FIG. 1A

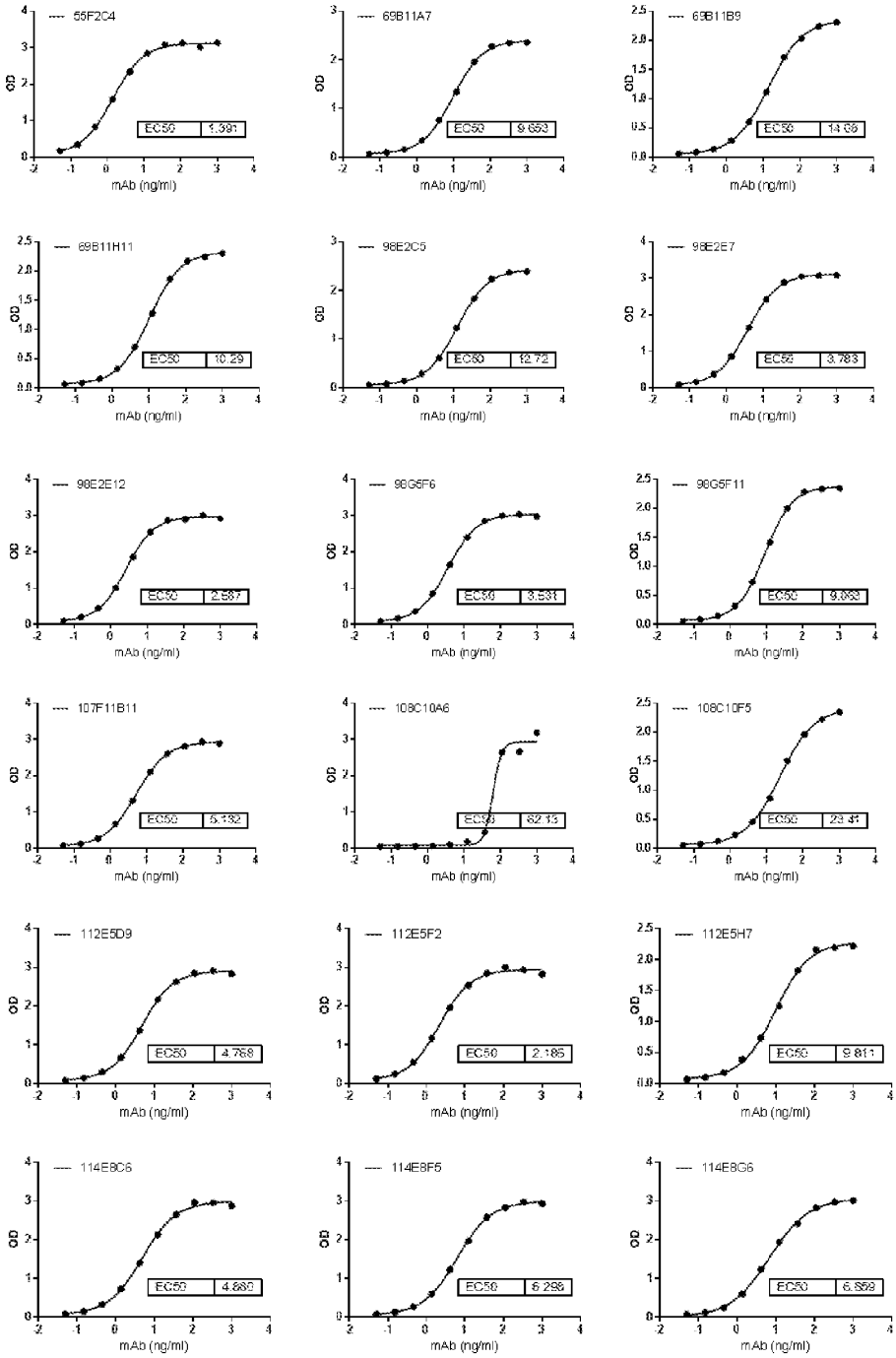

55F2C4
EC50 1.391
69B11A7
EC50 9.653
69B11B9
EC50 14.69
69B11H11
EC50 10.29
98E2C5
EC50 12.72
98E2E7
EC50 3.783
98E2E12
EC50 2.587
98G5F6
EC50 3.531
98G5F11
EC50 9.863
107F11B11
EC50 5.132
108C10A6
EC50 62.13
108C10F5
EC50 23.41
112E5D9
EC50 4.768
112E5F2
EC50 2.185
112E5H7
EC50 9.811
114E8C6
EC50 4.682
114E8F5
EC50 6.296
114E8G6
EC50 6.559
OD
mAb (ng/ml)

FIG. 1B

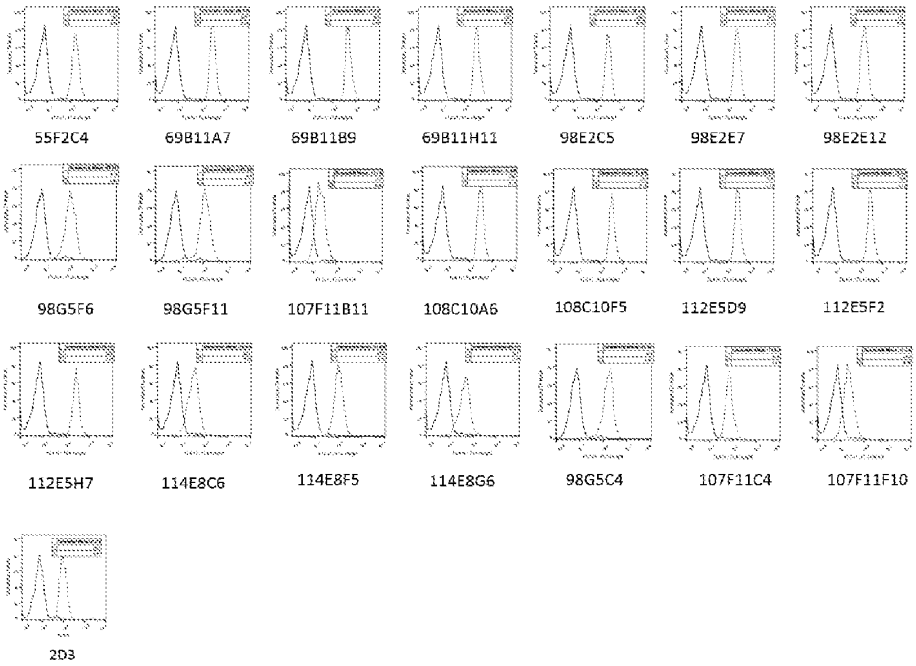

55F2C4
69B11A7
69B11B9
69B11H11
98E2C5
98E2E7
98E2E12
98G5F6
98G5F11
107F11B11
108C10A6
108C10F5
112E5D9
112E5F2
112E5H7
114E8C6
114E8F5
114E8G6
98G5C4
107F11C4
107F11F10
2D3

FIG. 2A

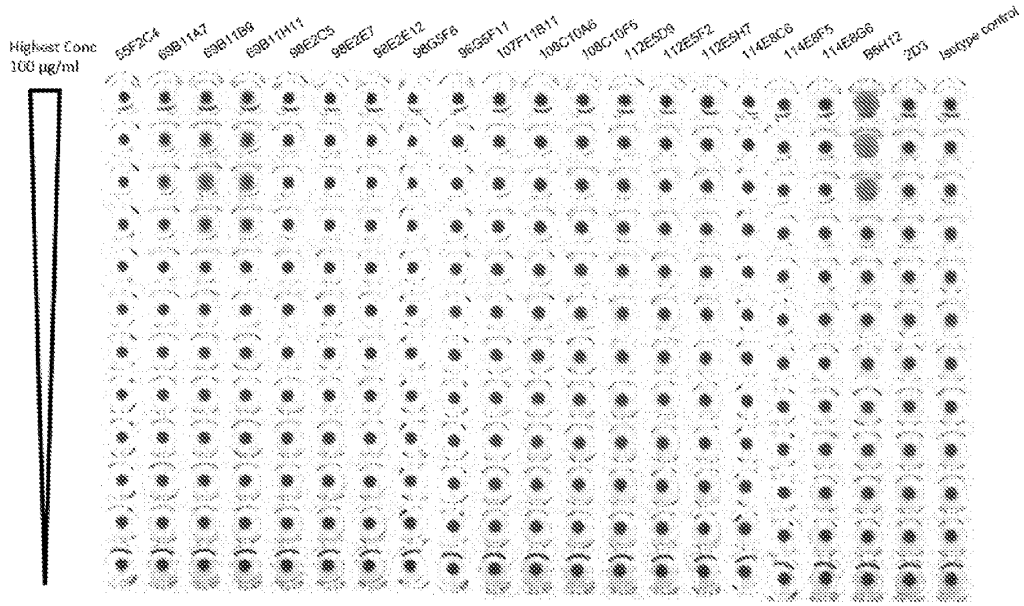

Highest Conc
100 µg/ml
55F2C4
69B11A7
69B11B9
69B11H11
98E2C5
98E2E7
98E2E12
98G5F6
98G5F11
107F11B11
108C10A6
108C10F5
112E5D9
112E5F2
112E5H7
114E8C6
114E8F5
114E8G6
B6H12
2D3
Isotype control

