

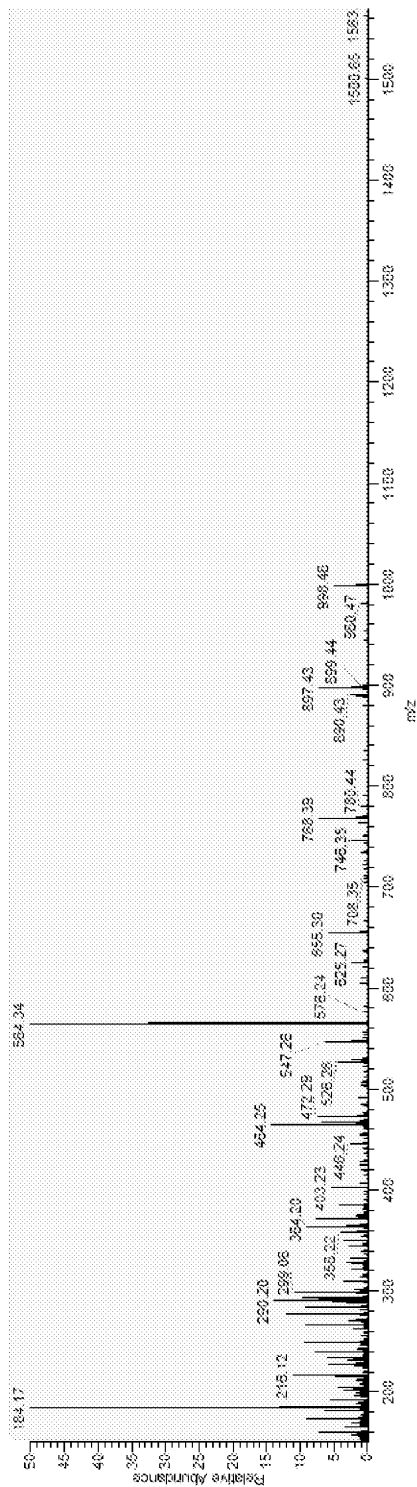


FIG. 1

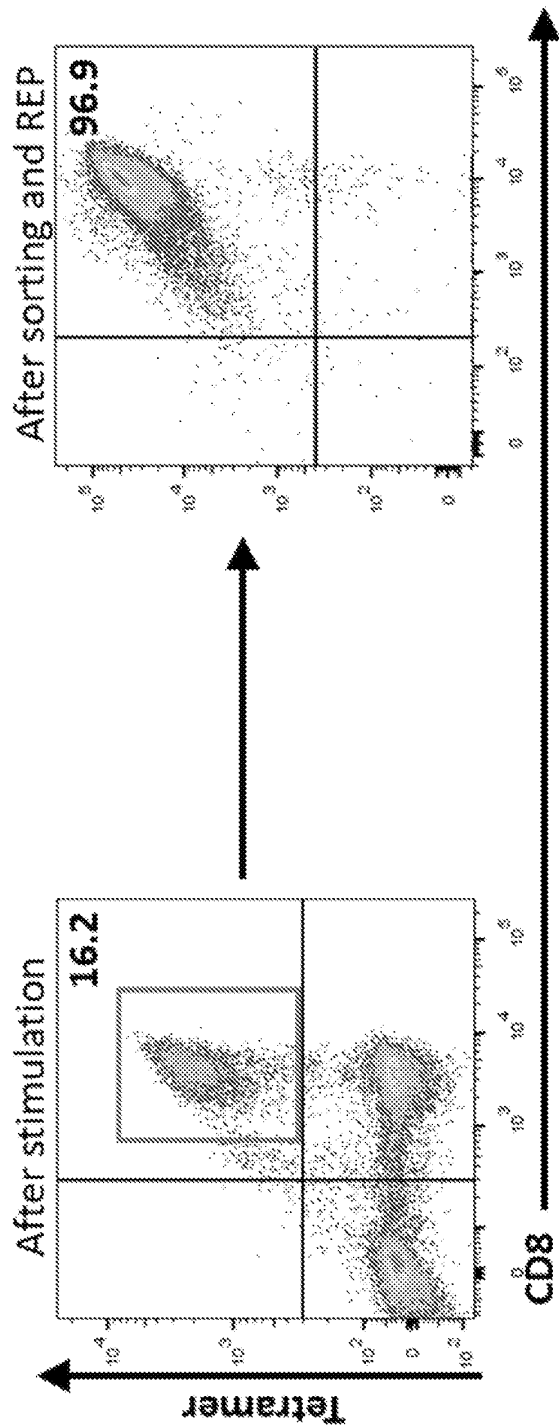


FIG. 2

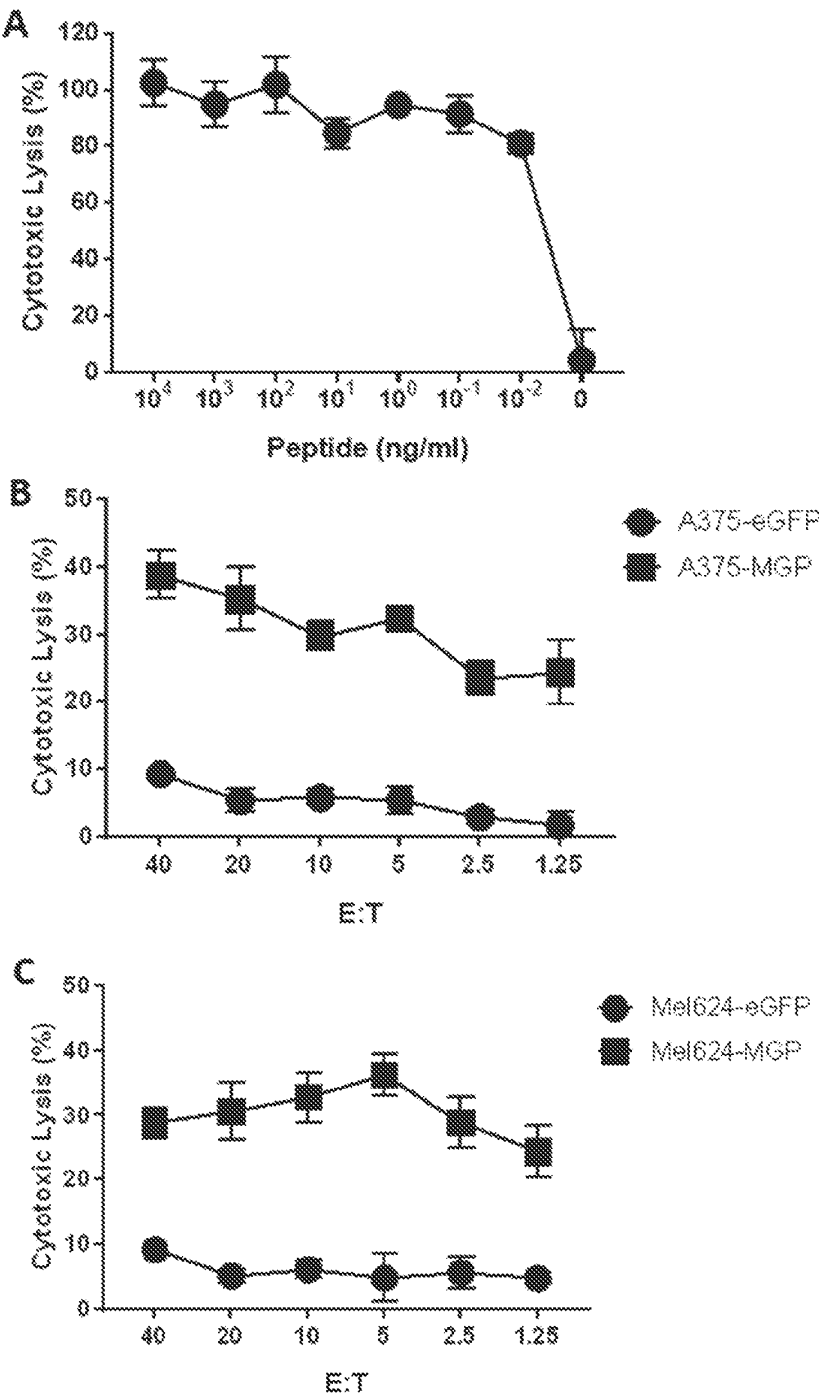


FIG. 3A-C

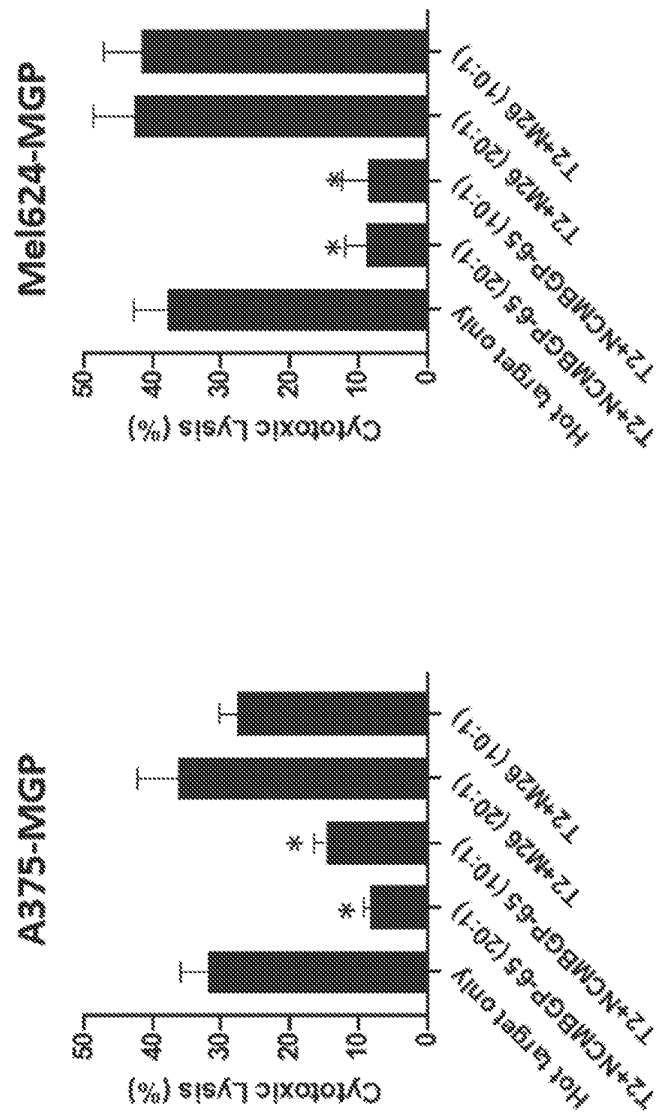


FIG. 4

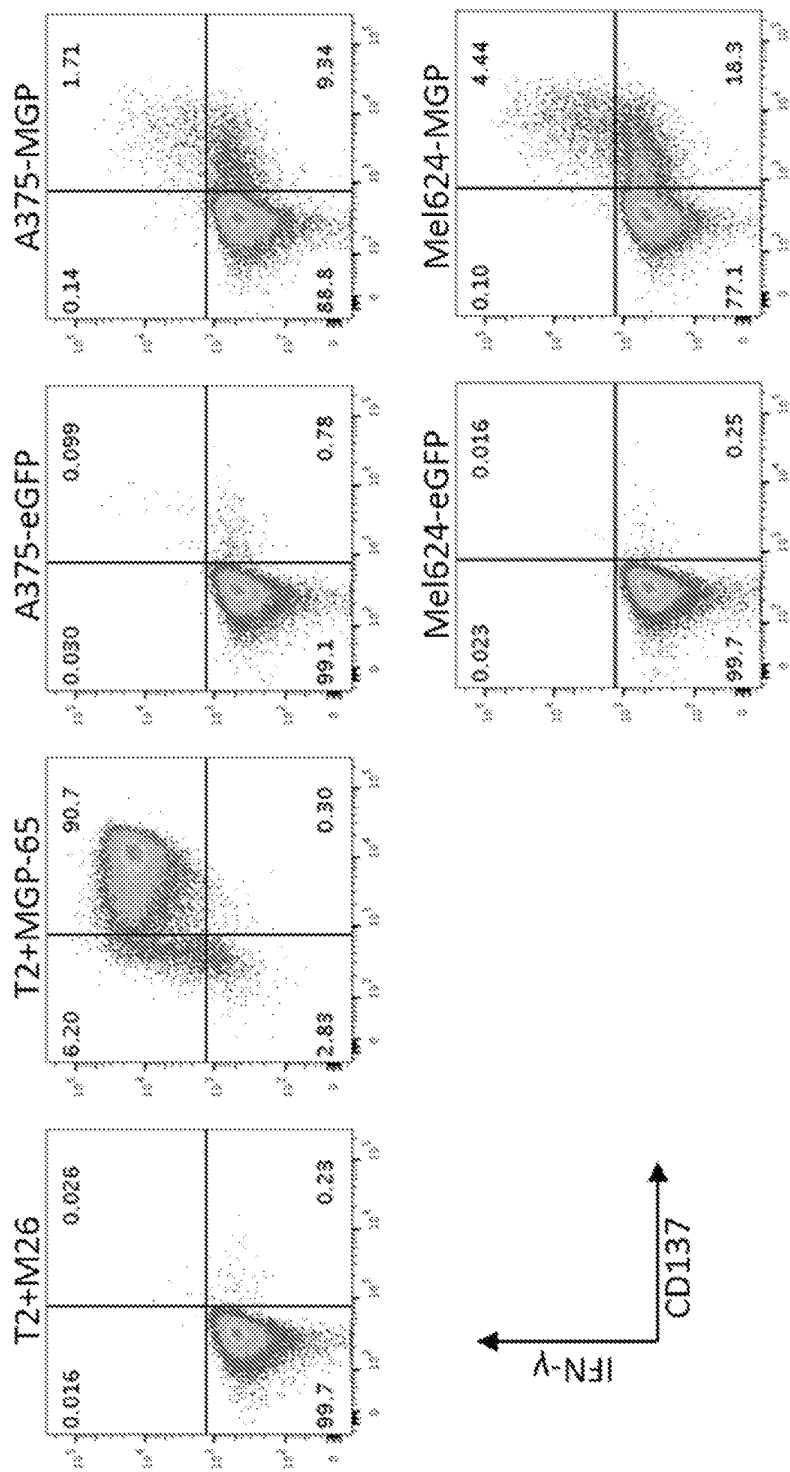


FIG. 5

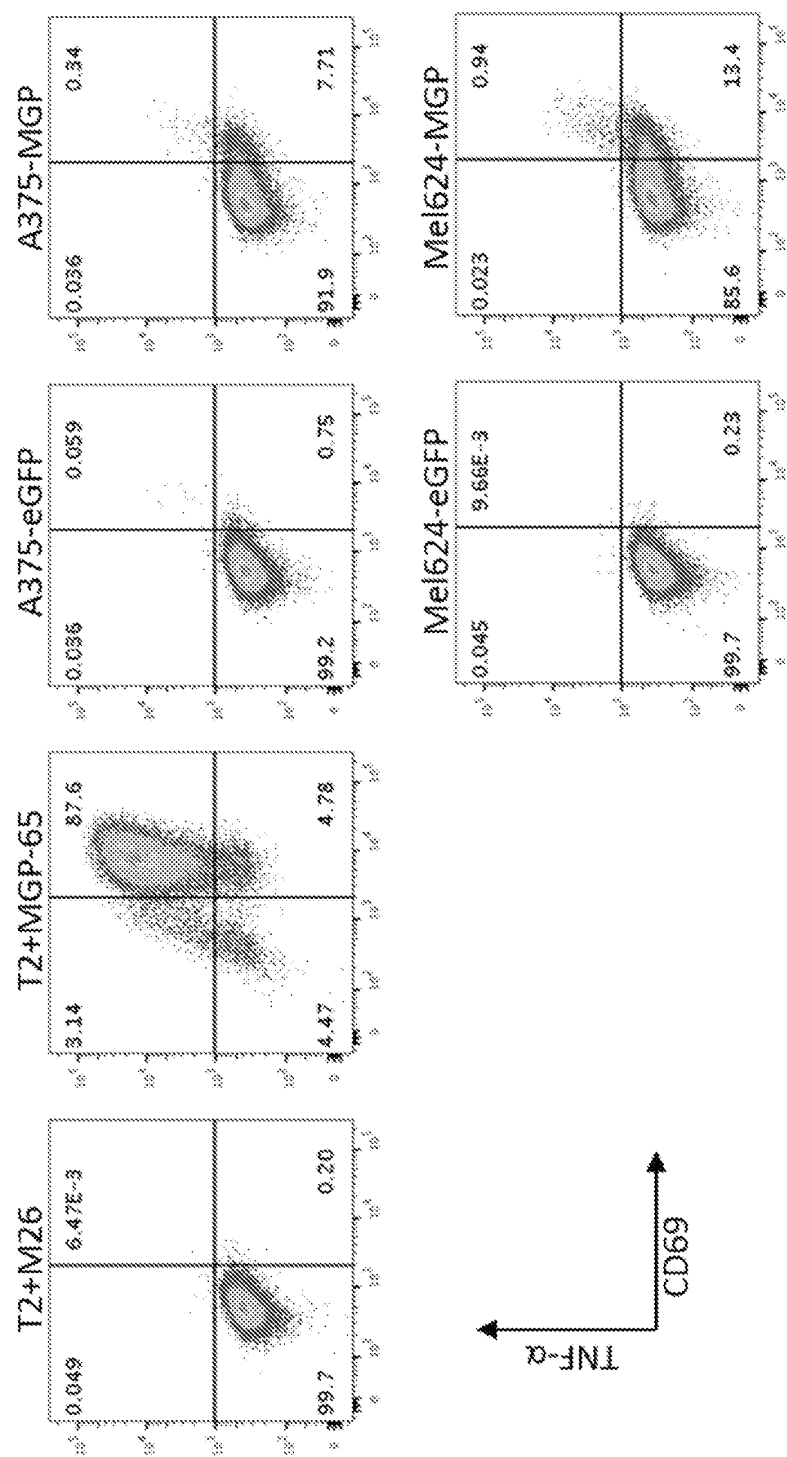


FIG. 5 Continued

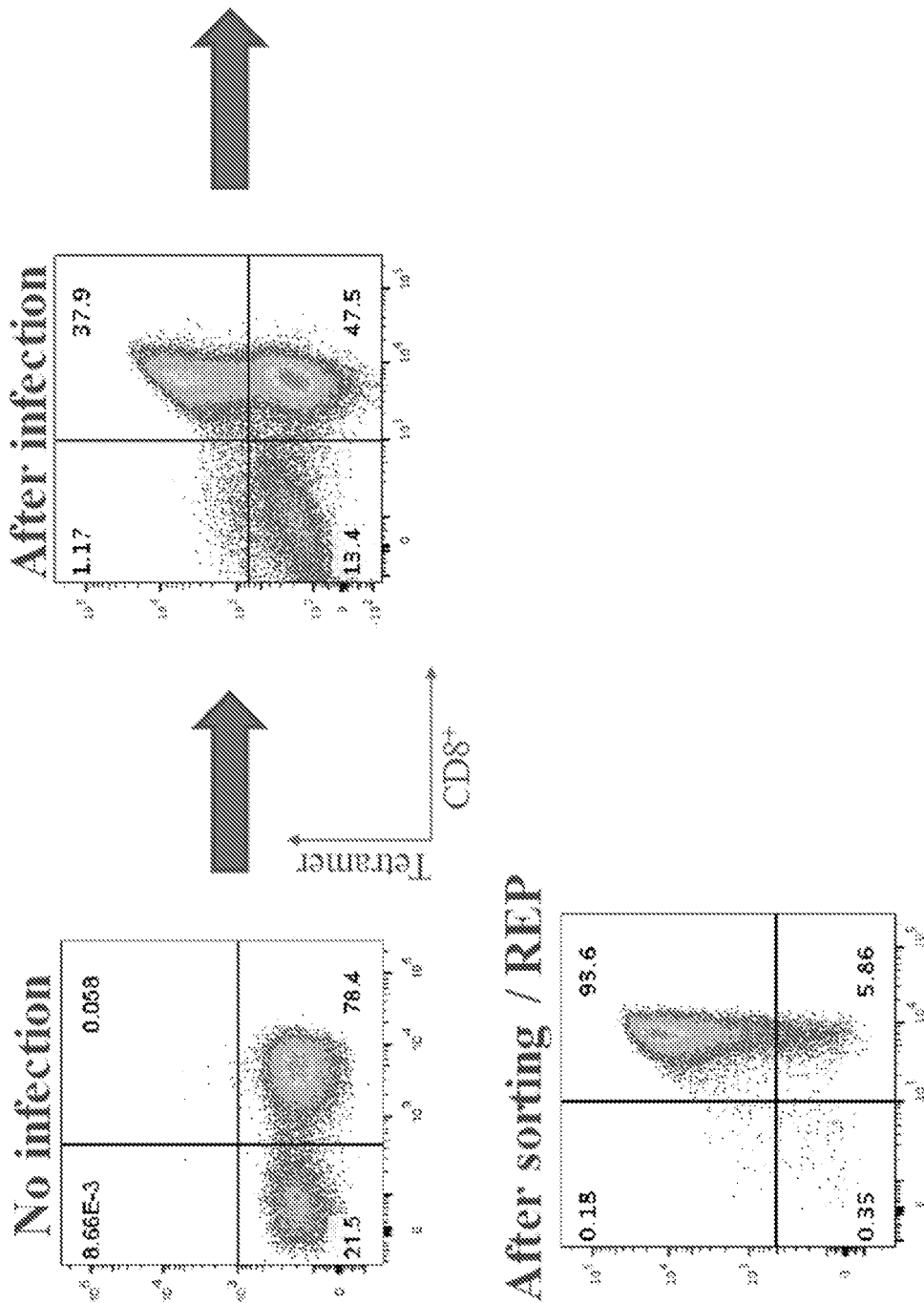


FIG. 6

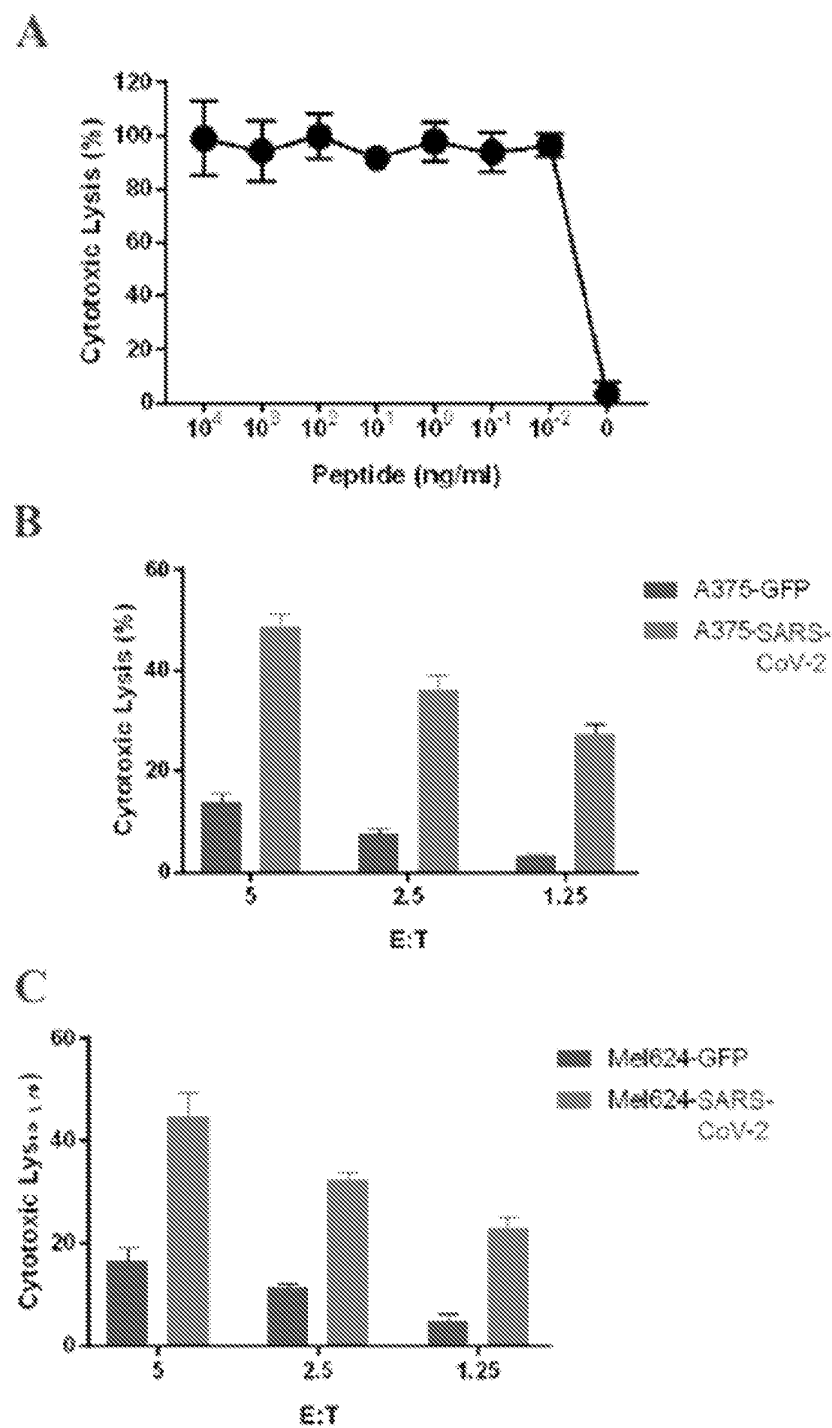


FIG. 7A-C

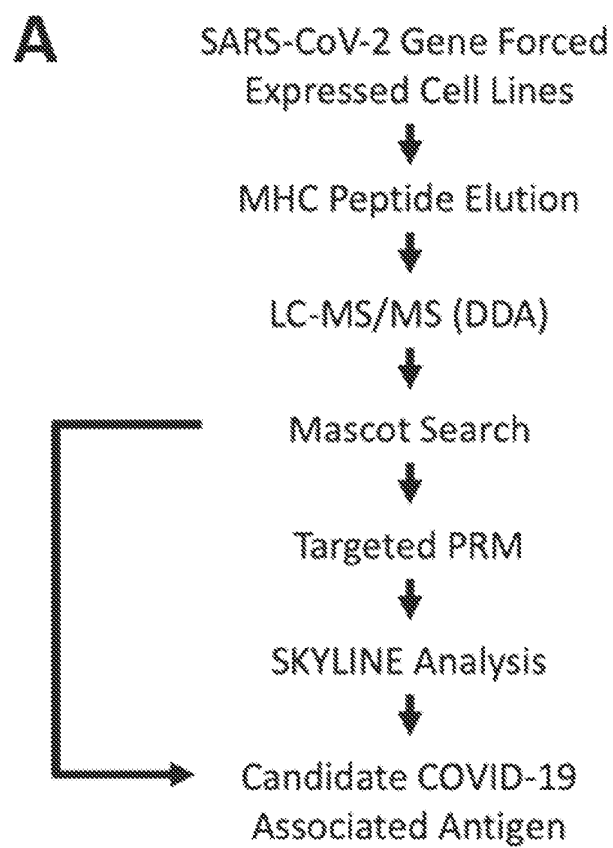


FIG. 8A

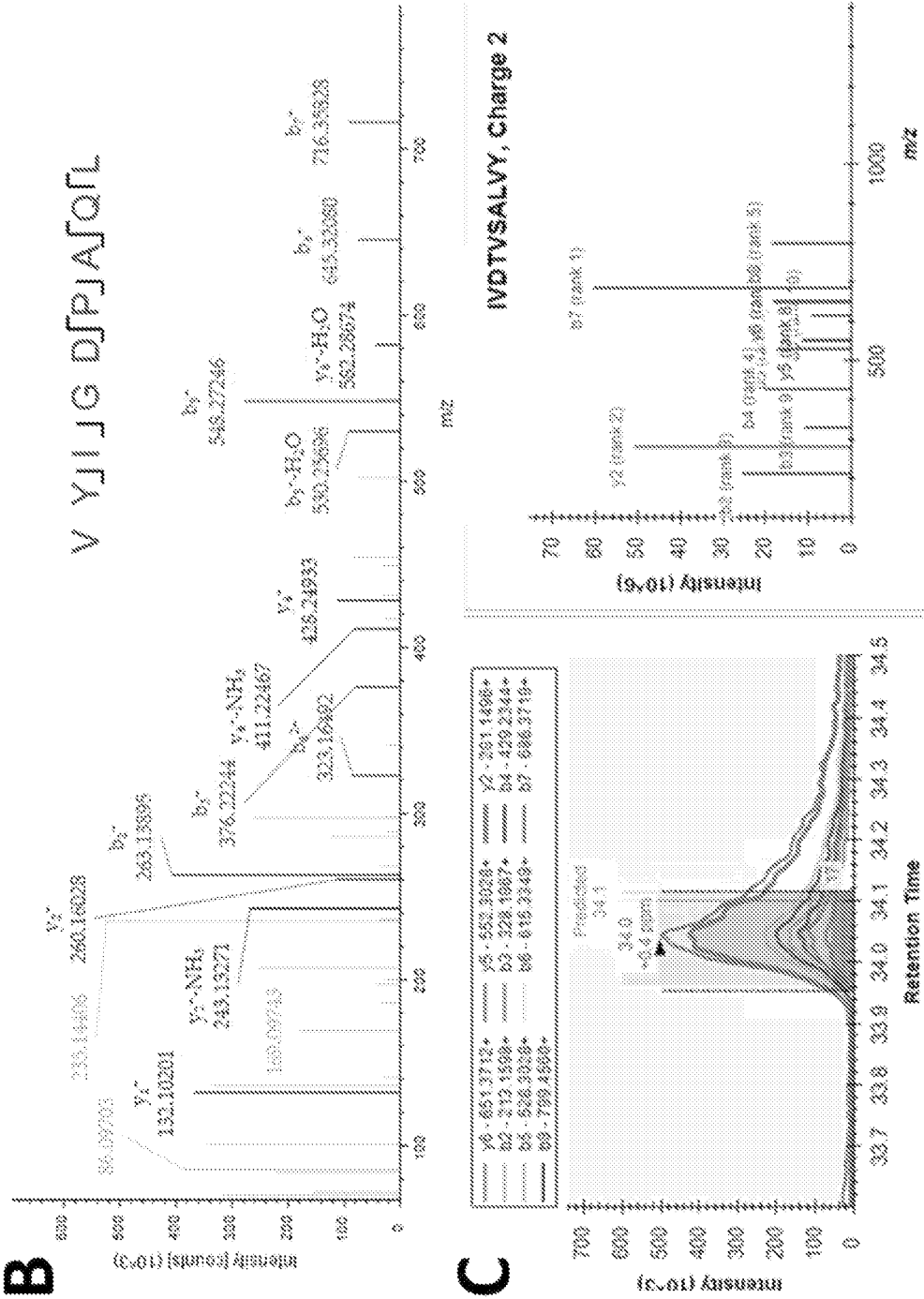
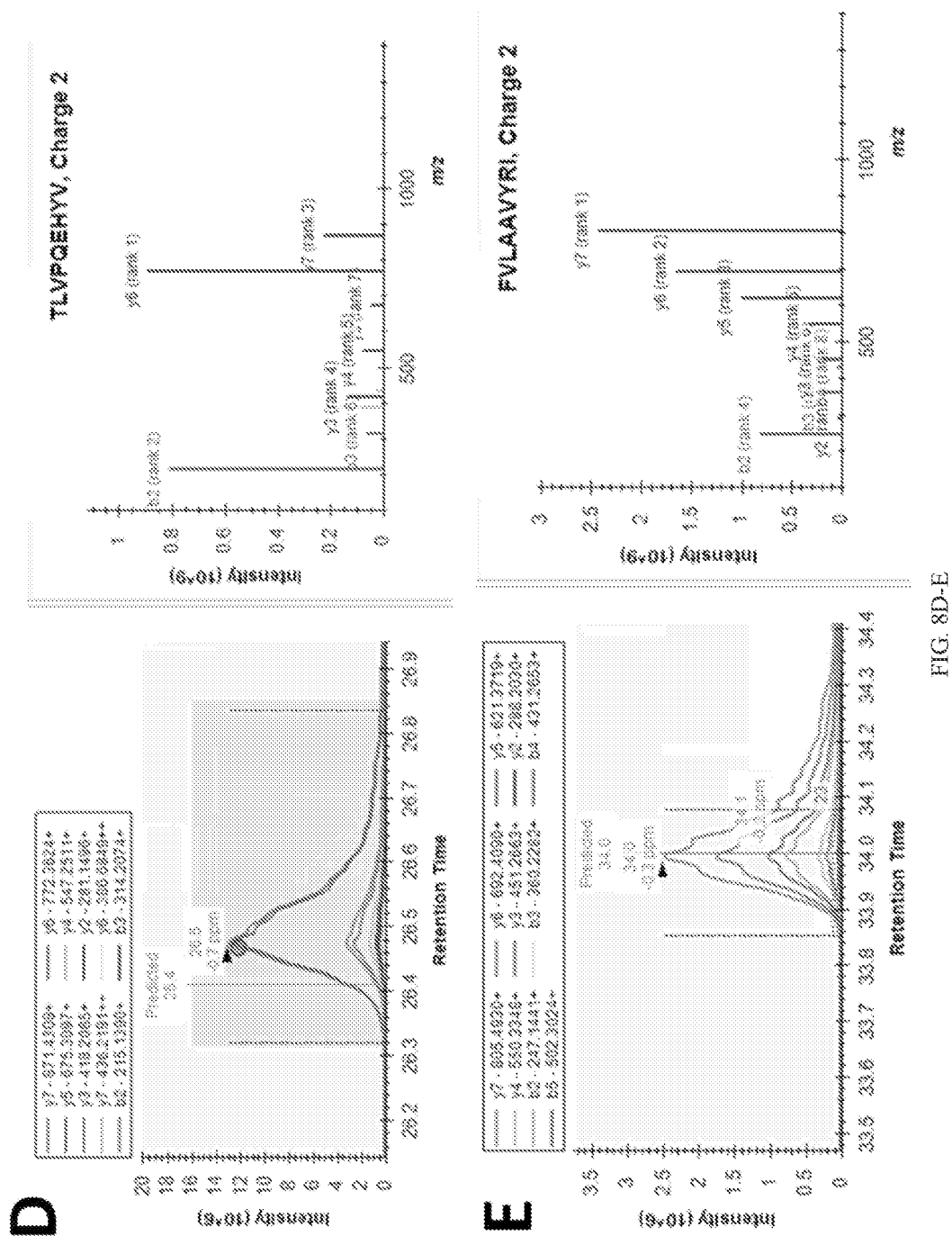


FIG. 8B-C



F

SARS-CoV-2	P	A	E	I	V	D	T	V	S	A	L	V	Y	D	N
SARS-CoV	P	A	E	I	V	D	T	V	S	A	L	V	Y	D	N
MERS-CoV	P	K	E	I	V	S	T	V	S	A	L	V	Y	N	N
HCoV-229E	P	A	E	I	V	N	T	V	S	E	L	V	Y	E	N
HCoV-NL63	P	A	E	I	V	N	T	V	S	E	L	V	Y	E	N
HCoV-OC43	P	K	E	I	V	D	T	V	S	A	L	V	Y	E	N
HCoV-HKU1	P	K	E	I	V	E	T	V	S	A	L	V	Y	D	N
				448			452				456				

G

SARS-CoV-2	S	A	P	T	L	V	P	Q	E	H	Y	V	R	I	T
SARS-CoV	S	A	P	T	L	V	P	Q	E	H	Y	V	R	I	T
MERS-CoV	T	A	P	T	I	V	N	Q	E	R	Y	V	K	I	T
HCoV-229E	R	A	P	T	M	A	N	Q	E	K	Y	S	T	I	Y
HCoV-NL63	R	A	P	T	I	A	N	Q	E	K	Y	S	S	I	Y
HCoV-OC43	S	A	P	T	L	V	P	Q	E	N	Y	S	S	I	R
HCoV-HKU1	S	A	P	T	L	V	P	Q	E	N	Y	A	S	I	R
	239			243			247				251				

H

SARS-CoV-2	E	R	L	K	L	F	A	A	E	T	L	K	A	T	E
SARS-CoV	E	R	L	K	L	F	A	A	E	T	L	K	A	T	E
MERS-CoV	E	P	L	K	L	F	A	A	E	T	L	R	A	T	E
HCoV-229E	E	S	L	R	L	F	A	A	E	T	V	K	A	K	E
HCoV-NL63	D	T	L	R	L	F	A	A	E	T	I	K	A	K	E
HCoV-OC43	E	R	L	K	L	F	A	A	E	T	Q	K	A	T	E
HCoV-HKU1	E	R	L	K	L	F	A	A	E	T	Q	K	A	T	E
				134			138				142				

