Fig. 1

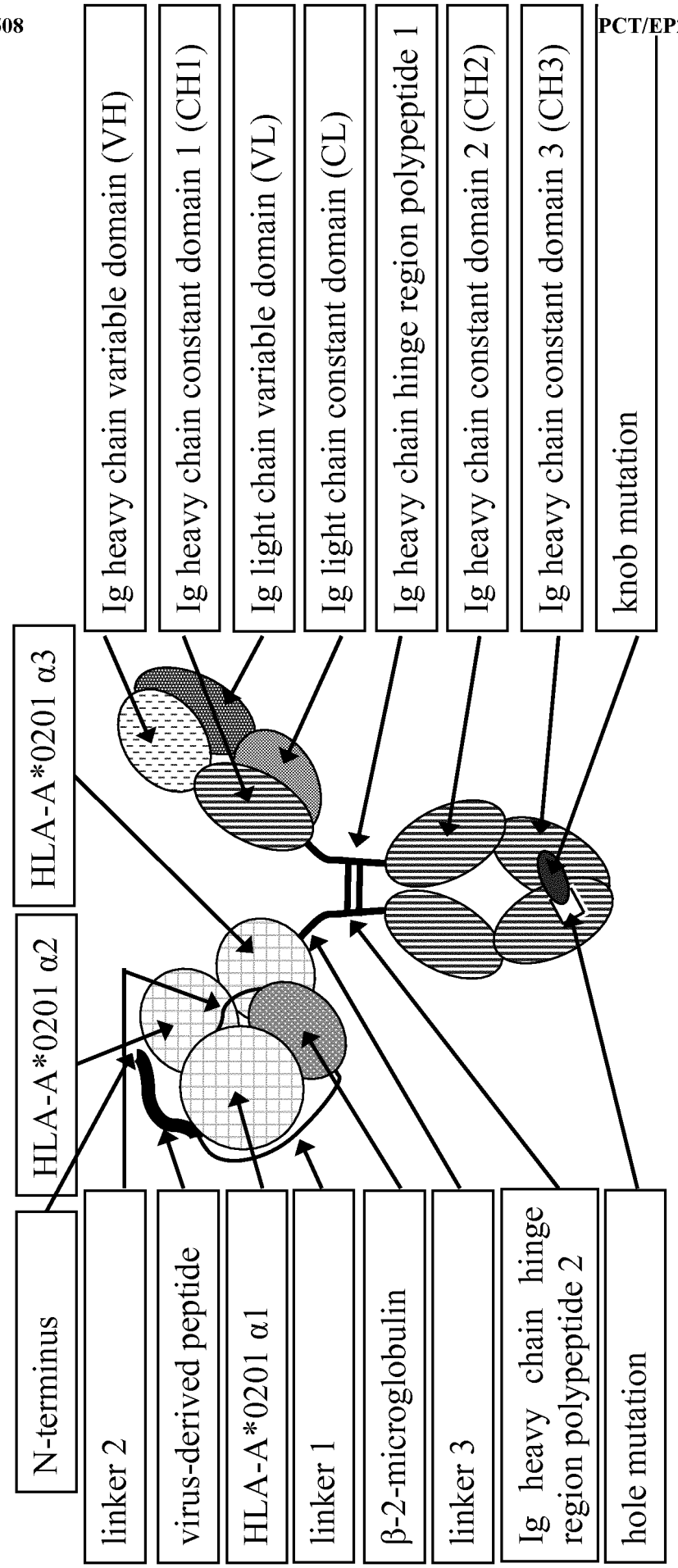

N-terminus
linker 2
HLA-A*0201 α2
virus-derived peptide
HLA-A*0201 α1
linker 1
HLA-A*0201 α3
β-2-microglobulin
linker 3
Ig heavy chain hinge region polypeptide 2
hole mutation
Ig heavy chain variable domain (VH)
Ig heavy chain constant domain 1 (CH1)
Ig light chain variable domain (VL)
Ig light chain constant domain (CL)
Ig heavy chain hinge region polypeptide 1
Ig heavy chain constant domain 2 (CH2)
Ig heavy chain constant domain 3 (CH3)
knob mutation

**Fig. 2**


signal peptide
virus-derived-peptide
ß2-microglobulin
MHCI α1-α2-α3
antibody light chain / antibody heavy chain hinge region comprising polypeptide
signal peptide
ß2-microglobulin
MHCI α1-α2-α3
antibody light chain / antibody heavy chain hinge region comprising polypeptide
signal peptide
virus-derived-peptide
MHCI α1-α2-α3
ß2-microglobulin
antibody light chain / antibody heavy chain hinge region comprising polypeptide
signal peptide
MHCI α1-α2-α3
ß2-microglobulin
antibody light chain / antibody heavy chain hinge region comprising polypeptide

Fig. 3

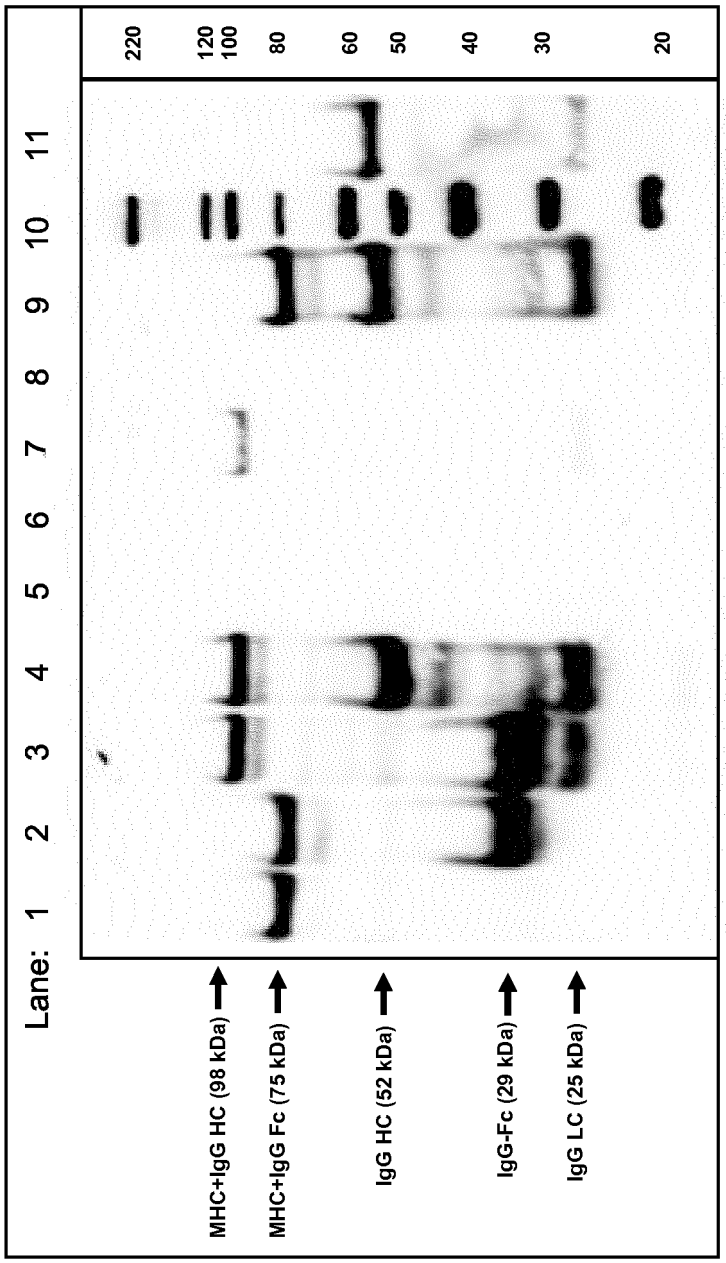

Lane: 1 2 3 4 5 6 7 8 9 10 11
220
120
100
80
60
50
40
30
20
MHC+IgG HC (98 kDa)
MHC+IgG Fc (75 kDa)
IgG HC (52 kDa)
IgG-Fc (29 kDa)
IgG LC (25 kDa)

