

Signal Seq	Anti-CD70 ScFv or CD27 ECD	Hinge	TM	Costim 1	Costim 2	Signaling
Signal Seq	Anti-CD70 ScFv or CD27 ECD	Hinge	TM	Costim 1	Signaling	
CD27						Signaling
Signal Seq	Binder	Hinge	TM	Costim 1	Costim 2	Signaling
CD27	CD27	CD28	CD28	CD28	CD28	CD3z
CD8	ScFv	CD8	CD16	2B4	2B4	
	CD27 extracellular	IgG1	NKp44	DAP10	DAP10	
		IgG4	NKp46	CD137	CD137	
		FcγRIIIa	NKG2D	DAP12	DAP12	
			CD8			

Protein	UniProt ID
CD27	P26842
CD8	P01732
IgG1	P01857
CD16	P08637
NKp44	O95944
NKp46	O76036
NKG2D	O54709
2B4	Q9BZW8
DAP10	Q9UBK5
DAP12	O43914
CD137	Q07011
CD28	P10747
CD3z	P20963
IgG4	P01861

FIG. 1

Promoter	CAR	RSS	P40	RSS	P35
Promoter	CAR	RSS	P40		
Promoter	CAR	Promoter 2	P40	RSS	P35
Promoter	CAR	Promoter 2	Membrane bound p40	RSS	P35

Protein	Uniprot ID
P35	P29460
P40	P26459

Promoter	P35	P40	Linker	RSS
EF1a	P35	P40	(GS)X	P2A
PGK				T2A
MND				F2A
EFS				E2A

FIG. 2

Promoter	Leader	IL15	IL15Ra	Linker	RSS
EF1a	IL15	IL15 (WT)	IL15Ra (WT)	(GS)X	P2A
PGK	IgE	IL15 (N72D)	IL15Ra (ICD)		T2A
MND					F2A
EFS					E2A

Promoter	CAR	RSS	IL15Ra
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Promoter	CAR	RSS	IL15
----------	-----	-----	------

Promoter	IL15	RSS	CAR
----------	------	-----	-----

Promoter	IL15	Linker	IL15Ra	RSS	CAR
----------	------	--------	--------	-----	-----

Promoter	CAR	RSS	IL15	Linker	IL15Ra
----------	-----	-----	------	--------	--------

Promoter	CAR	RSS	IL15	RSS	IL15Ra
----------	-----	-----	------	-----	--------

Promoter	CAR	RSS IL15Ra	Promoter 2	RSS	IL15Ra

Promoter	IL15 Linker	IL15 Ra (TM+ICD)	RSS CAR
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Protein	Uniprot ID
IL15	P40933
IL15Ra	Q13261

