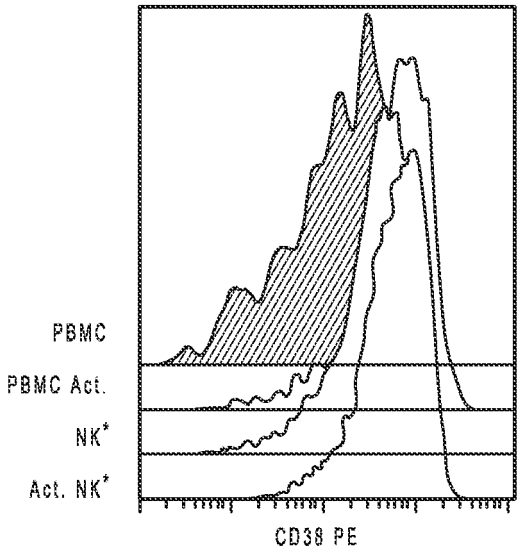


FIGURE 1A

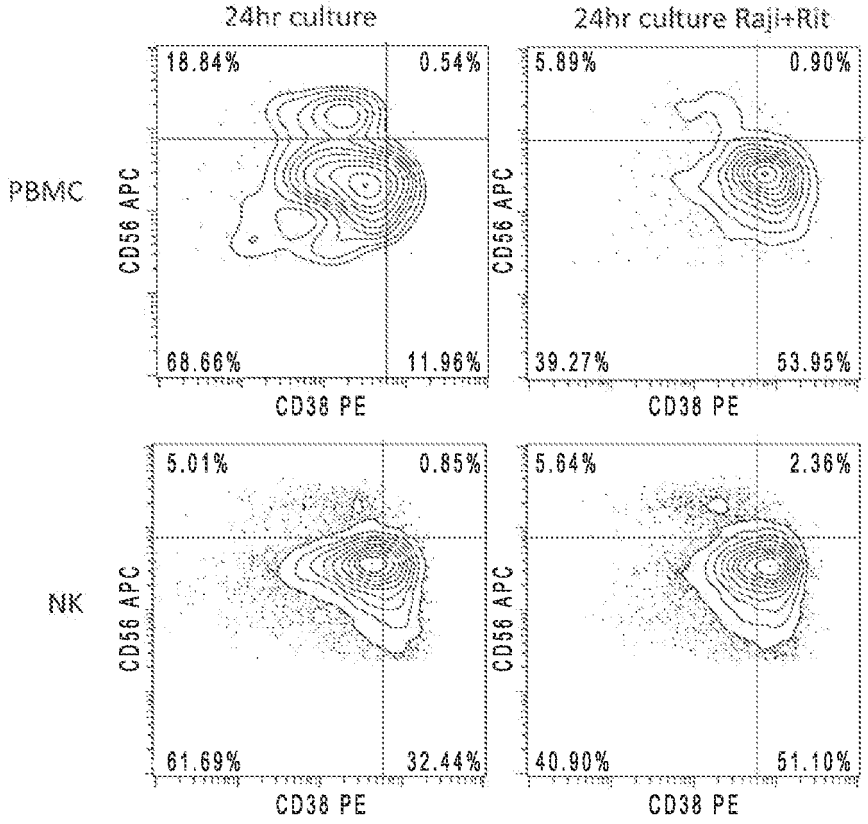


FIGURE 1B

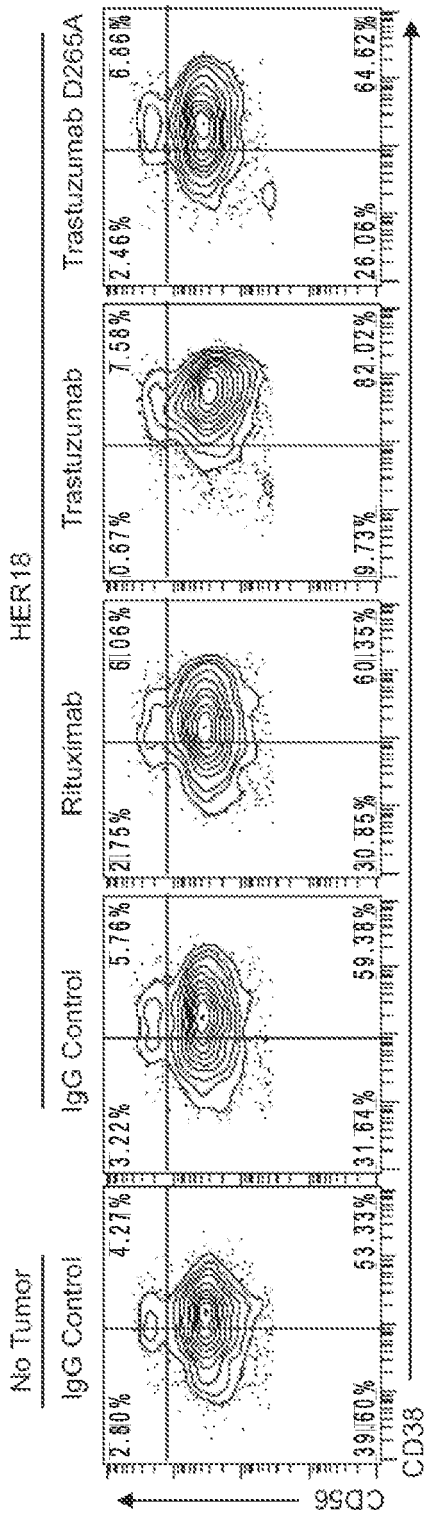

No Tumor
IgG Control
HER18
IgG Control
Rituximab
Trastuzumab
Trastuzumab D265A
2.80%
