Figure 1

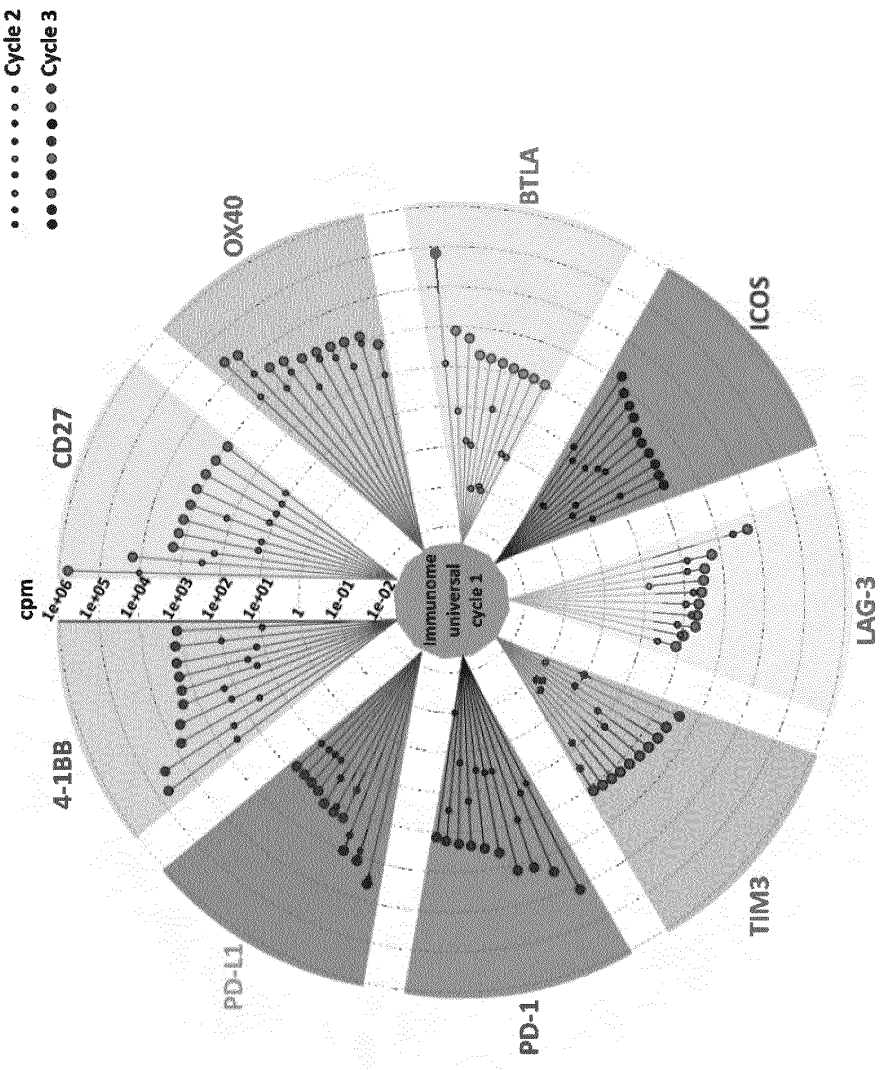
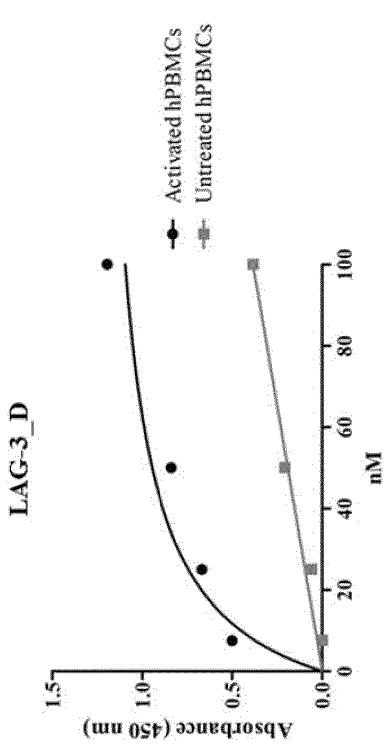
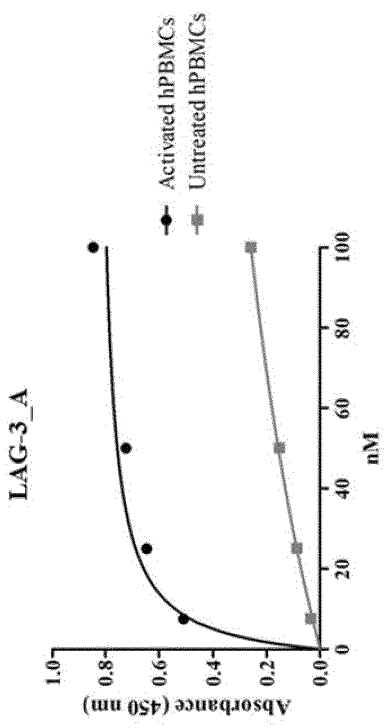

