

FIG. 1

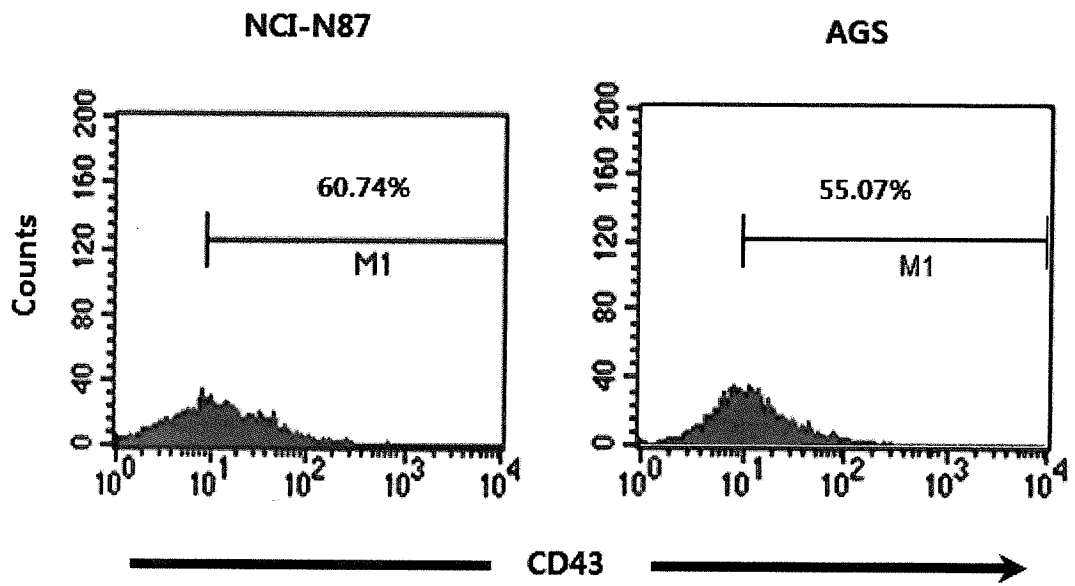


FIG. 2a

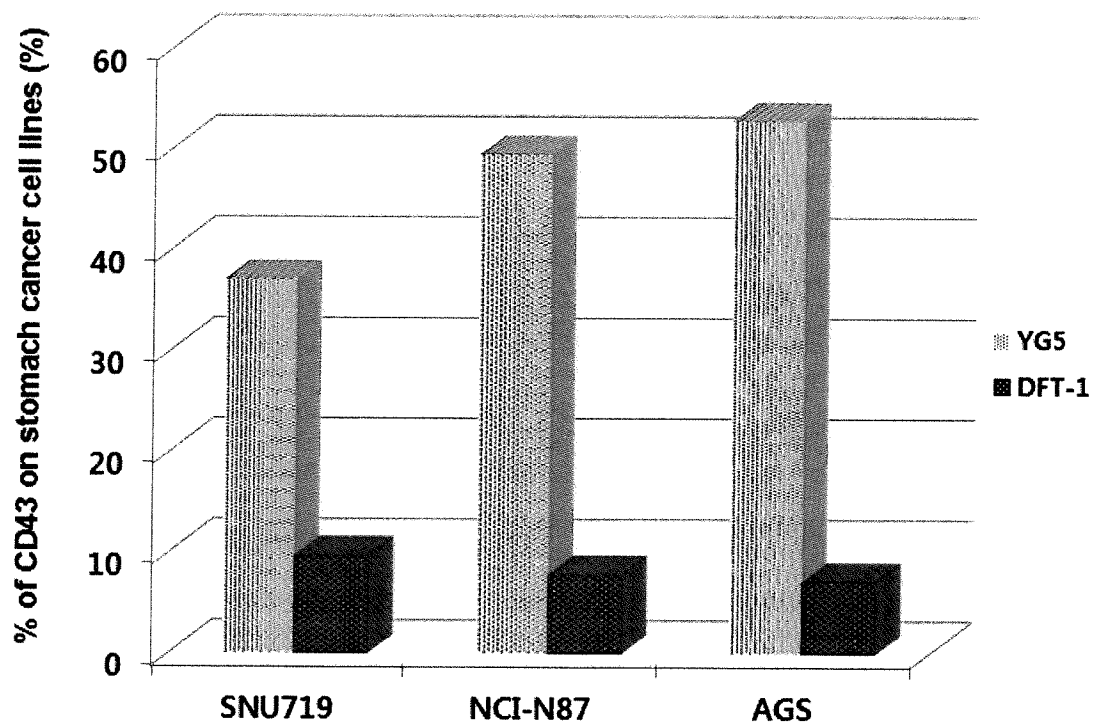


FIG. 2b

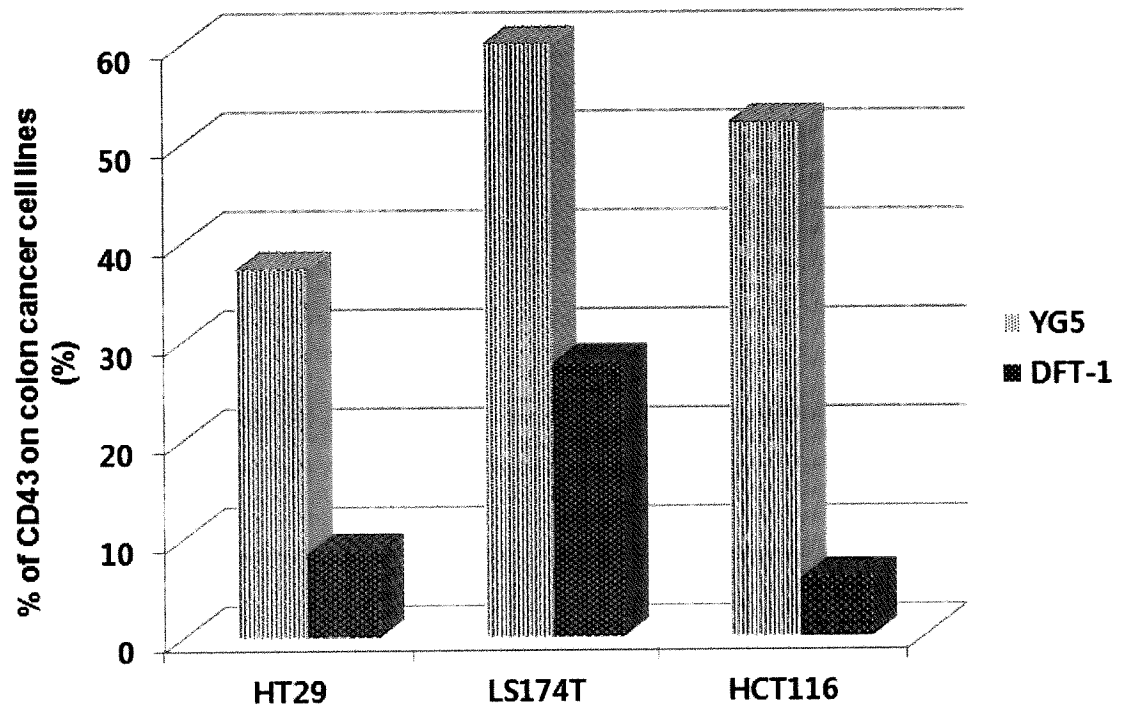


FIG. 2c

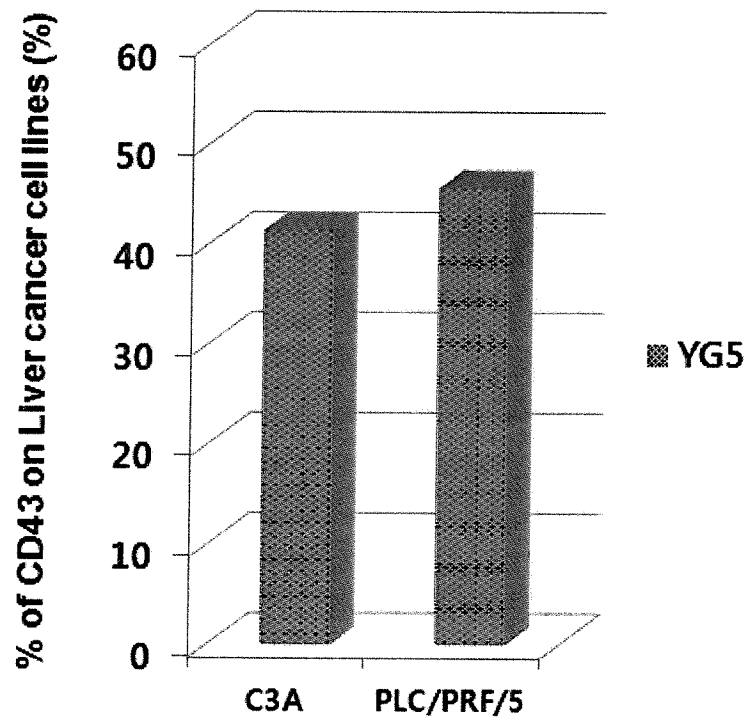


FIG. 3

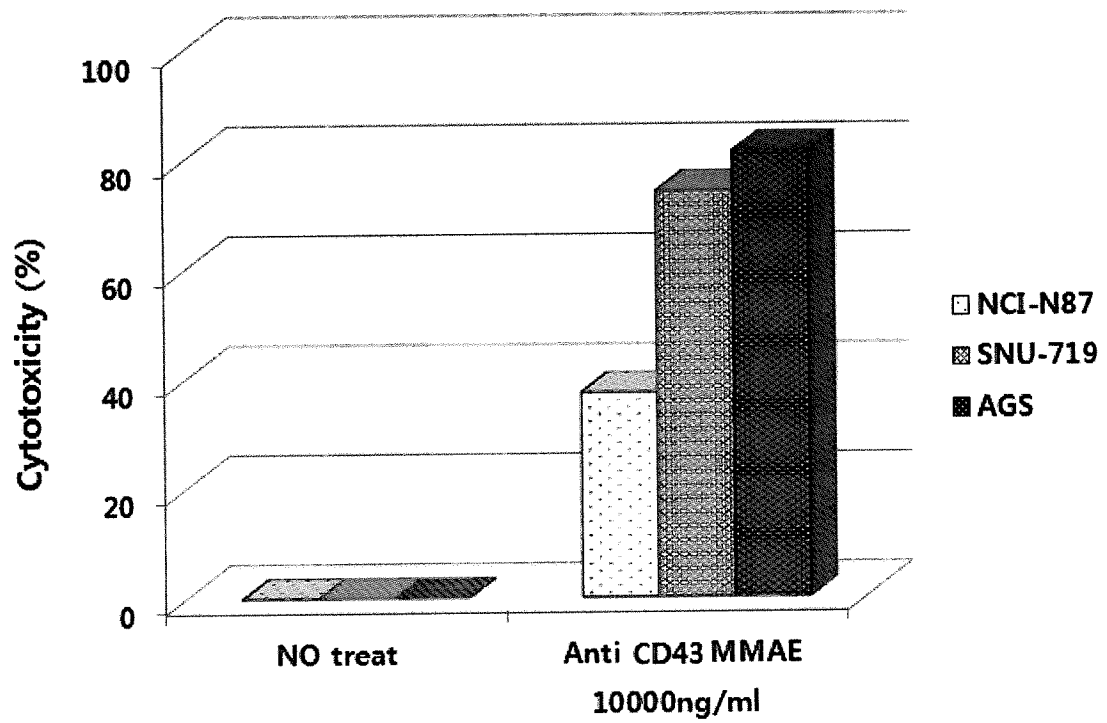


FIG. 4

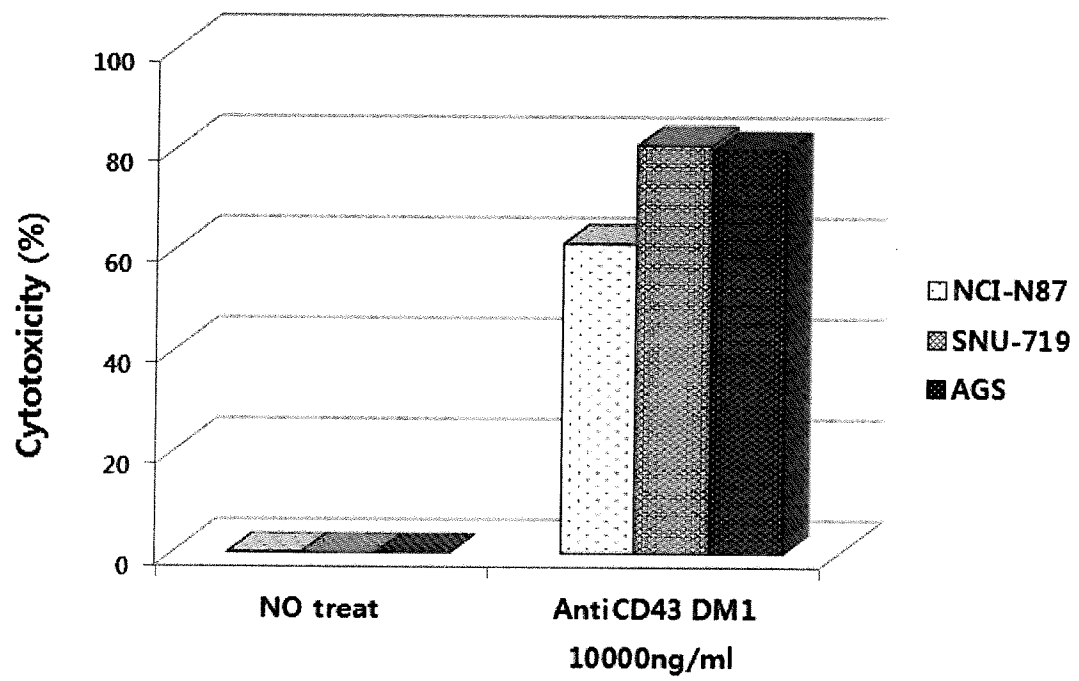


FIG. 5

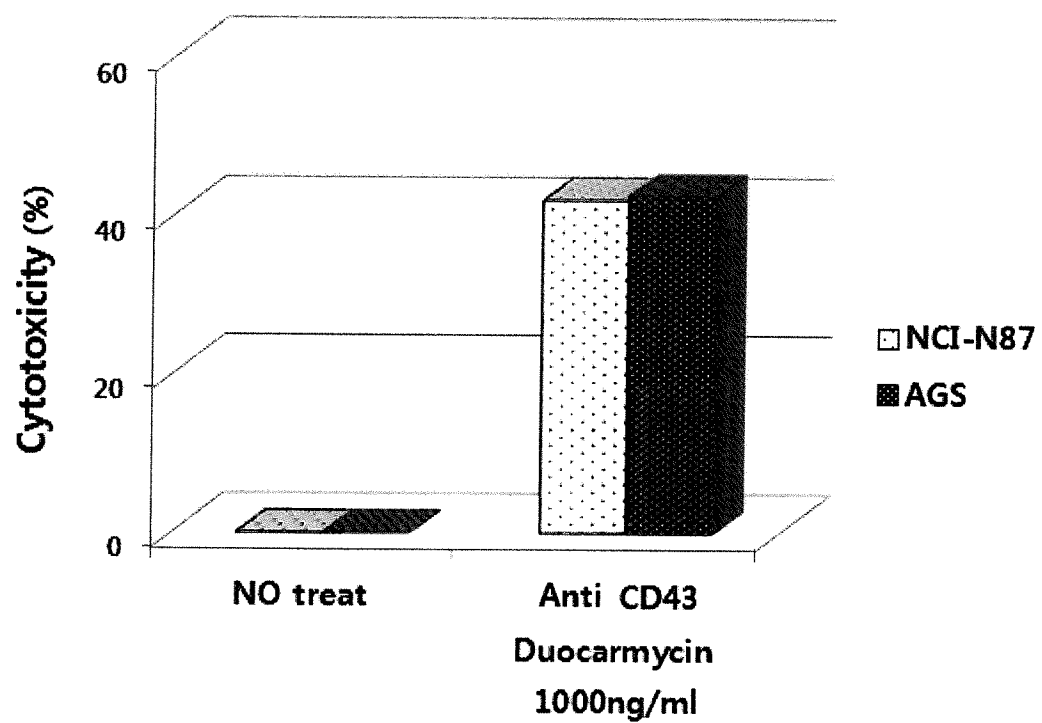


