

1/119

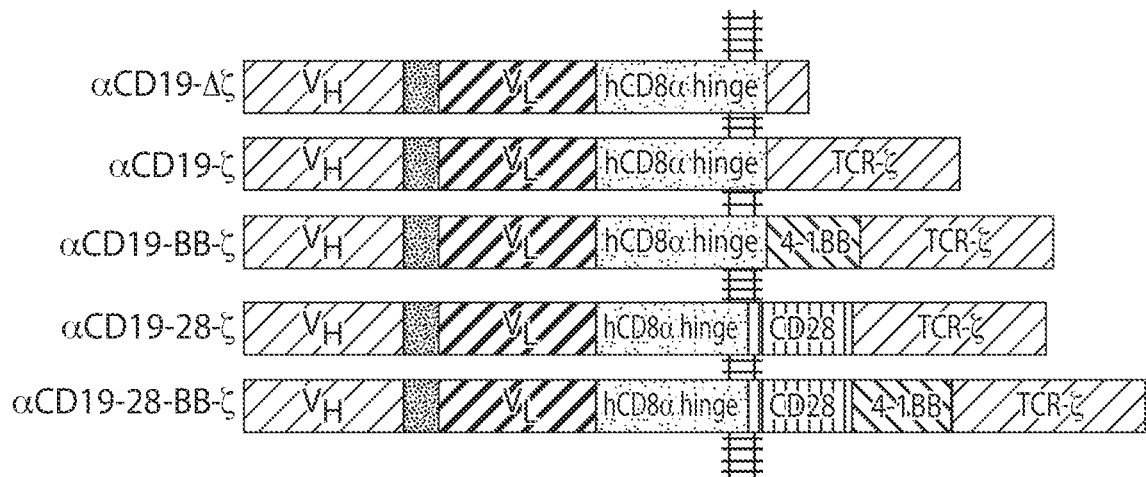


FIG. 1A

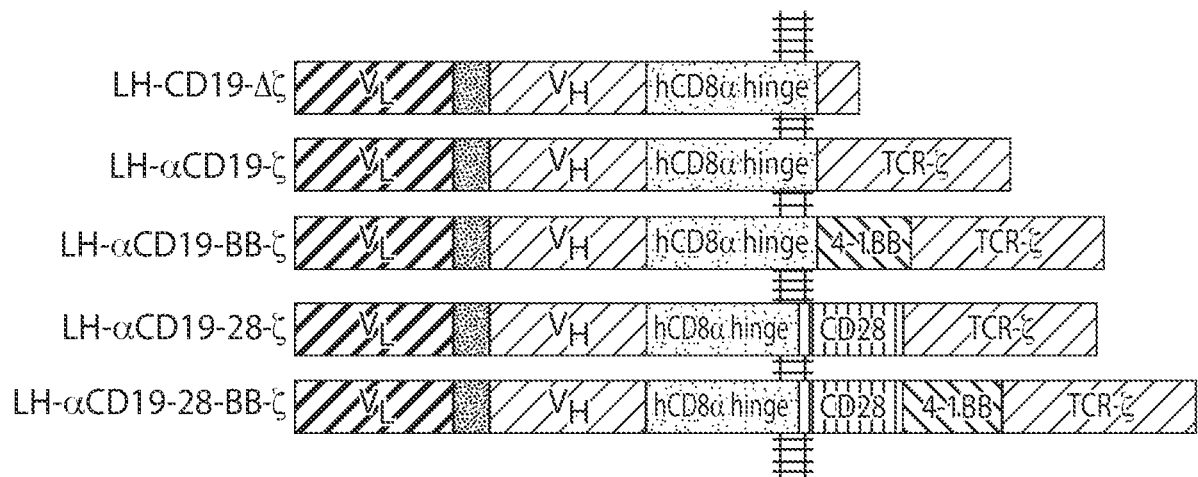


FIG. 1B

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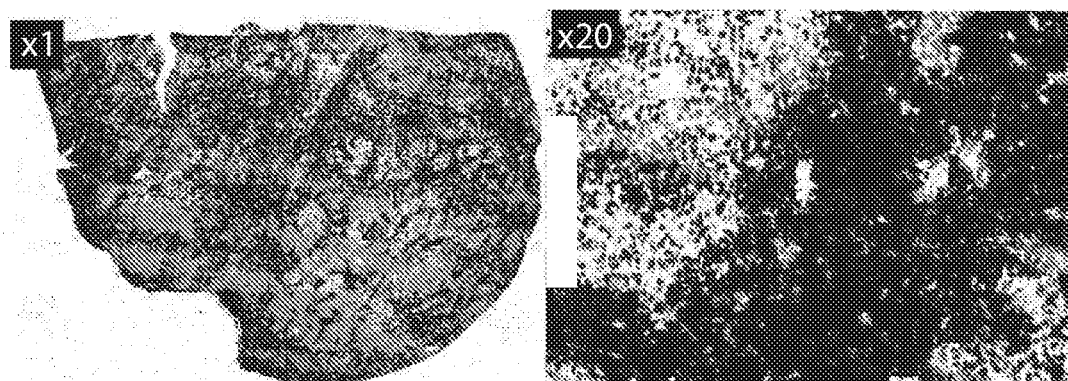


FIG. 2

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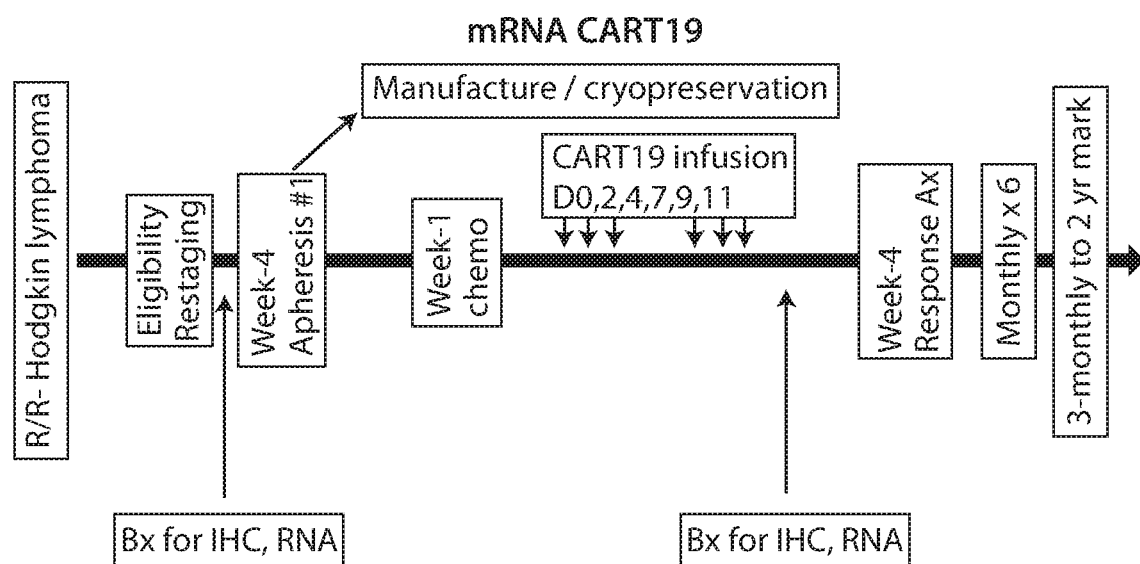


FIG. 3

Gated on CD4+

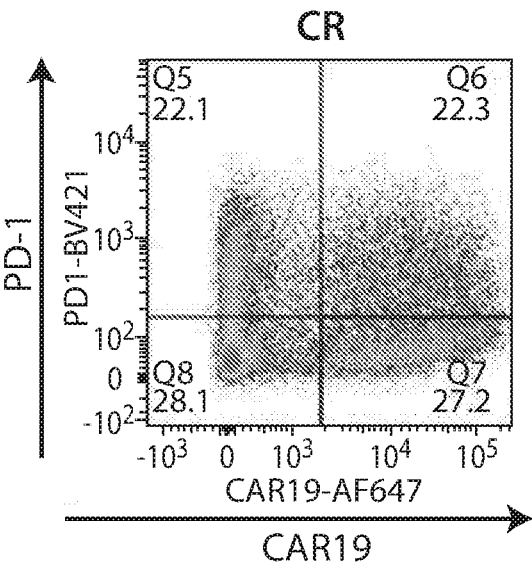


FIG. 4A

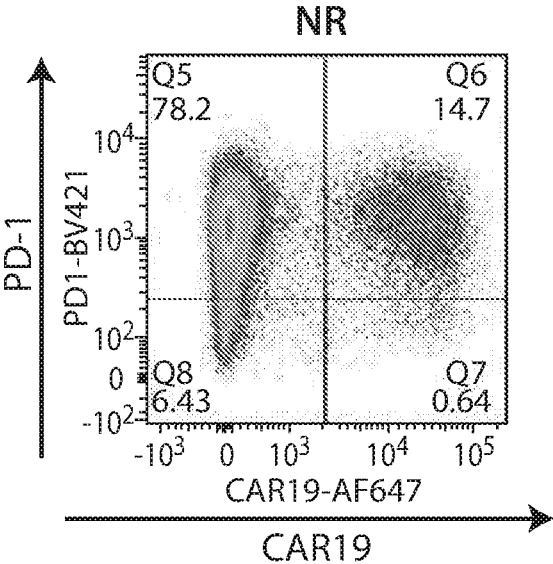


FIG. 4B

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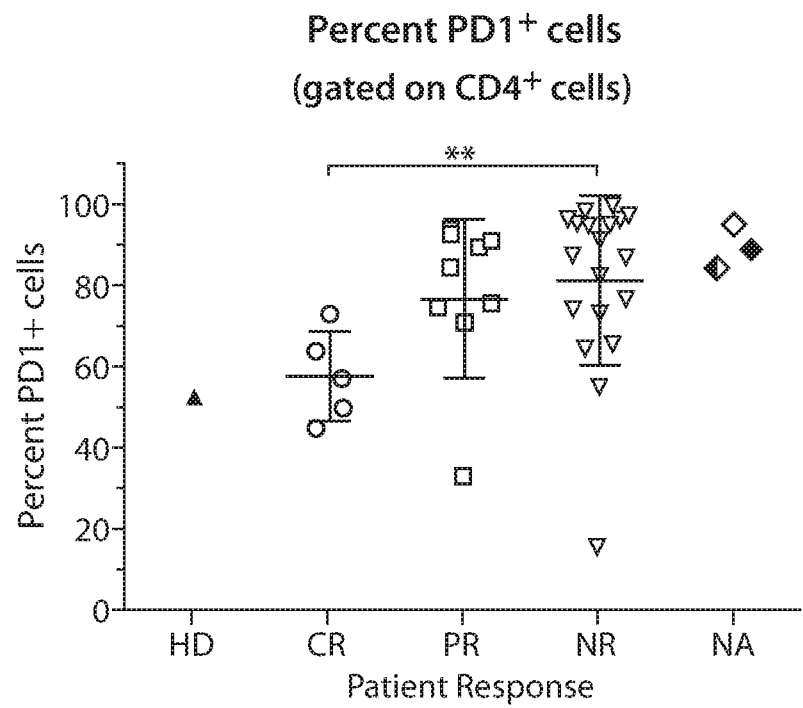


FIG. 4C

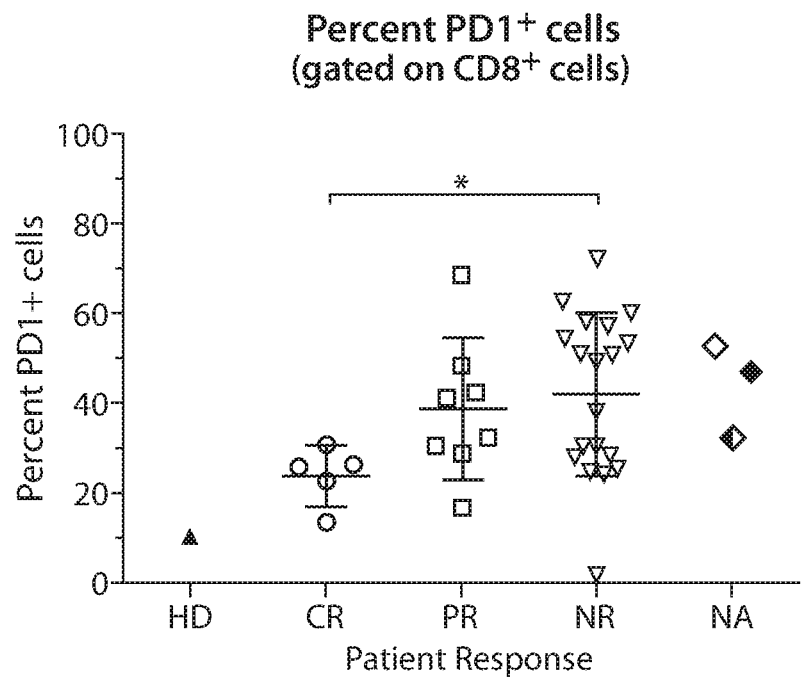


FIG. 4D

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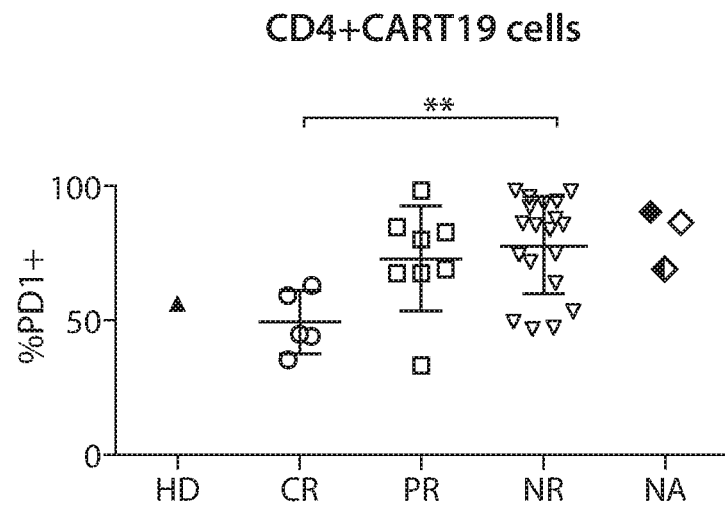


FIG. 5A

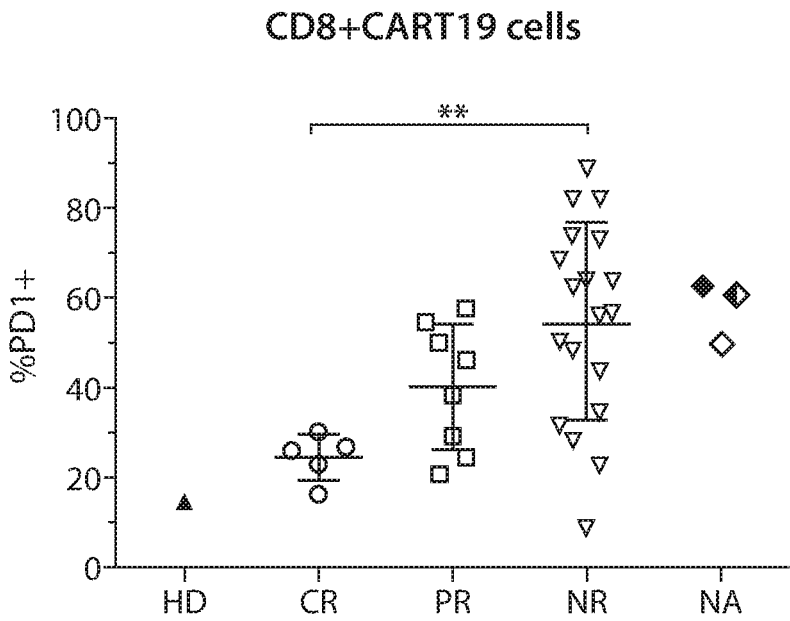


FIG. 5B

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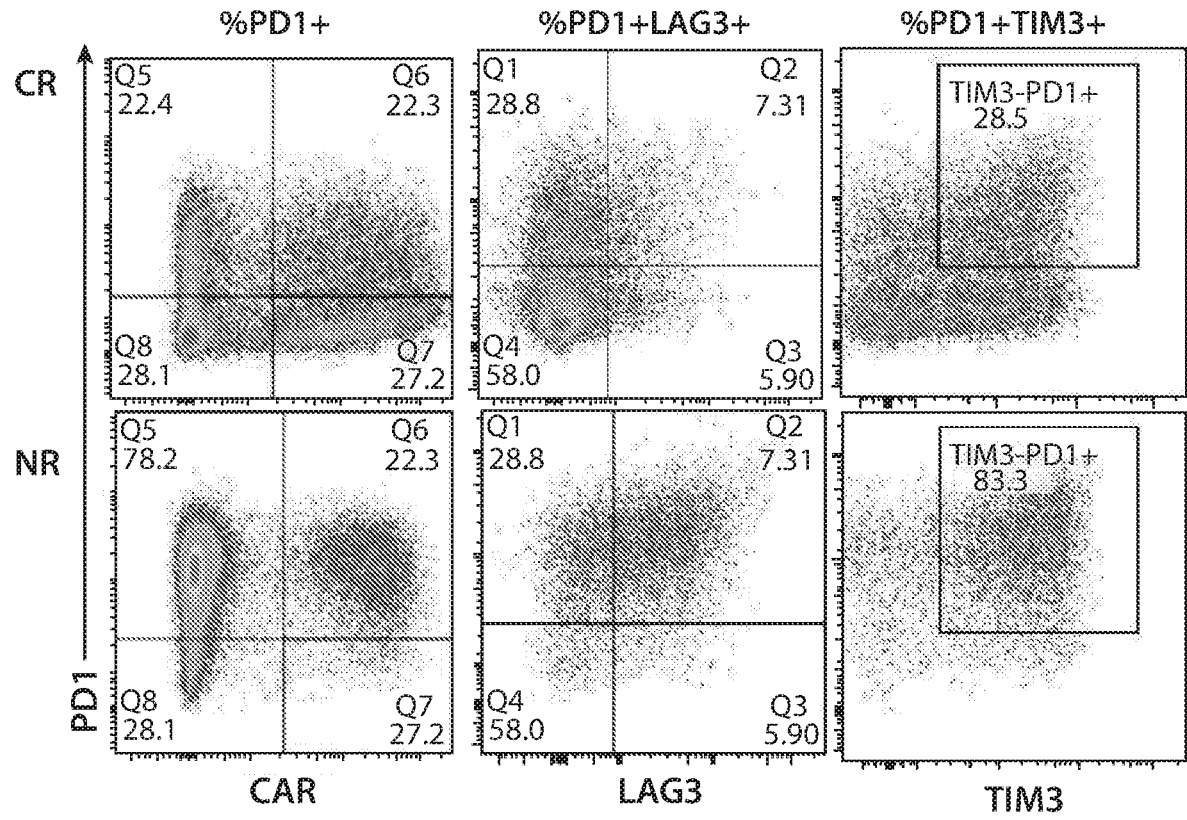


FIG. 6

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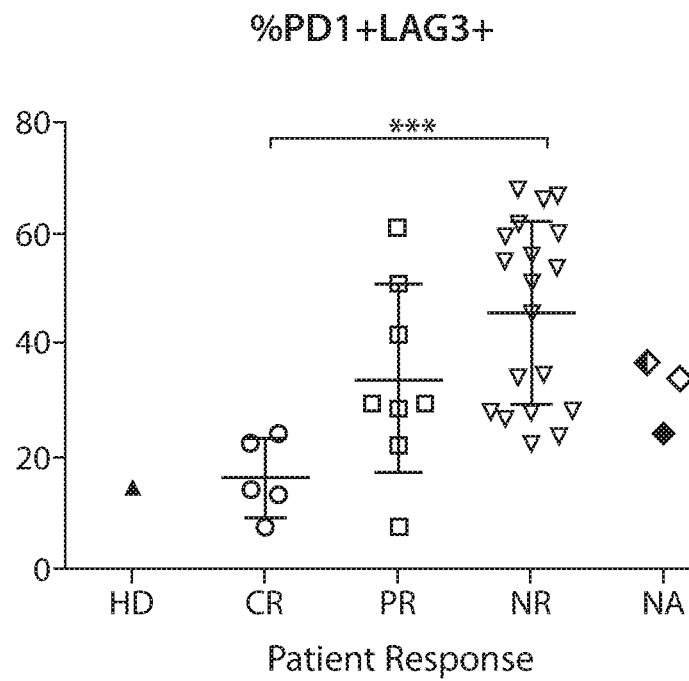


FIG. 7A

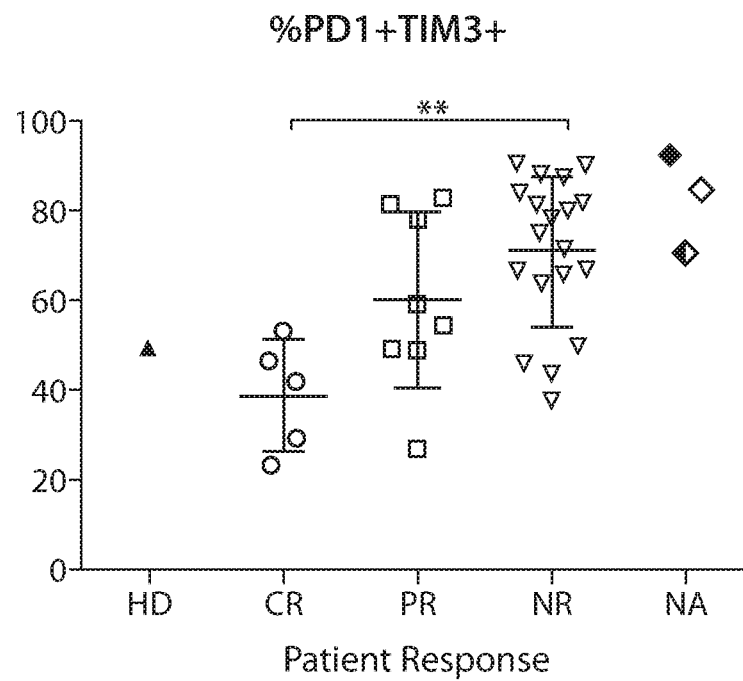


FIG. 7B

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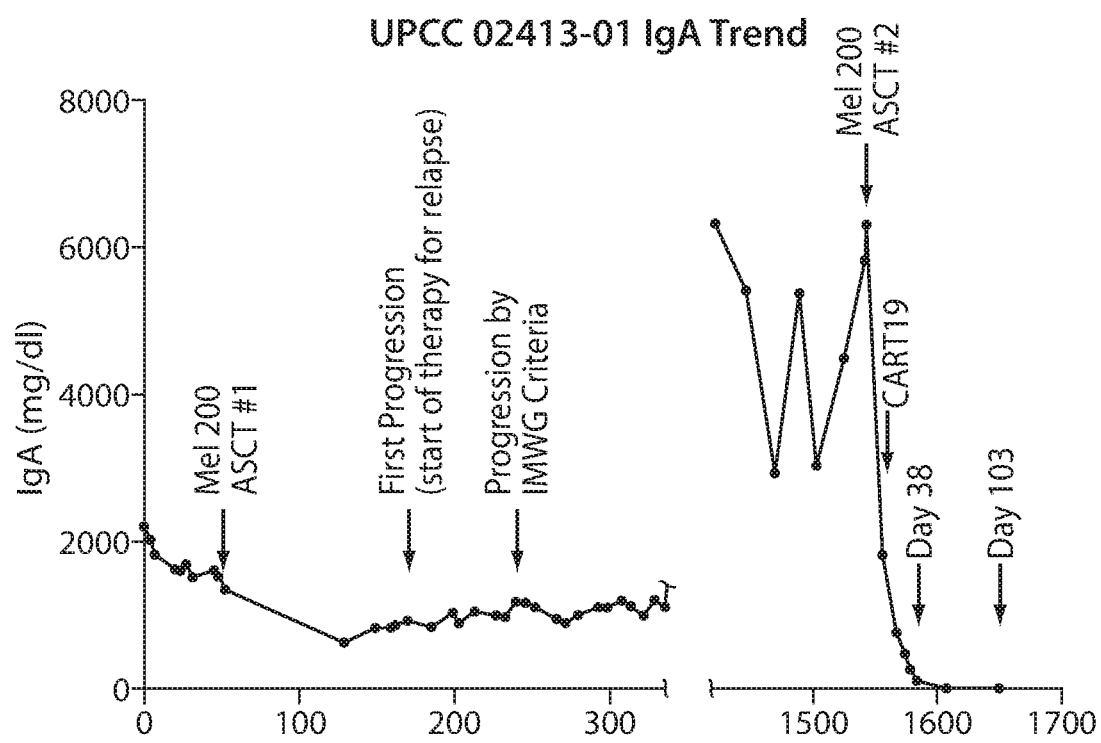


FIG. 8

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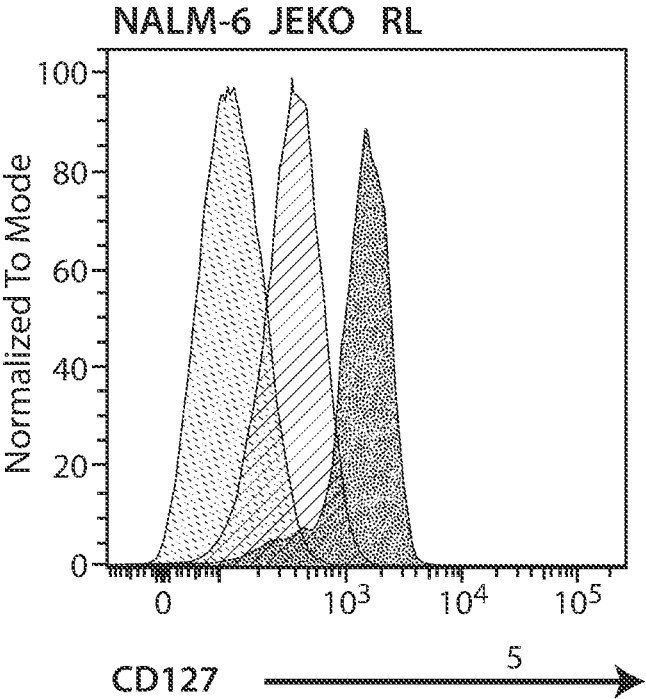


FIG. 9A

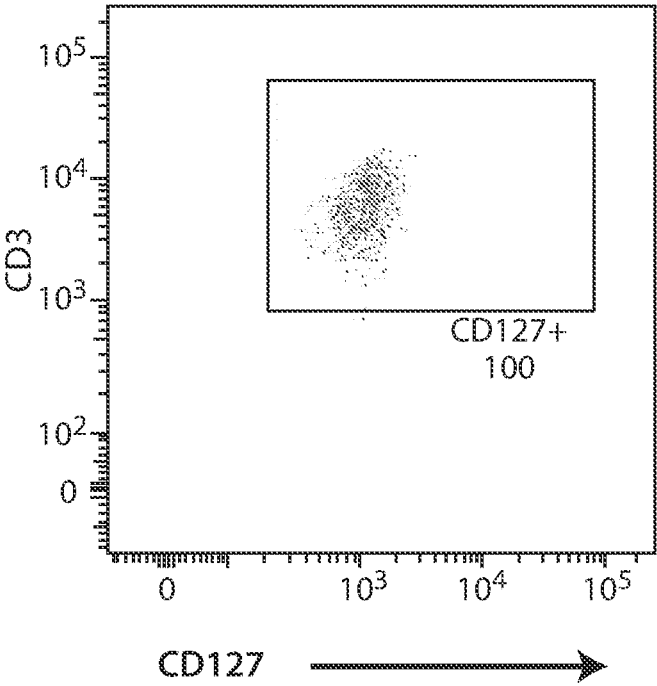


FIG. 9B

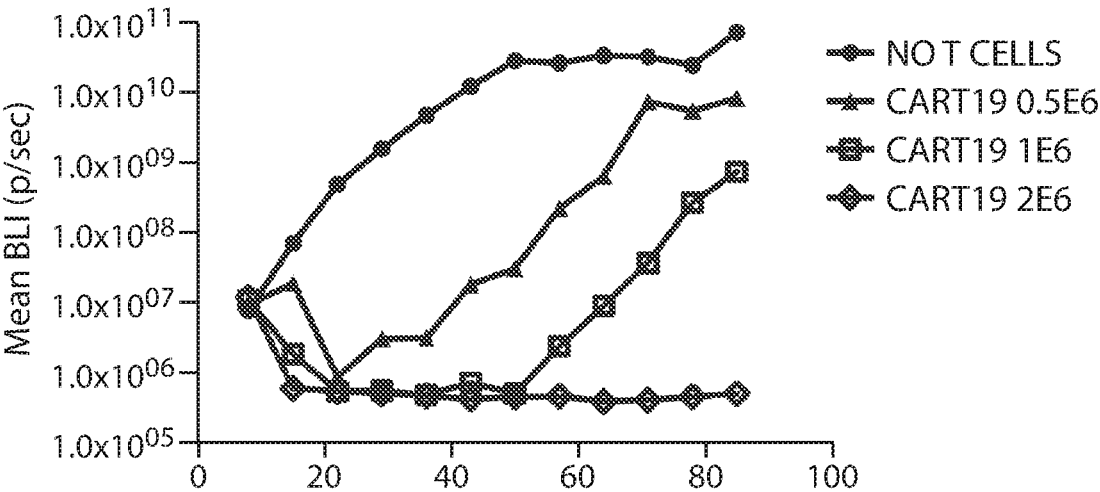


FIG. 10A

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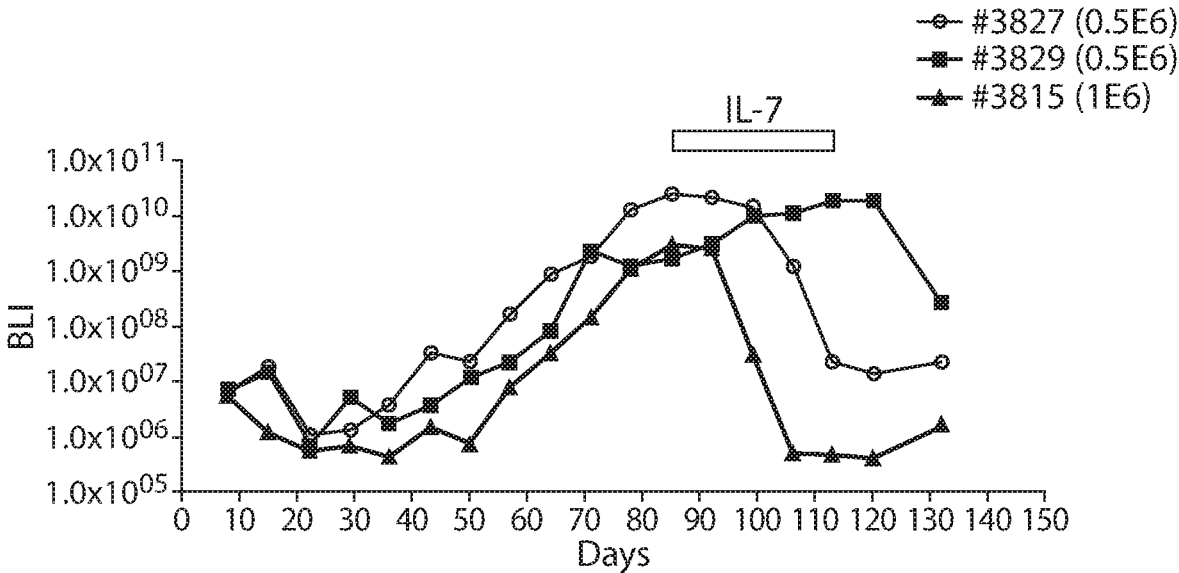


FIG. 10B

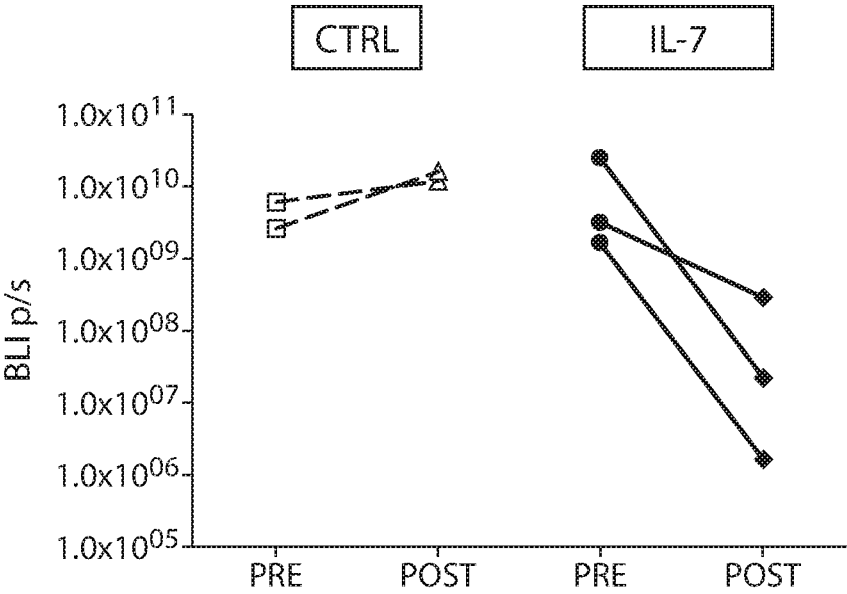


FIG. 10C

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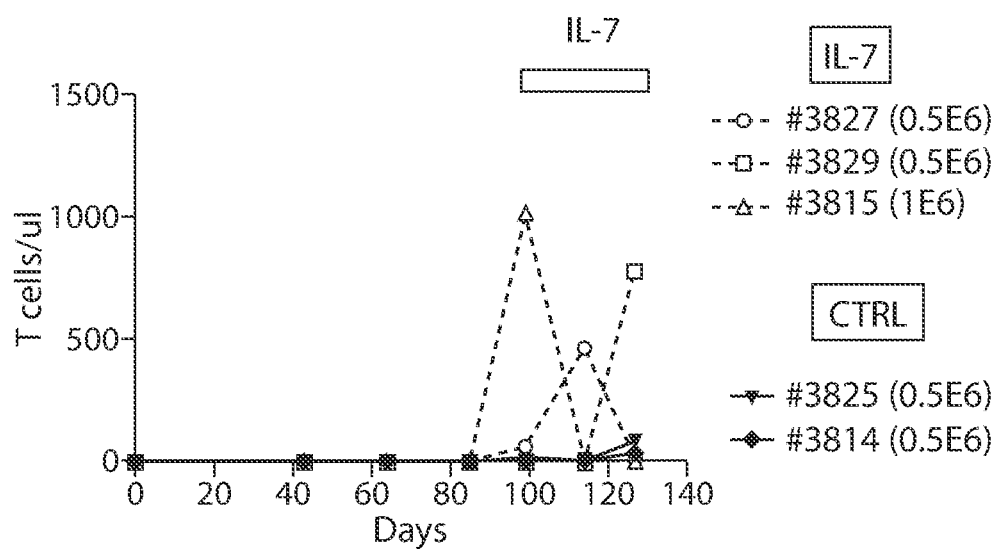


FIG. 11A

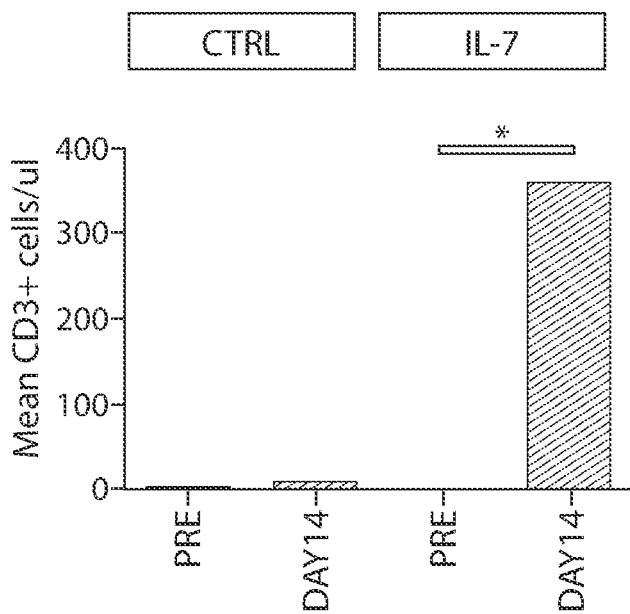


FIG. 11B

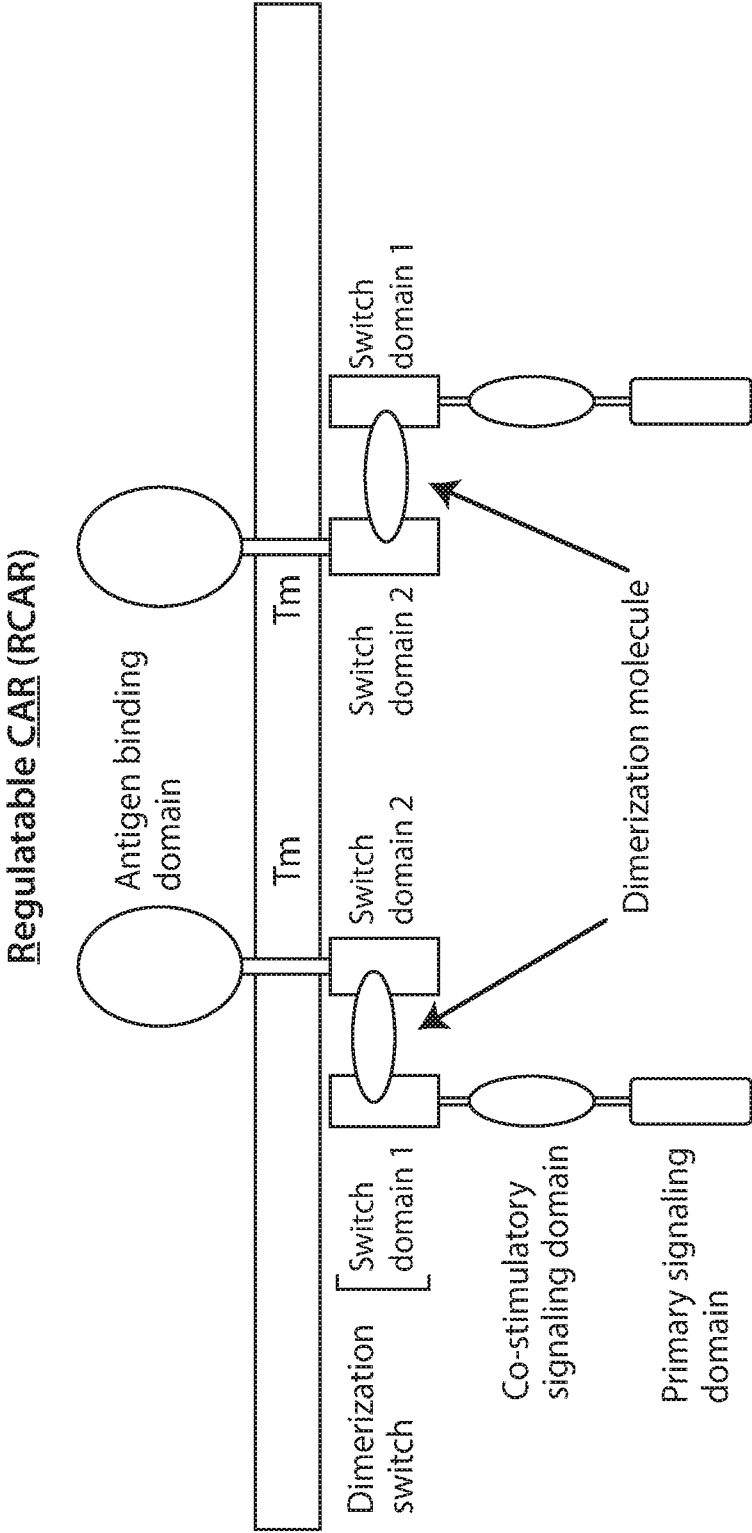


Fig. 12

Bi-Specific CD19/22 CAR molecule design

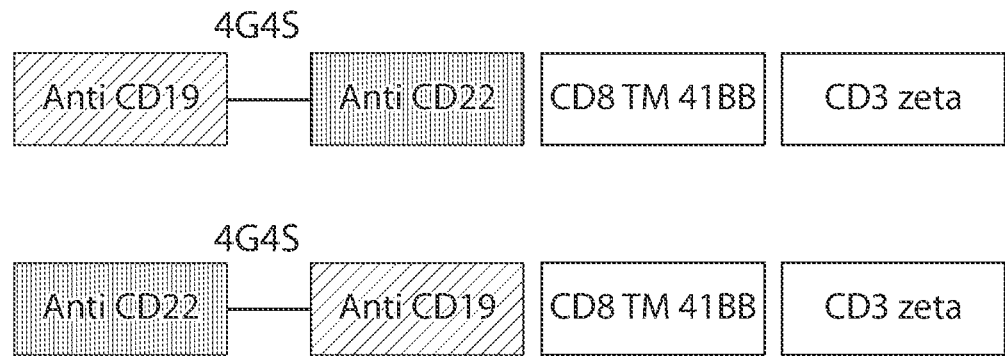


FIG. 13

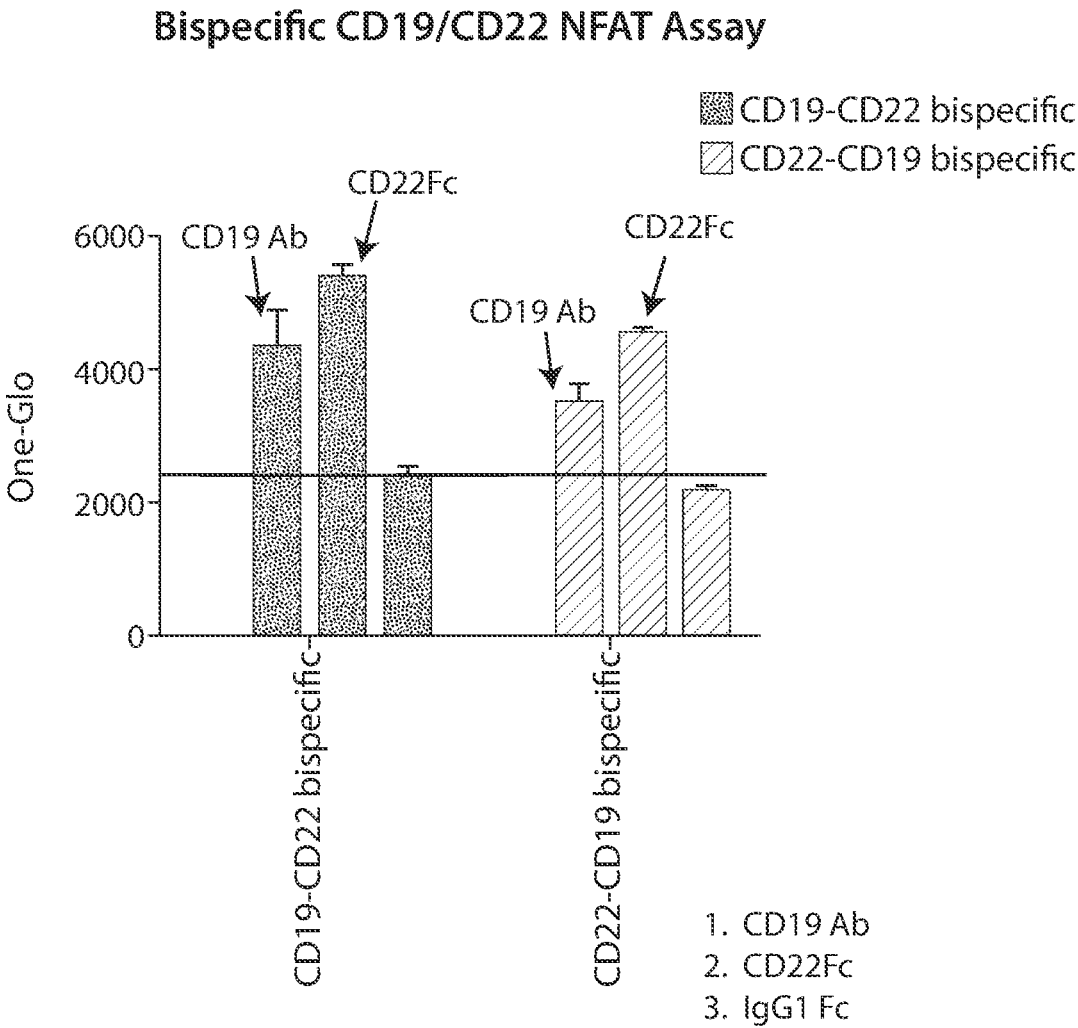
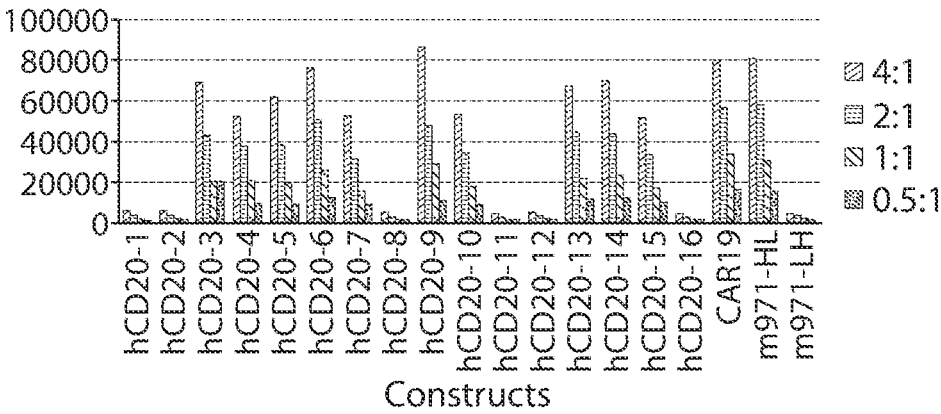


FIG. 14

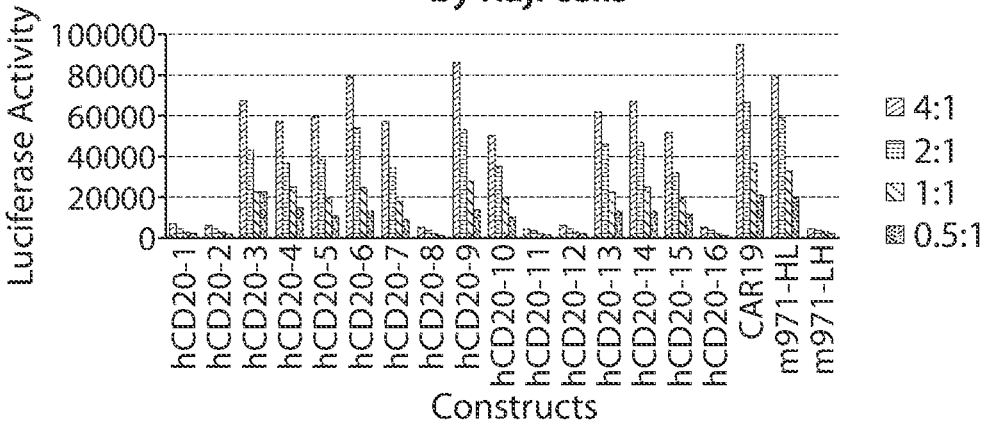
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Luciferase activity in JNL-CAR-hCD20 cells
by Daudi cells



