

FIG. 1A

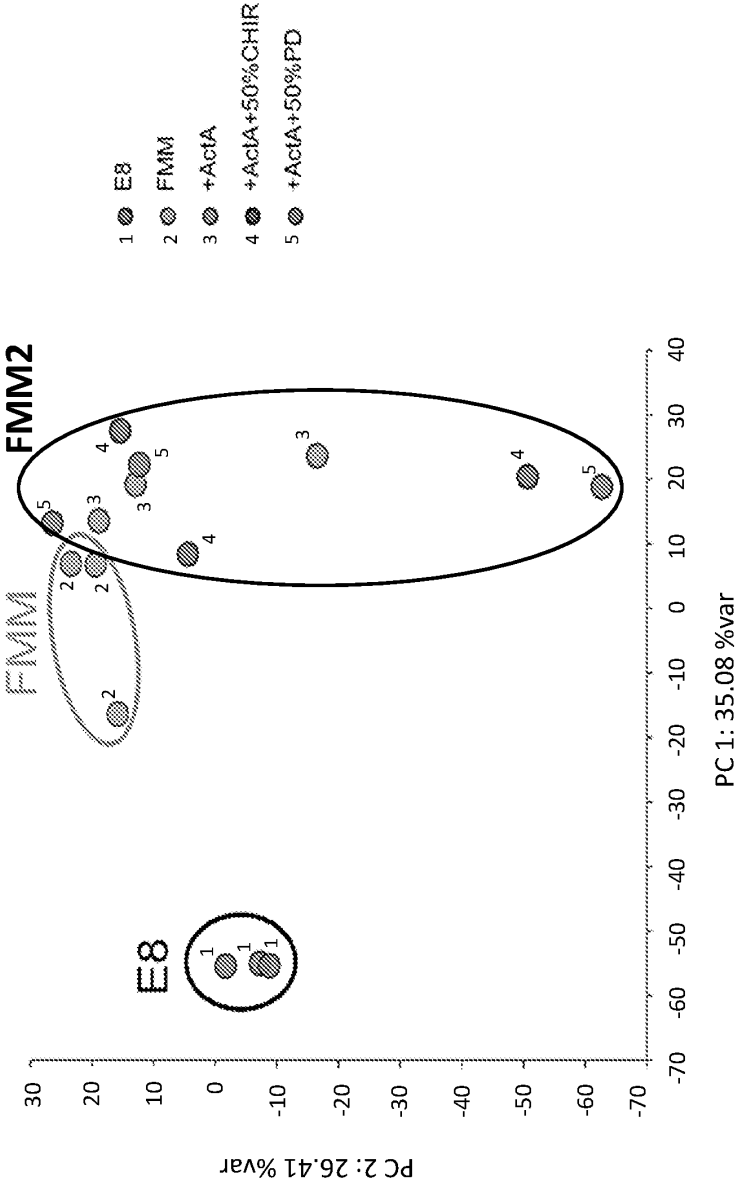


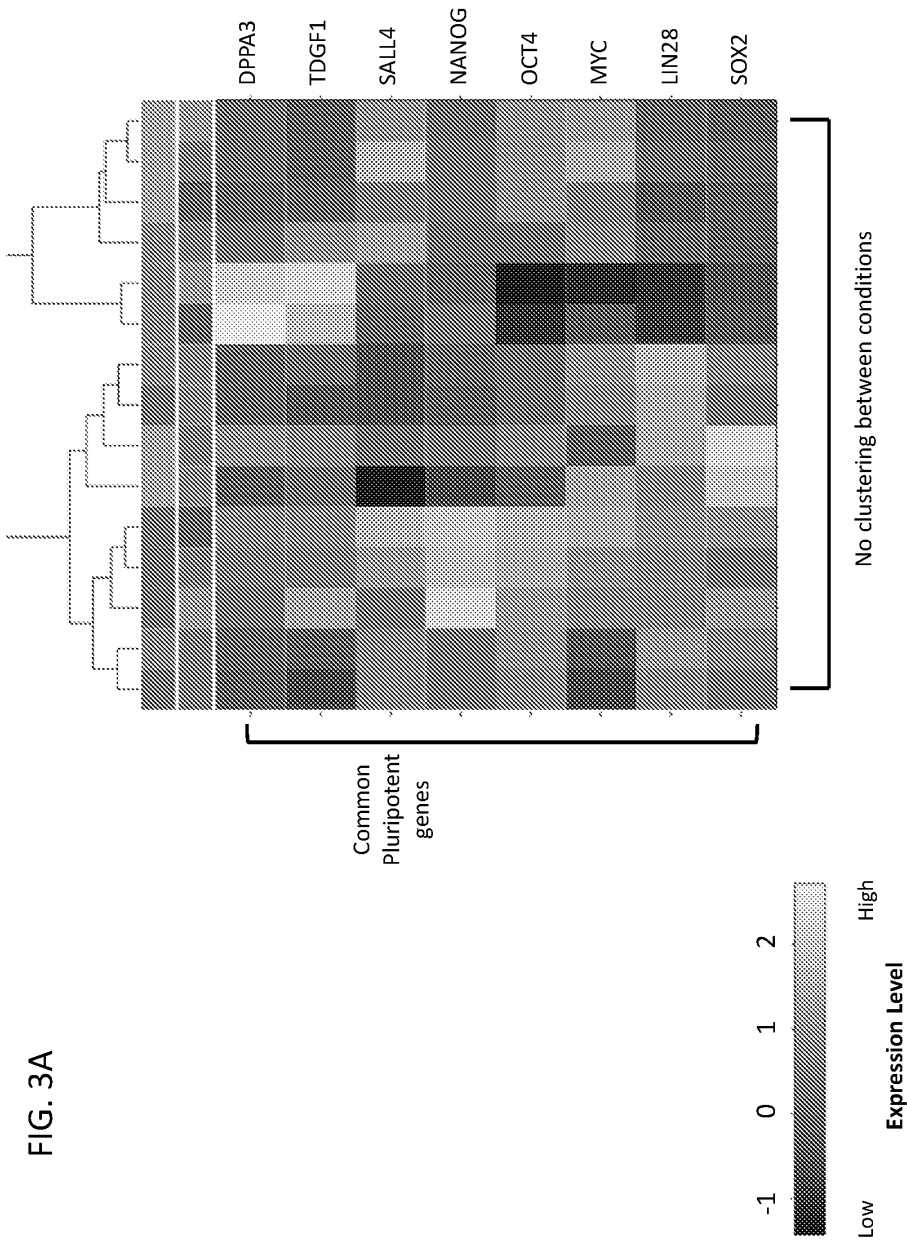
FIG. 1B

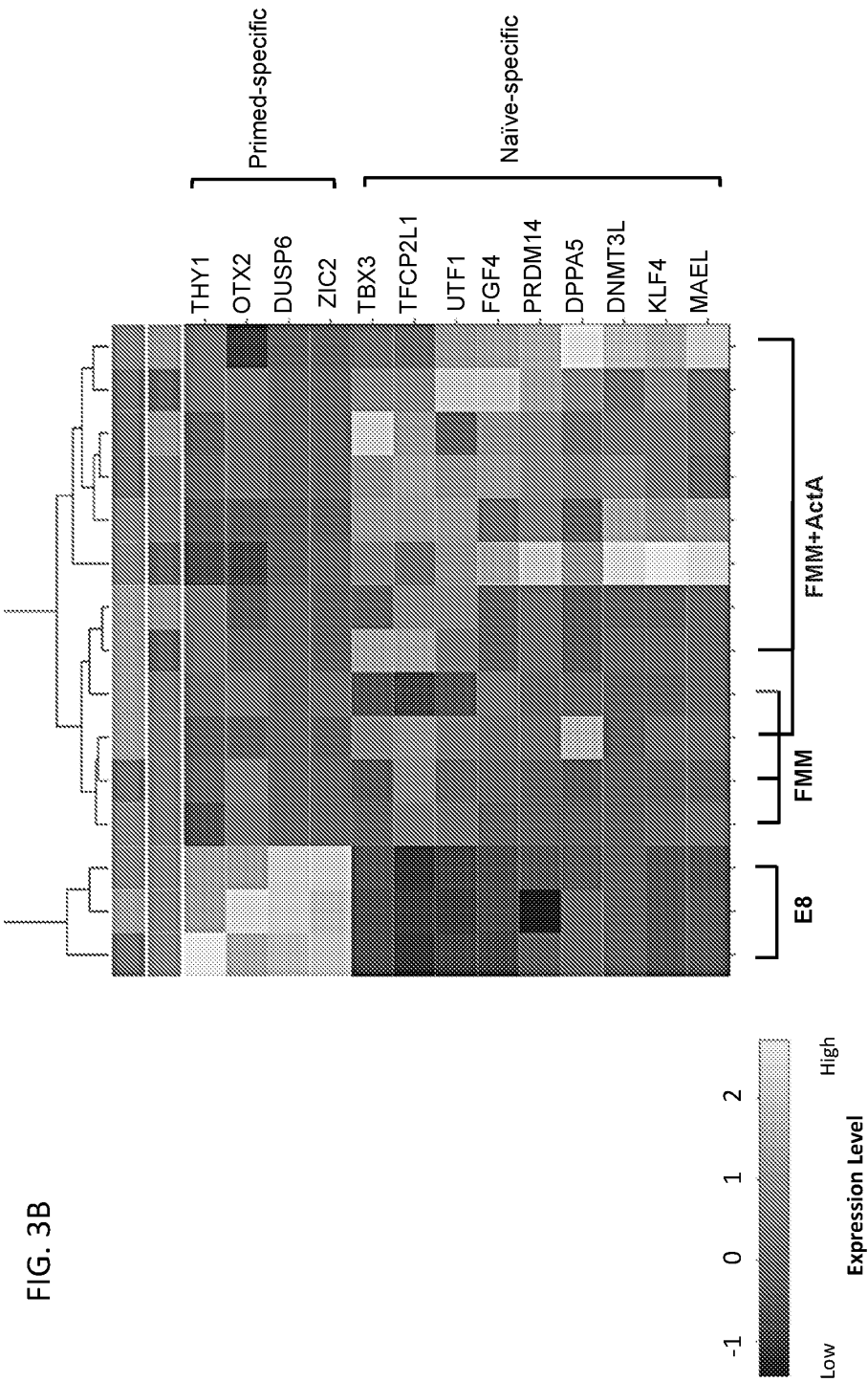
FMM											
New FMM formulations											
Conditions	iPSC clone from T cells of donor 1					iPSC clone 1 from T cells of donor 2			iPSC clone 2 from T cells of donor 2		
	P15	P19	P25	P33	P45 (thawed from 2nd bank)	P27	P35	P45 (thawed from 2nd bank)	P21	P25	P36
E8 medium	Normal 12	NT	Normal karyo	Normal 12	NT	NT	NT	NT	NT	NT	NT
FMM	Abnormal karyo	Trisomy 12	NT	NT	NT	Trisomy 12	Abnormal karyo	NT	Trisomy 12	Trisomy 12	Trisomy 12
FMM +Act A	Normal 12	Normal 12	Normal karyo	Normal karyo	Normal karyo	Normal 12	Normal karyo	Normal karyo	Normal 12	Normal 12	Normal karyo
FMM -PD 50% +ActA	Normal 12	Normal 12	Normal karyo	Normal karyo	Normal karyo	Normal 12	Normal karyo	Normal karyo	Normal 12	Normal 12	Normal karyo
FMM -CHIR 50% +ActA	Normal 12	Normal 12	Normal karyo	Normal karyo	Normal karyo	Normal 12	Normal karyo	Abnormal karyo	Normal 12	Normal 12	Normal karyo
FMM -PD 50% +TGFb	Normal 12	Normal 12	Abnormal karyo	Trisomy 12	NT	Normal 12	Abnormal karyo	NT	Normal 12	Normal 12	Normal 12
FMM -PD/CHIR +TGFb	Normal karyo	Normal 12	Abnormal karyo	Trisomy 12	NT	Trisomy 12	Abnormal karyo	NT	Normal 12	Normal 12	Normal 12
FMM -50% PD	Normal 12	Normal 12	Abnormal karyo	Trisomy 12	NT	Trisomy 12	Abnormal karyo	NT	Normal 12	Normal 12	Trisomy 12
FMM +TGFb	Normal 12	Normal 12	NT	NT	NT	NT	NT	NT	NT	NT	NT
FMM -CHIR 50% +TGFb	Normal 12	Normal 12	NT	NT	NT	NT	NT	NT	NT	NT	NT
FMM +CHIR 50%	Normal 12	Trisomy 12	NT	NT	NT	NT	NT	NT	NT	NT	NT
FMM -50% CHIR +Forskolin	Normal 12	Trisomy 12	NT	NT	NT	NT	NT	NT	NT	NT	NT
FMM -50%PD +Forskolin	Abnormal karyo	Trisomy 12	NT	NT	NT	NT	NT	NT	NT	NT	NT
FMM +Forskolin	Abnormal karyo	Trisomy 12	NT	NT	NT	NT	NT	NT	NT	NT	NT

