

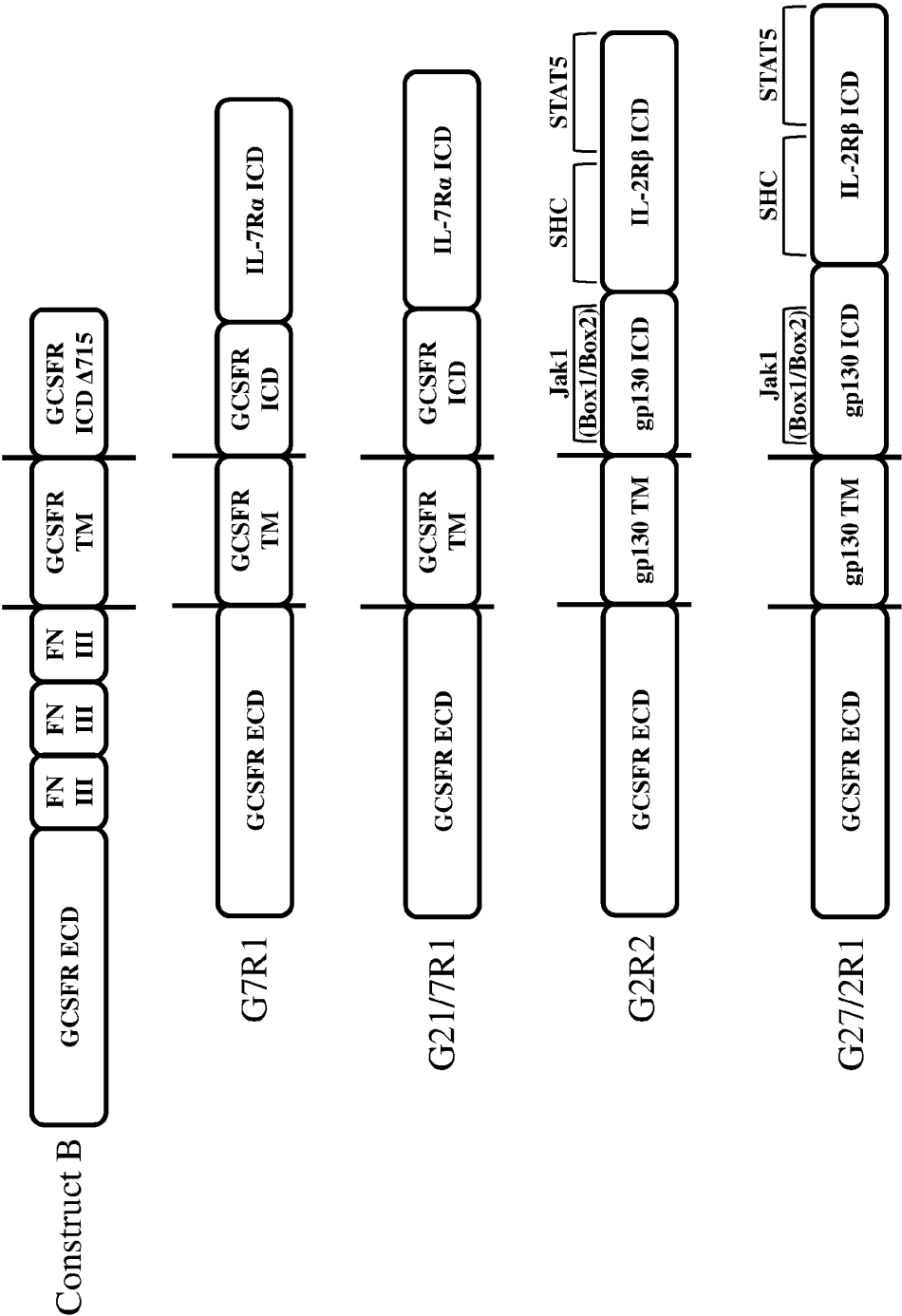


FIG. 1A

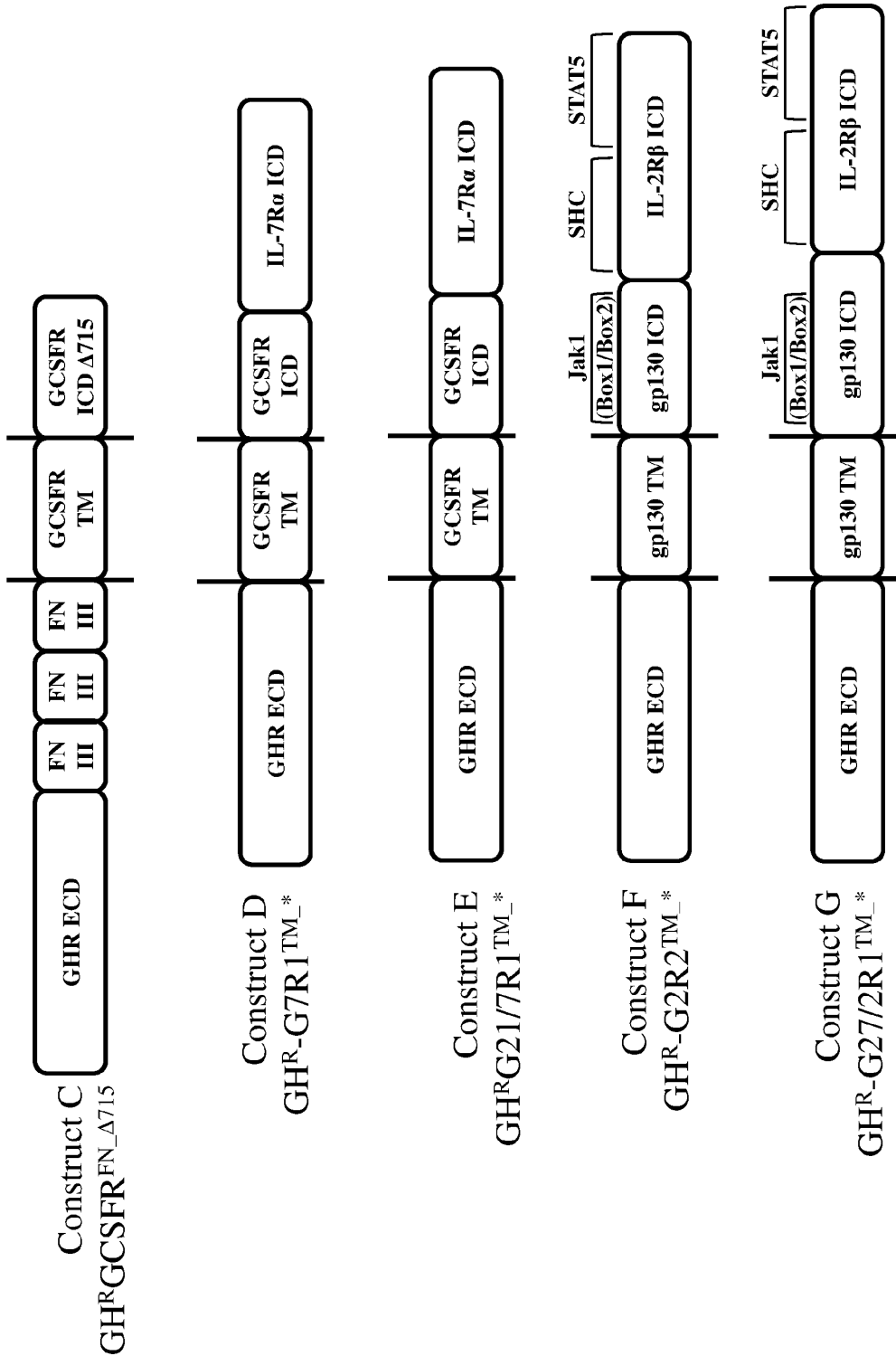


FIG. 1B

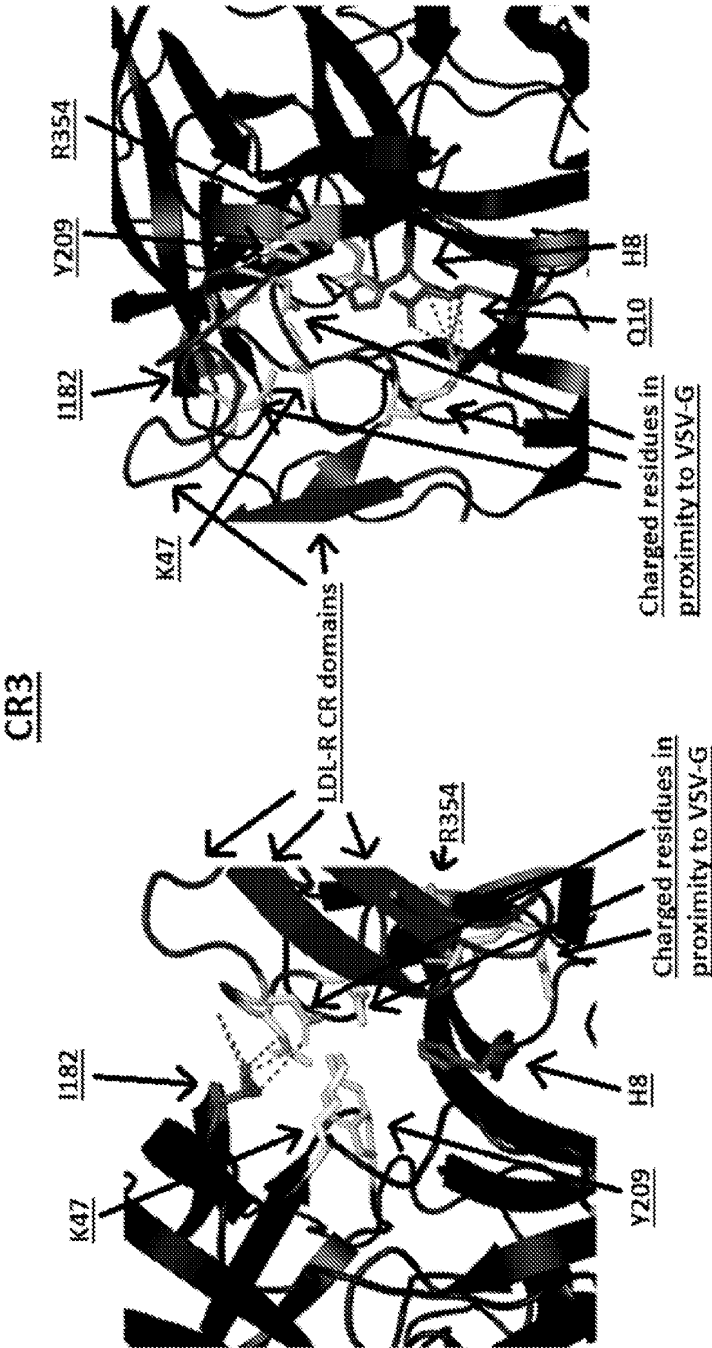


FIG. 2A

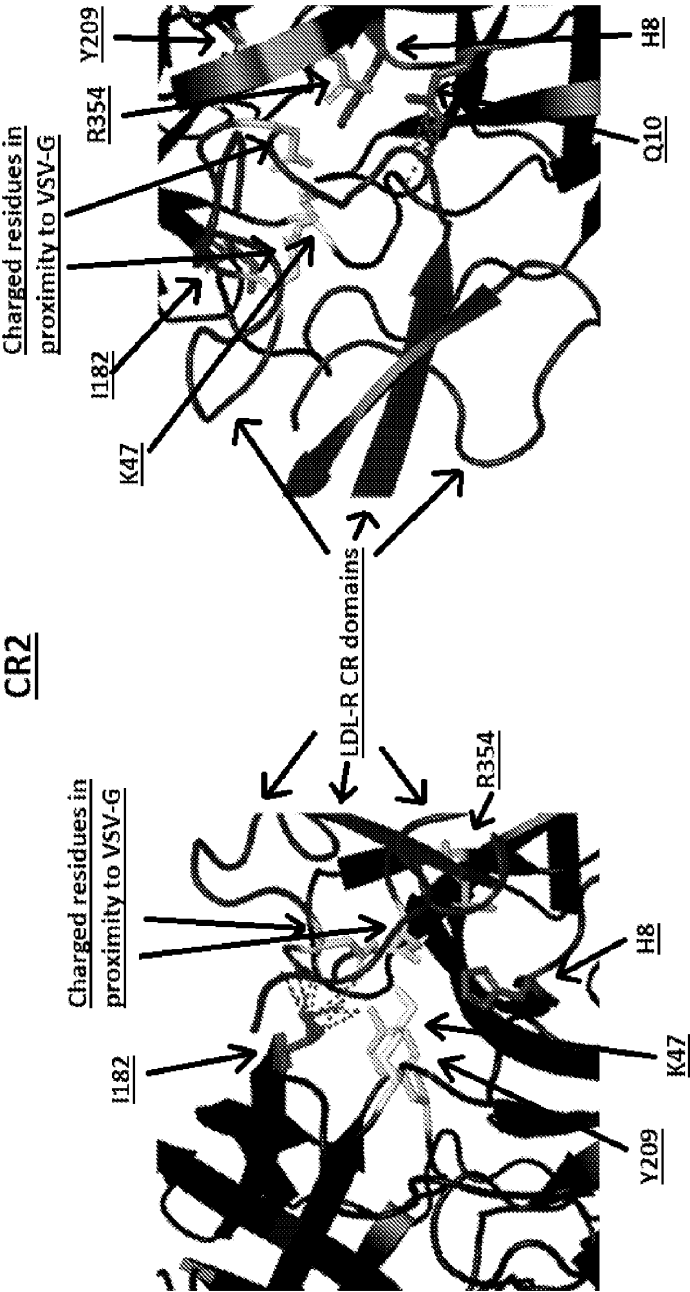


FIG. 2B

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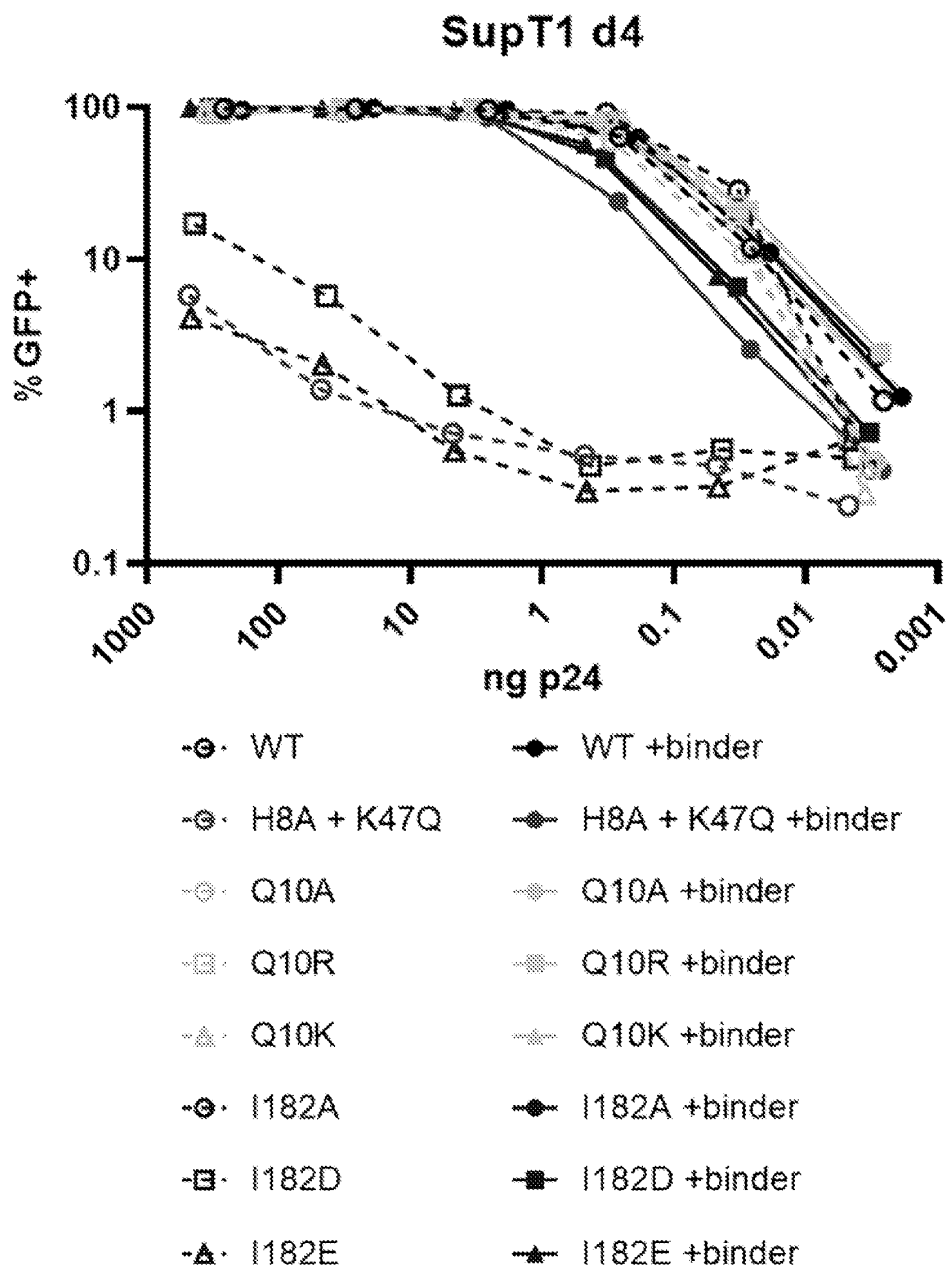


FIG. 3A

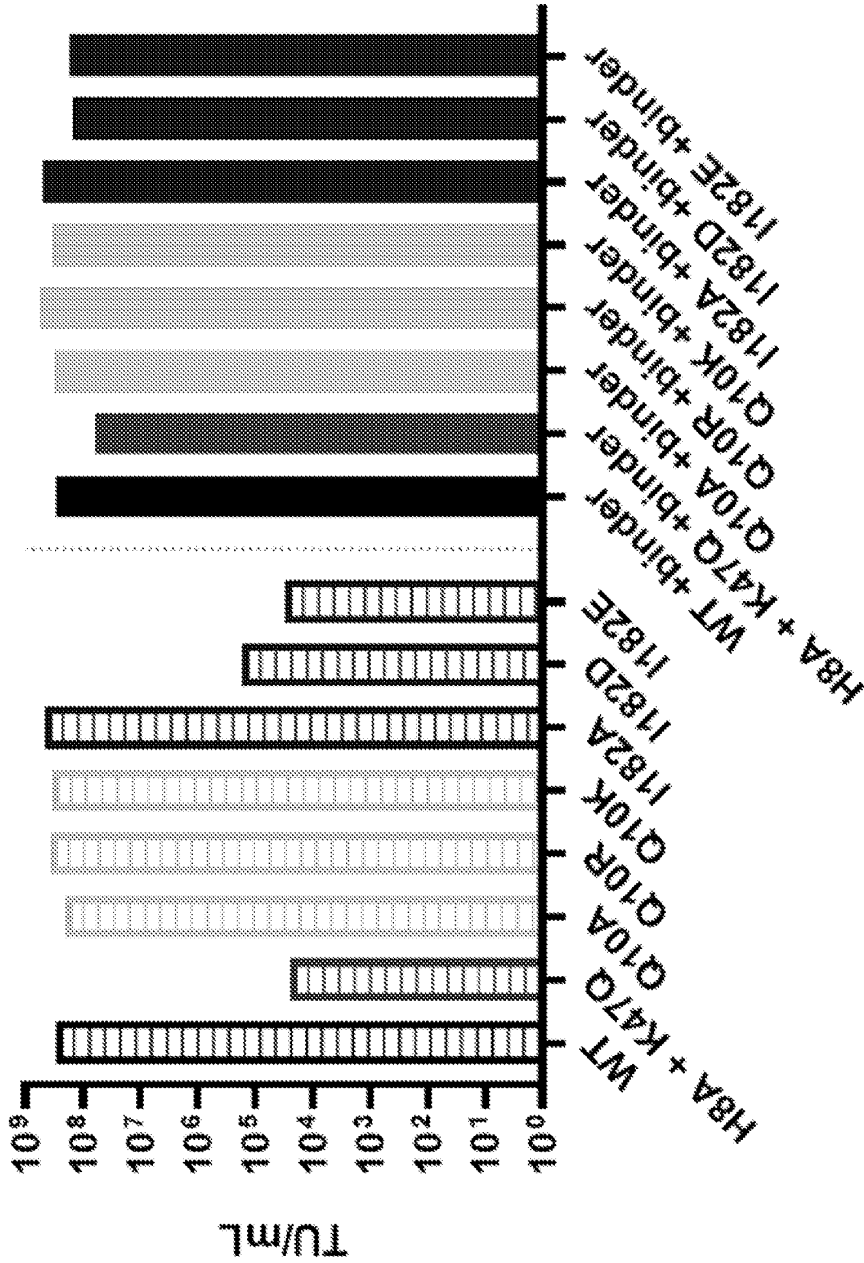


FIG. 3B

SEQ_ID_NO_2	KFTIVFPHNQGNKKNVPSNYHYCPSSDLNWHNDLIGTALQVKMPKSHKAIQADGNMCH	60
SEQ_ID_NO_11	KIEIVFPQHTTGDWKKRVPHEYNYPCTADKNSHGTQIGIPELTMFKGLTTHQVDGFNMCH	60
SEQ_ID_NO_13	KFTIVFPHHQGNKKNVPSNYHYCPSSDLNWHNDLIGTALQVKMPKSHKAIQADGNMCH	60
SEQ_ID_NO_15	KITISFPQSLKGDWRPVPKGNYPCTADKNLHGDLDIGLRLAPKSFSGISADGNMCH	60
SEQ_ID_NO_17	KFTIVFPQSQKGDWPKDVPENRYRCPSSADQNWGHGDLGVTNIRAKMEKVHKAIKADGNMCH	60
SEQ_ID_NO_19	KFSIVFPQSQKGNKKNVPSNYHYCPSSDLNWHNDLIGTALQVKMPKSHKAIQADGNMCH	60
SEQ_ID_NO_21	KFTIVFPHNQGNKKNVPSNYHYCPSSDLNWHNDLIGTALQVKMPKSHKAIQADGNMCH	60
	*: * **: .*: *: ** *:***: *: * * . :. ** . .*:***	
SEQ_ID_NO_2	ASKWVTTCDERWYGPKYITHSIRSETPSVEQCKESIEQTKQGTWLNPGFPPQSCGYATVT	120
SEQ_ID_NO_11	SALNMTTCDERWYGPKYITHSIHNEETDYOQCLEAKAYKDGVSFNPGEPPQSCGYATVT	120
SEQ_ID_NO_13	AAKWVTTCDERWYGPKYITHSIHSMPTLEQCKTSIEQTKQGVWLNPGFPPQSCGYATVT	120
SEQ_ID_NO_15	AARWTTCDERWYGPKYITHSIHSEFSPNDQCKEAIRLTNEGWNINPGFPPQSCGYASVT	120
SEQ_ID_NO_17	AAKWVTTCDYRWYGEQYITHSIHSEIPTKAQCEESIKQTKEGVWLNPGFPPKNCGYASVS	120
SEQ_ID_NO_19	AAKWTTCDERWYGPKYITHSIHSEIPTSEQCKESIKQTKQGTWSPGFPQNCGYATVT	120
SEQ_ID_NO_21	AAKWVTTCDERWYGPKYITHSIKSMIPTVDQCKESIAQTKQGTWLNPGFPPQSCGYASVT	120
	::*:***:*****:*:***:..*: ** :*: ** :.*****:*****:**:	

FIG. 4

DAEAVIVQVTPHHVLVDEYTGEMVDSQF	INGKCSNYICPTVHNSTTWHSDYKVKGLCDSN	180
DAEAHIVTTPHSHVKVDEYTGEMIDPHE	IGGERCKQICETVHNSTKWETSSDGESVCSQL	180
DAEVVVQATPHHVLVDEYTGEMIDSQLV	GCKCKSEVCQTVHNSTVWHADYKITGLCESN	180
DSESVVVTVKHQVLVDEYSGSWIDSQF	PGGSCSTSPICPTVHNSTLWHADHTLDSICDQE	180
DAESIIVQATAHSMIDSEYSGDWLDSQF	ETGRCITGSTCETIHNSTLWYADYQVIGLCDSA	180
DSVAVVVQATPHHVLVDEYTGEMIDSQL	FENGKCEETEECETVHNSTVWYSYDKVTGLCDAT	180
DAEAVIVKATPHQVLVDEYTGEMVDSQF	PTGCKNKCIDICPTVHNSTTWHSDYKVTGLCDAN	180
**: **: * * * * : * * * * : * * * * : * * * * : * * * *		

SEQ_ID_NO_2	LISMDITFESE	DELSSLGKEGTG	RSNRYFAYETGG	KACKMQYCKHNGV	RLEPSGVWFEMA	240
SEQ_ID_NO_11	FTLVGGTFFSD	SEETISMCLPET	GIRSNRYFPYVST	EGICKMPFCRKPGY	KLNLDLWFQIT	240
SEQ_ID_NO_13	LASVDITFESE	DGQKTSLGKPN	TGFRSNHFAYES	GERACRMQYCTQW	GIRLEPSGVWFELV	240
SEQ_ID_NO_15	FVAMPVLFTE	SGKFEFEGKPN	SGIRSNRYFPY	ESLKDVCQMDCKR	KGFKLEPSGVWFEE	240
SEQ_ID_NO_17	LVSTEVTFYSE	DGLNTSIGRQNT	GYRSNRYFPY	EKGAACRMKYCTH	EGIRLEPSGVWFEMV	240
SEQ_ID_NO_19	LVDTEITFESE	DGKKESIGKPN	TGYSNRYFAYE	KDGKVKCMNYCKH	AGVRLLEPSGVWFEEV	240
SEQ_ID_NO_21	LISMDITFESE	DGKLTSLGKEGT	GFRSNRYFAYEN	GDACRMQYCKHNGV	RLEPSGVWFEMA	240

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FIG. 4 (Continued)

[illegible]