3
2
1

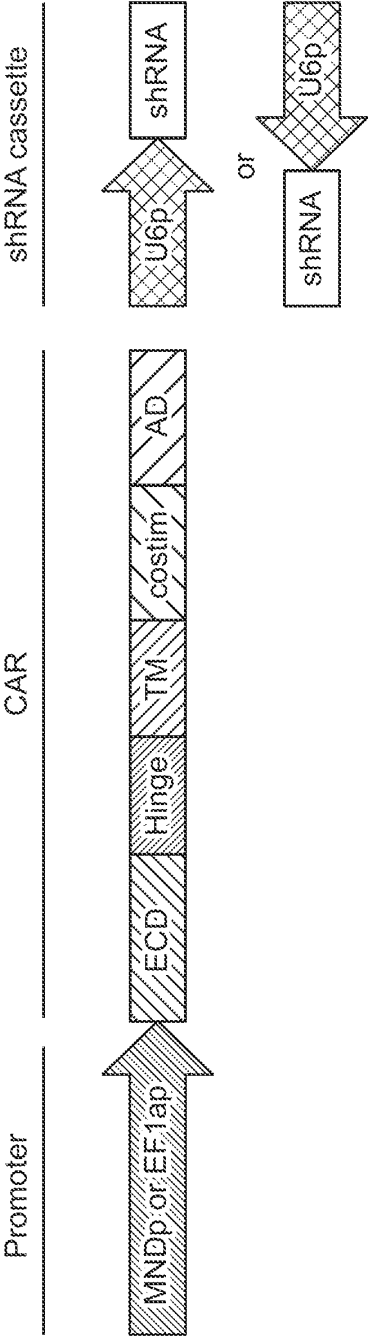


FIG. 4A

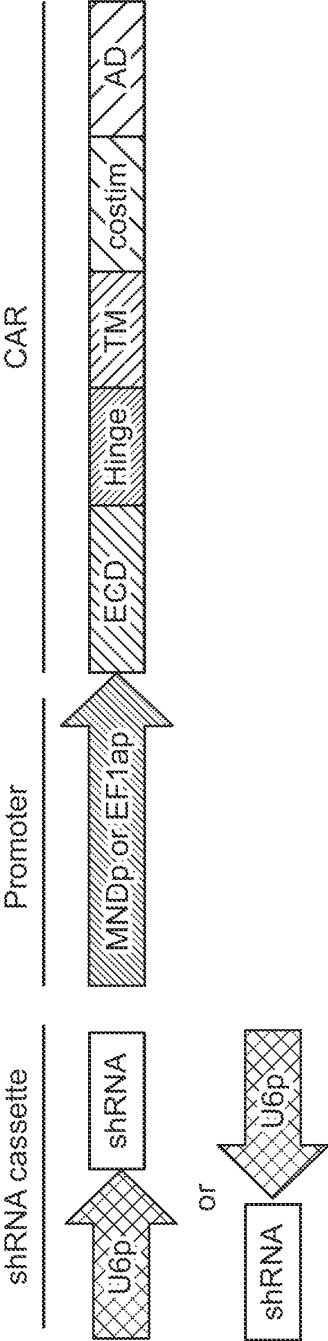


FIG. 4B

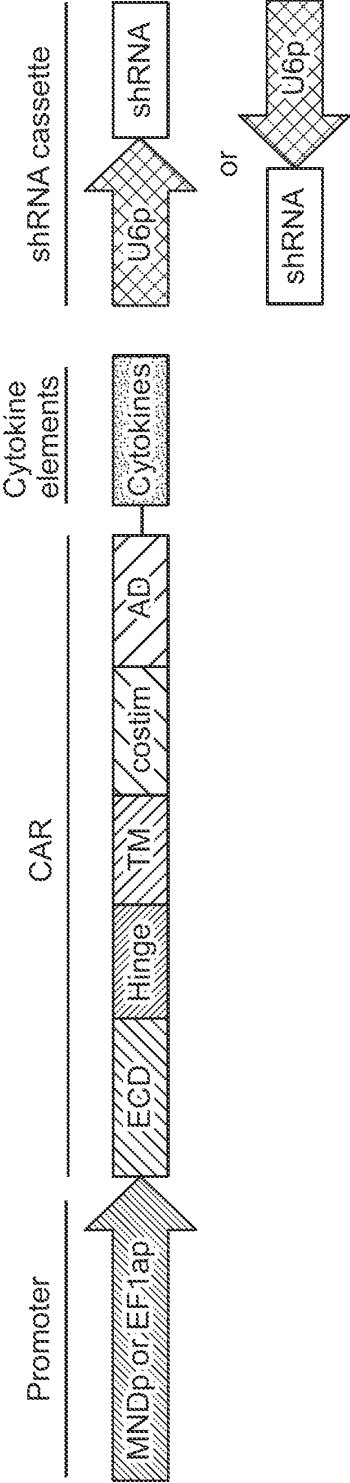


FIG. 4C

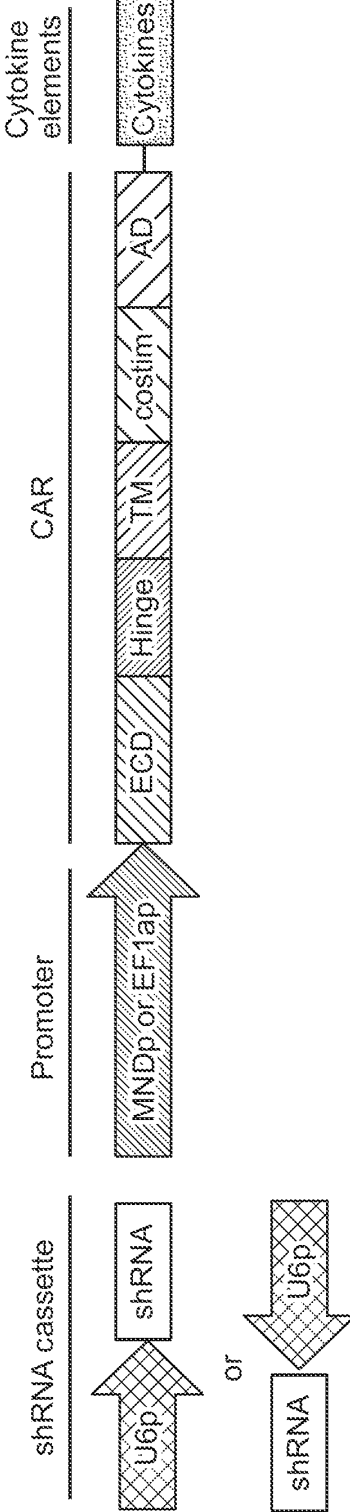


FIG. 4D

TcBuster
MMLNWLKSGKLESQEQSSCYLENSNCLPPTLDSTDIIGENKAGTTS
RKKRKYDEDYLNFGFTWTDKDEPNGLCVCEQVNNSSLNPAKLKRHL
DTKHPTLKGKSEYFKRKCNELNQKKHTFERYVRDDNKNLLKASYLVSLRI
AKQGEAYTIAEKLKPKCTKDLTICVFGEKFASKVDLVPLSDTTISRRIEDM
SYFCEAVLVNRLKNAKCGFTLQMD¹ESTDVAGLAILLVFVRYIHESSE²
DMLFCKALPTQTTGEEIFNLLNAYF³E⁴K⁵H⁶S⁷IPWNLCYHICTD⁸GAKAMV
G⁹V¹⁰KGVIARIKKLVDPDIKASHCCCLHR¹¹HALAVKRIPNALHEVLND¹²AVKMINFIK
SRPLNARVF¹³ALLCDDL¹⁴GSLHKNLLHTEVRWLSRGKVLTRFWELRDEIRI
FFNEREFAGKLN¹⁵DTSWLQNLAYIADIFS¹⁶YLN¹⁷EVNLSLQGPNSTIFK¹⁸VNSRI
NSIKSKLLWEECITKNNTECFANLND¹⁹FLET²⁰SN²¹TALDPN²²LKSNILEH²³LNGLK
NTFLEYFPPTC²⁴NNISWVENPFNECGNVD²⁵TLPIKEREQLDIR²⁶DTTLKSSF
VPDGIG²⁷PFWIKLMDEFPEISKRAVKELMPFVTTYLC²⁸E²⁹KSF³⁰SVYVATKTK
YRNRLDAEDDMRL³¹Q³²L³³T³⁴I³⁵HP³⁶D³⁷IDNLCN³⁸NKQAQKSH (SEQ ID NO: 2687)