FIG. 8F-H

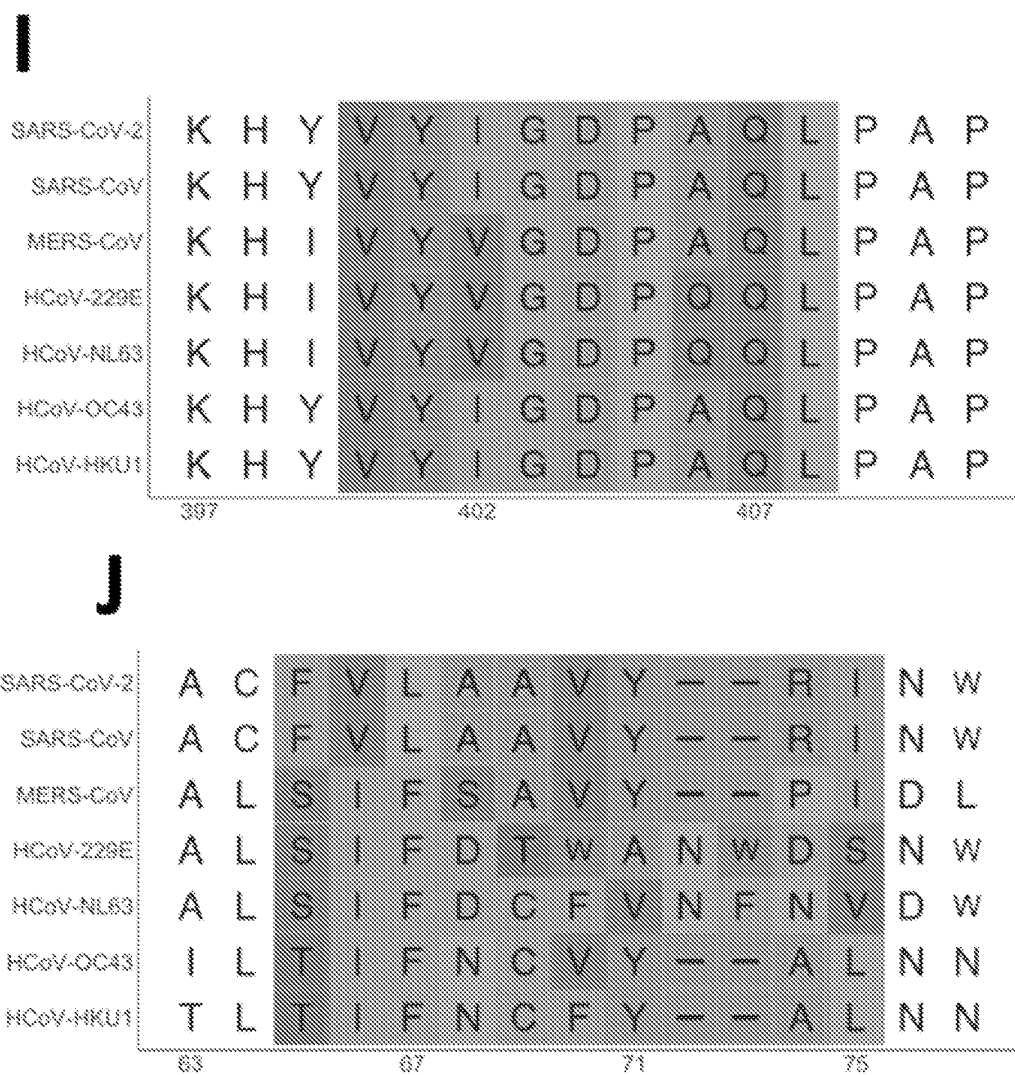


FIG. 8I-J

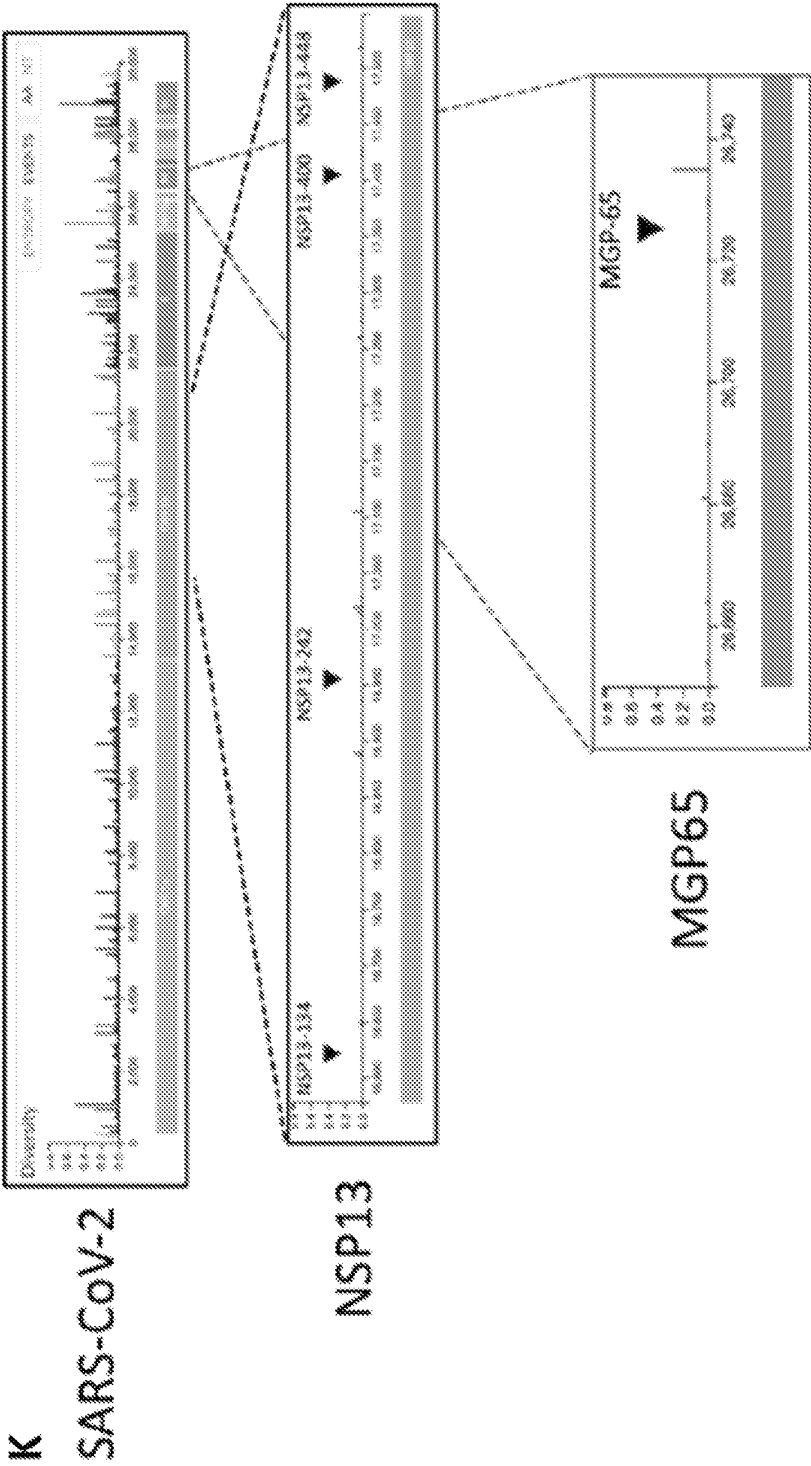


FIG. 8K

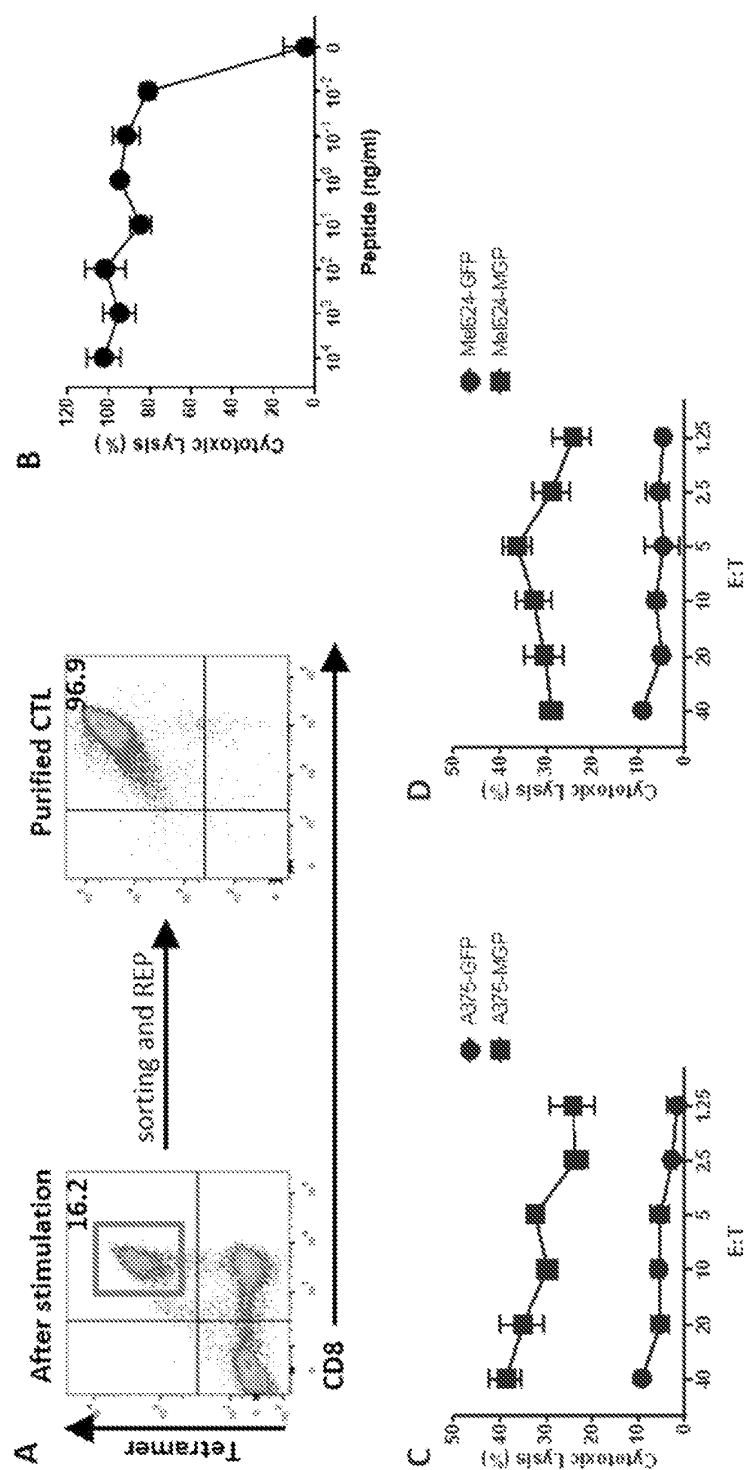


FIG. 9A-D

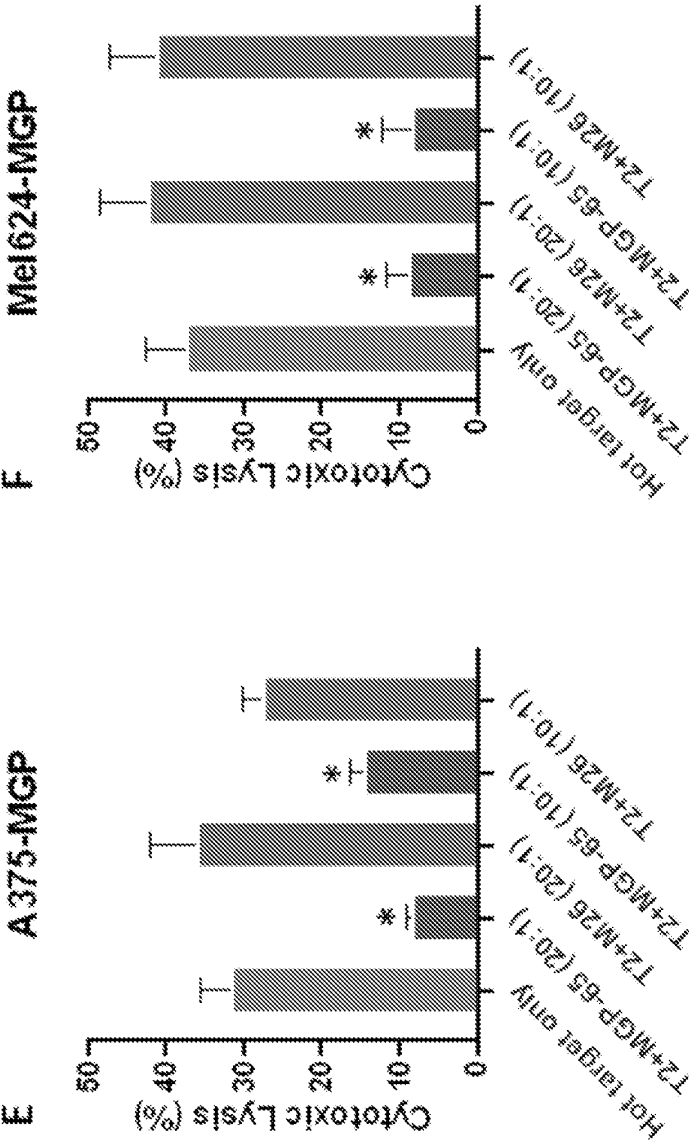


FIG. 9E-F

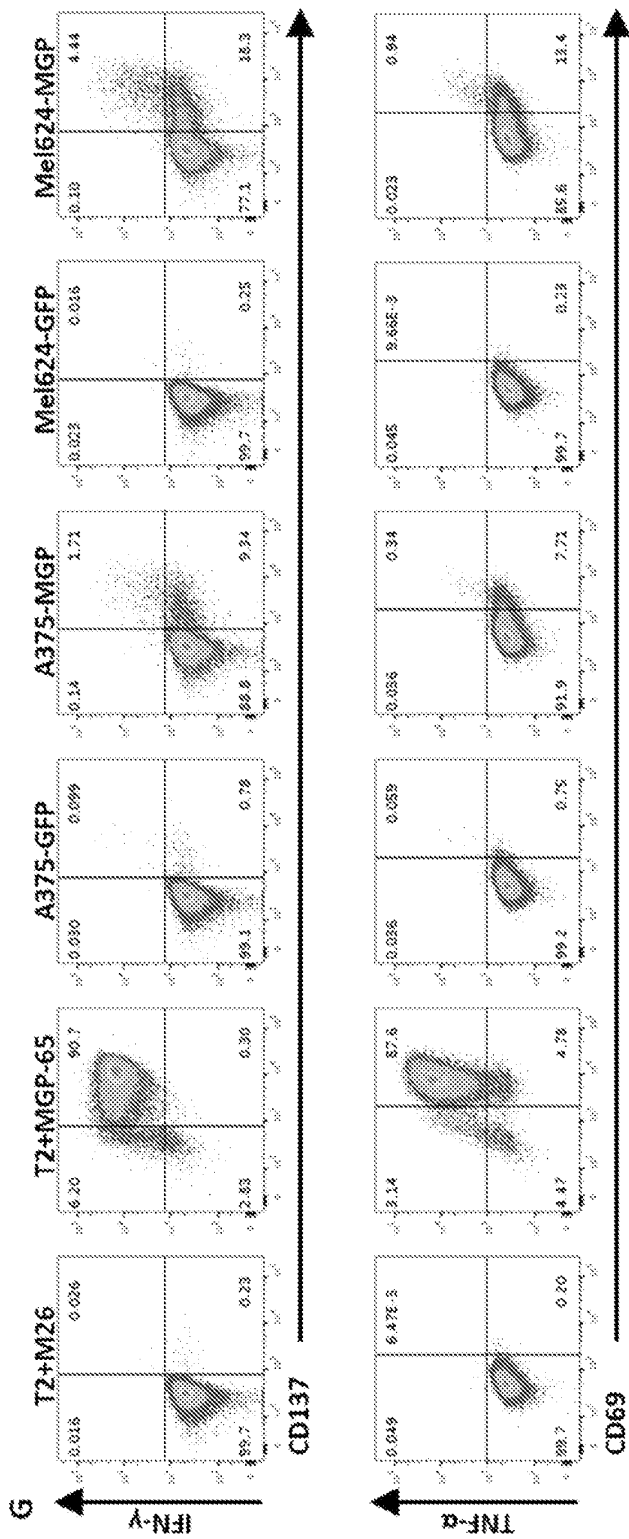


FIG 9G

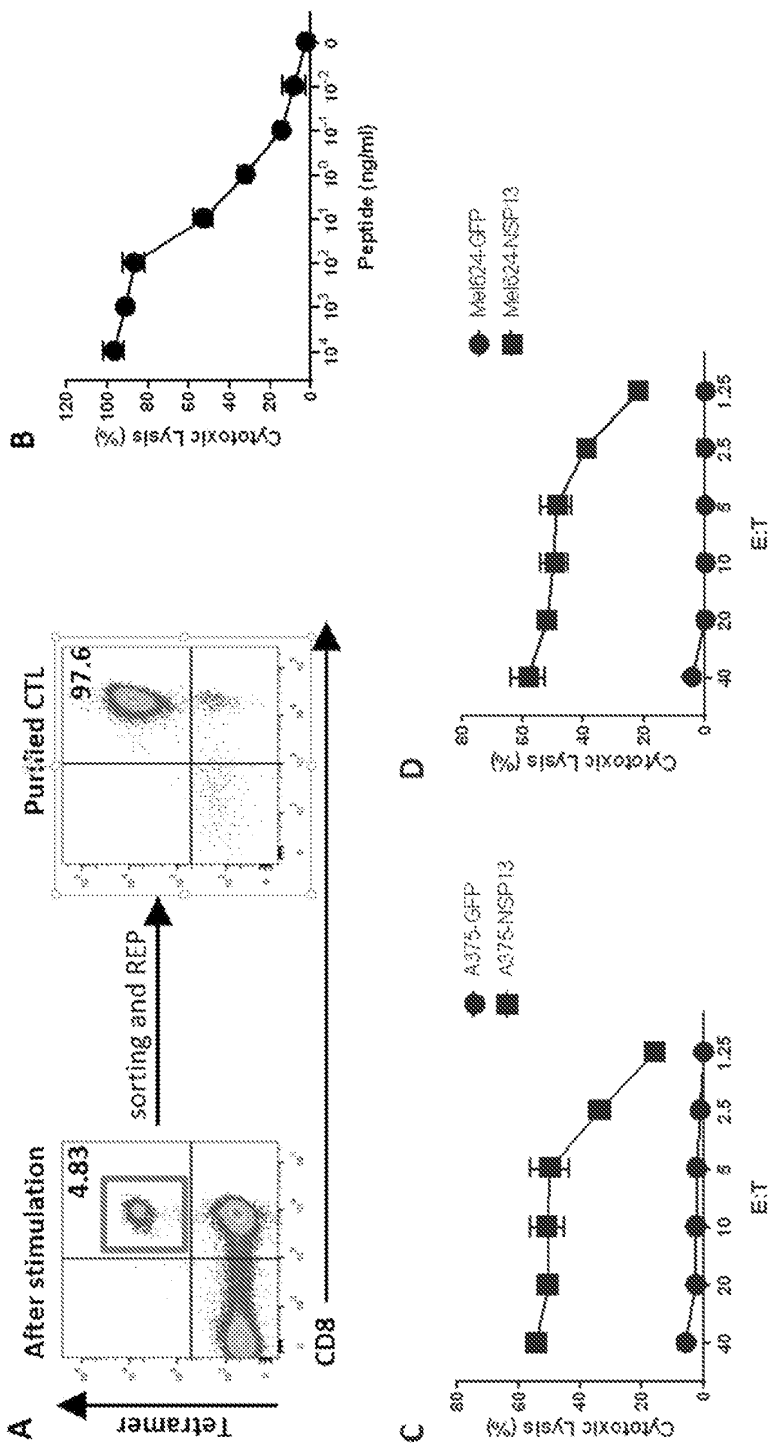


FIG. 10A-D

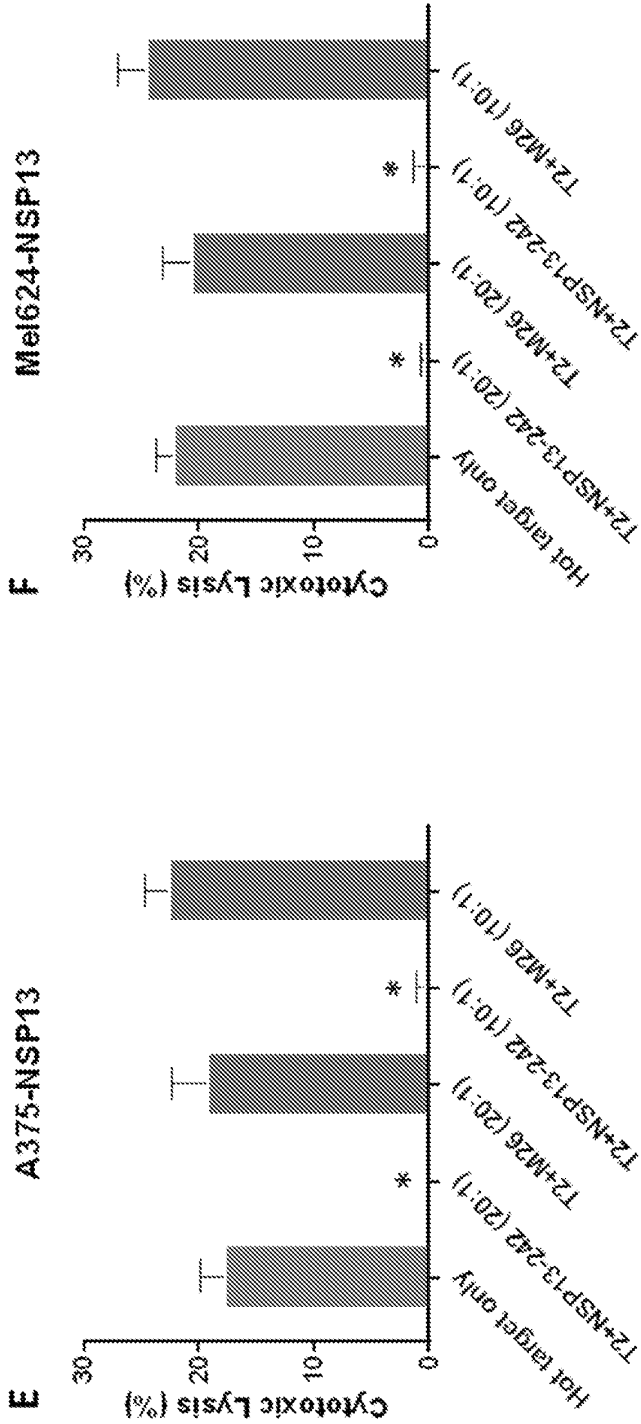


FIG. 10E-F

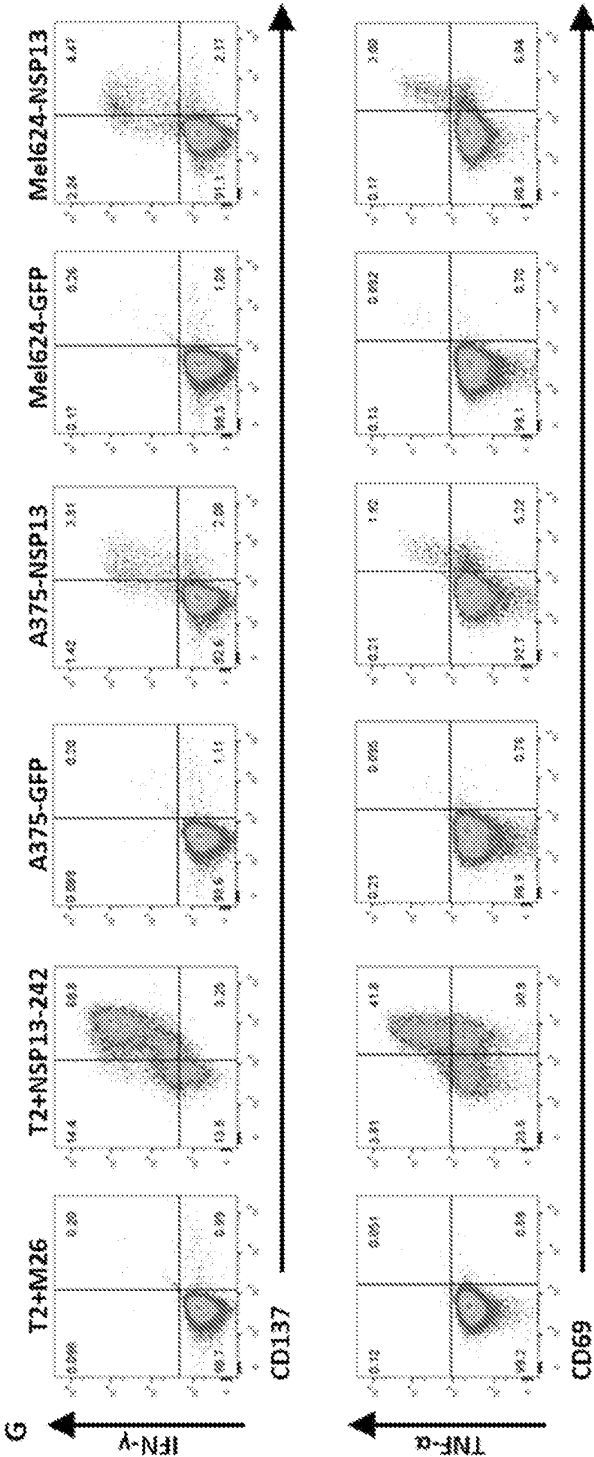


