

FIG. 1

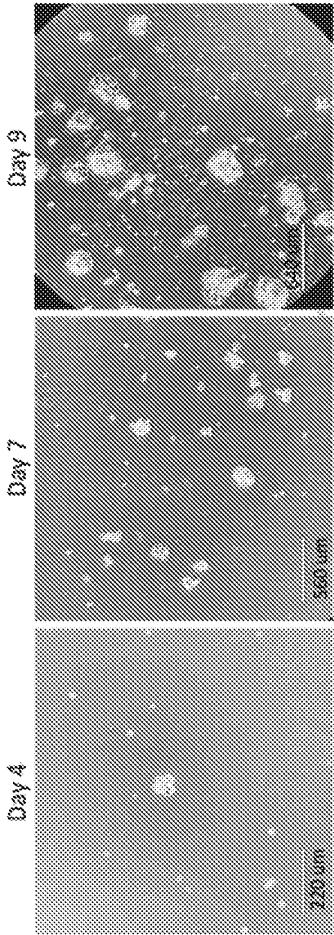


FIG. 2

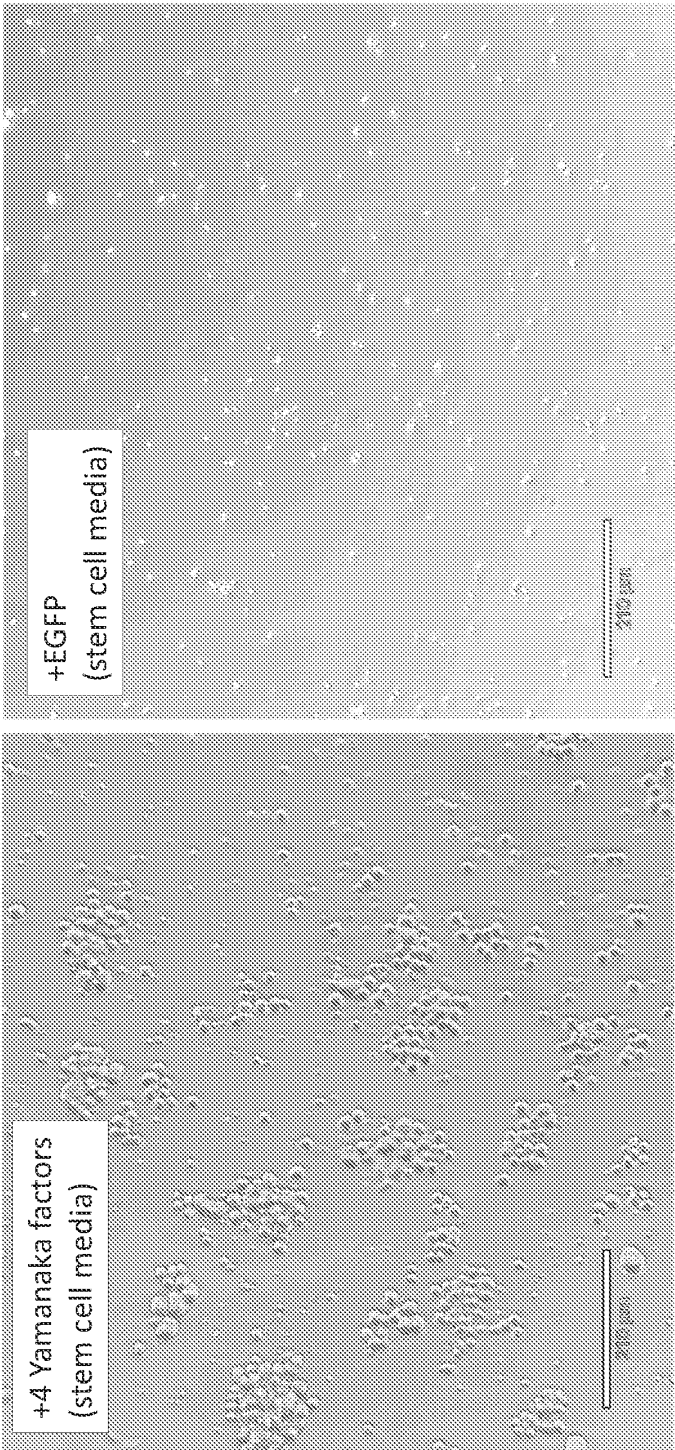


FIG. 3B

FIG. 3A

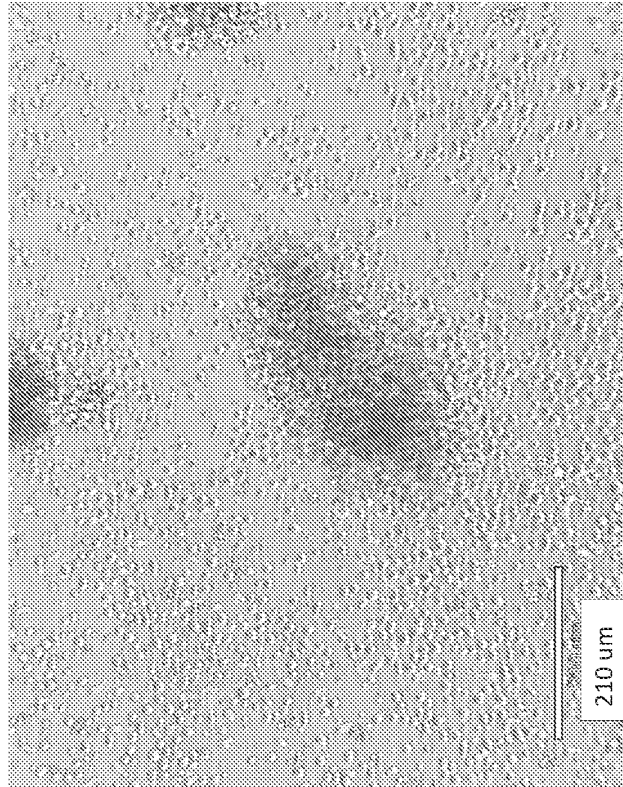


FIG. 3D

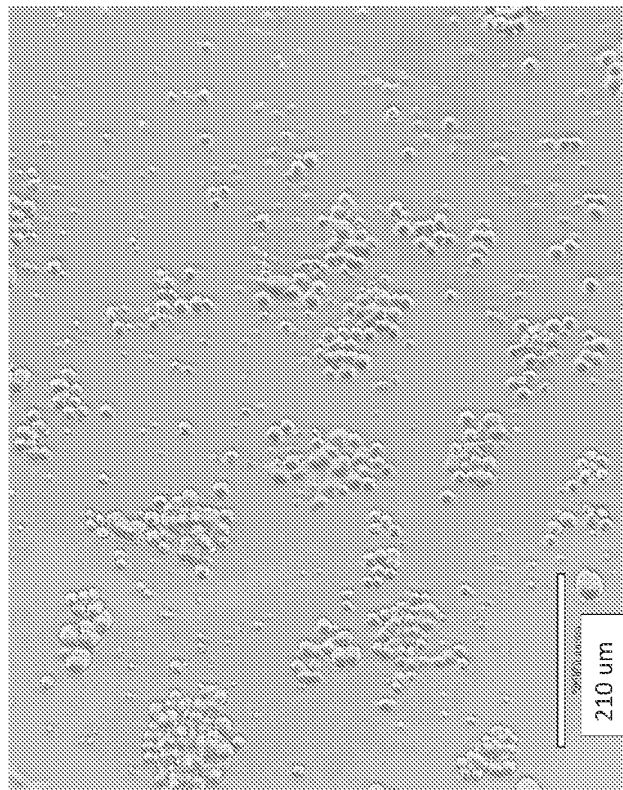


FIG. 3C

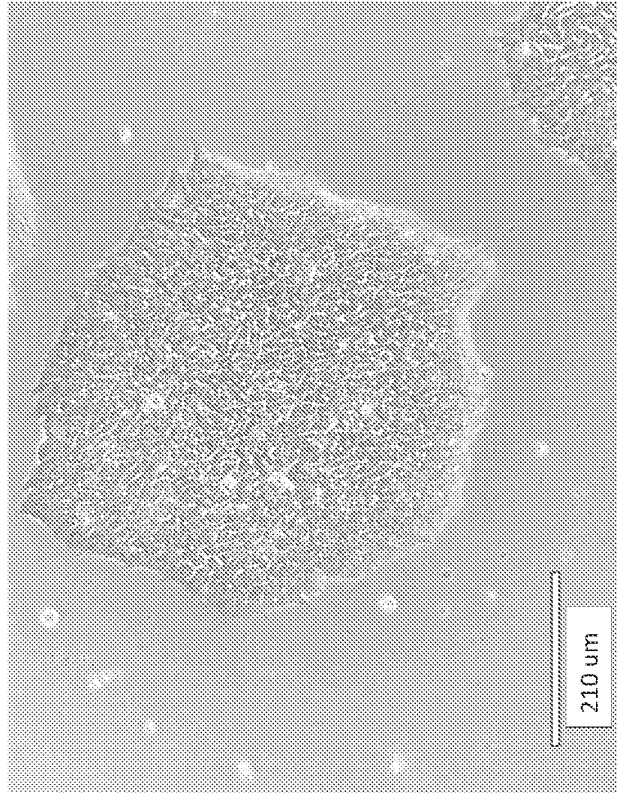


FIG. 3F

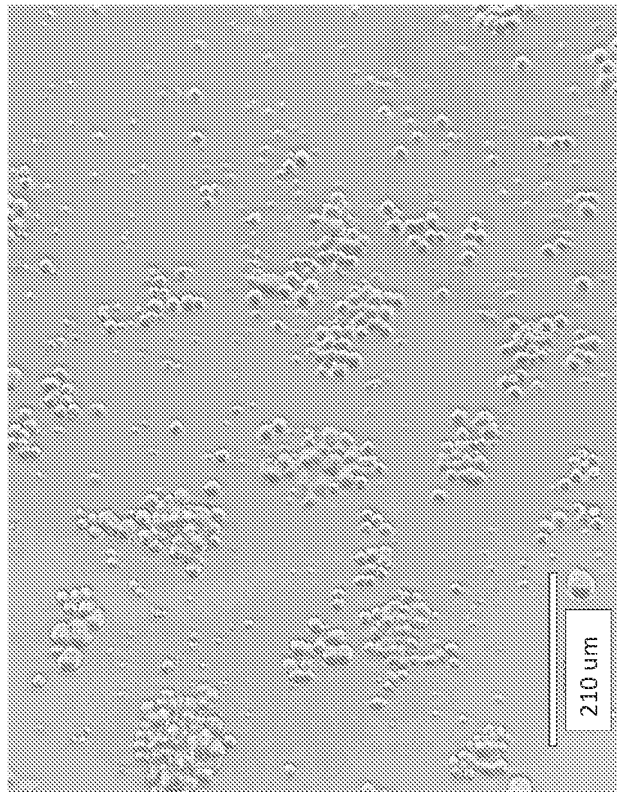


FIG. 3E

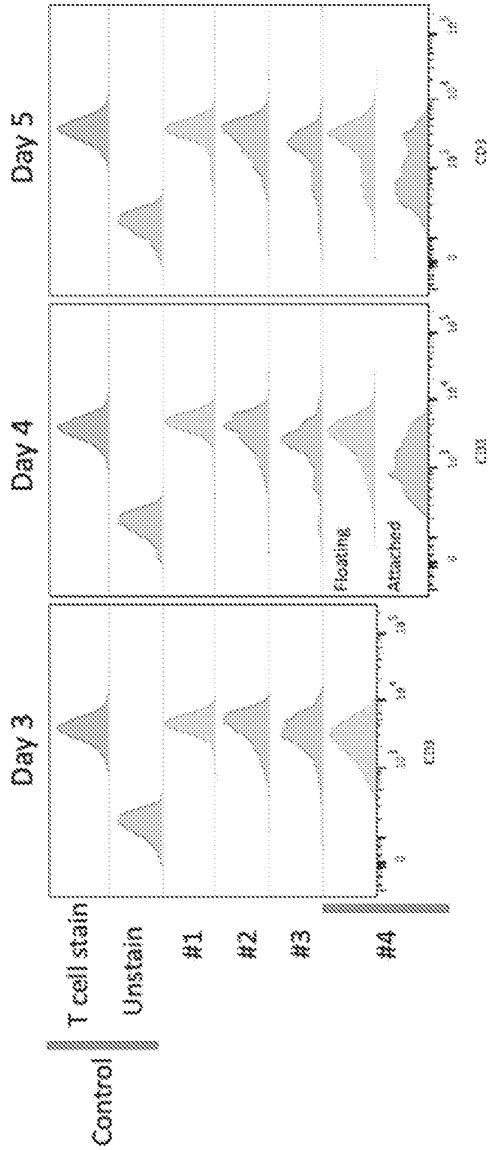


FIG. 4



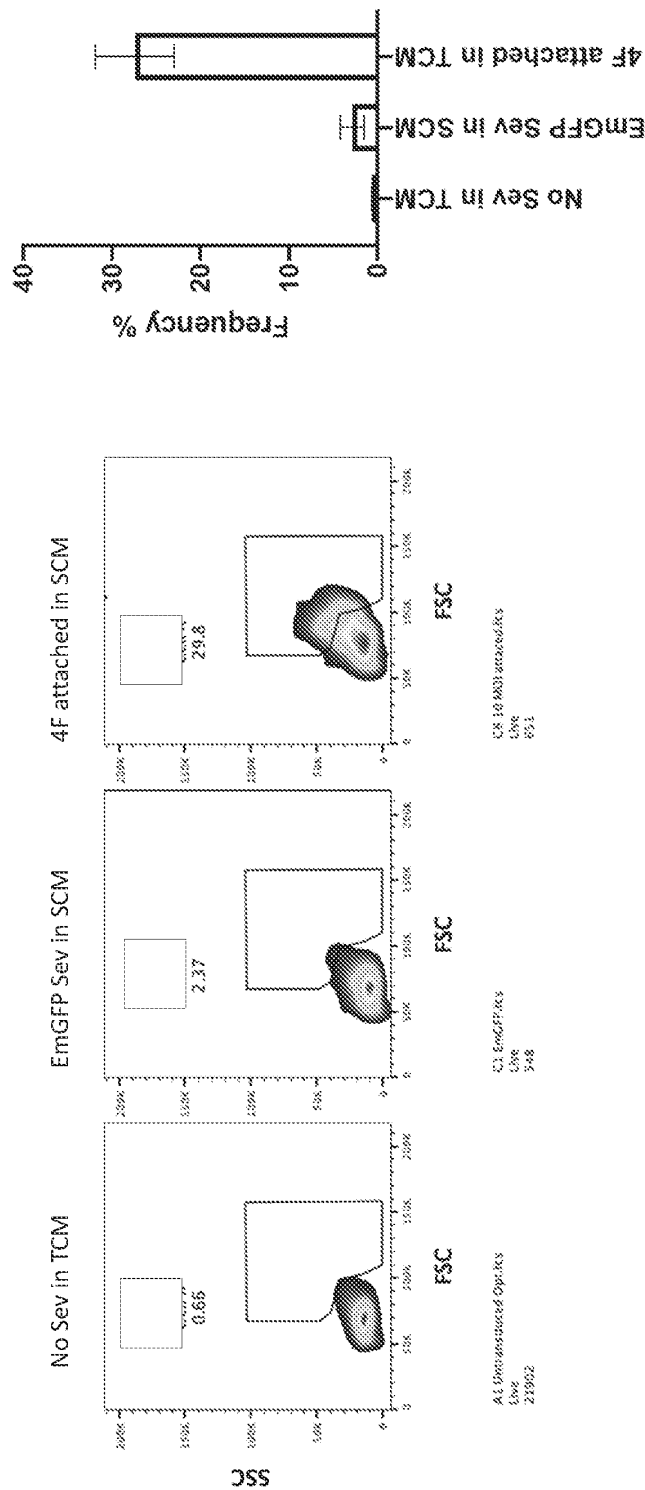
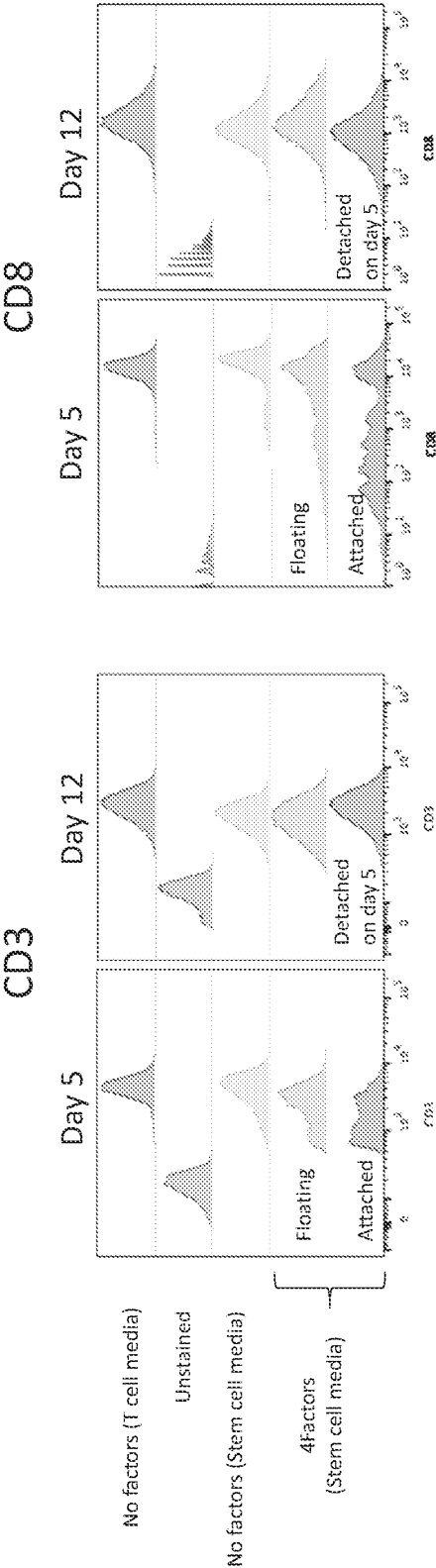


FIG. 6

|                                    |                          |                          |                          |                          |                          |                          |                          |                                    |                          |                          |                          |                          |                          |                          |                          |  |  |  |  |
|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|--|--|--|
| CD3 100 ng/ml                      |                          | Sev +/-                  |                          | Reactivation             |                          |                          |                          |                                    |                          |                          |                          |                          |                          |                          |                          |  |  |  |  |
| CD28 4 ug/ml                       |                          | Transact 1:100           |                          |                          |                          |                          |                          |                                    |                          |                          |                          |                          |                          |                          |                          |  |  |  |  |
| -3                                 | -2                       | -1                       | 0                        | 1                        | 2                        | 3                        | 4                        | 5                                  | 6                        | 7                        | 8                        | 9                        | 10                       | 11                       |                          |  |  |  |  |
| <input type="checkbox"/>           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  |  |
| T cell culture medium IL2 60 IU/ml |                          |                          |                          | Each culture condition   |                          |                          |                          | T cell culture medium IL2 60 IU/ml |                          |                          |                          |                          |                          |                          |                          |  |  |  |  |