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FIG. 4 (Continued)

SEQ_ID_NO_2	WDDWAPYEDVEIGPENGVLRTSSGYKFFLYMIGHGMLDSLHLSSKAQVFEHPHIQDAASQ	416
SEQ_ID_NO_11	WDQWFFPGEVEIGPENGVLKTQGYKFFLHIIGTGEVDNDIKNERIVKWHHEHPHIEAAQTF	420
SEQ_ID_NO_13	WNWYYPYEDVEIGPENGVLKTPTGFKFFLYMIGHGMLDSLHLSSKAQVFEHPHAKDAASQ	416
SEQ_ID_NO_15	WDQWFFYGENSIGENGILLKTASGYKYPELFMVGTGVLDADIHKLGEATVIEHPHAKDAQNV	420
SEQ_ID_NO_17	WTWEPYDDVEIGPENGVLKTPEGYKFFLYMIGHGLDSDLQNTSQAEVFEHPHQAIAEAVQK	416
SEQ_ID_NO_19	WTWEPYVEIGPENGILKTPTGYKFFLFEMIGHGMLDSLHLHTSQAEVFEHPHIAEAPKQ	416
SEQ_ID_NO_21	WTWYYPYEDVEIGPENGVLKTATGYKFFLYMIGHGMLDSLHLSSKAQVFEHPHIQDAASQ	416
	* : * * : . ***** : * * : * * : * * : * * : * * : *	
SEQ_ID_NO_2	LP----DDESLFFGDTGLSKNPIELVEGWFSWKSSIASFFFIIGLIIGLEFLVLRVGIHLC	473
SEQ_ID_NO_11	LKKODTEEVLYCGDTGVSKNPVELVEGWFSWRSRSGVAVIIGFVILIFLIRLIGVLS	480
SEQ_ID_NO_13	LP----DDETLFFGDTGLSKNPVELVEGWFSWKSTIASFFLIIGLGVALIFIIRIIVAIR	473
SEQ_ID_NO_15	VD----DSEVIFFGDTGVSKNPVEVVEGWFSWRSRSGVAVIIGLIIGLEFLVLRVLIALK	477
SEQ_ID_NO_17	LP----DDETLFFGDTGISKNPEVEVEGWFSWRSRSGVAVIIGLIIGLEFLVLRVLCVAFR	473
SEQ_ID_NO_19	LP----EEETLFFGDTGISKNPEVEVEGWFSWKSTVTFEFAIGVFILLYVVARIVIAVR	473
SEQ_ID_NO_21	LP----DDETLFFGDTGLSKNPIELVEGWFSWKSTIASFFFIIGLVIGLVLRIGIALC	473
	: . * : : : ***** : * : : * : : * : : * : : *	
SEQ_ID_NO_2	IKLKHTK-KRQIYTDIEMNRLGK-- 495	
SEQ_ID_NO_11	--SLFRQKRRIYKSDVEMAHFR-- 501	
SEQ_ID_NO_13	YKYG-KRKTQKIYNDVEMSRIGNK- 496	
SEQ_ID_NO_15	YCCVRHKRTIYKEDLEMGRIPRRA 502	
SEQ_ID_NO_17	H--FCCQKRHKIYNDLEMNQLRR-- 494	
SEQ_ID_NO_19	YRYQGSN-NKRIYNDIEMSRERK-- 495	
SEQ_ID_NO_21	IKCRVQEKRPKIYTDVEMNRLDR-- 496	
	. * : * * : :	

FIG. 4 (Continued)

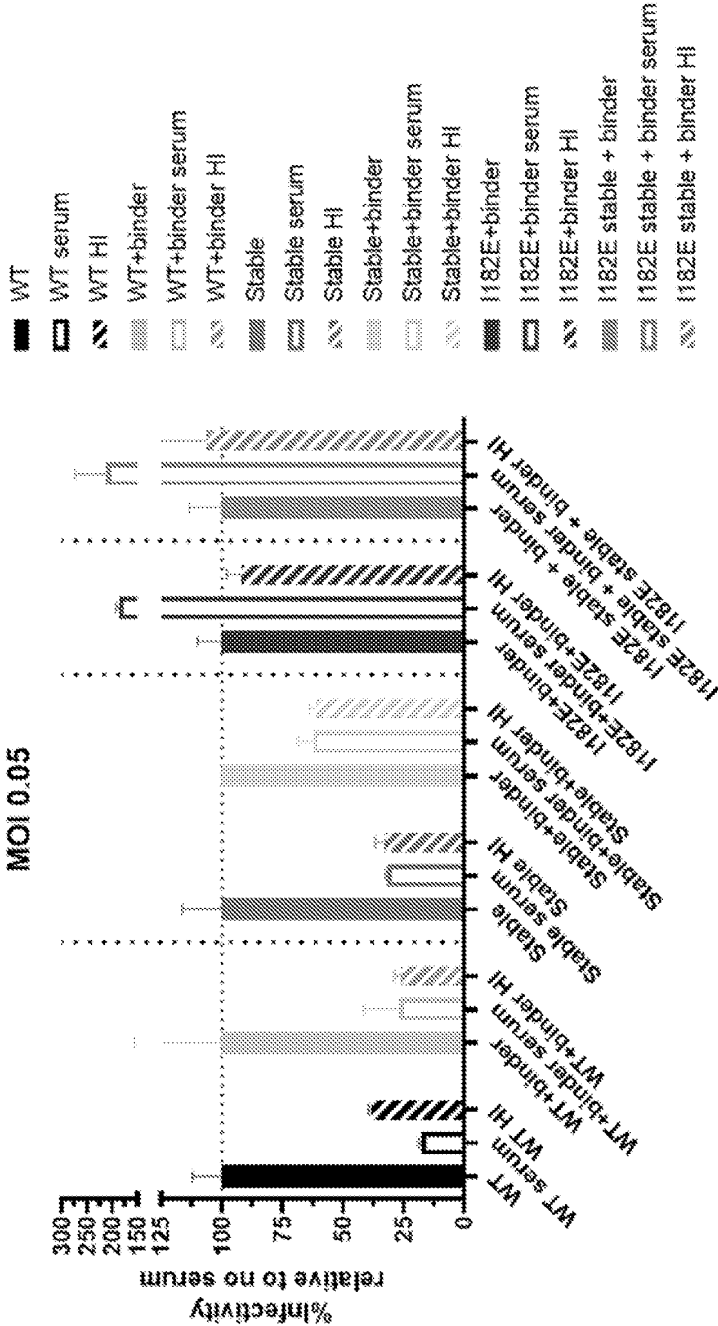


FIG. 5

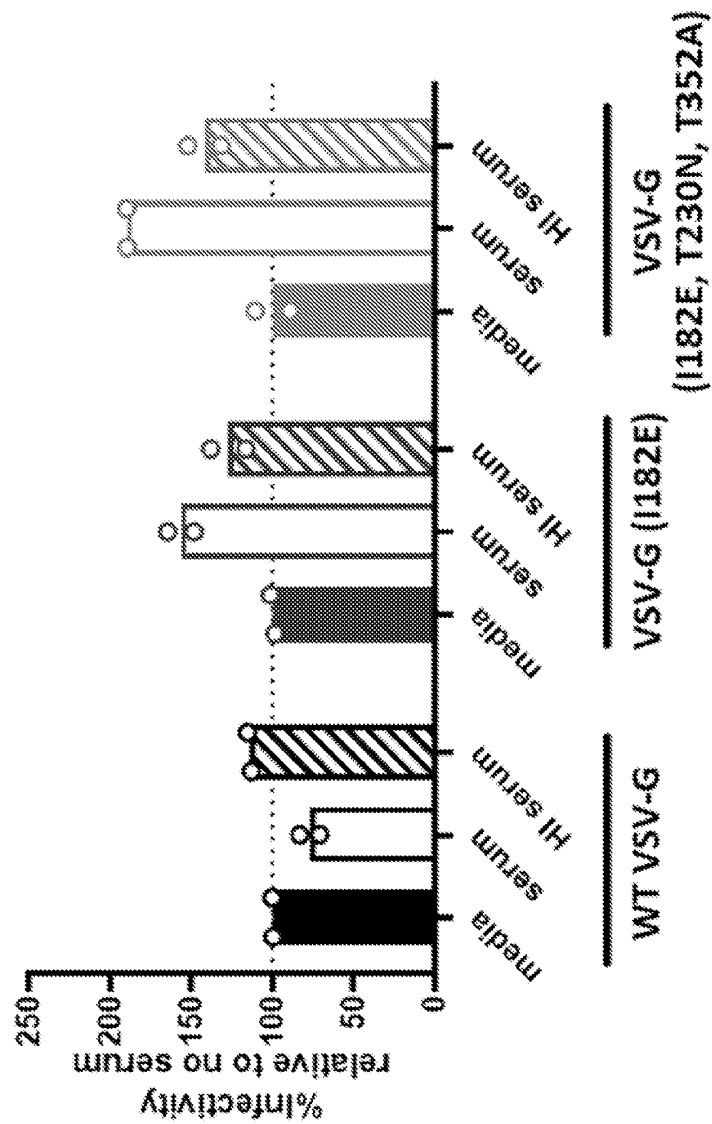


FIG. 6

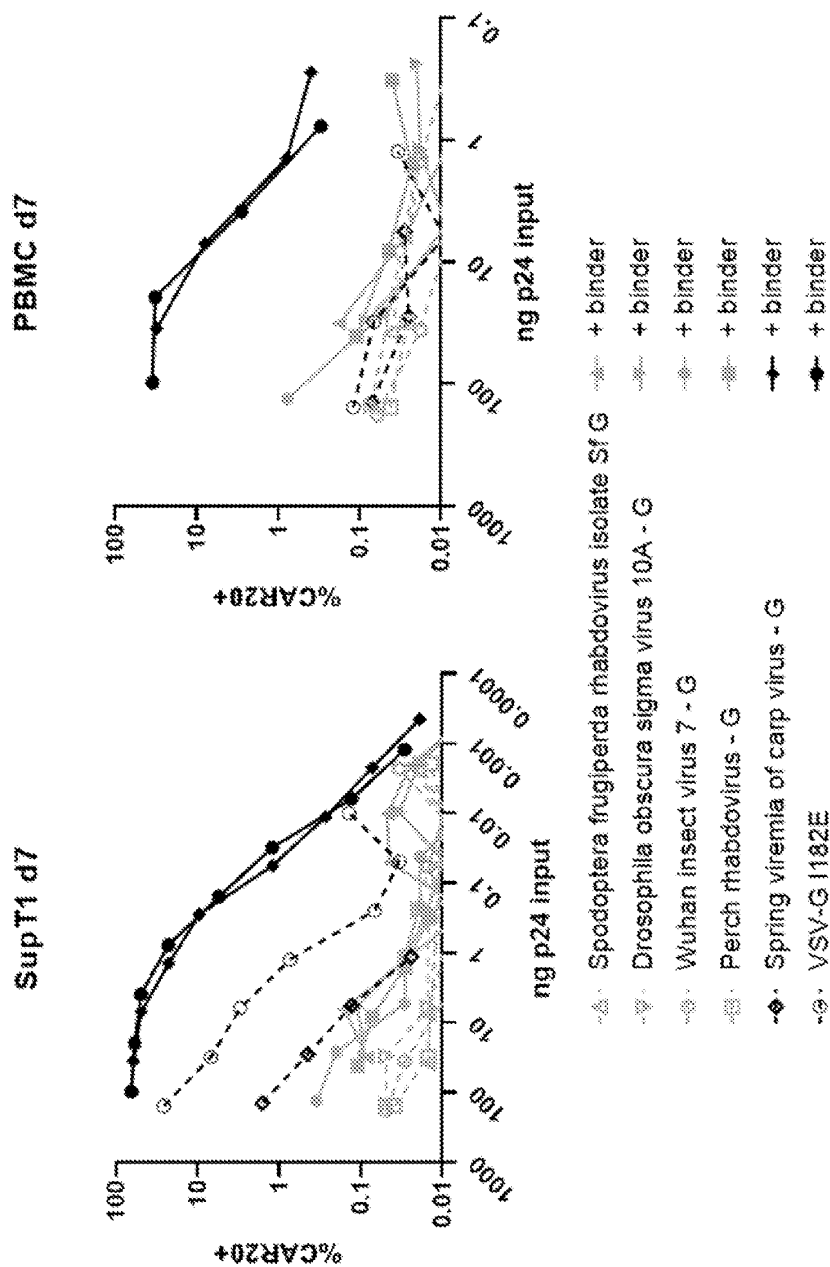


FIG. 7

With Paramyxoviridae glycoprotein

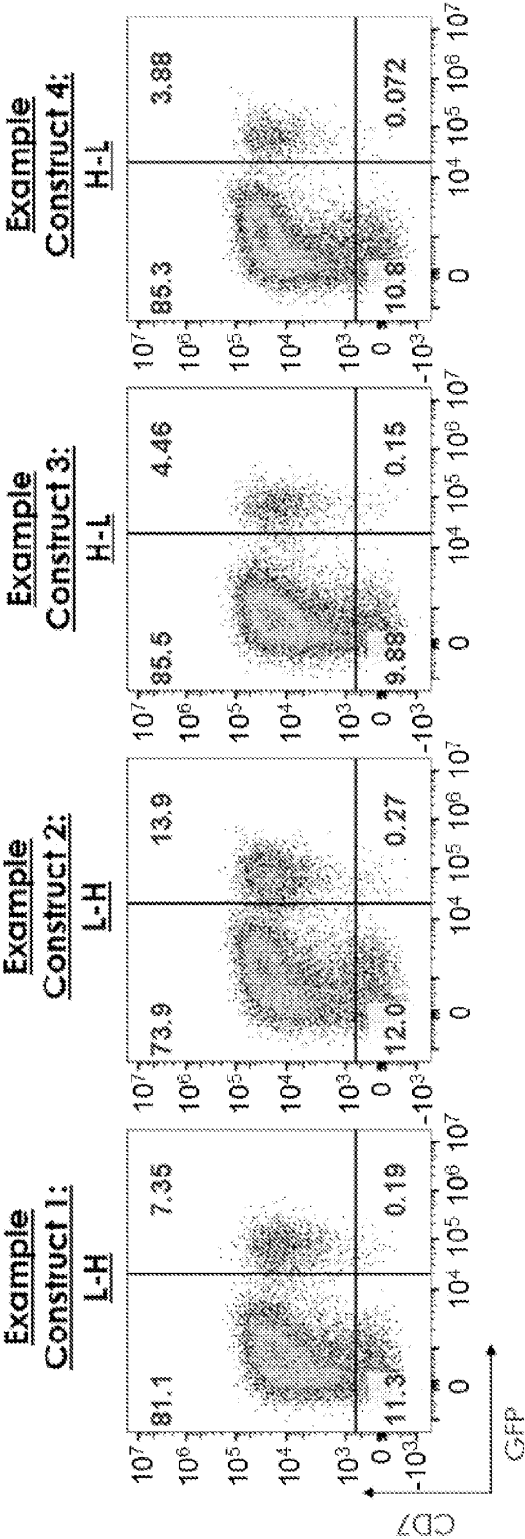


FIG. 8A

FIG. 8B

FIG. 8C

FIG. 8D

Binder Alone

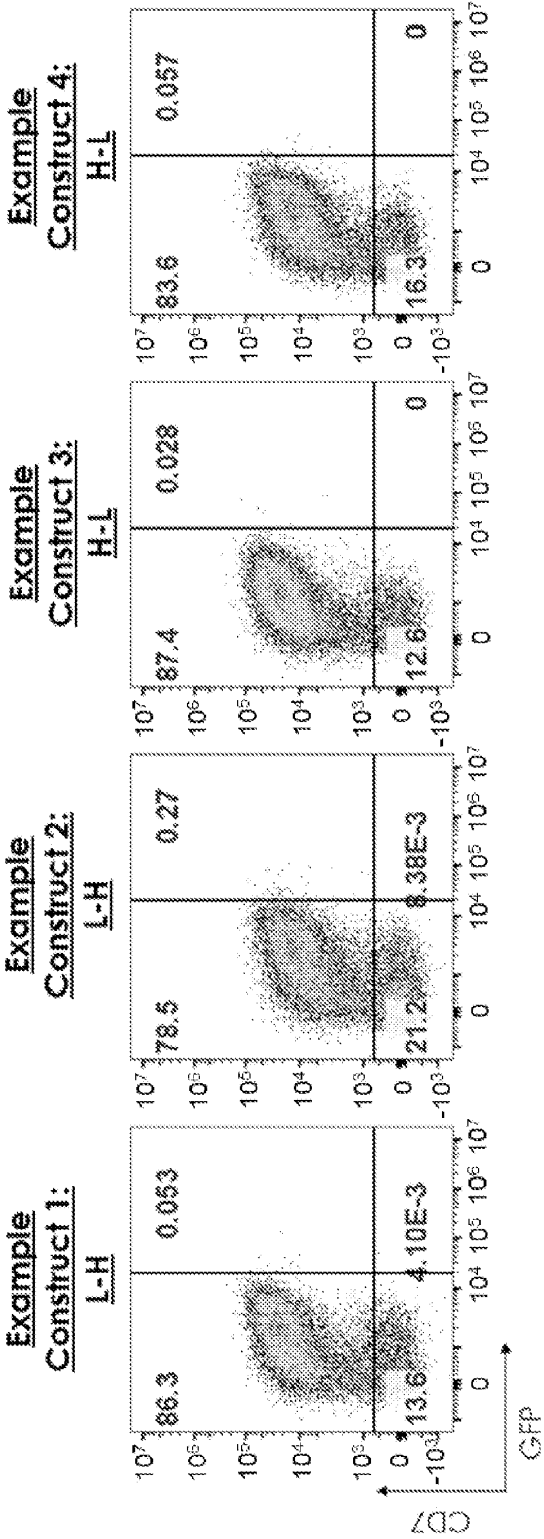


FIG. 8E

FIG. 8F

FIG. 8G

FIG. 8H

With Rhabdoviridae glycoprotein

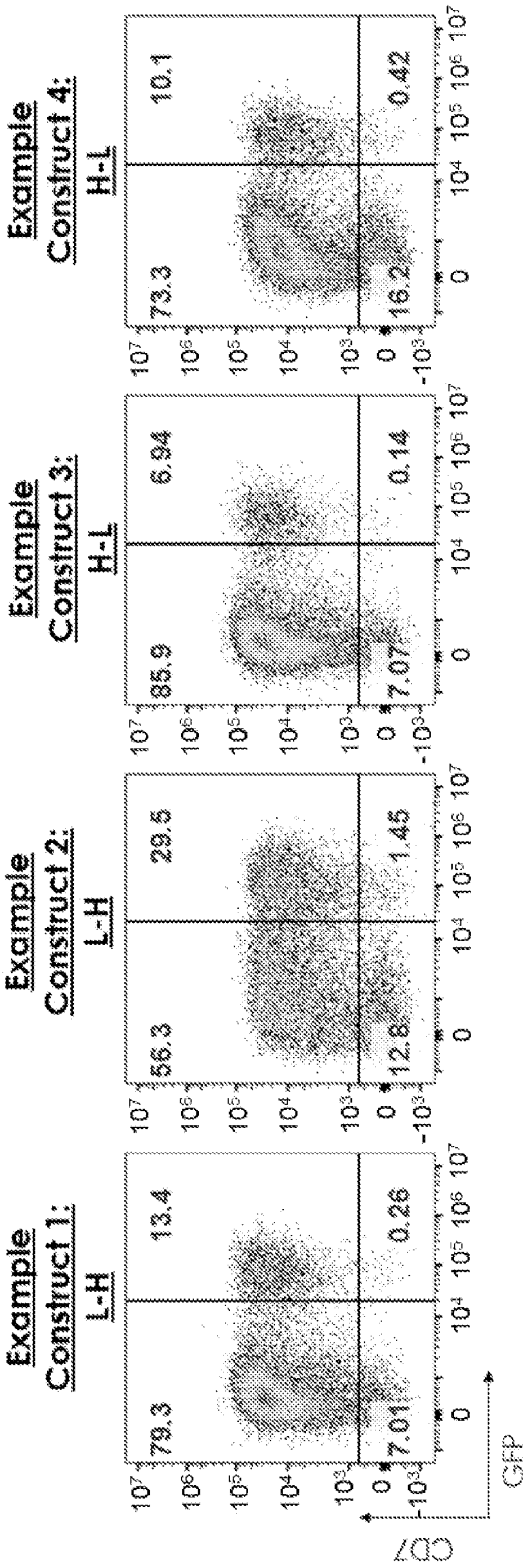
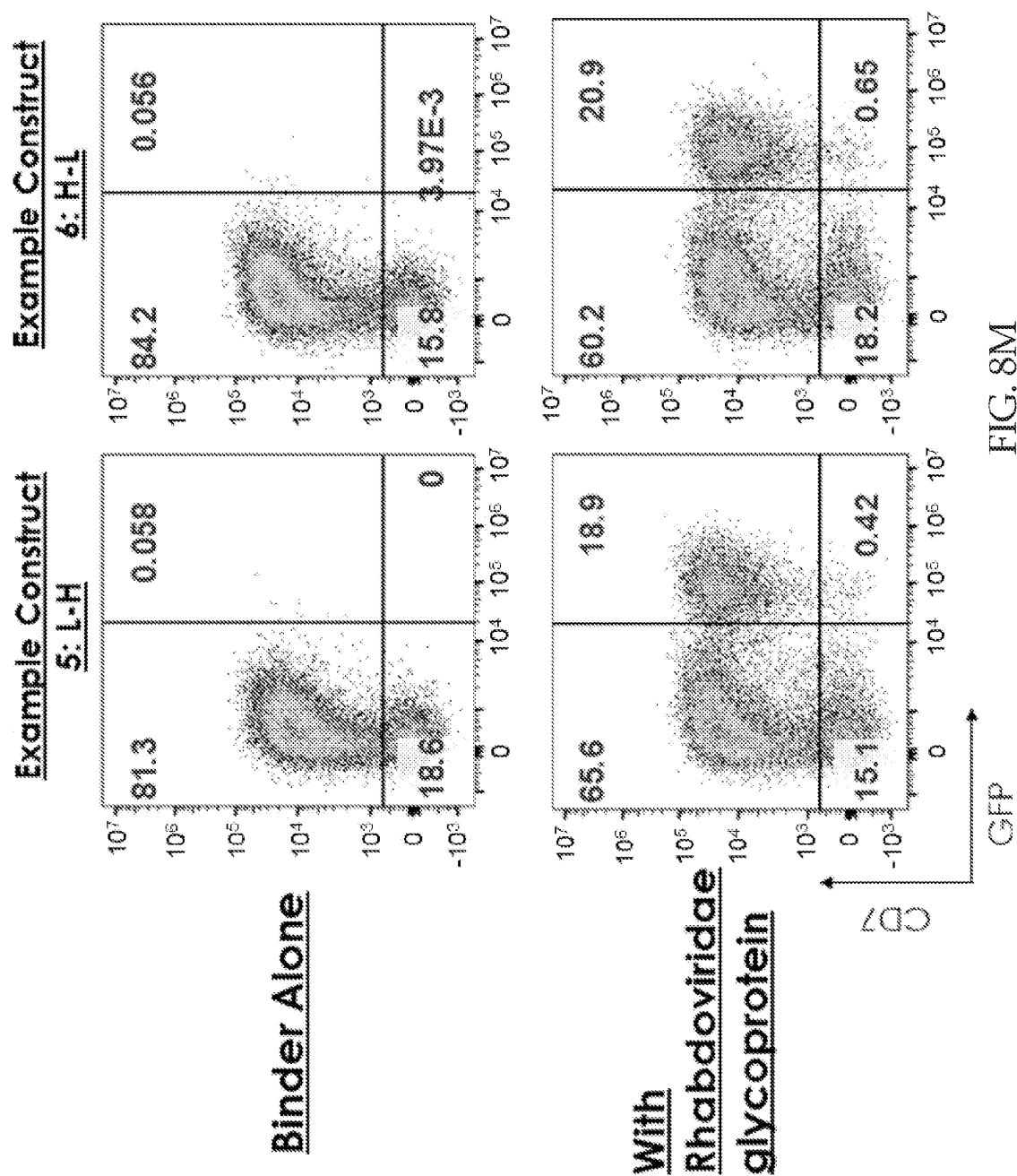


