

FIG. 1A

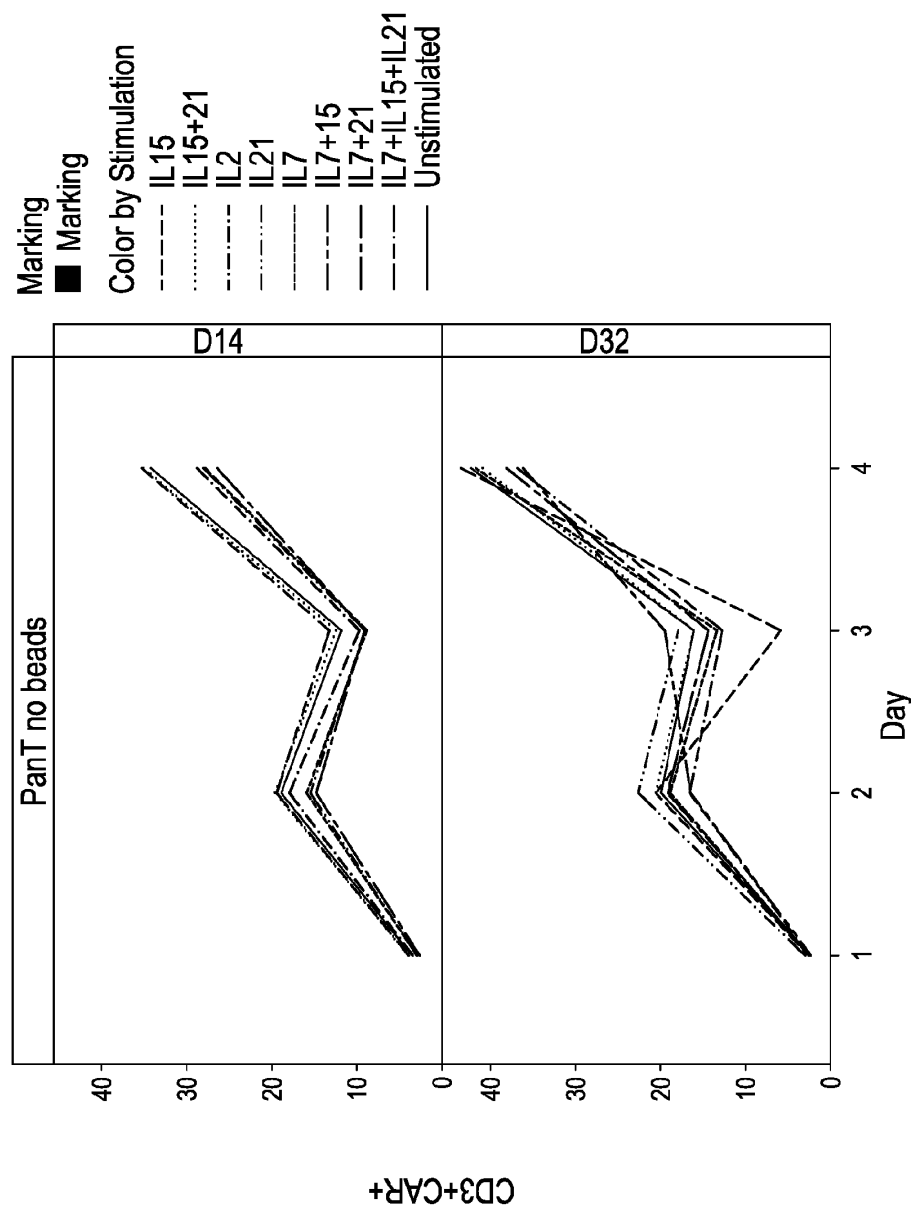
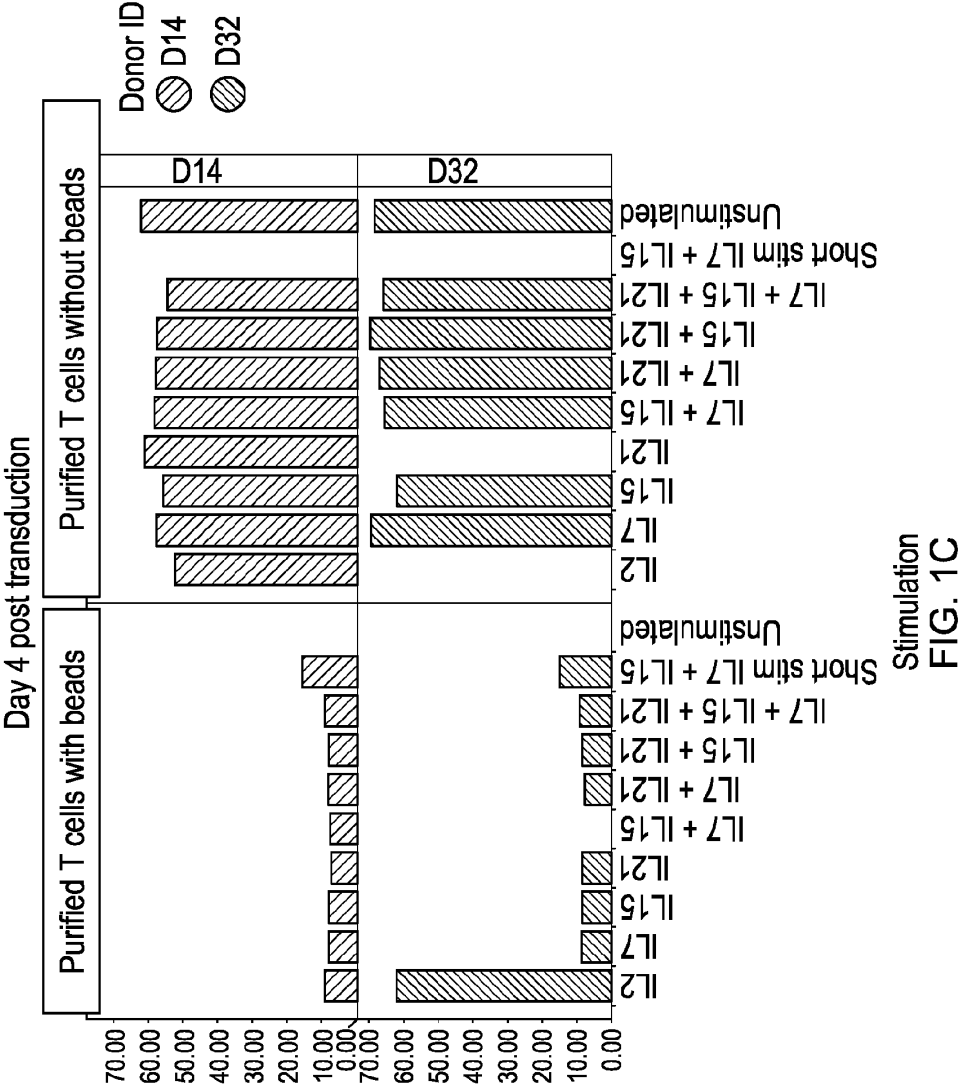


FIG. 1B



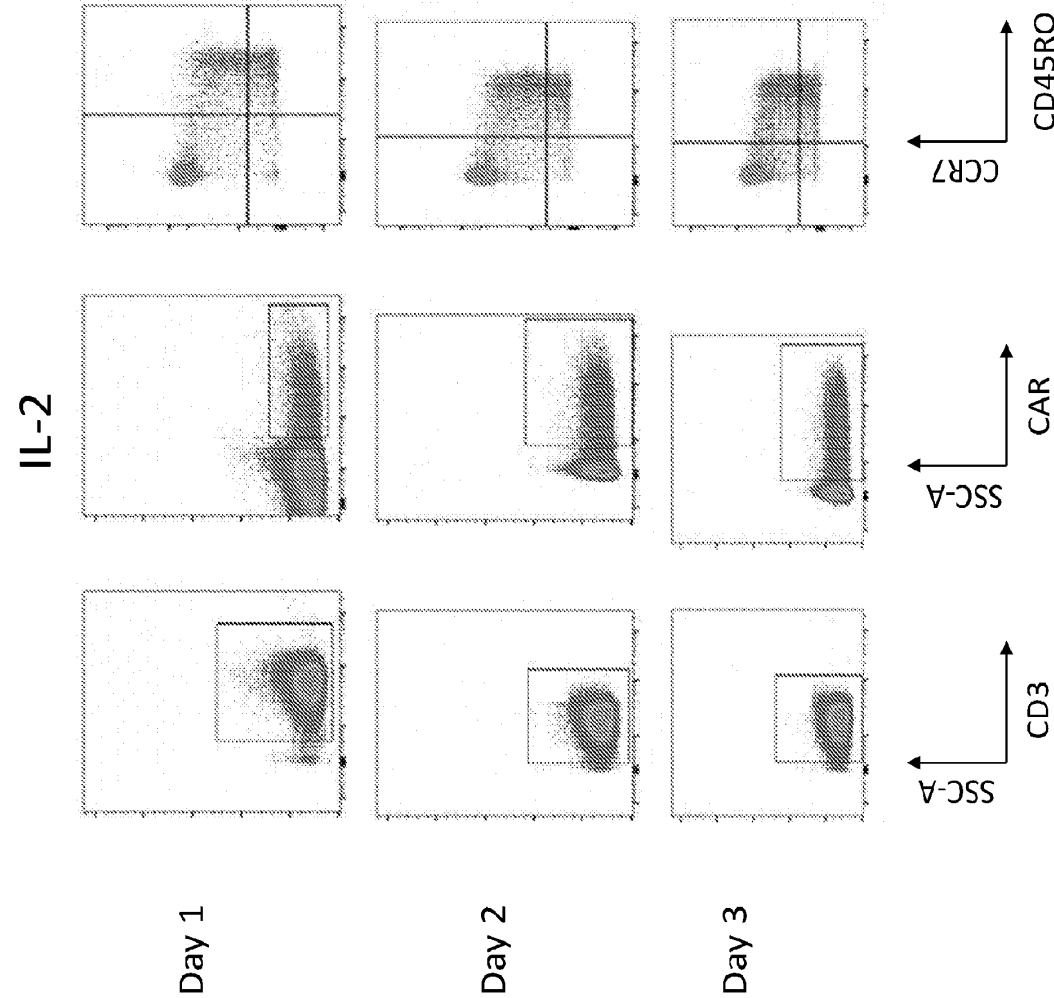


FIG. 1D

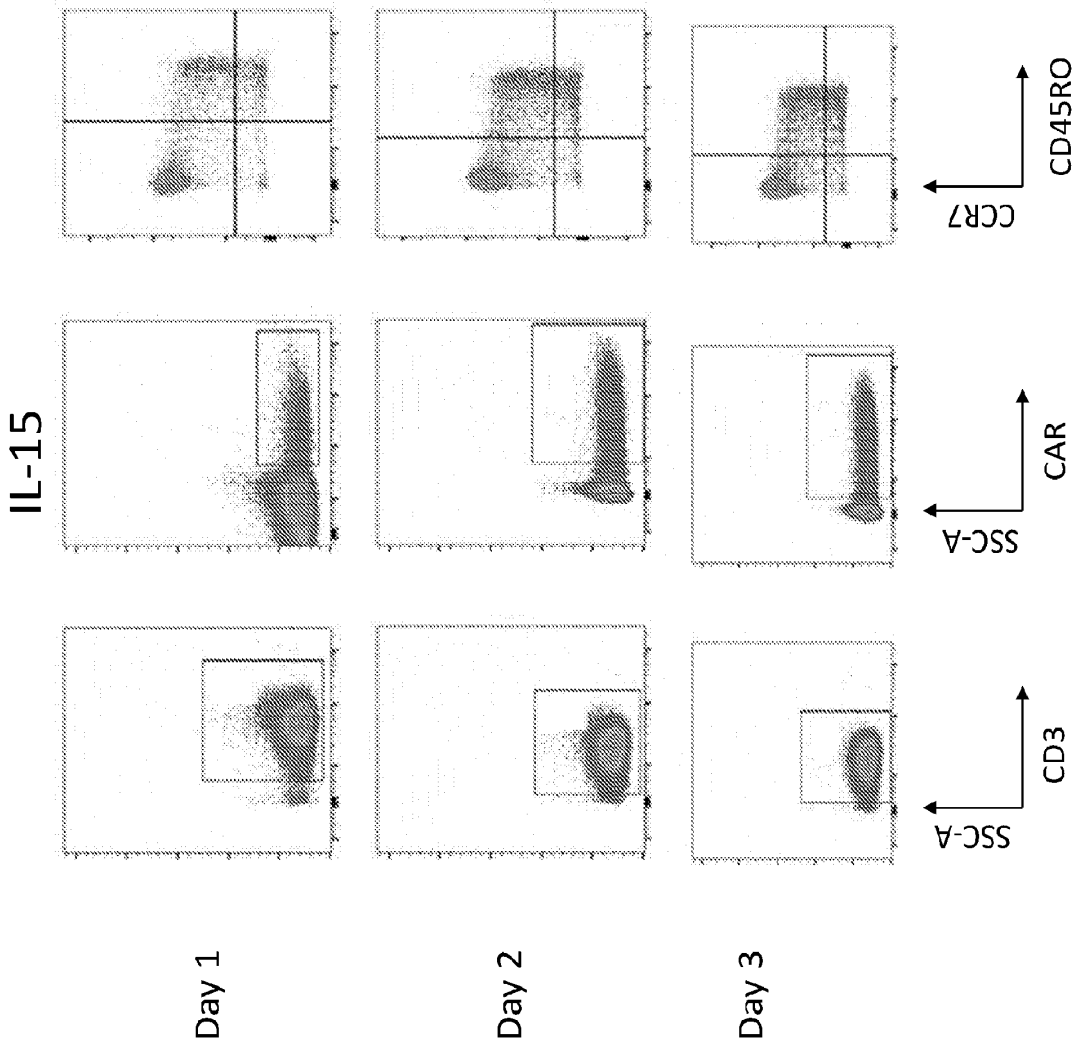


FIG. 1E

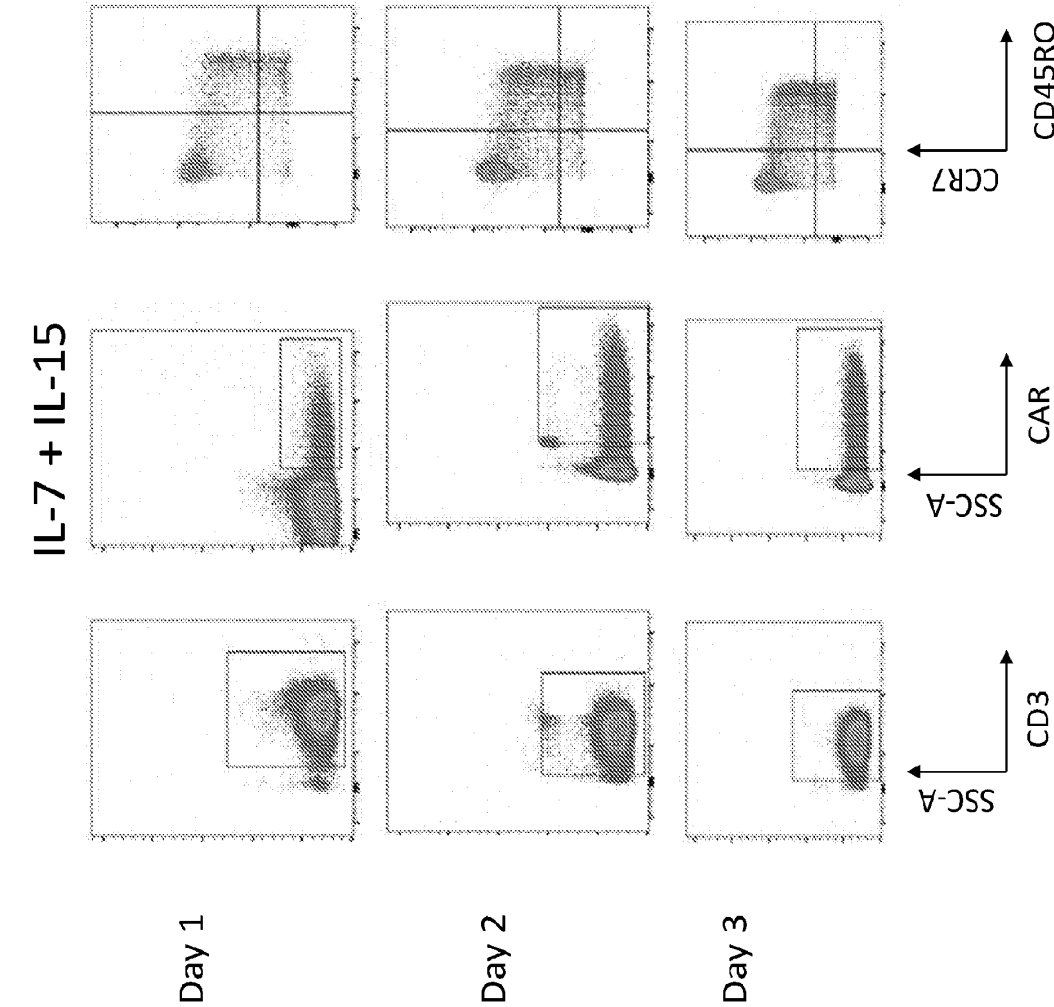


FIG. 1F

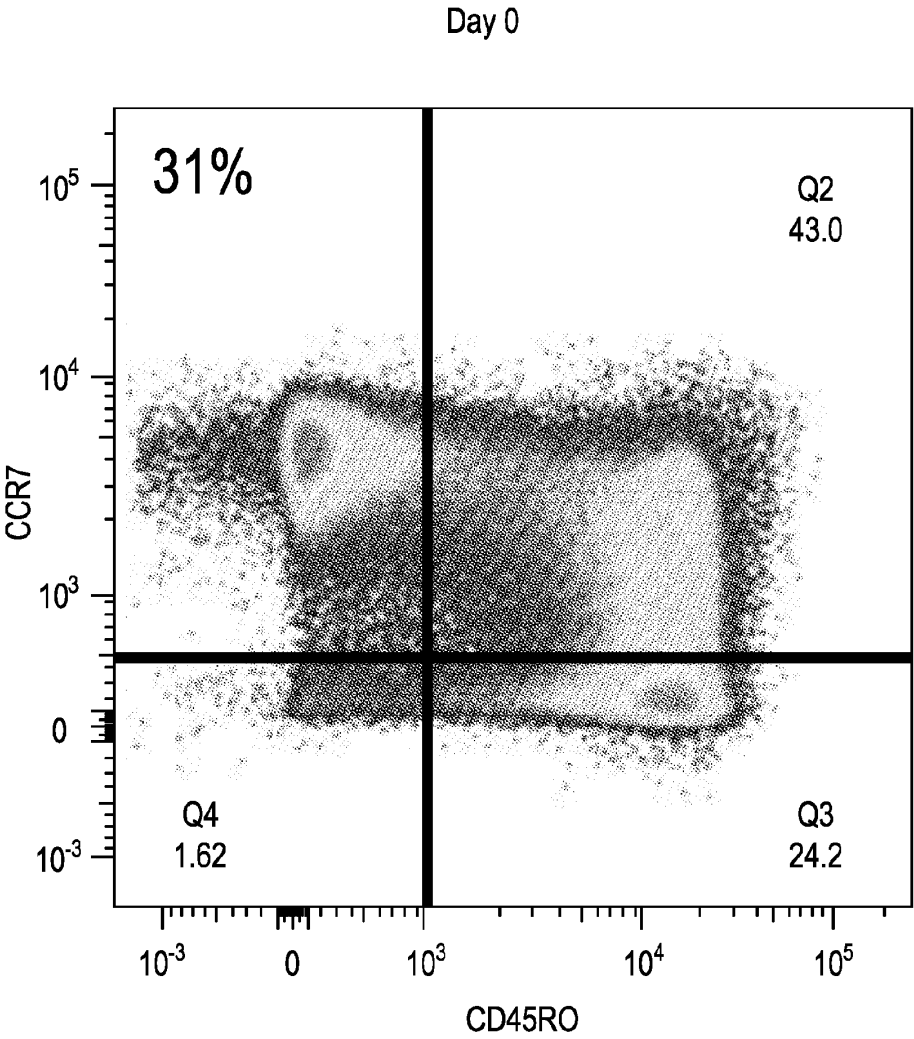


FIG. 1G (part 1)

SUBSTITUTE SHEET (RULE 26)

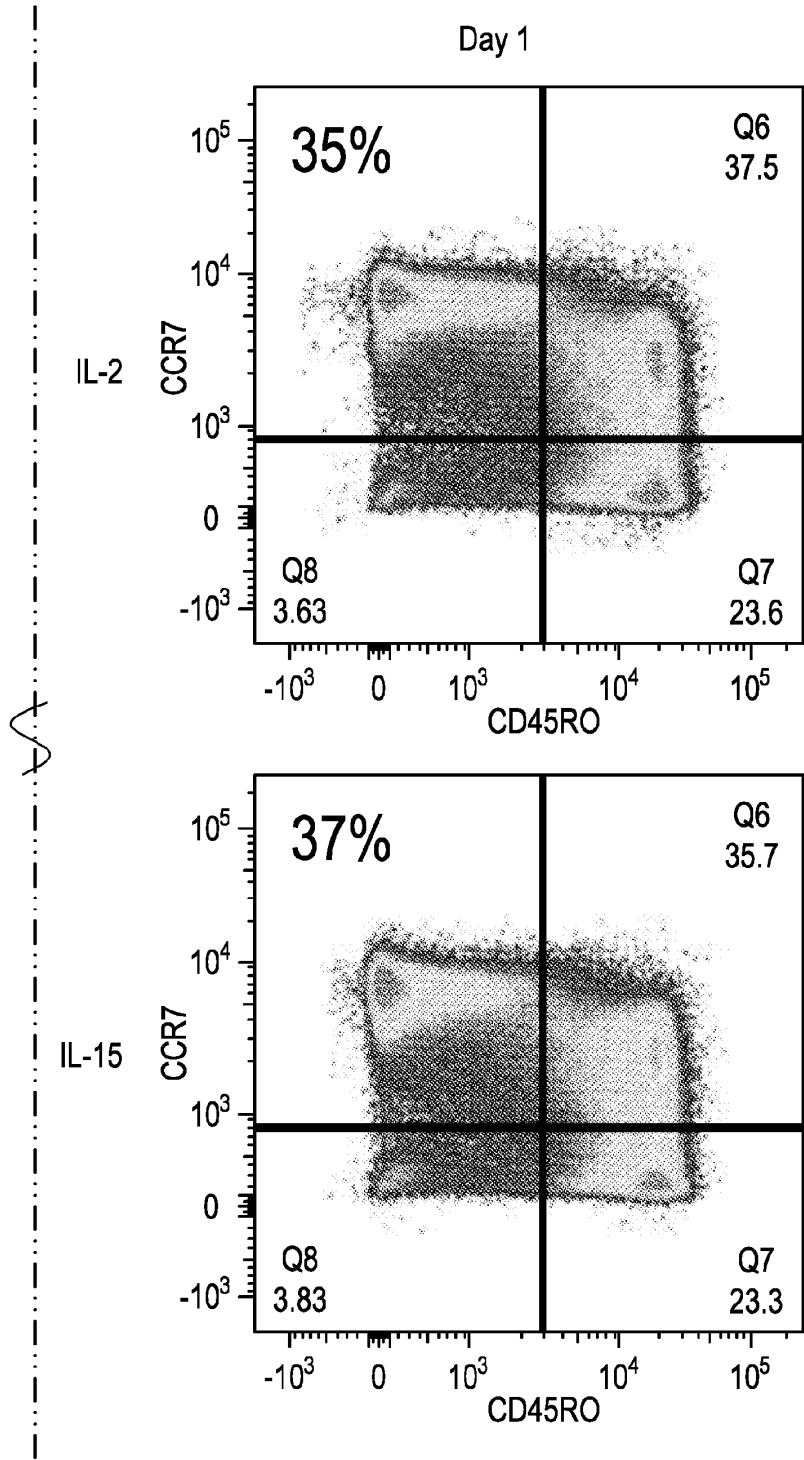


FIG. 1G (part 2)

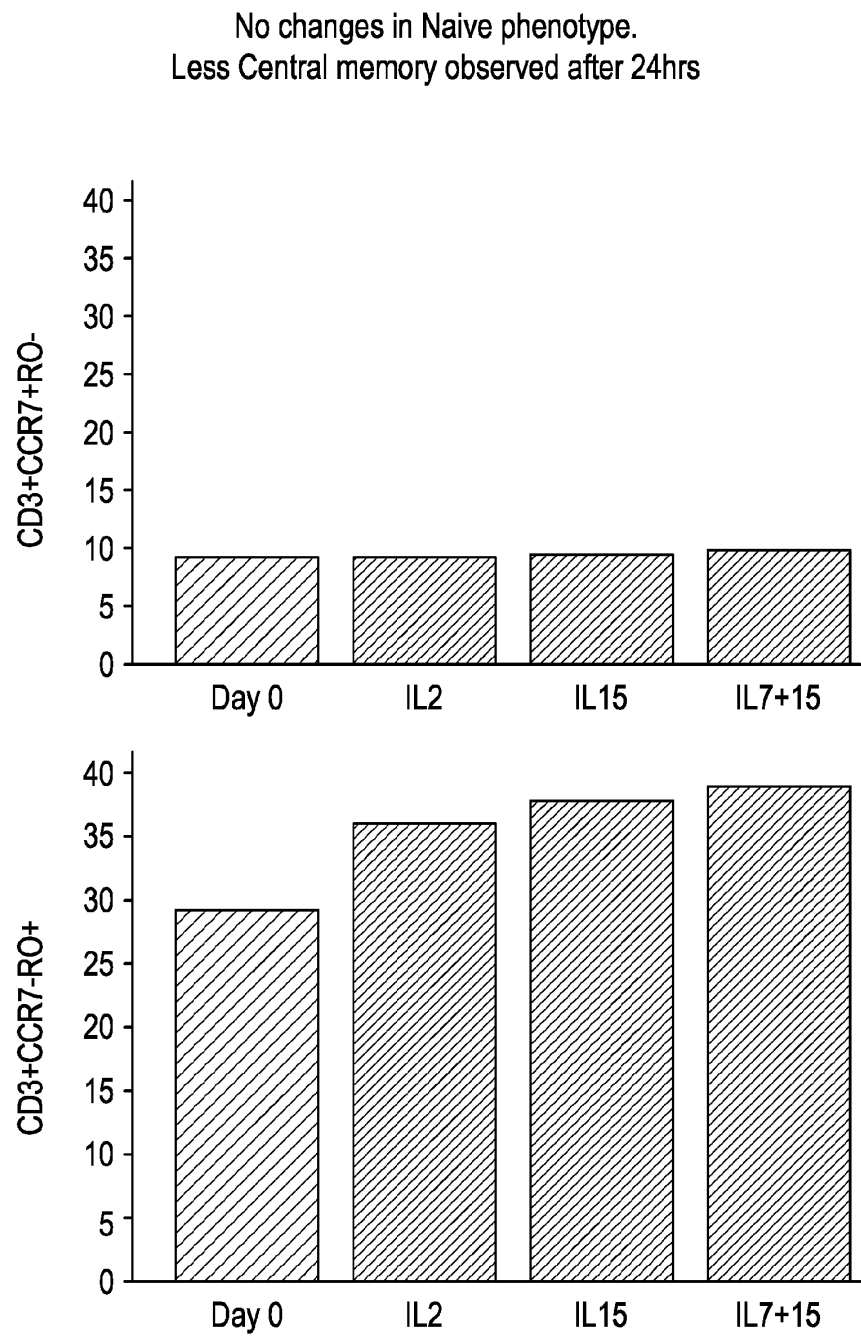


FIG. 1H (part 1)

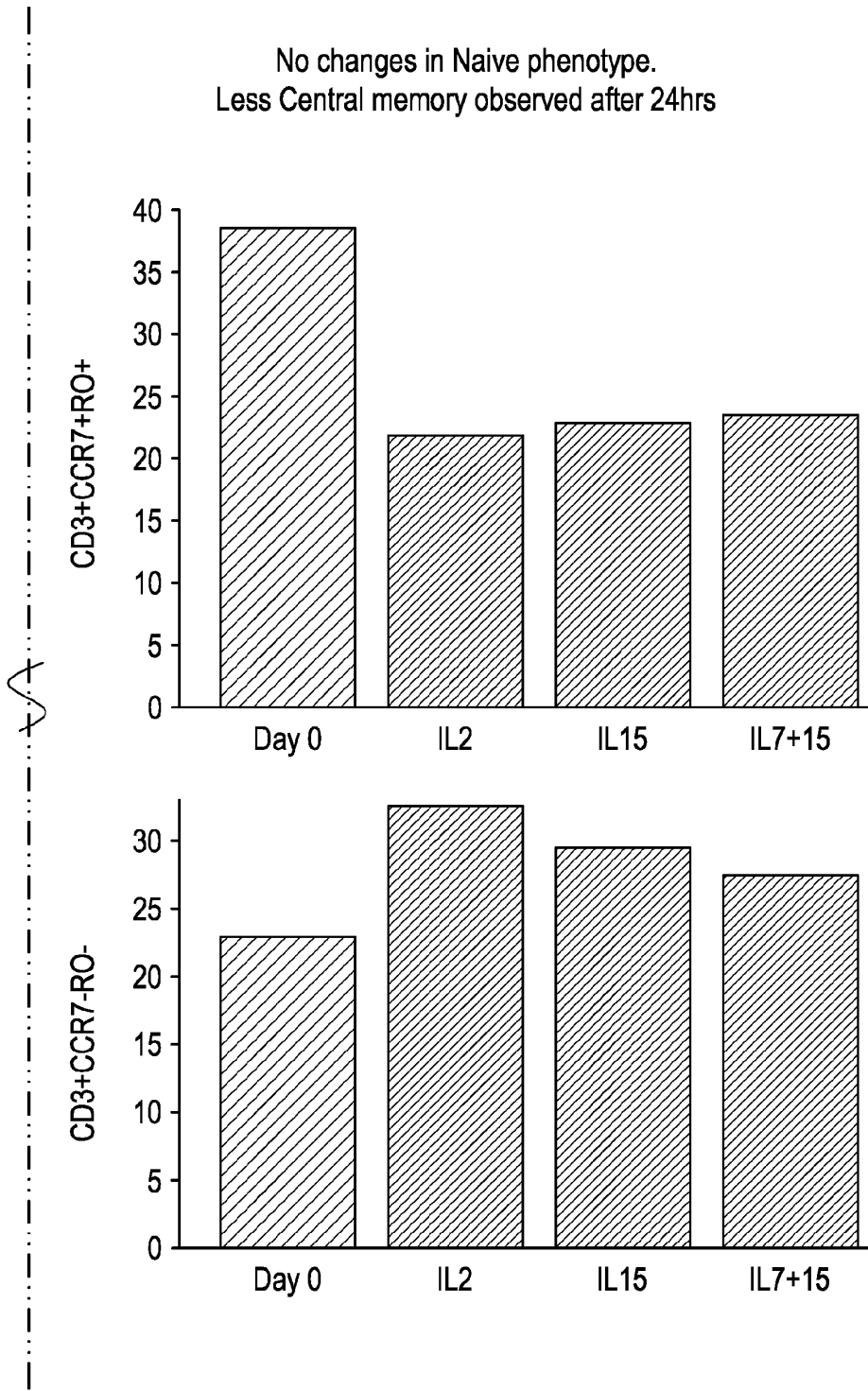


FIG. 1H (part 2)

CD3+ Naive phenotype maintained after 24hrs in culture in all conditions

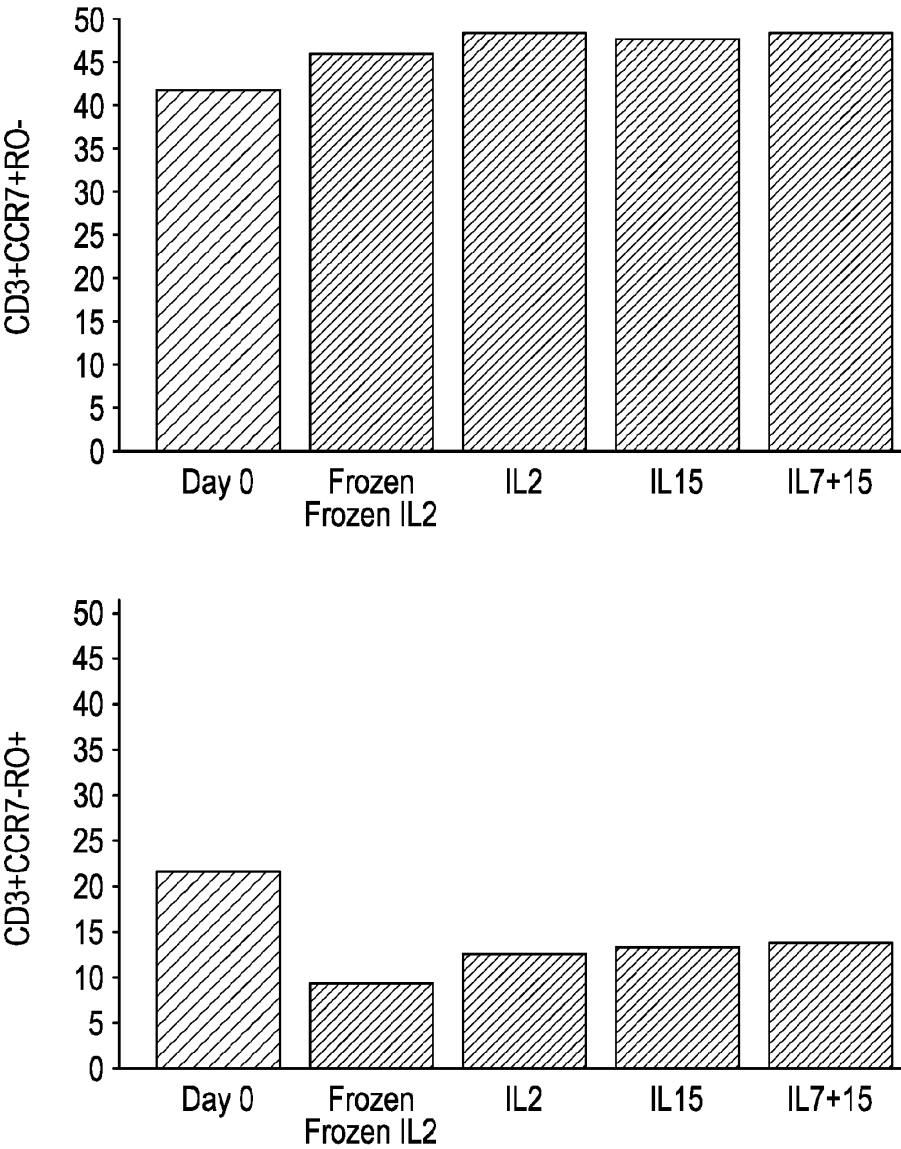


FIG. 1I (part 1)

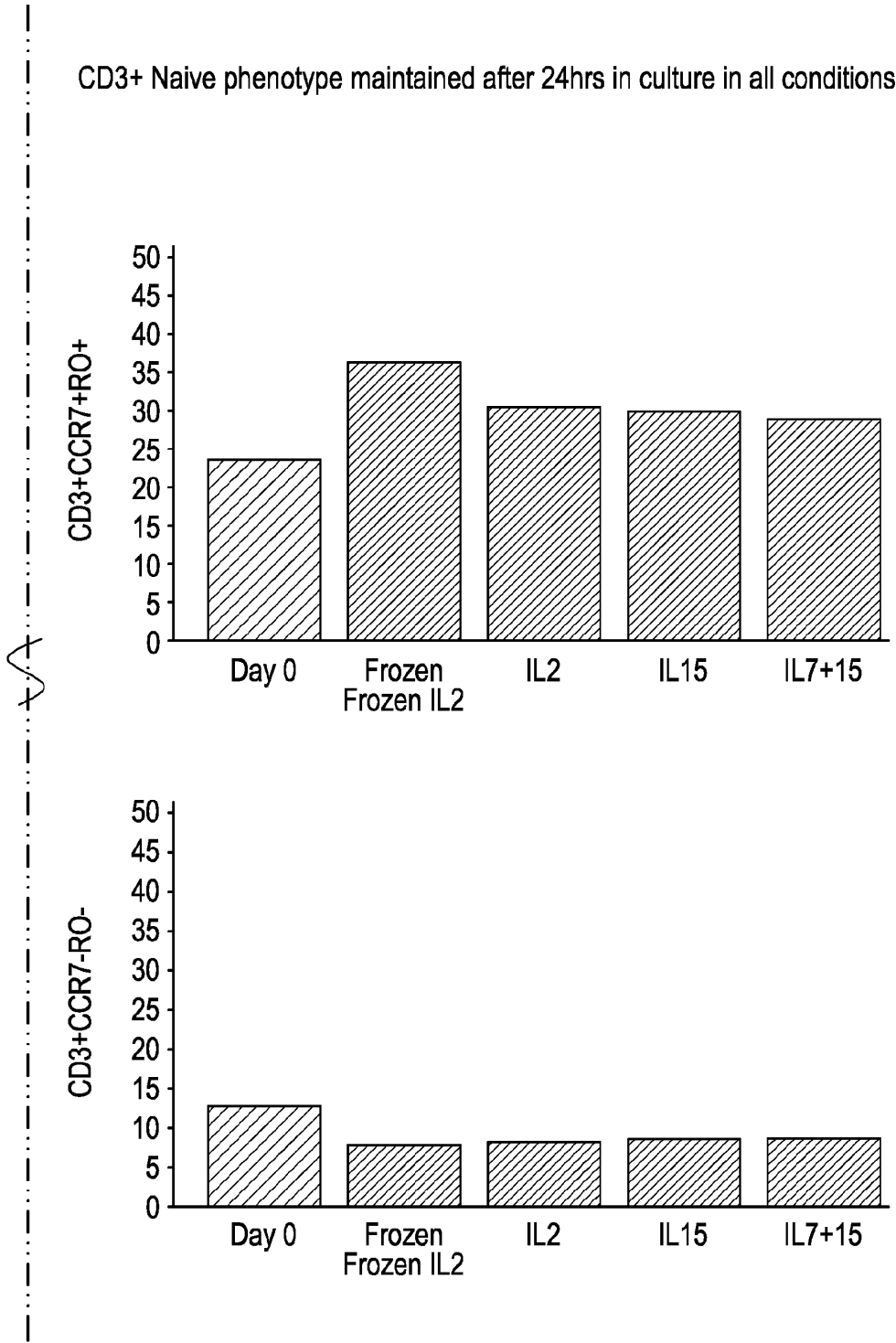


Fig. 1I (part 2)

FIG. 2A

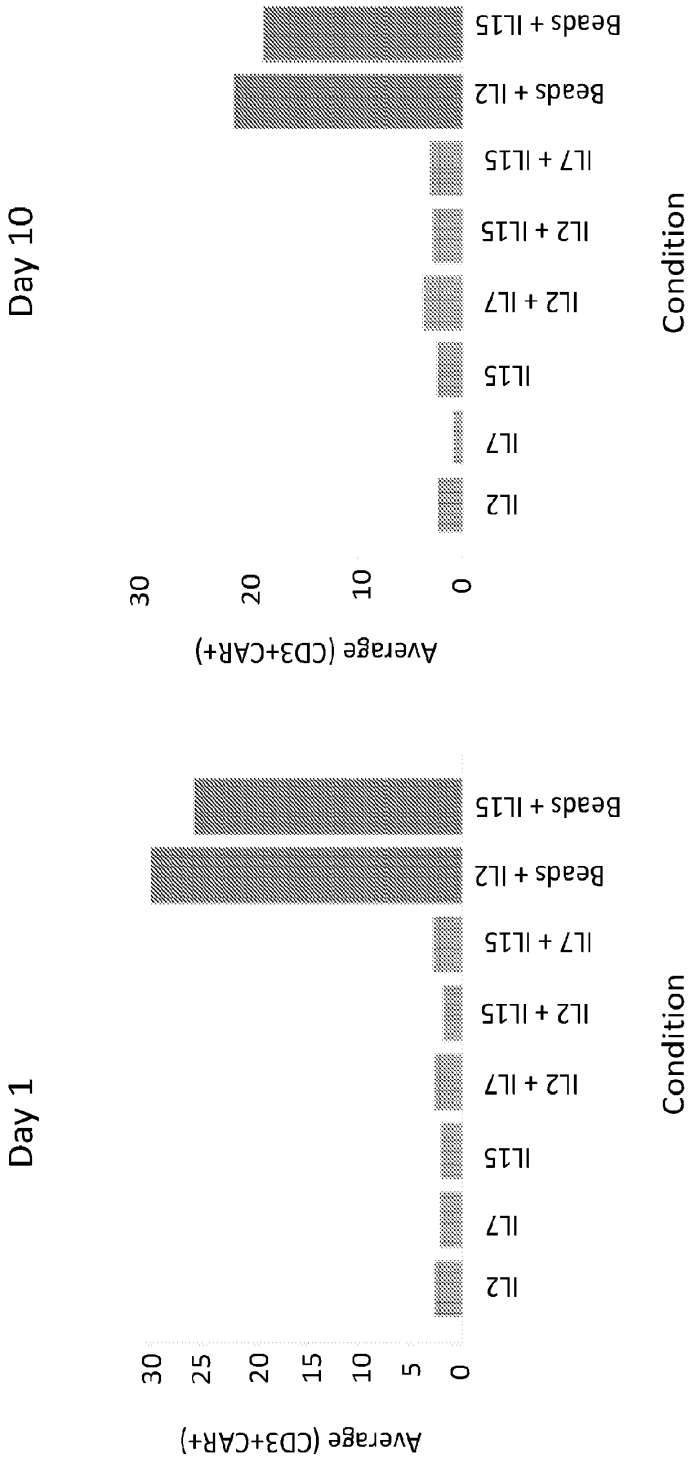
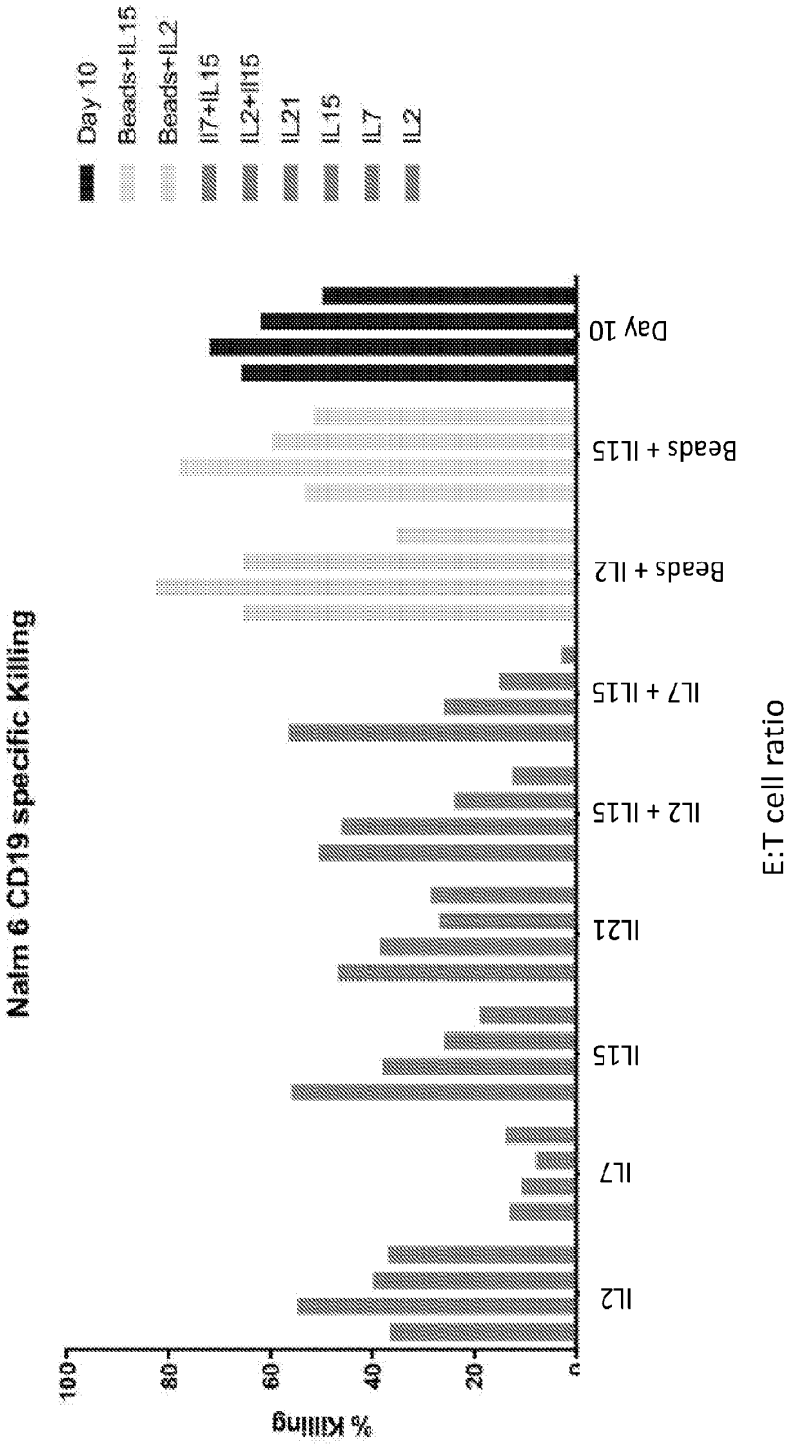


