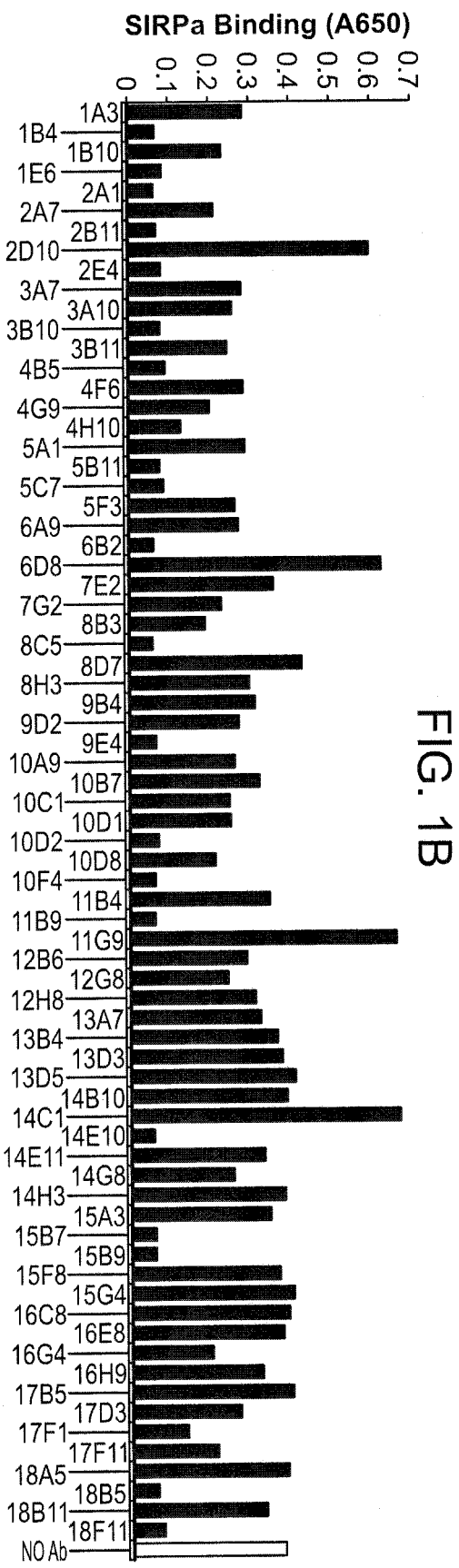

SIRPa Binding (A650)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
1A3
1B4
1B10
1E6
2A1
2A7
2B11
2D10
2E4
3A7
3A10
3B10
3B11
4B5
4F6
4G9
4H10
5A1
5B11
5C7
5F3
6A9
6B2
6D8
7E2
7G2
8B3
8C5
8D7
8H3
9B4
9D2
9E4
10A9
10B7
10C1
10D1
10D2
10D8
10F4
11B4
11B9
11G9
12B6
12G8
12H8
13A7
13B4
13D3
13D5
14B10
14C1
14E10
14E11
14G8
14H3
15A3
15B7
15B9
15F8
15G4
16C8
16E8
16G4
16H9
17B5
17D3
17F1
17F11
18A5
18B5
18B11
18F11
NO Ab

FIG. 1B

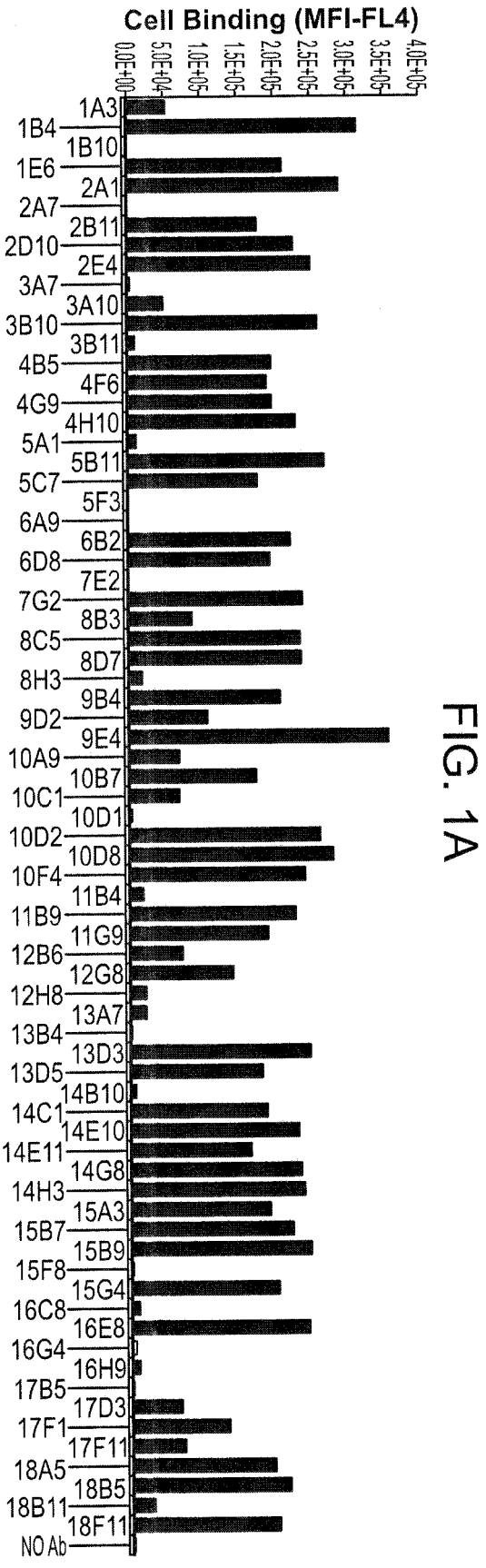

Cell Binding (MFI-FL4)
0.0E+00
5.0E+04
1.0E+05
1.5E+05
2.0E+05
2.5E+05
3.0E+05
3.5E+05
4.0E+05
1A3
1B4
1B10
1E6
2A1
2A7
2B11
2D10
2E4
3A7
3A10
3B10
3B11
4B5
4F6
4G9
4H10
5A1
5B11
5C7
5F3
6A9
6B2
6D8
7E2
7G2
8B3
8C5
8D7
8H3
9B4
9D2
9E4
10A9
10B7
10C1
10D1
10D2
10D8
10F4
11B4
11B9
11G9
12B6
12G8
12H8
13A7
13B4
13D3
13D5
14B10
14C1
14E10
14E11
14G8
14H3
15A3
15B7
15B9
15F8
15G4
16C8
16E8
16G4
16H9
17B5
17D3
17F1
17F11
18A5
18B5
18B11
18F11
NO Ab

FIG. 1A

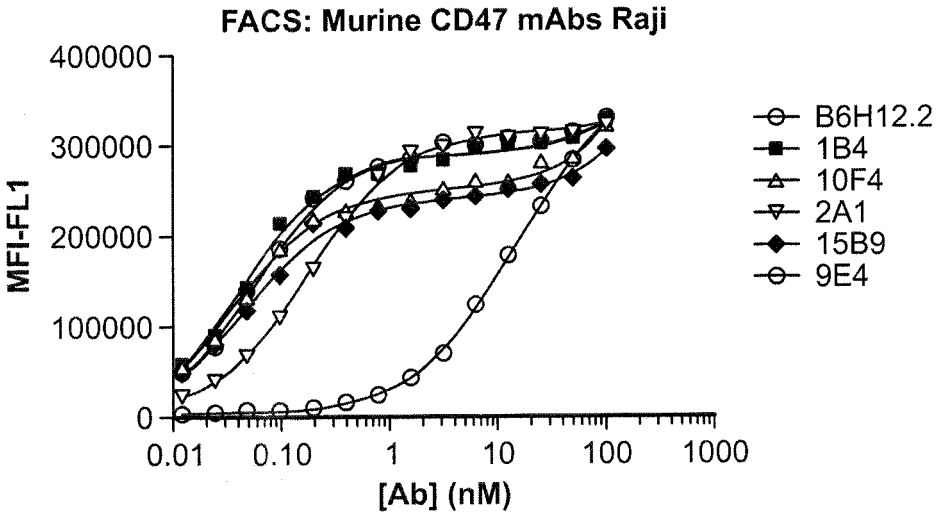

FACS: Murine CD47 mAbs Raji
MFI-FL1
400000
300000
200000
100000
0
0.01
0.10
1
10
100
1000
[Ab] (nM)
B6H12.2
1B4
10F4
2A1
15B9
9E4

FIG. 2A

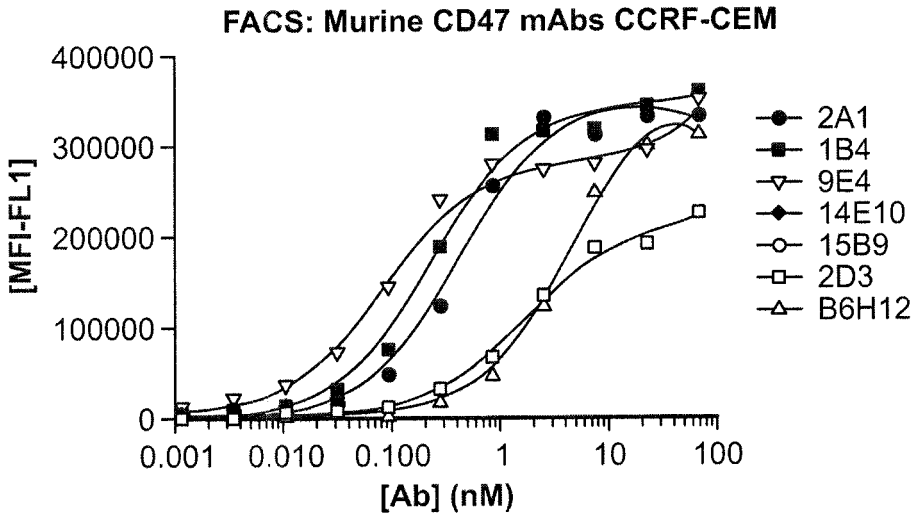

FACS: Murine CD47 mAbs CCRF-CEM
[MFI-FL1]
400000
300000
200000
100000
0
0.001
0.010
0.100
1
10
100
[Ab] (nM)
2A1
1B4
9E4
14E10
15B9
2D3
B6H12