FIG. 2B

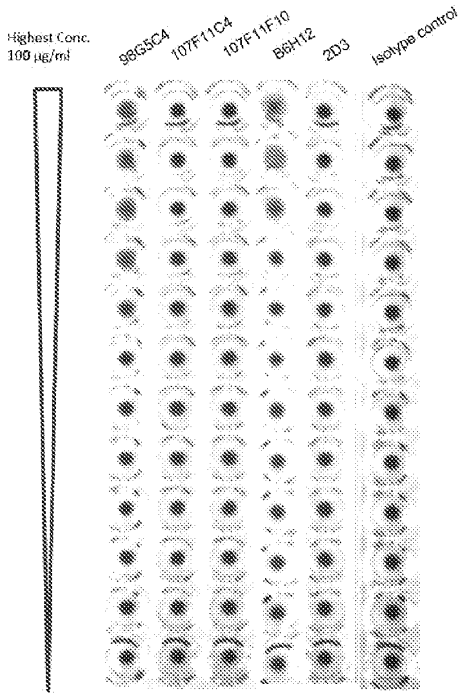

Highest Conc.
100 μg/ml
98G5C4
107F11C4
107F11F10
86H12
2D3
Isotype control

FIG. 3

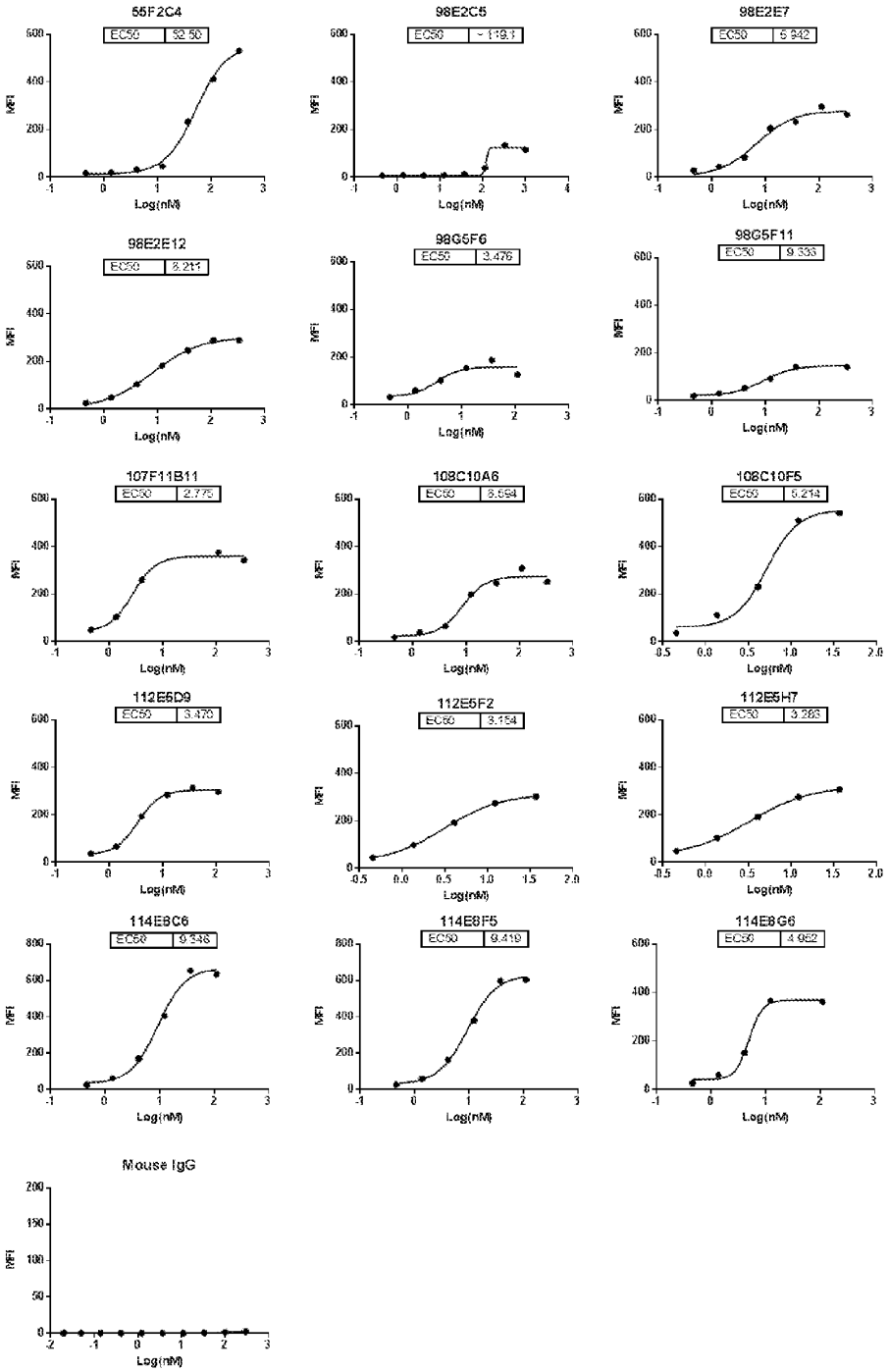

55F2C4
EC50 32.50
98E2C5
EC50 ~ 119.1
98E2E7
EC50 5.342
98E2E12
EC50 2.211
98G5F6
EC50 3.476
98G5F11
EC50 9.333
107F11B11
EC50 2.775
108C10A6
EC50 5.694
108C10F5
EC50 5.214
112E6D9
EC50 3.470
112E5F2
EC50 3.154
112E5H7
EC50 3.283
114E8C6
EC50 9.548
114E8F5
EC50 9.419
114E8G6
EC50 4.952
Mouse IgG
MFI
Log(nM)

FIG. 4A

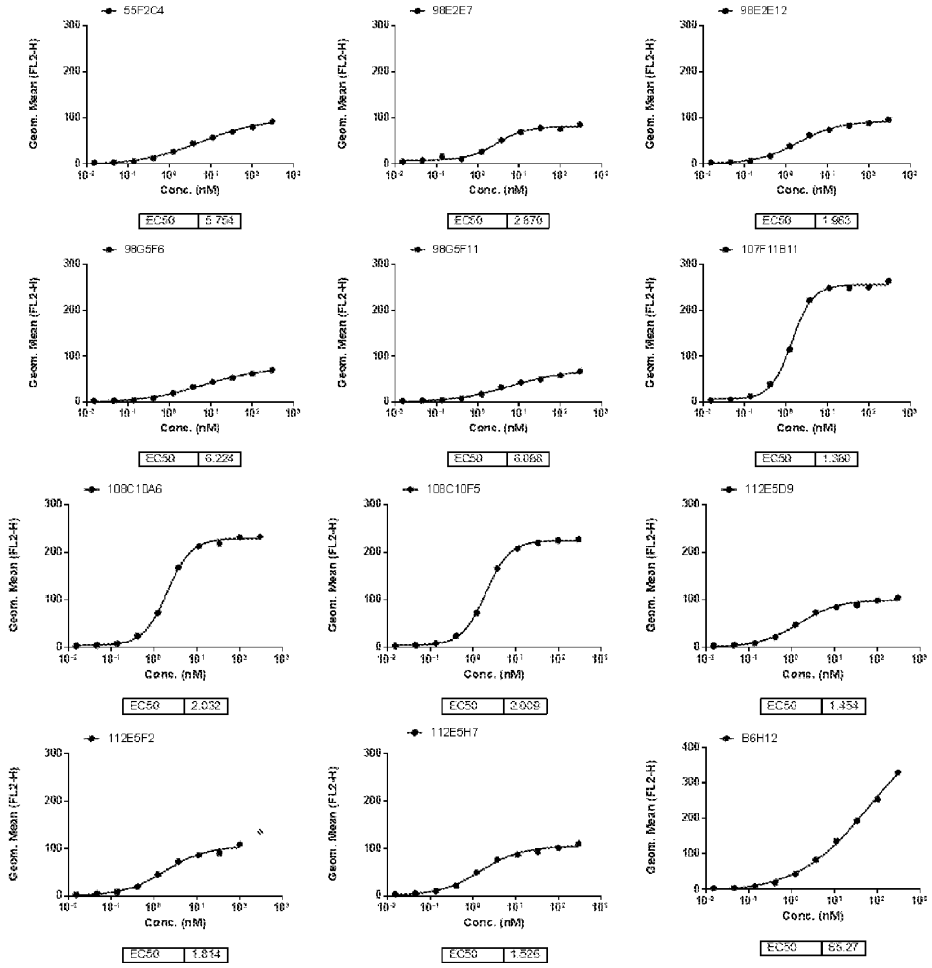

55F2C4
Geom. Mean (FL2-H)
Conc. (nM)
EC50 5.754
98E2E7
EC50 2.670
98E2E12
EC50 1.985
98G5F6
EC50 6.224
98G5F11
EC50 6.068
107F11B11
EC50 1.360
108C10A6
EC50 2.032
108C10F5
EC50 2.008
112E5D9
EC50 1.454
112E5F2
EC50 1.814
112E5H7
EC50 1.526
B6H12
EC50 55.27

FIG. 4A CONT.