FIG. 2B



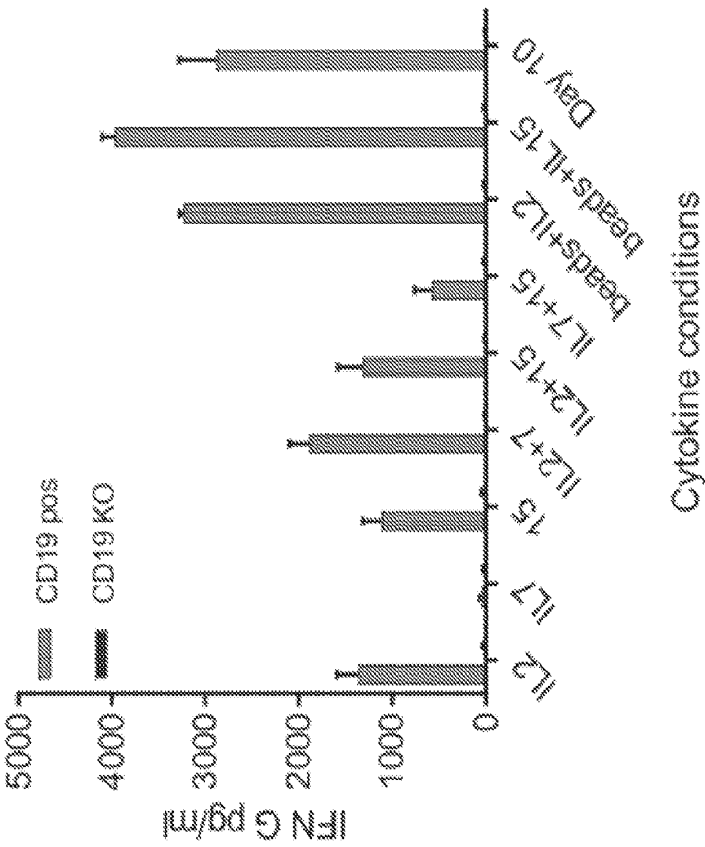
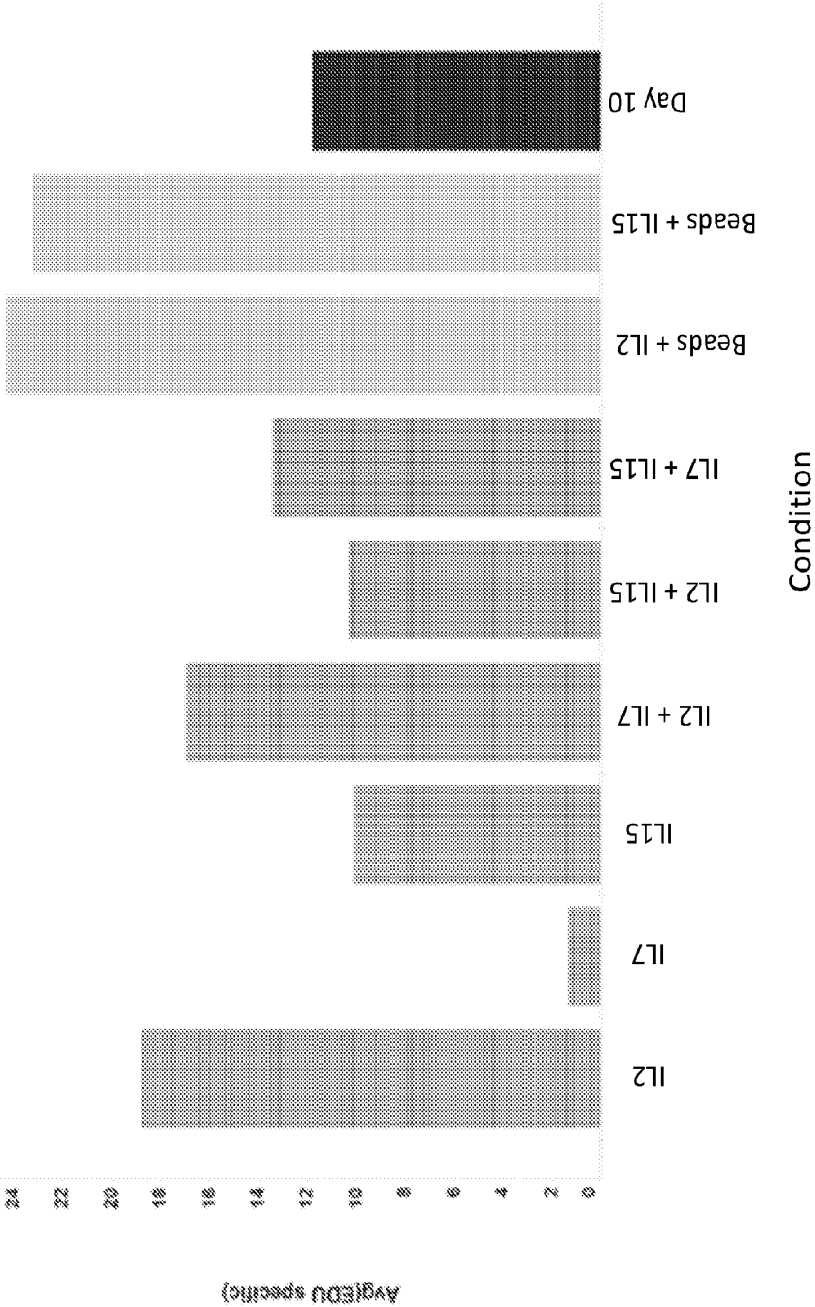
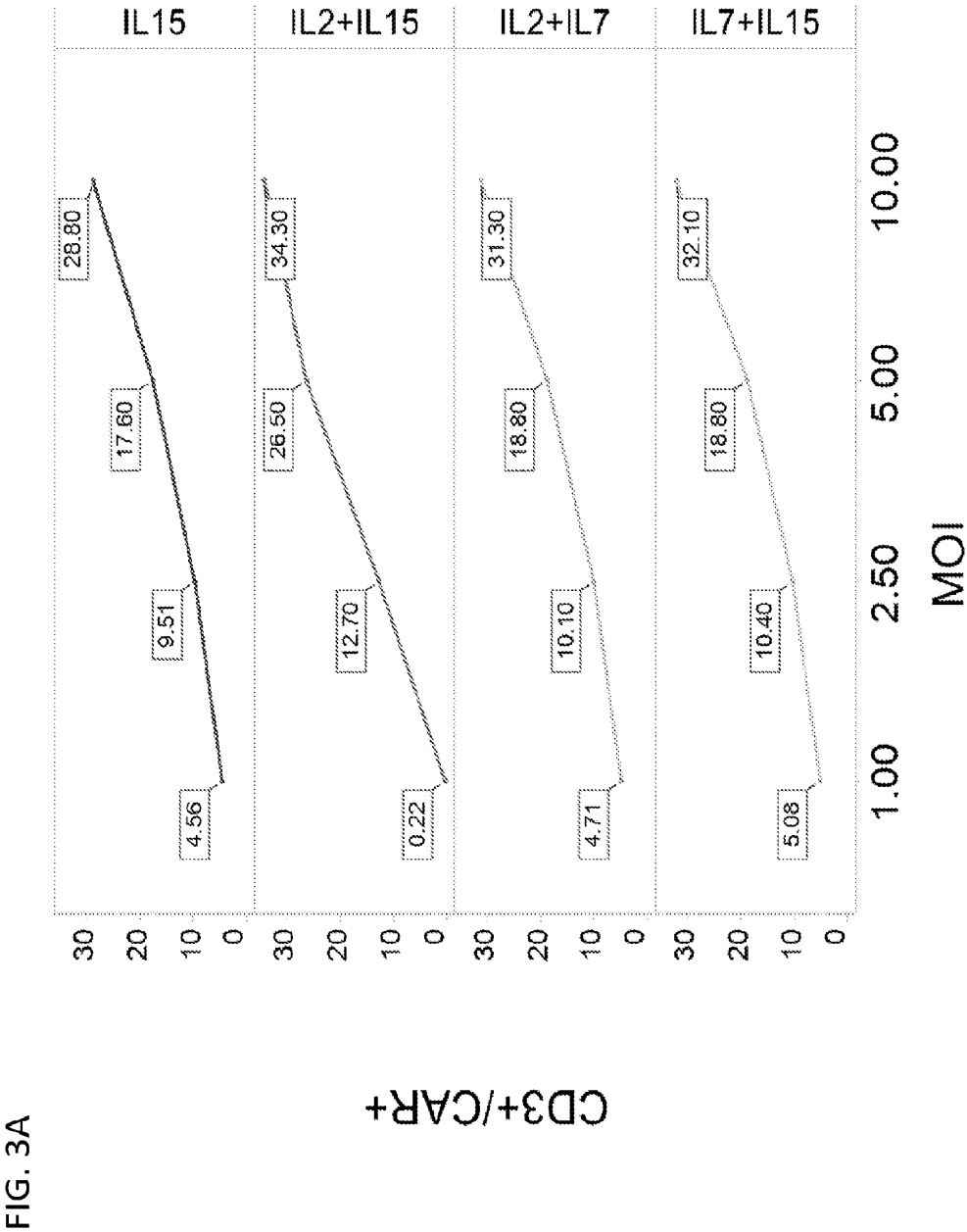


FIG. 2C

FIG. 2D





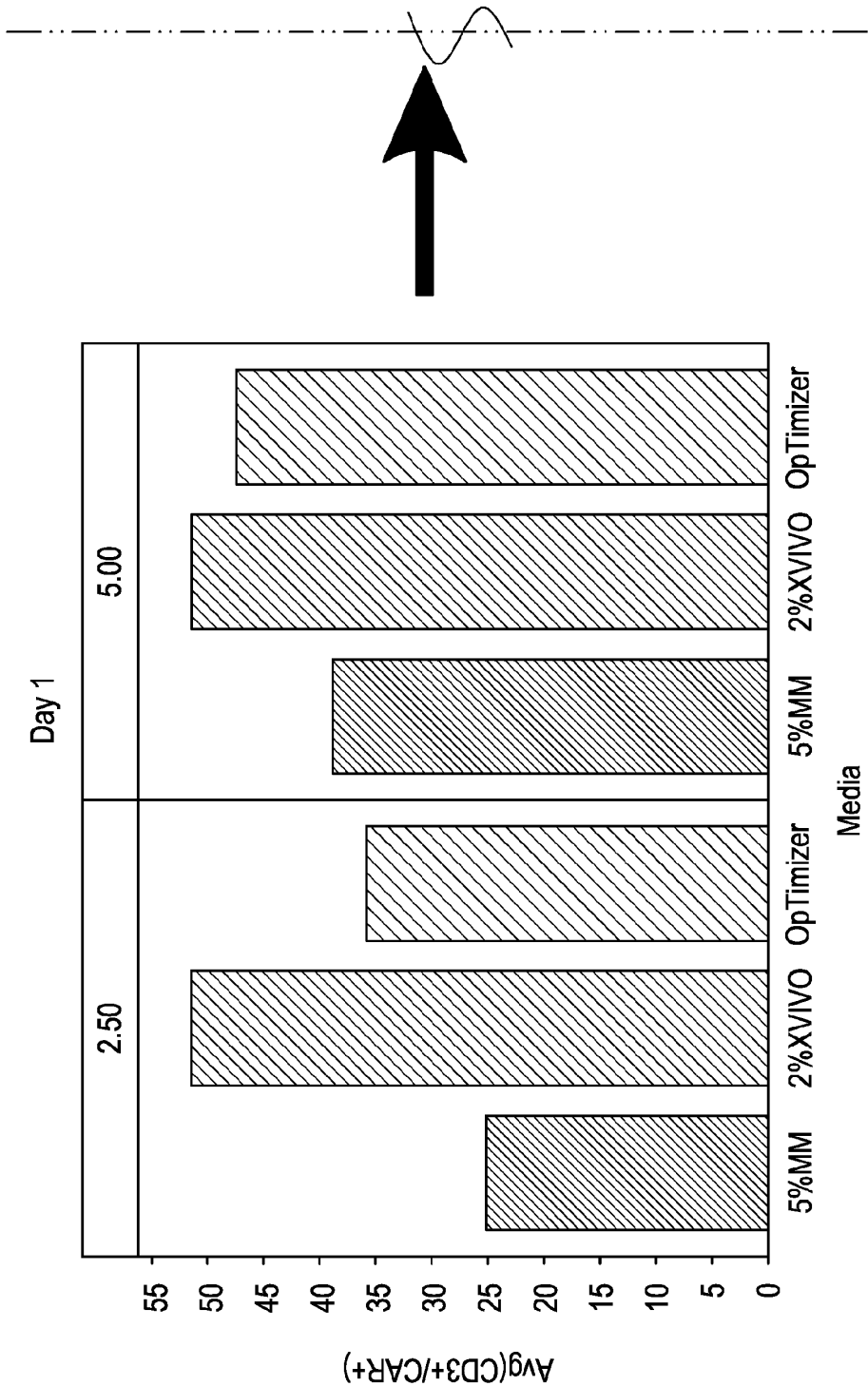


FIG. 3B (part 1)

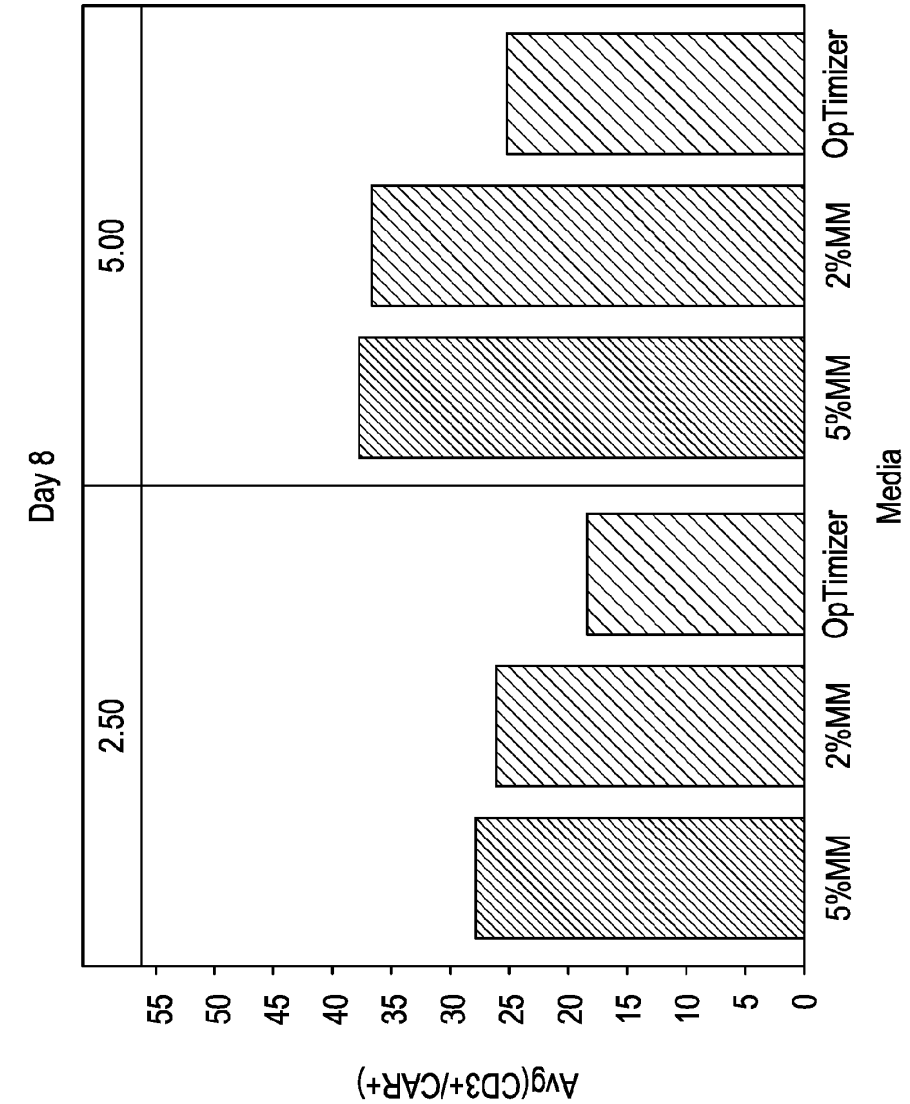


FIG. 3B (part 2)

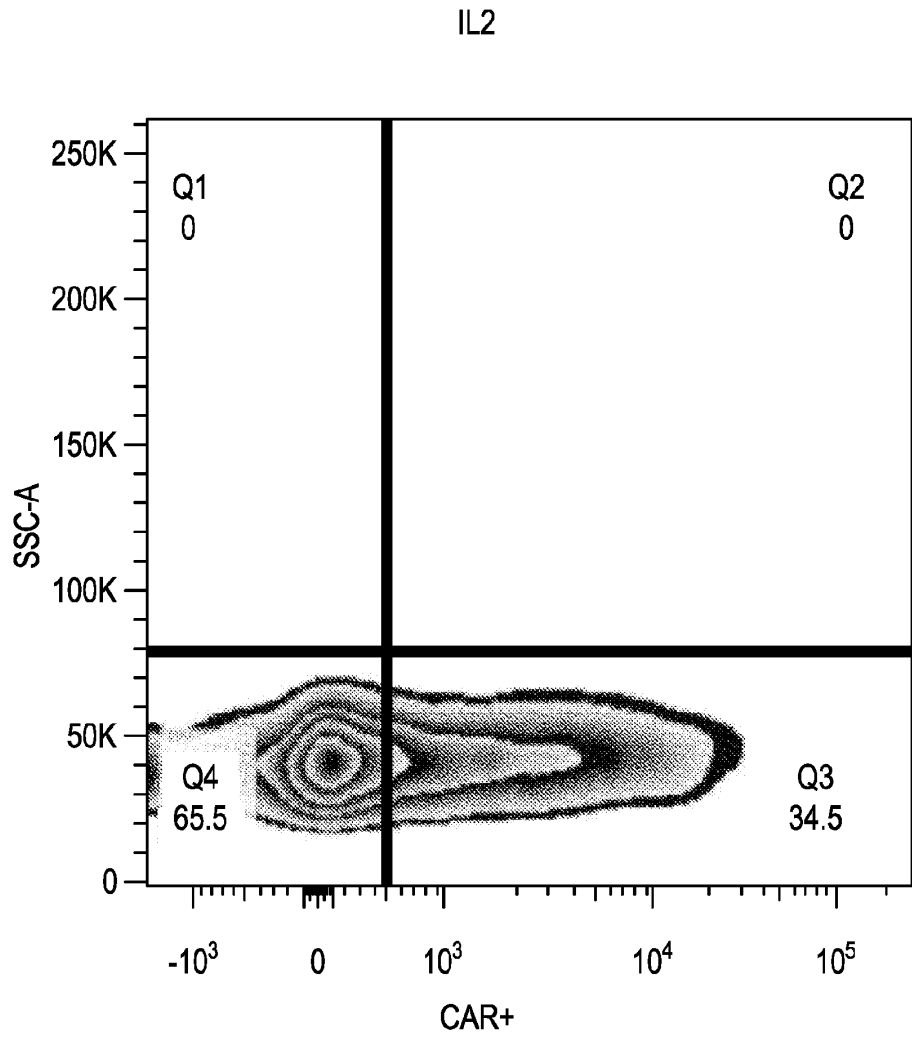


FIG. 4A (part 1)

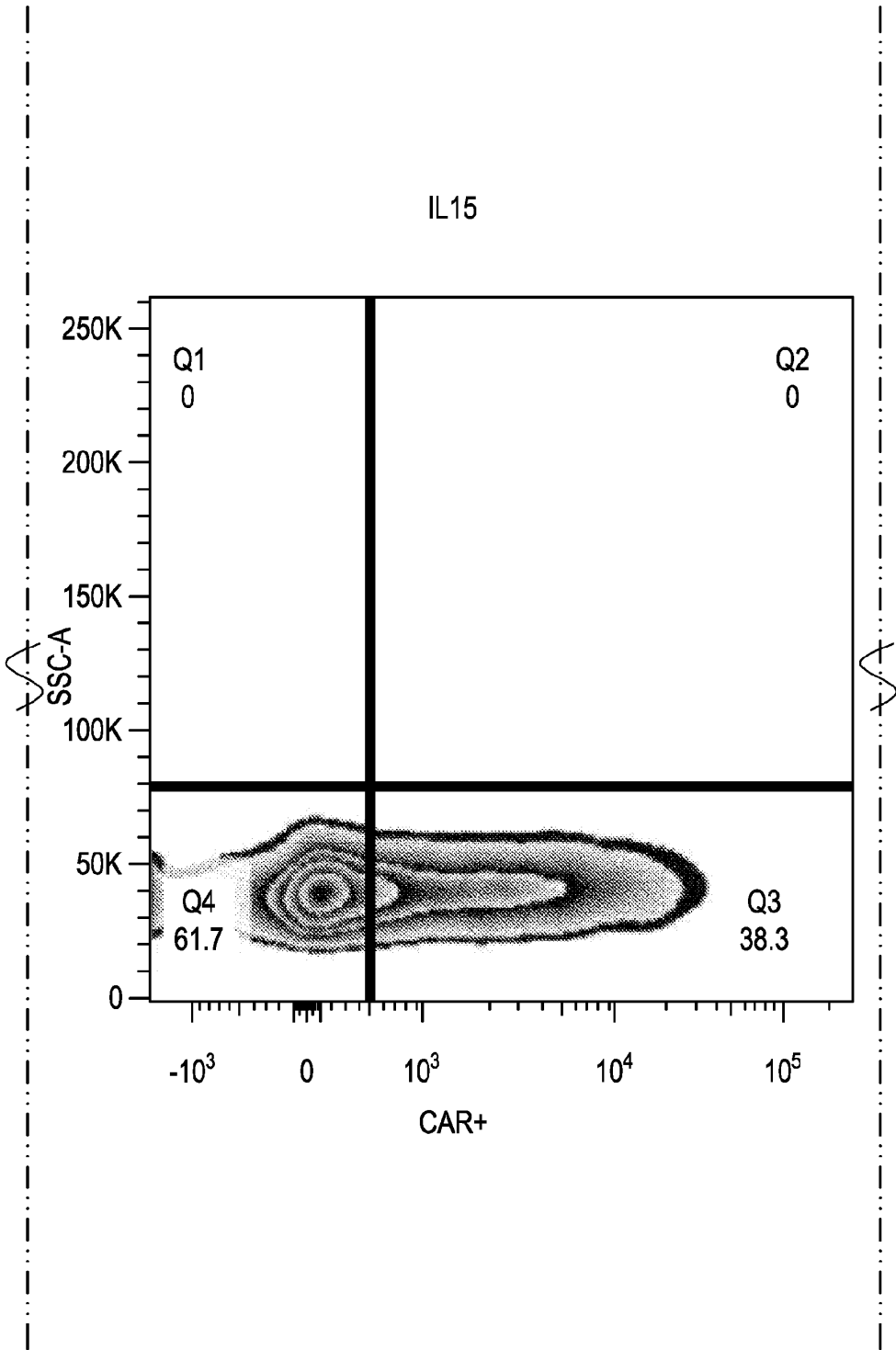


FIG. 4A (part 2)

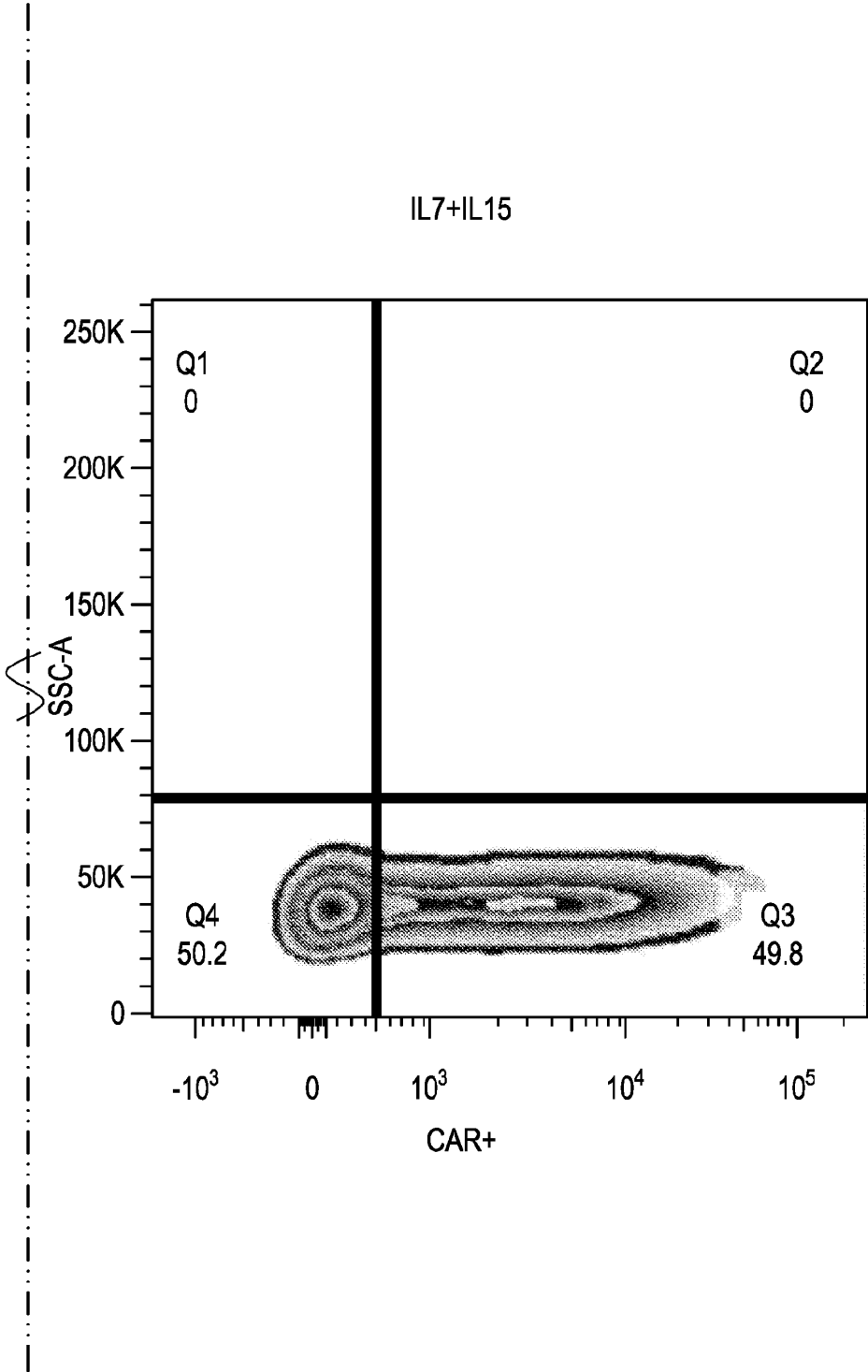


FIG. 4A (part 3)

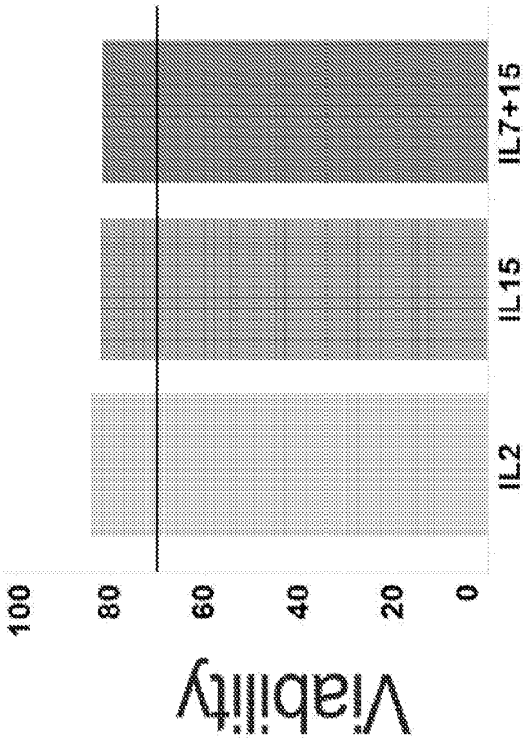


FIG. 4B

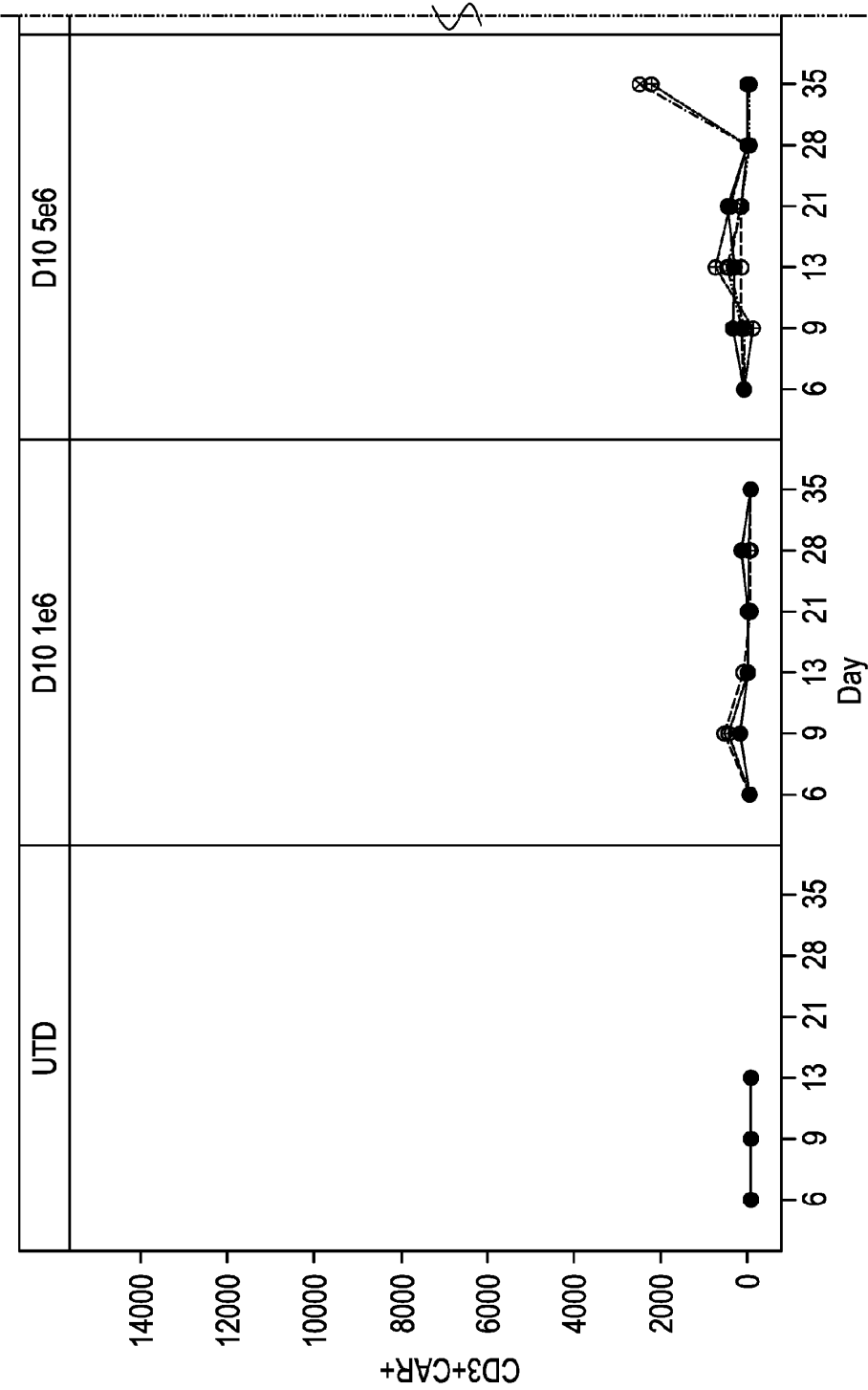


FIG. 4C (part 1)

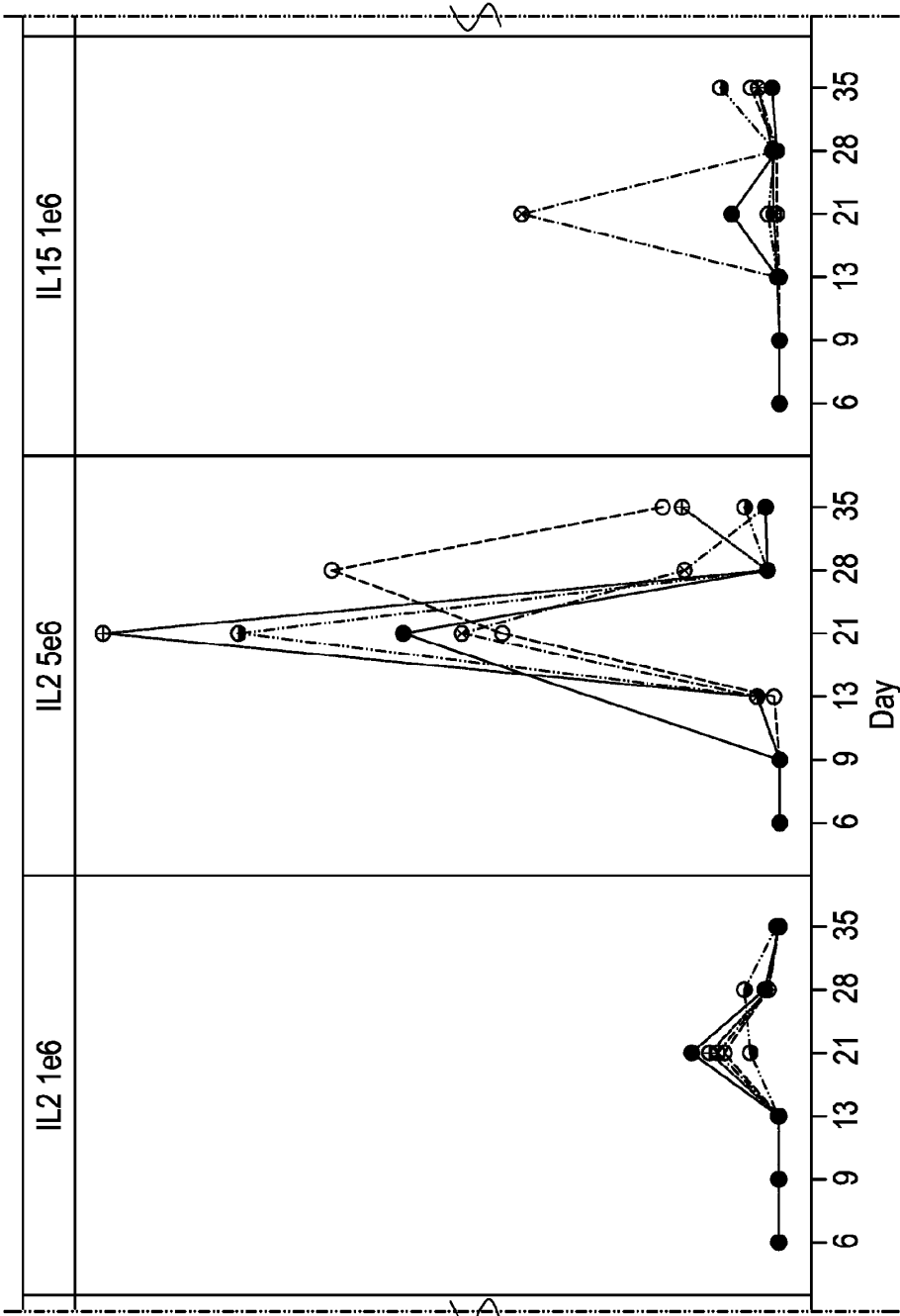


FIG. 4C (part 2)

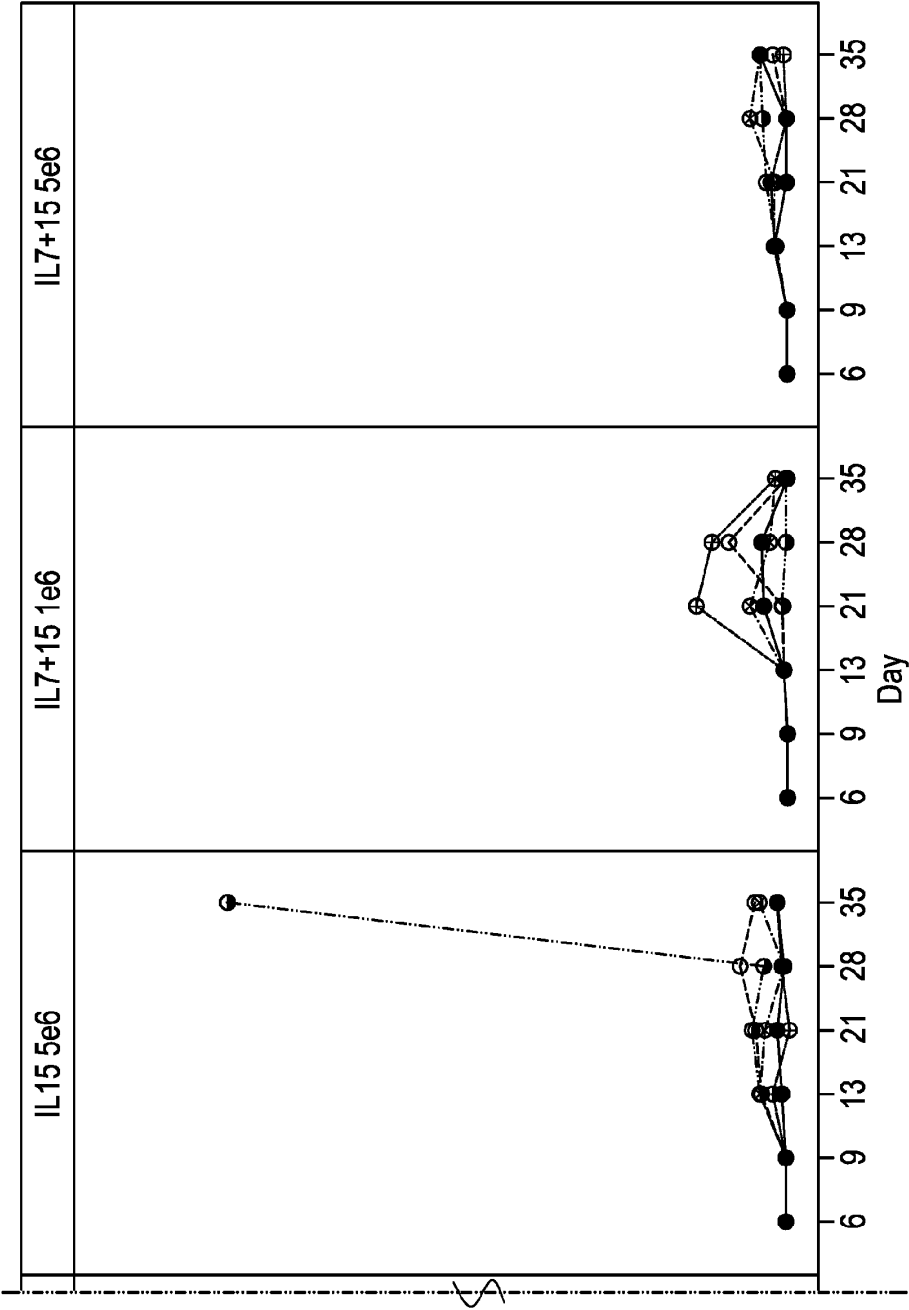


FIG. 4C (part 3)

