FIG. 1A

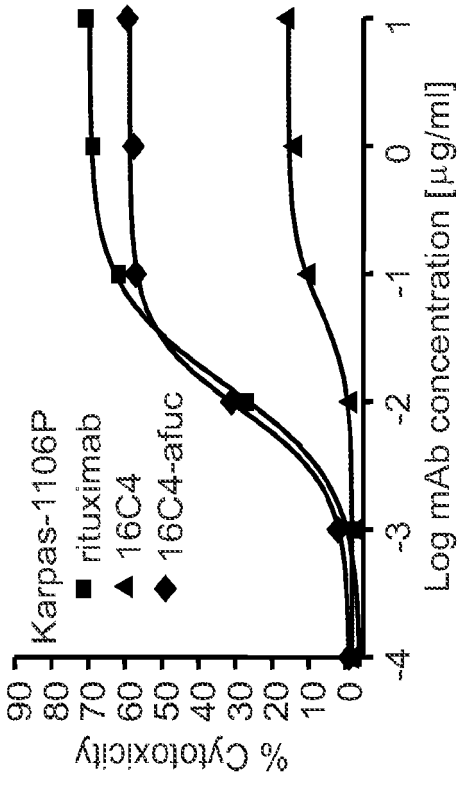


FIG. 1B

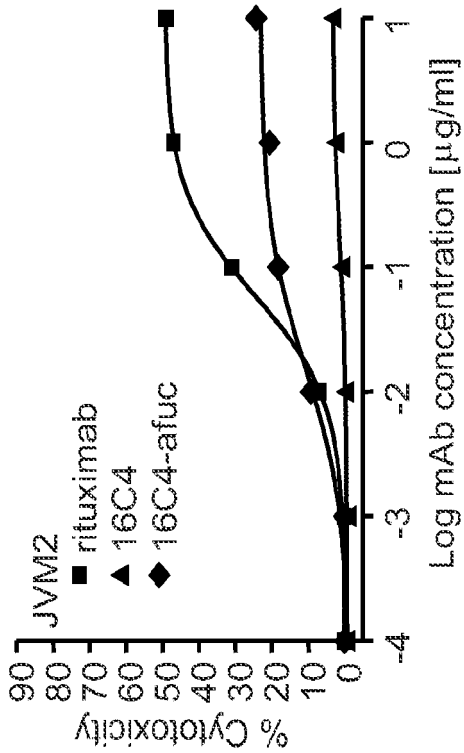


FIG. 1C

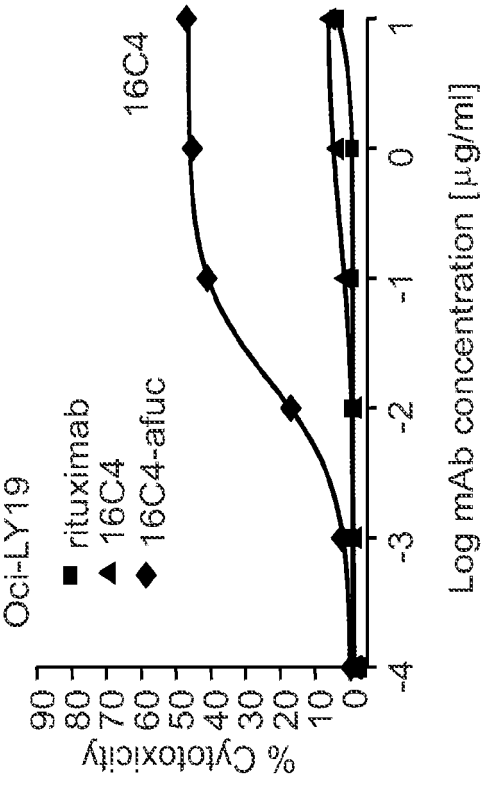


FIG. 1D

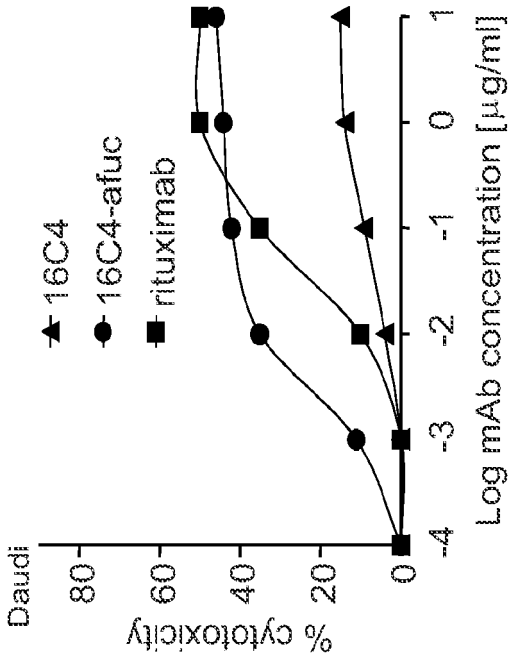


FIG. 1E

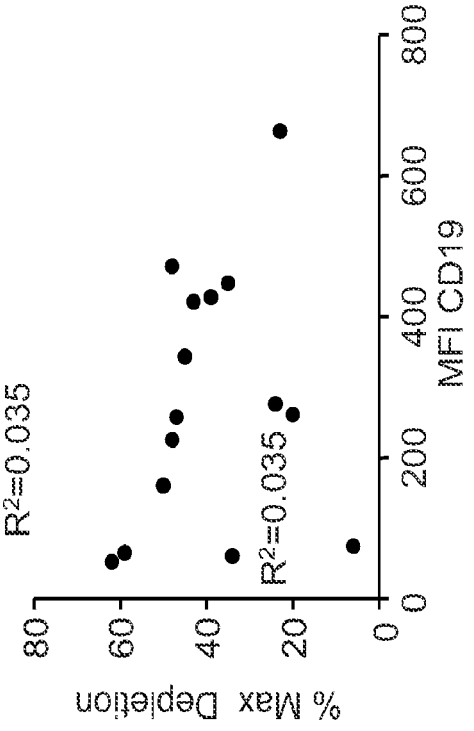


FIG. 1F

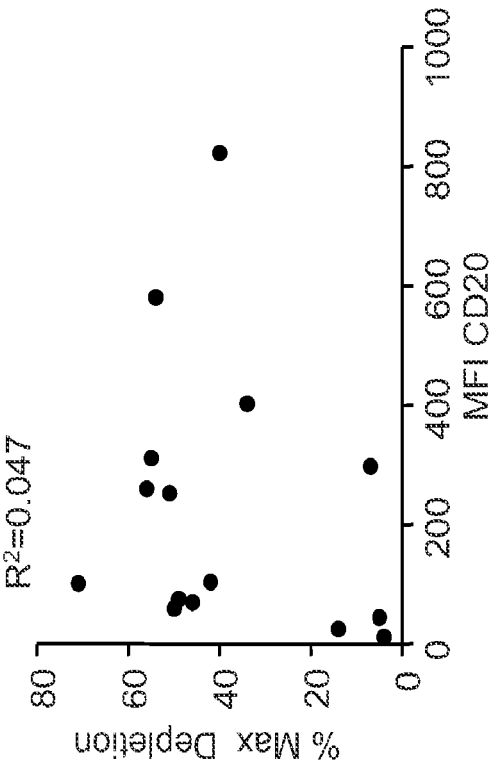


FIG. 1G

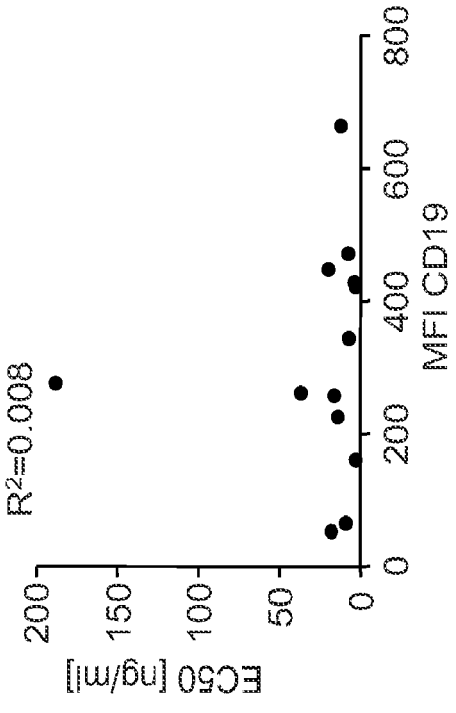


FIG. 1H

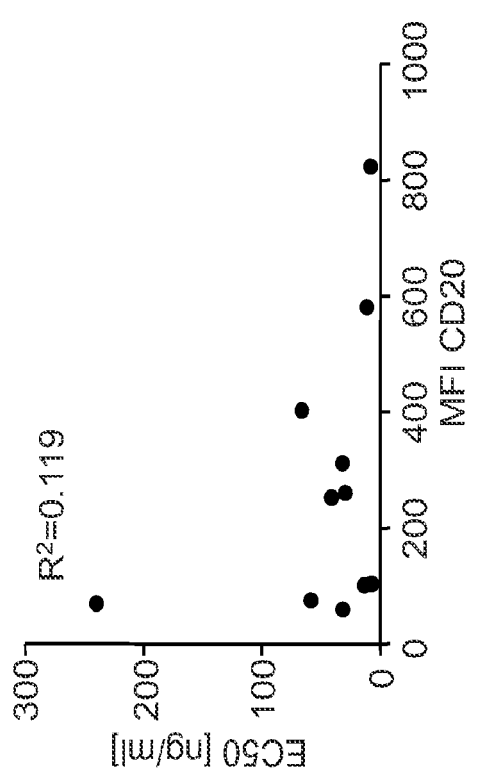


FIG. 2A