FIG. 8I

FIG. 8J

FIG. 8K

FIG. 8L



With Paramyxoviridae glycoprotein

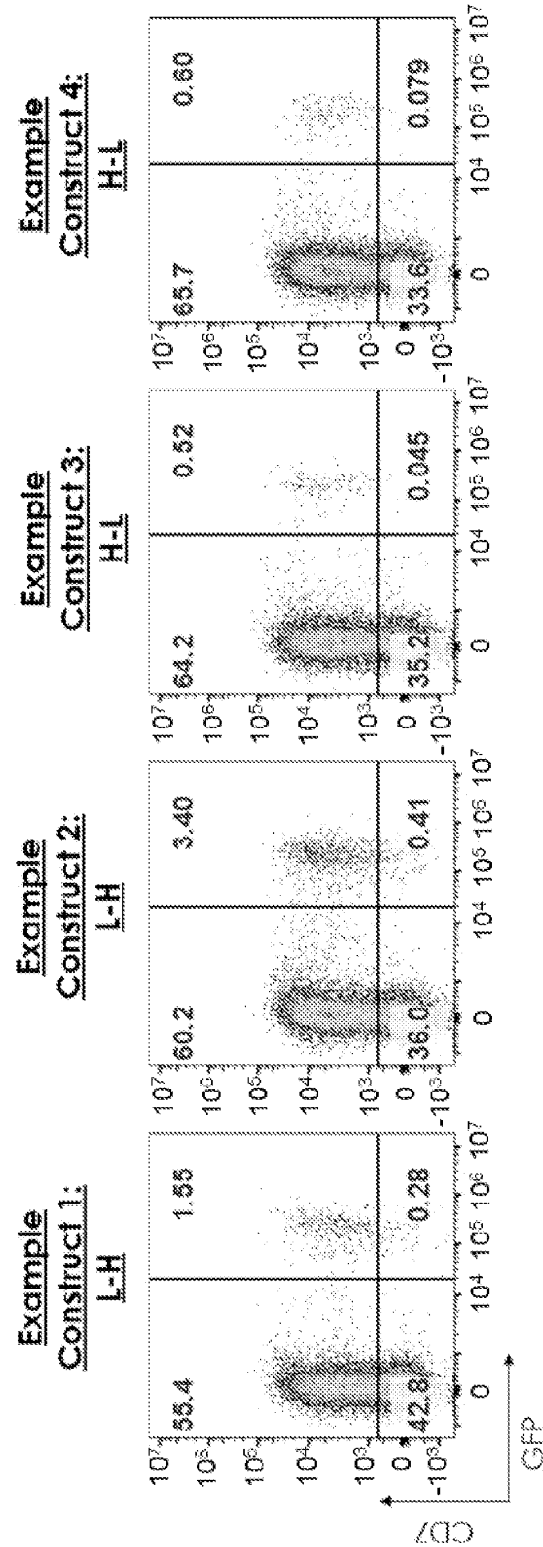


FIG. 9A

FIG. 9B

FIG. 9C

FIG. 9D

Binder Alone

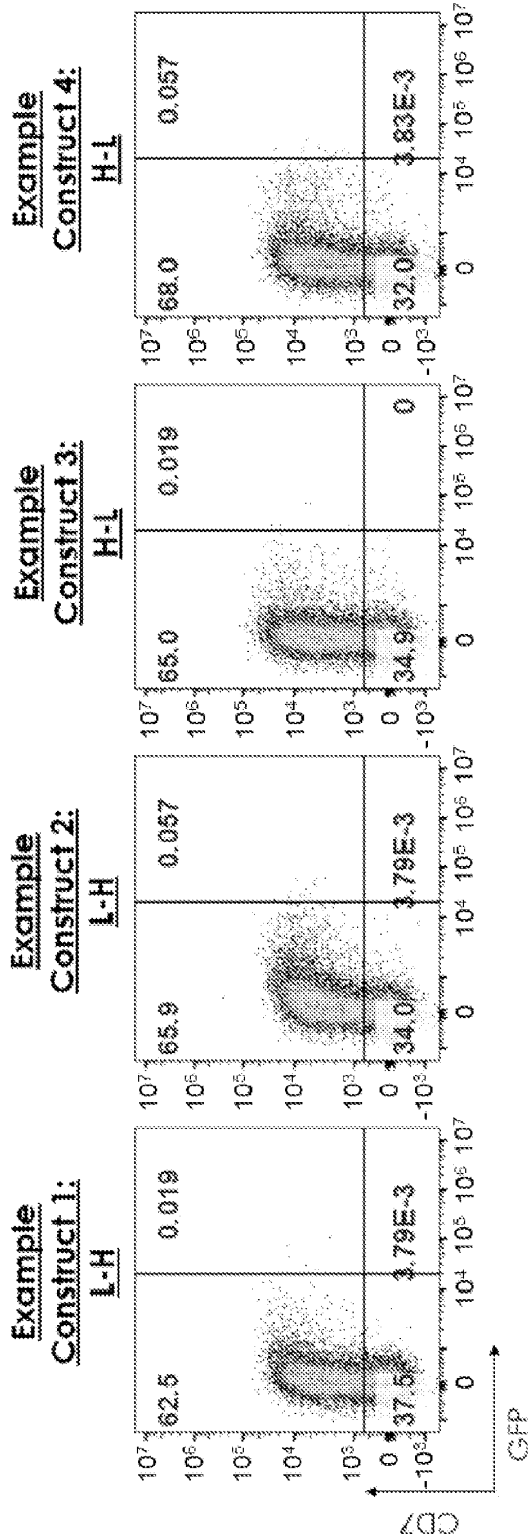


FIG. 9E

FIG. 9F

FIG. 9G

FIG. 9H

With Rhabdoviridae glycoprotein

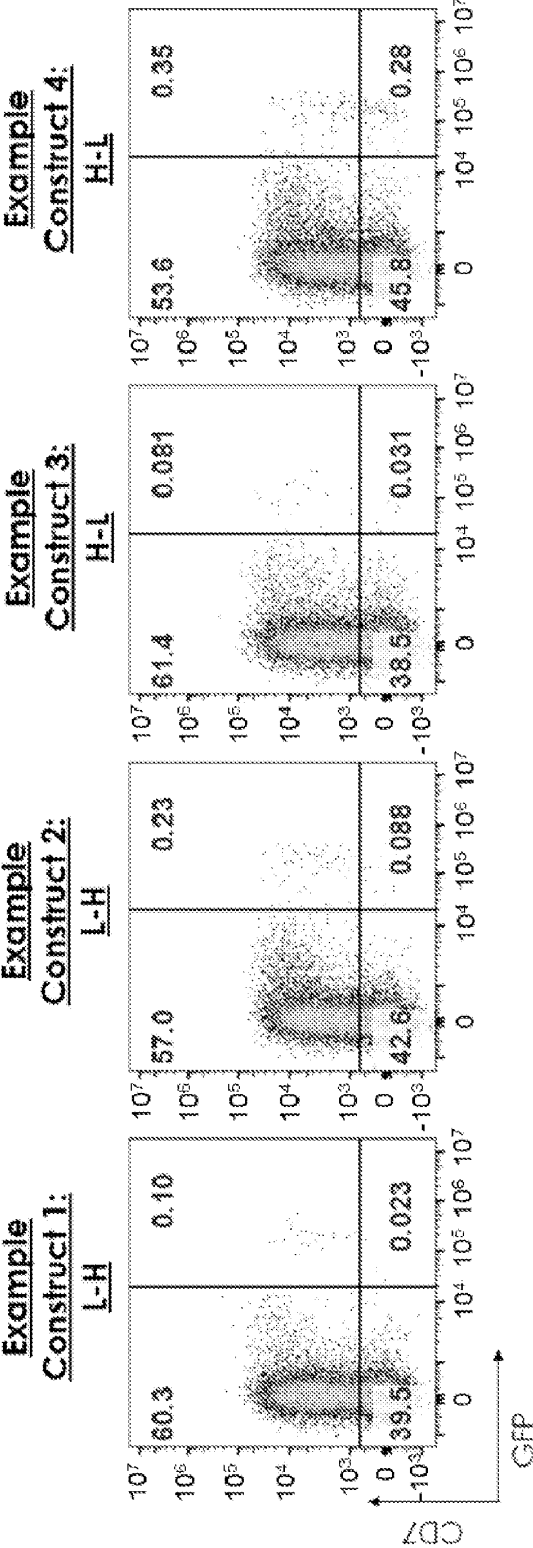


FIG. 9I

FIG. 9J

FIG. 9K

FIG. 9L

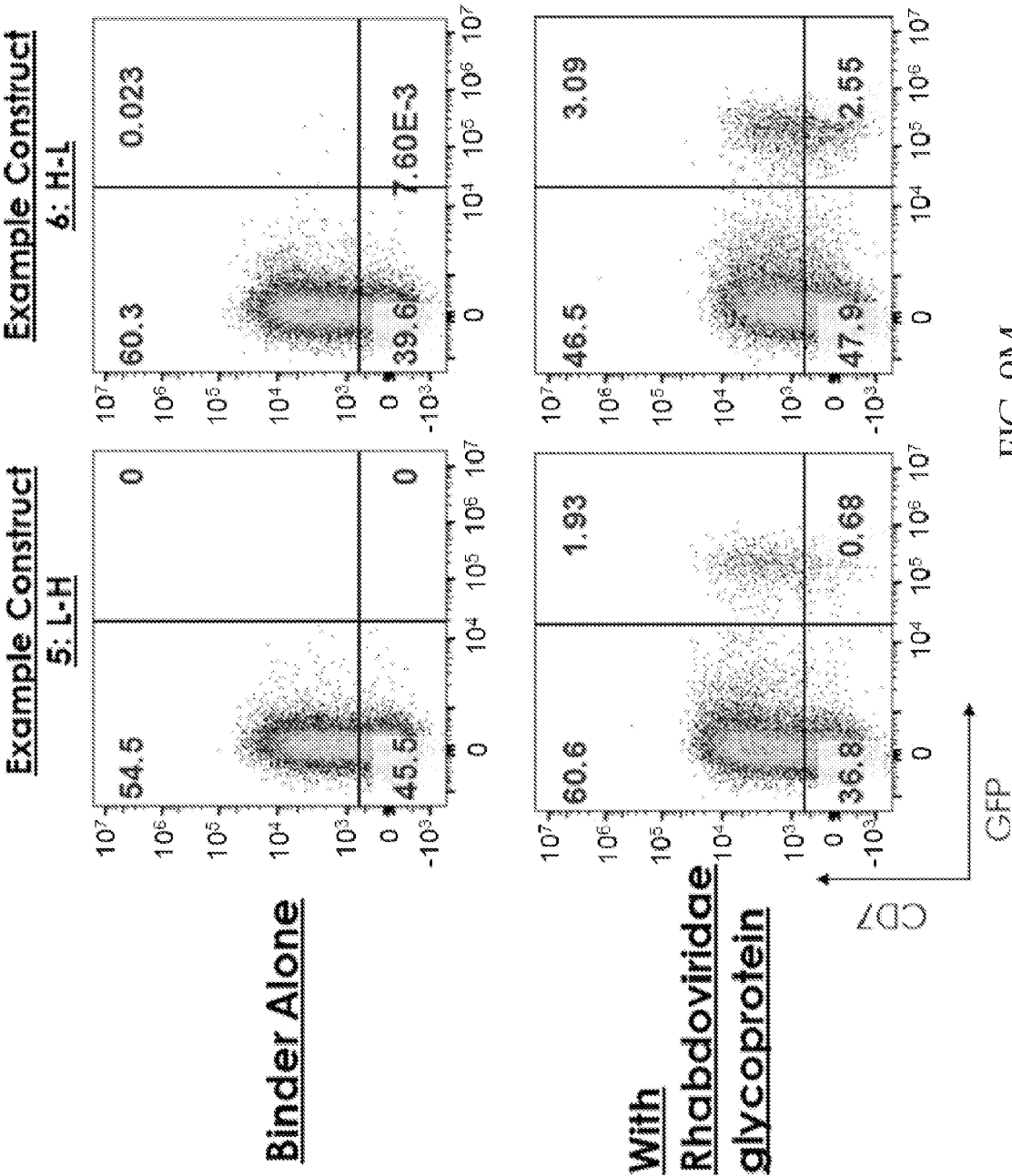


FIG. 9M

Human PBMCs

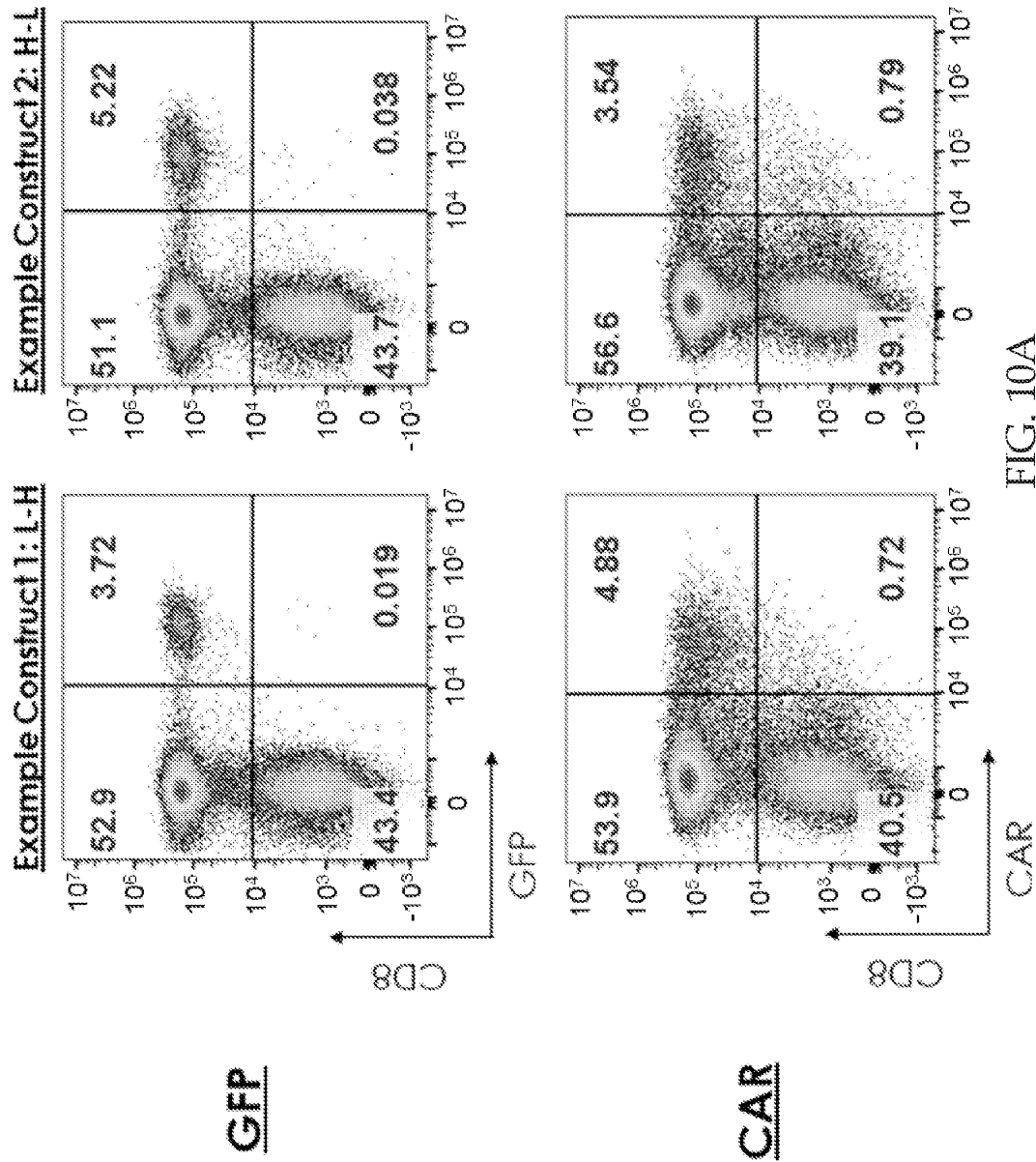


FIG. 10A

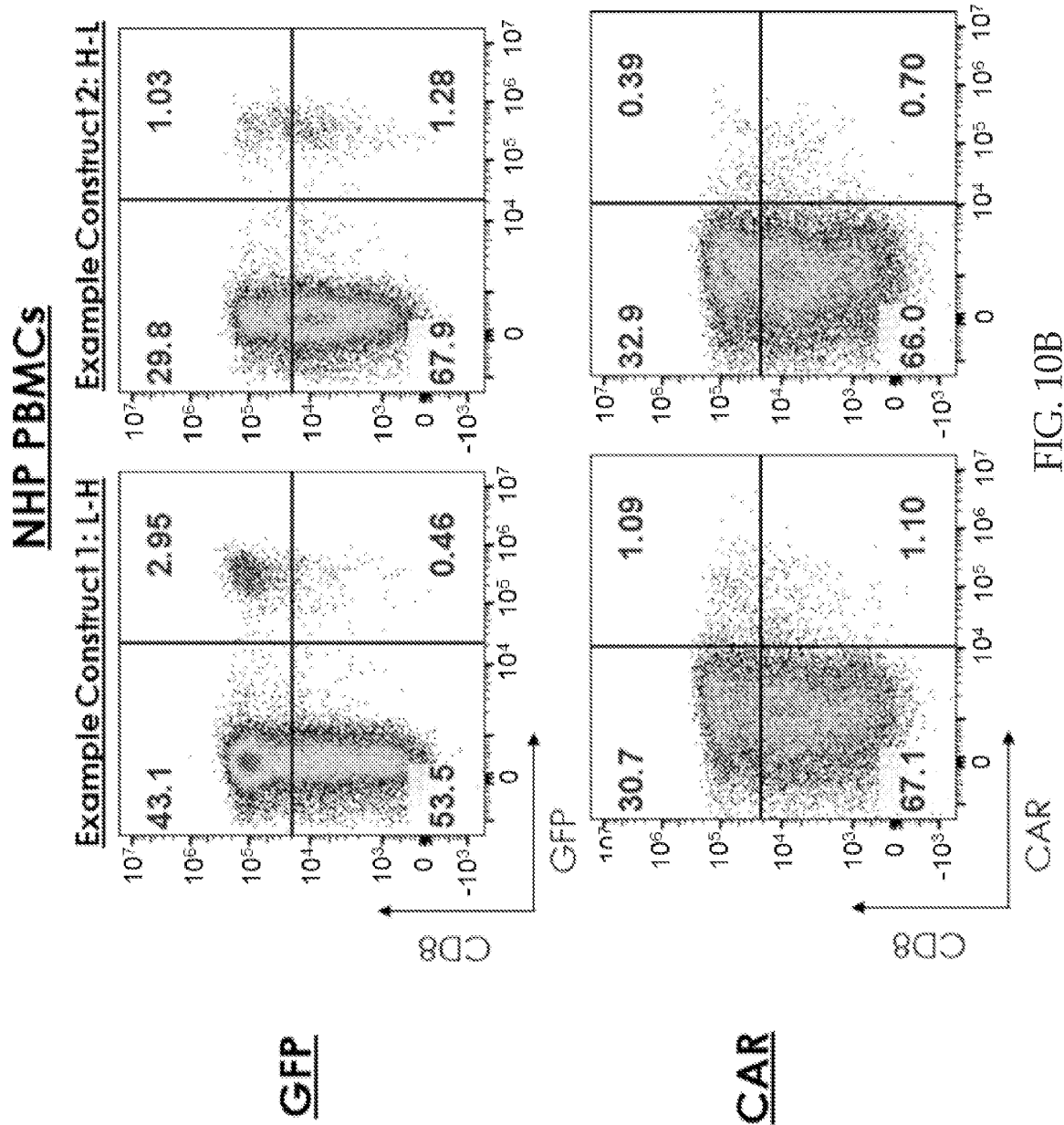


FIG. 10B

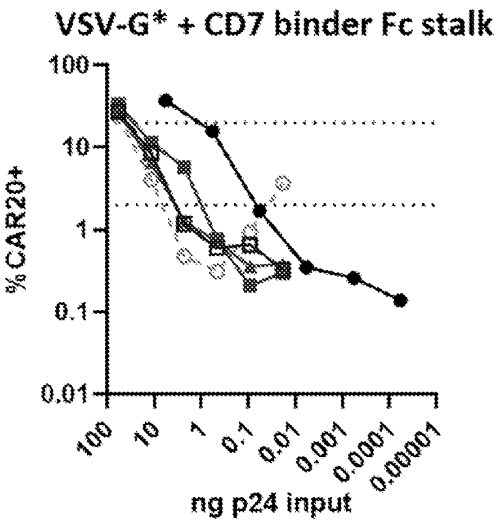


FIG. 11A

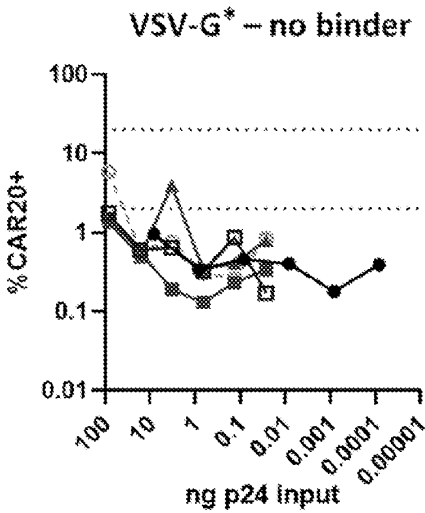


FIG. 11B

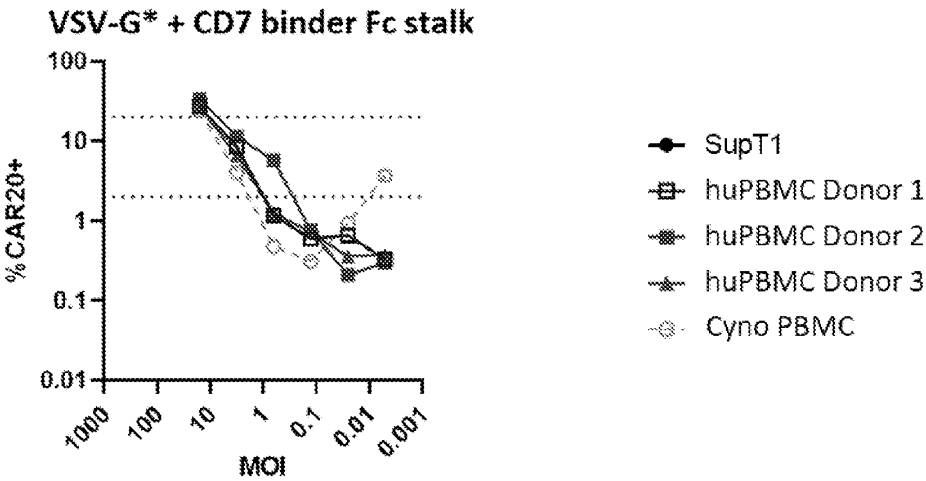


FIG. 11C

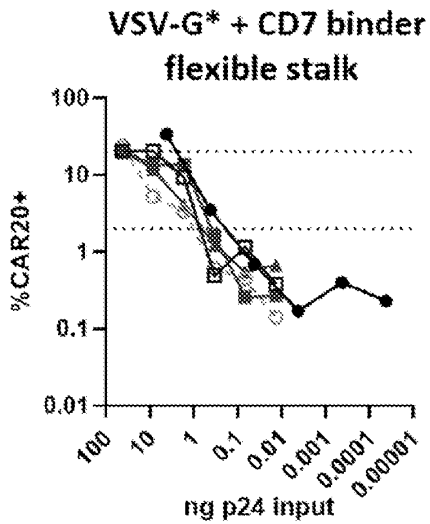


FIG. 12A

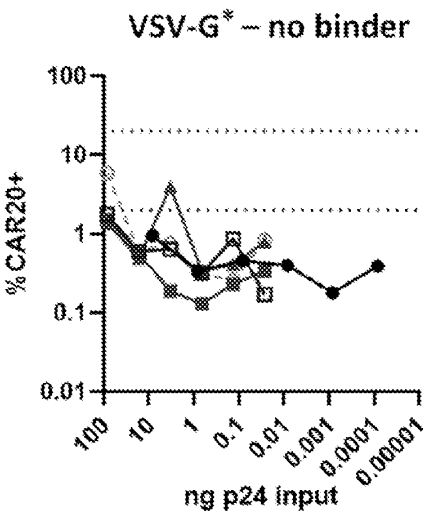


FIG. 12B

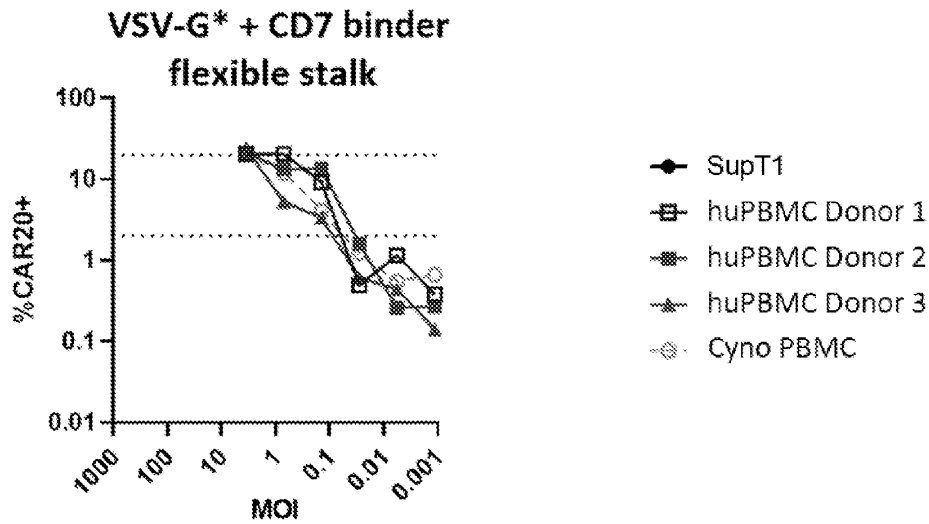


FIG. 12C

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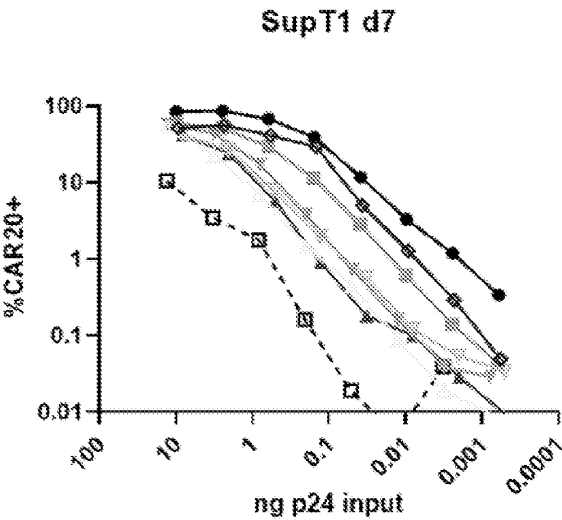