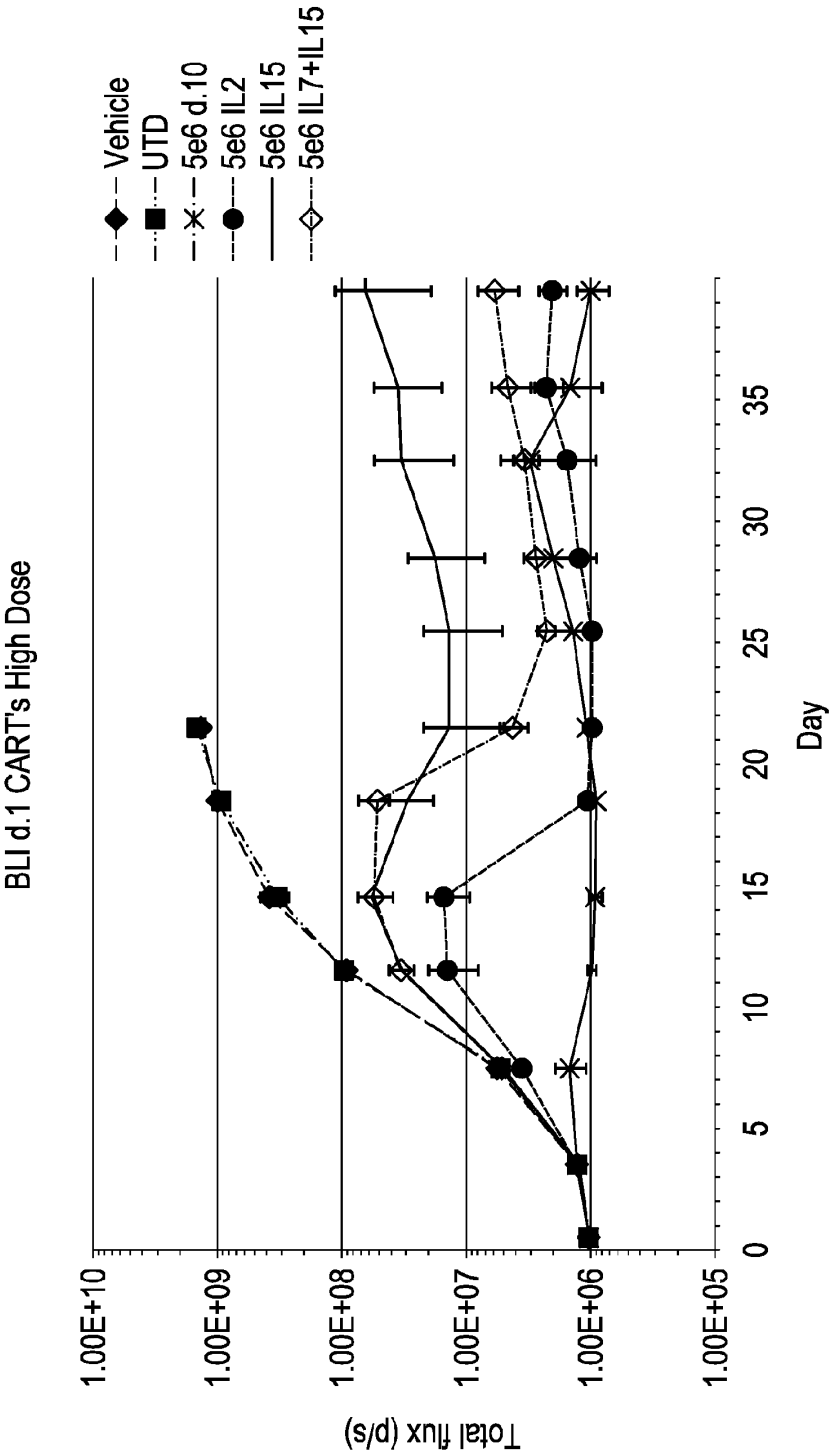


FIG. 4D

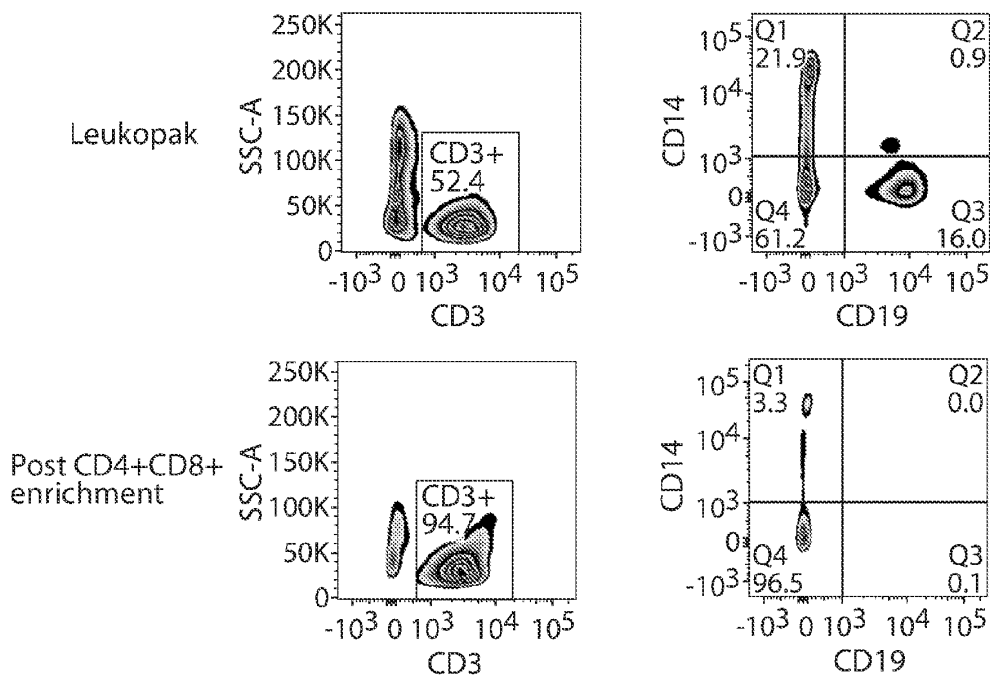


FIG. 5A

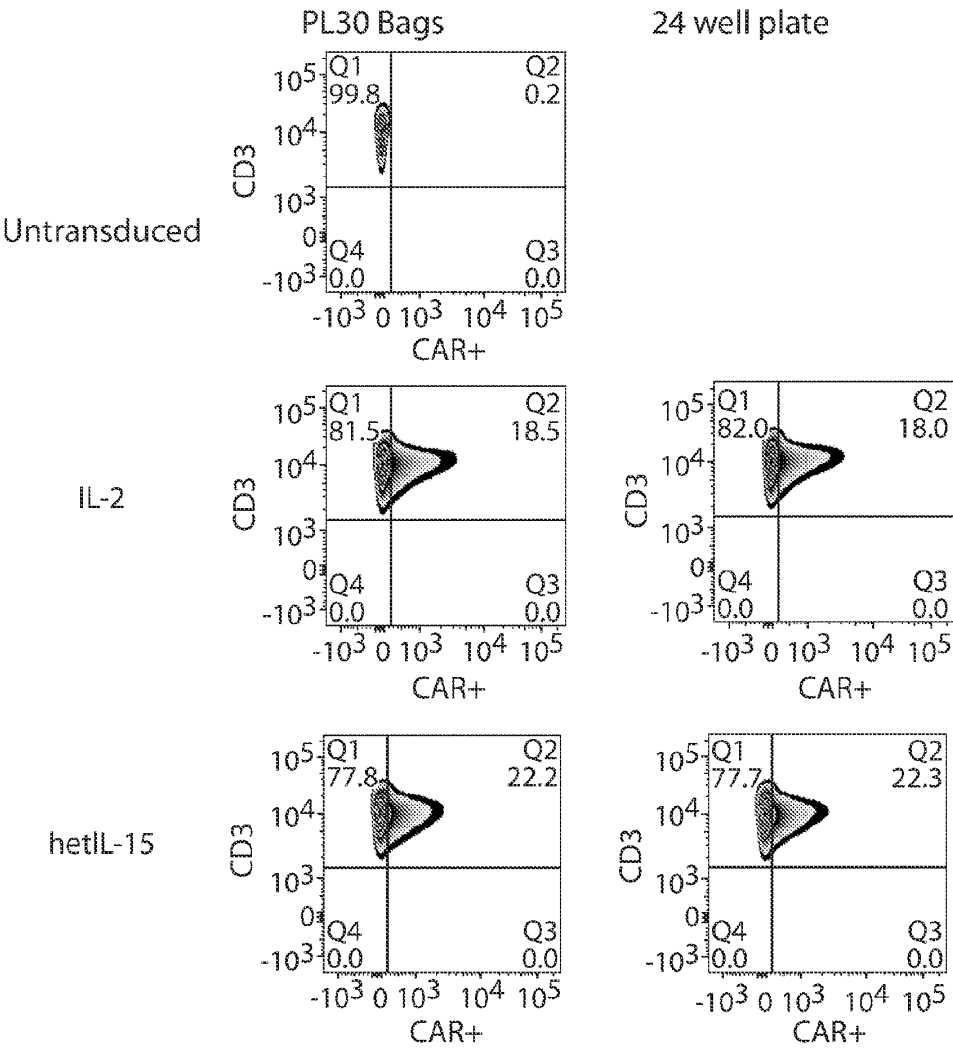


FIG. 5B

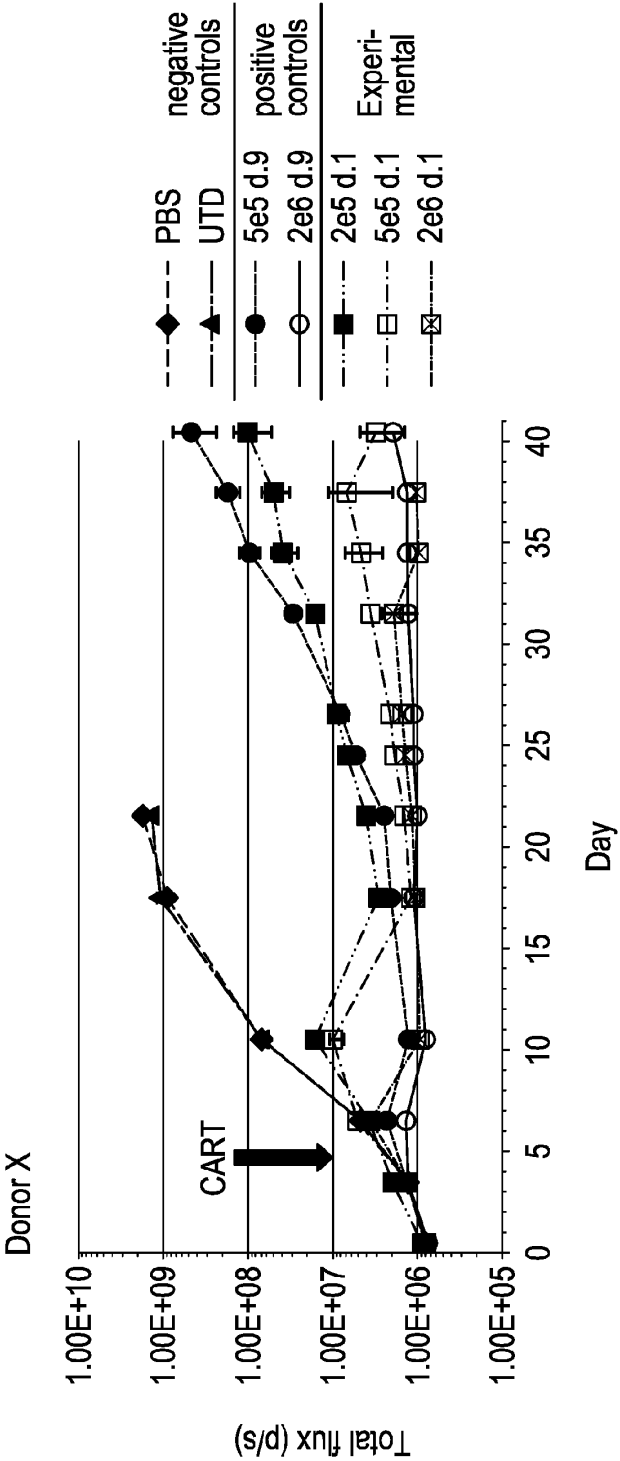


FIG. 6A

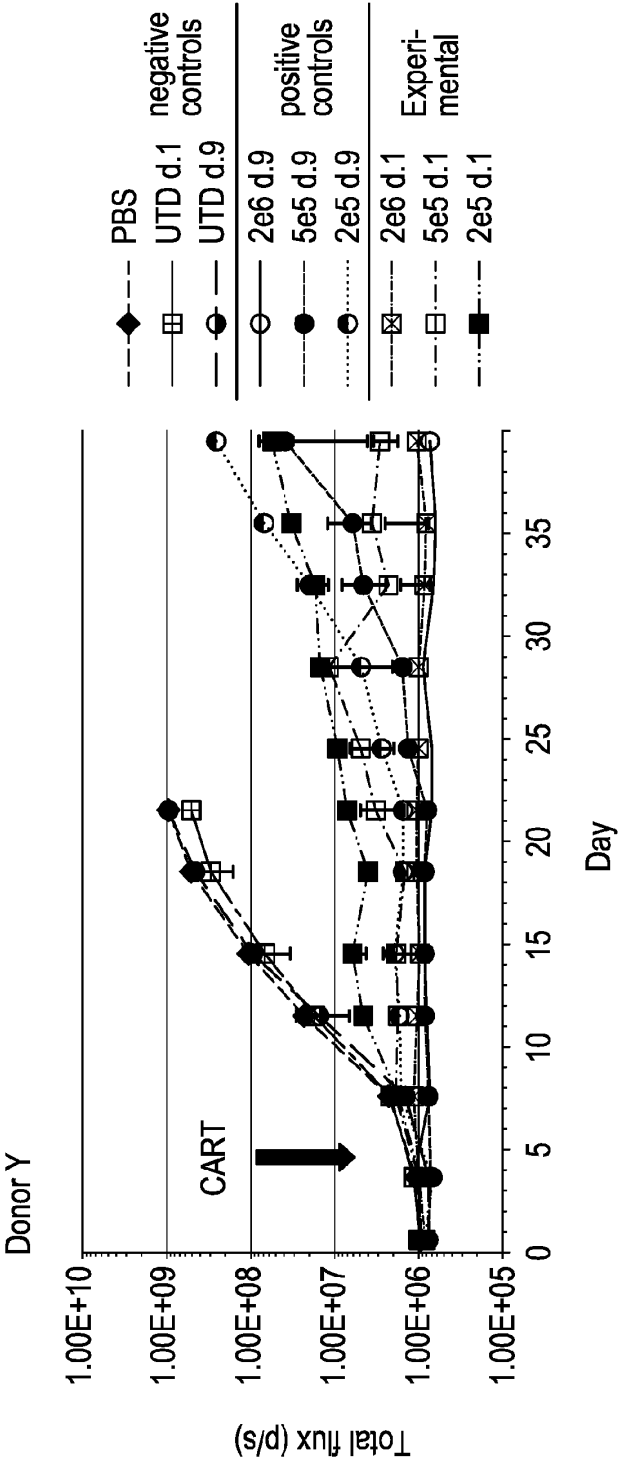


FIG. 6B

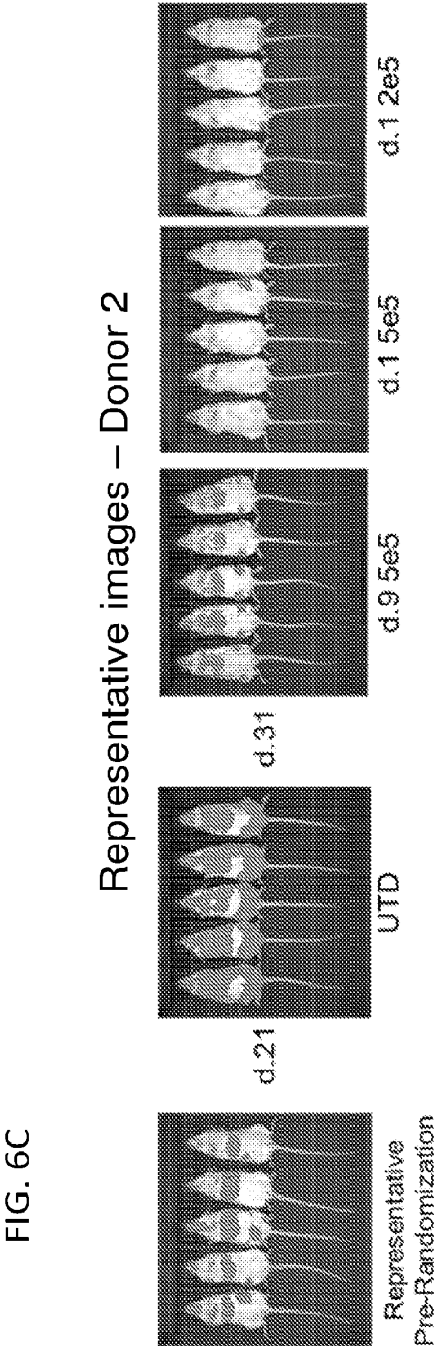


FIG. 6C

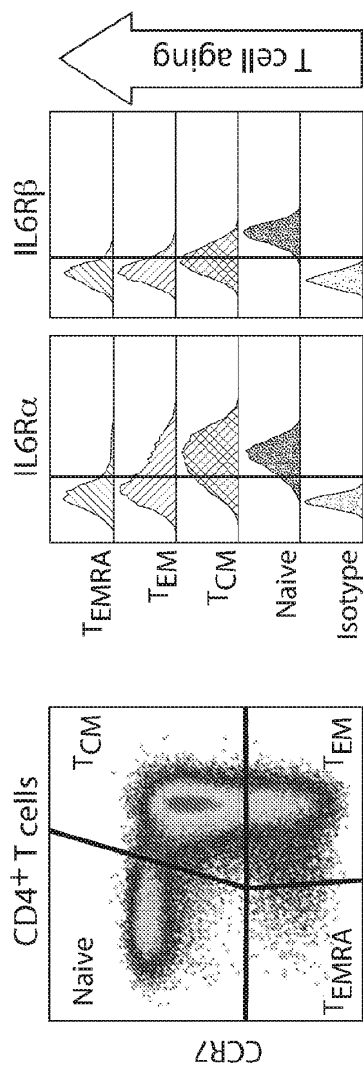


FIG. 7A

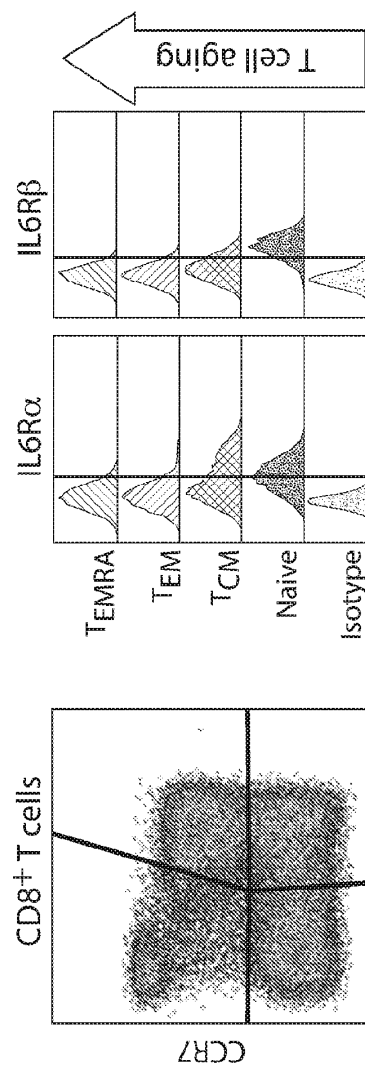


FIG. 7B

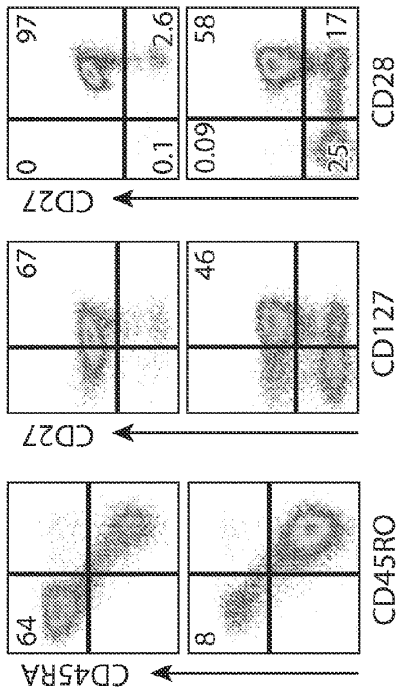


FIG. 8A

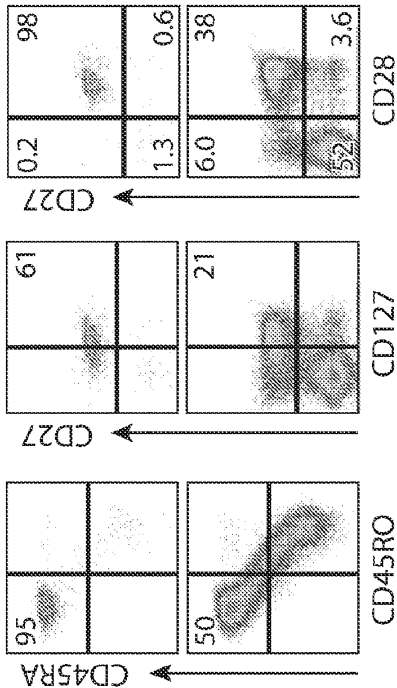
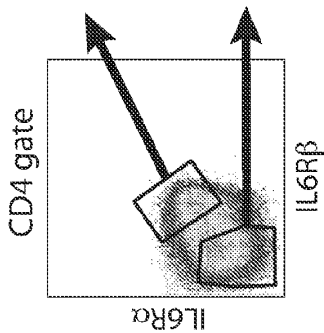
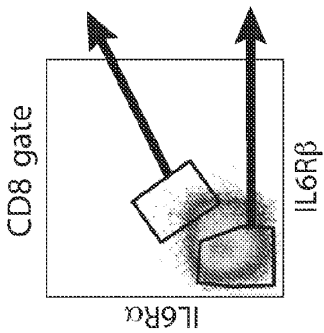


FIG. 8B



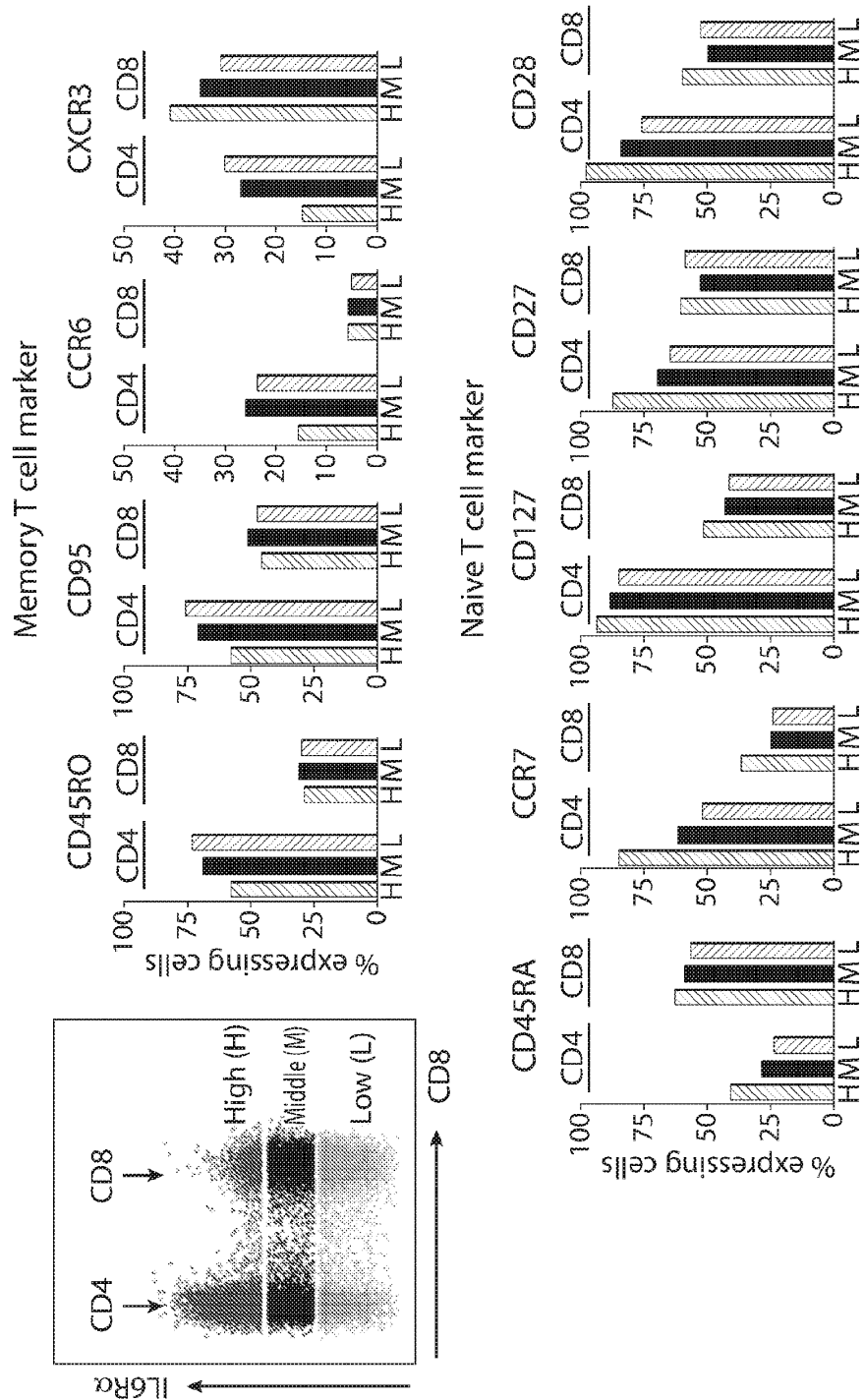


FIG. 9

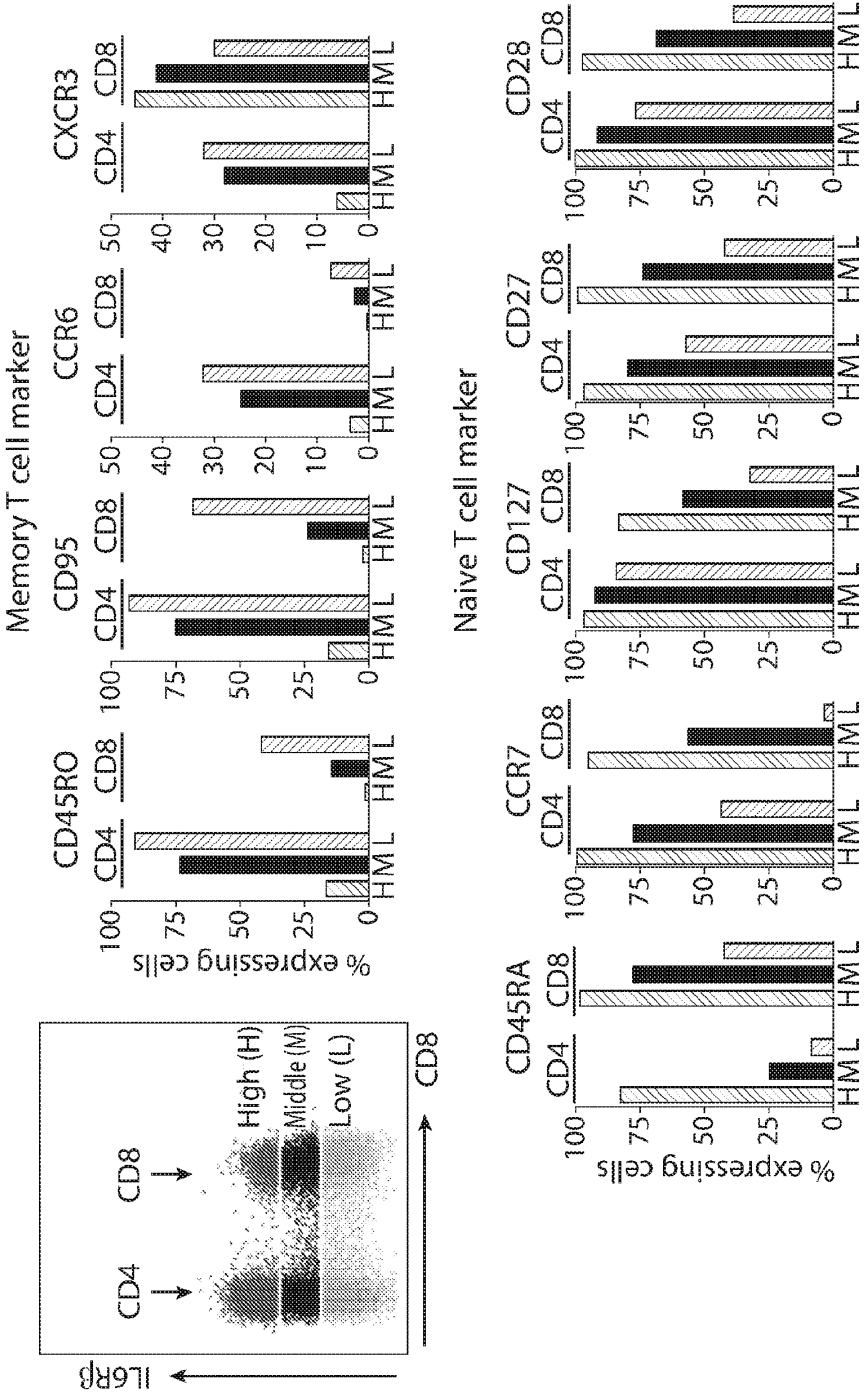


FIG. 10

FIG. 11

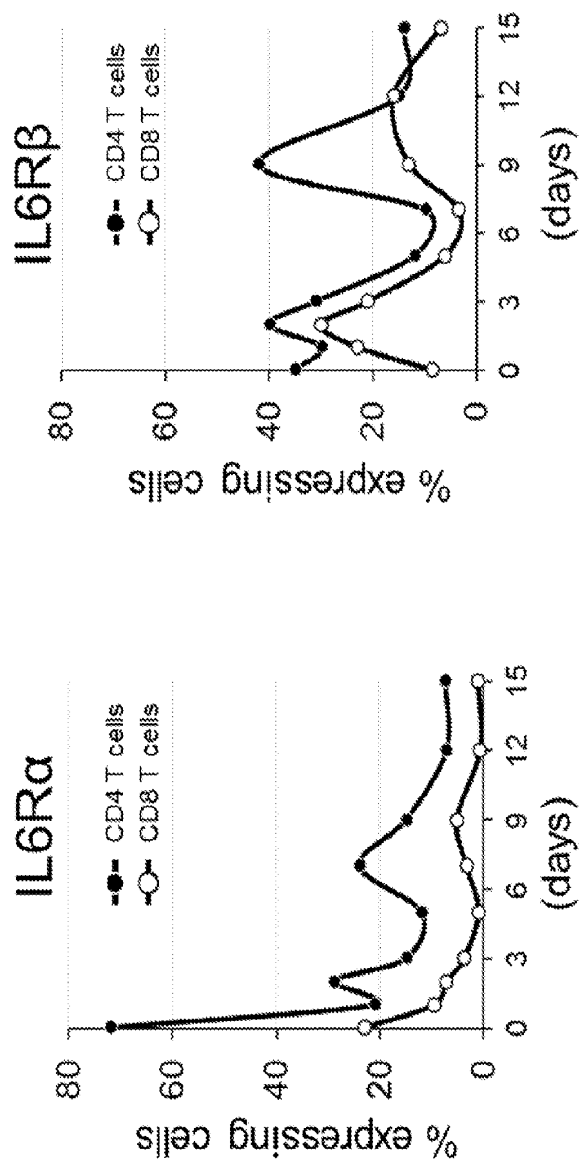
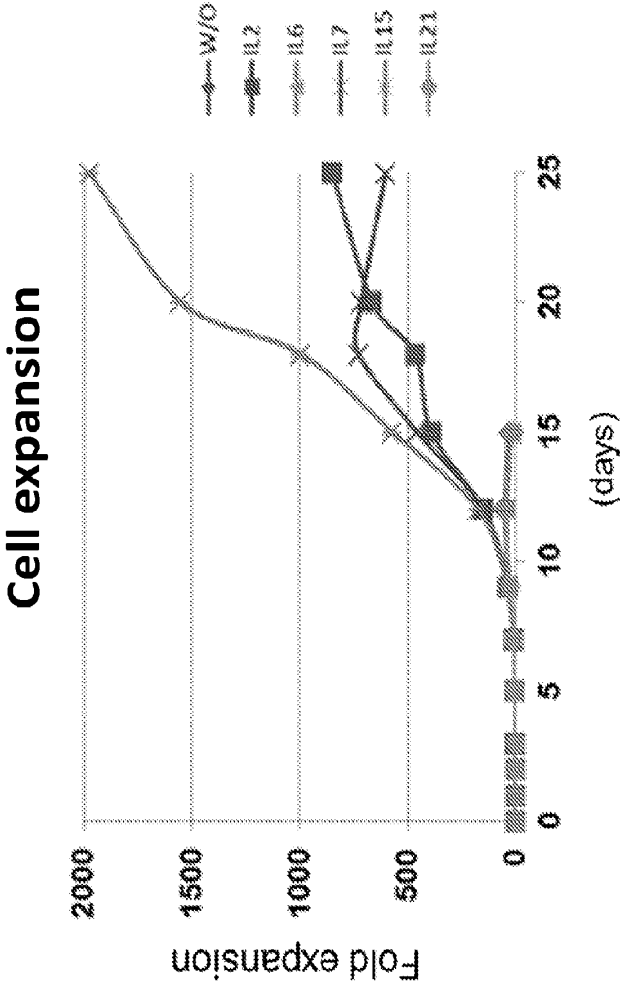


FIG. 12



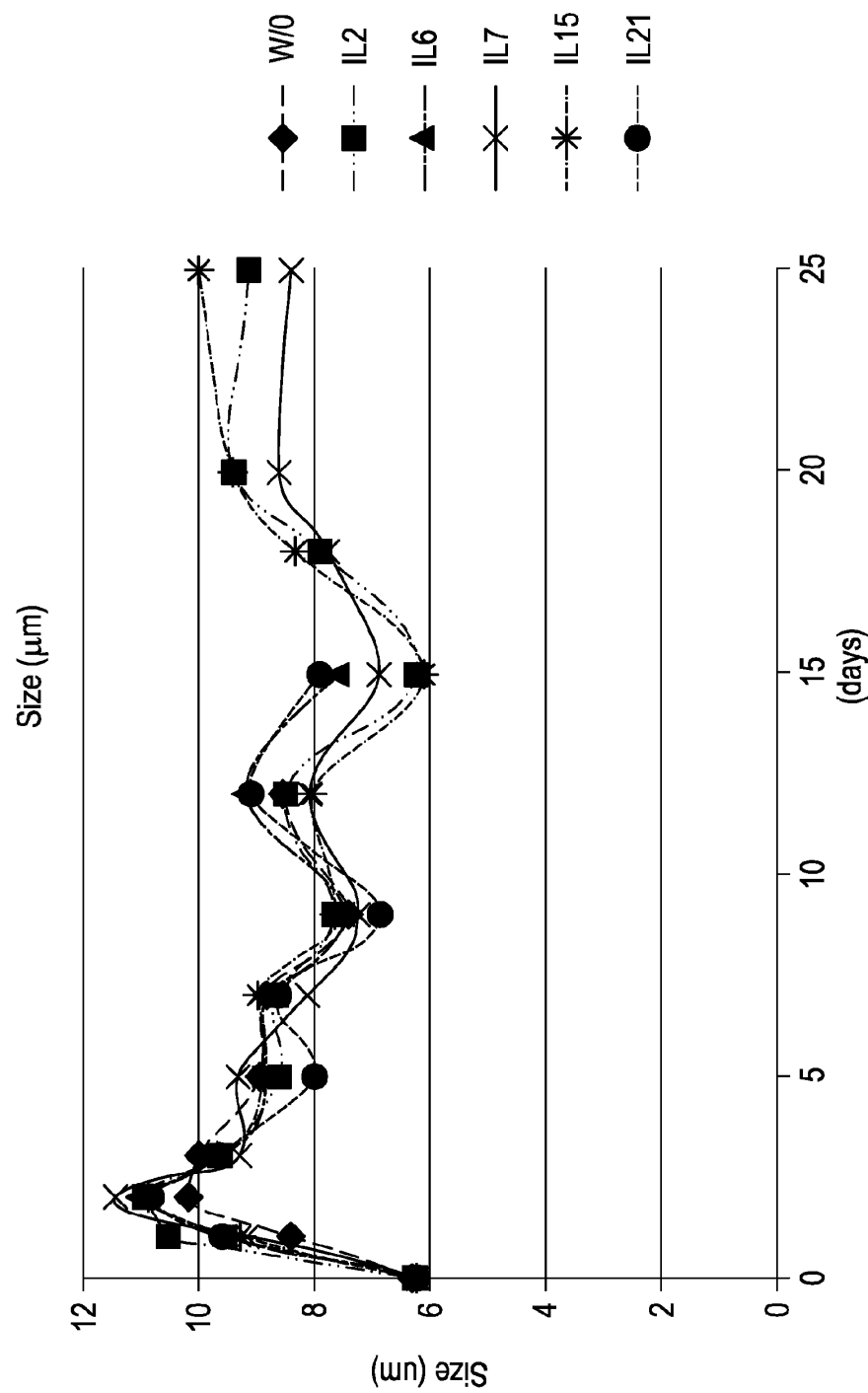


FIG. 13A

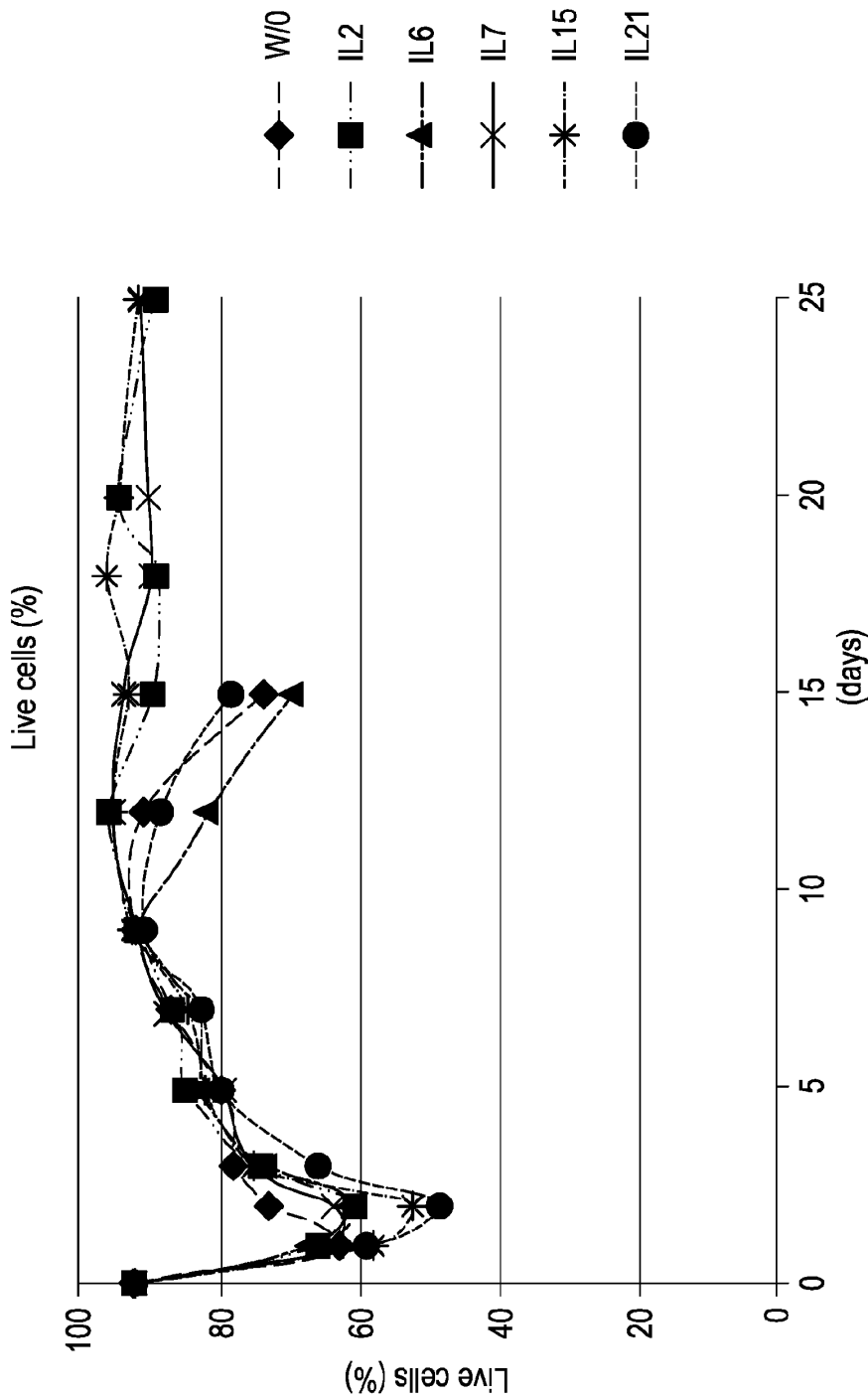


FIG. 13B

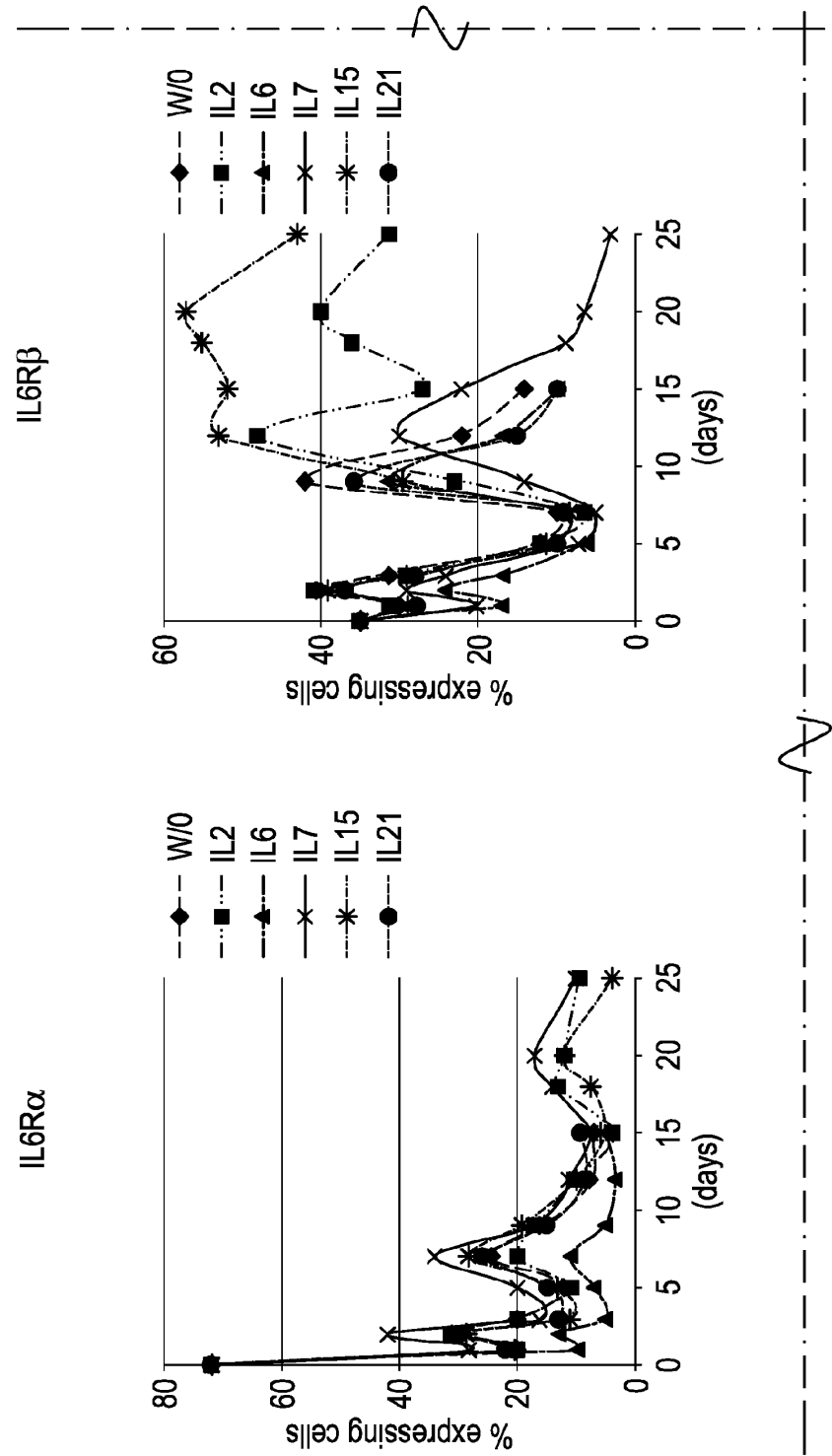


FIG. 14 (part 1)