Cycle 2
Cycle 3
cpm
1e+06
1e+05
1e+04
1e+03
1e+02
1e+01
1
1e-01
1e-02
Immunome
universal
cycle 1
BTLA
ICOS
LAG-3
TIM3
PD-1
PD-L1
4-1BB
CD27
OX40

Figure 2

LAG-3



	LAG-3/Fc	Activated hPBMCs
LAG-3_A	38 nM	6 nM
LAG-3_C	52 nM	2.6 nM
LAG-3_D	24 nM	19 nM



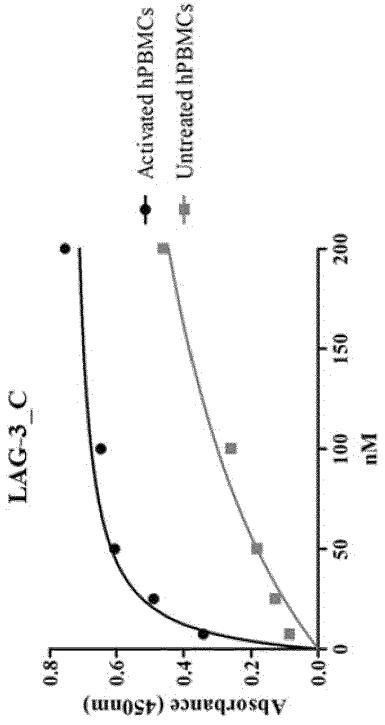


Figure 2 (continued)

PD-L1

	PD-L1/Fc	Activated hPBMCs	MDA-MB-231 cells
PD-L1_A	0.66 nM	2.52 nM	1.26 nM
PD-L1_B	0.46 nM	0.1 nM	0.74 nM

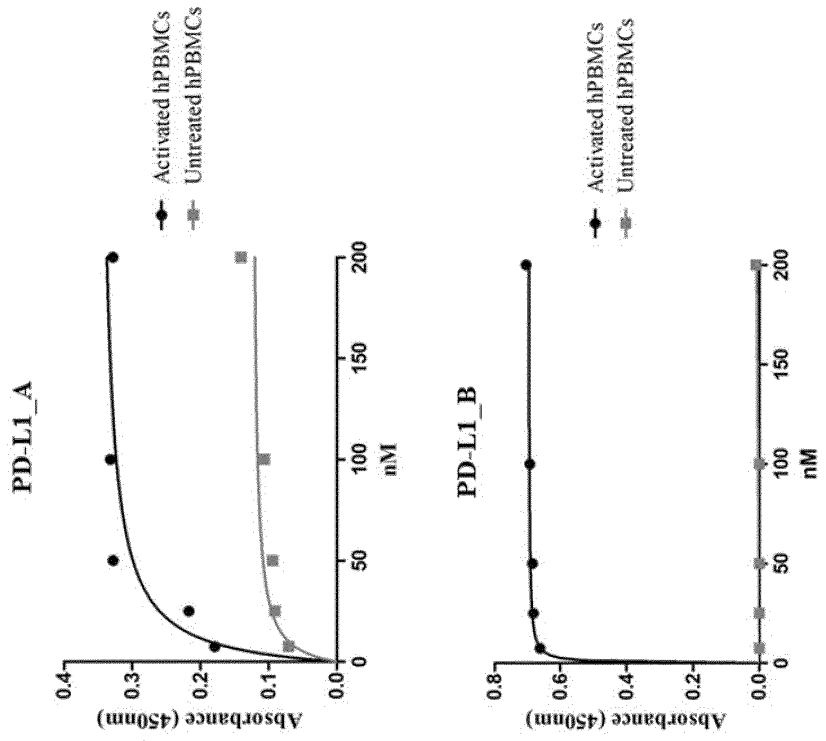
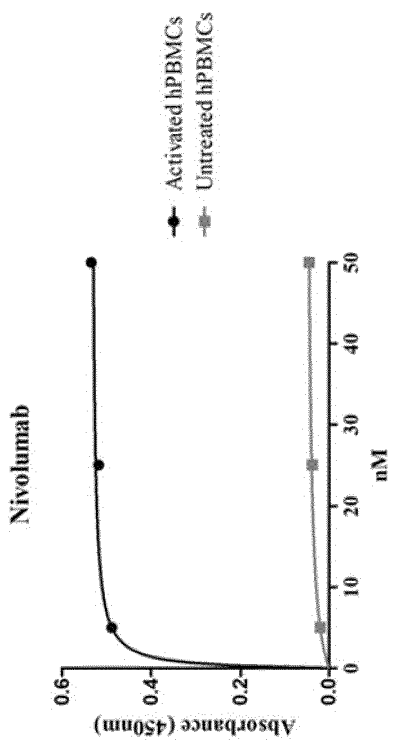
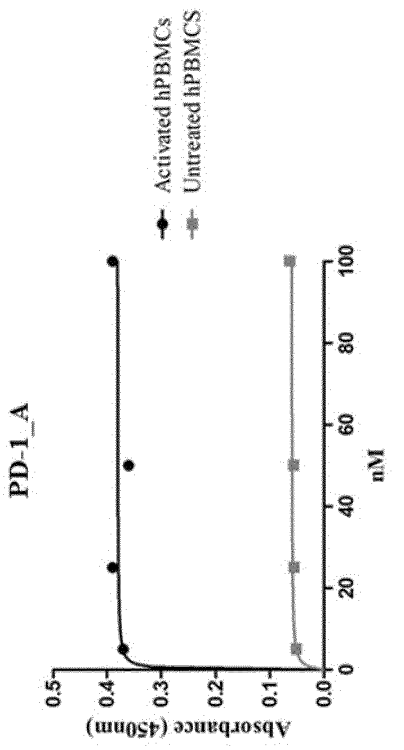