Fig. 4a

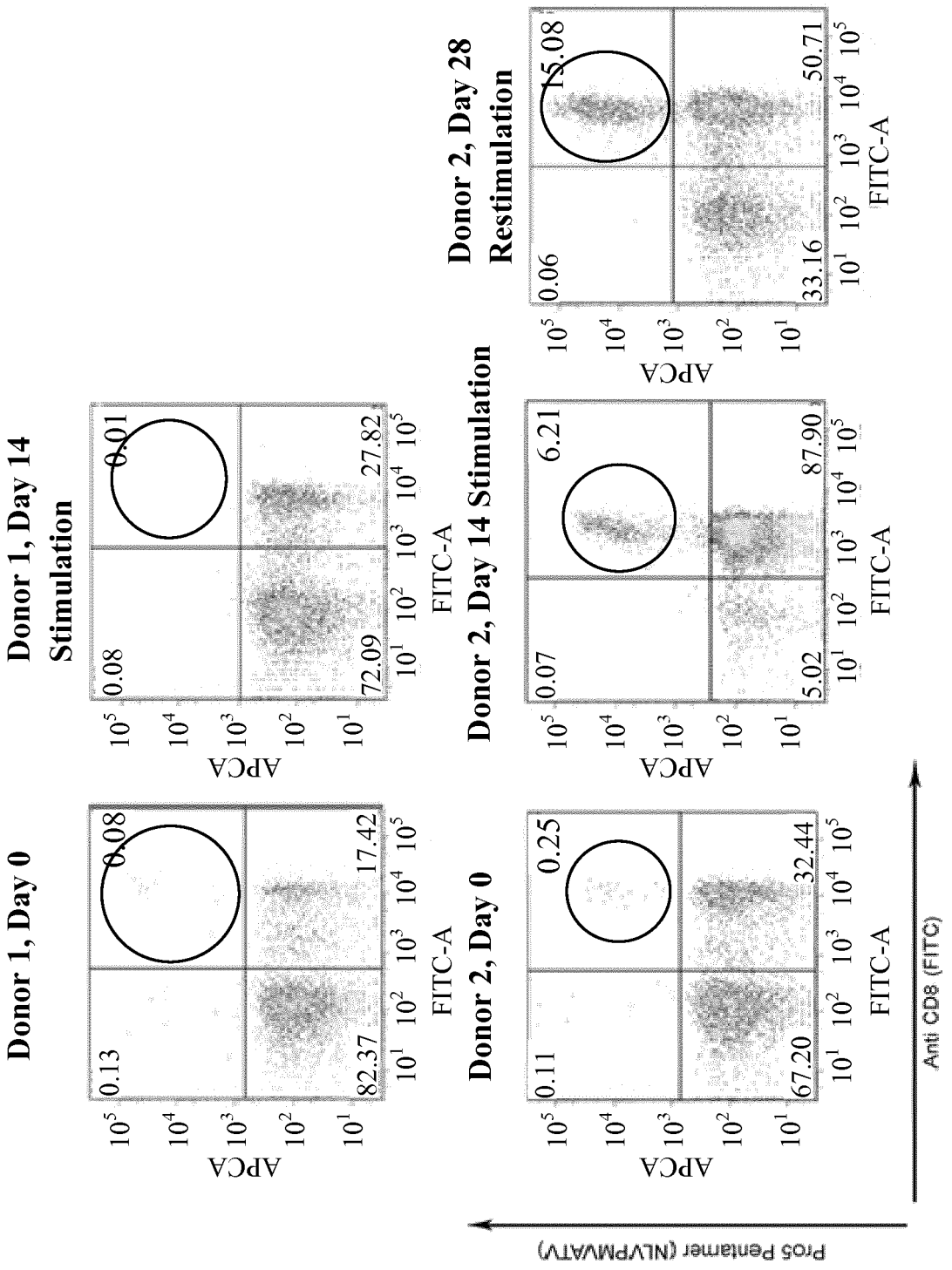

Donor 1, Day 0
Donor 1, Day 14 Stimulation
Donor 2, Day 0
Donor 2, Day 14 Stimulation
Donor 2, Day 28 Restimulation
0.13
0.08
82.37
17.42
0.08
72.09
0.01
27.82
0.11
67.20
0.25
32.44
0.07
5.02
6.21
87.90
0.06
33.16
15.08
50.71
APCA
FITC-A
Anti CD8 (FITC)
Pro5 Pentamer (NLVPMVATV)

Fig. 4b

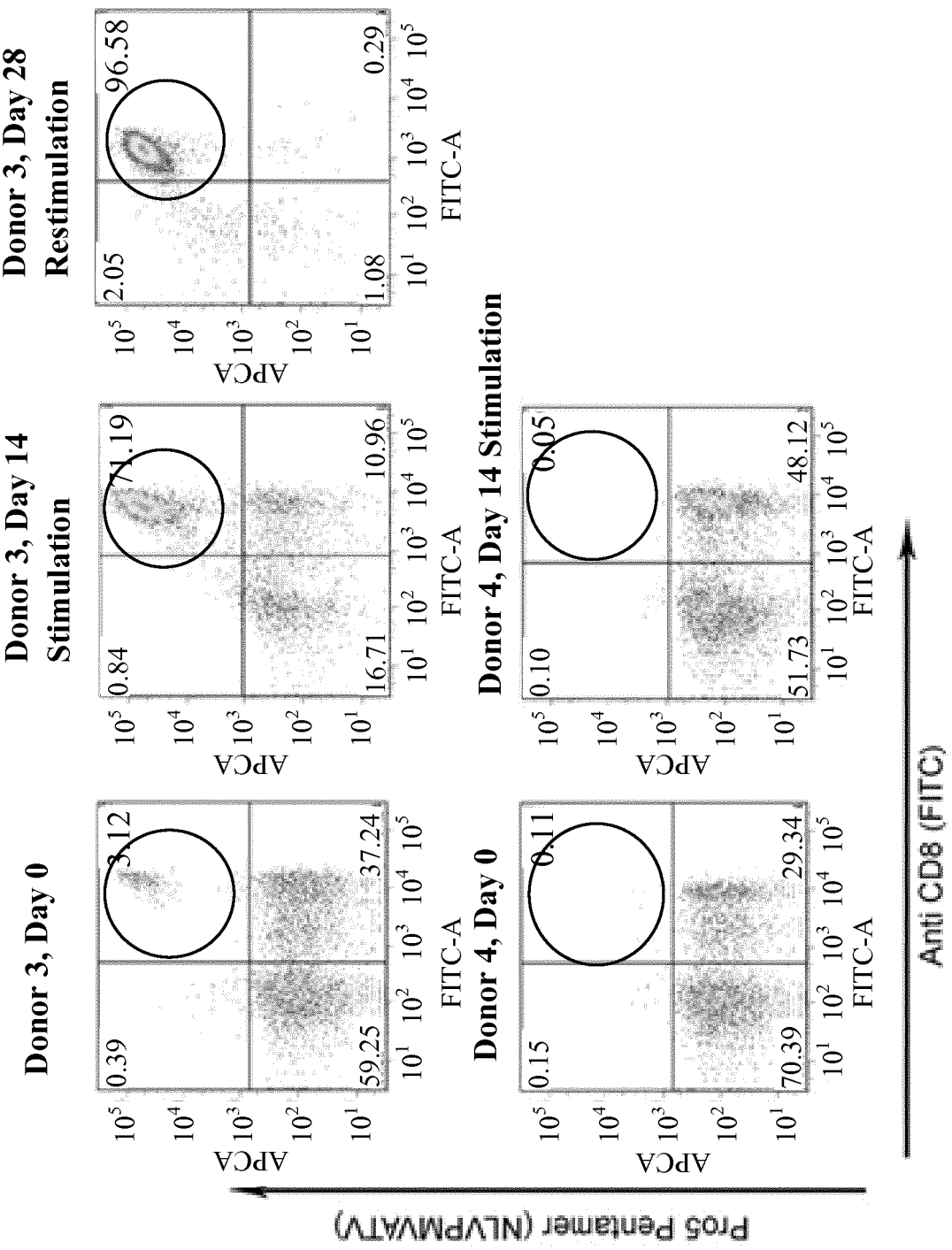

Donor 3, Day 0
Donor 3, Day 14 Stimulation
Donor 3, Day 28 Restimulation
Donor 4, Day 0
Donor 4, Day 14 Stimulation
Prot5 Pentamer (NLVPMVATV)
Anti CD8 (FITC)
APCA
FITC-A
0.39
3.12
59.25
37.24
0.84
71.19
16.71
10.96
2.05
96.58
1.08
0.29
0.15
0.11
70.39
29.34
0.10
0.05
51.73
48.12