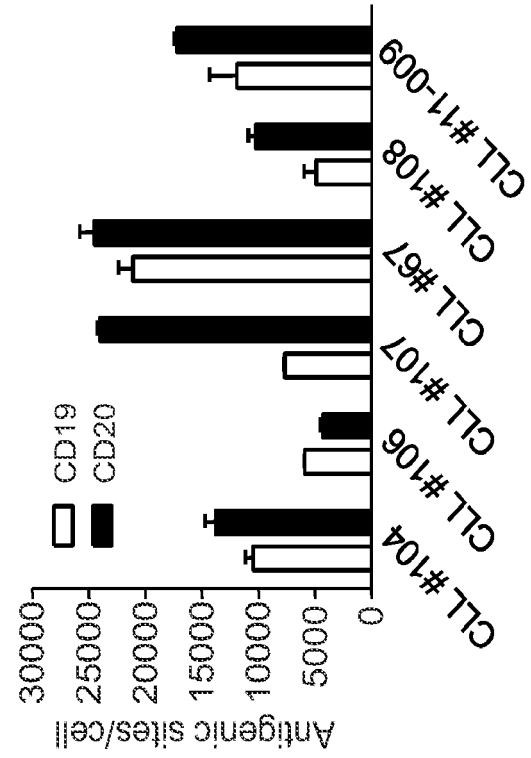


FIG. 2B

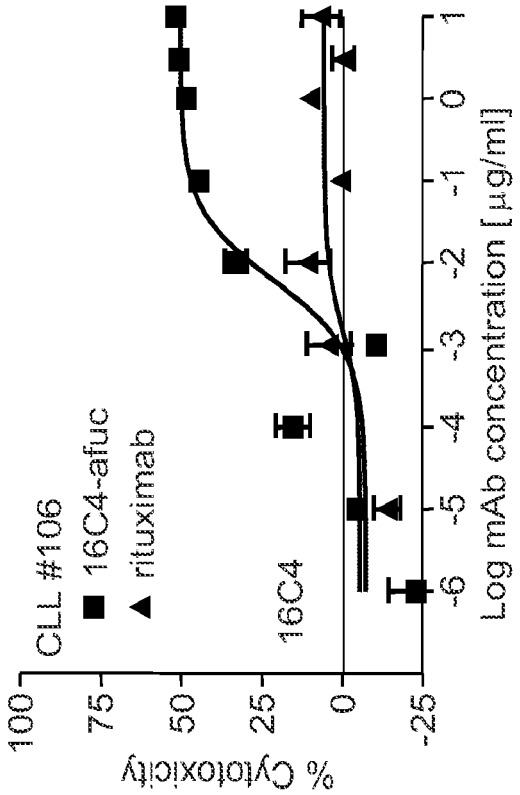


FIG. 2C

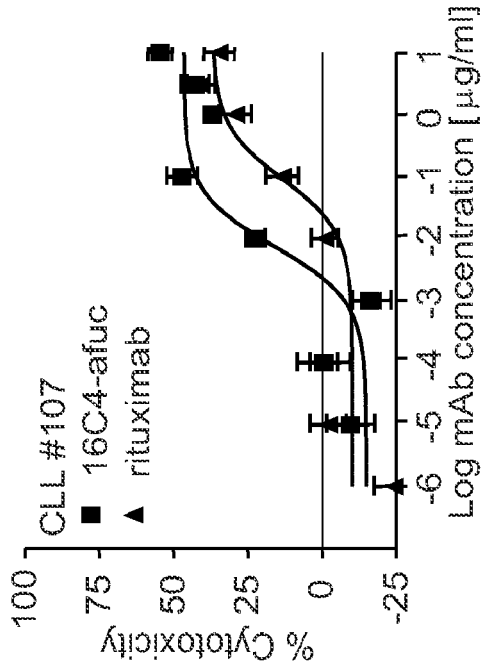


FIG. 2D

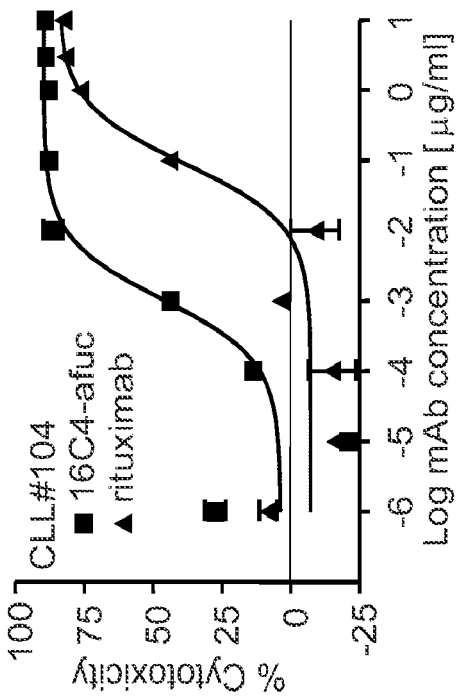


FIG. 2E

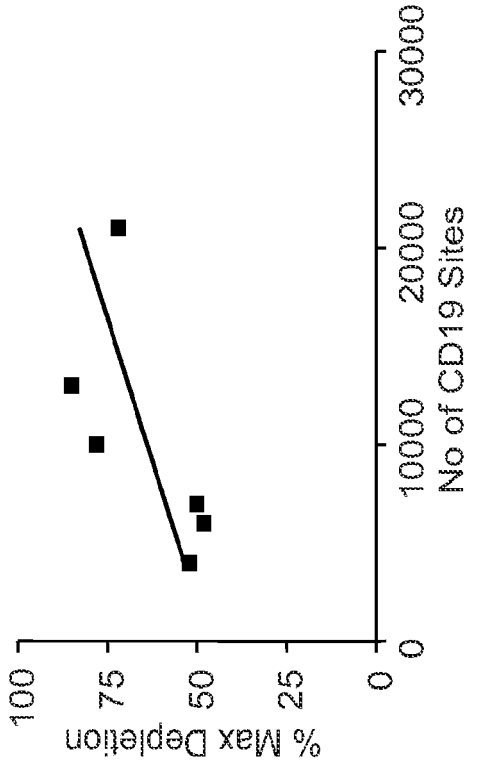

% Max Depletion
100
75
50
25
0
0
10000
20000
30000
No of CD19 Sites

FIG. 2F

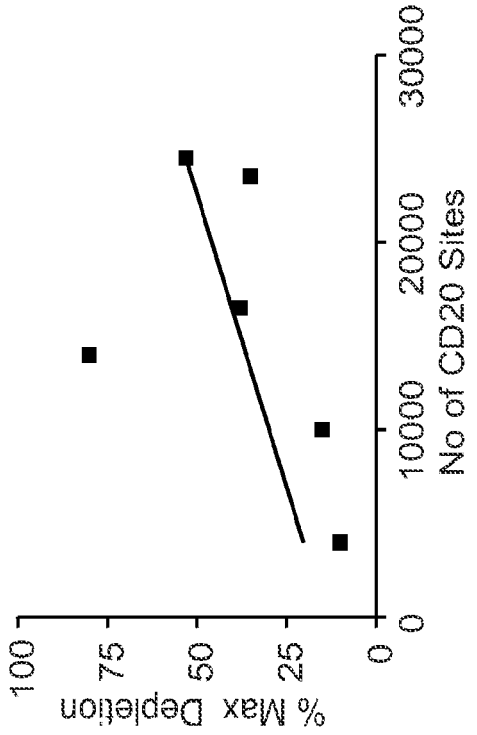

% Max Depletion
100
75
50
25
0
0
10000
20000
30000
