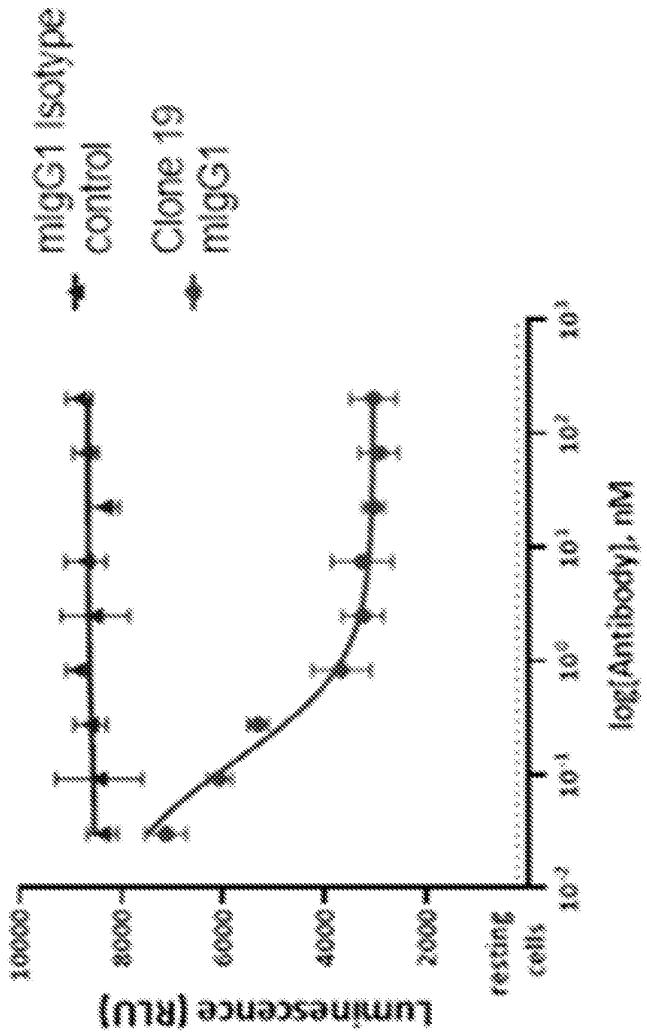

mIgG1 isotype control
Clone 19 mIgG1
Luminescence (RLU)
10000
8000
6000
4000
2000
resting cells
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
log[Antibody], nM

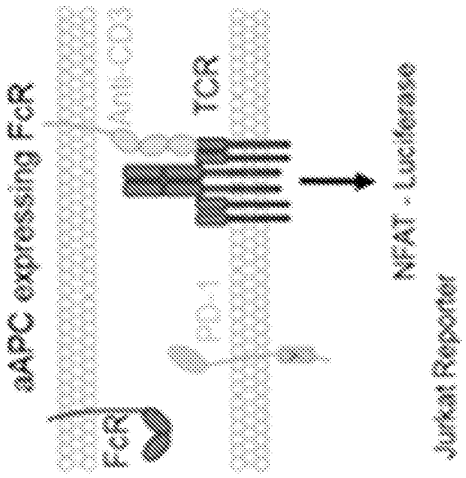
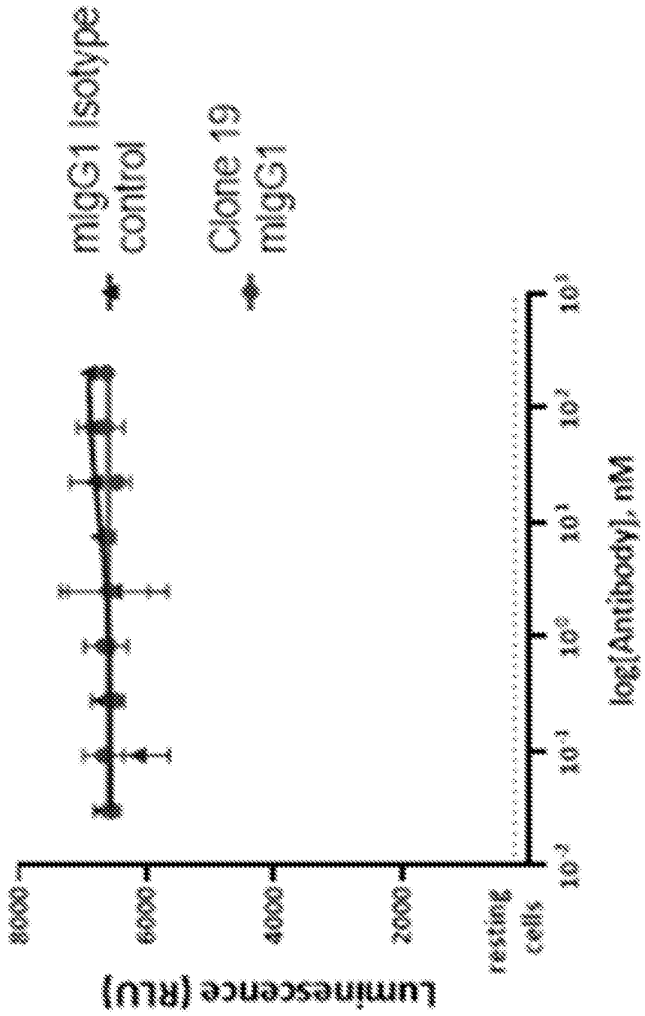

aAPC expressing FcR
FcR
Anti-CD3
TCR
PD-L1
NFAT - Luciferase
Jurkat Reporter

Figure 1A


mIgG1 isotype control
Clone 19 mIgG1
Luminescence (RLU)
8000
6000
4000
2000
resting cells
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
log[Antibody], nM