Fig. 5a

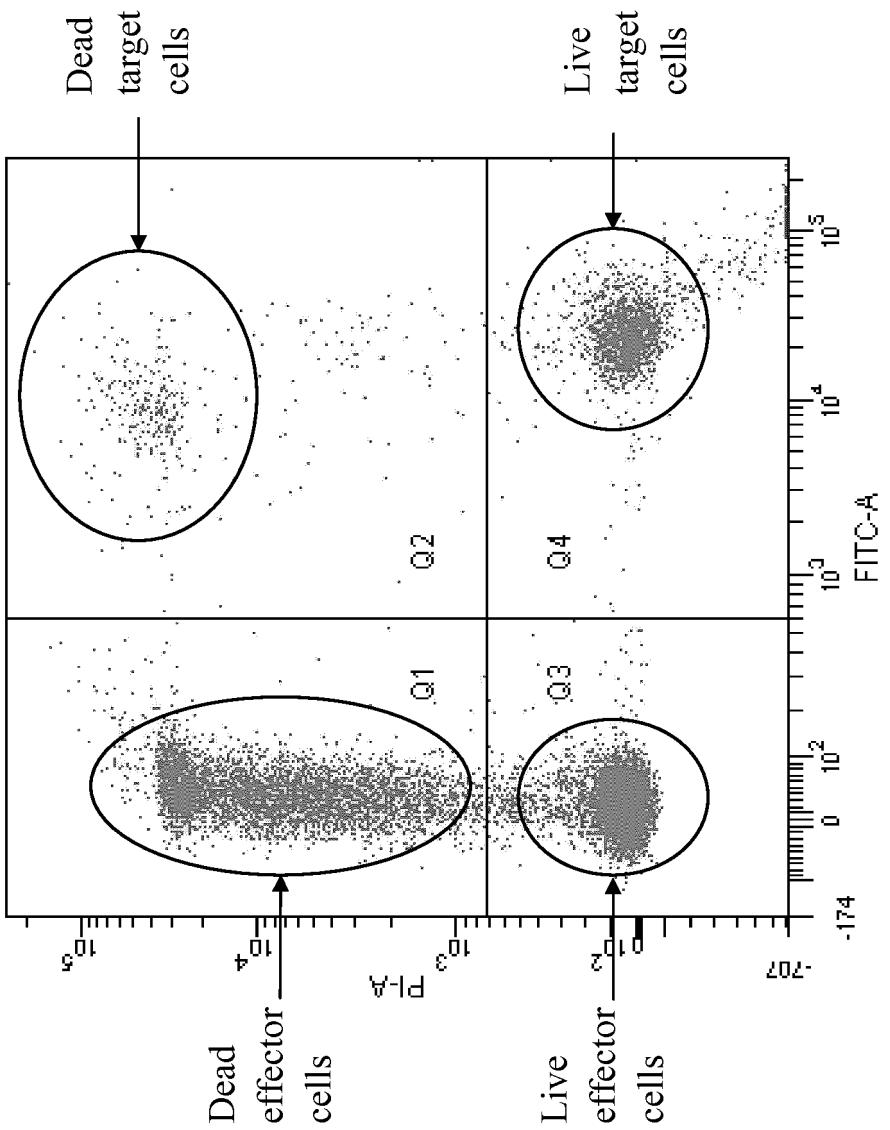

Dead target cells
Live target cells
Q1
Q2
Q3
Q4
PI-A
FITC-A
Dead effector cells
Live effector cells

Fig. 5b

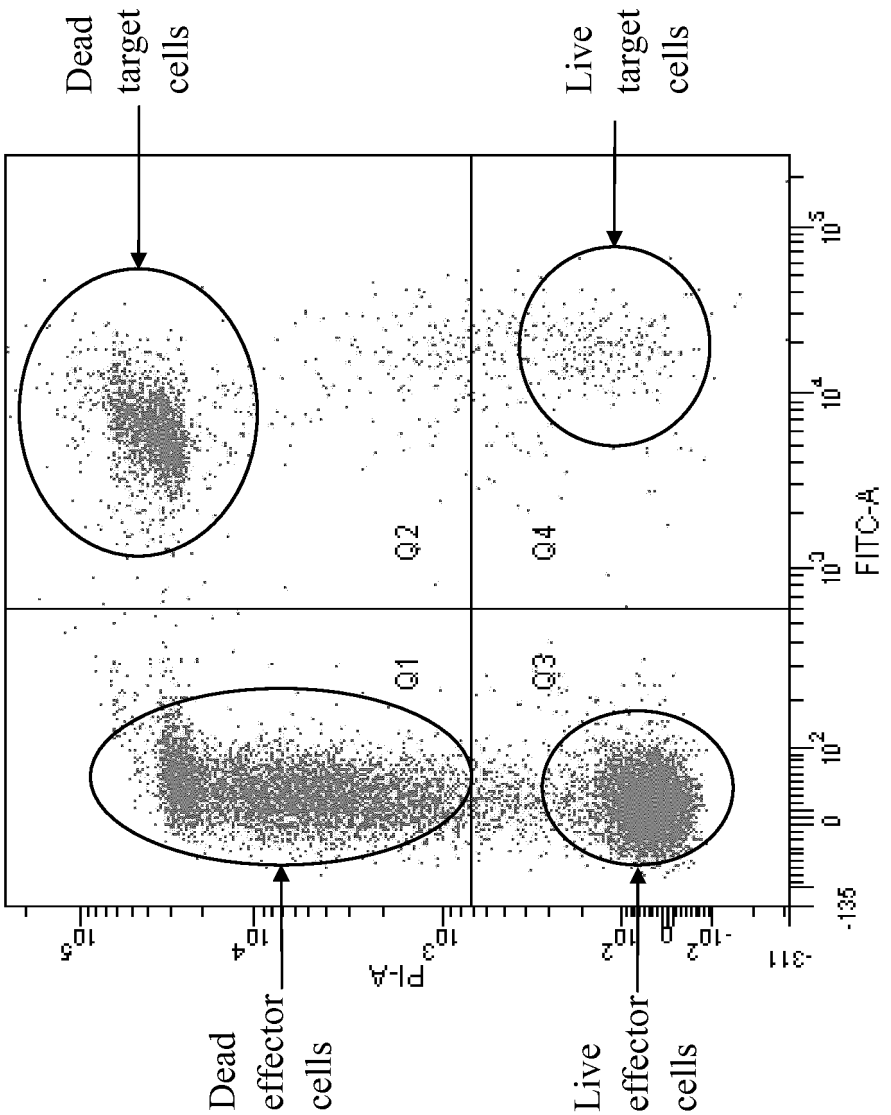

Dead target cells
Live target cells
Q1
Q2
Q3
Q4
PI-A
FITC-A
Dead effector cells
Live effector cells

Fig. 6

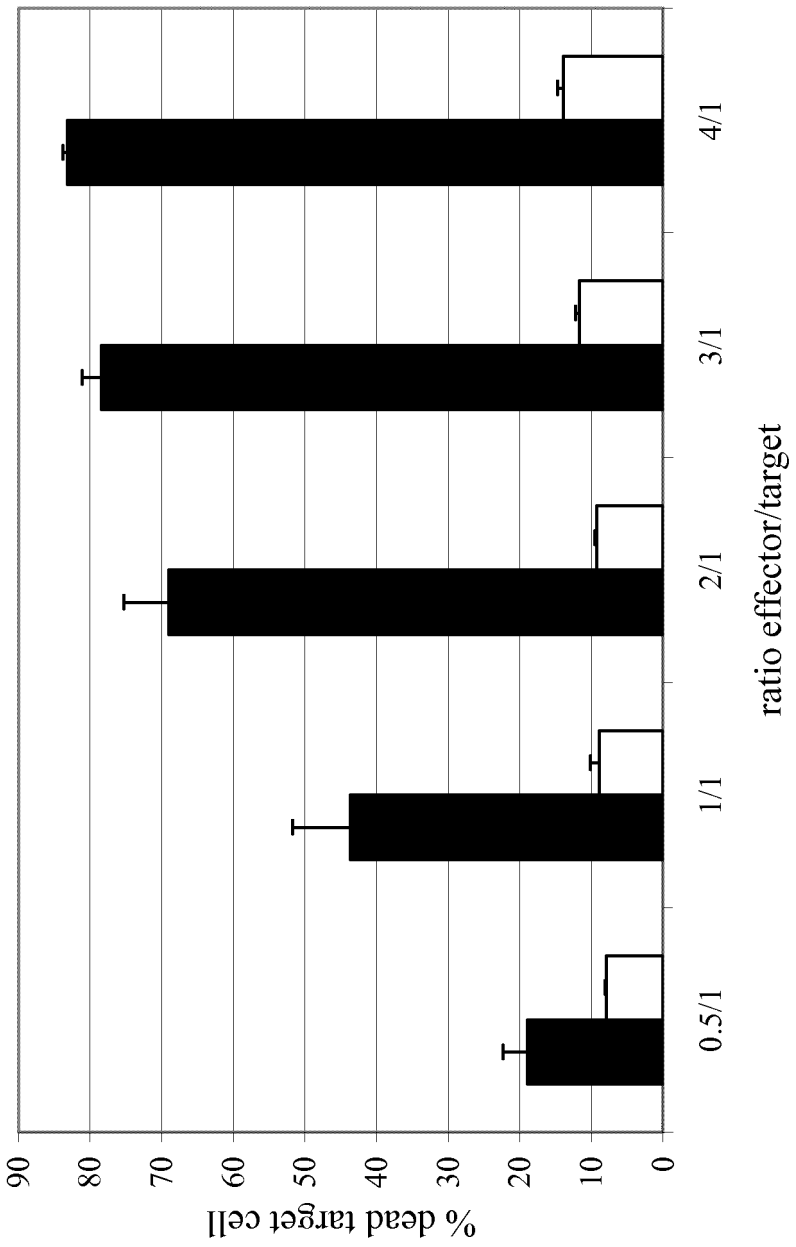

% dead target cell
0
10
20
30
40
50
60
70
80
90
0.5/1
1/1
2/1
3/1
4/1
ratio effector/target

