FIG. 1A

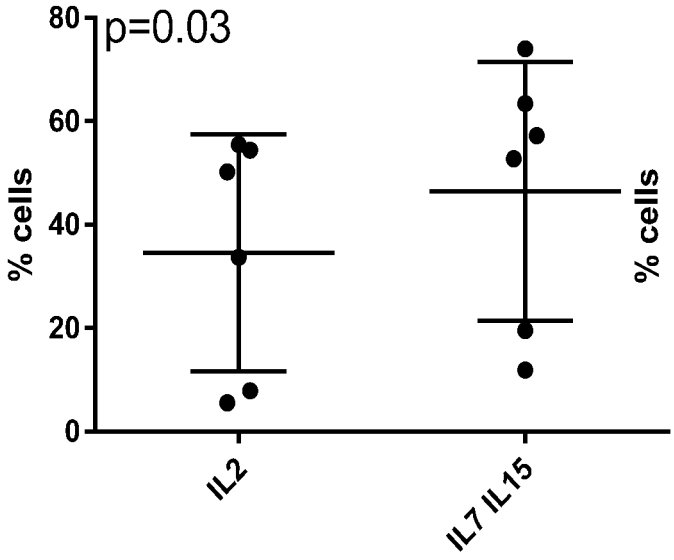


FIG. 1B

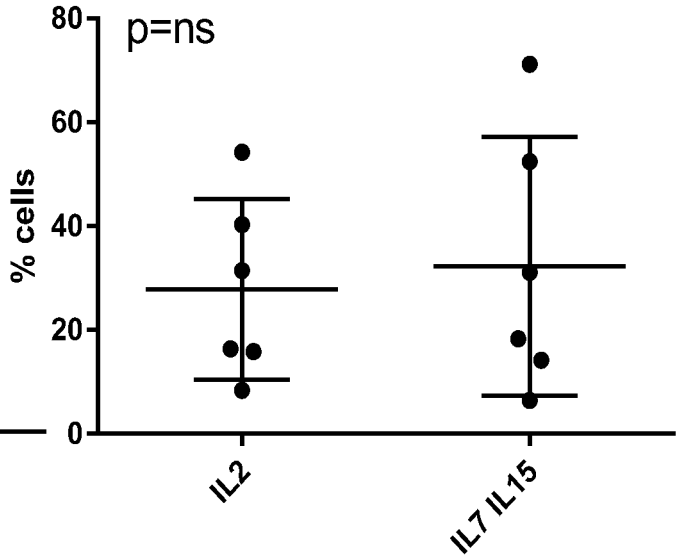


FIG. 1C

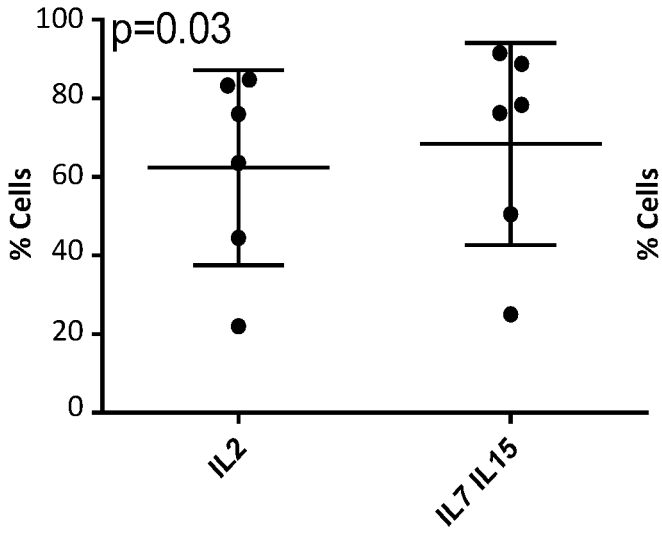
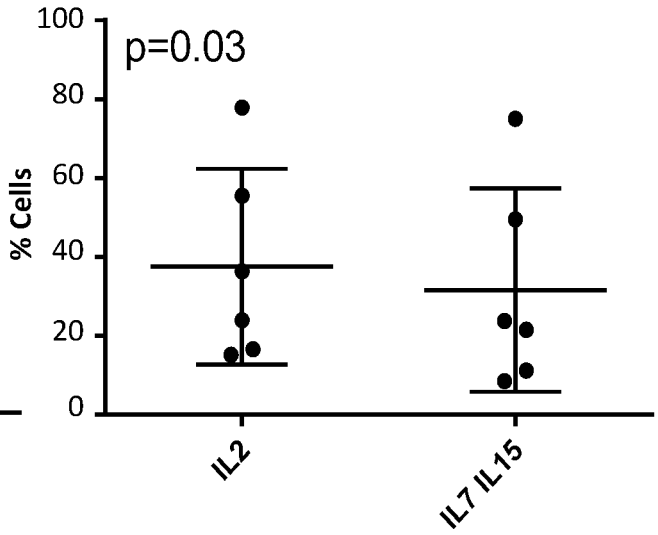


FIG. 1D



NS = Not significant

FIG. 1E

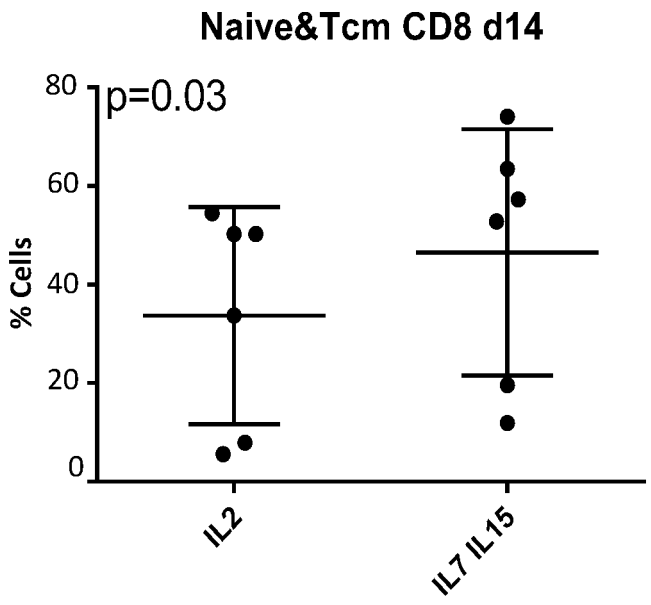

Naive&Tcm CD8 d14
p=0.03
% Cells
80
60
40
20
0
IL2
IL7 IL15

FIG. 1F

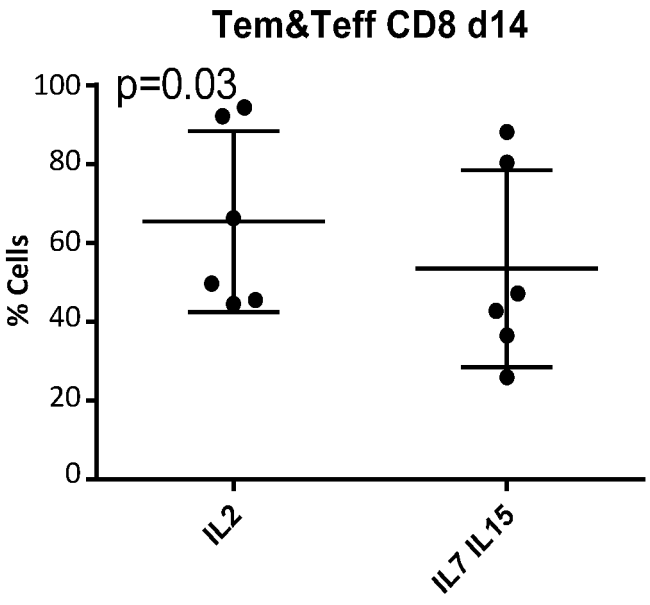

Tem&Teff CD8 d14
p=0.03
% Cells
100
80
60
40
20
0
IL2
IL7 IL15

FIG. 2A

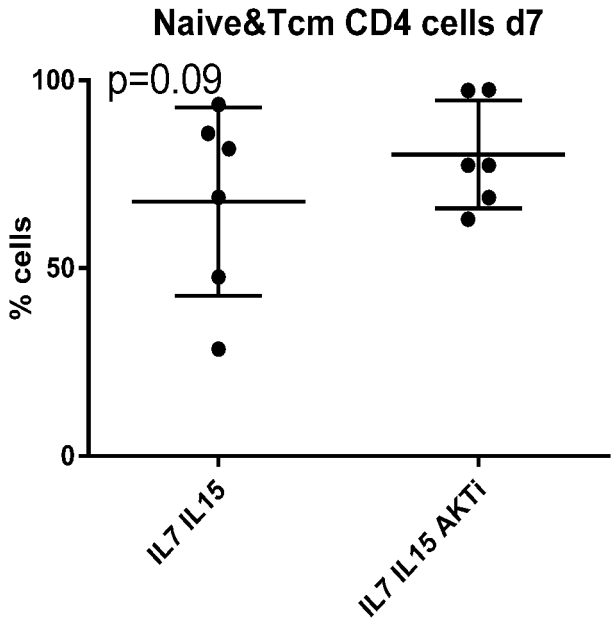


FIG. 2B

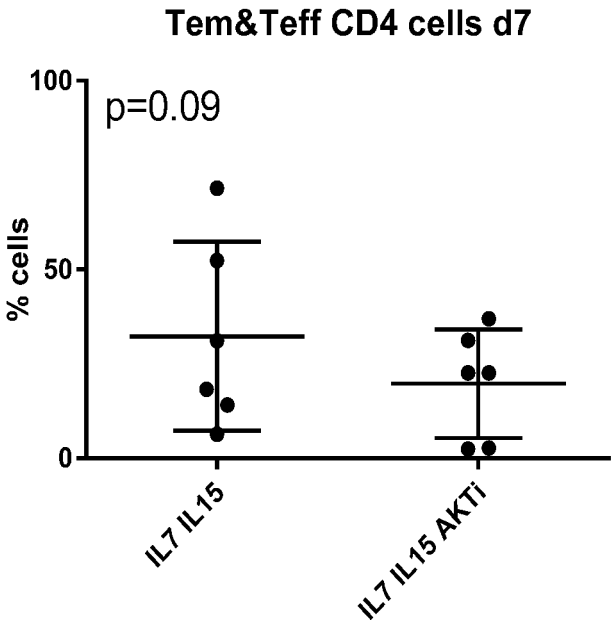


FIG. 2C

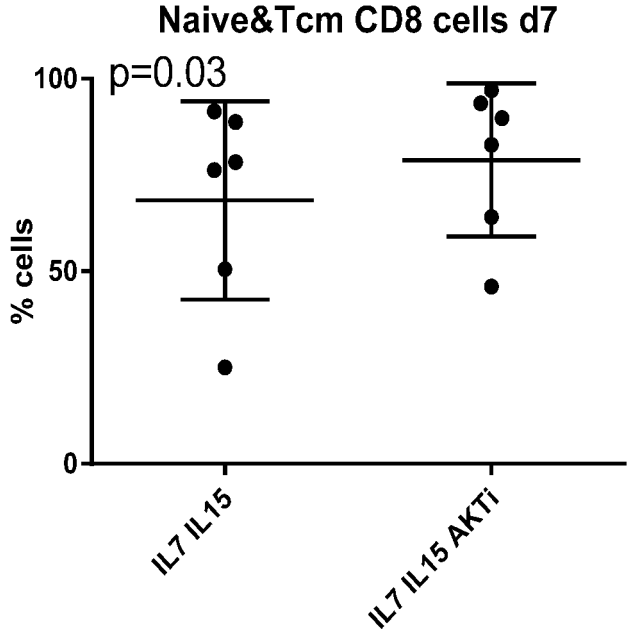
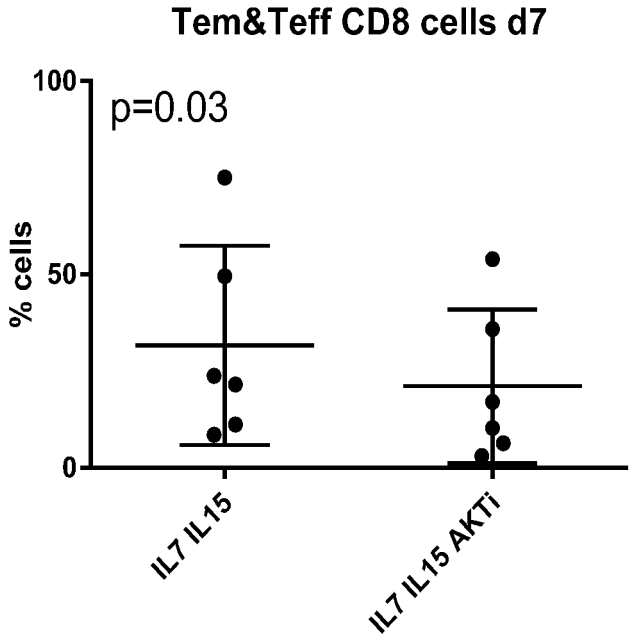