4.27%
3.22%
5.76%
2.75%
6.06%
0.67%
7.58%
2.46%
6.86%
39.60%
53.33%
31.64%
59.38%
30.85%
60.35%
9.73%
82.02%
26.06%
64.62%
CD56
CD38

FIGURE 2

FIGURE 3A

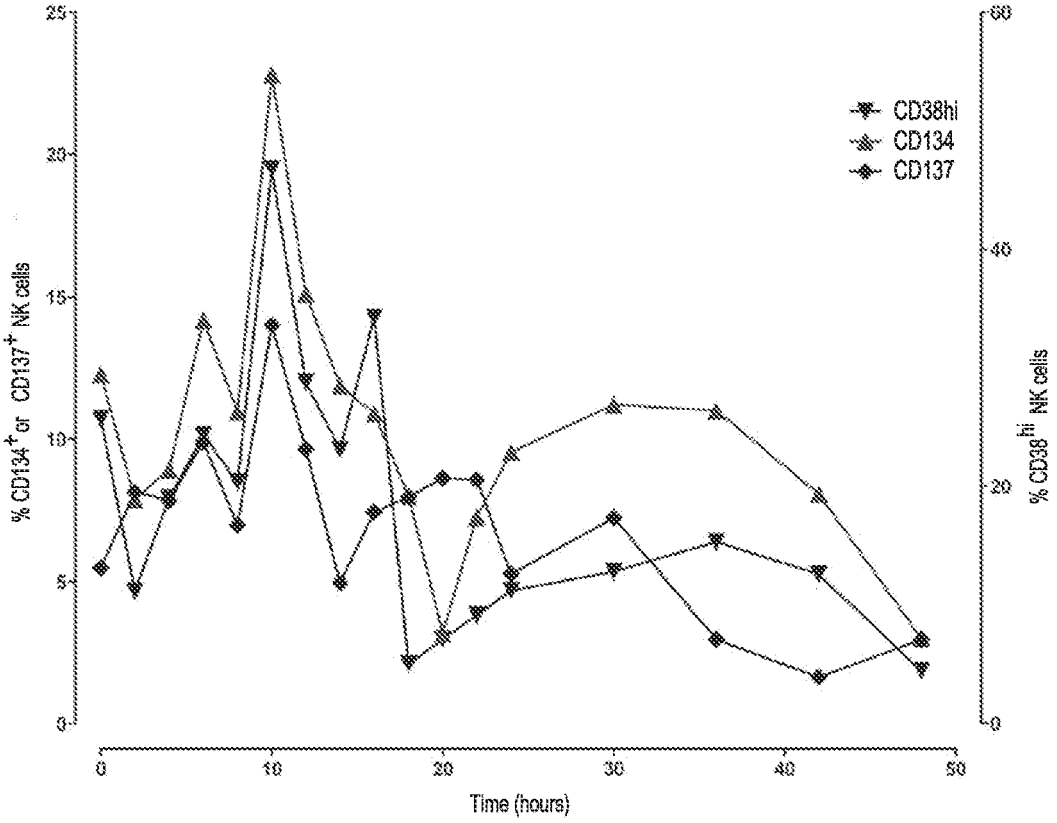
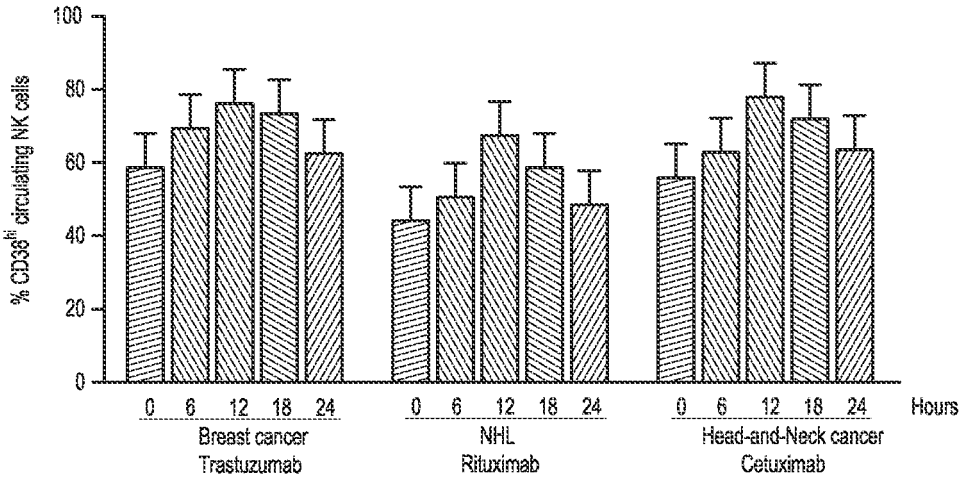