Figure 2 (continued)

PD-1



	PD-1/Fc	Activated hPBMCs
PD-1_A	0.15 nM	0.14 nM
PD-1_B	0.29 nM	0.6 nM
Nivolumab	0.013 nM	0.48 nM



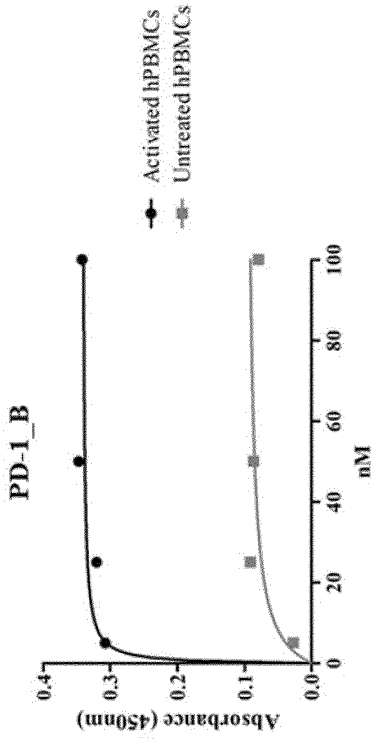


Figure 3

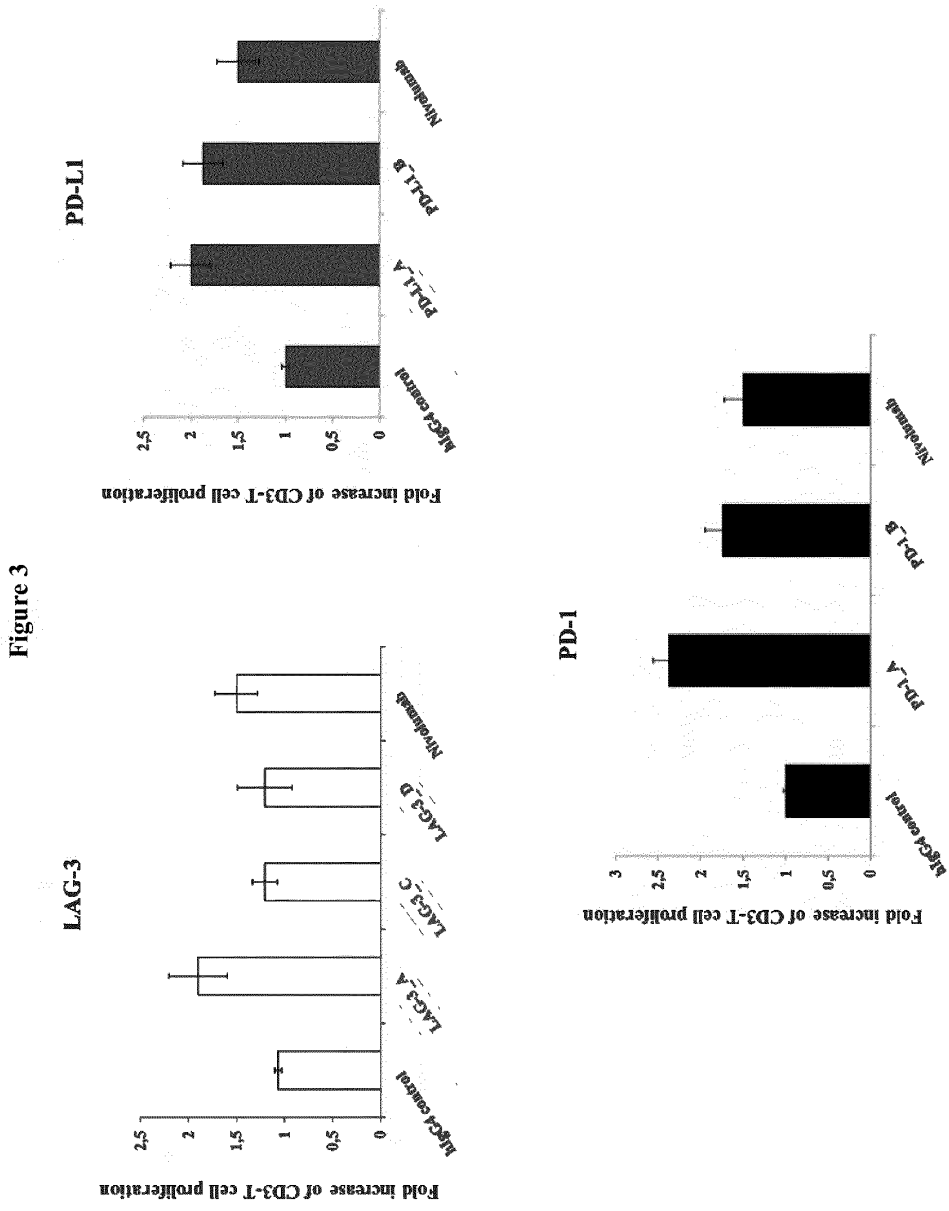

LAG-3
Fold increase of CD3-T cell proliferation
2,5
2
1,5
1
0,5
0
MgCk control
LAG-3_A
LAG-3_C
LAG-3_D
Nivolumab
PD-L1
Fold increase of CD3-T cell proliferation
2,5
2
1,5
1
0,5
0
MgCk control
PD-L1_A
PD-L1_B
Nivolumab
PD-1
Fold increase of CD3-T cell proliferation
3
2,5
2
1,5
1
0,5
0
MgCk control
PD-1_A
PD-1_B
Nivolumab