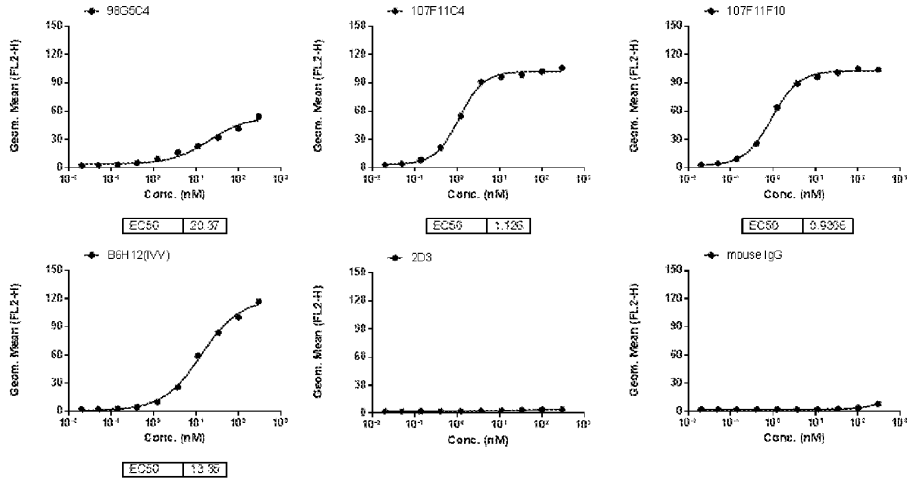


FIG. 4B

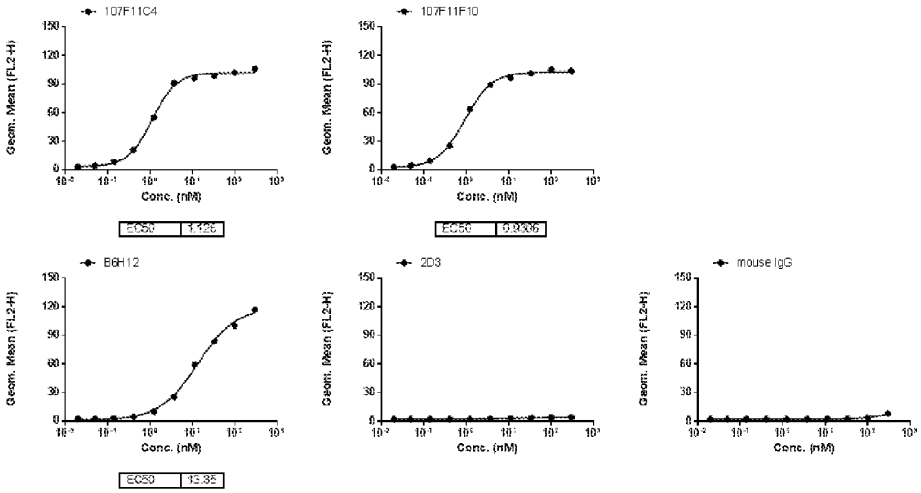


FIG. 5

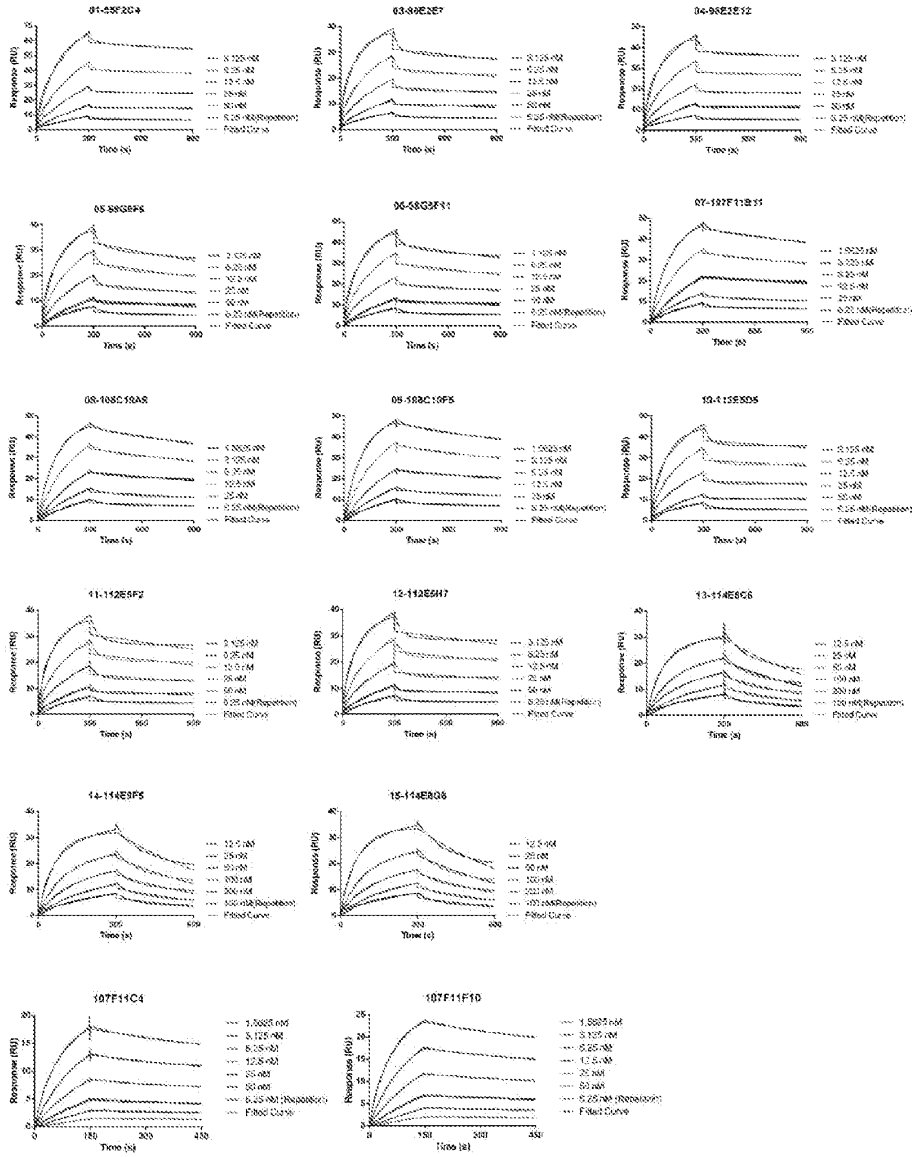

01-65F2C4
03-86E3E7
04-98E2E12
05-99G8F5
06-68G3F11
07-107F11E11
08-108C10A8
09-108C10F5
10-112E5D5
11-112E5F2
12-112E5H7
13-114E9C6
14-114E9F5
15-114E9G5
107F11C4
107F11F10