FIGURE 3B



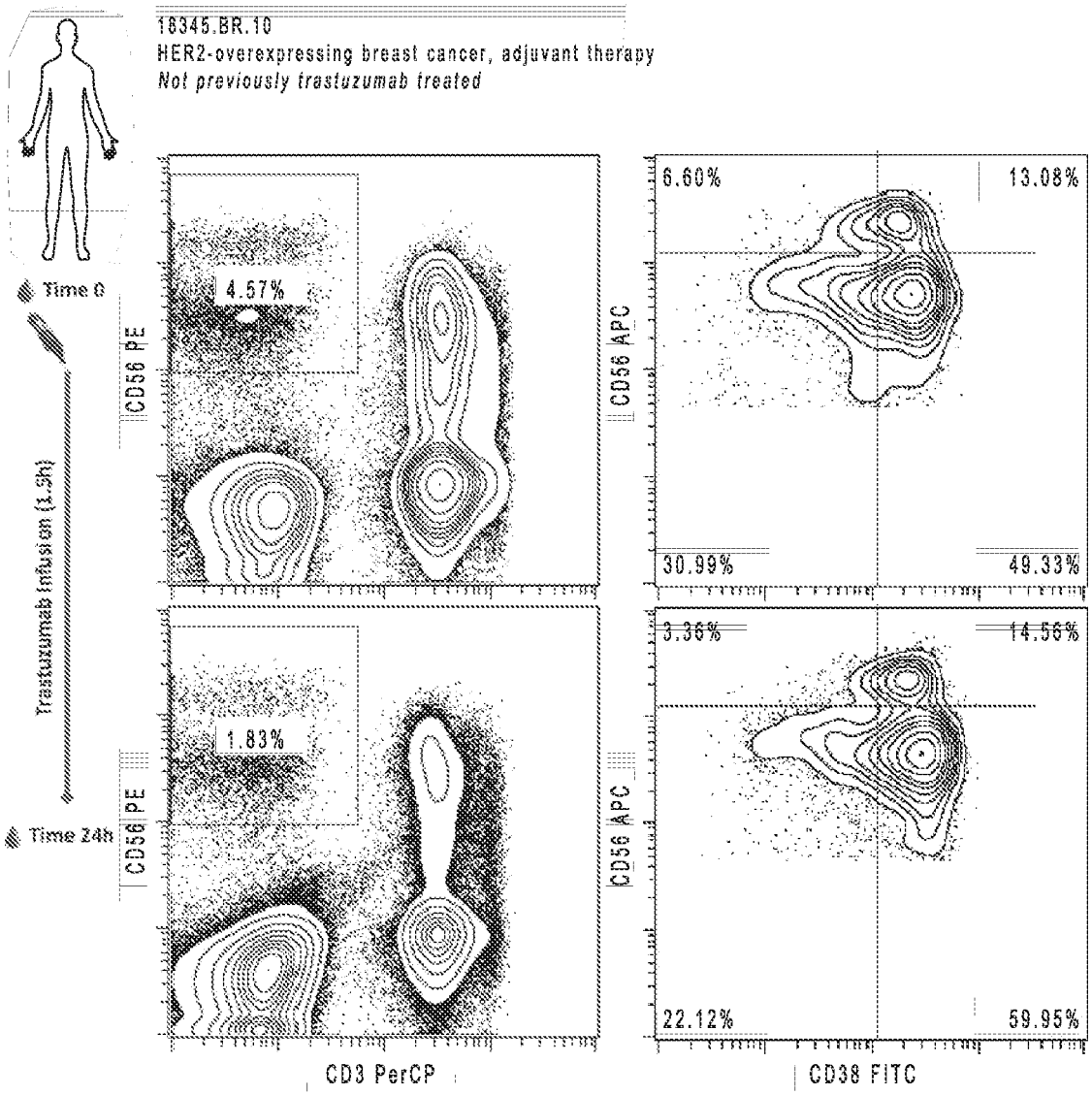

16345.BR.10
HER2-overexpressing breast cancer, adjuvant therapy
Not previously trastuzumab treated
Time 0
Trastuzumab infusion (1.5h)
Time 24h
CD56 PE
CD3 PerCP
4.57%
1.83%
CD56 APC
CD38 FITC
6.60%
13.08%
30.99%
49.33%
3.36%
14.56%
22.12%
59.95%