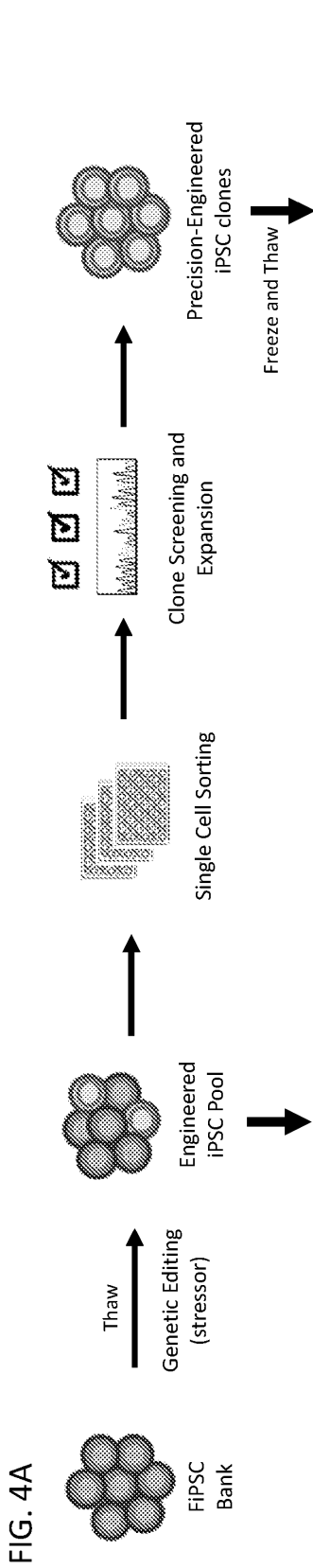
FIG. 2

PCA analysis







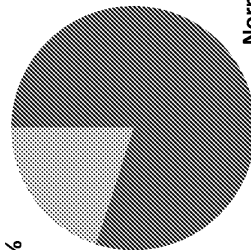


Percentage of abnormal cells in iPSC population

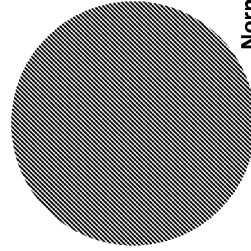
FMFM+ACTIVIN A

Abnormal
20%

FMFM



Normal
80%



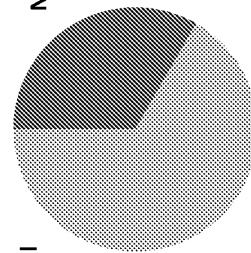
Normal
100%

FIG. 4B

