Figure 1

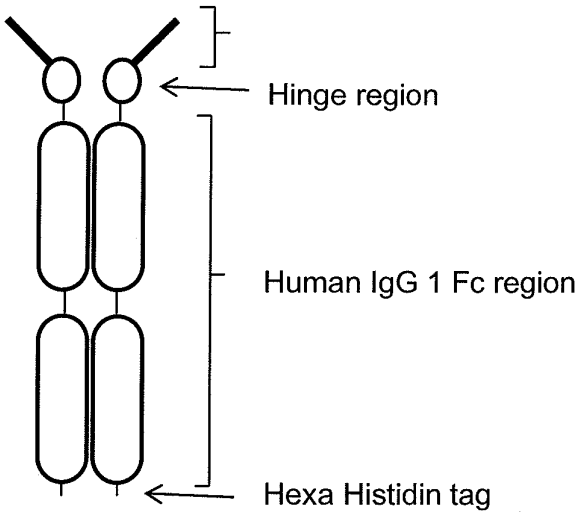
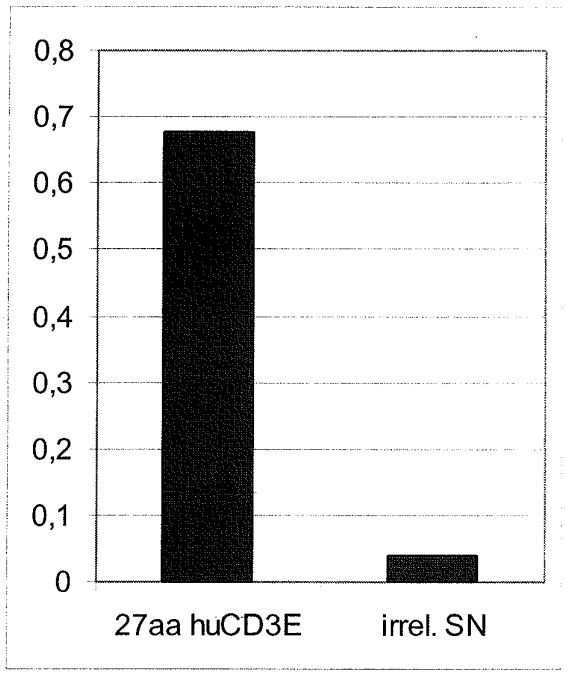


Figure 2



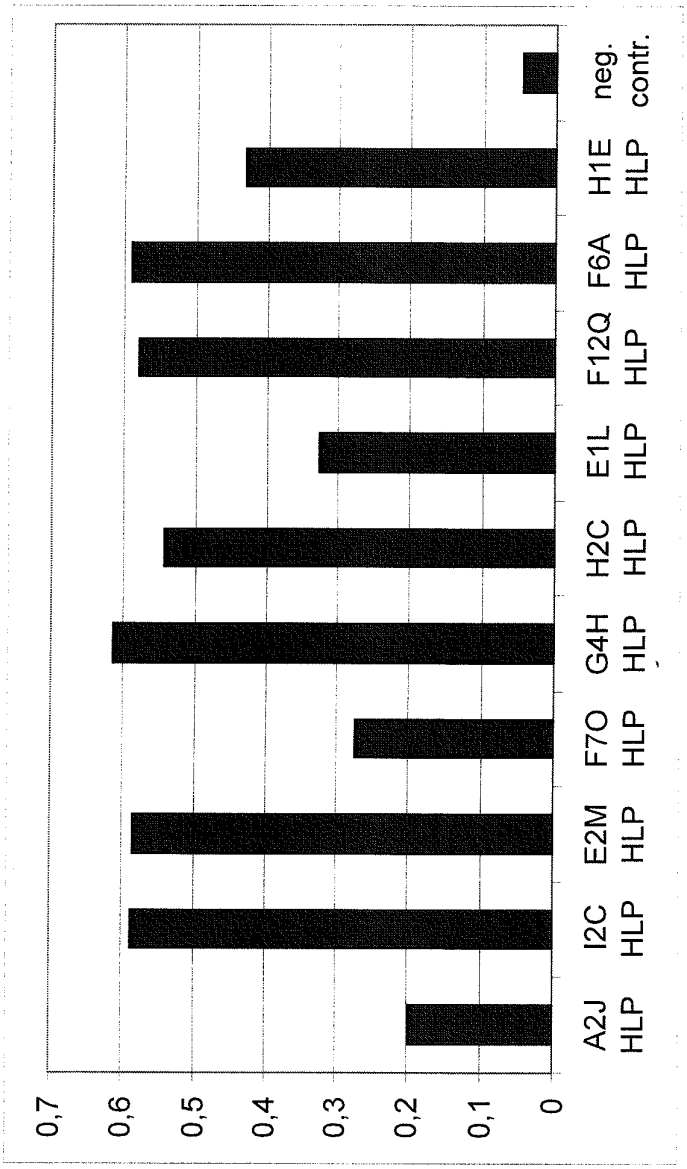

0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
A2J HLP
I2C HLP
E2M HLP
F7O HLP
G4H HLP
H2C HLP
E1L HLP
F12Q HLP
F6A HLP
H1E HLP
neg. contr.

Figure 3

Figure 4

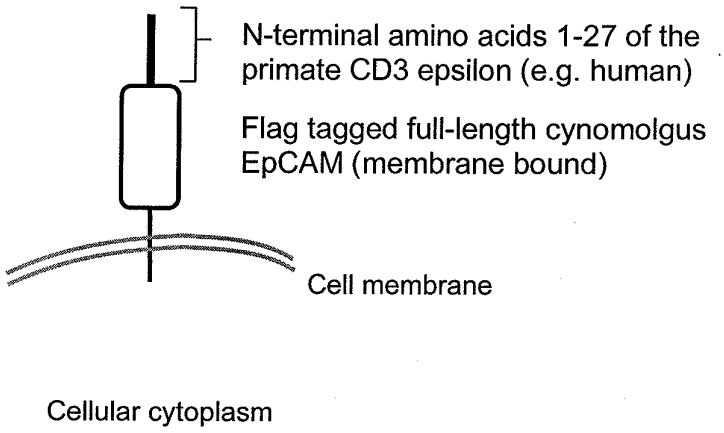

N-terminal amino acids 1-27 of the primate CD3 epsilon (e.g. human)
Flag tagged full-length cynomolgus EpCAM (membrane bound)
Cell membrane
Cellular cytoplasm

Figure 5

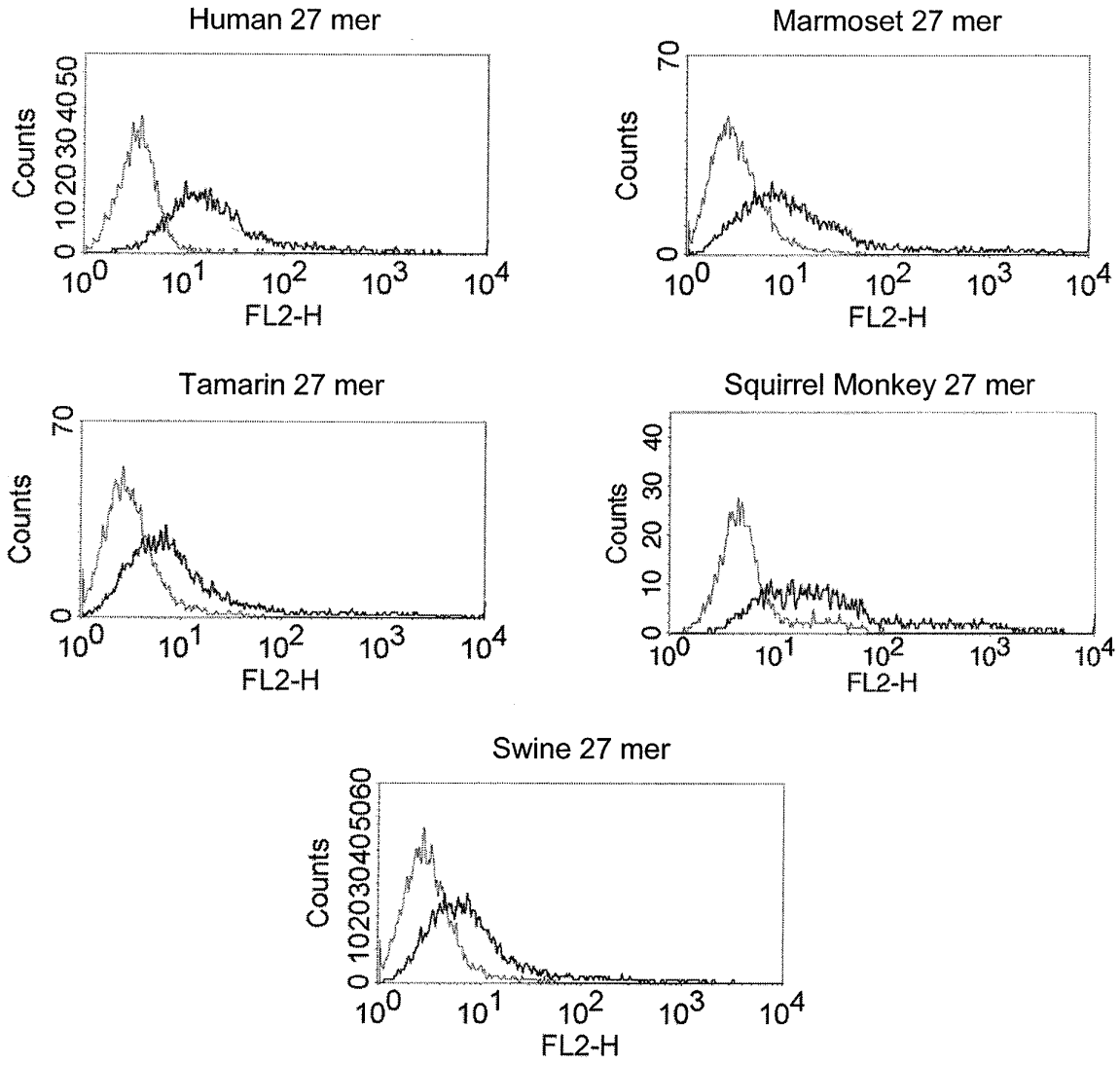
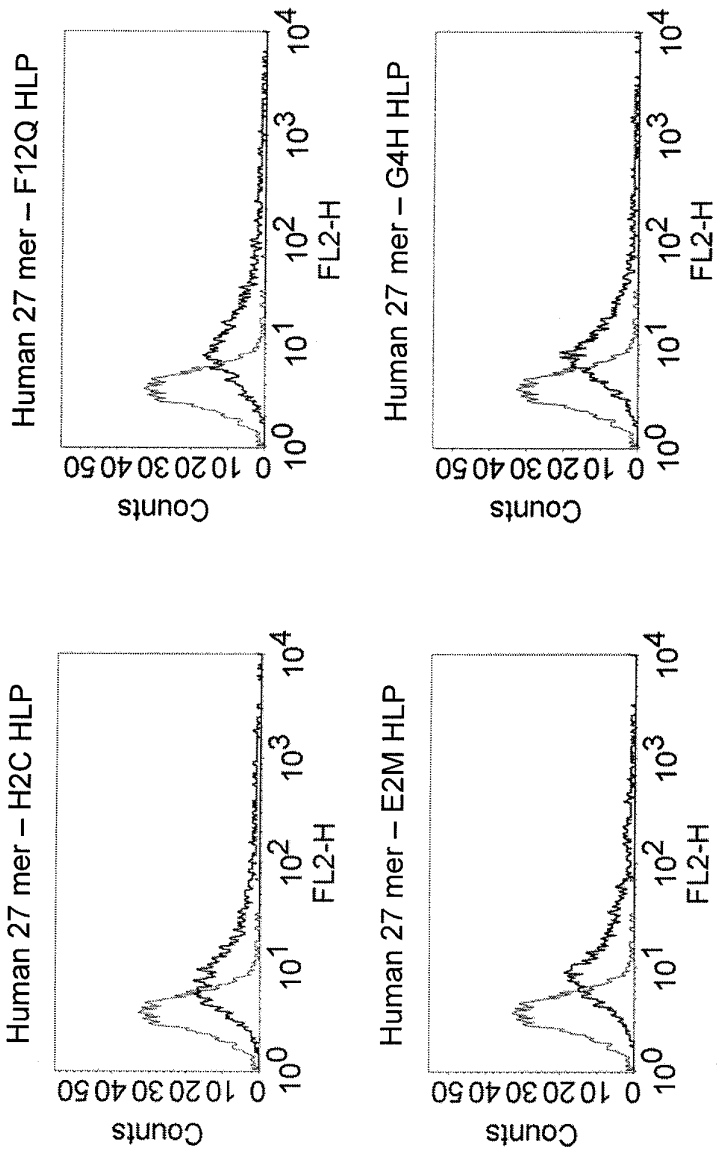

Human 27 mer
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
Marmoset 27 mer
Counts
0 70
10^0 10^1 10^2 10^3 10^4
FL2-H
Tamarin 27 mer
Counts
0 70
10^0 10^1 10^2 10^3 10^4
FL2-H
Squirrel Monkey 27 mer
Counts
0 10 20 30 40
10^0 10^1 10^2 10^3 10^4
FL2-H
Swine 27 mer
Counts
0 10 20 30 40 50 60
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 6A


Human 27 mer – F12Q HLP
Human 27 mer – G4H HLP
Human 27 mer – H2C HLP
Human 27 mer – E2M HLP
Counts
FL2-H
0
10
20
30
40
50
10^0
10^1
10^2
10^3
10^4

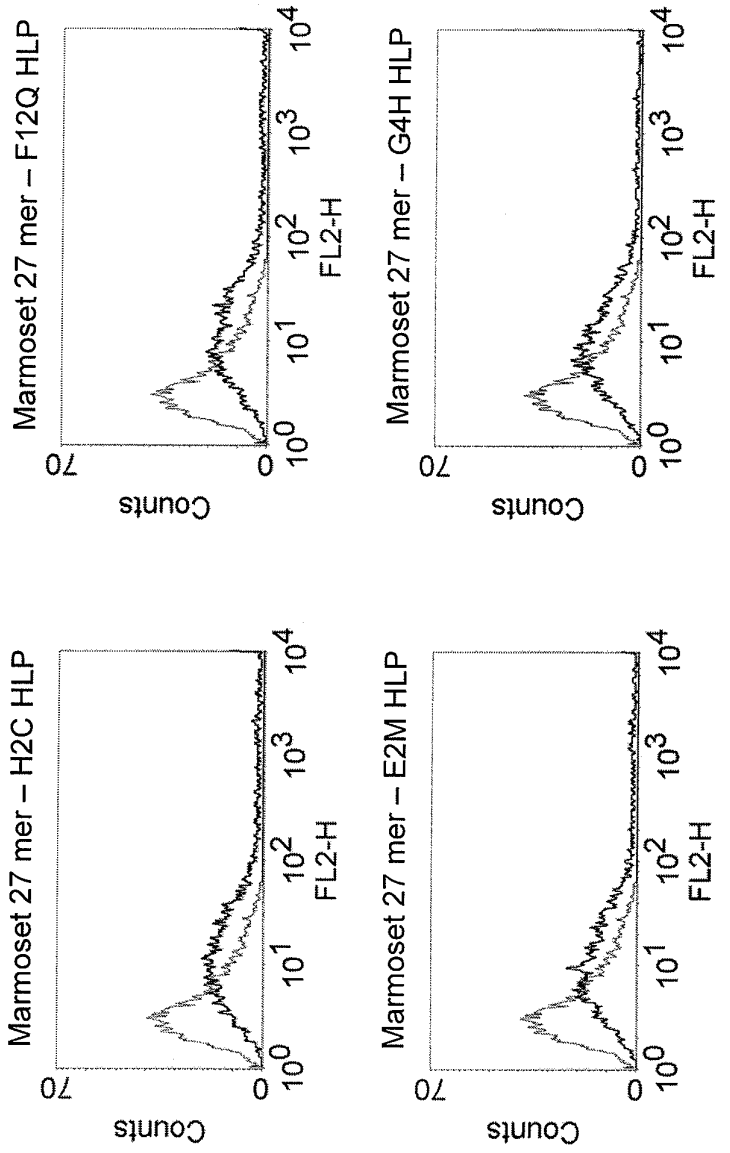

Marmoset 27 mer – F12Q HLP
Marmoset 27 mer – G4H HLP
Marmoset 27 mer – H2C HLP
Marmoset 27 mer – E2M HLP
Counts
FL2-H
0
70
10^0
10^1
10^2
10^3
10^4

Figure 6B

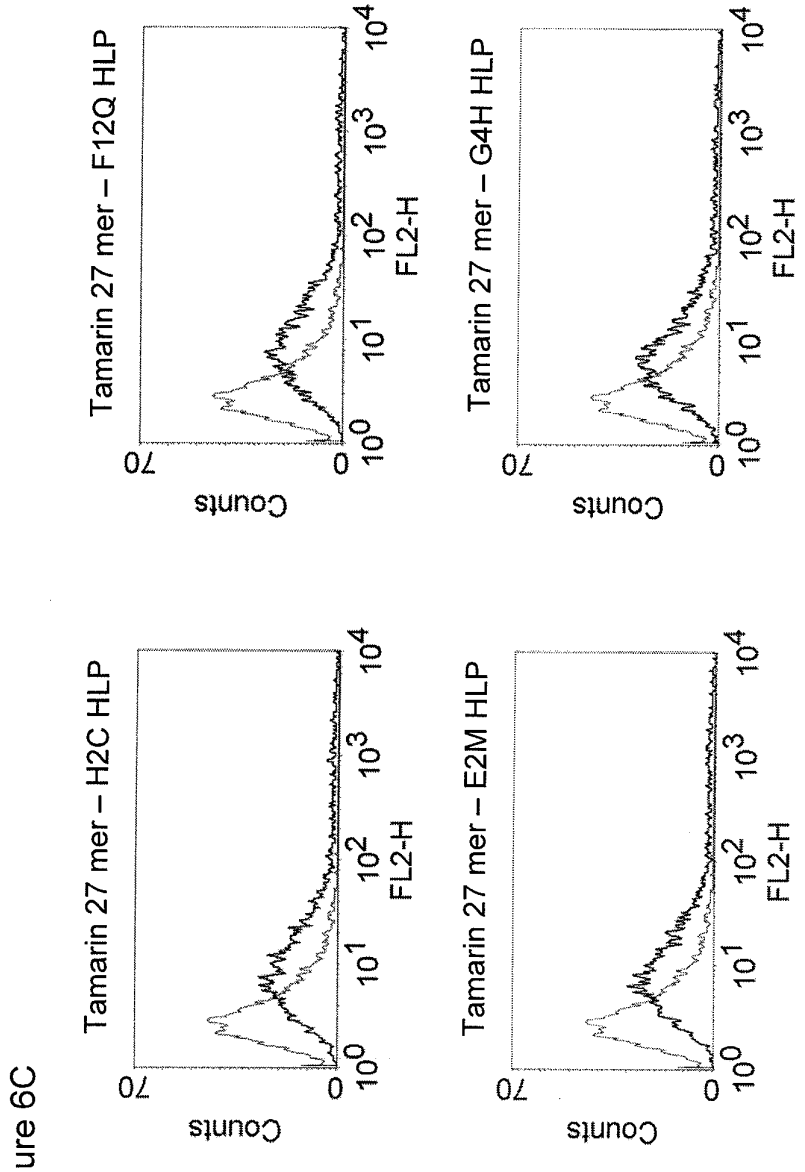

Tamarin 27 mer – F12Q HLP
Tamarin 27 mer – G4H HLP
Tamarin 27 mer – H2C HLP
Tamarin 27 mer – E2M HLP
Counts
FL2-H
0
70
10^0
10^1
10^2
10^3
10^4

Figure 6C

Figure 6D

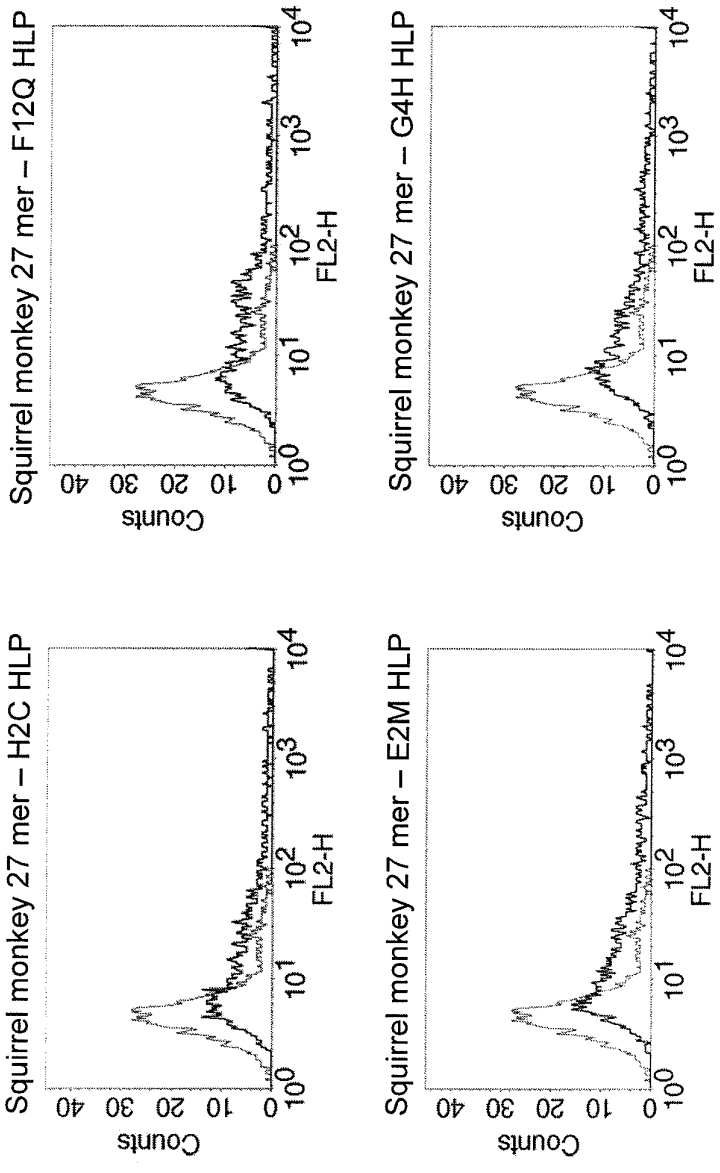

Squirrel monkey 27 mer – F12Q HLP
Squirrel monkey 27 mer – G4H HLP
Squirrel monkey 27 mer – H2C HLP
Squirrel monkey 27 mer – E2M HLP
Counts
FL2-H
0
10
20
30
40
10^0
10^1
10^2
10^3
10^4

Figure 6E

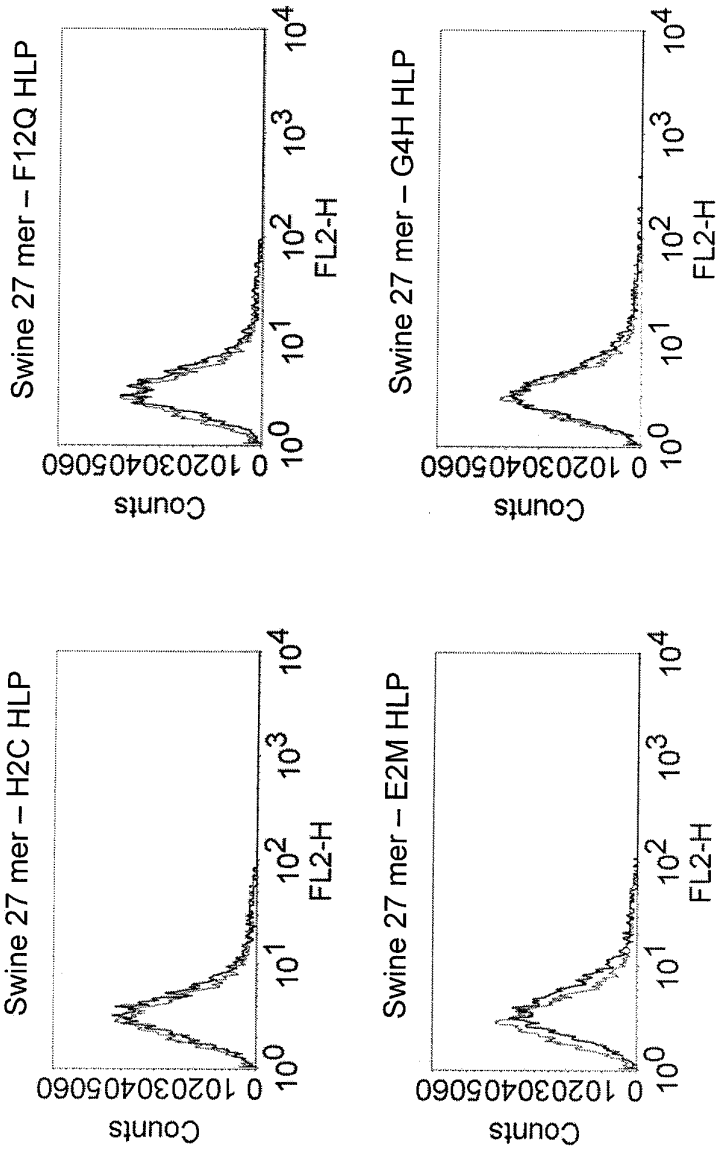
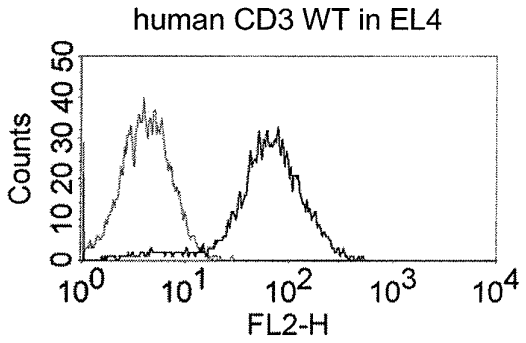

Swine 27 mer – F12Q HLP
Swine 27 mer – G4H HLP
Swine 27 mer – H2C HLP
Swine 27 mer – E2M HLP
Counts
FL2-H
0
10
20
30
40
50
60
10^0
10^1
10^2
10^3
10^4

Figure 7


human CD3 WT in EL4
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H

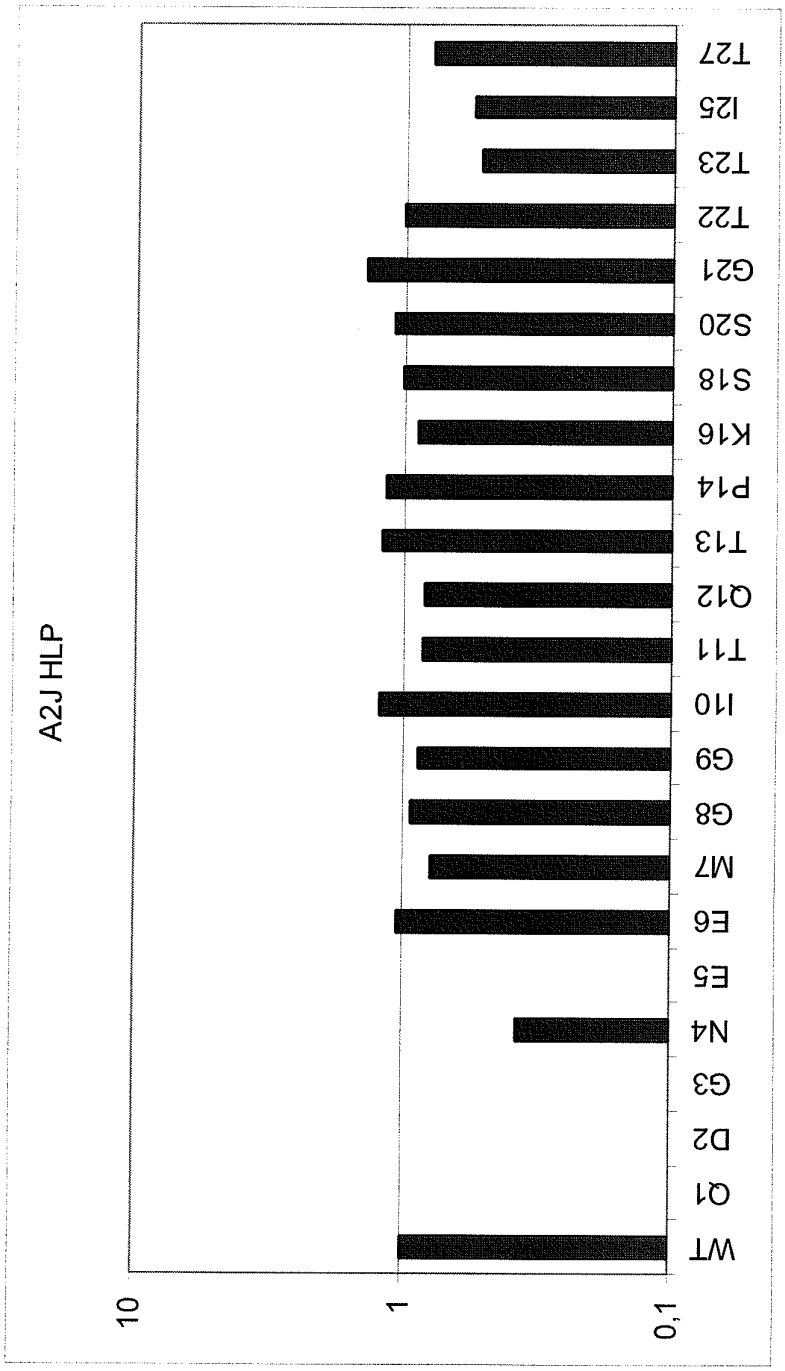

A2J HLP
10
1
0,1
WT
Q1
D2
G3
N4
E5
E6
M7
G8
G9
I10
T11
Q12
T13
P14
K16
S18
S20
G21
T22
T23
I25
T27

Figure 8A

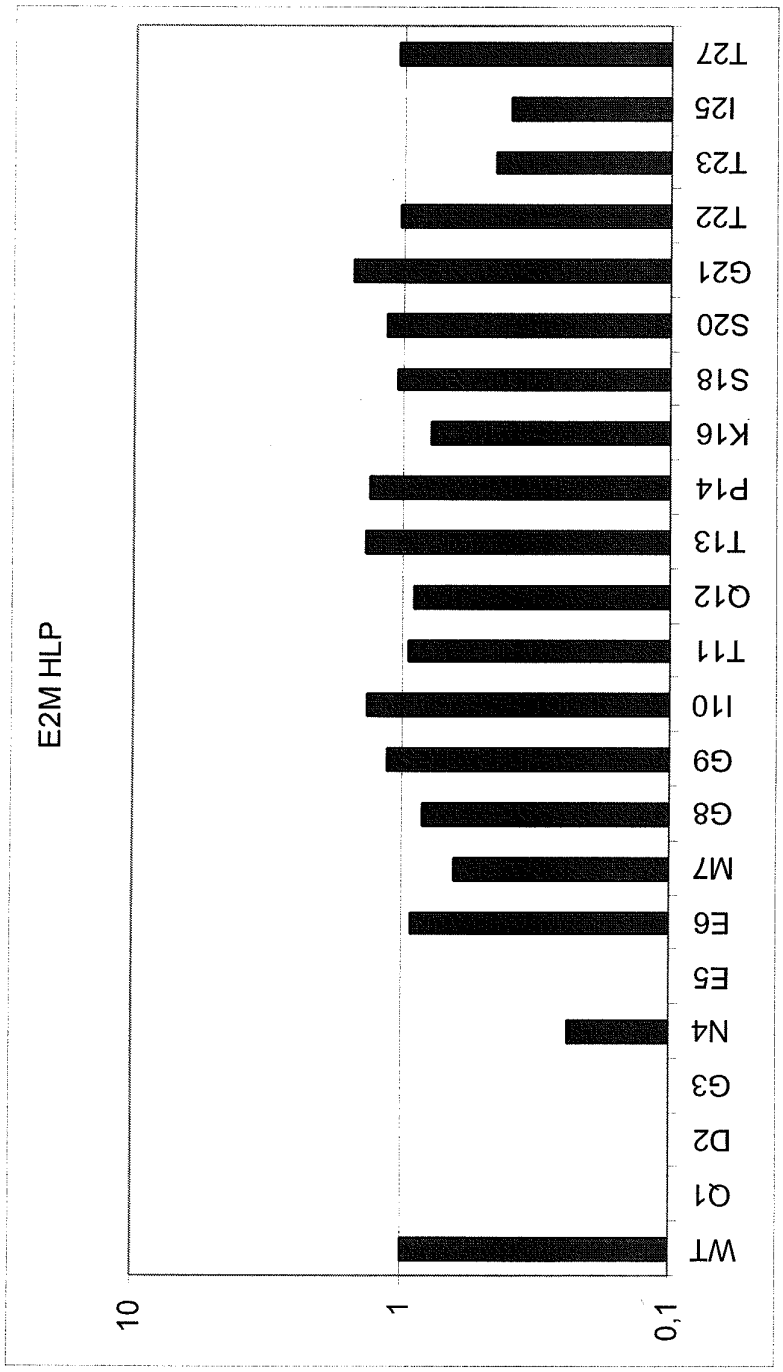

E2M HLP
10
1
0,1
WT
Q1
D2
G3
N4
E5
E6
M7
G8
G9
I10
T11
Q12
T13
P14
K16
S18
S20
G21
T22
T23
I25
T27

Figure 8B

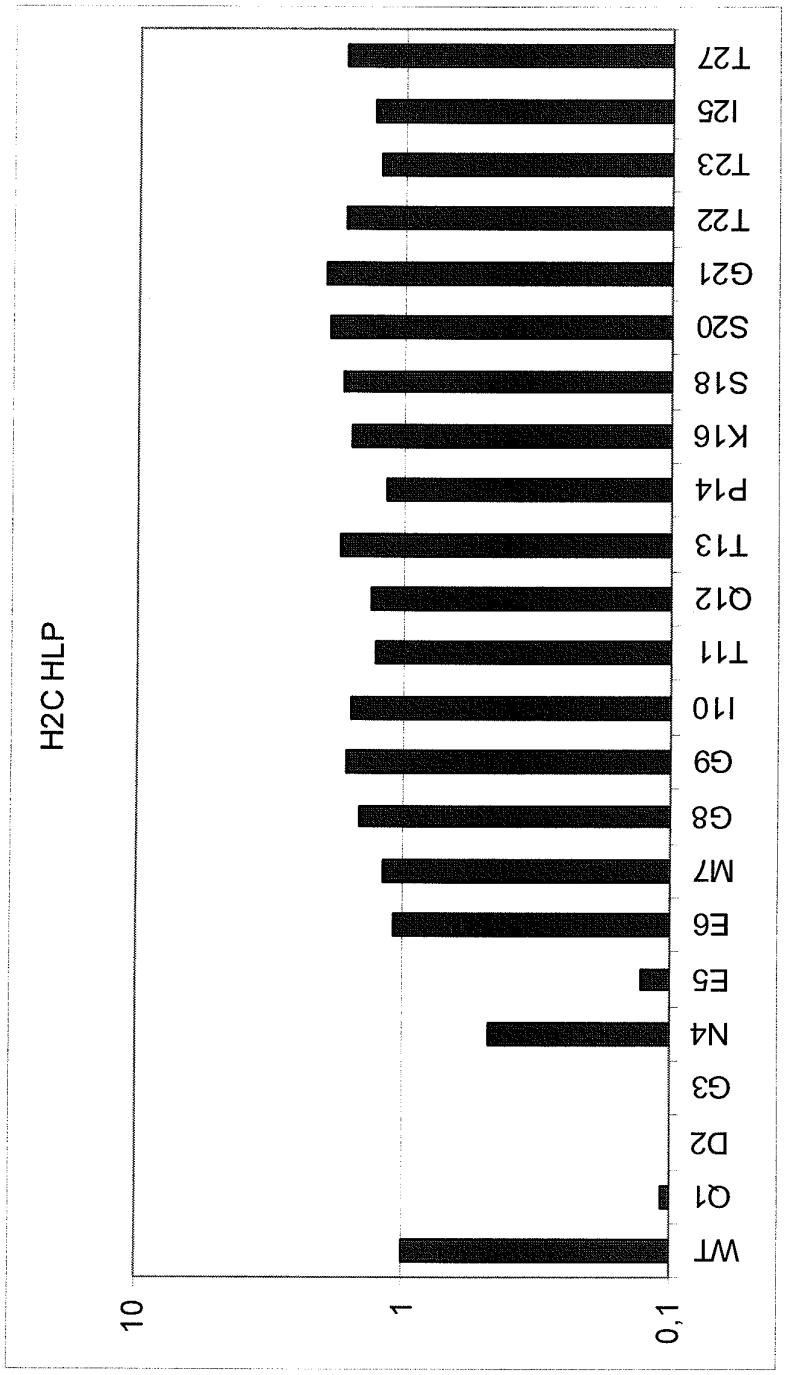

H2C HLP
10
1
0,1
WT
Q1
D2
G3
N4
E5
E6
M7
G8
G9
I10
T11
Q12
T13
P14
K16
S18
S20
G21
T22
T23
I25
T27

Figure 8C

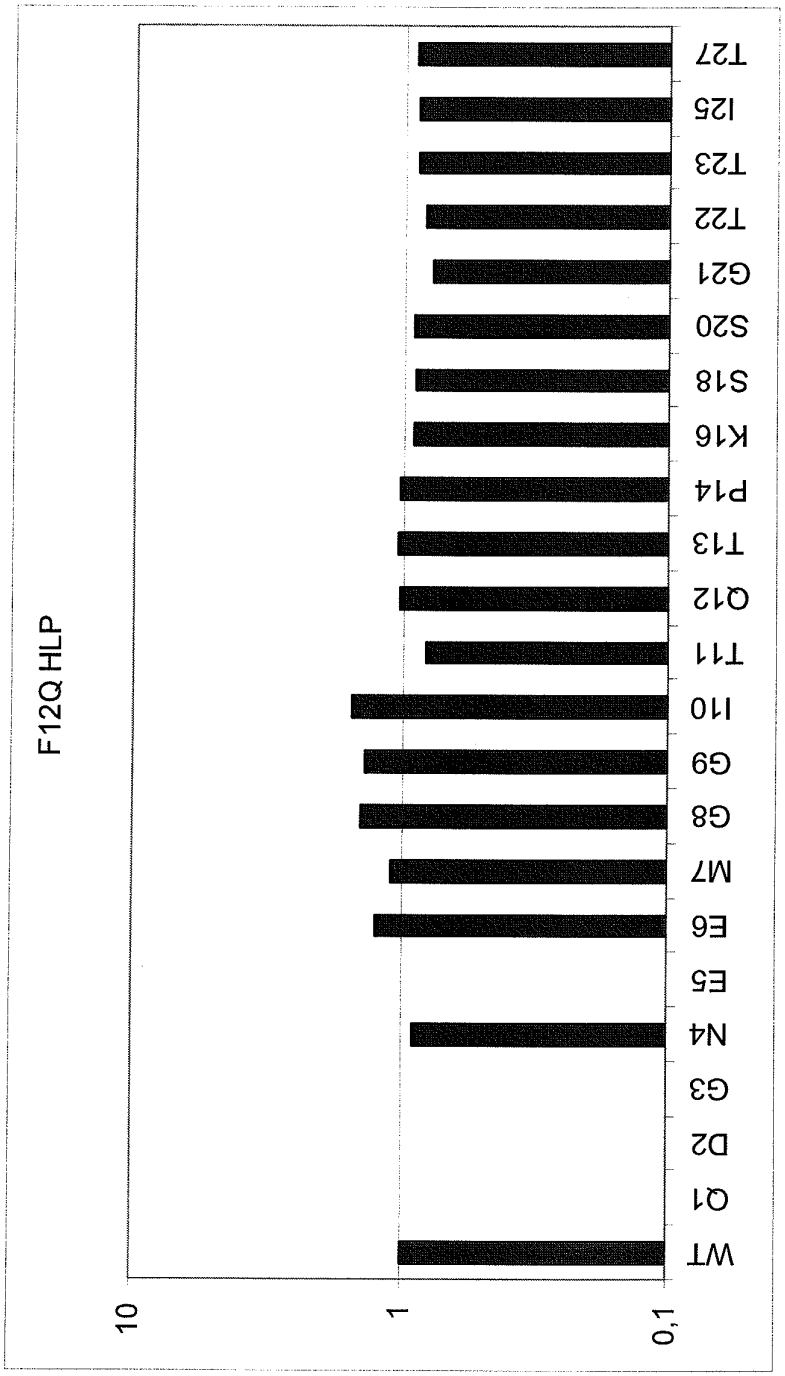
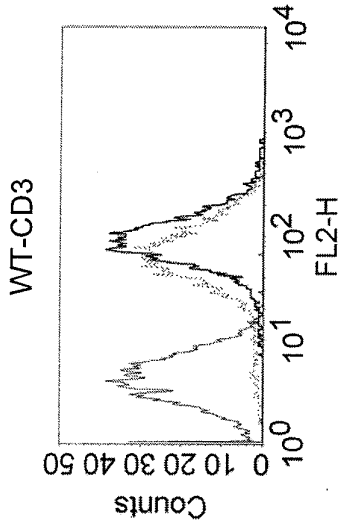
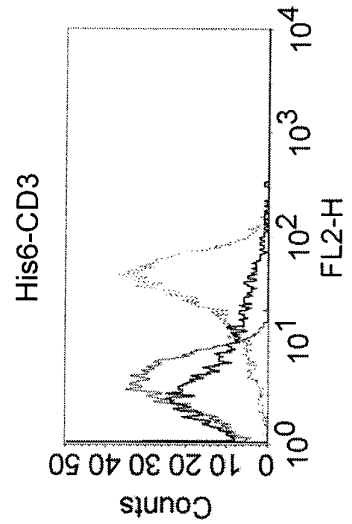

F12Q HLP
10
1
0,1
WT
Q1
D2
G3
N4
E5
E6
M7
G8
G9
I10
T11
Q12
T13
P14
K16
S18
S20
G21
T22
T23
I25
T27

Figure 8D

Figure 9


WT-CD3
Counts
0 10 20 30 40 50
FL2-H
10^0 10^1 10^2 10^3 10^4


His6-CD3
Counts
0 10 20 30 40 50
FL2-H
10^0 10^1 10^2 10^3 10^4

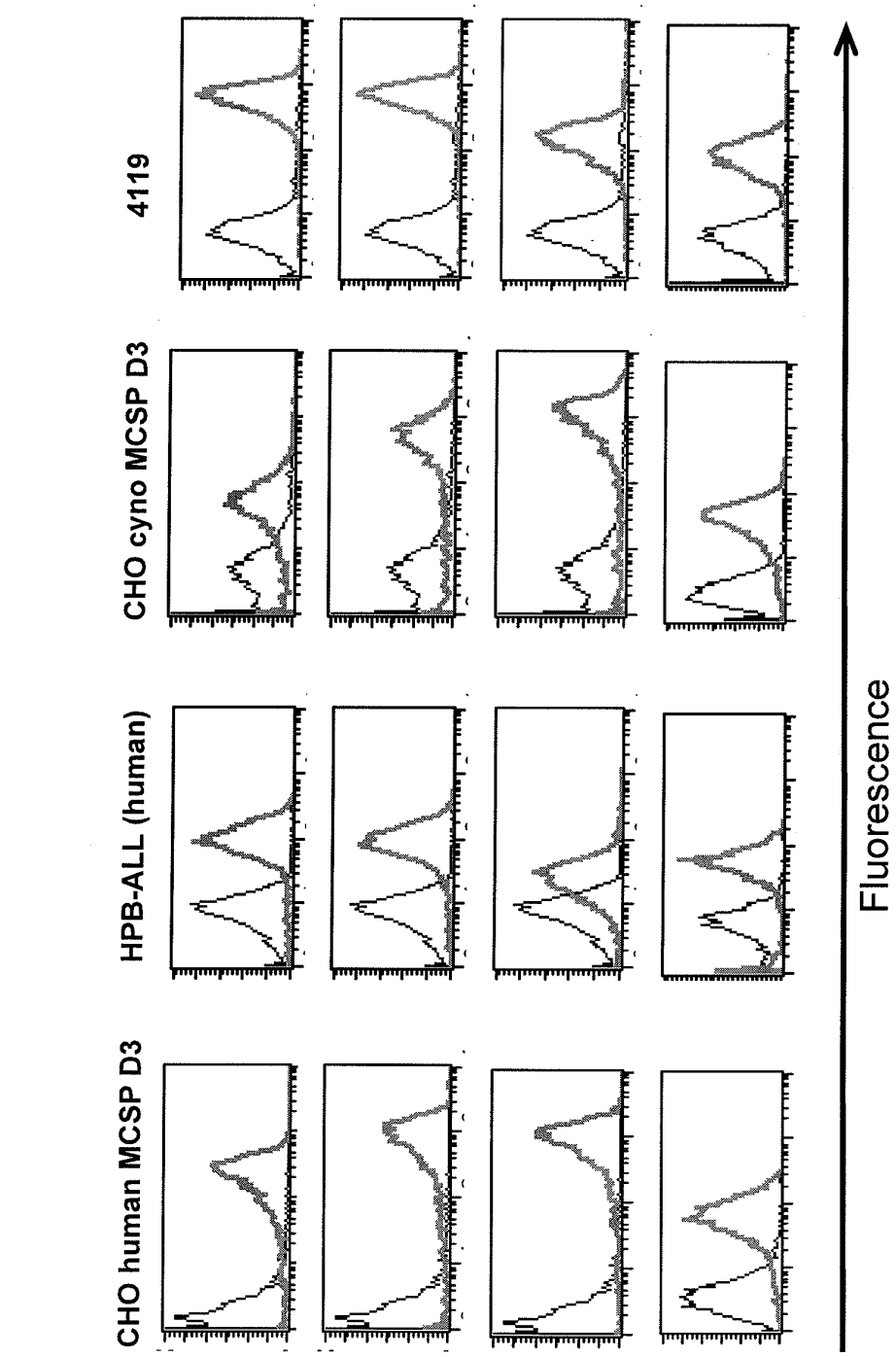

CHO human MCSP D3
HPB-ALL (human)
CHO cyno MCSP D3
4119
MCSP-D2 HLP x H2C HLP
MCSP-F9 HLP x H2C HLP
MCSP-F9 HLP x G4H HLP
MCSP-G4 HLP x I2C HL
Count
Fluorescence

Figure 10

Figure 11

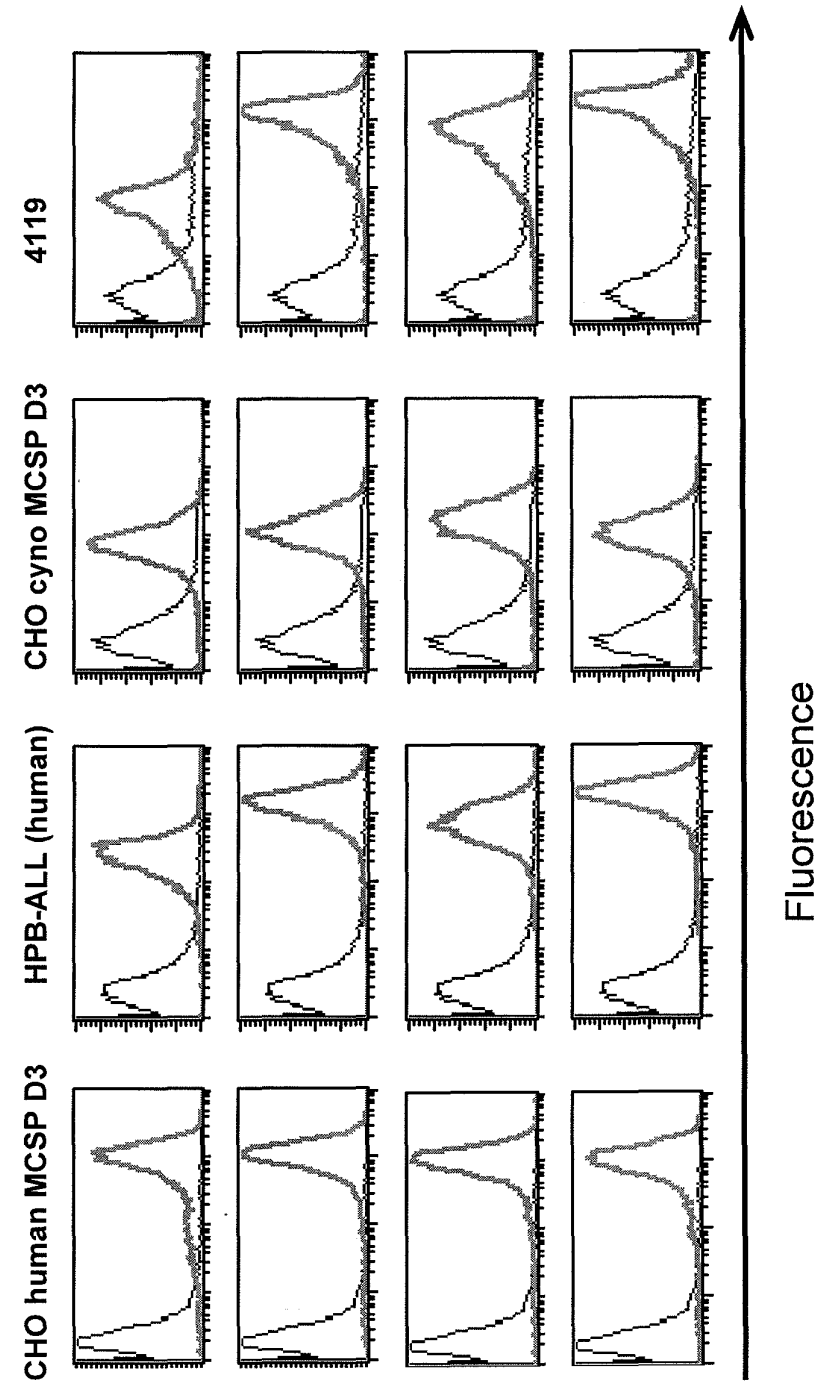

CHO human MCSP D3
HPB-ALL (human)
CHO cyno MCSP D3
4119
MCSP-G4 HLP x F6A HLP
MCSP-G4 HLP x H2C HLP
MCSP-G4 HLP x G4H HLP
MCSP-G4 HLP x F12Q HL
Count
Fluorescence

Figure 12

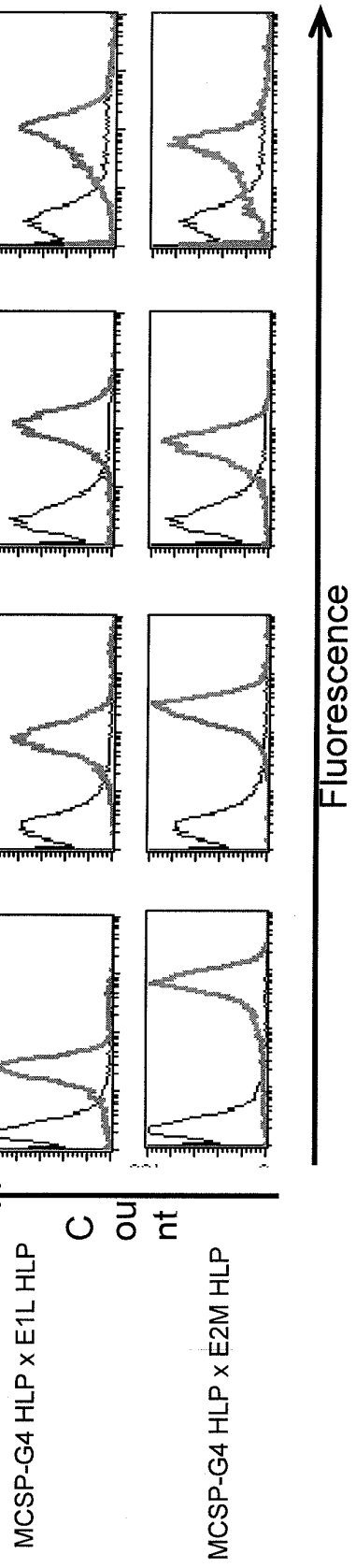
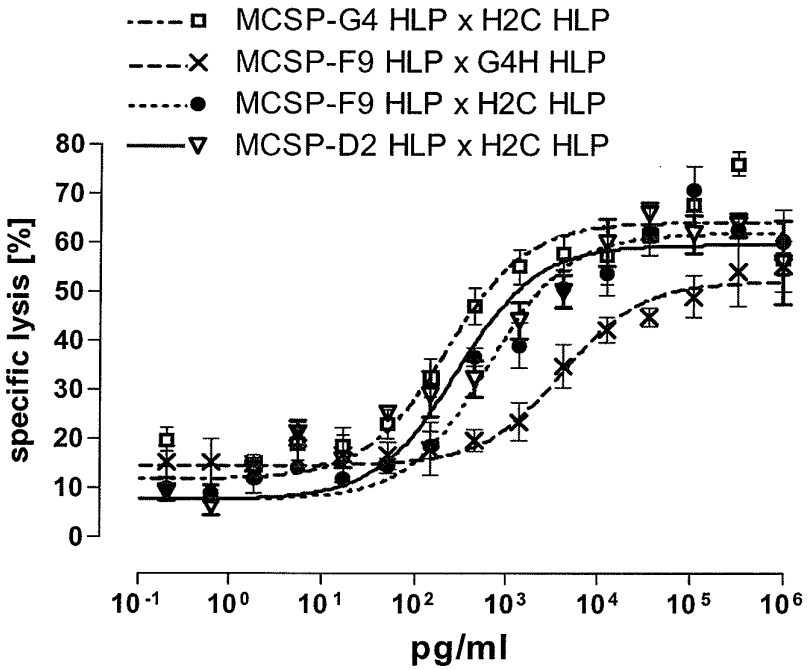

CHO human MCSP D3
HPB-ALL (human)
CHO cyno MCSP D3
4119
MCSP-G4 HLP x E1L HLP
MCSP-G4 HLP x E2M HLP
Count
Fluorescence

Figure 13

A)

Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3



B)

Effector cells: macaque T cell line 4119 LnPx
Target cells: CHO transfected with cynomolgus MCSP D3

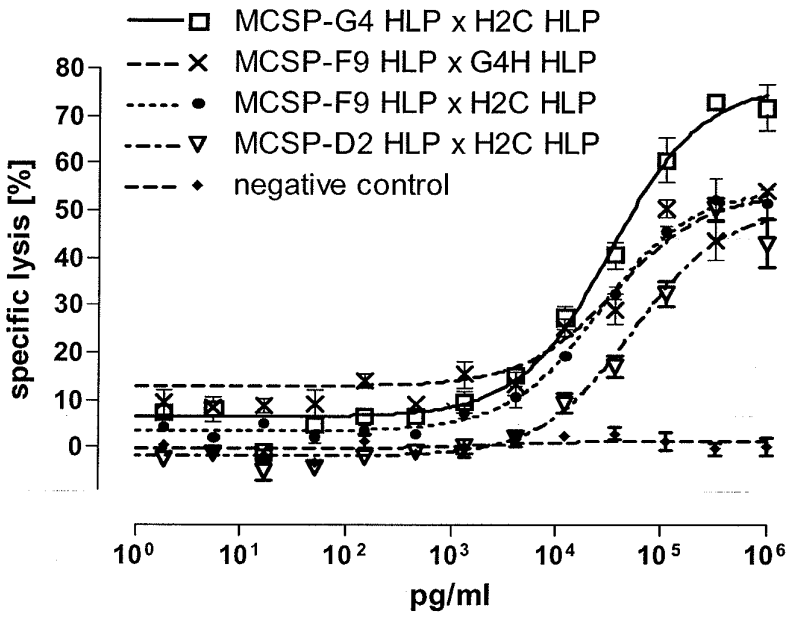
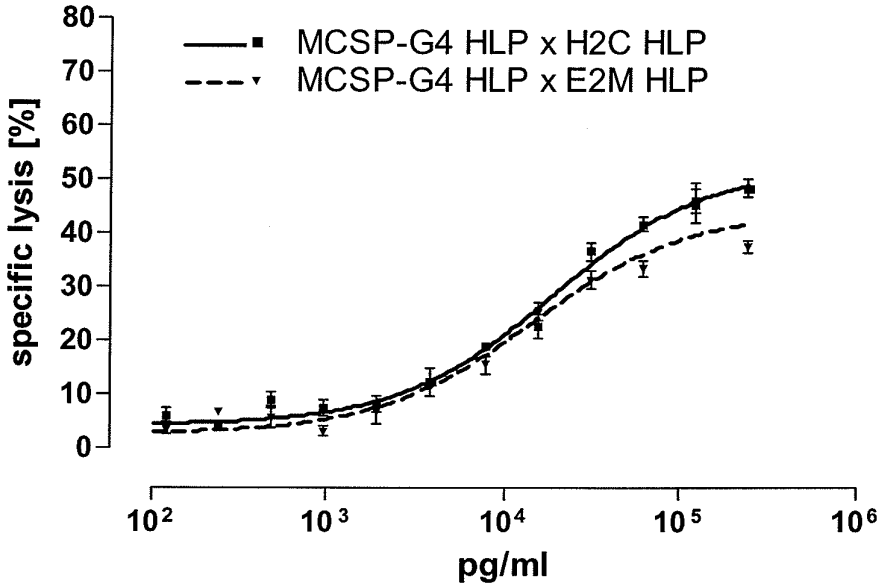


Figure 14

A)

Effector cells: macaque T cell line 4119 LnPx
Target cells: CHO transfected with cynomolgus MCSP D3



B)

Effector cells: macaque T cell line 4119 LnPx
Target cells: CHO transfected with cynomolgus MCSP D3

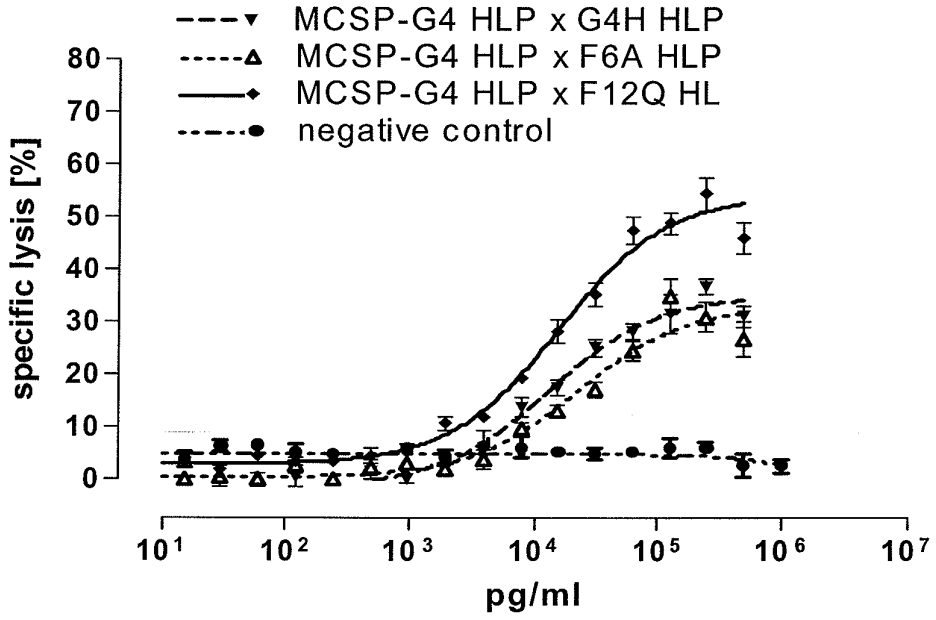
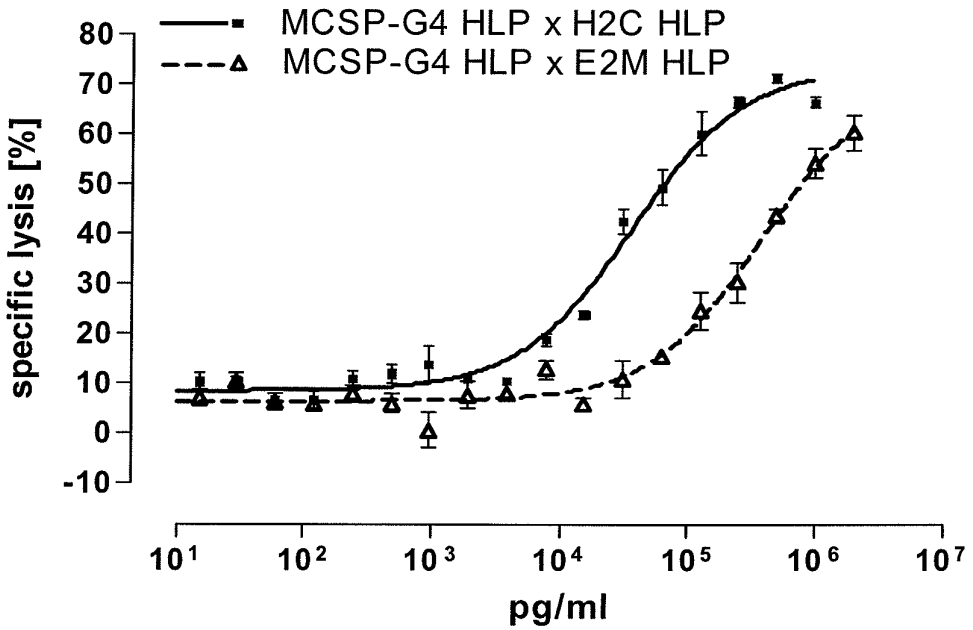


Figure 15

A)

Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3



B)

Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3

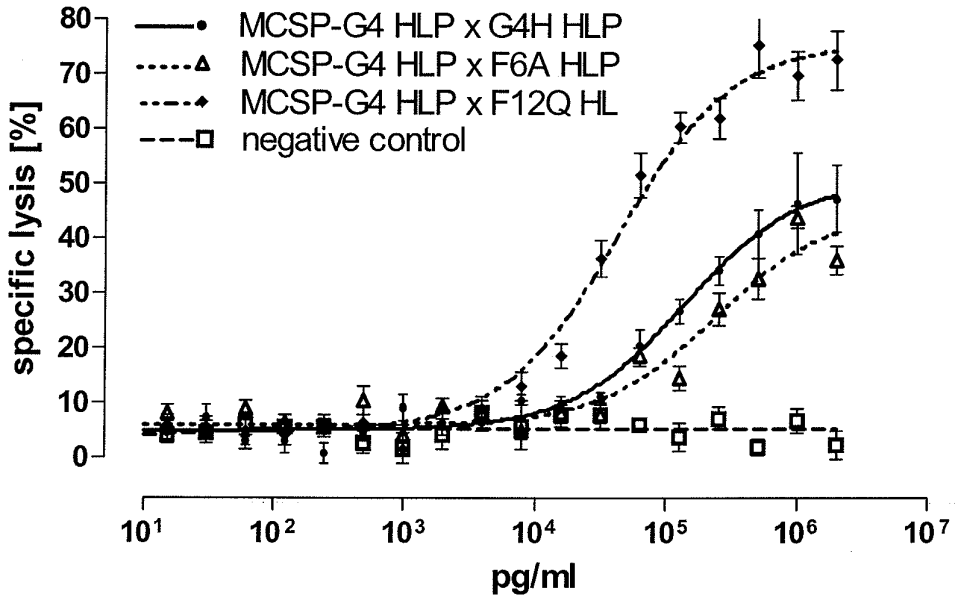
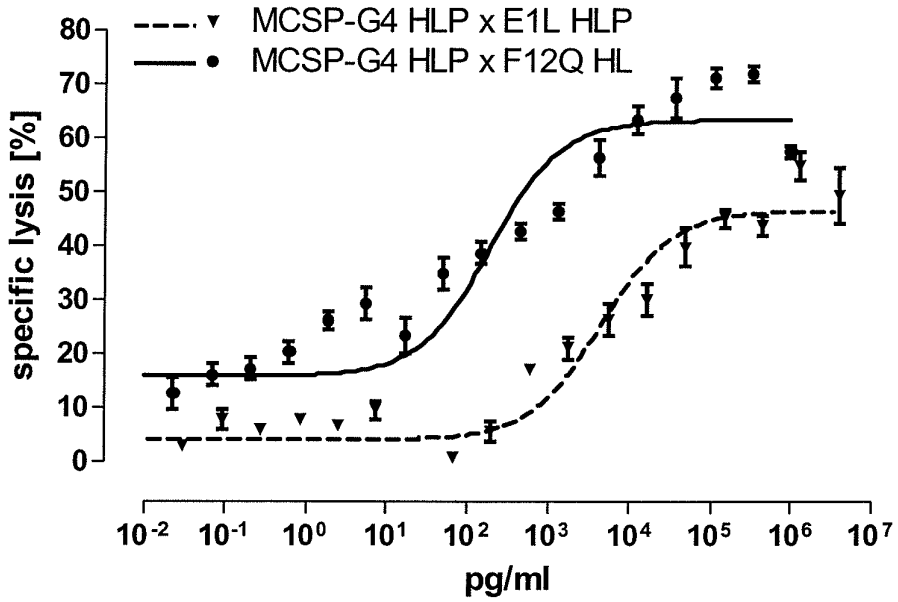


Figure 16

A)

Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3



B)

Effector cells: macaque T cell line 4119 LnPx
Target cells: CHO transfected with cynomolgus MCSP D

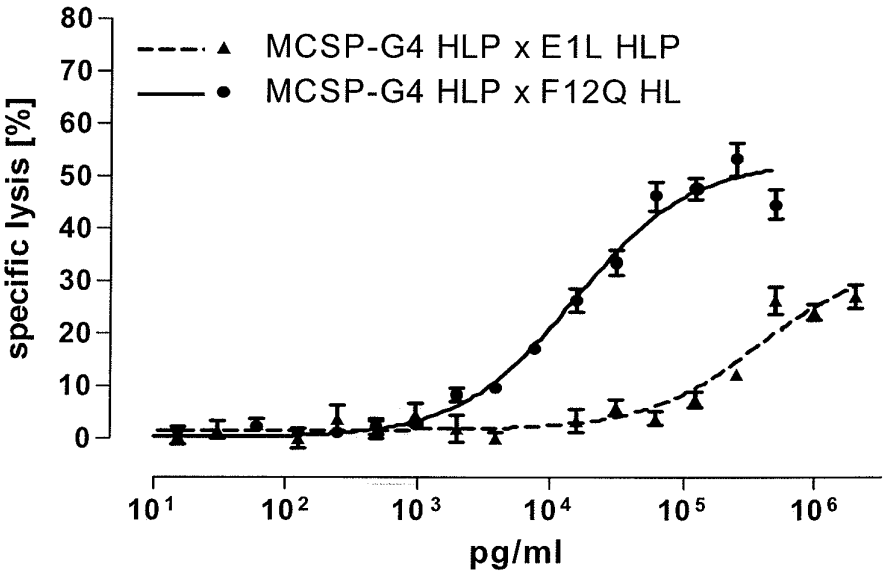
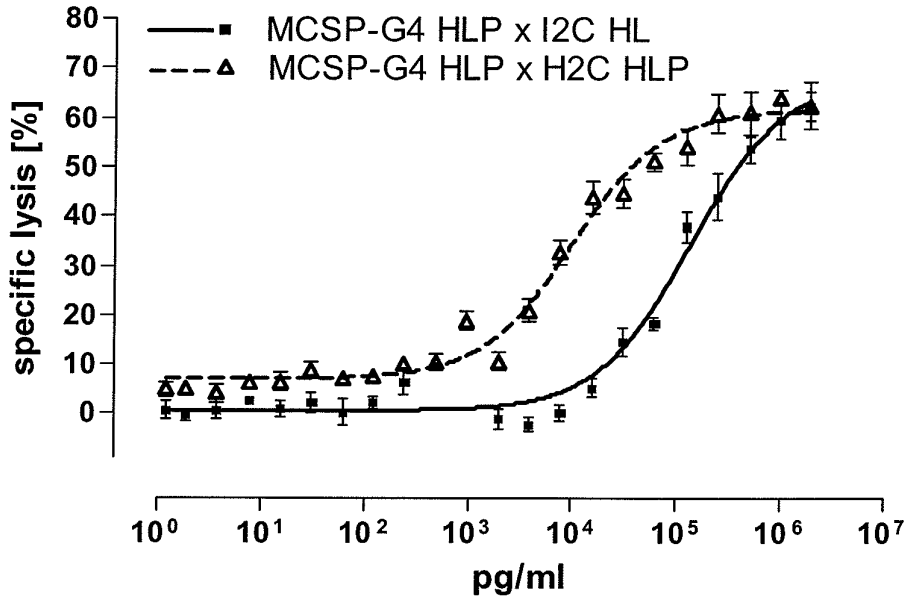


