```
                <-------------FWR1----------><DR1><-----FWR2---><------CDR2----->
40C01-VH        EVQLLESGGGLVQPGGSLRLSCAASGFTFSRYVMVWVRQAPGKGLDWVSGISPSGGVTRYADSVKG
IGHV3-23*01     ............................S.A.S.........E...A..G...S.Y.......
40C01-VH1       ....................................E...............A....
40C01-VH2       ............................S.............E...............A....

                <--------------FWR3------------><-----CDR3---><--FWR4--->
40C01-VH        RFTISRDNSKNTLYLQMNSLRAEDTAMYYCARIRKEMTTISYFFDYWGQGTLVTVSS
IGHV3-23*01     ........................V....K
IGHJ4*02                                                  Y.............
40C01-VH1       ........................V.............................
40C01-VH2       ........................V.........K.....................
```

Figure 1

```
                <---------FWR1-------><---CDR1--><-----FWR2----><-CDR2>
40C01-Vk        DIQMTRAPDSLSASVGDRVTITCRASQGVDIYVAWYQQKPGKAPKLLMHSASTLAS
IGKV1-27*01     .....QS.S.................ISN.L.........V....IYA....Q.
40C01-Vk1       .....KS.S..................A.............IY.T.....
40C01-Vk2       .....QS.S..................A...........V....IY.T.....
40C01-Vk3       .....QS.S..................A...........V....IY.T.....

                <--------------FWR3------------><--CDR3-><--FWR4-->
40C01-VL        GVPSRFSGRGSGTDFTLTINSLQAEDVATYYCQSHNSAVVTFGQGTRLEIK
IGKV1-27*01     ........S..........S...P.........KY...
IGKJ5*01                                              I...........
40C01-Vk1       ........S..........S...P.........................
40C01-Vk2       ........S..........S...P.........................
40C01-Vk3       ........S..........S...P............A............
```

Figure 2

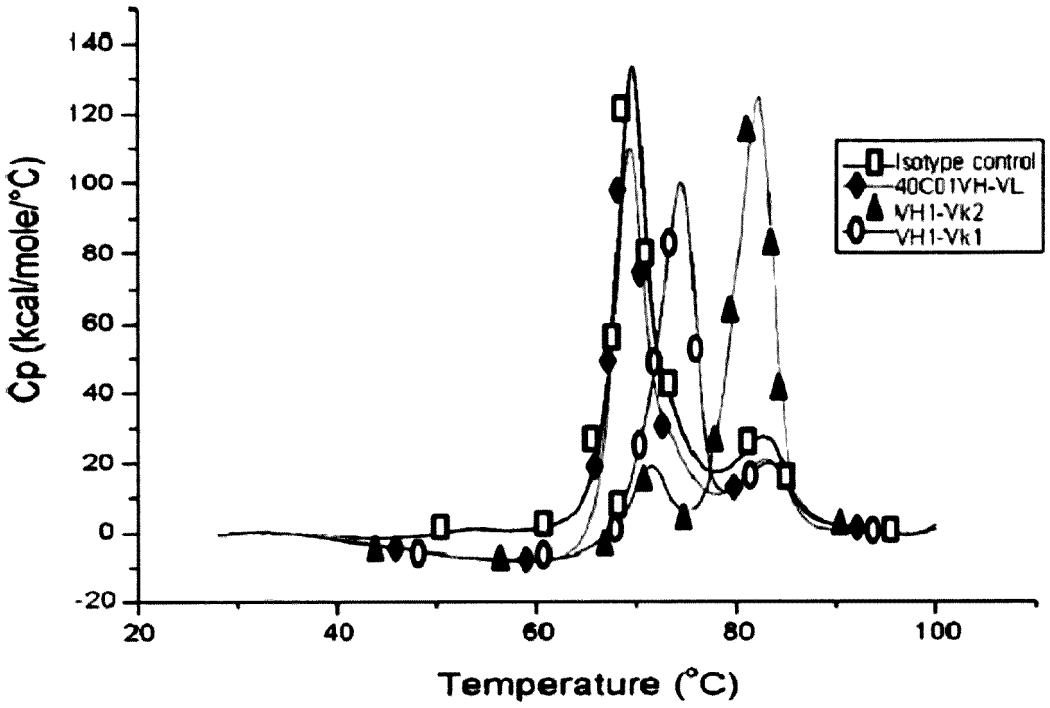


Figure 3

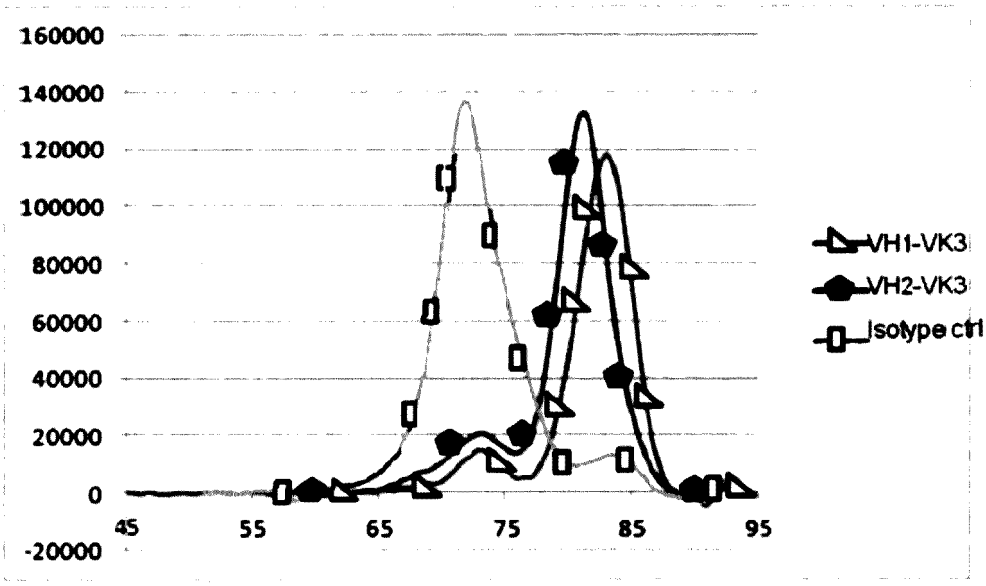
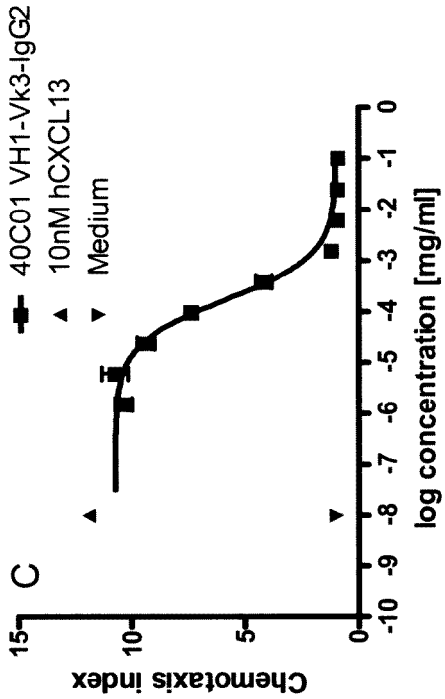
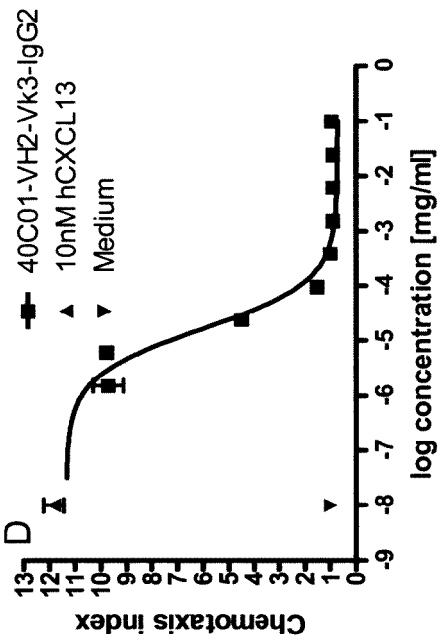


