

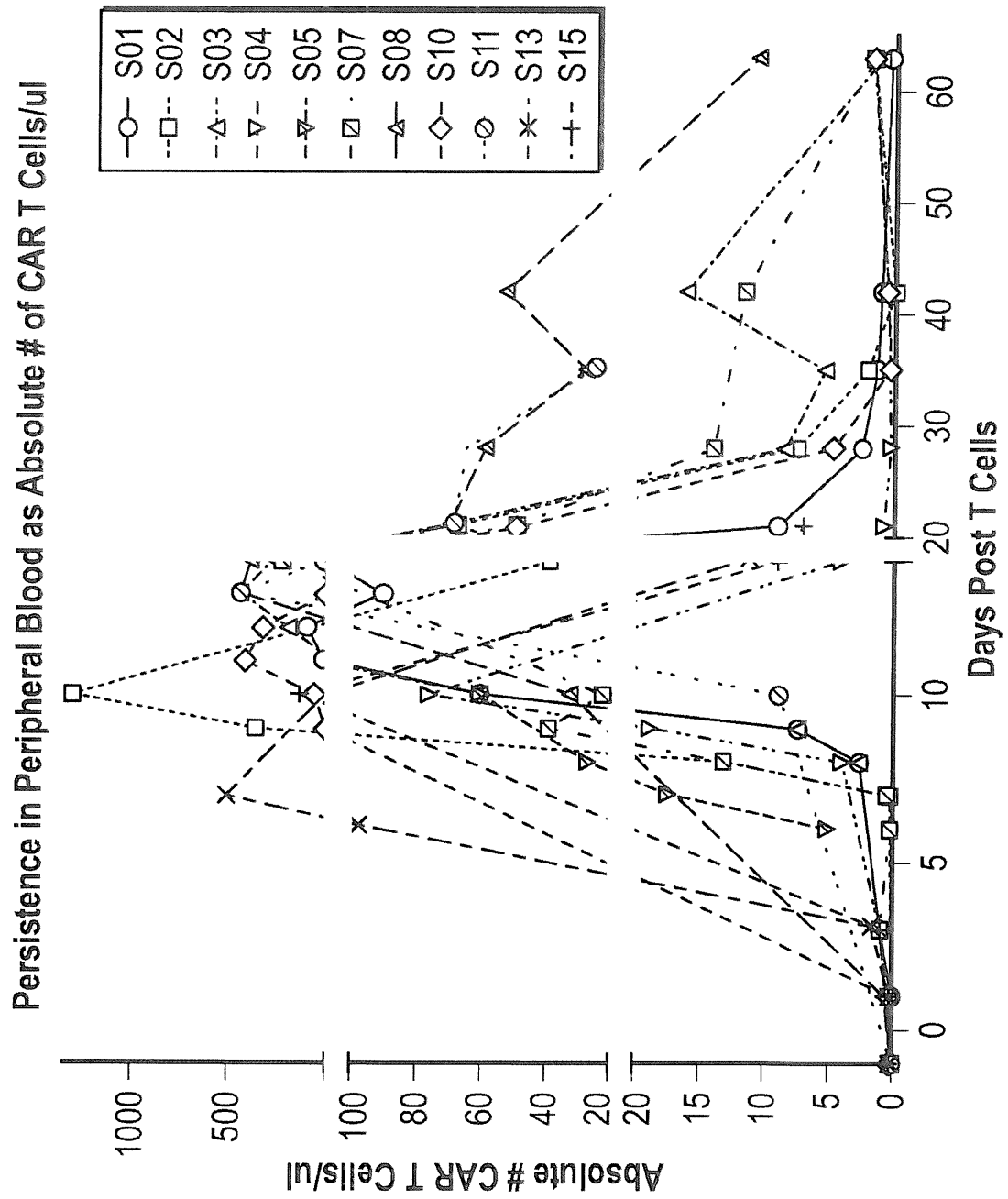


FIG. 1A

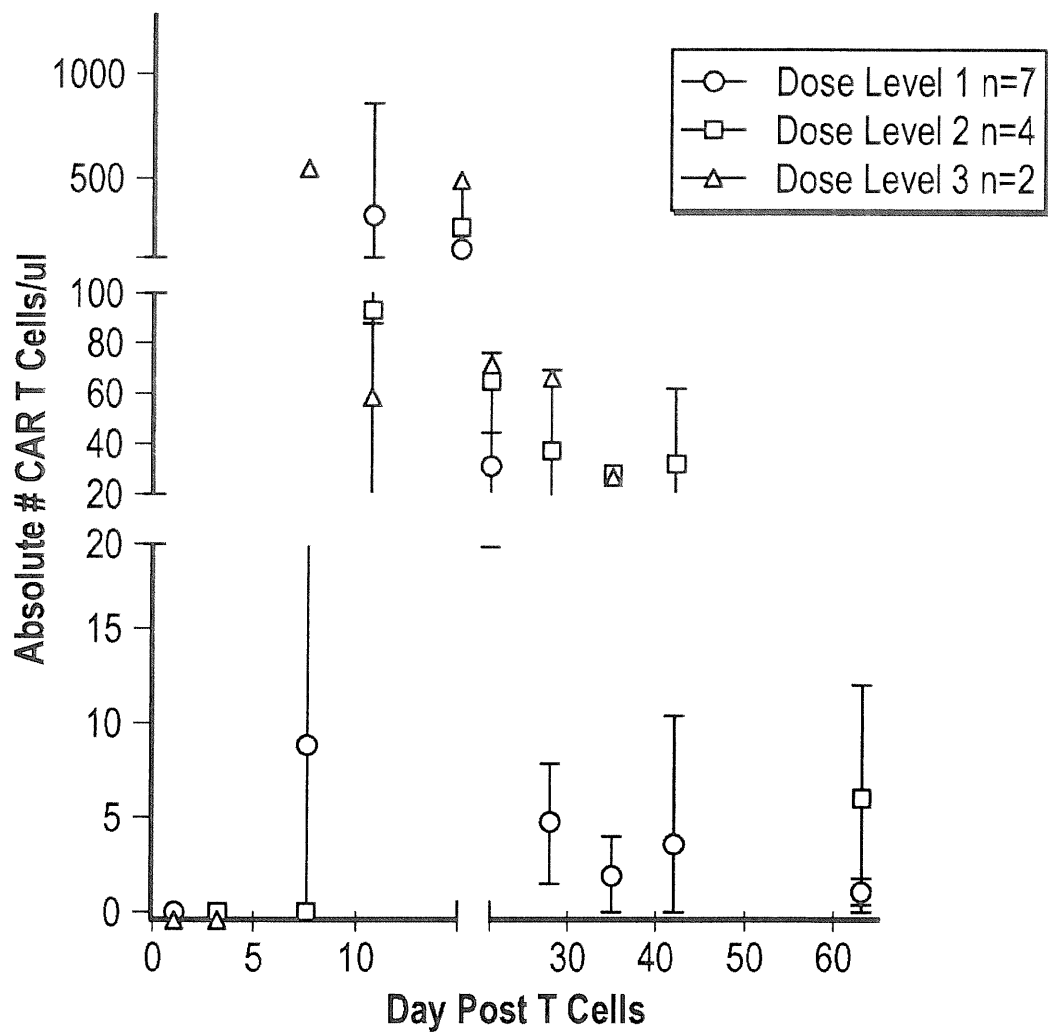


FIG. 1B

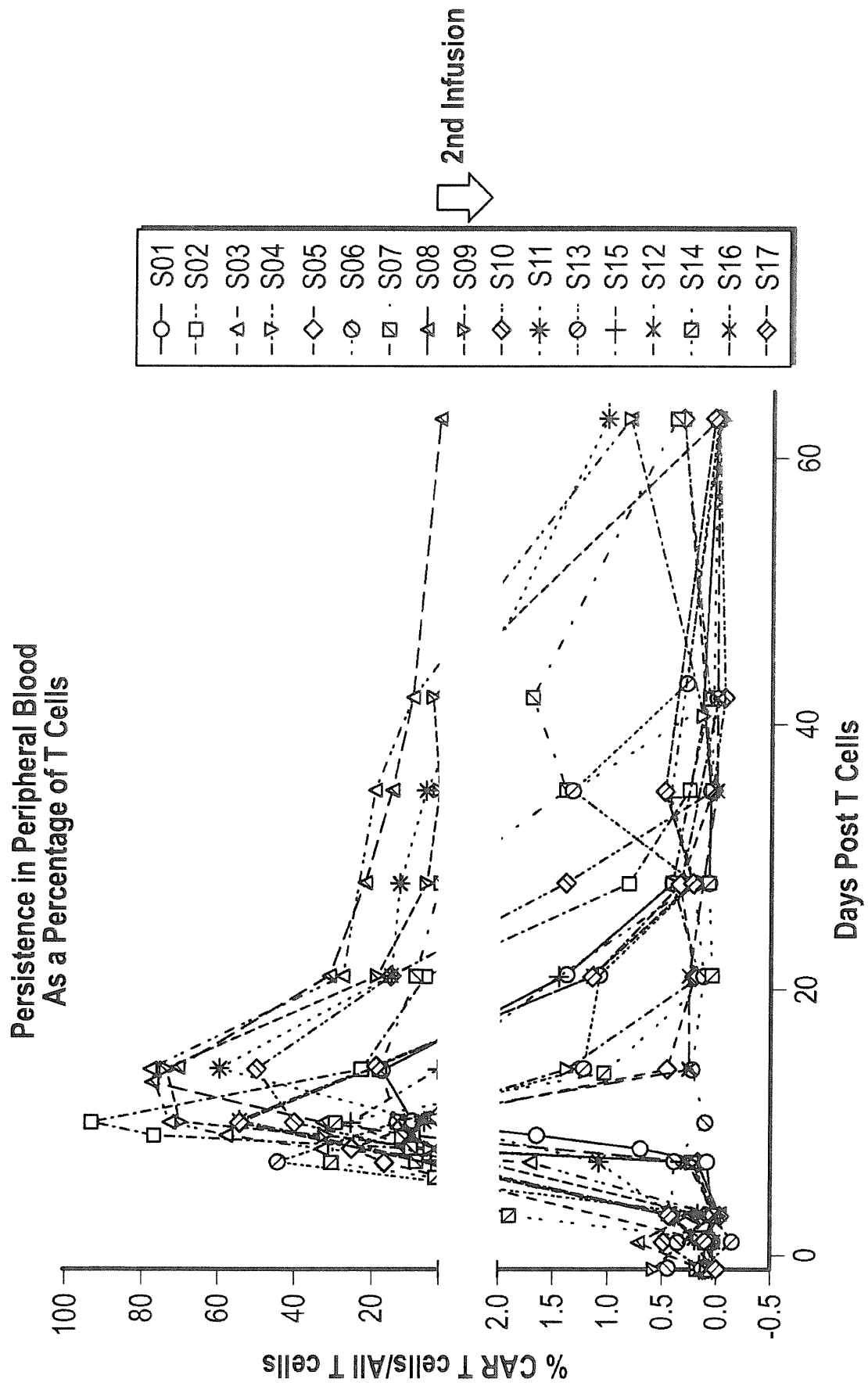


FIG. 2A

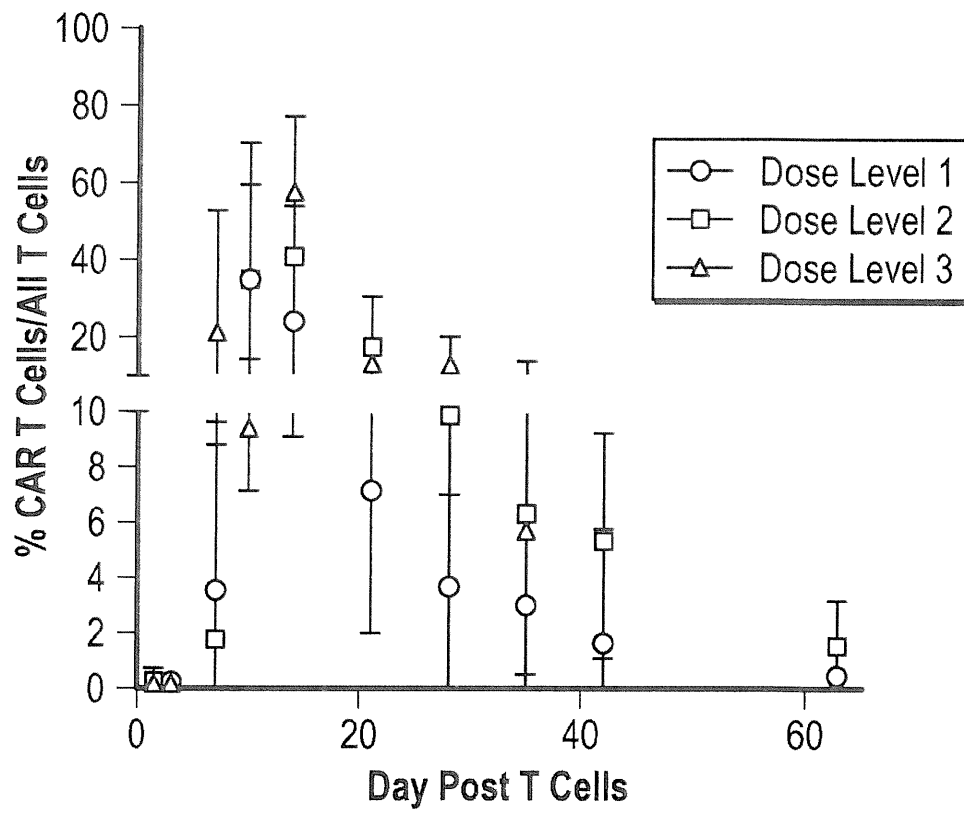


FIG. 2B

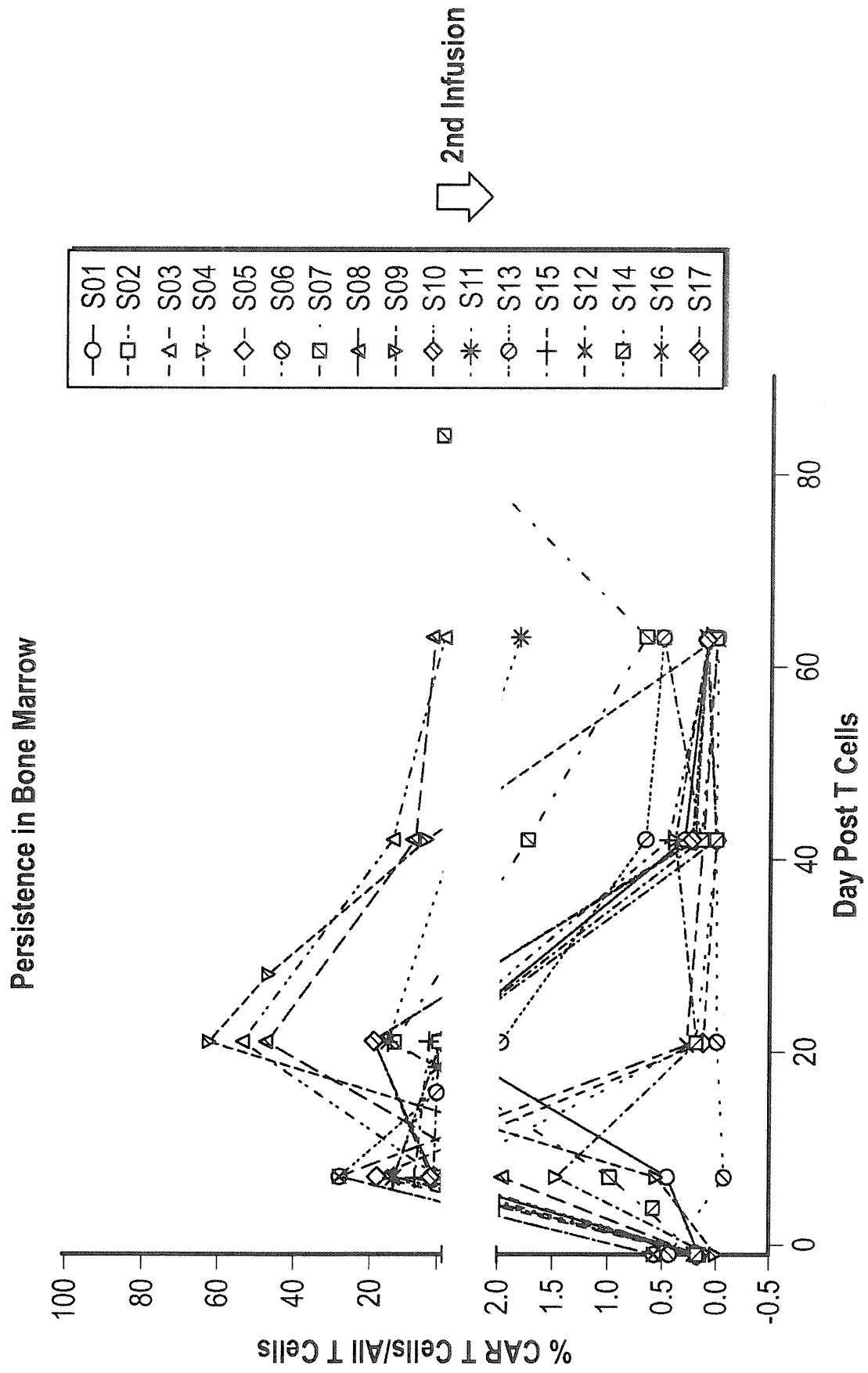


FIG. 3A

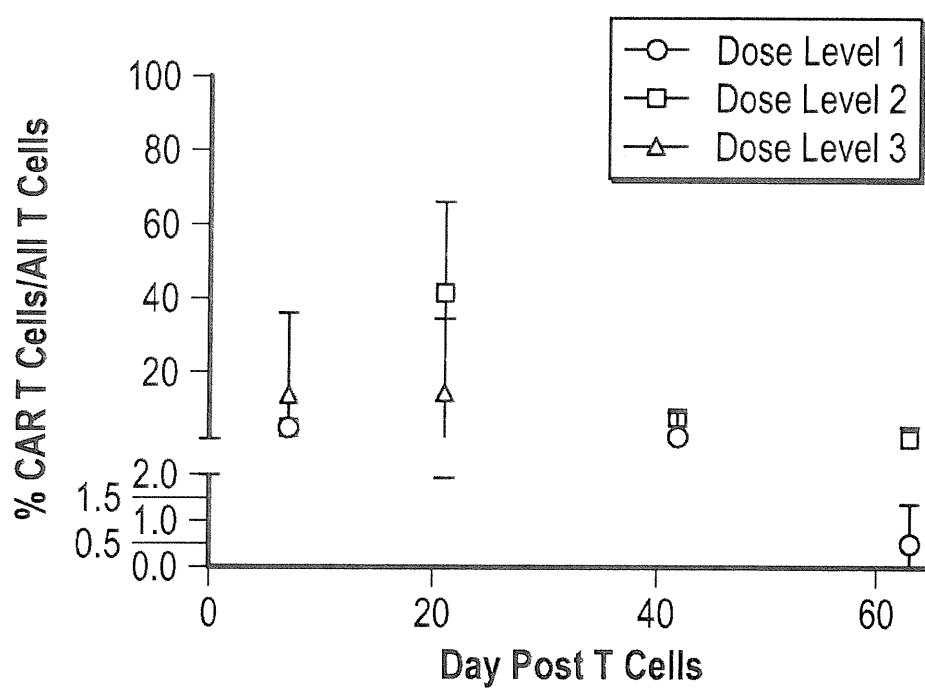


FIG. 3B

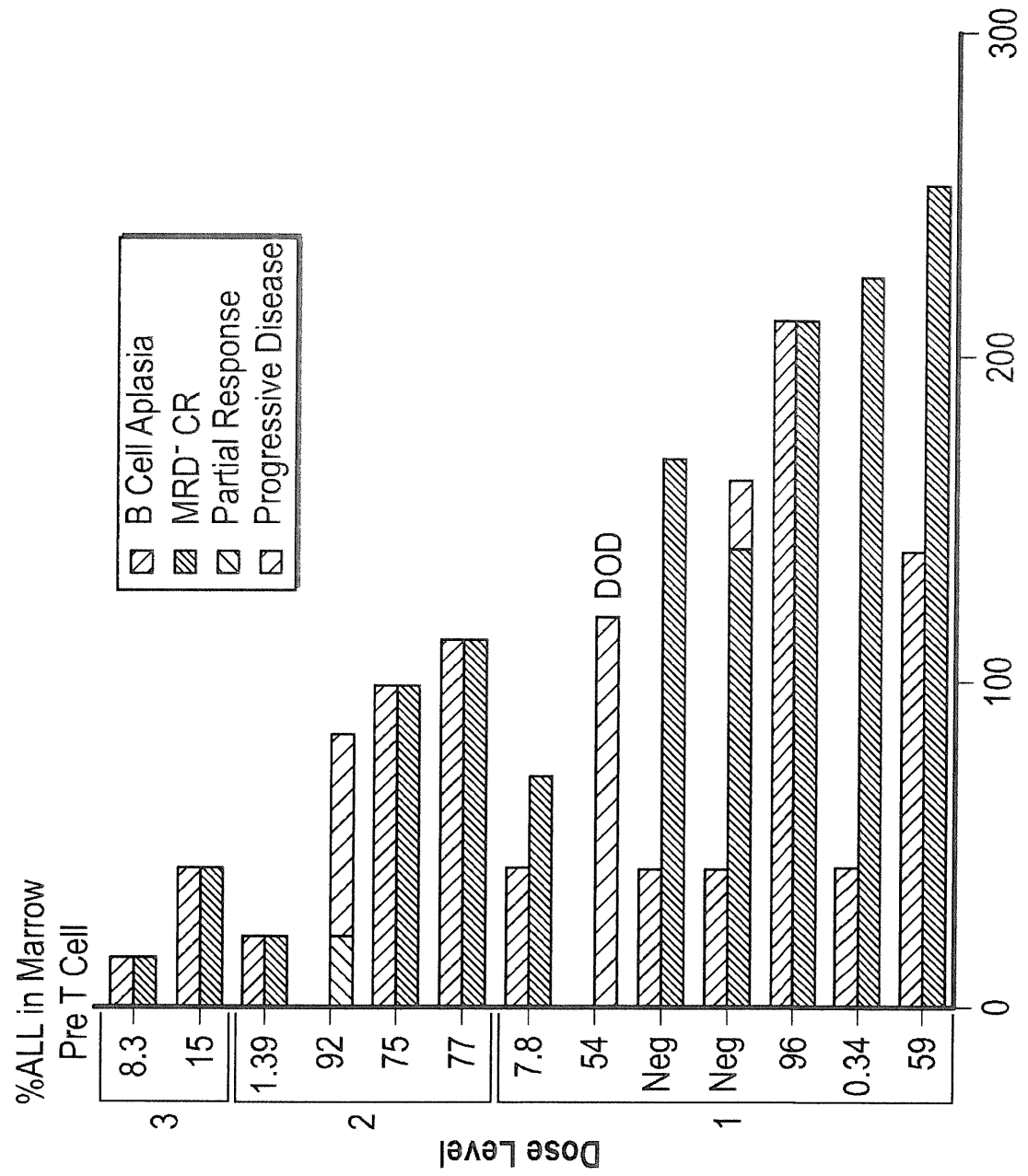


FIG. 4

PATIENT CHARACTERISTICS

ID	Age (y)	Relapse #	# of prior HSCT	Time from most recent HSCT (mo)	Prior CD19 directed therapy	Cytogenetics	% ALL in marrow Pre T cell	Lympho-depletion	Dose Level	Response
S01	21	2	1	6	No	Ph-like	59	Cytoxan 3g/m ²	1	MRD-CR
S02	22	2	1	16	No		0.34	Cytoxan/Etoposide	1	MRD-CR
S03	21	2	1	28	No		96	Cytoxan 3gm/m ²	1	MRD-CR
S04	11	2	2	14	No		MRD neg	Cytoxan 3g/m ²	1	MRD-CR
S05	19	2	1	36	No	iAMP21, Monosomy 7	MRD neg	Cytoxan 3g/m ²	1	MRD-CR
S06	4	2	1	5	BiTE		54	Fludarabine	1	PD
S10	17	2	1	22	BiTE	Hypo-diploid	7.8	Cytoxan 3g/m ²	1	MRD-CR
S07	1	2	1	8	BiTE	t(4;11) MLL	77	Cytoxan 1.5g/m ²	2	MRD-CR
S08	23	1	1	33	No	IKZF1 deletion, Ph-like	75	Cytoxan 3g/m ²	2	MRD-CR
S09	6	2	1	6	No	iAMP21	92	Cytoxan 3g/m ²	2	PR
S15	13	1	1	18	CD19 CAR pre-HSCT	Trisomy 10	1.39	Cytoxan 3g/m ²	2	MRD-CR
S11	15	2	1	59	No		15	Cytoxan 3g/m ²	3	MRD-CR
S13	8	2	1	13	No	Hypo-diploid	8.3	Cytoxan 3g/m ²	3	MRD-CR

HSCT hematopoietic stem cell transplant; BiTE blinatumomab; MPF multiparameter flow; Ph-like Philadelphia-like; iAMP21 internal amplification of chromosome 21; MRD minimal residual disease; CR complete remission; PR partial response; PD progressive disease

FIG. 5

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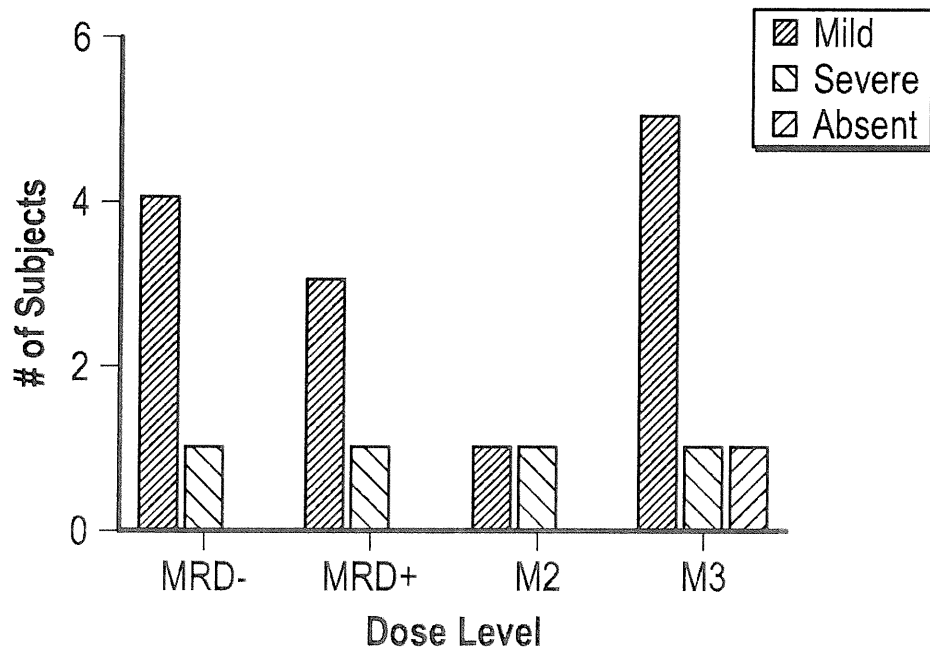


FIG. 6A

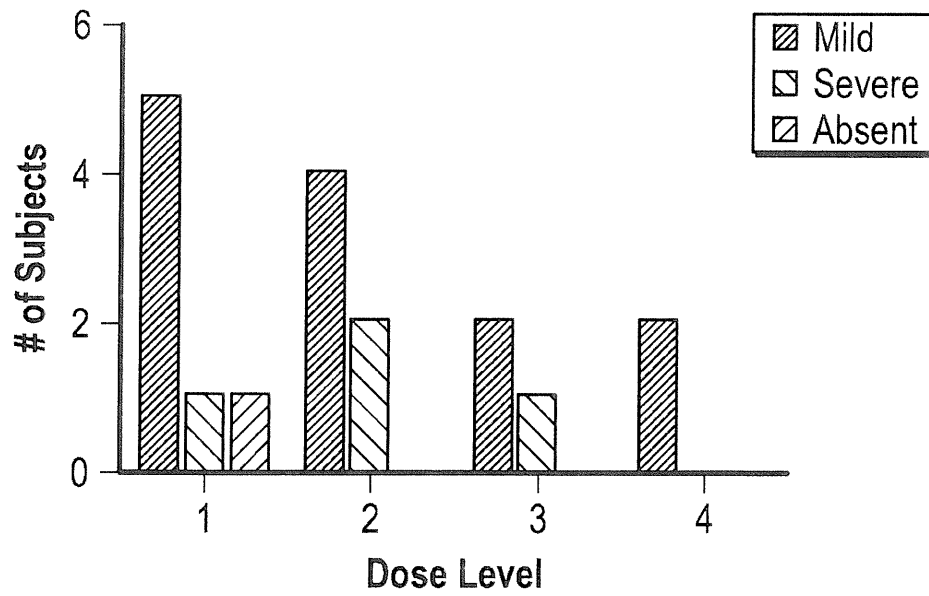


FIG. 6B

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Grade 4 Encephalopathy/DLT Abnormal MRI

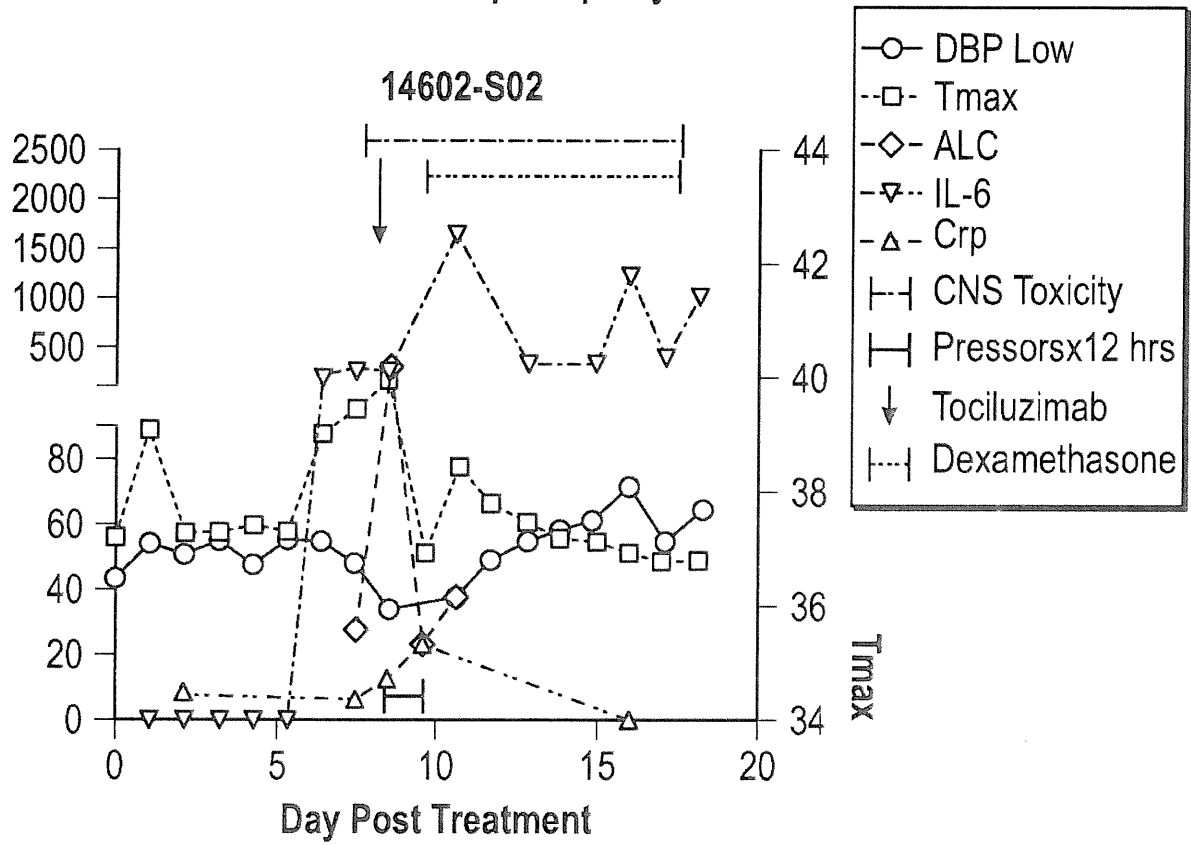


FIG. 7A

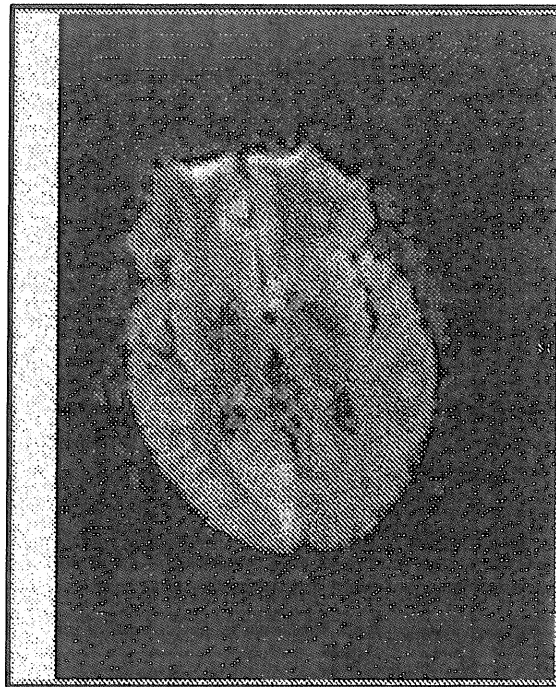


FIG. 7B



FIG. 8A



FIG. 8B

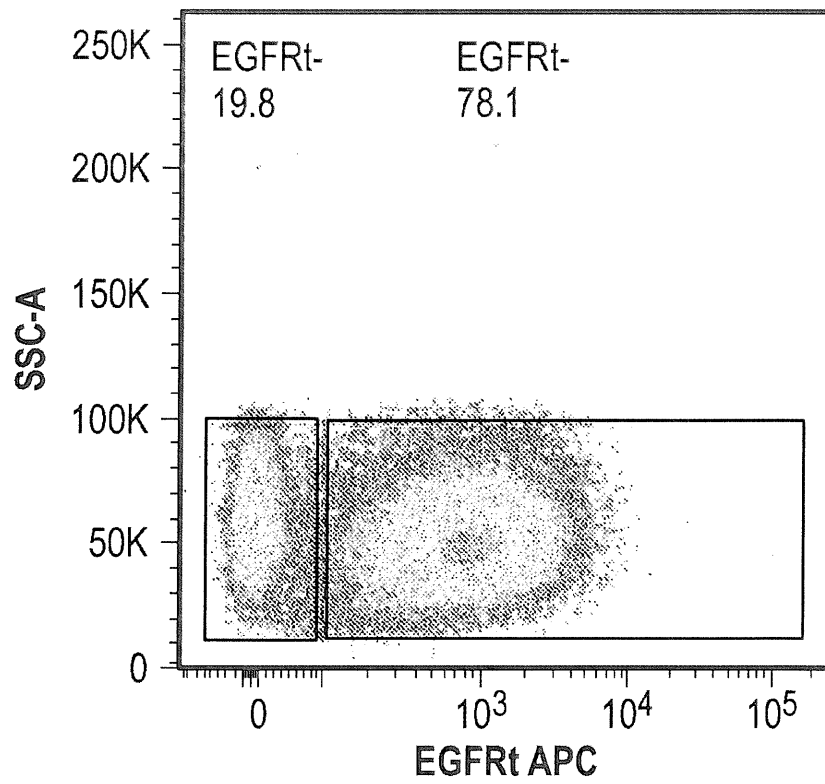


FIG. 8C

Ig or TCR Rearrangements as a Marker of MRD

ID	% of B cell reads BM pre T-cells	Day 21 BM	Day 63 BM	Later Time Point
S01	97.4	Negative (<0.0025%)	Positive (0.0016%)	Negative (<0.0002%)
S03	98.9	Positive (0.096%)	Negative (<0.0007%)	
S04	0.02	Negative (<0.0002%)	Negative (<0.0002%)	
S07	44.4	Positive (0.017%)	Positive (0.0018%)	Positive-3mo (0.0004%)
S08	88.5	Negative*(<0.0002%)	Negative (<0.0002%)	
S10	62.7	Negative (<0.0014%)	Pending	
S11	58.4/38.1	Positive (0.0071%)	Pending	

Assay performed by Adaptive Technologies. * day 42; < indicates upper bound of highest 95% confidence interval

FIG. 9

Cohort	Patient ID	Age (y)	Relapse#	Amount of disease in BM at enrollment by MPF	Current progress in study / off study
1A	14602-S01	21	2	90	In long term follow up
1A	14602-S02	22	2	0.4	In long term follow up
1A	14602-S03	21	2	90	In long term follow up
1A	14602-S04	11	2	0.04	In long term follow up
1A	14602-S05	19	2	2	In long term follow up
1A	14602-S06	4	2	54	D+42
1B	14602-S07	1	2	69	D+21
1B	14602-S08	23	1	98.6	D+7
1B	14602-S09	6	2	30	Pre T cell infusion
TBD	14602-S10	17	2	1.94	Pre T cell infusion
TBD	14602-S11	15	2	23	Pre T cell infusion
TBD	14602-S12	12	3	0.04	Pre T cell infusion

FIG. 10

Peripheral Blood Day +14:

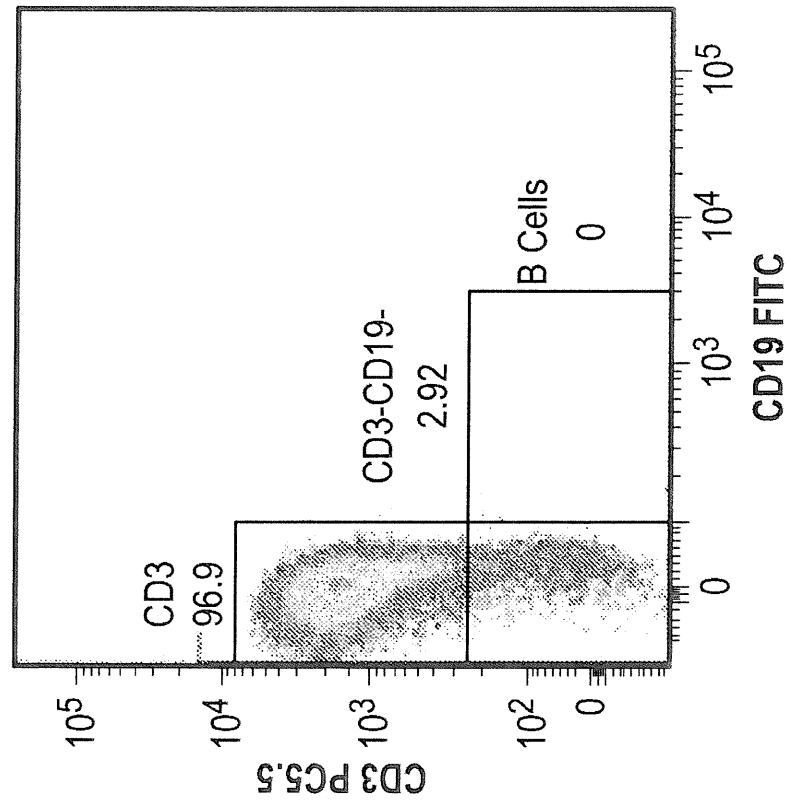


FIG. 11A

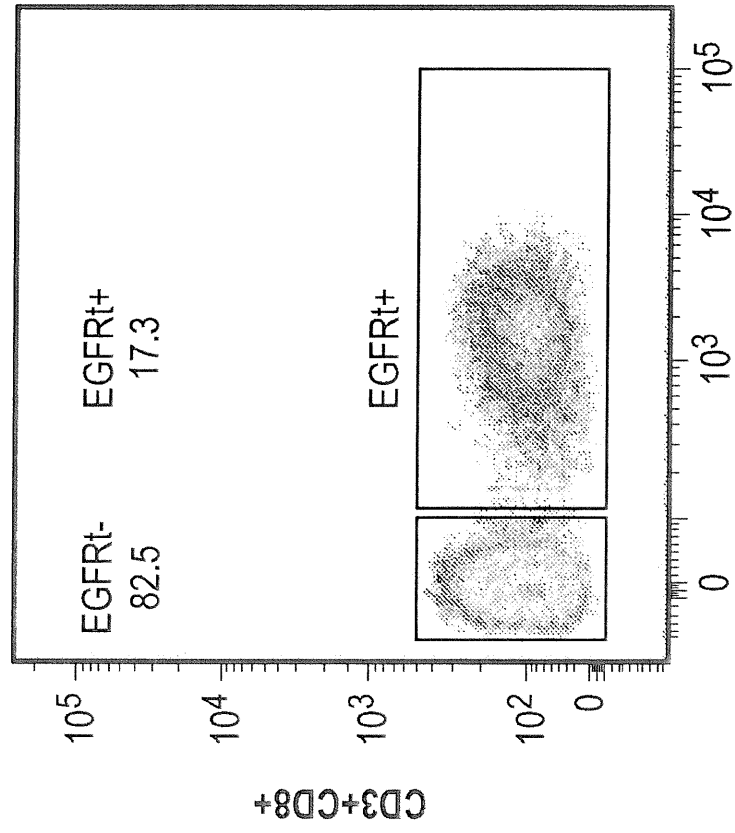


FIG. 11B

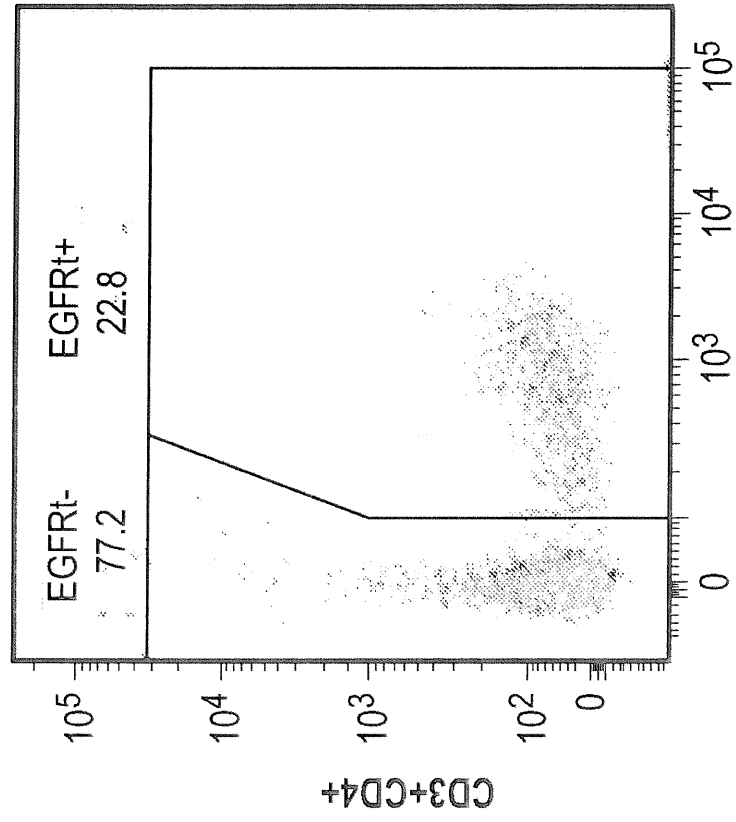
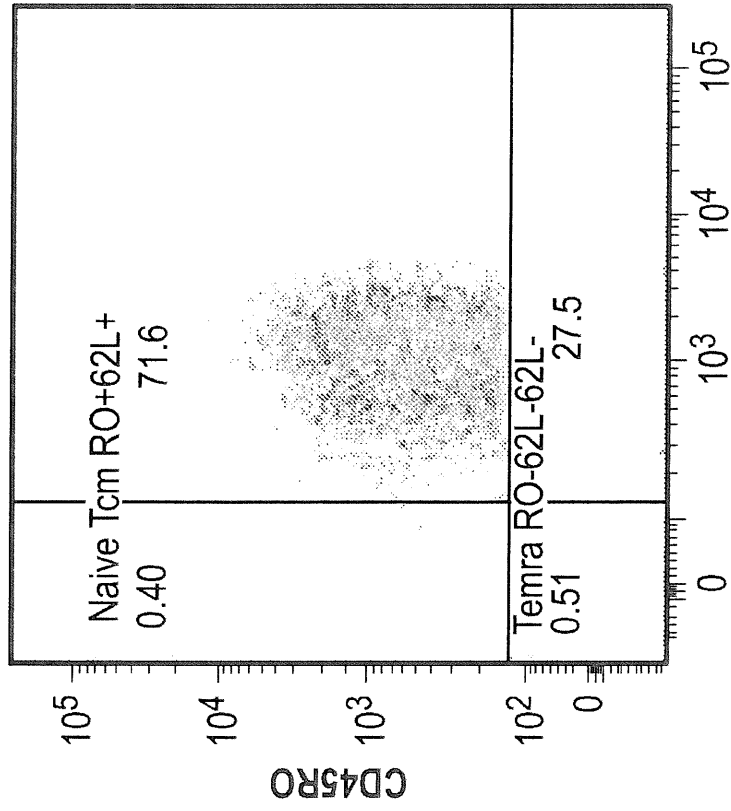


FIG. 11D



CD62L+
FIG. 11C

Day+14 CSF:

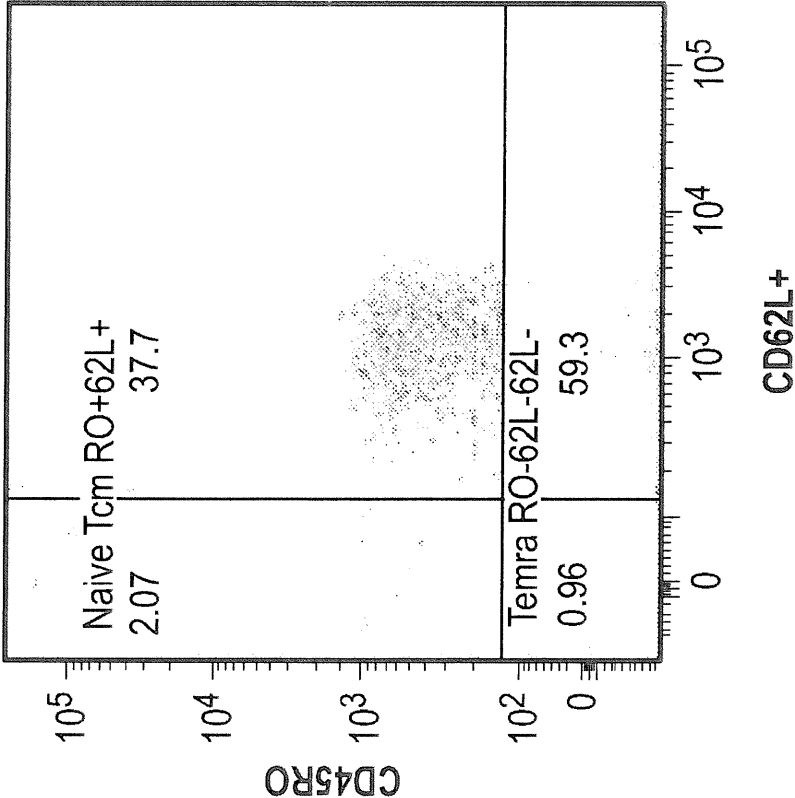


FIG. 11E

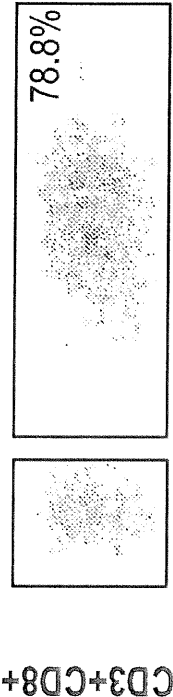


FIG. 11F

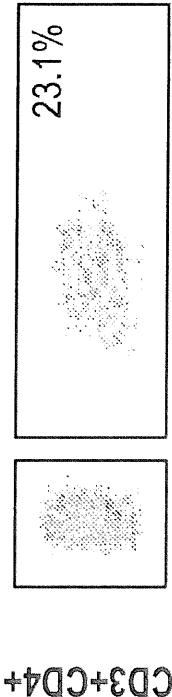


FIG. 11G

PLAT-02: Day +7 Tumor Burden vs Response

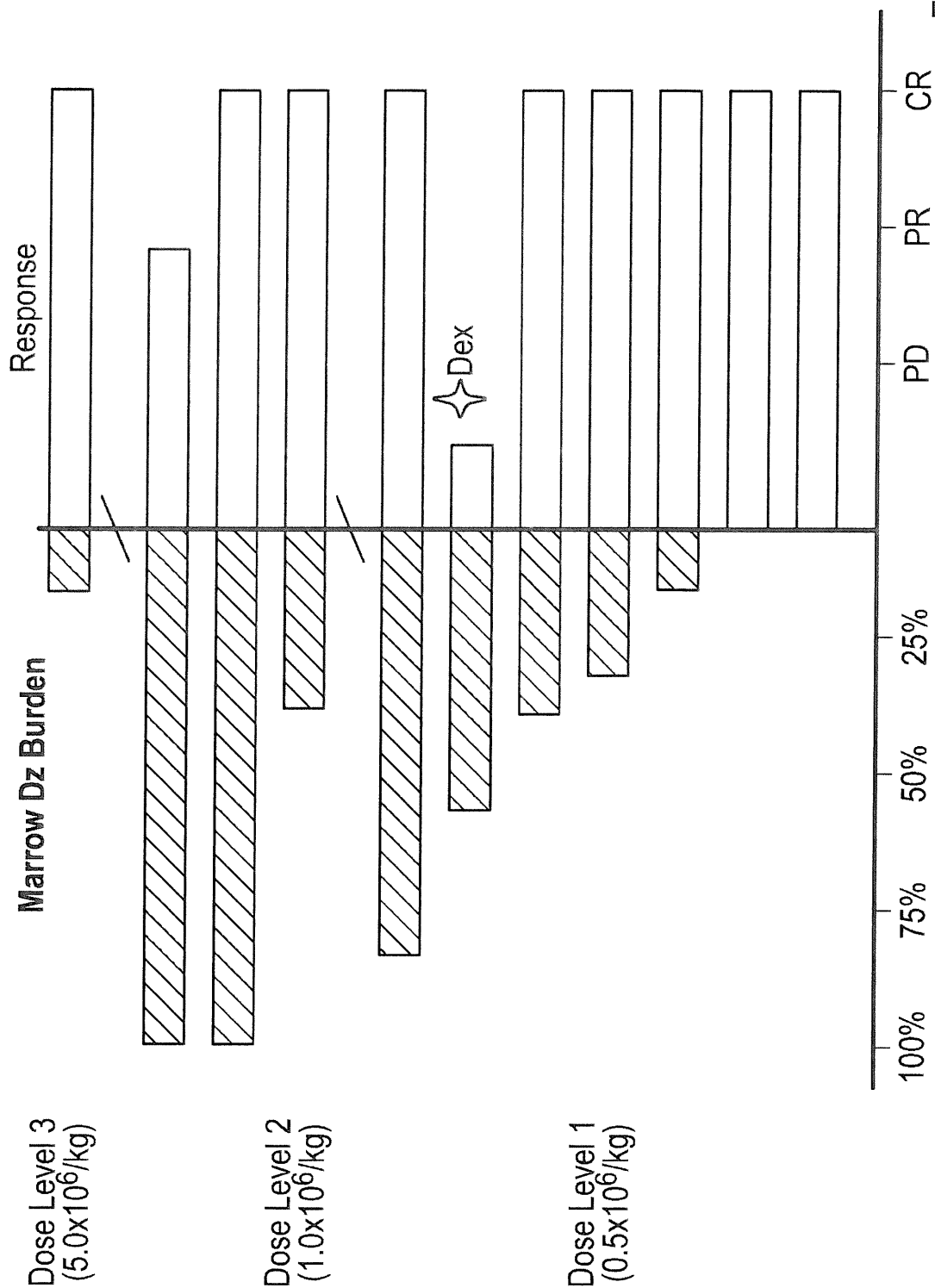


FIG. 12

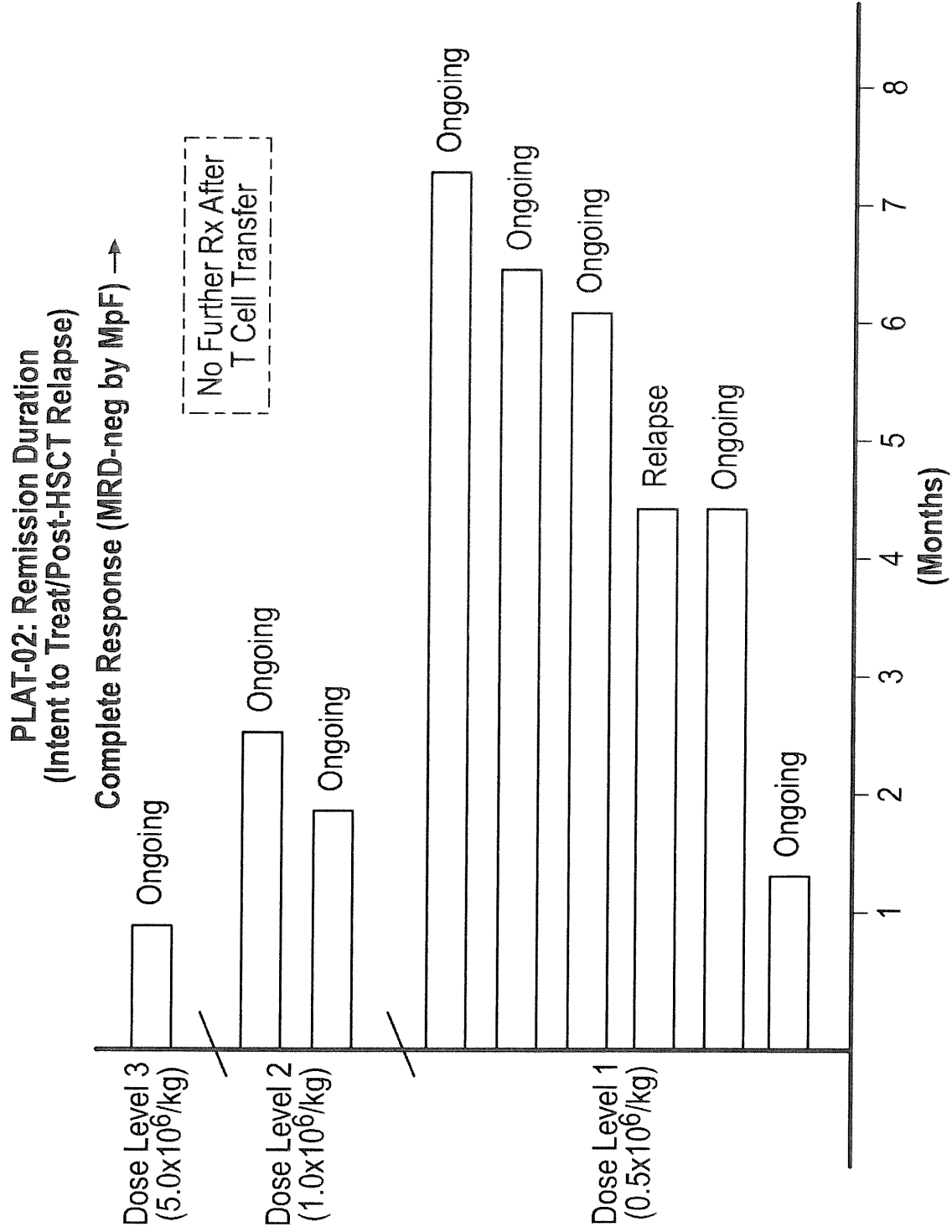


FIG. 13

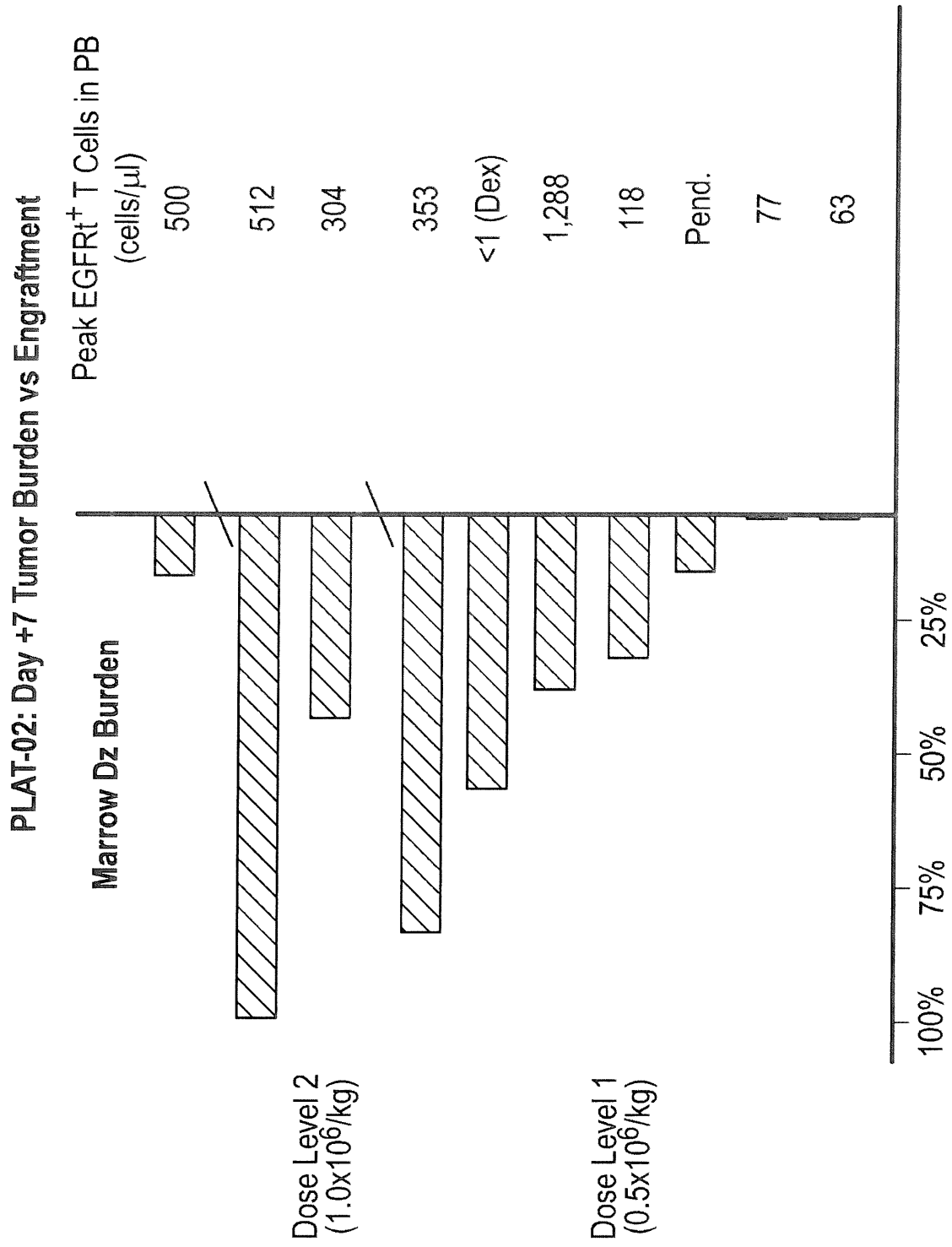


FIG. 14

PLAT-02: Magnitude and Duration of CAR/EGFR⁺ T Cell Persistence
Dose Level Absolute #CAR T-Cells/UL

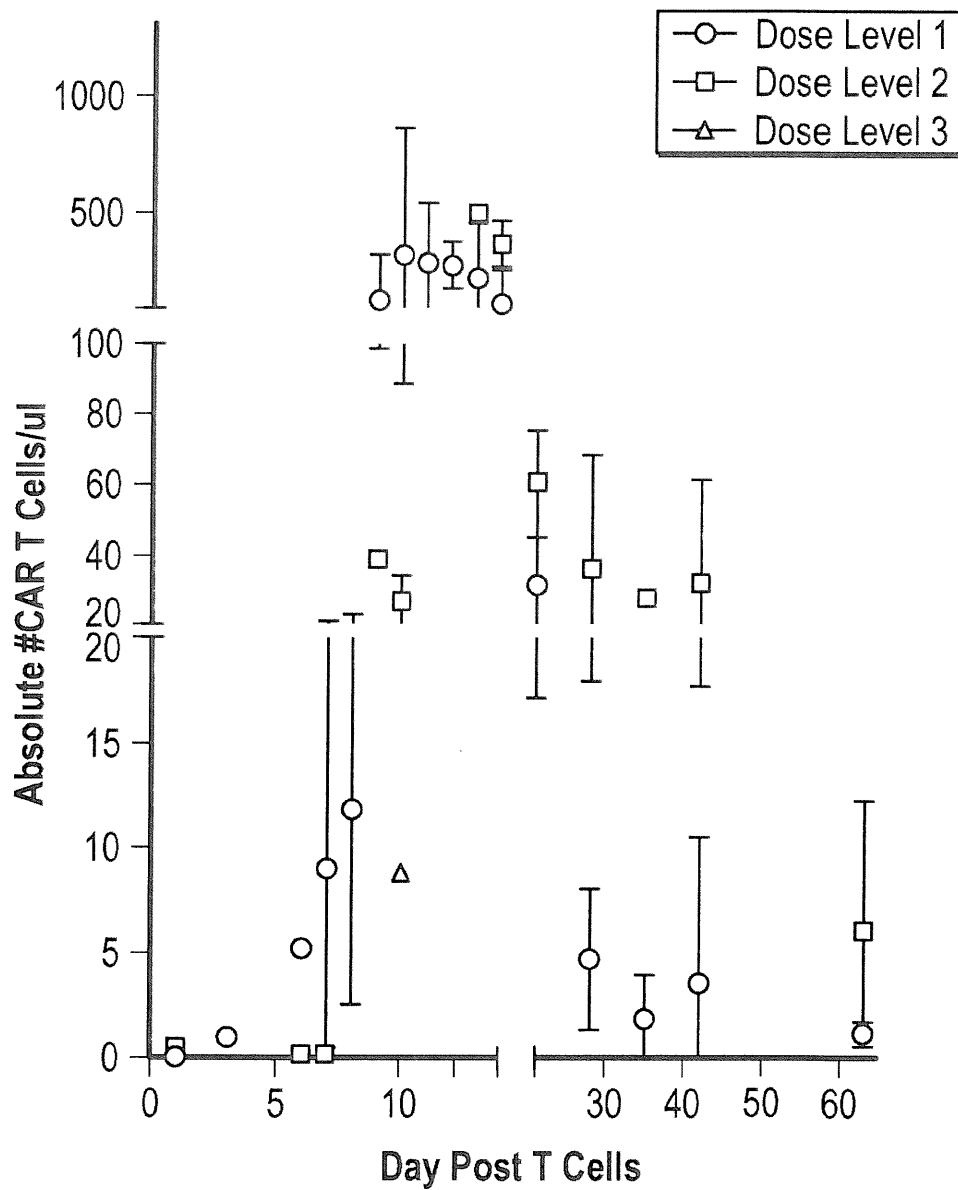


FIG. 15

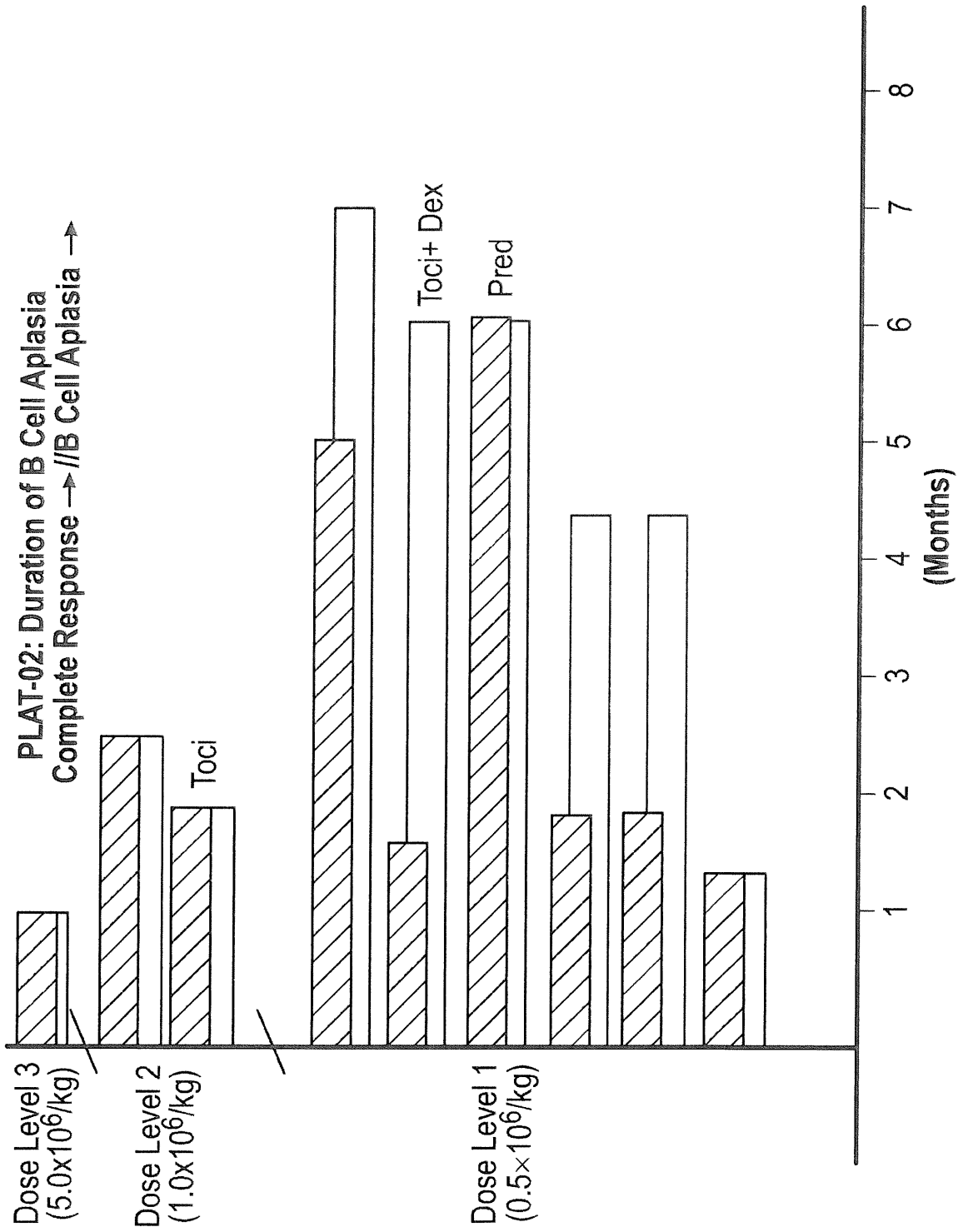
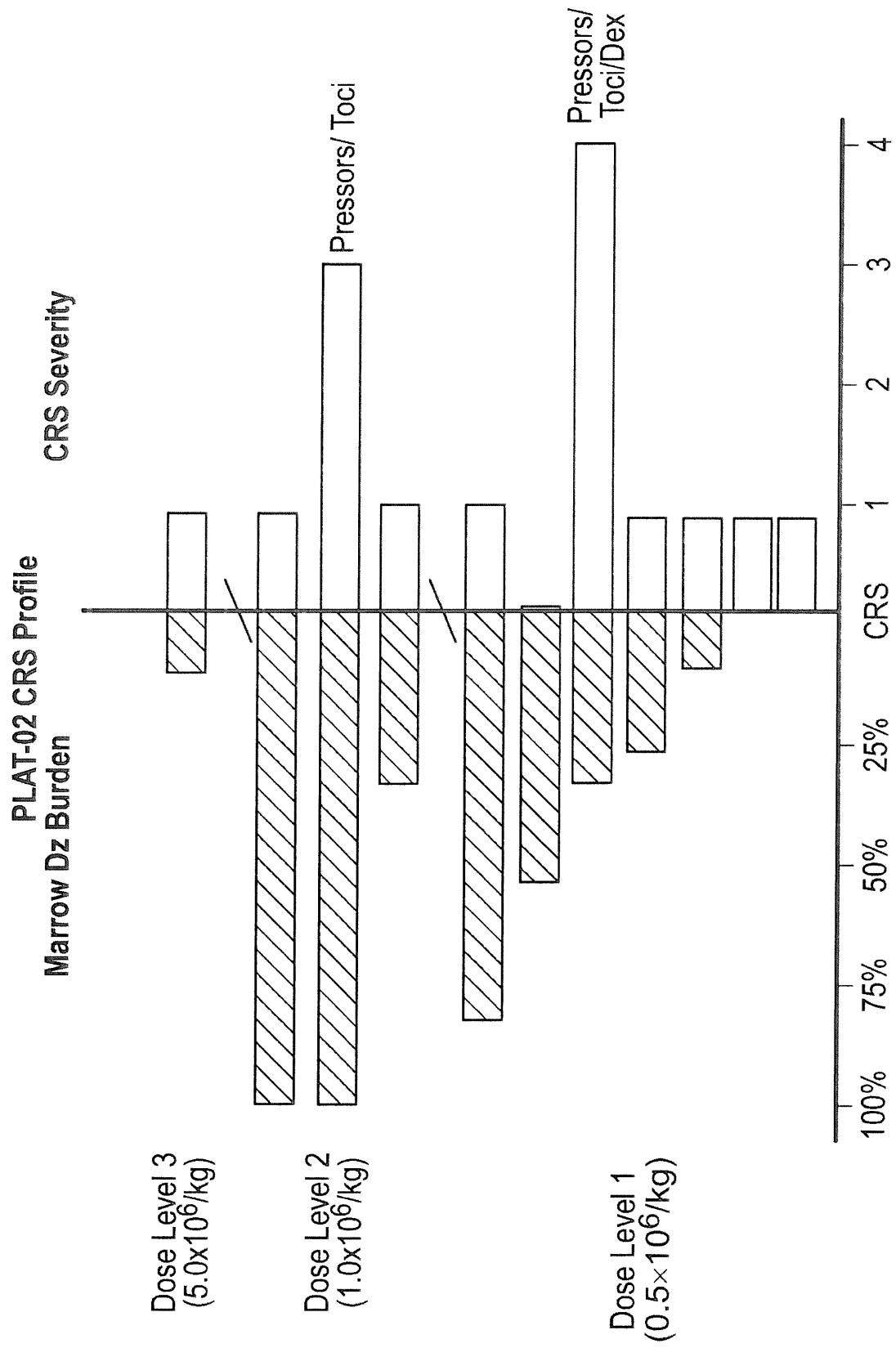