FIGURE 4A

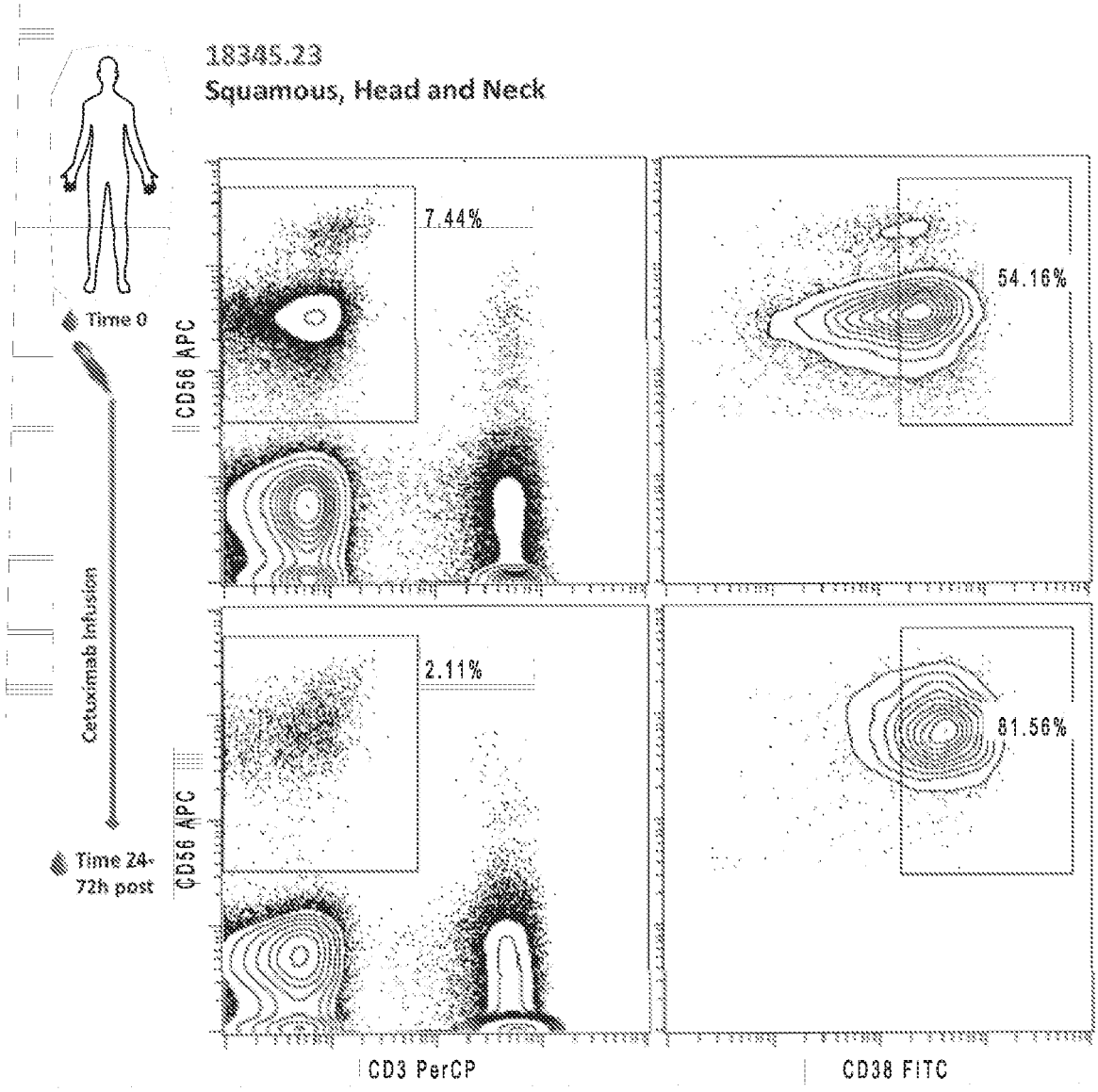

18345.23
Squamous, Head and Neck
Time 0
Cetuximab Infusion
Time 24-72h post
CD56 APC
CD56 APC
7.44%
54.16%
2.11%
81.56%
CD3 PerCP
CD38 FITC