Singlet > Live gated

FIG. 7

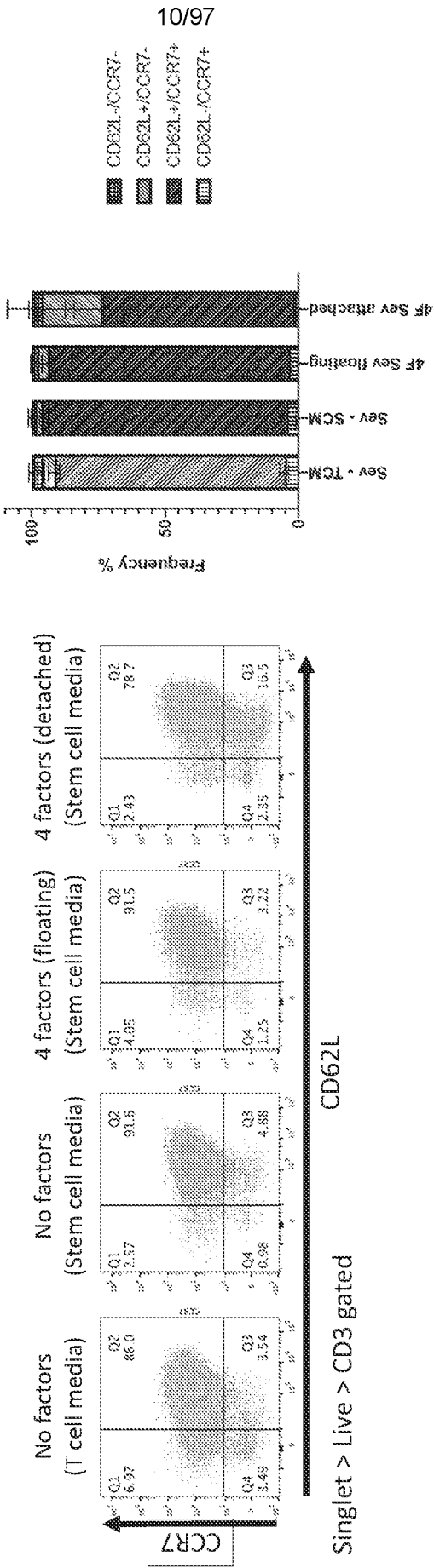


FIG. 8

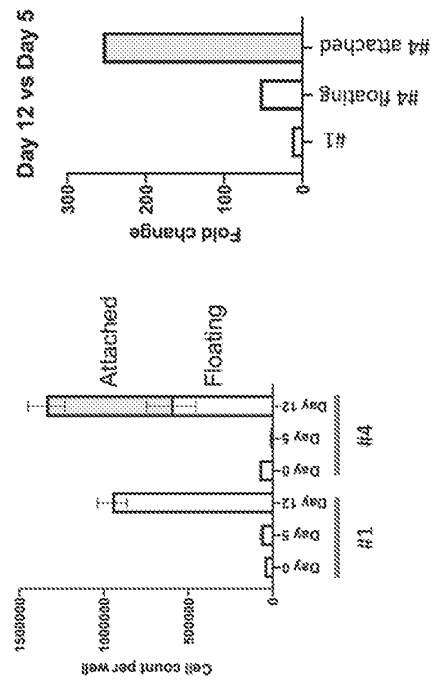


FIG. 9

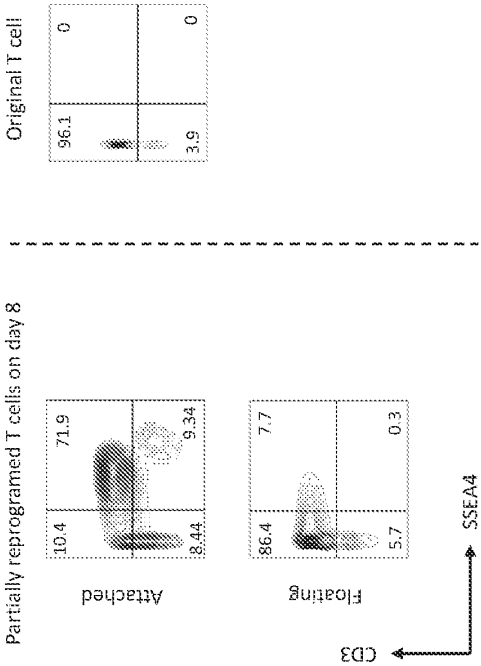


FIG. 10

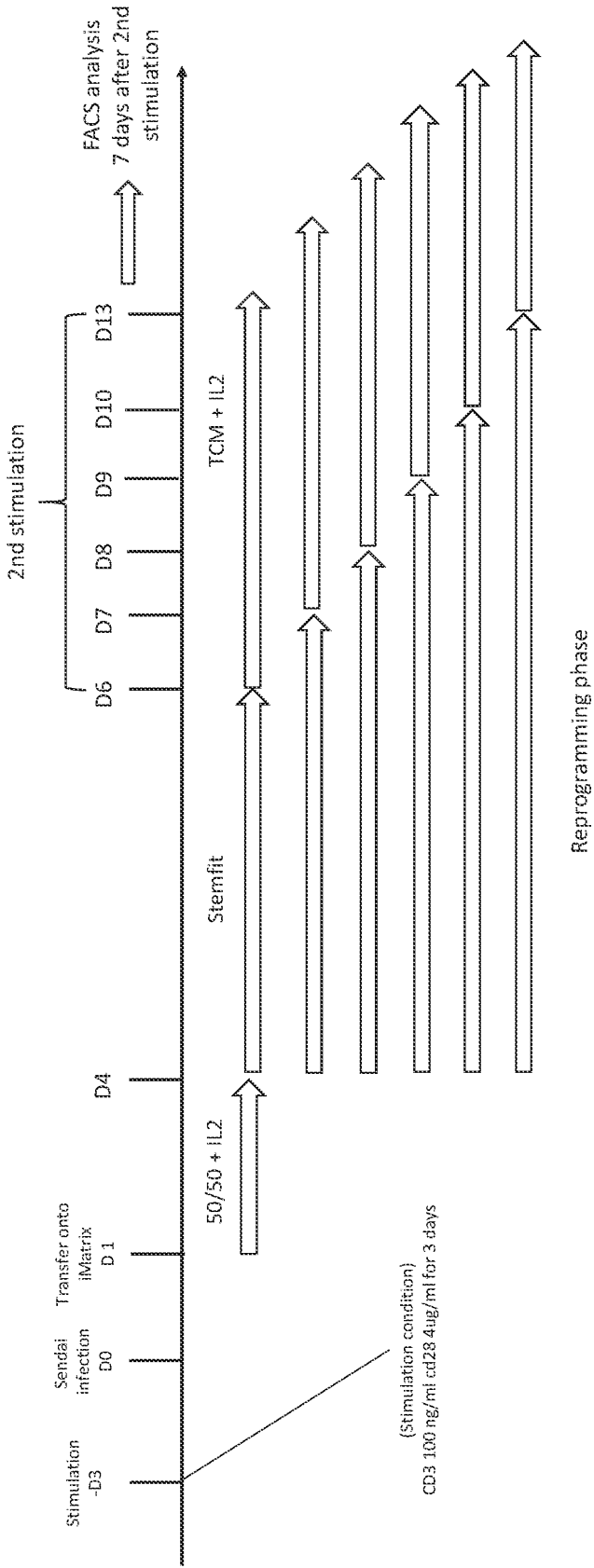


FIG. 11

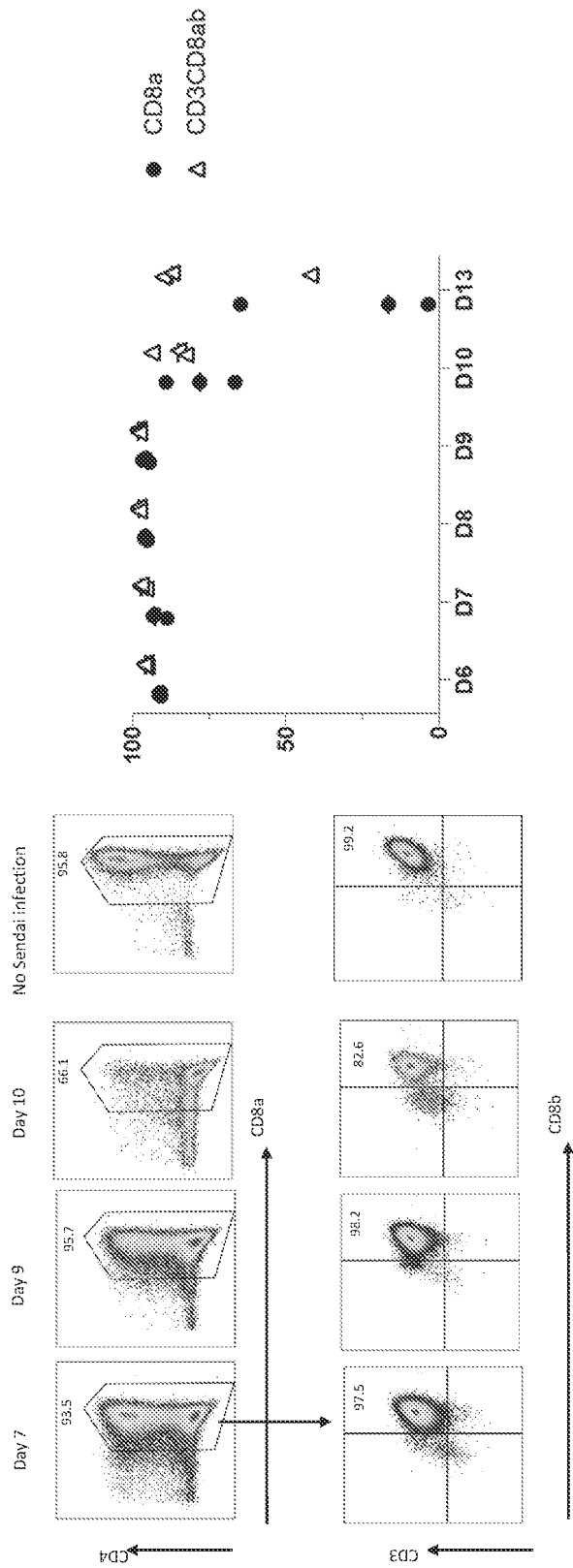


FIG. 12A

FIG. 12B

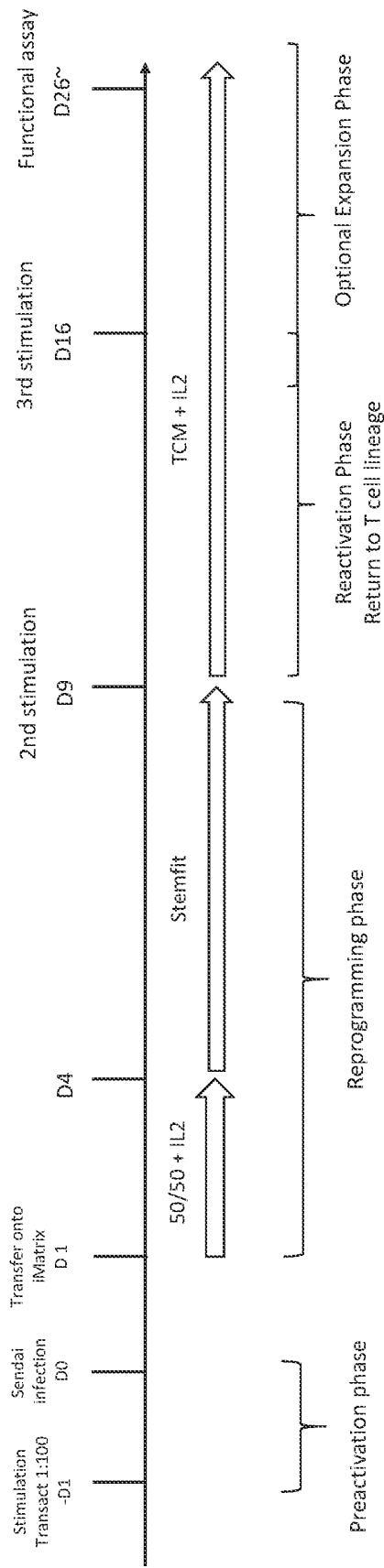


FIG. 13

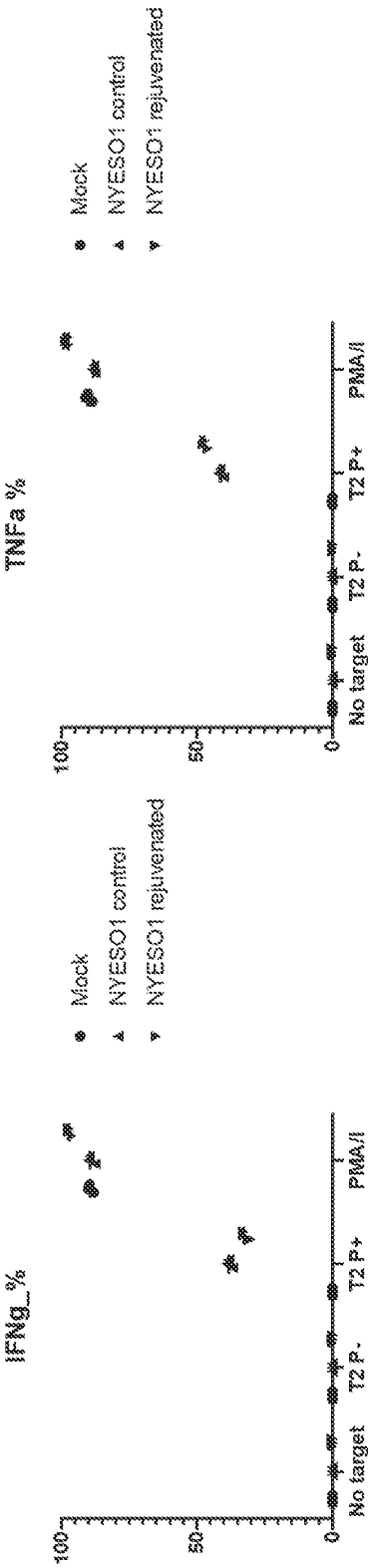


FIG. 14A

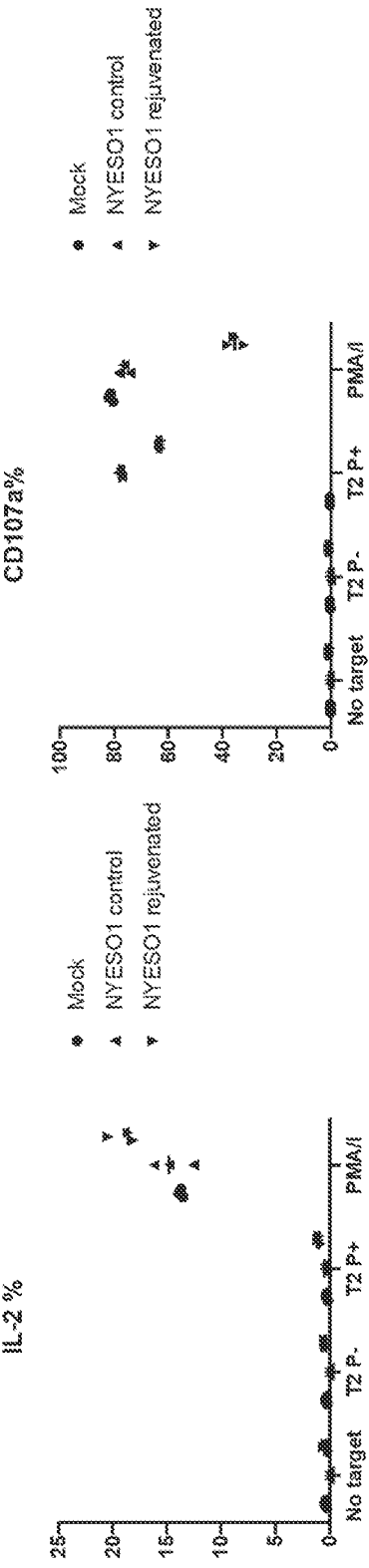


FIG. 14B

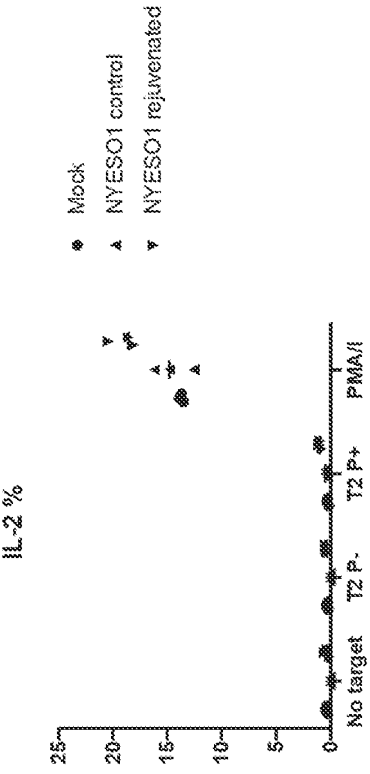


FIG. 14C

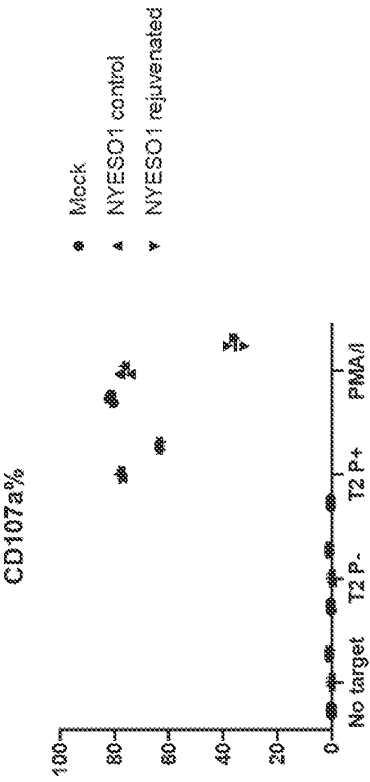


FIG. 14D

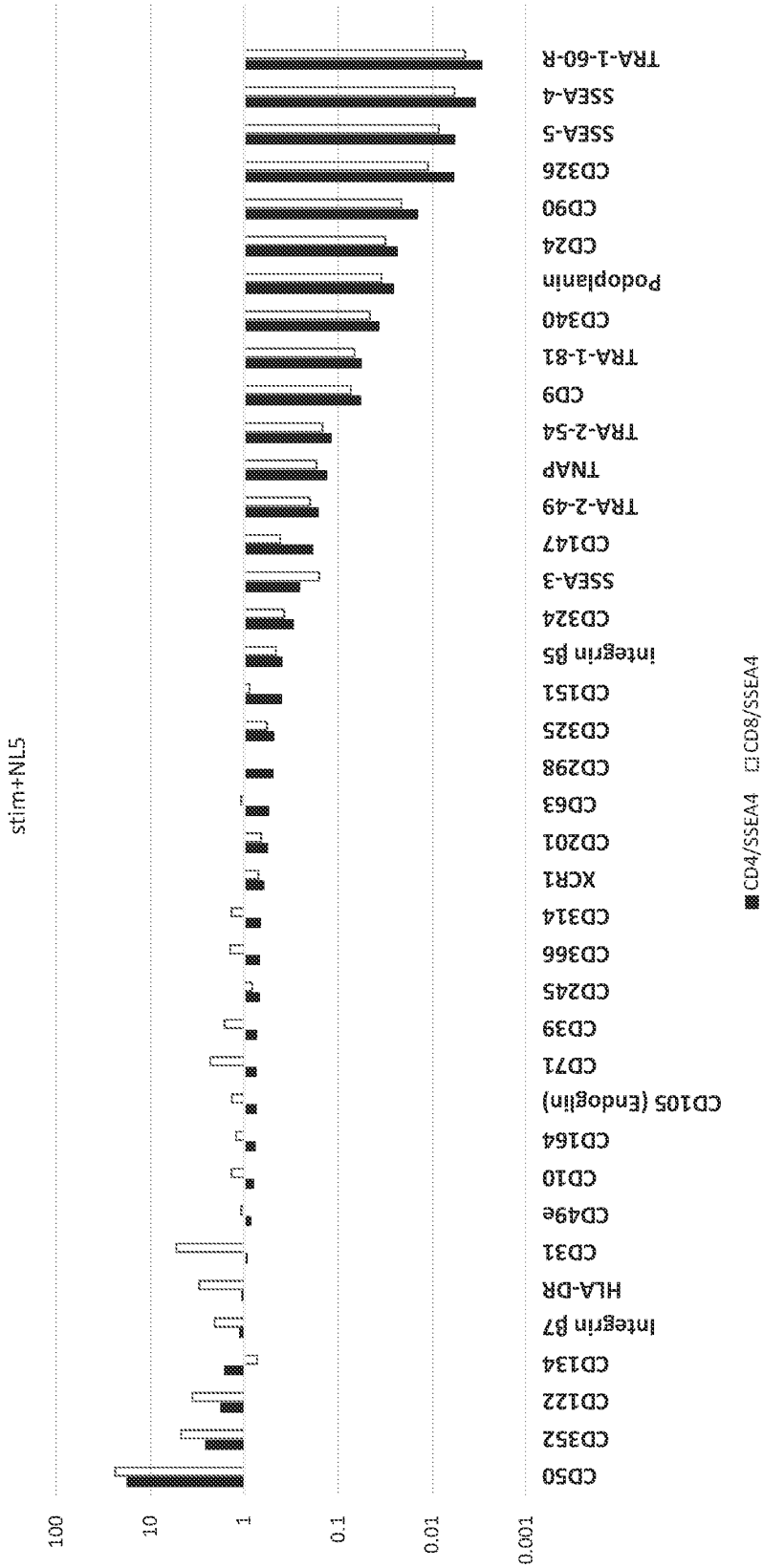


FIG. 15

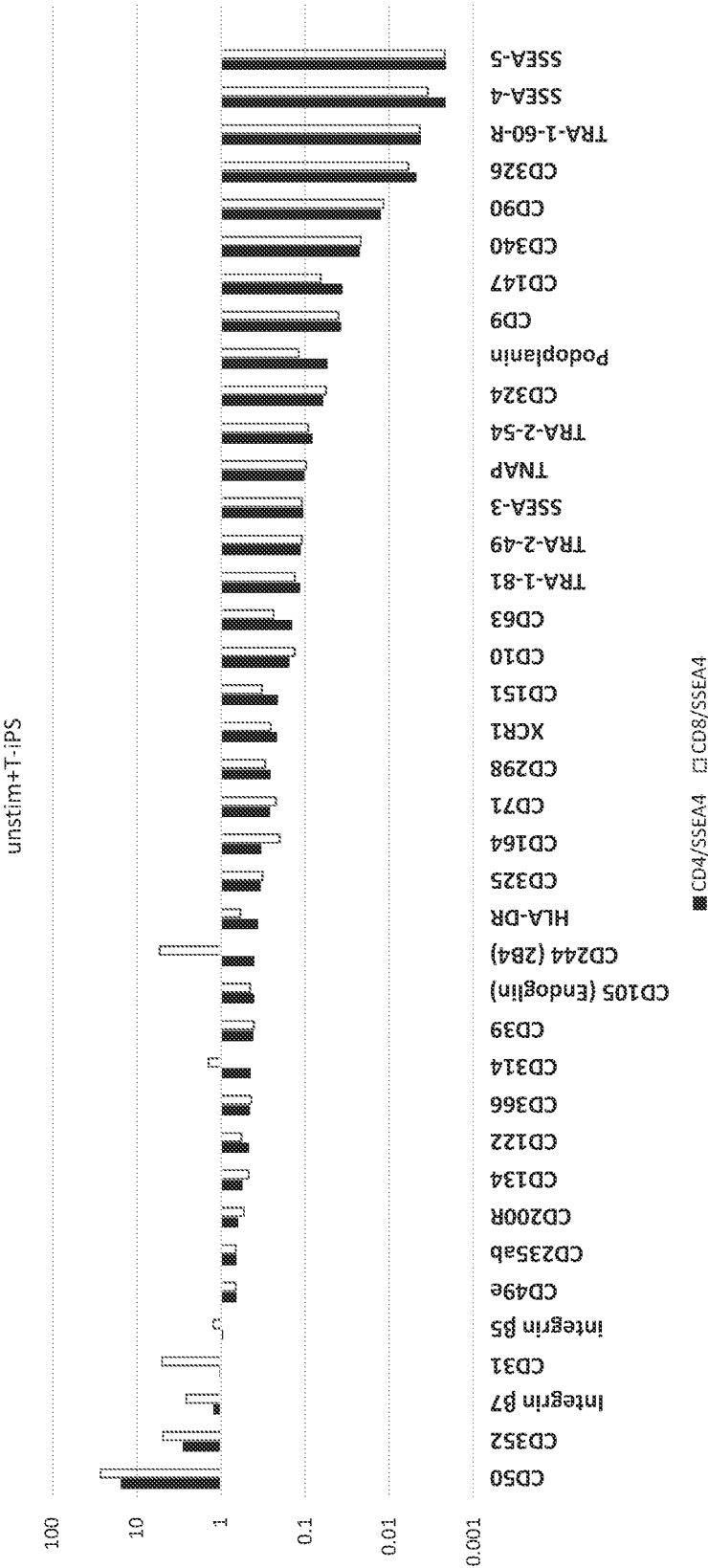


FIG. 16

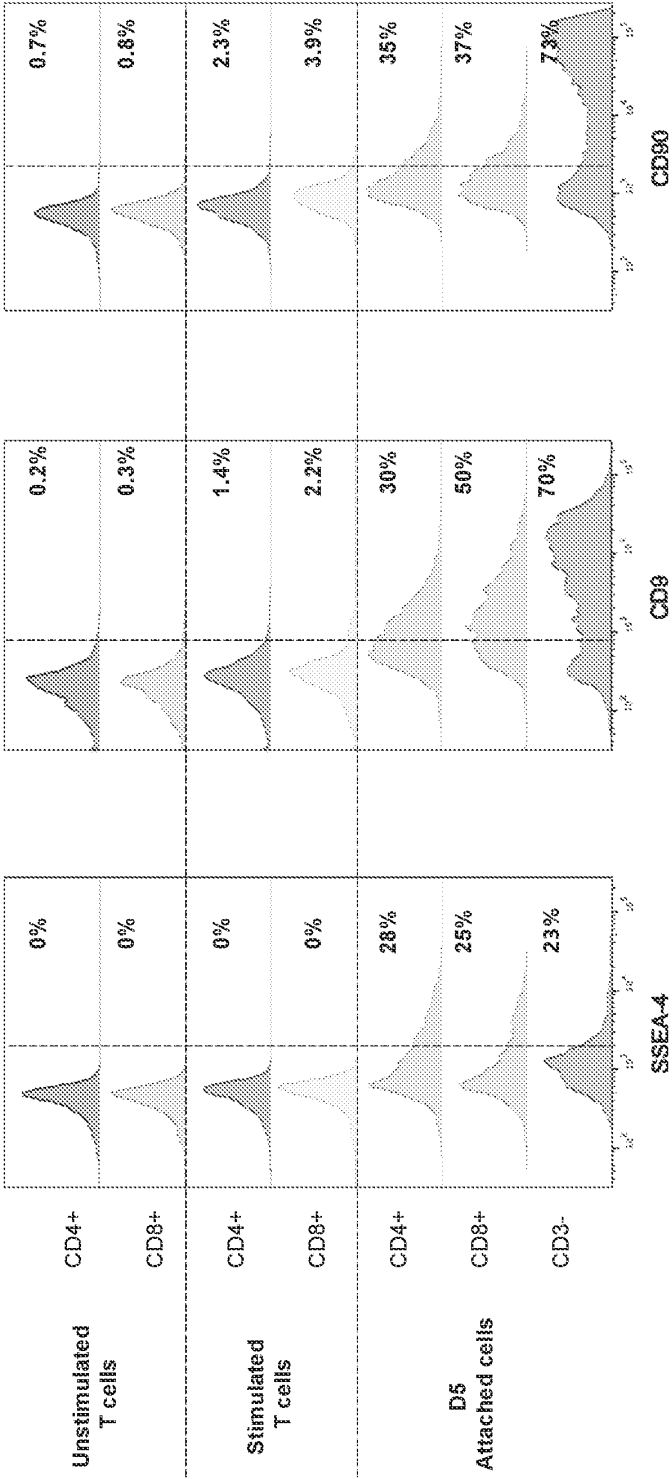


FIG. 17

FACS analysis D7 (detached day)

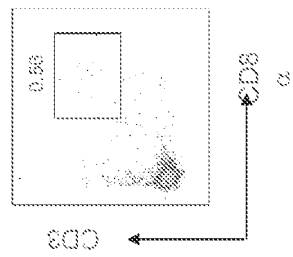


FIG. 18A

FACS analysis on D22

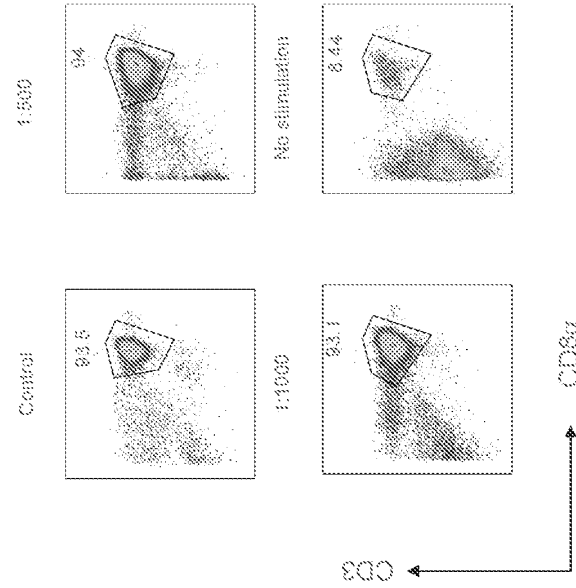


FIG. 18B

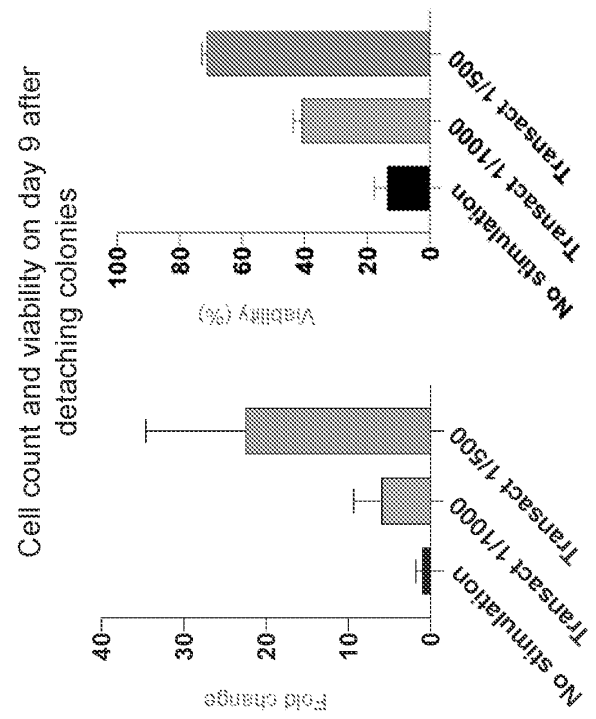


FIG. 18D

FIG. 18C

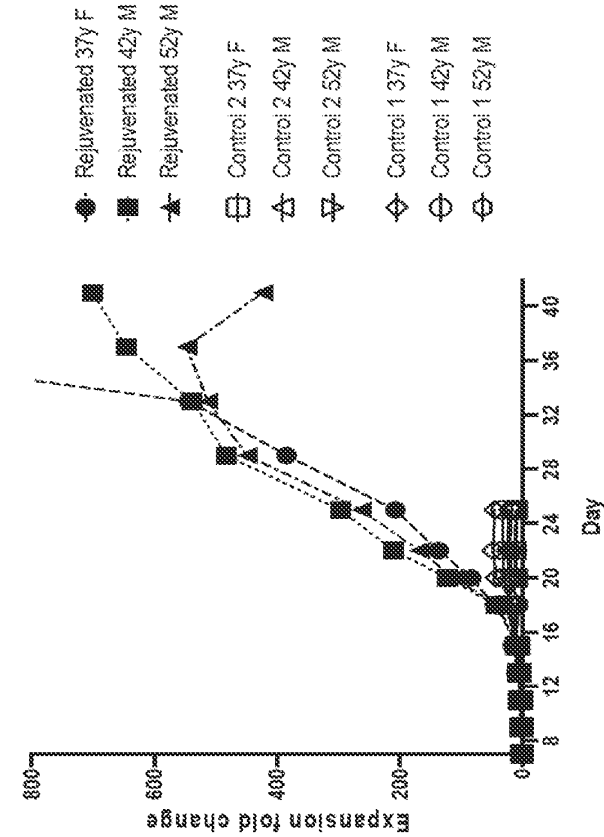


FIG. 19B

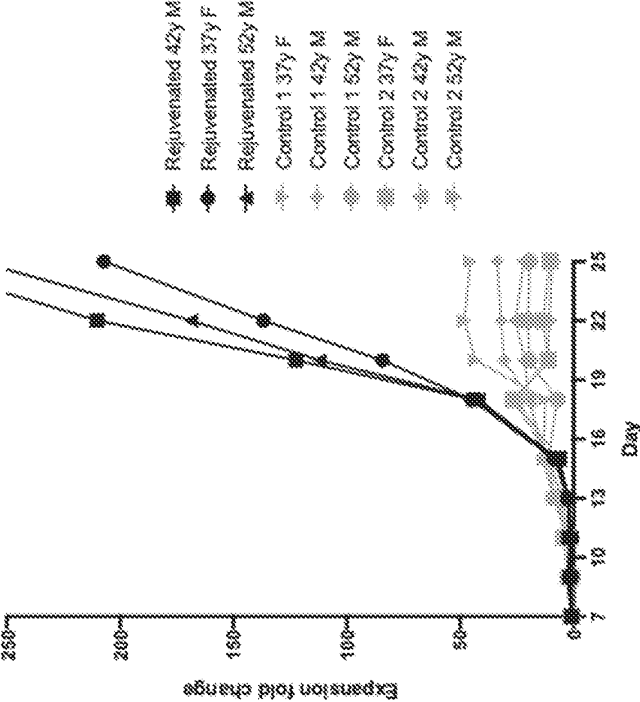


FIG. 19A

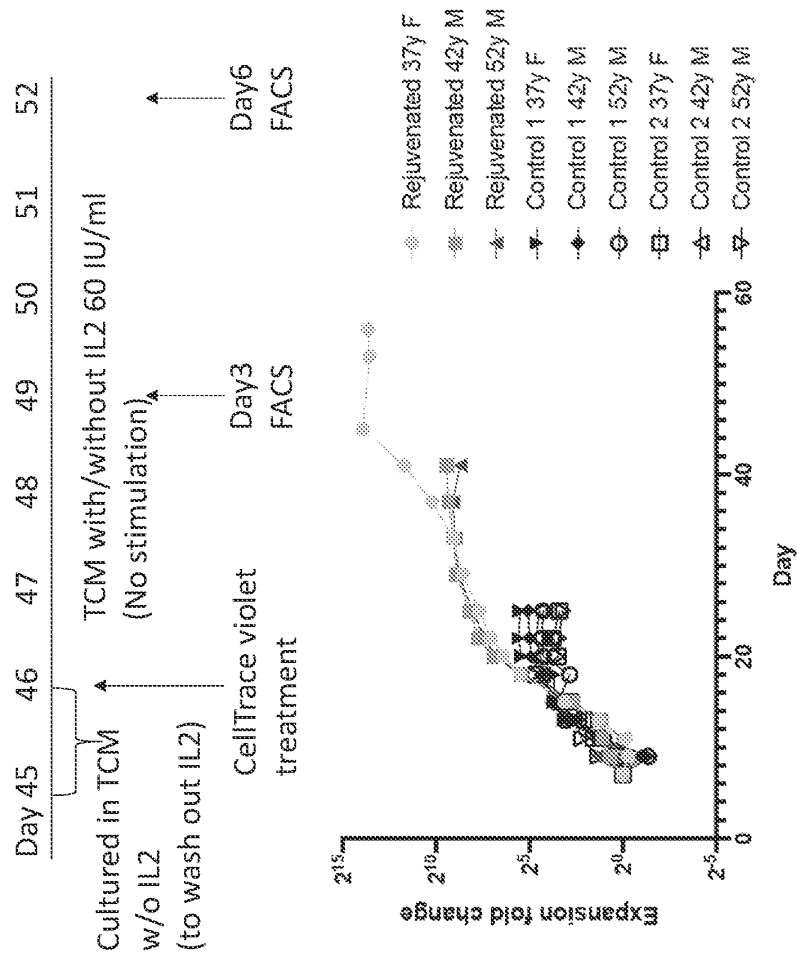


FIG. 20A

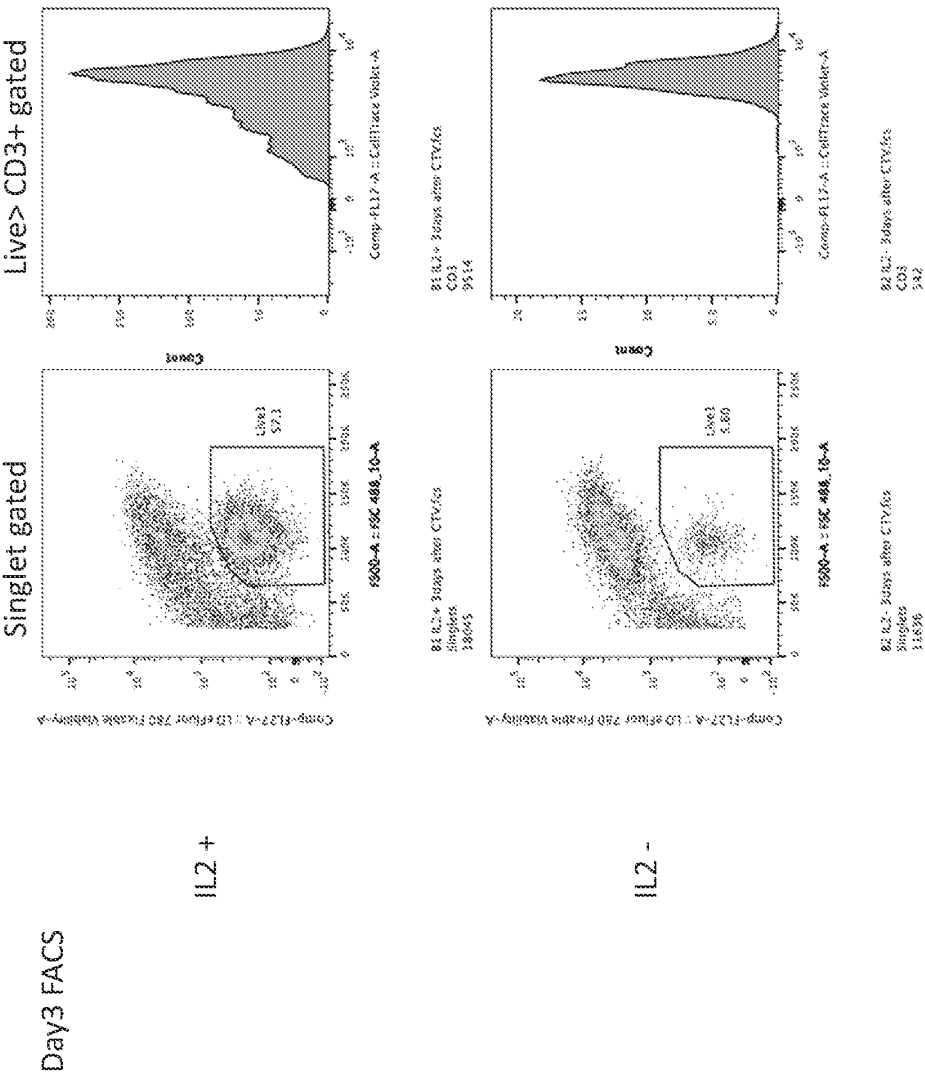
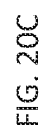