Figure 17

A)
Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3



B)

Effector cells: macaque T cell line 4119 LnPx
Target cells: CHO transfected with cynomolgus MCSP D3

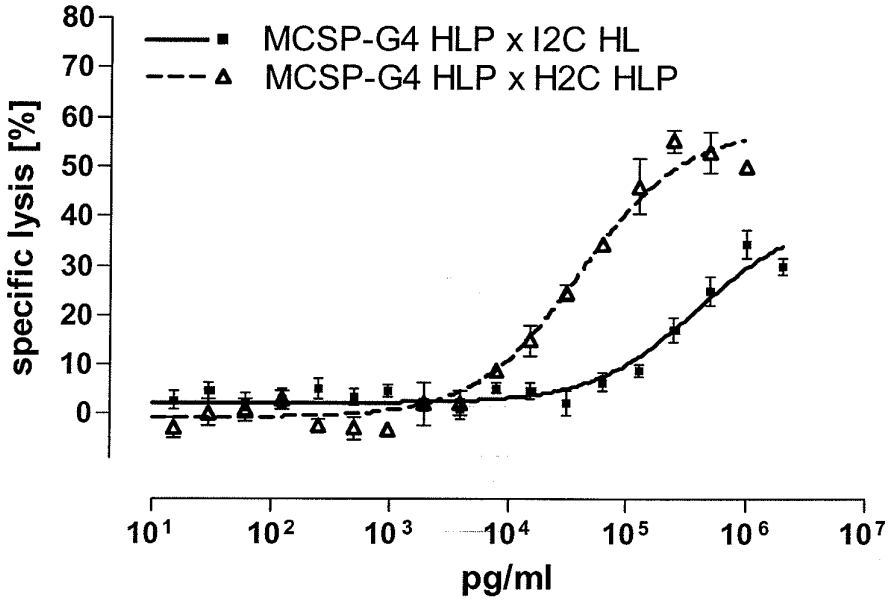


Figure 18 (1)

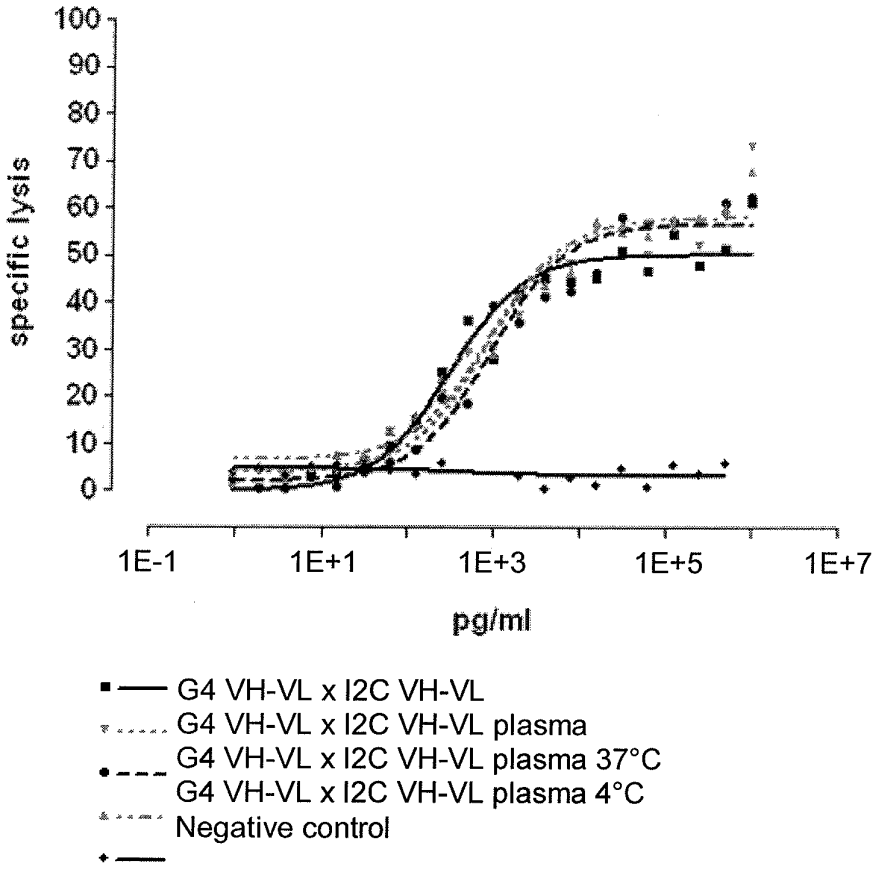

100
90
80
70
60
50
40
30
20
10
0
specific lysis
1E-1
1E+1
1E+3
1E+5
1E+7
pg/ml
G4 VH-VL x I2C VH-VL
G4 VH-VL x I2C VH-VL plasma
G4 VH-VL x I2C VH-VL plasma 37°C
G4 VH-VL x I2C VH-VL plasma 4°C
Negative control

Figure 18 (2)

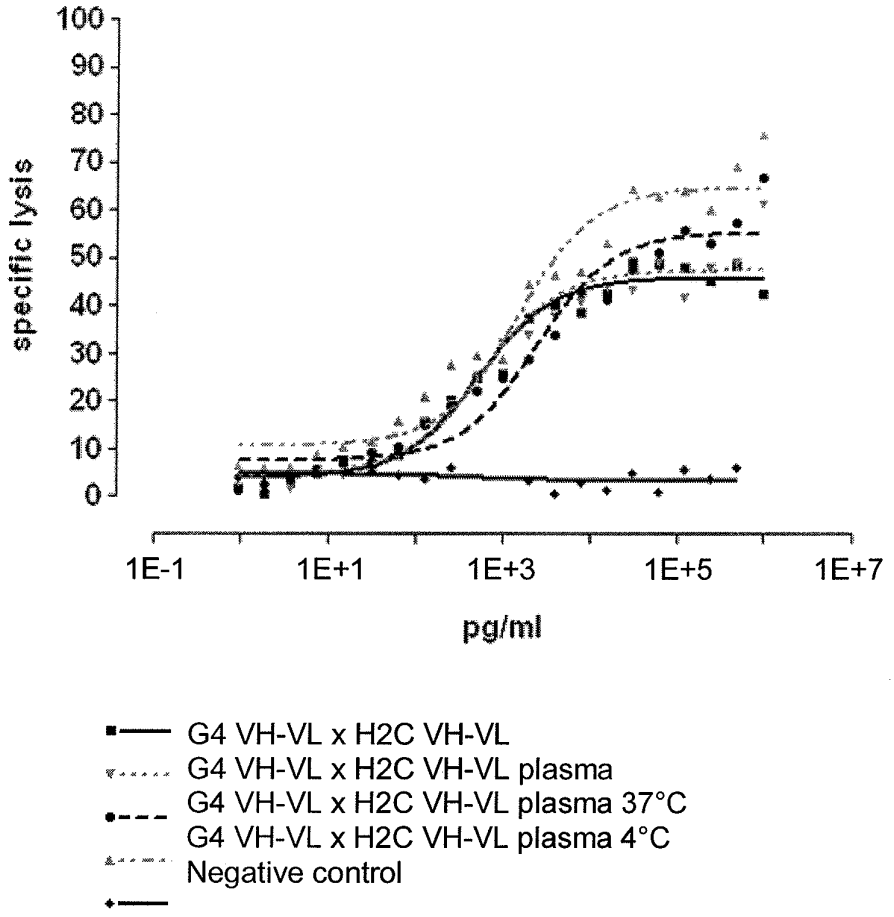

100
90
80
70
60
50
40
30
20
10
0
specific lysis
1E-1
1E+1
1E+3
1E+5
1E+7
pg/ml
G4 VH-VL x H2C VH-VL
G4 VH-VL x H2C VH-VL plasma
G4 VH-VL x H2C VH-VL plasma 37°C
G4 VH-VL x H2C VH-VL plasma 4°C
Negative control

Figure 18 (3)

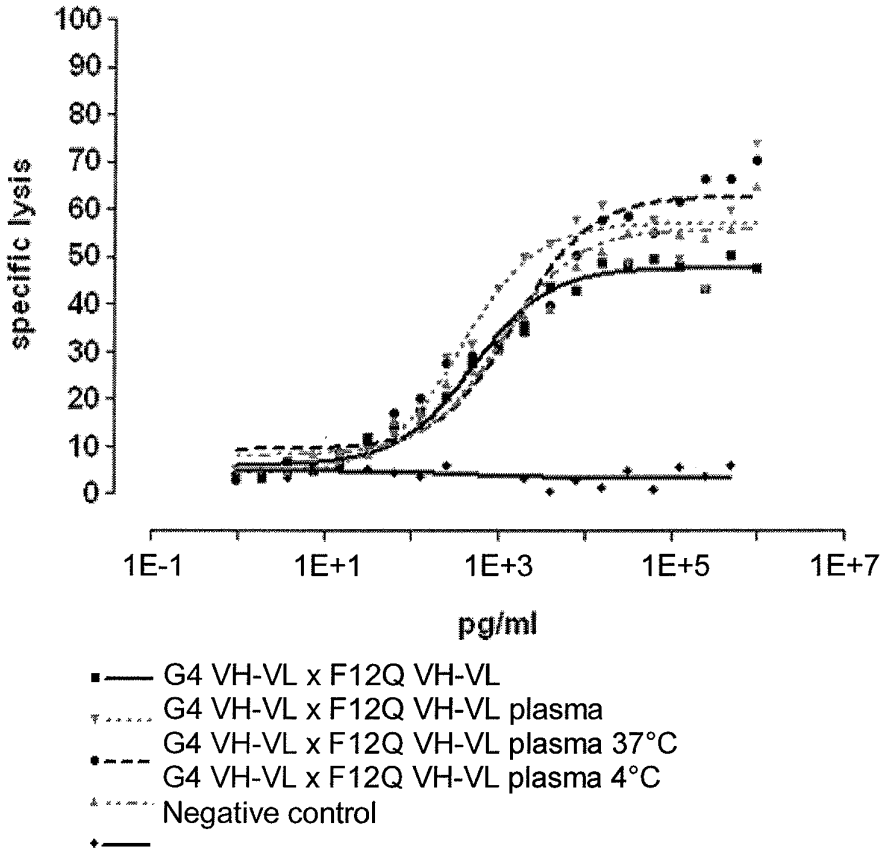

100
90
80
70
60
50
40
30
20
10
0
specific lysis
1E-1
1E+1
1E+3
1E+5
1E+7
pg/ml
G4 VH-VL x F12Q VH-VL
G4 VH-VL x F12Q VH-VL plasma
G4 VH-VL x F12Q VH-VL plasma 37°C
G4 VH-VL x F12Q VH-VL plasma 4°C
Negative control

Figure 19a

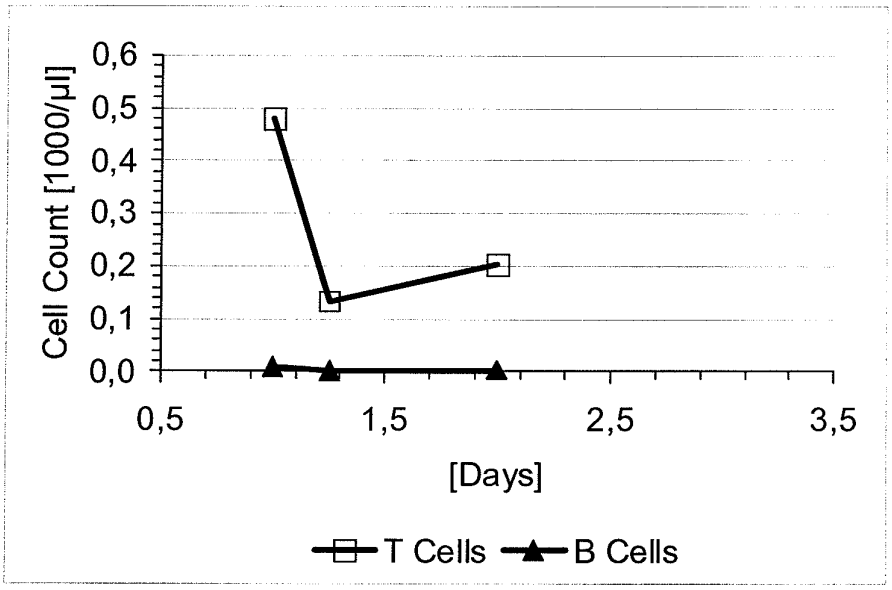


Figure 19b

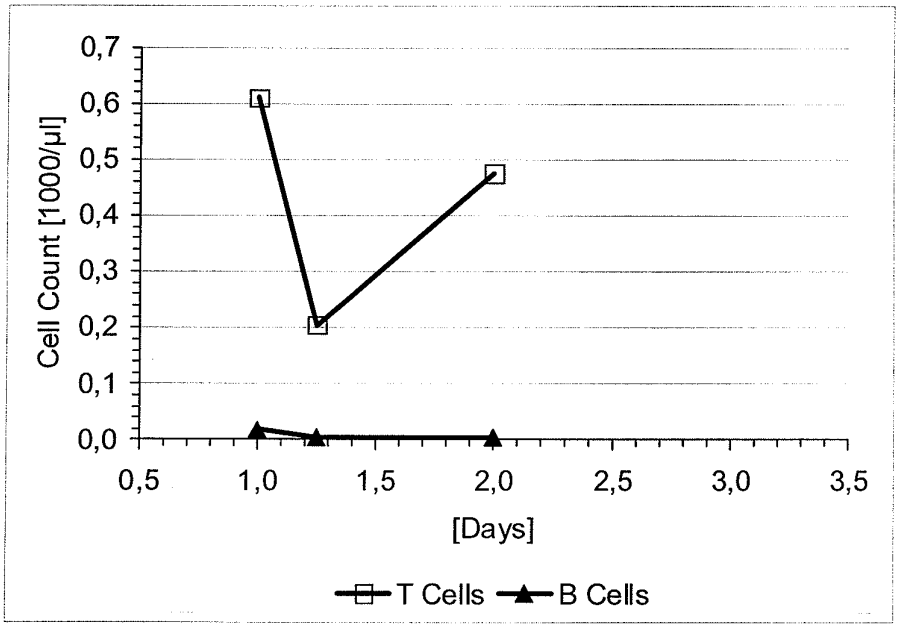


Figure 19c

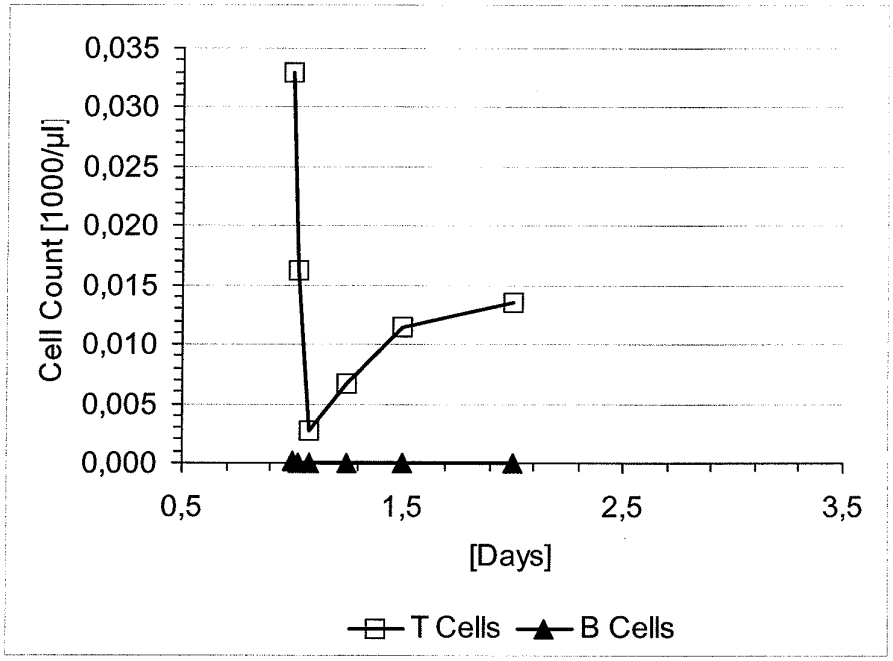


Figure 19d

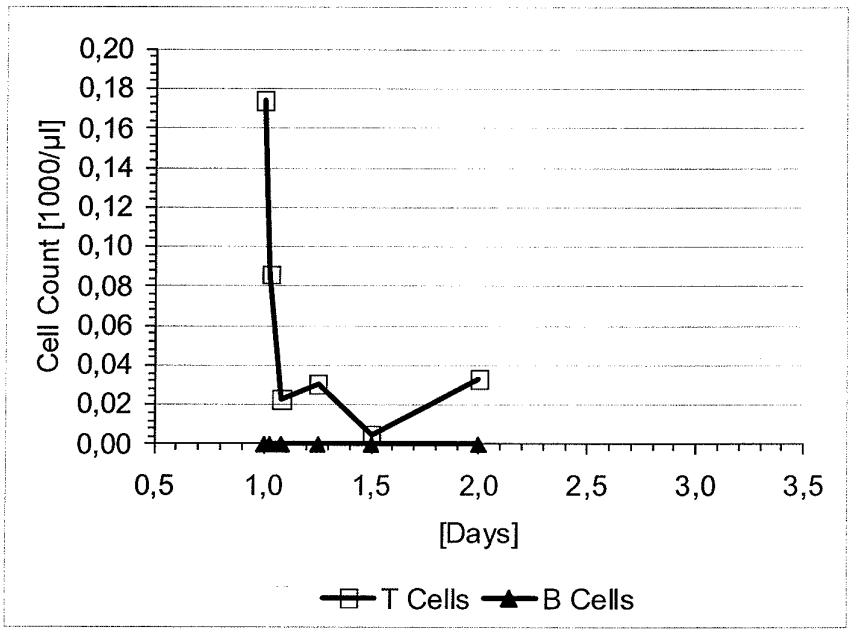


Figure 19e

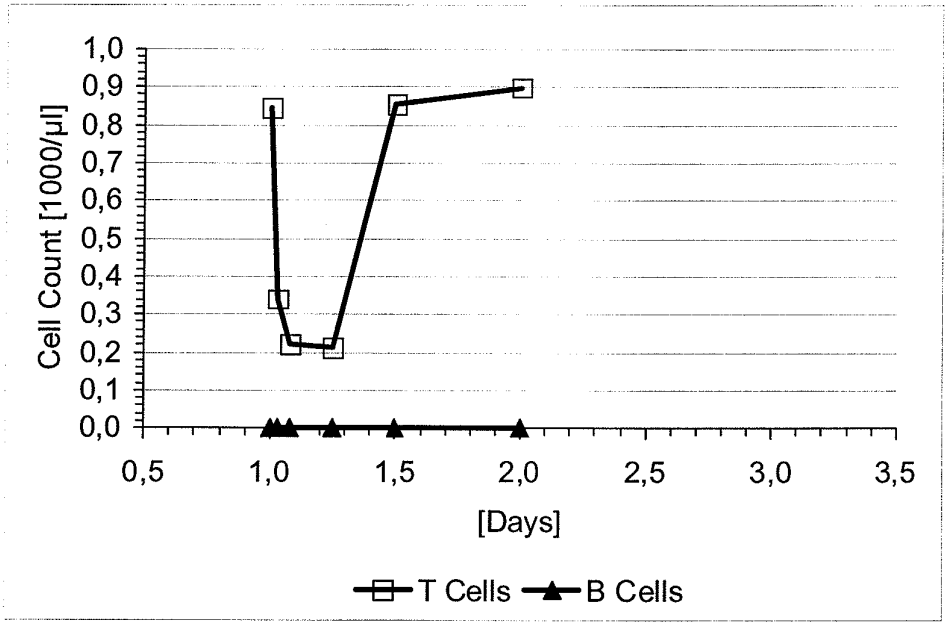


Figure 19f

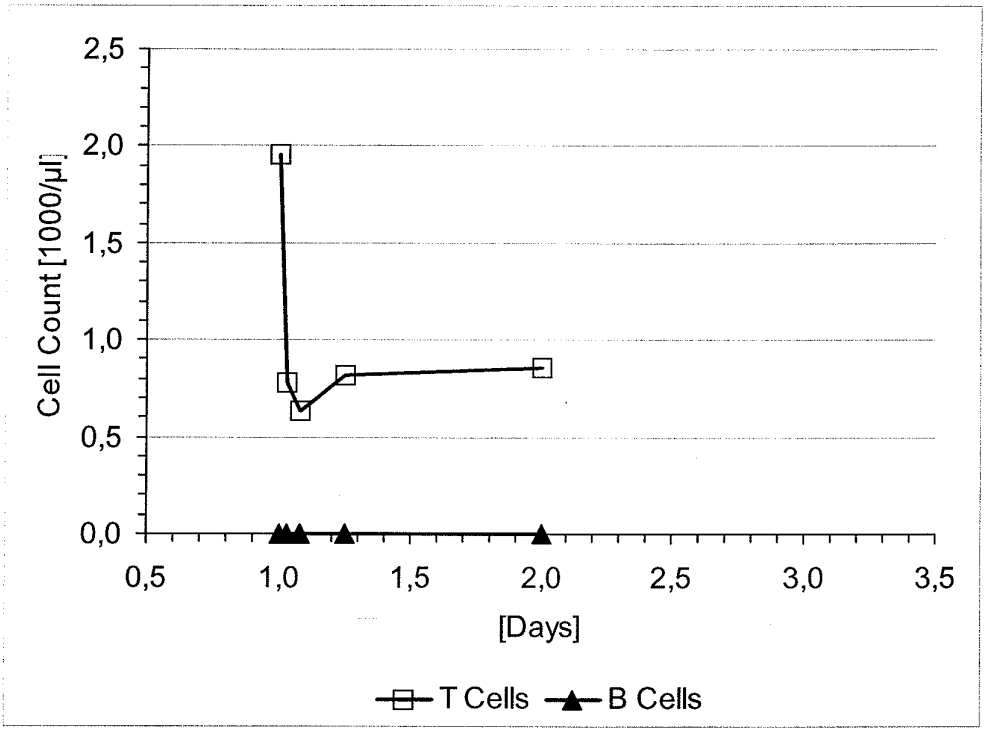
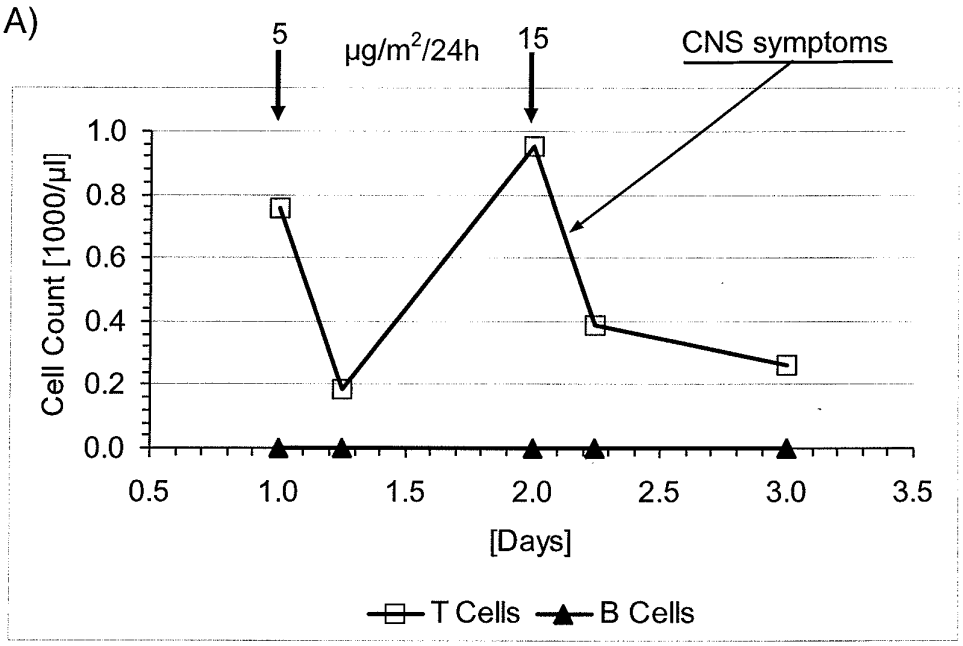
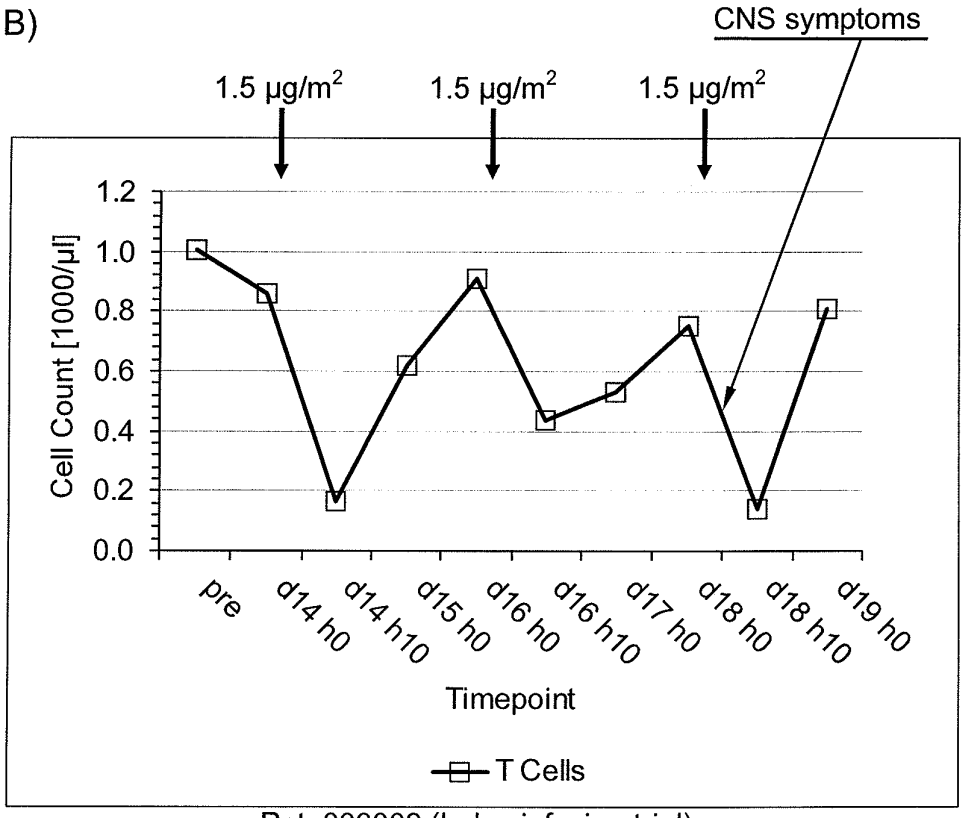


Figure 20



Pat. 19 (continuous infusion: 5 µg/m²/24h for 1 day followed by 15 µg/m²/24h CD19xCD3 maintenance)



Pat. 003002 (bolus infusion trial)

Figure 21

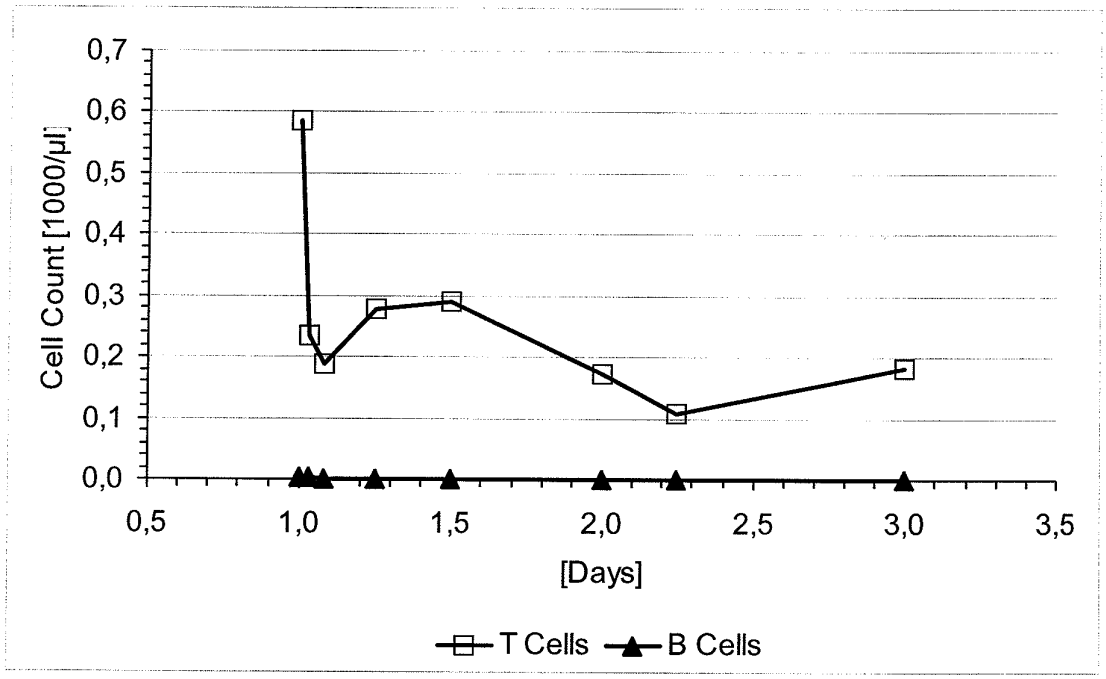

Pat. 20 (15 µg/m²/24h CD19xCD3)
Ramp initiation
Cell Count [1000/µl]
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0,0
0,5
1,0
1,5
2,0
2,5
3,0
3,5
[Days]
T Cells
B Cells

Figure 22

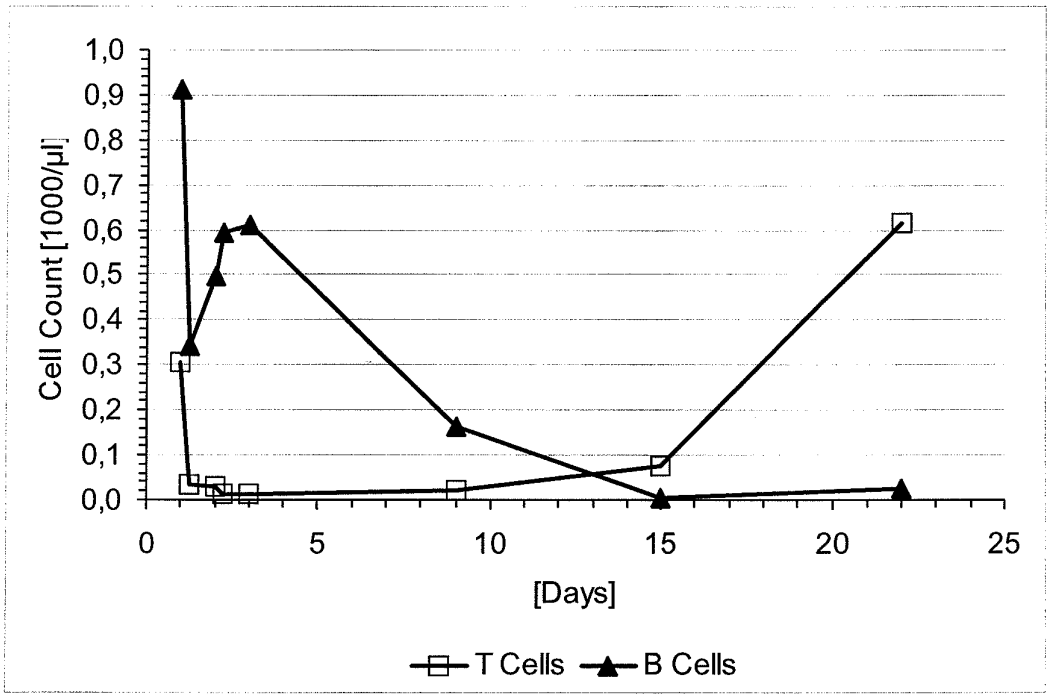
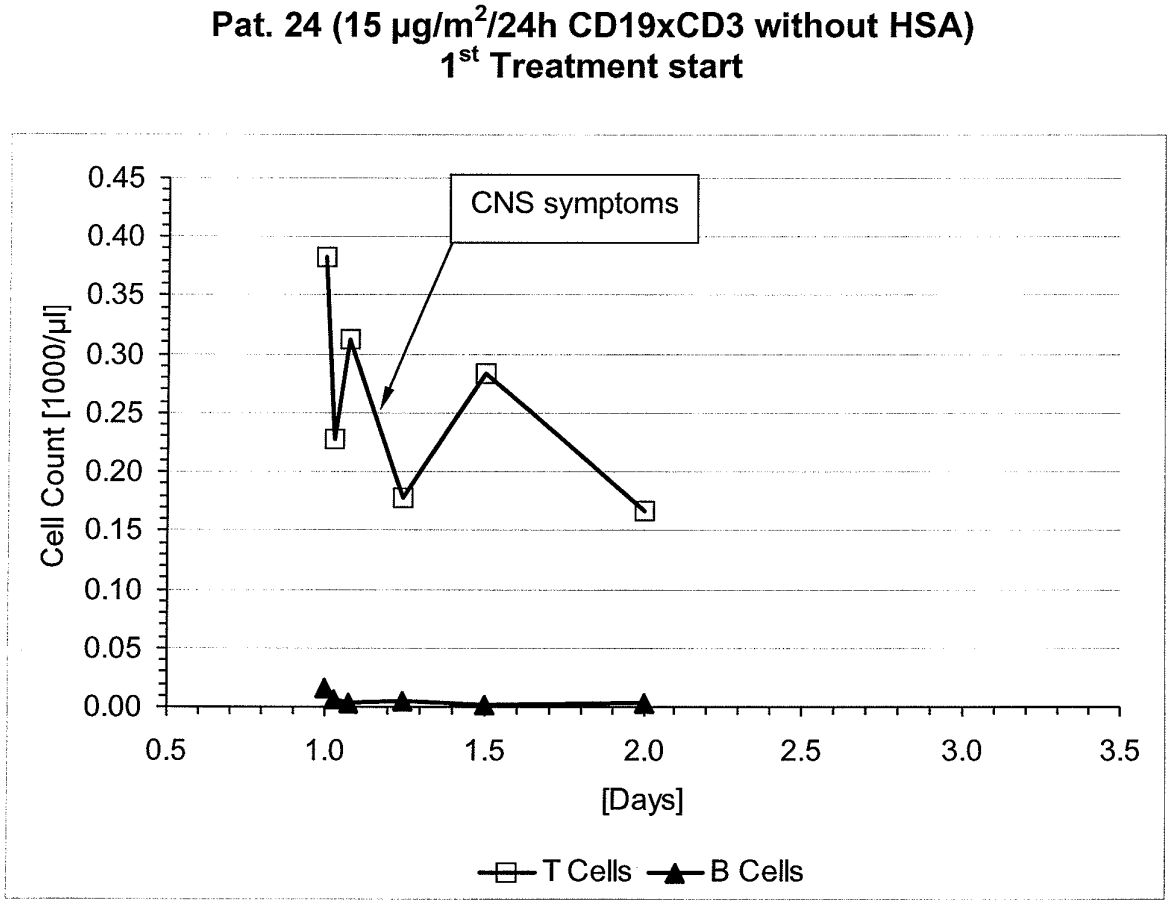
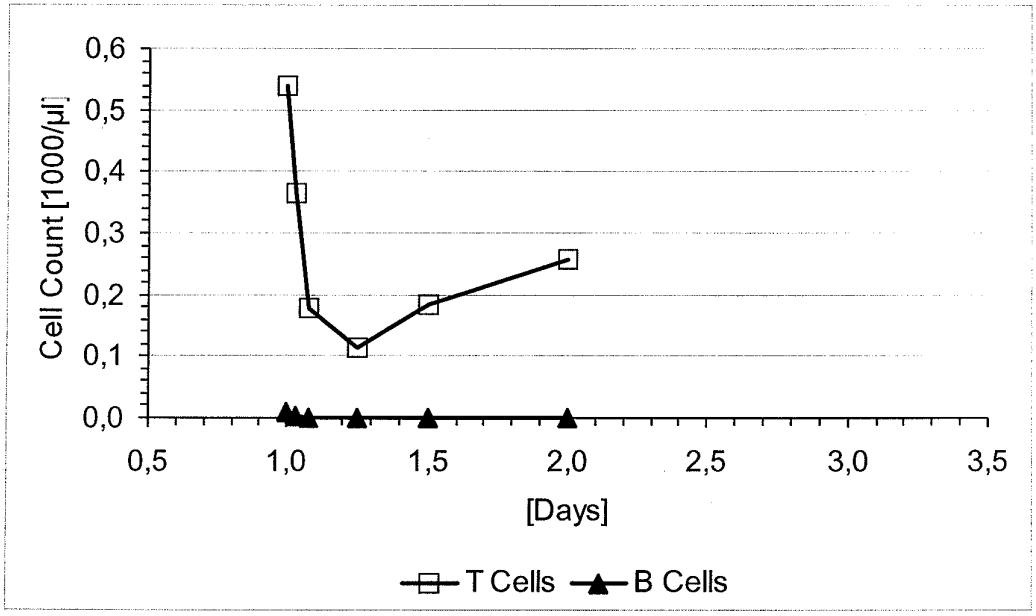

Pat. 13 (15 µg/m²/24h CD19xCD3)
Cell Count [1000/µl]
1,0
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0,0
0
5
10
15
20
25
[Days]
T Cells
B Cells

Figure 23


Pat. 24 (15 µg/m²/24h CD19xCD3 without HSA)
1st Treatment start
CNS symptoms
Cell Count [1000/µl]
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.5
1.0
1.5
2.0
2.5
3.0
3.5
[Days]
T Cells
B Cells


Pat. 24 (15 µg/m²/24h CD19xCD3 with HSA)
2nd Treatment start
Cell Count [1000/µl]
0,6
0,5
0,4
0,3
0,2
0,1
0,0
0,5
1,0
1,5
2,0
2,5
3,0
3,5
[Days]
T Cells
B Cells

Model of T cell adhesion to endothelial cells induced by monovalent binding to context dependent CD3 epitopes

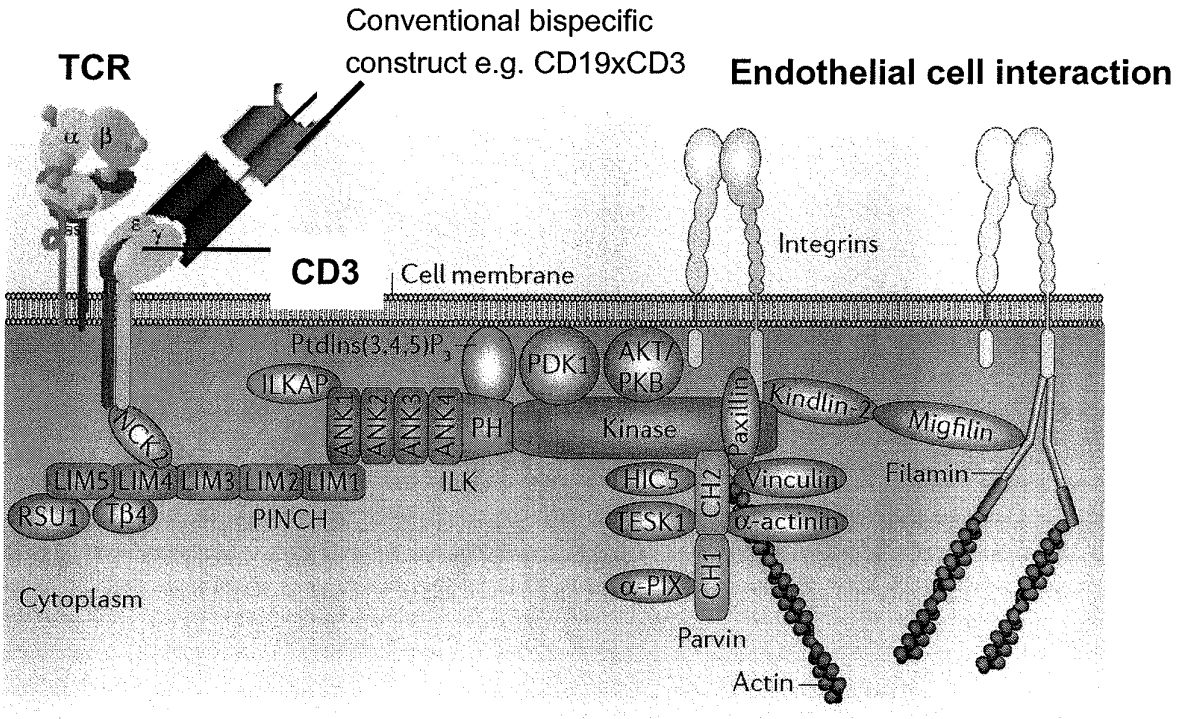


Figure 24

Figure 25

Cytotoxic activity of cynomolgus test material CD33-AF5 VH-VL x I2C VH-VL

Target cells: cyno CD33 CHO; effector cells: 4119 LnPx
E:T-ratio 10:1; assay duration: 18 h
EC50: 2.7 ng/ml

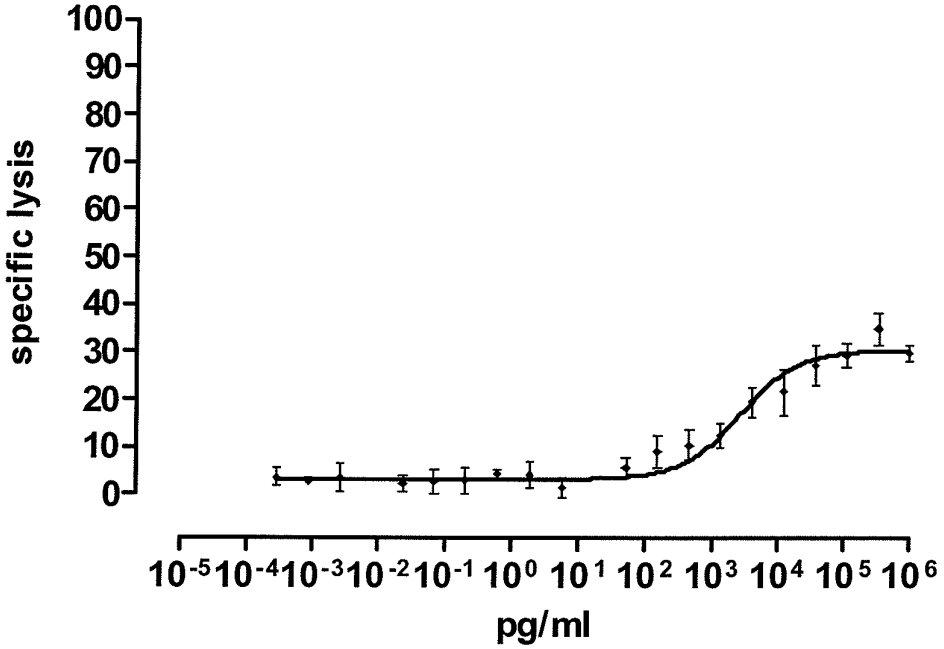


Figure 26 A

Dose- and time-dependent depletion of blood CD33-monocytes through CD33-AF5 VH-VL x I2C VH-VL

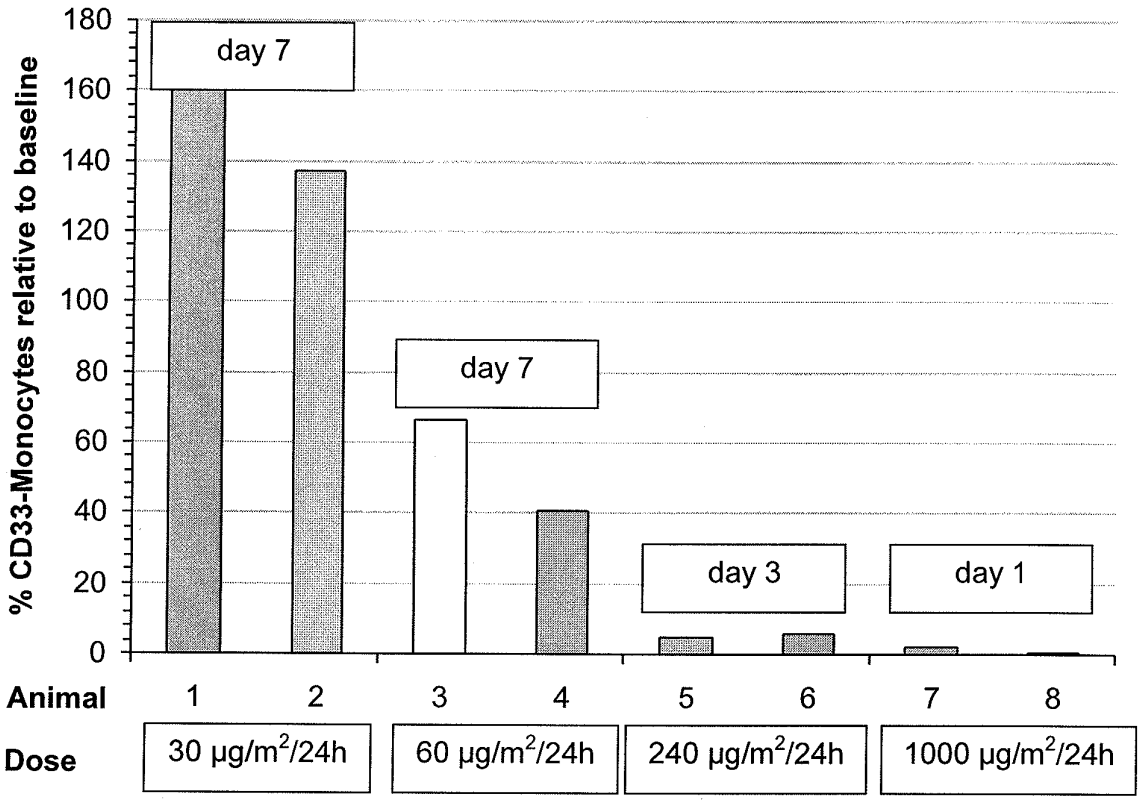


Figure 26 B (1)

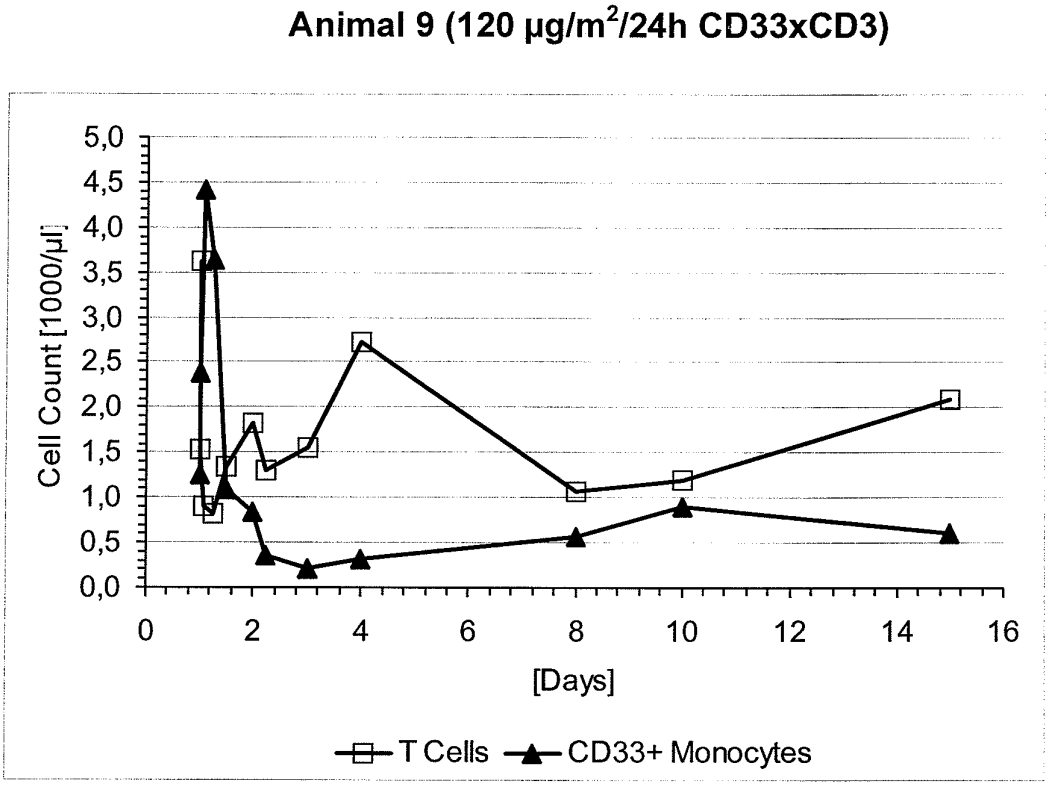


Figure 26 B (2)

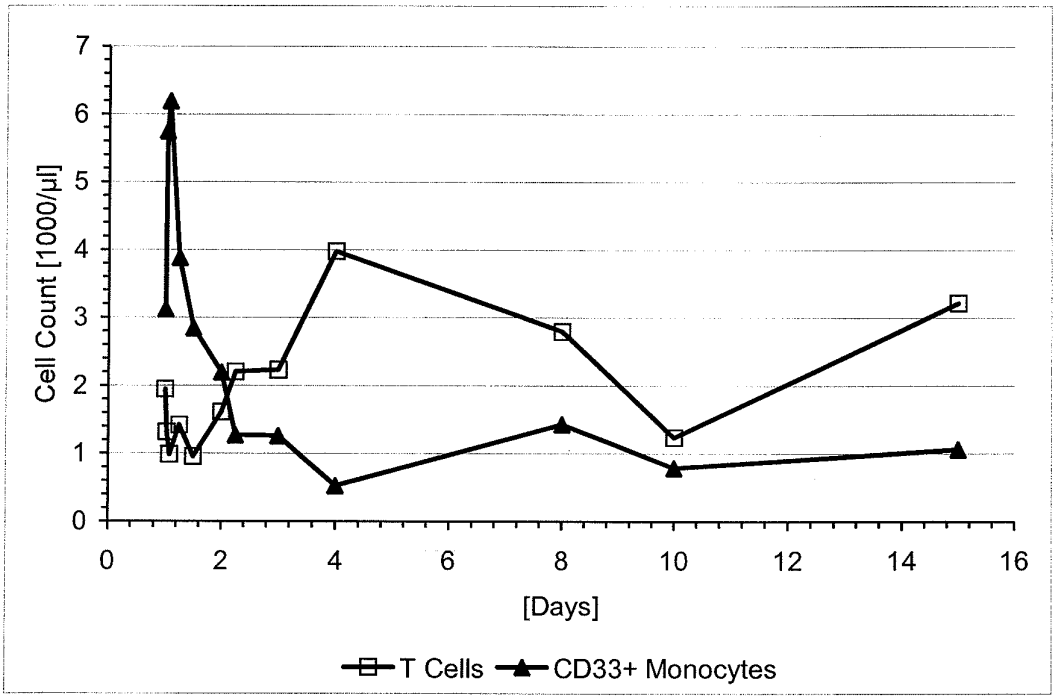


Figure 27

Cytotoxic activity of cynomolgus test material MCSP-G4 VH-VL x I2C VH-VL

Target cells: cyno MCSP CHO; effector cells: 4119 LnPx
E:T-ratio 10:1; assay duration: 18 h
EC50: 1.9 ng/ml

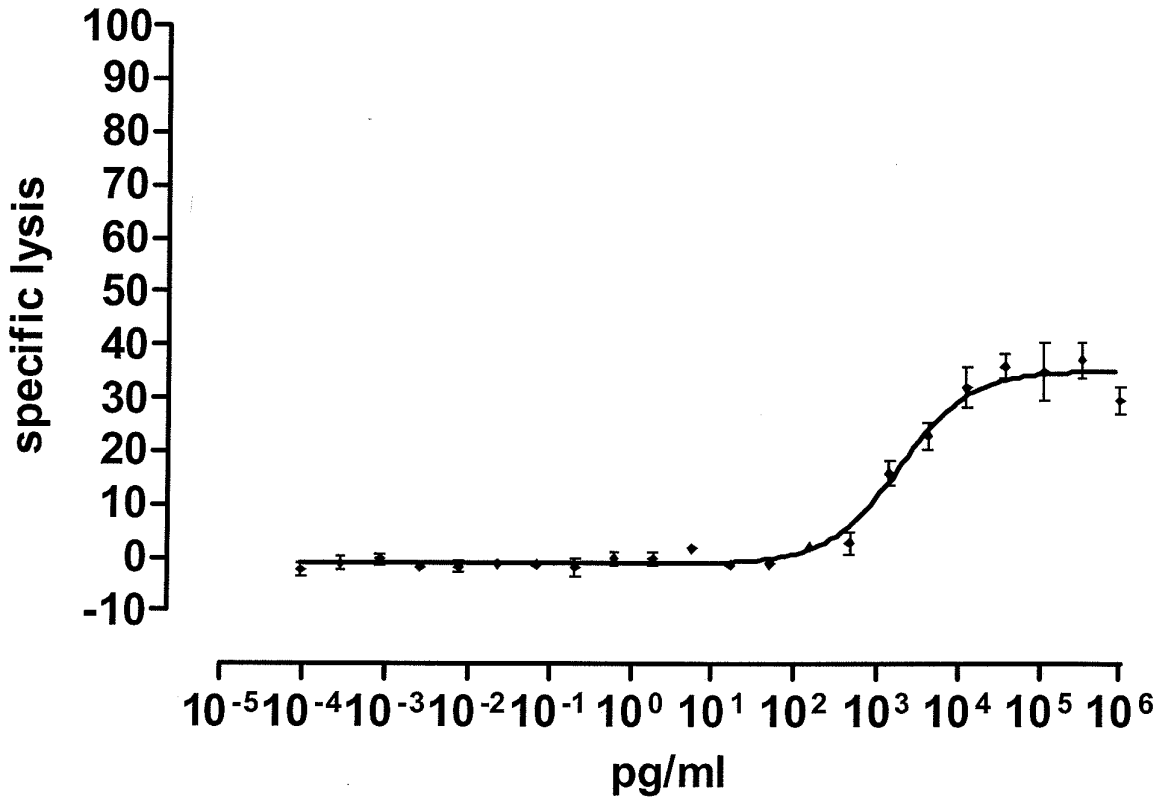
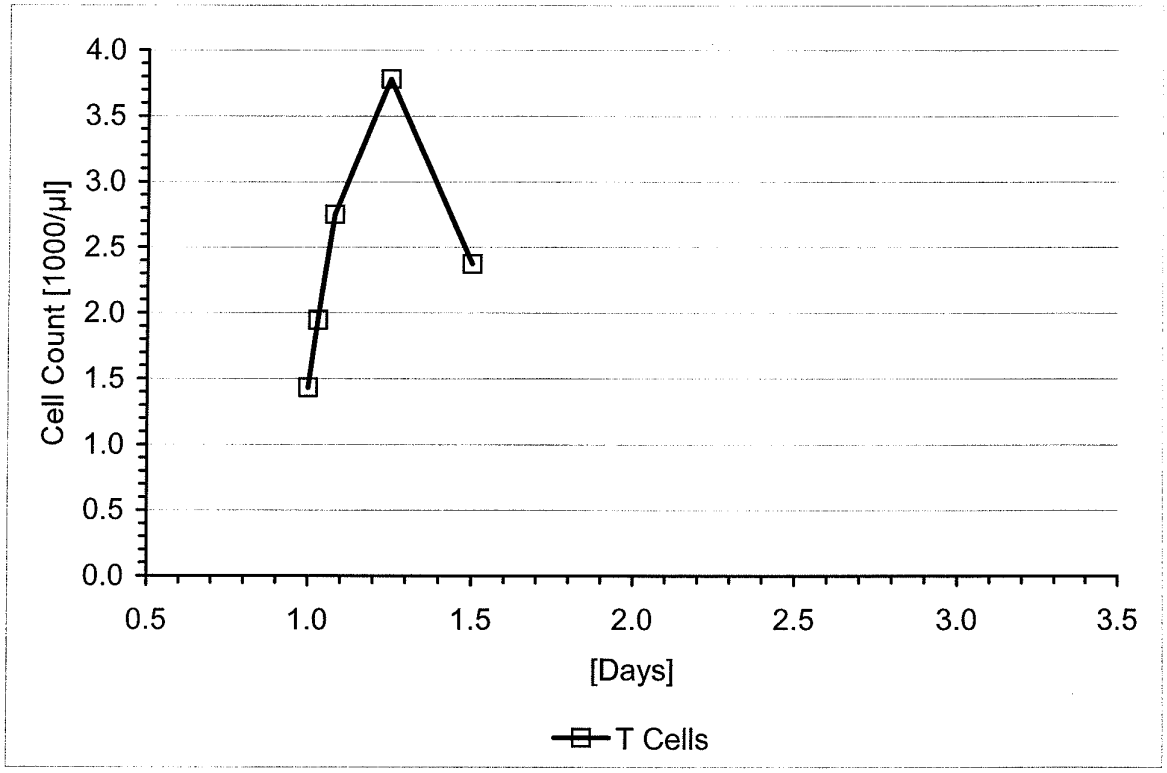


Figure 28 (1)

Animal 1 (60 µg/m²/24h MCSP-G4 VH-VL x I2C VH-VL)



Animal 2 (240 µg/m²/24h MCSP-G4 VH-VL x I2C VH-VL)

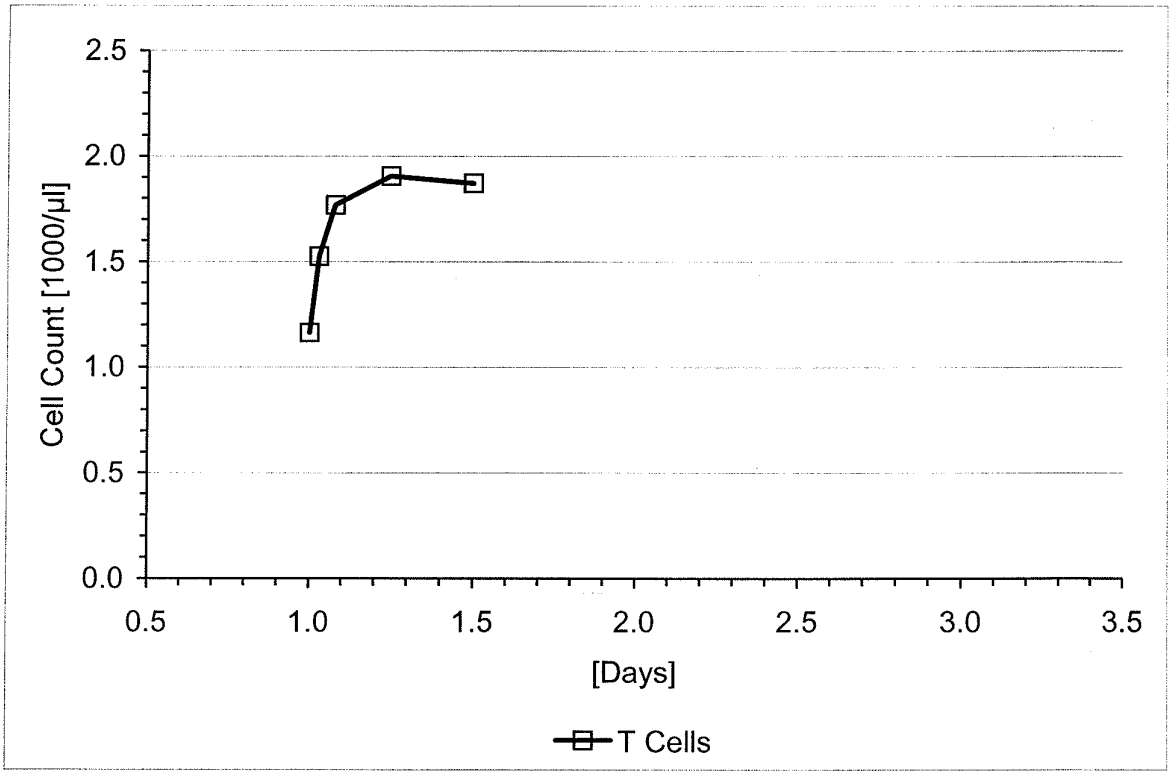
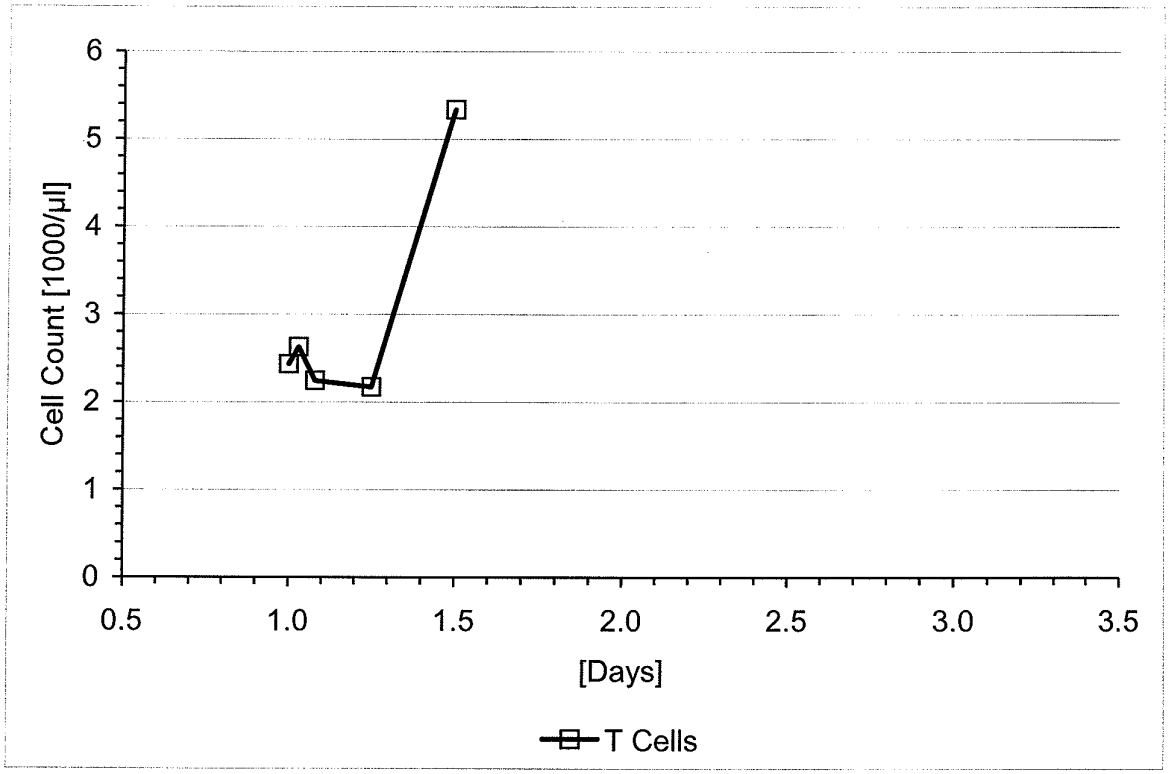
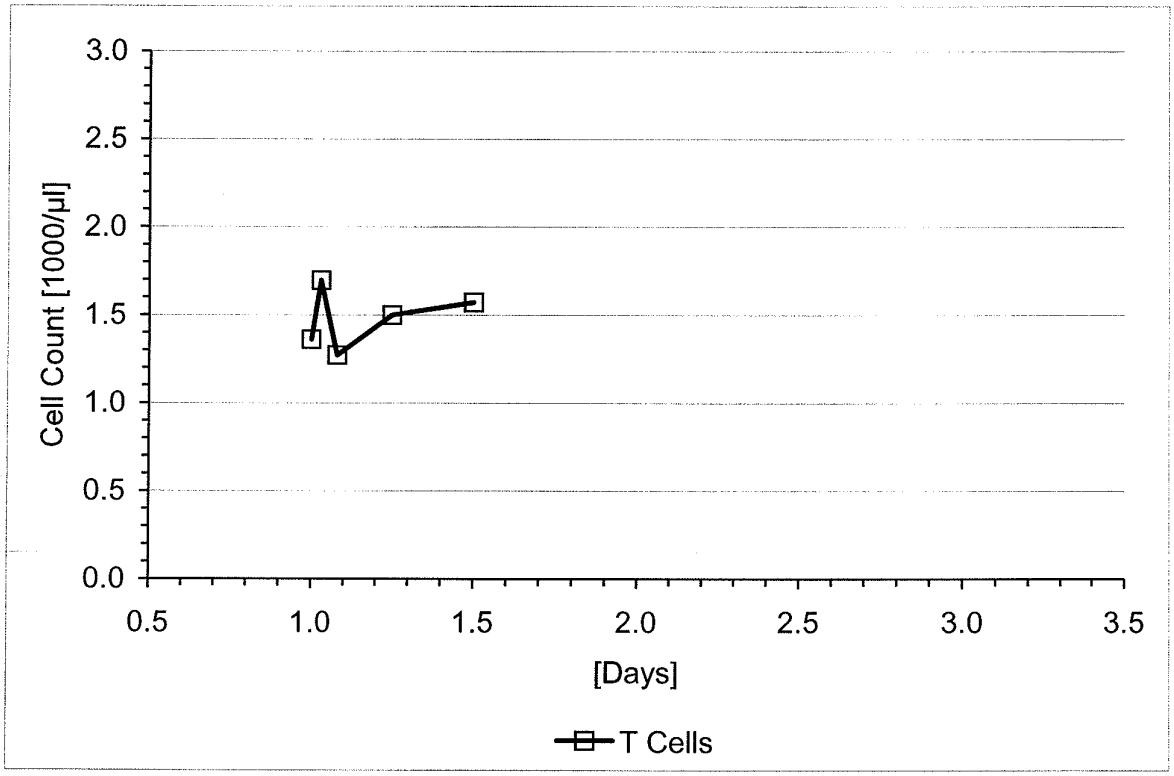


Figure 28 (2)

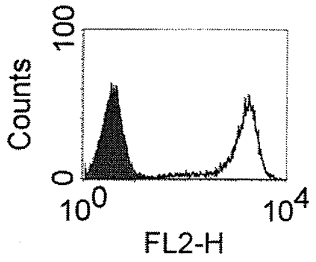
Animal 3 (240 µg/m^2/24h MCSP-G4 VH-VL x I2C VH-VL)



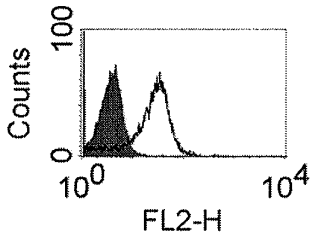
Animal 4 (1000 µg/m^2/24h MCSP-G4 VH-VL x I2C VH-VL)



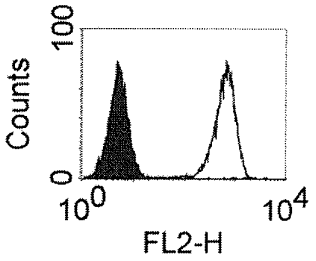
Human CD33 transfected CHO
AH11HLxF12QHL



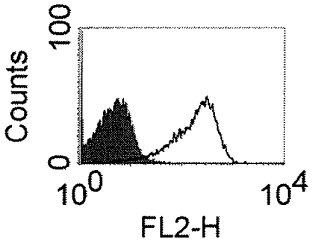
HPB-ALL
AH11HLxF12QHL



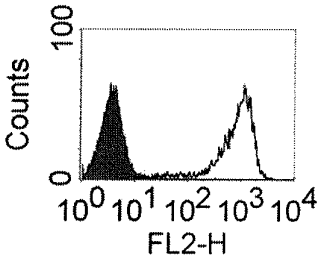
Macaque CD33 transfected CHO
AH11HLxF12QHL



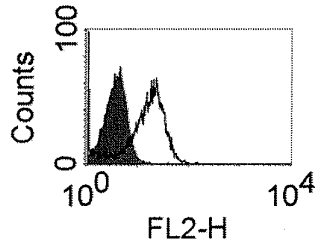
Macaque PBMC
AH11HLxF12QHL



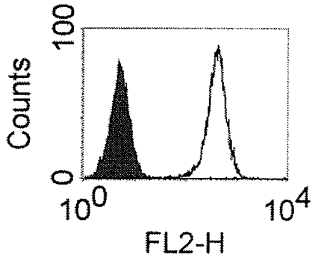
Human CD33 transfected CHO
AH11HLxH2CHL



HPB-ALL
AH11HLxH2CHL



Macaque CD33 transfected CHO
AH11HLxH2CHL



Macaque PBMC
AH11HLxH2CHL

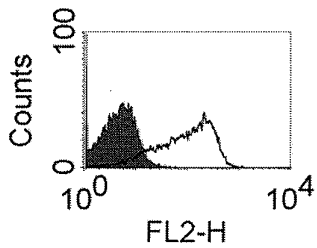
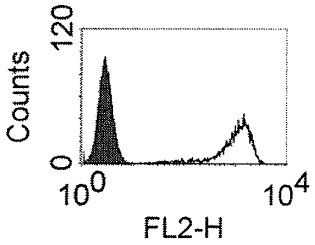
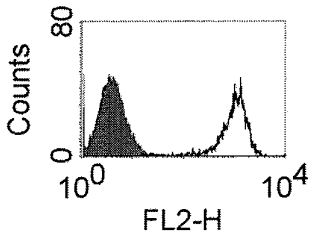


