

FIG. 1

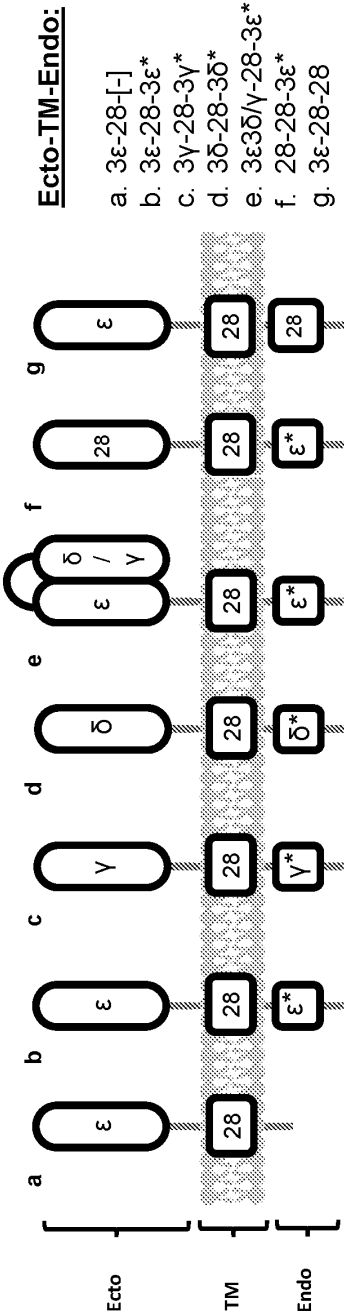
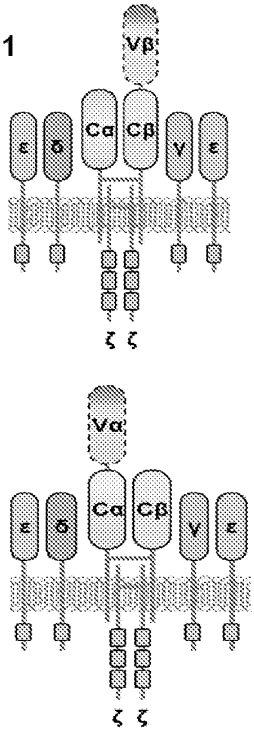
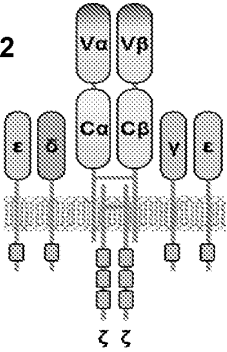


FIG. 2A

Non-binding TCR
(nb-rTCR)



Defined TCR
(d-rTCR)



Pre-TCRα
(+ non-binding TCRβ)
(p-rTCR)

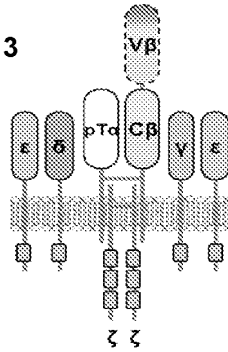
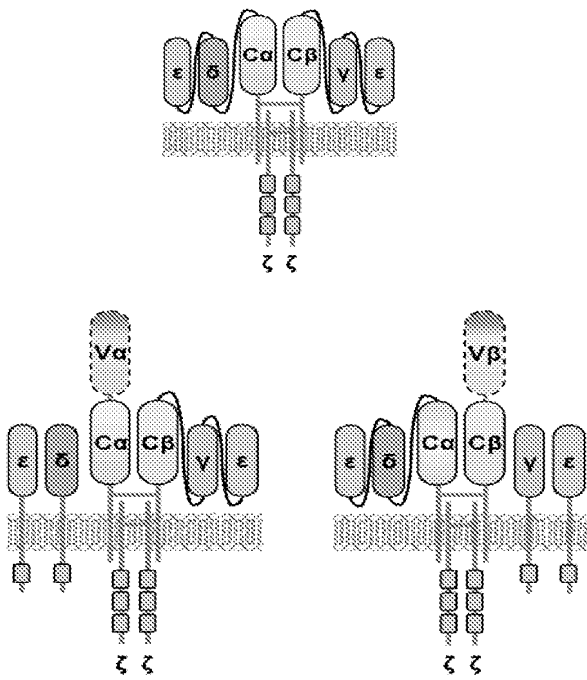


FIG. 2B

CD3 anchored to non-binding TCR
(nb-rTCR-CD3)

4



CD3 Chimeric Chain
(ccCD3)

5

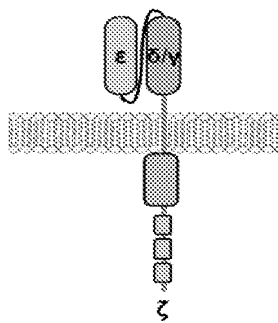
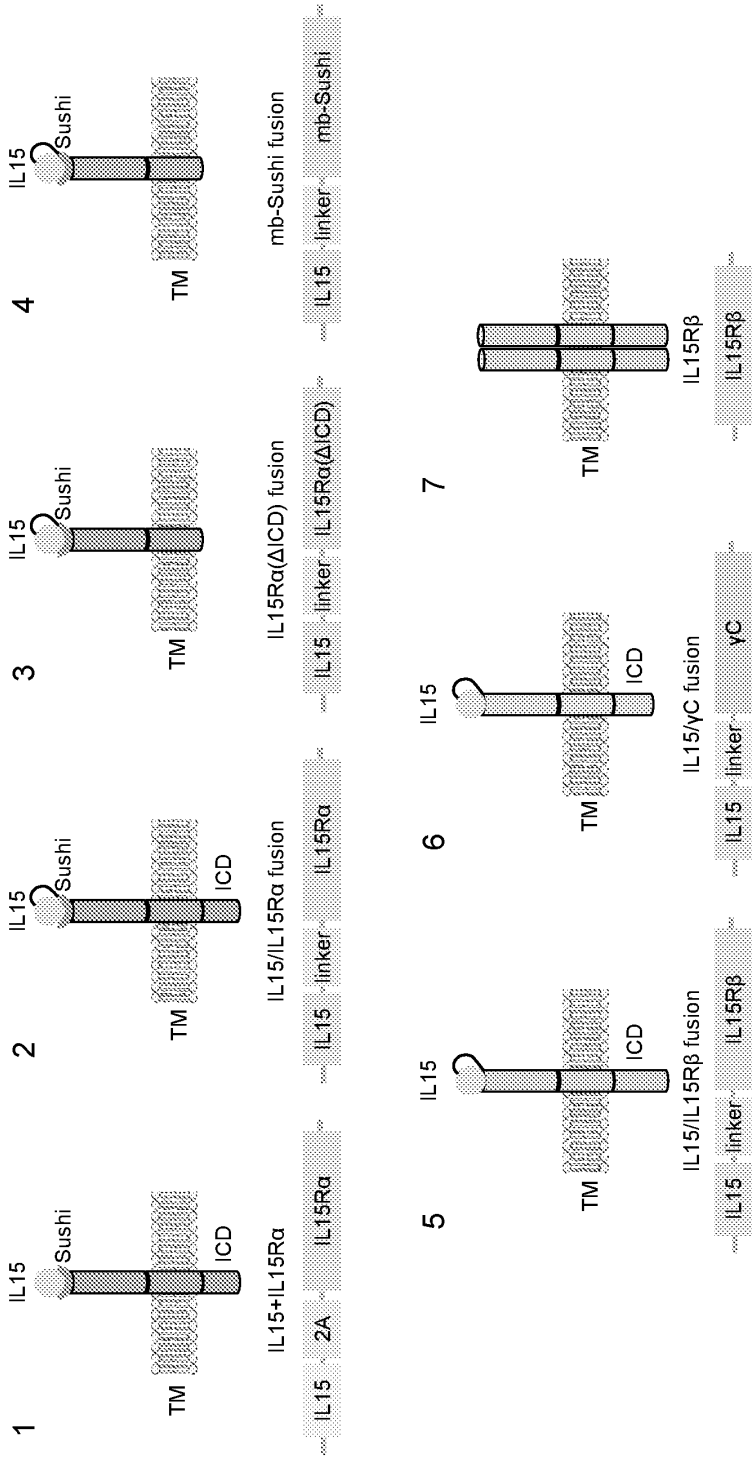