Percentage of abnormal clone post cryopreservation

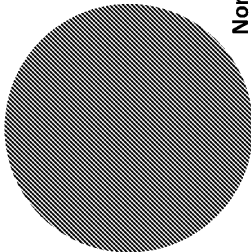
FMFM

Abnormal
67%



Normal
33%

FMFM+ACTIVIN A



Normal
100%

FIG. 4C

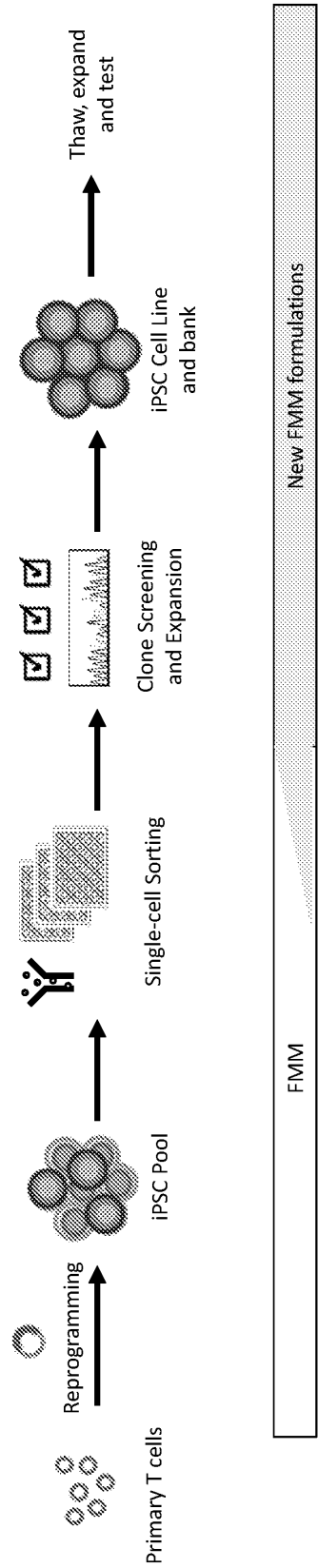


FIG. 5A

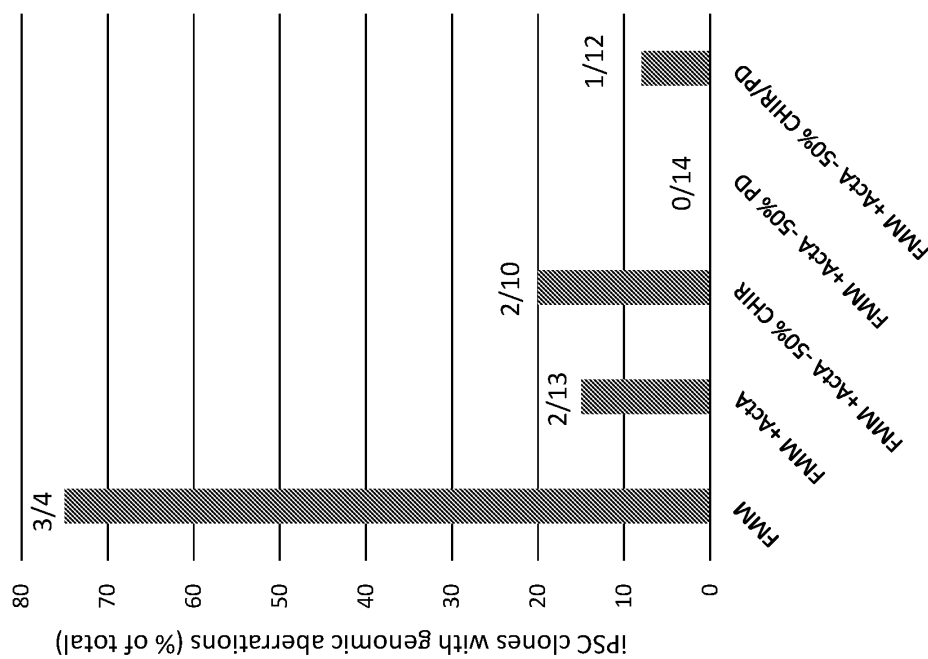


FIG. 5B

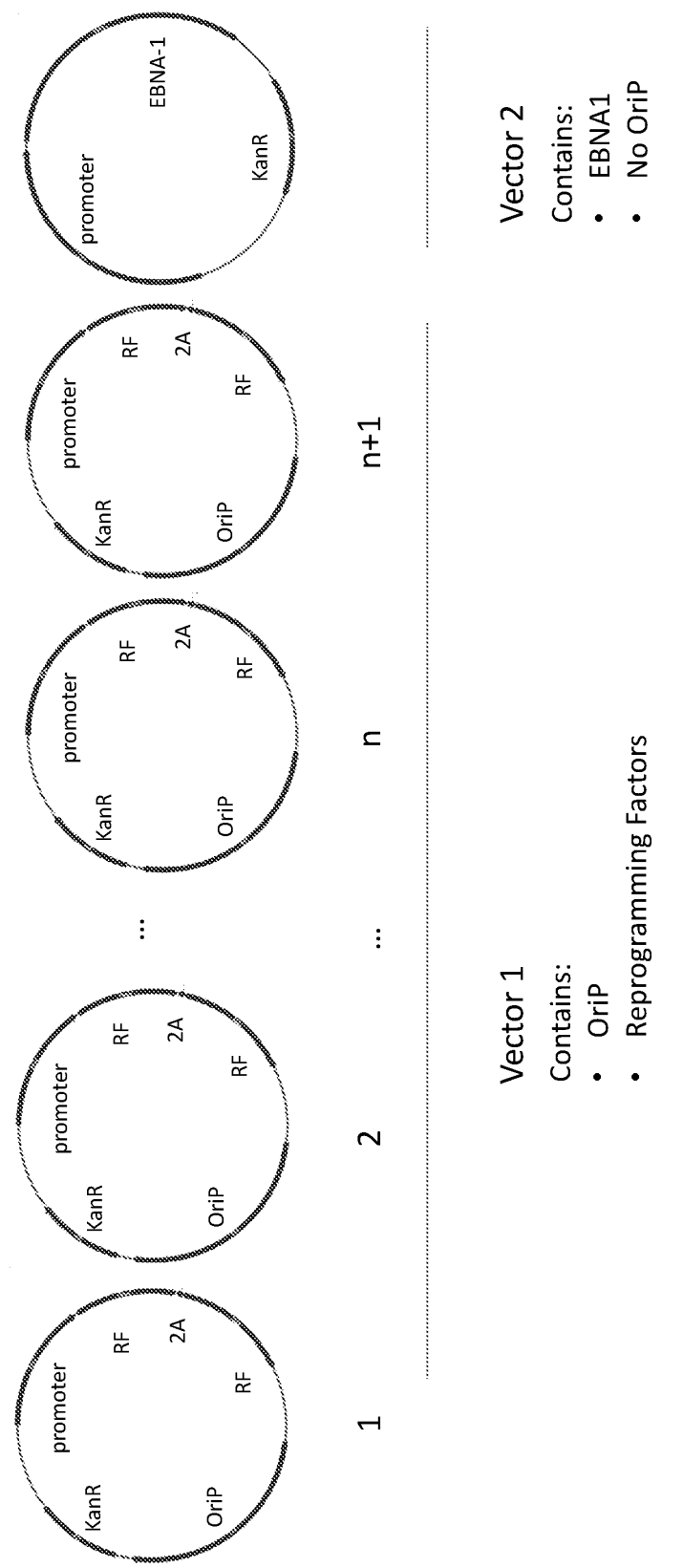
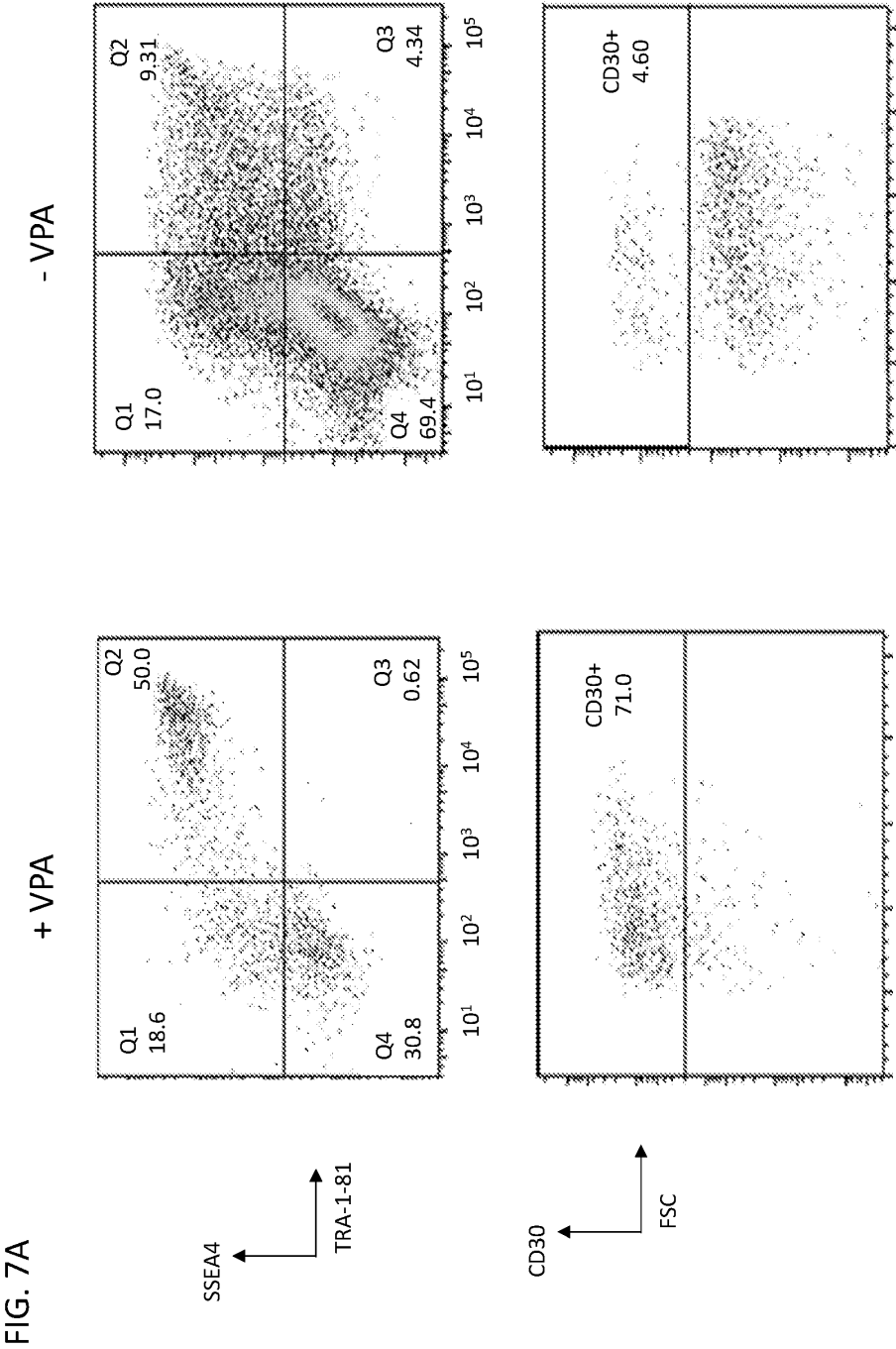