FIG. 10G

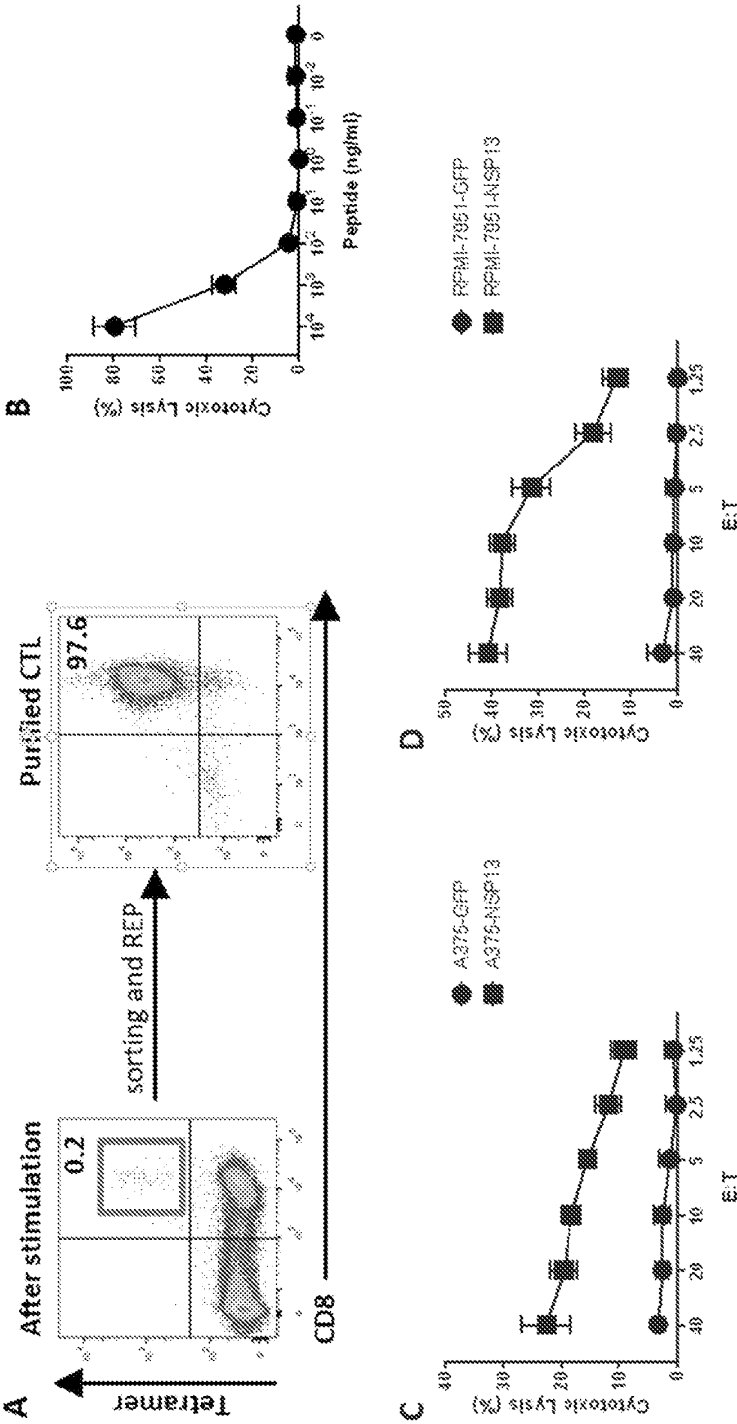


FIG. 11A-D

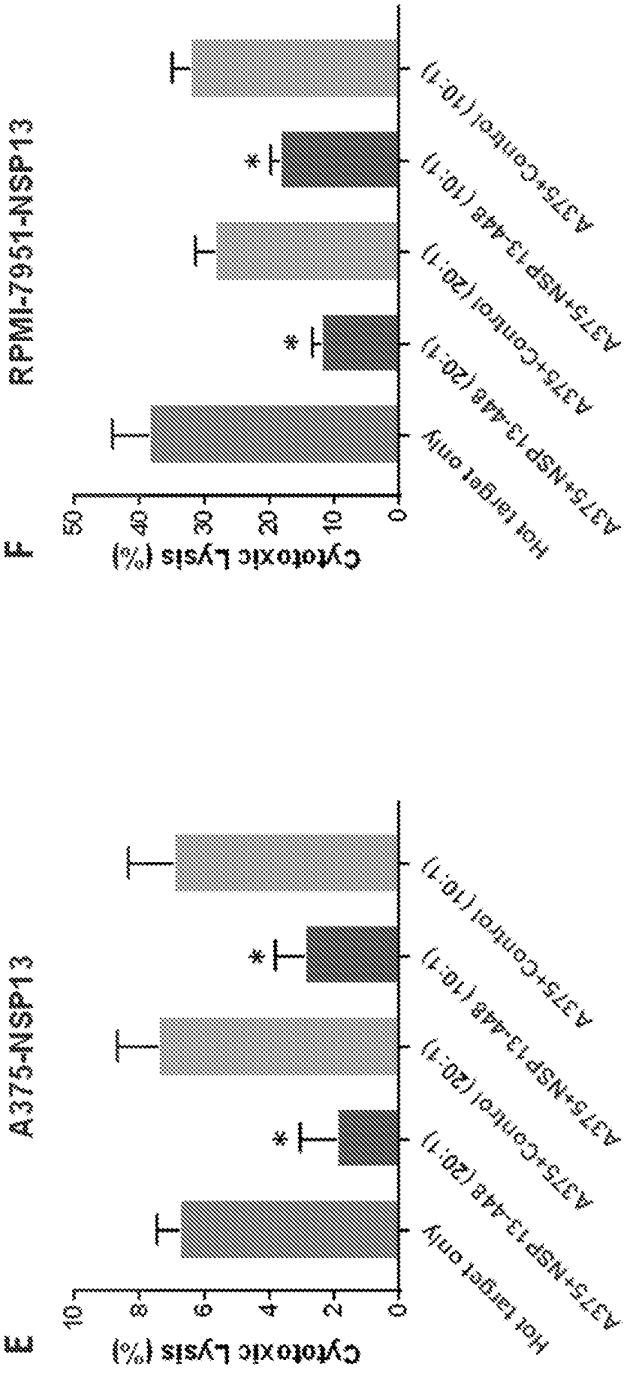


FIG. 11E-F

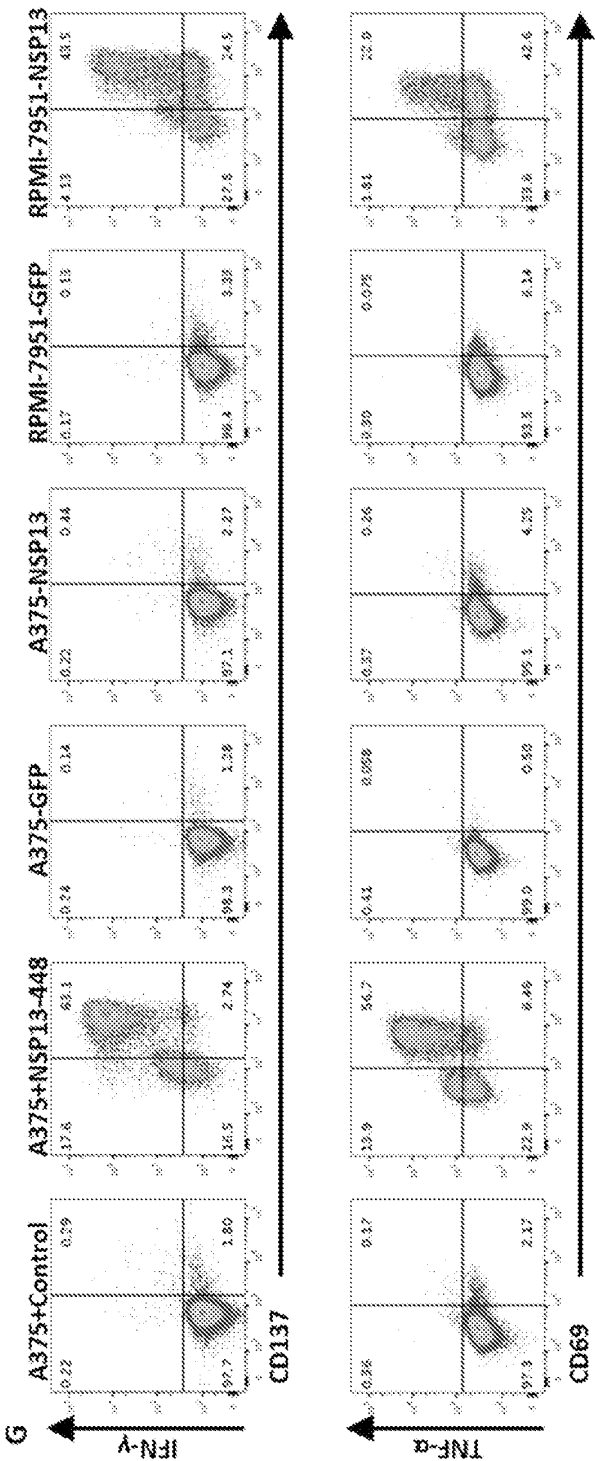


FIG. 11G

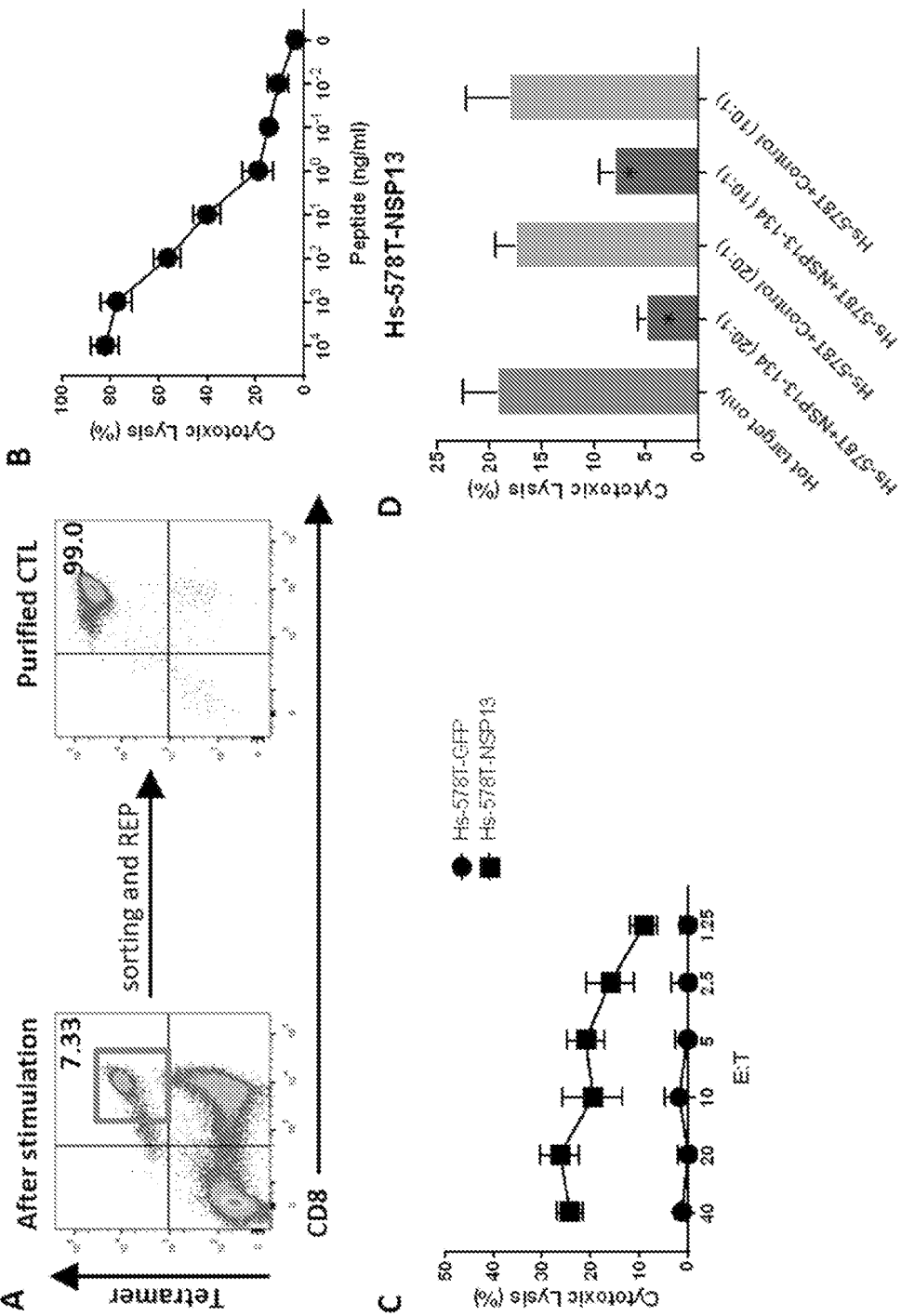


FIG. 12A-D

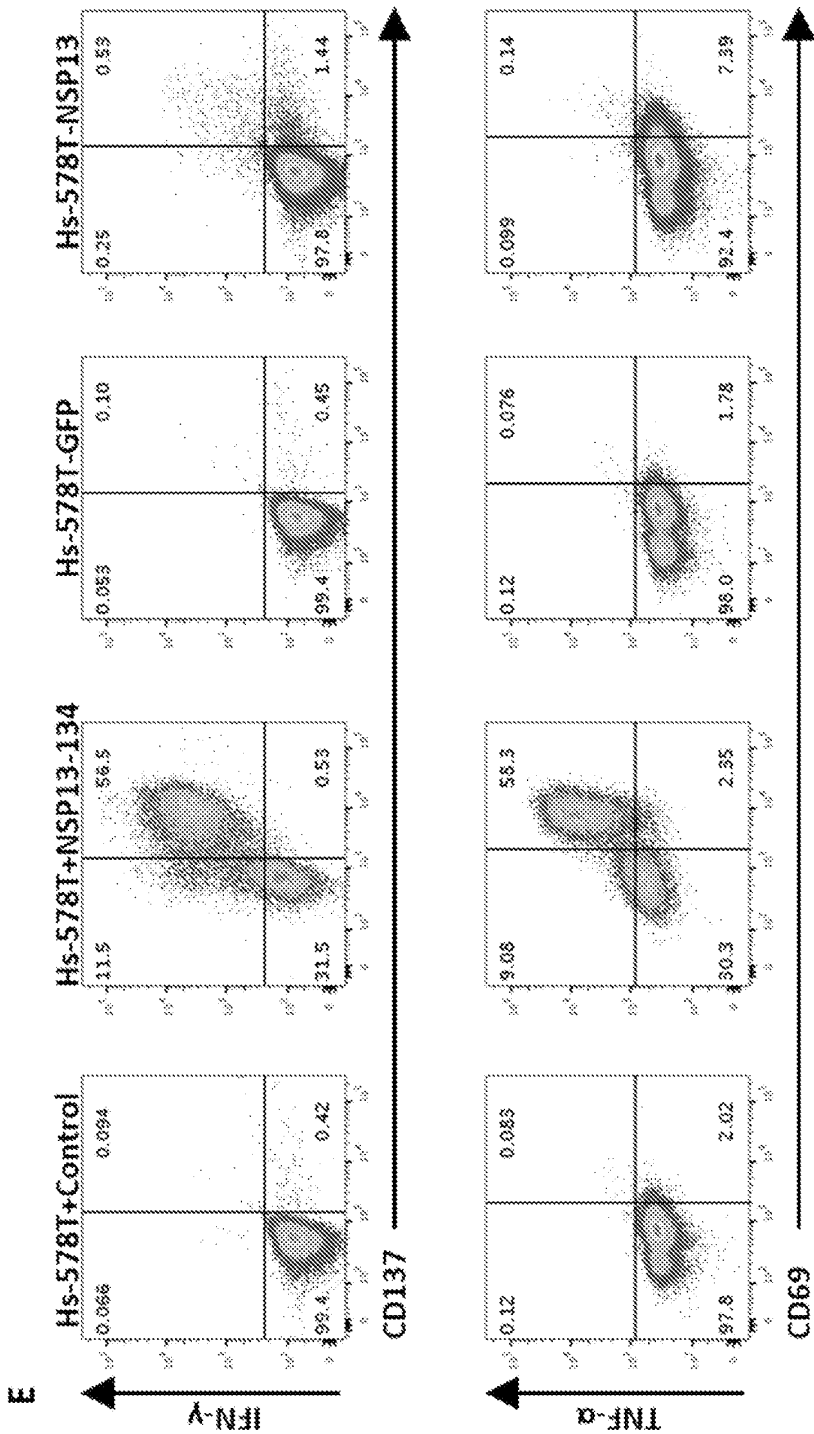


FIG. 12E

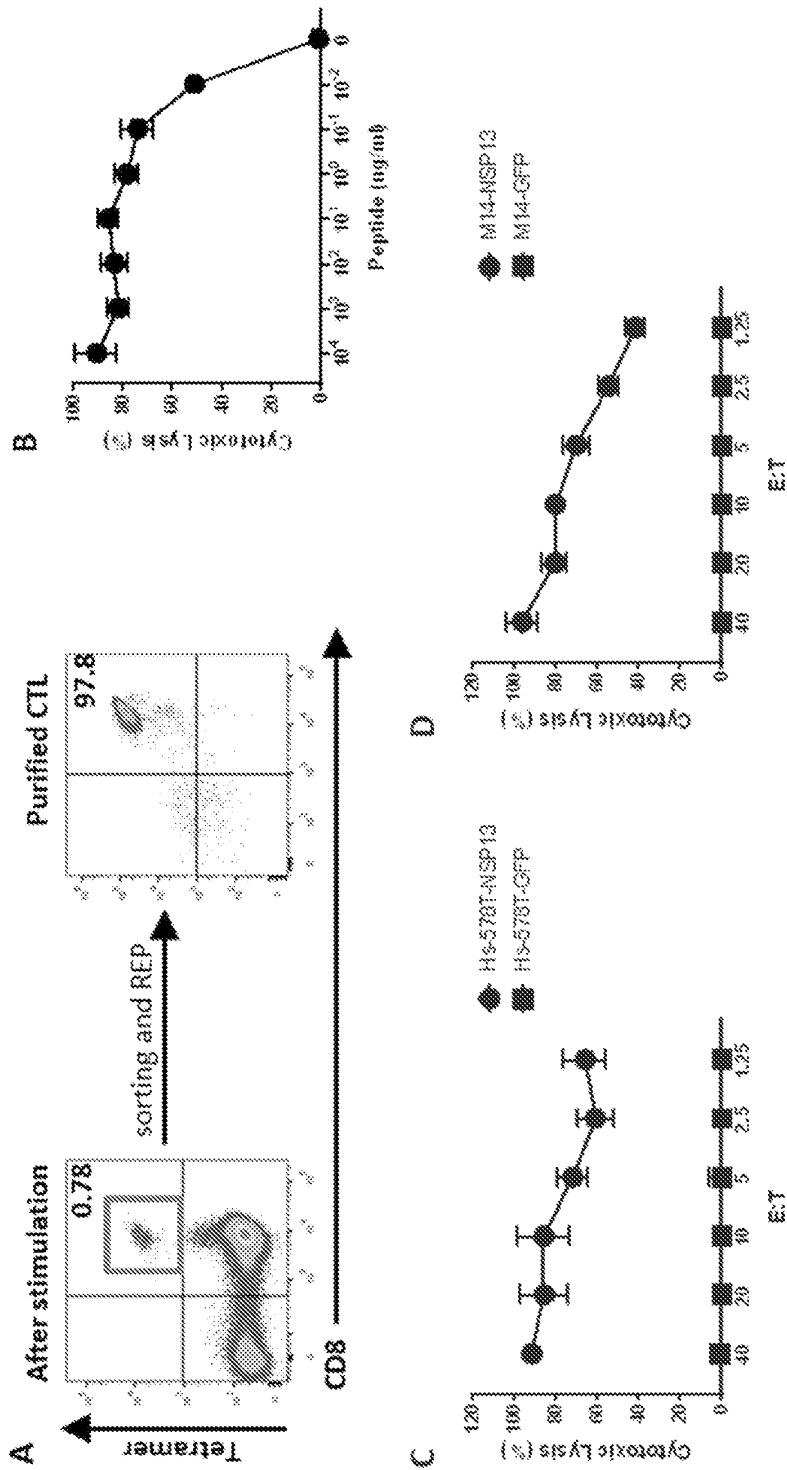


FIG. 13A-D

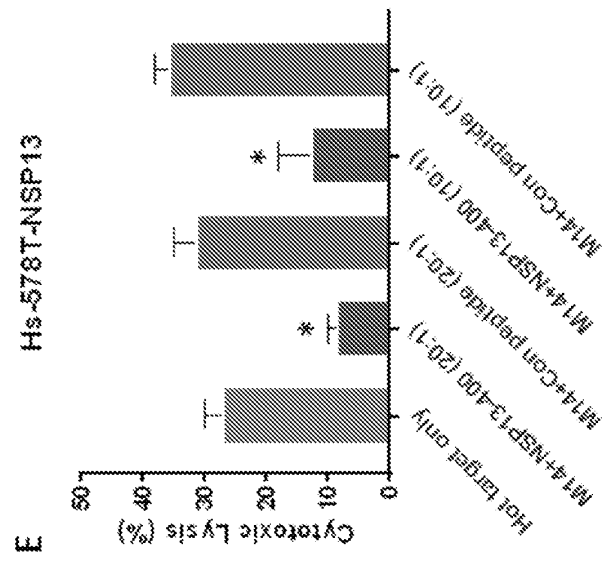
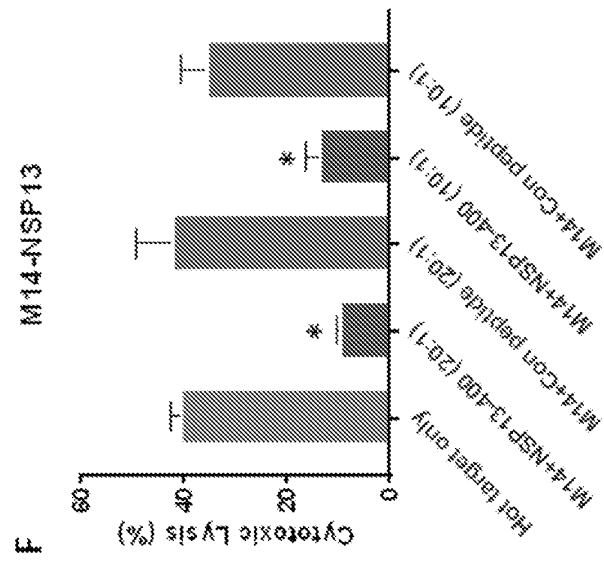