FIG. 5

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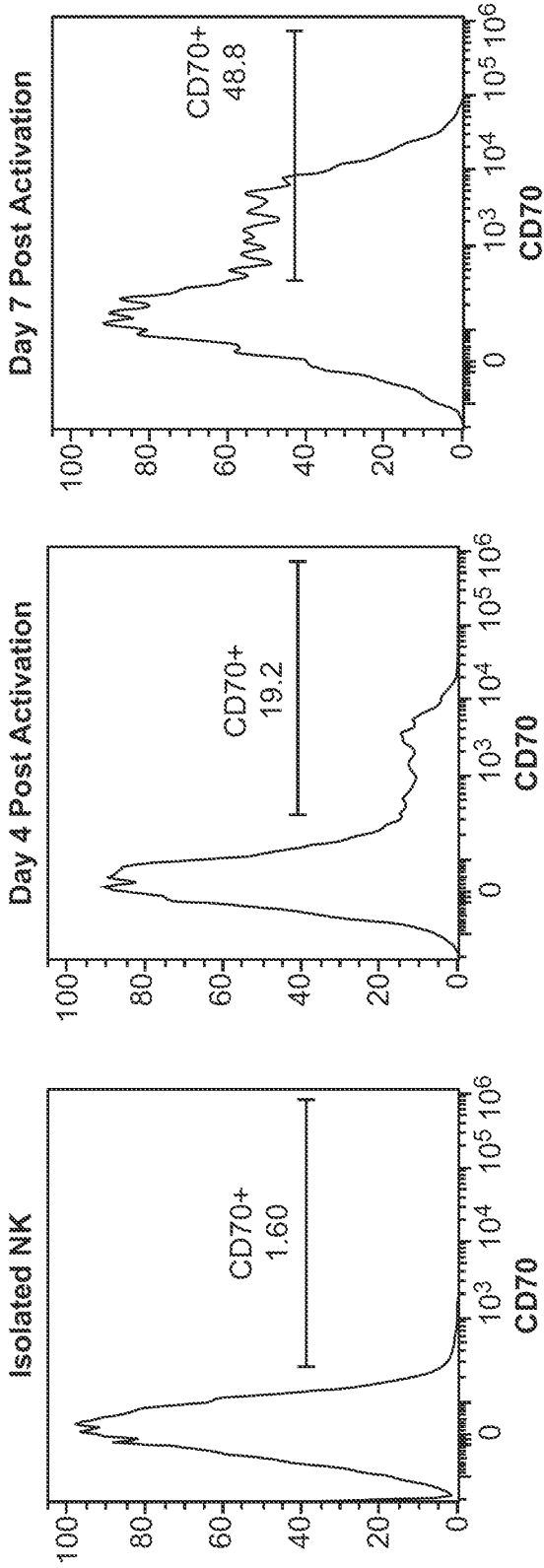