FIG. 2C

	1	2	3	4	5
	Non-binding TCR (nb-rTCR)	Defined TCR (d-rTCR)	Pre-TCR α (+ non-binding TCR β) (p-rTCR)	CD3 anchored to non-binding TCR (nb-rTCR-CD3)	CD3 Chimeric Chain (ccCD3)
Endogenous TCR KO	TCR(α or β) KO (+the other optional)	TCR α KO+ TCR β KO	TCR α KO (+ TCR β KO)	TCR α KO+ TCR β KO	TCR α KO
Transgenic/modified protein expression	tgTRAC (+tgTRBC); or tgTRBC (+tgTRAC)	Defined tgTCR α +tgTCR β	tgTCR α (+ tgTRBC); or upregulating (down-reg prevention) endogenous pre-TCR α	tgCD3(ϵ - δ)-TRAC fusion and/or tgCD3(ϵ - γ)-TRBC fusion	tgCD3(ϵ - γ / δ)-(28/BB) ζ
Locus/promoter	TCR α (+ TCR β) or constitutive	TCR α + TCR β or constitutive	Constitutive	TCR α + TCR β or constitutive	Constitutive
Peptide-MHC binding	No binding	Defined/No binding	No binding	No binding	No binding
Signaling	Canonical TCR/CD3	Canonical TCR/CD3	Canonical TCR/CD3	CD ζ only	z/28z/BBz specific