FIG. 6

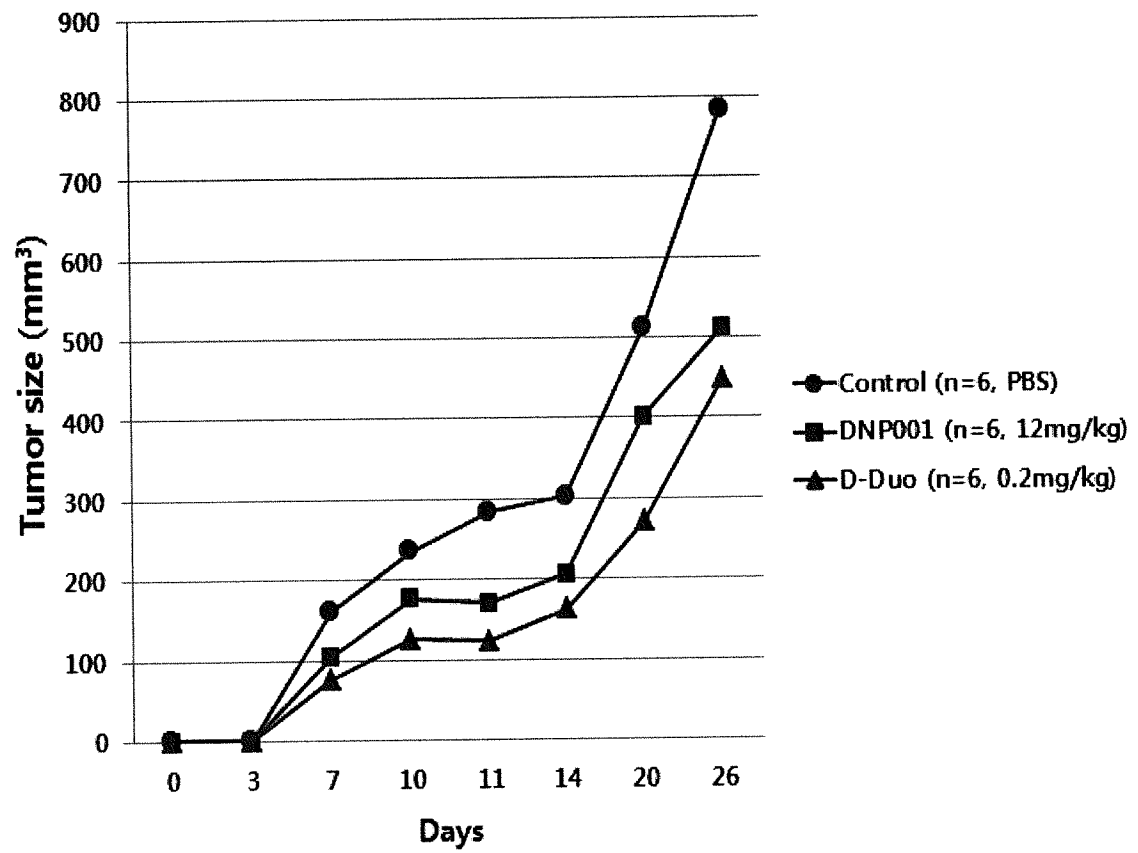


FIG. 7

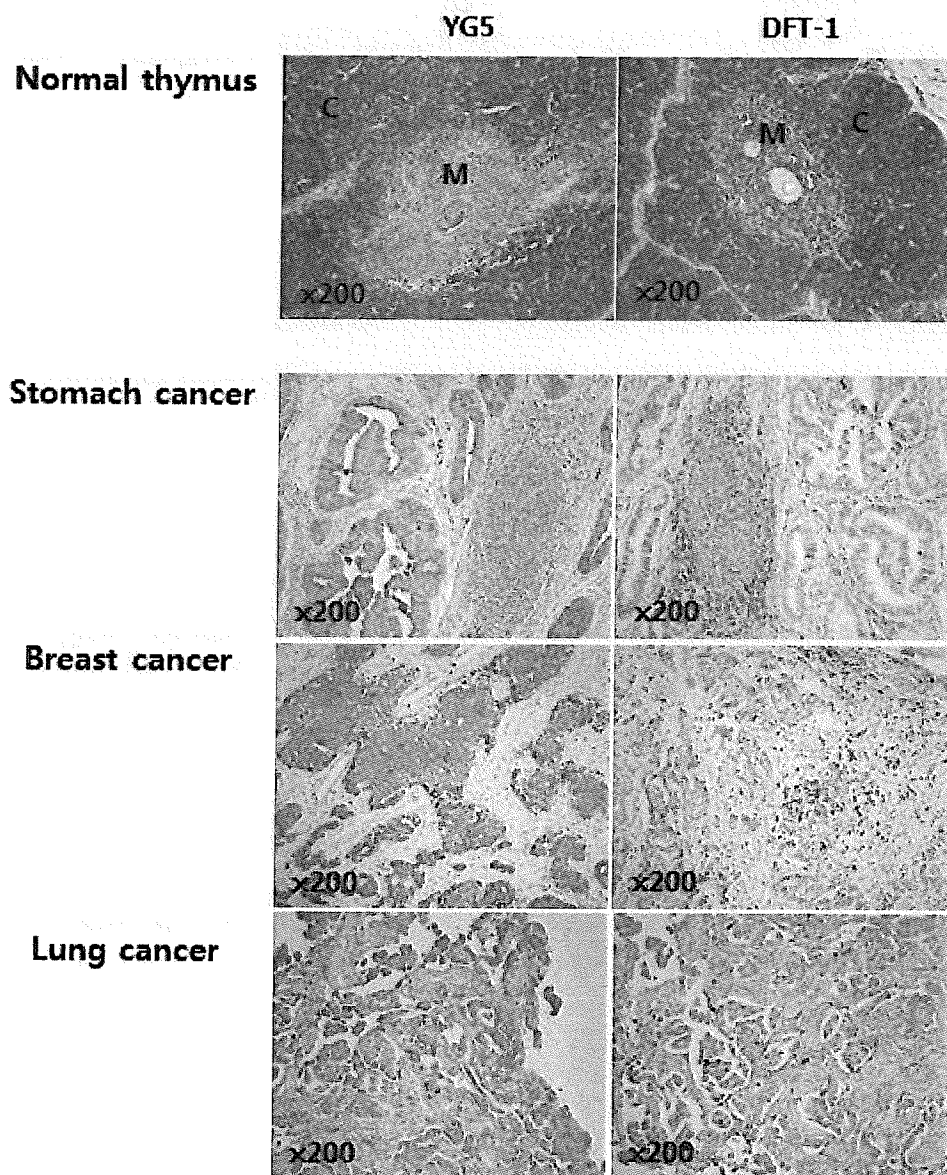


FIG. 8

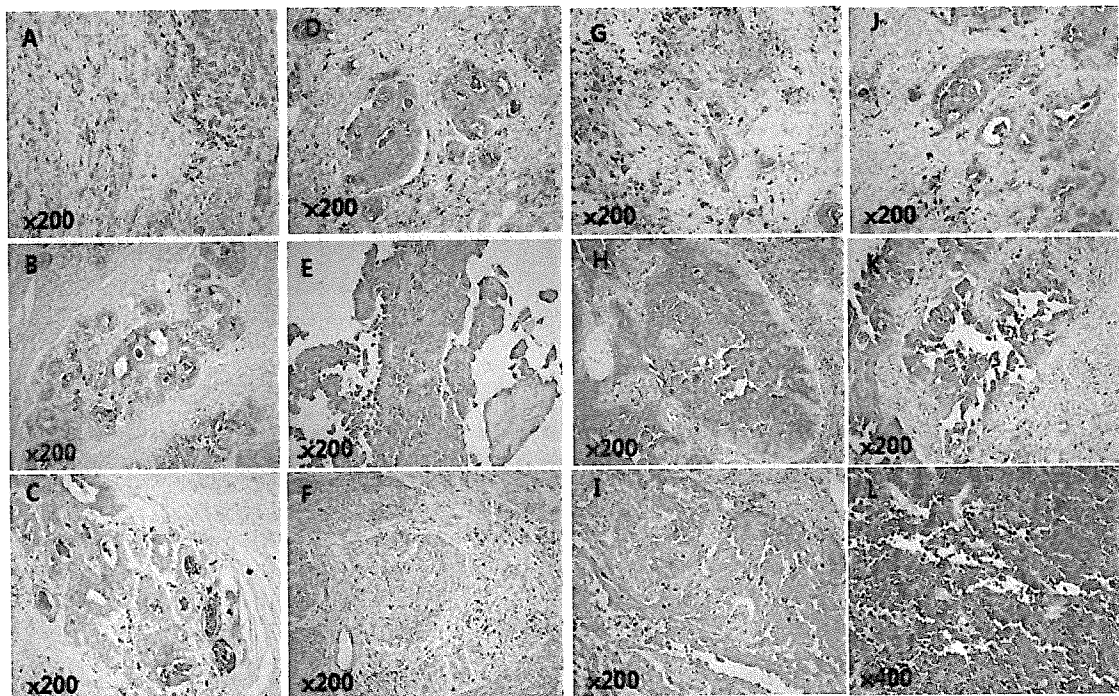


FIG. 9

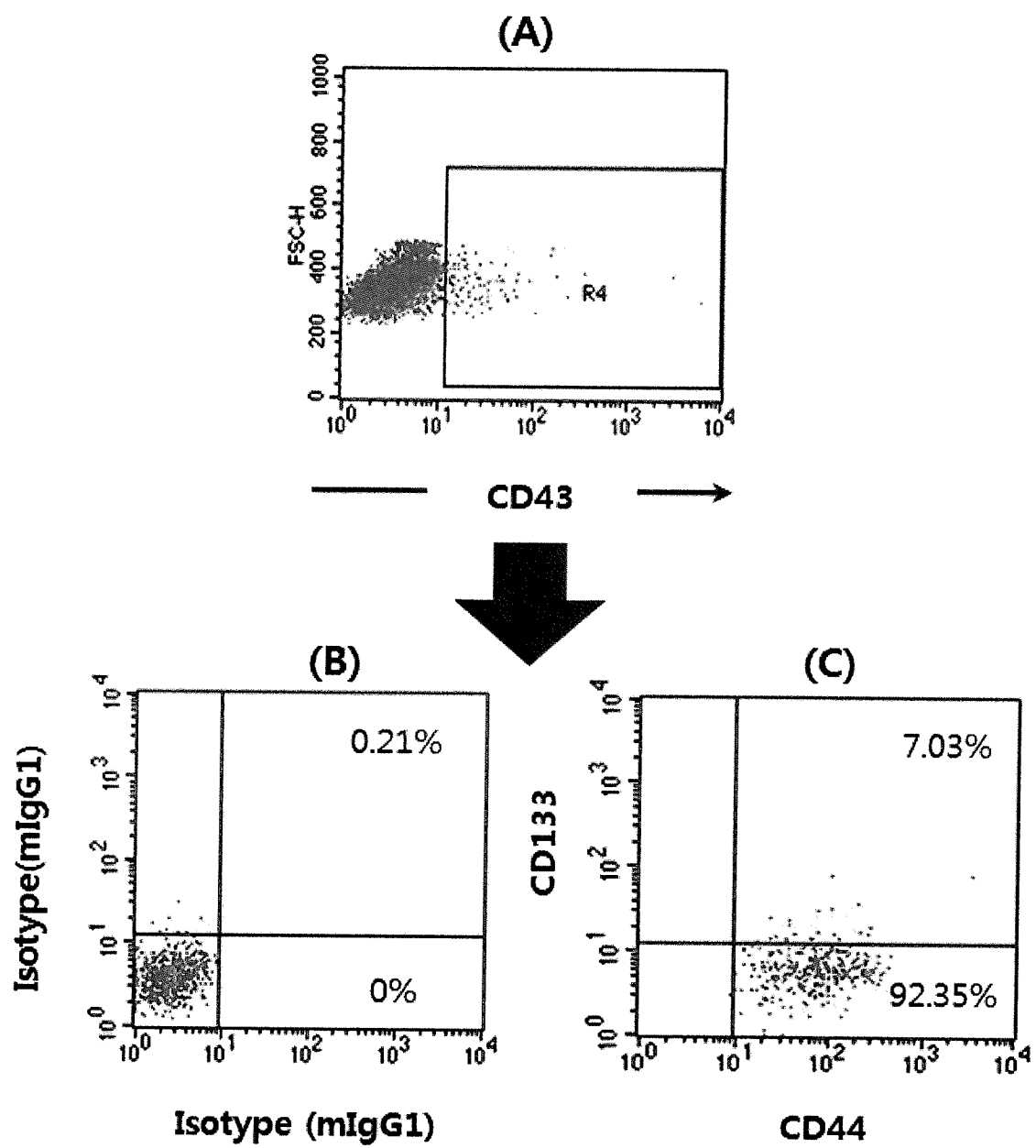


FIG. 10

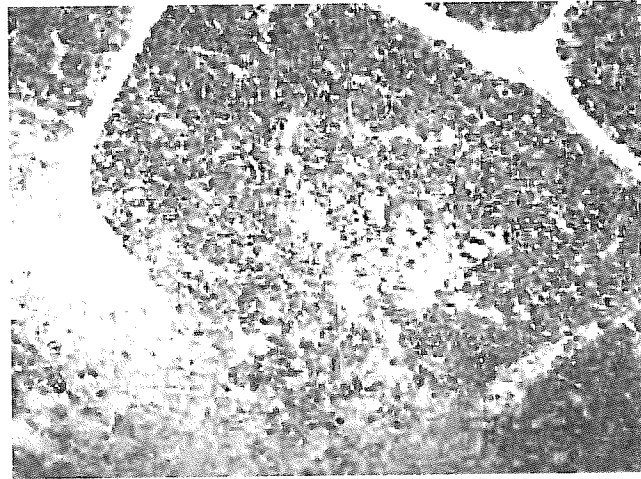


FIG. 11

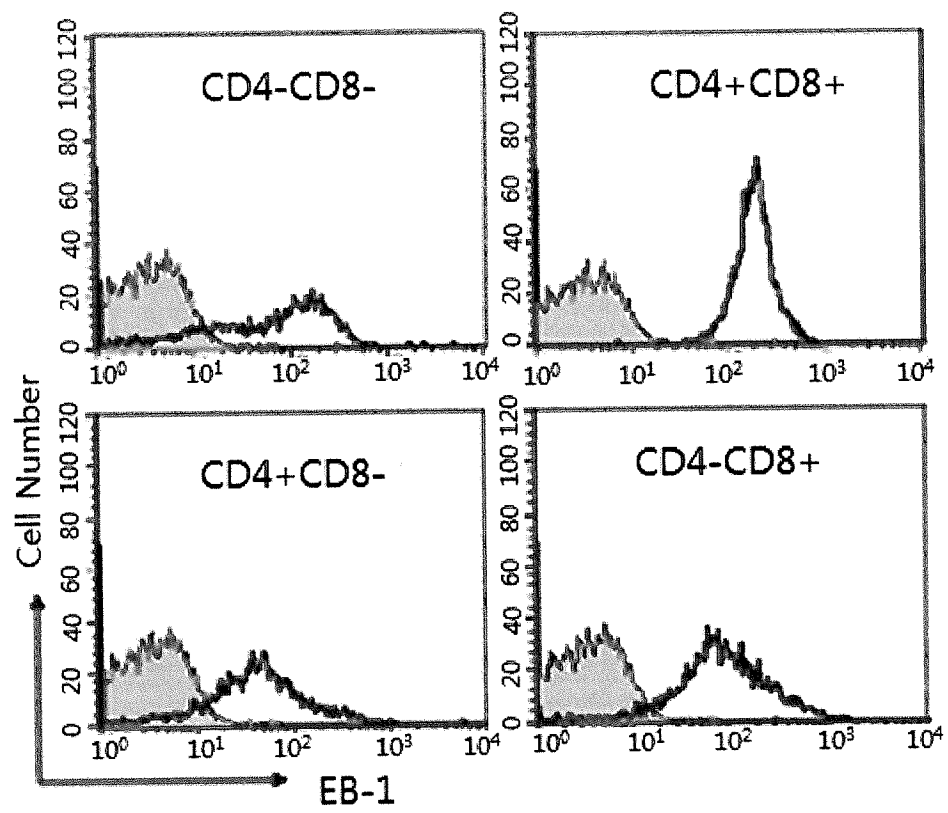


FIG. 12

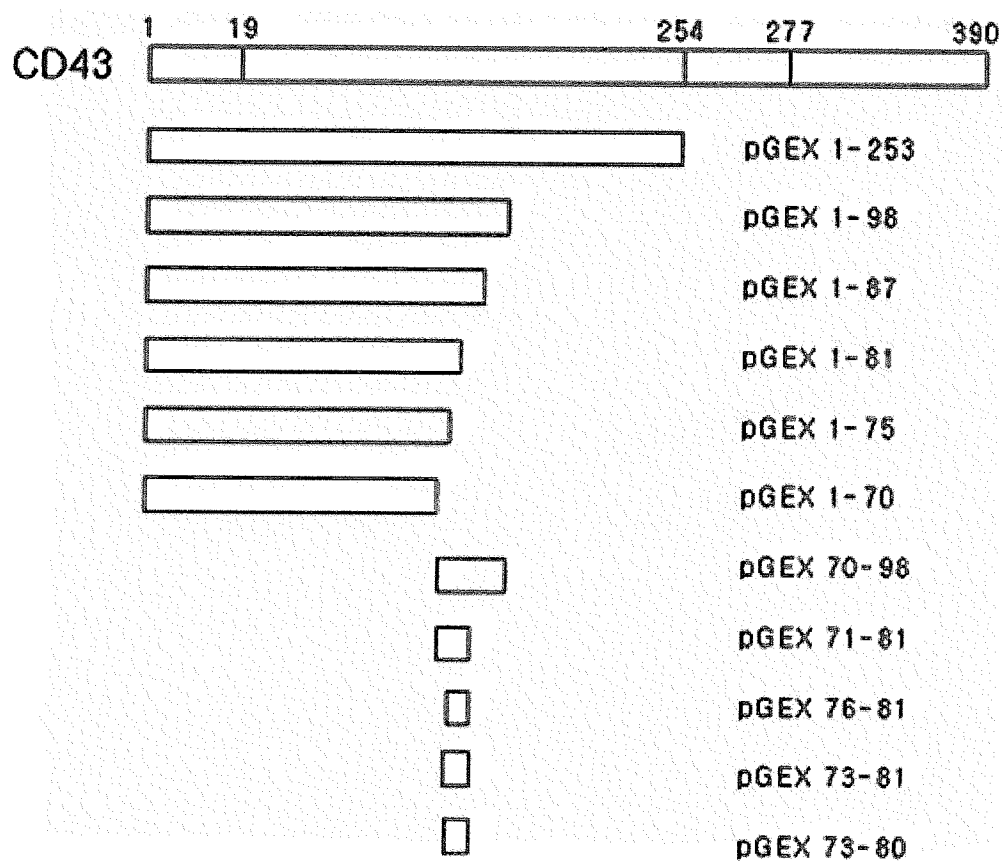