FIG. 2B

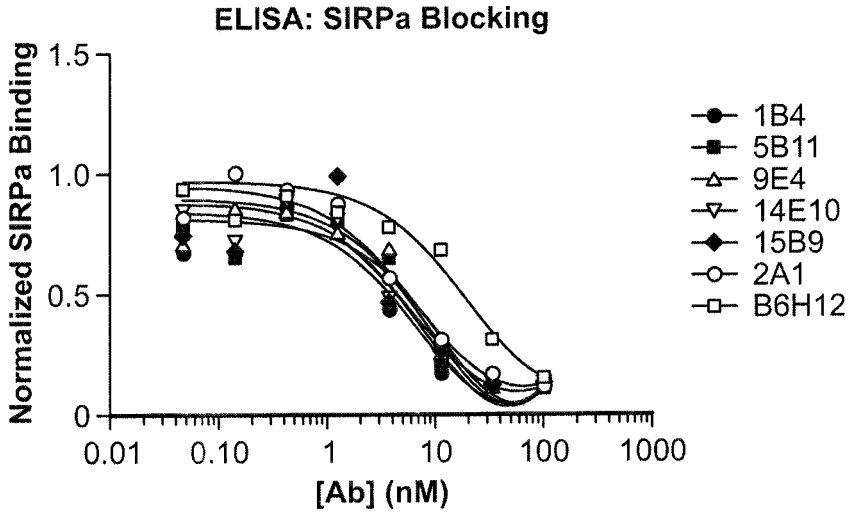

ELISA: SIRPa Blocking
Normalized SIRPa Binding
1.5
1.0
0.5
0
0.01
0.10
1
10
100
1000
[Ab] (nM)
1B4
5B11
9E4
14E10
15B9
2A1
B6H12

FIG. 3A

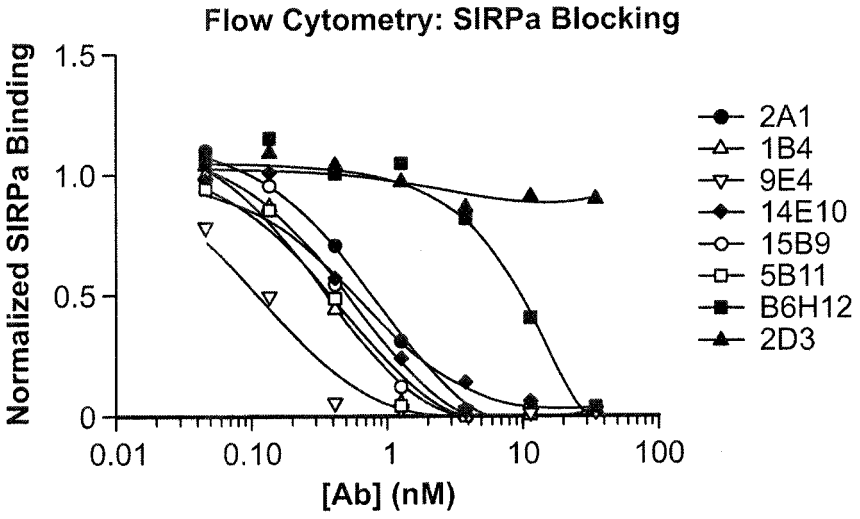
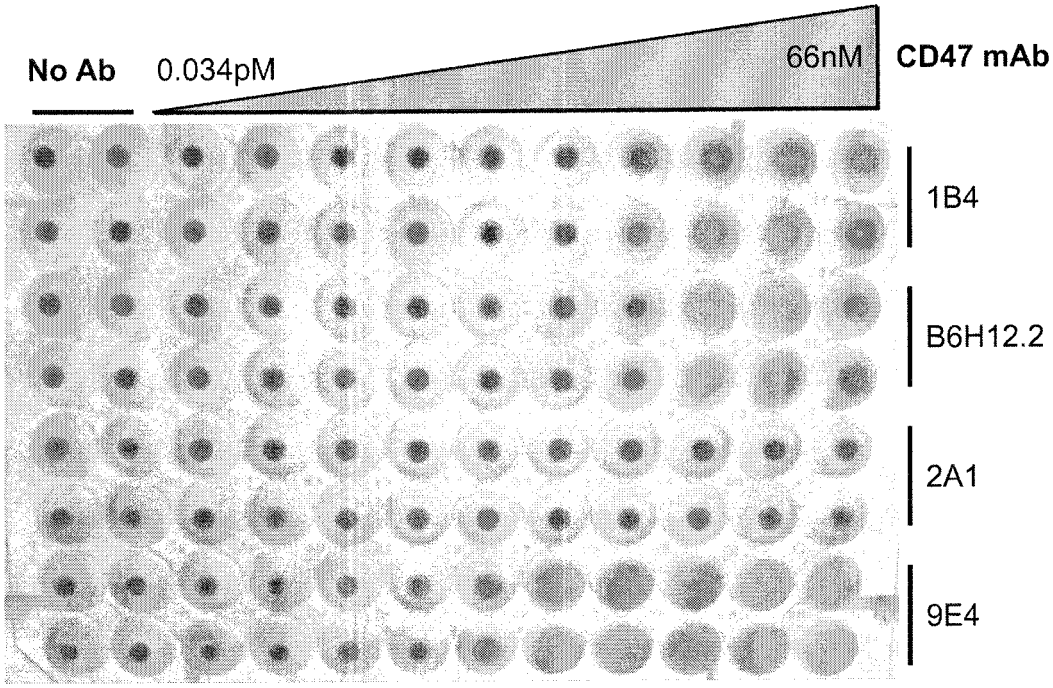

Flow Cytometry: SIRPa Blocking
Normalized SIRPa Binding
1.5
1.0
0.5
0
0.01
0.10
1
10
100
[Ab] (nM)
2A1
1B4
9E4
14E10
15B9
5B11
B6H12
2D3

FIG. 3B


No Ab
0.034pM
66nM
CD47 mAb
1B4
B6H12.2
2A1
9E4

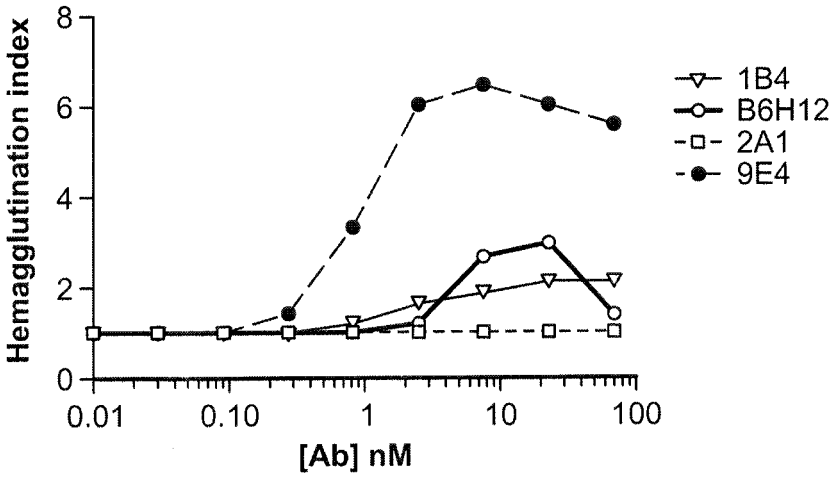

Hemagglutination index
8
6
4
2
0
0.01
0.10
1
10
100
[Ab] nM
1B4
B6H12
2A1
9E4

FIG. 4A

[Ab] (nM)	100	50	25	12.5	100	50	25	12.5	100	50	25	12.5
A	9E4	9E4	9E4	9E4	11B9	11B9	11B9	11B9	15B9	15B9	15B9	15B9
B	Blank	Blank	Blank	Blank	10F4	10F4	10F4	10F4	18F11	18F11	18F11	18F11
C	B6H12	B6H12	B6H12	B6H12	Blank	Blank	Blank	Blank	18B5	18B5	18B5	18B5
D	2A1	2A1	2A1	2A1	3B10	3B10	3B10	3B10	17F11	17F11	17F11	17F11
E	2A1-XI	2A1-XI	2A1-XI	2A1-XI	15B7	15B7	15B7	15B7	Blank	Blank	Blank	Blank
F	6B2	6B2	6B2	6B2	2B11	2B11	2B11	2B11	Blank	Blank	Blank	Blank
G	14E10	14E10	14E10	14E10	5B11	5B11	5B11	5B11	Blank	Blank	Blank	Blank
H	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
	1	2	3	4	5	6	7	8	9	10	11	12