FIG. 13A

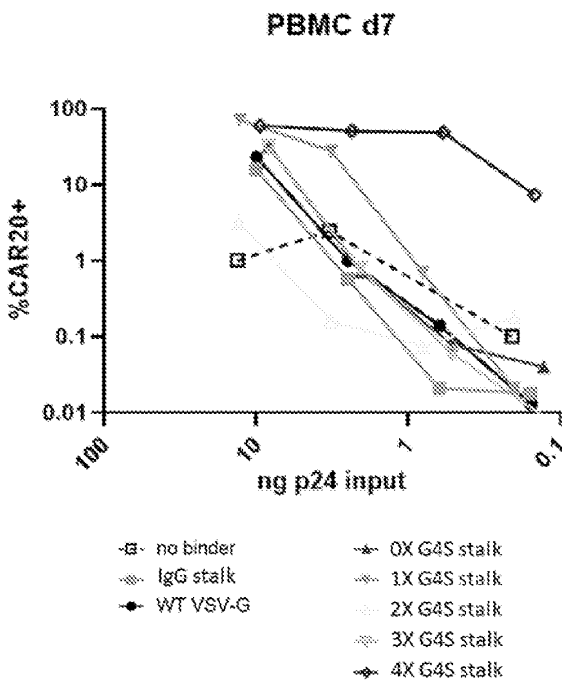


FIG. 13B

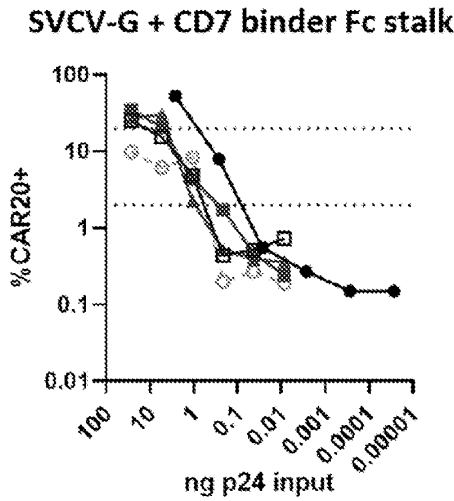


FIG. 14A

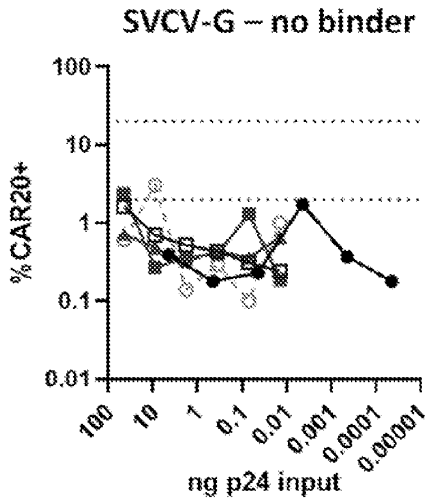


FIG. 14B

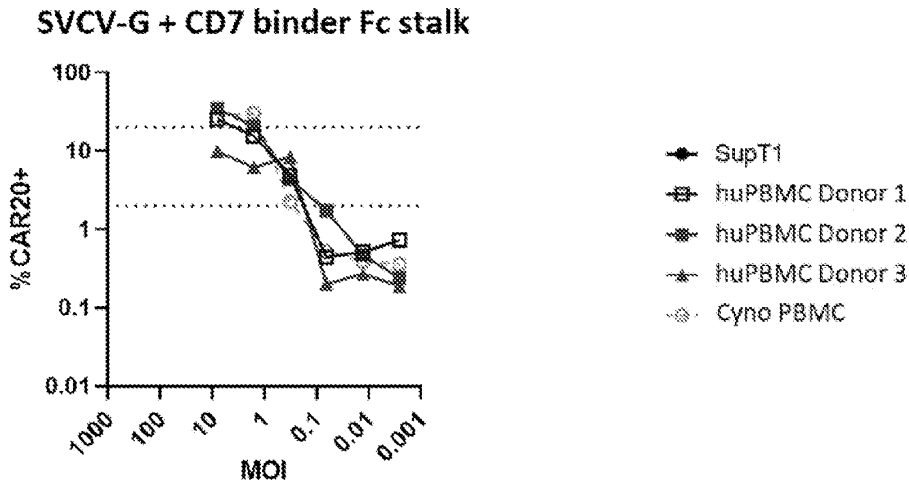


FIG. 14C

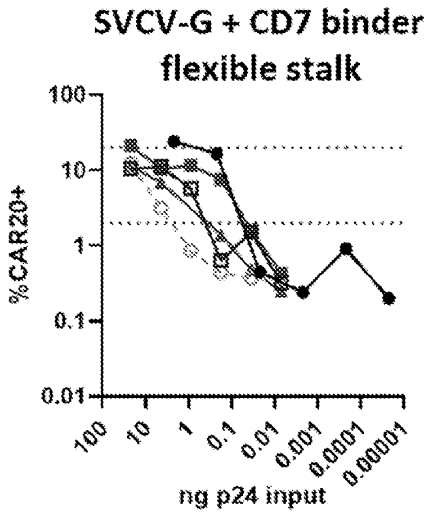


FIG. 15A

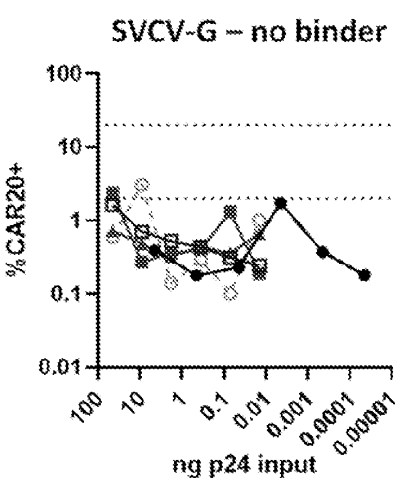


FIG. 15B

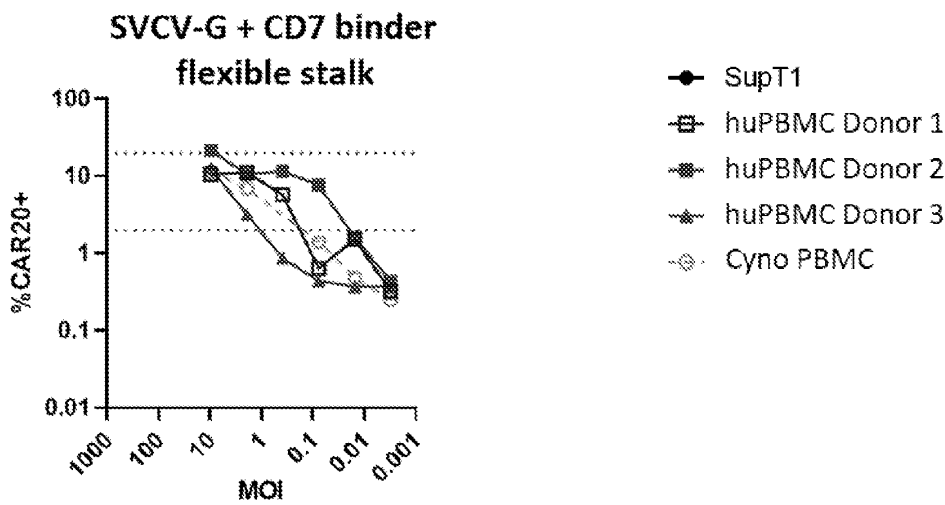


FIG. 15C

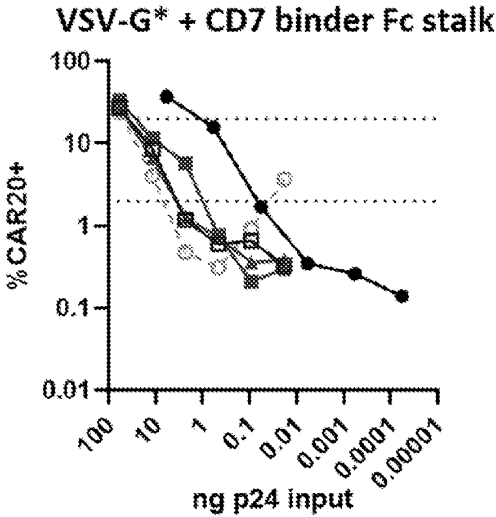


FIG. 16A

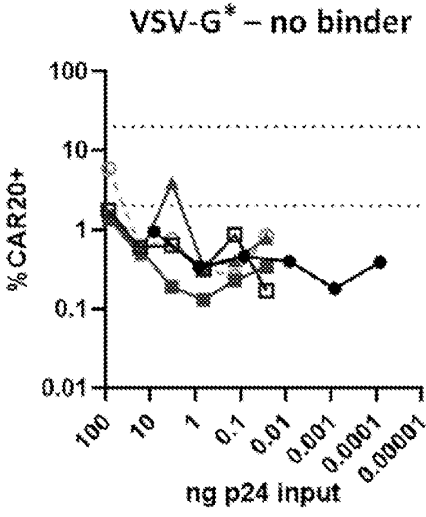


FIG. 16B

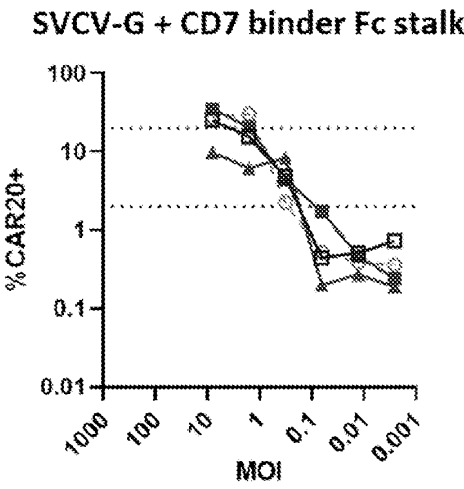


FIG. 16C

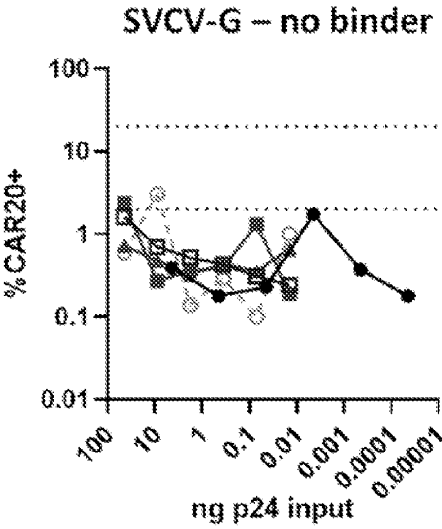


FIG. 16D

- SupT1
- huPBMC Donor 1
- huPBMC Donor 2
- ▲ huPBMC Donor 3
- Cyno PBMC

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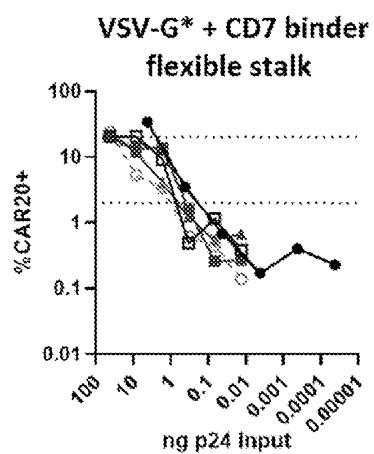


FIG. 17A

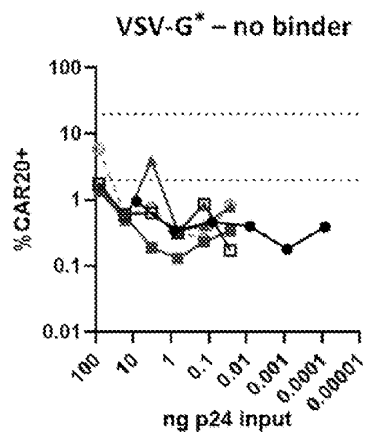


FIG. 17B

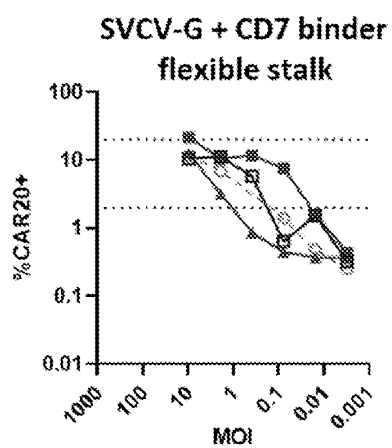


FIG. 17C

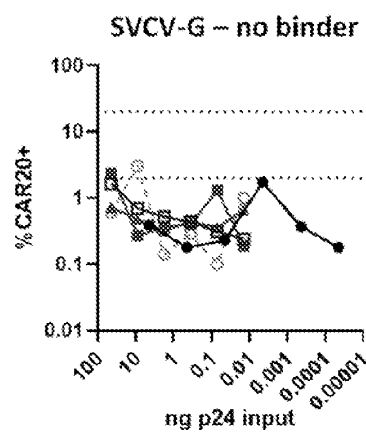


FIG. 17D

- SupT1
- huPBMC Donor 1
- huPBMC Donor 2
- ▲ huPBMC Donor 3
- Cyno PBMC

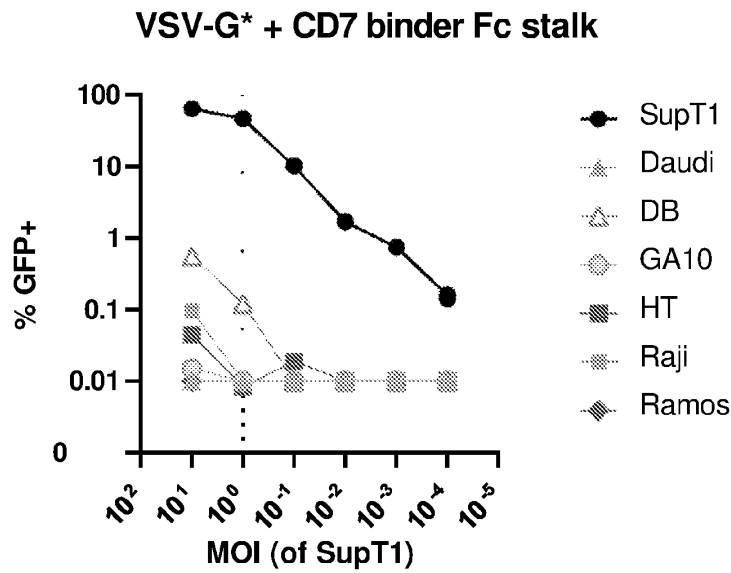


FIG. 18A

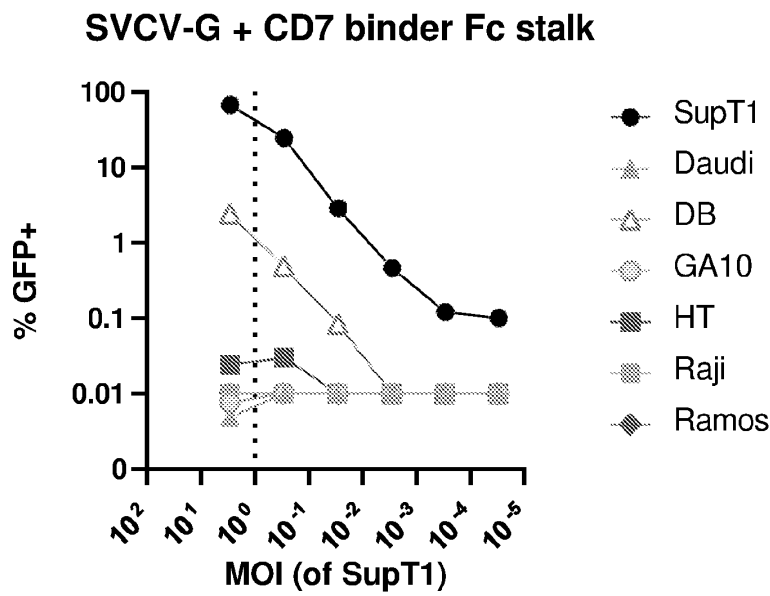


FIG. 18B

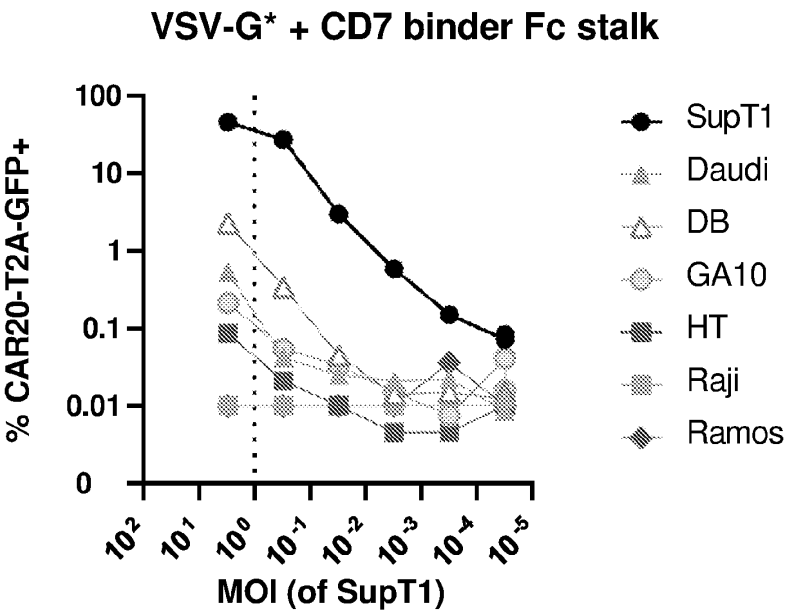


FIG. 19A

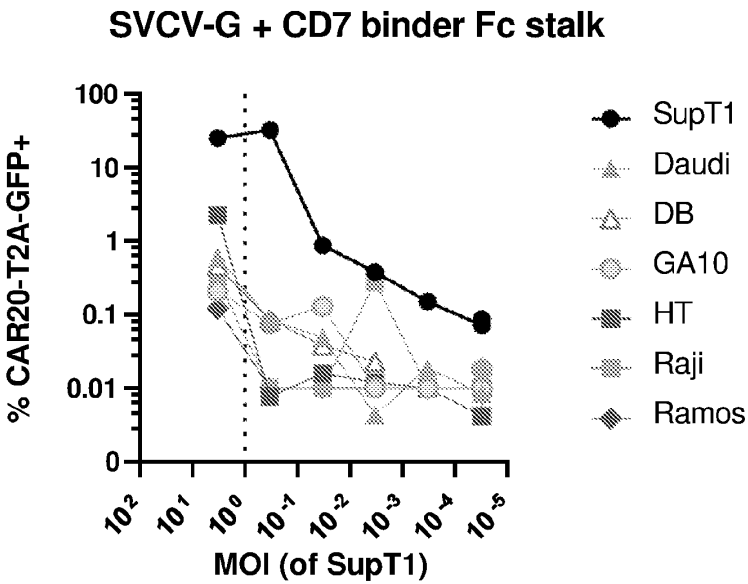


FIG. 19B

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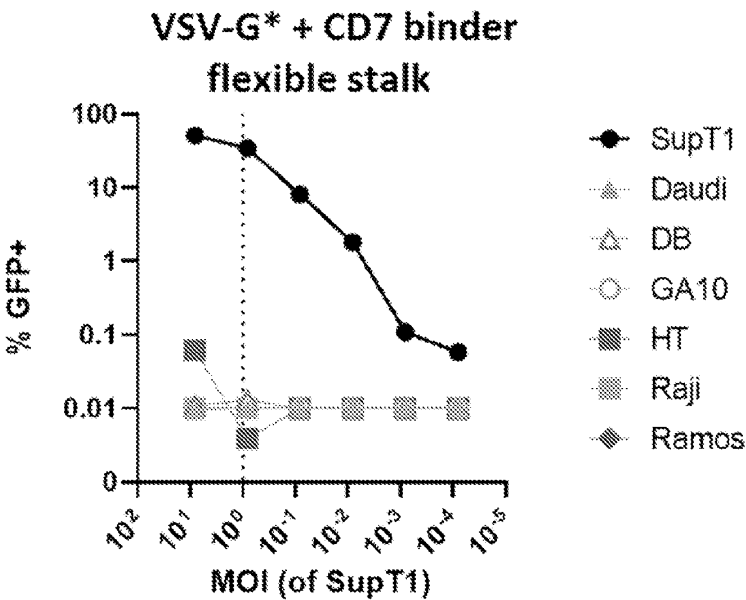


FIG. 20A

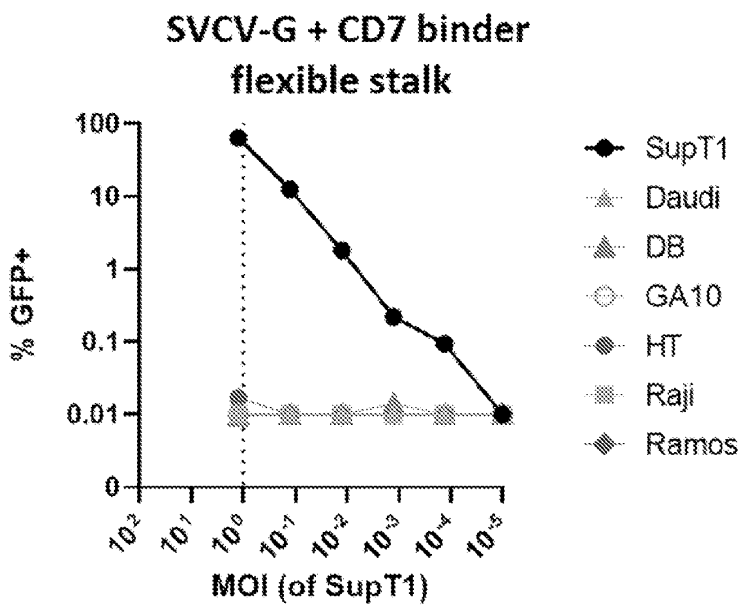


FIG. 20B

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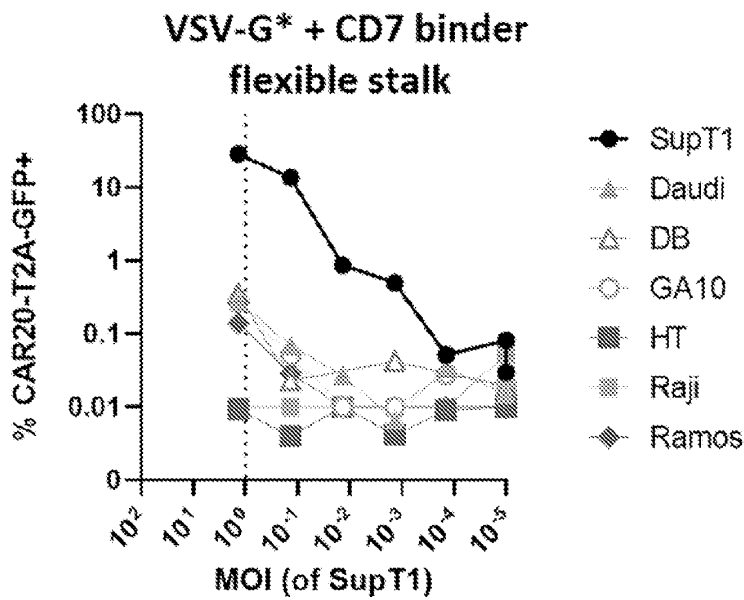


