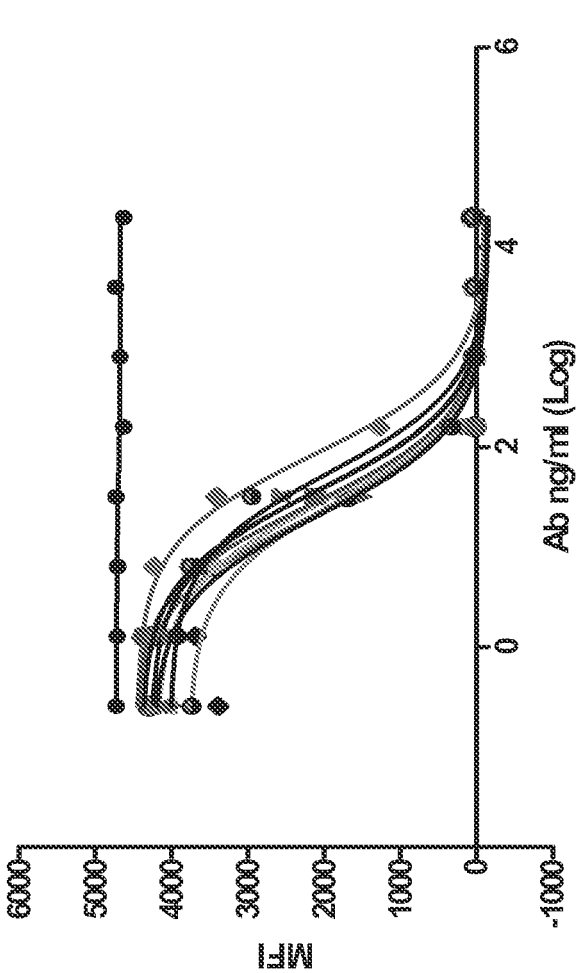
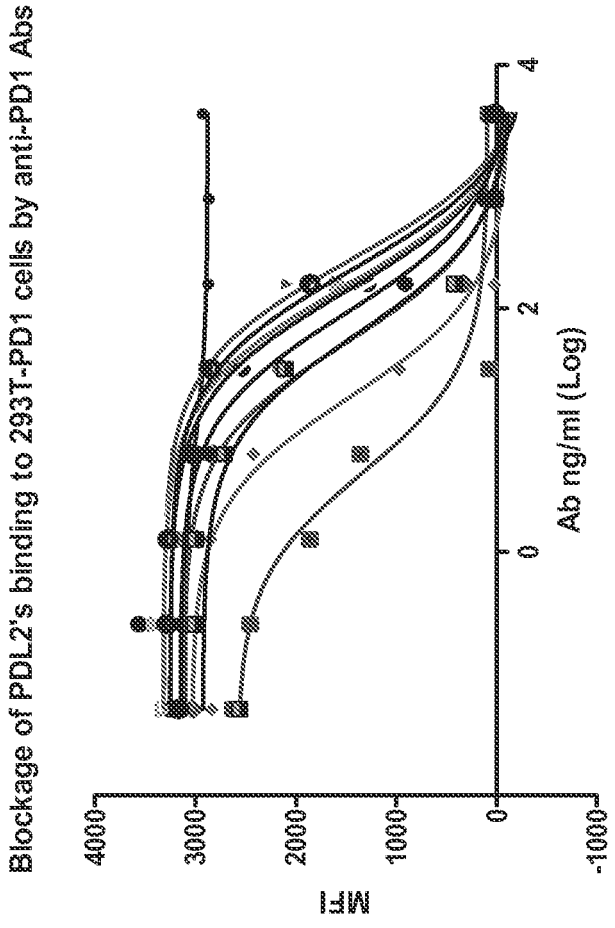
Figure 1A



ng/ml	mIgG1	4C10-mIgG1	5A8-mIgG1	6E1-mIgG1	7A4-mIgG1	7D3-mIgG1	13F1-mIgG1	14A6-mIgG1	15H5-mIgG1	22A5-mIgG1
IC50		83.32	28.22	26.85	28.85	38	19.86	21.13	35.64	56.22

Figure 1B



ng/ml	mIg G1	4C10-mIgG1	5A8-mIgG1	6E1-mIgG1	7A4-mIgG1	7D3-mIgG1	10D1-mIgG1	13F1-mIgG1	14A6-mIgG1	15H5-mIgG1	22A5-mIgG1
IC50		250.7	18.84	113.7	4.449	140.5	150	52.93	91.98	63.04	210.1

Figure 2

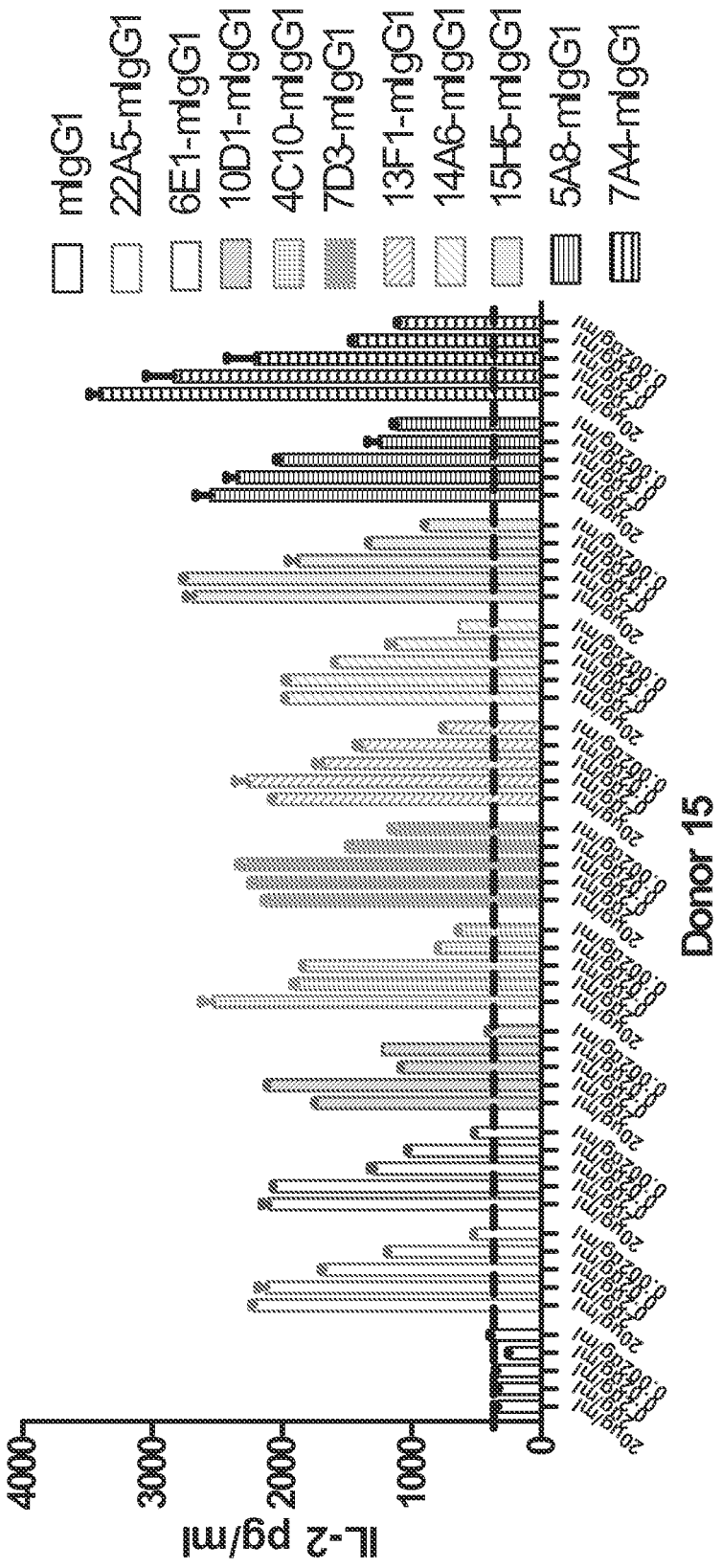

mIgG1
22A5-mIgG1
6E1-mIgG1
10D1-mIgG1
4C10-mIgG1
7D3-mIgG1
13F1-mIgG1
14A6-mIgG1
15H5-mIgG1
5A8-mIgG1
7A4-mIgG1
IL-2 pg/ml
4000
3000
2000
1000
0
Donor 15