FIG. 16



Initial manufacturing flowsheet

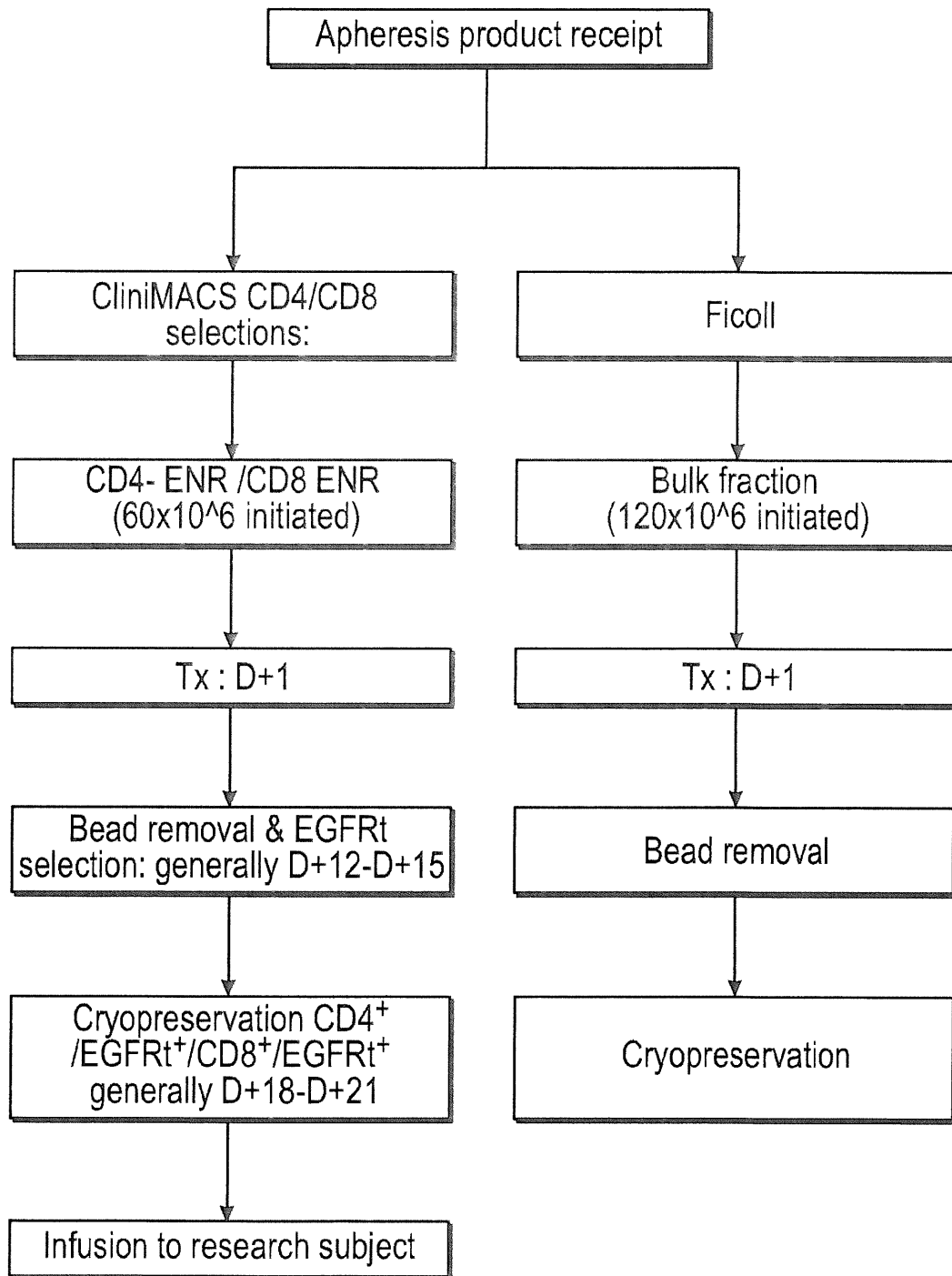


FIG. 18A

Current manufacturing flowsheet

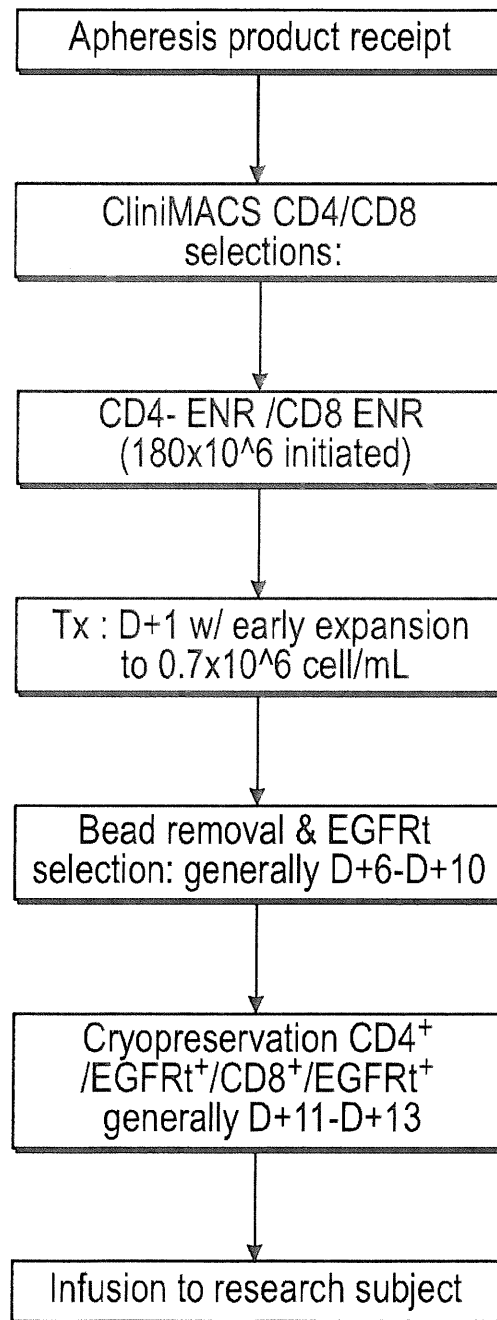


FIG. 18B

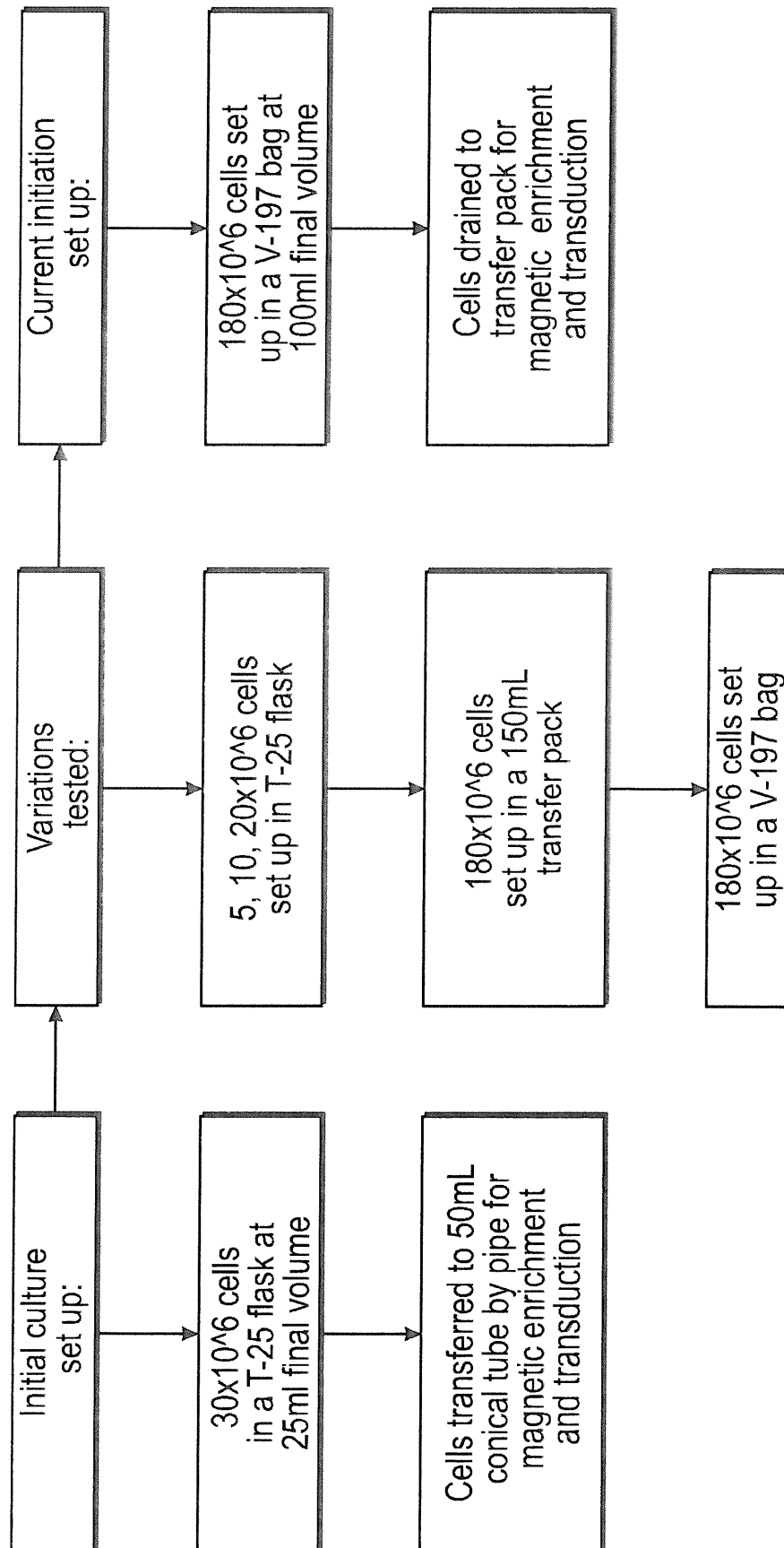


FIG. 19

PD0064 Growth Curves

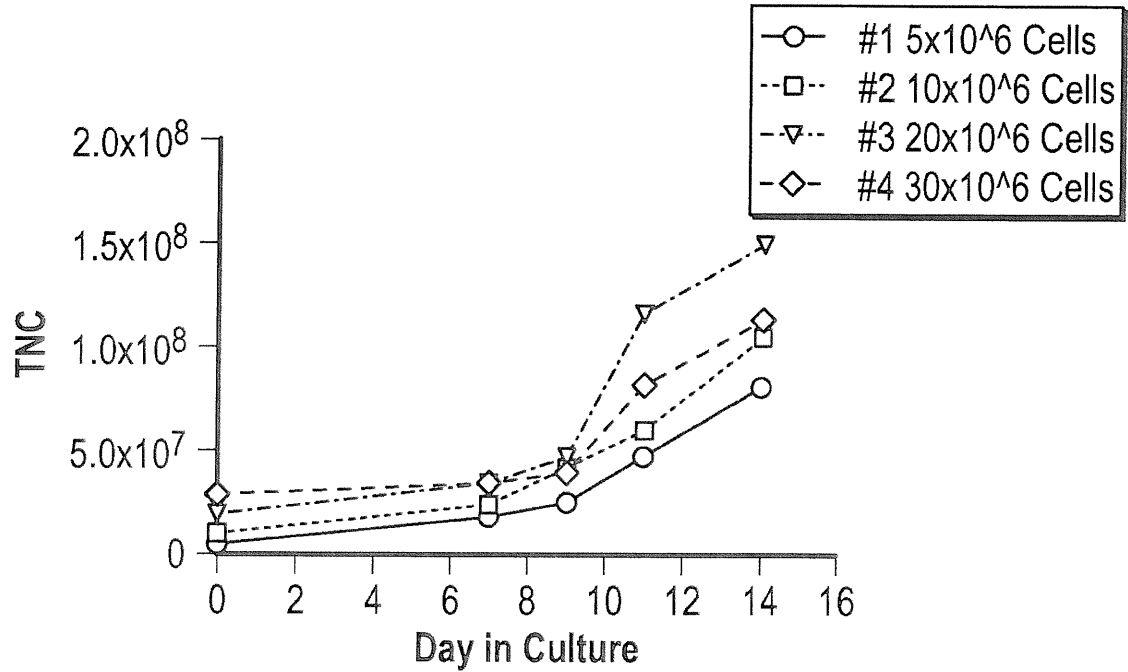


FIG. 20A

PD0064 Fold CD3+ Growth

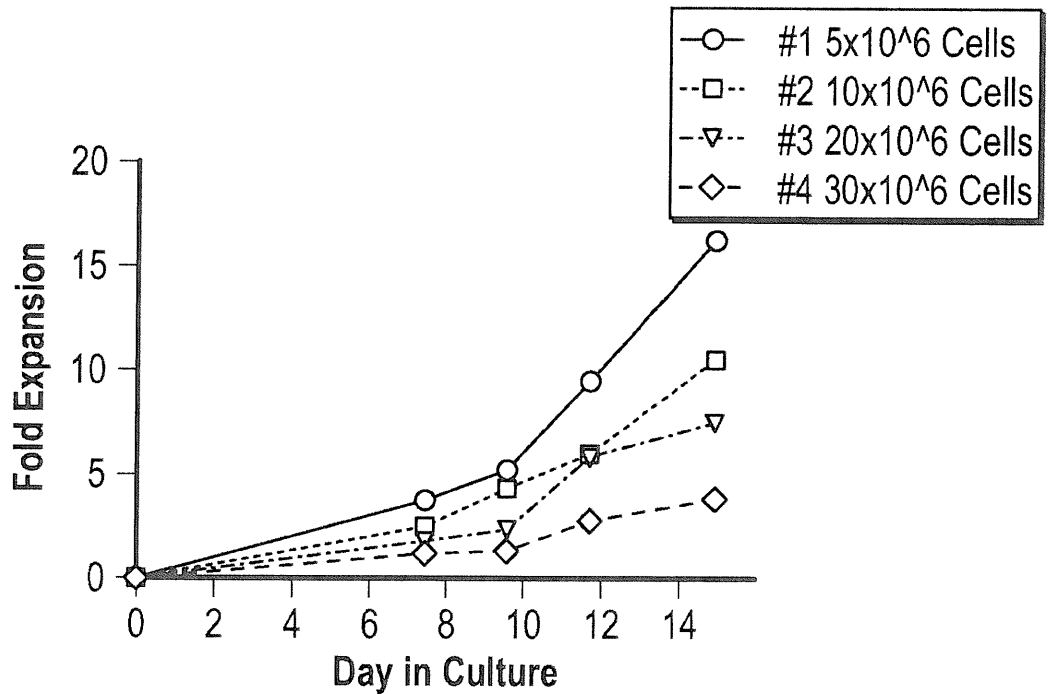


FIG. 20B

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PD0080 Growth Curve

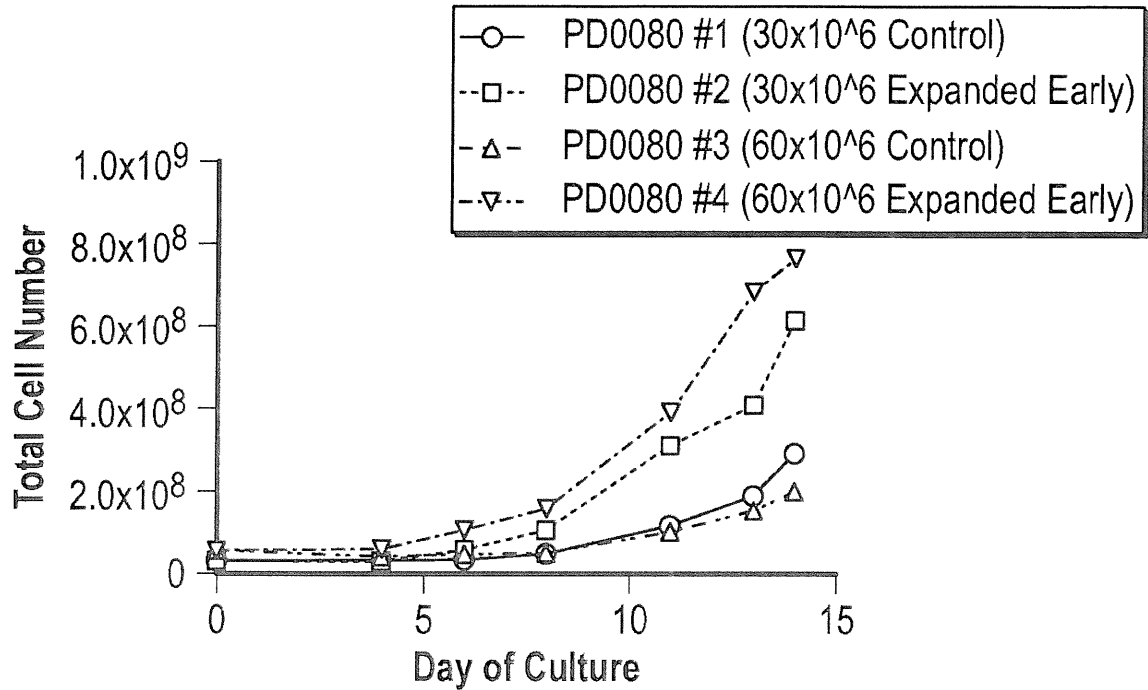


FIG. 20C

PD0080 Growth Curve

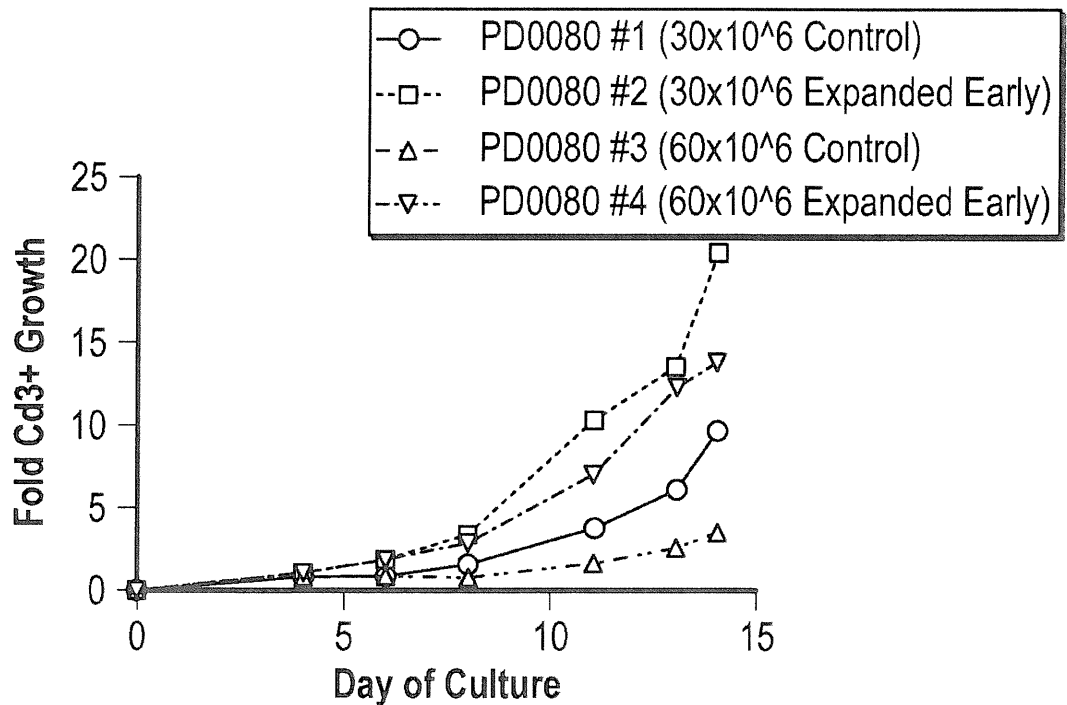


FIG. 20D

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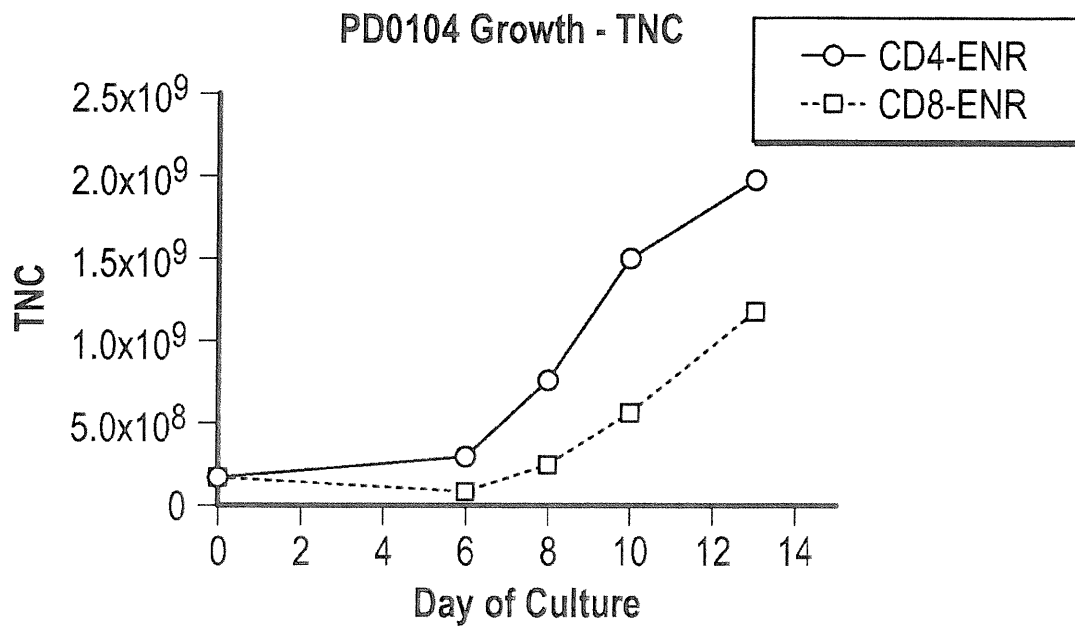


FIG. 21A

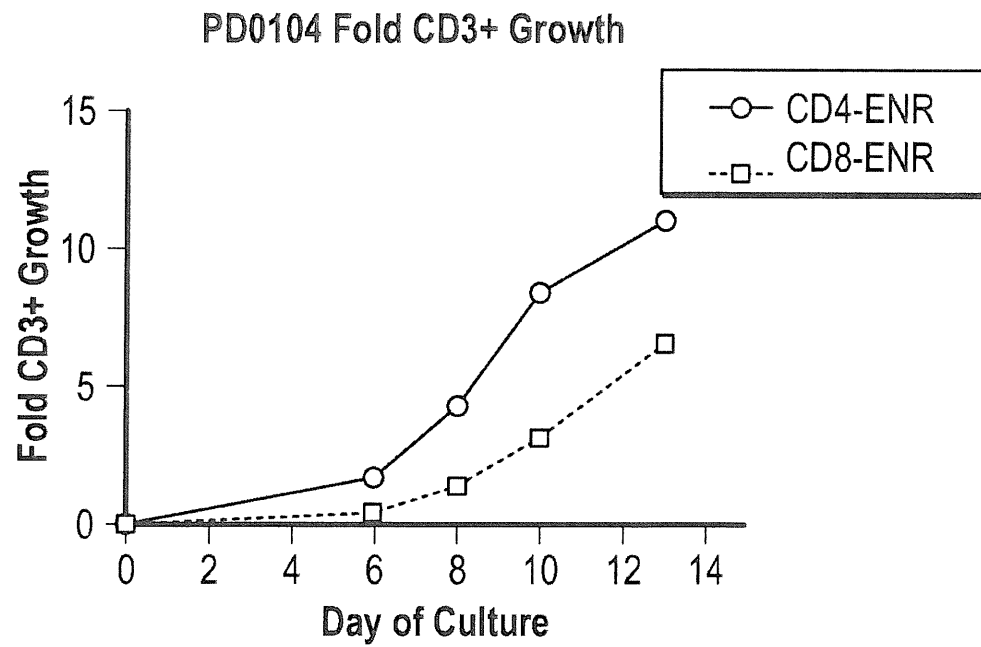


FIG. 21B

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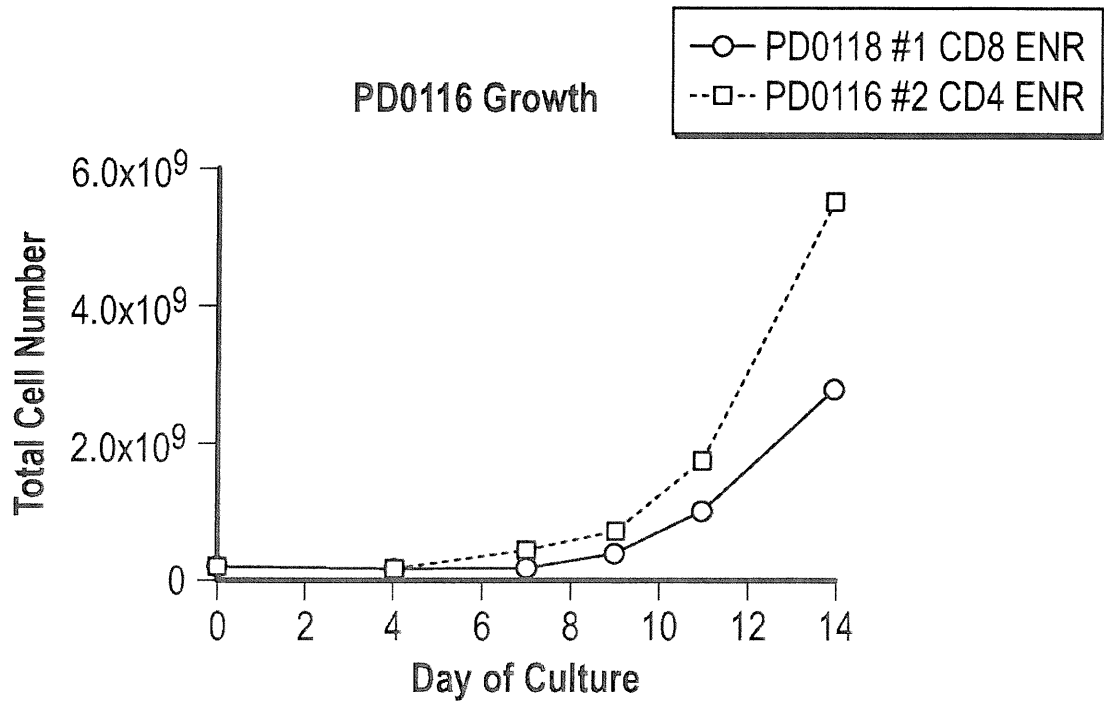


FIG. 21C

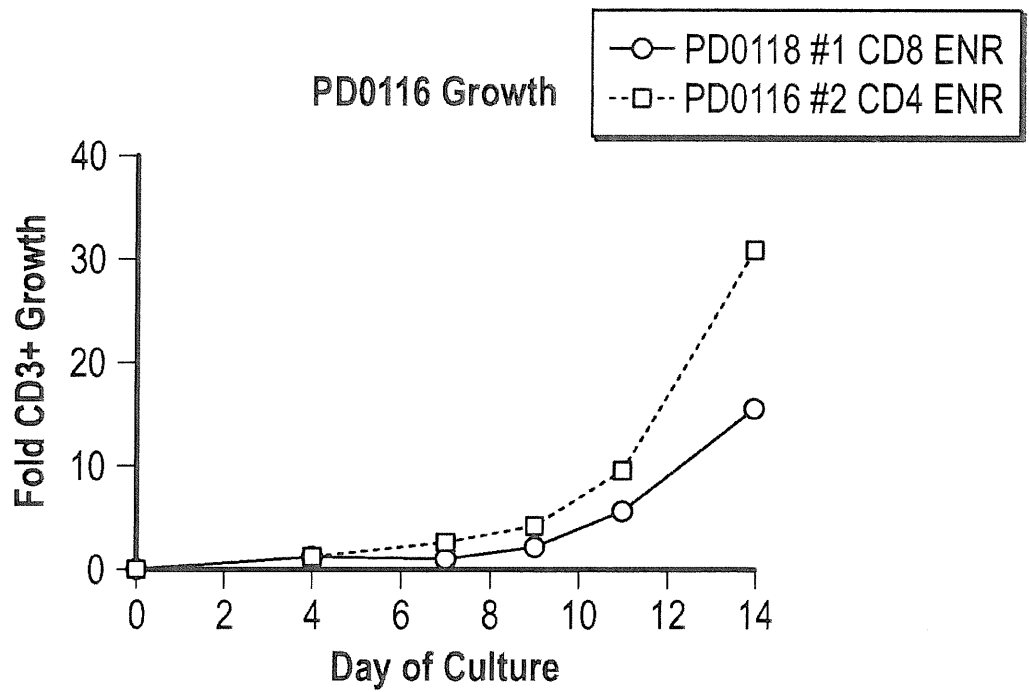


FIG. 21D

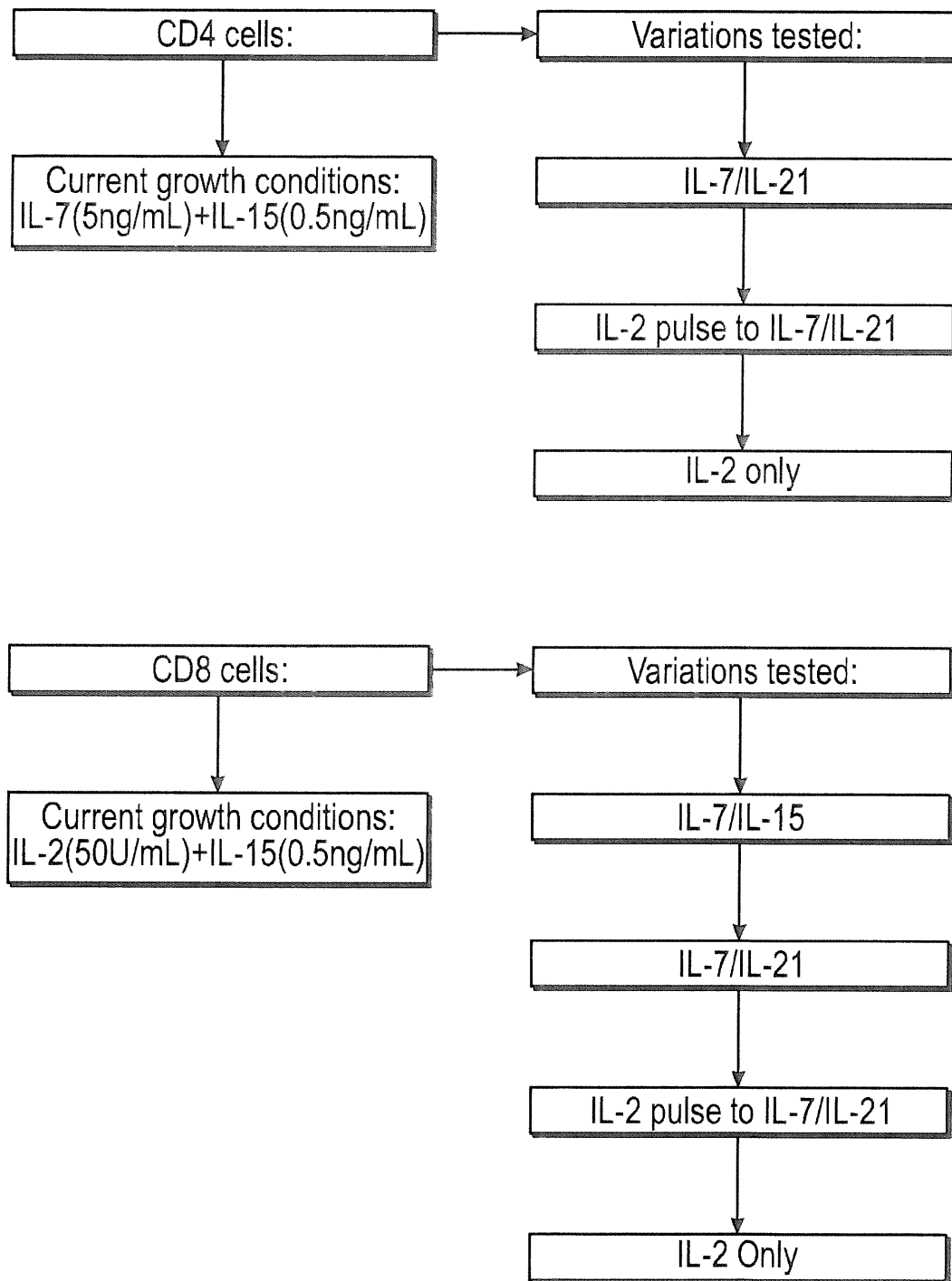


FIG. 22

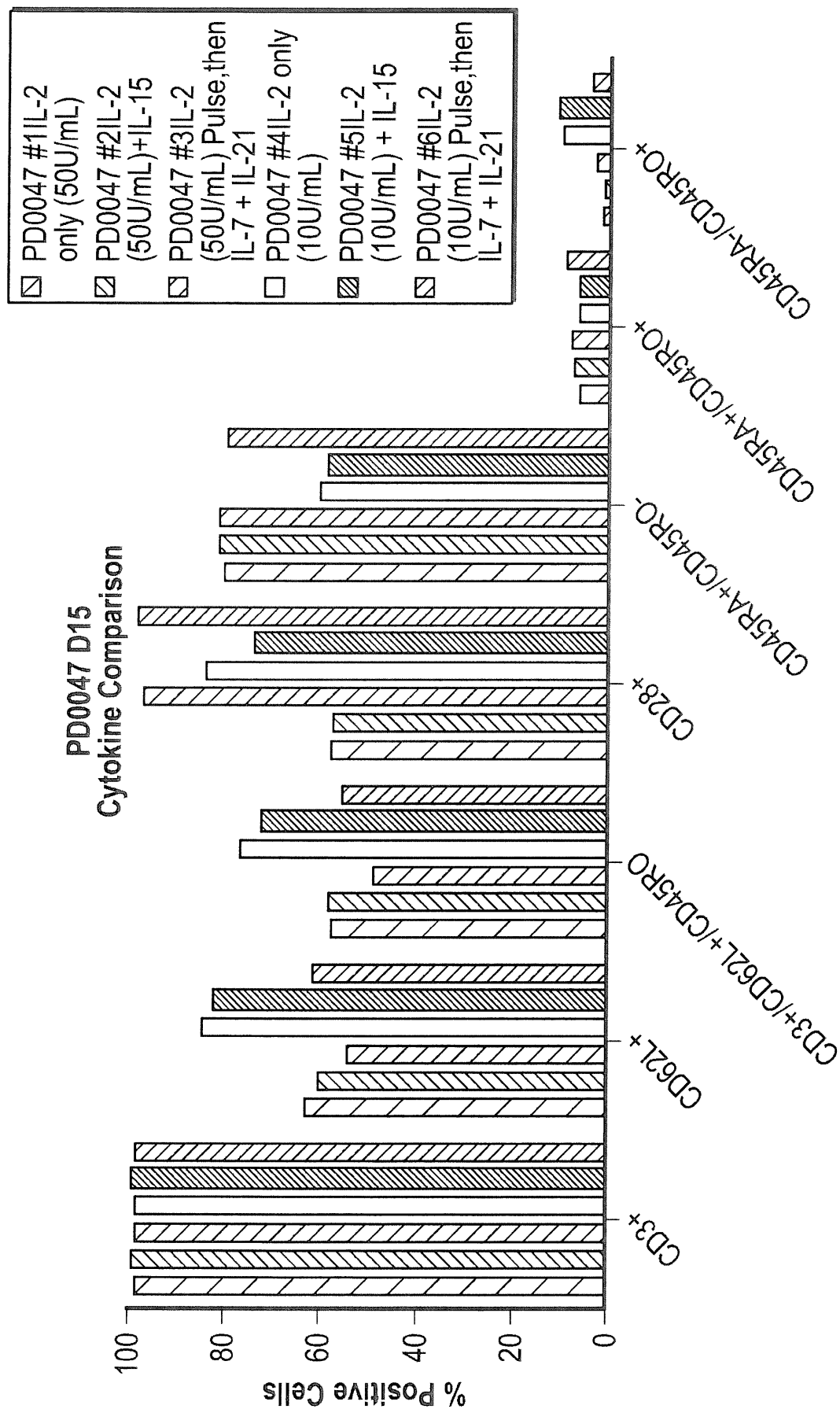
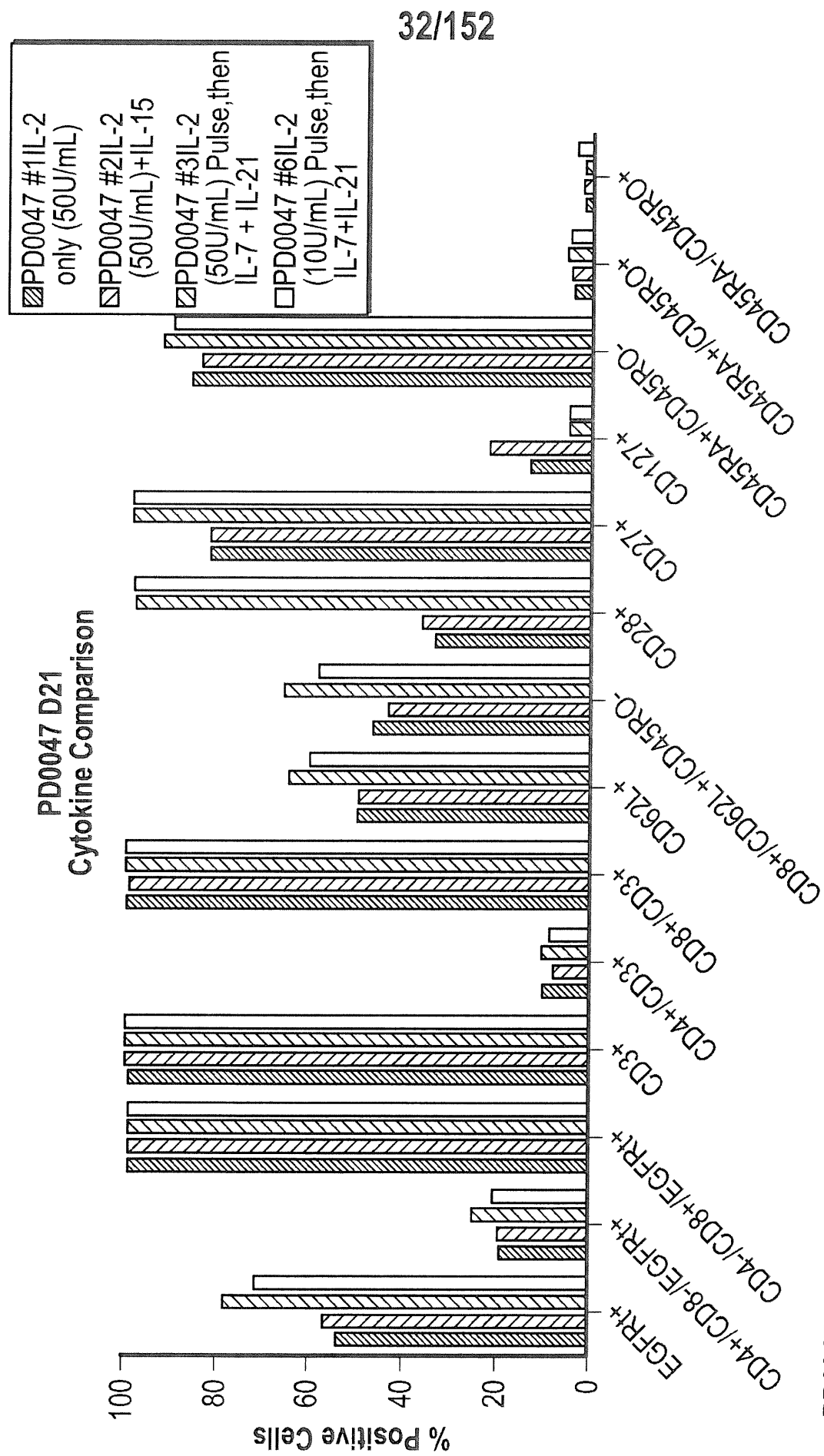


FIG. 23A



PD0047
 Starting Material: PD0038 CD8 Enriched Tx: D1
 Vector: ZRX-014
 Note: #4 and #5 terminated on D18
FIG. 23B

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PD0040 Variable Cytokine Conditions

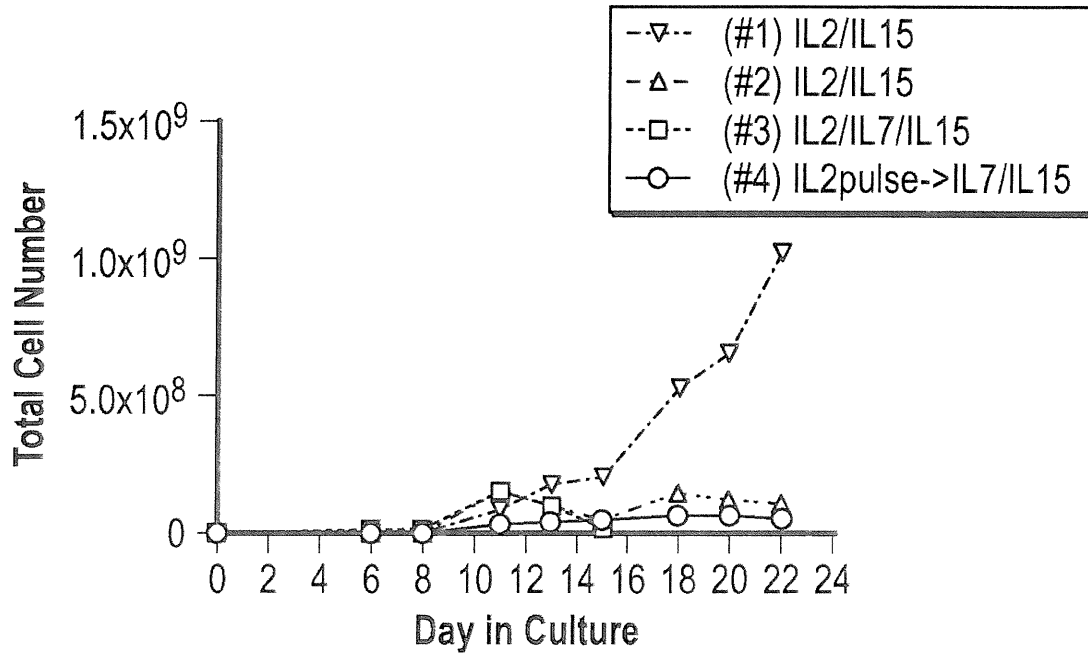


FIG. 23C

PD0040 Variable Cytokine Conditions

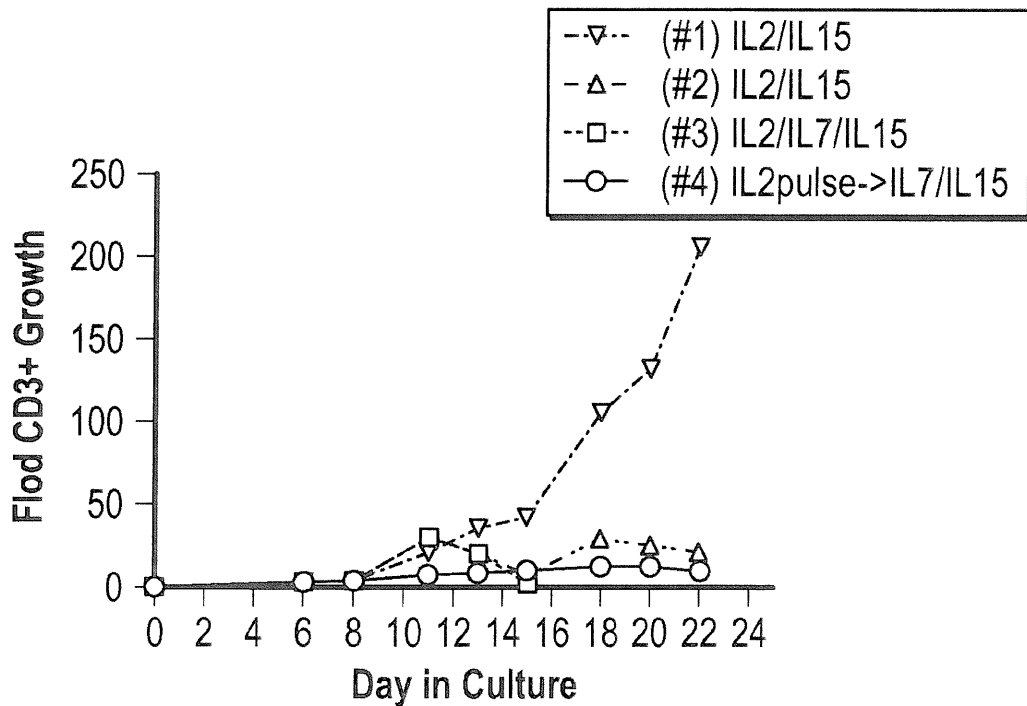


FIG. 23D

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PD0047 Cytokine Comparison

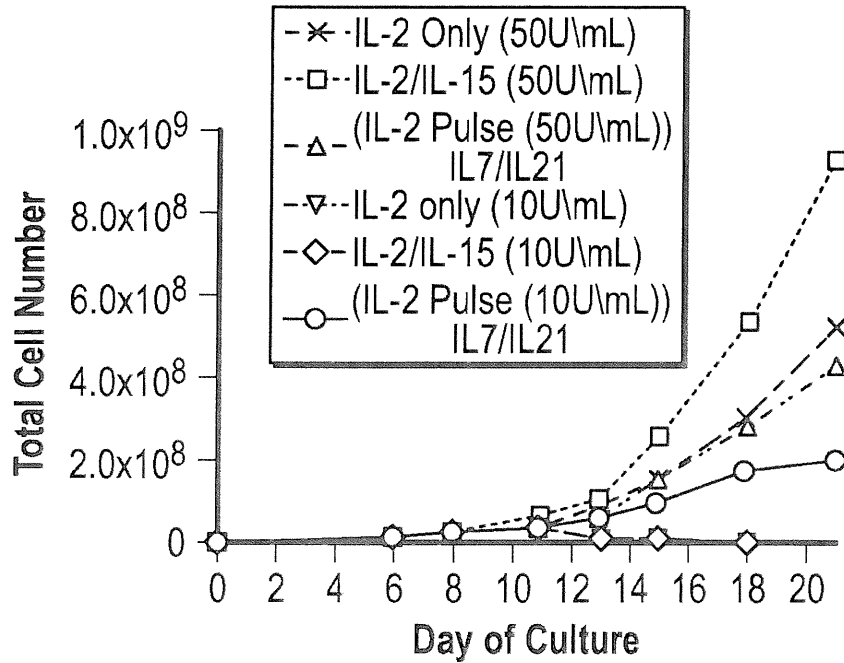


FIG. 23E

PD0047 Cytokine Comparison

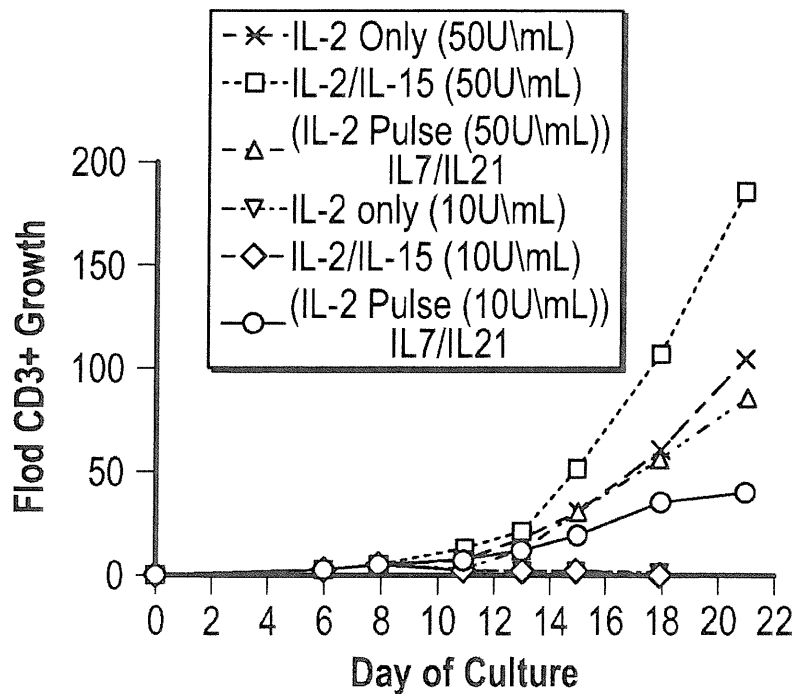


FIG. 23F

PD0051 D20
Donor vs. Donor Cytokine Comparison

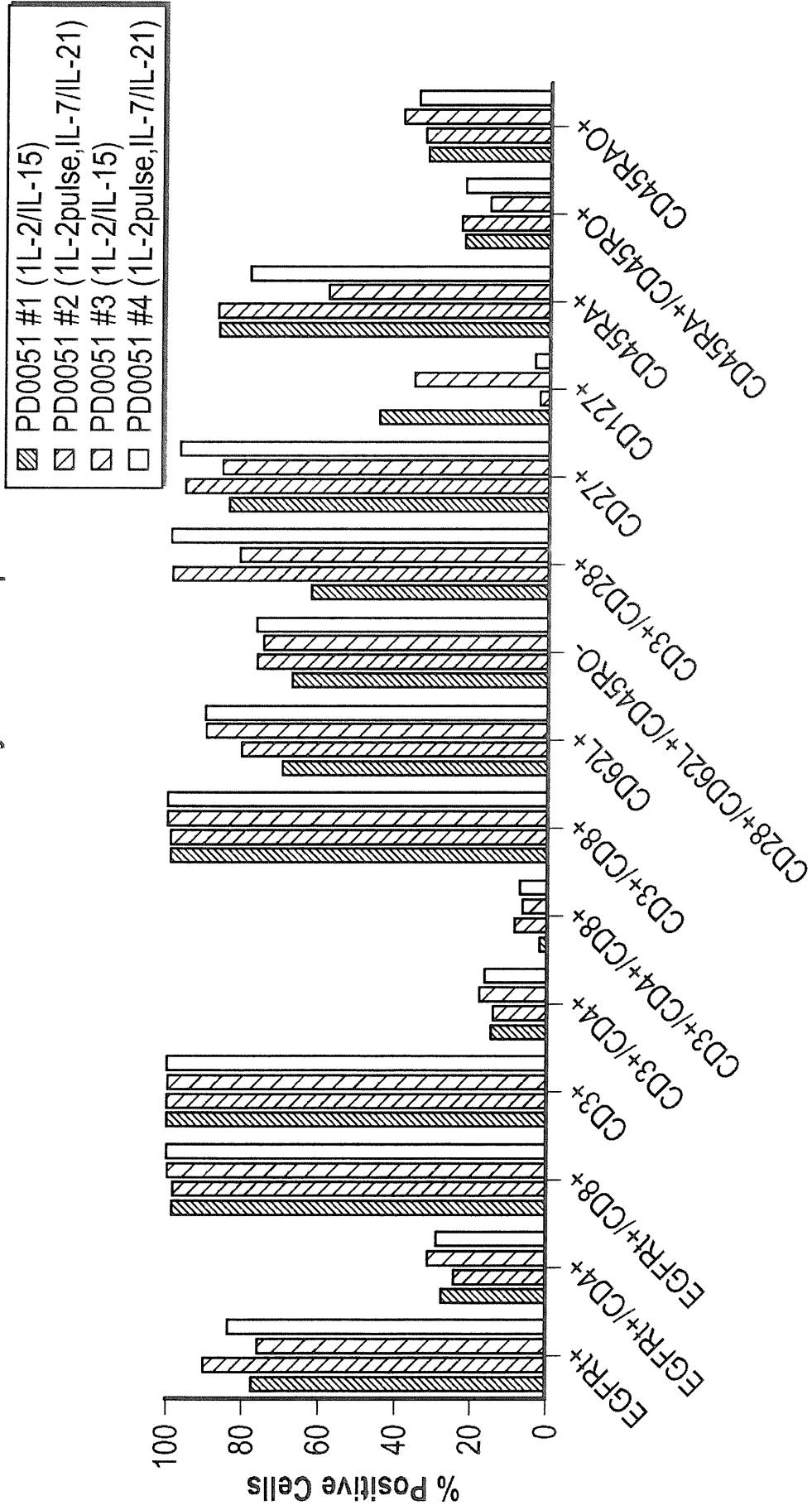


FIG. 24A

PD0055 D17 Cytokine Comparison

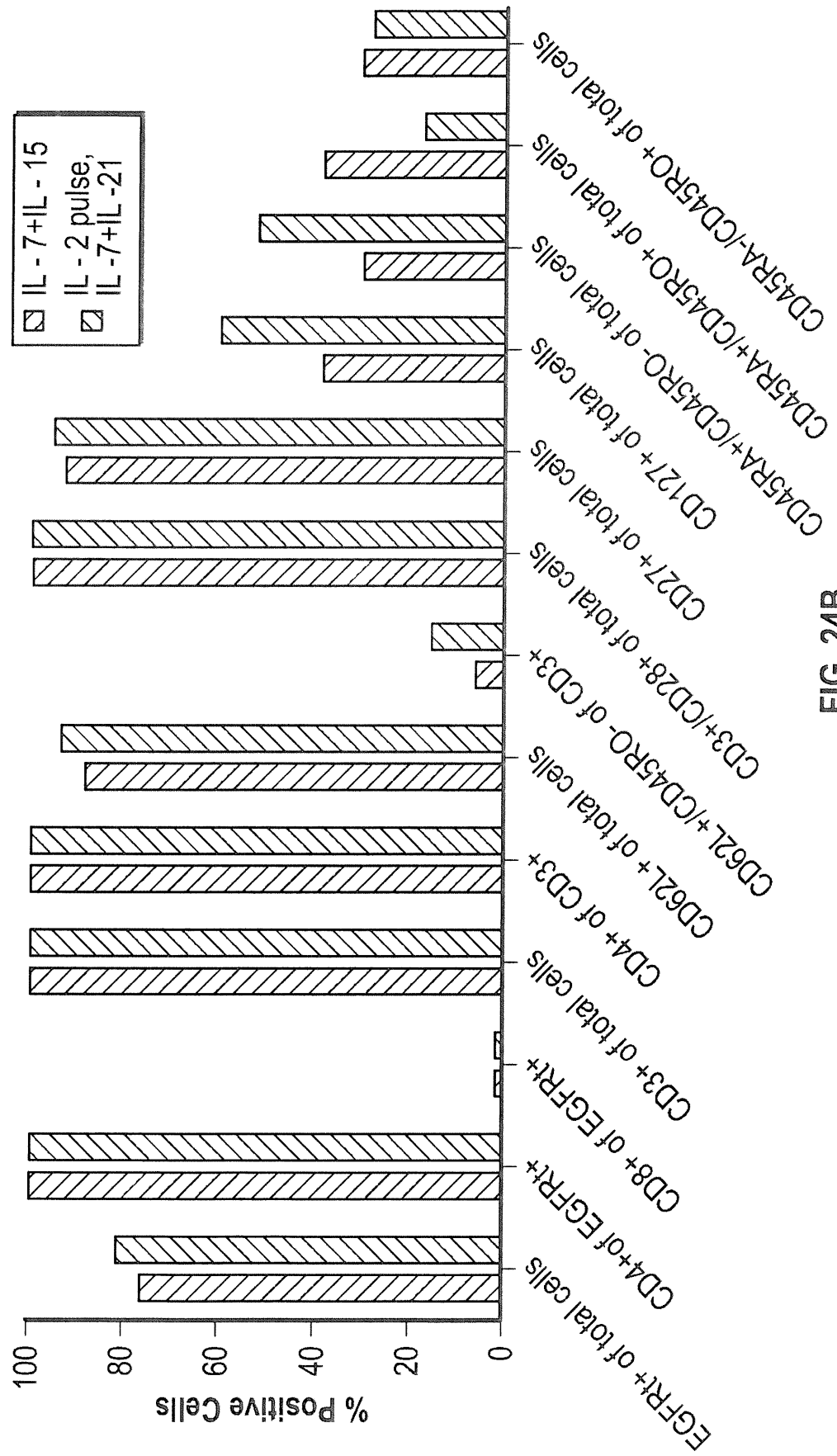


FIG. 24B

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PD0040 Variable Cytokine Conditions

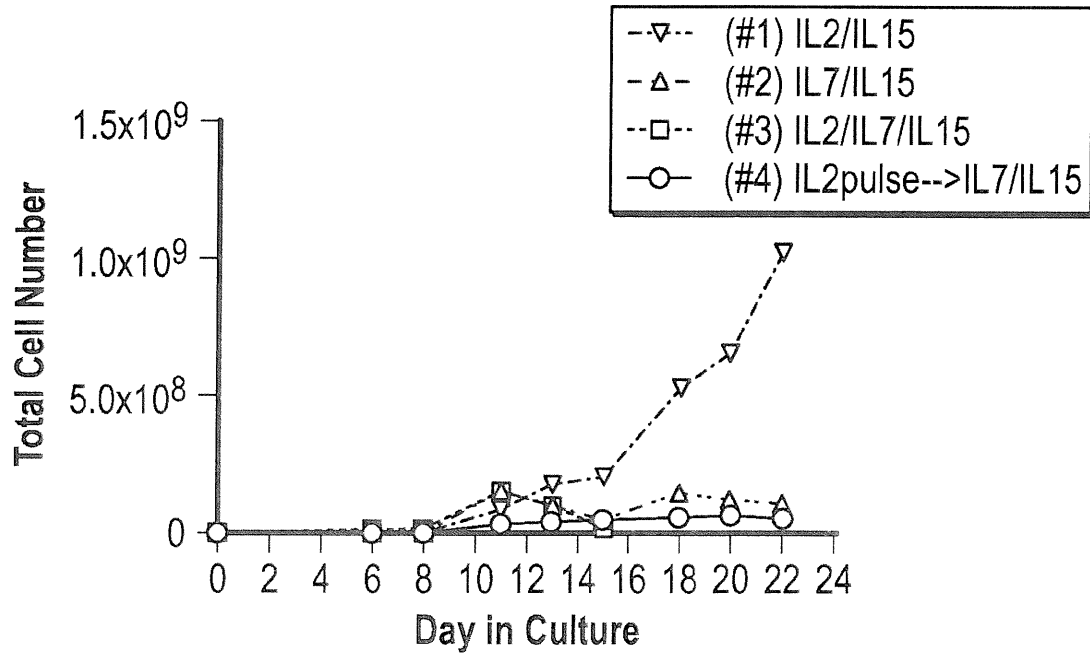


FIG. 24C

PD0040 Variable Cytokine Conditions

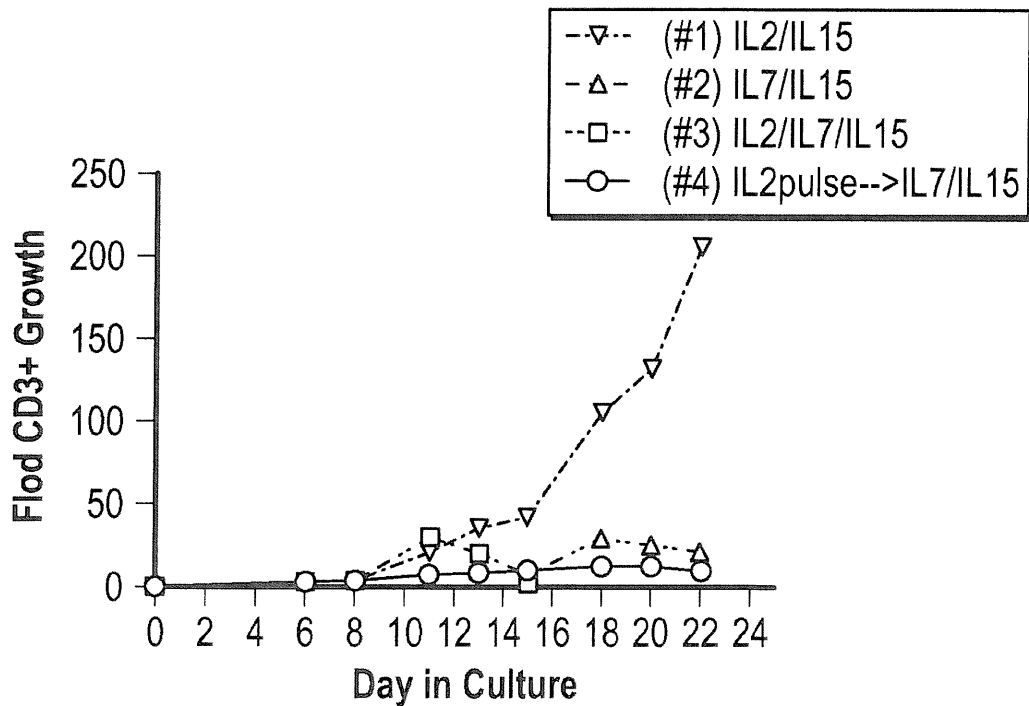


FIG. 24D

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PD0047 Cytokine Comparison

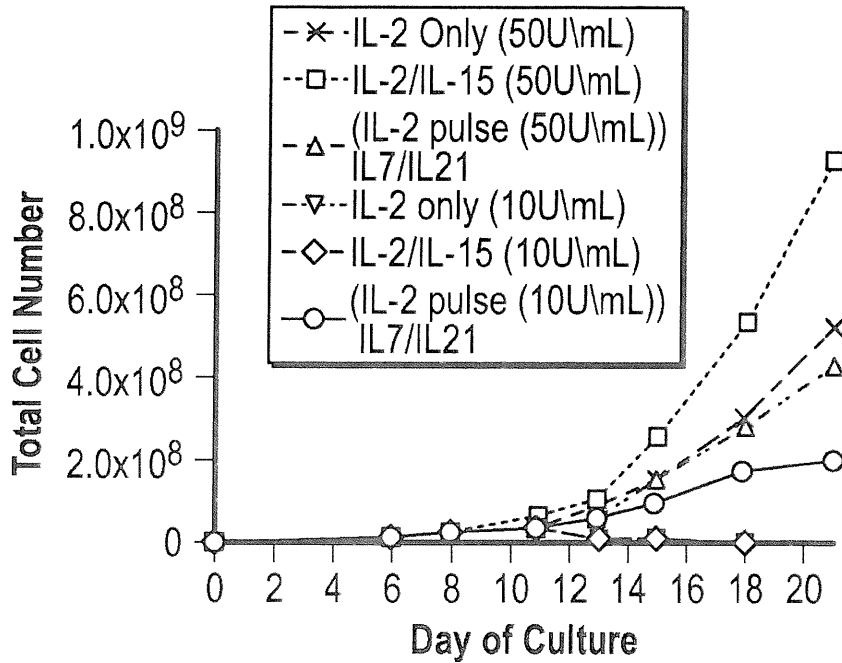


FIG. 24E

PD0047 Cytokine Comparison

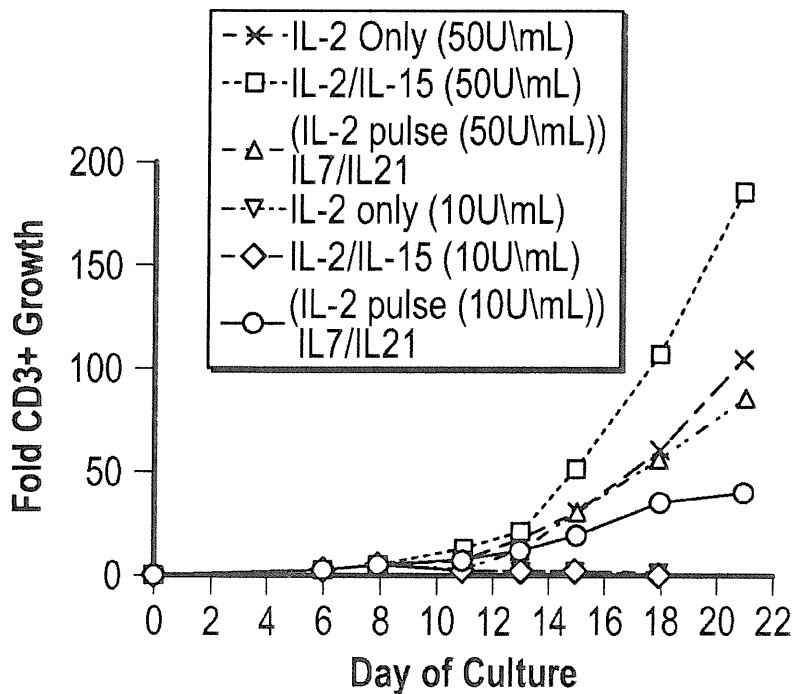


FIG. 24F

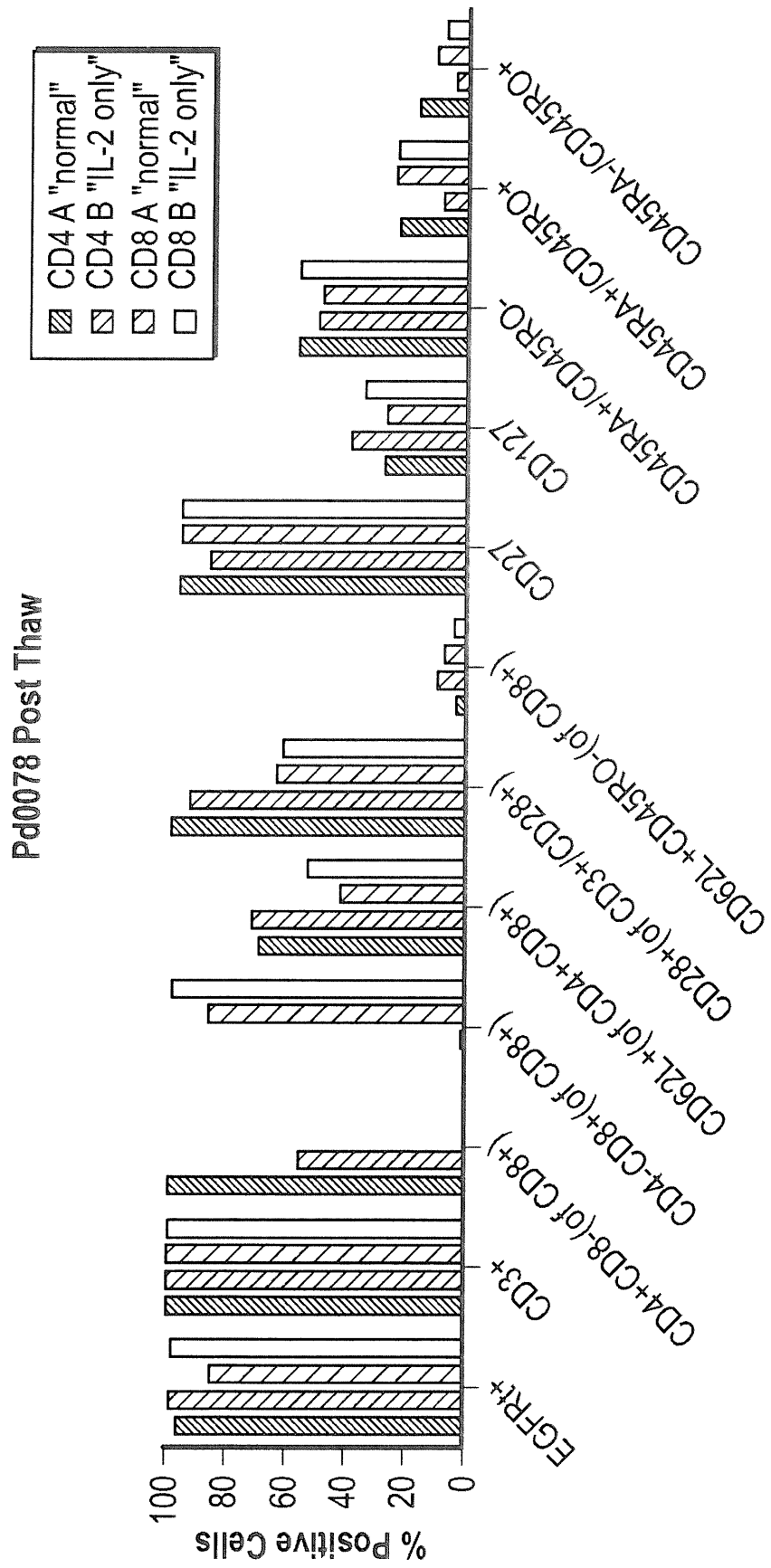


FIG. 25A

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PD0059 PLAT-02 Cytokine Comparison

