Figure 1A

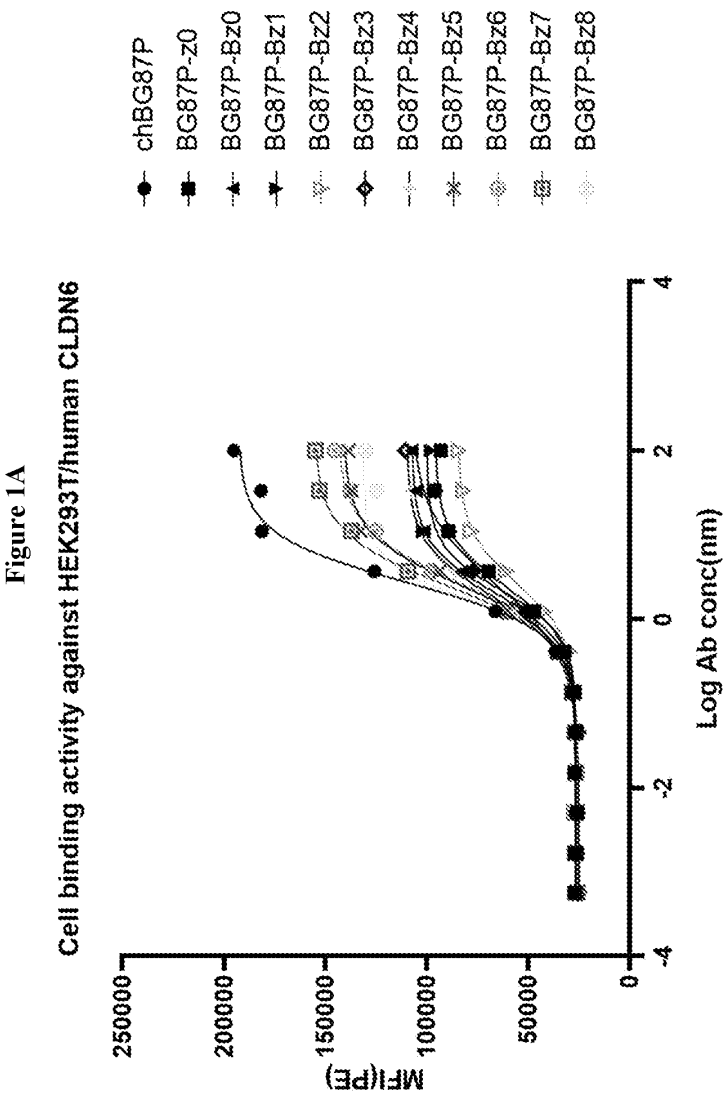

Cell binding activity against HEK293T/human CLDN6
chBG87P
BG87P-z0
BG87P-Bz0
BG87P-Bz1
BG87P-Bz2
BG87P-Bz3
BG87P-Bz4
BG87P-Bz5
BG87P-Bz6
BG87P-Bz7
BG87P-Bz8
MFI(PE)
250000
200000
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1B

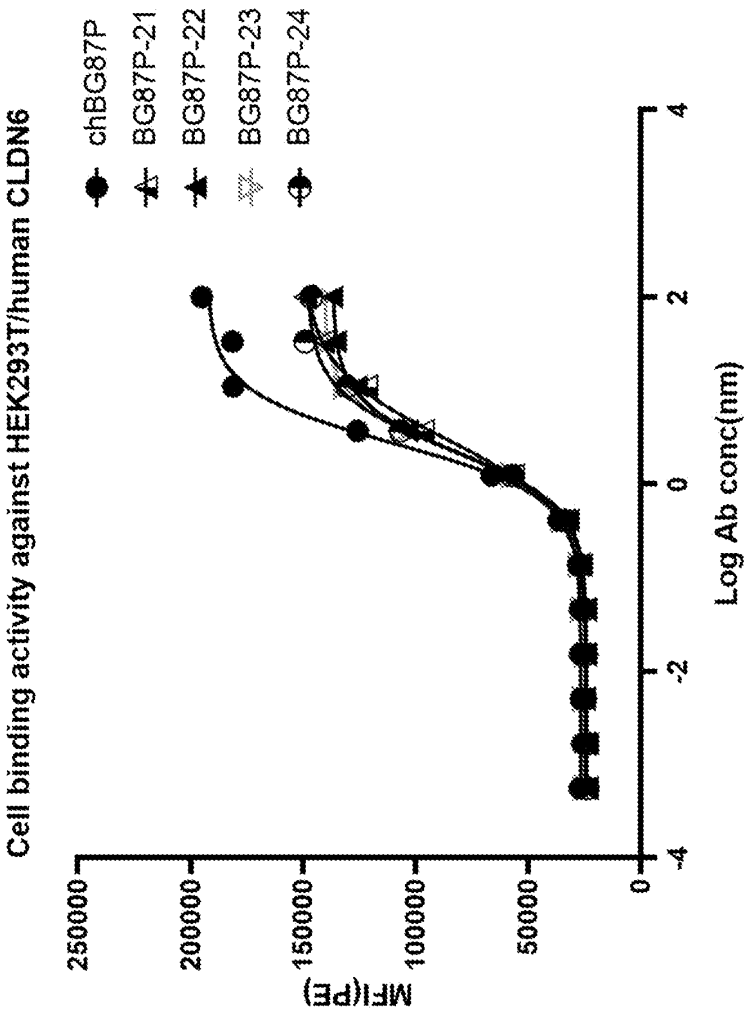

Cell binding activity against HEK293T/human CLDN6
chBG87P
BG87P-21
BG87P-22
BG87P-23
BG87P-24
MFI(PE)
250000
200000
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1C

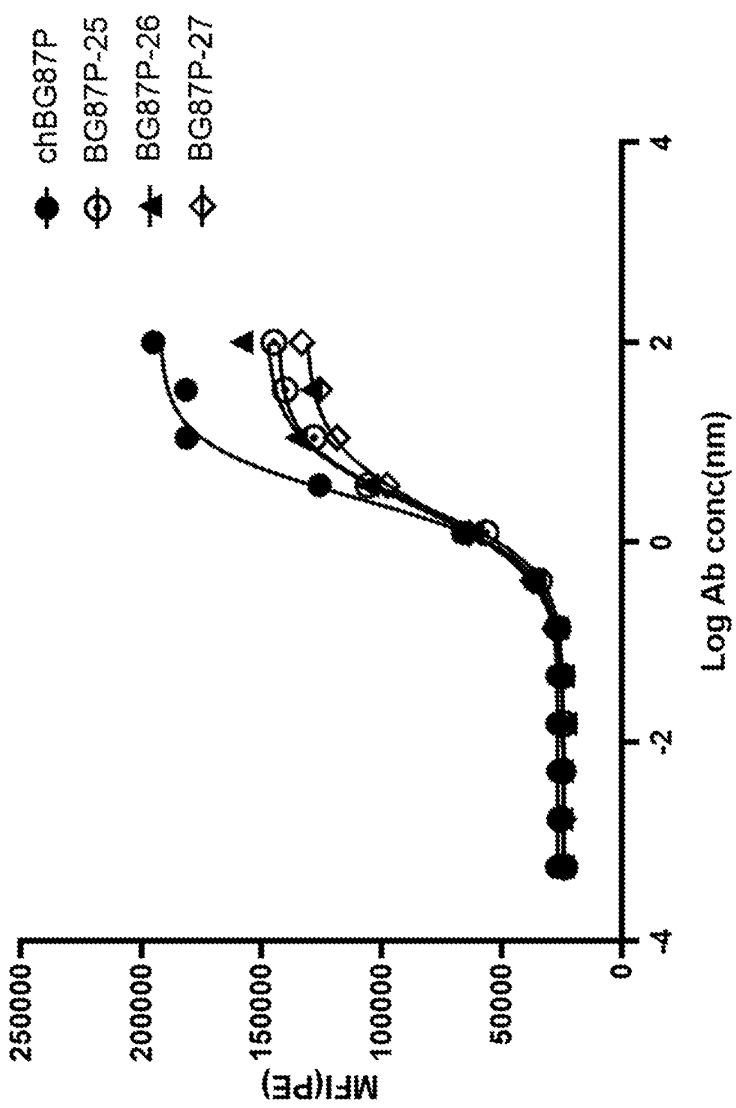

Cell binding activity against HEK293T/human CLDN6
chBG87P
BG87P-25
BG87P-26
BG87P-27
MFI(PE)
250000
200000
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1D

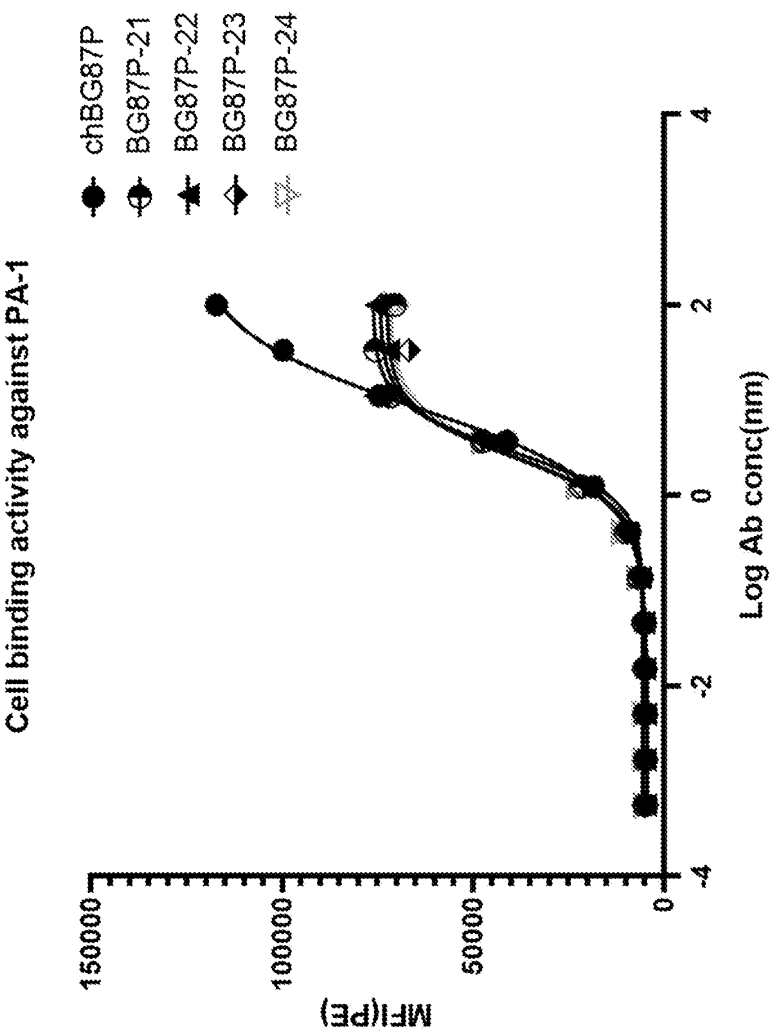

Cell binding activity against PA-1
chBG87P
BG87P-21
BG87P-22
BG87P-23
BG87P-24
MFI(PE)
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1E

