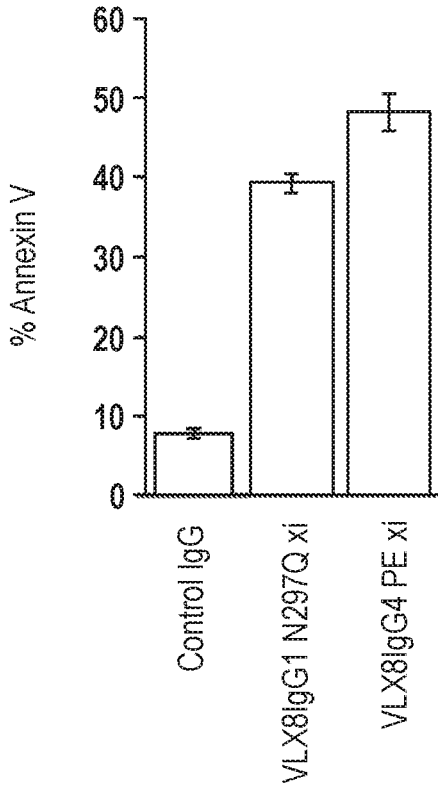

FIG. 13B

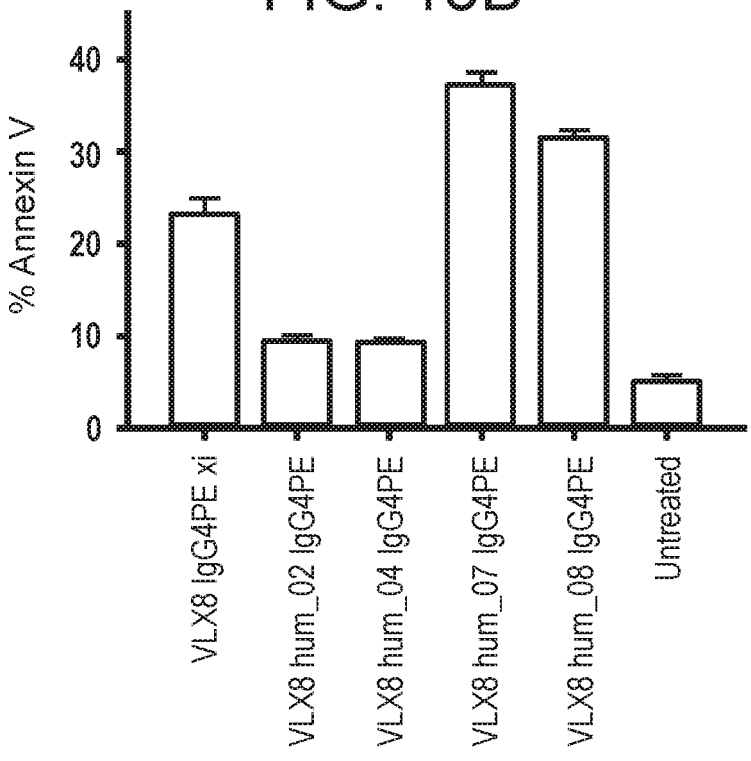

FIG. 14A

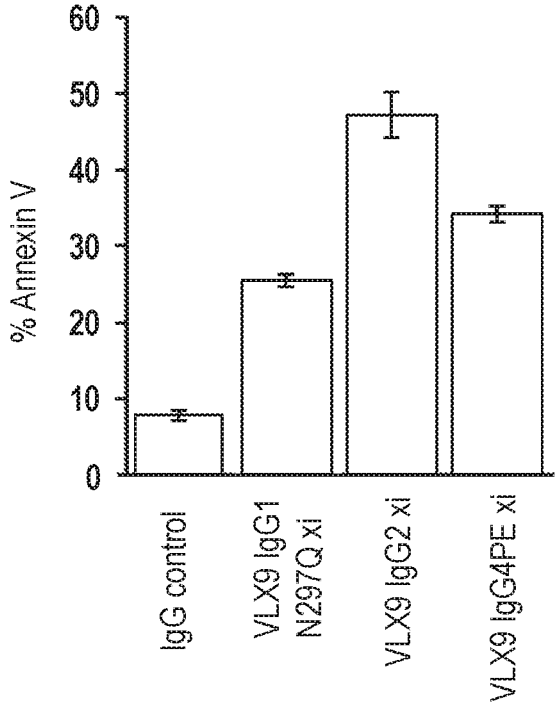

FIG. 14B