Figure 4

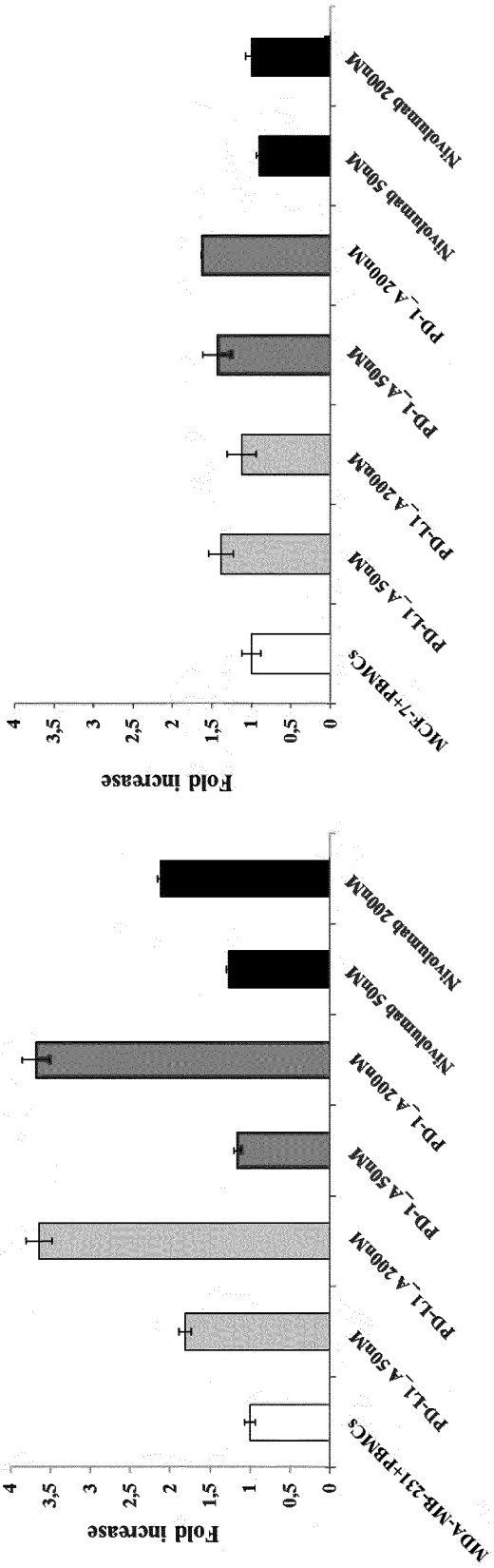

MDA-MB-231+PBMCs
PD-L1_A 50nM
PD-L1_A 200nM
PD-1_A 50nM
PD-1_A 200nM
Nivolumab 50nM
Nivolumab 200nM
Fold increase
0
0,5
1
1,5
2
2,5
3
3,5
4
MCF-7+PBMCs
PD-L1_A 50nM
PD-L1_A 200nM
PD-1_A 50nM
PD-1_A 200nM
Nivolumab 50nM
Nivolumab 200nM
Fold increase
0
0,5
1
1,5
2
2,5
3
3,5
4