FIG. 6



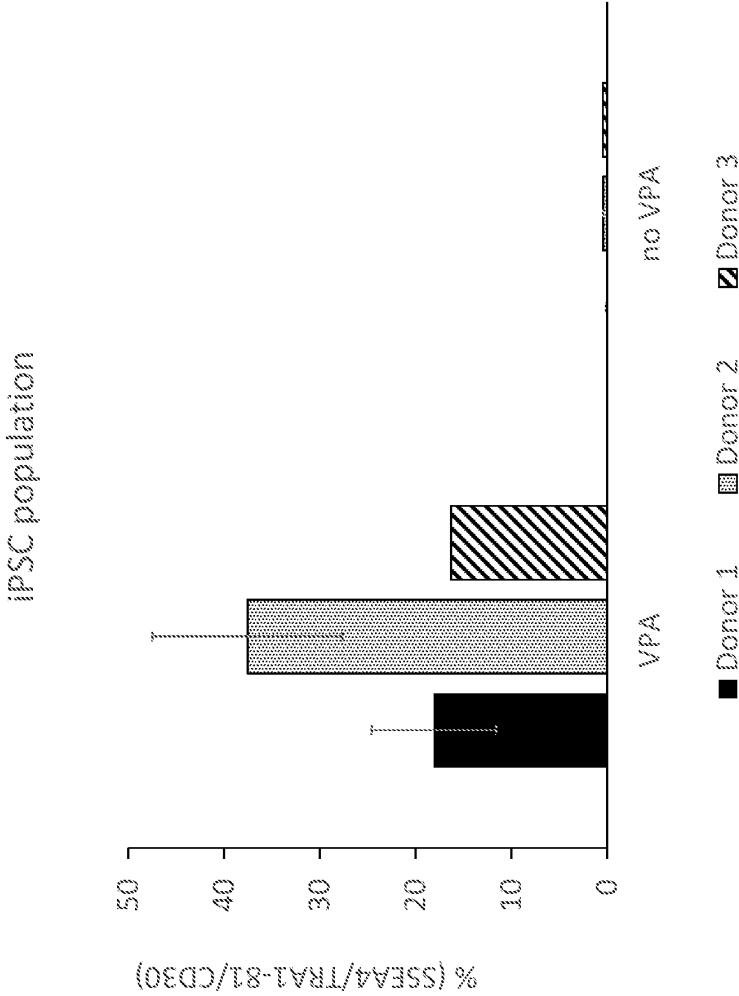


FIG. 7B

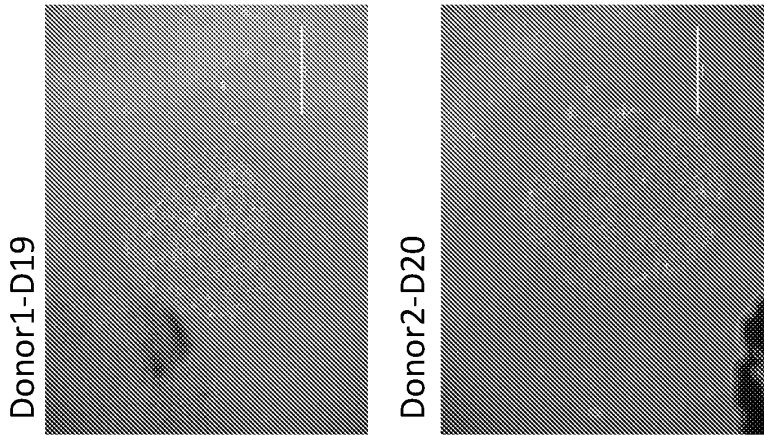


FIG. 8A

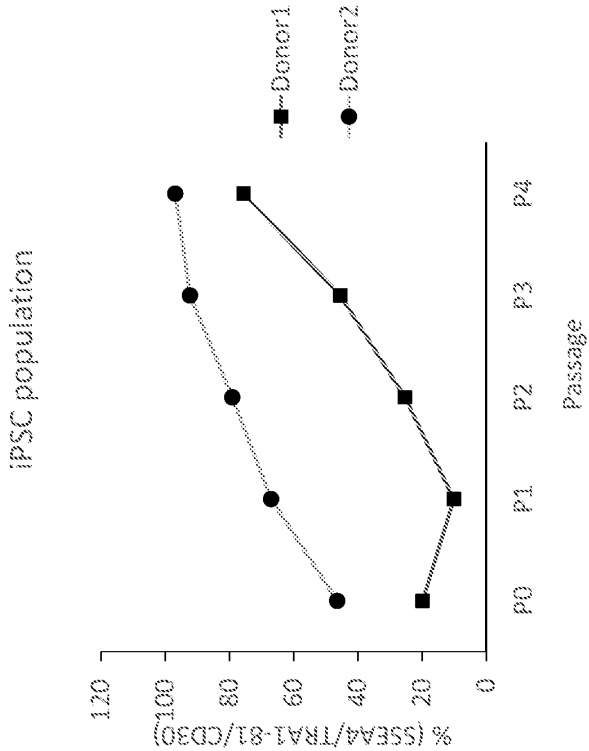