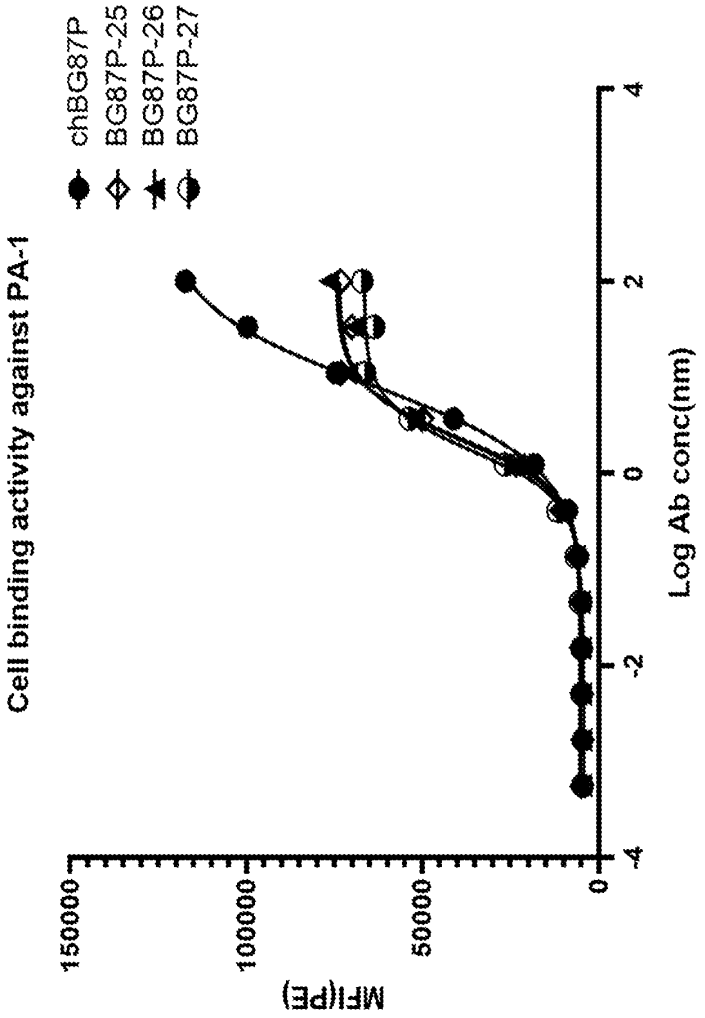

Cell binding activity against PA-1
chBG87P
BG87P-25
BG87P-26
BG87P-27
MFI(PE)
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1F

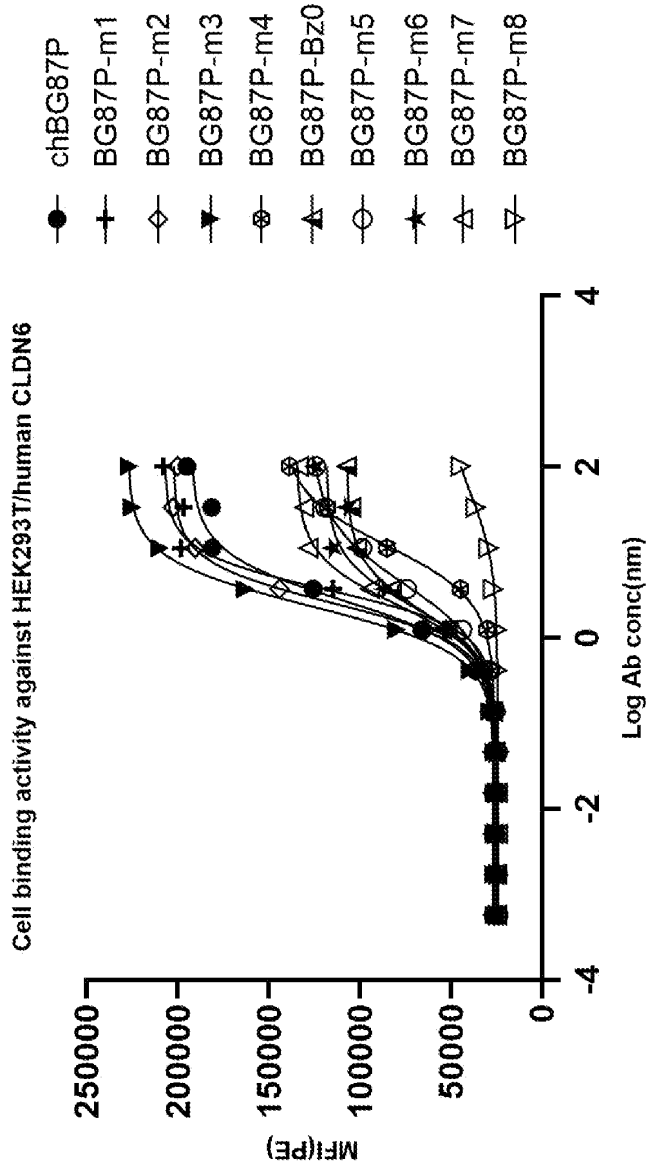

Cell binding activity against HEK293T/human CLDN6
chBG87P
BG87P-m1
BG87P-m2
BG87P-m3
BG87P-m4
BG87P-Bz0
BG87P-m5
BG87P-m6
BG87P-m7
BG87P-m8
MFI(PE)
250000
200000
150000
100000
50000
0
-4
-2
0
2
4
Log Ab conc(nm)

Figure 1G

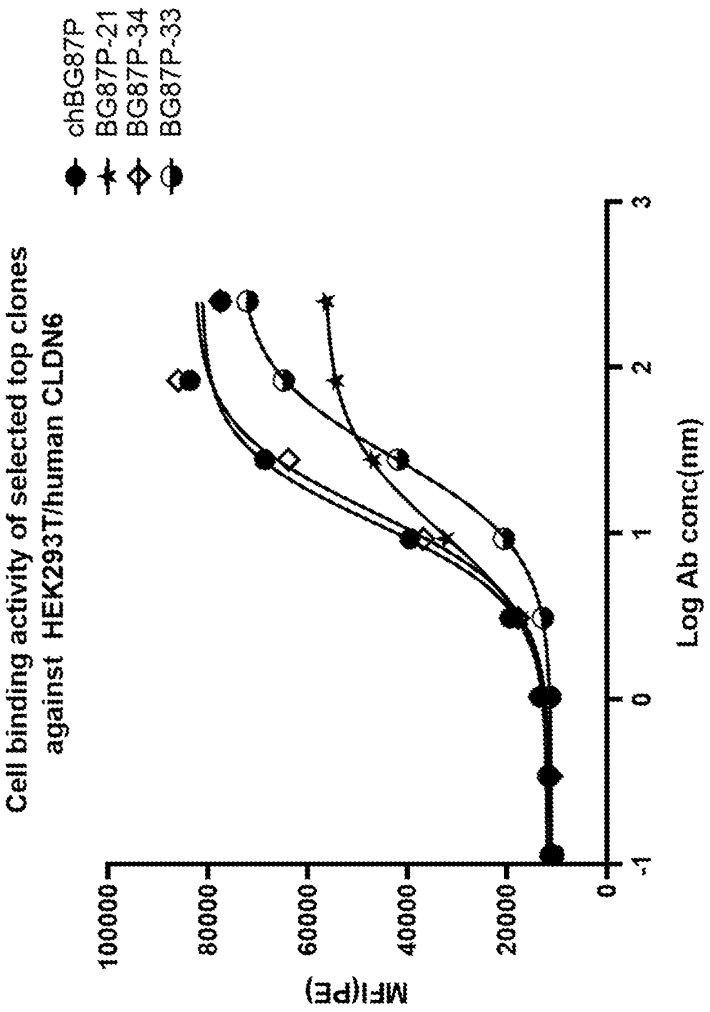

Cell binding activity of selected top clones against HEK293T/human CLDN6
chBG87P
BG87P-21
BG87P-34
BG87P-33
MFI(PE)
100000
80000
60000
40000
20000
0
-1
0
1
2
3
Log Ab conc(nm)

Figure 1H

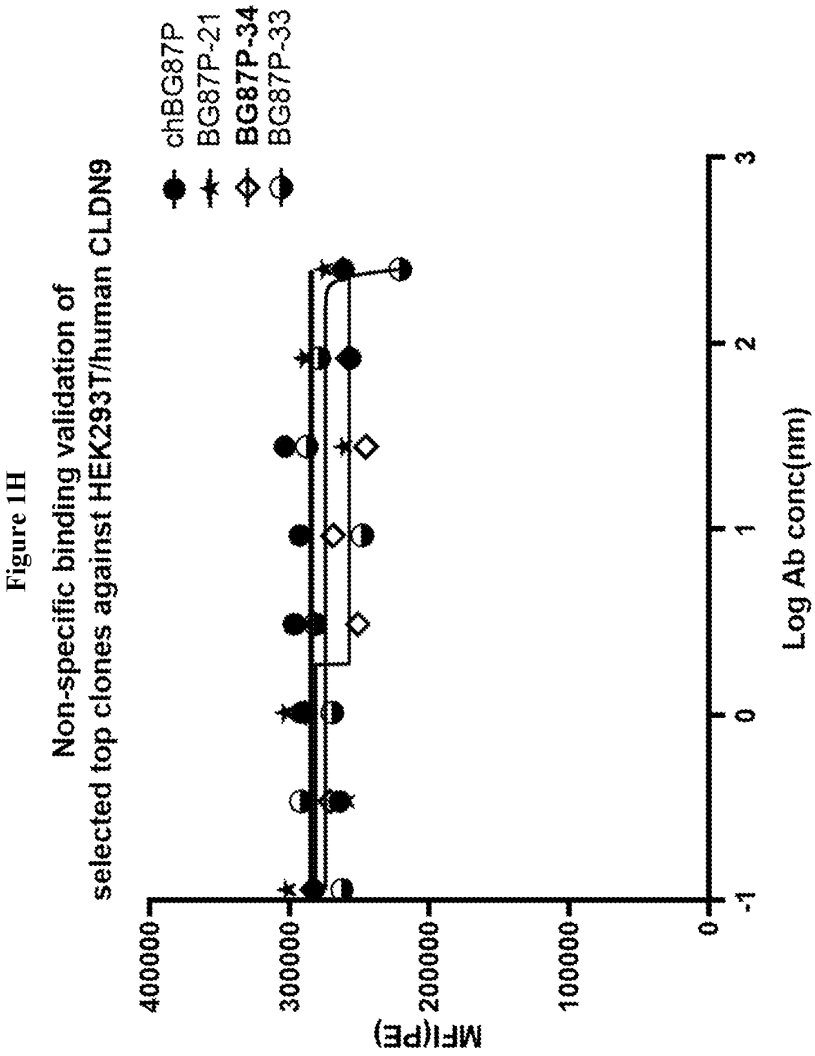

Non-specific binding validation of
selected top clones against HEK293T/human CLDN9
chBG87P
BG87P-21
BG87P-34
BG87P-33
MFI(PE)
400000
300000
200000
100000
0
-1
0
1
2
3
Log Ab conc(nm)