FIG. 20B

12



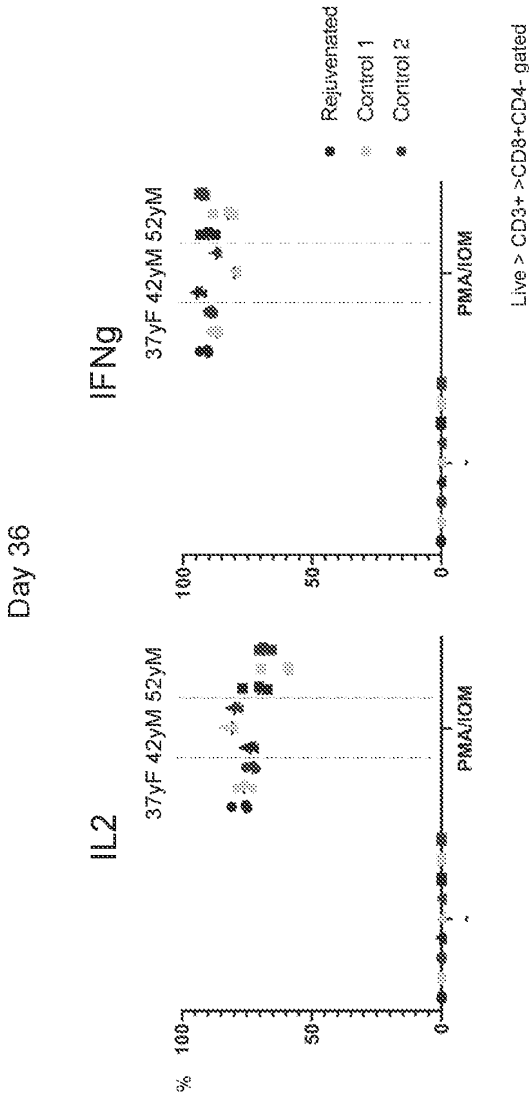


FIG. 21

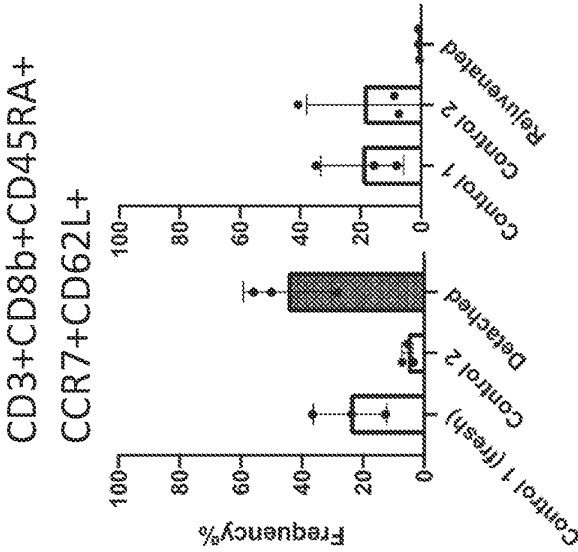


FIG. 22C

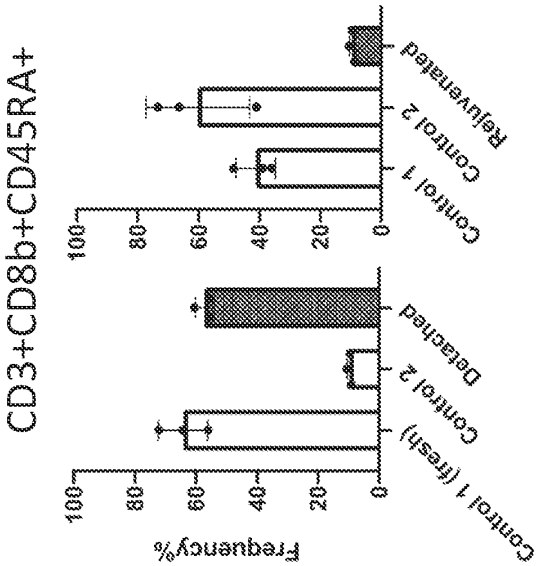


FIG. 22B

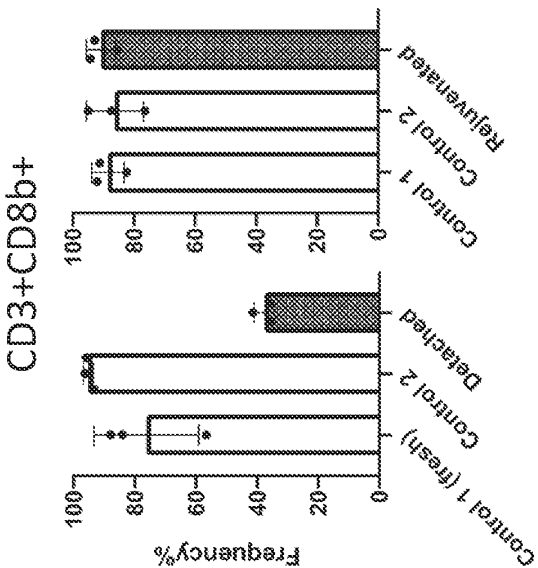


FIG. 22A

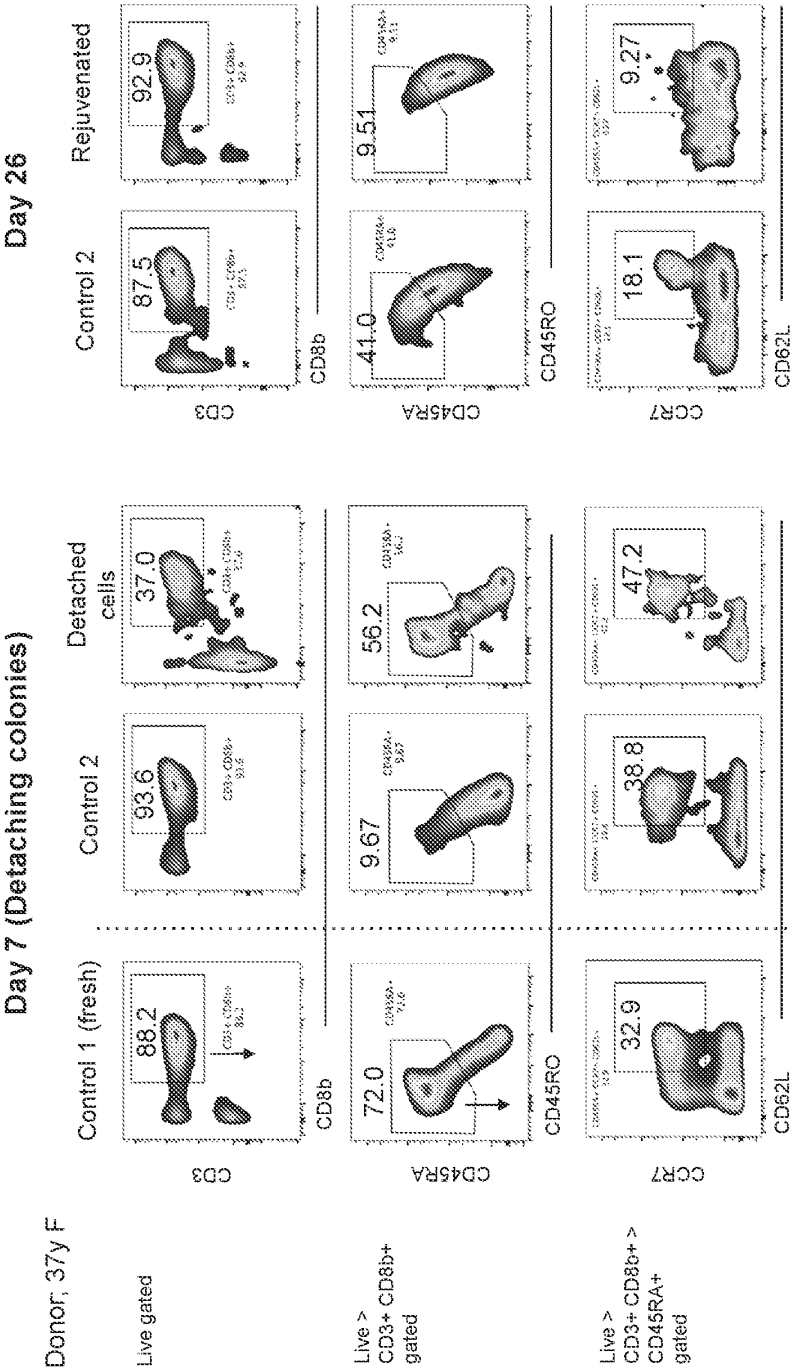


FIG. 23

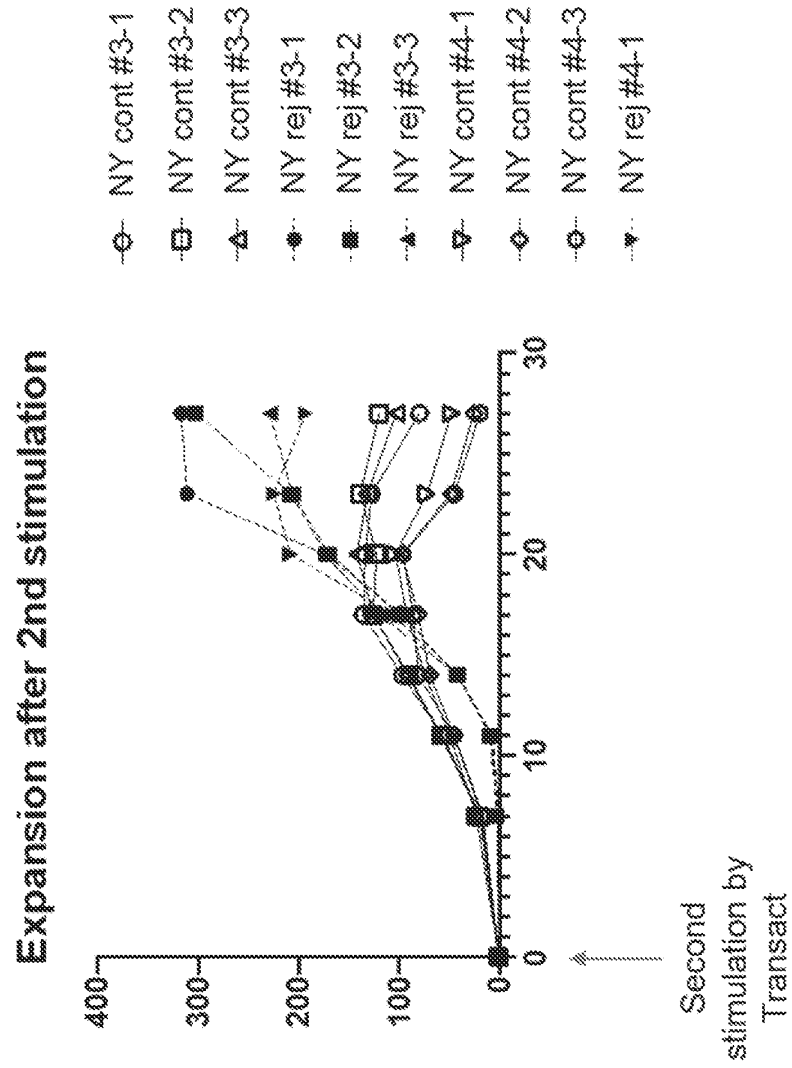


FIG. 24

|                    | CD4- CD8+ gated | CD45RO | CCR7   | CD62L  |
|--------------------|-----------------|--------|--------|--------|
| Non-transduced     | 99.3 %          | 97.3 % | 63.5 % | 7.84 % |
| NYESO1 control     | 80.0 %          | 98.2 % | 60.7 % | 5.98 % |
| NYESO1 rejuvenated | 85.4 %          | 86.7 % | 0.14 % | 0.23 % |

CD4

CD3+ TE+ gated

CD3

CD8b

CD45RA

CD62L

Day14 after second stimulation

FIG. 25

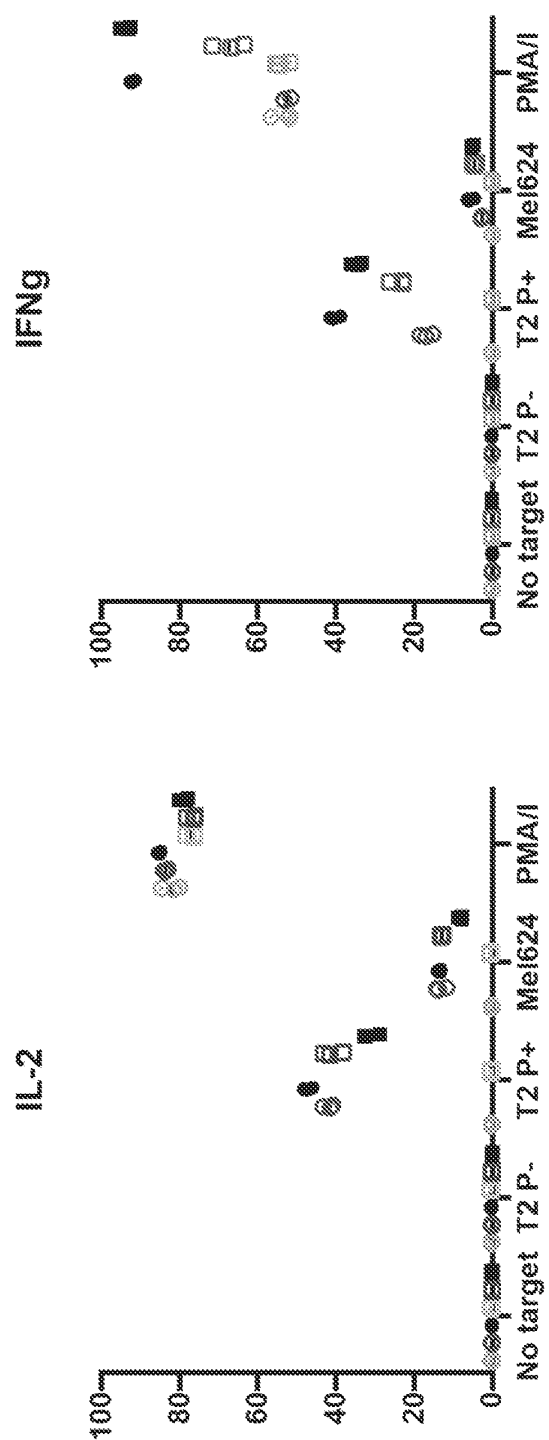


FIG. 26B

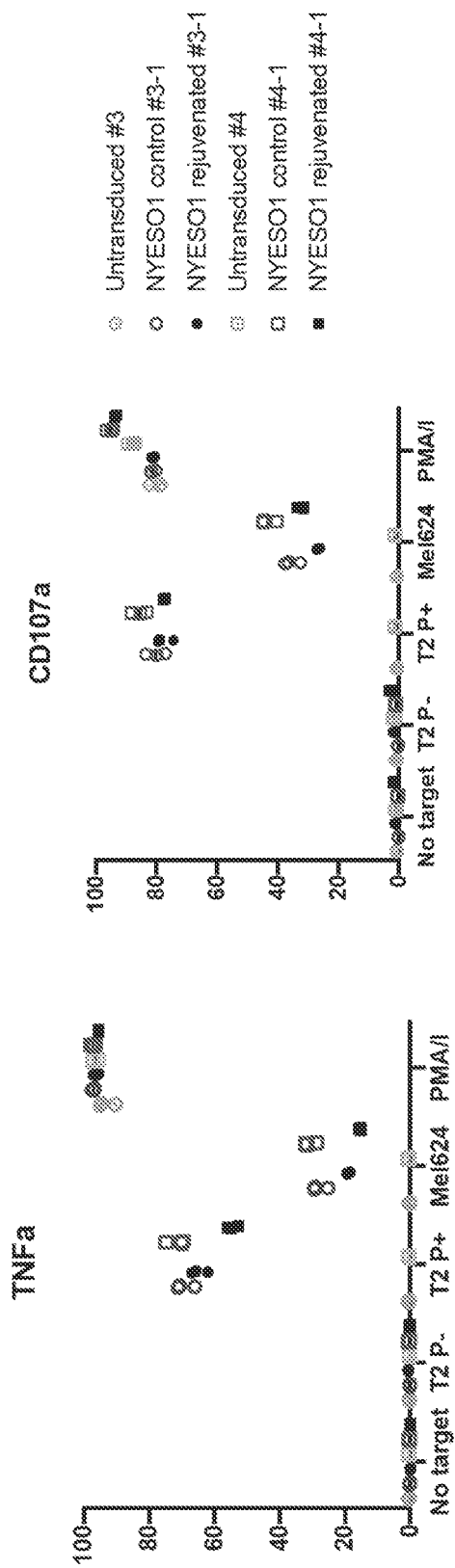


FIG. 26D

FIG. 26C

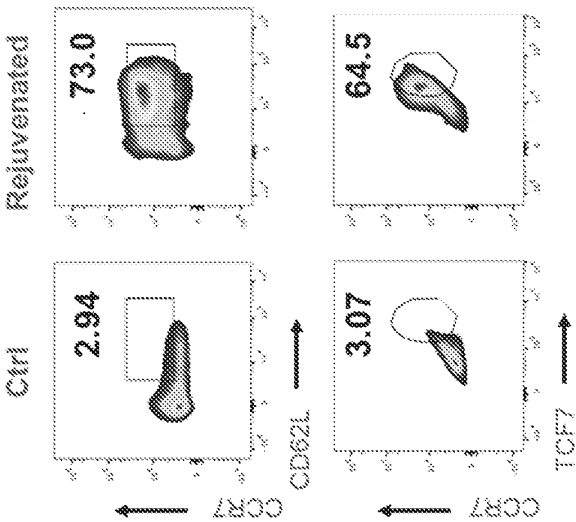


FIG. 27B

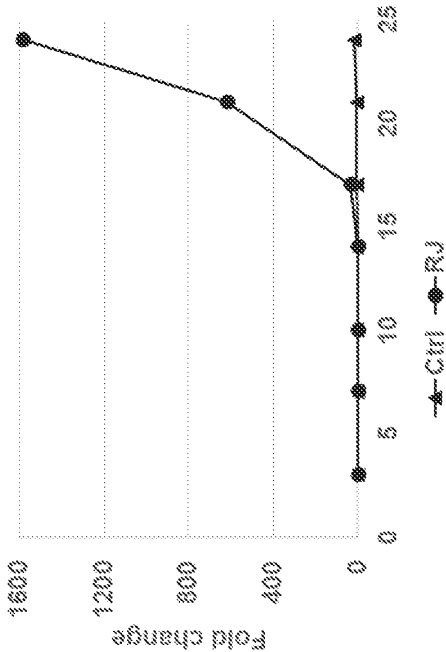


FIG. 27A

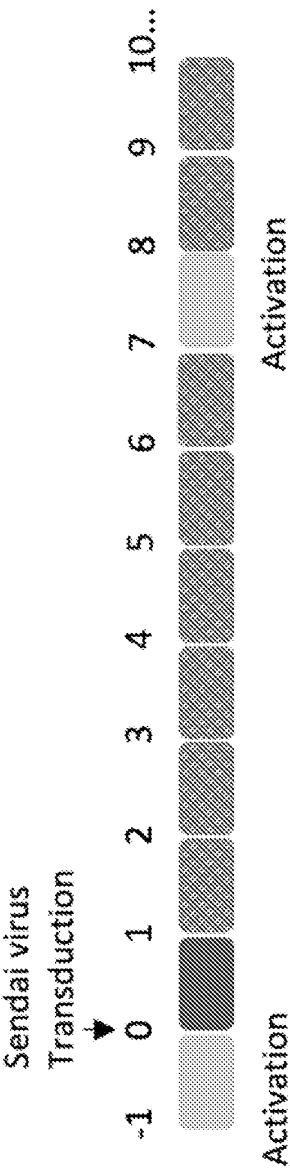


FIG. 28

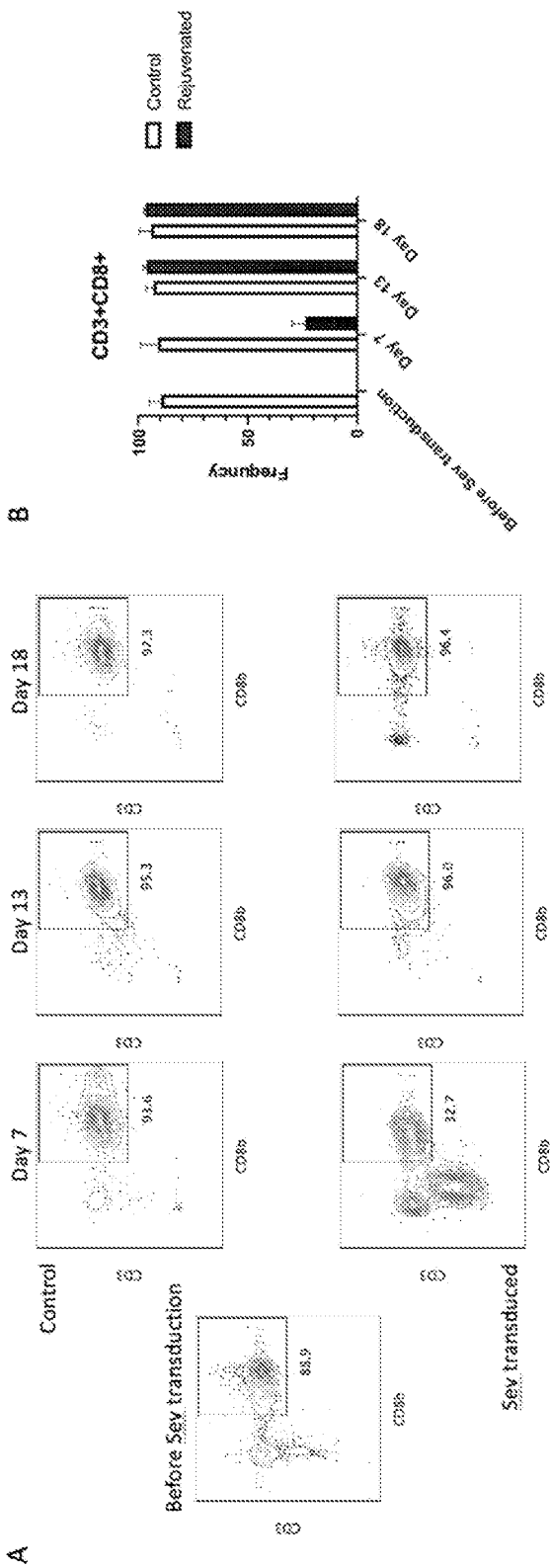


FIG. 29A

FIG. 29B

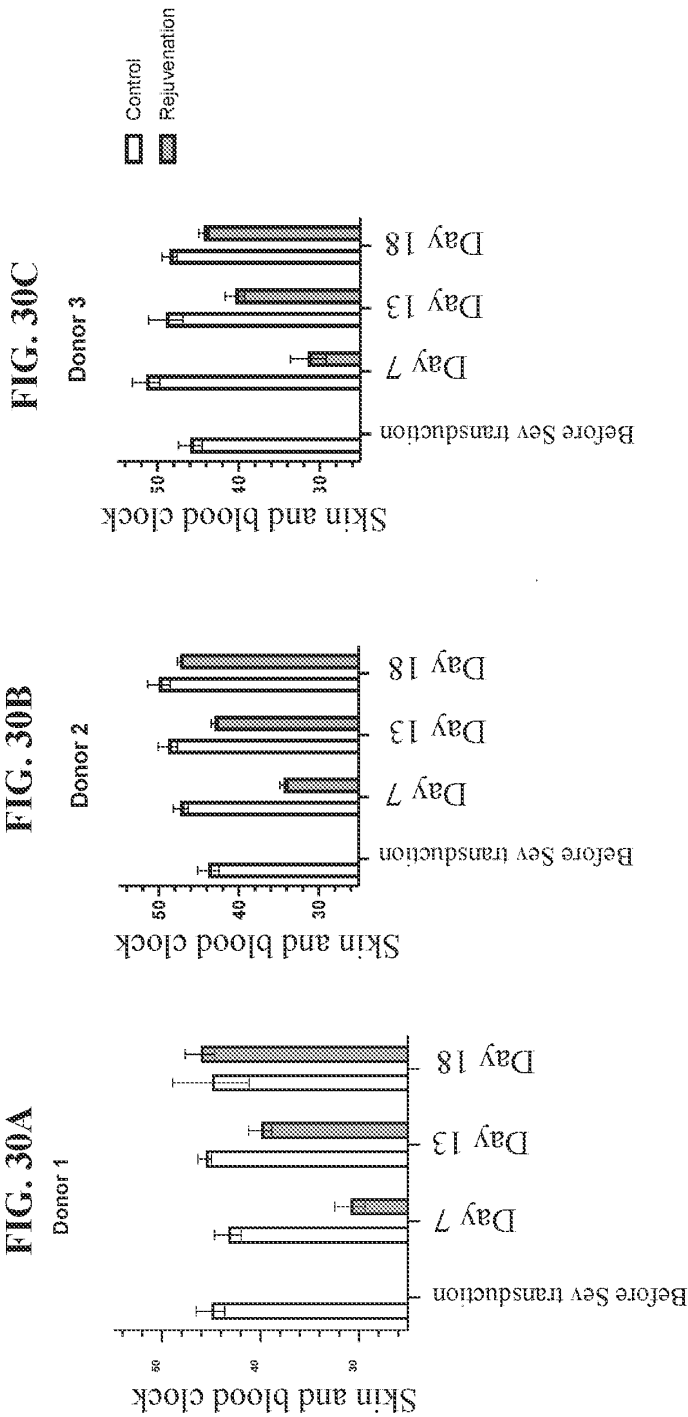
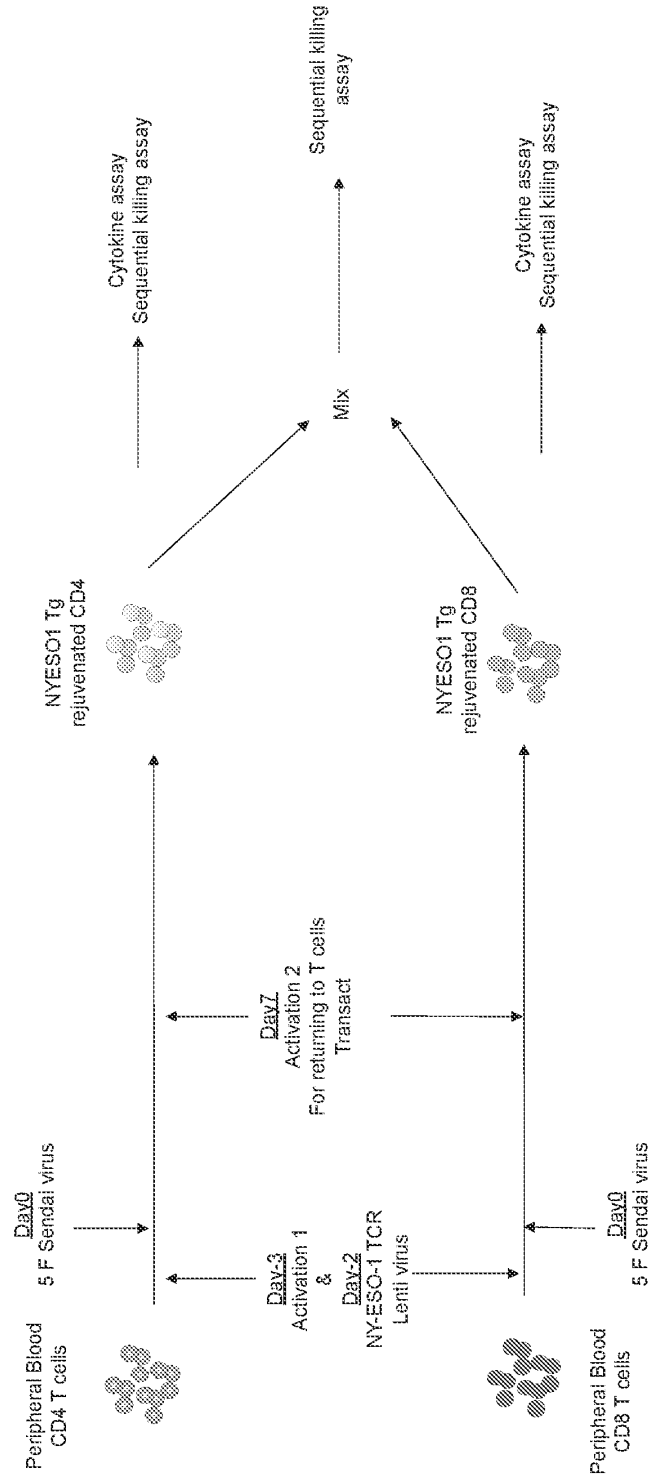


FIG. 31.