FIG. 8B

FIG. 8C

Donor 1

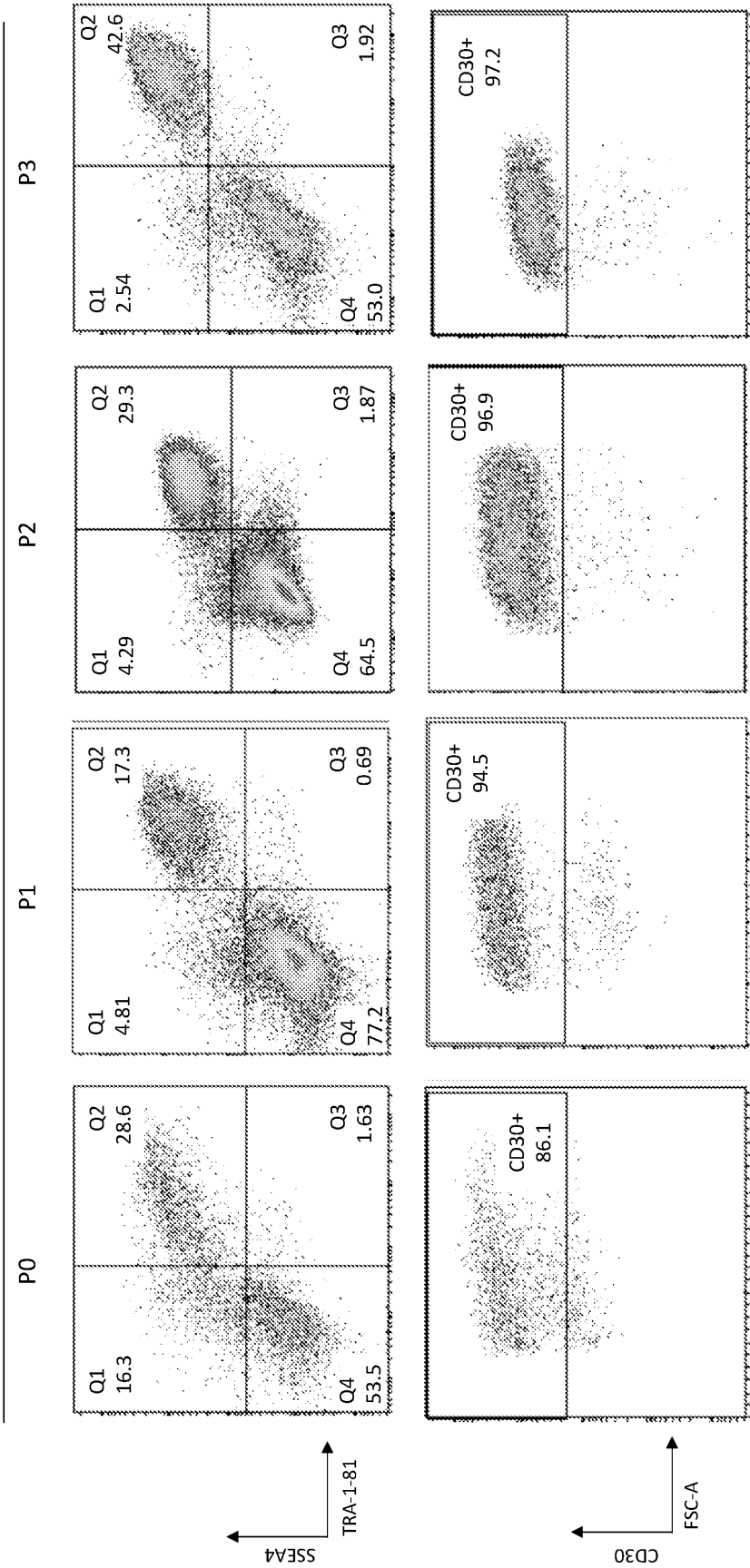
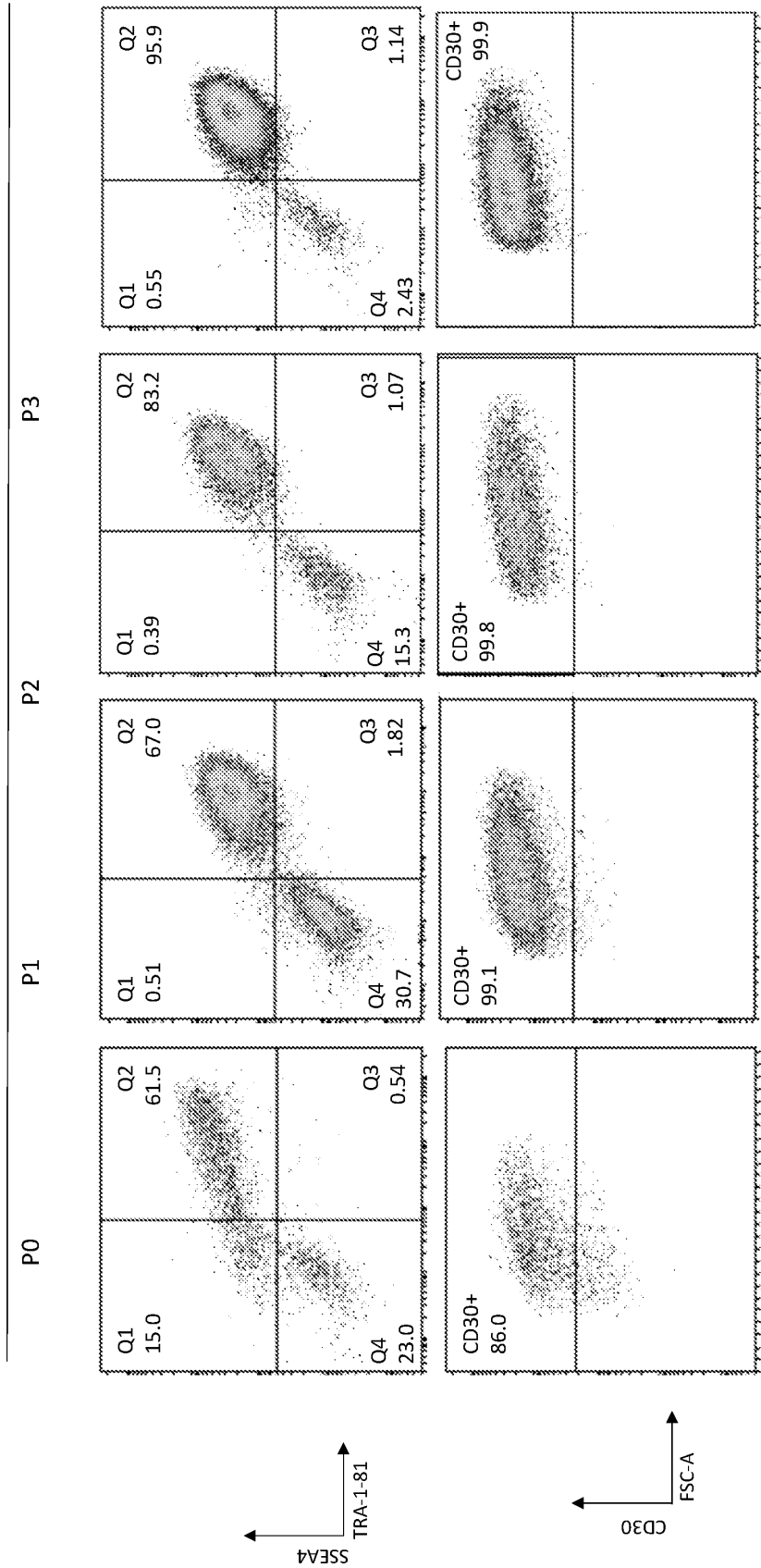
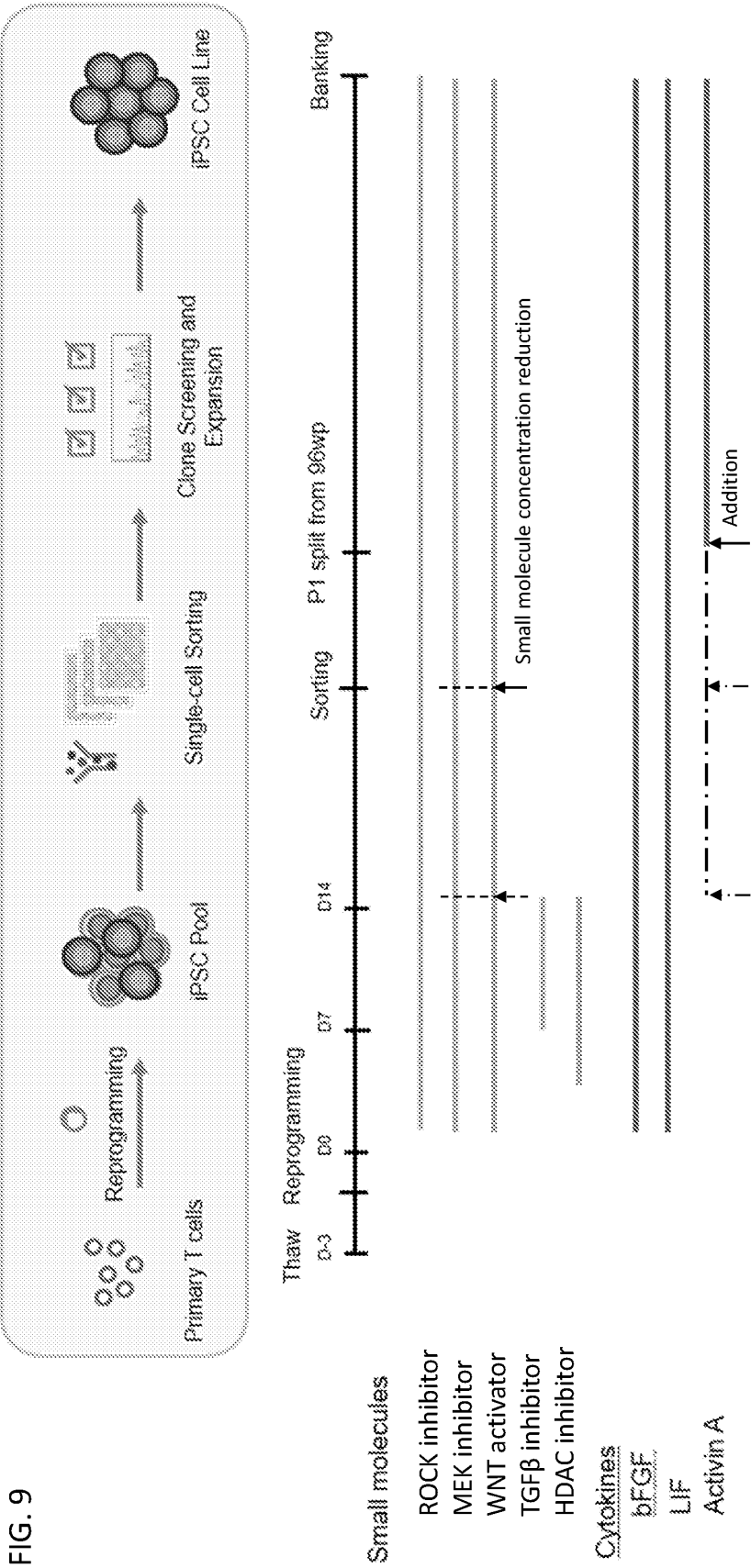