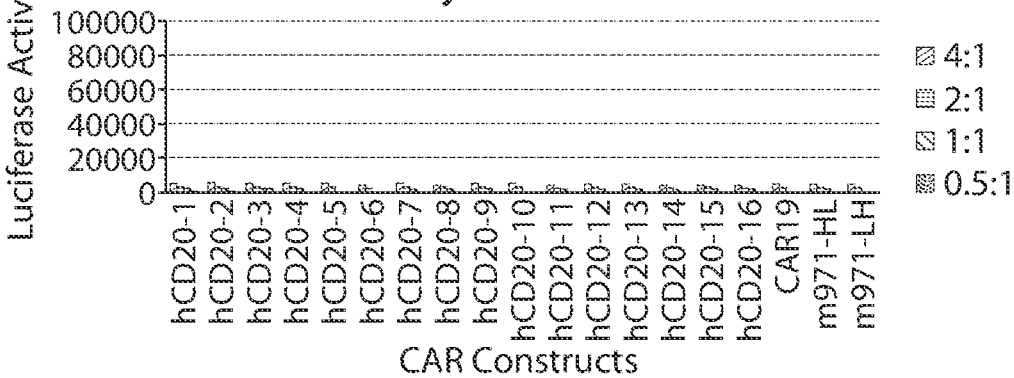
Constructs
FIG. 15A

Luciferase activity in JNL-CAR-hCD20 cells
by Raji cells



Constructs
FIG. 15B

Luciferase activity in JNL-CAR-hCD20 cells
by K562 cells



CAR Constructs
FIG. 15C

Activated Teff enriched in NRs vs. CRs
Genes upregulated in activated vs resting Teff are also upregulated in NRs

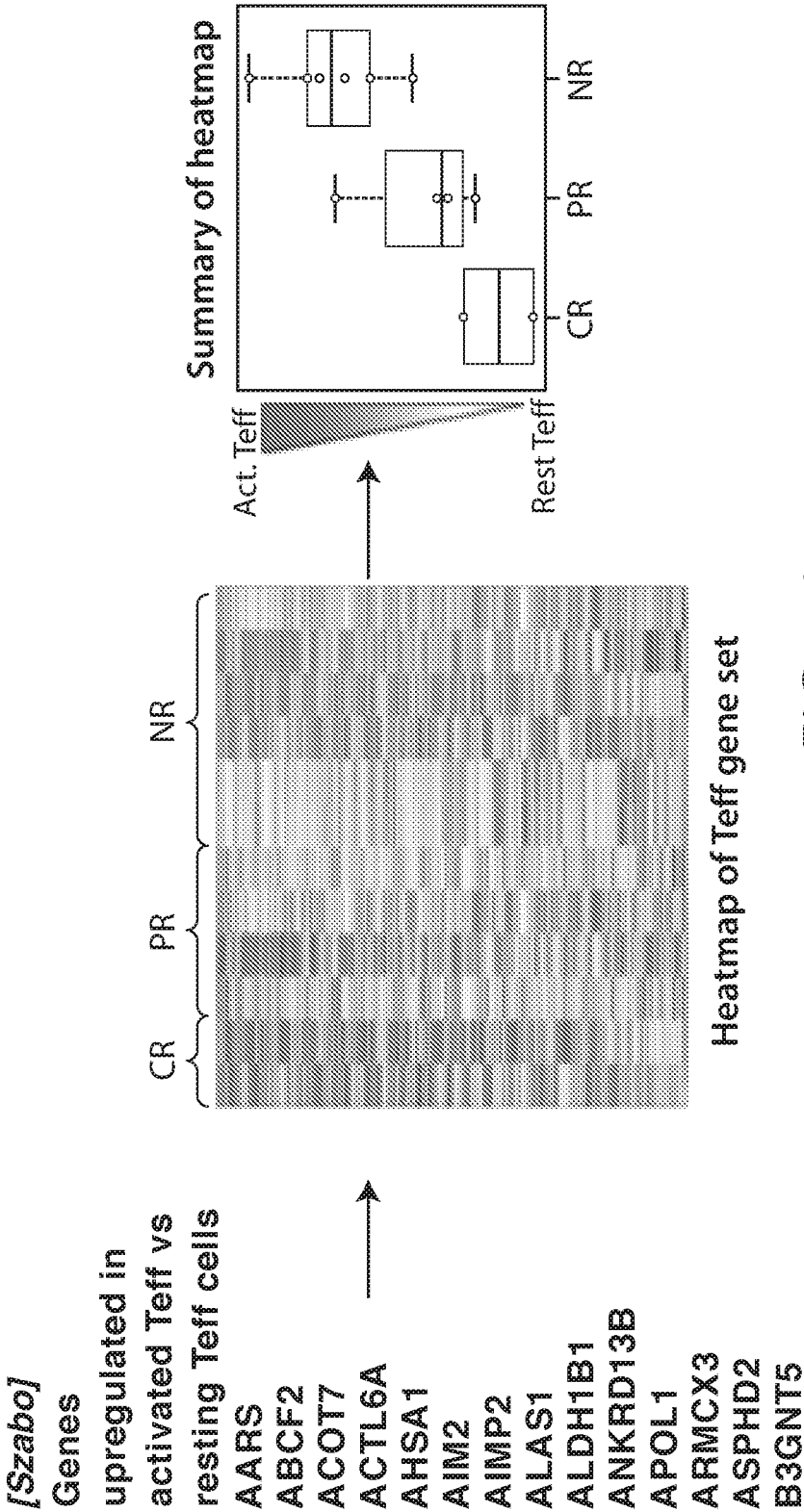


FIG. 16

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Upregulated Treg vs Teff 0h Normalized

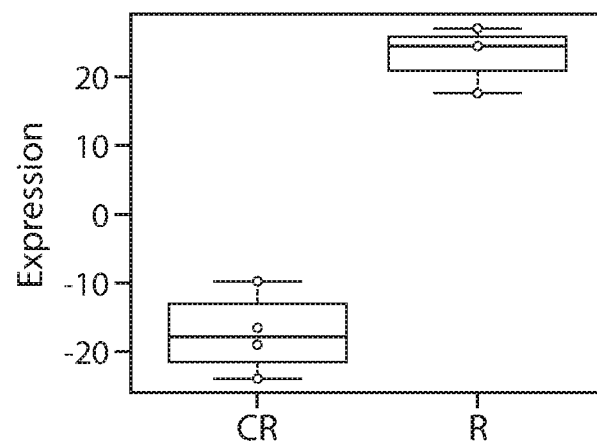
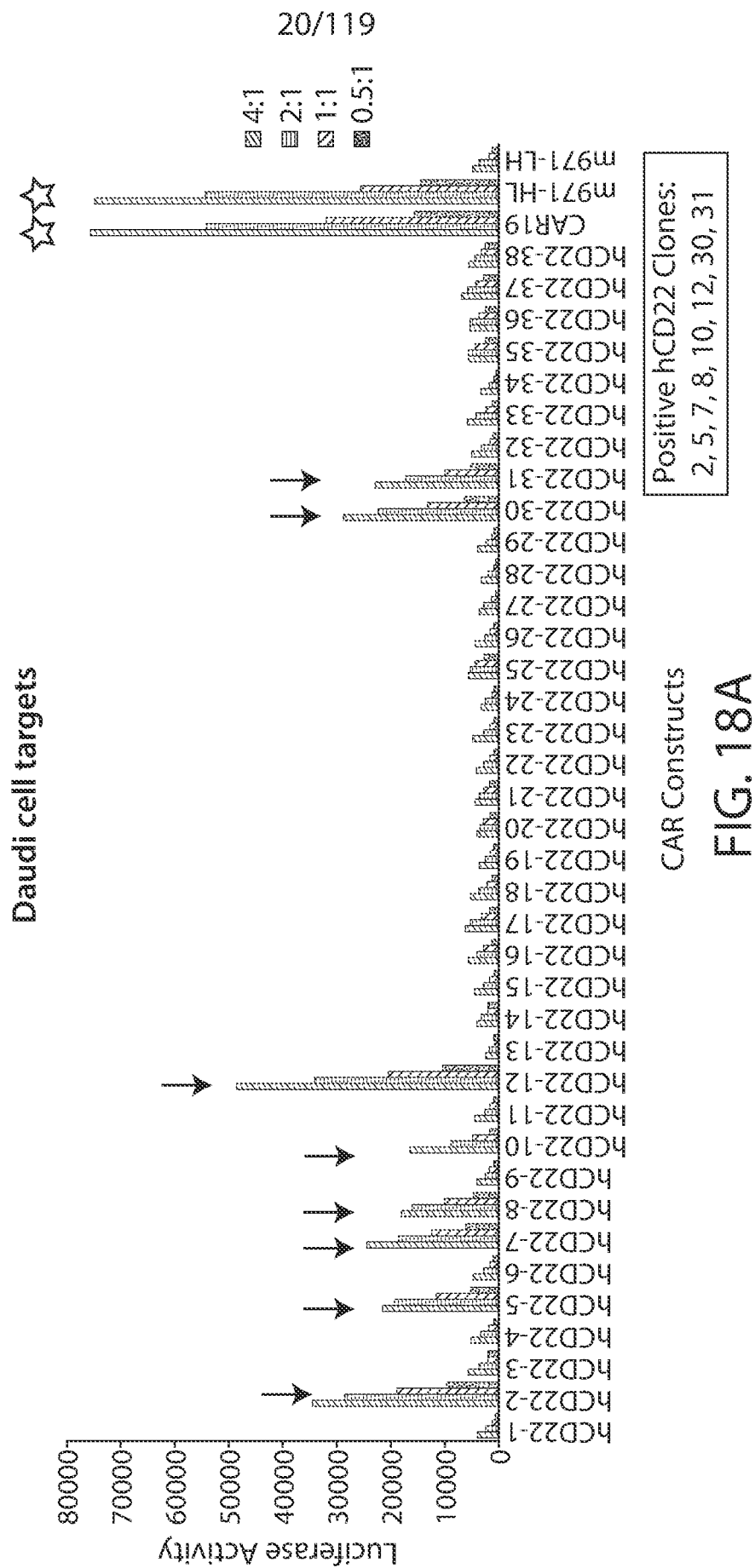
 $p=0.000215$

FIG. 17



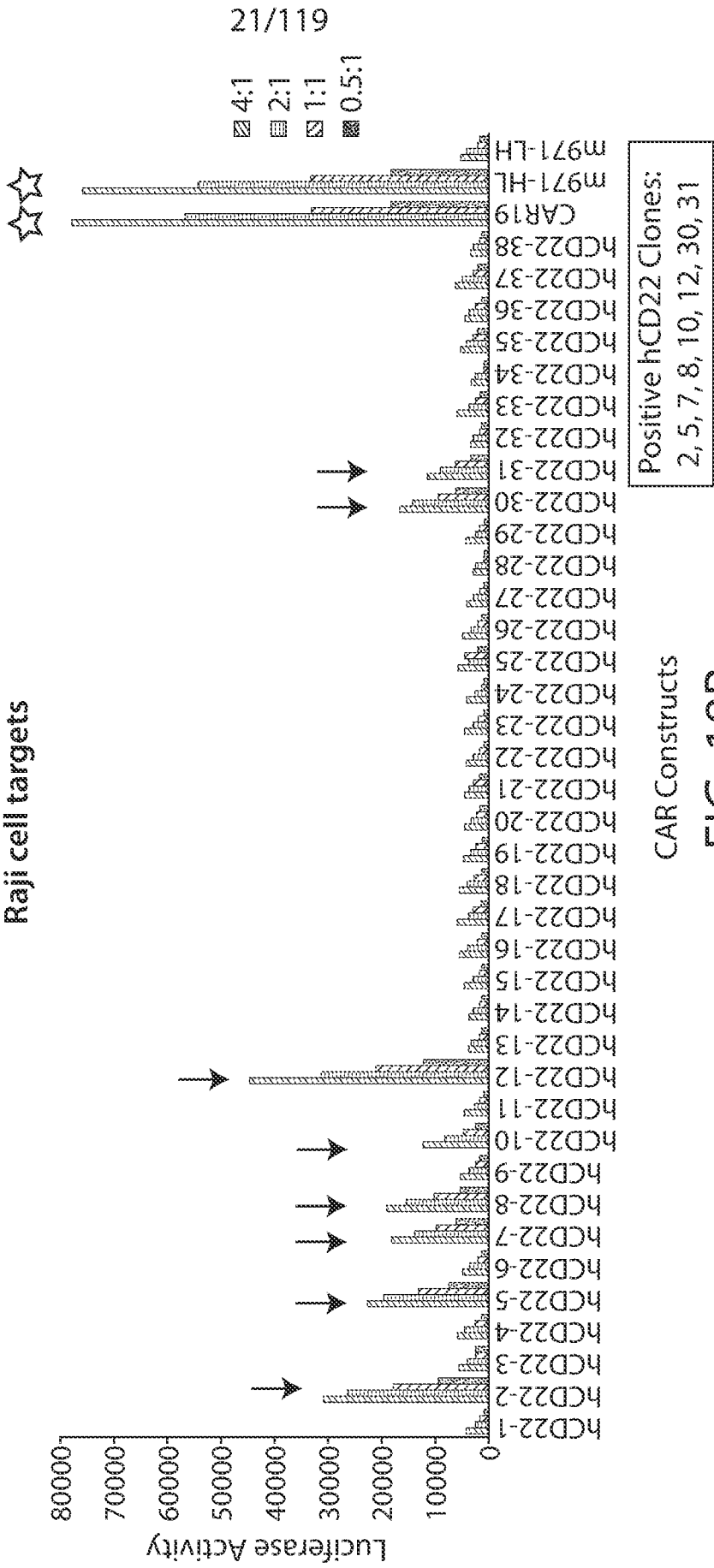
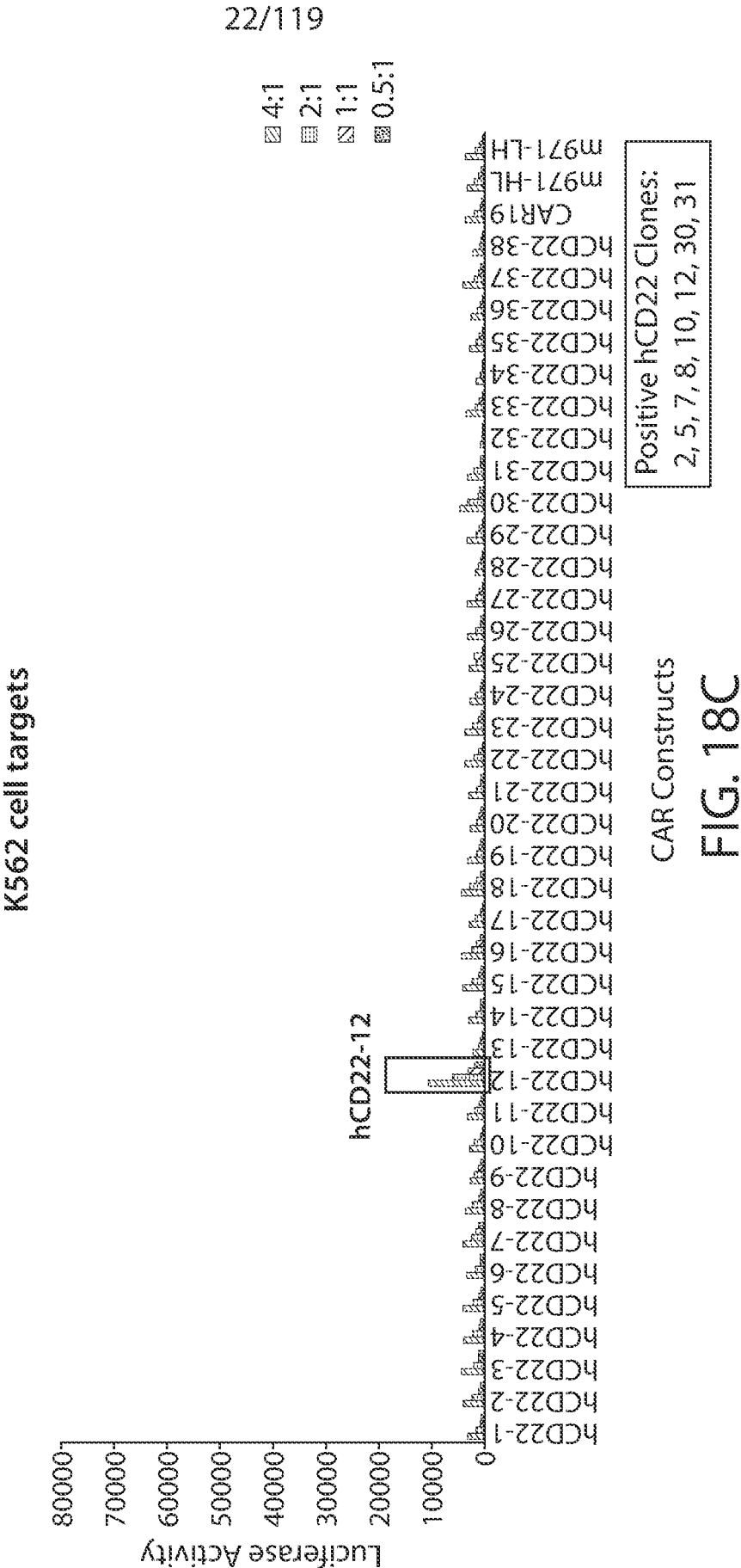
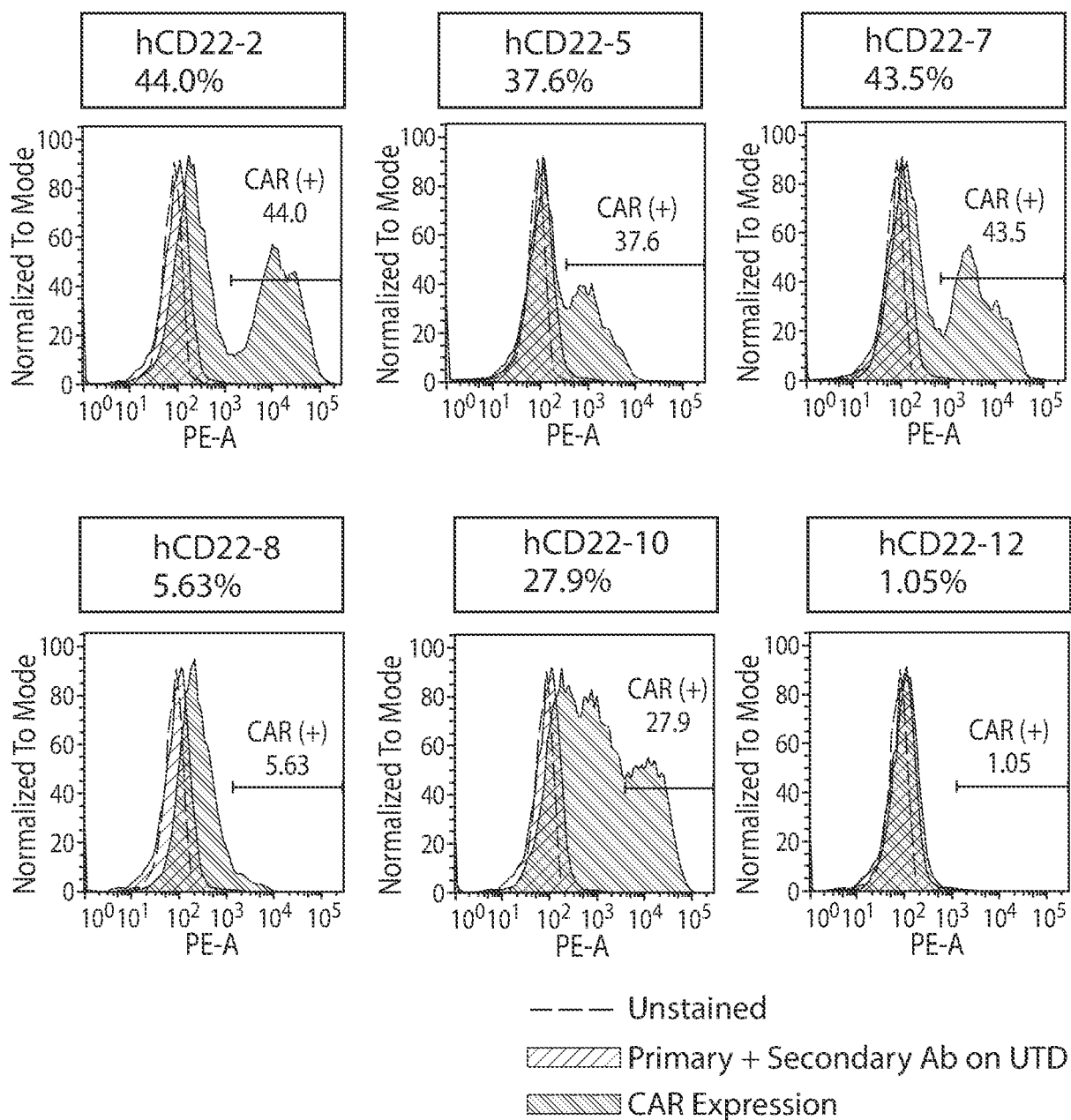


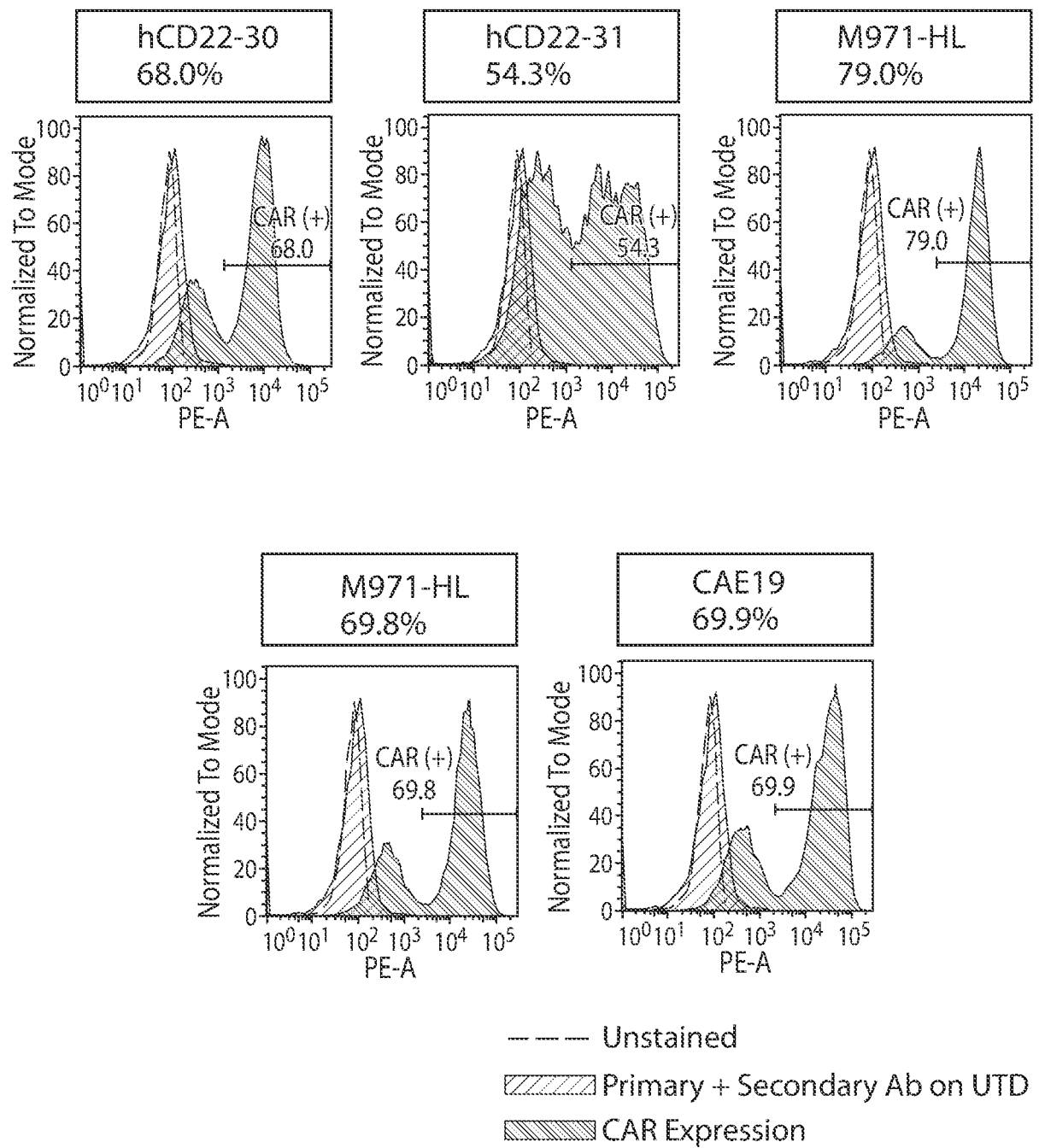
FIG. 18B



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Protein L*Stained with biotinylated protein-L (1 μ g/mL) and Streptavidin-PE (1:200)**FIG. 19-1**

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Protein L*Stained with biotinylated protein-L (1 μ g/mL) and Streptavidin-PE (1:200)**FIG. 19-2**

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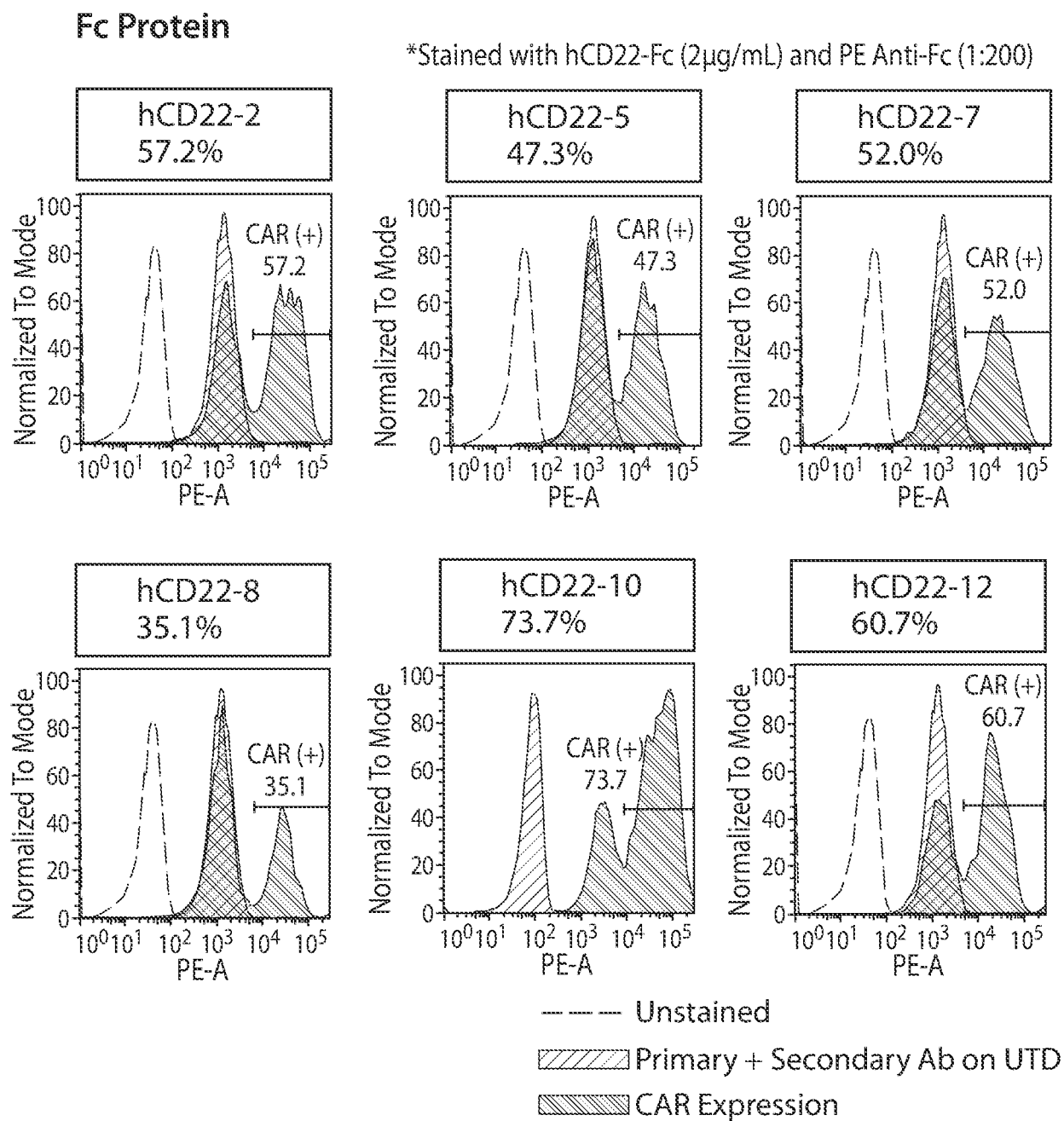
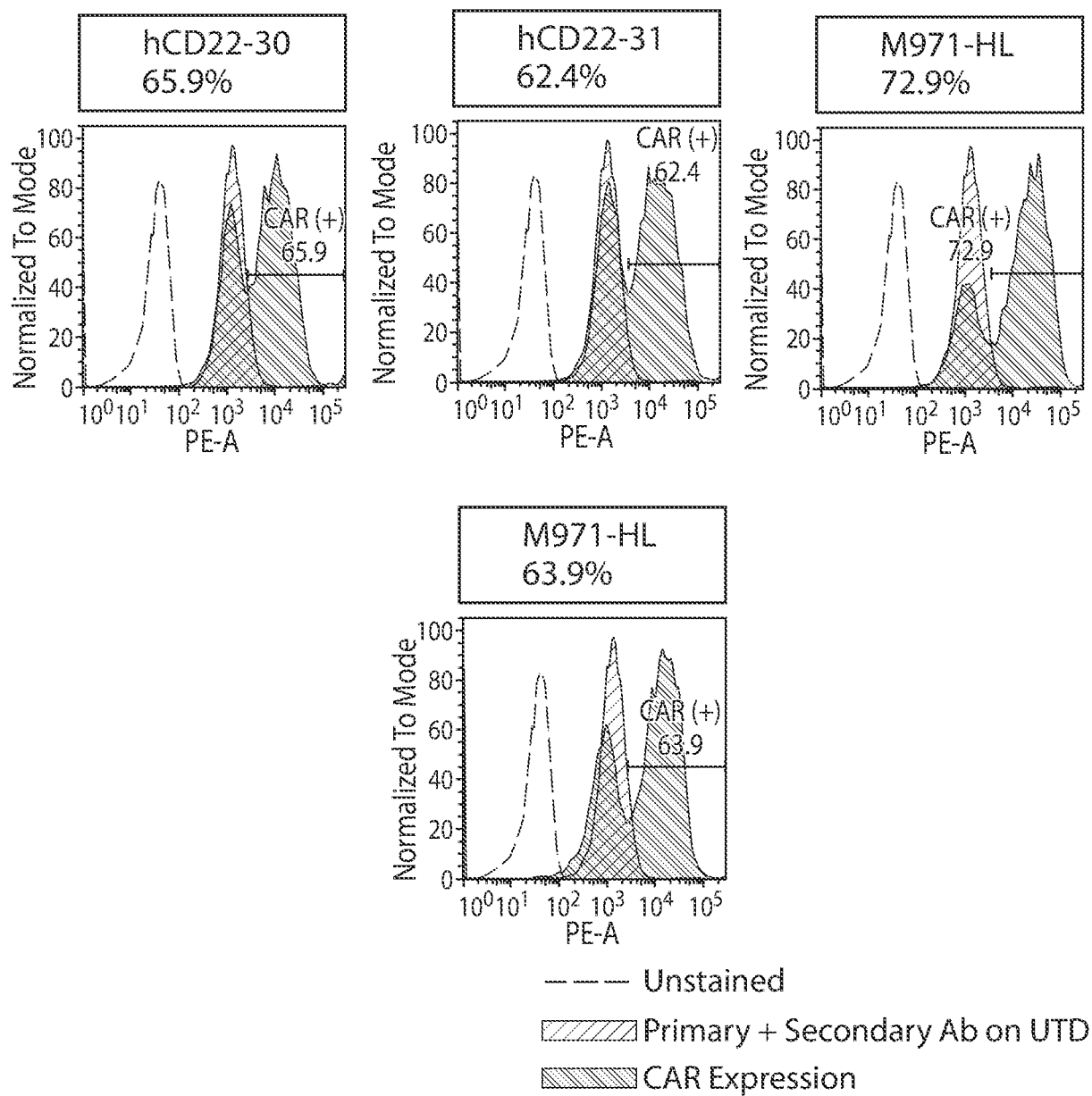


FIG. 19-3

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Fc Protein*Stained with hCD22-Fc (2 μ g/mL) and PE Anti-Fc (1:200)**FIG. 19-4**

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Raji-Luc

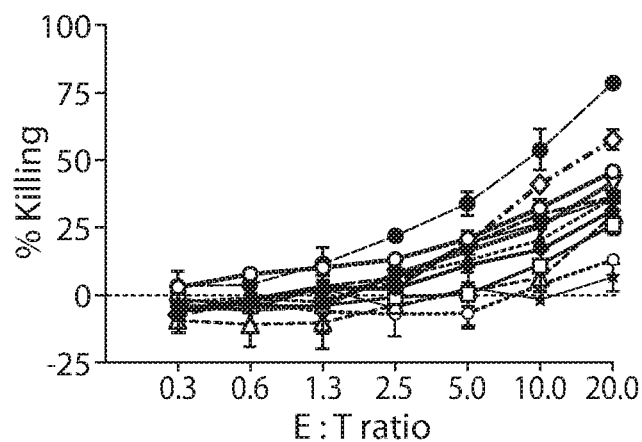


FIG. 20A

SEM-Luc

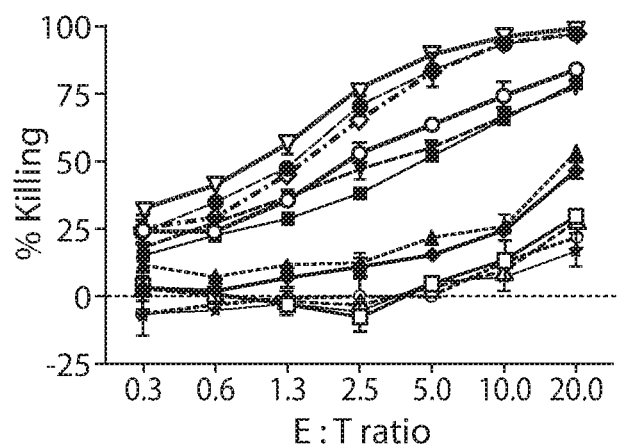


FIG. 20B

K562-hCD22-Luc

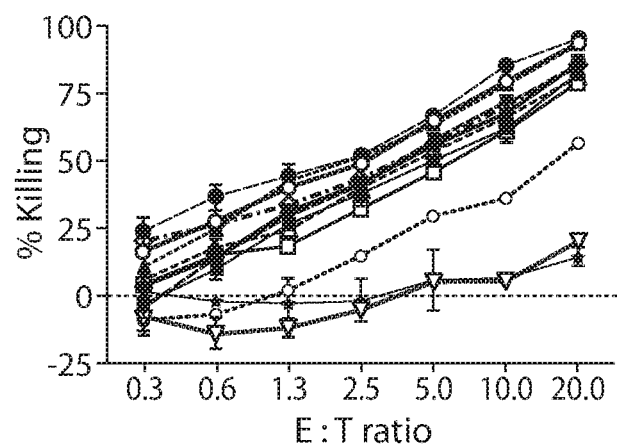


FIG. 20C

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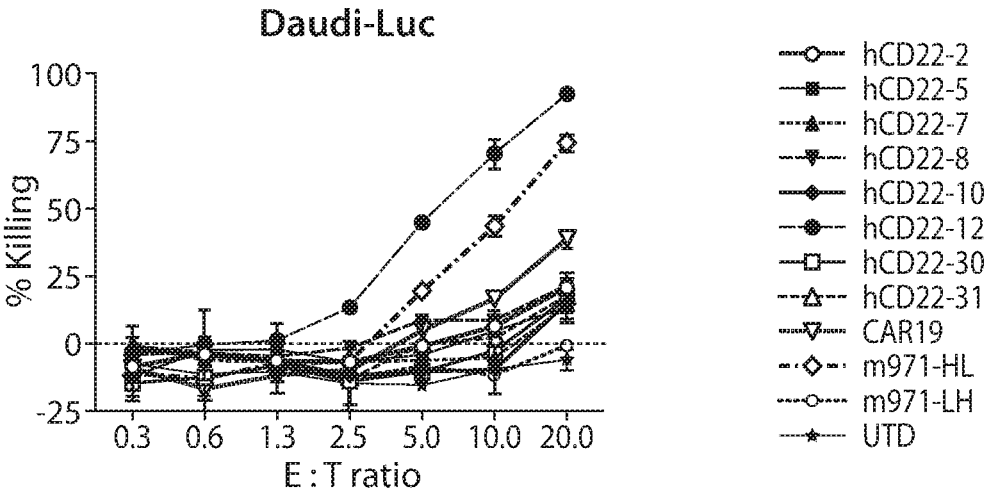


FIG. 20D

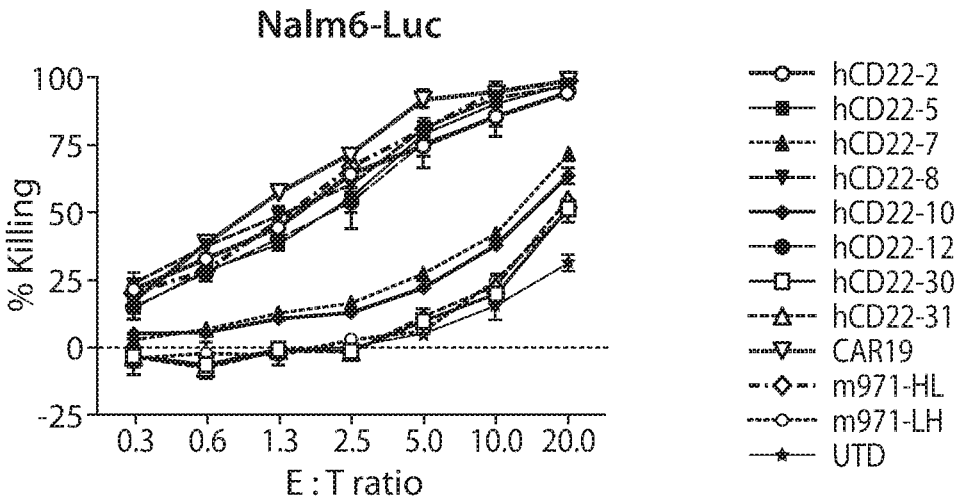


FIG. 20E

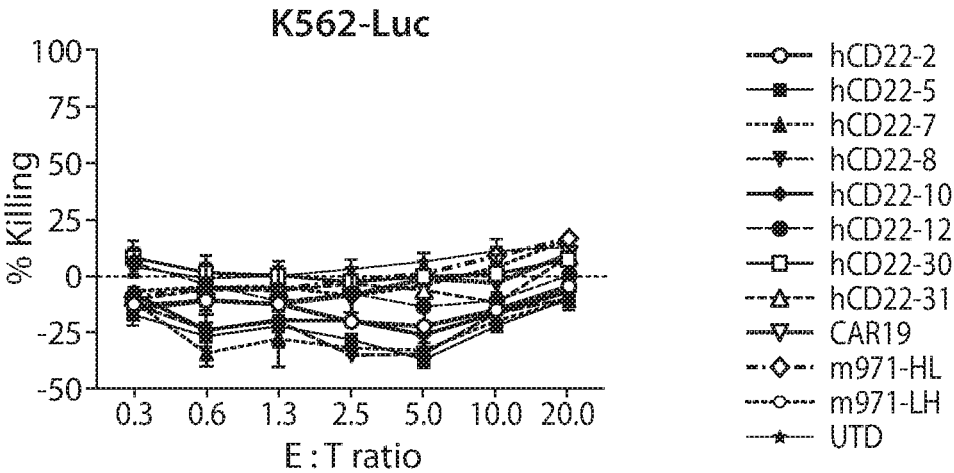


FIG. 20F

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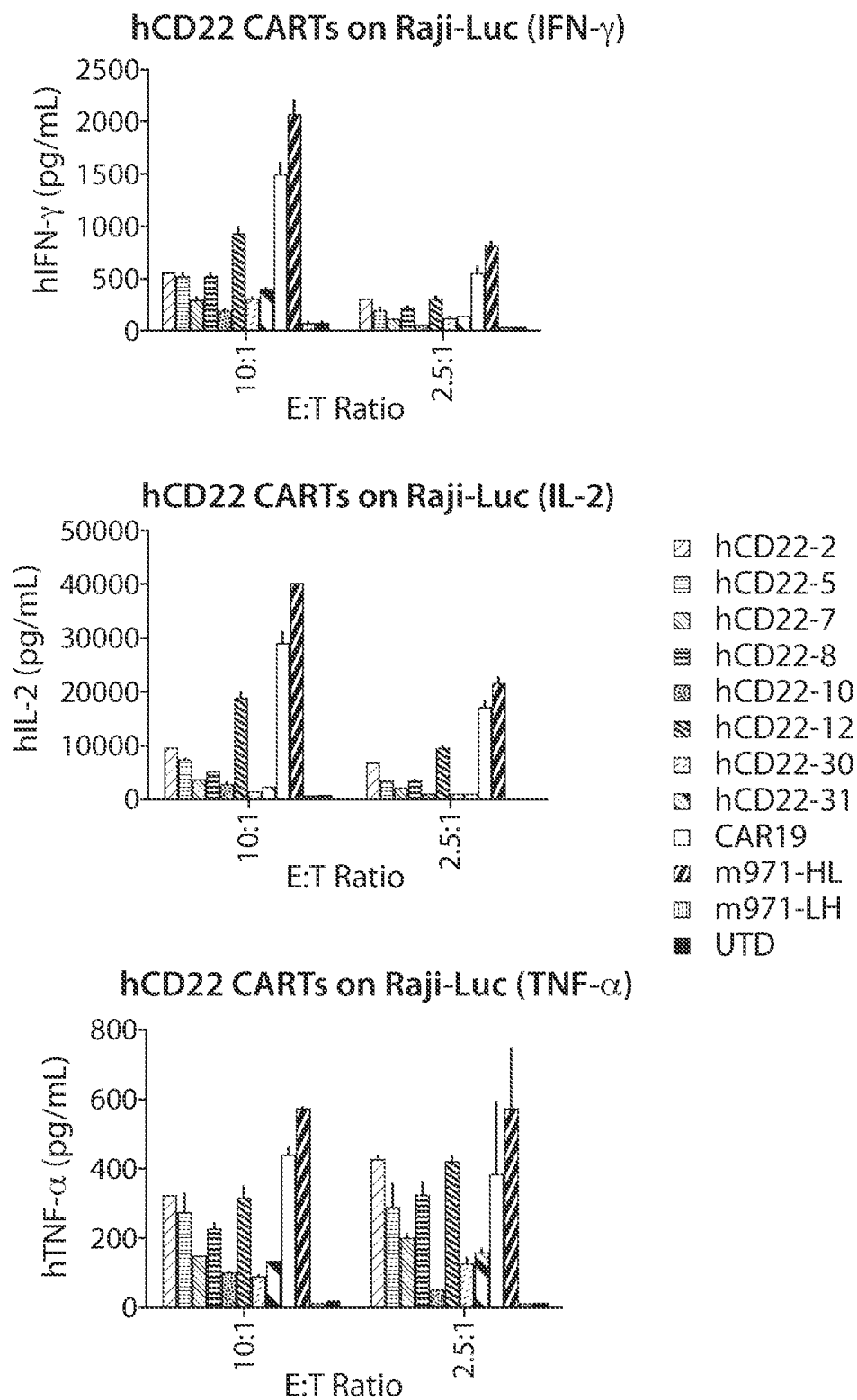


FIG. 21A

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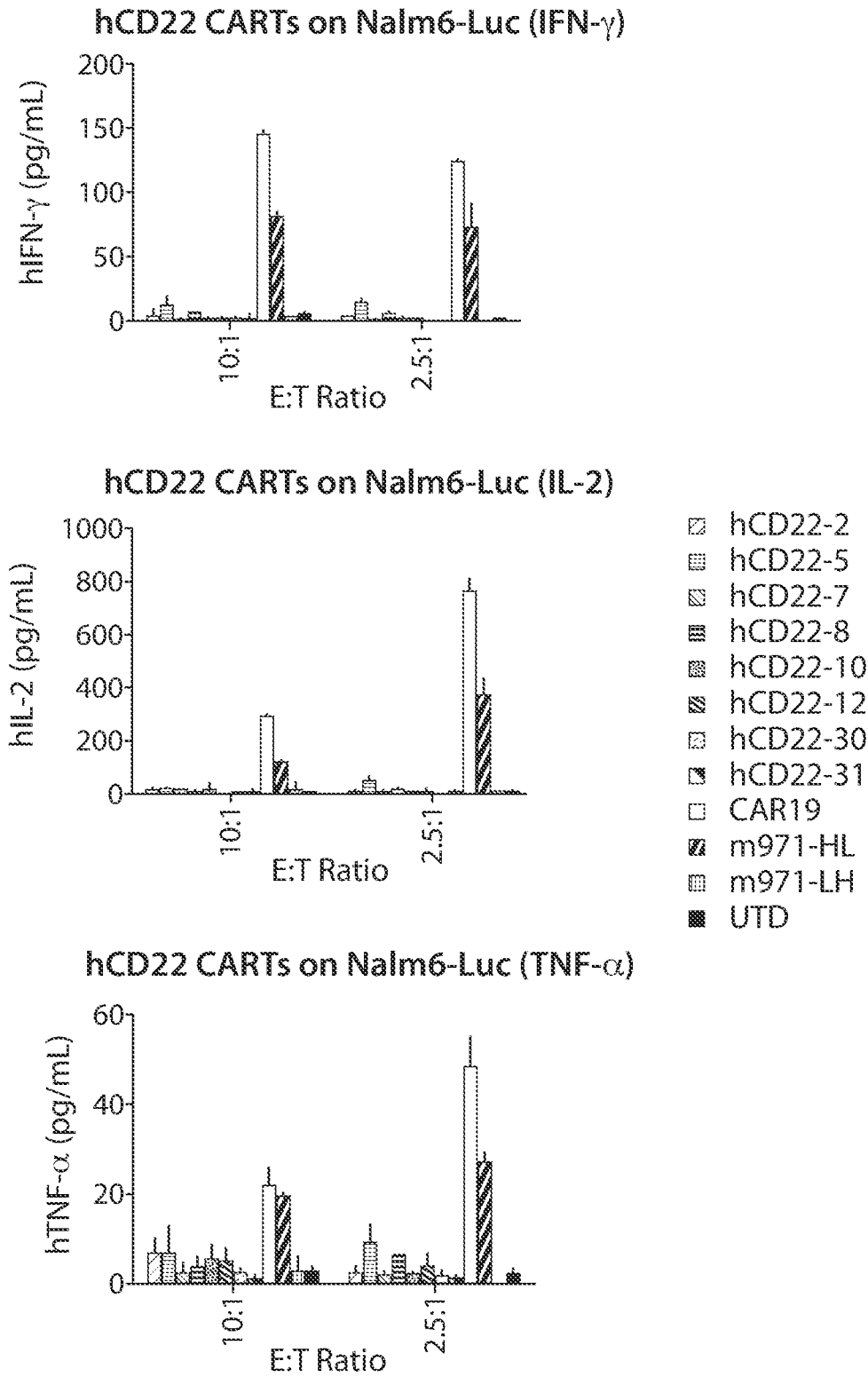