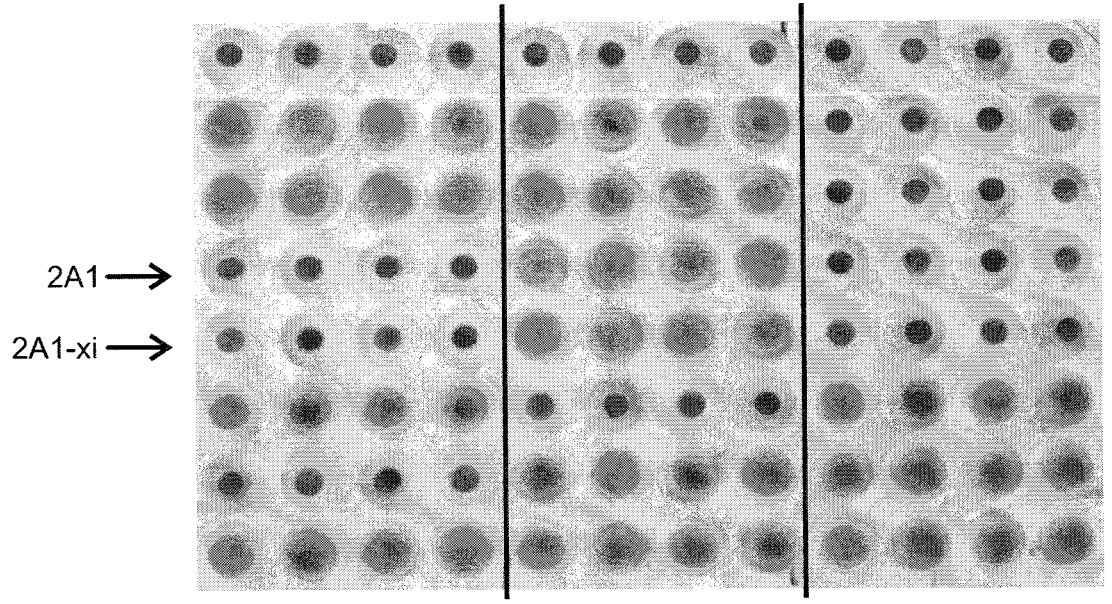


FIG. 4B

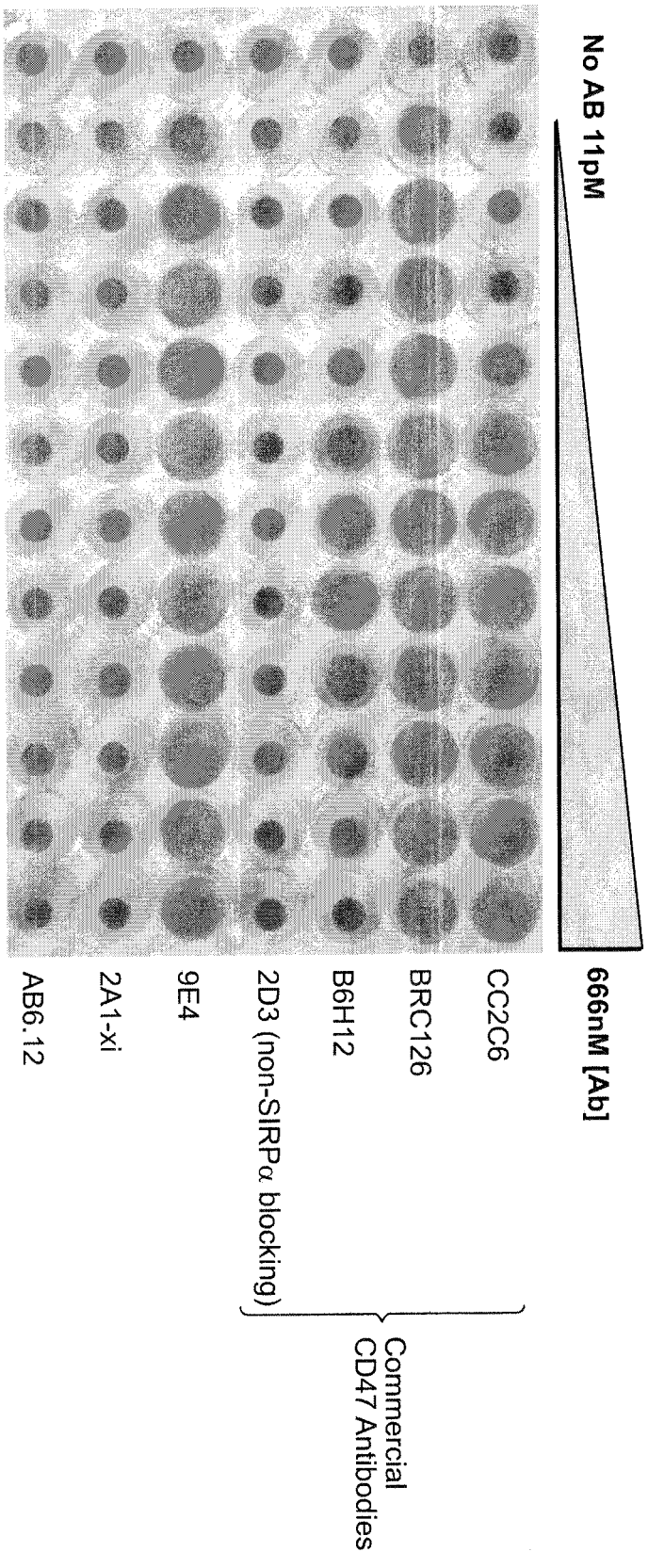
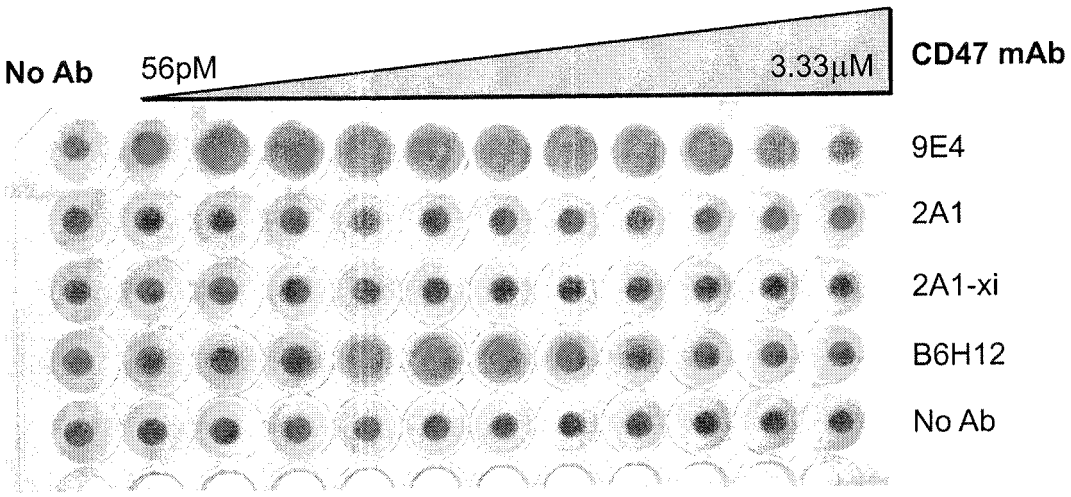

No AB 11pM
666nM [Ab]
CC2C6
BRC126
B6H12
2D3 (non-SIRPα blocking)
9E4
2A1-xi
AB6.12
Commercial CD47 Antibodies

FIG. 4C


No Ab
56pM
3.33μM
CD47 mAb
9E4
2A1
2A1-xi
B6H12
No Ab

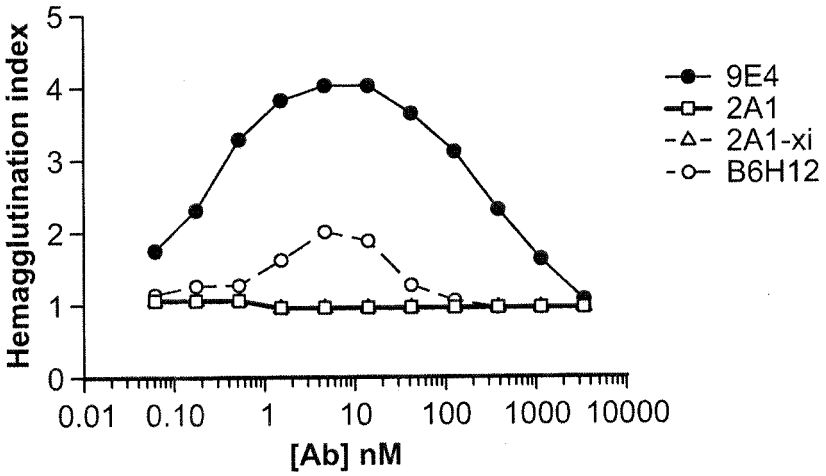

Hemagglutination index
0
1
2
3
4
5
0.01
0.10
1
10
100
1000
10000
[Ab] nM
9E4
2A1
2A1-xi
B6H12