Figure 11

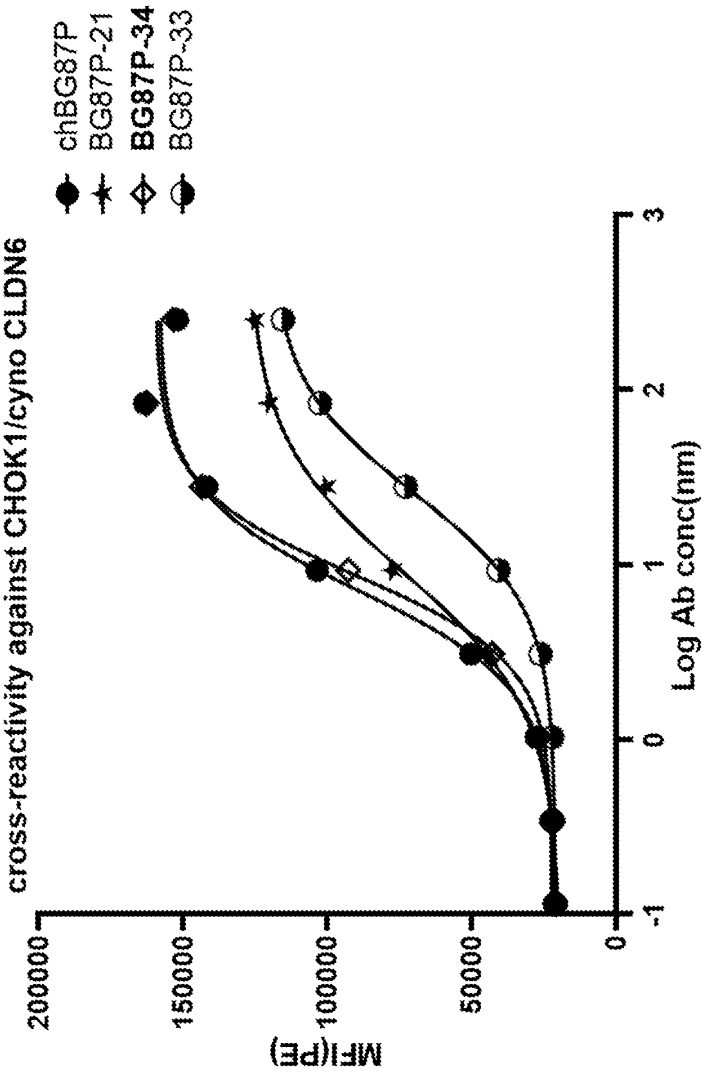

Validation of top clones
cross-reactivity against CHOK1/cyno CLDN6
chBG87P
BG87P-21
BG87P-34
BG87P-33
MFI(PE)
200000
150000
100000
50000
0
-1
0
1
2
3
Log Ab conc(nm)

Figure 1J

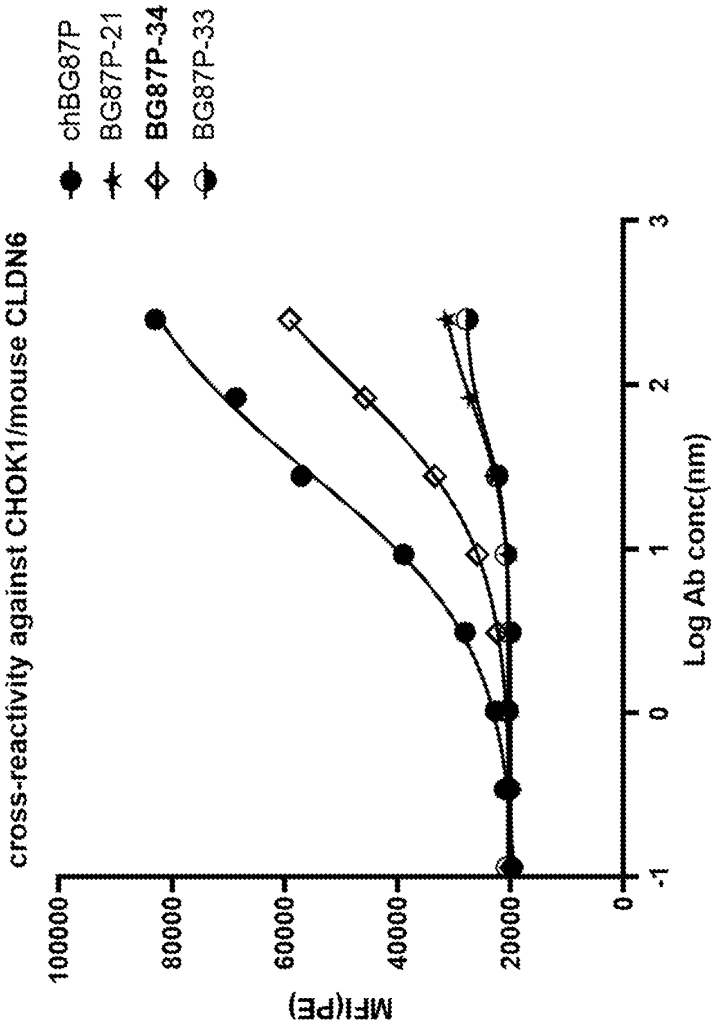

Validation of top clones
cross-reactivity against CHOK1/mouse CLDN6
chBG87P
BG87P-21
BG87P-34
BG87P-33
MFI(PE)
100000
80000
60000
40000
20000
0
-1
0
1
2
3
Log Ab conc(nm)

Figure 2



Figure 3

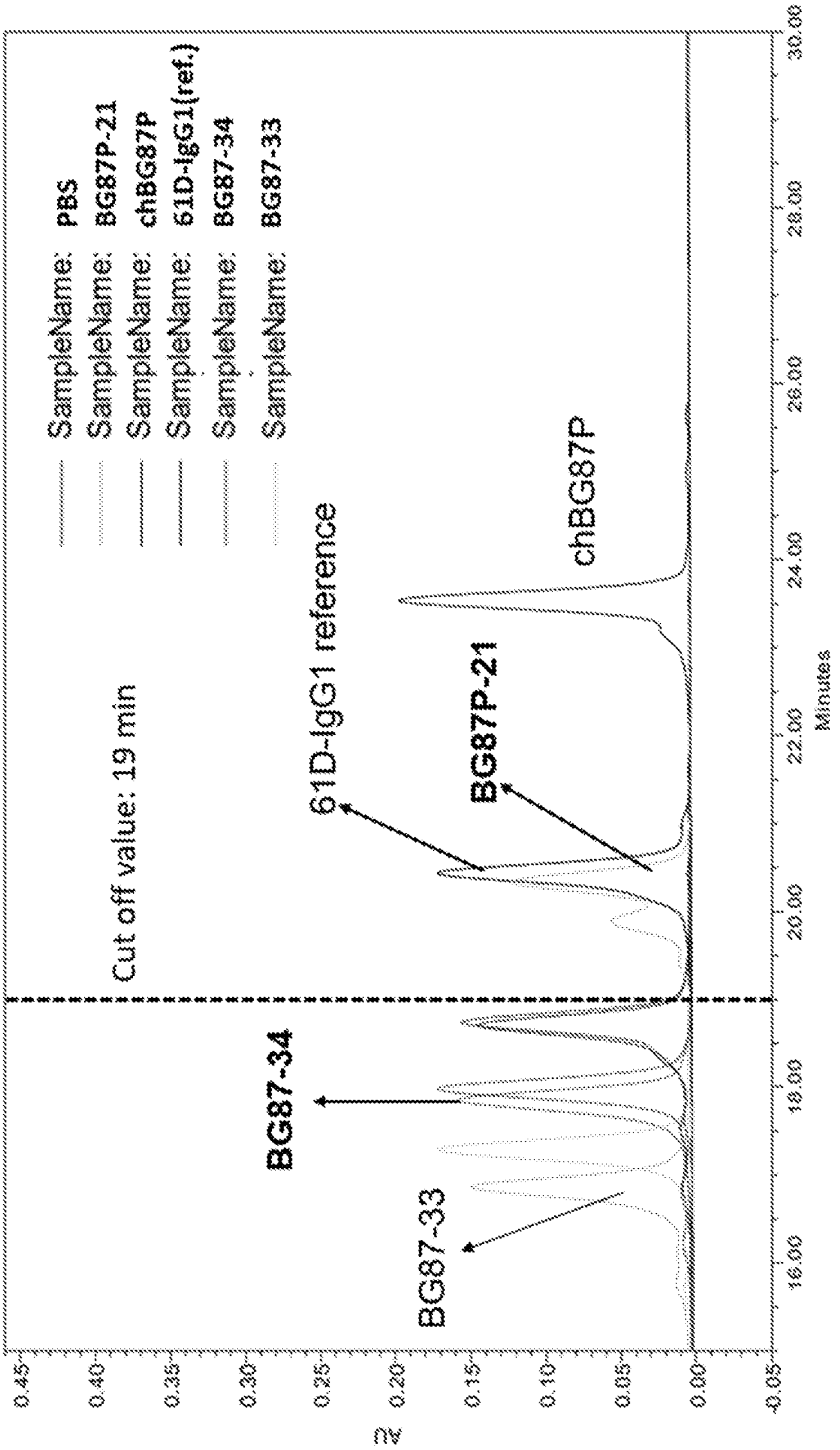

SampleName: PBS
SampleName: BG87P-21
SampleName: chBG87P
SampleName: 61D-IgG1(ref.)
SampleName: BG87-34
SampleName: BG87-33
Cut off value: 19 min
61D-IgG1 reference
BG87P-21
chBG87P
BG87-34
BG87-33
AU
Minutes
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
16.00
18.00
20.00
22.00
24.00
26.00
28.00
30.00

Figure 4A

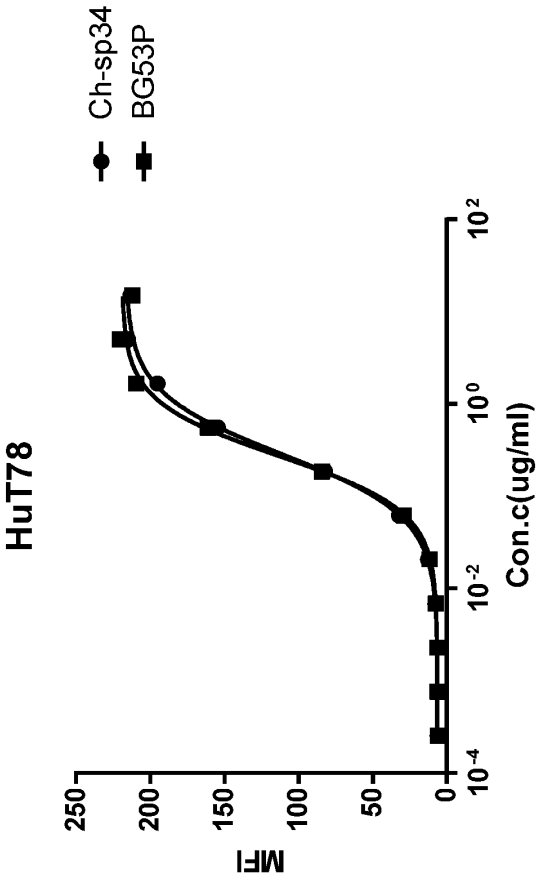

HuT78
Ch-sp34
BG53P
MFI
250
200
150
100
50
0
10^{-4}
10^{-2}
10^{0}
10^{2}
Con.c(ug/ml)

Figure 4B

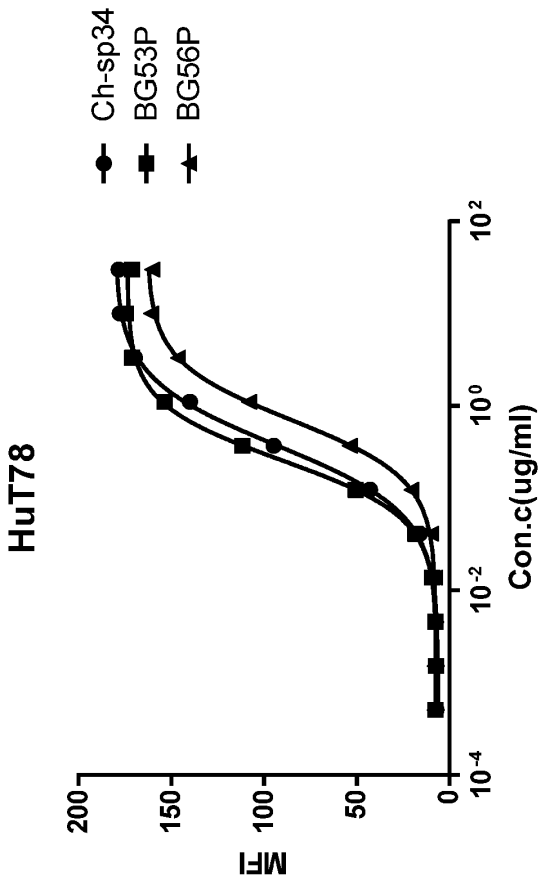

HuT78
Ch-sp34
BG53P
BG56P
MFI
200
150
100
50
0
10^{-4}
10^{-2}
10^{0}
10^{2}
Con.c(ug/ml)