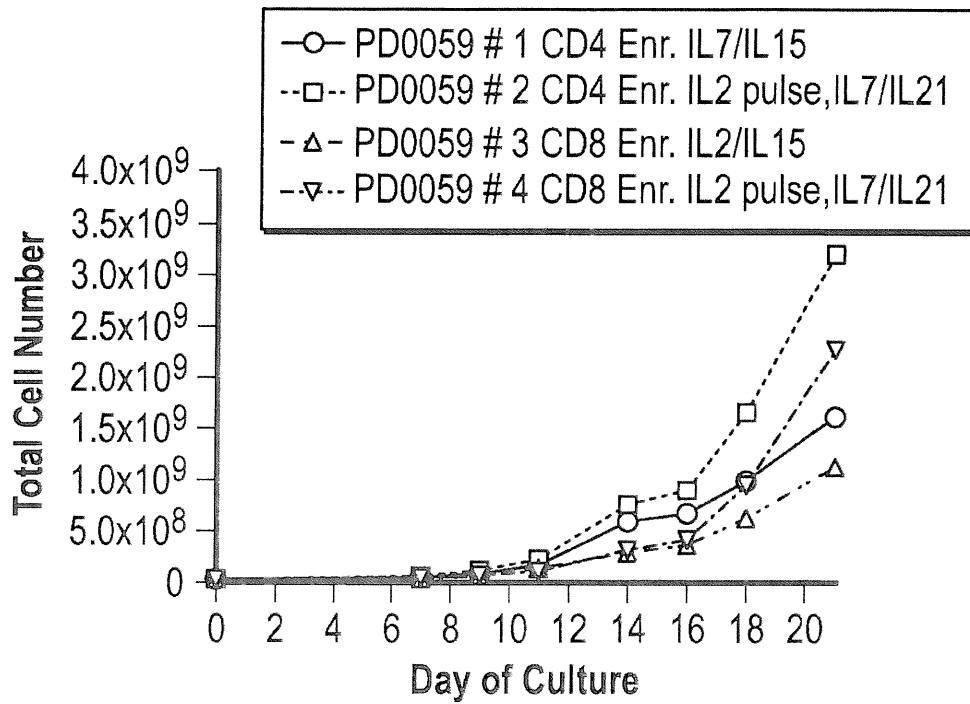


FIG. 25B1

PD0059 PLAT-02 Cytokine Comparison

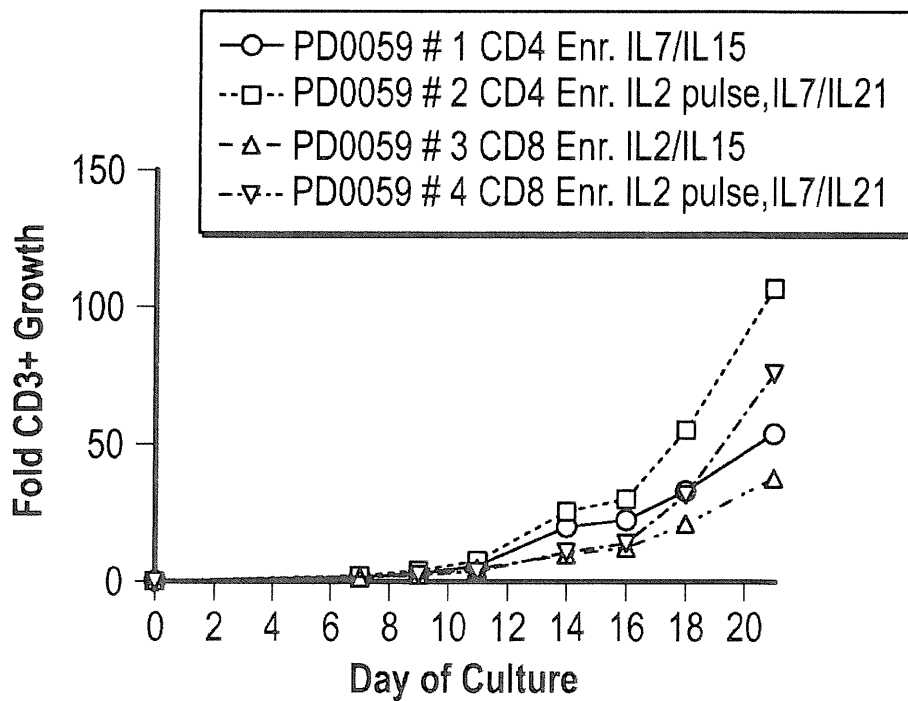


FIG. 25B2

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PD0078 Growth Curves

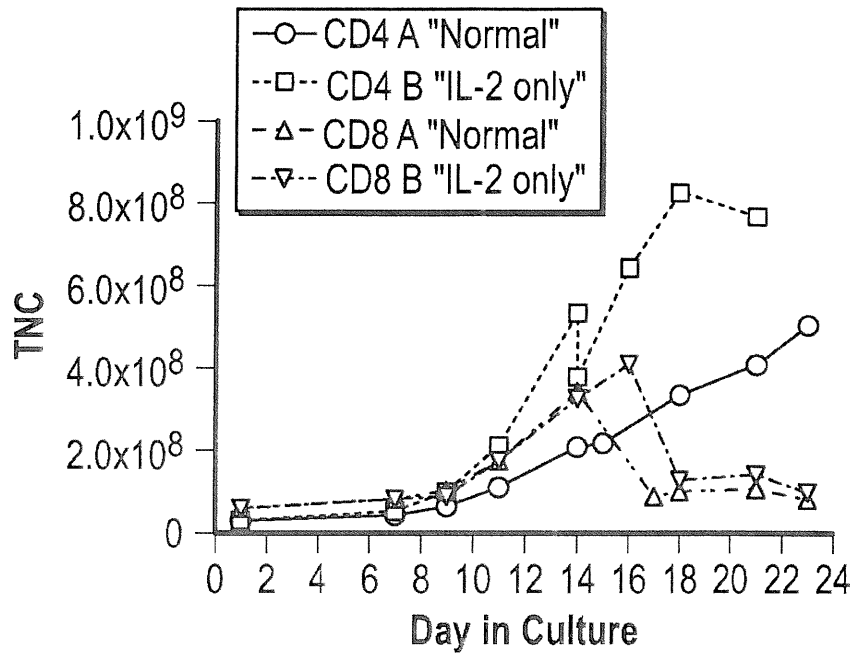


FIG. 25B3

PD0078 Growth Curve

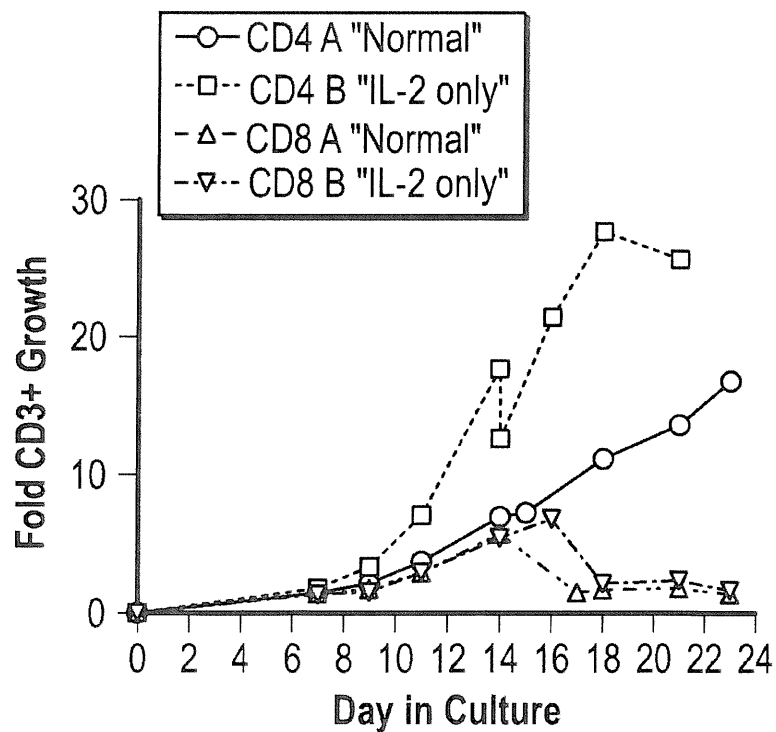


FIG. 25B4

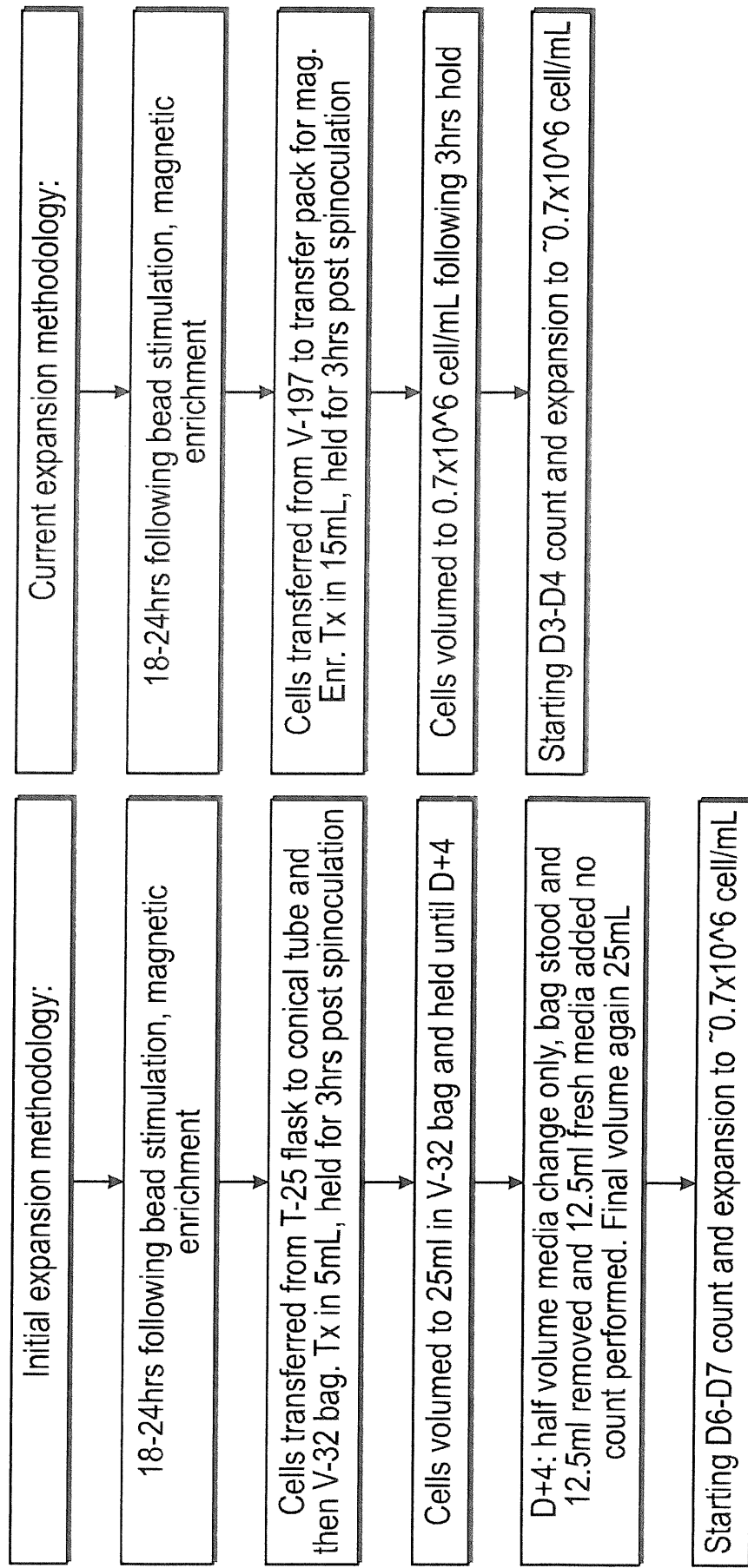


FIG. 26

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PD0080 Growth Curve

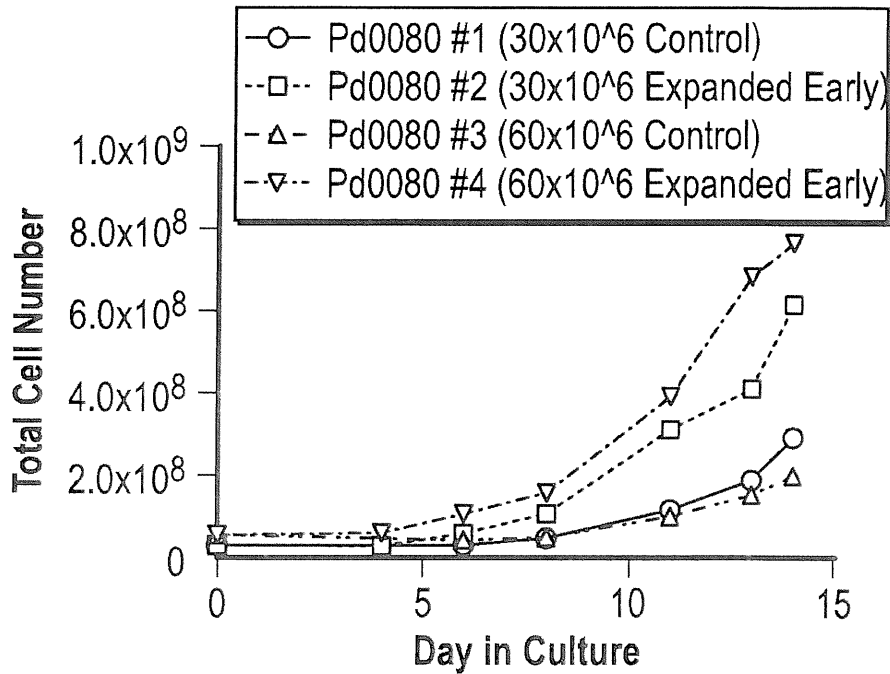


FIG. 27A

PD0084 CD8 Growth Curve

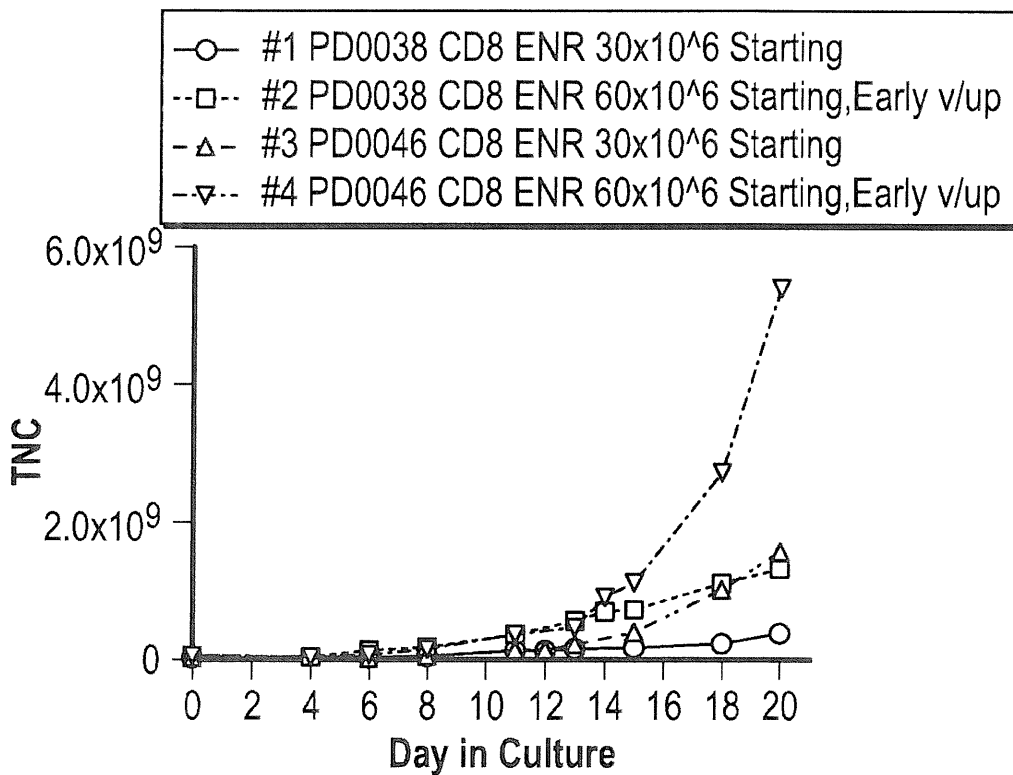


FIG. 27B

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PD0085 CD4 TNC Growth Curve

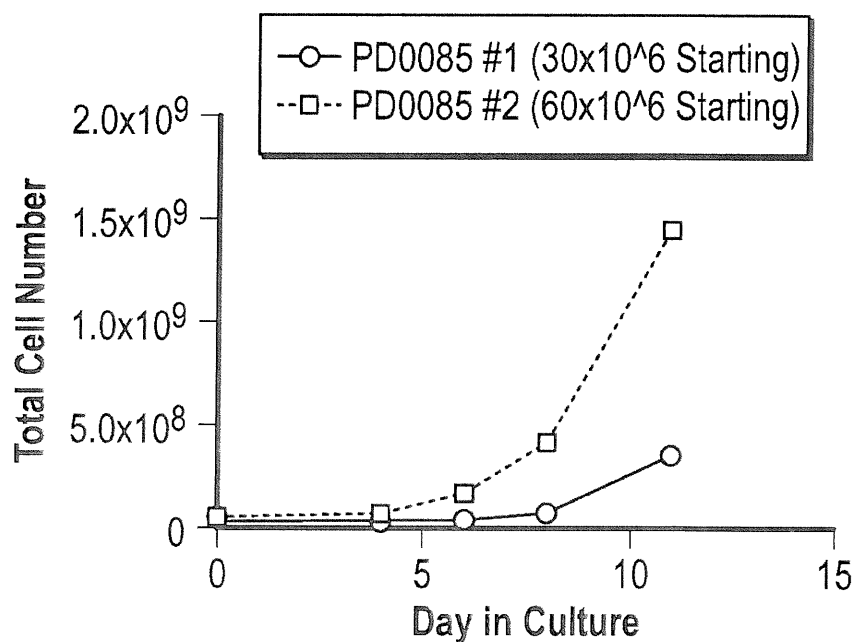


FIG. 27C

Starting Material:	PD0038 CD4/CD8 selected
Transduction:	D+1, ZRX-014
Stim Reagent:	CTS 3/28
Scale:	Full (pooled 50:50 product)

FIG. 28A

PD0044 D21 Final Product. Post Thaw
PLAT-02 Pre-Qual

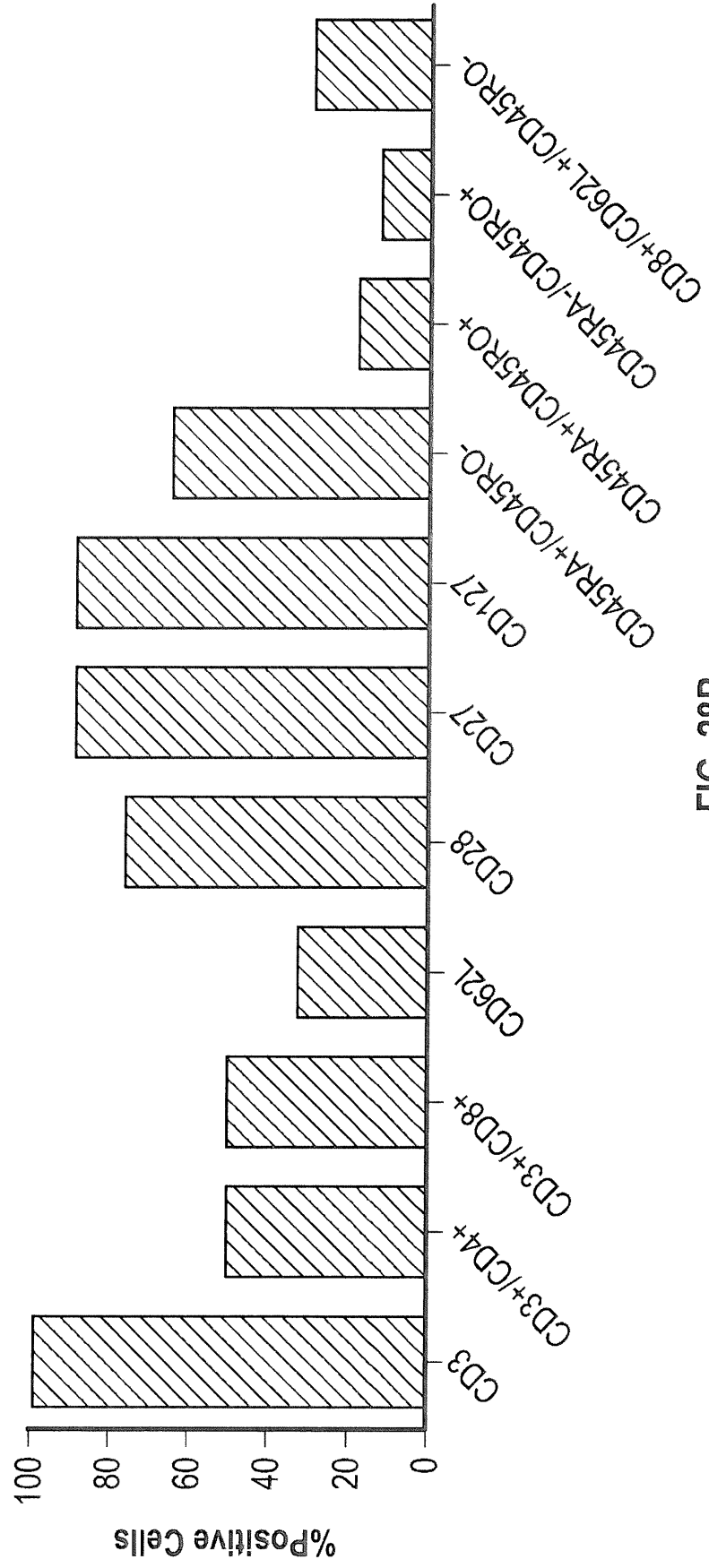


FIG. 28B

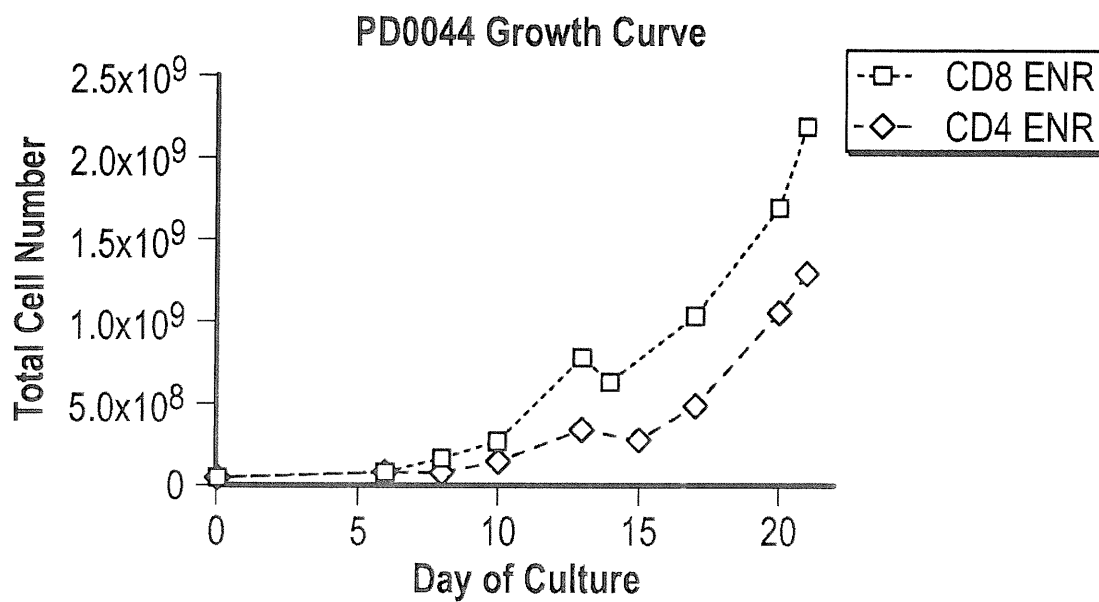
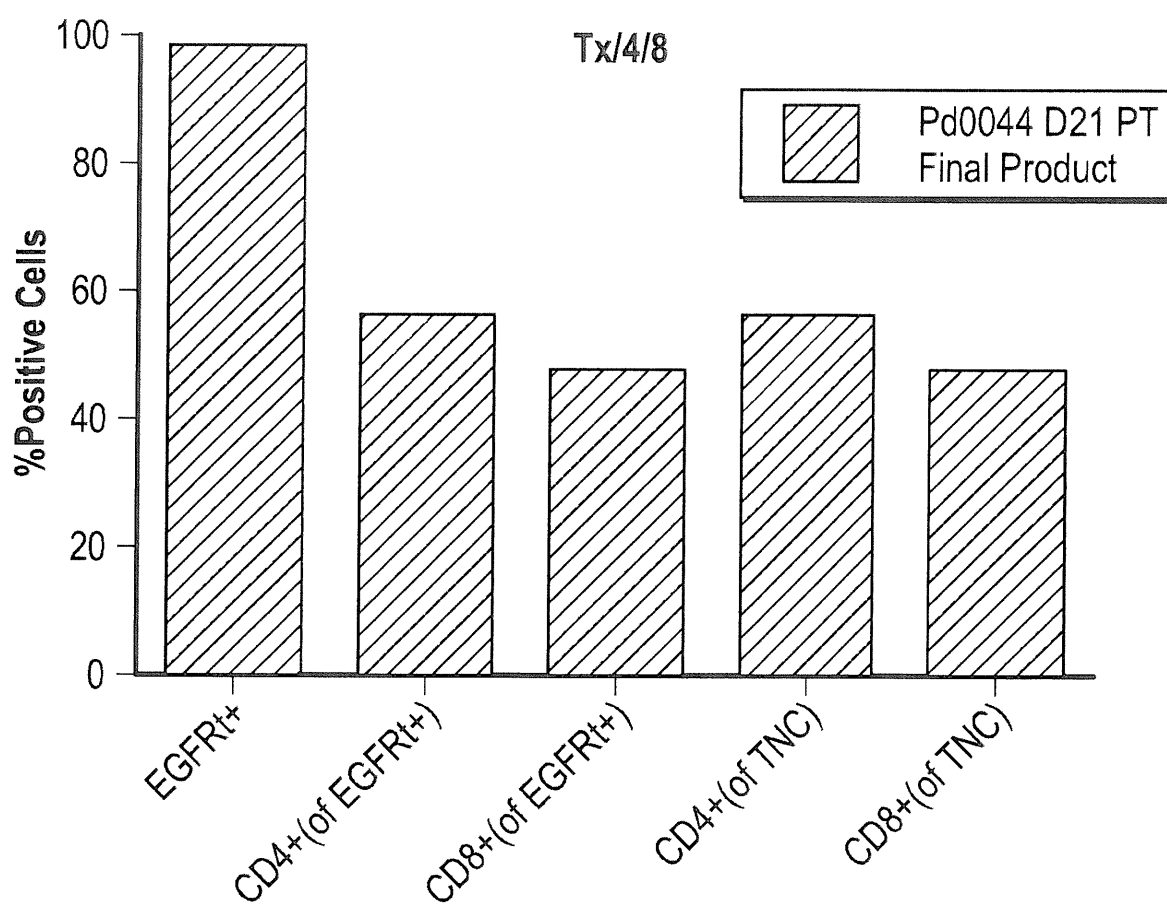


FIG. 28C



PD0044 D21 PT Final Product

FIG. 28D

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Starting Material:	Fresh,APH-NDPBMC-004
Transduction:	D+1, ZRX-014
Stim Reagent:	CTS 3/28
Scale:	Full scale

FIG. 29A

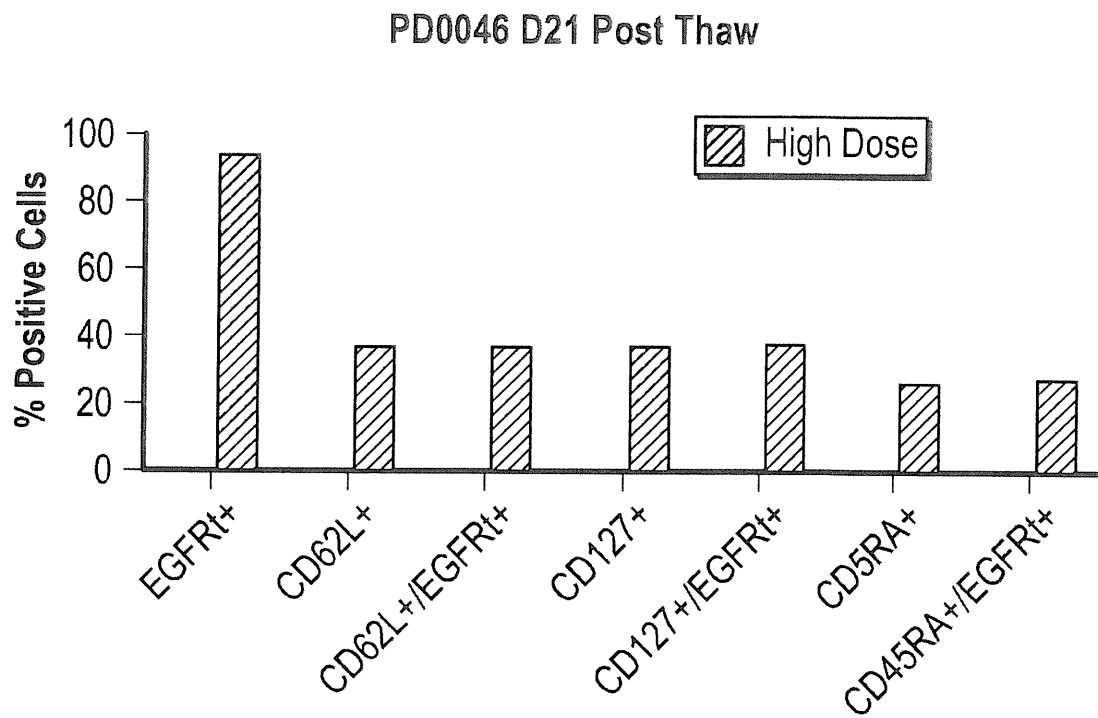


FIG. 29B

PD0046 Growth Curve (QR#1)

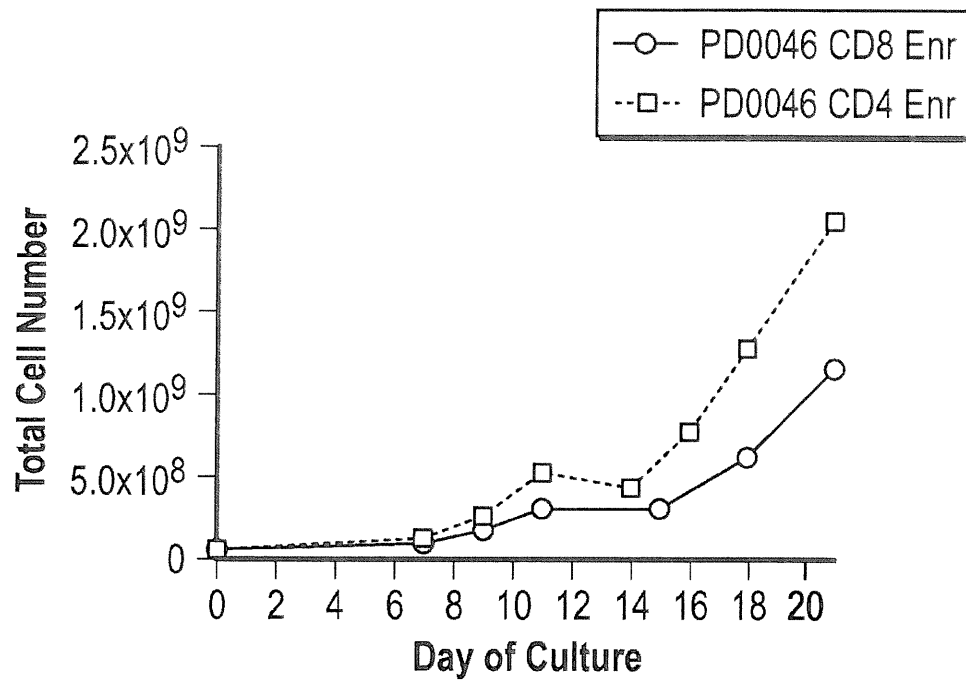


FIG. 29C

Starting Material:	Fresh, APH - NDPBMC-007
Transduction:	D+1, ZRX-014
Stim Reagent:	CTS 3/28
Scale:	Fullscale

FIG. 30A

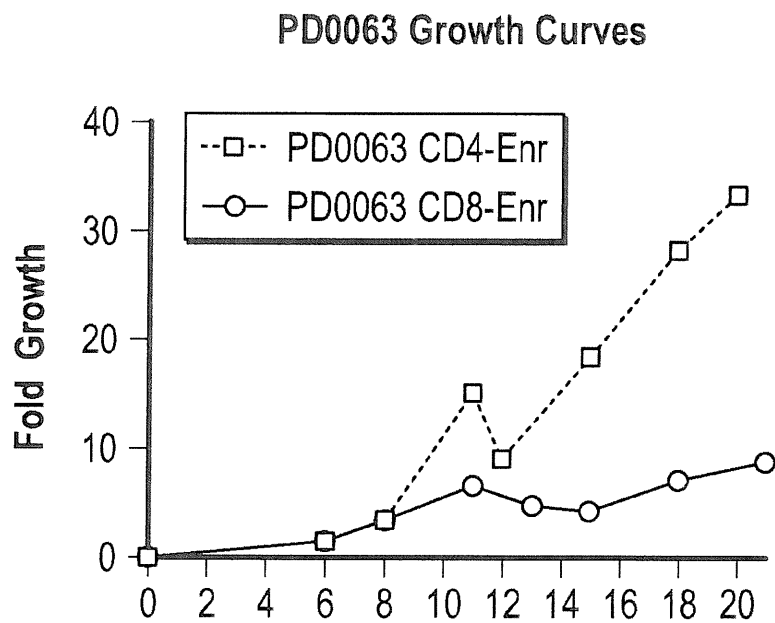


FIG. 30B

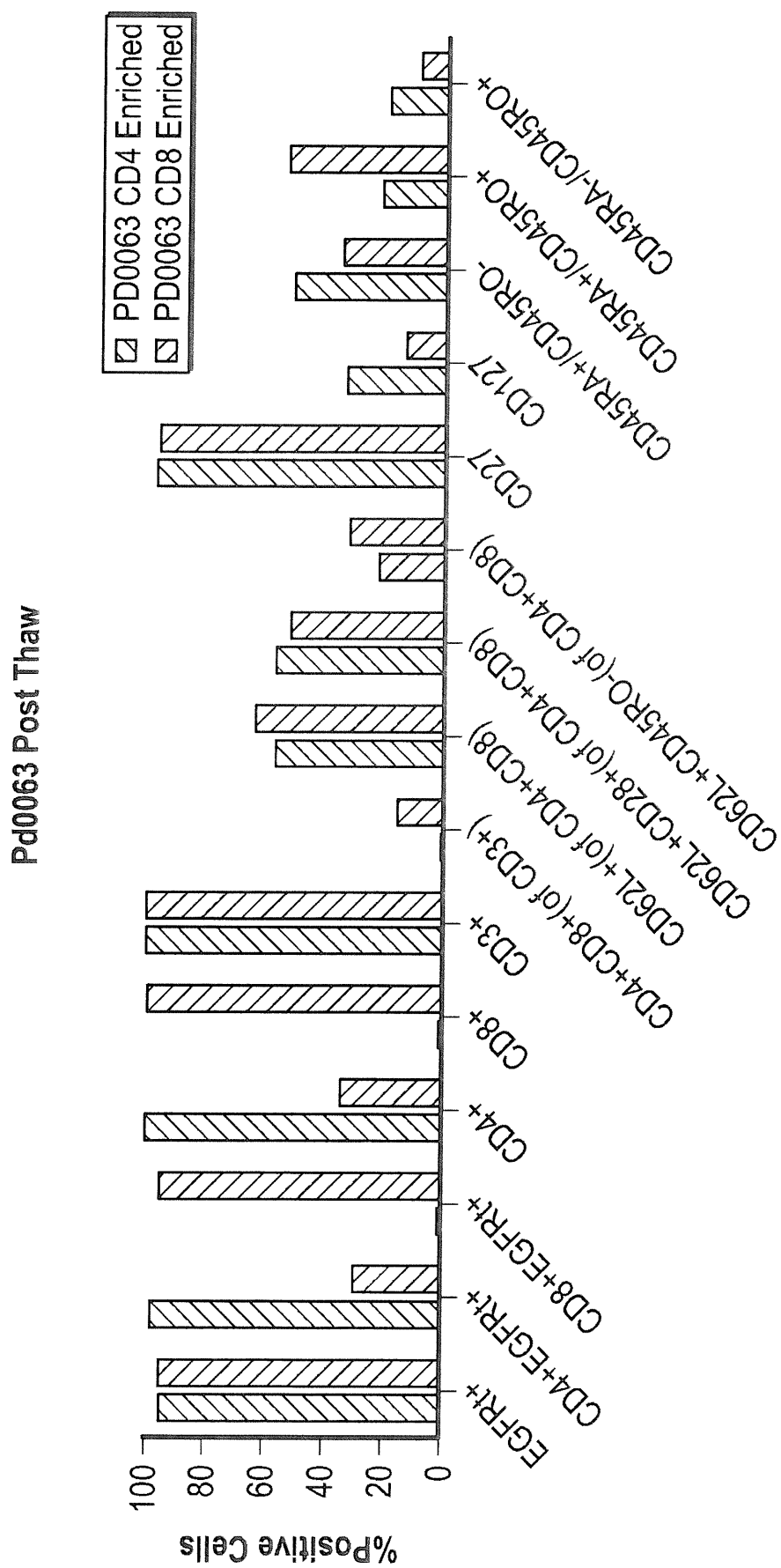


FIG. 30C

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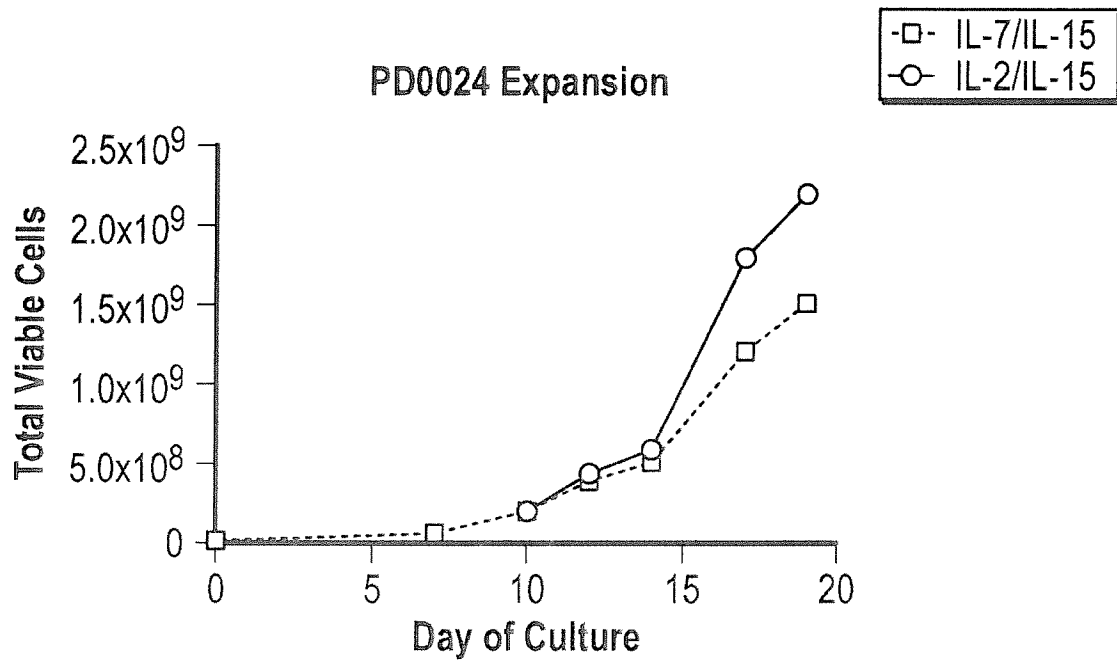


FIG. 31A1

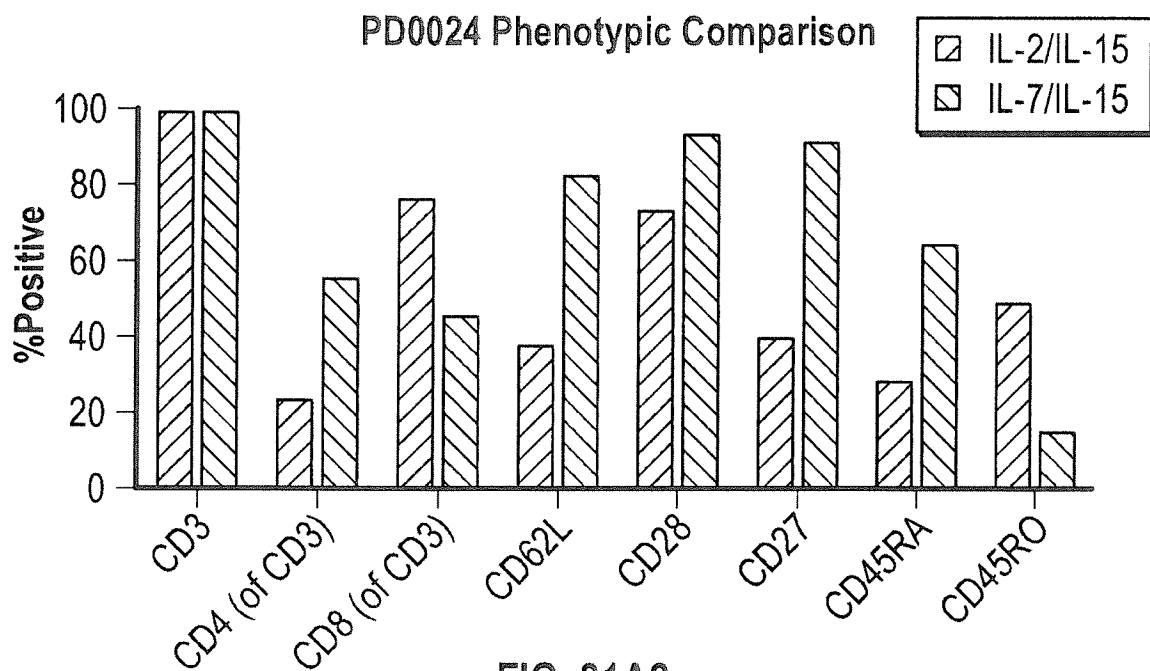


FIG. 31A2

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Pd0040 Variable Cytokine Conditions

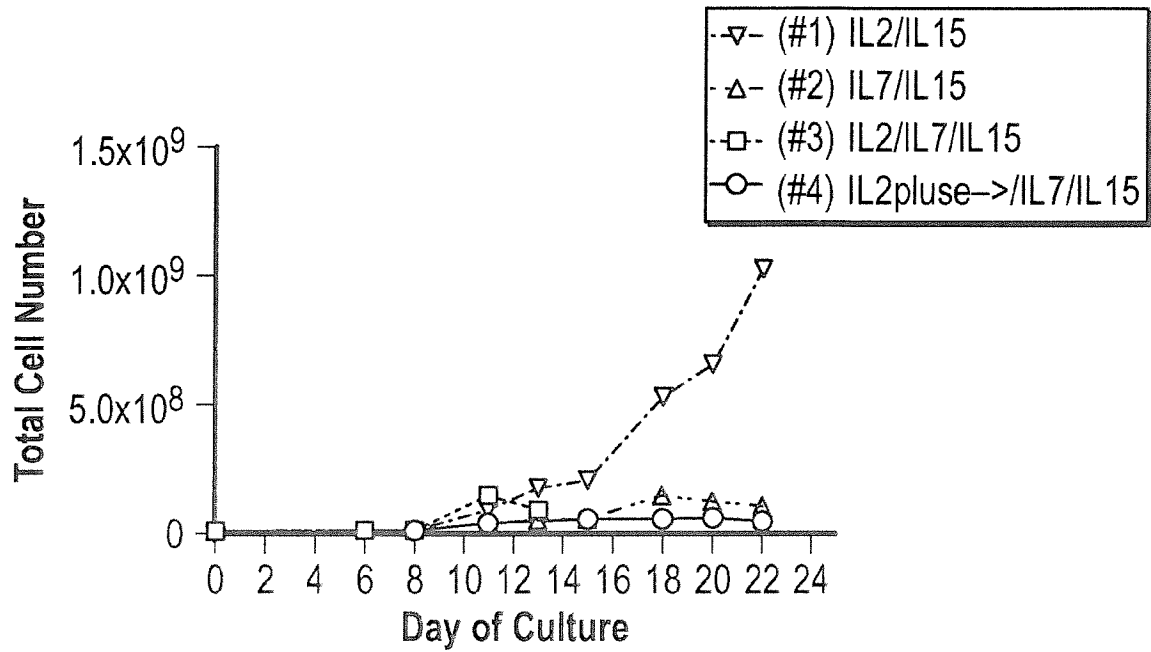


FIG. 31B1

PD0040 Phenotypic Comparison

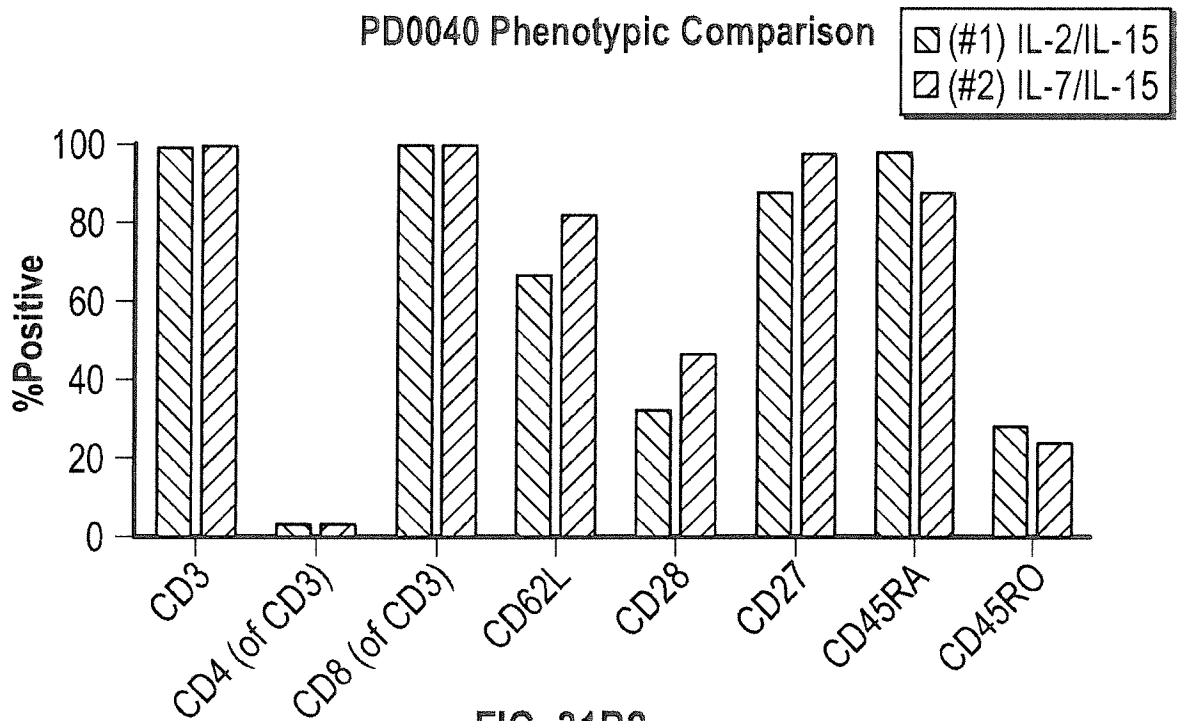
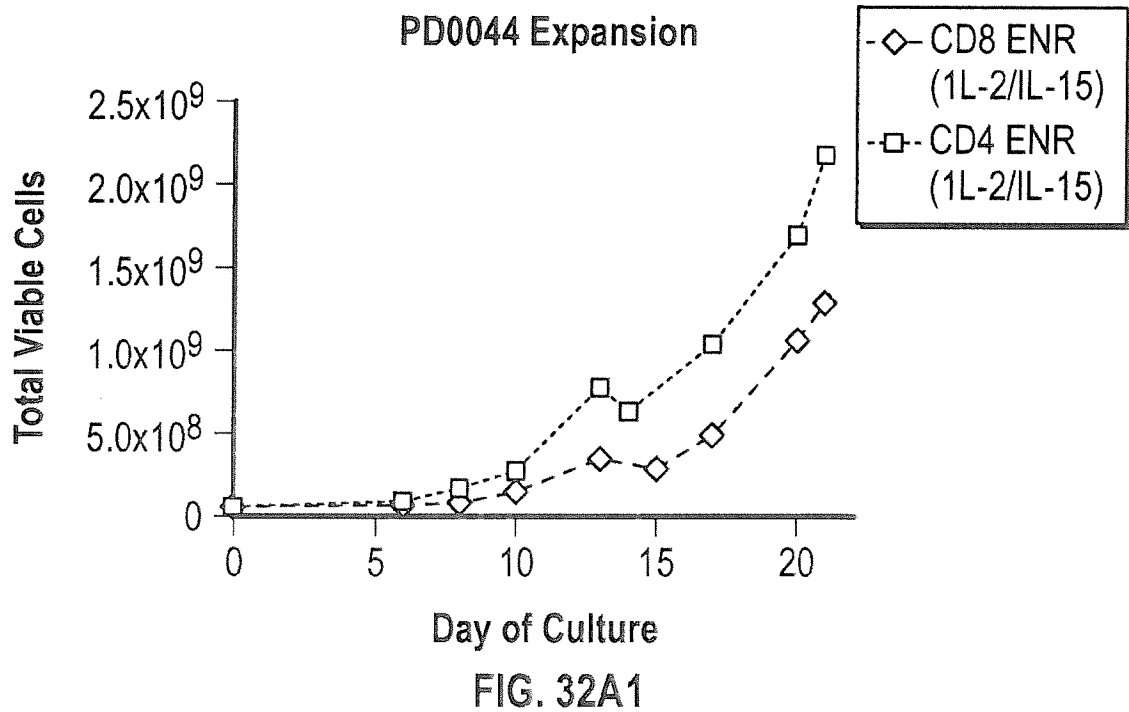
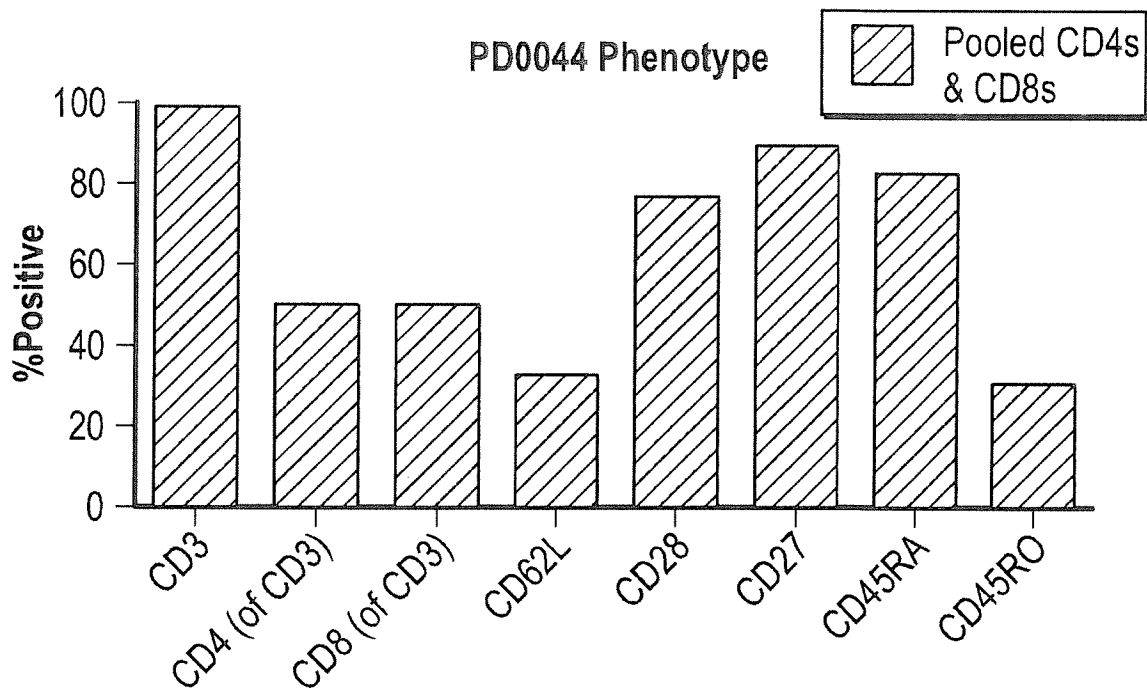


FIG. 31B2

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Growing CD8-enriched cultures in IL-2/IL-15 and CD4-enriched cultures in IL-7/IL-15 yields robust expansion of both cultures and strong expression of memory phenotype (representative data shown above)

FIG. 32A2

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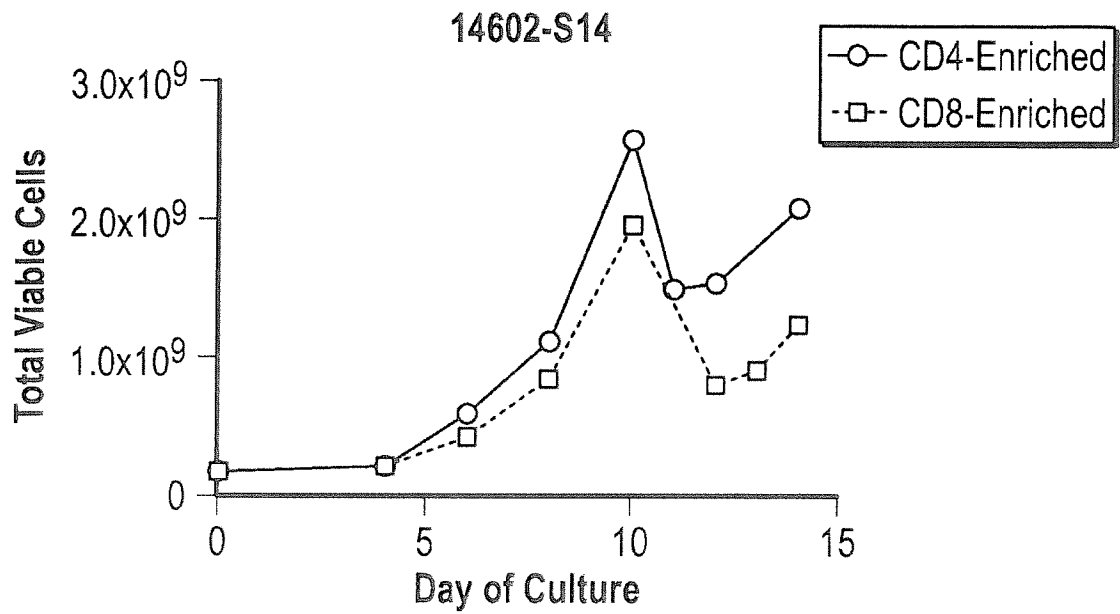
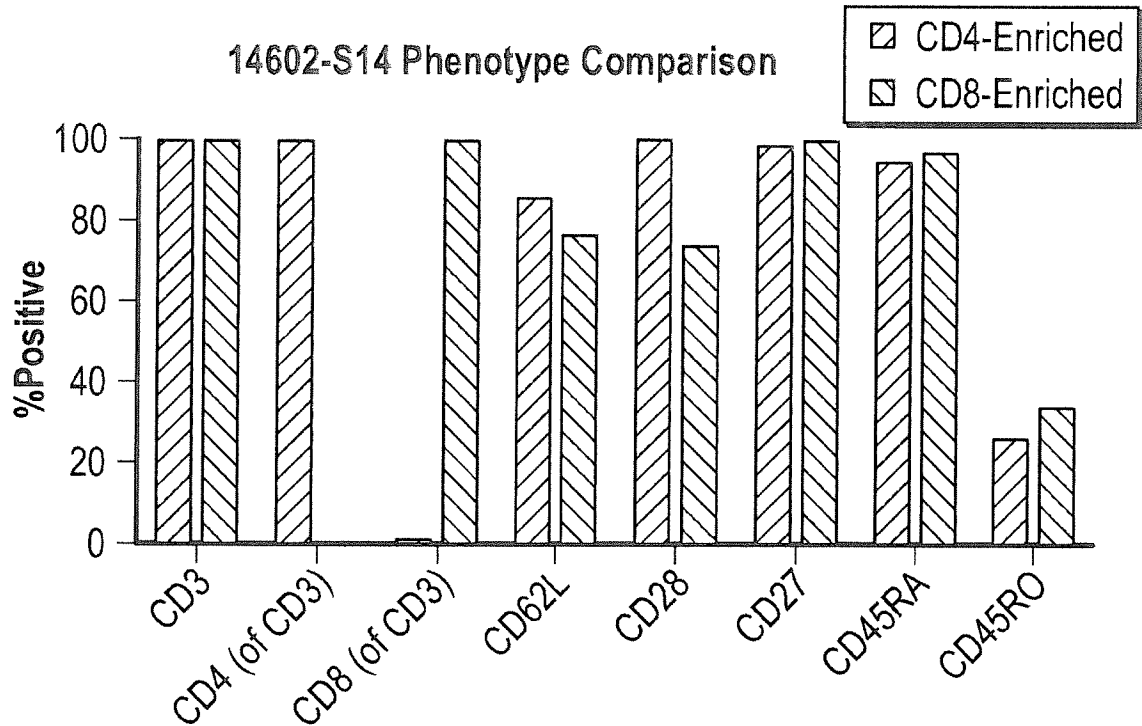
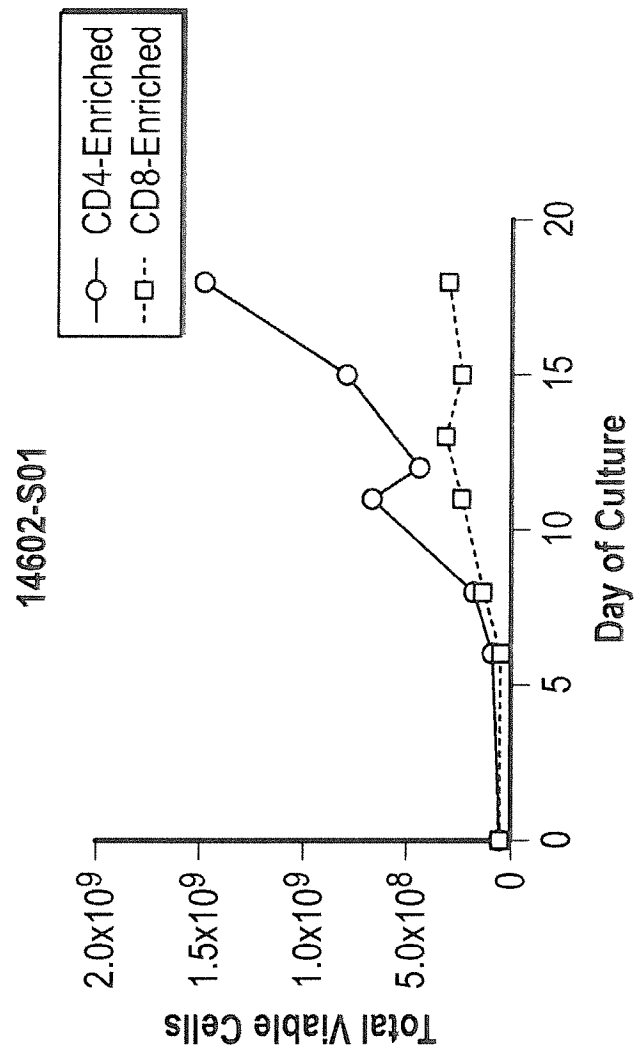


FIG. 32B1



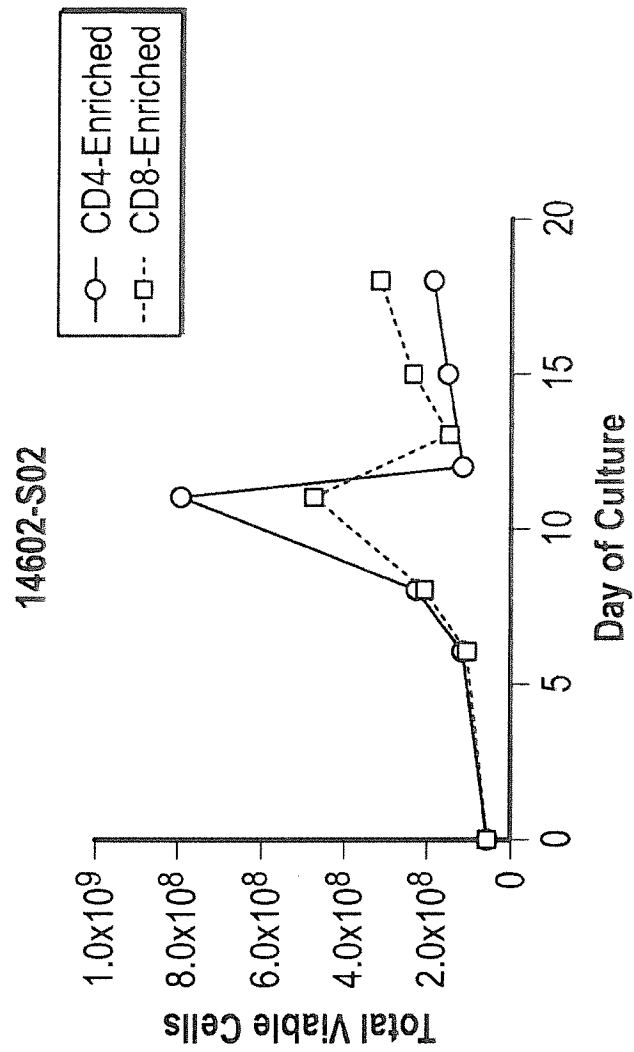
Growing CD8-enriched cultures in IL-2/IL-15 and CD4-enriched cultures in IL-7/IL-15 yields robust expansion of both cultures and strong expression of memory phenotype (representative data shown above)

FIG. 32B2



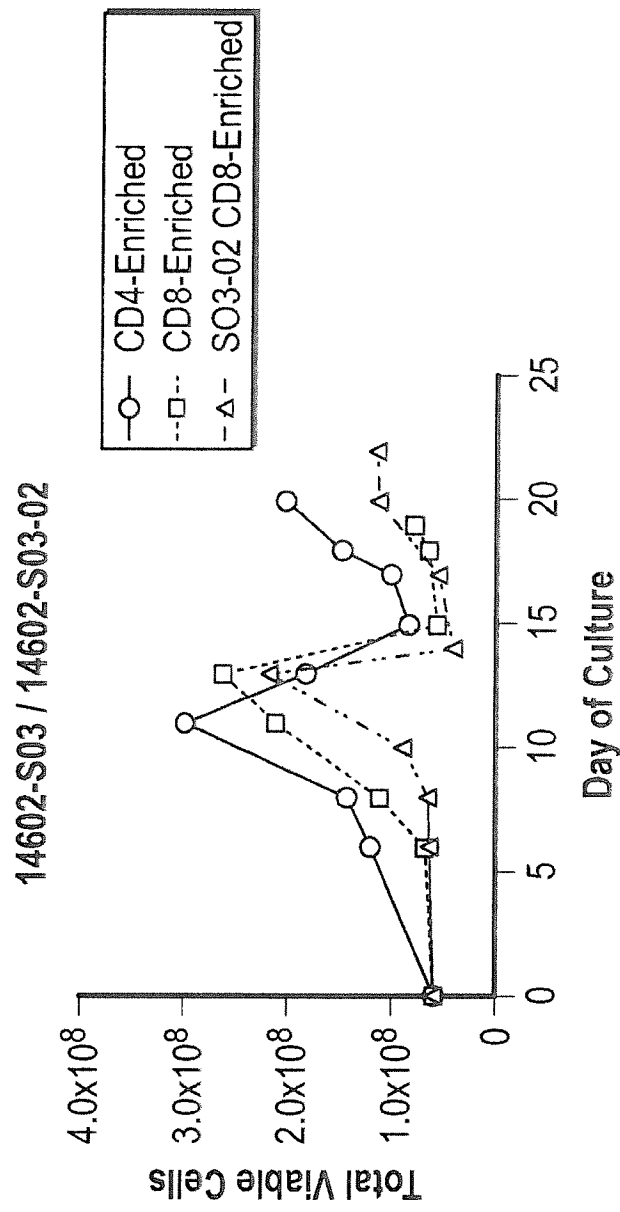
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S01 CD4	98.7	98.3		96.6
14602-S01 CD8	98.1		96.9	92.5

FIG. 33A



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S02 CD4	94.9	94.5		95.5
14602-S02 CD8	98.5		98.2	97.8

FIG. 33B

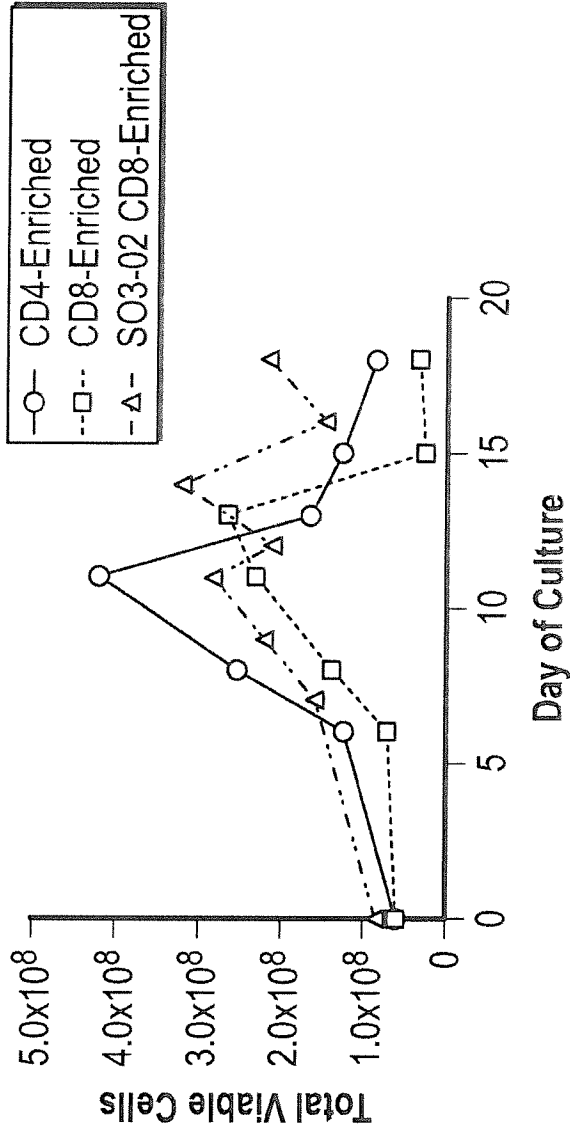


Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)	CD3	CD4+CD8- (of CD3)
14602-S03 CD4	98.3	98.2		97.2	98.5	97.7
14602-S03 CD8	93.6		93.1	96.2		
14602-S03-02 CD8	96.6		95.9			

CD4-CD8+ (of CD3)	CD62L from CD28(CD3)	Total CD28	CD27	CD127	CD45RA+ / CD45RO-
0.2	60.9	97.4	98	23.7	84.9

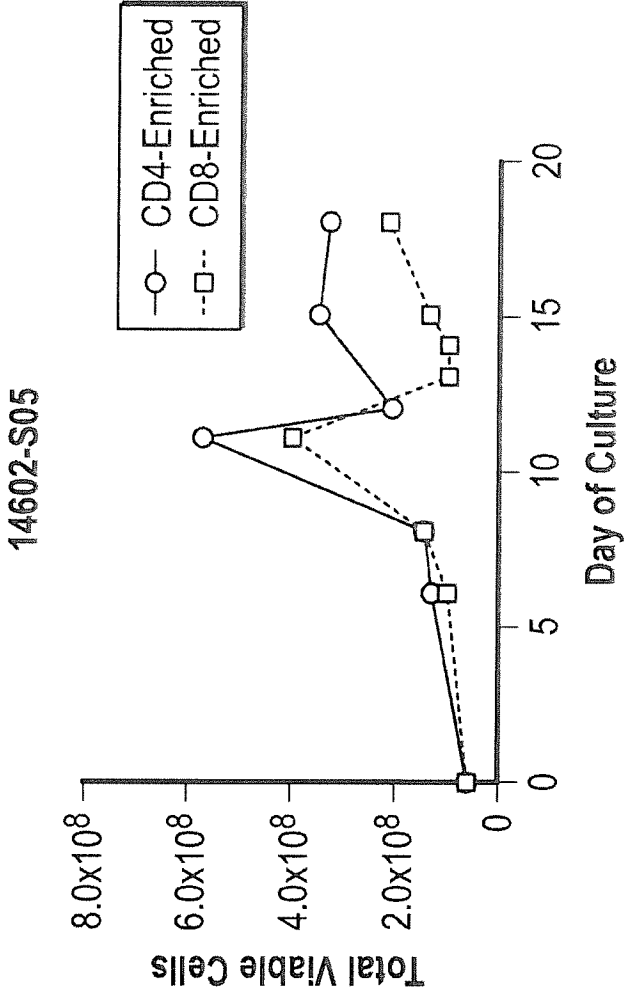
FIG. 33C

14602-S04 / 14602-S04-02



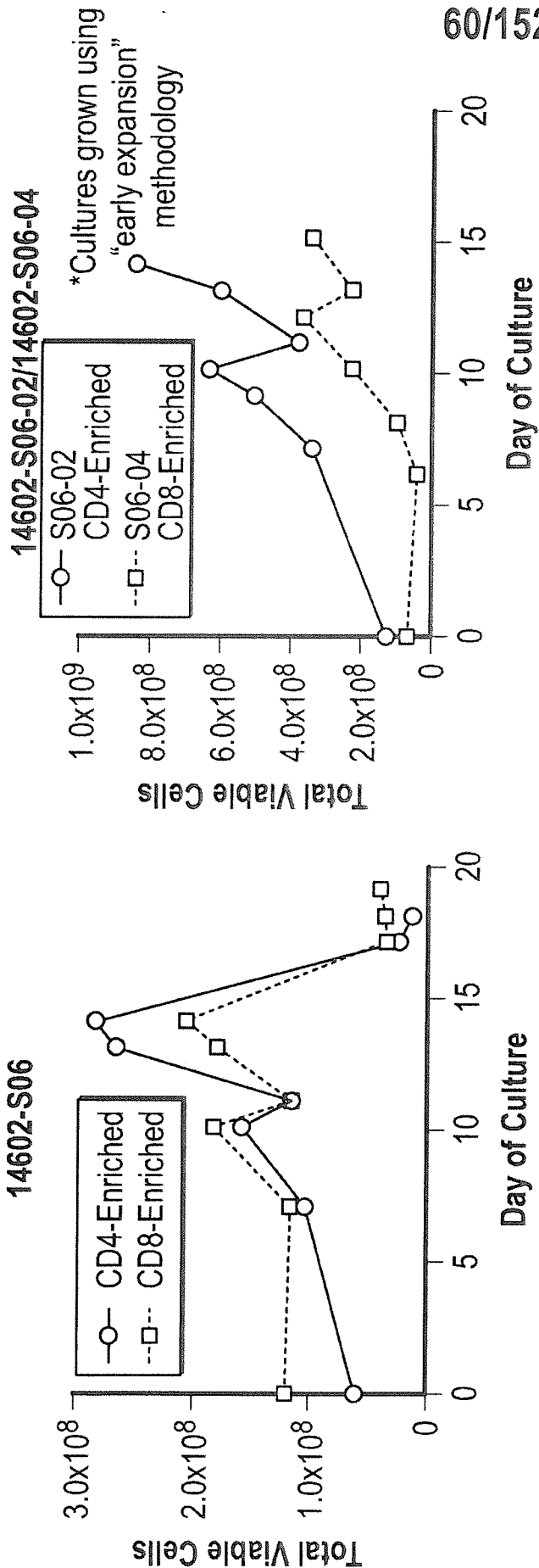
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S04 CD4	95.6	95.5		94.2
14602-S04-02 CD8	99.4		99.2	94.5

FIG. 34A



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S05 CD4	95.2	95.1		97.7
14602-S05 CD8	97.5		97.3	96.6

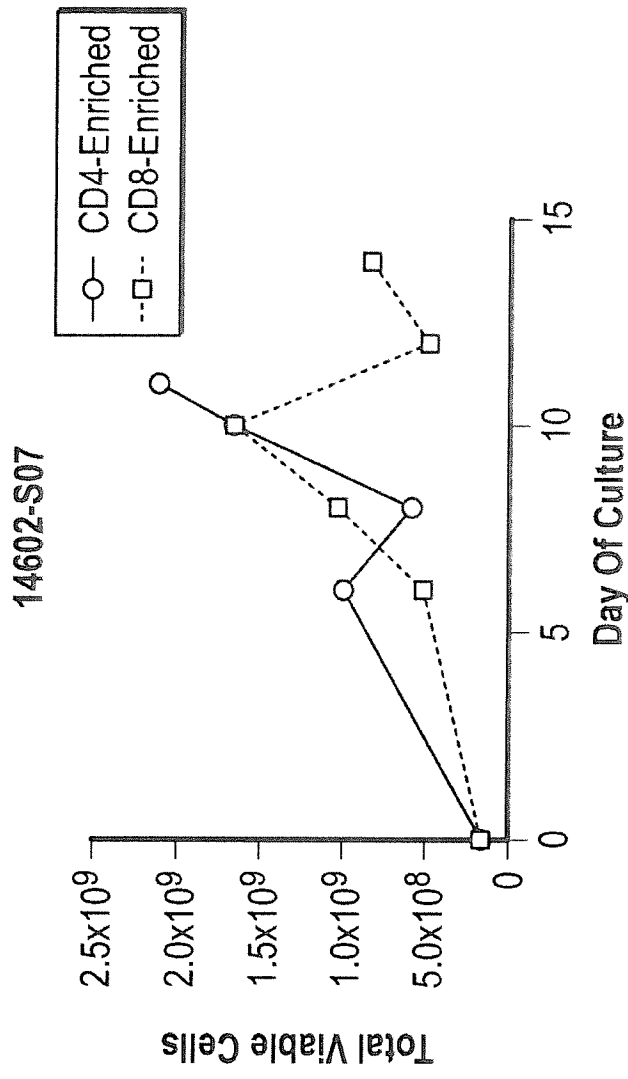
FIG. 34B



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)	CD3	CD4+CD8- (of CD3)
14602-S06-CD8	99.8		99.7	97		
14602-S06-02 CD4	98.1	98.1		98.5		
14602-S06-04 CD8	99.4		94.4	95.5	98.3	0.1

CD4-CD8+ (of CD3)	CD62L	Total CD28 from CD28(CD3)	CD27	CD127	CD45RA+/ CD45RO-	CD45RA+
98.3	49.2	57.7	99.9	70.3	48.3	99.3

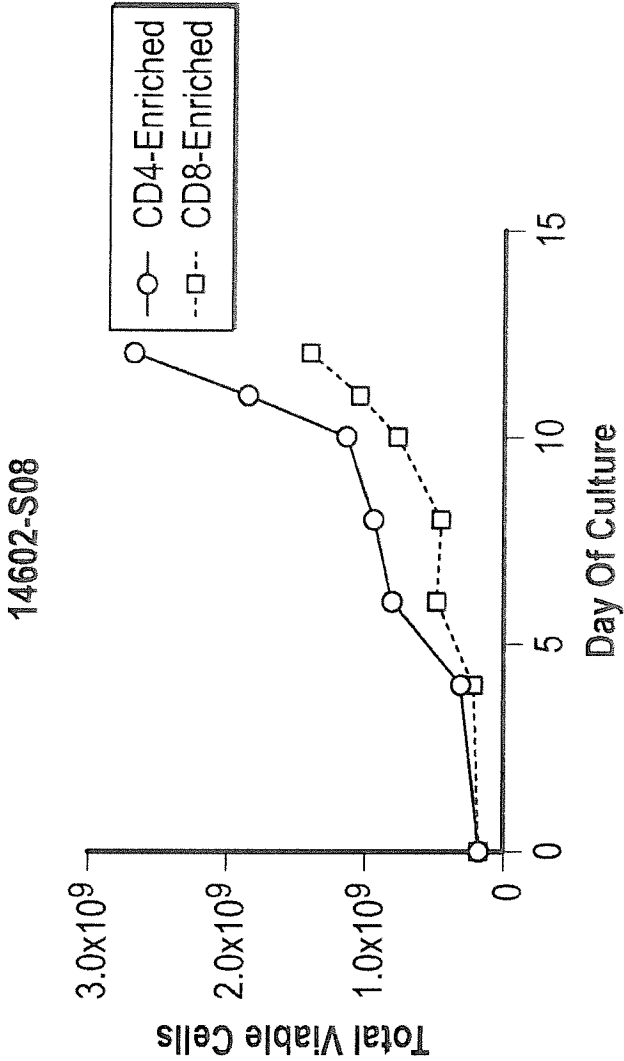
FIG. 34C



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)	CD3	CD4+CD8- (of CD3)
14602-S07 CD4	98.6	98.5		94.1	84.3	98.7
14602-S07 CD8	99.3		99	95.2	99.6	0.7

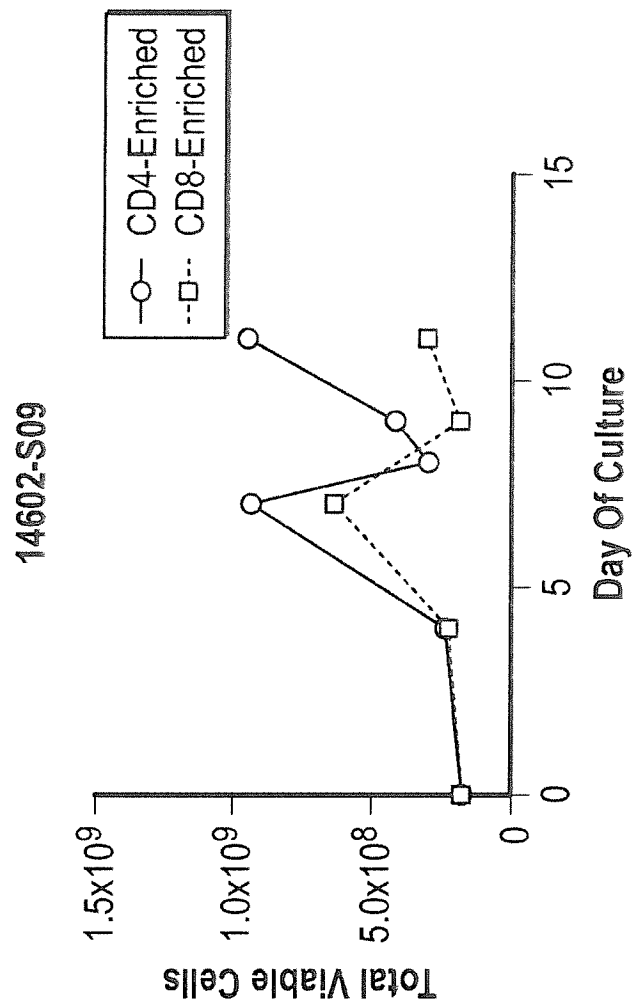
CD4-CD8+ (of CD3)	CD62L	total CD28 (from CD28/CD3)	CD27	CD127	CD45RA+/ CD45RO-	CD45RA+
0	57	98.8	99.4	37	51.4	65.5
97.3	66.1	51.2	99.8	55.6	52.8	94