Figure 5

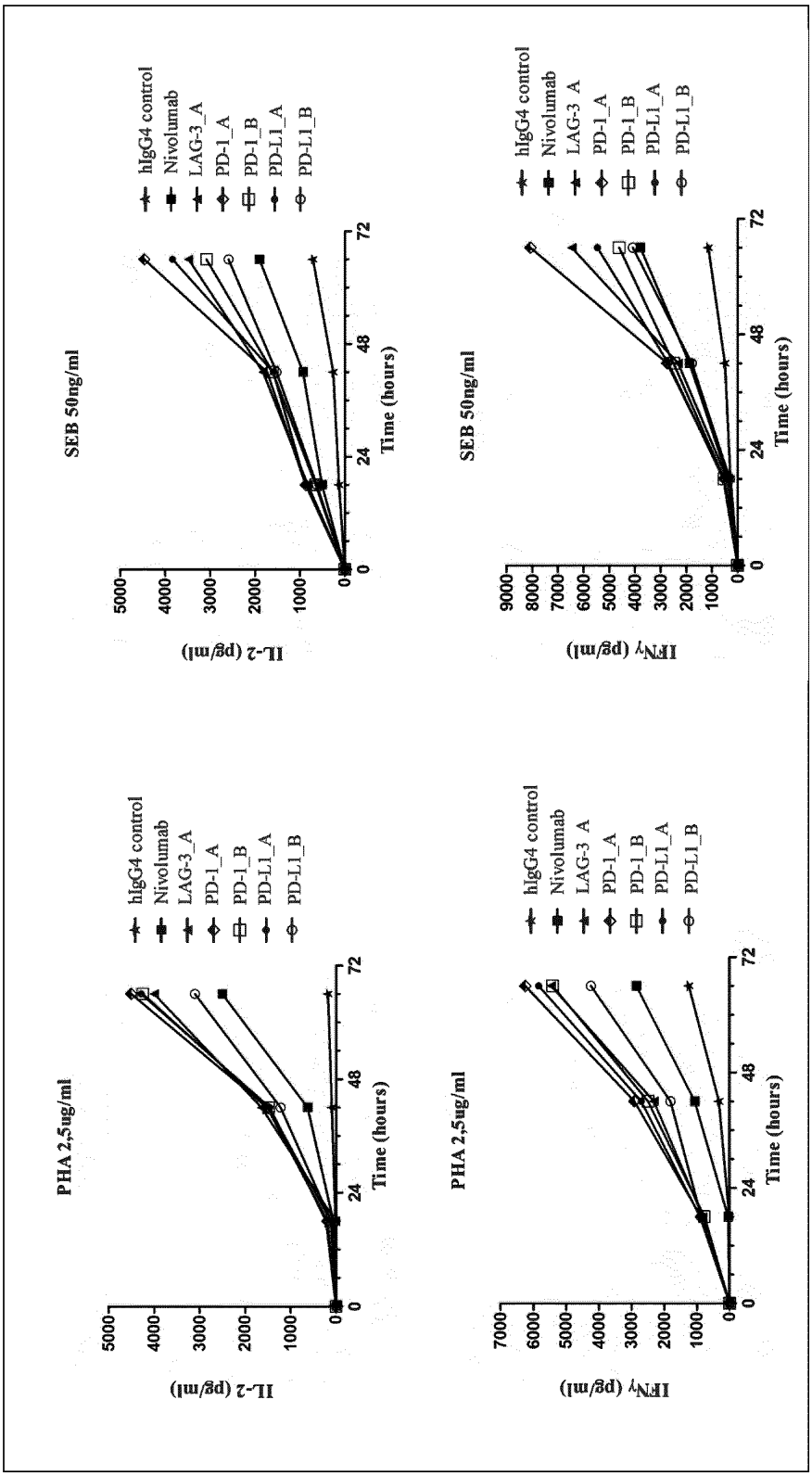

SEB 50ng/ml
IL-2 (pg/ml)
Time (hours)
hIgG4 control
Nivolumab
LAG-3_A
PD-1_A
PD-1_B
PD-L1_A
PD-L1_B
SEB 50ng/ml
IFNγ (pg/ml)
Time (hours)
PHA 2,5ug/ml
IL-2 (pg/ml)
Time (hours)
PHA 2,5ug/ml
IFNγ (pg/ml)
Time (hours)