Figure 5

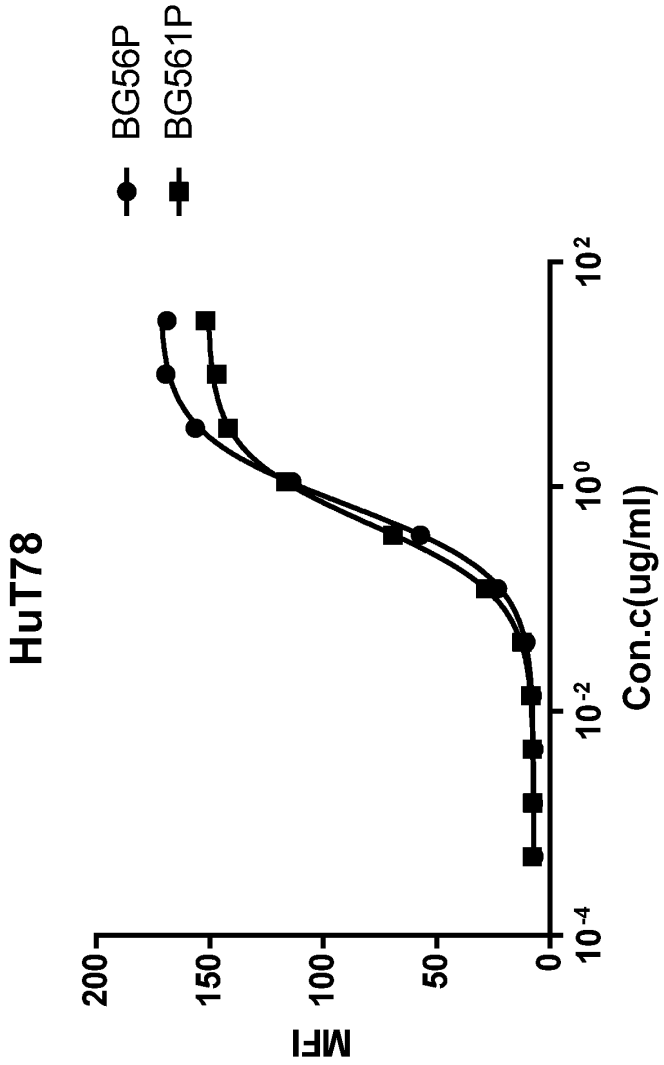

HuT78
BG56P
BG561P
MFI
200
150
100
50
0
10-4
10-2
100
102
Con.c(ug/ml)

Figure 6A

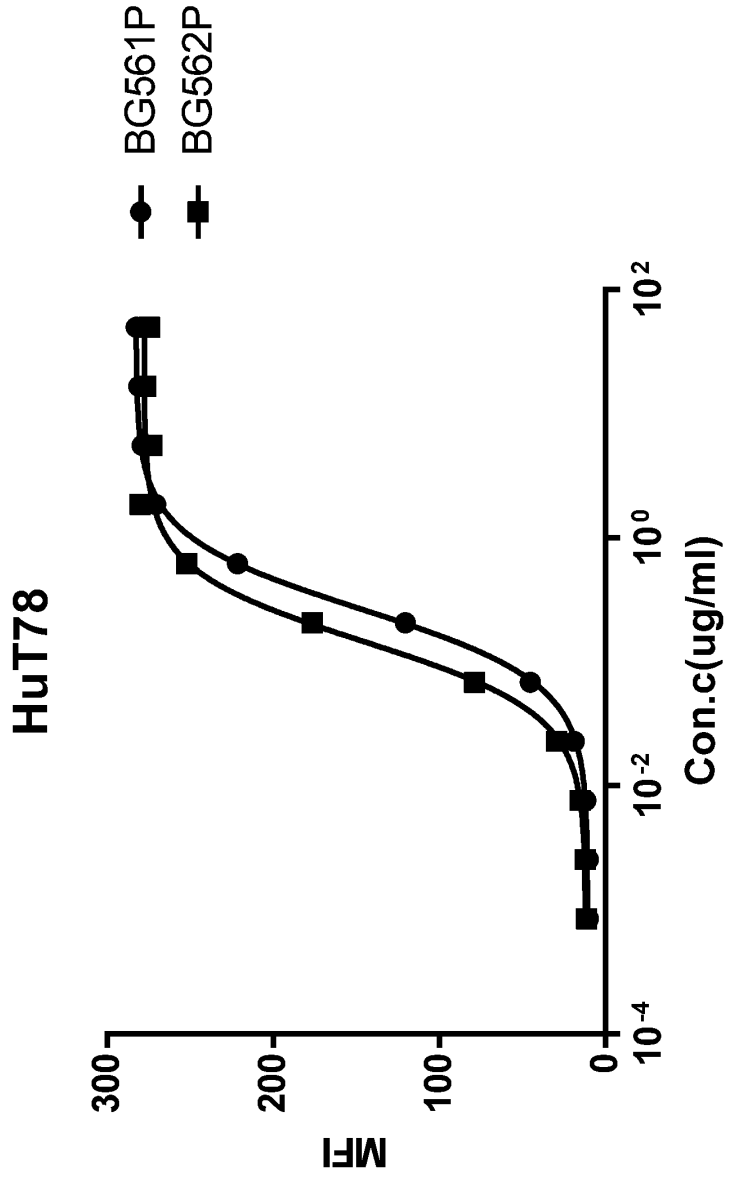

HuT78
BG561P
BG562P
MFI
300
200
100
0
10-4
10-2
100
102
Con.c(ug/ml)

Figure 6B

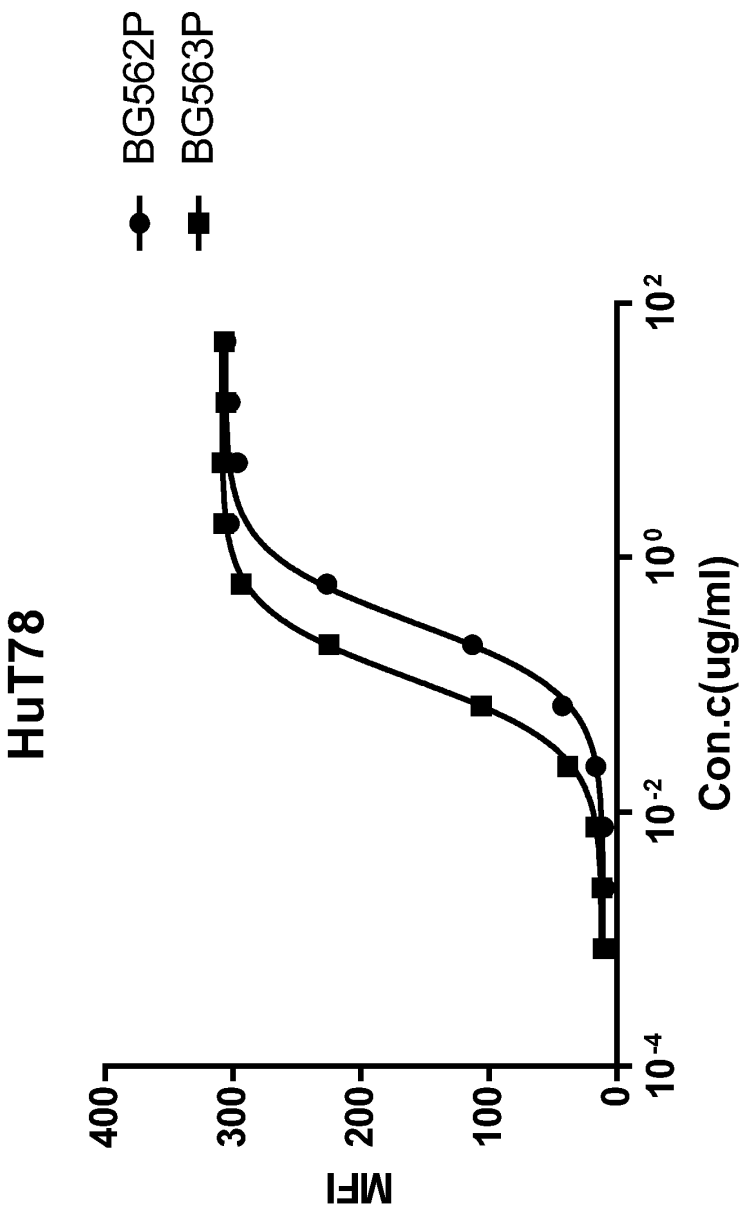

HuT78
BG562P
BG563P
MFI
400
300
200
100
0
10^{-4}
10^{-2}
10^{0}
10^{2}
Con.c(ug/ml)

Figure 6C

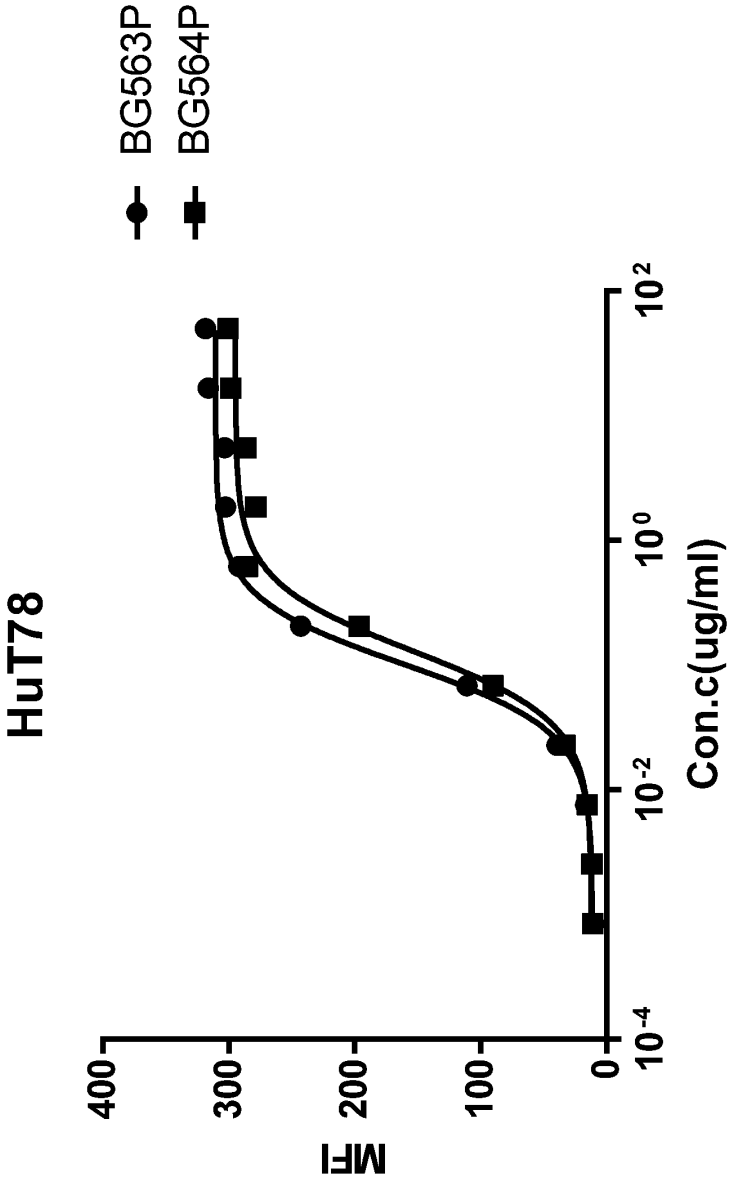

HuT78
BG563P
BG564P
MFI
400
300
200
100
0
10^{-4}
10^{-2}
10^{0}
10^{2}
Con.c(ug/ml)