FIG. 2D



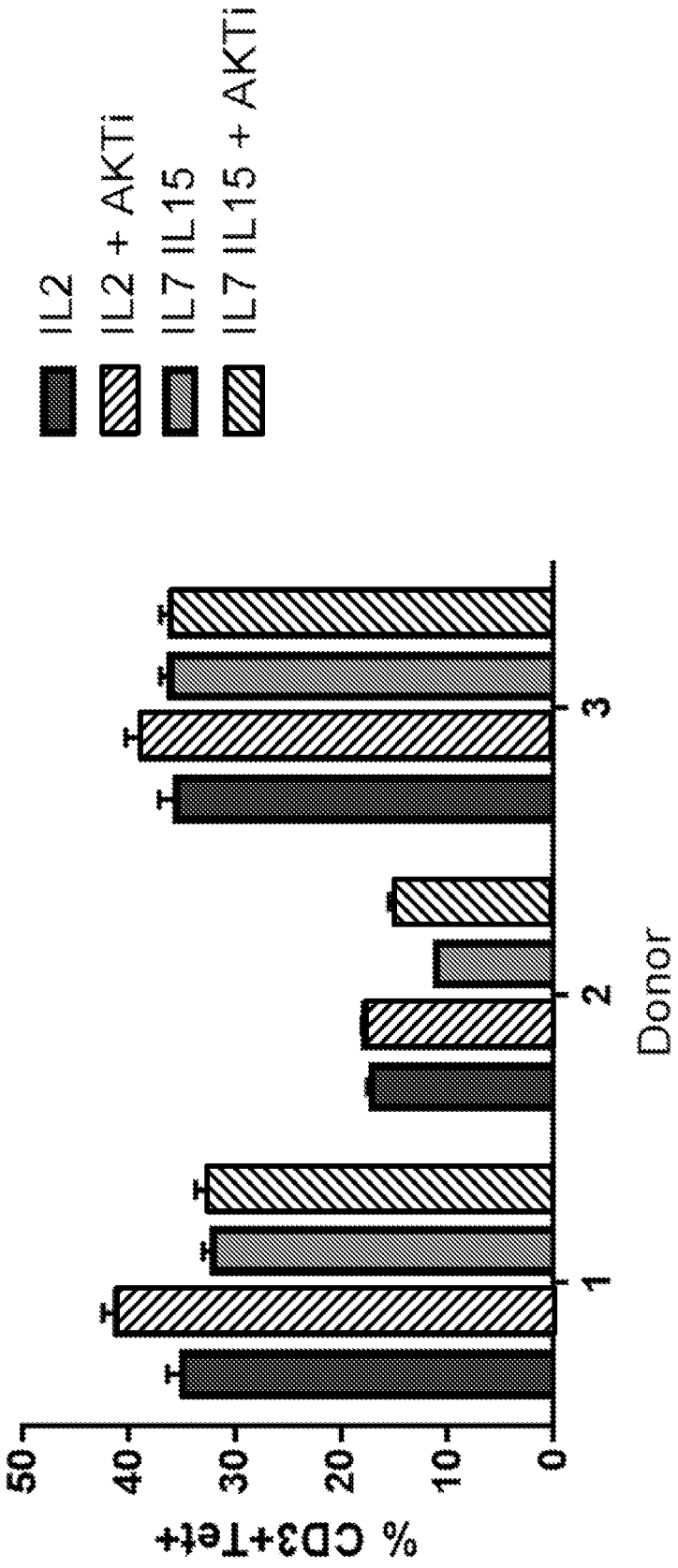


Figure 3A: Transduction Efficiency

FIG. 3B – Tetramer MFI

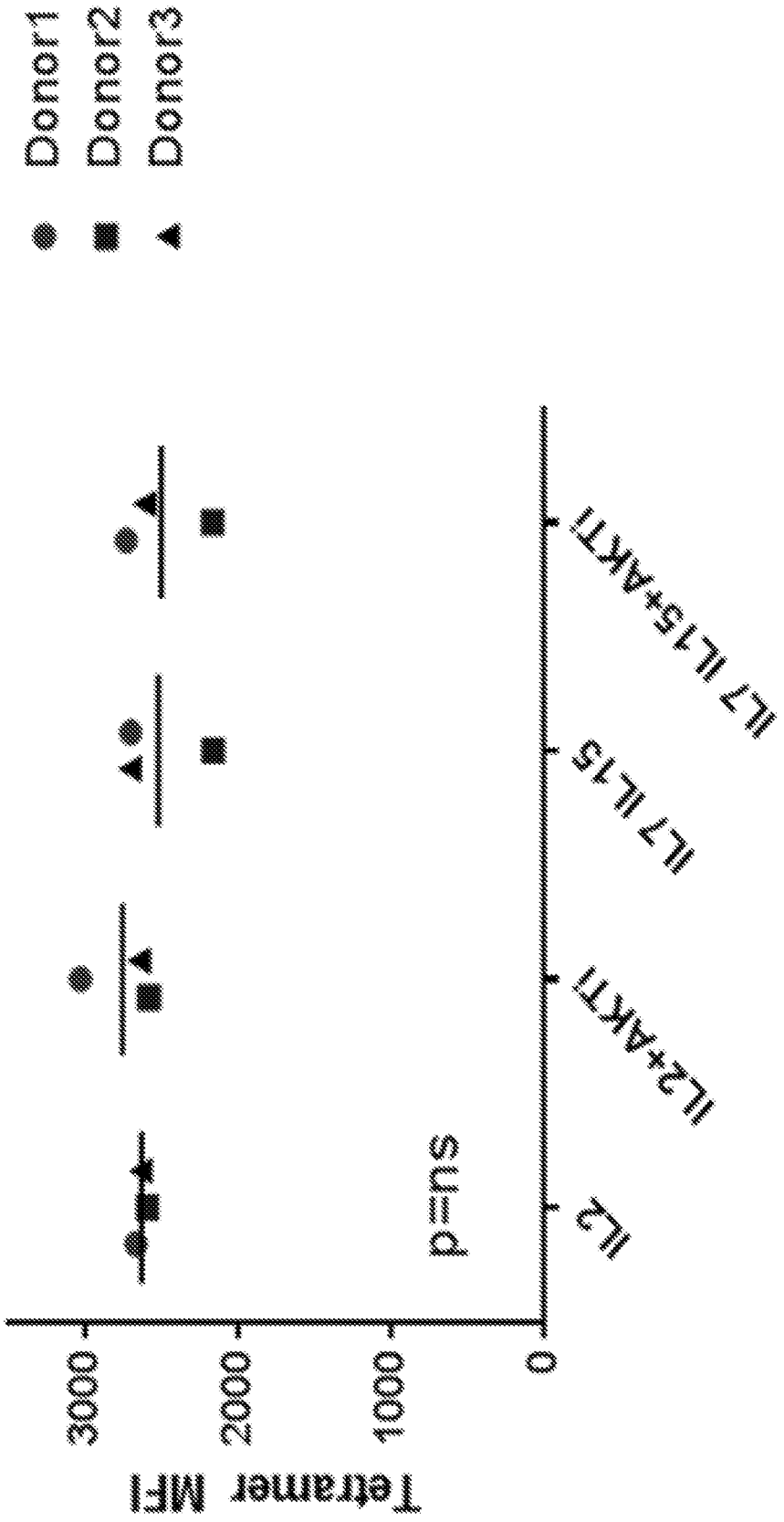


FIG. 4A

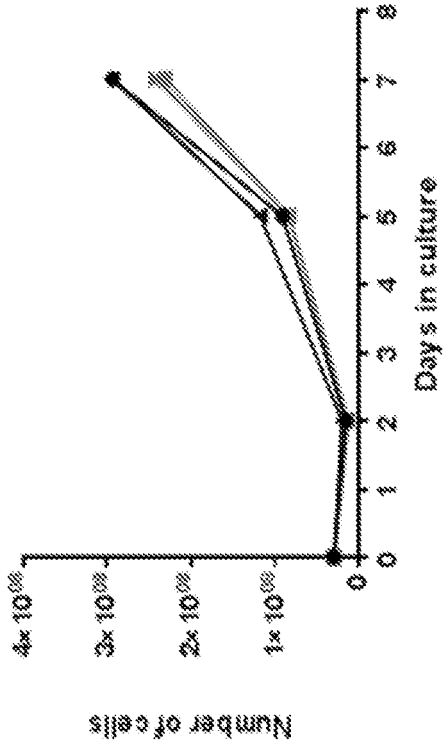


FIG. 4B

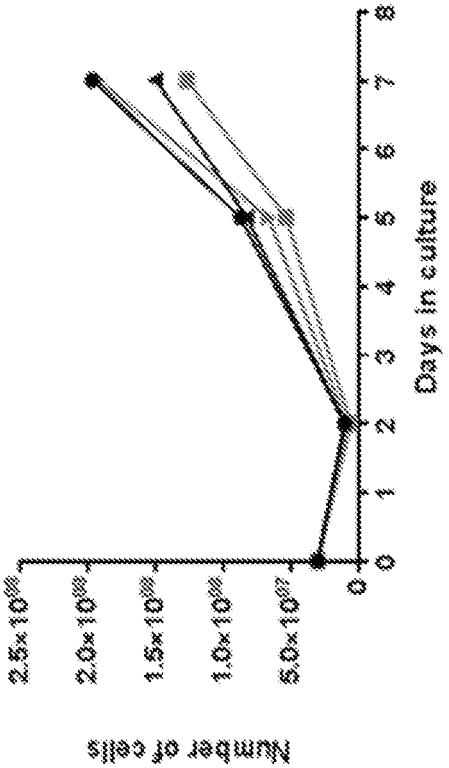


FIG. 4C

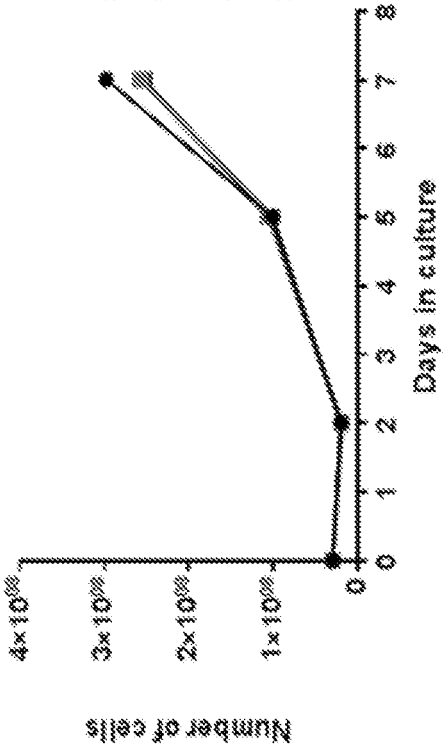


FIG. 4D

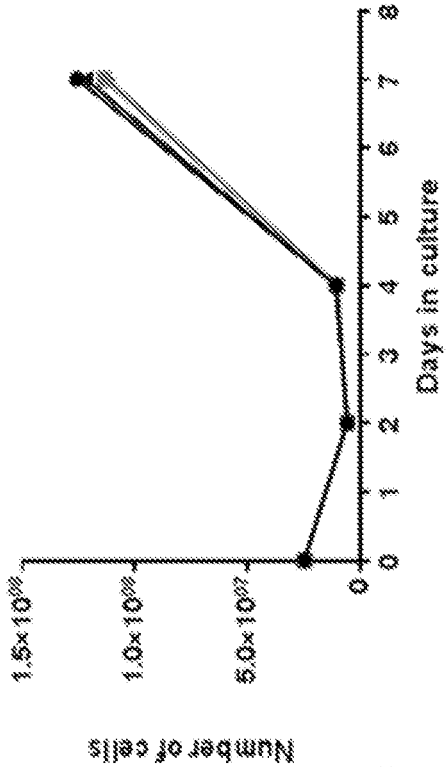


FIG. 5A
Donor 1

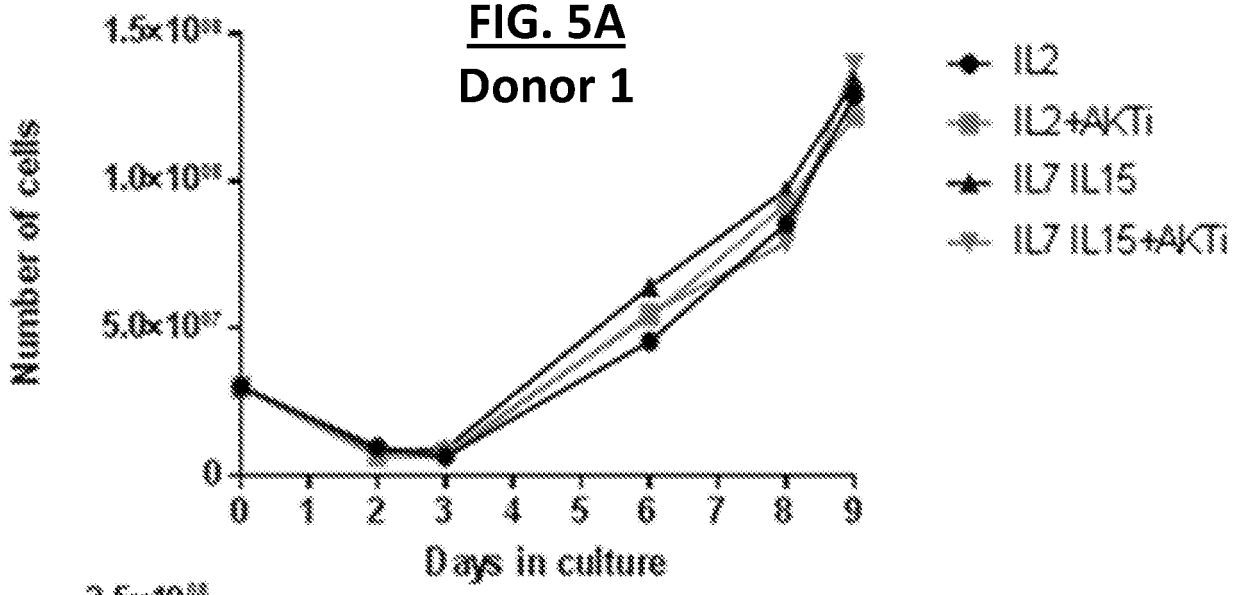


FIG. 5B
Donor 2

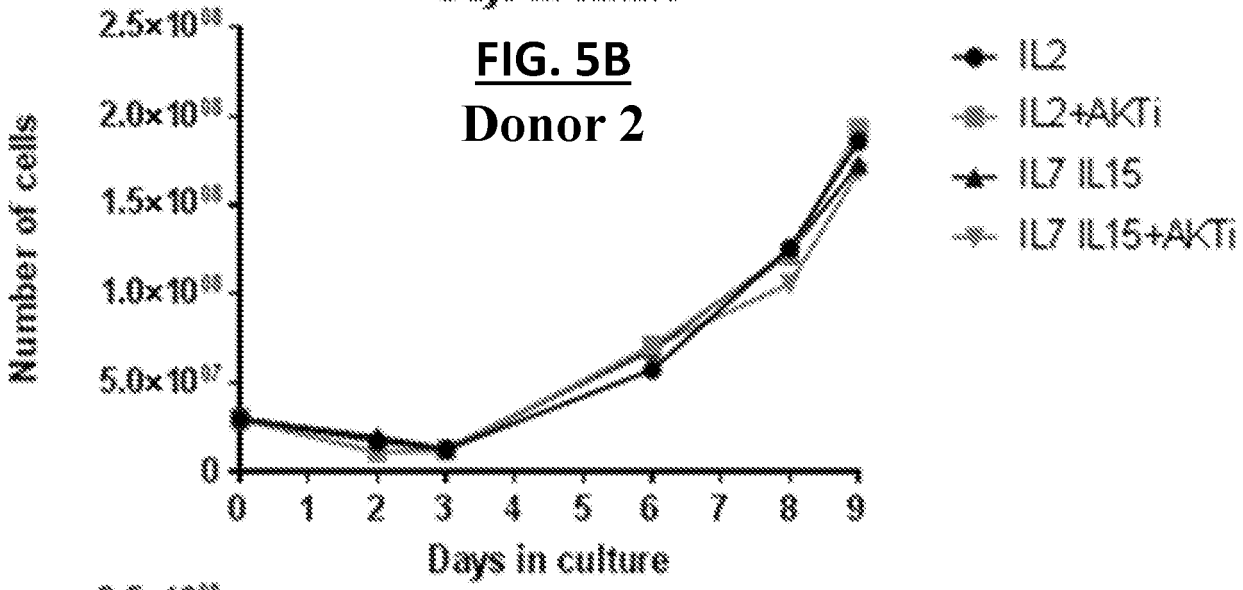


FIG. 5C
Donor 3

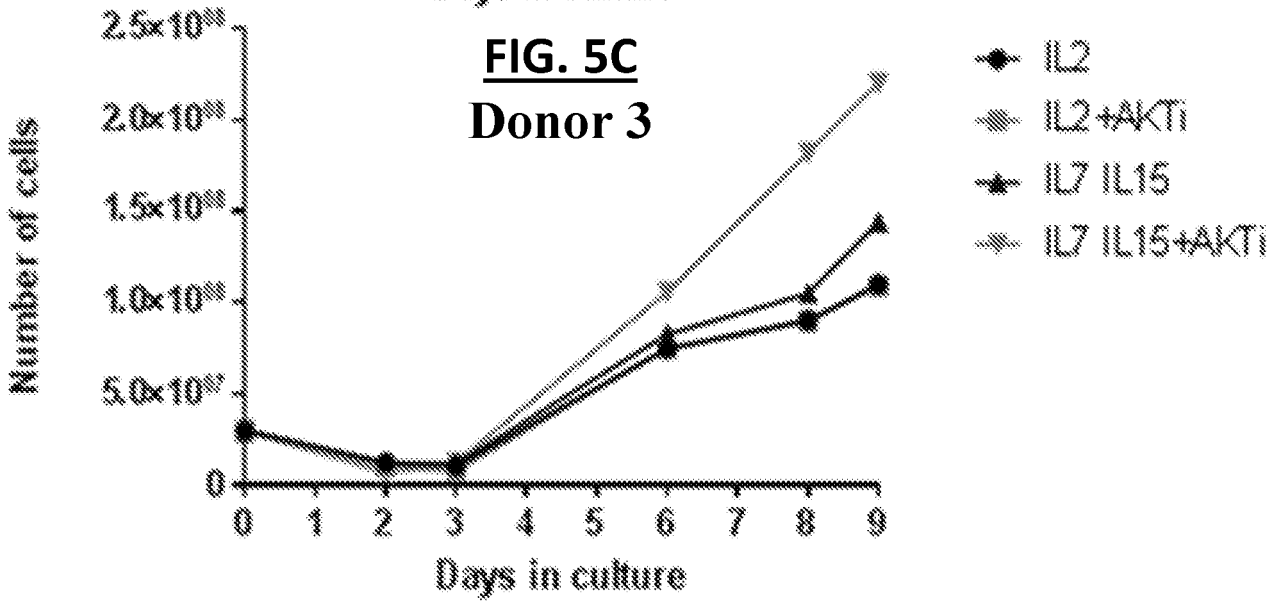


FIG. 6A

Donor 1

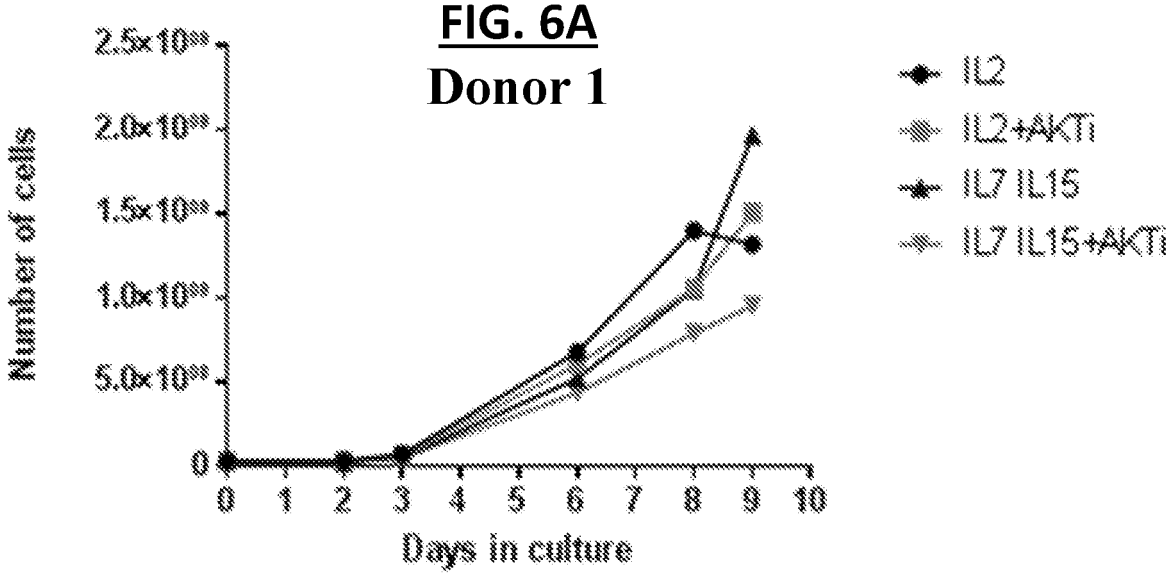