Fig. 7

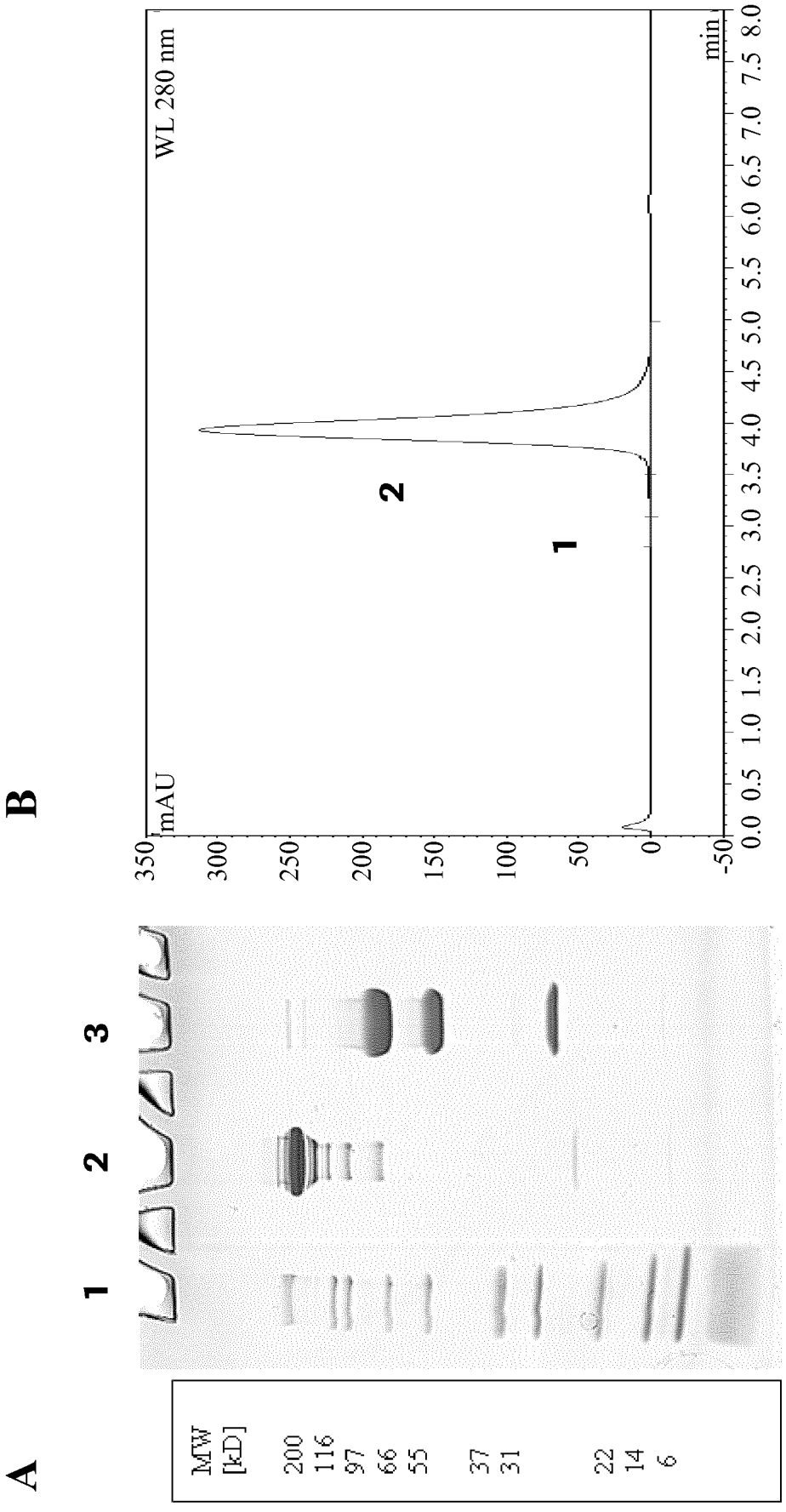


Fig. 8

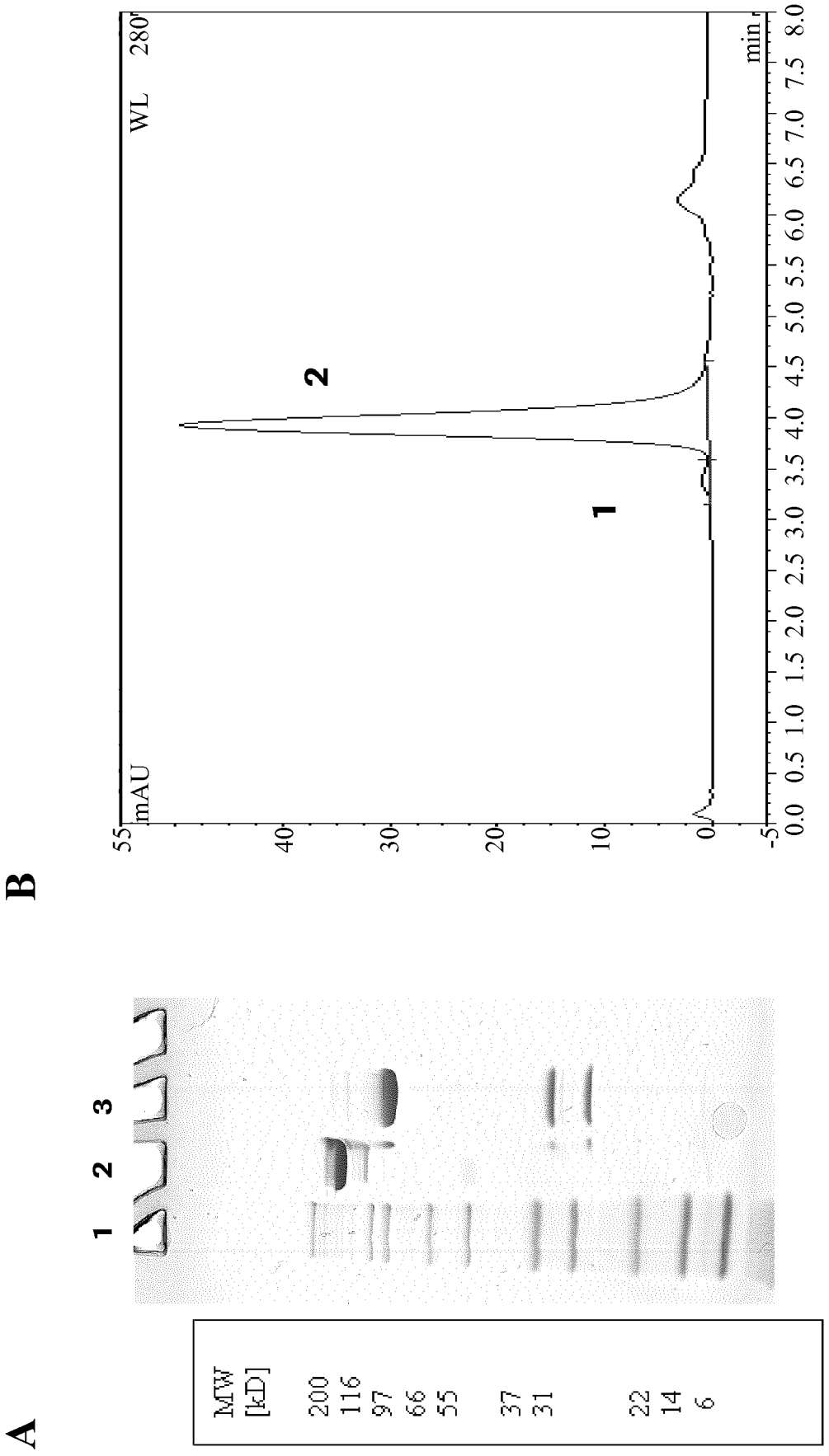
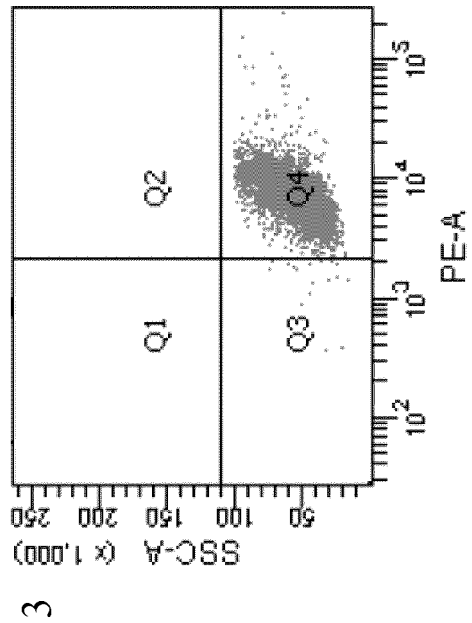
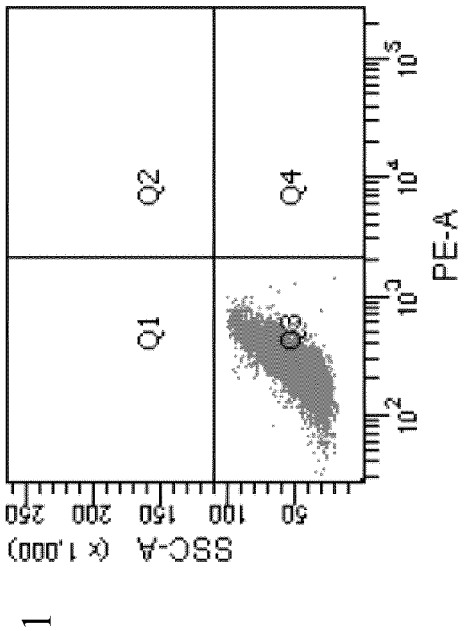