FIG. 13E-F

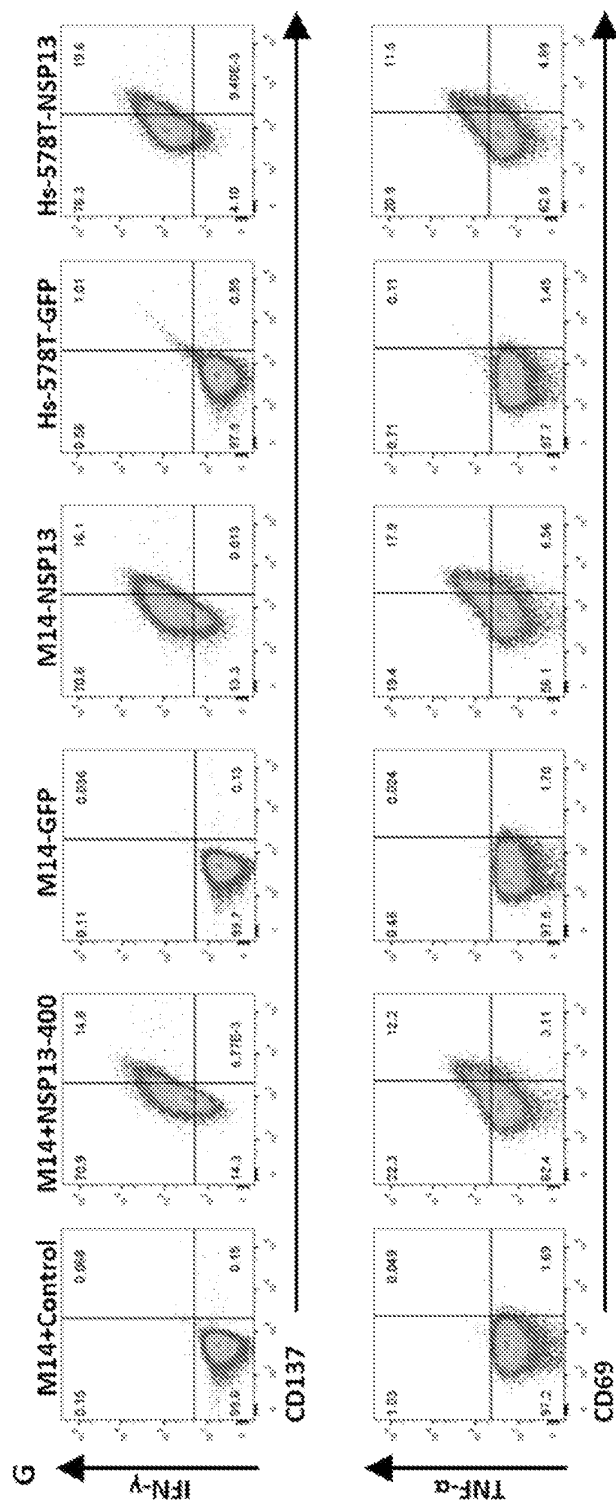


FIG. 13G

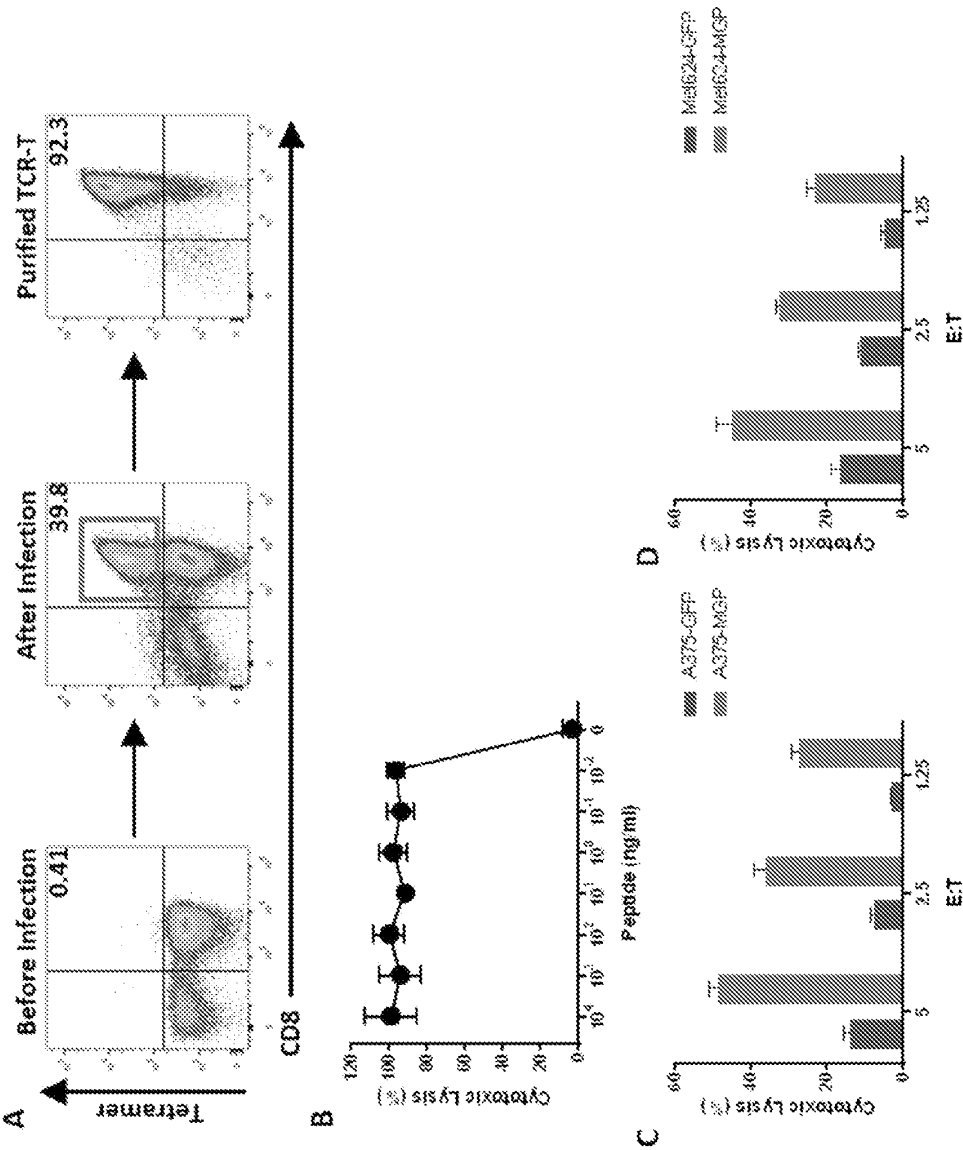


FIG. 14A-D

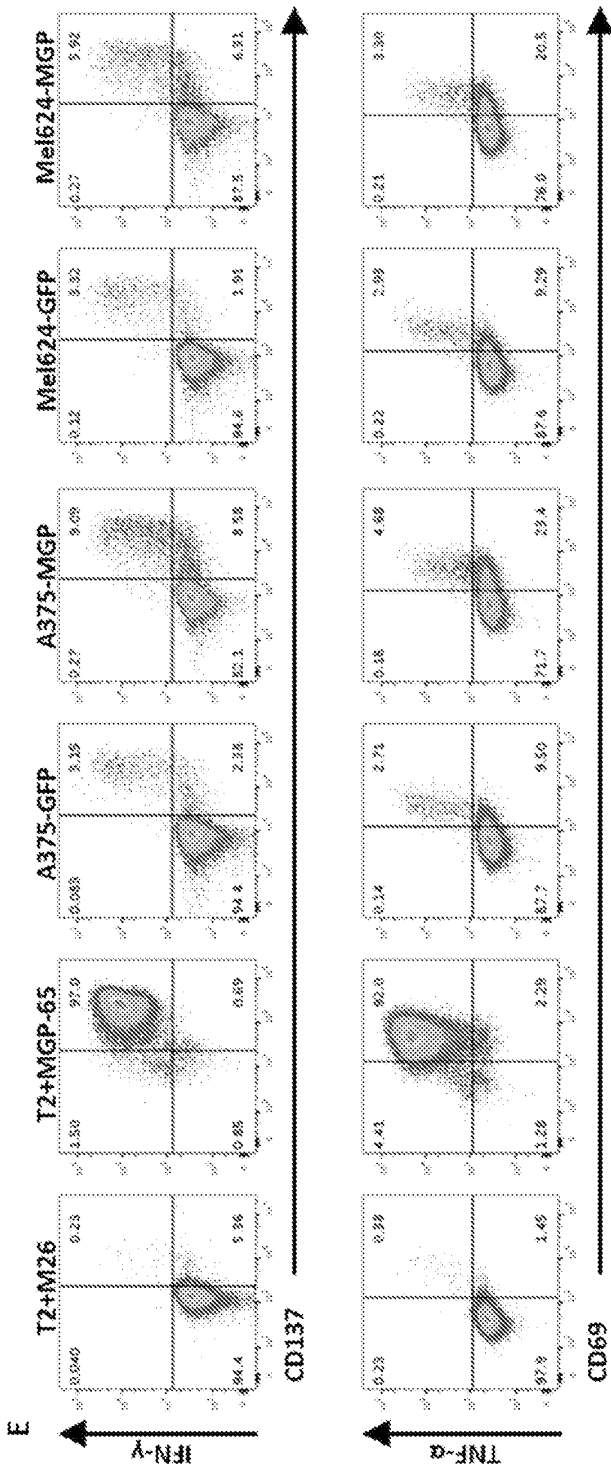


FIG. 14E

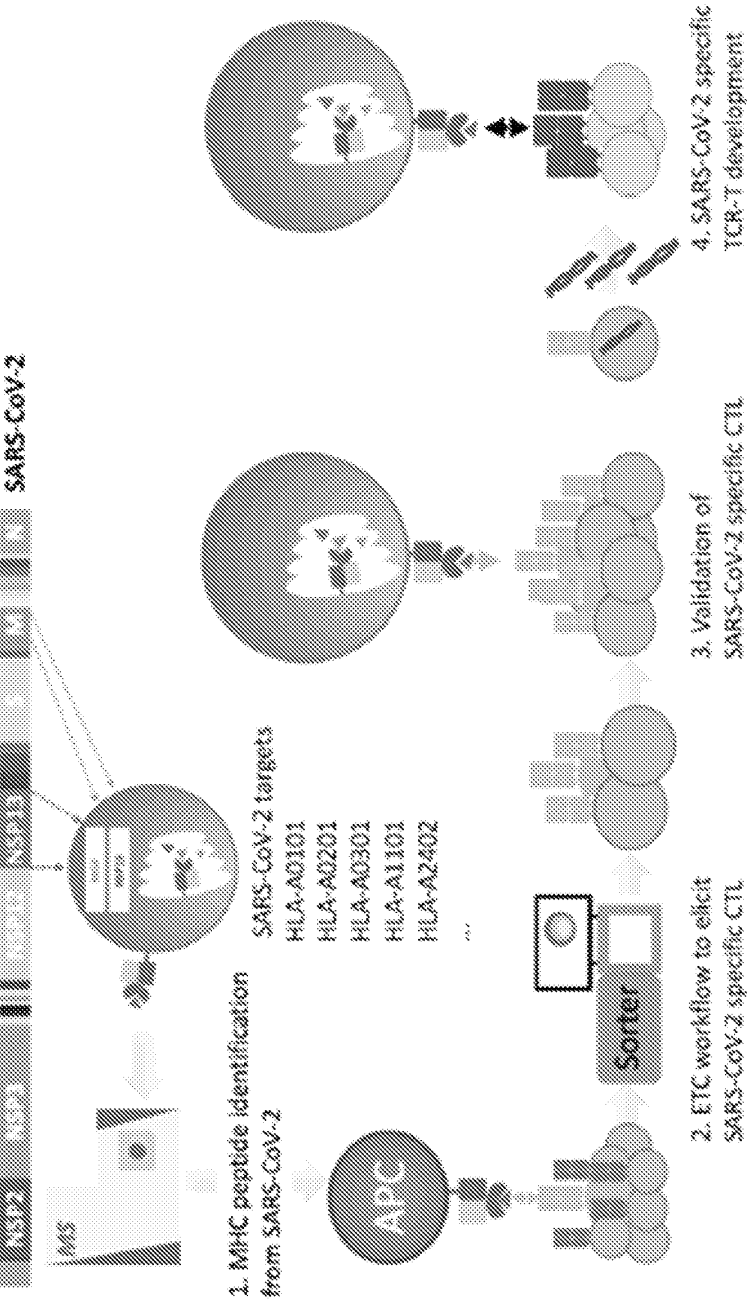


FIG. 15

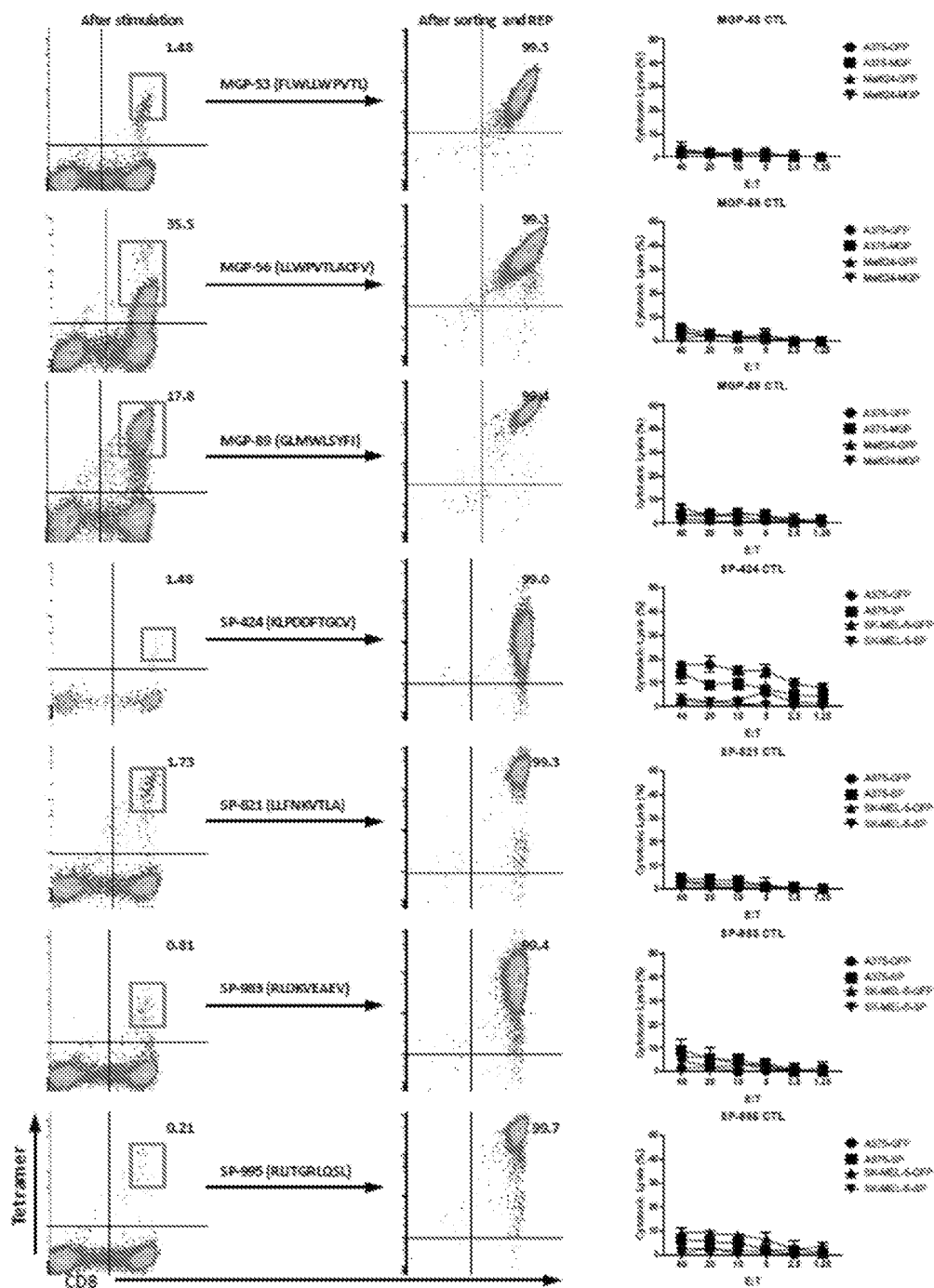


FIG. 16

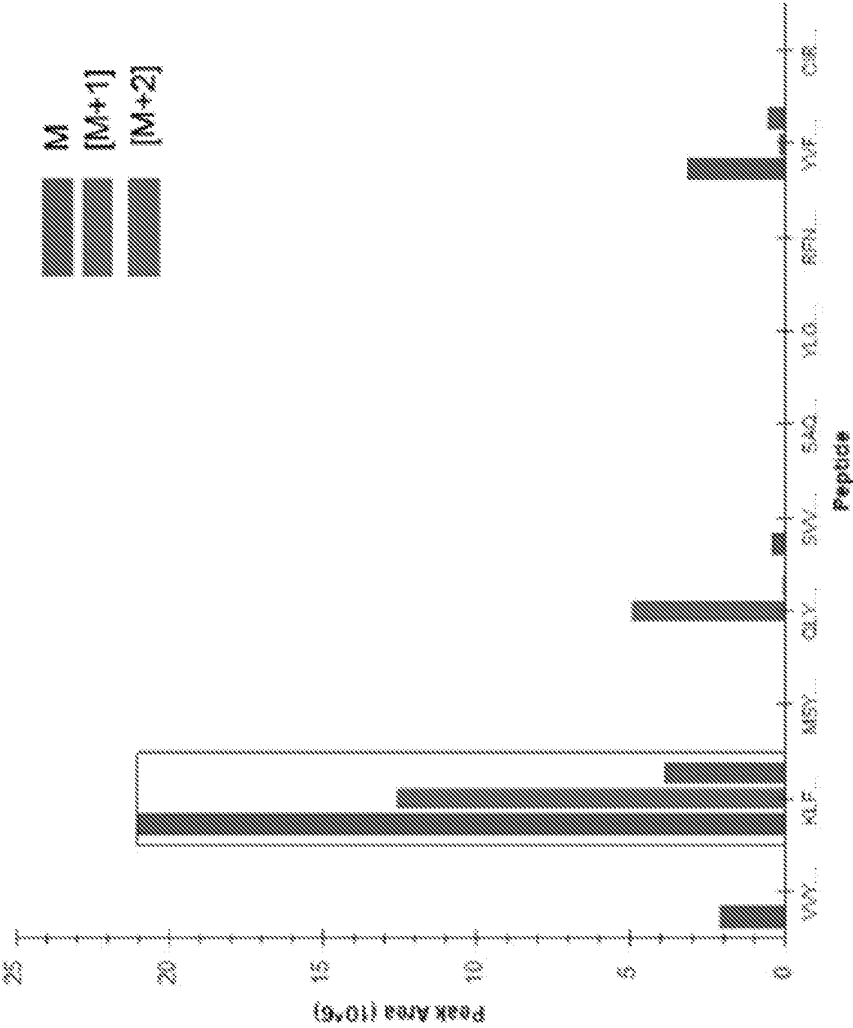


FIG. 17