FIG. 6

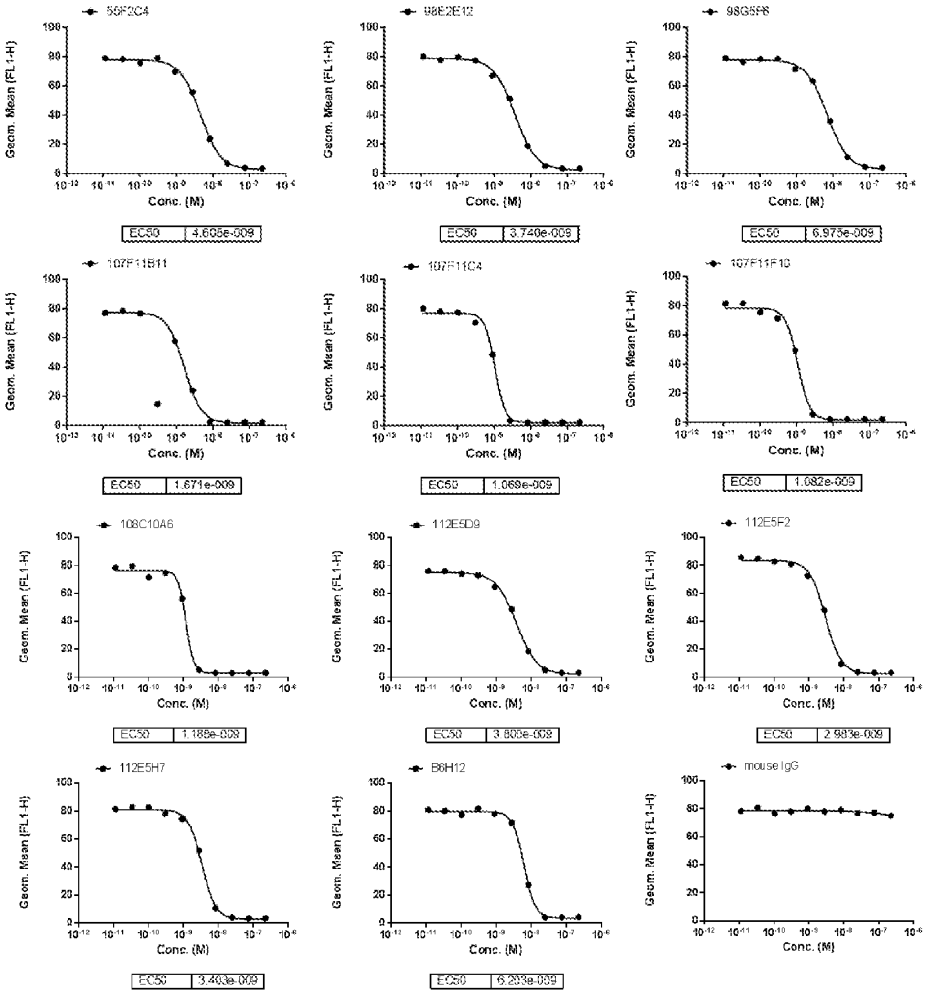

59F2C4
Geom. Mean (FL1-H)
Conc. (M)
EC50 4.605e-009
98E2E12
Geom. Mean (FL1-H)
Conc. (M)
EC50 3.740e-009
98G5F8
Geom. Mean (FL1-H)
Conc. (M)
EC50 6.975e-009
107F11B11
Geom. Mean (FL1-H)
Conc. (M)
EC50 1.671e-009
107F11C4
Geom. Mean (FL1-H)
Conc. (M)
EC50 1.069e-009
107F11F10
Geom. Mean (FL1-H)
Conc. (M)
EC50 1.082e-009
108C10A6
Geom. Mean (FL1-H)
Conc. (M)
EC50 1.185e-009
112E5D9
Geom. Mean (FL1-H)
Conc. (M)
EC50 3.803e-009
112E5F2
Geom. Mean (FL1-H)
Conc. (M)
EC50 2.983e-009
112E5H7
Geom. Mean (FL1-H)
Conc. (M)
EC50 3.403e-009
B6H12
Geom. Mean (FL1-H)
Conc. (M)
EC50 6.233e-009
mouse IgG
Geom. Mean (FL1-H)
Conc. (M)

FIG. 7A

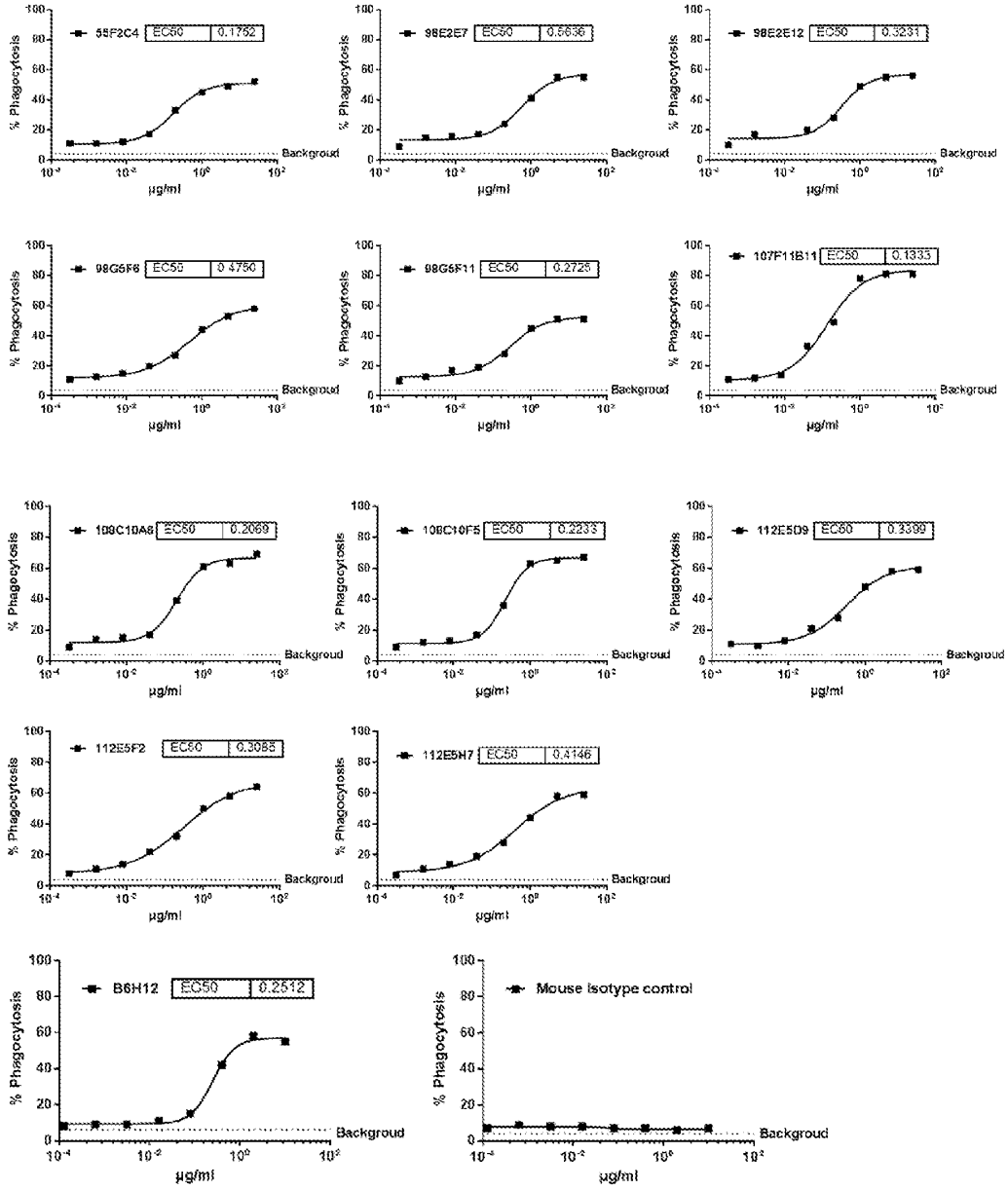

55F2C4 EC50 0.1762
98E2E7 EC50 0.5636
98E2E12 EC50 0.3231
98G5F8 EC50 0.4750
98G5F11 EC50 0.2728
107F11B11 EC50 0.1333
109C10A8 EC50 0.2069
108C10F5 EC50 0.2233
112E5D9 EC50 0.3399
112E5F2 EC50 0.3083
112E5H7 EC50 0.4146
B6H12 EC50 0.2512
Mouse isotype control
% Phagocytosis
μg/ml
Background

FIG. 7B

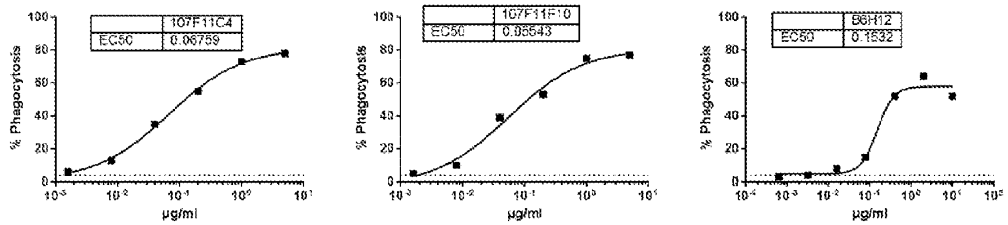

107F11C4
EC50 0.06759
107F11F10
EC50 0.05543
B6H12
EC50 0.1532
% Phagocytosis
μg/ml