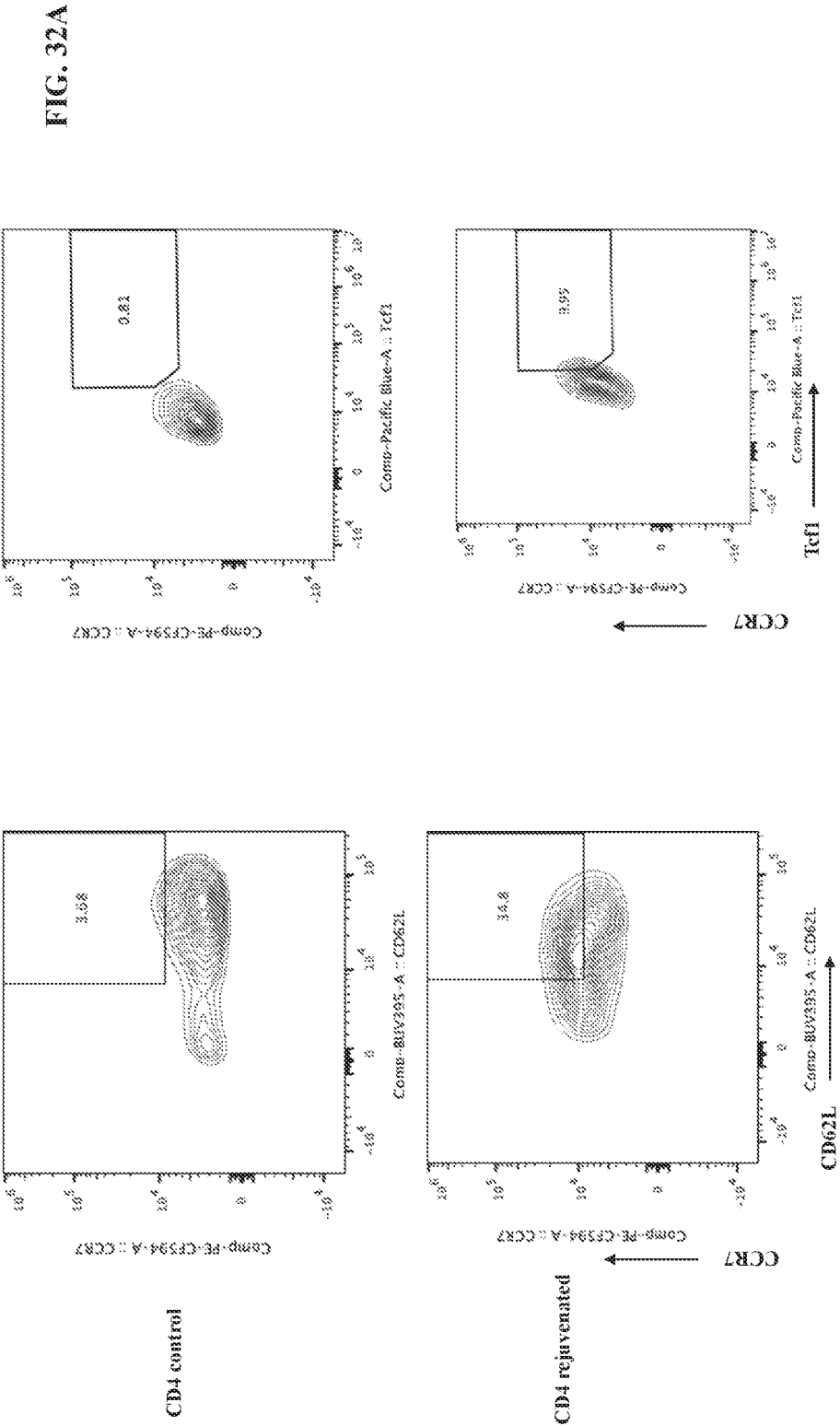


FIG. 32B

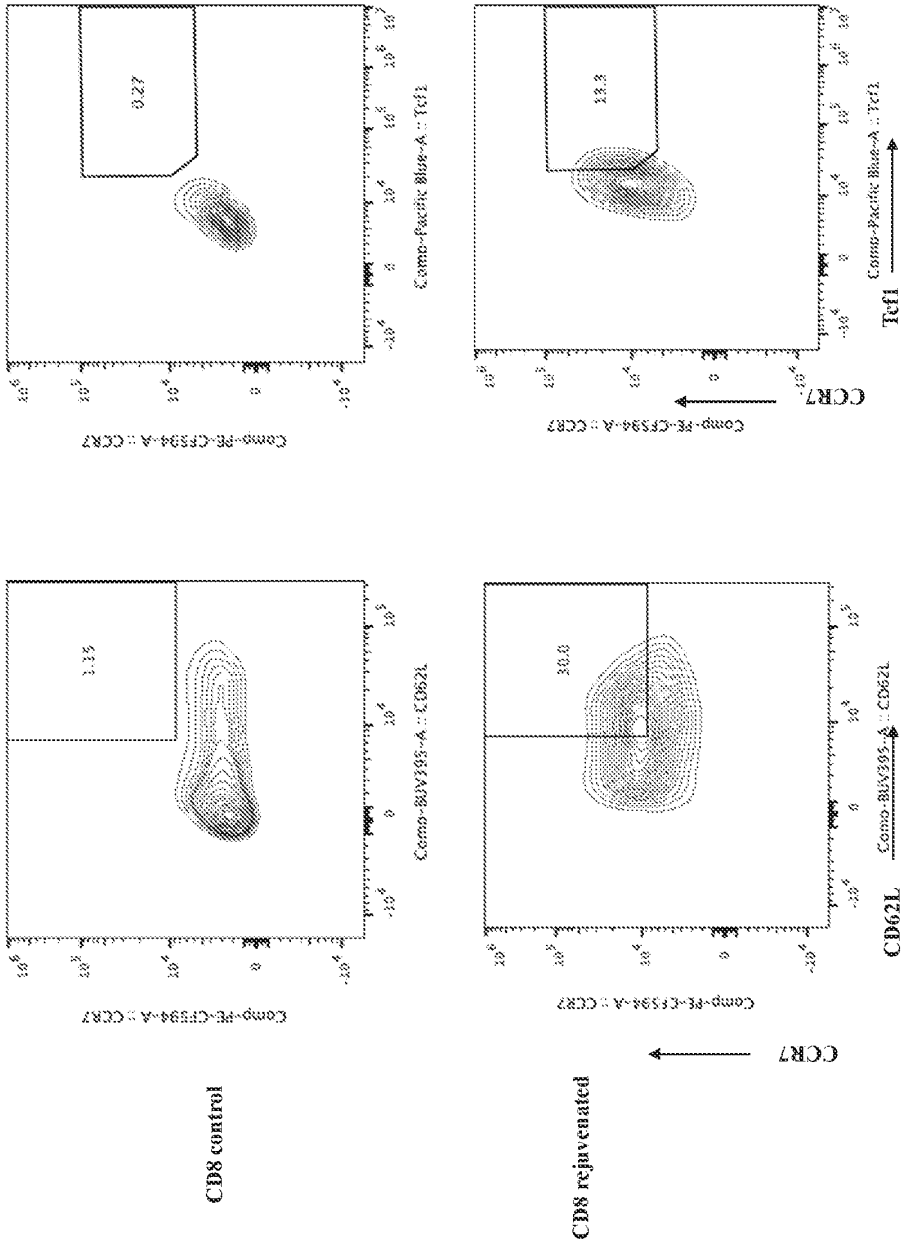


FIG. 33

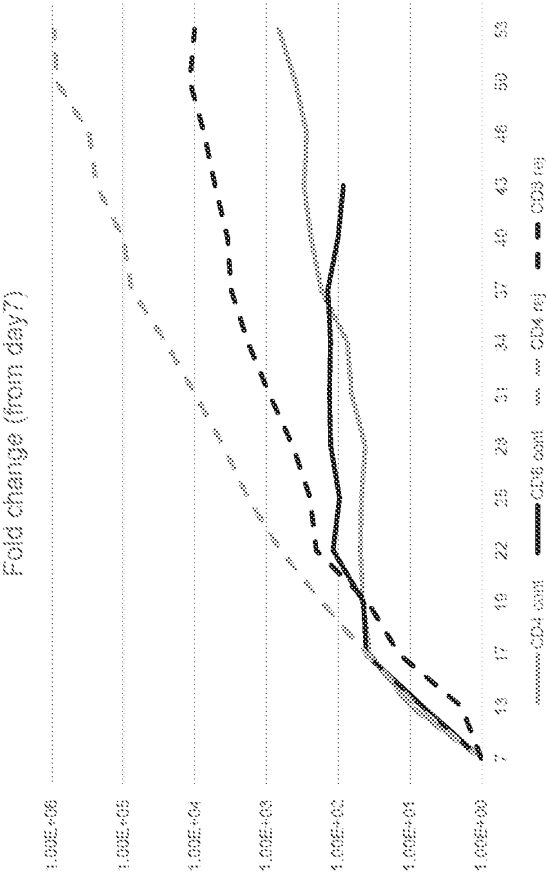


FIG. 34

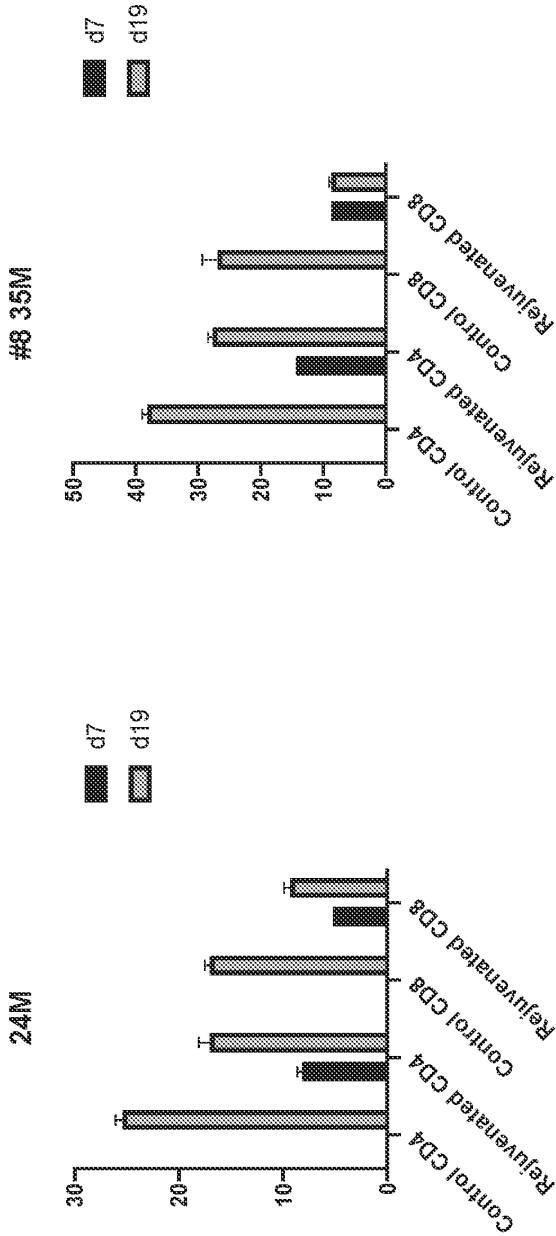


FIG. 34B

FIG. 34A

FIG. 35

Intracellular cytokine assay

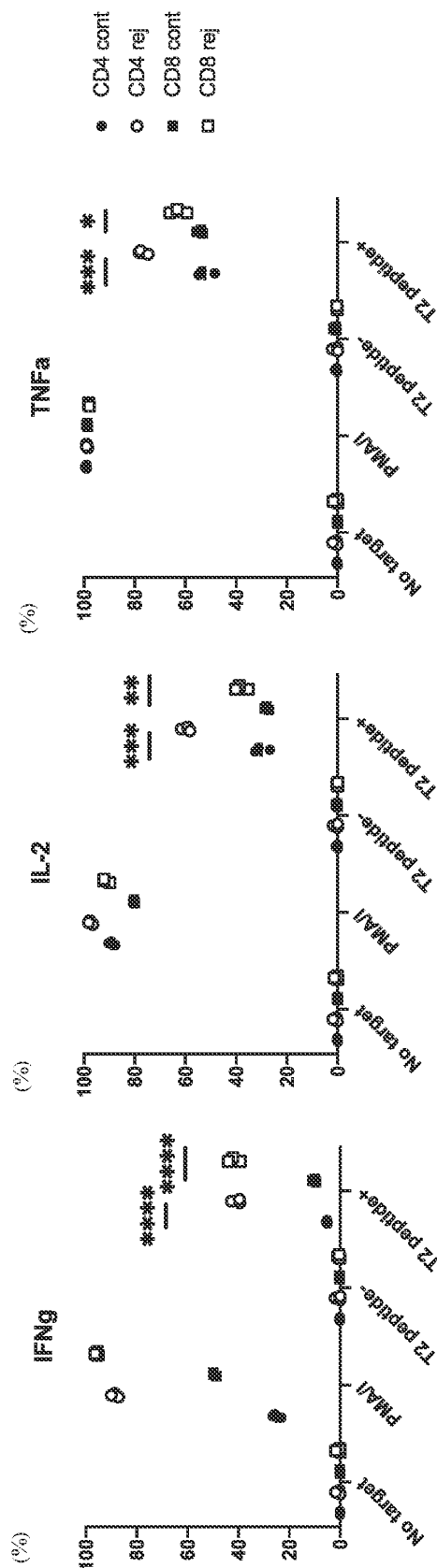


FIG. 36

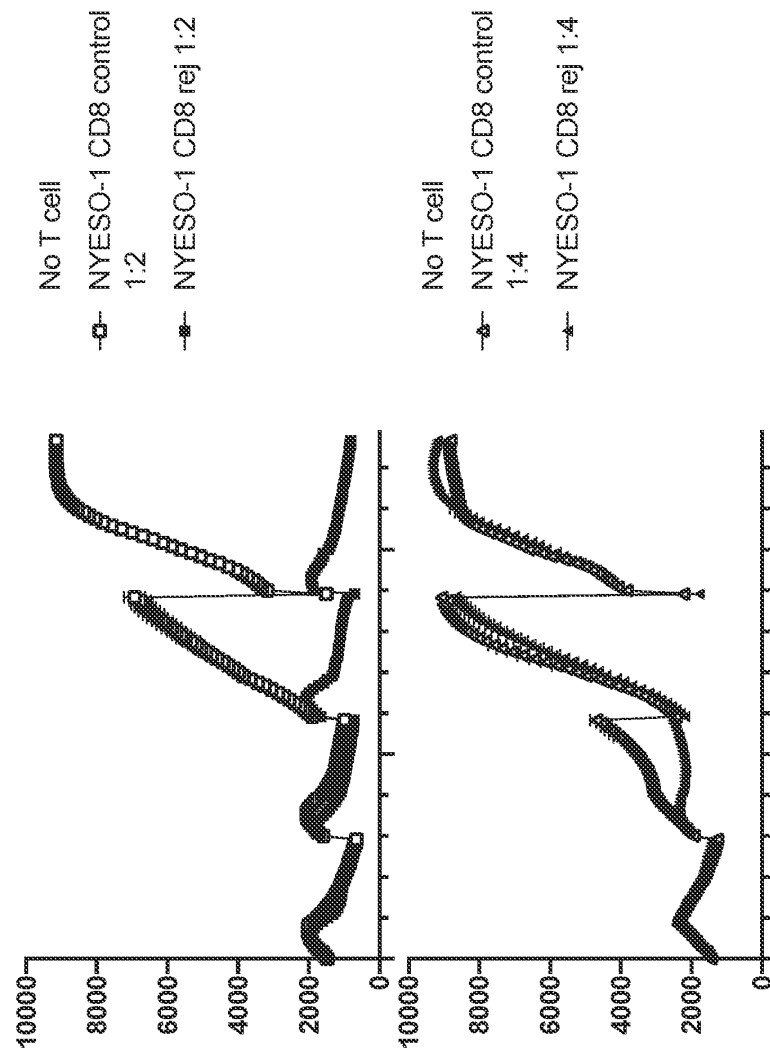


FIG. 37

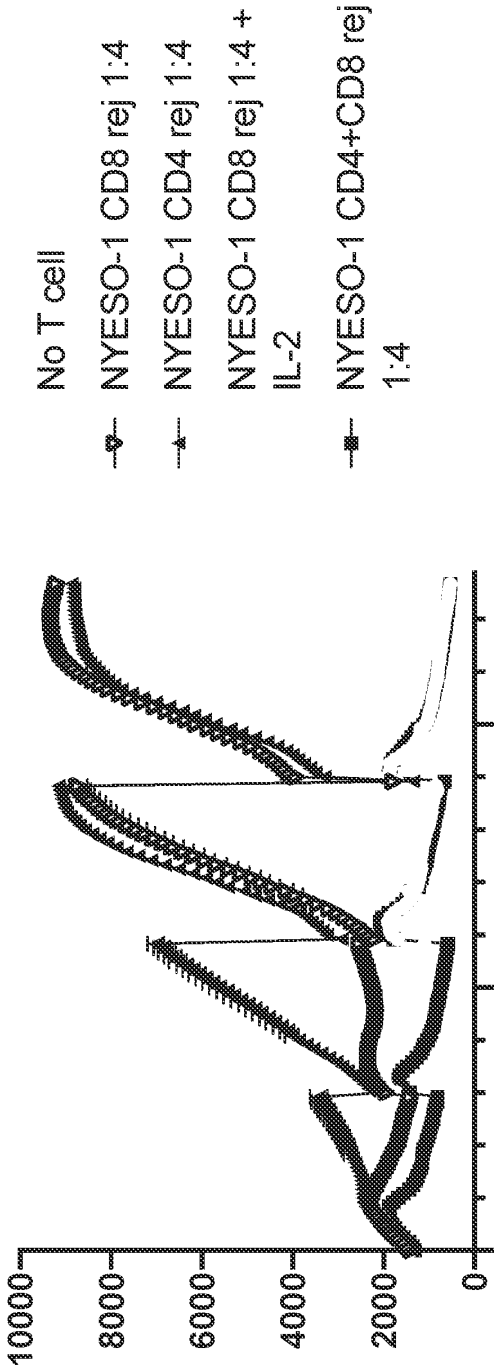


FIG. 38A

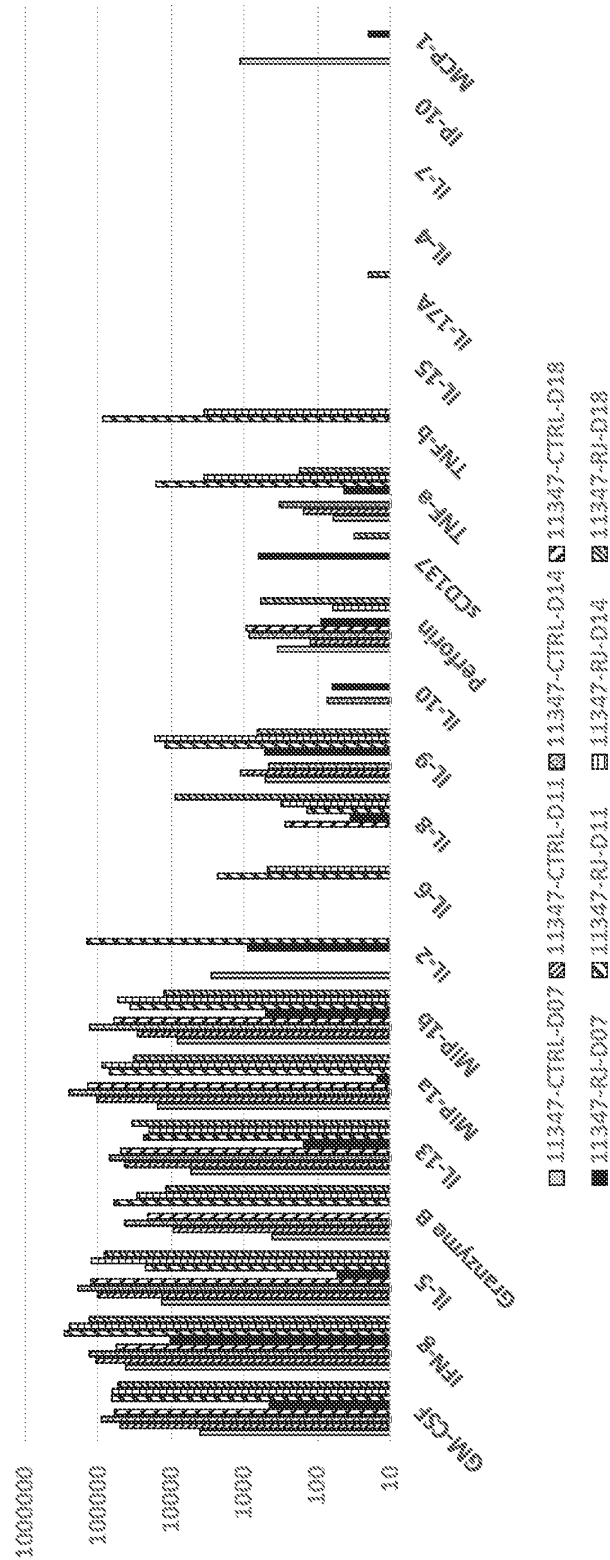


FIG. 38B

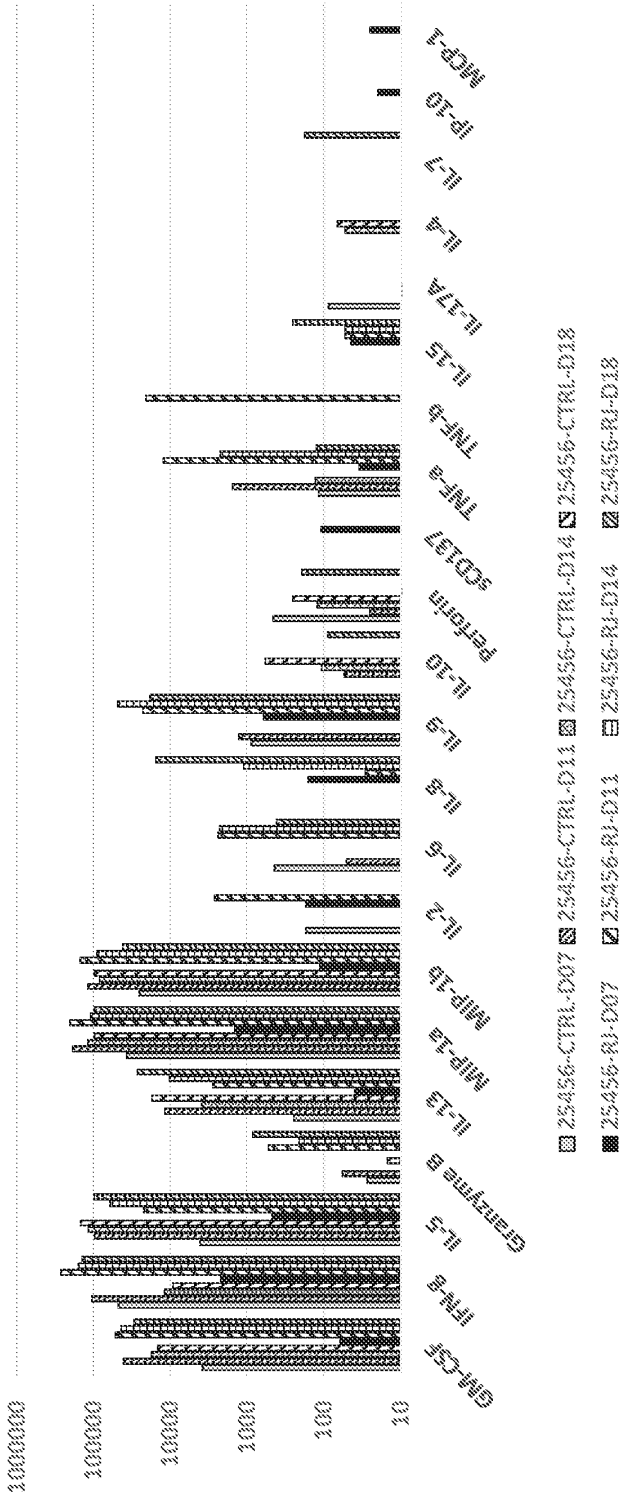


FIG. 39A

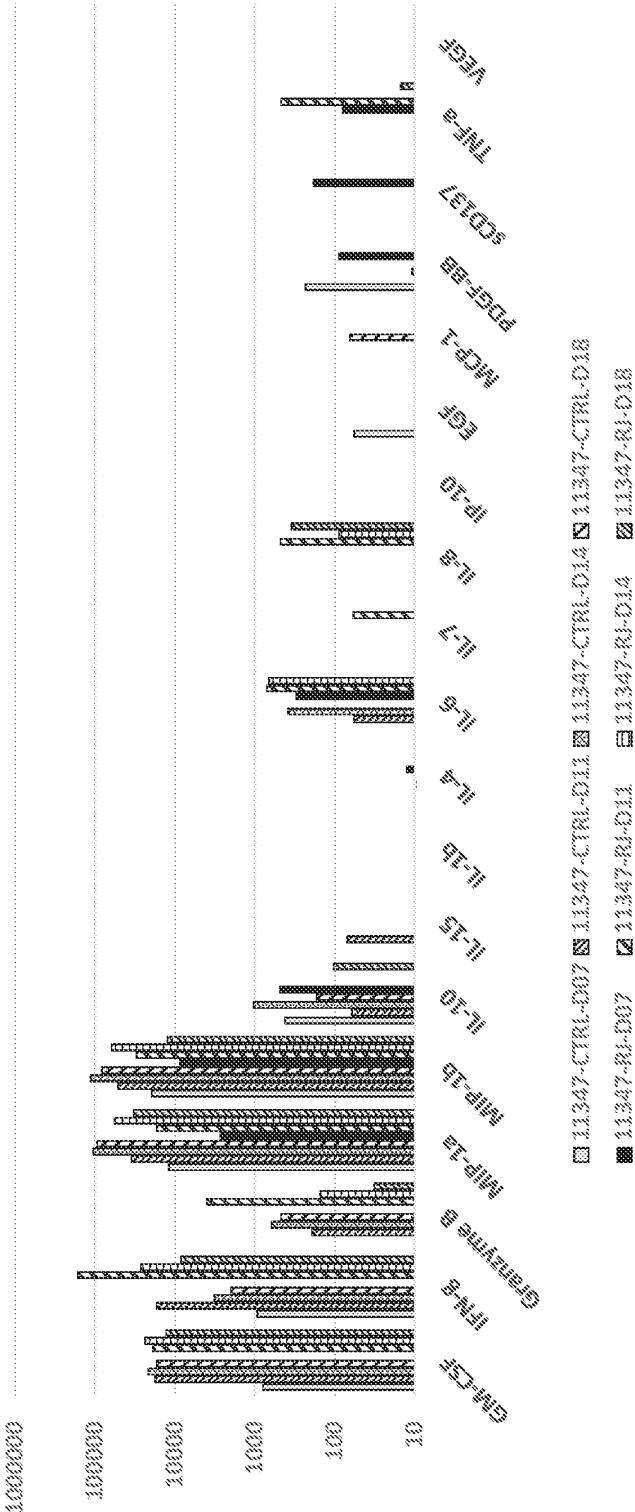


FIG. 39B