FIG. 3



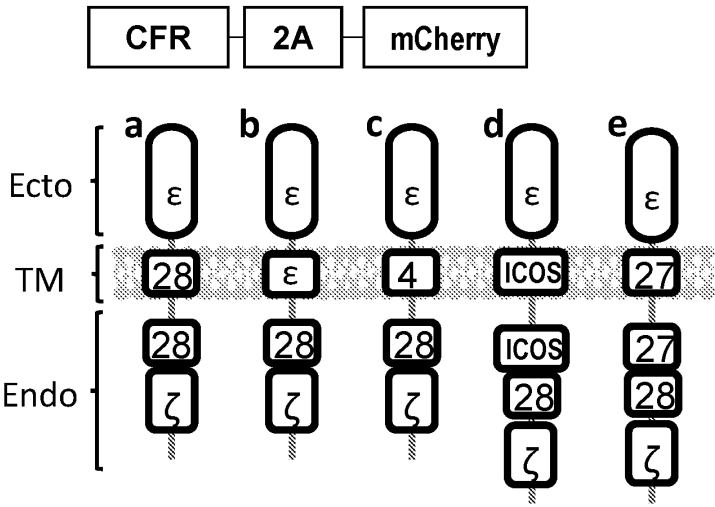


FIG. 4A

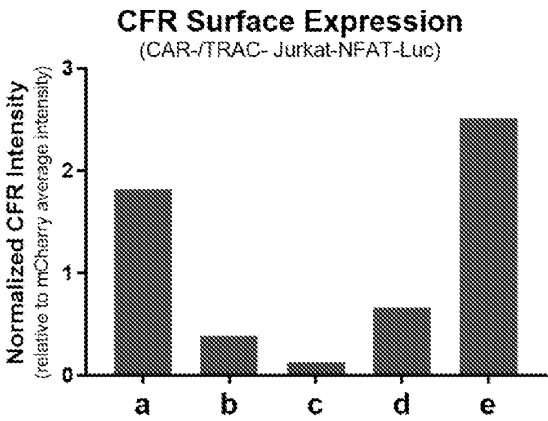


FIG. 4B

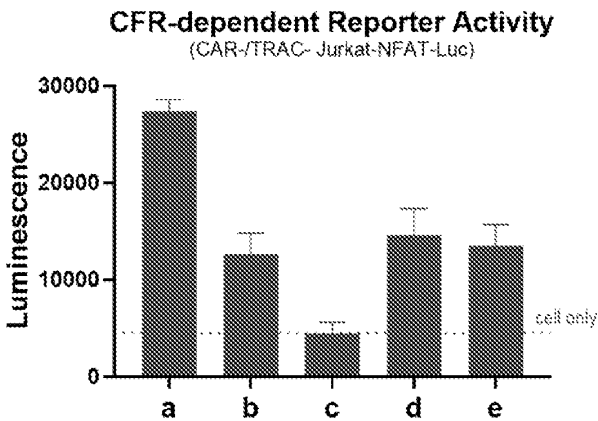


FIG. 4C

FIG. 4D

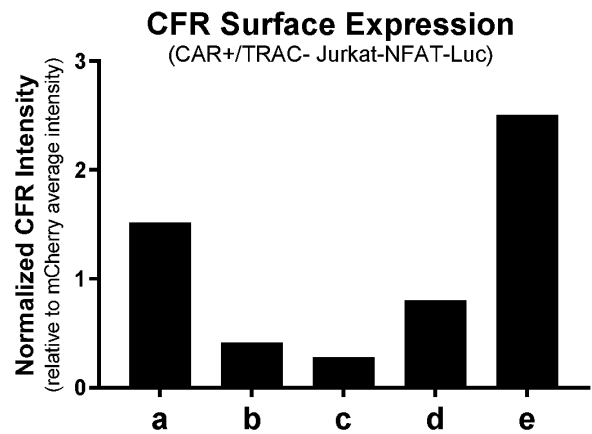


FIG. 4E

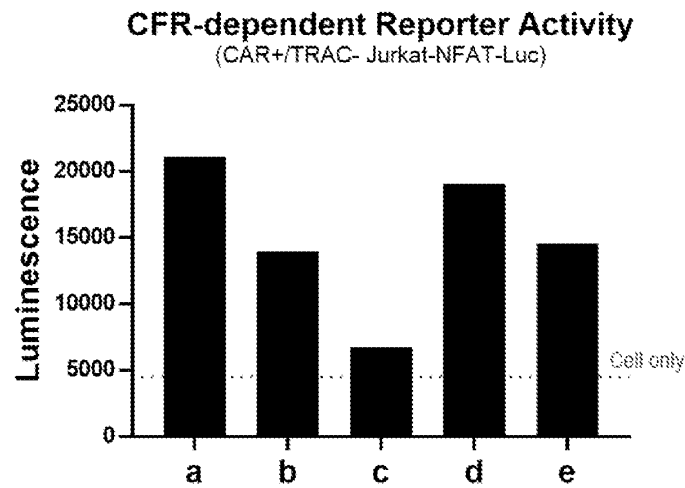