FIG. 13

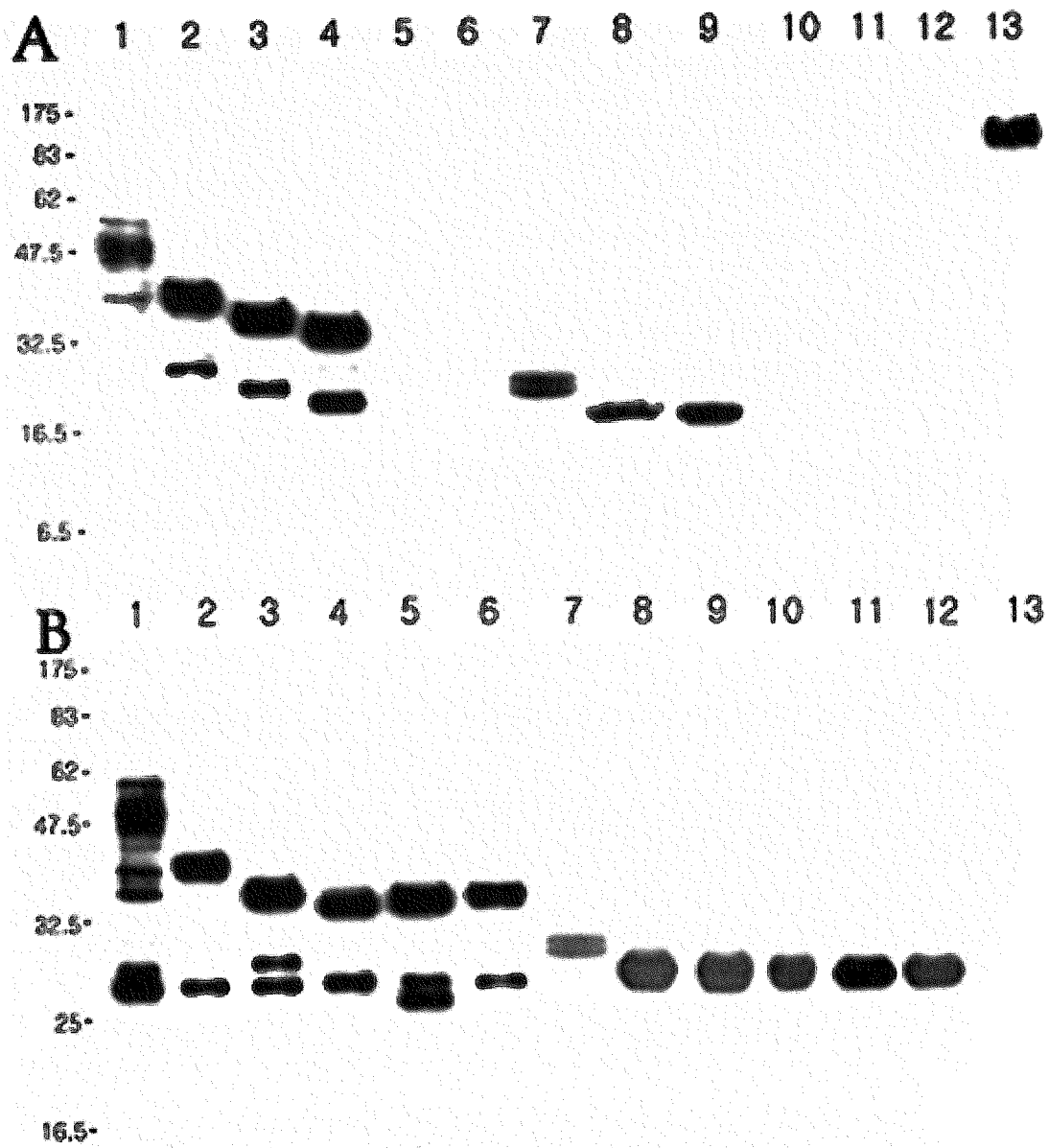


FIG. 14

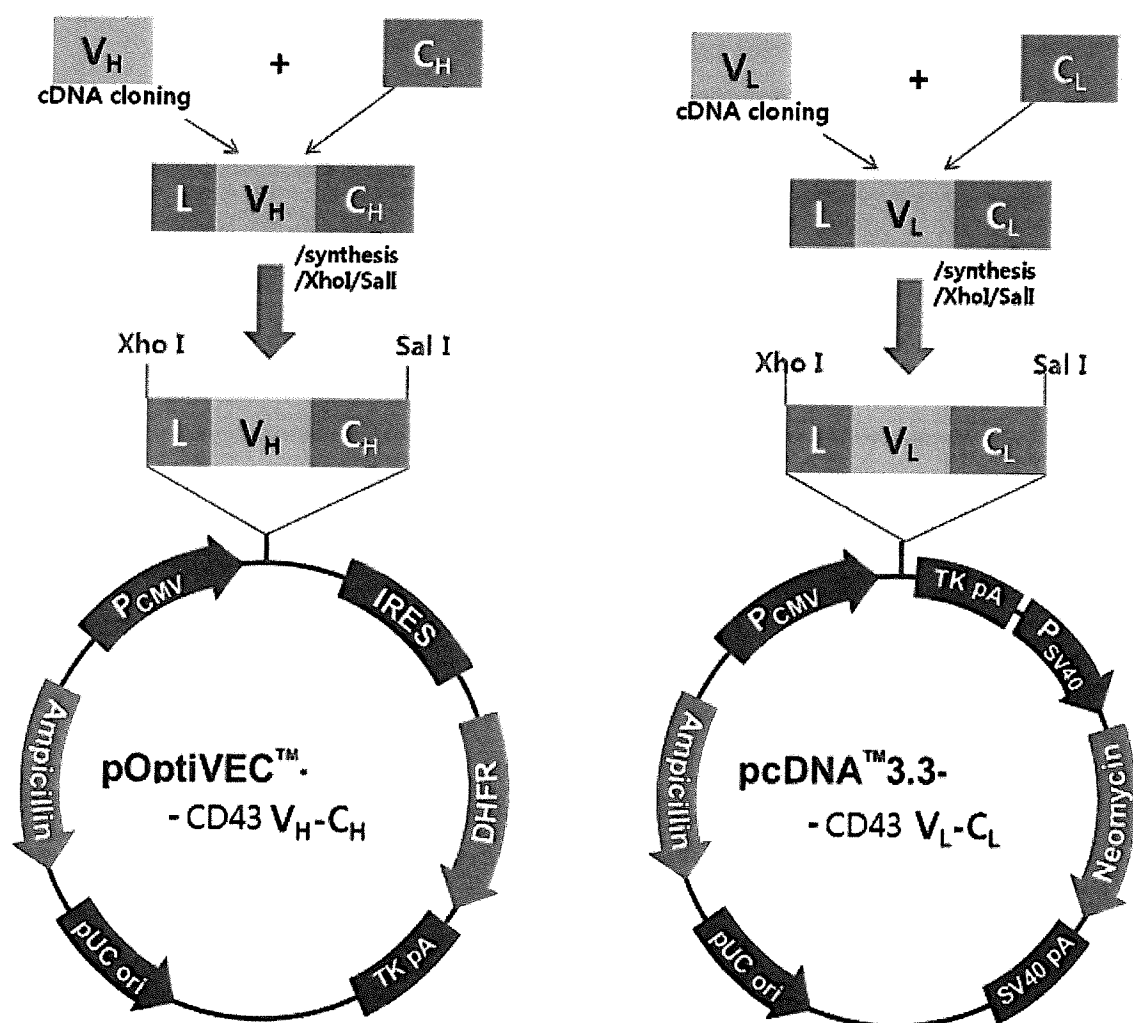


FIG. 15

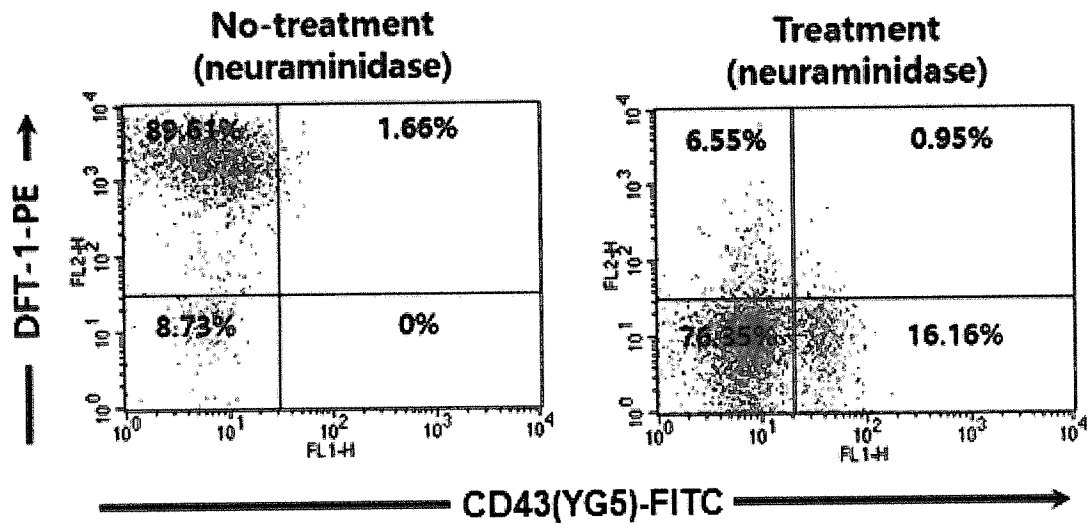


FIG. 16

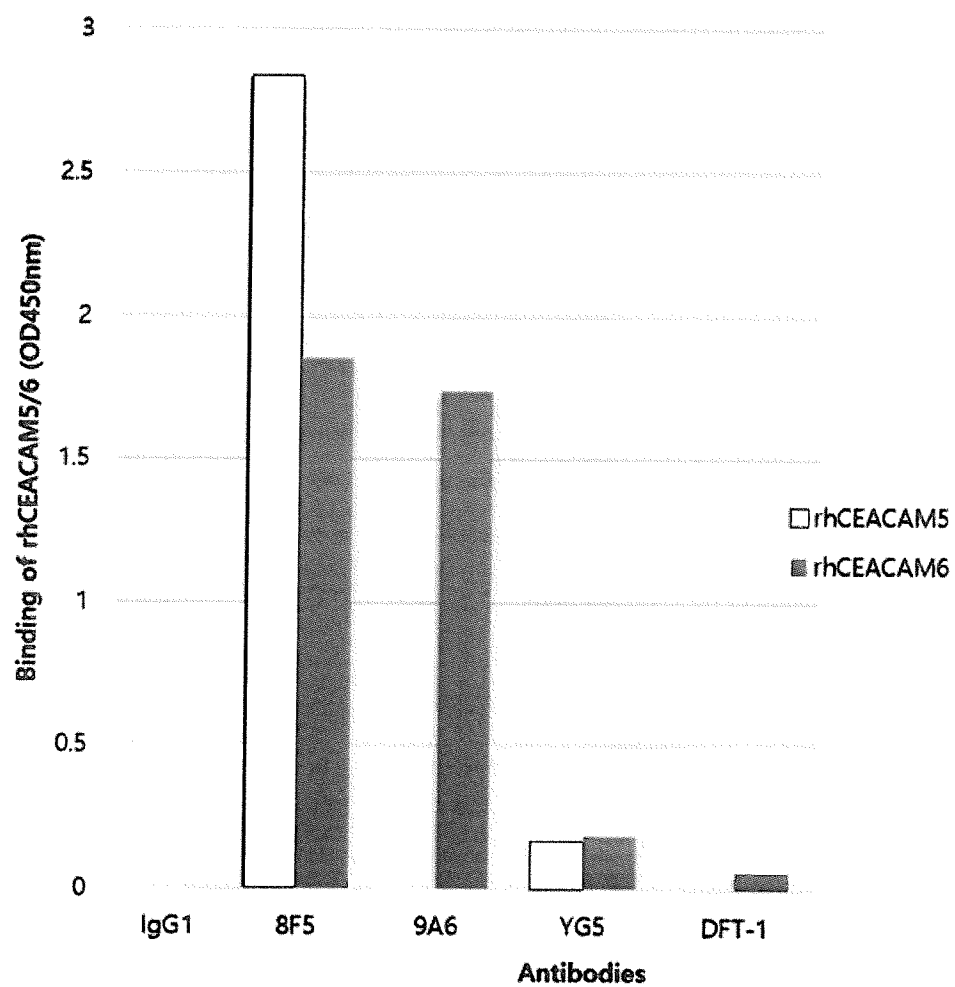


FIG. 17a

0 hr

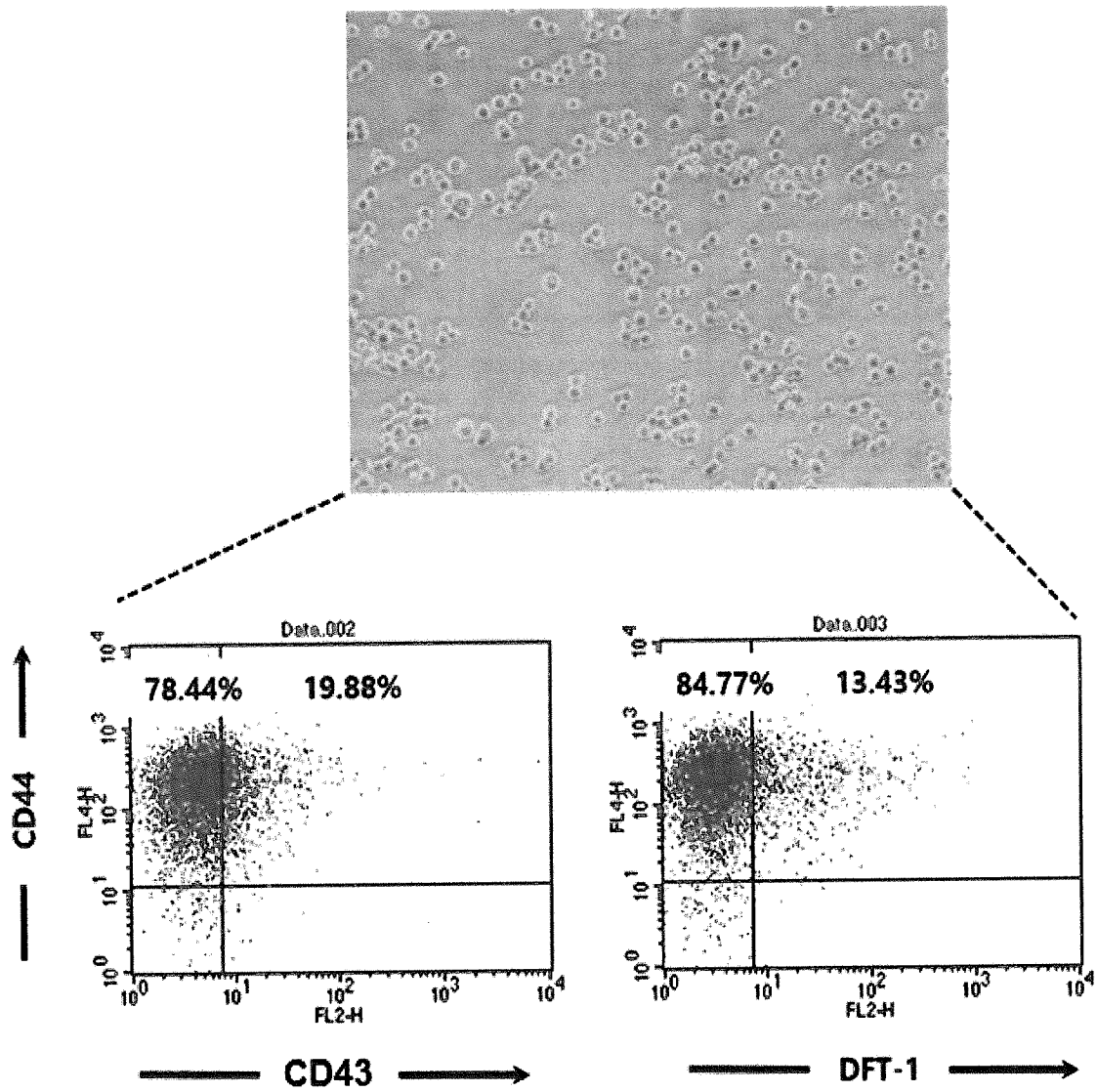


FIG. 17b

5 day

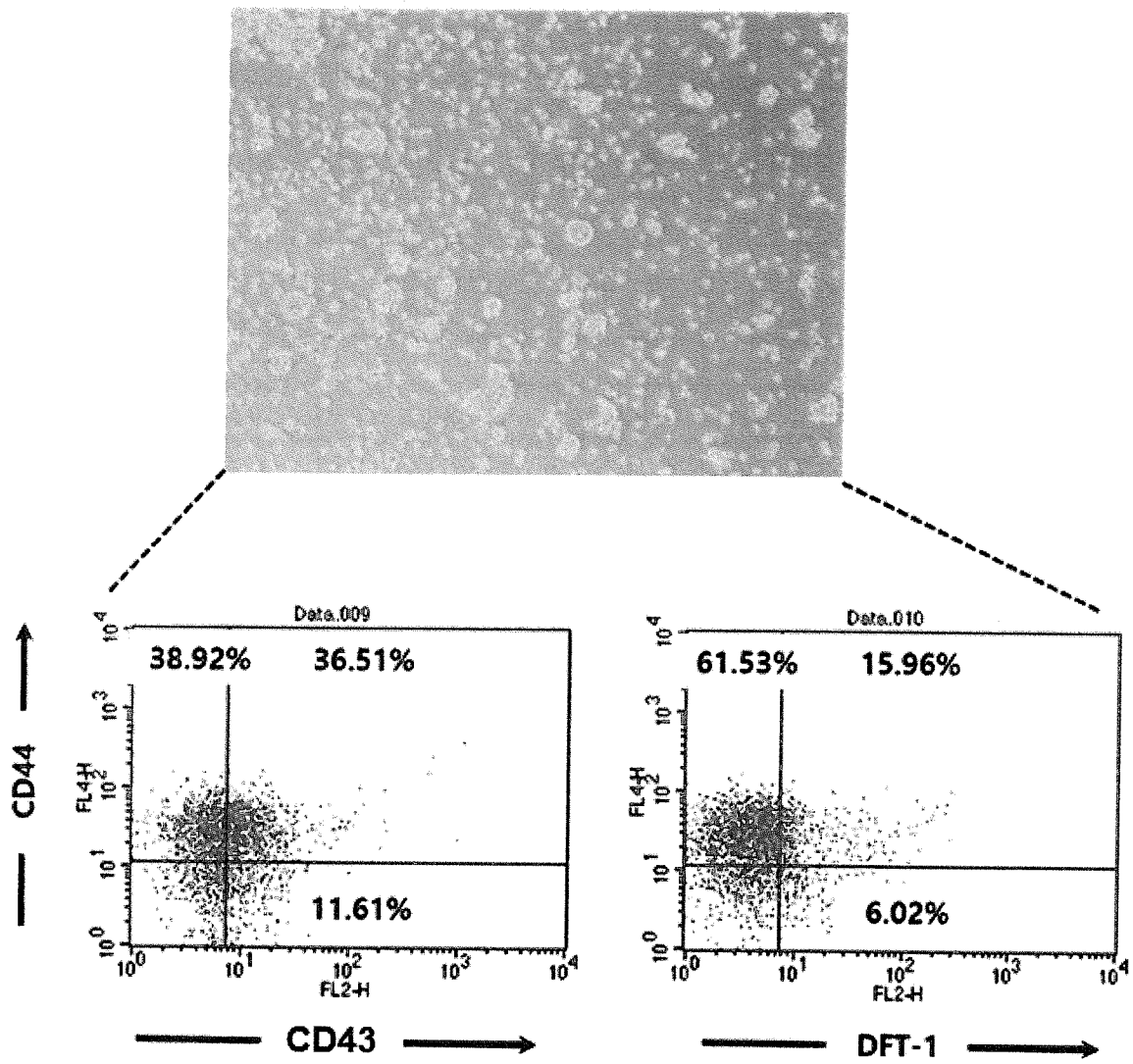


FIG. 18

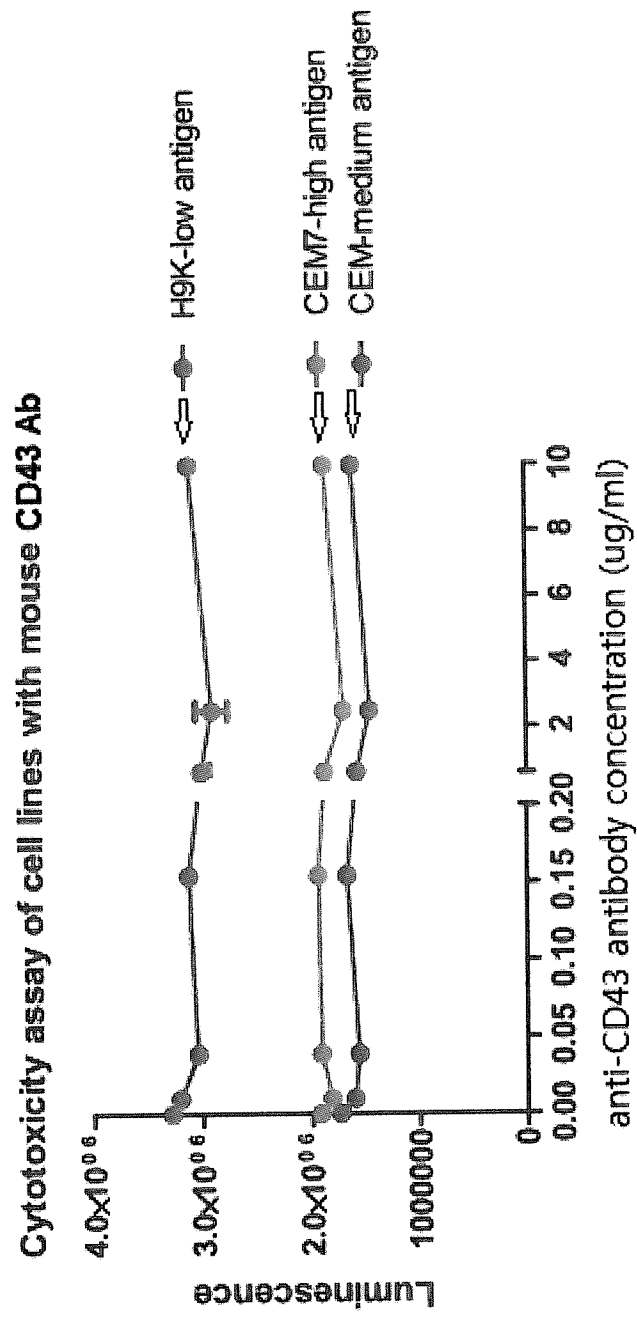