FIG. 6B

Donor 2

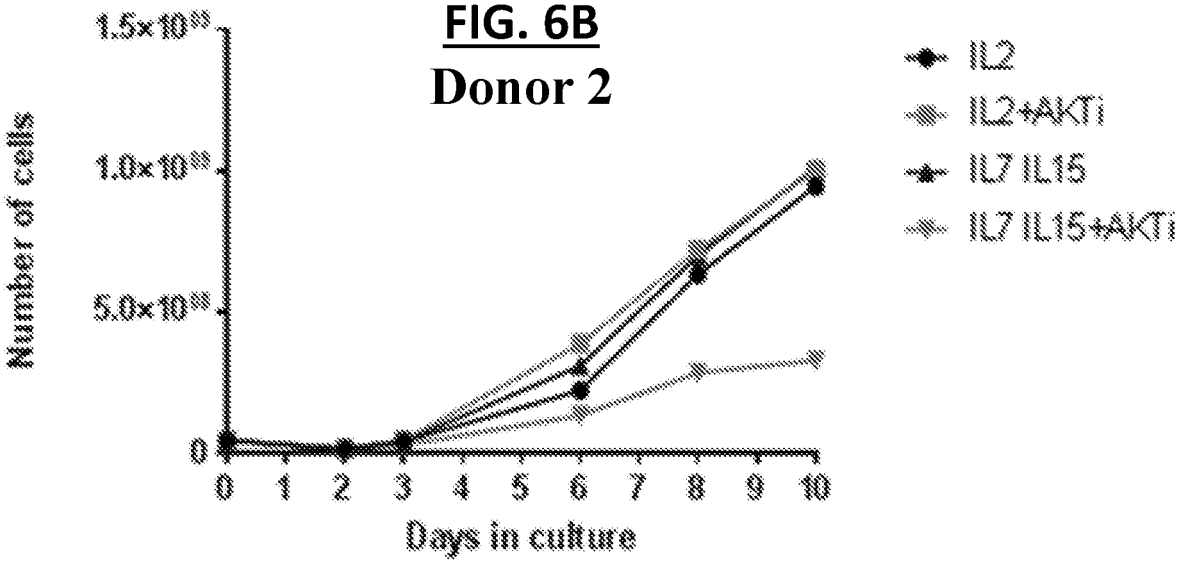


FIG. 6C

Donor 3

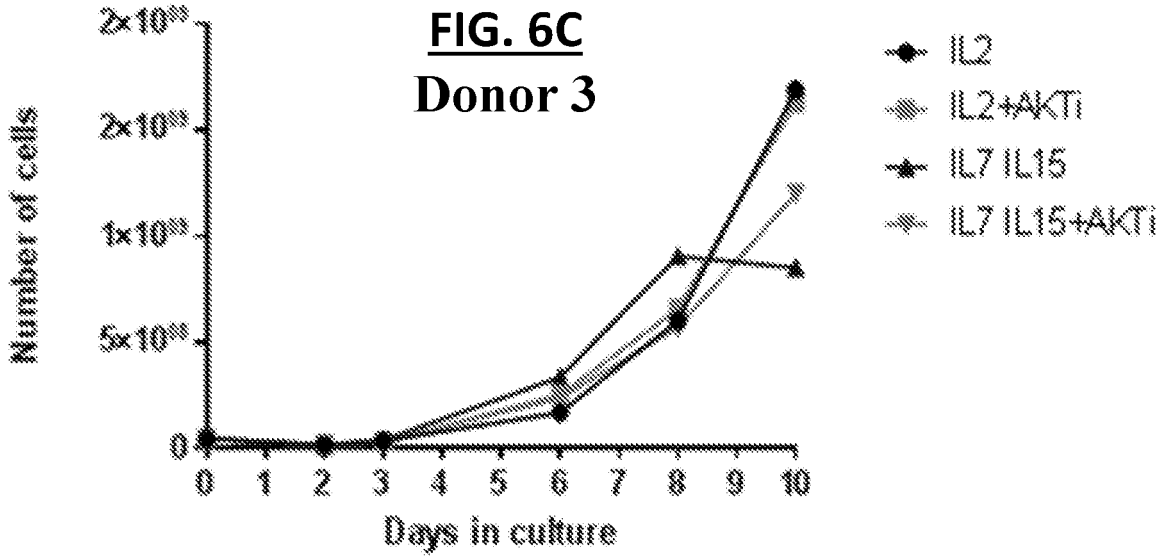


FIG. 7A

Donor 1

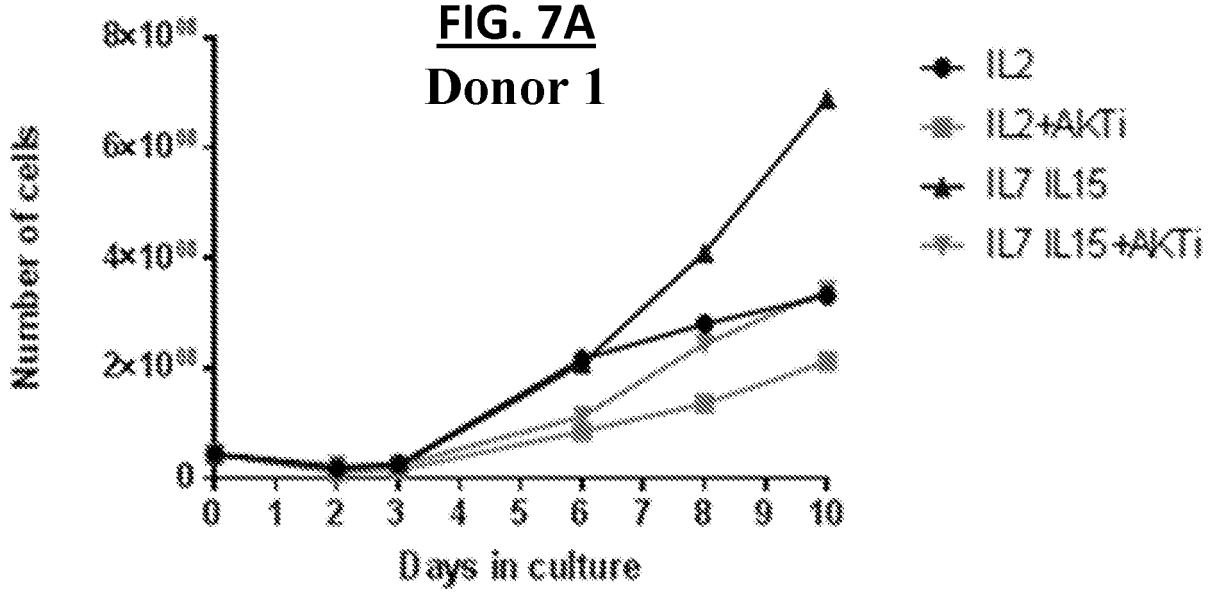


FIG. 7B

Donor 2

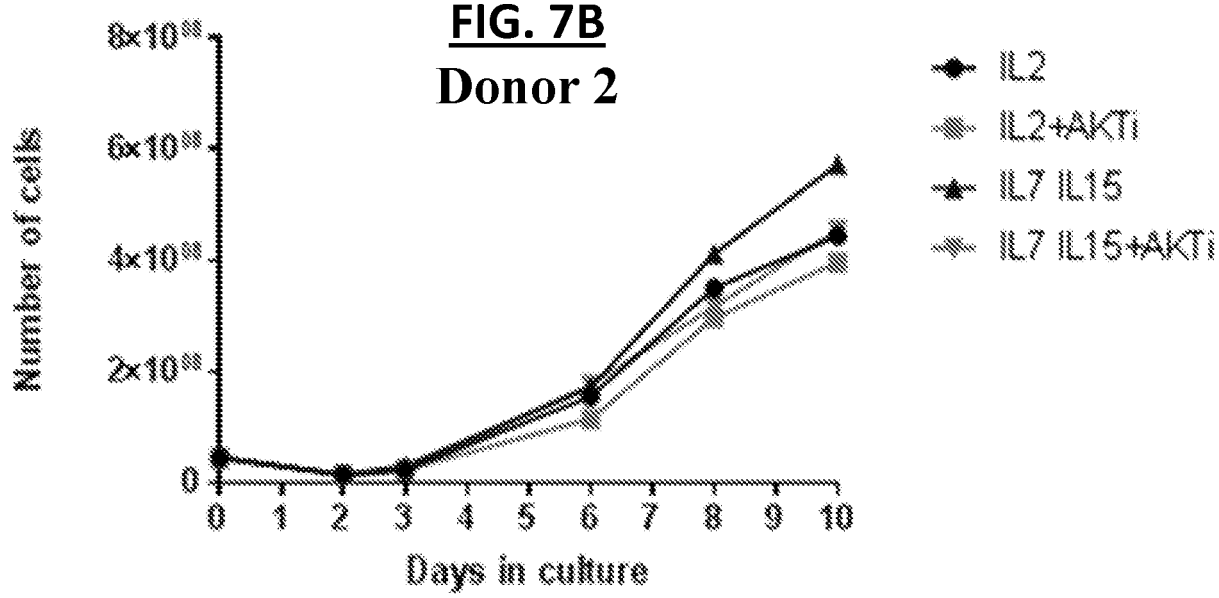


FIG. 7C

Donor 3

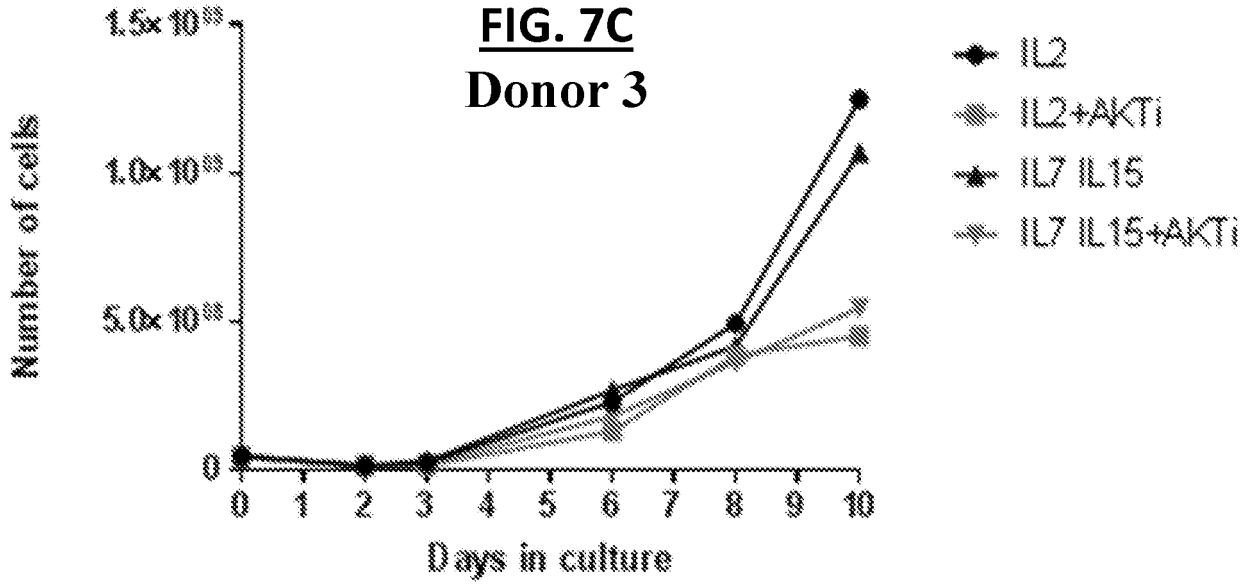


FIG. 8A
Donor 1

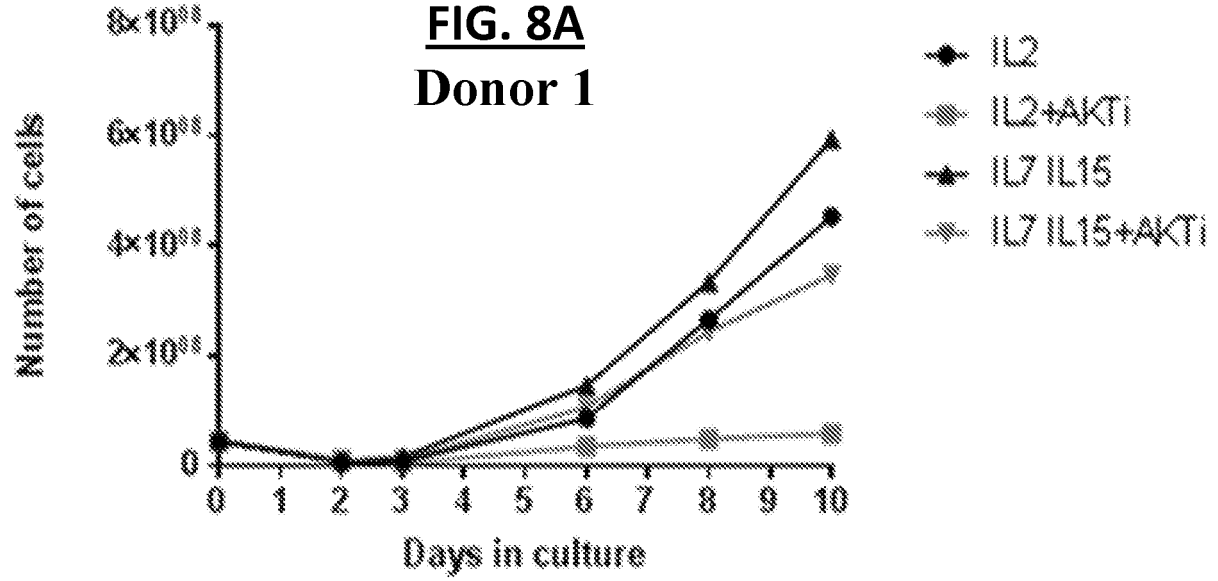


FIG. 8B
Donor 2

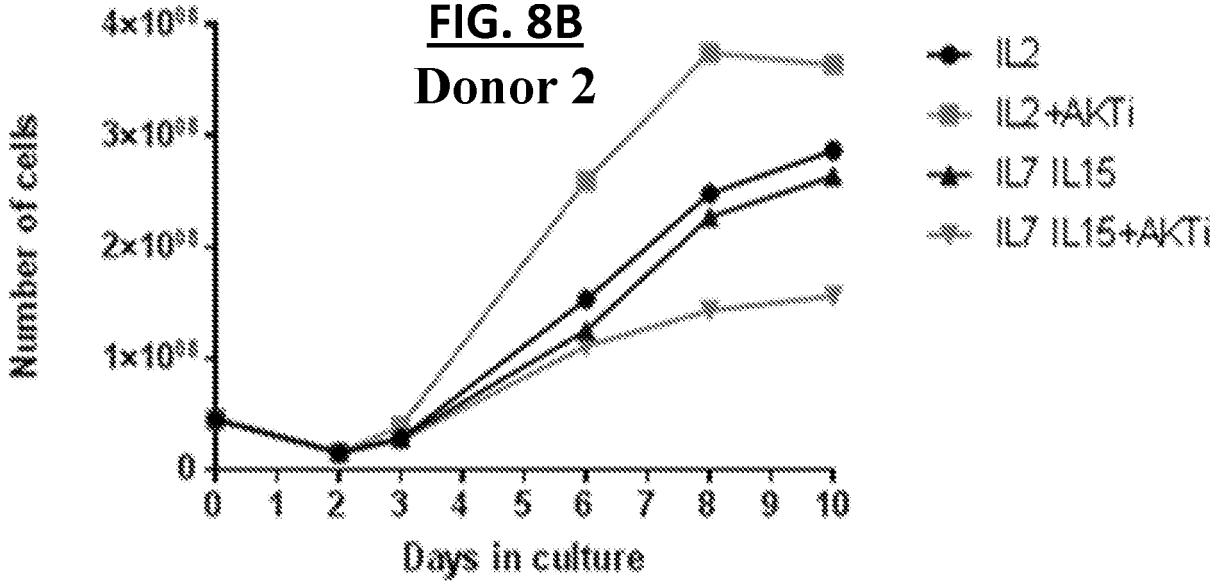


FIG. 8C
Donor 3

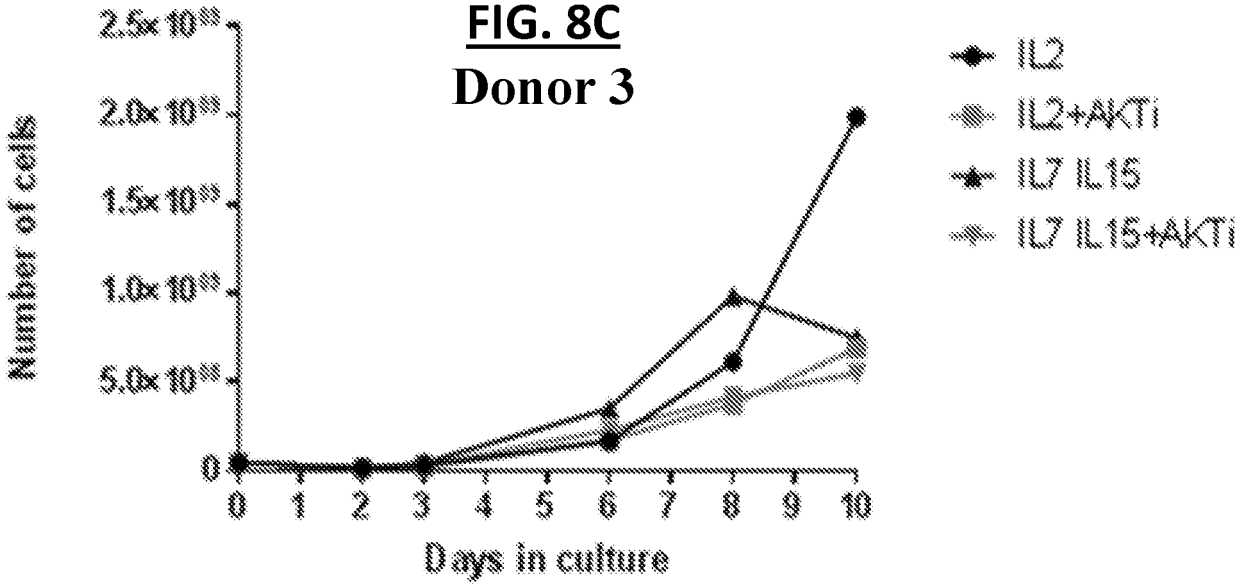


FIG. 9A

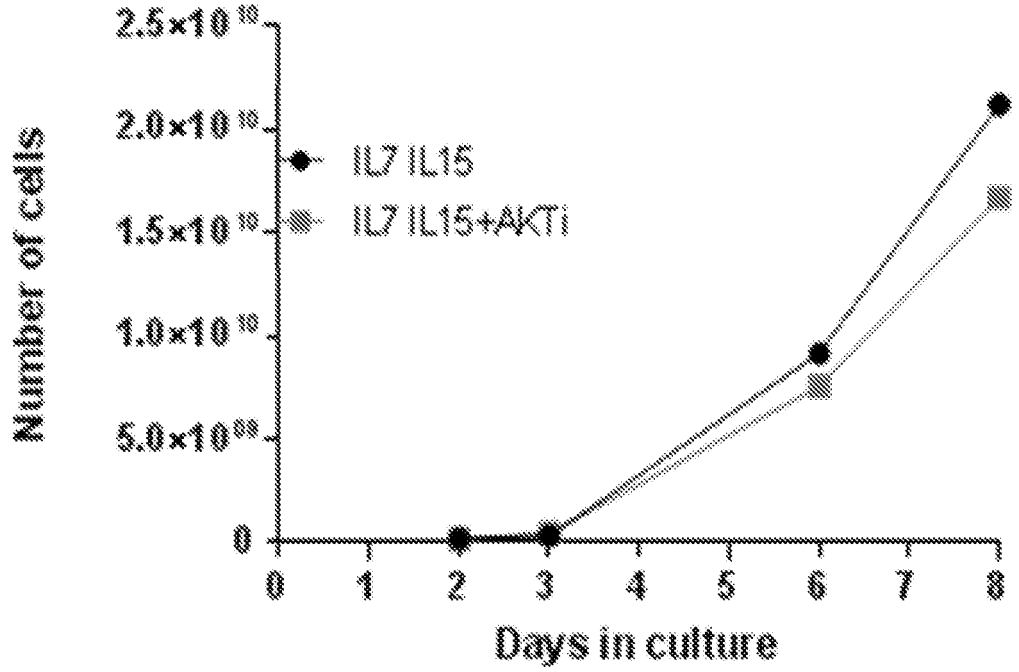

2.5×10 10
2.0×10 10
1.5×10 10
1.0×10 10
5.0×10 09
0