Figure 3

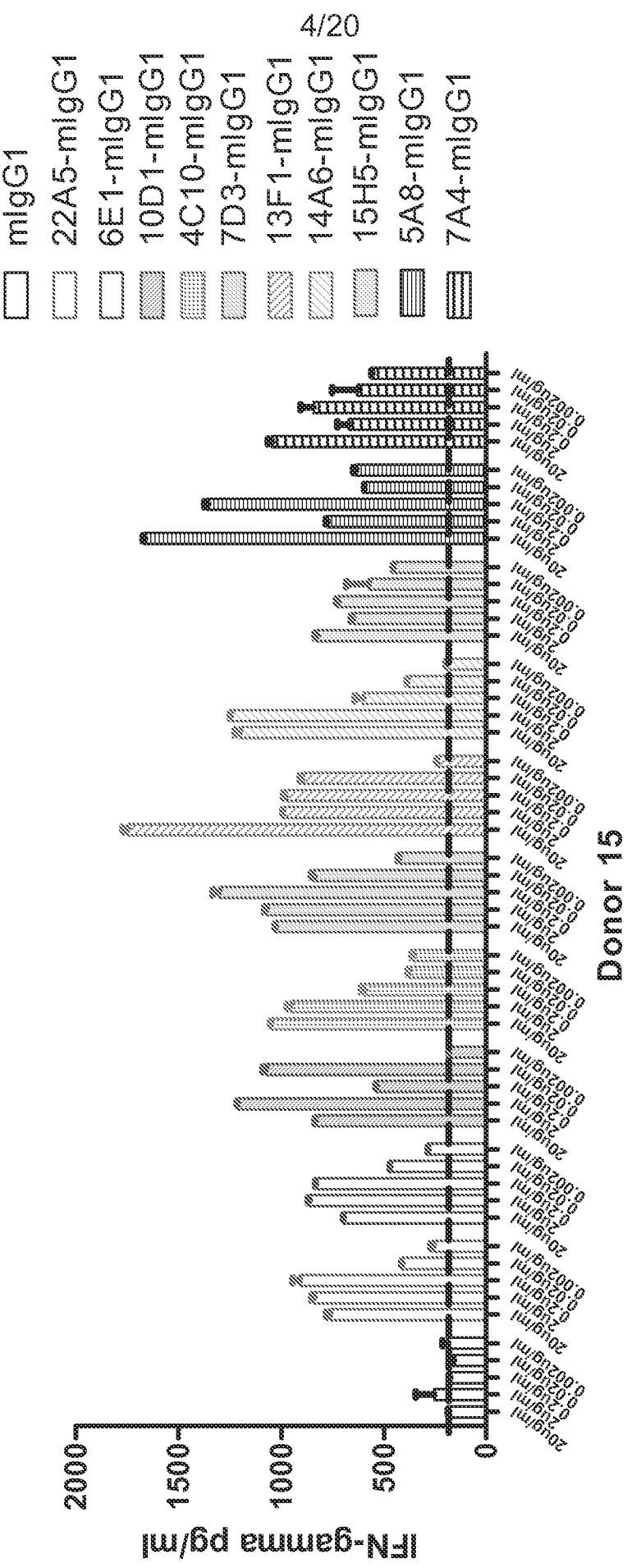

mIgG1
22A5-mIgG1
6E1-mIgG1
10D1-mIgG1
4C10-mIgG1
7D3-mIgG1
13F1-mIgG1
14A6-mIgG1
15H5-mIgG1
5A8-mIgG1
7A4-mIgG1
IFN-gamma pg/ml
2000
1500
1000
500
0
Donor 15

Figure 4

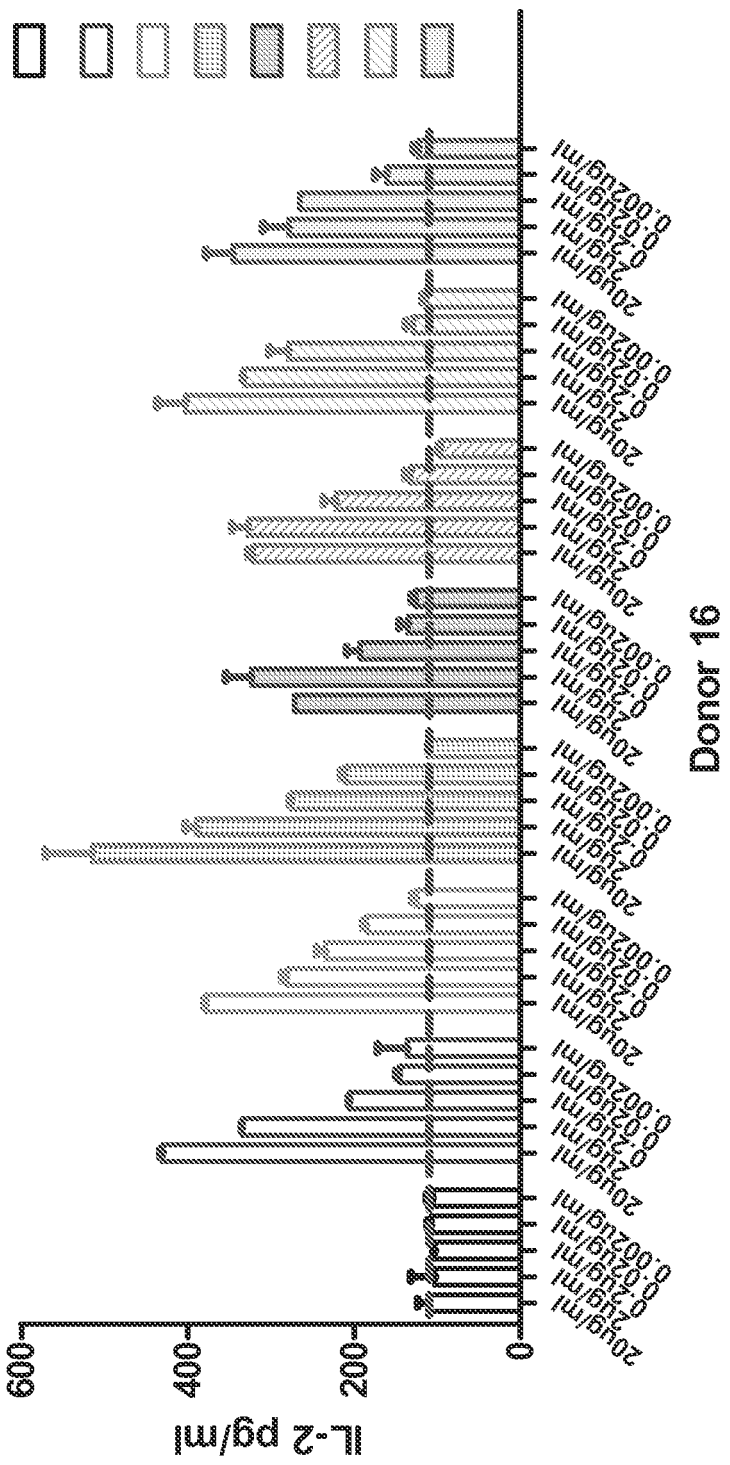

hIgG4
chimeric 4C10-hIgG4
chimeric 6E1-hIgG4
chimeric 7A4-hIgG4
chimeric 13F1-hIgG4
chimeric 15H5-hIgG4
chimeric 22A5-hIgG4
chimeric 7D3-hIgG4
IL-2 pg/ml
600
400
200
0
Donor 16
20ug/ml
6.67ug/ml
2.22ug/ml
0.74ug/ml
0.247ug/ml
0.082ug/ml
0.027ug/ml
0.009ug/ml
0.003ug/ml
0.001ug/ml