FIG. 35A



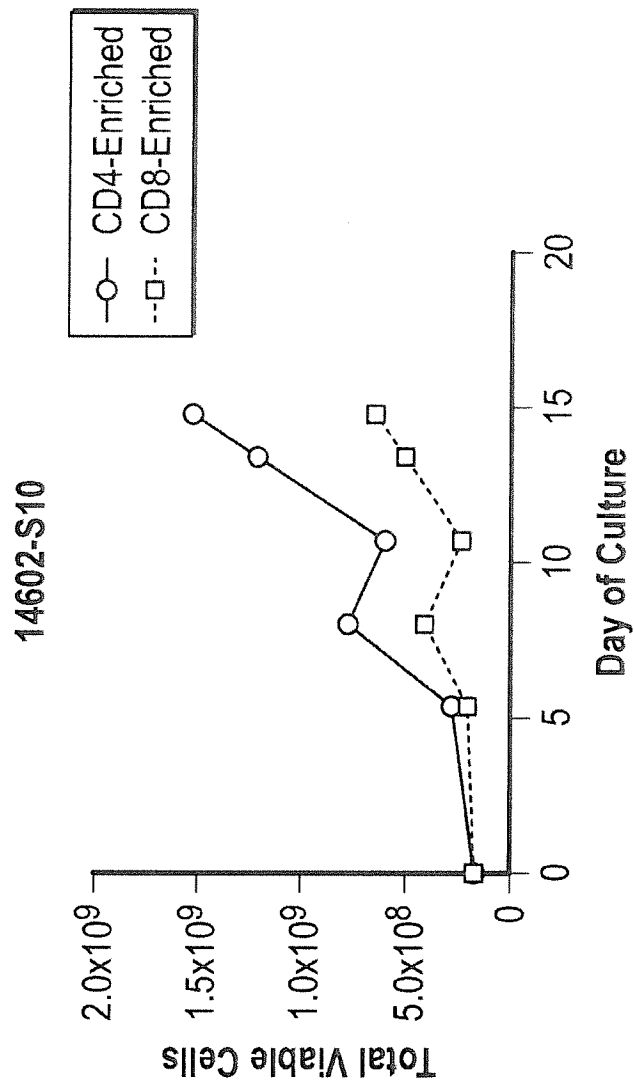
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S08 CD4	97.4	97.3		96.1
14602-S08 CD8	97.8		97.6	95.6

FIG. 35B



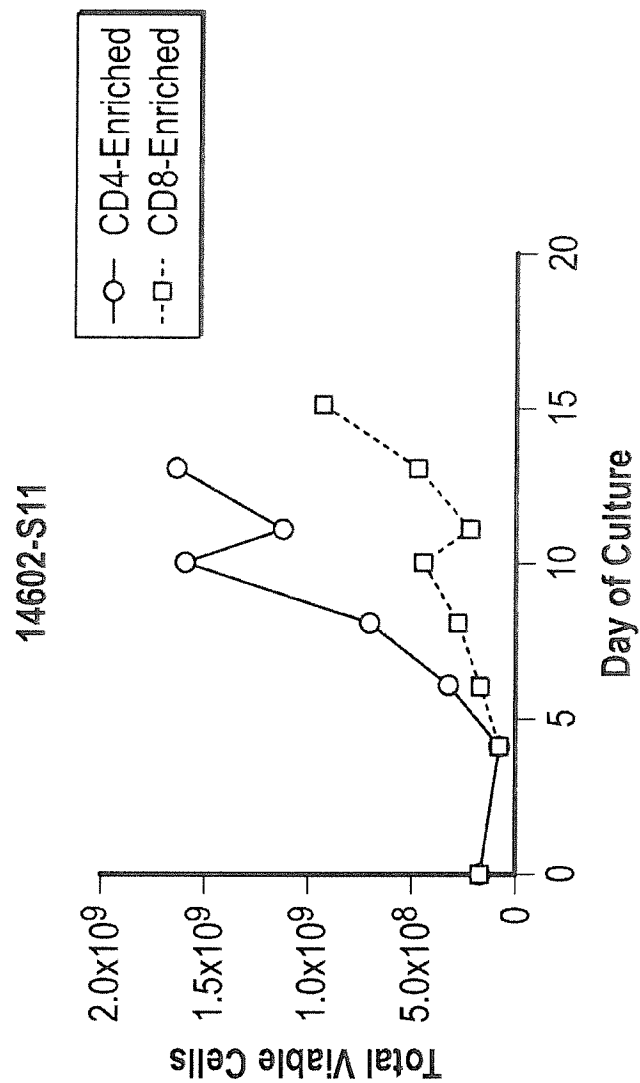
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S09 CD4	99.4	99.4		95.2
14602-S09 CD8	99.3		99	92.5

FIG. 35C



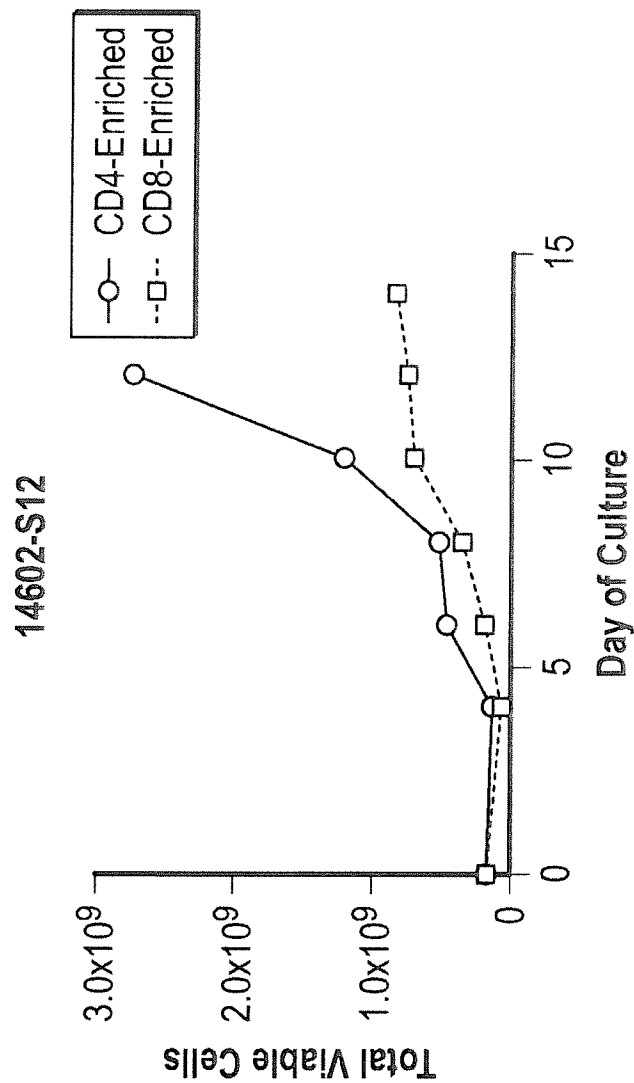
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S10 CD4	98.6	98.4		97.7
14602-S10 CD8	97.6		93.4	96.1

FIG. 36A



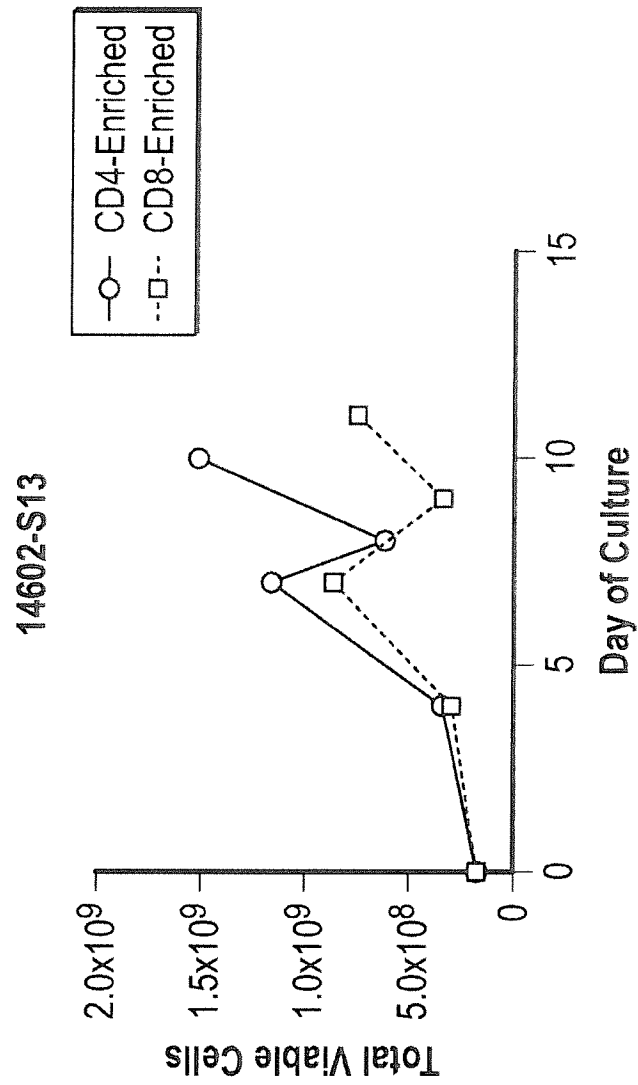
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S11 CD4	99.2	99.1		98.1
14602-S11 CD8	97.1		97.1	93.7

FIG. 36B



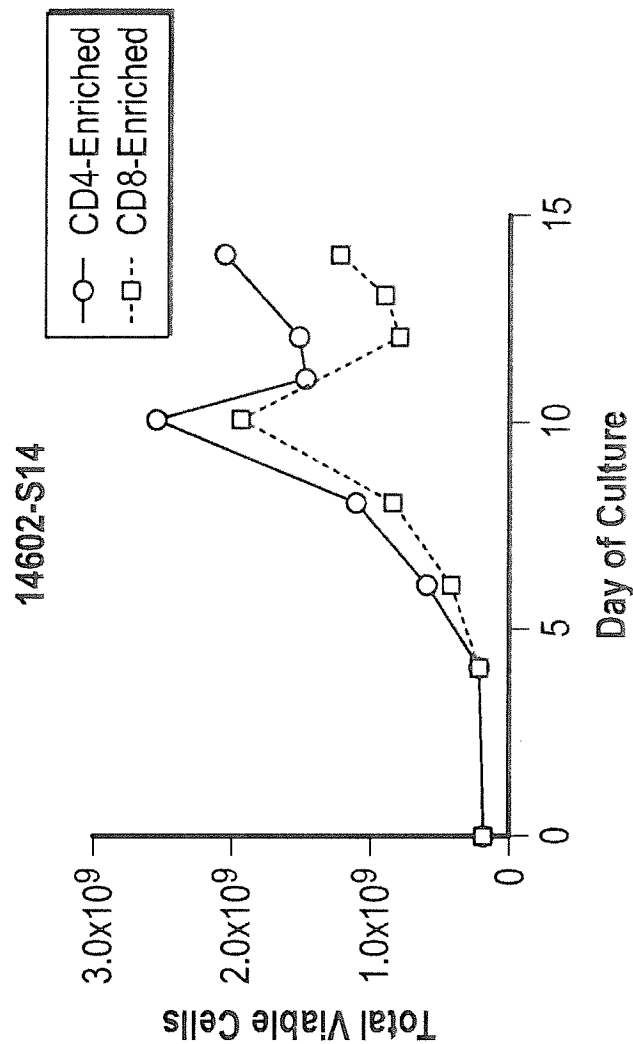
Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S12 CD4	98.7	98.7		97.3
14602-S12 CD8	99.8		99.8	94

FIG. 36C



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S13 CD4	99.8	99.8		95.9
14602-S14 CD8	99.8		99.8	97

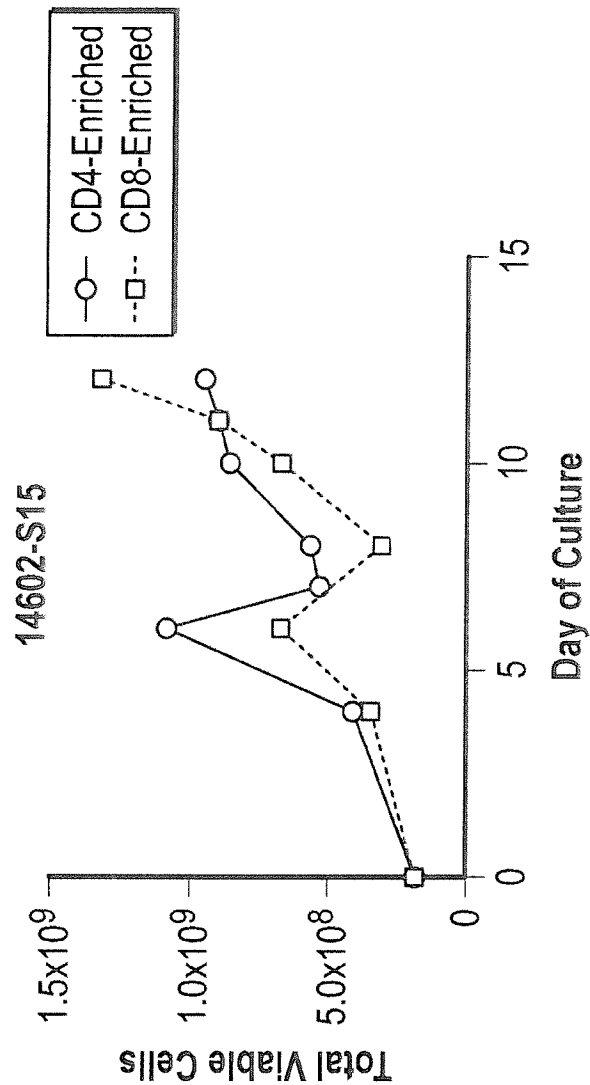
FIG. 36D



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)	CD3	CD4+CD8- (of CD3)
14602-S14 CD4	99.4	99.4		98.4	99.8	99.5
14602-S14 CD8	99.4		99.2	95.1	99.8	0

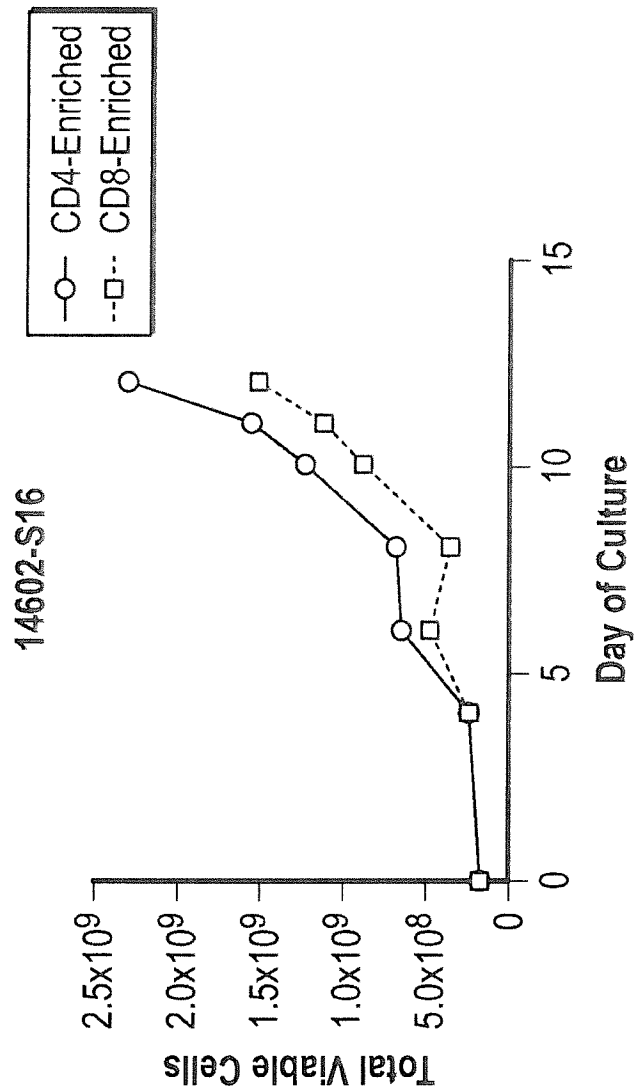
CD4-CD8+ (of CD3)	CD62L	total CD28 (from CD28/CD3)	CD27	CD127	CD45RA+/ CD45RO-	CD45RA+
0	85.3	99.4	98.3	82.5	71.3	94.1
99.5	76.1	73.6	99.4	67	63.6	96.8

FIG. 37A



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S15 CD4	98.1	98		97.7
14602-S15 CD8	98.4		97.9	96.2

FIG. 37B



Product ID	Total EGFRt+ (pre-cryo)	CD4+/EGFRt+ (pre-cryo)	CD8+/EGFRt+ (pre-cryo)	Total EGFRt+ (release testing)
14602-S16 CD4	96.9	96.9		96.3
14602-S16 CD8	96.2		95.8	94.9

FIG. 37C

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14602 CD4 Enriched Extended Phenotype

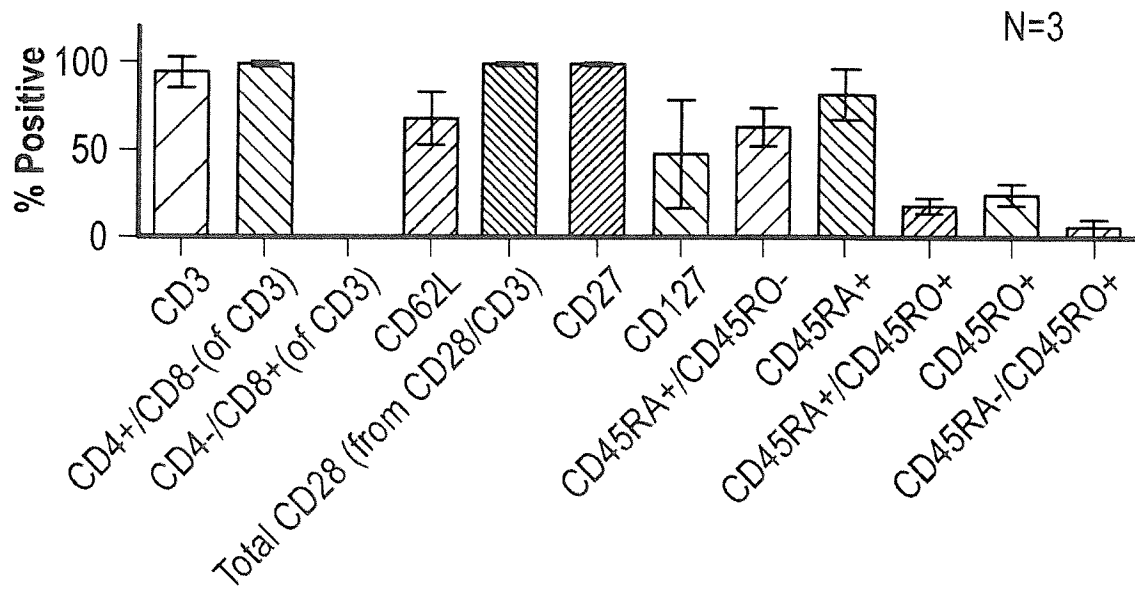


FIG. 38A

14602 CD8 Enriched Extended Phenotype

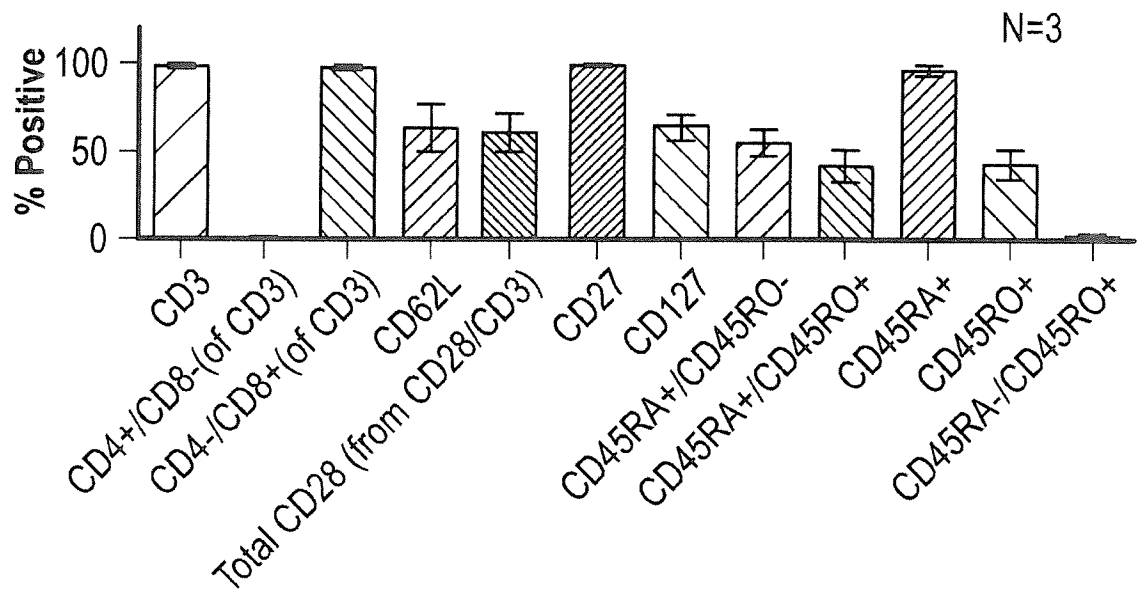


FIG. 38B

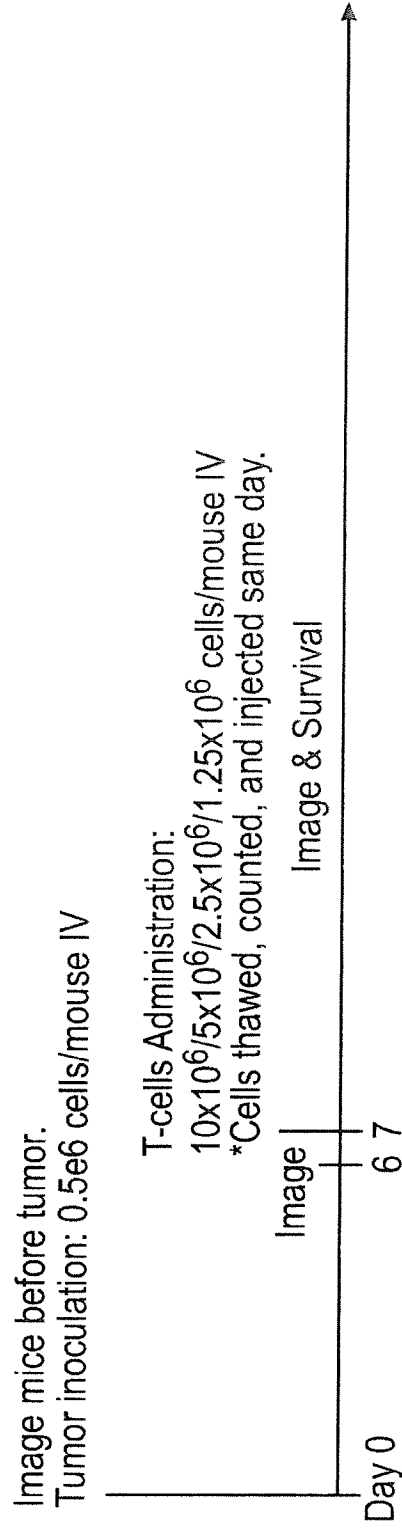


FIG. 39A

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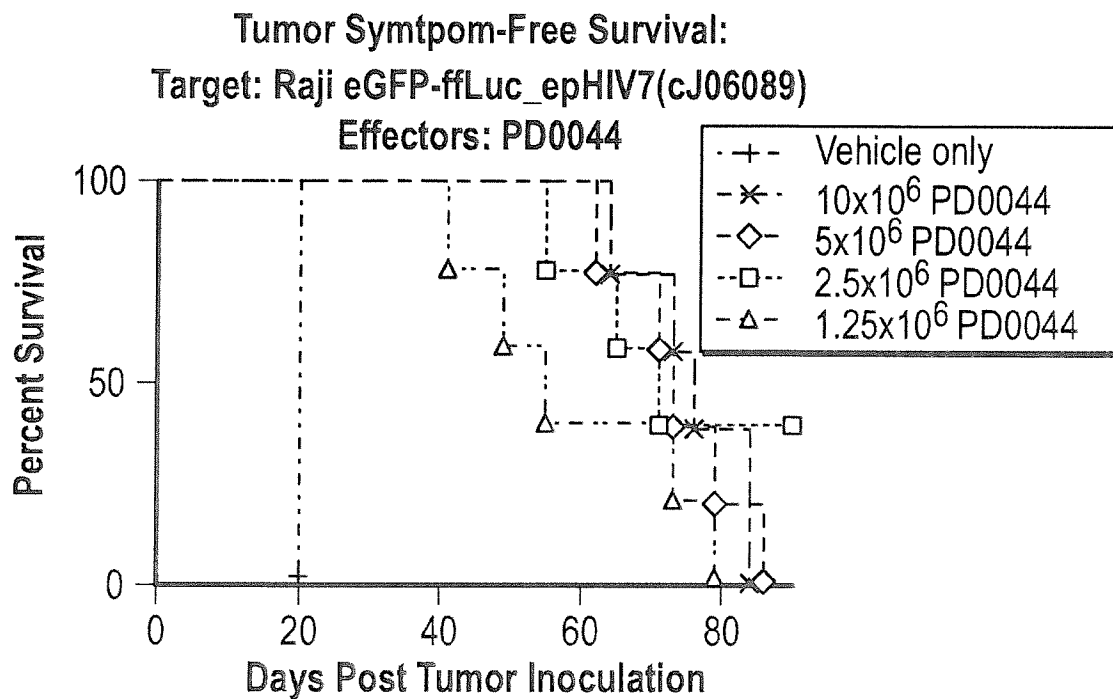


FIG. 39B1

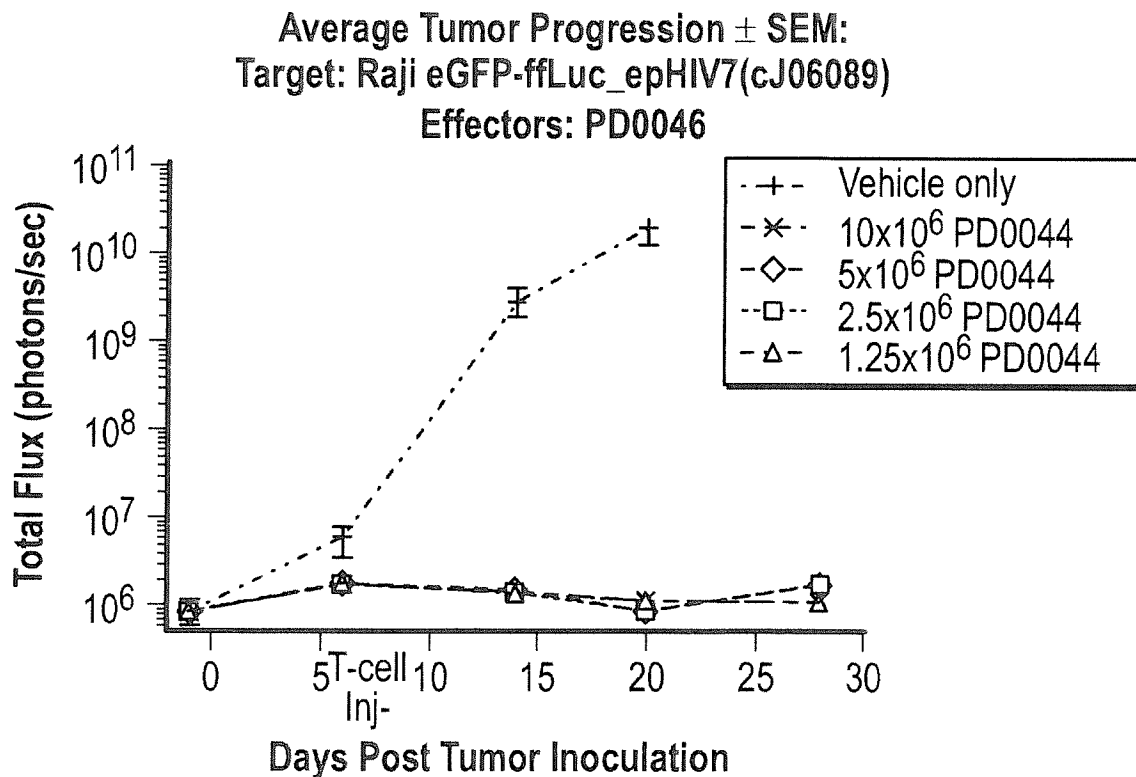


FIG. 39B2

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Average Tumor Progression $\pm$ SEM:
Target : Raji eGFP-ffLuc_epHIV7(cJ06089)
Effector : PD0044

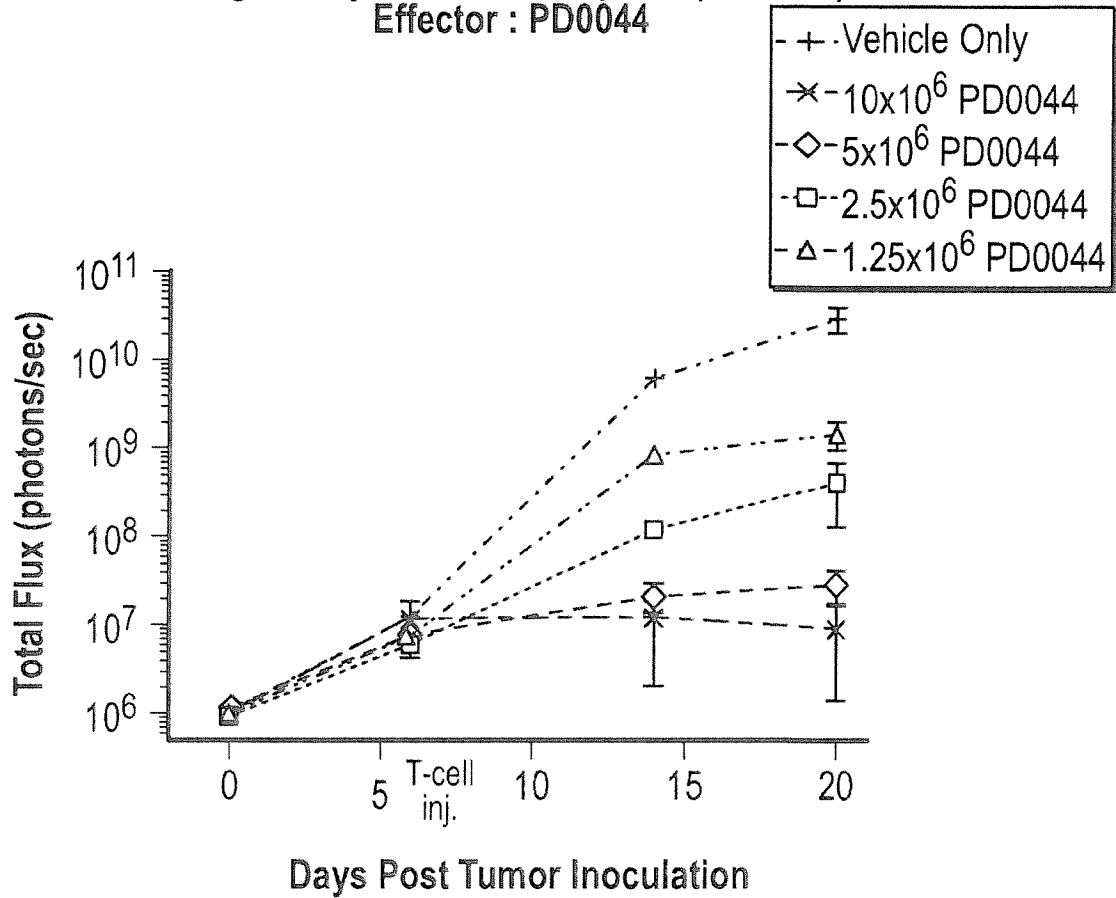


FIG. 40A

Average Tumor Progression $\pm$ SEM:
Target : Raji eGFP-ffLuc_epHIV7(cJ06089)
Effector : PD0046

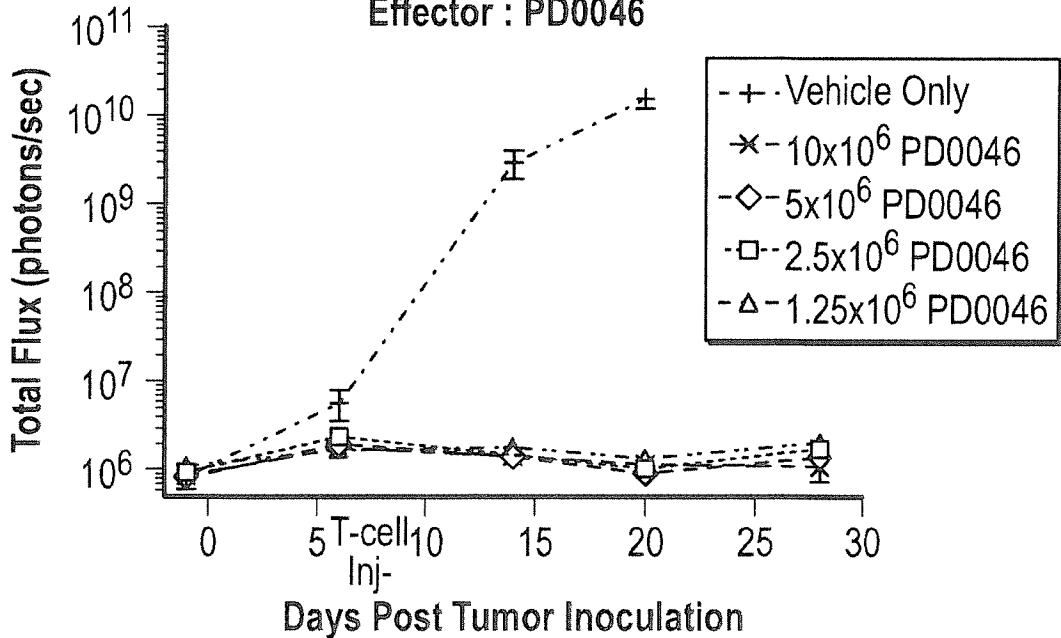
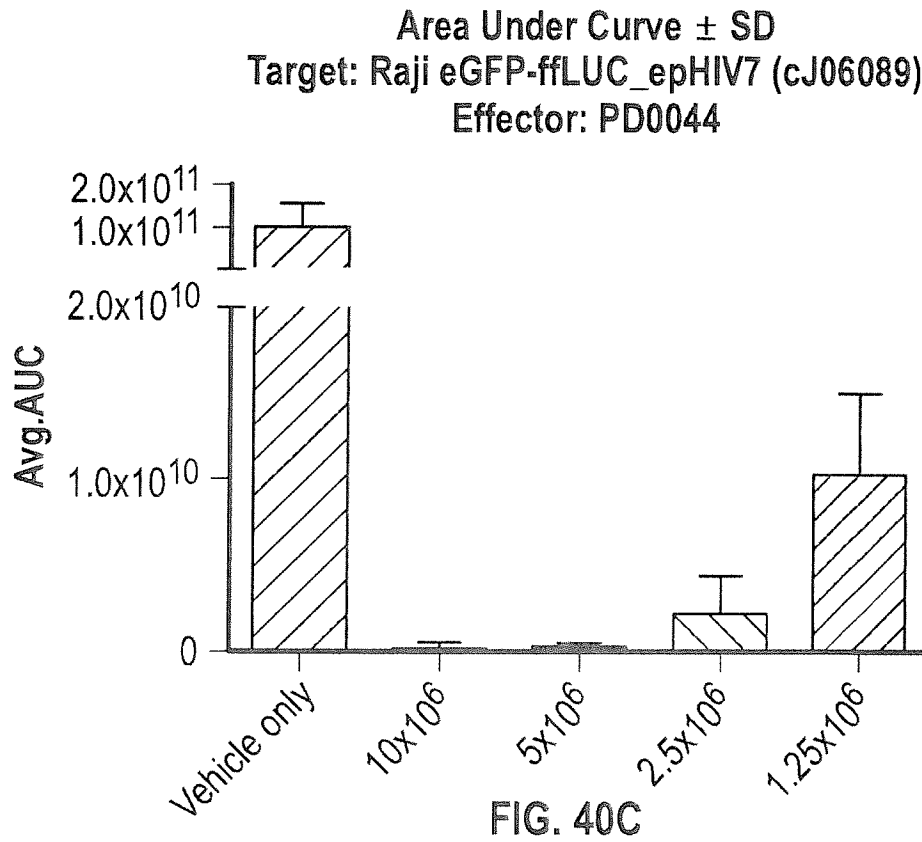
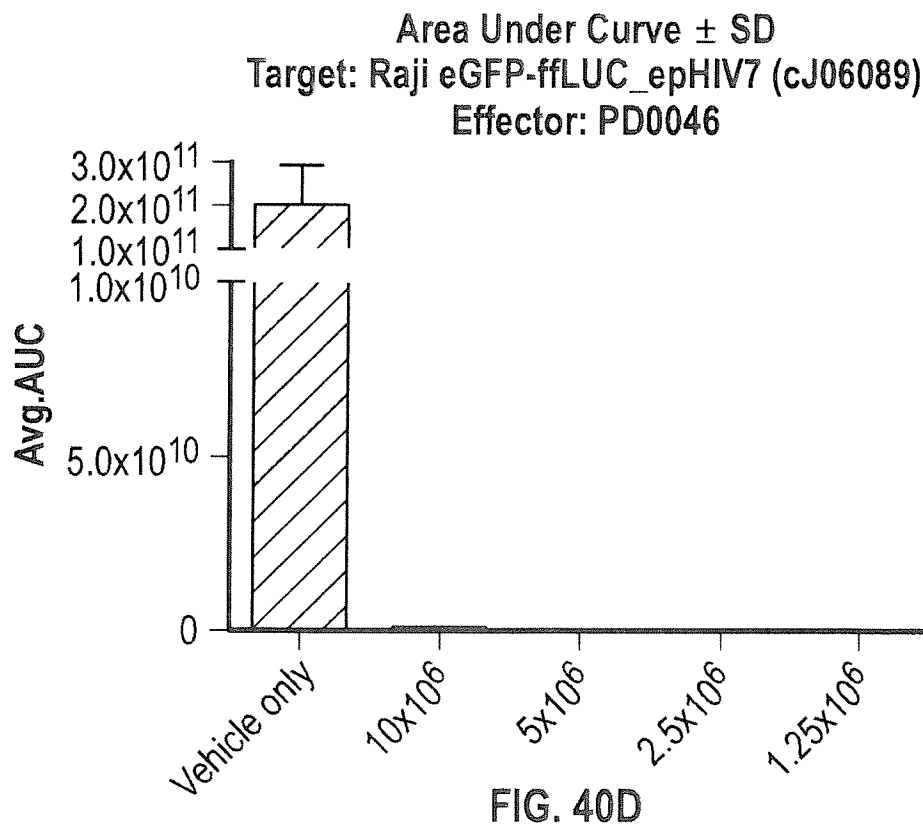


FIG. 40B

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JME13-25: Cytokine Growth Conditions

AIM(S):

1. Determine if there is an in vivo difference in killing ability between cells that have been grown in various cytokine conditions in vitro.

EXPERIMENTAL SET-UP:

(n=5 per group)

Group A: PBS only

Group B: "Normal" 1:1 EGFRt+ CD4:CD8 transduced With Zrx-014

PD0055 #1 (Donor PD0038 CD4 with 5ng/ml IL7 & 0.5ng/ml IL15, S1D14 @ 75.9% EGFRt+)

PD0051 #1 (Donor PD0038 CD8 with 50U/ml IL2 & 0.5ng/ml IL15, S1D21 @ 76.8% EGFRt+)

Group C: "Pulsed" 1:1 EGFRt+CD4:CD8 transduced with Zrx-014

PD0055 #2 (Donor PD0038 CD4 with 50U/ml IL2 pulse 5 days, then 5ng/ml IL7 & 5ng/ml IL21, S1D11 @ 81.2% EGFRt+)

PD0051 #2 (Donor PD0038 CD8 with 50U/ml IL2 pulse 5 days, then 5ng/ml IL7 & 5ng/ml IL21, S1D21 @ 89.5% EGFRt+)

*Note: Cells thawed, counted, and injected same day

Image mice before tumor

Tumor inoculation: 0.5e6 cells/mouse IV

T-cell Administration: 2.5x10e6cells/mouse IV

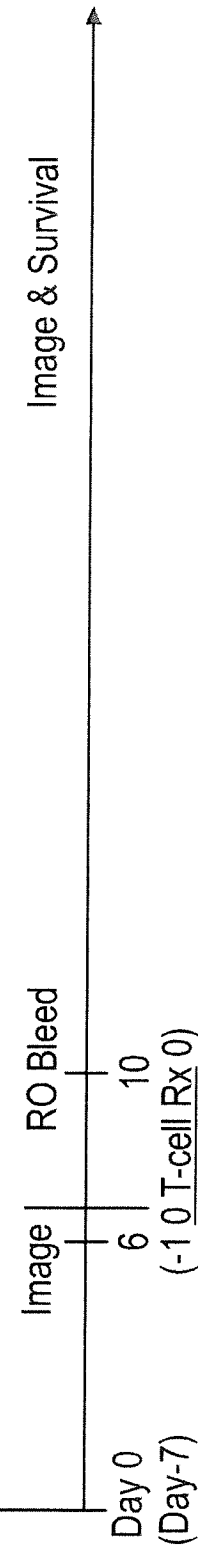
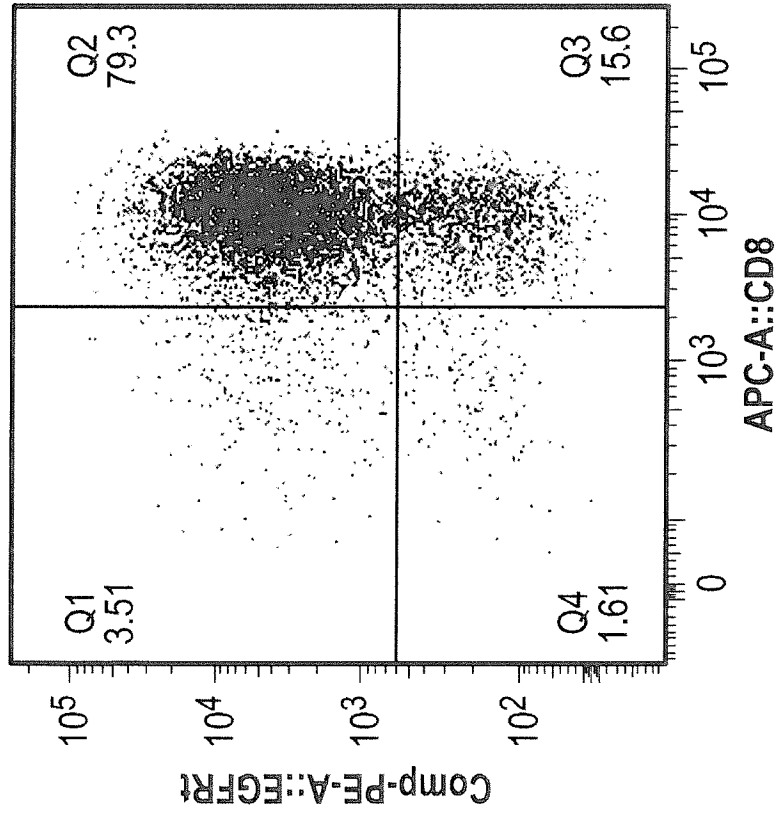


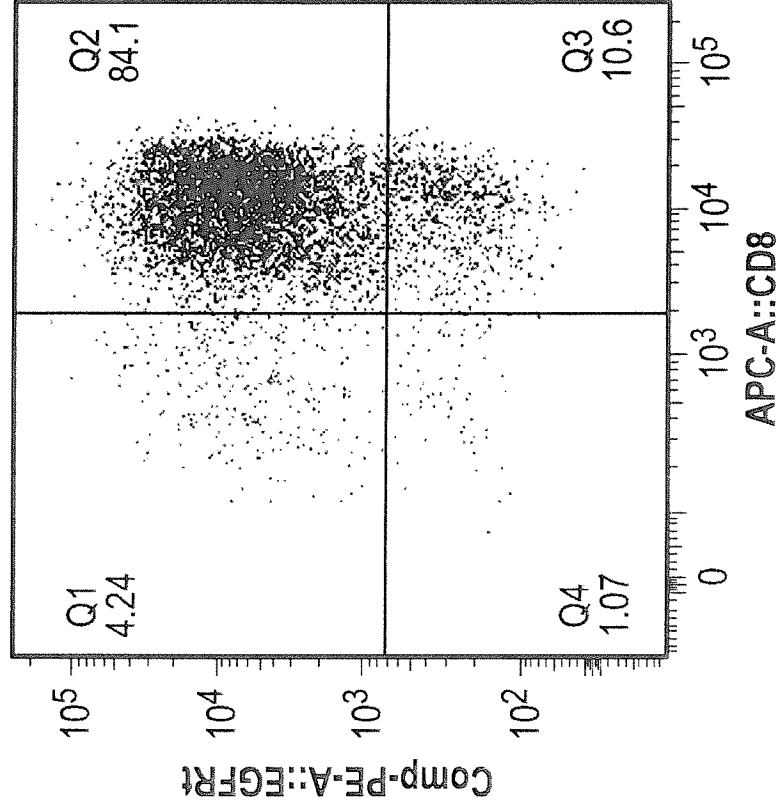
FIG. 41

JME13-25:Cytokine Growth Conditions
FACS Analysis on Cells Post Thaw that were Used for Injection into Mice in JME13-25



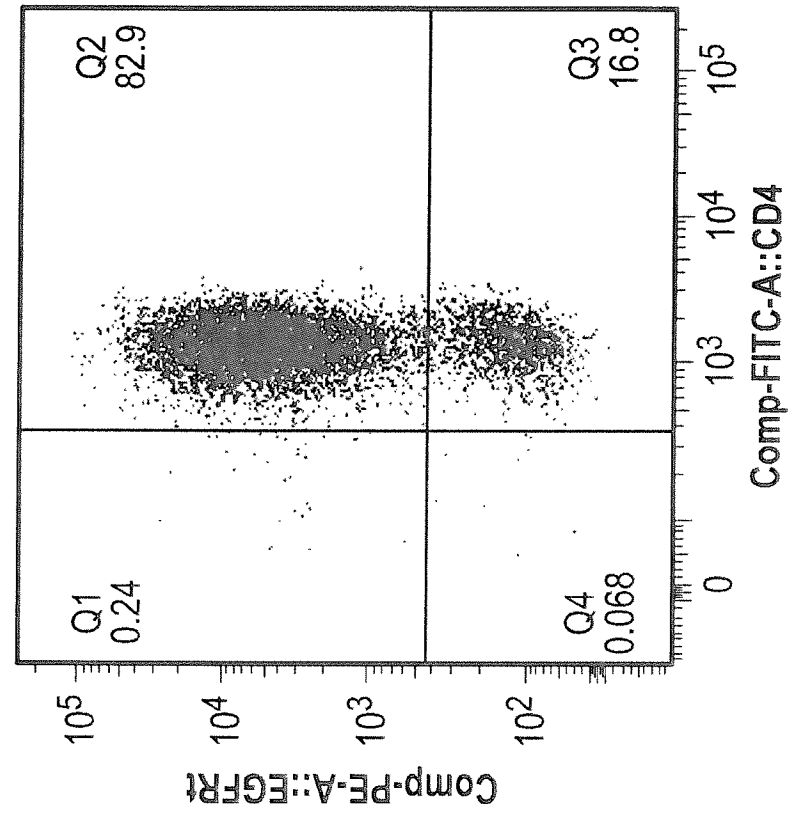
PD T Cells-CJ06641 CD8 Normal_008.fcs
Singlets
8115

FIG. 42A



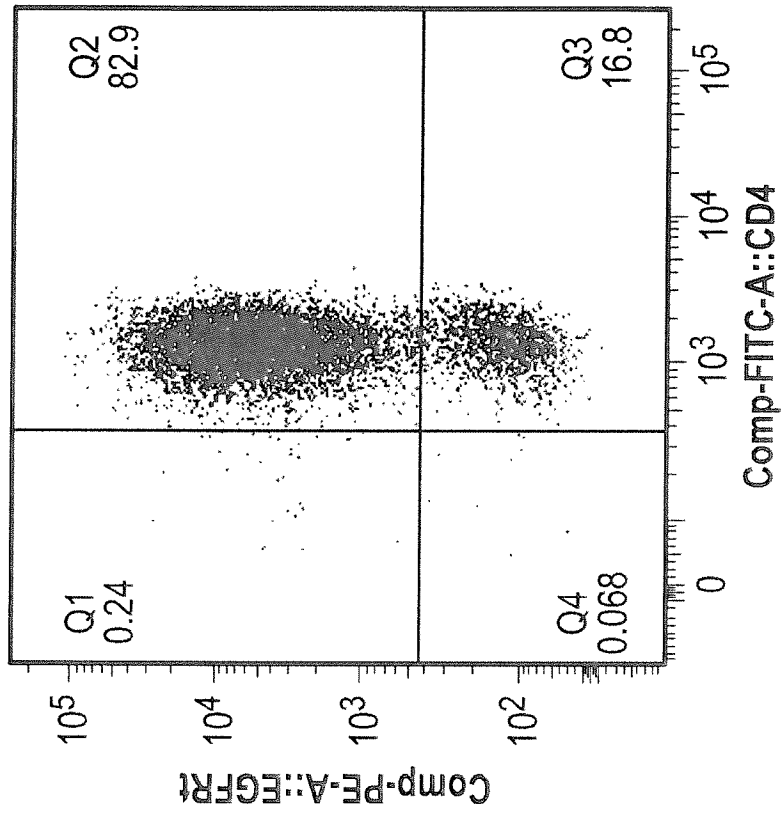
PD T Cells-CJ06642 CD8 Pulsed_009.fcs
Singlets
6277

FIG. 42B



PD T Cells-CJ06643 CD4 Normal_006.fcs
Singlets
8722

FIG. 42C



PD T Cells-CJ06645 CD4 Pulsed_007.fcs
Singlets
8828

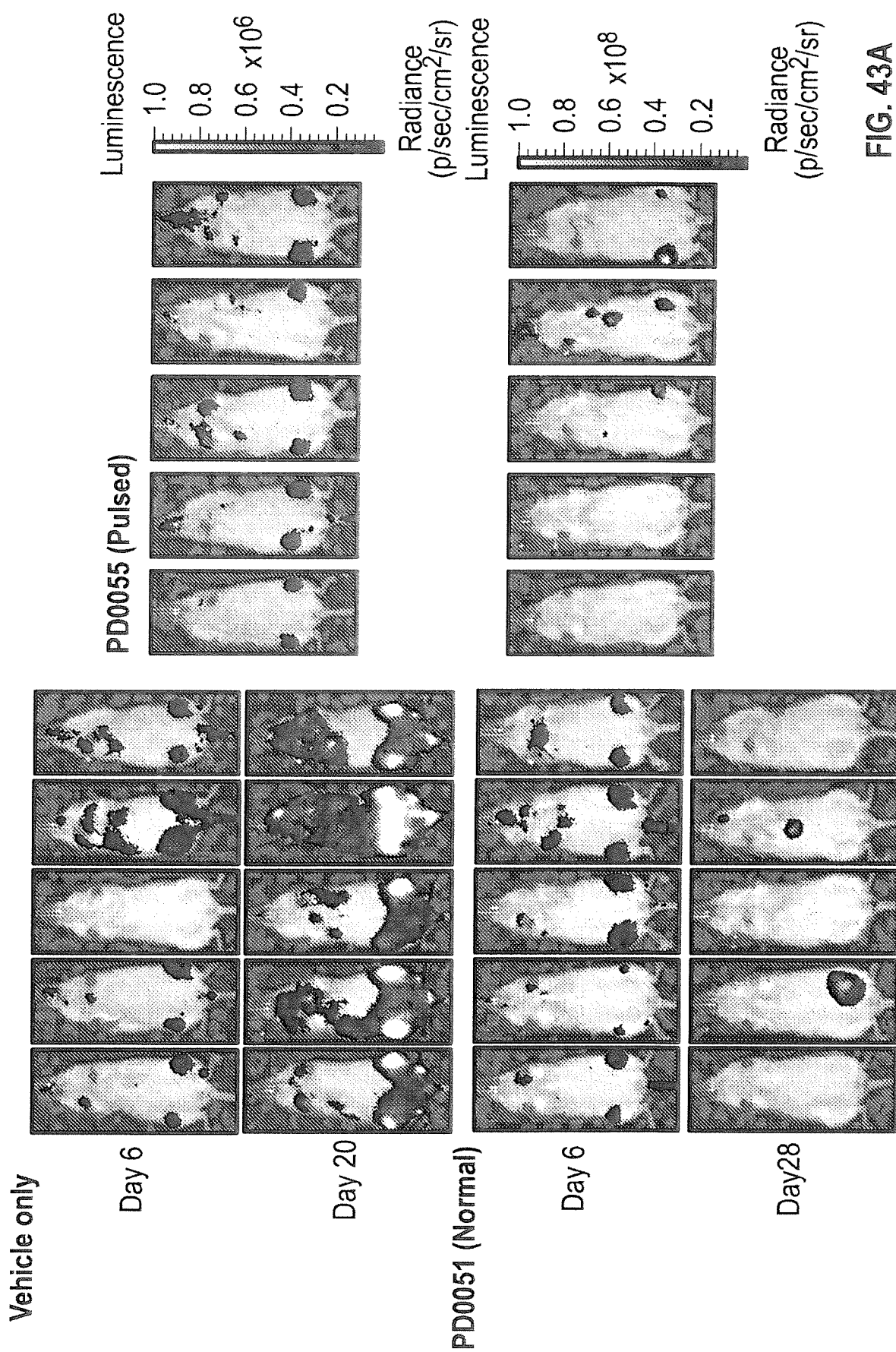
FIG. 42D

Cell Thawed out with Similar %EGFR⁺

cJ#	Cell Line	Day of Freezing EGFR ⁺	Day of Thaw EGFR ⁺
cJ06641	PD0051 #1 (CD8 in IL2/IL15)	76.8%	78.3%
cJ06642	PD0051 #2 (CD8 in IL2 pulse, IL7/IL21)	89.5%	84.1%
cJ06643	PD0055 #1 (CD4 in IL7/IL15)	75.9%	77.0%
cJ06645	PD0055 #2 (CD4 in IL2 pulse, IL7/IL21)	81.2%	82.9%

Samples collected on mixed samples left over from preparation for injection into mice.
Data acquired but not analyzed.

FIG. 42E



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Average Tumor Progression $\pm$ SEM:
Target: Raji eGFP-ffLuc_epHIV7 (cJ06089)
Effector: PD0051 VS PD0055

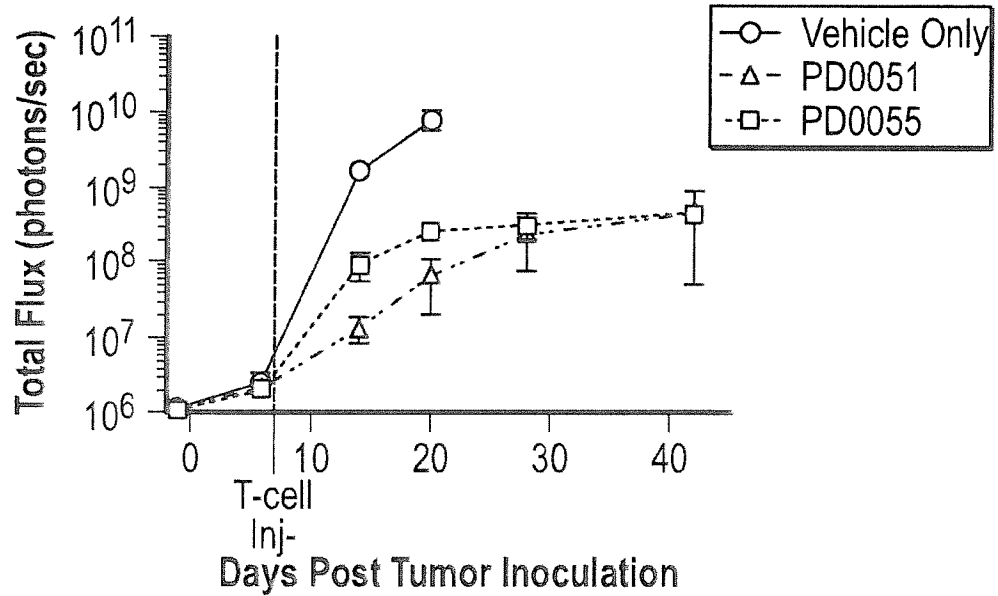


FIG. 43B

Tumor Symptom-free Survival:
Target: Raji eGFP-ffLuc_epHIV7 (cJ06089)
Effectors: PD0051 vs PD0055

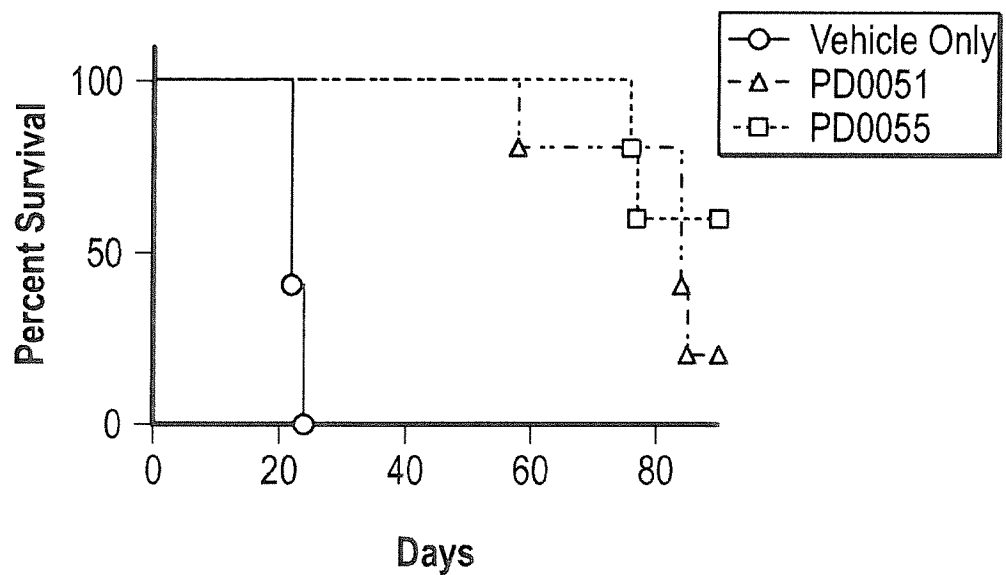


FIG. 43C

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T-Cell Persistence in Peripheral Blood 3 Days After CTL

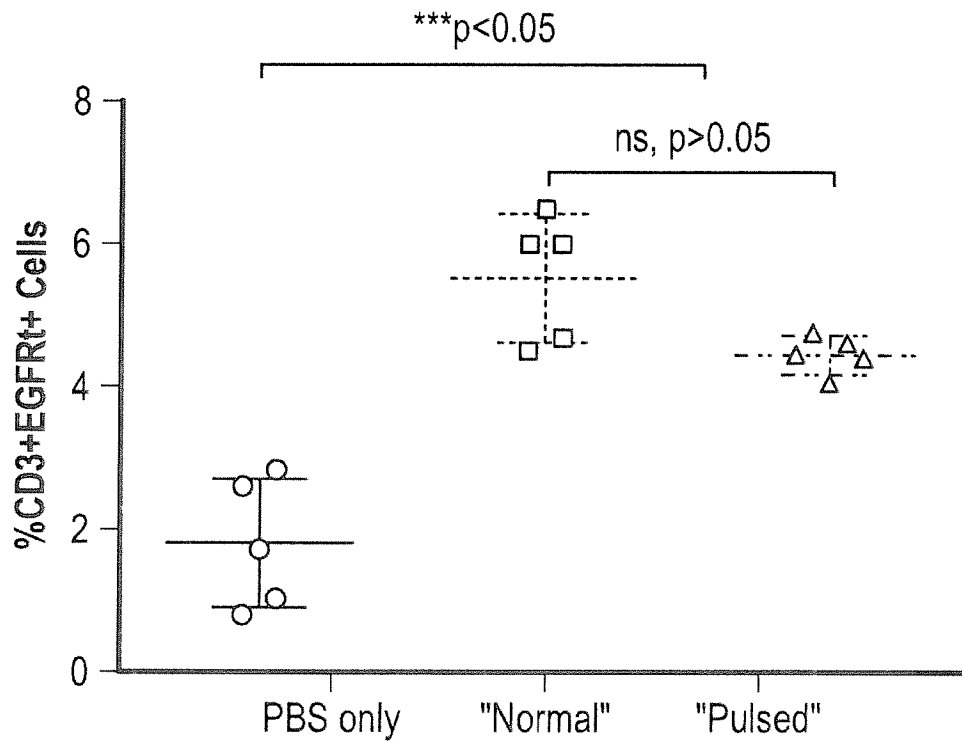


FIG. 44A

CD4 T-Cell Persistence in Peripheral Blood 3 Days After T-Cell Transfer

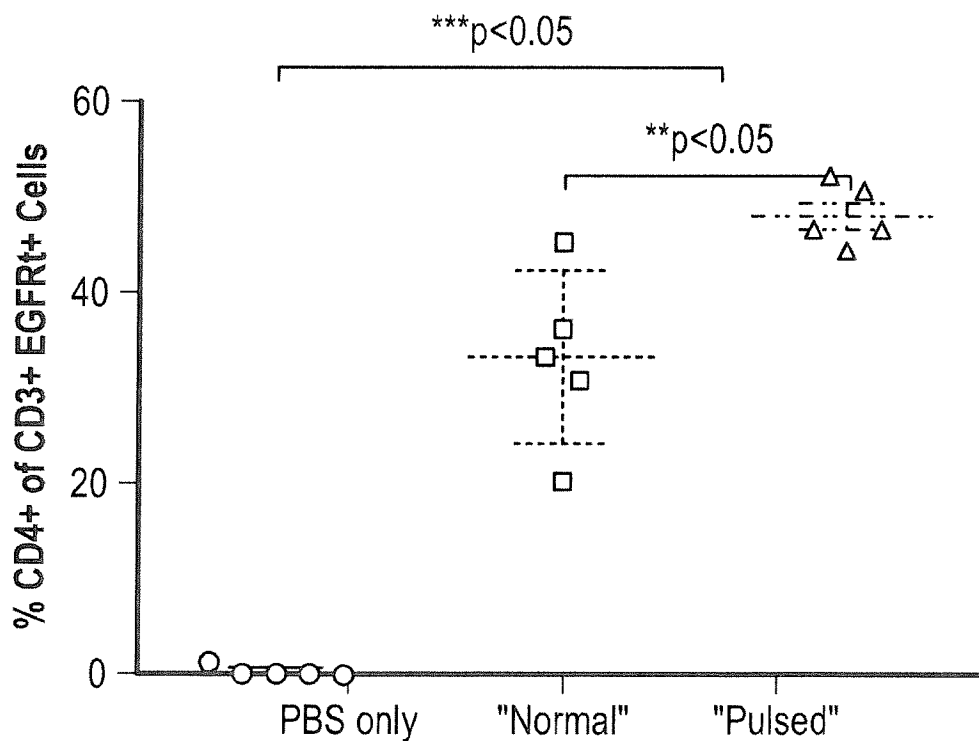
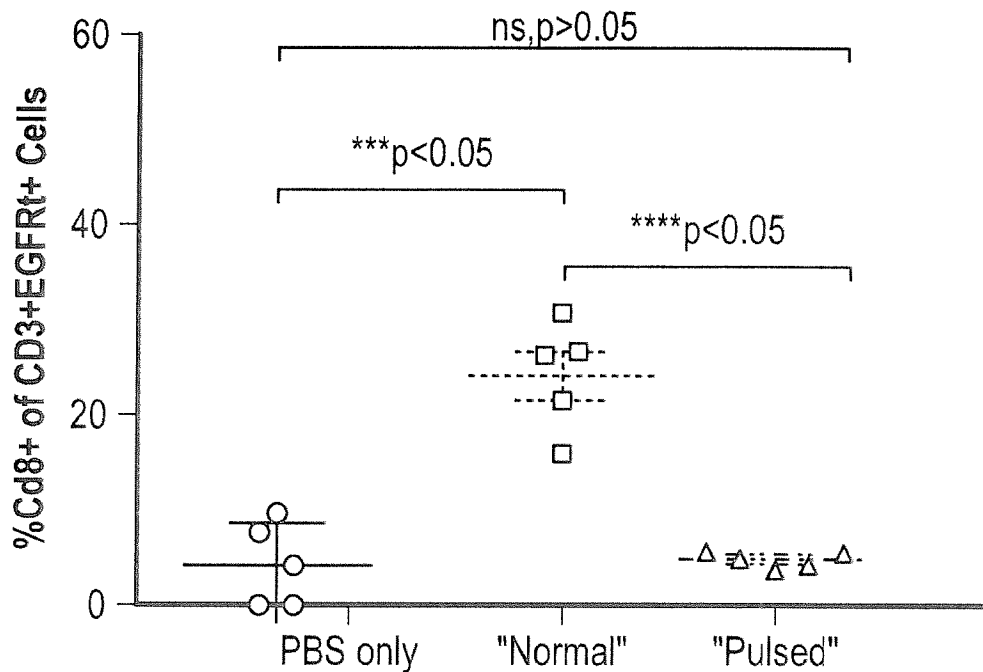


FIG. 44B

CD8 T-Cell Persistence in Peripheral Blood 3 Days After T-Cell Transfer



Caveats to Note:

- This staining is prior to inclusion of the Live/Dead stain and switching from CD3 to CD45 in optimized mouse panel.
- Lymphocyte gate is not confirmed.
- EGFRt staining in Cd3- population.
- CD4-CD8- population is present in CD3+EGFRt+ population.