Figure 4



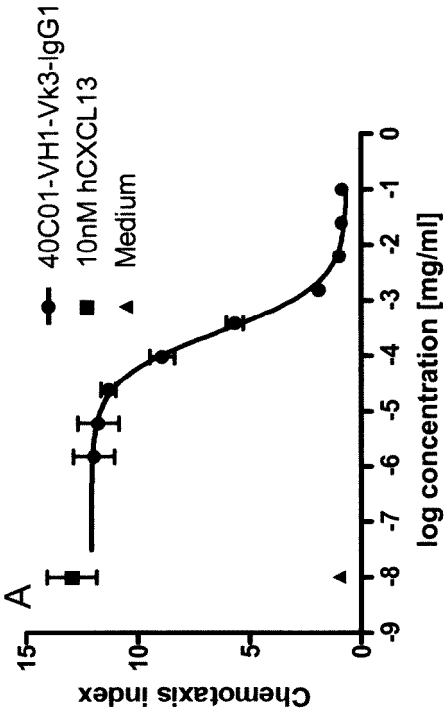
IC_{50} 1.15nM

Figure 5c



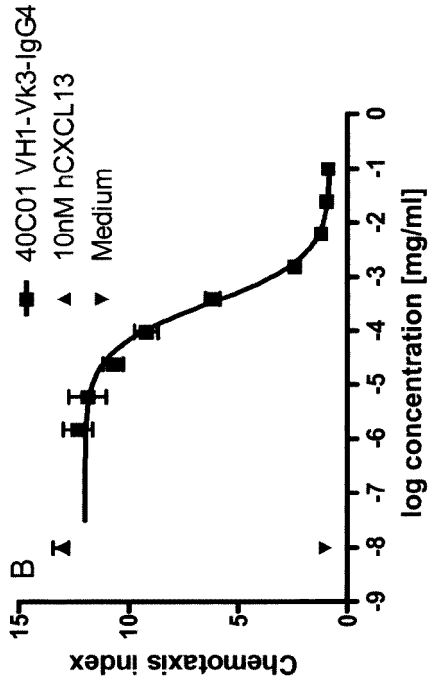
IC_{50} 0.108nM

Figure 5d



IC_{50} 1.81nM

Figure 5a



IC_{50} 2.1nM

Figure 5b

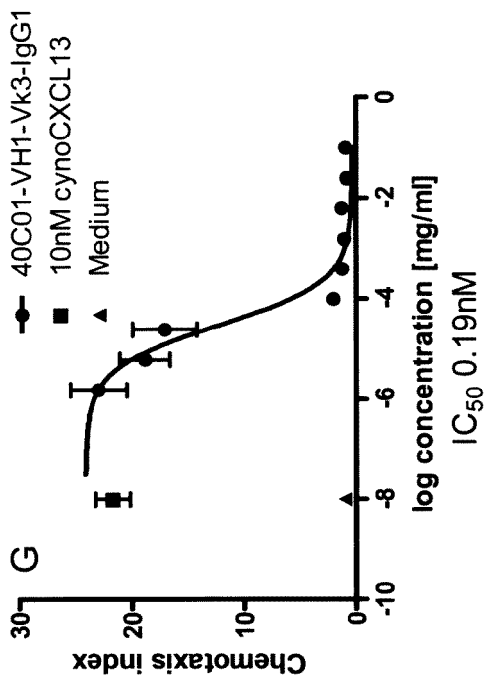


Figure 5g

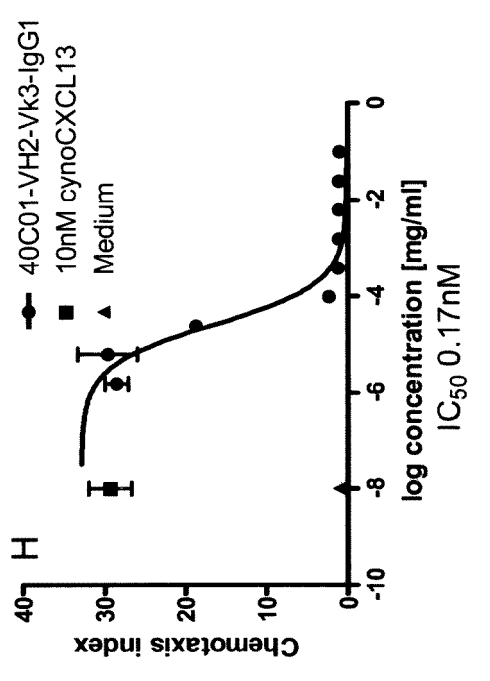


Figure 5h

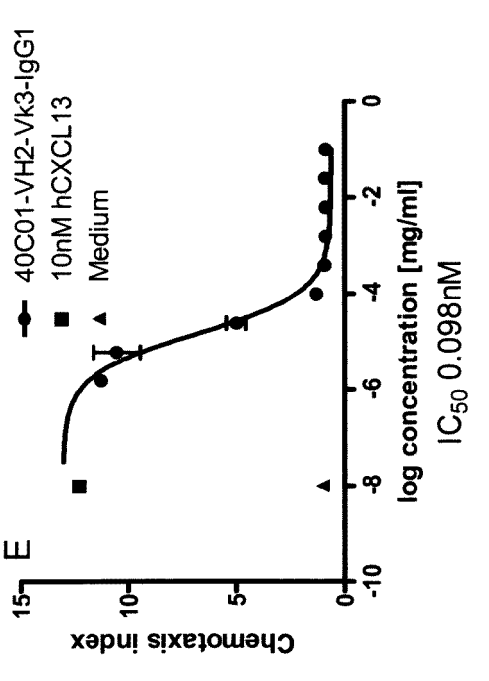


Figure 5e

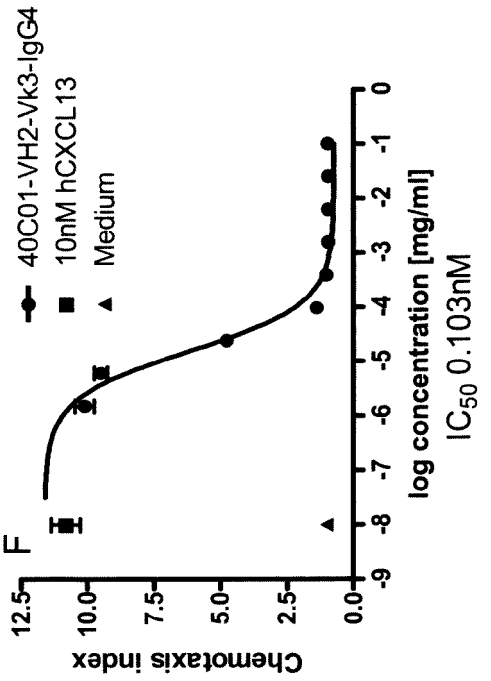
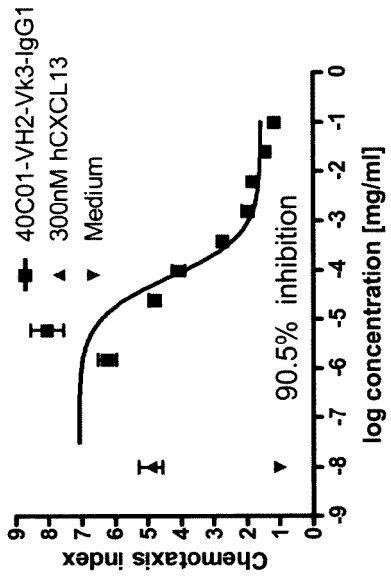
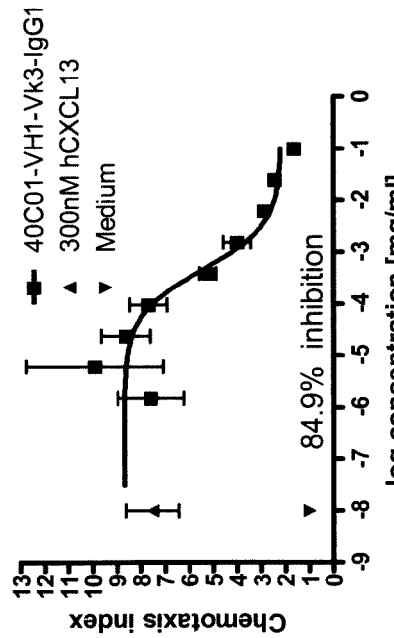