Figure 5

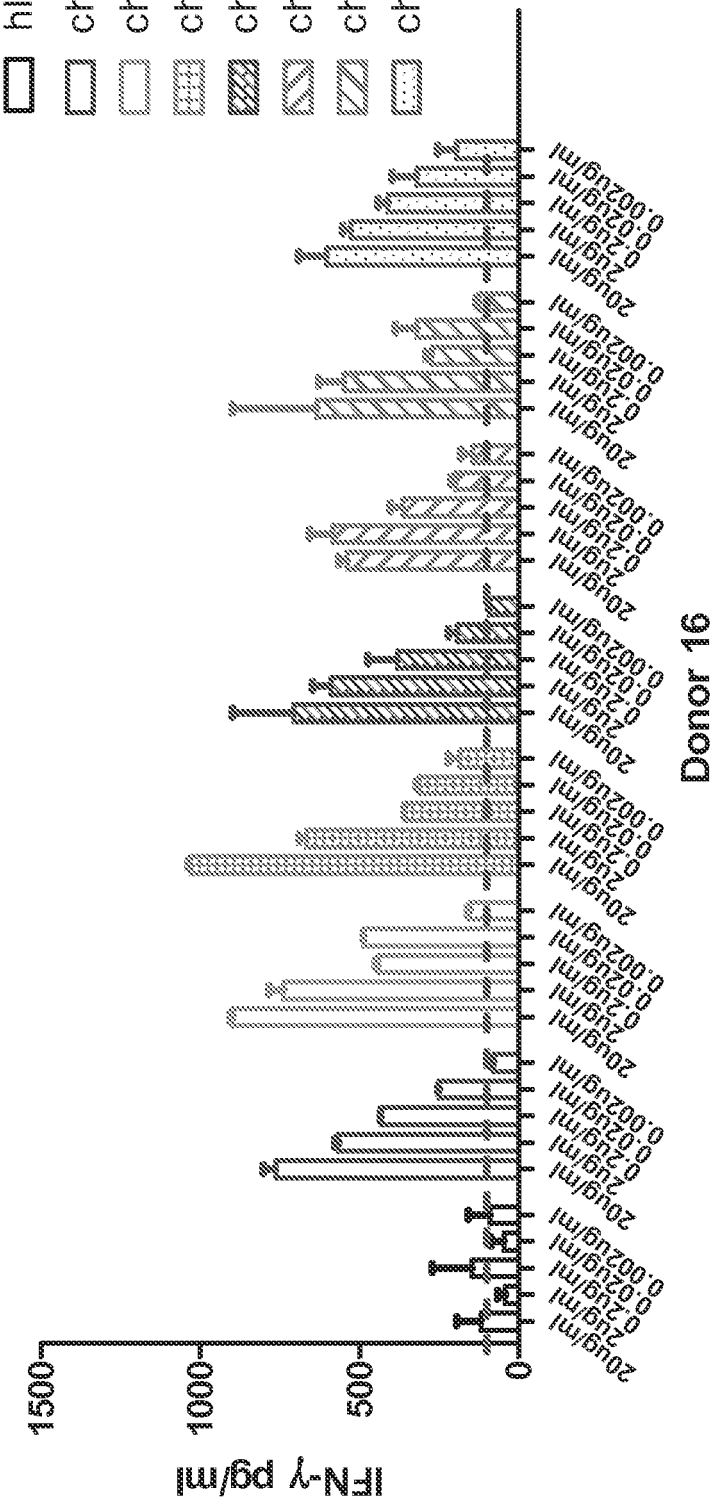
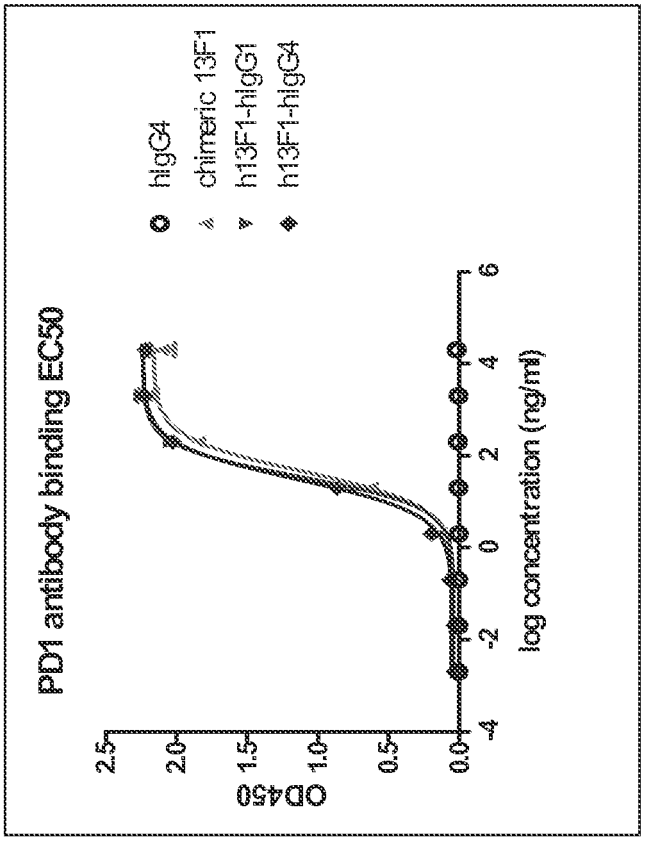

hIgG4
chimeric 4C10-hIgG4
chimeric 6E1-hIgG4
chimeric 7A4-hIgG4
chimeric 13F1-hIgG4
chimeric 15H5-hIgG4
chimeric 22A5-hIgG4
chimeric 7D3-hIgG4
IFN-γ pg/ml
1500
1000
500
0
Donor 16
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml

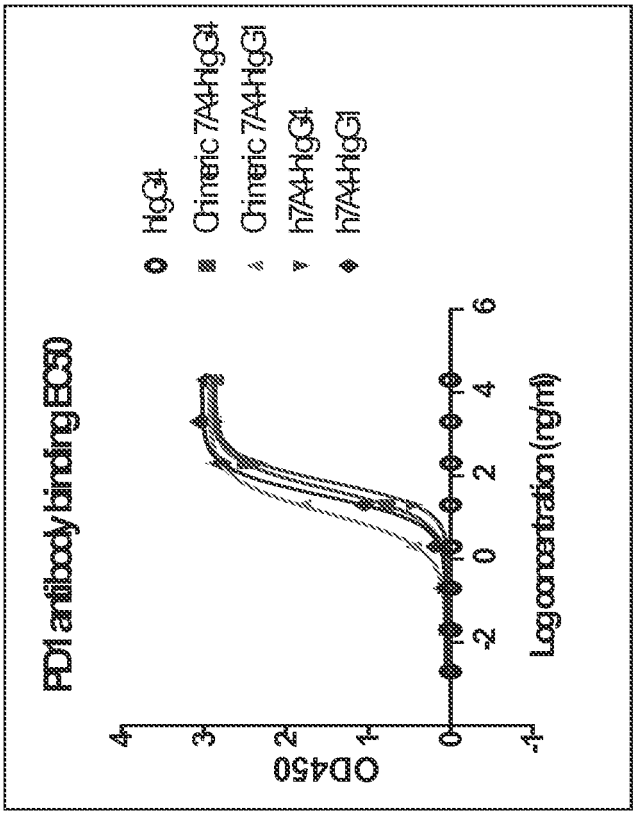
Figure 6

A



ng/ml	13F1-chimeric	h13F1-hIgG1	h3F1-hIgG4
EC50	45.59	35.65	30.98

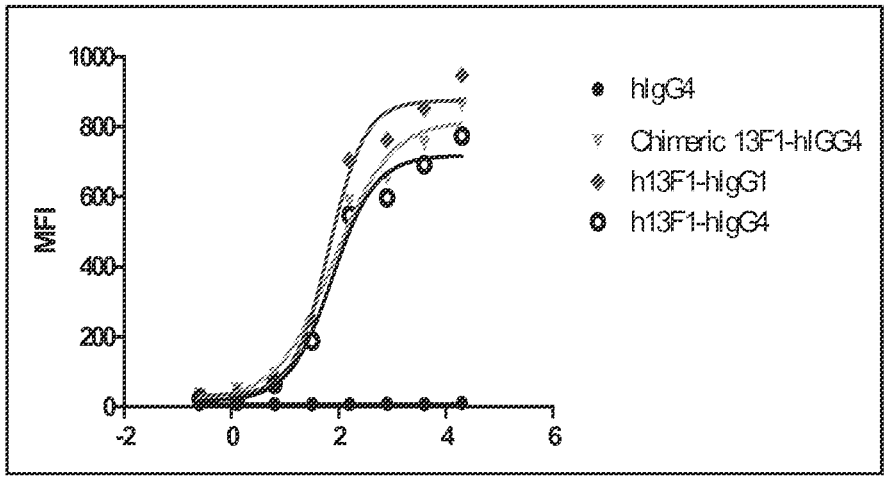
B



ng/ml	Chimeric 7A4 -hIgG4	Chimeric 7A4 –hIgG1	h7A4-hIgG4	h7A4 -hIgG1
EC50	47.37	12.77	70.71	33.07