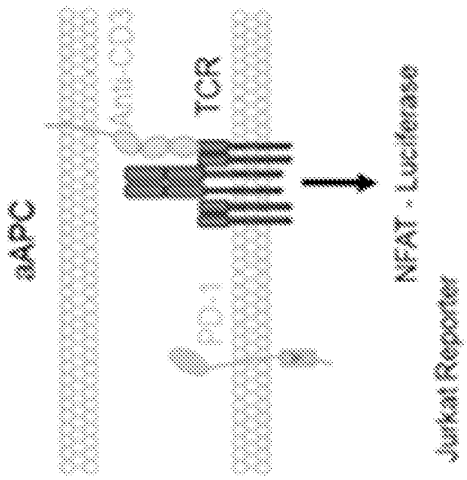

aAPC
Anti-CD3
TCR
PD-1
NFAT - Luciferase
Jurkat Reporter

Figure 1B

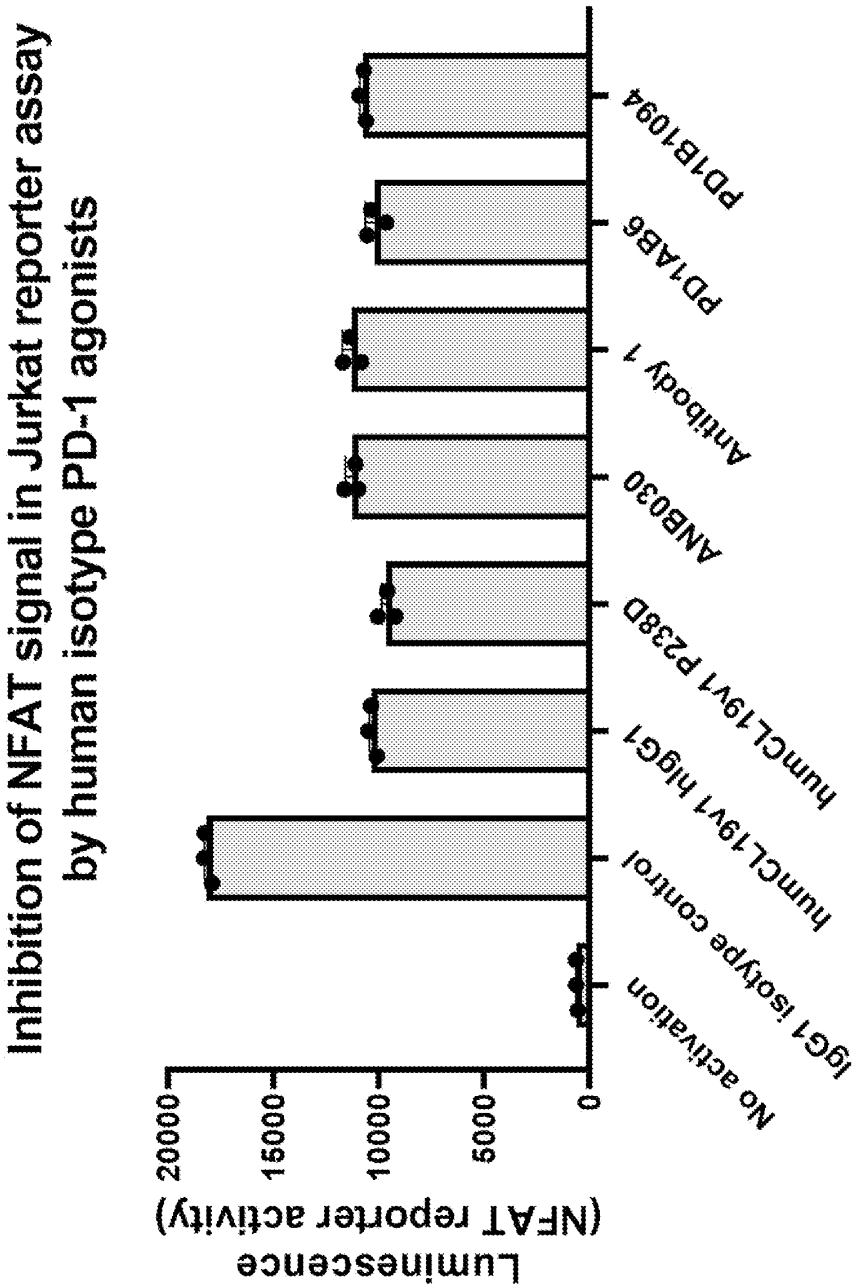

Inhibition of NFAT signal in Jurkat reporter assay by human isotype PD-1 agonists
Luminescence (NFAT reporter activity)
20000
15000
10000
5000
0
No activation
IgG1 isotype control
humCL19V1 hIgG1
humCL19V1 P238D
ANB030
Antibody 1
PD1AB6
PD1B1094

Figure 2A

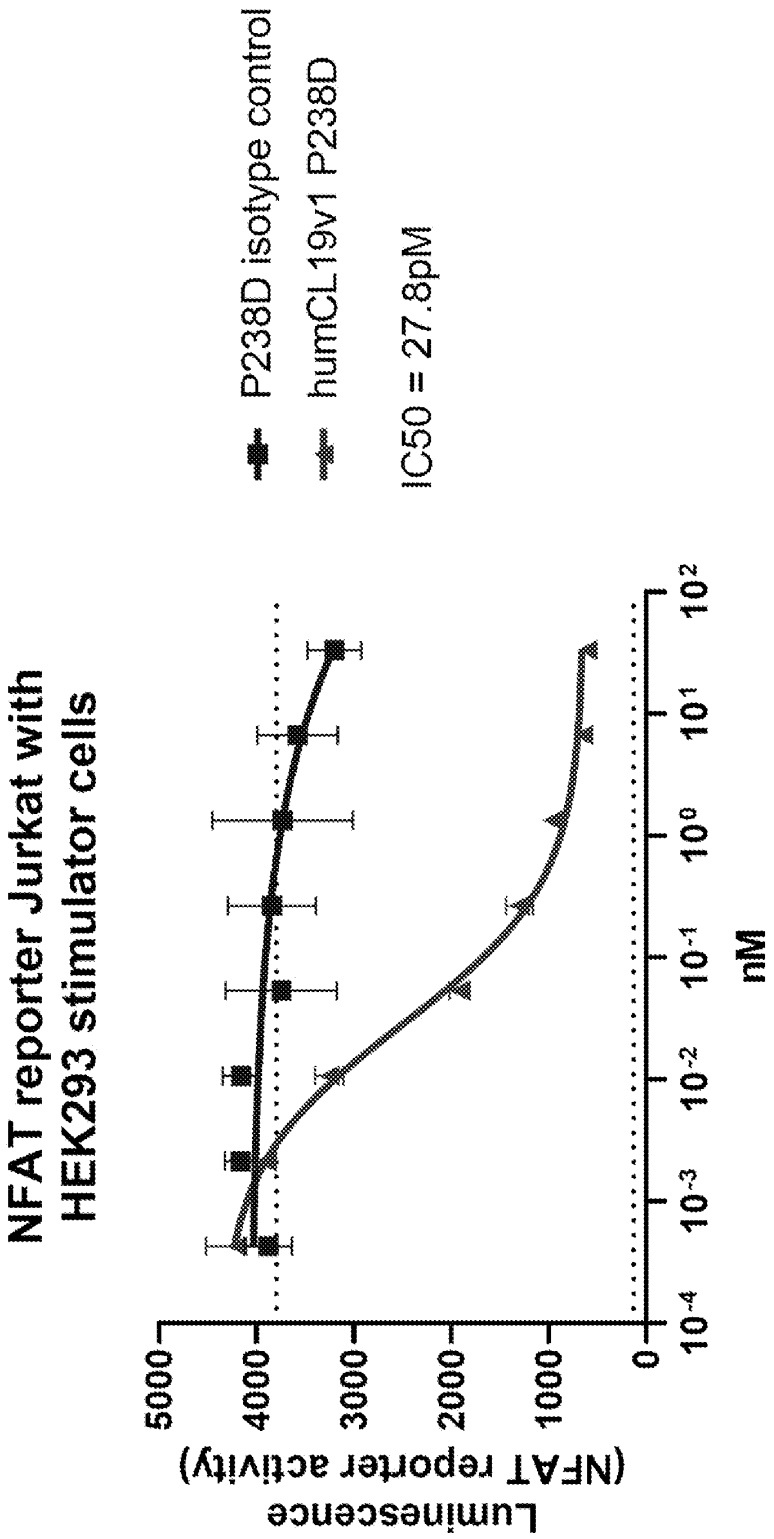

NFAT reporter Jurkat with HEK293 stimulator cells
P238D isotype control
humCL19v1 P238D
IC50 = 27.8pM
Luminescence (NFAT reporter activity)
5000
4000
3000
2000
1000
0
10-4
10-3
10-2
10-1
100
101
102
nM

Figure 2B

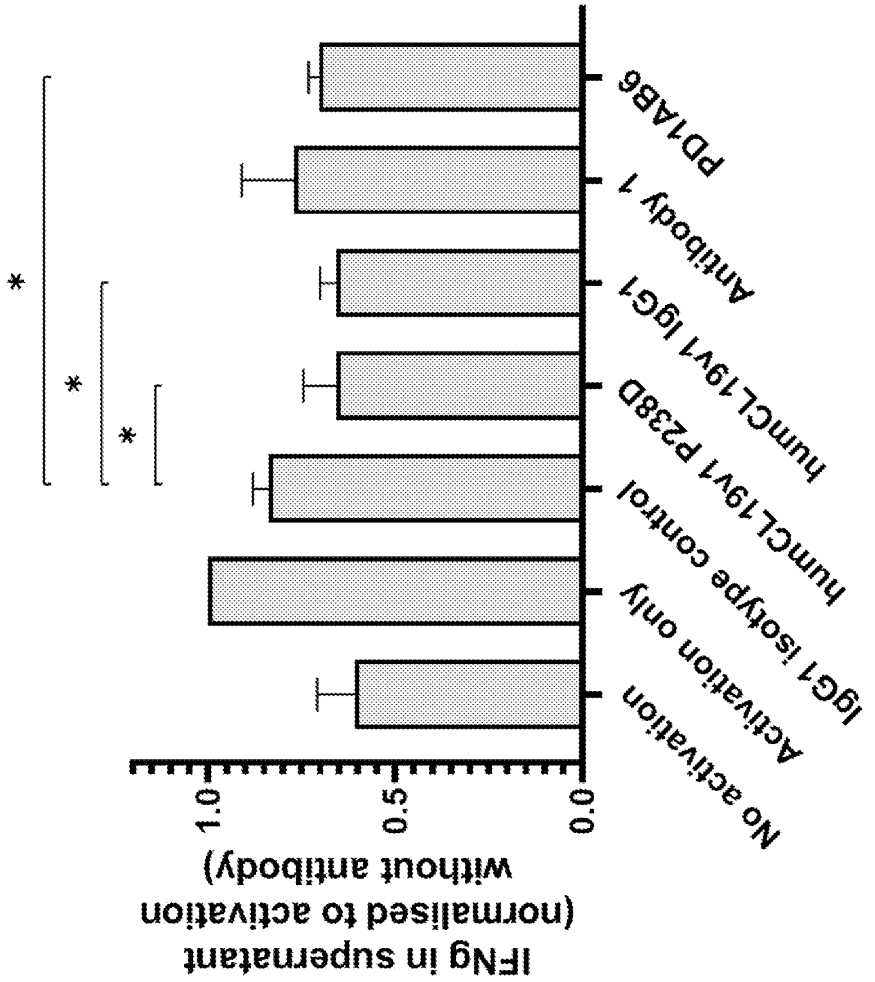

IFNg in supernatant
(normalised to activation
without antibody)
0.0
0.5
1.0
No activation
Activation only
IgG1 isotype control
humCL19V1 P238D
humCL19V1 IgG1
Antibody 1
PD1ABB6
*
*
*