Figure 5f



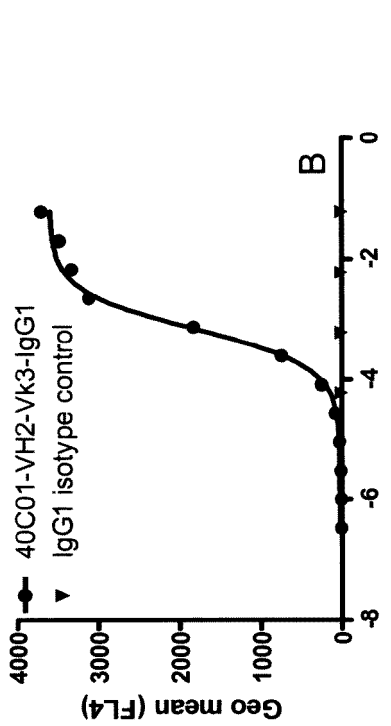
IC_{50} 0.479nM

Figure 6b



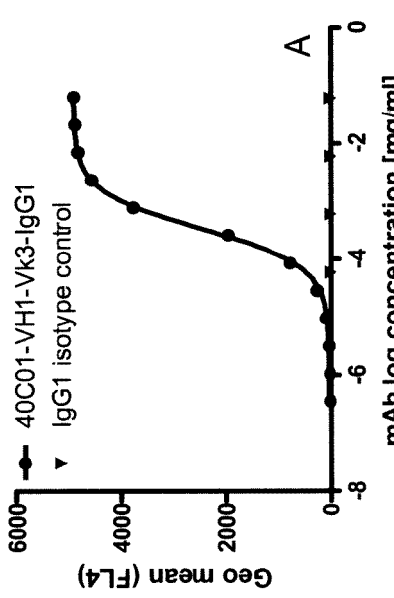
IC_{50} 3.09nM

Figure 6a



EC_{50} = 4.6nM EC_{80} = 12.7nM

Figure 7b



EC_{50} = 2.26nM EC_{80} = 6.37nM

Figure 7a

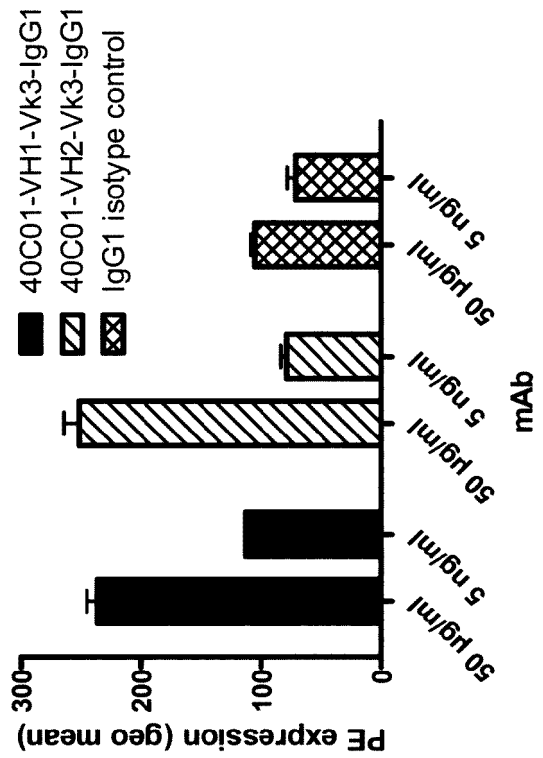


Figure 9

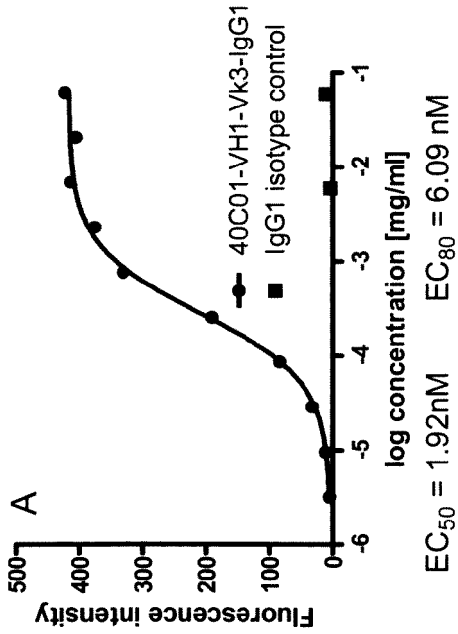


Figure 8a

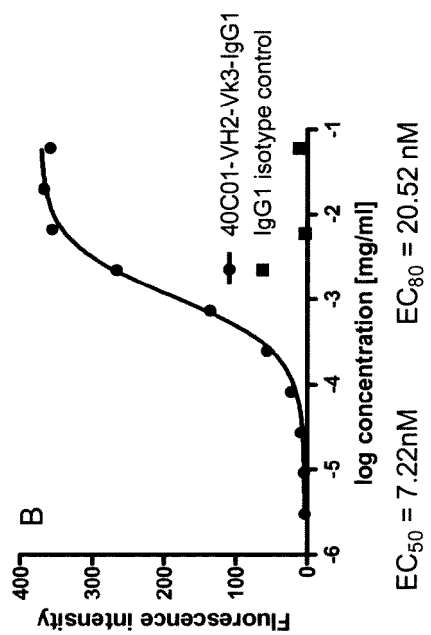


Figure 8b

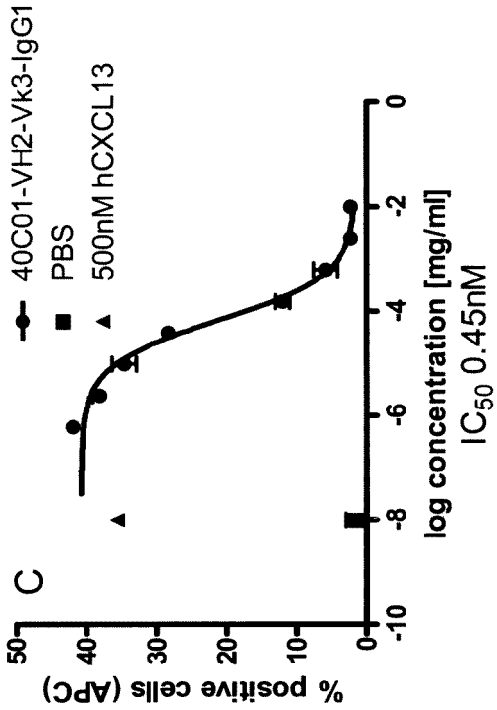


Figure 10c

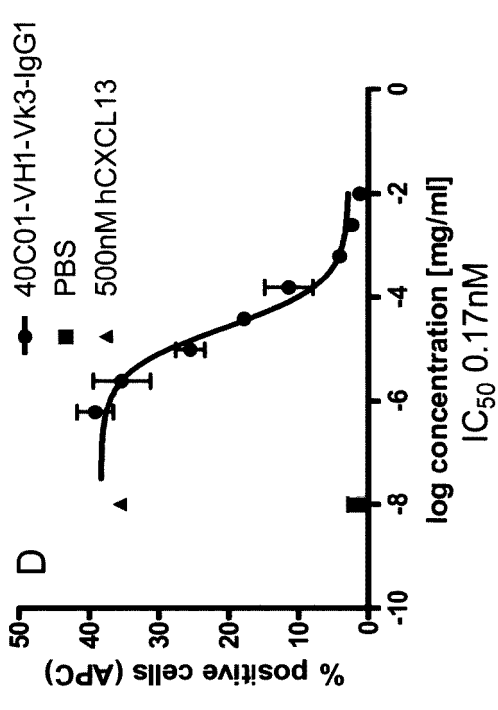