FIG. 21A

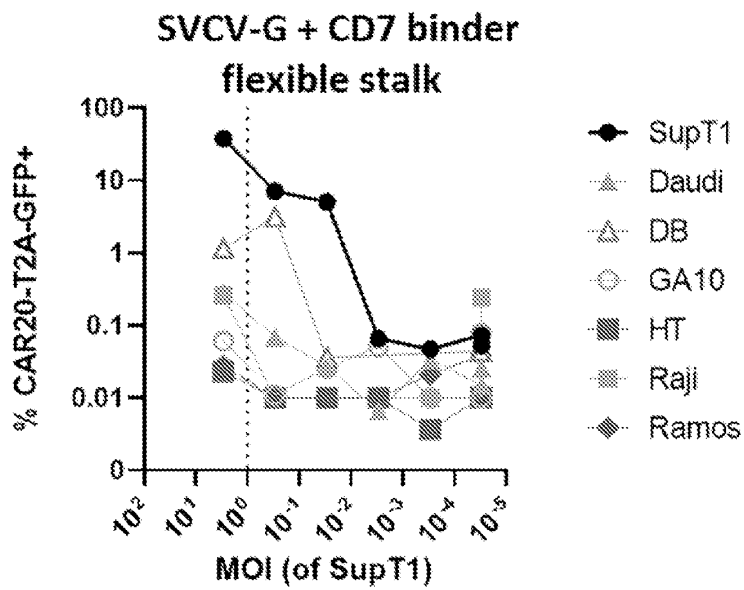


FIG. 21B

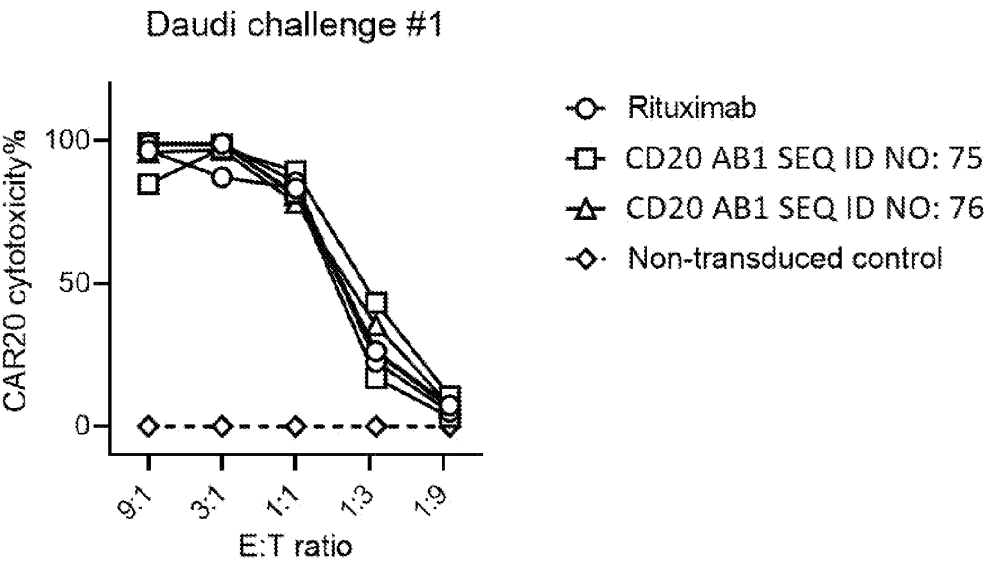


FIG. 22A

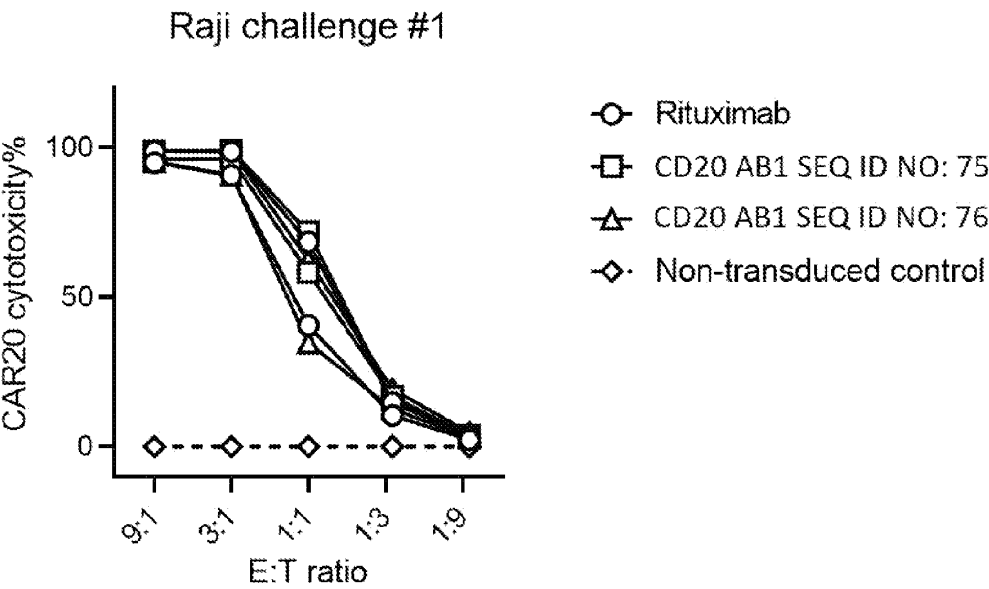


FIG. 22B

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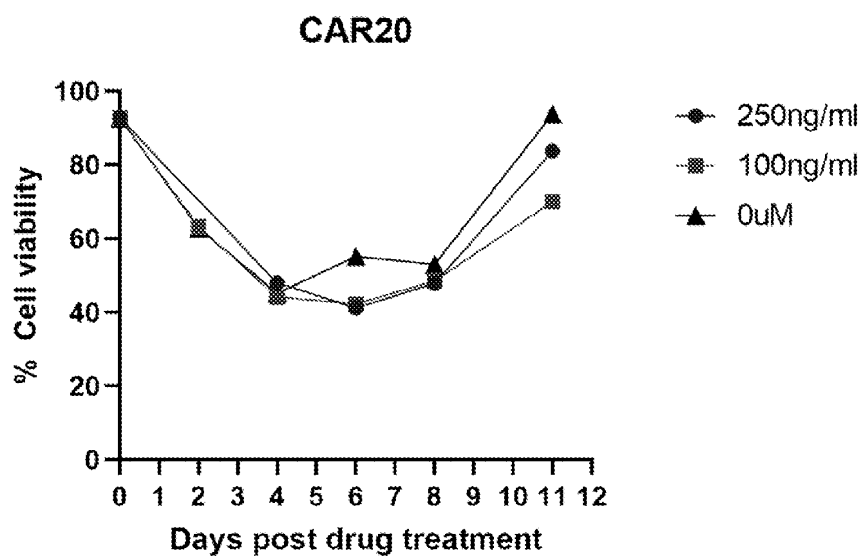


FIG. 23A

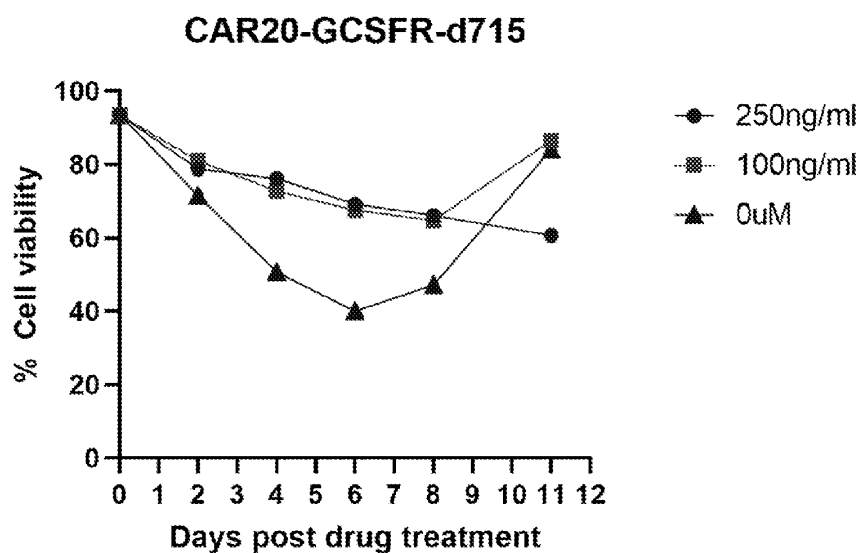


FIG. 23B

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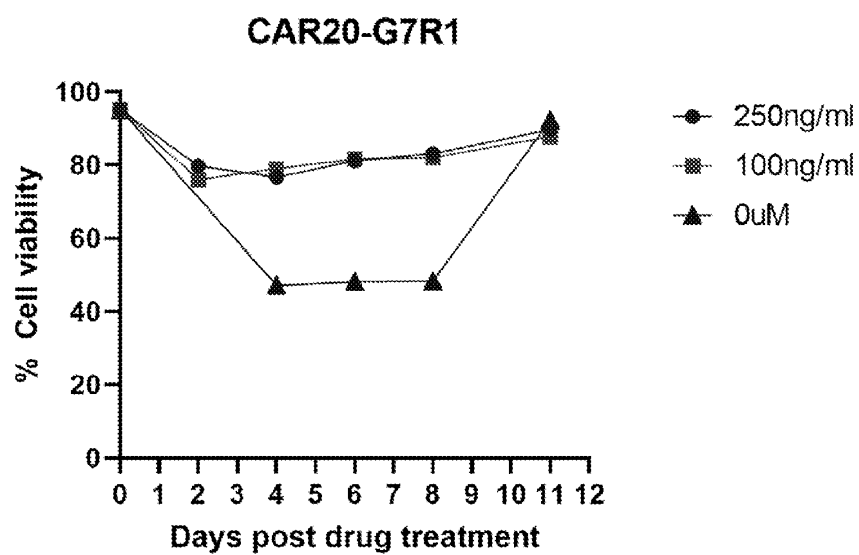


FIG. 23C

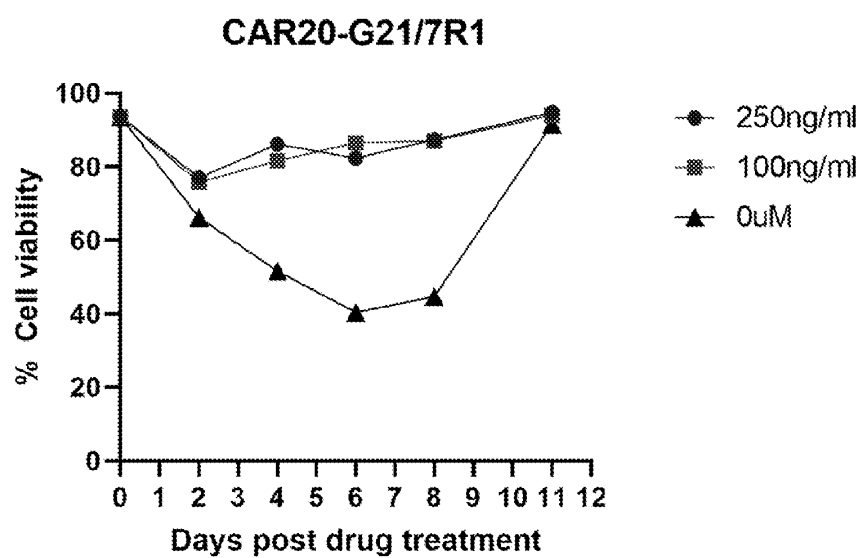


FIG. 23D

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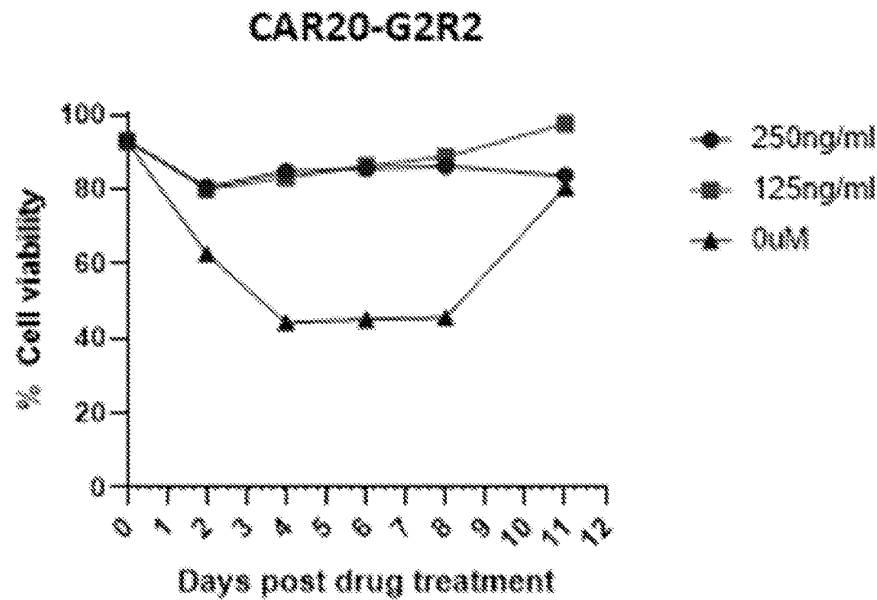


FIG. 23E

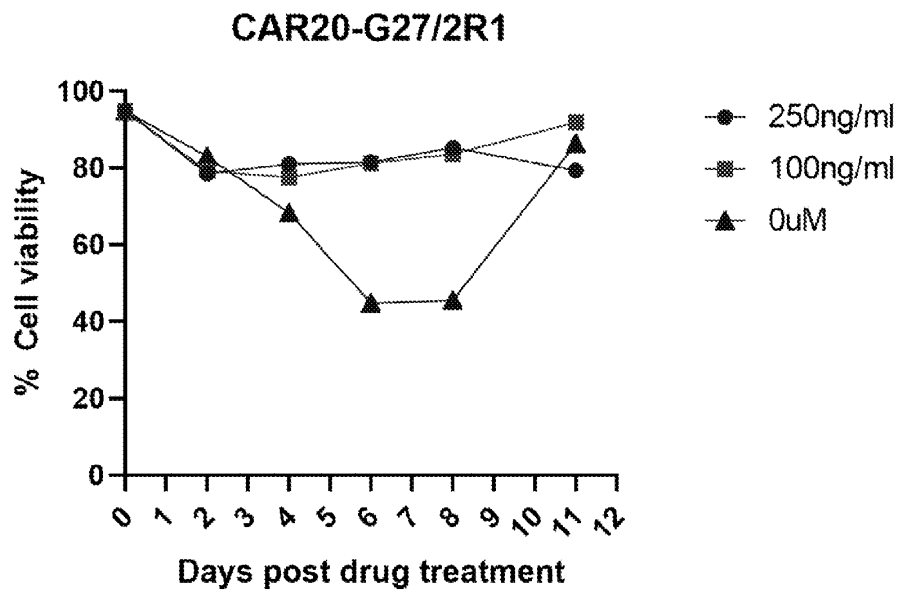


FIG. 23F

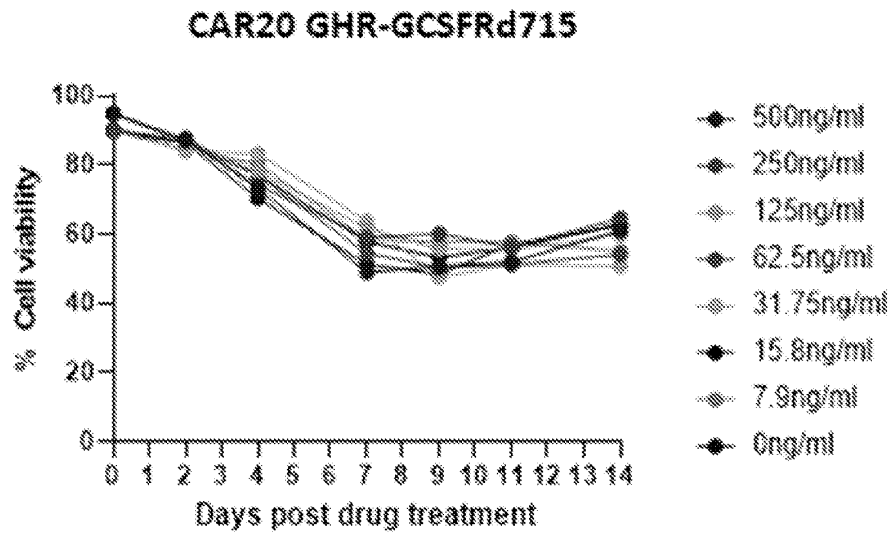


FIG. 24A

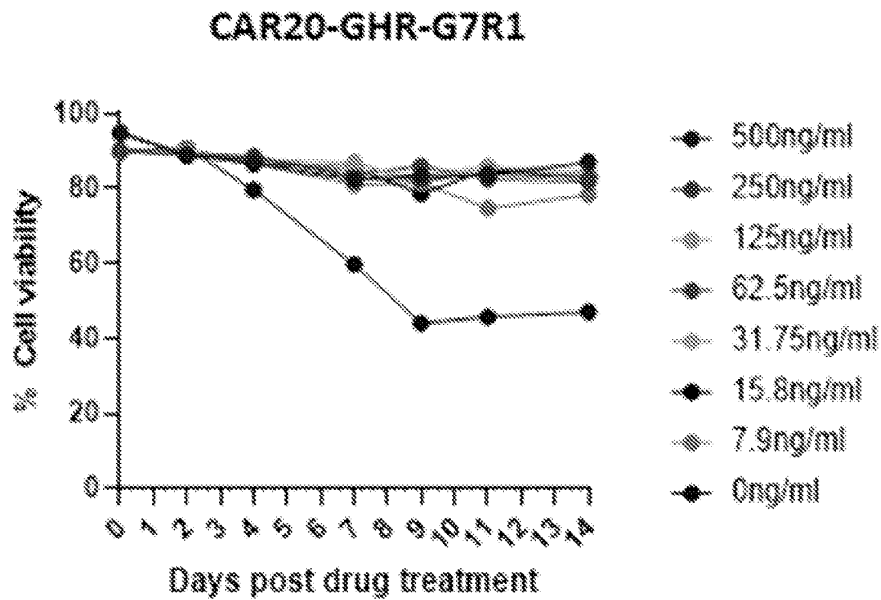


FIG. 24B

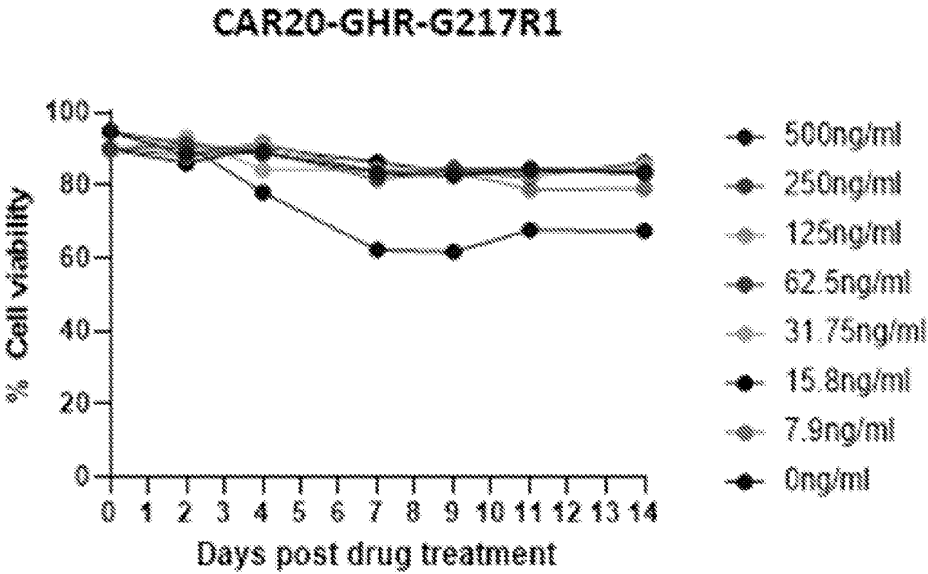


FIG. 24C

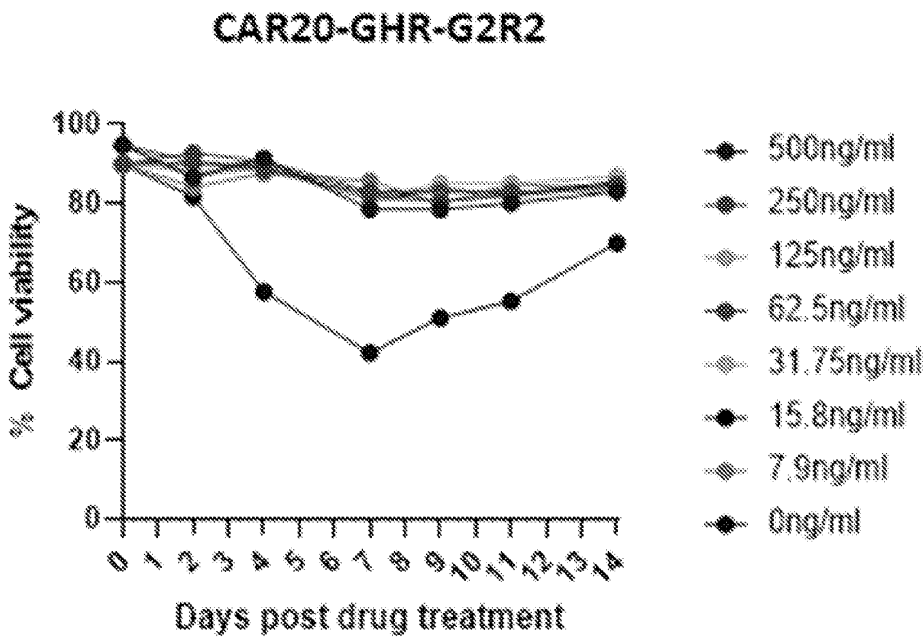


FIG. 24D

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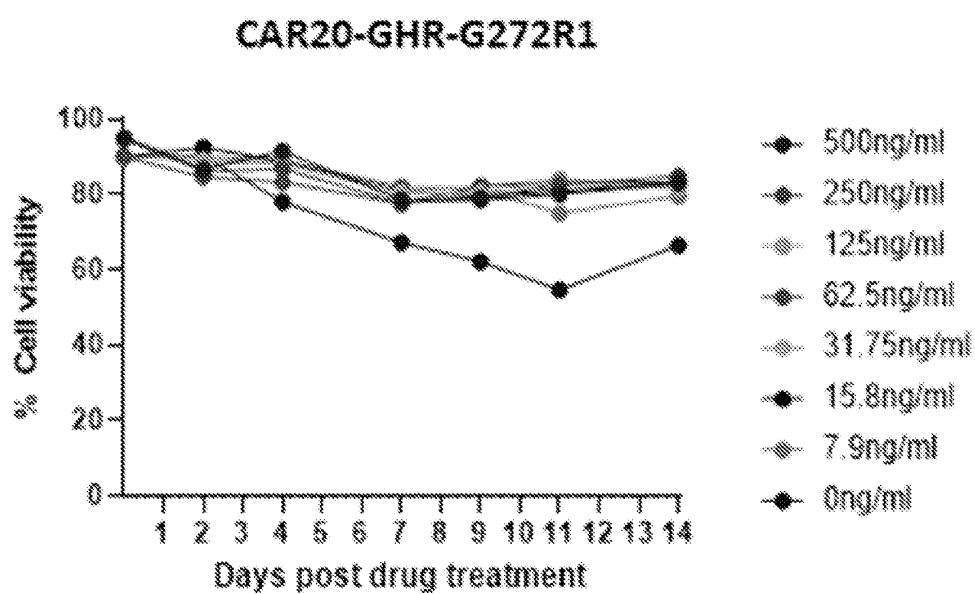


FIG. 24E

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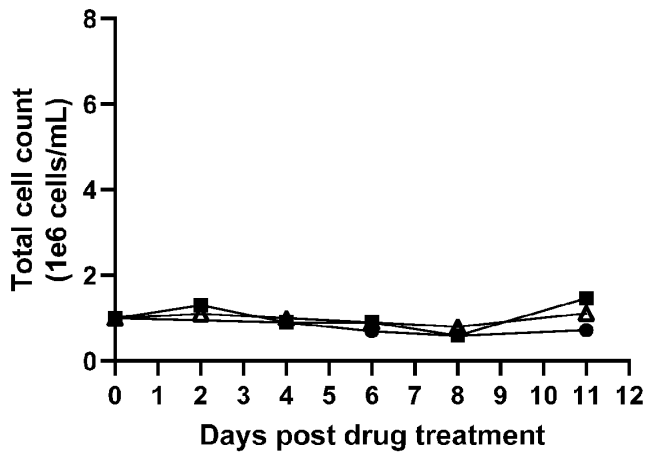
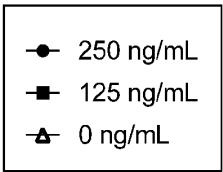