FIG. 6

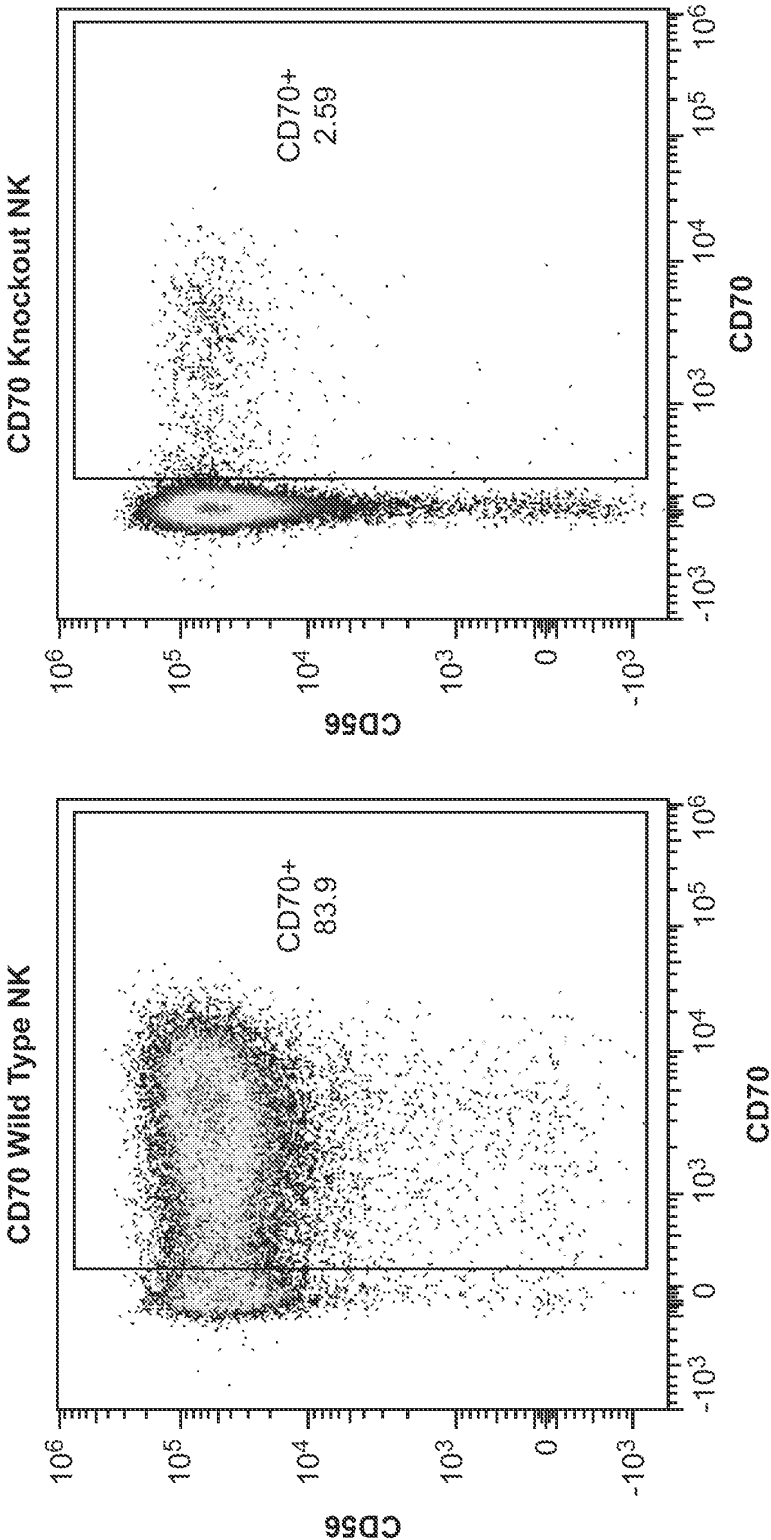


FIG. 7

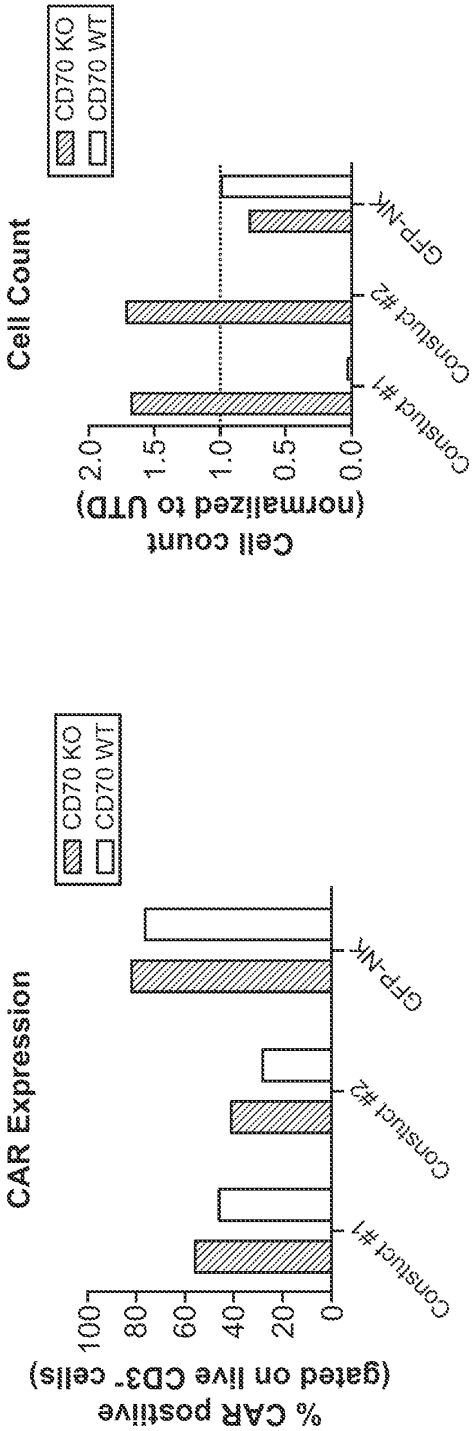
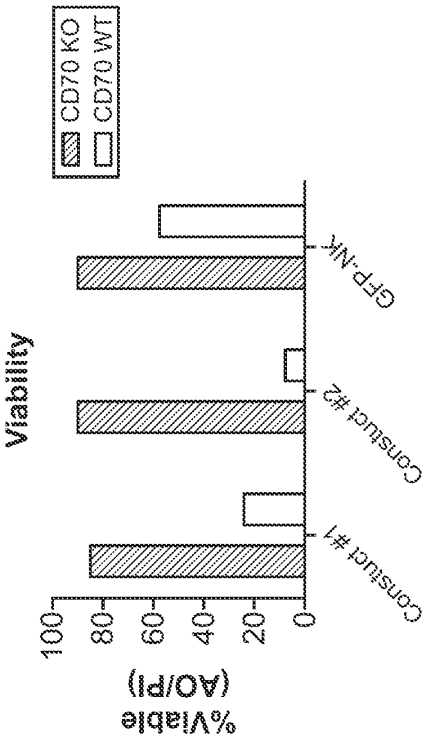