Number of cells
IL7 IL15
IL7 IL15+AKTi
0 1 2 3 4 5 6 7 8
Days in culture

FIG. 9B

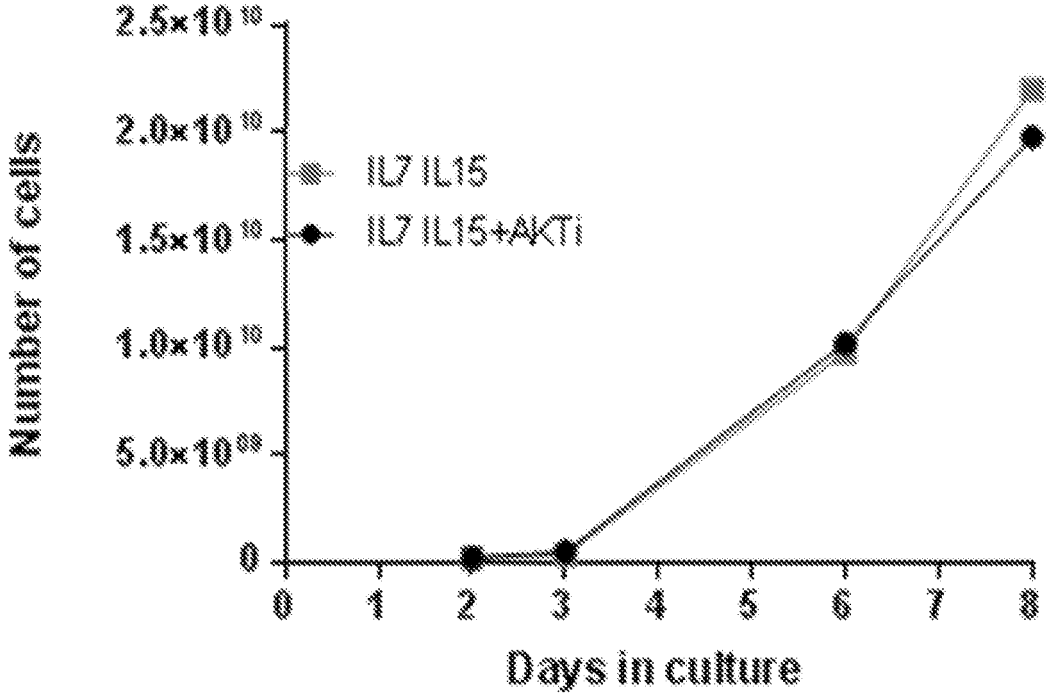

2.5×10 10
2.0×10 10
1.5×10 10
1.0×10 10
5.0×10 09
0
Number of cells
IL7 IL15
IL7 IL15+AKTi
0 1 2 3 4 5 6 7 8
Days in culture

FIG. 9C

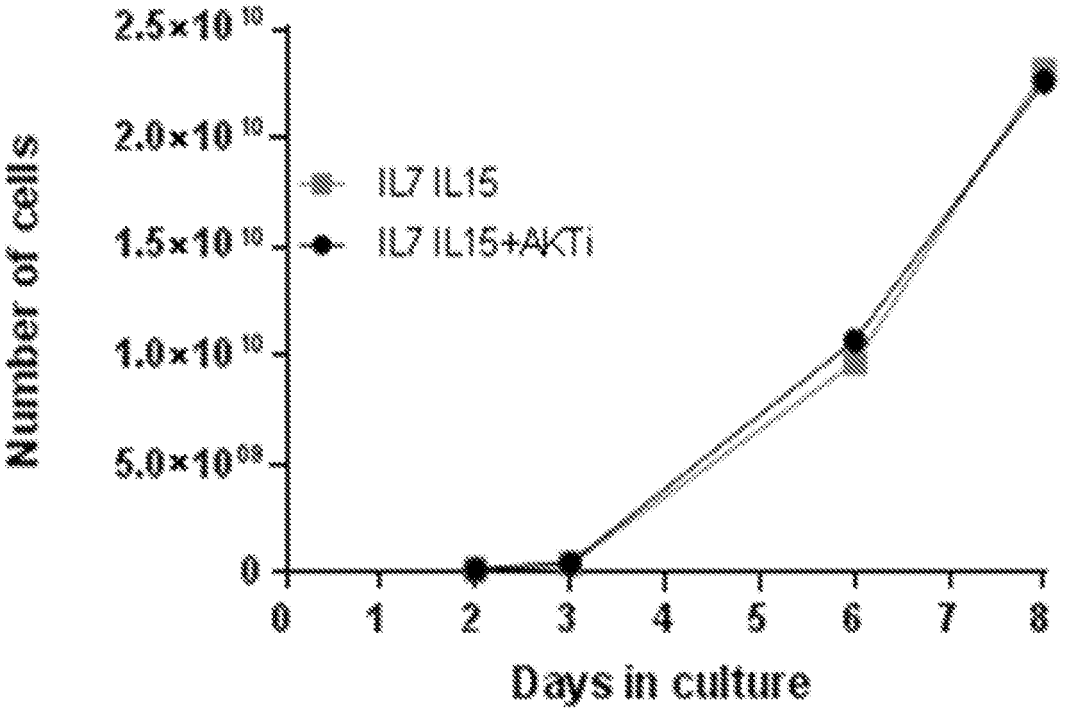

Number of cells
2.5×10 10
2.0×10 10
1.5×10 10
1.0×10 10
5.0×10 09
0
IL7 IL15
IL7 IL15+AKTi
0 1 2 3 4 5 6 7 8
Days in culture

FIG. 9D

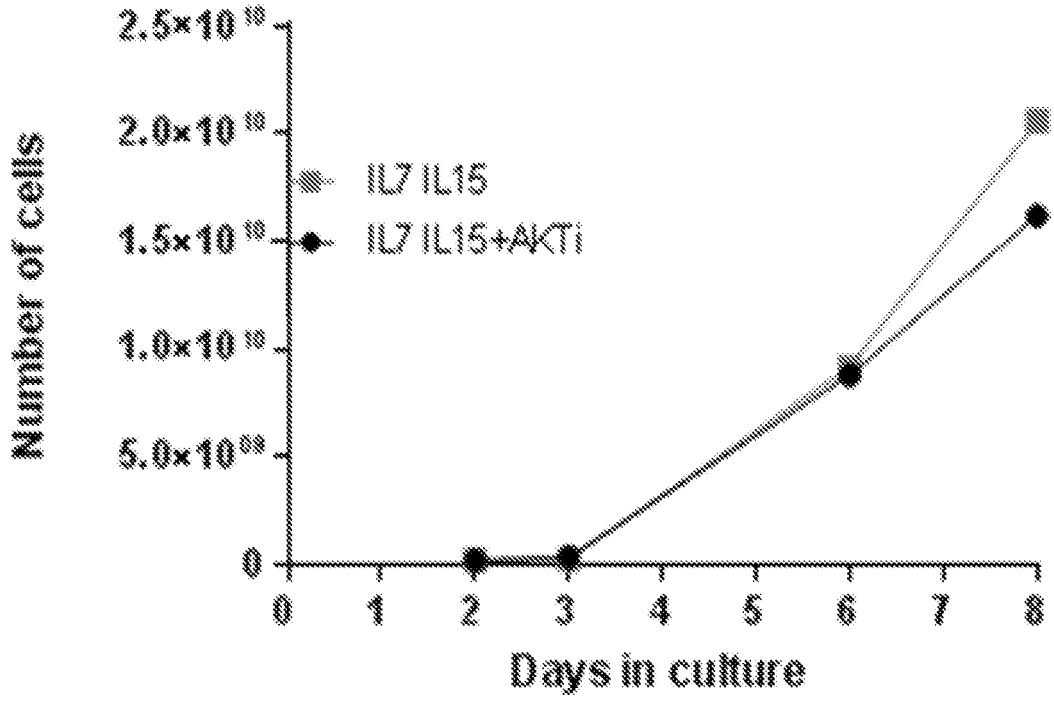

Number of cells
2.5×10 10
2.0×10 10
1.5×10 10
1.0×10 10
5.0×10 09
0
IL7 IL15
IL7 IL15+AKTi
0 1 2 3 4 5 6 7 8
Days in culture