Figure 3A

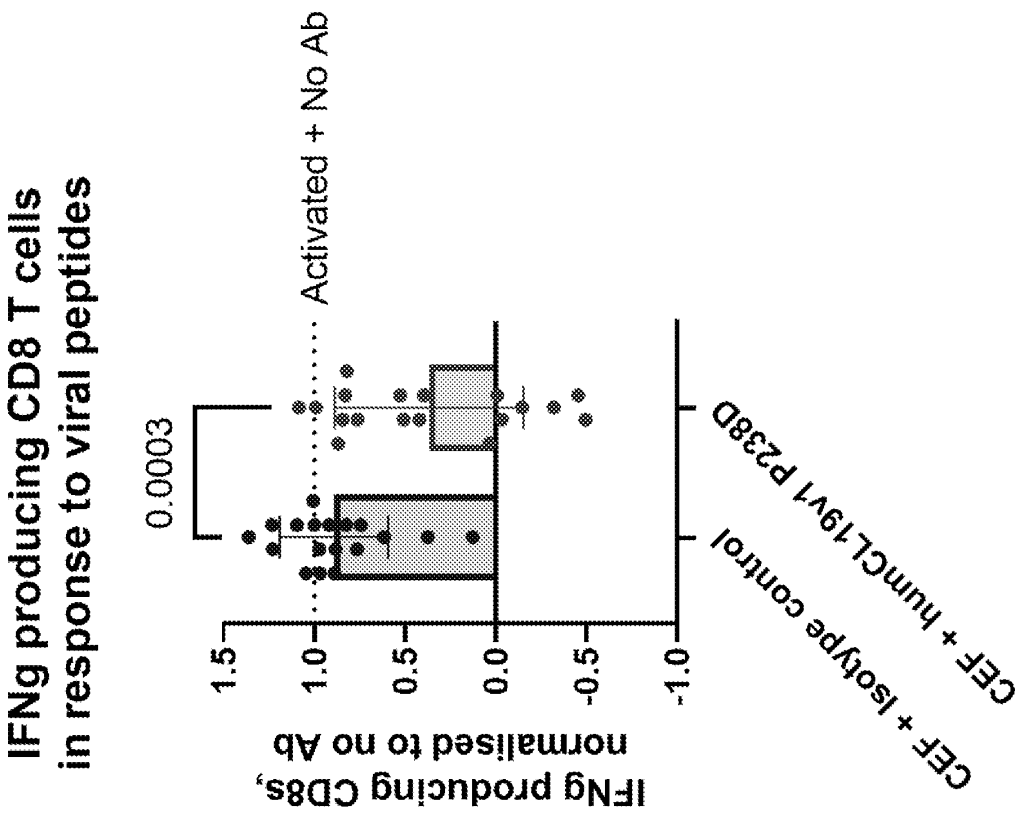

IFNg producing CD8 T cells
in response to viral peptides
IFNg producing CD8s,
normalised to no Ab
1.5
1.0
0.5
0.0
-0.5
-1.0
0.0003
Activated + No Ab
CEF + Isotype control
CEF + humCL19V1 P238D

Figure 3B

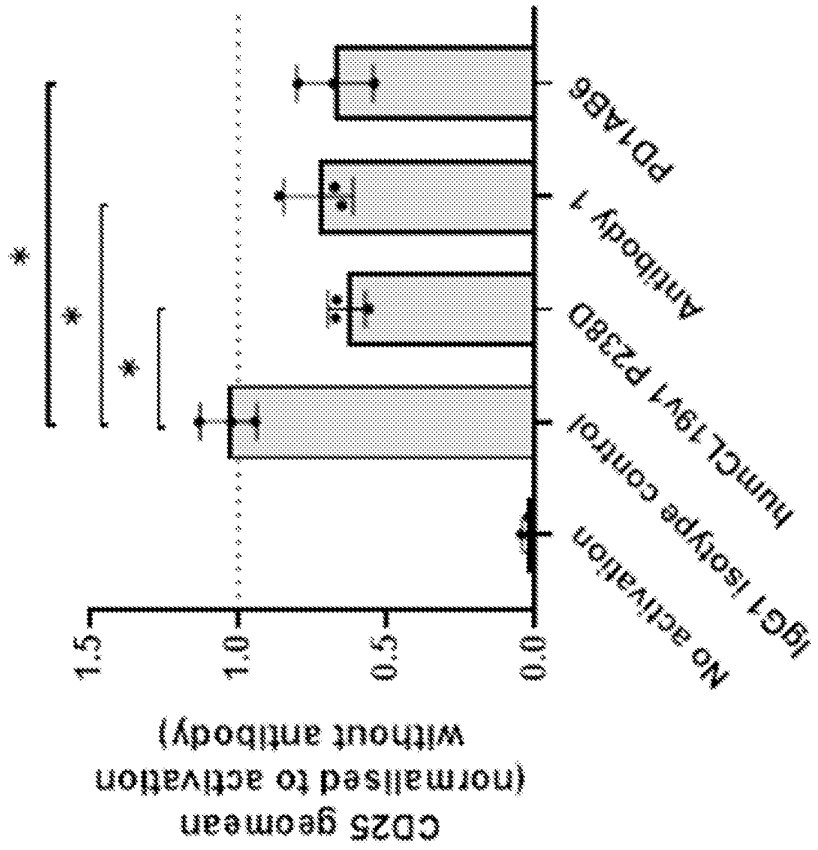

CD25 geomean
(normalised to activation
without antibody)
1,5
1,0
0,5
0,0
No activation
IgG1 isotype control
humCL-19v1 P238D
Antibody 1
PD1ABB
*
*
*
**

Figure 4

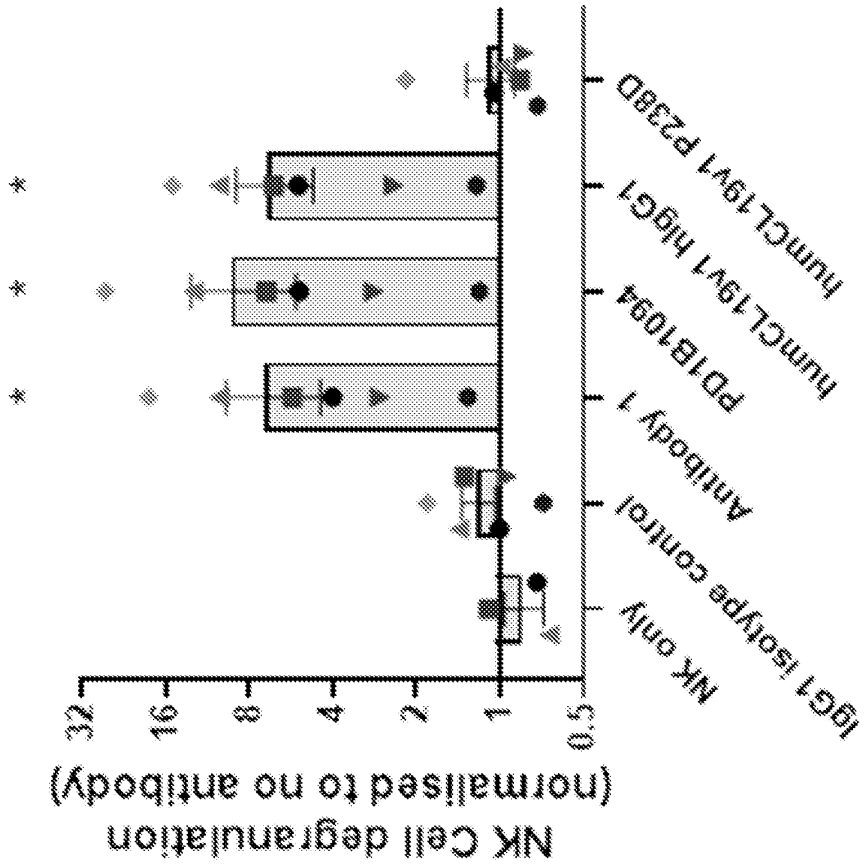

NK Cell degranulation
(normalised to no antibody)
32
16
8
4
2
1
0.5
NK only
IgG1 isotype control
Antibody 1
PD1B109A
humCL19V1 hIgG1
humCL19V1 P238D