FIG. 4F

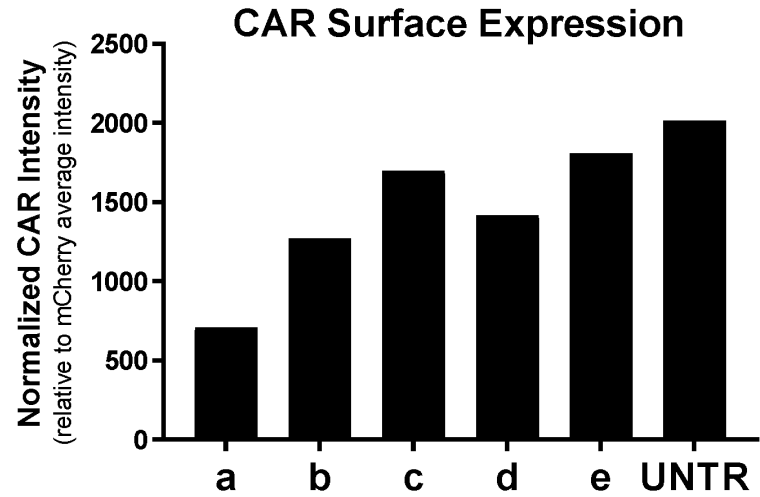
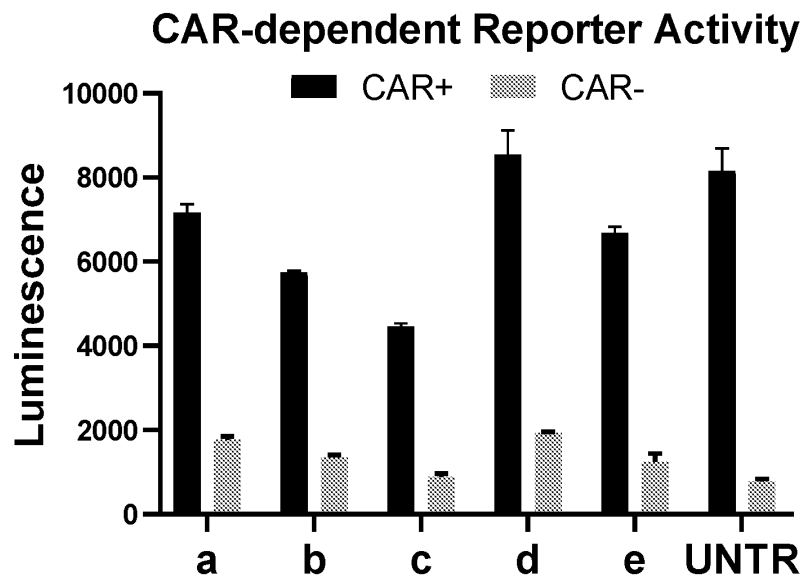
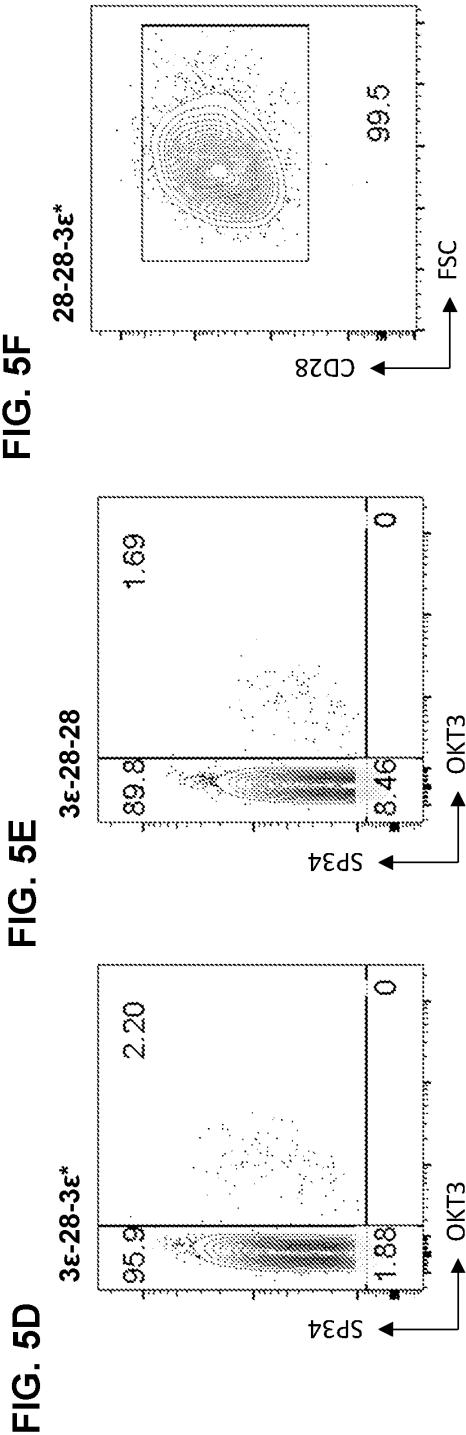
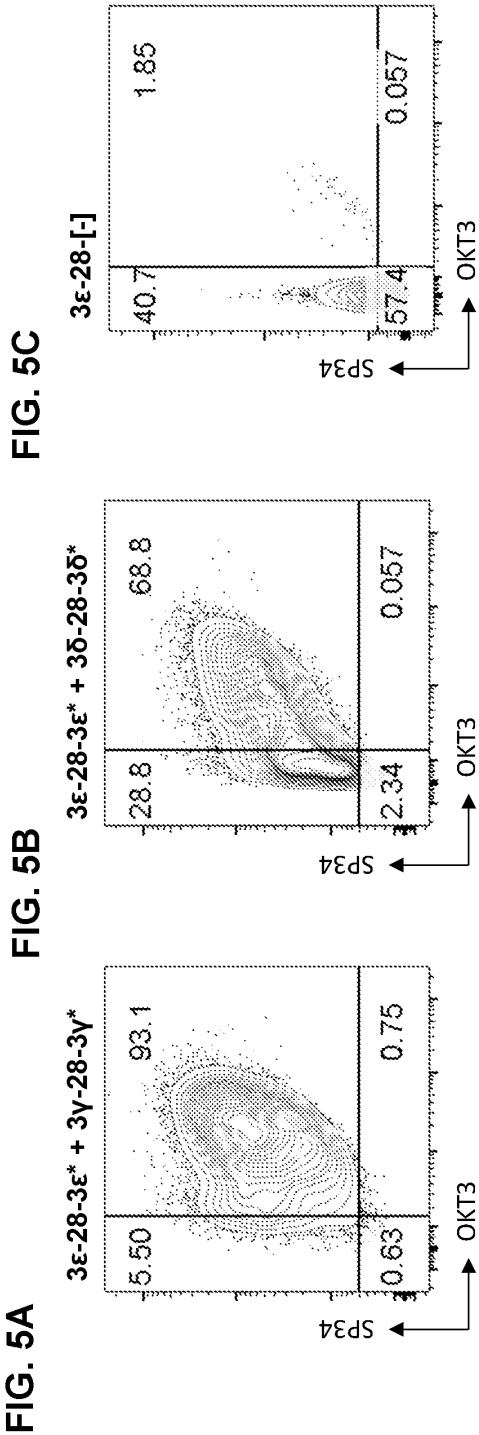


FIG. 4G





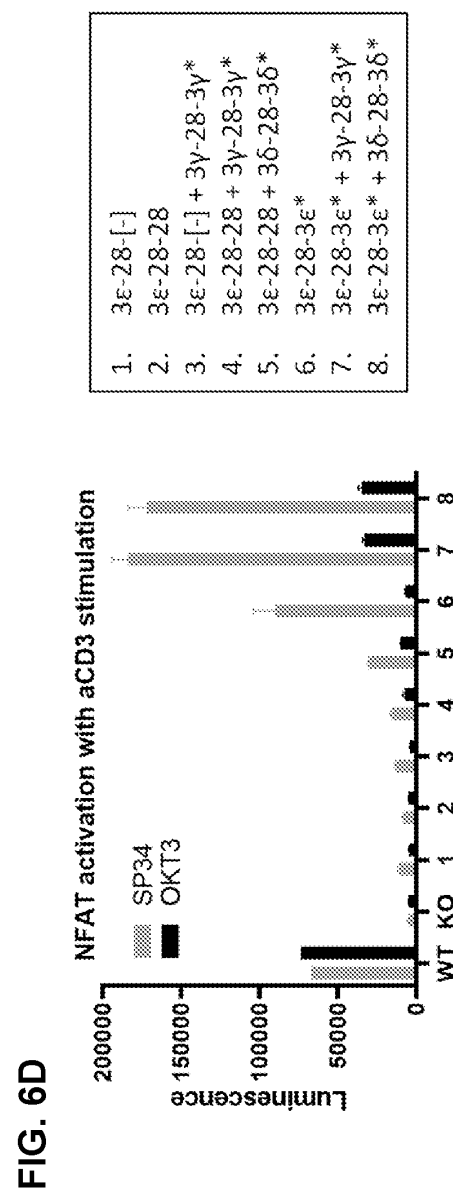
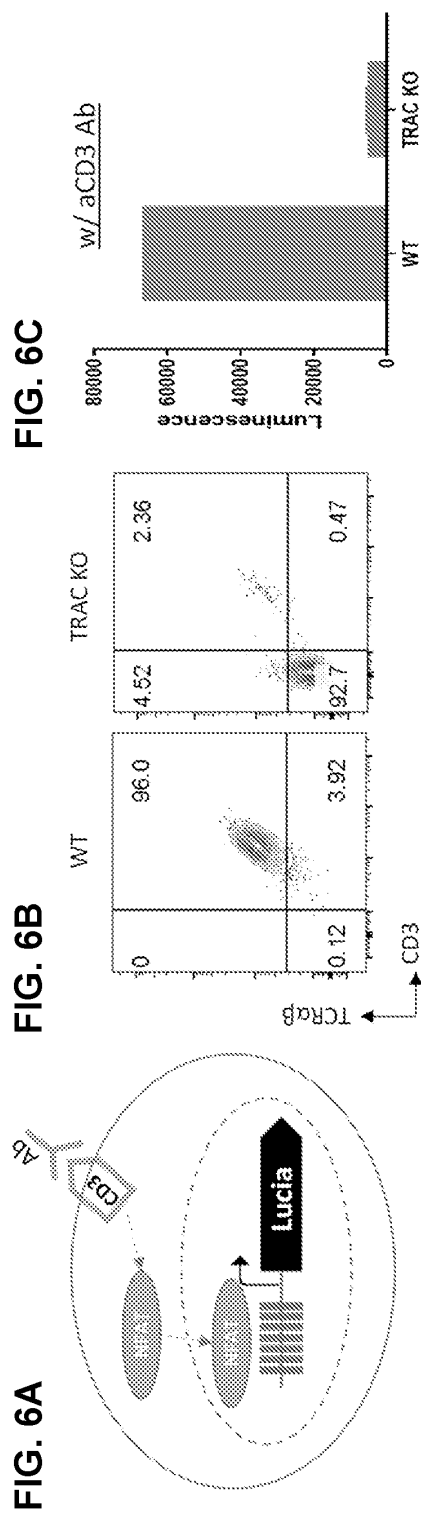