Figure 29(1)

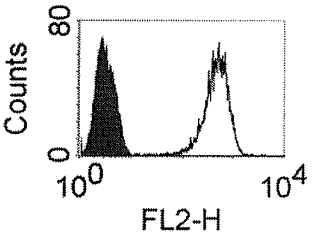
Human CD33 transfected CHO
AH11HLxI2CHL



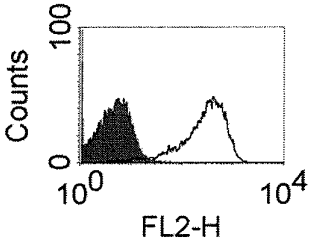
HPB-ALL
AH11HLxI2CHL



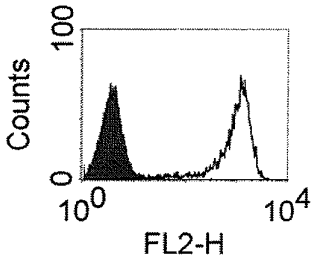
Macaque CD33 transfected CHO
AH11HLxI2CHL



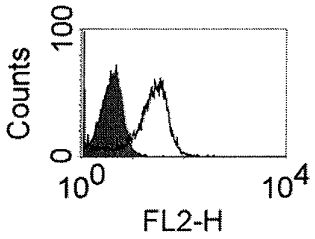
Macaque PBMC
AH11HLxI2CHL



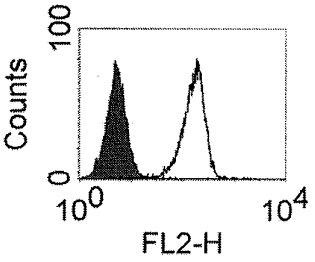
Human CD33 transfected CHO
AH3HLxF12QHL



HPB-ALL
AH3HLxF12QHL



Macaque CD33 transfected CHO
AH3HLxF12QHL



Macaque PBMC
AH3HLxF12QHL

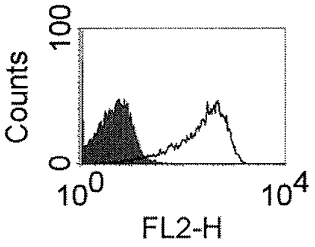
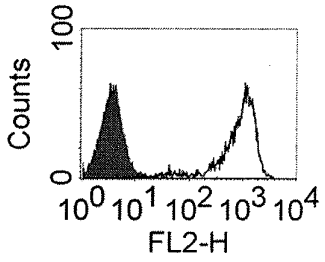
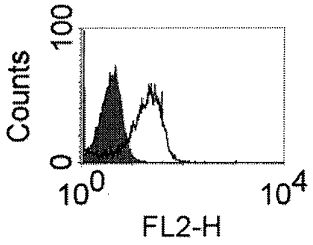


Figure 29(2)

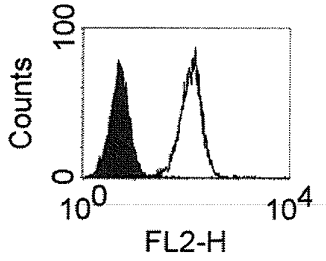
Human CD33 transfected CHO
AH3HLxH2CHL



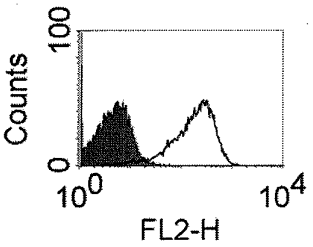
HPB-ALL
AH3HLxH2CHL



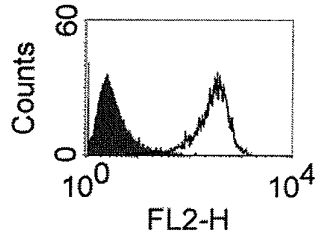
Macaque CD33 transfected CHO
AH3HLxH2CHL



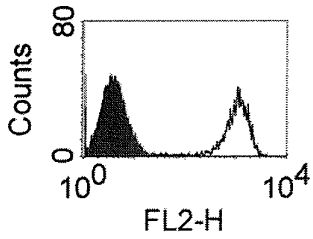
Macaque PBMC
AH3HLxH2CHL



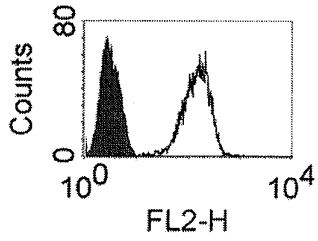
Human CD33 transfected CHO
AH3HLxI2CHL



HPB-ALL
AH3HLxI2CHL



Macaque CD33 transfected CHO
AH3HLxI2CHL



Macaque PBMC
AH3HLxI2CHL

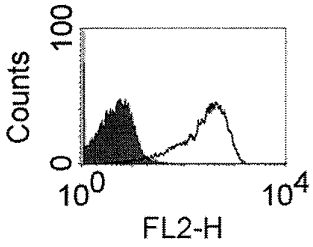
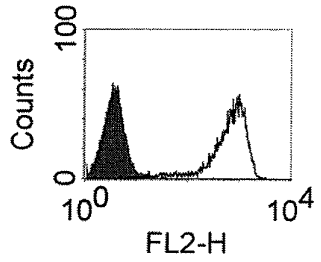
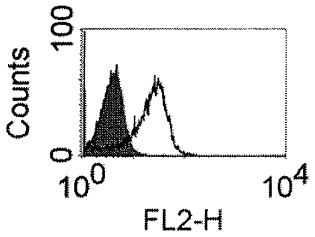


Figure 29(3)

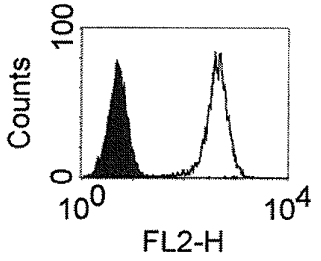
Human CD33 transfected CHO
AC8HLxF12QHL



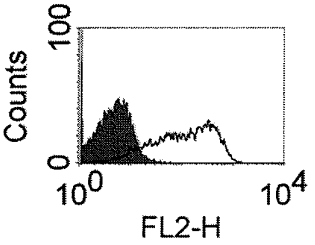
HPB-ALL
AC8HLxF12QHL



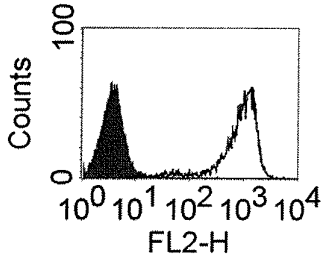
Macaque CD33 transfected CHO
AC8HLxF12QHL



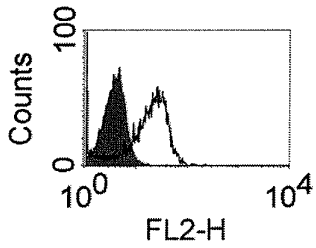
Macaque PBMC
AC8HLxF12QHL



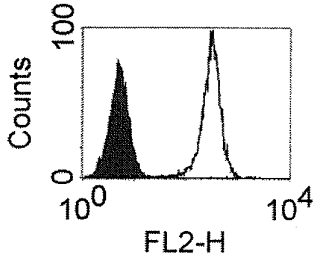
Human CD33 transfected CHO
AC8HLxH2CHL



HPB-ALL
AC8HLxH2CHL



Macaque CD33 transfected CHO
AC8HLxH2CHL



Macaque PBMC
AC8HLxH2CHL

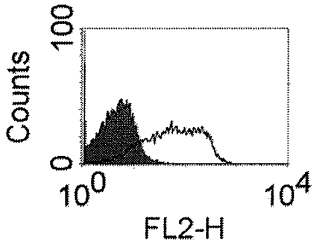
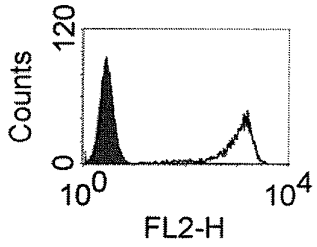
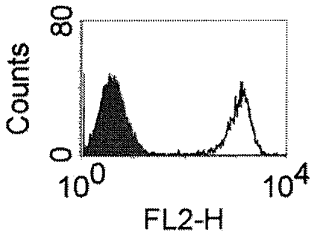


Figure 29(4)

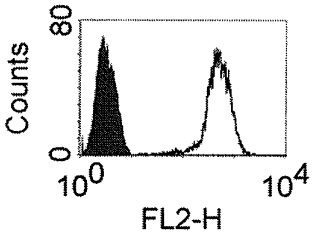
Human CD33 transfected CHO
AC8HLxI2CHL



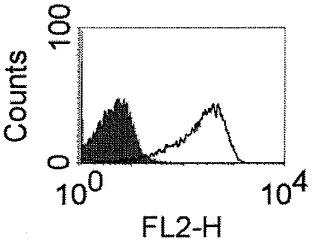
HPB-ALL
AC8HLxI2CHL



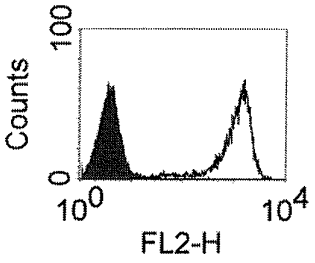
Macaque CD33 transfected CHO
AC8HLxI2CHL



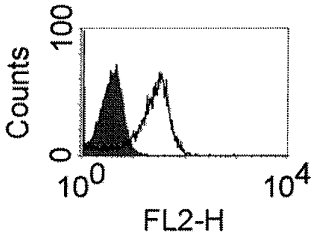
Macaque PBMC
AC8HLxI2CHL



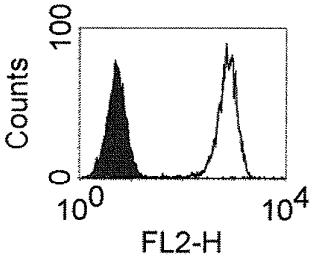
Human CD33 transfected CHO
AF5HLxF12QHL



HPB-ALL
AF5HLxF12QHL



Macaque CD33 transfected CHO
AF5HLxF12QHL



Macaque PBMC
AF5HLxF12QHL

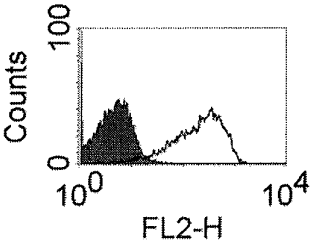
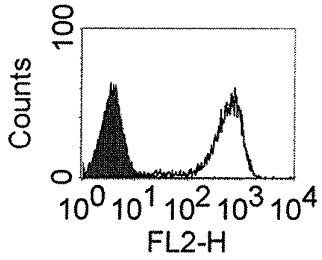


Figure 29(5)

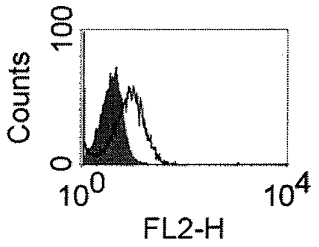
Human CD33 transfected CHO

AF5HLxH2CHL



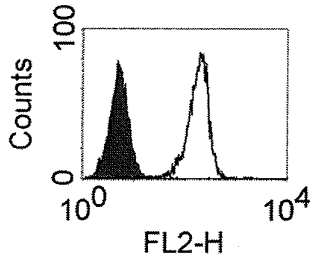
HPB-ALL

AF5HLxH2CHL



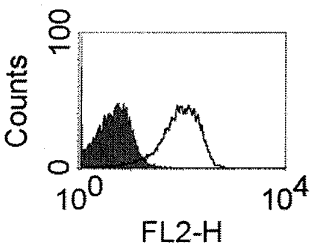
Macaque CD33 transfected CHO

AF5HLxH2CHL



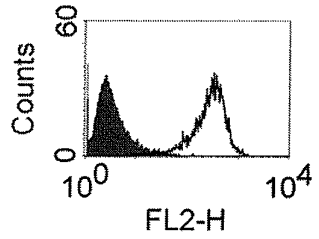
Macaque PBMC

AF5HLxH2CHL



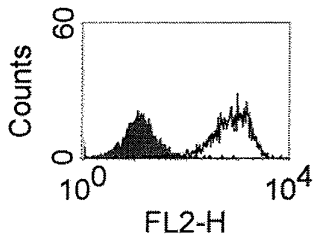
Human CD33 transfected CHO

AF5HLxI2CHL



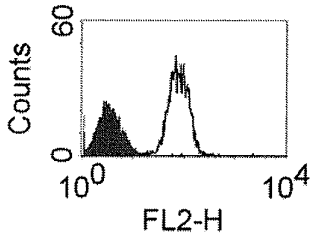
HPB-ALL

AF5HLxI2CHL



Macaque CD33 transfected CHO

AF5HLxI2CHL



Macaque PBMC

AF5HLxI2CHL

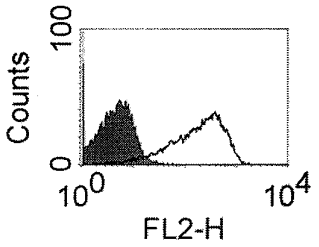
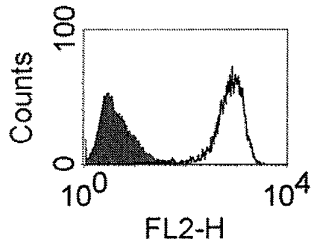


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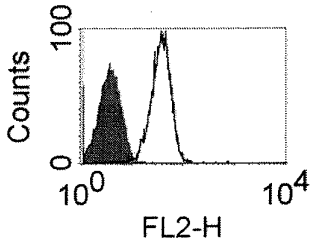
Human CD33 transfected CHO

B10HLxF12QHL



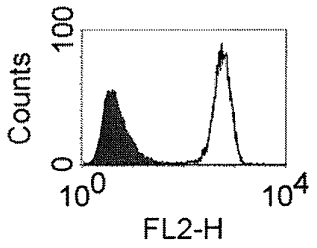
HPB-ALL

B10HLxF12QHL



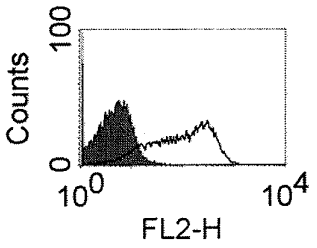
Macaque CD33 transfected CHO

B10HLxF12QHL



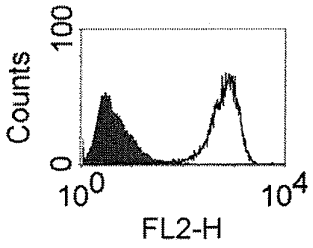
Macaque PBMC

B10HLxF12QHL



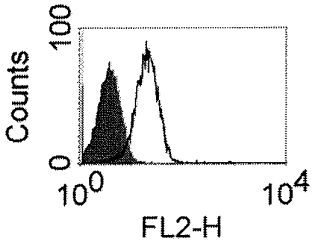
Human CD33 transfected CHO

B10HLxH2CHL



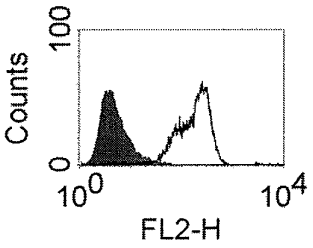
HPB-ALL

B10HLxH2CHL



Macaque CD33 transfected CHO

B10HLxH2CHL



Macaque PBMC

B10HLxH2CHL

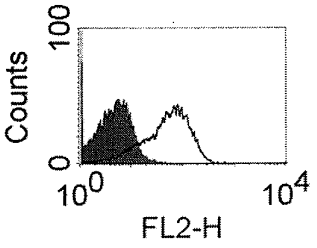
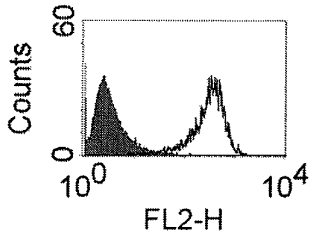


Figure 29(7)

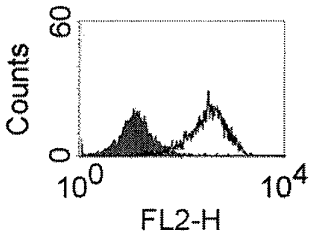
Human CD33 transfected CHO

B10HLxI2CHL



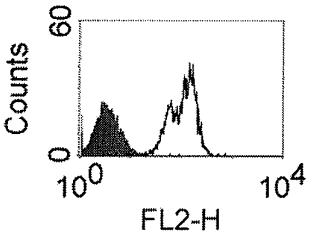
HPB-ALL

B10HLxI2CHL



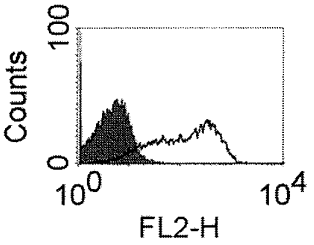
Macaque CD33 transfected CHO

B10HLxI2CHL



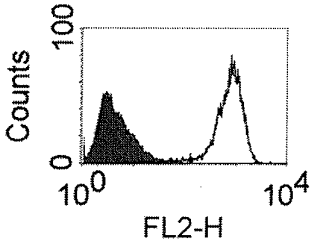
Macaque PBMC

B10HLxI2CHL



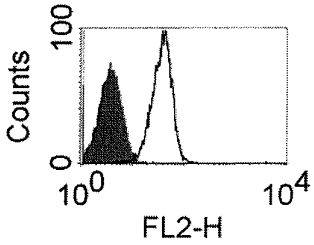
Human CD33 transfected CHO

B3HLxF12QHL



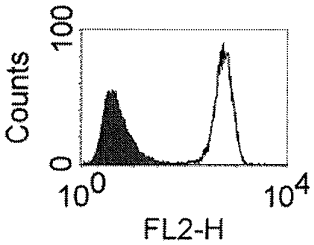
HPB-ALL

B3HLxF12QHL



Macaque CD33 transfected CHO

B3HLxF12QHL



Macaque PBMC

B3HLxF12QHL

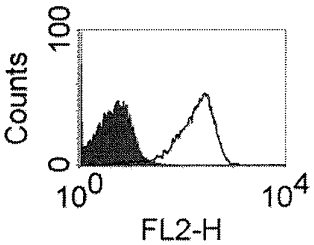
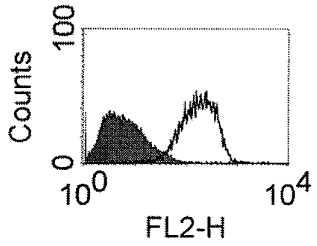
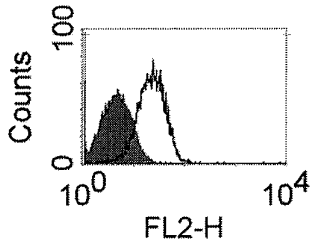


Figure 29(8)

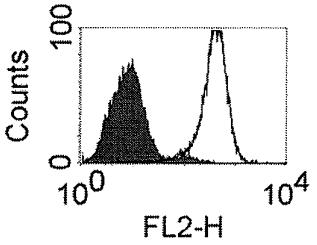
Human CD33 transfected CHO
B3HLxH2CHL



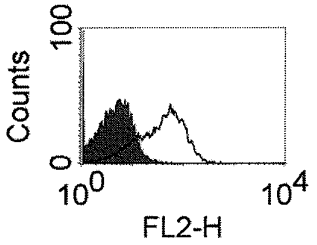
HPB-ALL
B3HLxH2CHL



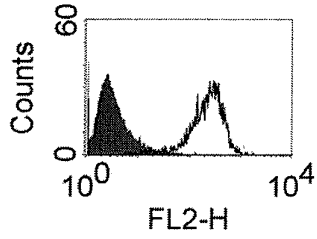
Macaque CD33 transfected CHO
B3HLxH2CHL



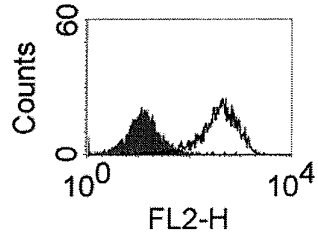
Macaque PBMC
B3HLxH2CHL



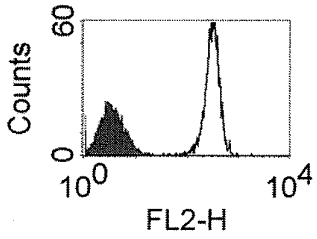
Human CD33 transfected CHO
B3HLxI2CHL



HPB-ALL
B3HLxI2CHL



Macaque CD33 transfected CHO
B3HLxI2CHL



Macaque PBMC
B3HLxI2CHL

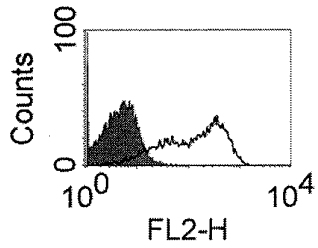
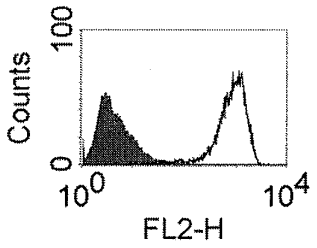


Figure 29(9)

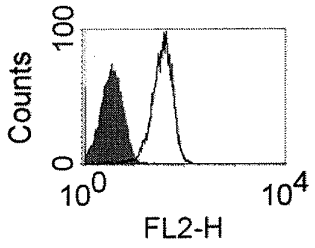
Human CD33 transfected CHO

E11HLxF12QHL



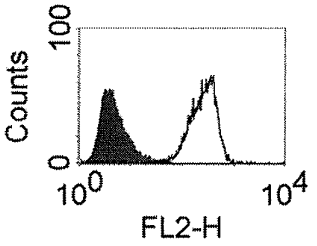
HPB-ALL

E11HLxF12QHL



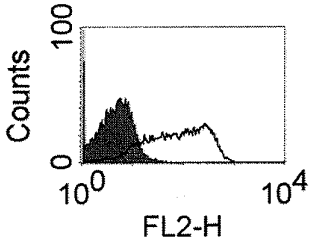
Macaque CD33 transfected CHO

E11HLxF12QHL



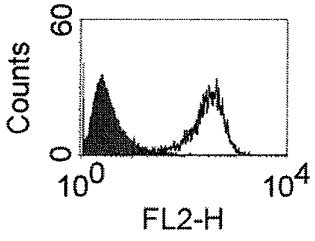
Macaque PBMC

E11HLxF12QHL



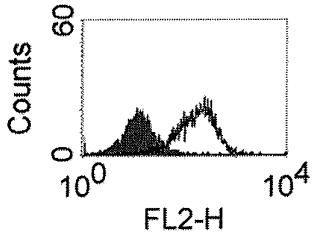
Human CD33 transfected CHO

E11HLxH2CHL



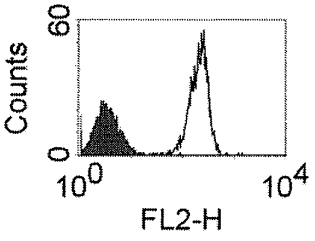
HPB-ALL

E11HLxH2CHL



Macaque CD33 transfected CHO

E11HLxH2CHL



Macaque PBMC

E11HLxH2CHL

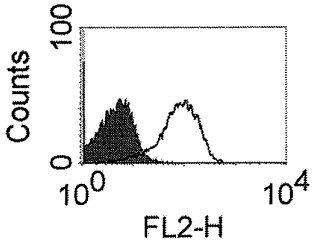
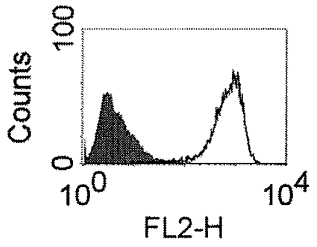


Figure 29(10)

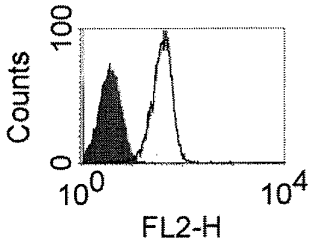
Human CD33 transfected CHO

E11HLxI2CHL



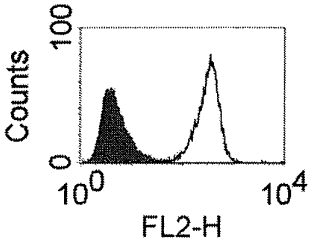
HPB-ALL

E11HLxI2CHL



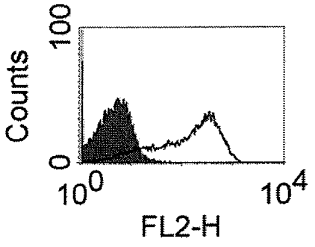
Macaque CD33 transfected CHO

E11HLxI2CHL



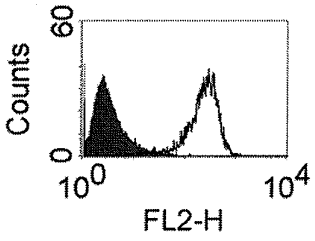
Macaque PBMC

E11HLxI2CHL



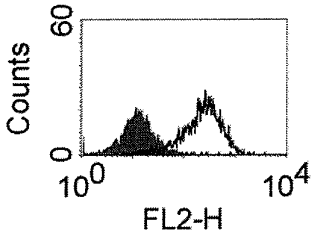
Human CD33 transfected CHO

F2HLxF12QHL



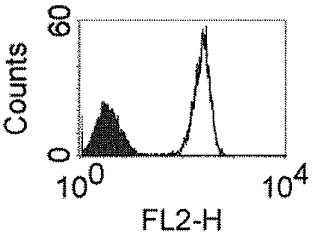
HPB-ALL

F2HLxF12QHL



Macaque CD33 transfected CHO

F2HLxF12QHL



Macaque PBMC

F2HLxF12QHL

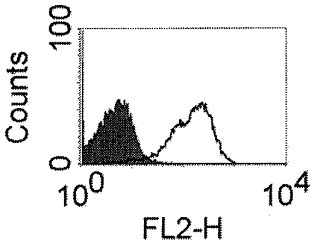
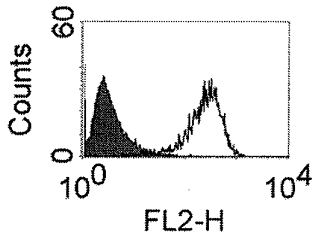


Figure 29(11)

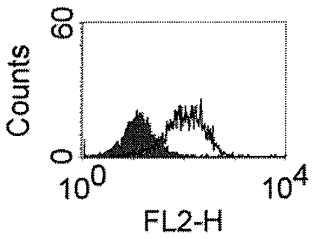
Human CD33 transfected CHO

F2HLxH2CHL



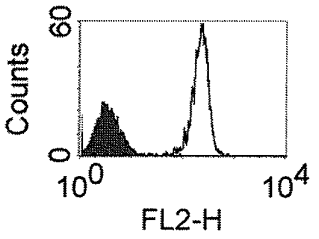
HPB-ALL

F2HLxH2CHL



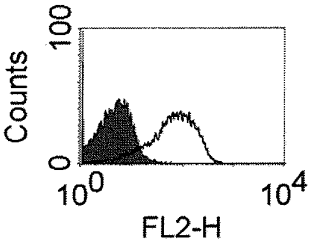
Macaque CD33 transfected CHO

F2HLxH2CHL



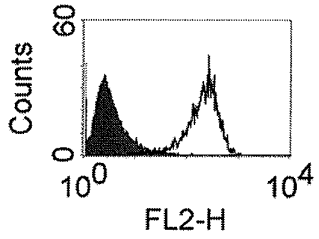
Macaque PBMC

F2HLxH2CHL



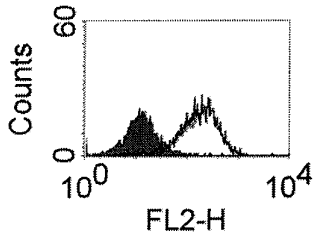
Human CD33 transfected CHO

F2HLxI2CHL



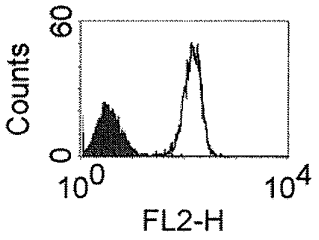
HPB-ALL

F2HLxI2CHL



Macaque CD33 transfected CHO

F2HLxI2CHL



Macaque PBMC

F2HLxI2CHL

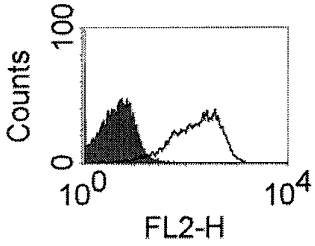
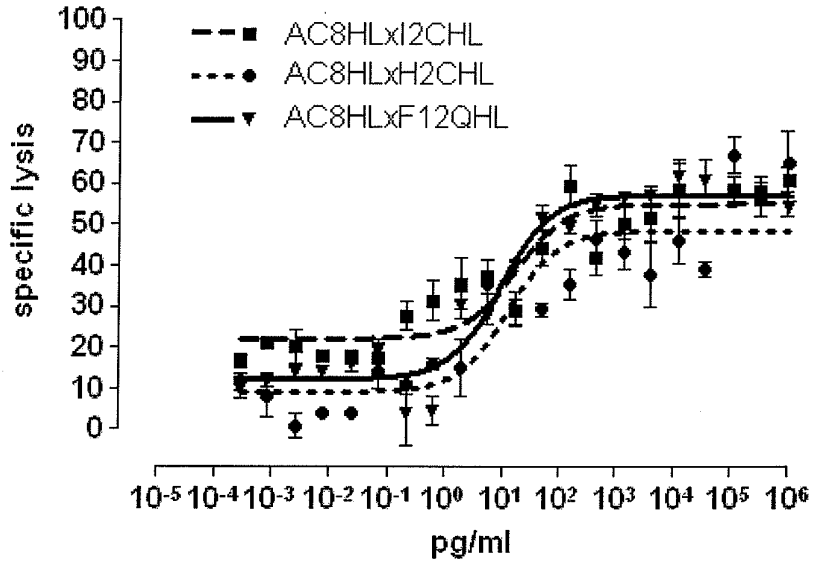


Figure 29(12)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

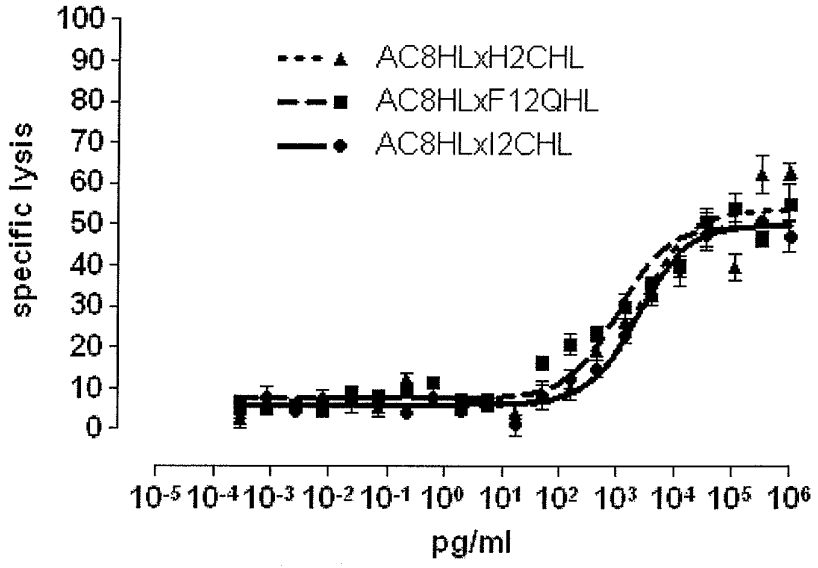
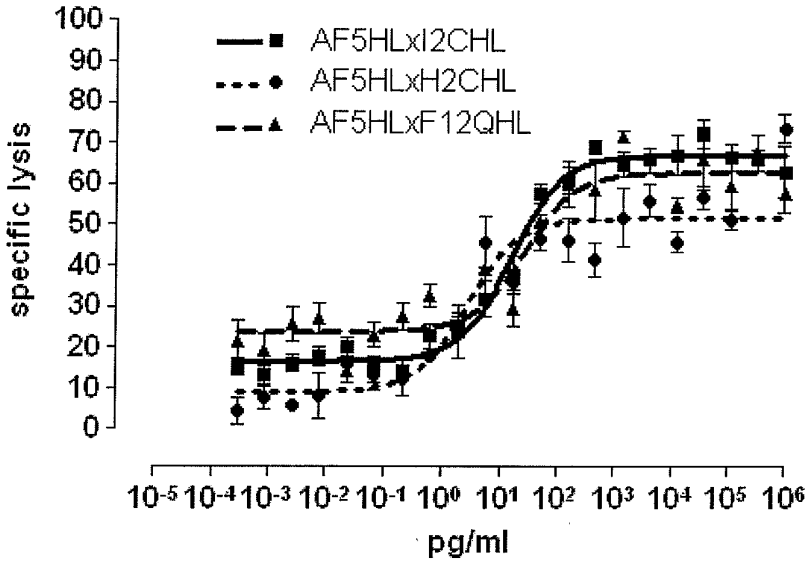


Figure 30(1)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

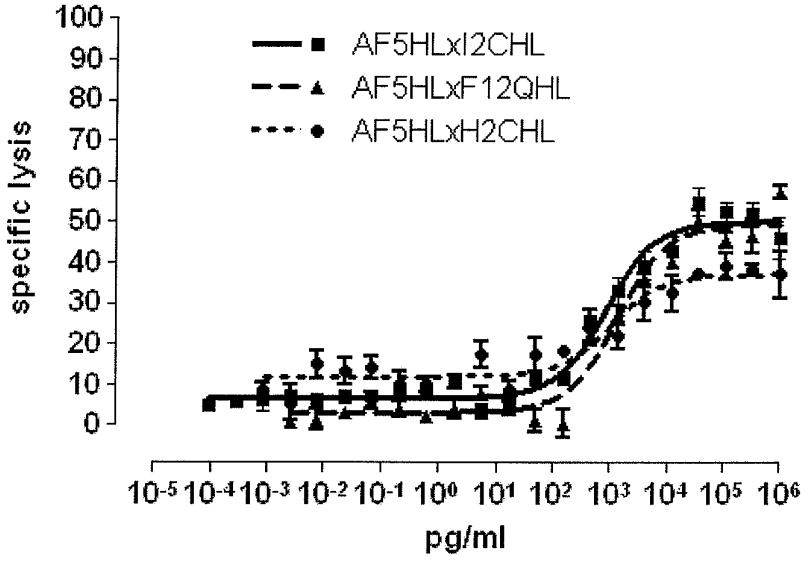
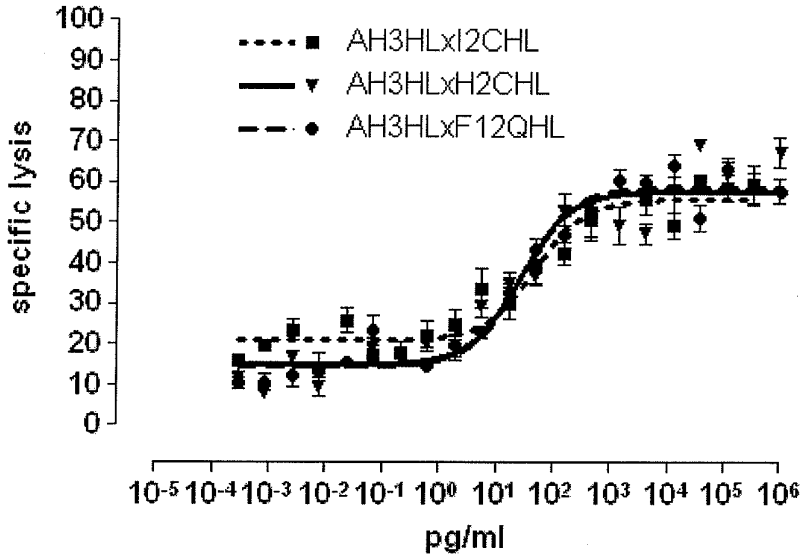


Figure 30(2)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

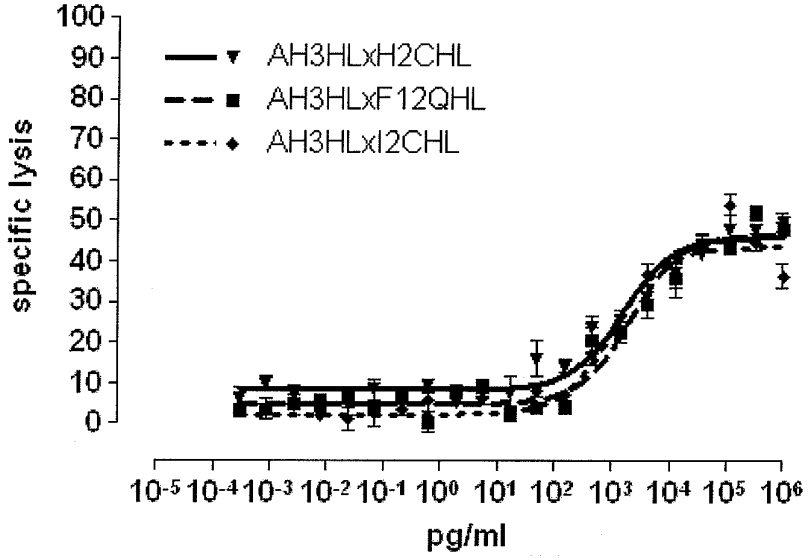
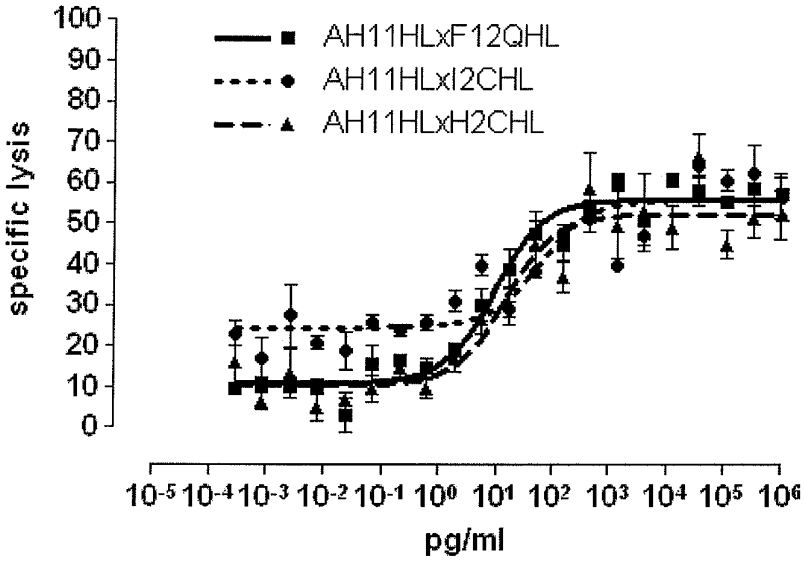


Figure 30(3)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

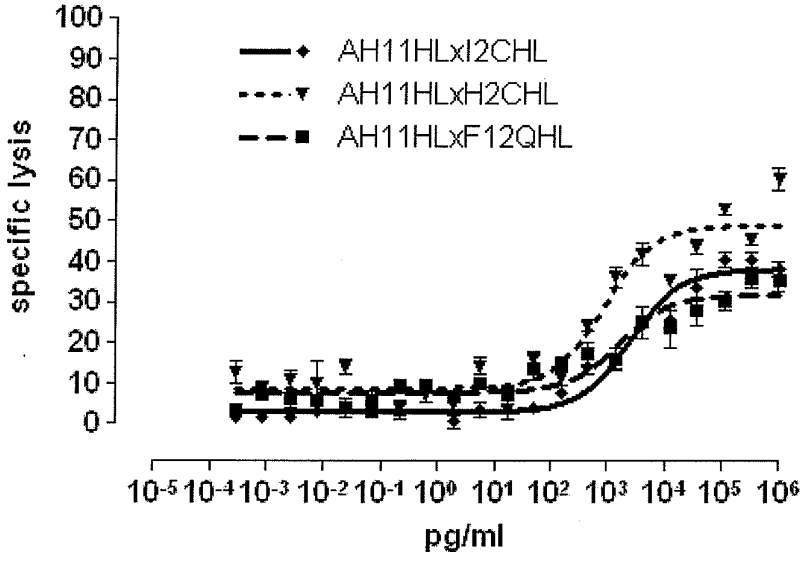
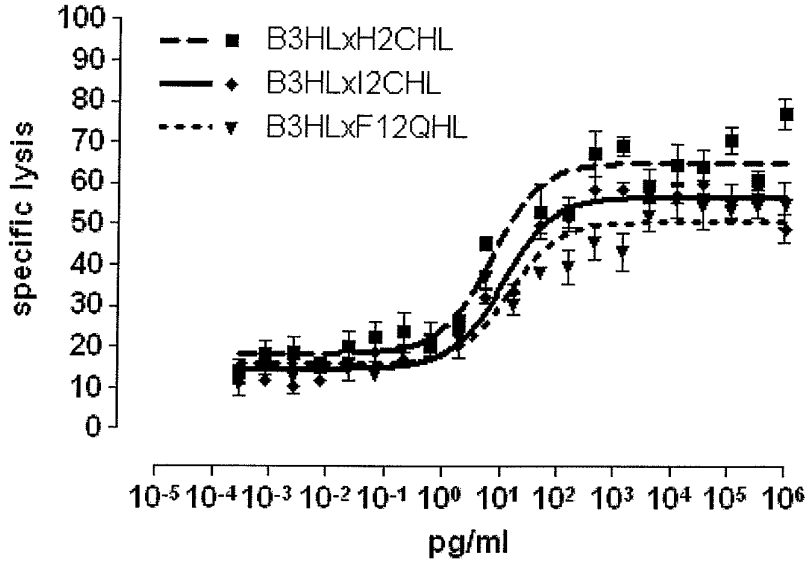


Figure 30(4)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

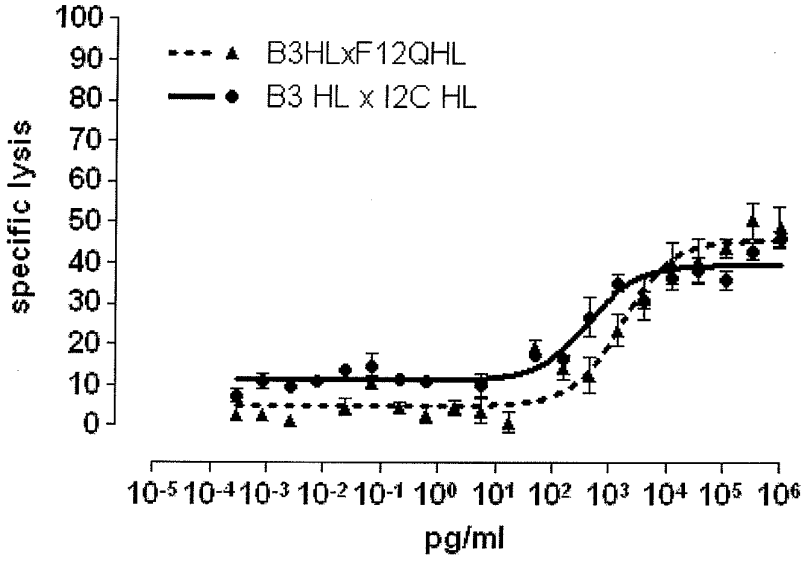
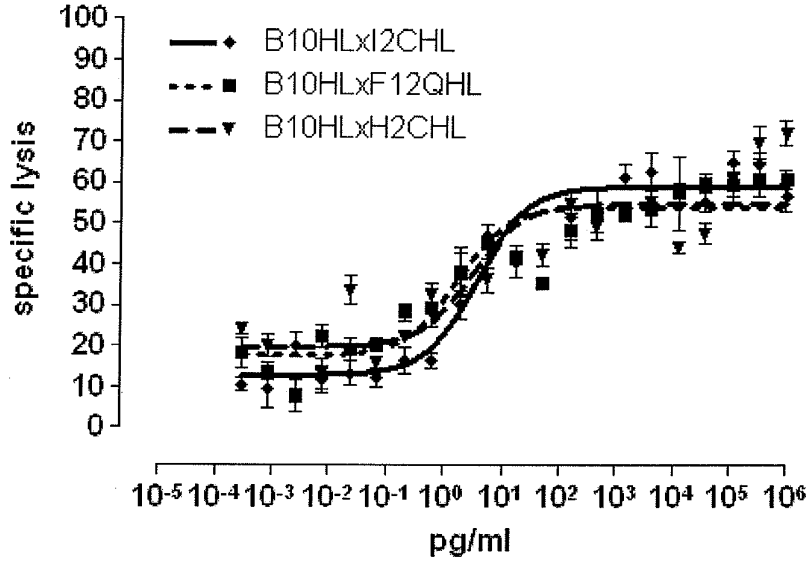


Figure 30(5)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

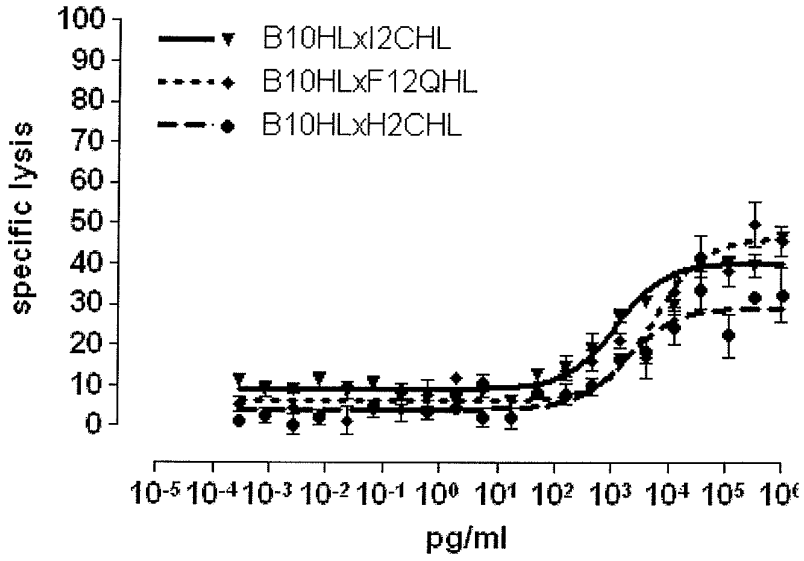
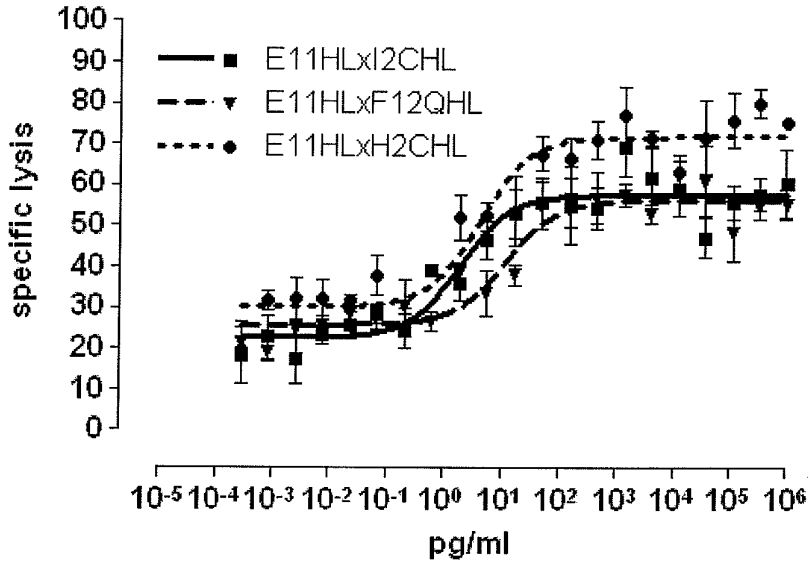


Figure 30(6)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

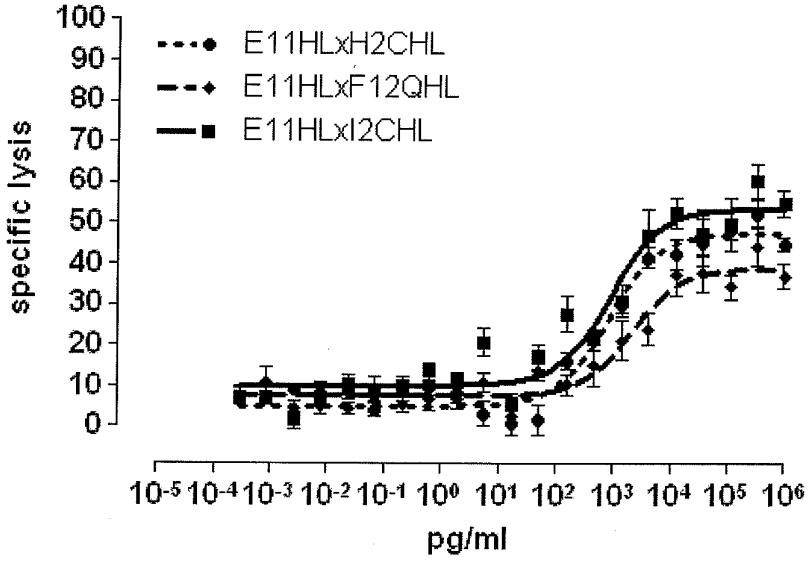
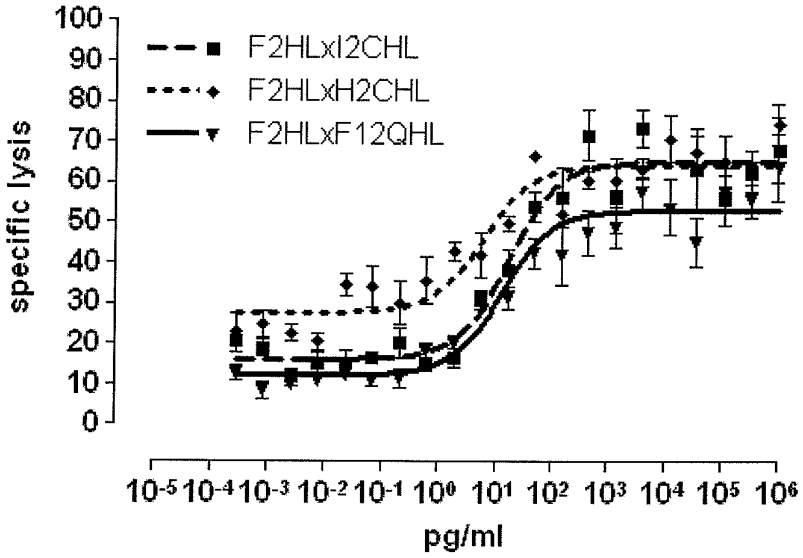


Figure 30(7)

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

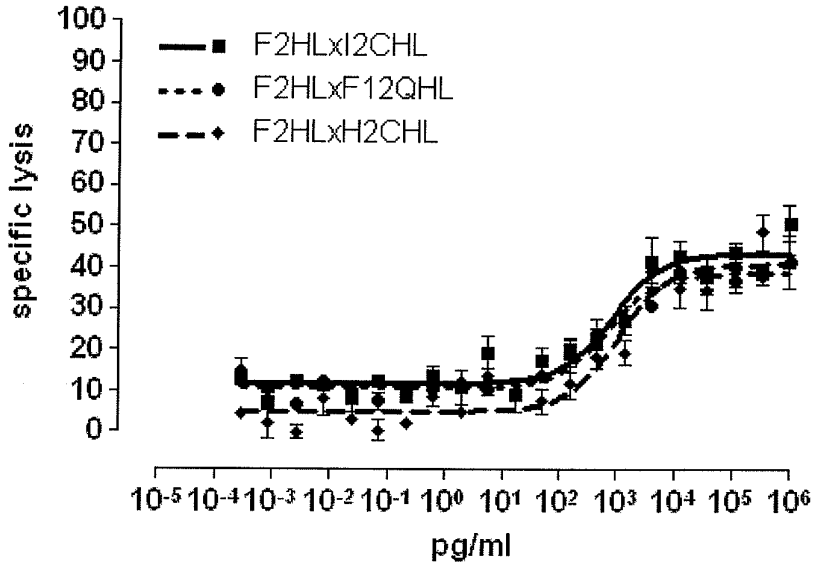


Figure 30(8)

Figure 31

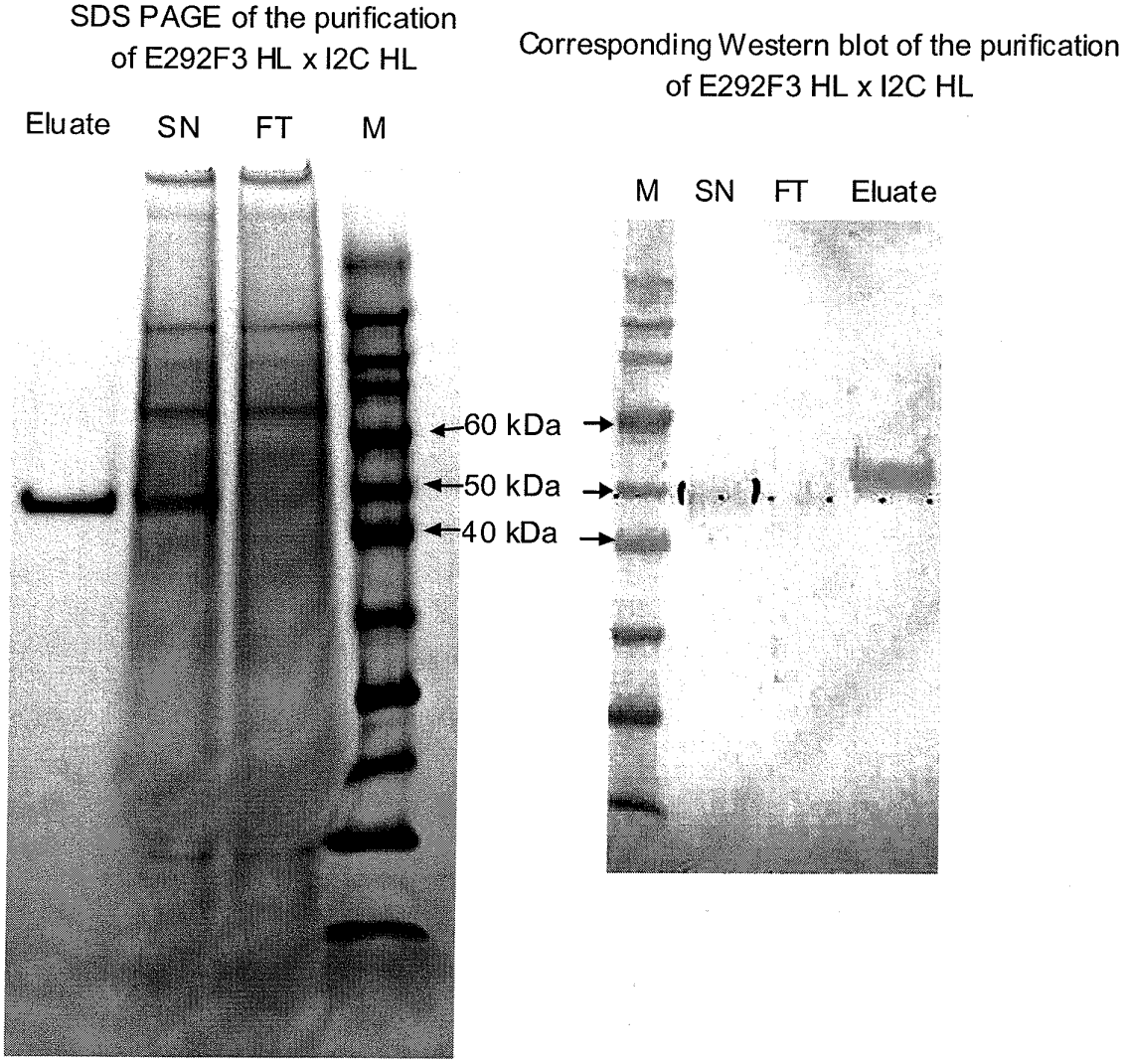

SDS PAGE of the purification of E292F3 HL x I2C HL
Eluate
SN
FT
M
60 kDa
50 kDa
40 kDa
Corresponding Western blot of the purification of E292F3 HL x I2C HL
M
SN
FT
Eluate

Figure 32

SDS PAGE of the purification of V207C12 HL x H2C HL

Corresponding Western blot of the purification of V207C12 HL x H2C HL

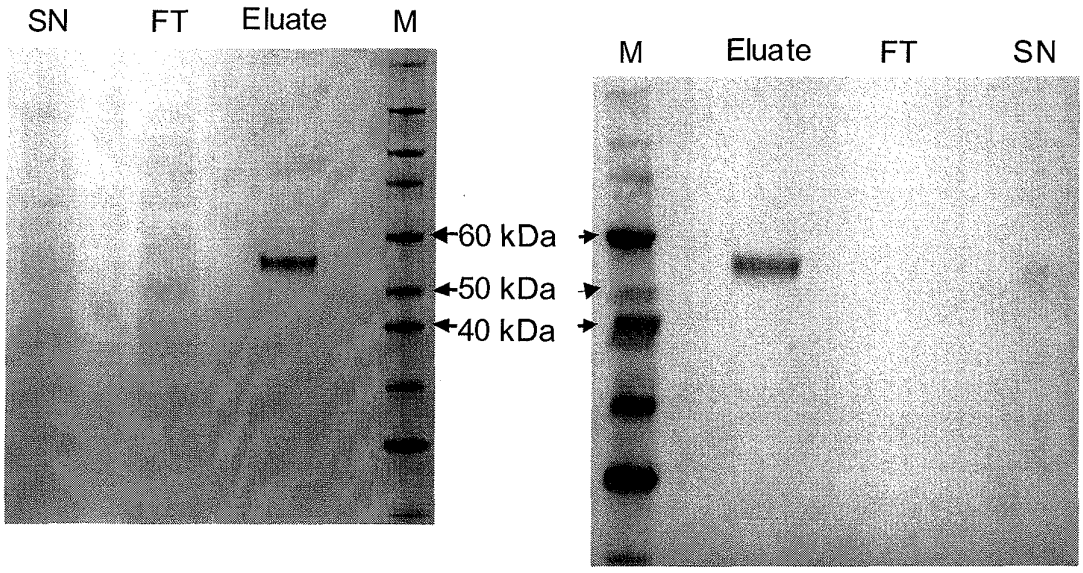


Figure 33

SDS PAGE of the purification of AF5HLxF12QHL

Corresponding Western blot of the purification of AF5HLxF12QHL

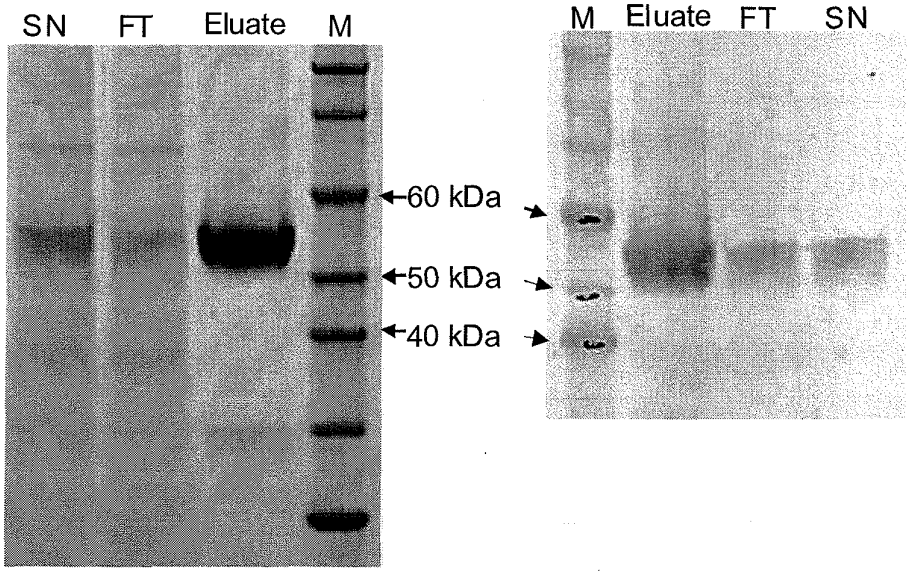
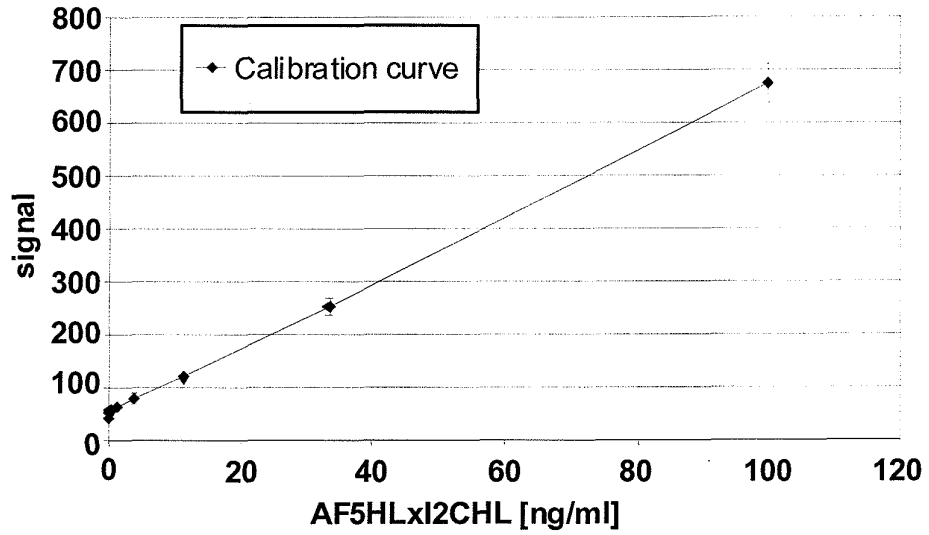


Figure 34


Calibration curve
signal
AF5HLxI2CHL [ng/ml]
0
100
200
300
400
500
600
700
800
0
20
40
60
80
100
120

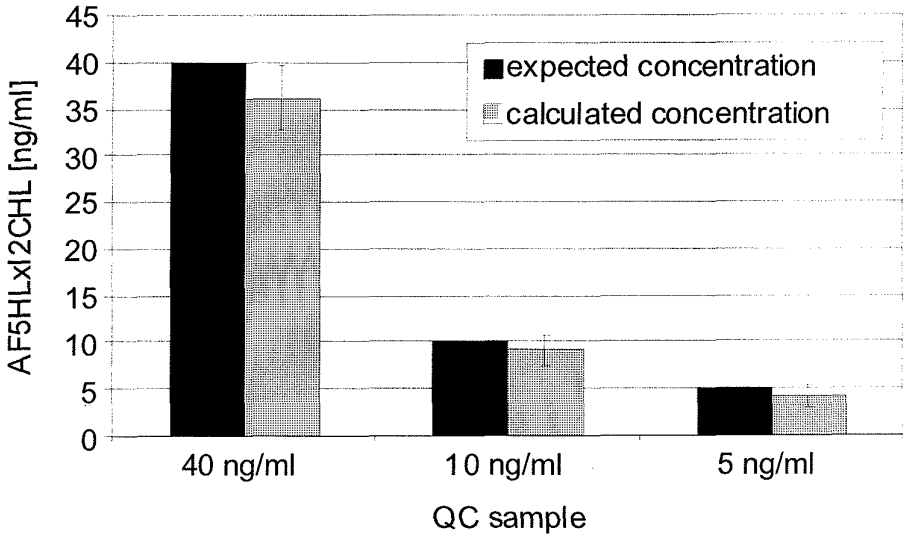
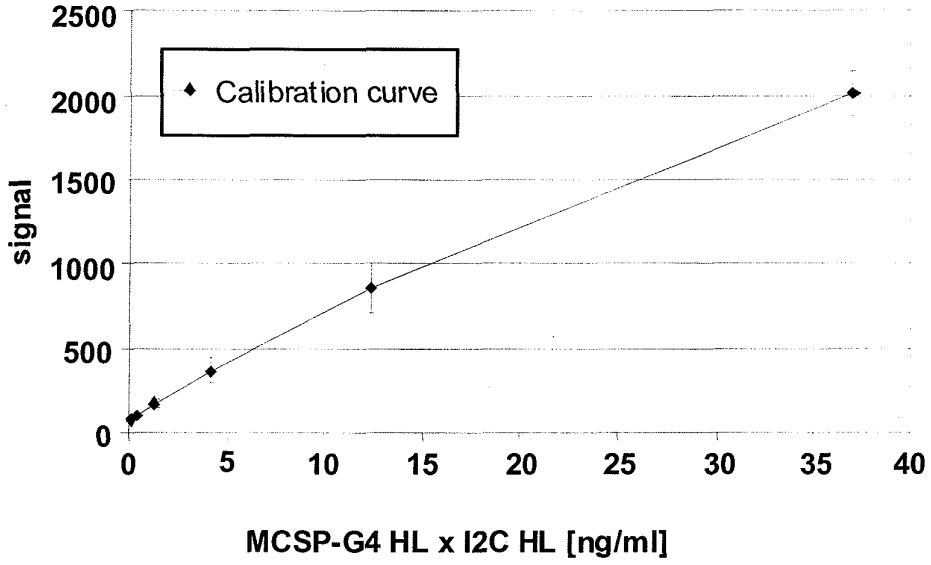

expected concentration
calculated concentration
AF5HLxI2CHL [ng/ml]
0
5
10
15
20
25
30
35
40
45
40 ng/ml
10 ng/ml
5 ng/ml
QC sample

Figure 35


2500
2000
1500
1000
500
0
signal
Calibration curve
0
5
10
15
20
25
30
35
40
MCSP-G4 HL x I2C HL [ng/ml]

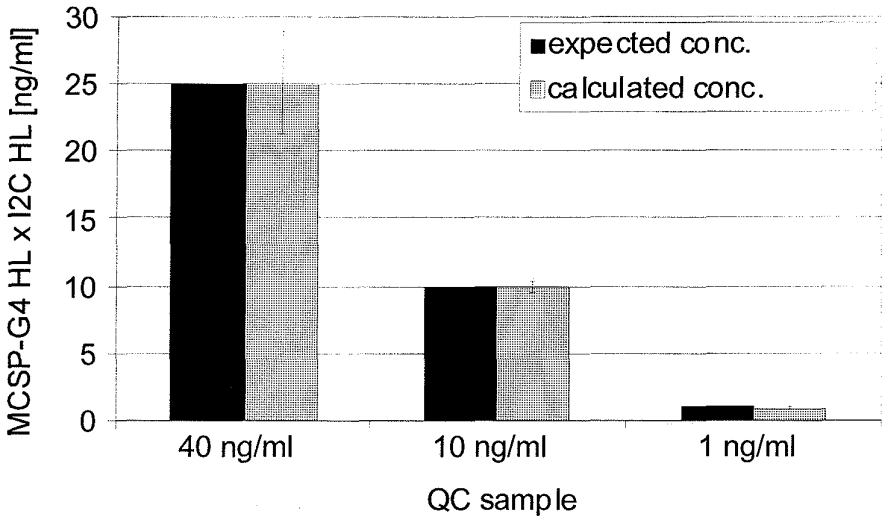
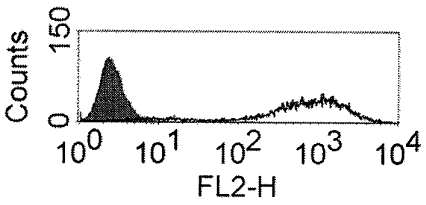
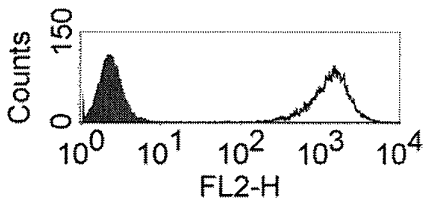

30
25
20
15
10
5
0
MCSP-G4 HL x I2C HL [ng/ml]
expected conc.
calculated conc.
40 ng/ml
10 ng/ml
1 ng/ml
QC sample