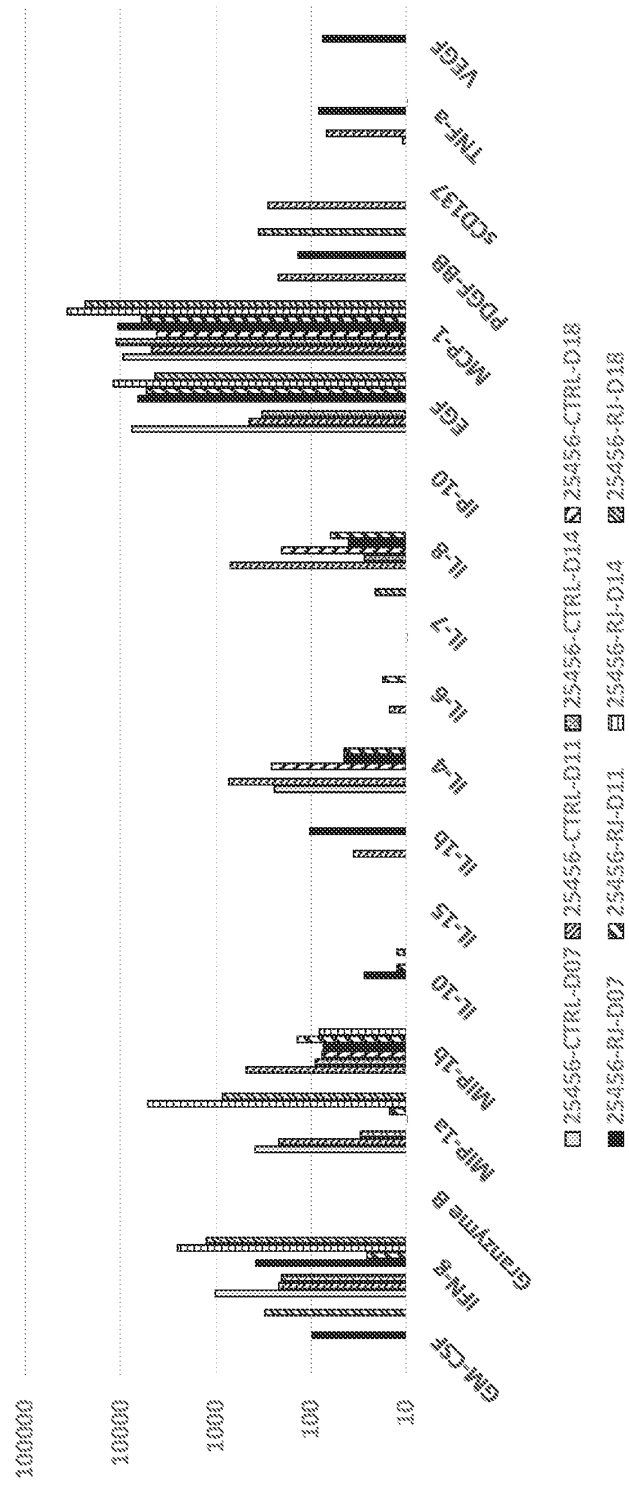
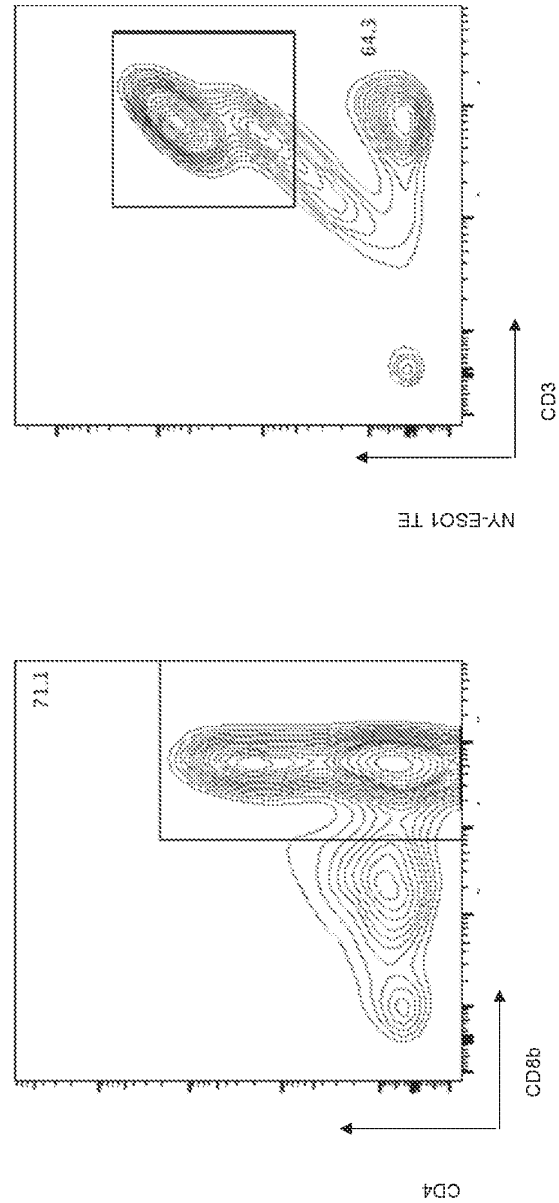


FIG. 40



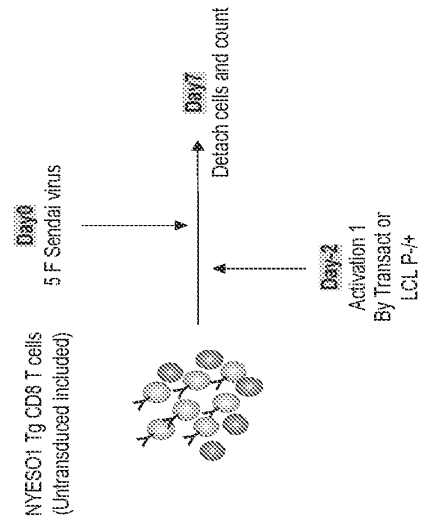


FIG. 41

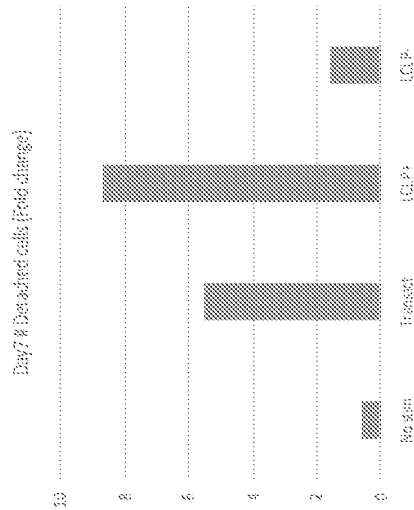
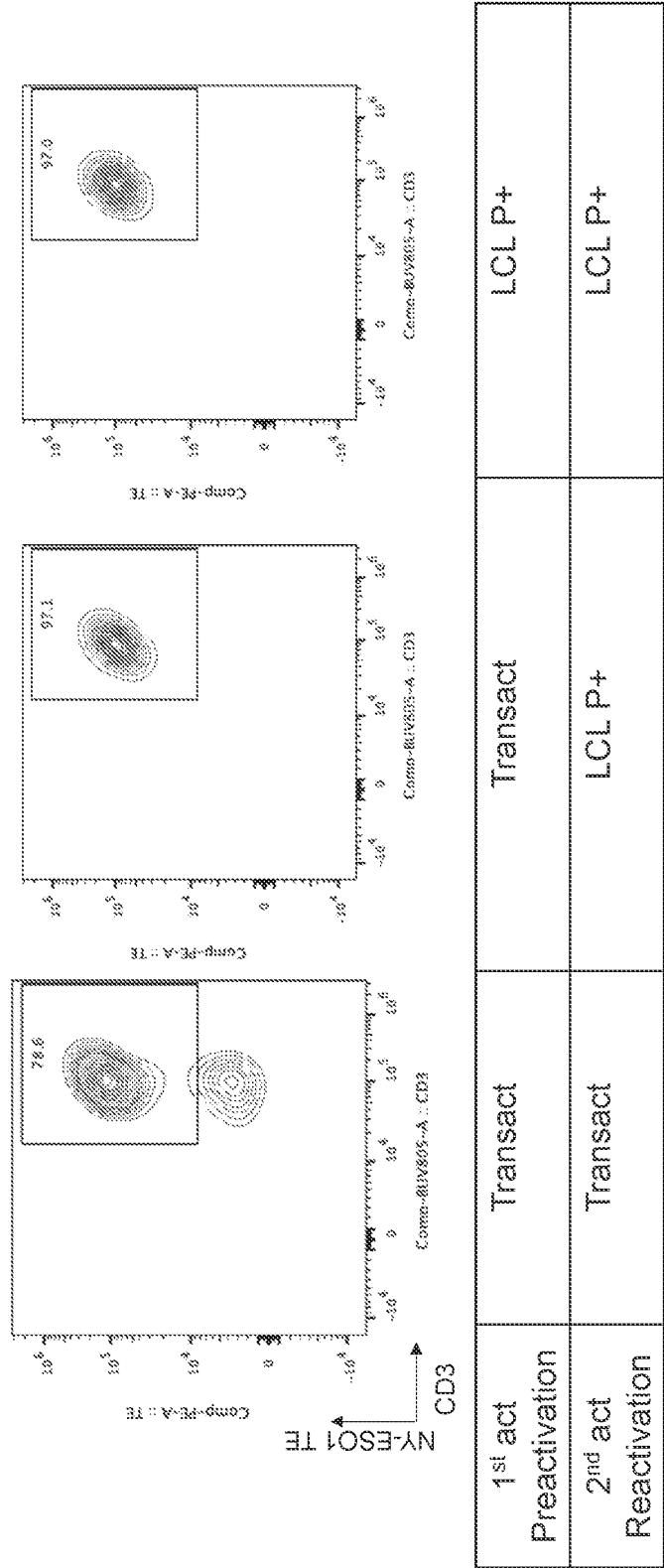


FIG. 42

Fig 43



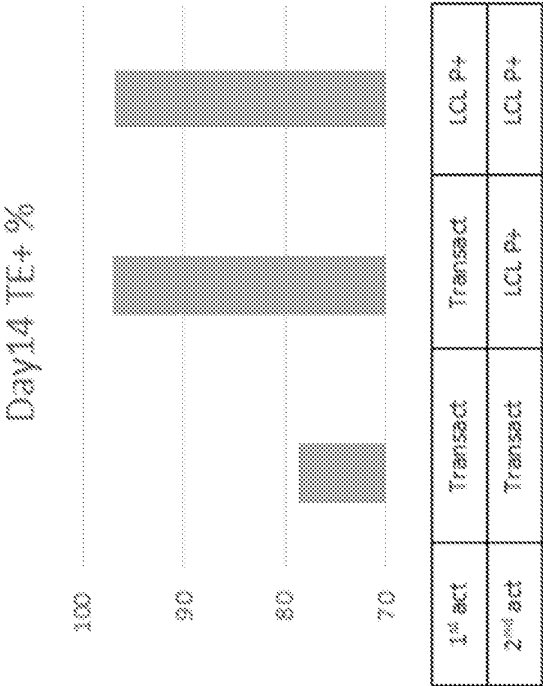


FIG. 44

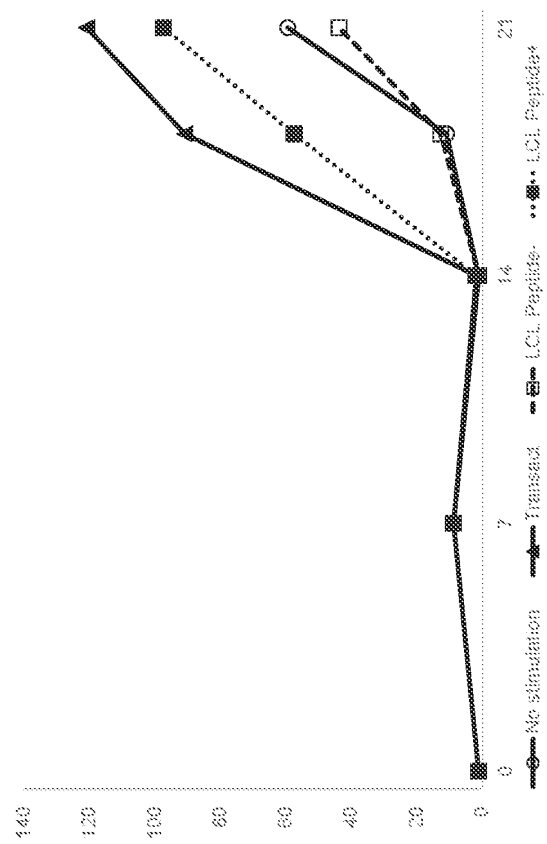
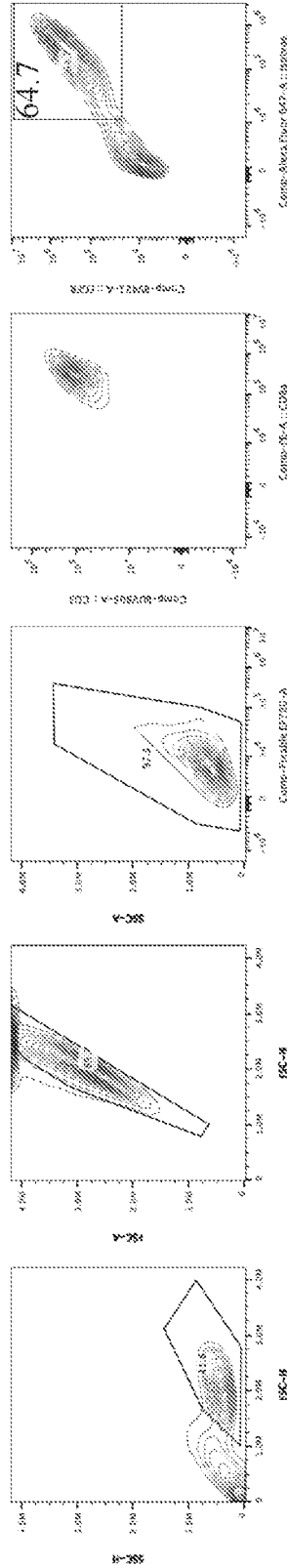


FIG. 46

Donor #1



Donor #2

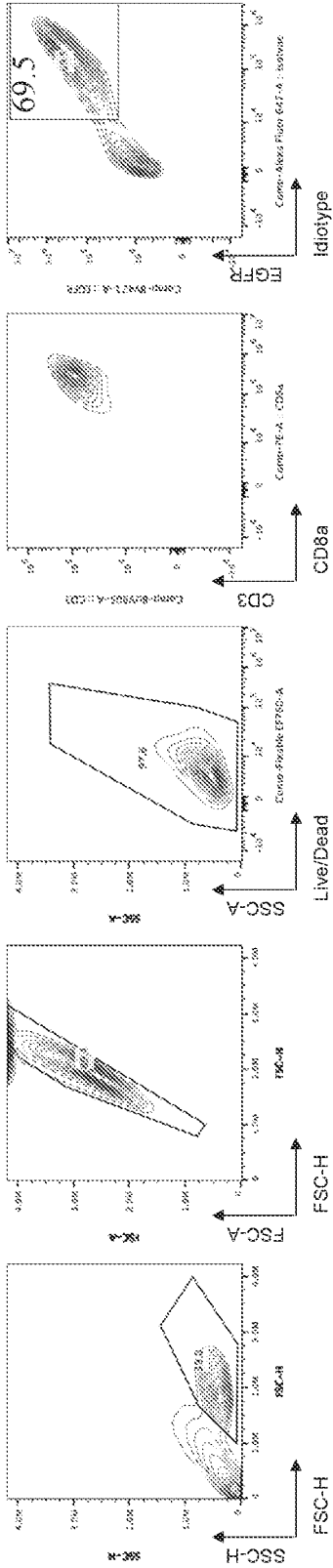


FIG. 47

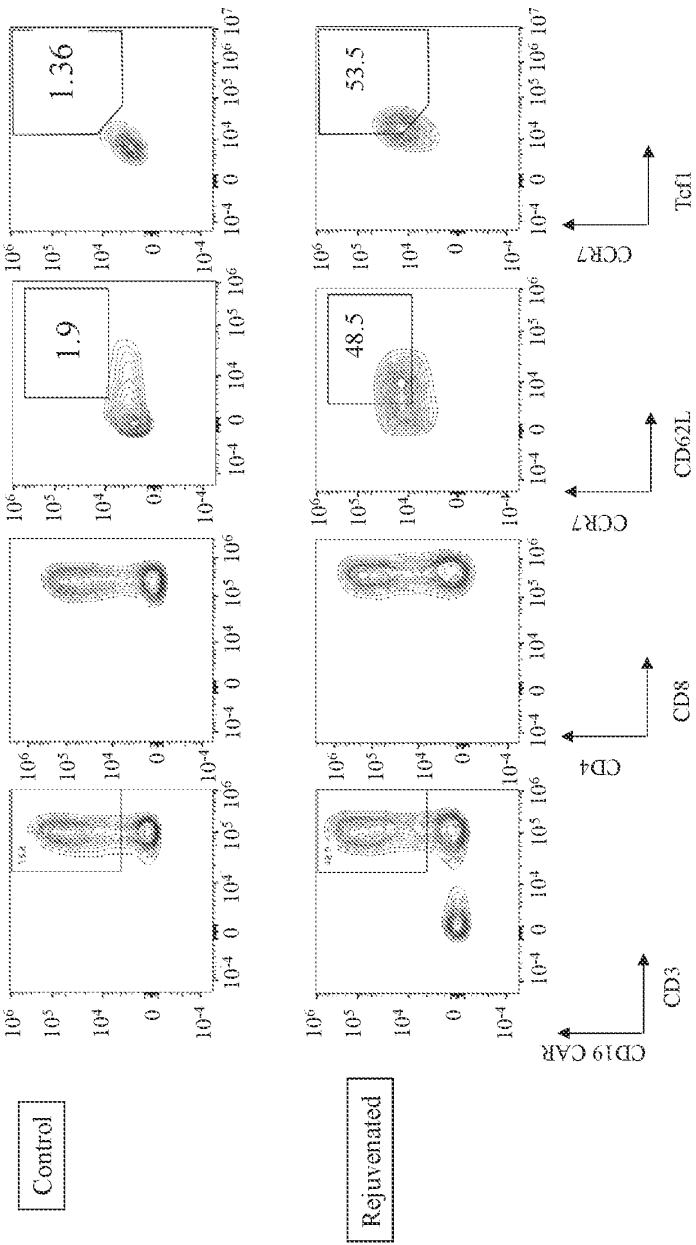


FIG. 48

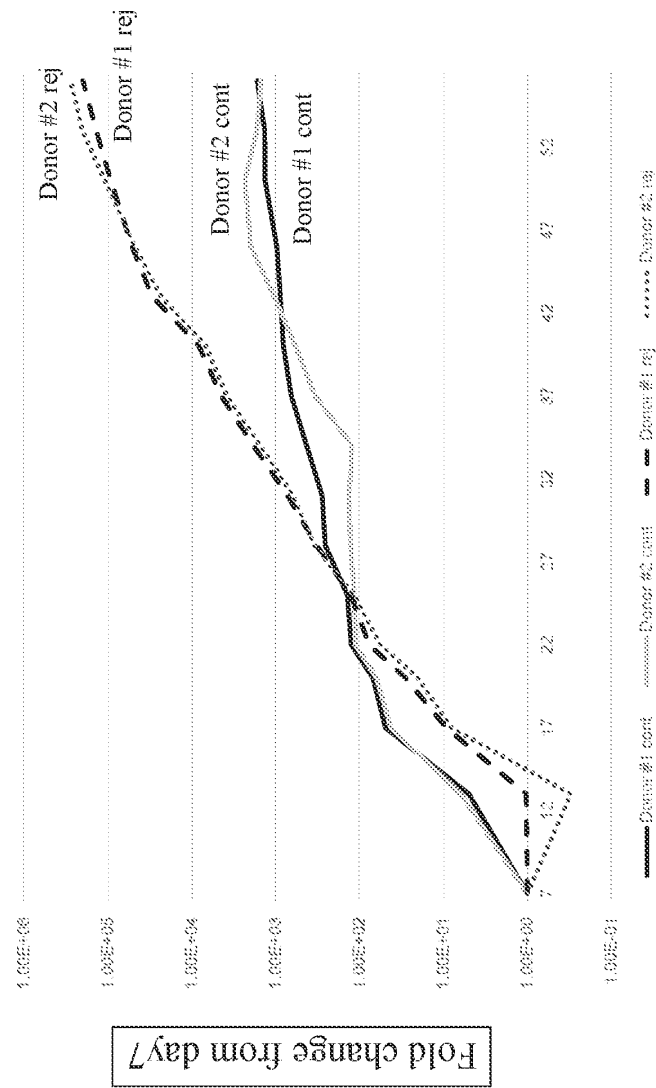
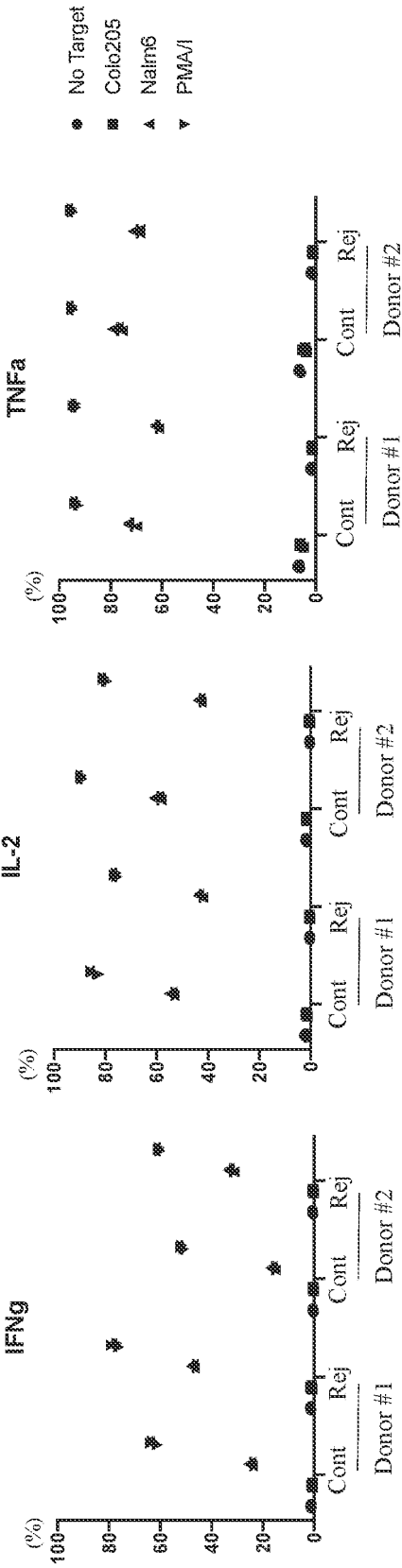