Figure 5

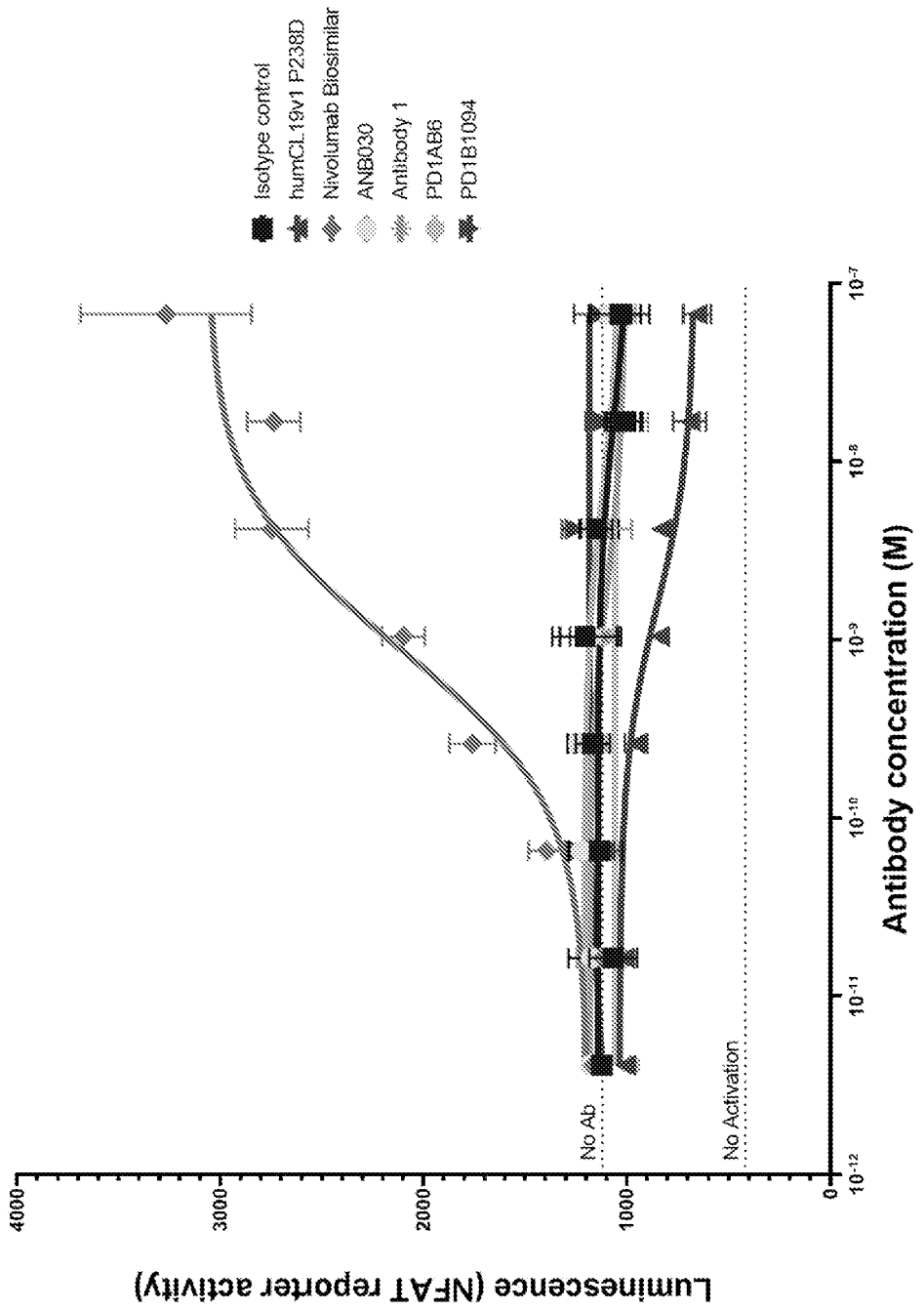

Isotype control
humCL19v1 P238D
Nivolumab Biosimilar
ANB030
Antibody 1
PD1AB6
PD1B1094
Luminescence (NFAT reporter activity)
4000
3000
2000
1000
0
No Ab
No Activation
10-12
10-11
10-10
10-9
10-8
10-7
Antibody concentration (M)