Figure 7

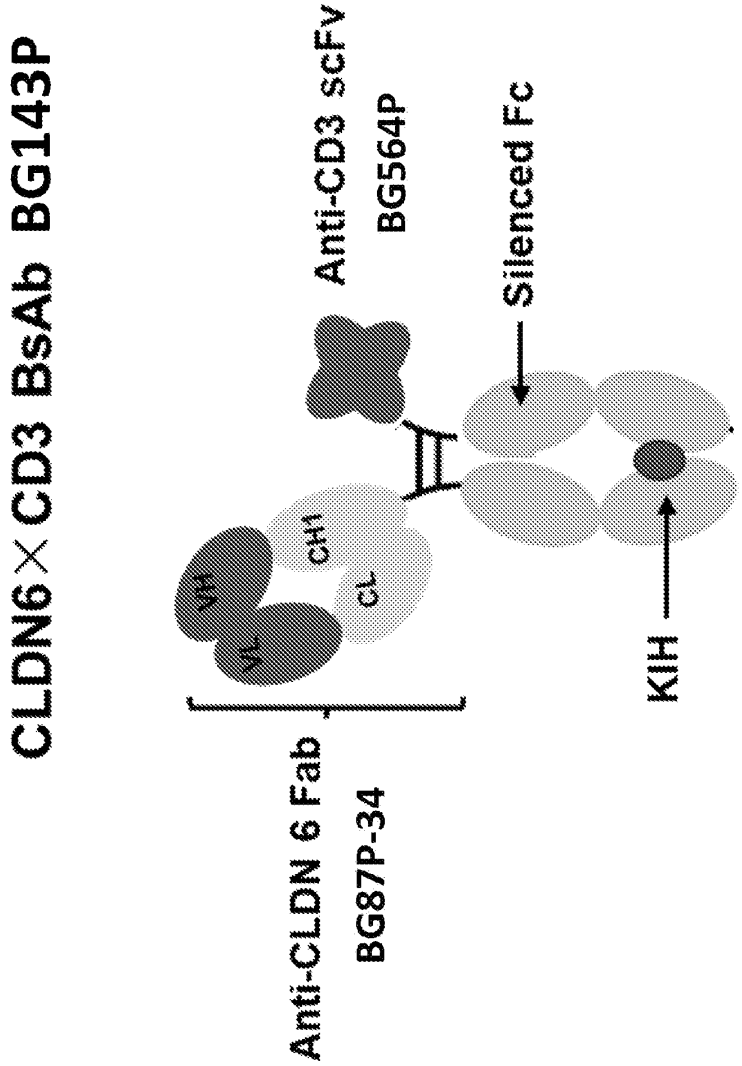

CLDN6×CD3 BsAb BG143P
Anti-CD3 scFv
BG564P
Silenced Fc
VH
CH1
VL
CL
KIH
Anti-CLDN 6 Fab
BG87P-34

Figure 8A

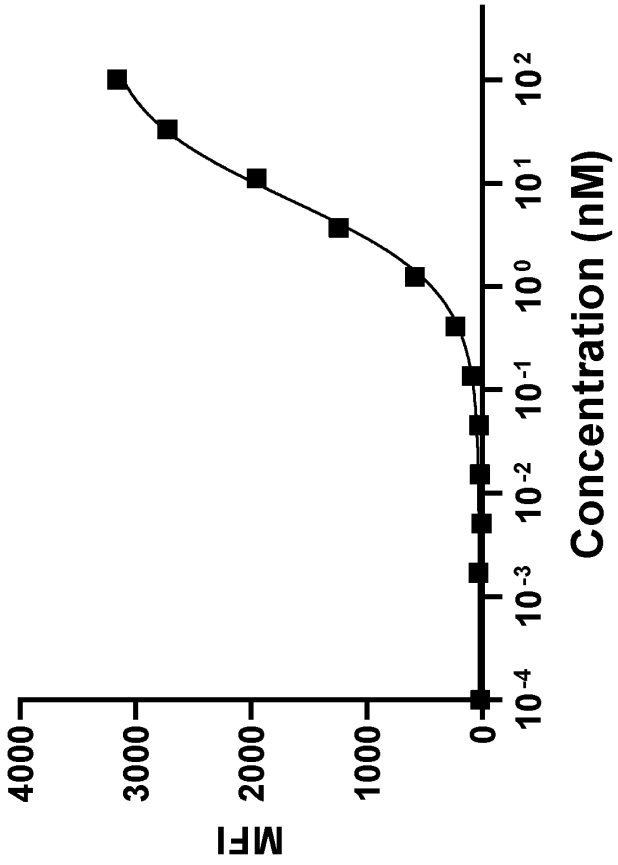
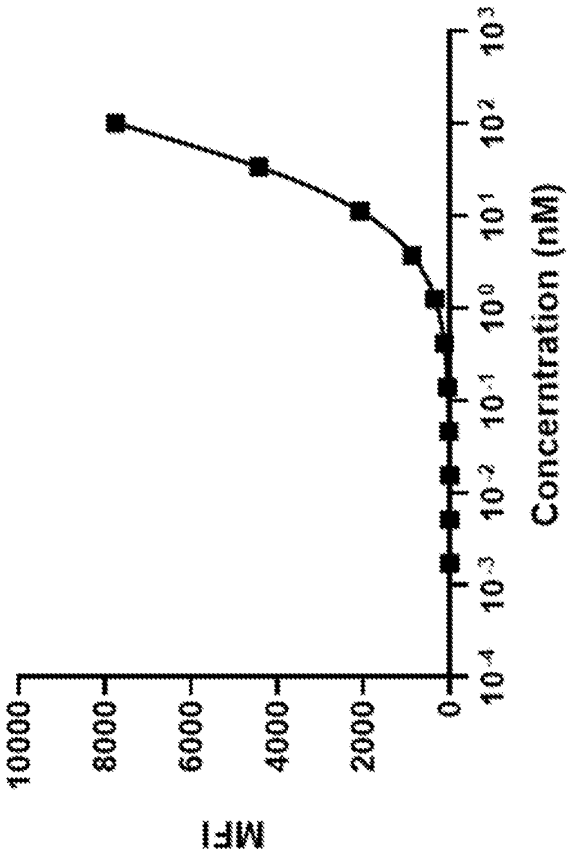

Jurkat binding
MFI
4000
3000
2000
1000
0
Concentration (nM)
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2

Figure 8B


PA1 (CLDN6) binding
MFI
10000
8000
6000
4000
2000
0
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
Concerntration (nM)

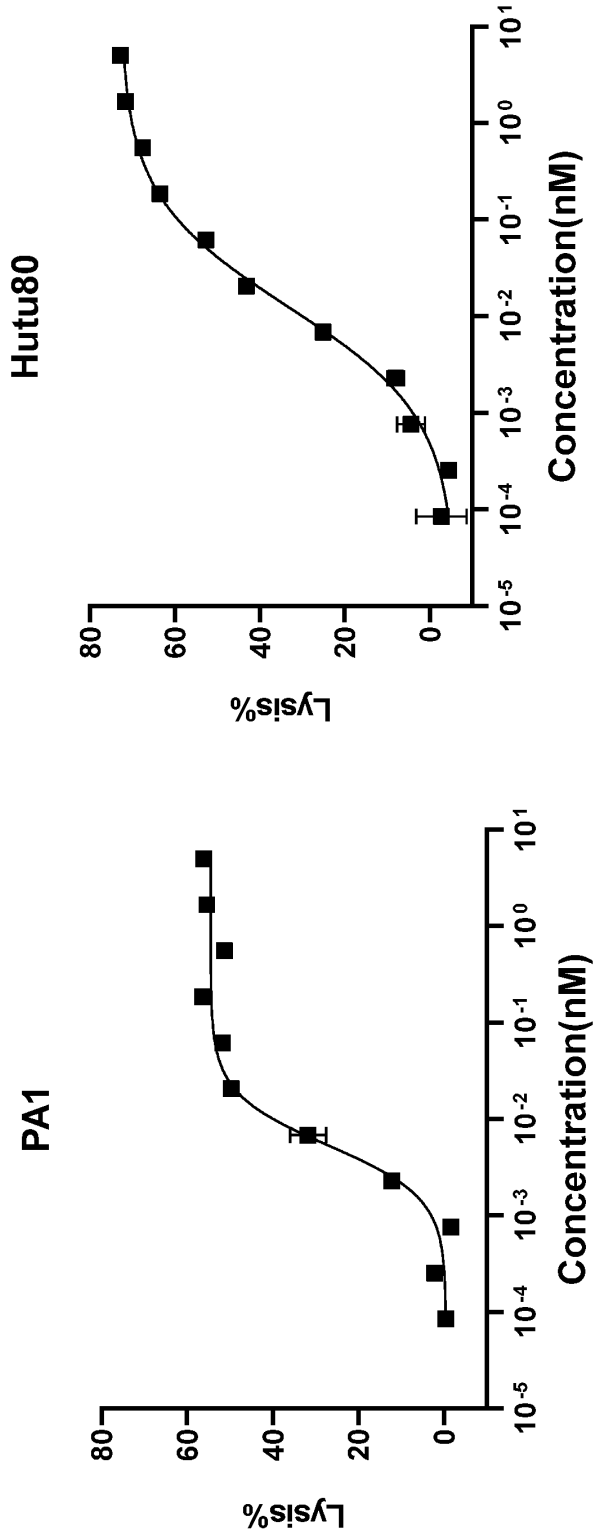

Hutu80
Lysis%
80
60
40
20
0
10-5
10-4
10-3
10-2
10-1
100
101
Concentration(nM)
PA1
Lysis%
80
60
40
20
0
10-5
10-4
10-3
10-2
10-1
100
101
Concentration(nM)