FIG. 21B

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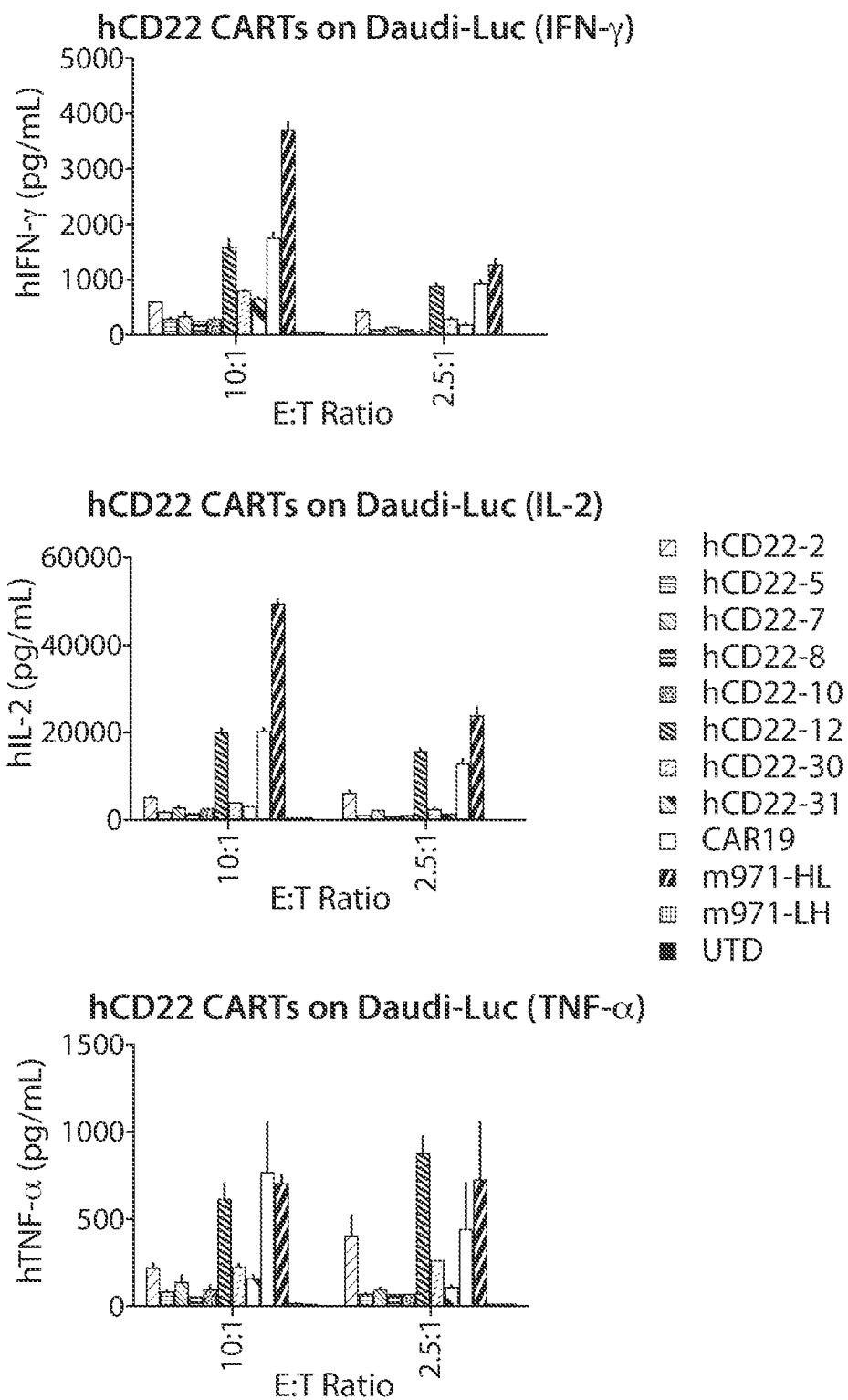


FIG. 21C

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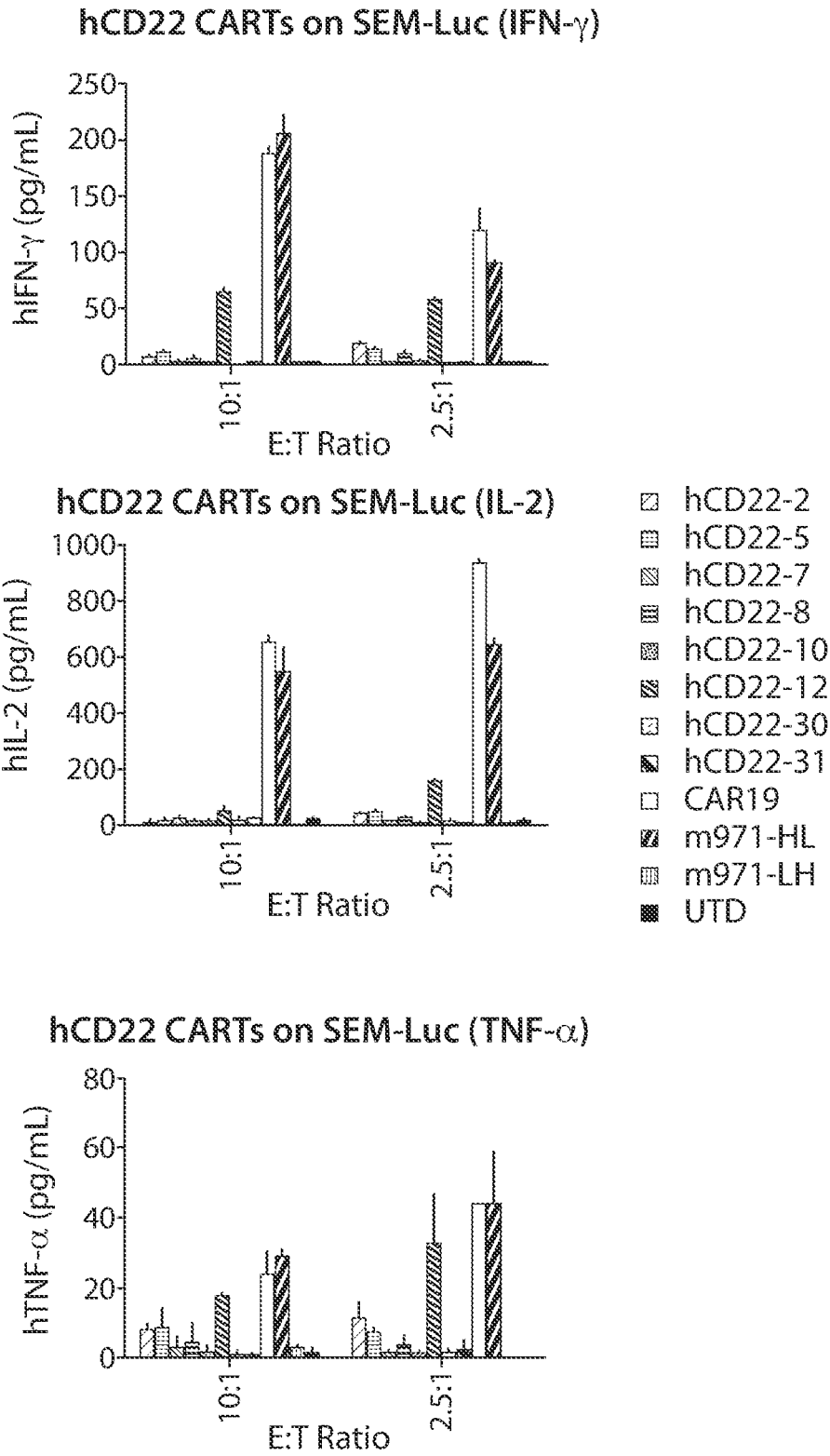
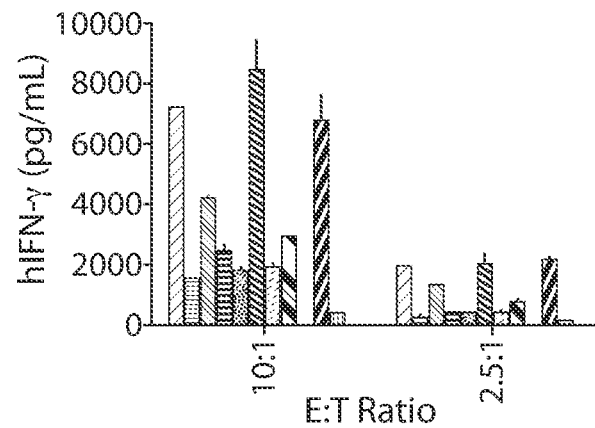
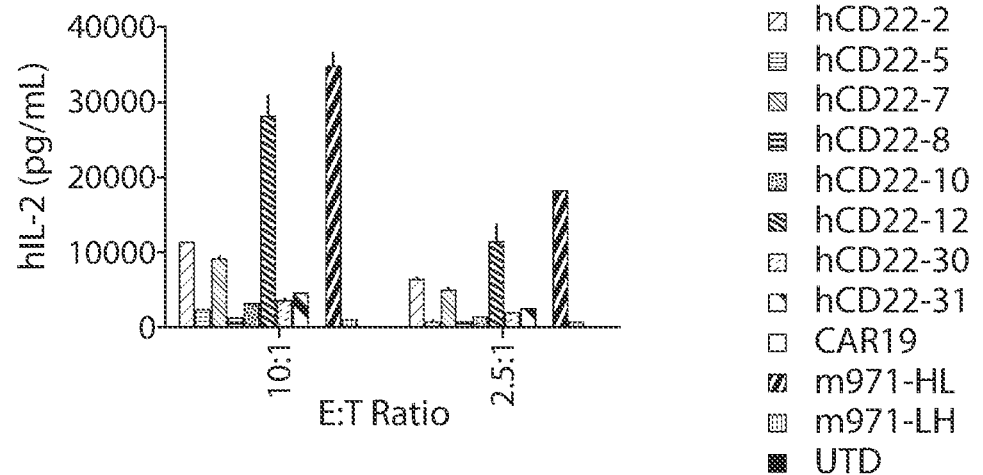
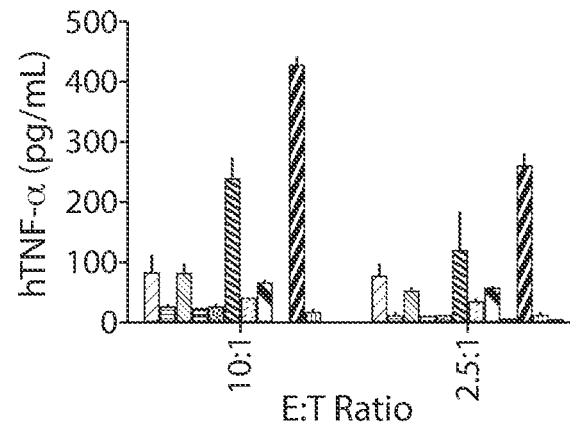


FIG. 21D

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hCD22 CARTs on K562-hCD22-Luc (IFN- γ)**hCD22 CARTs on K562-hCD22-Luc (IL-2)****hCD22 CARTs on K562-hCD22-Luc (TNF- α)****FIG. 21E**

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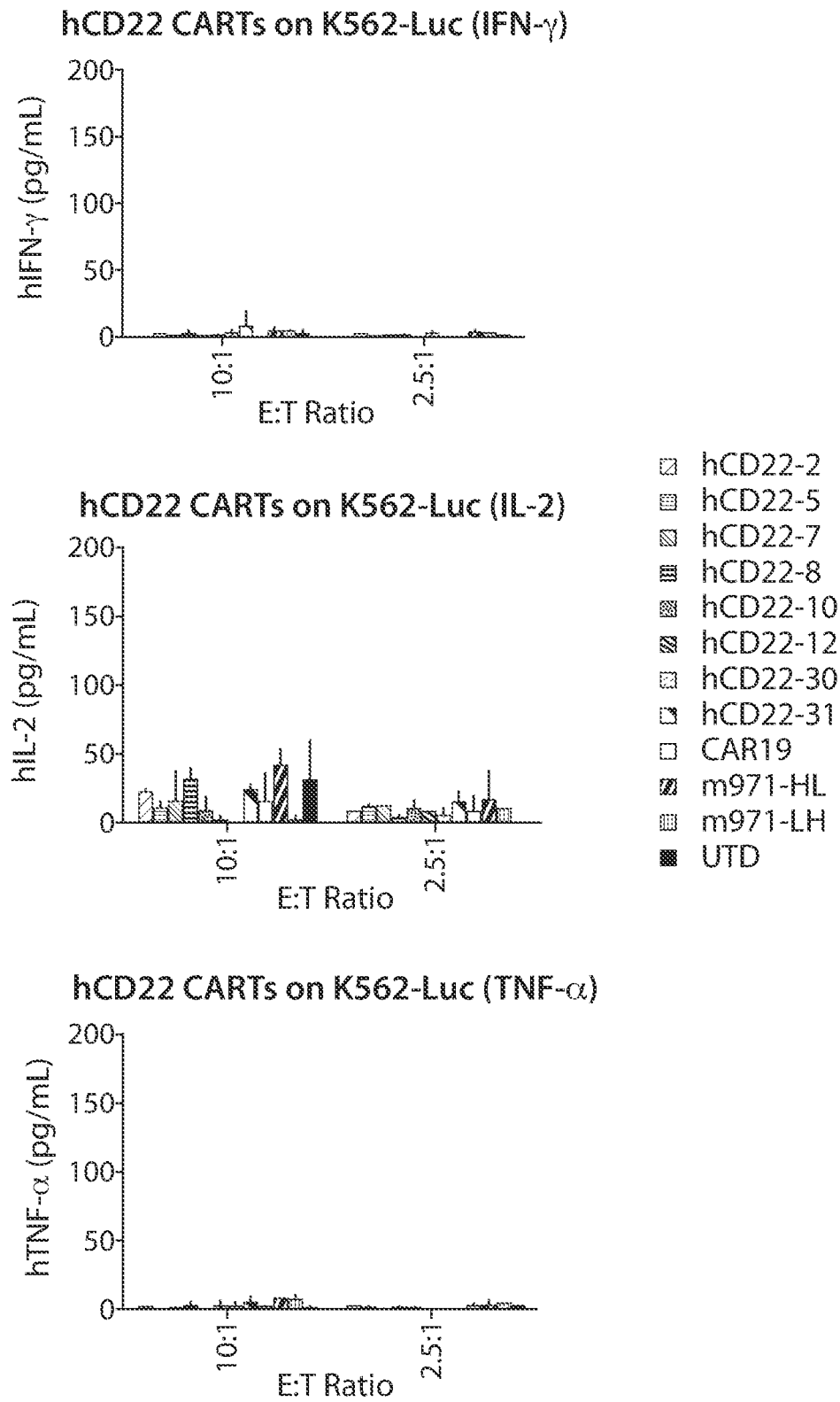


FIG. 21F

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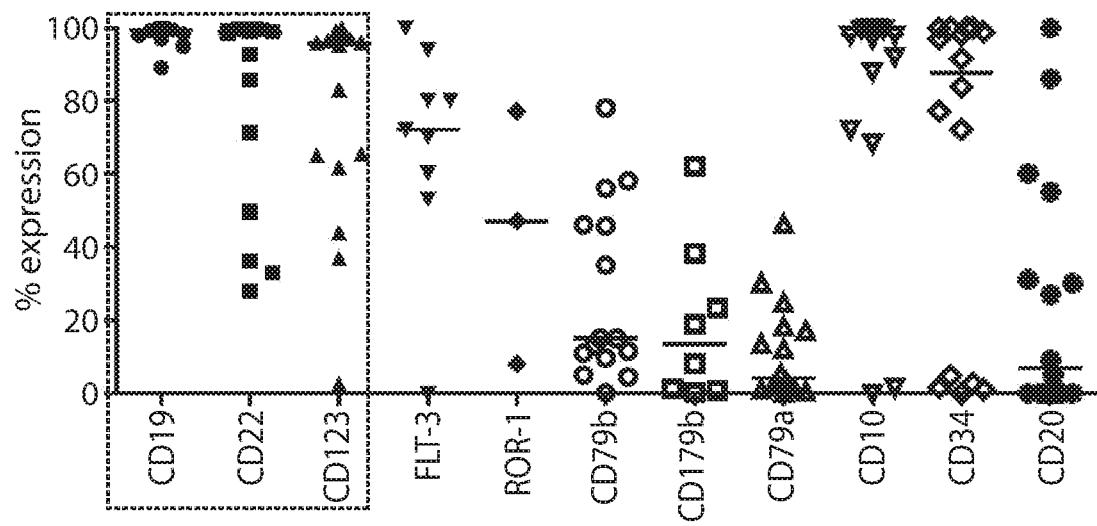


FIG. 22

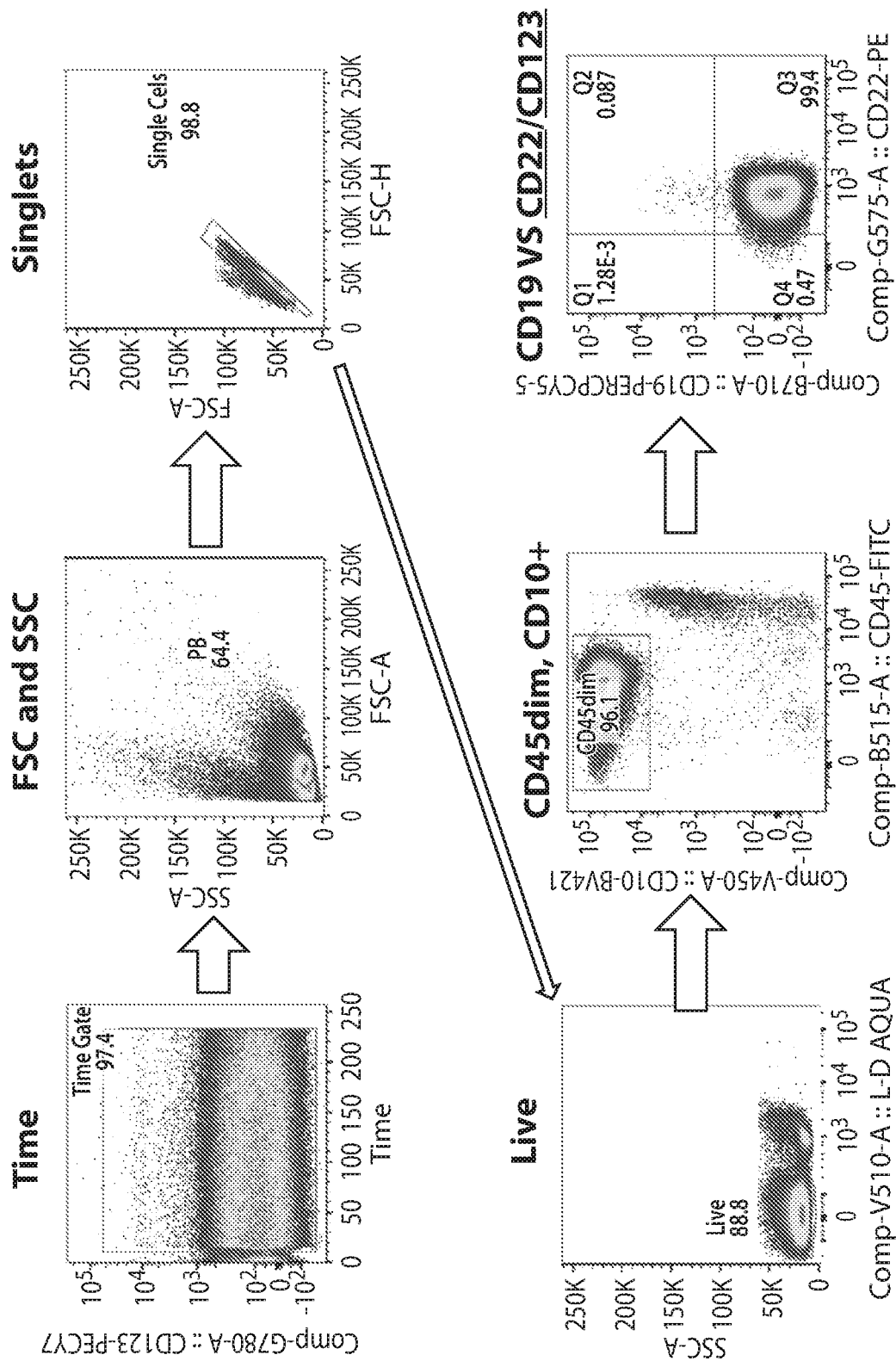
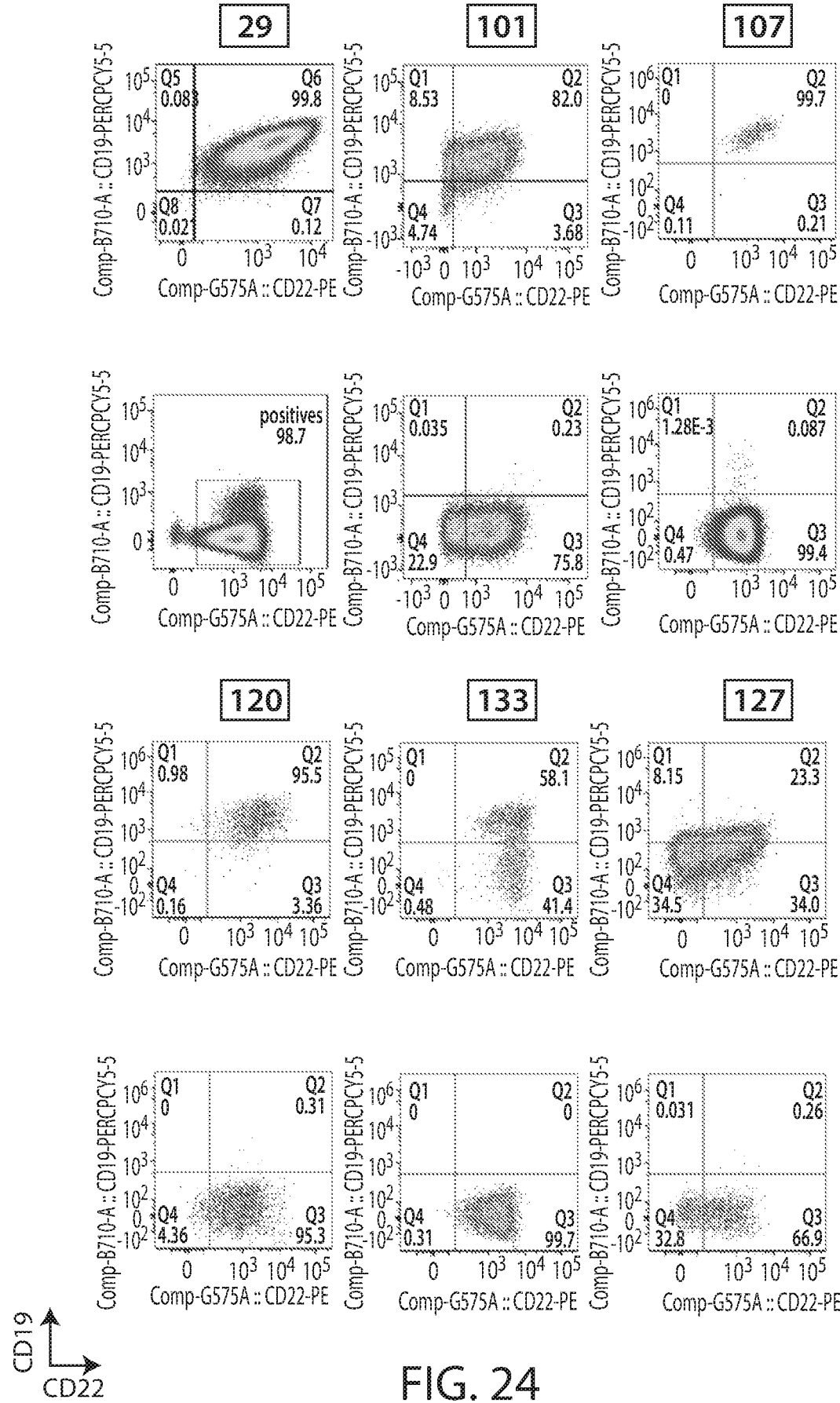


FIG. 23

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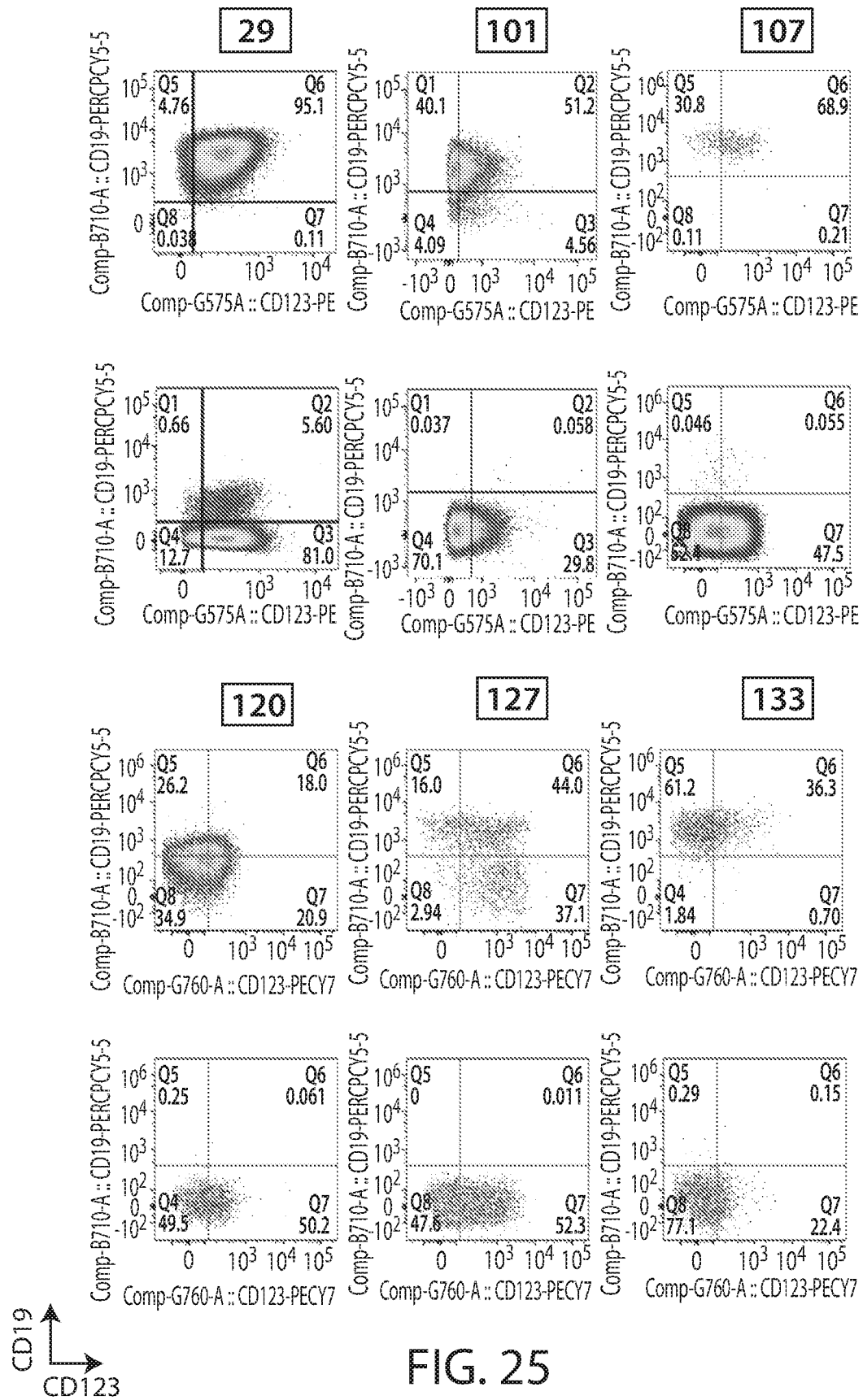


FIG. 25

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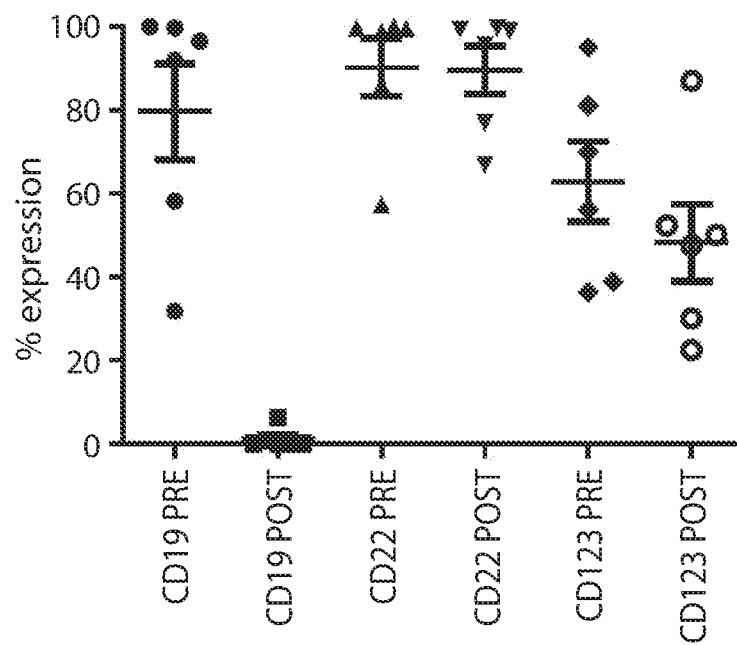


FIG. 26

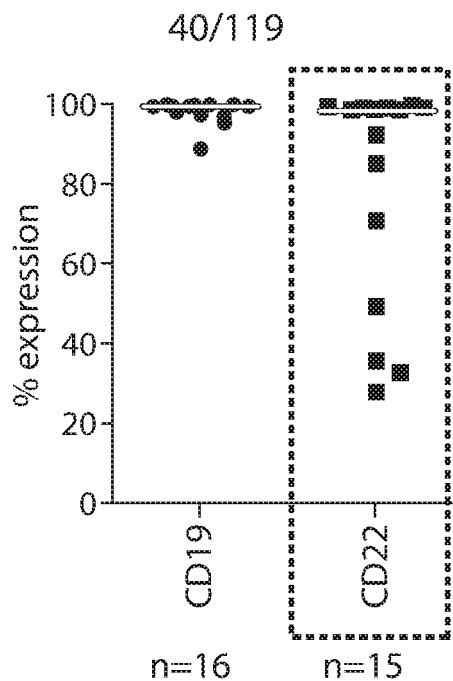


FIG. 27A

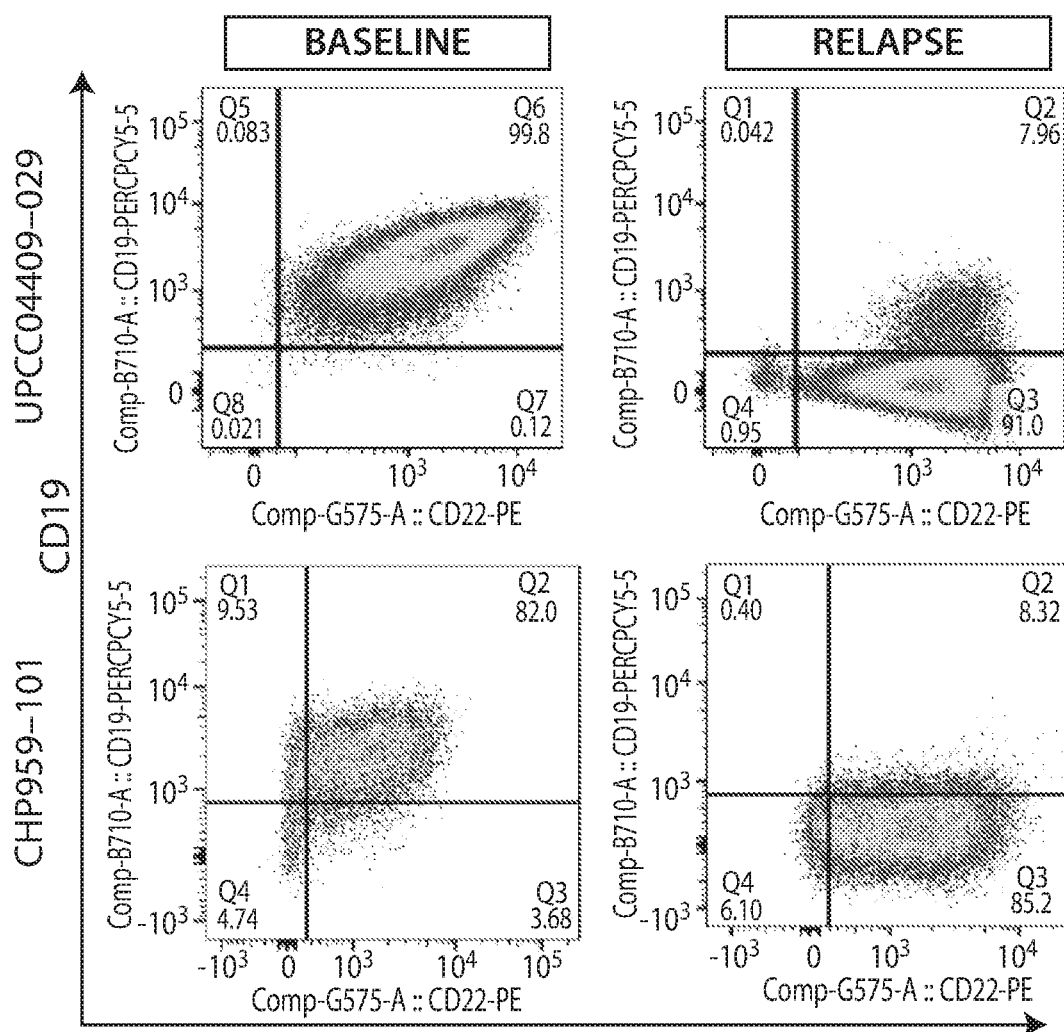


FIG. 27B

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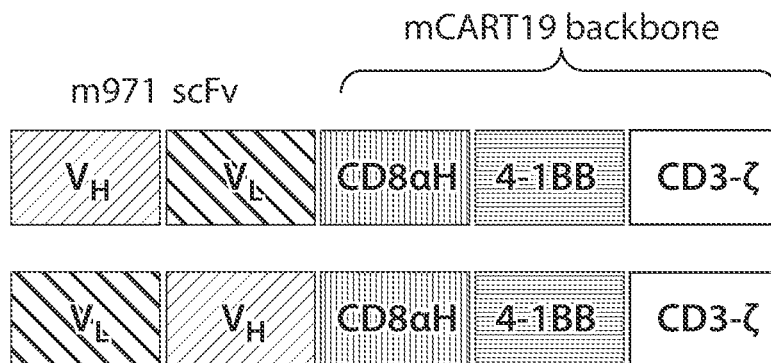


FIG. 28A

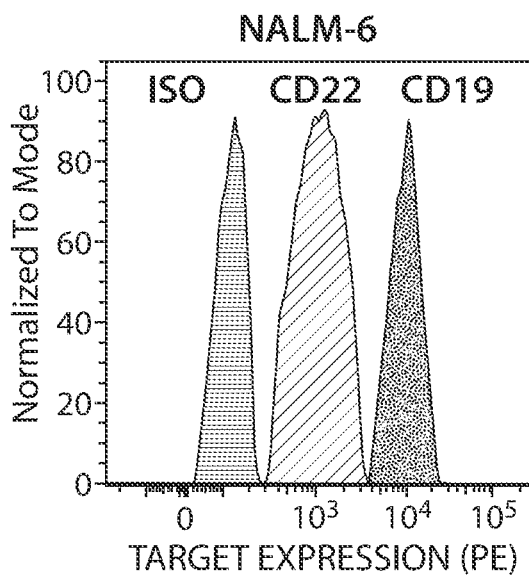


FIG. 28B

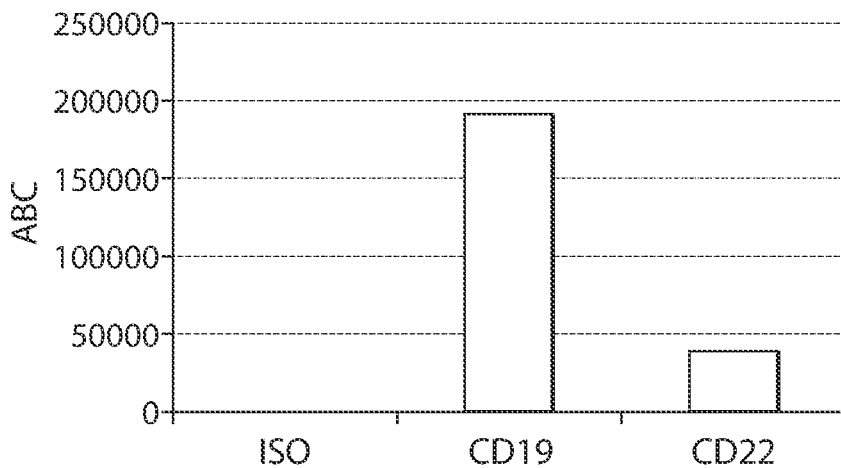


FIG. 28C

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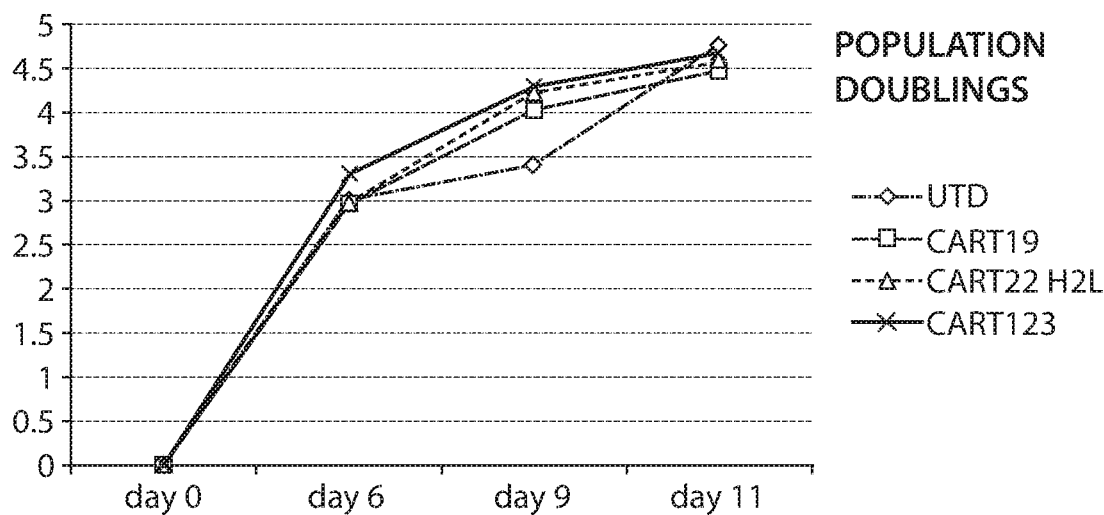
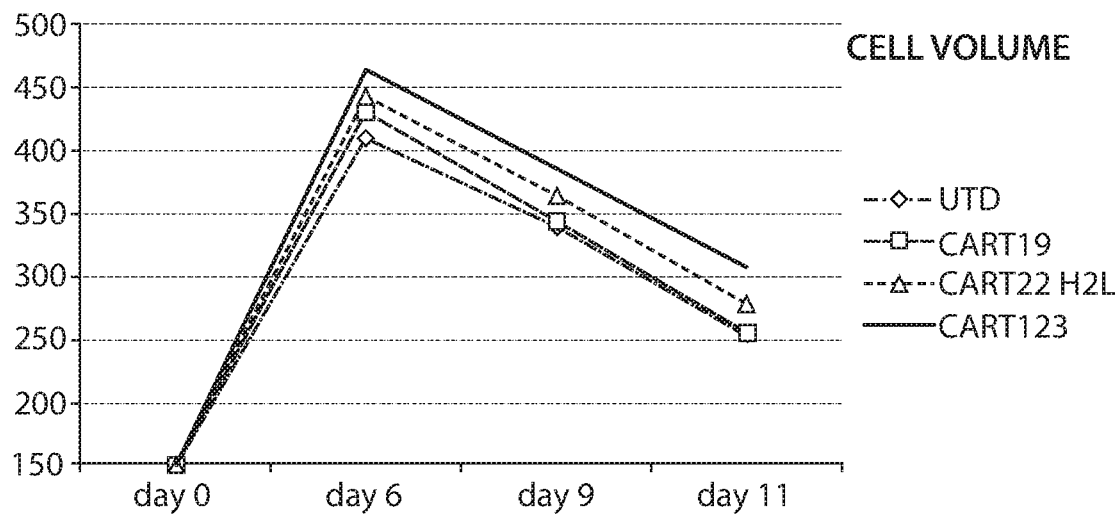


FIG. 29A



ND365

FIG. 29B

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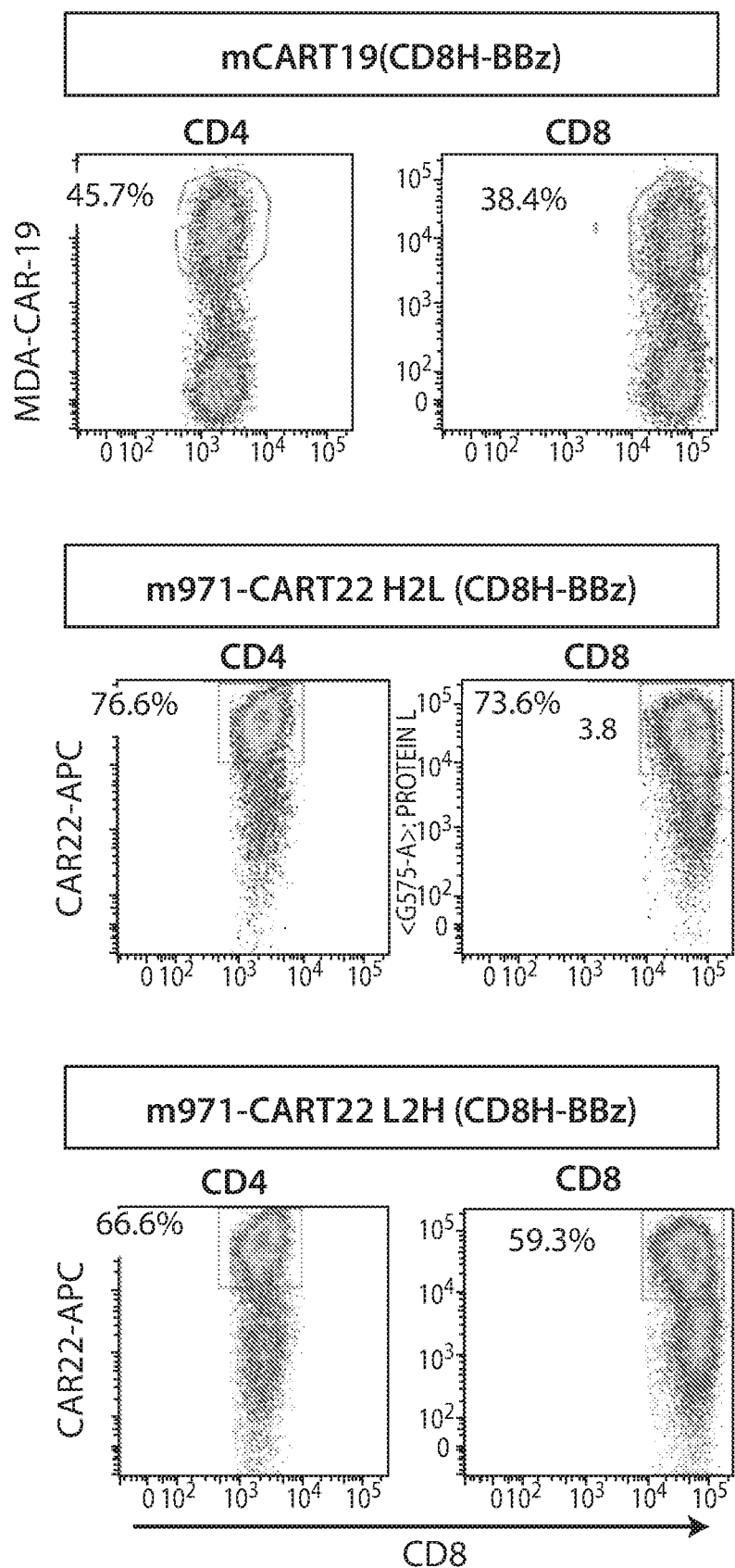
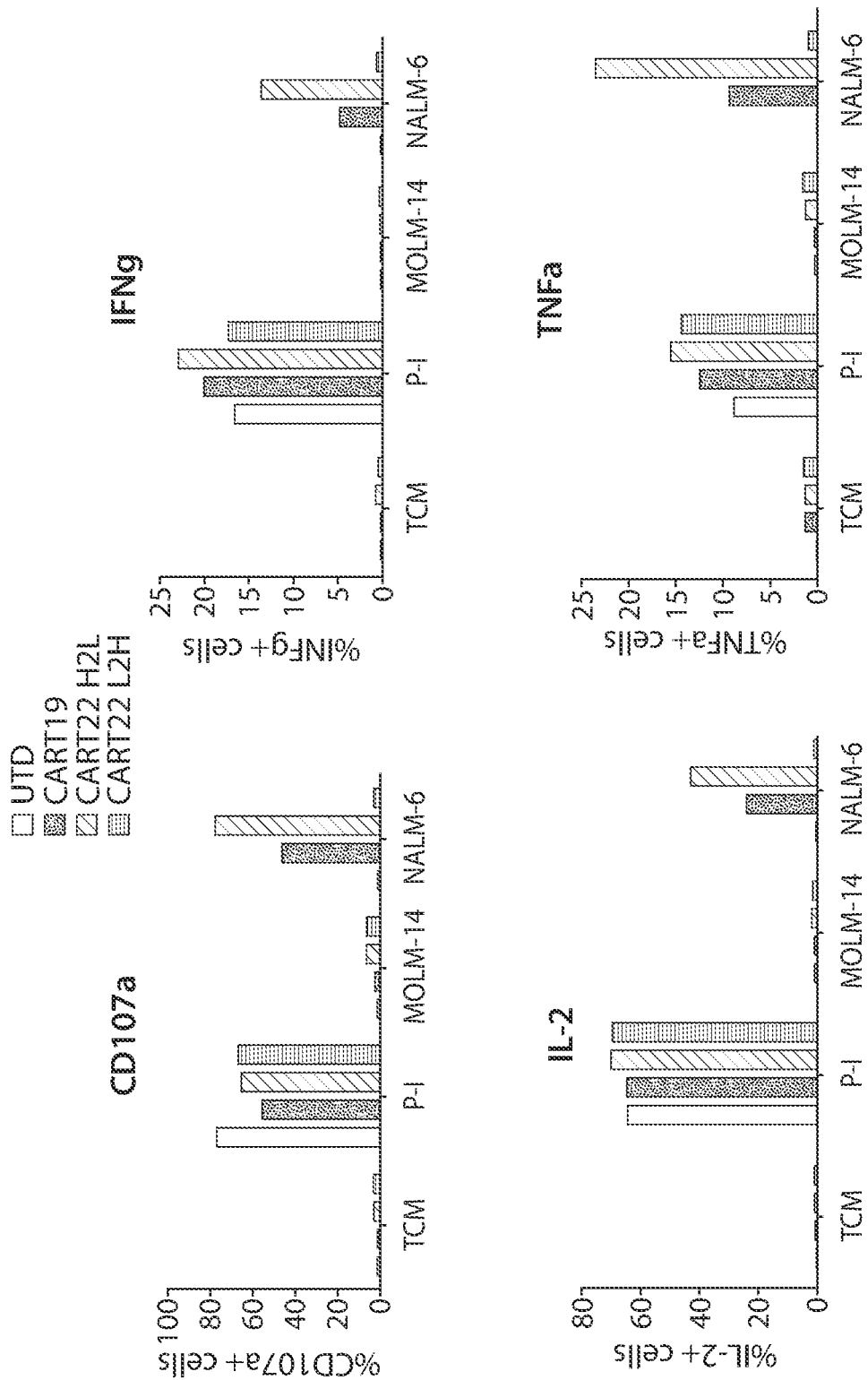