FIG. 19

Cytotoxicity assay of mouse JL-1 -Saporin in four cell lines

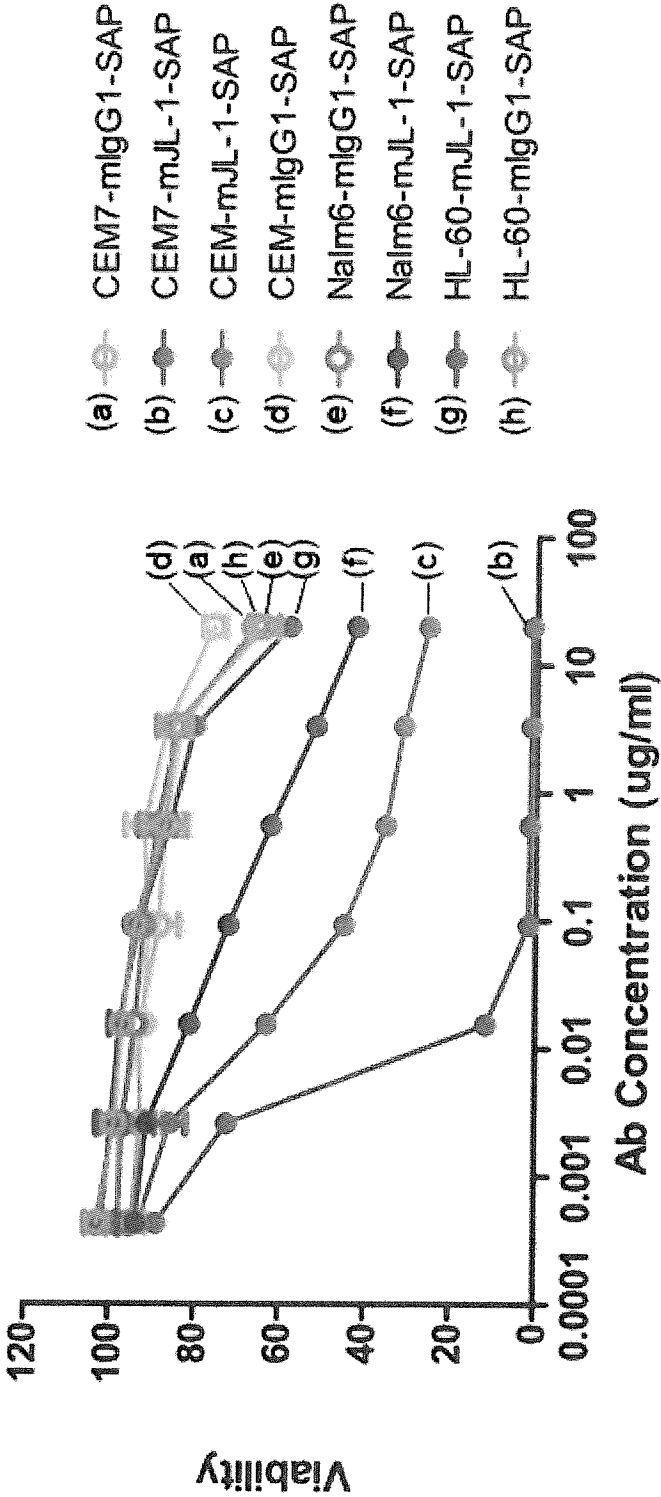


FIG. 20

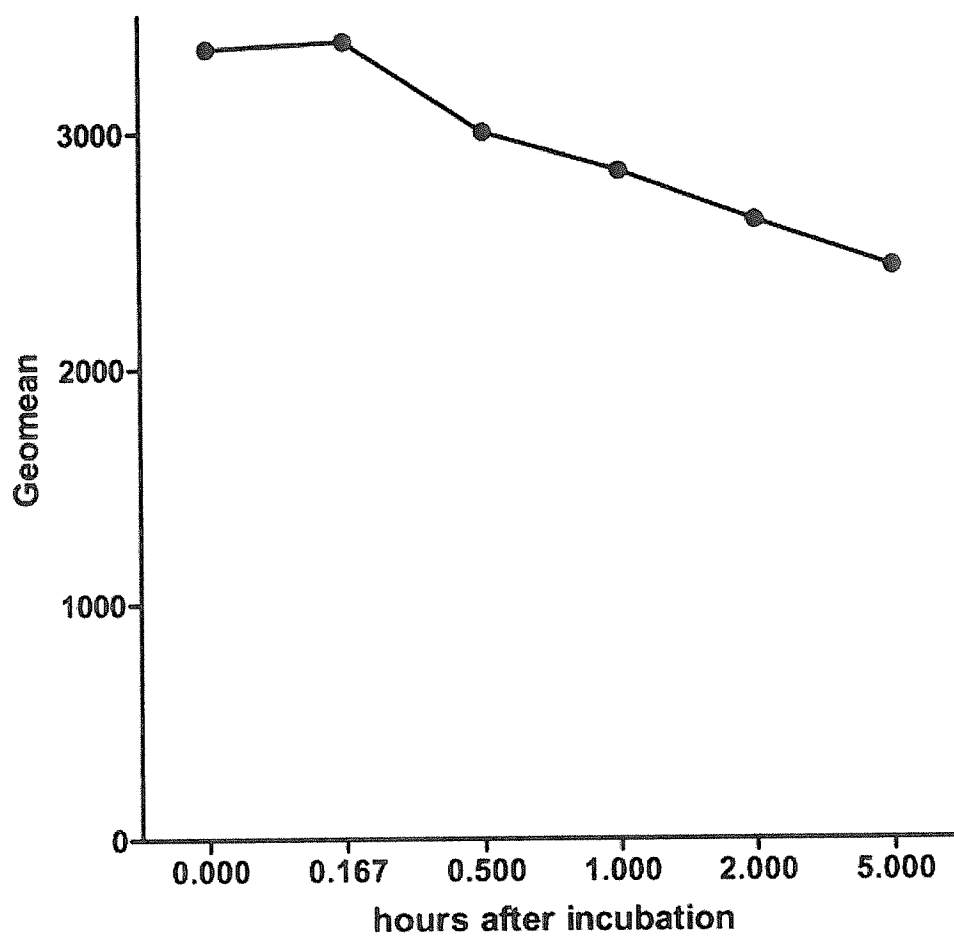


FIG. 21

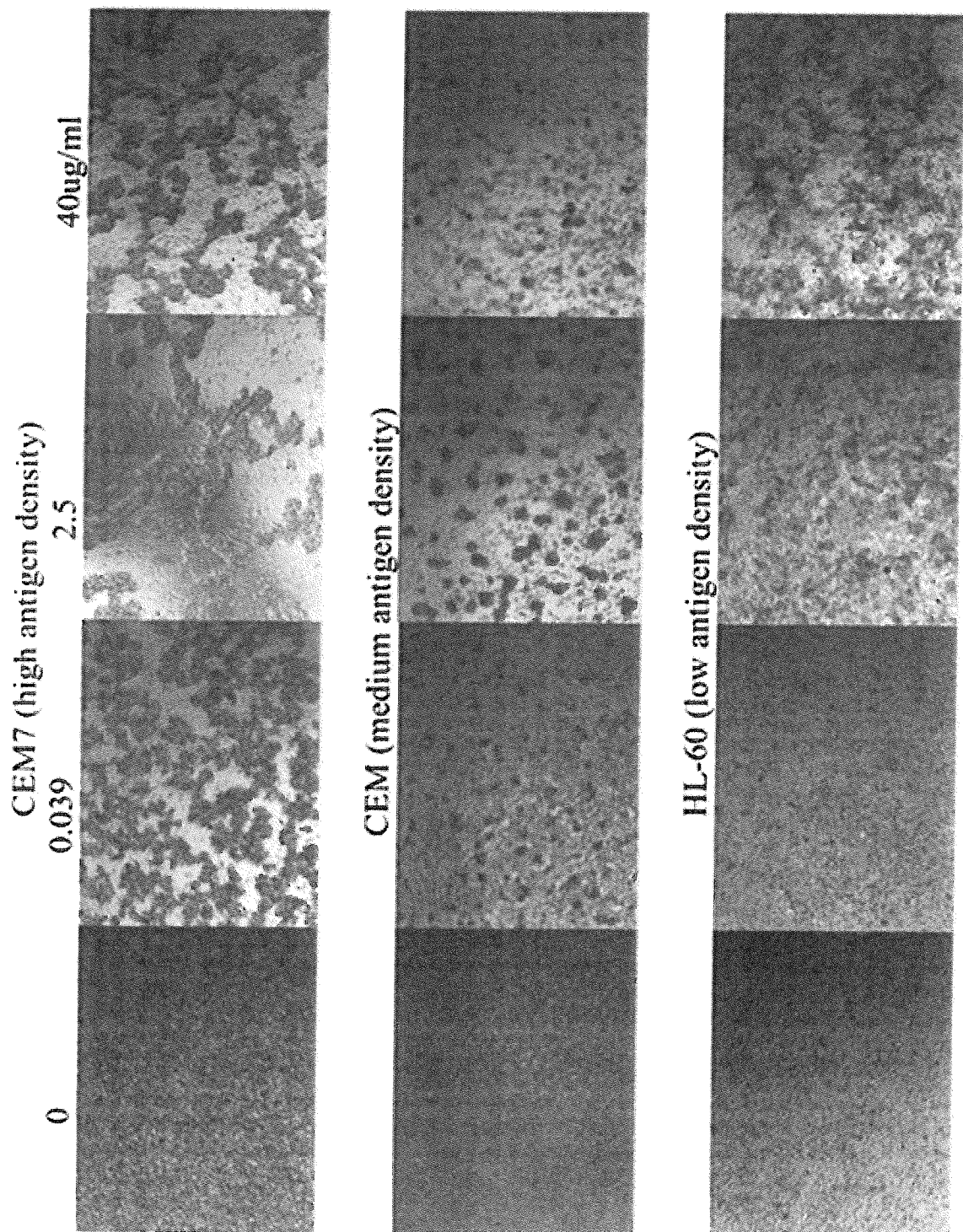


FIG. 22

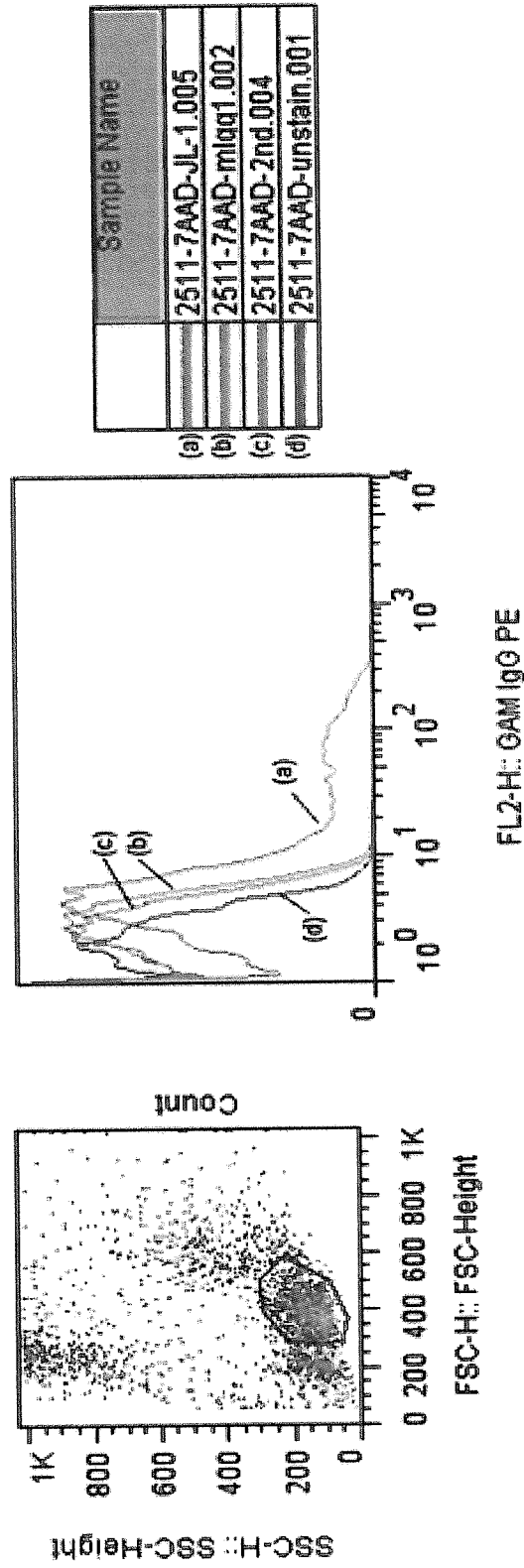


FIG. 23

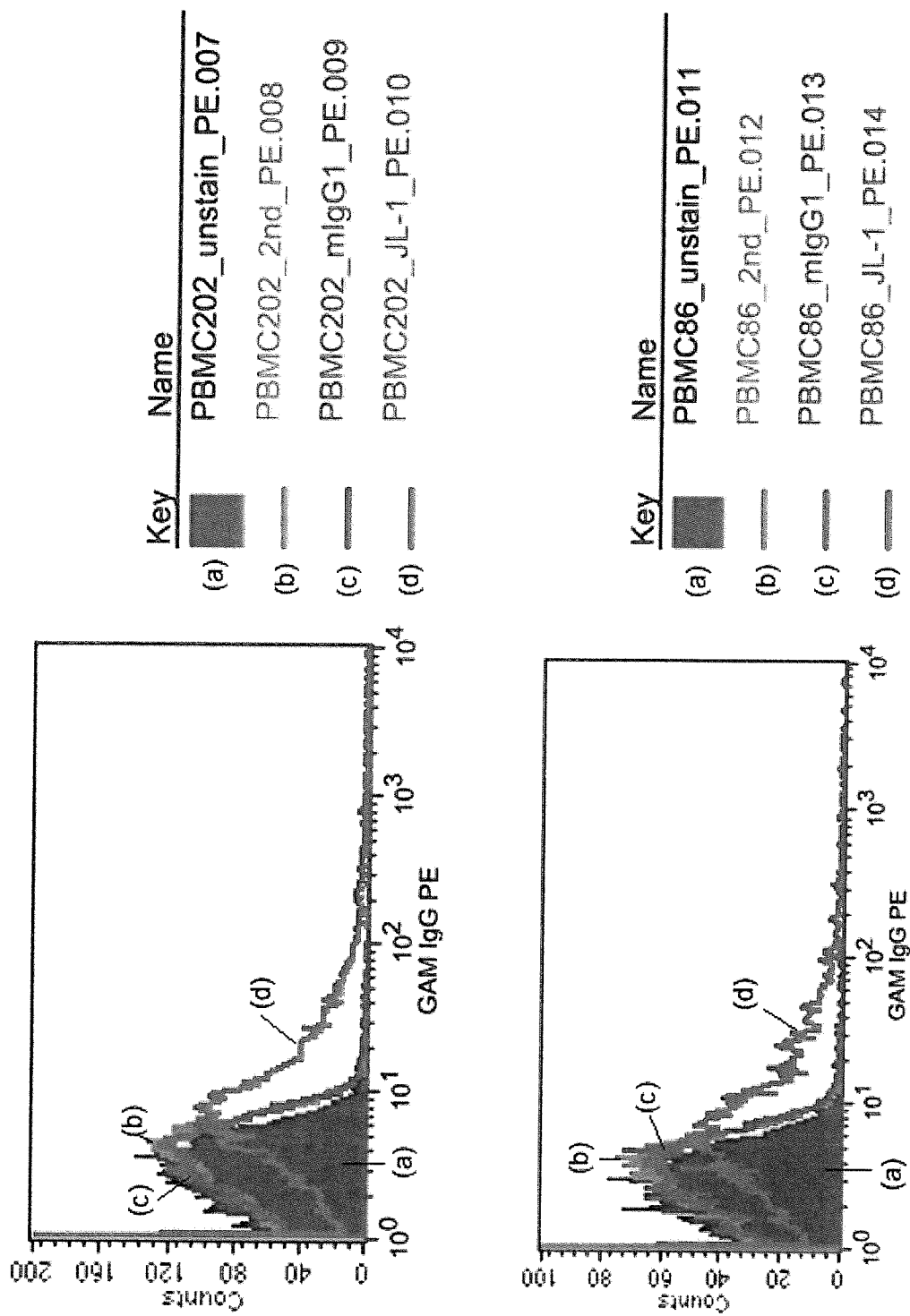


FIG. 24