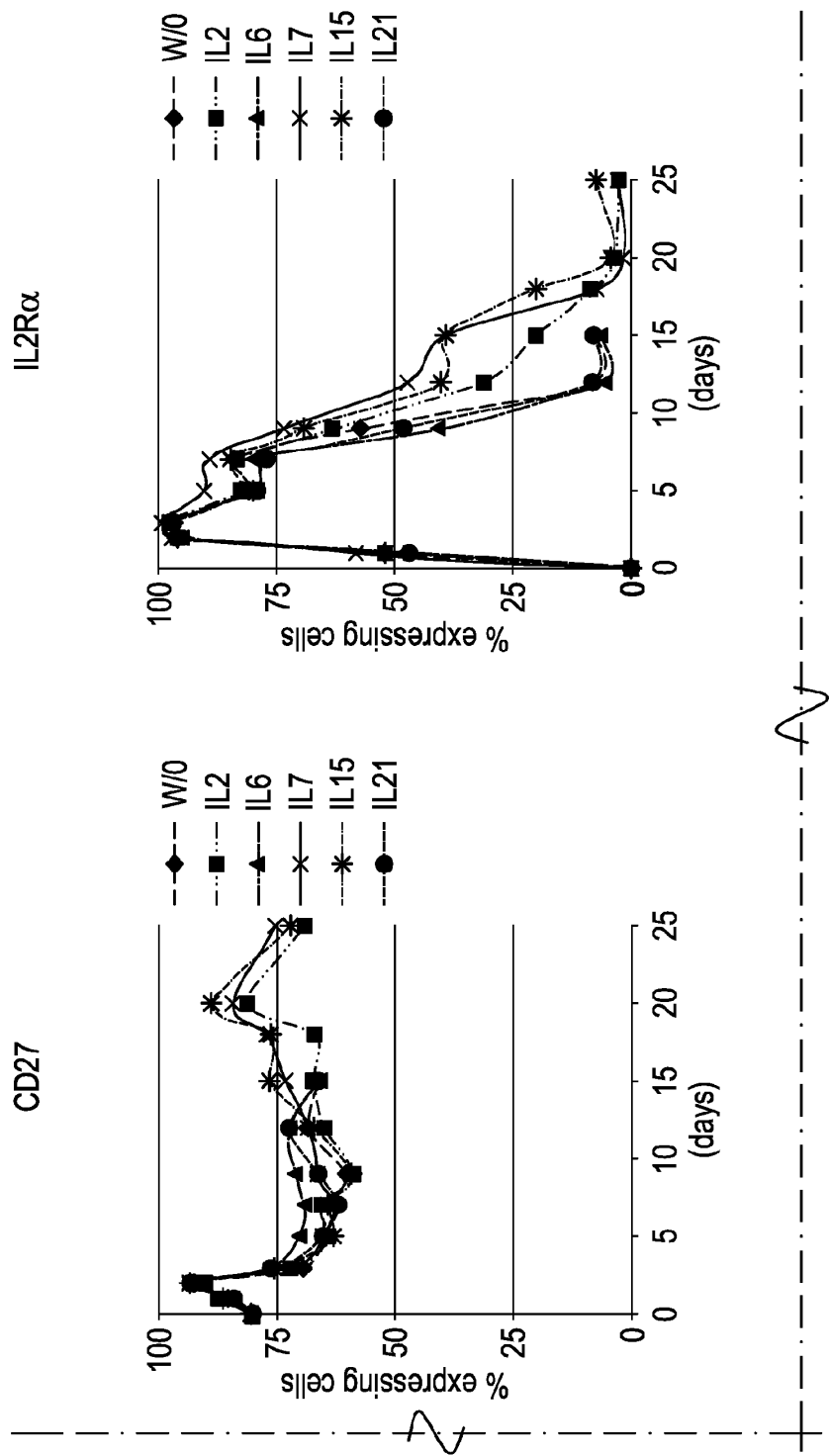


FIG. 14 (part 2)

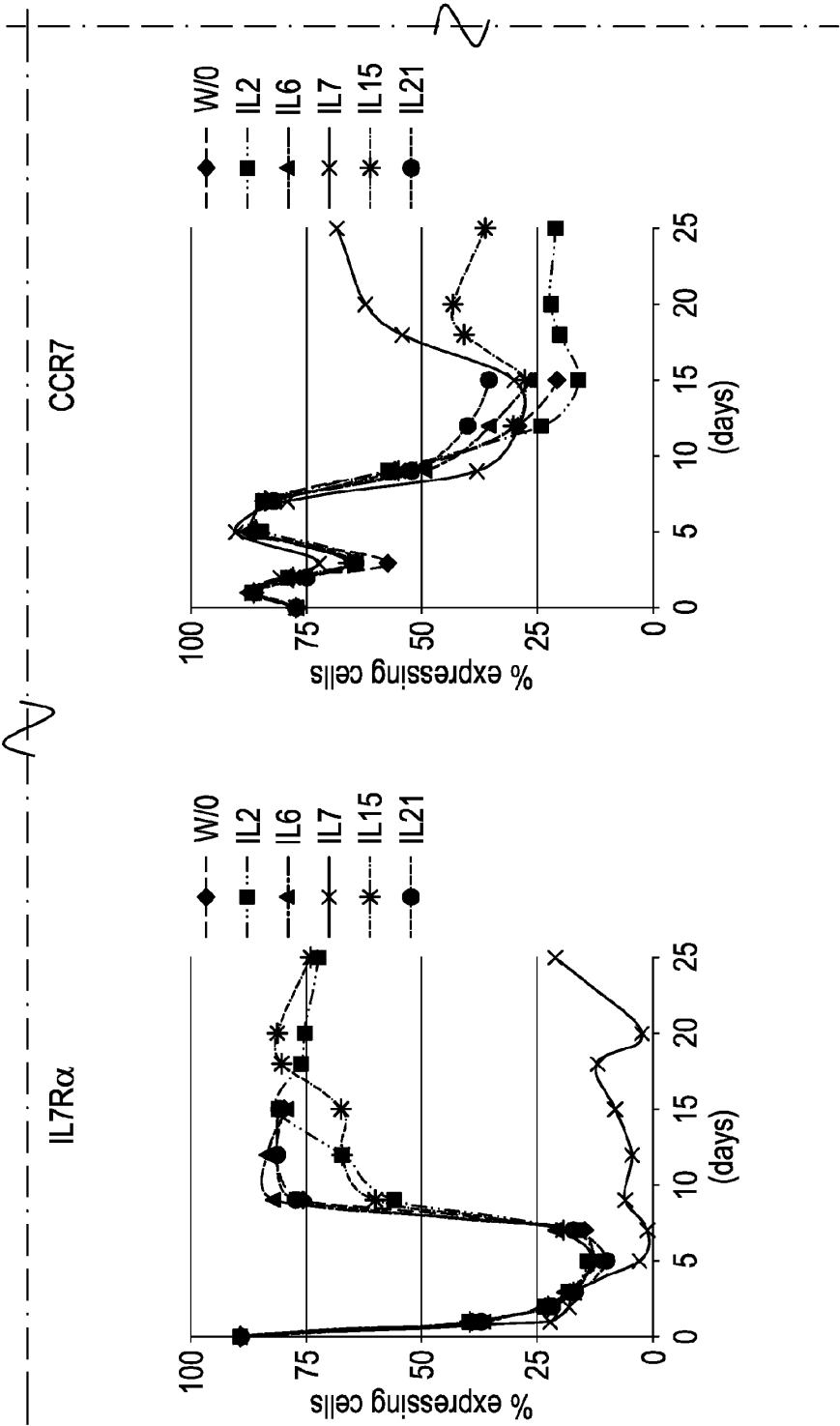


FIG. 14 (part 3)

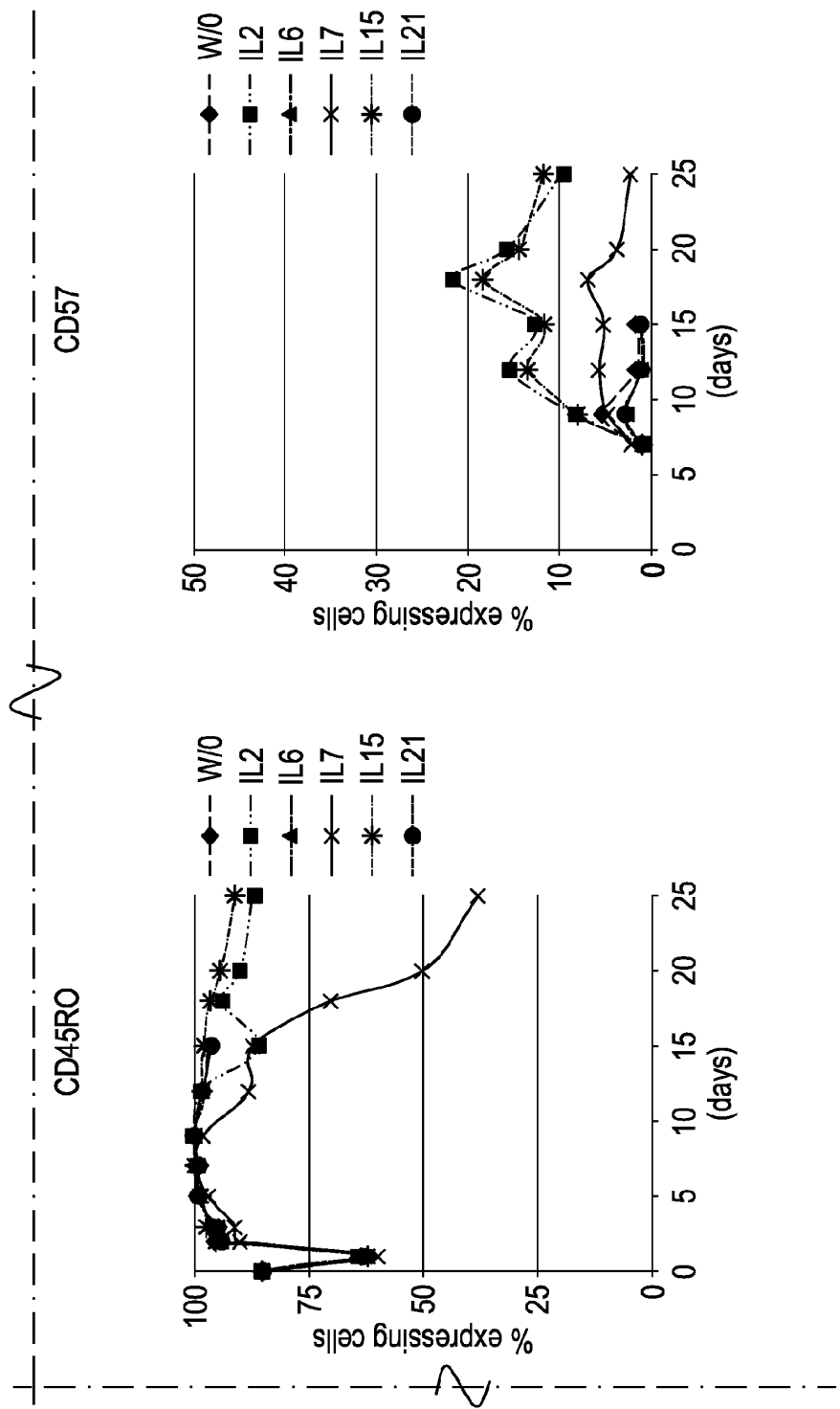


FIG. 14 (part 4)

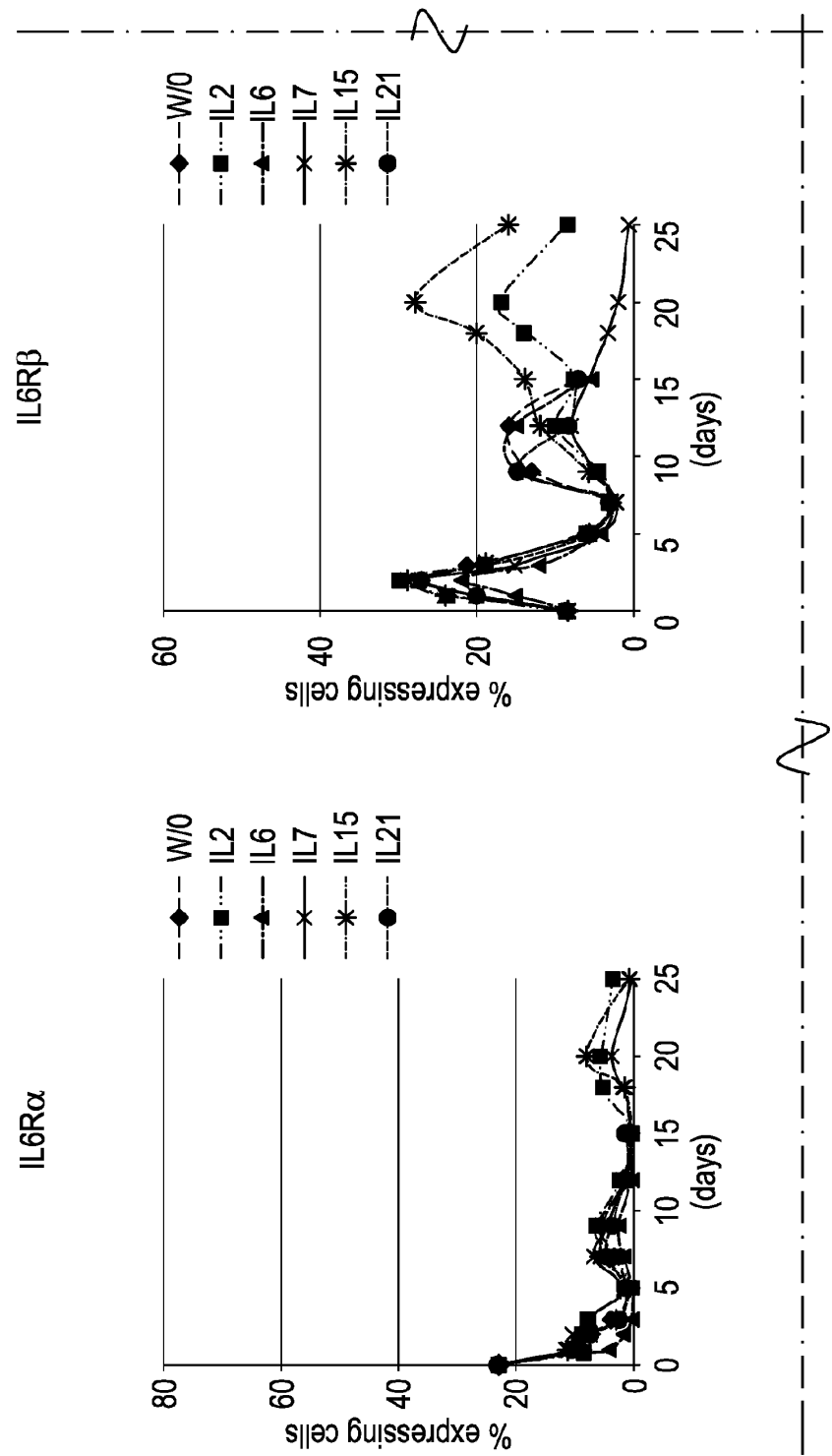


FIG. 15 (part 1)

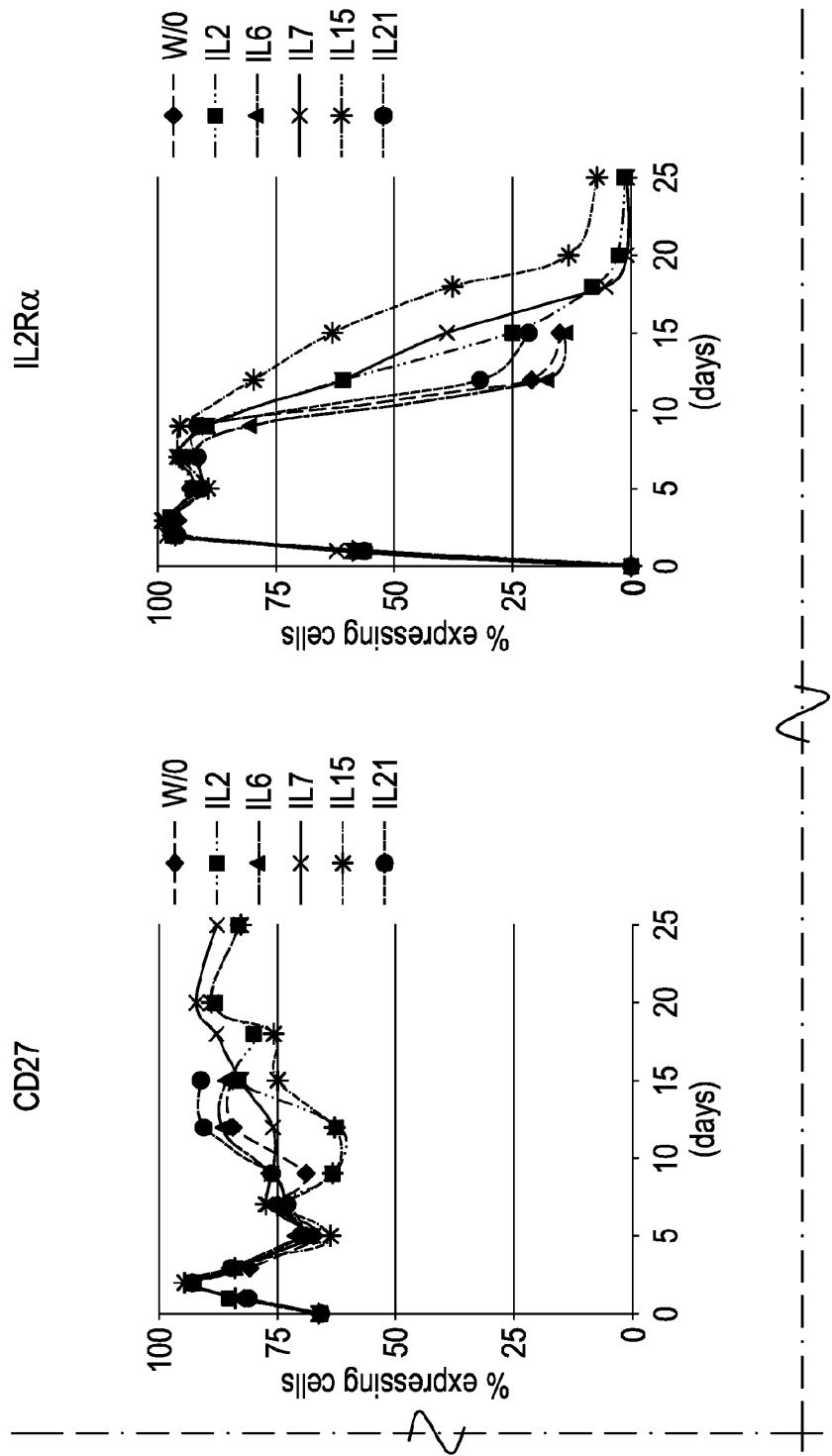


FIG. 15 (part 2)

FIG. 15 (part 3)

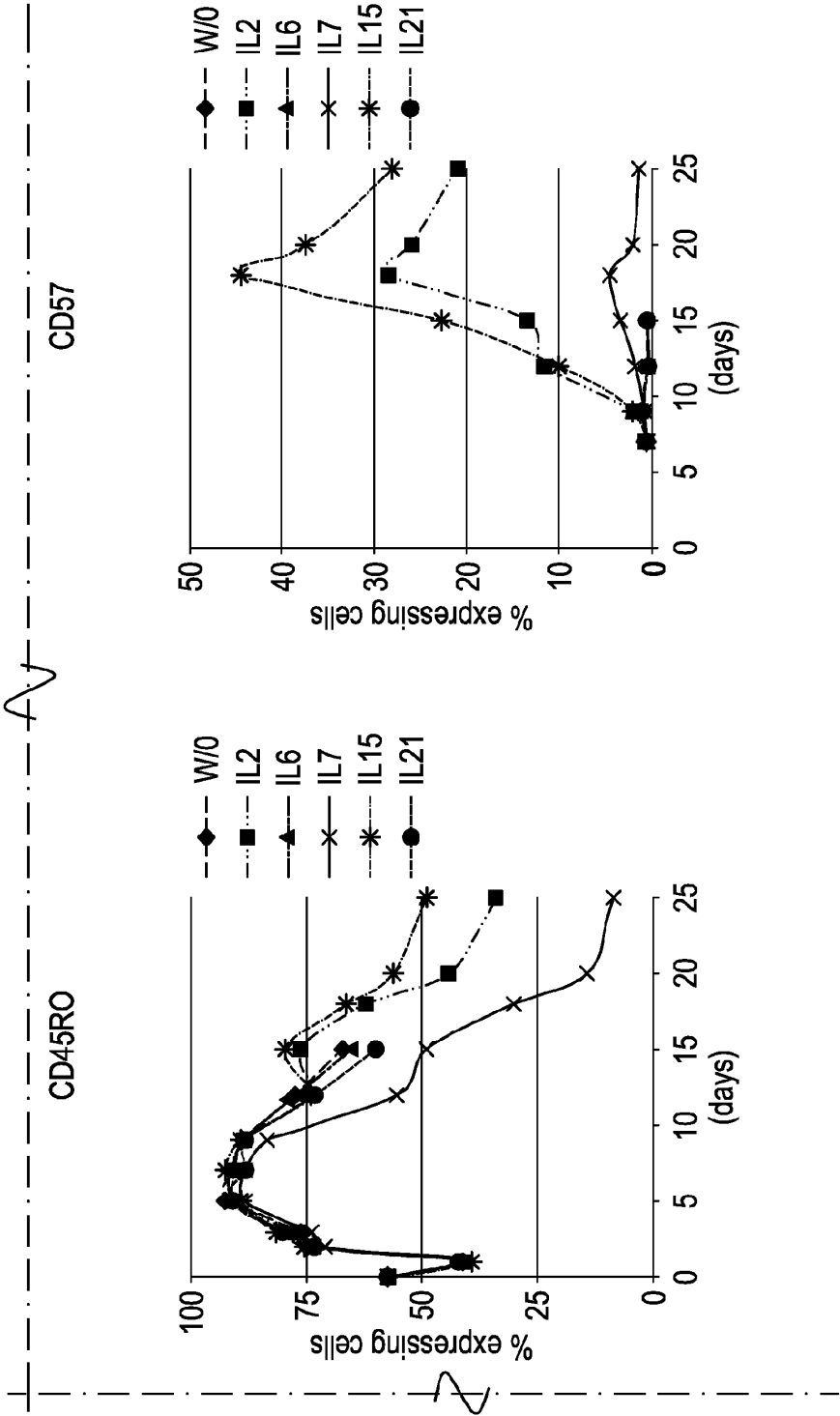
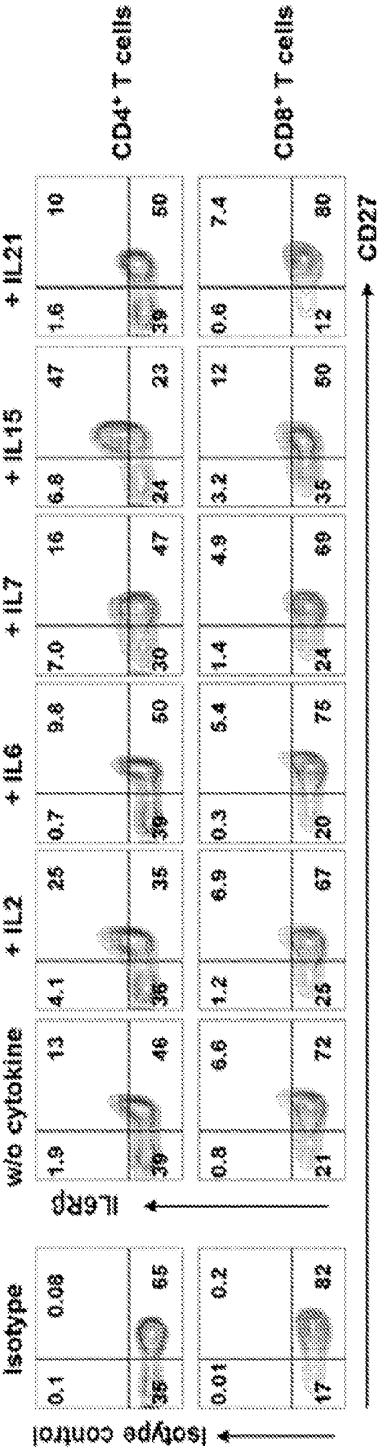


FIG. 15 (part 4)

FIG. 16



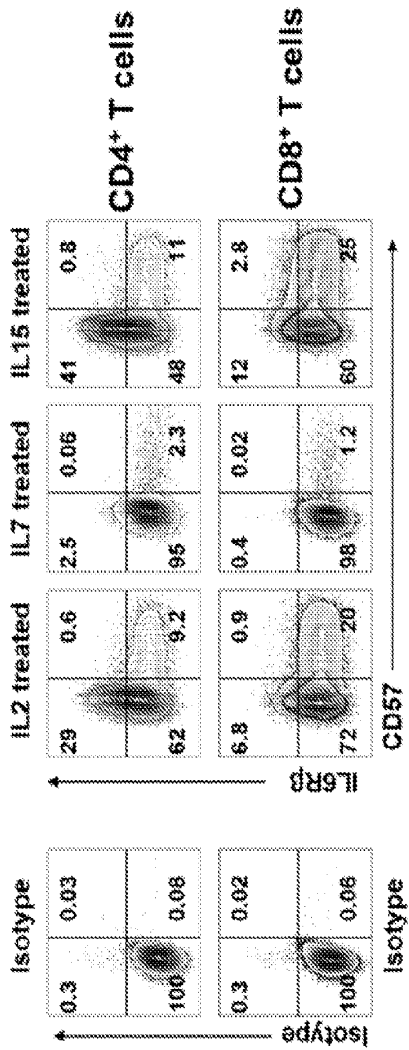
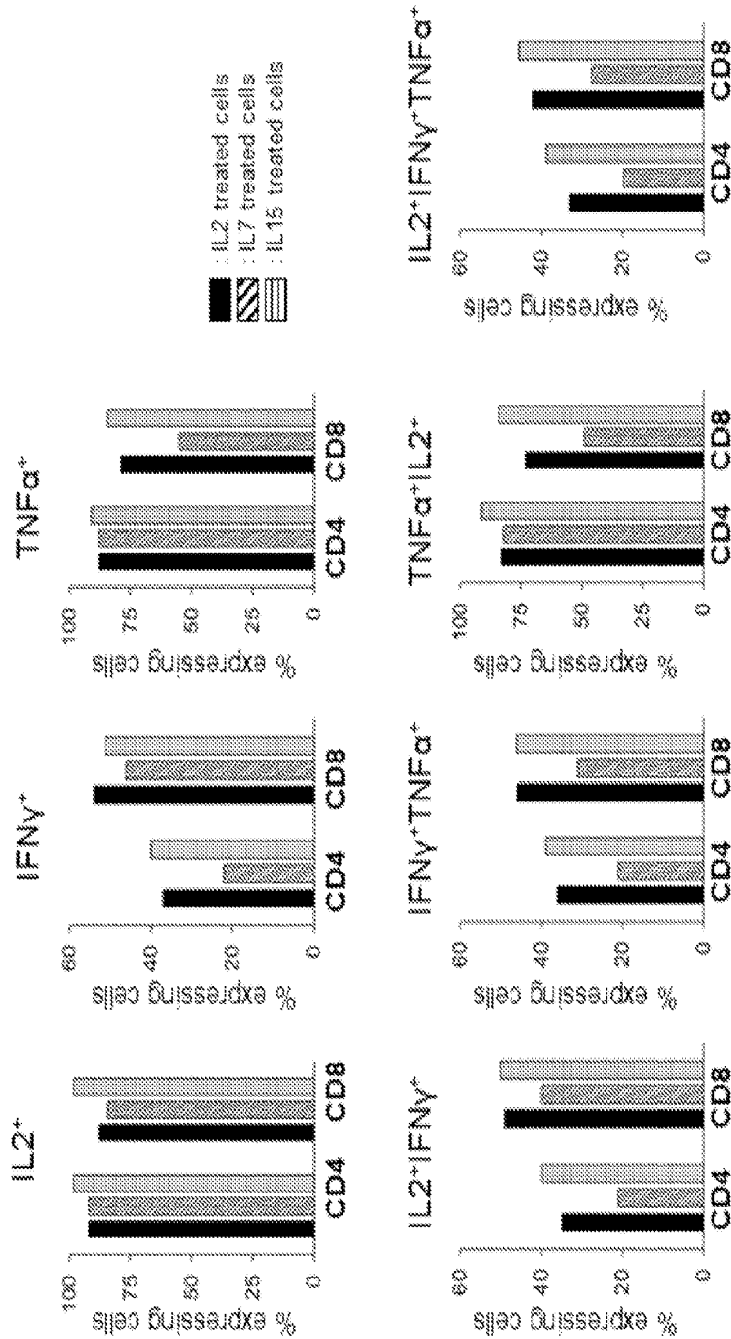


FIG. 17

FIG. 18



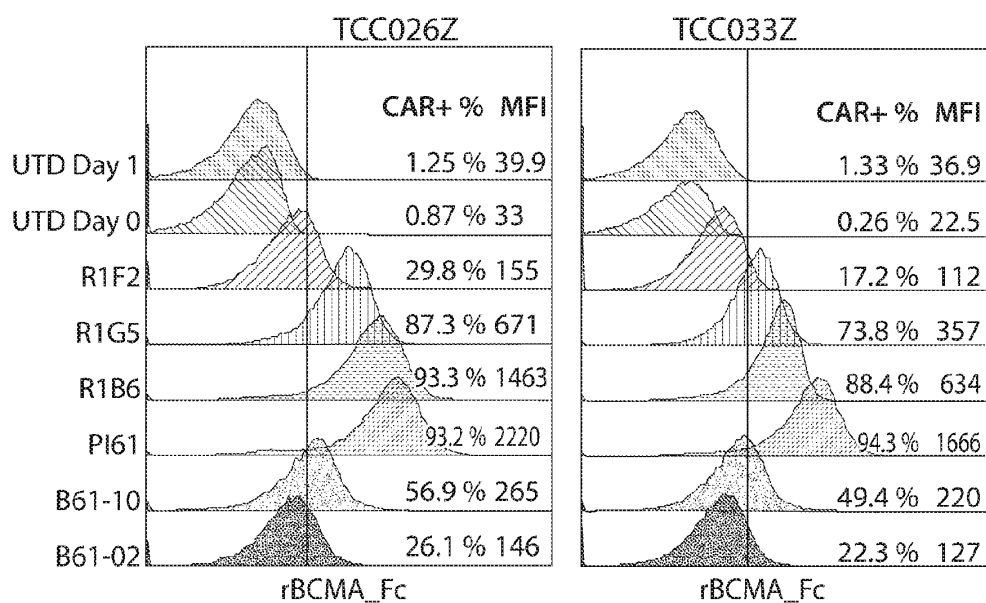


FIG. 19A

FIG. 19B

FACS Panel		
Stain	Dilution	Voltage
FSC		430
SSC		255
CD3 BV395	1/200	330
CD4 PerCP Cy5.5	1/100	430
rBCMA Alexa 647	1/380 (3µg/ml)	440
CD8 APC H7	1/200	490
Live/Dead Aqua	1/500	400

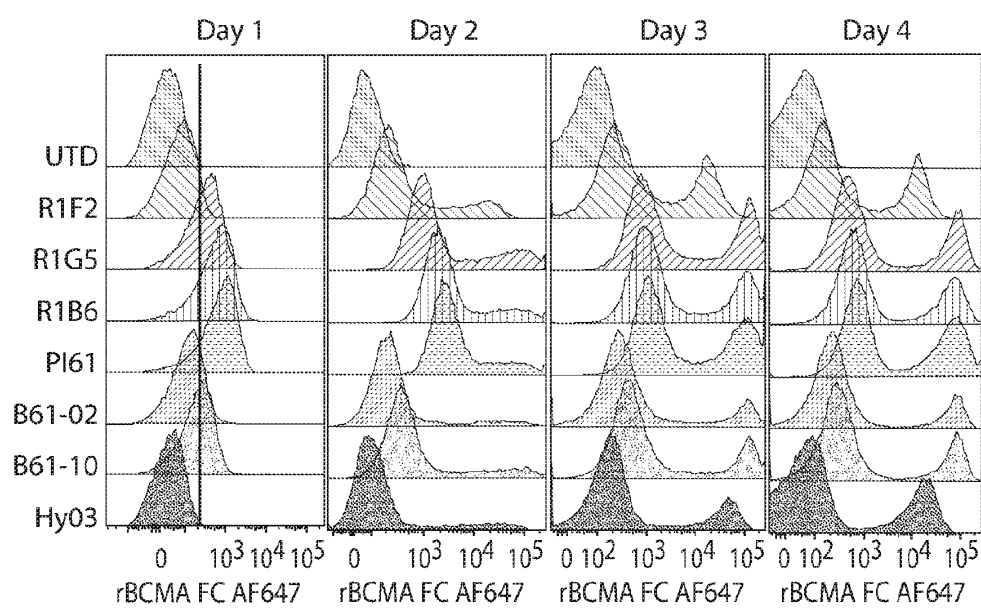


FIG. 20A

FIG. 20C

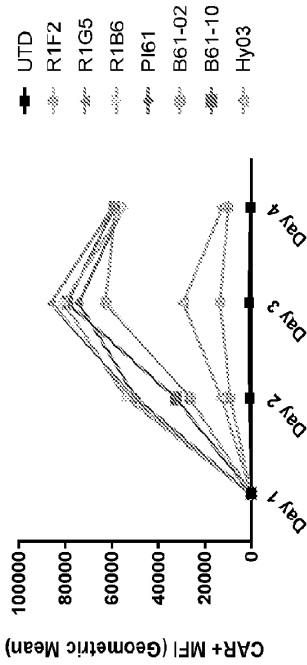
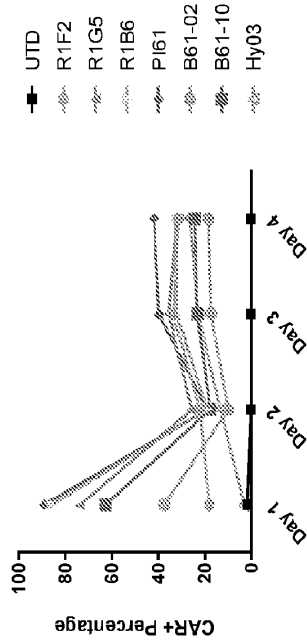


FIG. 20B



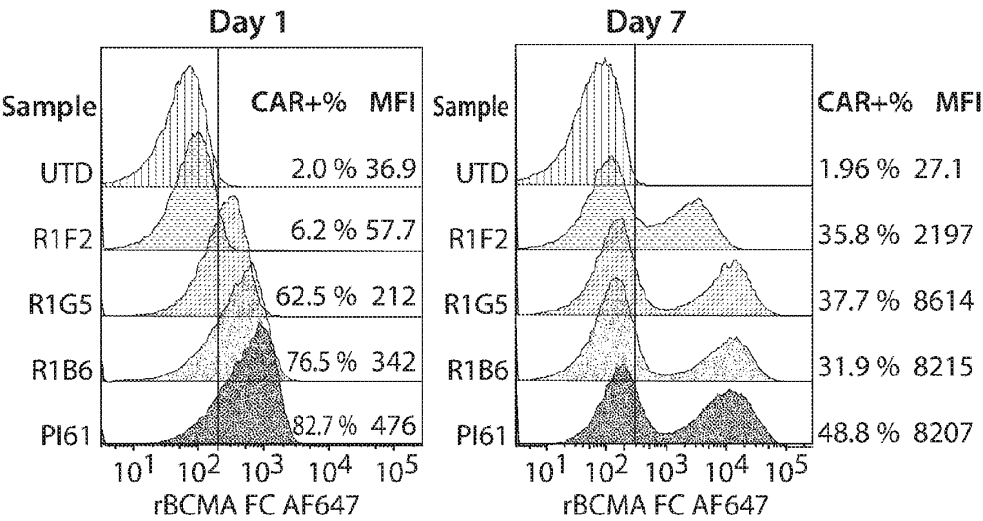
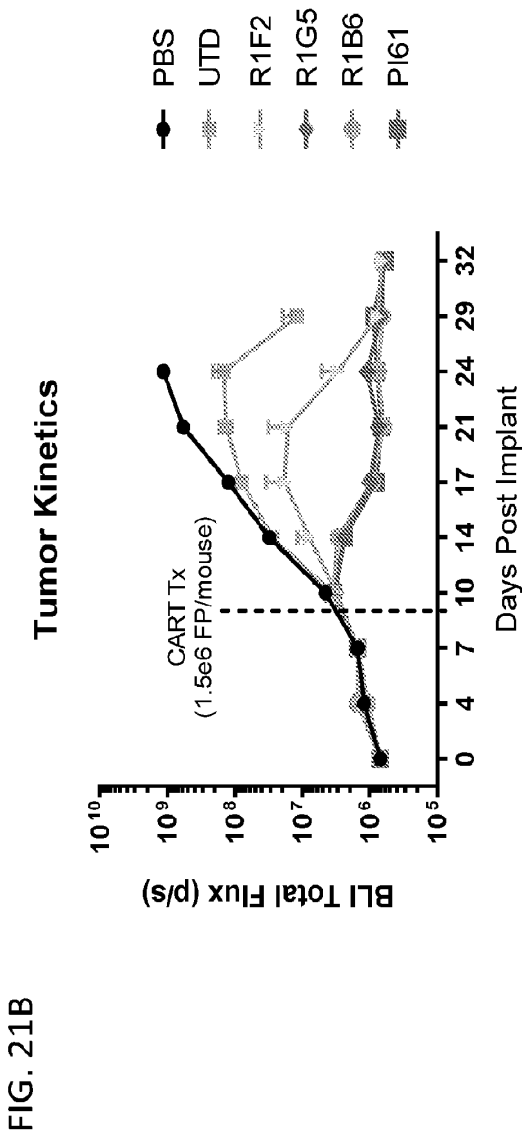


FIG. 21A



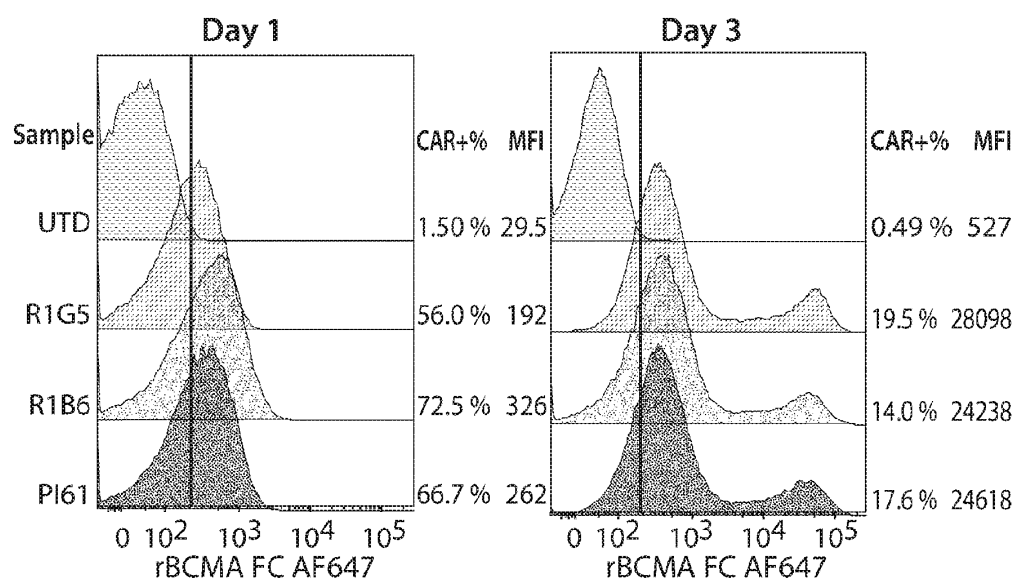
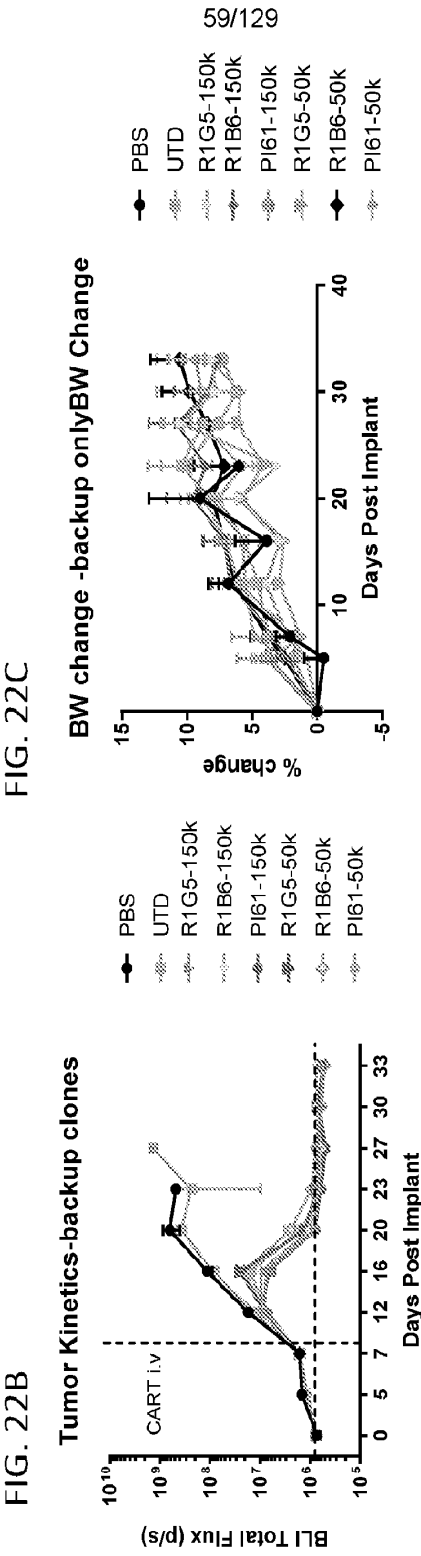