FIG. 25A



CAR20-GCSFR-d715

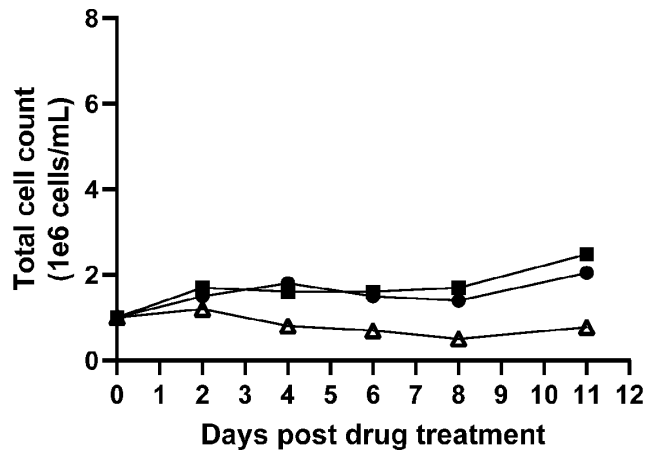
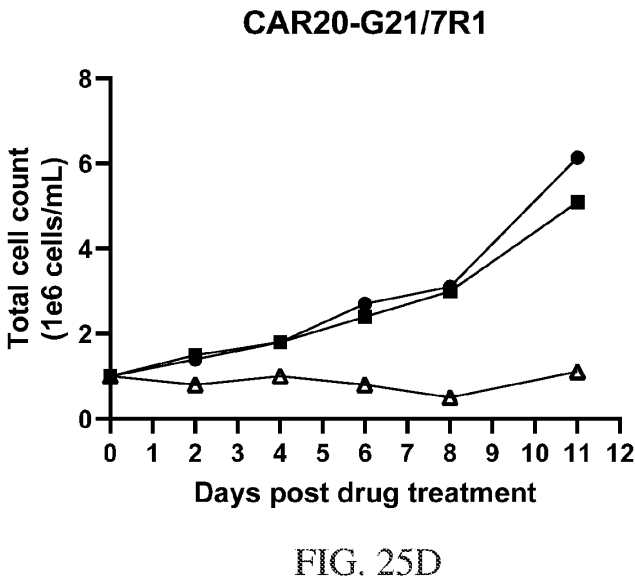
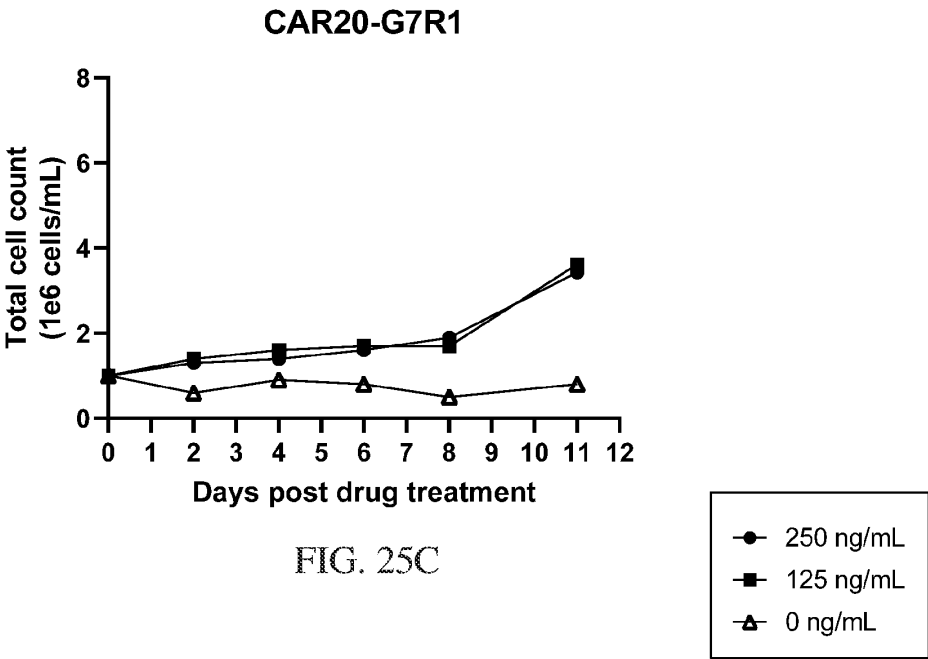
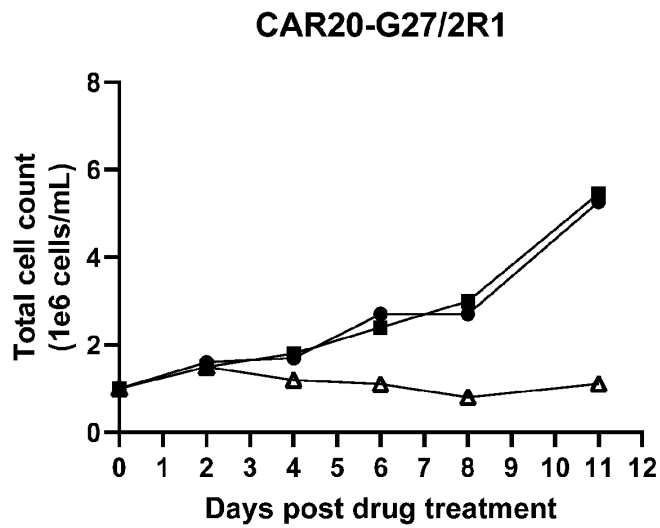
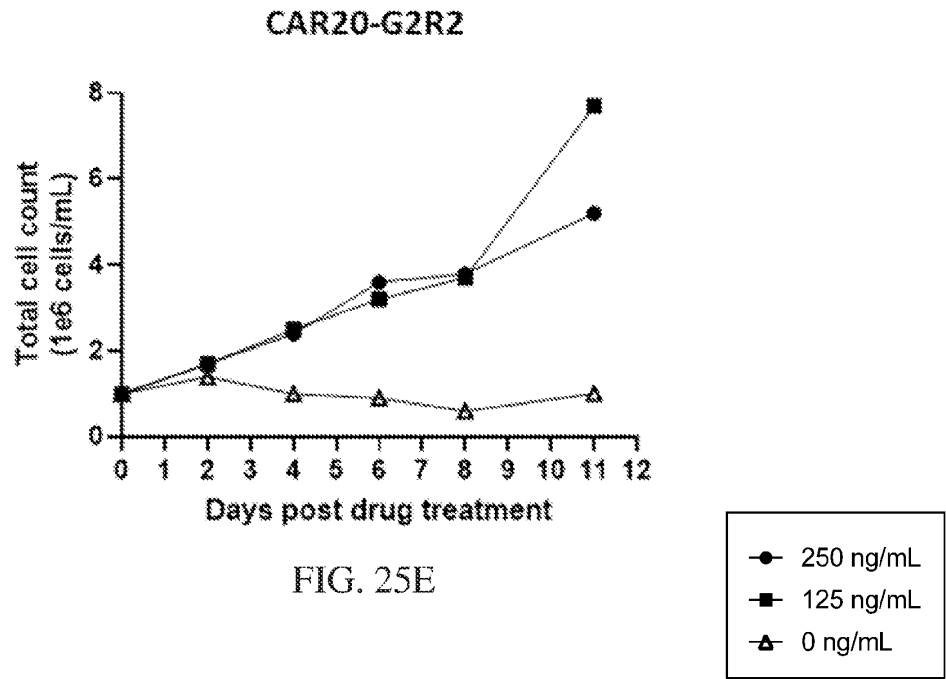
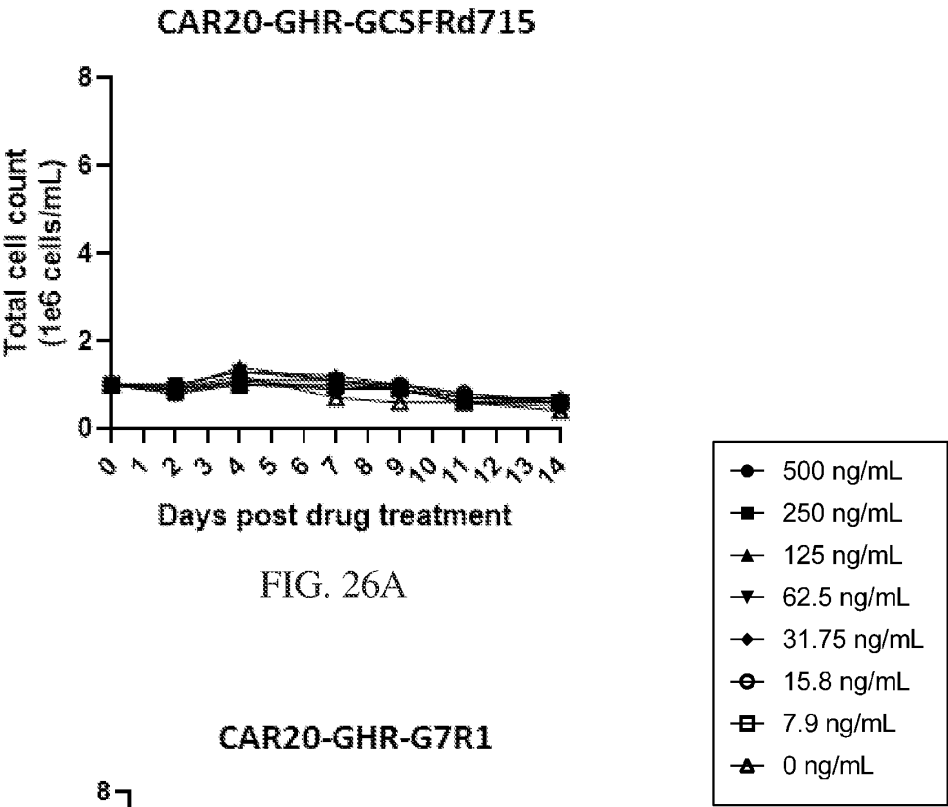


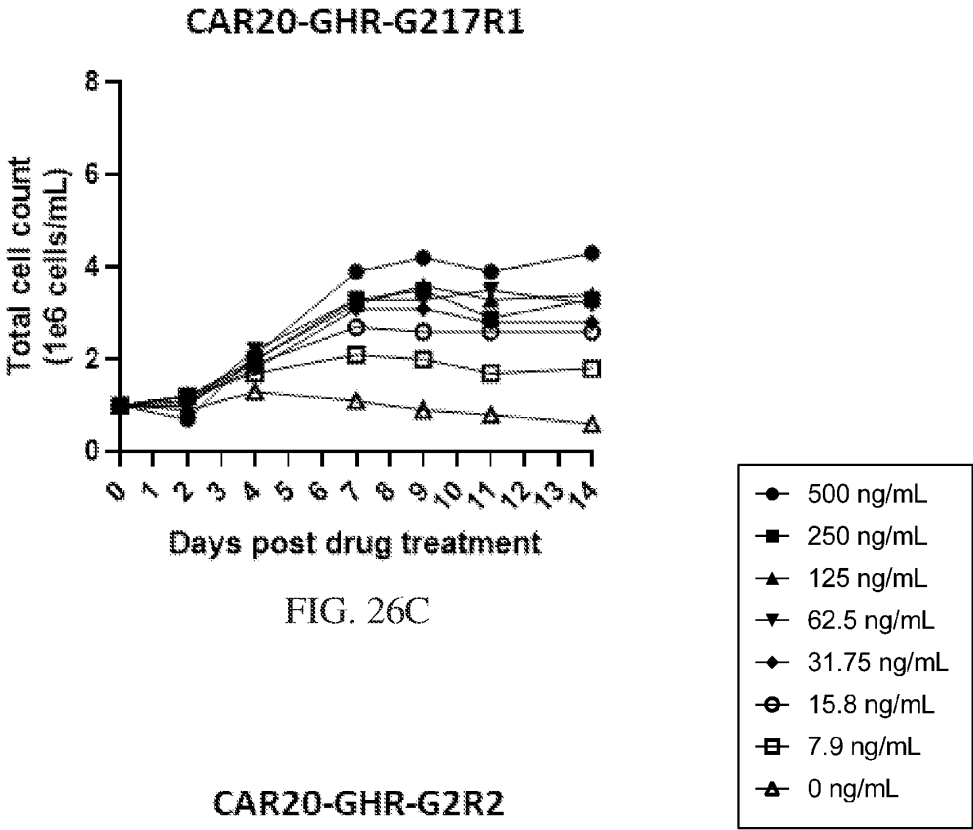
FIG. 25B

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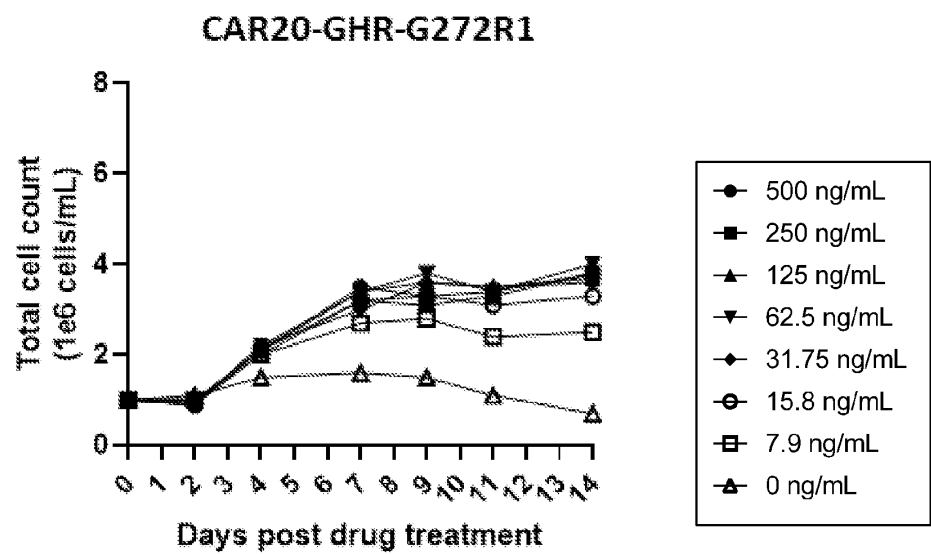


FIG. 26E

GCSF-Treated

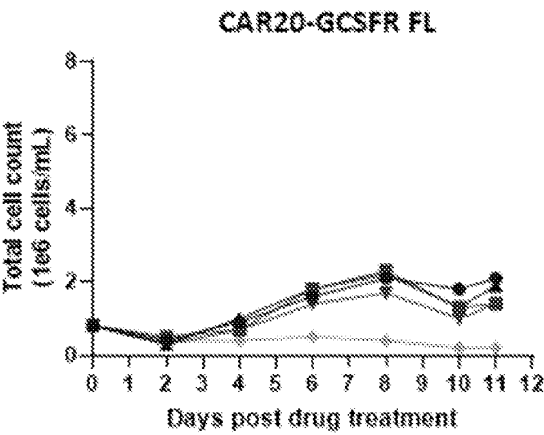


FIG. 27A

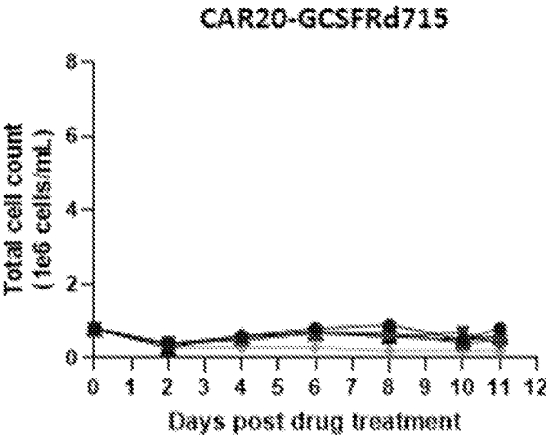


FIG. 27B

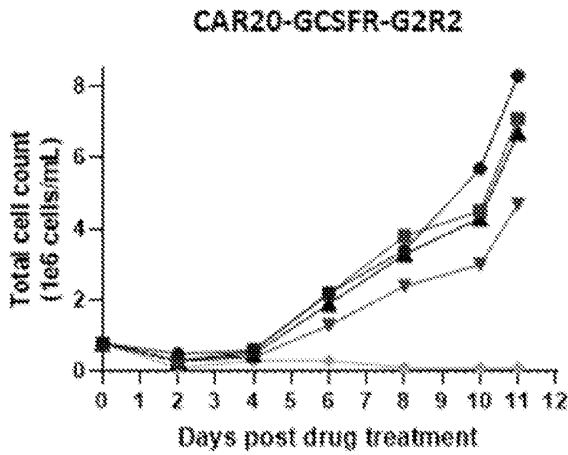
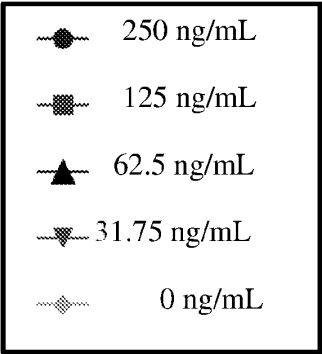