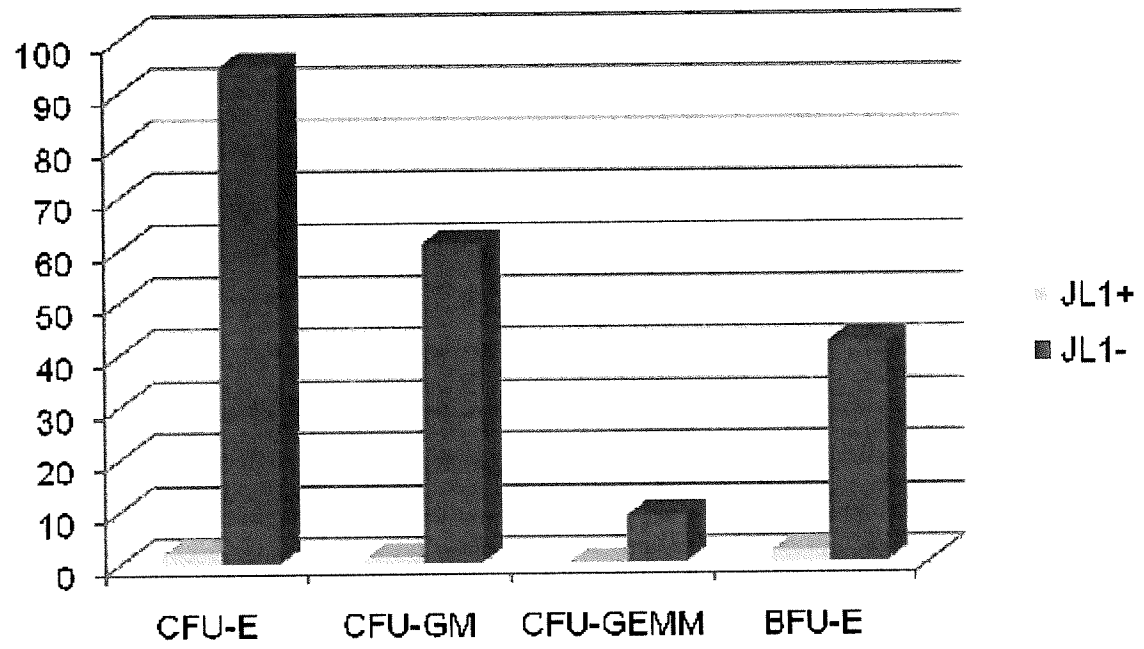


FIG. 25

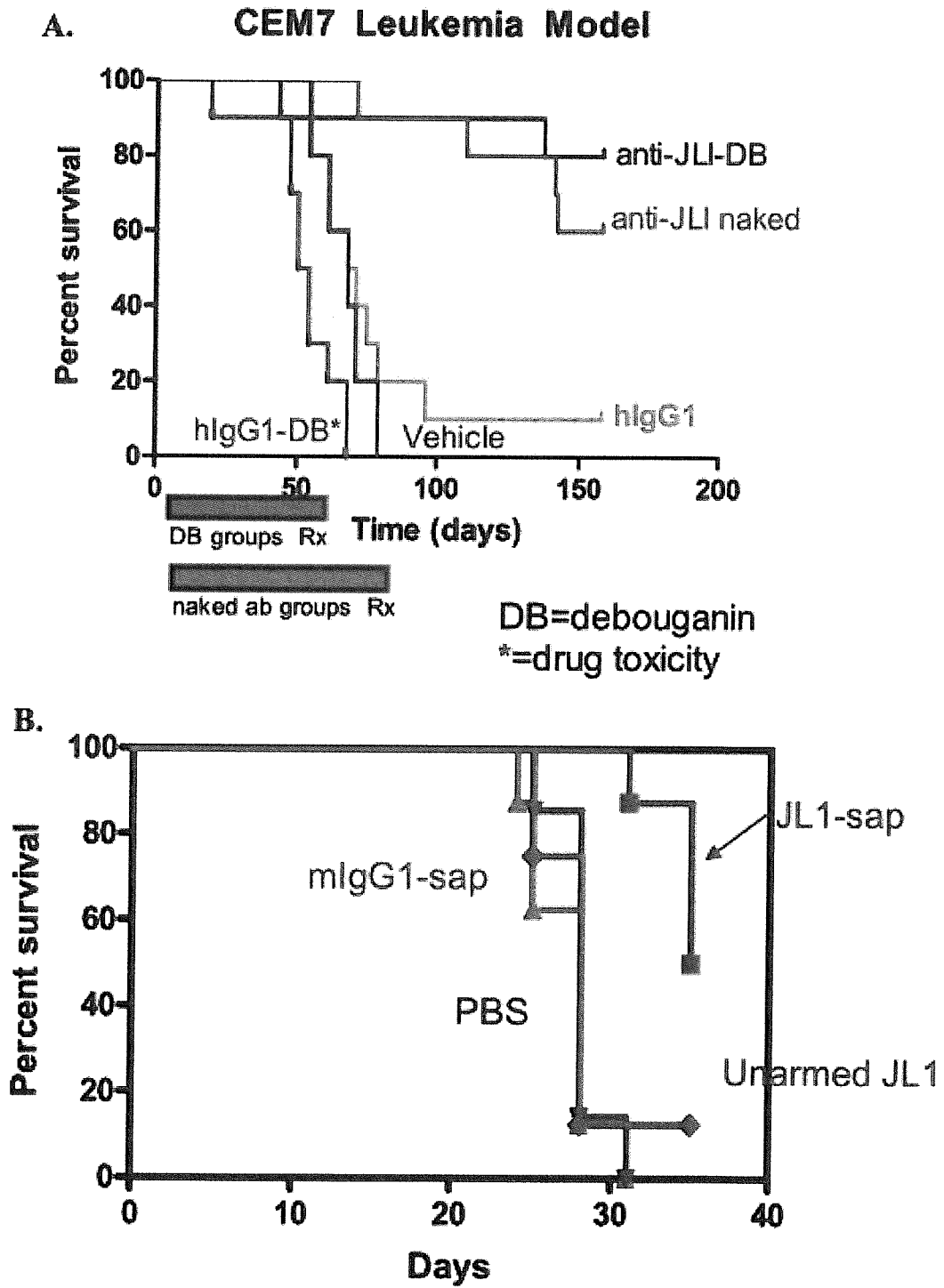


FIG. 26

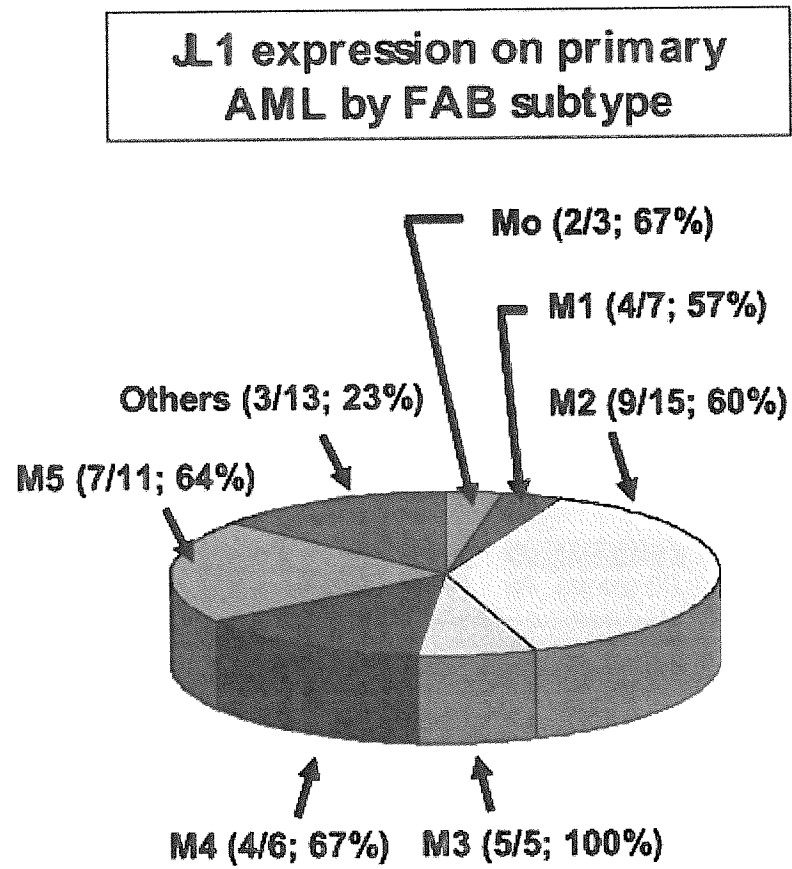
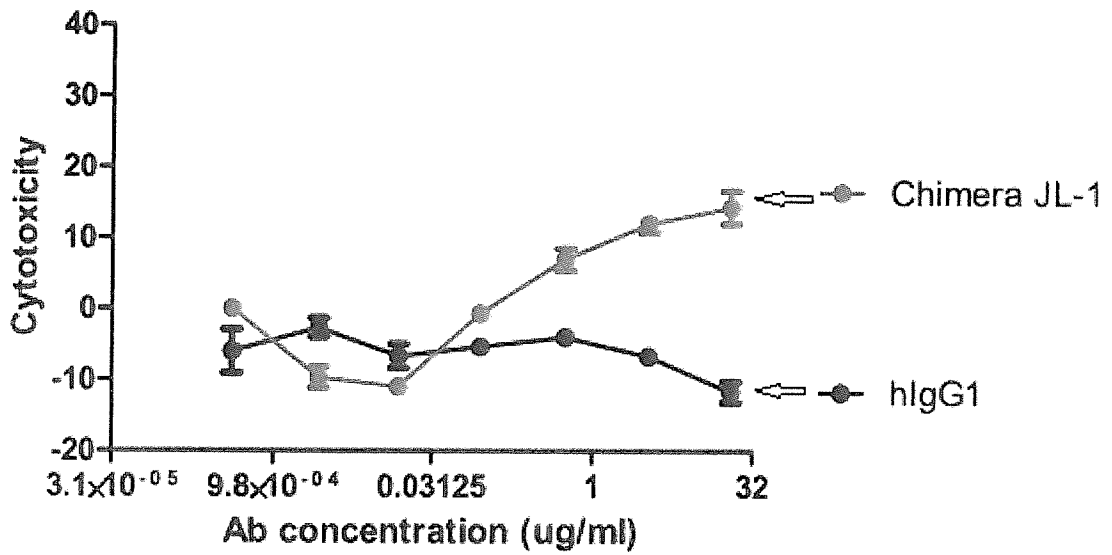


FIG. 27

A.

ADCC assay of chimeric JL-1 in CEM7 cells

B.

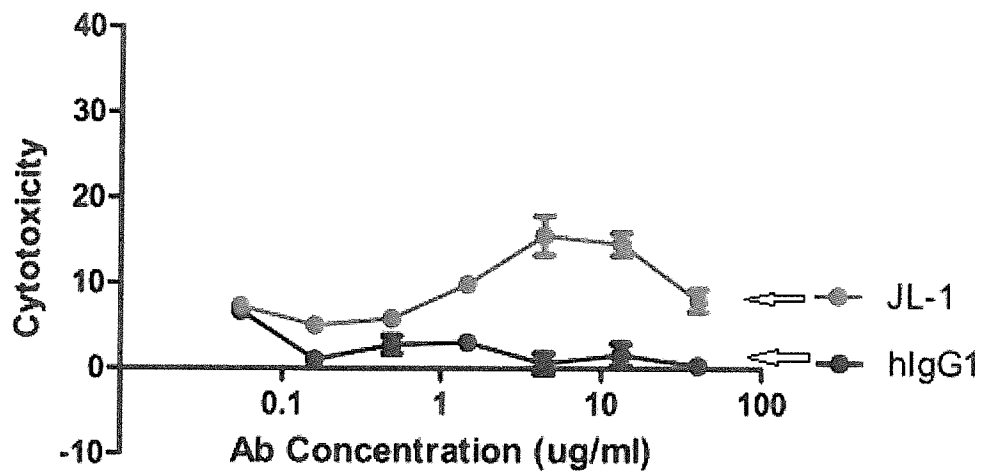
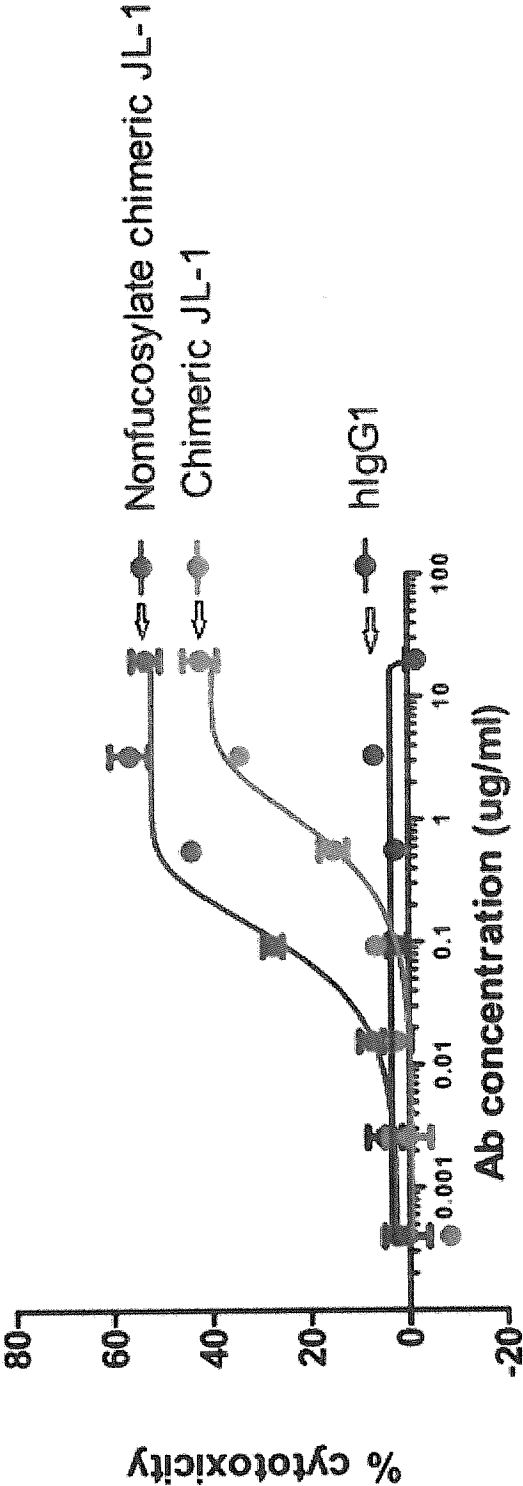
CDC assay of chimeric JL-1 in CEM7 cells