FIG. 22A



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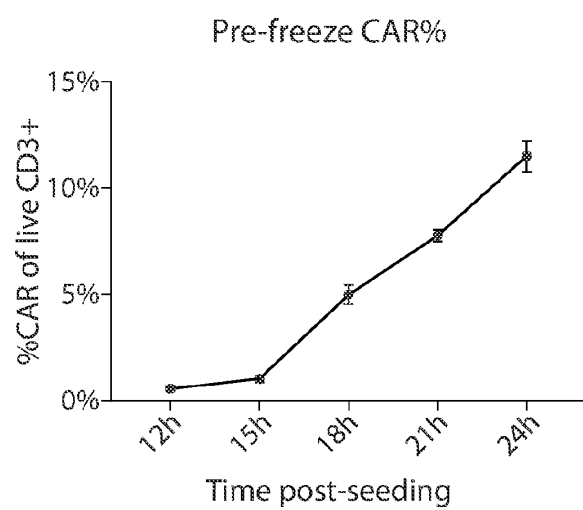
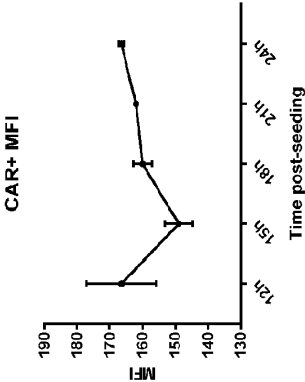


FIG. 23A

FIG. 23B



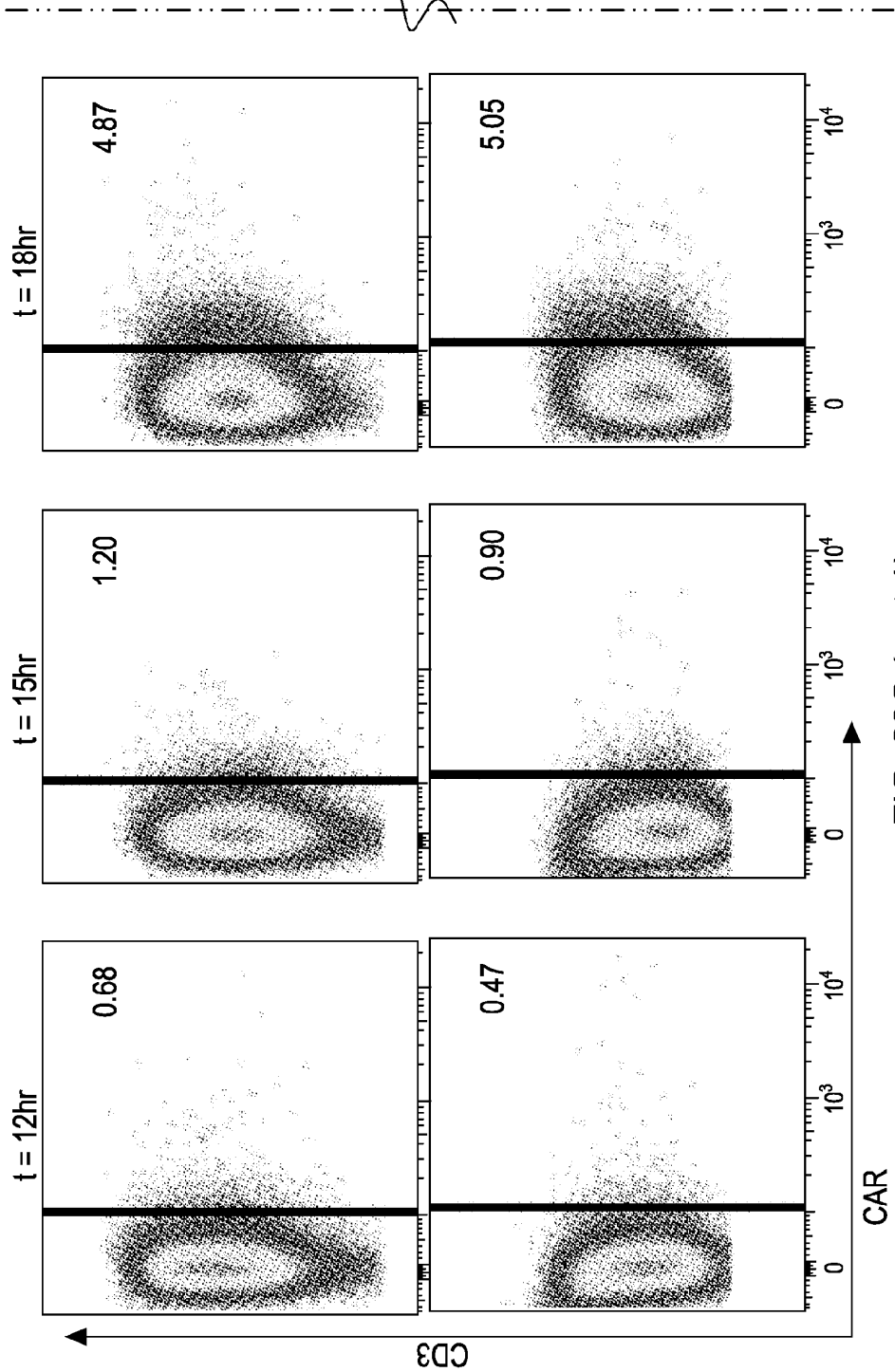


FIG. 23C (part 1)

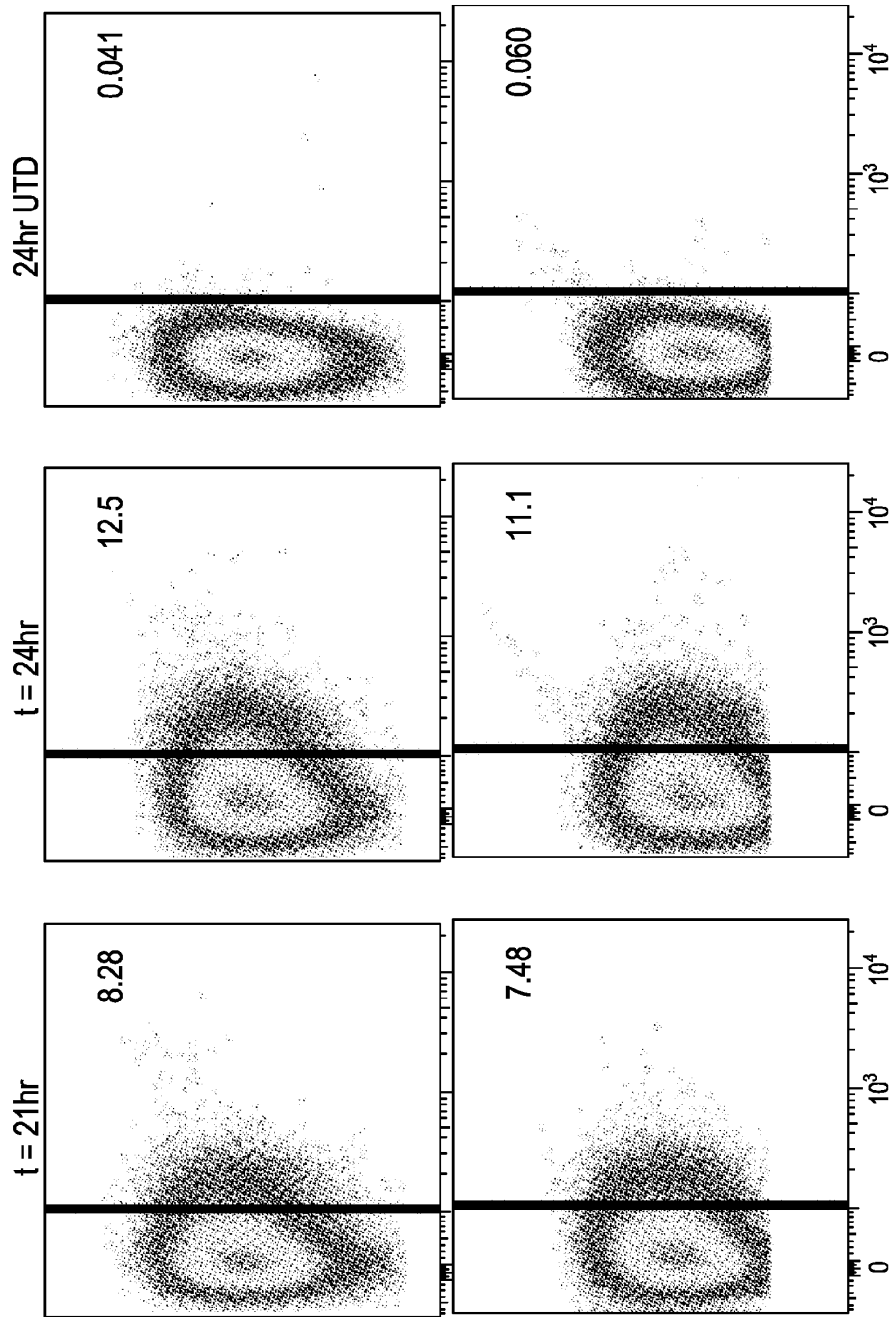


FIG. 23C (part 2)

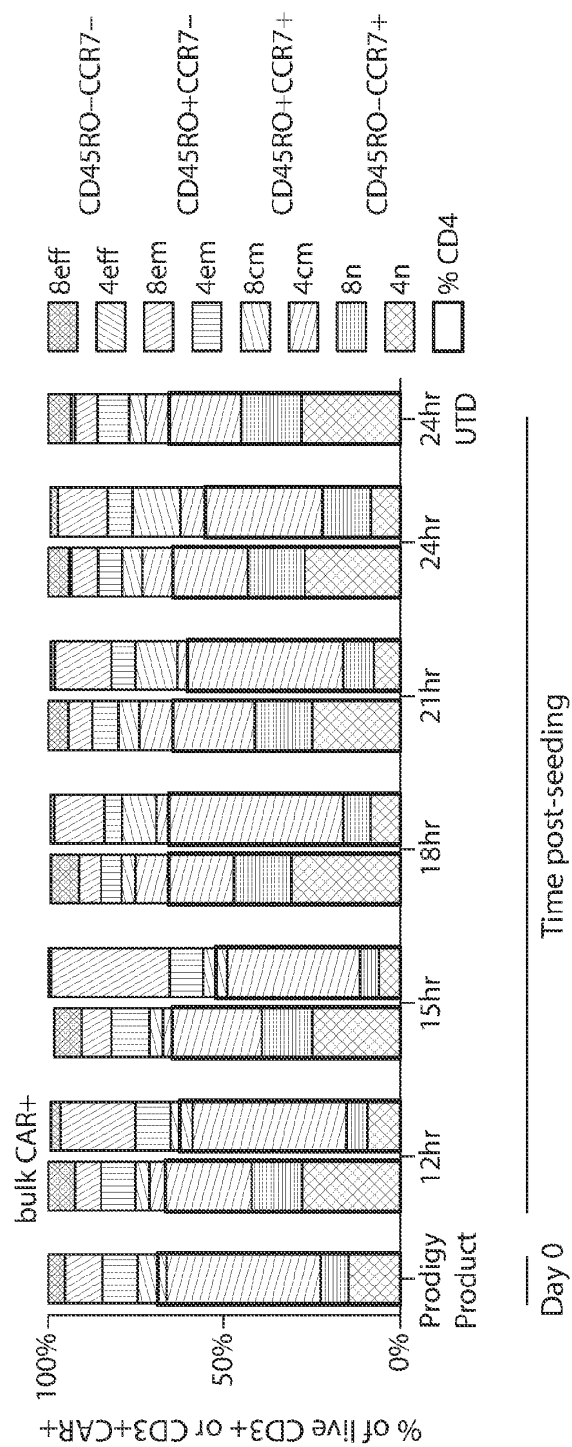


FIG. 24A

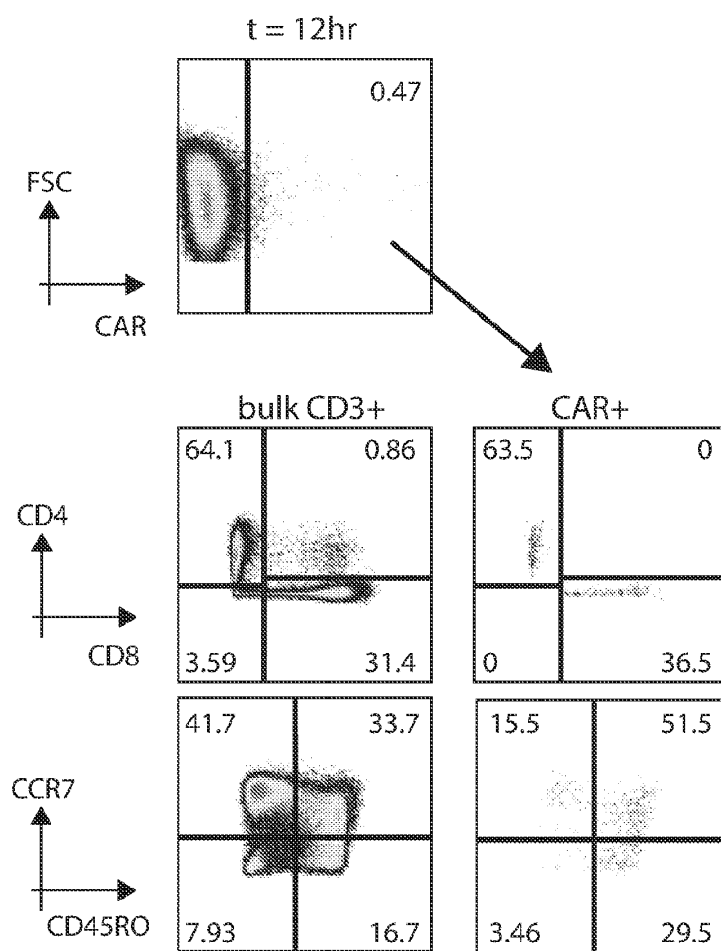


FIG. 24B-1

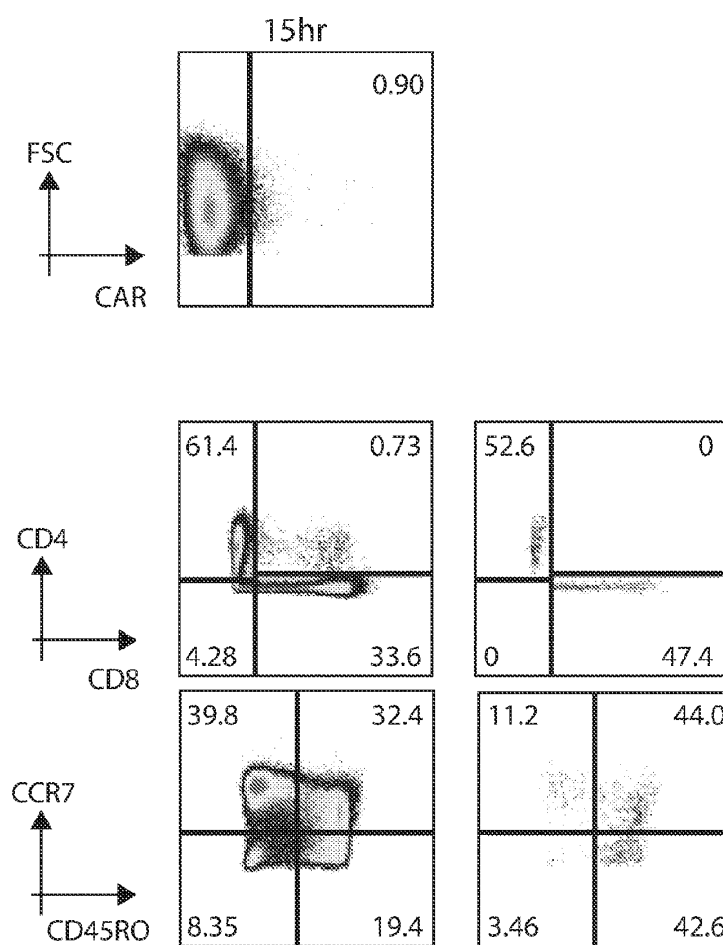


FIG. 24B-2

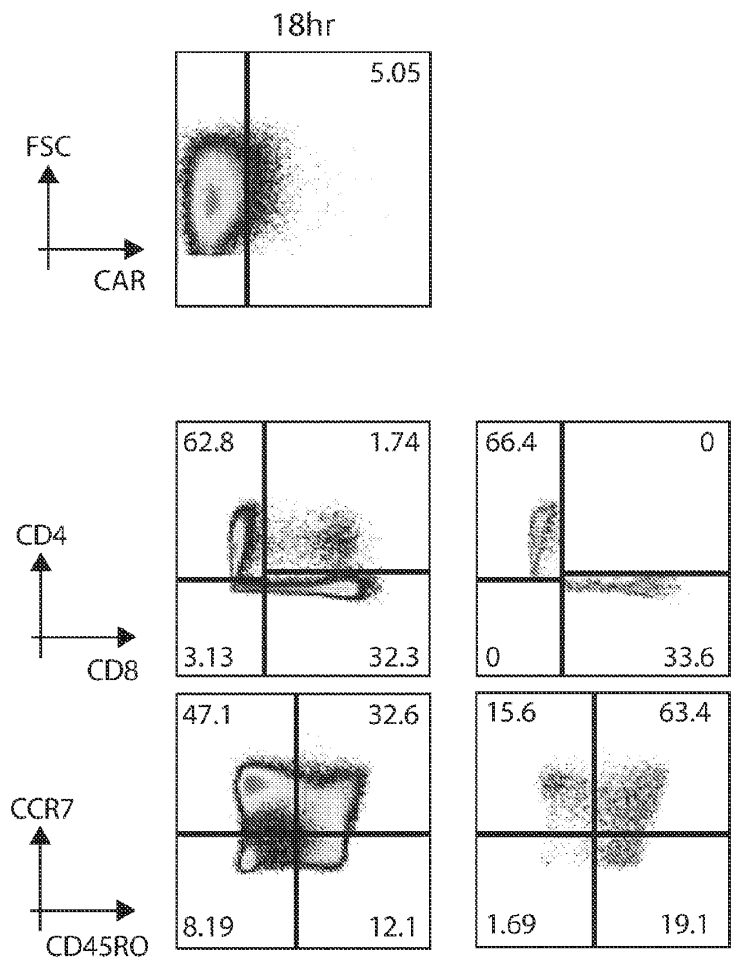


FIG. 24B-3

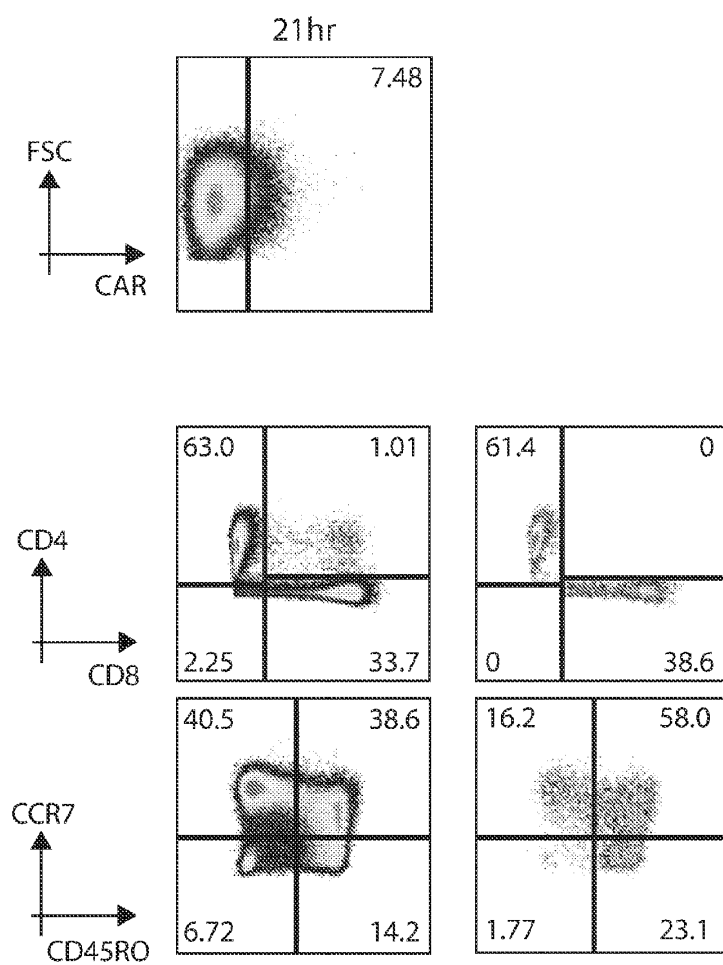


FIG. 24B-4

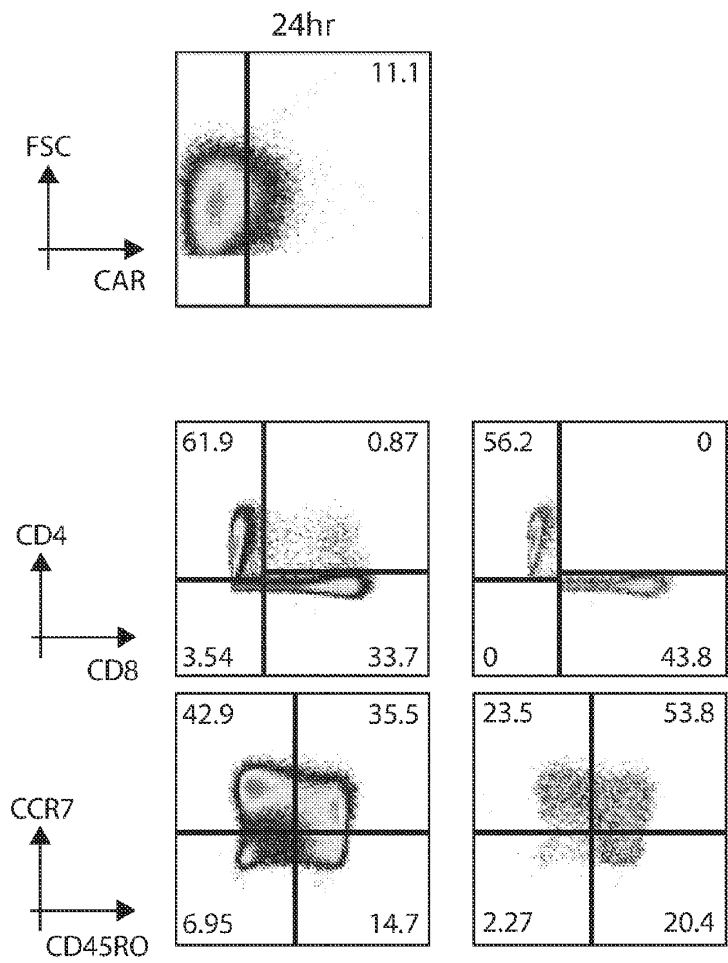


FIG. 24B-5

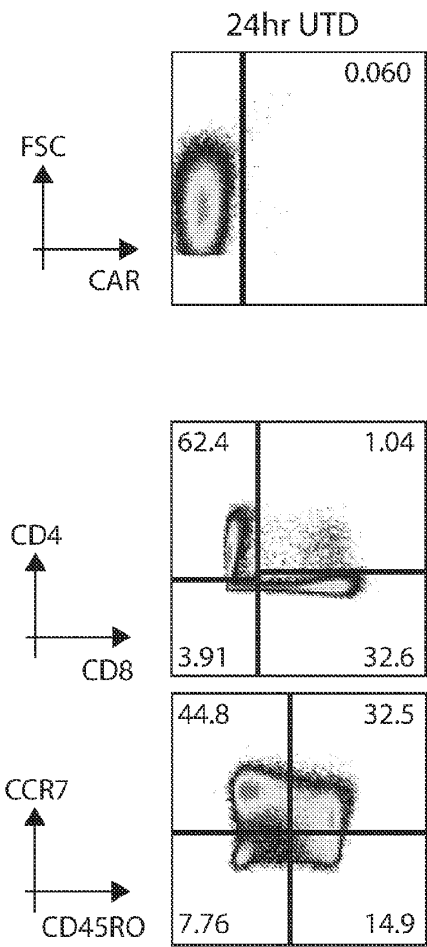


FIG. 24B-6

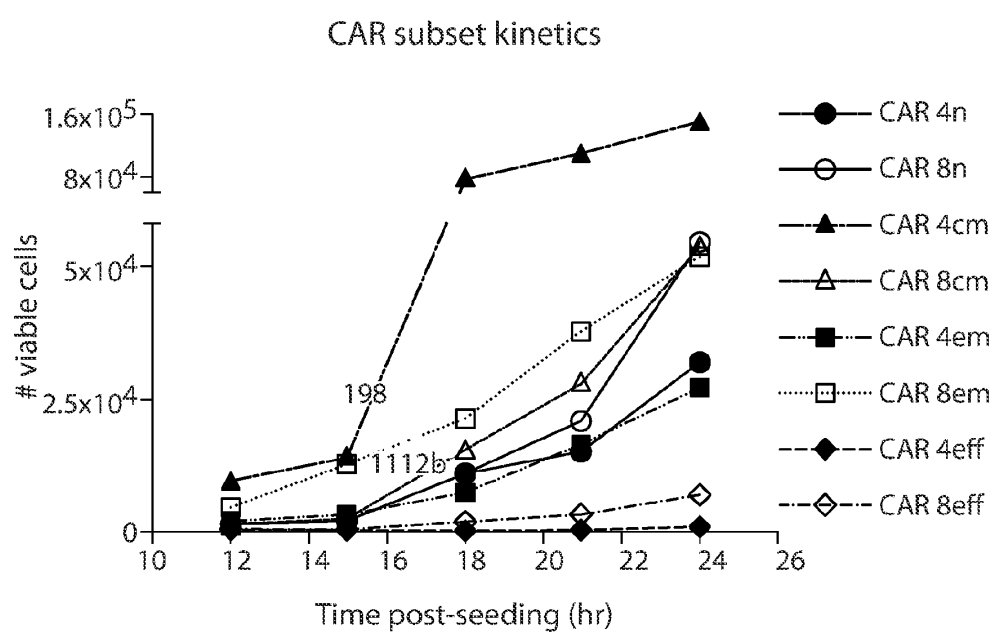


FIG. 25

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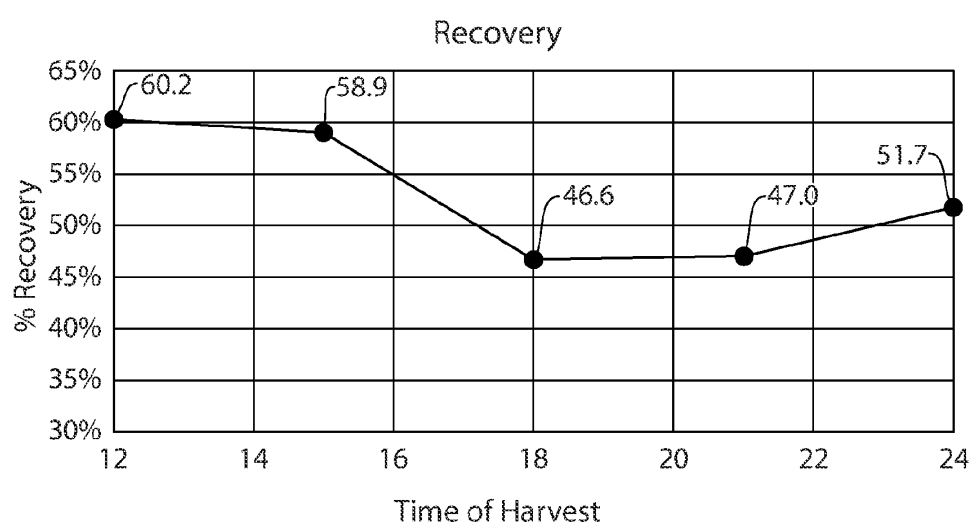


FIG. 26

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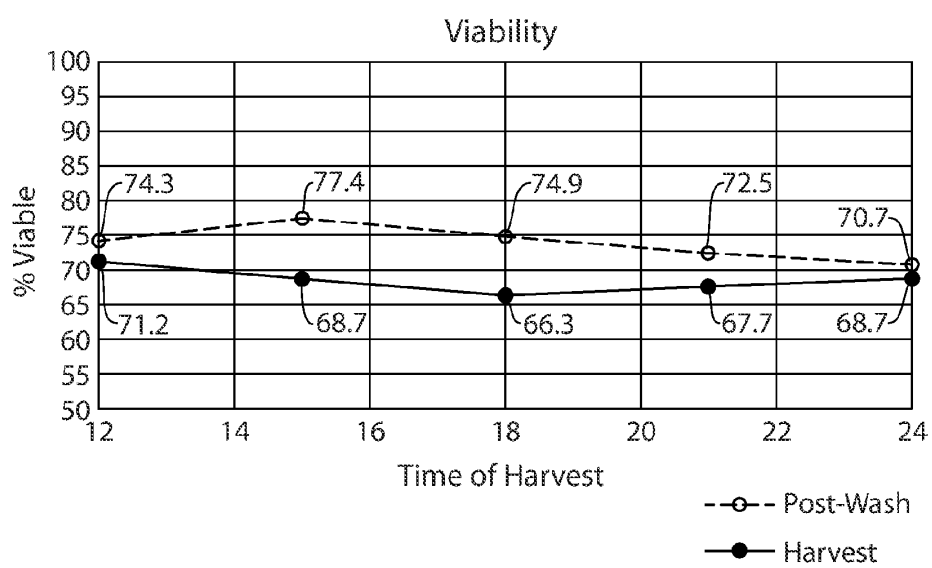


FIG. 27

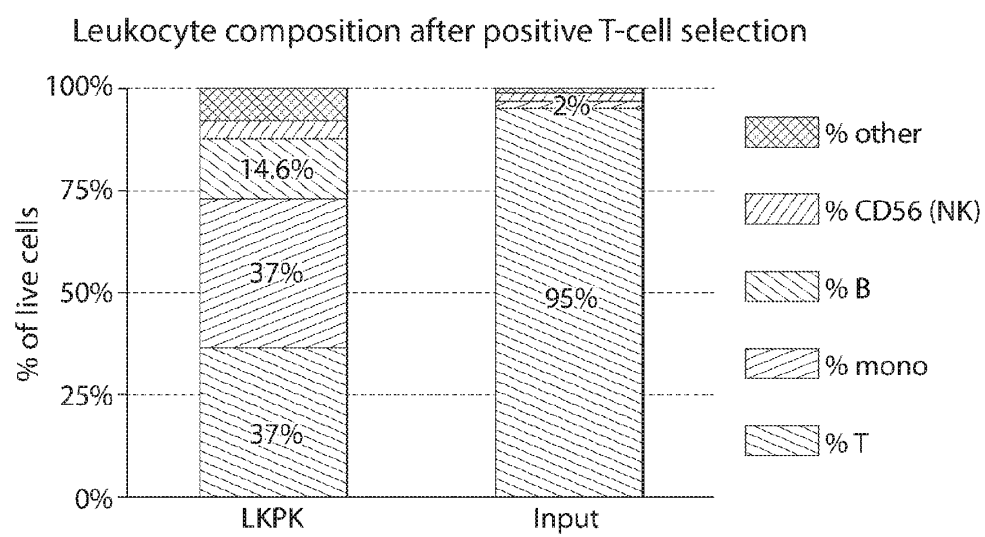


FIG. 28A

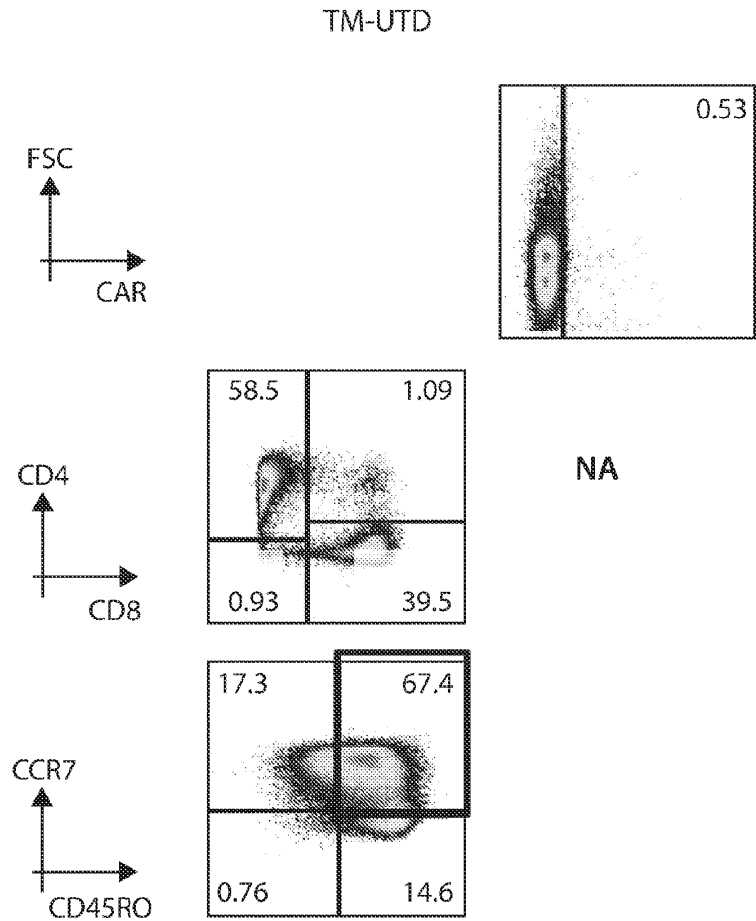


FIG. 28B-1

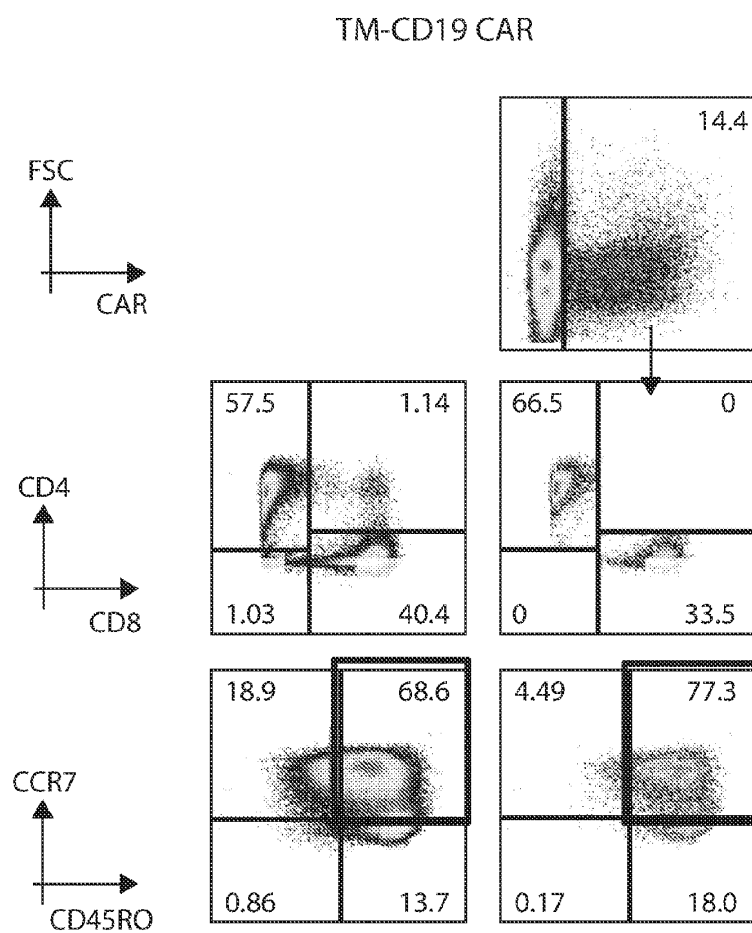


FIG. 28B-2

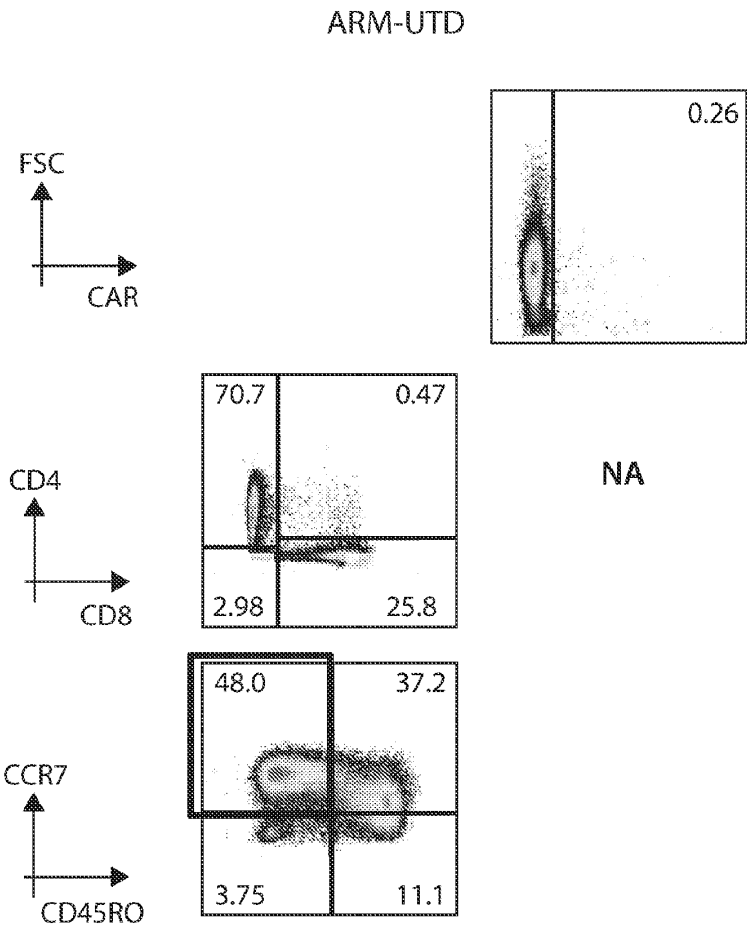


FIG. 28B-3

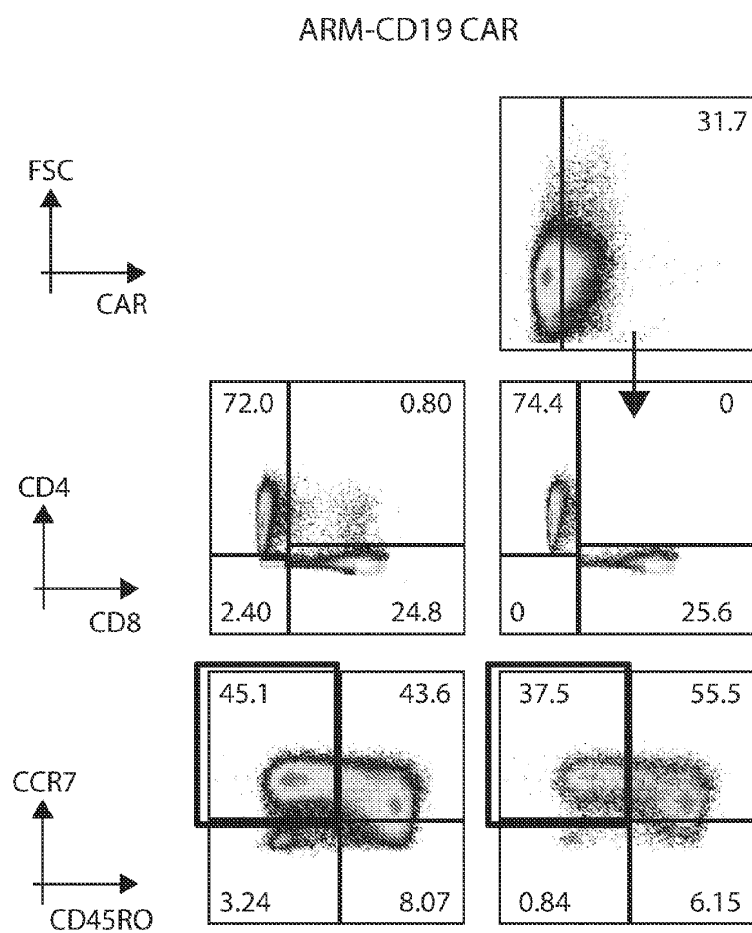


FIG. 28B-4

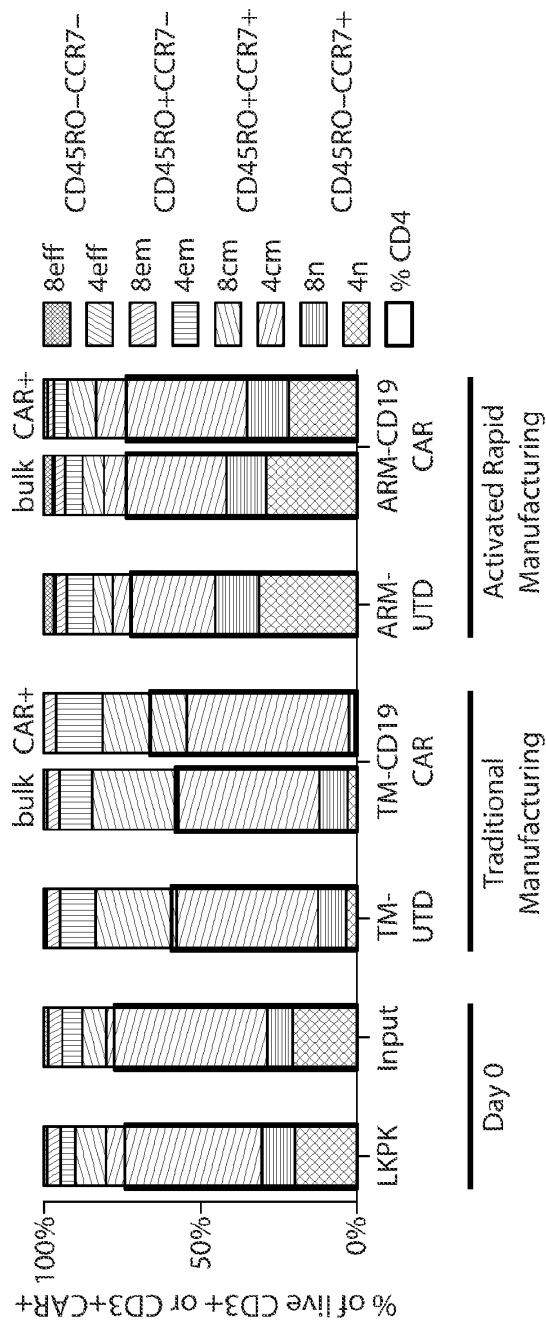


FIG. 28C

LKPK	Input	TM-UTD	TM-CD19 CAR		ARM-UTD	ARM-CD19 CAR	
			bulk	CAR ⁺		bulk	CAR ⁺
Teff	0.8	1.4	0.8	0.2	3.8	3.2	0.8
Tem	8.7	10.7	17.3	18.0	11.1	8.1	6.2
Tcm	59.5	59.4	67.4	77.3	37.2	43.6	55.5
Tn	30.9	28.6	14.6	4.5	48.0	45.1	37.5