FIG. 8

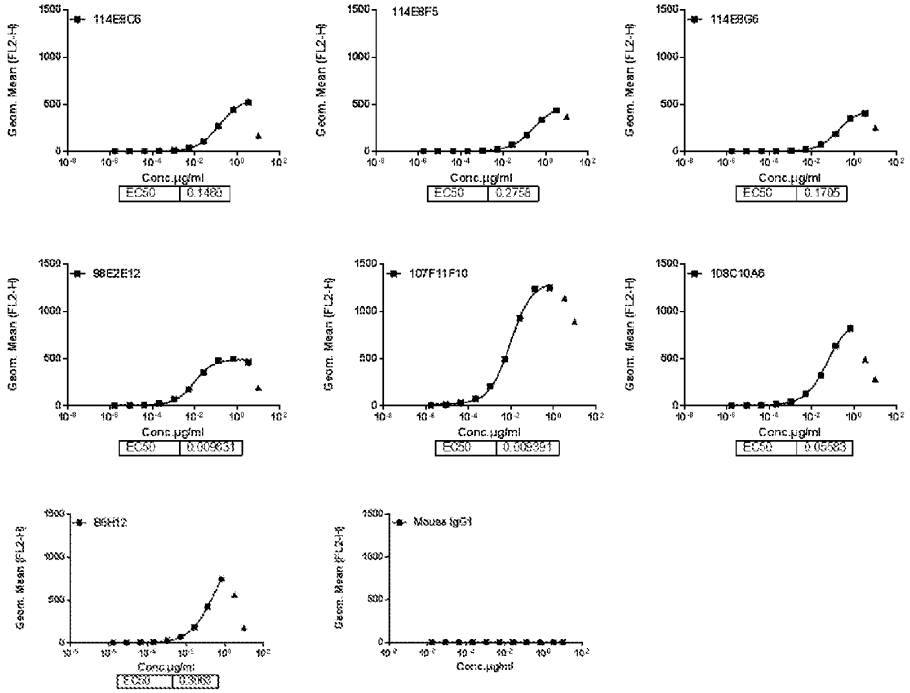

114E8C6
EC50 0.1489
114E8F5
EC50 0.2758
114E8G6
EC50 0.1705
98E2E12
EC50 0.009631
107F11F10
EC50 0.008381
108C10A6
EC50 0.05683
B6H12
Mouse IgG1
Geom. Mean (FL2-H)
Conc.μg/ml

FIG. 9

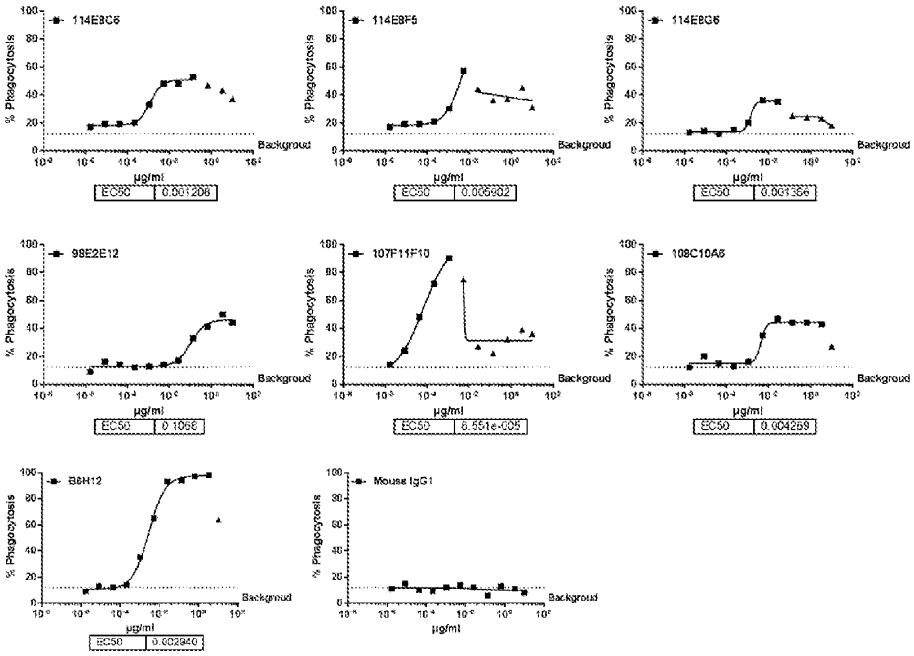

114E3C6
% Phagocytosis
Background
µg/ml
EC50 0.001208
114E8F5
% Phagocytosis
Background
µg/ml
EC50 0.006902
114E8G6
% Phagocytosis
Background
µg/ml
EC50 0.001364
98E2E12
% Phagocytosis
Background
µg/ml
EC50 0.1066
107F11F10
% Phagocytosis
Background
µg/ml
EC50 6.551e-005
108C10A6
% Phagocytosis
Background
µg/ml
EC50 0.004259
B8H12
% Phagocytosis
Background
µg/ml
EC50 0.002940
Mouse IgG1
% Phagocytosis
Background
µg/ml

FIG. 10

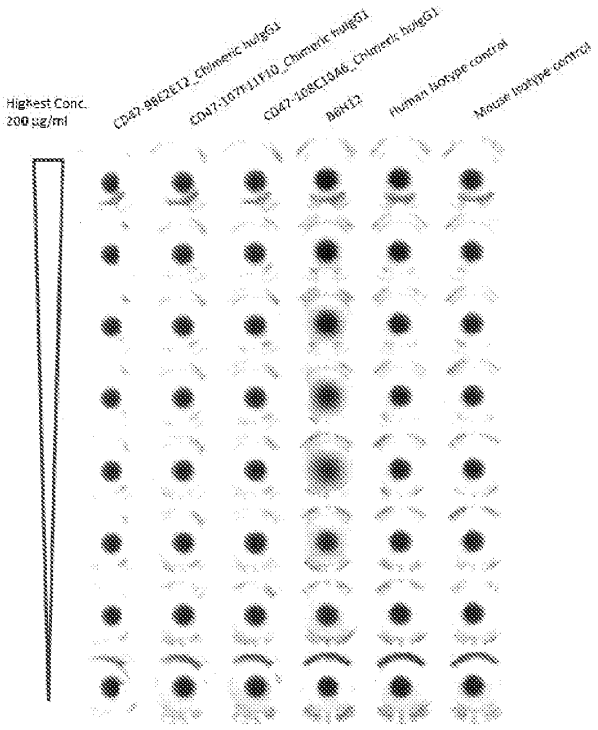

Highest Conc.
200 μg/ml
CD47-9BE2E12_Chimeric hulgG1
CD47-107F11F10_Chimeric hulgG1
CD47-108C10A6_Chimeric hulgG1
B6H12
Human isotype control
Mouse isotype control

FIG. 11

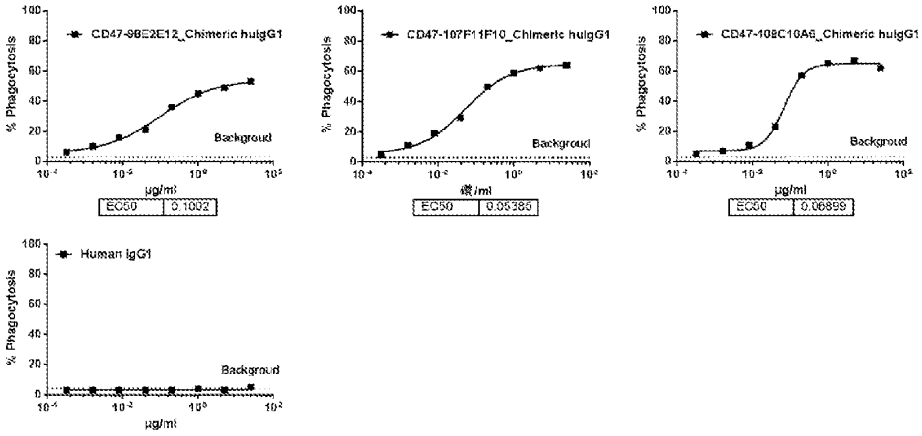

CD47-9BE2E12_Chimeric hulgG1
% Phagocytosis
Background
μg/ml
EC50 0.1002
CD47-107F11F10_Chimeric hulgG1
% Phagocytosis
Background
μg/ml
EC50 0.05385
CD47-108C10A6_Chimeric hulgG1
% Phagocytosis
Background
μg/ml
EC50 0.06899
Human IgG1
% Phagocytosis
Background
μg/ml