FIGURE 4B

FIGURE 5

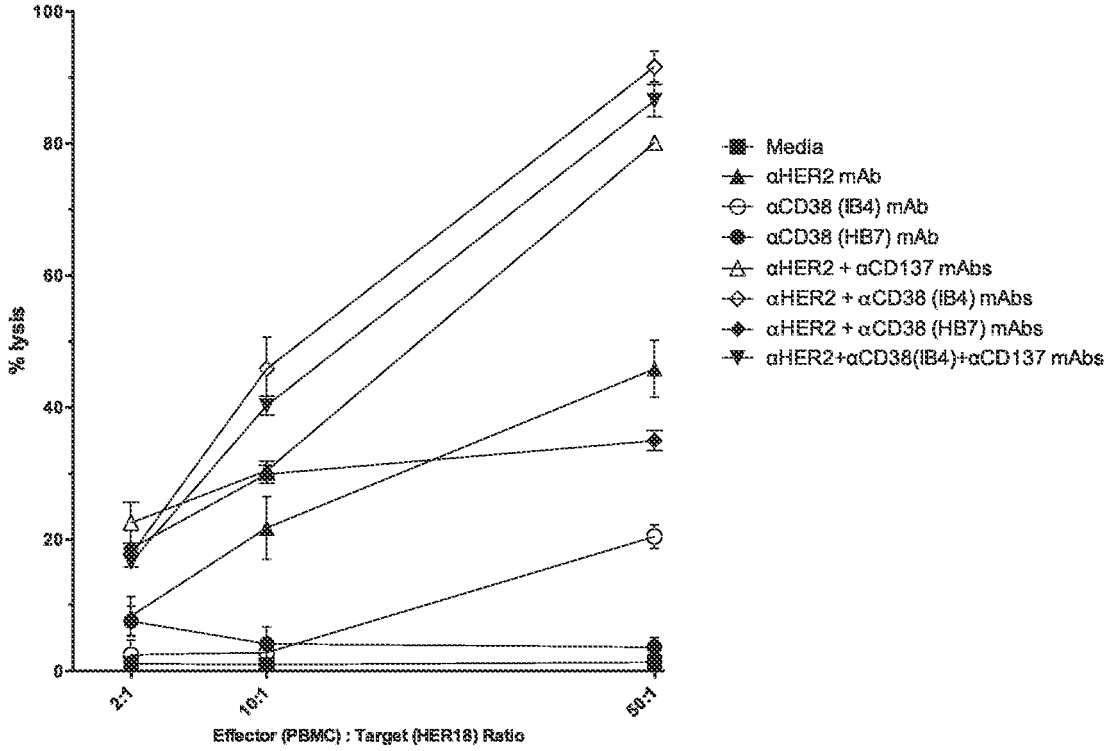

100
80
60
40
20
0
% lysis
2:1
10:1
50:1
Effector (PBMC) : Target (HER18) Ratio
Media
αHER2 mAb
αCD38 (IB4) mAb
αCD38 (HB7) mAb
αHER2 + αCD137 mAbs
αHER2 + αCD38 (IB4) mAbs
αHER2 + αCD38 (HB7) mAbs
αHER2+αCD38(IB4)+αCD137 mAbs