Figure 36

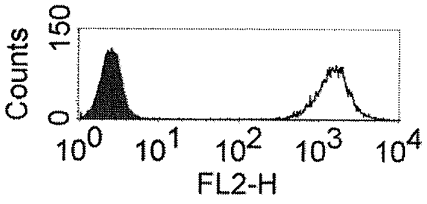
Human 1-27 CD3-EpCAM CHO
anti-Flag antibody



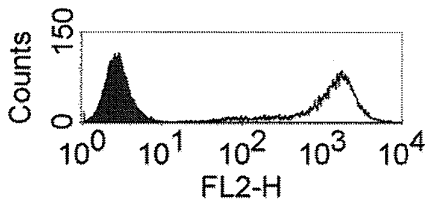
Marmoset 1-27 CD3-EpCAM CHO
anti-Flag antibody



Tamarin 1-27 CD3-EpCAM CHO
anti-Flag antibody



Squirrel Monkey 1-27 CD3-EpCAM CHO
anti-Flag antibody



Swine 1-27 CD3-EpCAM CHO
anti-Flag antibody

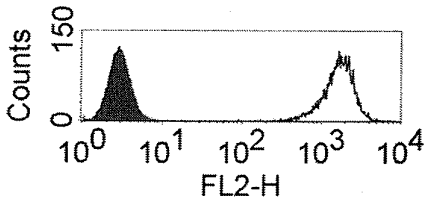


Figure 37

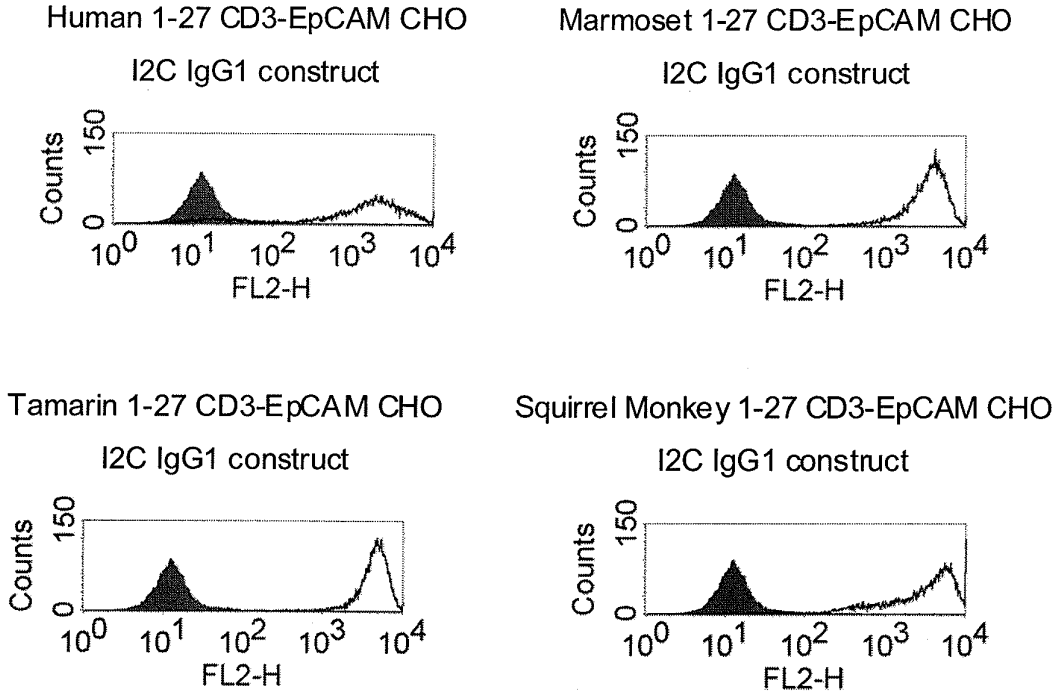
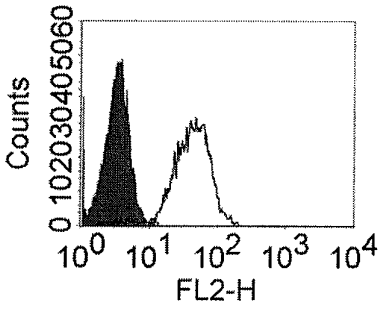
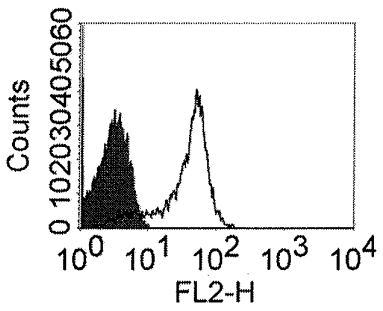

Human 1-27 CD3-EpCAM CHO
I2C IgG1 construct
Marmoset 1-27 CD3-EpCAM CHO
I2C IgG1 construct
Tamarin 1-27 CD3-EpCAM CHO
I2C IgG1 construct
Squirrel Monkey 1-27 CD3-EpCAM CHO
I2C IgG1 construct
Counts
150
0
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 38

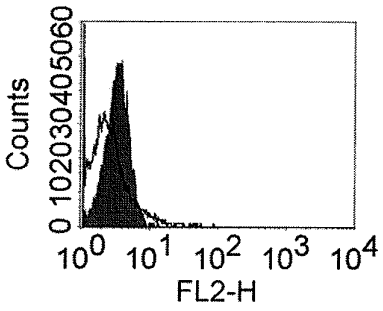
Human CD3-WT in EL4
UCHT1



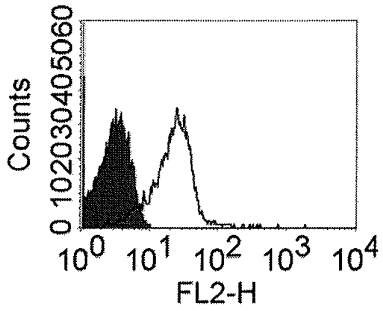
Human CD3-H6 in EL4
UCHT1



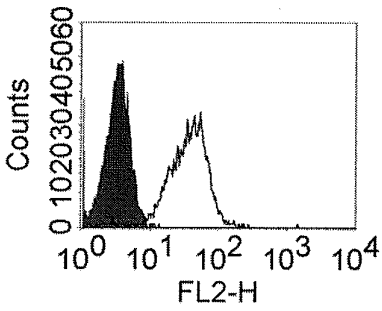
Human CD3-WT in EL4
anti-His Tag



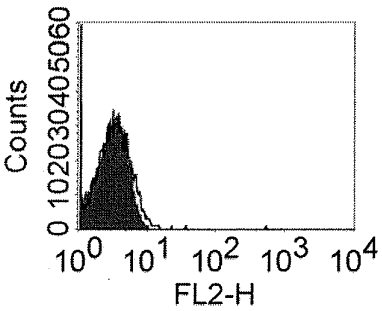
Human CD3-H6 in EL4
anti-His Tag



Human CD3-WT in EL4
I2C IgG1



Human CD3-H6 in EL4
I2C IgG1



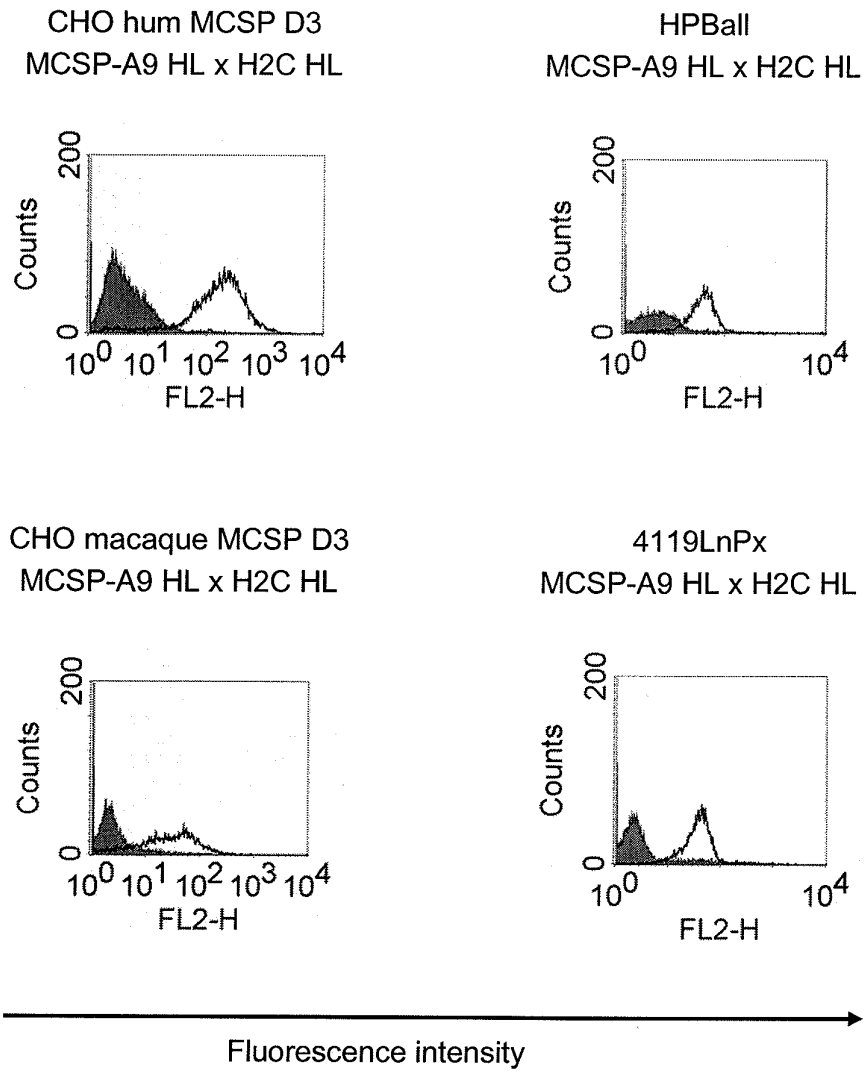

CHO hum MCSP D3
MCSP-A9 HL x H2C HL
HPBall
MCSP-A9 HL x H2C HL
CHO macaque MCSP D3
MCSP-A9 HL x H2C HL
4119LnPx
MCSP-A9 HL x H2C HL
Counts
200
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39a

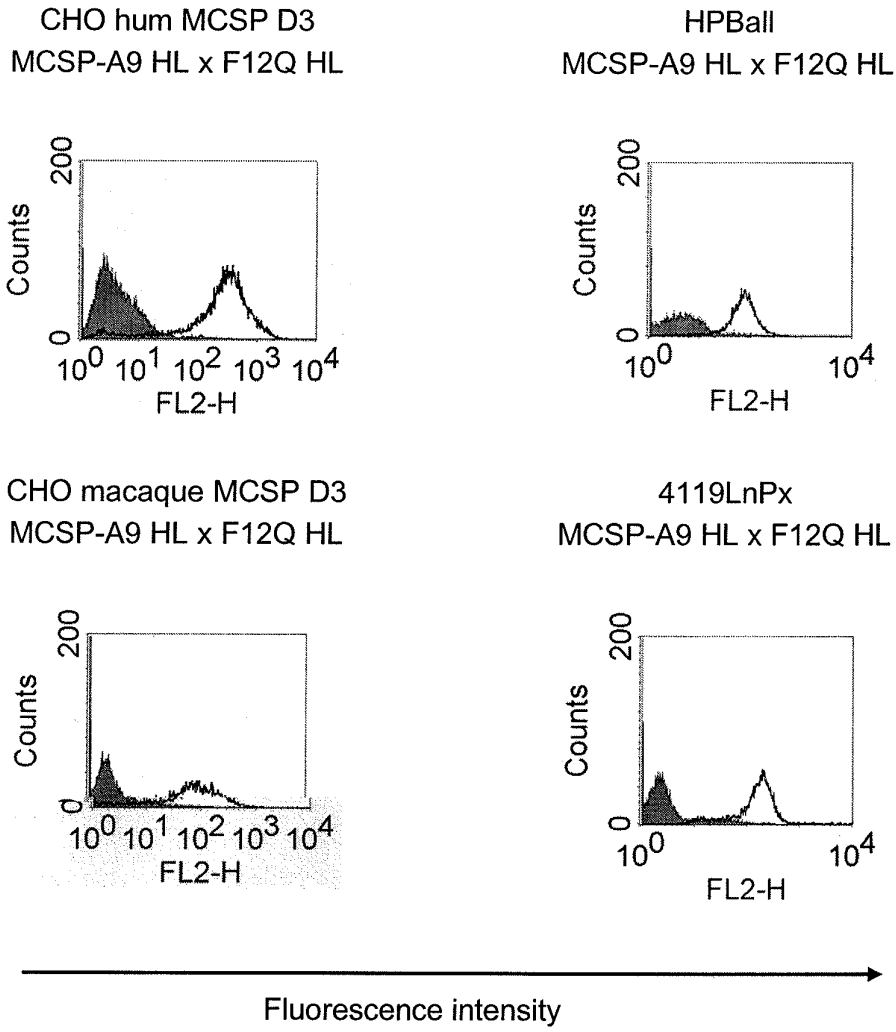

CHO hum MCSP D3
MCSP-A9 HL x F12Q HL
HPBall
MCSP-A9 HL x F12Q HL
CHO macaque MCSP D3
MCSP-A9 HL x F12Q HL
4119LnPx
MCSP-A9 HL x F12Q HL
Counts
200
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39b

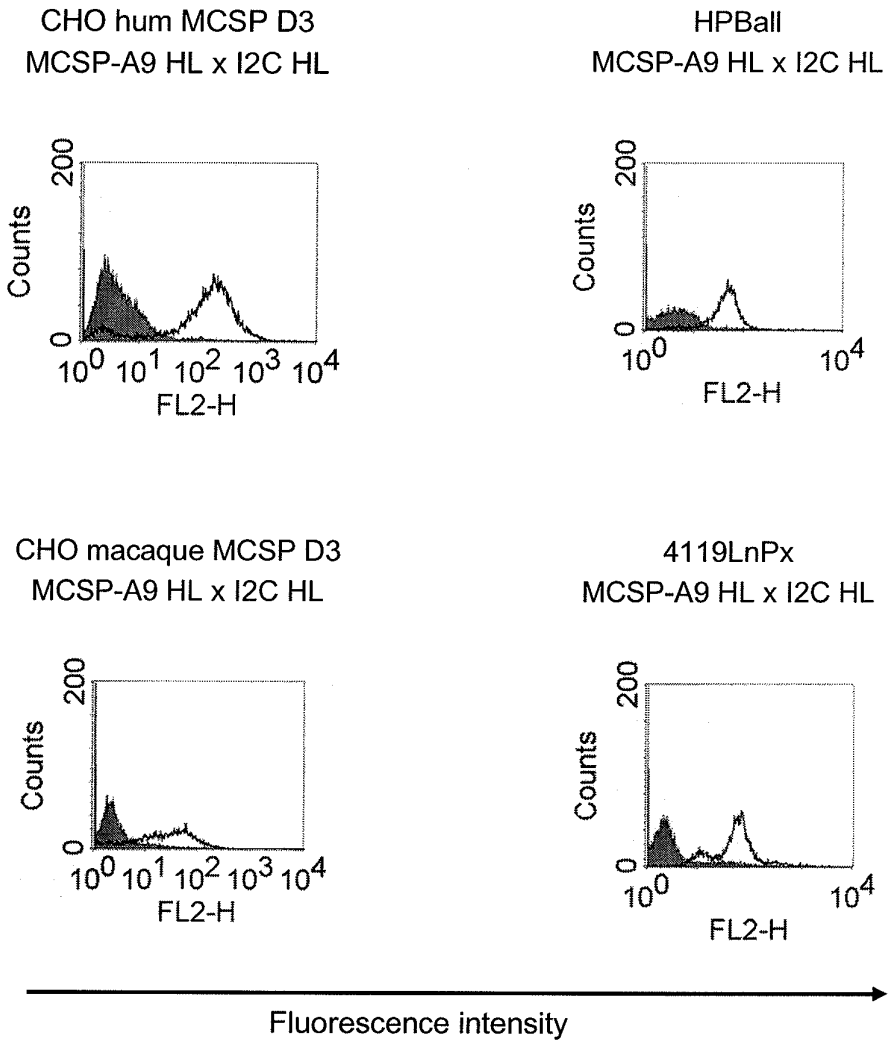

CHO hum MCSP D3
MCSP-A9 HL x I2C HL
HPBall
MCSP-A9 HL x I2C HL
CHO macaque MCSP D3
MCSP-A9 HL x I2C HL
4119LnPx
MCSP-A9 HL x I2C HL
Counts
200
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39c

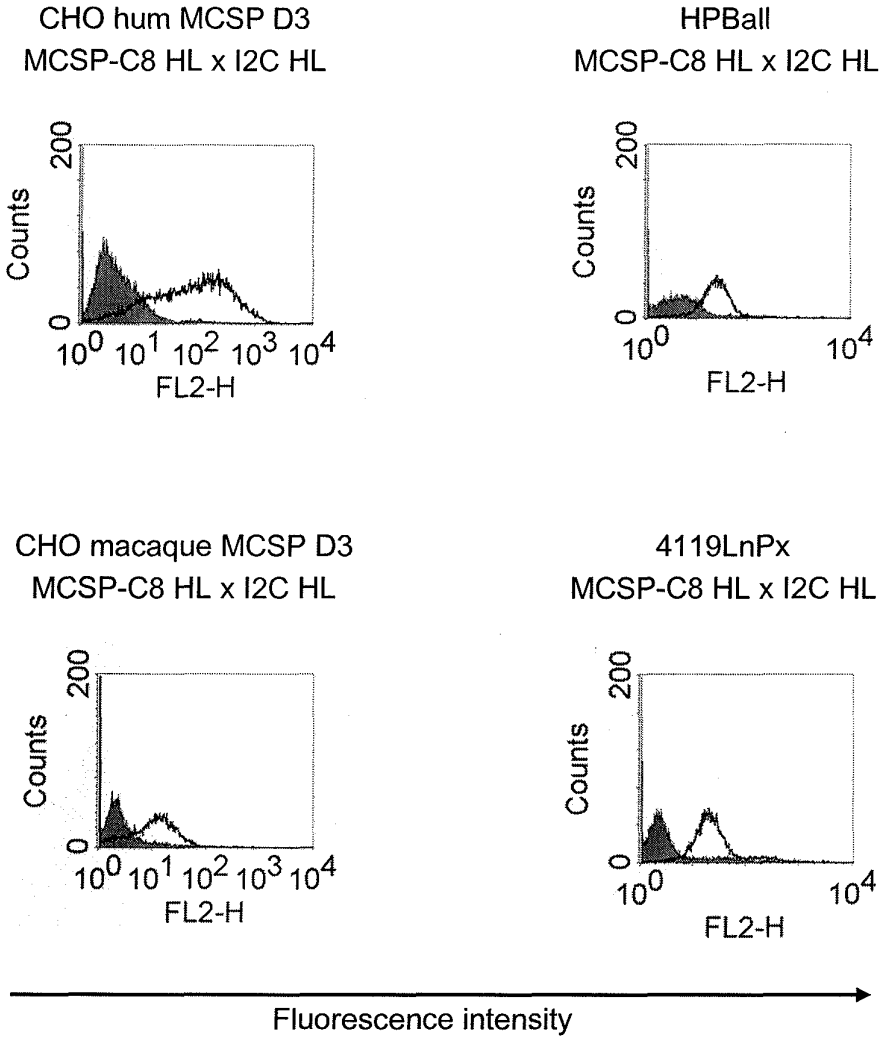

CHO hum MCSP D3
MCSP-C8 HL x I2C HL
HPBall
MCSP-C8 HL x I2C HL
CHO macaque MCSP D3
MCSP-C8 HL x I2C HL
4119LnPx
MCSP-C8 HL x I2C HL
Counts
200
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39d

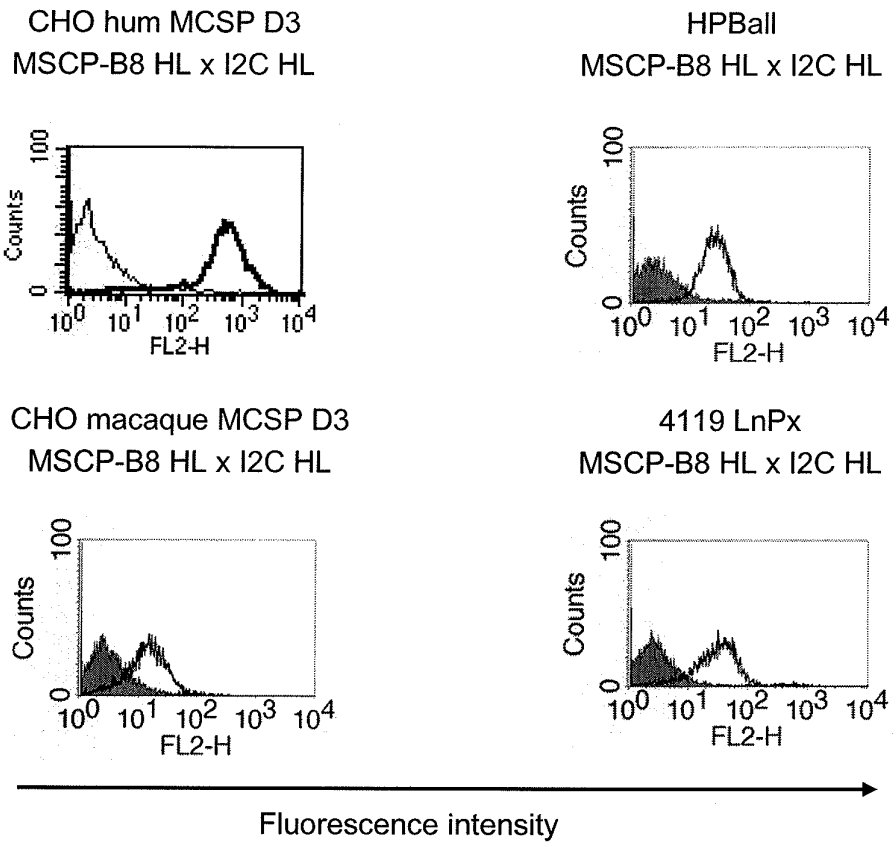

CHO hum MCSP D3
MSCP-B8 HL x I2C HL
HPBall
MSCP-B8 HL x I2C HL
CHO macaque MCSP D3
MSCP-B8 HL x I2C HL
4119 LnPx
MSCP-B8 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39e

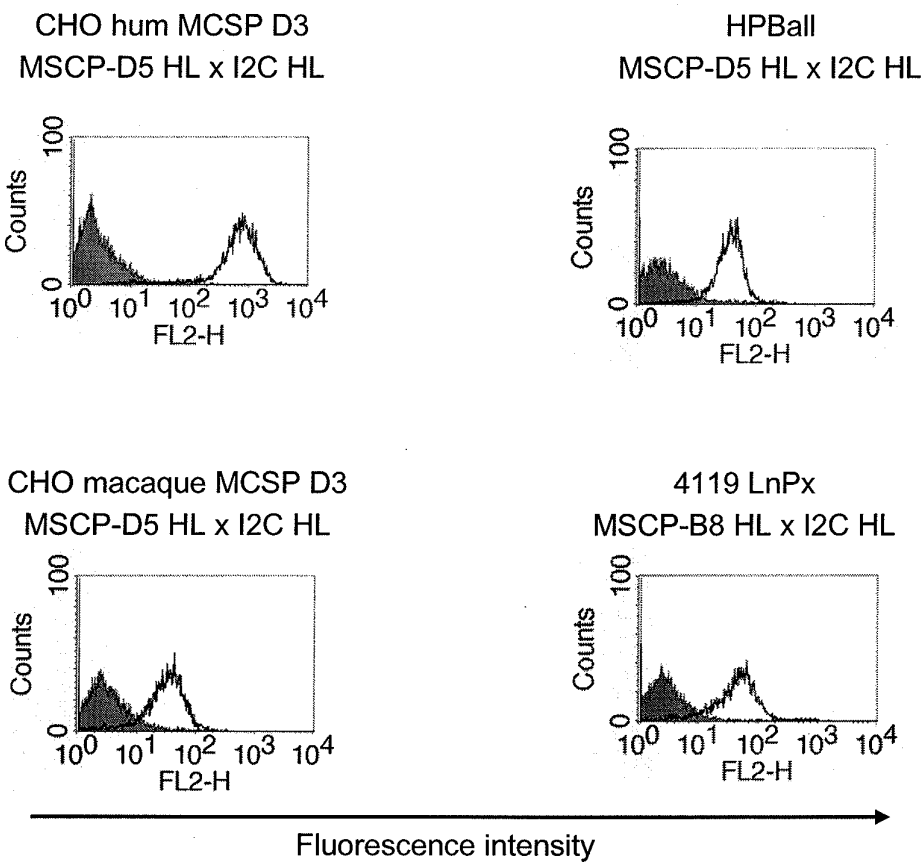

CHO hum MCSP D3
MSCP-D5 HL x I2C HL
HPBall
MSCP-D5 HL x I2C HL
CHO macaque MCSP D3
MSCP-D5 HL x I2C HL
4119 LnPx
MSCP-B8 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39f

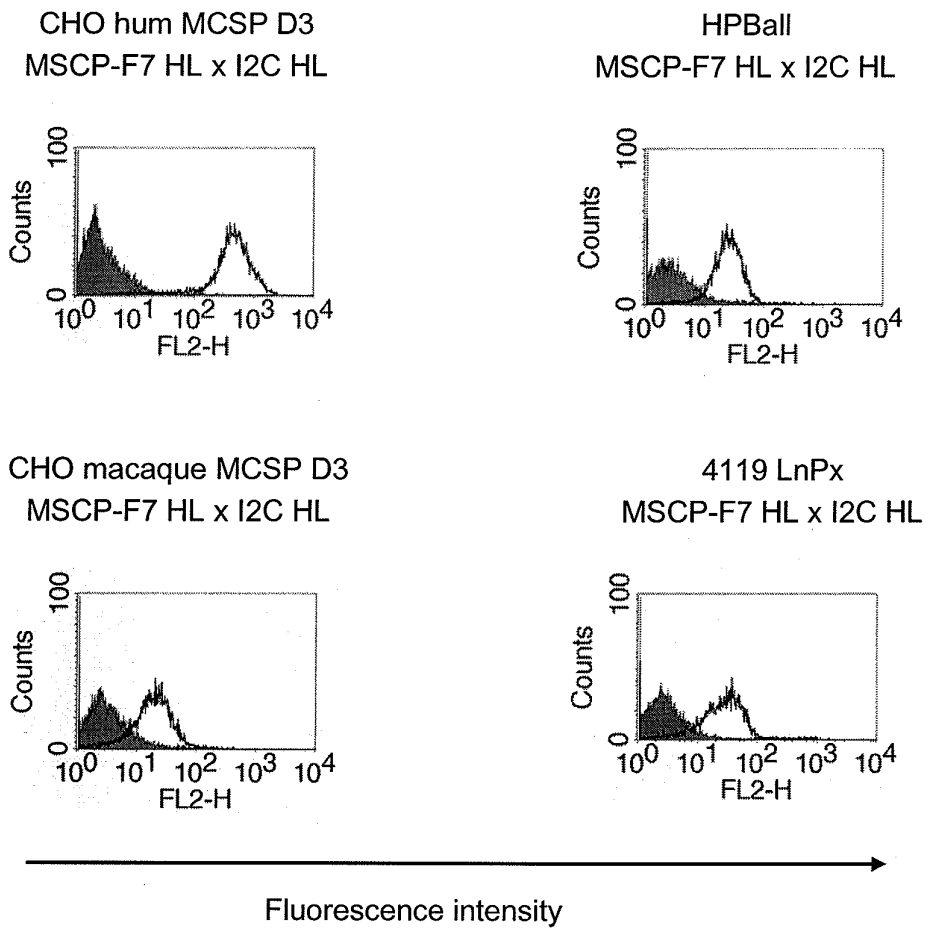

CHO hum MCSP D3
MSCP-F7 HL x I2C HL
HPBall
MSCP-F7 HL x I2C HL
CHO macaque MCSP D3
MSCP-F7 HL x I2C HL
4119 LnPx
MSCP-F7 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39g

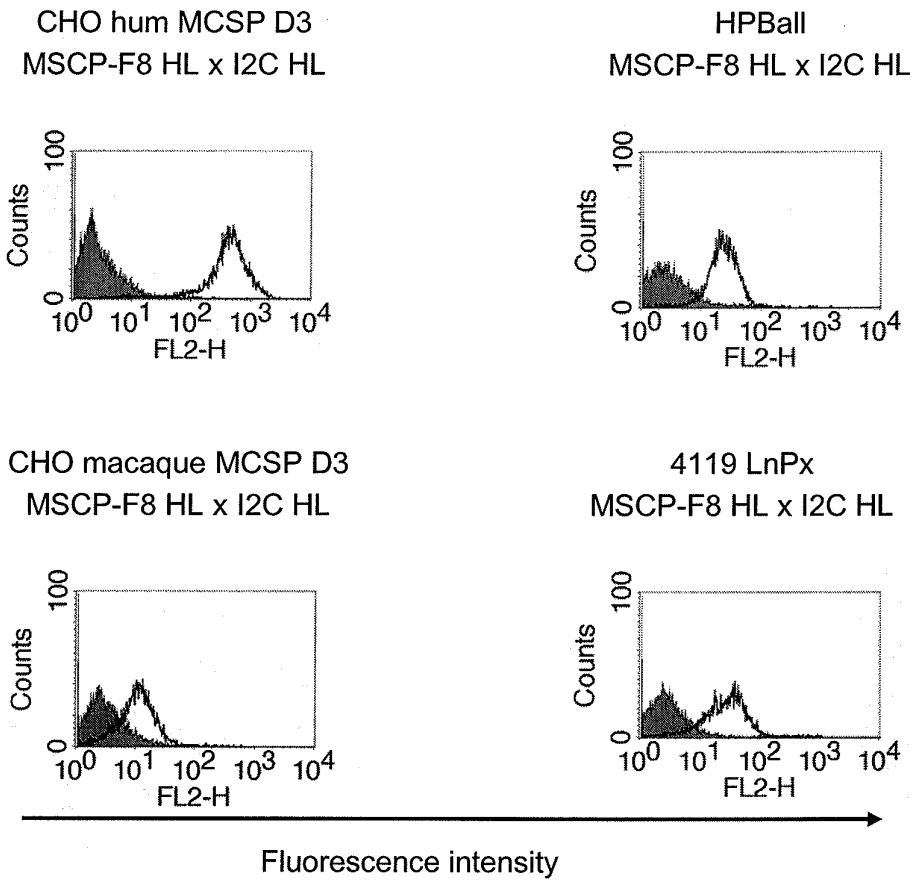

CHO hum MCSP D3
MSCP-F8 HL x I2C HL
HPBall
MSCP-F8 HL x I2C HL
CHO macaque MCSP D3
MSCP-F8 HL x I2C HL
4119 LnPx
MSCP-F8 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39h

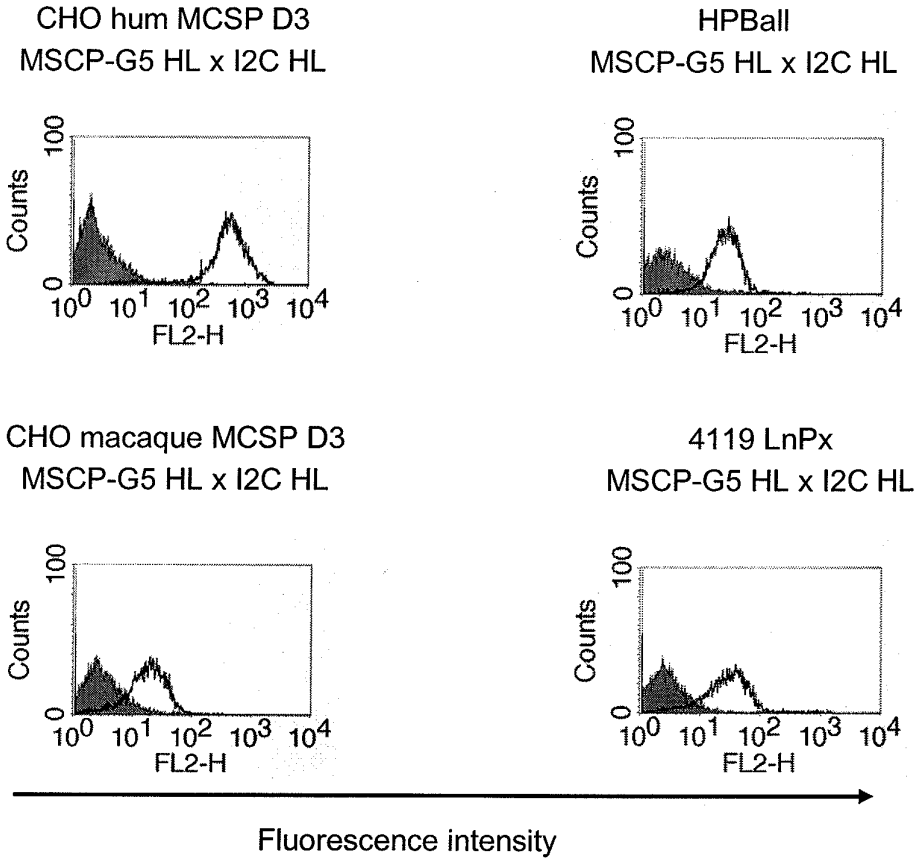

CHO hum MCSP D3
MSCP-G5 HL x I2C HL
HPBall
MSCP-G5 HL x I2C HL
CHO macaque MCSP D3
MSCP-G5 HL x I2C HL
4119 LnPx
MSCP-G5 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39i

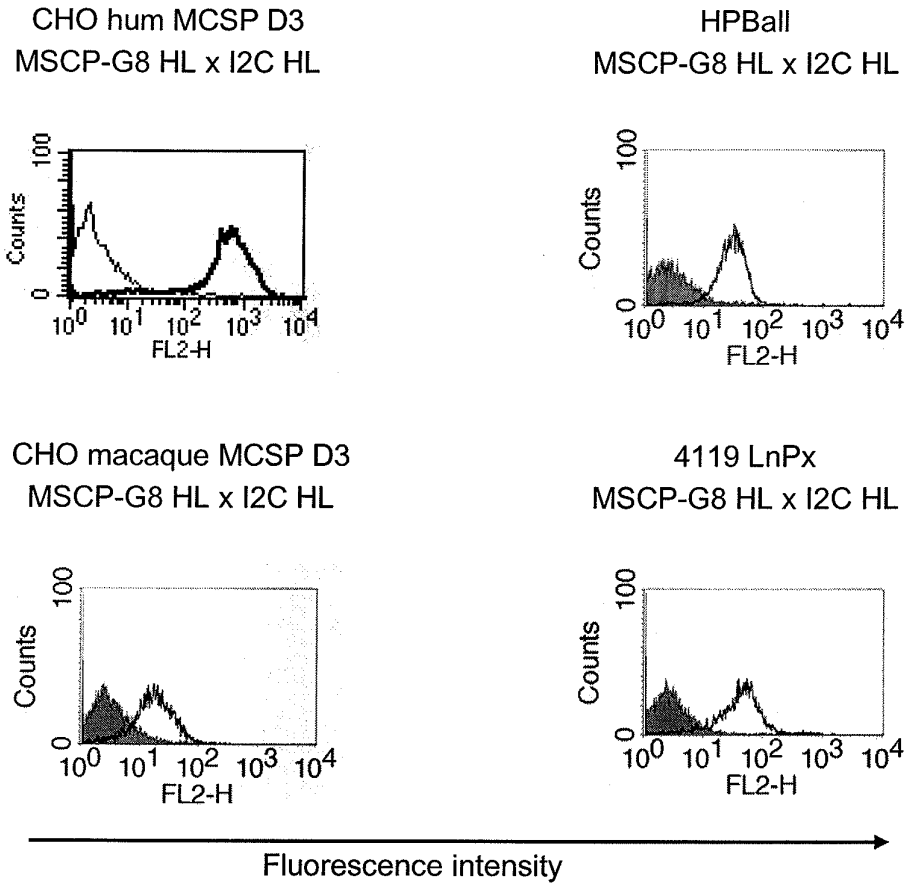

CHO hum MCSP D3
MSCP-G8 HL x I2C HL
HPBall
MSCP-G8 HL x I2C HL
CHO macaque MCSP D3
MSCP-G8 HL x I2C HL
4119 LnPx
MSCP-G8 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39j

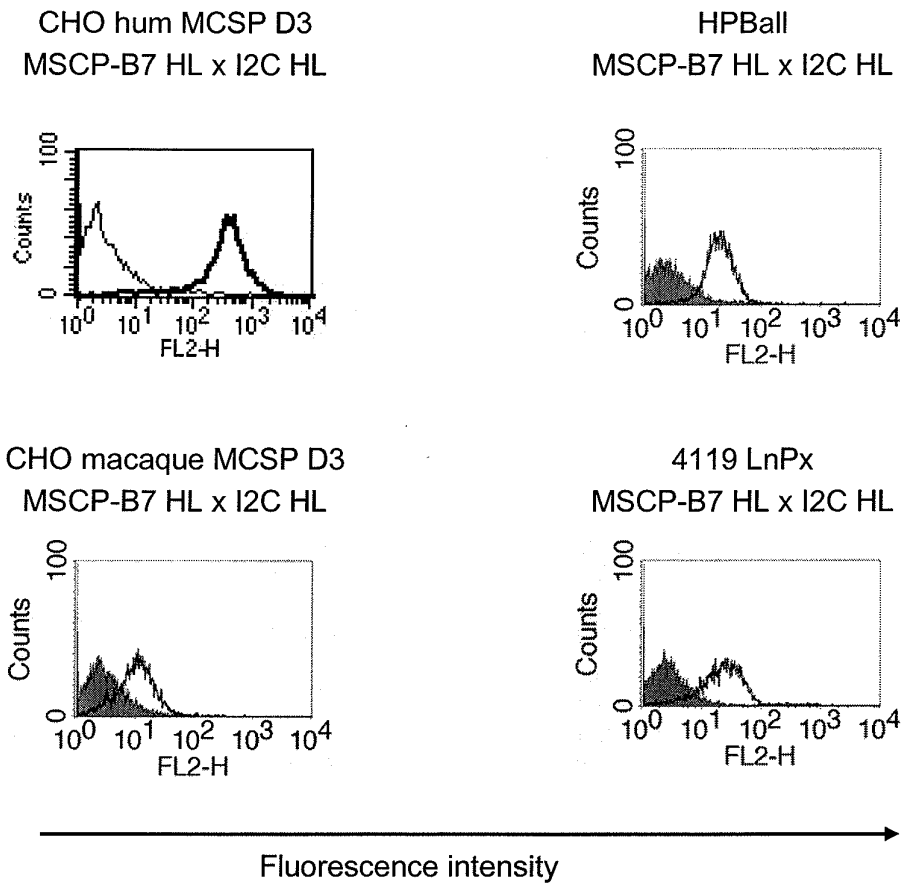

CHO hum MCSP D3
MSCP-B7 HL x I2C HL
HPBall
MSCP-B7 HL x I2C HL
CHO macaque MCSP D3
MSCP-B7 HL x I2C HL
4119 LnPx
MSCP-B7 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39k

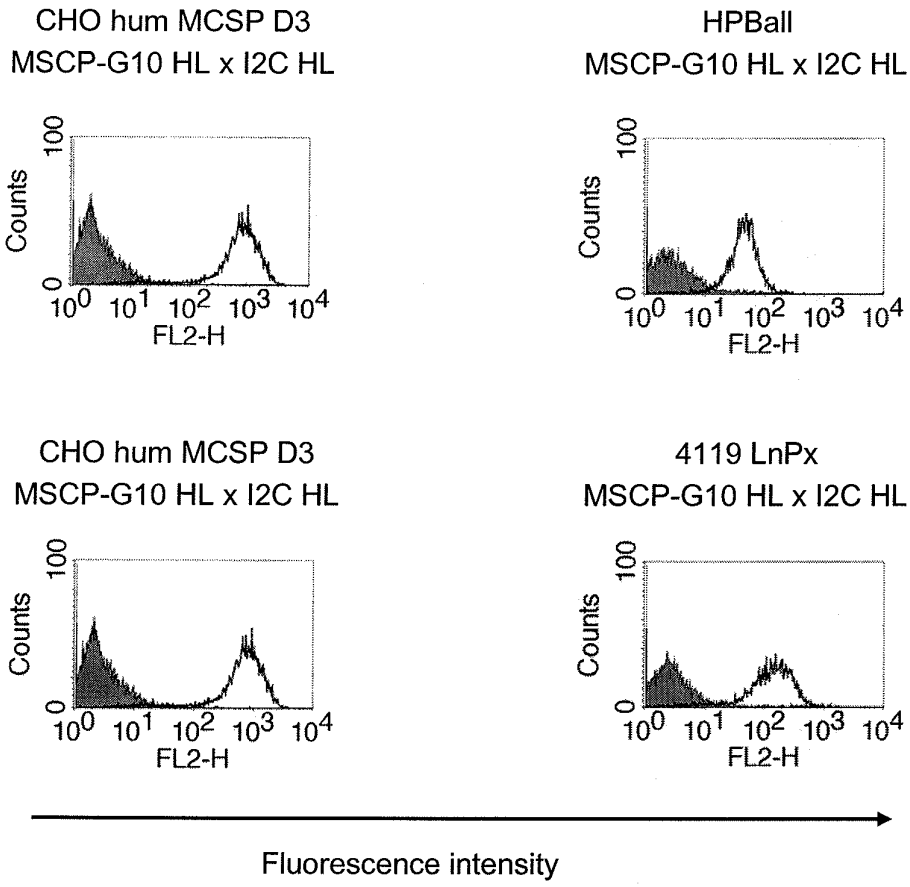
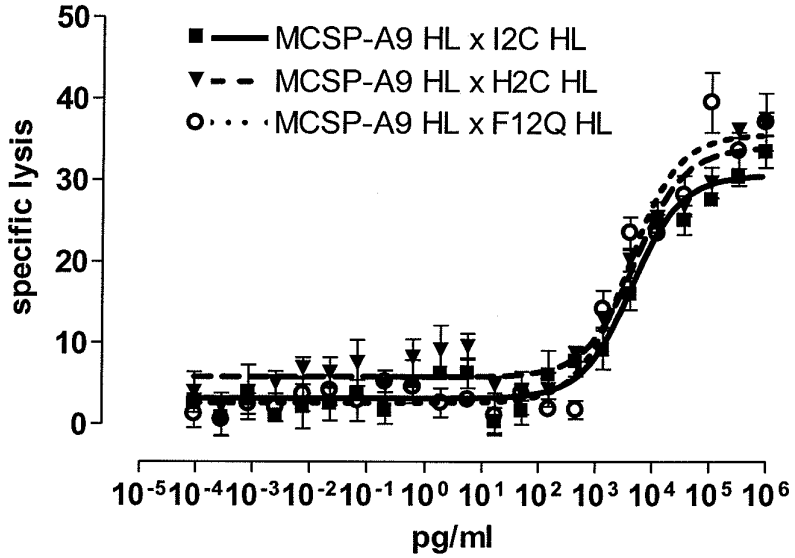

CHO hum MCSP D3
MSCP-G10 HL x I2C HL
HPBall
MSCP-G10 HL x I2C HL
CHO hum MCSP D3
MSCP-G10 HL x I2C HL
4119 LnPx
MSCP-G10 HL x I2C HL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H
Fluorescence intensity

Figure 39I

Figure 40a

Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque MCSP D3
E:T ratio: 10:1

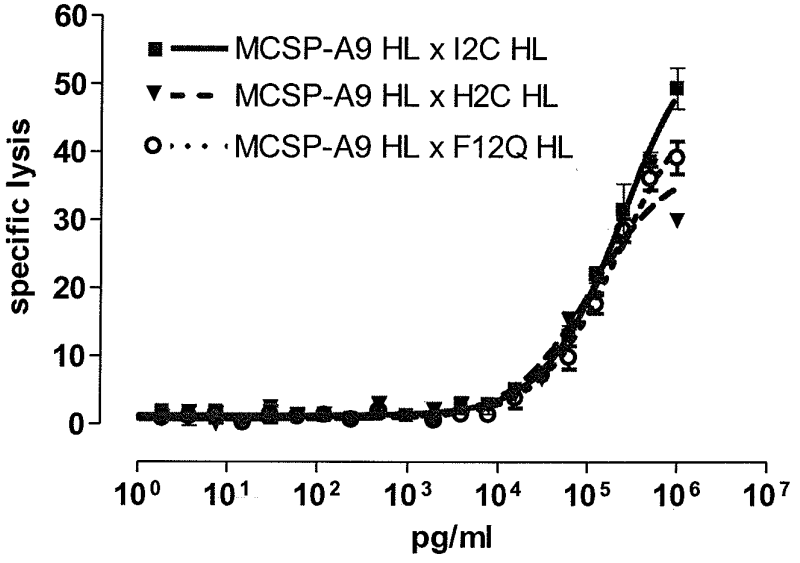
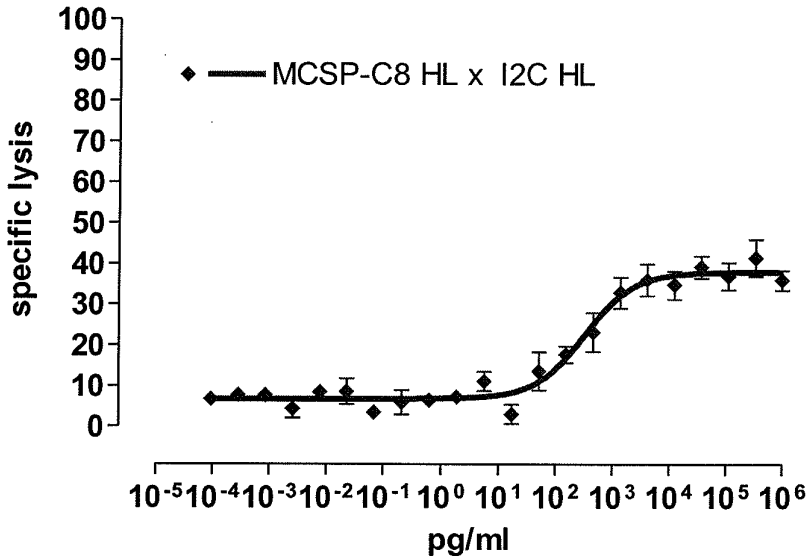


Figure 40b

Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque MCSP D3
E:T ratio: 10:1

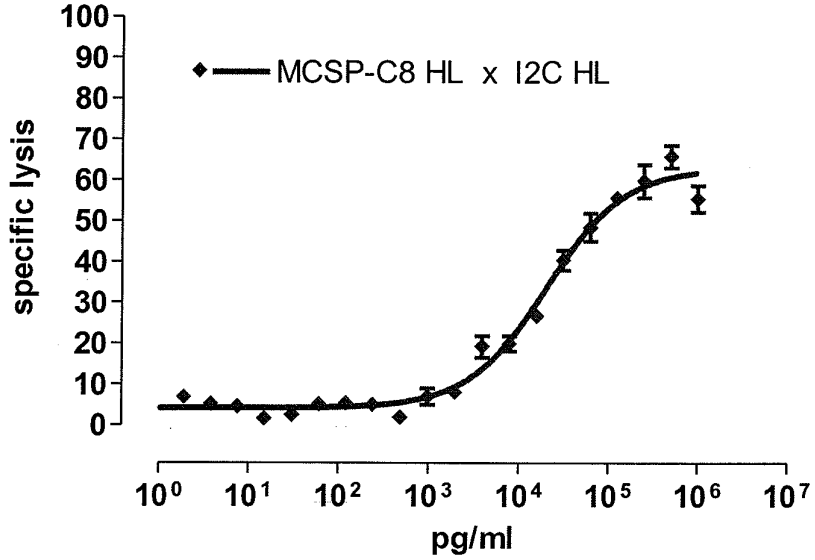
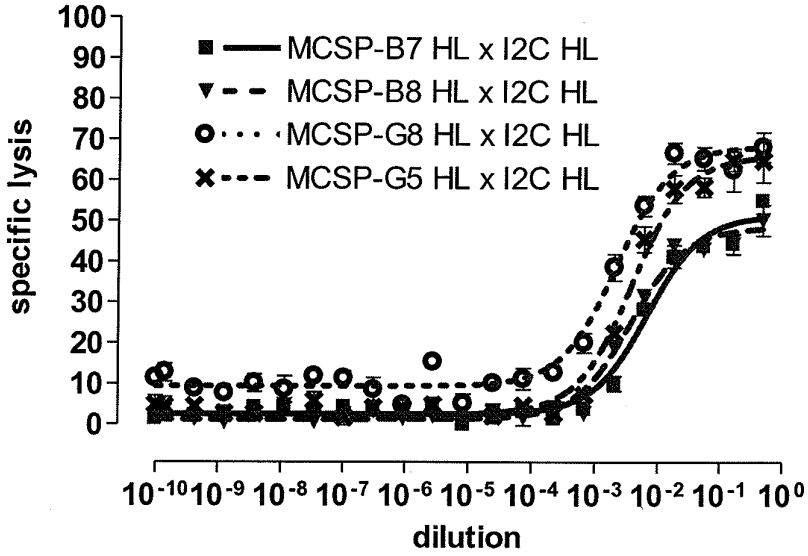


Figure 40c

Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque MCSP D3
E:T ratio: 10:1

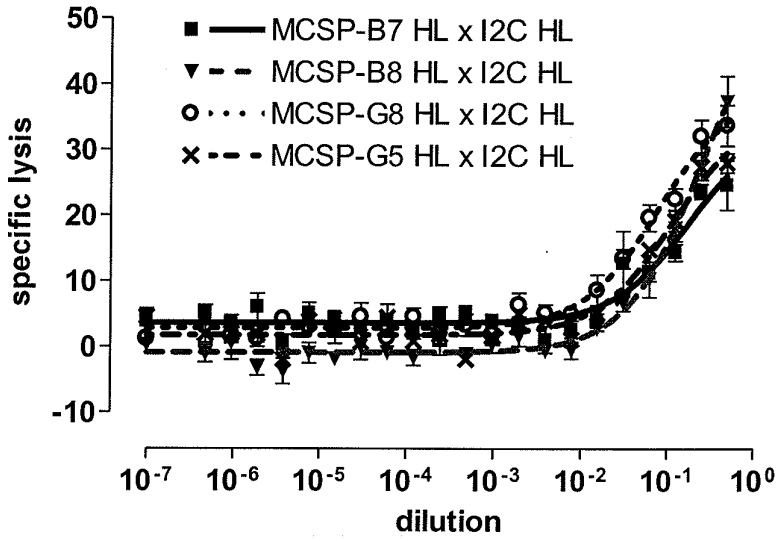
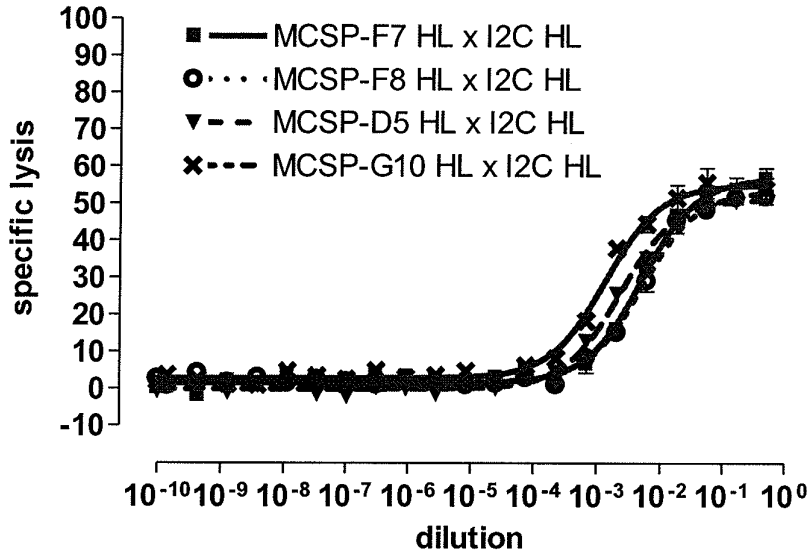


Figure 40d

Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human MCSP D3
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque MCSP D3
E:T ratio: 10:1

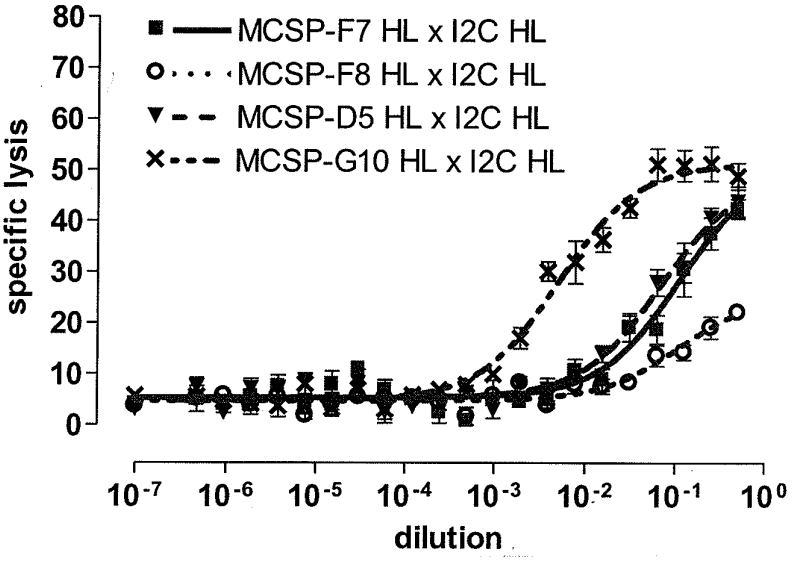
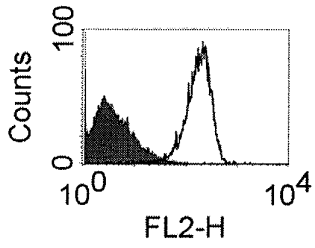


Figure 41a

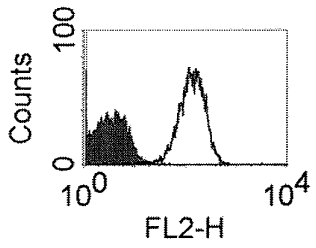
Human CD33 transfected CHO

I2CHLxAF5HL



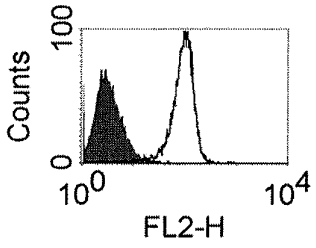
HPB-ALL

I2CHLxAF5HL



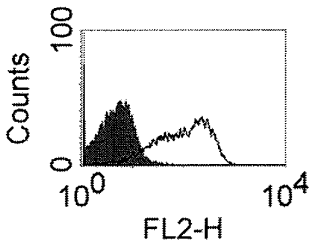
Macaque CD33 transfected CHO

I2CHLxAF5HL



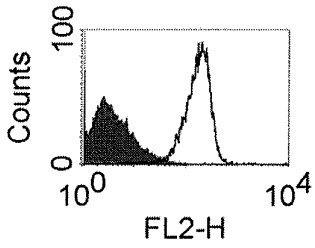
Macaque PBMC

I2CHLxAF5HL



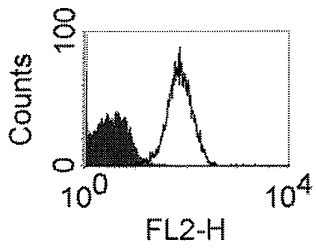
Human CD33 transfected CHO

H2CHLxAF5HL



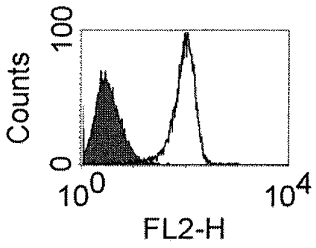
HPB-ALL

H2CHLxAF5HL



Macaque CD33 transfected CHO

H2CHLxAF5HL



Macaque PBMC

H2CHLxAF5HL

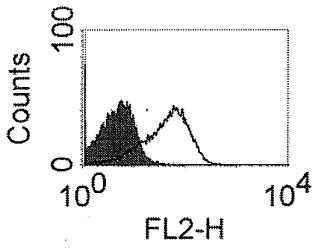
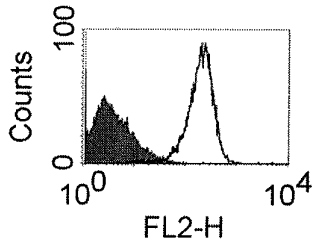


Figure 41b

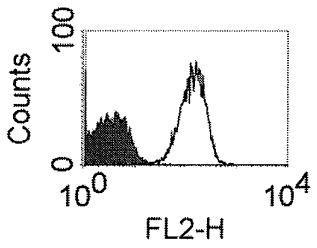
Human CD33 transfected CHO

F12QHLxAF5HL



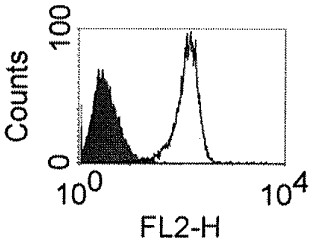
HPB-ALL

F12QHLxAF5HL



Macaque CD33 transfected CHO

F12QHLxAF5HL



Macaque PBMC

F12QHLxAF5HL

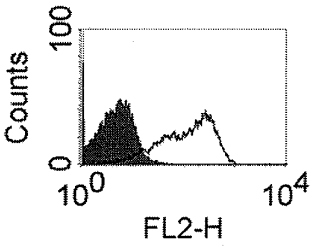
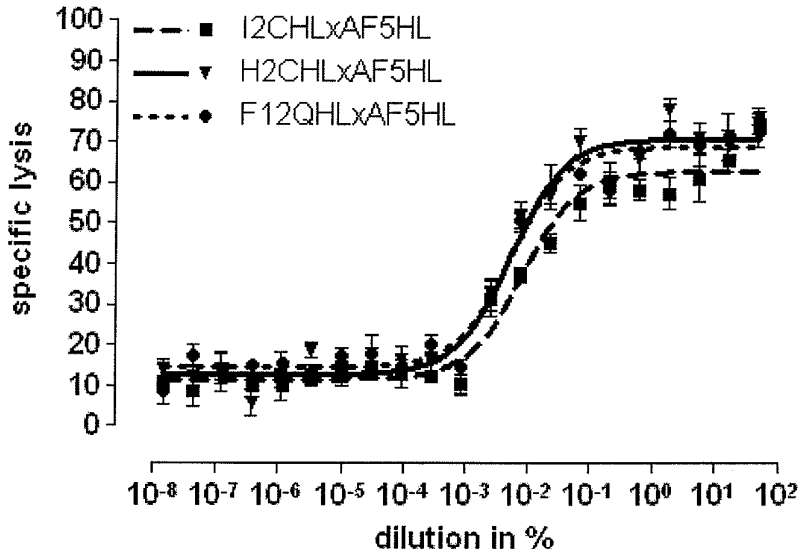


Figure 42

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human CD33



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque CD33

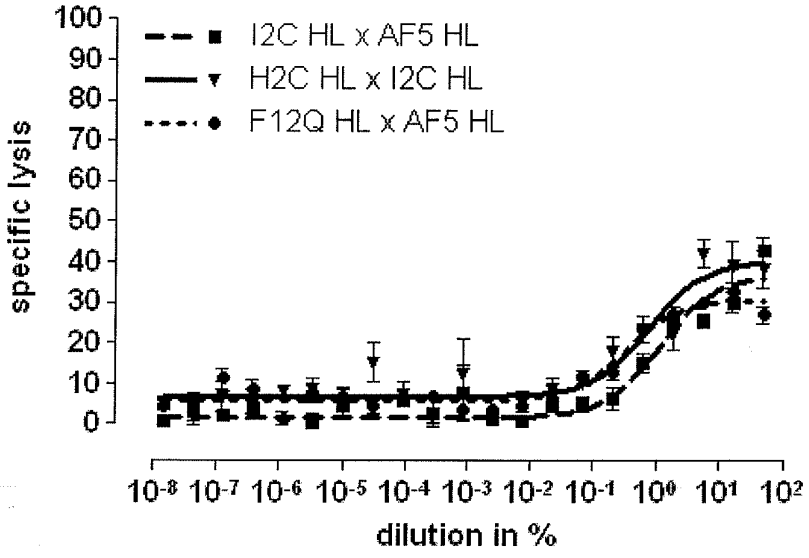


Figure 43

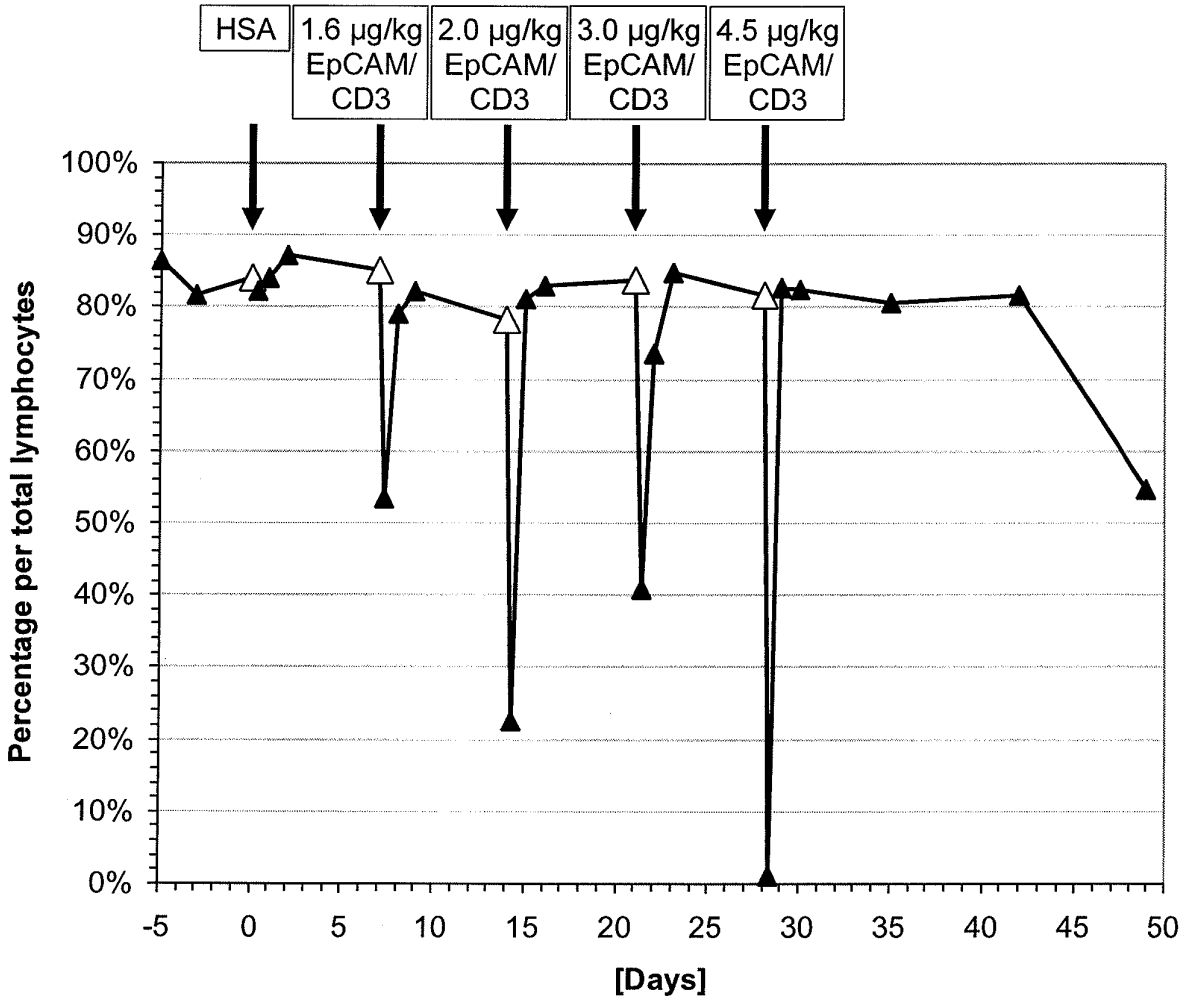

HSA
1.6 µg/kg EpCAM/ CD3
2.0 µg/kg EpCAM/ CD3
3.0 µg/kg EpCAM/ CD3
4.5 µg/kg EpCAM/ CD3
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percentage per total lymphocytes
-5
0
5
10
15
20
25
30
35
40
45
50
[Days]

Figure 44

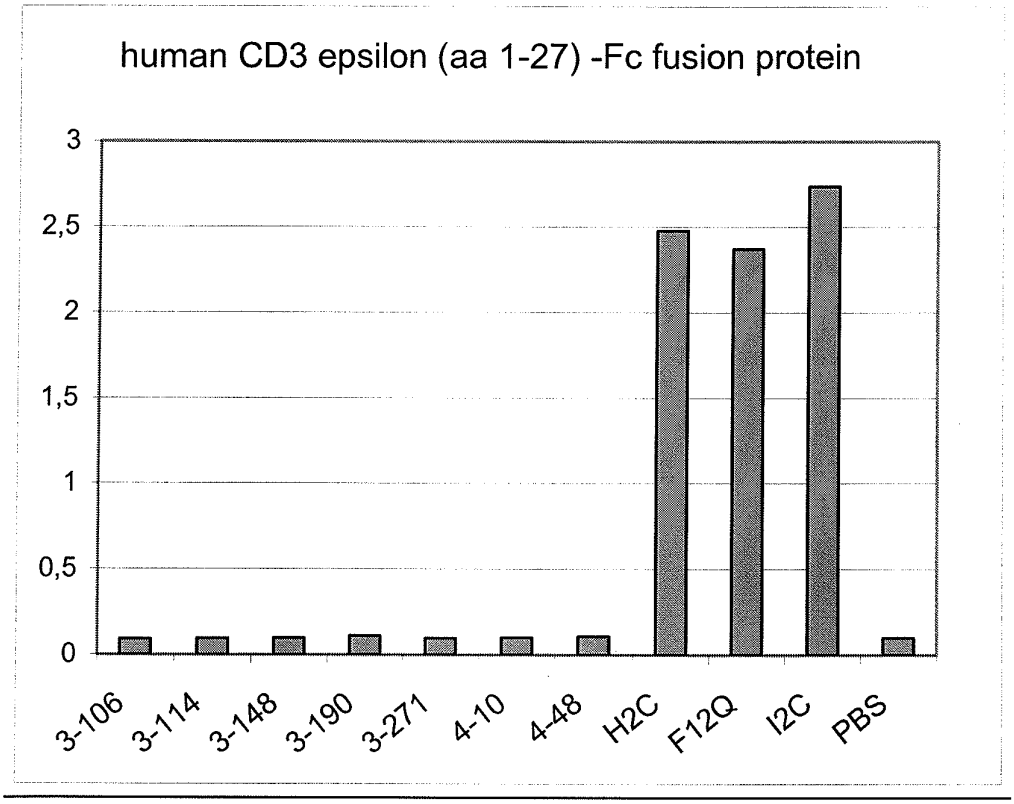

human CD3 epsilon (aa 1-27) -Fc fusion protein
3
2,5
2
1,5
1
0,5
0
3-106
3-114
3-148
3-190
3-271
4-10
4-48
H2C
F12Q
I2C
PBS