FIG. 29C



All values are statistically significant compared to UTD

FIG. 30

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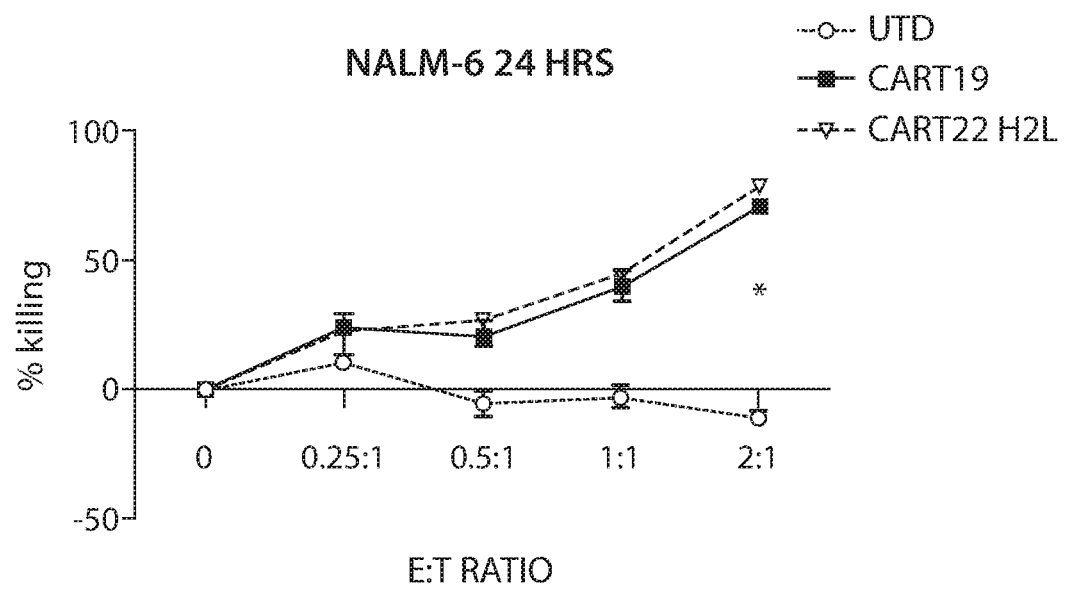


FIG. 31

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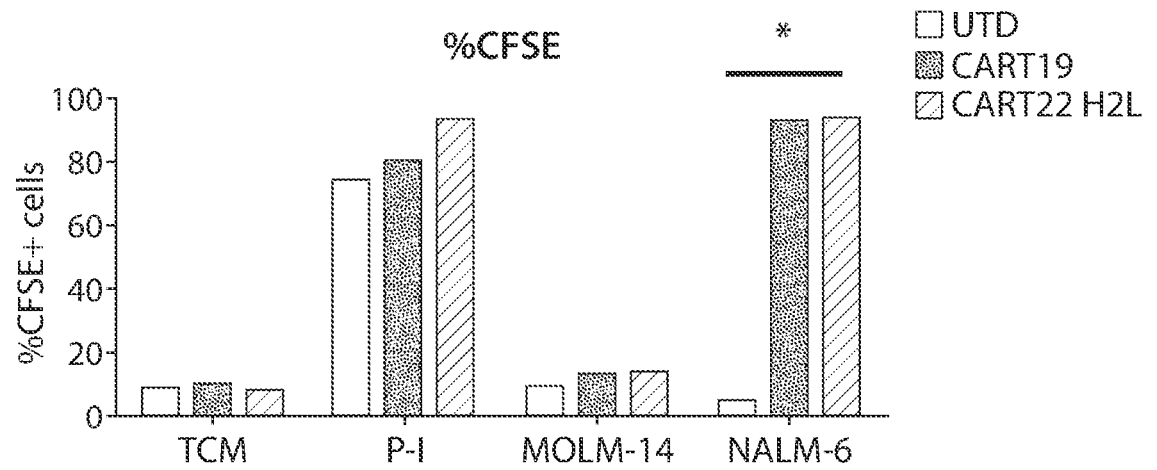


FIG. 32A

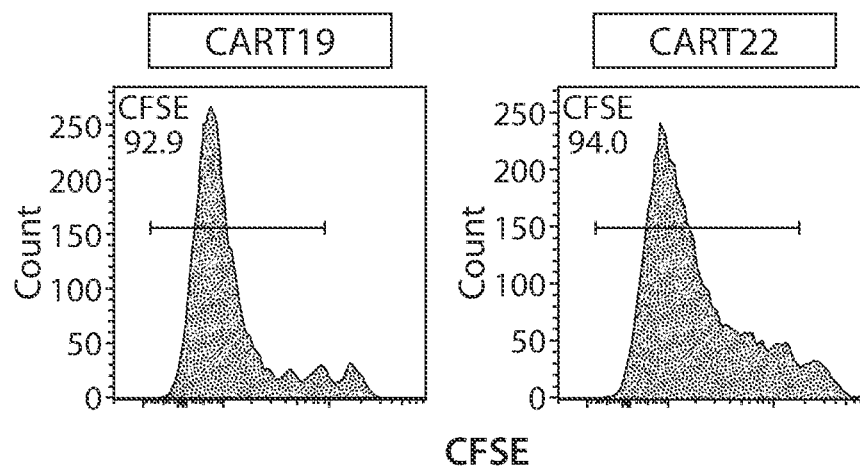


FIG. 32B

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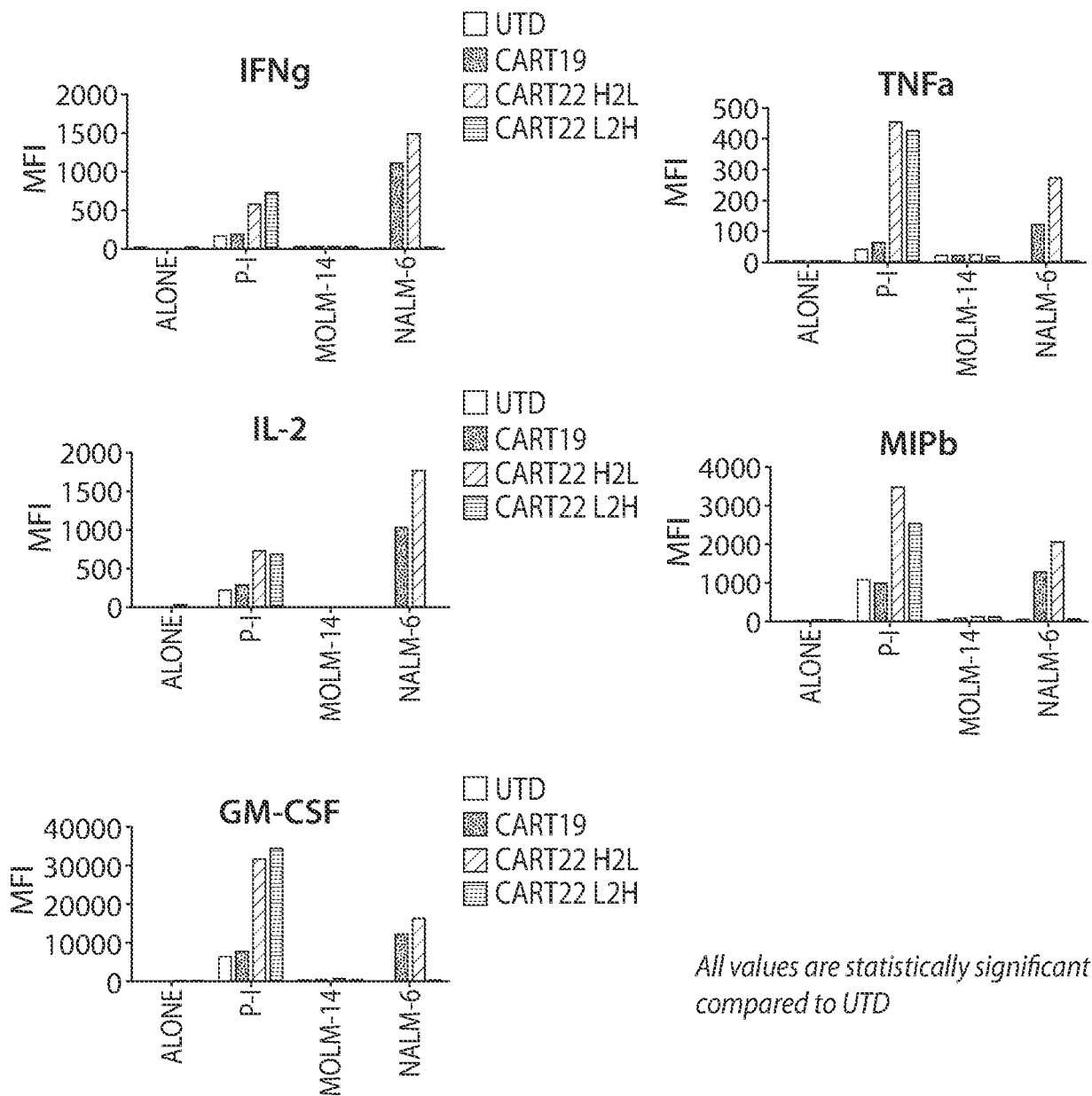


FIG. 33

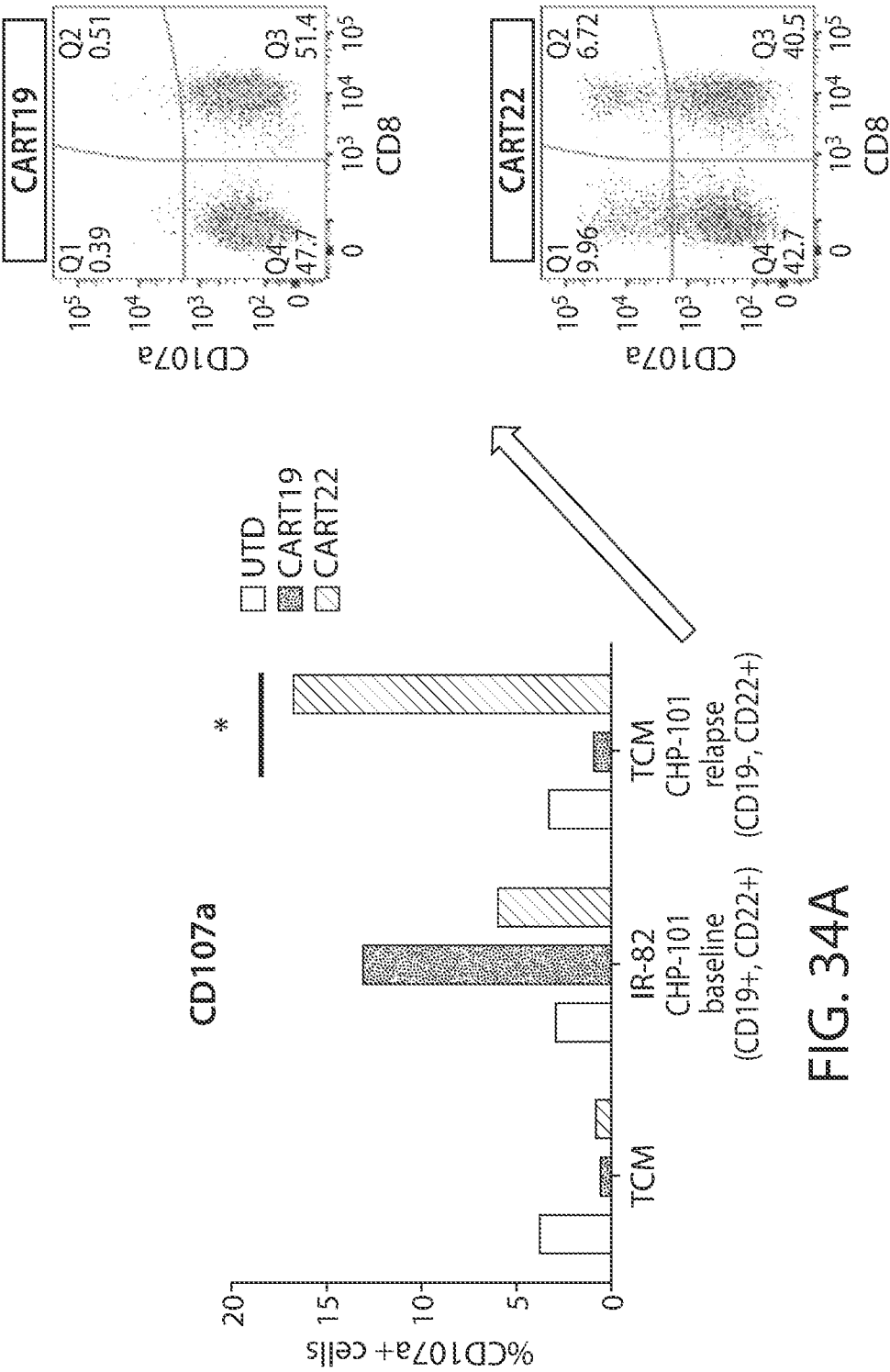


FIG. 34B

FIG. 34A

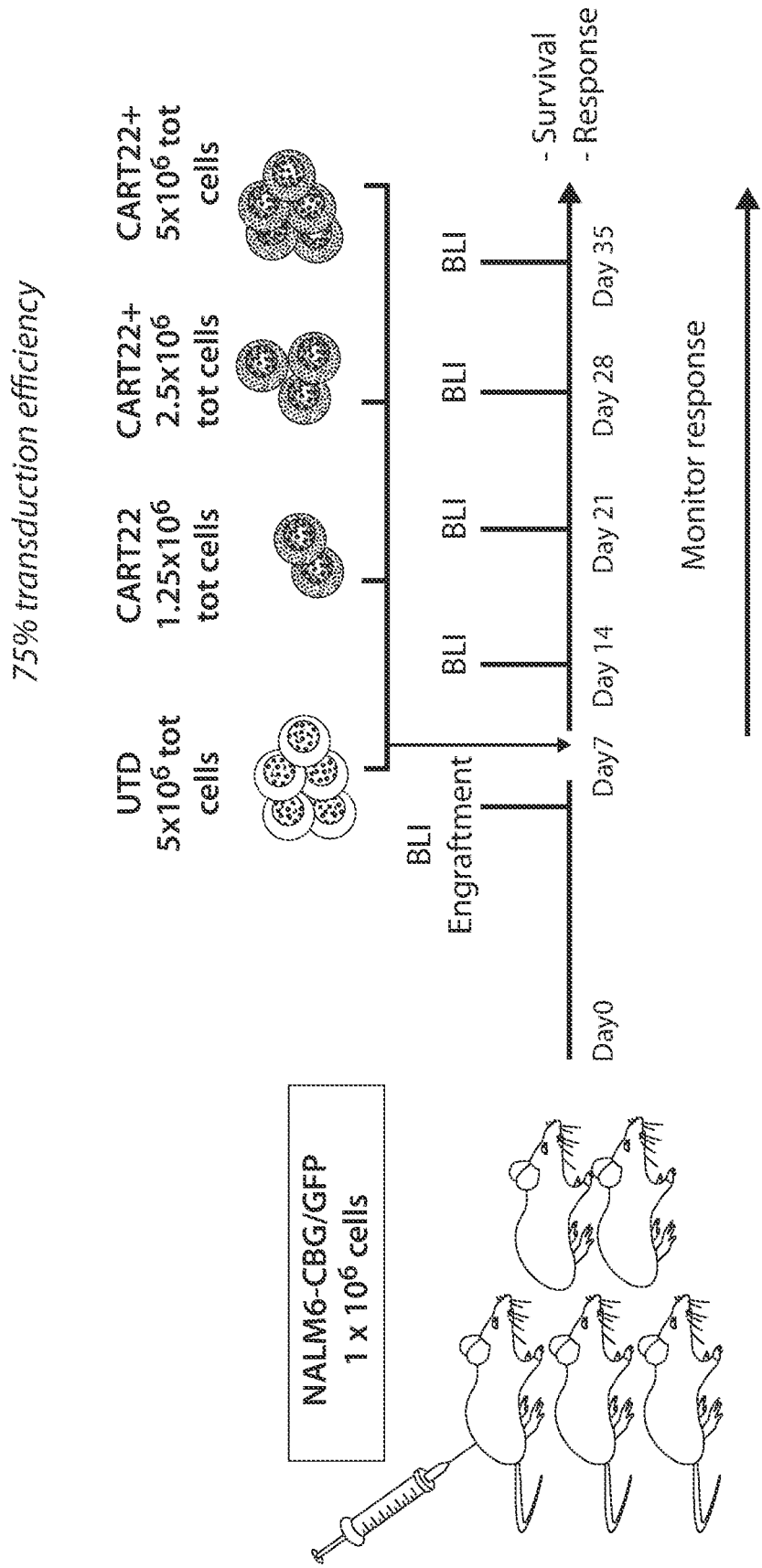


FIG. 35A

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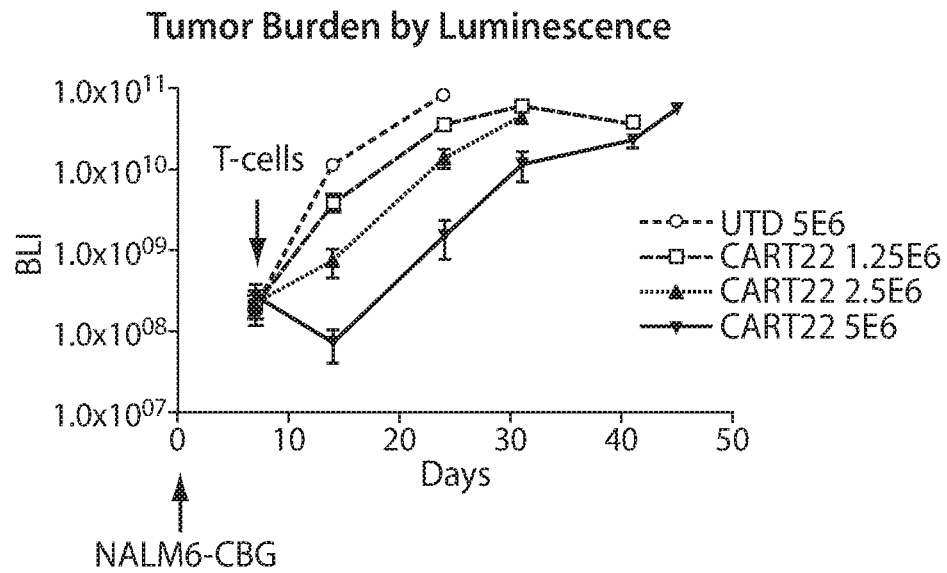


FIG. 35B

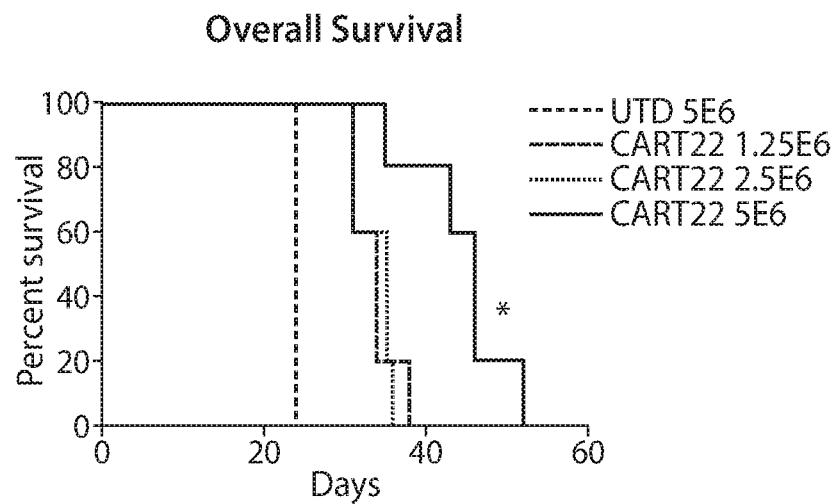


FIG. 35C

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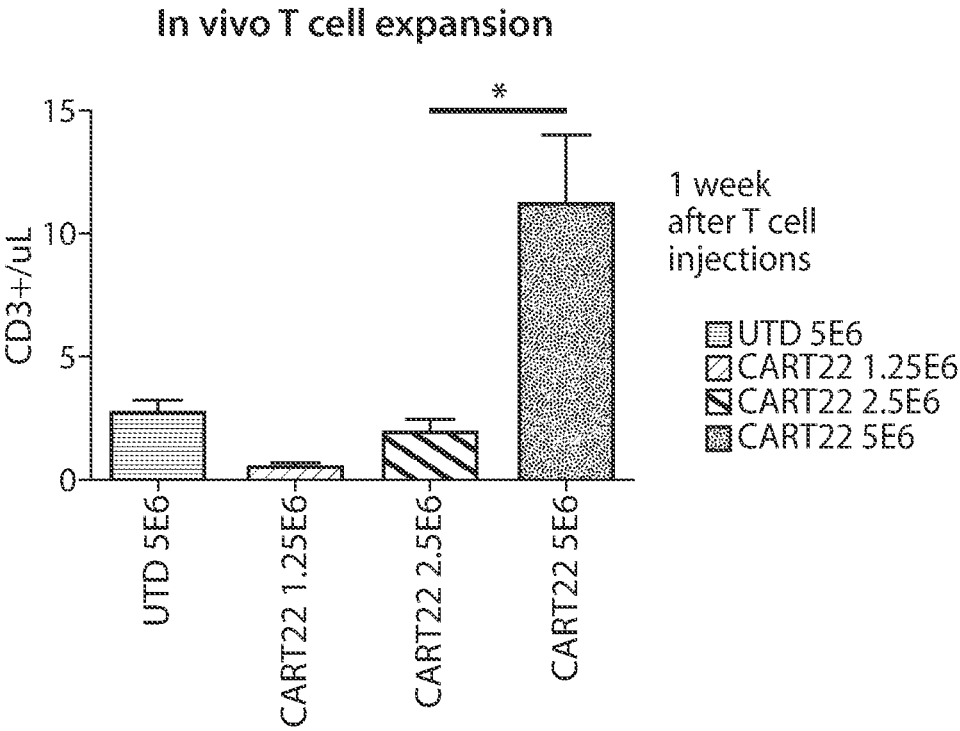


FIG. 35D

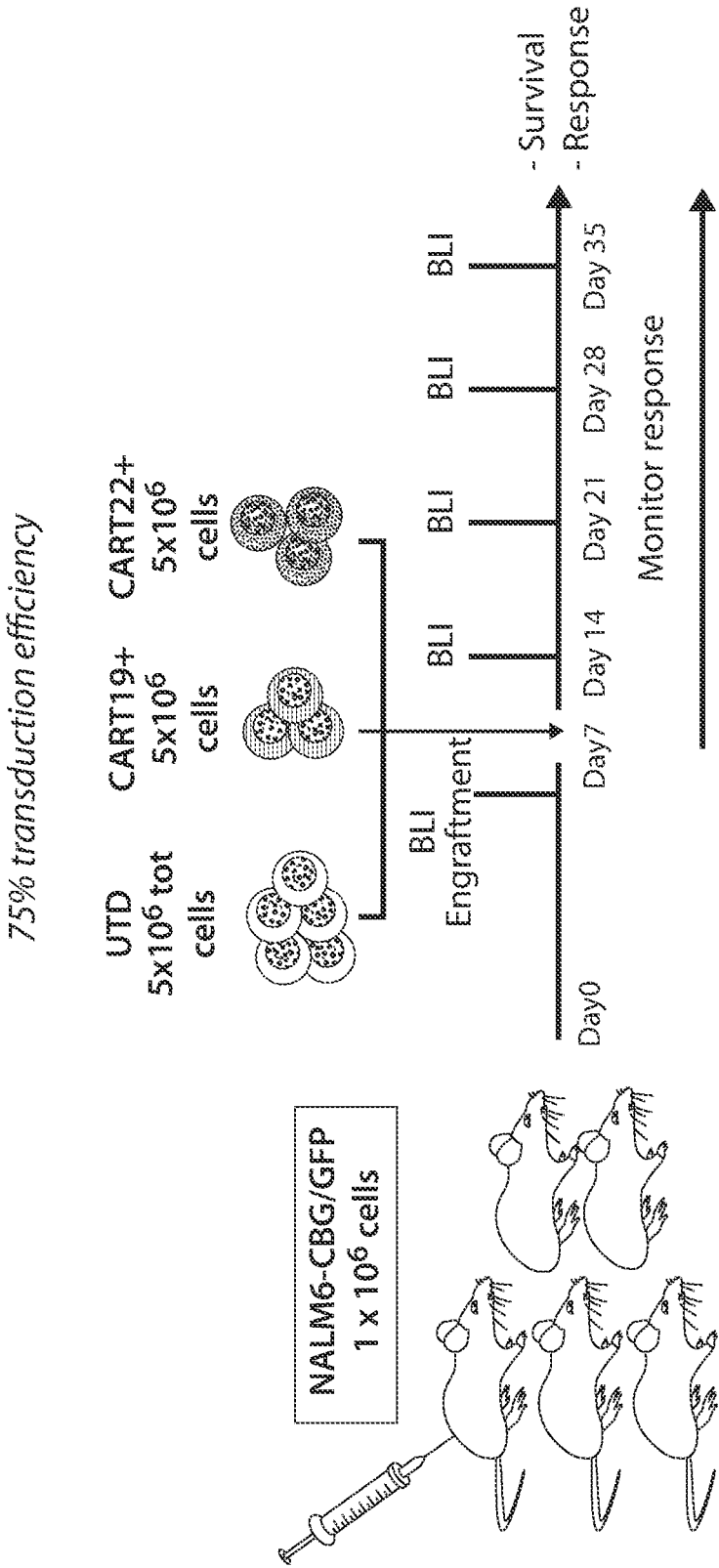


FIG. 36A

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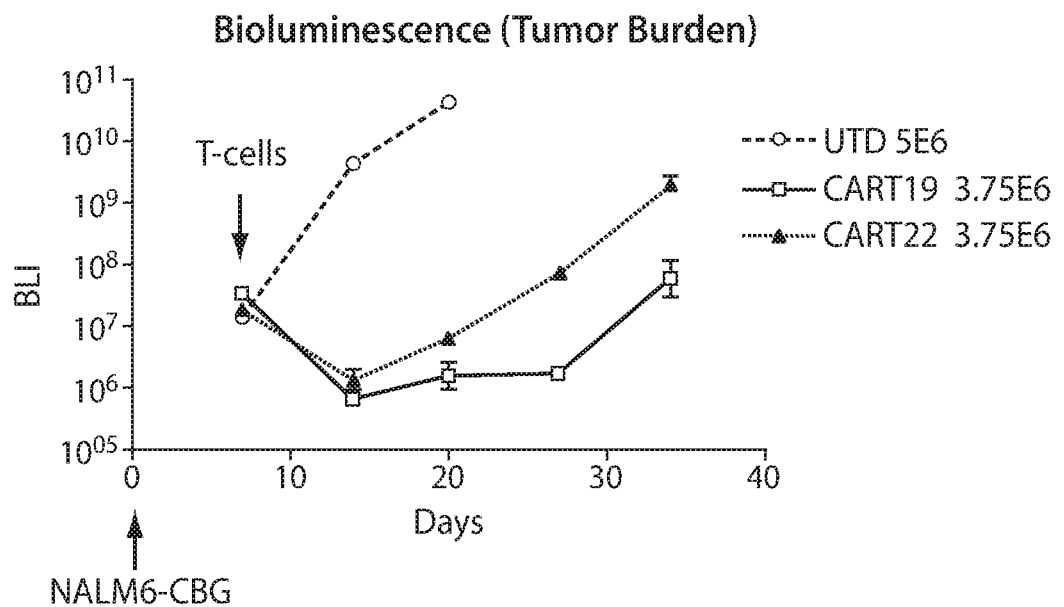
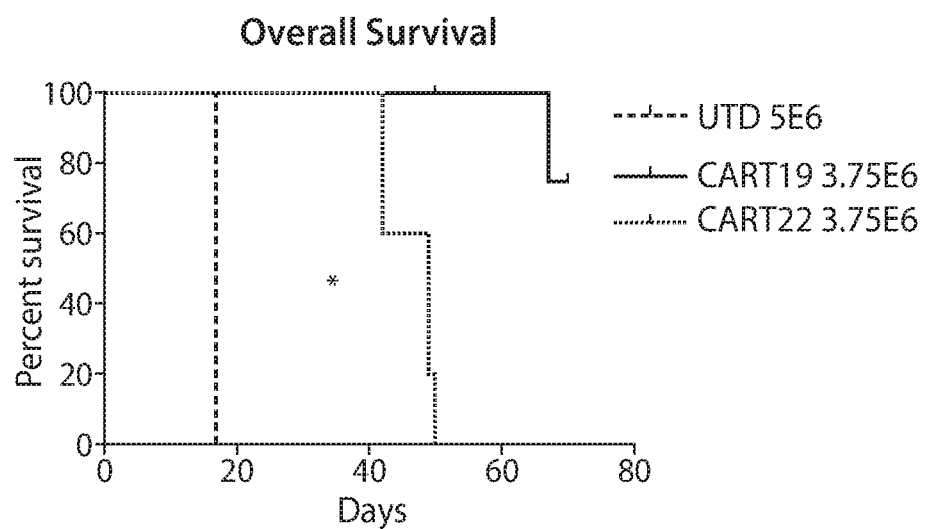


FIG. 36B



* CARTs were normalized to same number of CAR-pos (3.75e6/mouse)

FIG. 36C

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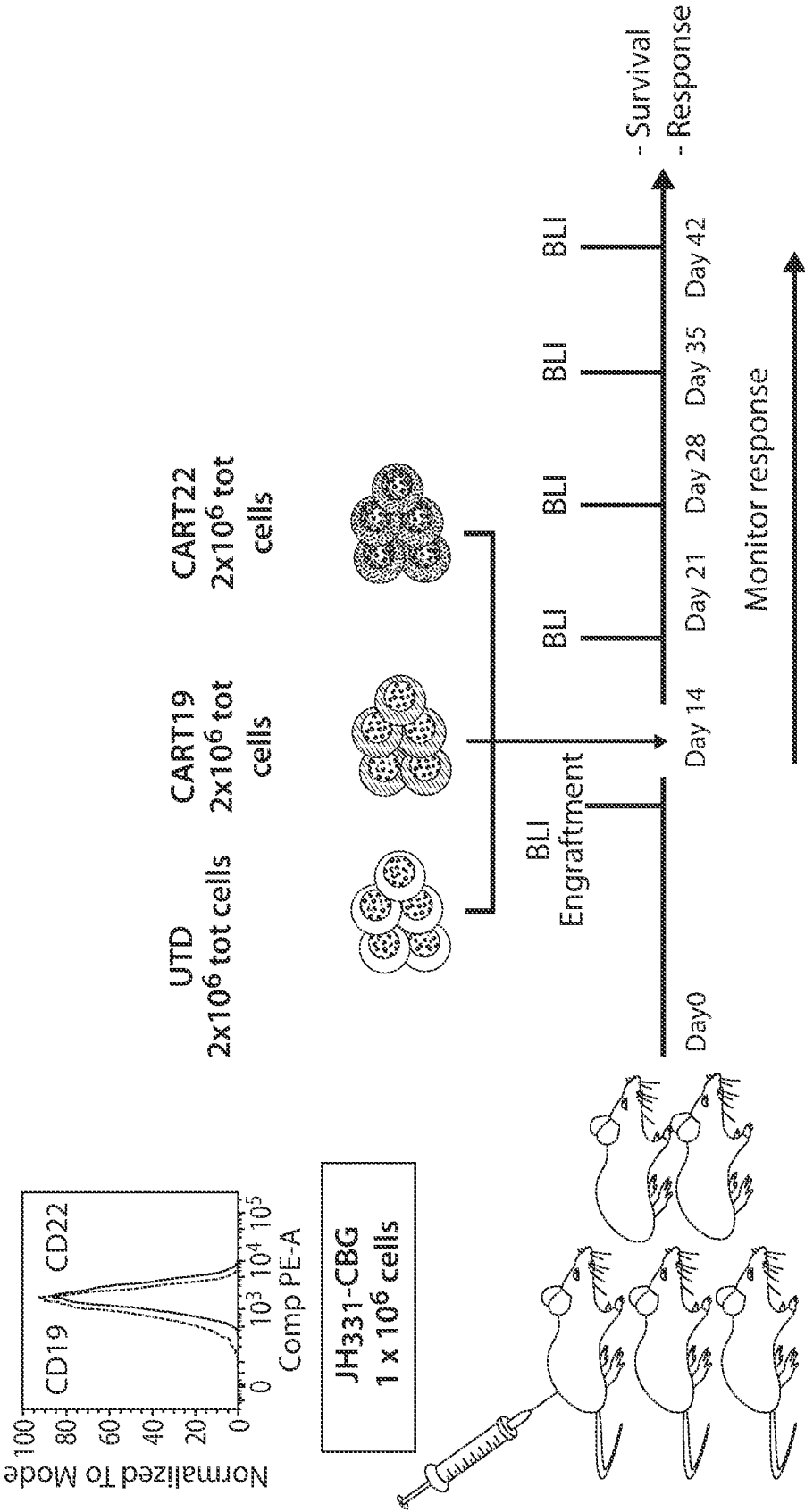


FIG. 37A

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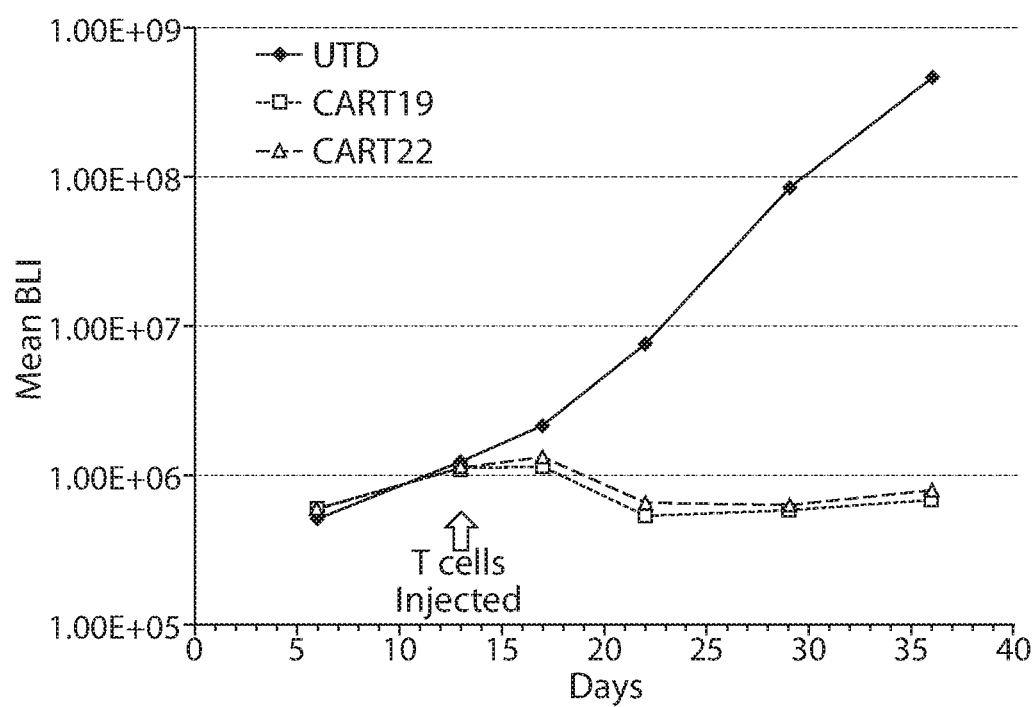
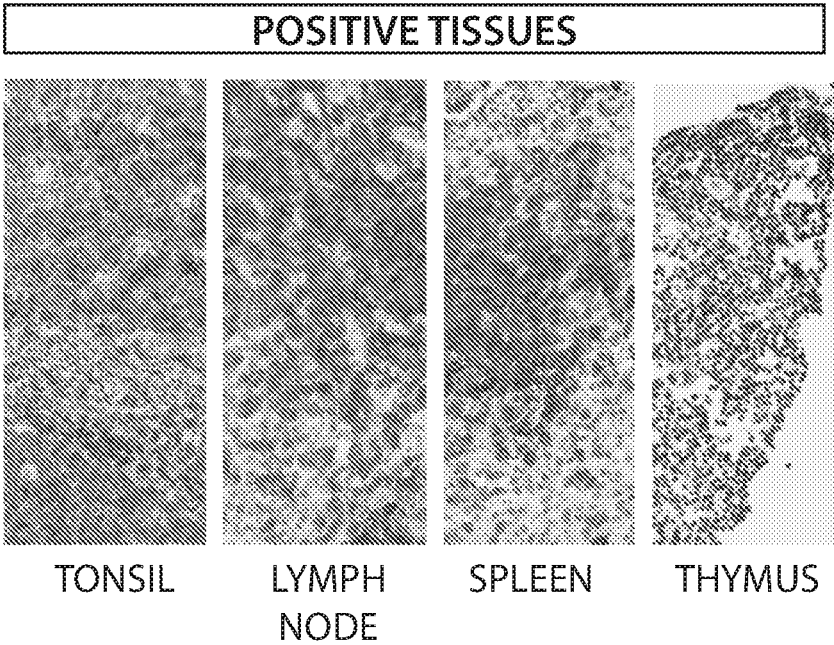


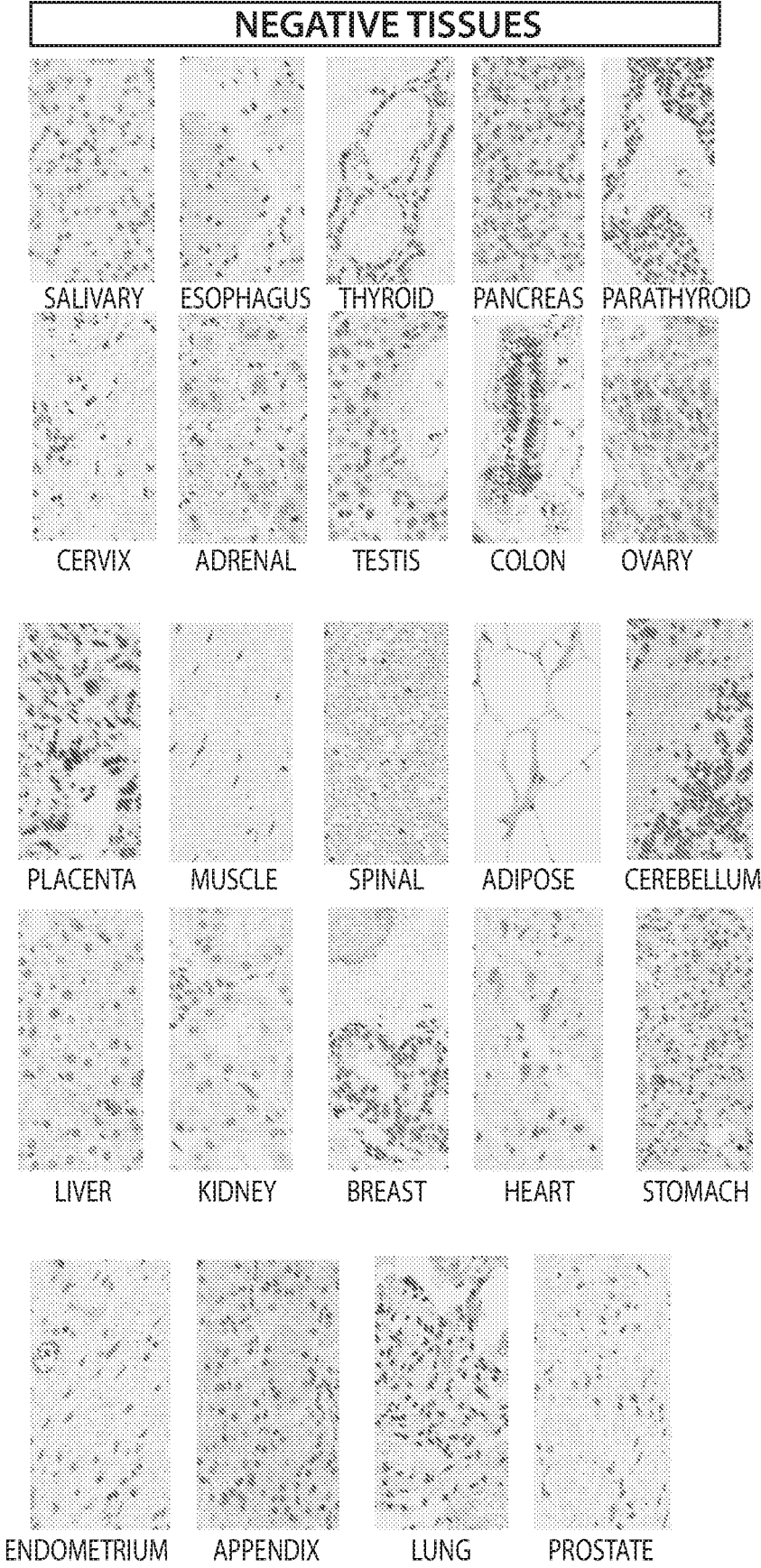
FIG. 37B



20X

FIG. 38A

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20X

FIG. 38B

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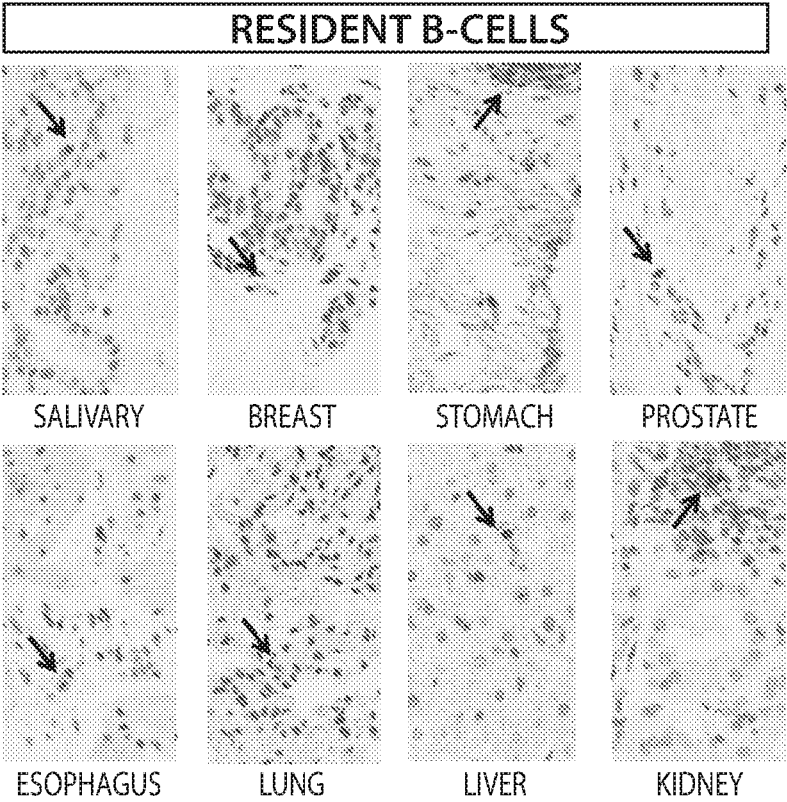