Figure 6

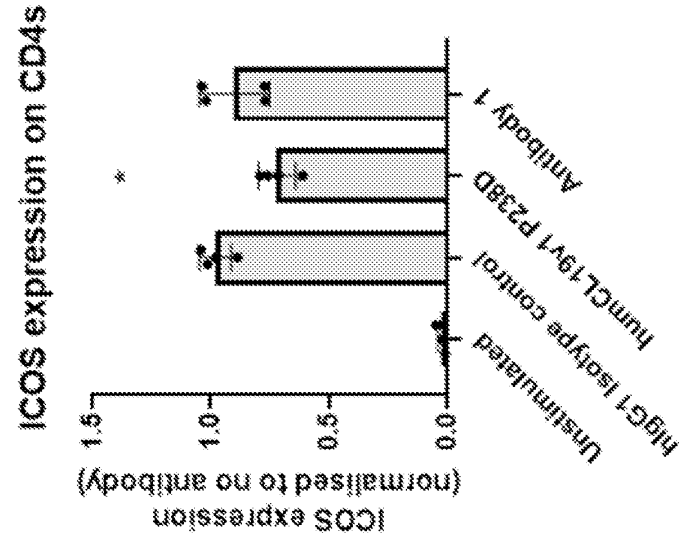


Figure 7B

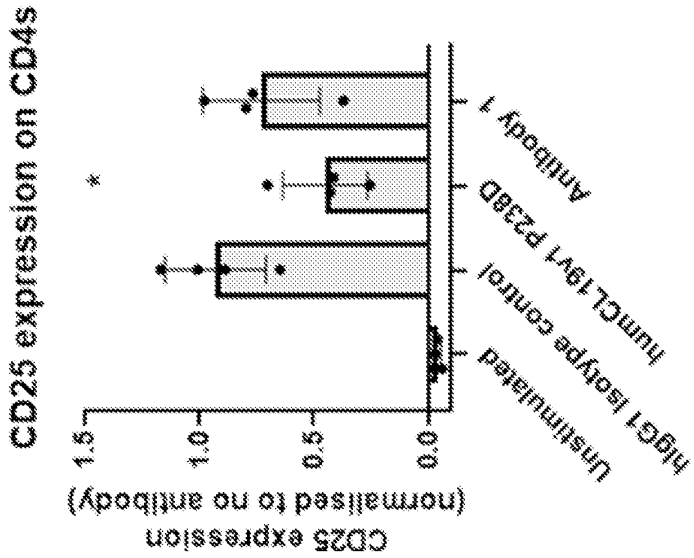


Figure 7A

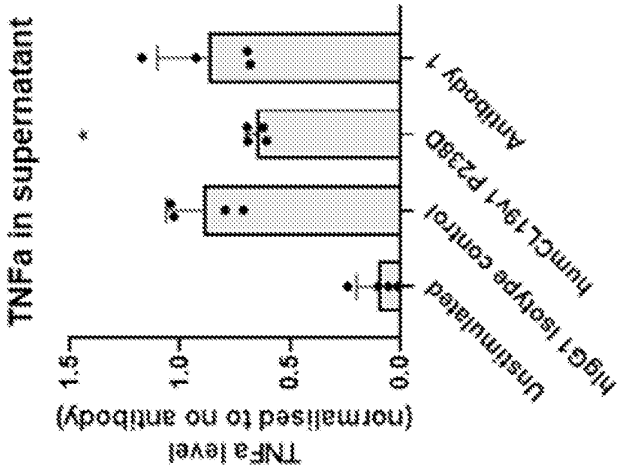


Figure 7E

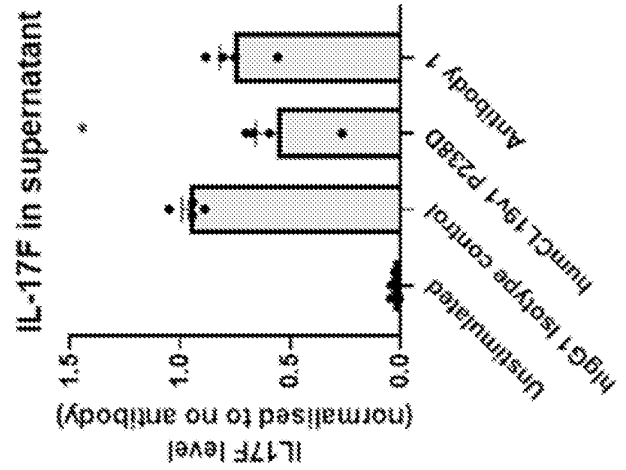


Figure 7D

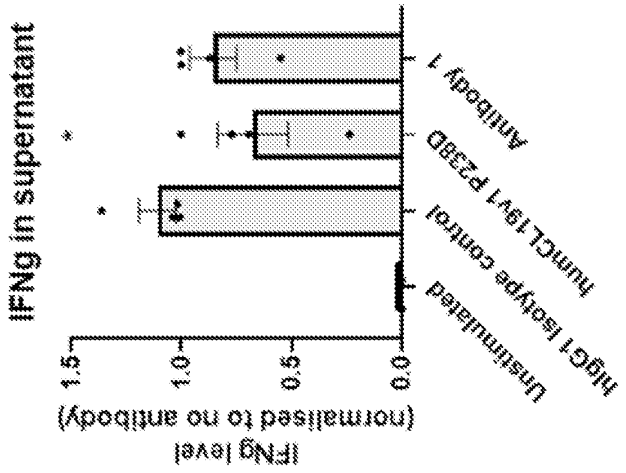


Figure 7C

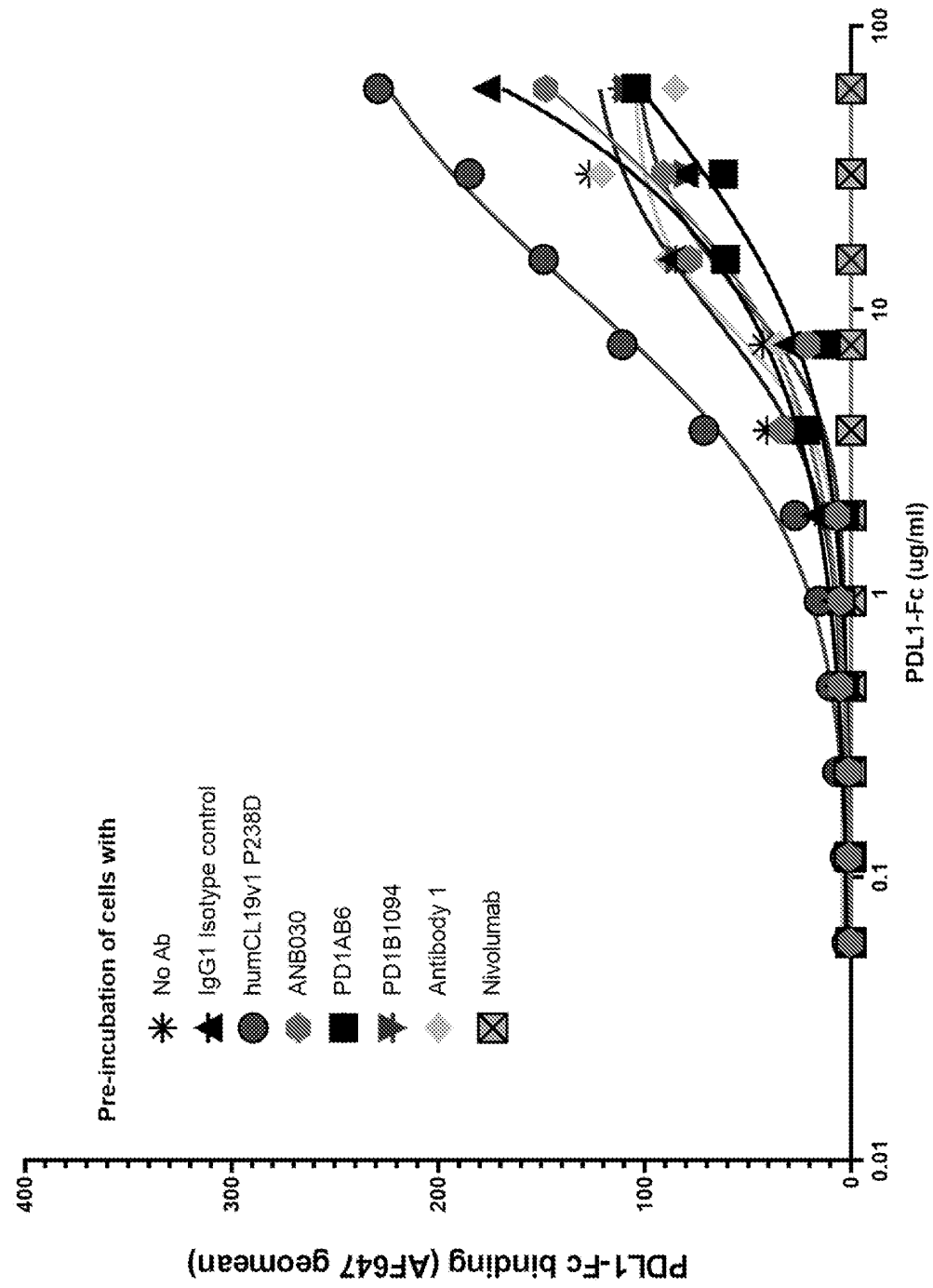

Binding of PDL1-Fc to PD1 Jurkats
PDL1-Fc binding (AF647 geomean)
400
300
200
100
0
0.01
0.1
1
10
100
PDL1-Fc (ug/ml)
Pre-incubation of cells with
No Ab
IgG1 isotype control
humCL19v1 P238D
ANB030
PD1AB6
PD1B1094
Antibody 1
Nivolumab