Figure 7

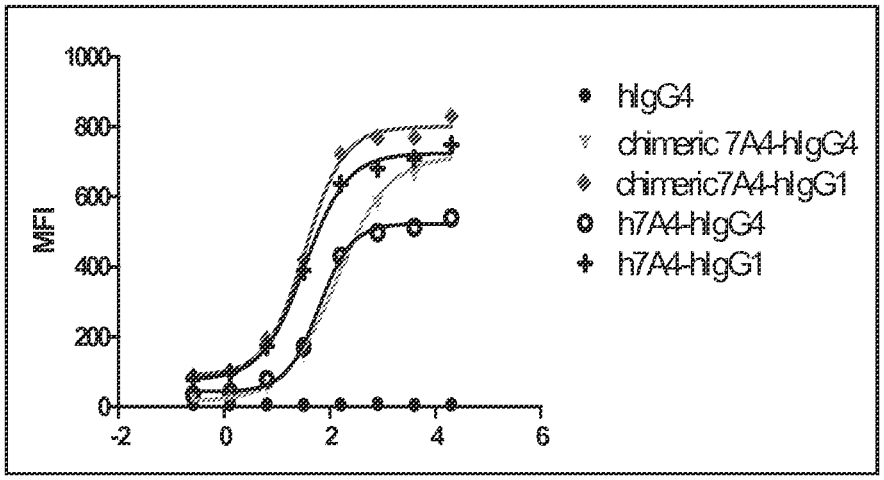
A



Ab conc. (log) (ng/ml)

ng/ml	Chimeric 13F1-hIgG4	h13F1-hIgG1	h3F1-hIgG4
EC50	81.48	66.83	76.26

B

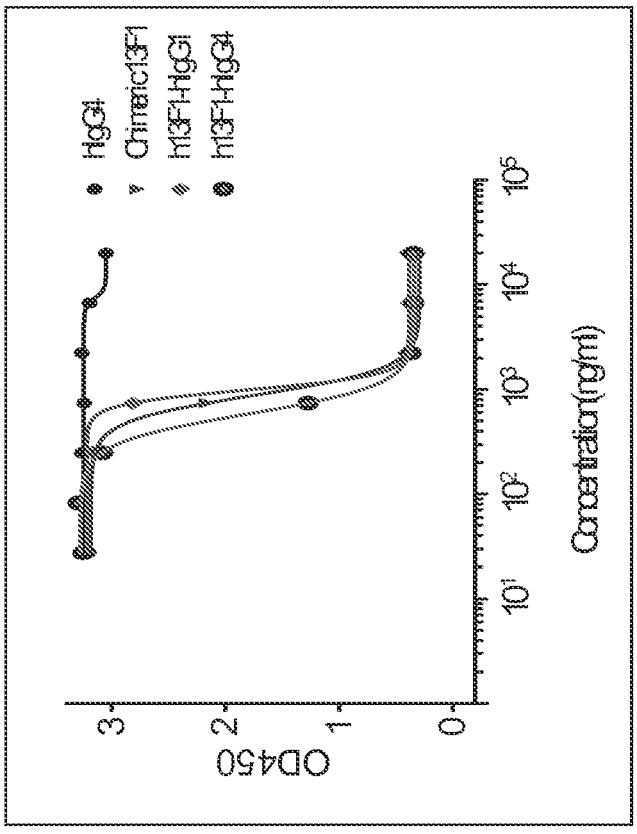


Ab conc. (log) (ng/ml)

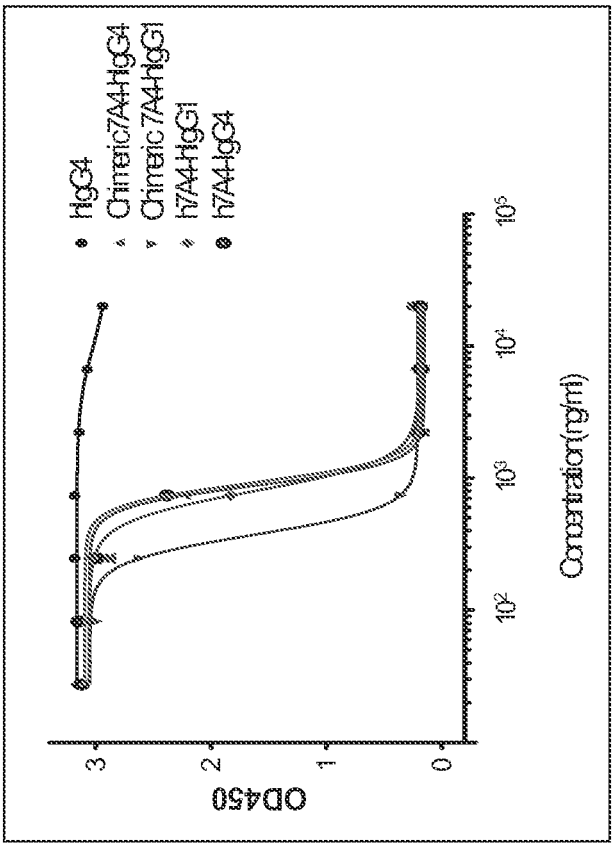
ng/ml	Chimeric 7A4-hIgG4	Chimeric 7A4 –hIgG1	h7A4-hIgG4	h7A4-hIgG1
EC50	137.3	33.73	62.14	33.2