Figure 10d

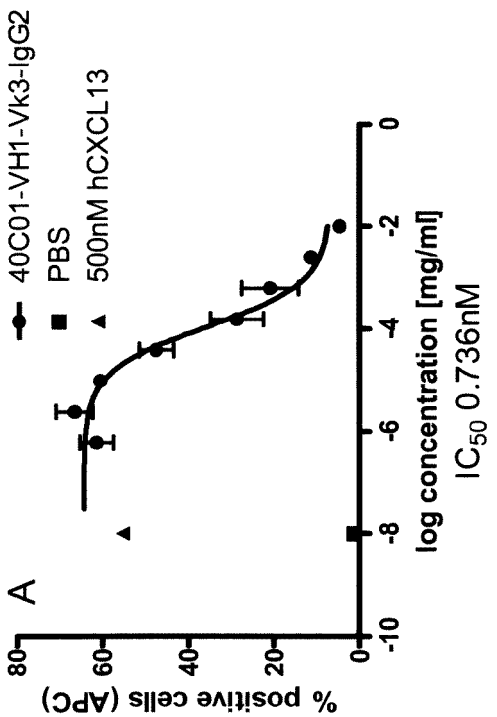


Figure 10a

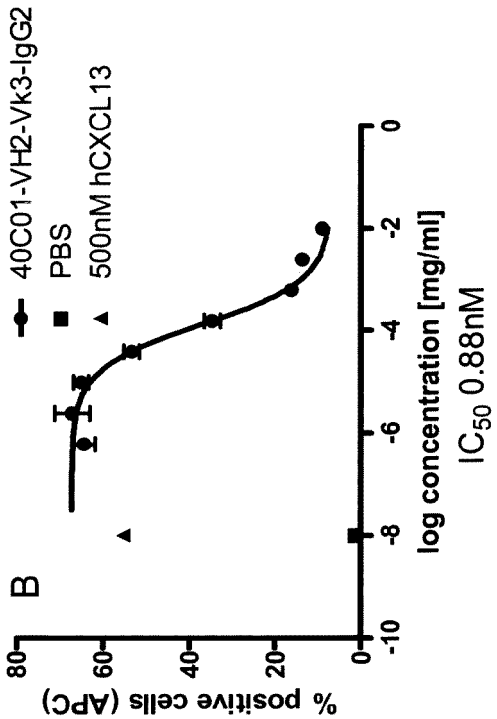


Figure 10b

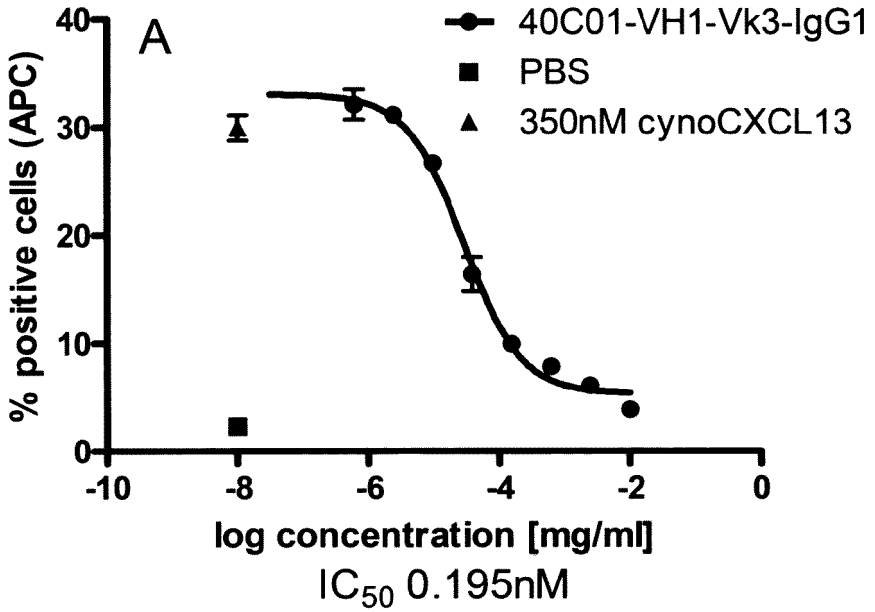


Figure 11a

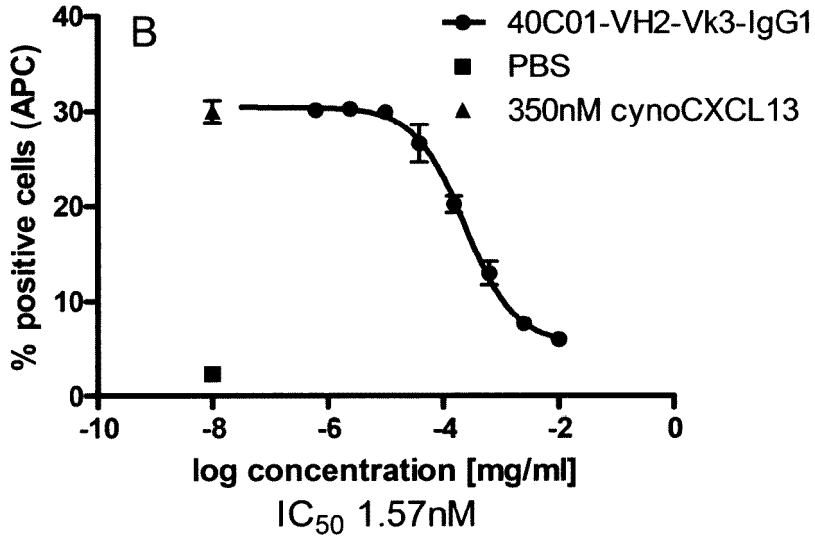


Figure 11b

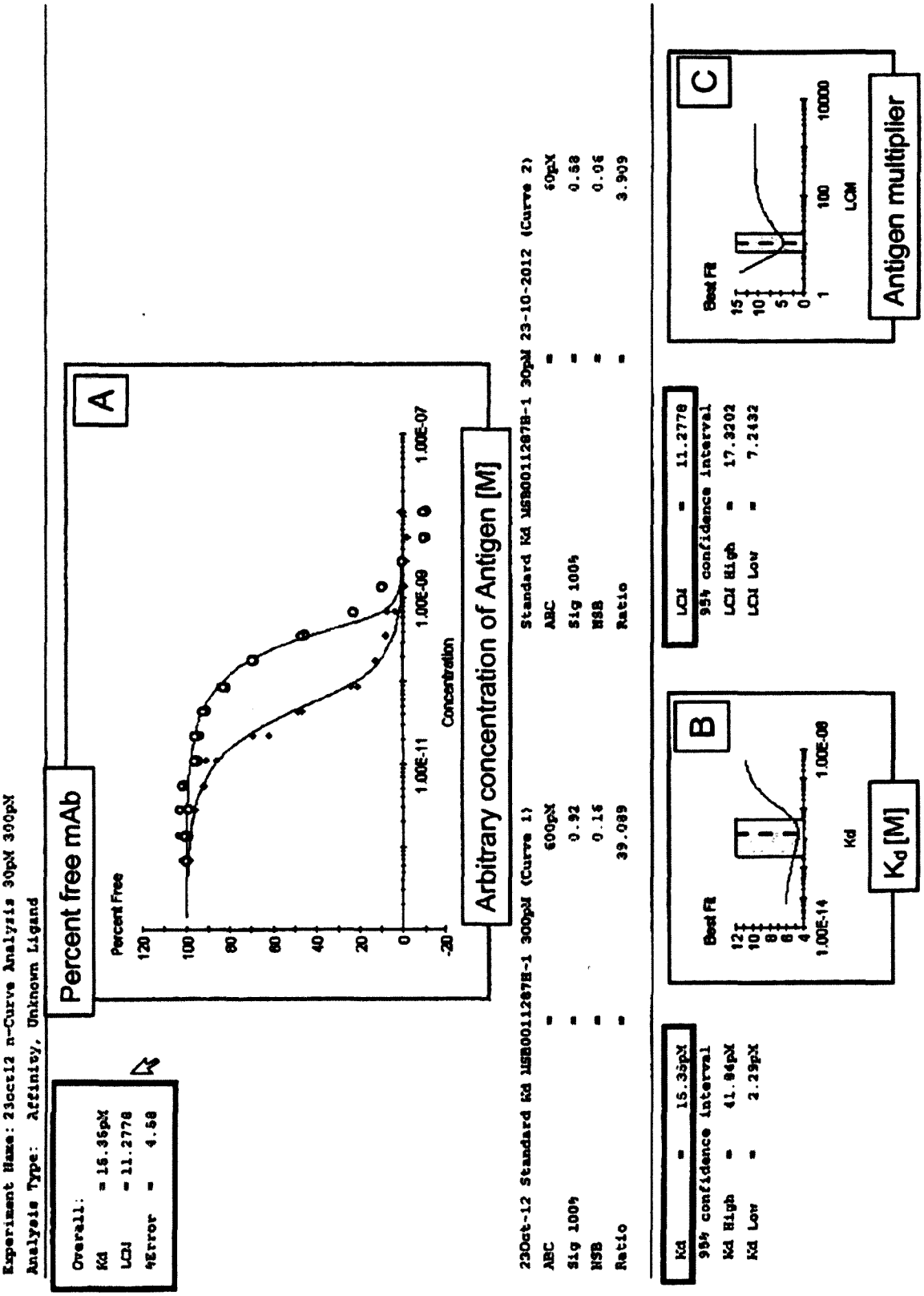

Experiment Name: 23oct12 n-Curve Analysis 30pM 300pM
Analysis Type: Affinity, Unknown Ligand
Overall:
Kd = 15.35pM
LCM = 11.2778
%Error = 4.58
A
Percent free mAb
Percent Free
120
100
80
60
40
20
0
-20
1.00E-11
1.00E-09
1.00E-07
Concentration
Arbitrary concentration of Antigen [M]
23Oct-12 Standard Kd MSB00112678-1 300pM (Curve 1)
ABC = 600pX
Sig 100% = 0.92
NSB = 0.16
Ratio = 39.089
Standard Kd MSB00112678-1 30pM 23-10-2012 (Curve 2)
ABC = 60pX
Sig 100% = 0.58
NSB = 0.06
Ratio = 3.909
Kd = 15.35pM
95% confidence interval
Kd High = 41.84pX
Kd Low = 2.29pX
B
Best Fit
12
10
8
6
4
1.00E-14
1.00E-08
Kd
Kd [M]
LCM = 11.2778
95% confidence interval
LCM High = 17.3202
LCM Low = 7.2432
C
Best Fit
15
10
5
0
1
100
10000
LCM
Antigen multiplier