No of CD20 Sites

FIG. 3A

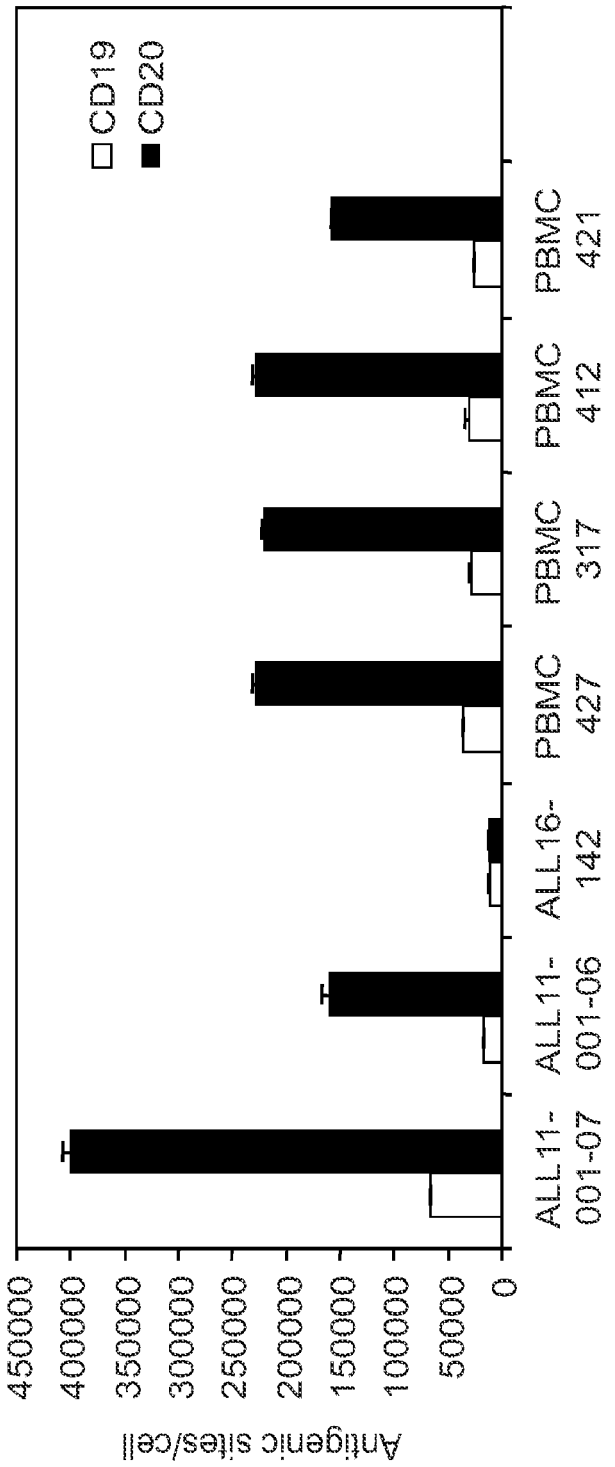

CD19
CD20
Antigenic sites/cell
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
ALL11-001-07
ALL11-001-06
ALL16-142
PBMC 427
PBMC 317
PBMC 412
PBMC 421

FIG. 3B

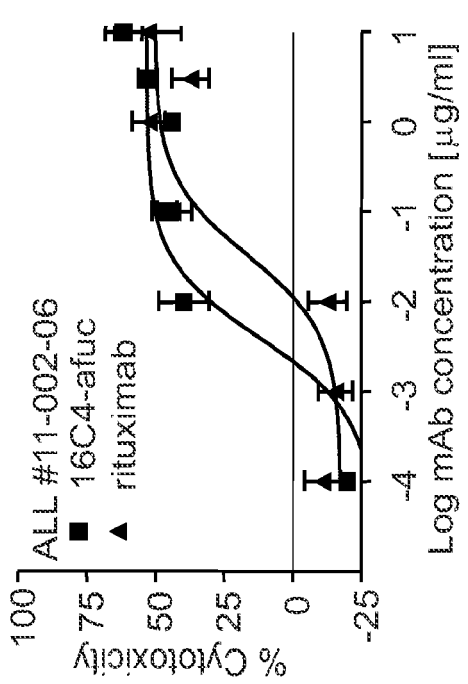


FIG. 3C

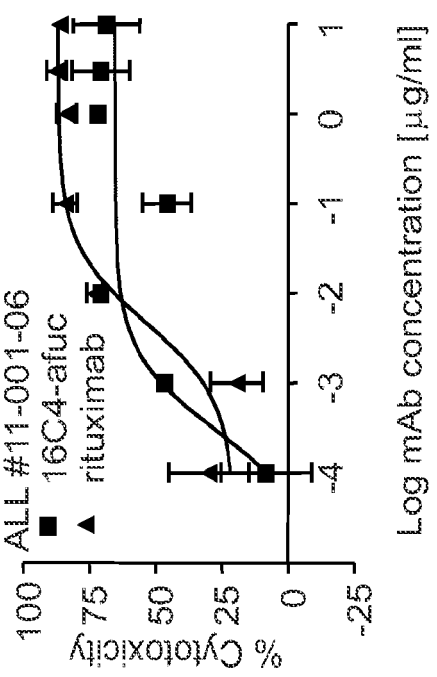


FIG. 3D

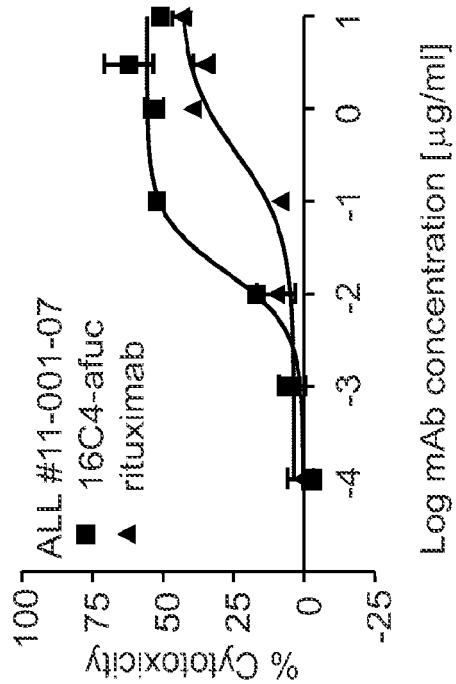
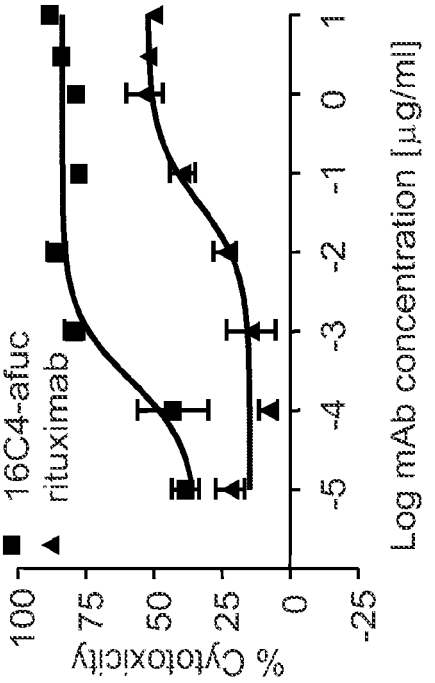