FIG. 28D

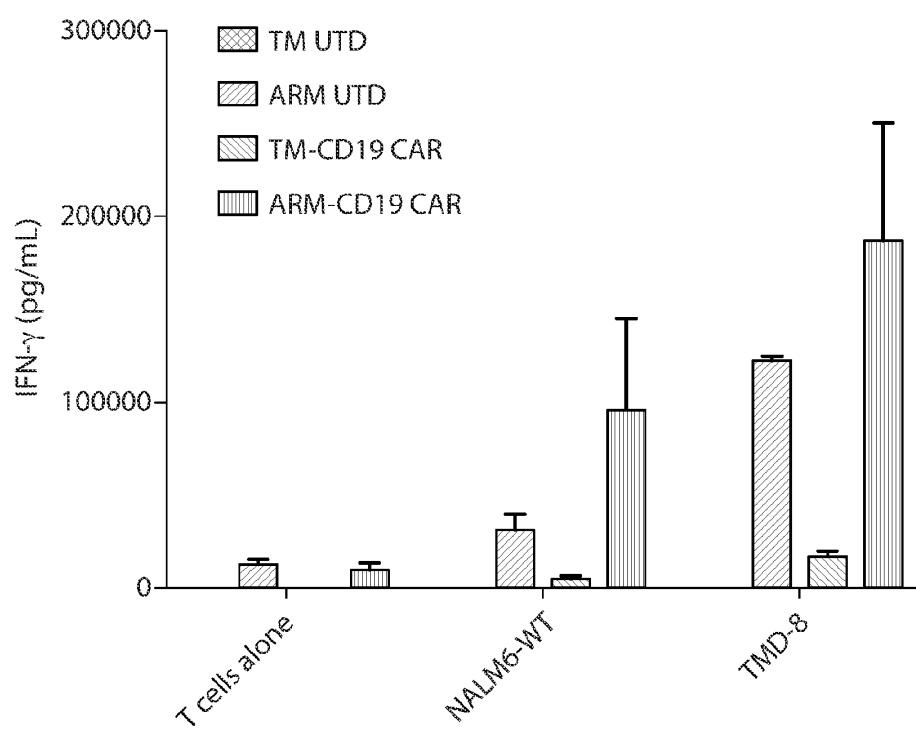


FIG. 29A

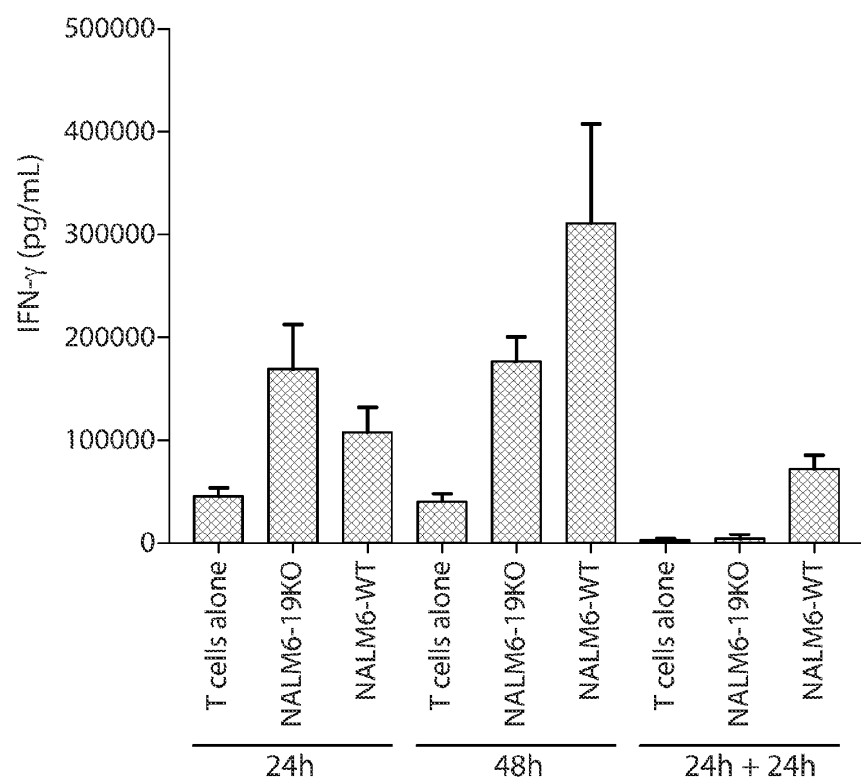


FIG. 29B

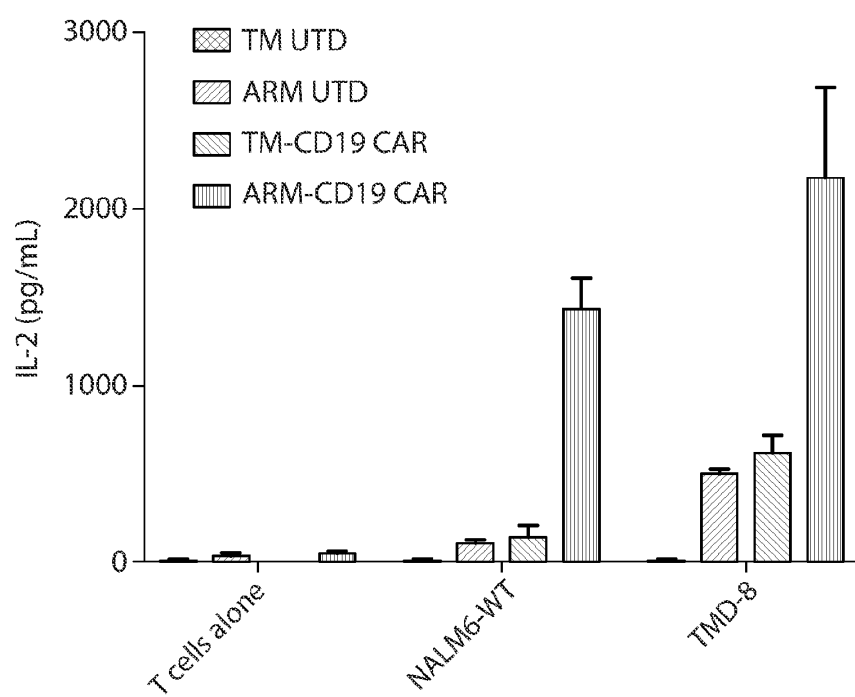


FIG. 29C

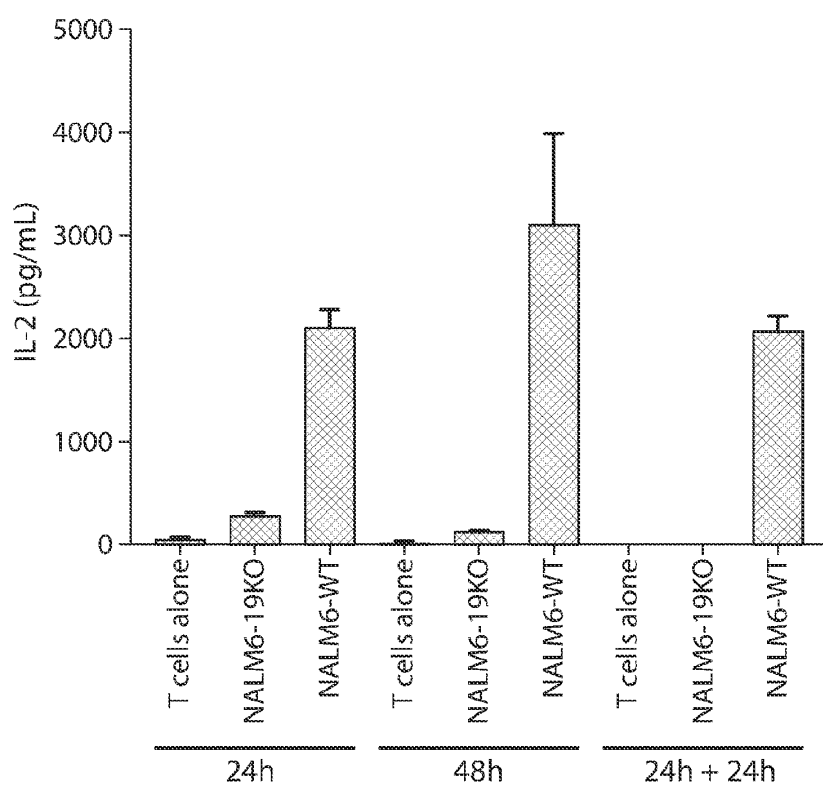


FIG. 29D

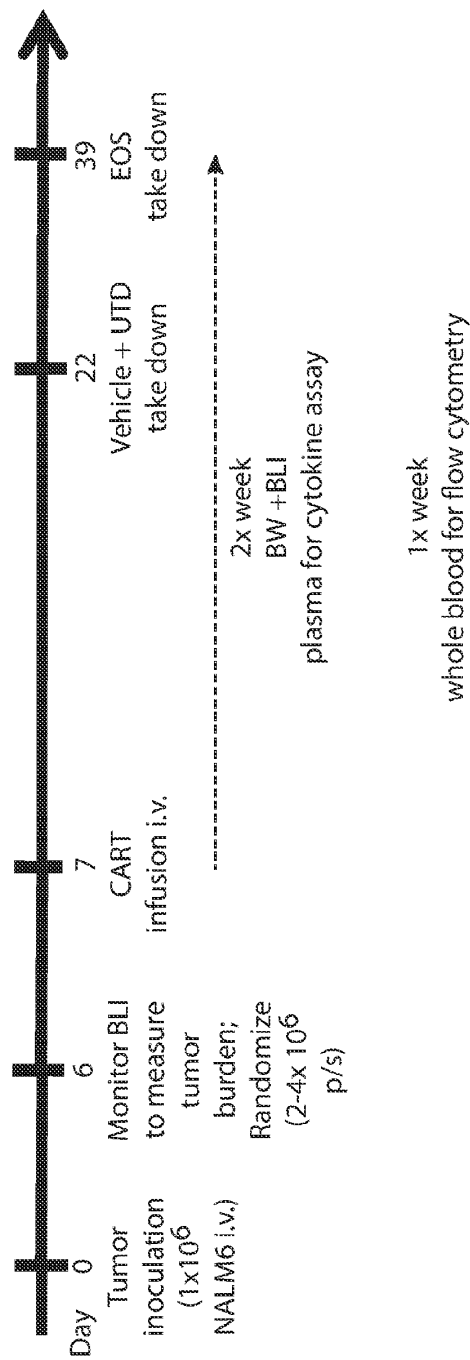


FIG. 30A

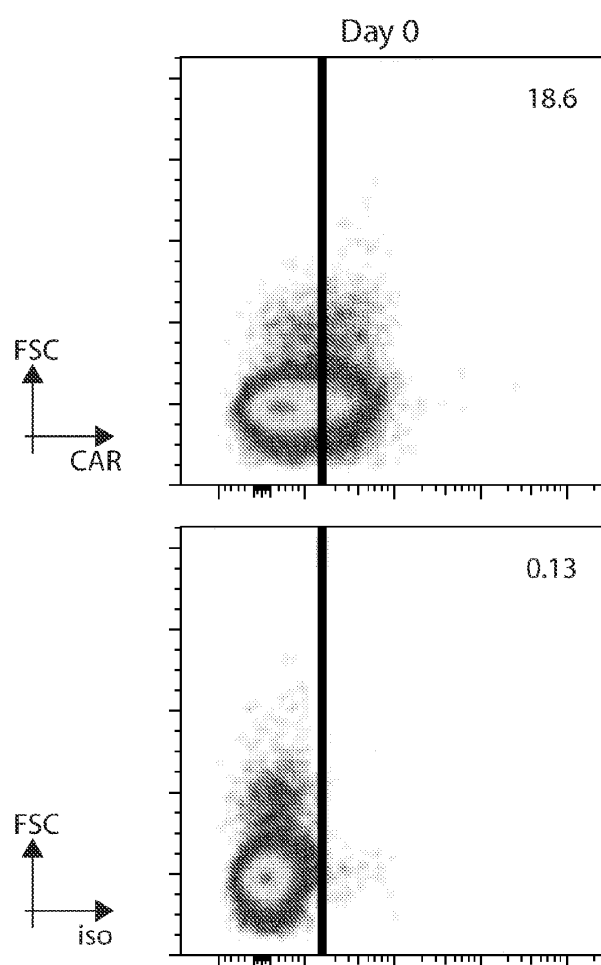


FIG. 30B-1

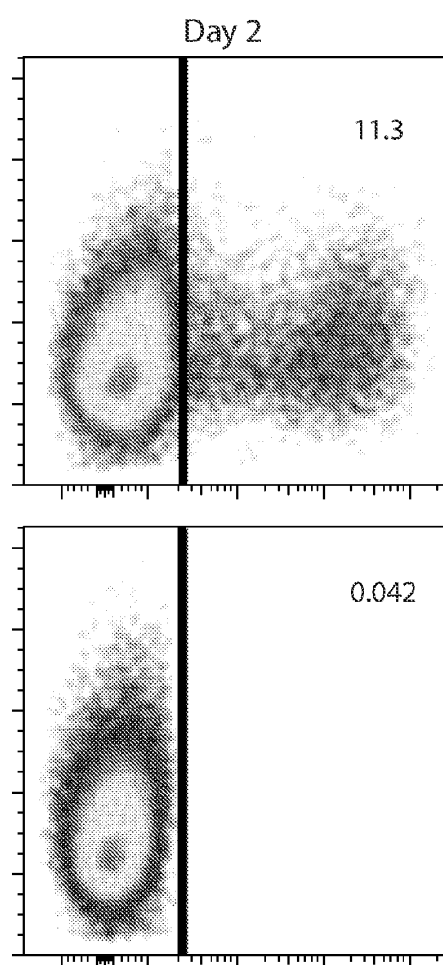


FIG. 30B-2

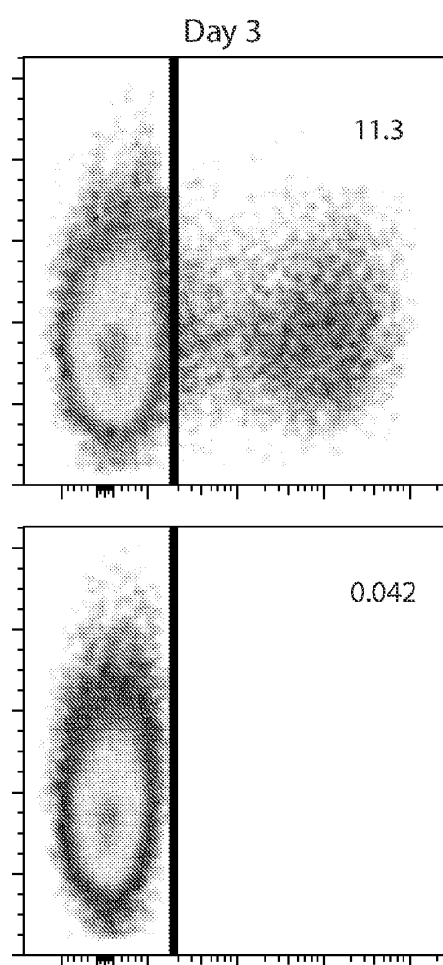


FIG. 30B-3

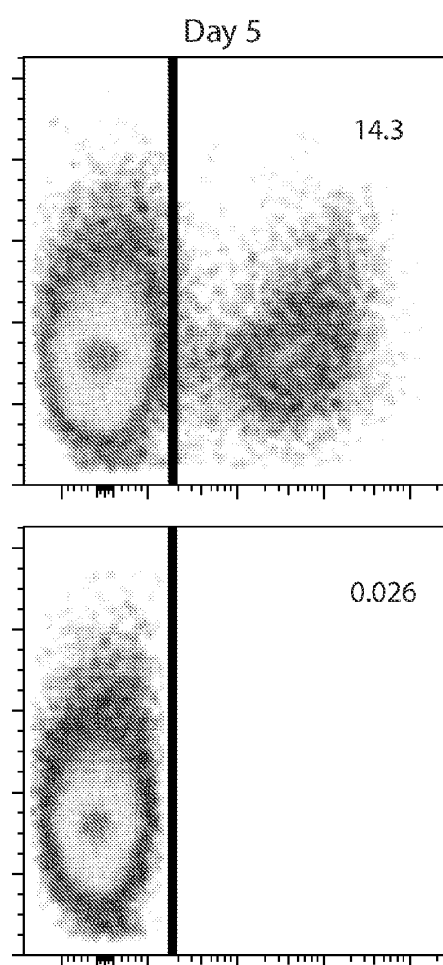


FIG. 30B-4

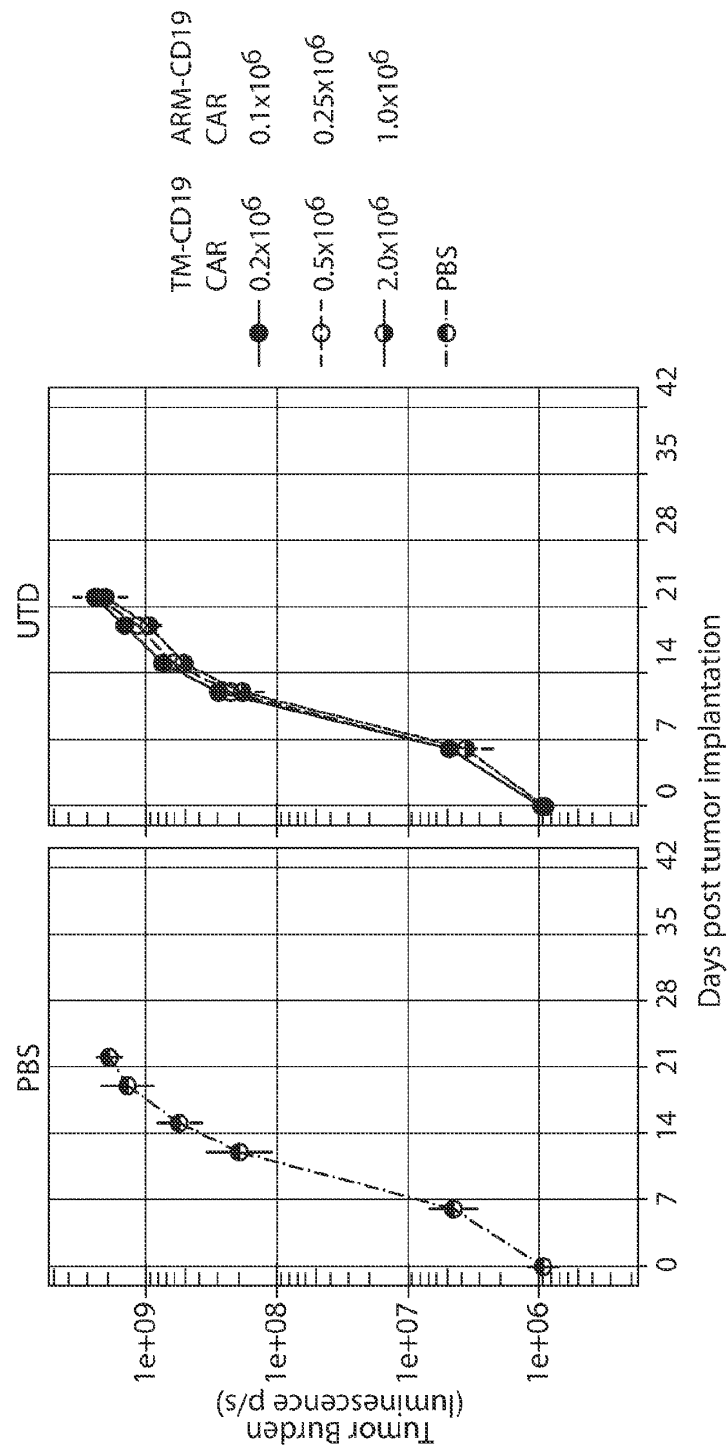


FIG. 30C-1

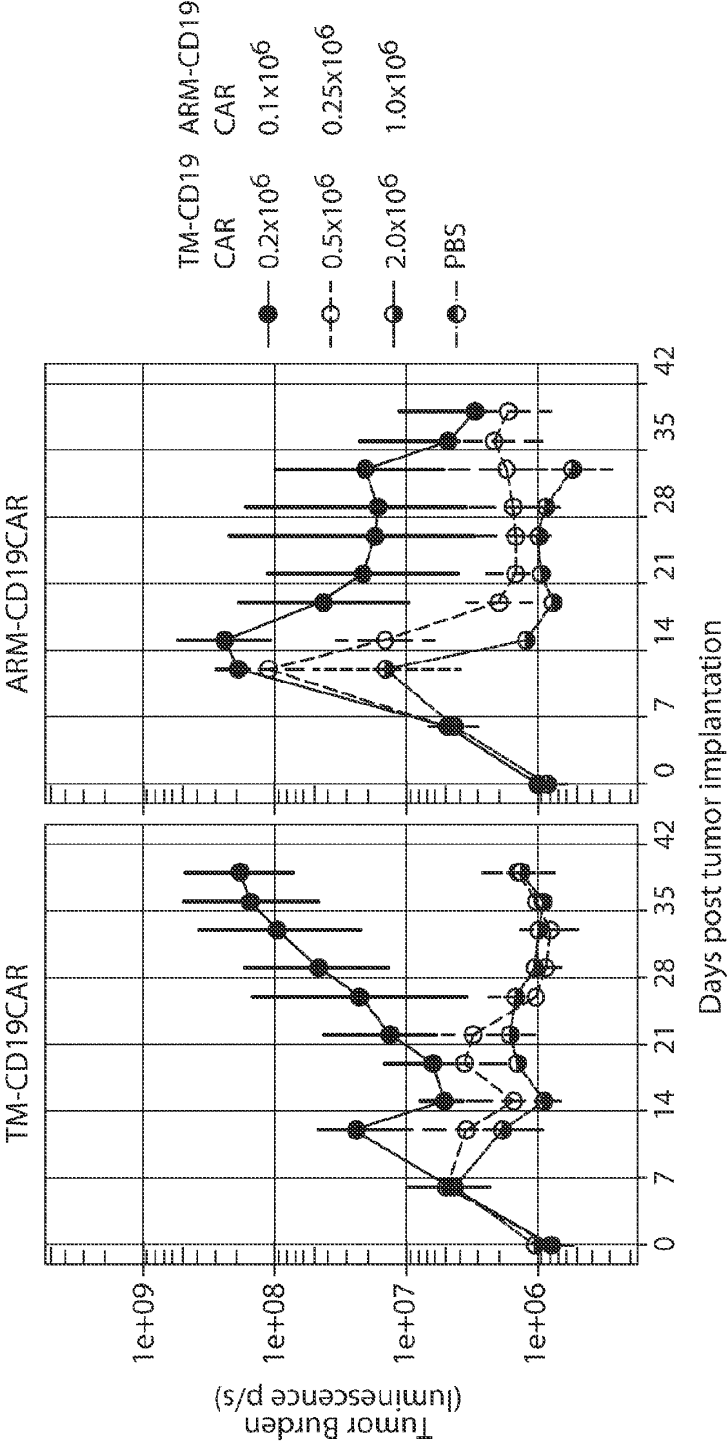


FIG. 30C-2

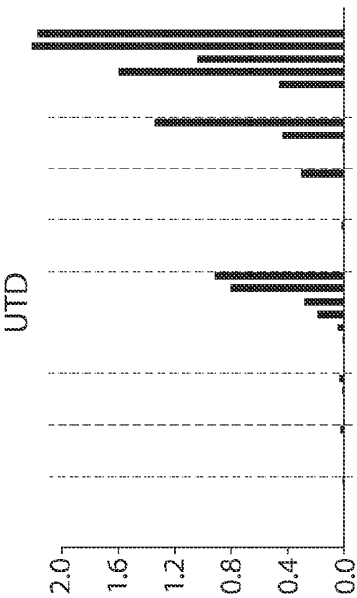


FIG. 31B

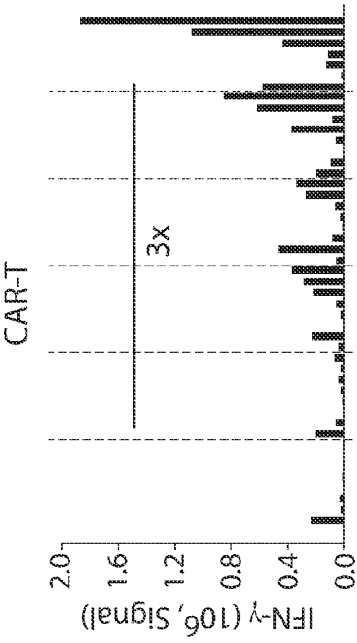


FIG. 31A

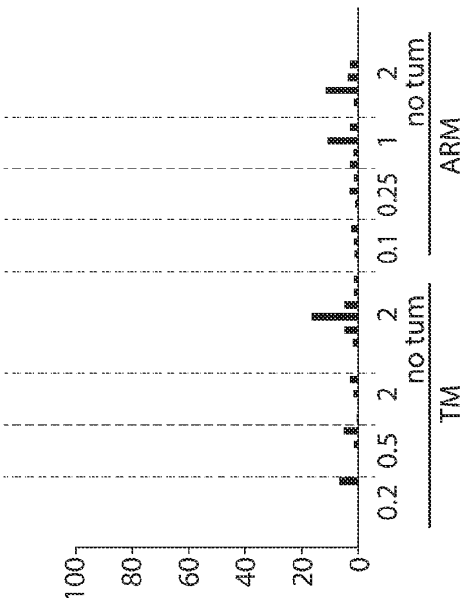


FIG. 31D

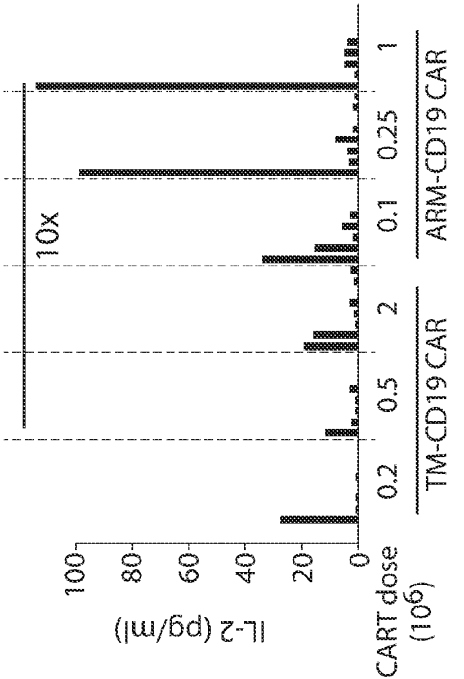


FIG. 31C

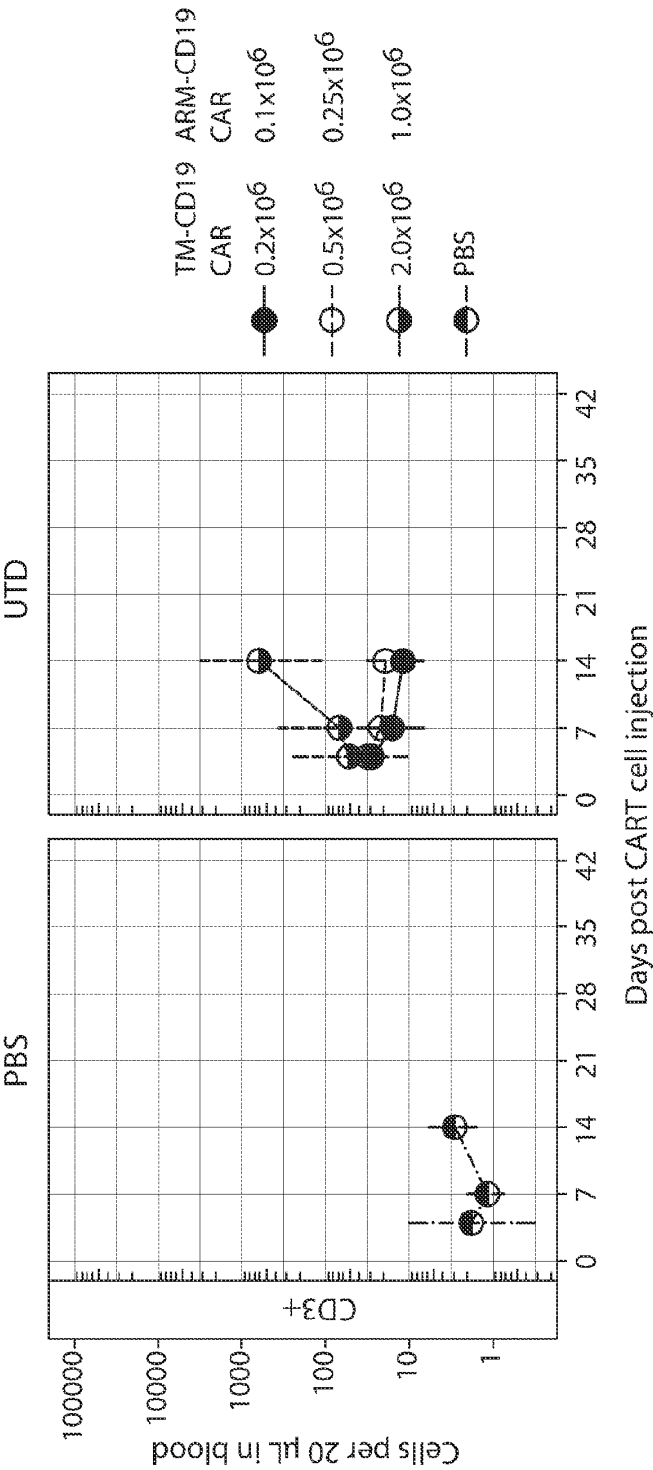
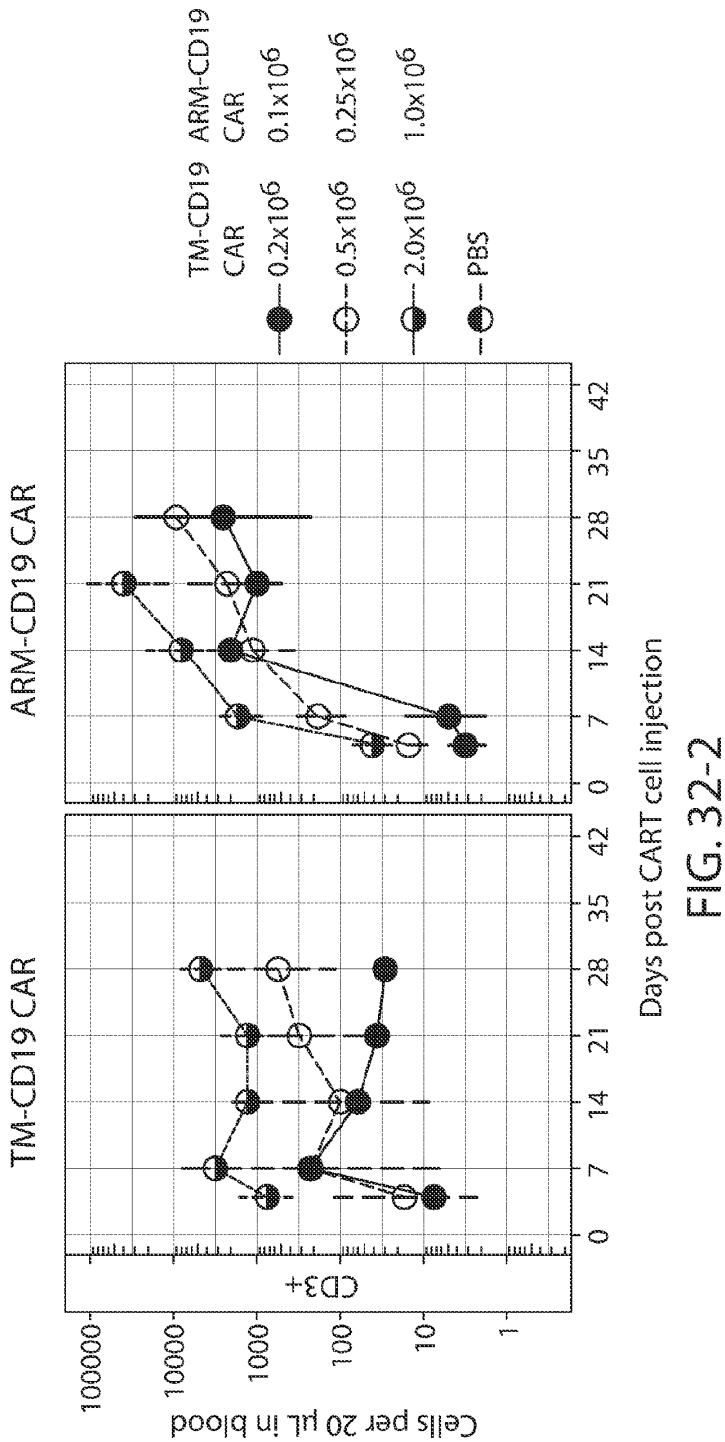


FIG. 32-1



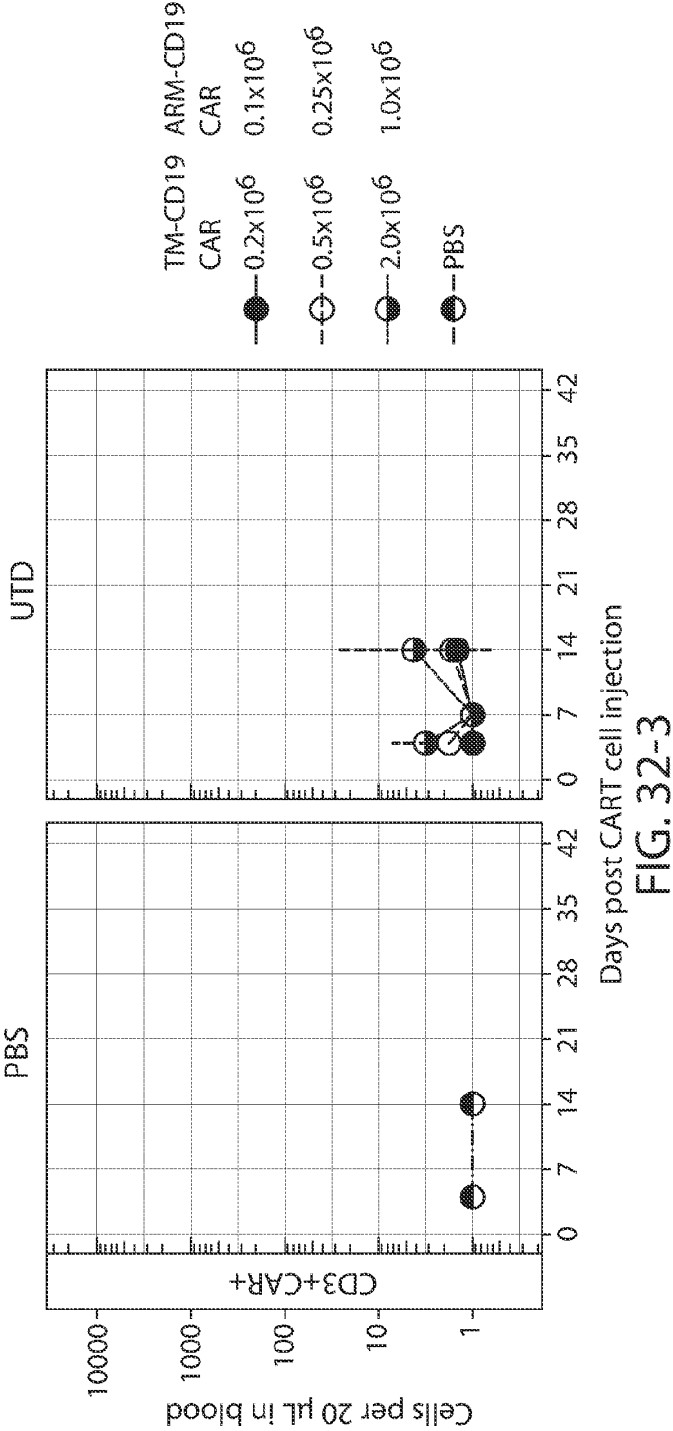


FIG. 32-3

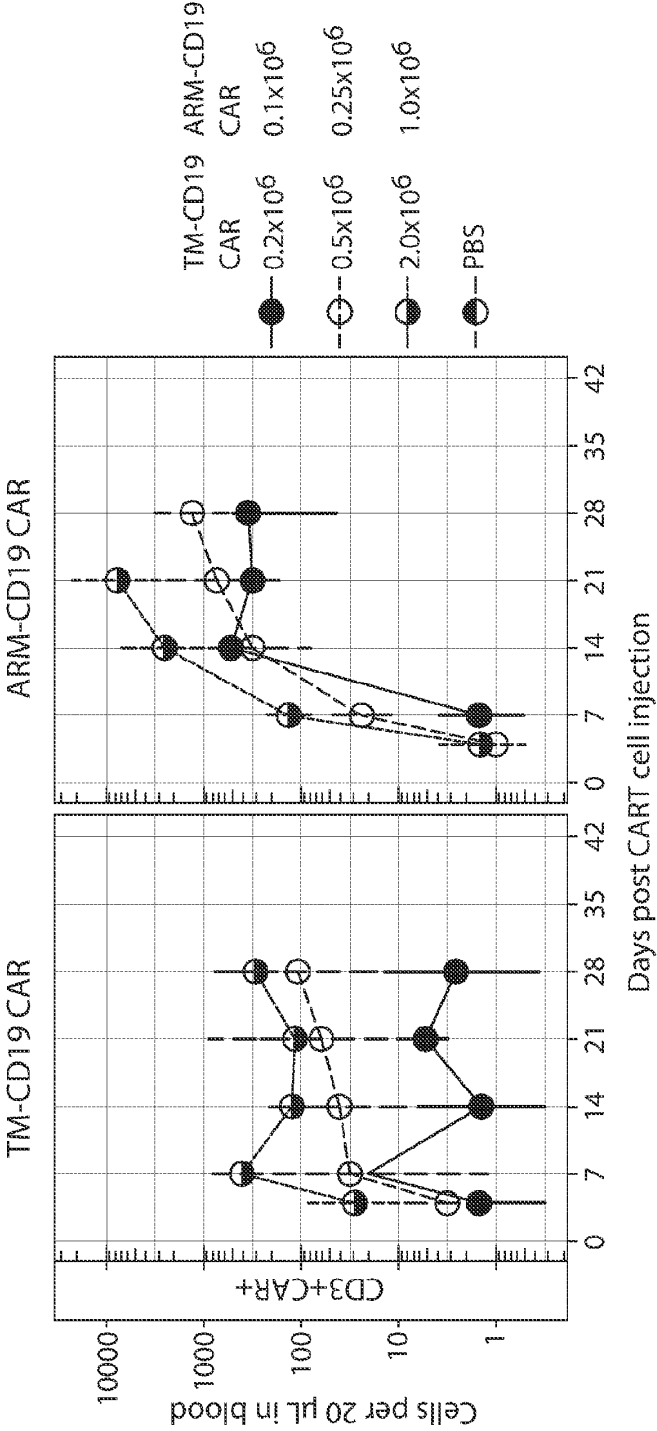


FIG. 32-4

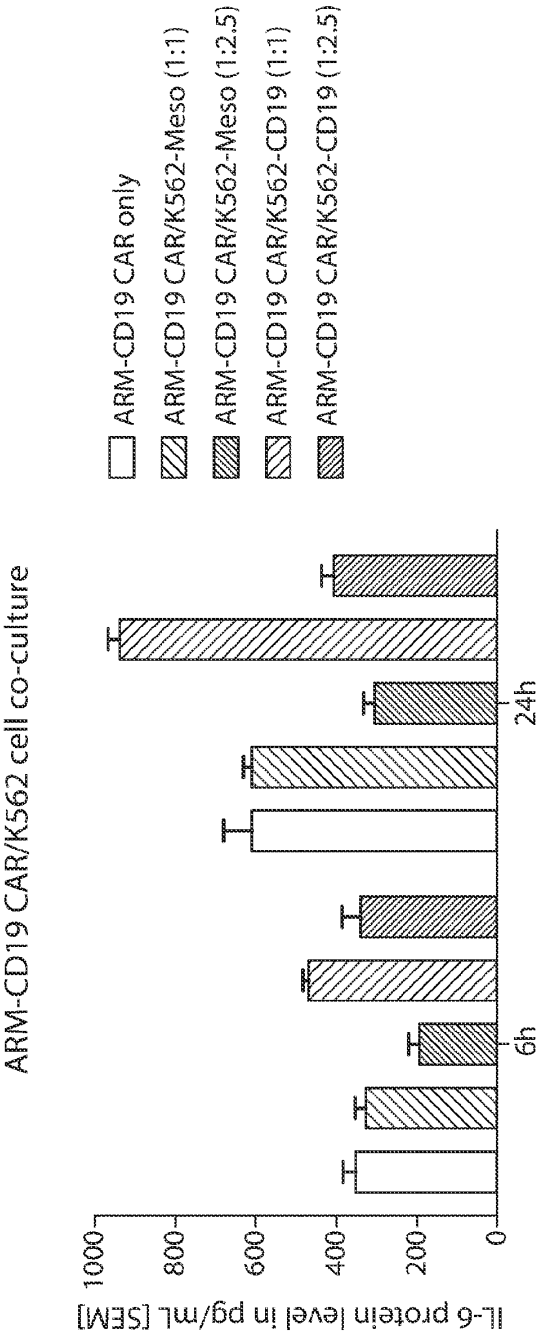


FIG. 33A

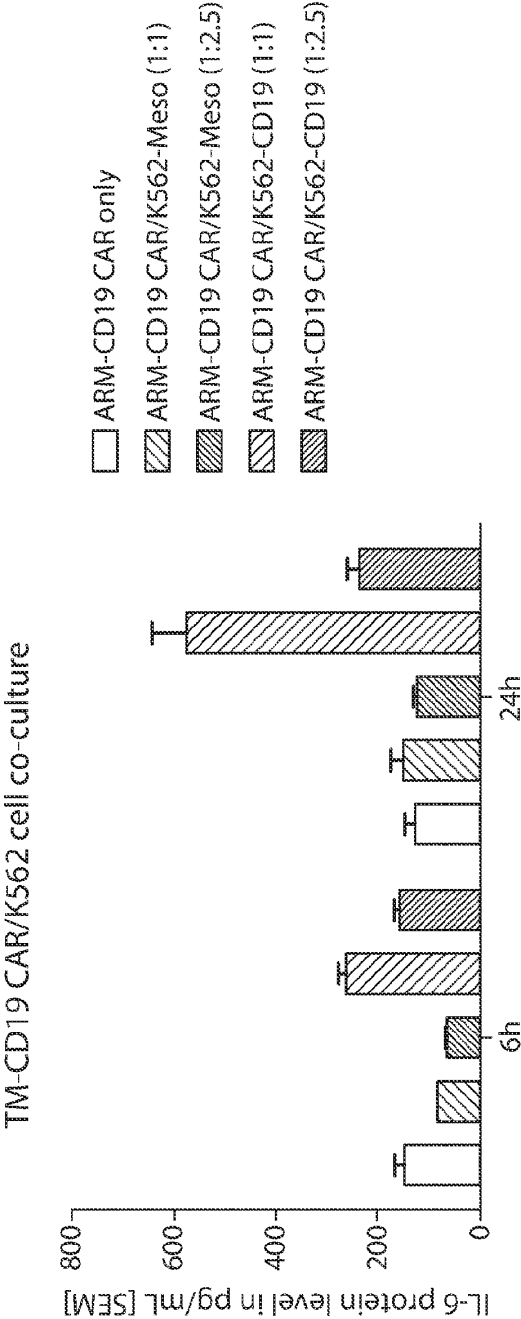


FIG. 33B

ARM process preserves BCMA CAR+T cell stemness

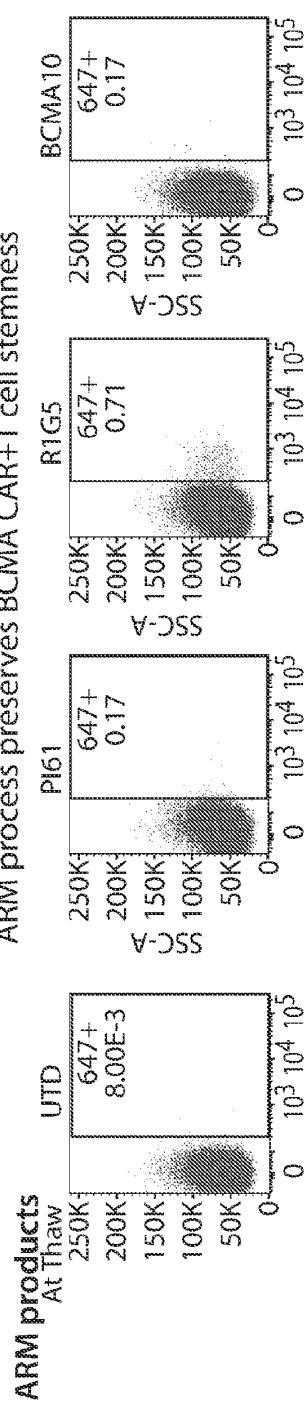


FIG. 34A

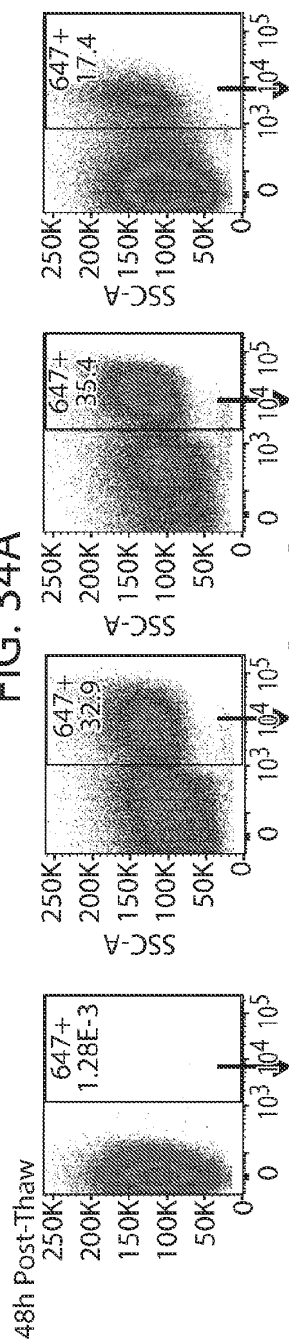


FIG. 34B

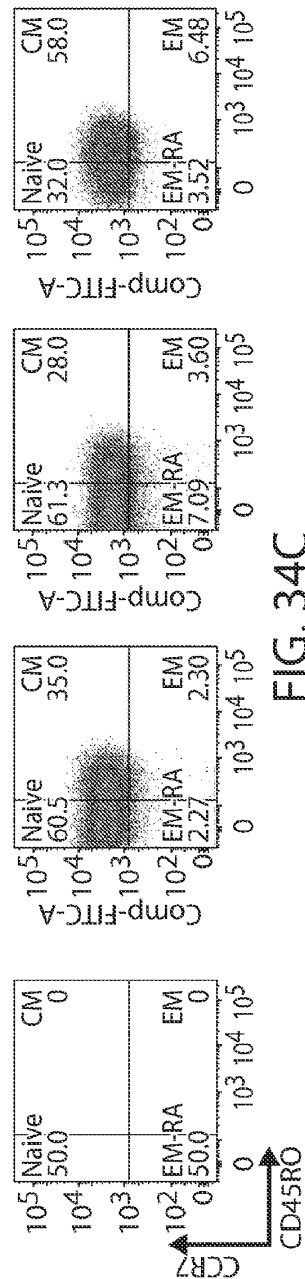


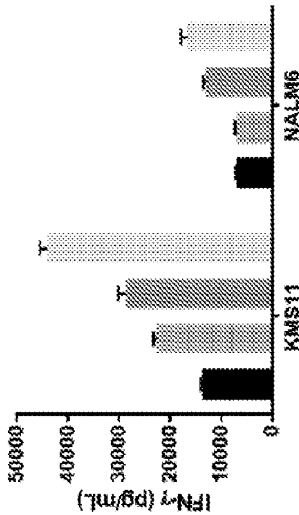
FIG. 34C

ARM processed BCMA CAR-T cells demonstrates BCMA-specific activation and secretes higher levels of IL2 and IFN γ