FIG. 4D

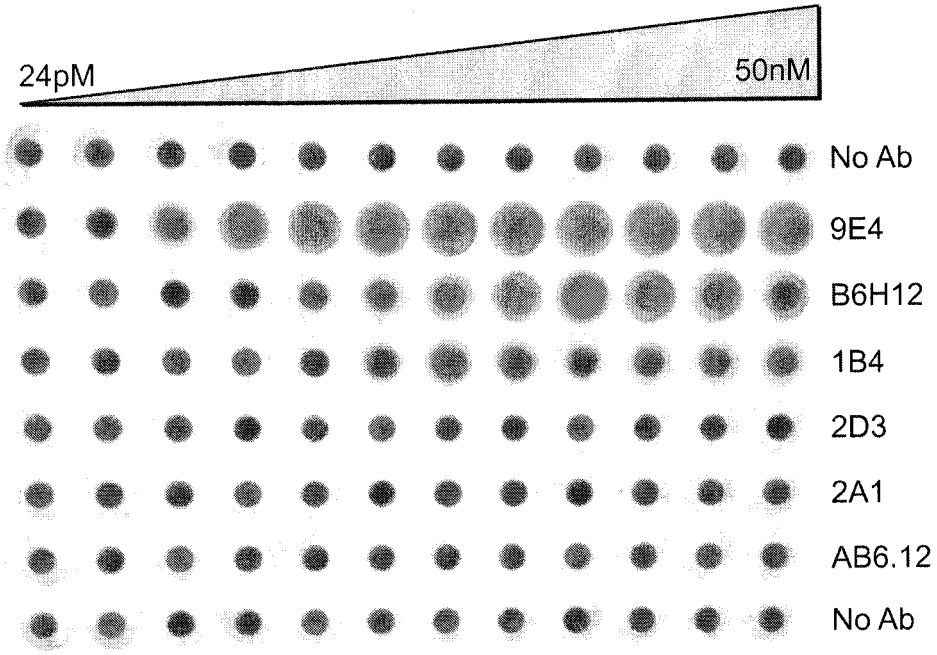

24pM
50nM
No Ab
9E4
B6H12
1B4
2D3
2A1
AB6.12
No Ab

FIG. 4E

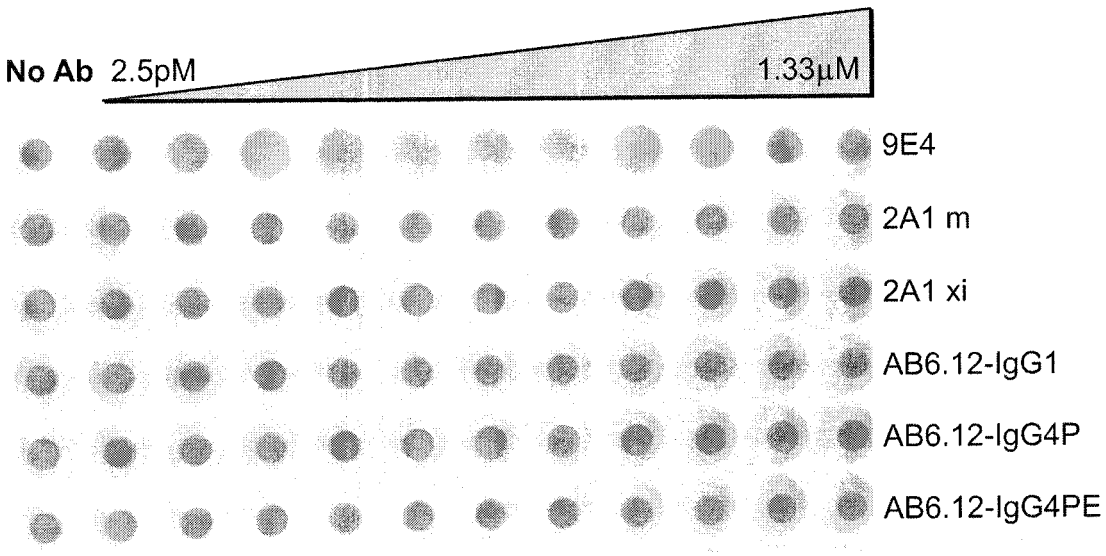

No Ab 2.5pM
1.33µM
9E4
2A1 m
2A1 xi
AB6.12-IgG1
AB6.12-IgG4P
AB6.12-IgG4PE

FIG. 4F

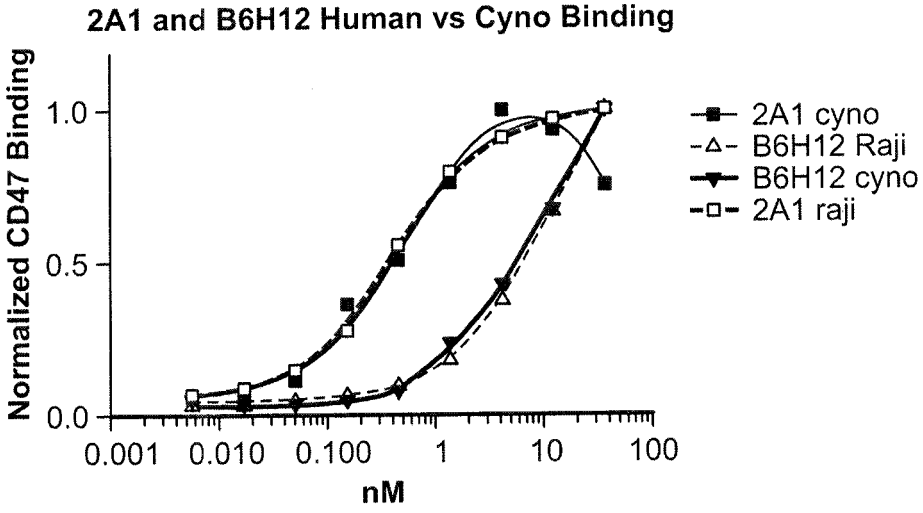

2A1 and B6H12 Human vs Cyno Binding
Normalized CD47 Binding
1.0
0.5
0.0
0.001
0.010
0.100
1
10
100
nM
2A1 cyno
B6H12 Raji
B6H12 cyno
2A1 raji

FIG. 5

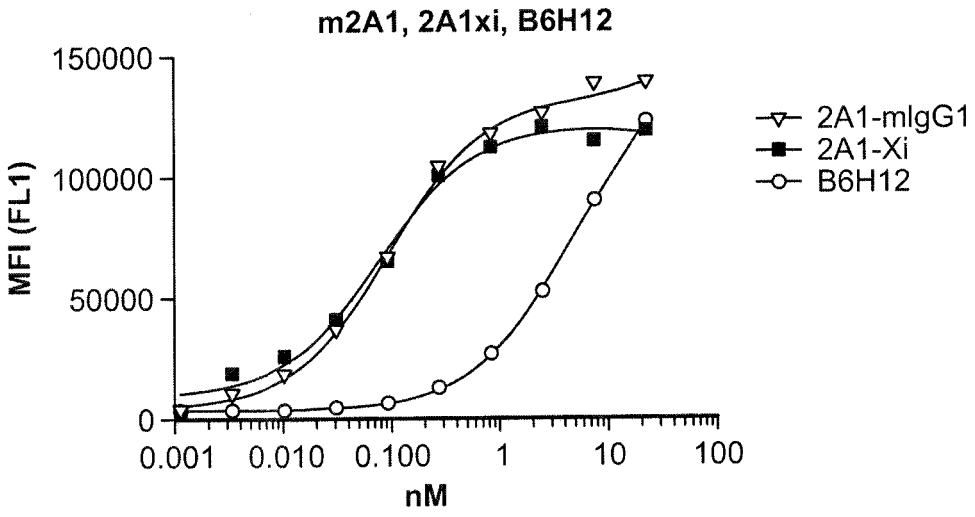

m2A1, 2A1xi, B6H12
MFI (FL1)
150000
100000
50000
0
0.001
0.010
0.100
1
10
100
nM
2A1-mIgG1
2A1-Xi
B6H12