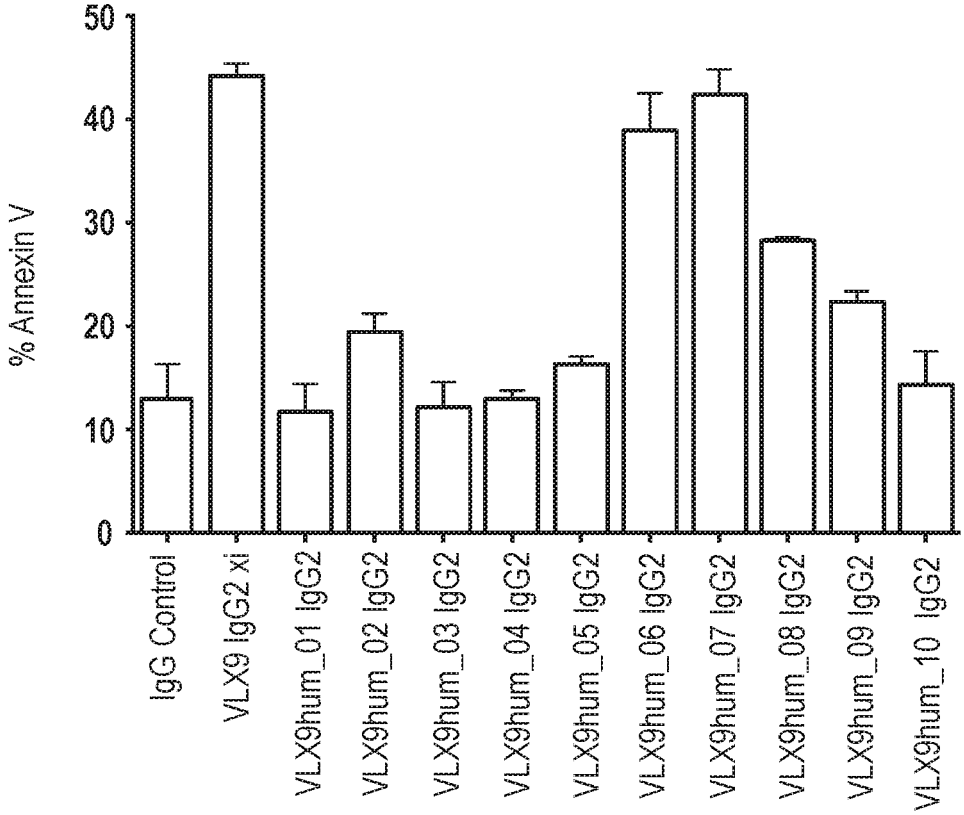

FIG. 15A

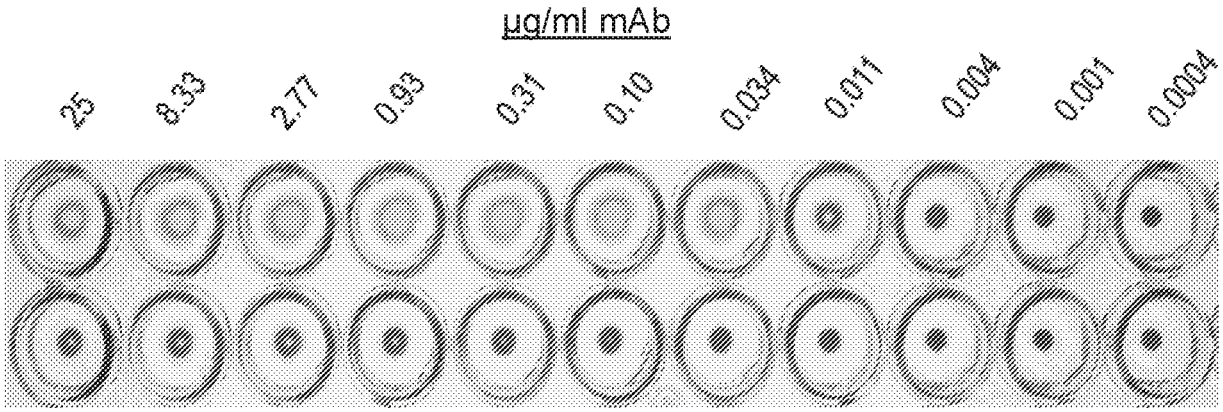

FIG. 15B

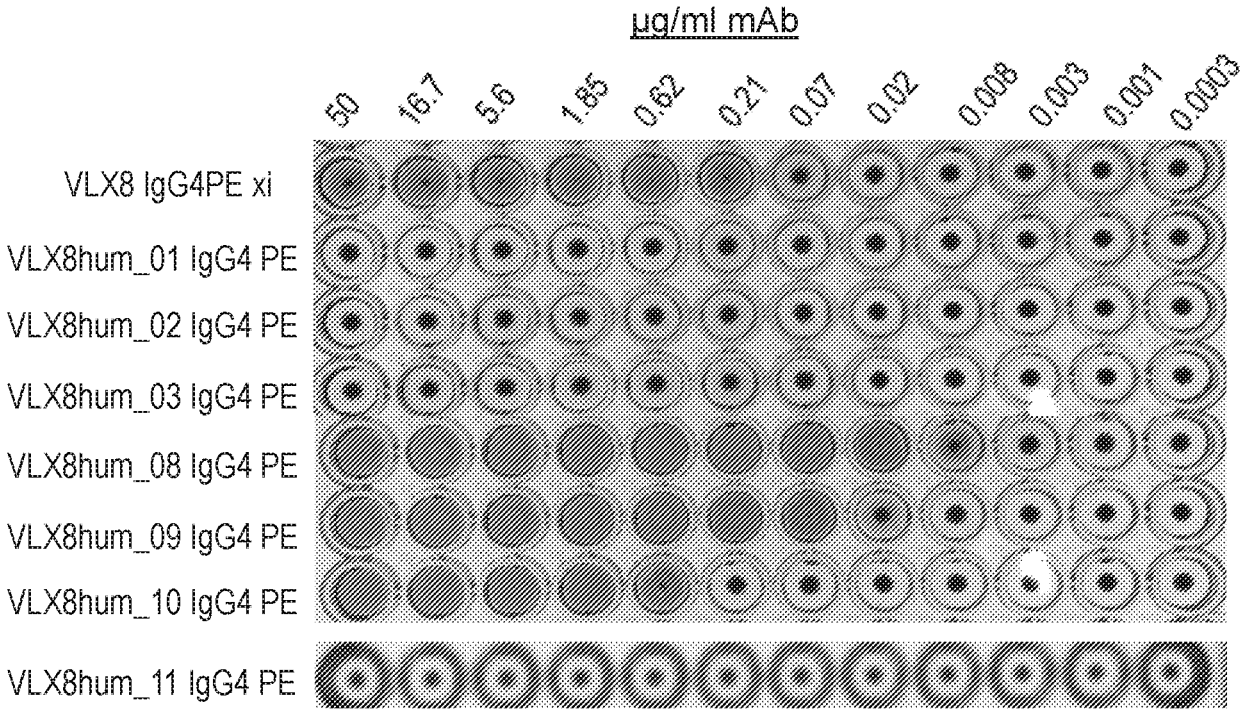

FIG. 16A