FIG. 10

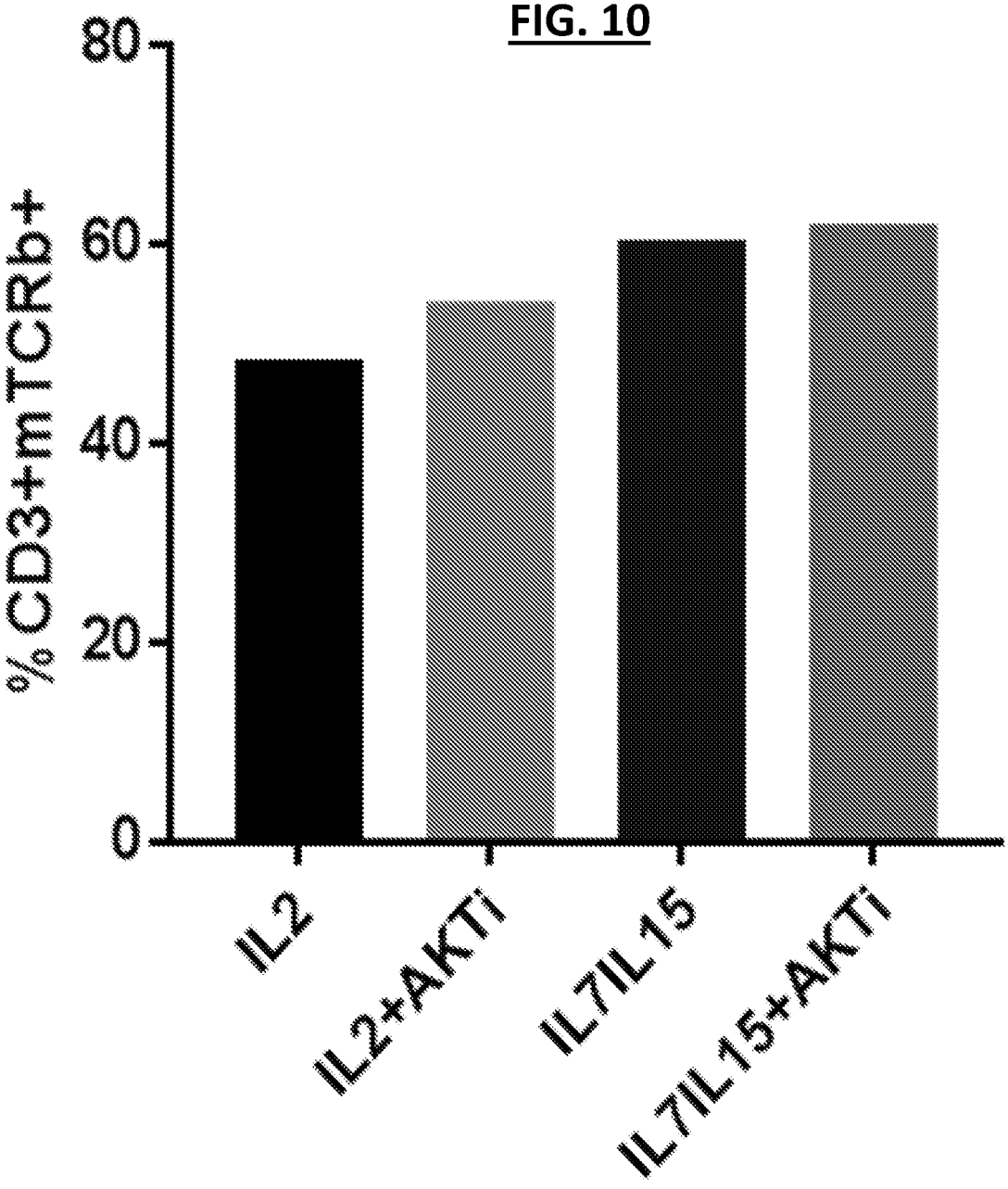


FIG. 11A

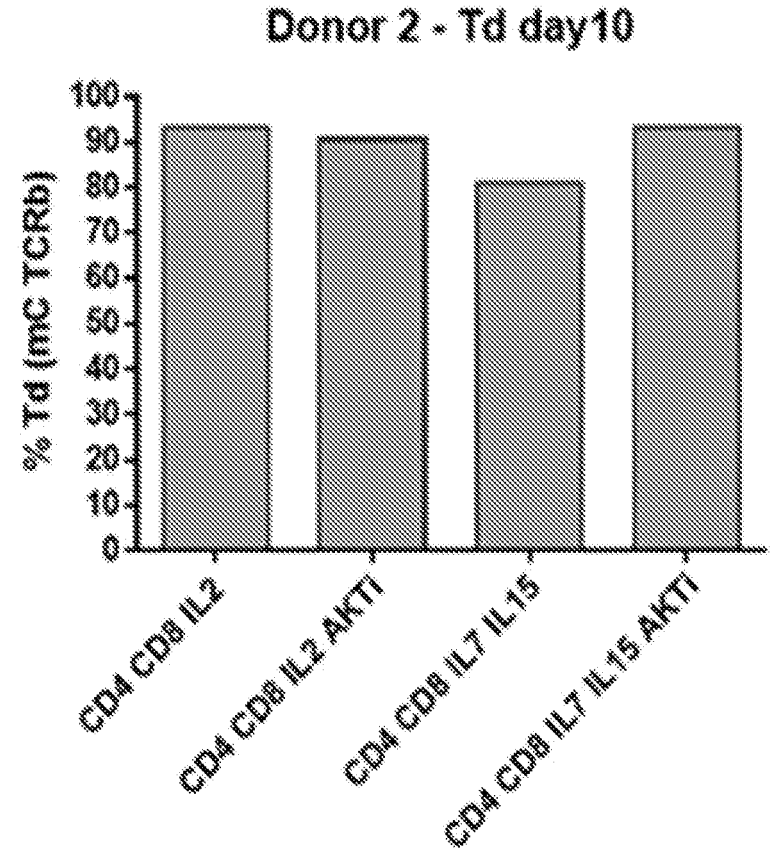


FIG. 11B

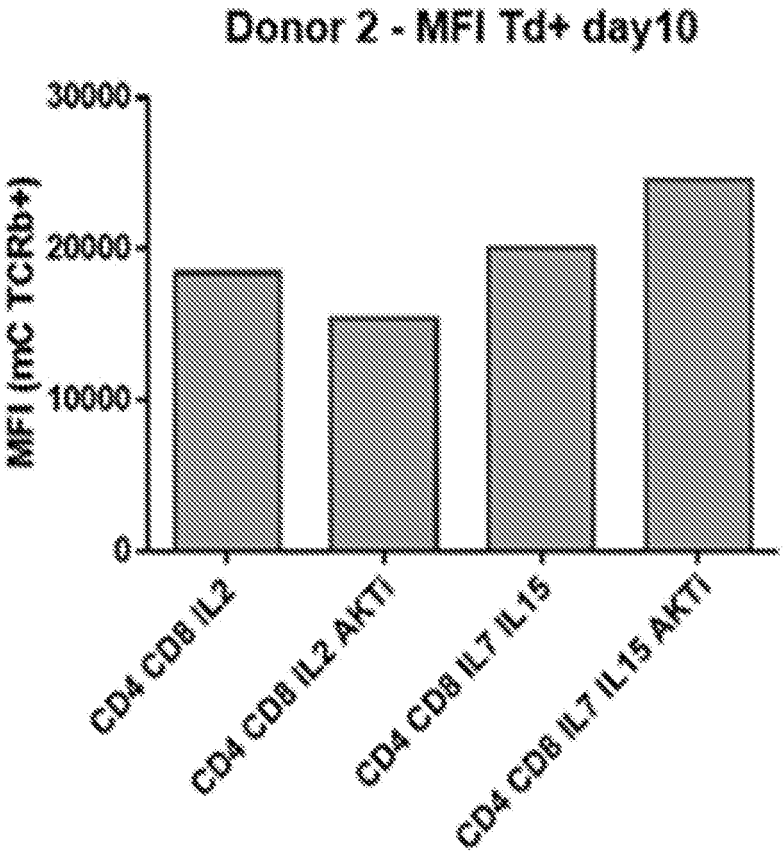


FIG. 11C

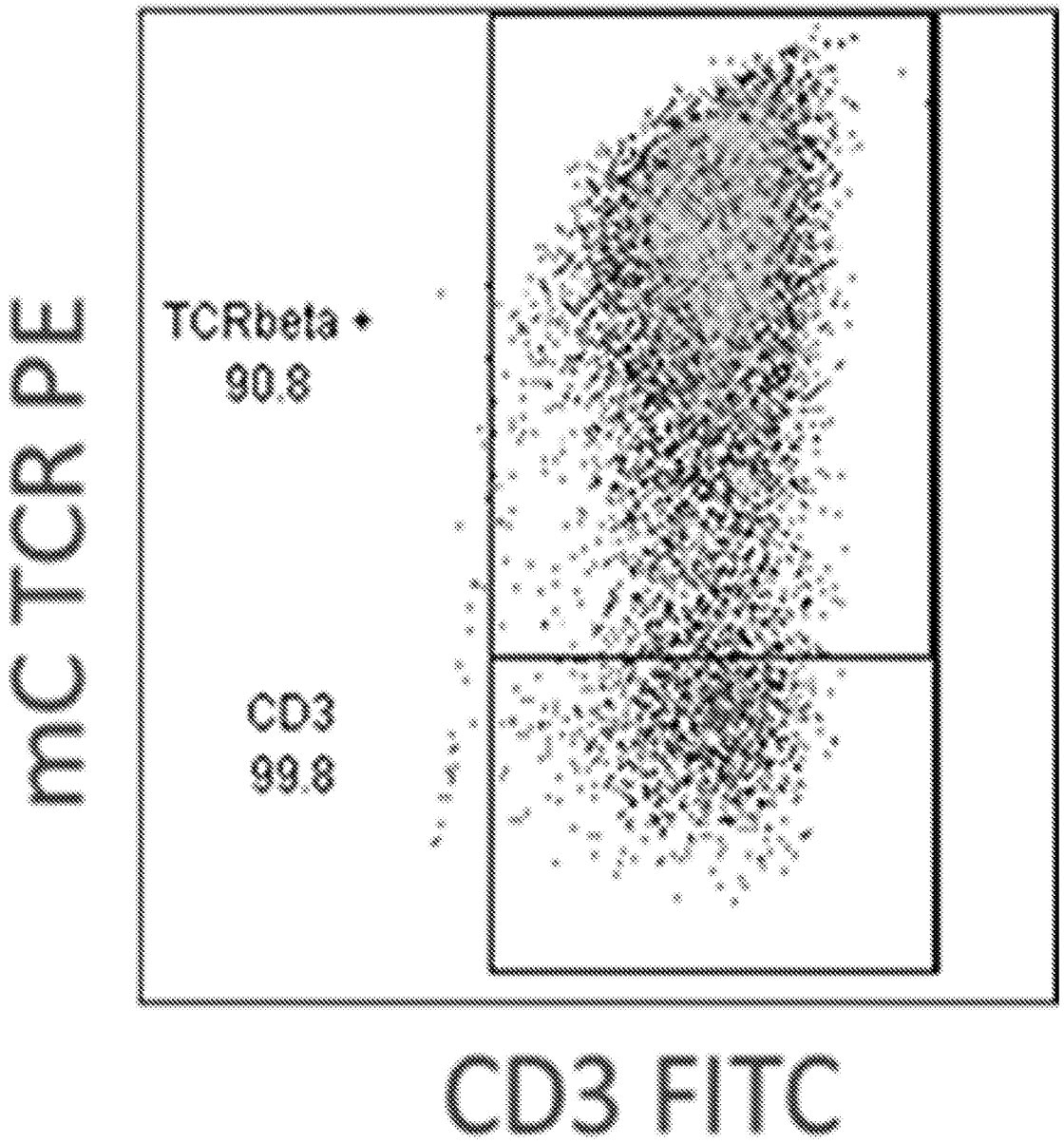


FIG. 11D

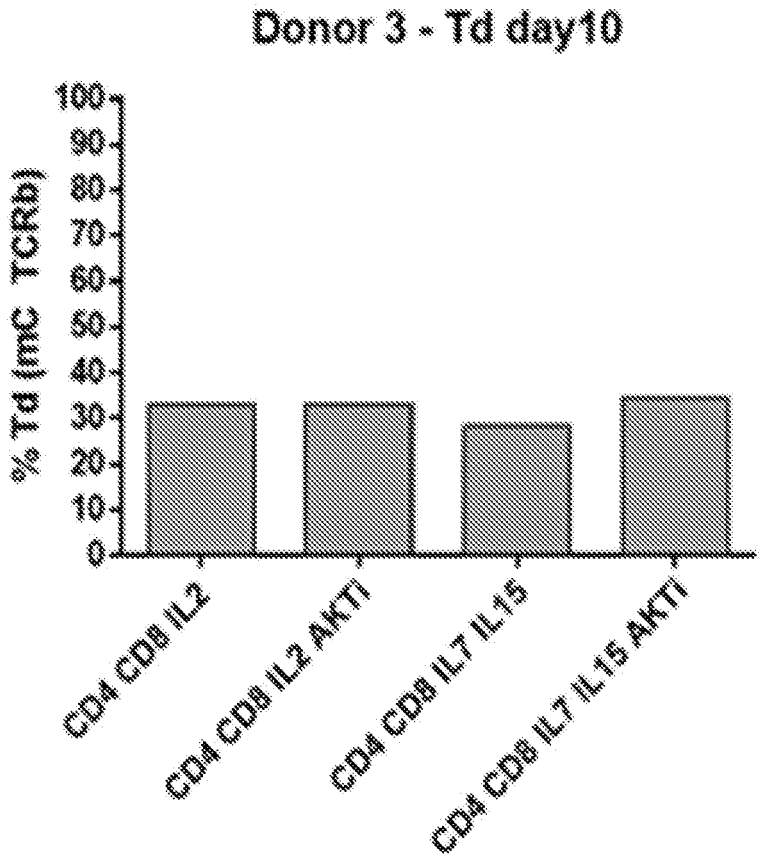


FIG. 11E

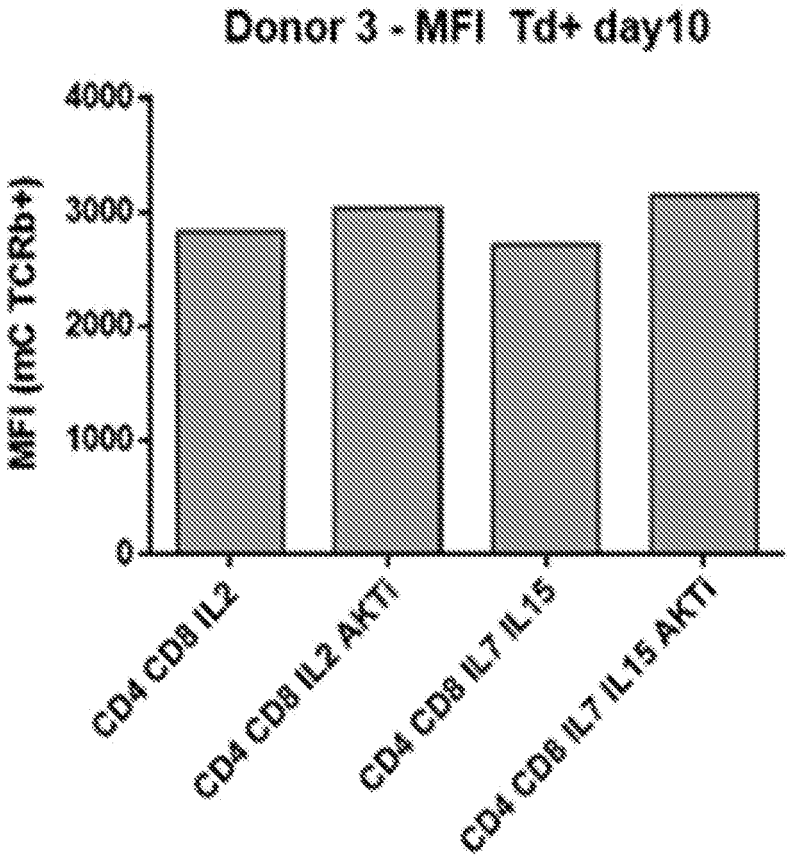


FIG. 11F

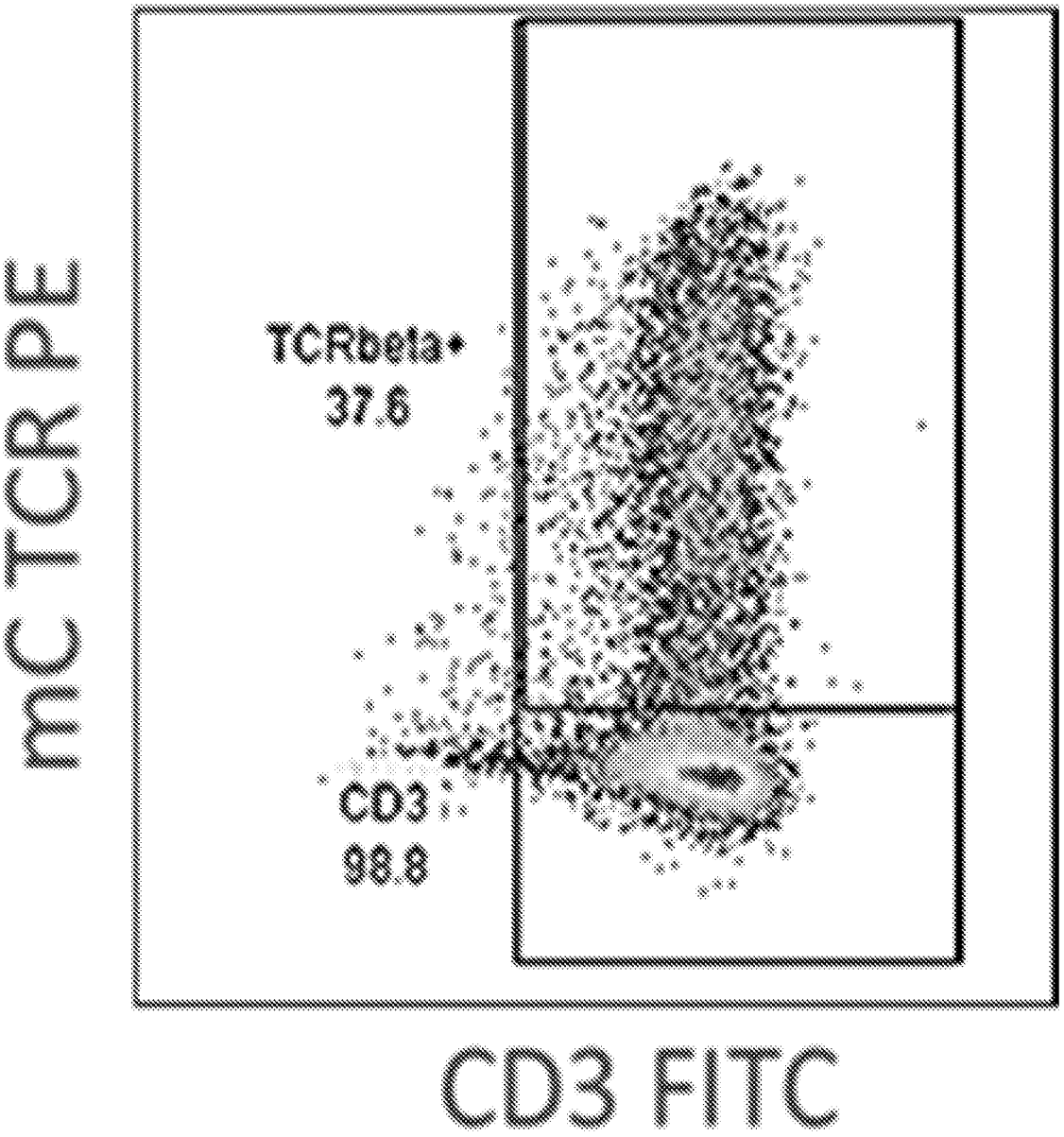


FIG. 12

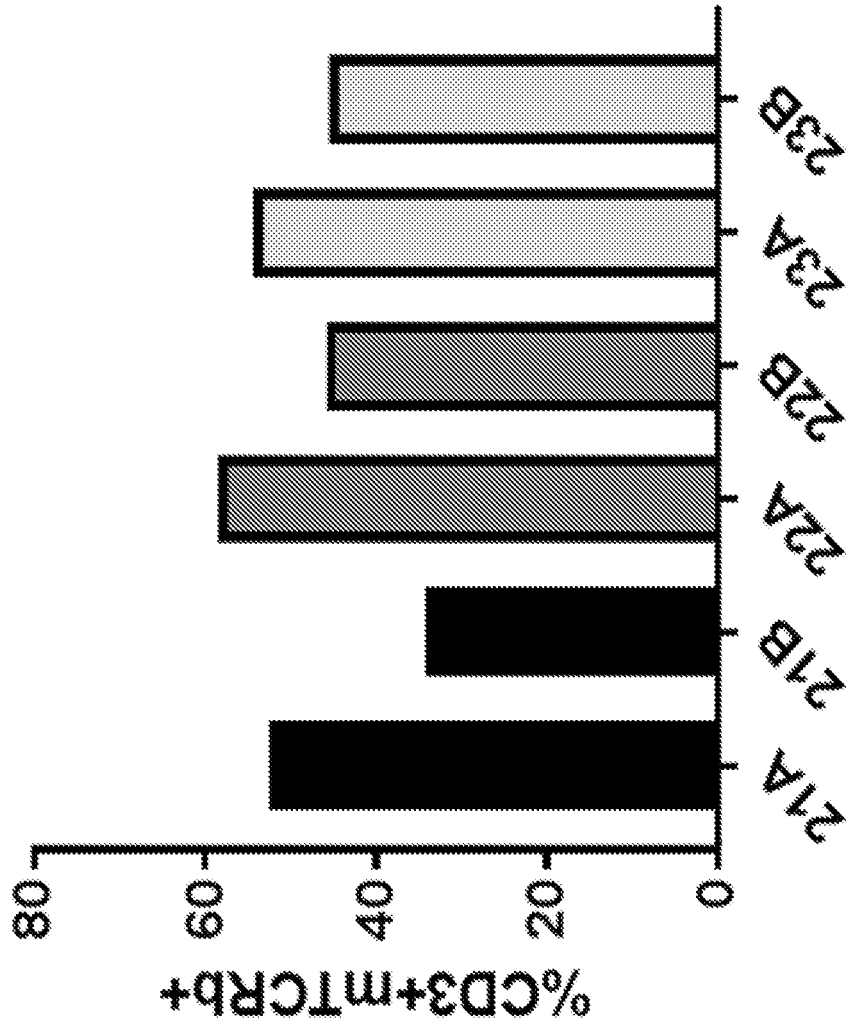

21A: IL7+IL15+AKTi
21B: IL7+IL15
22A: IL7+IL15+AKTi
22B: IL7+IL15
23A: IL7+IL15+AKTi
23B: IL7+IL15
%CD3+mTCRb+
0
20
40
60
80
21A
21B
22A
22B
23A
23B