Figure 12

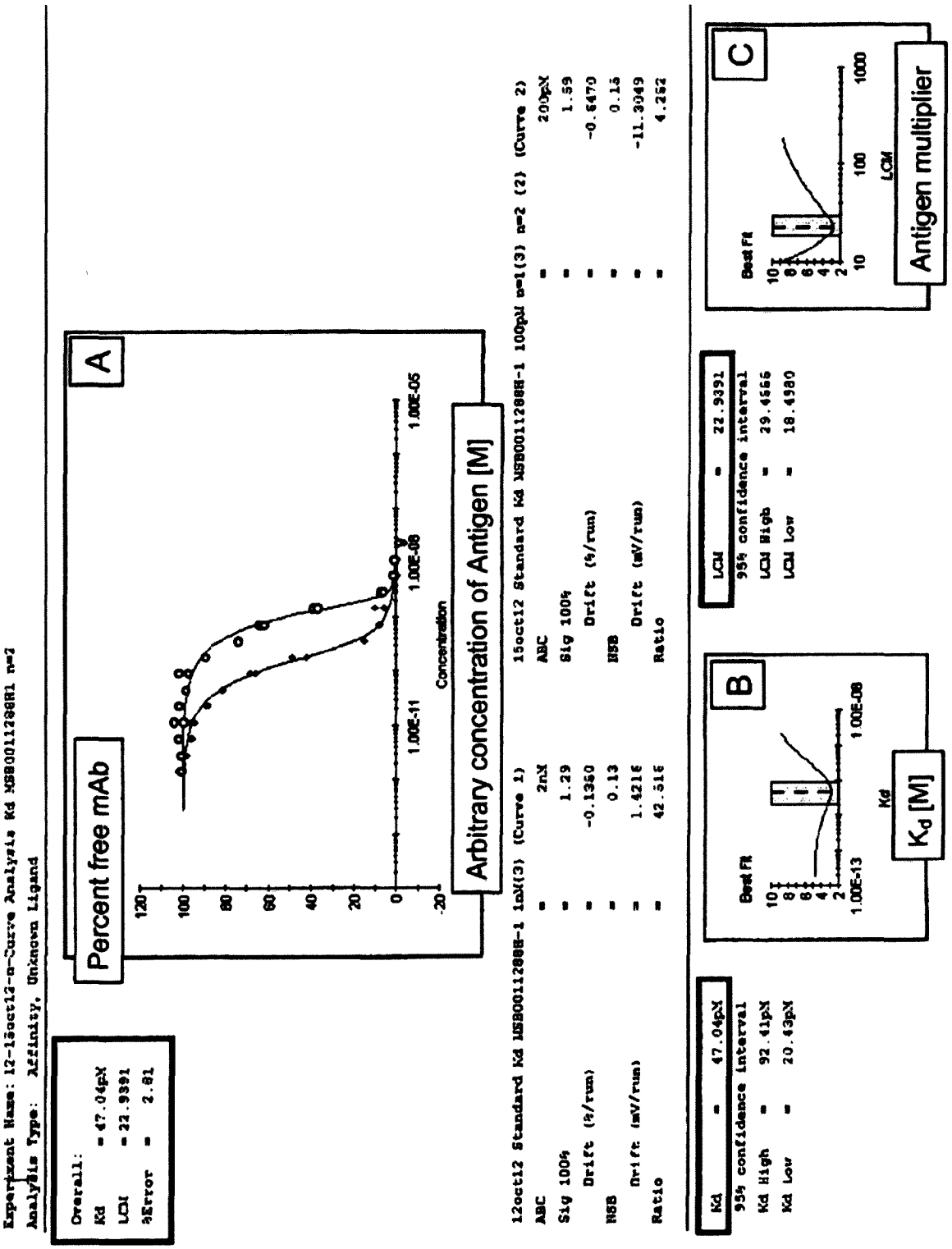

Experiment Name: 12-15oct12-a-Curve Analysis Kd MSB0011288R1 n=2
Analysis Type: Affinity, Unknown Ligand
Overall:
Kd = 47.04pM
LCM = 22.9391
%Error = 2.81
A
Percent free mAb
120
100
80
60
40
20
0
-20
1.00E-11
1.00E-08
1.00E-05
Concentration
Arbitrary concentration of Antigen [M]
12oct12 Standard Kd MSB0011288R-1 1aN(3) (Curve 1) 15oct12 Standard Kd MSB0011288R-1 100pM n=1(3) n=2 (2) (Curve 2)
ABC = 2nM ABC = 200pM
Sig 100% = 1.29 Sig 100% = 1.59