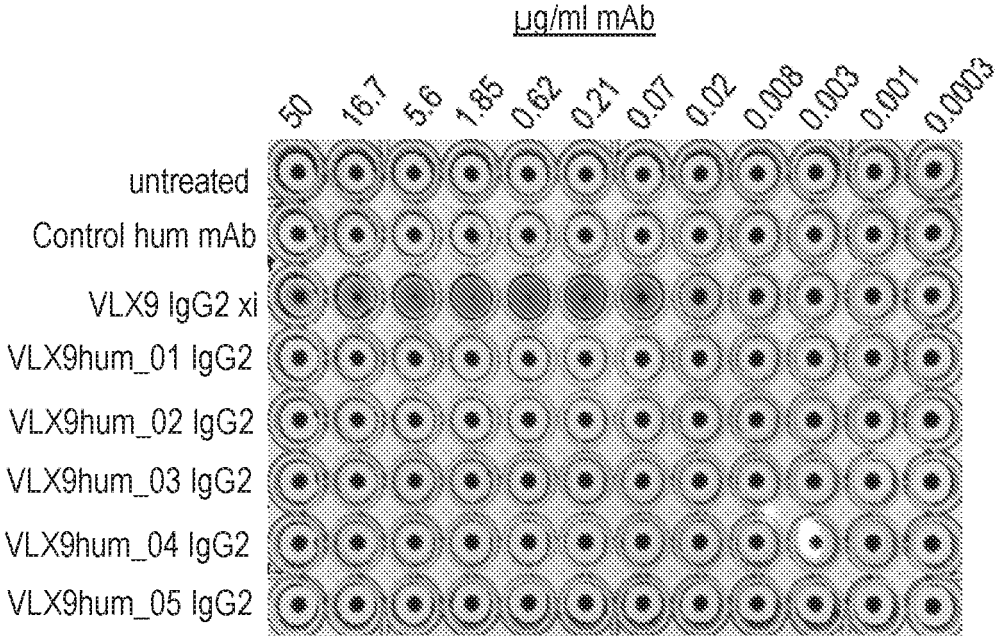

FIG. 16B

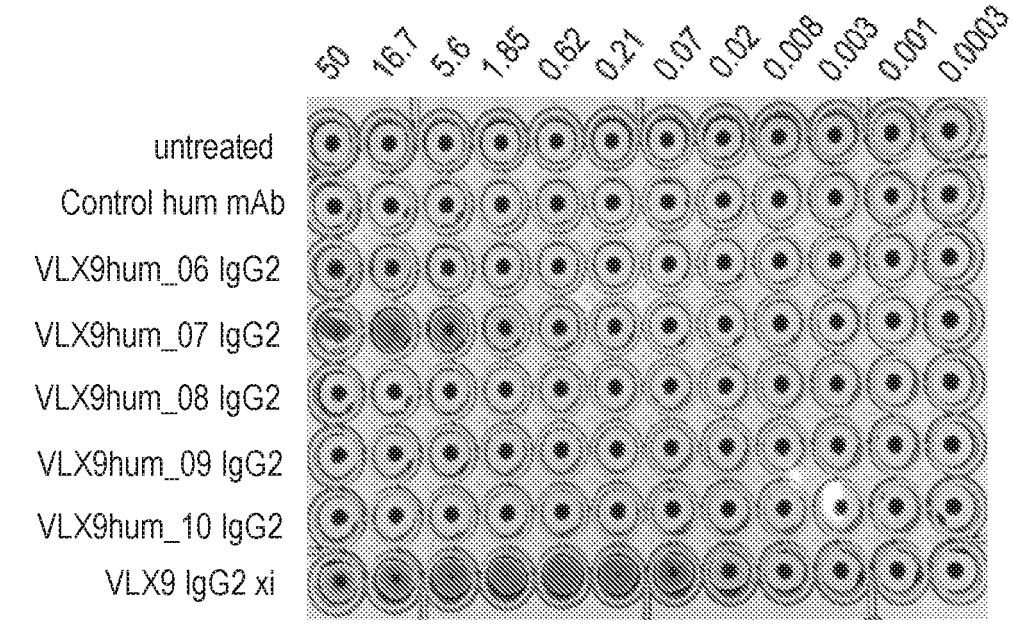

FIG. 17

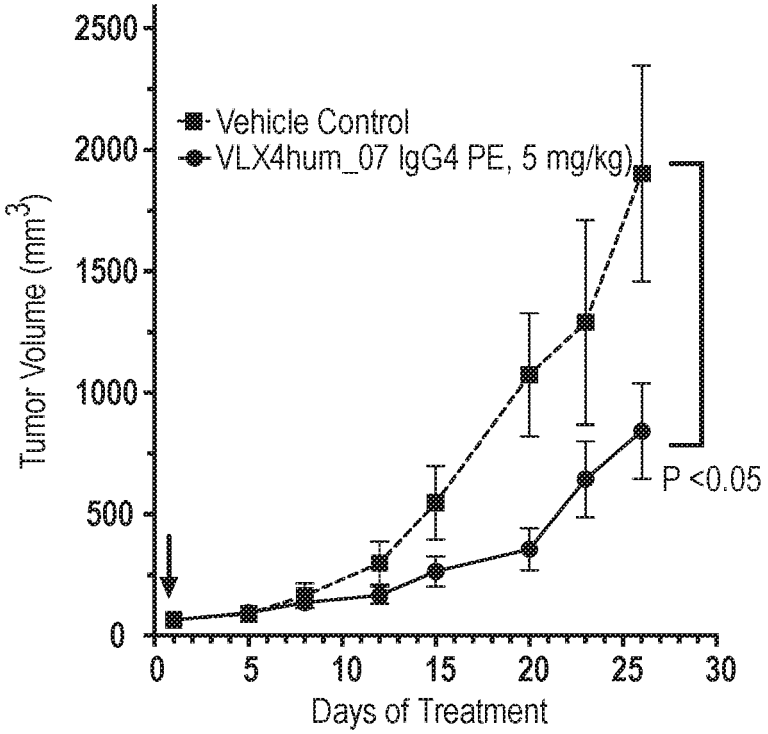
Vehicle Control