FIG. 7A

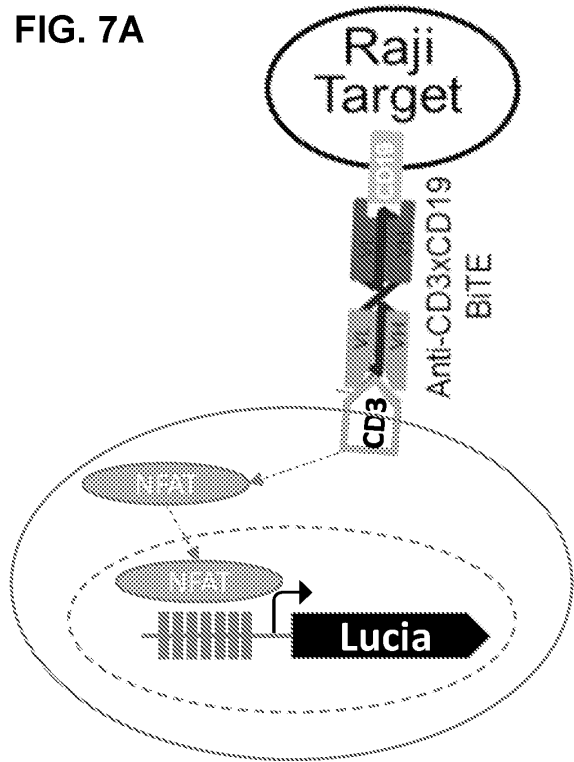


FIG. 7B

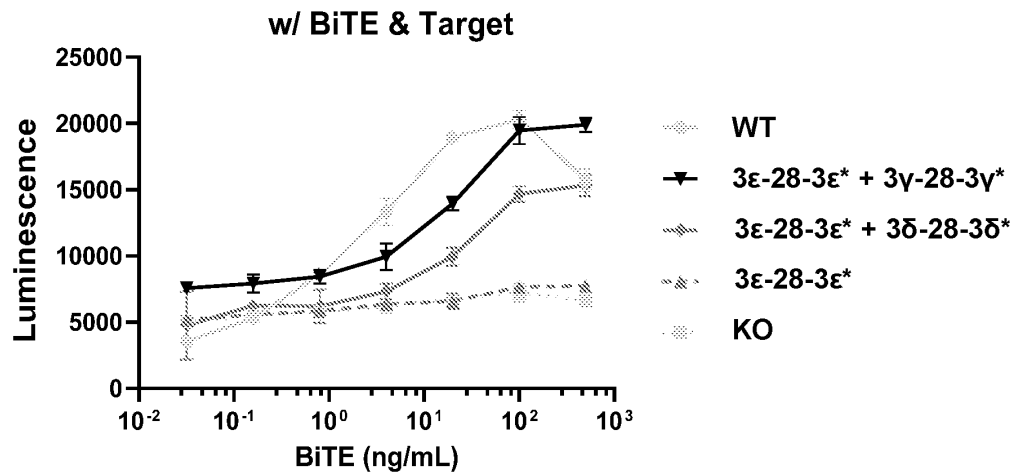


FIG. 8A

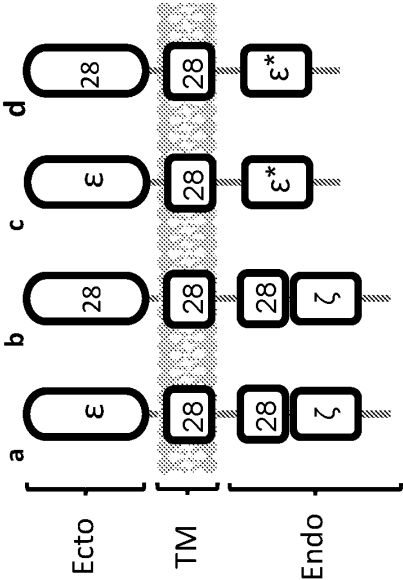


FIG. 8B

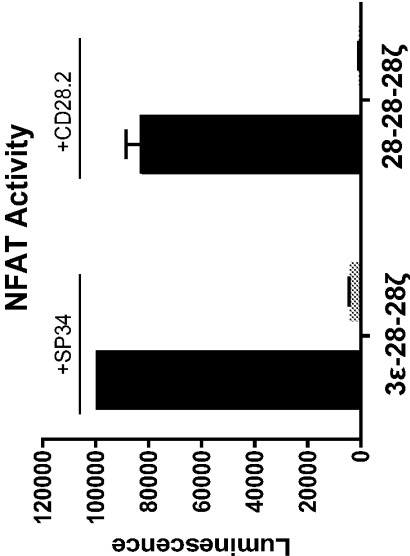


FIG. 8C

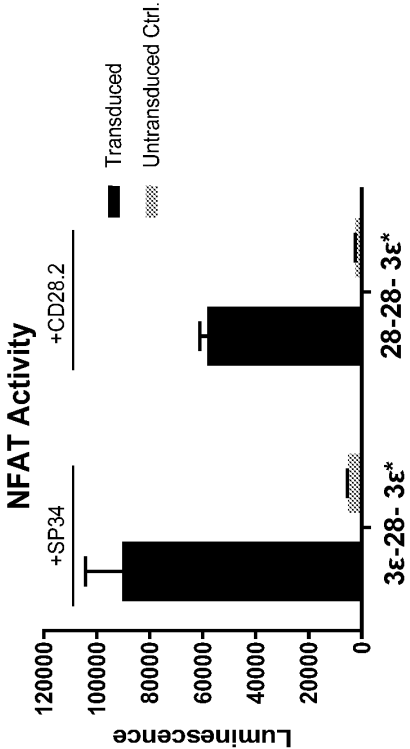


FIG. 9A

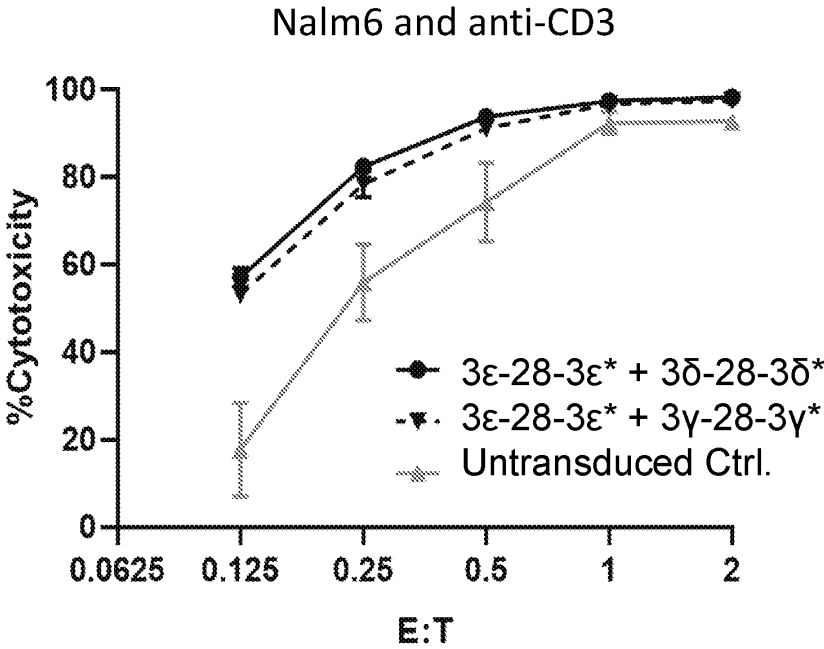


FIG. 9B

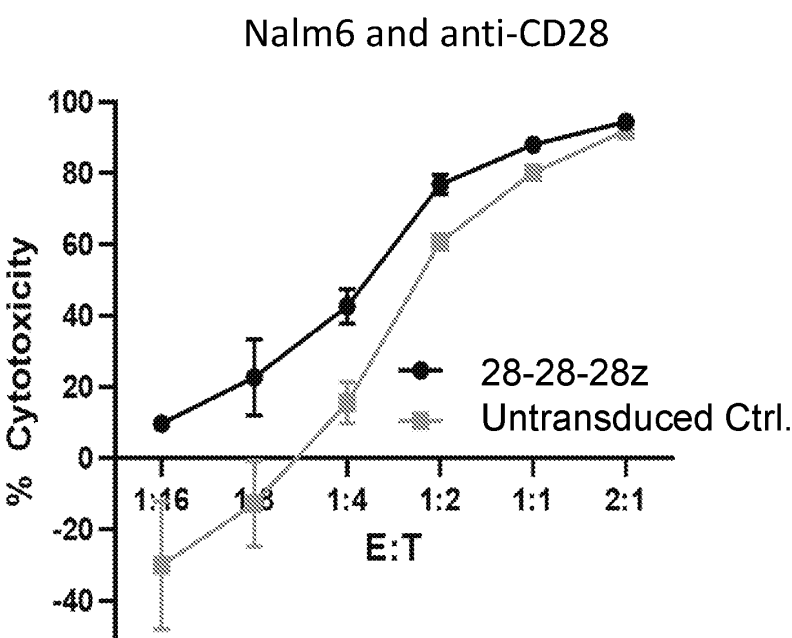