FIG. 44C

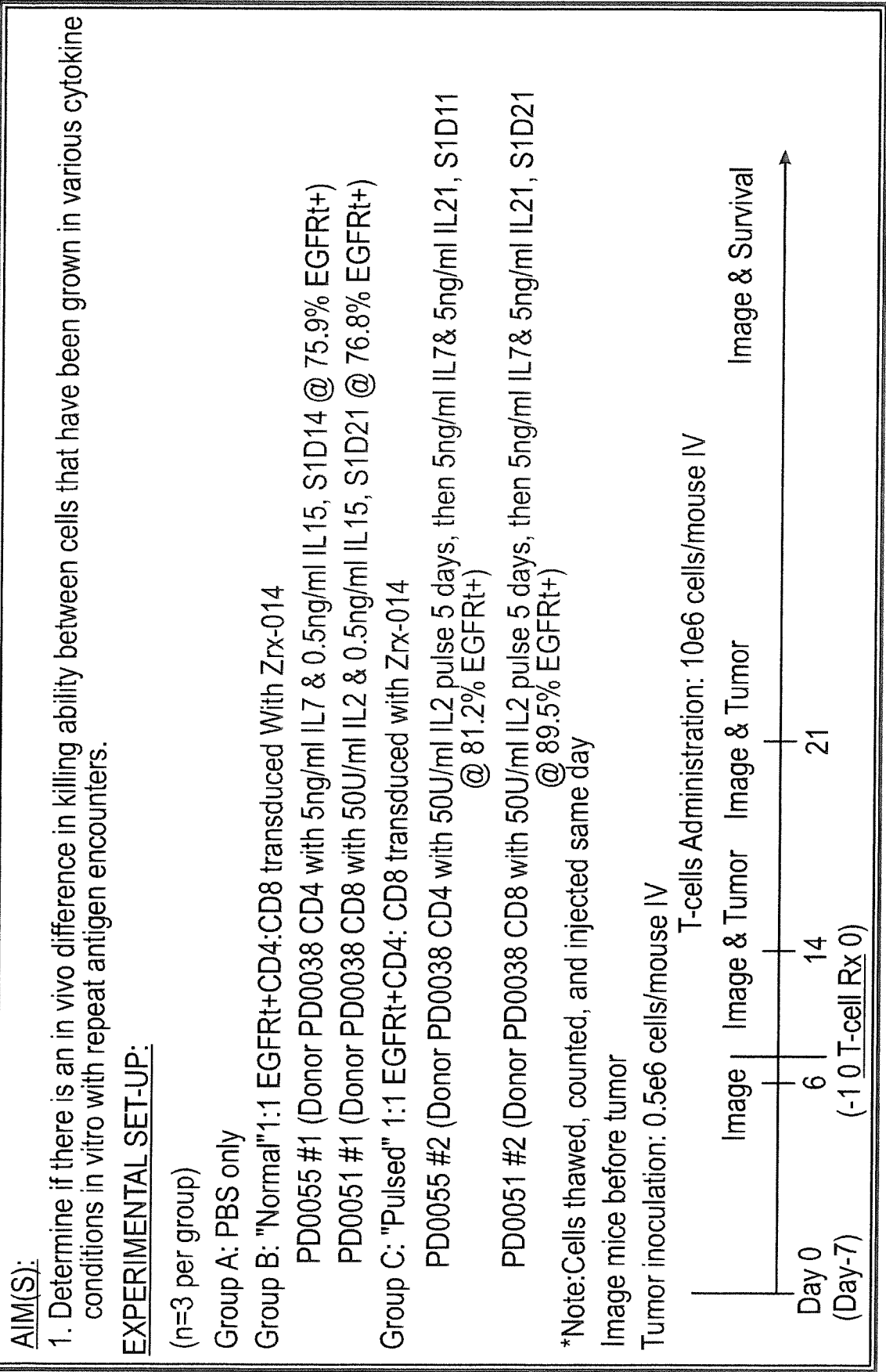


FIG. 45

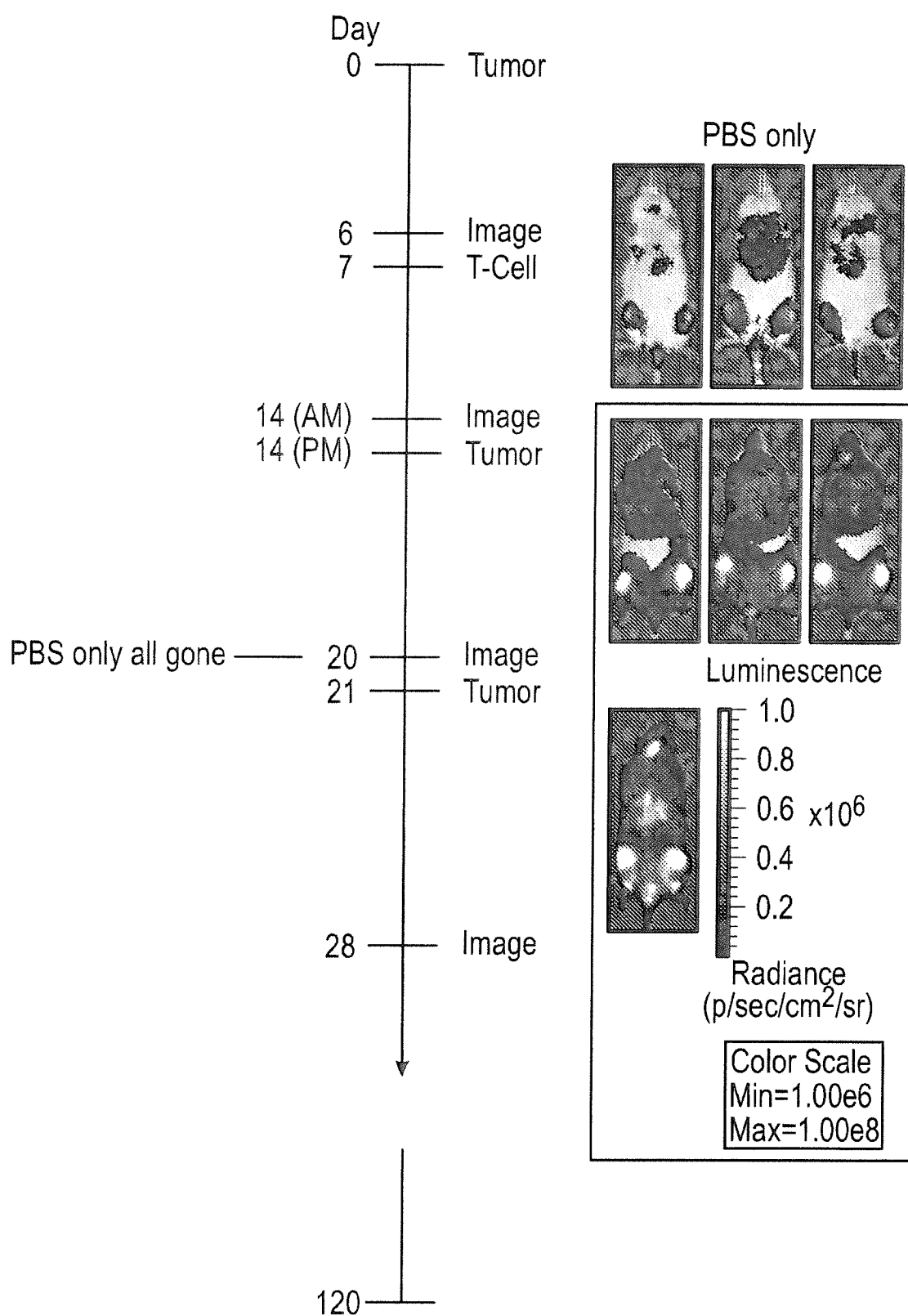


FIG. 46A

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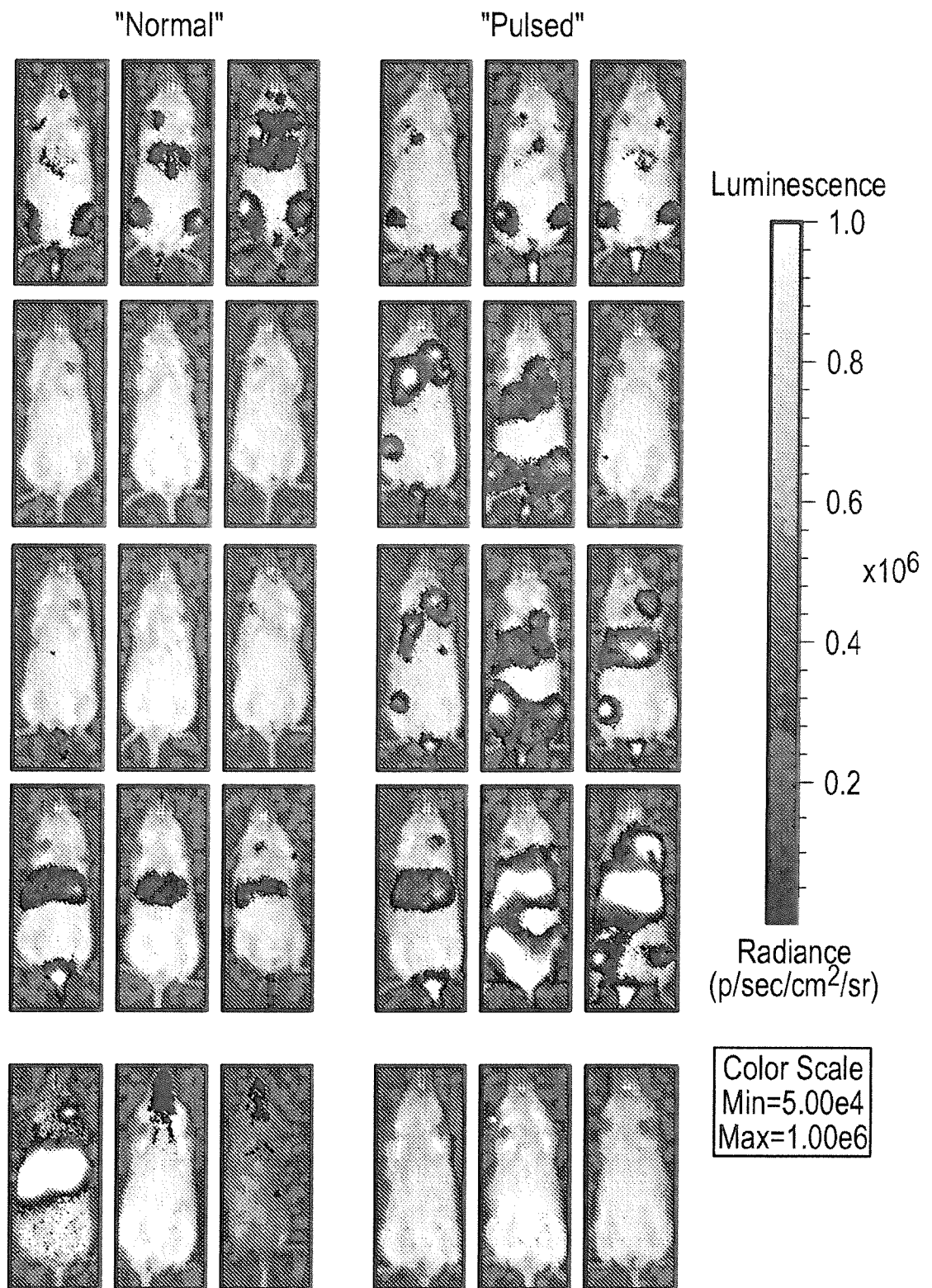


FIG. 46B

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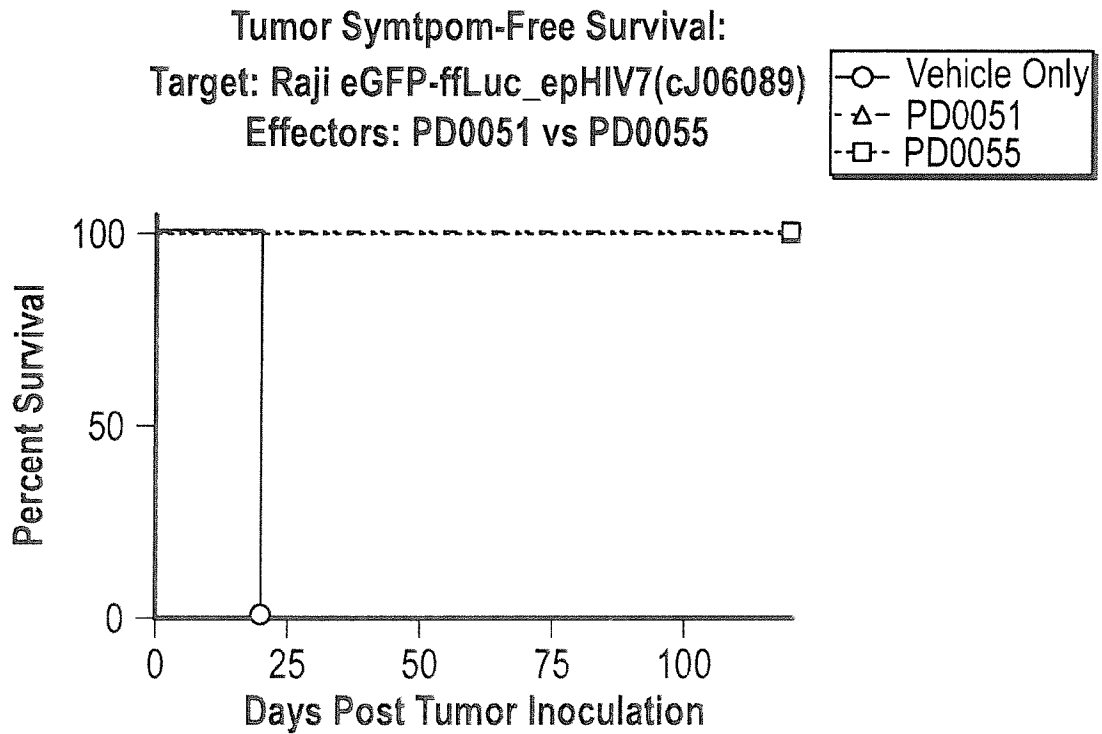


FIG. 47A

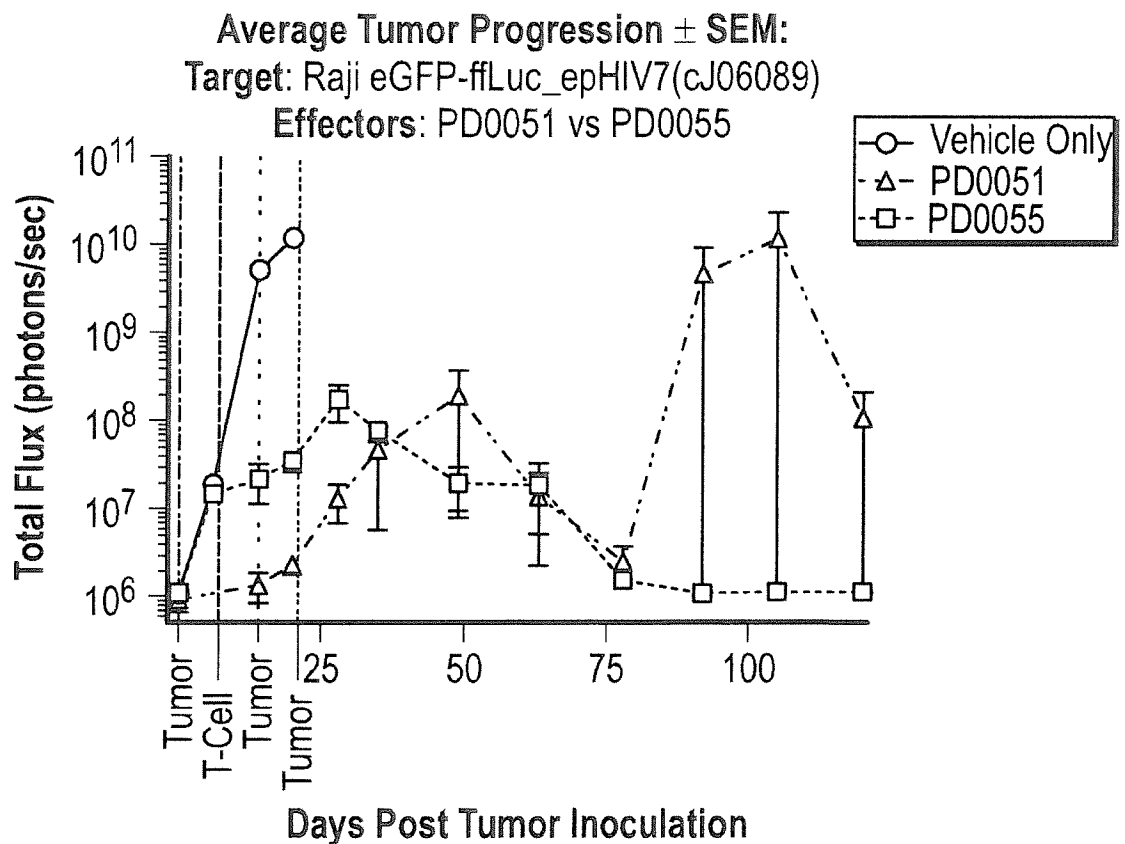


FIG. 47B

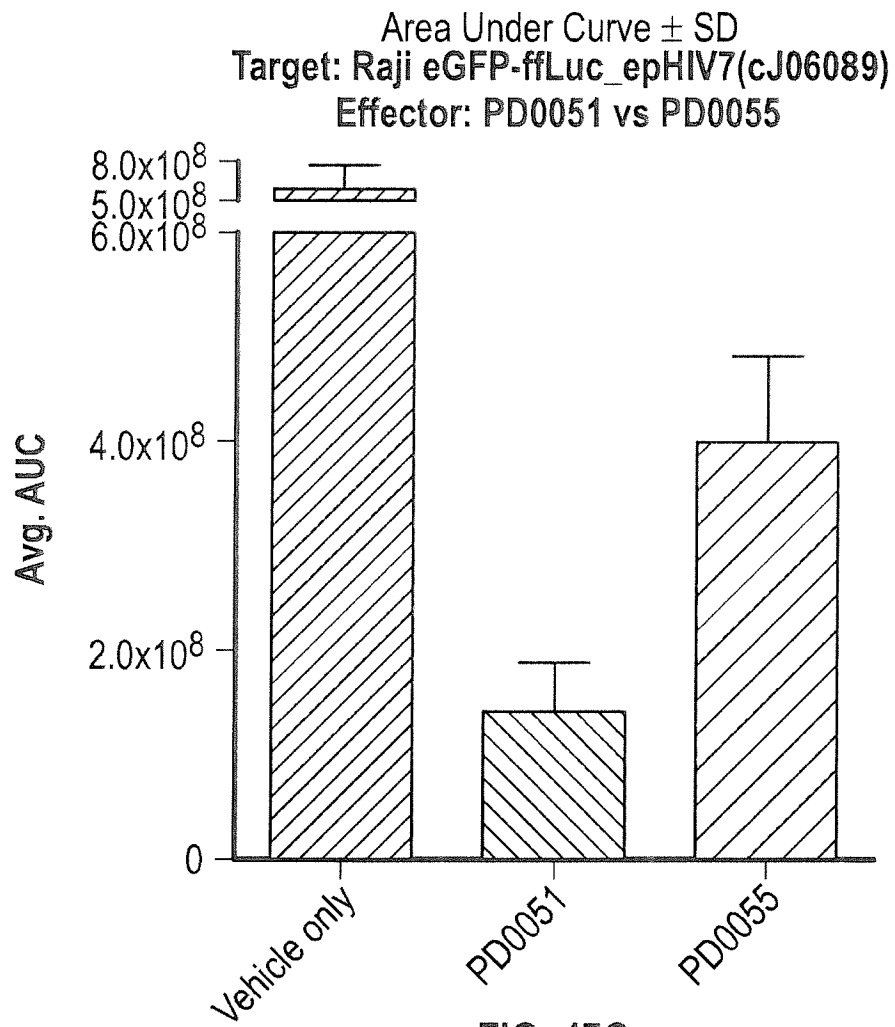


FIG. 47C

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Average Tumor Progression $\pm$ SEM:
Target: Raji eGFP-ffLuc_epHIV7(cJ06089)
Effector: PD0051 vs PD0055

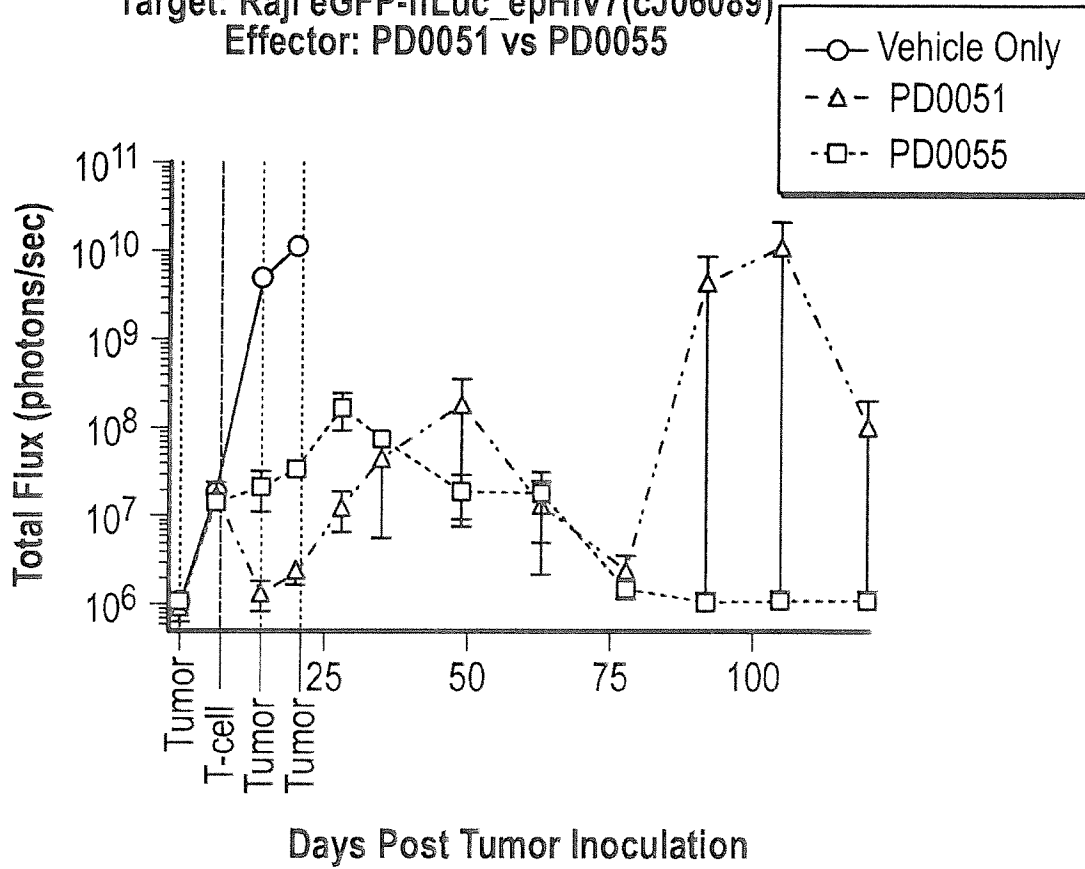


FIG. 48A

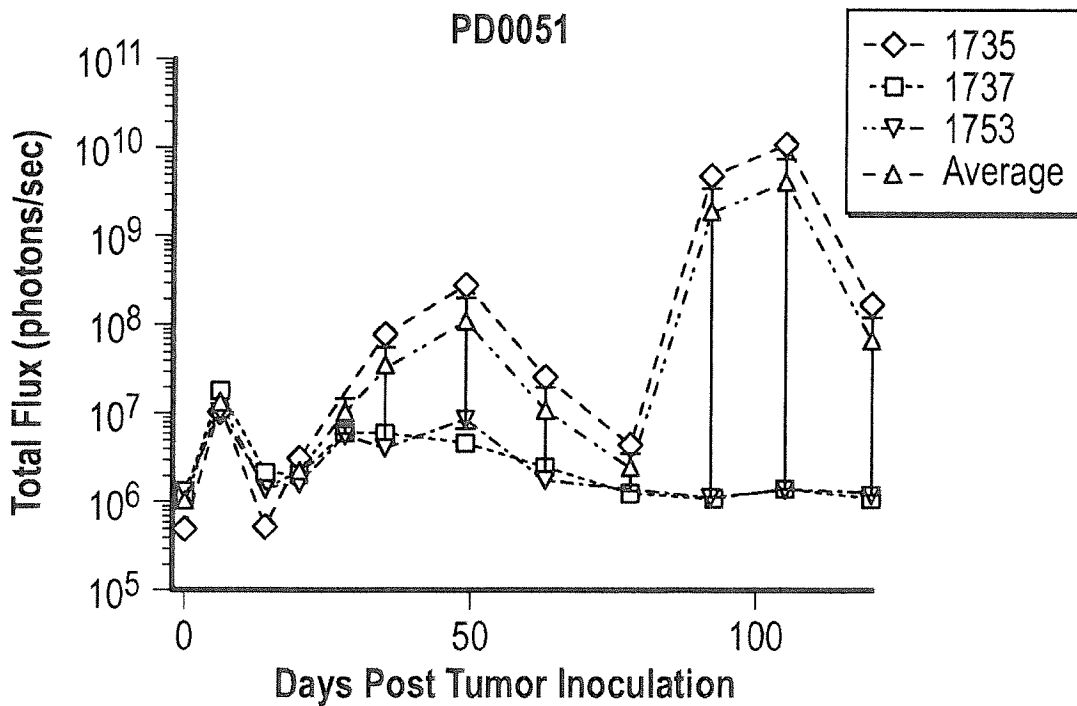


FIG. 48B

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PD0055

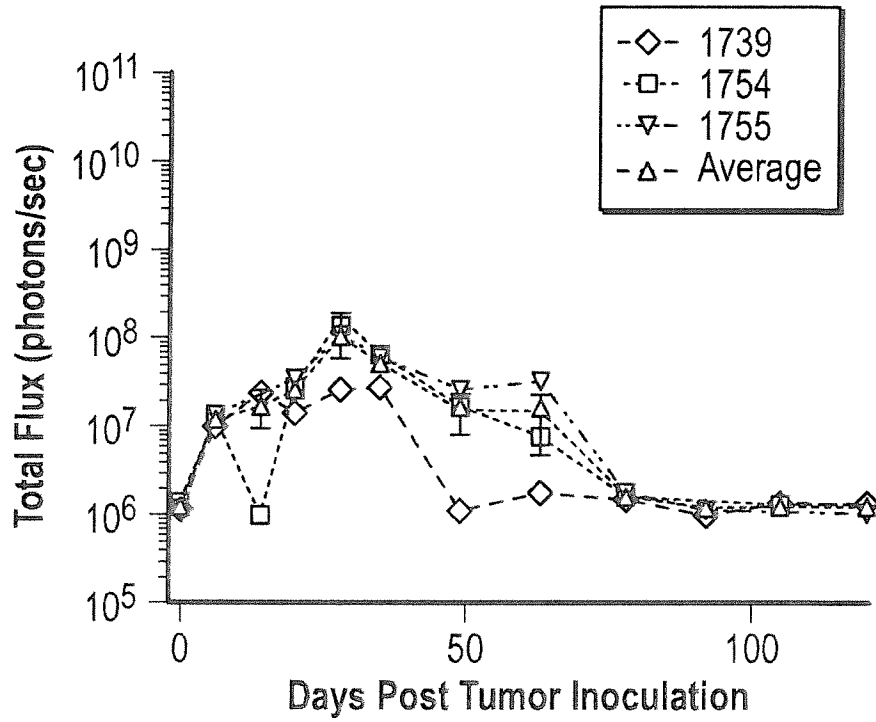


FIG. 48C

Experiment Timeline

Day 0: Tumor Inoculation

Day 6: Image mice

Day 7: T-cell administration

Day 14(AM): Image mice

Day 14(PM): Tumor Inoculation

Day 20: Image mice

Day 21: Tumor Inoculation

Day 28, 35, 49, 63, 78, 92, 105, 120: Image mice

FIG. 48D

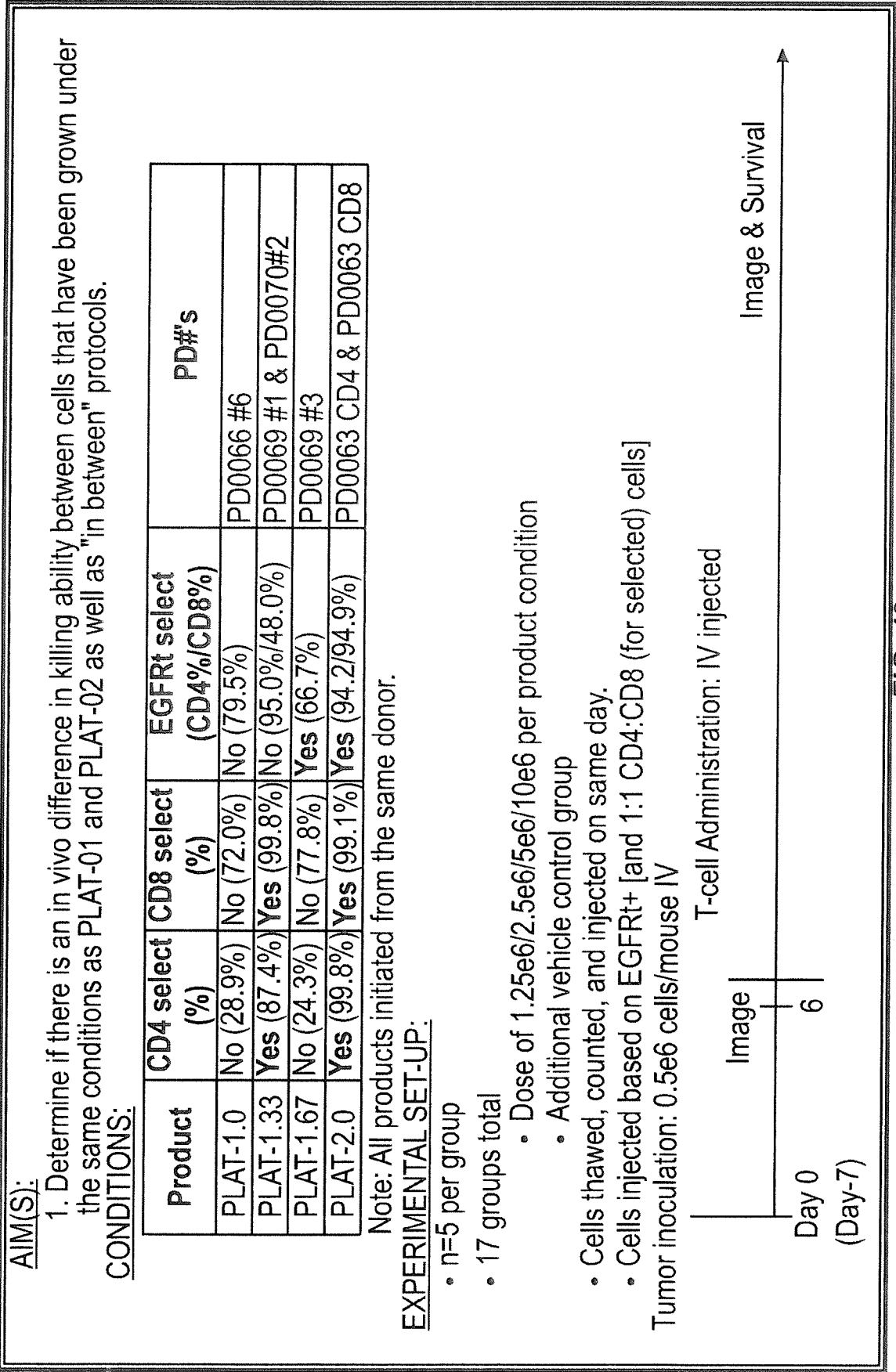


FIG. 49

Product	CD4 select (%)	CD8 select (%)	EGFRt select (CD4%/CD8%)	PD#'s
PLAT-1.0	No (28.9%)	No (72.0%)	No (79.5%)	PD0066 #6
PLAT-1.33	Yes (87.4%)	Yes (99.8%)	No (95.0%/48.0%)	PD0069 #1 & PD0070#2
PLAT-1.67	No (24.3%)	No (77.8%)	Yes (66.7%)	PD0069 #3
PLAT-2.0	Yes (99.8%)	Yes (99.1%)	Yes (94.2/94.9%)	PD0063 CD4 & PD0063 CD8



1. Data from PLAT-1.33 is questionable as although the cells were selected for CD4 and CD8, the final %EGFRt+CD8 cells appears unusually low at 48%.
2. Data from PLAT-1.67 is questionable as final %EGFRt+ is only 66.7% even though bulk cells underwent mid-process enrichment for EGFRt.
3. Animals receiving PLAT-2.0 cells developed xGvHD in both the 10 million and 5 million dose groups with the first group coming mid-study as a result of the xGvHD and the later group being confirmed for xGvHD both by physical observation and persistence of T-cells by FACS analysis of bone marrow.

FIG. 50

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Average Tumor Progression $\pm$ SD: PLAT-1.00 Dose Titration

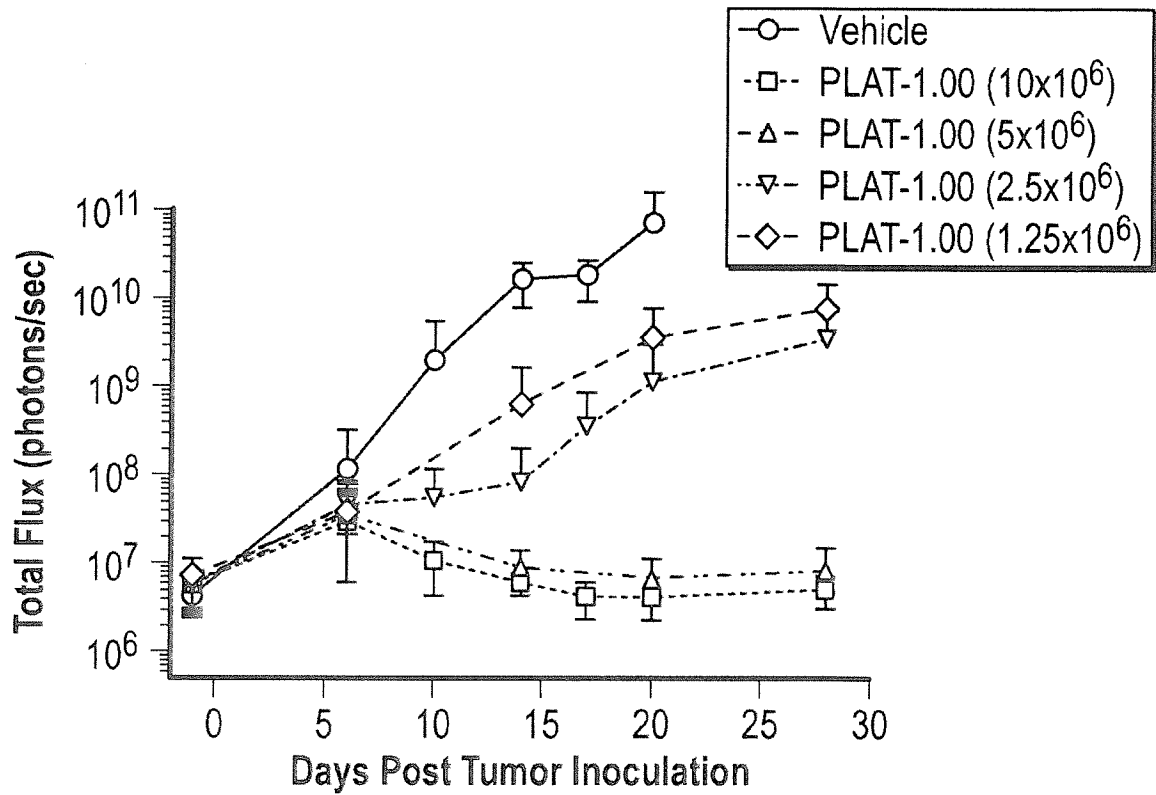


FIG. 51A

Average Tumor Progression $\pm$ SD: PLAT-2.00 Dose Titration

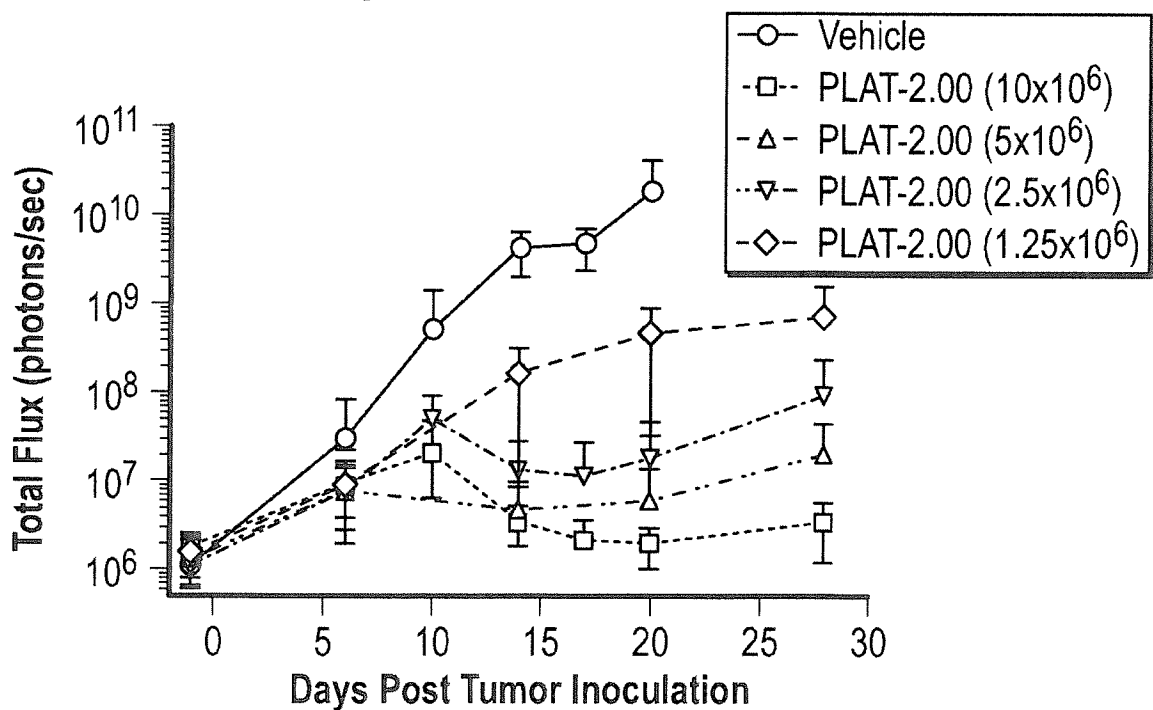


FIG. 51B

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Average Tumor Progression $\pm$ SD: PLAT-1.33 Dose Titration

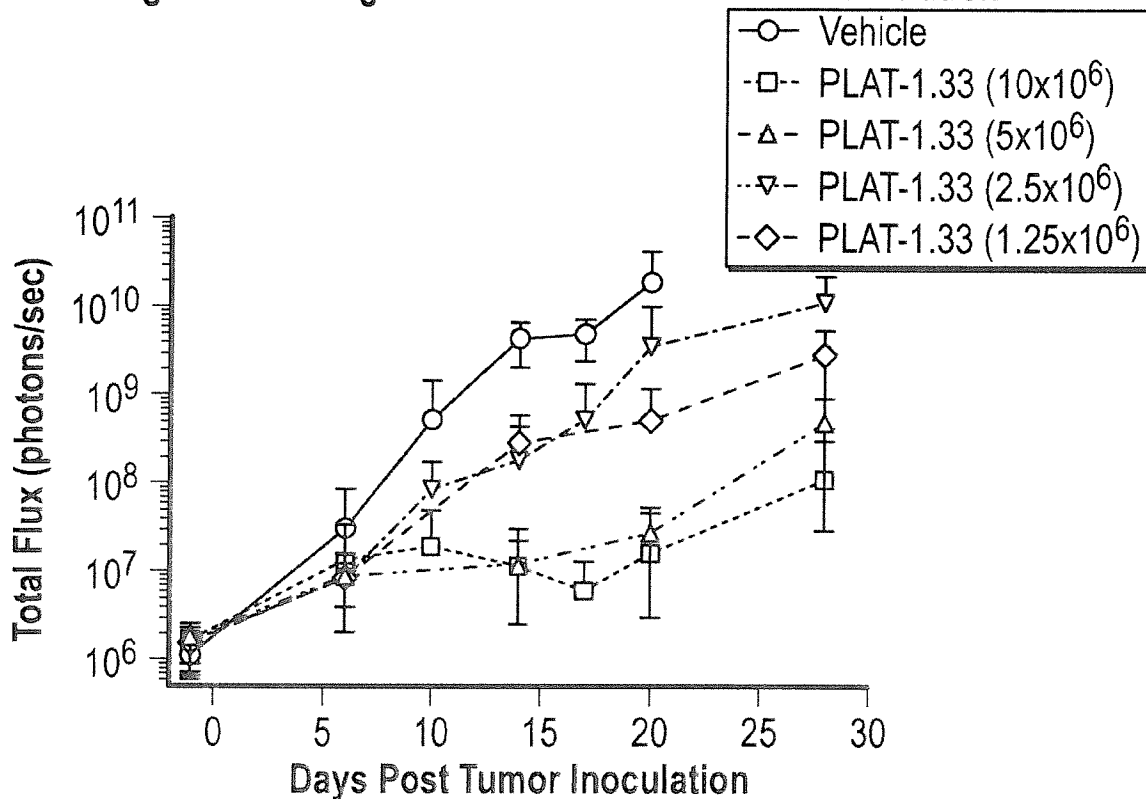


FIG. 51C

Average Tumor Progression $\pm$ SD: PLAT-1.67 Dose Titration

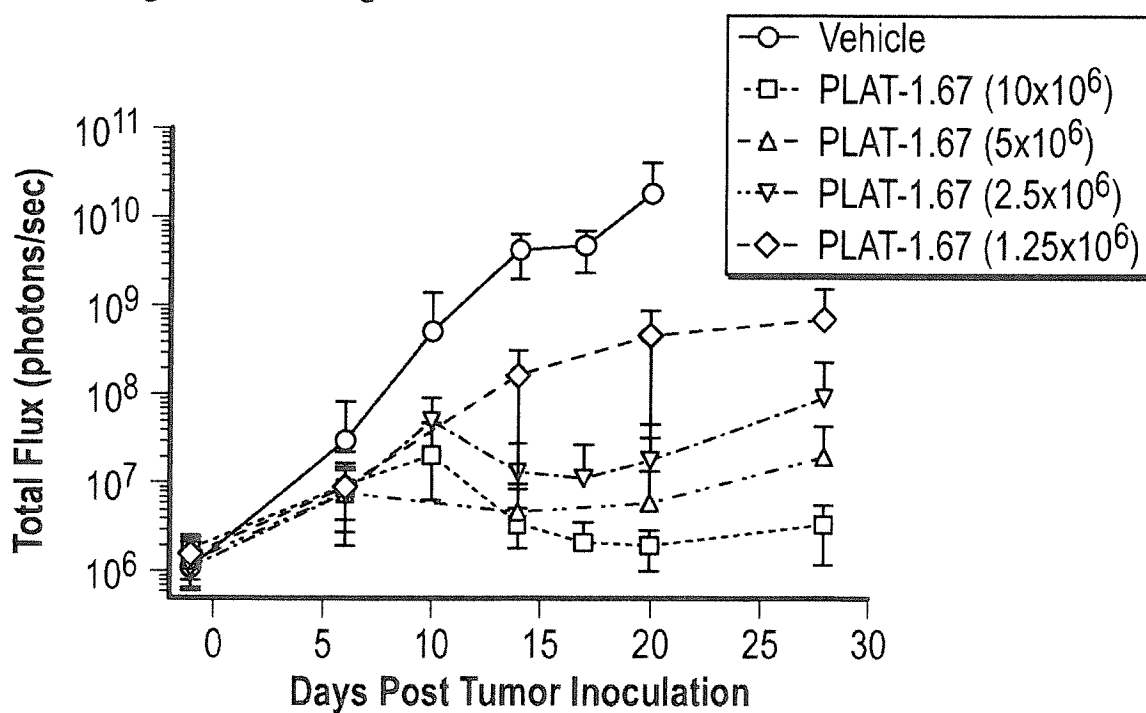


FIG. 51D

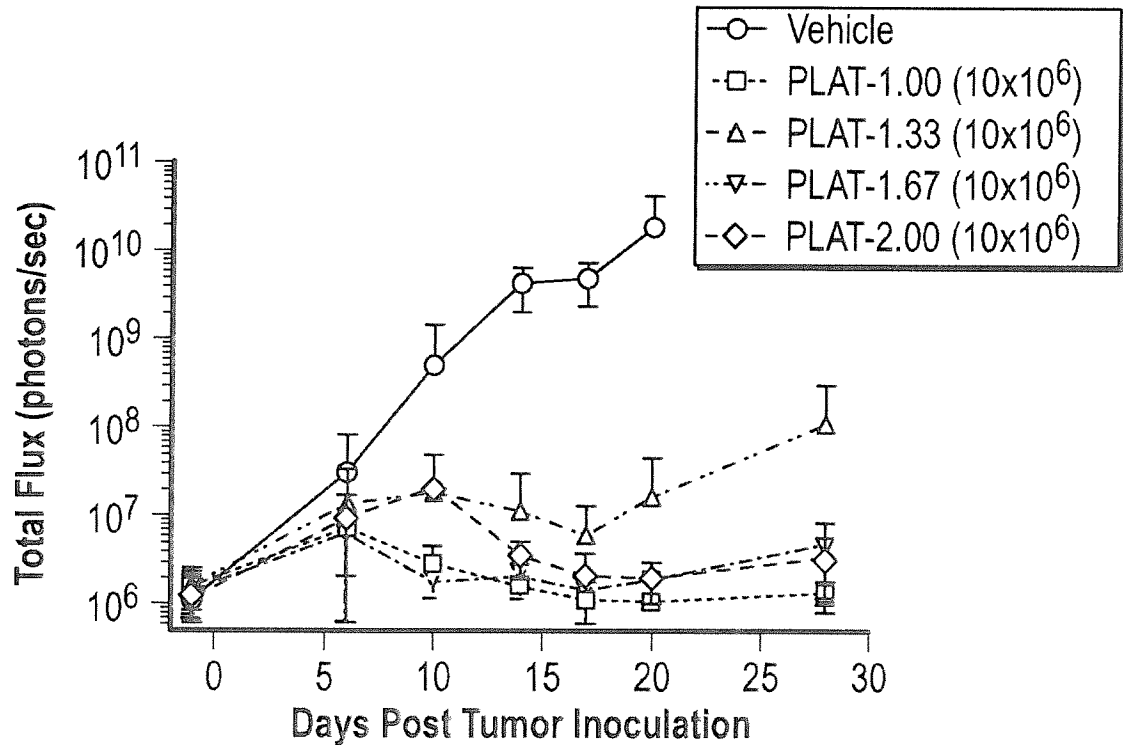
Average Tumor Progression $\pm$ SD: 10×10^6 Dose Comparison

FIG. 52A

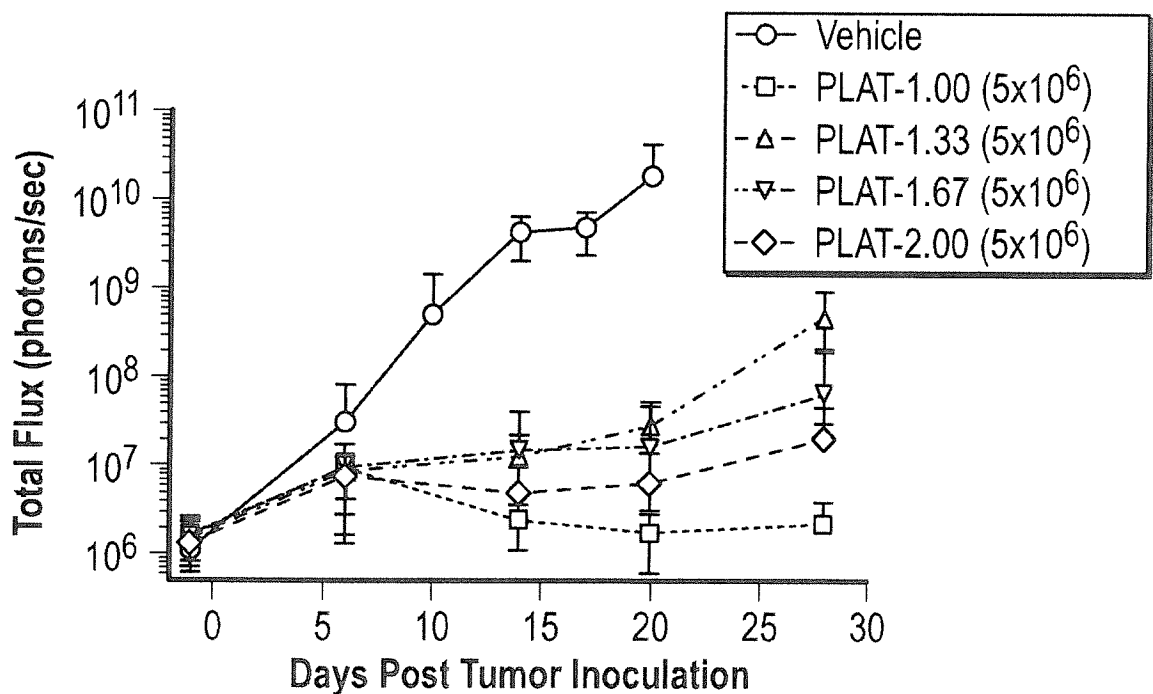
Average Tumor Progression $\pm$ SD: 5×10^6 Dose Comparison

FIG. 52B

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Average Tumor Progression $\pm$ SD: 2.5×10^6 Dose Comparison

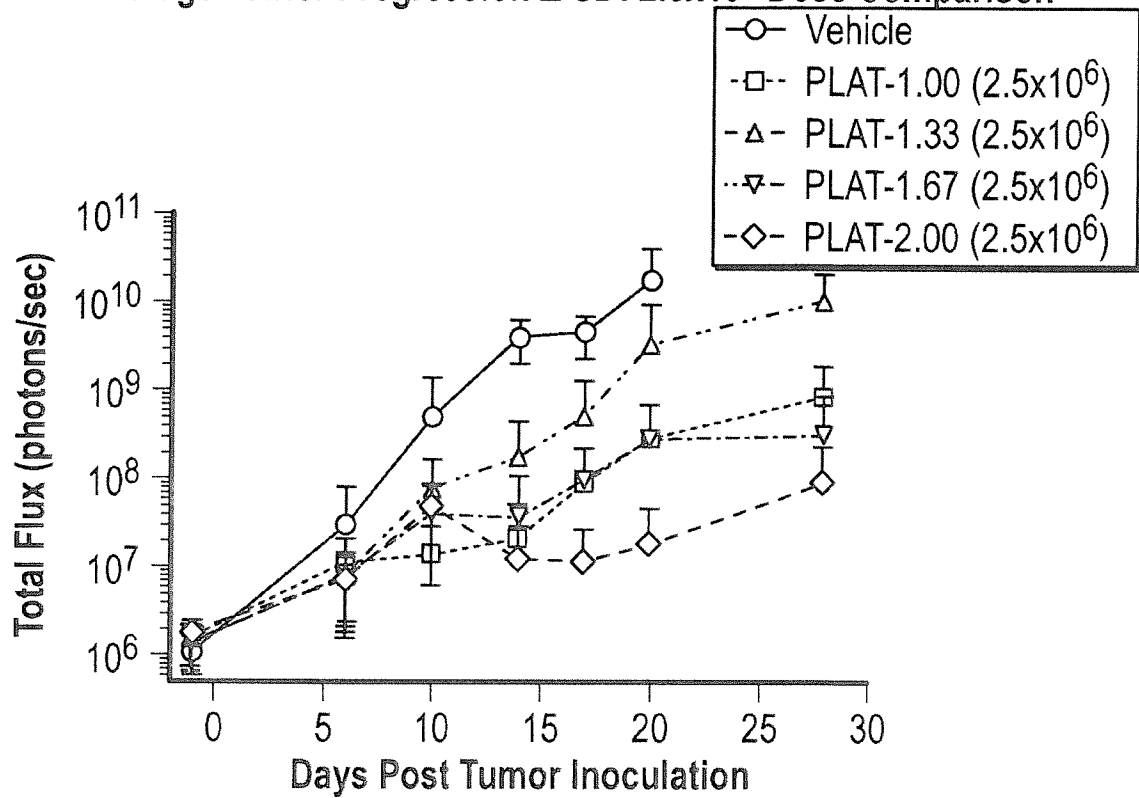


FIG. 52C

Average Tumor Progression $\pm$ SD: 1.25×10^6 Dose Comparison

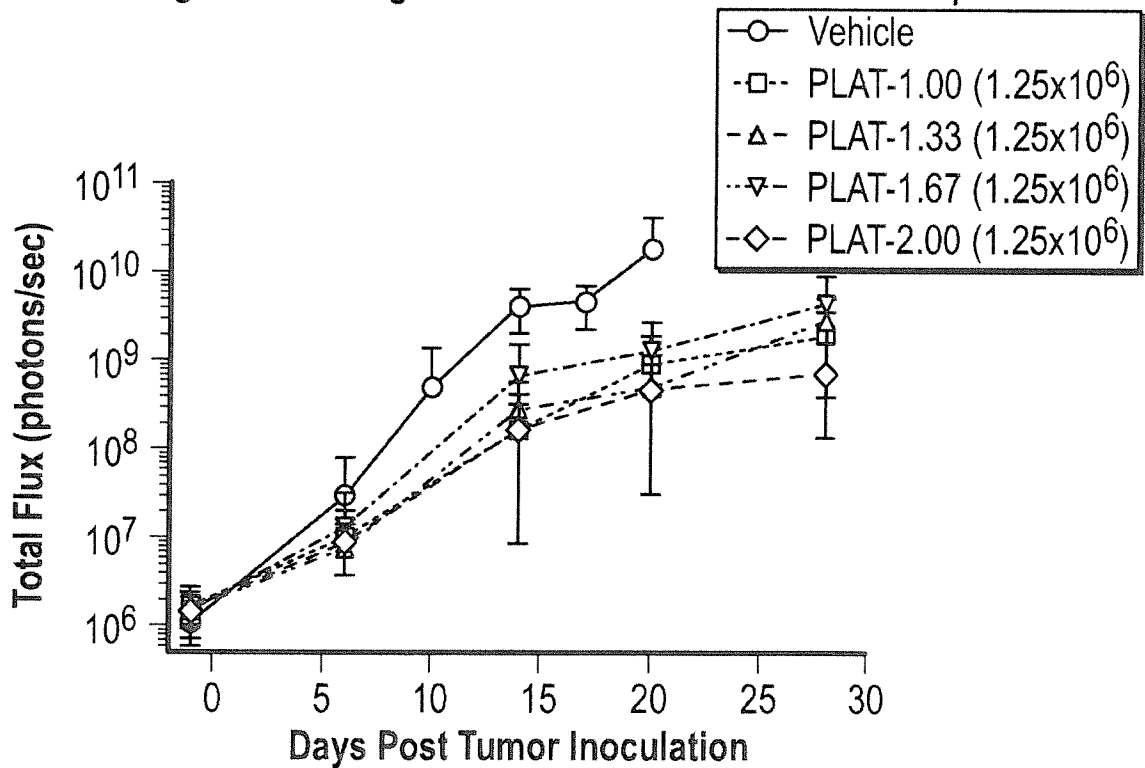
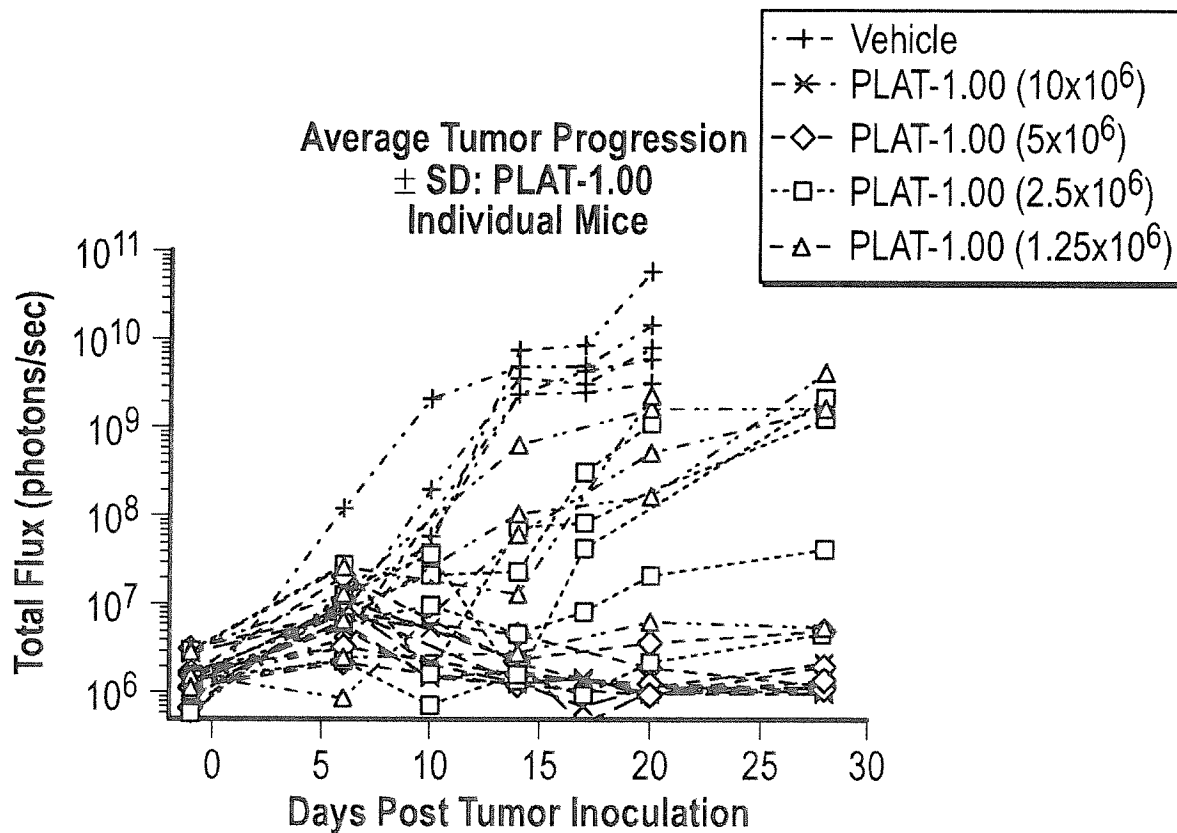
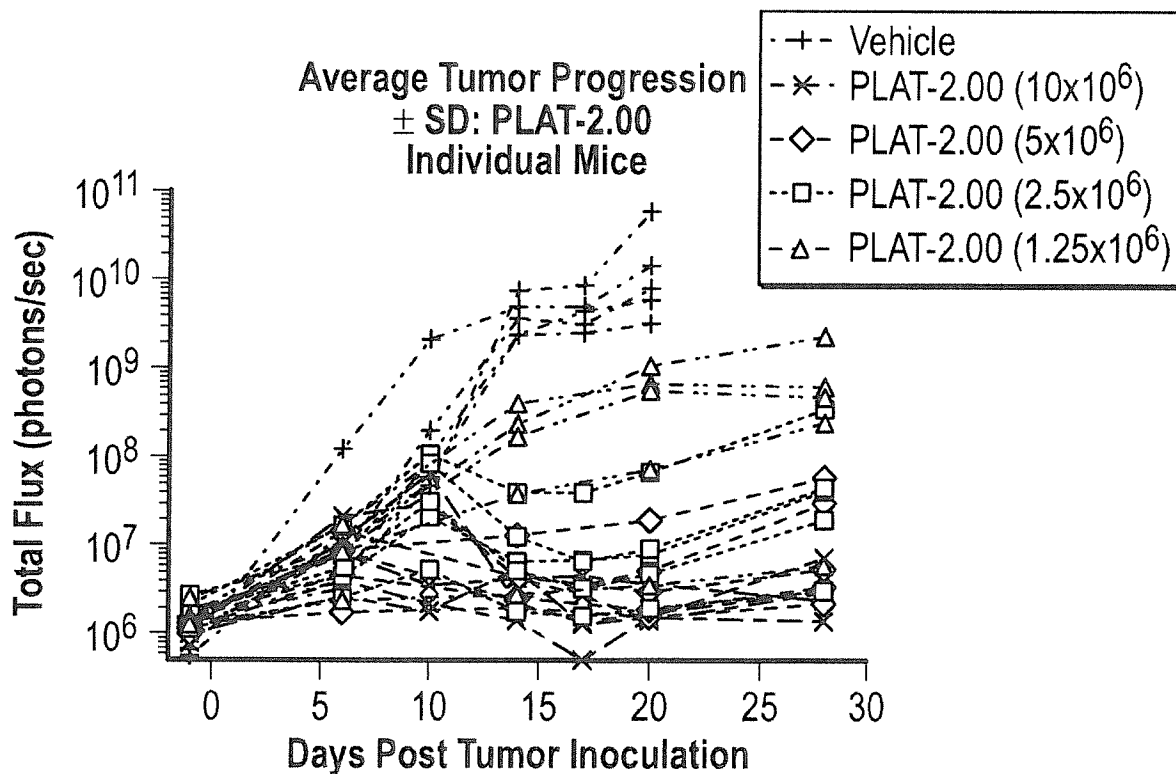


FIG. 52D

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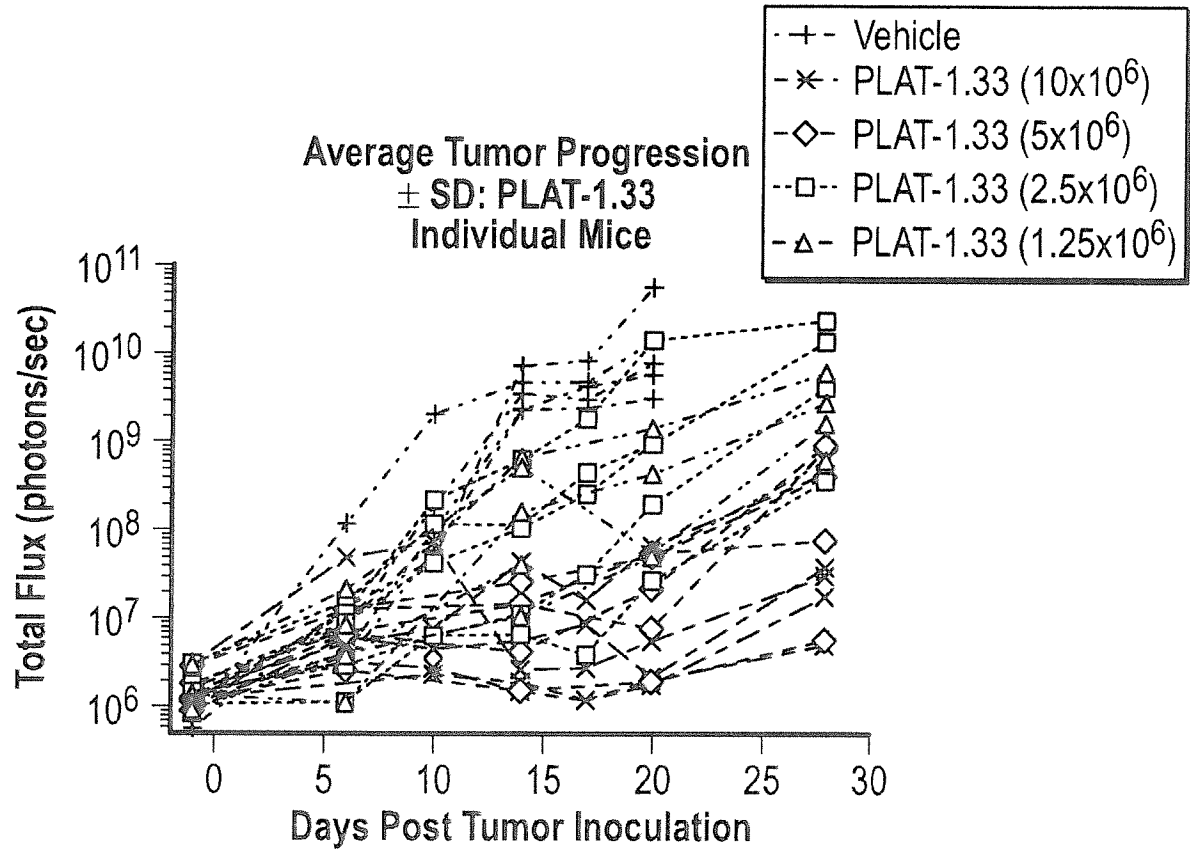


FIG. 53A3

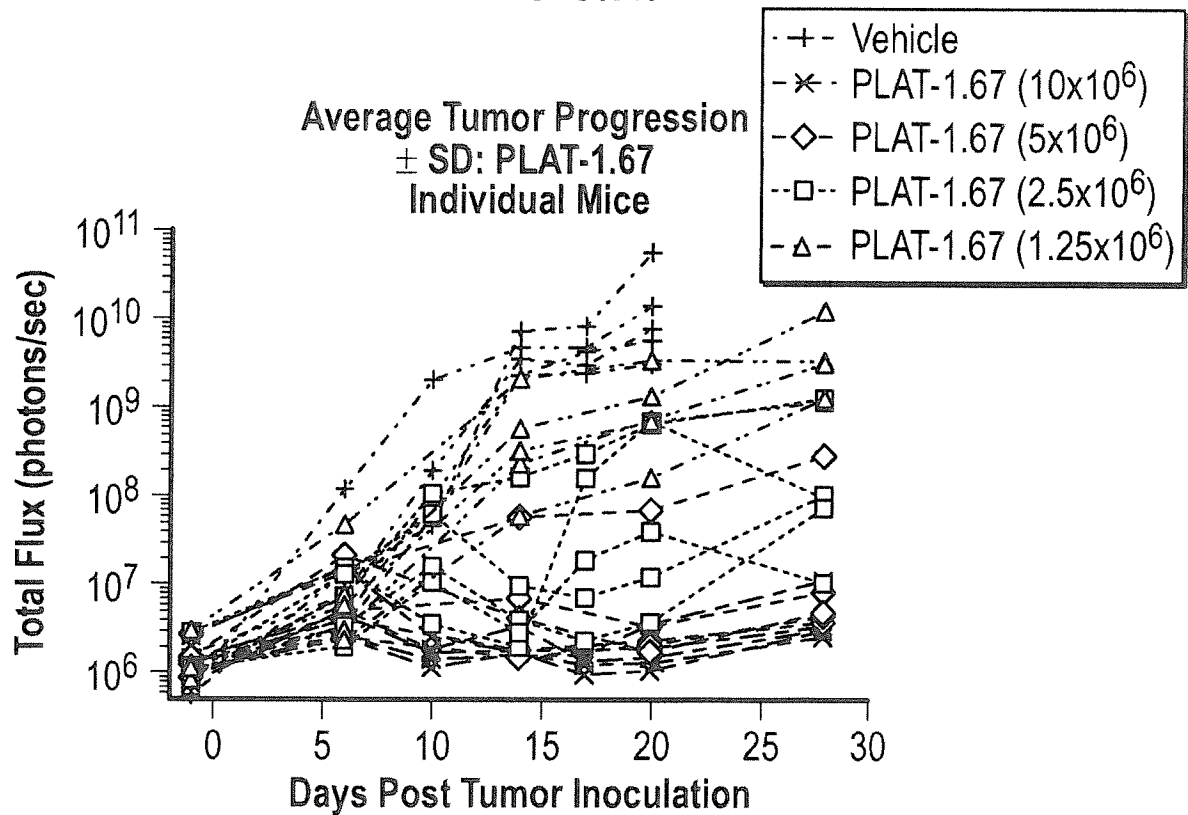


FIG. 53A4

PLAT-1.00 (10x10e6) Individual Mice

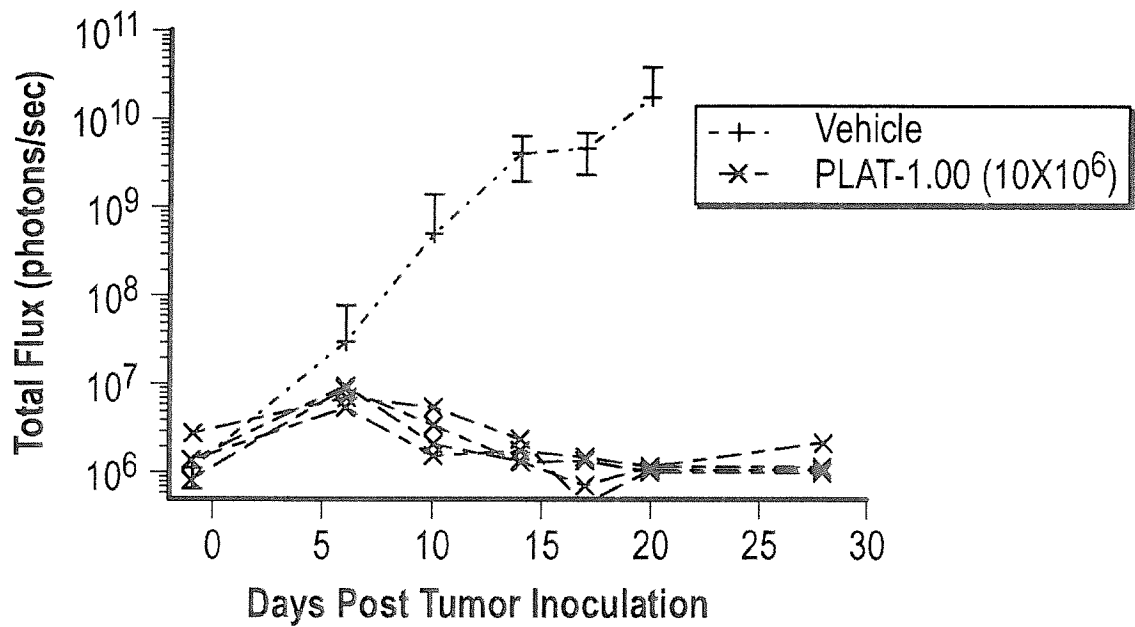


FIG. 53B1

PLAT-1.00 (5x10e6) Individual Mice

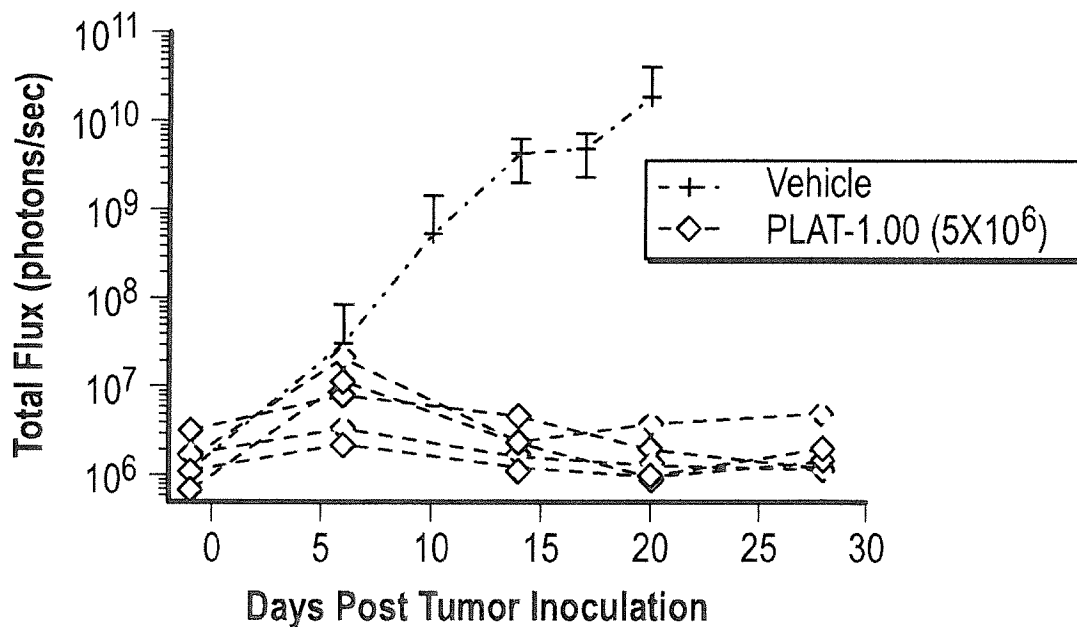


FIG. 53B2

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PLAT-1.00 (2.5x10⁶) Individual Mice

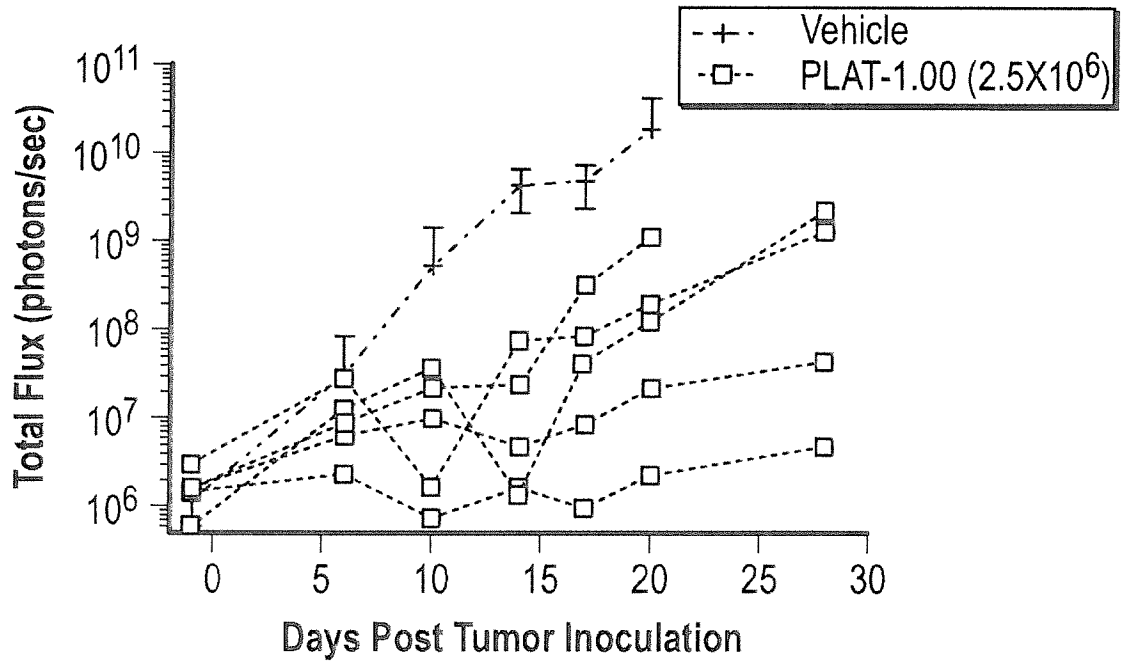


FIG. 53B3

PLAT-1.00 (1.25x10⁶) Individual Mice

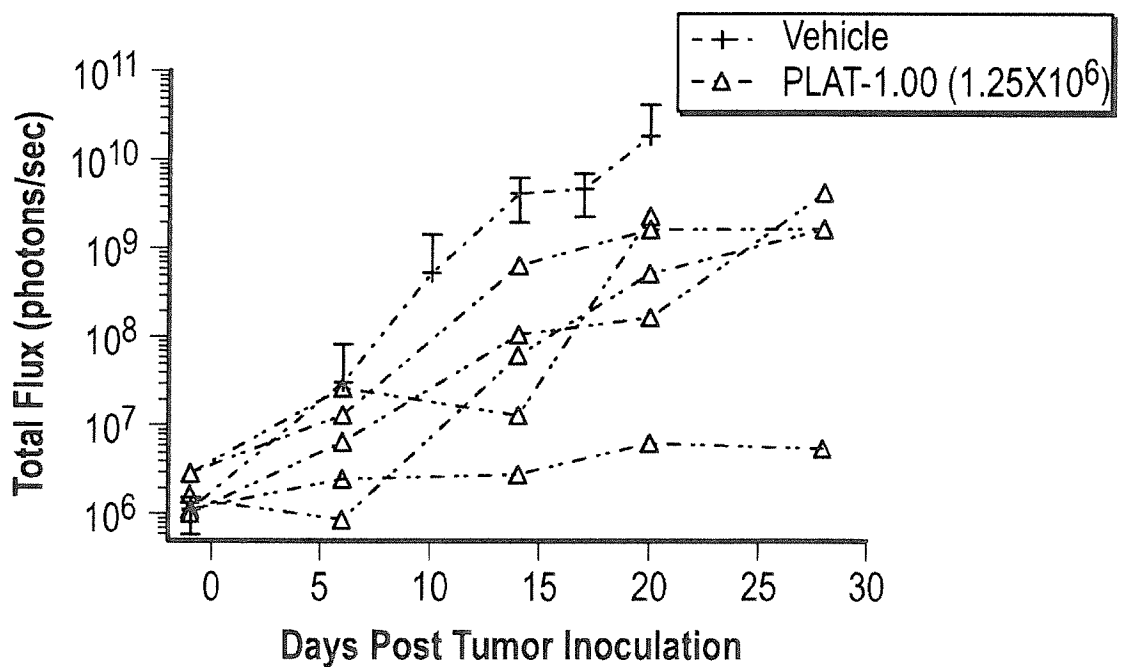


FIG. 53B4

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PLAT-1.33 (10x10⁶) Individual Mice

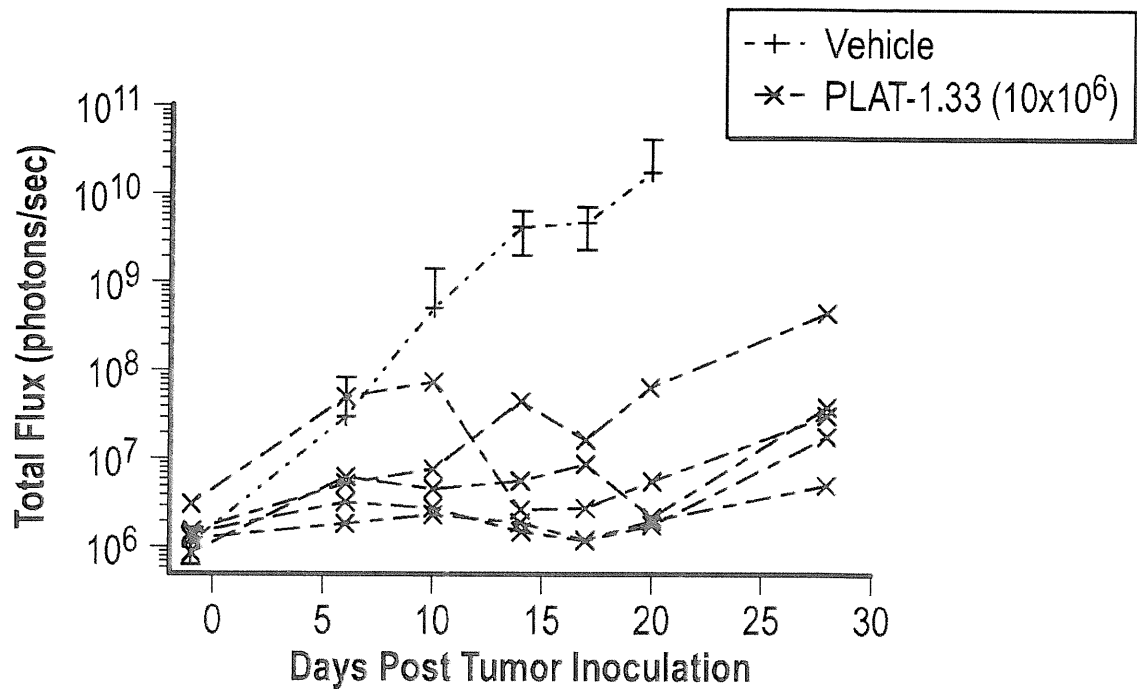


FIG. 53C1

PLAT-1.33 (5x10⁶) Individual Mice

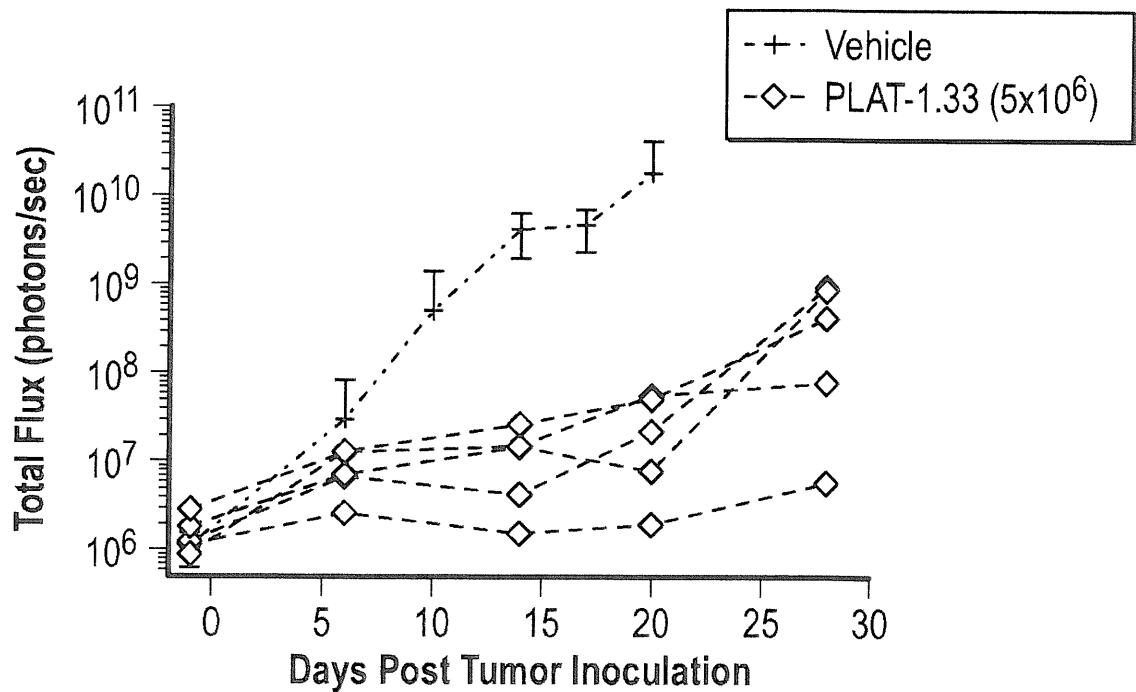


FIG. 53C2

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PLAT-1.33 (2.5×10^6) Individual Mice