FIG. 49



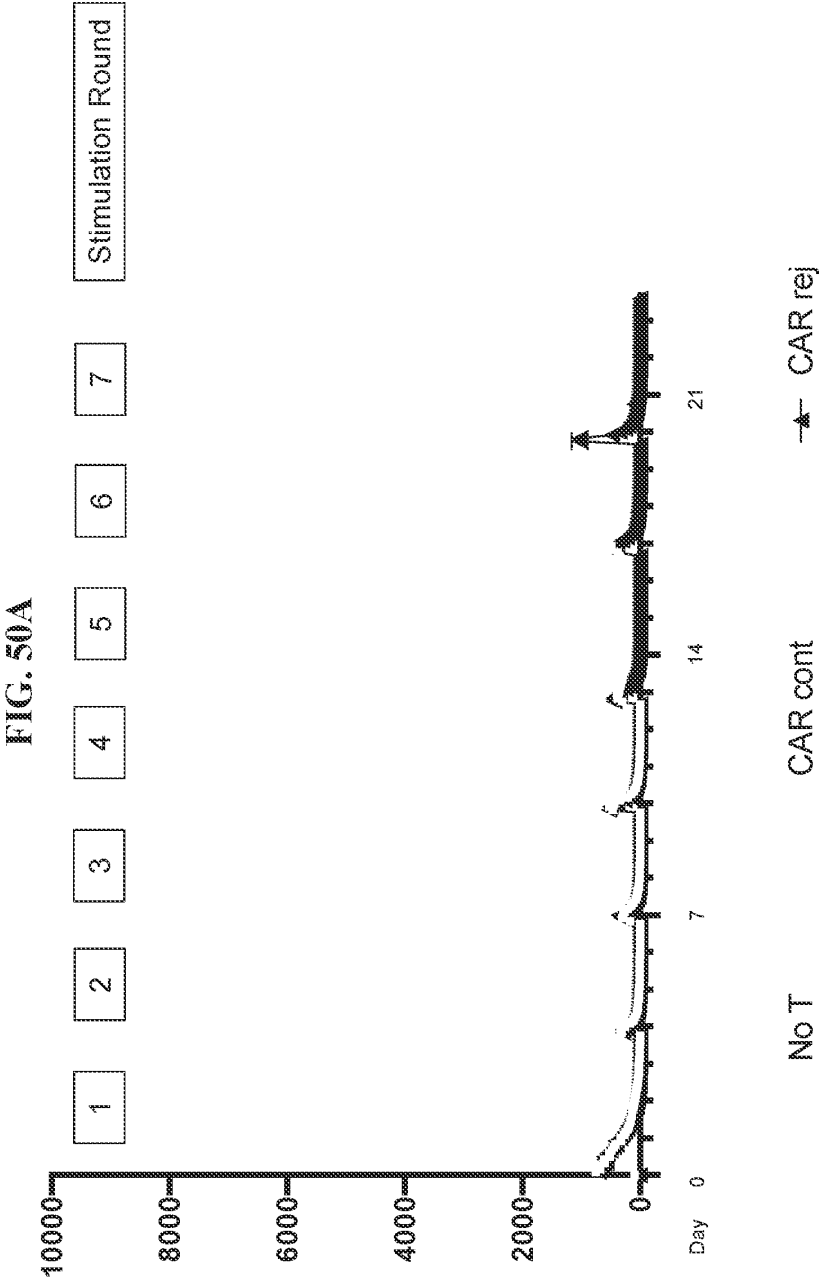


FIG. 50B

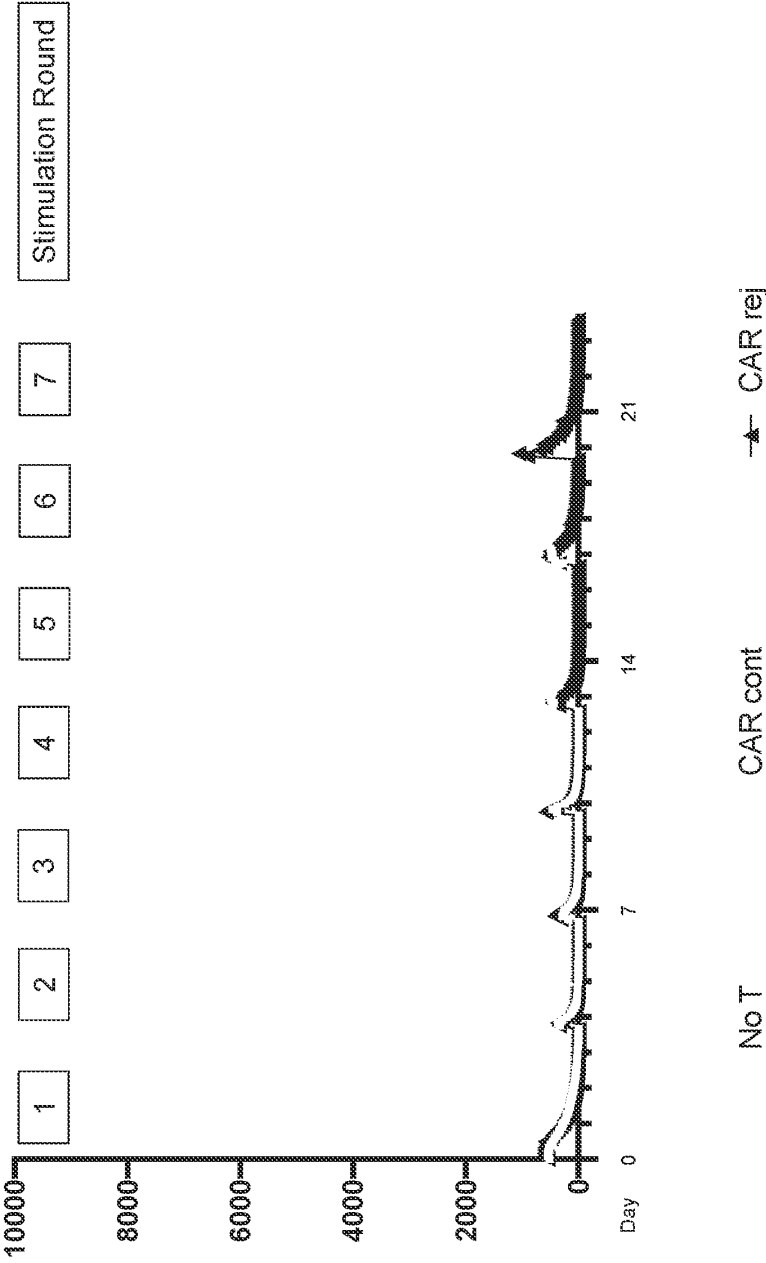
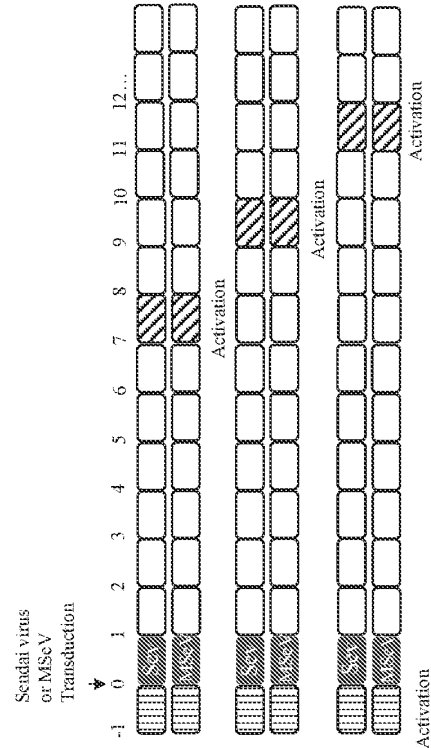
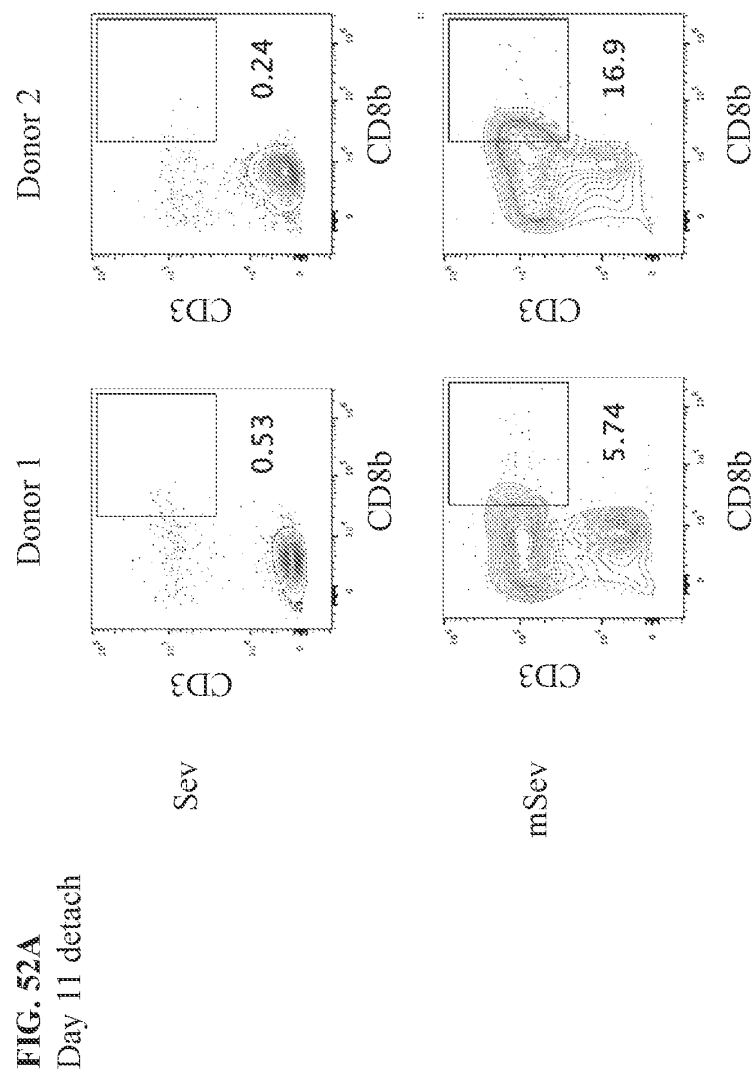


FIG. 51





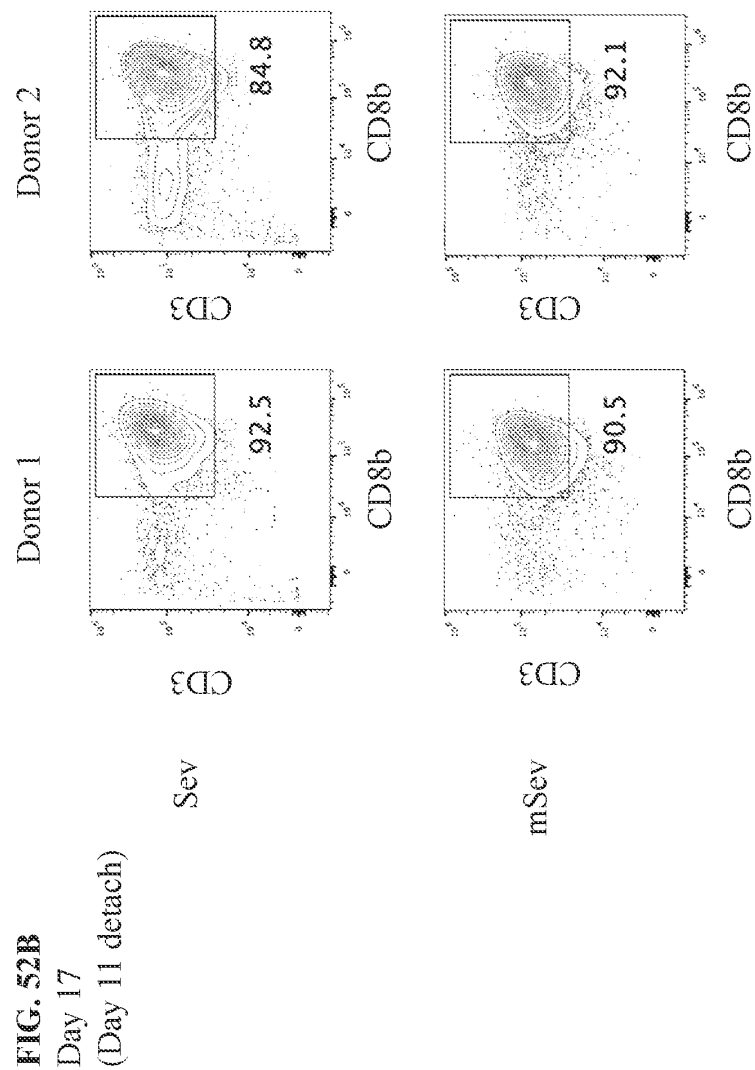


FIG. 53A

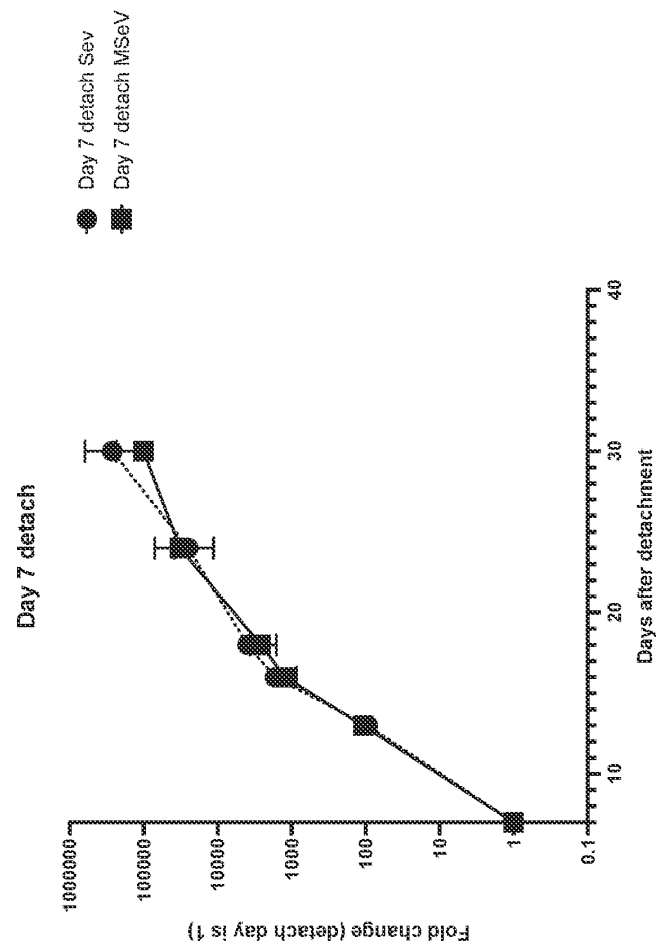


FIG. 53B

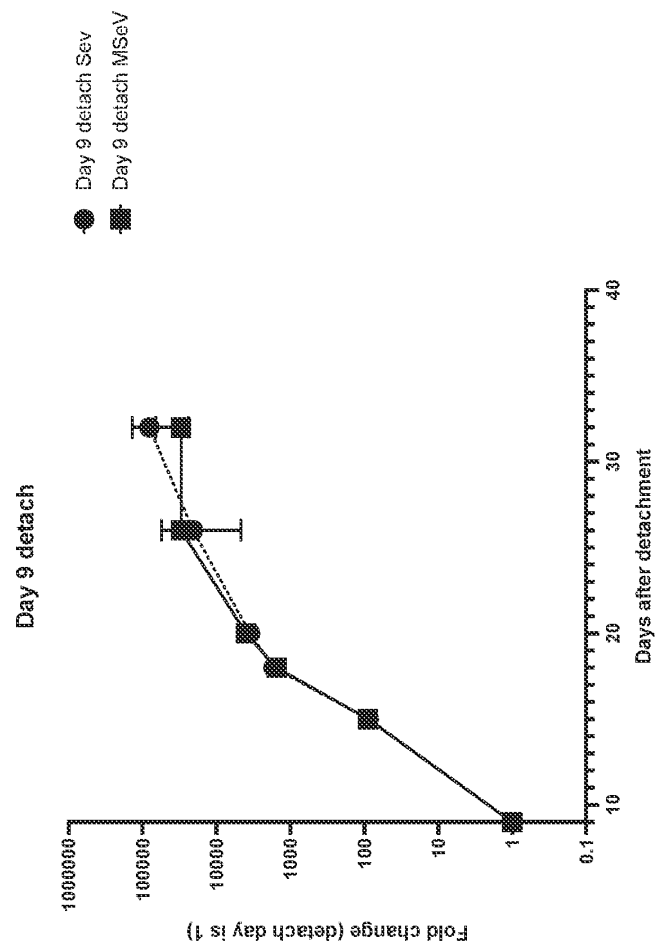


FIG. 53C

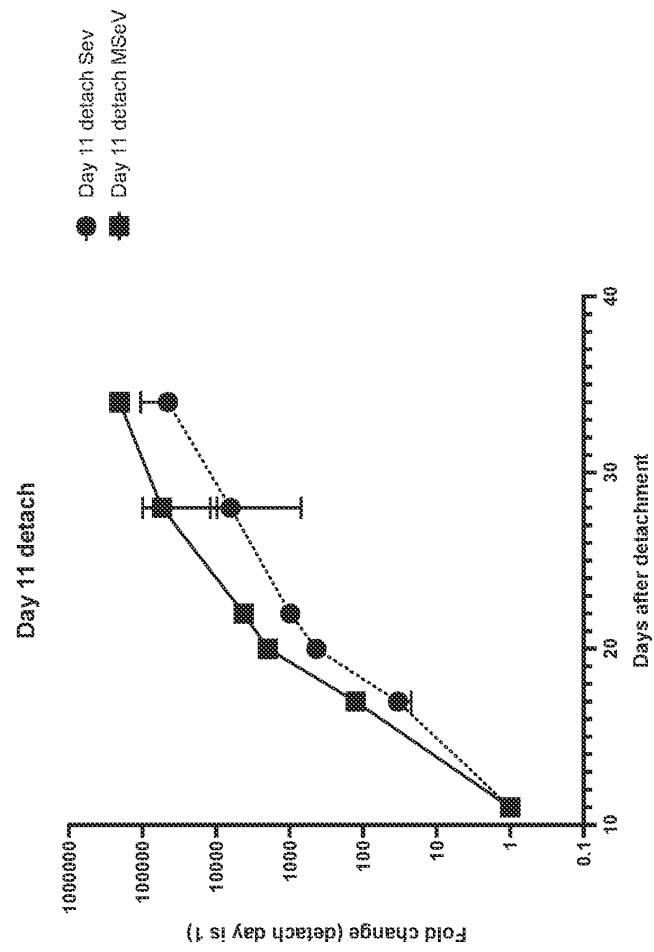


FIG. 54A

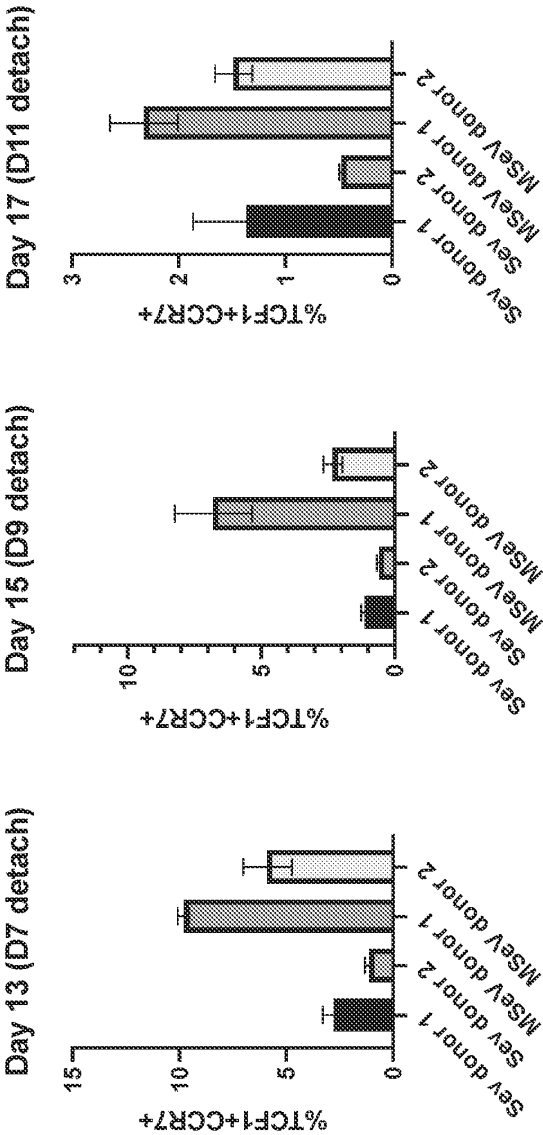


FIG. 54B

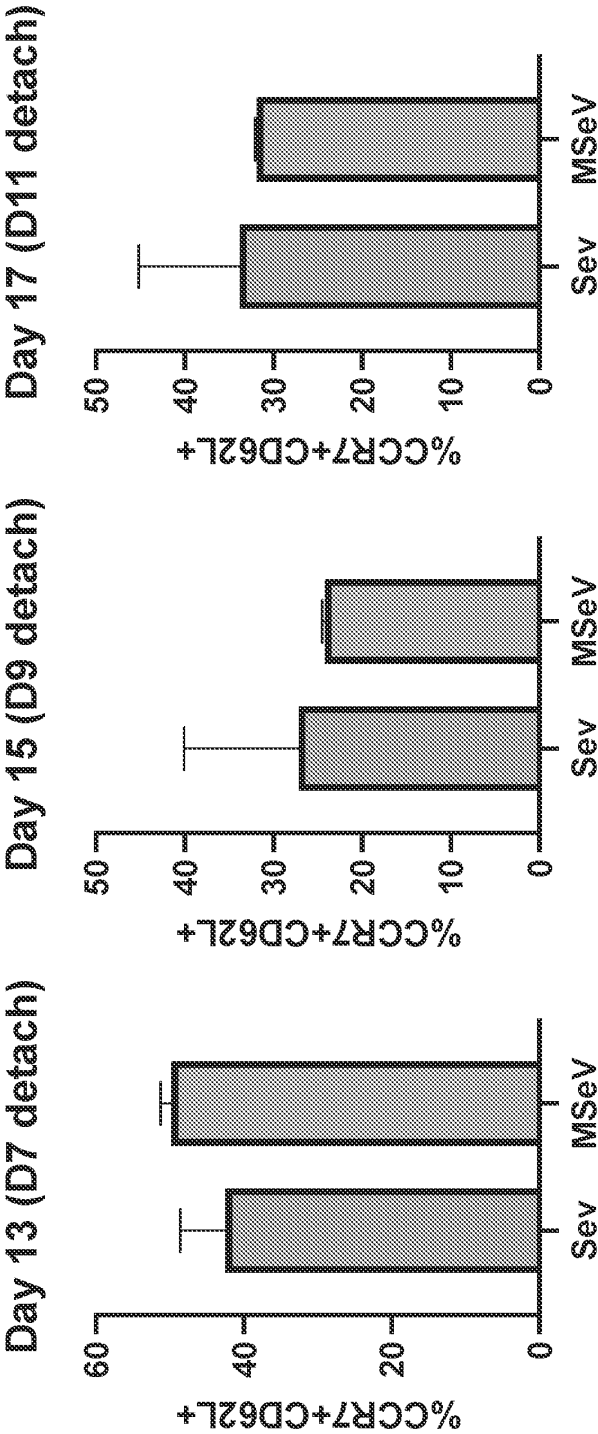


FIG. 55

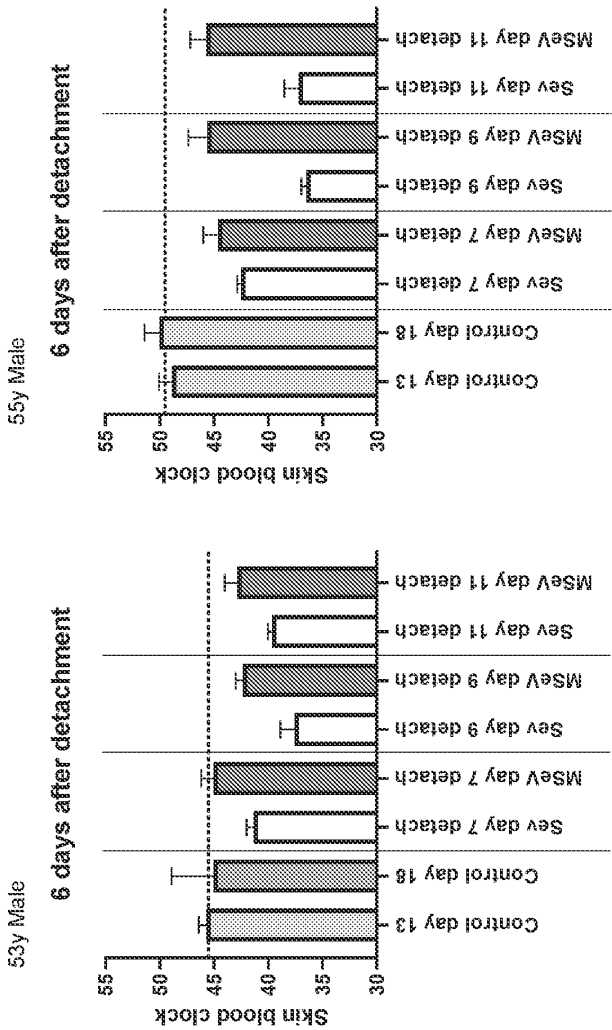
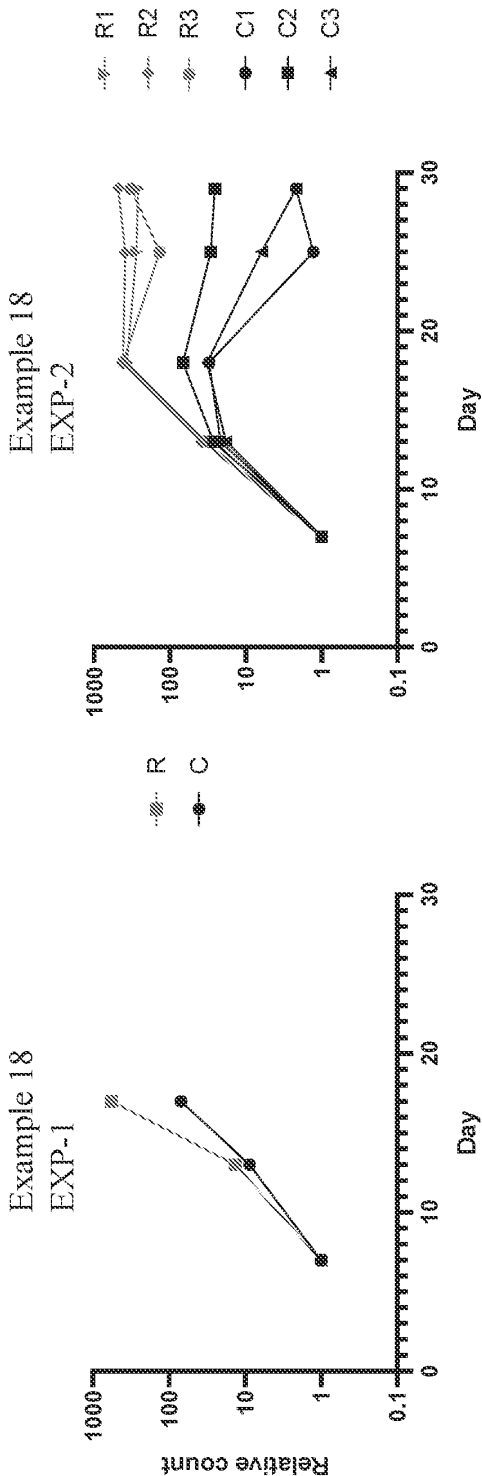