FIG. 8C (cont.)

Donor 2





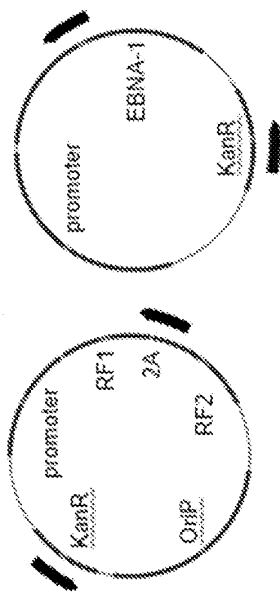


FIG. 10A

Sample ID/ Probe	EBNA1	KanR	2A	RNaseP (loading control)
STTR2 clone1	ND	ND	ND	23.67
STTR2 clone2	ND	ND	ND	24.83
STTR2 clone3	ND	ND	ND	23.73
Positive control 1	23.09	ND	27.23	24.17
Positive control 2	ND	23.77	ND	25.84
Negative control	ND	ND	ND	24.41

FIG. 10B

Parental cell	# of clones tested	# of transgene-free clones	Passing rate (%)
Donor 1	55	55	100
Donor 2	46	46	100

FIG. 10C

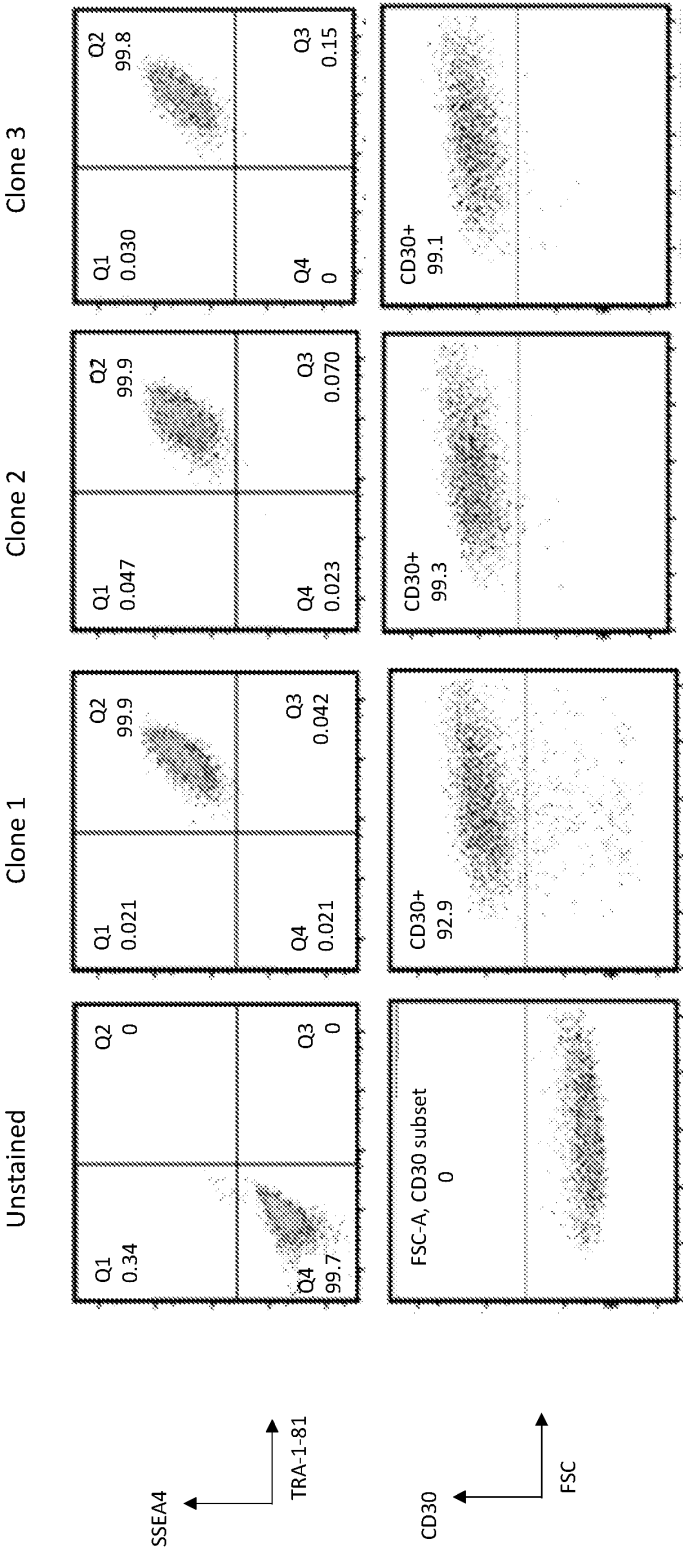


FIG. 11

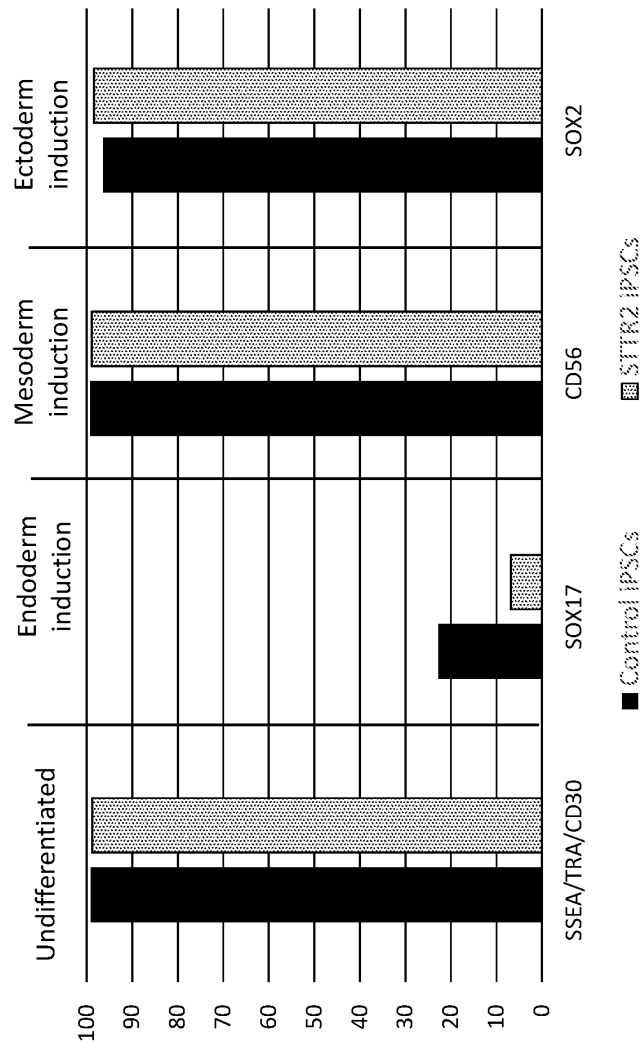


FIG. 12A

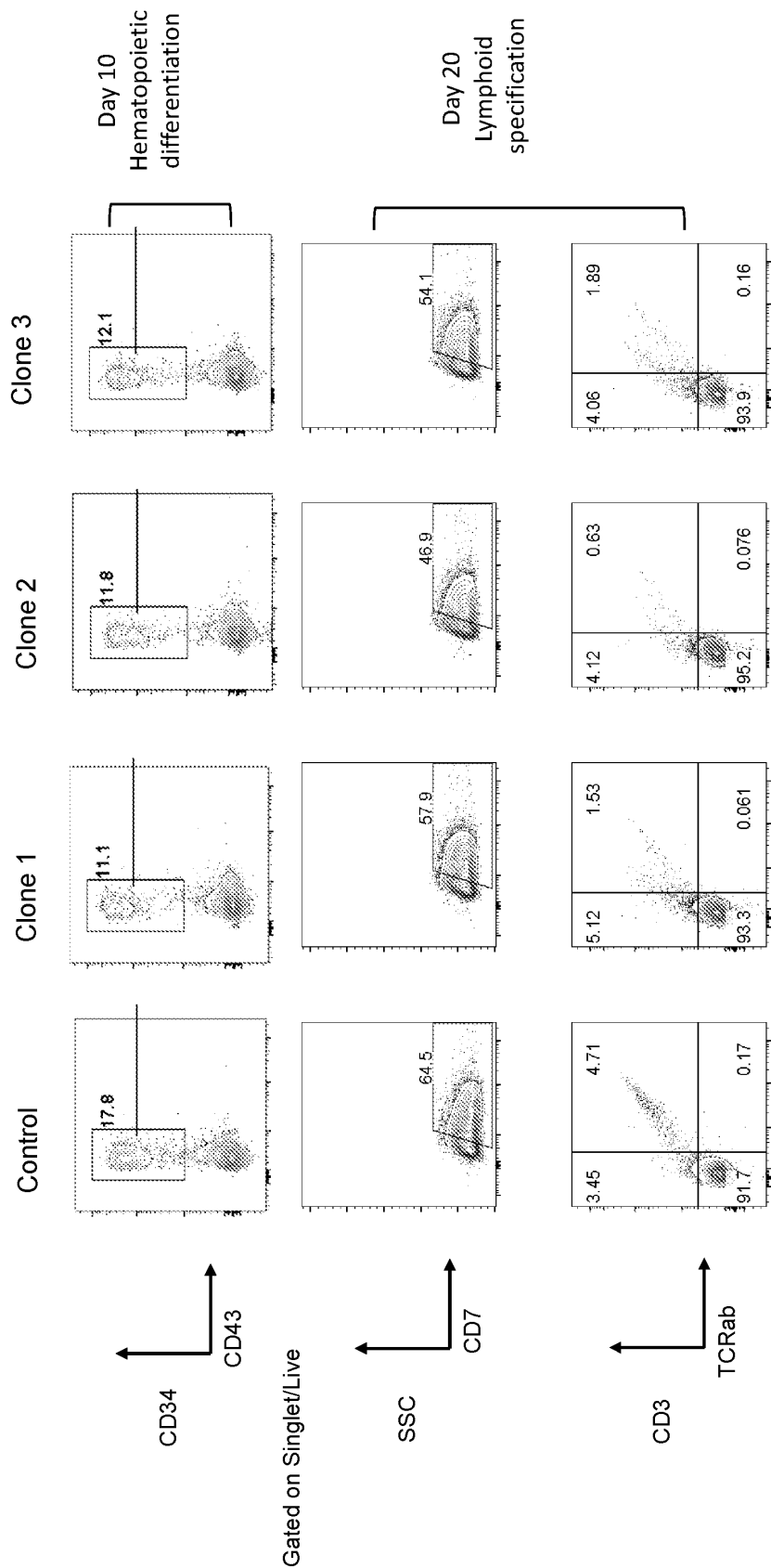


FIG. 12B

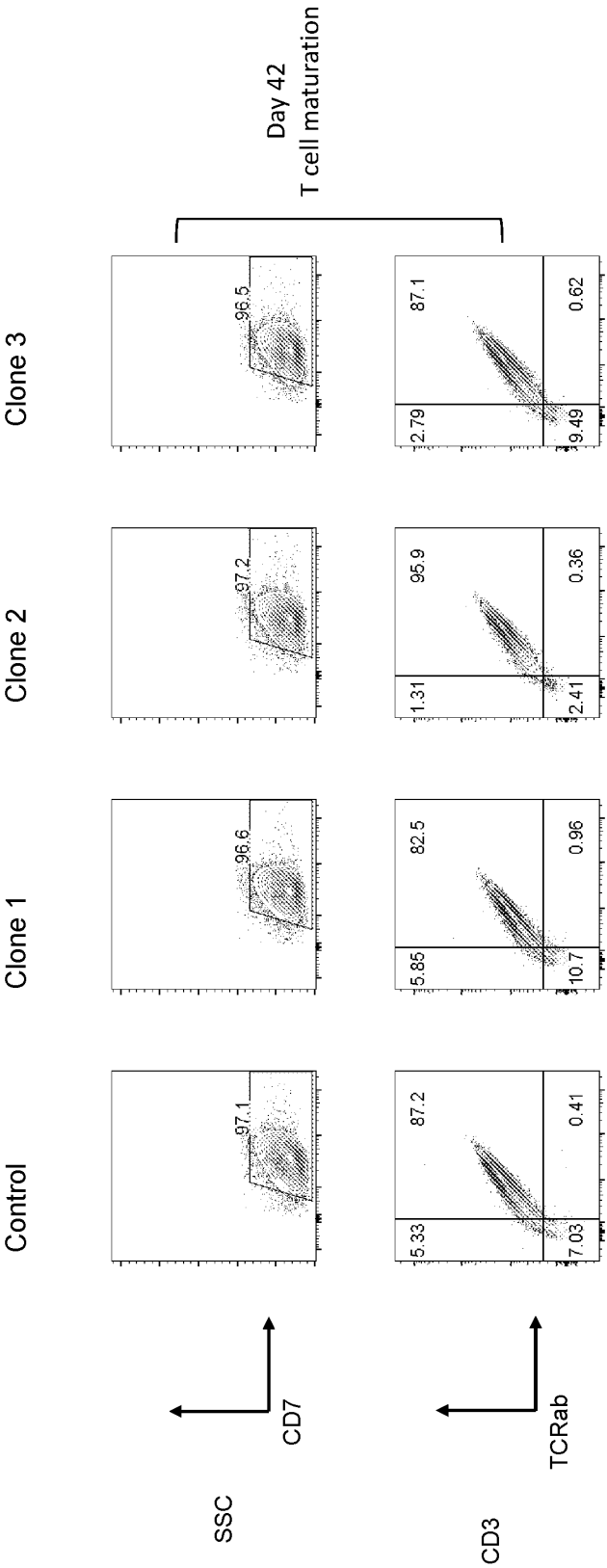
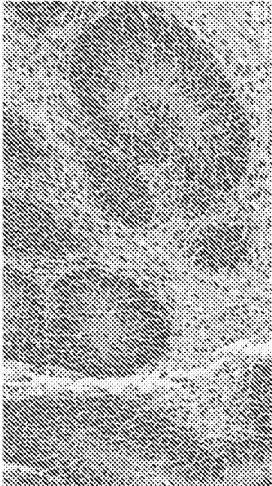