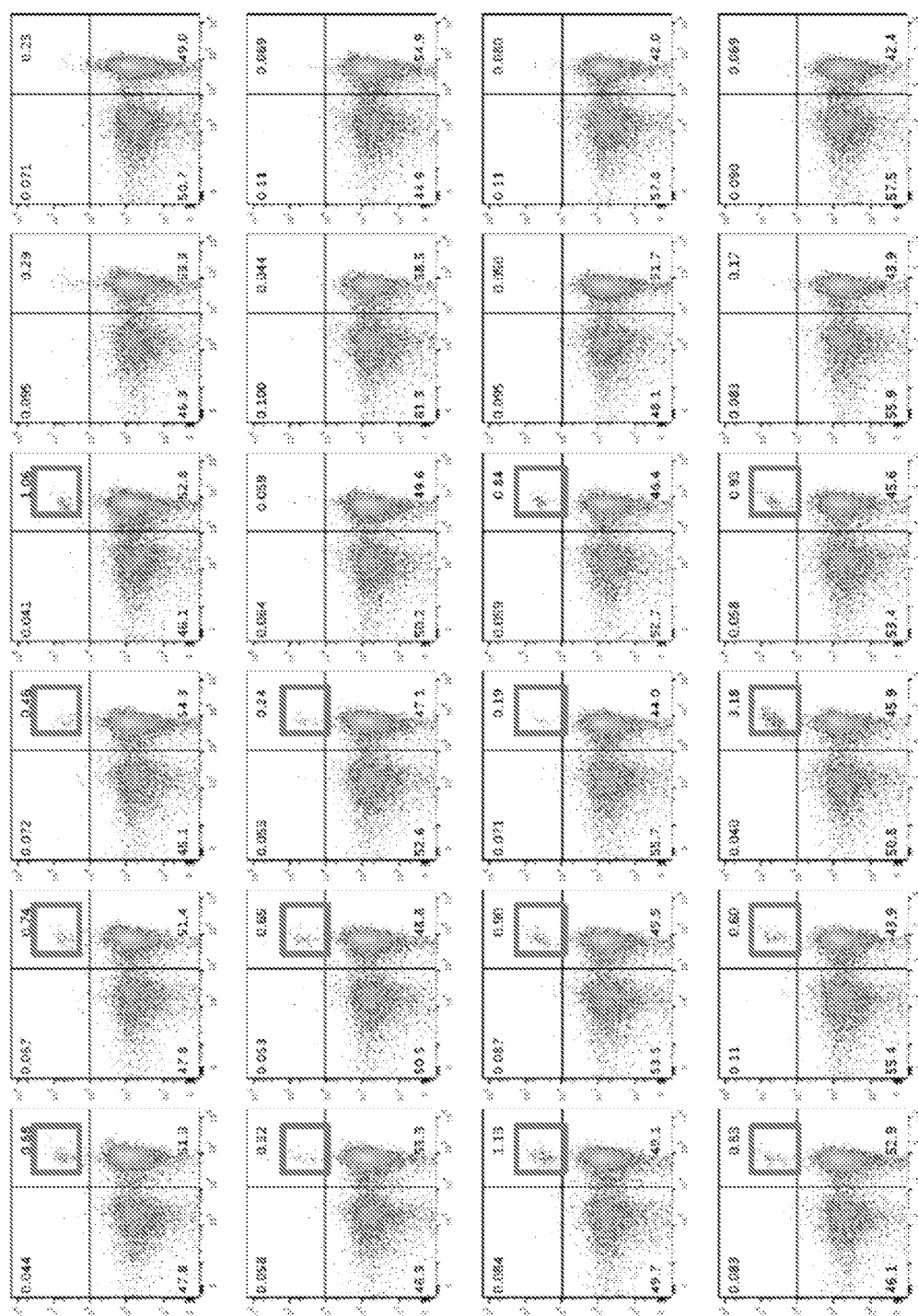


FIG 18

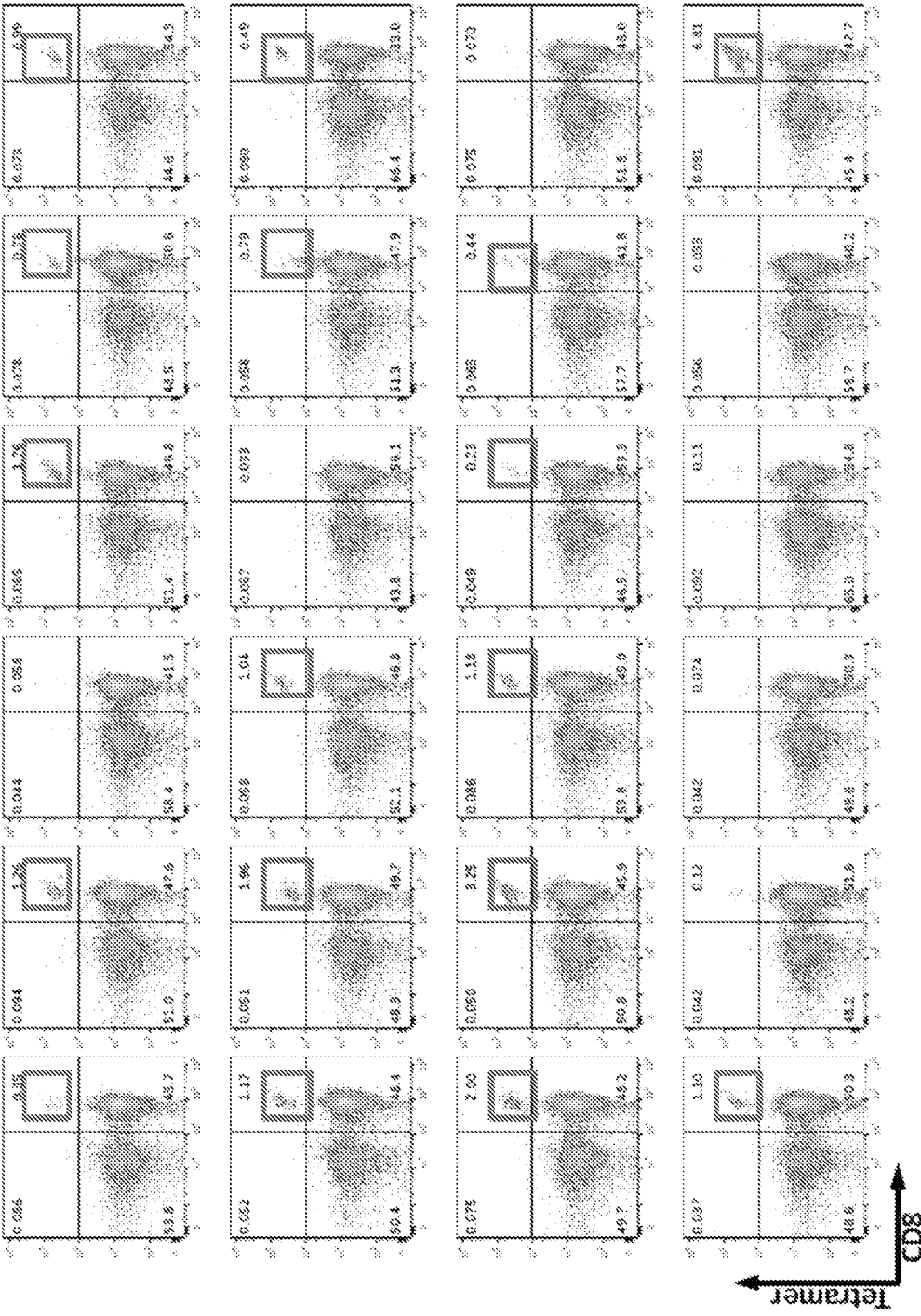


FIG. 18 Continued

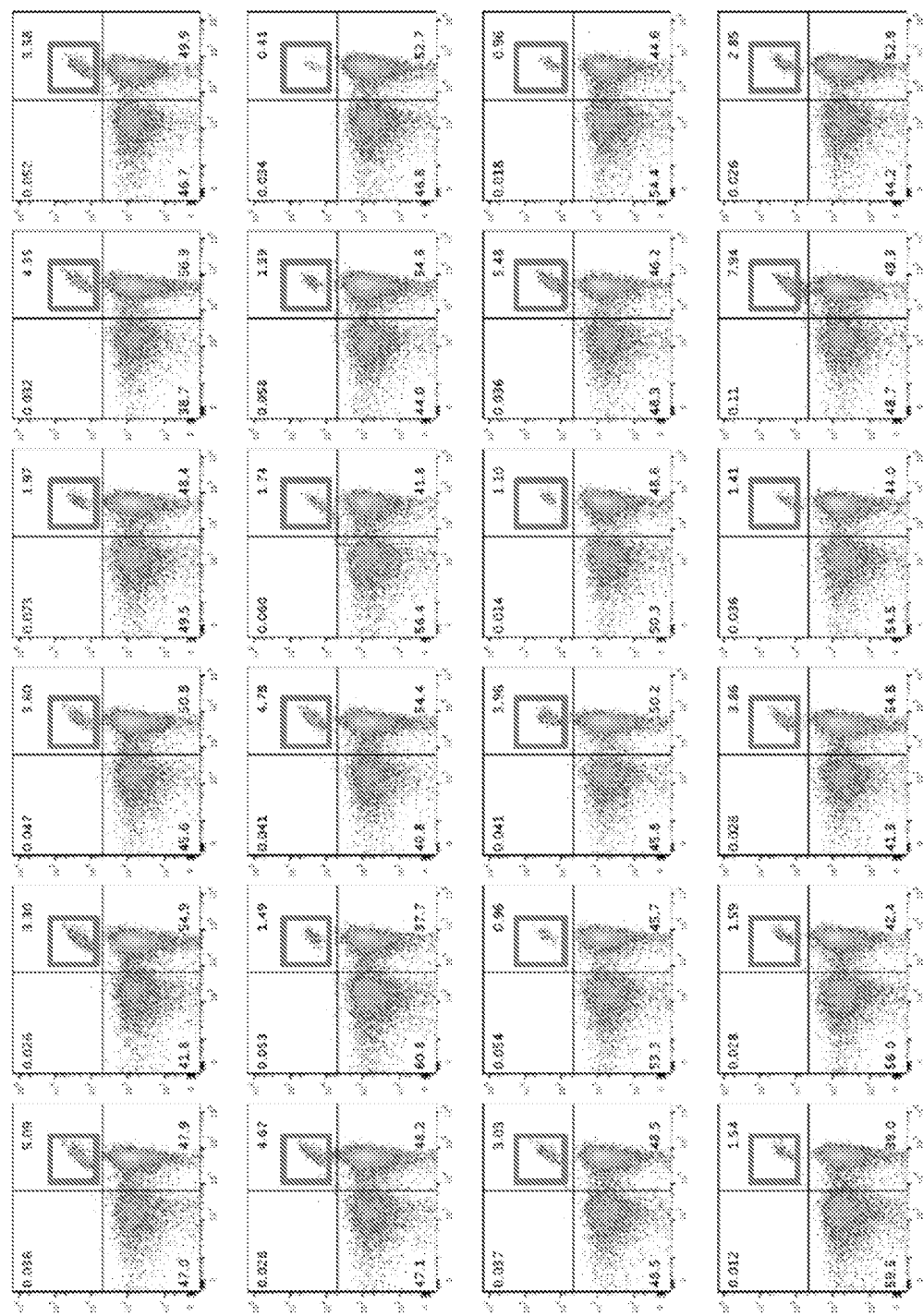


FIG 19

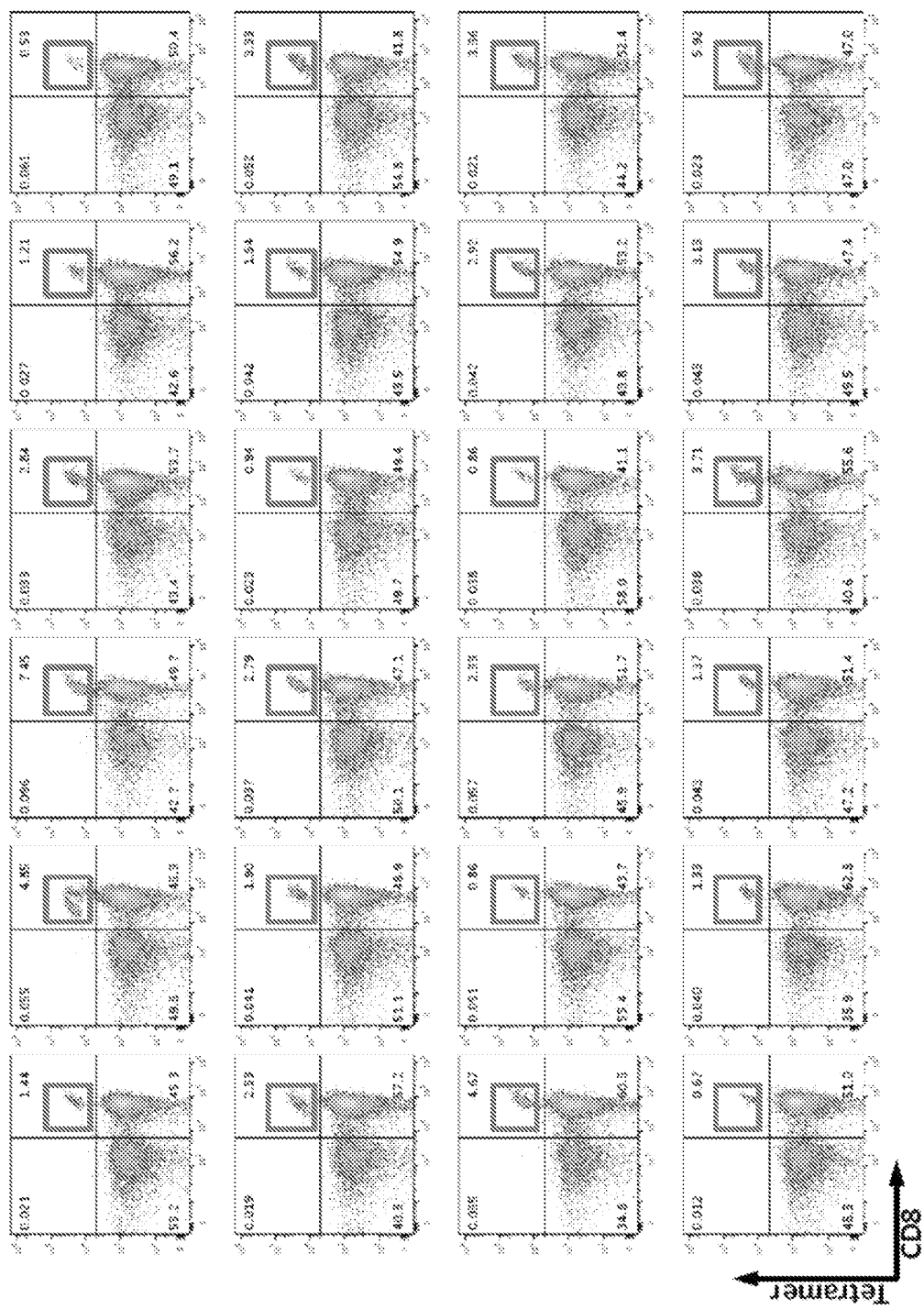


FIG. 19 Continued

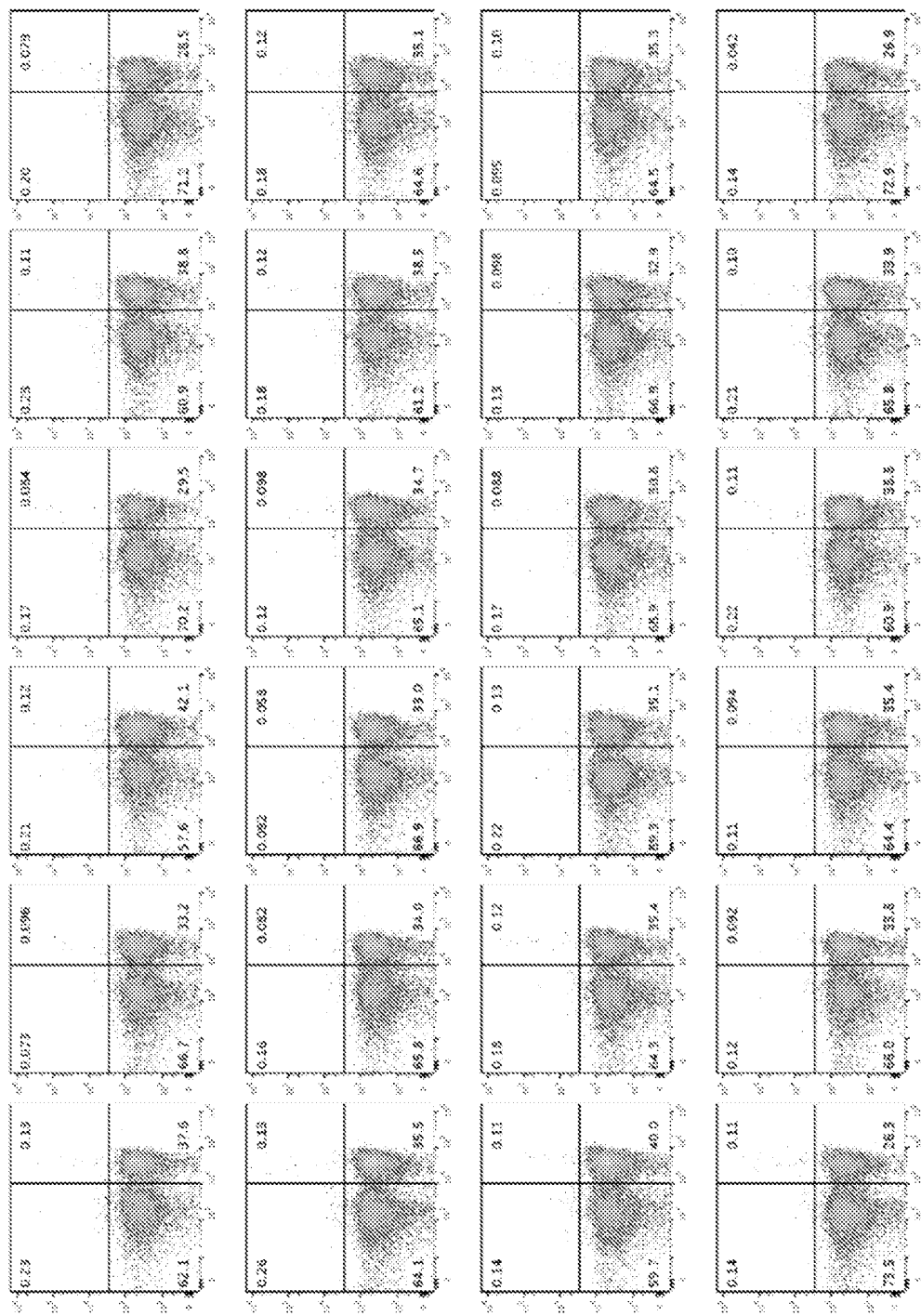


FIG. 20

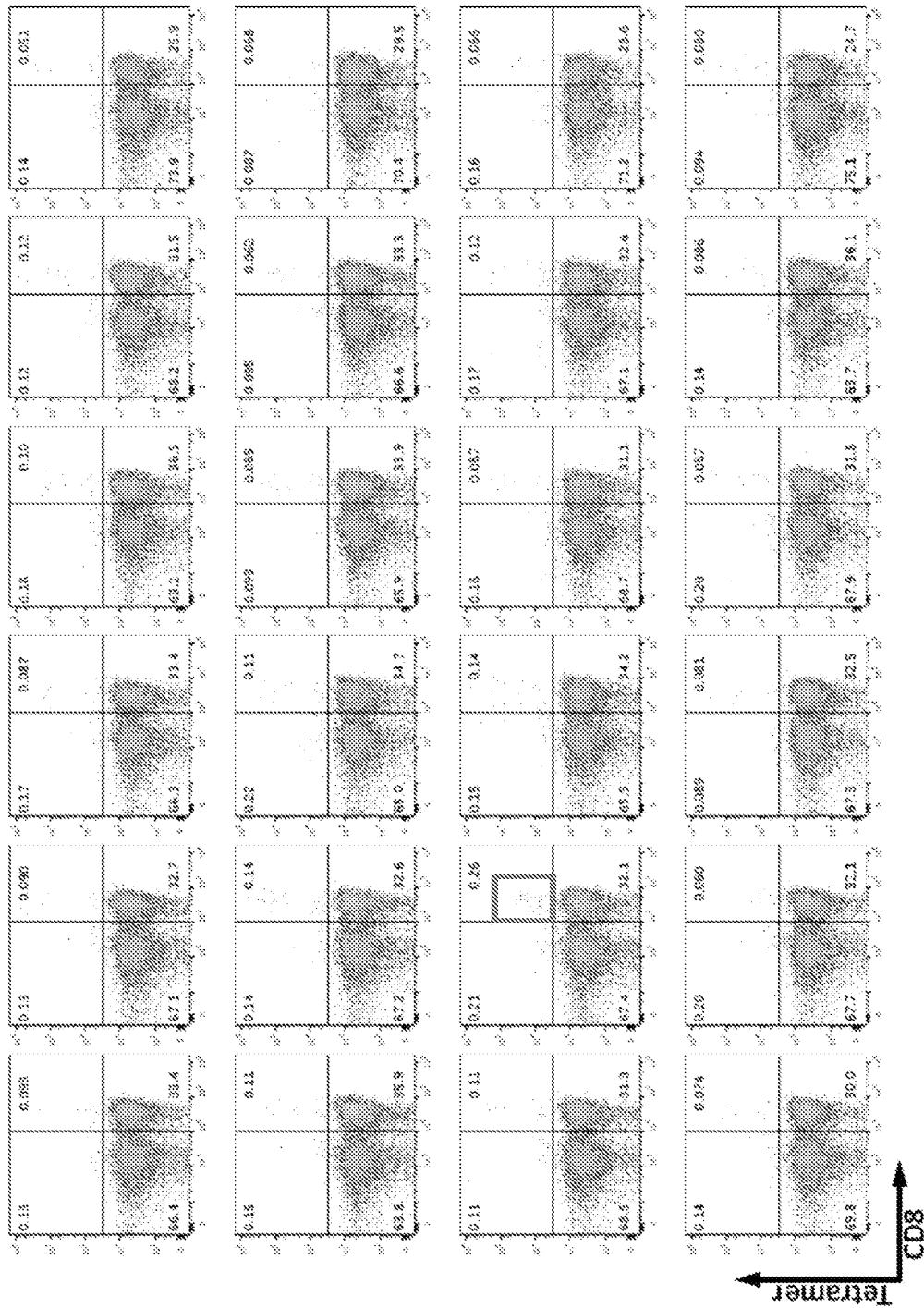
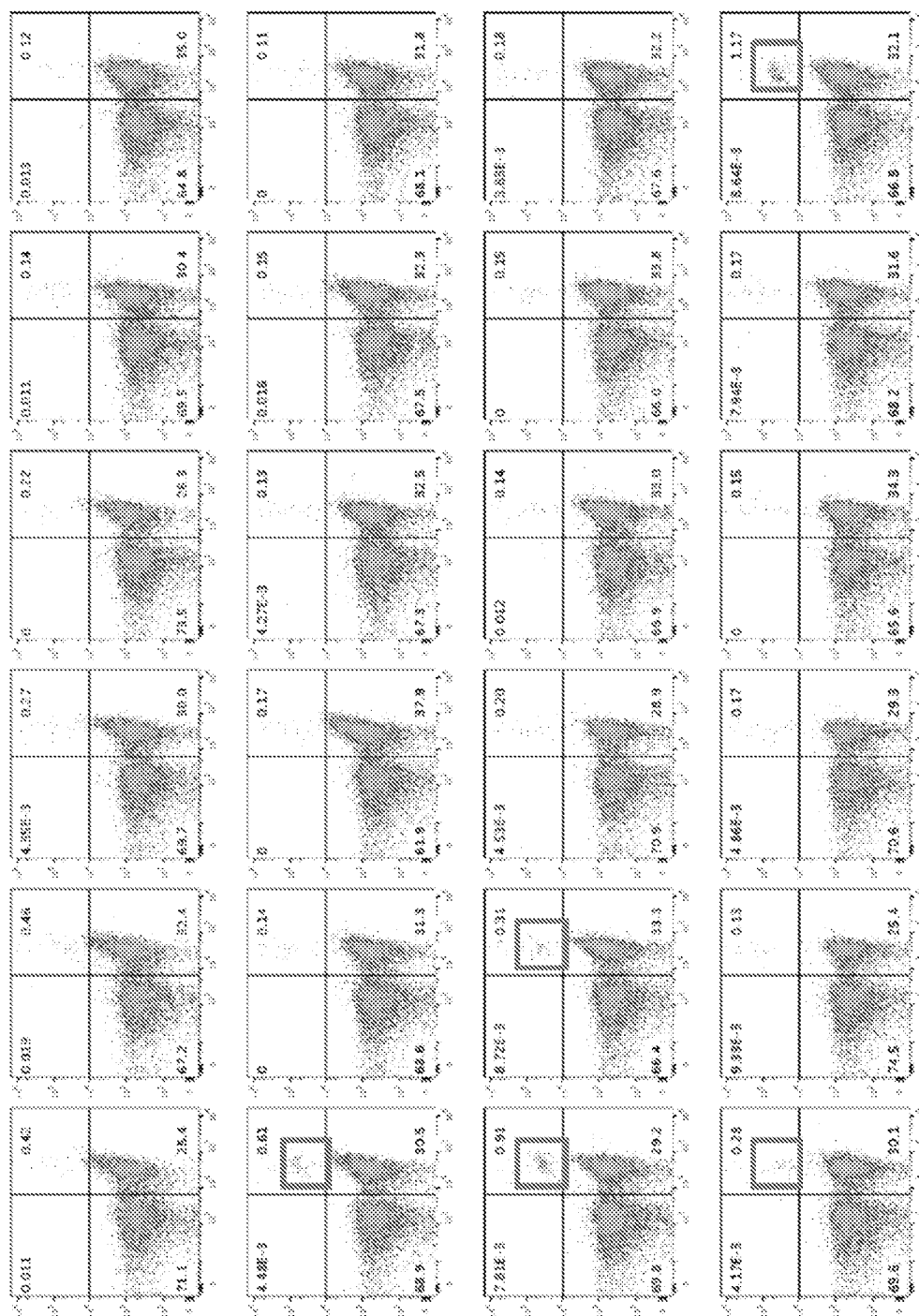