FIG. 28

ADCC assay of fucosylated and nonfucosylated chimeric JL-1 in CEM7 cells



	hlgG1	Nonfucosylate chimeric JL-1	Chimeric JL-1
EC50		0.1093	2.828

FIG. 29

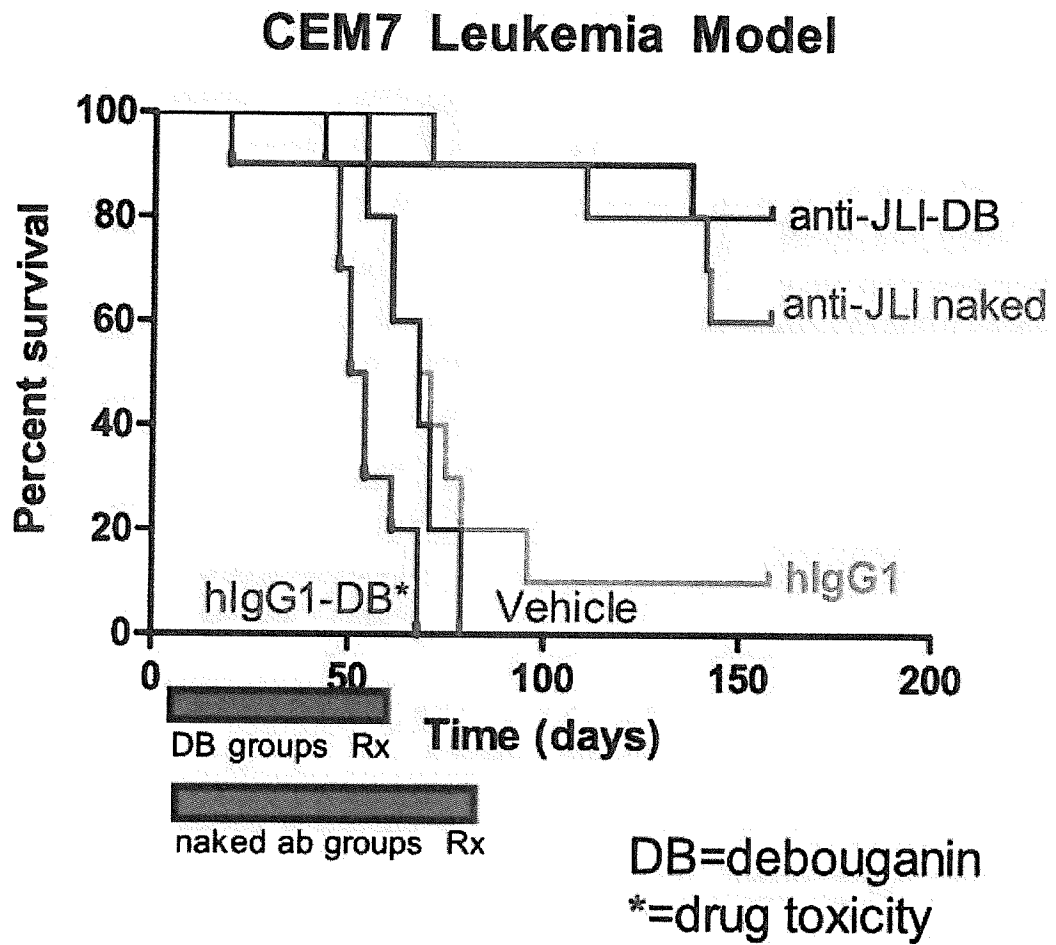


FIG. 30

JL1 expression in leukemia stem cells

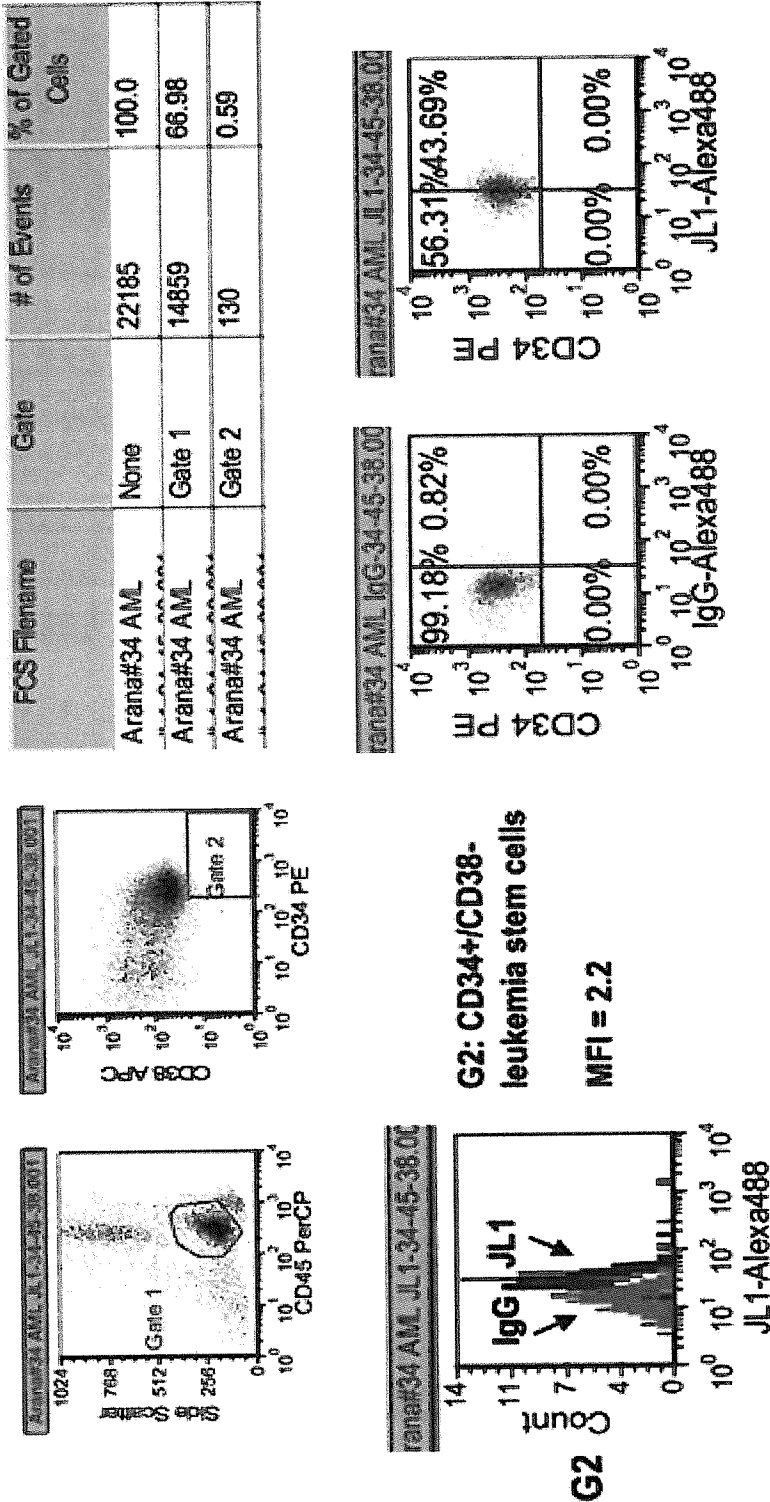


FIG. 31

Effect of JL1-SAP on colony-forming cells of AML blasts

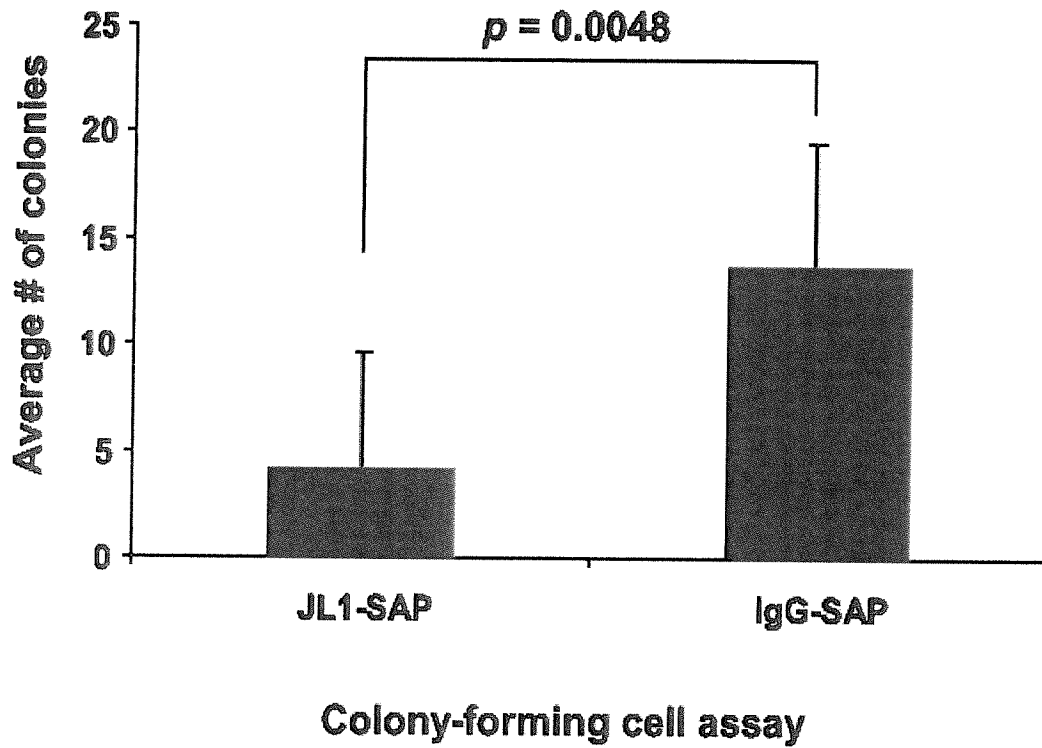
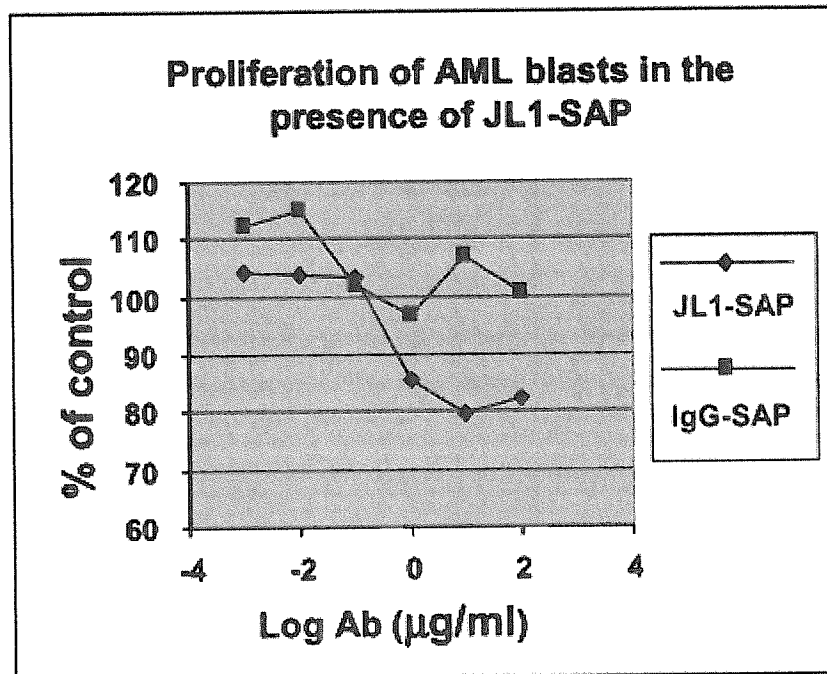


FIG. 32

A.



B.

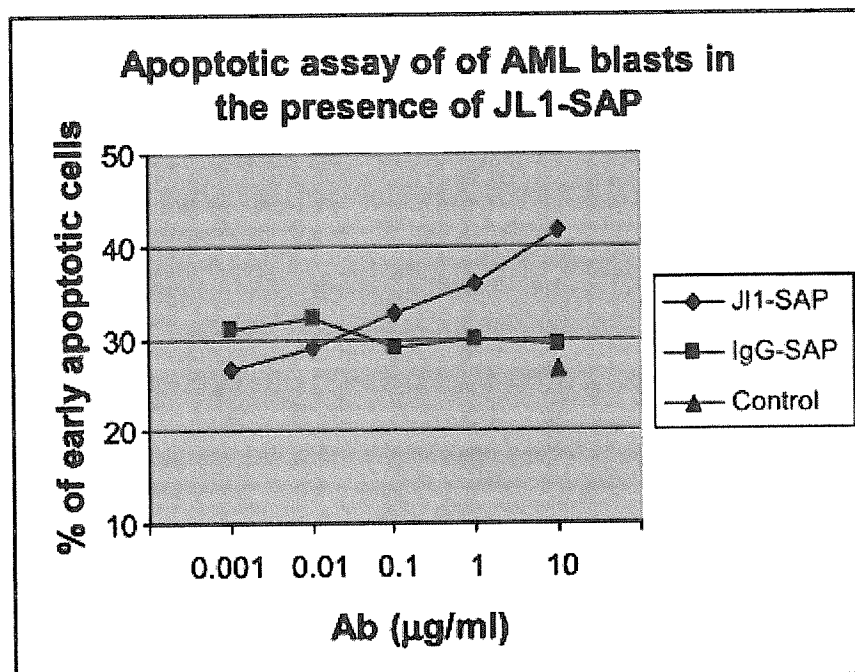


FIG. 33

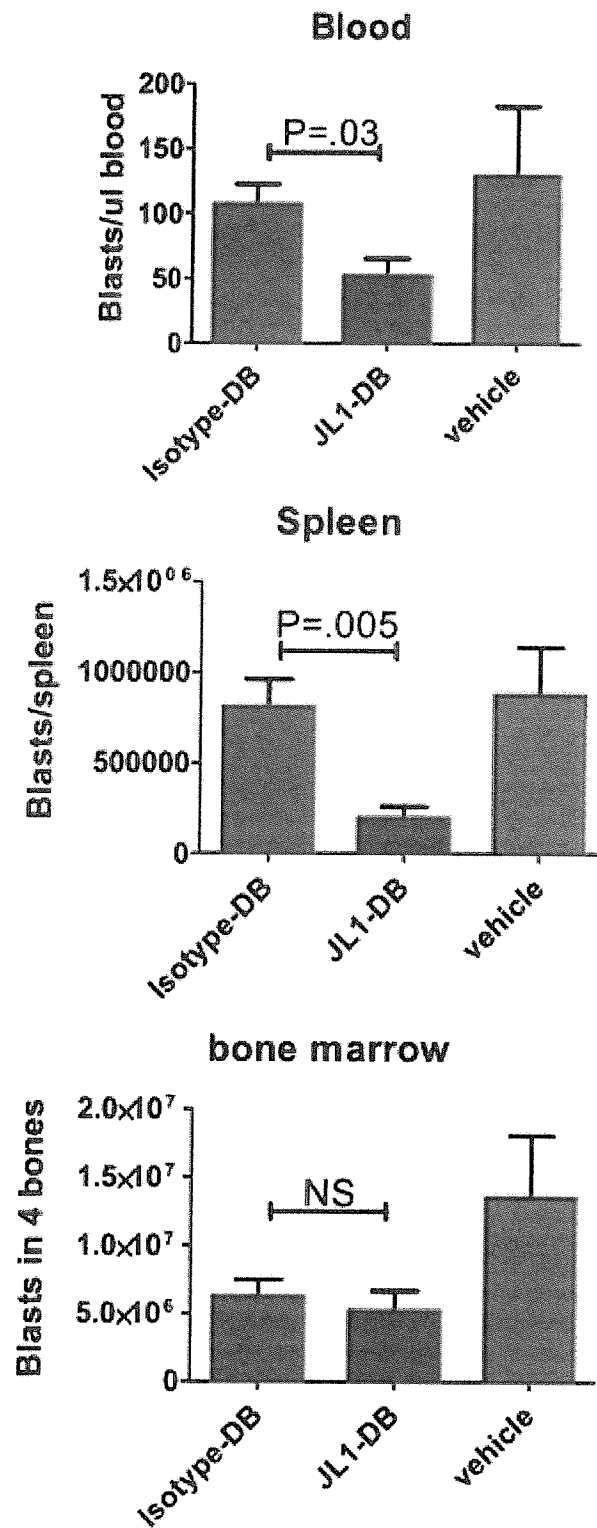
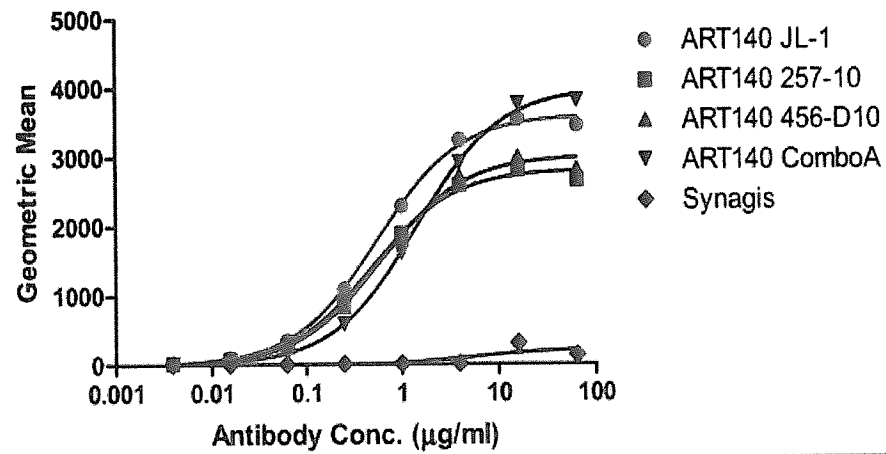