FIG. 12B (cont.)

Gated on Singlet/Live/CD45+

ECTODERM
NEUROEPITHELIUM



MESODERM
CARTILAGE



ENDODERM
SIMPLE COLUMNAR EPITHELIUM

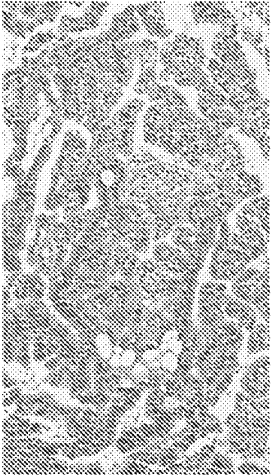


FIG. 12C

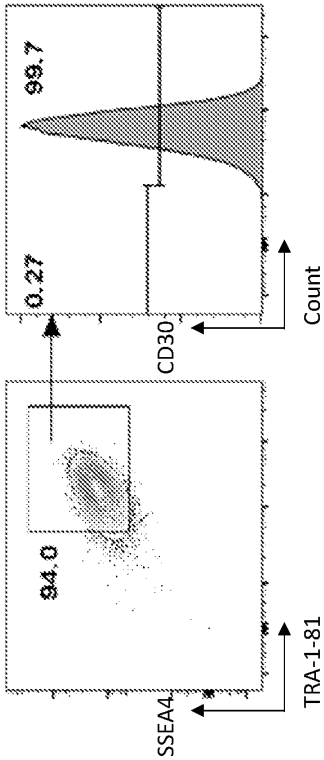
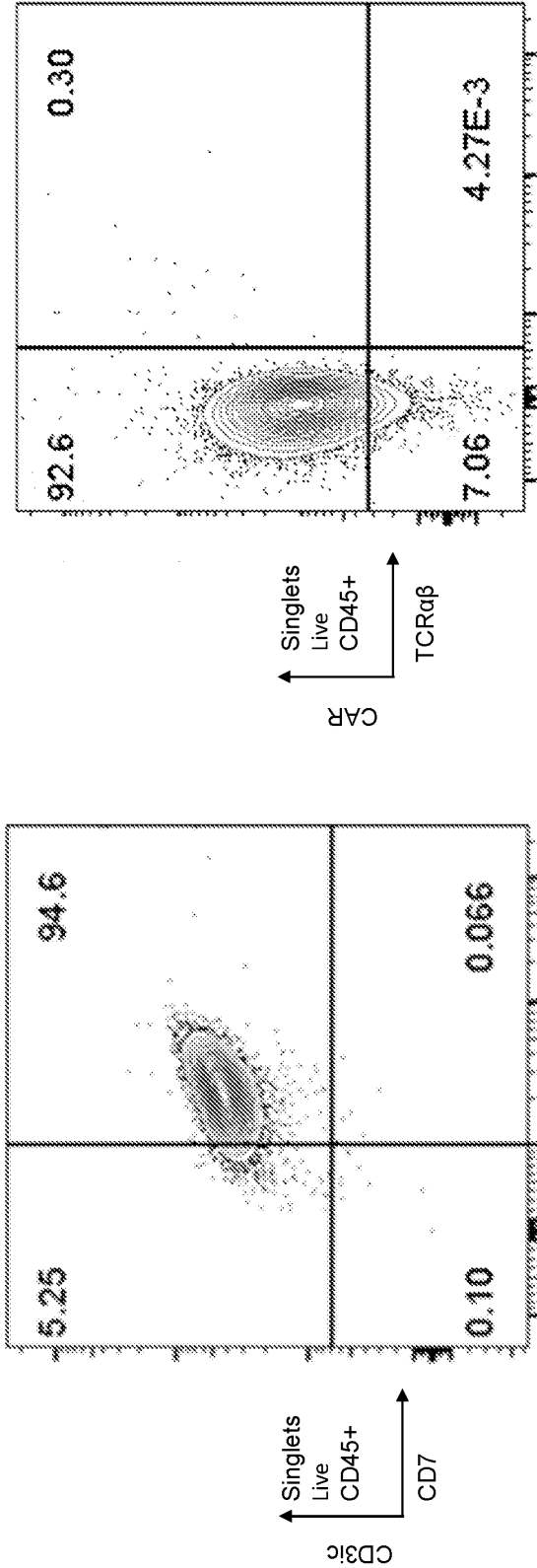


FIG. 13



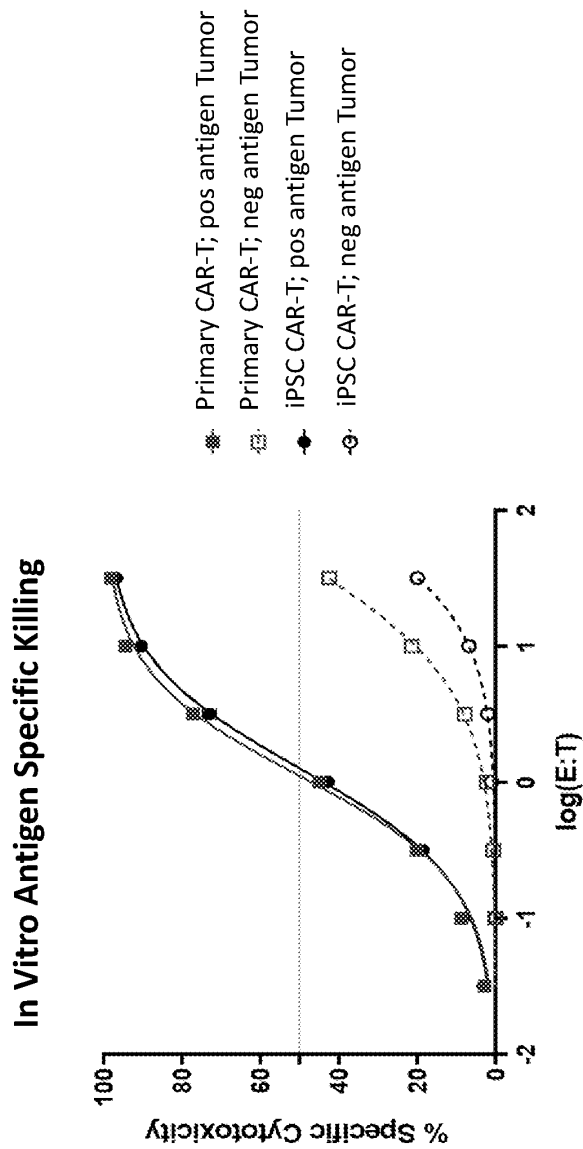


FIG. 14B