Figure 45

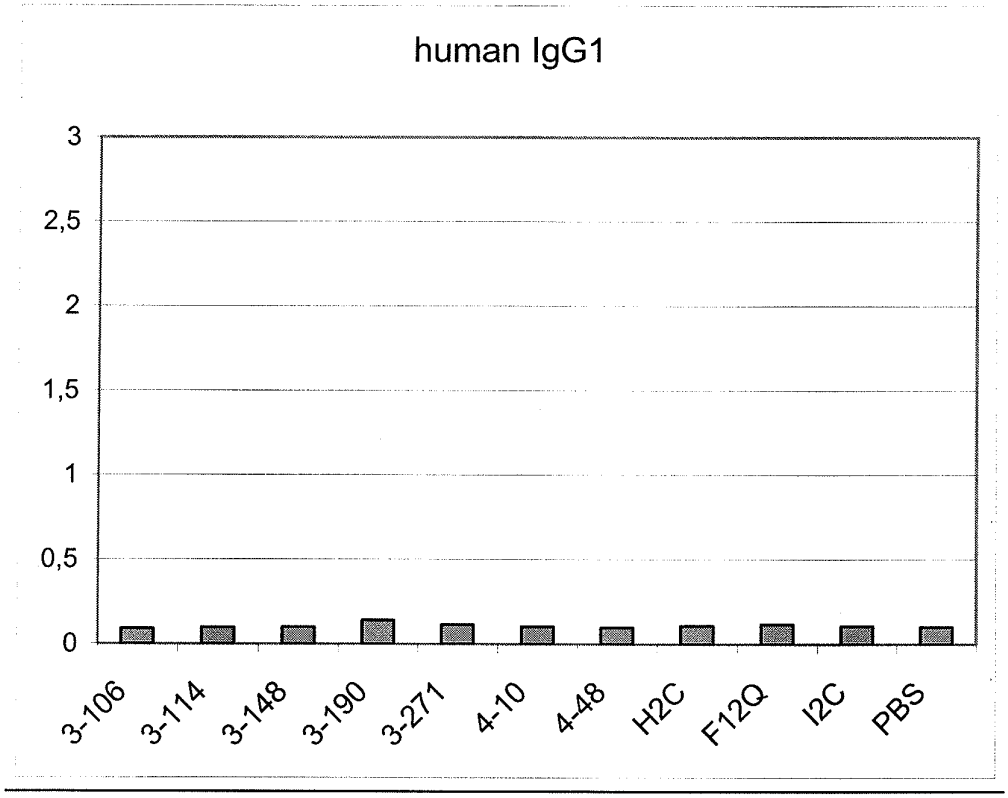

human IgG1
3
2,5
2
1,5
1
0,5
0
3-106
3-114
3-148
3-190
3-271
4-10
4-48
H2C
F12Q
I2C
PBS

Figure 46A

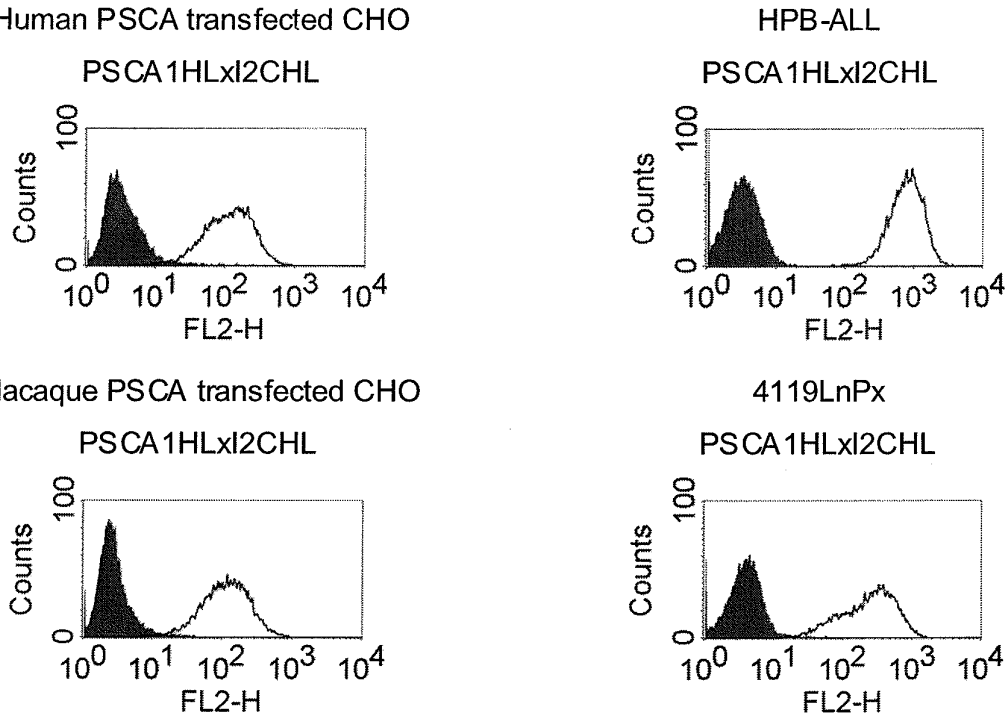


Figure 46B

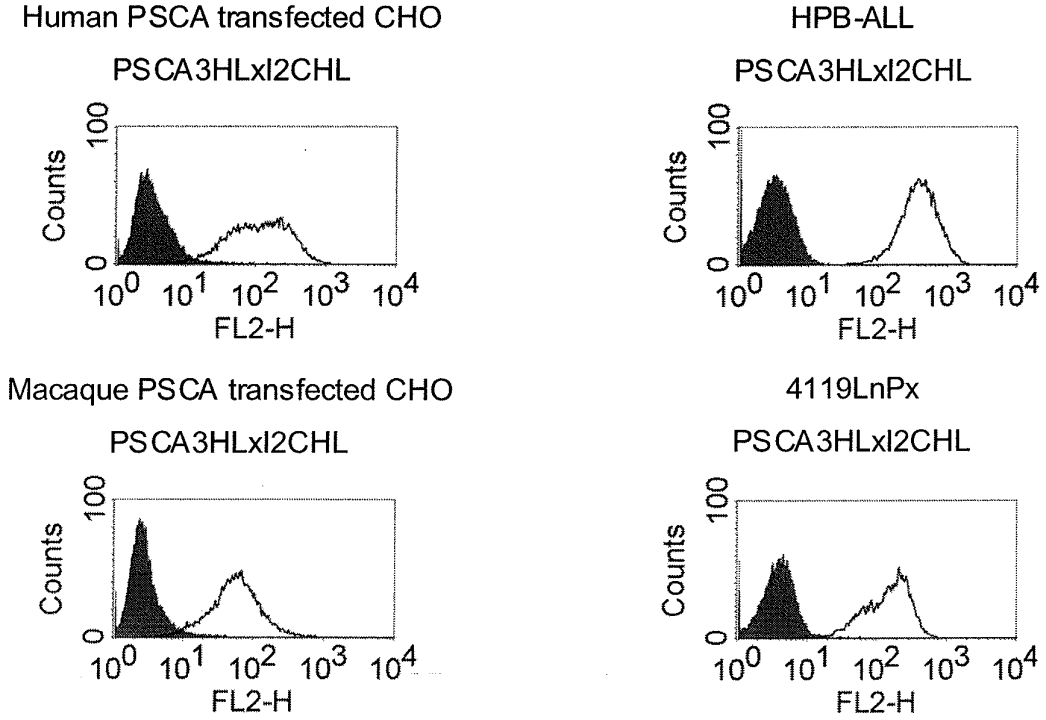


Figure 46C

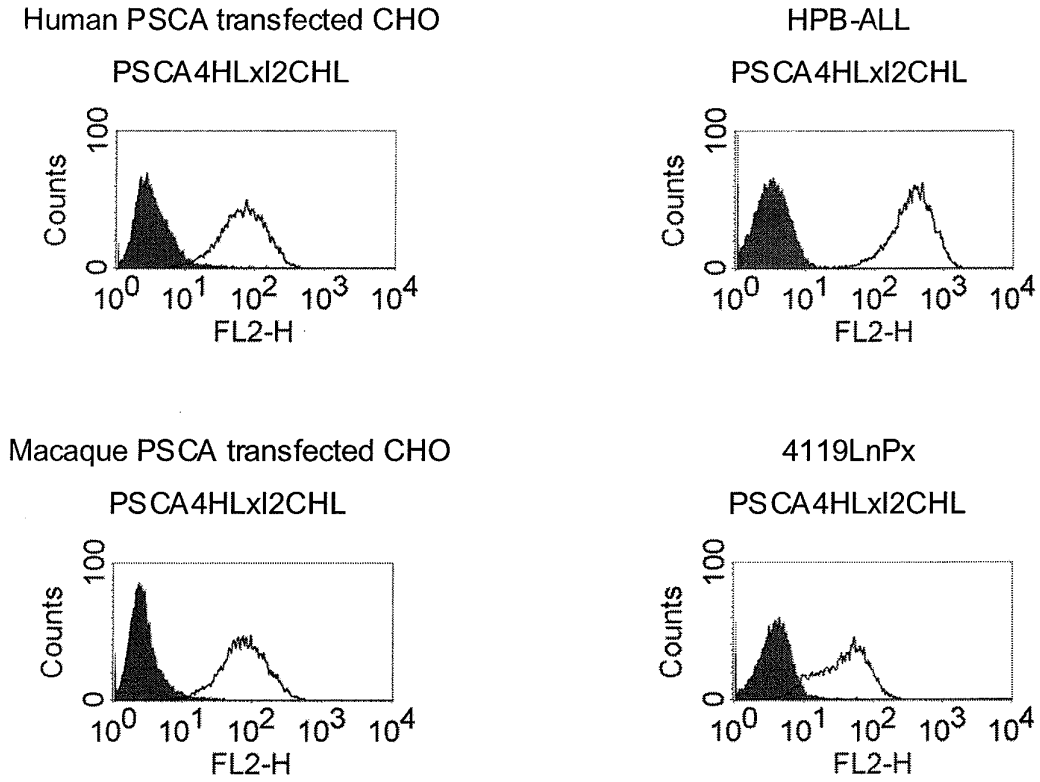


Figure 46D

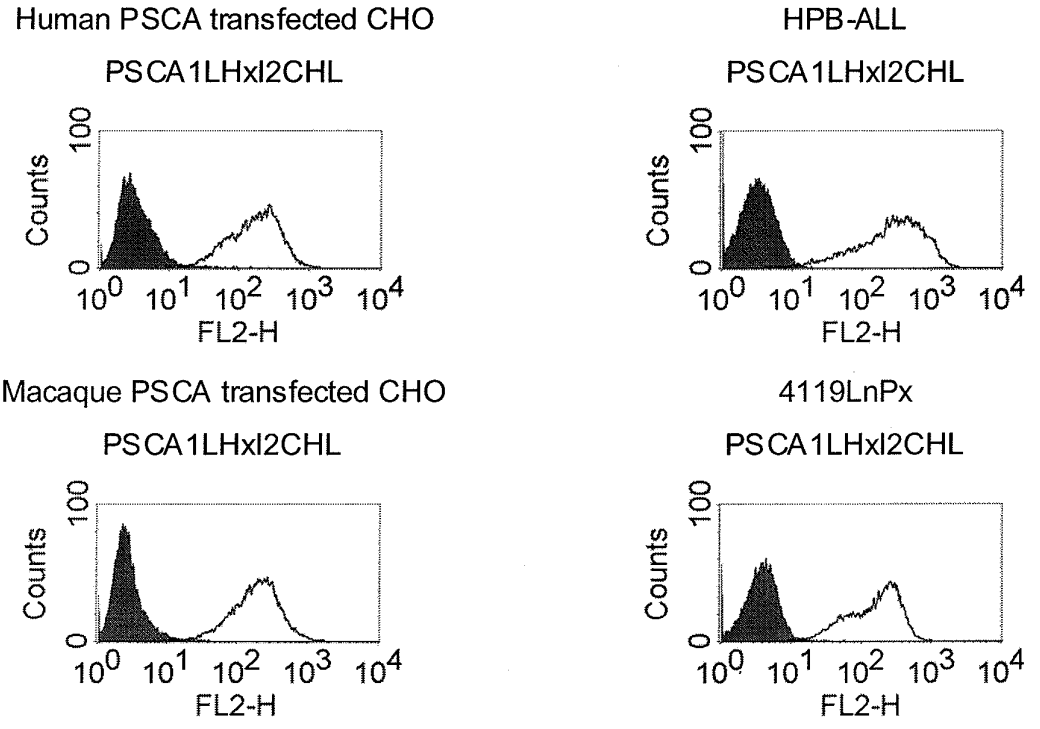


Figure 46E

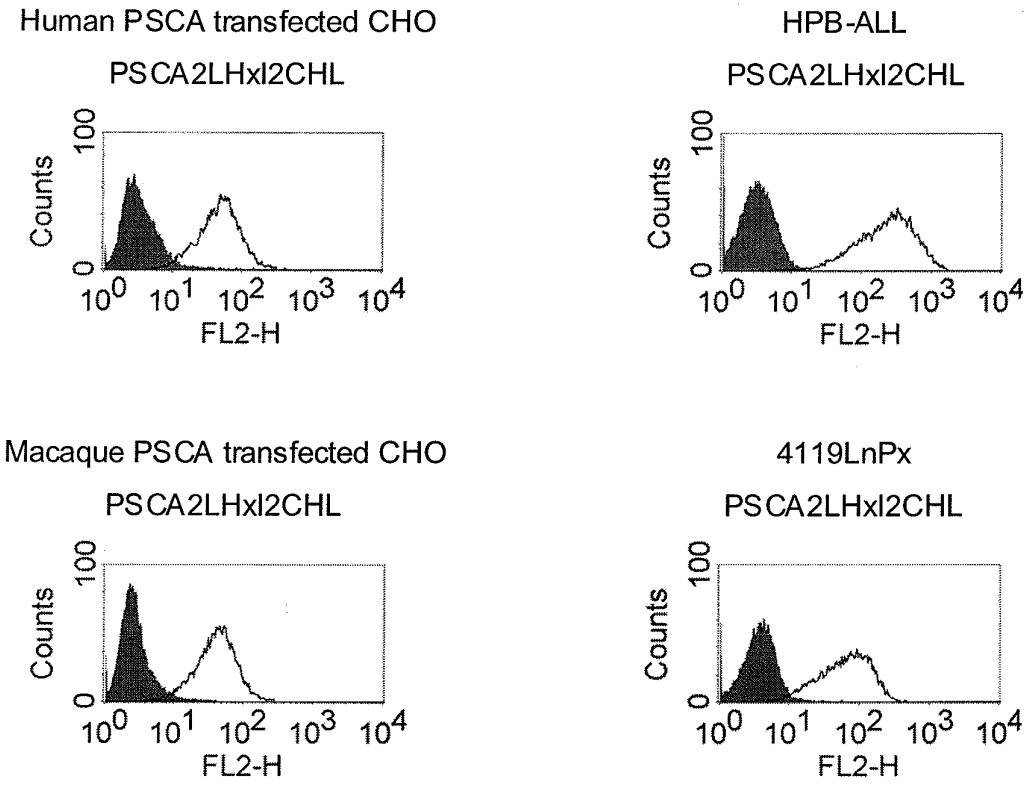


Figure 46F

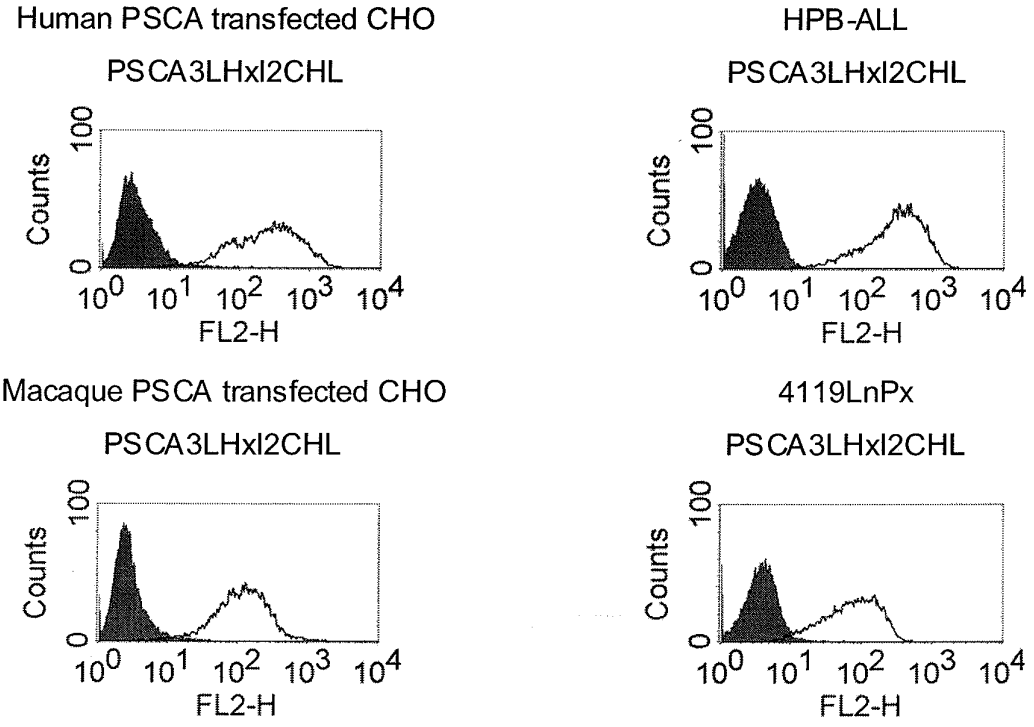


Figure 46G

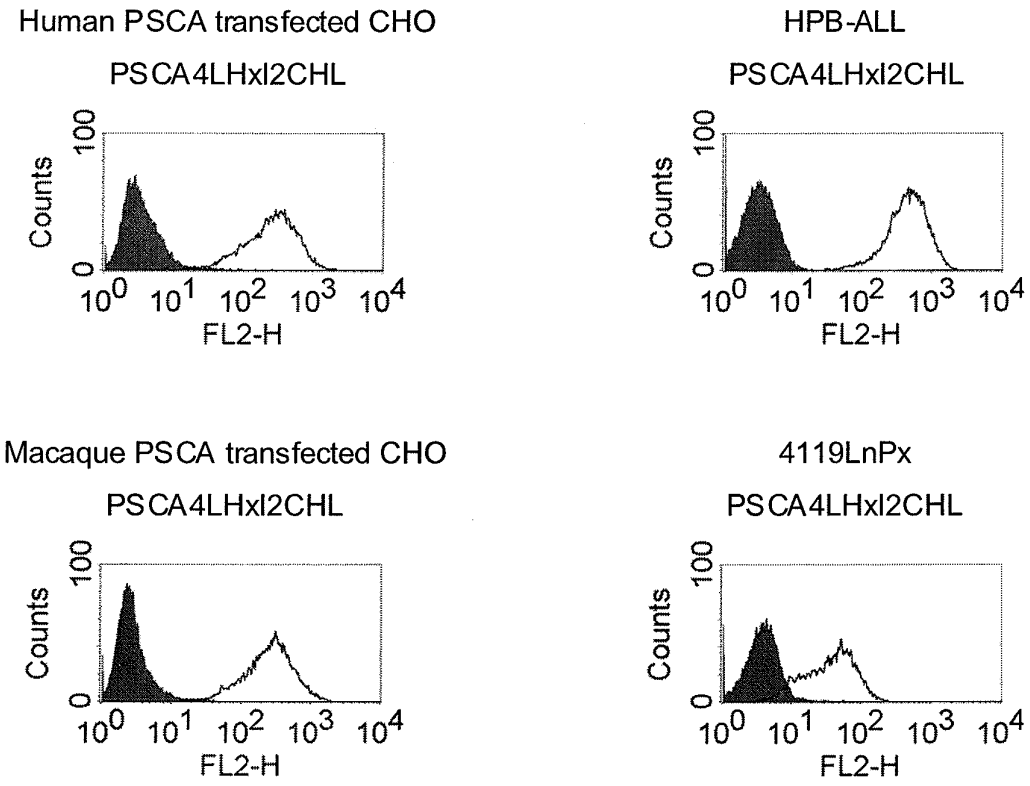
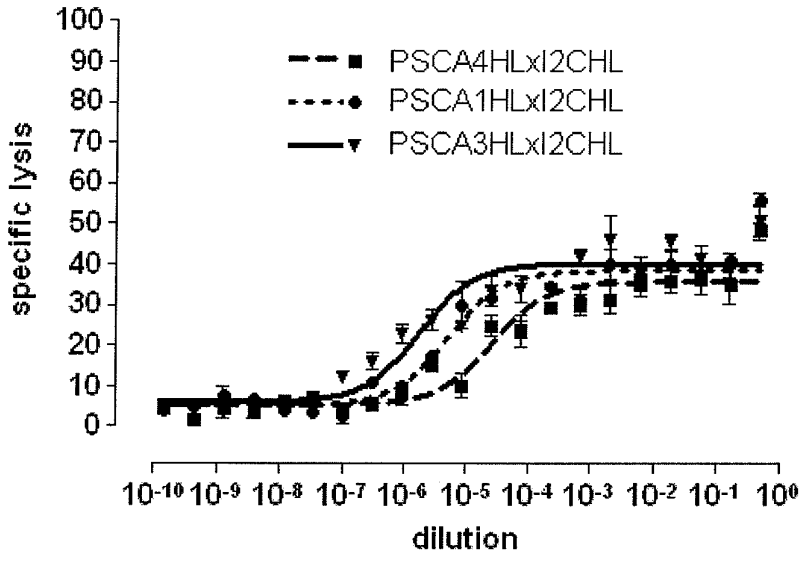

Human PSCA transfected CHO
PSCA4LHxI2CHL
HPB-ALL
PSCA4LHxI2CHL
Macaque PSCA transfected CHO
PSCA4LHxI2CHL
4119LnPx
PSCA4LHxI2CHL
Counts
100
0
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 47A

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human PSCA



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque PSCA

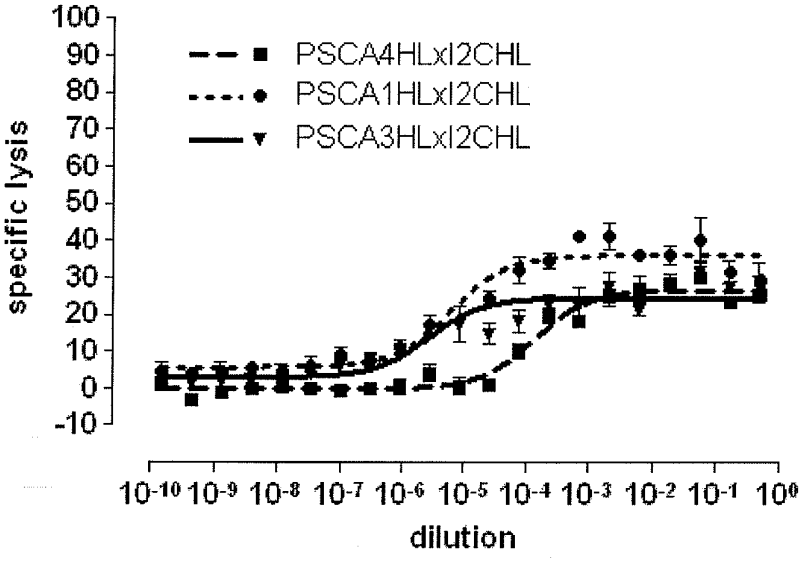
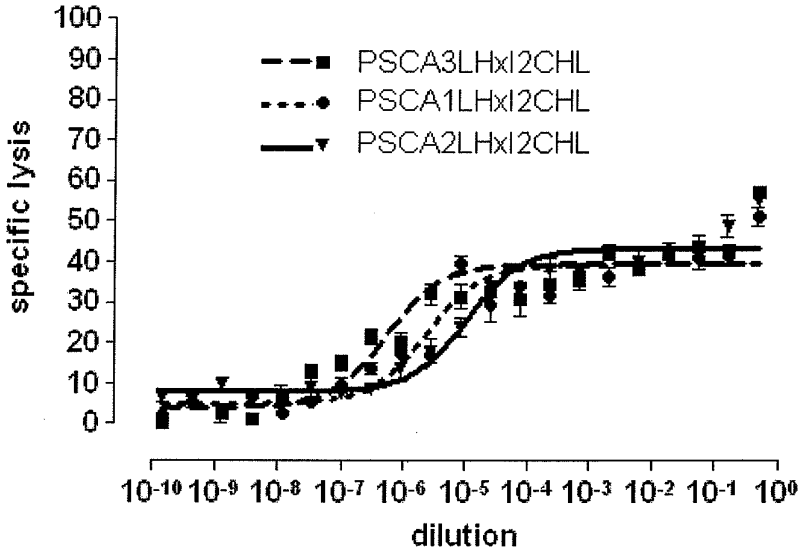


Figure 47B

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human PSCA



Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque PSCA

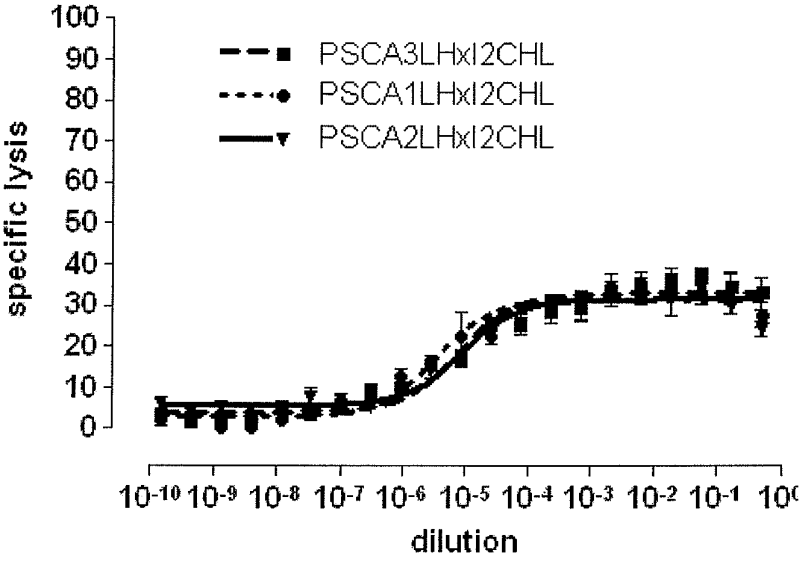
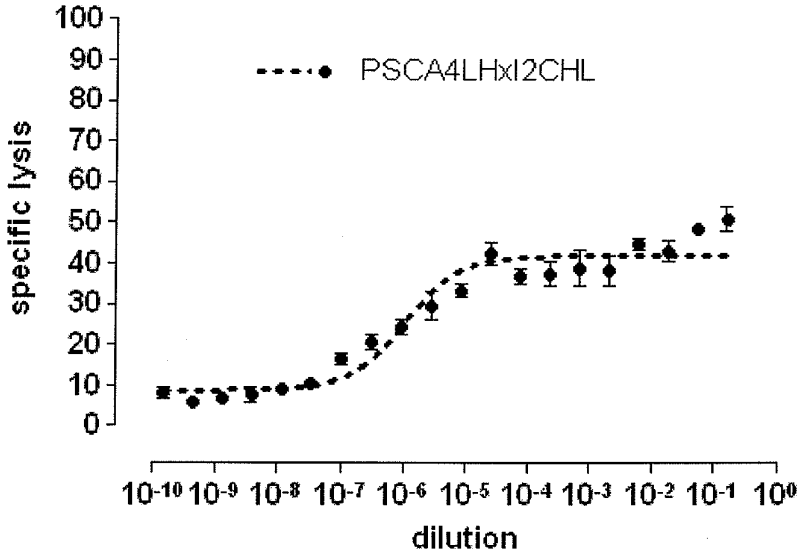


Figure 47C

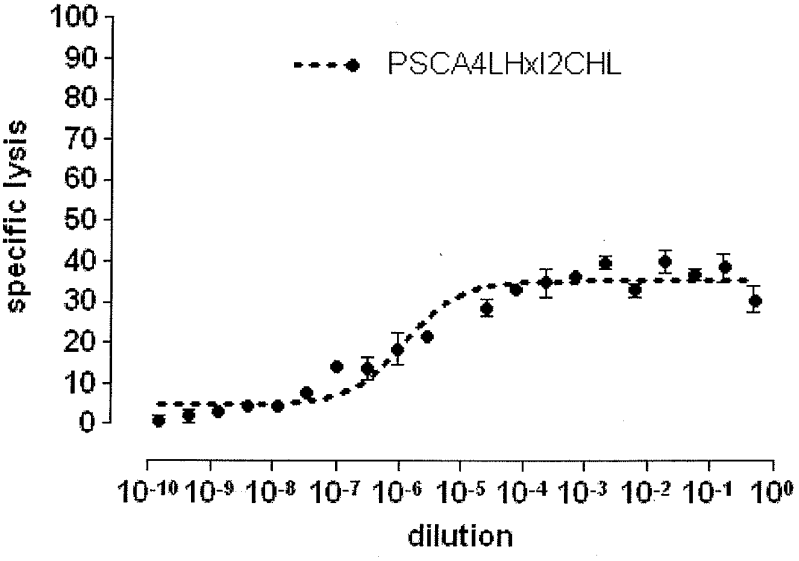
Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human PSCA



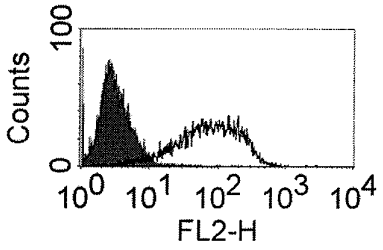
Effector cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque PSCA



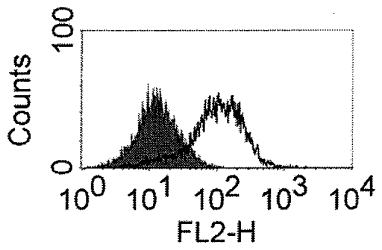
Human PSCA transfected CHO

PC16F5HLxI2CHL



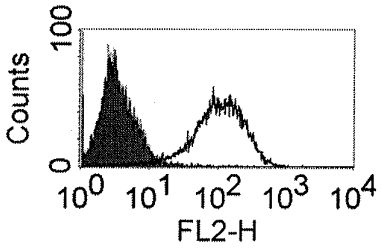
HPB-ALL

PC16F5HLxI2CHL



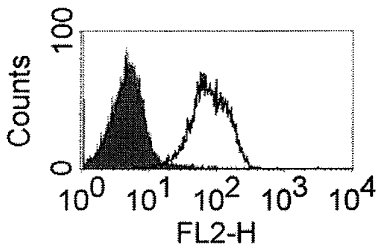
Macaque PSCA transfected CHO

PC16F5HLxI2CHL



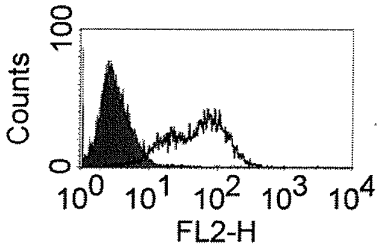
4119LnPx

PC16F5HLxI2CHL



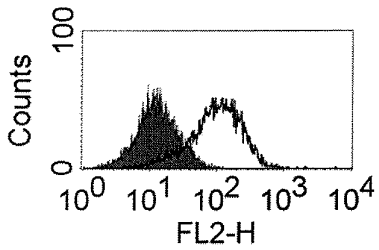
Human PSCA transfected CHO

PC17H10HLxI2CHL



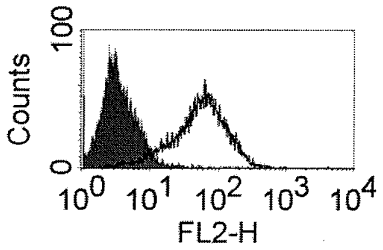
HPB-ALL

PC17H10HLxI2CHL



Macaque PSCA transfected CHO

PC17H10HLxI2CHL



4119LnPx

PC17H10HLxI2CHL

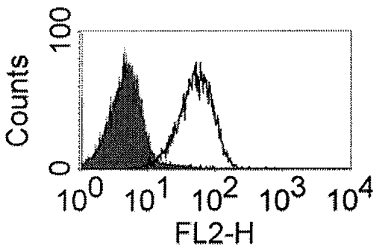
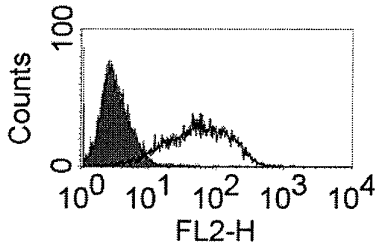


Figure 48a

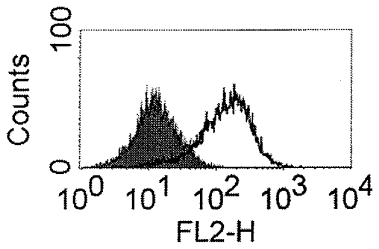
Human PSCA transfected CHO

PC17D10HLxI2CHL



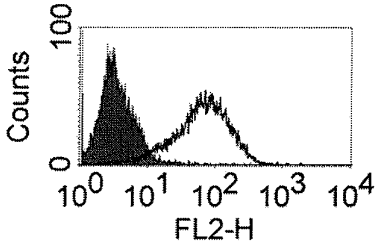
HPB-ALL

PC17D10HLxI2CHL



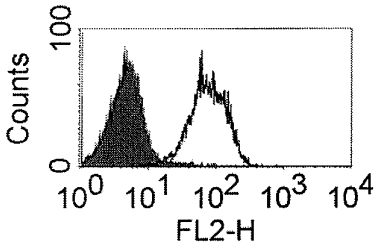
Macaque PSCA transfected CHO

PC17D10HLxI2CHL



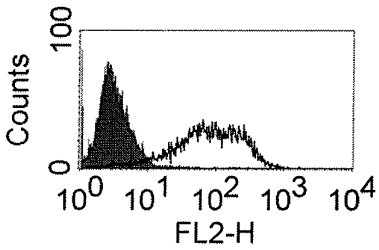
4119LnPx

PC17D10HLxI2CHL



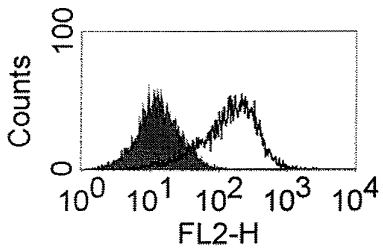
Human PSCA transfected CHO

PC08F4HLxI2CHL



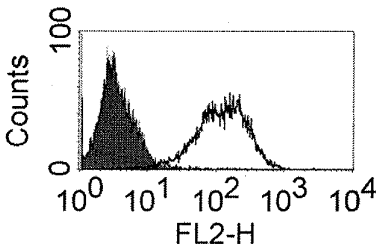
HPB-ALL

PC08F4HLxI2CHL



Macaque PSCA transfected CHO

PC08F4HLxI2CHL



4119LnPx

PC08F4HLxI2CHL

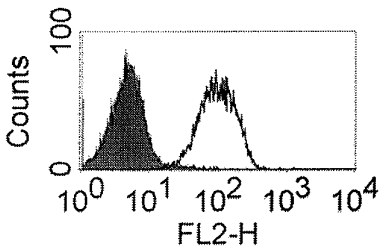
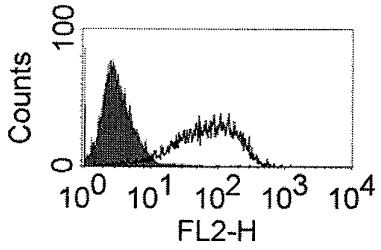


Figure 48b

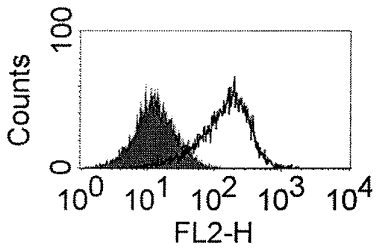
Human PSCA transfected CHO

PC32B8HLxI2CHL



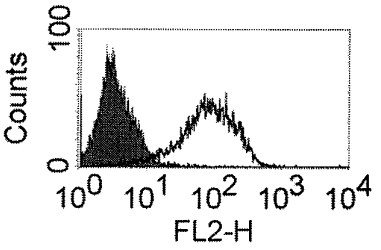
HPB-ALL

PC32B8HLxI2CHL



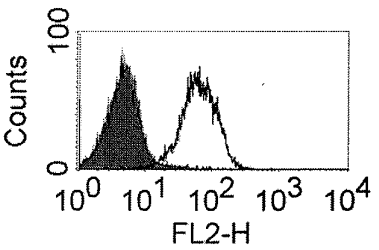
Macaque PSCA transfected CHO

PC32B8HLxI2CHL



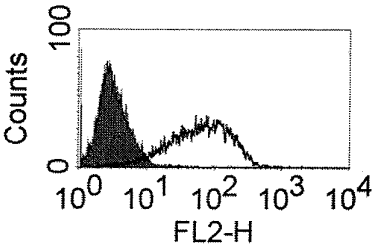
4119LnPx

PC32B8HLxI2CHL



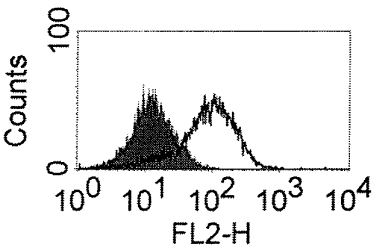
Human PSCA transfected CHO

PC32D5HLxI2CHL



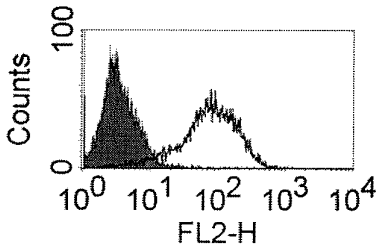
HPB-ALL

PC32D5HLxI2CHL



Macaque PSCA transfected CHO

PC32D5HLxI2CHL



4119LnPx

PC32D5HLxI2CHL

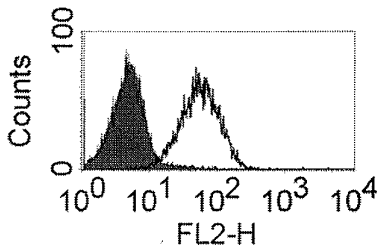
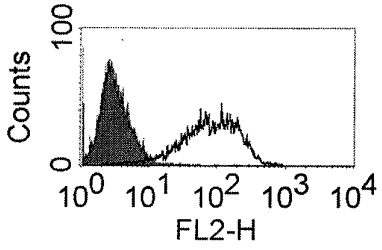


Figure 48c

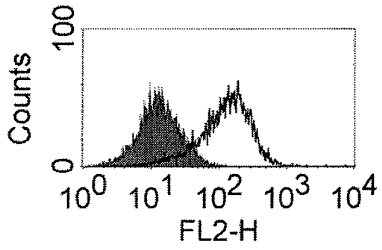
Human PSCA transfected CHO

PC16E12HLxI2CHL



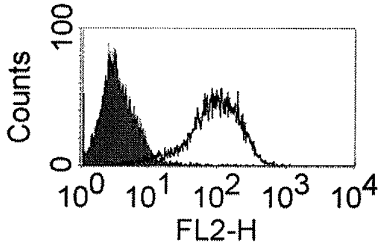
HPB-ALL

PC16E12HLxI2CHL



Macaque PSCA transfected CHO

PC16E12HLxI2CHL



4119LnPx

PC16E12HLxI2CHL

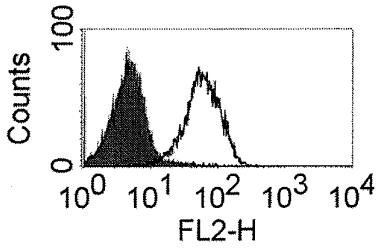
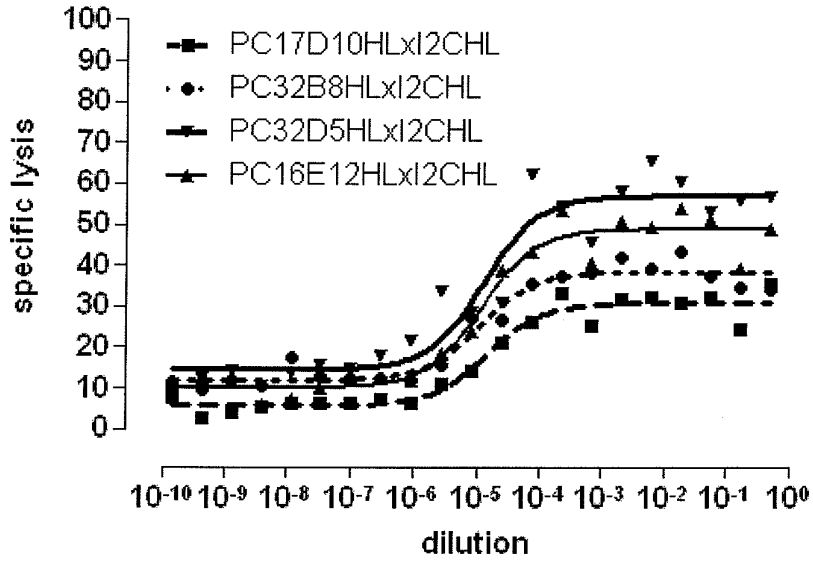


Figure 48d

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human PSCA



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque PSCA

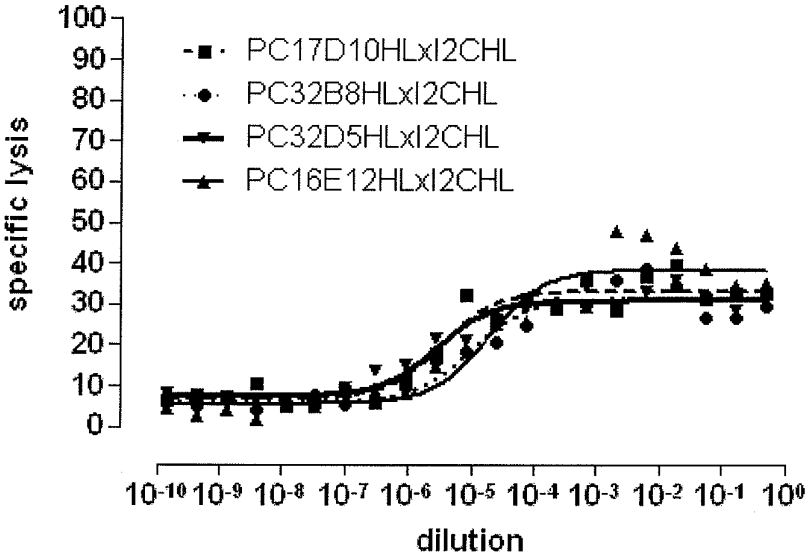
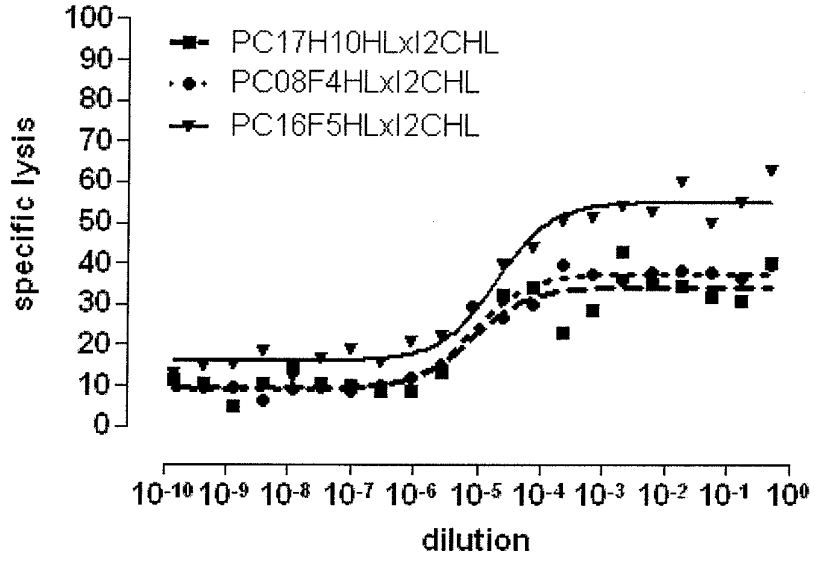


Figure 49a

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human PSCA



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque PSCA

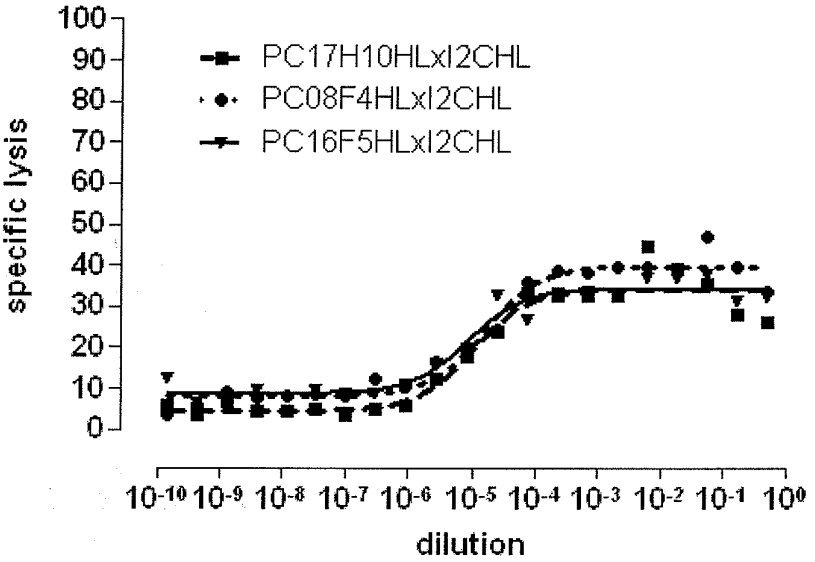


Figure 49b

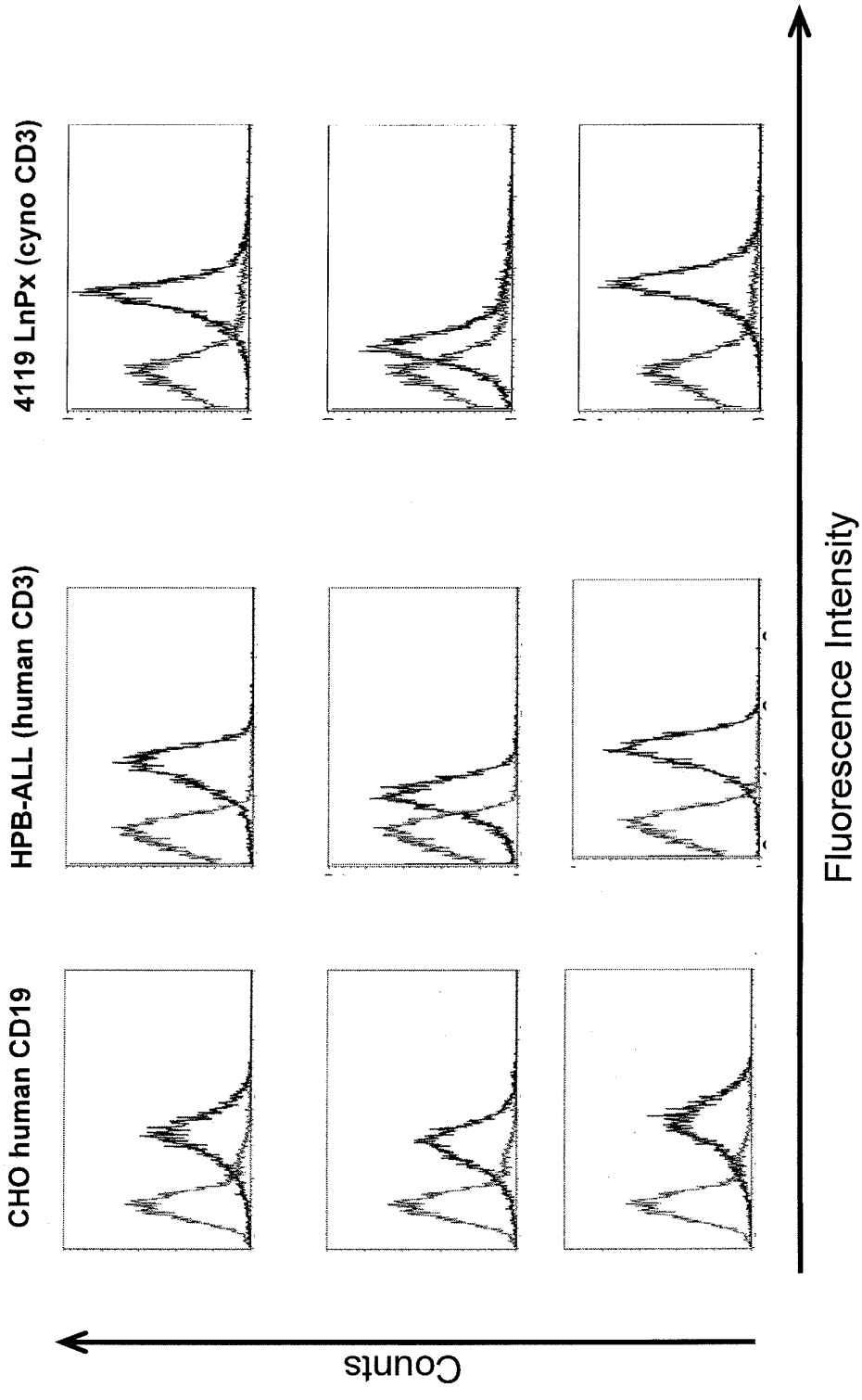

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
HD37 HL x I2C HL
HD37 HL x H2C HL
HD37 HL x F12Q HL
Counts
Fluorescence Intensity

Figure 50a

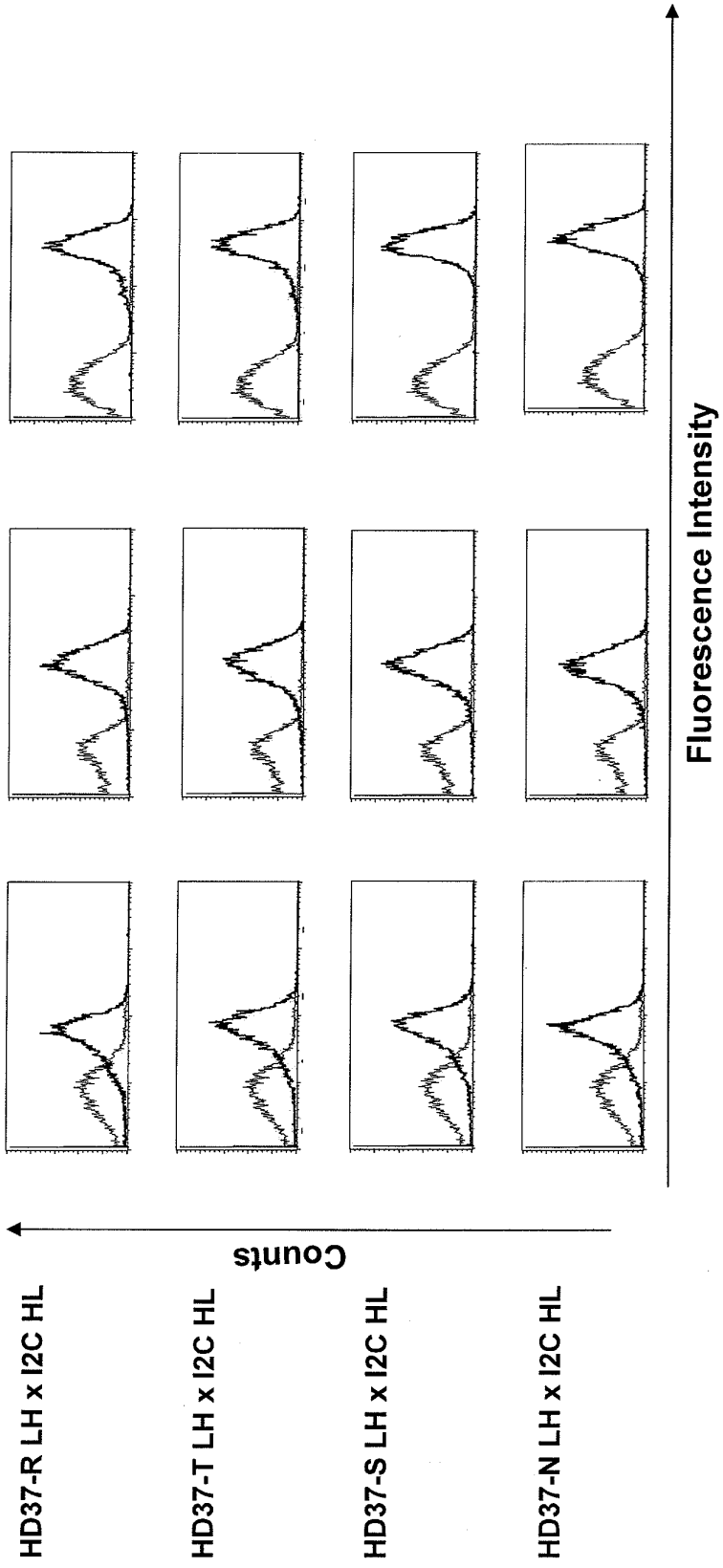

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
Fluorescence Intensity
Counts
HD37-R LH x I2C HL
HD37-T LH x I2C HL
HD37-S LH x I2C HL
HD37-N LH x I2C HL

Figure 50b

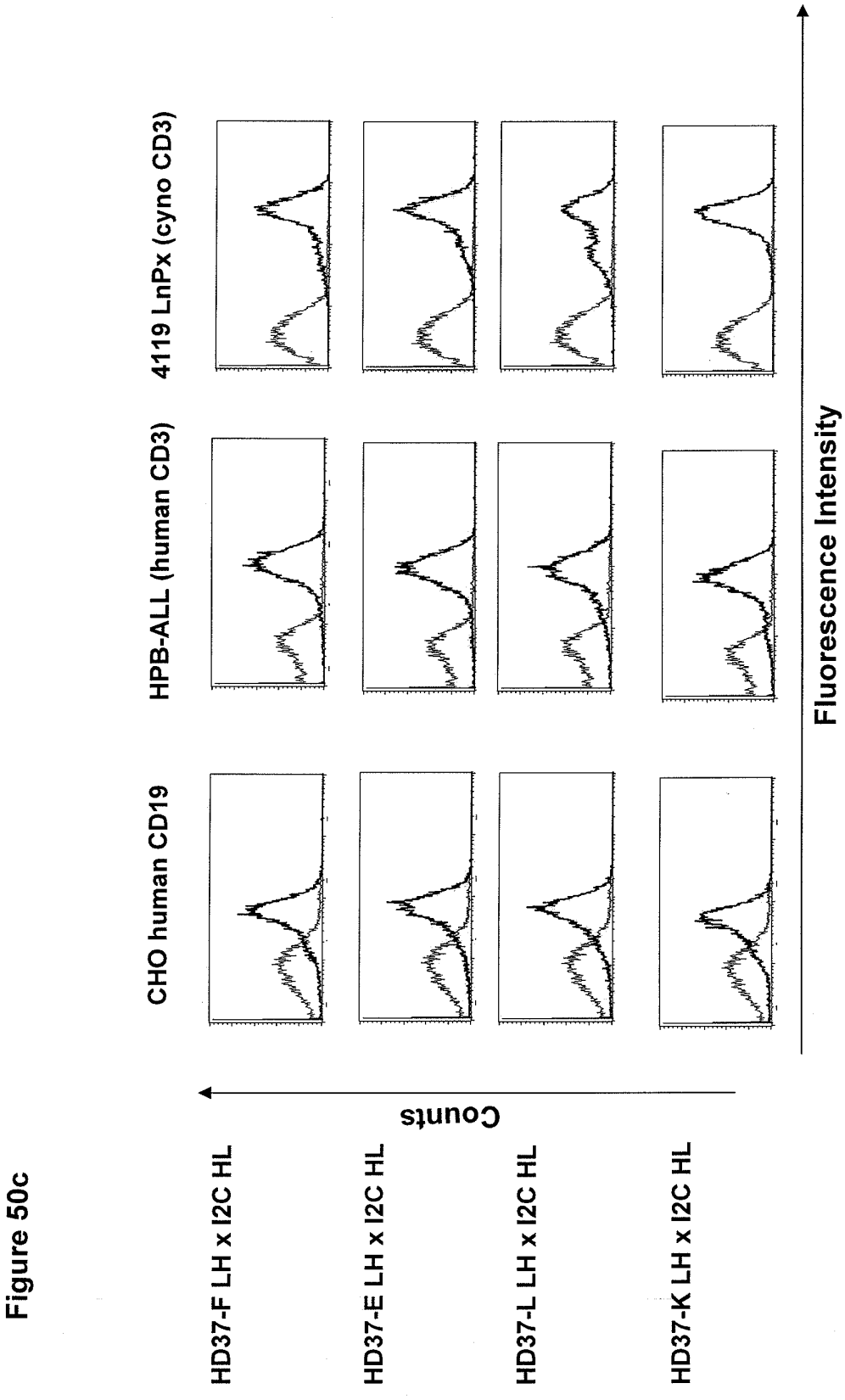

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
Counts
Fluorescence Intensity
HD37-F LH x I2C HL
HD37-E LH x I2C HL
HD37-L LH x I2C HL
HD37-K LH x I2C HL

Figure 50c

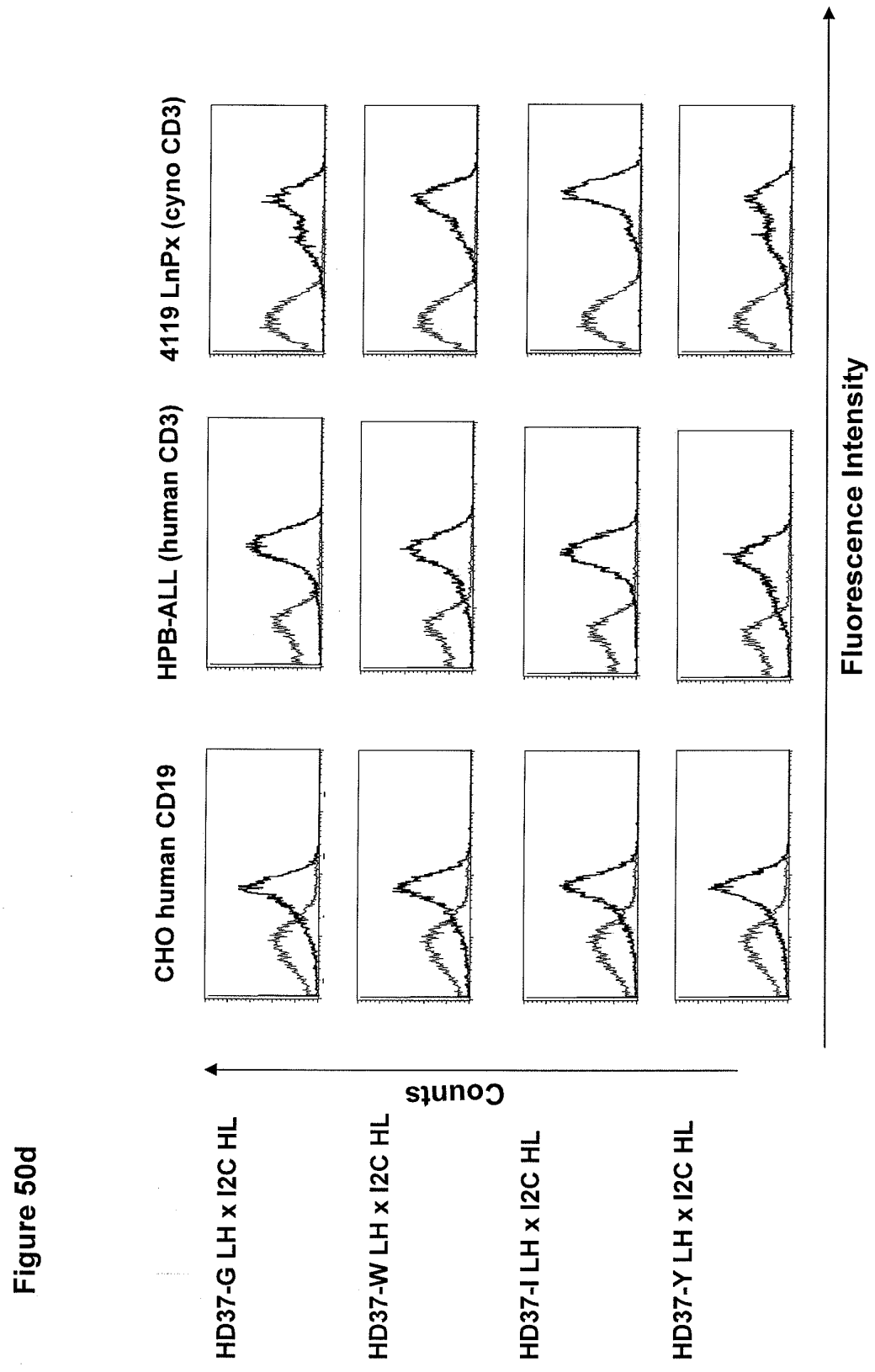
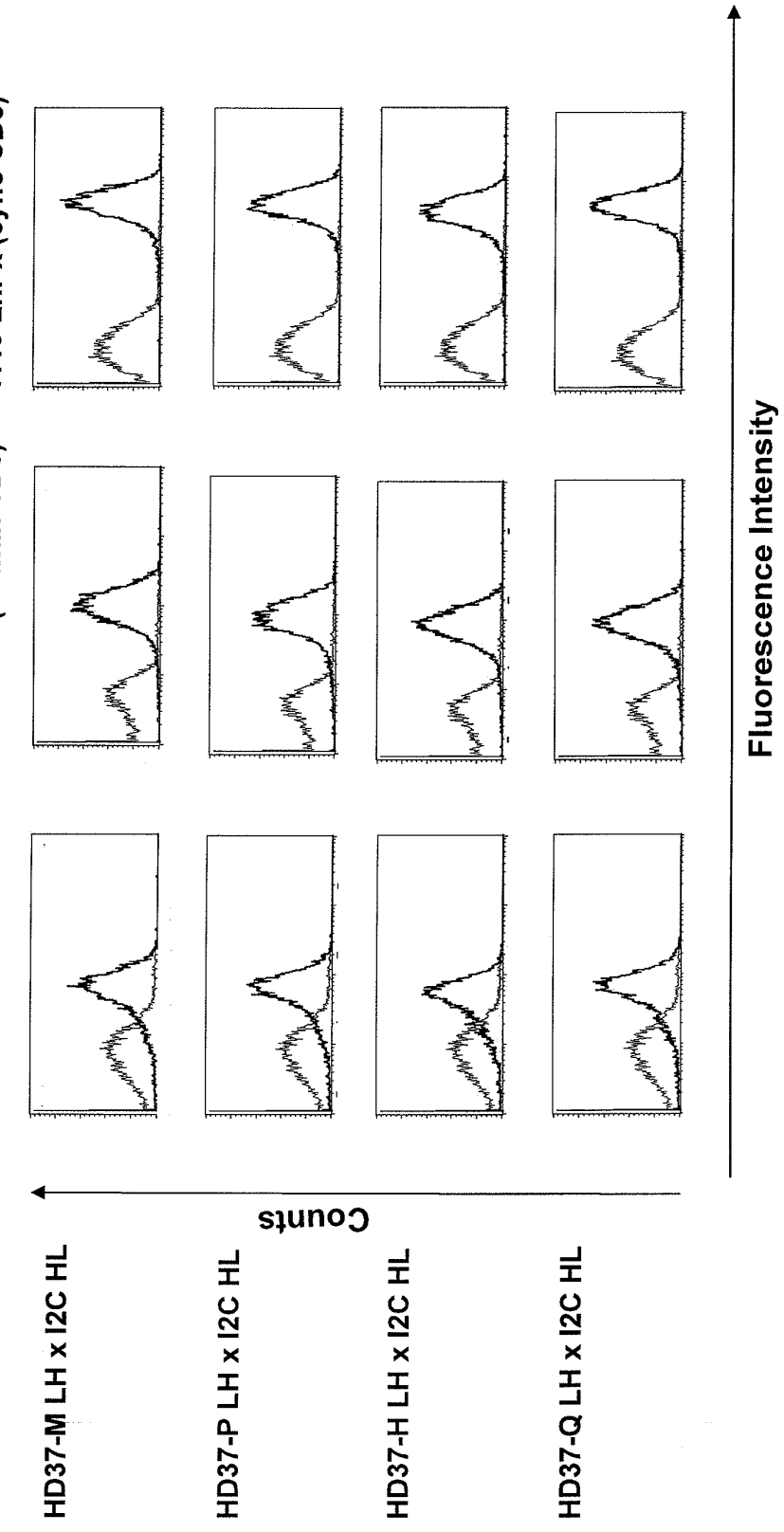

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
HD37-G LH x I2C HL
HD37-W LH x I2C HL
HD37-I LH x I2C HL
HD37-Y LH x I2C HL
Counts
Fluorescence Intensity

Figure 50d

Figure 50e


CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
HD37-M LH x I2C HL
HD37-P LH x I2C HL
HD37-H LH x I2C HL
HD37-Q LH x I2C HL
Counts
Fluorescence Intensity

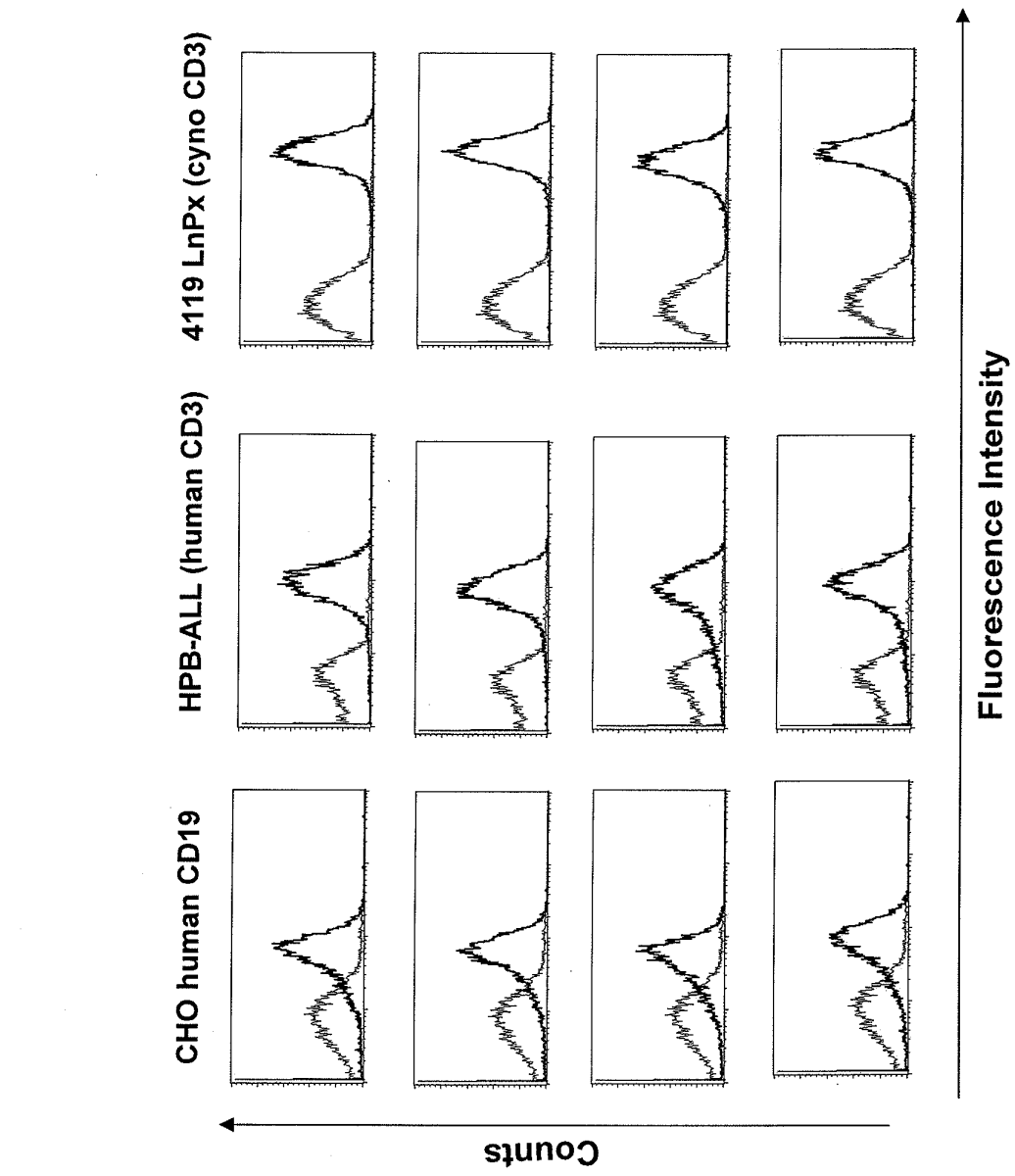

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
HD37-V LH x I2C HL
HD37-A LH x I2C HL
HD37-DT LH x I2C HL
HD37 LH x I2C HL
Counts
Fluorescence Intensity