Figure 6

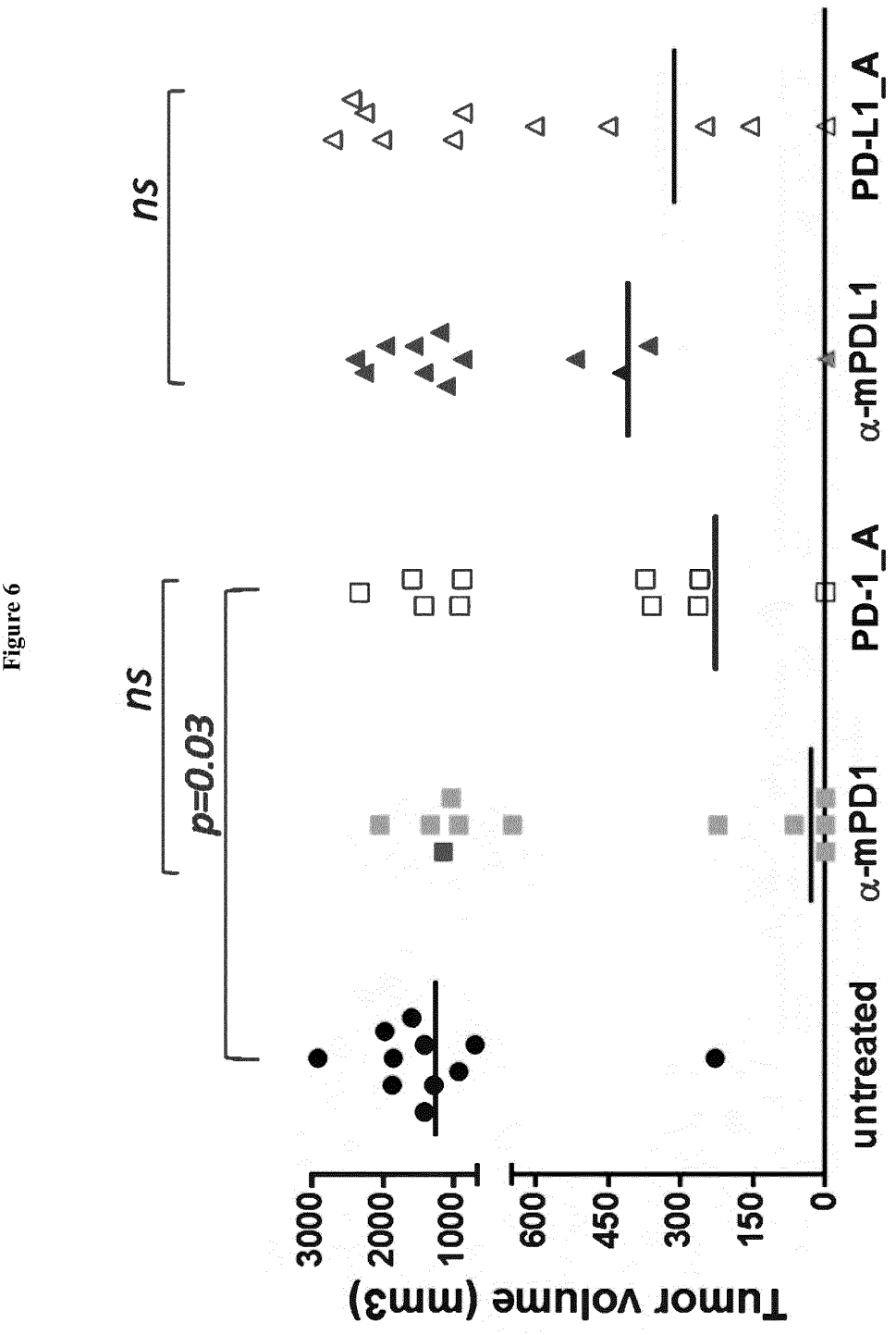

Tumor volume (mm3)
3000
2000
1000
600
450
300
150
0
ns
p=0.03
ns
untreated
α-mPD1
PD-1_A
α-mPDL1
PD-L1_A