FIG. 20 Continued



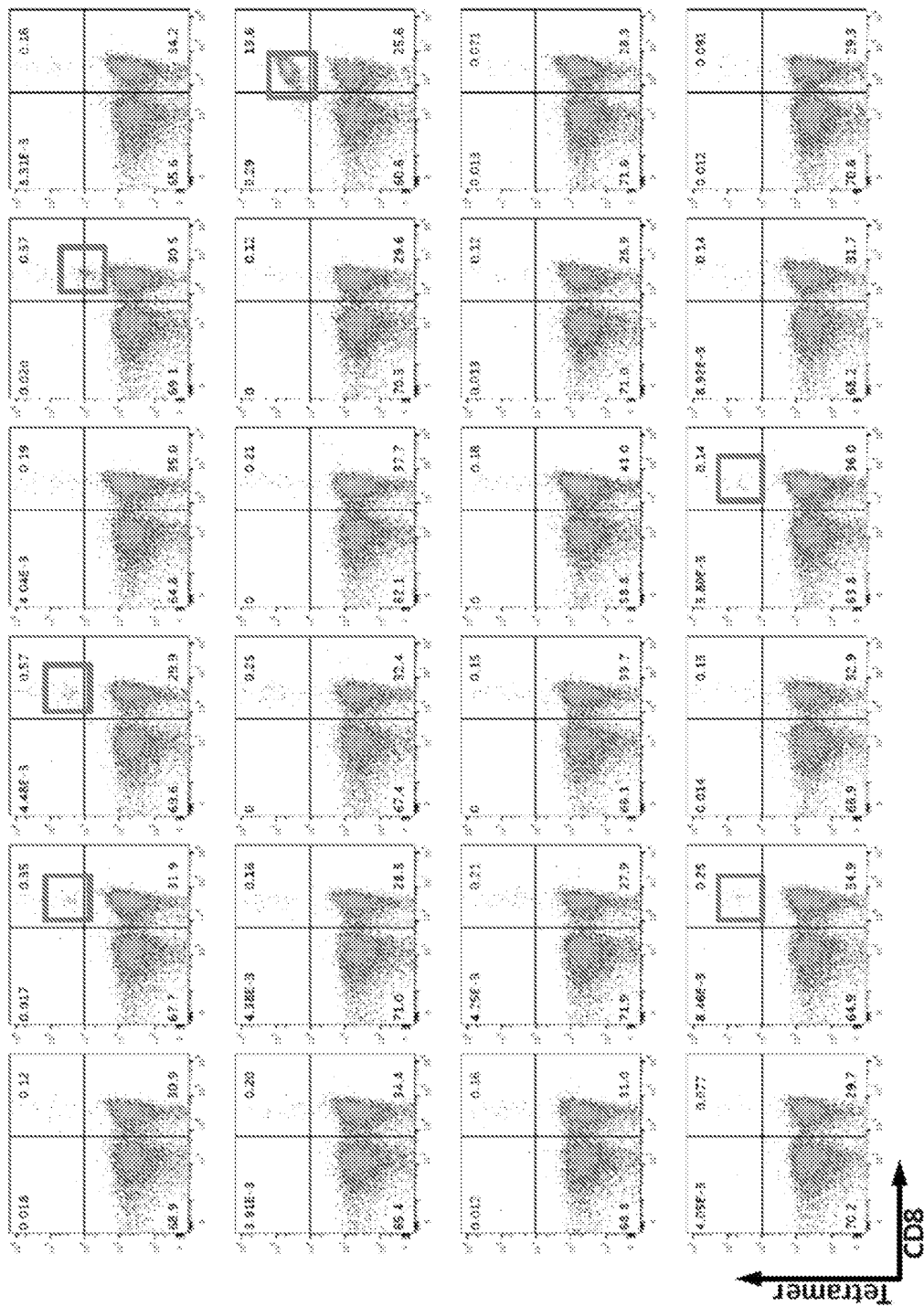
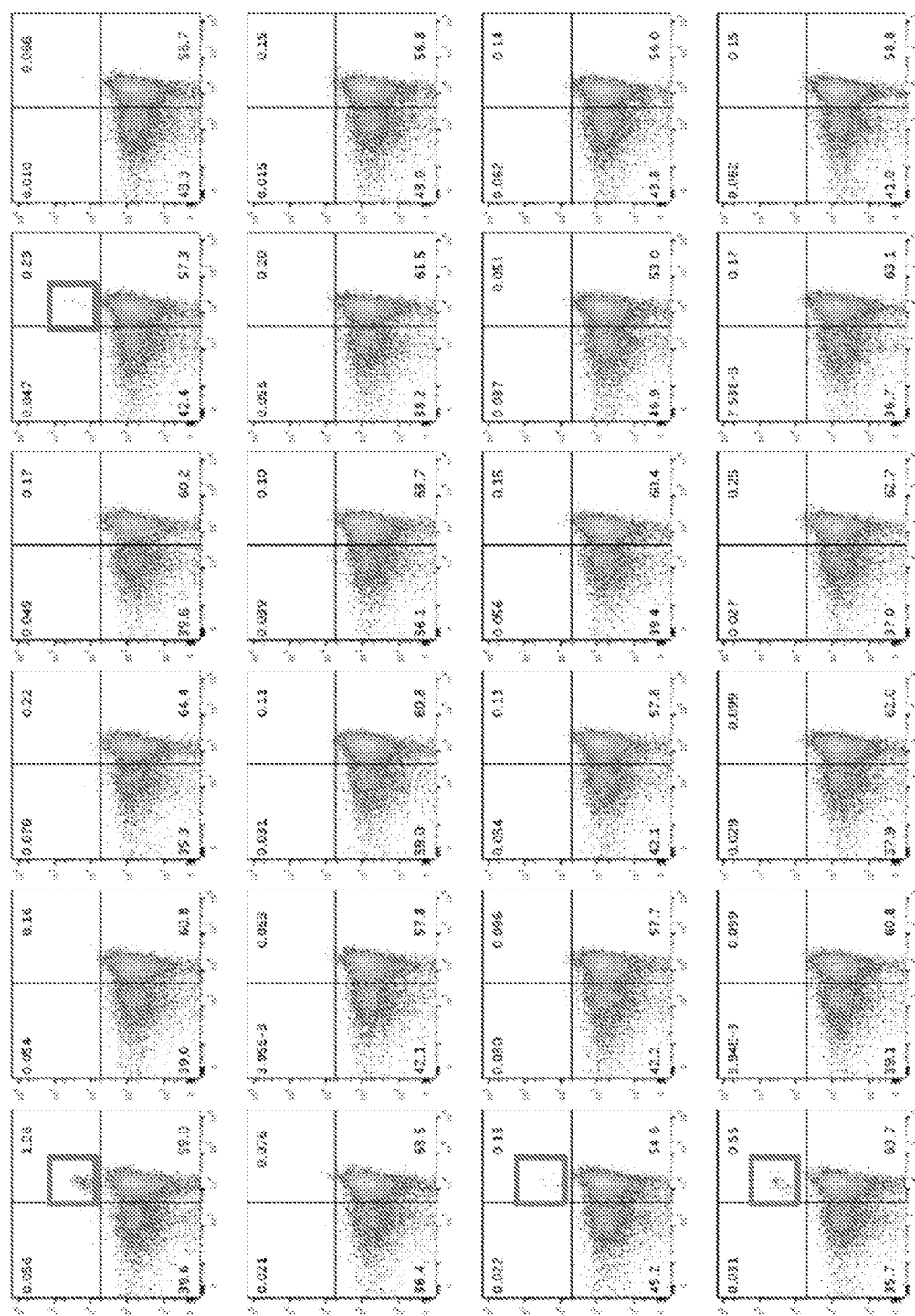


FIG. 21 Continued



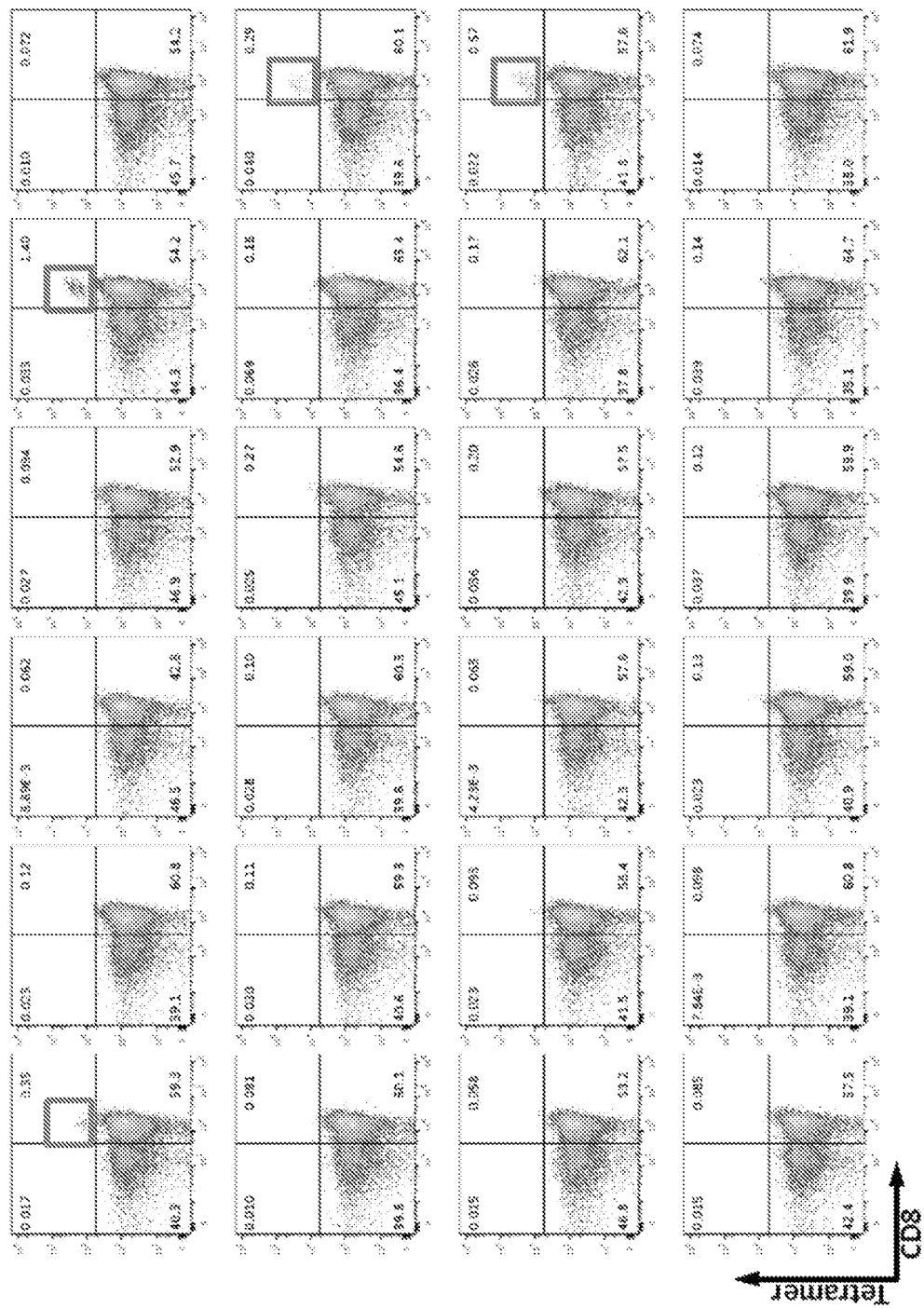


FIG. 22 Continued

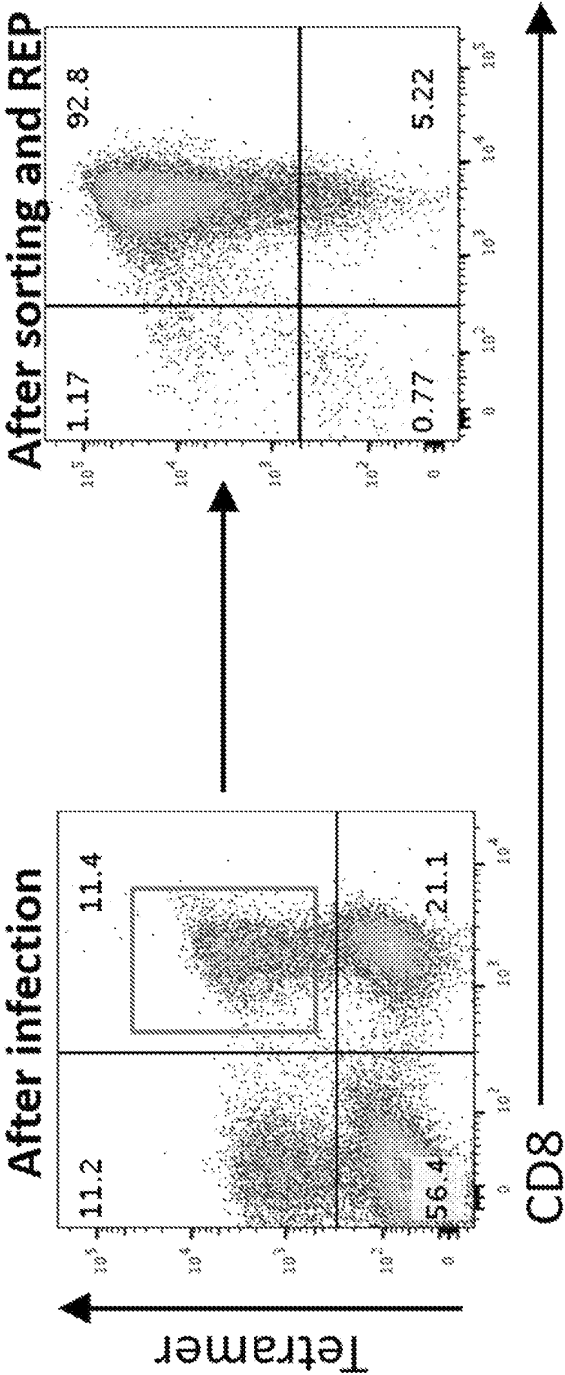


FIG. 23

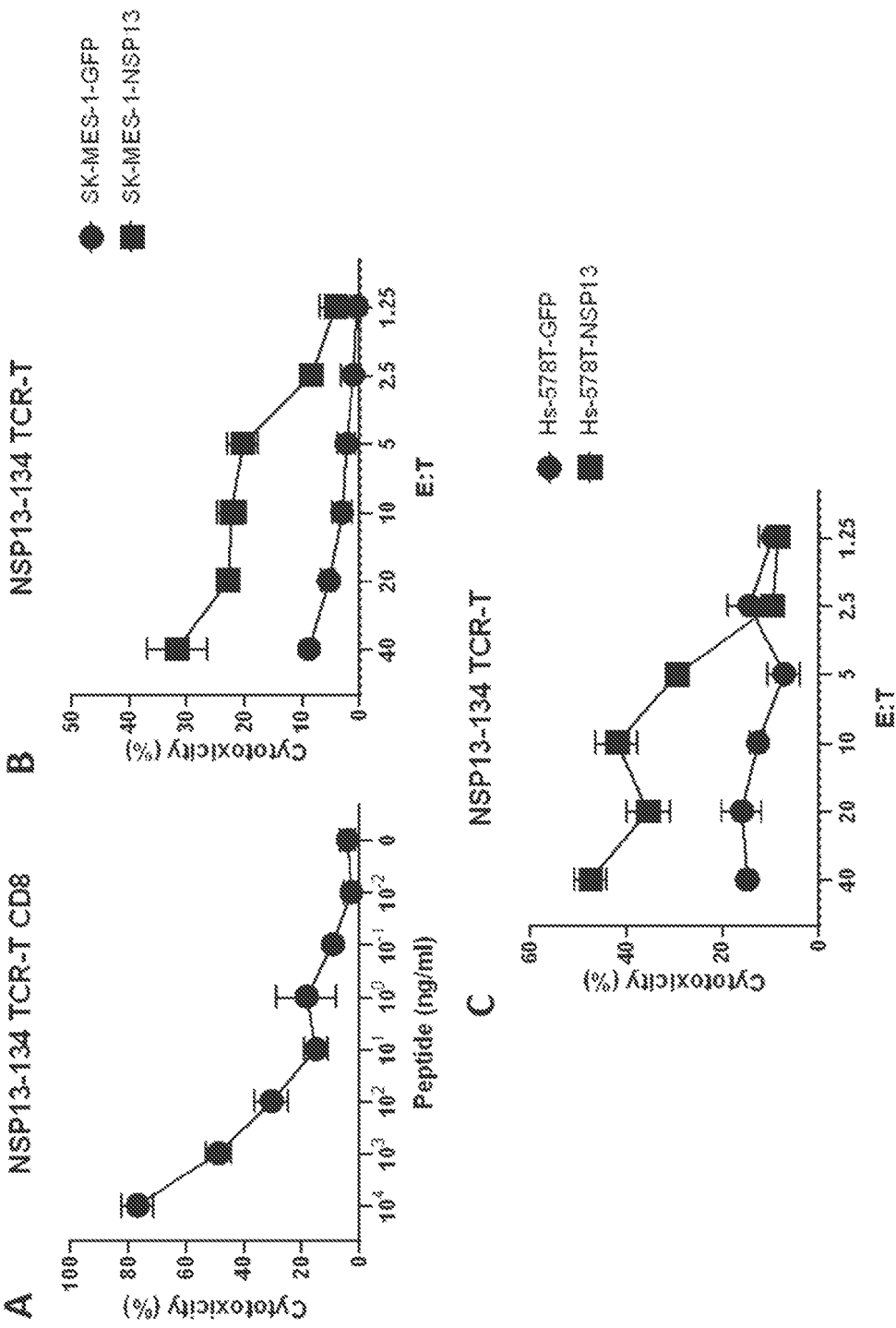


FIG. 24A-C

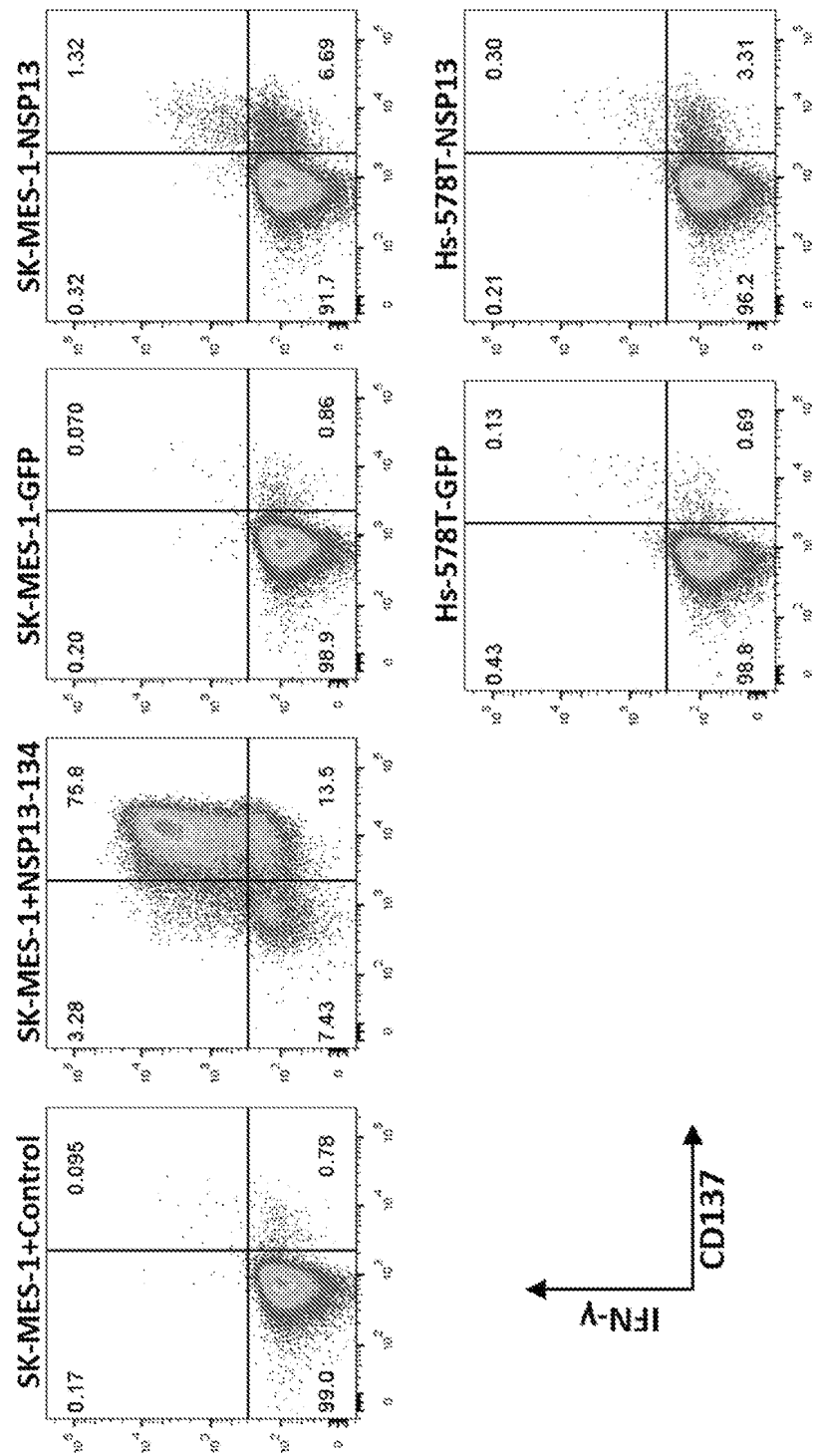


FIG. 25

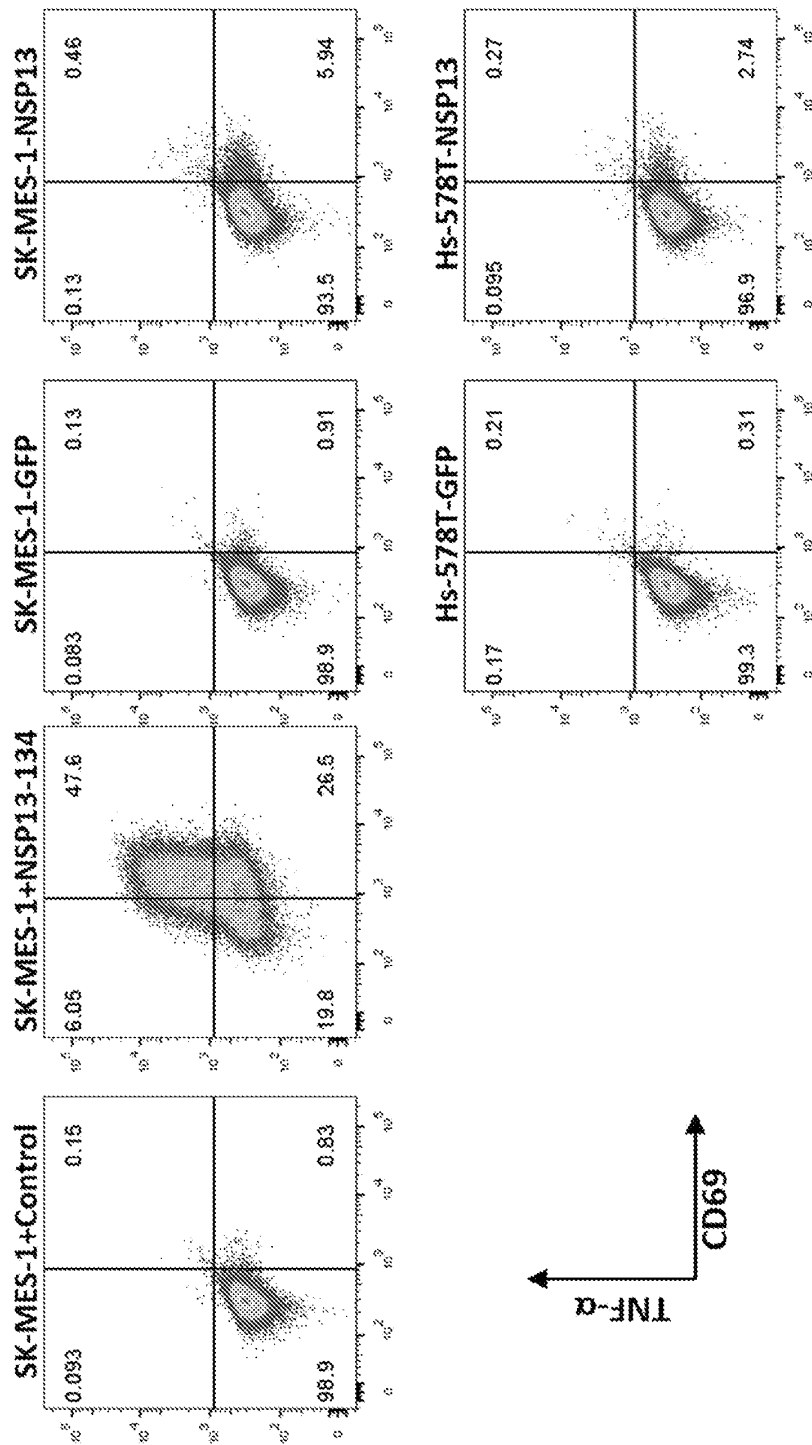


FIG. 25 (continued)