FIG. 10A

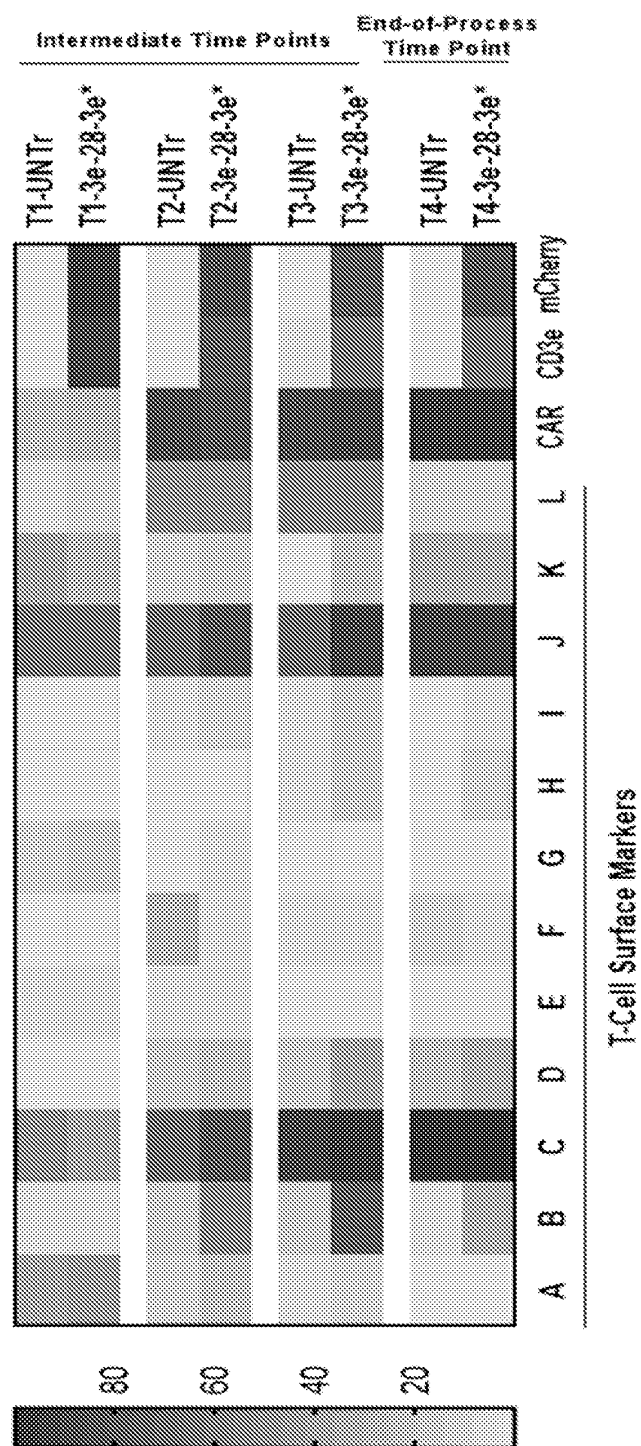


FIG. 10B

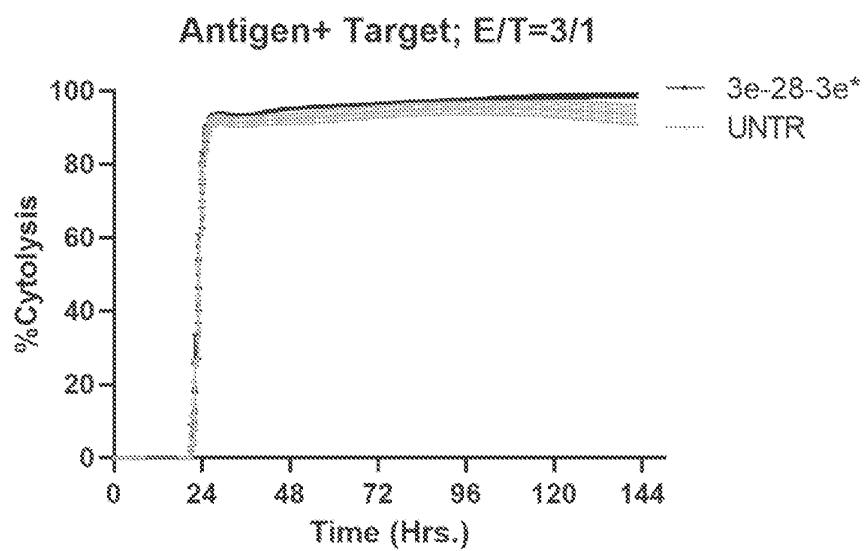


FIG. 10C

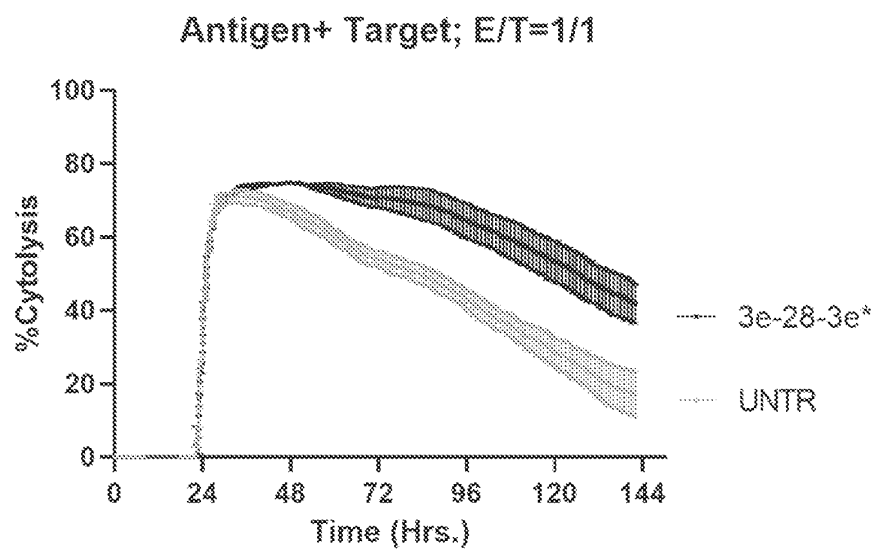


FIG. 11A

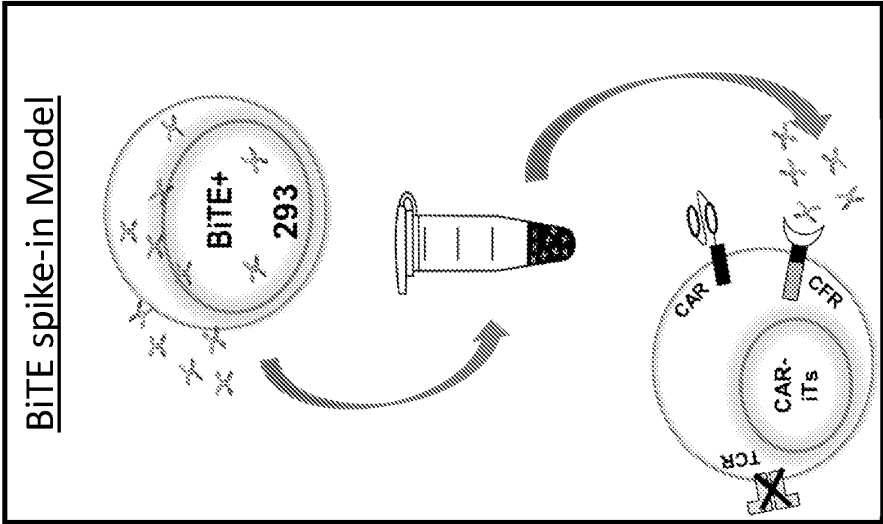


FIG. 11B

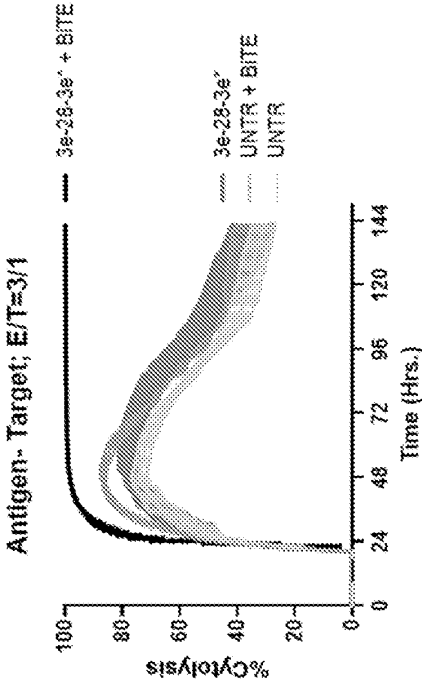


FIG. 11C

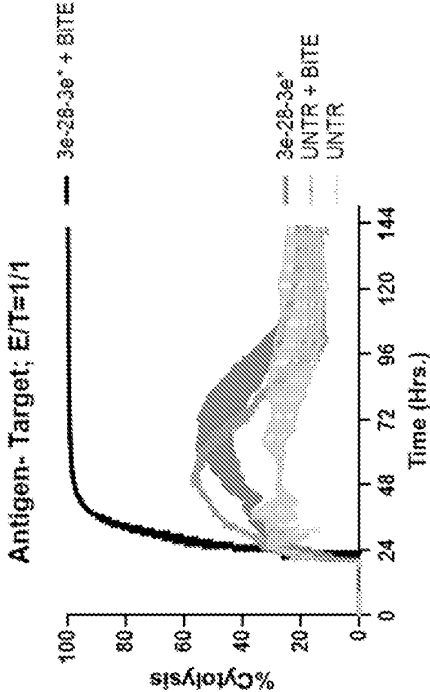