Figure 50f

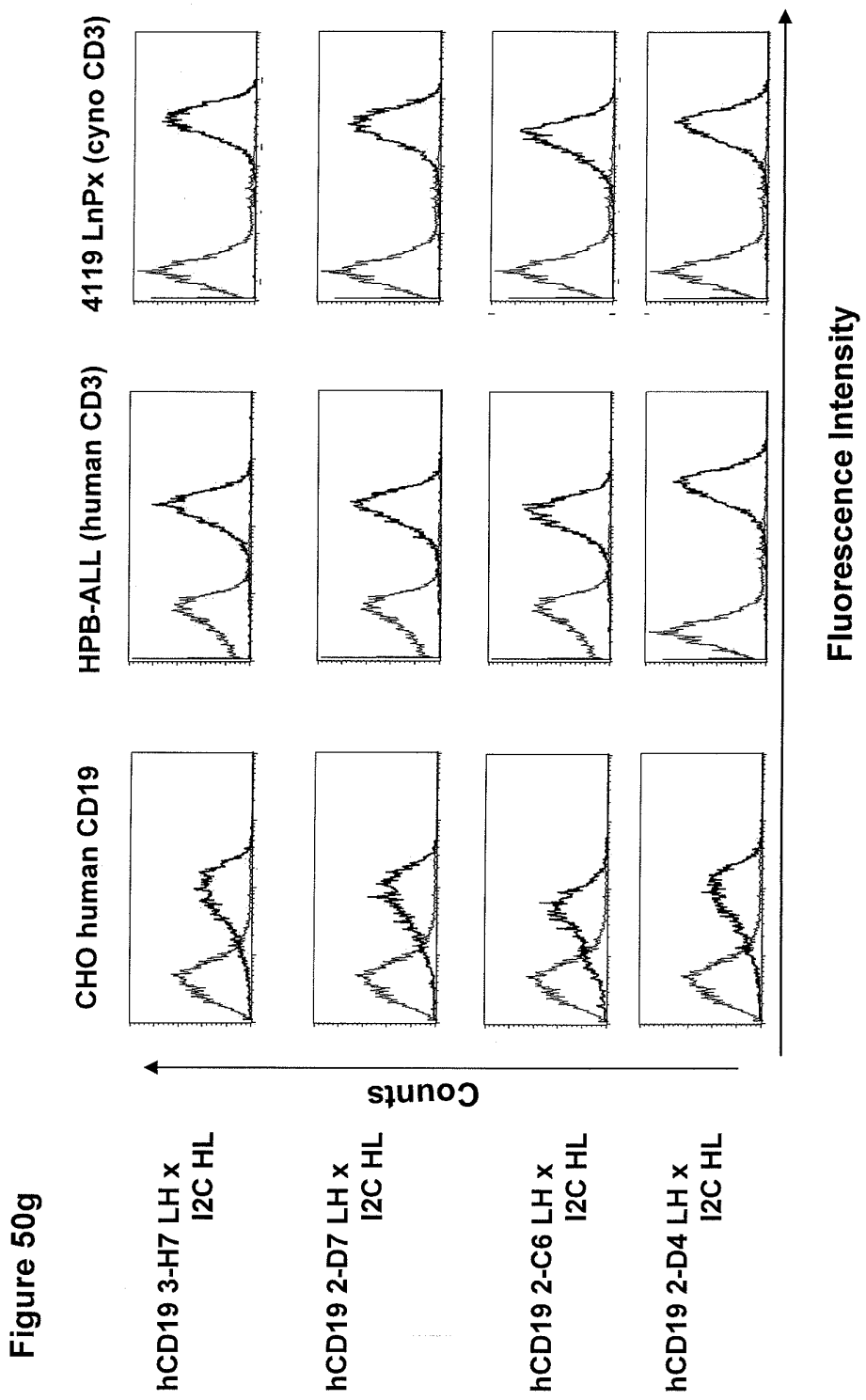

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
Counts
Fluorescence Intensity
hCD19 3-H7 LH x I2C HL
hCD19 2-D7 LH x I2C HL
hCD19 2-C6 LH x I2C HL
hCD19 2-D4 LH x I2C HL

Figure 50g

Figure 50h

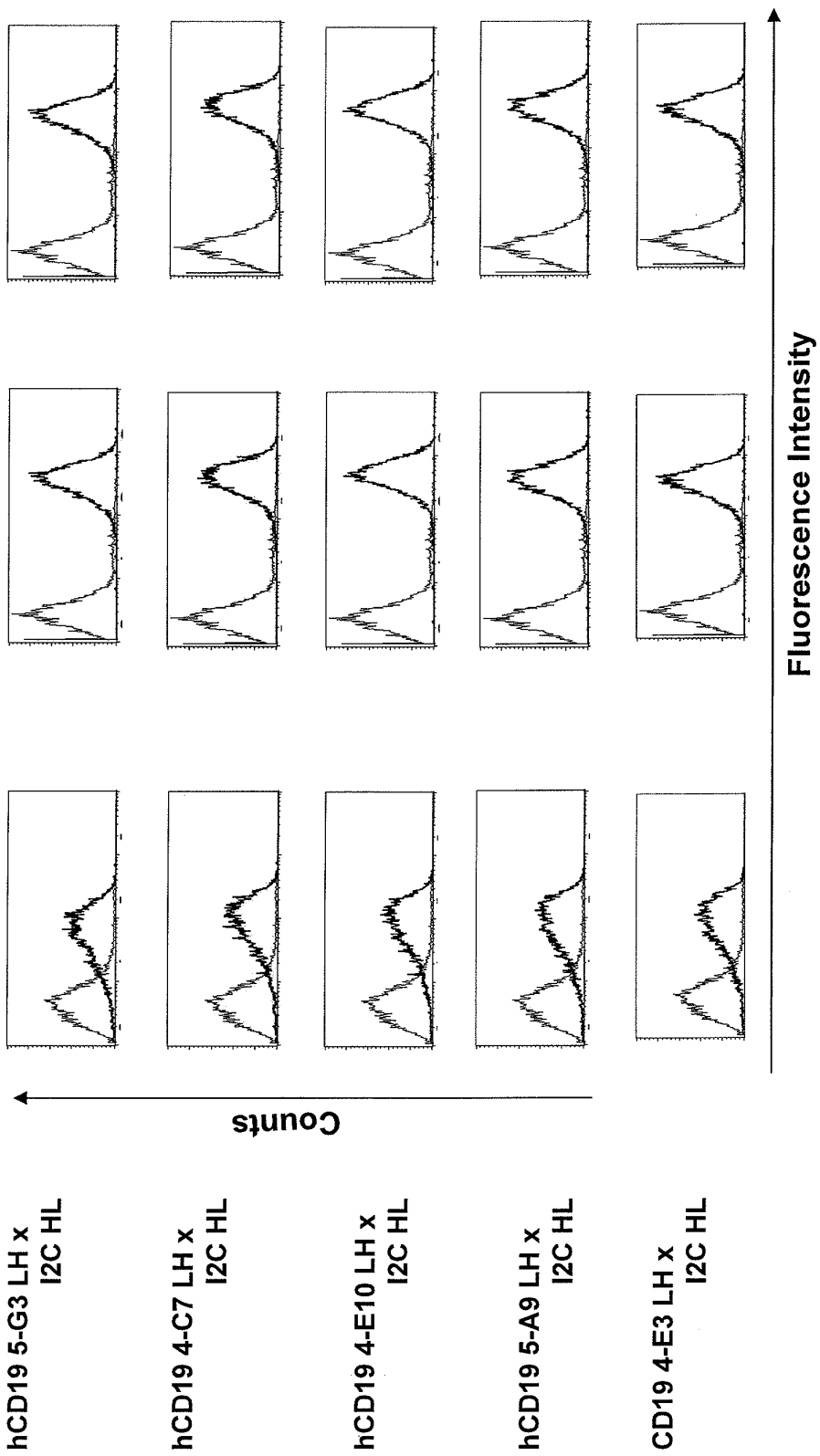

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
Counts
Fluorescence Intensity
hCD19 5-G3 LH x I2C HL
hCD19 4-C7 LH x I2C HL
hCD19 4-E10 LH x I2C HL
hCD19 5-A9 LH x I2C HL
CD19 4-E3 LH x I2C HL

Figure 50i

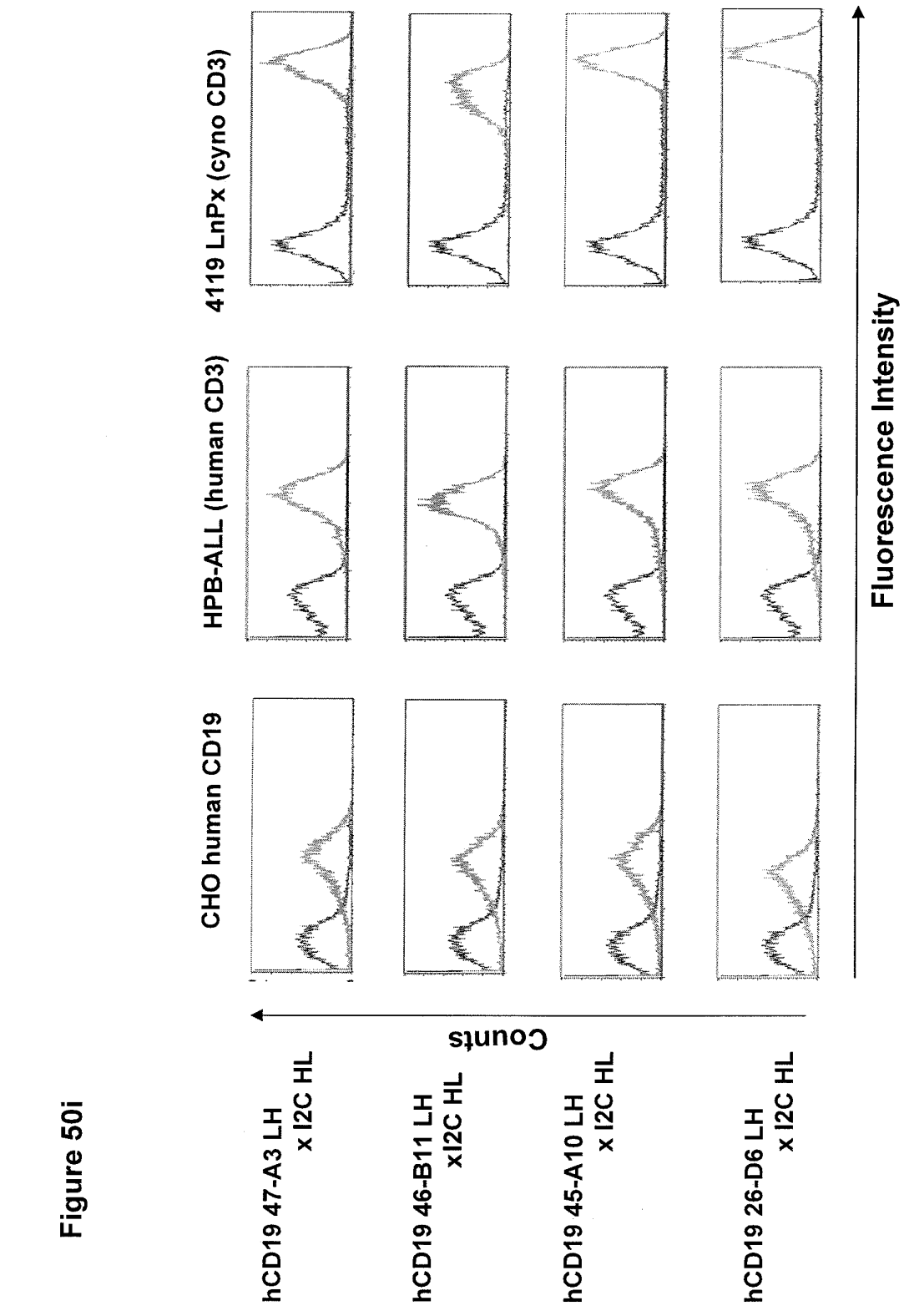
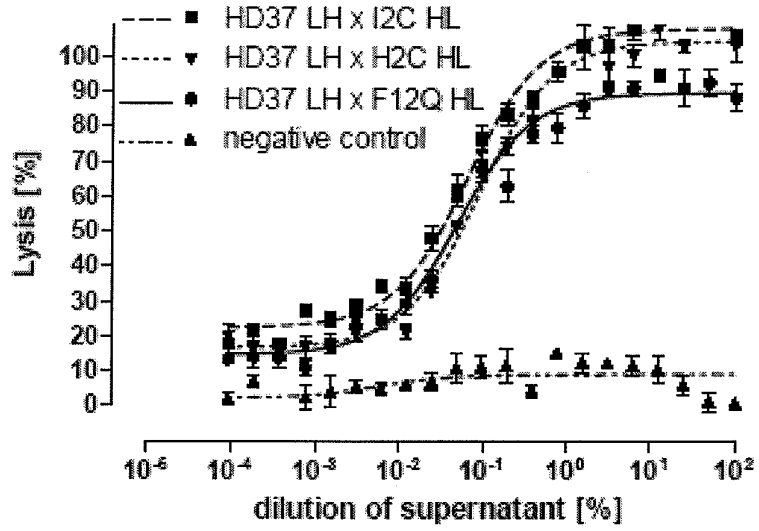

CHO human CD19
HPB-ALL (human CD3)
4119 LnPx (cyno CD3)
hCD19 47-A3 LH x I2C HL
hCD19 46-B11 LH xI2C HL
hCD19 45-A10 LH x I2C HL
hCD19 26-D6 LH x I2C HL
Counts
Fluorescence Intensity

Figure: 51(1)

A) Effector cells: CD56 depleted unstimulated human PBMC
Target cells: CHO transfected with human CD19



B) Effector cells: 4119LnPx
Target cells: CHO transfected with human CD19

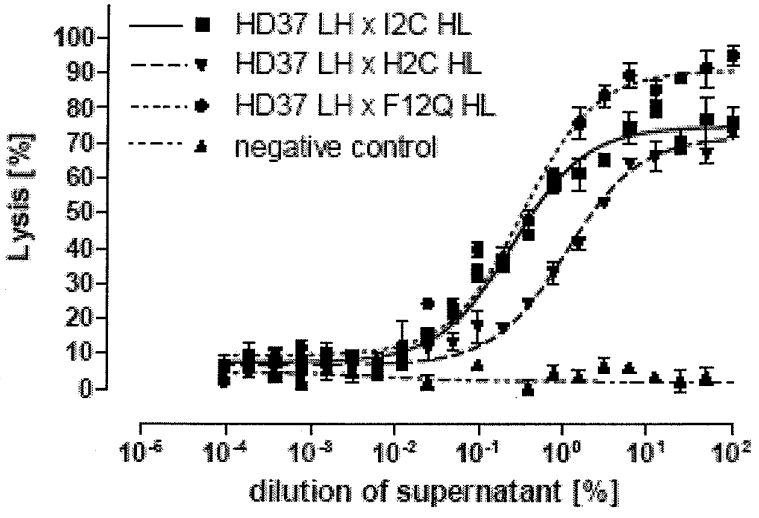
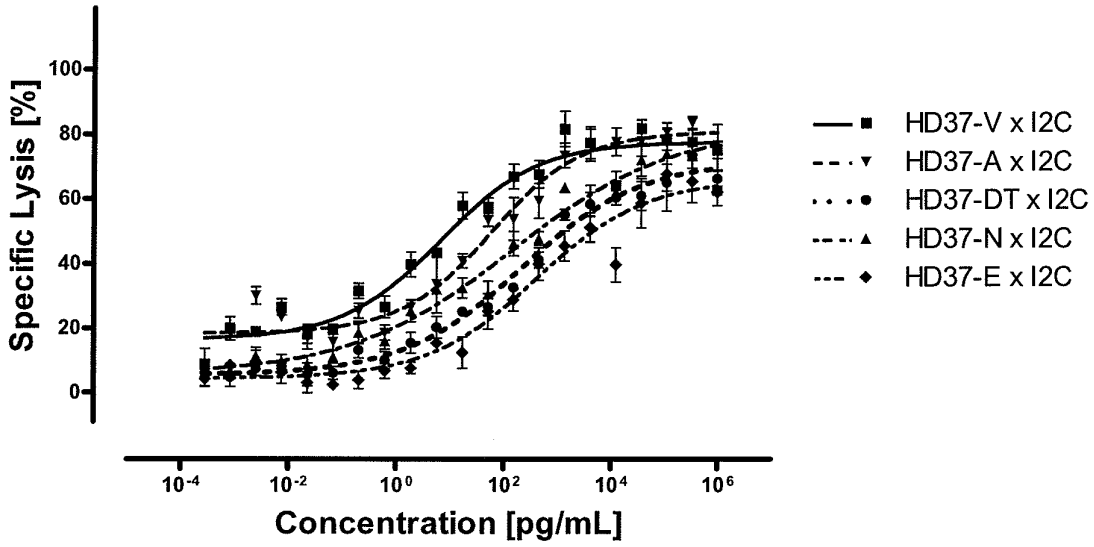


Figure: 51(2)

C) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19



D) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19

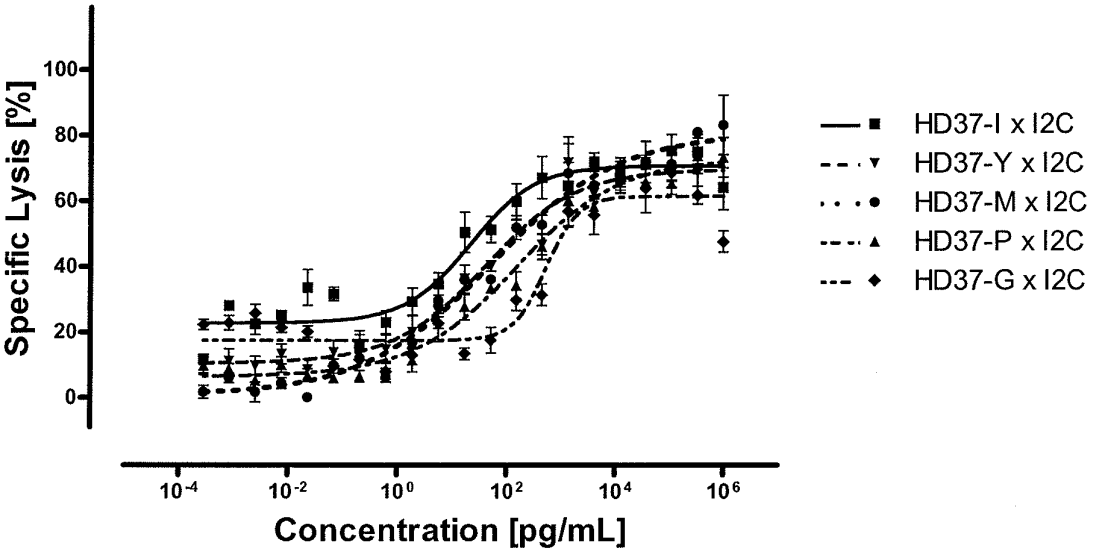
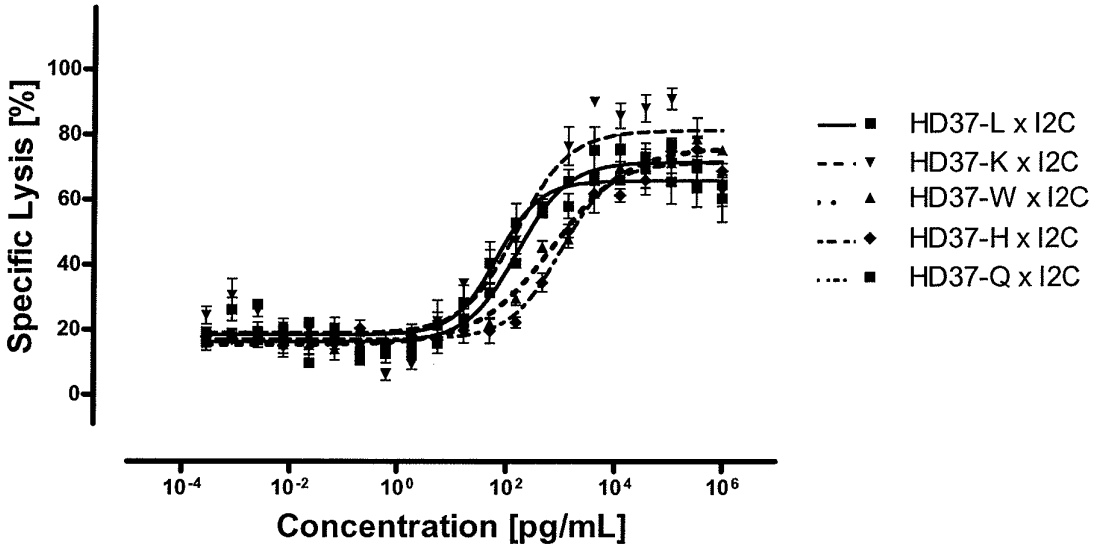


Figure: 51(3)

E) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19



F) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19

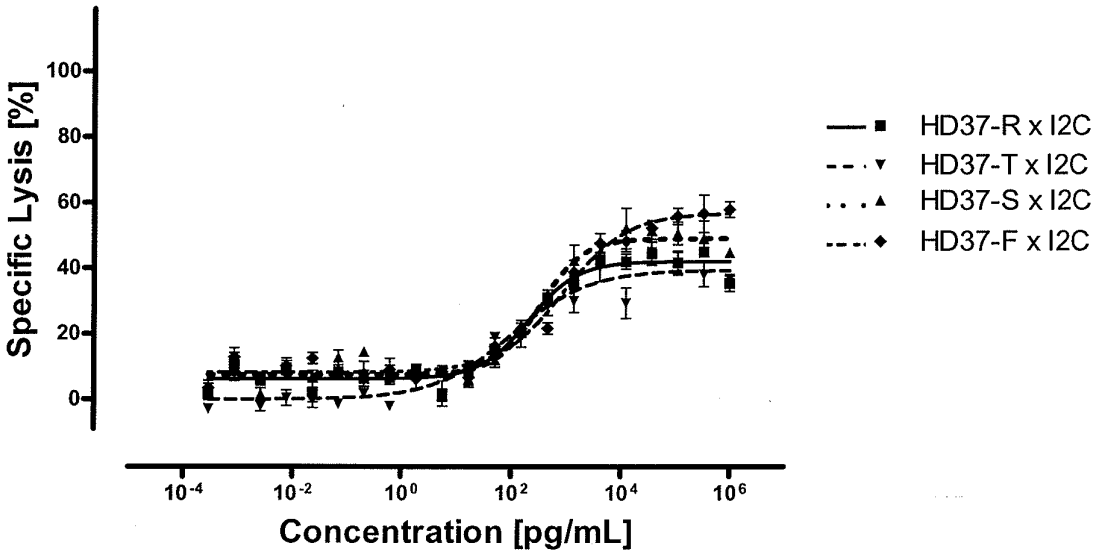
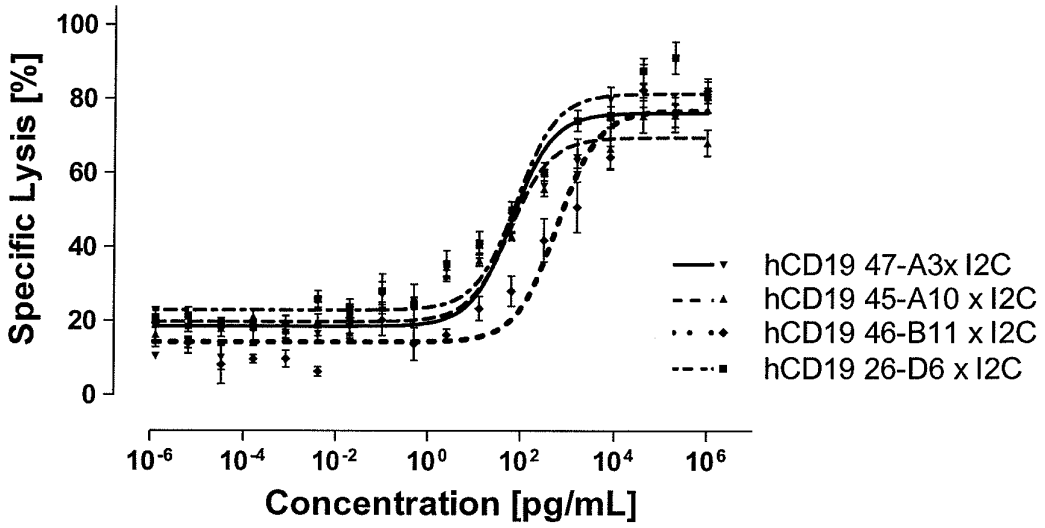


Figure: 51(4)

G) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19



H) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19

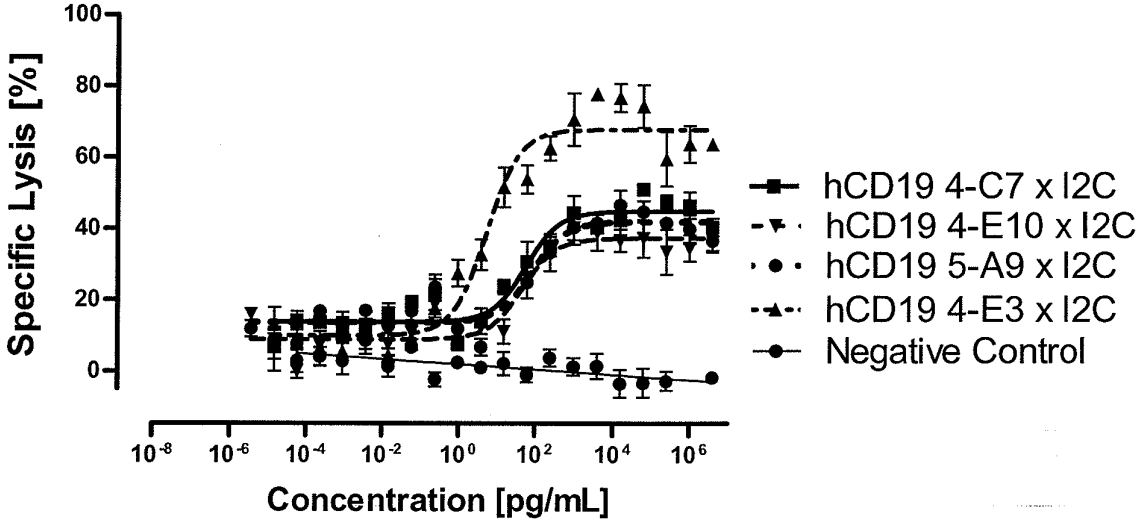


Figure: 51(5)

I) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD19

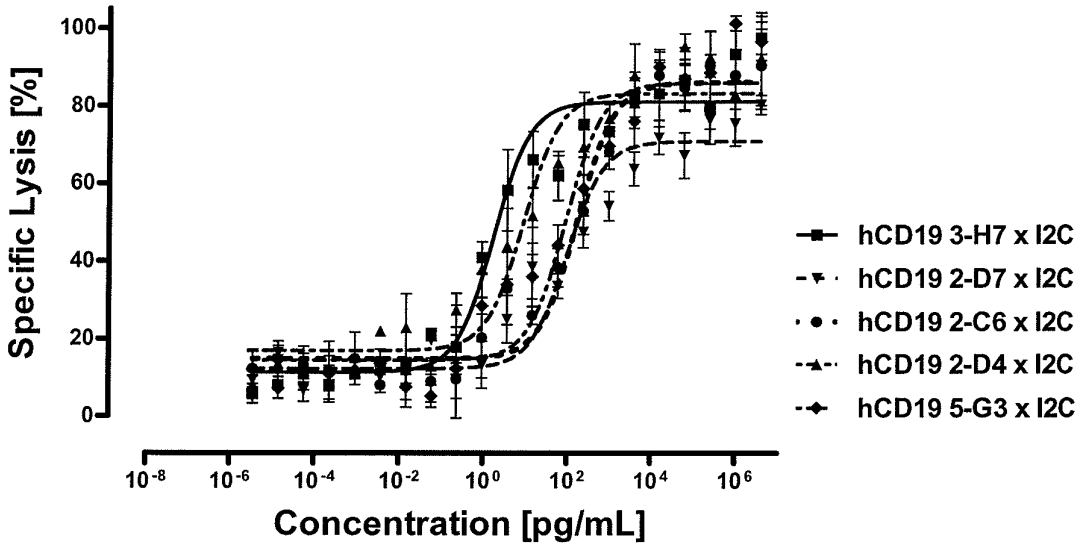


Figure52a

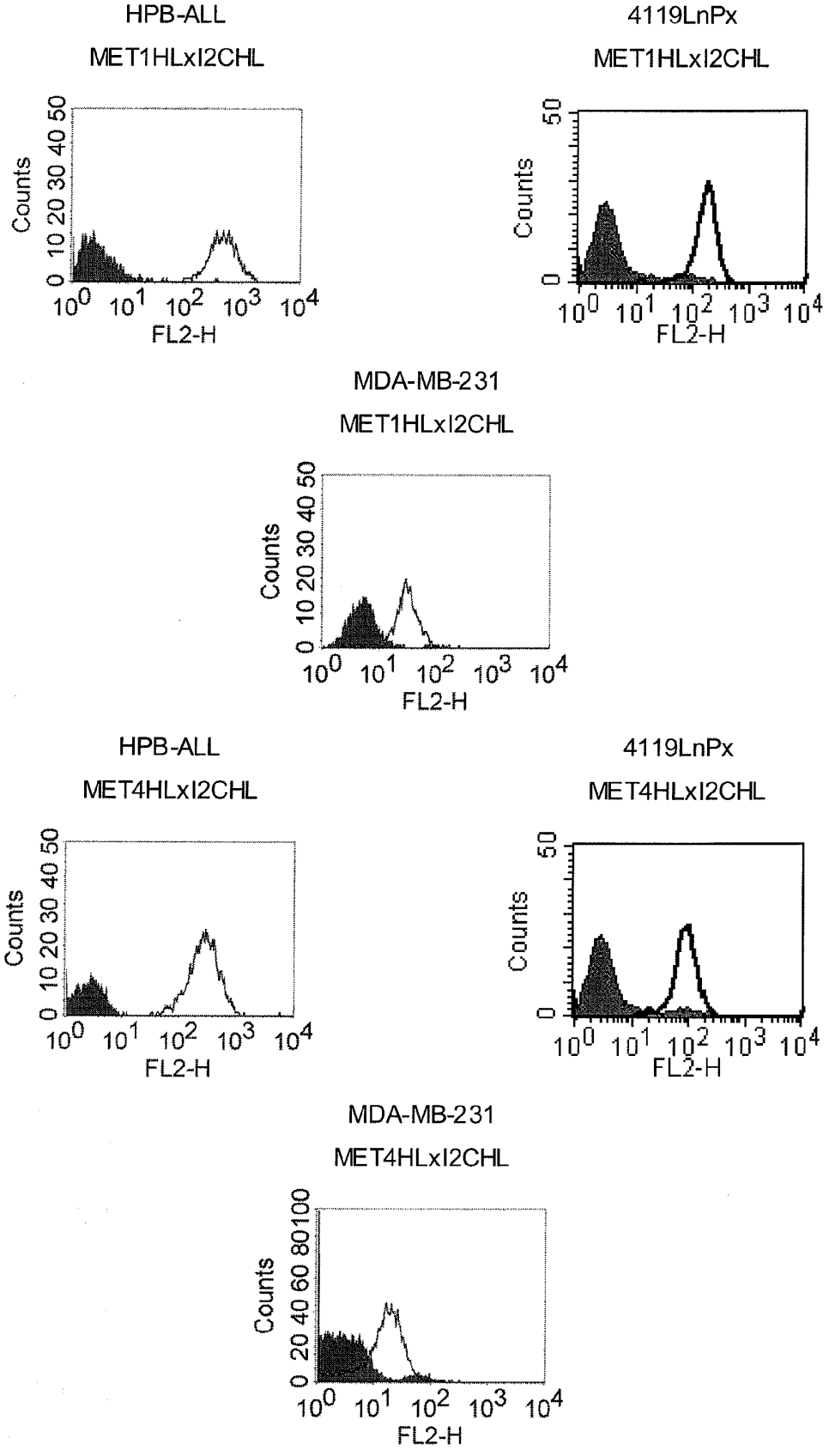

HPB-ALL
MET1HLxI2CHL
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET1HLxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET1HLxI2CHL
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
HPB-ALL
MET4HLxI2CHL
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET4HLxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET4HLxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 52b

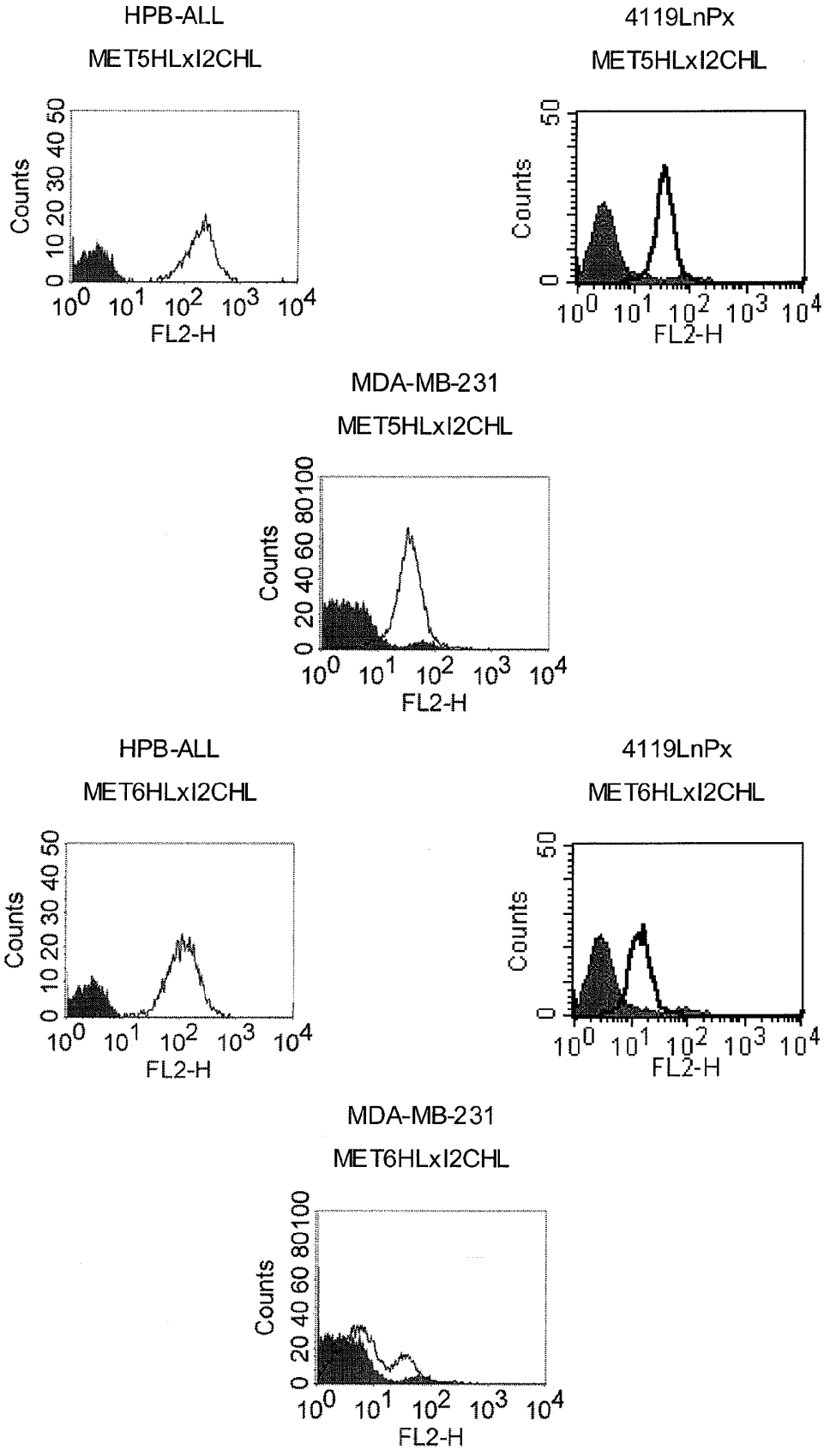

HPB-ALL
MET5HLxI2CHL
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET5HLxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET5HLxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
HPB-ALL
MET6HLxI2CHL
Counts
0 10 20 30 40 50
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET6HLxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET6HLxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 52c

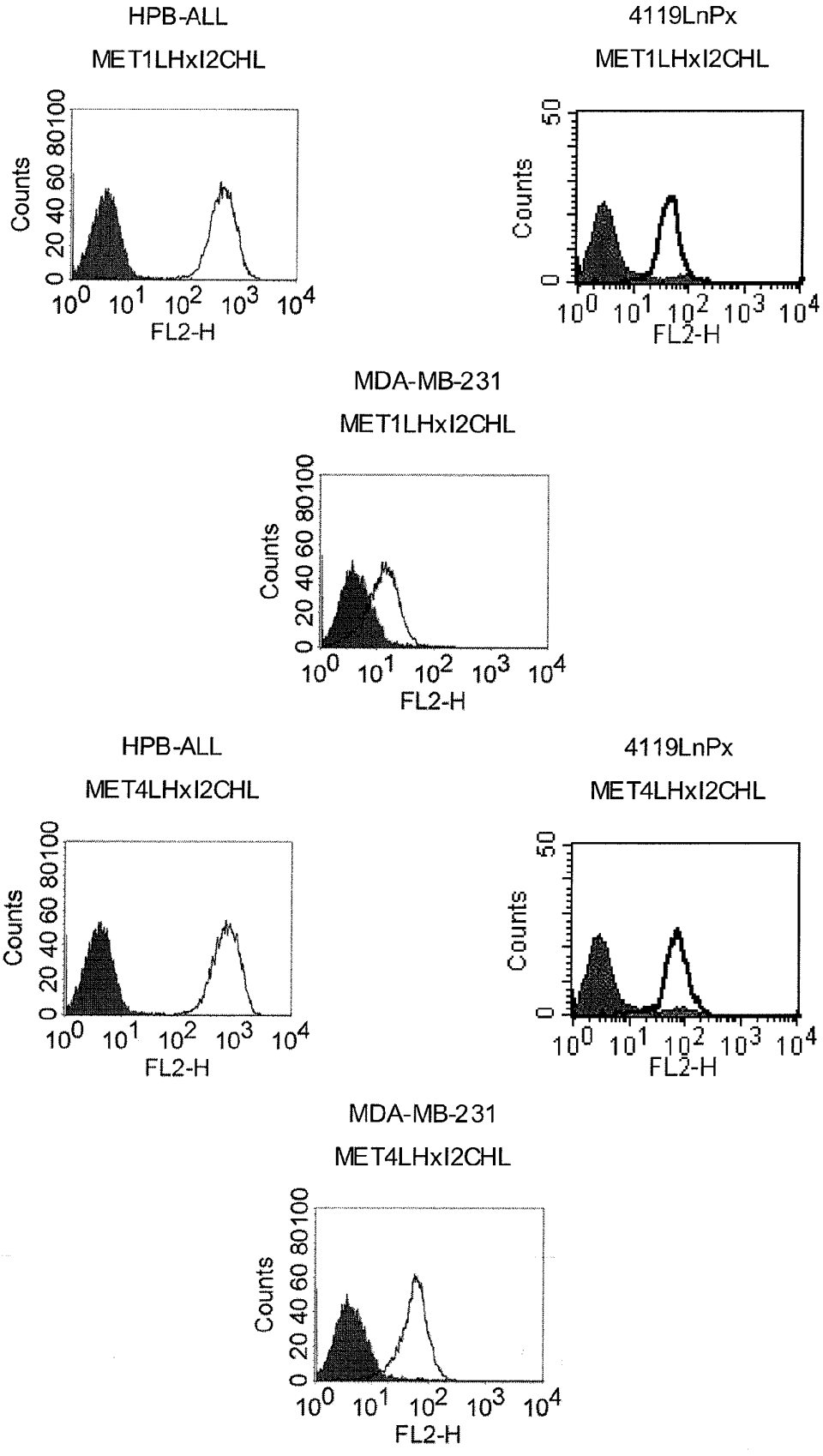

HPB-ALL
MET1LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET1LHxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET1LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
HPB-ALL
MET4LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET4LHxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET4LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 52d

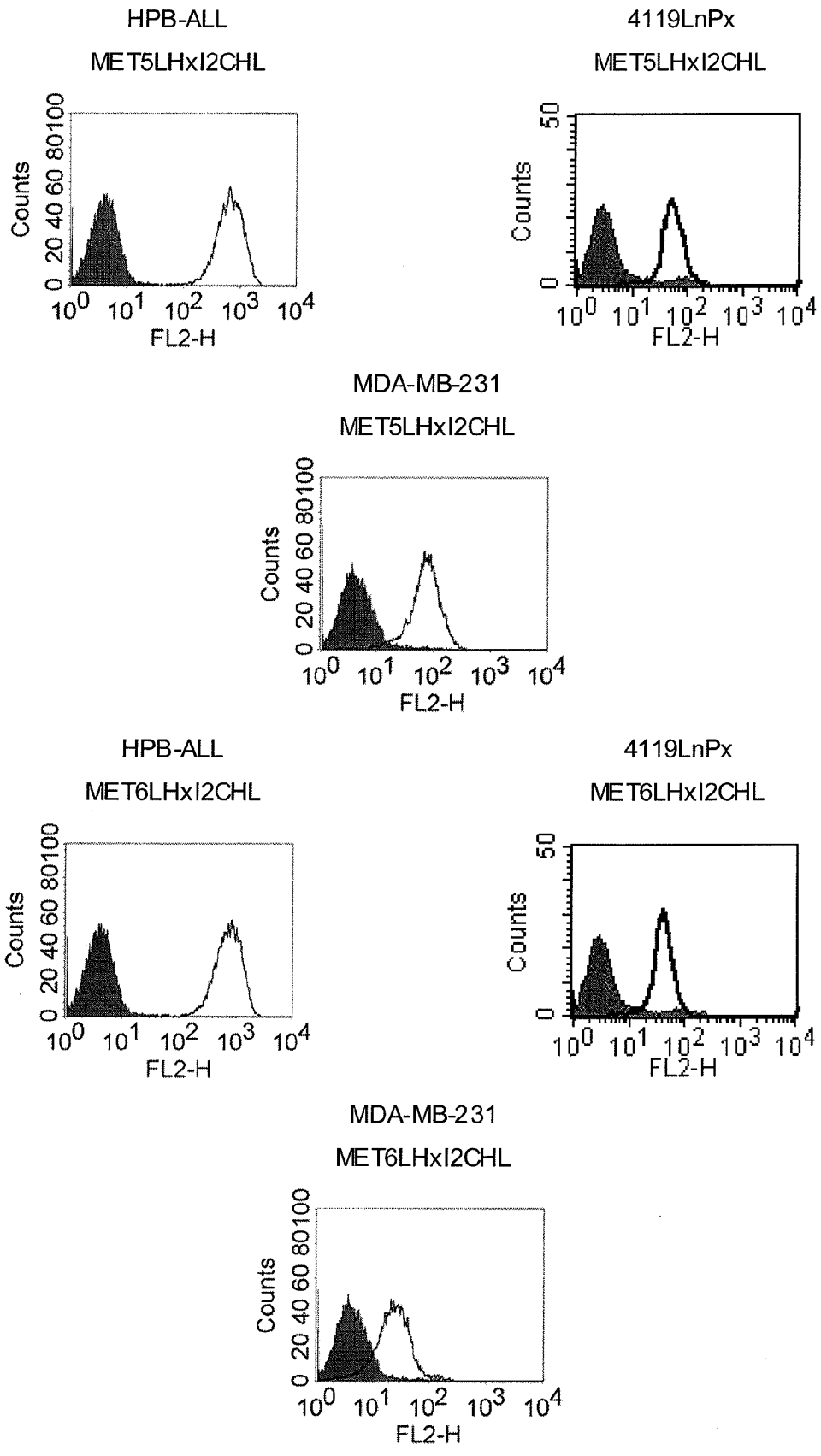

HPB-ALL
MET5LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET5LHxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET5LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
HPB-ALL
MET6LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET6LHxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET6LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 52e

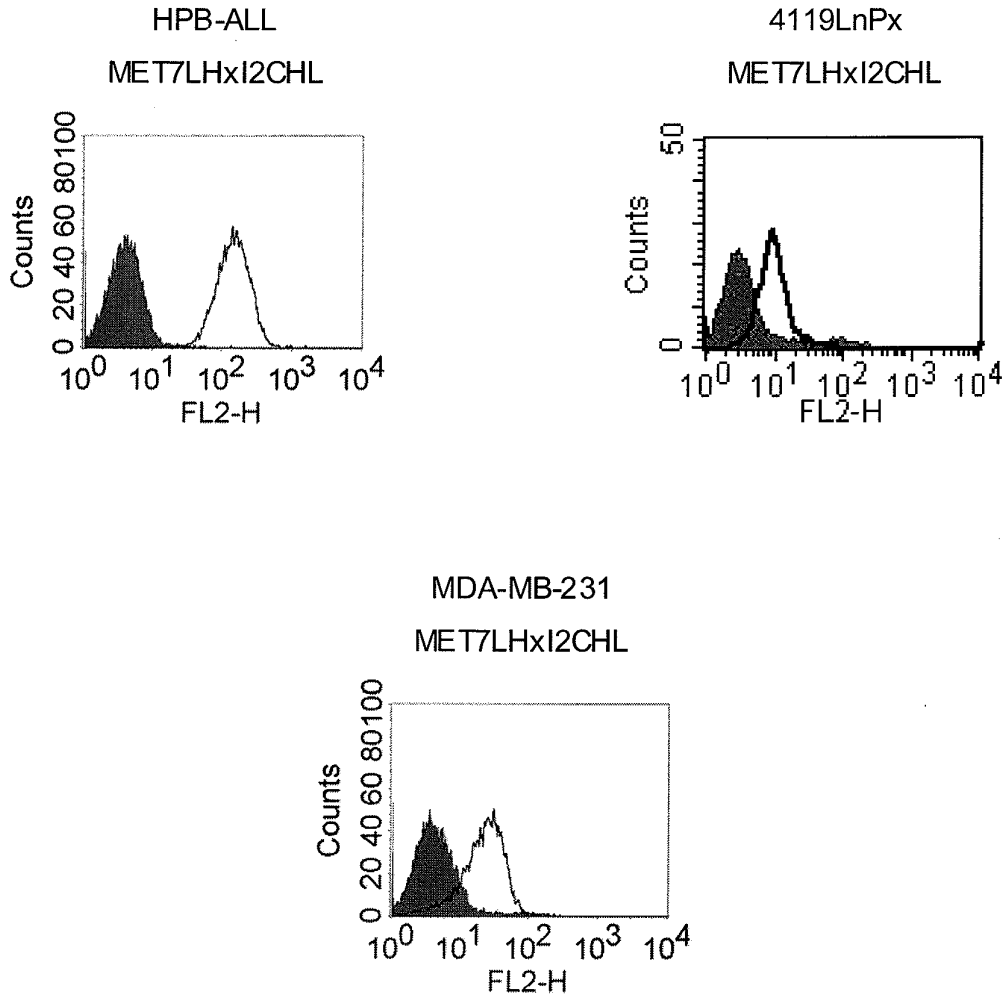
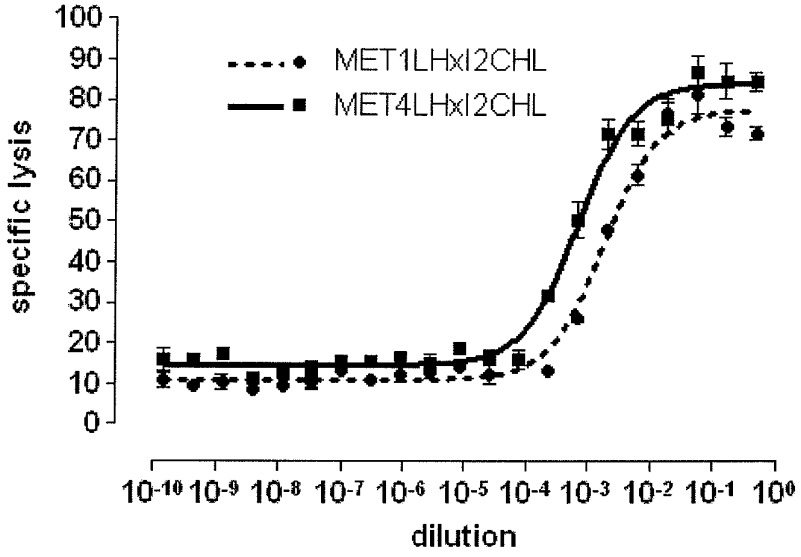

HPB-ALL
MET7LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H
4119LnPx
MET7LHxI2CHL
Counts
0 50
10^0 10^1 10^2 10^3 10^4
FL2-H
MDA-MB-231
MET7LHxI2CHL
Counts
0 20 40 60 80100
10^0 10^1 10^2 10^3 10^4
FL2-H

Figure 53a

Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: MDA-MB-231



Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: MDA-MB-231

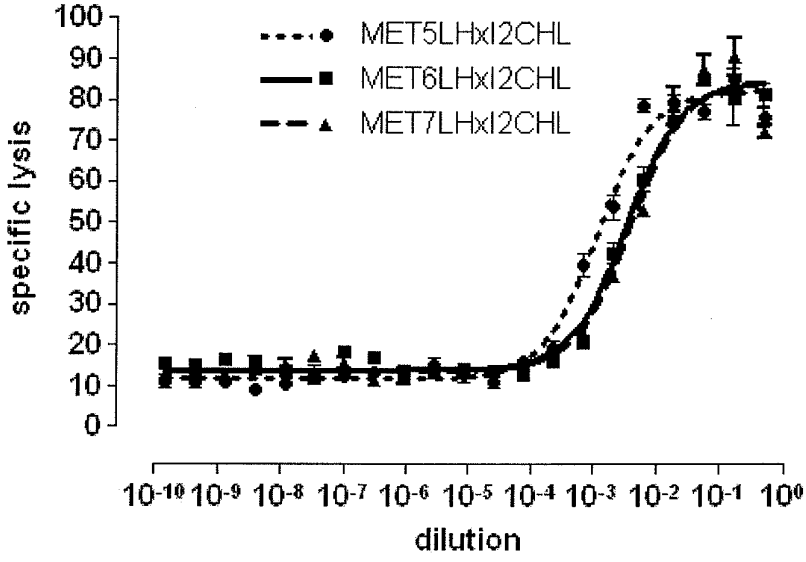
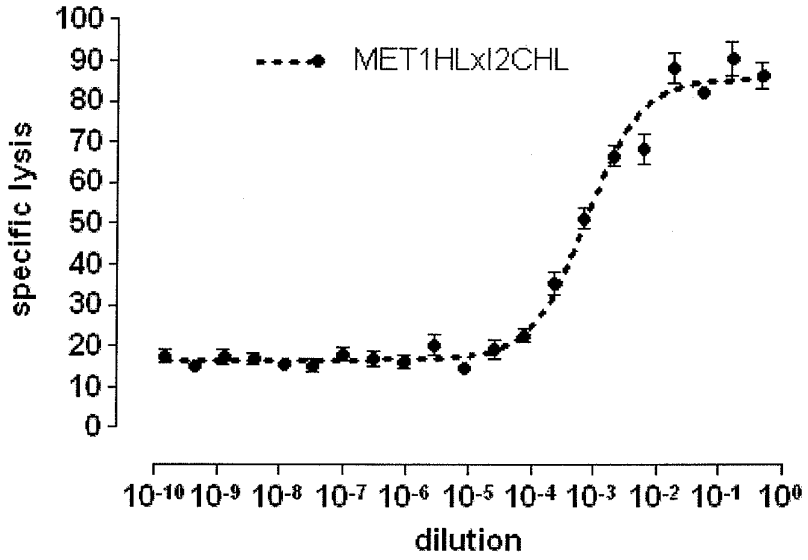


Figure 53b

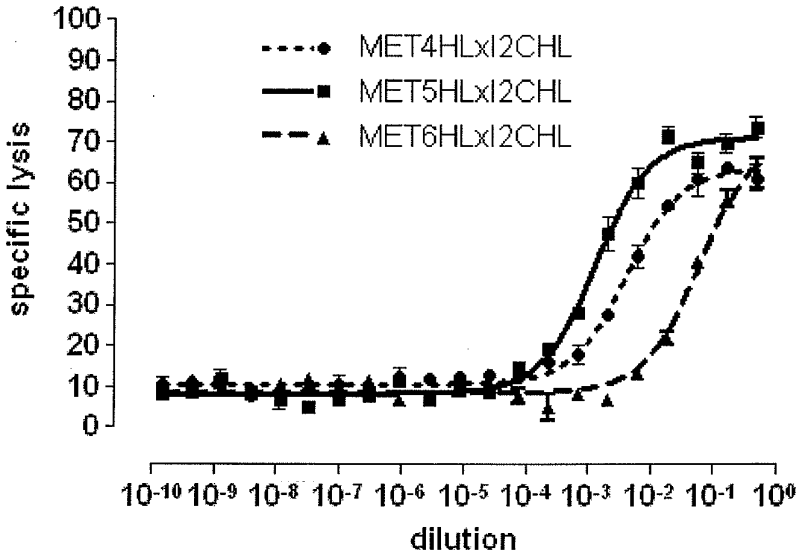
Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: MDA-MB-231



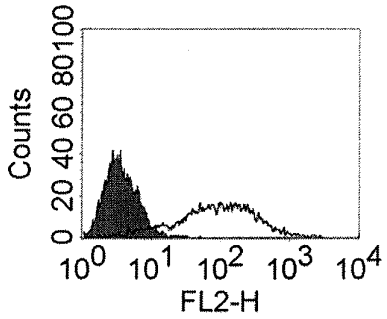
Effector cells: stimulated CD4/CD56 depleted human PBMC

Target cells: MDA-MB-231



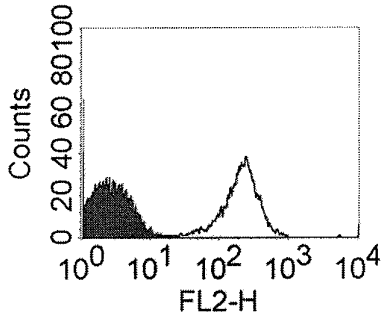
Human cMET transfected CHO

ME62A4HLxl2CHL



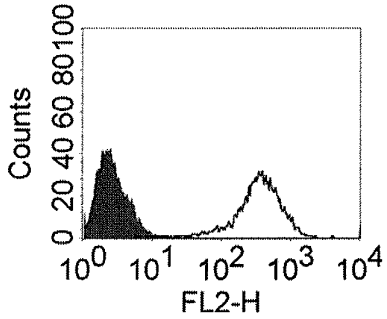
HPB-ALL

ME62A4HLxl2CHL



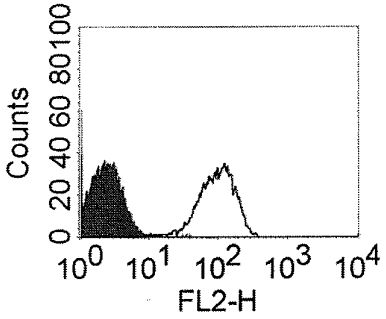
Macaque cMET transfected CHO

ME62A4HLxl2CHL



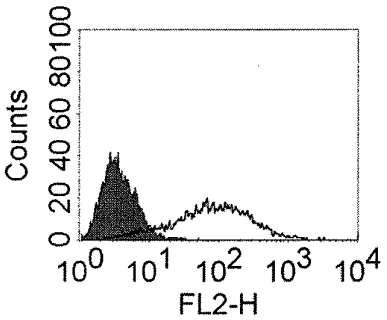
4119LnPx

ME62A4HLxl2CHL



Human cMET transfected CHO

ME62A12HLxl2CHL



HPB-ALL

ME62A12HLxl2CHL

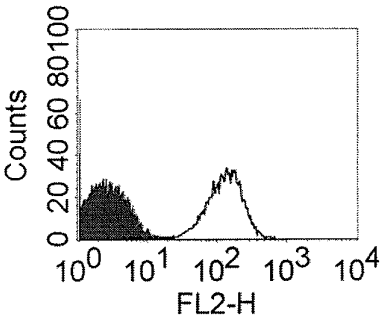
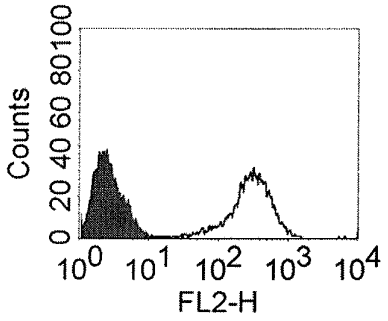


Figure 54a

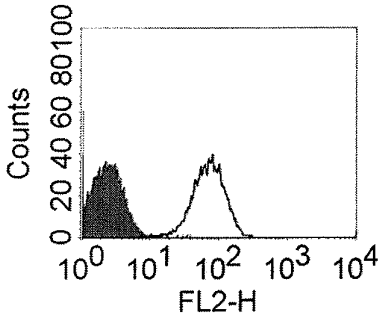
Macaque cMET transfected CHO

ME62A12HLxl2CHL



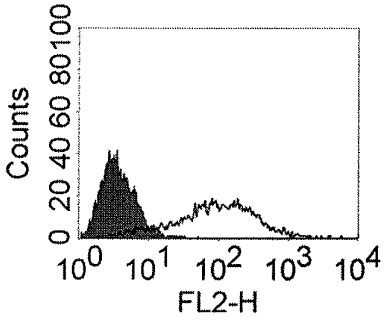
4119LnPx

ME62A12HLxl2CHL



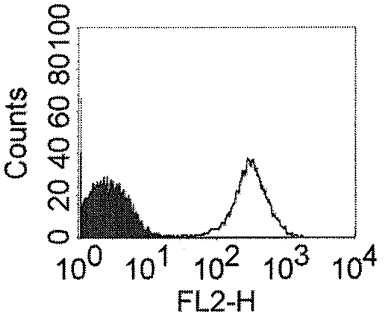
Human cMET transfected CHO

ME62C10HLxl2CHL



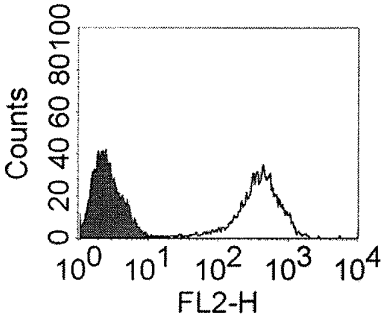
HPB-ALL

ME62C10HLxl2CHL



Macaque cMET transfected CHO

ME62C10HLxl2CHL



4119LnPx

ME62C10HLxl2CHL

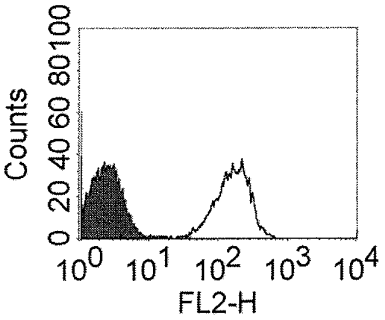
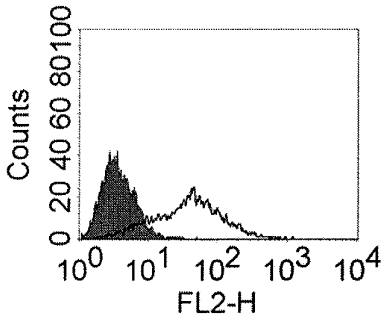


Figure 54b

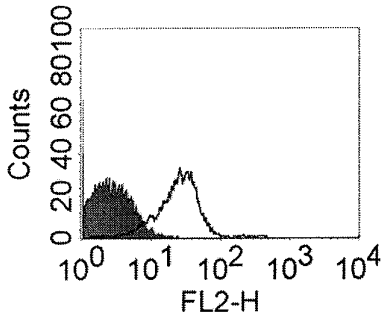
Human cMET transfected CHO

ME62D11HLxI2CHL



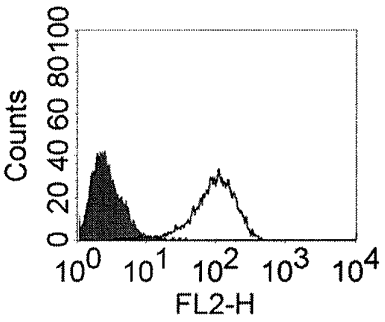
HPB-ALL

ME62D11HLxI2CHL



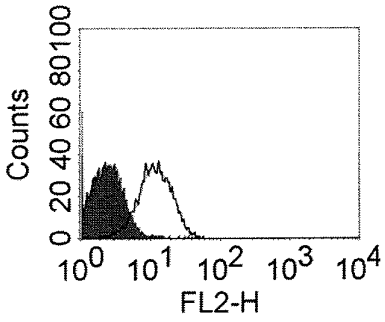
Macaque cMET transfected CHO

ME62D11HLxI2CHL



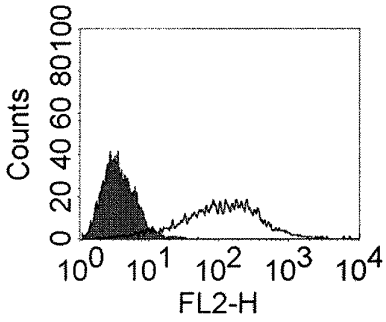
4119LnPx

ME62D11HLxI2CHL



Human cMET transfected CHO

ME63F2HLxI2CHL



HPB-ALL

ME63F2HLxI2CHL

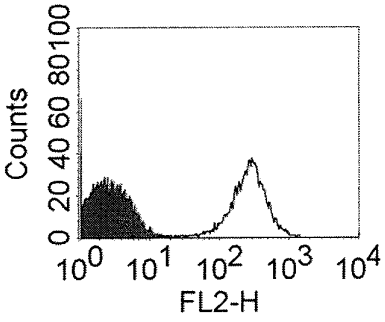
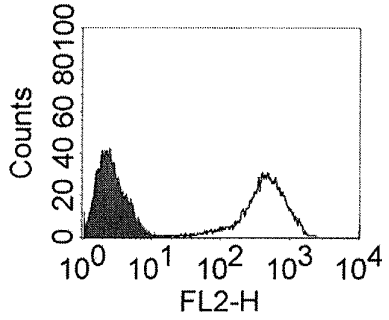


Figure 54c

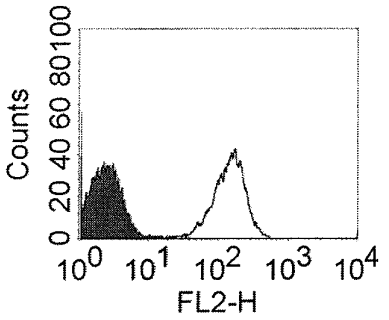
Macaque cMET transfected CHO

ME63F2HLxI2CHL



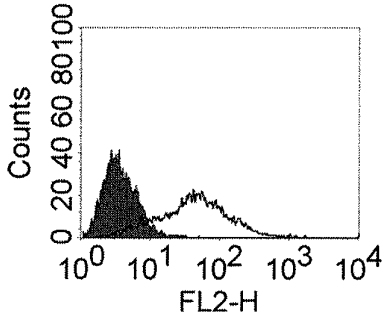
4119LnPx

ME63F2HLxI2CHL



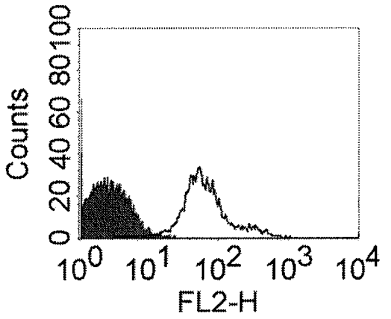
Human cMET transfected CHO

ME86H11HLxI2CHL



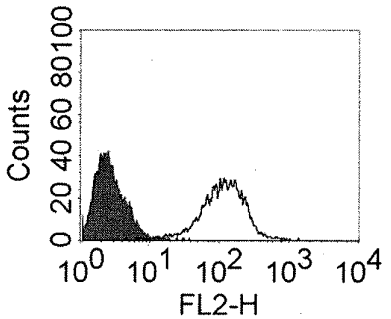
HPB-ALL

ME86H11HLxI2CHL



Macaque cMET transfected CHO

ME86H11HLxI2CHL



4119LnPx

ME86H11HLxI2CHL

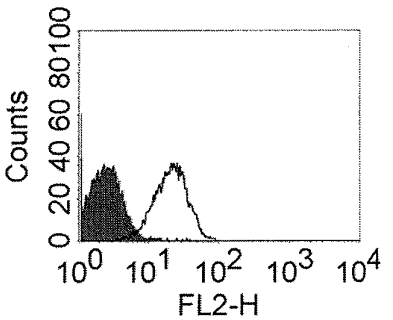
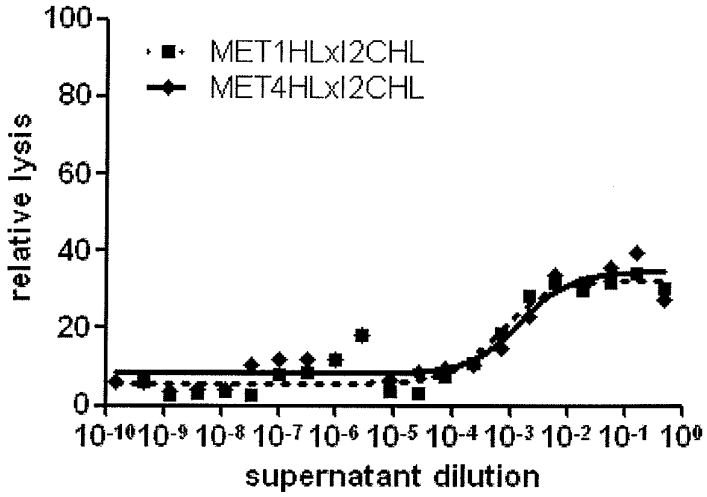


Figure 54d

Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque cMET



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque cMET

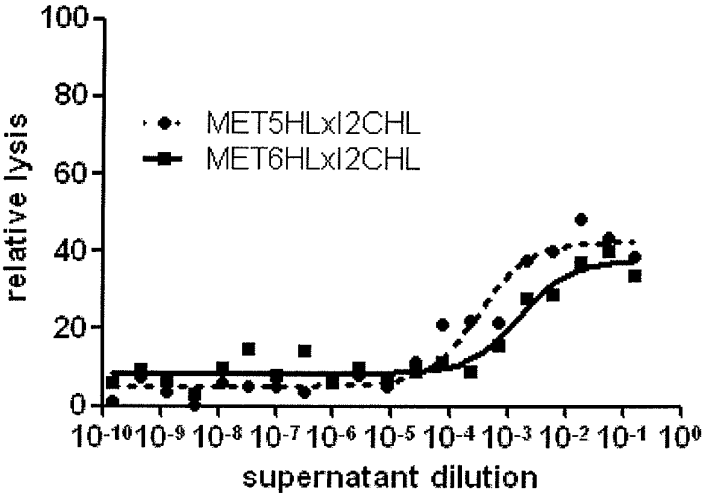
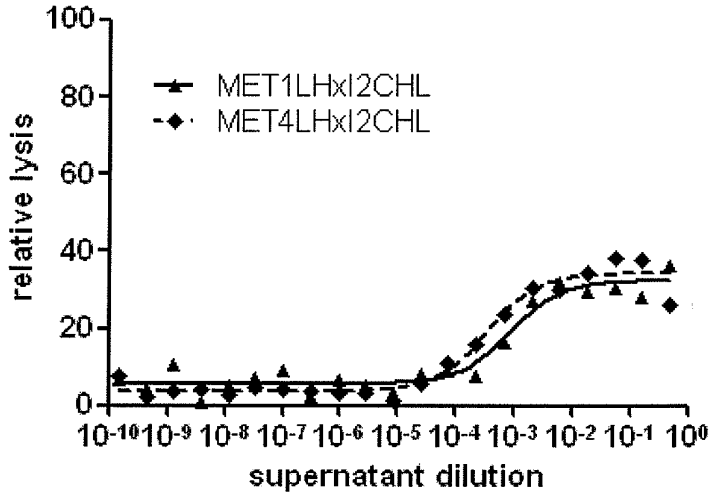


Figure 55a

Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque cMET



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque cMET

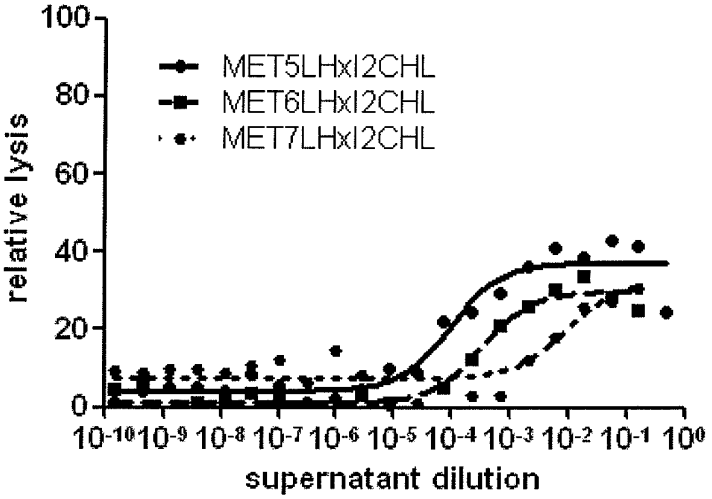
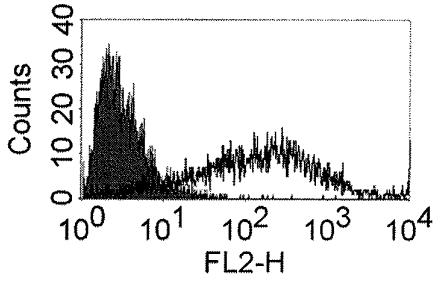