FIG. 3E



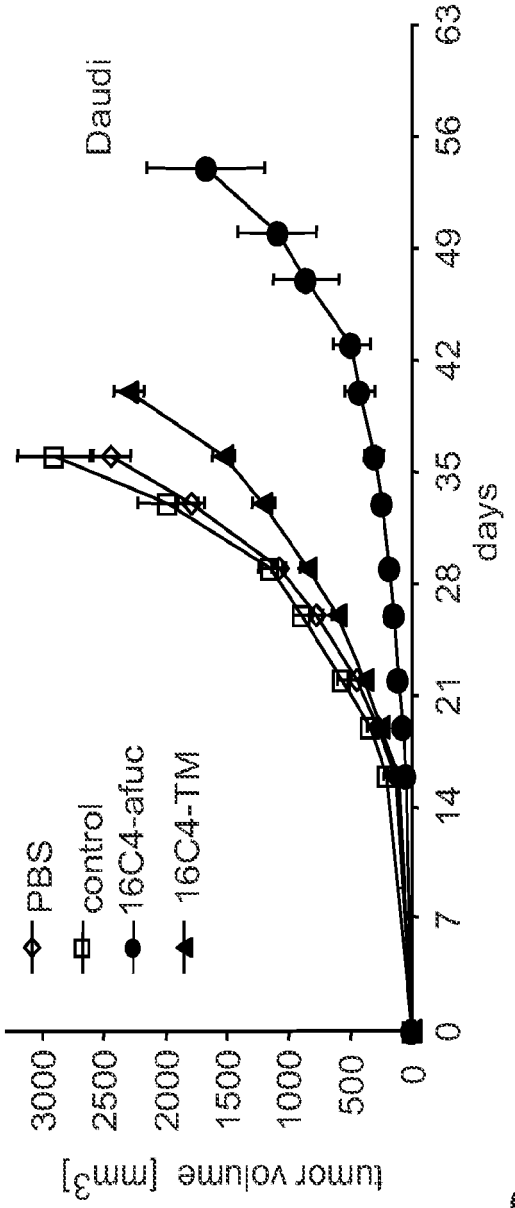

Daudi
PBS
control
16C4-afuc
16C4-TM
tumor volume [mm3]
3000
2500
2000
1500
1000
500
0
0
7
14
21
28
35
42
49
56
63
days

FIG. 4A

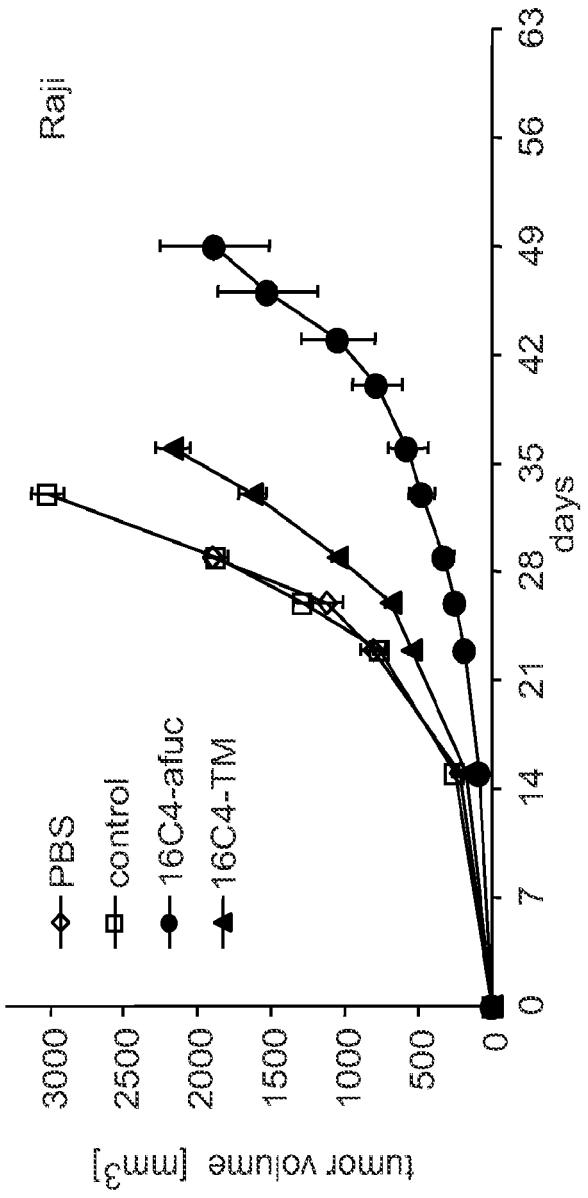

Raji
PBS
control
16C4-afuc
16C4-TM
tumor volume [mm3]
3000
2500
2000
1500
1000
500
0
0
7
14
21
28
35
42
49
56
63
days

FIG. 4B

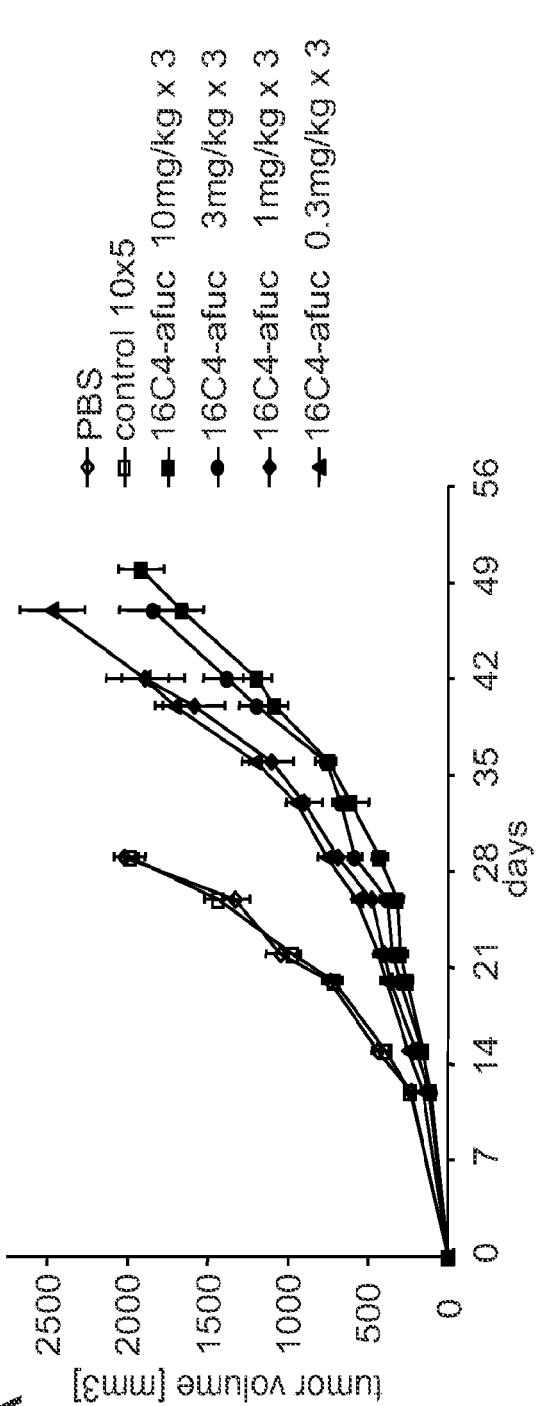

PBS
control 10x5
16C4-afuc 10mg/kg x 3
16C4-afuc 3mg/kg x 3
16C4-afuc 1mg/kg x 3
16C4-afuc 0.3mg/kg x 3
tumor volume [mm3]
2500
2000
1500
1000
500
0
0 7 14 21 28 35 42 49 56
days