FIG. 6

FIG. 7A

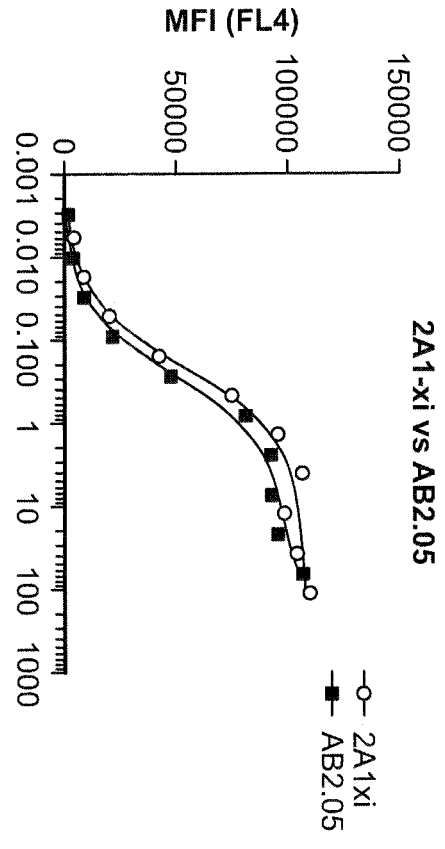


FIG. 7B

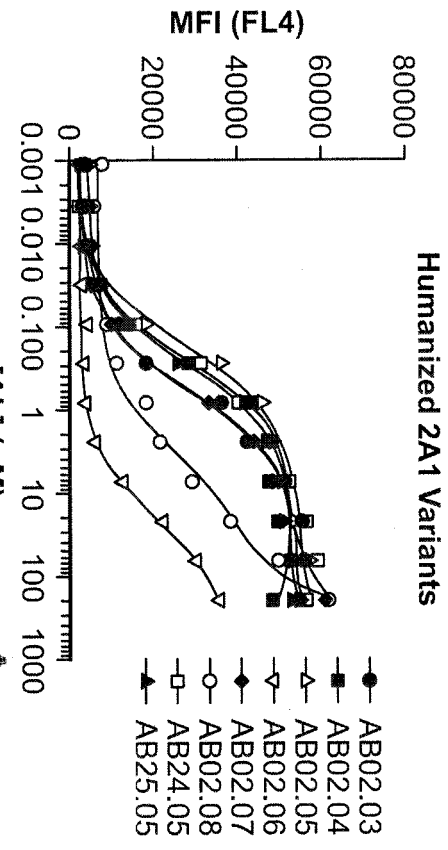


FIG. 7C

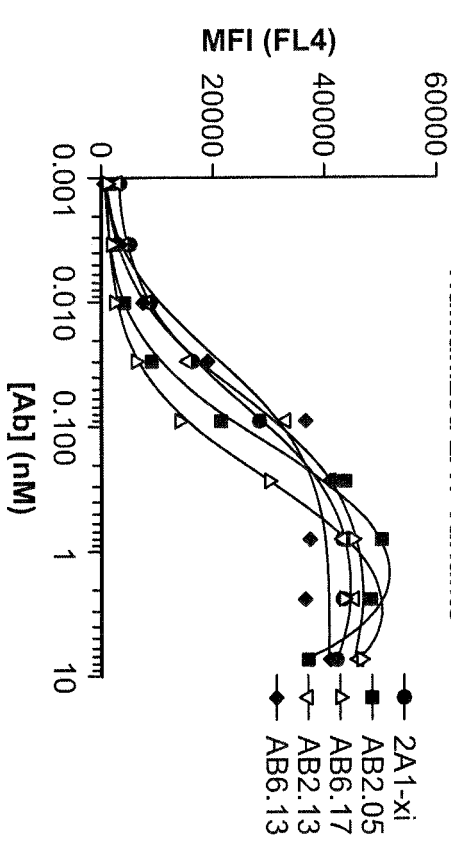


FIG. 7D

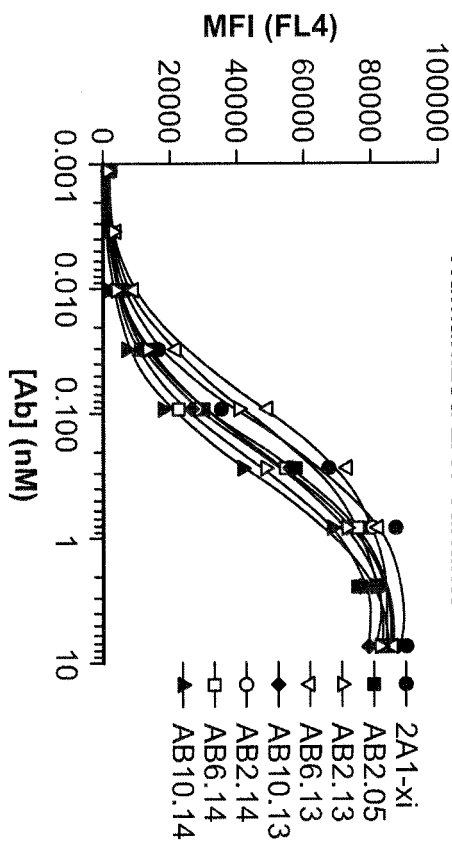


FIG. 7E

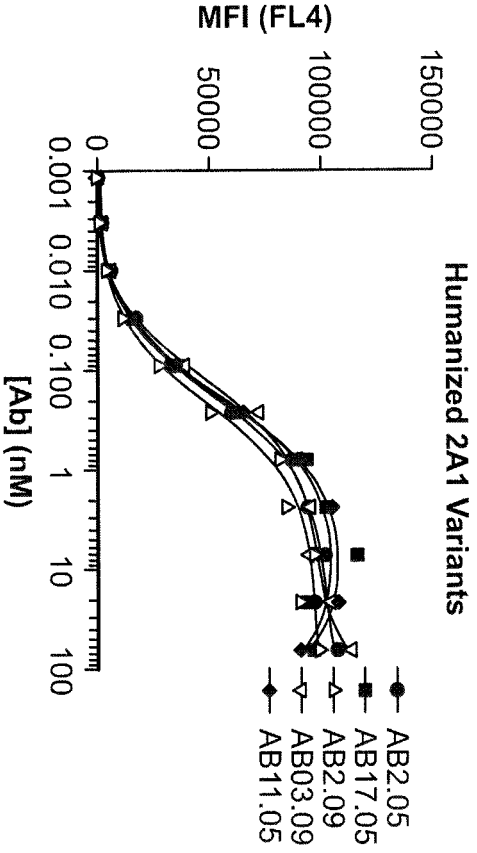


FIG. 7F

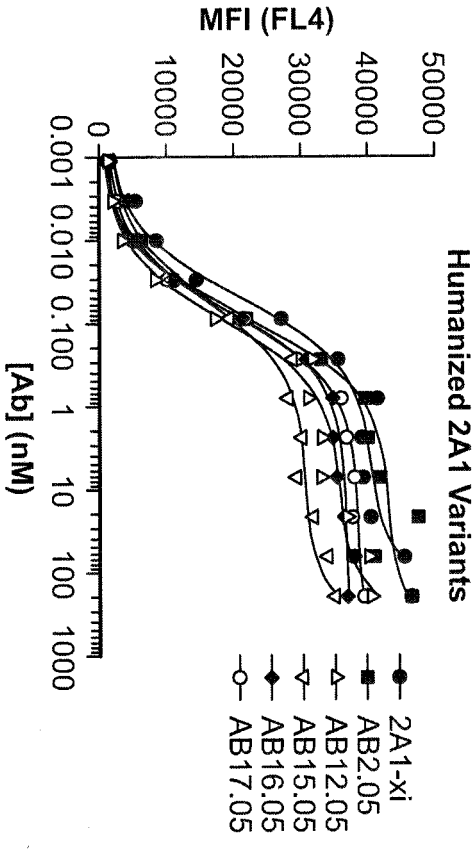


FIG. 7G

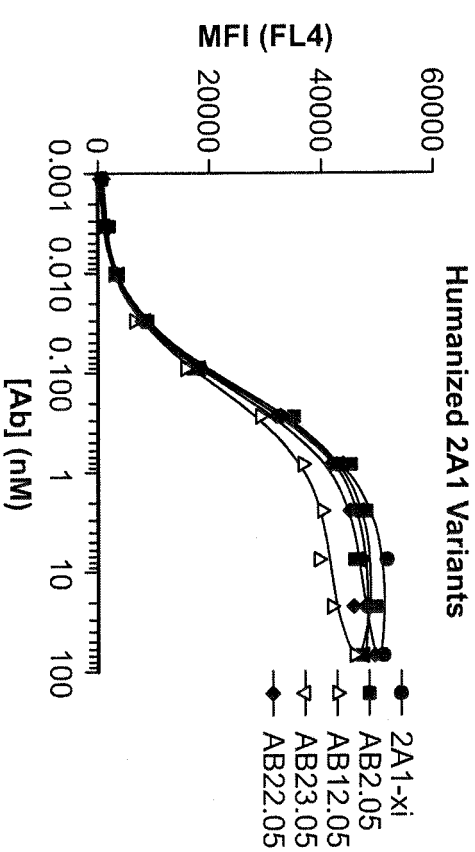
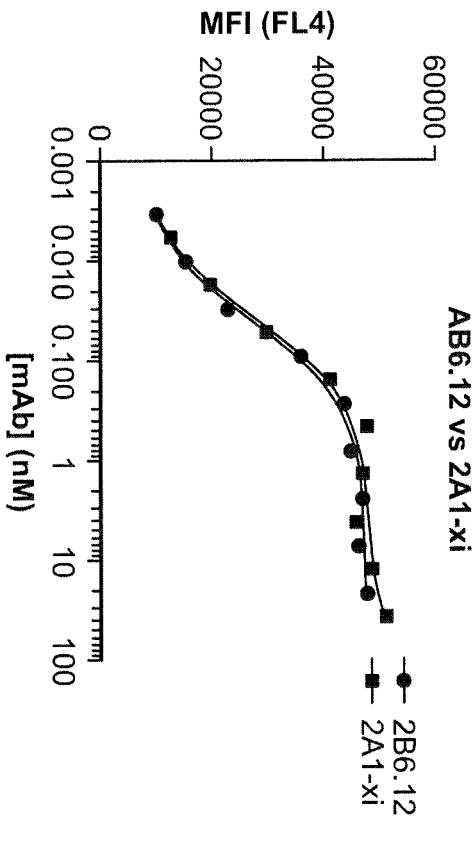


FIG. 7H



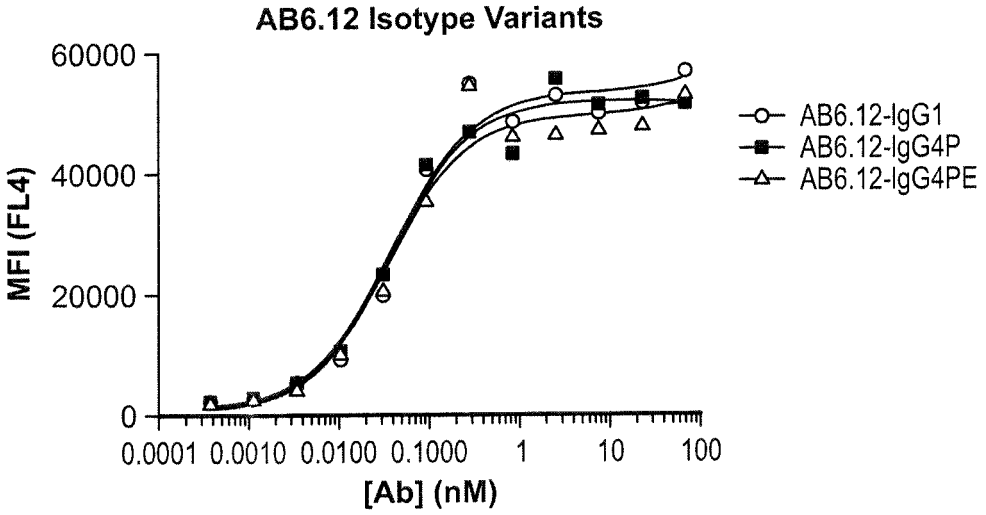

AB6.12 Isotype Variants
60000
40000
20000
0
MFI (FL4)
0.0001 0.0010 0.0100 0.1000 1 10 100
[Ab] (nM)
AB6.12-IgG1
AB6.12-IgG4P
AB6.12-IgG4PE

FIG. 7I

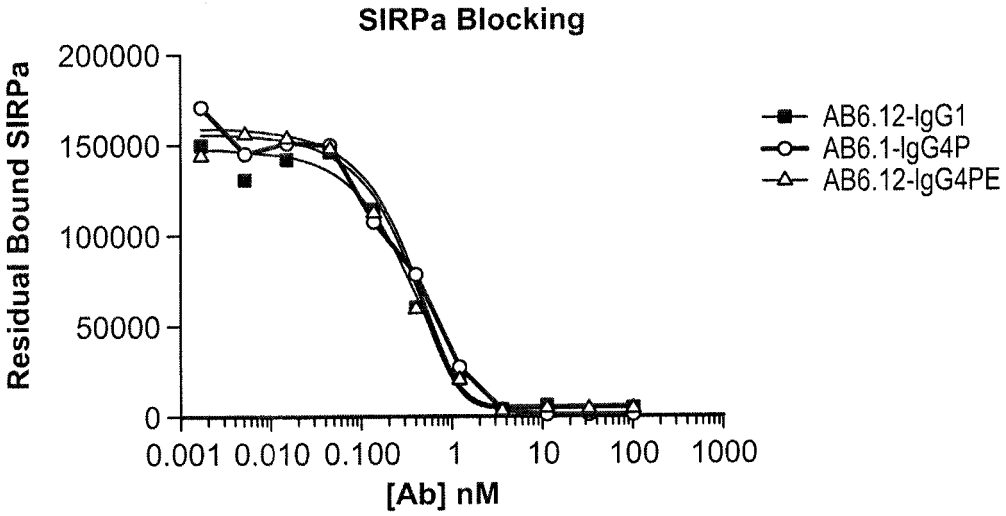
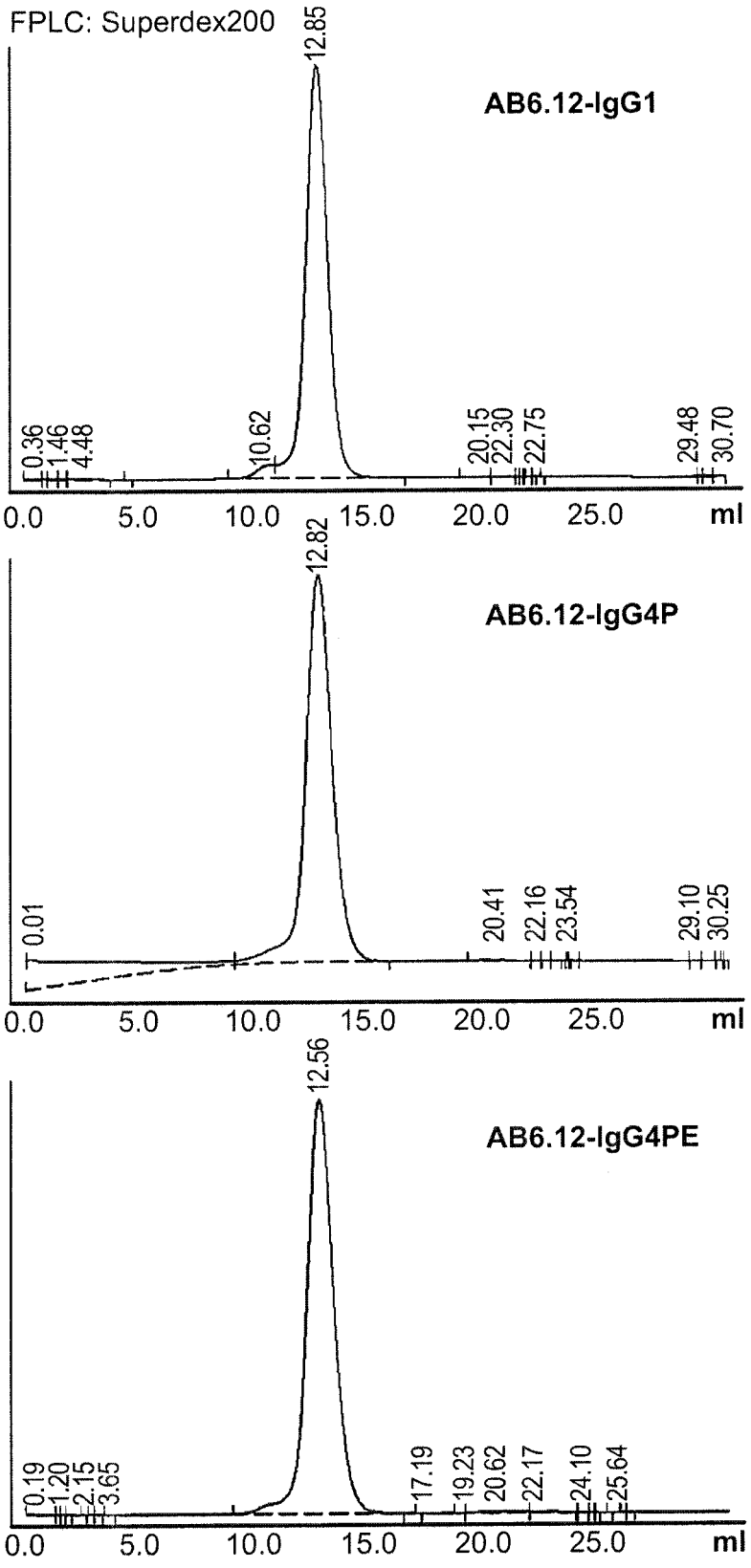