Figure 8

A



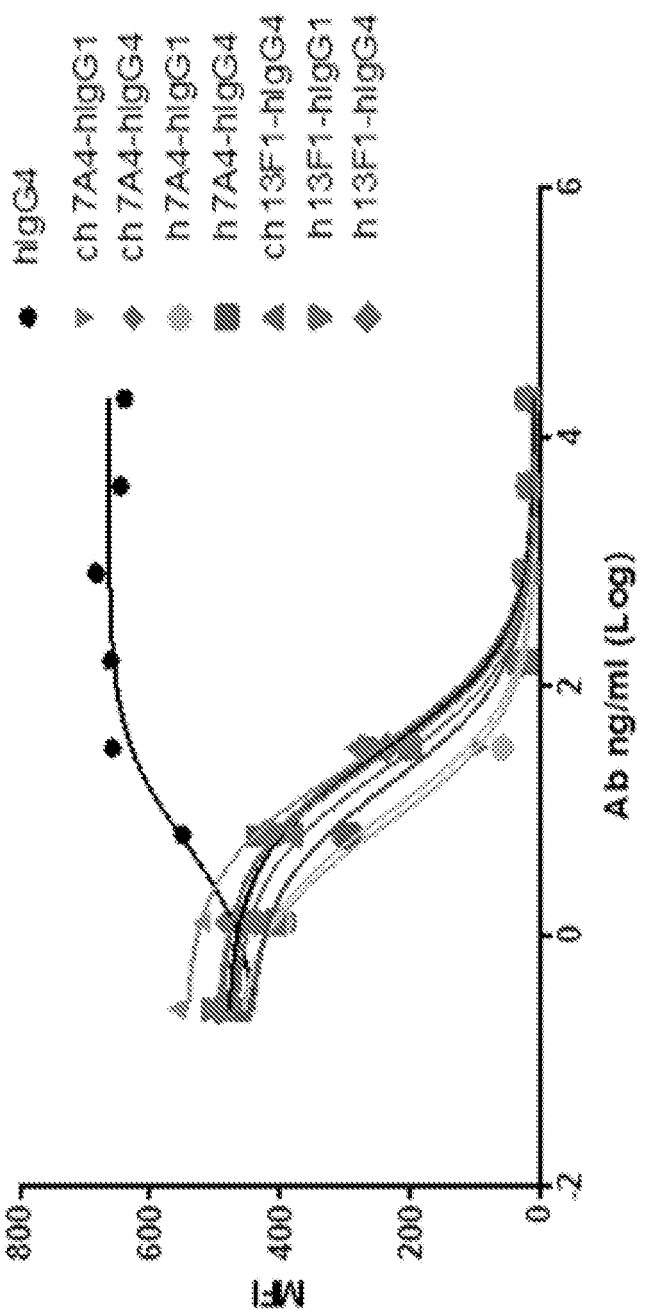
B



C

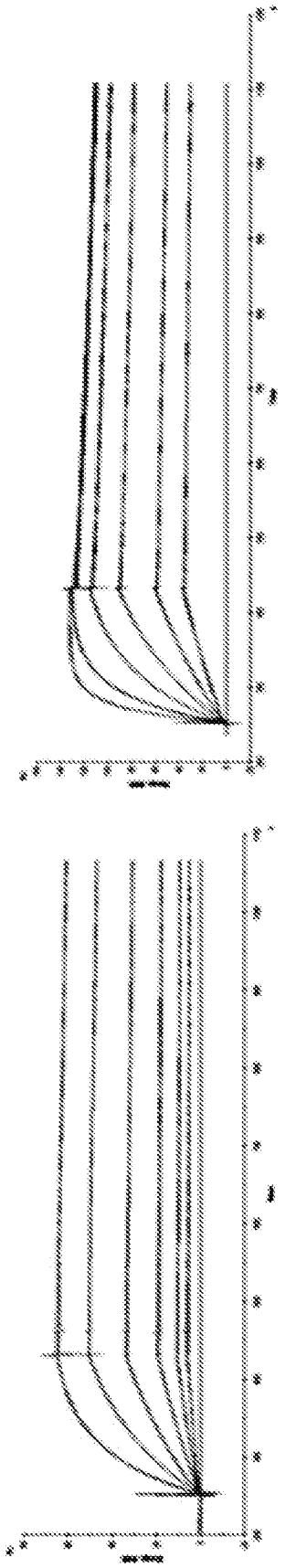
ng/ml	Ch13F1	h13F1-hIgG1	h13F1-hIgG4	Ch 7A4-hIgG4	Ch 7A4-IgG1	7A4-hIgG1	7A4-hIgG4
IC50	878.4	985.4	579.0	844.6	355.8	763.0	885.8

Figure 9



ng/ml	hIgG4	h7A4-hIgG1	h7A4-hIgG4	h13F1-hIgG1	h13F1-hIgG4
IC50	NA	7.606	16.85	29.46	25.97

Figure 10



	ka (1/Ms)	kd (1/s)	KA (1/M)	KD (M)	Chi2
h13F1-hIgG4	6.87E+05	1.19E-04	5.78E+09	1.73E-10	0.0667
h7A4-hIgG1	2.09E+06	2.12E-04	9.82E+09	1.02E-10	0.322

Figure 11

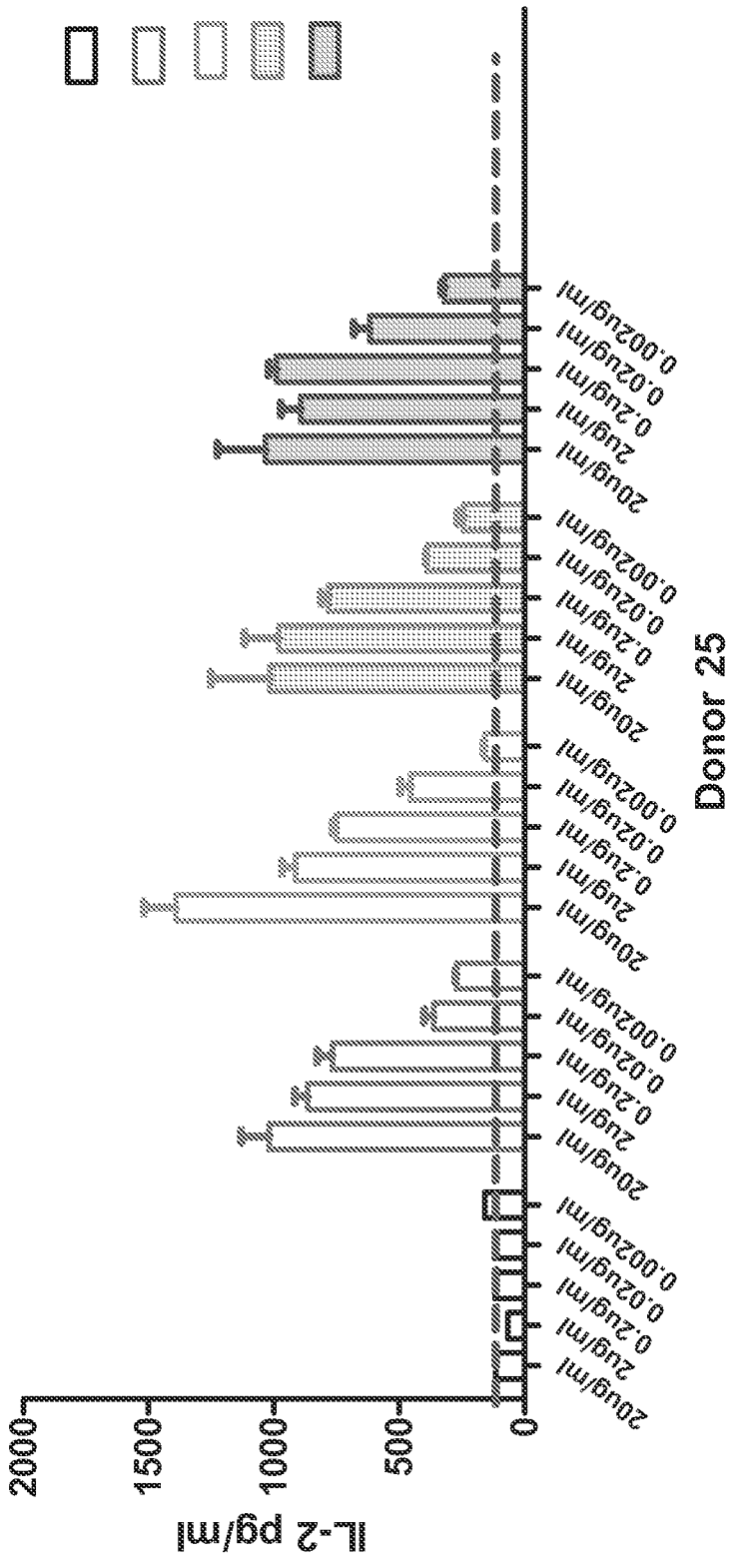

hIgG4
13F1-mIgG1
h13F1-hIgG1
h13F1-hIgG4
ch7A4-hIgG4
IL-2 pg/ml
2000
1500
1000
500
0
media
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
Donor 25