Fig. 9a


3
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A


1
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A

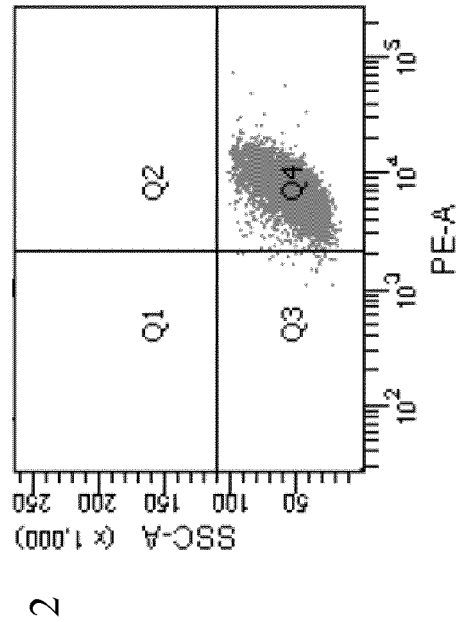
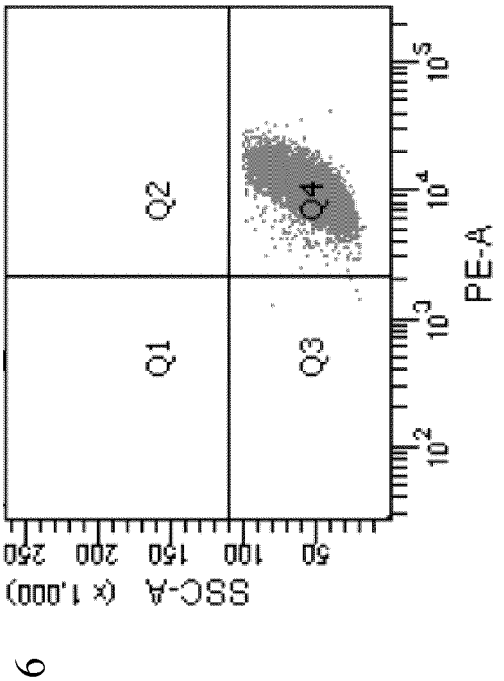
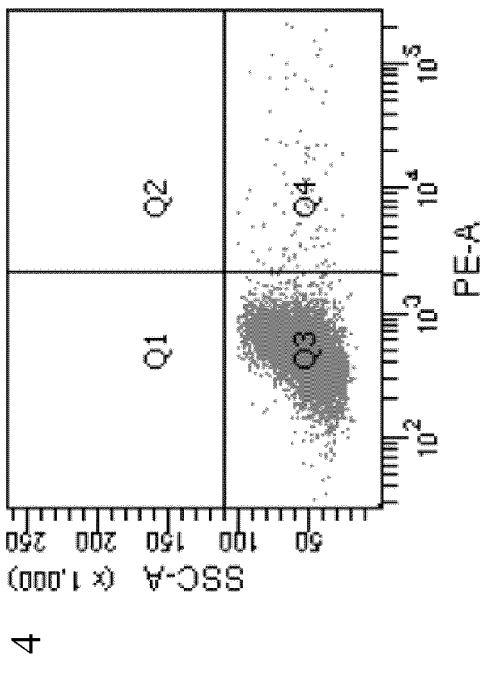