VLX4hum_07 IgG4 PE, 5 mg/kg)
Tumor Volume (mm3)
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Days of Treatment
P <0.05

FIG. 18

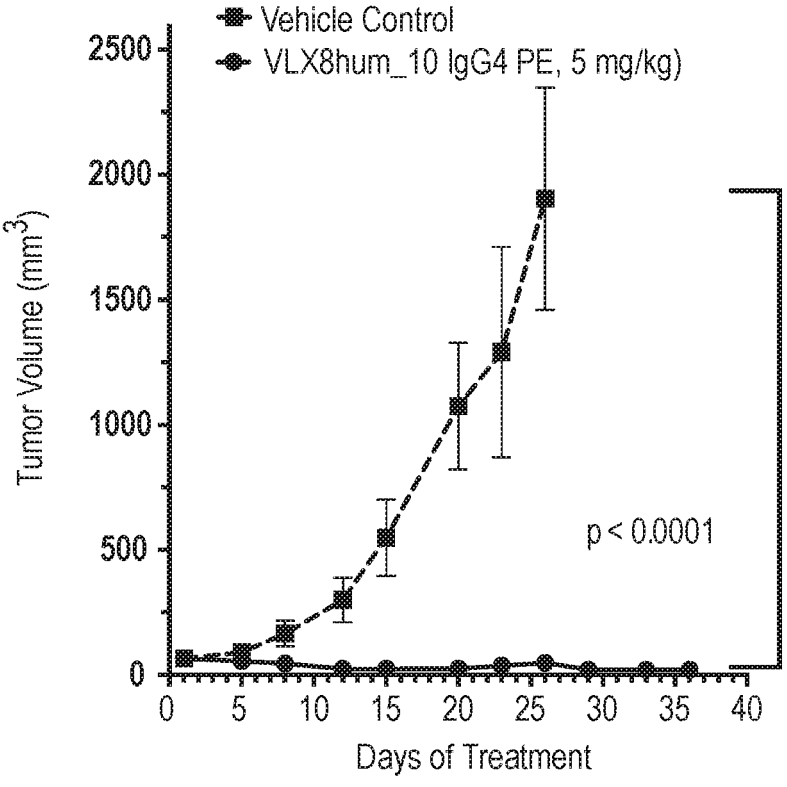
Vehicle Control
VLX8hum_10 IgG4 PE, 5 mg/kg)
Tumor Volume (mm3)
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
35
40
Days of Treatment
p < 0.0001