Figure 12

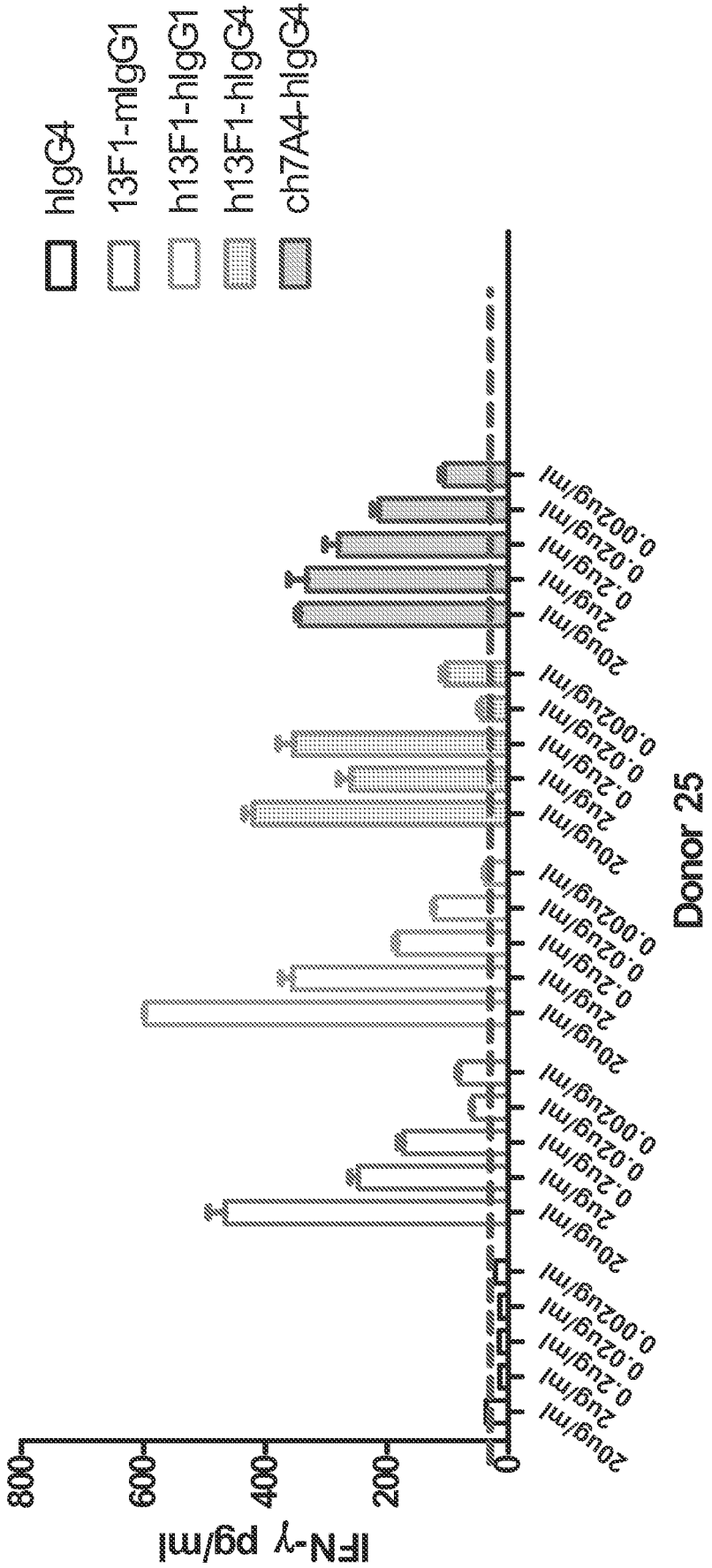

hIgG4
13F1-mIgG1
h13F1-hIgG1
h13F1-hIgG4
ch7A4-hIgG4
IFN-γ pg/ml
800
600
400
200
0
Donor 25
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml

Figure 13

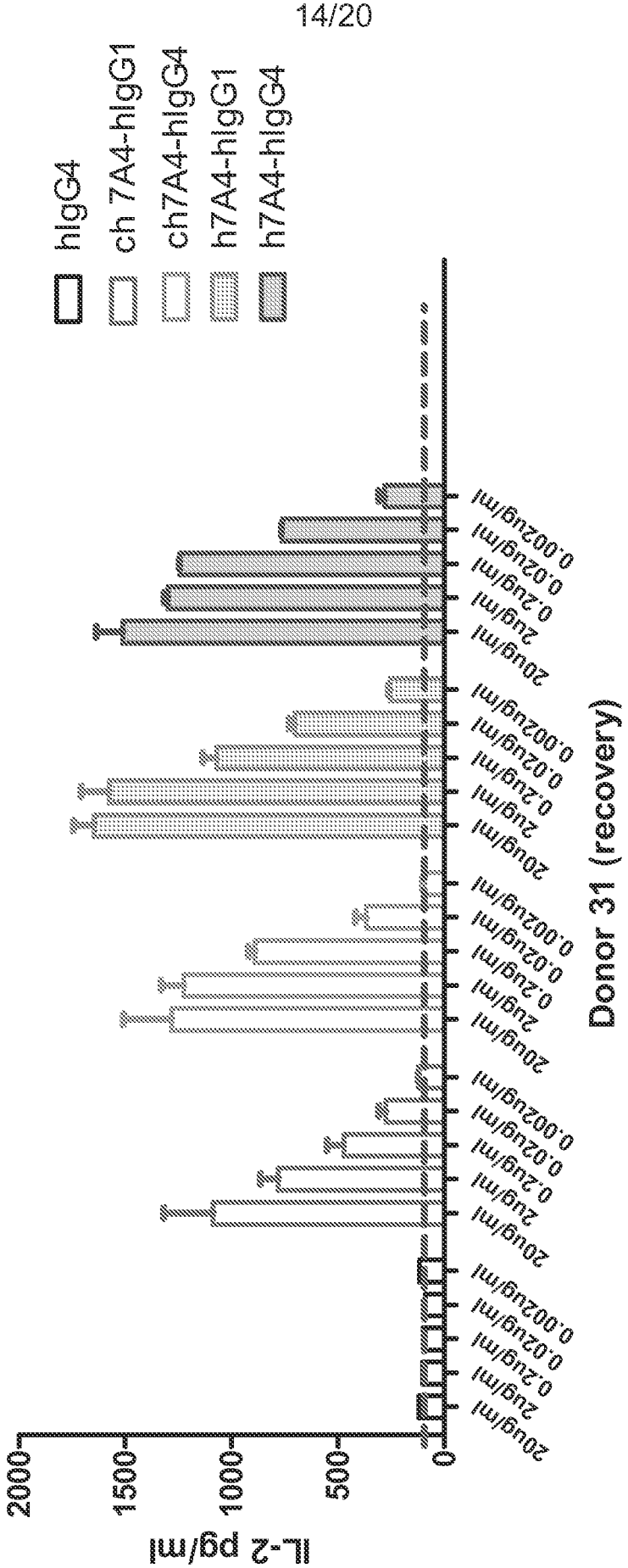

hIgG4
ch 7A4-hIgG1
ch7A4-hIgG4
h7A4-hIgG1
h7A4-hIgG4
IL-2 pg/ml
2000
1500
1000
500
0
Donor 31 (recovery)
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml

Figure 14

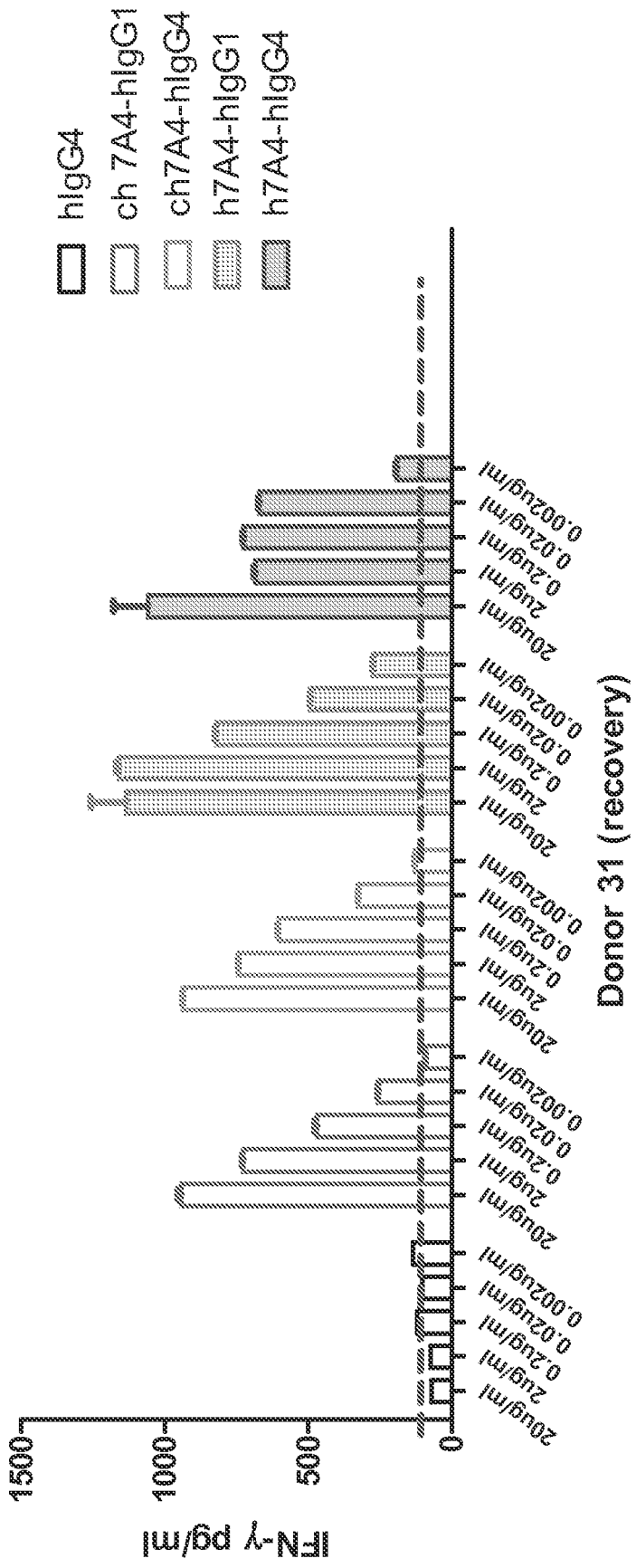

hIgG4
ch 7A4-hIgG1
ch7A4-hIgG4
h7A4-hIgG1
h7A4-hIgG4
IFN-γ pg/ml
1500
1000
500
0
Donor 31 (recovery)
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml

Figure 15

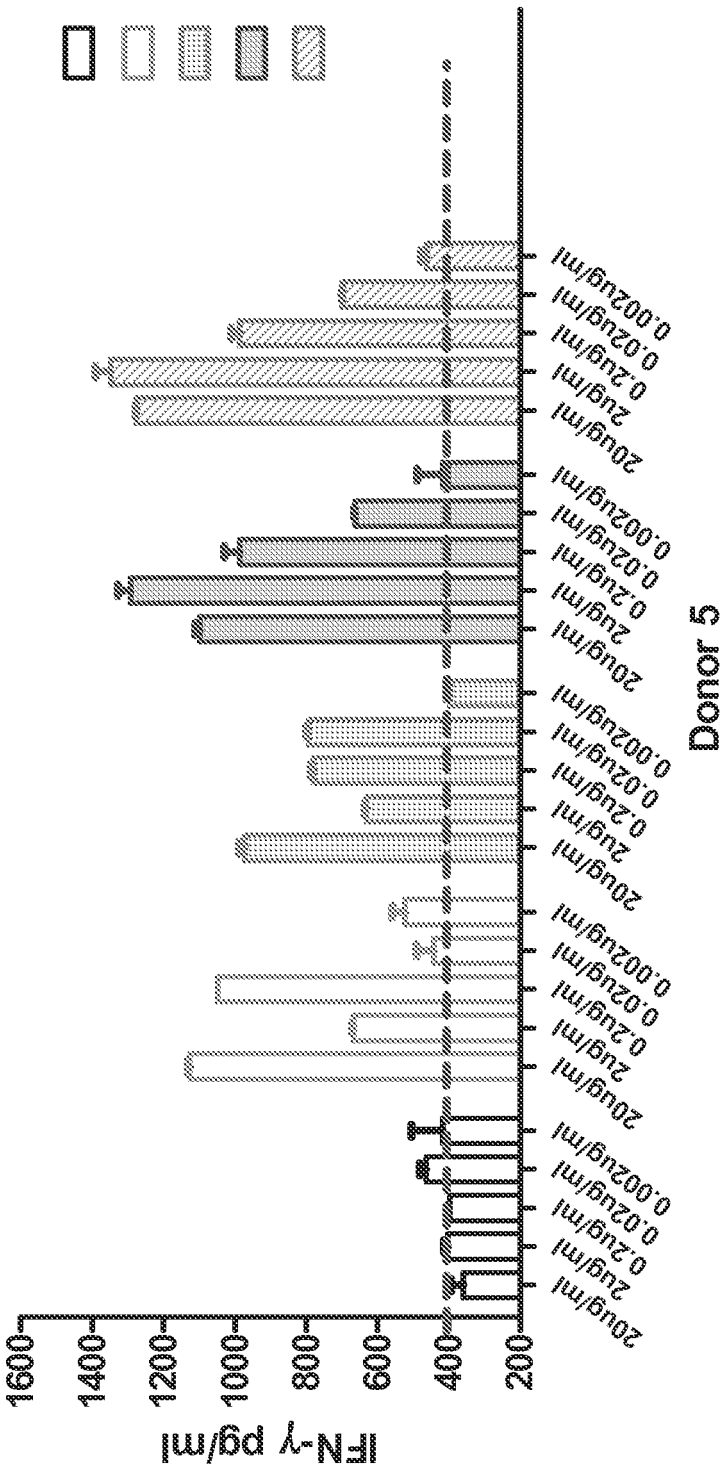

hIgG4
h13F1-hIgG1
h13F1-hIgG4
h7A4-hIgG1
h7A4-hIgG4
IFN-γ pg/ml
1600
1400
1200
1000
800
600
400
200
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
Donor 5

Figure 16

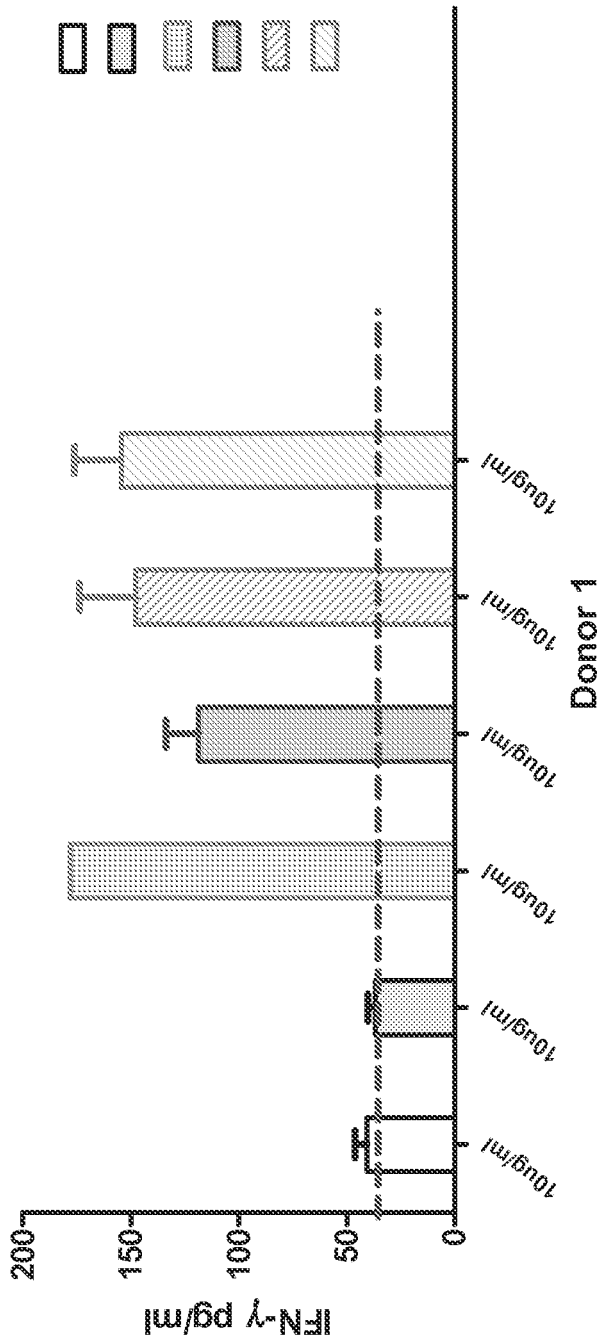
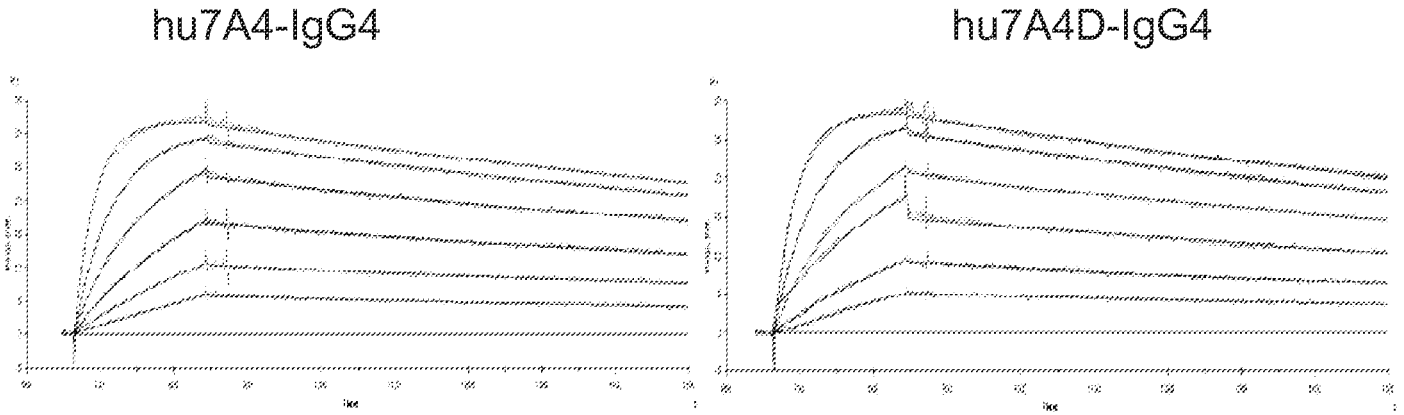