FIG. 27C



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GH-Treated

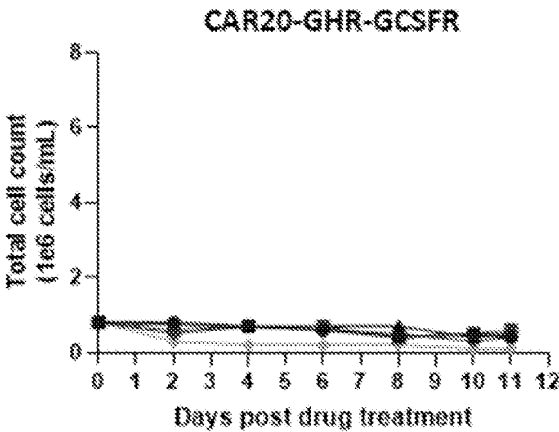


FIG. 27D

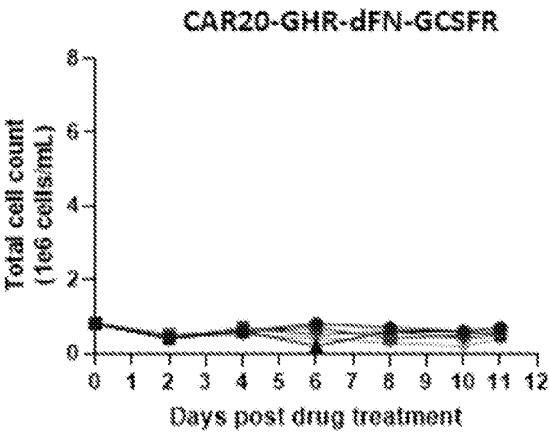


FIG. 27E

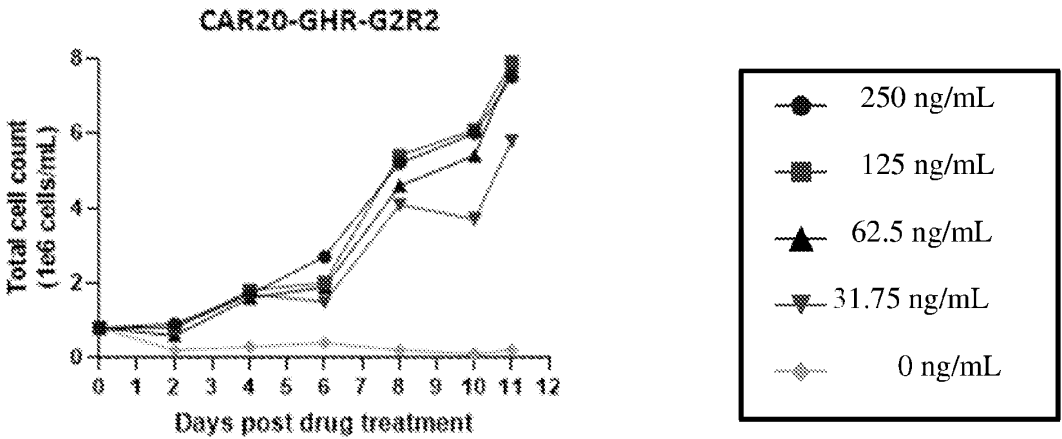


FIG. 27F

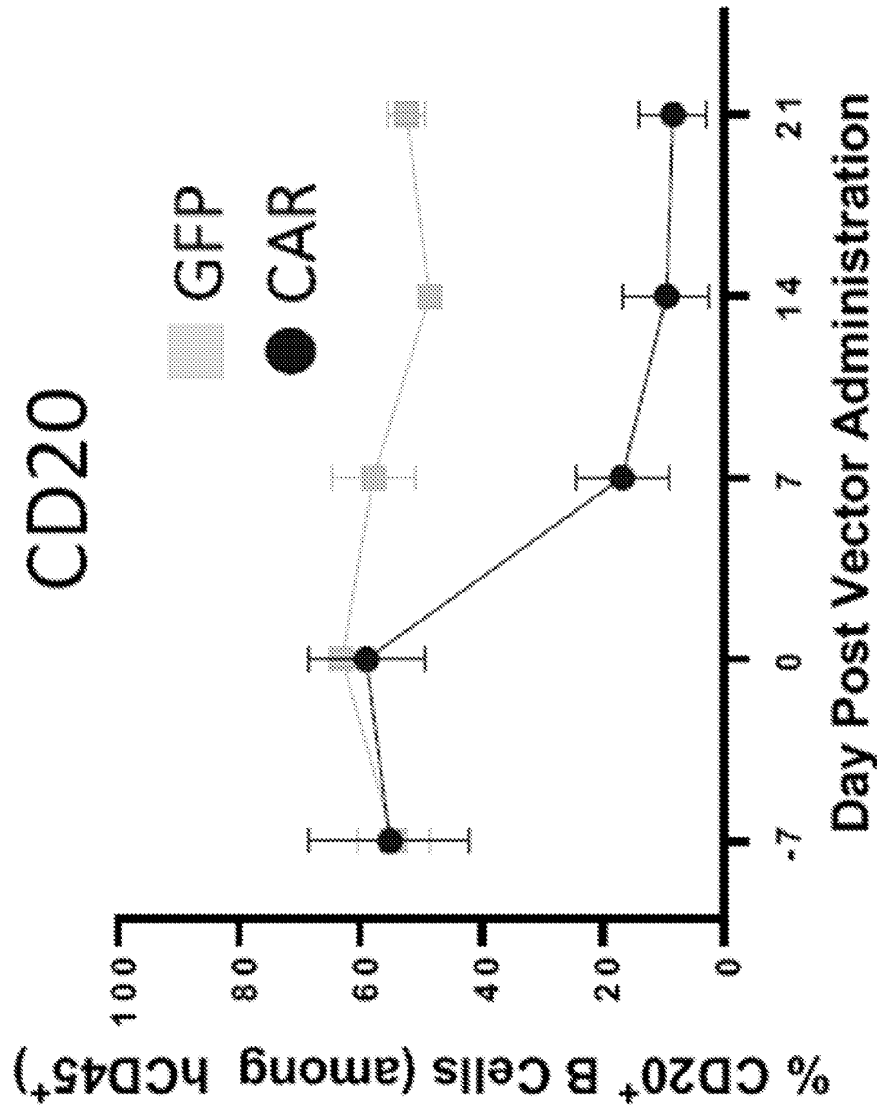


FIG. 28A

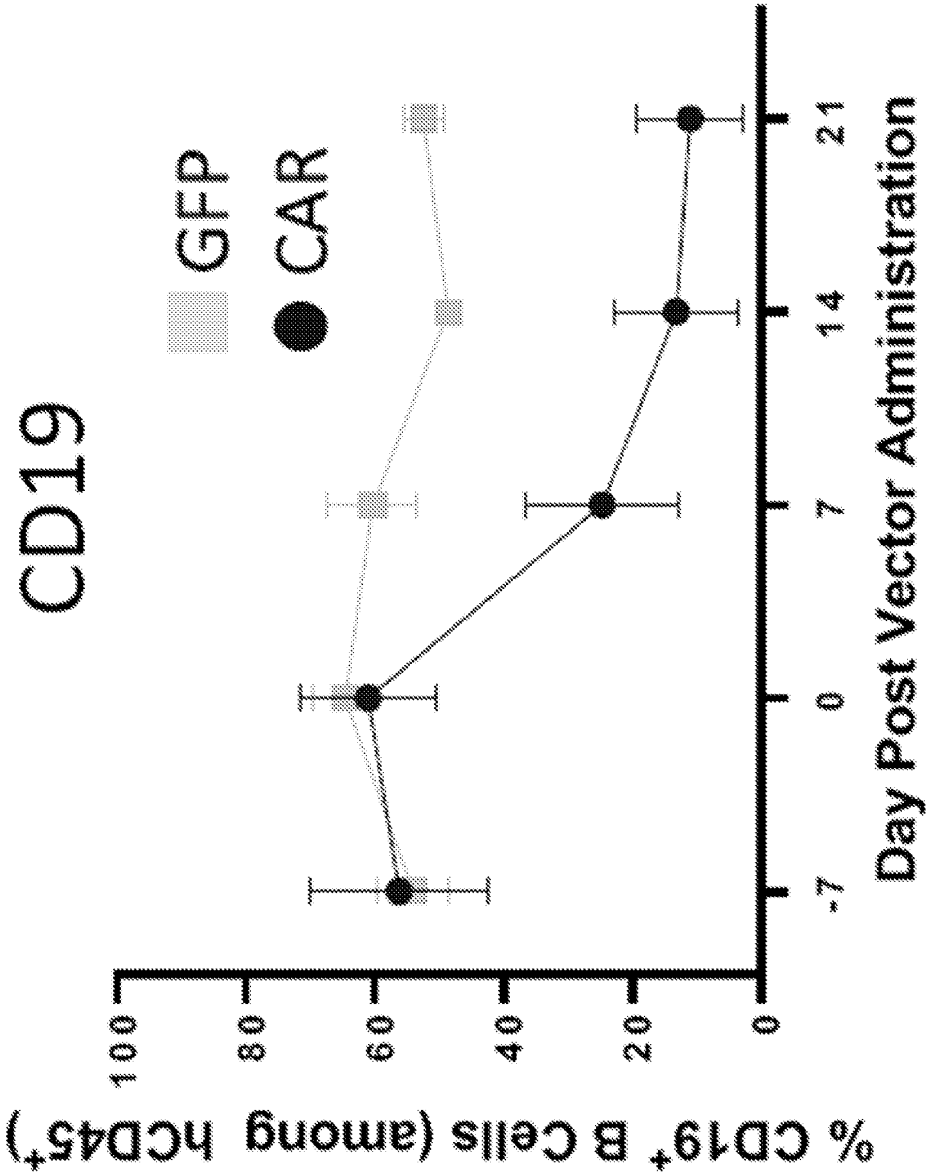


FIG. 28B

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Experimental Design

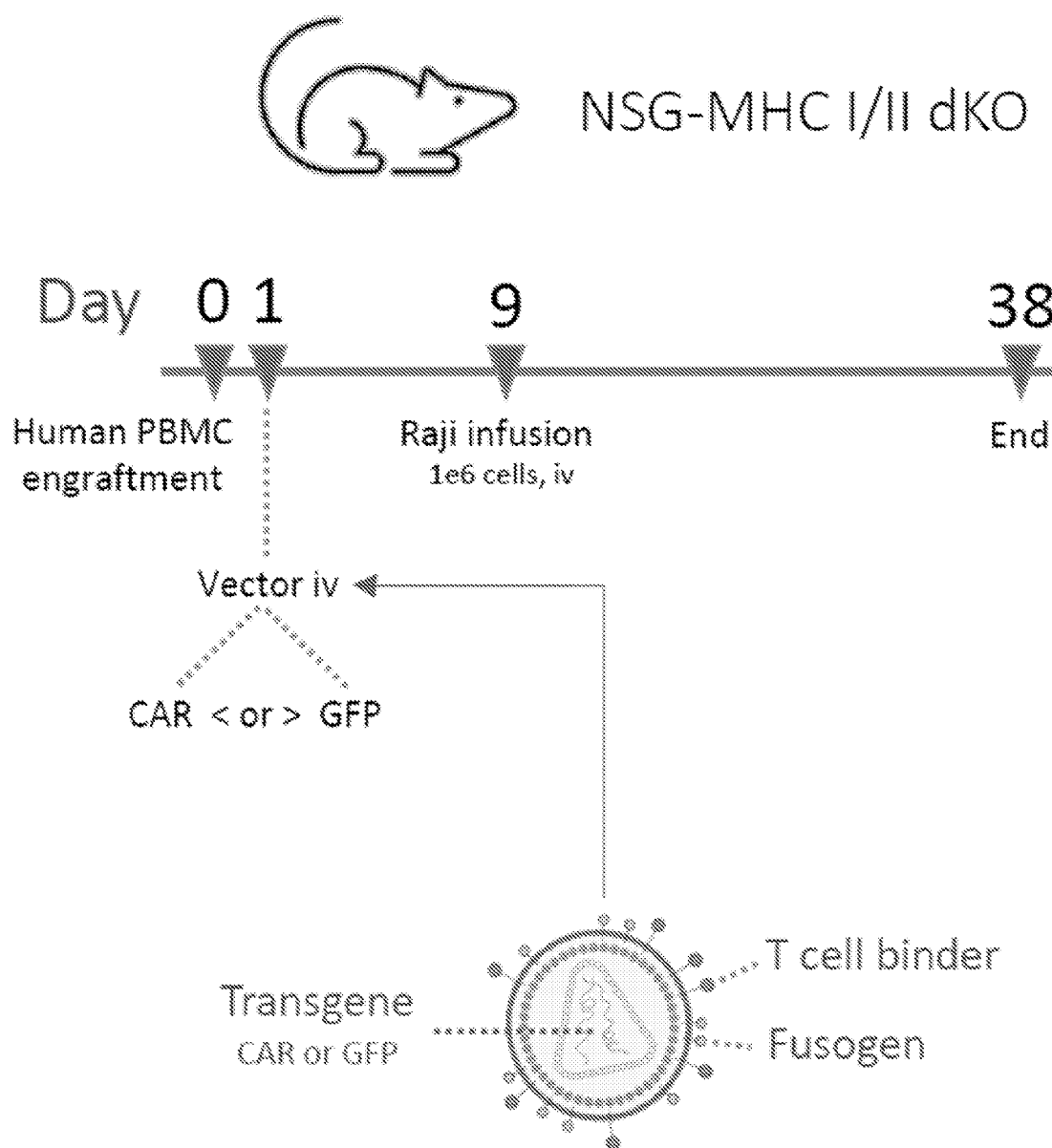


FIG. 29A

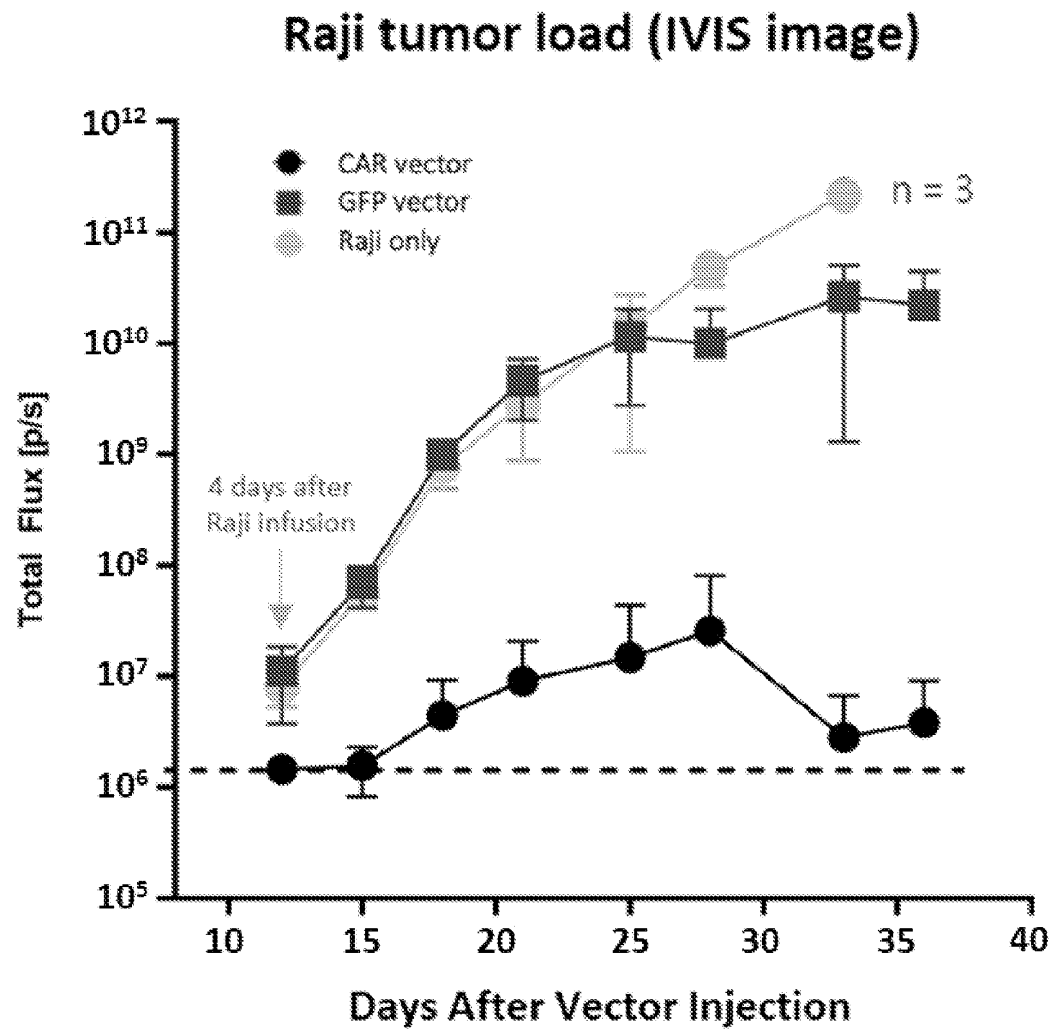


FIG. 29B

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Experimental Design

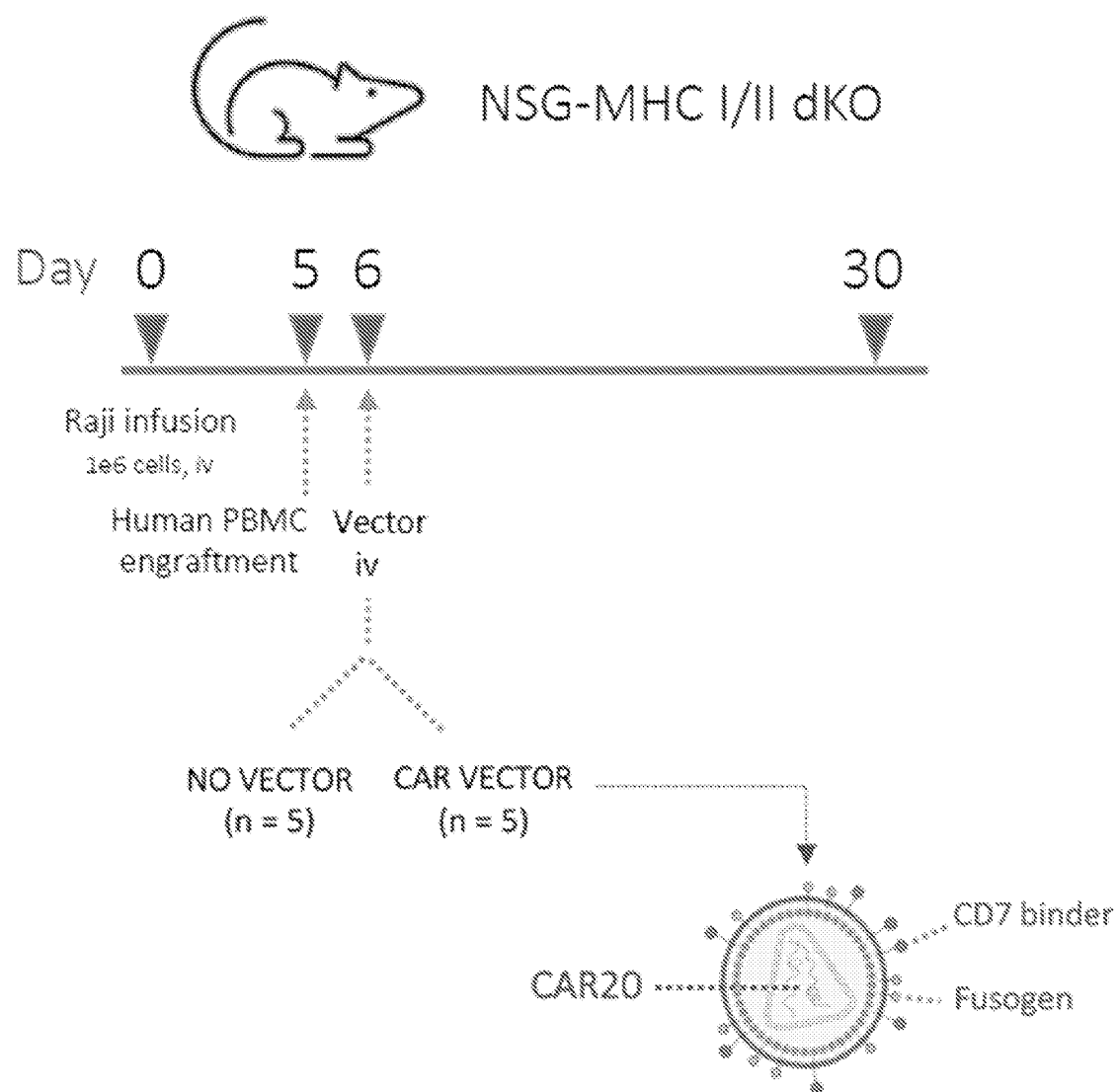


FIG. 30A

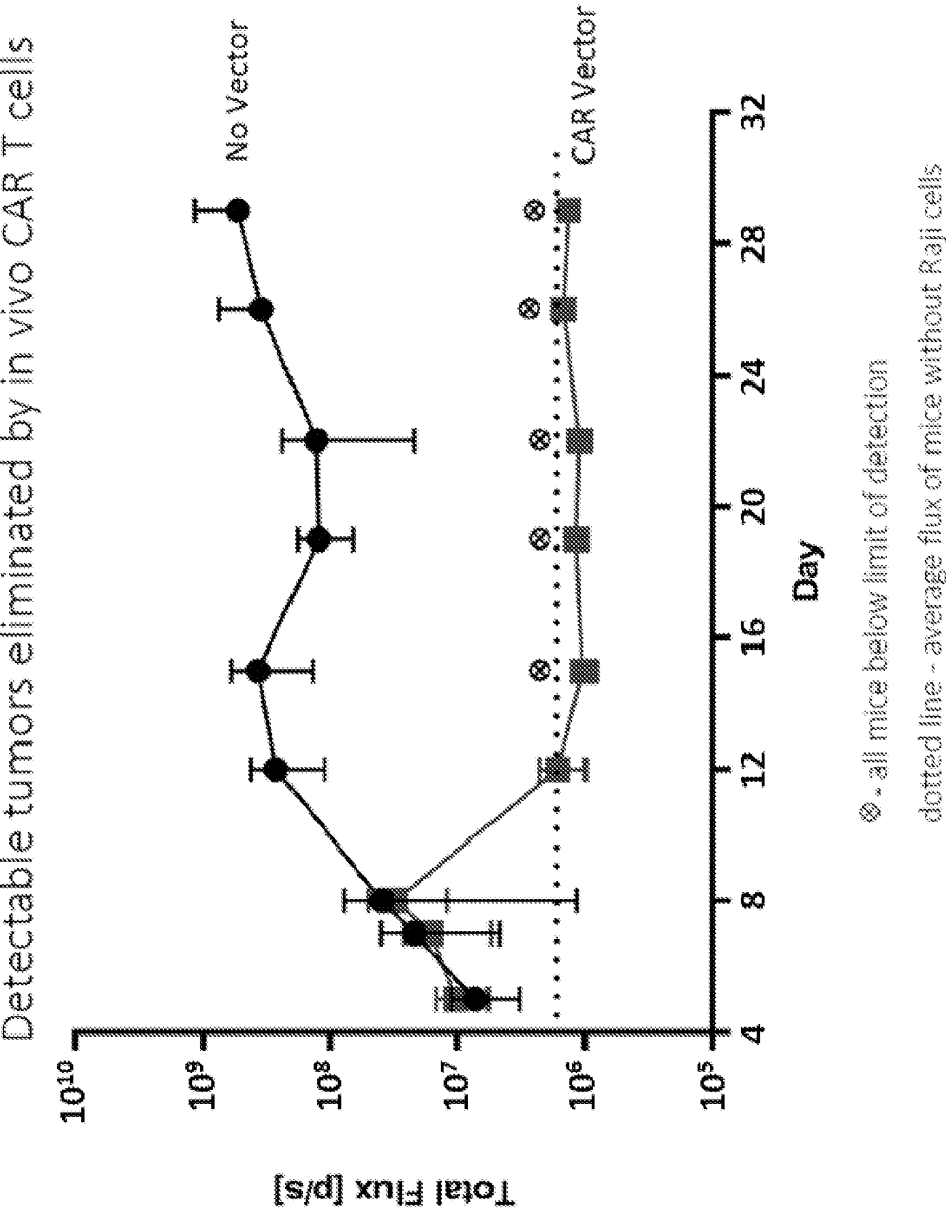


FIG. 30B

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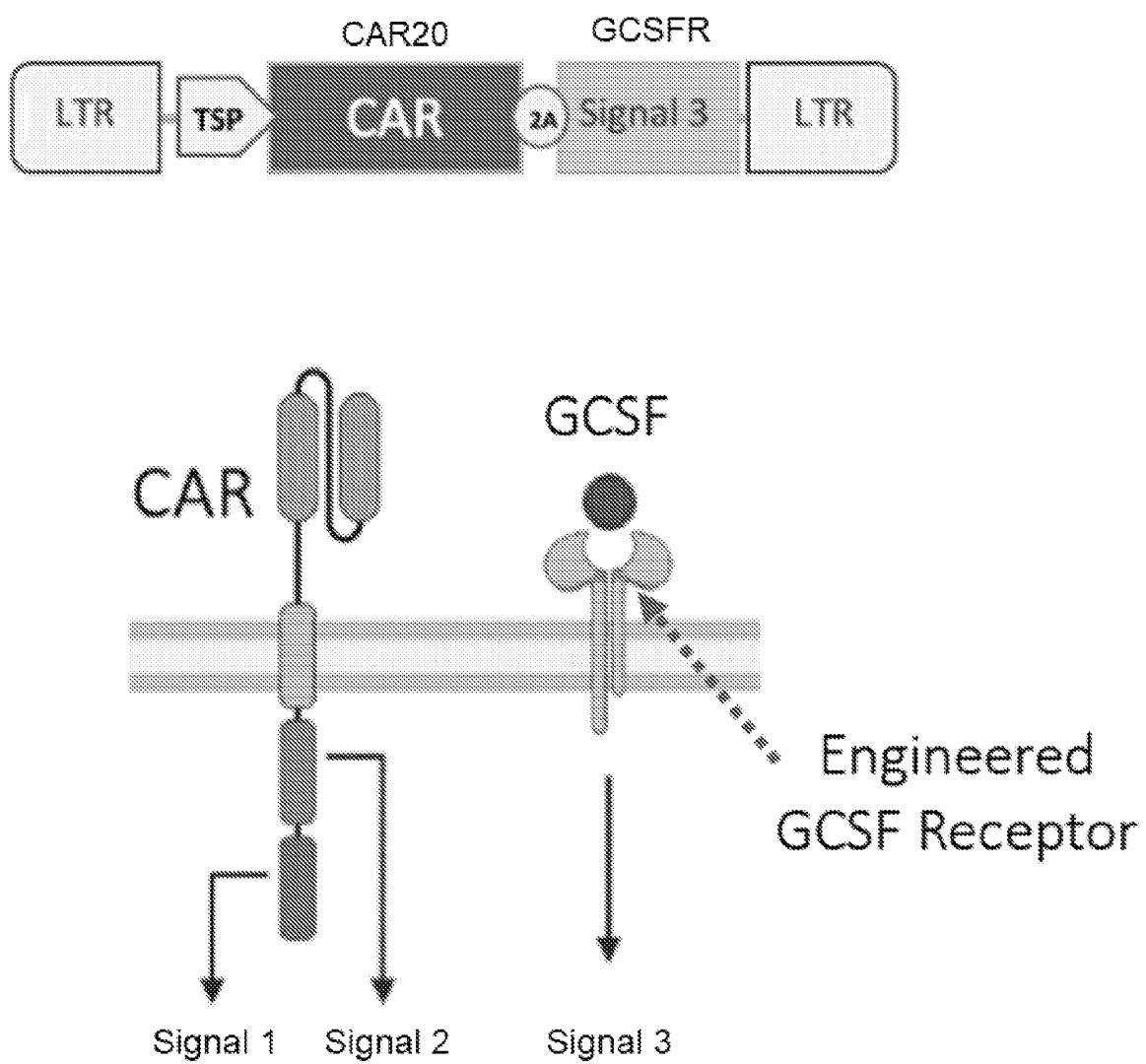


FIG. 31A

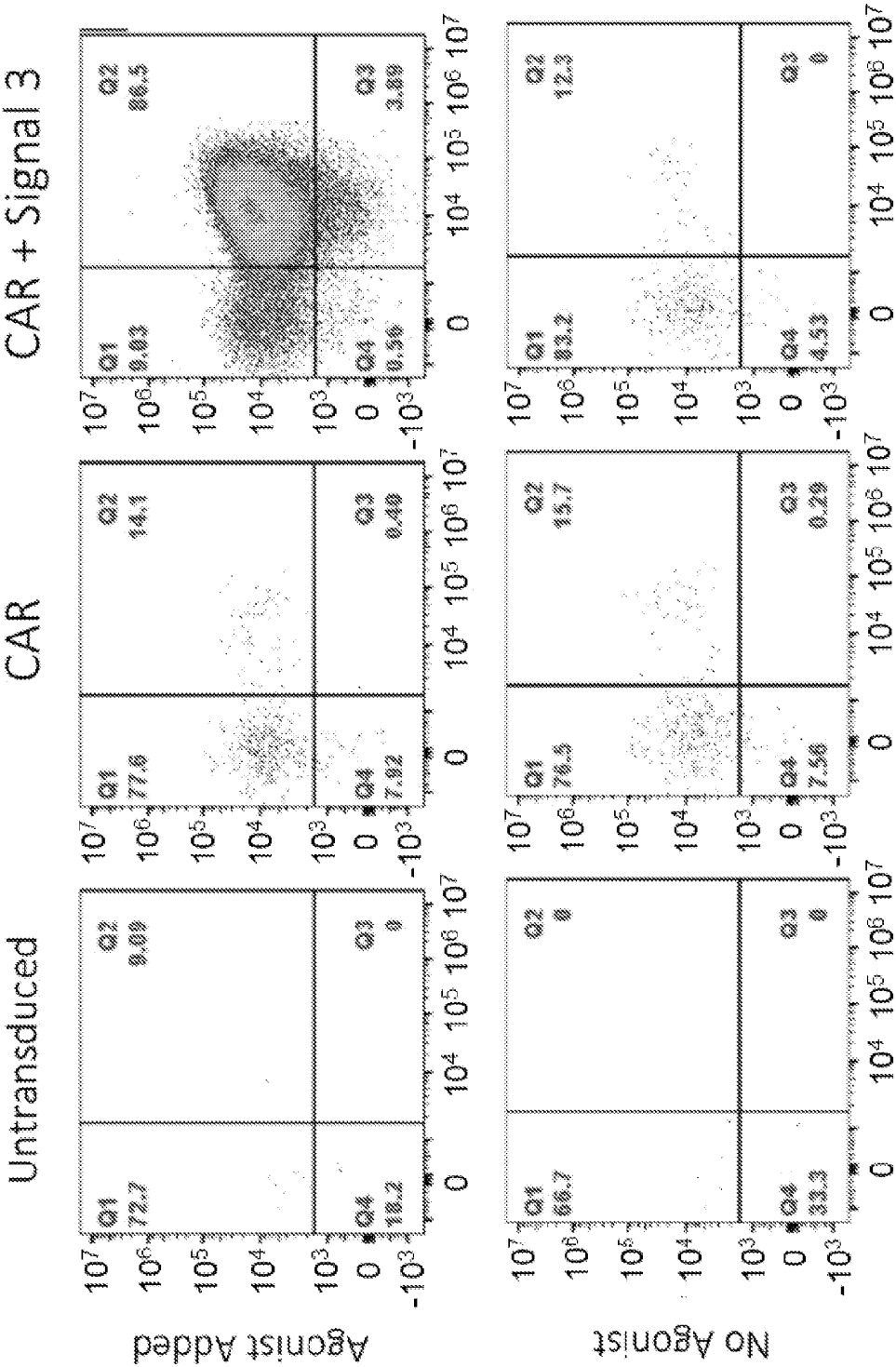


FIG. 31B

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Dose Response of CAR T Cells To Exogenous Agonist

