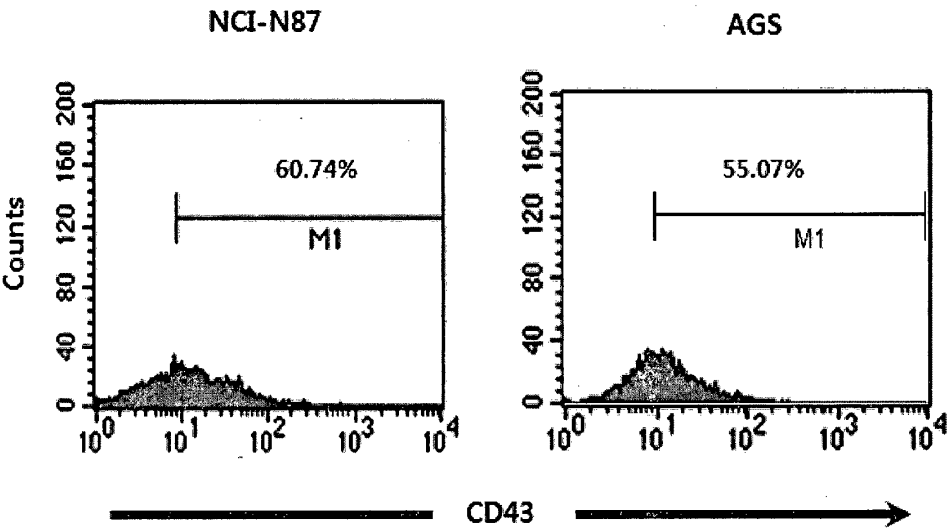
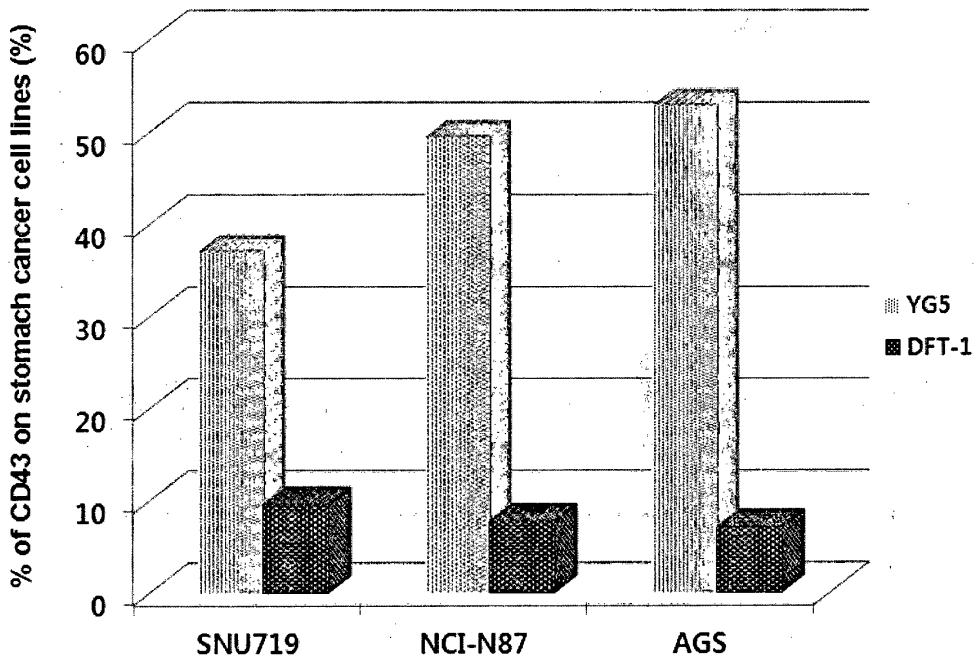