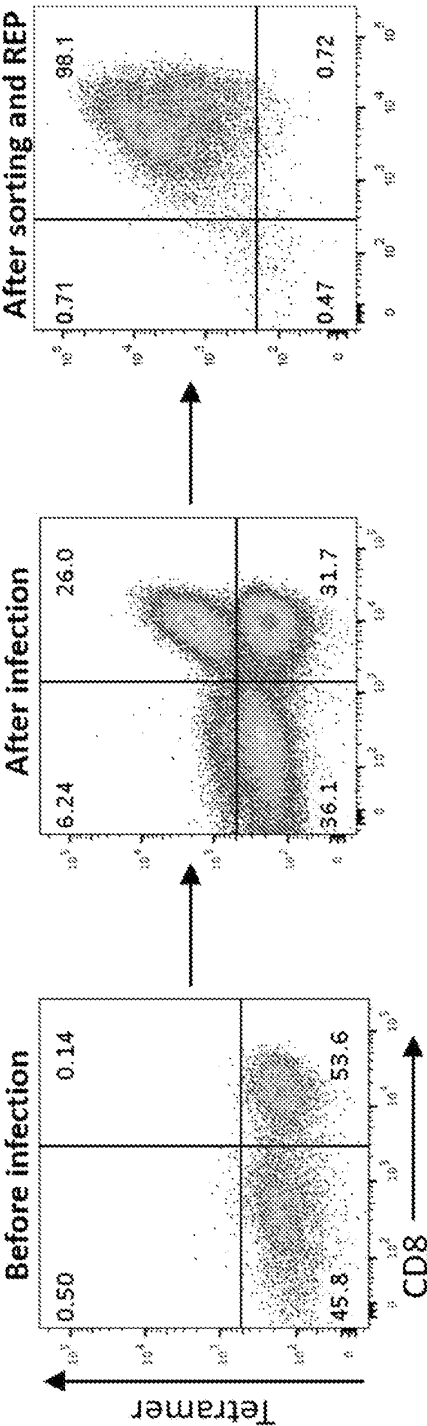


FIG. 26

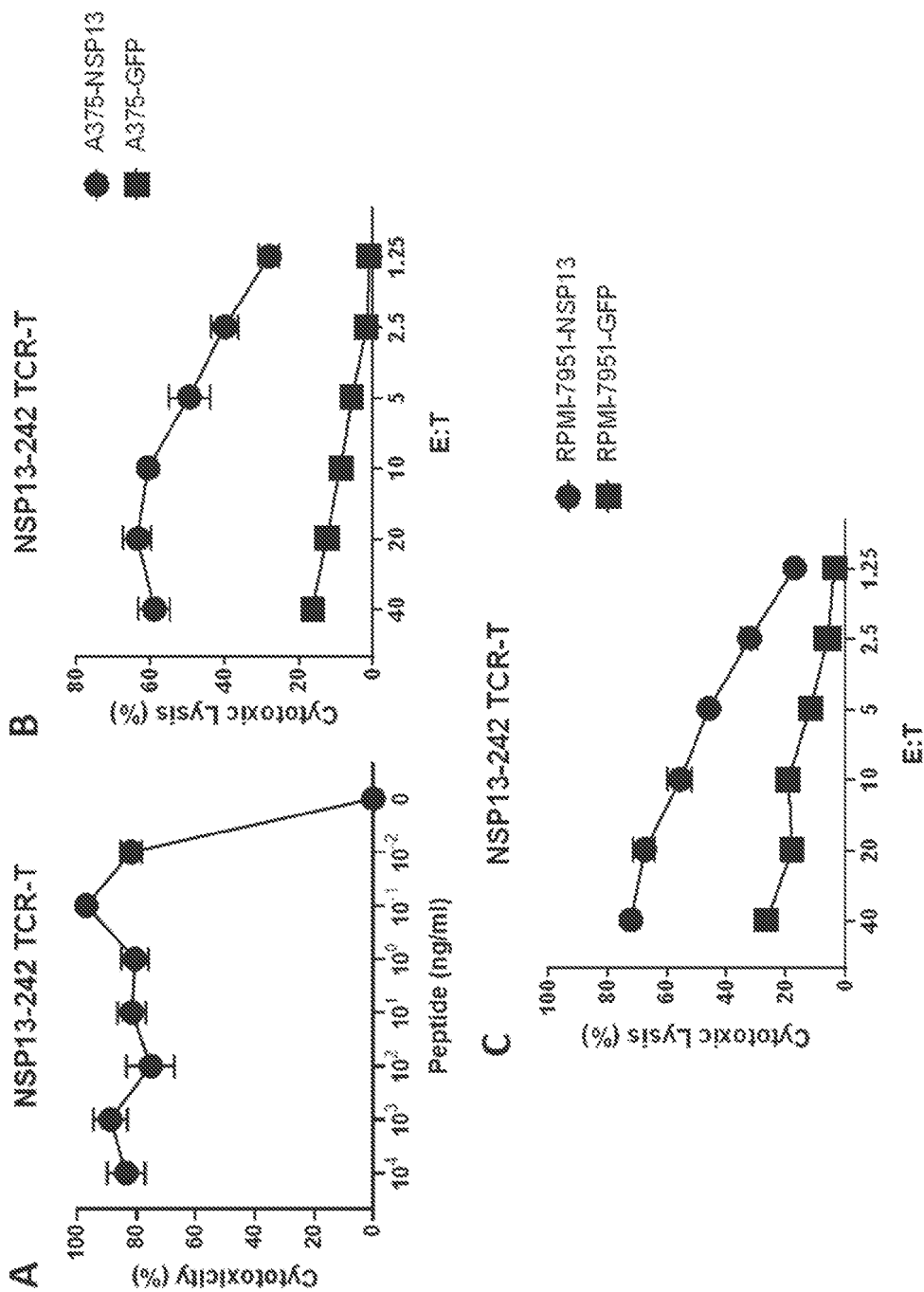


FIG. 27A-C

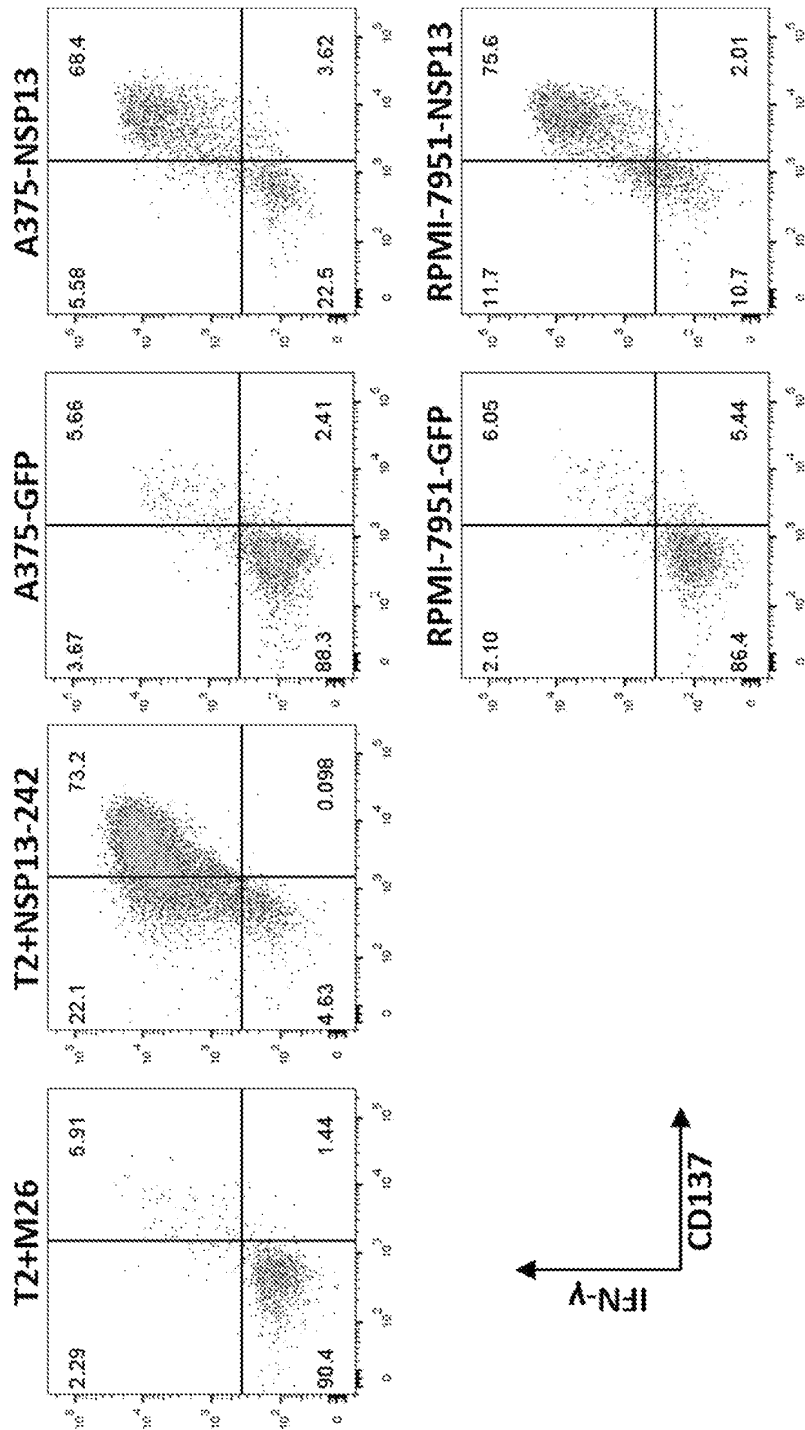


FIG. 28

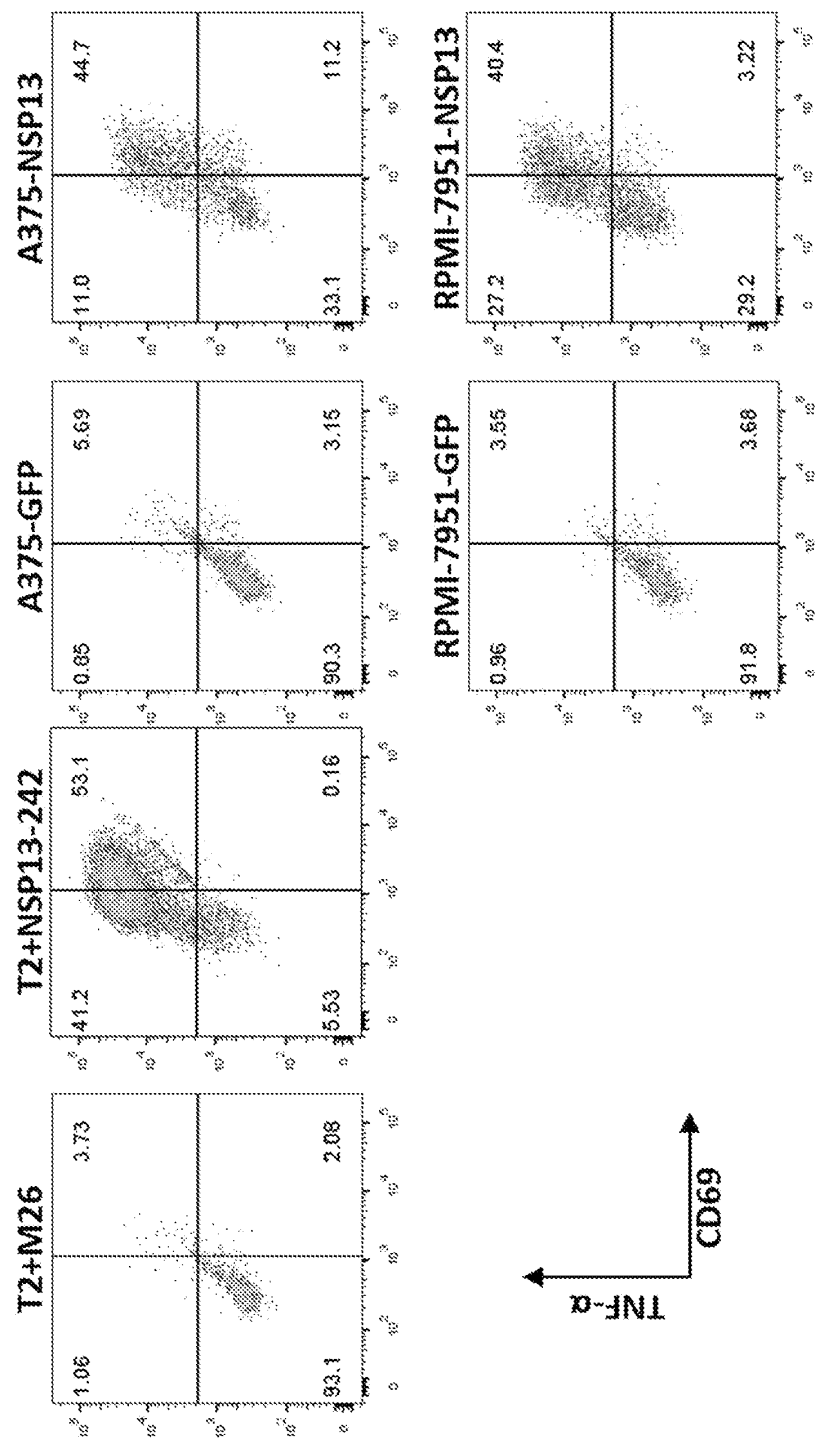


FIG. 28 (Continued)