FIG. 13A

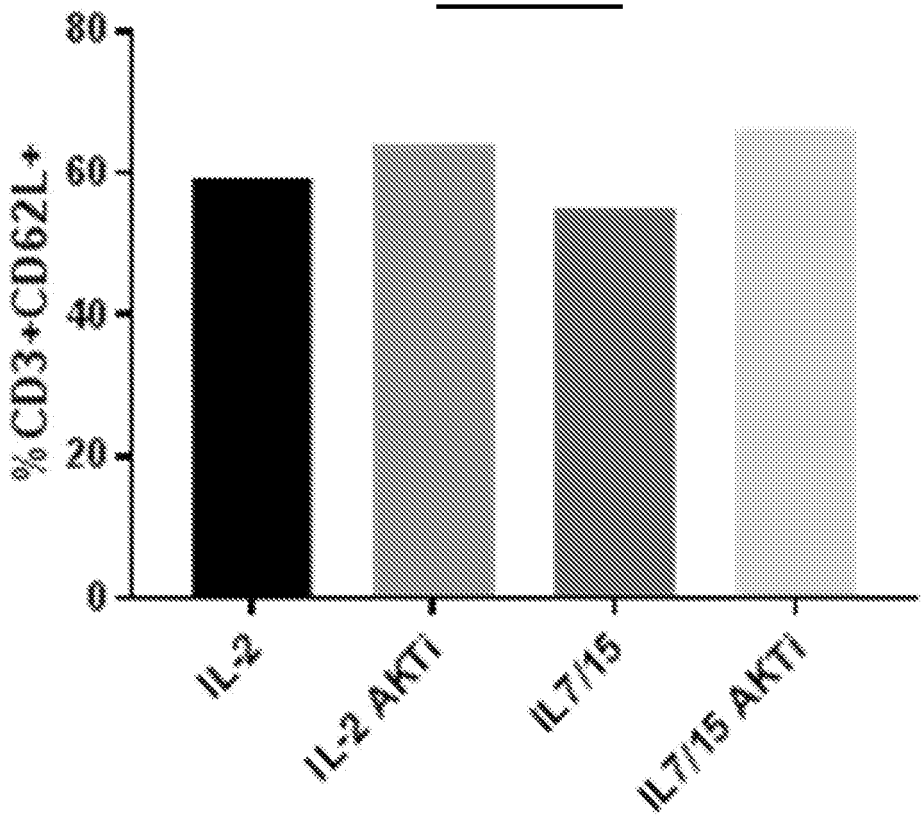


FIG. 13B

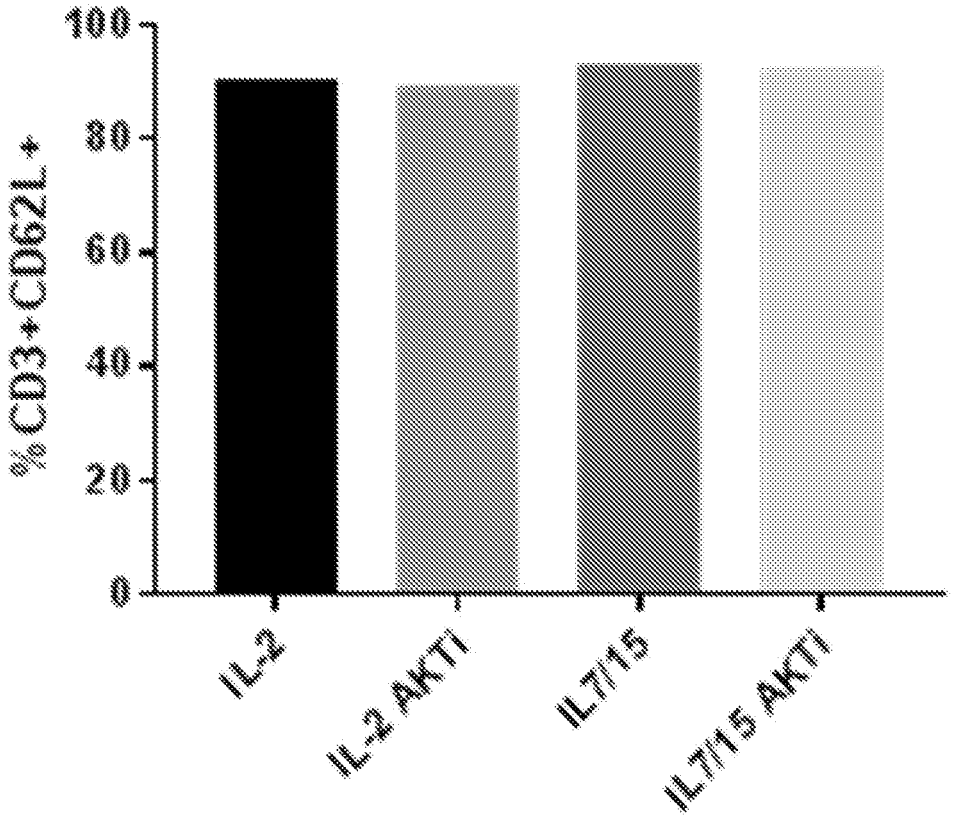


FIG. 13C

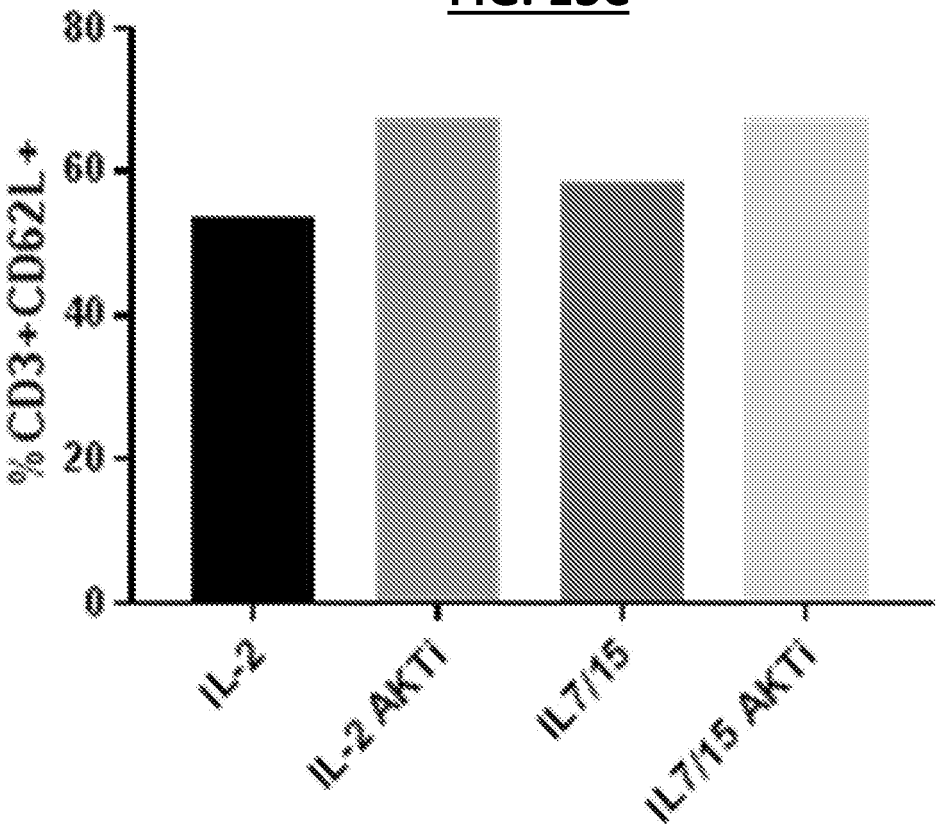


FIG. 13D

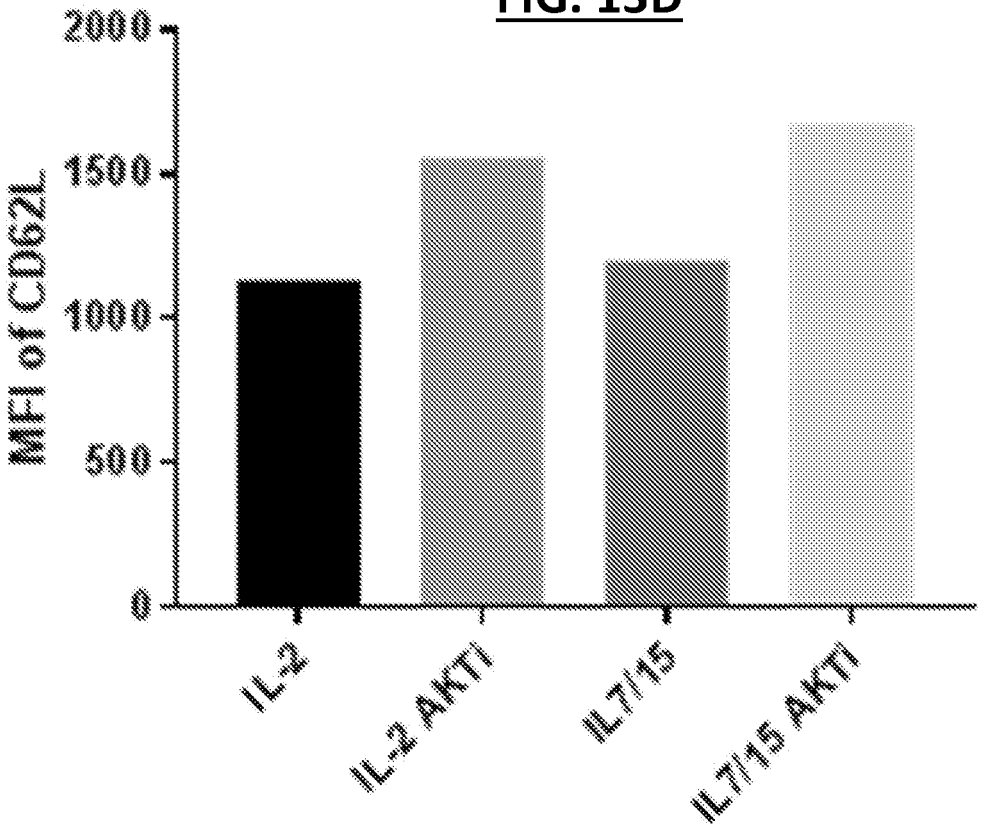


FIG. 13E

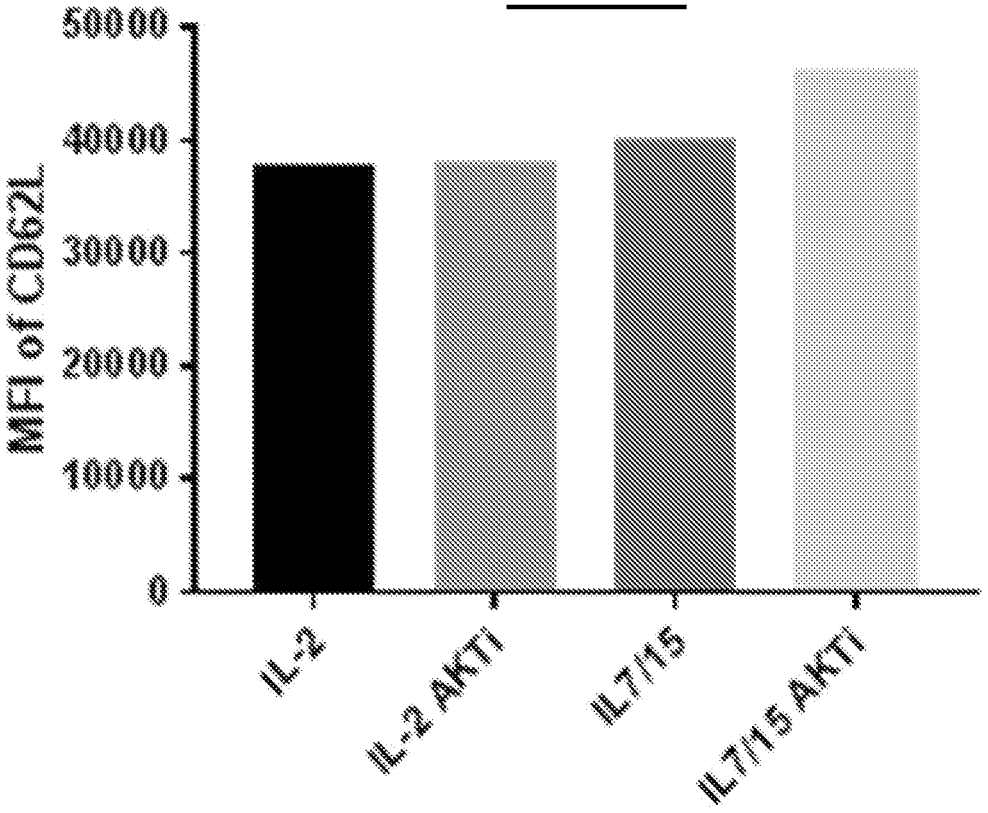


FIG. 13F

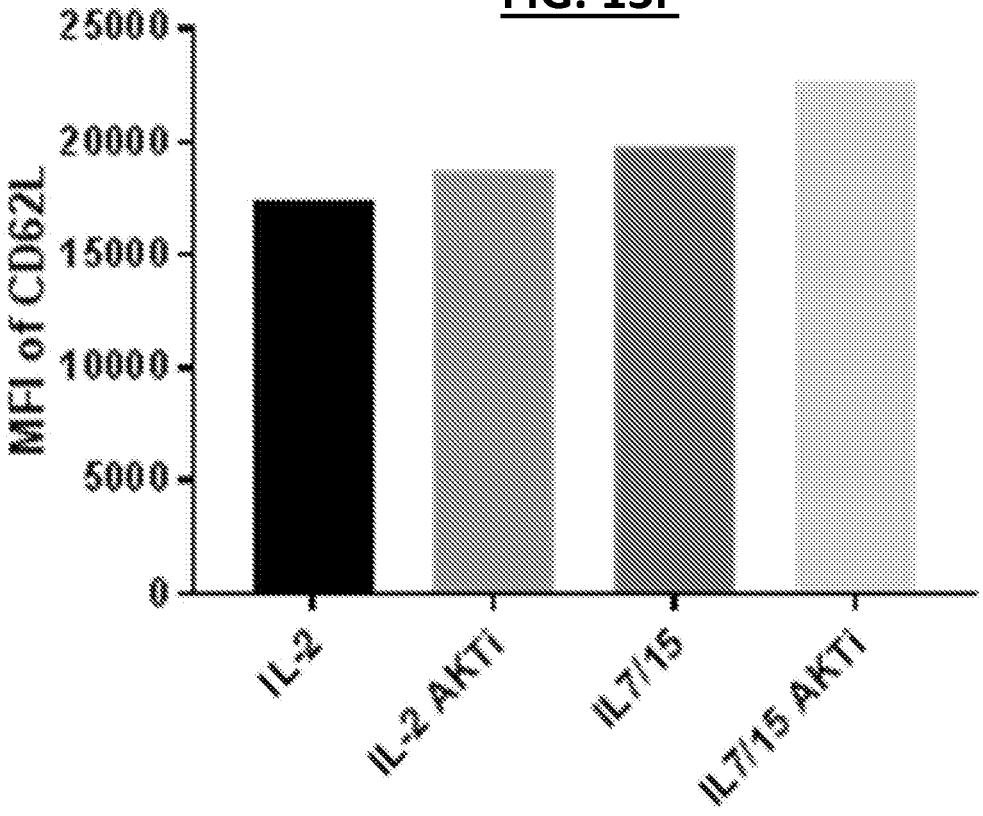
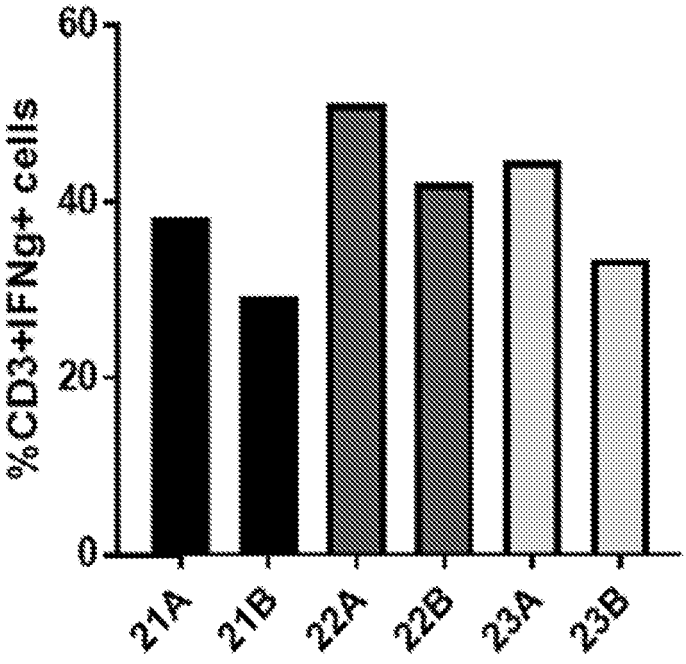


FIG. 14A – IFNg

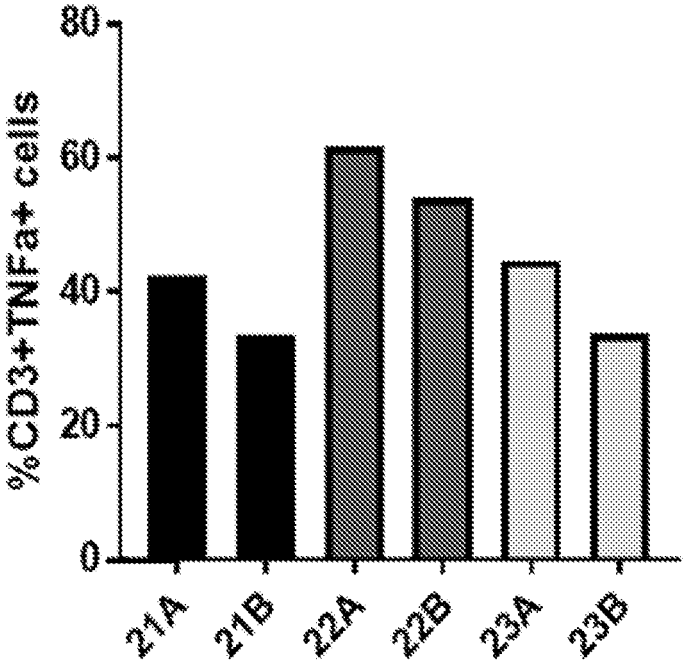


21A: IL7+IL15+AKTi
21B: IL7+IL15

22A: IL7+IL15+AKTi
22B: IL7+IL15

23A: IL7+IL15+AKTi