SIRPa Blocking
200000
150000
100000
50000
0
Residual Bound SIRPa
0.001 0.010 0.100 1 10 100 1000
[Ab] nM
AB6.12-IgG1
AB6.1-IgG4P
AB6.12-IgG4PE

FIG. 7J

FIG. 8A


FPLC: Superdex200
12.85
AB6.12-IgG1
0.36
1.46
4.48
10.62
20.15
22.30
22.75
29.48
30.70
0.0
5.0
10.0
15.0
20.0
25.0
ml
12.82
AB6.12-IgG4P
0.01
20.41
22.16
23.54
29.10
30.25
0.0
5.0
10.0
15.0
20.0
25.0
ml
12.56
AB6.12-IgG4PE
0.19
1.20
2.15
3.65
17.19
19.23
20.62
22.17
24.10
25.64
0.0
5.0
10.0
15.0
20.0
25.0
ml

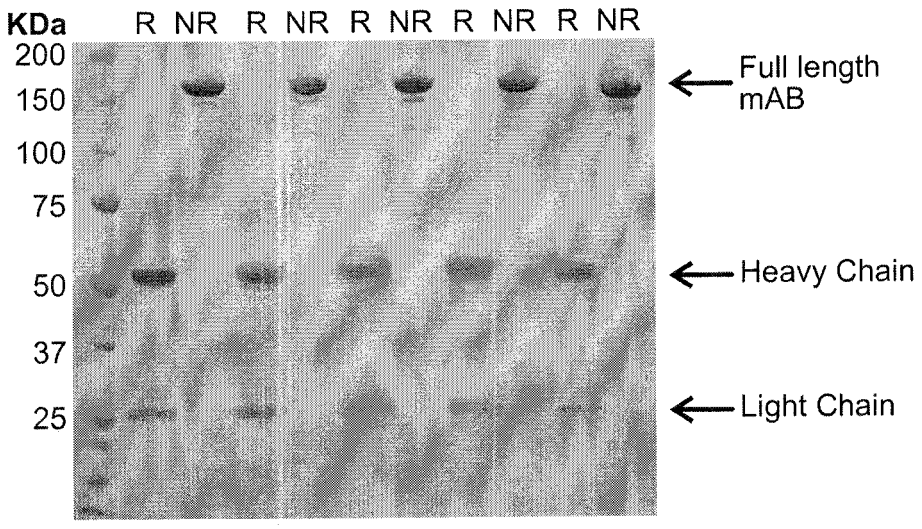

KDa
R NR R NR R NR R NR R NR
200
150
100
75
50
37
25
Full length mAB
Heavy Chain
Light Chain

FIG. 8B

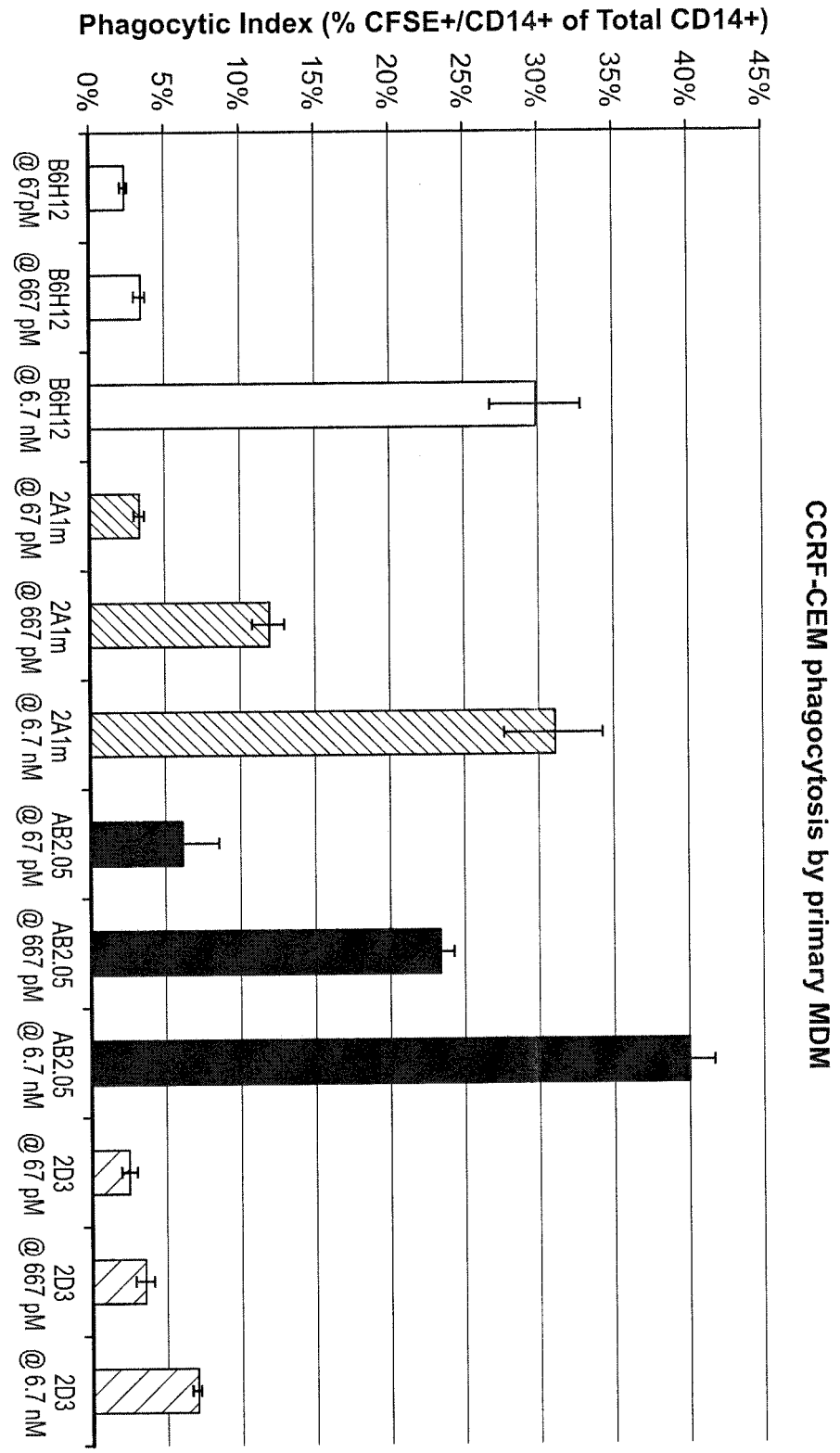

CCRF-CEM phagocytosis by primary MDM
Phagocytic Index (% CFSE+/CD14+ of Total CD14+)
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
B6H12 @ 67pM
B6H12 @ 667 pM
B6H12 @ 6.7 nM
2A1m @ 67 pM
2A1m @ 667 pM
2A1m @ 6.7 nM
AB2.05 @ 67 pM
AB2.05 @ 667 pM
AB2.05 @ 6.7 nM
2D3 @ 67 pM
2D3 @ 667 pM
2D3 @ 6.7 nM