FIG. 34

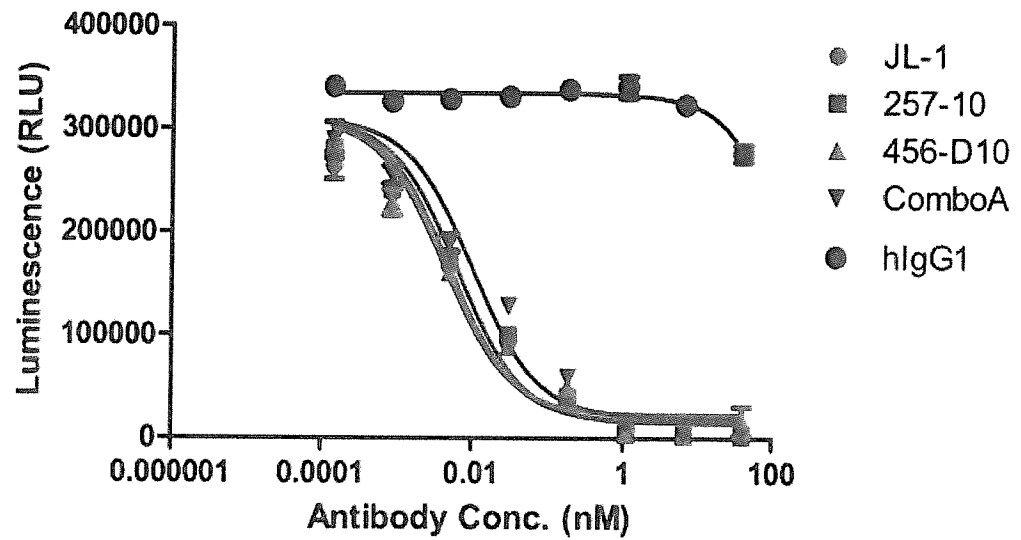
08312011 Flow Titration CEM7



	ART140 JL-1	ART140 257-10	ART140 456-D10	ART140 ComboA	Synagis
EC50	0.5549	0.4841	0.6144	1.443	5.885

FIG. 35

Killing activity of toxin linked humanized variants



	JL-1	257-10	456-D10	ComboA	hIgG1
IC50	0.005186	0.006470	0.004285	0.01010	~ 3796

FIG. 36

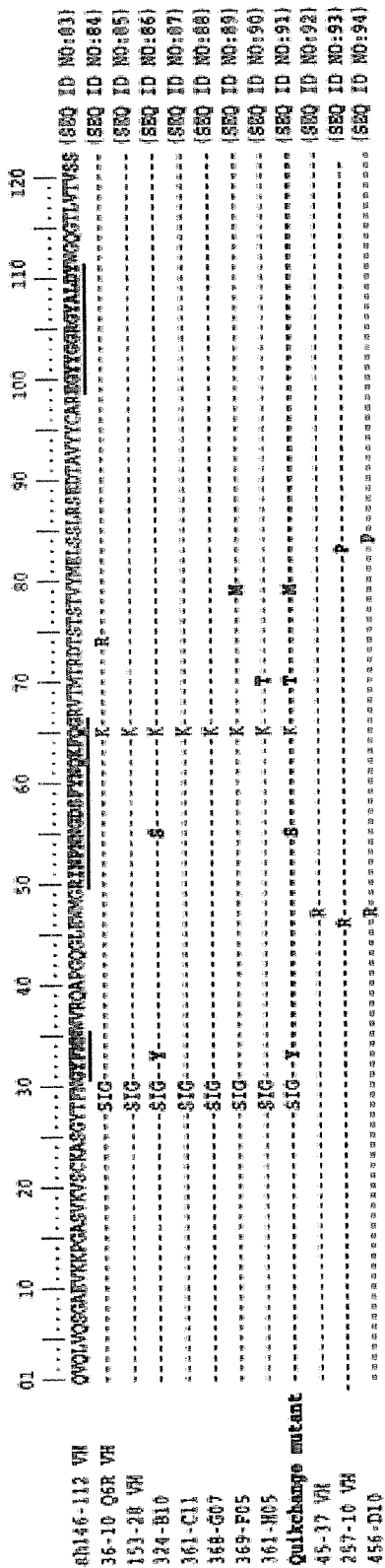
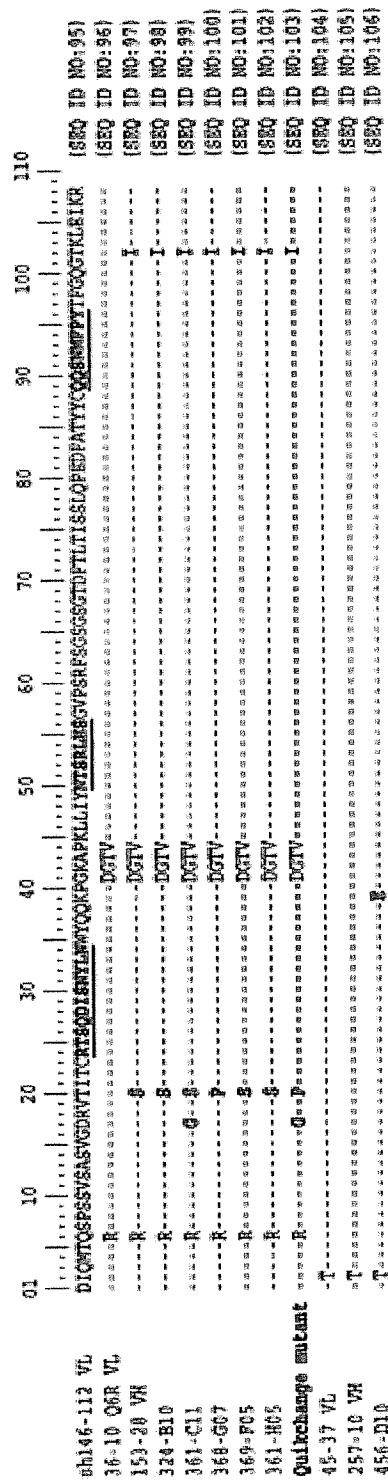


FIG. 37a

A.

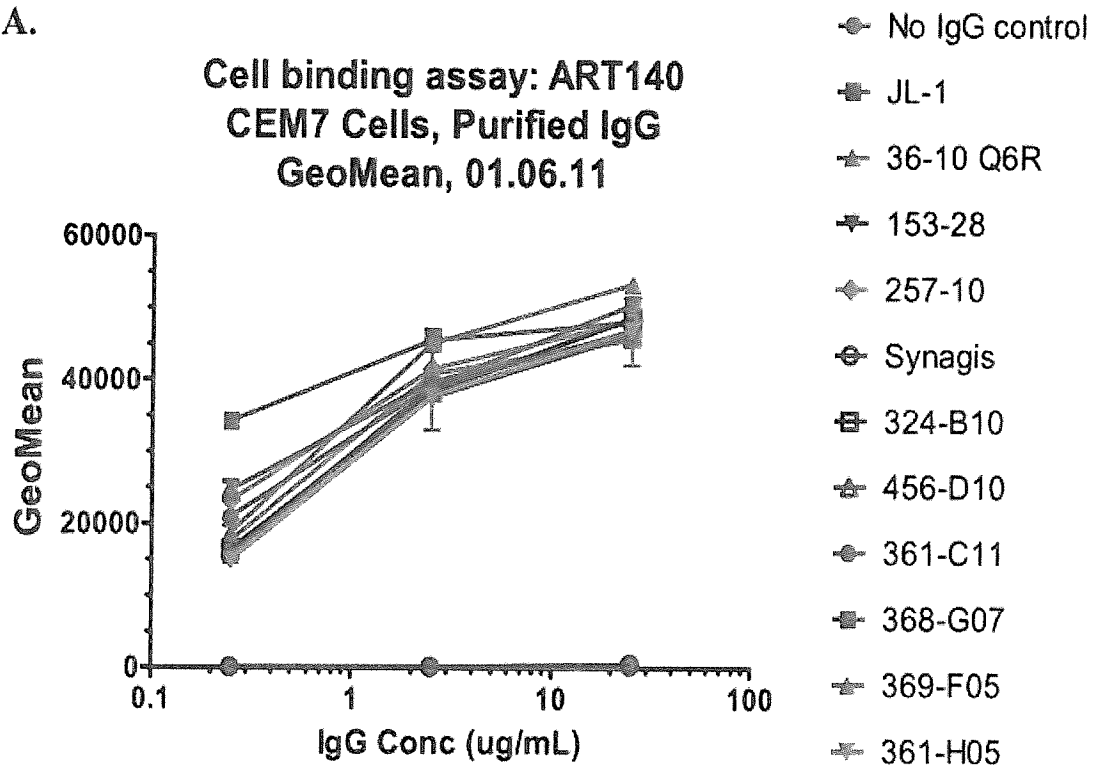


FIG. 37b

B.

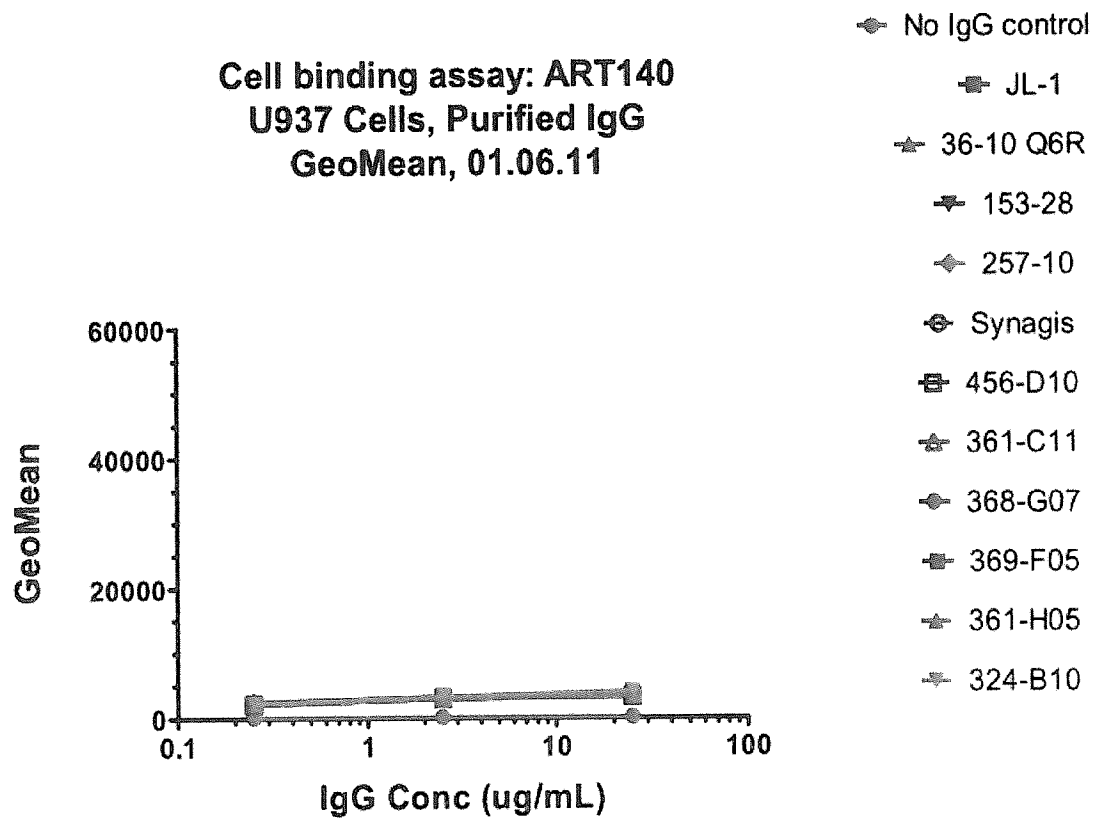
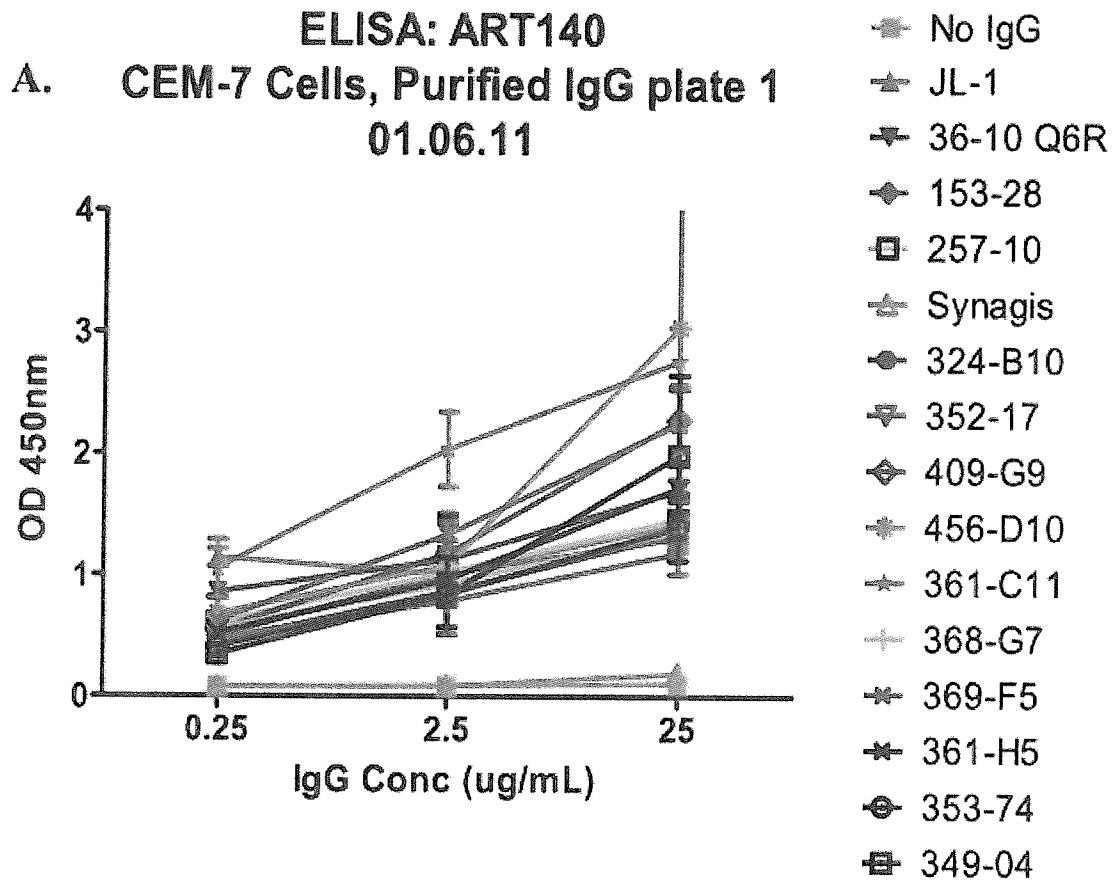


FIG. 38a



The graph displays the optical density (OD) at 450 nm as a function of IgG concentration (0.25, 2.5, and 25 $\mu\text{g/mL}$). Three experimental conditions are compared: IgG only (filled circles), IgG + anti IgG (open squares), and IgG + anti IgG + anti anti IgG (filled squares). All conditions show very low OD values, indicating minimal binding or detection. The OD values are slightly higher at the 25 $\mu\text{g/mL}$ IgG concentration compared to the lower concentrations.