FIG. 38C

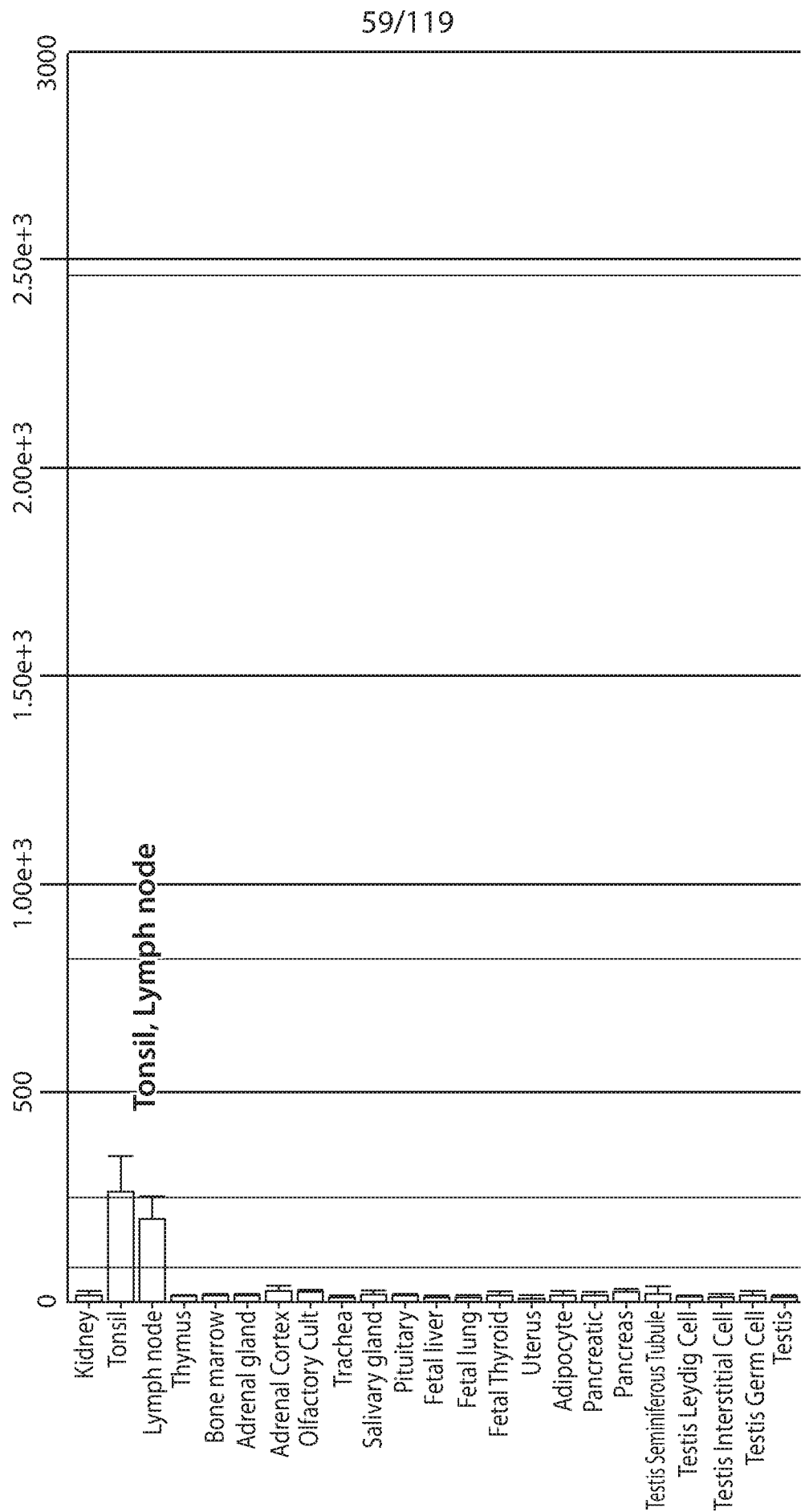


FIG. 39-1

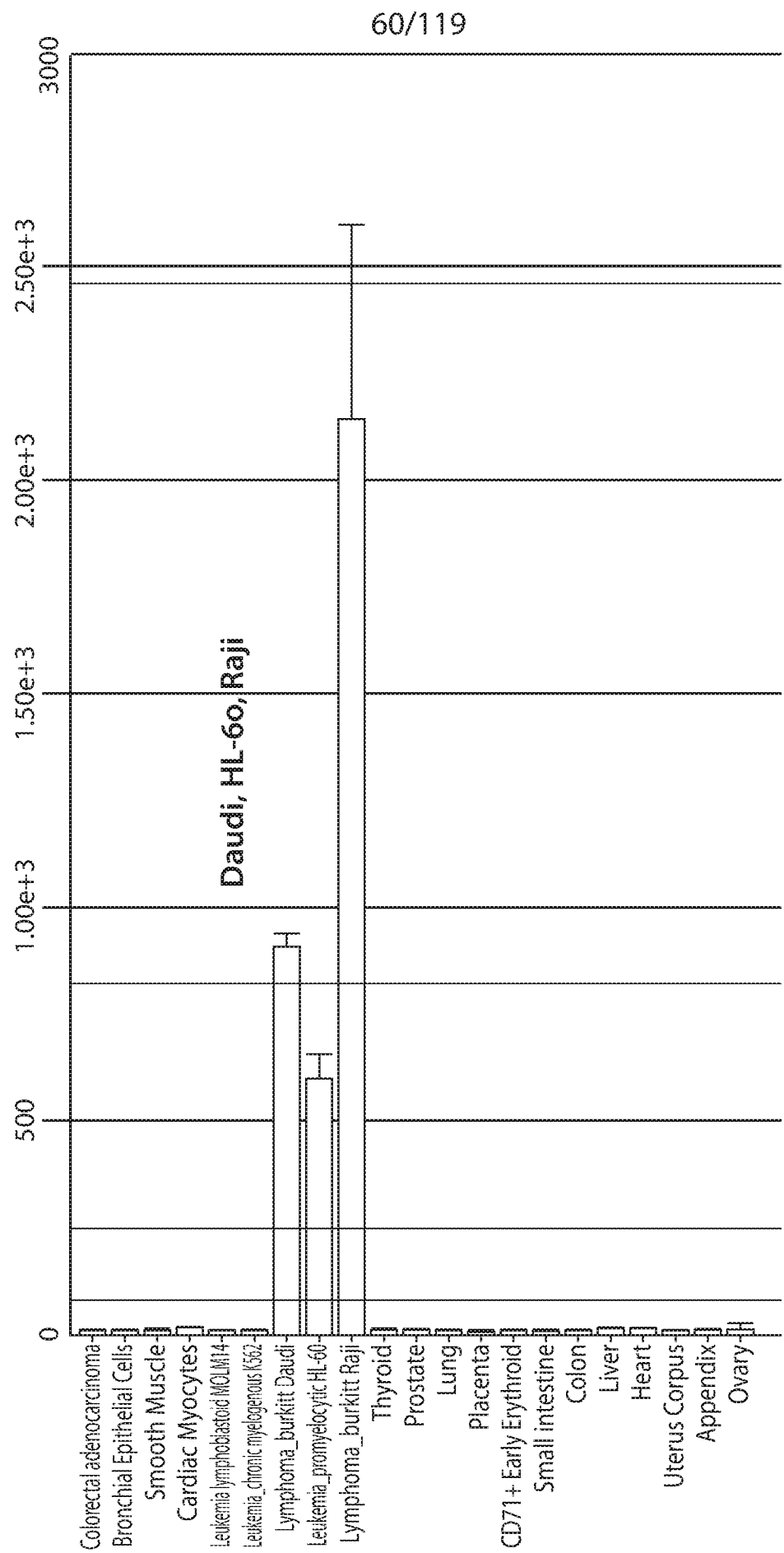


FIG. 39-2

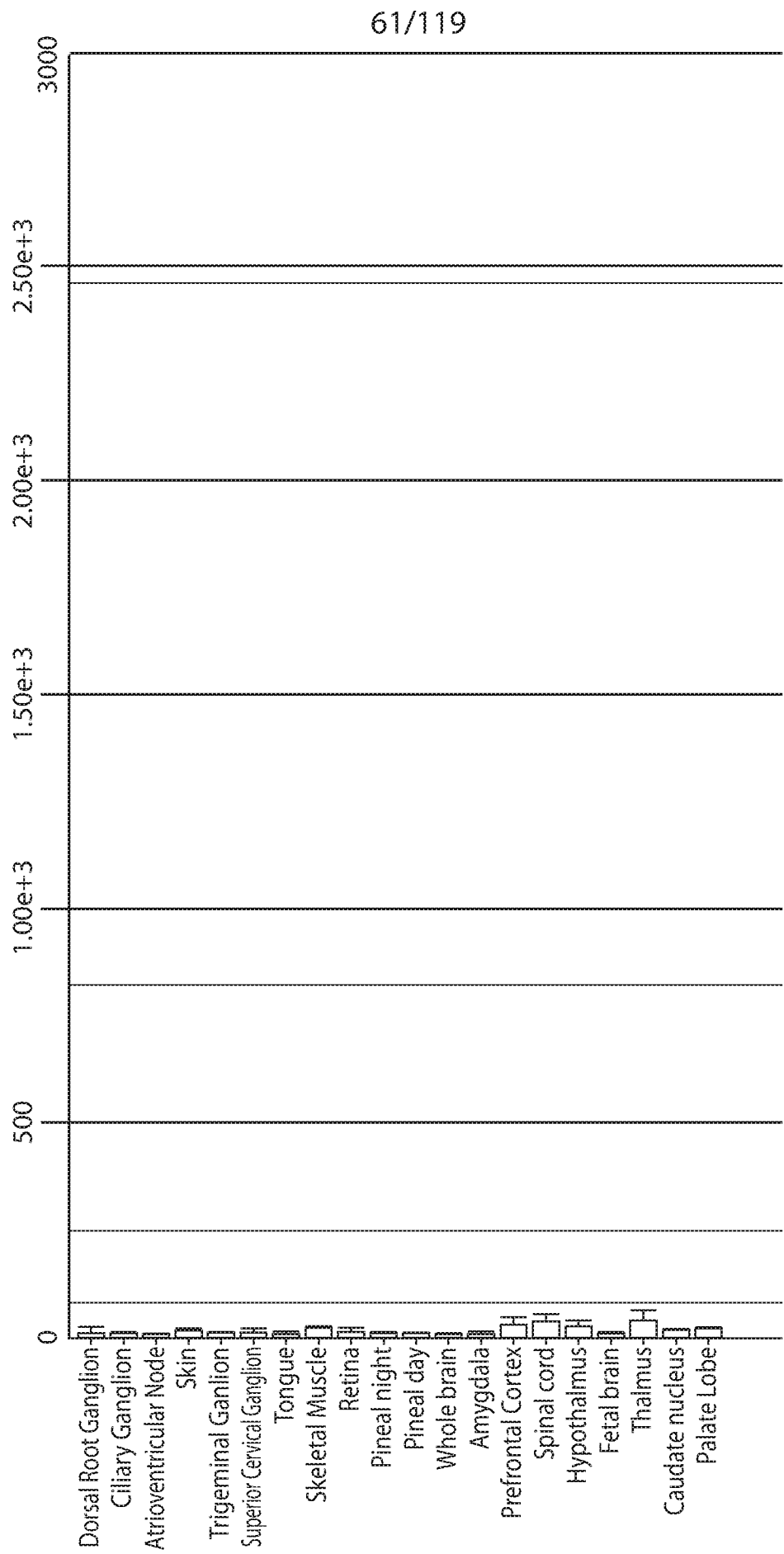
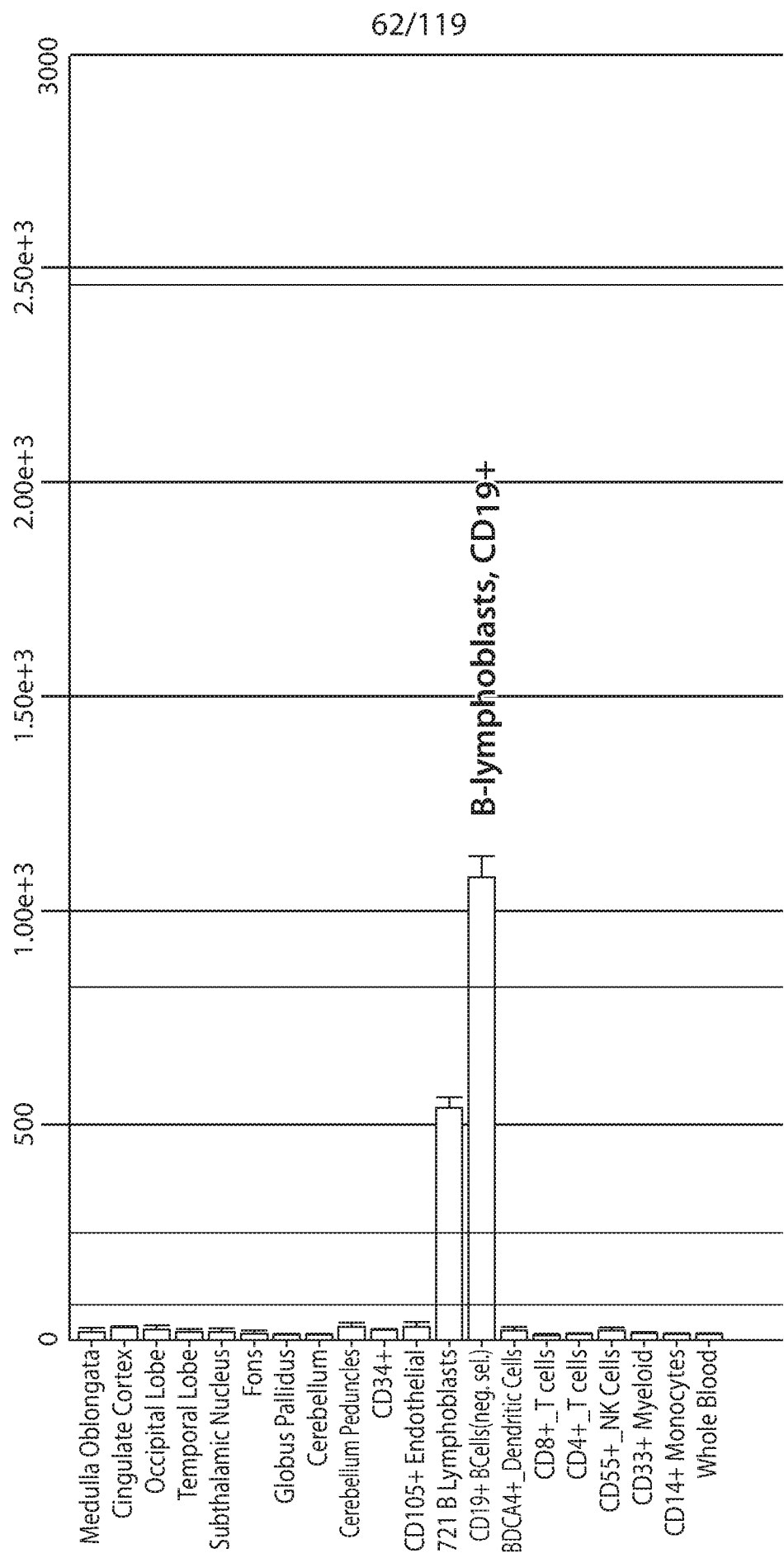


FIG. 39-3



Source: BioGPS.org, GeneAtlas U133A, gcrma

FIG. 39-4

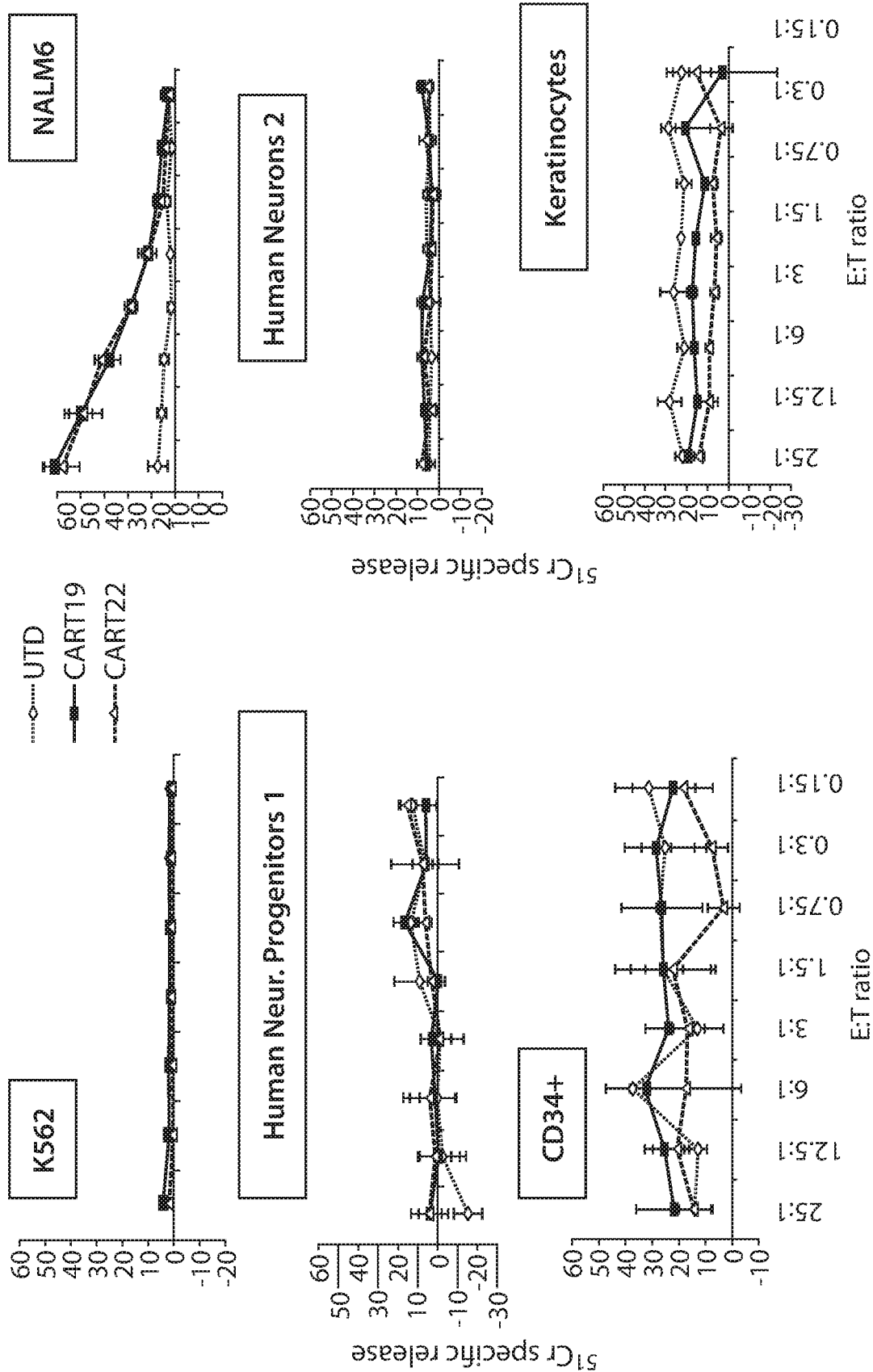


FIG. 40

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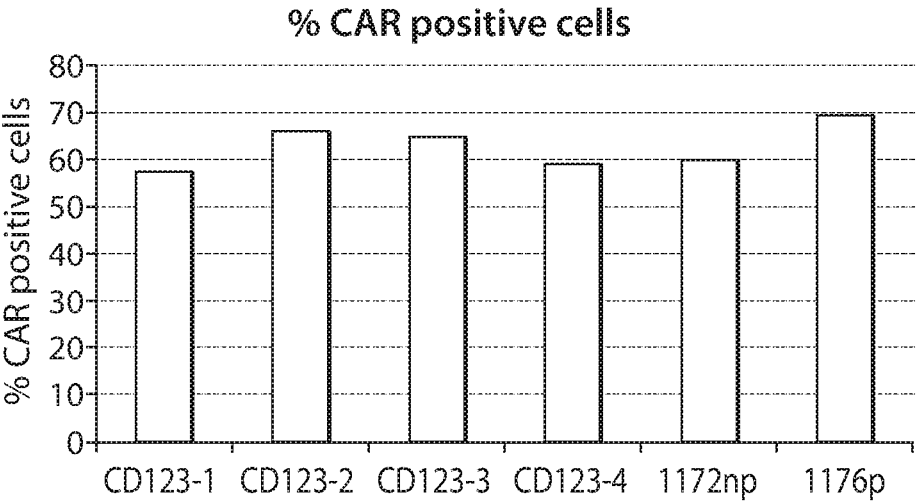


FIG. 41

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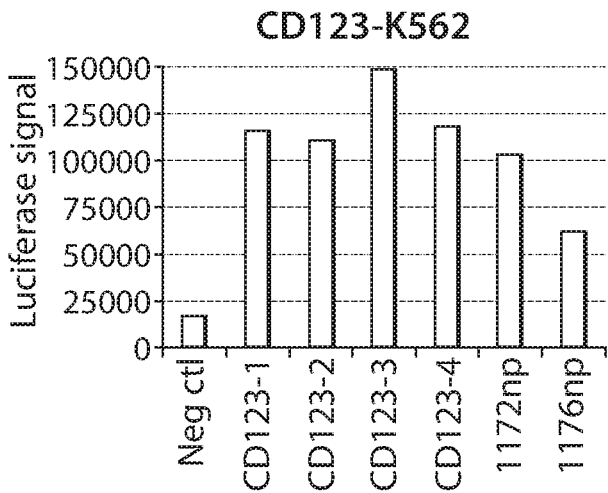


FIG. 42A

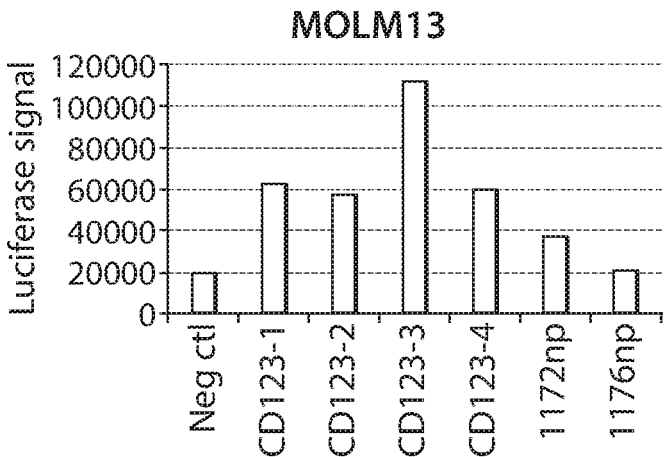


FIG. 42B

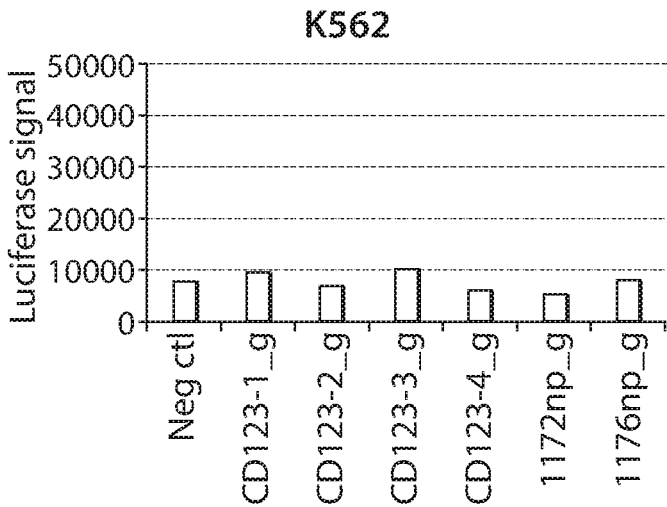


FIG. 42C

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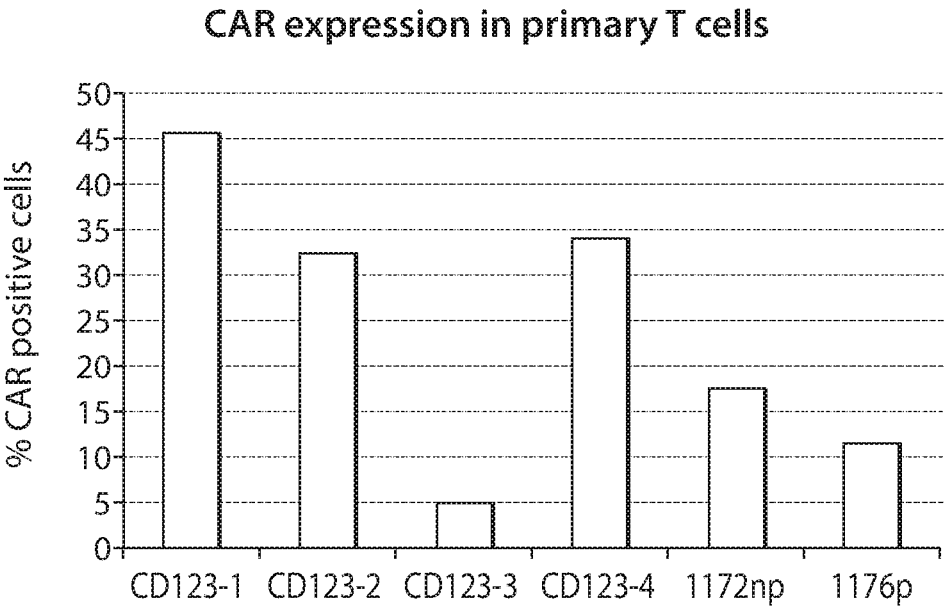
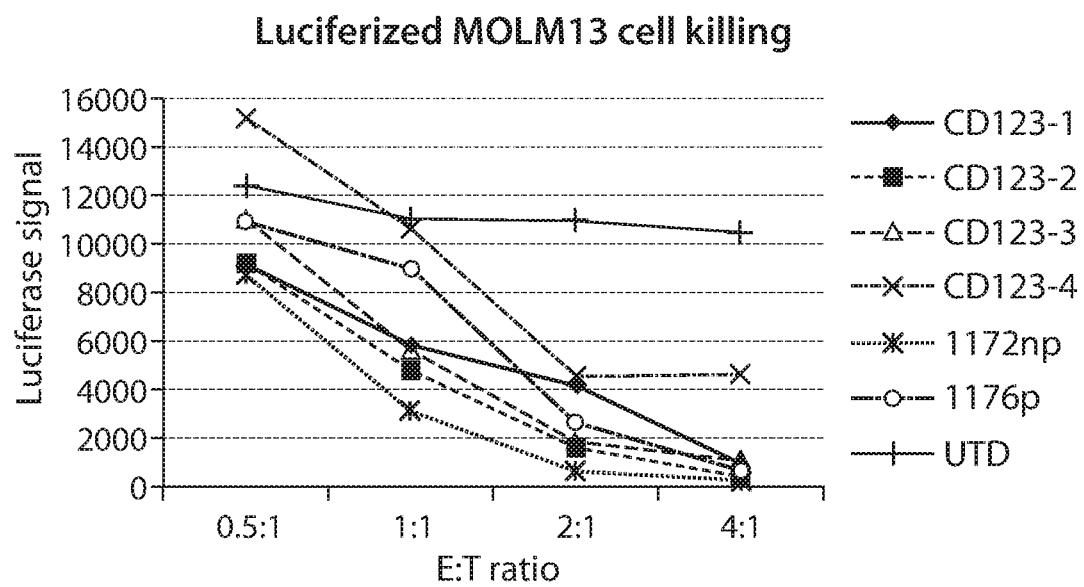
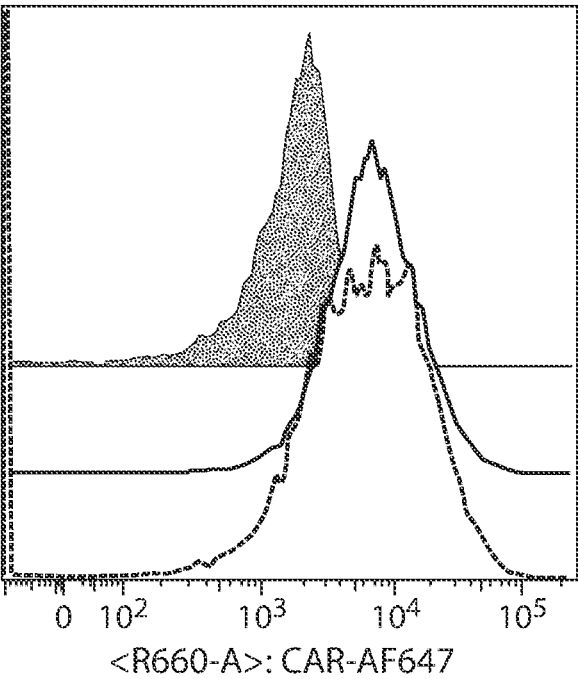


FIG. 43A

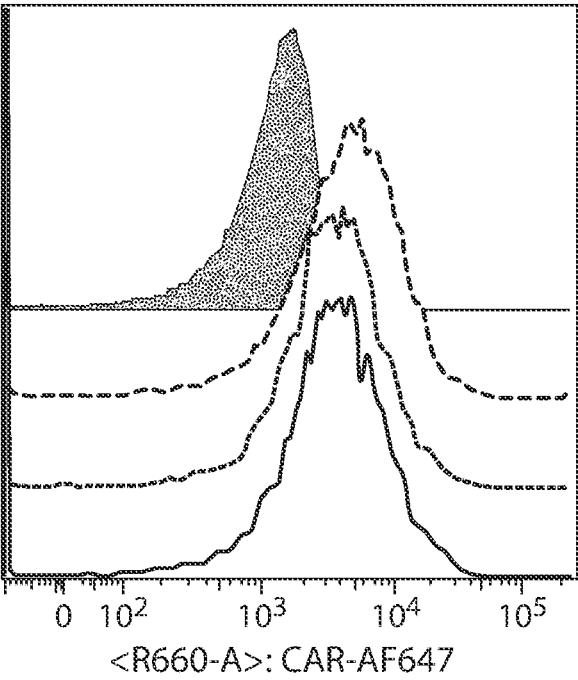
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**FIG. 43B**



	Sample	Median:<R660-A>
-----	1176	5965
————	1172	6996
■	UTD	1603

FIG. 44A



	Sample	Median:<R660-A>
————	NVS4	3323
-----	NVS3	3356
- · - · -	NVS2	4265
■	UTD IGG	1289

FIG. 44B

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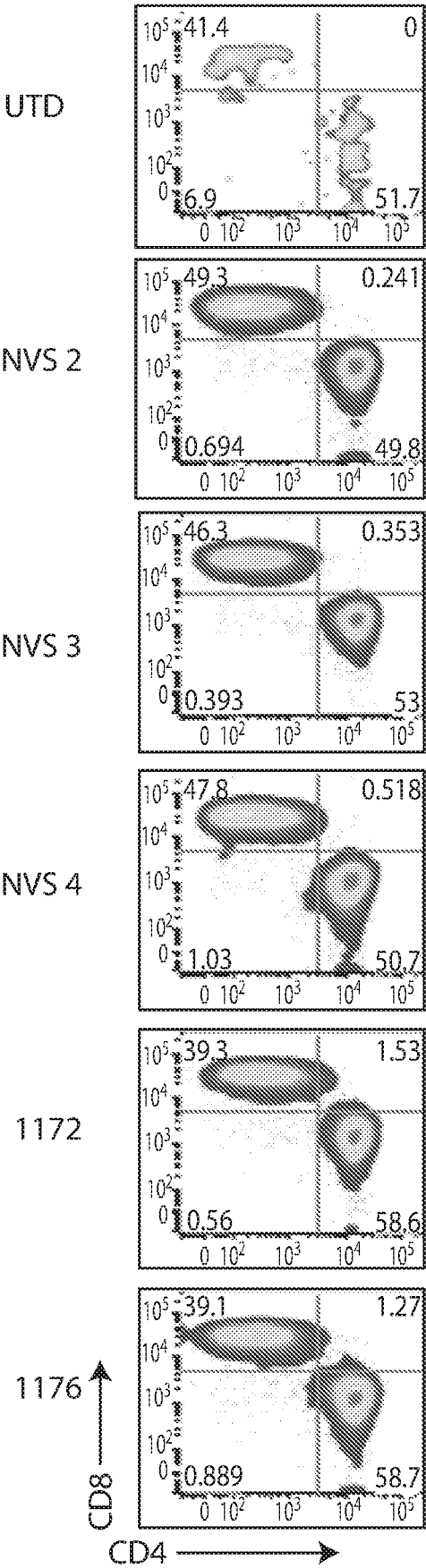


FIG. 45

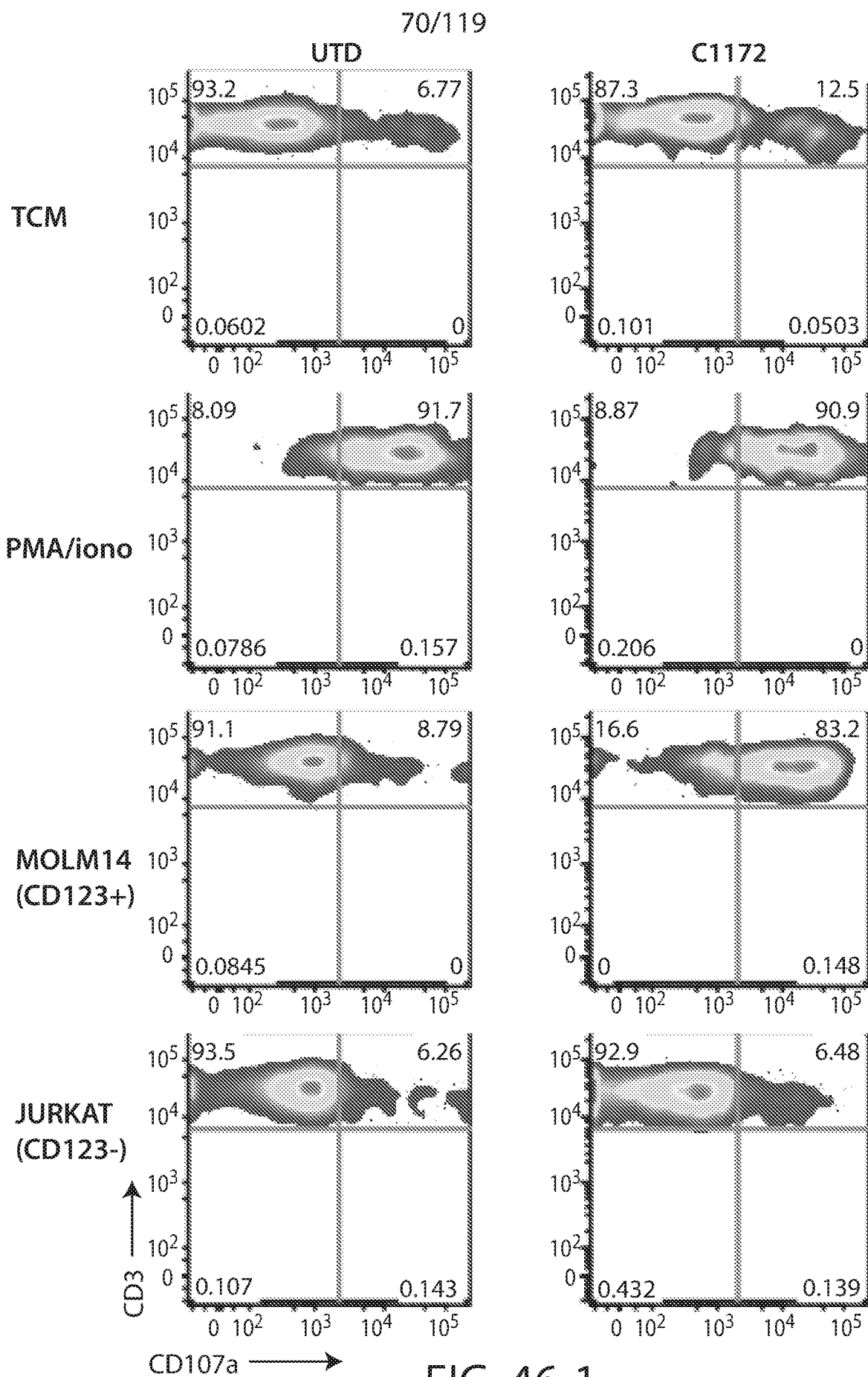


FIG. 46-1

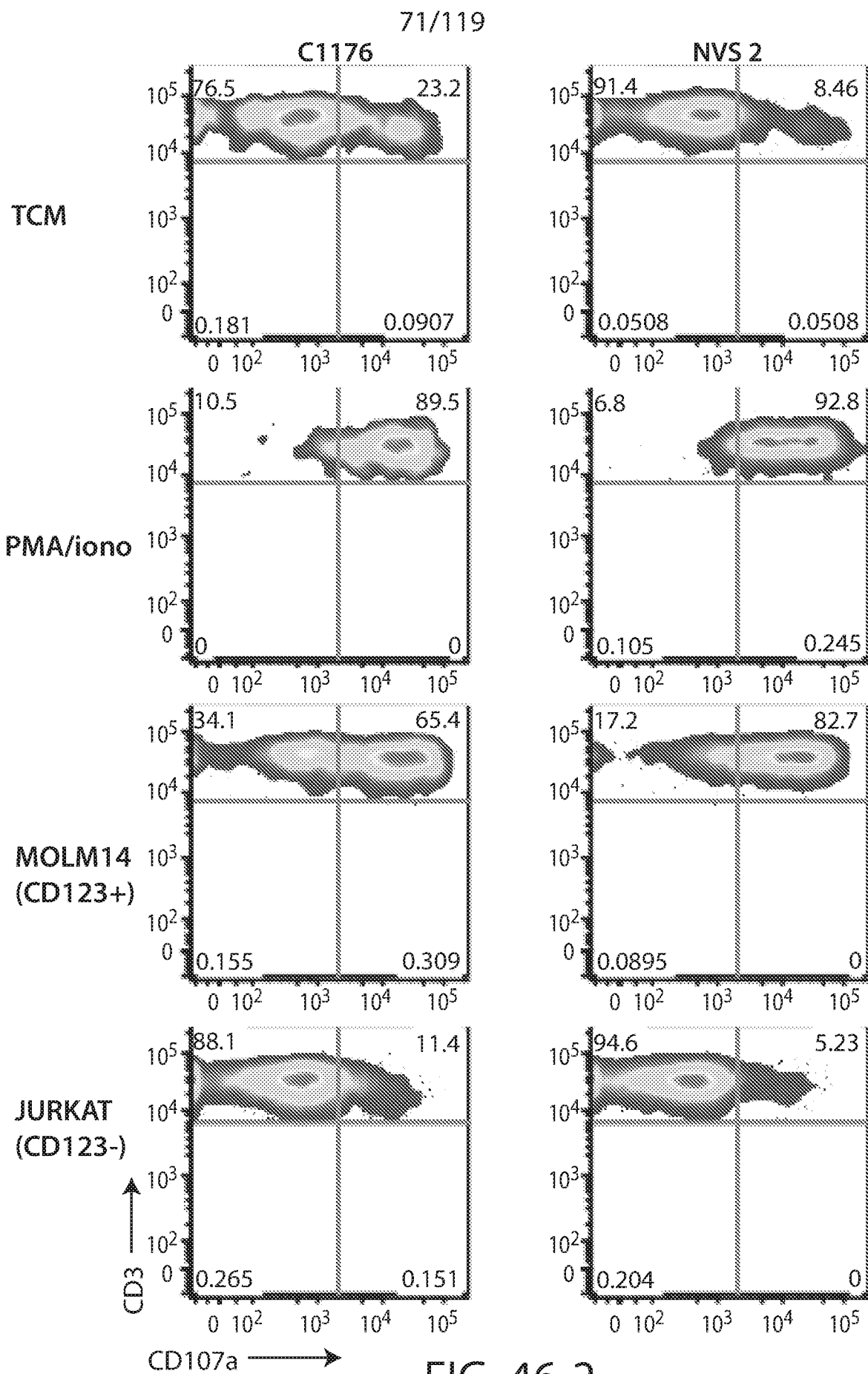


FIG. 46-2

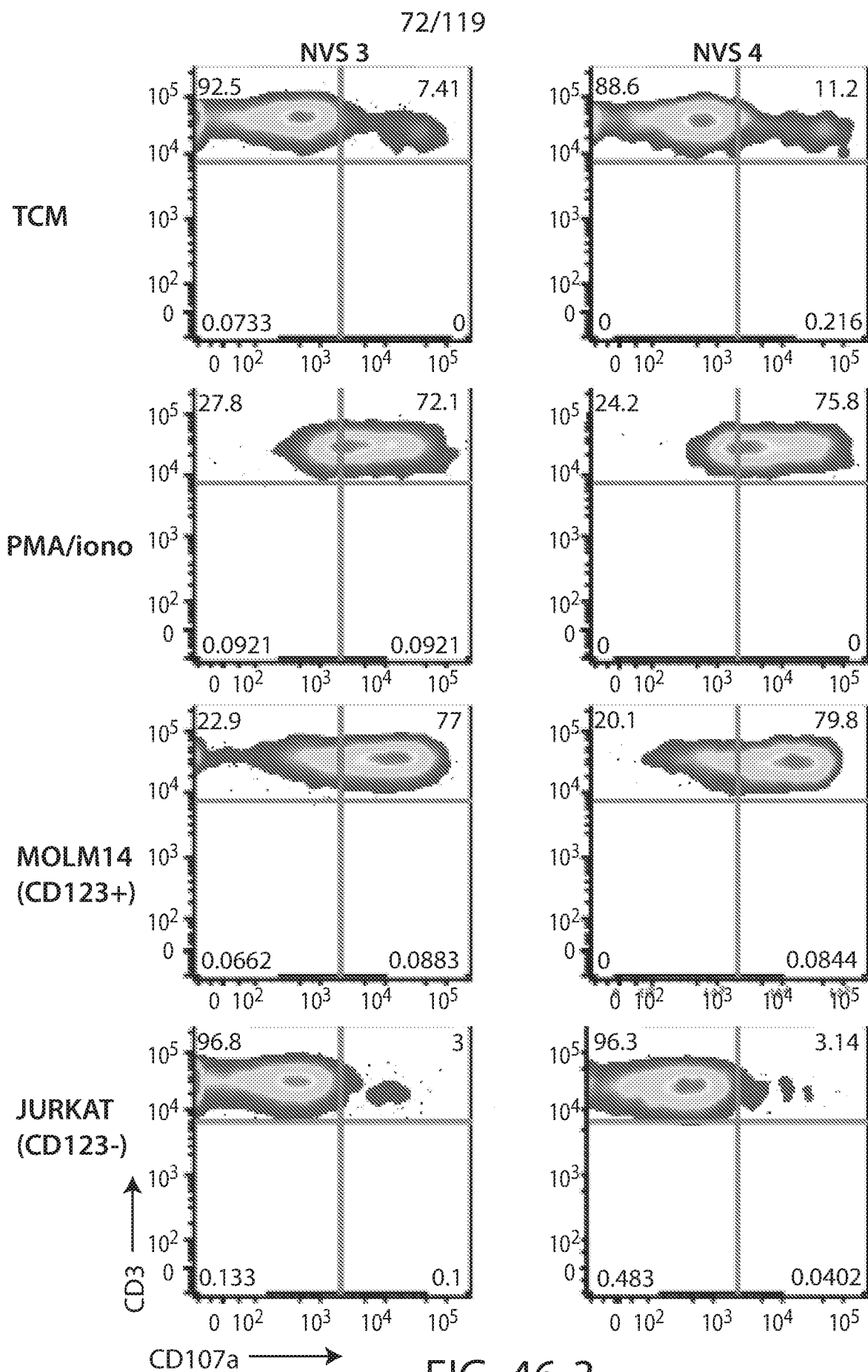


FIG. 46-3

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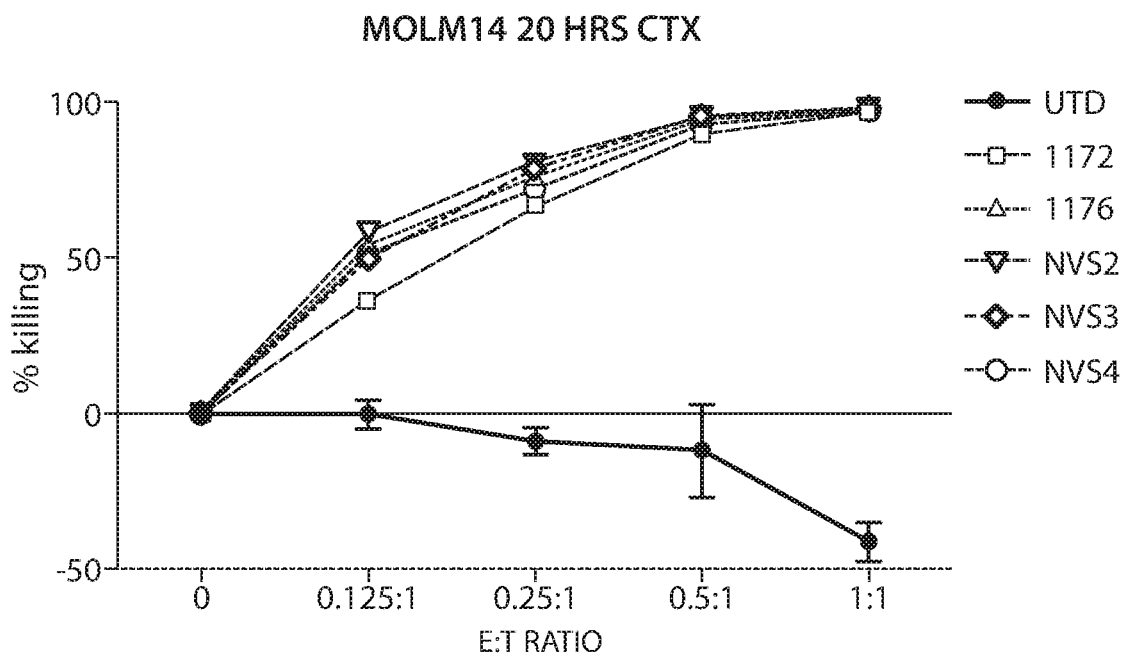


FIG. 47

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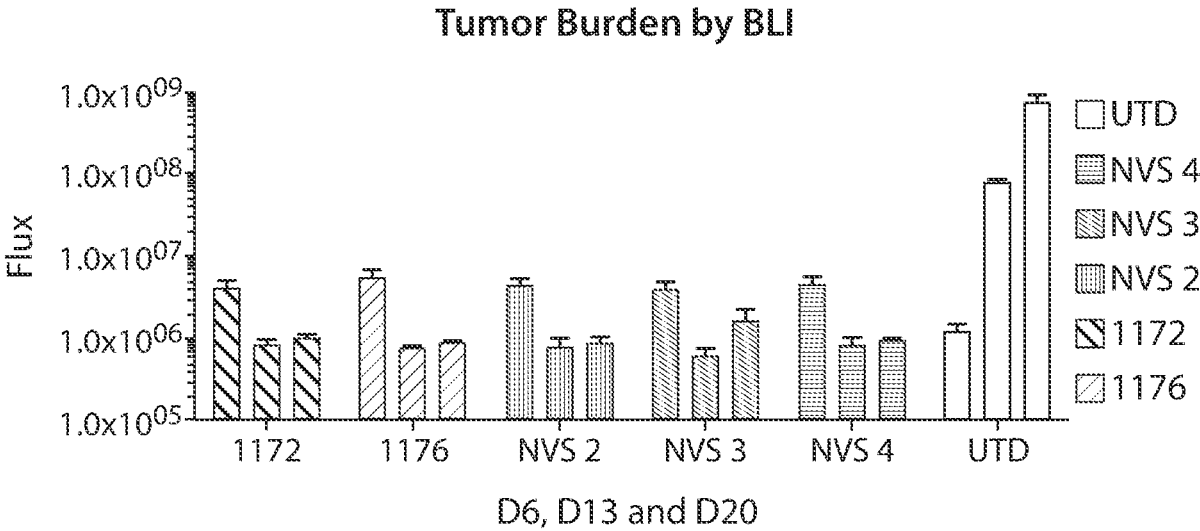