2
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A

Fig. 9b


6
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A


4
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A

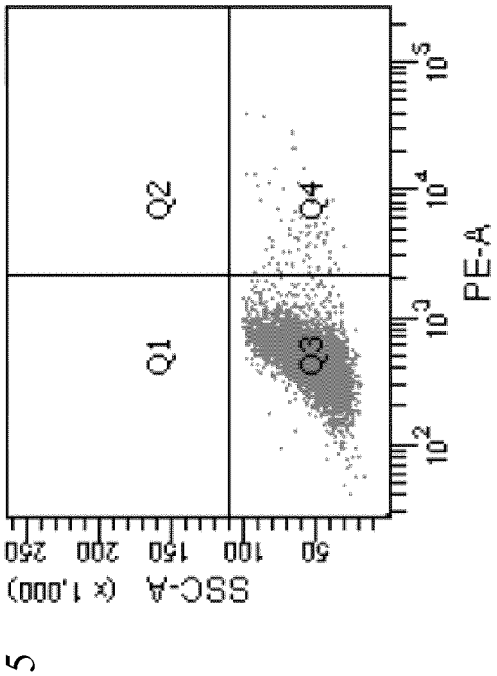

5
SSC-A (x 1,000)
50
100
150
200
250
Q1
Q2
Q3
Q4
$10^2$
$10^3$
$10^4$
$10^5$
PE-A

Fig. 10

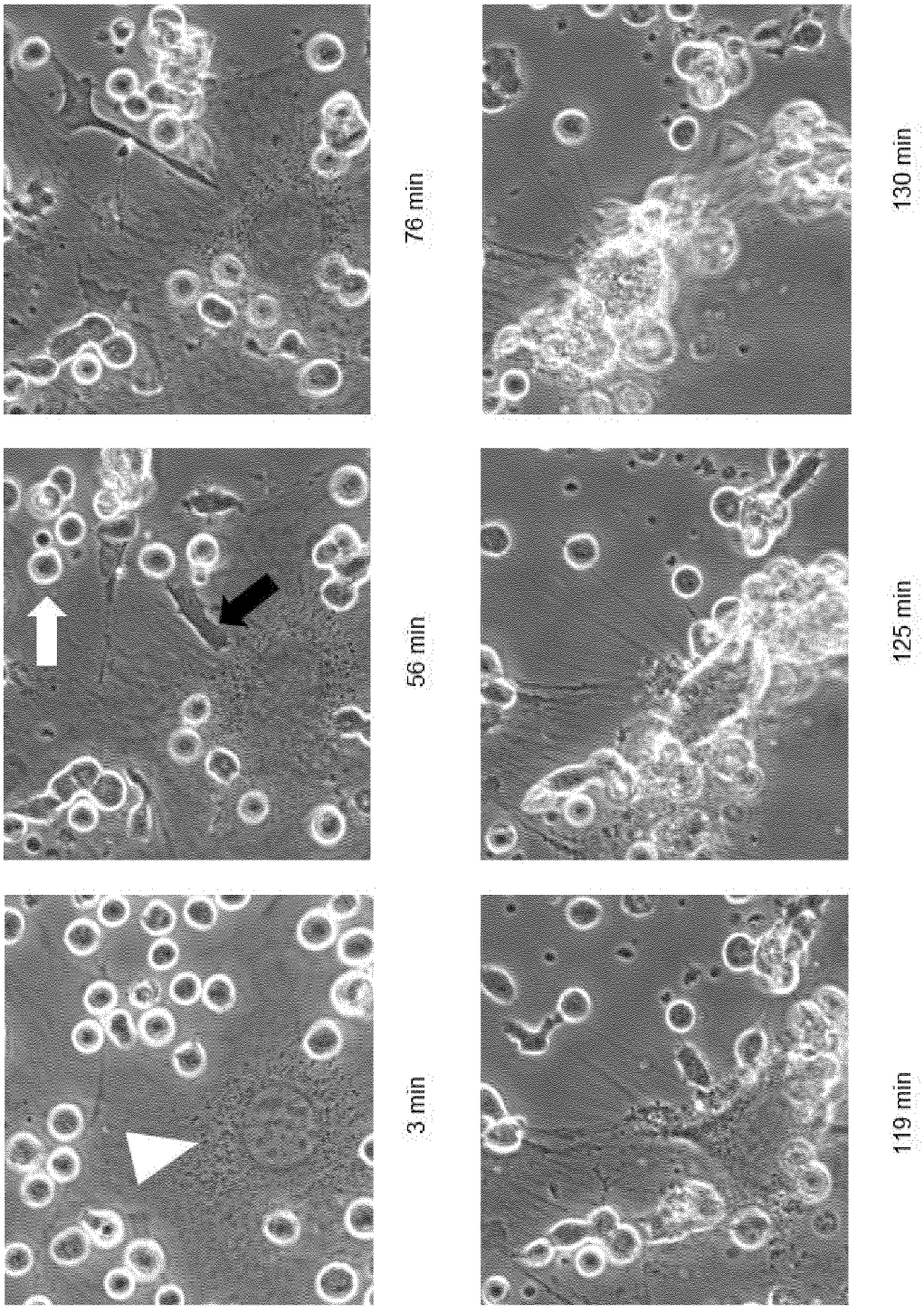


Fig. 11

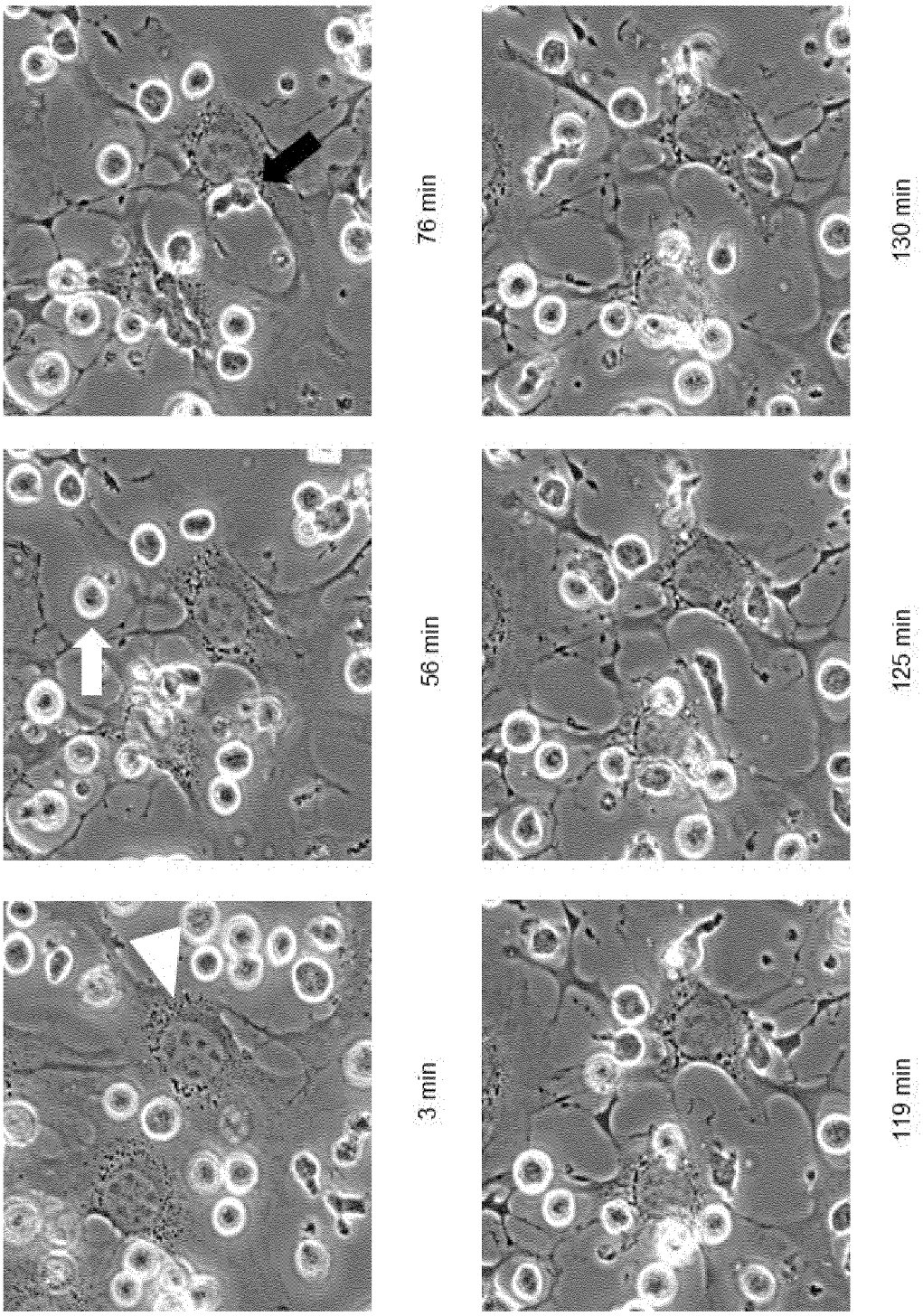
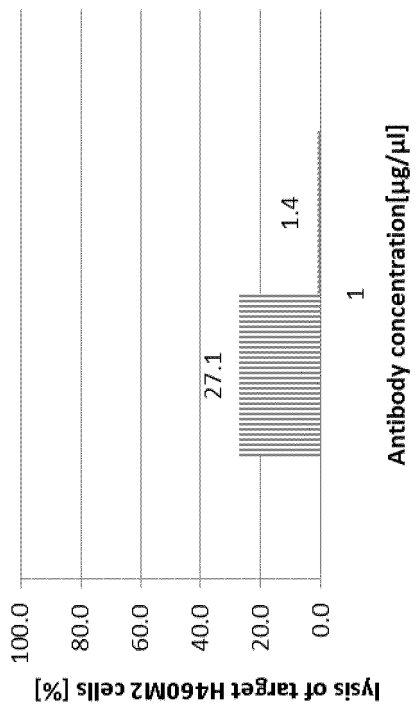
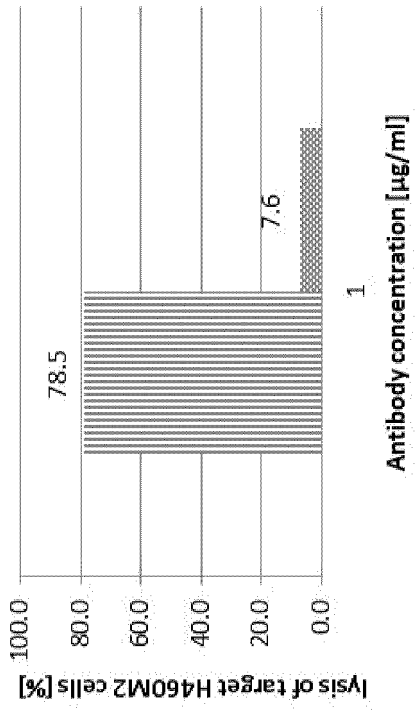


Fig. 12


c)
Lysis of target H460M2 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
27.1
1.4
1
Antibody concentration[µg/µl]


a)
Lysis of target H460M2 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
78.5
7.6
1
Antibody concentration [µg/ml]

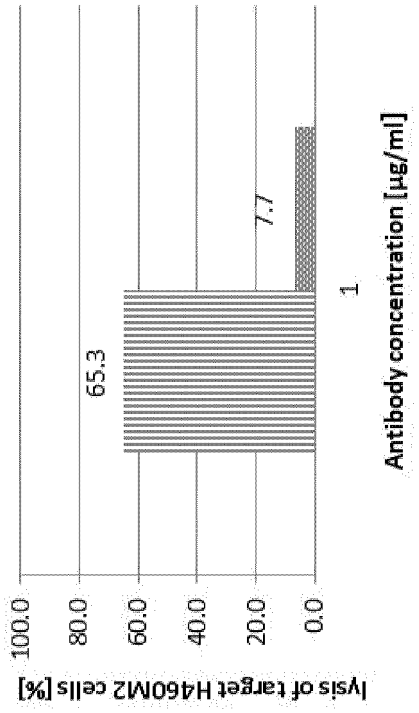
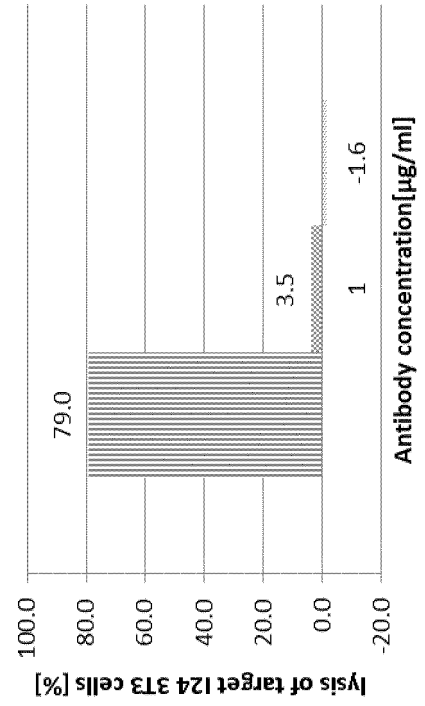
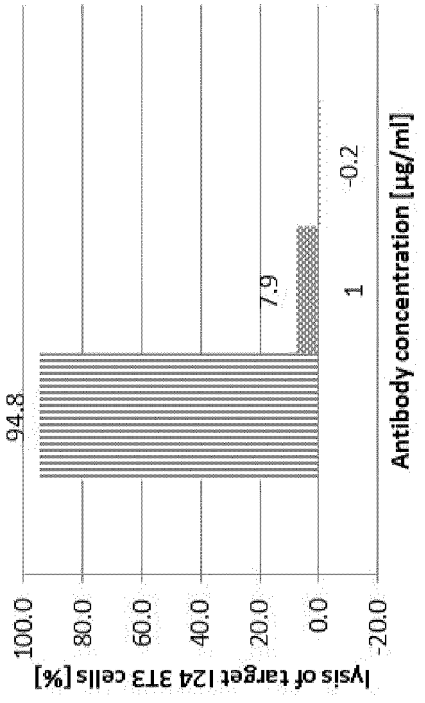

b)
Lysis of target H460M2 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
65.3
7.7
1
Antibody concentration [µg/ml]