Figure 9A

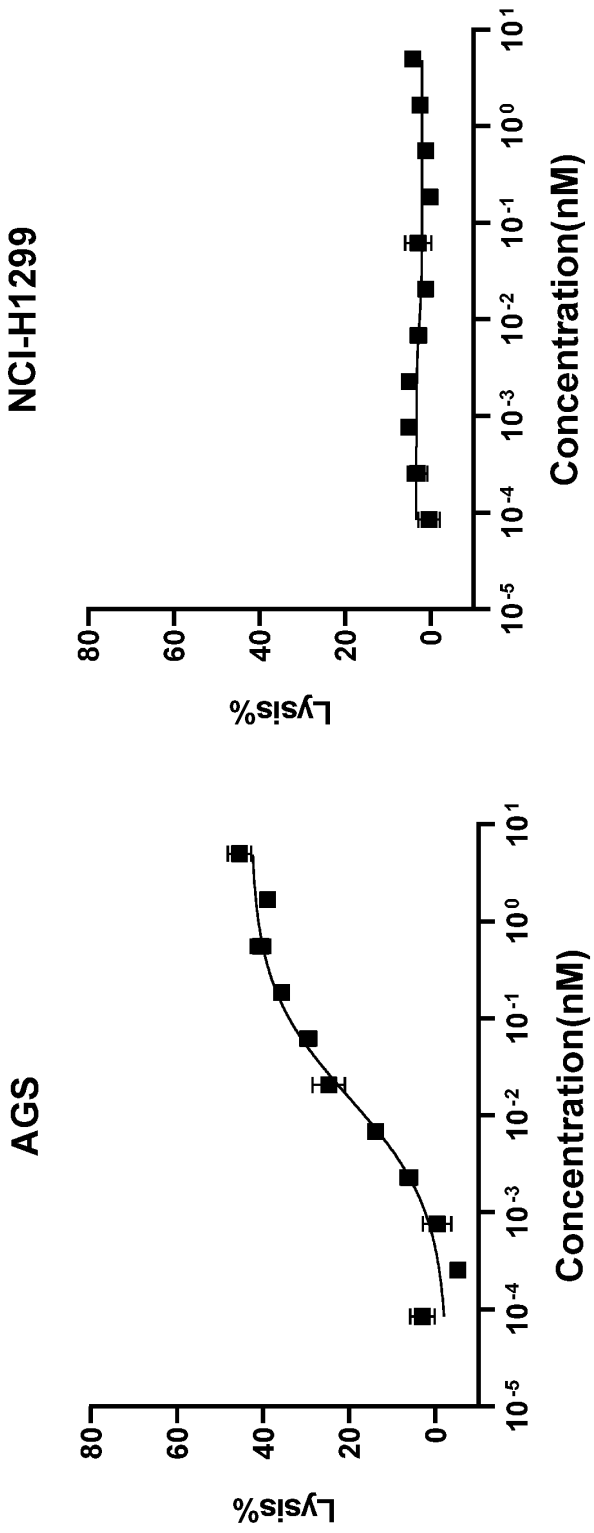


Figure 9A (continued)

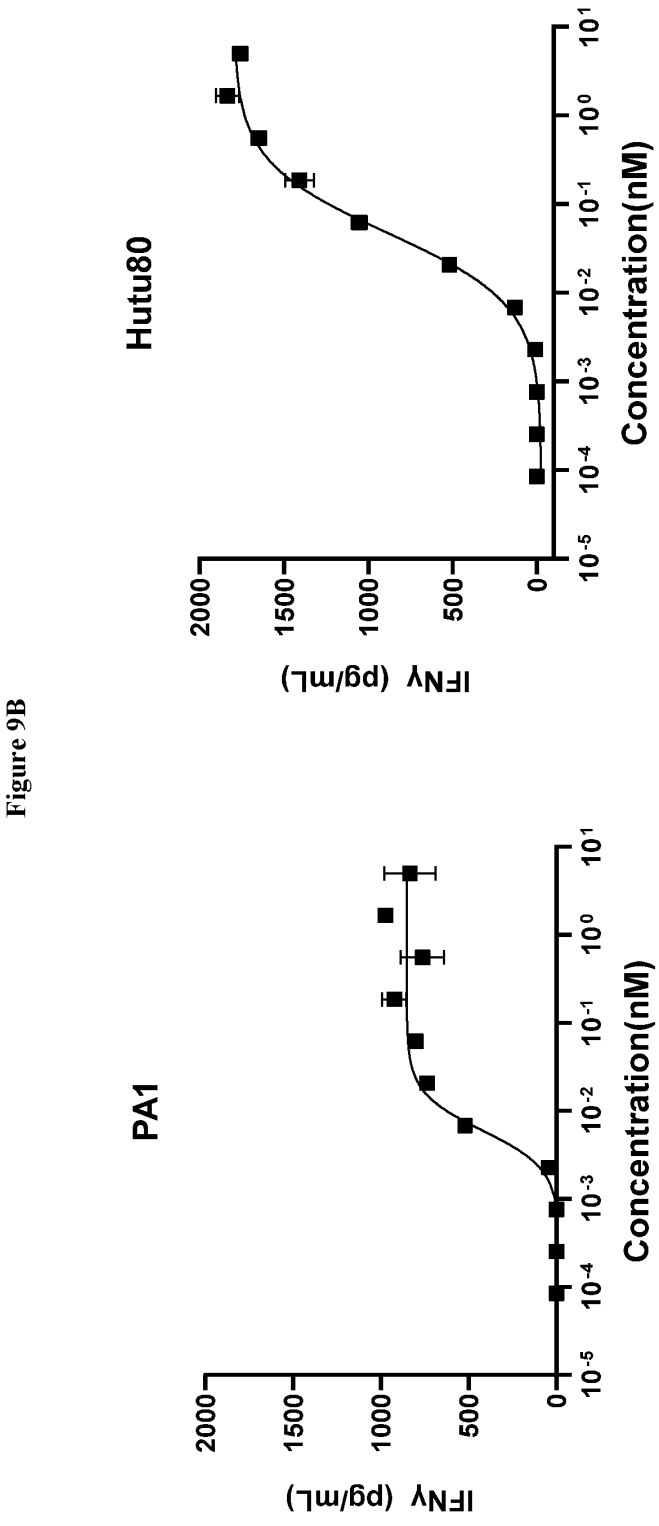

Hutu80
IFNγ (pg/mL)
2000
1500
1000
500
0
10-5
10-4
10-3
10-2
10-1
100
101
Concentration(nM)
PA1
IFNγ (pg/mL)
2000
1500
1000
500
0
10-5
10-4
10-3
10-2
10-1
100
101
Concentration(nM)

Figure 9B

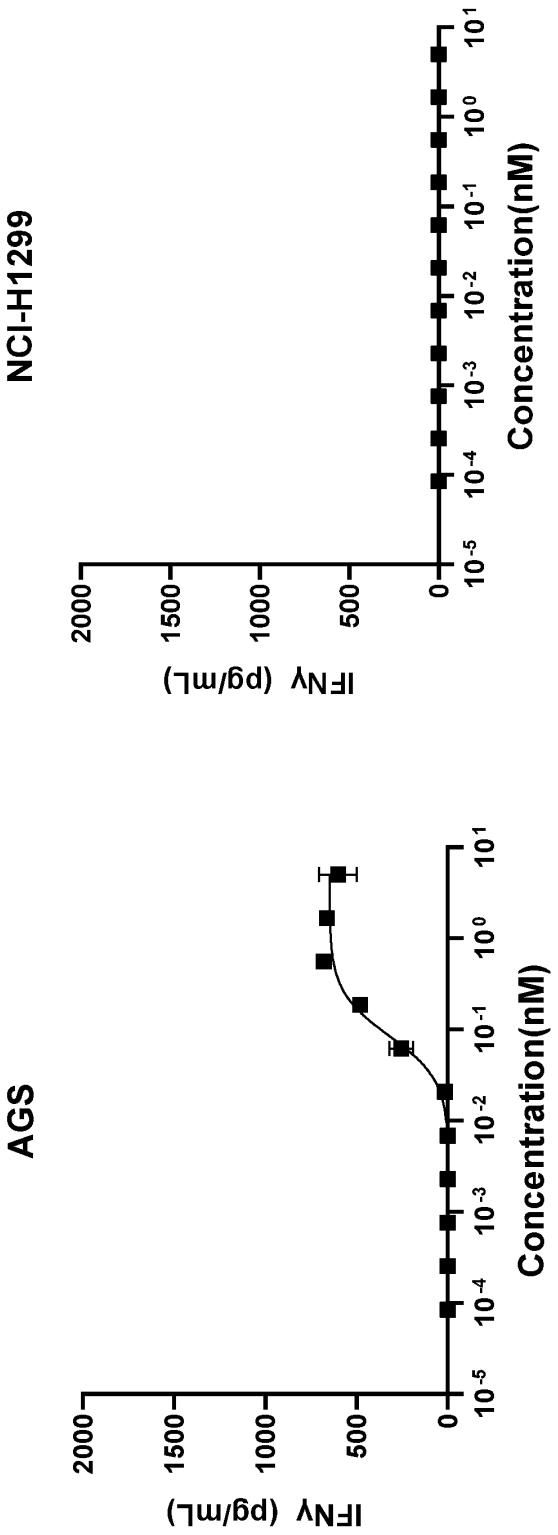


Figure 9B (continued)

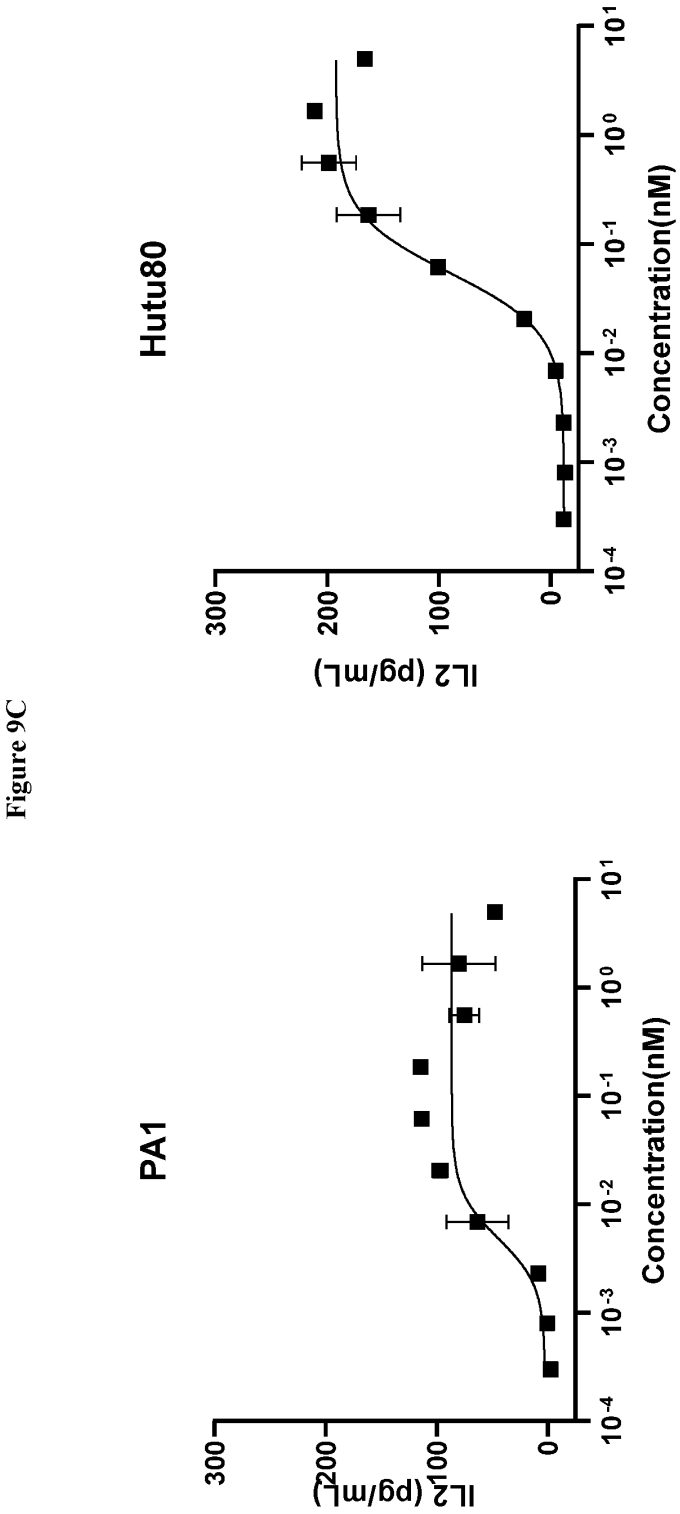

Hutu80
IL2 (pg/mL)
300
200
100
0
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
Concentration(nM)
PA1
IL2 (pg/mL)
300
200
100
0
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
Concentration(nM)