Figure 8

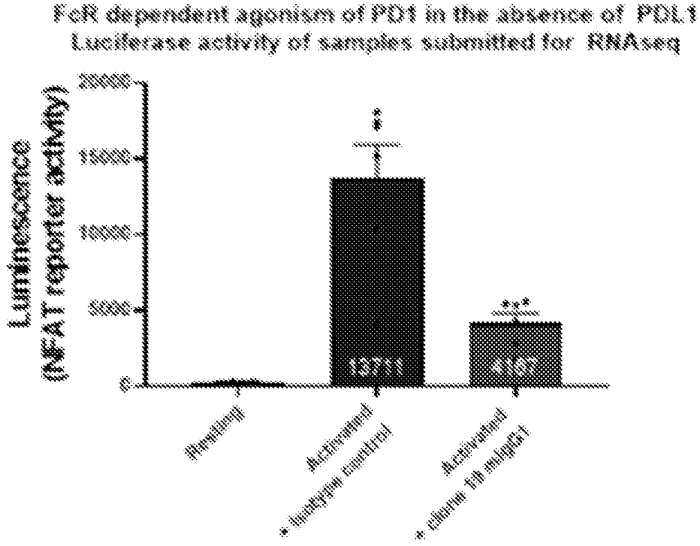


Figure 9A

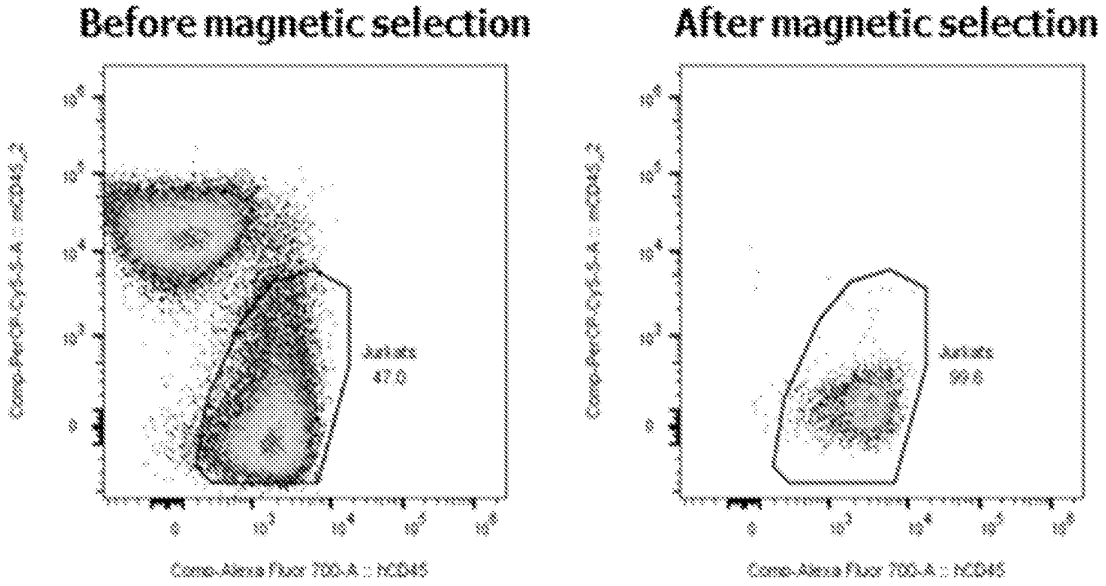


Figure 9B

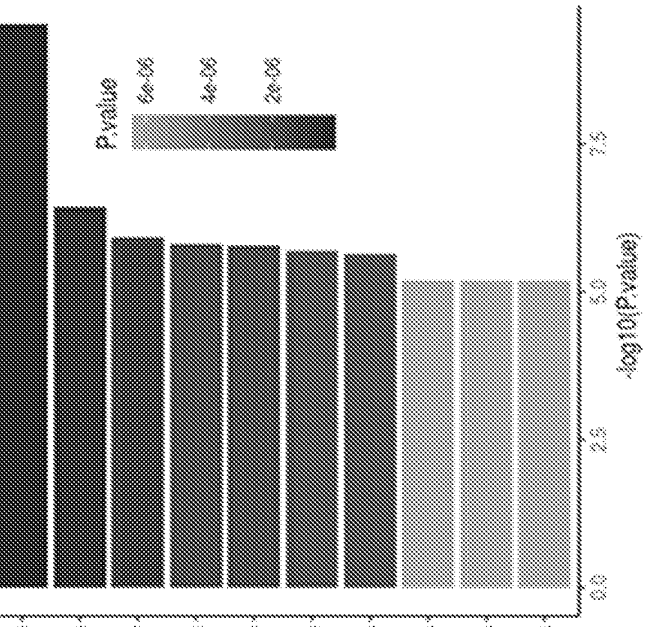


Figure 9D

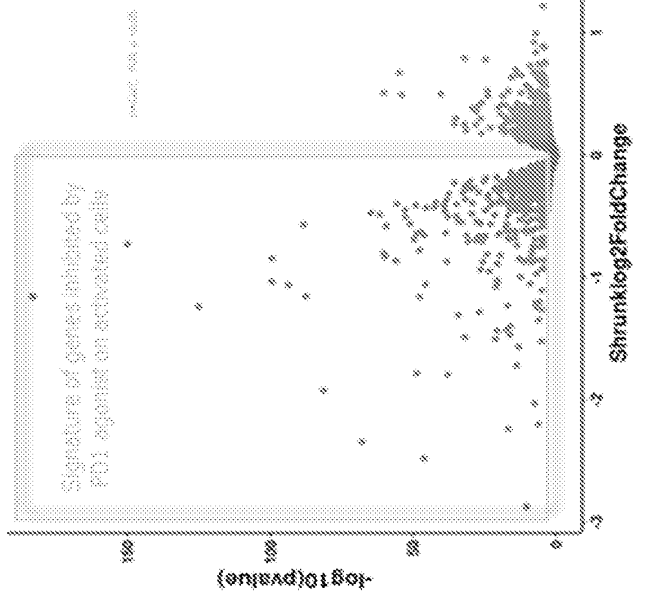


Figure 9C

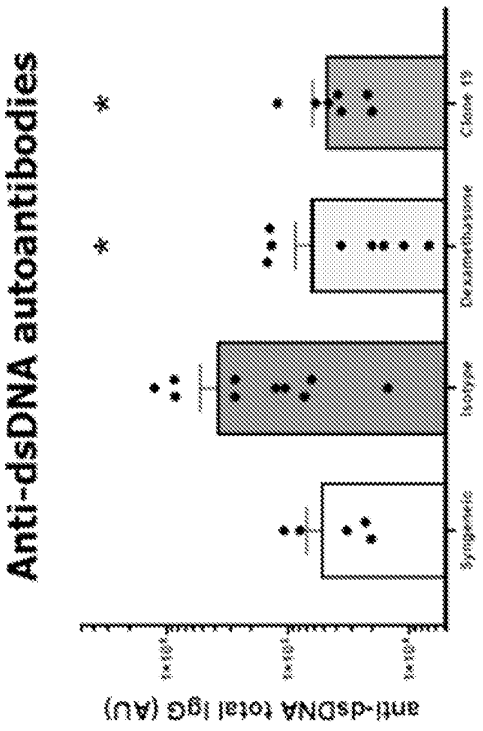


Figure 10A

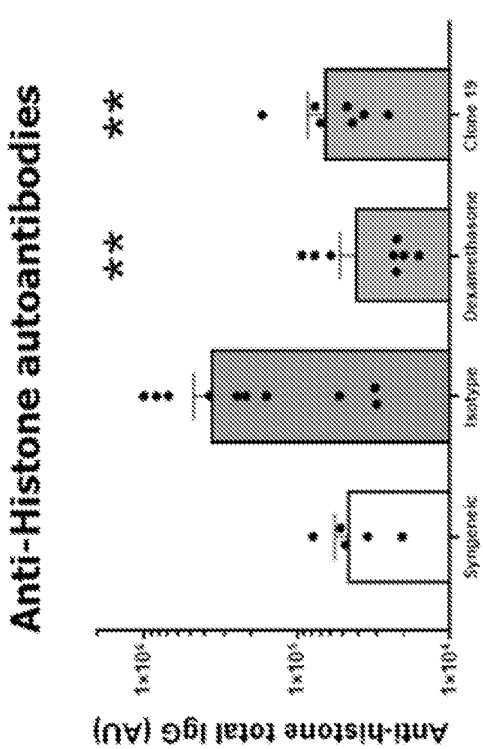


Figure 10B

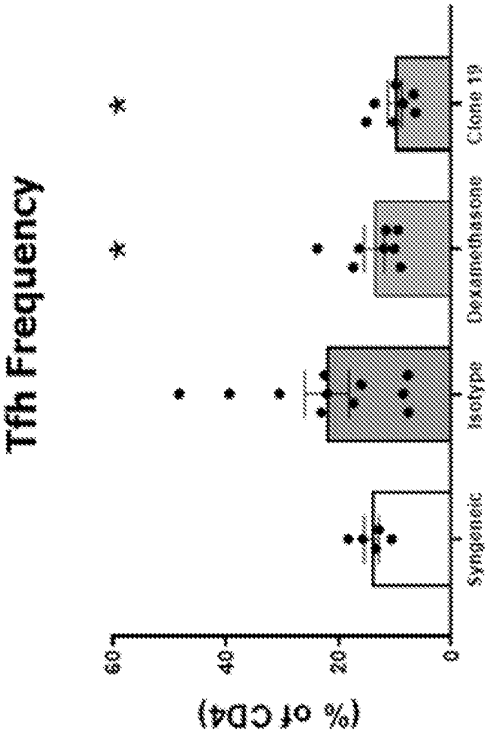


Figure 10C

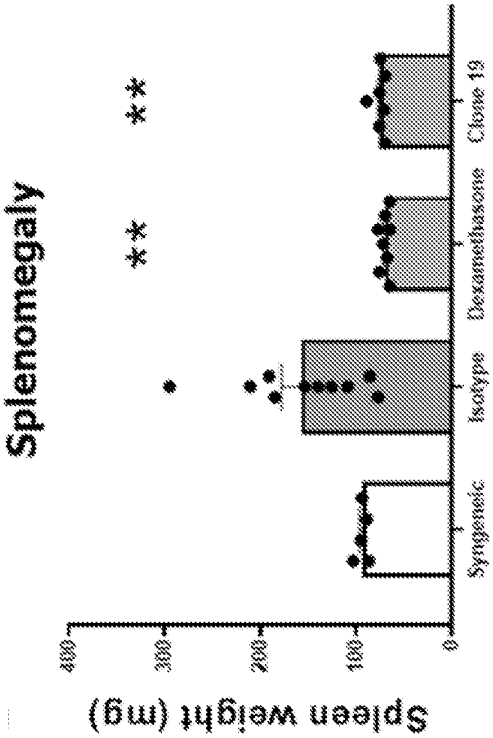


Figure 10D

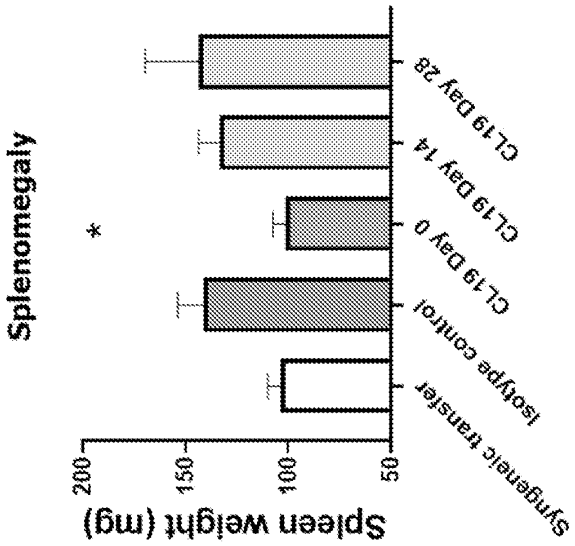


Figure 11B