ARM products

FIG. 36A

E:T=2.5:1



TM products

FIG. 36C

E:T=2.5:1

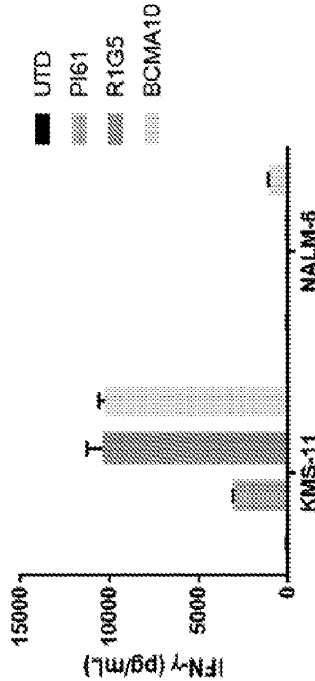


FIG. 36B

E:T=2.5:1

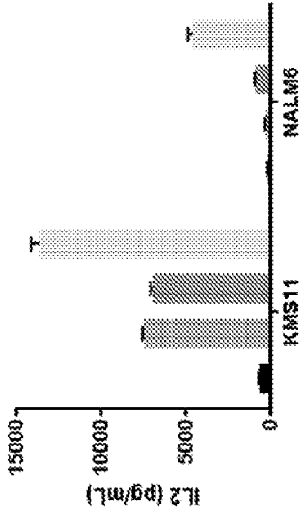
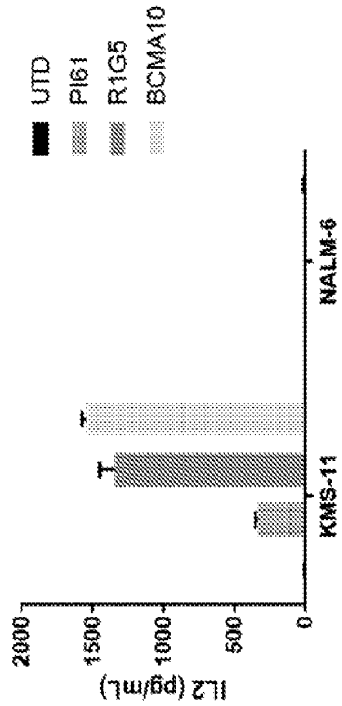


FIG. 36D

E:T=2.5:1



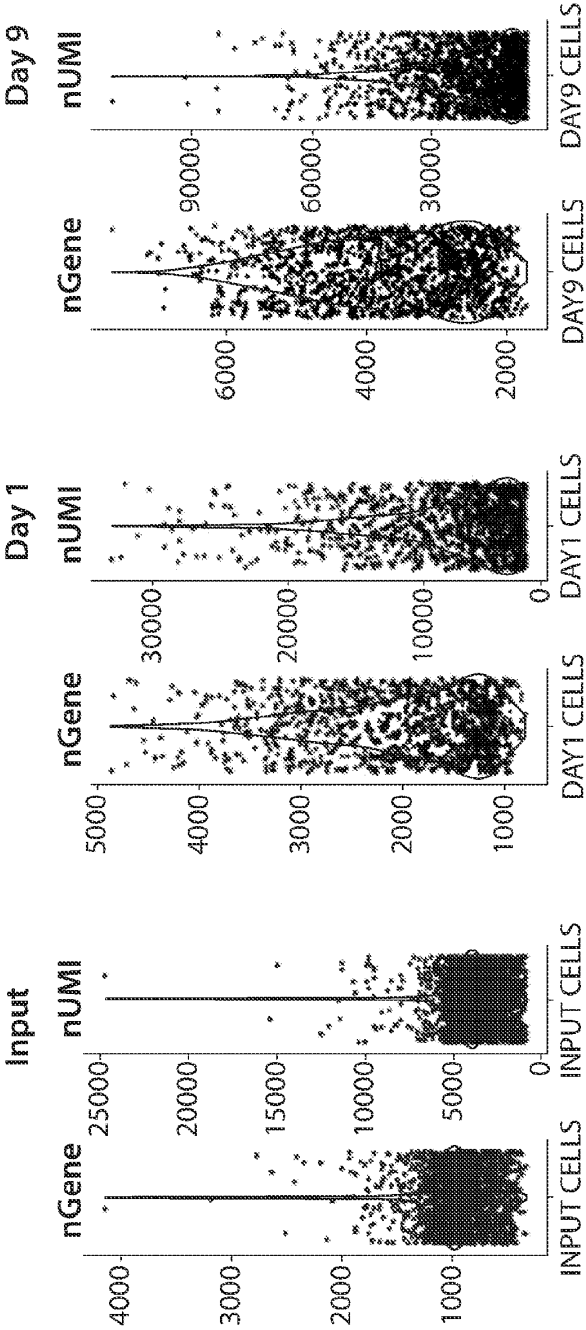


FIG. 37A

FIG. 37B

FIG. 37C

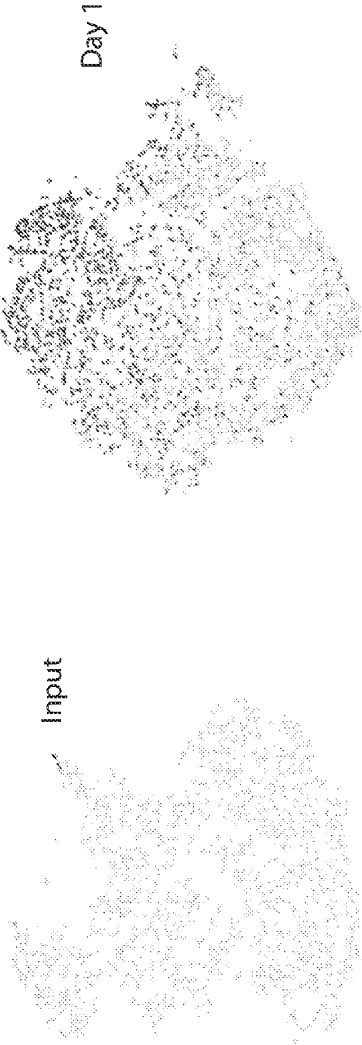


FIG. 38A

FIG. 38B

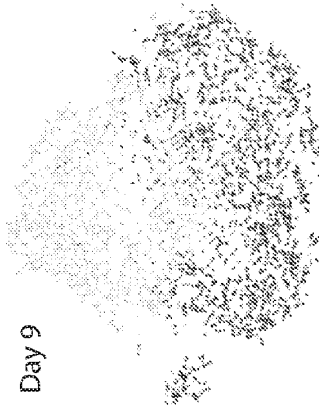
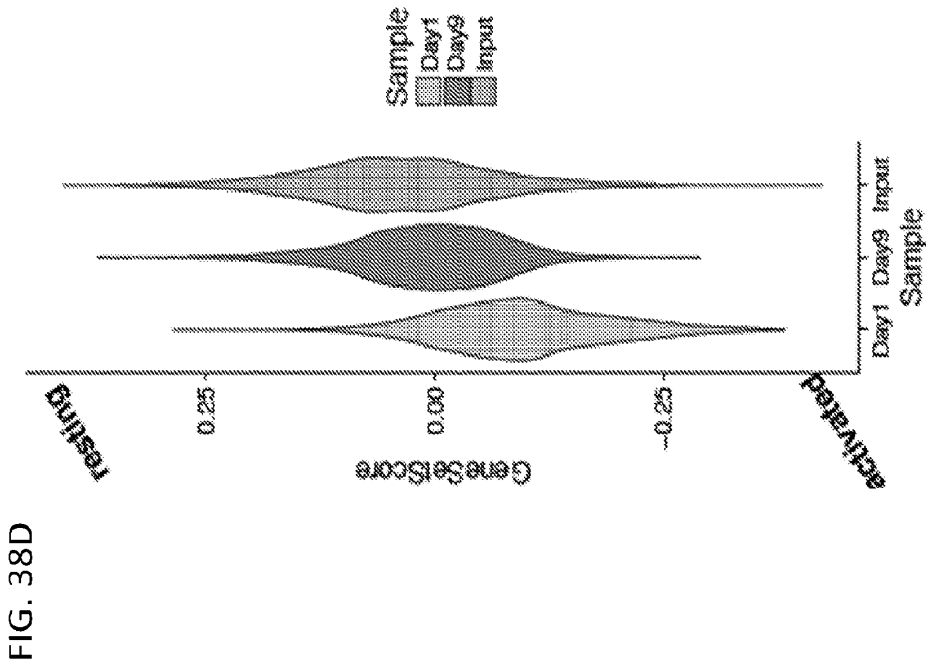
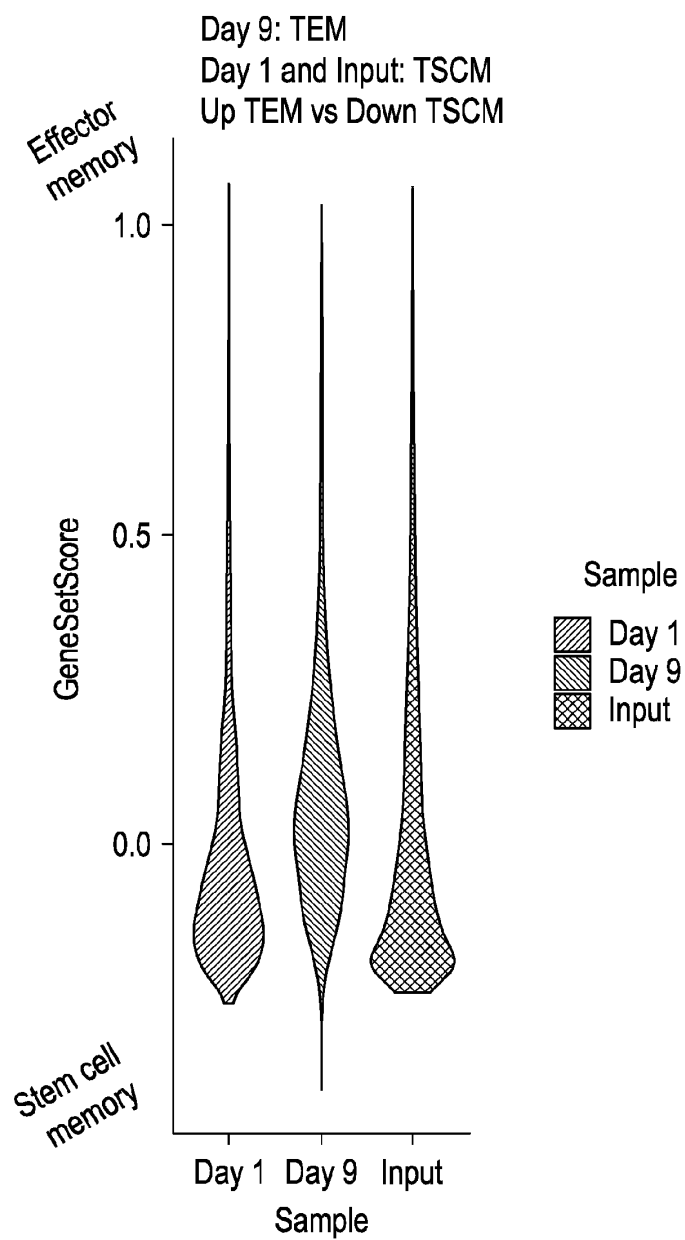


FIG. 38C

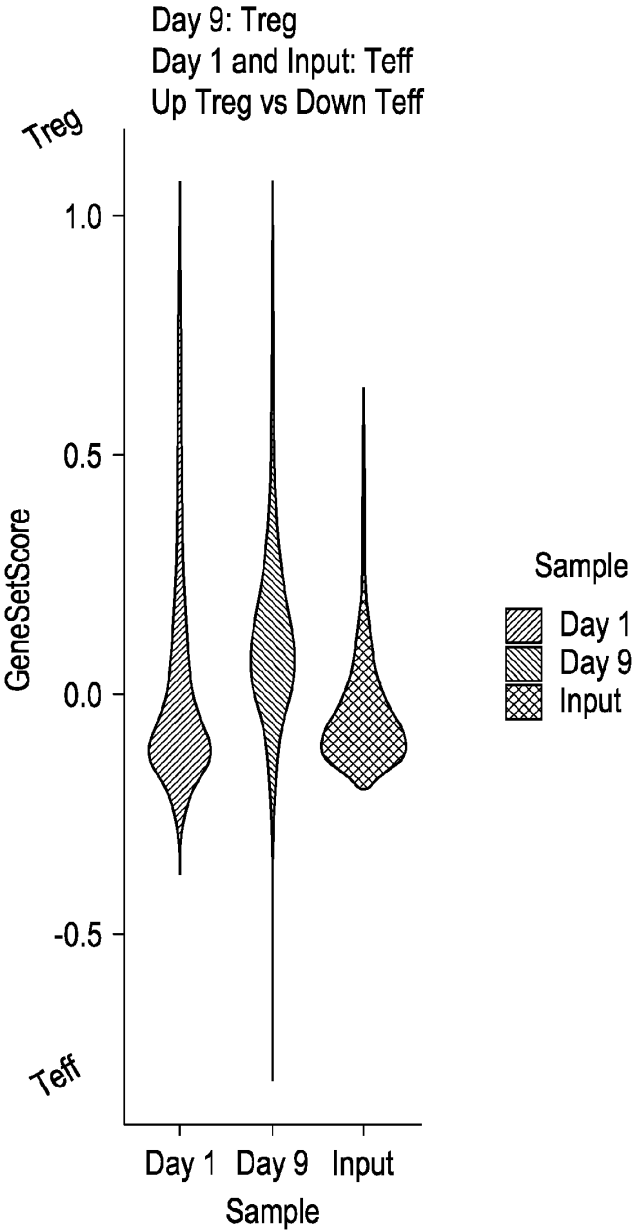


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Medians:
D1: -0.084
D9: 0.035
Input: -0.1

FIG. 39A



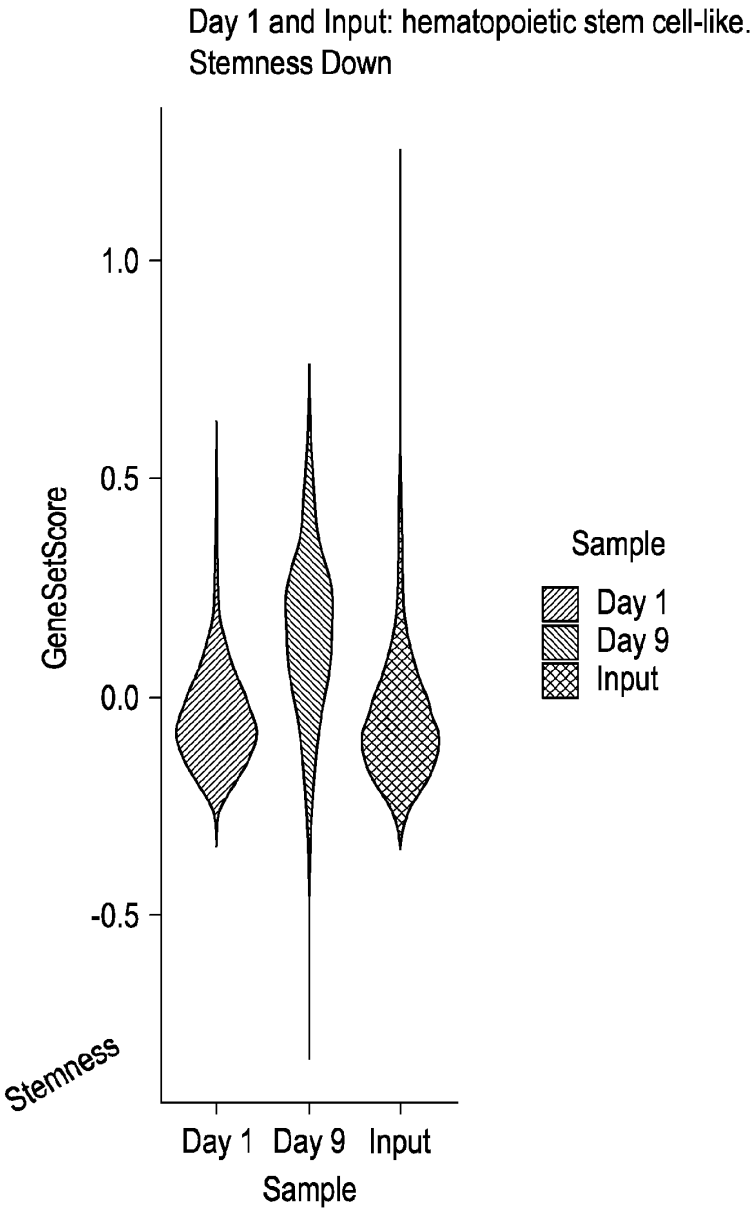
Medians:

D1: -0.082

D9: 0.087

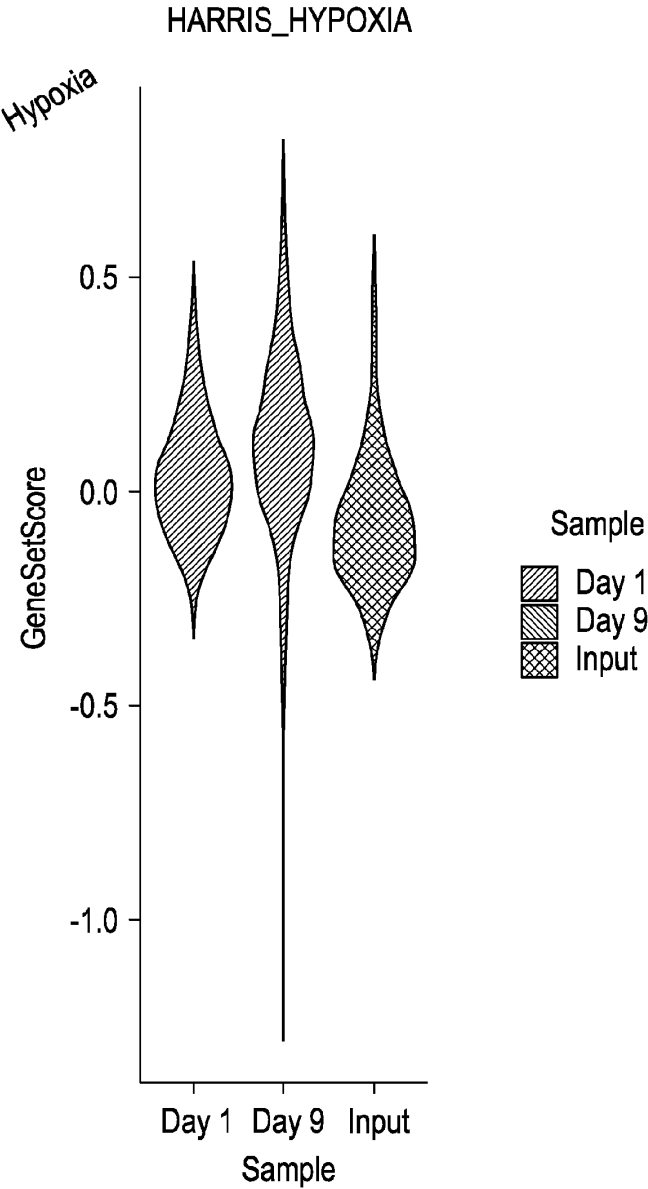
Input: -0.071

FIG. 39B



Medians:
D1: -0.062
D9: 0.14
Input: -0.081

FIG. 39C



Medians:
D1: 0.019
D9: 0.11
Input: -0.096

FIG. 39D

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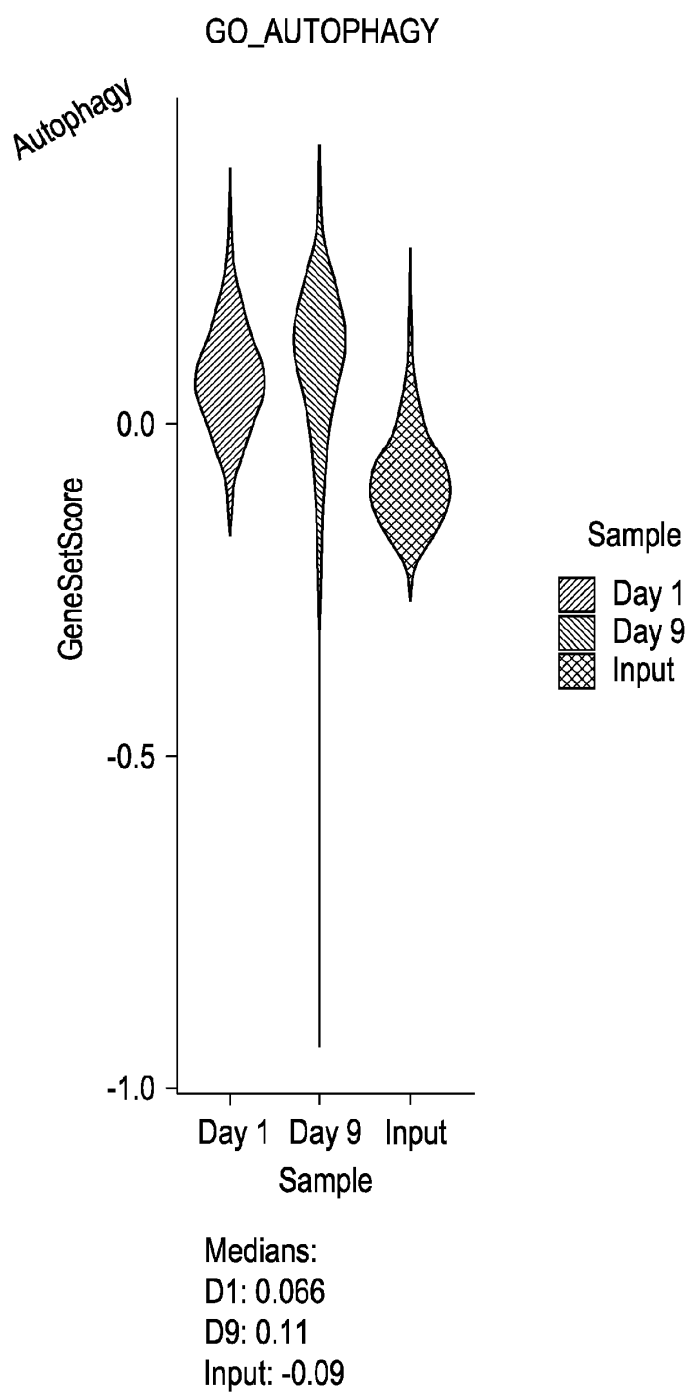
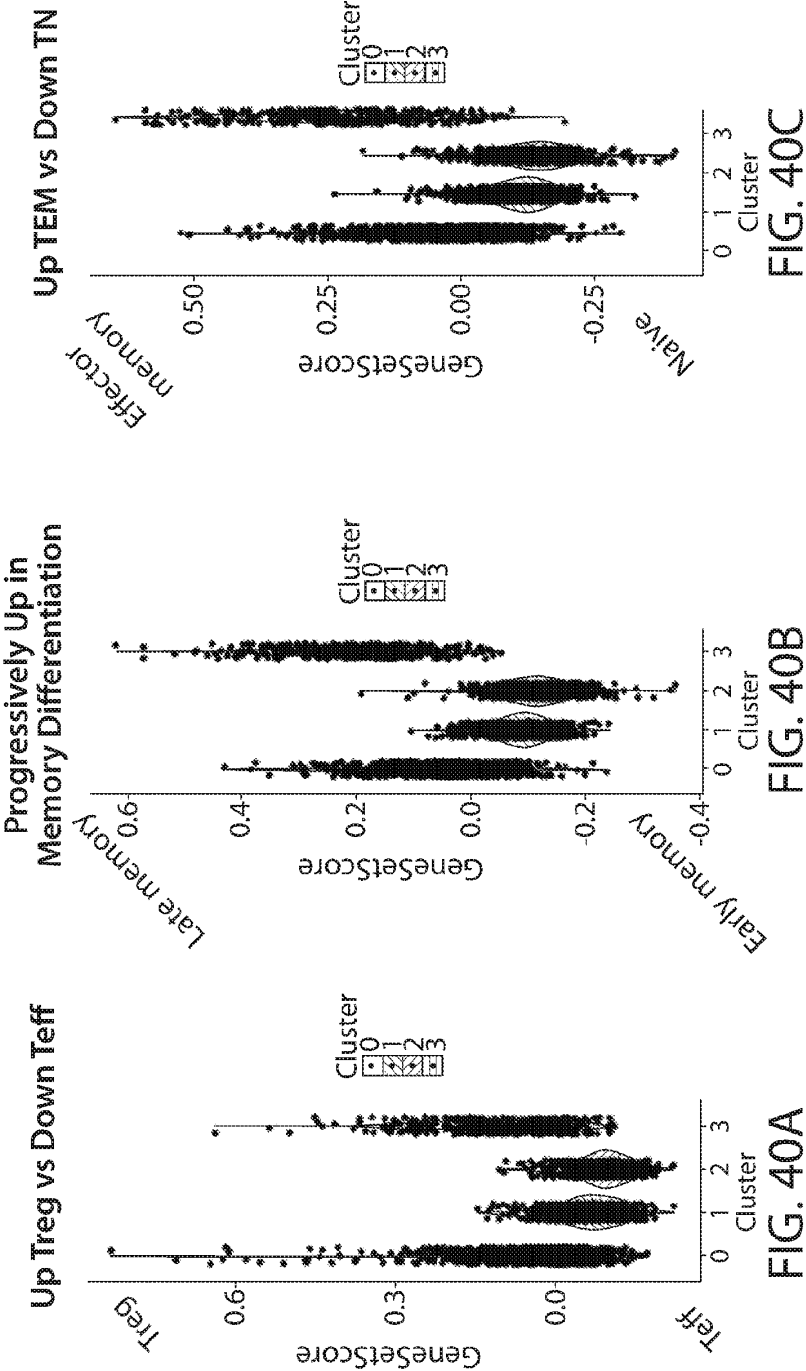
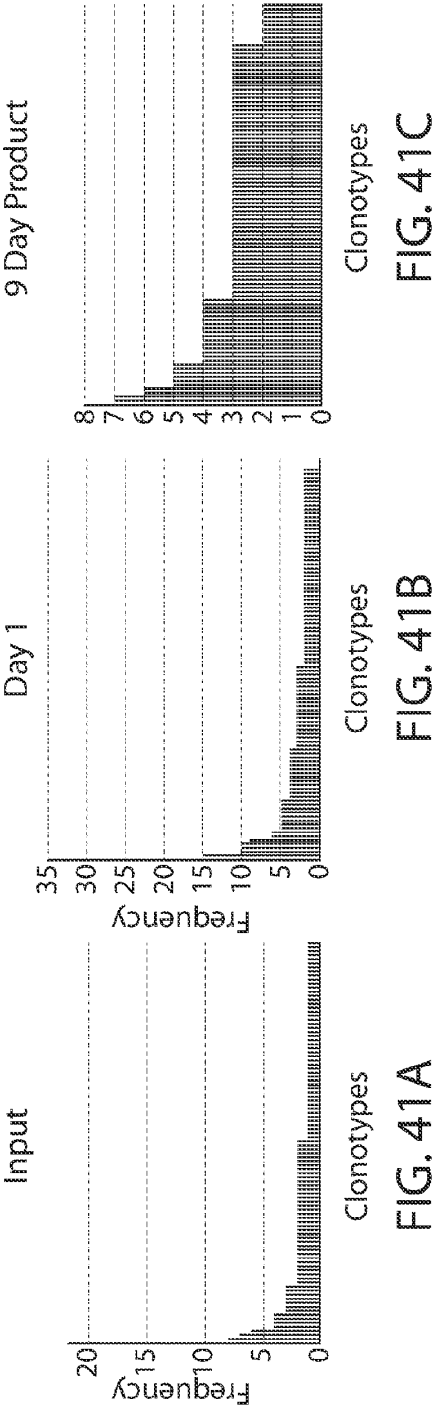


FIG. 39E

SUBSTITUTE SHEET (RULE 26)





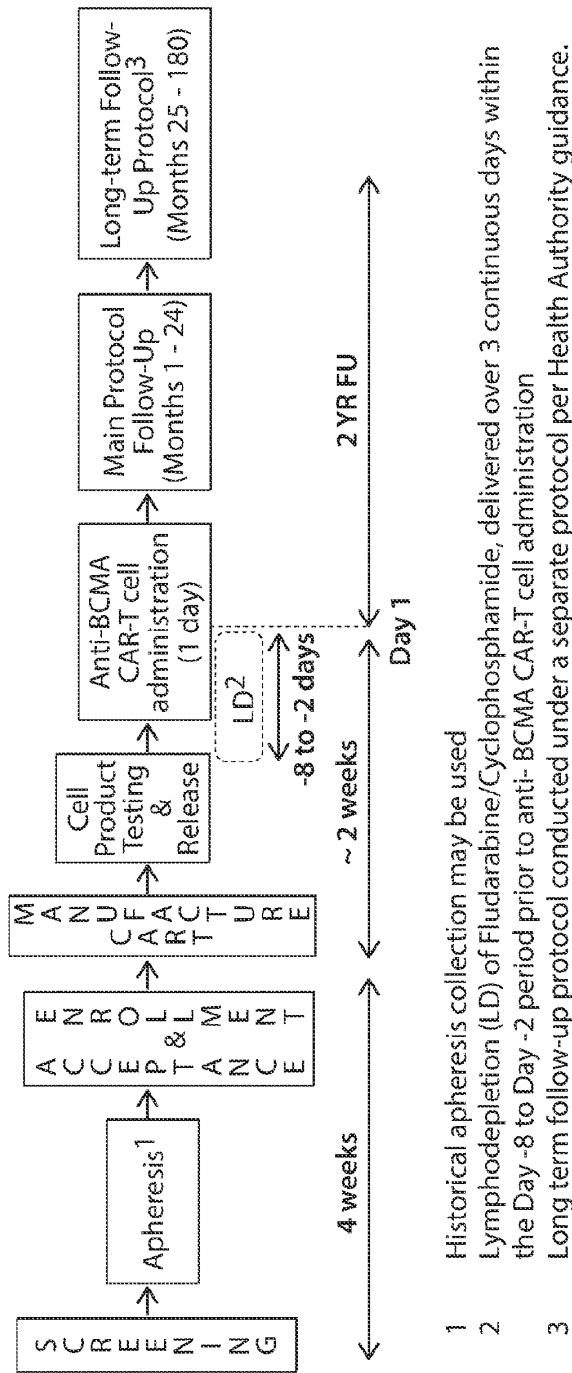
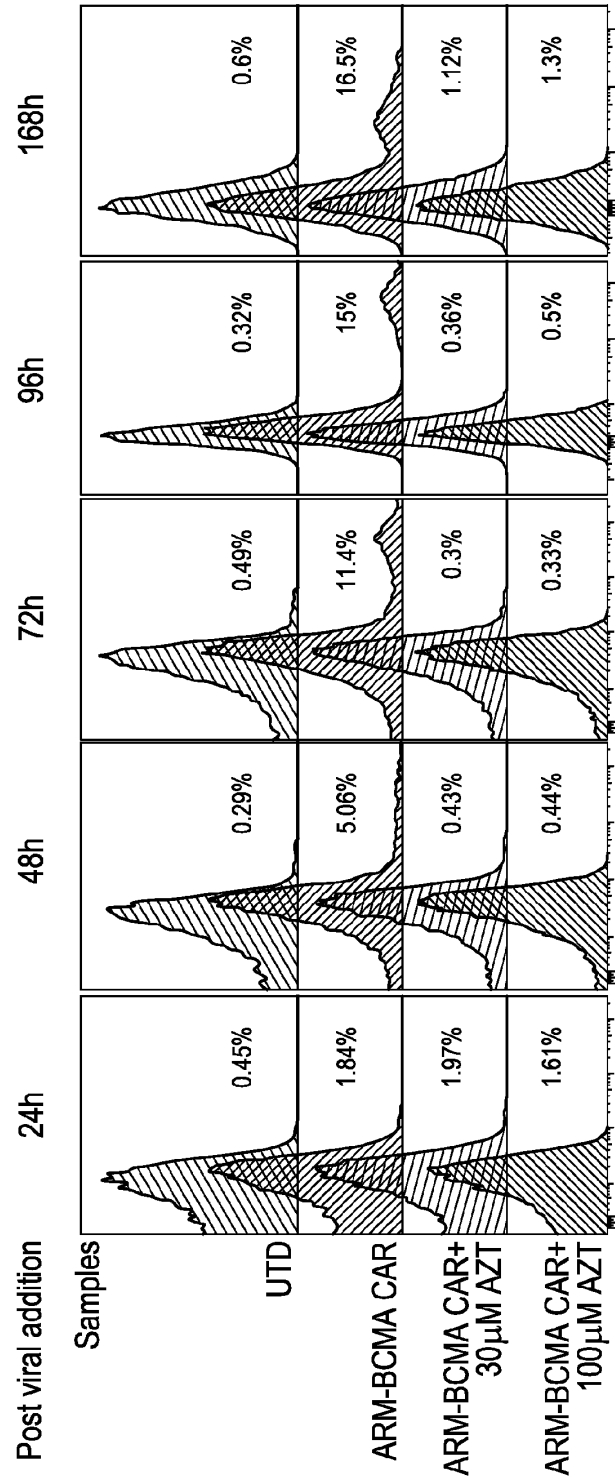


FIG. 42



BCMA-Fc-Alexa647

FIG. 43

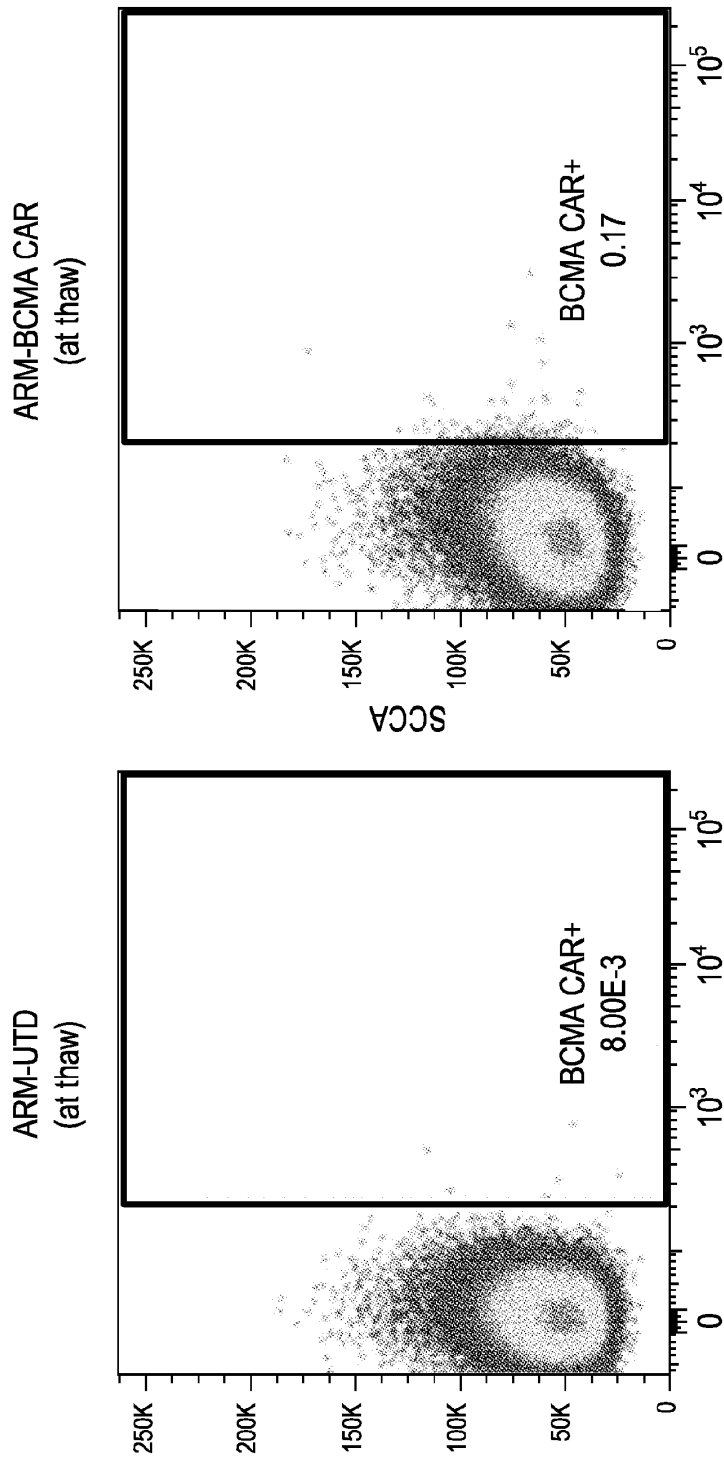


FIG. 44A

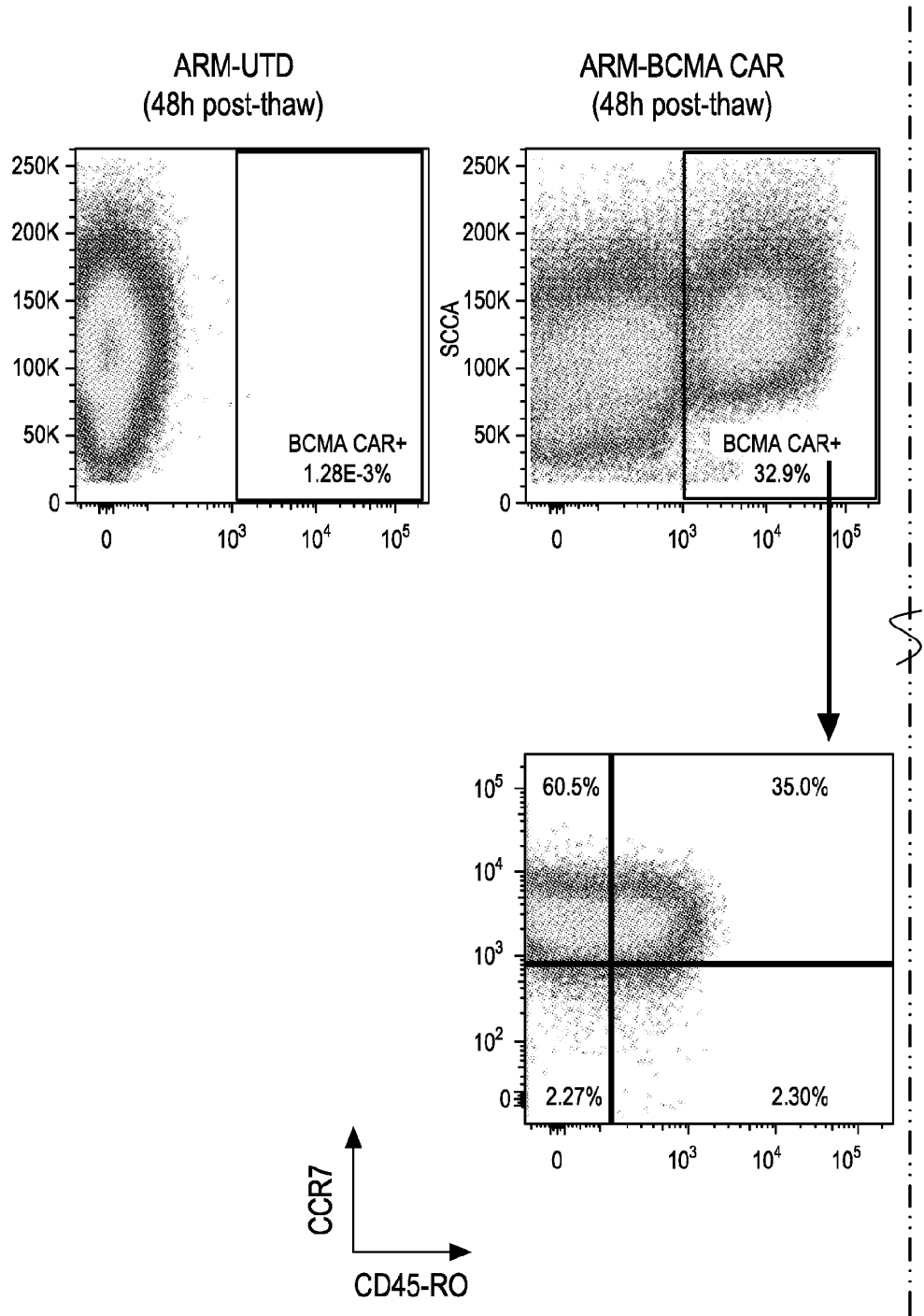


FIG. 44B (part 1)