Figure 9C

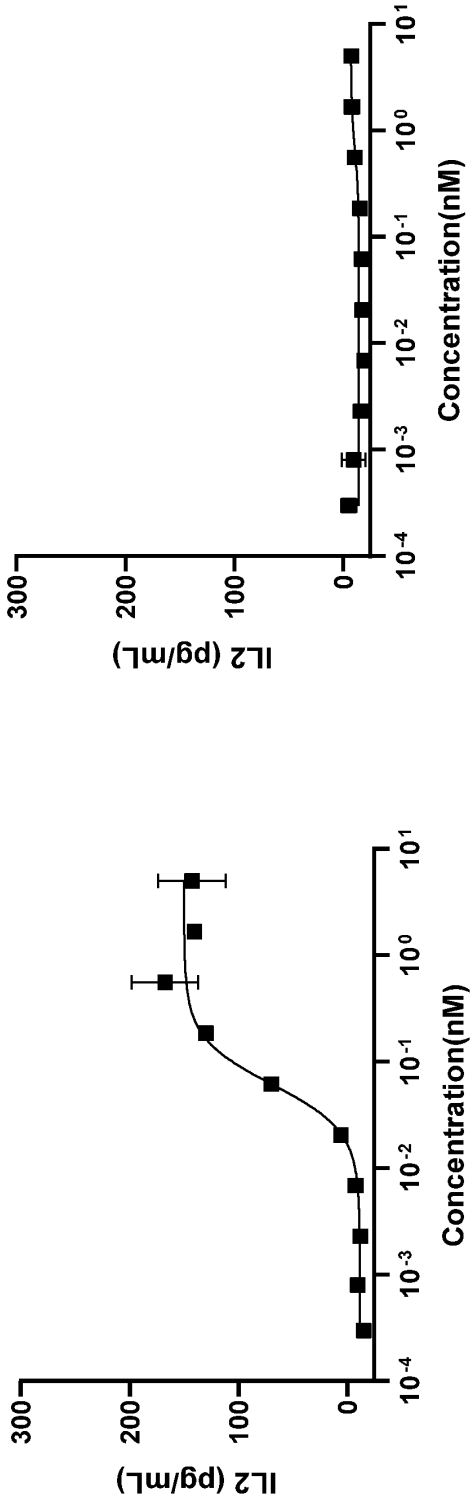
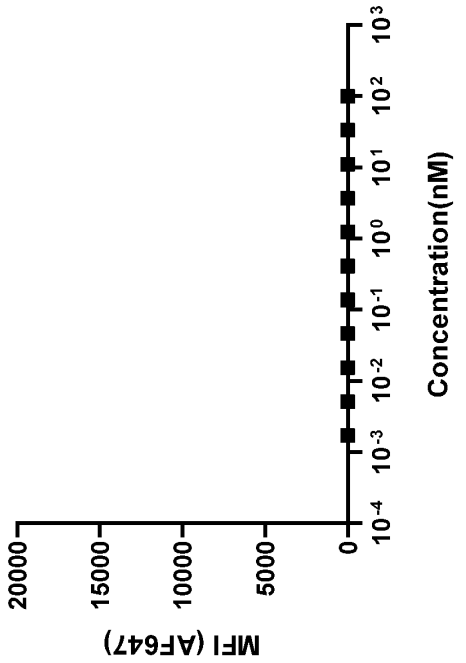


Figure 9C (continued)


NCI-H1299/human CLDN9
MFI (AF647)
20000
15000
10000
5000
0
10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
Concentration(nM)

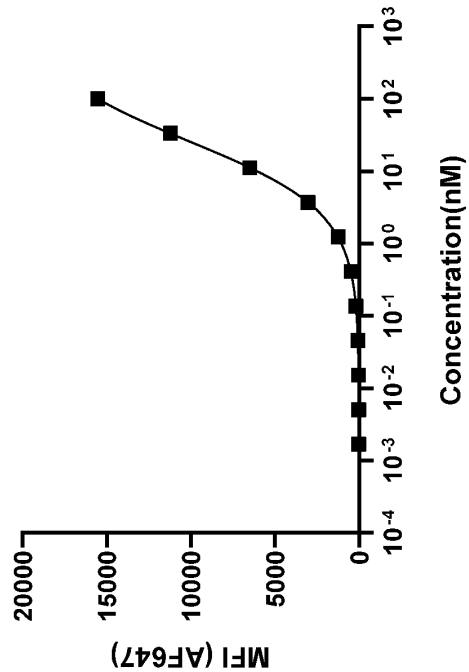

NCI-H1299/human CLDN6
MFI (AF647)
20000
15000
10000
5000
0
10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
Concentration(nM)

Figure 10A

Figure 10B

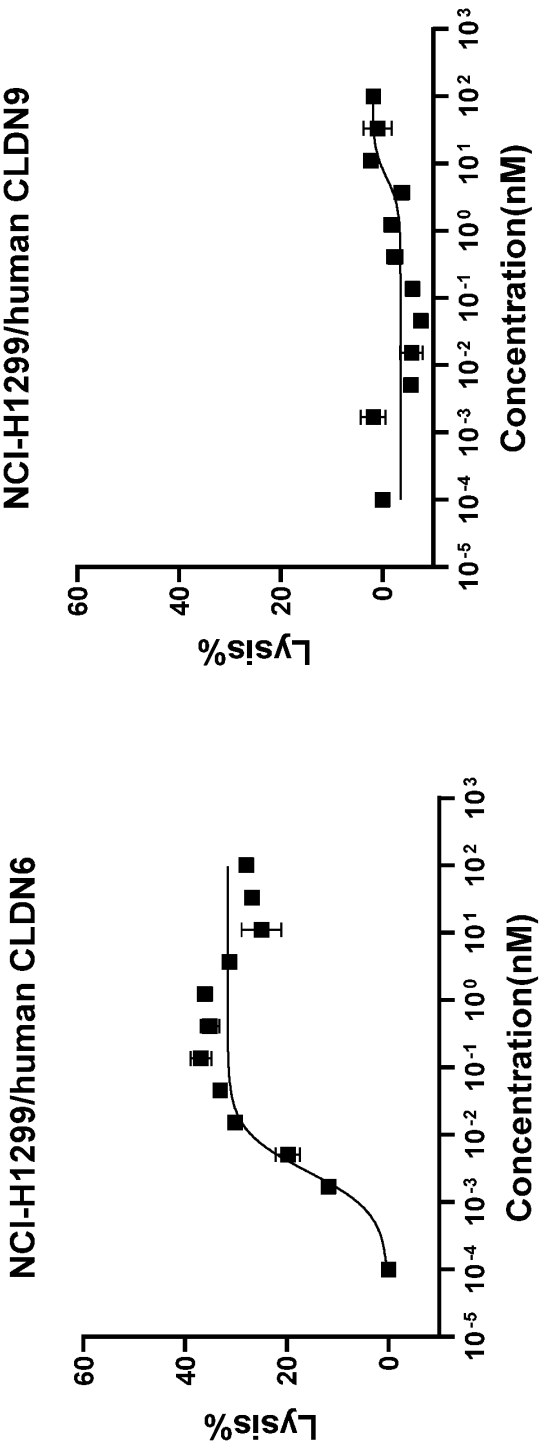

NCI-H1299/human CLDN6
Lysis%
60
40
20
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
Concentration(nM)
NCI-H1299/human CLDN9
Lysis%
60
40
20
0
10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
Concentration(nM)

Figure 10C

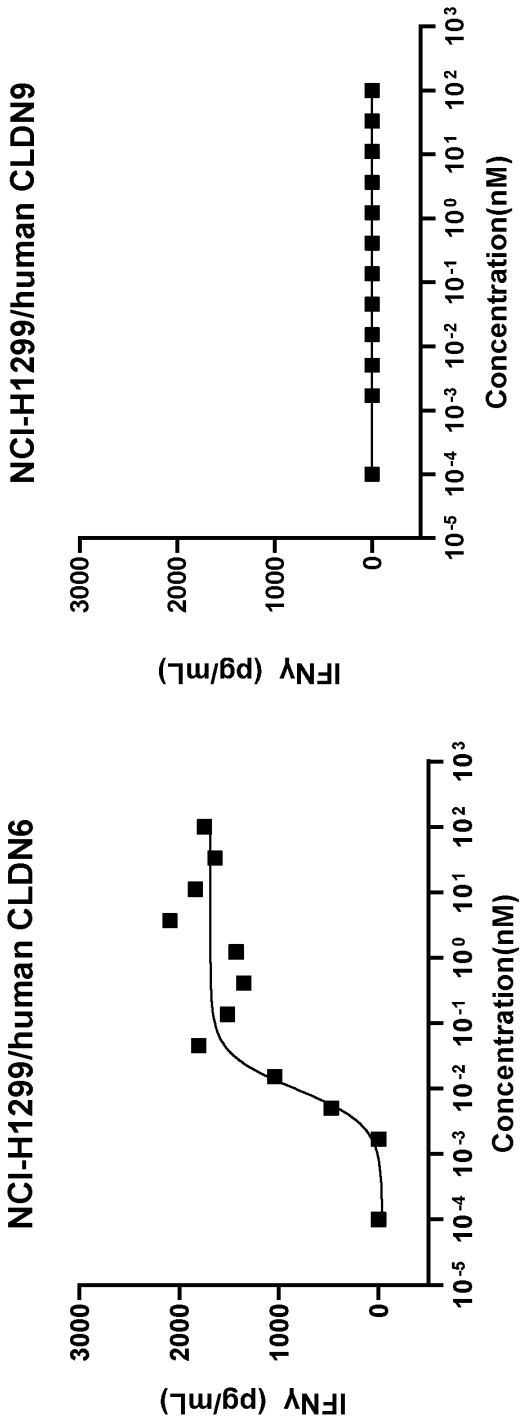

NCI-H1299/human CLDN9
IFNγ (pg/mL)
3000
2000
1000
0
10-5 10-4 10-3 10-2 10-1 100 101 102 103
Concentration(nM)
NCI-H1299/human CLDN6
IFNγ (pg/mL)
3000
2000
1000
0
10-5 10-4 10-3 10-2 10-1 100 101 102 103
Concentration(nM)