FIGURE 6

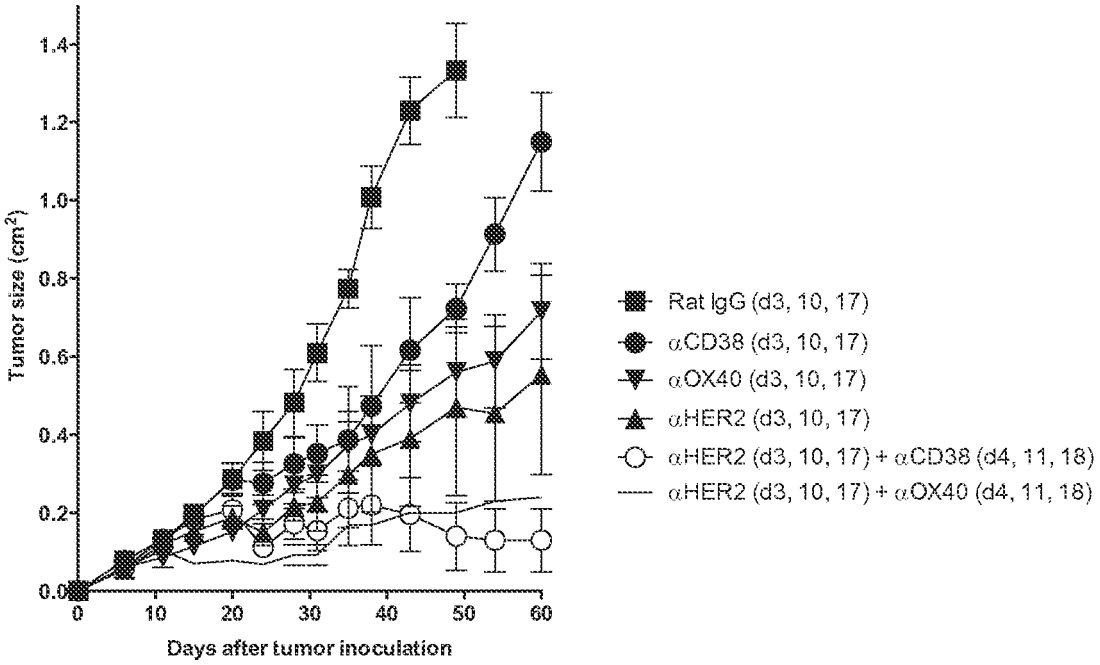

Tumor size (cm2)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
40
50
60
Days after tumor inoculation
Rat IgG (d3, 10, 17)
αCD38 (d3, 10, 17)
αOX40 (d3, 10, 17)
αHER2 (d3, 10, 17)
αHER2 (d3, 10, 17) + αCD38 (d4, 11, 18)
αHER2 (d3, 10, 17) + αOX40 (d4, 11, 18)