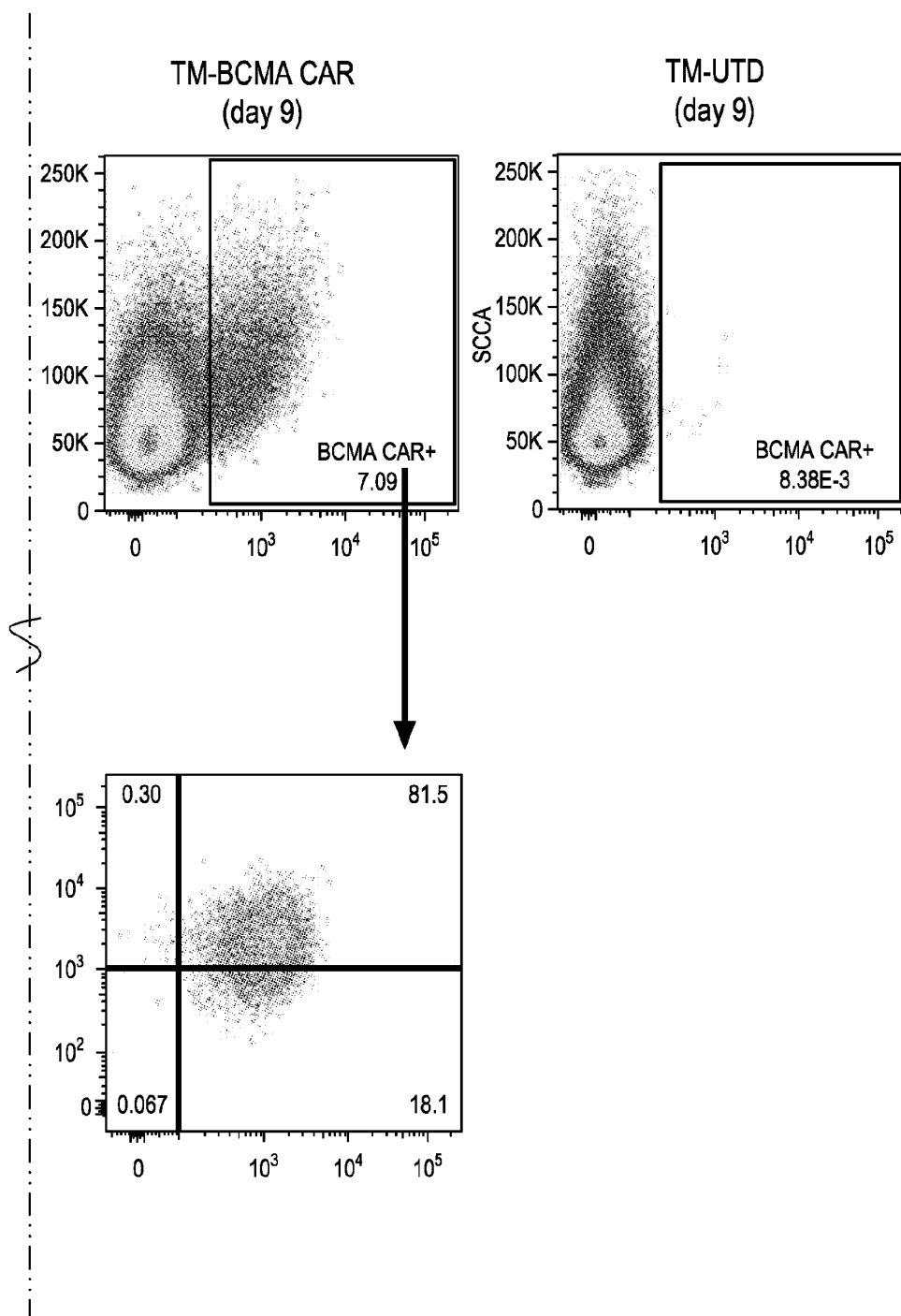


FIG. 44B (part 2)

SUBSTITUTE SHEET (RULE 26)

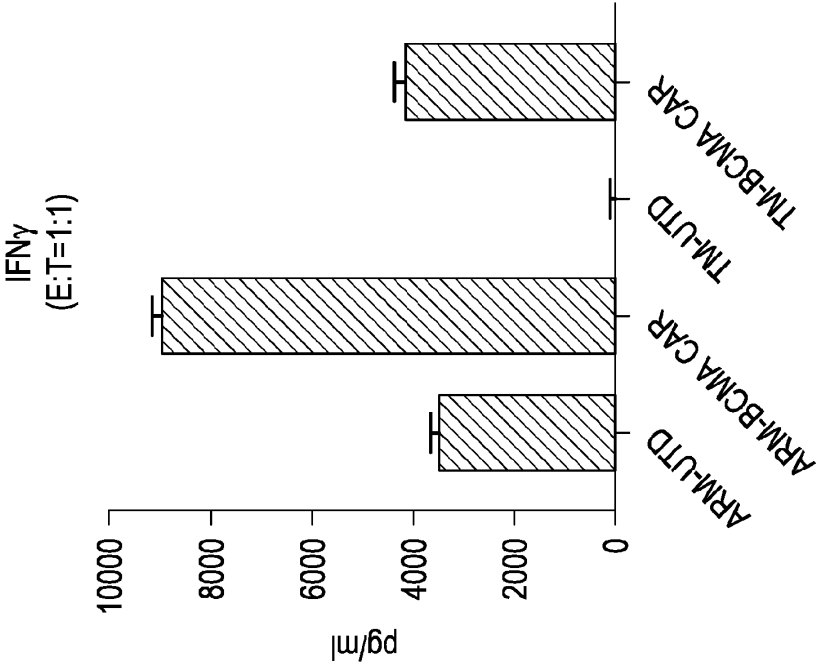


FIG. 45B

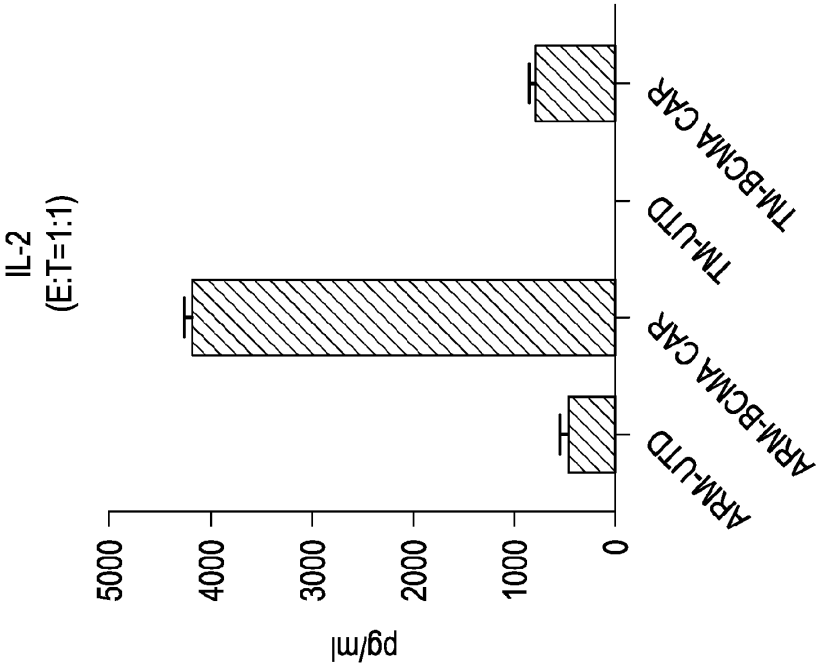
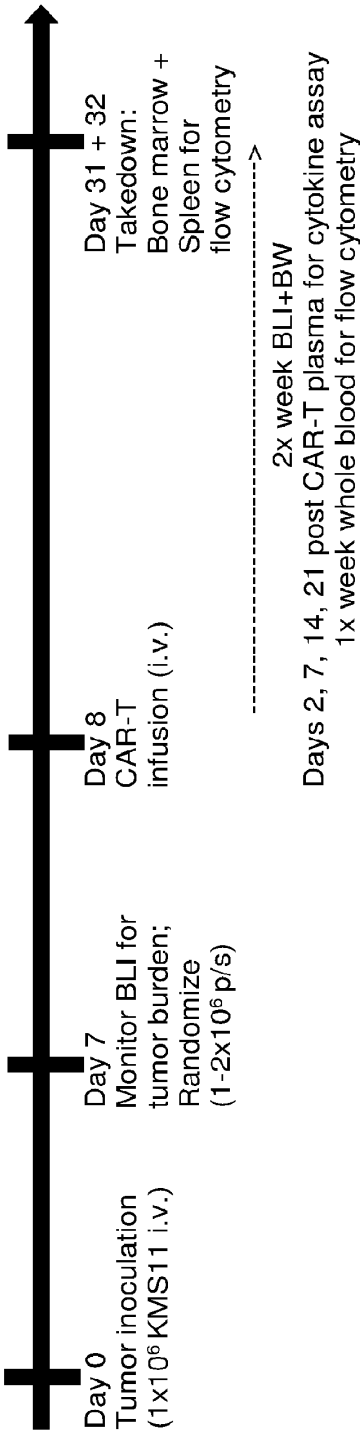


FIG. 45A

FIG. 46
Outline of xenograft efficacy study to test ARM-BCMA CAR



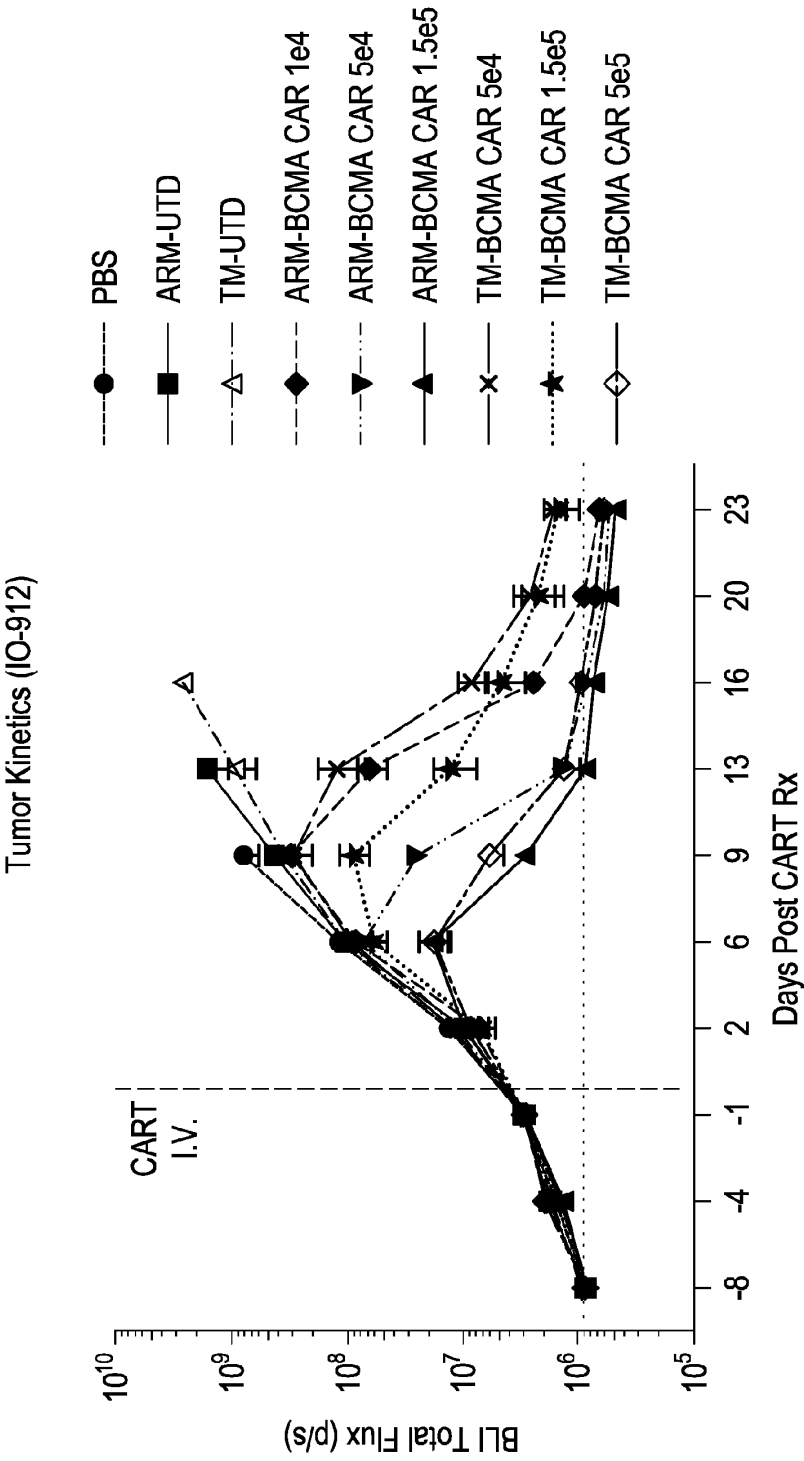


FIG. 47

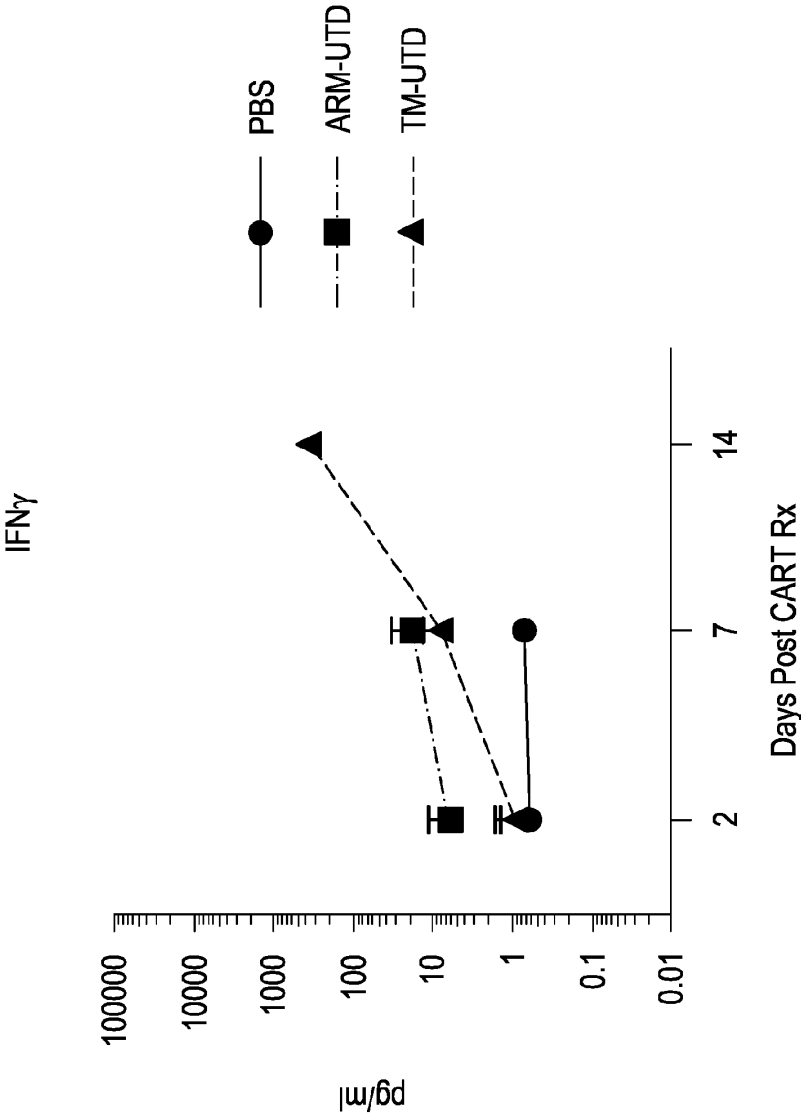


FIG. 48A

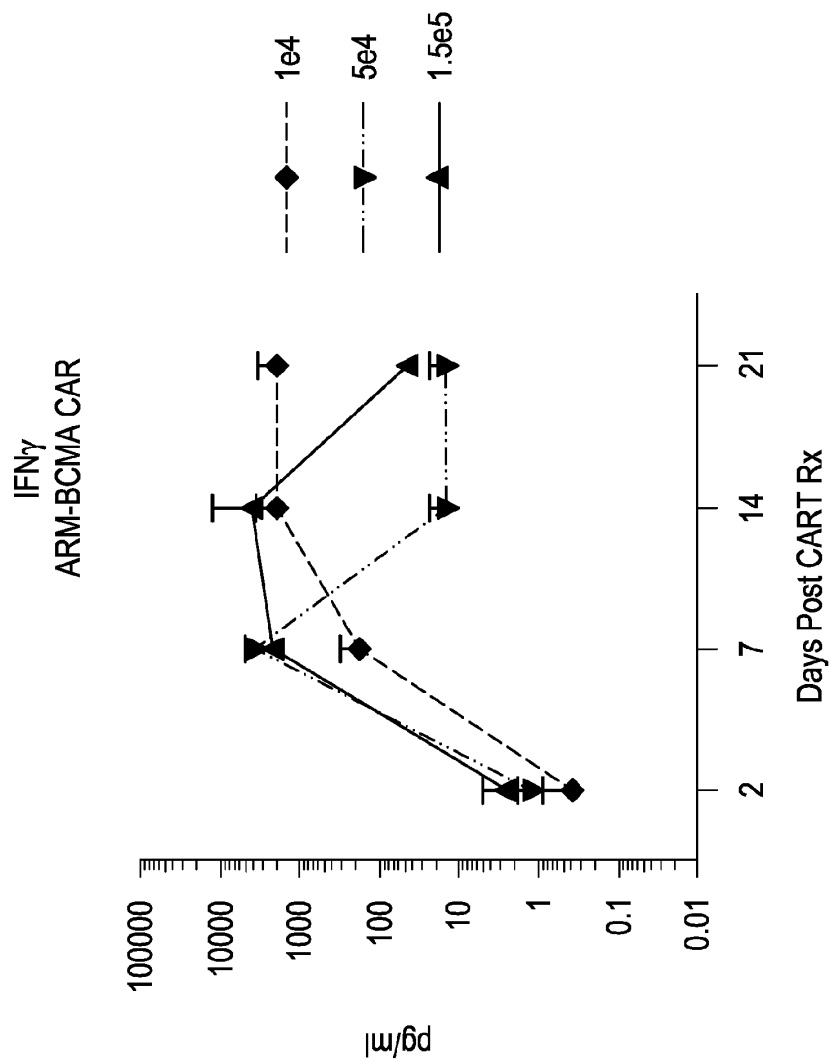


FIG. 48B

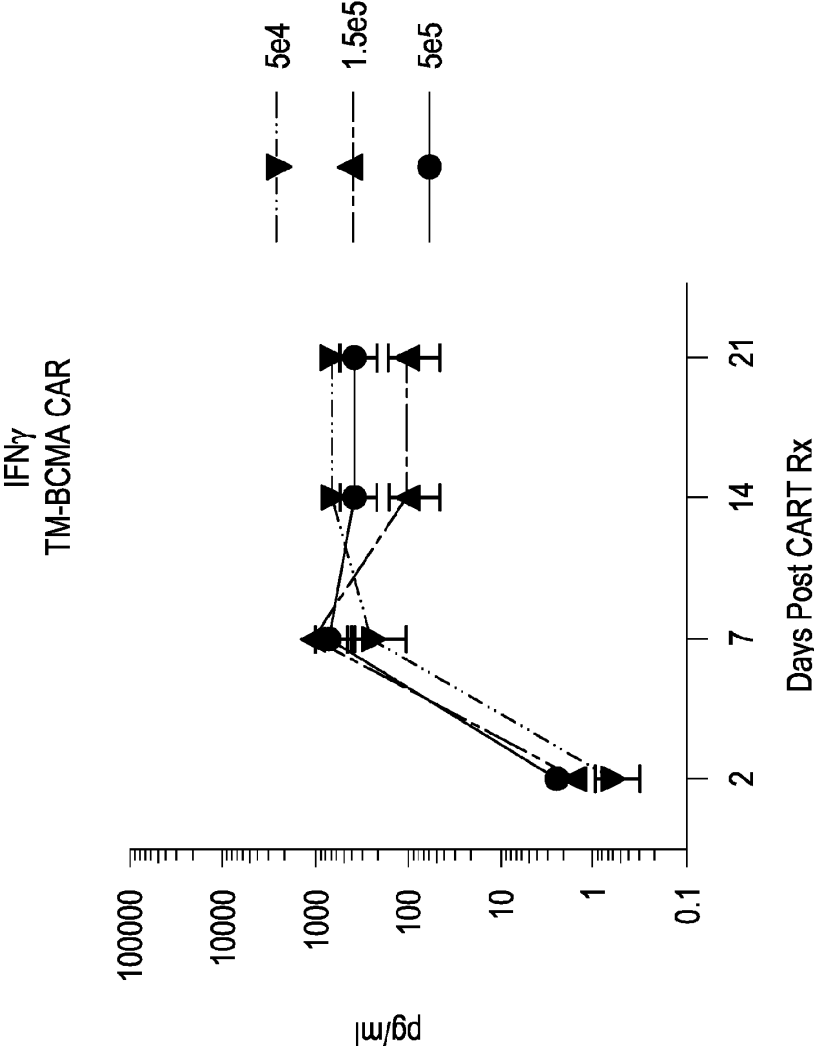


FIG. 48C

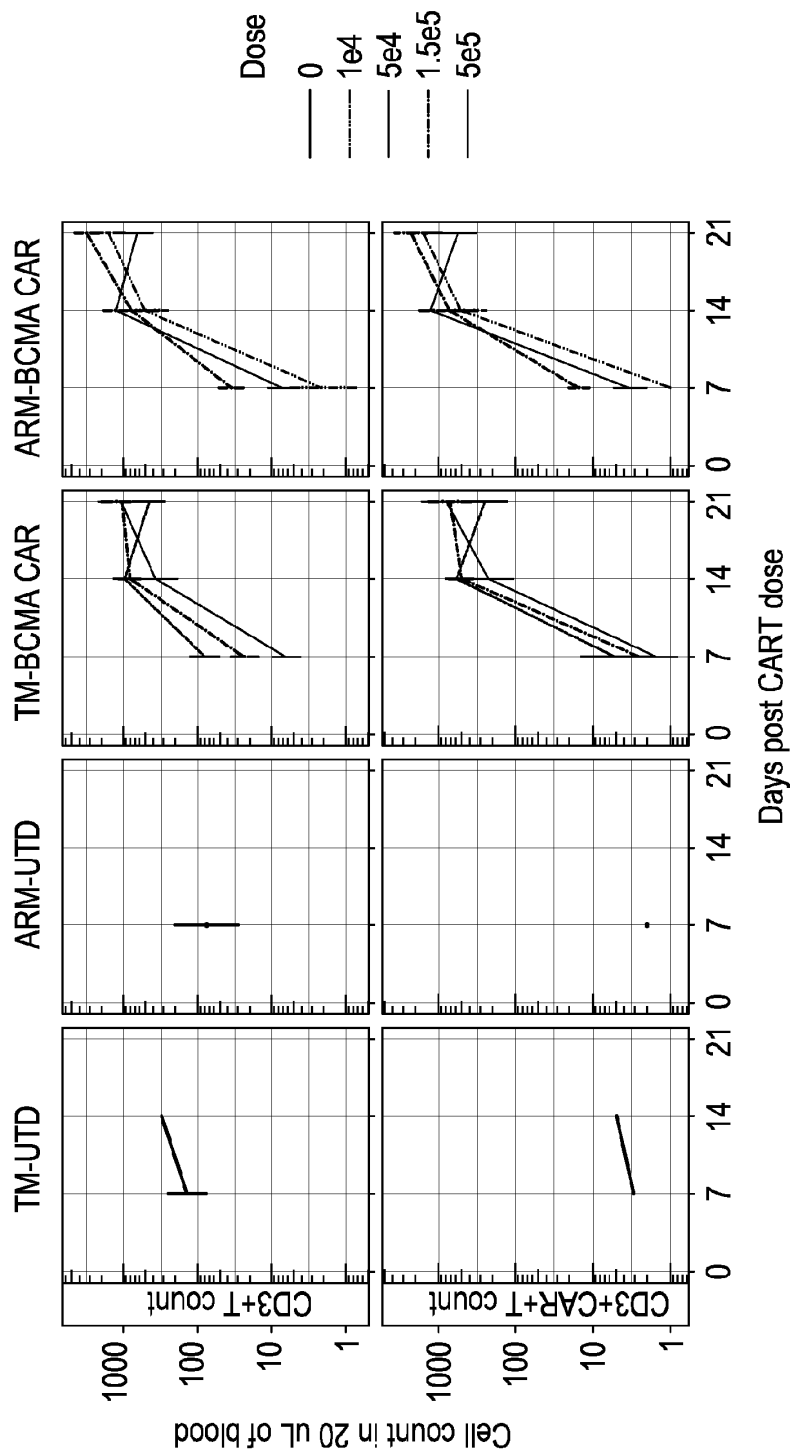


FIG. 49

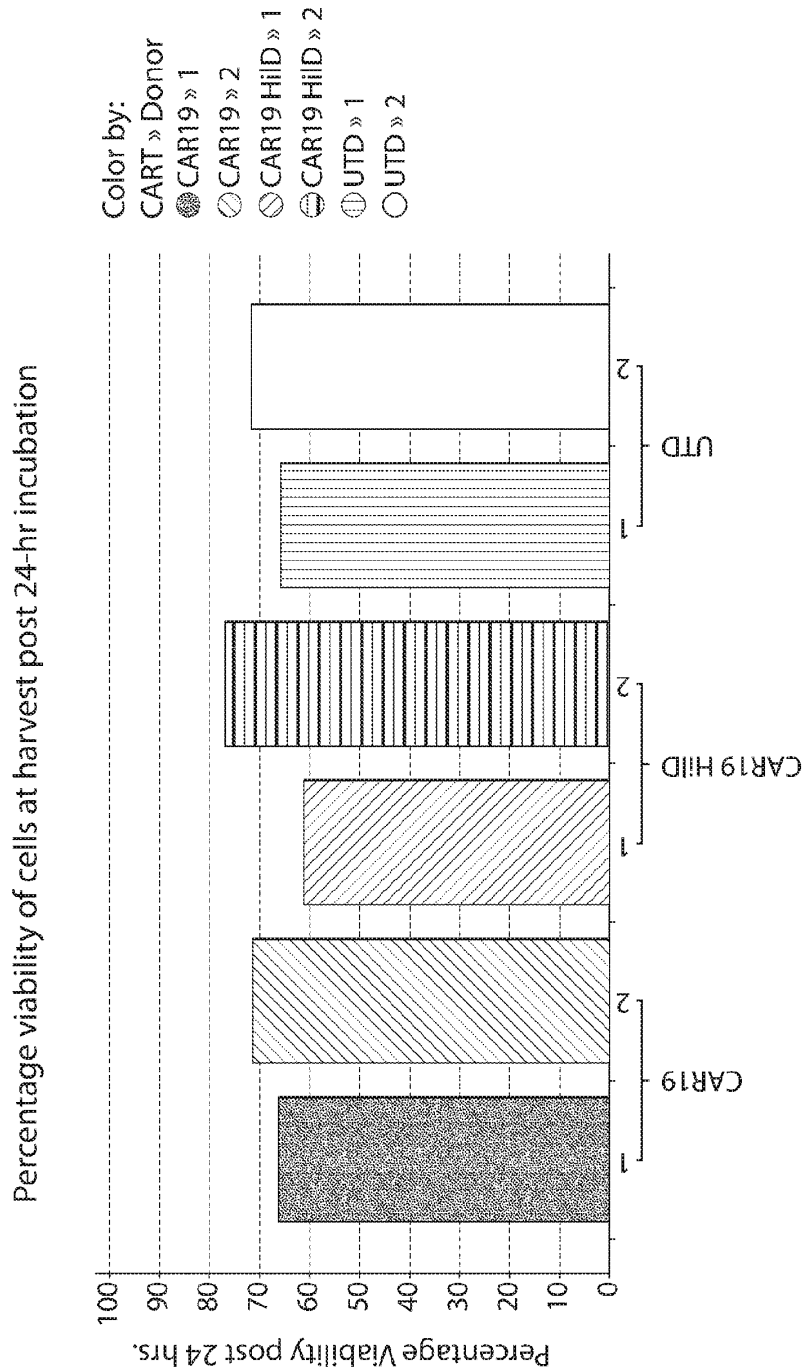


FIG. 50A

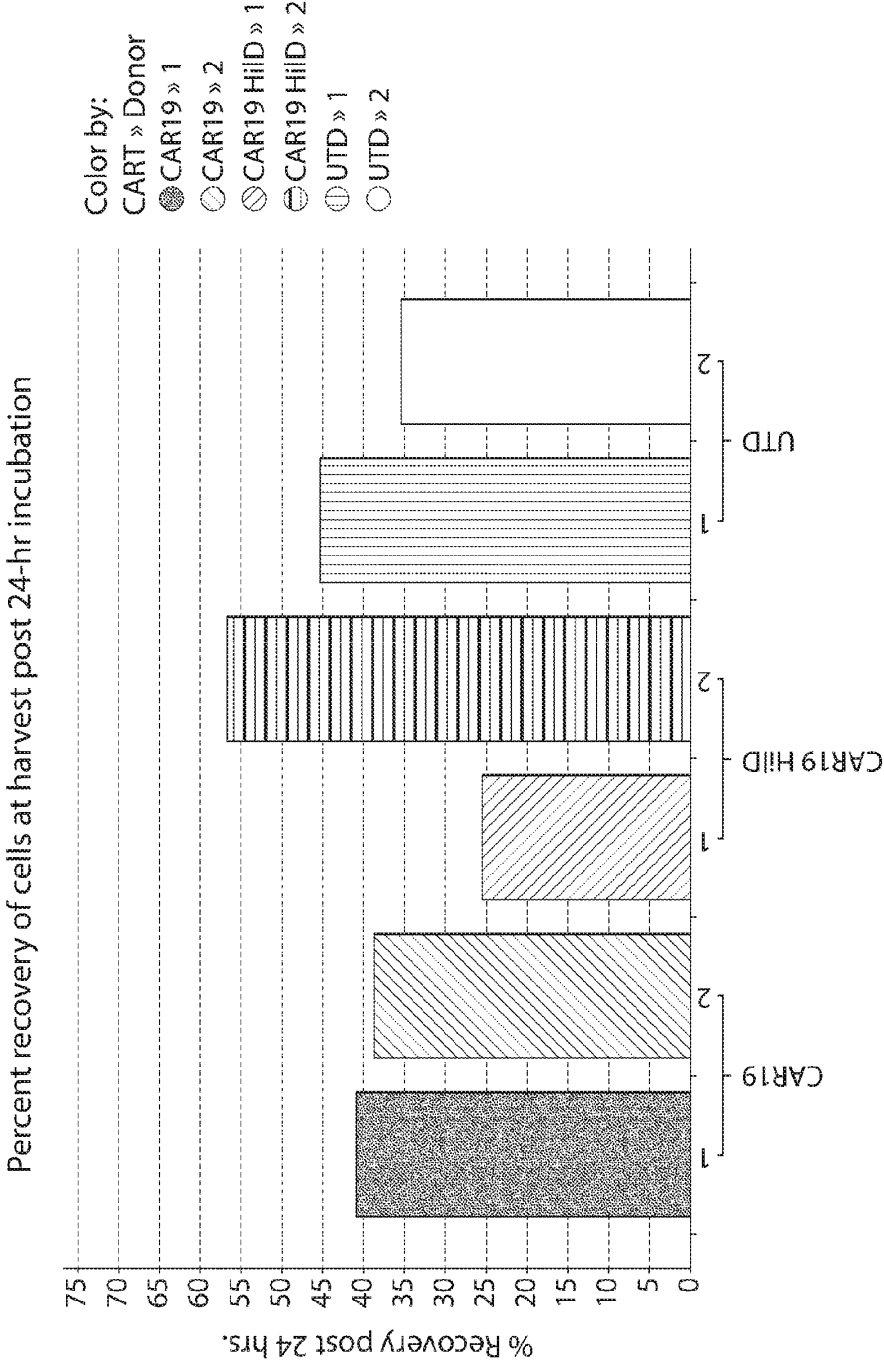


FIG. 50B

Percent CAR expression in CAR19 cells using
MOI 2, Vector post-wash, 6 days incubation

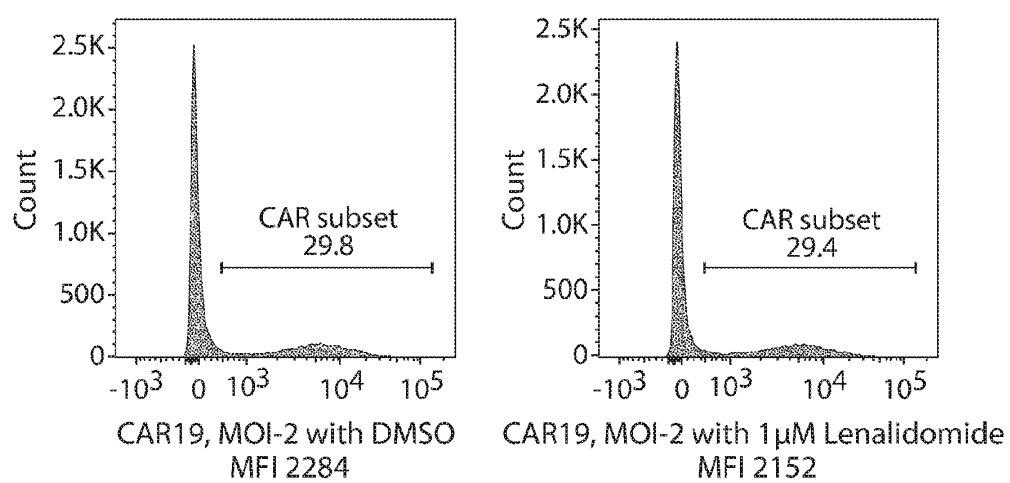


FIG. 51A

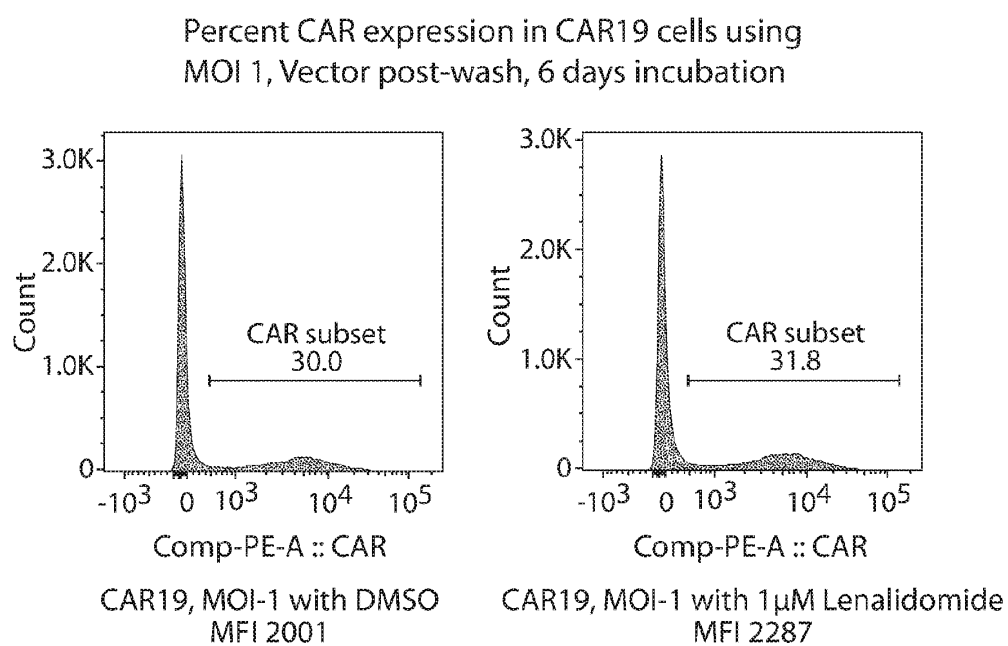


FIG. 51B

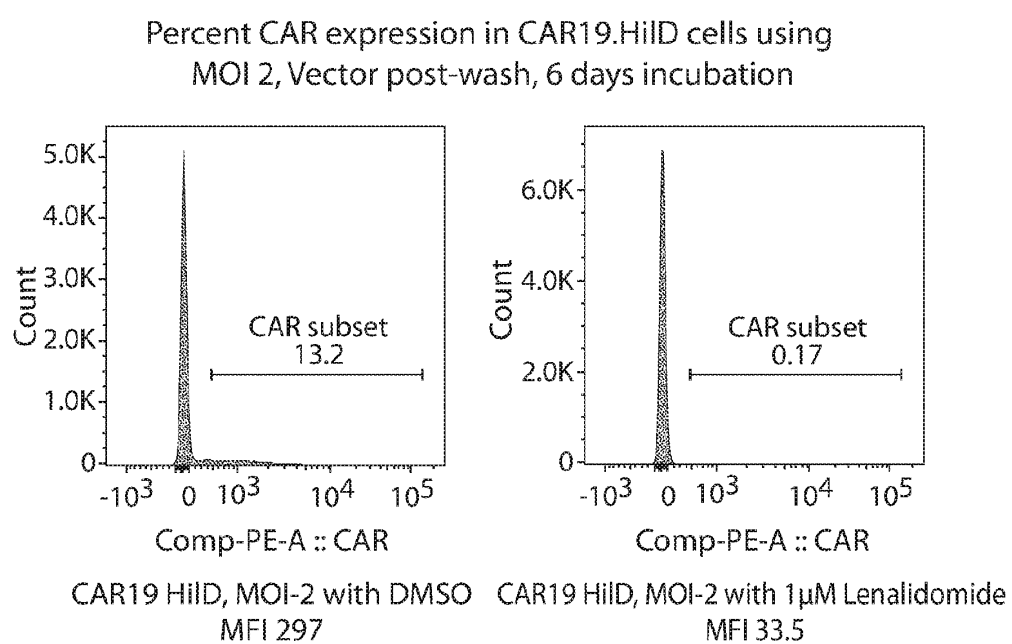


FIG. 51C

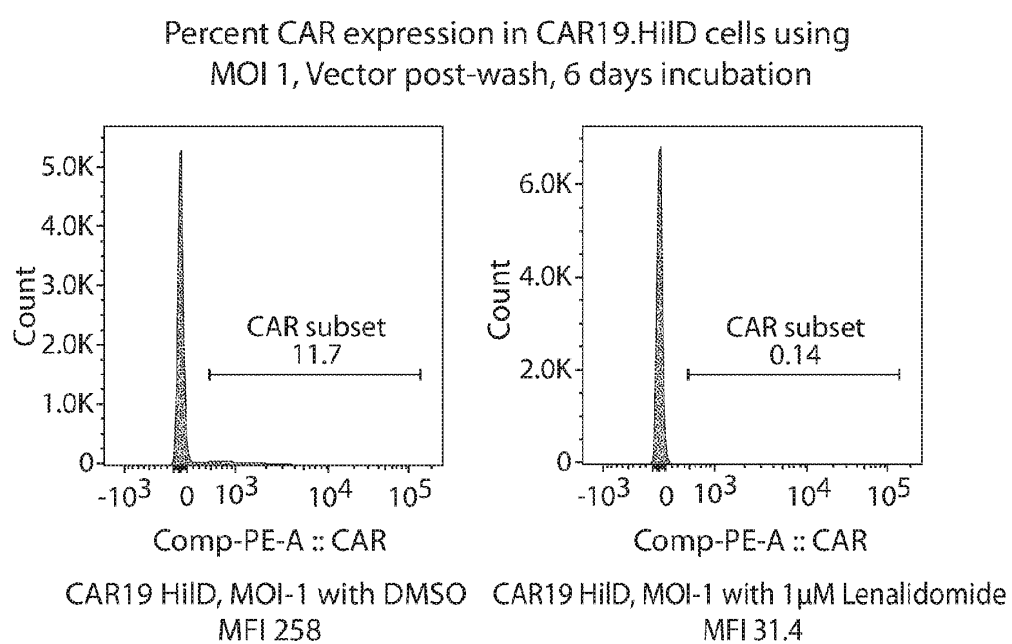


FIG. 51D