FIG. 12

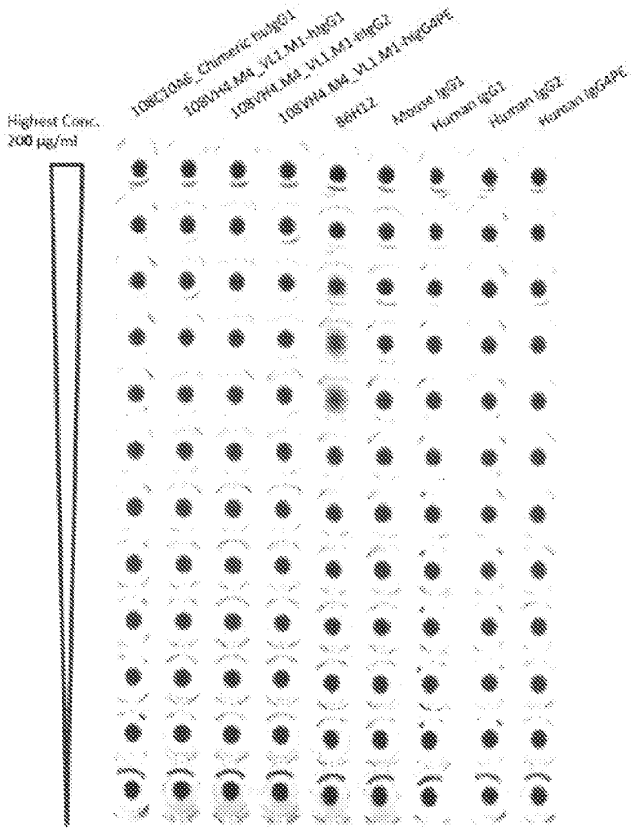

Highest Conc.
200 μg/ml
108E10Mut_Chimeric hulgG1
108VH4-M4_VL1-M1-hIgG1
108VH4-M4_VL1-M1-mIgG1
108VH4-M4_VL1-M1-hIgG4PE
B6H12
Mouse IgG1
Human IgG1
Human IgG2
Human IgG4PE

FIG. 13

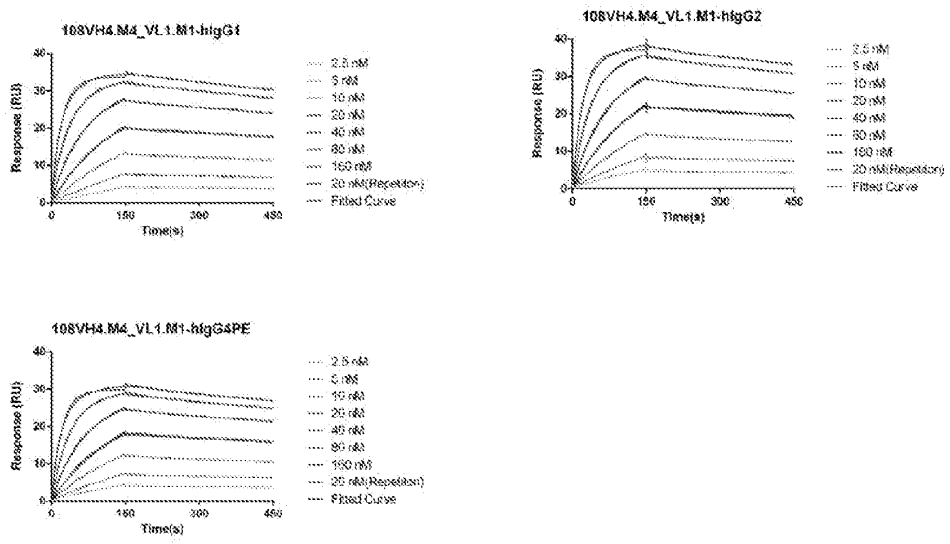

108VH4.M4_VL1.M1-hIgG1
Response (RU)
Time(s)
2.5 nM
5 nM
10 nM
20 nM
40 nM
80 nM
160 nM
20 nM(Repetition)
Fitted Curve
108VH4.M4_VL1.M1-hIgG2
Response (RU)
Time(s)
2.5 nM
5 nM
10 nM
20 nM
40 nM
80 nM
160 nM
20 nM(Repetition)
Fitted Curve
108VH4.M4_VL1.M1-hIgG4PE
Response (RU)
Time(s)
2.5 nM
5 nM
10 nM
20 nM
40 nM
80 nM
160 nM
20 nM(Repetition)
Fitted Curve

FIG. 14

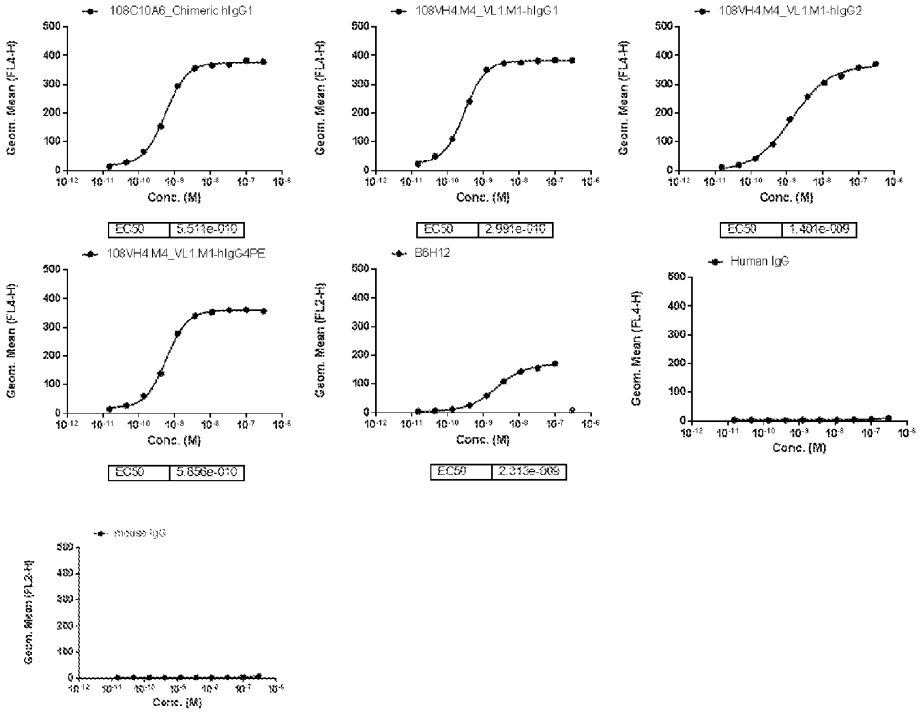

108C10A6_Chimeric hIgG1
Geom. Mean (FL4-H)
Conc. (M)
EC50 5.511e-010
108VH4.M4_VL1.M1-hIgG1
Geom. Mean (FL4-H)
Conc. (M)
EC50 2.991e-010
108VH4.M4_VL1.M1-hIgG2
Geom. Mean (FL4-H)
Conc. (M)
EC50 1.481e-009
108VH4.M4_VL1.M1-hIgG4PE
Geom. Mean (FL4-H)
Conc. (M)
EC50 5.856e-010
B6H12
Geom. Mean (FL2-H)
Conc. (M)
EC50 2.213e-009
Human IgG
Geom. Mean (FL4-H)
Conc. (M)
mouse IgG
Geom. Mean (FL2-H)
Conc. (M)

FIG. 15

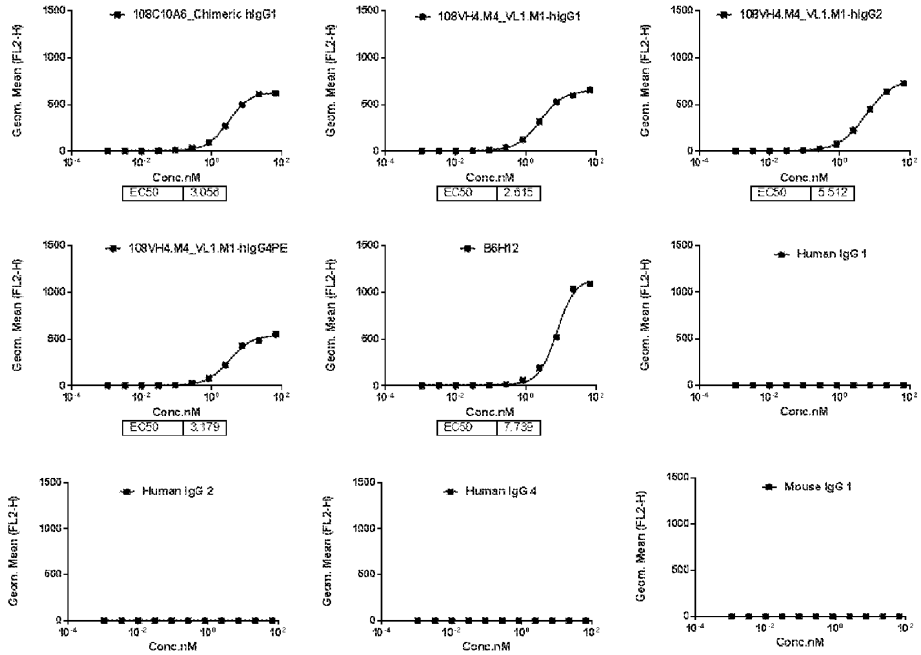

108C10A6_Chimeric hIgG1
Geom. Mean (FL2-H)
Conc.nM
EC50 3.058
108VH4.M4_VL1.M1-hIgG1
EC50 2.615
108VH4.M4_VL1.M1-hIgG2
EC50 5.512
108VH4.M4_VL1.M1-hIgG4PE
EC50 3.179
B6H12
EC50 7.732
Human IgG 1
Human IgG 2
Human IgG 4
Mouse IgG 1