FIG. 48

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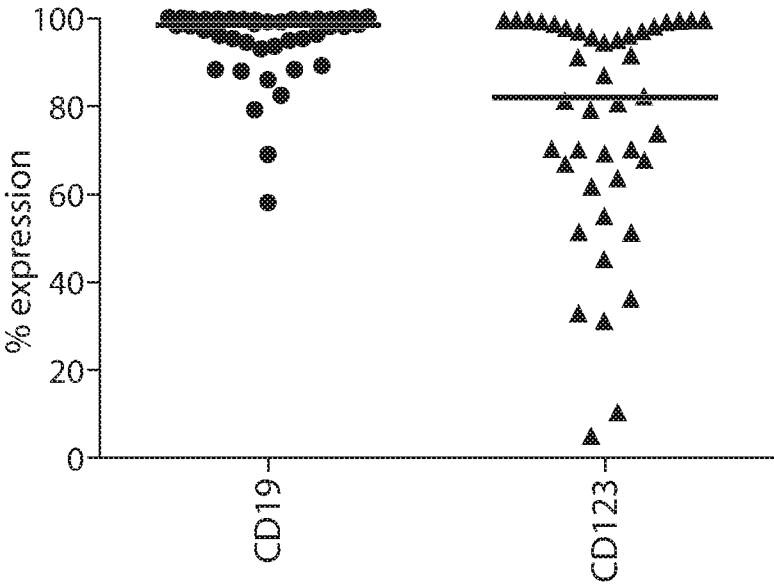


FIG. 49A

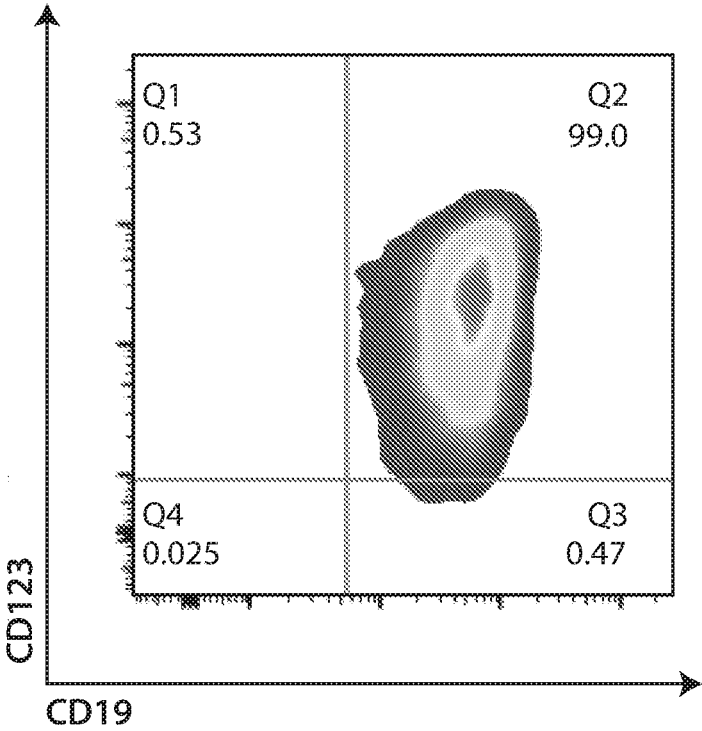


FIG. 49B

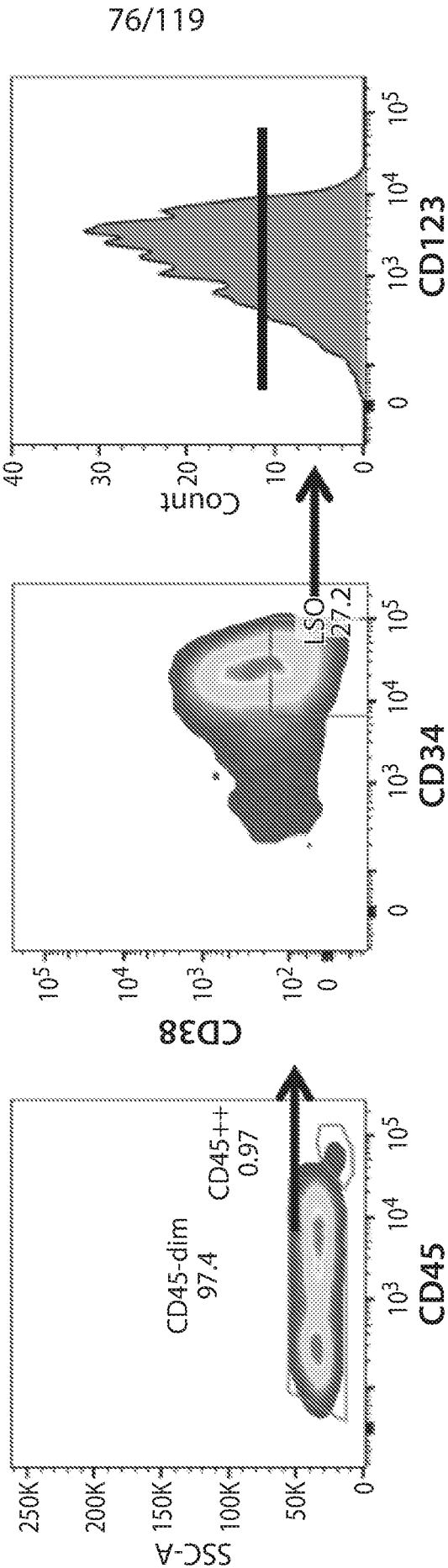


FIG. 49C

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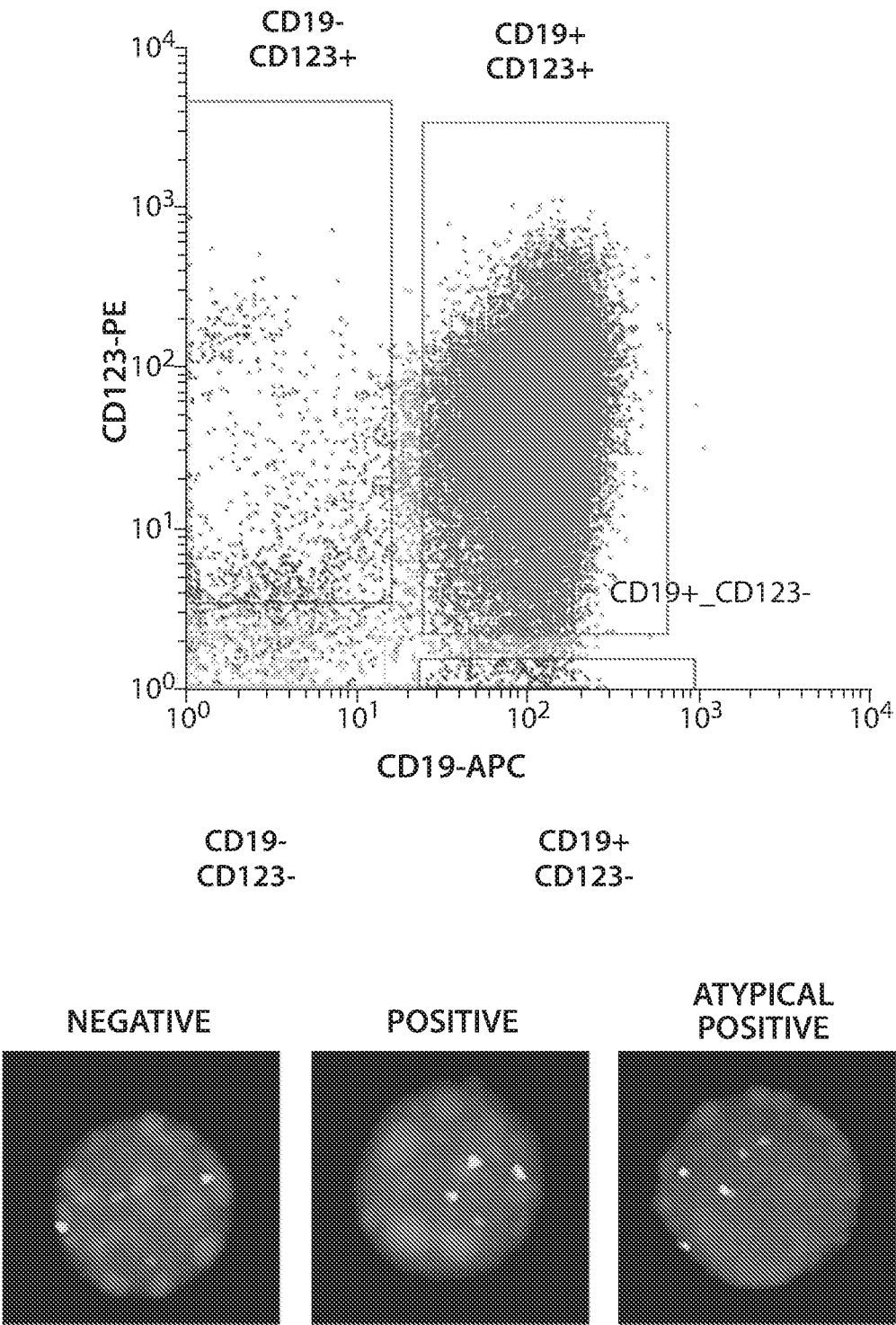


FIG. 49D

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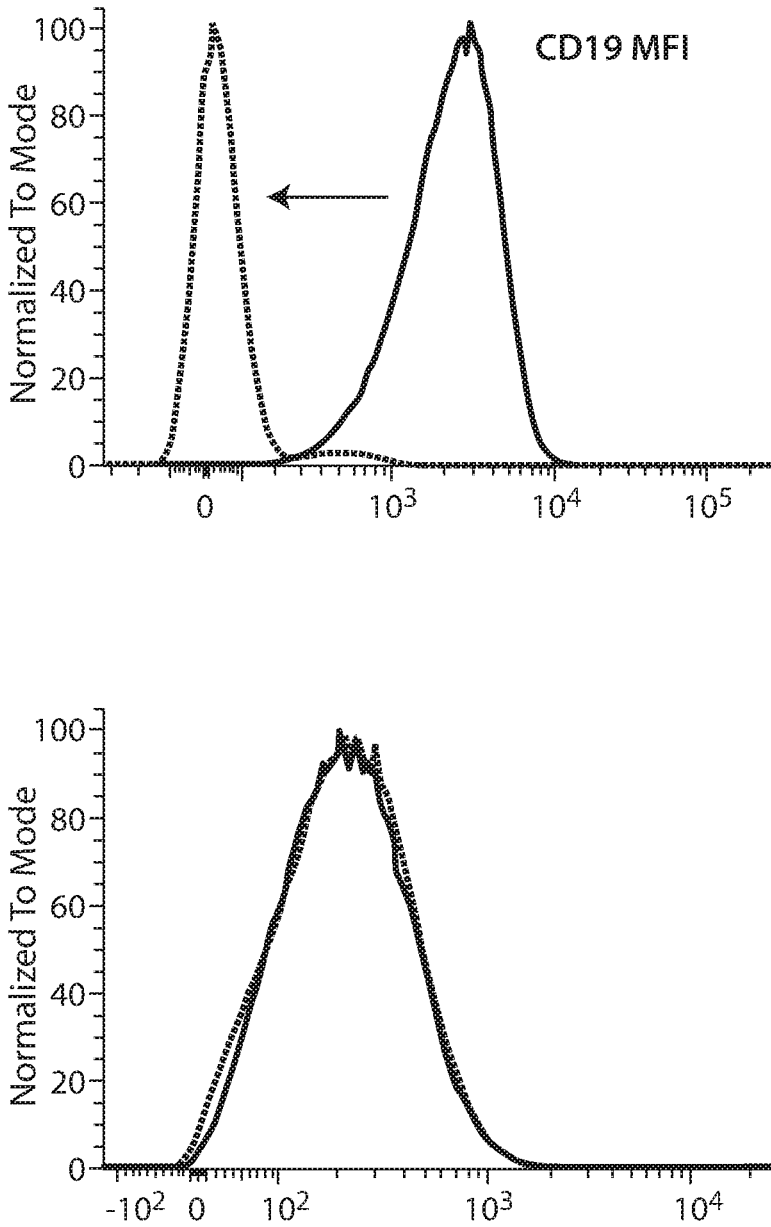


FIG. 49E

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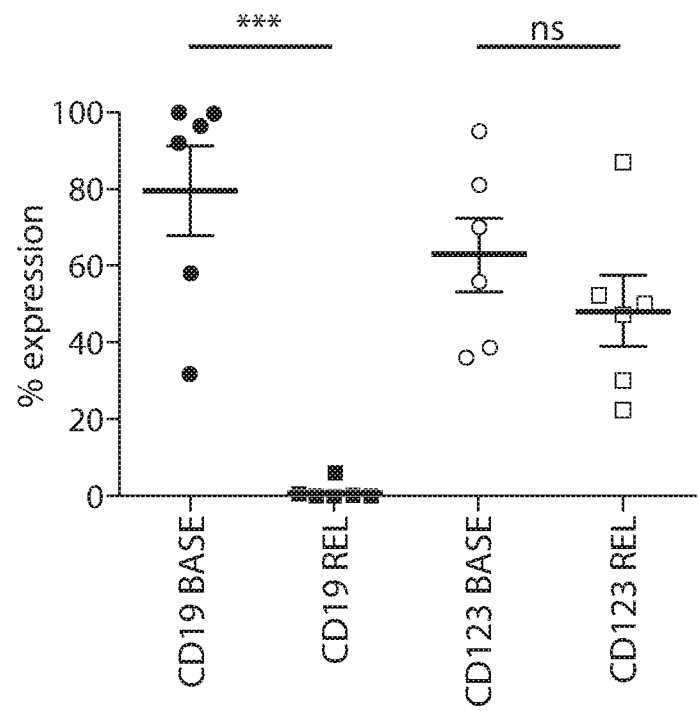


FIG. 49F

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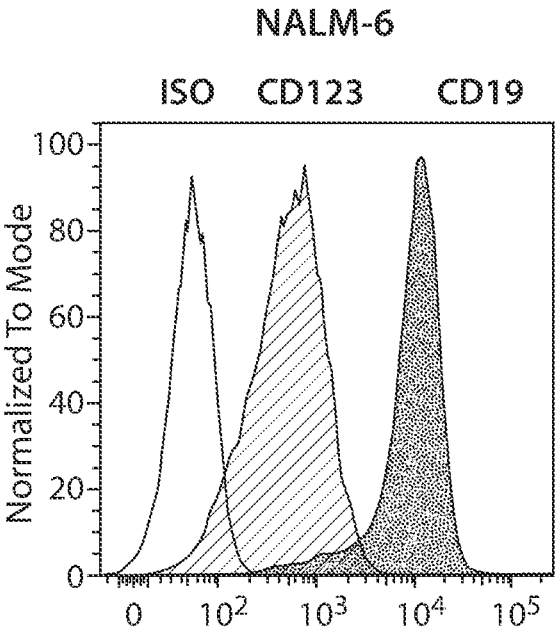


FIG. 50A

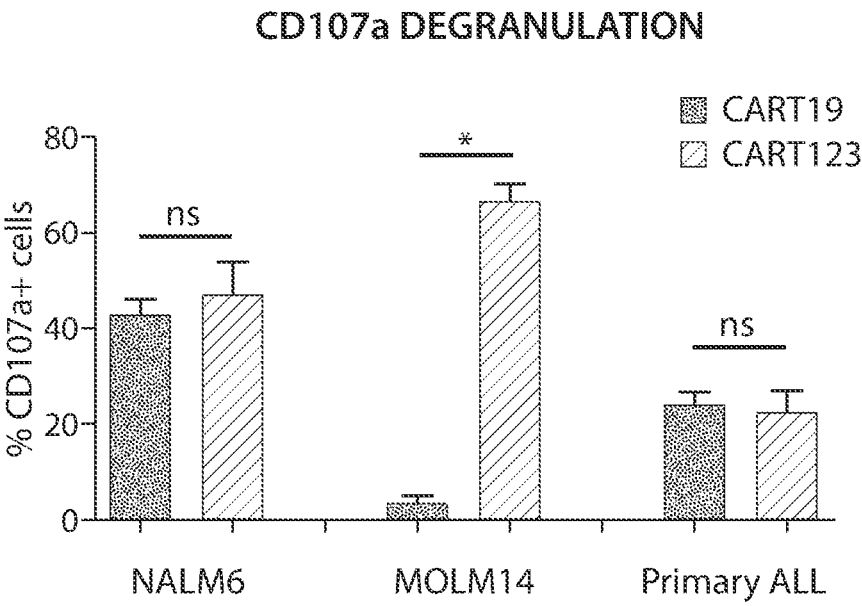


FIG. 50B

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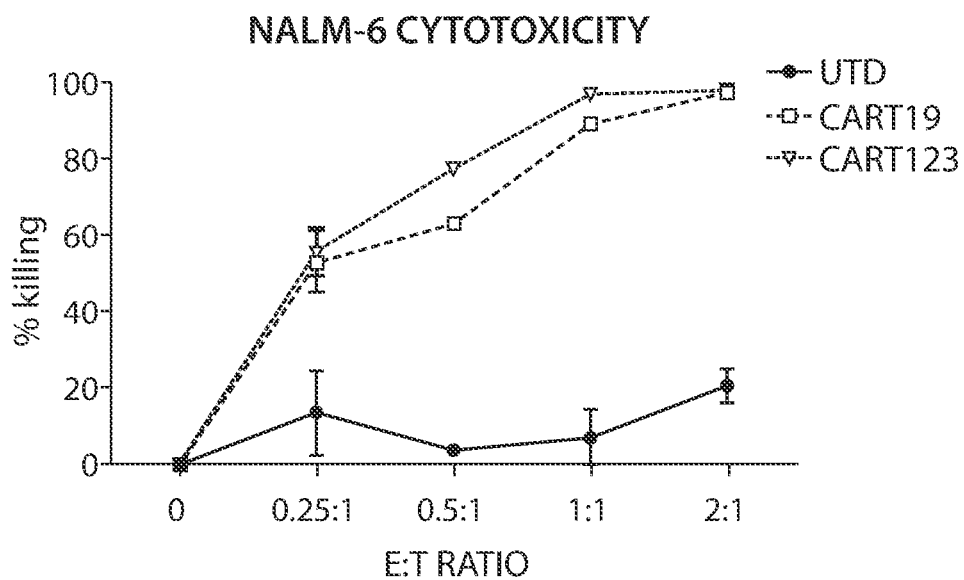


FIG. 50C

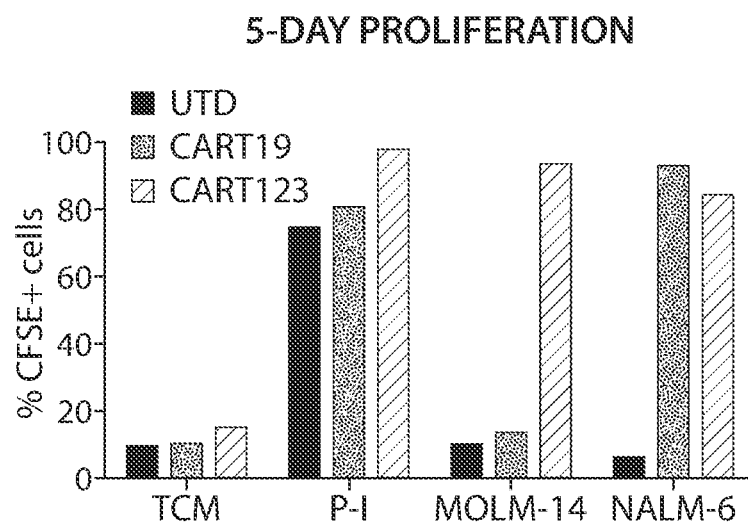
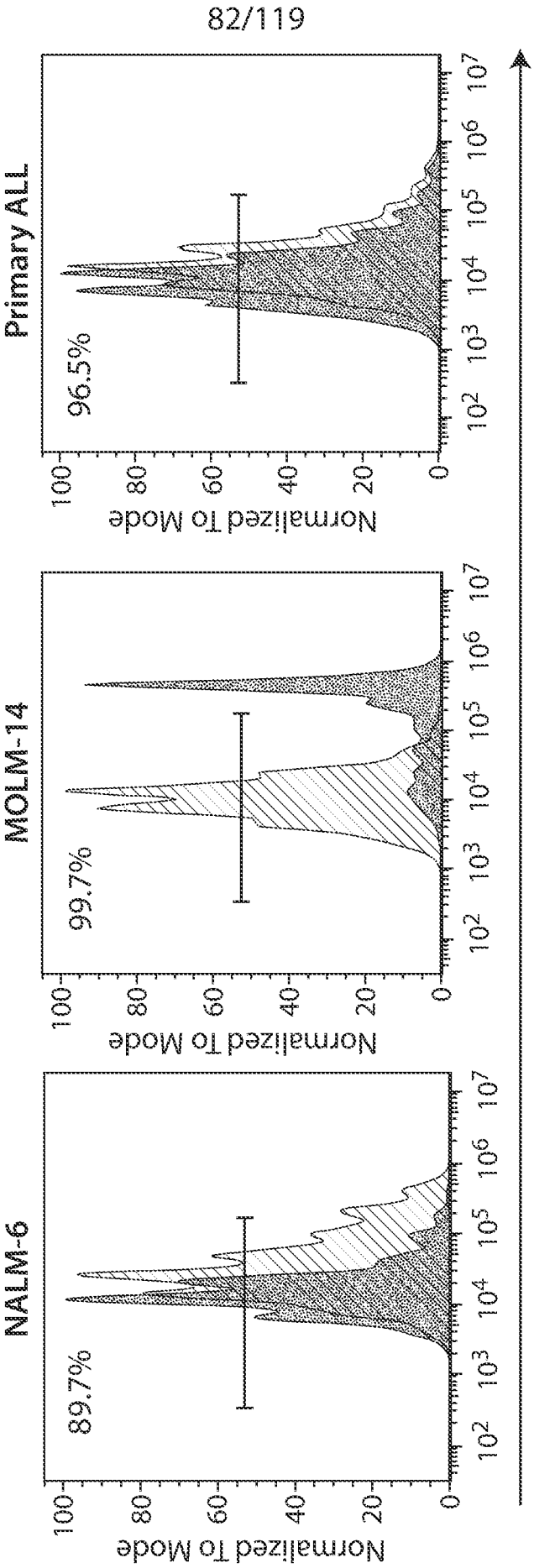


FIG. 50D



CFSE

FIG. 50E

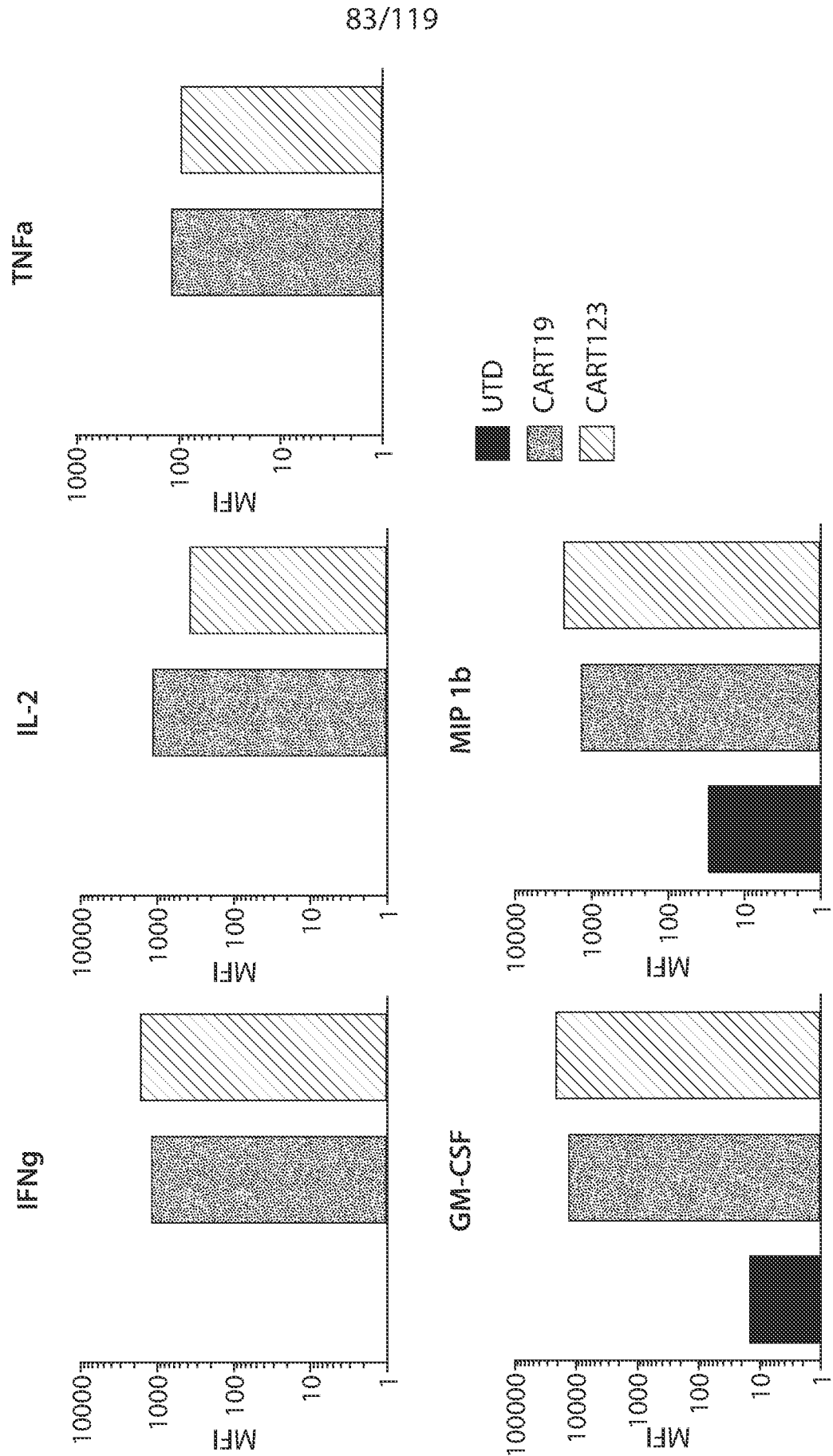
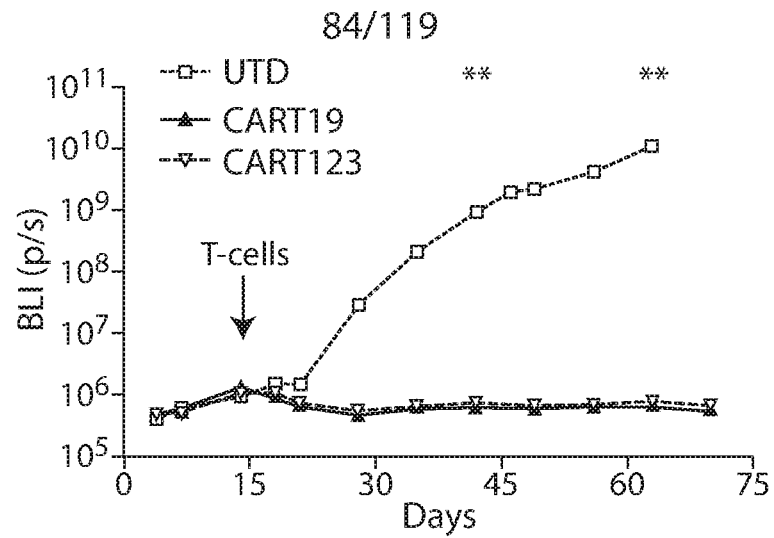
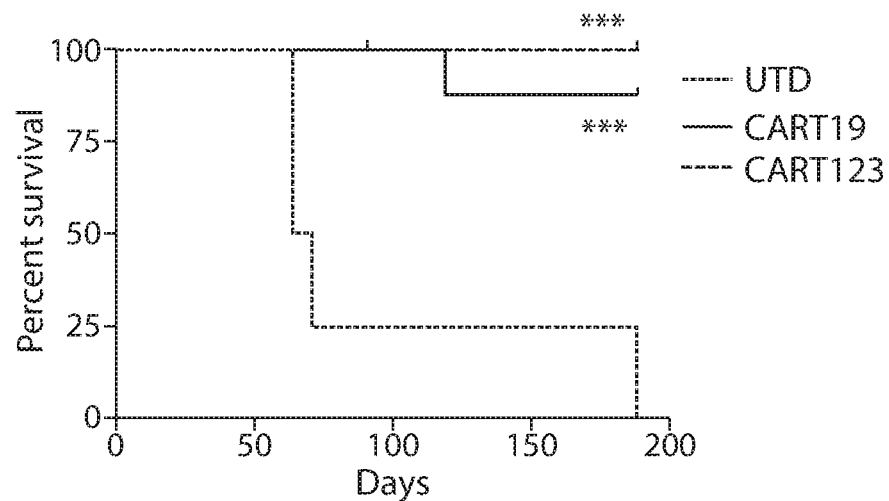
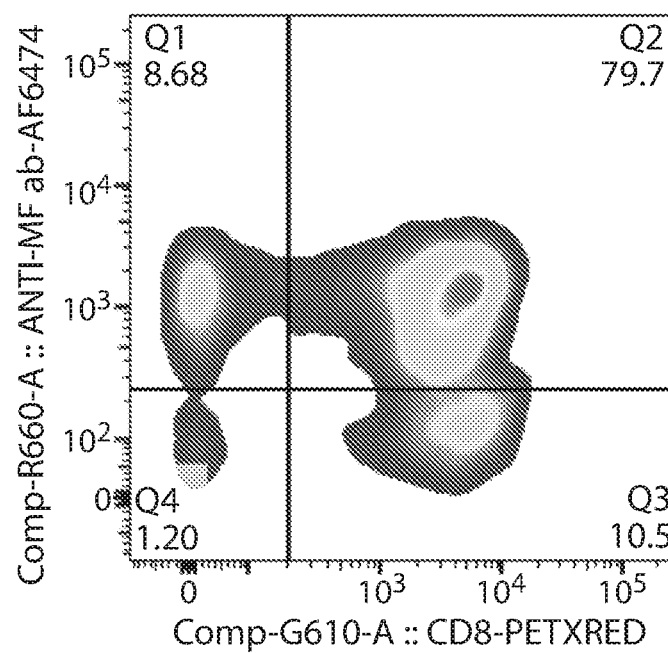
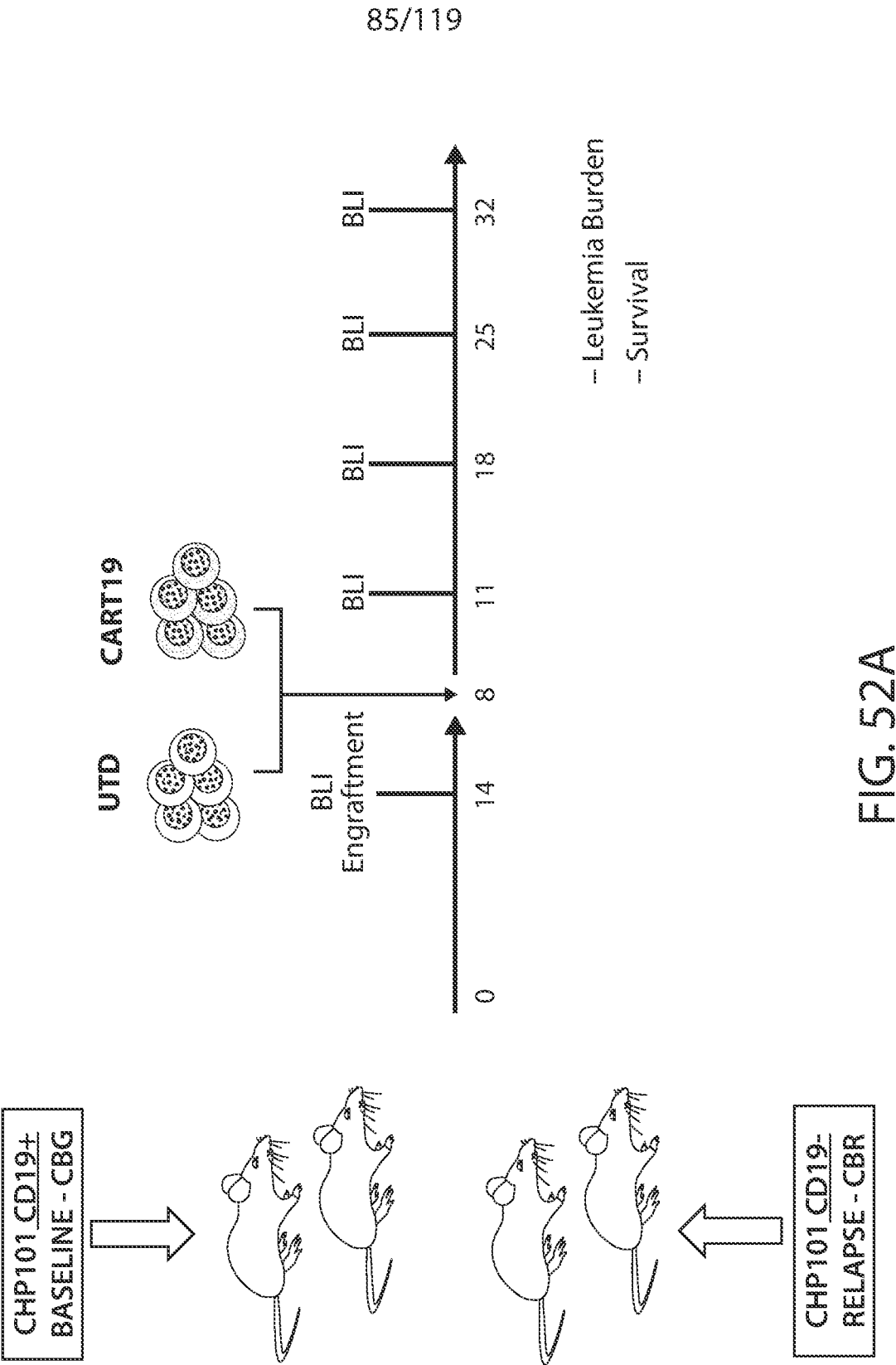


FIG. 50F





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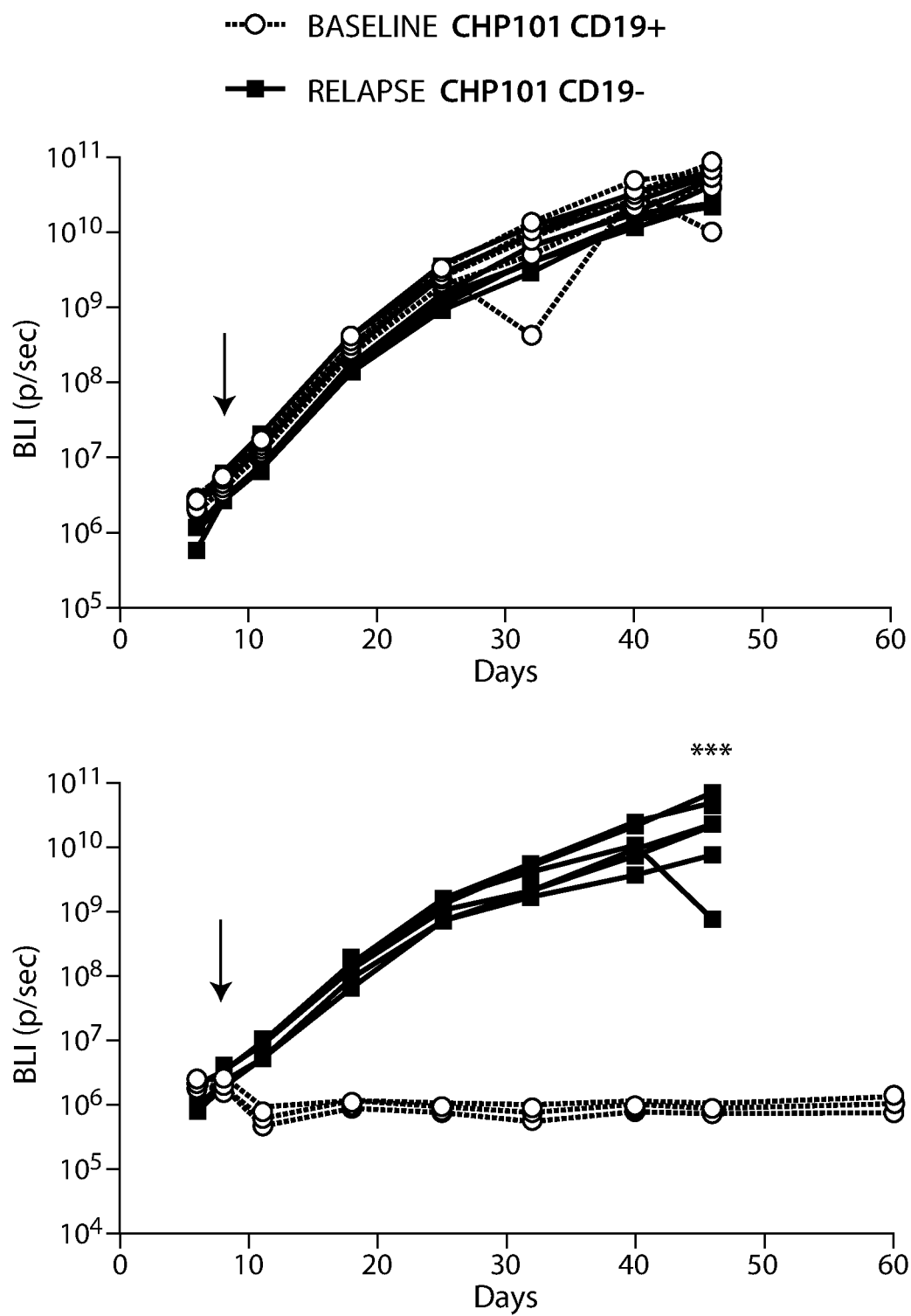


FIG. 52B

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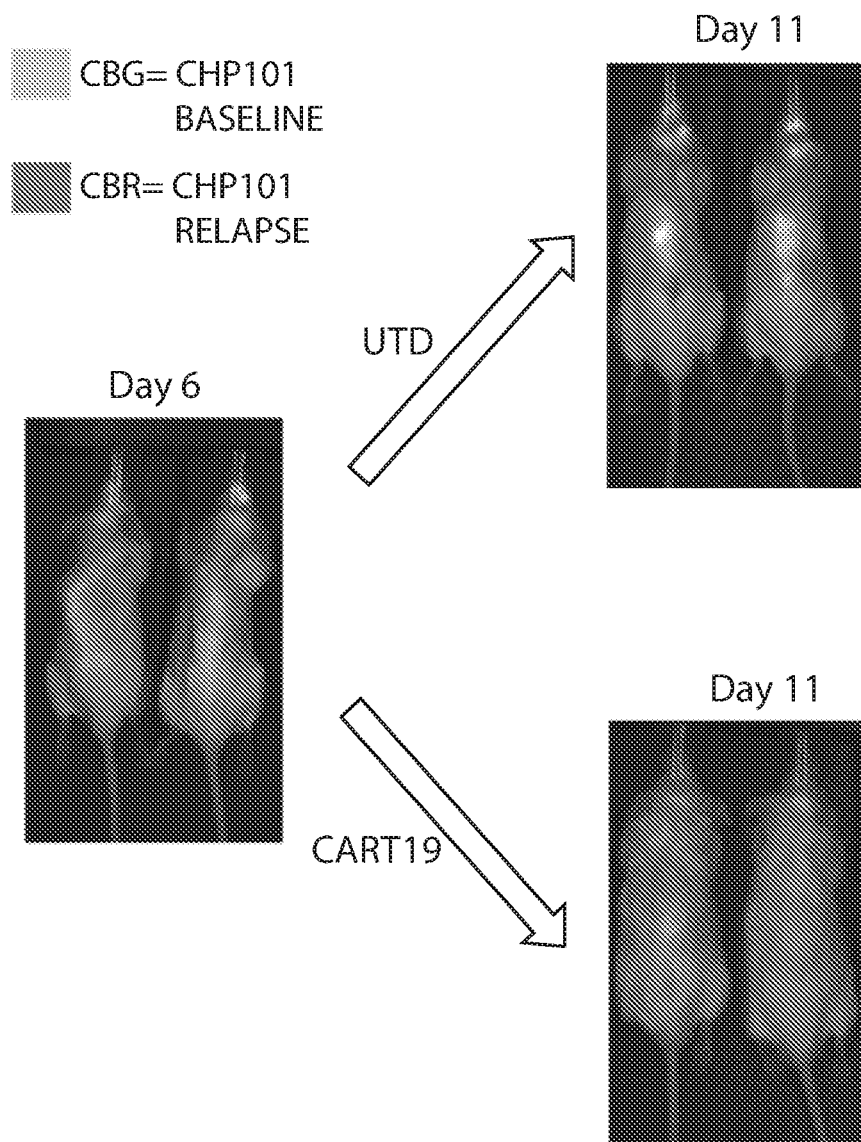
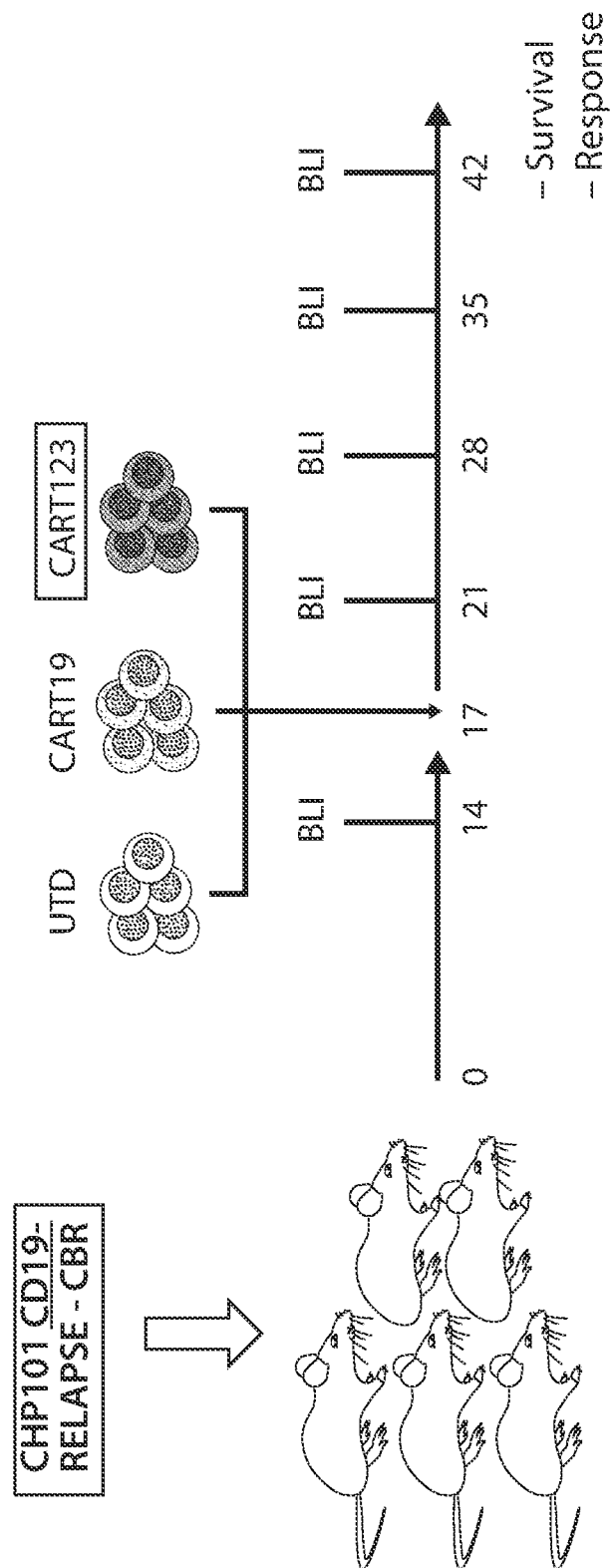


FIG. 52C



FD-52G^{*}
F

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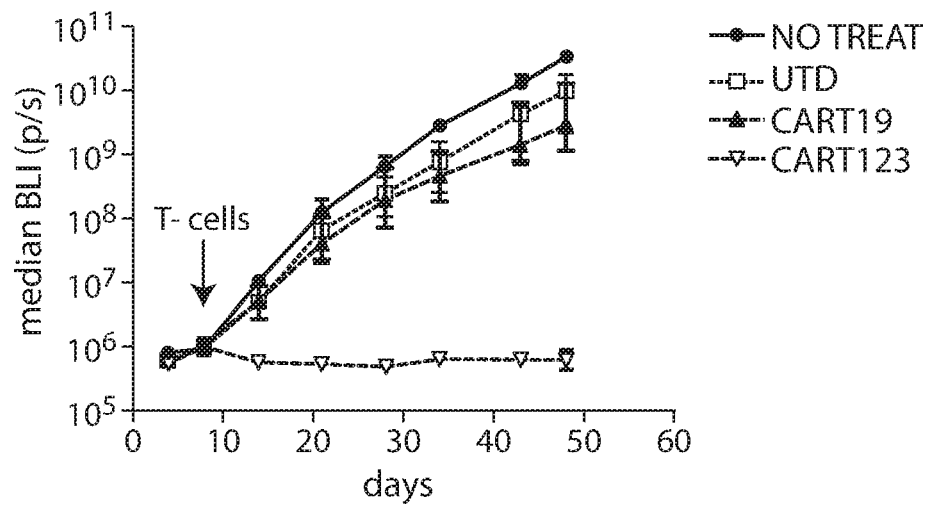