FIG. 9A

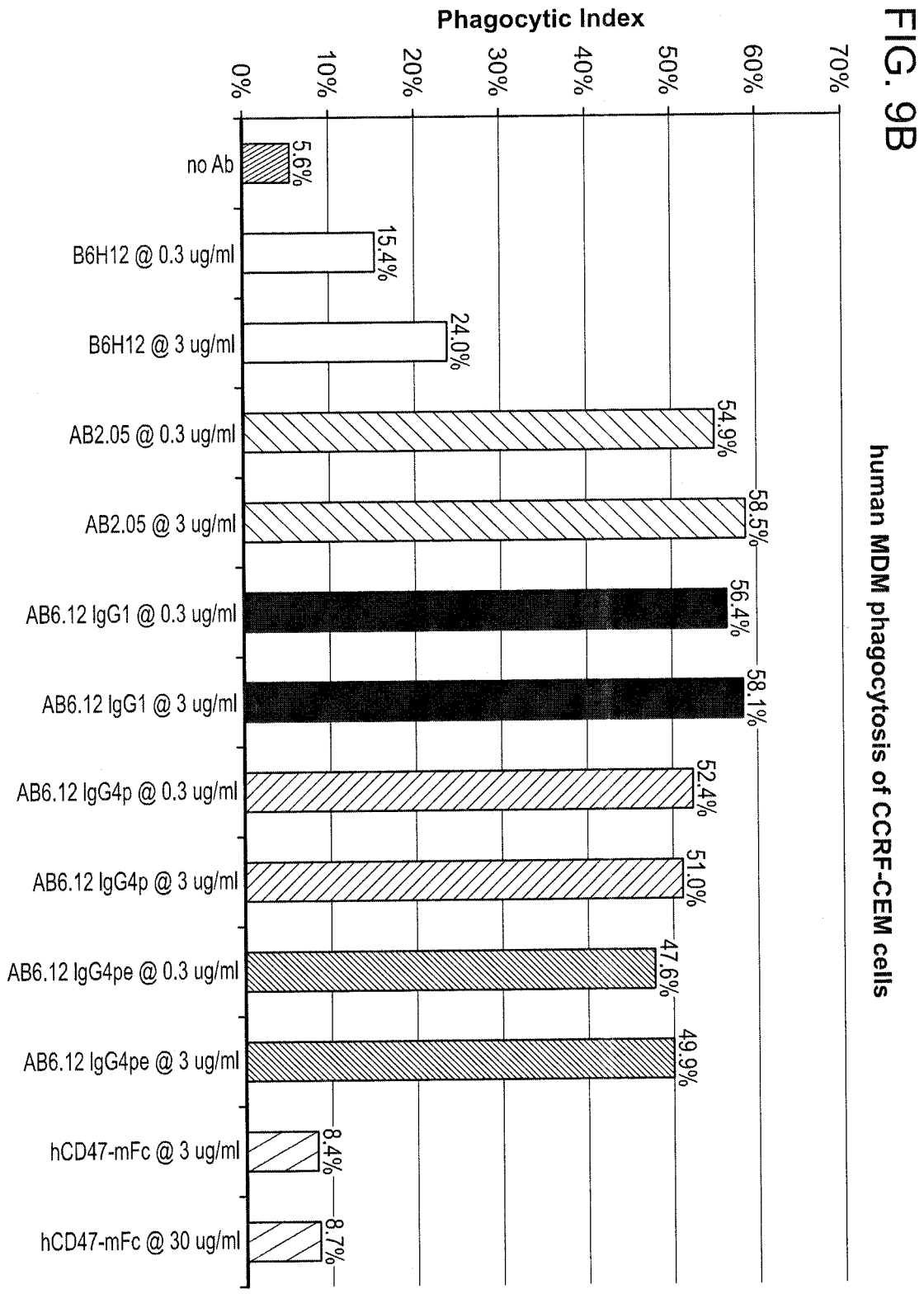

Phagocytic Index
0%
10%
20%
30%
40%
50%
60%
70%
no Ab
5.6%
B6H12 @ 0.3 ug/ml
15.4%
B6H12 @ 3 ug/ml
24.0%
AB2.05 @ 0.3 ug/ml
54.9%
AB2.05 @ 3 ug/ml
58.5%
AB6.12 IgG1 @ 0.3 ug/ml
56.4%
AB6.12 IgG1 @ 3 ug/ml
58.1%
AB6.12 IgG4p @ 0.3 ug/ml
52.4%
AB6.12 IgG4p @ 3 ug/ml
51.0%
AB6.12 IgG4pe @ 0.3 ug/ml
47.6%
AB6.12 IgG4pe @ 3 ug/ml
49.9%
hCD47-mFc @ 3 ug/ml
8.4%
hCD47-mFc @ 30 ug/ml
8.7%
human MDM phagocytosis of CCRF-CEM cells

FIG. 9B

FIG. 10A

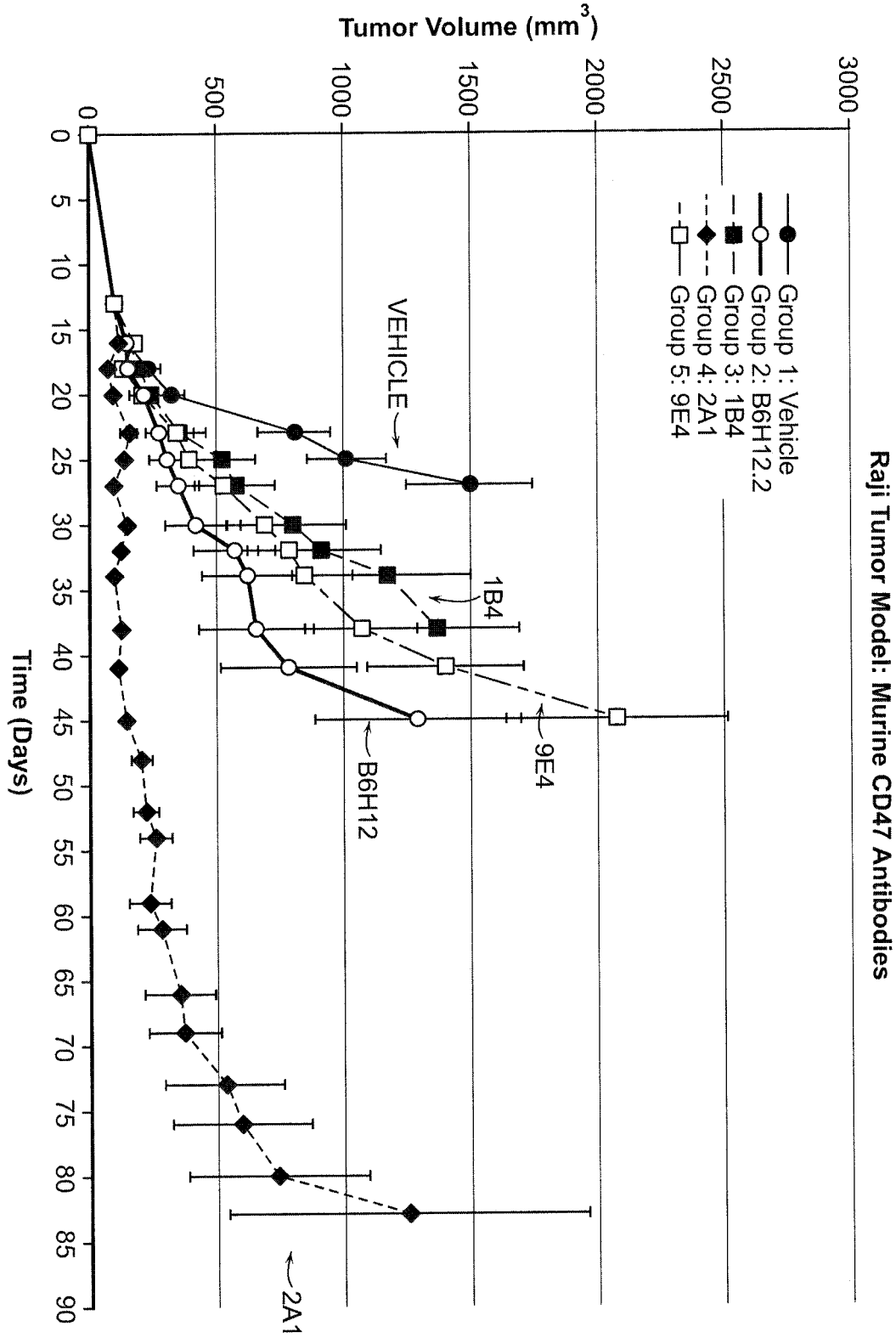

Raji Tumor Model: Murine CD47 Antibodies
Tumor Volume (mm3)
Time (Days)
Group 1: Vehicle
Group 2: B6H12.2
Group 3: 1B4
Group 4: 2A1
Group 5: 9E4
VEHICLE
1B4
9E4
B6H12
2A1
0
500
1000
1500
2000
2500
3000
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90

FIG. 10B

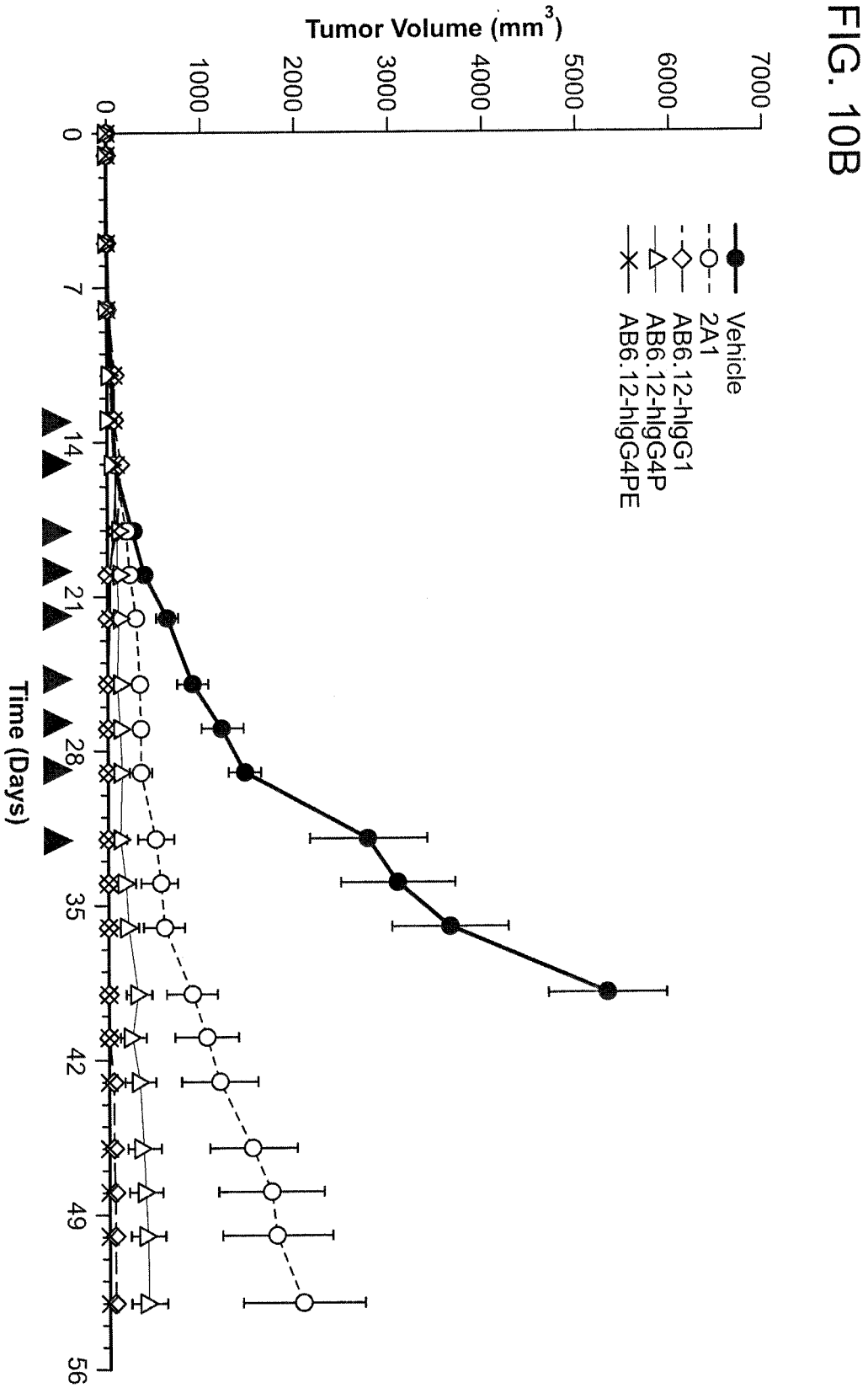

Tumor Volume (mm3)
0
1000
2000
3000
4000
5000
6000
7000
Time (Days)
0
7
14
21
28
35
42
49
56
Vehicle
2A1
AB6.12-hIgG1
AB6.12-hIgG4P
AB6.12-hIgG4PE