FIG. 19

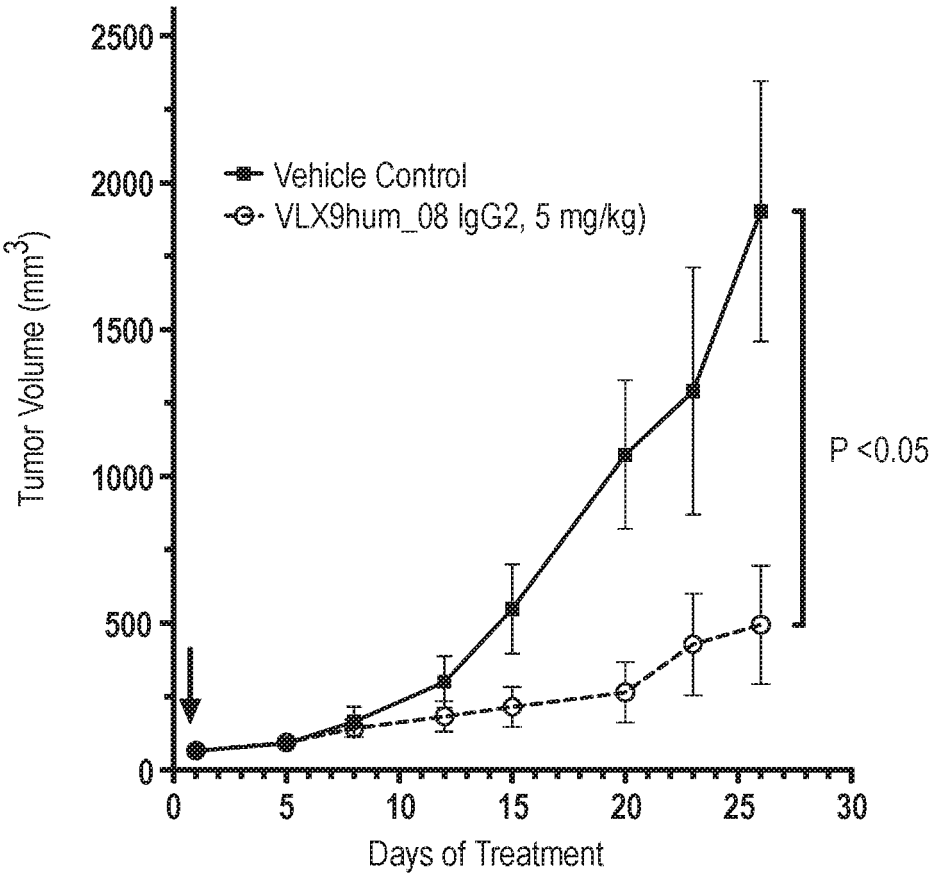
2500
2000
1500
1000
500
0
Tumor Volume (mm3)
Vehicle Control
VLX9hum_08 IgG2, 5 mg/kg)
P <0.05
0
5
10
15
20
25
30
Days of Treatment