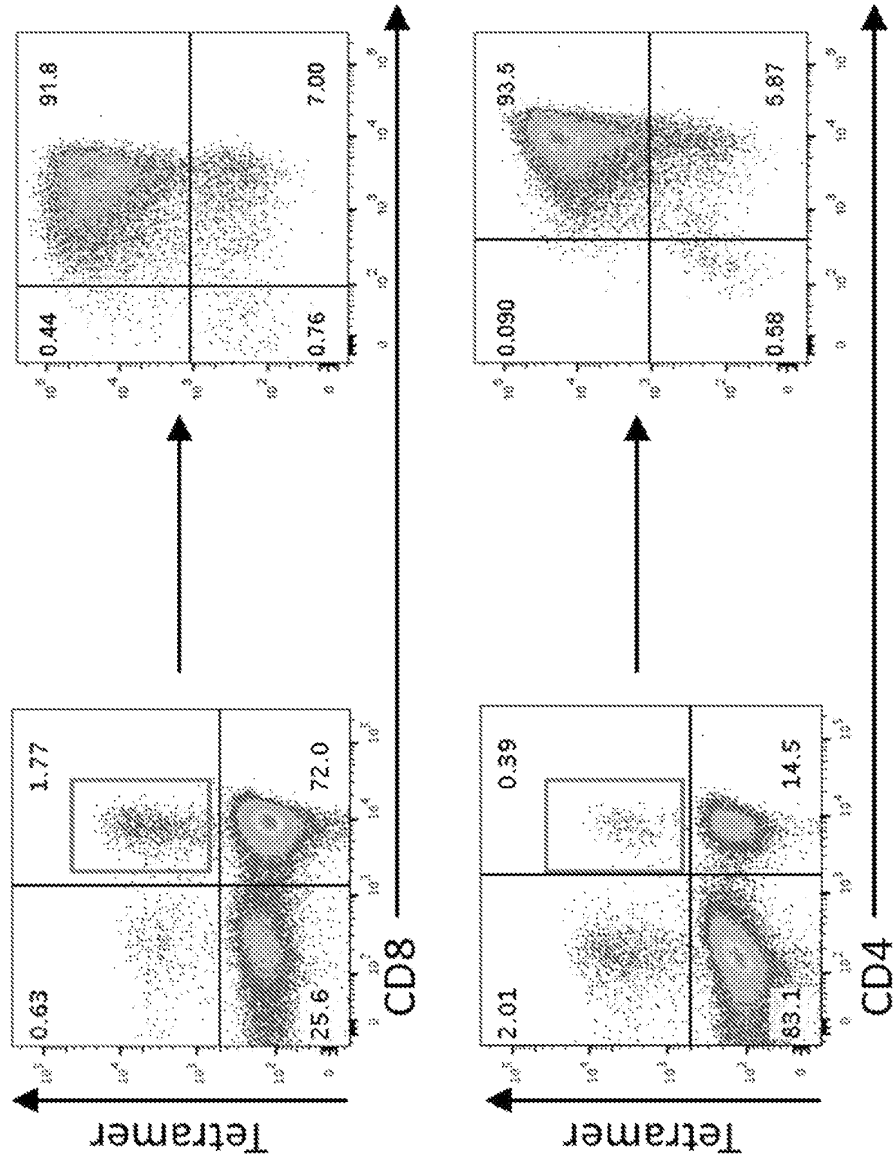


FIG. 29

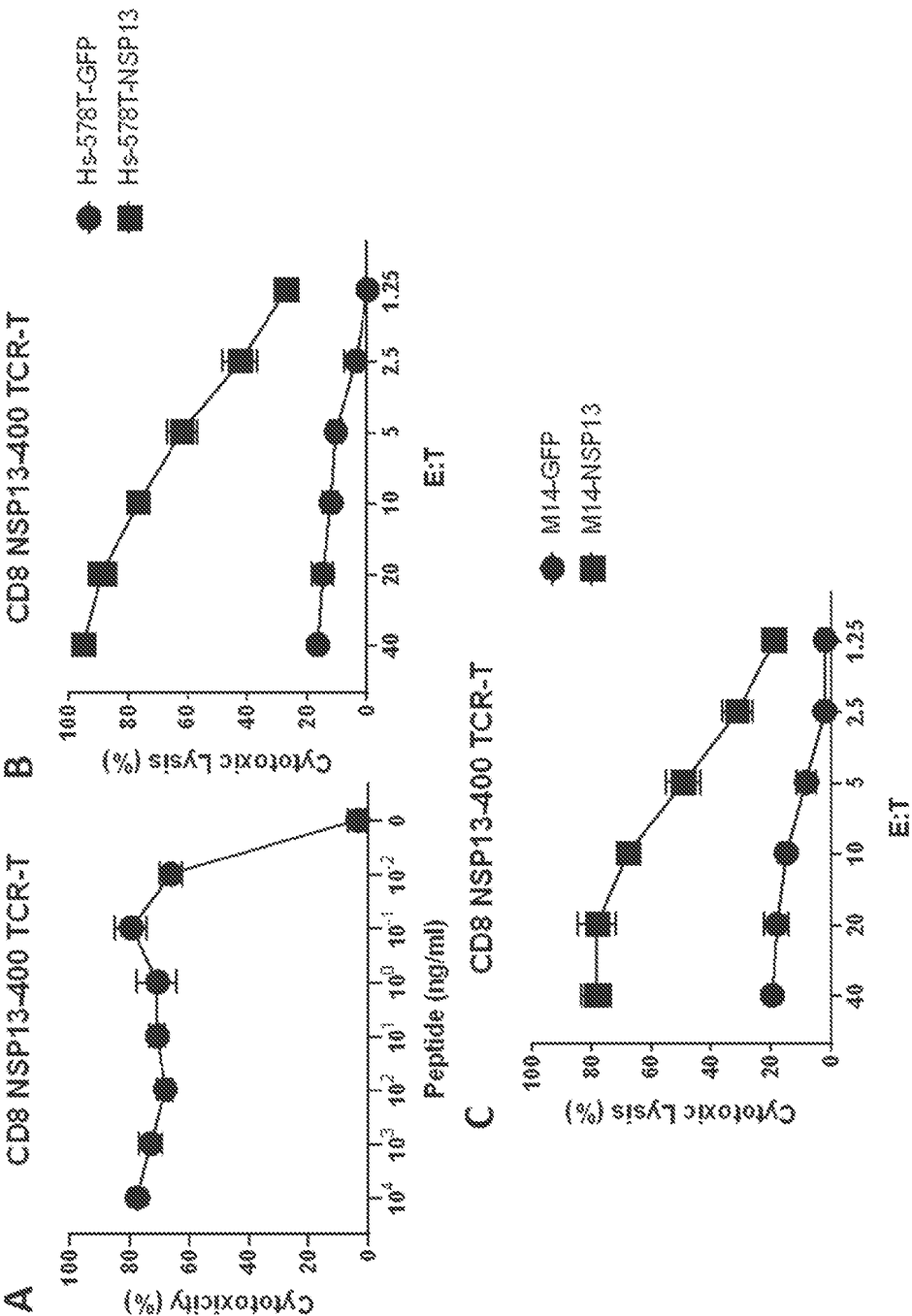


FIG. 30A-C

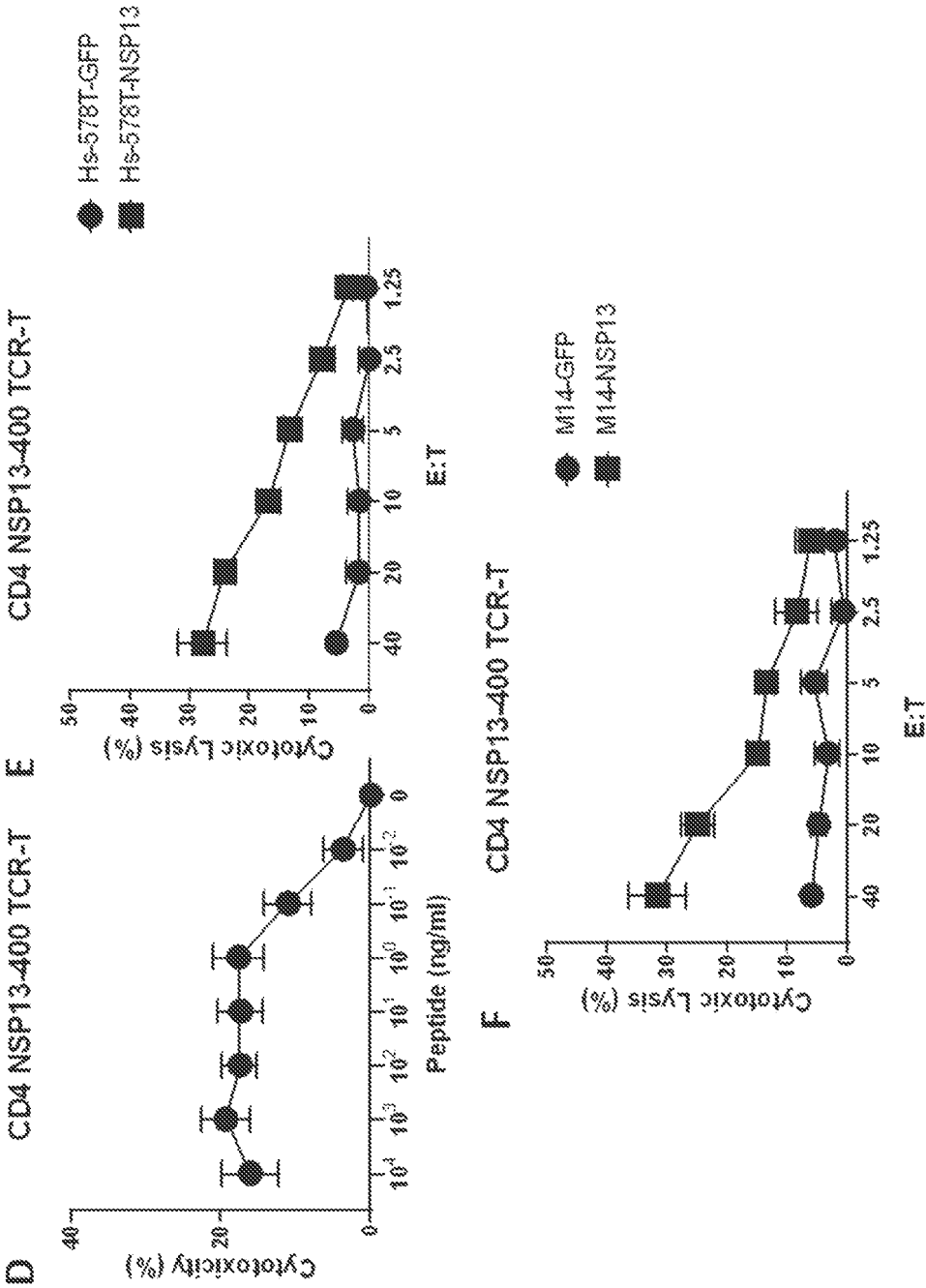


FIG. 30D-F

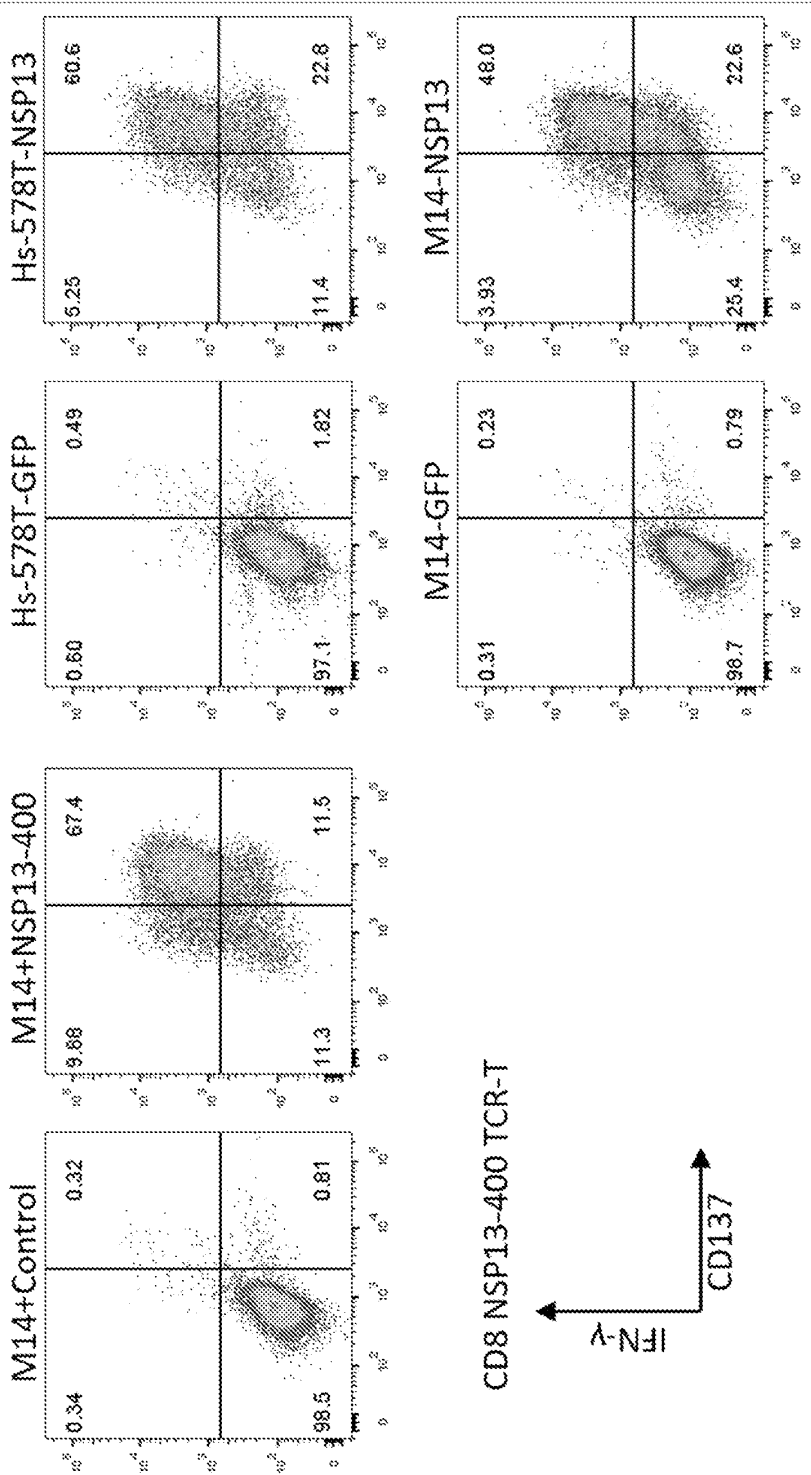


FIG. 31

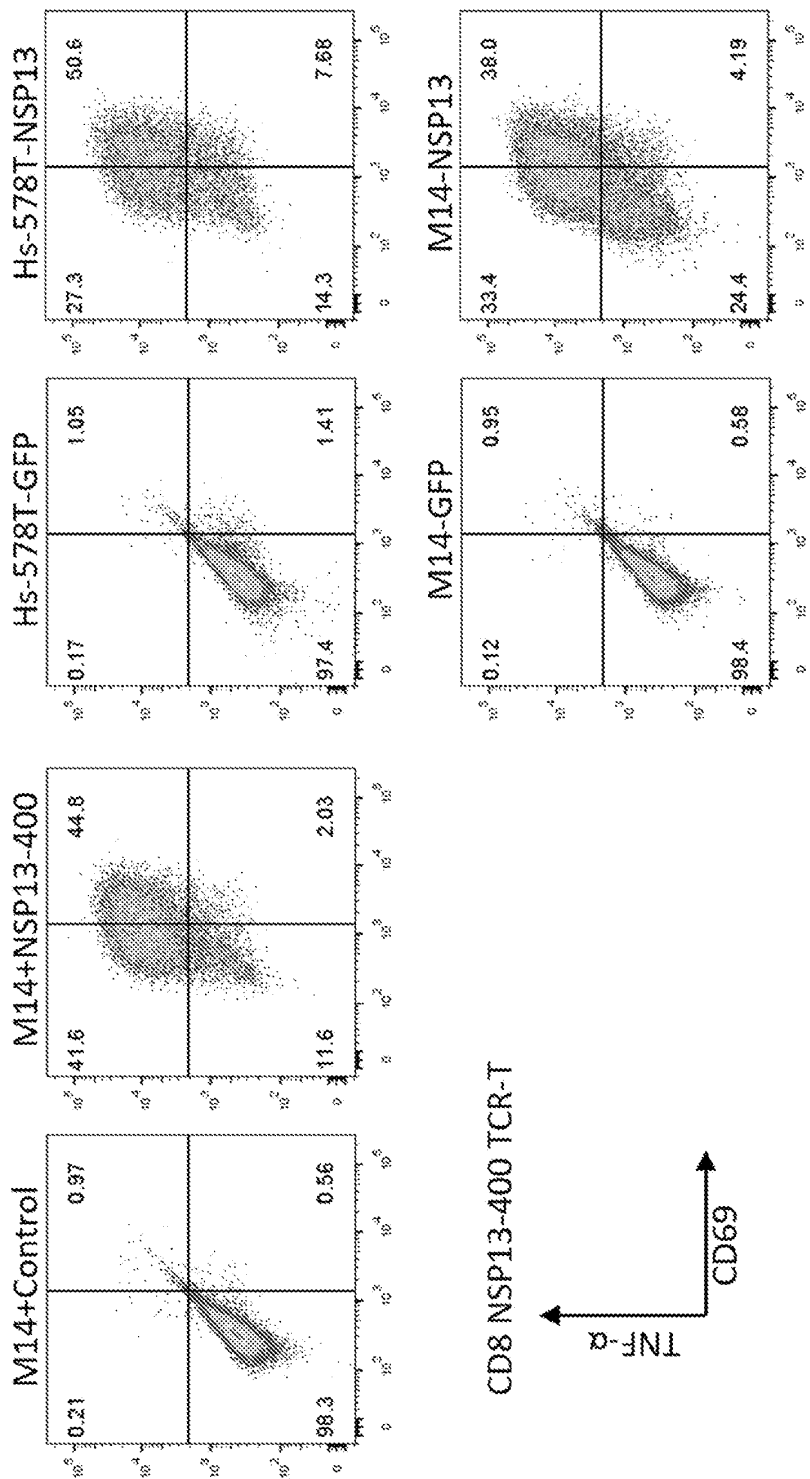


FIG. 31 (continued)

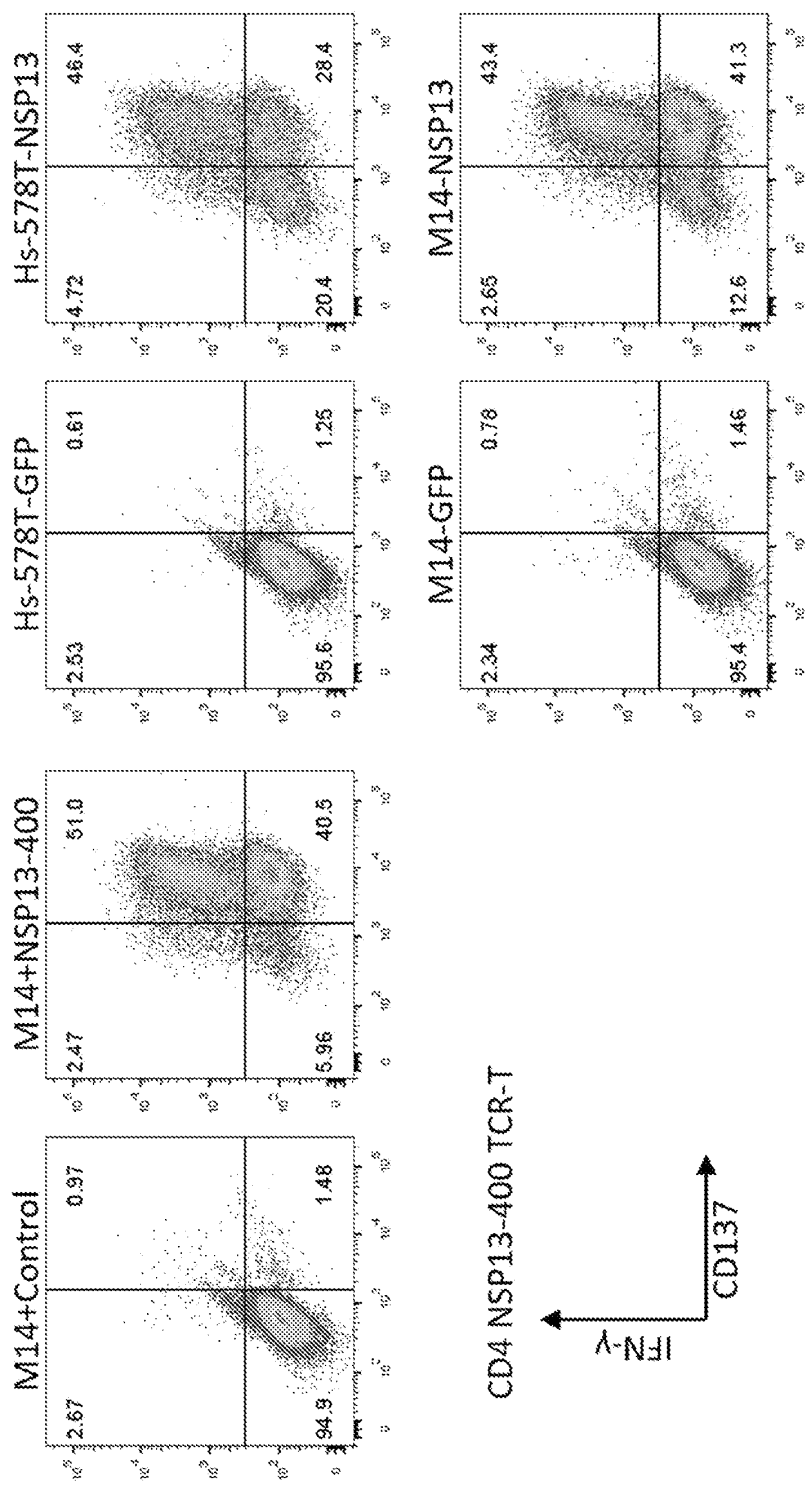


FIG. 31 (continued)

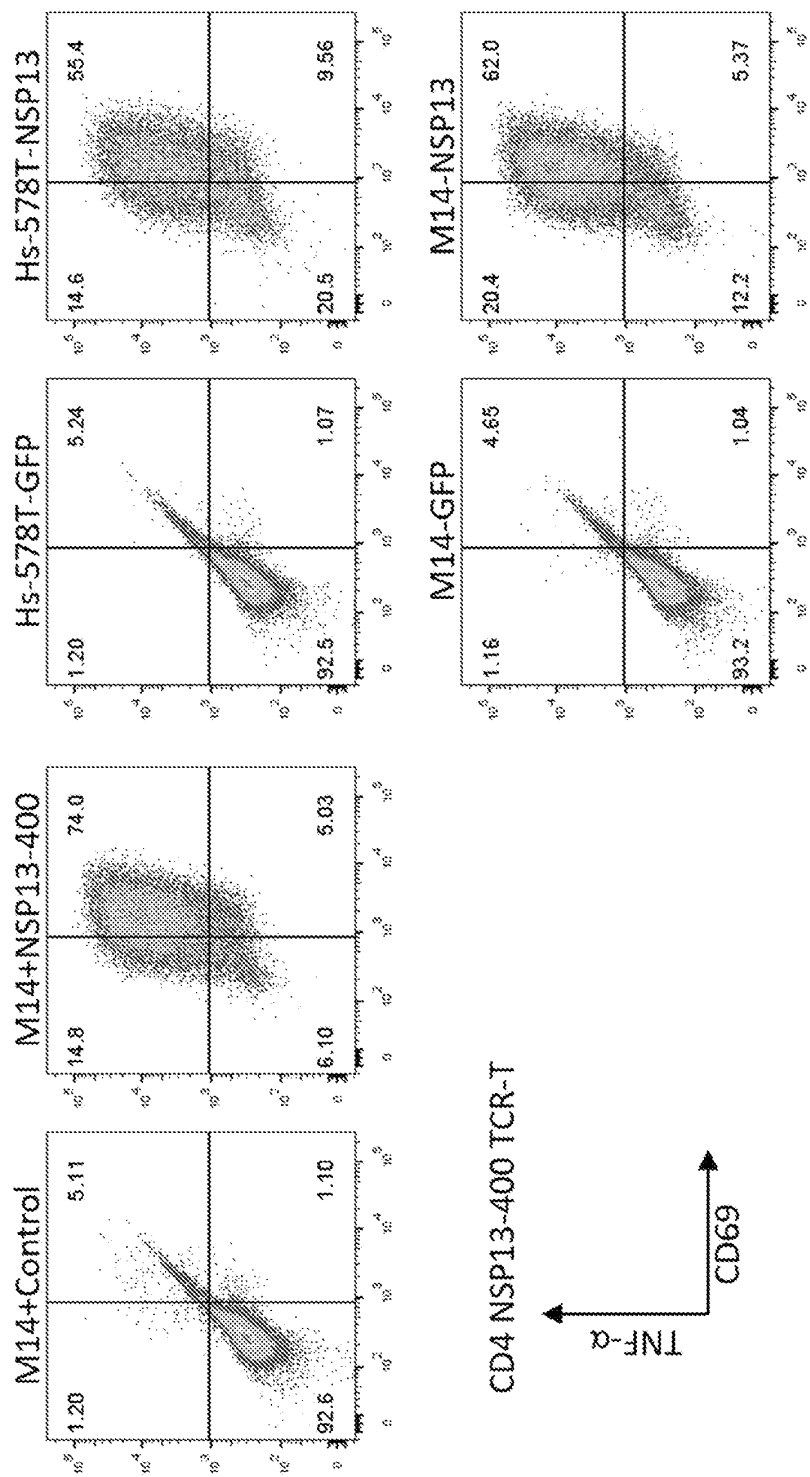


FIG. 31 (continued)

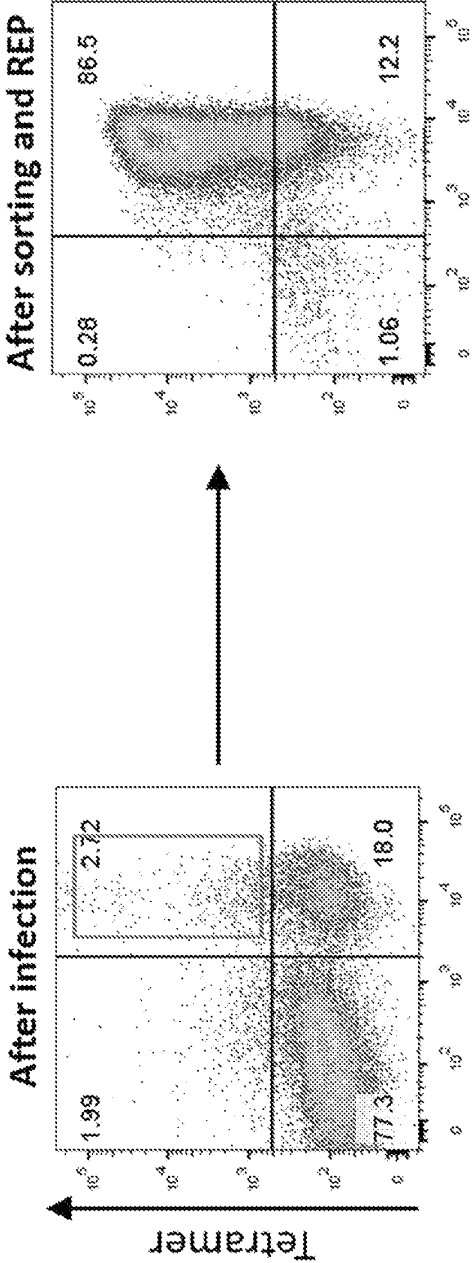


FIG. 32

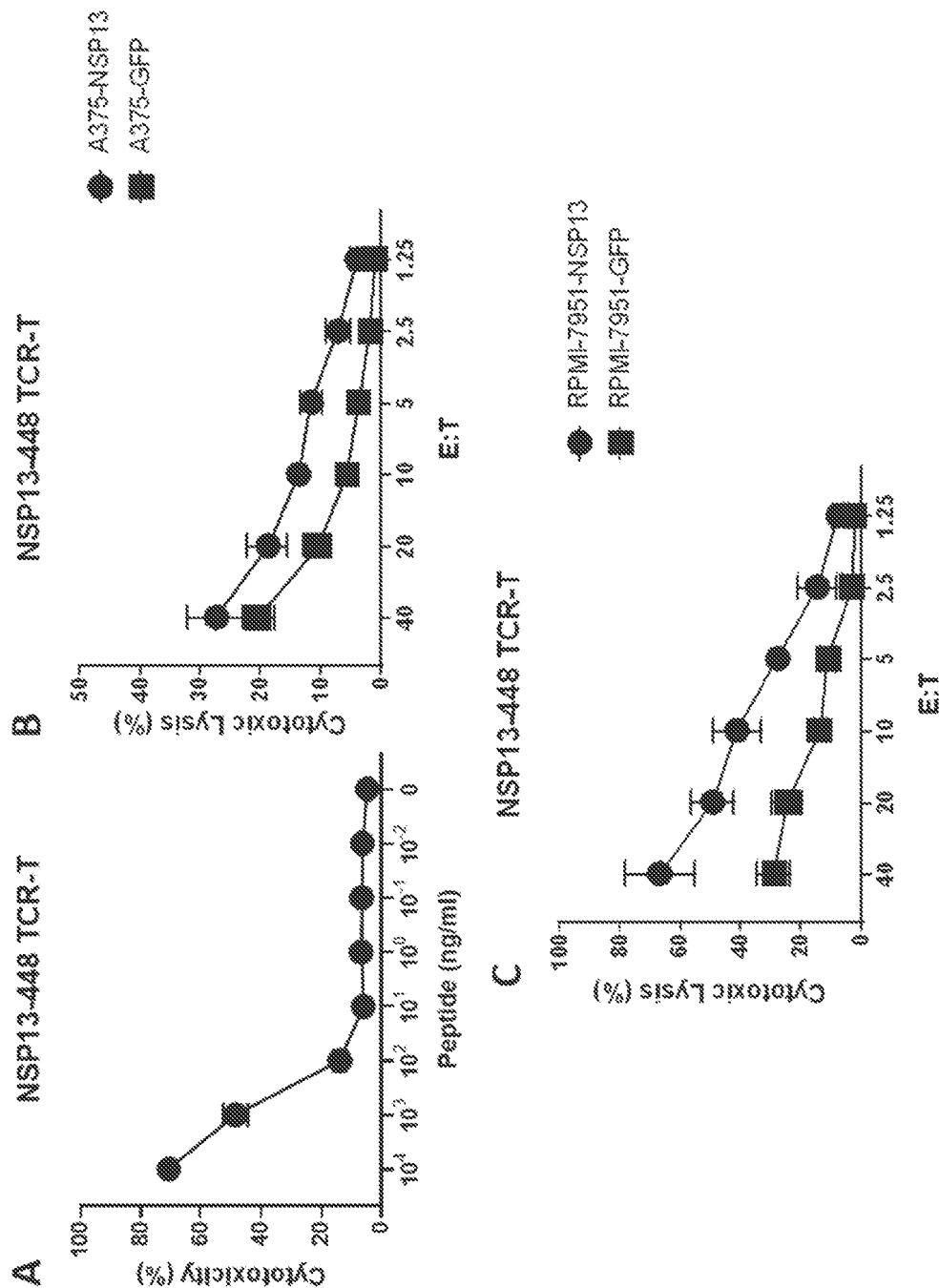


FIG. 33A-C

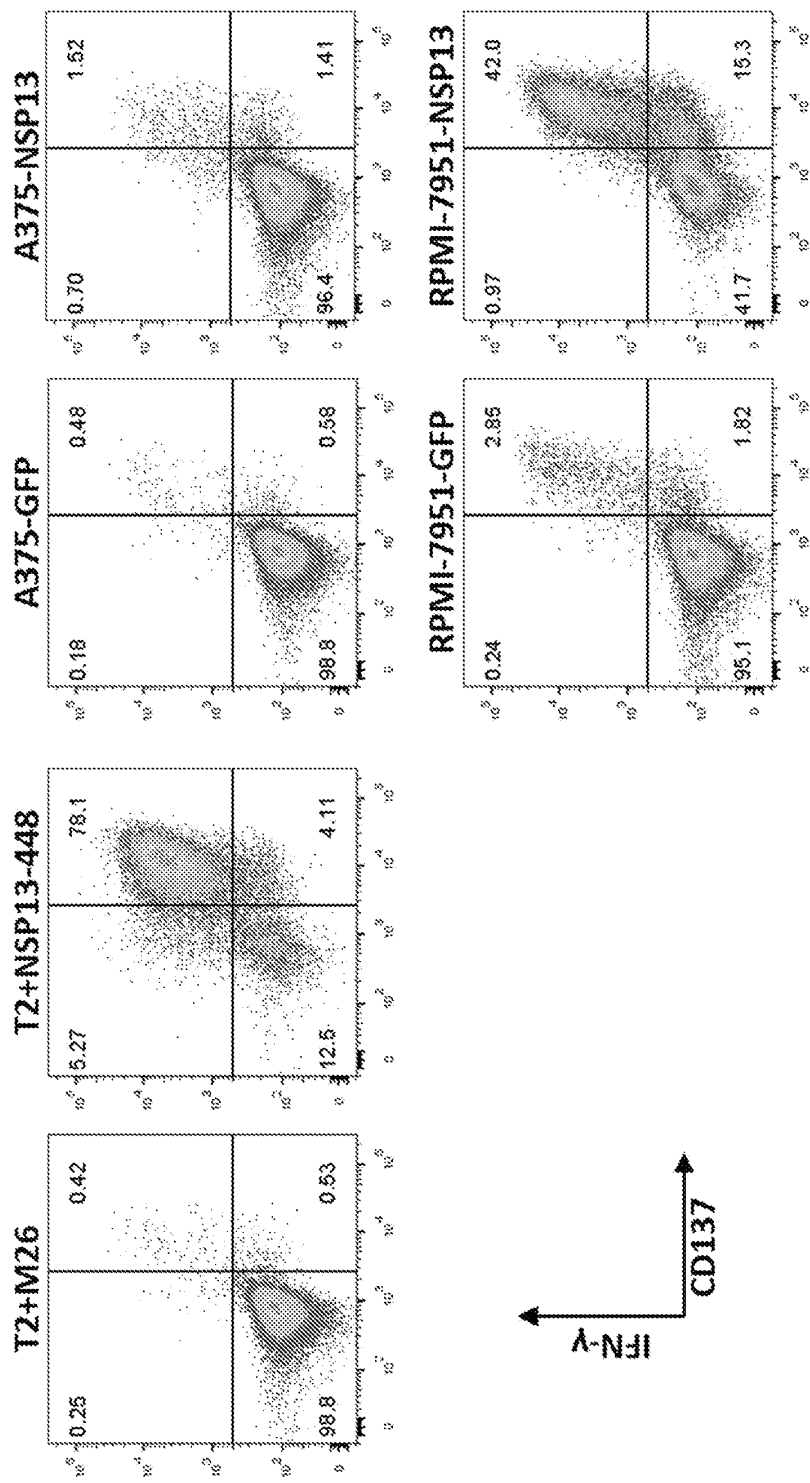


FIG. 34

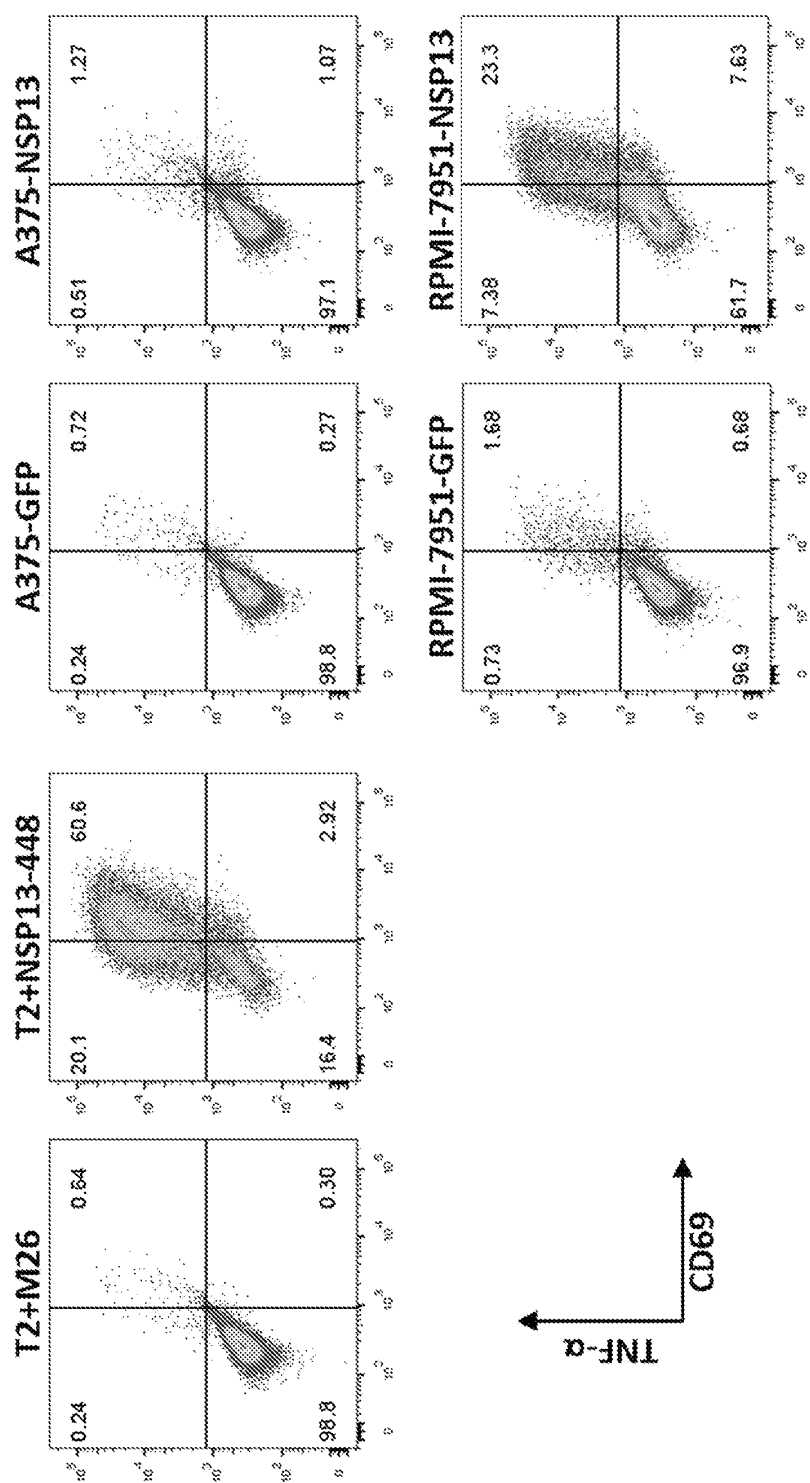


FIG. 34 (continued)