Drift (%/run) = -0.1360 Drift (%/run) = -0.6470
NSB = 0.13 NSB = 0.15
Drift (mV/run) = 1.421E Drift (mV/run) = -11.3949
Ratio = 42.51E Ratio = 4.252
Kd = 47.04pM
95% confidence interval
Kd High = 92.41pM
Kd Low = 20.43pM
B
Best Fit
10
8
6
4
2
1.00E-13
1.00E-08
Kd
Kd [M]
LCM = 22.9391
95% confidence interval
LCM High = 29.4565
LCM Low = 18.4980
C
Best Fit
10
8
6
4
2
10
100
1000
LCM
Antigen multiplier

Figure 13

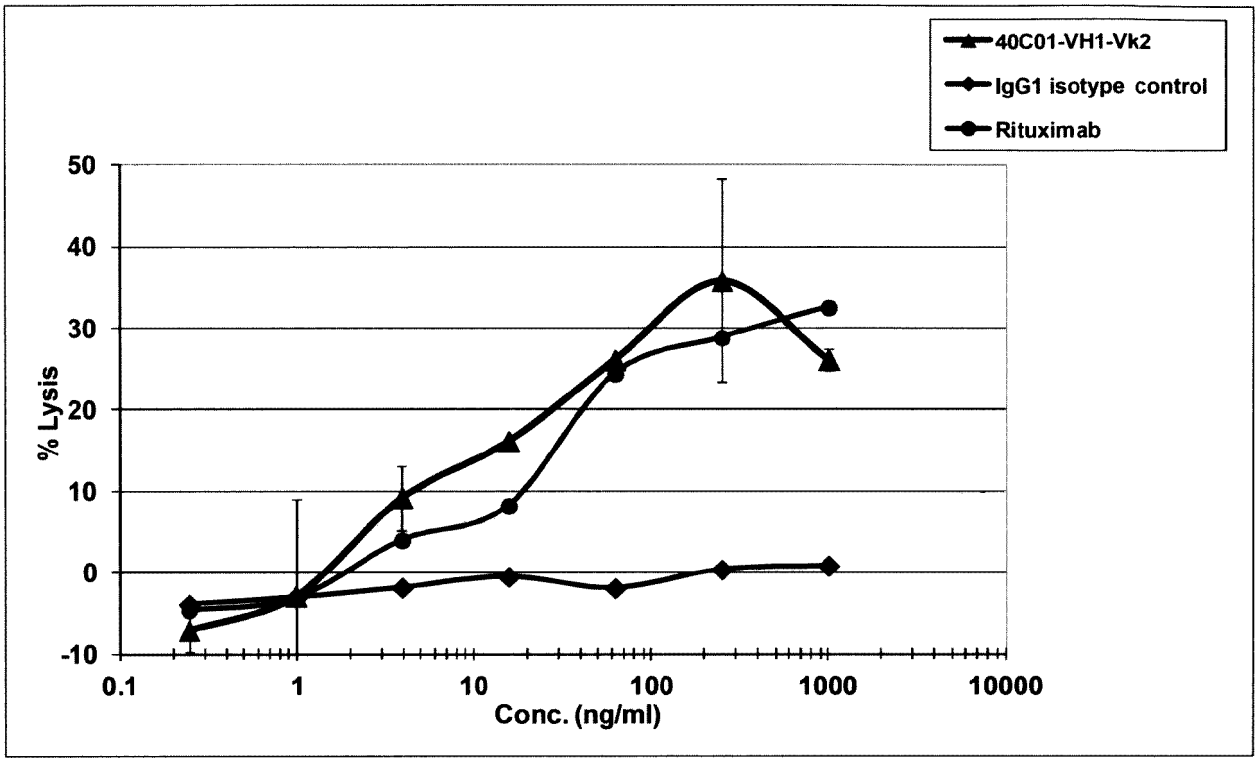
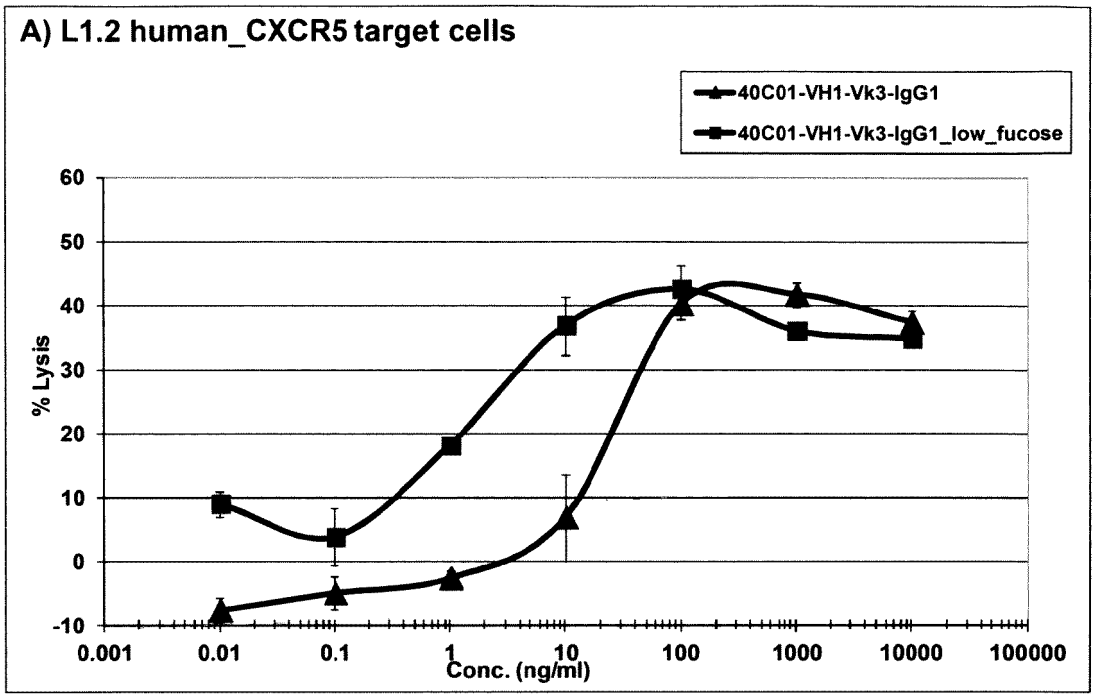