FIG. 16

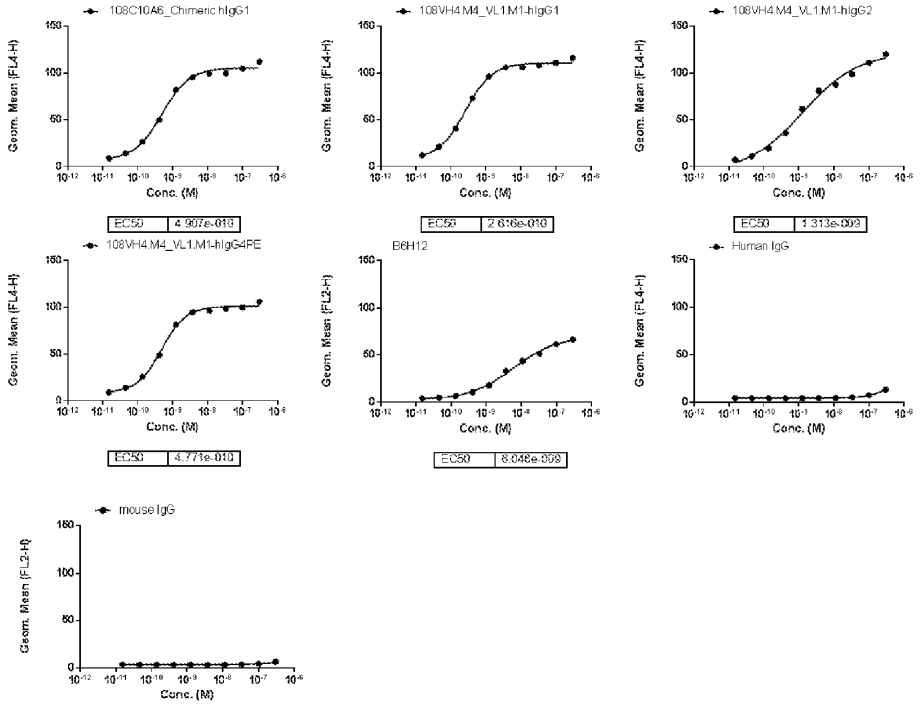

108C10A6_Chimeric hIgG1
Geom. Mean (FL4-H)
Conc. (M)
EC50 4.907e-010
108VH4.M4_VL1.M1-hIgG1
EC50 2.616e-010
108VH4.M4_VL1.M1-hIgG2
EC50 1.313e-009
108VH4.M4_VL1.M1-hIgG4PE
EC50 4.771e-010
B6H12
Geom. Mean (FL2-H)
EC50 8.048e-009
Human IgG
mouse IgG

FIG. 17

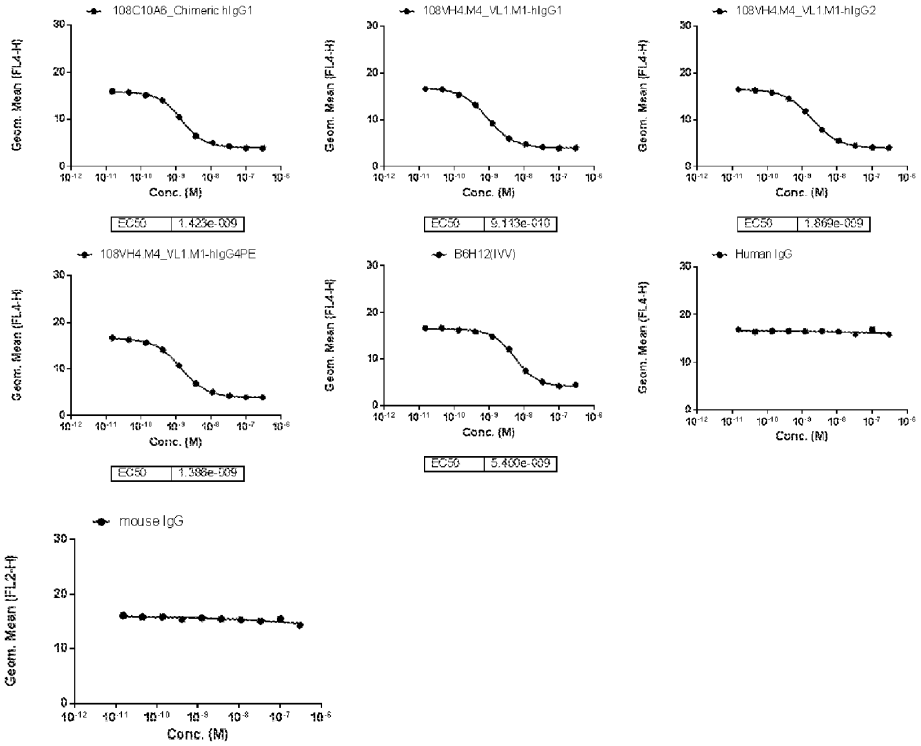

108C10A6_Chimeric hIgG1
Geom. Mean (FL4-H)
Conc. (M)
EC50 1.425e-009
108VH4.M4_VL1.M1-hIgG1
Geom. Mean (FL4-H)
Conc. (M)
EC50 5.113e-010
108VH4.M4_VL1.M1-hIgG2
Geom. Mean (FL4-H)
Conc. (M)
EC50 1.869e-009
108VH4.M4_VL1.M1-hIgG4PE
Geom. Mean (FL4-H)
Conc. (M)
EC50 1.388e-009
B6H12(IVV)
Geom. Mean (FL4-H)
Conc. (M)
EC50 5.400e-009
Human IgG
Geom. Mean (FL4-H)
Conc. (M)
mouse IgG
Geom. Mean (FL2-H)
Conc. (M)

FIG. 18

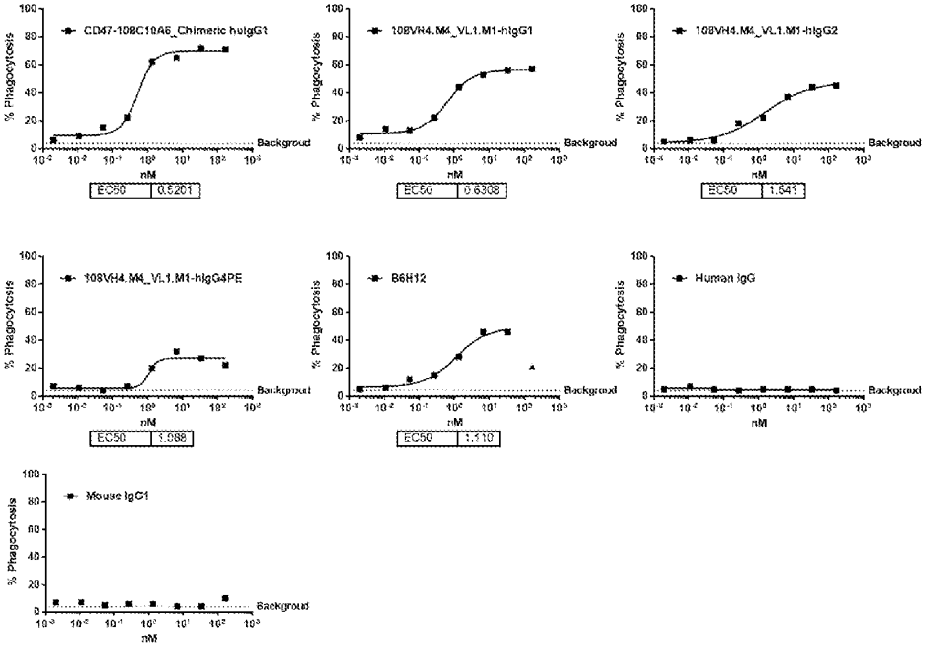

CD47-108C10A6_Chimeric huIgG1
% Phagocytosis
nM
Background
EC50 0.5201
108VH4.M4_VL1.M1-hIgG1
EC50 0.6308
108VH4.M4_VL1.M1-hIgG2
EC50 1.641
108VH4.M4_VL1.M1-hIgG4PE
EC50 1.088
B6H12
EC50 1.310
Human IgG
Mouse IgG1