FIG. 52E

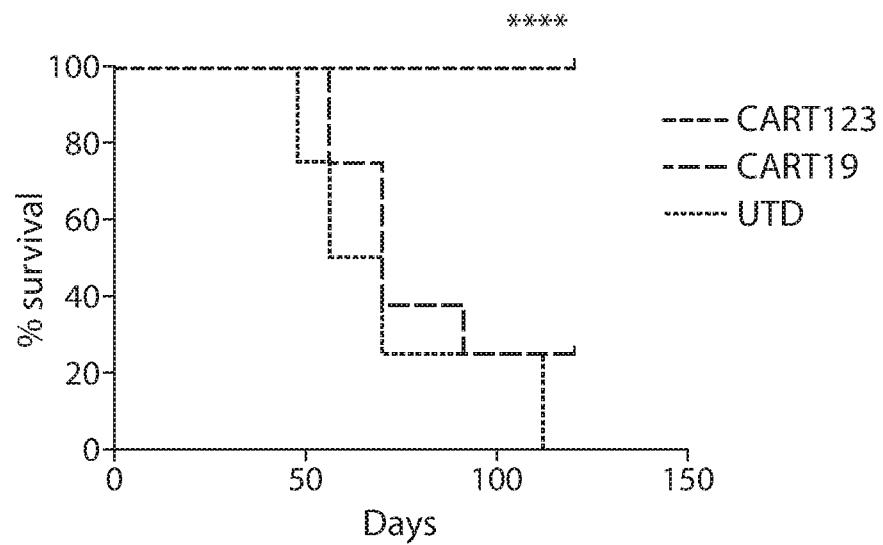
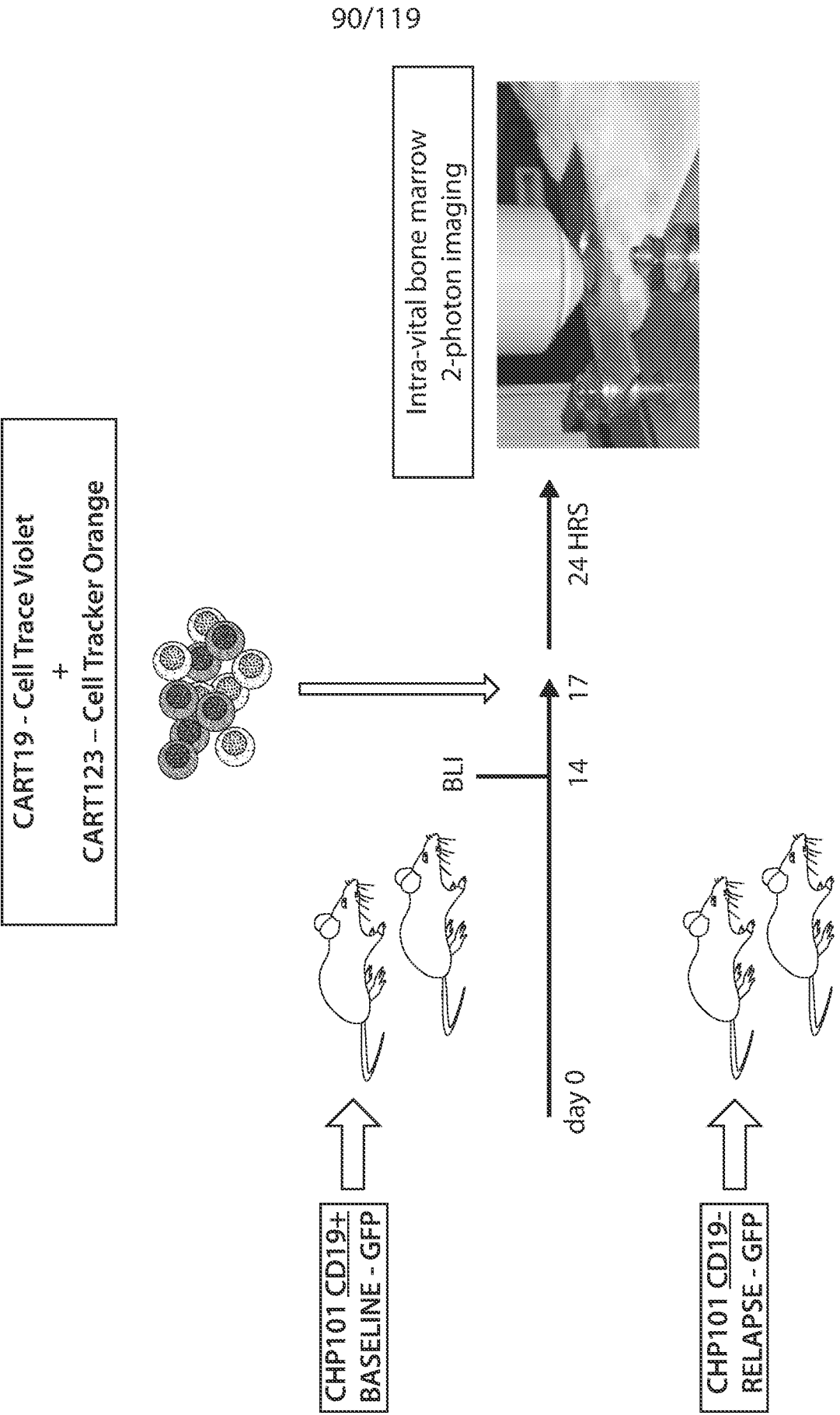


FIG. 52F



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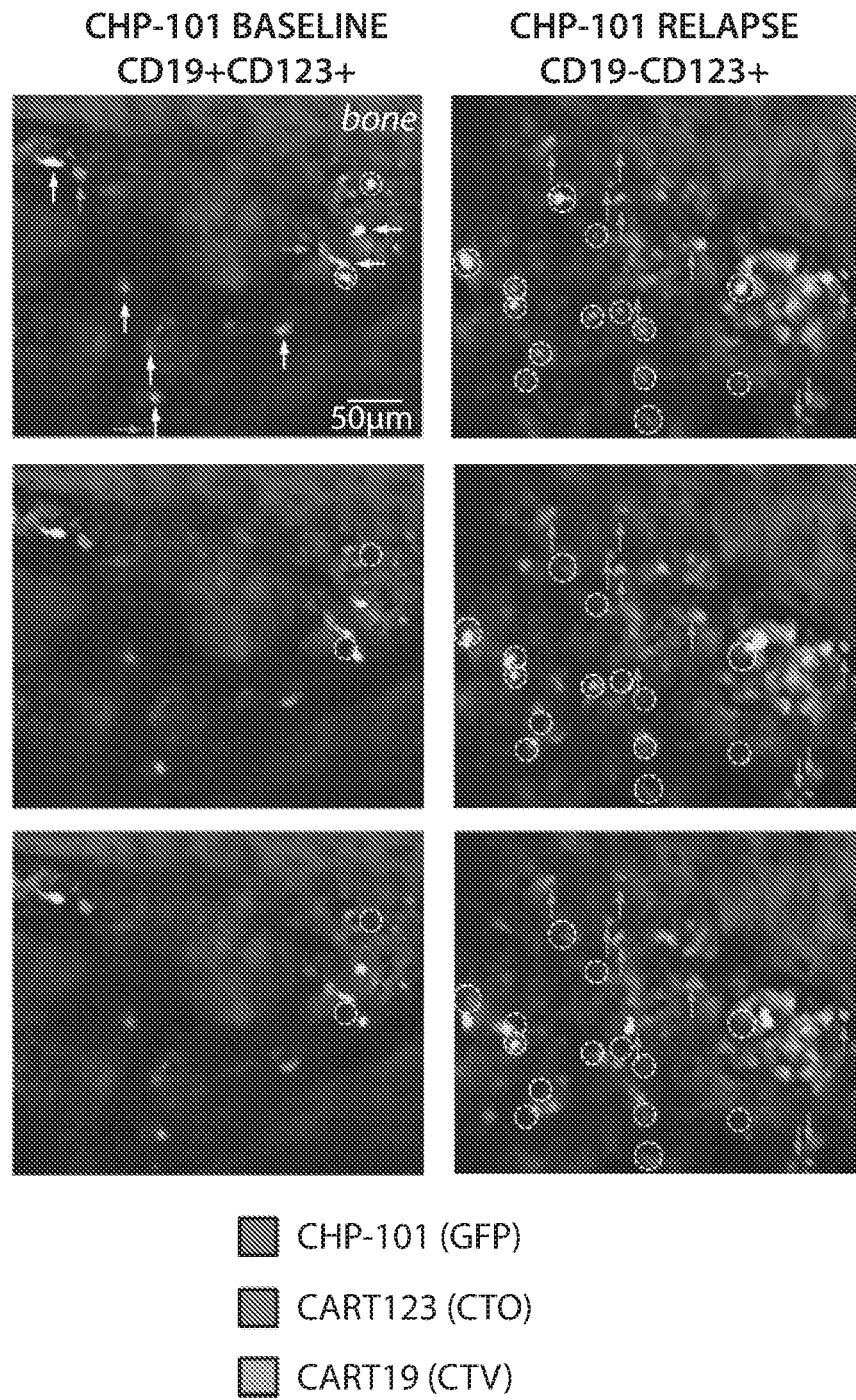


FIG. 53B

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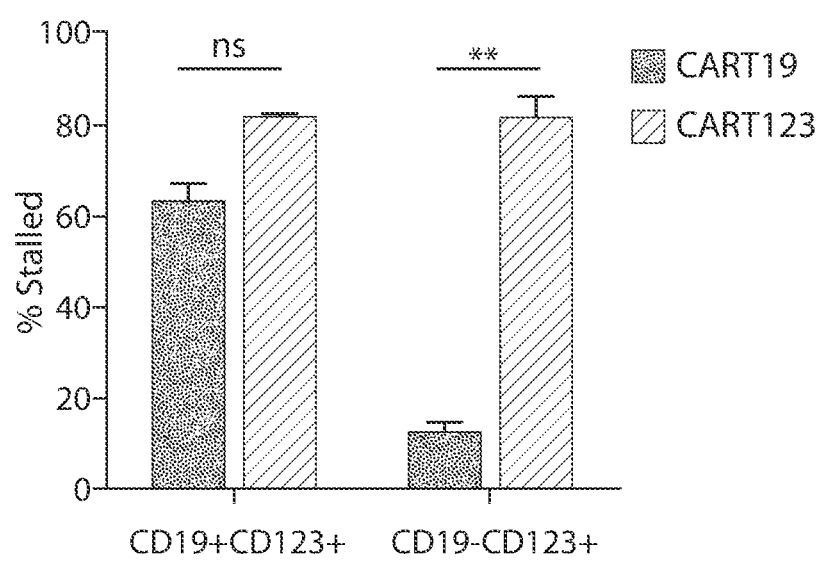


FIG. 53C

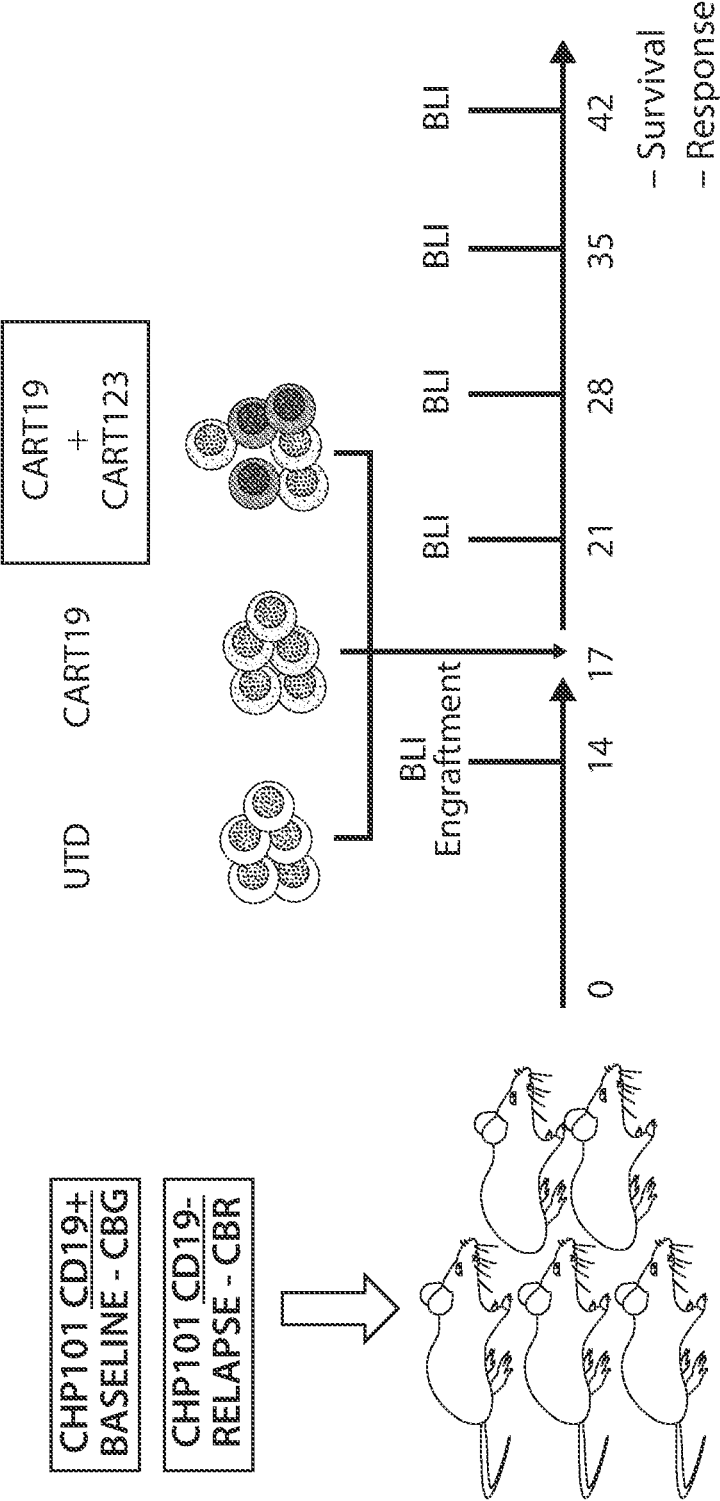


FIG. 54A

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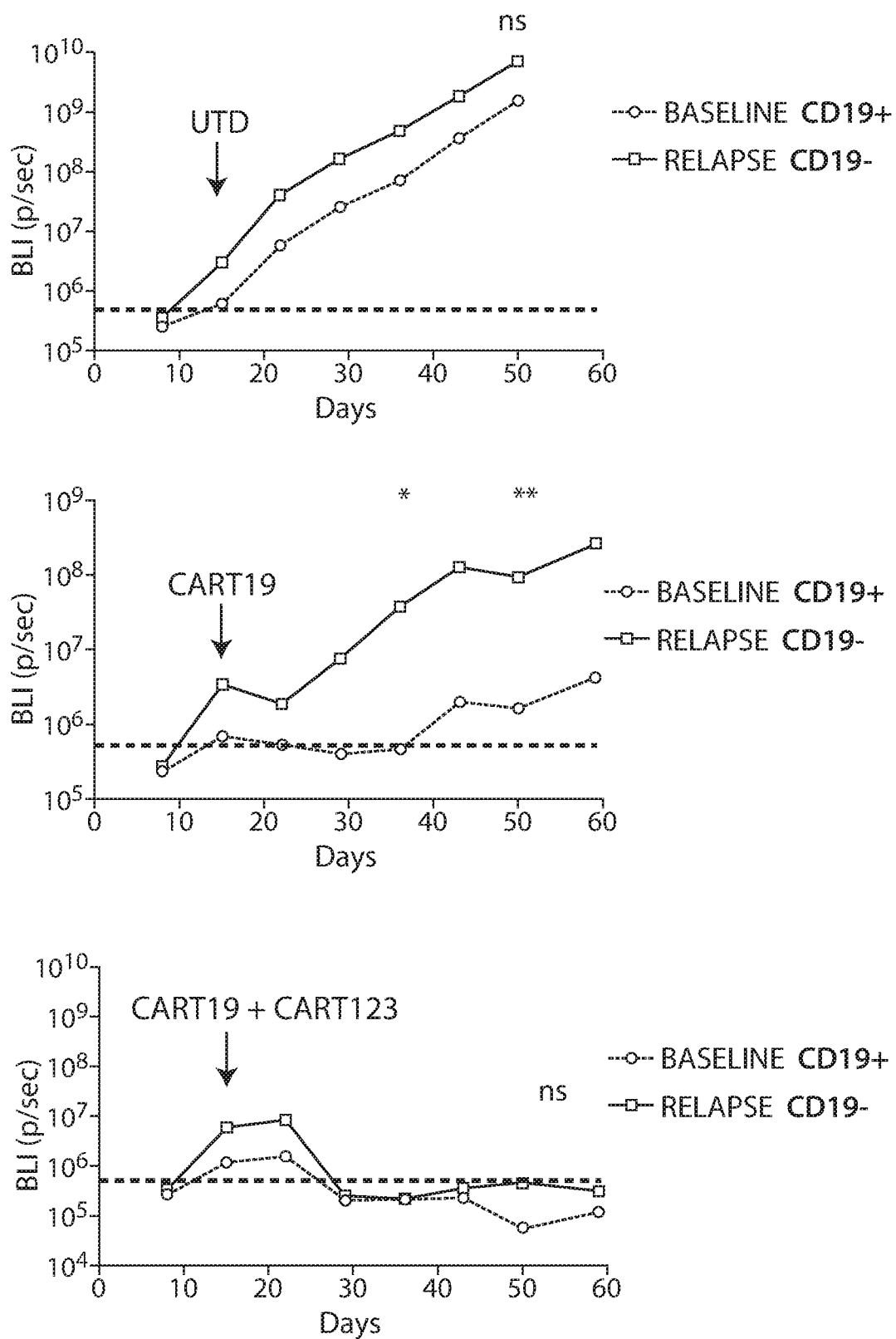


FIG. 54B

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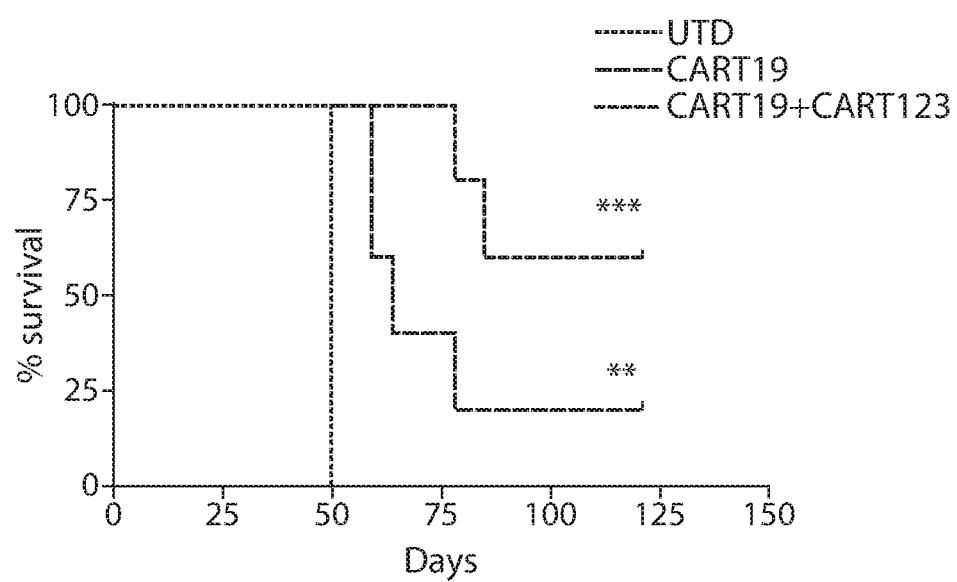


FIG. 54C

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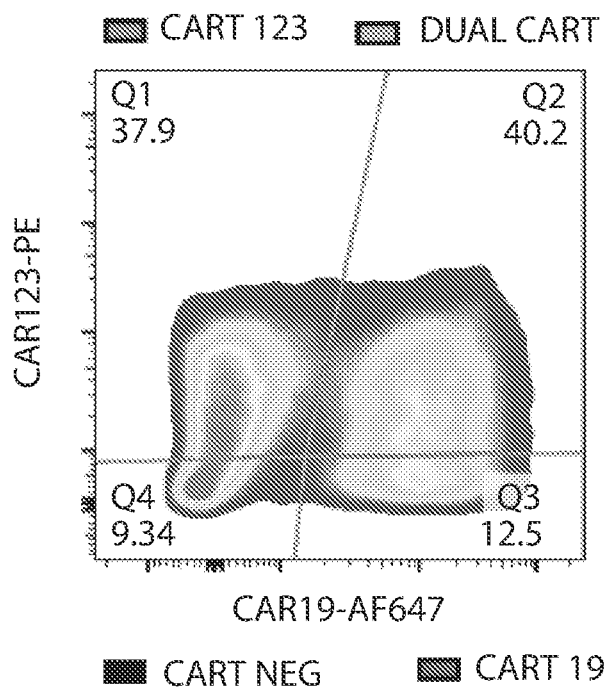


FIG. 55A

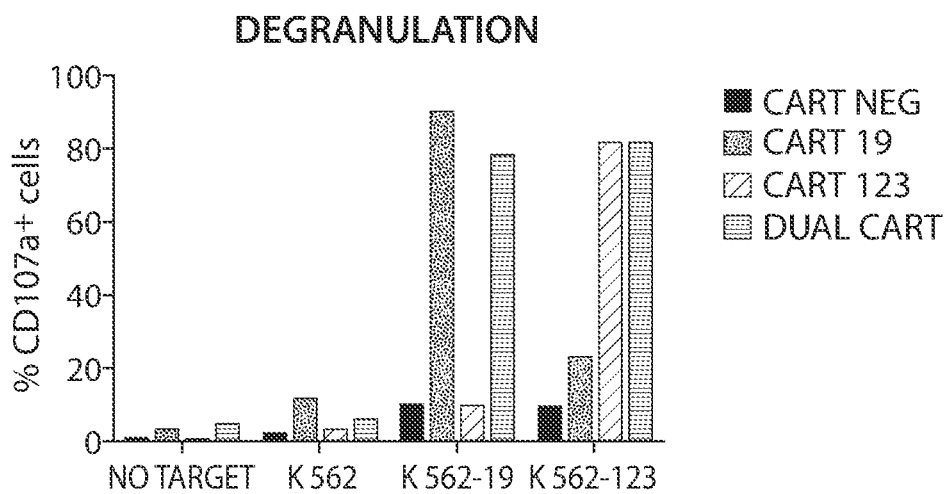


FIG. 55B

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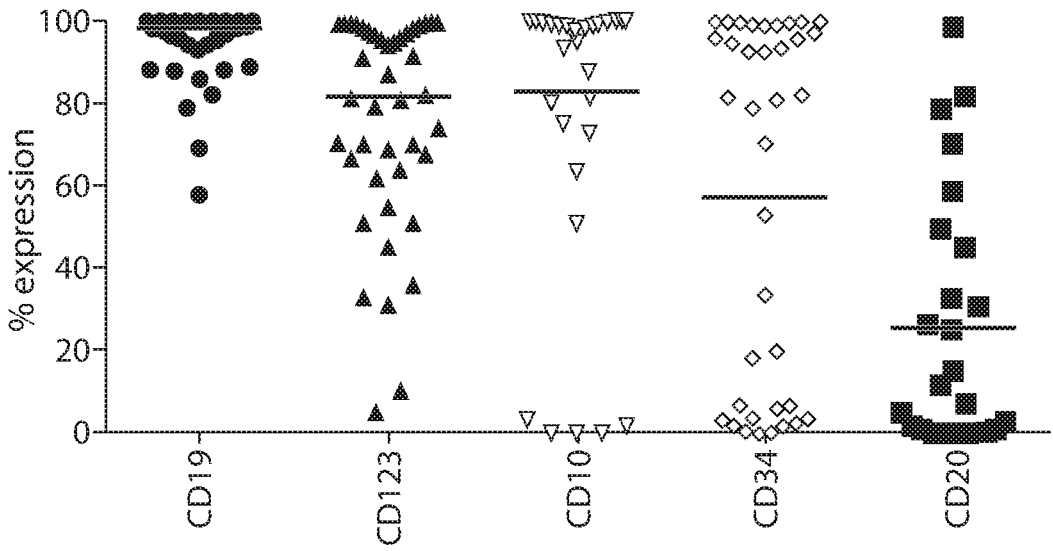


FIG. 56A

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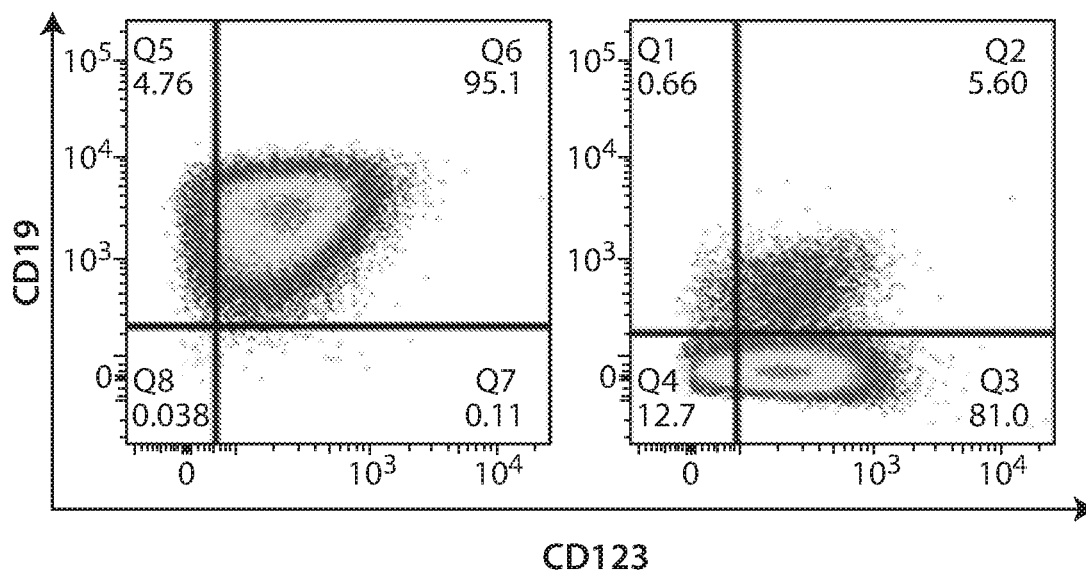
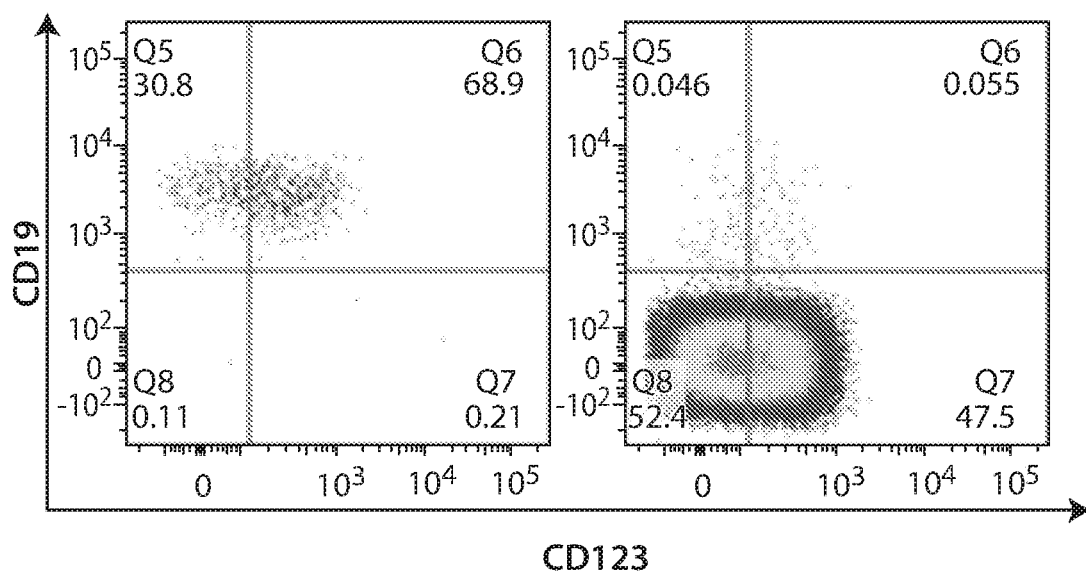
Adult UPCC-29Pediatric CHP-107

FIG. 56B

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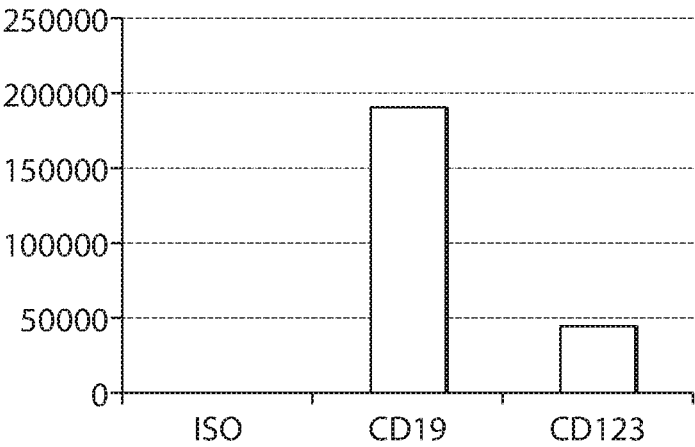


FIG. 57A

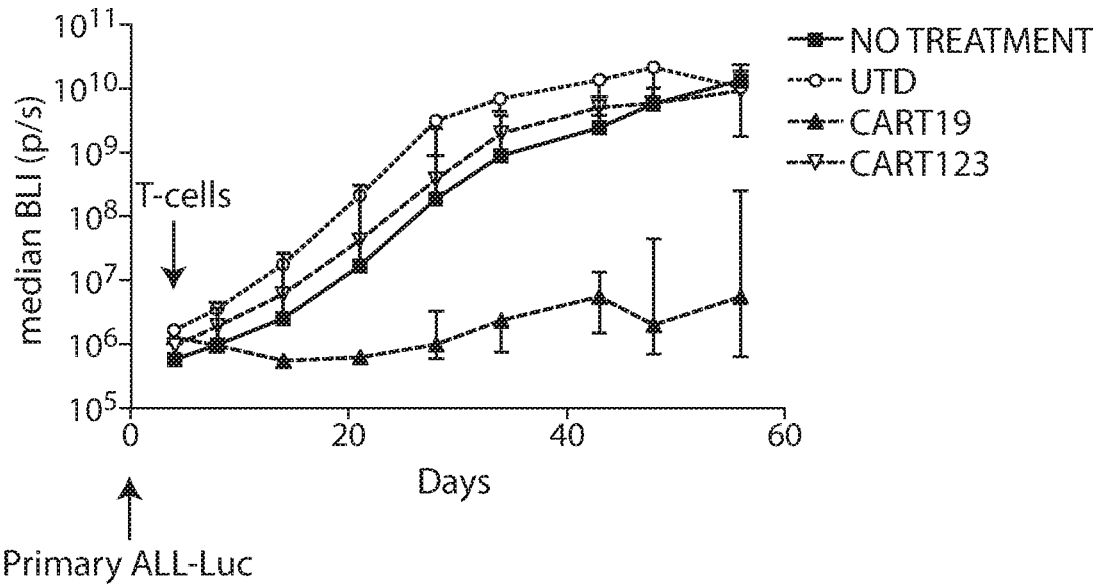


FIG. 57B

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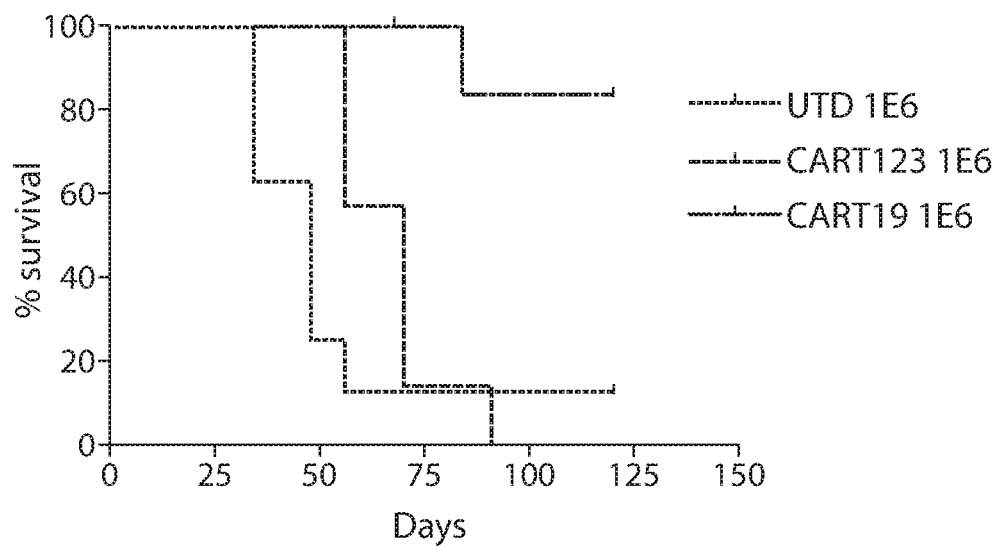


FIG. 57C

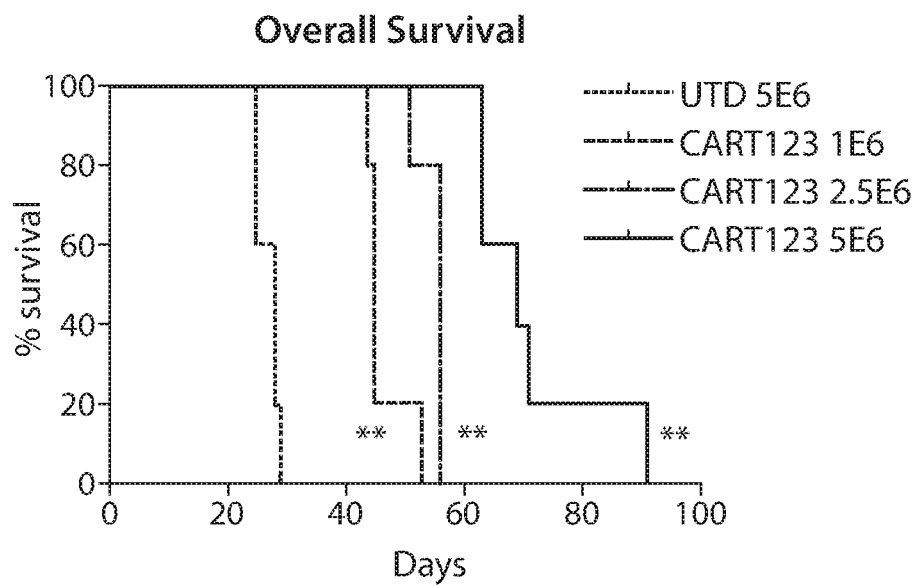


FIG. 57D

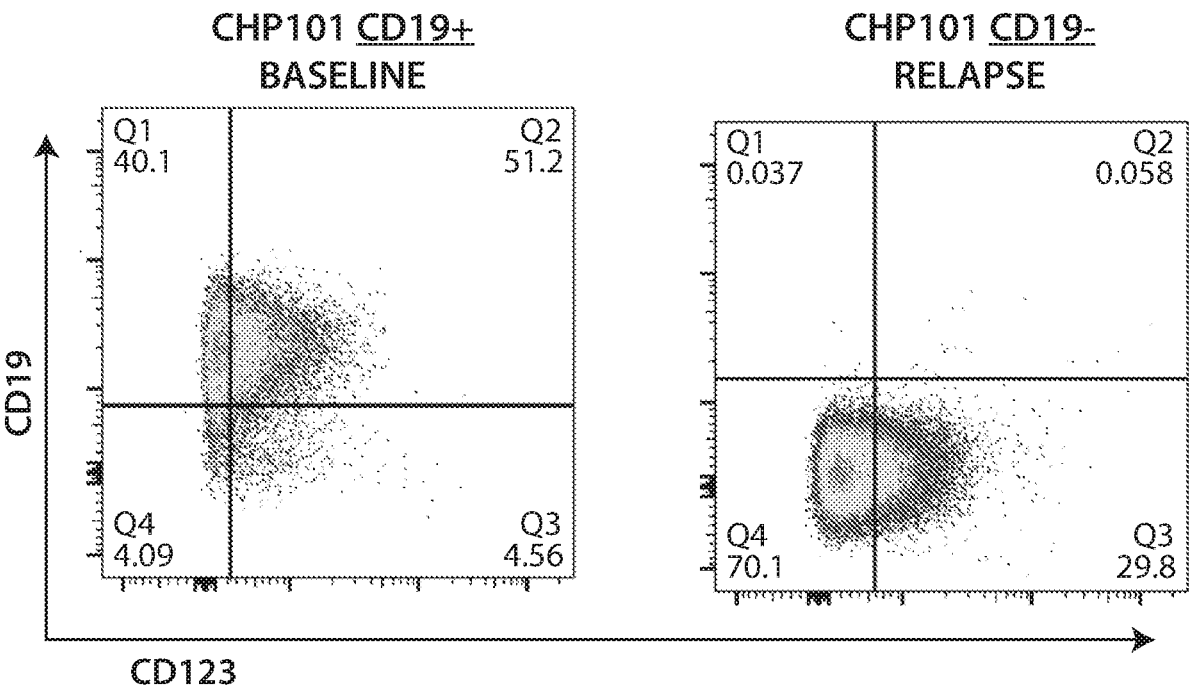


FIG. 58A

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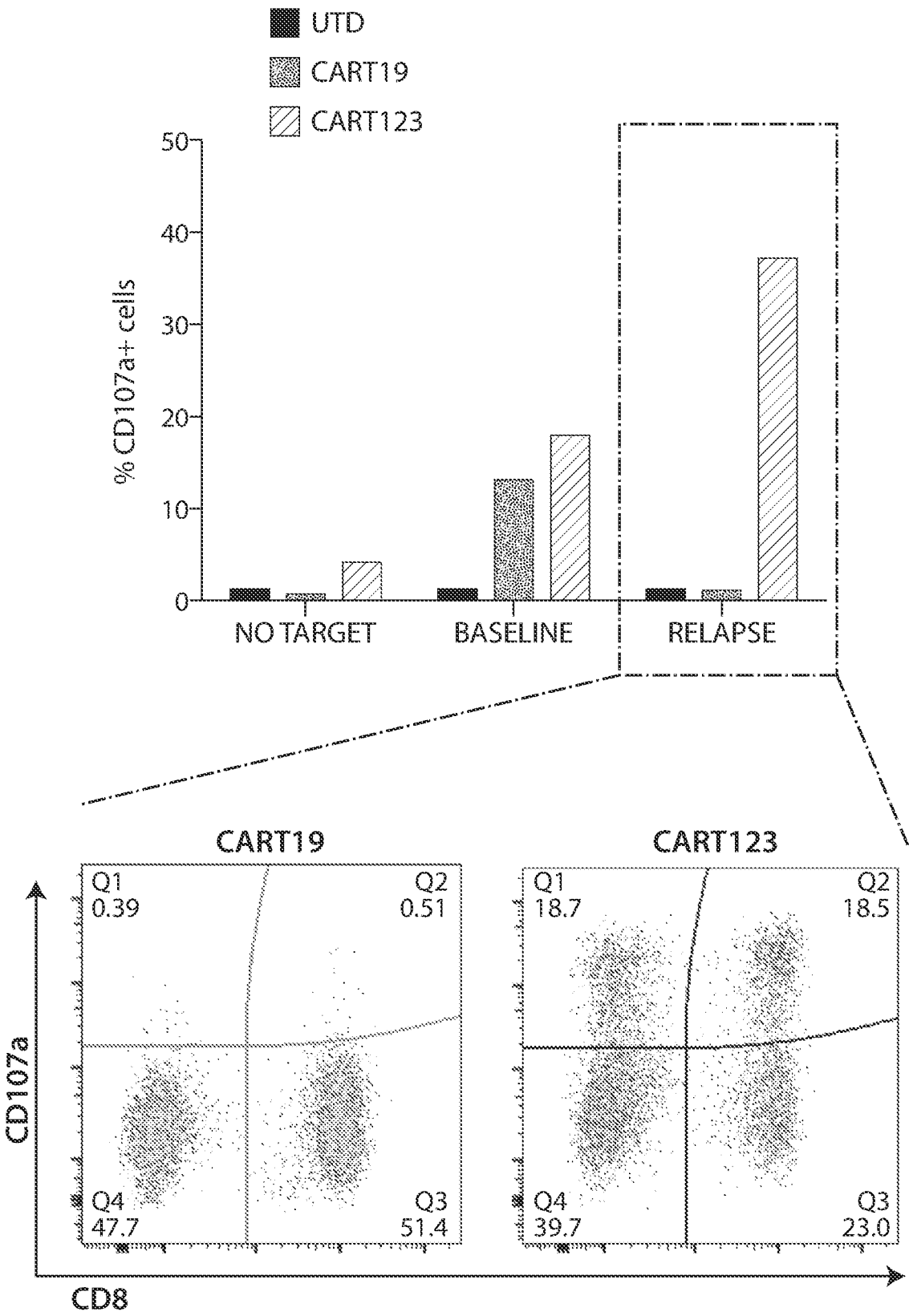


FIG. 58B

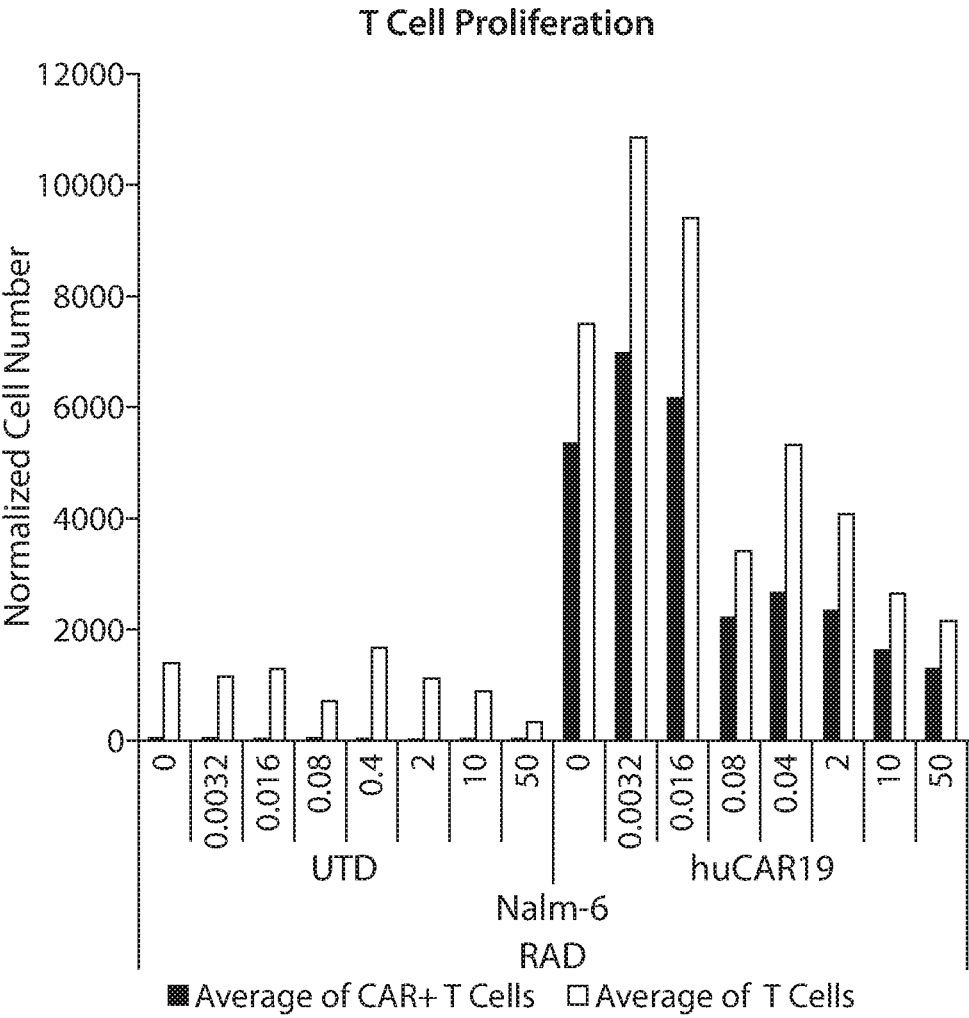


FIG. 59

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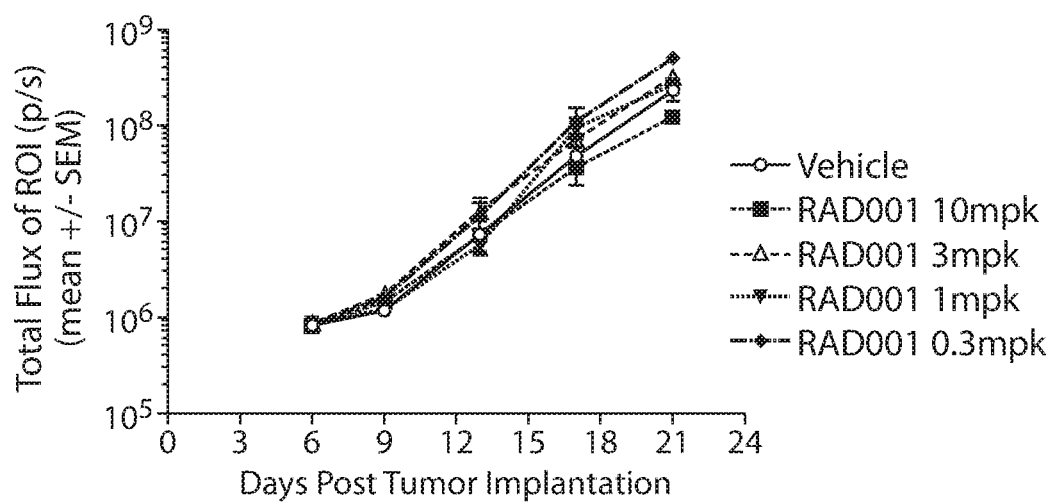


FIG. 60

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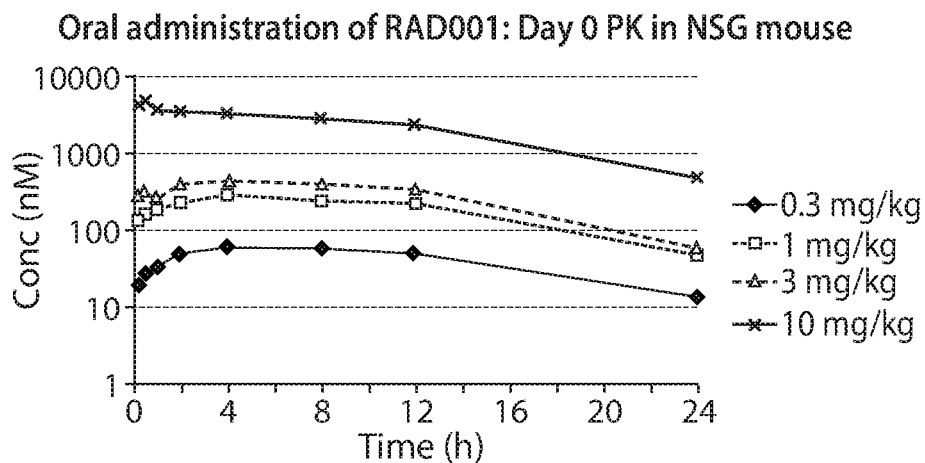