40C01-VH1-Vk2
IgG1 isotype control
Rituximab
50
40
30
20
10
0
-10
% Lysis
0.1
1
10
100
1000
10000
Conc. (ng/ml)

Figure 14


A) L1.2 human_CXCR5 target cells
40C01-VH1-Vk3-IgG1
40C01-VH1-Vk3-IgG1_low_fucose
% Lysis
60
50
40
30
20
10
0
-10
0.001
0.01
0.1
1
10
100
1000
10000
100000
Conc. (ng/ml)

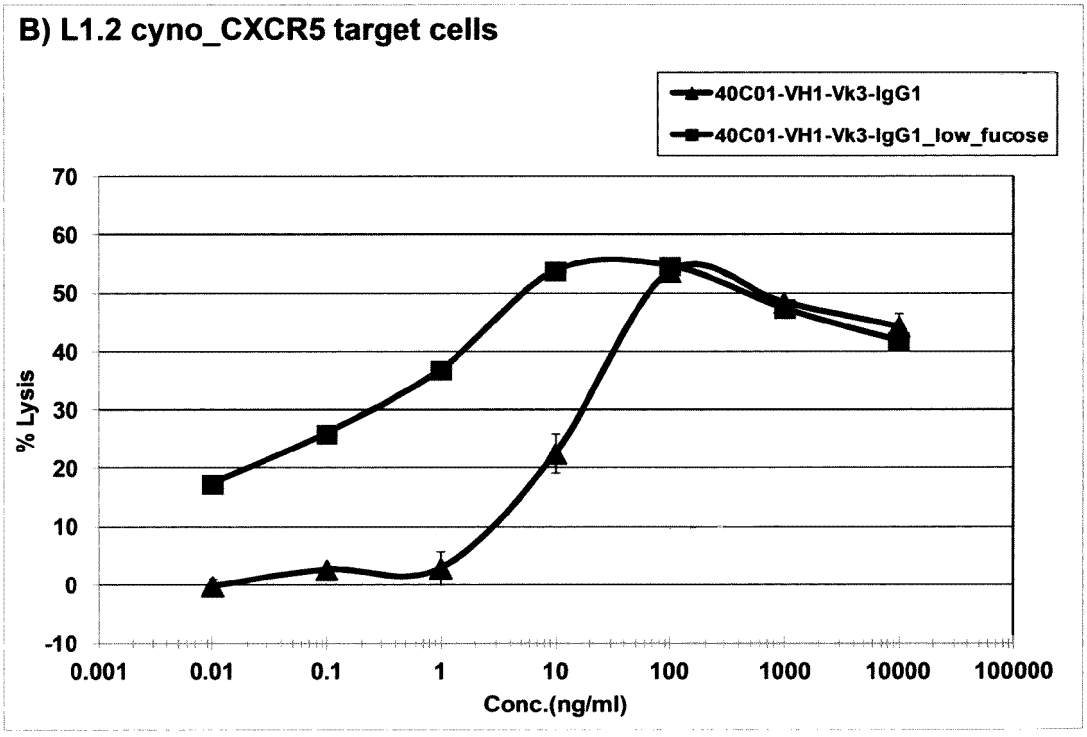

B) L1.2 cyno_CXCR5 target cells
40C01-VH1-Vk3-IgG1
40C01-VH1-Vk3-IgG1_low_fucose
% Lysis
70
60
50
40
30
20
10
0
-10
0.001
0.01
0.1
1
10
100
1000
10000
100000
Conc.(ng/ml)

Figure 15

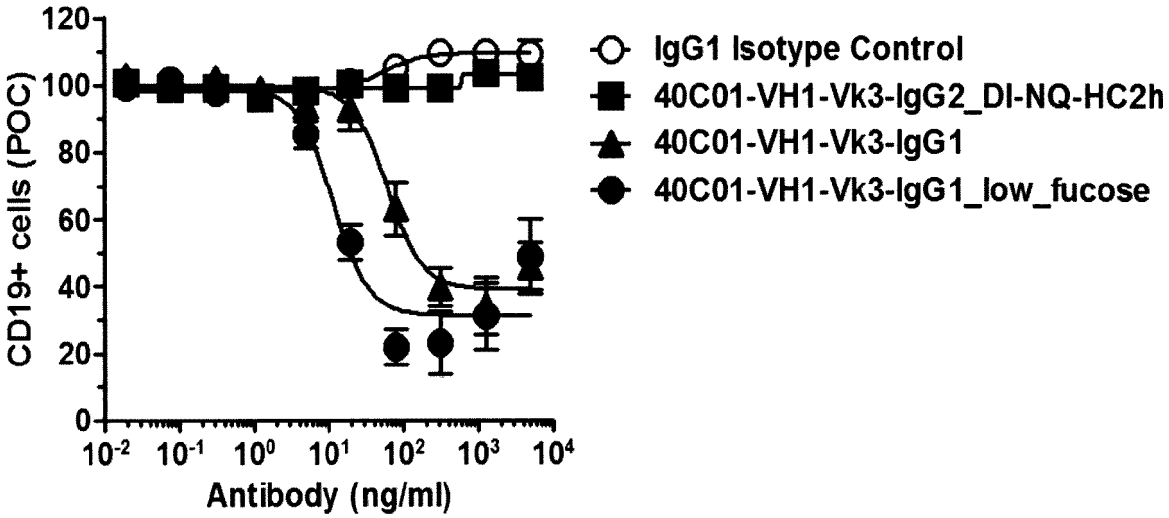

120
100
80
60
40
20
0
CD19+ cells (POC)
10-2 10-1 100 101 102 103 104
Antibody (ng/ml)
IgG1 Isotype Control
40C01-VH1-Vk3-IgG2_DI-NQ-HC2h
40C01-VH1-Vk3-IgG1
40C01-VH1-Vk3-IgG1_low_fucose

Figure 16