FIG. 11A

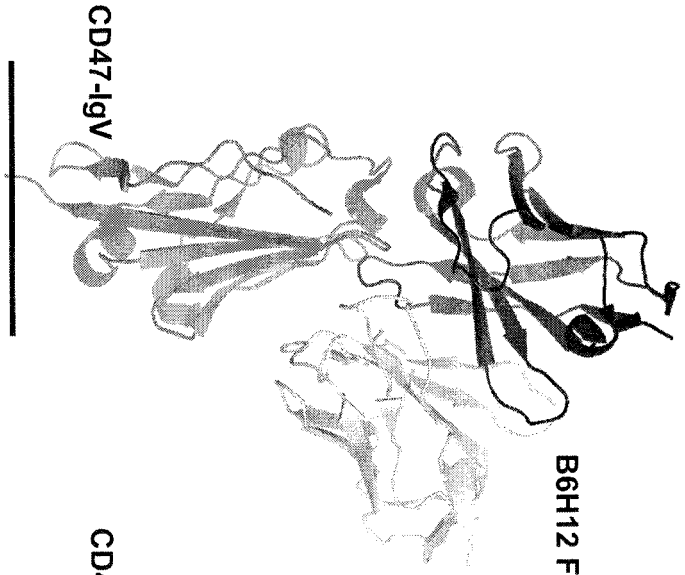


FIG. 11B

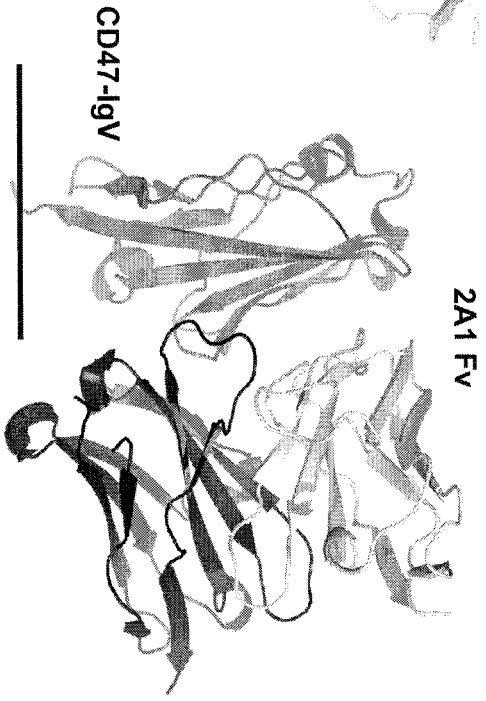


FIG. 11C

Figure 12

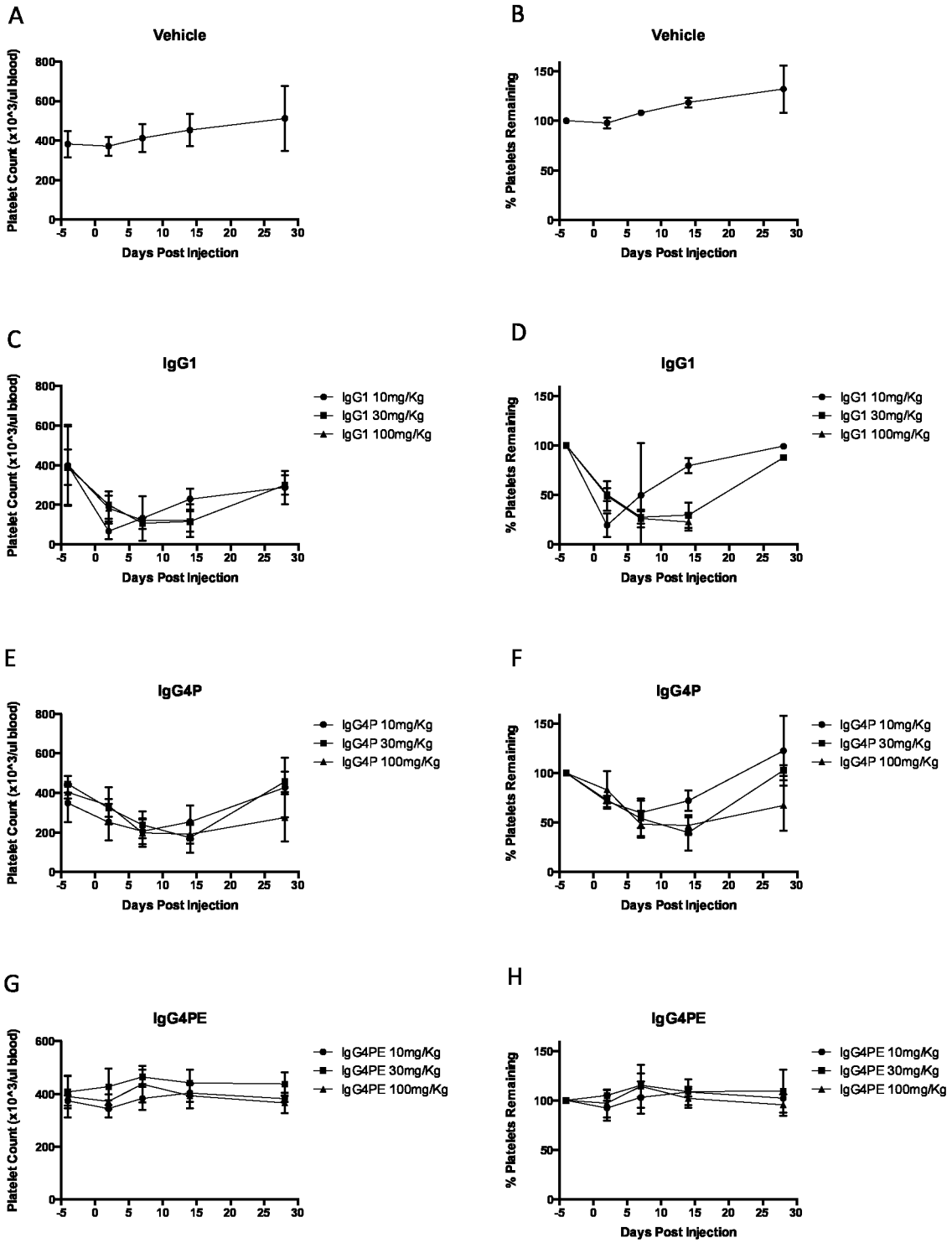
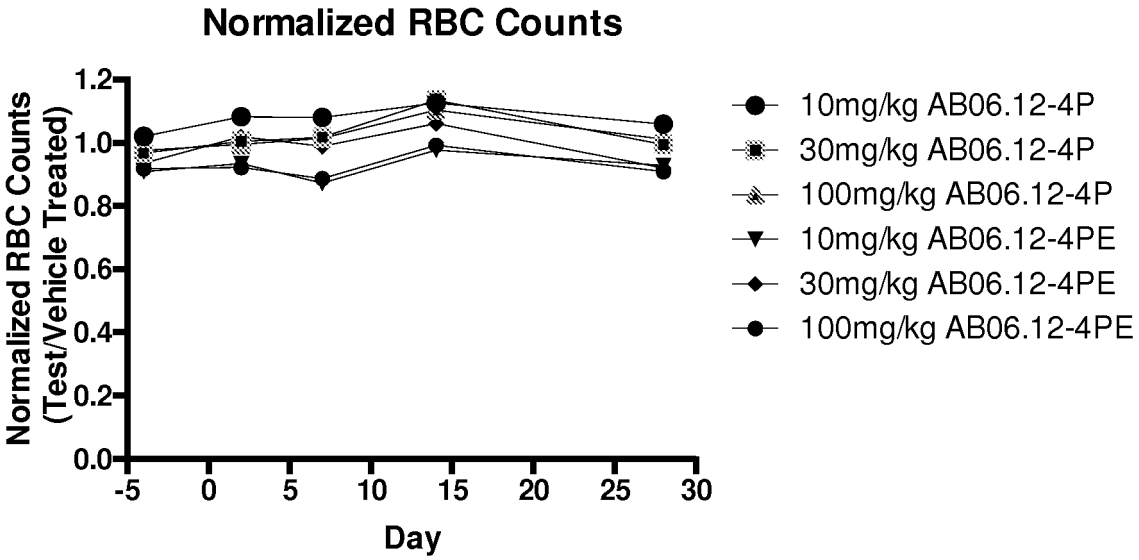

A
Vehicle
Platelet Count (x10^3/ul blood)
Days Post Injection
B
Vehicle
% Platelets Remaining
Days Post Injection
C
IgG1
Platelet Count (x10^3/ul blood)
Days Post Injection
IgG1 10mg/Kg
IgG1 30mg/Kg
IgG1 100mg/Kg
D
IgG1
% Platelets Remaining
Days Post Injection
IgG1 10mg/Kg
IgG1 30mg/Kg
IgG1 100mg/Kg
E
IgG4P
Platelet Count (x10^3/ul blood)
Days Post Injection
IgG4P 10mg/Kg
IgG4P 30mg/Kg
IgG4P 100mg/Kg
F
IgG4P
% Platelets Remaining
Days Post Injection
IgG4P 10mg/Kg
IgG4P 30mg/Kg
IgG4P 100mg/Kg
G
IgG4PE
Platelet Count (x10^3/ul blood)
Days Post Injection
IgG4PE 10mg/Kg
IgG4PE 30mg/Kg
IgG4PE 100mg/Kg
H
IgG4PE
% Platelets Remaining
Days Post Injection
IgG4PE 10mg/Kg
IgG4PE 30mg/Kg
IgG4PE 100mg/Kg

Figure 13


Normalized RBC Counts
Normalized RBC Counts (Test/Vehicle Treated)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-5
0
5
10
15
20
25
30
Day
10mg/kg AB06.12-4P
30mg/kg AB06.12-4P
100mg/kg AB06.12-4P
10mg/kg AB06.12-4PE
30mg/kg AB06.12-4PE
100mg/kg AB06.12-4PE