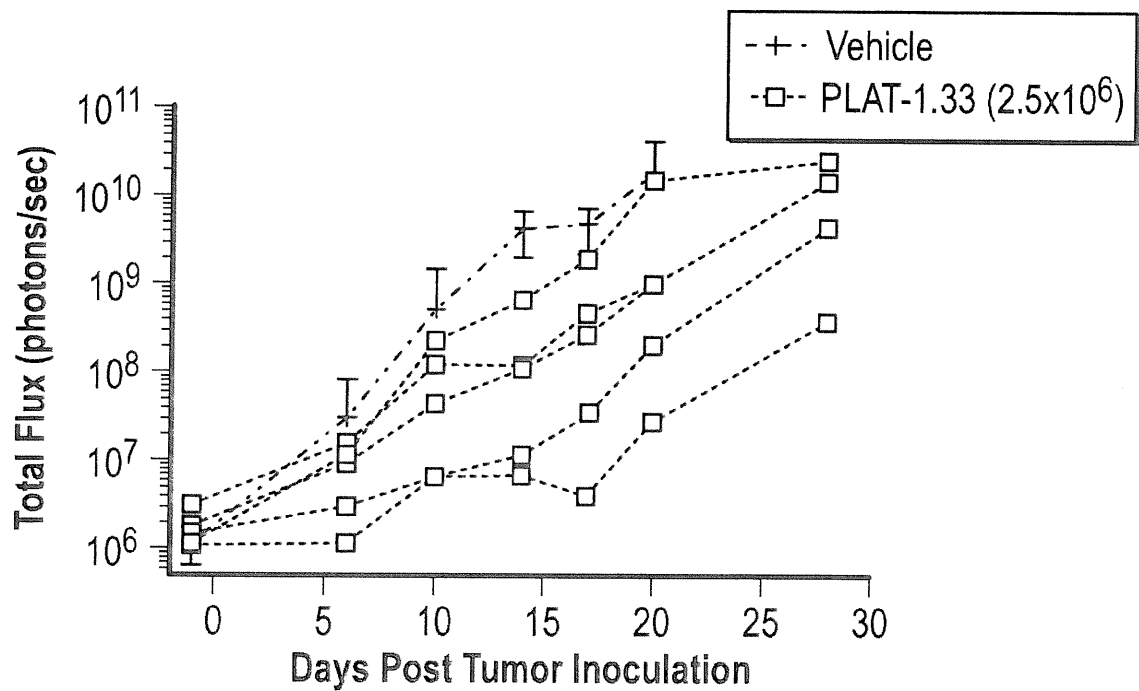


FIG. 53C3

PLAT-1.33 (1.25×10^6) Individual Mice

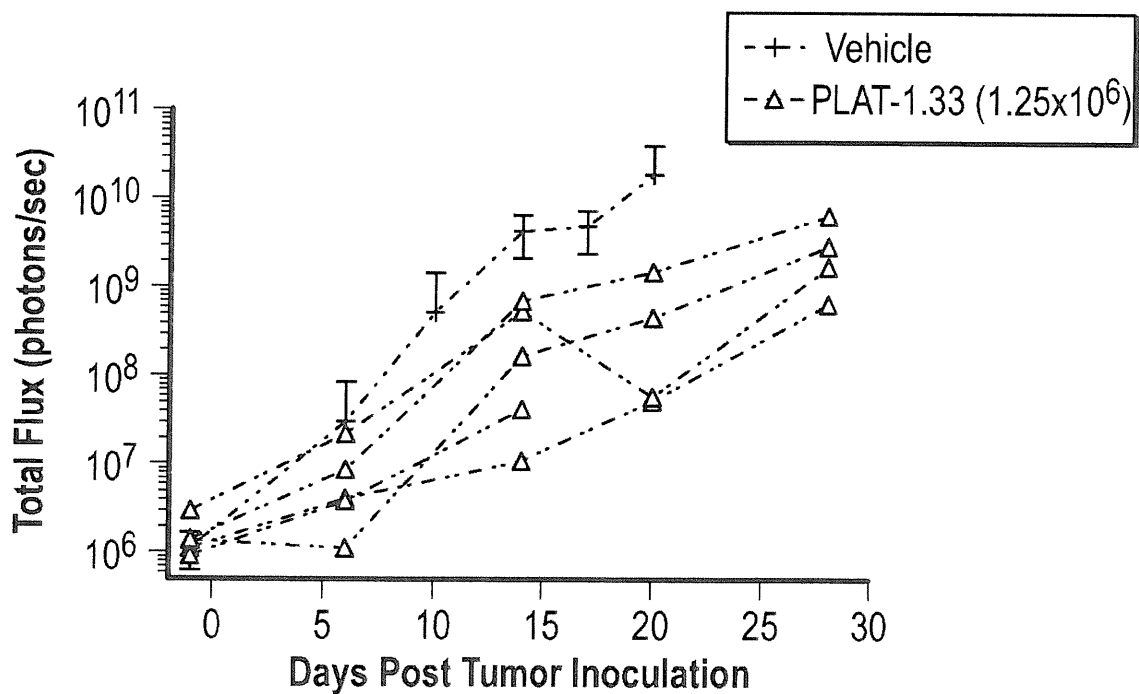


FIG. 53C4

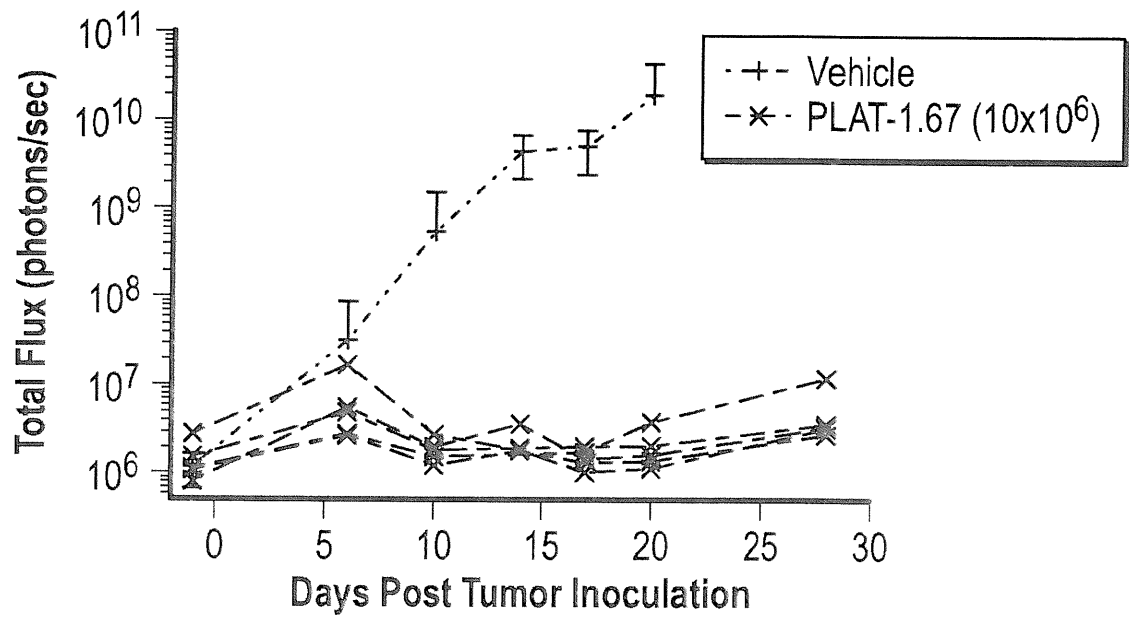
PLAT-1.67 (10×10^6) Individual Mice

FIG. 53D1

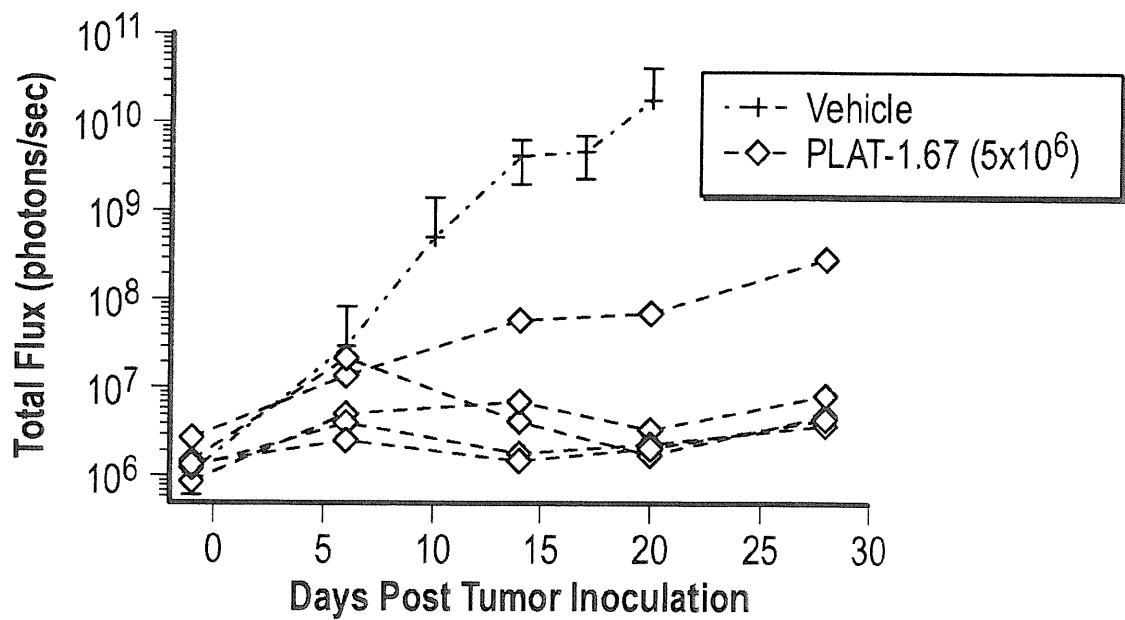
PLAT-1.67 (5×10^6) Individual Mice

FIG. 53D2

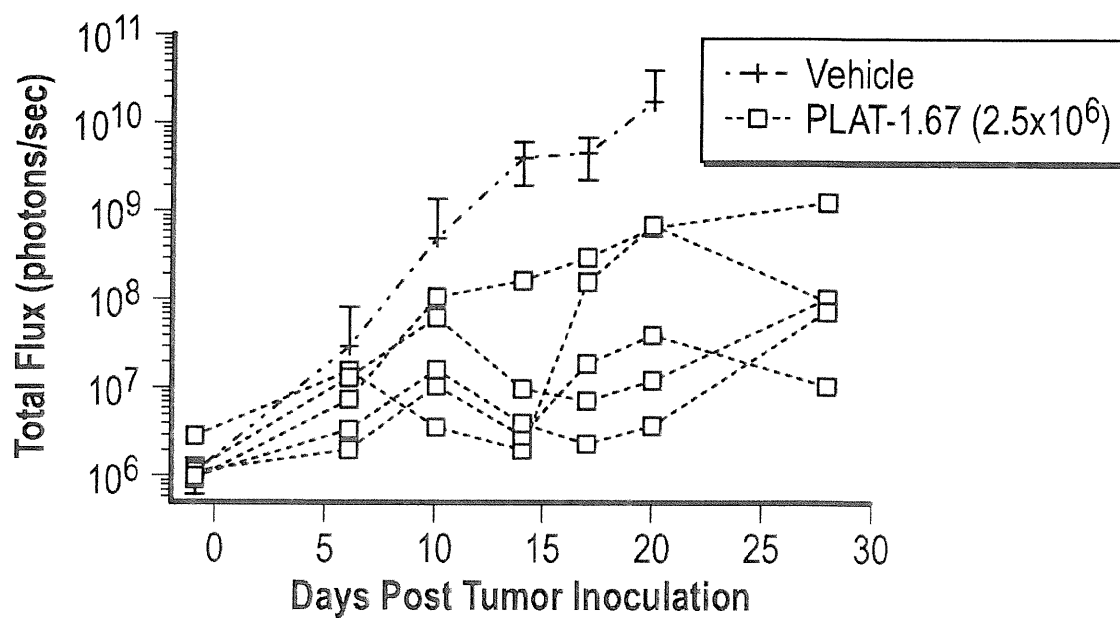
PLAT-1.67 (2.5×10^6) Individual Mice

FIG. 53D3

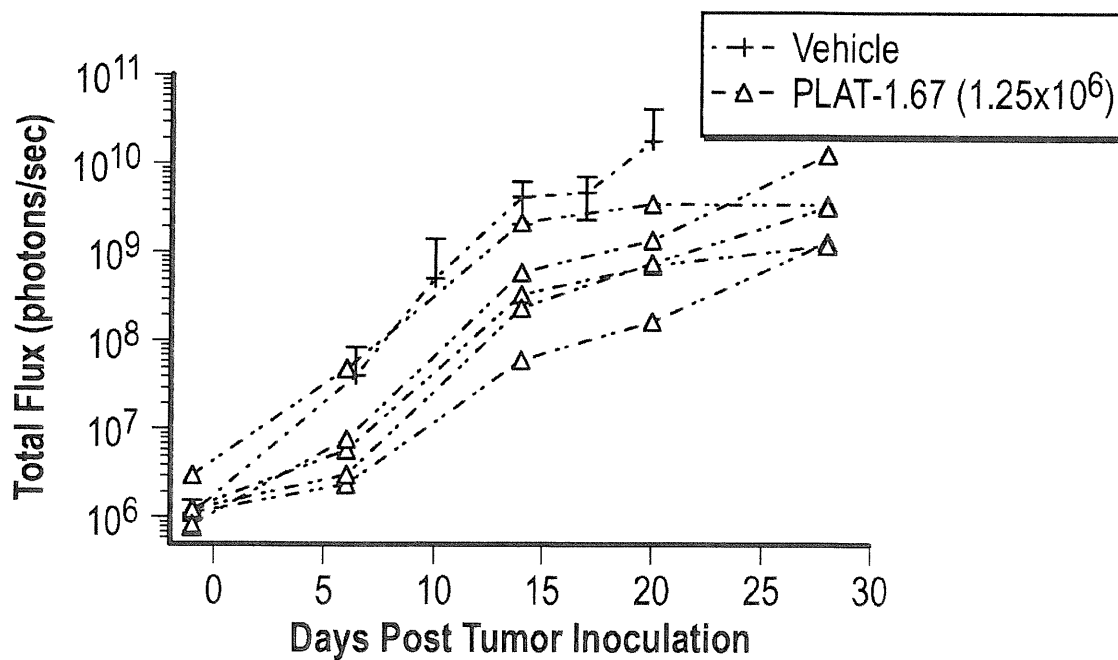
PLAT-1.67 (1.25×10^6) Individual Mice

FIG. 53D4

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PLAT-2.00 (10x10e6) Individual Mice

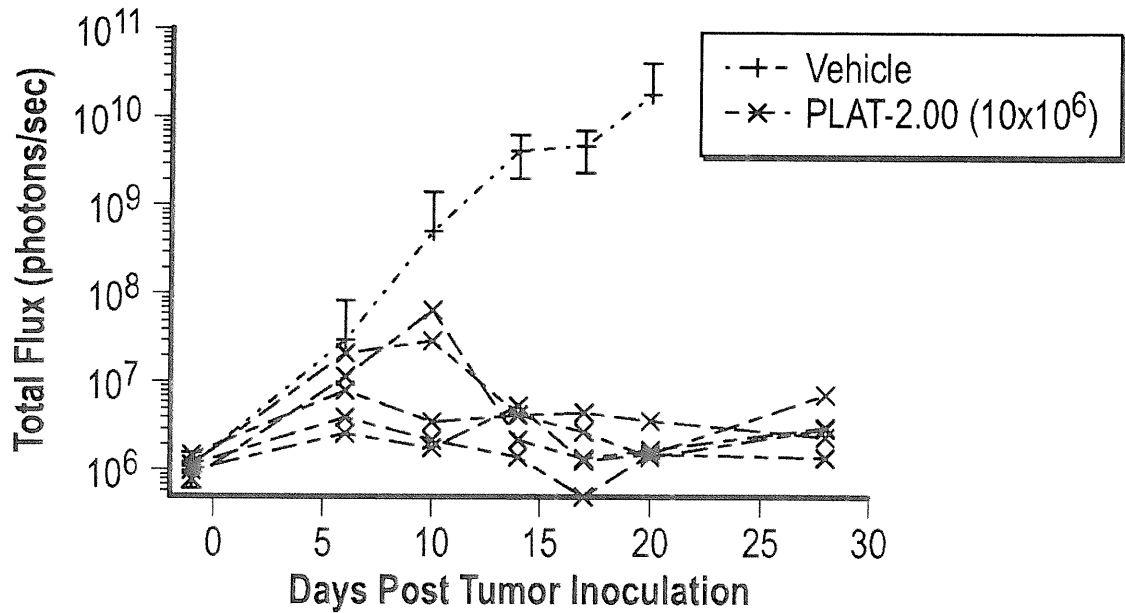


FIG. 53E1

PLAT-2.00 (5x10e6) Individual Mice

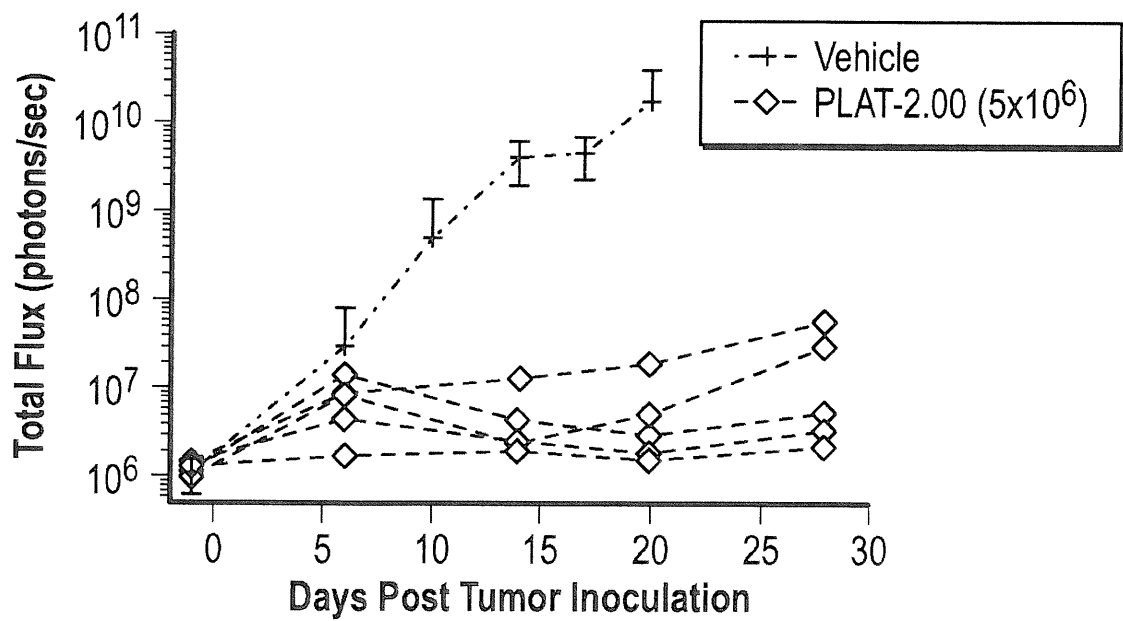


FIG. 53E2

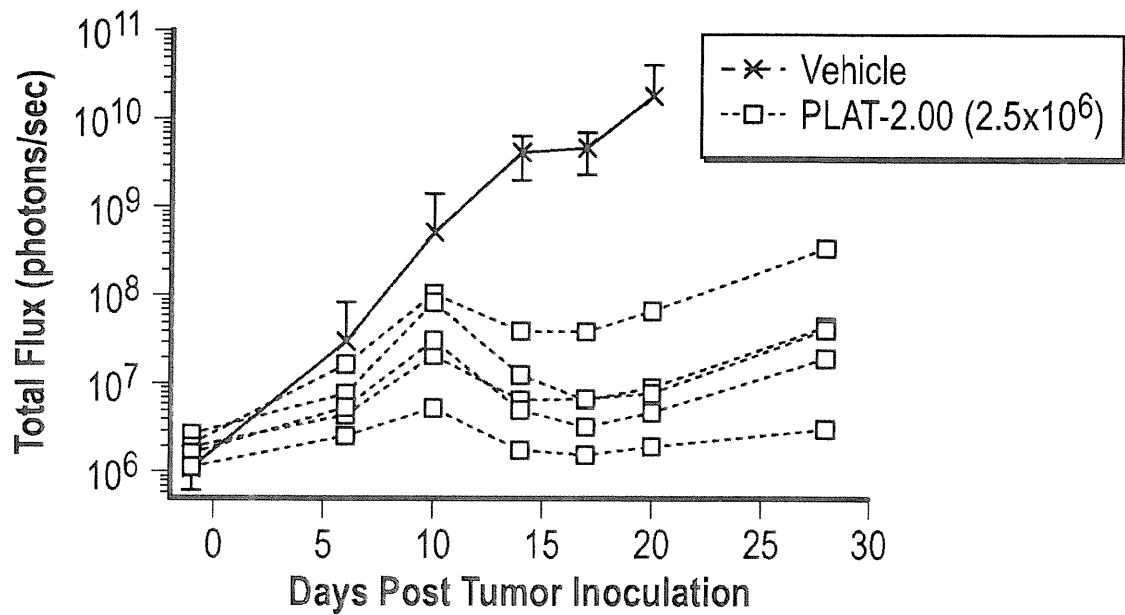
PLAT-2.00 (2.5×10^6) Individual Mice

FIG. 53E3

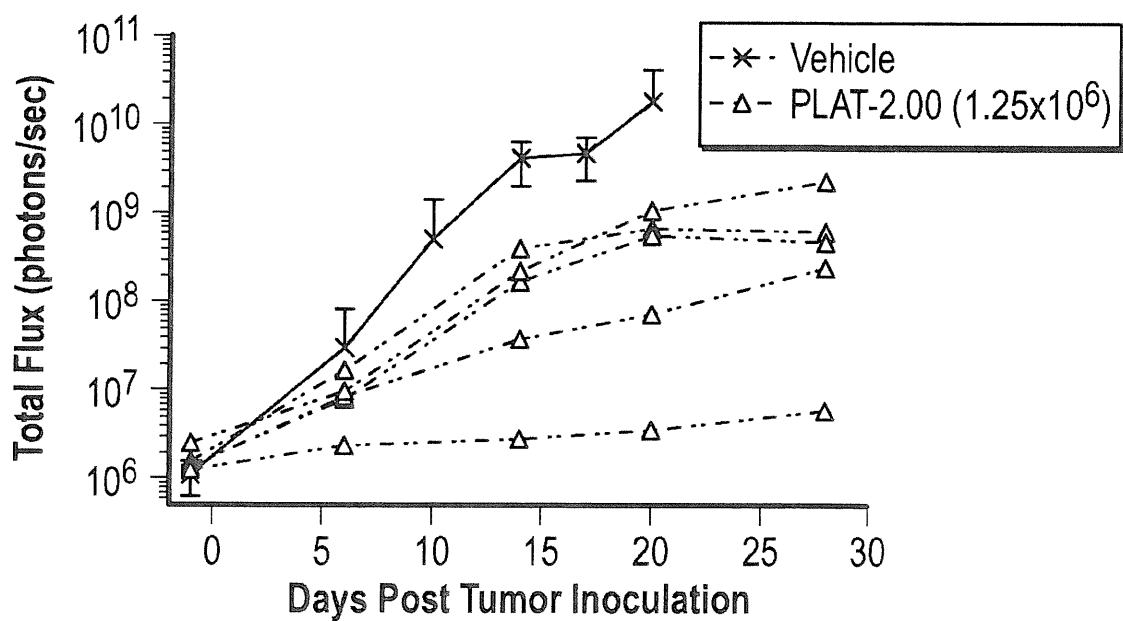
PLAT-2.00 (1.25×10^6) Individual Mice

FIG. 53E4

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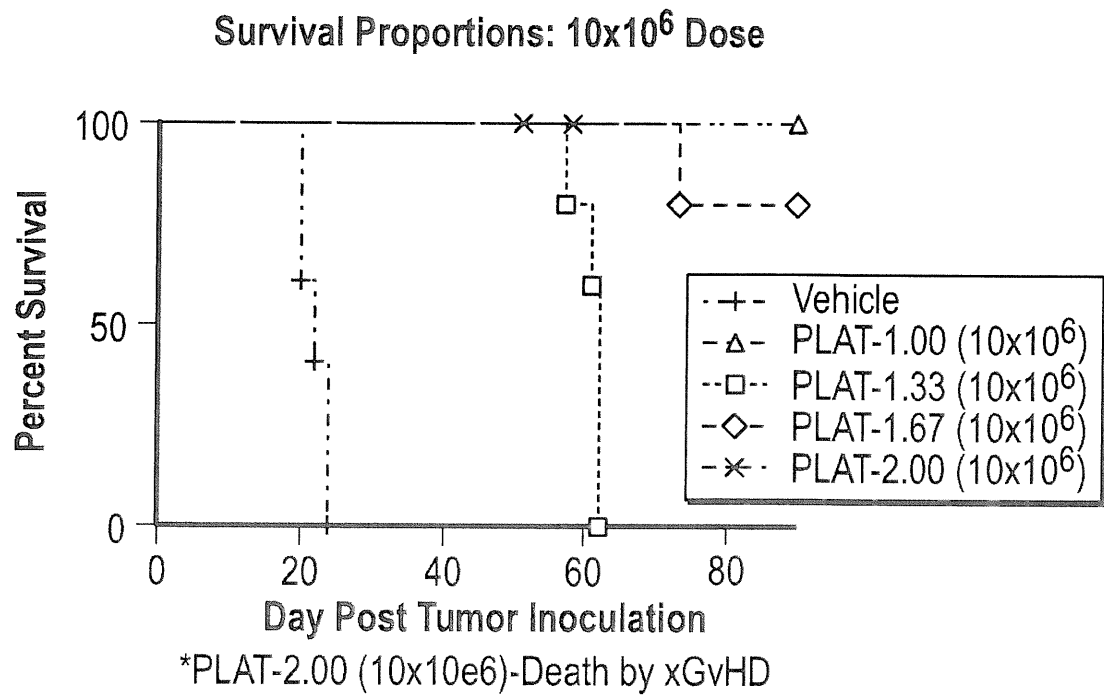


FIG. 54A

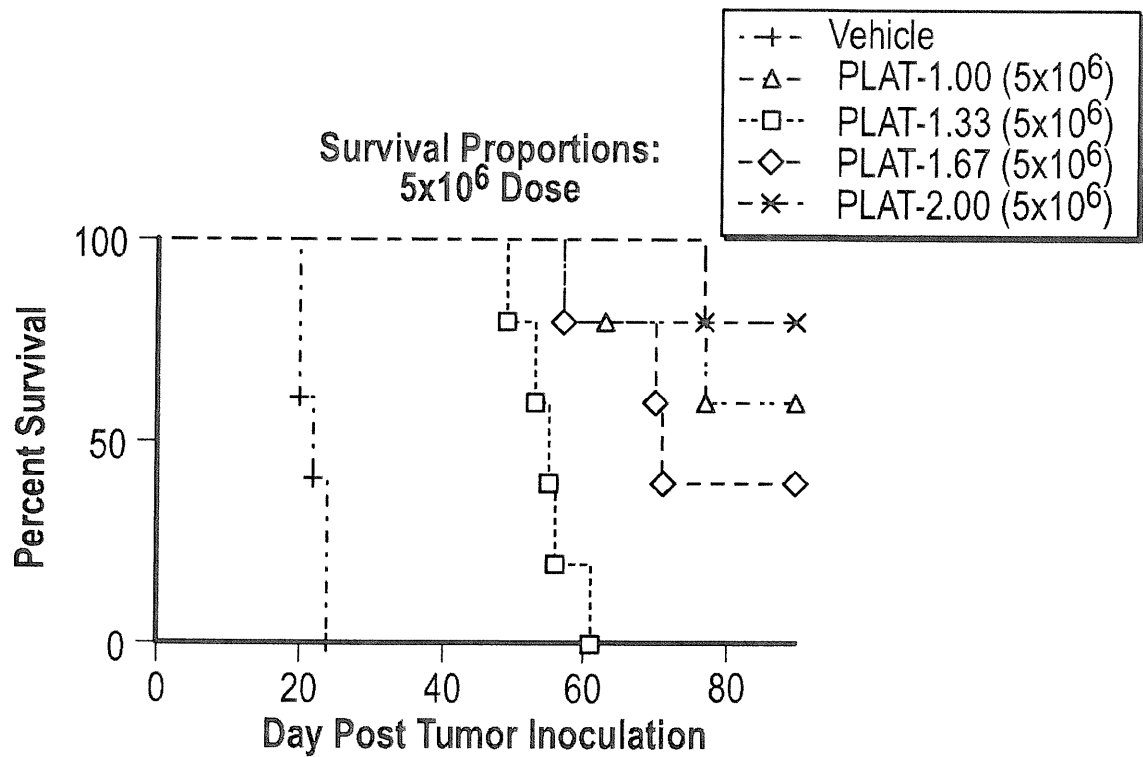


FIG. 54B

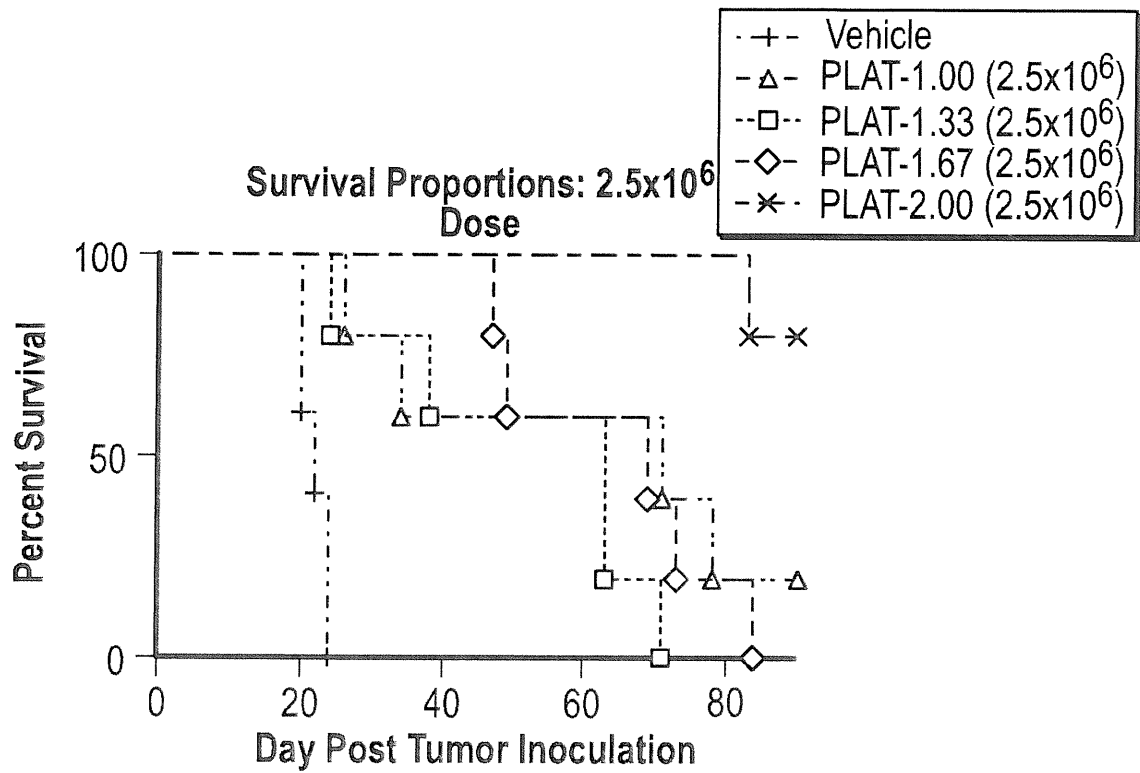


FIG. 54C

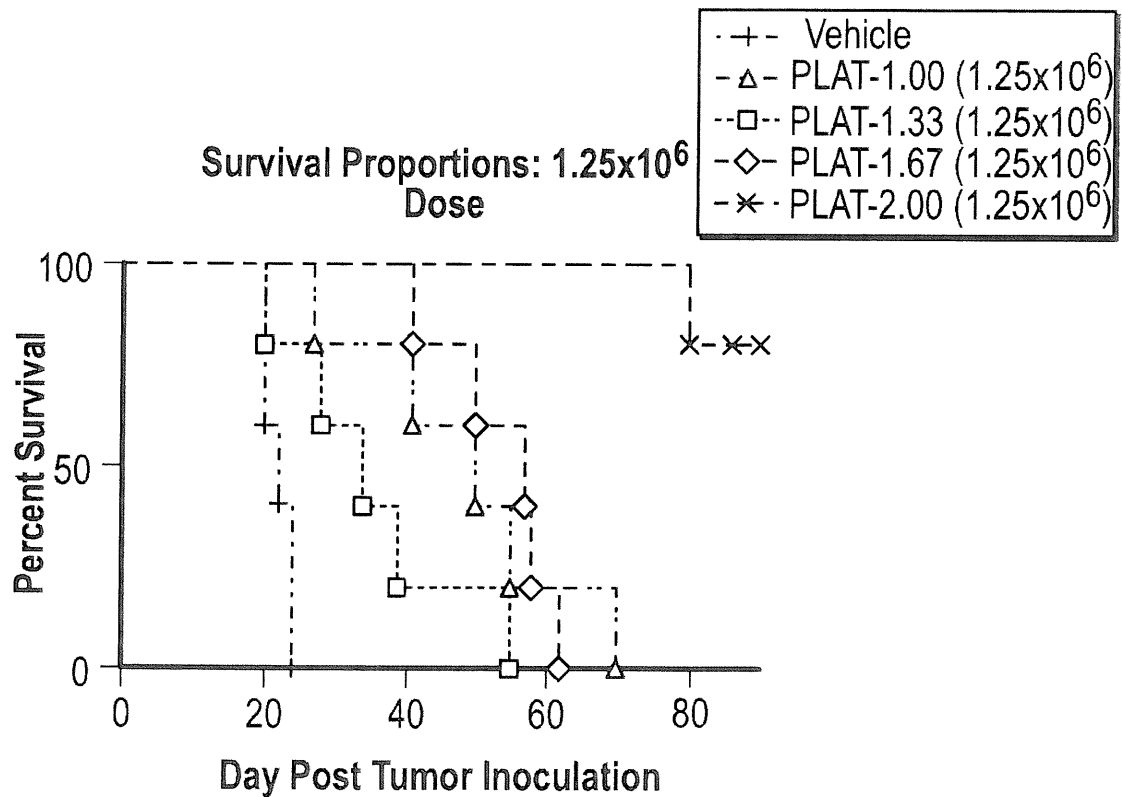


FIG. 54D

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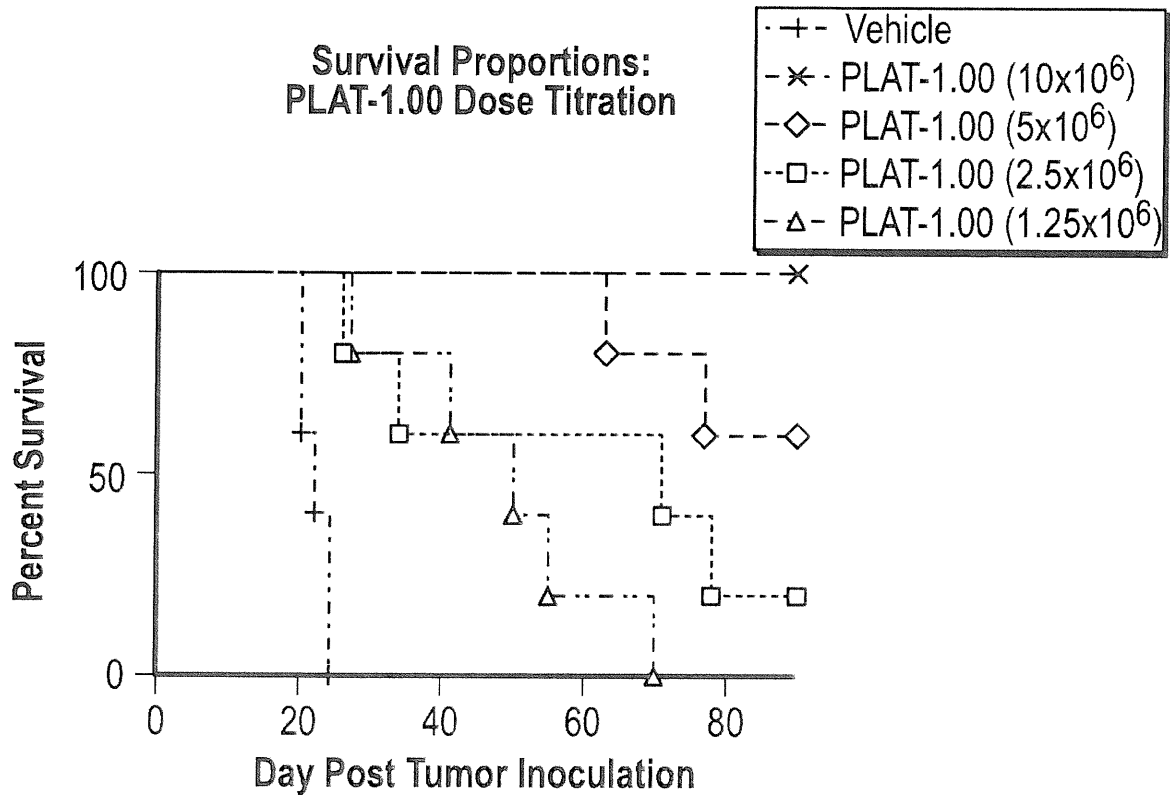
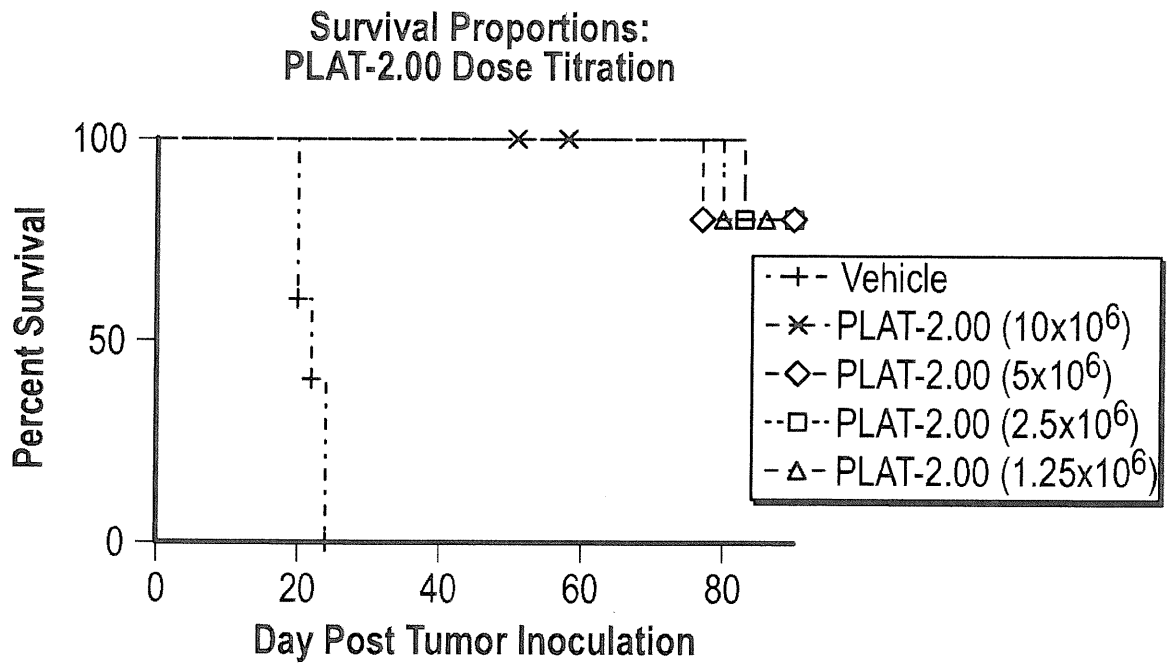


FIG. 55A



*PLAT-2.00(10×10^6)-Death by xGVHD

FIG. 55B

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Survival Proportions:
PLAT-1.33 Dose Titration

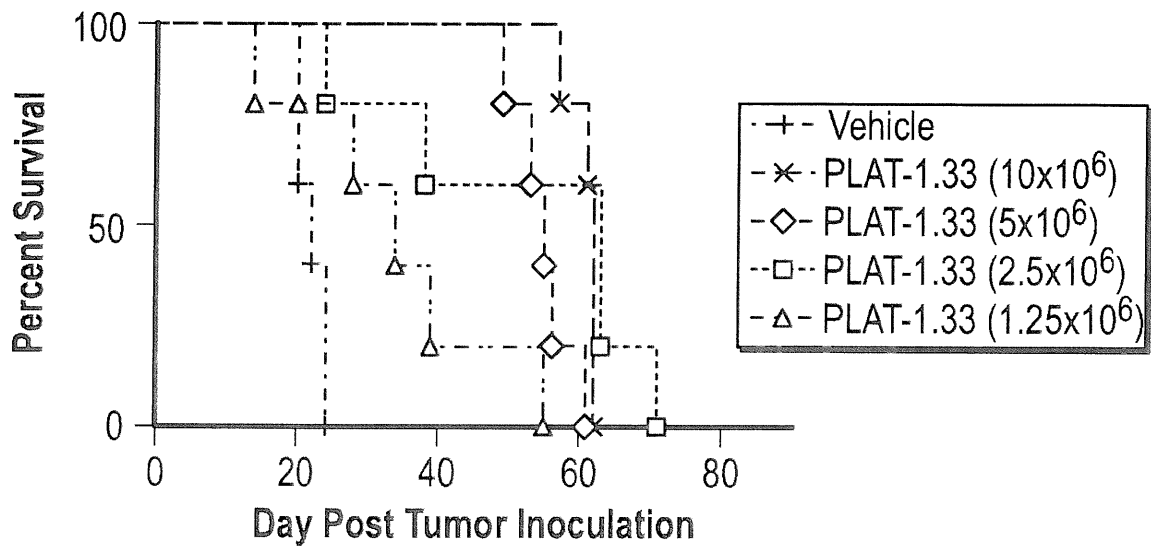


FIG. 55C

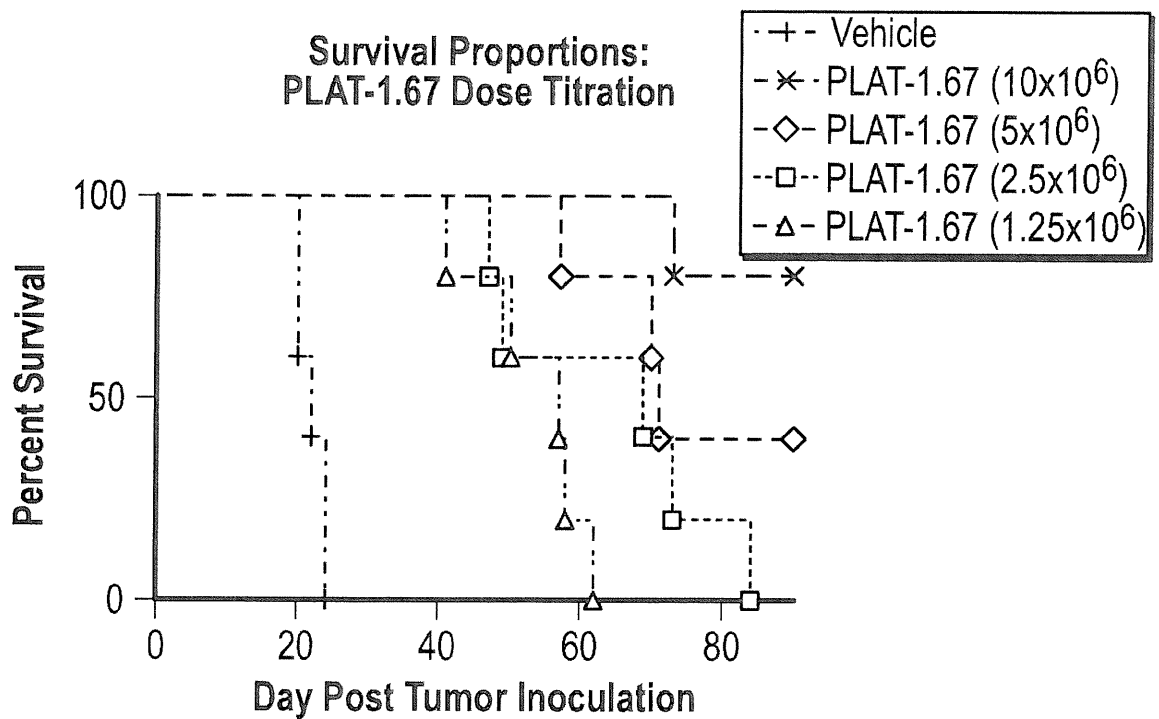


FIG. 55D

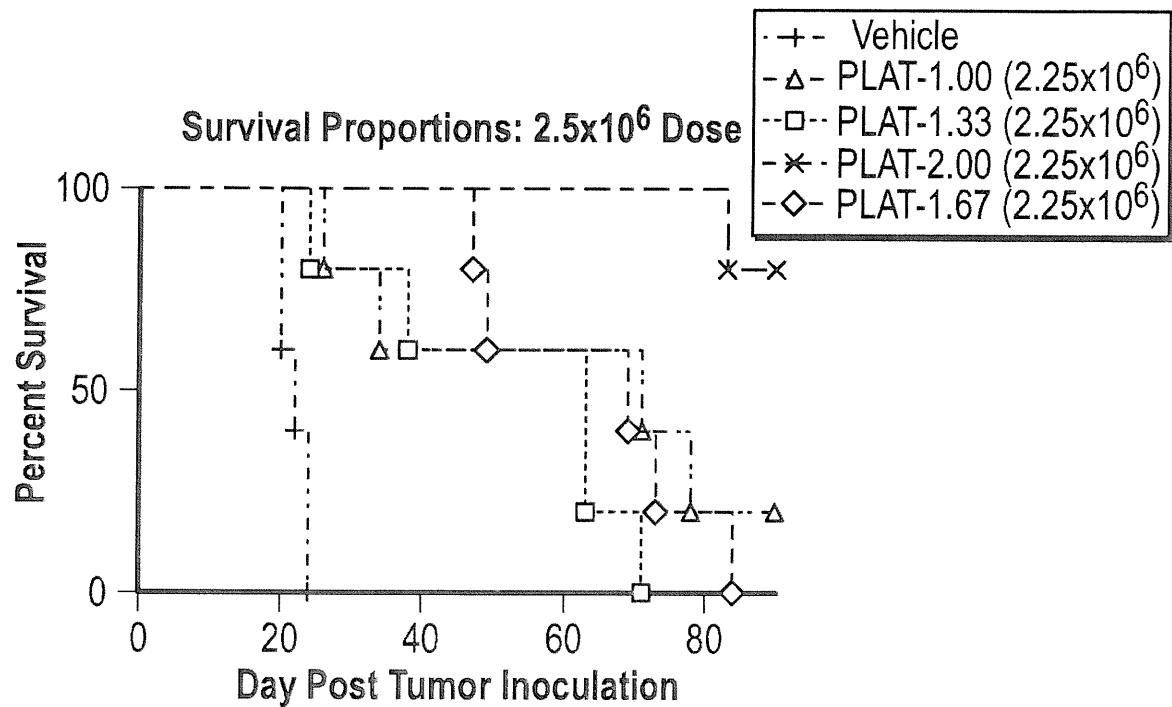


FIG. 56A

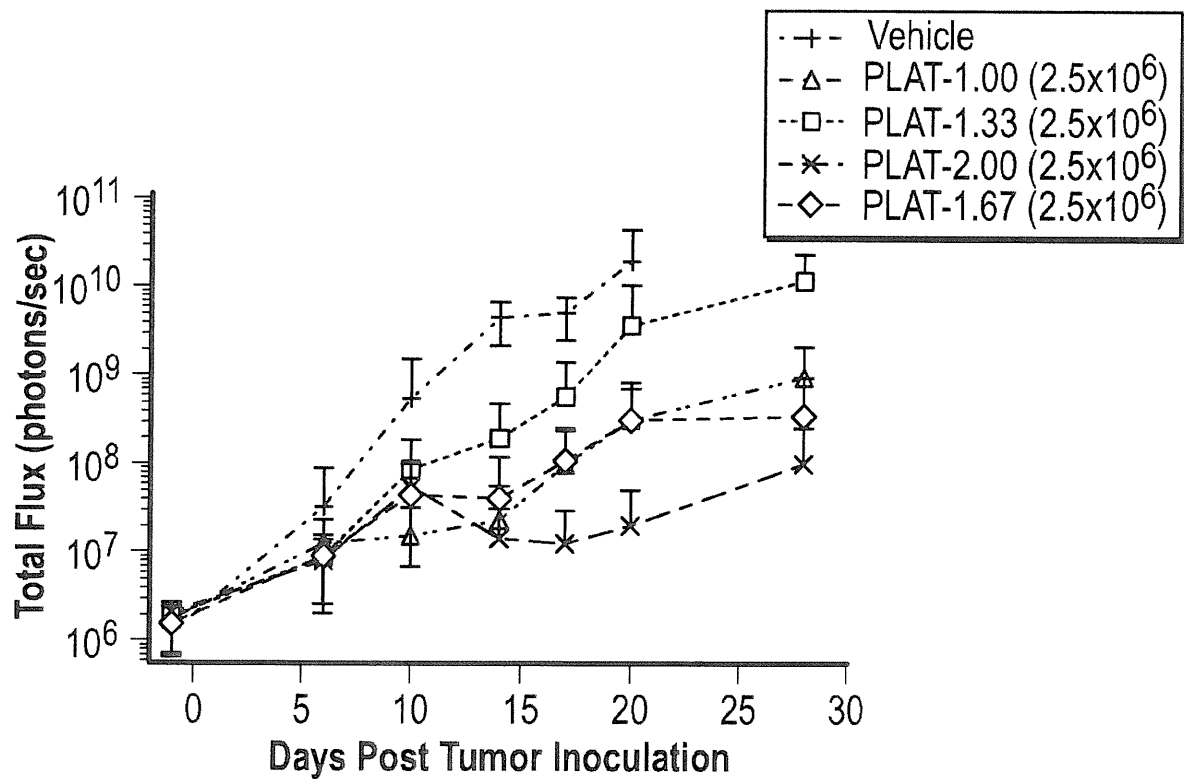


FIG. 56B

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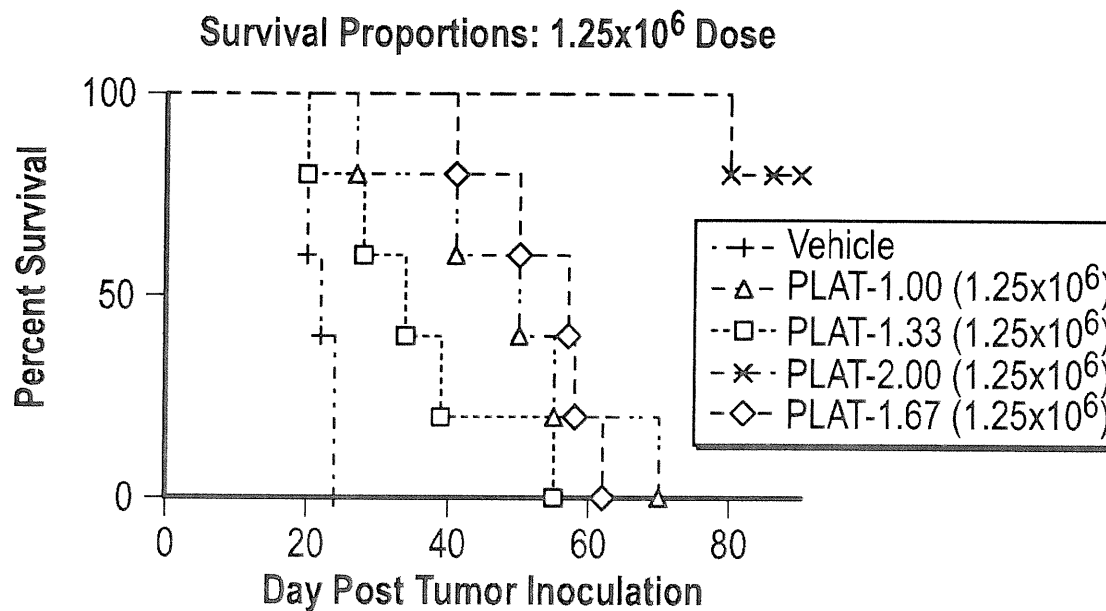


FIG. 56C

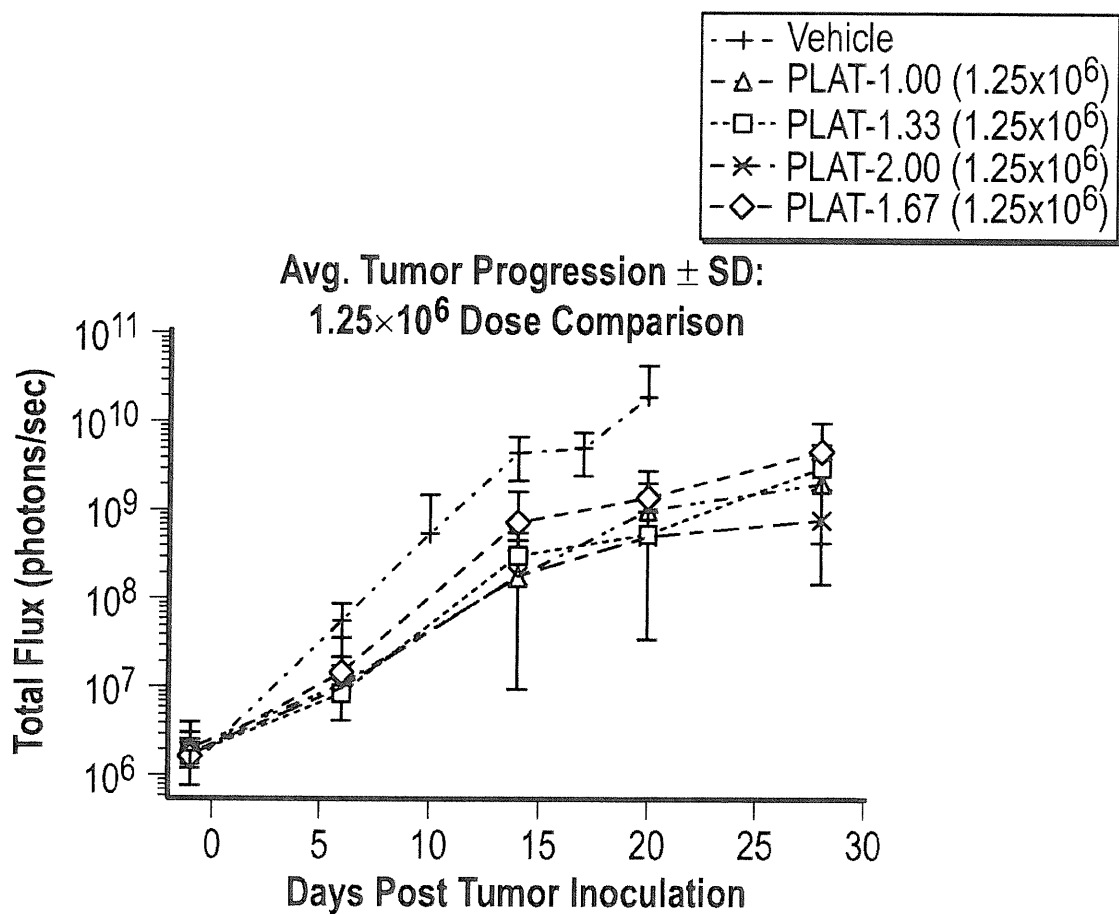
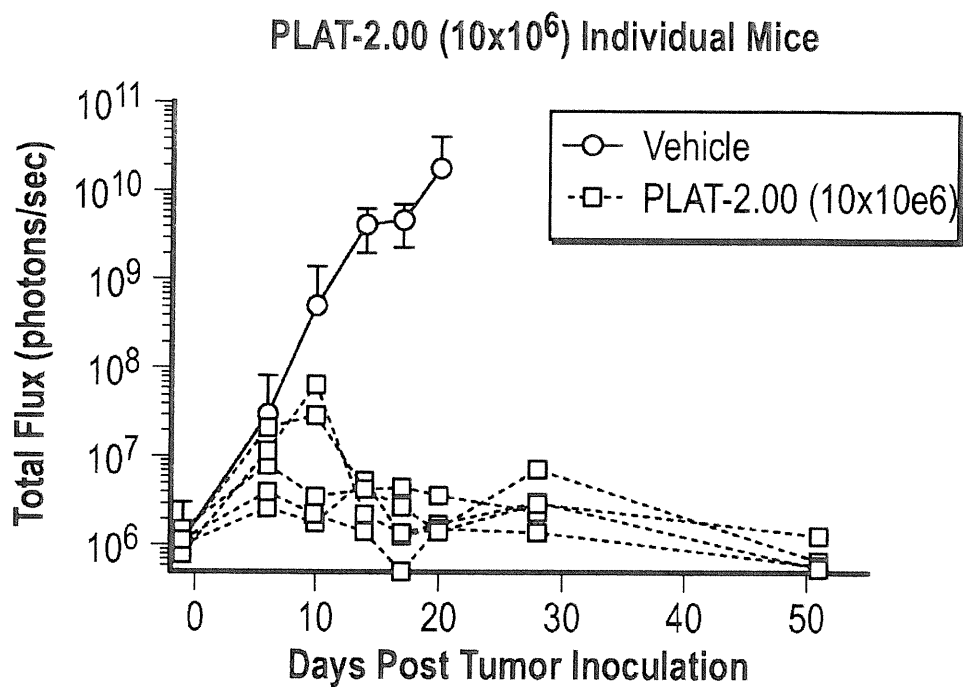


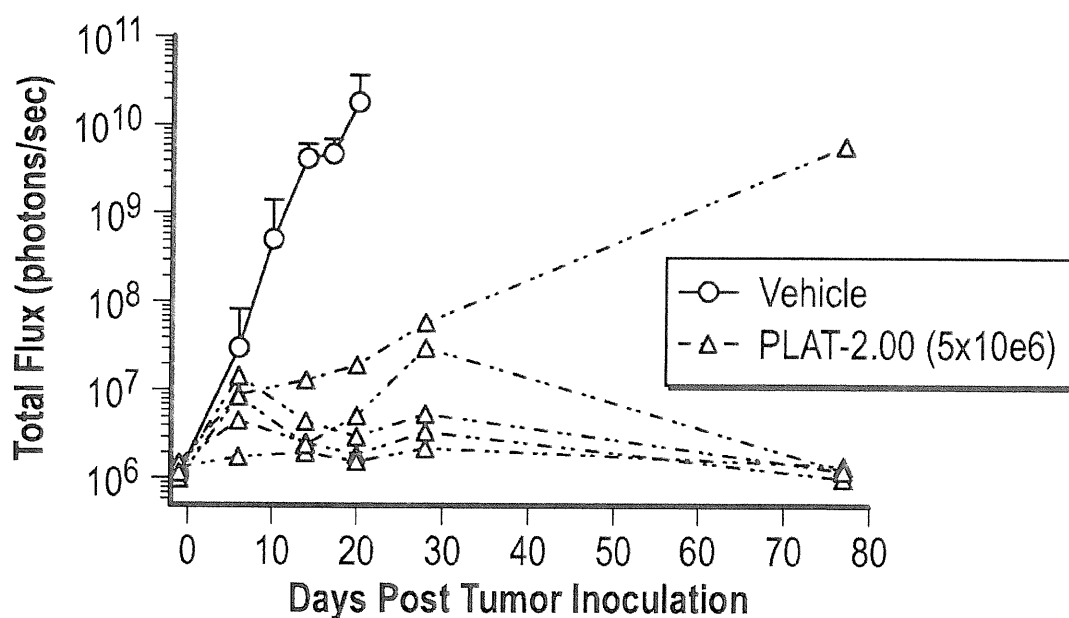
FIG. 56D

JME14-03: xenoGraft-versus-Host Disease

Symptoms/Signs xGvHD in Mice:

- Flaky skin
- Eye issues (weepy looking)
- Weight loss
- Dehydration
- Hindlimb edema

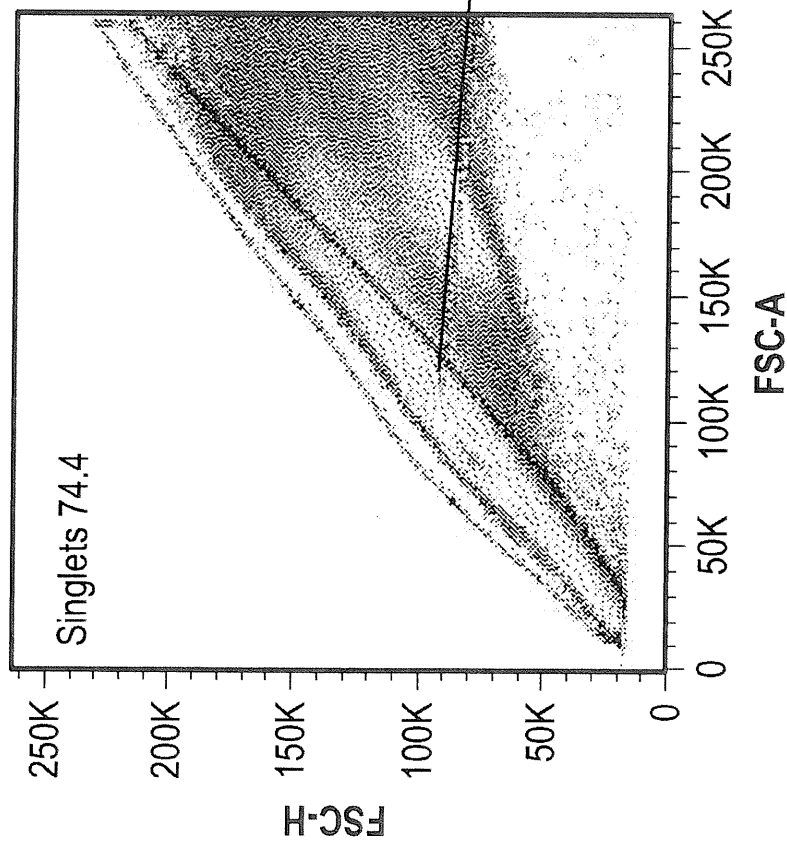
FIG. 57A**FIG. 57B**

PLAT-2.00 (5×10^6) Individual Mice

NOTE: Animals treated at 10 million and 5 million doses with PLAT-02 cells developed xGvHD. As a result animals receiving the 10 million dose were taken down day 58 post tumor or 51 days post T-cell administration. Those receiving 5 million dose were euthanized at end of study at 90 days post tumor or 83 days post T-cell administration.