FIG. 5A

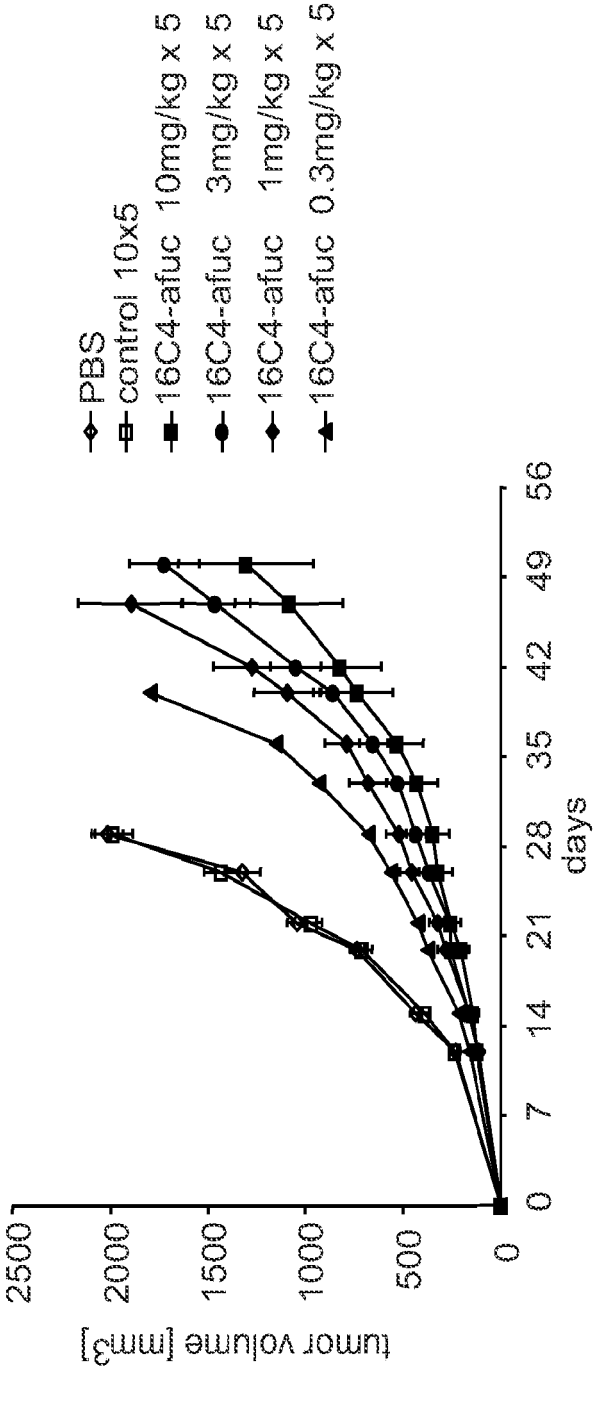
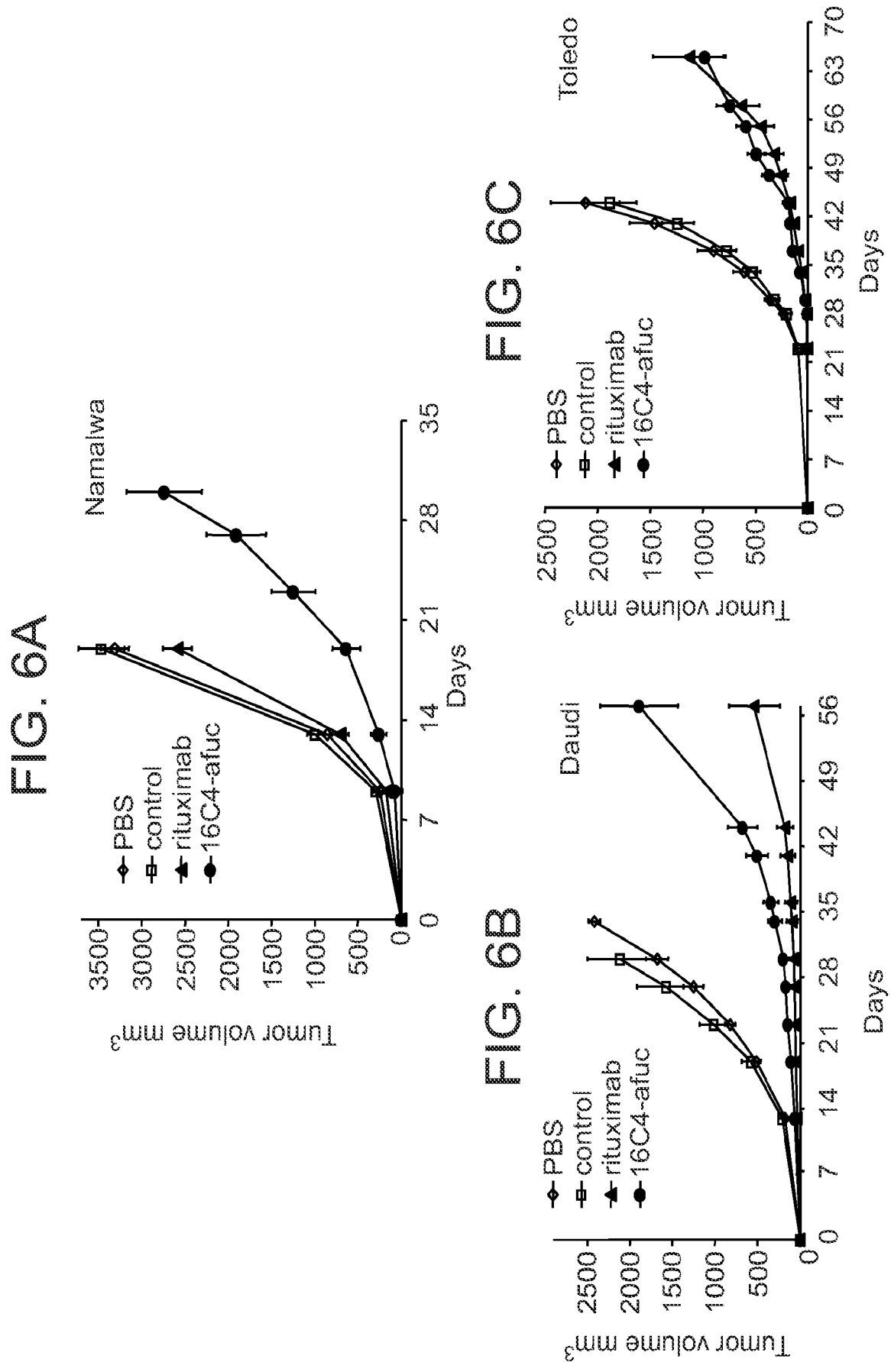

PBS
control 10x5
16C4-afuc 10mg/kg x 5
16C4-afuc 3mg/kg x 5
16C4-afuc 1mg/kg x 5
16C4-afuc 0.3mg/kg x 5
tumor volume [mm3]
2500
2000
1500
1000
500
0
0 7 14 21 28 35 42 49 56
days

FIG. 5B


FIG. 6A
Namalwa
PBS
control
rituximab
16C4-afuc
Tumor volume mm3
Days
0
500
1000
1500
2000
2500
3000
3500
0
7
14
21
28
35
FIG. 6B
Daudi
PBS
control
rituximab
16C4-afuc
Tumor volume mm3
Days
0
500
1000
1500
2000
2500
0
7
14
21
28
35
42
49
56
FIG. 6C
Toledo
PBS
control
rituximab
16C4-afuc
Tumor volume mm3
Days
0
500
1000
1500
2000
2500
0
7
14
21
28
35
42
49
56
63
70

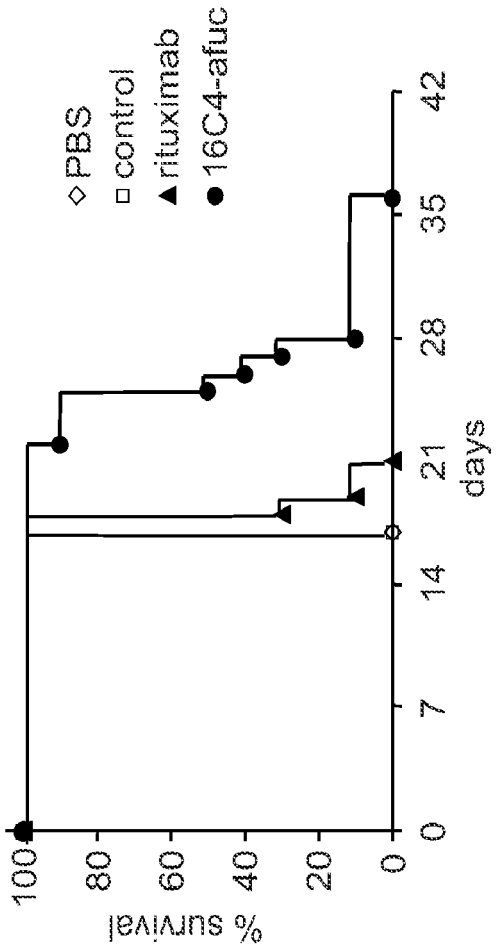

◇PBS
□control
▲rituximab
●16C4-afuc
% survival
100
80
60
40
20
0
0
7
14
21
28
35
42
days