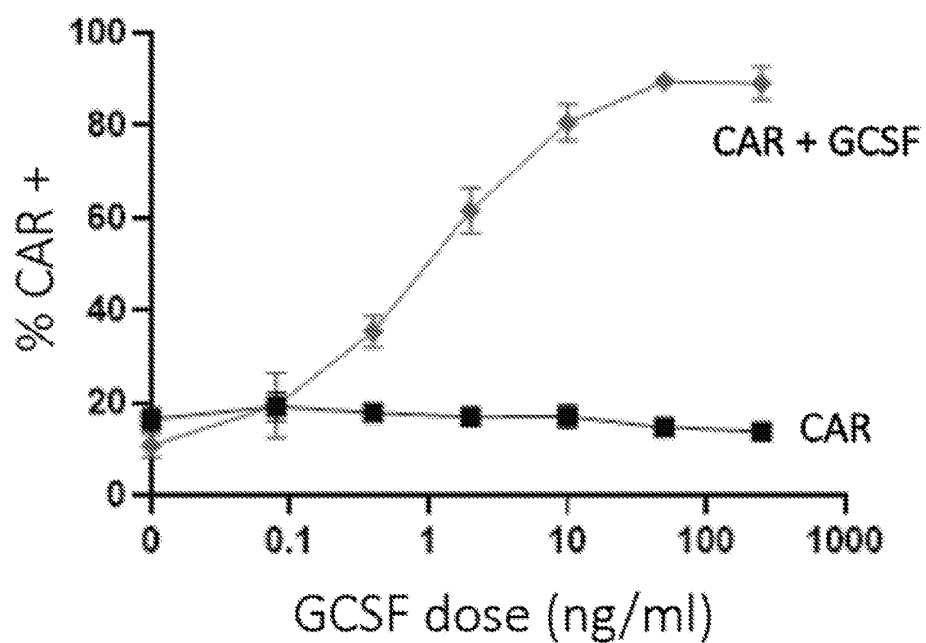


FIG. 31C

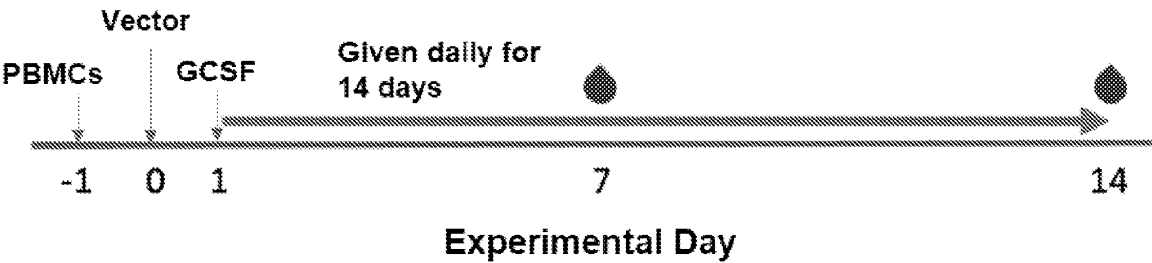


FIG. 31D

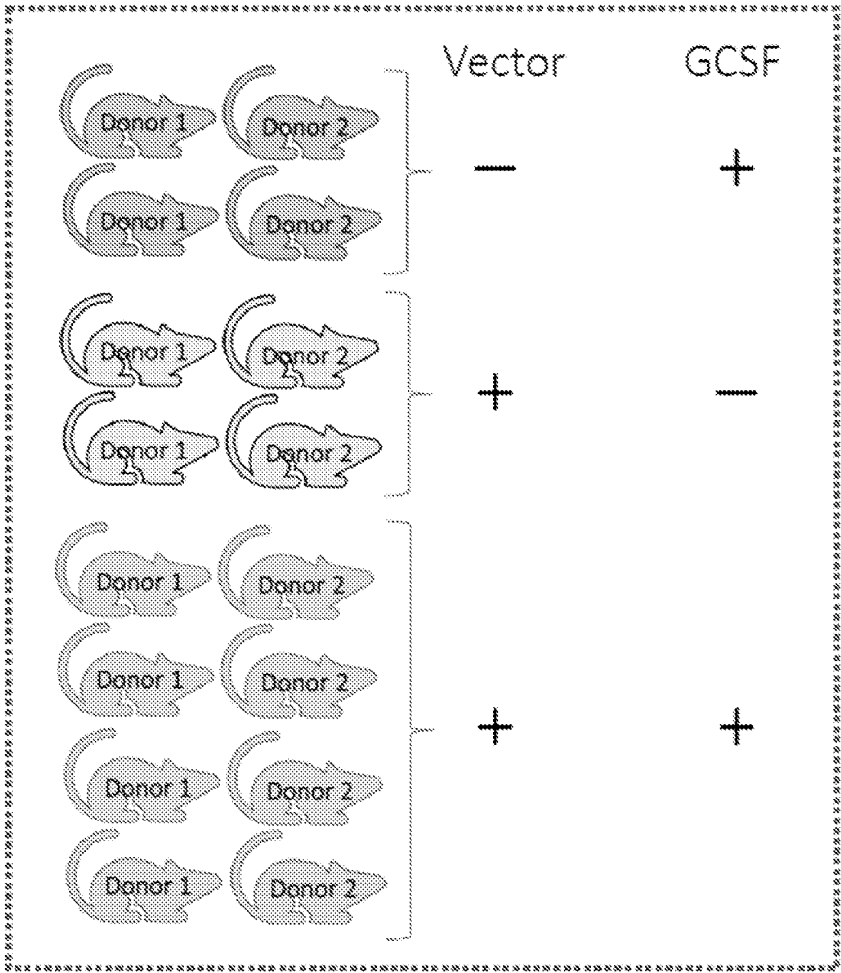


FIG. 31E

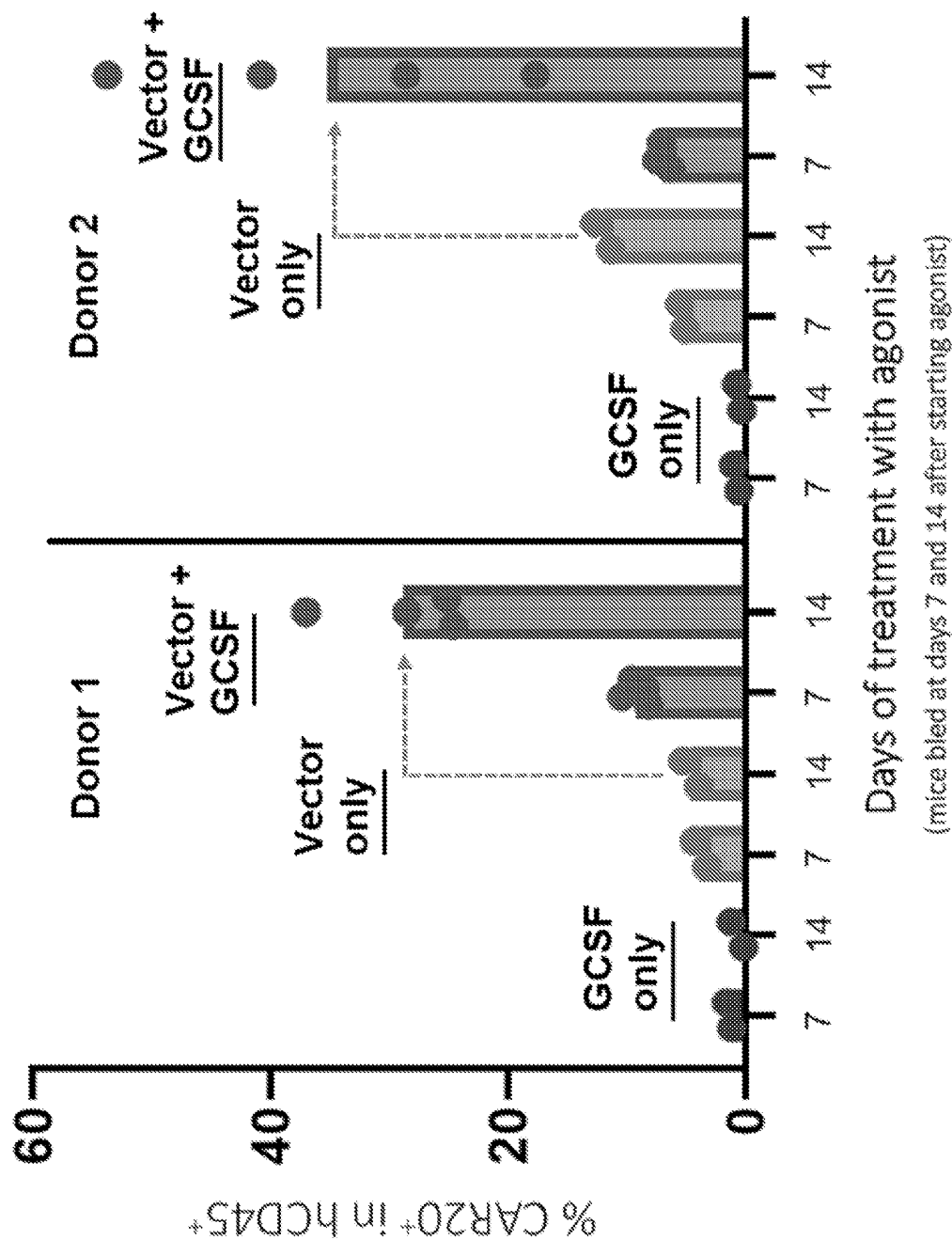
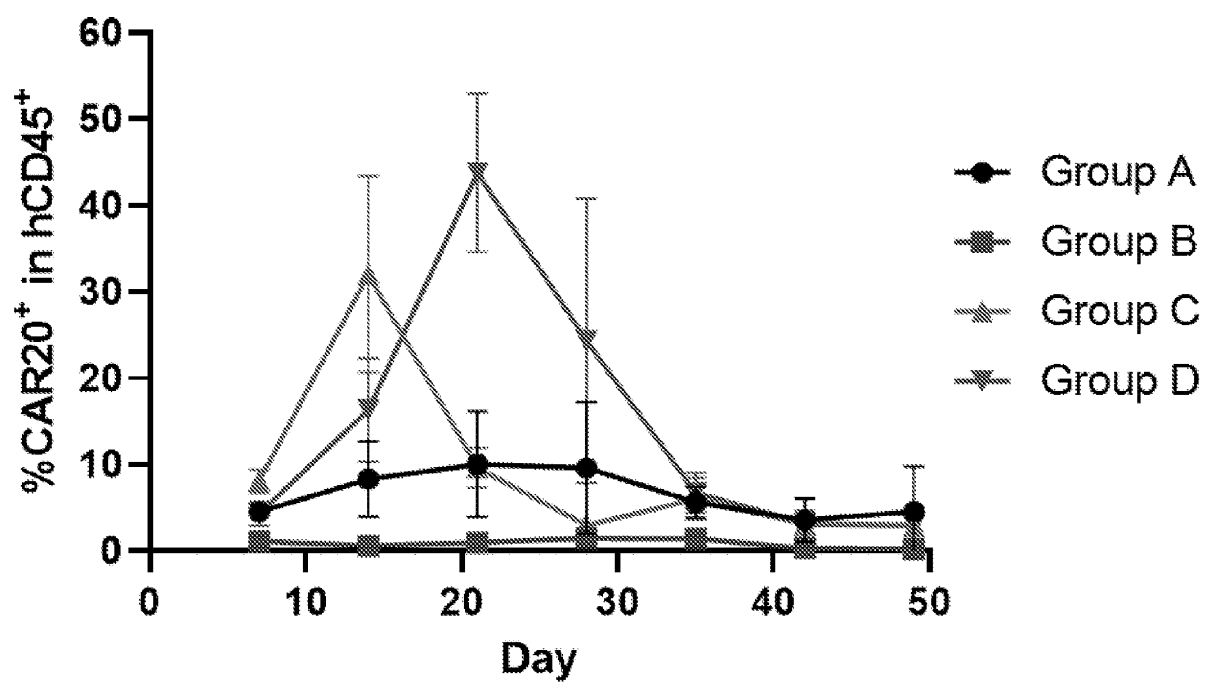


FIG. 3 IF

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Group	Vector	GCSF
A	Yes	No
B	No	Yes
C	Yes	Yes (D1-14, D24-38)
D	Yes	Yes (D10-24)

FIG. 31G

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CAR20

DONOR 1

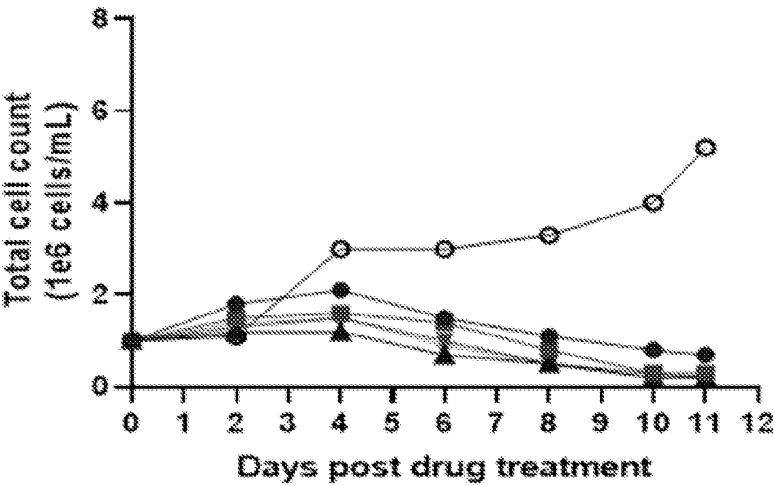


FIG. 32A

- 250ng/ml
- 125ng/ml
- ▲ 62.5ng/ml
- ▼ 31.75ng/ml
- ◆ 0ng/ml
- Complete media

CAR20

DONOR 2

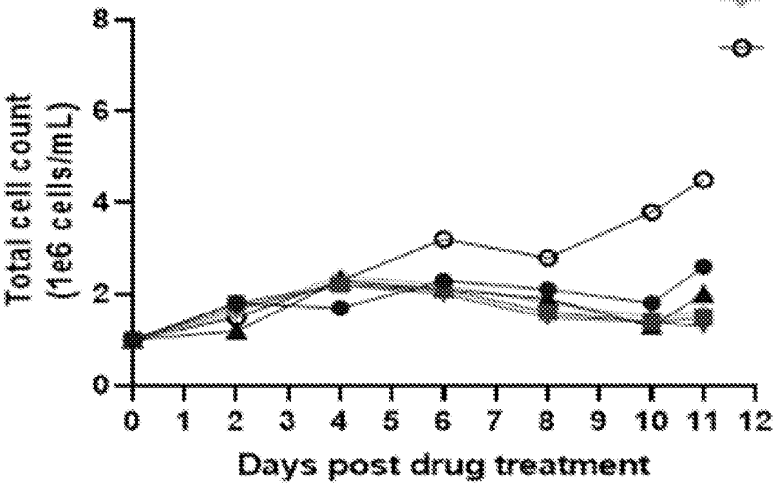


FIG. 32B

DONOR 1

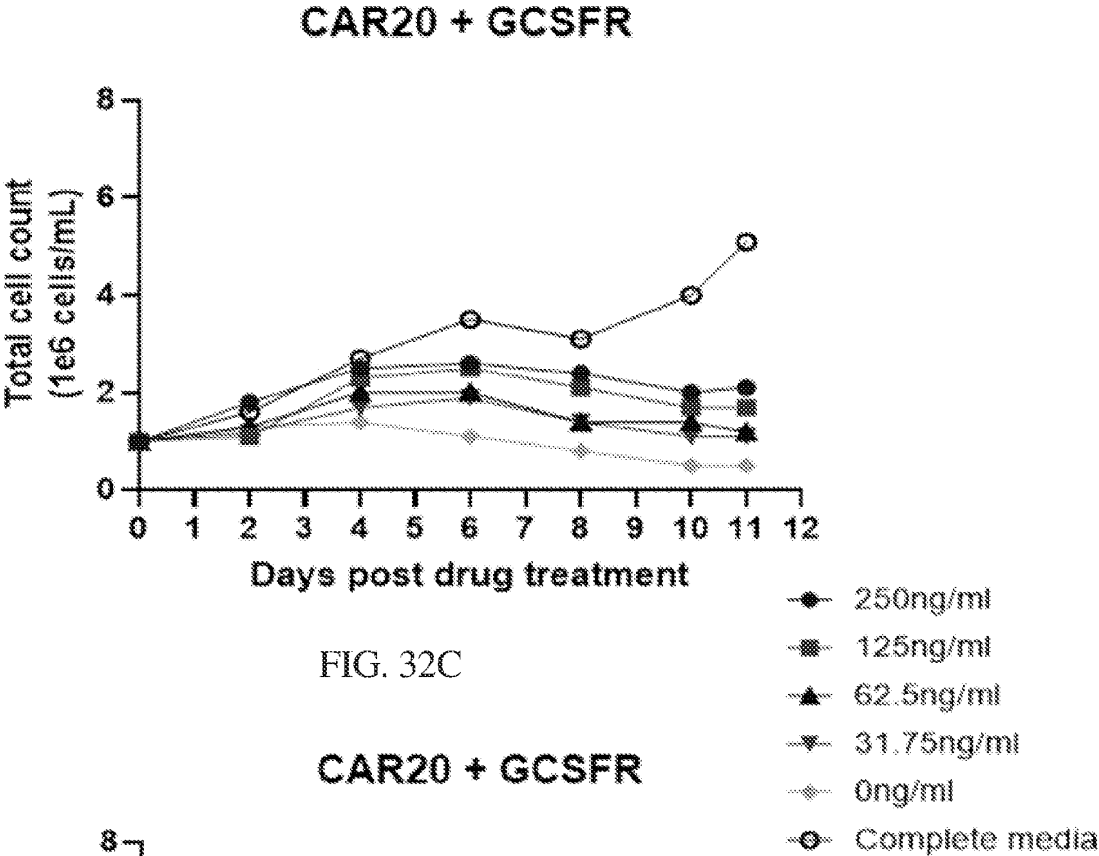


FIG. 32C

DONOR 2

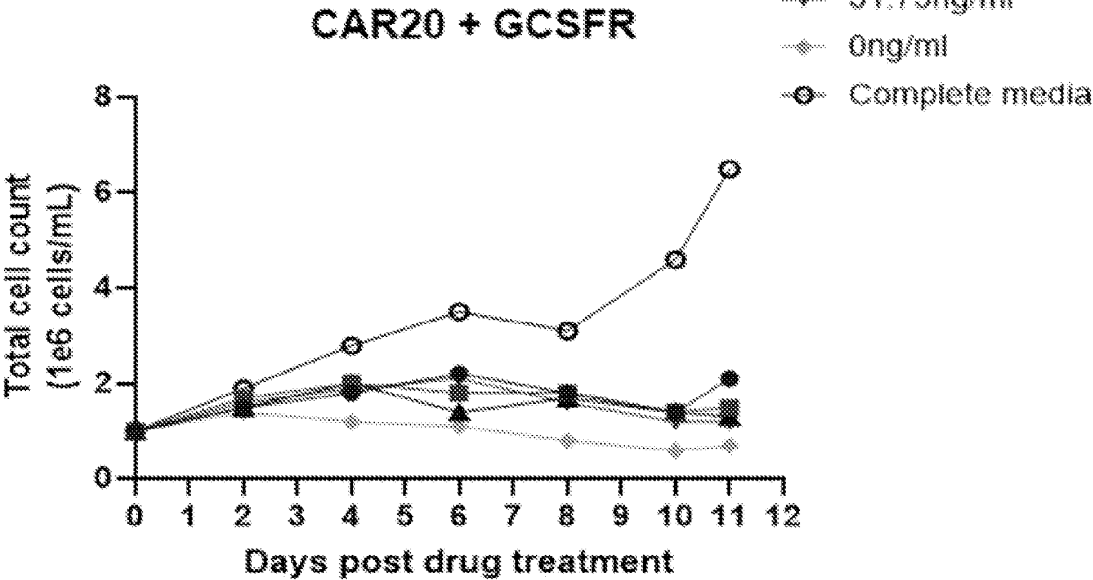


FIG. 32D

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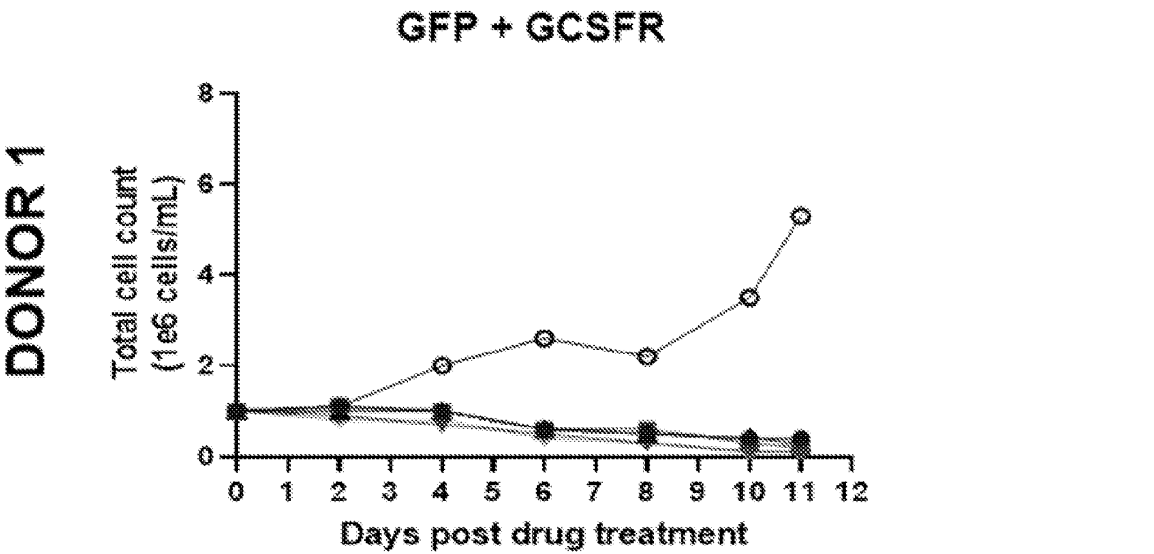


FIG. 32E

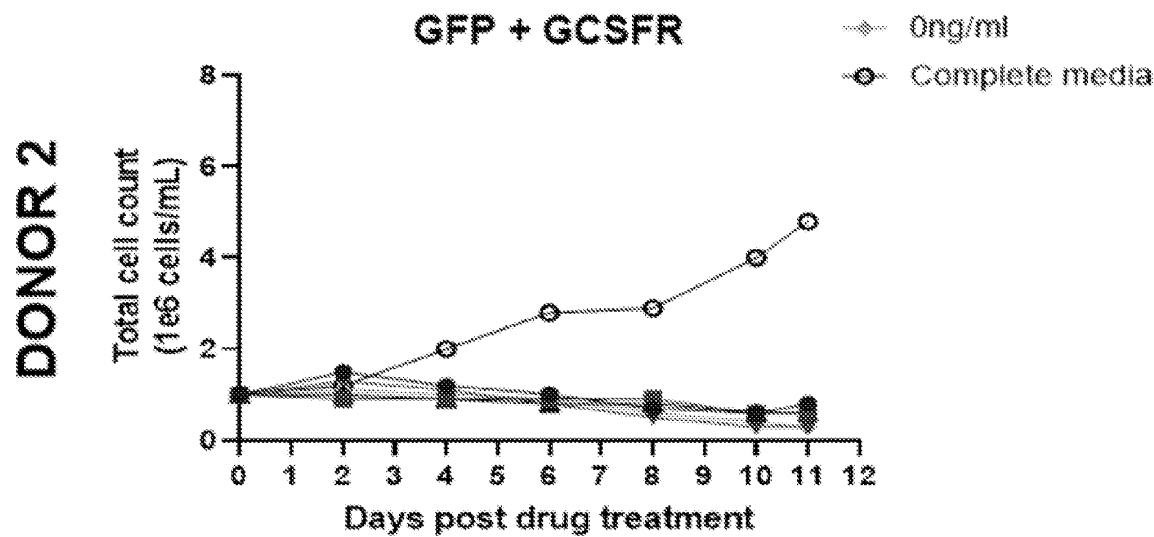


FIG. 32F

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CAR20

DONOR 1

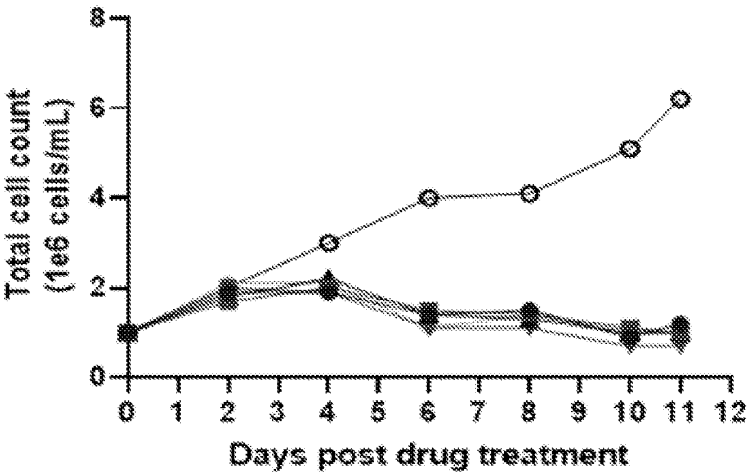


FIG. 33A

- 250ng/ml
- 125ng/ml
- 62.5ng/ml
- 31.75ng/ml
- 0ng/ml
- Complete media

CAR20

DONOR 2

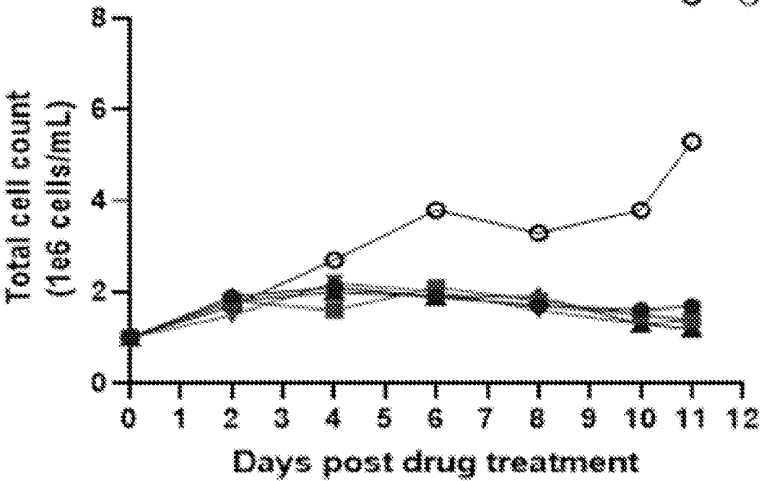


FIG. 33B

DONOR 1

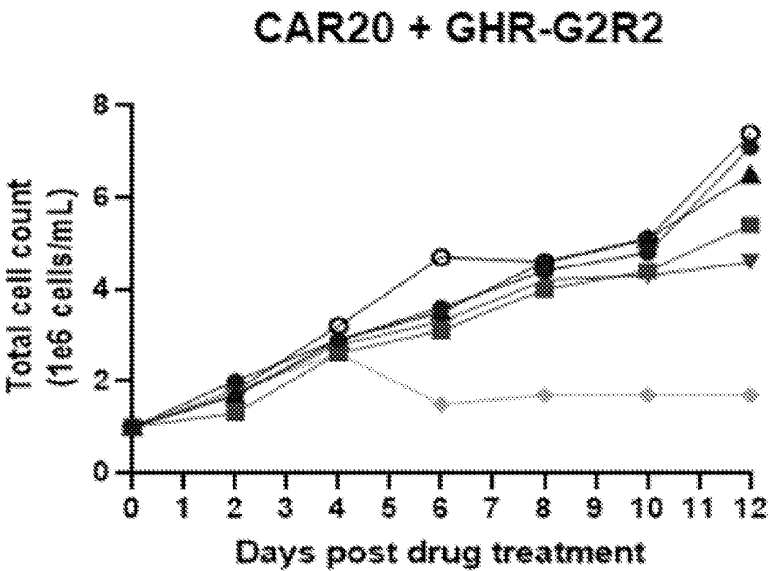


FIG. 33C

- 250ng/ml
- 125ng/ml
- ▲ 62.5ng/ml
- ▼ 31.75ng/ml
- ◆ 0ng/ml
- Complete media

DONOR 2

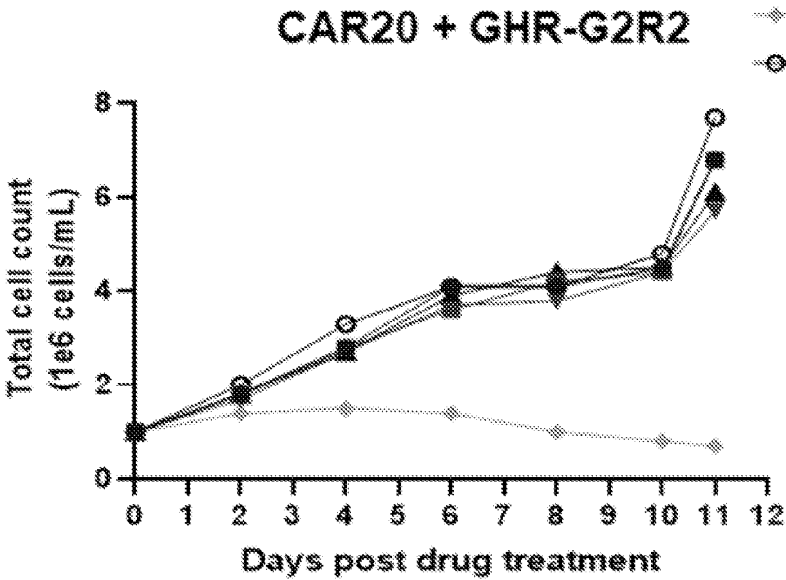


FIG. 33D

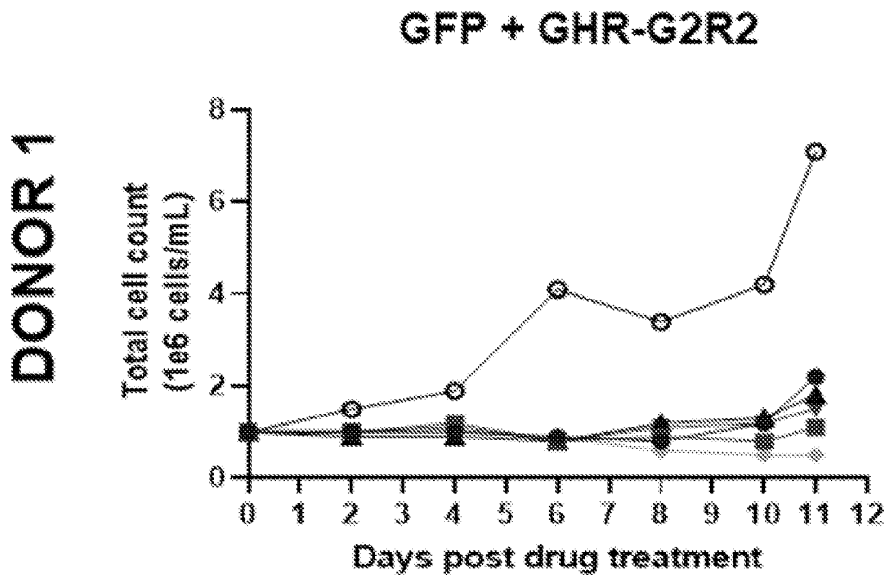


FIG. 33E

- 250ng/ml
- 125ng/ml
- 62.5ng/ml
- 31.75ng/ml
- 0ng/ml
- Complete media

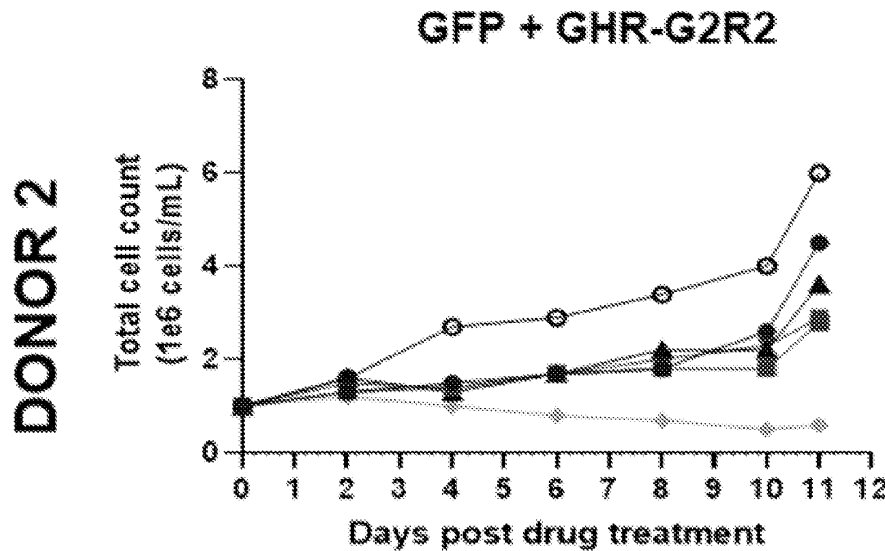


FIG. 33F