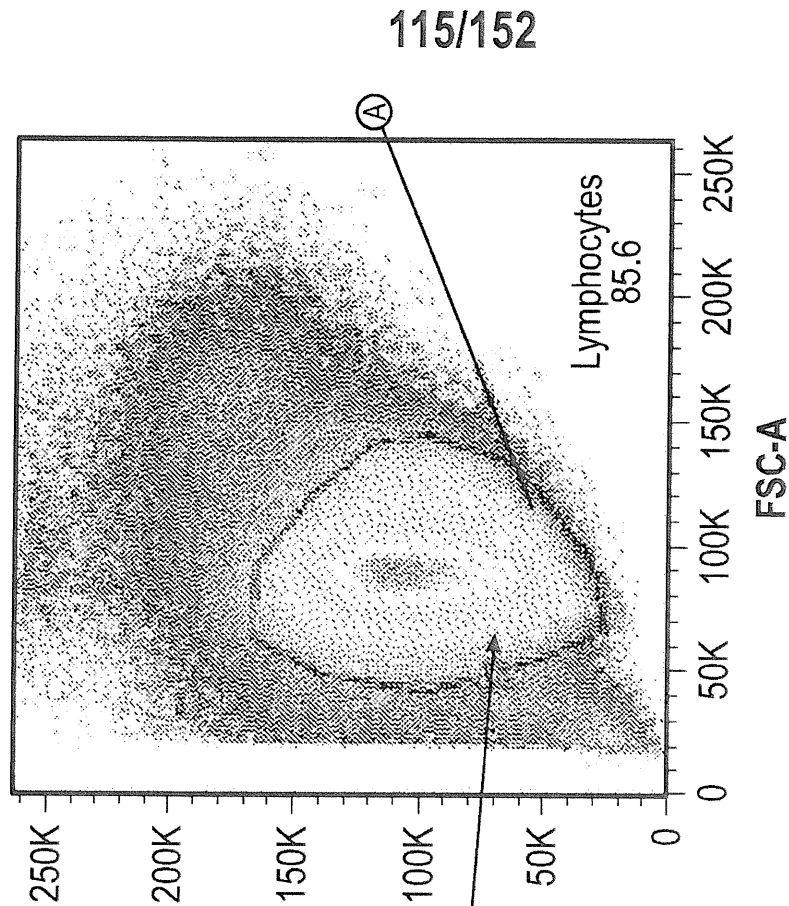
FIG. 57C

JME14-03: Confirming xGvHD by FACS



JME14-03 Day90 BM 051214_Stained O2300_012.fcs
 Ungated
 1.04E6

FIG. 58A1



JME14-03 Day90 BM 051214_Stained O2300_012.fcs
 Singlets
 7.77E5

FIG. 58A2

JME14-03: Confirming xGvHD by FACS

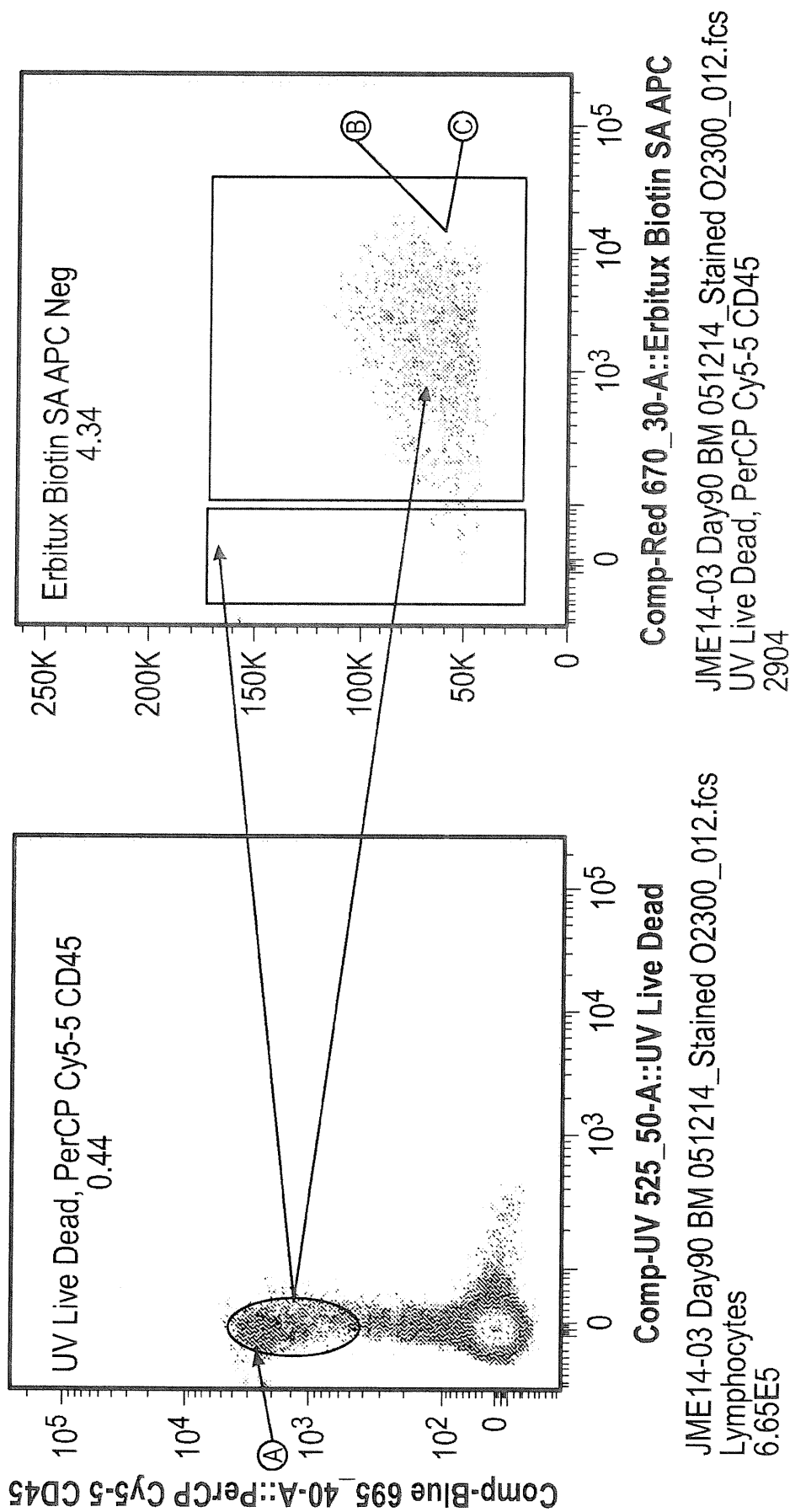
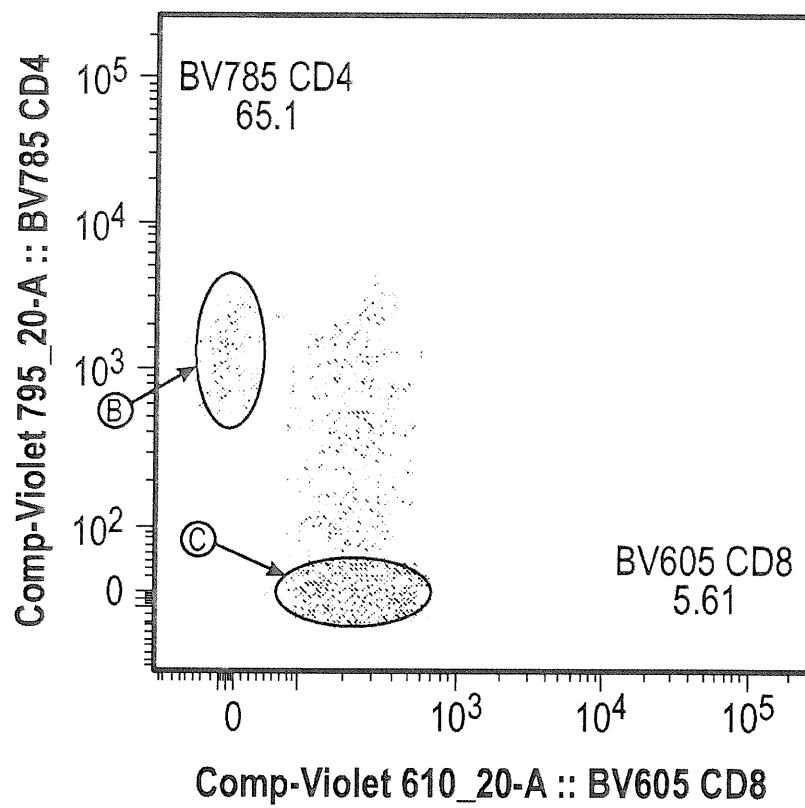


FIG. 58A3

FIG. 58A4

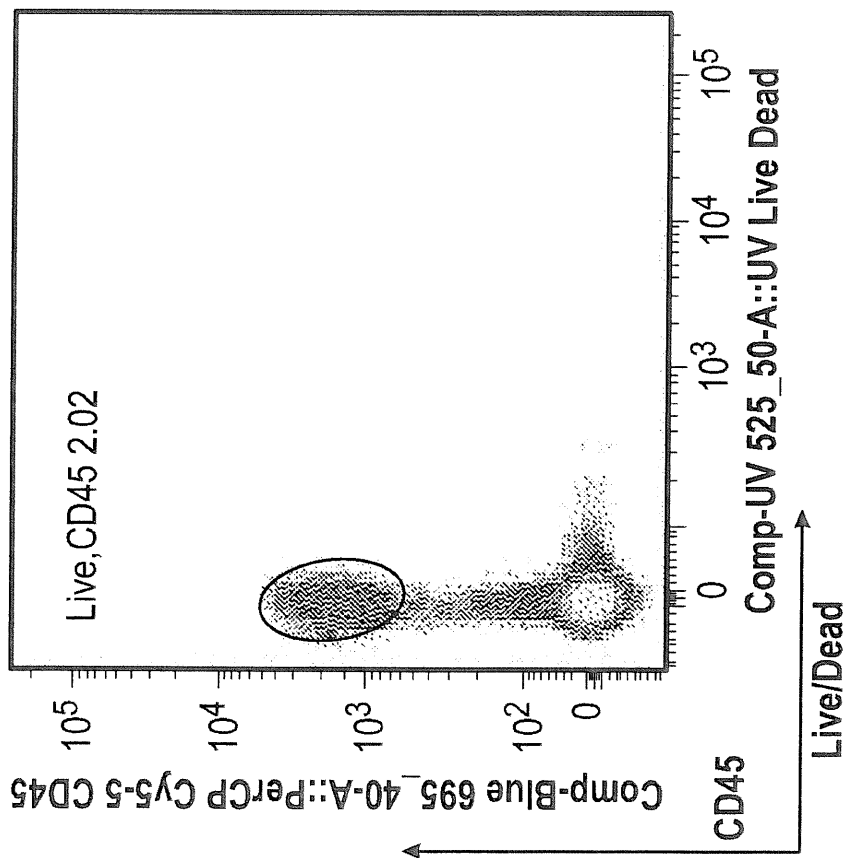
JME14-03:Confirming xGvHD by FACS



JME14-03 Day90 BM 051214_Stained O2300_012.fcs
 Erbitux Biotin SA APC Pos
 2761

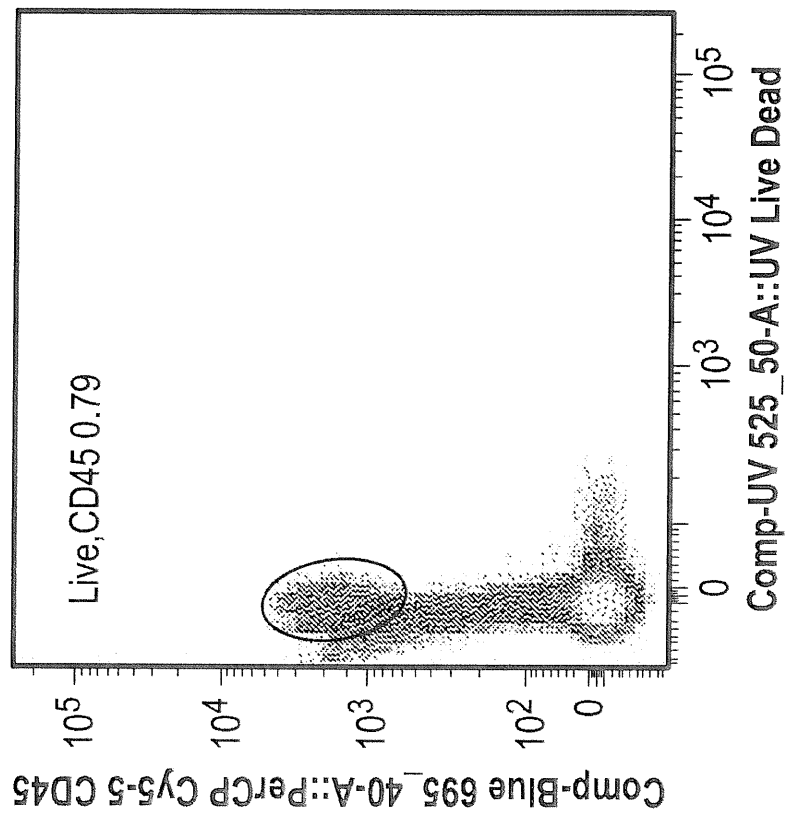
FIG. 58A5

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2187_010.fcs
Lymphocytes
4.91E5

FIG. 58B1

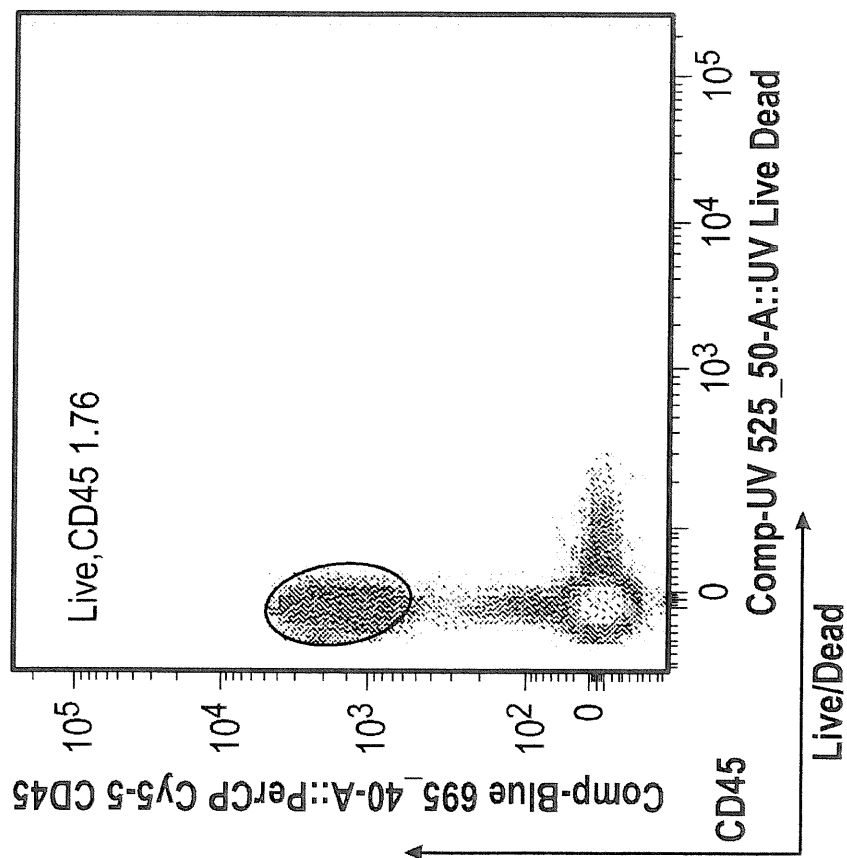


JME14-03N BM 041014_Stained 2218_011.fcs
Lymphocytes
5.83E5

iLabber ELN #EXP-14-CW6229

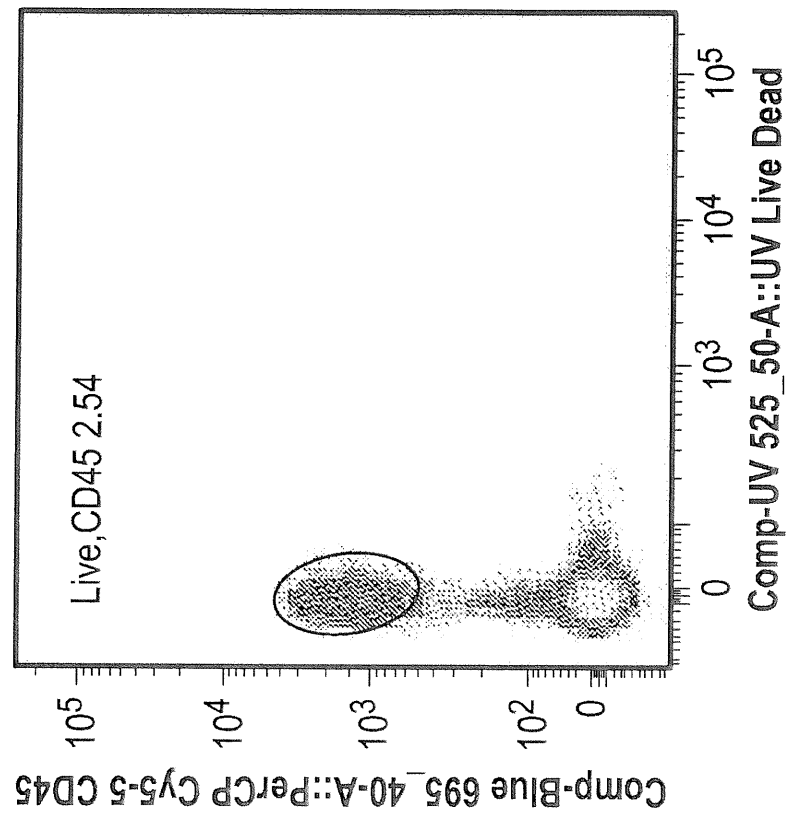
FIG. 58B2

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2316_012.fcs
Lymphocytes
7.07E5

FIG. 58B3

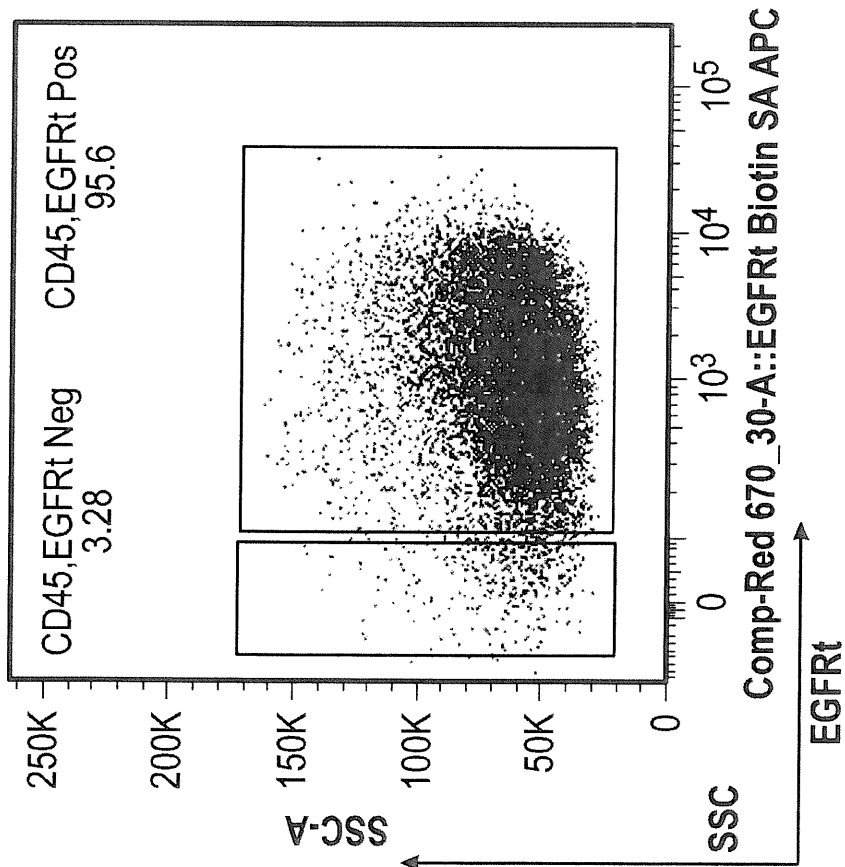


JME14-03N BM 041014_Stained 2333_013.fcs
Lymphocytes
5.96E5

iLabber ELN #EXP-14-CW6229

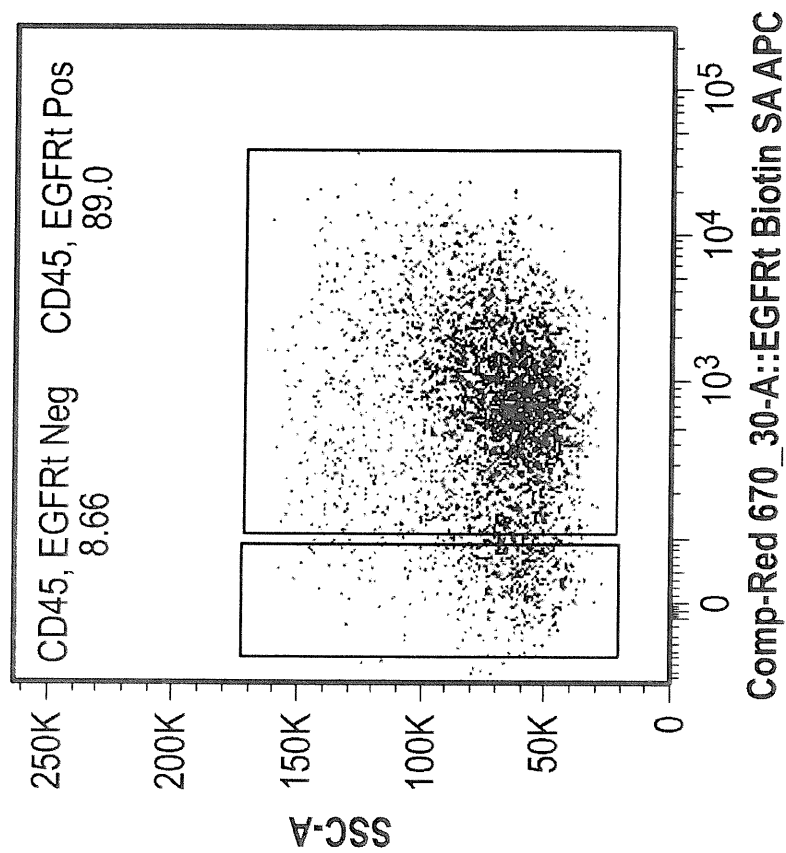
FIG. 58B4

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2187_010.fcs
Live, CD45
9937

FIG. 58B5

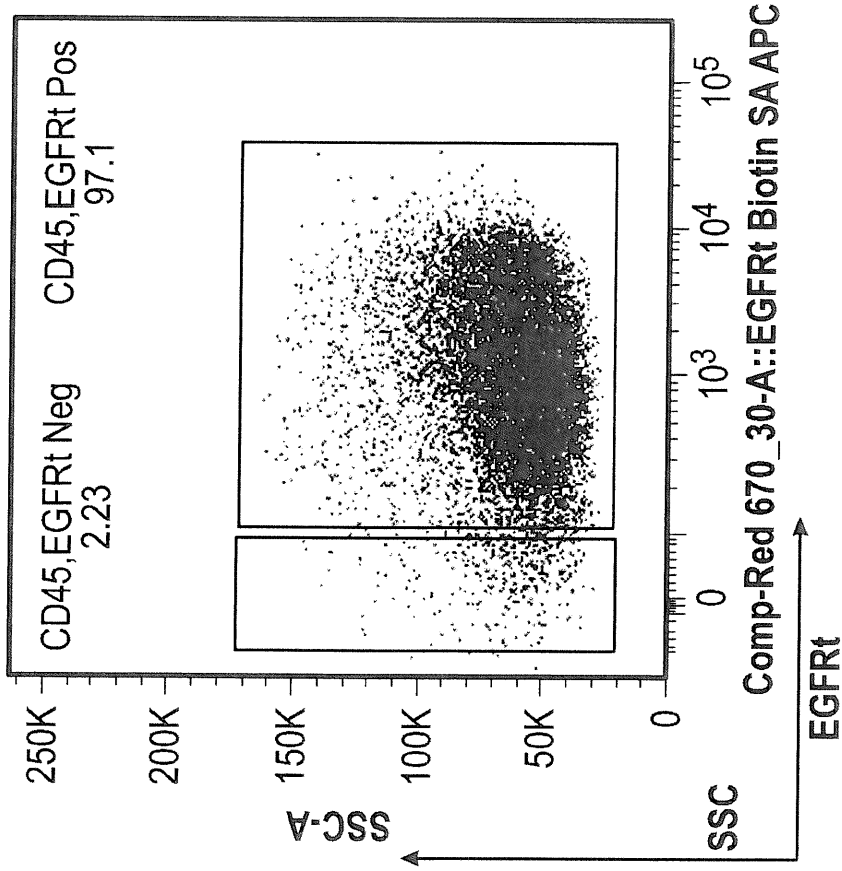


JME14-03N BM 041014_Stained 2218_011.fcs
Live, CD45
4631

iLabber ELN #EXP-14-CW6229

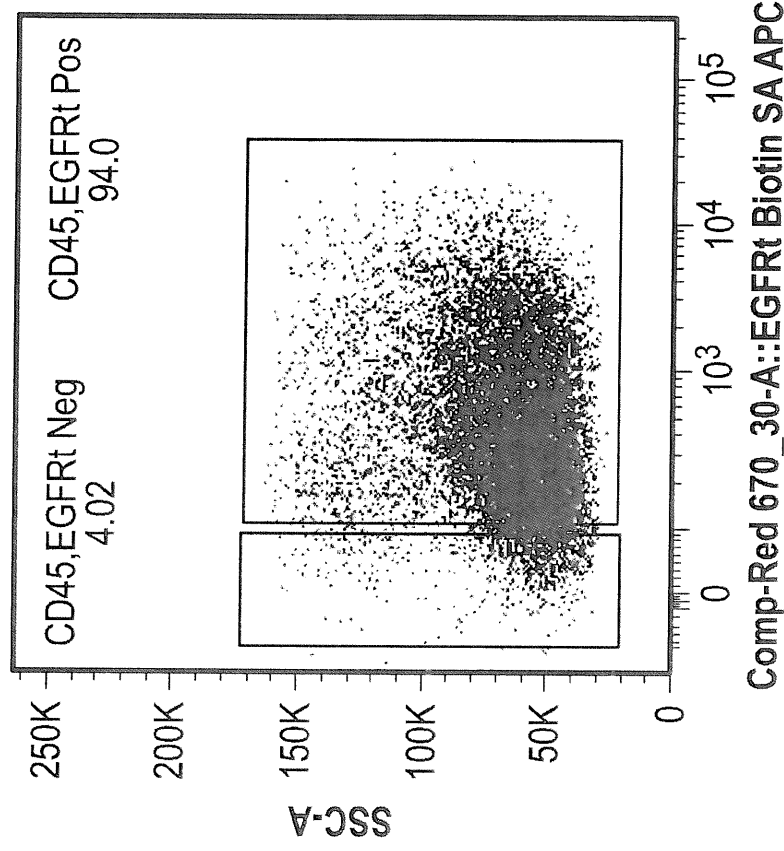
FIG. 58B6

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2316_012.fcs
Live, CD45
12476

FIG. 58B7

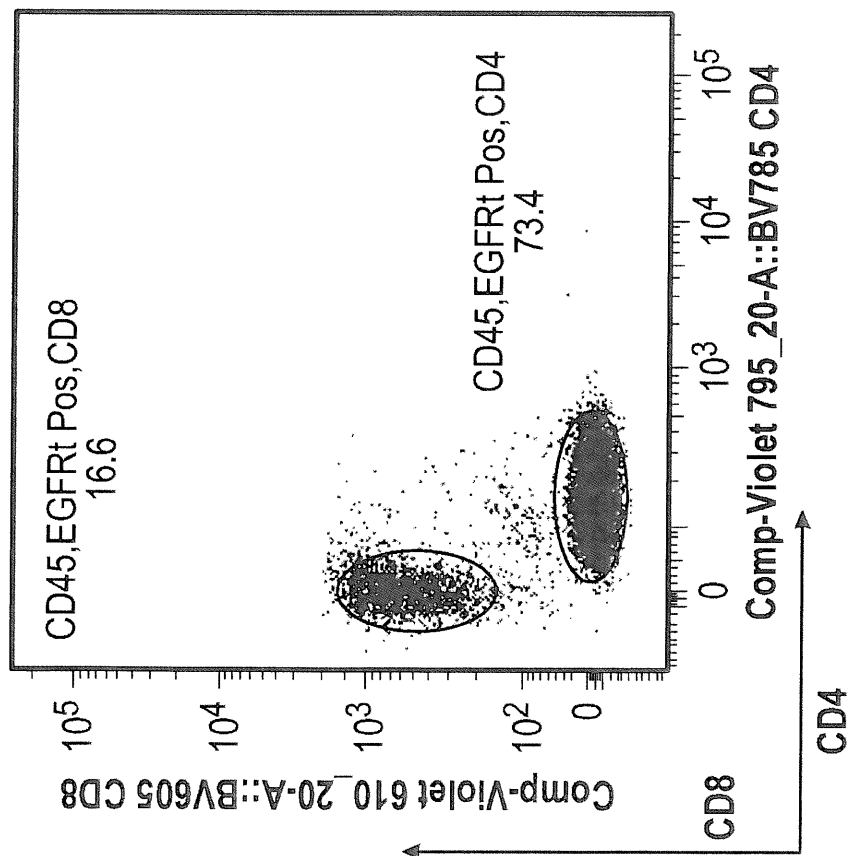


JME14-03N BM 041014_Stained 2333_013.fcs
Live, CD45
15132

iLabber ELN #EXP-14-CW6229

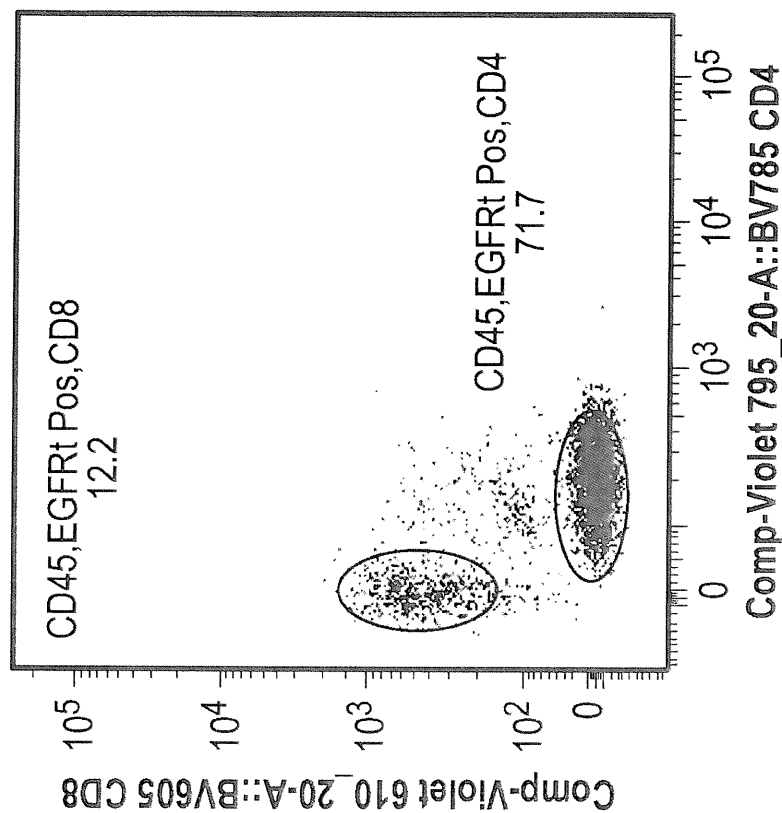
FIG. 58B8

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2187_010.fcs
CD45, EGFRt Pos
9498

FIG. 58B9

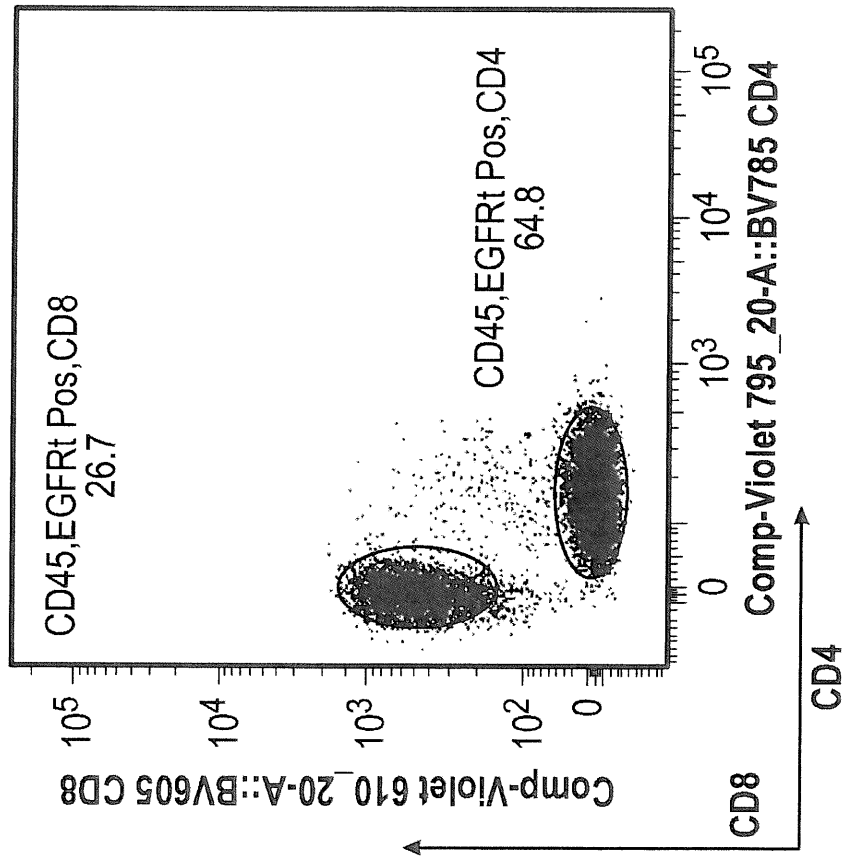


JME14-03N BM 041014_Stained 2218_011.fcs
CD45, EGFRt Pos
4121

iLabber ELN #EXP-14-CW6229

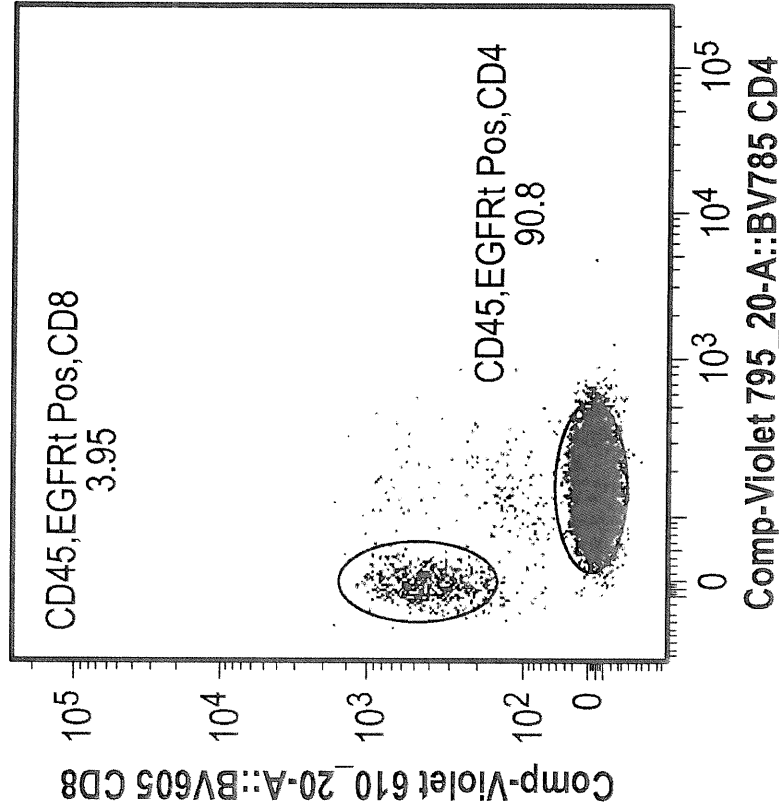
FIG. 58B10

JME14-03 Group N (10x10e6 Dose) Day 51 Post T-cell (Day 58 Post Tumor)



JME14-03N BM 041014_Stained 2316.012.fcs
CD45, EGFRt Pos
12116

FIG. 58B11

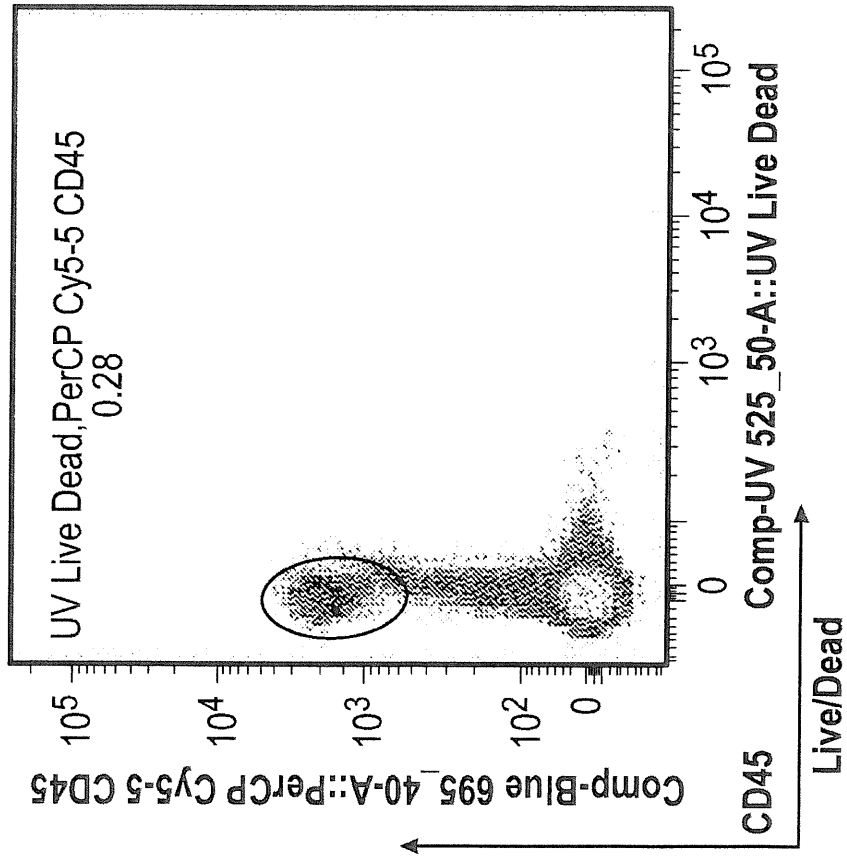


JME14-03N BM 041014_Stained 2333_013.fcs
CD45, EGFRt Pos
14217

iLabber ELN #EXP-14-CW6229

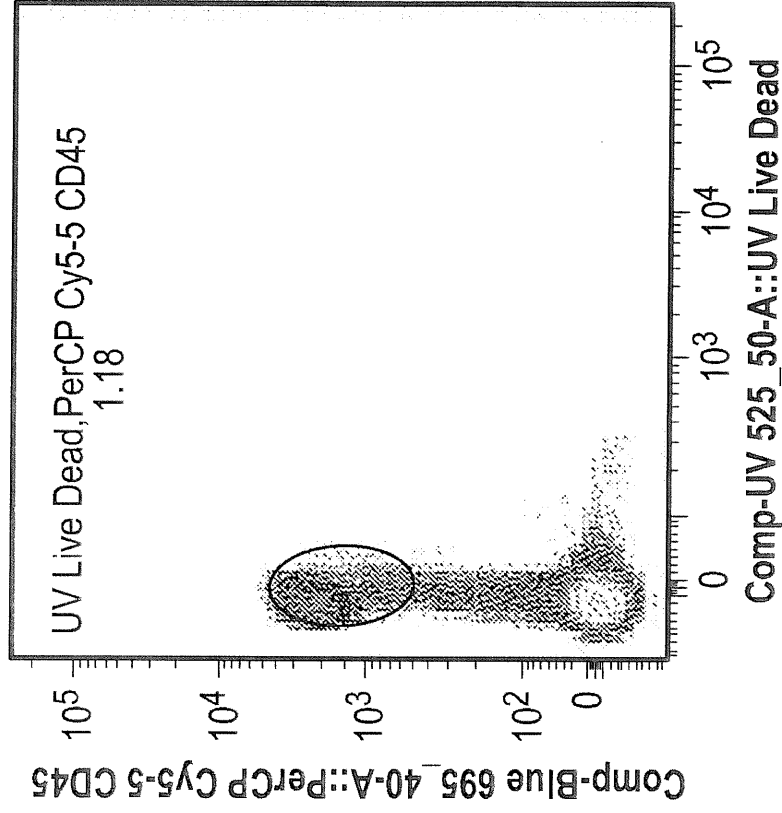
FIG. 58B12

JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)



JME14-03 Day90 BM 051214_Stained O2189_010.fcs
Lymphocytes
7.91E5

FIG. 58C1

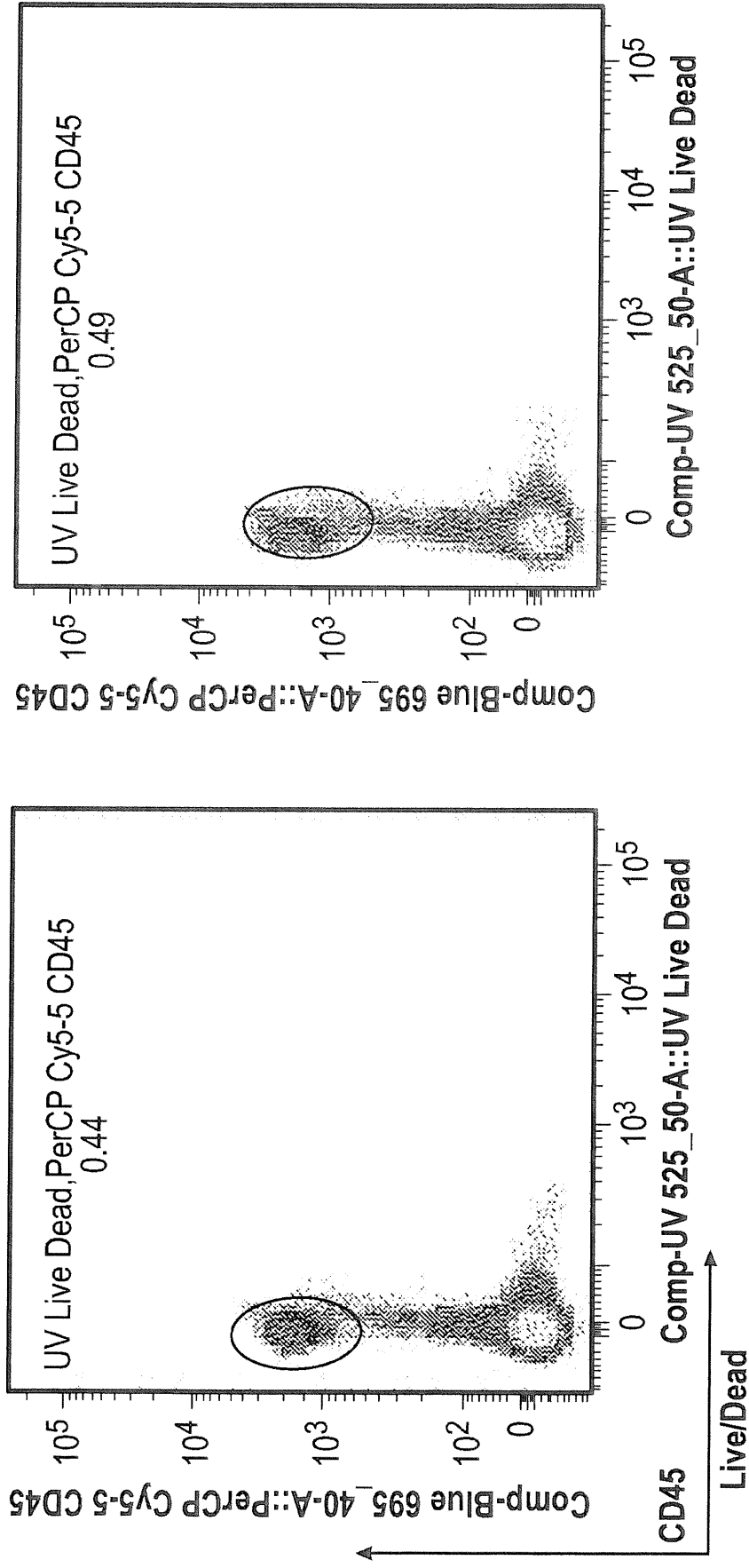


JME14-03 Day90 BM 051214_Stained O2199_011.fcs
Lymphocytes
7.81E5

iLabber ELN #EXP-14-CW6241

FIG. 58C2

JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)



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JME14-03 Day90 BM 051214_Stained O2300_012.fcs
Lymphocytes
6.65E5

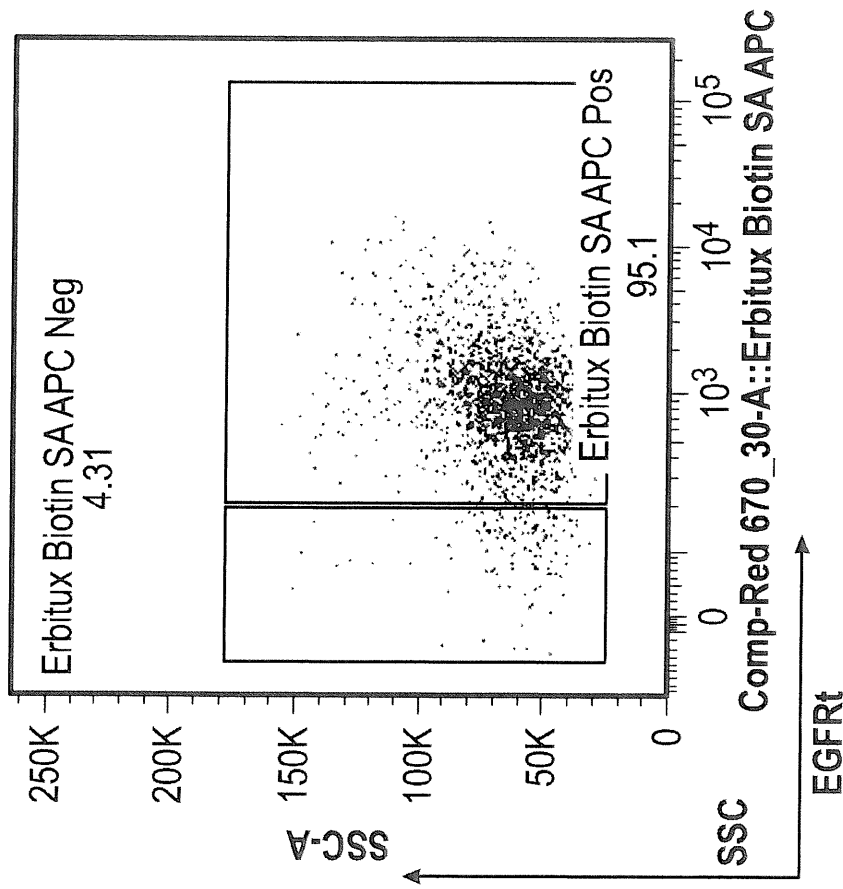
JME14-03 Day90 BM 051214_Stained O2334_013.fcs
Lymphocytes
4.31E5

iLabber ELN #EXP-14-CW6241

FIG. 58C3

FIG. 58C4

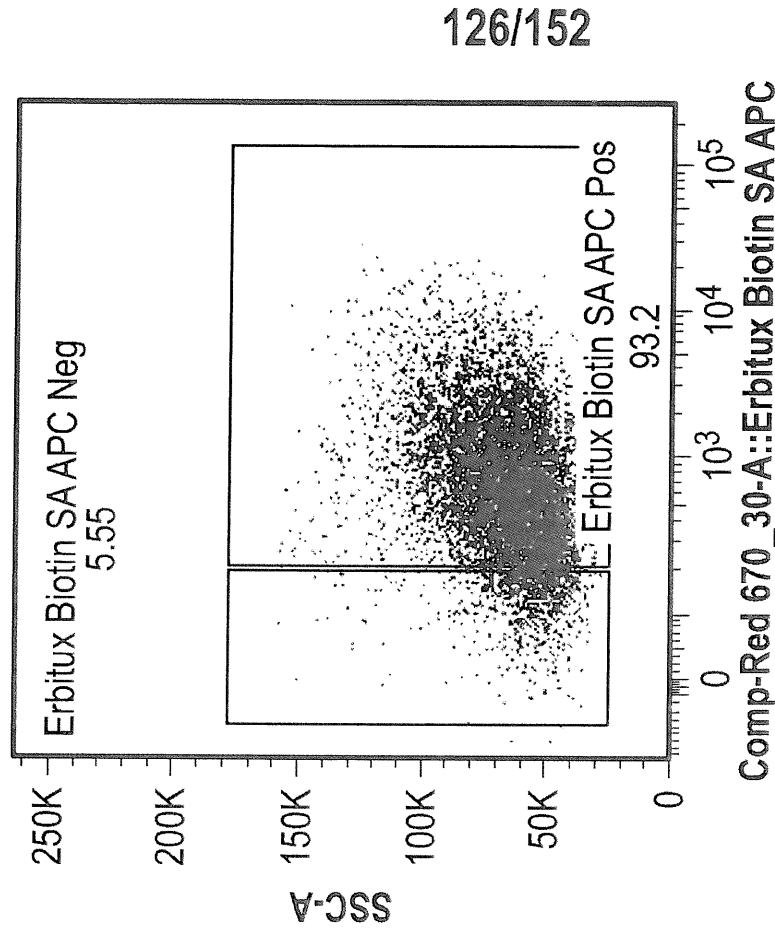
JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)



JME14-03 Day90 BM 051214_Stained O2189_010.fcs
UV Live Dead, PerCP Cy5-5 CD45
2206

iLabber ELN #EXP-14-CW6241

FIG. 58C5

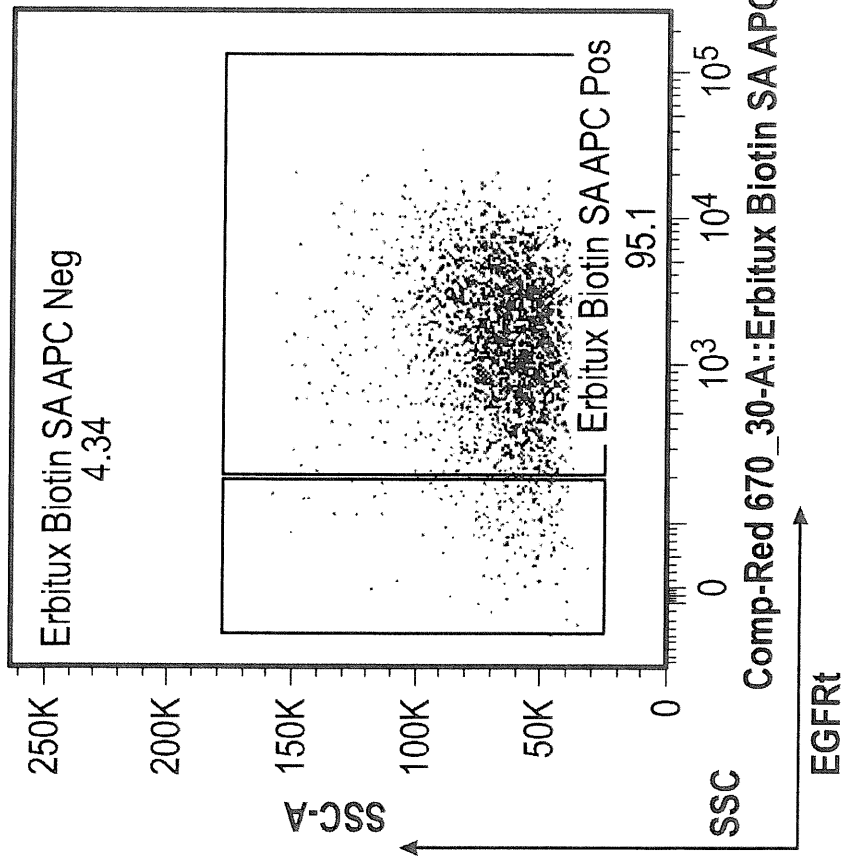


JME14-03 Day90 BM 051214_Stained O2199_011.fcs
UV Live Dead, PerCP Cy5-5 CD45
9221

FIG. 58C6

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JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)

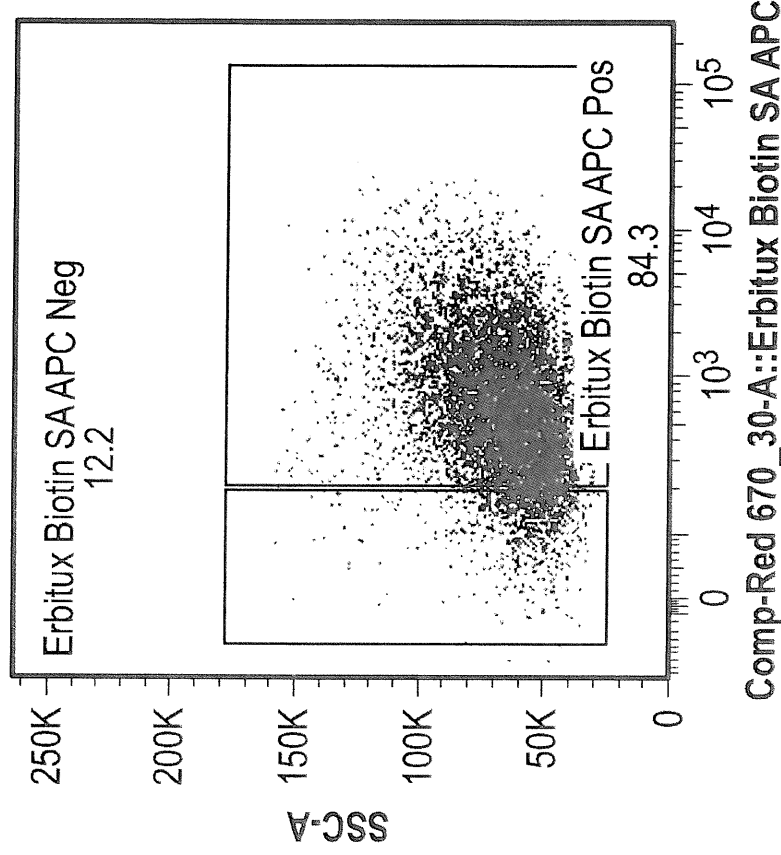


JME14-03 Day90 BM 051214_Stained O2300_012.fcs
UV Live Dead, PerCP Cy5-5 CD45
2904

FIG. 58C7

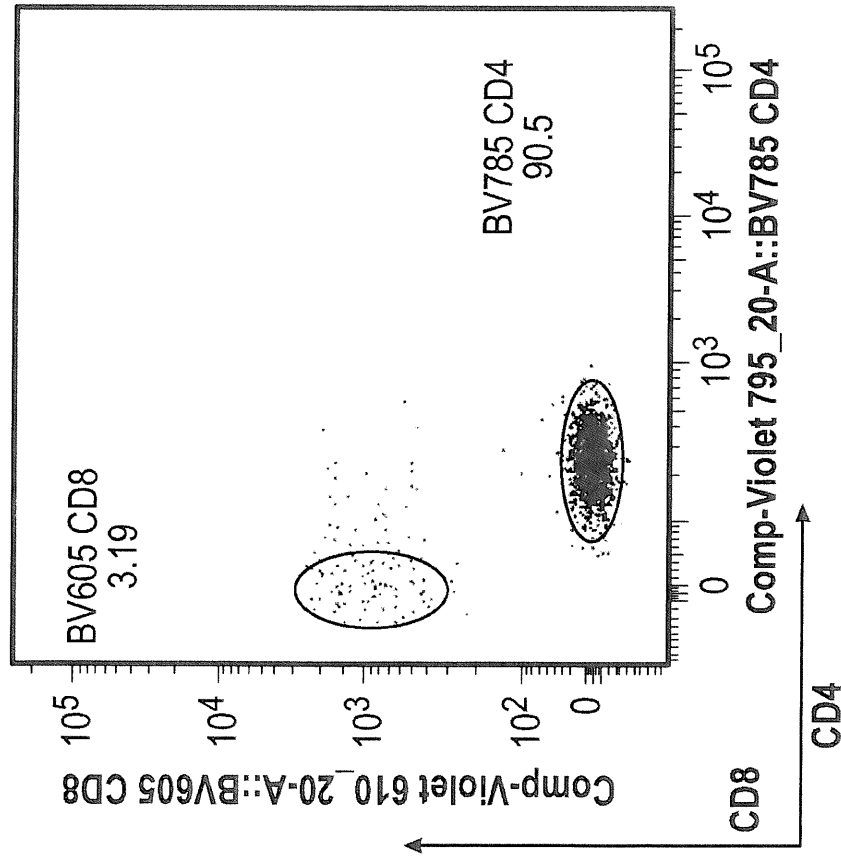
iLabber ELN #EXP-14-CW6241

FIG. 58C8



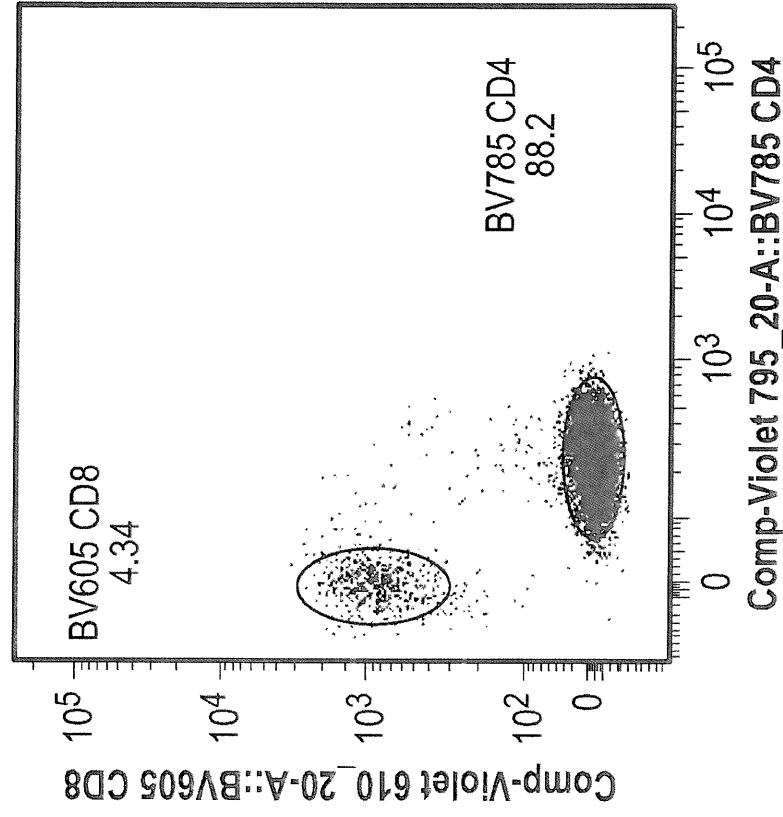
JME14-03 Day90 BM 051214_Stained O2334_013.fcs
UV Live Dead, PerCP Cy5-5 CD45
2115

JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)



JME14-03 Day90 BM 051214_Stained O2189_010.fcs
Erbtux Biotin SA APC Pos
2099

FIG. 58C9

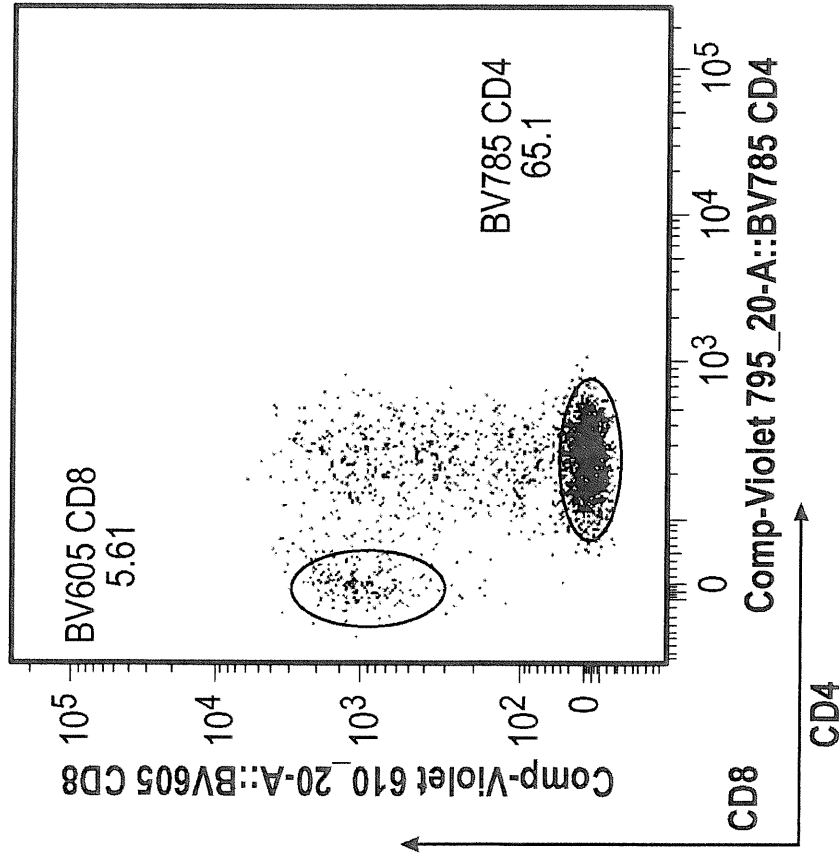


JME14-03 Day90 BM 051214_Stained O2199_011.fcs
Erbtux Biotin SA APC Pos
8594

FIG. 58C10

iLabber ELN #EXP-14-CW6241

JME14-03 Group O (5x10e6 Dose)Day 83 Post T-cell (Day 90 post Tumor)