FIG. 11D
Antigen+/Antigen- (1/1) Mixed Target; E/T=1/1

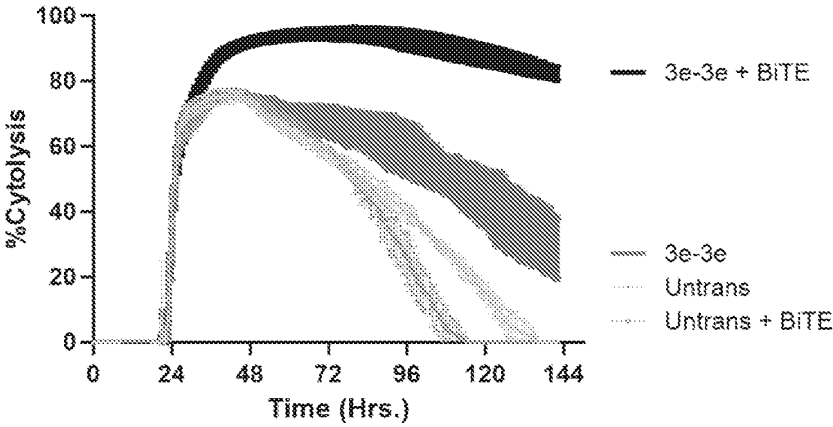


FIG. 11E
UNTR+BiTE 3e-28-3e*+BiTE

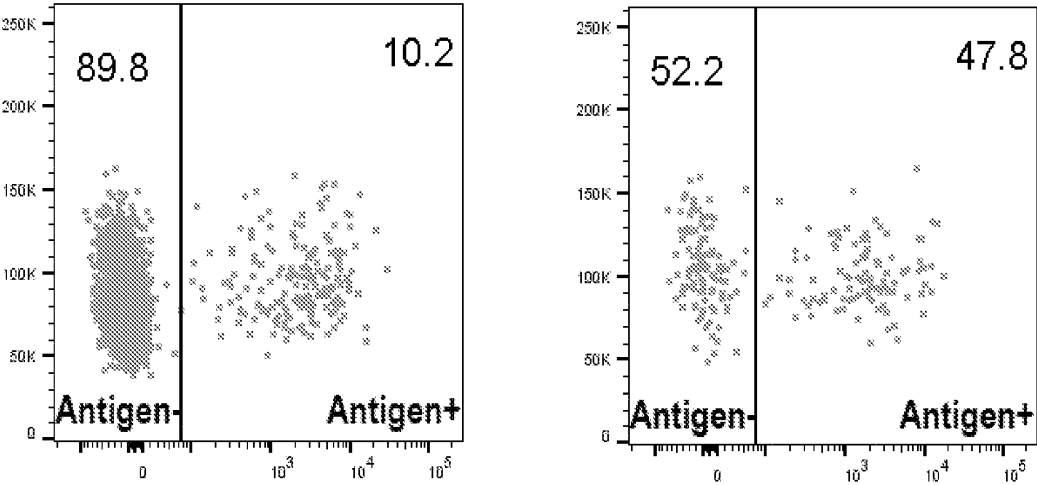


FIG. 12A

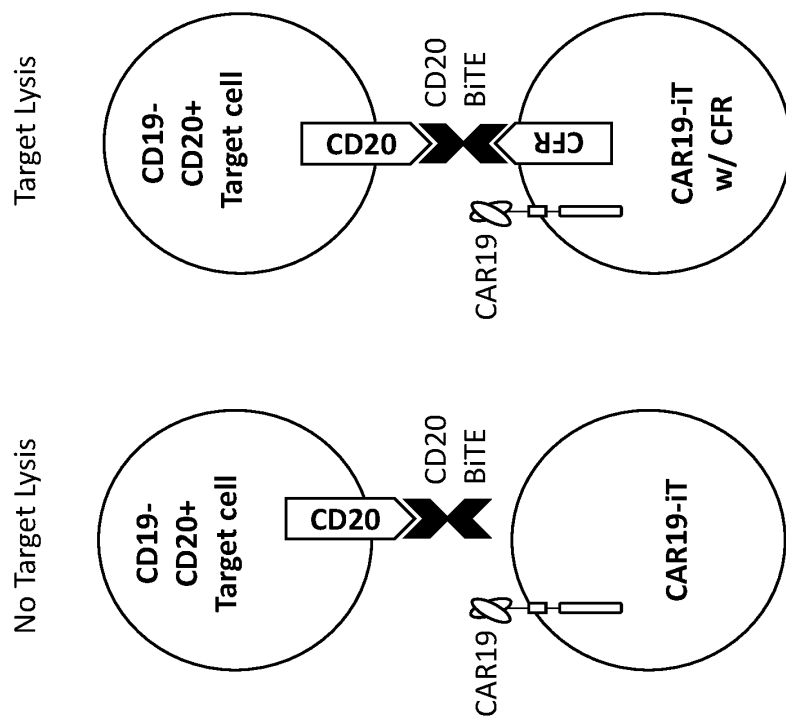


FIG. 12B

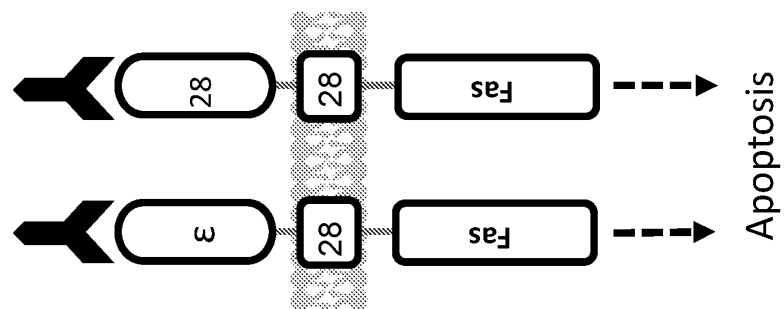
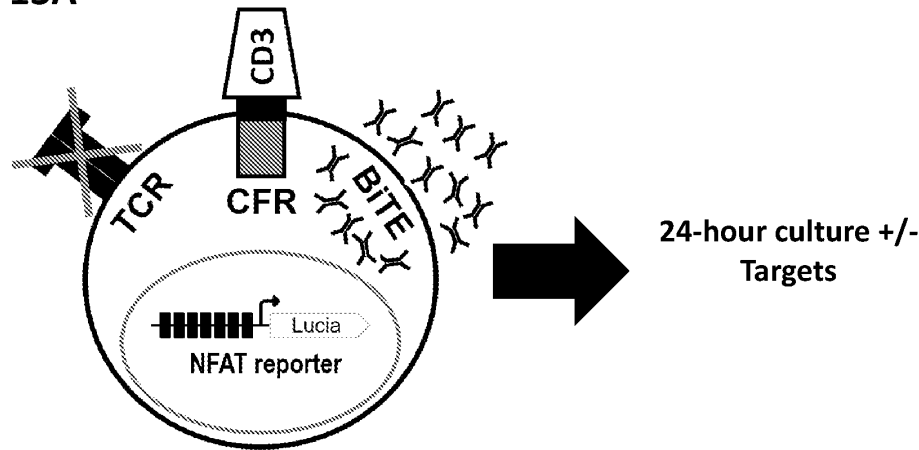


FIG. 13A



Readout:

- 1) NFAT reporter activity
- 2) Activation markers by flow

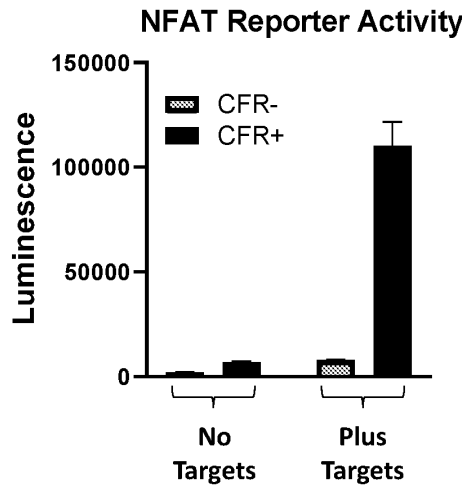


FIG. 13B

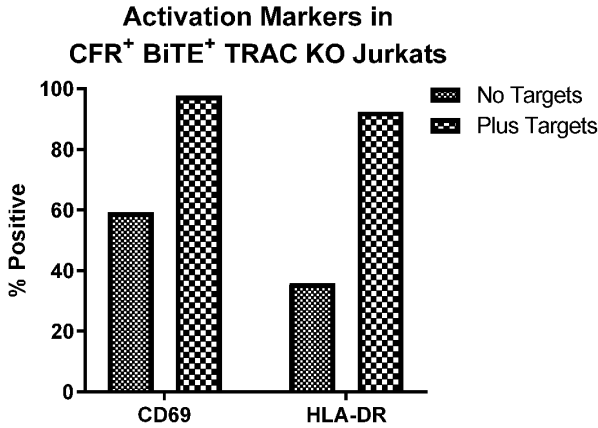


FIG. 13C

FIG. 14A

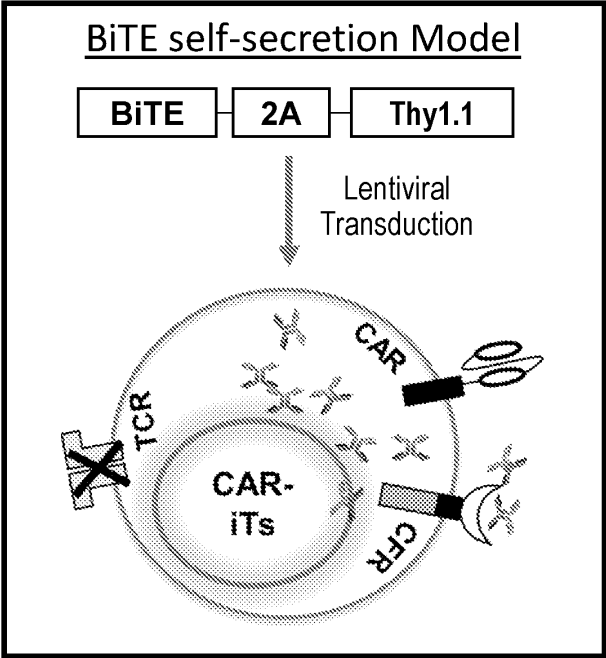


FIG. 14B

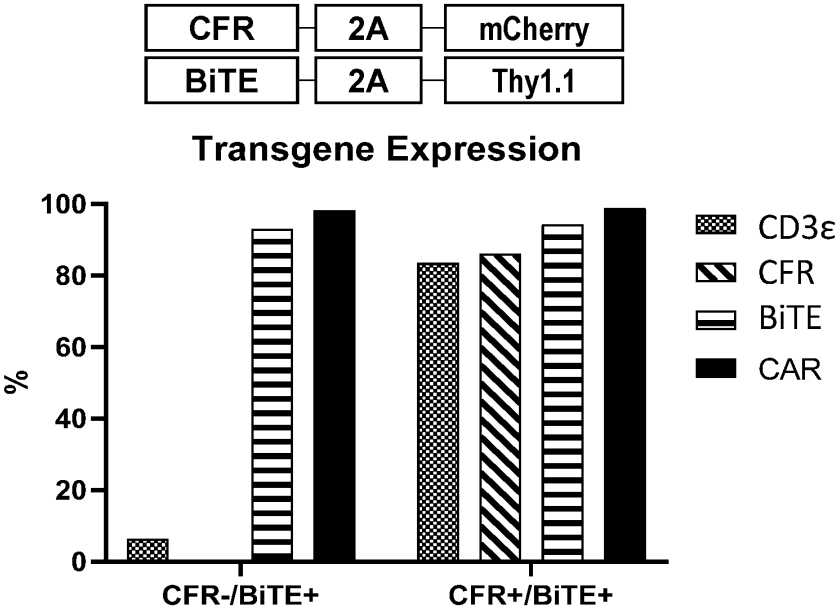


FIG. 14C

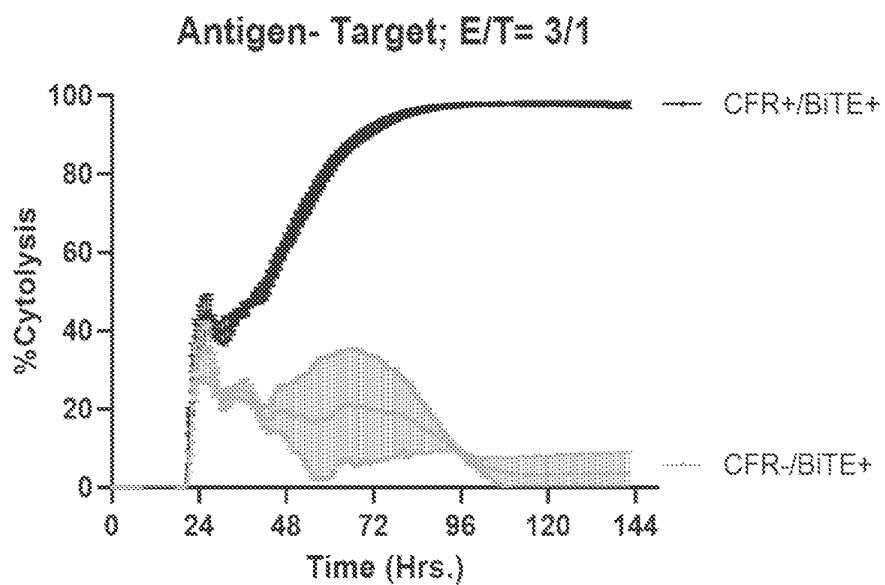


FIG. 14D

Antigen-/Antigen+ (2/1) Mixed Target; E/T=1/1

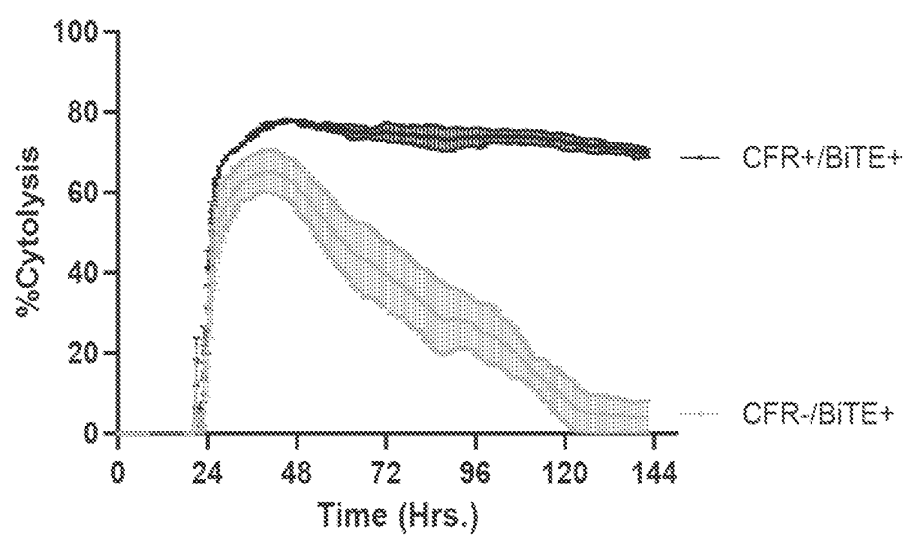
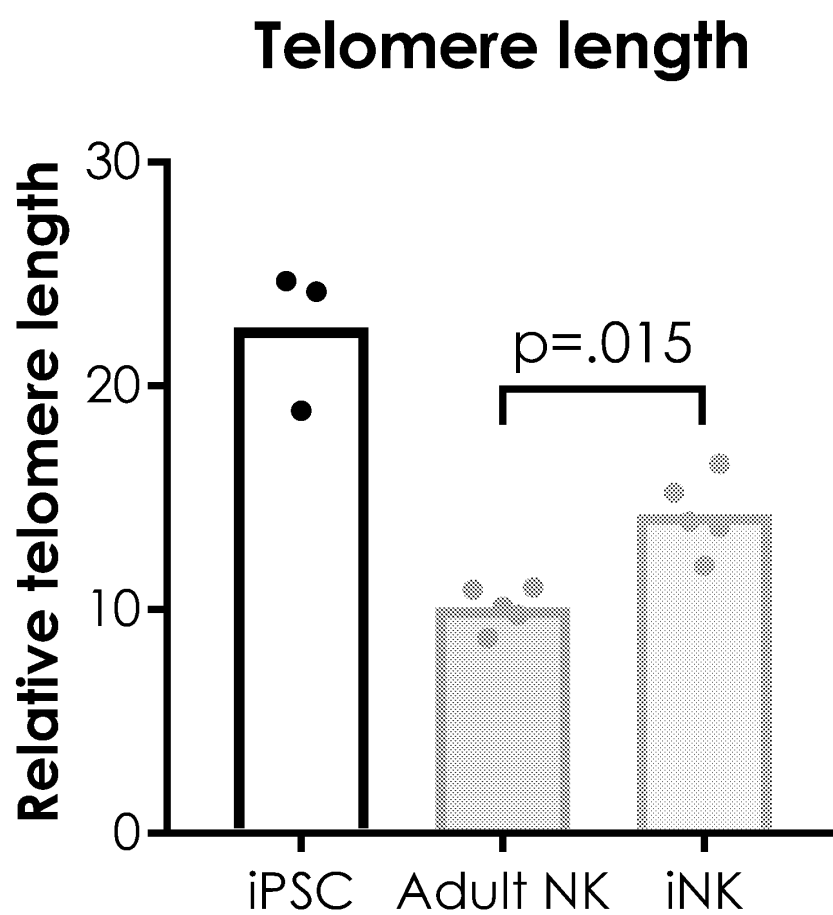


FIG. 15



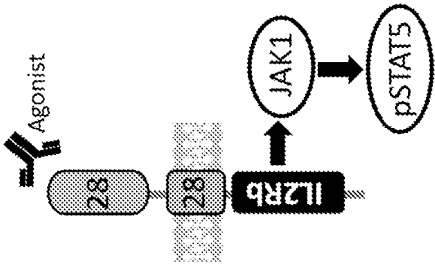


FIG. 16A

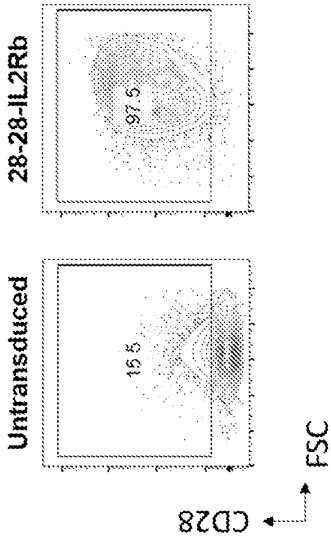


FIG. 16B

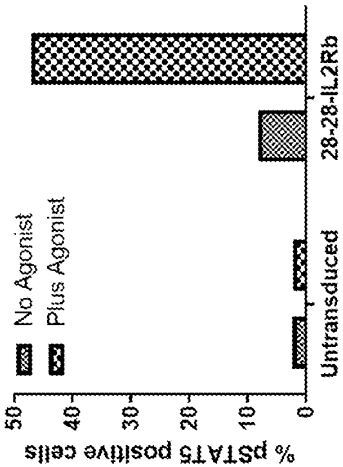


FIG. 16C