FIG. 6D

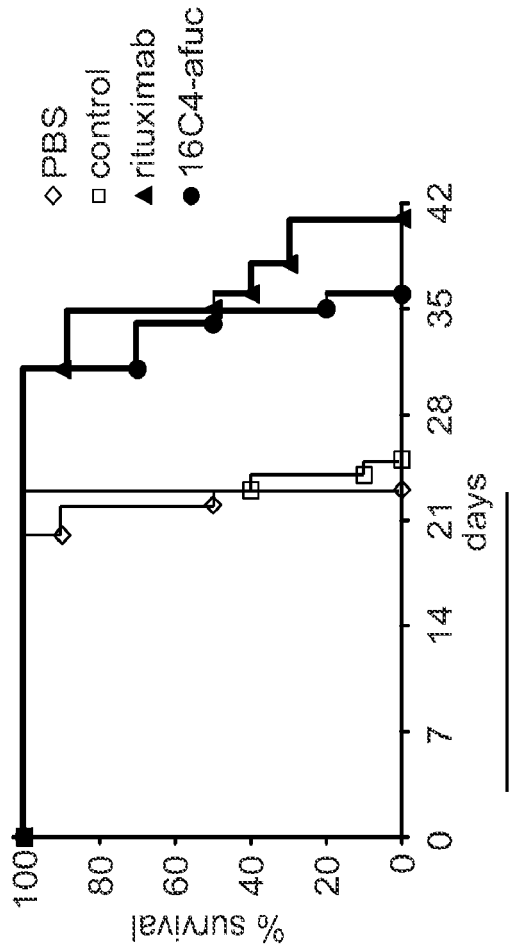

◇PBS
□control
▲rituximab
●16C4-afuc
% survival
100
80
60
40
20
0
0
7
14
21
28
35
42
days

FIG. 6E

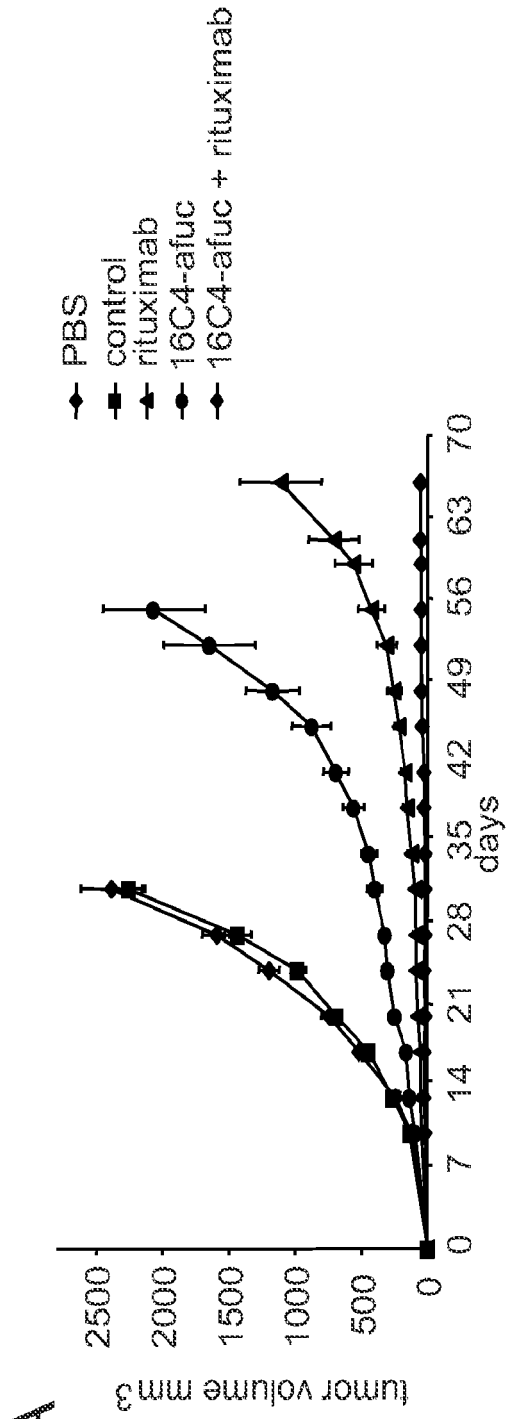

PBS
control
rituximab
16C4-afuc
16C4-afuc + rituximab
tumor volume mm3
2500
2000
1500
1000
500
0
0
7
14
21
28
35
42
49
56
63
70
days

FIG. 7A

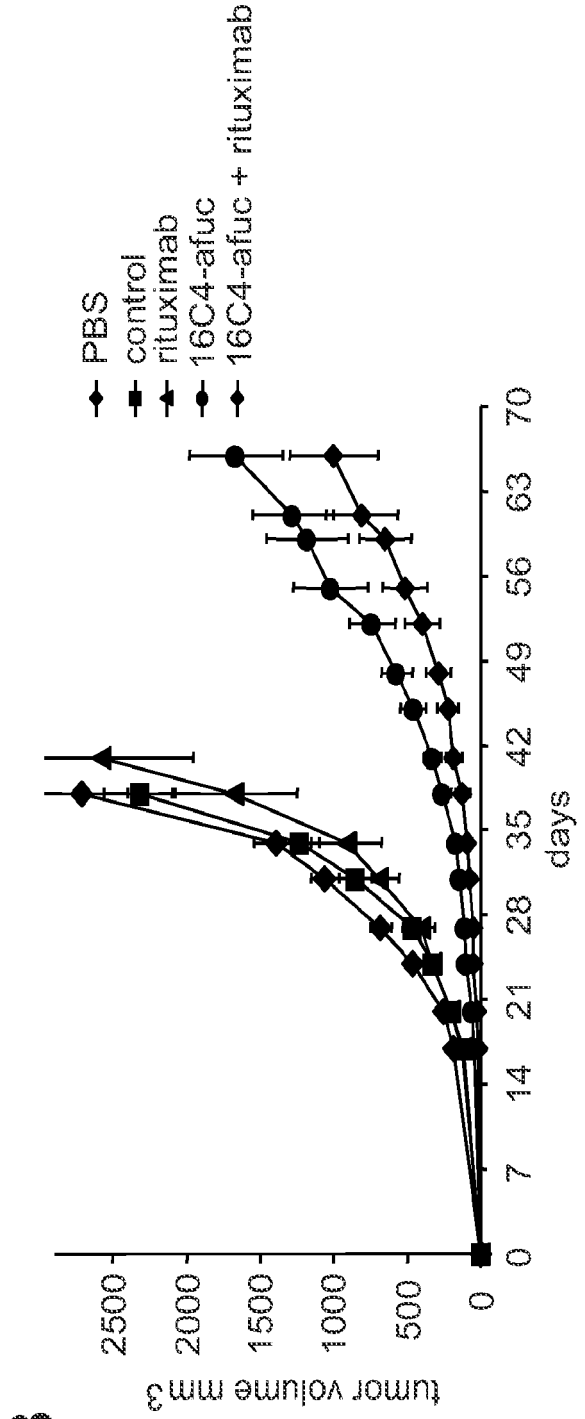

PBS
control
rituximab
16C4-afuc
16C4-afuc + rituximab
tumor volume mm3
2500
2000
1500
1000
500
0
0
7
14
21
28
35
42
49
56
63
70
days