Figure 11A

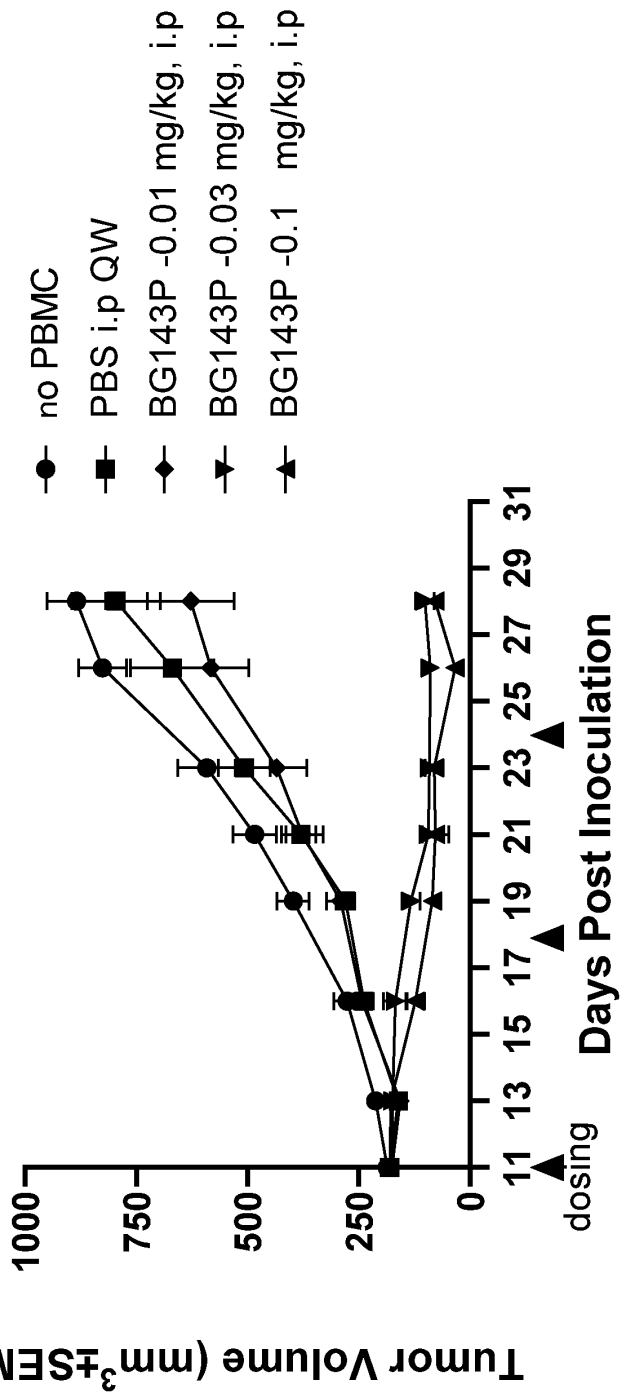

no PBMC
PBS i.p QW
BG143P -0.01 mg/kg, i.p
BG143P -0.03 mg/kg, i.p
BG143P -0.1 mg/kg, i.p
Tumor Volume (mm³±SEM)
1000
750
500
250
0
dosing
11 13 15 17 19 21 23 25 27 29 31
Days Post Inoculation

Figure 11B

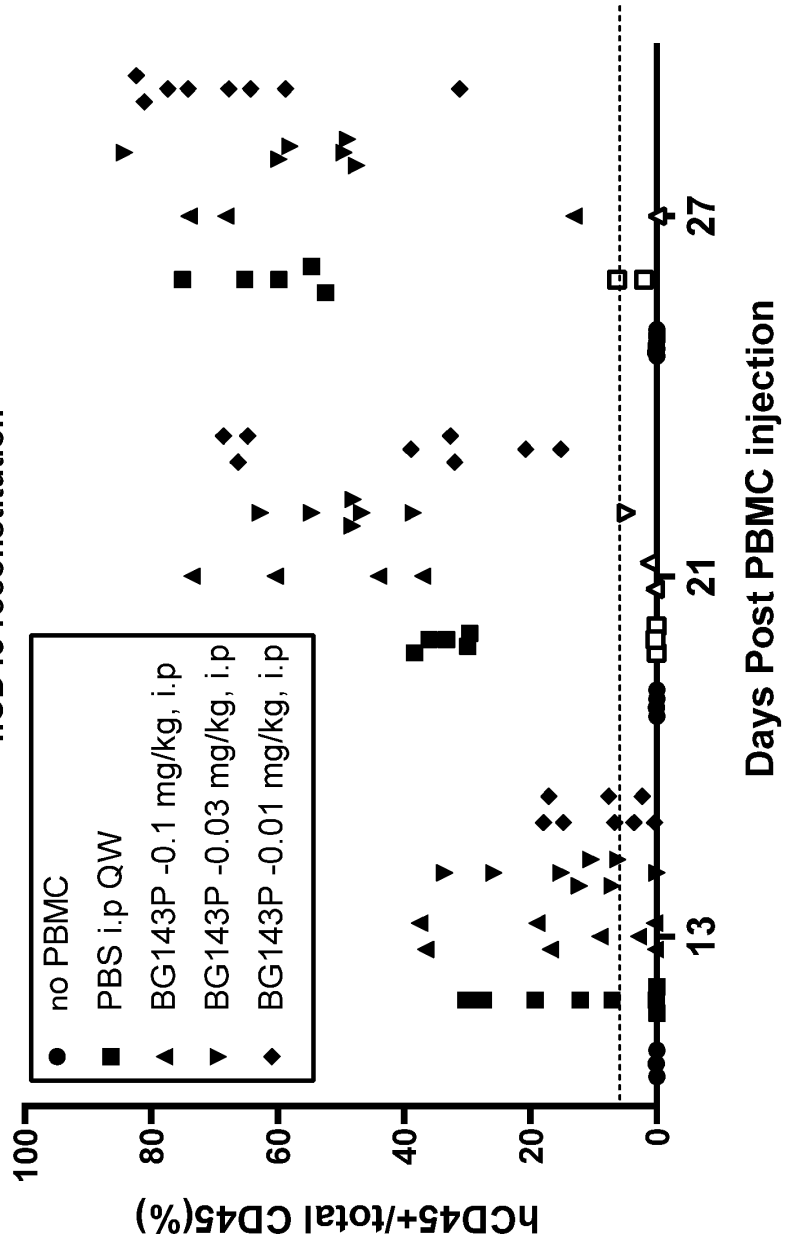

hCD45 reconstitution
no PBMC
PBS i.p QW
BG143P -0.1 mg/kg, i.p
BG143P -0.03 mg/kg, i.p
BG143P -0.01 mg/kg, i.p
hCD45+/total CD45(%)
100
80
60
40
20
0
13
21
27
Days Post PBMC injection

Figure 12A

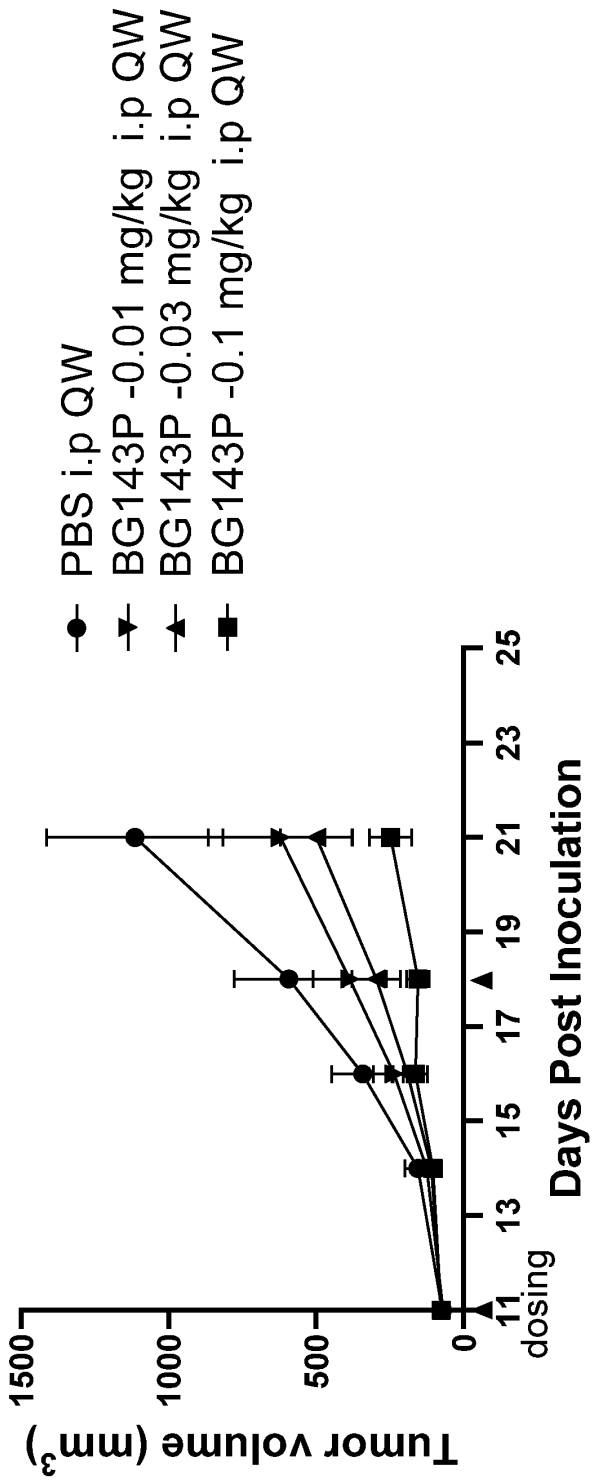
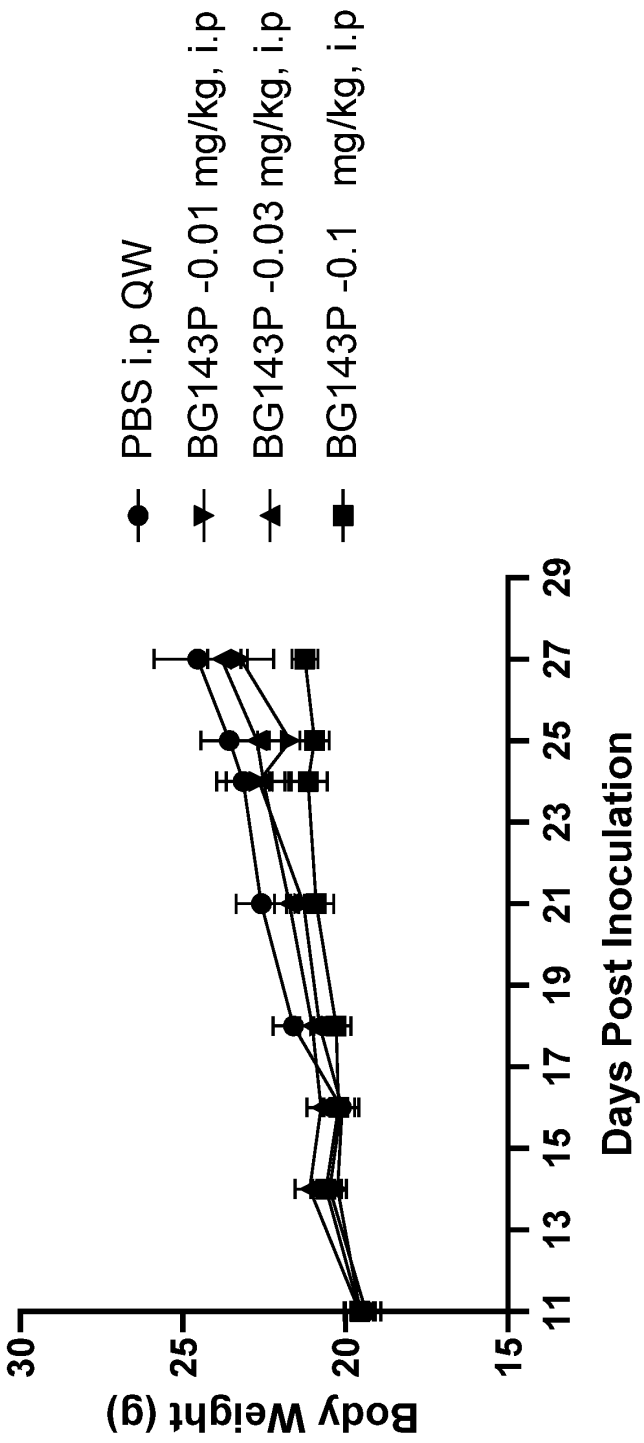

PBS i.p QW
BG143P -0.01 mg/kg i.p QW
BG143P -0.03 mg/kg i.p QW
BG143P -0.1 mg/kg i.p QW
Tumor volume (mm3)
1500
1000
500
0
11
dosing
13
15
17
19
21
23
25
Days Post Inoculation

Figure 12B


PBS i.p QW
BG143P -0.01 mg/kg, i.p
BG143P -0.03 mg/kg, i.p
BG143P -0.1 mg/kg, i.p
Body Weight (g)
30
25
20
15
11
13
15
17
19
21
23
25
27
29
Days Post Inoculation