Figure 55b

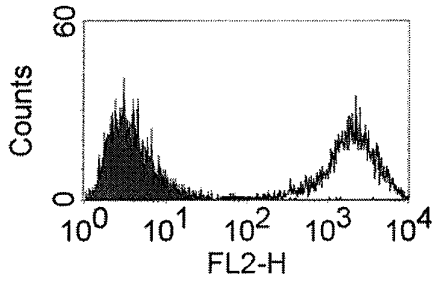
Human cMET transfected CHO

ME75H6HL



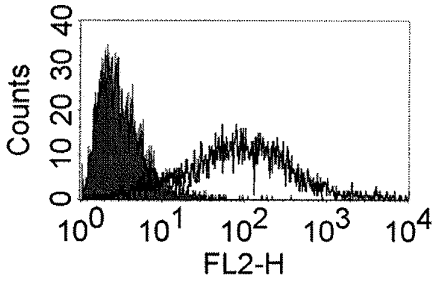
Macaque cMET transfected CHO

ME75H6HL



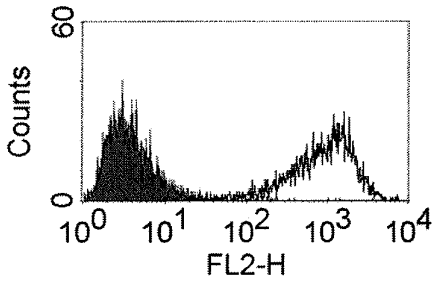
Human cMET transfected CHO

ME99B1HL



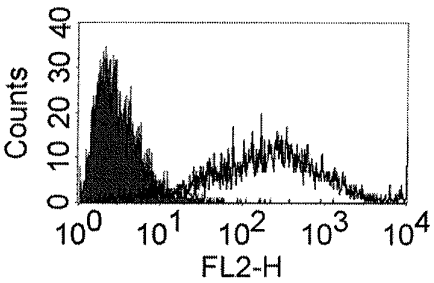
Macaque cMET transfected CHO

ME99B1HL



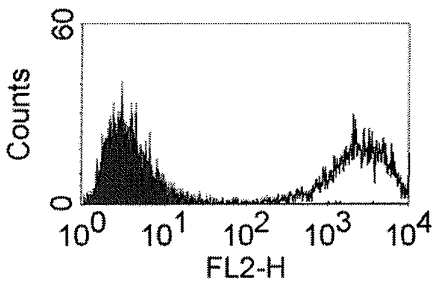
Human cMET transfected CHO

ME05B7HL



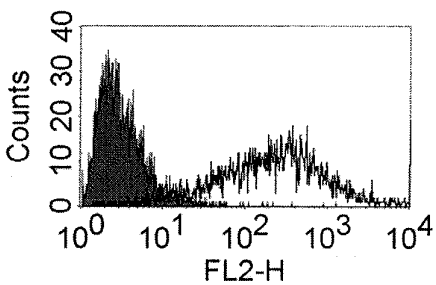
Macaque cMET transfected CHO

ME05B7HL



Human cMET transfected CHO

ME05F6HL



Macaque cMET transfected CHO

ME05F6HL

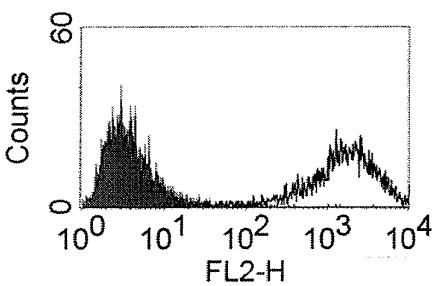
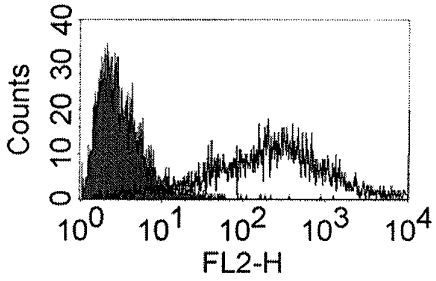
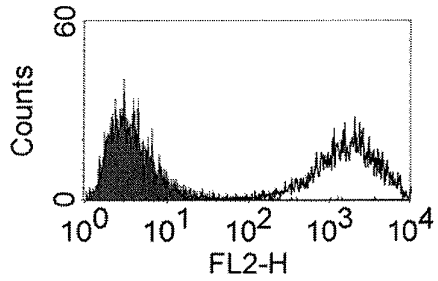


Figure 56a

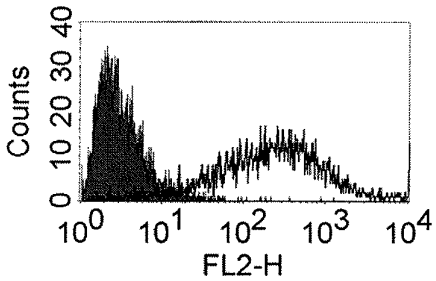
Human cMET transfected CHO
ME06B7HL



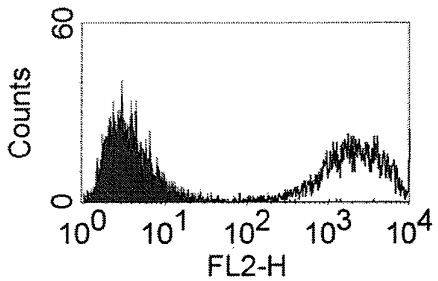
Macaque cMET transfected CHO
ME06B7HL



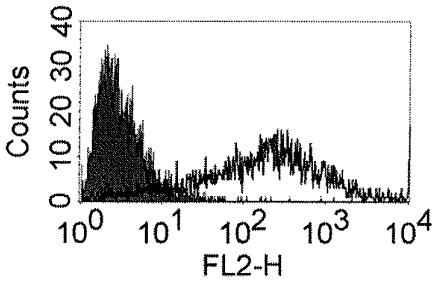
Human cMET transfected CHO
ME06C6HL



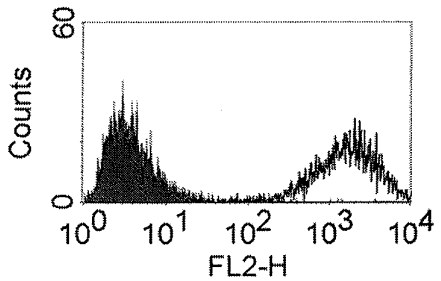
Macaque cMET transfected CHO
ME06C6HL



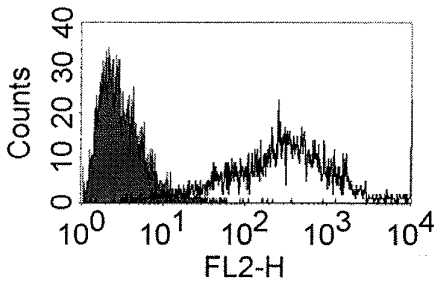
Human cMET transfected CHO
ME06C7HL



Macaque cMET transfected CHO
ME06C7HL



Human cMET transfected CHO
ME06D1HL



Macaque cMET transfected CHO
ME06D1HL

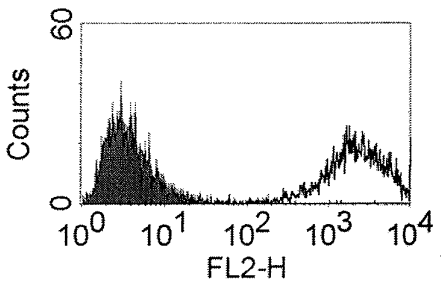
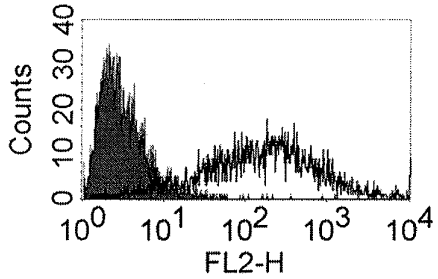


Figure 56b

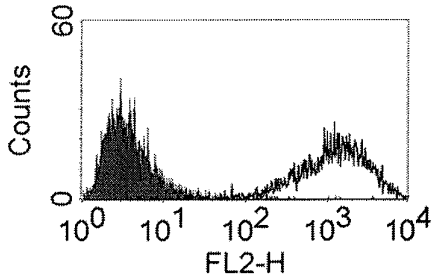
Human cMET transfected CHO

ME06D2HL



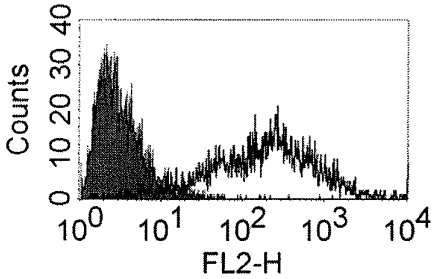
Macaque cMET transfected CHO

ME06D2HL



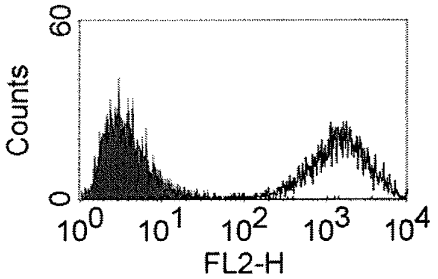
Human cMET transfected CHO

ME06E10HL



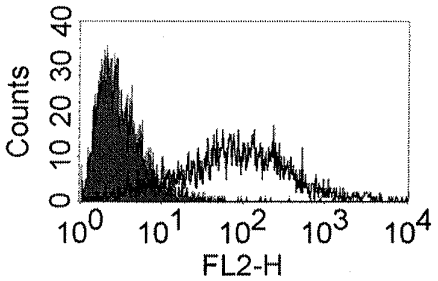
Macaque cMET transfected CHO

ME06E10HL



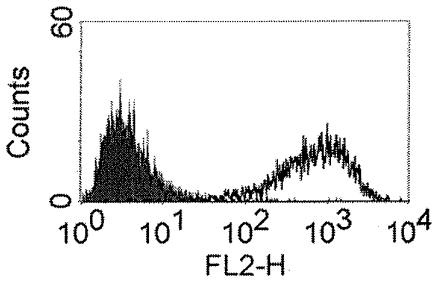
Human cMET transfected CHO

ME06F2HL



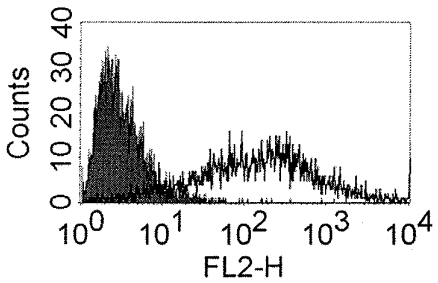
Macaque cMET transfected CHO

ME06F2HL



Human cMET transfected CHO

ME05D7HL



Macaque cMET transfected CHO

ME05D7HL

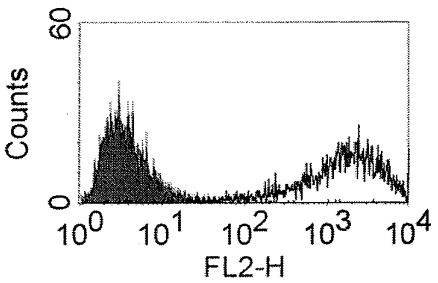
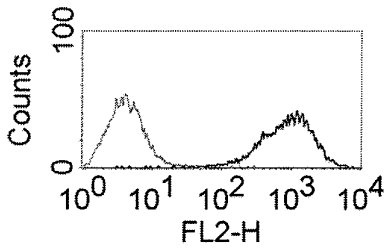


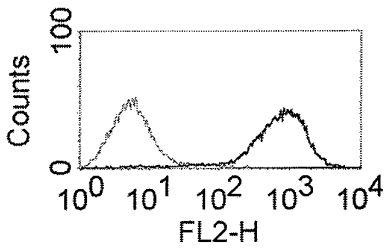
Figure 56c

Figure 57

Human endosialin transfected CHO



Macaque endosialin transfected CHO



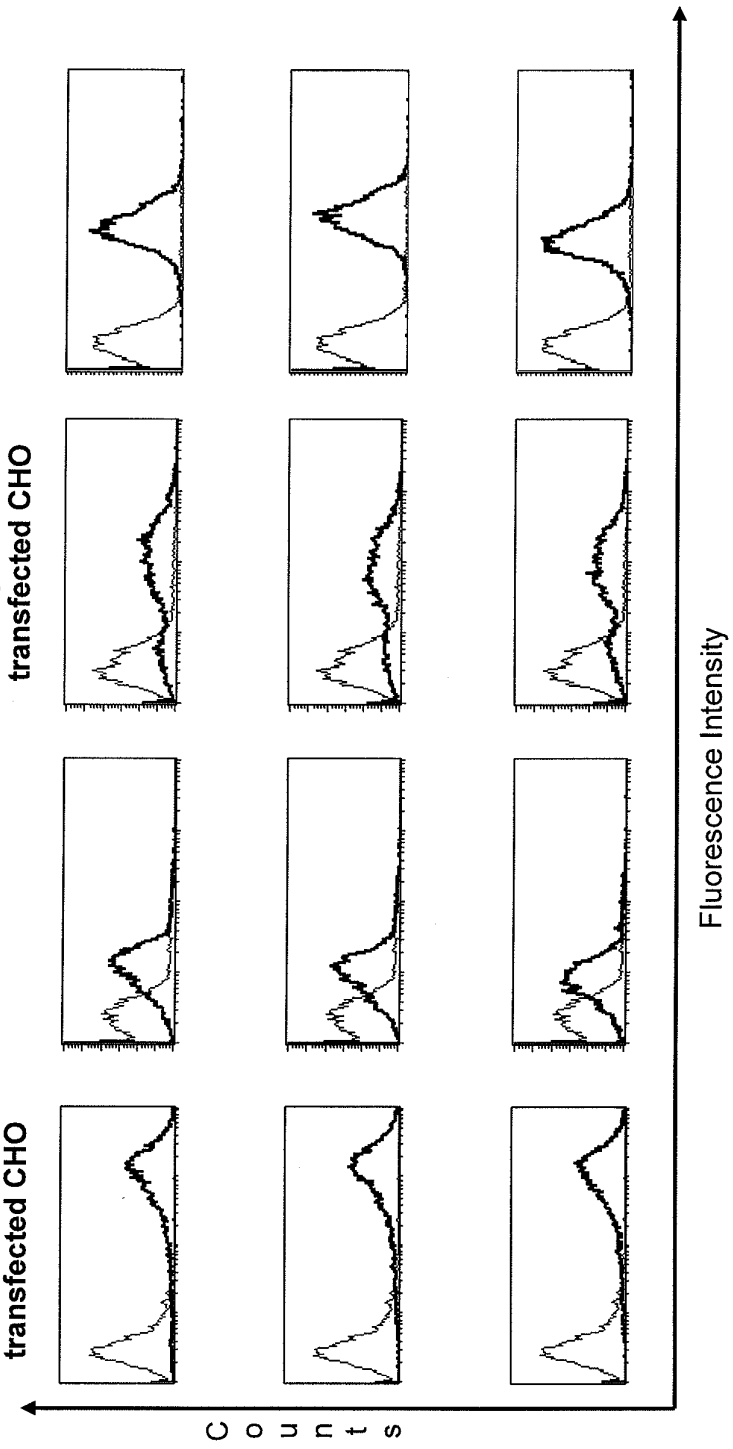

Human CD248 transfected CHO
HPB-ALL
Macaque CD248 transfected CHO
4119 LnPx
EN00B12HLxl2CHL
EN00C3HLxl2CHL
EN01D5HLxl2CHL
Counts
Fluorescence Intensity

Figure 58(1)

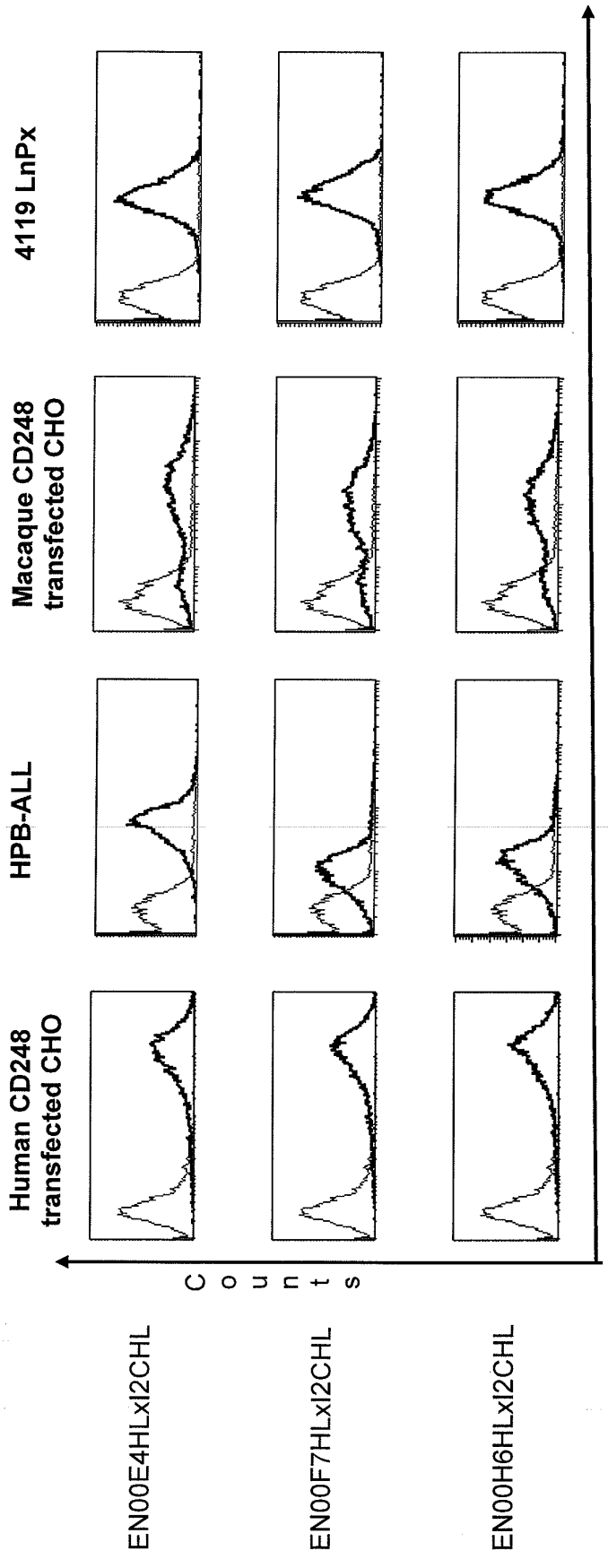
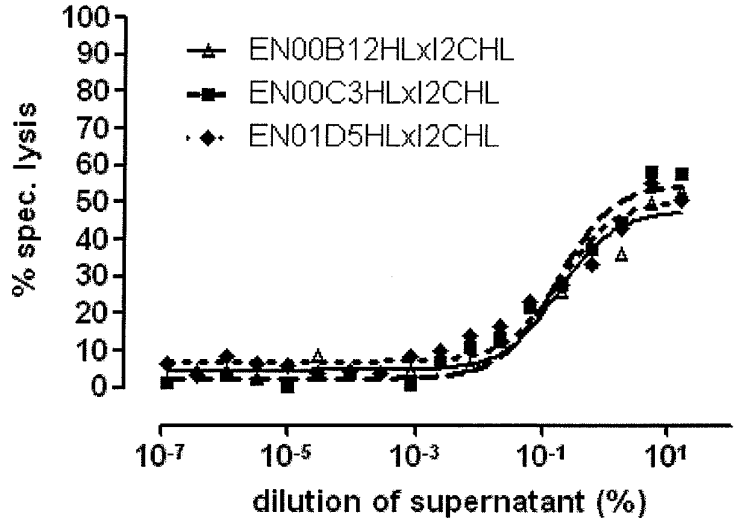

Human CD248 transfected CHO
HPB-ALL
Macaque CD248 transfected CHO
4119 LnPx
EN00E4HLxl2CHL
EN00F7HLxl2CHL
EN00H6HLxl2CHL
Counts
Fluorescence Intensity

Figure 58(2)

Effector T cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD248
E:T ratio: 10:1



Effector T cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human CD248
E:T ratio: 10:1

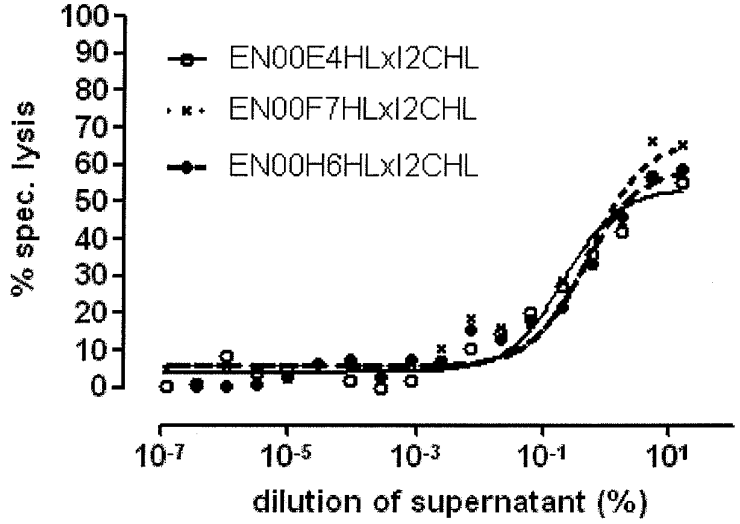
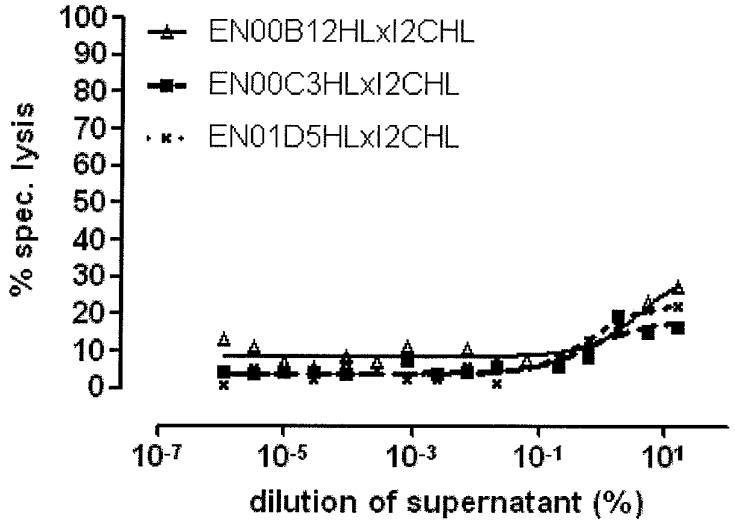


Figure 59(1)

Effector T cells: 4119 LnPx
Target cells: CHO transfected with macaque CD248
E:T ratio: 10:1



Effector T cells: 4119 LnPx
Target cells: CHO transfected with macaque CD248
E:T ratio: 10:1

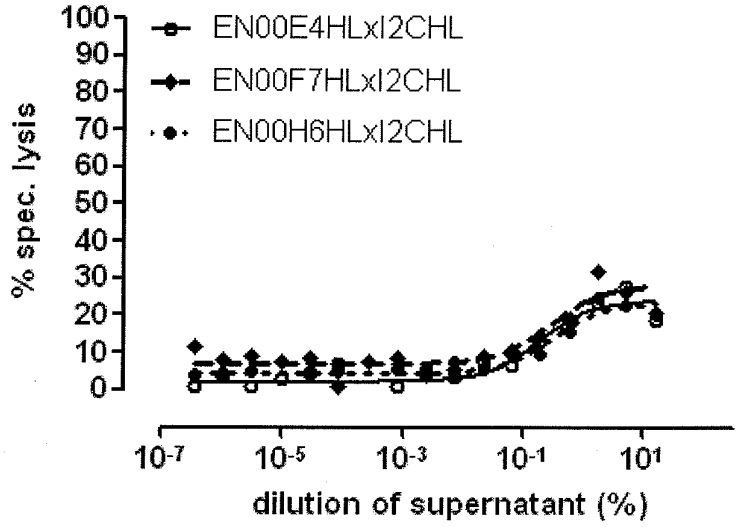


Figure 59(2)

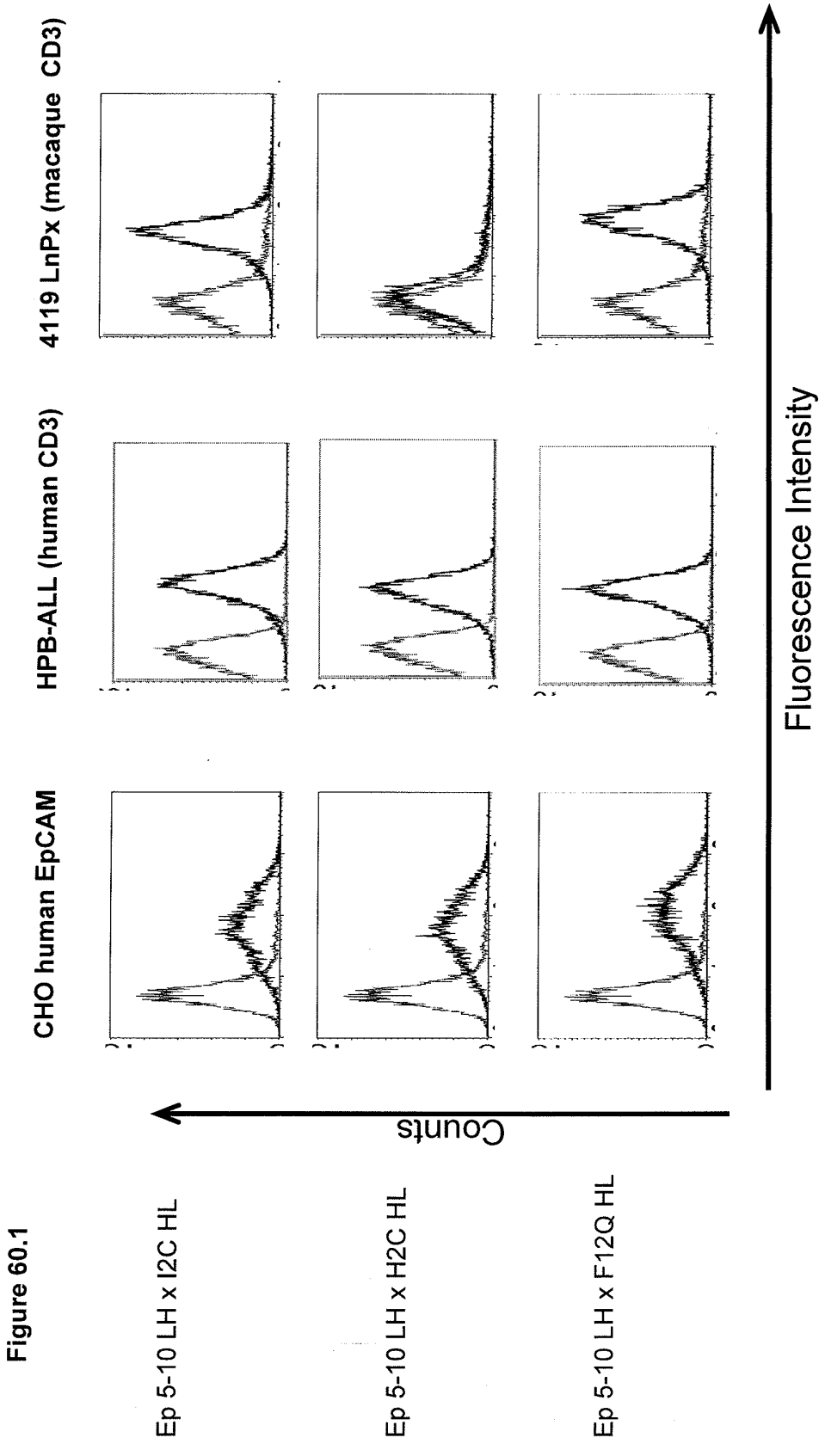

CHO human EpCAM
HPB-ALL (human CD3)
4119 LnPx (macaque CD3)
Ep 5-10 LH x I2C HL
Ep 5-10 LH x H2C HL
Ep 5-10 LH x F12Q HL
Counts
Fluorescence Intensity

Figure 60.1

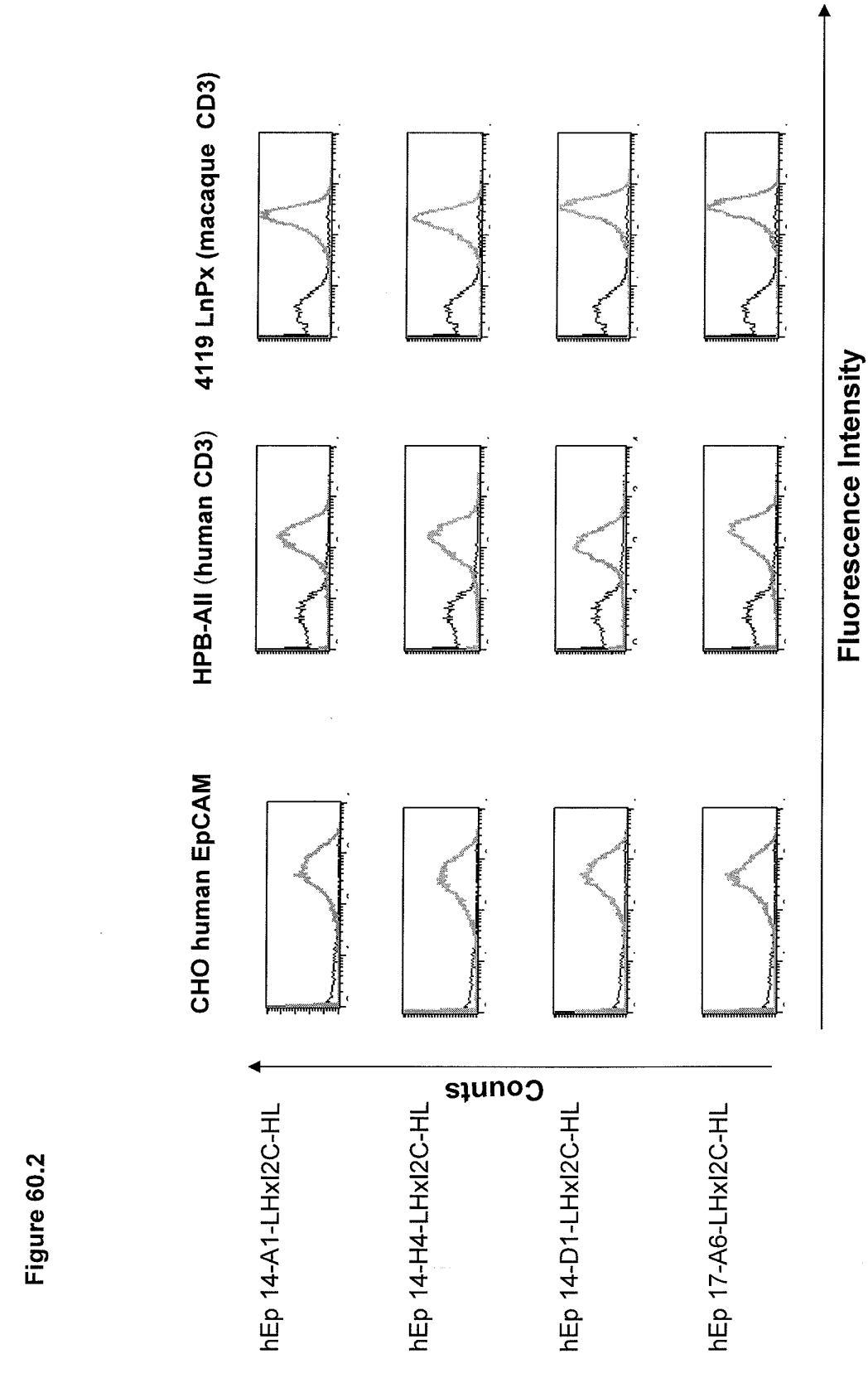
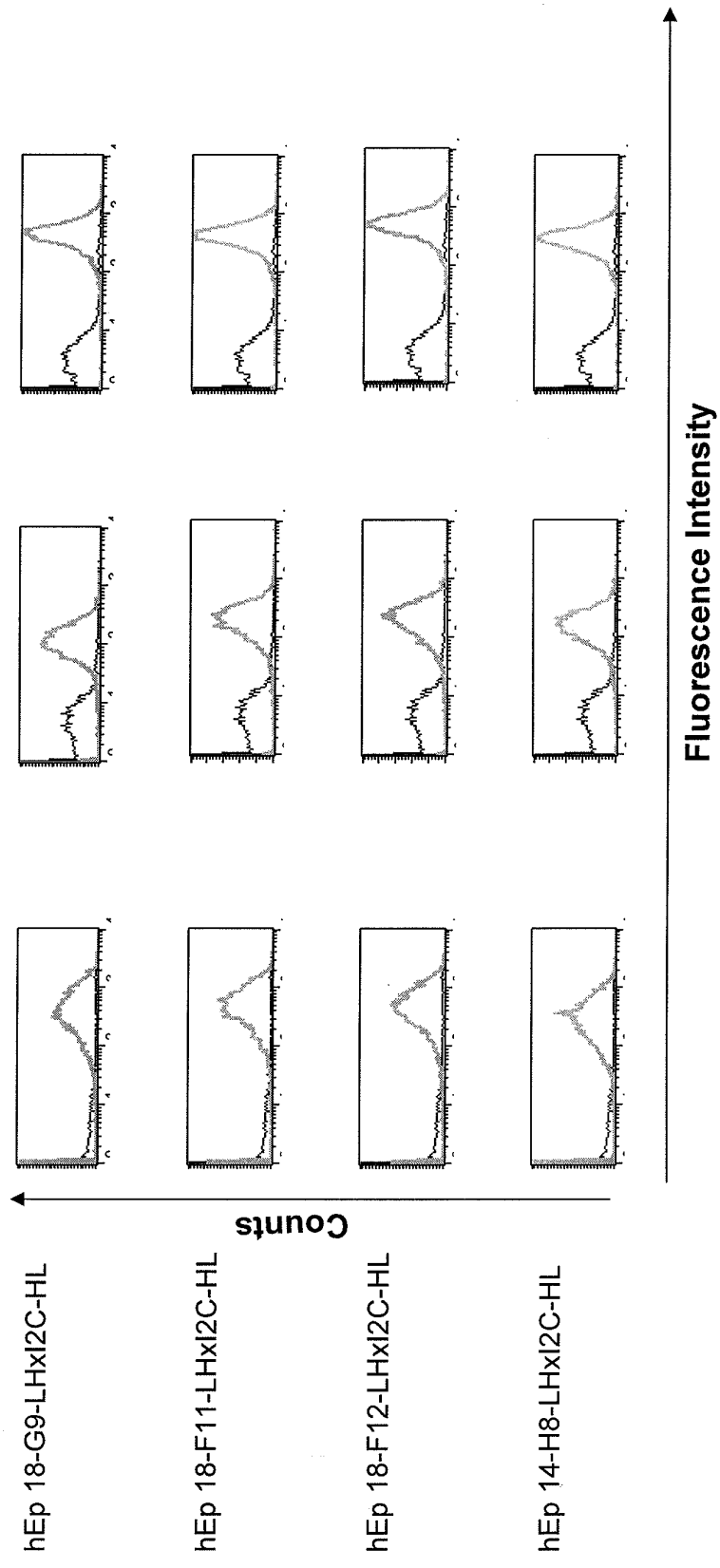

CHO human EpCAM
HPB-All (human CD3)
4119 LnPx (macaque CD3)
Fluorescence Intensity
Counts
hEp 14-A1-LHxl2C-HL
hEp 14-H4-LHxl2C-HL
hEp 14-D1-LHxl2C-HL
hEp 17-A6-LHxl2C-HL

Figure 60.2

Figure 60.3


CHO human EpCAM
HPB-All (human CD3)
4119 LnPx (macaque CD3)
Fluorescence Intensity
Counts
hEp 18-G9-LHxl2C-HL
hEp 18-F11-LHxl2C-HL
hEp 18-F12-LHxl2C-HL
hEp 14-H8-LHxl2C-HL

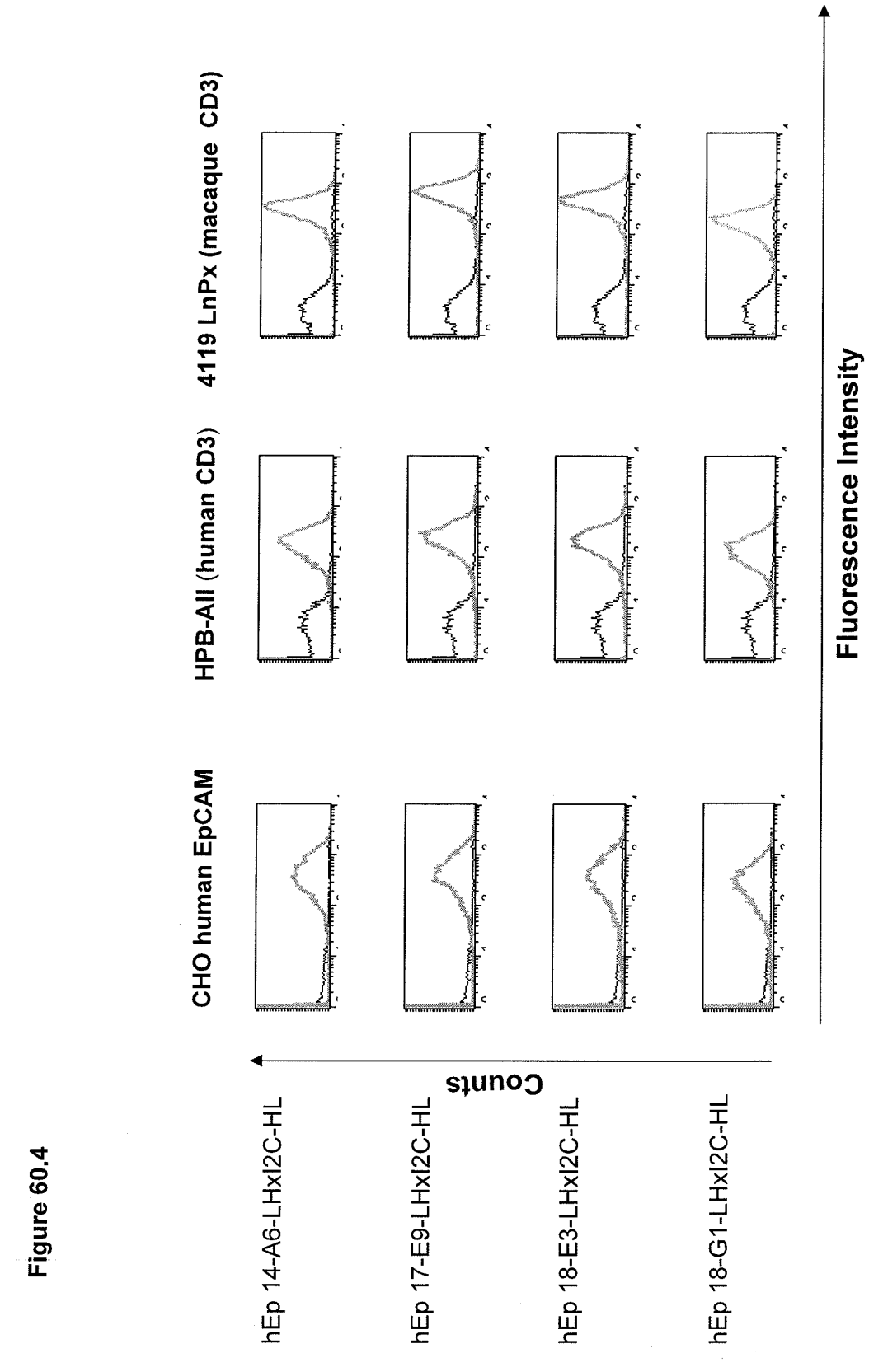

CHO human EpCAM
HPB-All (human CD3)
4119 LnPx (macaque CD3)
Fluorescence Intensity
Counts
hEp 14-A6-LHxl2C-HL
hEp 17-E9-LHxl2C-HL
hEp 18-E3-LHxl2C-HL
hEp 18-G1-LHxl2C-HL

Figure 60.4

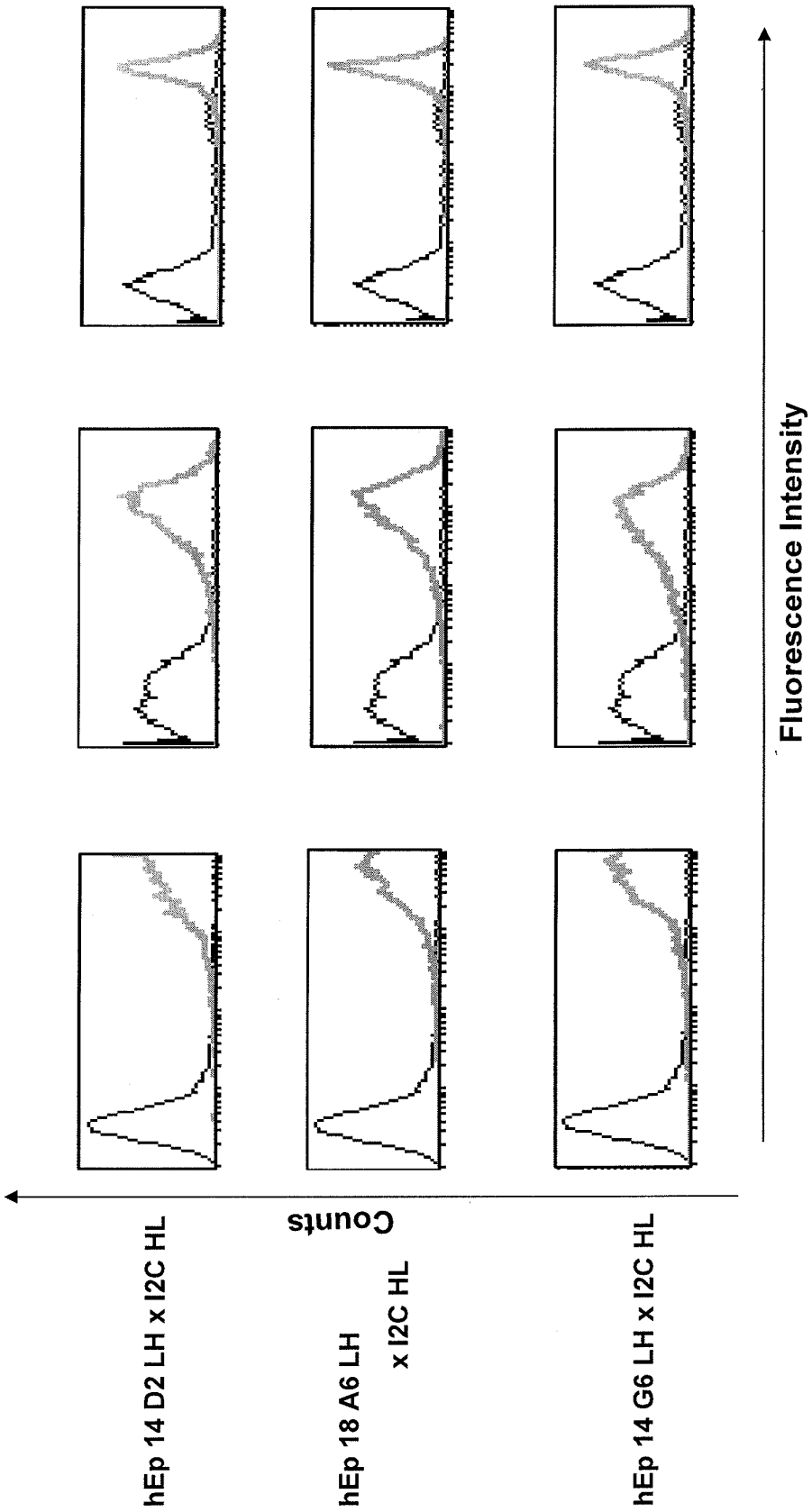
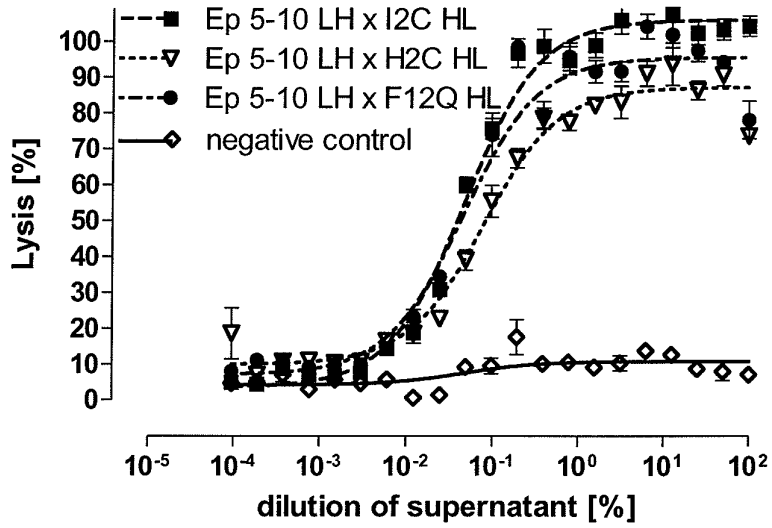

CHO tm EpCAM
HPB-All (human)
4119 LnPx (cyno)
Counts
Fluorescence Intensity
hEp 14 D2 LH x I2C HL
hEp 18 A6 LH x I2C HL
hEp 14 G6 LH x I2C HL

Figure: 60.5

Figure 61

A) Effector cells: CD56 depleted unstimulated human PBMC
Target cells: CHO transfected with human EpCAM



B) Effector cells: 4119LnPx
Target cells: CHO transfected with human EpCAM

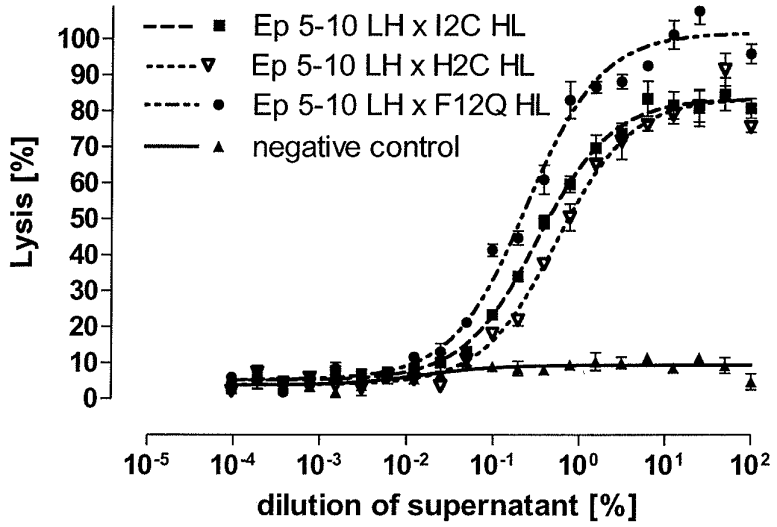
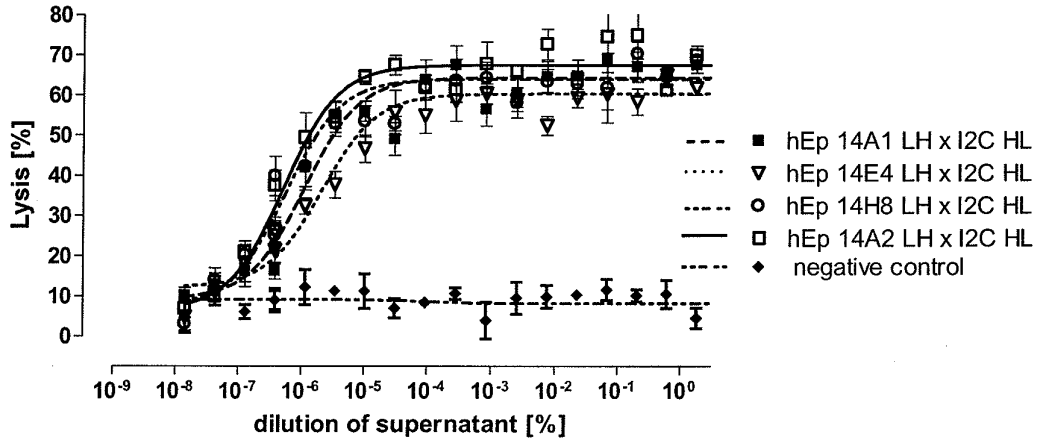


Figure 62

A) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human EpCAM



B) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human EpCAM

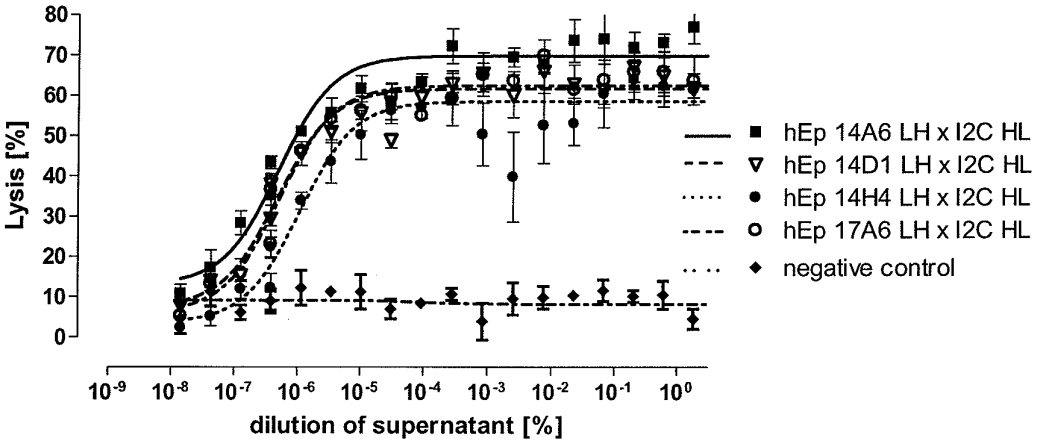
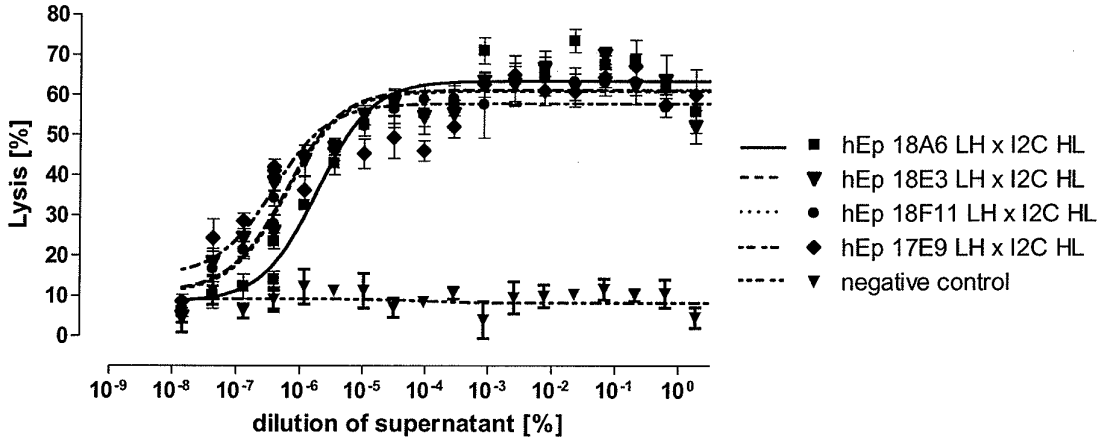


Figure 63

A) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human EpCAM



B) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human EpCAM

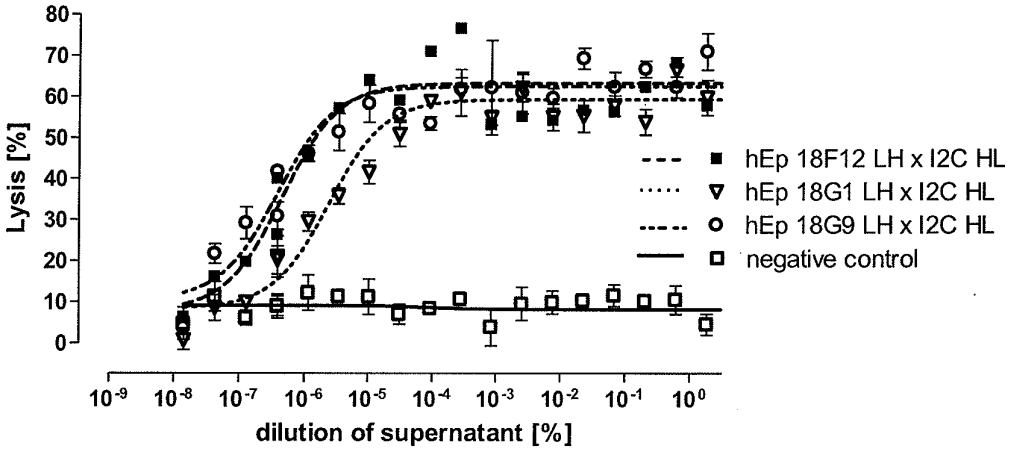
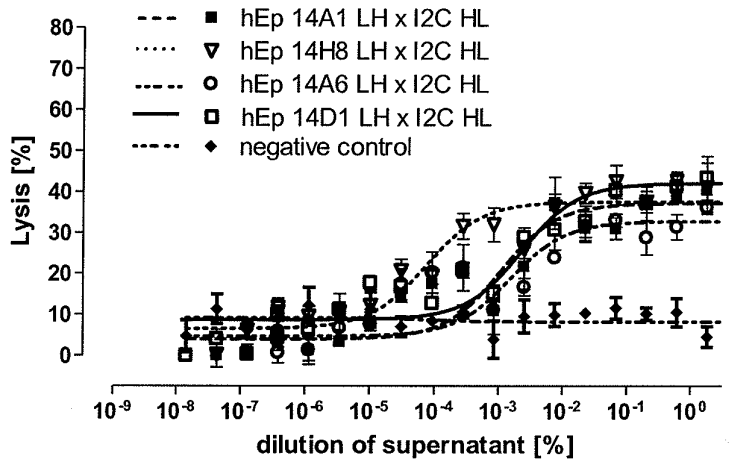


Figure 64

A) Effector cells: 4119 LnPx
Target cells: CHO transfected with human EpCAM



B) Effector cells: 4119 LnPx
Target cells: CHO transfected with human EpCAM

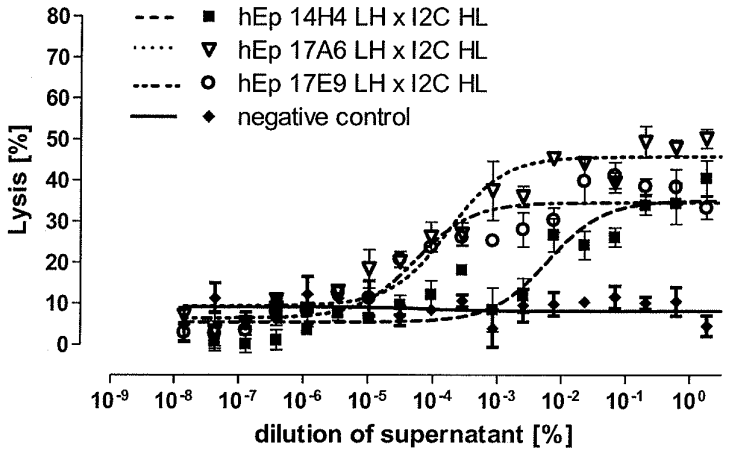
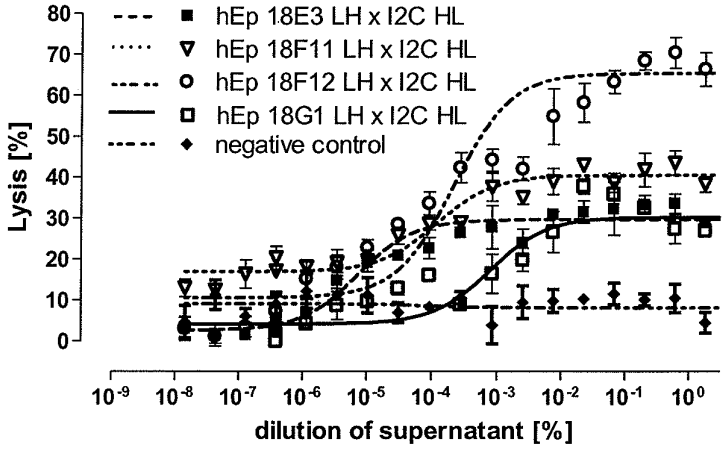


Figure 65

A) Effector cells: 4119 LnPx
Target cells: CHO transfected with human EpCAM



B) Effector cells: 4119 LnPx
Target cells: CHO transfected with human EpCAM

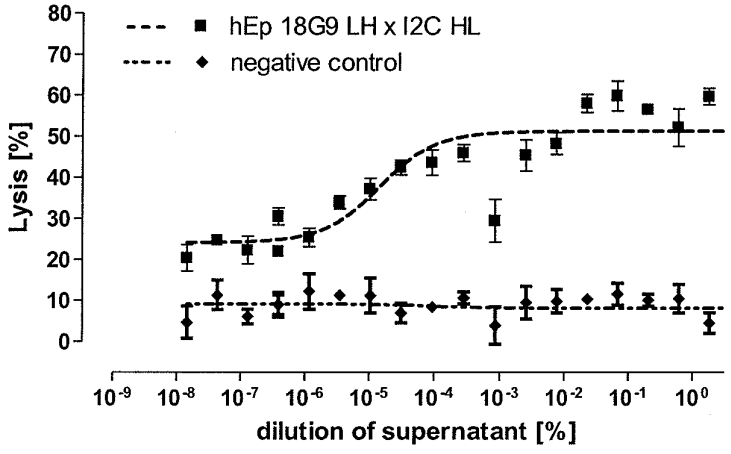
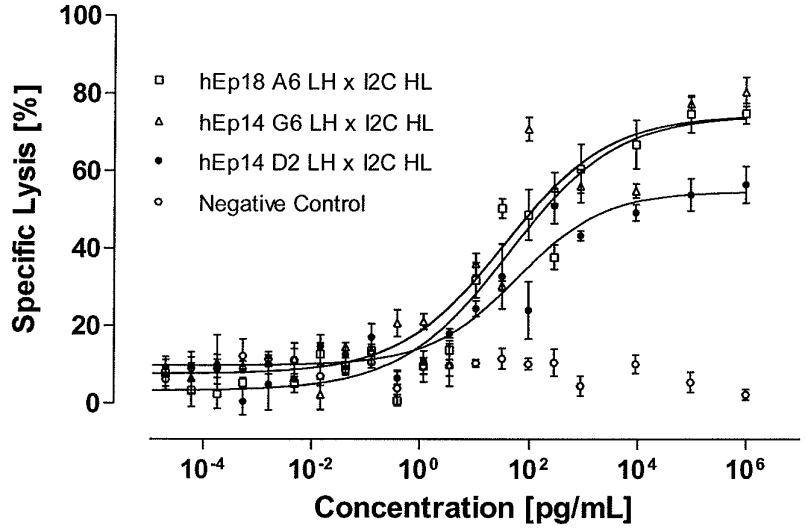


Figure 66

A) Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human EpCAM



B) Effector cells: 4119 LnPx
Target cells: CHO transfected with human EpCAM

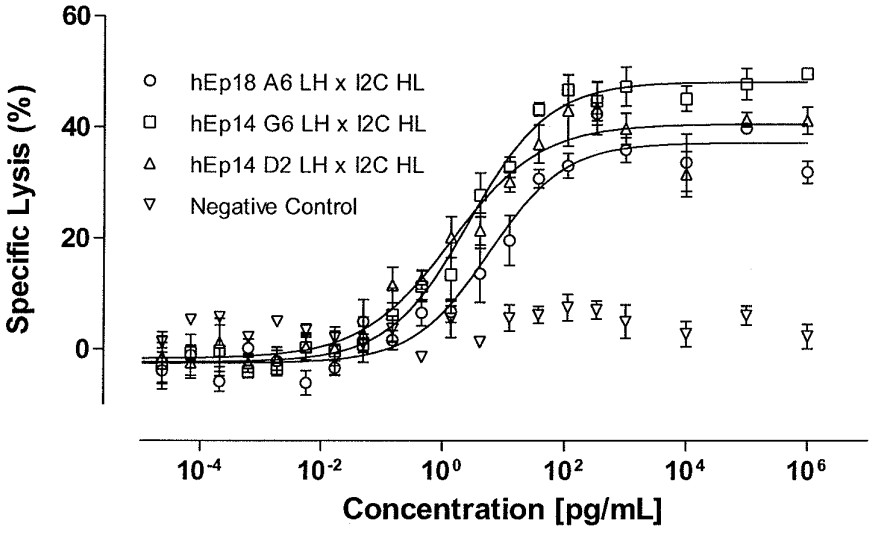


Figure 67

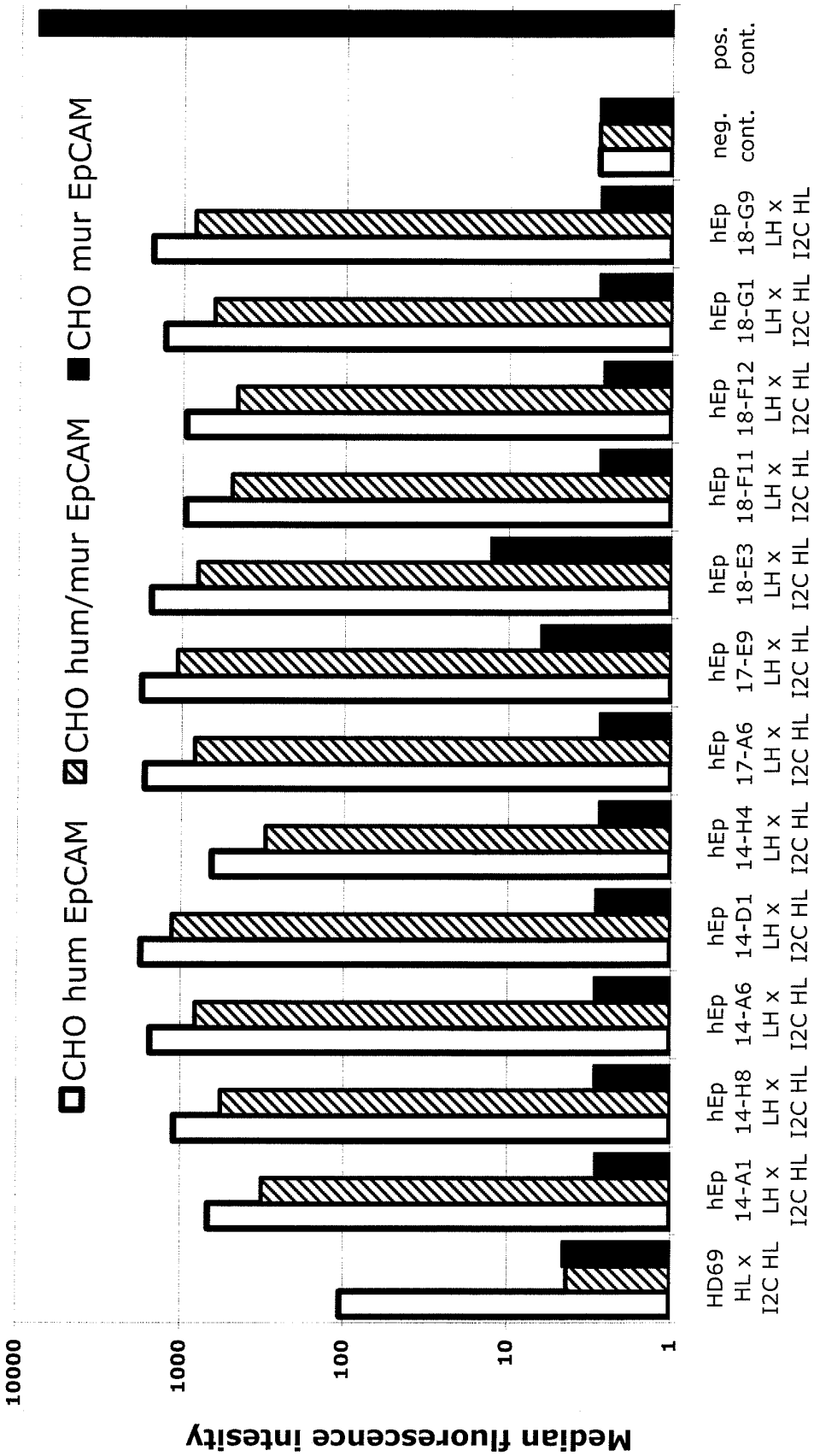

Median fluorescence intesity
10000
1000
100
10
1
CHO hum EpCAM
CHO hum/mur EpCAM
CHO mur EpCAM
HD69 HL x I2C HL
hEp 14-A1 LH x I2C HL
hEp 14-H8 LH x I2C HL
hEp 14-A6 LH x I2C HL
hEp 14-D1 LH x I2C HL
hEp 14-H4 LH x I2C HL
hEp 17-A6 LH x I2C HL
hEp 17-E9 LH x I2C HL
hEp 18-E3 LH x I2C HL
hEp 18-F11 LH x I2C HL
hEp 18-F12 LH x I2C HL
hEp 18-G1 LH x I2C HL
hEp 18-G9 LH x I2C HL
neg. cont.
pos. cont.