Fig. 13


c)
Lysis of target l24 3T3 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
79.0
3.5
1
-1.6
Antibody concentration[µg/ml]


a)
Lysis of target l24 3T3 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
94.8
7.9
1
-0.2
Antibody concentration [µg/ml]

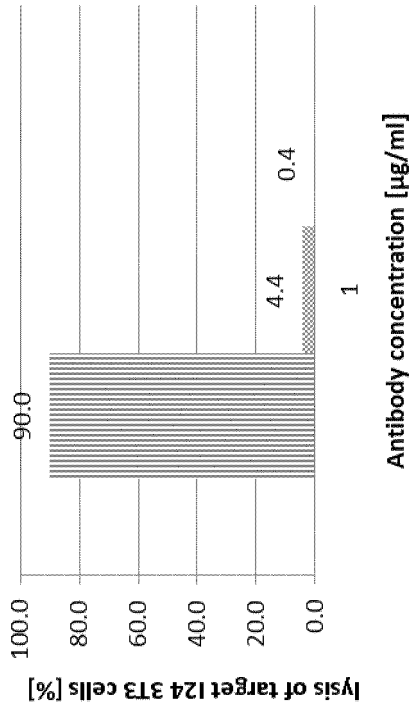
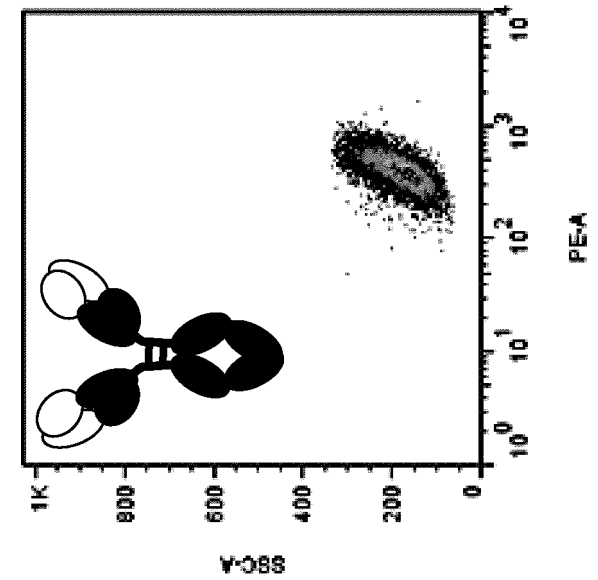
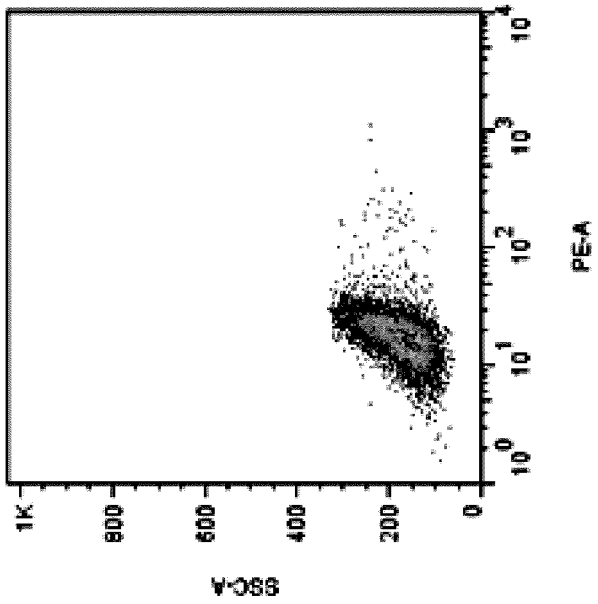

b)
Lysis of target l24 3T3 cells [%]
100.0
80.0
60.0
40.0
20.0
0.0
90.0
4.4
0.4
1
Antibody concentration [µg/ml]

Fig. 14


c)
SSC-A
PE-A
1K
800
600
400
200
0
$10^0$
$10^1$
$10^2$
$10^3$
$10^4$


a)
SSC-A
PE-A
1K
800
600
400
200
0
$10^0$
$10^1$
$10^2$
$10^3$
$10^4$

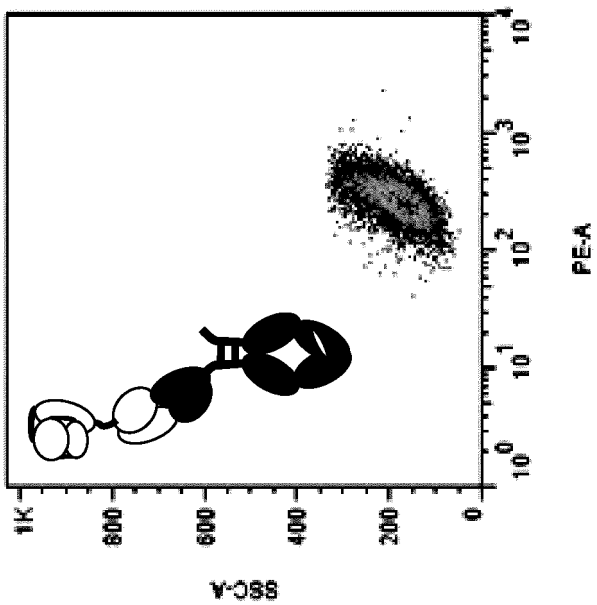

b)
SSC-A
PE-A
1K
800
600
400
200
0
$10^0$
$10^1$
$10^2$
$10^3$
$10^4$

Fig. 15

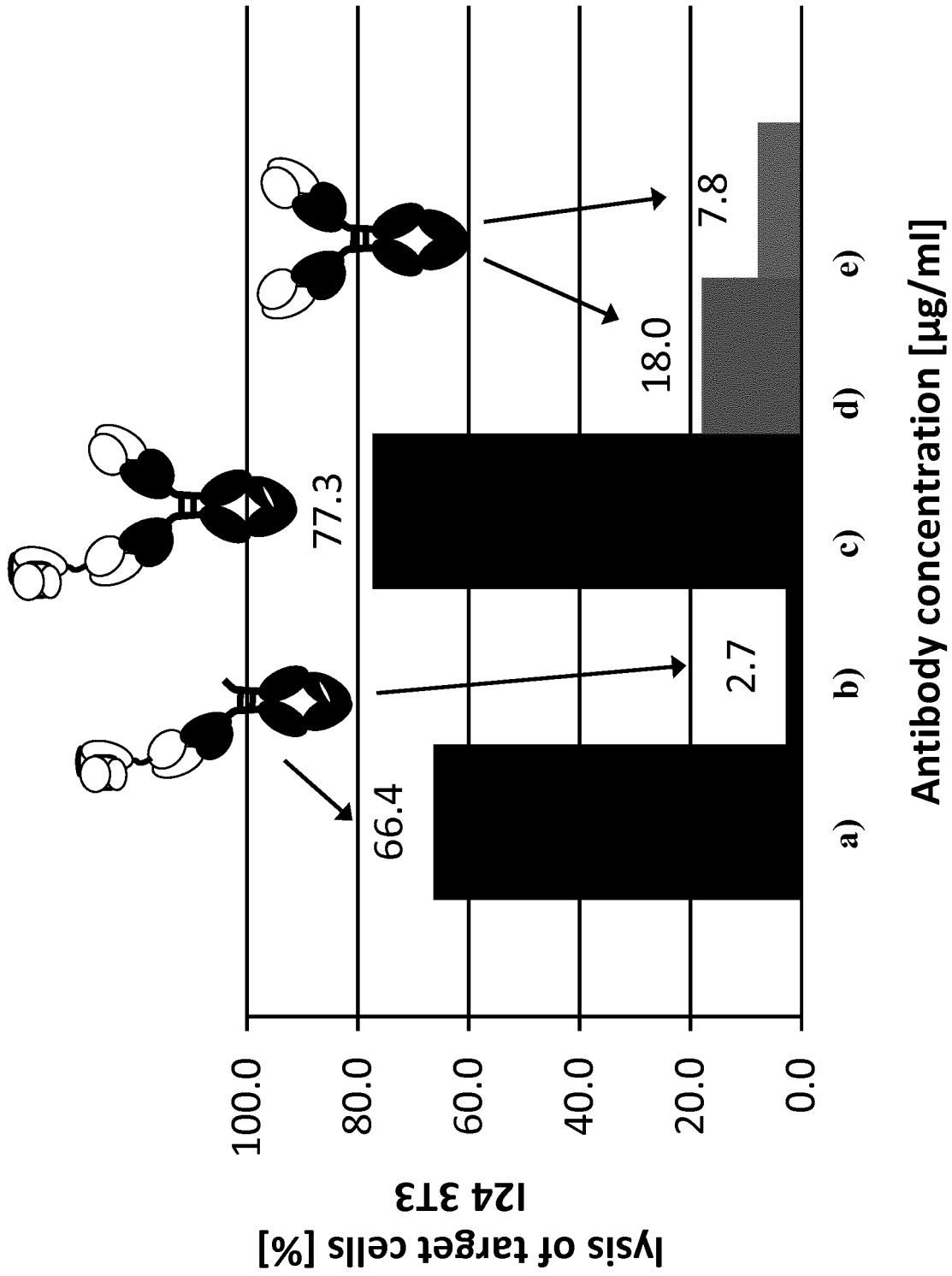

Lysis of target cells [%]
124 3T3
100.0
80.0
60.0
40.0
20.0
0.0
66.4
77.3
2.7
18.0
7.8
a)
b)
c)
d)
e)
Antibody concentration [µg/ml]