FIG. 20A

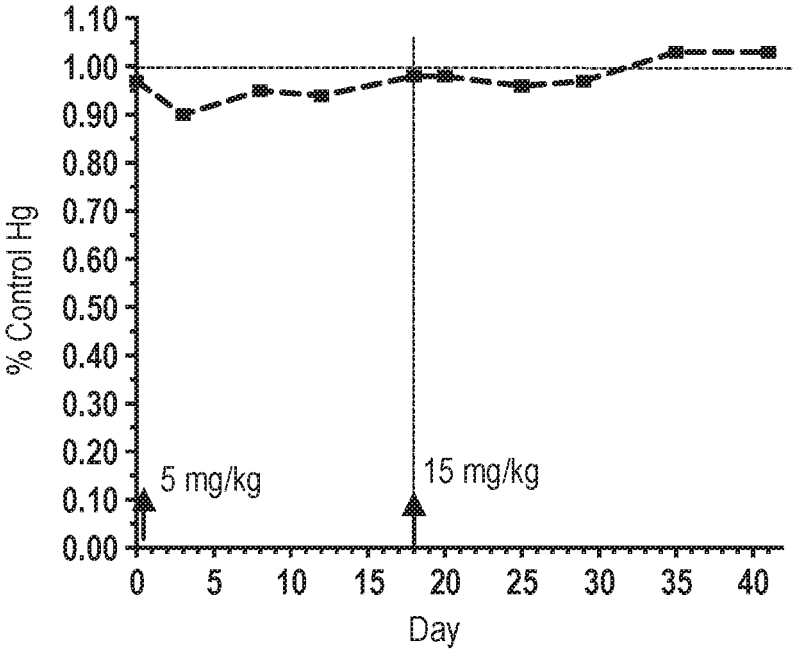

FIG. 20B

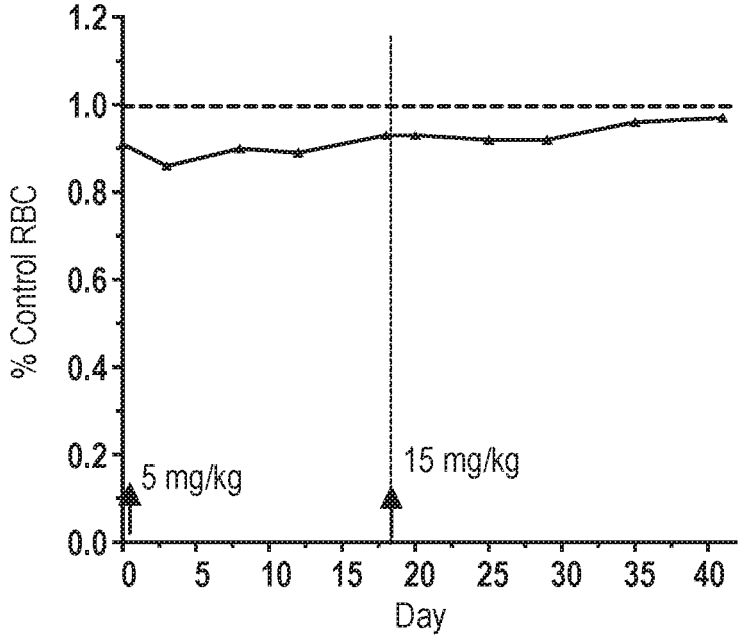

FIG. 21

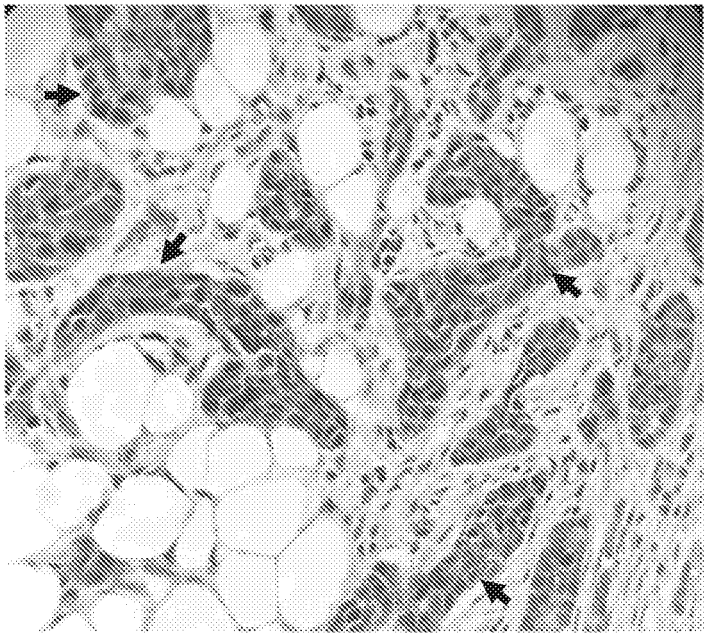

FIG. 22

Antibody	V_H SEQ ID No	V_L SEQ ID NO	Full Length Heavy Chain SEQ ID NO:	Full Length Light Chain SEQ ID NO:	Binds hCD47 on tumor cells	Blocks SIRPα binding to CD47 on tumor cells	Causes phagocytosis	Induces cell death of tumor cells	Does not Induce Cell Death of tumor cells	No detectable binding to hRBCs	Reduced binding to hRBCs	Binds to hRBC same as to tumor cells	Does not cause HA	Reduced HA	Causes HA	Cross-reacts with other species	Cross reacts with human and non-human primate	Cross reacts with human, non-human primate, mouse, rabbit, and rat
VLX4 IgG4 PE (xi)	21	41	78	67	x	x	x	x				x	x			x		x
VLX4hum_01 IgG4 PE	23	43	79	69	x	x	x	x				x	x			x		x
VLX8hum_11 IgG4 PE	34	49	80	70	x	x	x	x				x	x			x		x
VLX9hum_06 IgG2	36	52	81	71	x	x	x	x		x			x			x	x	
VLX9hum_08 IgG2	38	52	82	71	x	x	x	x		x			x			x	x	
VLX9hum_09 IgG2	39	52	83	71	x	x	x	x		x			x			x	x	
VLX4hum_02 IgG4 PE	24	43	84	69	x	x	x	x				x		x		x		x
VLX9hum_07 IgG2	37	52	85	71	x	x	x	x			x			x		x	x	
VLX8hum_10 IgG4 PE	33	48	86	72	x	x	x	x			x				x	x		x
VLX4hum_06 IgG4 PE	26	44	87	73	x	x	x	x			x				x	x		x