FIG. 19

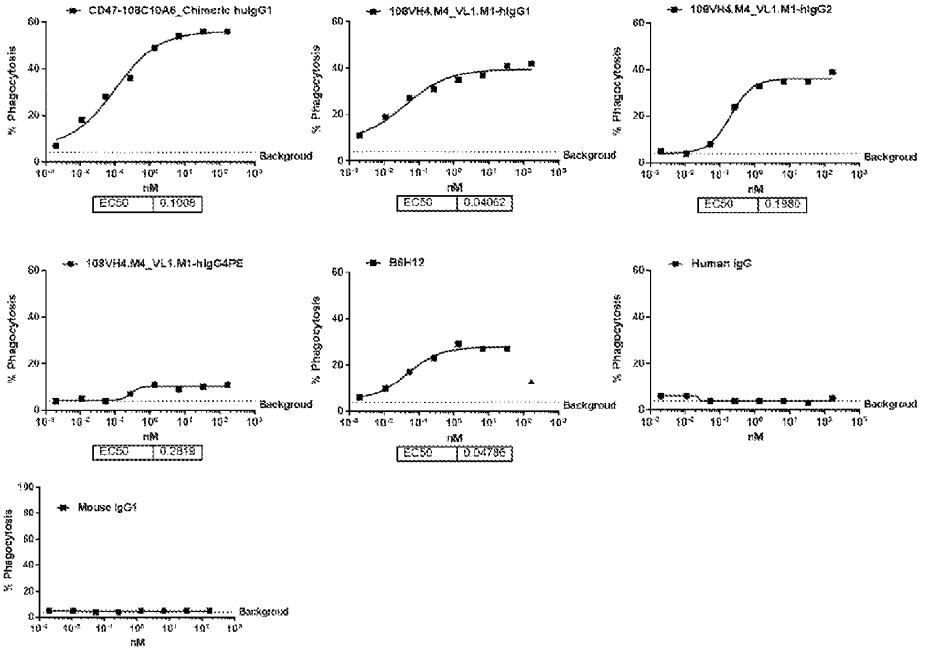

CD47-108C10A6_Chimeric huIgG1
% Phagocytosis
nM
Background
EC50 0.1009
108VH4.M4_VL1.M1-hIgG1
EC50 0.04062
108VH4.M4_VL1.M1-hIgG2
EC50 0.1980
108VH4.M4_VL1.M1-hIgG4PE
EC50 0.2819
B6H12
EC50 0.04796
Human IgG
Mouse IgG1

FIG. 20

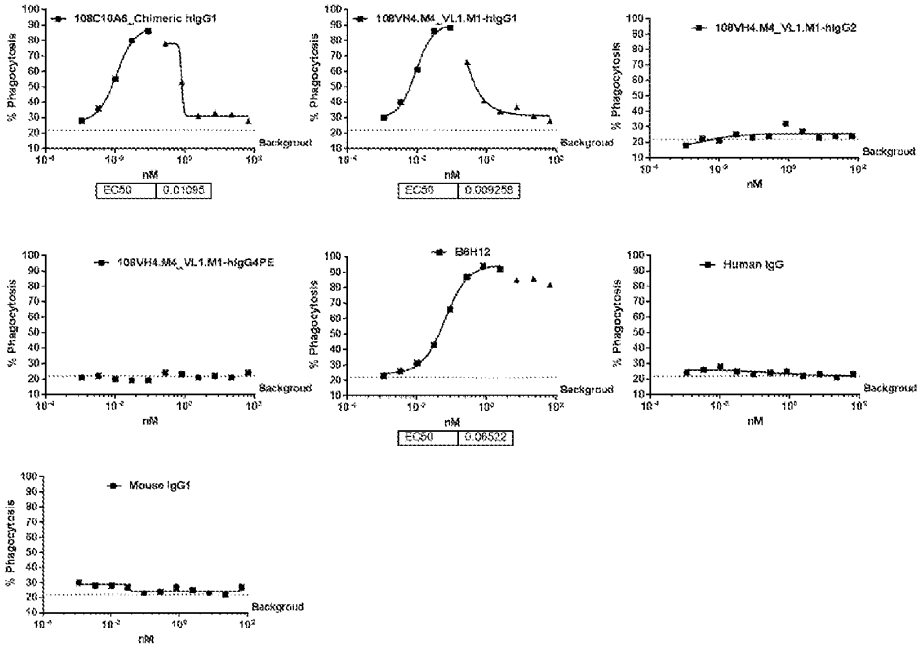

108C10A6_Chimeric hIgG1
108VH4.M4_VL1.M1-hIgG1
108VH4.M4_VL1.M1-hIgG2
108VH4.M4_VL1.M1-hIgG4PE
B6H12
Human IgG
Mouse IgG1
% Phagocytosis
nM
Background
EC50
0.01085
0.009258
0.06532

FIG. 21

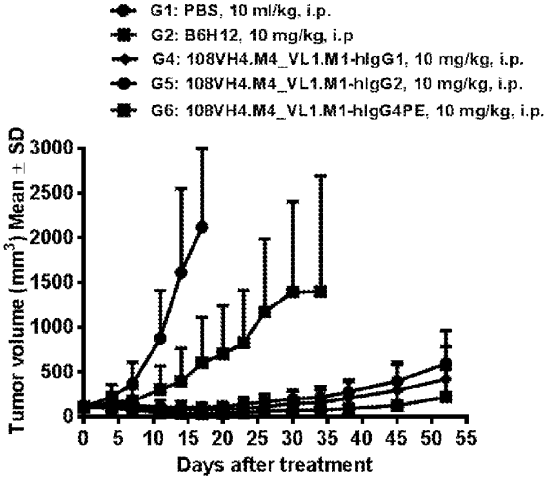

G1: PBS, 10 ml/kg, i.p.
G2: B6H12, 10 mg/kg, i.p
G4: 108VH4.M4_VL1.M1-hIgG1, 10 mg/kg, i.p.
G5: 108VH4.M4_VL1.M1-hIgG2, 10 mg/kg, i.p.
G6: 108VH4.M4_VL1.M1-hIgG4PE, 10 mg/kg, i.p.
Tumor volume (mm3) Mean + SD
Days after treatment

FIG. 22

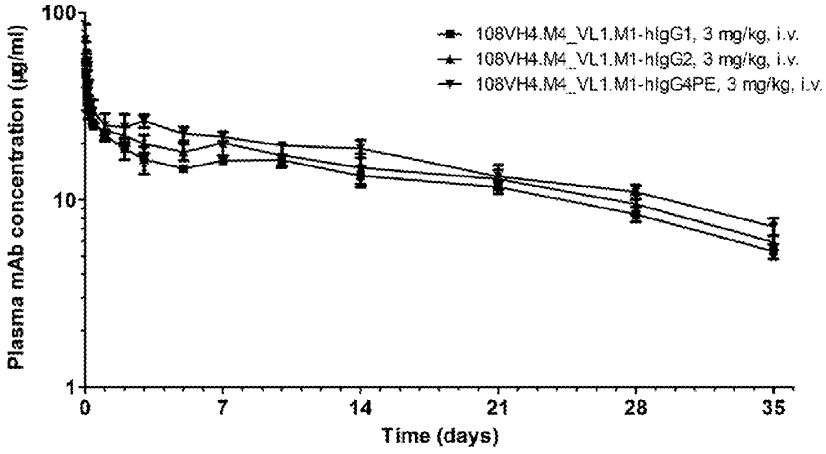
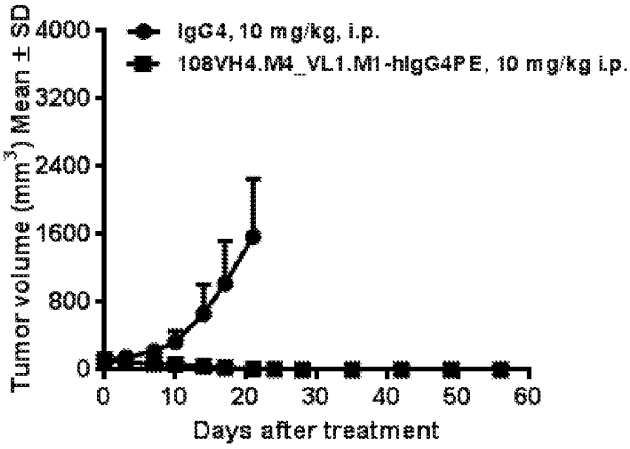

100
10
1
Plasma mAb concentration (μg/ml)
0
7
14
21
28
35
Time (days)
108VH4.M4_VL1.M1-hIgG1, 3 mg/kg, i.v.
108VH4.M4_VL1.M1-hIgG2, 3 mg/kg, i.v.
108VH4.M4_VL1.M1-hIgG4PE, 3 mg/kg, i.v.

FIG. 23


Tumor volume (mm3) Mean ± SD
4000
3200
2400
1600
800
0
0
10
20
30
40
50
60
Days after treatment
IgG4, 10 mg/kg, i.p.
108VH4.M4_VL1.M1-hIgG4PE, 10 mg/kg i.p.