Figure 68

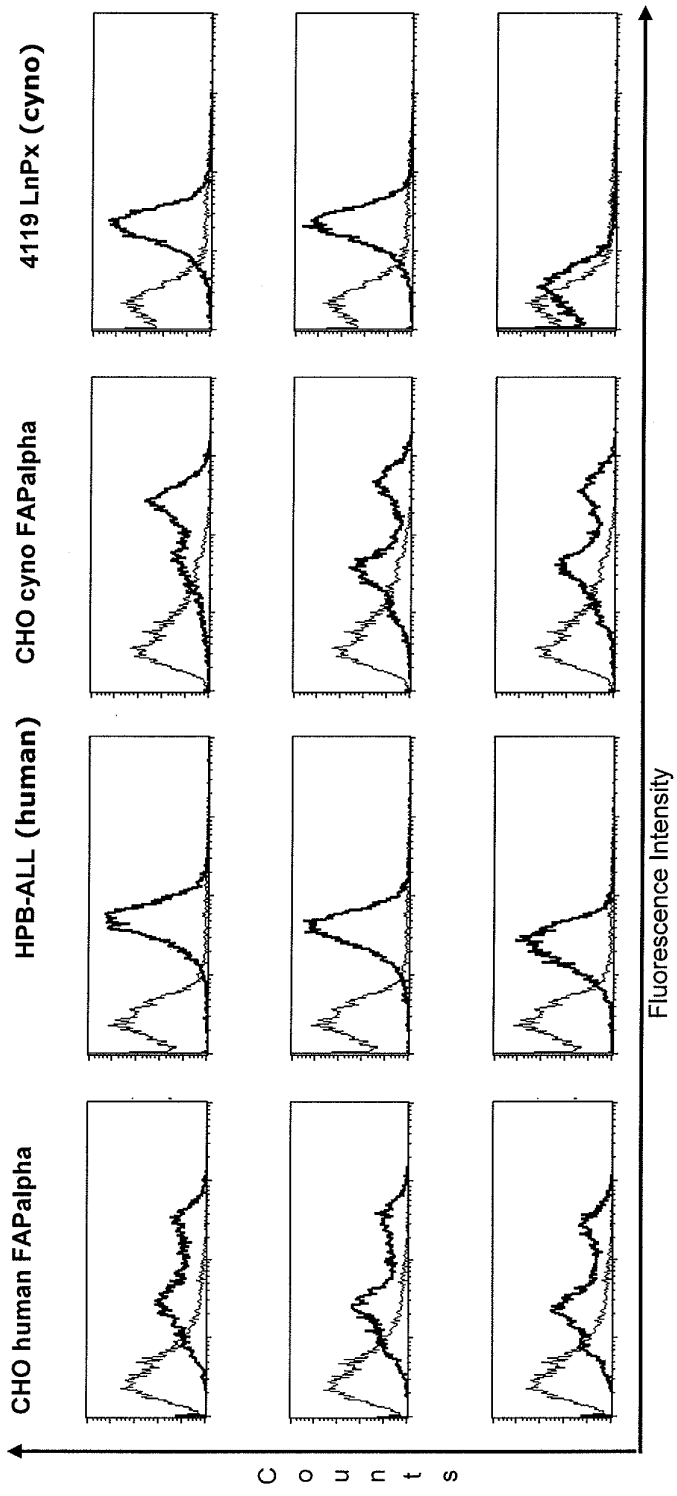
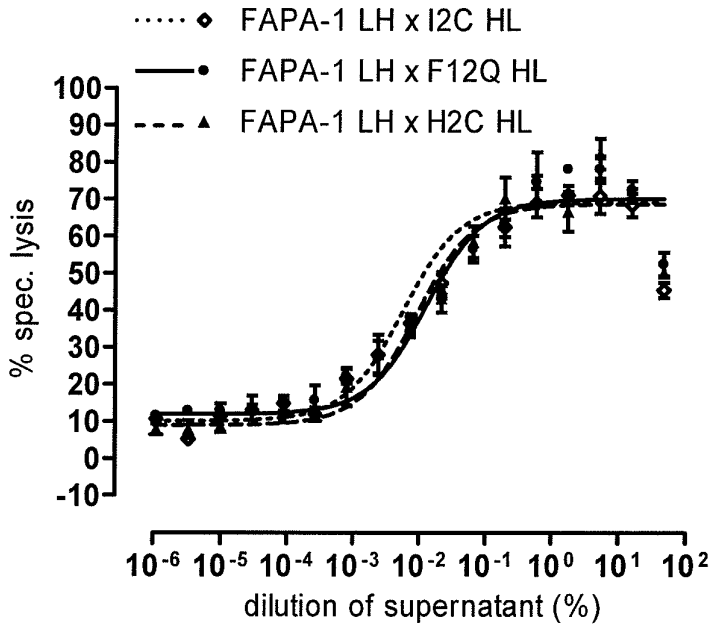
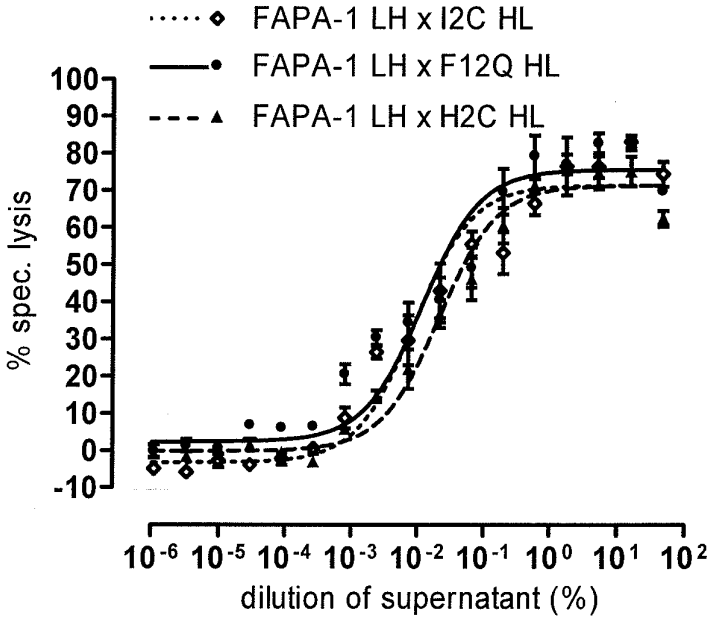

CHO human FAPalpha
HPB-ALL (human)
CHO cyno FAPalpha
4119 LnPx (cyno)
FAPA-1 LH x I2C HL
FAPA-1 LH x F12Q HL
FAPA-1 LH x H2C HL
Counts
Fluorescence Intensity

Figure 69

Effector cells: stimulated CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human FAPalpha
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque FAPalpha
E:T ratio: 10:1



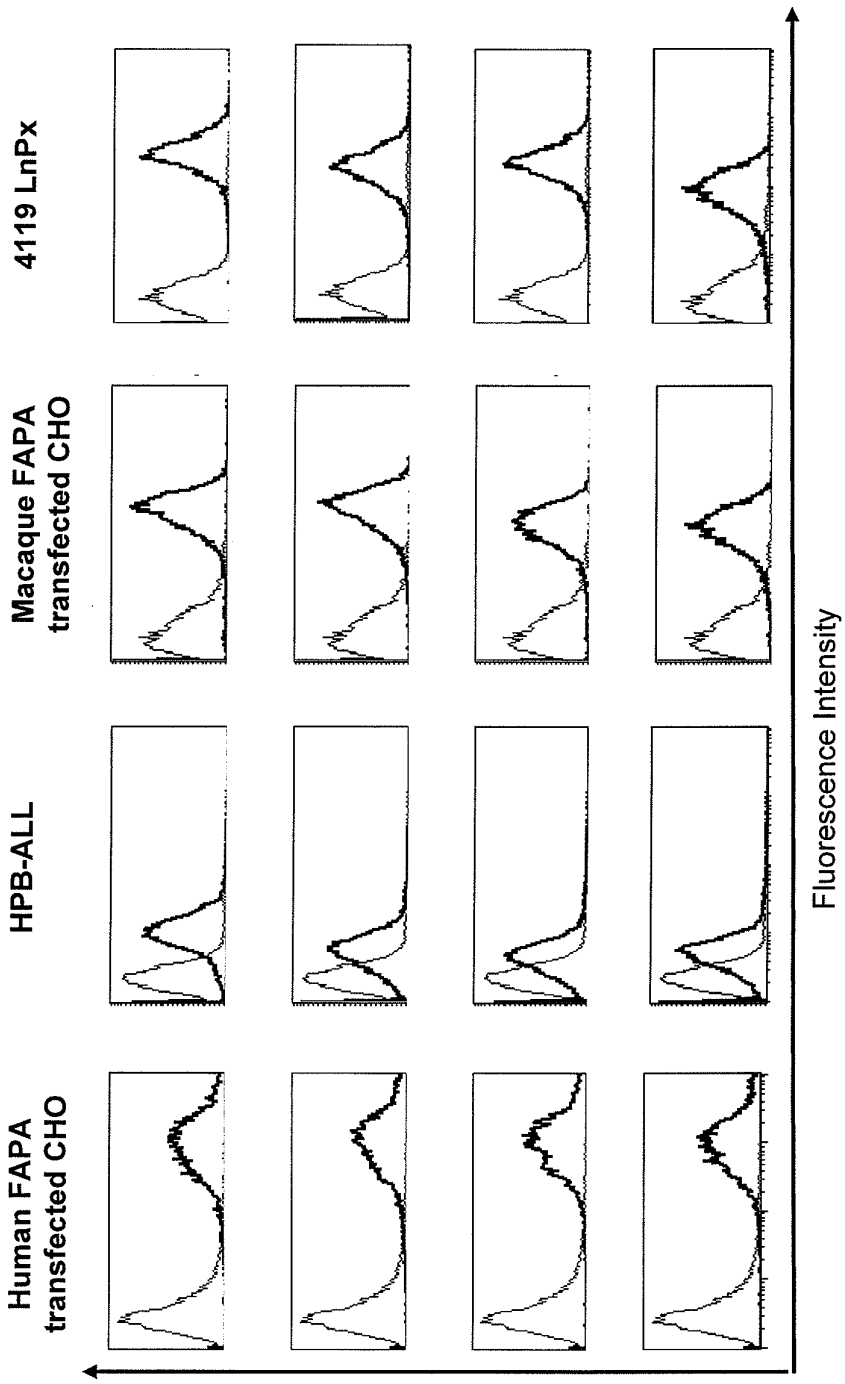

Human FAPA transfected CHO
HPB-ALL
Macaque FAPA transfected CHO
4119 LnPx
FA19D12HLxl2CHL
FA20H3HLxl2CHL
FA22A9HLxl2CHL
FA22C11HLxl2CHL
Counts
Fluorescence Intensity

Figure 70(1)

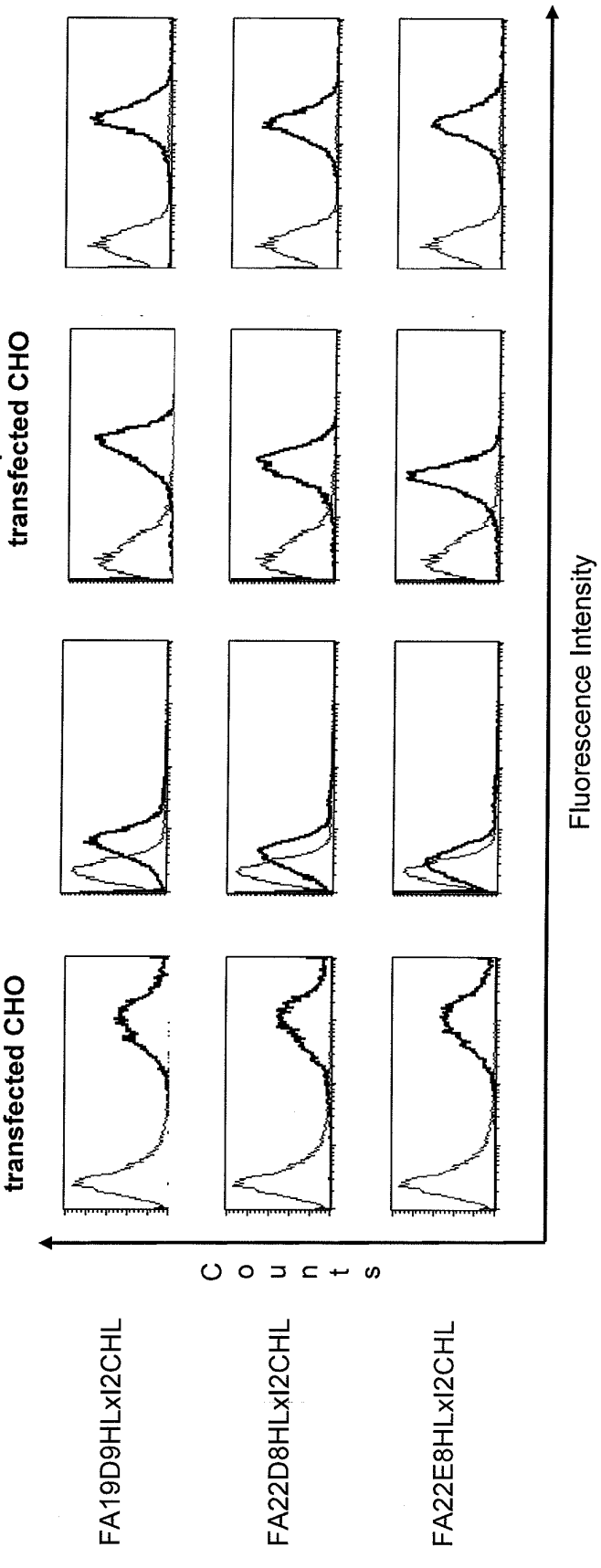
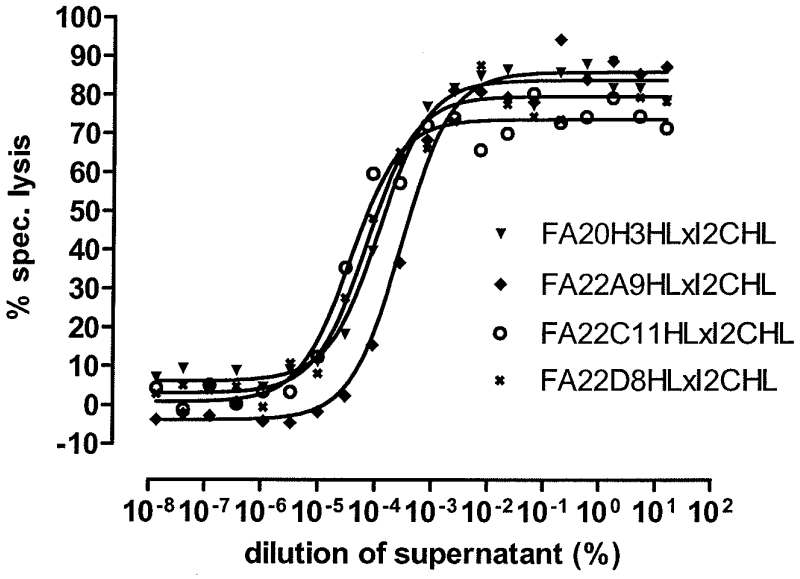

Human FAPA transfected CHO
HPB-ALL
Macaque FAPA transfected CHO
4119 LnPx
FA19D9HLxI2CHL
FA22D8HLxI2CHL
FA22E8HLxI2CHL
Counts
Fluorescence Intensity

Figure 70(2)

Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human FAPA
E:T ratio: 10:1



Effector cells: stimulated human CD4/CD56 depleted human PBMC
Target cells: CHO transfected with human FAPA
E:T ratio: 10:1

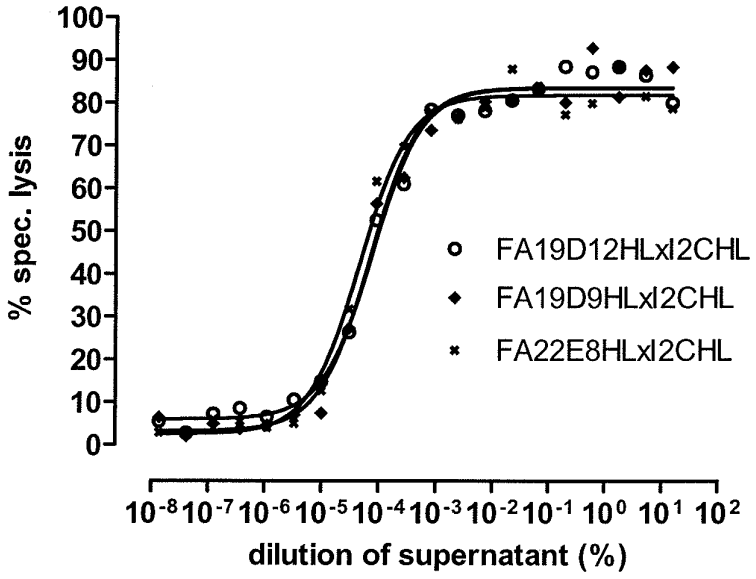
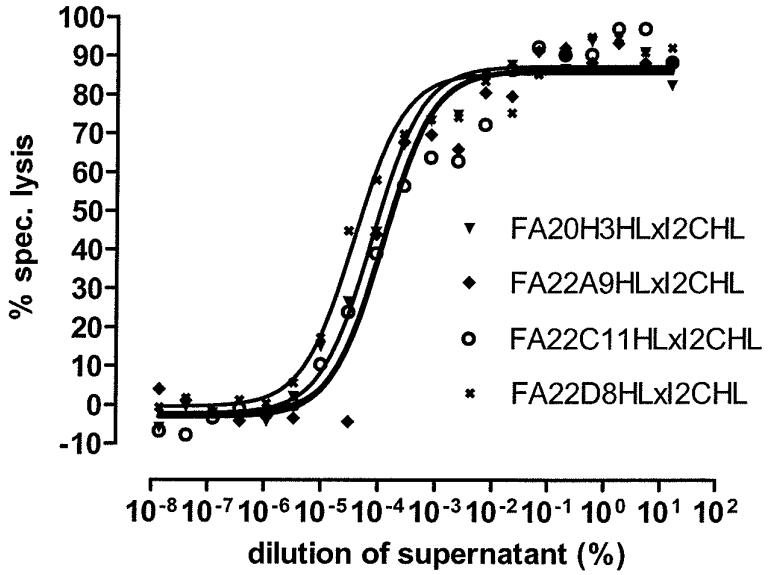


Figure 71(1)

Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque FAPA
E:T ratio: 10:1



Effector cells: 4119 LnPx
Target cells: CHO transfected with macaque FAPA
E:T ratio: 10:1

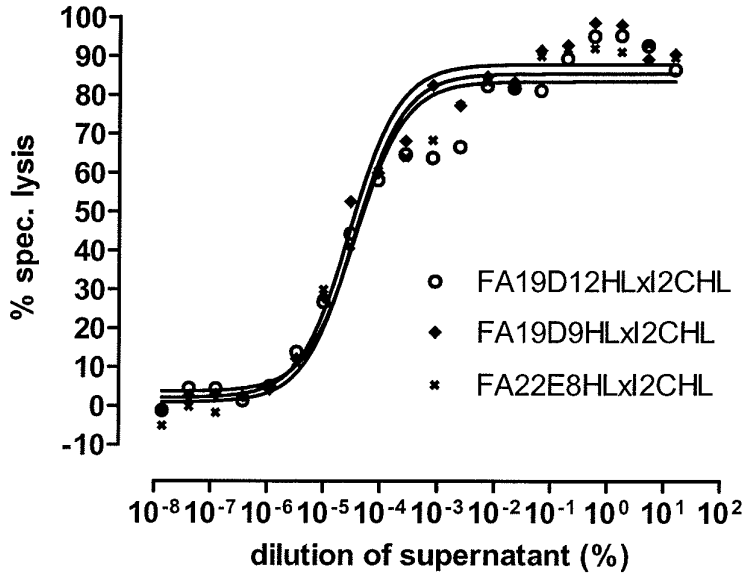
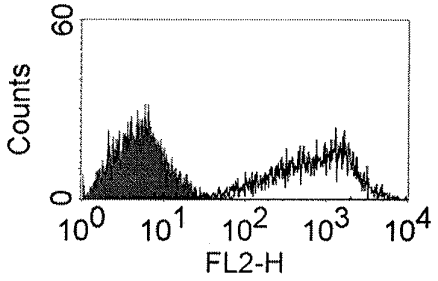


Figure 71(2)

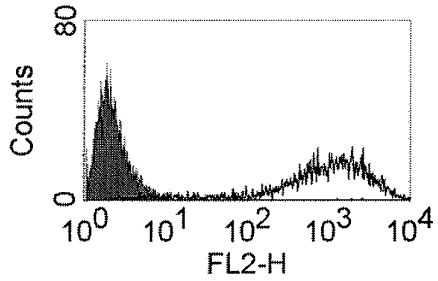
Human FAPA transfected CHO

FA86F2HL



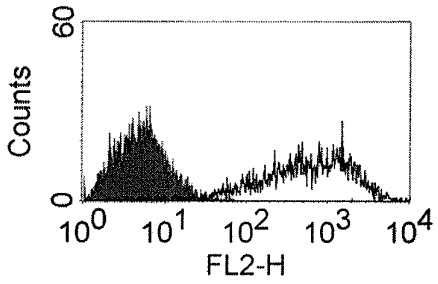
Macaque FAPA transfected CHO

FA86F2HL



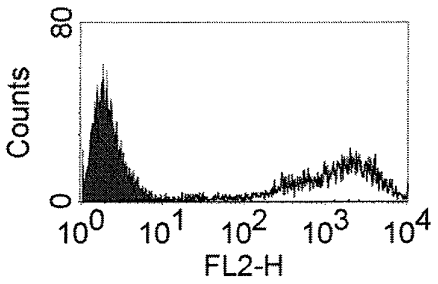
Human FAPA transfected CHO

FA86F10HL



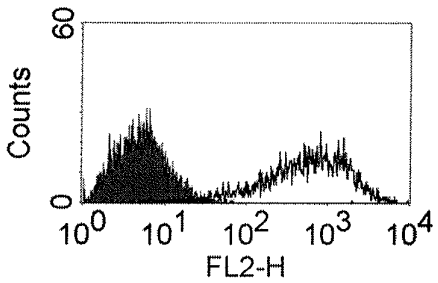
Macaque FAPA transfected CHO

FA86F10HL



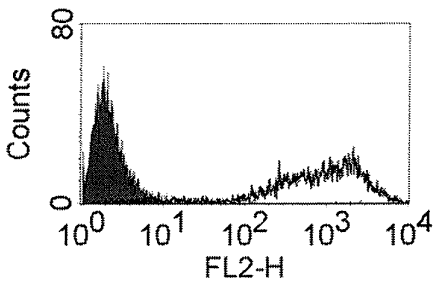
Human FAPA transfected CHO

FA86F12HL



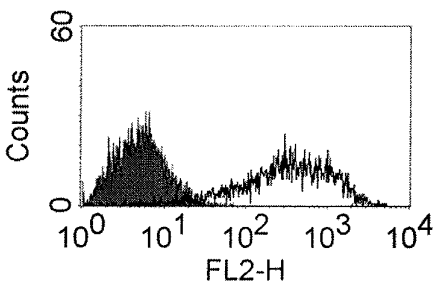
Macaque FAPA transfected CHO

FA86F12HL



Human FAPA transfected CHO

FA87G9HL



Macaque FAPA transfected CHO

FA87G9HL

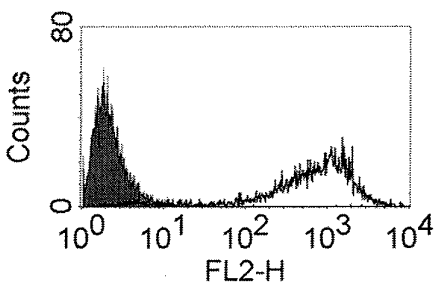
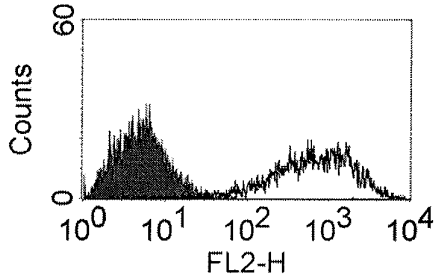


Figure 72(1)

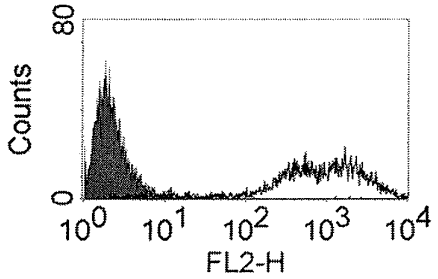
Human FAPA transfected CHO

FA86C12HL



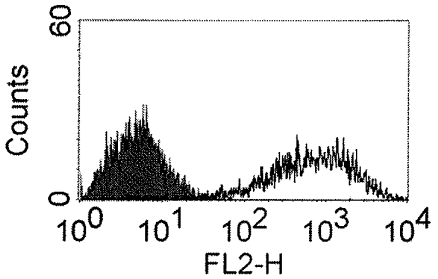
Macaque FAPA transfected CHO

FA86C12HL



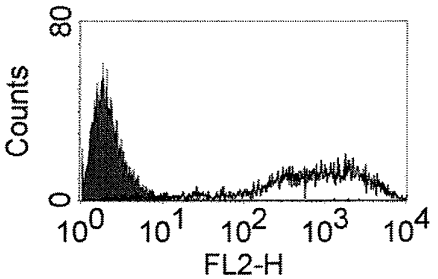
Human FAPA transfected CHO

FA86D2HL



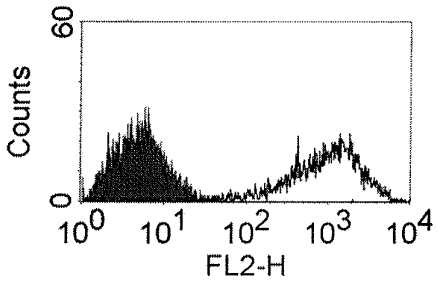
Macaque FAPA transfected CHO

FA86D2HL



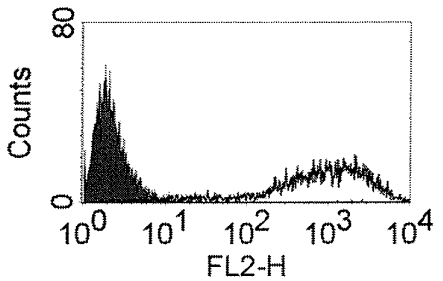
Human FAPA transfected CHO

FA86D6HL



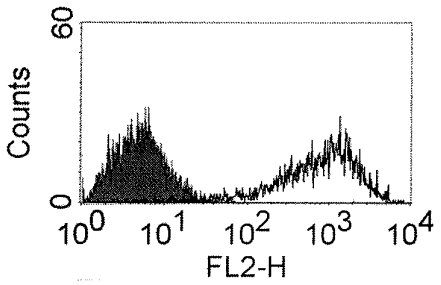
Macaque FAPA transfected CHO

FA86D6HL



Human FAPA transfected CHO

FA86E5HL



Macaque FAPA transfected CHO

FA86E5HL

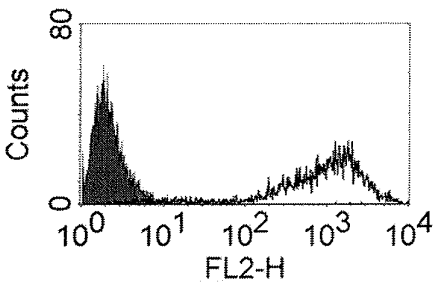
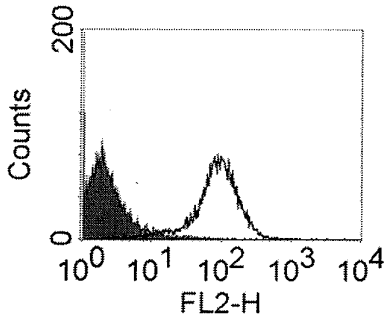


Figure 72(2)

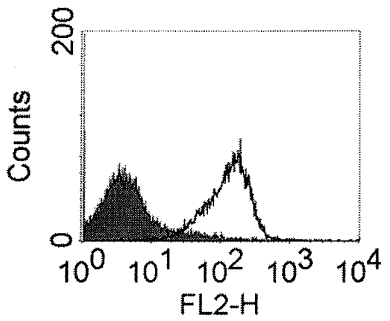
Human IGF-1R transfected CHO

IGF1R2HLxI2CHL



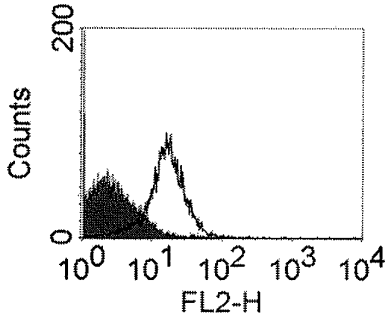
HPB-ALL

IGF1R2HLxI2CHL



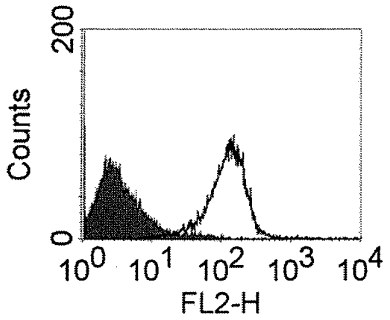
Macaque IGF-1R transfected CHO

IGF1R2HLxI2CHL



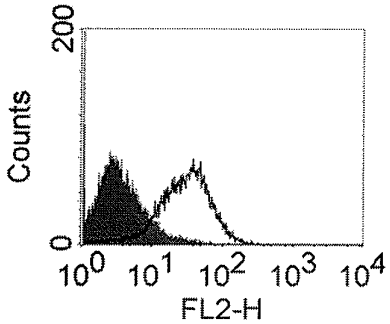
4119LnPx

IGF1R2HLxI2CHL



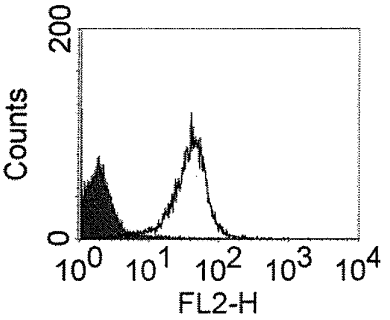
Human IGF-1R transfected CHO

IGF1R7HLxI2CHL



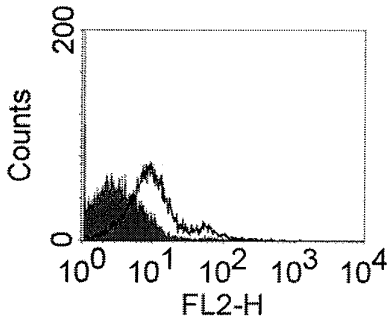
HPB-ALL

IGF1R7HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R7HLxI2CHL



4119LnPx

IGF1R7HLxI2CHL

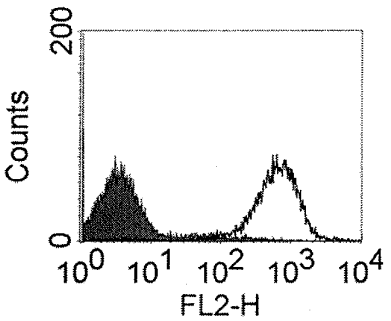
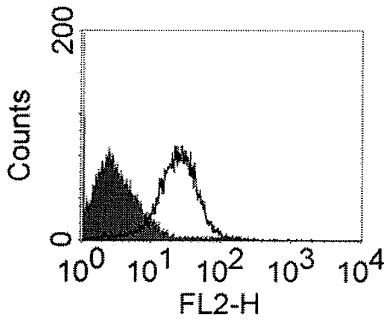


Figure 73a

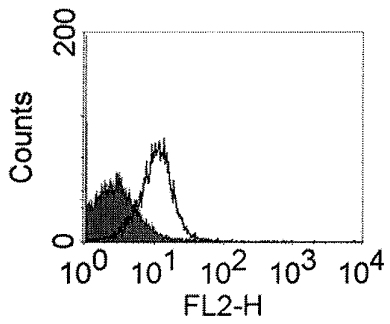
Human IGF-1R transfected CHO

IGF1R9HLxI2CHL



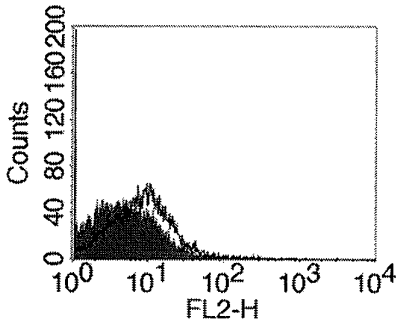
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IGF1R9HLxI2CHL



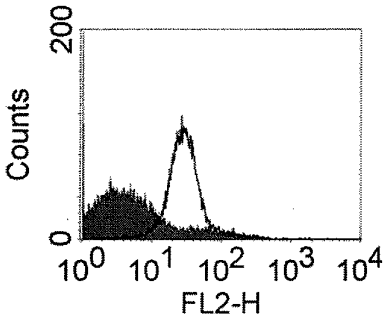
Macaque IGF-1R transfected CHO

IGF1R9HLxI2CHL



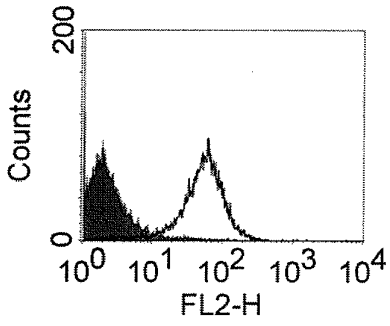
4119LnPx

IGF1R9HLxI2CHL



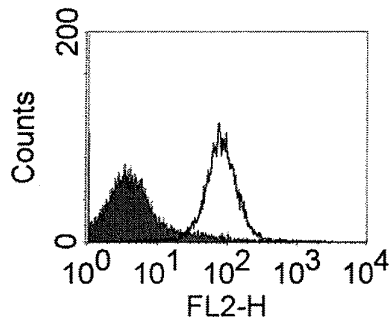
Human IGF-1R transfected CHO

IGF1R10HLxI2CHL



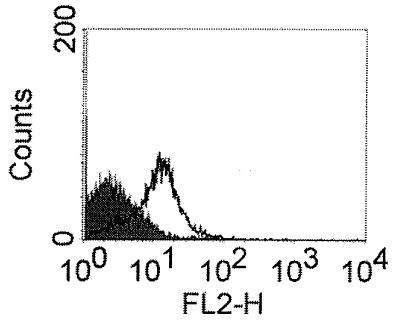
HPB-ALL

IGF1R10HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R10HLxI2CHL



4119LnPx

IGF1R10HLxI2CHL

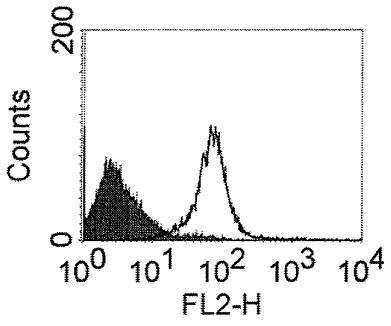
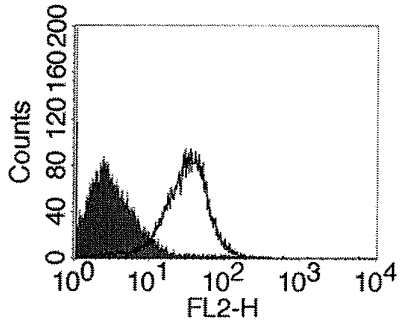


Figure 73b

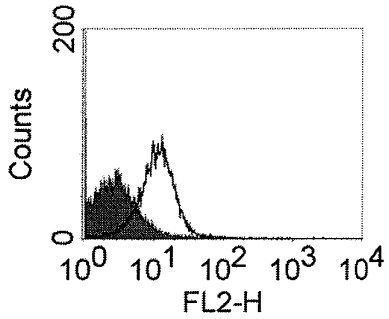
Human IGF-1R transfected CHO

IGF1R11HLxl2CHL



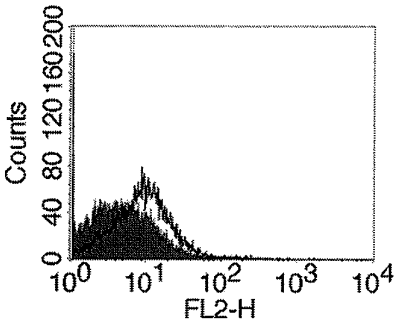
HPB-ALL

IGF1R11HLxl2CHL



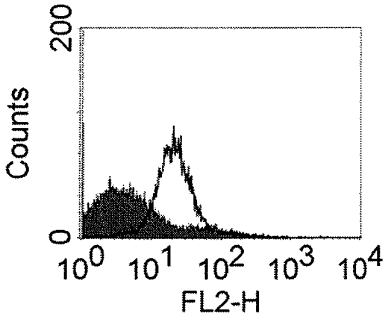
Macaque IGF-1R transfected CHO

IGF1R11HLxl2CHL



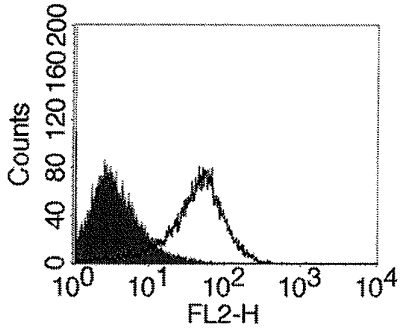
4119LnPx

IGF1R11HLxl2CHL



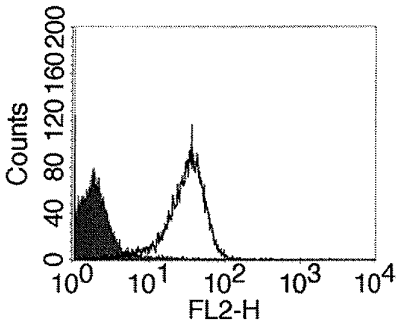
Human IGF-1R transfected CHO

IGF1R12HLxl2CHL



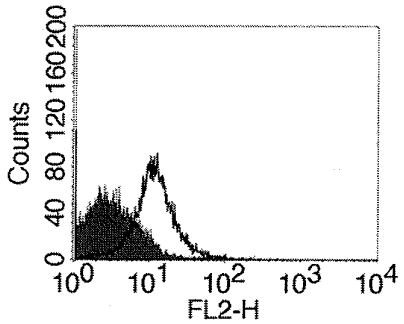
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IGF1R12HLxl2CHL



Macaque IGF-1R transfected CHO

IGF1R12HLxl2CHL



4119LnPx

IGF1R12HLxl2CHL

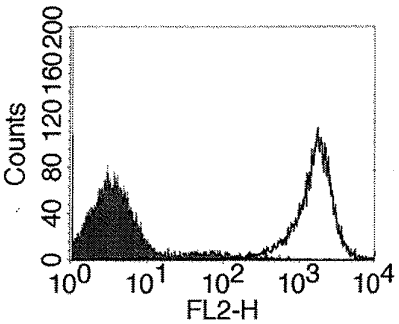
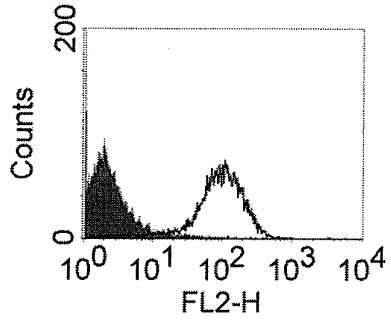


Figure 73c

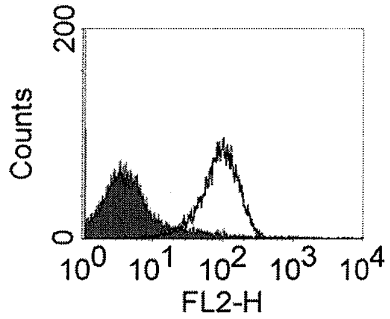
Human IGF-1R transfected CHO

IGF1R13HLxI2CHL



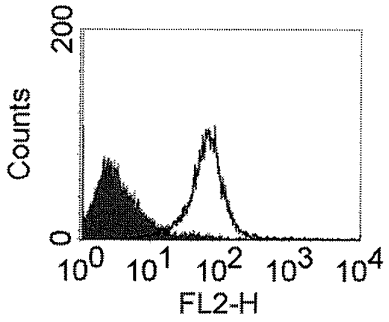
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IGF1R13HLxI2CHL



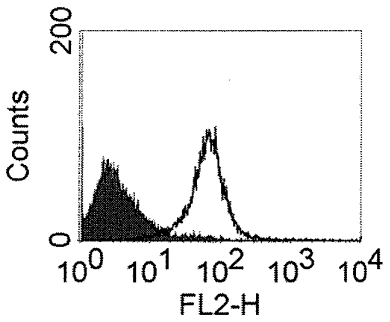
Macaque IGF-1R transfected CHO

IGF1R13HLxI2CHL



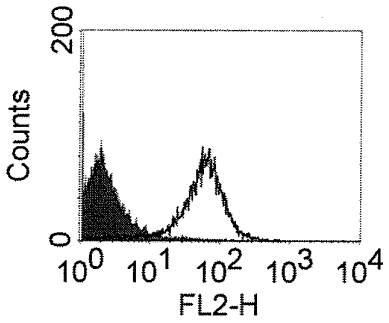
4119LnPx

IGF1R13HLxI2CHL



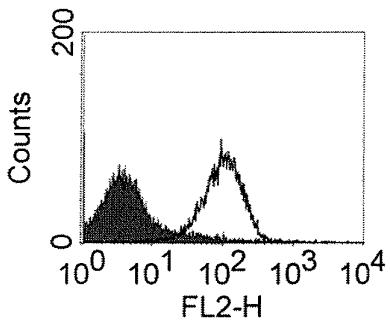
Human IGF-1R transfected CHO

IGF1R15HLxI2CHL



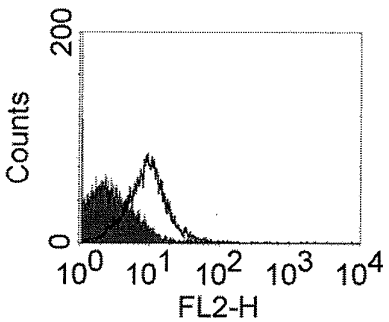
HPB-ALL

IGF1R15HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R15HLxI2CHL



4119LnPx

IGF1R15HLxI2CHL

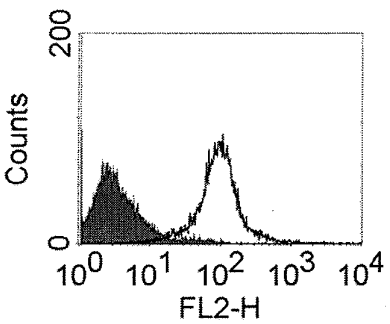
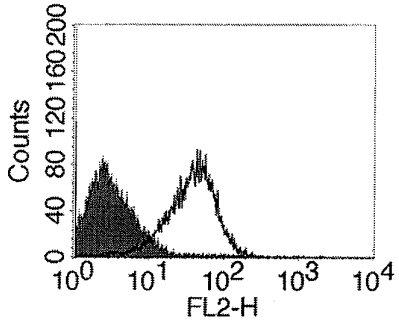


Figure 73d

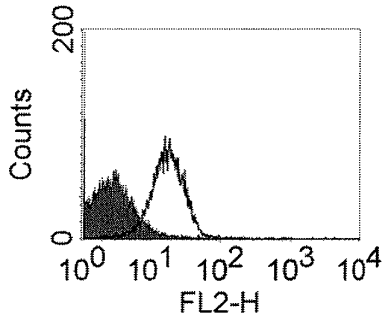
Human IGF-1R transfected CHO

IGF1R16HLxI2CHL



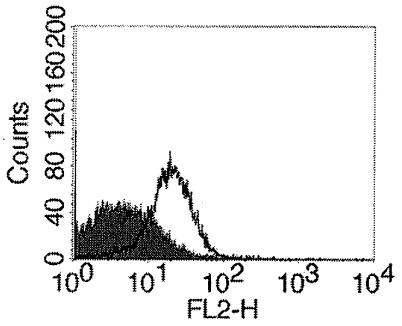
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IGF1R16HLxI2CHL



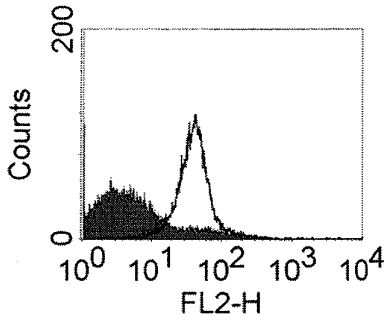
Macaque IGF-1R transfected CHO

IGF1R16HLxI2CHL



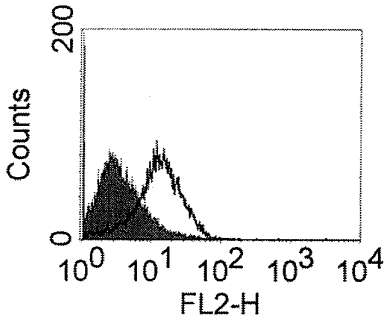
4119LnPx

IGF1R16HLxI2CHL



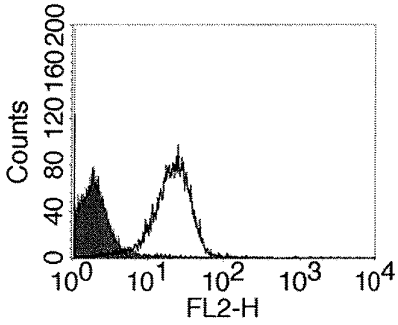
Human IGF-1R transfected CHO

IGF1R17HLxI2CHL



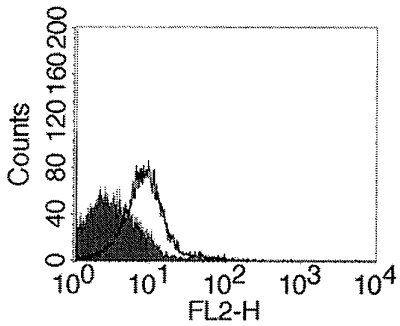
HPB-ALL

IGF1R17HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R17HLxI2CHL



4119LnPx

IGF1R17HLxI2CHL

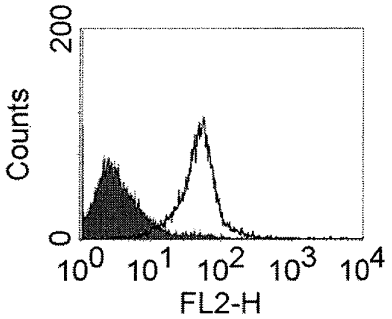
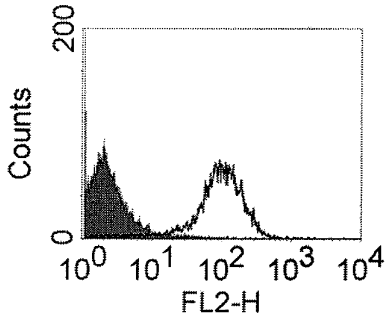


Figure 73e

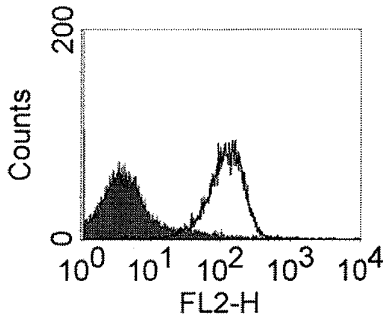
Human IGF-1R transfected CHO

IGF1R19HLxI2CHL



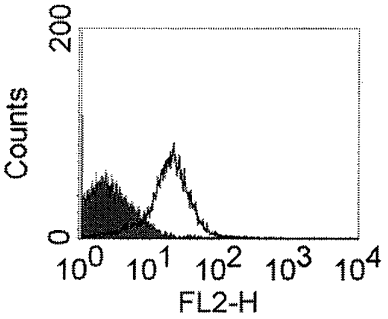
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IGF1R19HLxI2CHL



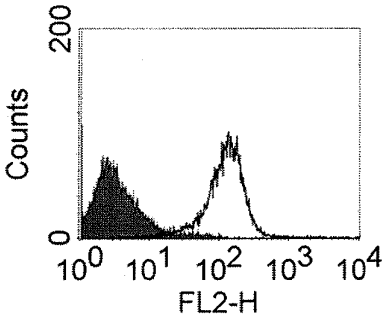
Macaque IGF-1R transfected CHO

IGF1R19HLxI2CHL



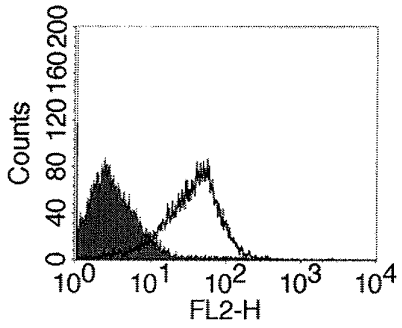
4119LnPx

IGF1R19HLxI2CHL



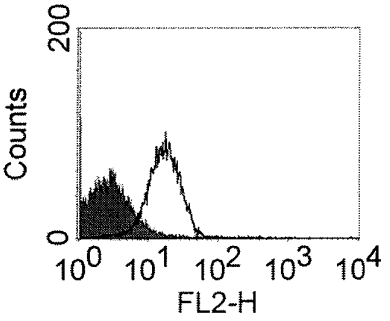
Human IGF-1R transfected CHO

IGF1R20HLxI2CHL



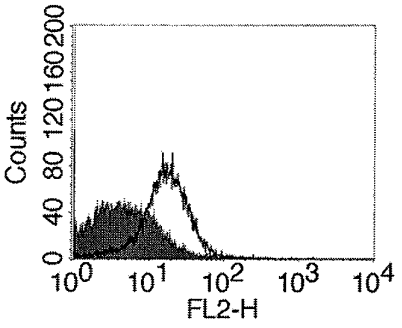
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IGF1R20HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R20HLxI2CHL



4119LnPx

IGF1R20HLxI2CHL

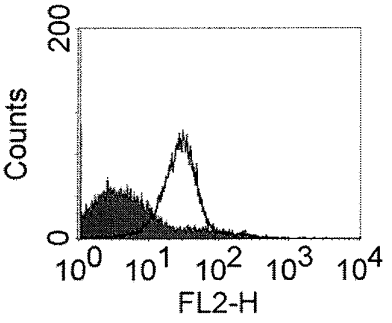
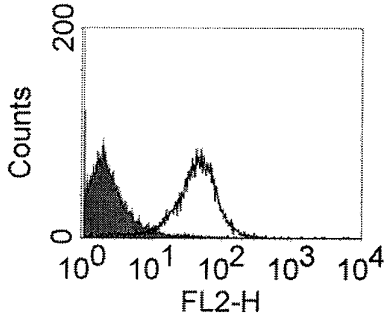


Figure 73f

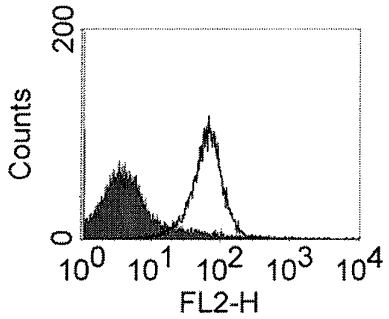
Human IGF-1R transfected CHO

IGF1R21HLxI2CHL



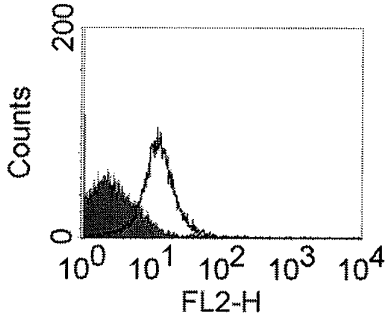
HPB-ALL

IGF1R21HLxI2CHL



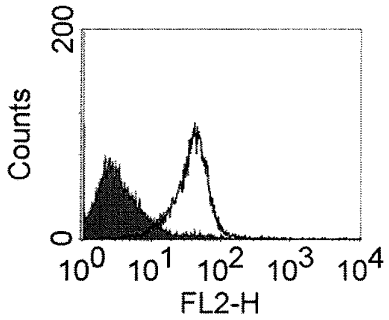
Macaque IGF-1R transfected CHO

IGF1R21HLxI2CHL



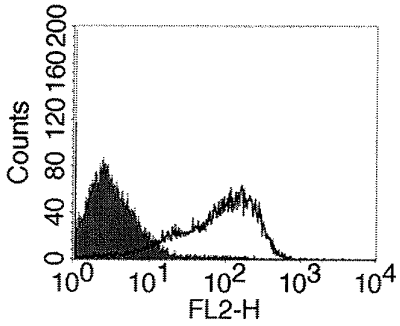
4119LnPx

IGF1R21HLxI2CHL



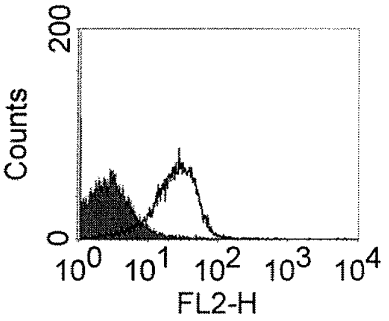
Human IGF-1R transfected CHO

IGF1R23HLxI2CHL



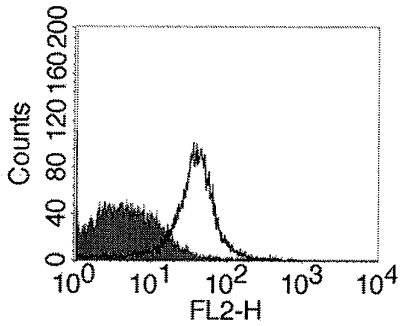
HPB-ALL

IGF1R23HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R23HLxI2CHL



4119LnPx

IGF1R23HLxI2CHL

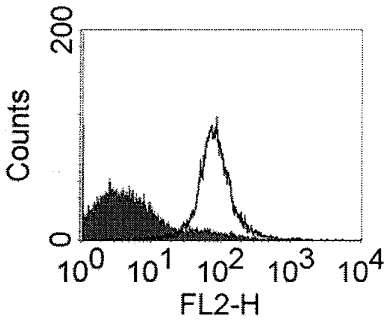
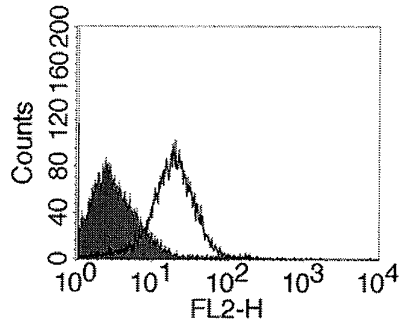


Figure 73g

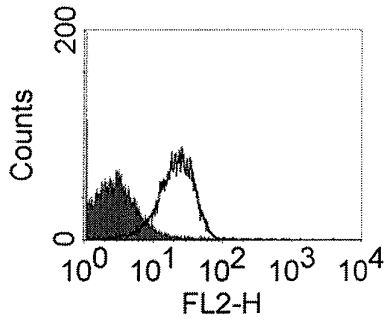
Human IGF-1R transfected CHO

IGF1R24HLxI2CHL



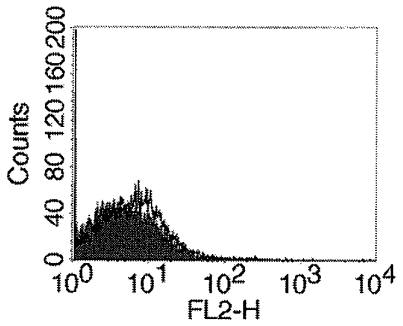
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IGF1R24HLxI2CHL



Macaque IGF-1R transfected CHO

IGF1R24HLxI2CHL



4119LnPx

IGF1R24HLxI2CHL

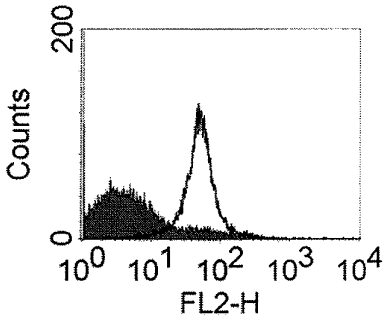
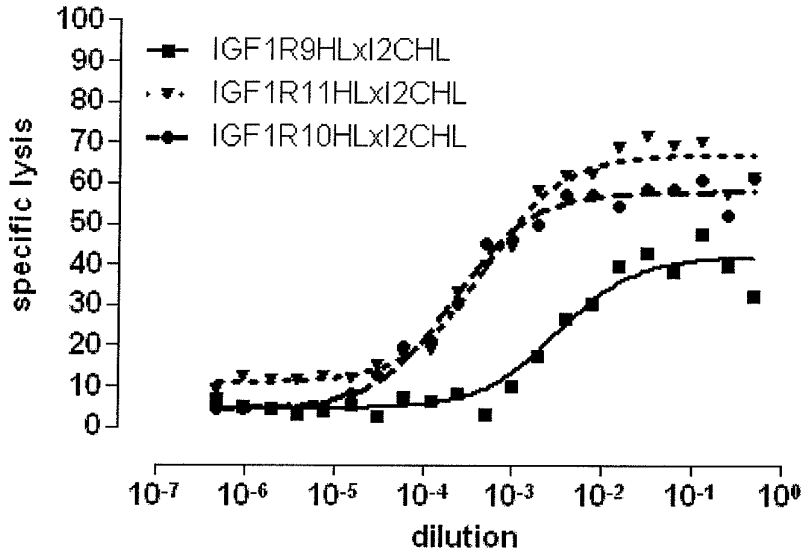


Figure 73h

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human IGF-1R



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque IGF-1R

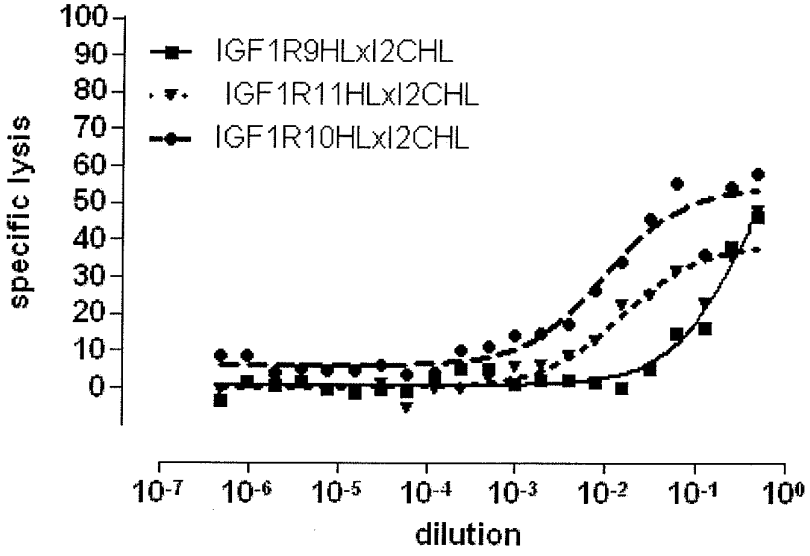
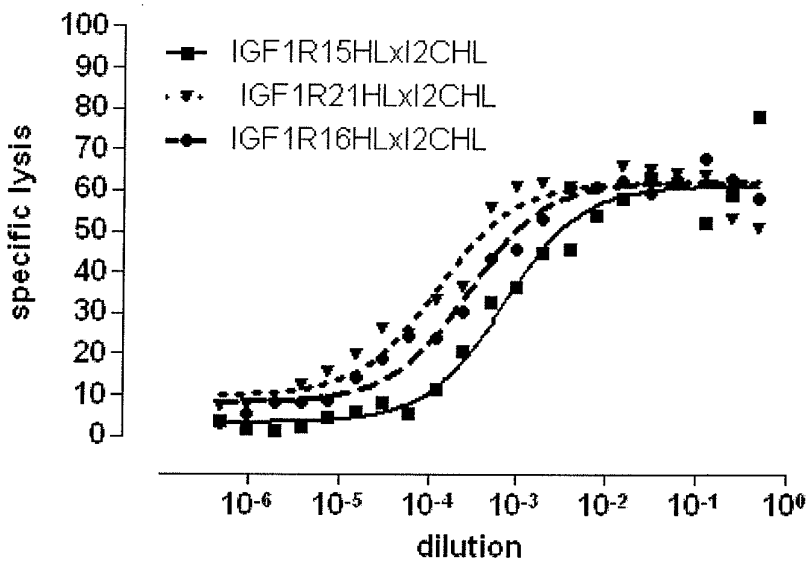


Figure 74a

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human IGF-1R



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque IGF-1R

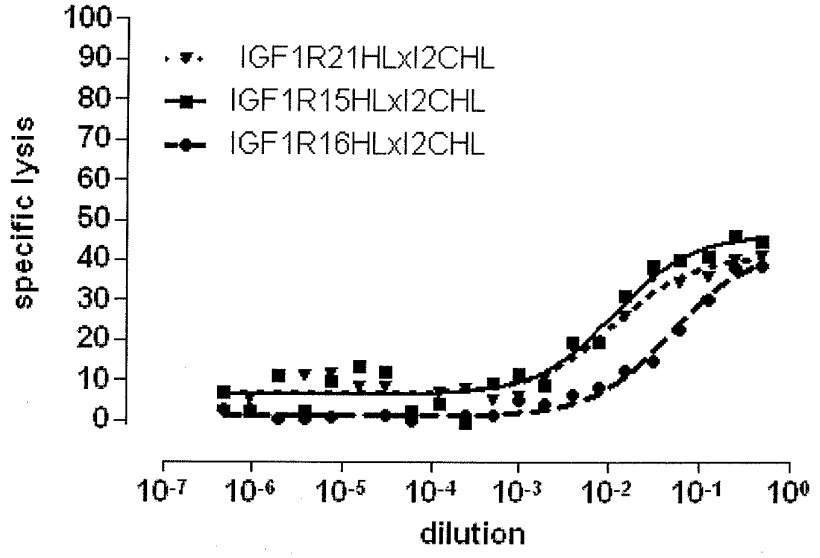
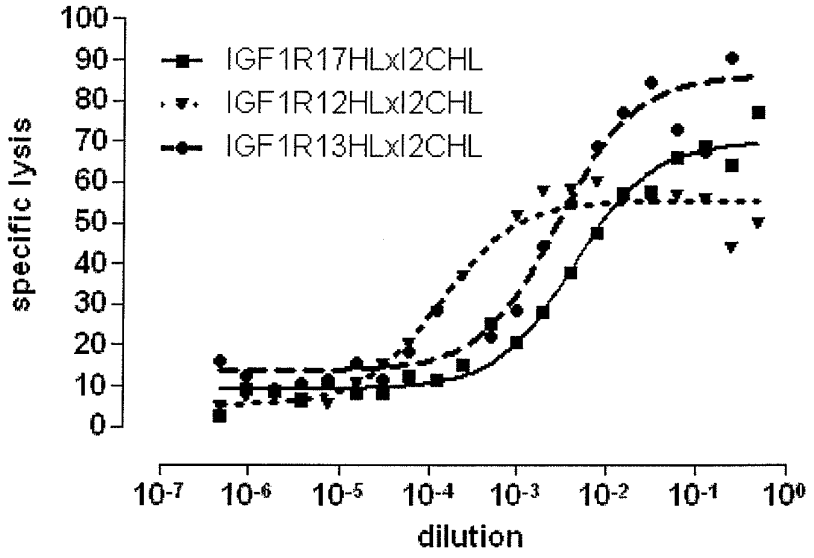


Figure 74b

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human IGF-1R



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque IGF-1R

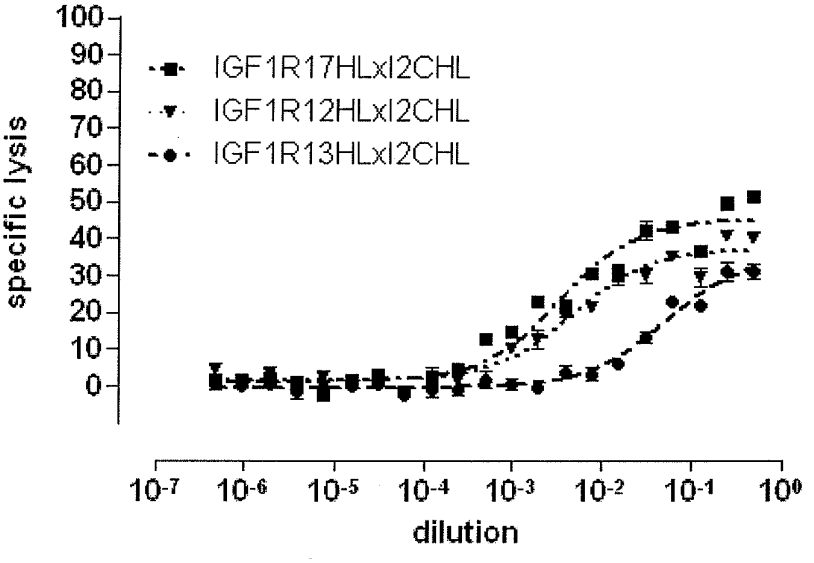
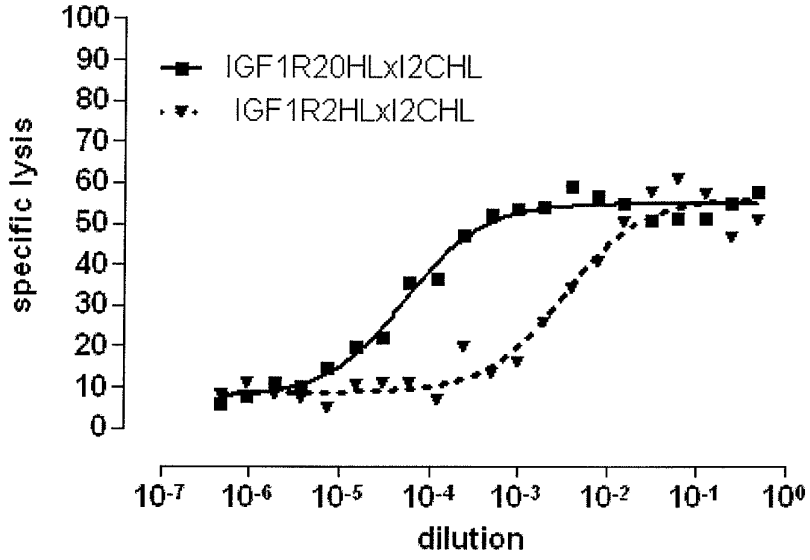


Figure 74c

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human IGF-1R



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque IGF-1R

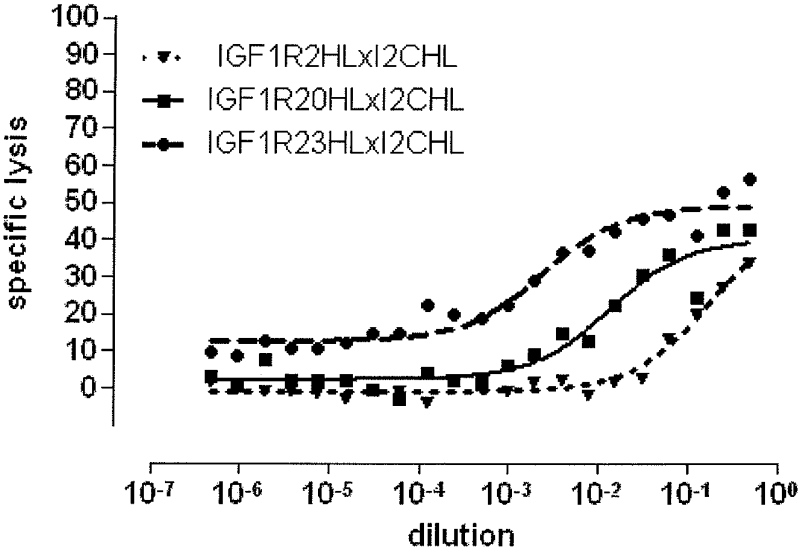
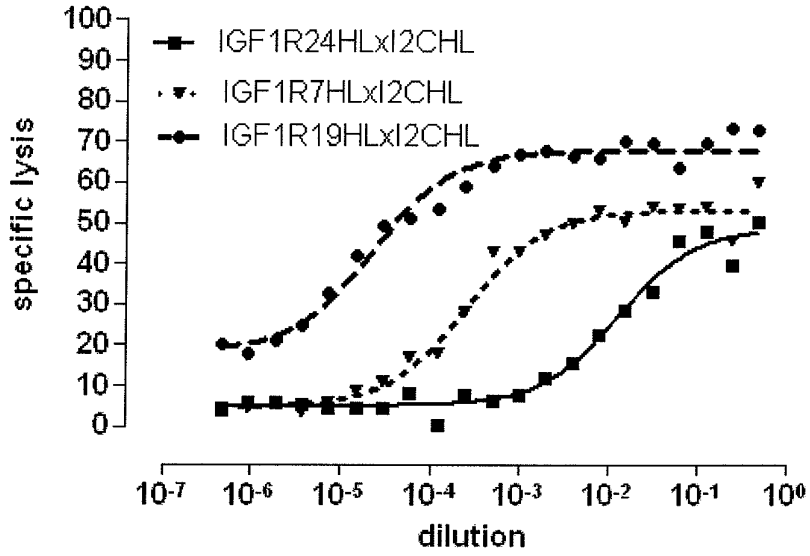


Figure 74d

Effector T cells: stimulated CD4/CD56 depleted human PBMC

Target cells: CHO transfected with human IGF-1R



Effector T cells: macaque 4119 LnPx

Target cells: CHO transfected with macaque IGF-1R

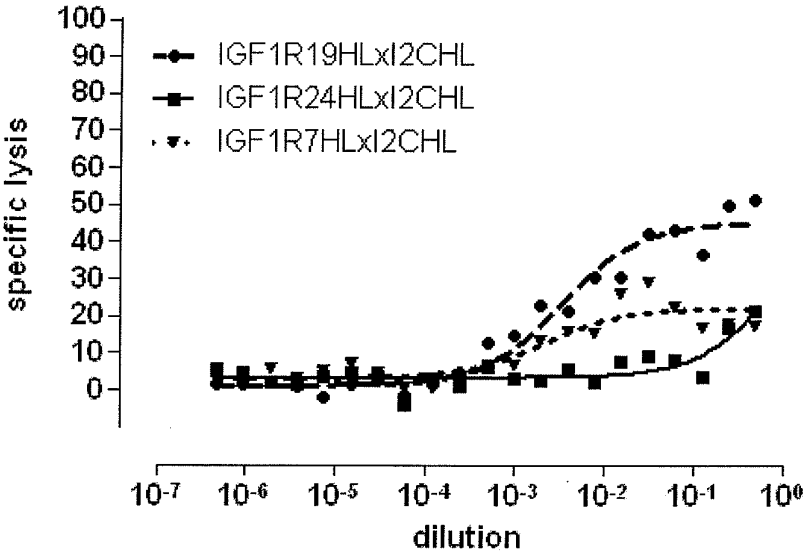


Figure 74e