FIG. 56



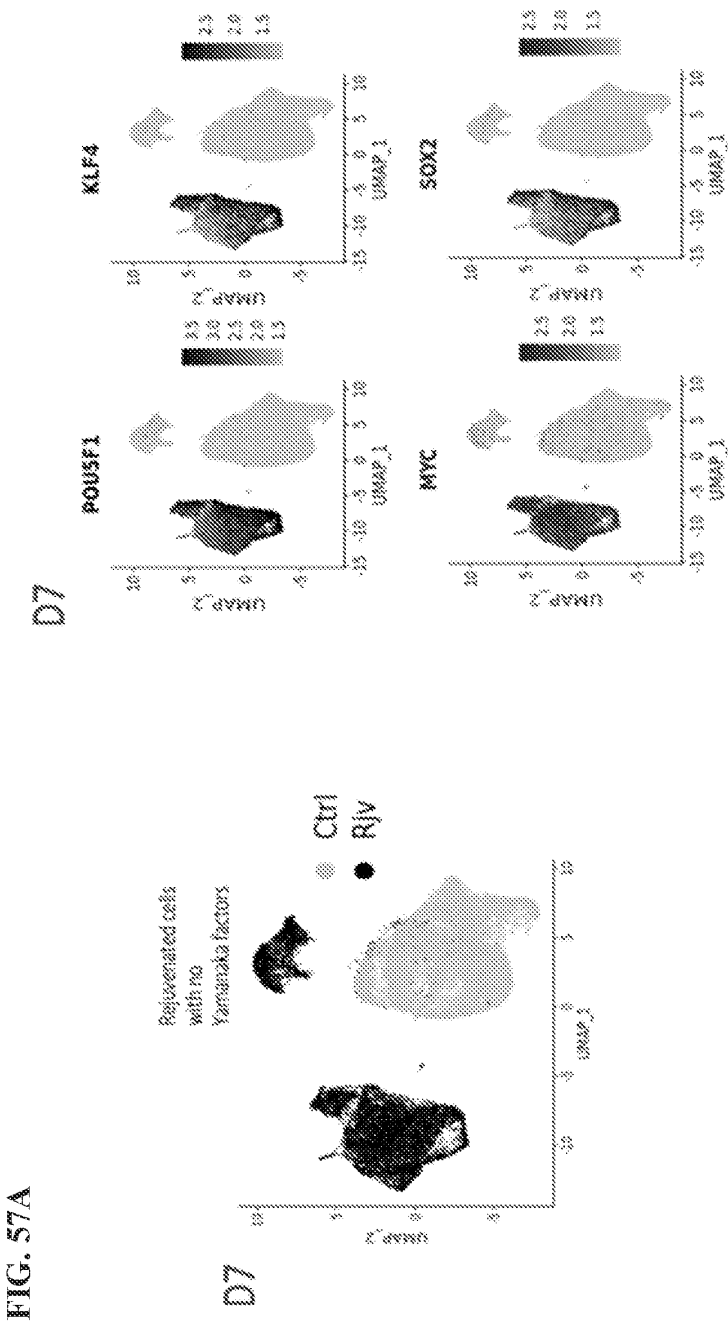


FIG. 57B

D13

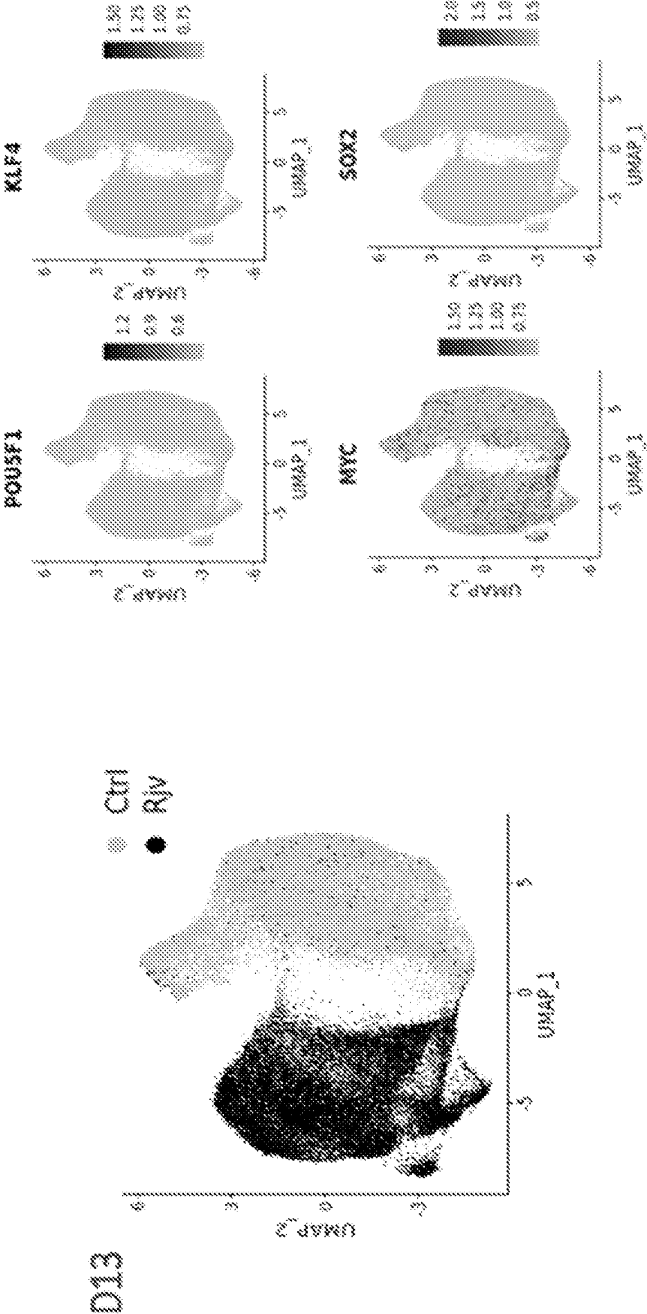


FIG. 57C

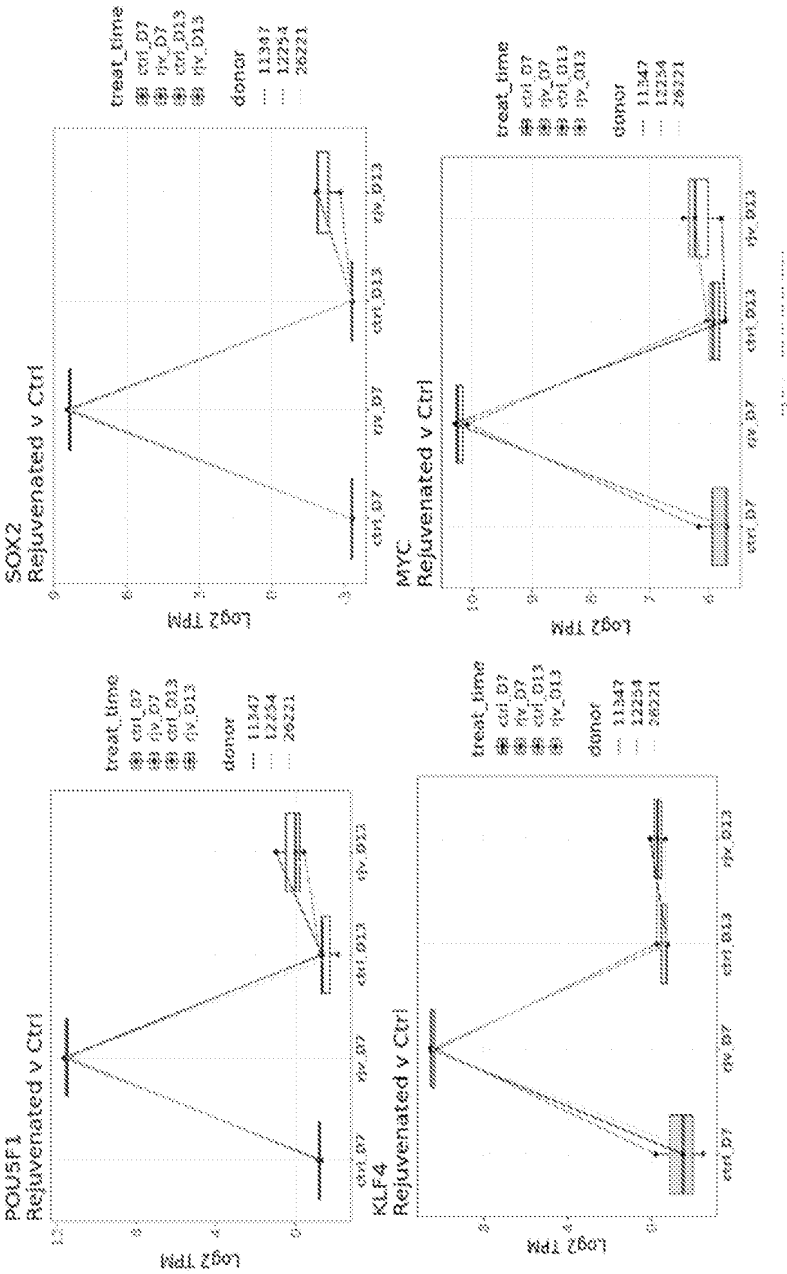


FIG. 57D

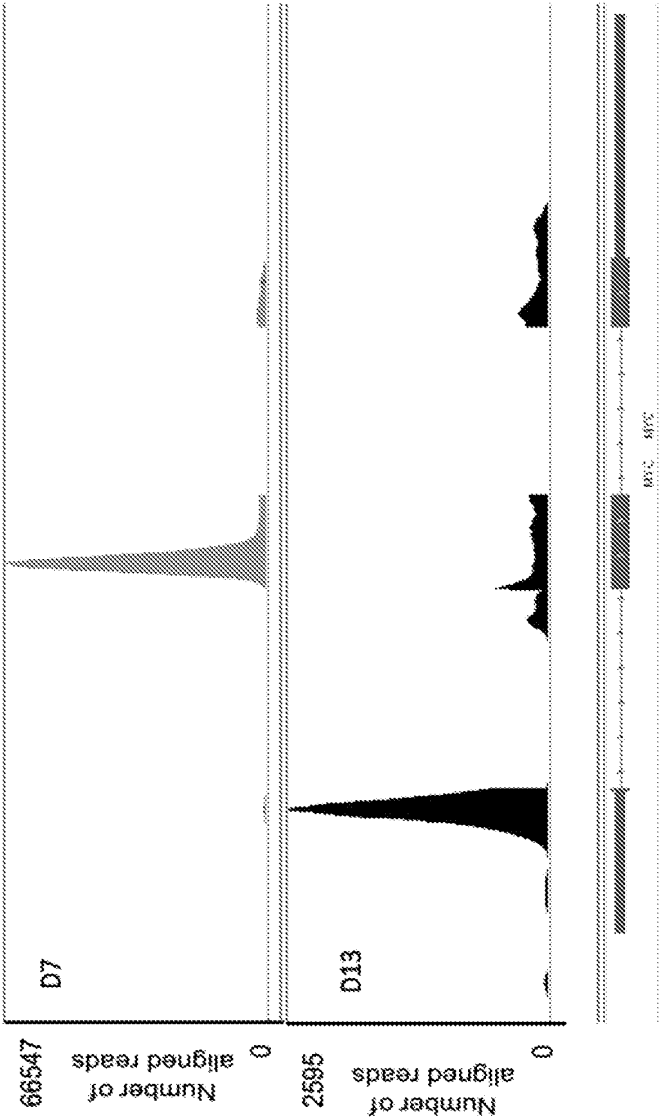


FIG. 58A

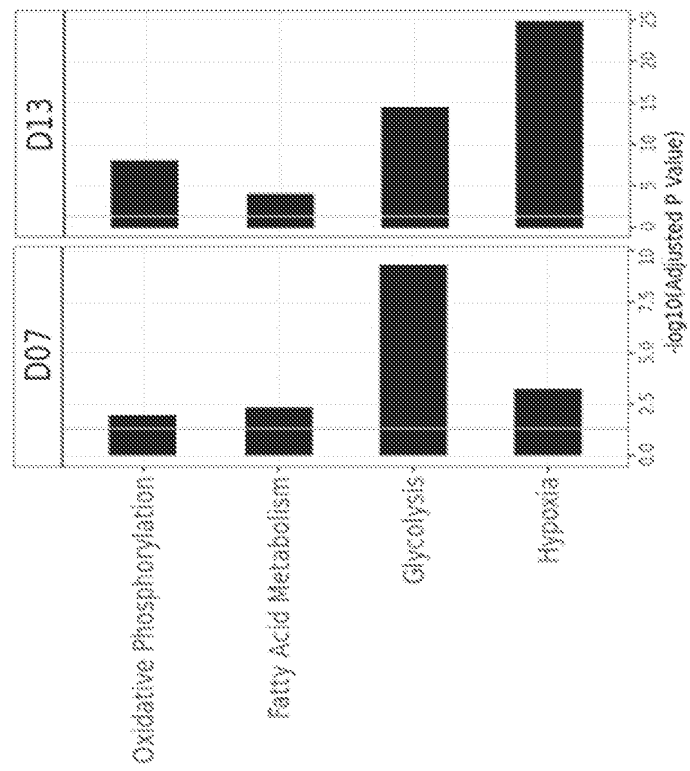


FIG. 58B

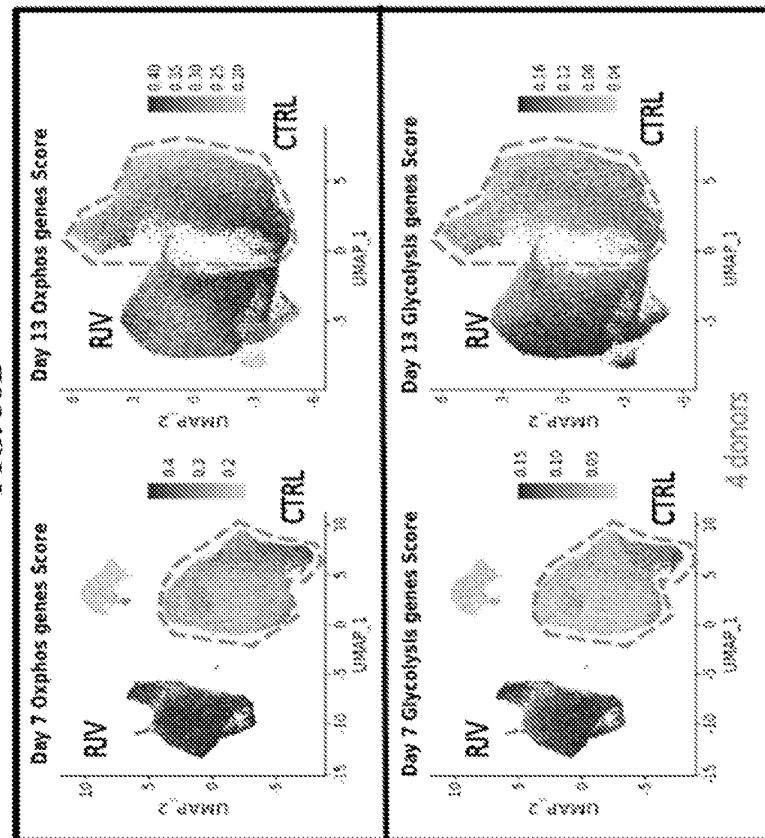


FIG. 59A

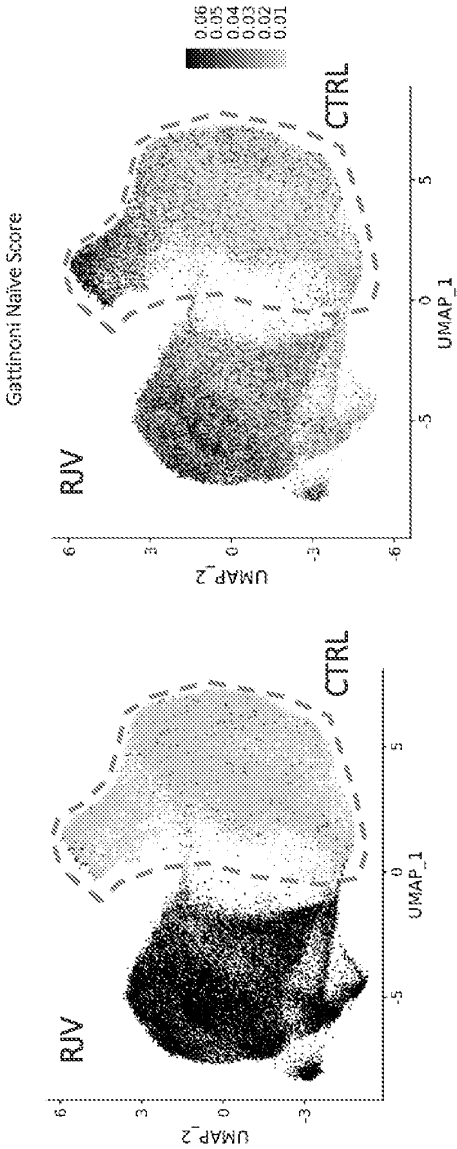


FIG. 59B

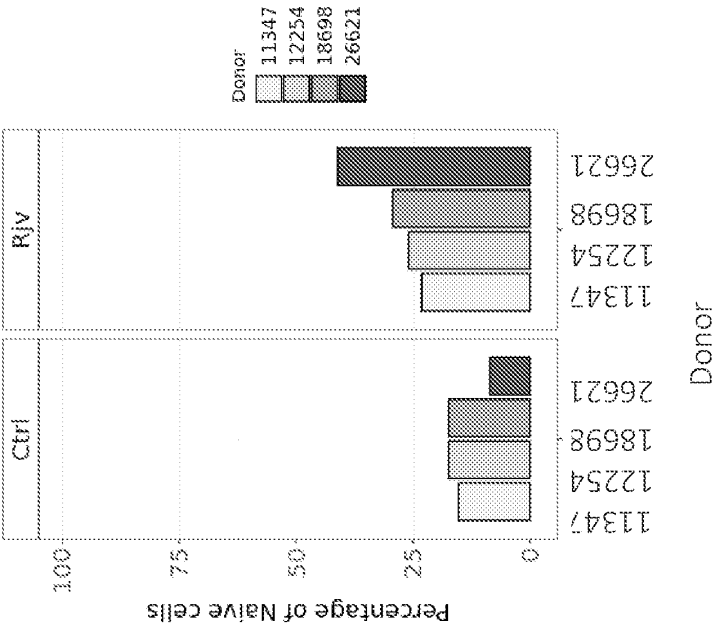


FIG. 60A

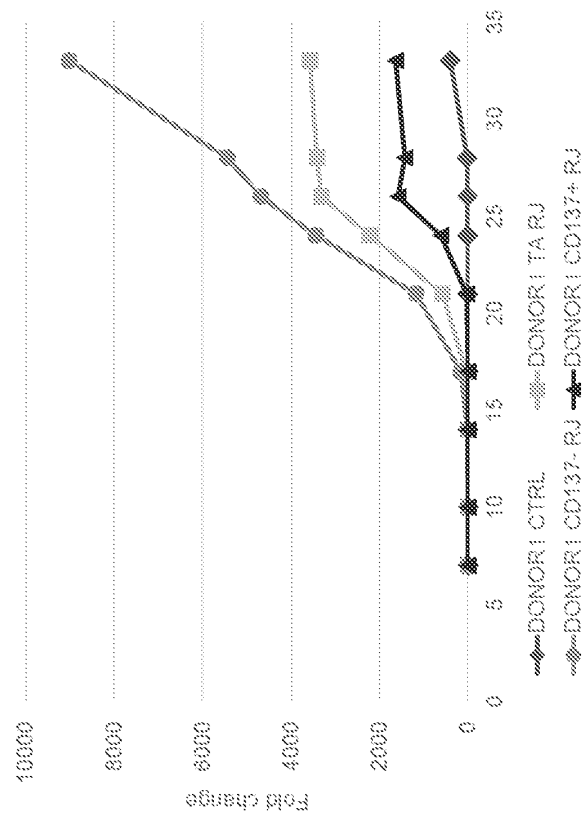


FIG. 60B

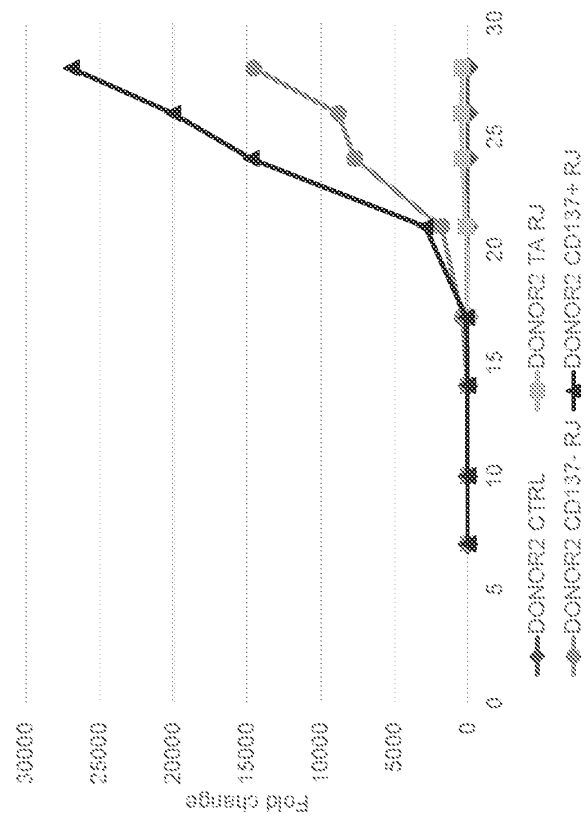


FIG. 61A

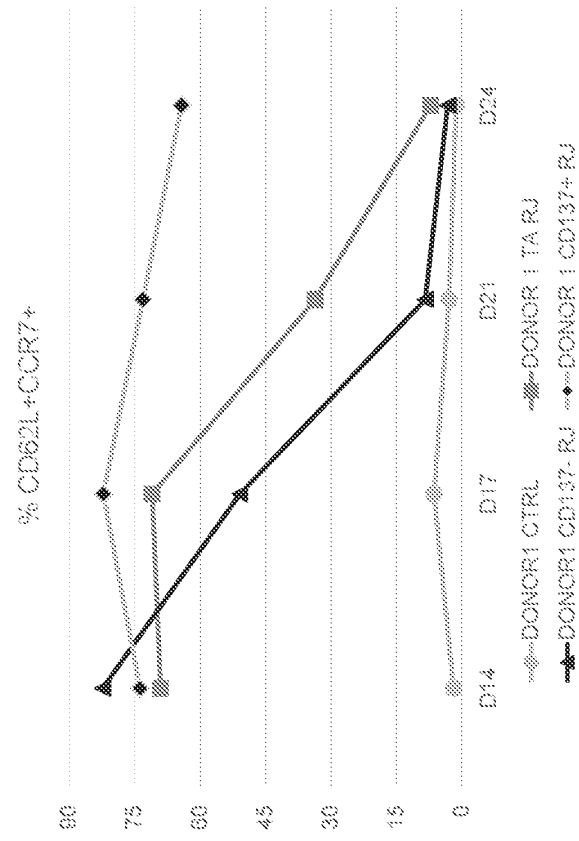


FIG. 61B

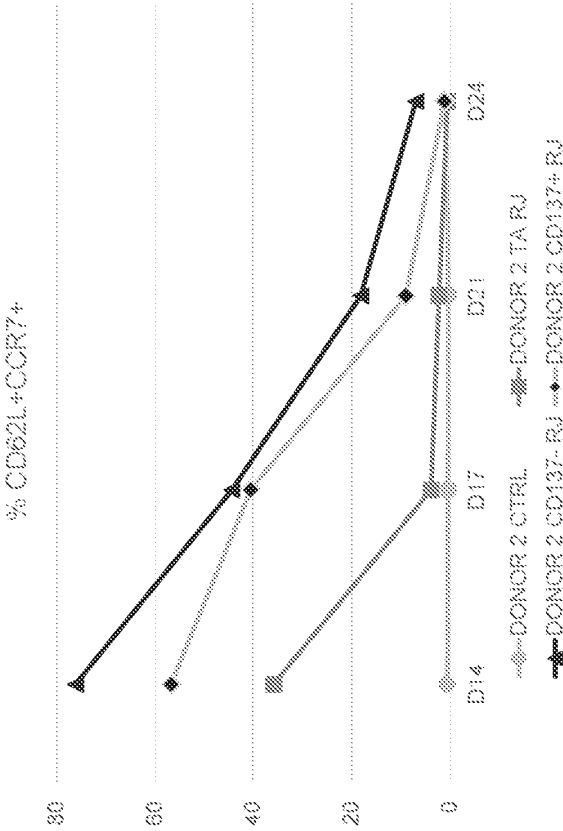


FIG. 62

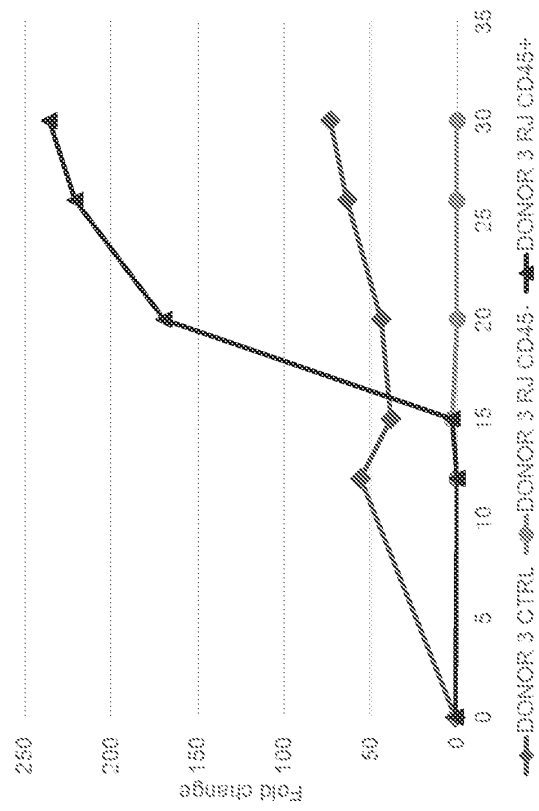


FIG. 63