FIG. 8B



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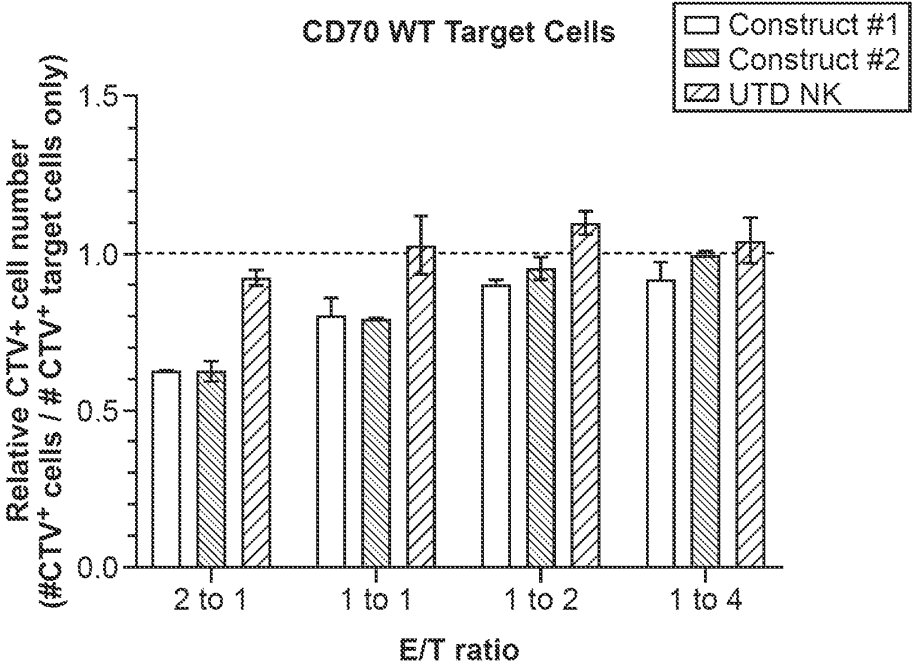