FIG. 7B

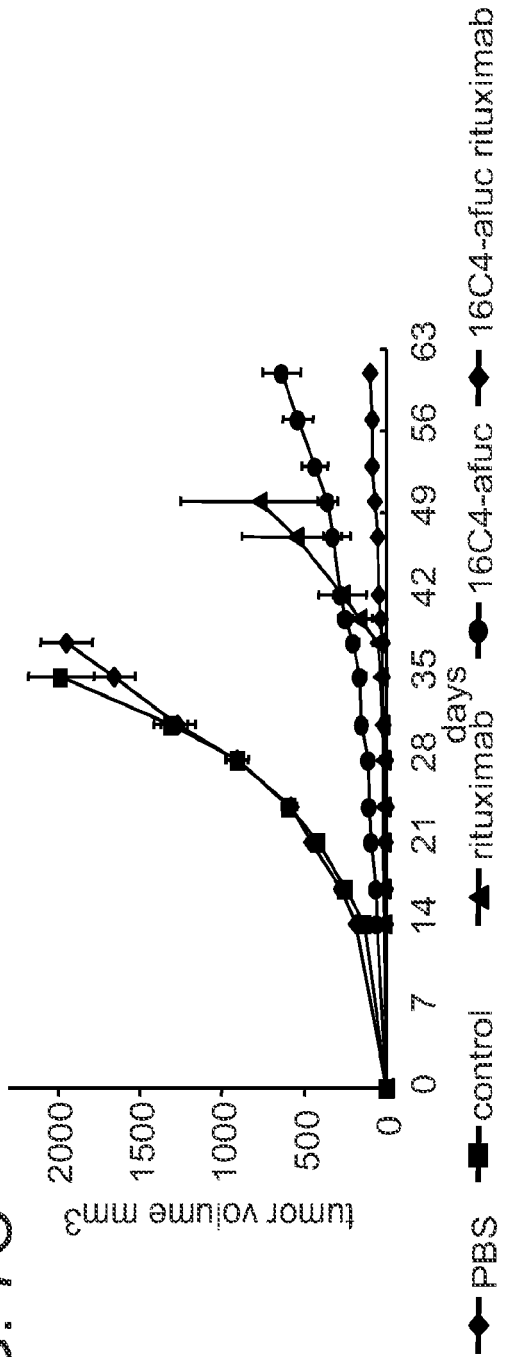

tumor volume mm3
2000
1500
1000
500
0
0
7
14
21
28
35
42
49
56
63
days
PBS
control
rituximab
16C4-afuc
16C4-afuc rituximab

FIG. 7C

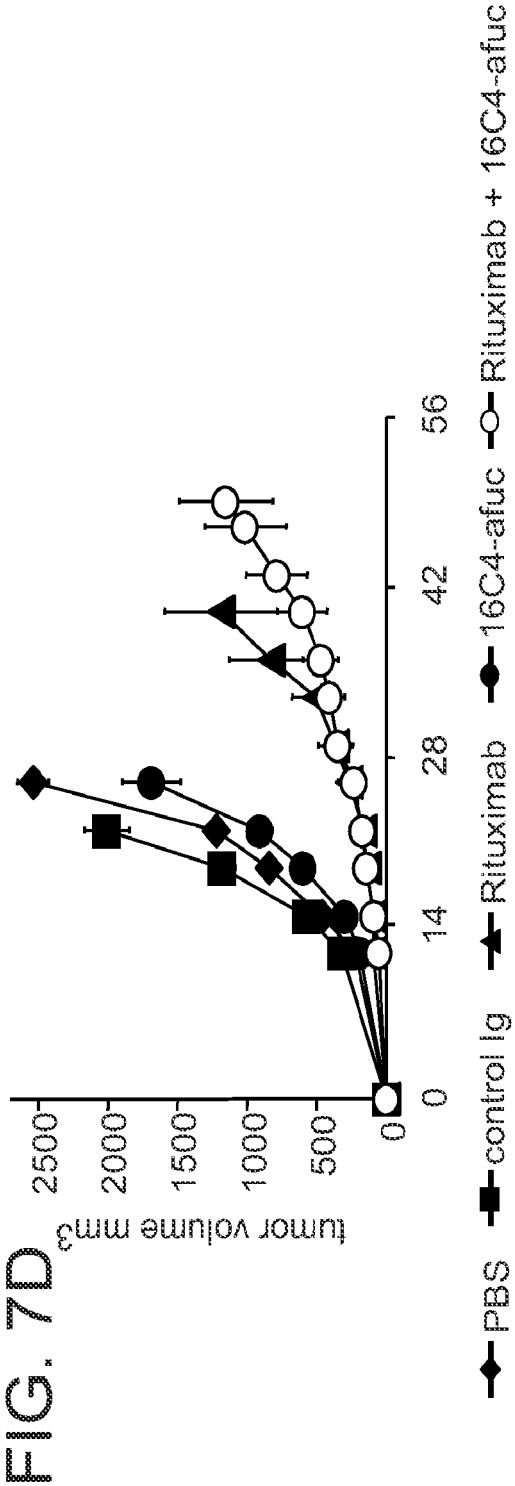

tumor volume mm3
2500
2000
1500
1000
500
0
0
14
28
42
56
PBS
control Ig
Rituximab
16C4-afuc
Rituximab + 16C4-afuc

FIG. 7D

FIG. 7E

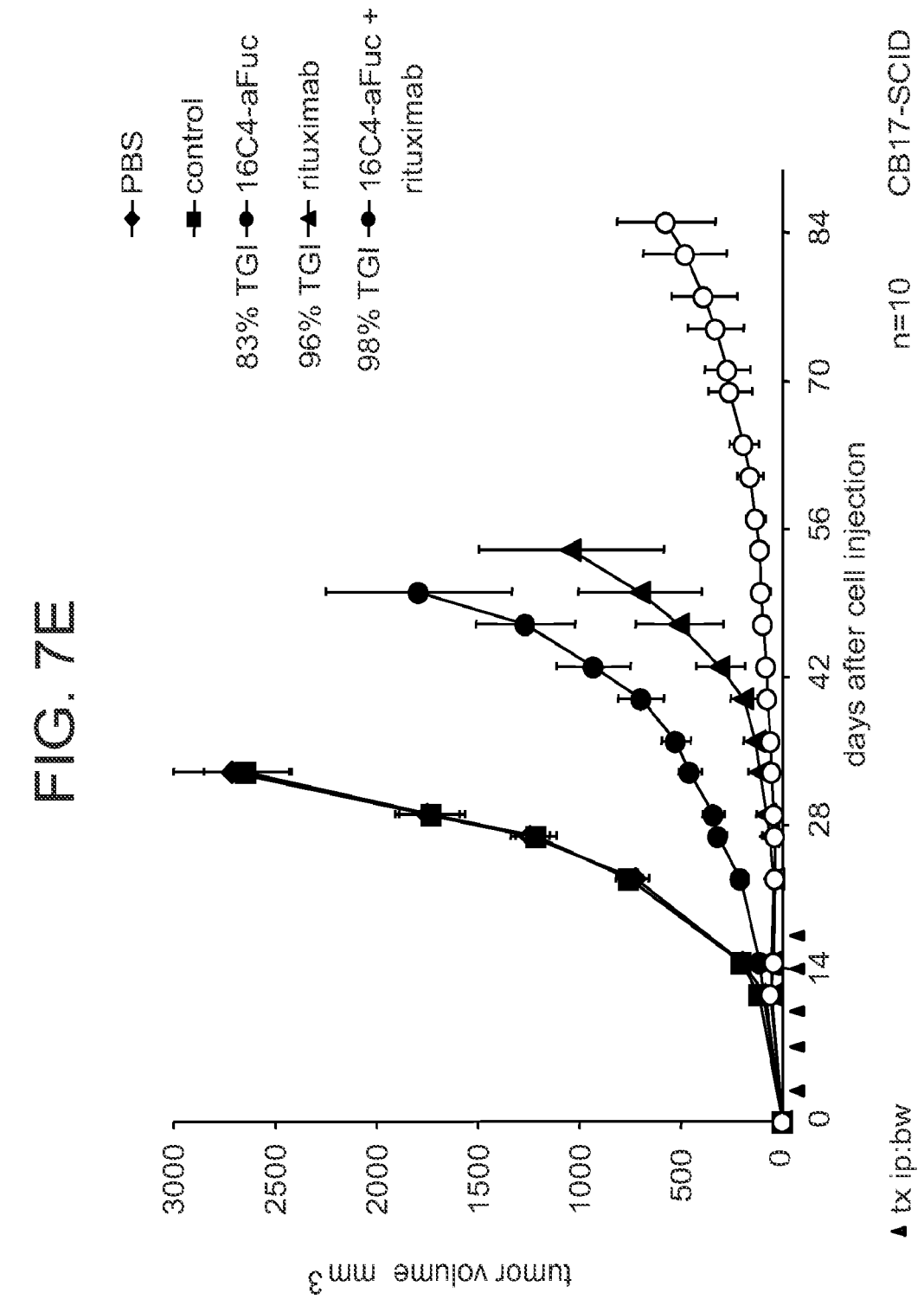

PBS
control
83% TGI 16C4-aFuc
96% TGI rituximab
98% TGI 16C4-aFuc + rituximab
n=10
CB17-SCID
tumor volume mm3
days after cell injection
0
500
1000
1500
2000
2500
3000
0
14
28
42
56
70
84
tx ip:bw