NO Ab
hIgG4
h13F1-hIgG1
h13F1-hIgG4
h7A4-hIgG1
h 7A4-hIgG4
IFN-γ pg/ml
200
150
100
50
0
10ug/ml
10ug/ml
10ug/ml
10ug/ml
10ug/ml
10ug/ml
Donor 1

Figure 17

A.



	ka (1/Ms)	kd (1/s)	KA (1/M)	KD (M)	Chi2
h7A4-hIgG4	1.46E+06	4.98E-04	2.93E+09	3.42E-10	0.0552
h7A4D-hIgG4	1.36E+06	5.32E-04	2.55E+09	3.91E-10	0.0549

B.

Antibody	FACS based blockage IC50 (ng/ml)
7A4D-hIgG4	25.8

Figure 18

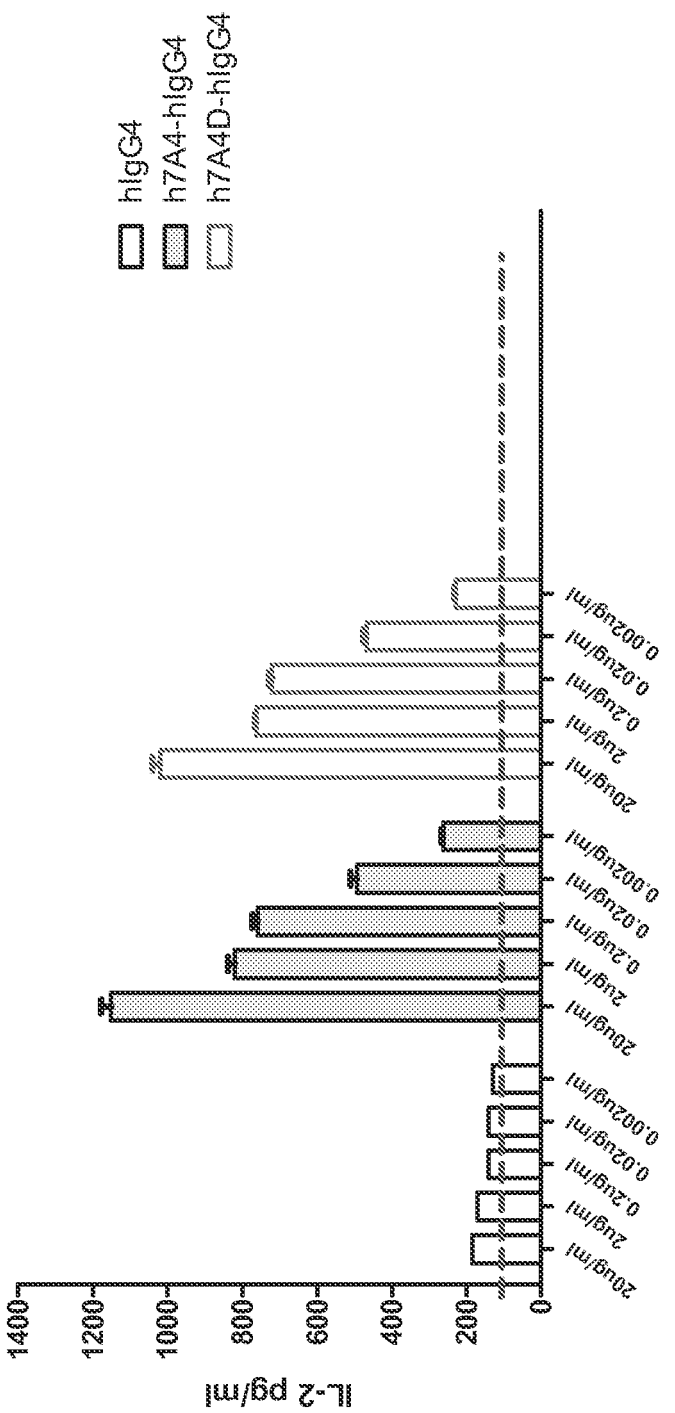
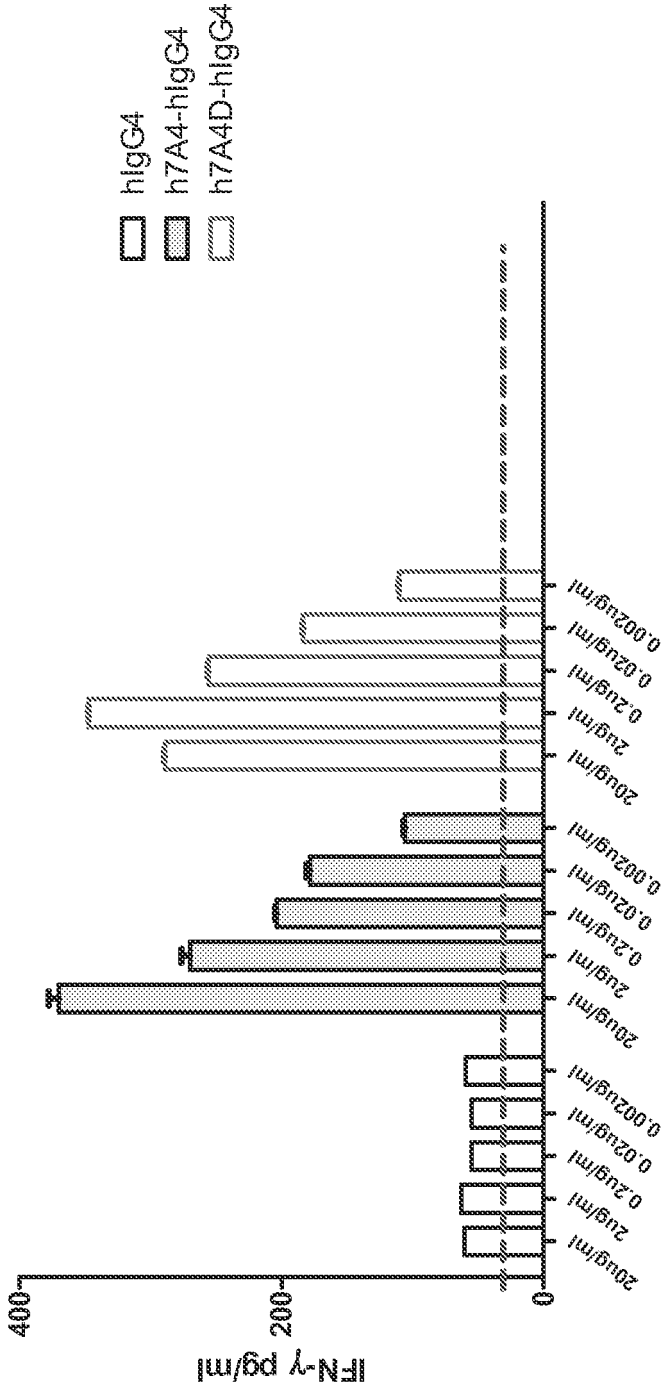

hIgG4
h7A4-hIgG4
h7A4D-hIgG4
IL-2 pg/ml
1400
1200
1000
800
600
400
200
0
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml

Figure 19


hIgG4
h7A4-hIgG4
h7A4D-hIgG4
IFN-γ pg/ml
400
200
0
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml
20ug/ml
2ug/ml
0.2ug/ml
0.02ug/ml
0.002ug/ml