23B: IL7+IL15

FIG. 14B - TNFa



21A: IL7+IL15+AKTi
21B: IL7+IL15

22A: IL7+IL15+AKTi
22B: IL7+IL15

23A: IL7+IL15+AKTi
23B: IL7+IL15

FIG. 15

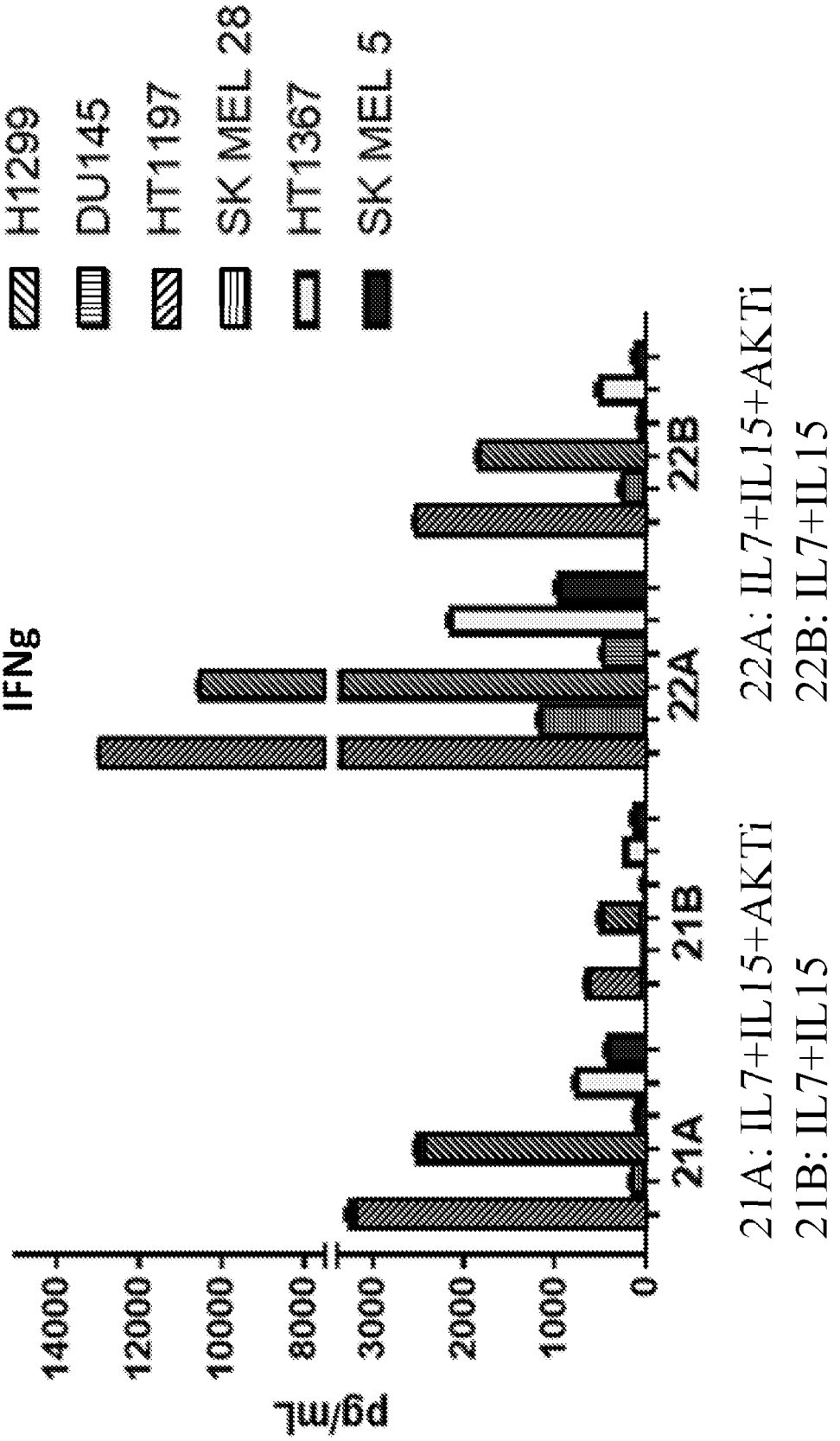

IFNg
H1299
DU145
HT1197
SK MEL 28
HT1367
SK MEL 5
pg/mL
14000
12000
10000
8000
3000
2000
1000
0
21A
21B
22A
22B
21A: IL7+IL15+AKTi
21B: IL7+IL15
22A: IL7+IL15+AKTi
22B: IL7+IL15

FIG. 16A
IFNg

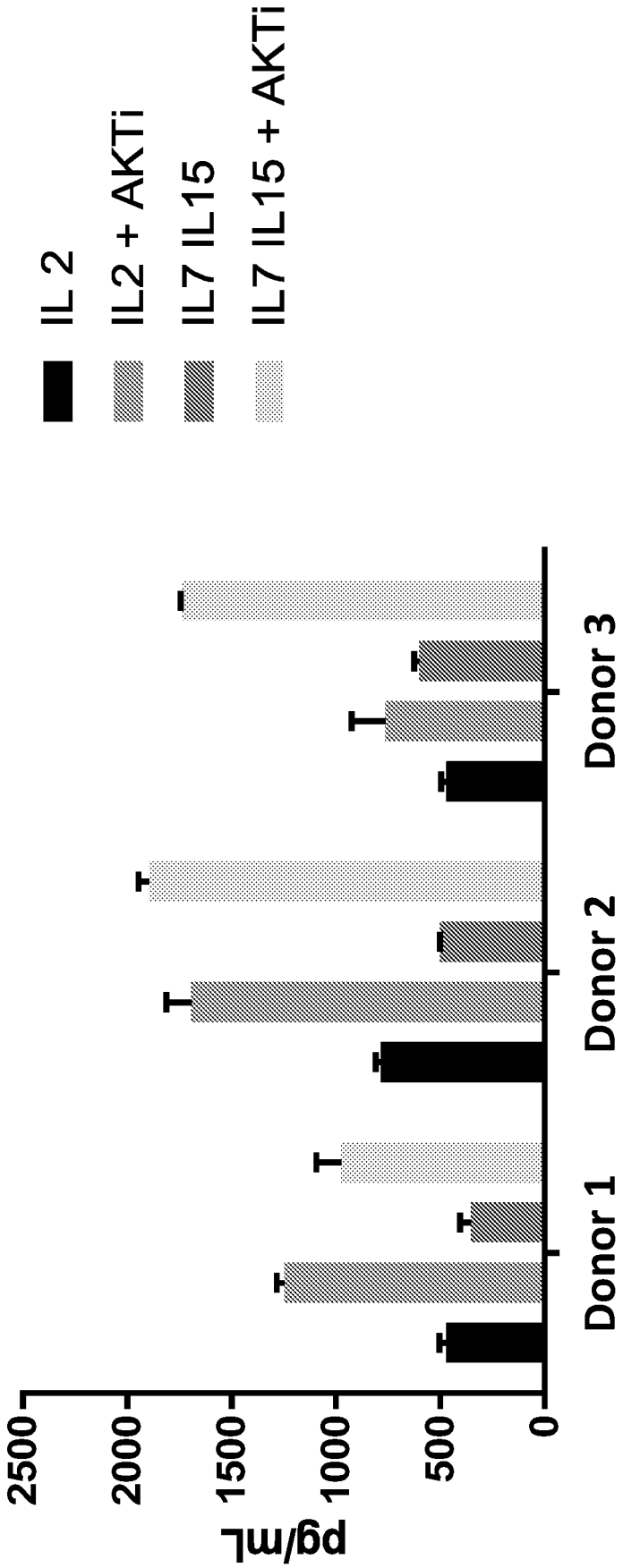

IL 2
IL2 + AKTi
IL7 IL15
IL7 IL15 + AKTi
pg/mL
2500
2000
1500
1000
500
0
Donor 1
Donor 2
Donor 3