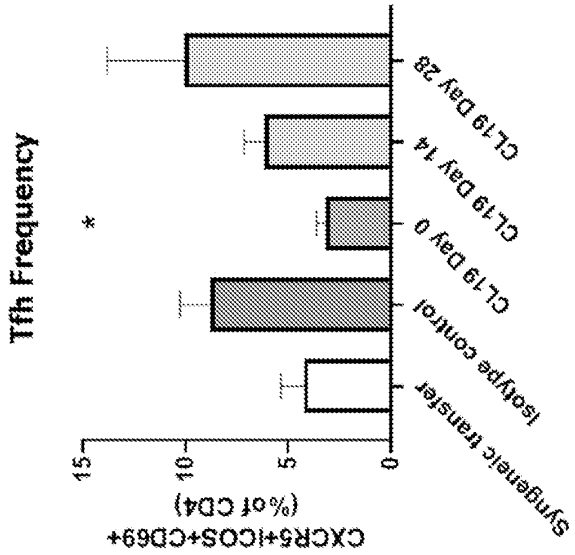


Figure 11A

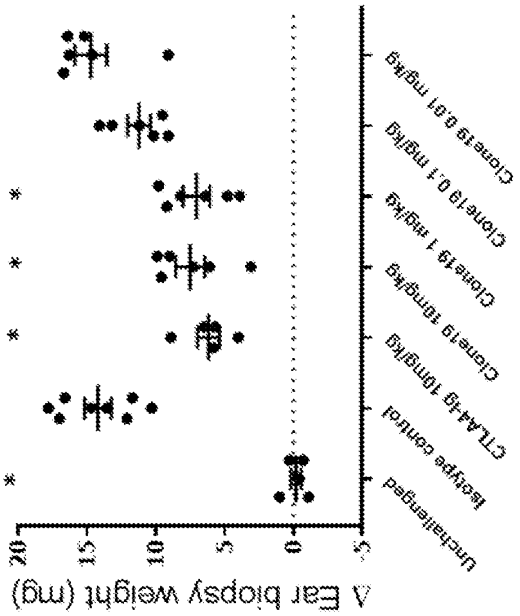


Figure 12B

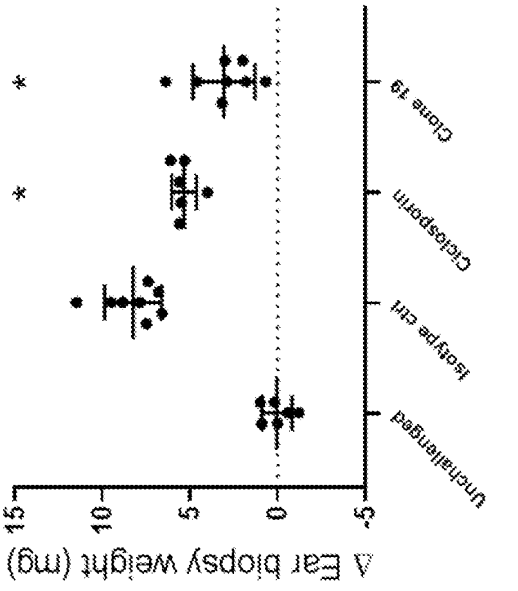


Figure 12A

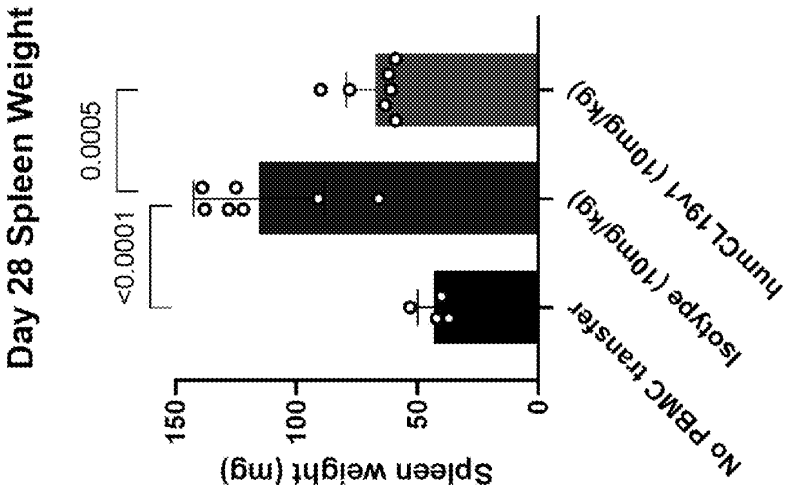


Figure 13A

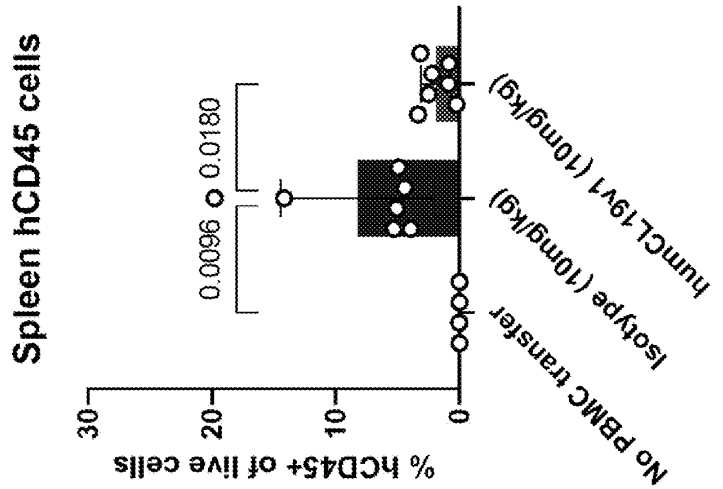


Figure 13B

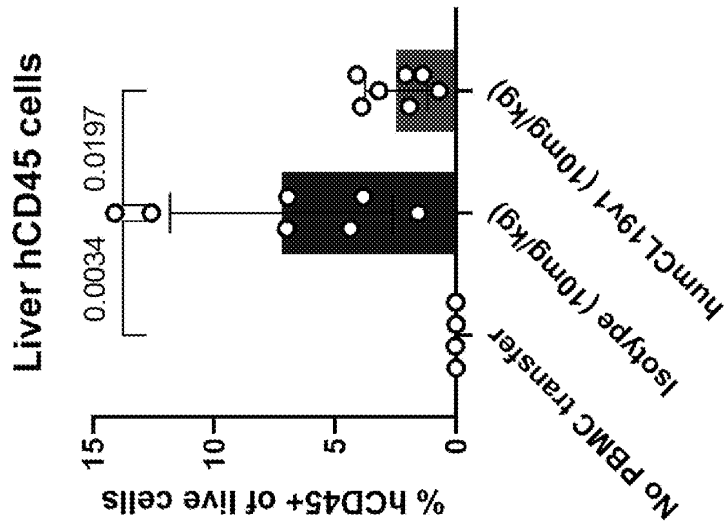


Figure 13C

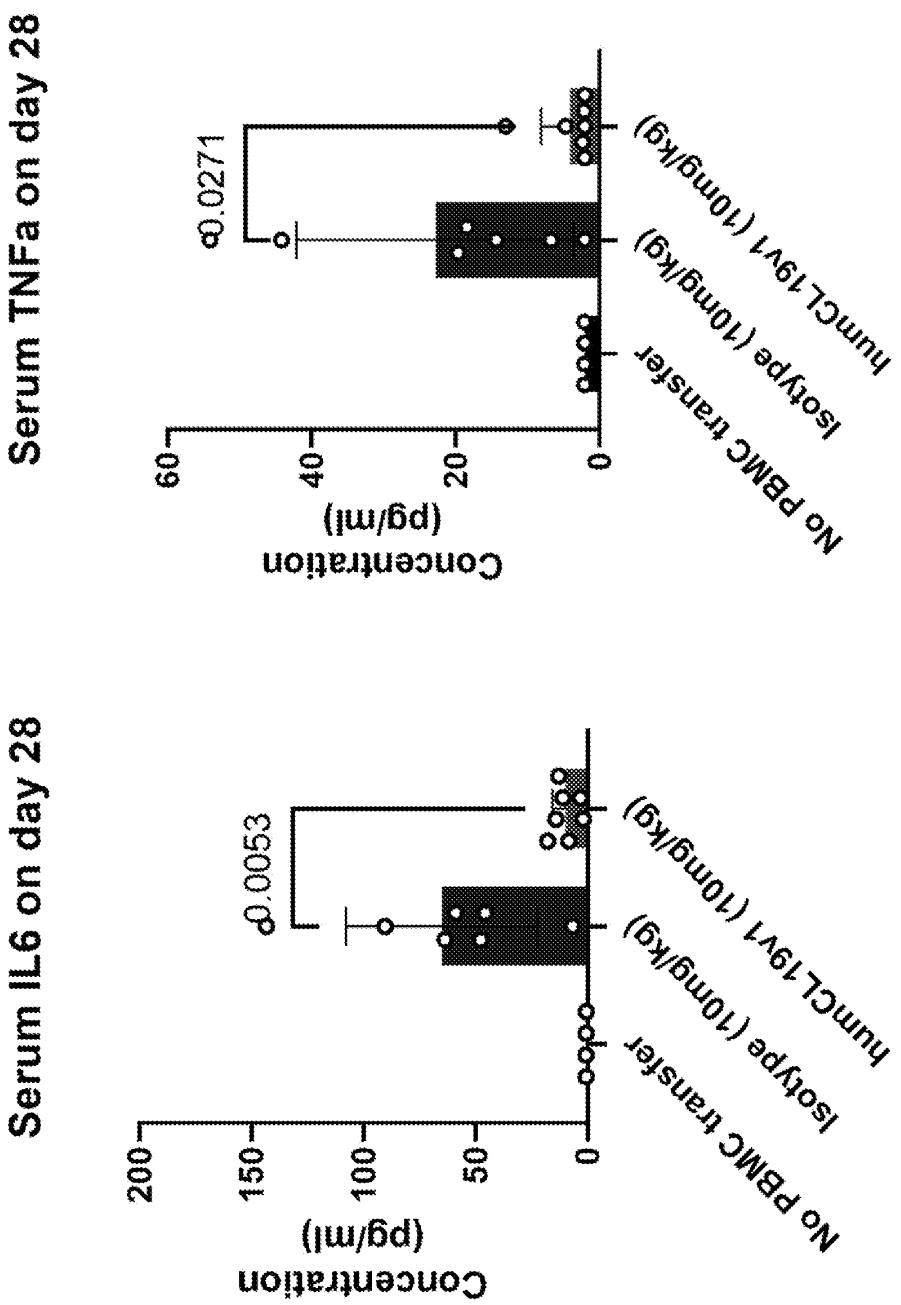

Serum TNFa on day 28
Concentration (pg/ml)
0
20
40
60
0.0271
No PBMC transfer
Isotype (10mg/kg)
humCL19V1 (10mg/kg)
Serum IL6 on day 28