IgG Conc ($\mu\text{g/mL}$)	IgG only (OD 450nm)	IgG + anti IgG (OD 450nm)	IgG + anti IgG + anti anti IgG (OD 450nm)
0.25	~0.2	~0.2	~0.2
2.5	~0.3	~0.3	~0.3
25	~0.5	~0.5	~0.5

- | | |
|---|-----------|
|  | No IgG |
|  | JL-1 |
|  | 36-10 Q6R |
|  | 153-28 |
|  | 257-10 |
|  | Synagis |
|  | 324-74 |
|  | 352-B10 |
|  | 409-G9 |
|  | 456-D10 |
|  | 361-C11 |
|  | 368-G7 |
|  | 369-F5 |
|  | 361-H5 |
|  | 353-74 |
|  | 349-04 |

FIG. 39a

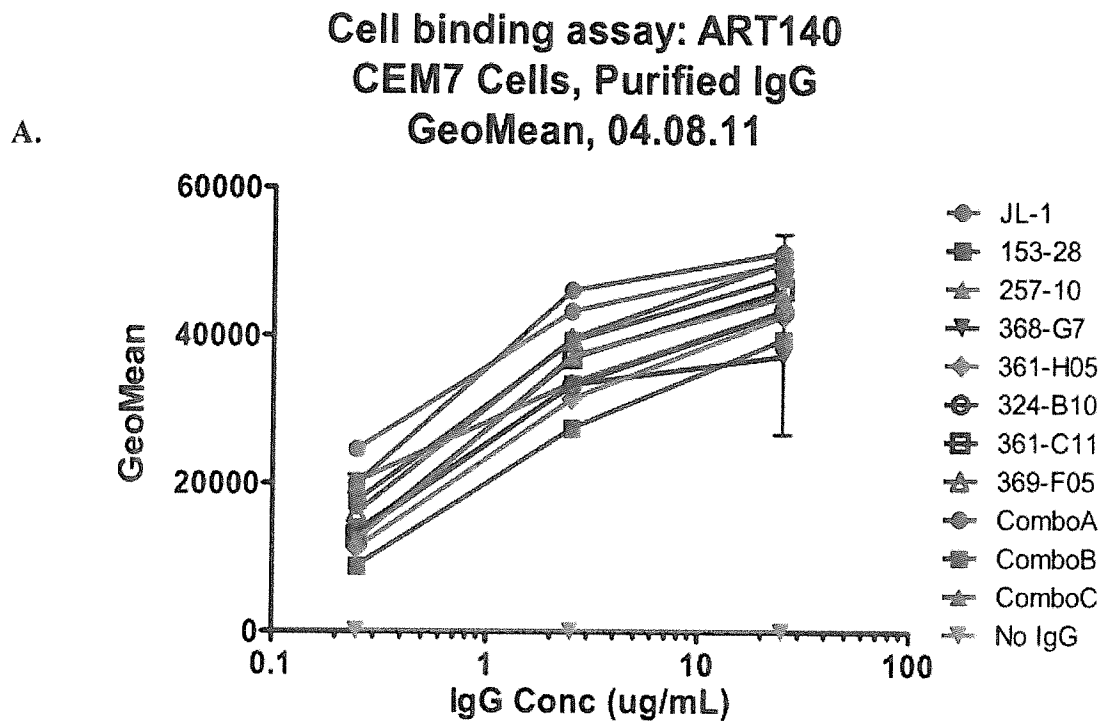


FIG. 39b

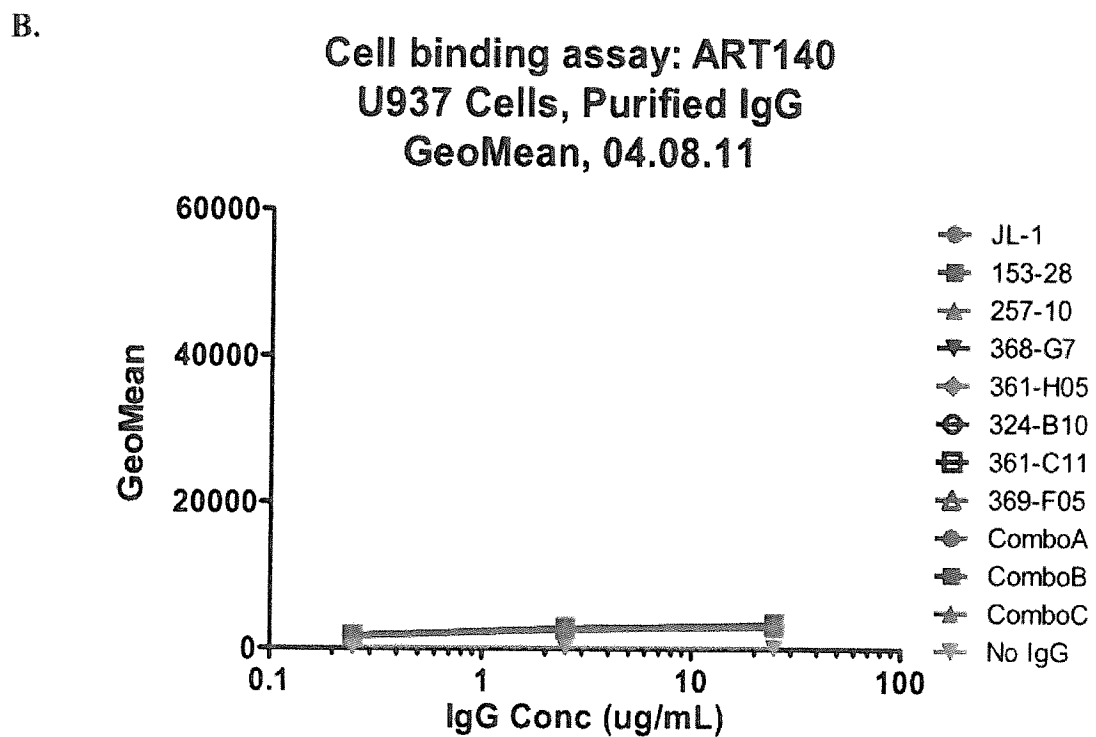
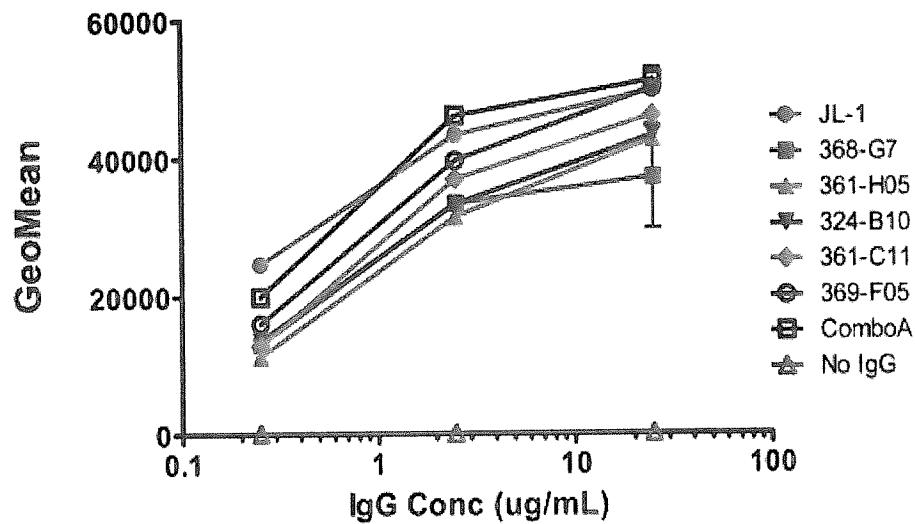


FIG. 40a

A. Cell binding assay: ART140
CEM7 Cells, Purified IgG GeoMean, 04.08.11
Combined quikchange mutant Vs Round 3 Parental frameworks



ComboA = quikchange HC&LC
 ComboB = quikchange HC +
 153-28 LC
 ComboC = 153-28 HC +
 quikchange LC

FIG. 40b

B. Cell binding assay: ART140
CEM7 Cells, Purified IgG GeoMean, 04.08.11
Quikchange HC + 153-28 LC Vs Round 3 parental frameworks

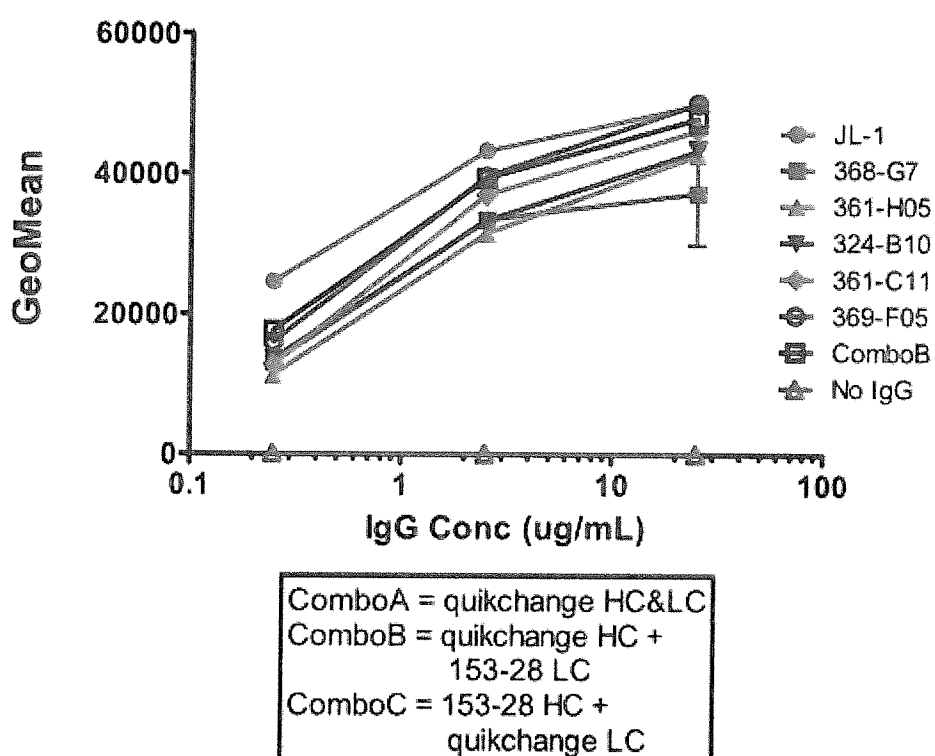
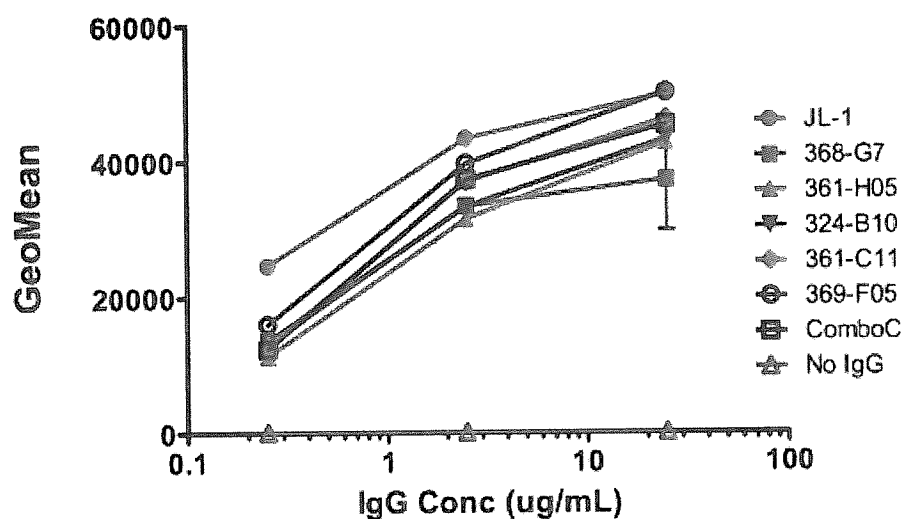


FIG. 40c

C. Cell binding assay: ART140
CEM7 Cells, Purified IgG GeoMean, 04.08.11
153-28 HC + Quikchange LC Vs Round 3 parental frameworks



ComboA = quikchange HC&LC
ComboB = quikchange HC +
153-28 LC
ComboC = 153-28 HC +
quikchange LC

FIG. 41c

C.

ART140 Cell Based ELISA combined mutations

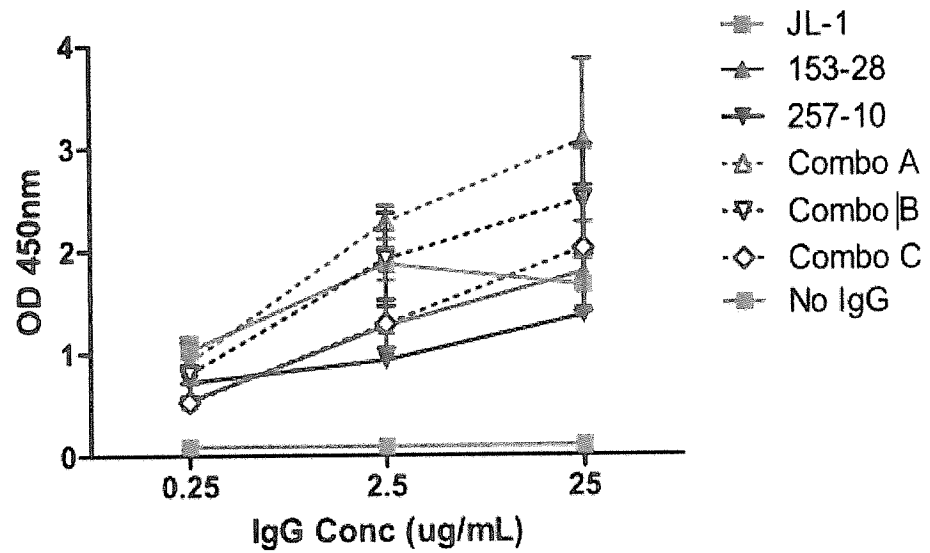


FIG. 42

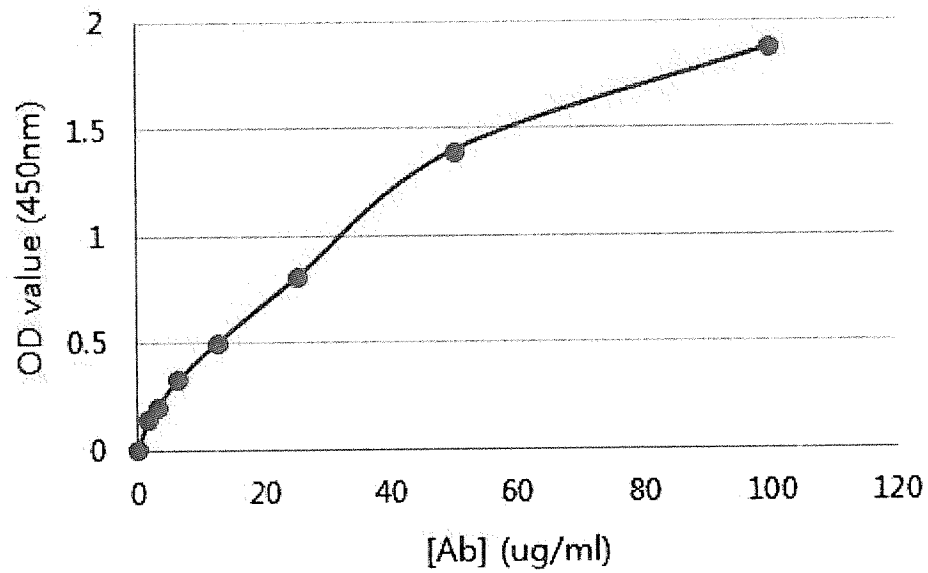


FIG. 43

huJL-1 257-10 Vk

1-----10-----20-----30-----40-----50-----60
 DTQMTQSPSSVSASVGDRVITITCRTSQDISNYLNWYQQKPGKAPKLLIYNTSRLHSGVPS
 -----70-----80-----90-----100----107
 RFSGSGSGTDFTLTISSLQPEDFATYYCQQSNMFPYTFGQGTKLEIK

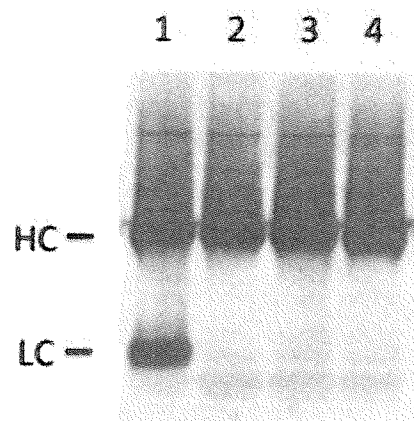
huJL-1 257-10 VH

1-----10-----20-----30-----40-----50-----60
 QVQLVQSGAEVKKPGASVKVSCKASGYTFNGYFMNWVRQAPGQGLERMGRINPNNGDSFY
 -----70-----80-----90-----100-----110-----120
 NQKFQGRVTMTRDTSTSTVYMELPSLRSEDTAVYYCAREGYYGGRGYALDYWGQGTLLVTV

122

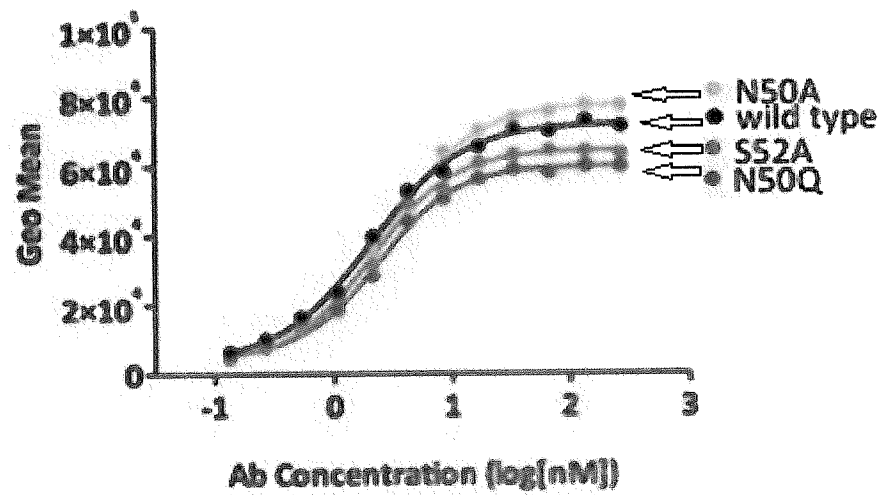
SS

FIG. 44



1: wild type, 2: N50A, 3: N50Q, 4: S52A

FIG. 45



	WT	S52A	N50Q	N50A
EC50	2.052	2.134	2.393	2.843

FIG. 46

CEM7 cell binding