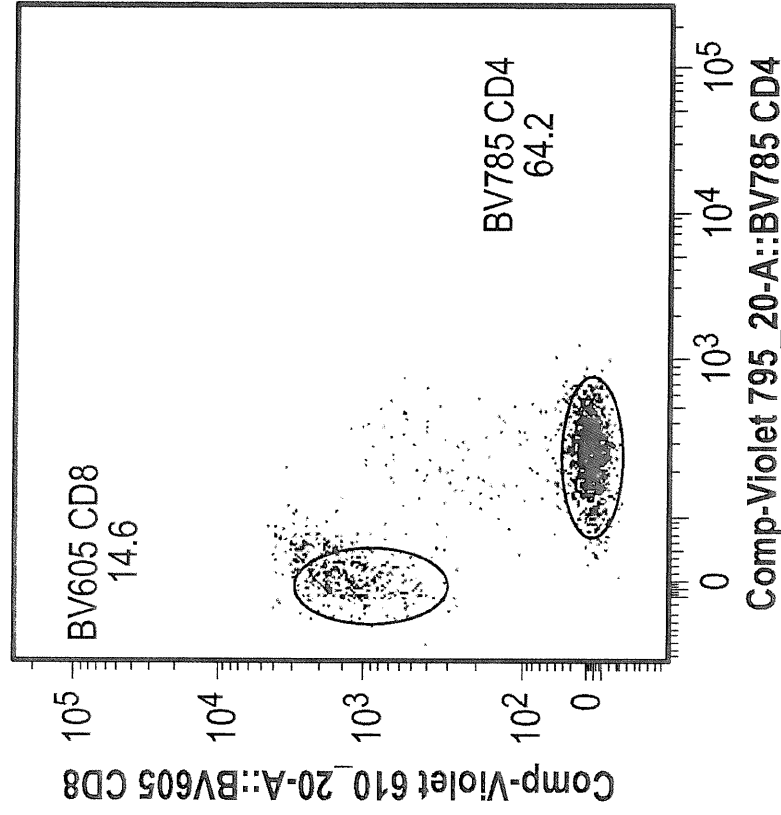


JME14-03 Day90 BM 051214_Stained O2300_012.fcs
Erbtux Biotin SA APC Pos
2761

FIG. 58C11

iLabber ELN #EXP-14-CW6241

FIG. 58C12



JME14-03 Day90 BM 051214_Stained O2334_013.fcs
Erbtux Biotin SA APC Pos
1783

JME14-03 PLAT-02: %Live and CD45+
51 Days Post T-Cells:
%Live/CD45+ Bone Marrow

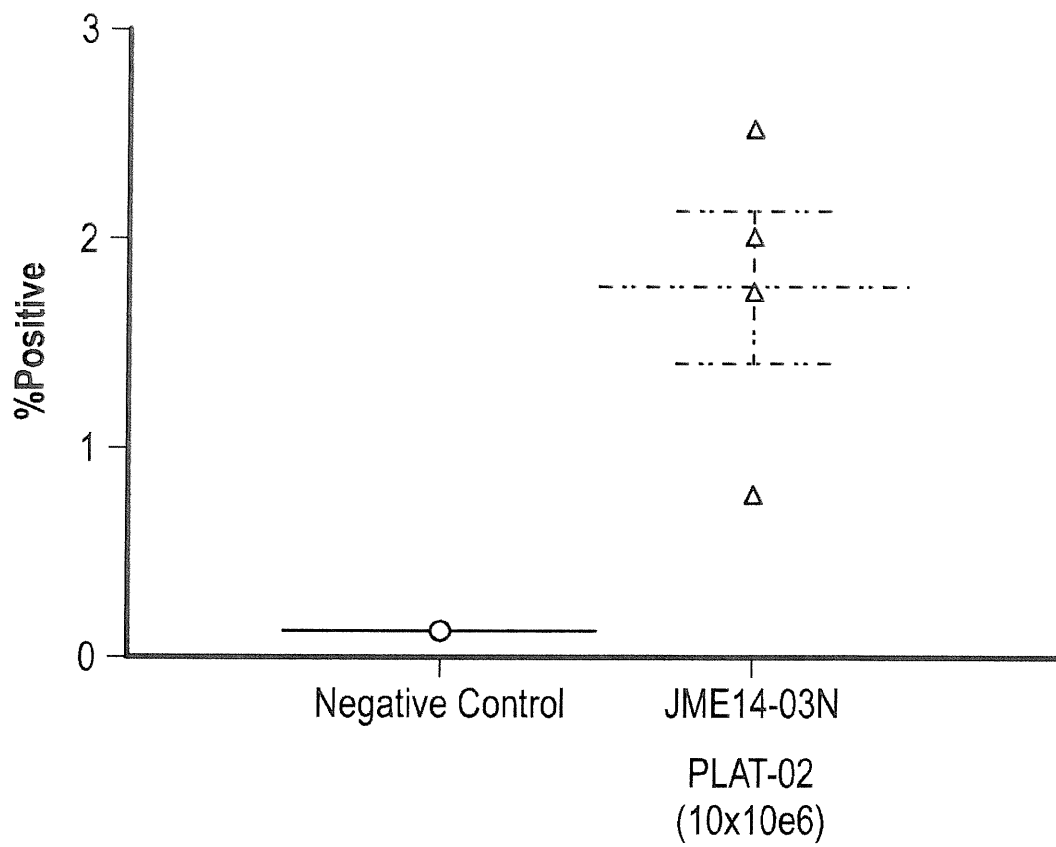


FIG. 59A

JME14-03 PLAT-02: %Live and CD45+

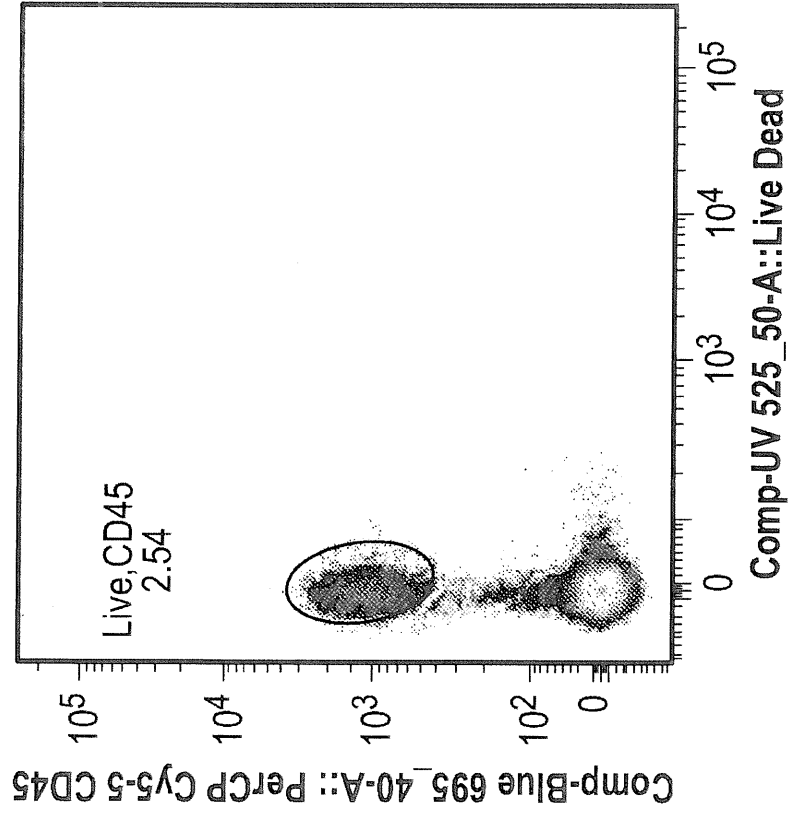


FIG. 59B1

JME14-03 PLAT-02: %Live and CD45+

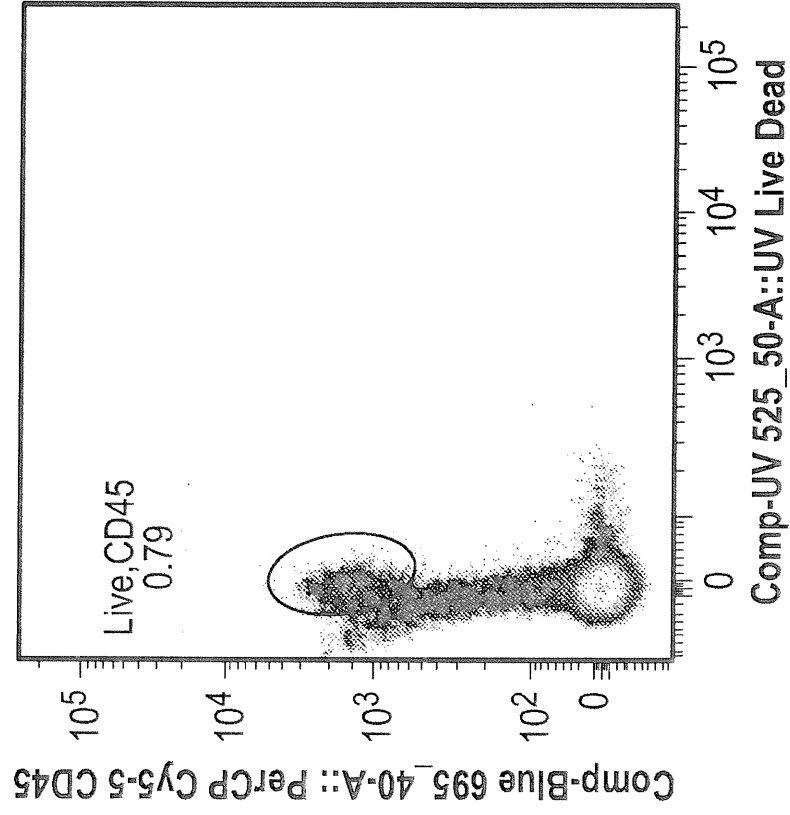


FIG. 59B2

JME14-03 PLAT-02: %Live and CD45+

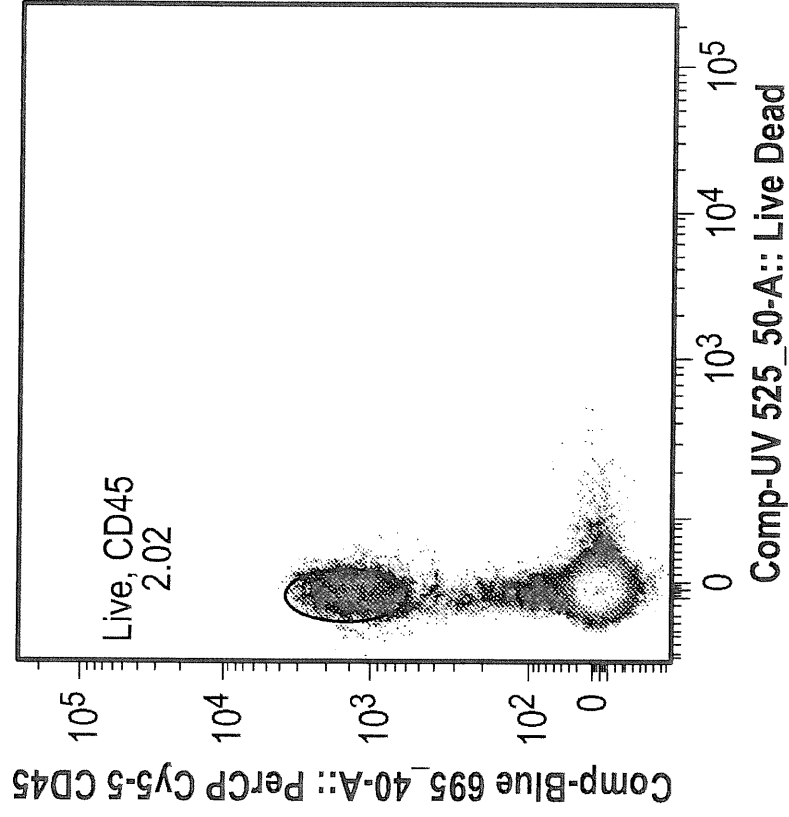


FIG. 59B3

JME14-03 PLAT-02: %Live and CD45+

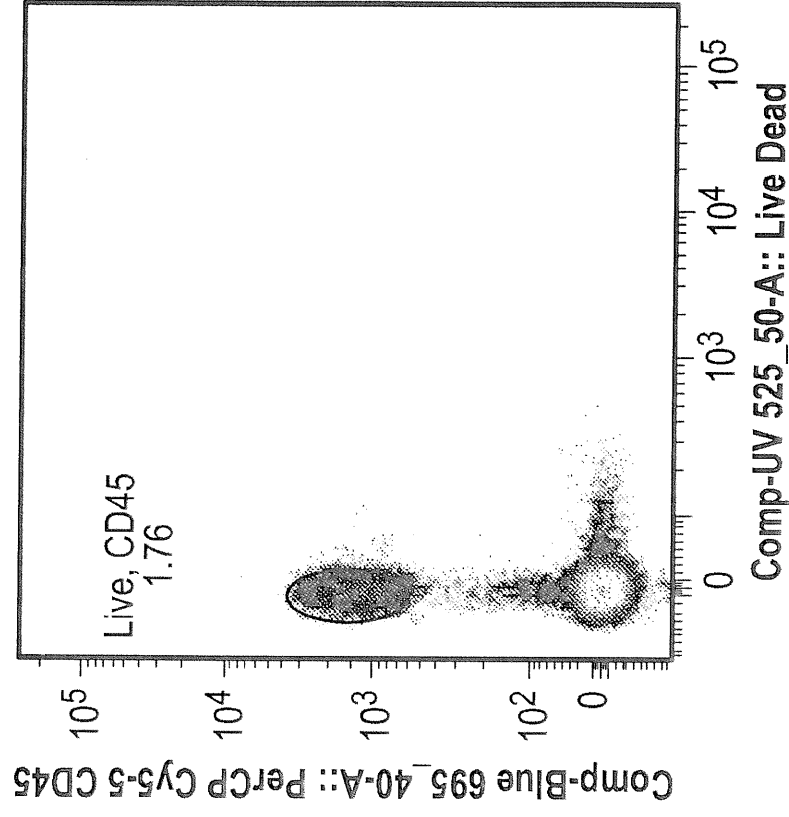


FIG. 59B4

83 Days Post T-Cell:
%Live/CD45+ Bone Marrow

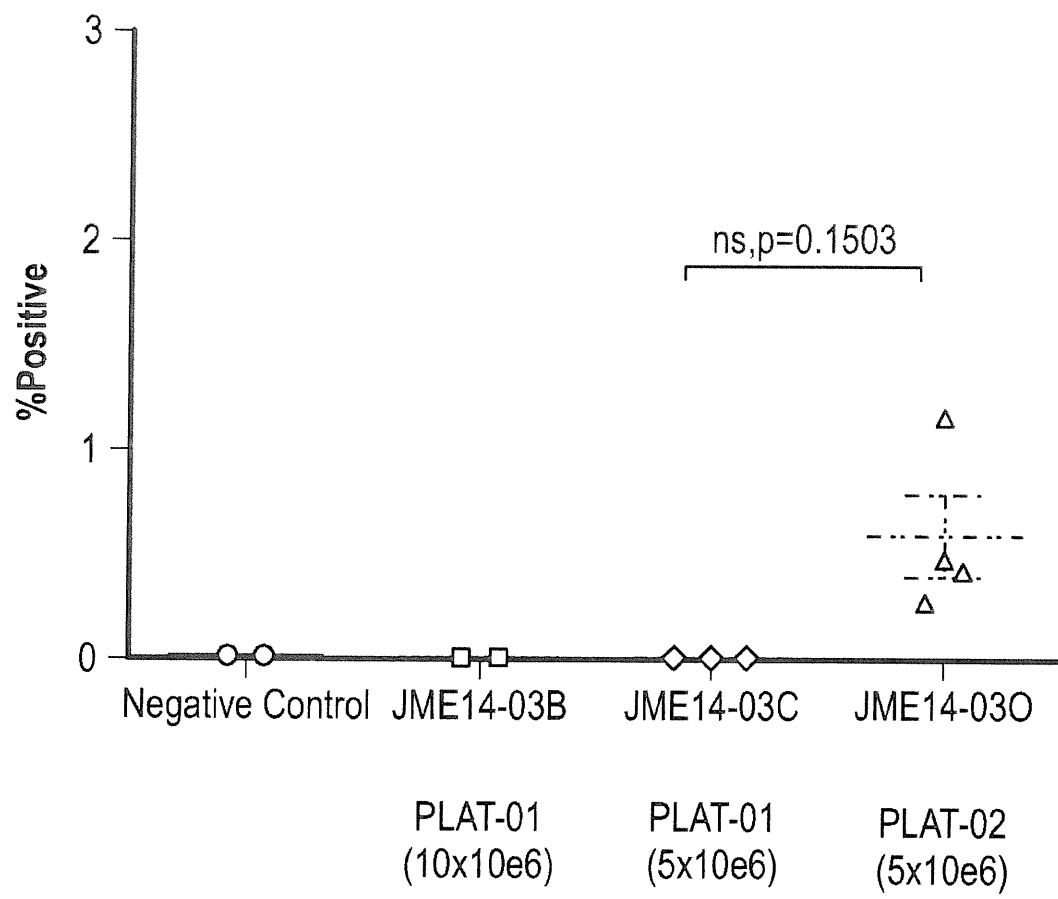


FIG. 59C

JME14-03 PLAT-02: %Live and CD45+

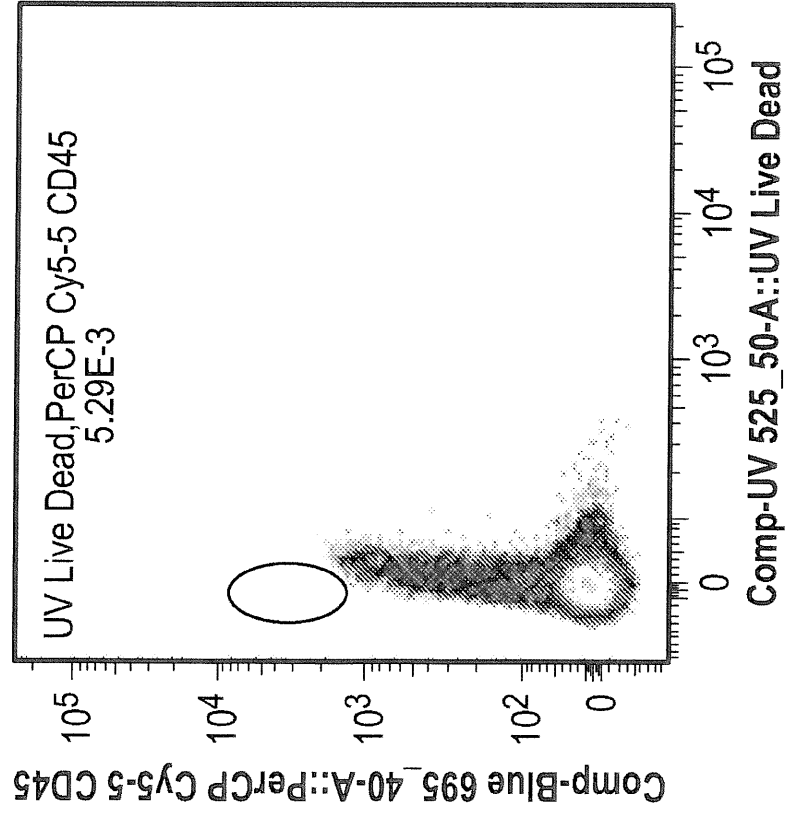


FIG. 59D1

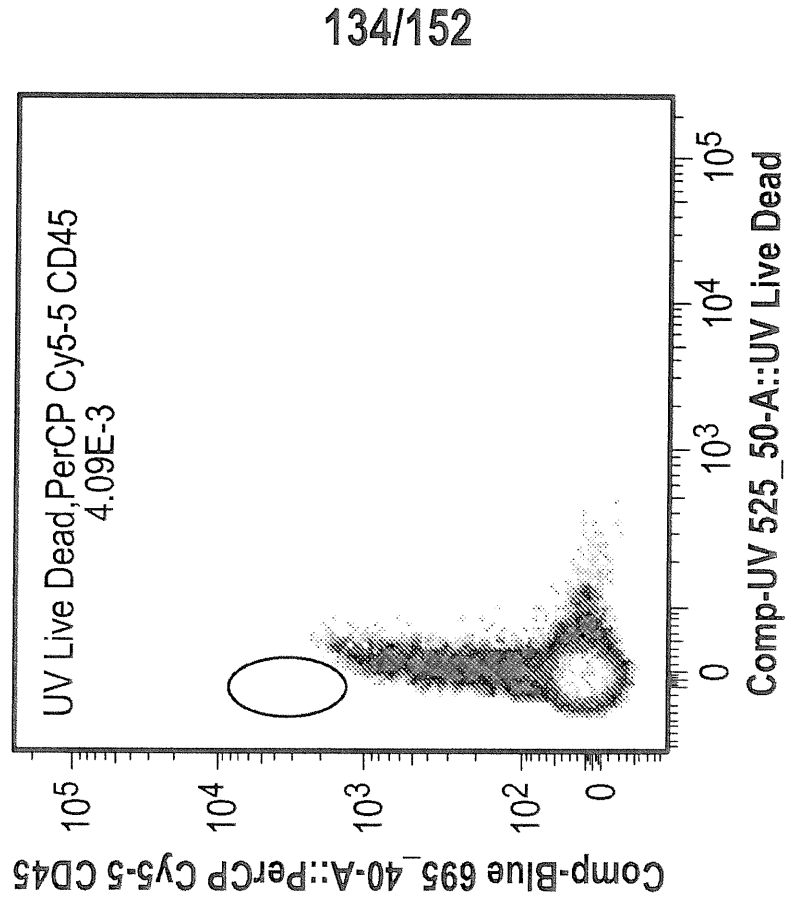


FIG. 59D2

JME14-03 PLAT-02: %Live and CD45+

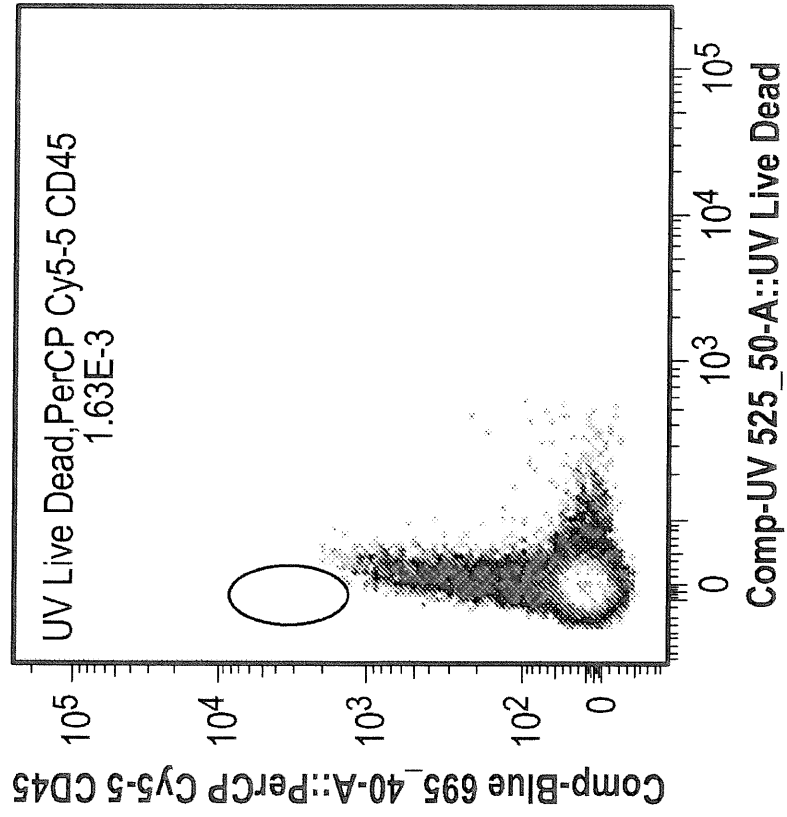


FIG. 59D3

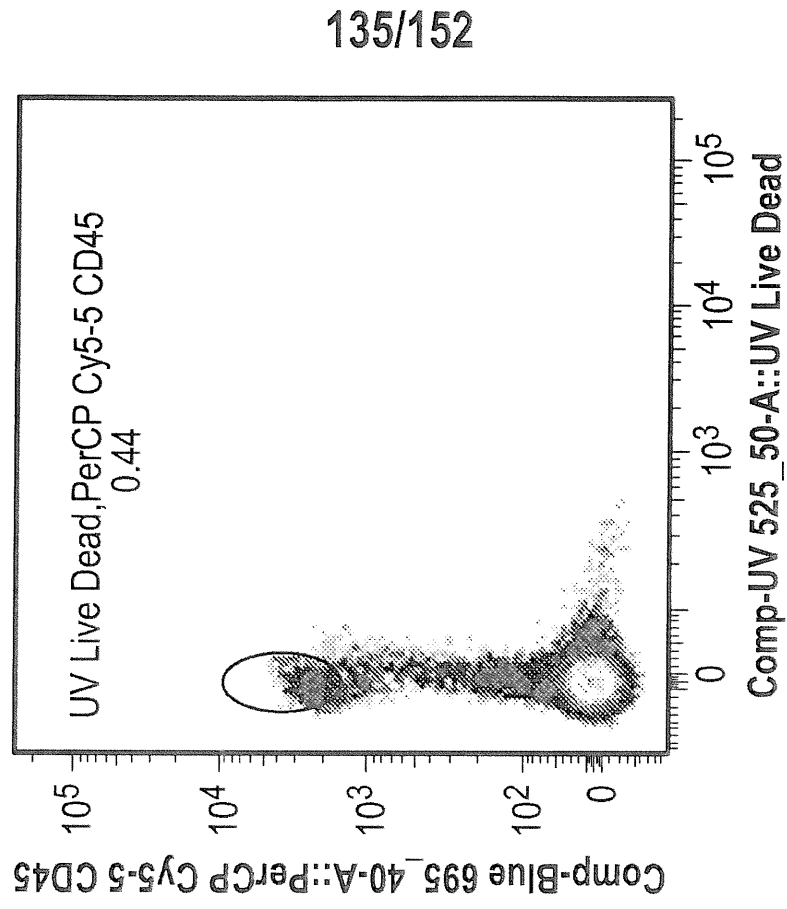


FIG. 59D4

JME14-03 PLAT-02: %Live and CD45+

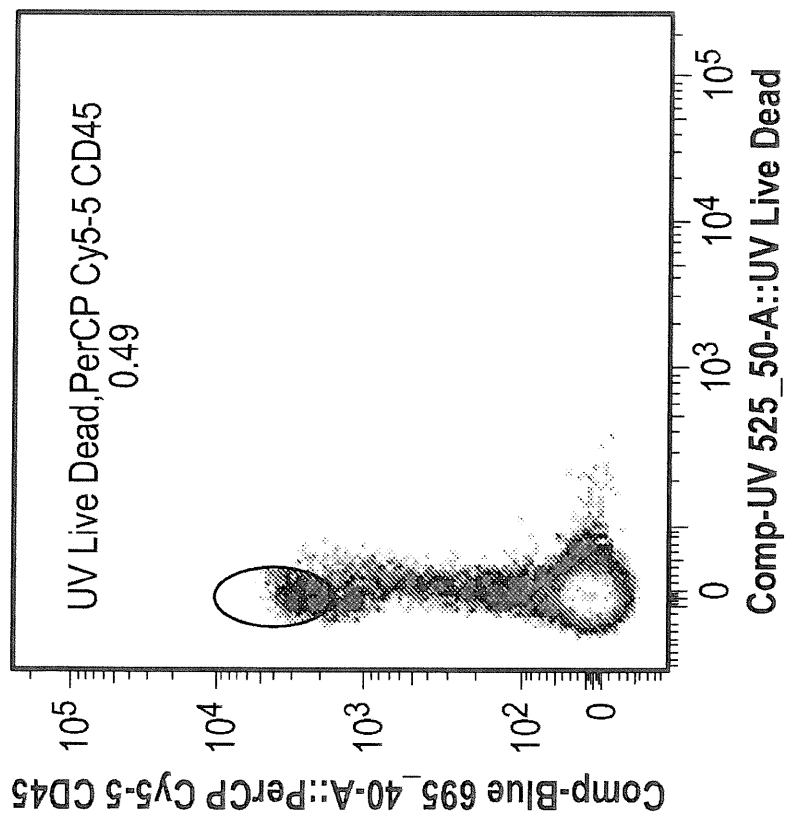


FIG. 59D5

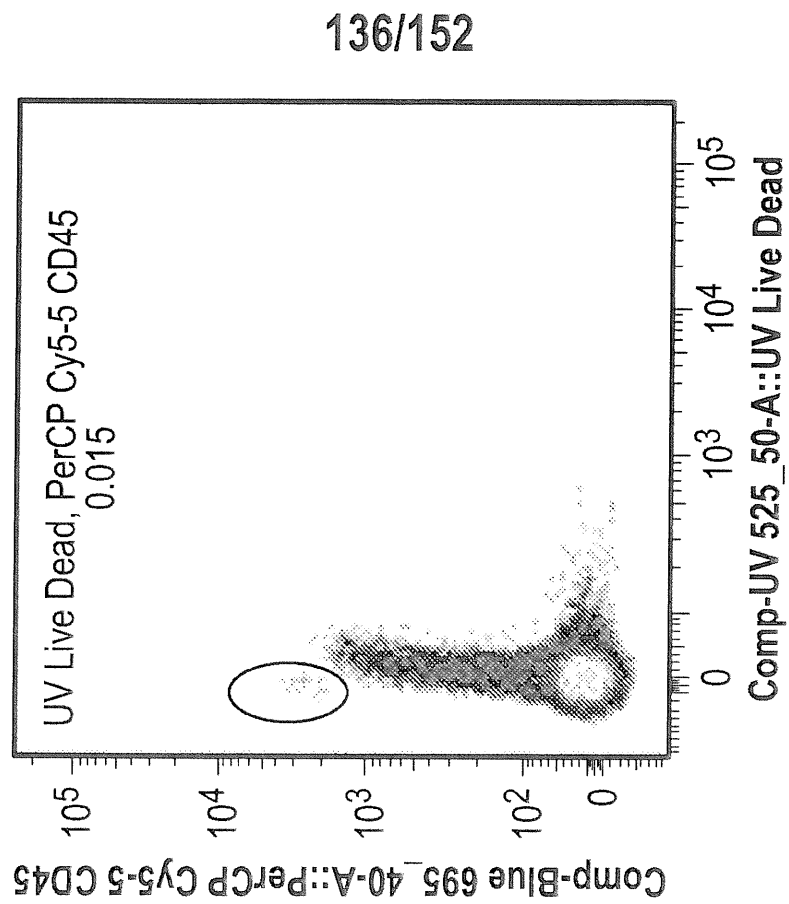


FIG. 59D6

JME14-03 PLAT-02: %Live and CD45+

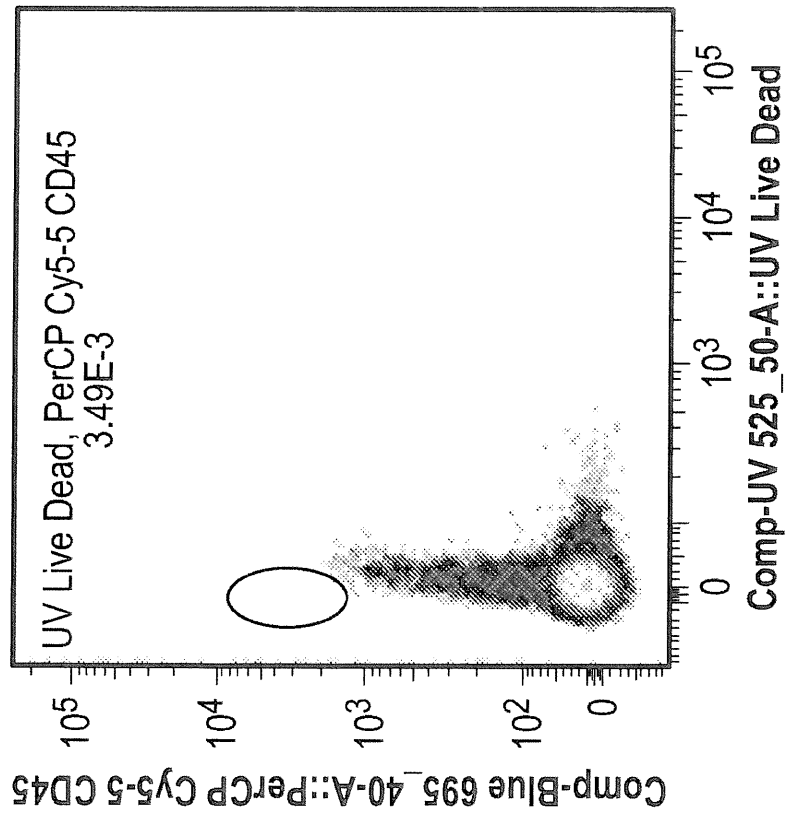


FIG. 59D7

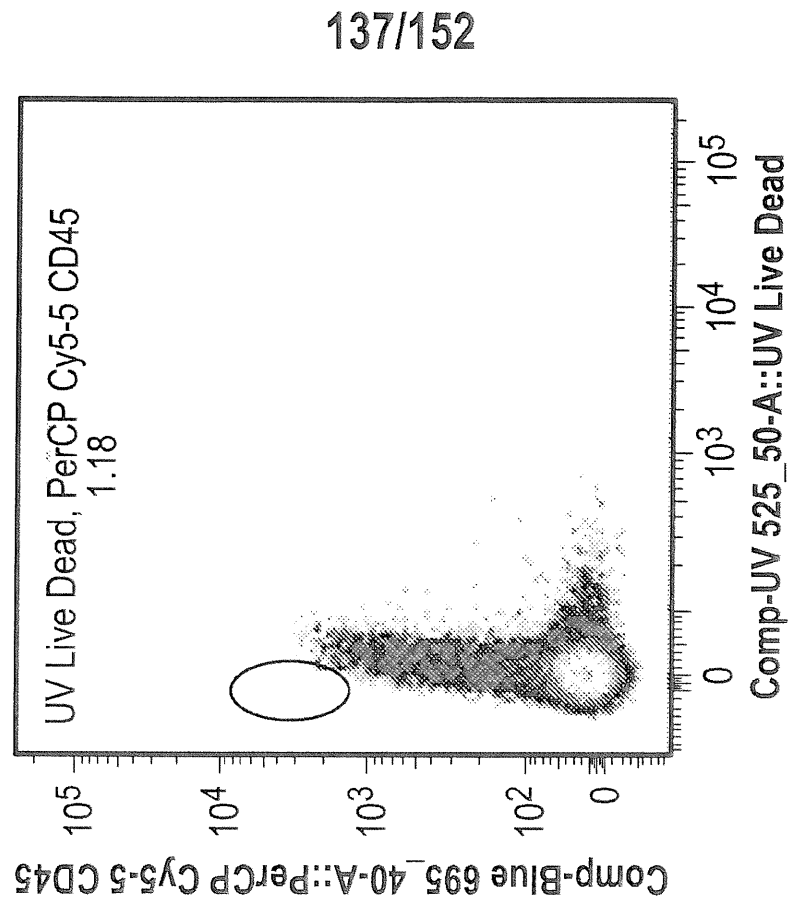


FIG. 59D8

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JME14-03 PLAT-02: %Live and CD45+

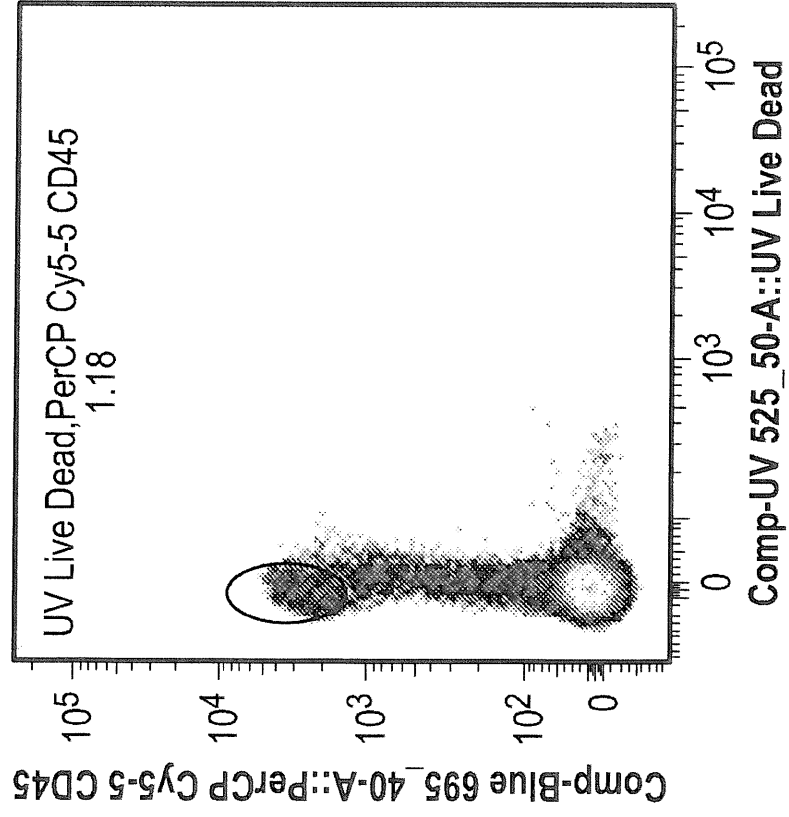


FIG. 59D9

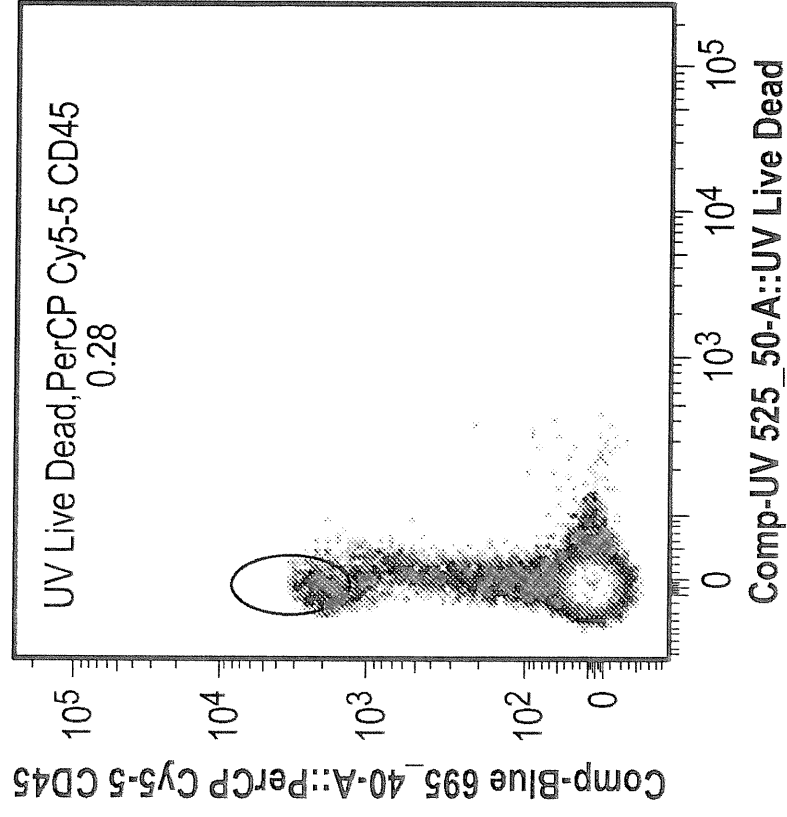


FIG. 59D10

JME14-03 PLAT-02: %Live and CD45+

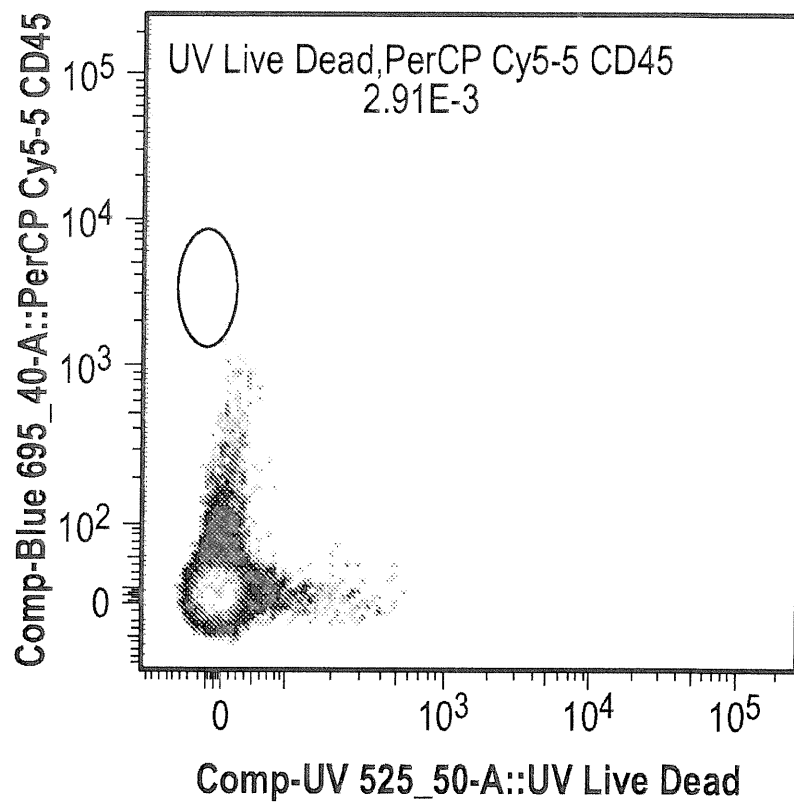


FIG. 59D11

JME14-03 PLAT-02, 5 Million T-Cell Dose Group:%EGFRt+ of Live, CD45+
51 Days Post T-Cells:
%EGFRt of CD45+ Bone Marrow

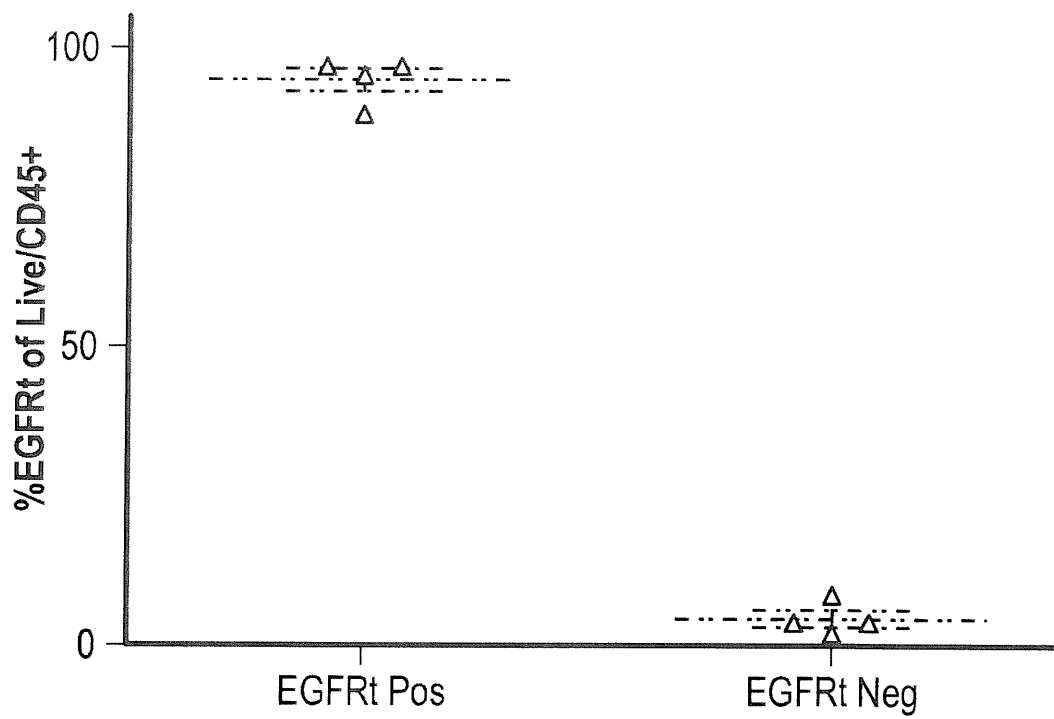
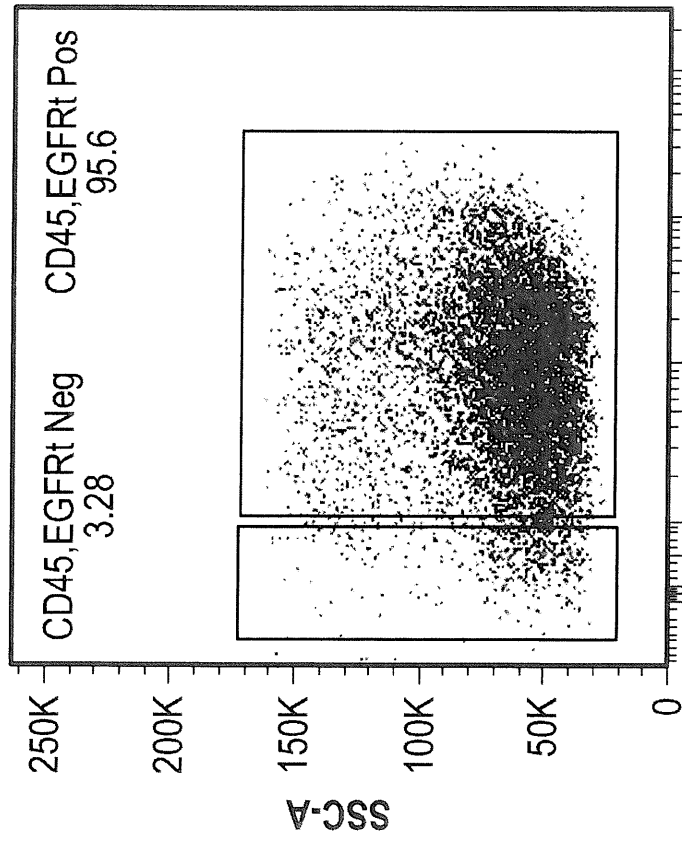


FIG. 59E

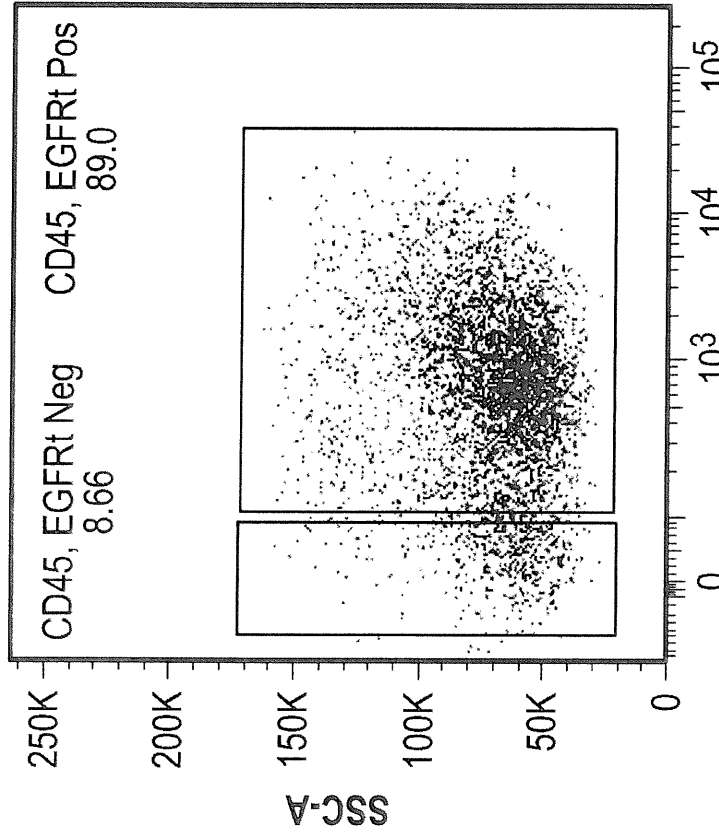
JME14-03 PLAT-02, 5 Million T-Cell Dose Group:%EGFRt+ of Live, CD45+



Comp-Red 670_30-A::EGFRt Biotin SA APC
JME14-03N BM 041014_Stained 2187_010.fcs
Live, CD45
9937

FIG. 59F1

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Comp-Red 670_30-A::EGFRt Biotin SA APC
JME14-03N BM 041014_Stained 2218_011.fcs
Live, CD45
4631

FIG. 59F2

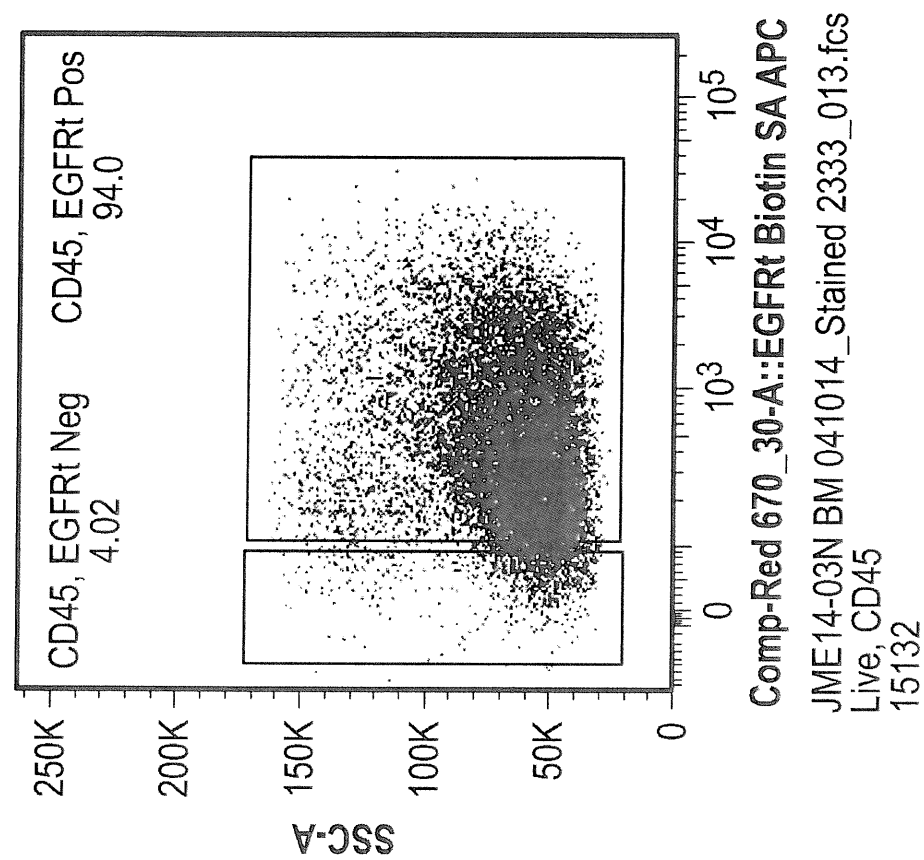


FIG. 59F4

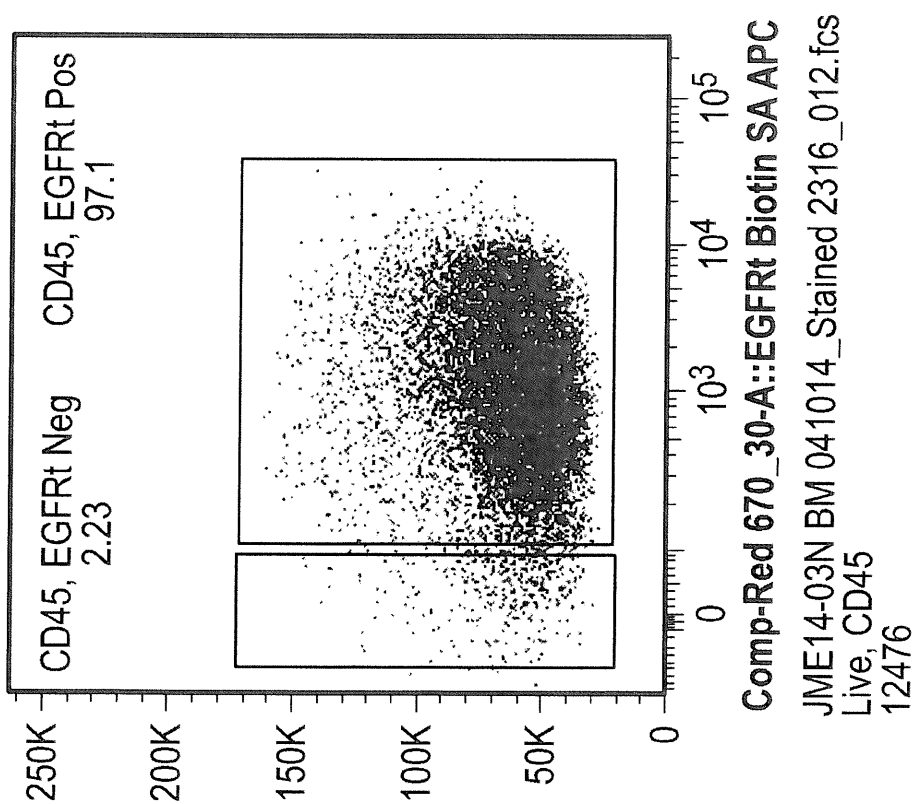


FIG. 59F3

JME14-03 PLAT-02, 5 Million T-Cell Dose Group: %EGFRt+ of Live, CD45+
83 Days Post T-Cells:
%EGFRt of CD45+ Bone Marrow

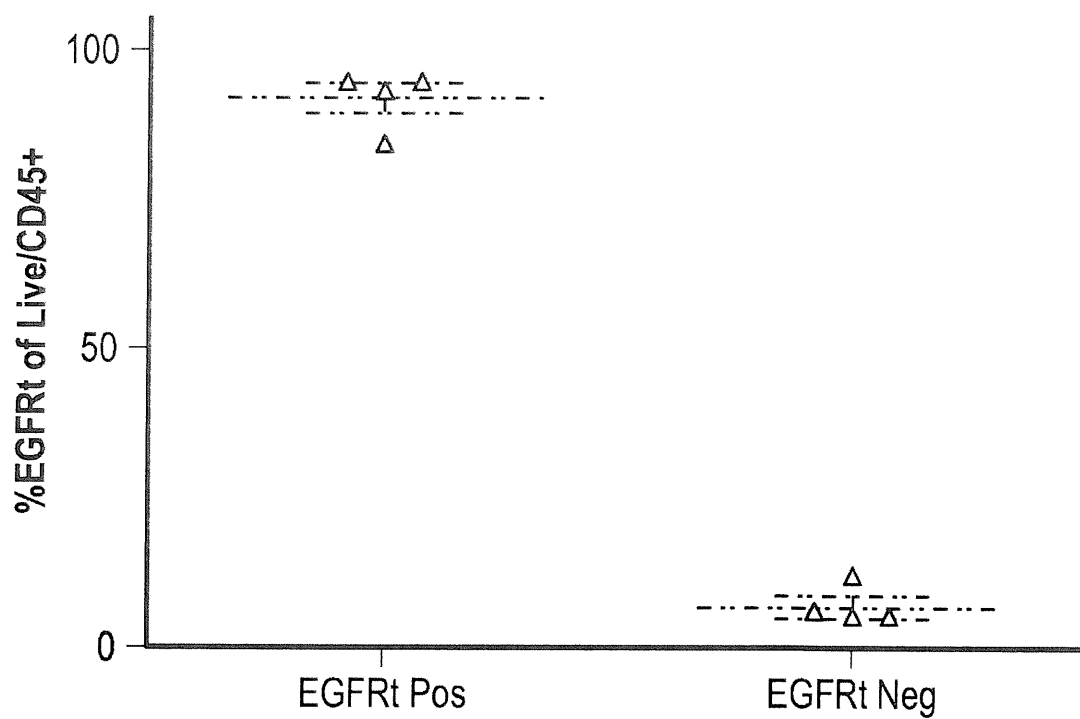
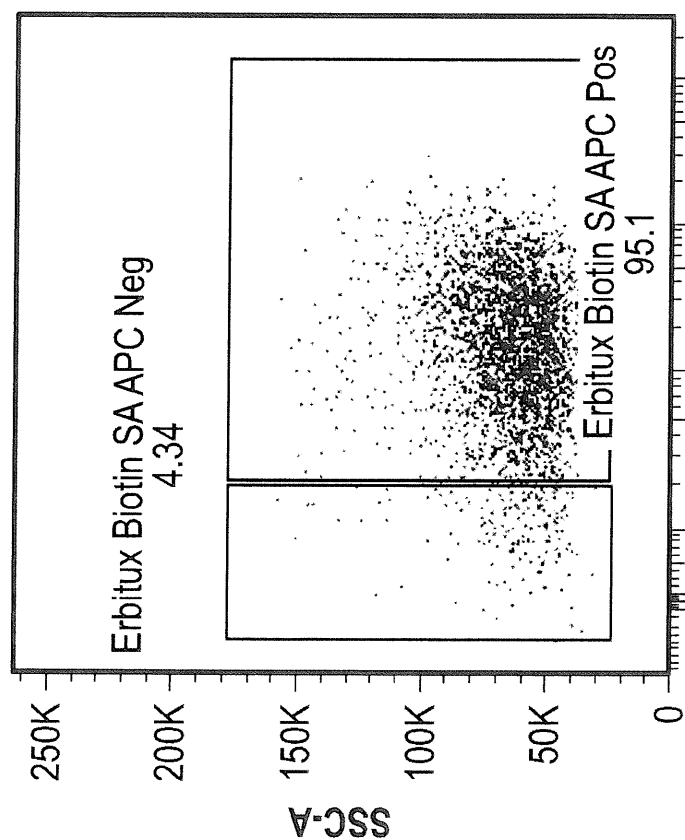


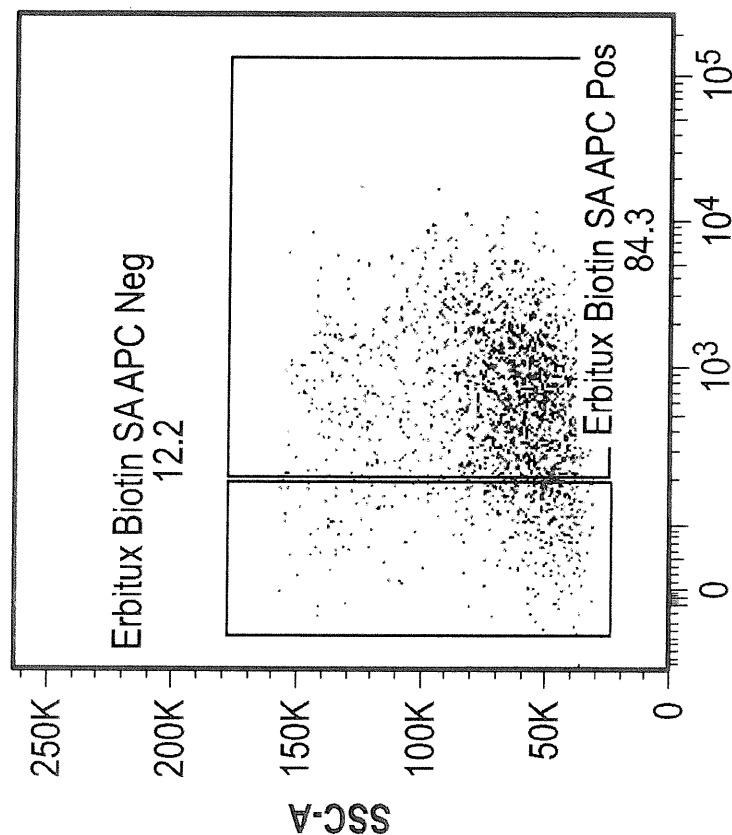
FIG. 59G

JME14-03 PLAT-02, 5 Million T-Cell Dose Group:%EGFRt+ of Live, CD45+



JME14-03 Day90 BM 051214 Stained O2300_012.fcs
UV Live Dead, PerCP Cy5-5 CD45

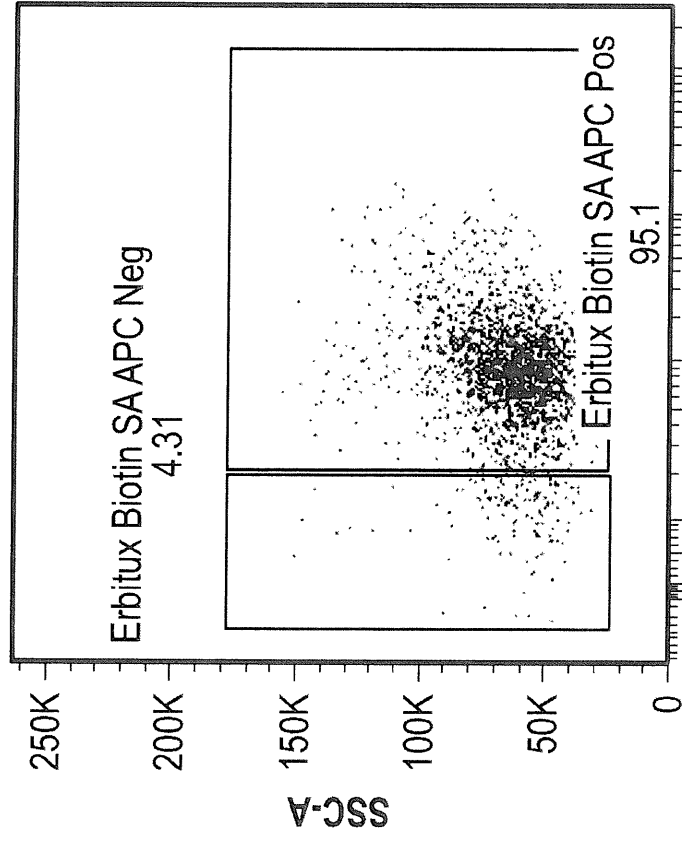
FIG. 59H1



JME14-03 Day90 BM 051214 Stained O2334_013.fcs
UV Live Dead, PerCP Cy5-5 CD45

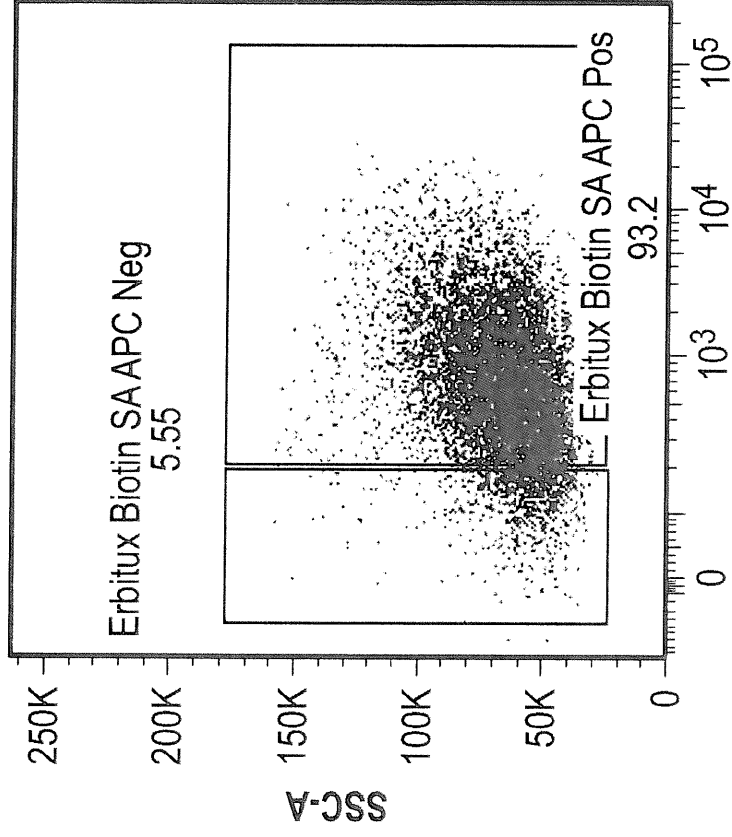
FIG. 59H2

JME14-03 PLAT-02, 5 Million T-Cell Dose Group: %EGFRt+ of Live, CD45+



JME14-03 Day90 BM 051214_Stained O2189_010.fcs
UV Live Dead, PerCP Cy5-5 CD45

FIG. 59H3



JME14-03 Day90 BM 051214_Stained O2199_013.fcs
UV Live Dead, PerCP Cy5-5 CD45

FIG. 59H4

JME14-03 PLAT-02, 5 Million Dose Group: %CD4+ vs CD8, CD45+, EGFRt+
51 Days Post T-Cell:
%CD4 vs CD8 in Bone Marrow

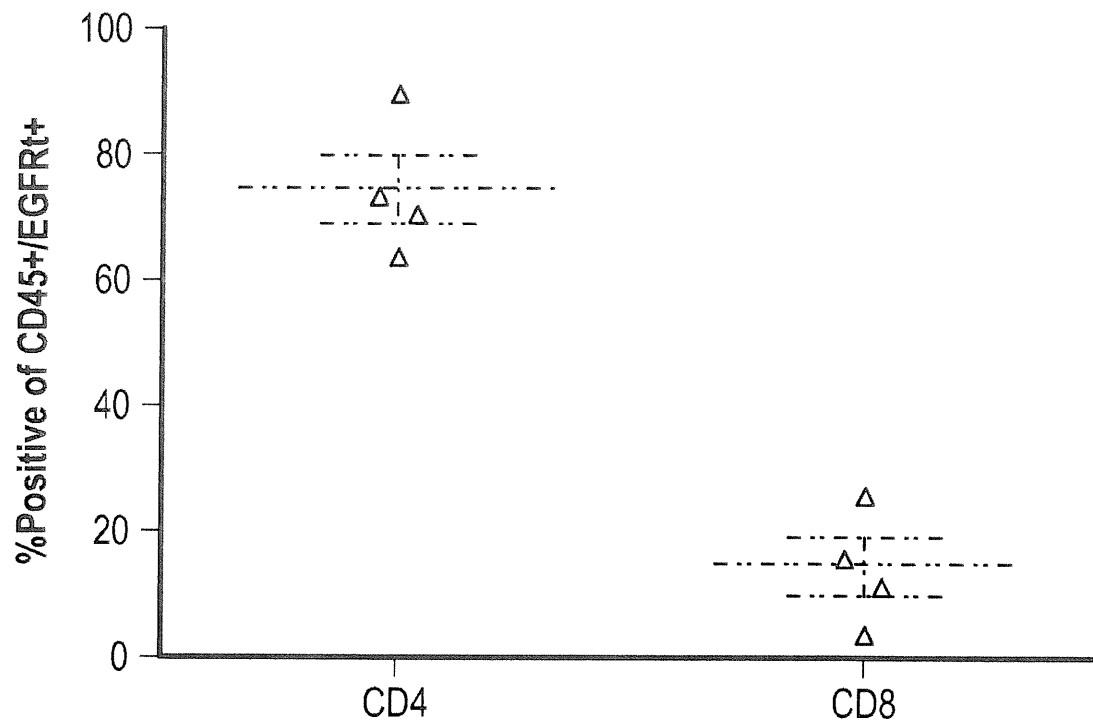
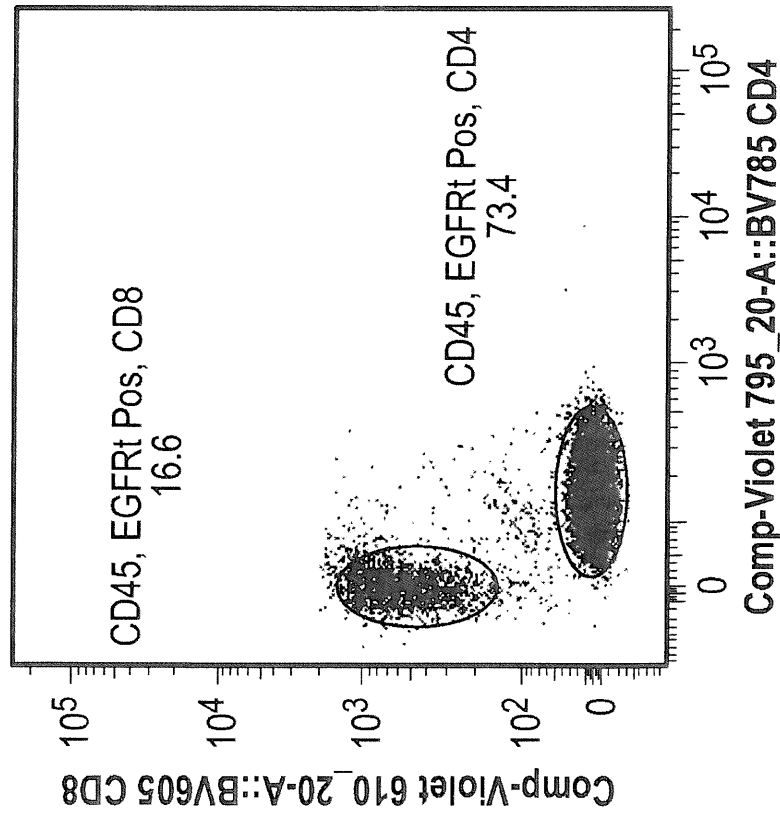


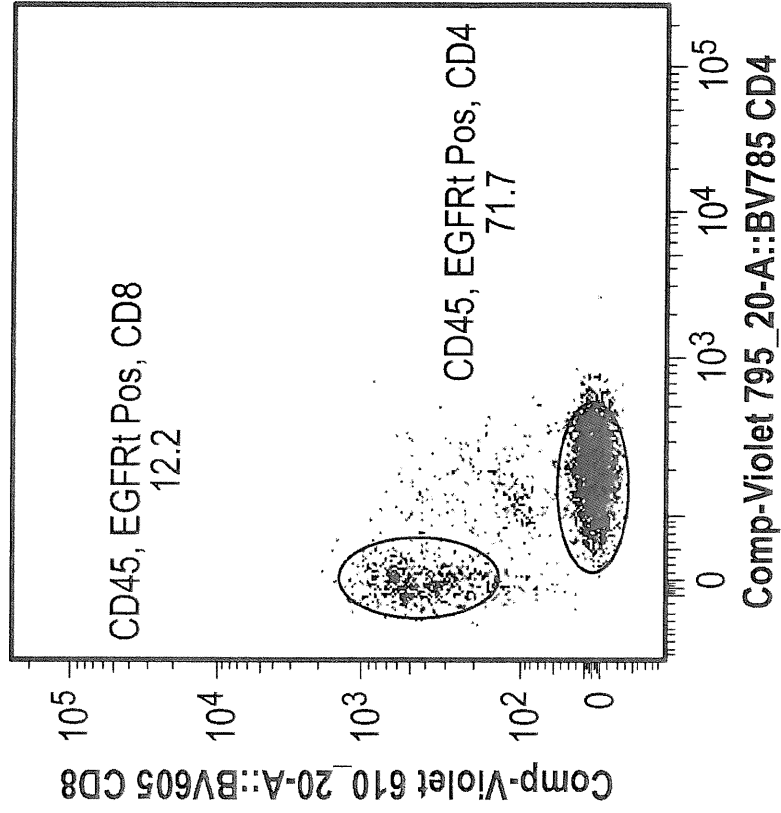
FIG. 60A

JME14-03 PLAT-02, 5 Million Dose Group:%CD4+ vs CD8+ of Live, CD45+, EGFRt+



JME14-03N BM 041014_Stained 2187_010.fcs
CD45, EGFRt Pos
9498

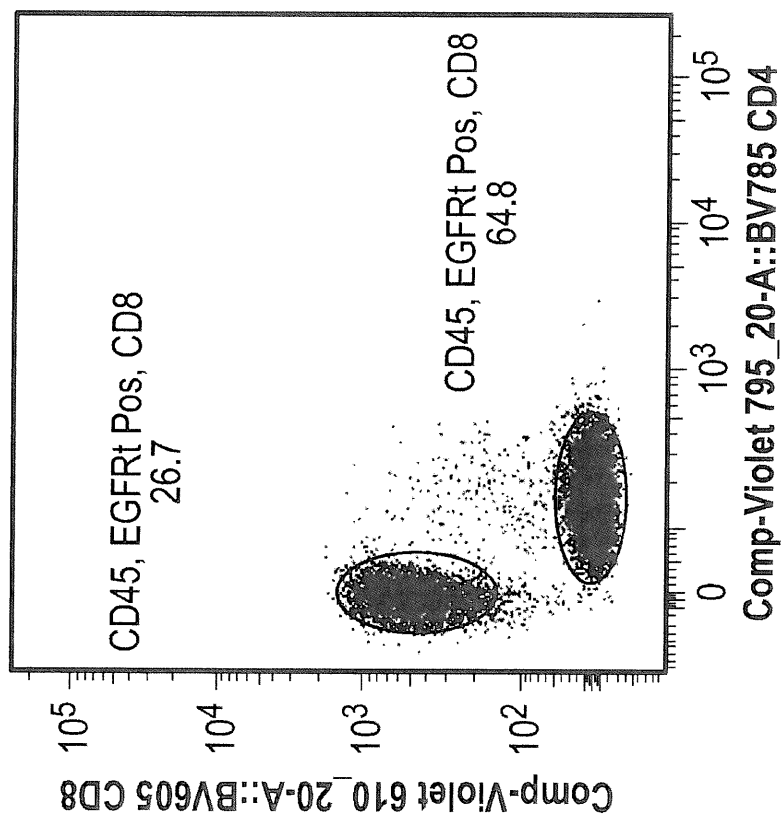
FIG. 60B1



JME14-03N BM 041014_Stained 2218_011.fcs
CD45, EGFRt Pos
4121

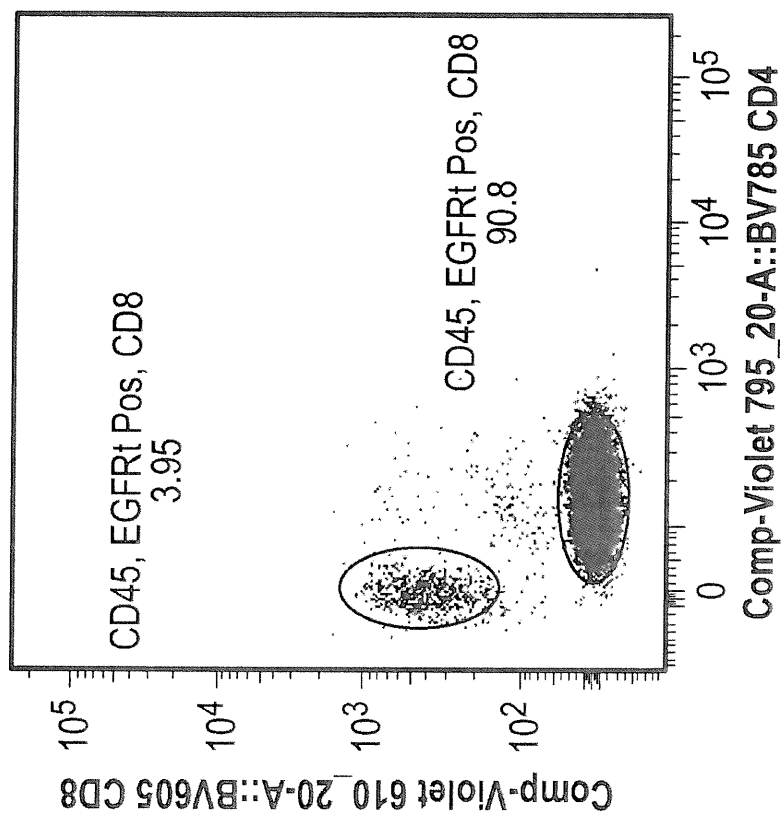
FIG. 60B2

JME14-03 PLAT-02, 5 Million Dose Group:%CD4+ vs CD8+ of Live, CD45+, EGFRt+



JME14-03N BM 041014_Stained 2316_012.fcs
CD45, EGFRt Pos
12116

FIG. 60B3



JME14-03N BM 041014_Stained 2333_013.fcs
CD45, EGFRt Pos
14217

FIG. 60B4

JME14-03 PLAT-02, 5 Million Dose Group:
%CD4+ vs CD8 of Live, CD45+, EGFRt+
83 Days Post T-Cell:
%CD4 vs CD8 in Bone Marrow

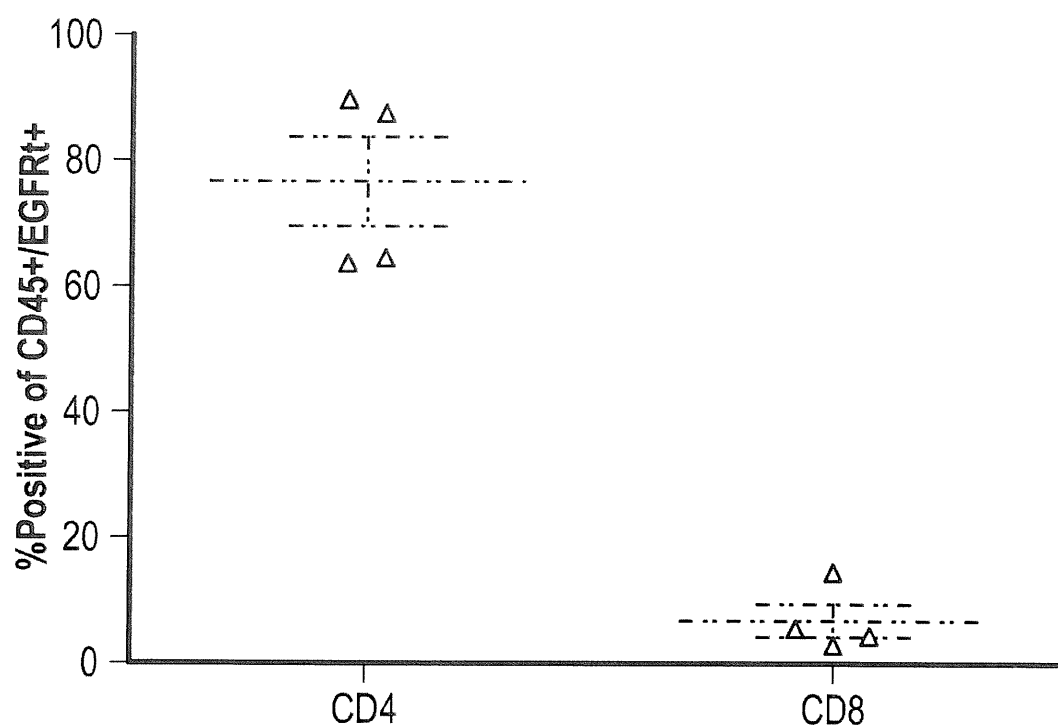
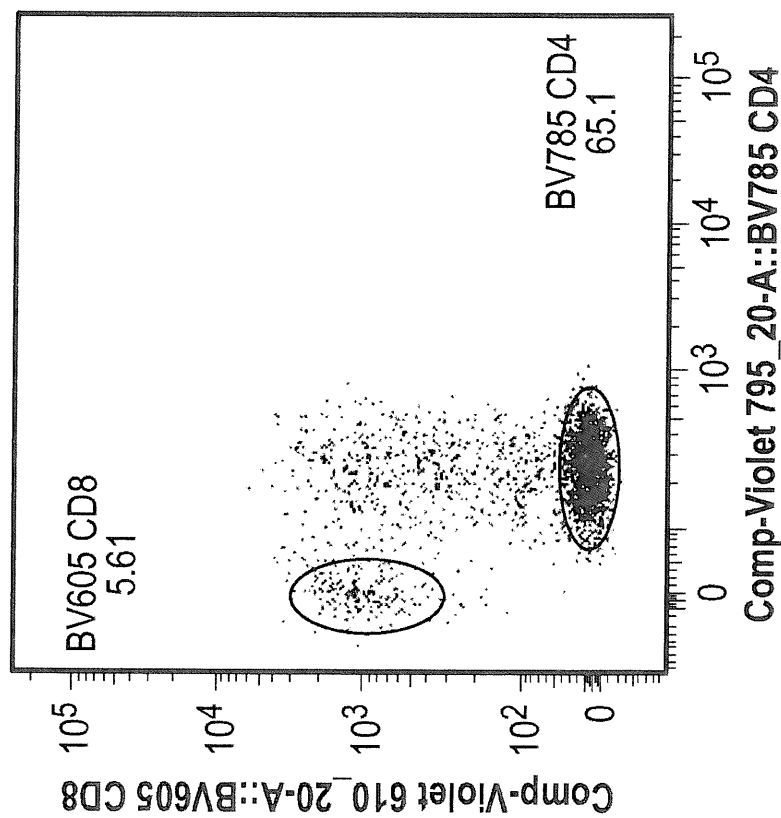


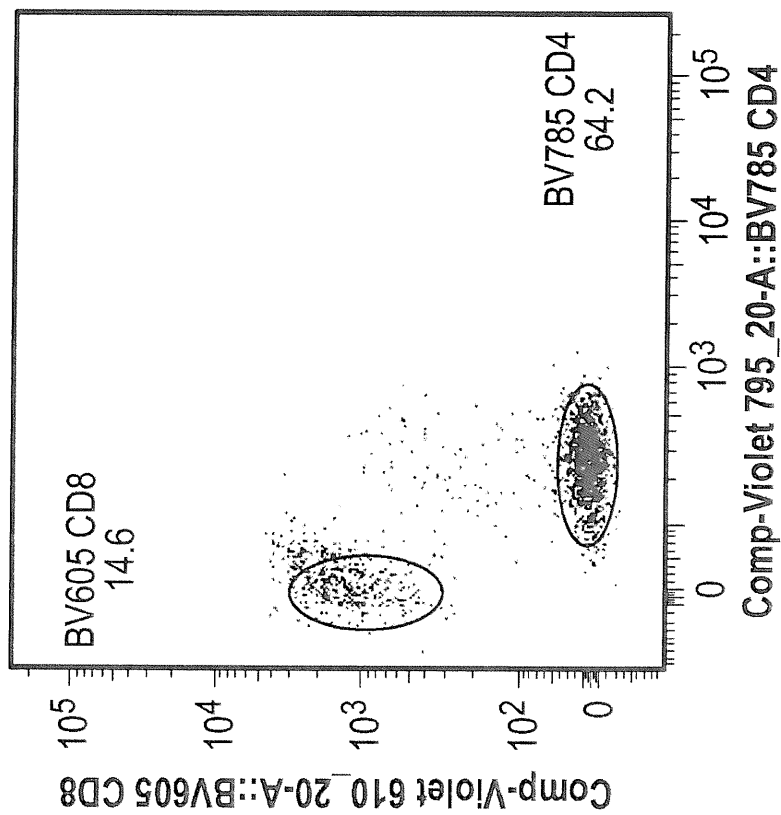
FIG. 60C

JME14-03 PLAT-02, 5 Million Dose Group:%CD4+ vs CD8+ of Live, CD45+, EGFRt+



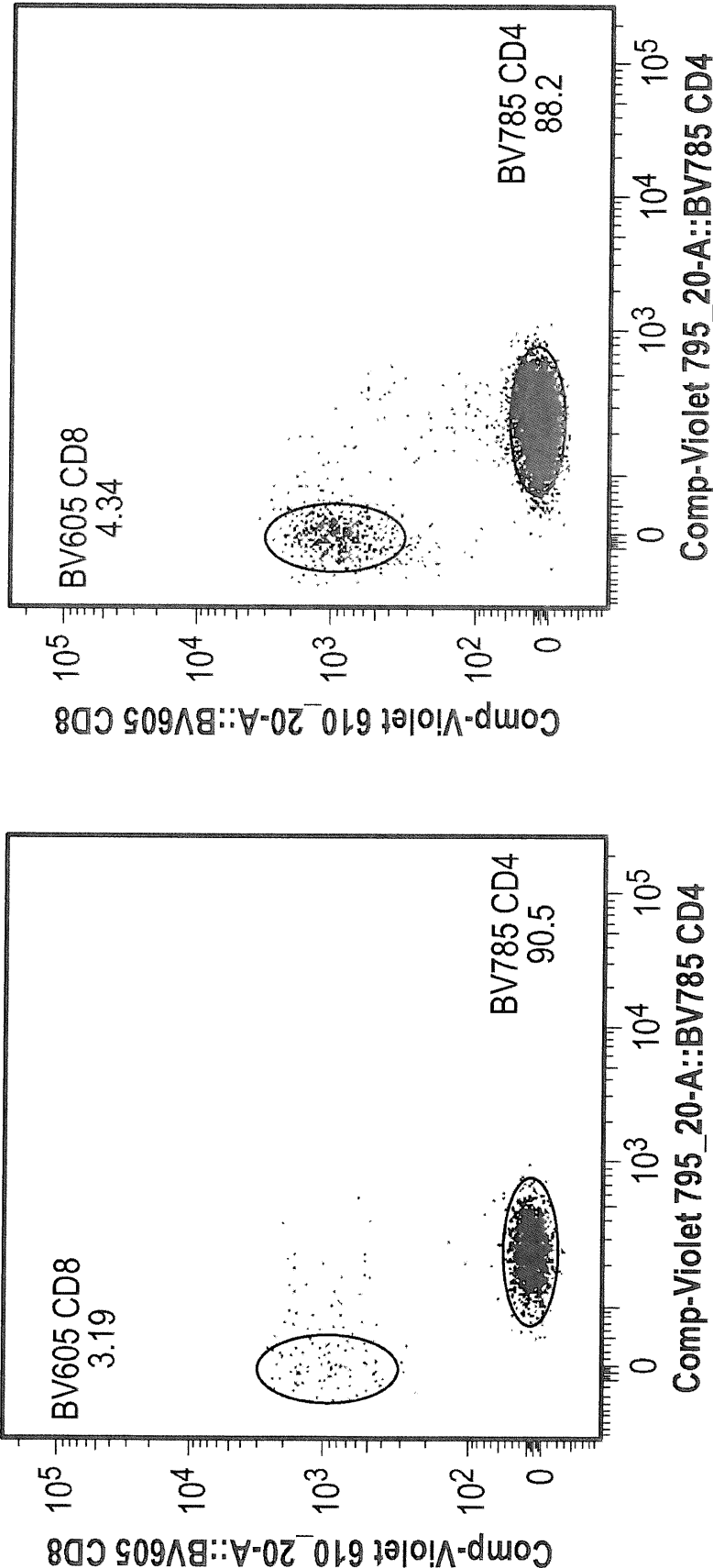
JME14-03 Day90 BM 051214_Stained O2300_012.fcs
Erbtux Biotin SA APC Pos
2761

FIG. 60D1



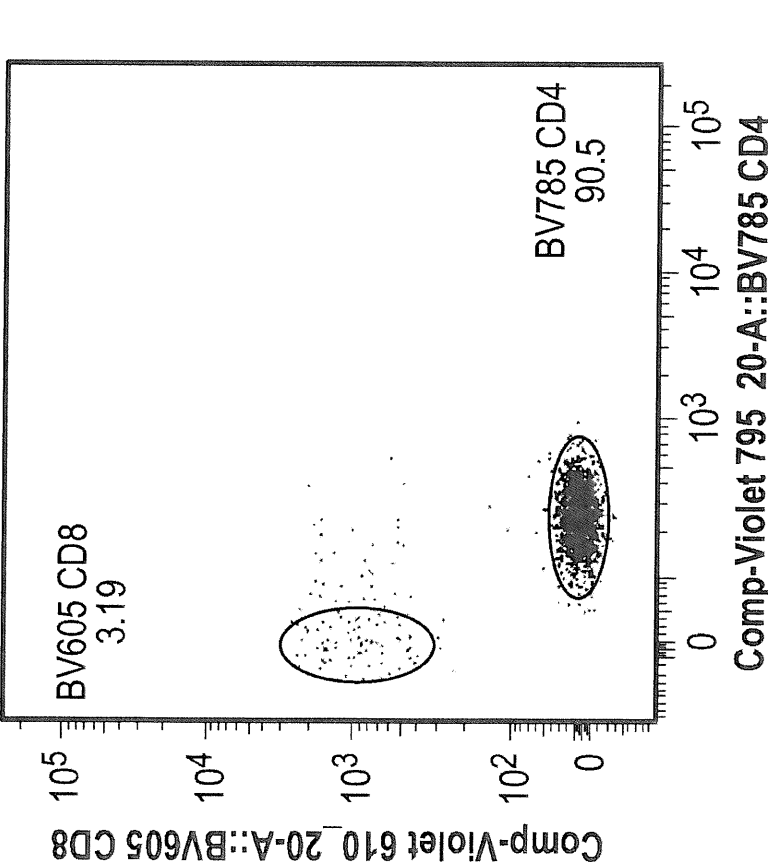
JME14-03 Day90 BM 051214_Stained O2334_013.fcs
Erbtux Biotin SA APC Pos
1783

FIG. 60D2



JME14-03 Day90 BM 051214_Stained O2199_013.fcs
Erbtux Biotin SA APC Pos
8594

FIG. 60D4



JME14-03 Day90 BM 051214_Stained O2189_010.fcs
Erbtux Biotin SA APC Pos
2099

FIG. 60D3

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JME14-03 Group N, Day 51 post T-cell

Sample	Lymphocytes	Live, CD45+	EGFRt+	CD4+	CD8+
PLAT-02 (10x10e6)	4.91e5 (87.2%)	9937 (2.02%)	9498 (95.6%)	6976 (73.4%)	1576 (16.6%)
PLAT-02 (10x10e6)	5.83e5 (84.2%)	4631 (0.79%)	4121 (89.0%)	3443 (71.7%)	504 (12.2%)
PLAT-02 (10x10e6)	7.07e5 (91.2%)	12376 (1.76%)	12116 (97.1%)	7851 (64.8%)	3234 (26.7%)
PLAT-02 (10x10e6)	5.96e5 (88.4%)	15132 (2.54%)	14217 (94.0%)	12907 (90.8%)	561 (3.95%)
Neg. Control	120212 (87.6%)	156 (0.13%)	145 (92.9%)	51 (35.2%)	45 (31.0%)

JME14-03 Day 90 post T-cell

Sample	Lymphocytes	Live, CD45+	EGFRt+	CD4+	CD8+
PLAT-02 (5x10e6)	7.91e5 (87.2%)	2206 (0.28%)	2099 (95.1%)	1899 (90.5%)	67 (3.19%)
PLAT-02 (5x10e6)	7.81e5 (86.9%)	9221 (1.18%)	8594 (93.2%)	7583 (88.2%)	373 (4.34%)
PLAT-02 (5x10e6)	76.65e5 (85.6%)	2904 (0.44%)	2761 (95.1%)	1798 (65.1%)	155 (5.61%)
PLAT-02 (5x10e6)	4.31e5 (81.5%)	2115 (0.49%)	1783 (84.3%)	1145 (64.2%)	260 (14.6%)
Neg. Control	7.51e5 (83.1%)	109 (0.015%)	79 (72.5%)	48 (60.8%)	8 (10.1%)
Neg. Control	5.29e5 (78.6%)	28 (5.29e-3%)	10 (28%)	0 (0%)	0 (0%)
PLAT-01 (10x10e6)	6.15e6 (80.3%)	27 (4.09e-3%)	19 (70.4%)	6 (31.6%)	1 (5.26%)
PLAT-01 (10x10e6)	6.44e6 (81.1%)	26 (4.04e-3%)	15 (57.7%)	8 (53.3%)	2 (13.3%)
PLAT-01 (5x10e6)	6.77e5 (80.9%)	11 (1.63e-3)	5 (45.5%)	1 (20.0%)	0 (0%)
PLAT-01 (5x10e6)	7.73e5 (80.3%)	27 (3.49e-3)	11 (40.7%)	3 (27.3%)	0 (0%)
PLAT-01 (5x10e6)	7.56e5 (84.5%)	22 (2.91e-3)	16 (72.7%)	5 (31.2%)	8 (50%)

FIG. 61