Figure 7

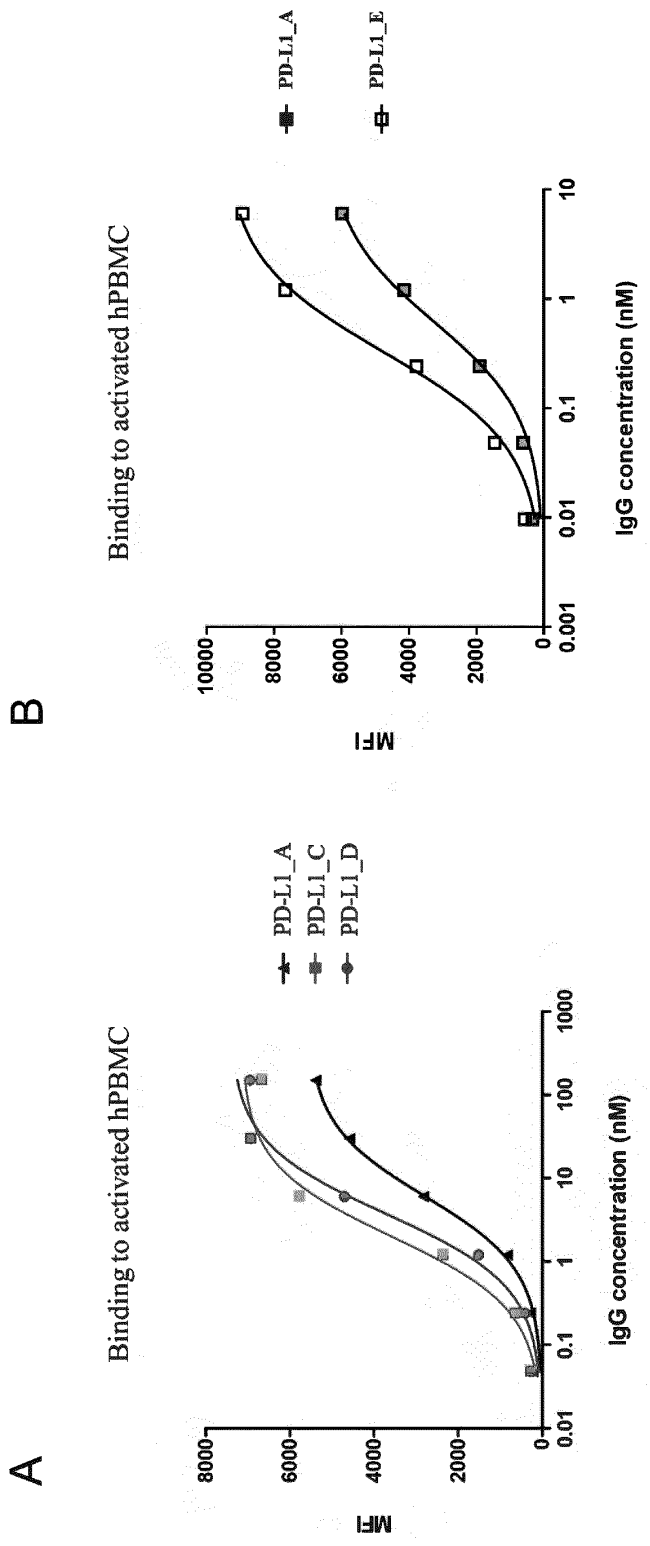
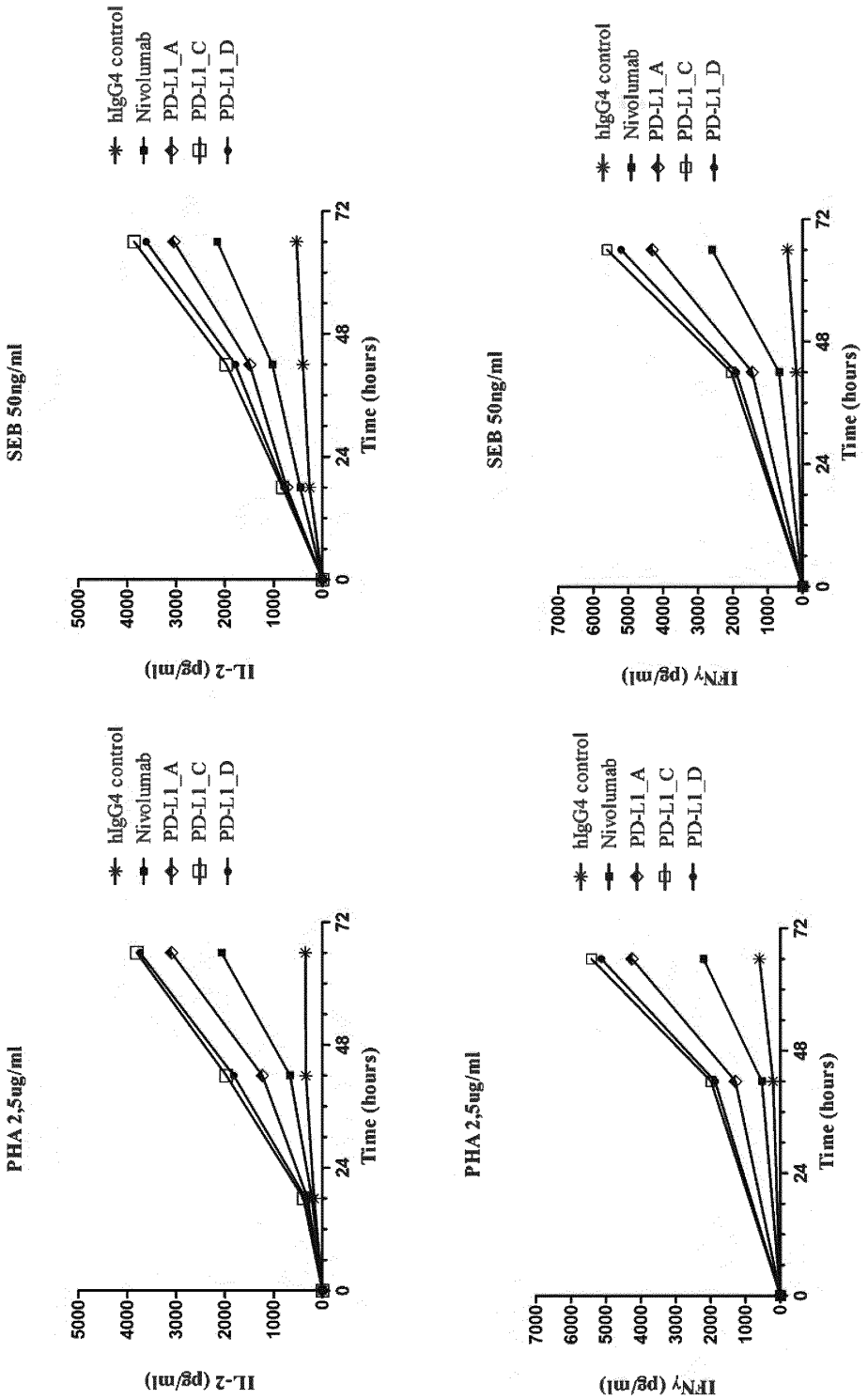

A
Binding to activated hPBMC
PD-L1_A
PD-L1_C
PD-L1_D
MFI
IgG concentration (nM)
B
Binding to activated hPBMC
PD-L1_A
PD-L1_E
MFI
IgG concentration (nM)

Figure 8


SEB 50ng/ml
PHA 2,5ug/ml
IL-2 (pg/ml)
IFNγ (pg/ml)
Time (hours)
hIgG4 control
Nivolumab
PD-L1_A
PD-L1_C
PD-L1_D
0
1000
2000
3000
4000
5000
6000
7000
24
48
72