FIG. 16B – Donor 1

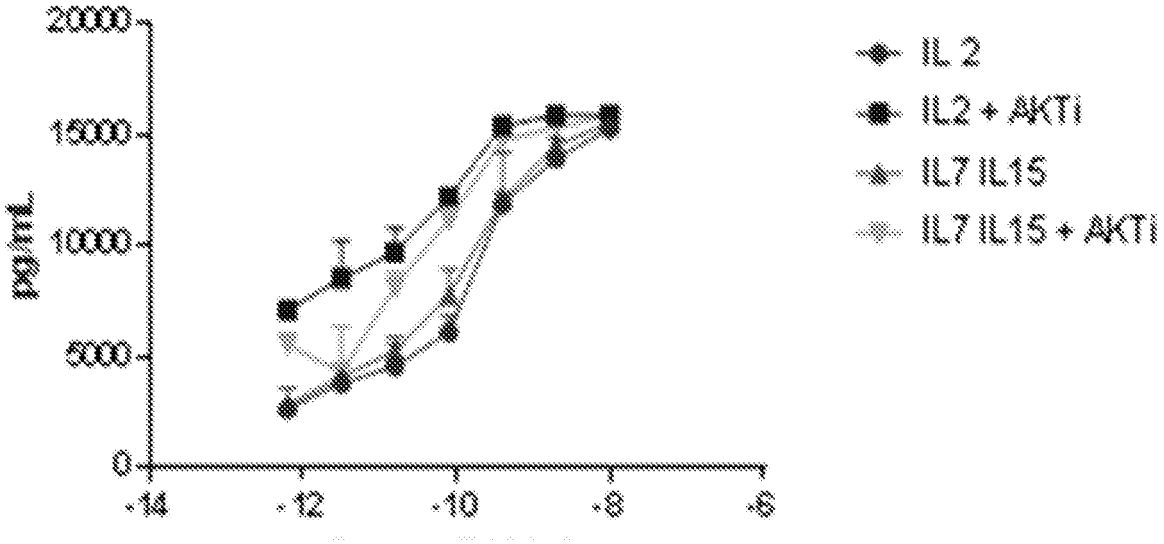


FIG. 16C – Donor 2

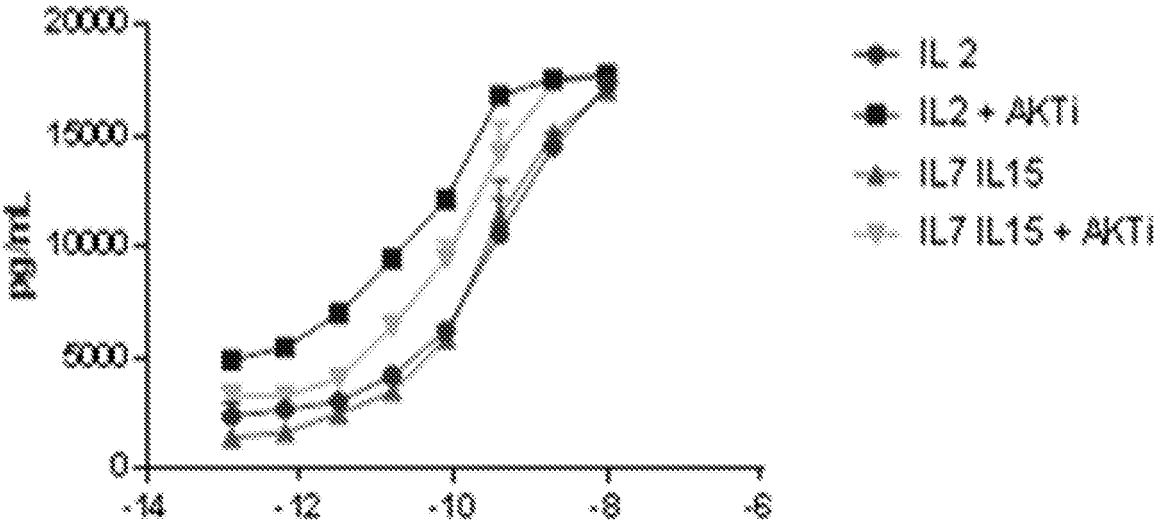


FIG. 16D – Donor 3

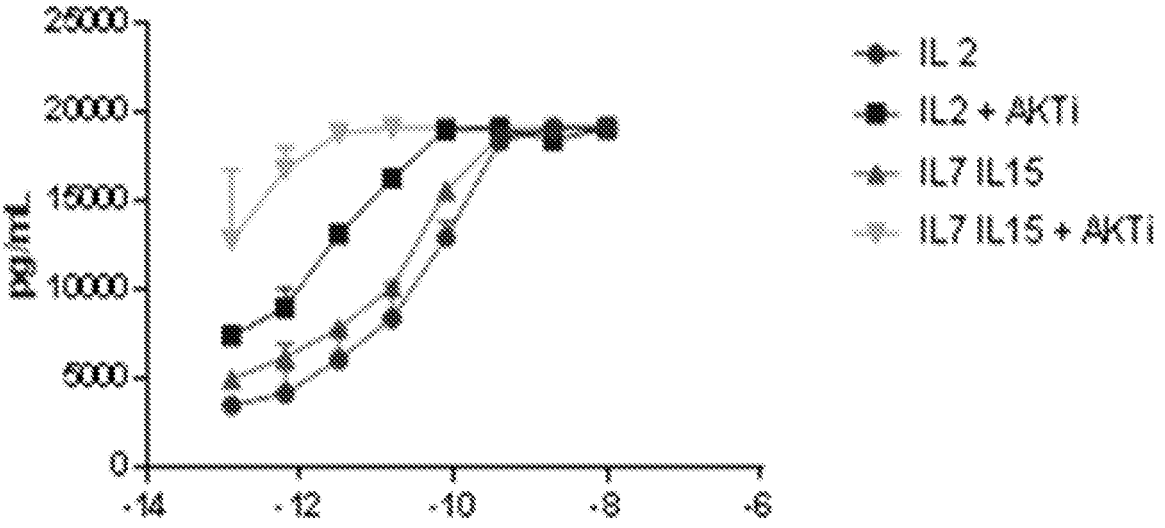
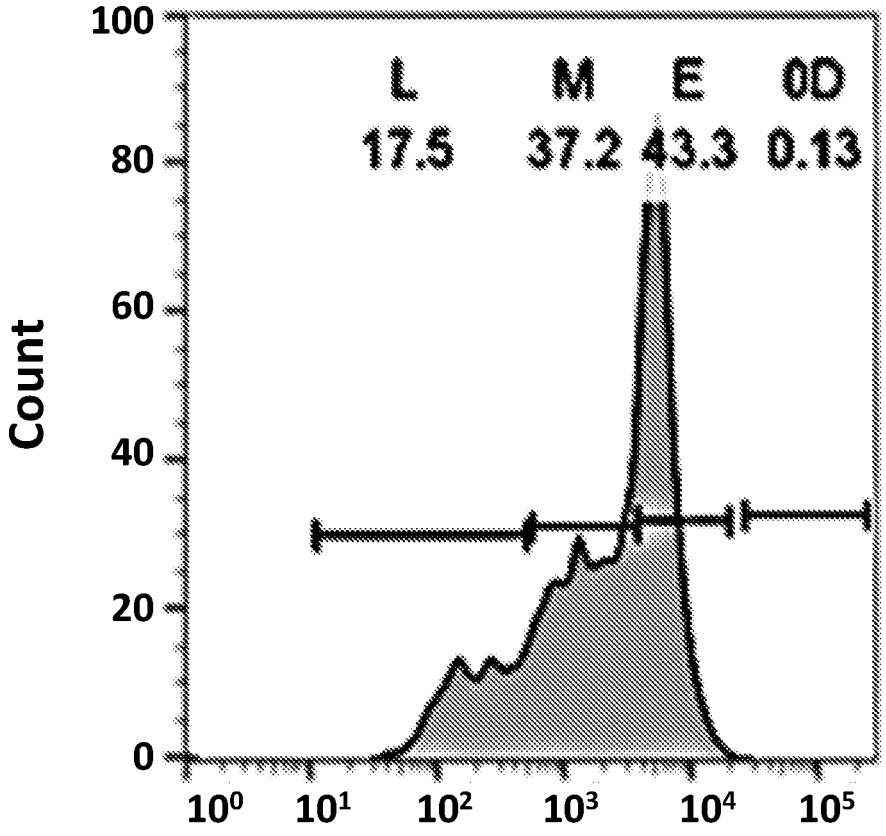
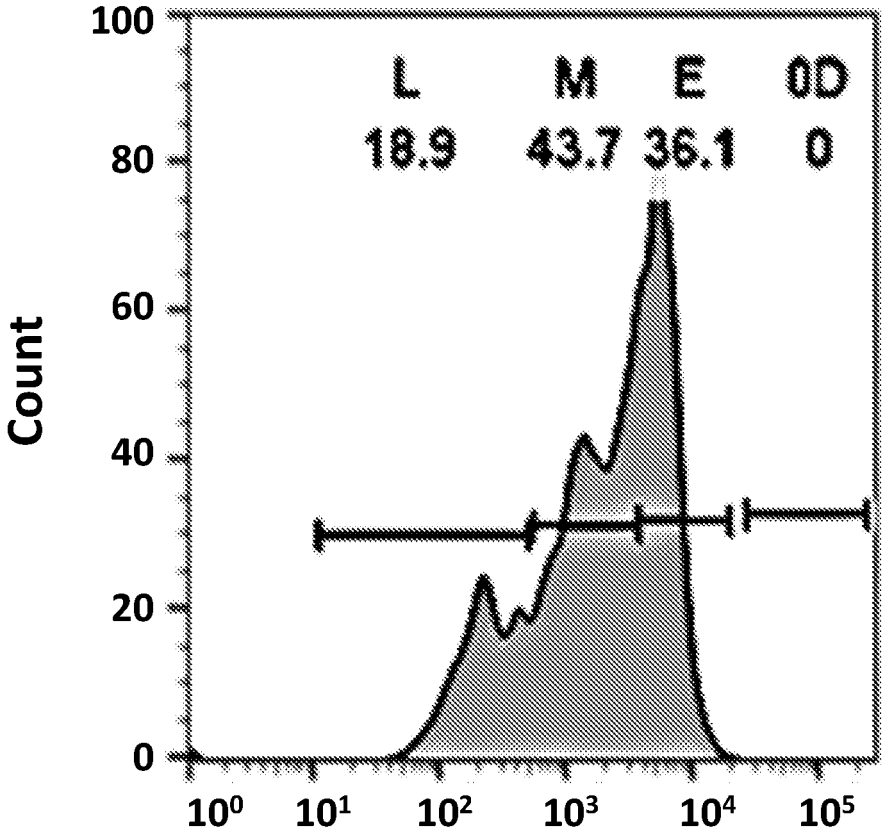


FIG. 17A – IL2



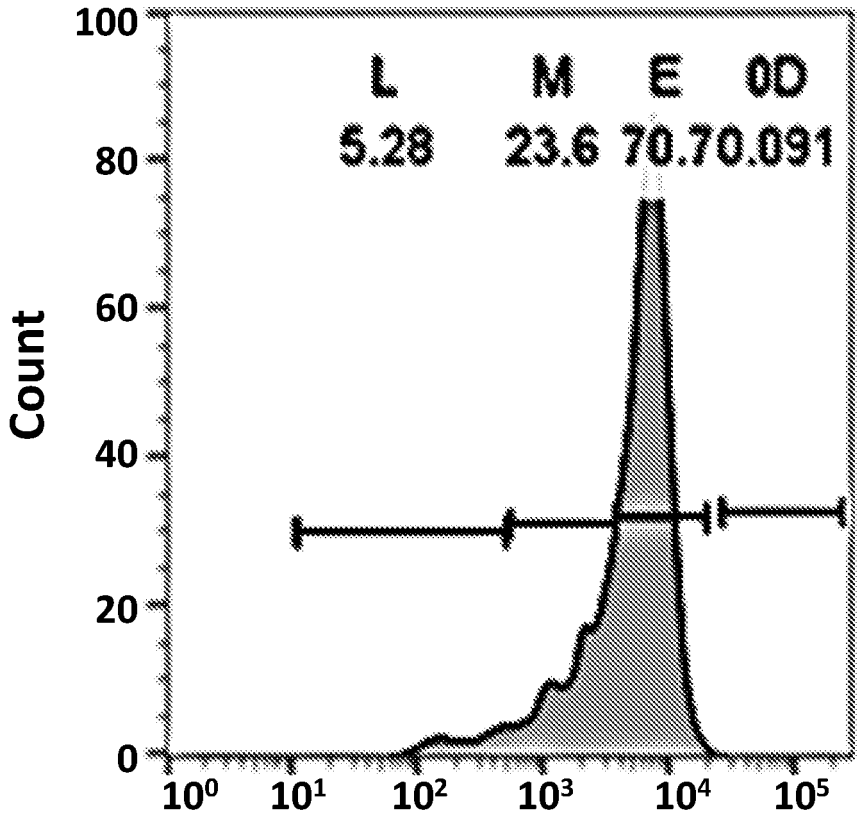
Proliferation Status:
L = Late
M = Medium
E = Early

FIG. 17B – IL2 + AKTi



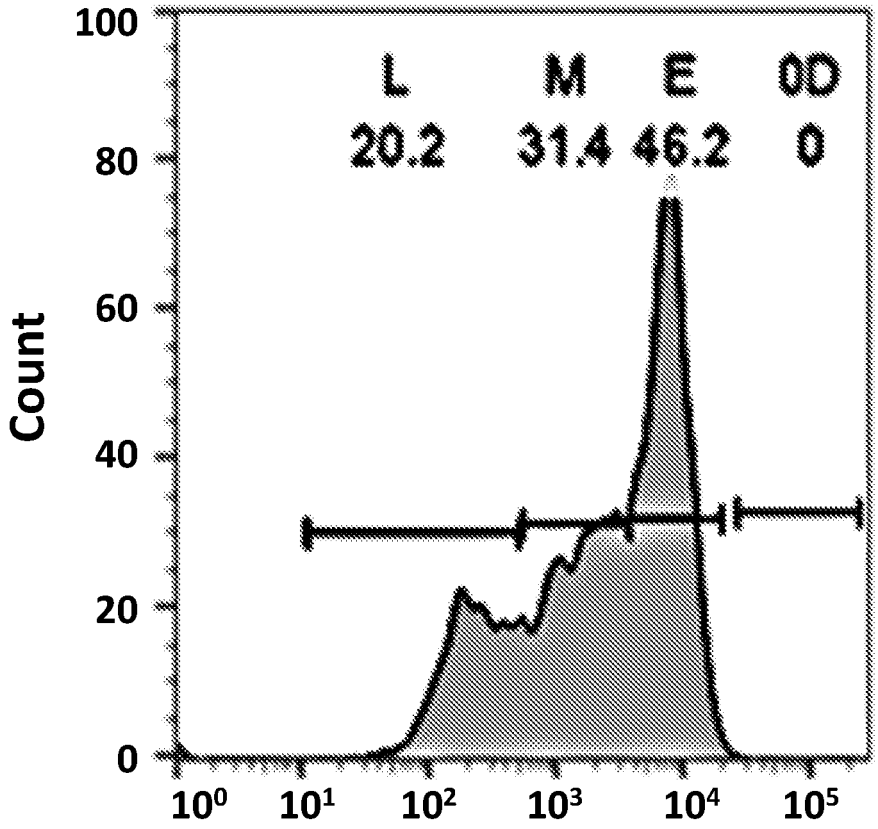
Proliferation Status:
L = Late
M = Medium
E = Early

FIG. 17C – IL7/IL15



Proliferation Status:
L = Late
M = Medium
E = Early

FIG. 17D – IL7/IL15 + AKTi



Proliferation Status:
L = Late
M = Medium
E = Early

FIG. 18A – 21A and 21B

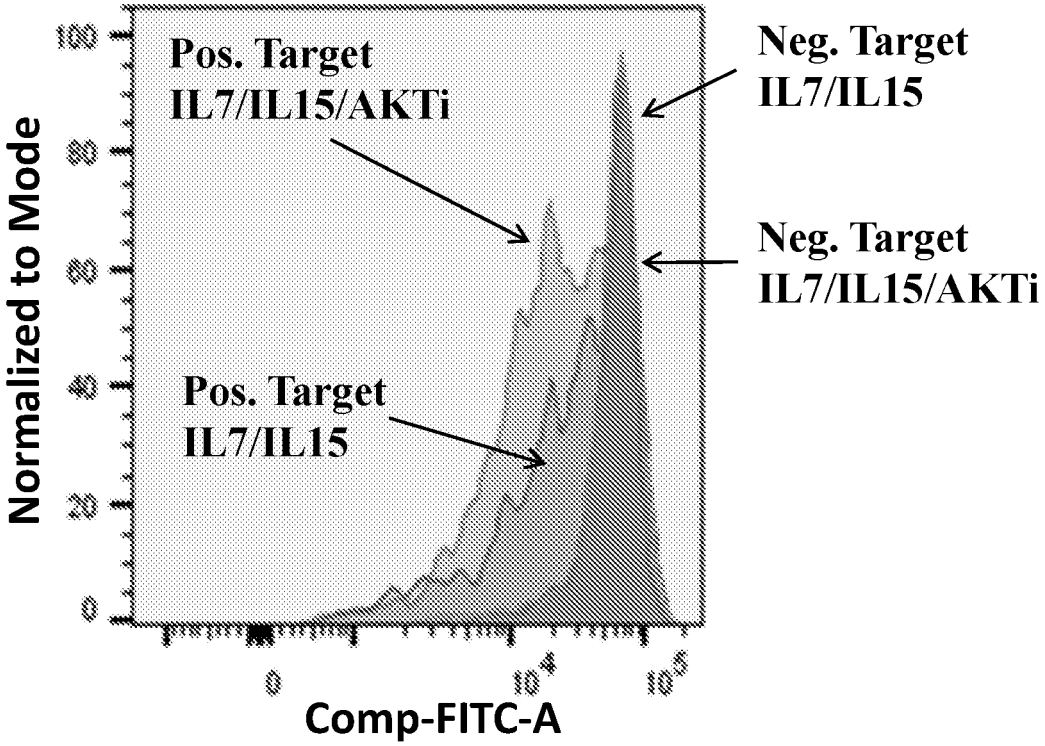
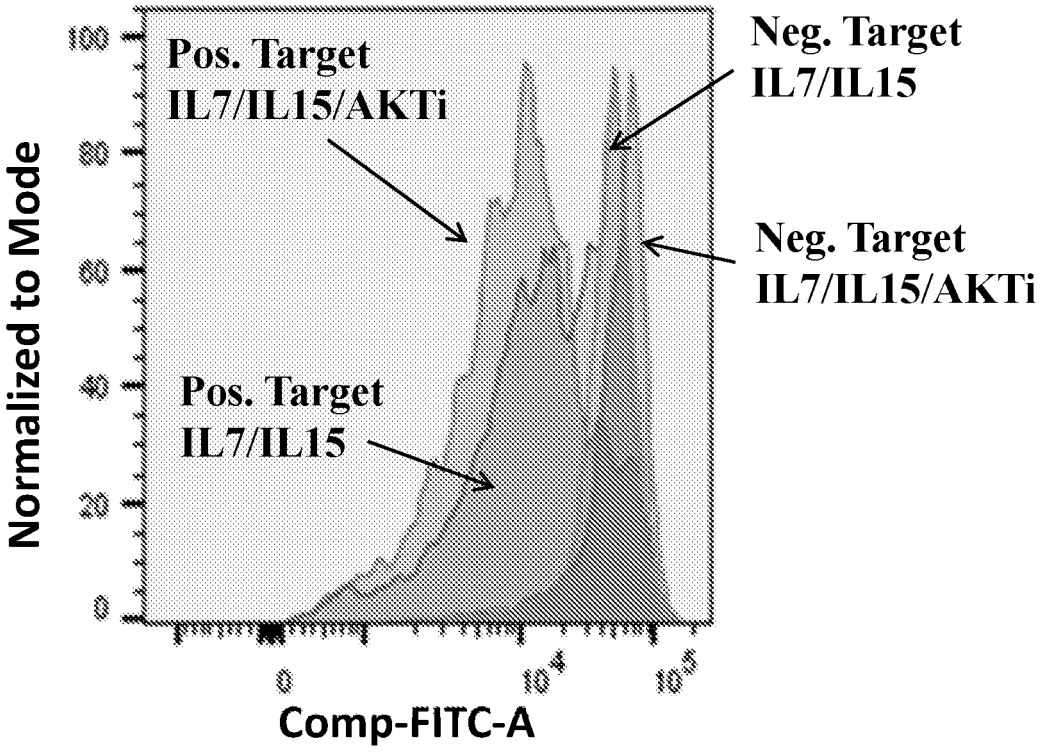


FIG. 18B – 22A and 22B



Neg. Target IL7+IL15

Neg. Target IL7+IL15+AKTi

Pos. Target IL7+IL15

Pos. Target IL7+IL15+AKTi