Concentration (pg/ml)
0
50
100
150
200
0.0053
No PBMC transfer
Isotype (10mg/kg)
humCL19V1 (10mg/kg)

Figure 13D

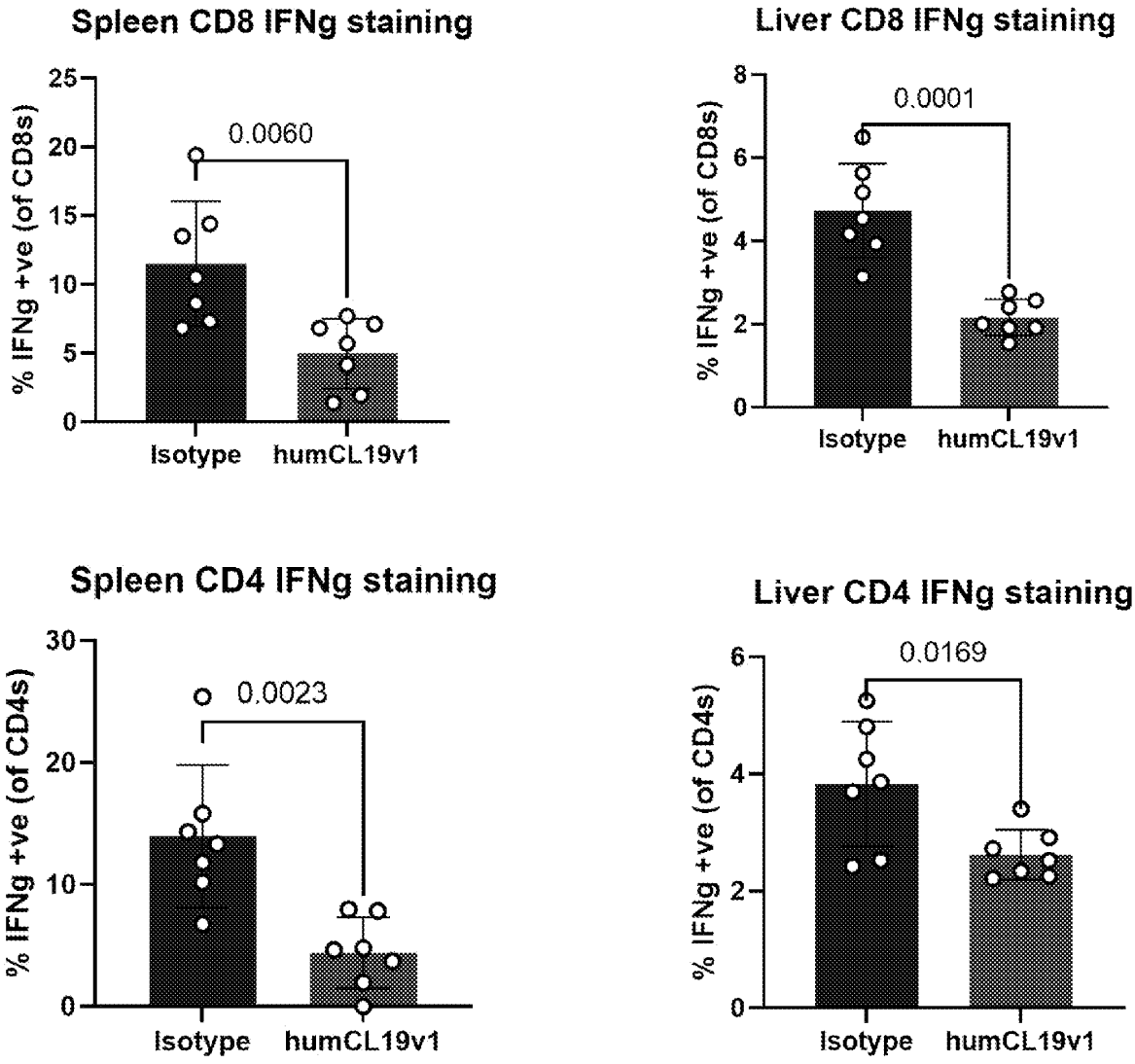

Spleen CD8 IFNg staining
% IFNg +ve (of CD8s)
25
20
15
10
5
0
0.0060
Isotype
humCL19v1
Liver CD8 IFNg staining
% IFNg +ve (of CD8s)
8
6
4
2
0
0.0001
Isotype
humCL19v1
Spleen CD4 IFNg staining
% IFNg +ve (of CD4s)
30
20
10
0
0.0023
Isotype
humCL19v1
Liver CD4 IFNg staining
% IFNg +ve (of CD4s)
6
4
2
0
0.0169
Isotype
humCL19v1

Figure 13E