FIG. 9A

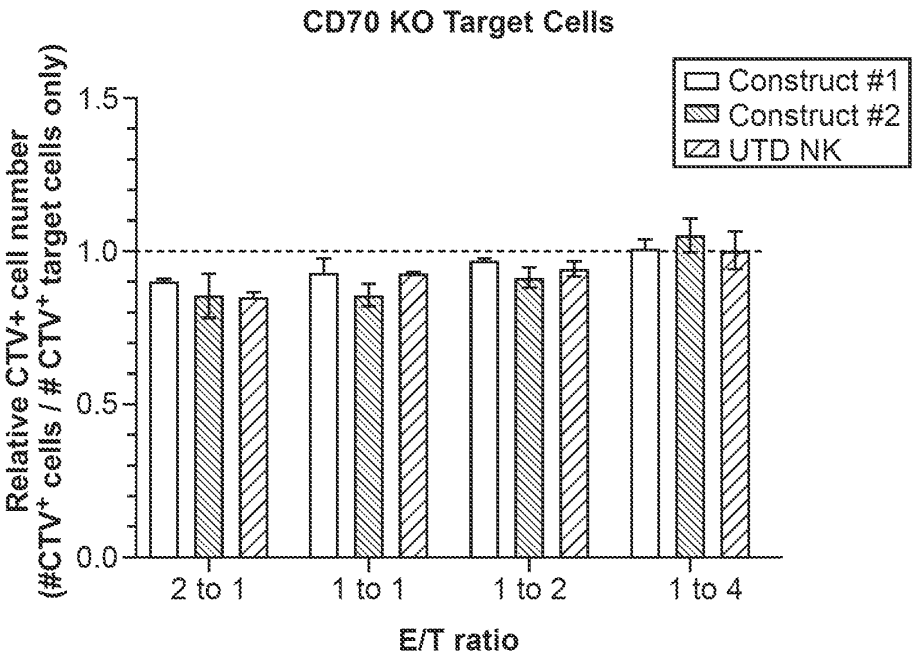


FIG. 9B

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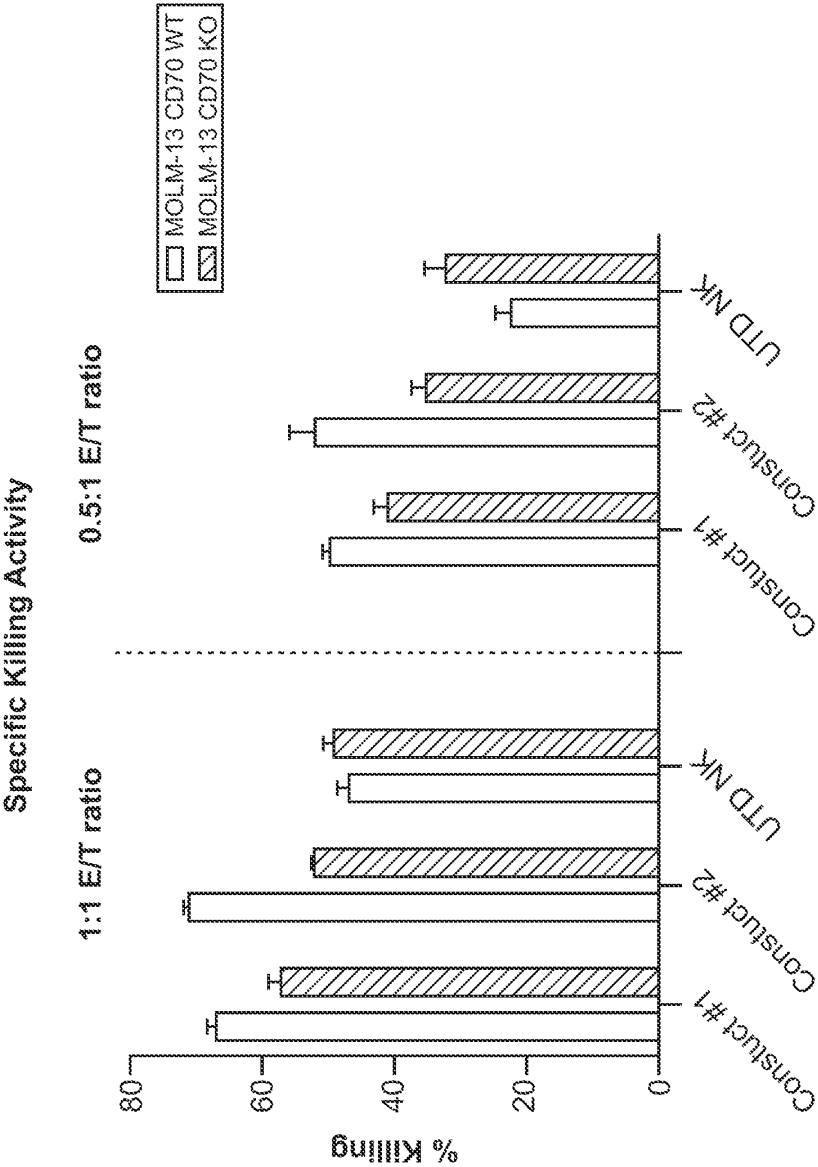


FIG. 10

FIG. 11