VLX4hum_07 IgG4 PE	27	44	88	73	x	x	x	x			x				x	x		x
VLX9hum_03 IgG2	38	51	82	74	x	x	x		x	x			x			x	x	
VLX9hum_04 IgG2	39	51	83	74	x	x	x		x	x			x			x	x	
VLX9hum_10 IgG2	40	52	89	71	x	x	x		x	x			x			x	x	
VLX9hum_01 IgG2	36	51	81	74	x	x	x		x		x		x			x	x	
VLX8hum_01 IgG4 PE	29	47	90	75	x	x	x		x			x	x			x		x
VLX8hum_02 IgG4 PE	30	47	91	75	x	x	x		x			x	x			x		x
VLX8hum_03 IgG4 PE	31	47	92	75	x	x	x		x			x	x			x		x
VLX8hum_04 IgG4 PE	32	47	93	75	x	x	x		x			x	x			x		x
VLX8hum_05 IgG4 PE	33	47	86	75	x	x	x		x			x	x			x		x
VLX8hum_06 IgG4 PE	29	48	94	72	x	x	x	x				x			x	x		x
VLX8hum_07 IgG4 PE	30	48	91	72	x	x	x	x				x			x	x		x
VLX8hum_08 IgG4 PE	31	48	92	72	x	x	x	x				x			x	x		x
VLX8hum_09 IgG4 PE	32	48	93	72	x	x	x	x				x			x	x		x
VLX4hum_12 IgG4 PE	26	43	87	69	x	x	x	x				x			x	x		x
VLX4hum_13 IgG4 PE	27	43	88	69	x	x	x	x				x			x	x		x
VLX8 IgG4 PE (xi)	28	46	95	76	x	x	x	x				x			x	x		x
VLX9 IgG2 (xi)	35	50	96	77	x	x	x	x				x			x	x	x	
VLX8hum_06 IgG2	29	48	97	72	x	x	x	x				x			x	x		x
VLX8hum_07 IgG2	30	48	98	72	x	x	x	x				x			x	x		x
VLX8hum_08 IgG2	31	48	99	72	x	x	x	x				x			x	x		x
VLX8hum_09 IgG2	32	48	100	72	x	x	x	x				x			x	x		x
VLX9hum_02 IgG2	37	51	85	74	x	x	x		x		x		x			x	x	
VLX9hum_05 IgG2	40	51	89	74	x	x	x		x	x			x			x	x	