FIG. 61A

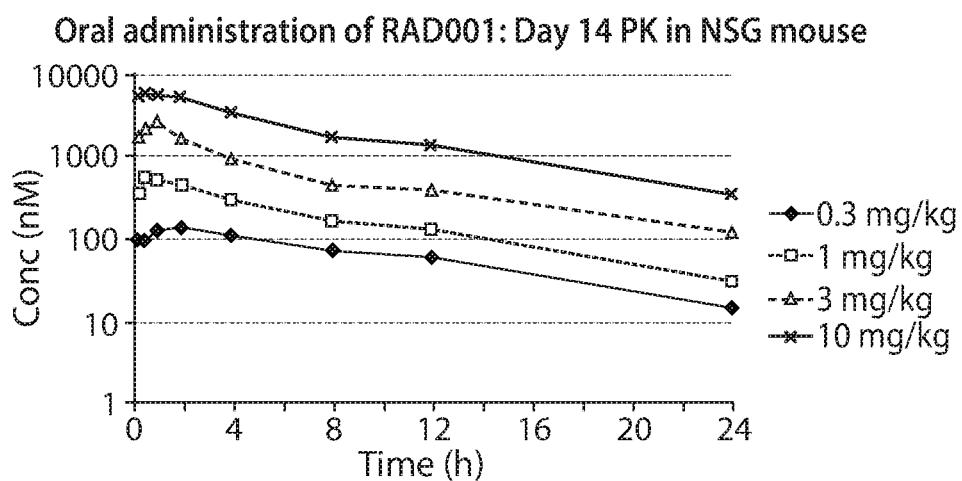


FIG. 61B

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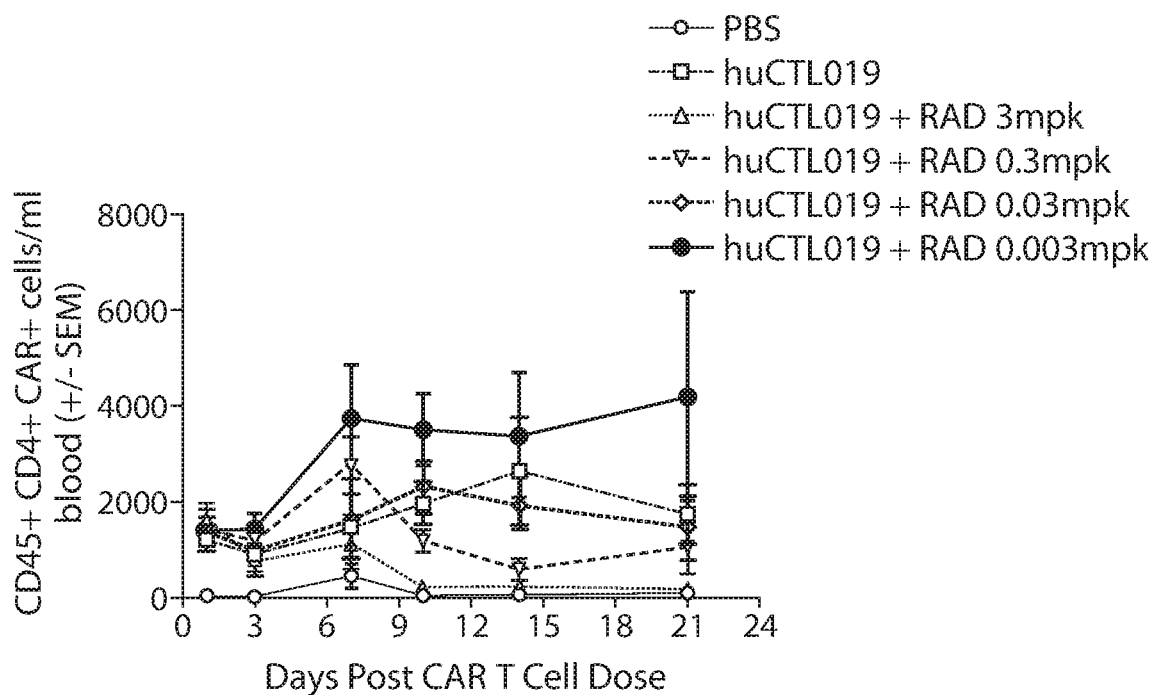


FIG. 62A

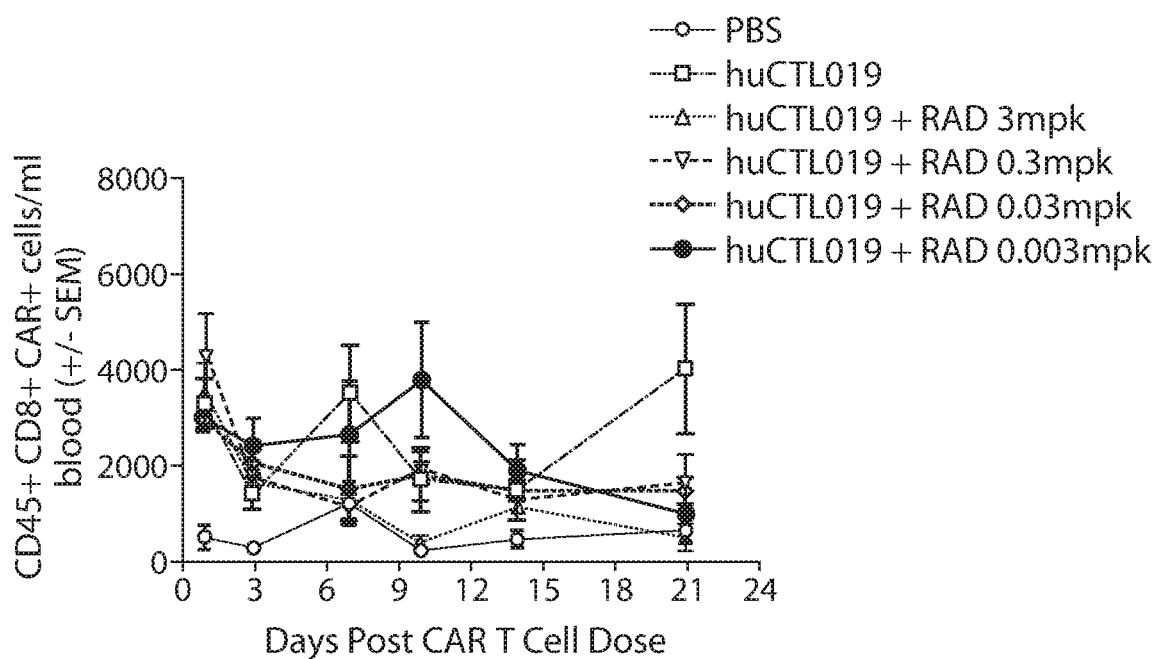


FIG. 62B

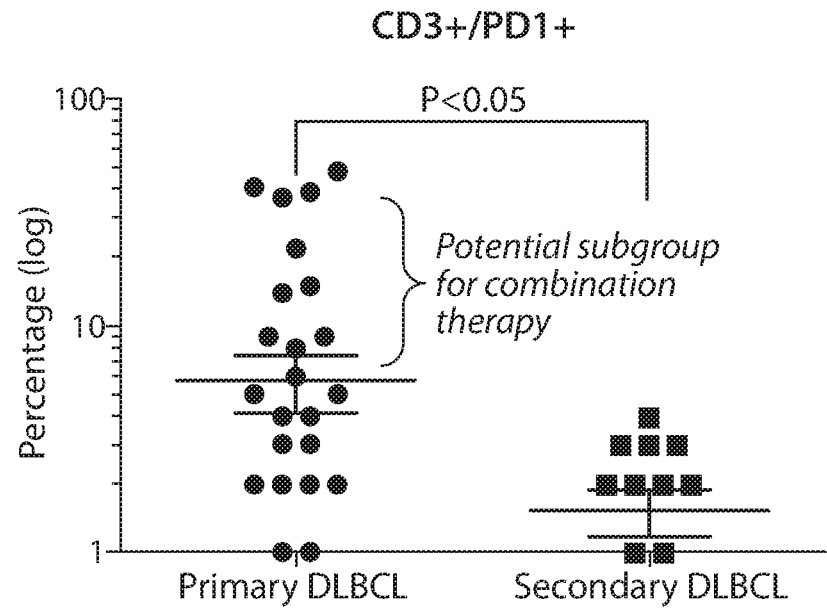


FIG. 63

Broad Range of CD19 is Expressed in DLBCL Patients
PD-L1 is Associated with non Tumor Cells DLBCL Patients

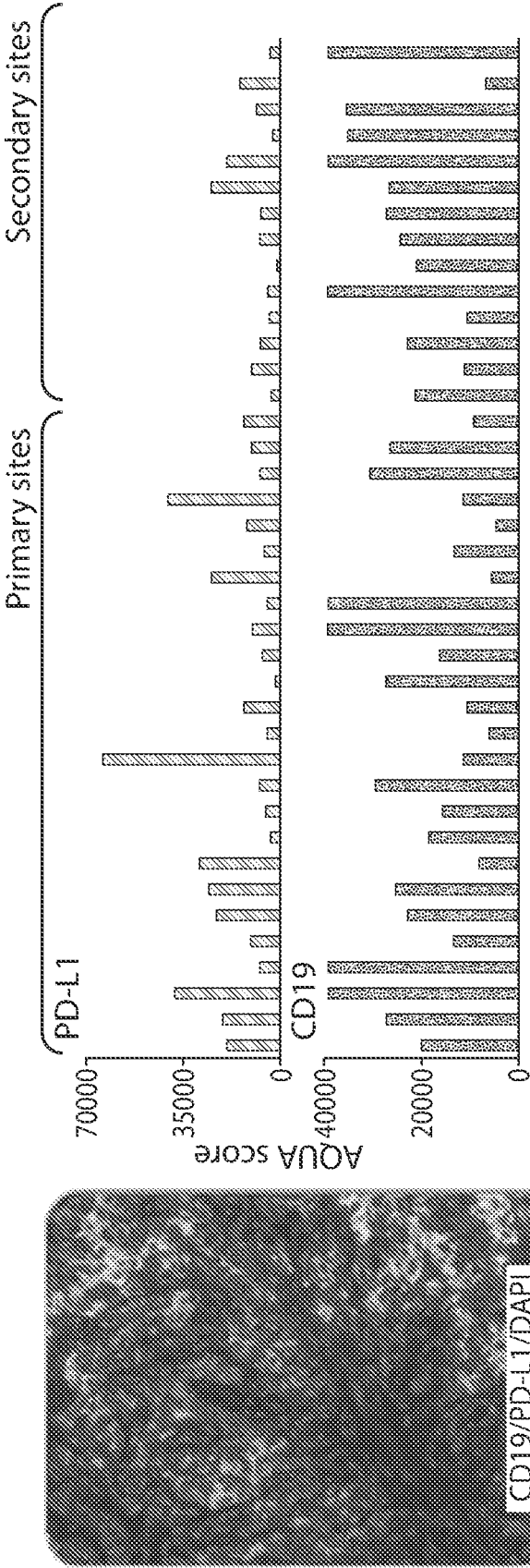


FIG. 64

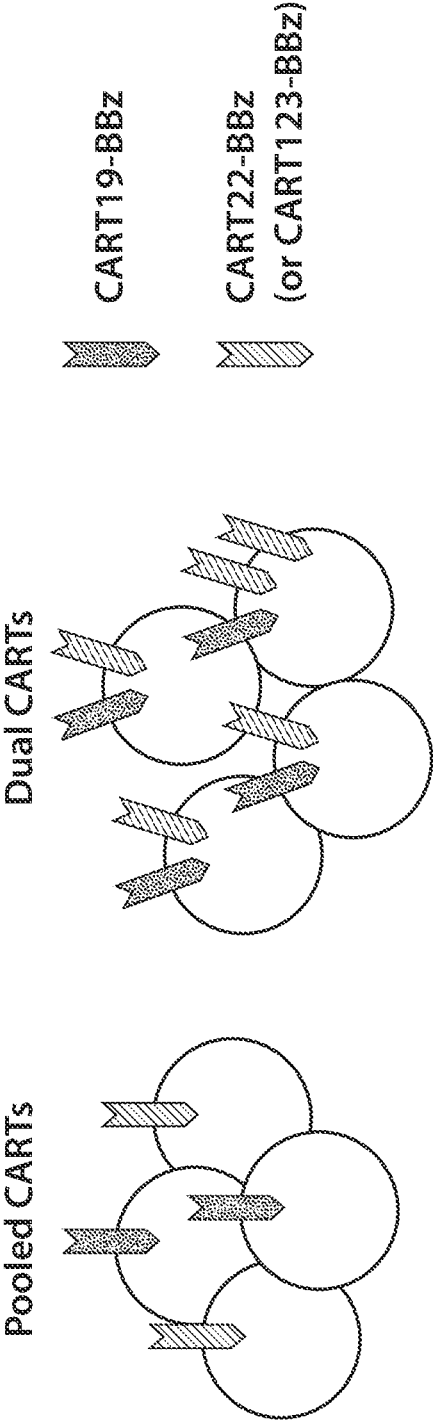
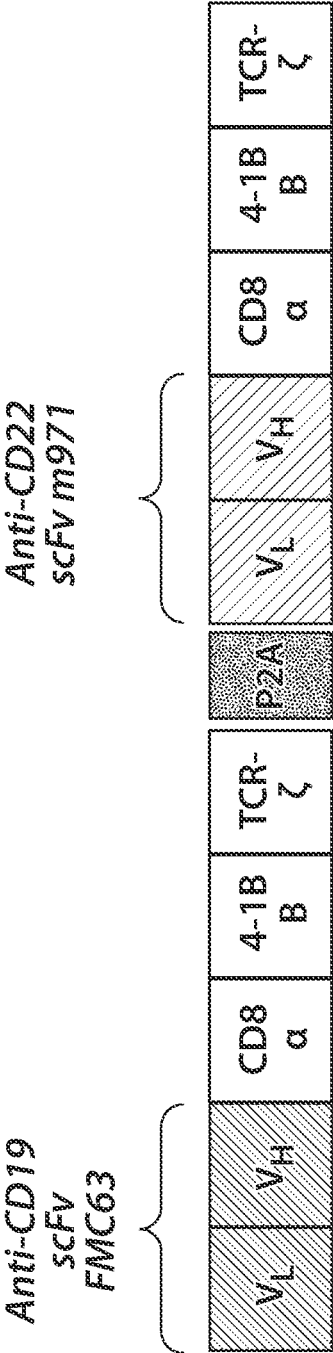


FIG. 65

DUAL CART-19/22



DUAL CART-19/123

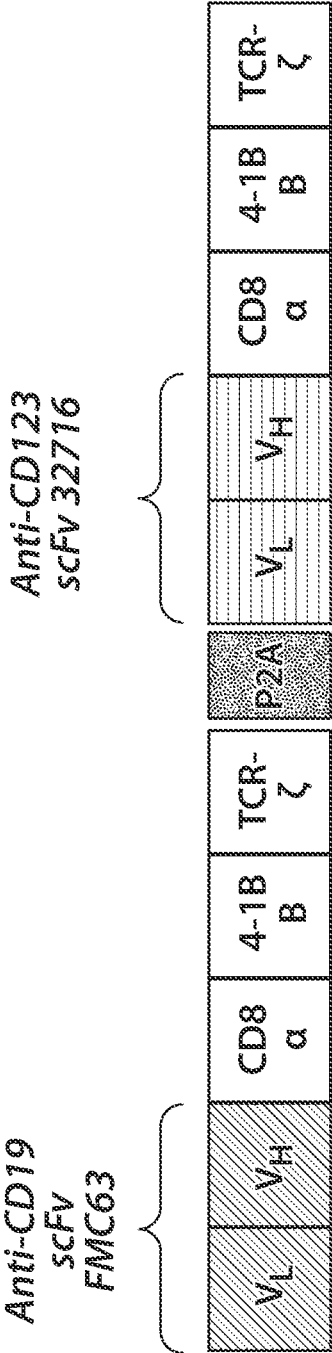


FIG. 66

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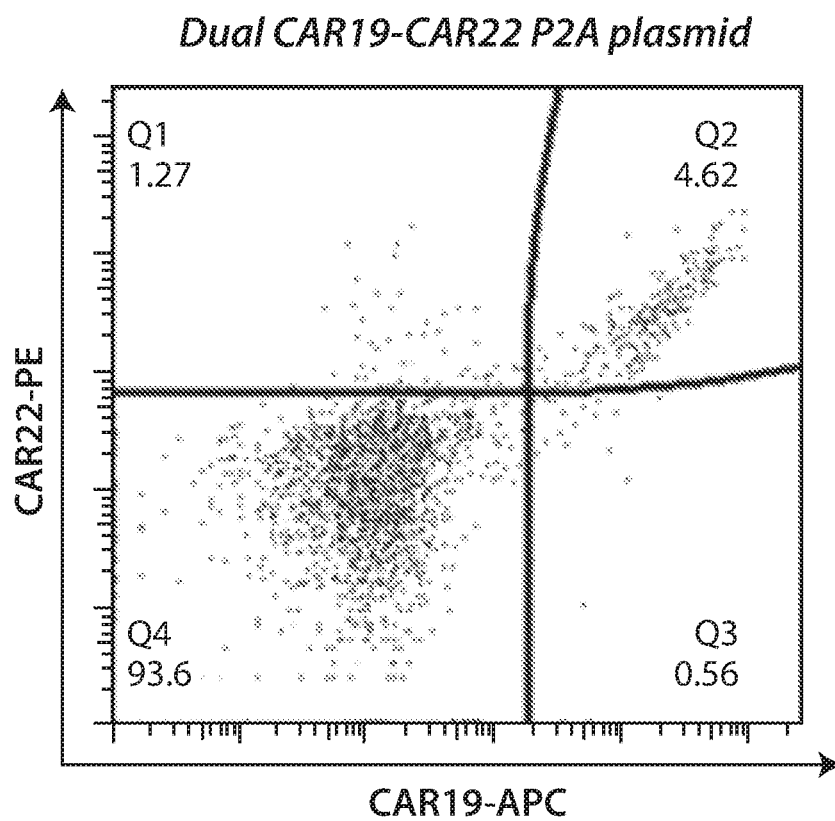


FIG. 67

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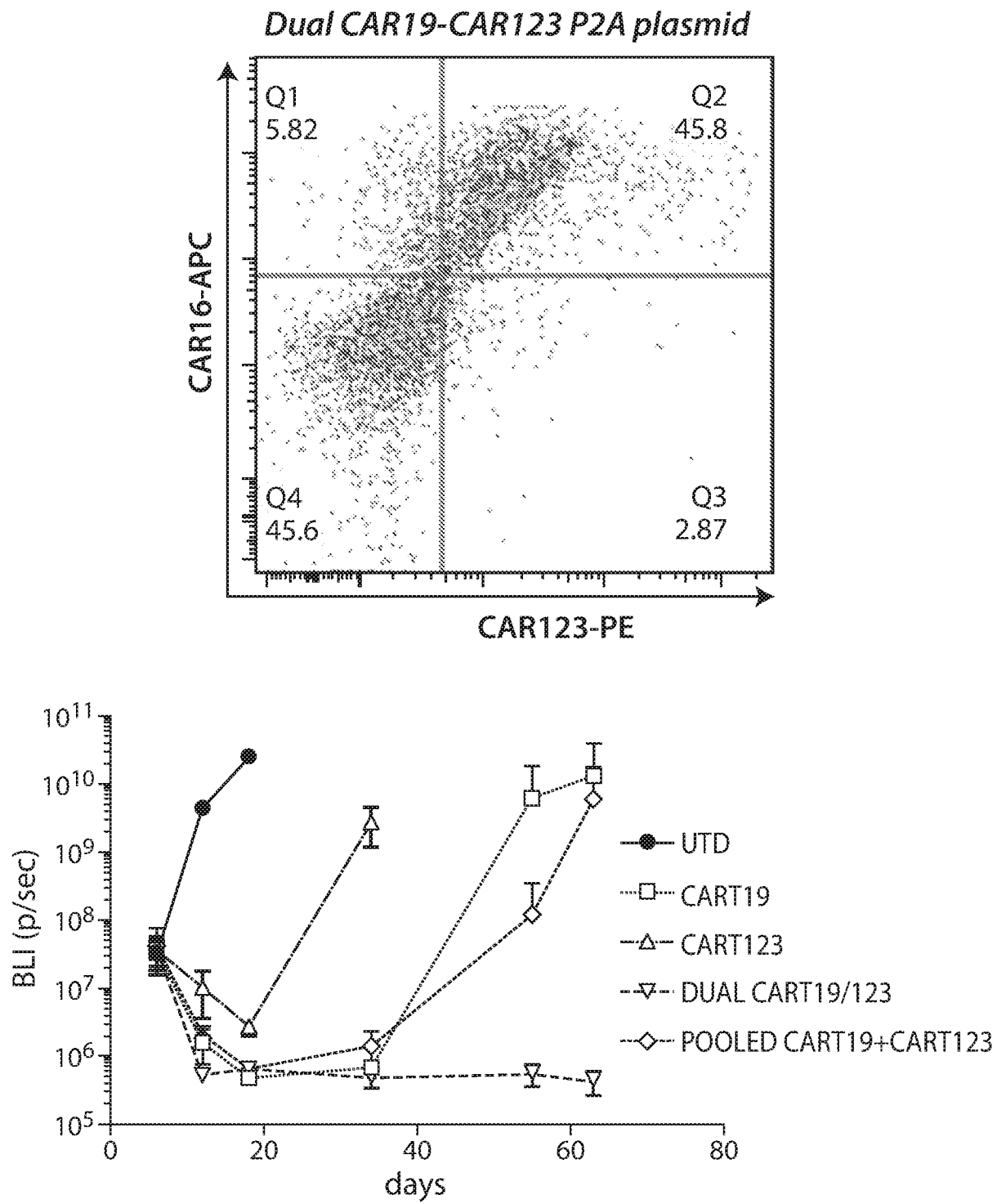
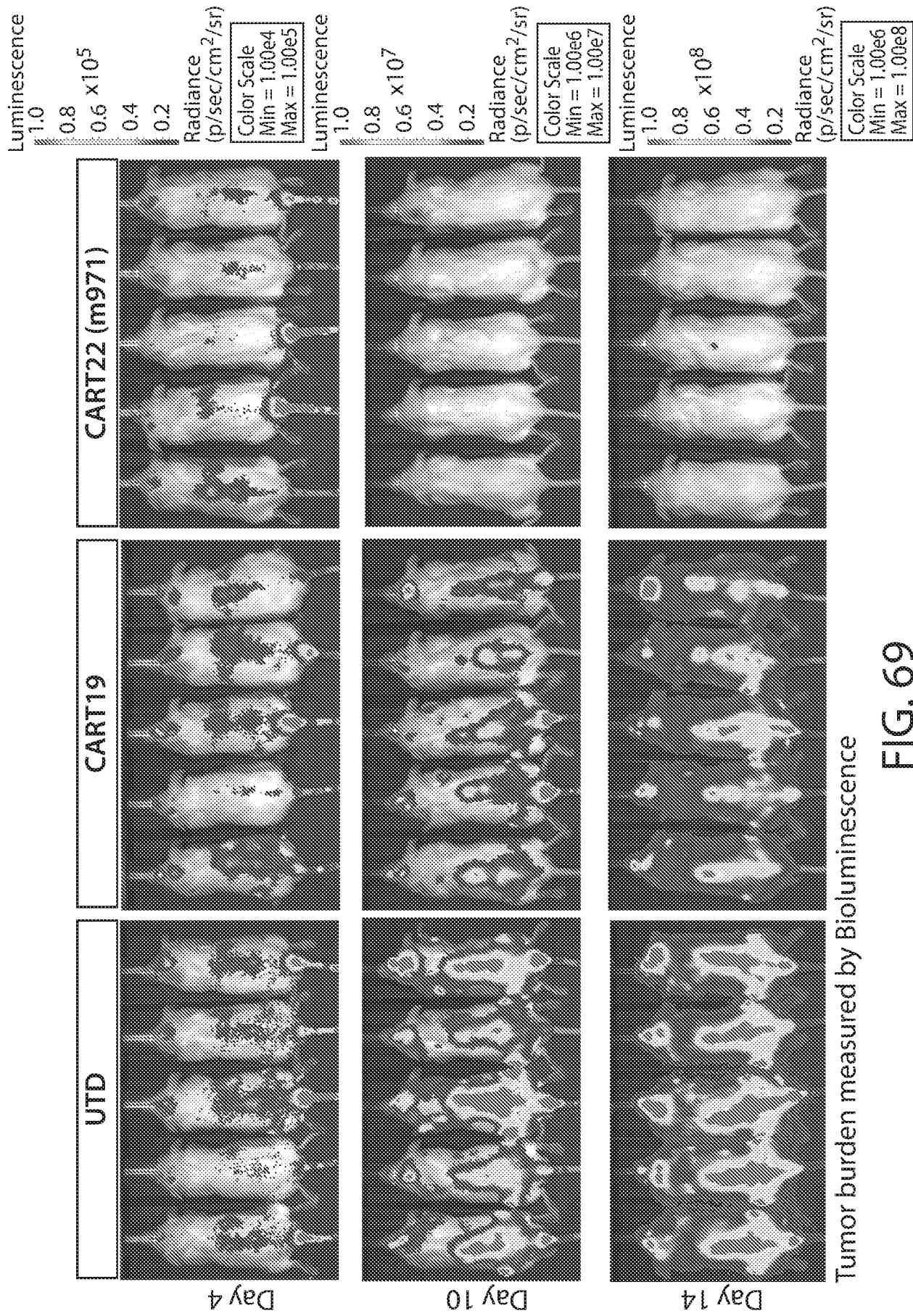


FIG. 68



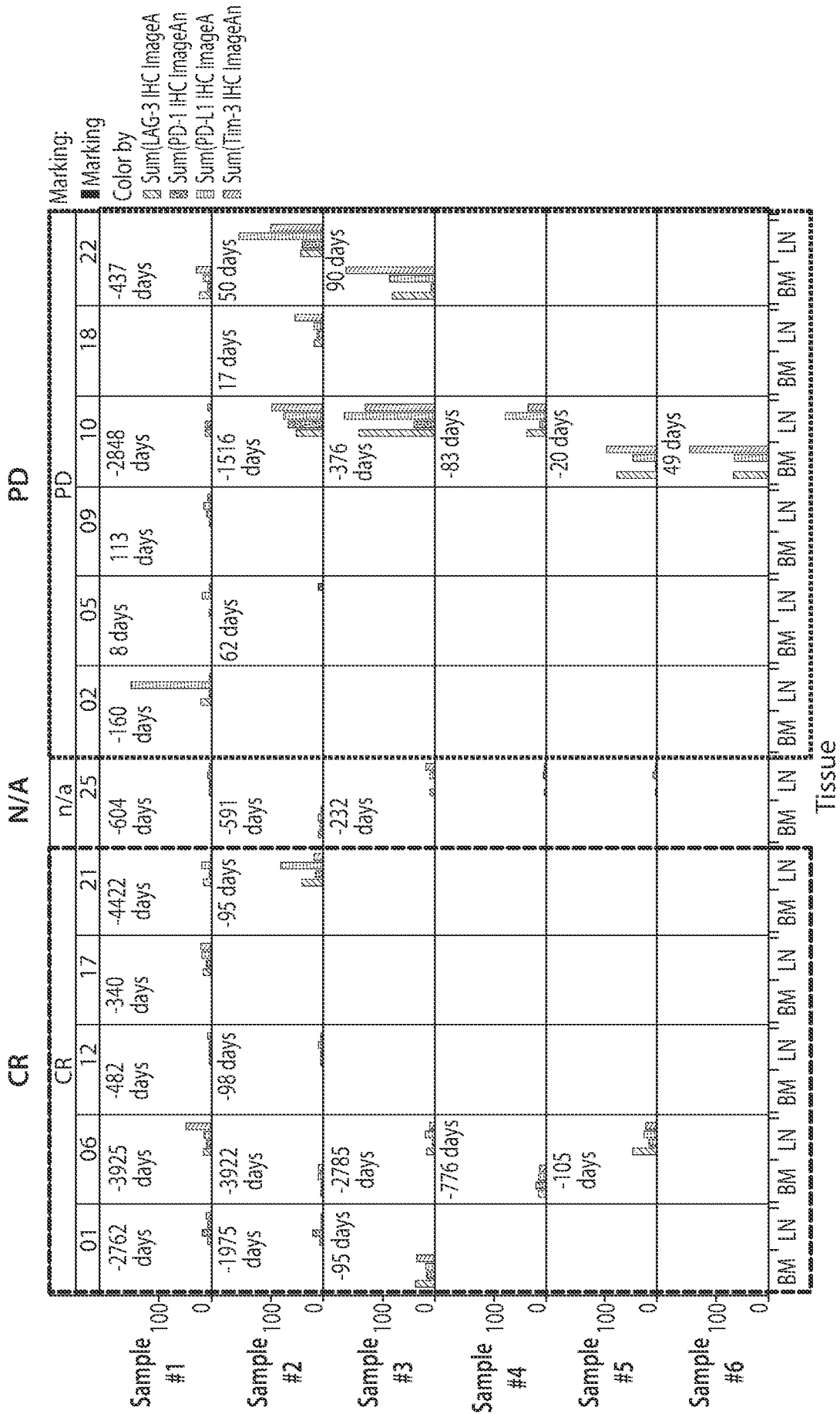


FIG. 70

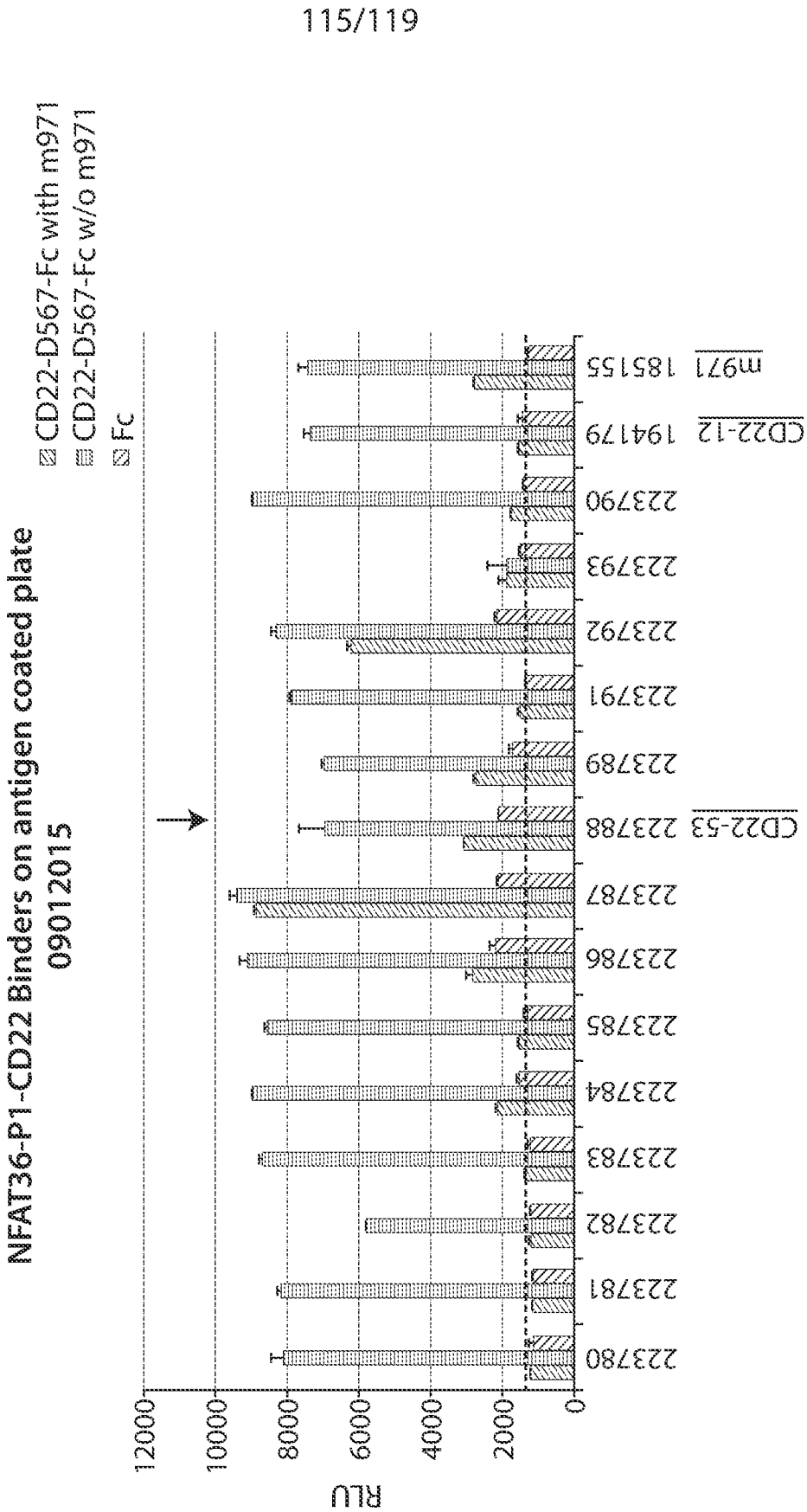


FIG. 71

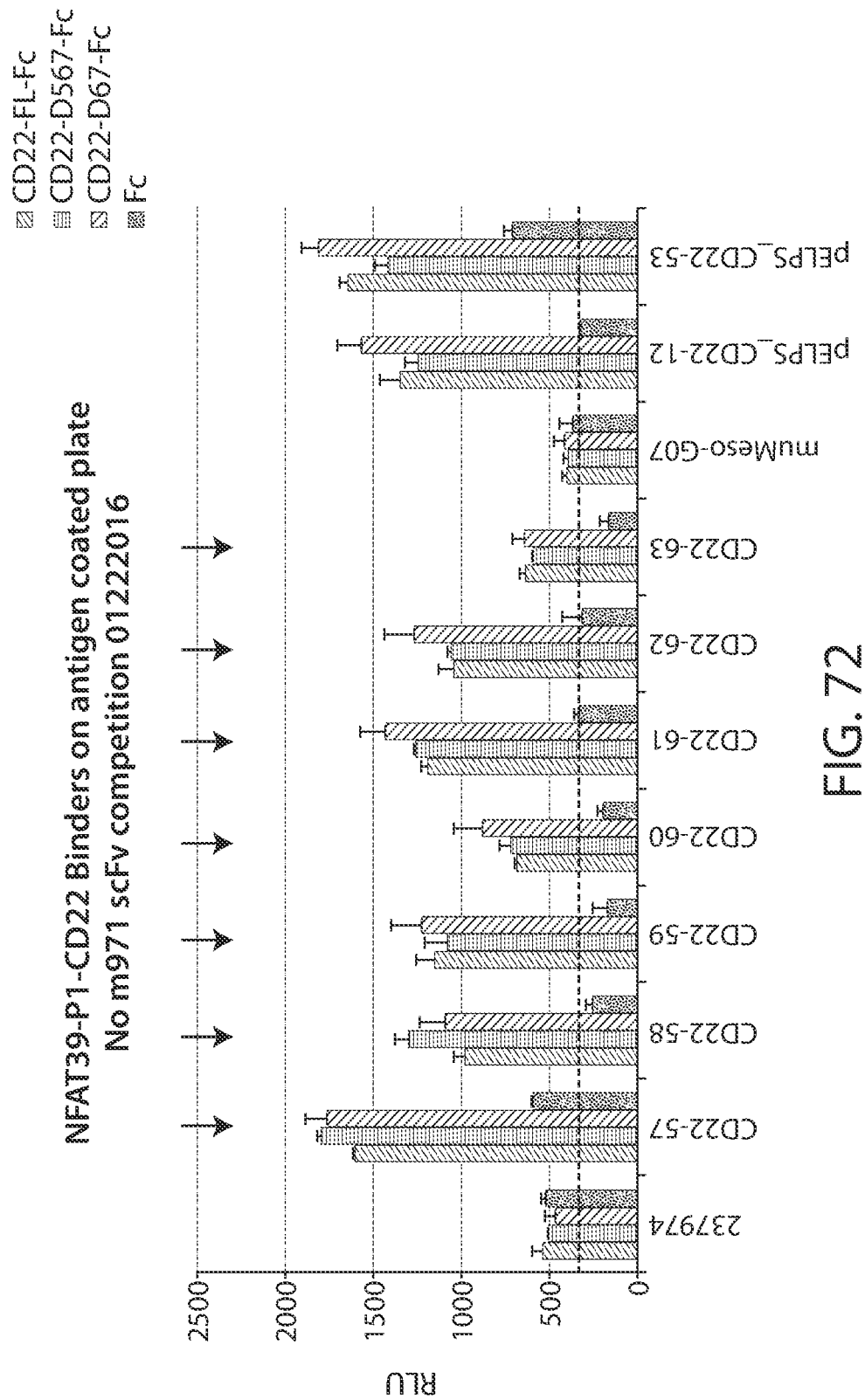
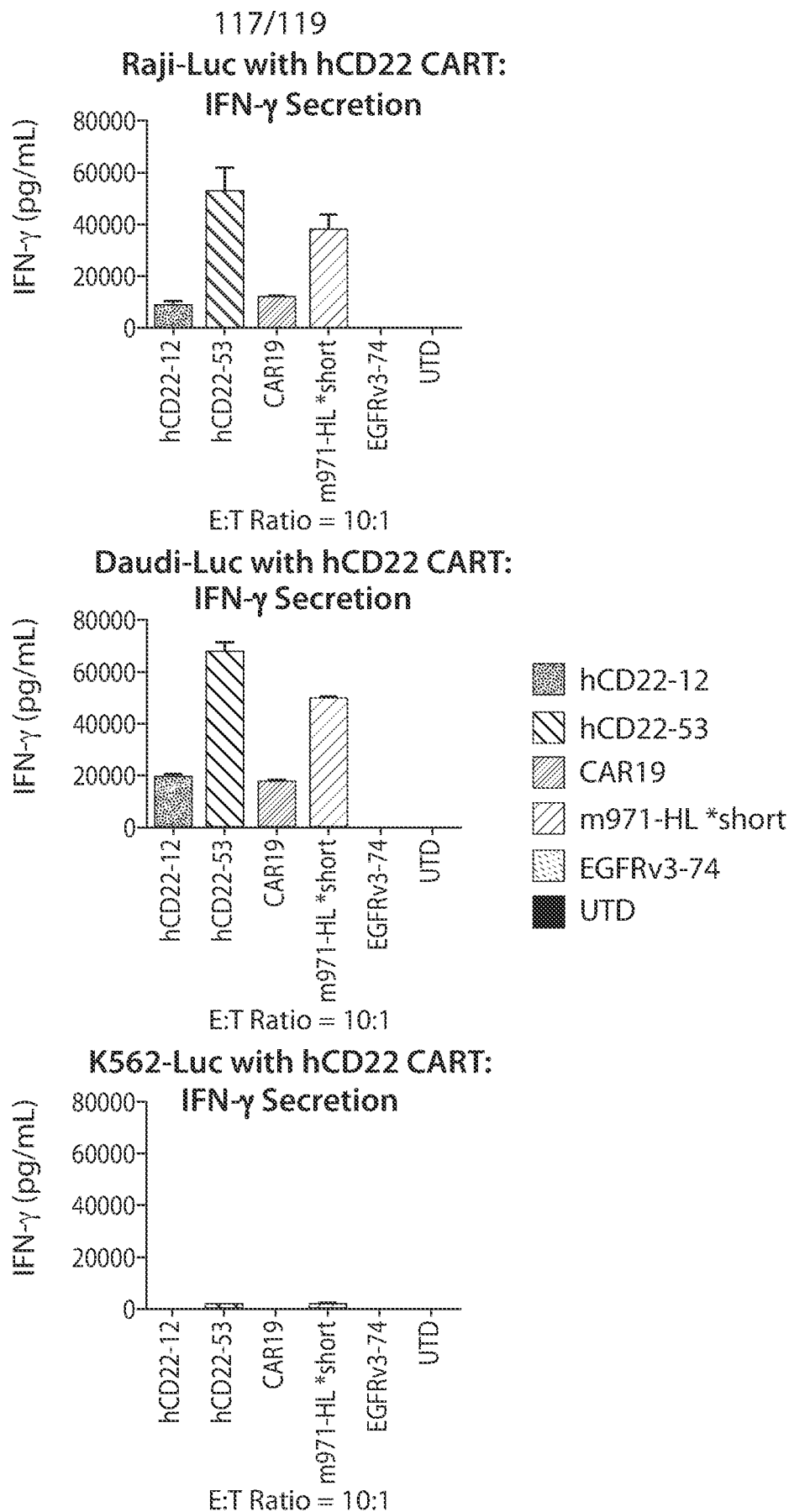


FIG. 72

**FIG. 73**

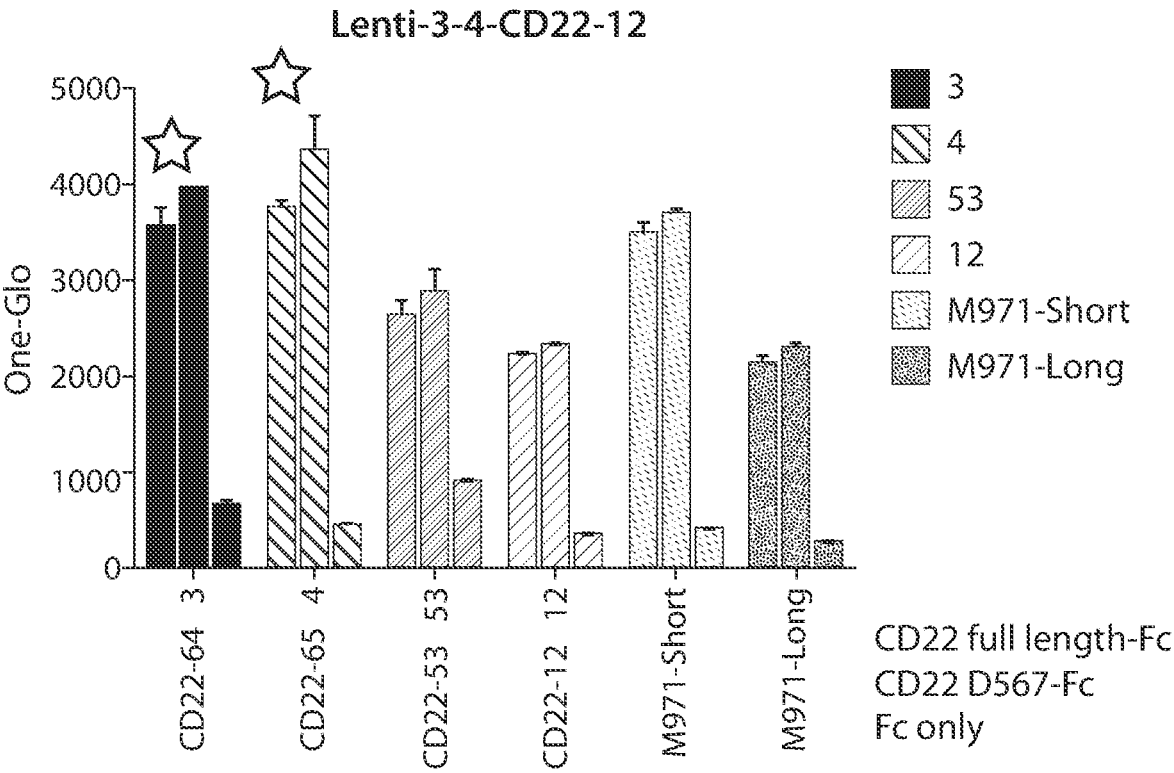


FIG. 74

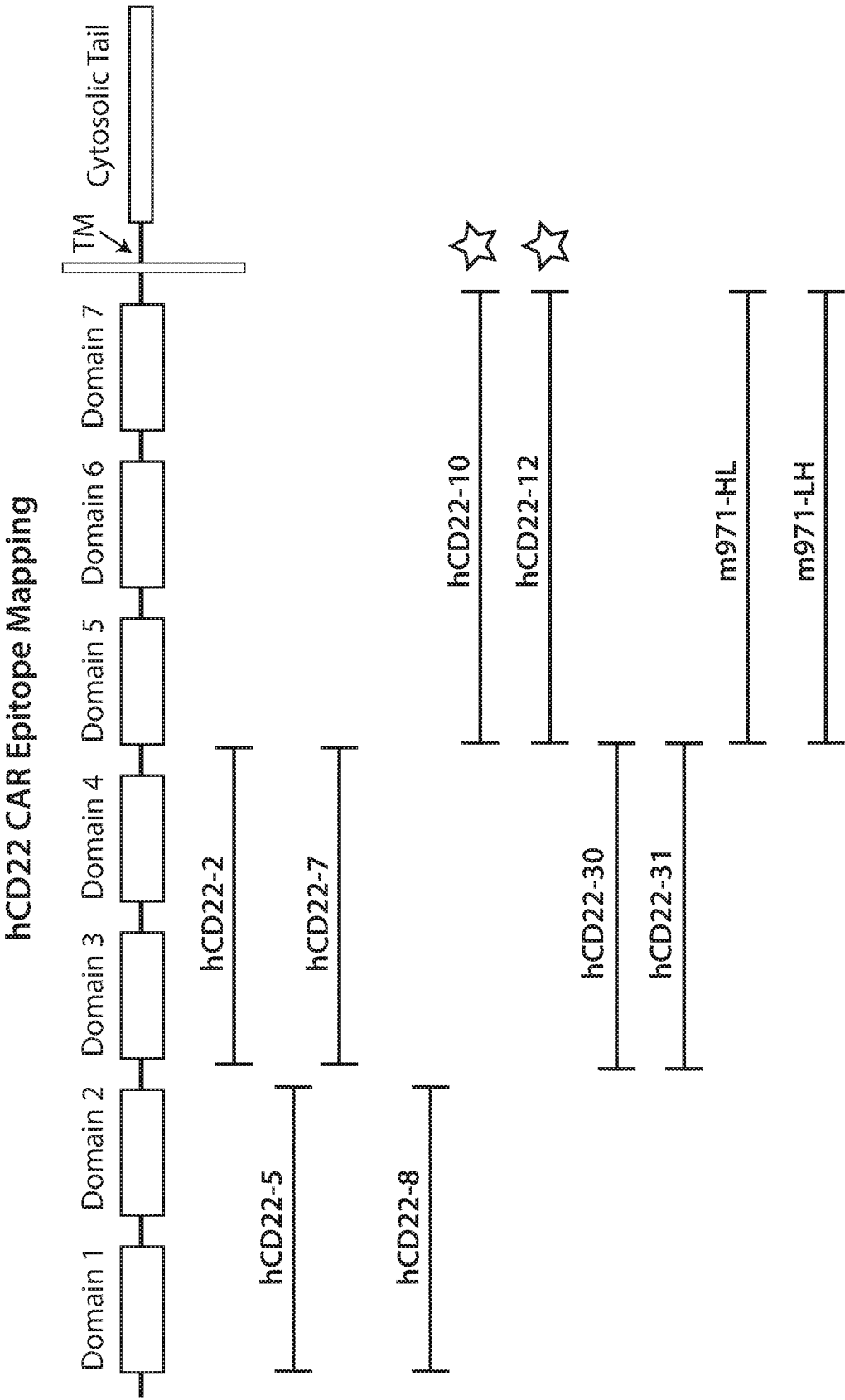


FIG. 75