Fig. 16

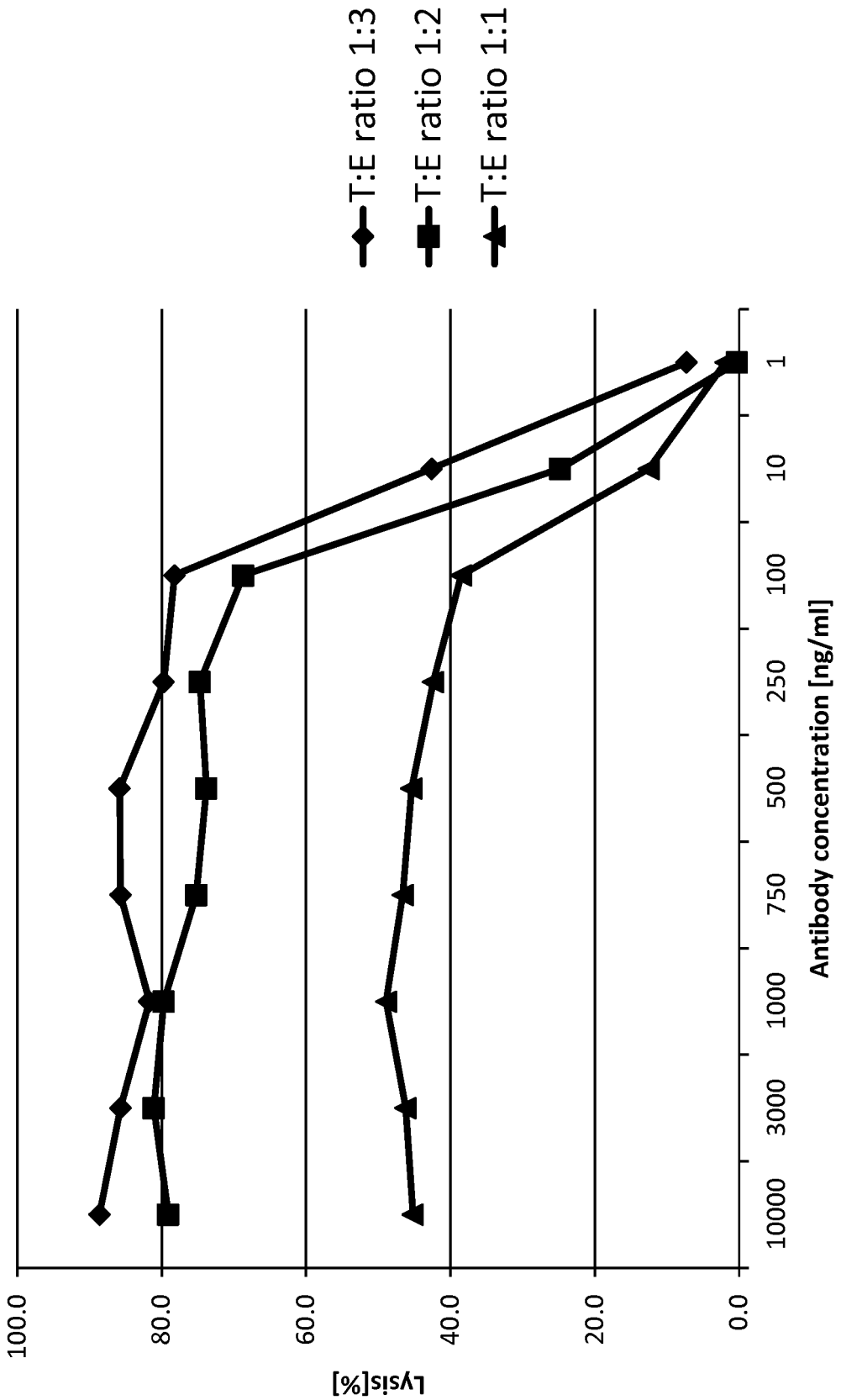
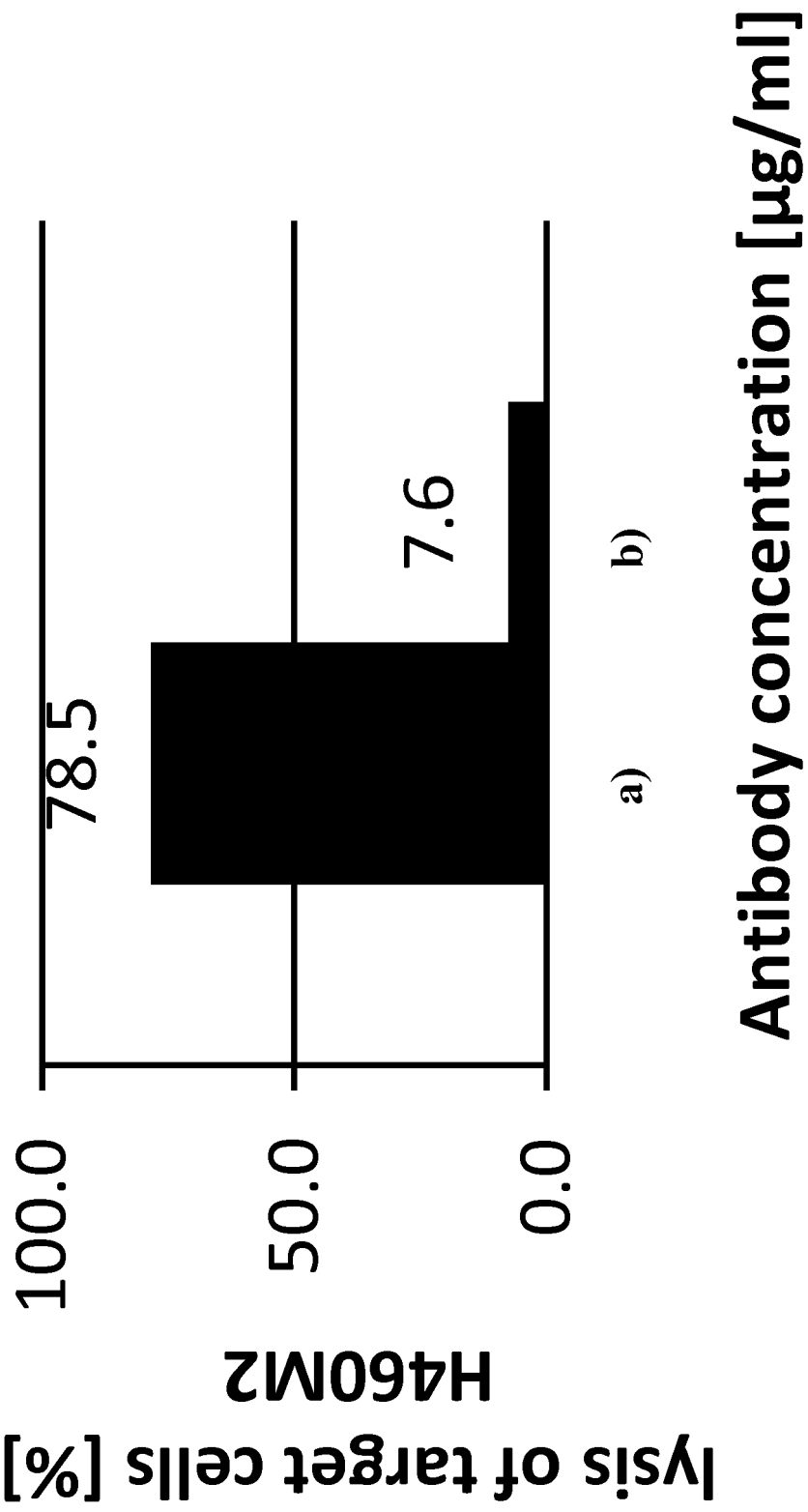

T:E ratio 1:3
T:E ratio 1:2
T:E ratio 1:1
Lysis[%]
100.0
80.0
60.0
40.0
20.0
0.0
Antibody concentration [ng/ml]
10000
3000
1000
750
500
250
100
10
1

Fig. 17


Lysis of target cells [%]
H460M2
100.0
50.0
0.0
78.5
7.6
a)
b)
Antibody concentration [µg/ml]