FIG. 8

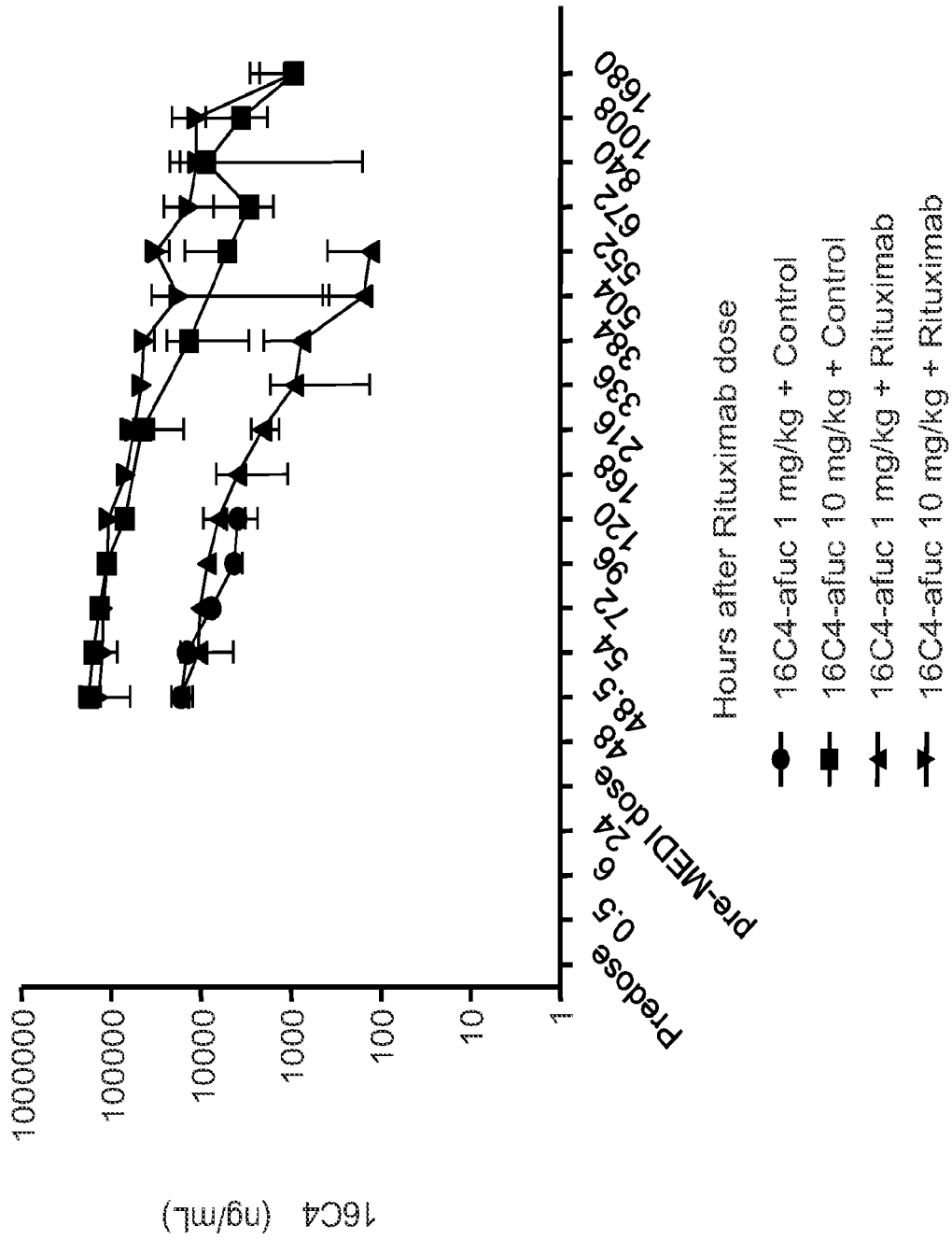
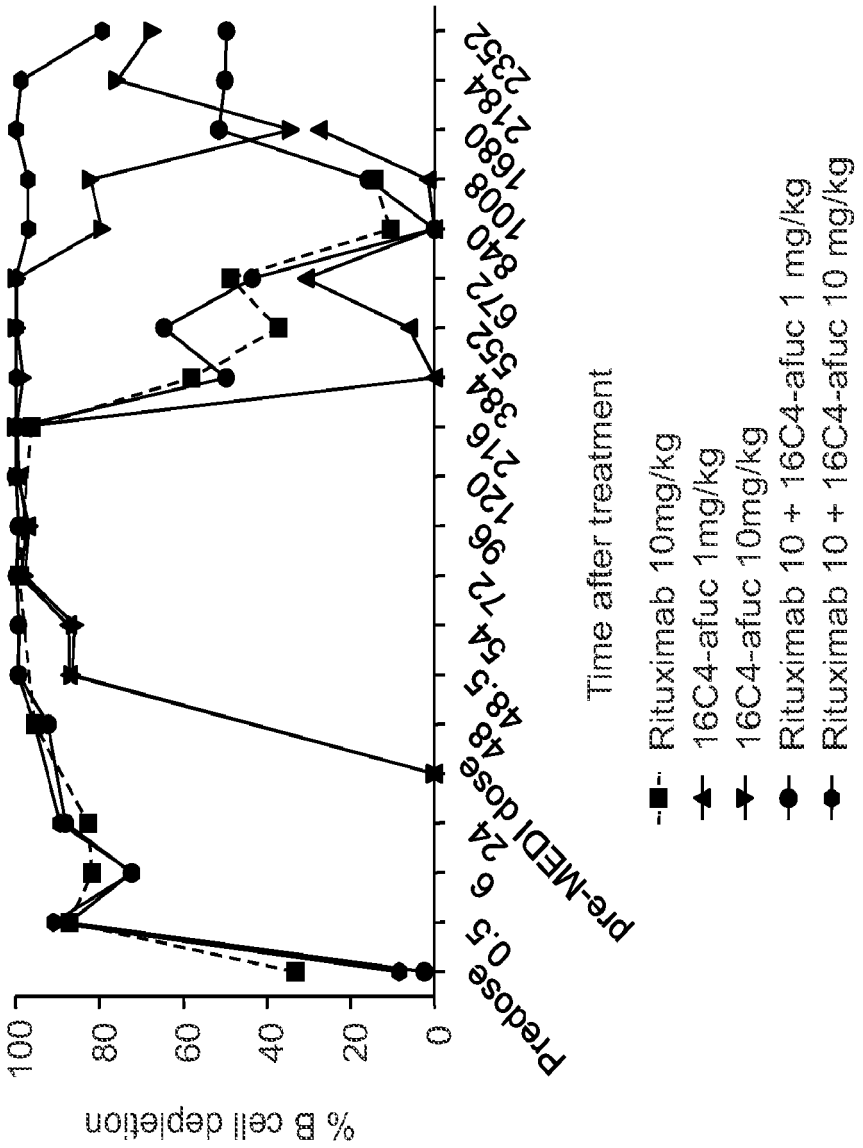

16C4 (ng/mL)
1000000
100000
10000
1000
100
10
1
Predose
0.5
6
24
Pre-MEDI dose
48
48.5
54
72
96
120
168
216
336
384
504
552
672
840
1008
1680
Hours after Rituximab dose
16C4-afuc 1 mg/kg + Control
16C4-afuc 10 mg/kg + Control
16C4-afuc 1 mg/kg + Rituximab
16C4-afuc 10 mg/kg + Rituximab

FIG. 9


% B cell depletion
100
80
60
40
20
0
Predose
0.5
6
24
Pre-MEDI Dose
48
48.5
54
72
96
120
216
384
552
672
840
1008
1680
2184
2352
Time after treatment
Rituximab 10mg/kg
16C4-afuc 1mg/kg
16C4-afuc 10mg/kg
Rituximab 10 + 16C4-afuc 1 mg/kg
Rituximab 10 + 16C4-afuc 10 mg/kg