FIGURE 7A

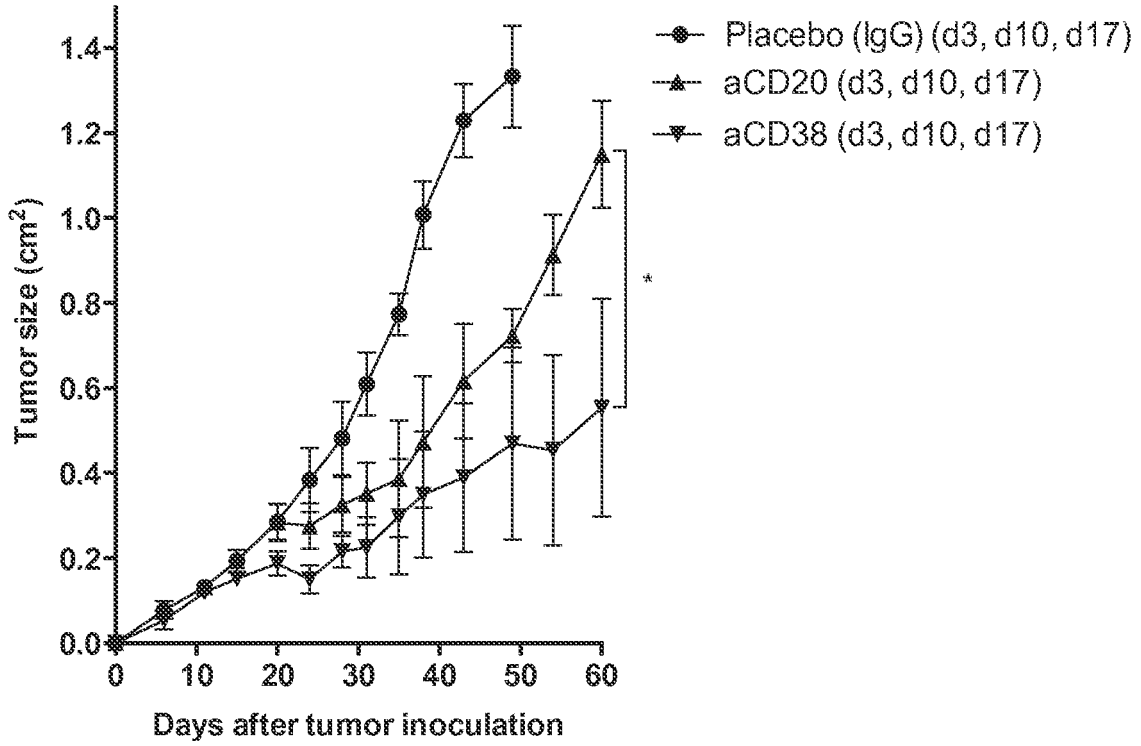


FIGURE 7B

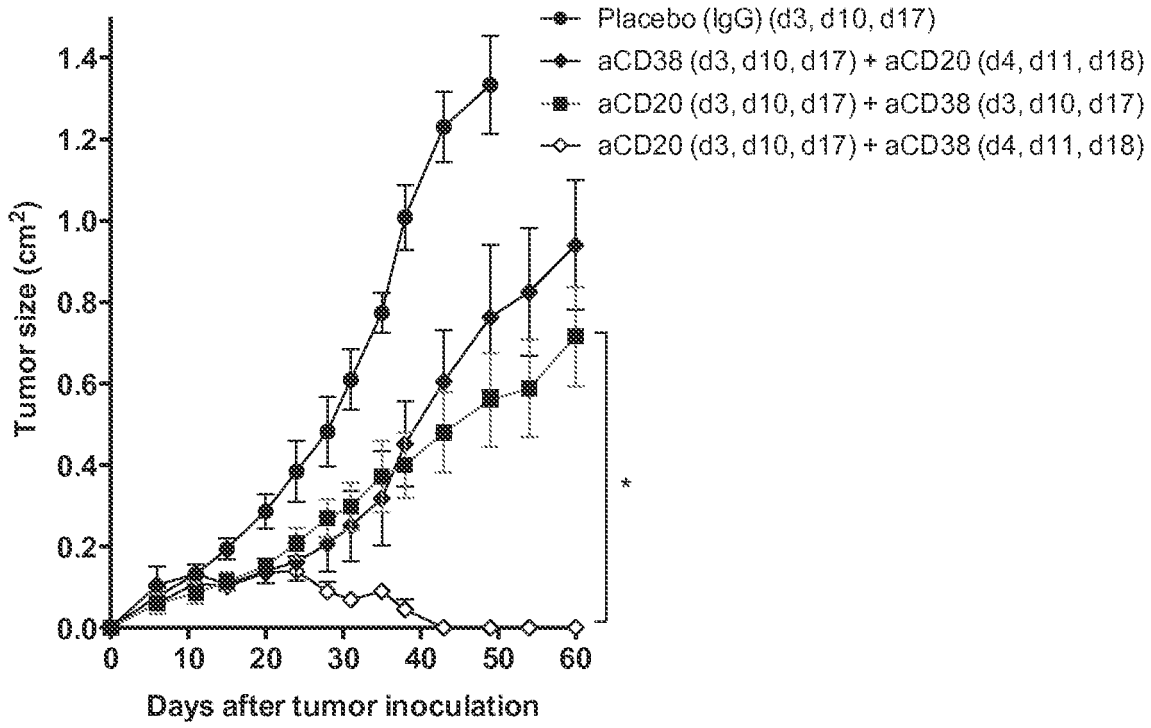


FIGURE 8

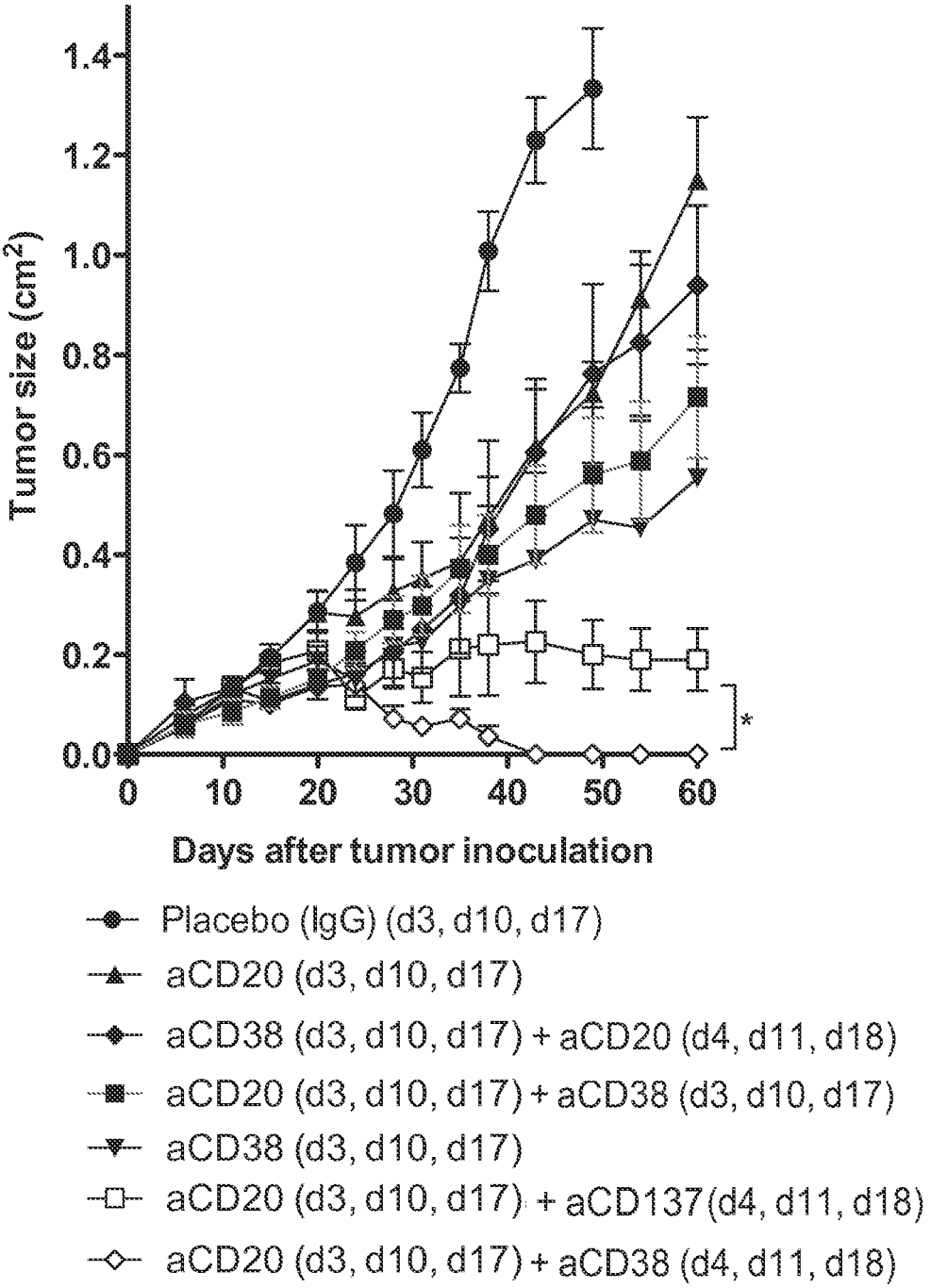
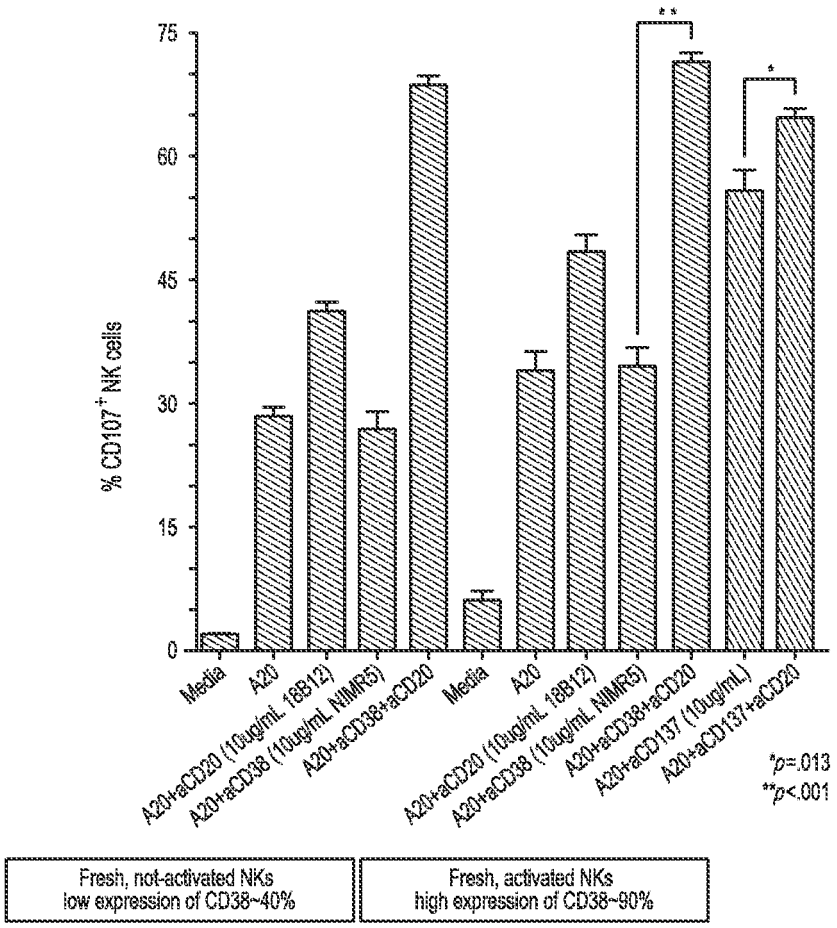

Tumor size (cm2)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
40
50
60
Days after tumor inoculation
*
Placebo (IgG) (d3, d10, d17)
aCD20 (d3, d10, d17)
aCD38 (d3, d10, d17) + aCD20 (d4, d11, d18)
aCD20 (d3, d10, d17) + aCD38 (d3, d10, d17)
aCD38 (d3, d10, d17)
aCD20 (d3, d10, d17) + aCD137(d4, d11, d18)
aCD20 (d3, d10, d17) + aCD38 (d4, d11, d18)

FIGURE 9


% CD107+ NK cells
75
60
45
30
15
0
**
*
Media
A20
A20+aCD20 (10ug/mL 1B12)
A20+aCD38 (10ug/mL NIMR5)
A20+aCD38+aCD20
Media
A20
A20+aCD20 (10ug/mL 1B12)
A20+aCD38 (10ug/mL NIMR5)
A20+aCD38+aCD20
A20+aCD137 (10ug/mL)
A20+aCD137+aCD20
*p=.013
**p<.001
Fresh, not-activated NKs
low expression of CD38~40%
Fresh, activated NKs
high expression of CD38~90%