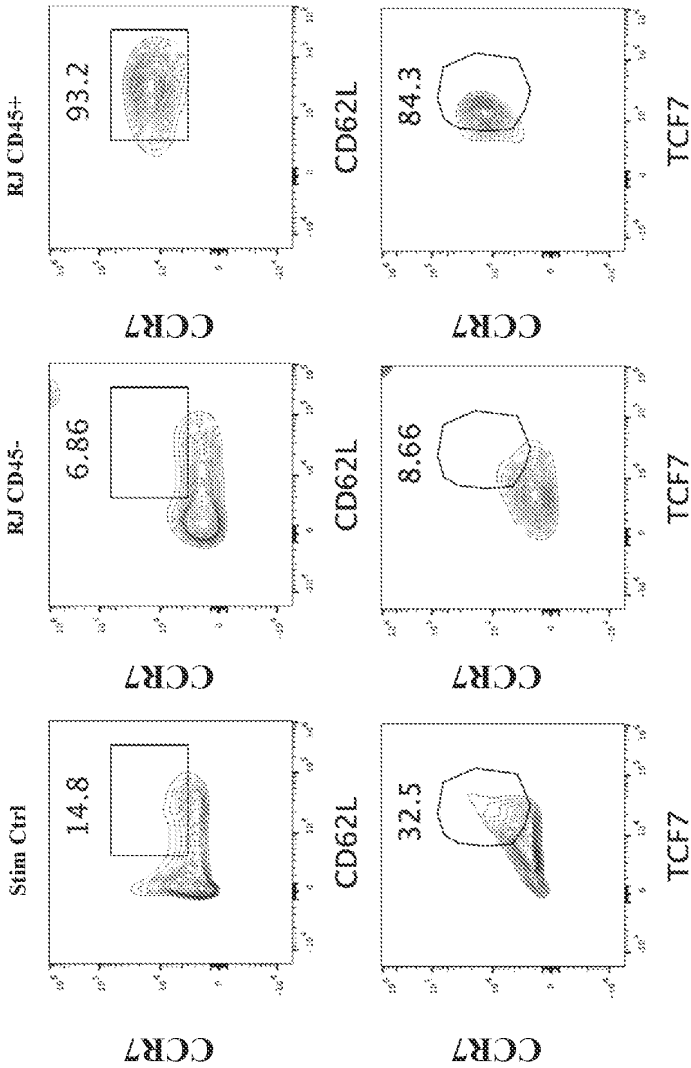


FIG. 64

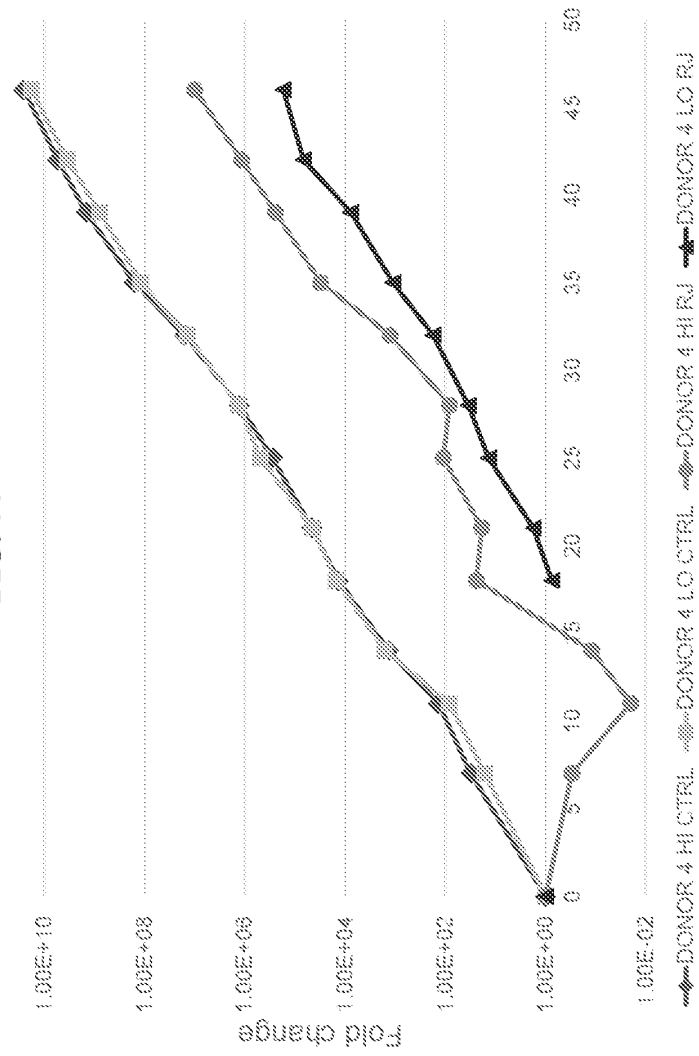


FIG. 65

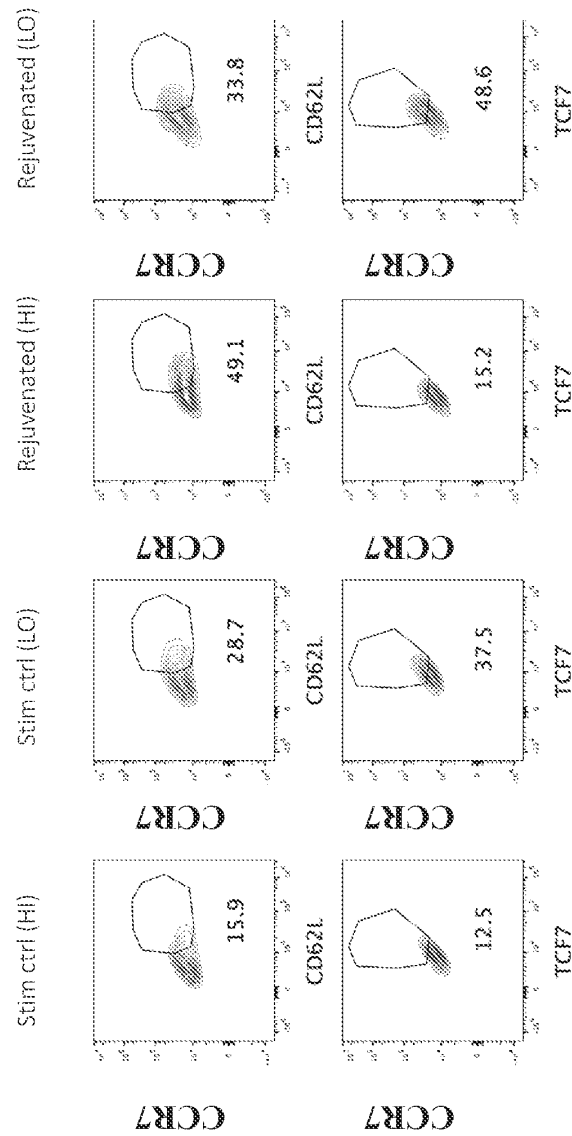


FIG. 66

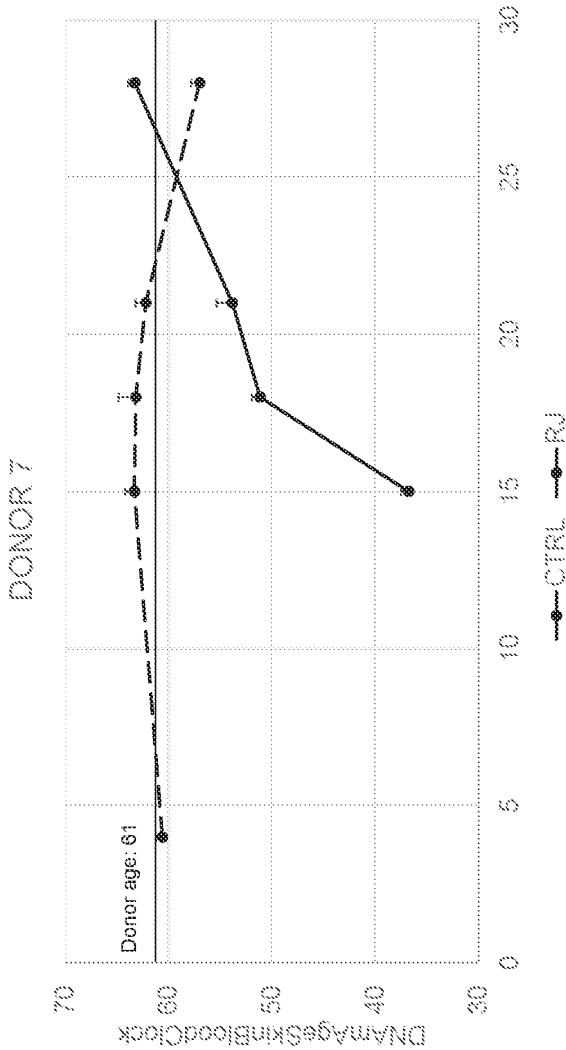


FIG. 67

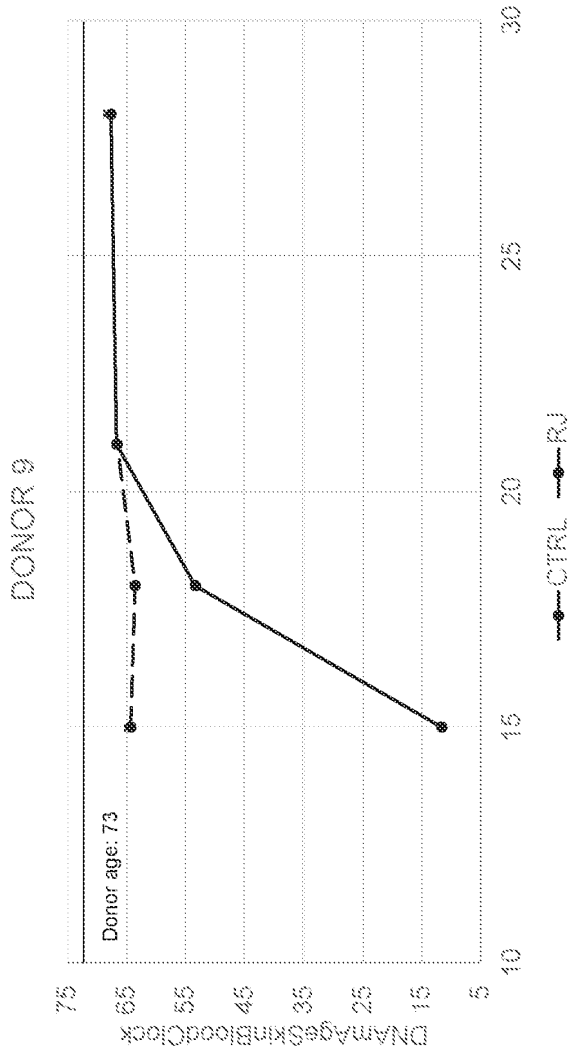


FIG. 68

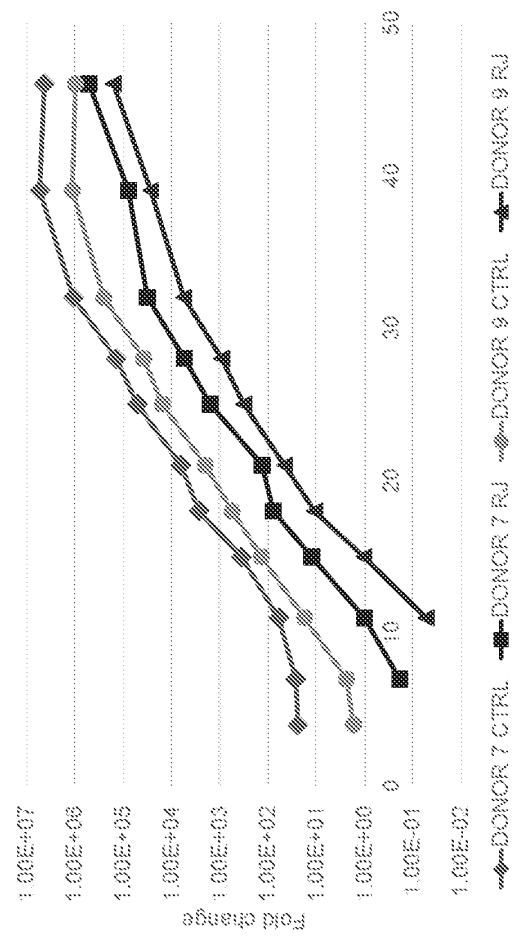


FIG. 69A

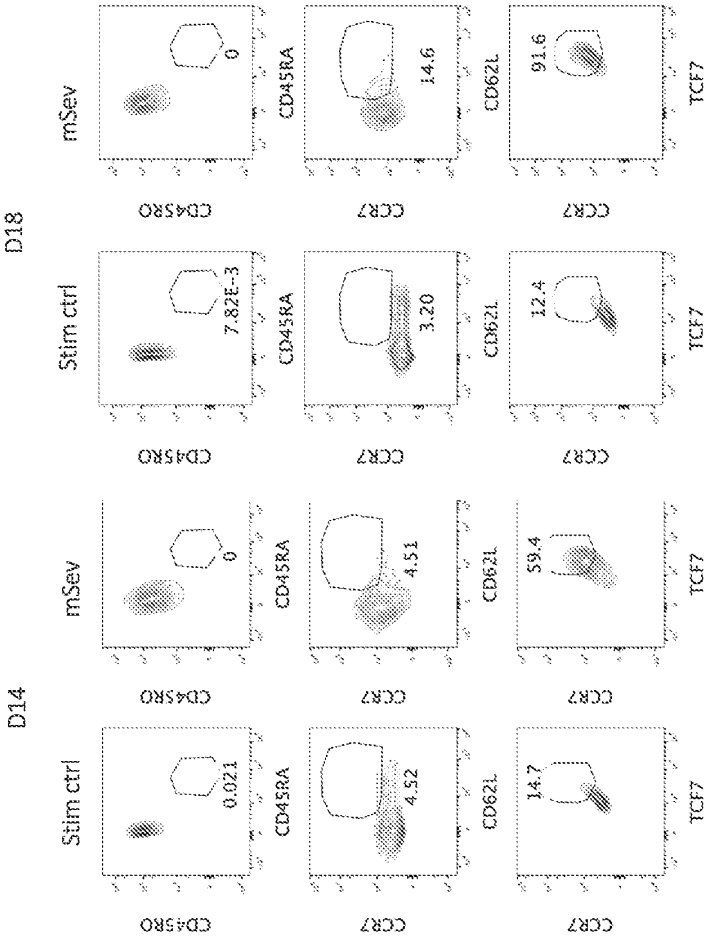


FIG. 69B

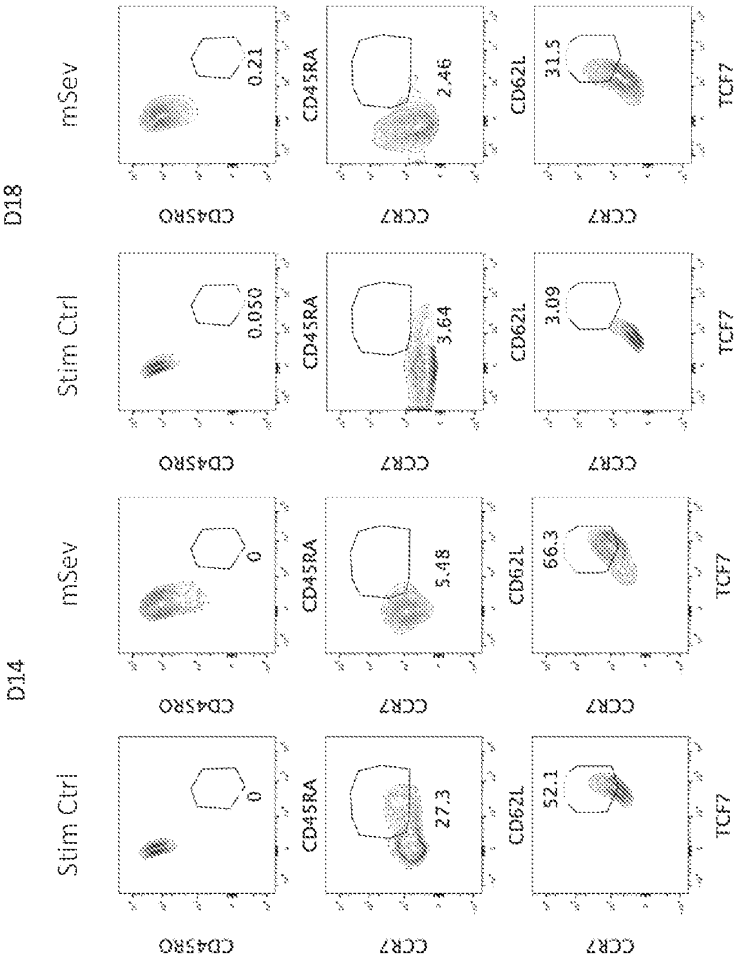


FIG. 70

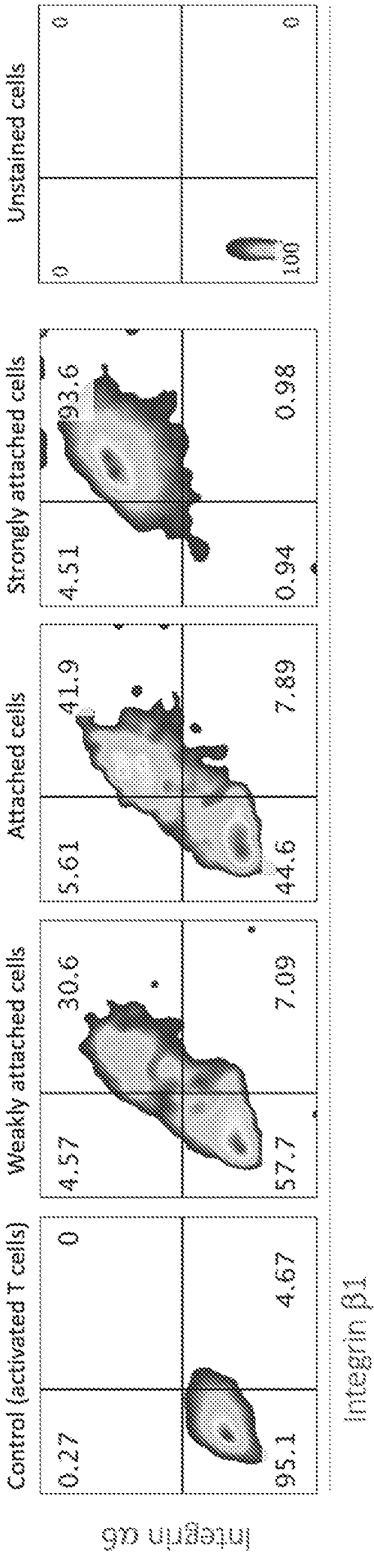


FIG. 71

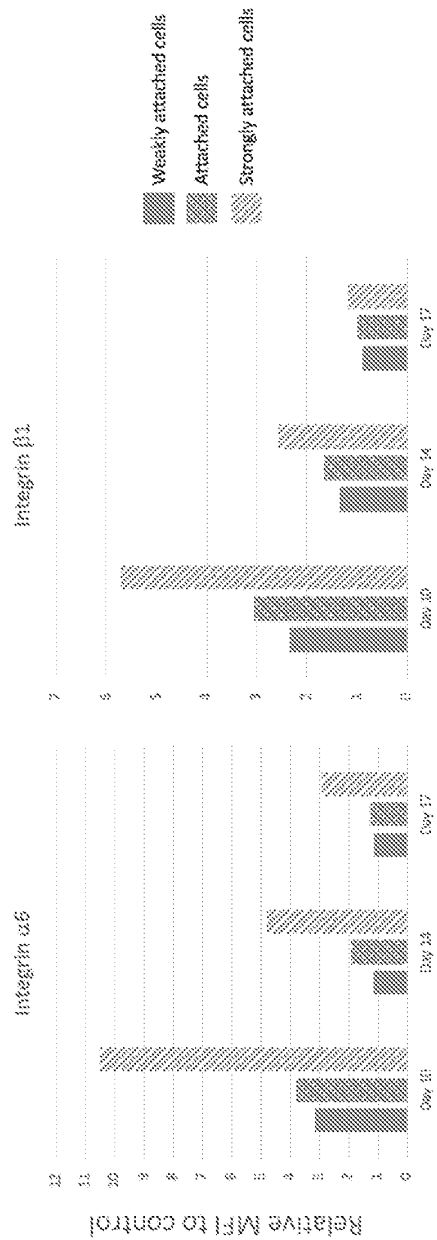
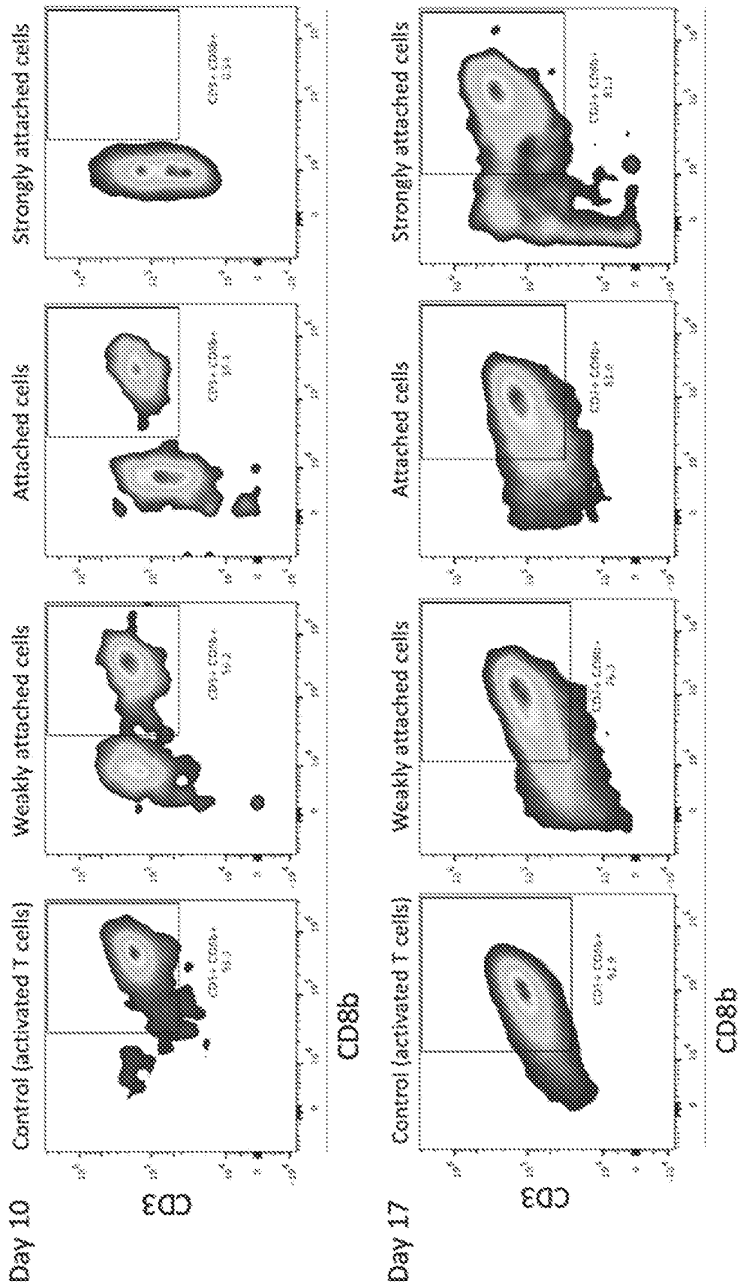


FIG. 72



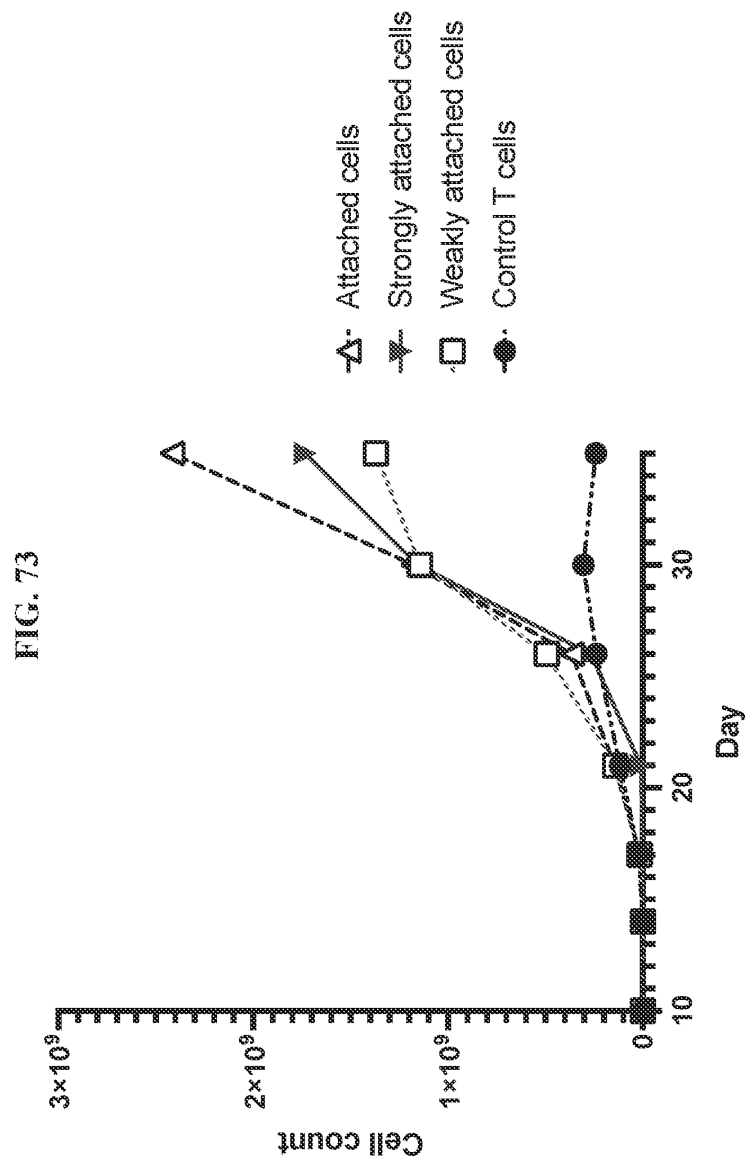


FIG. 74A

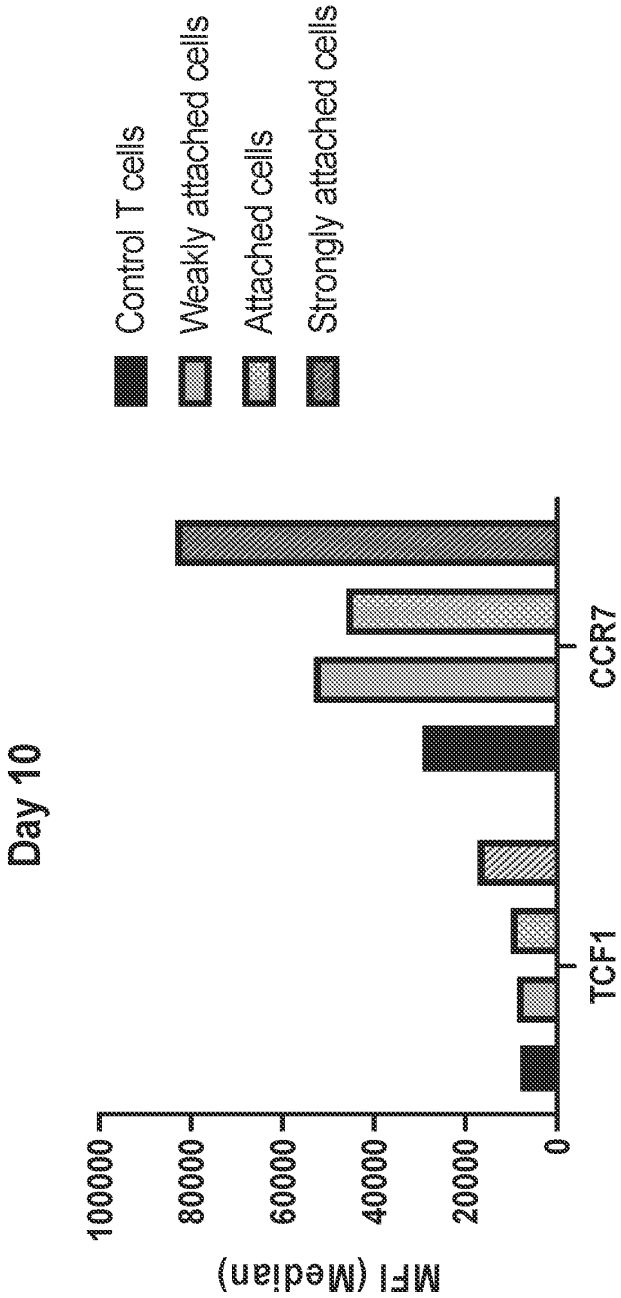


FIG. 74B

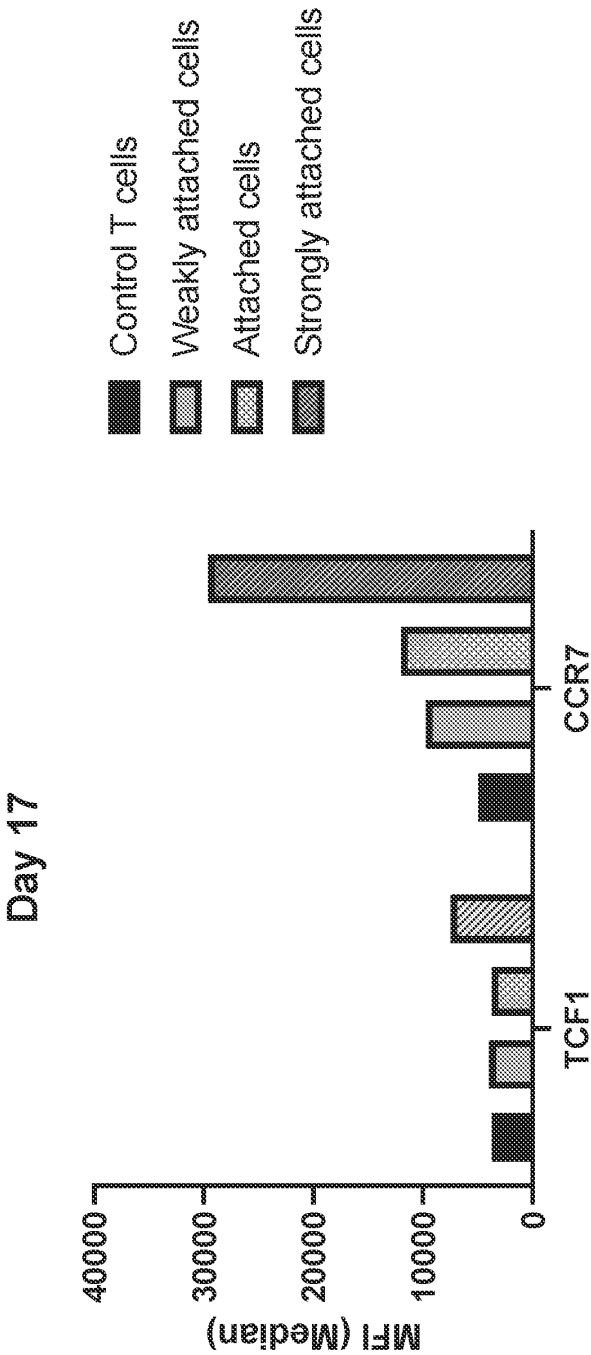


FIG. 75