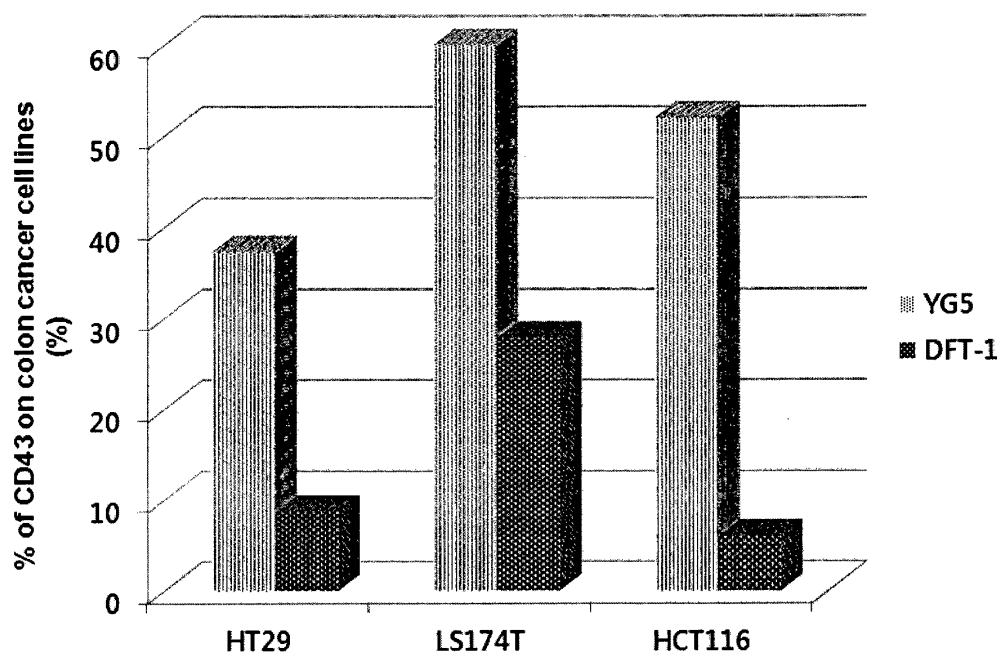
【도 1】



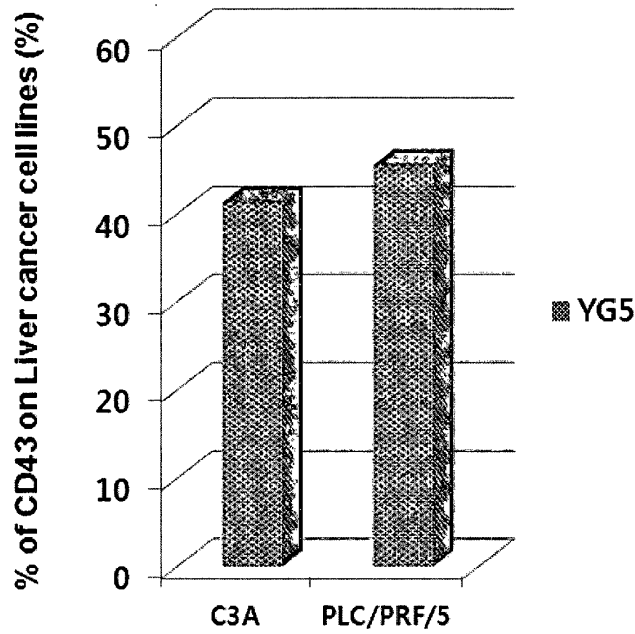
【도 2a】



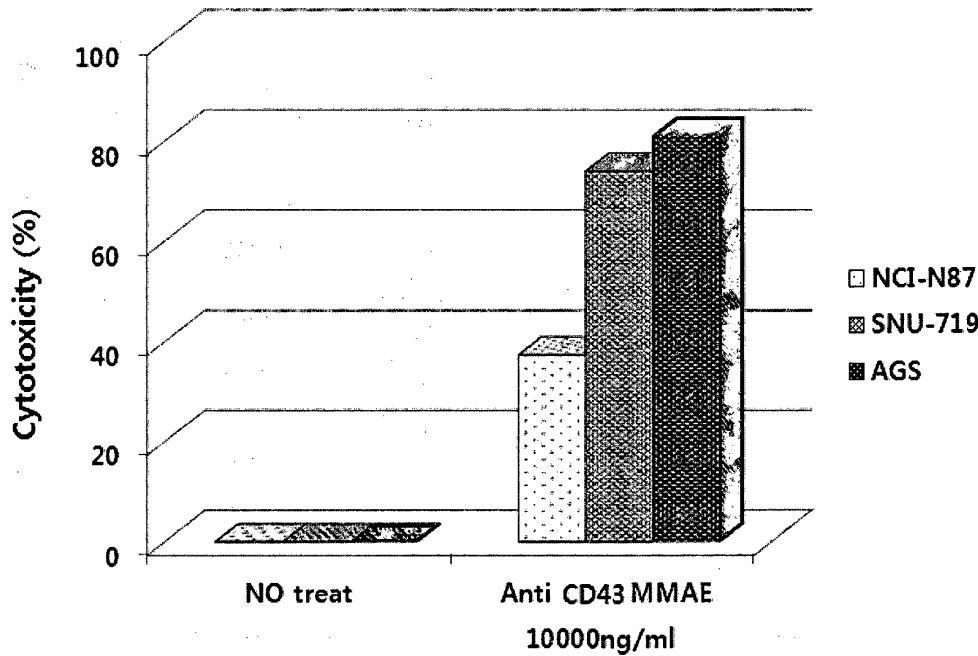
【도 2b】



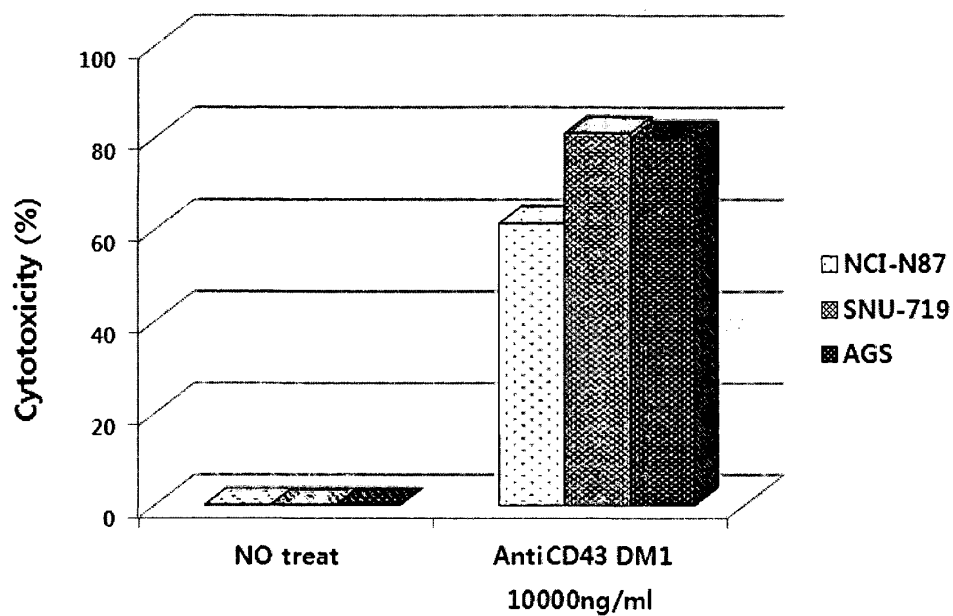
【도 2c】



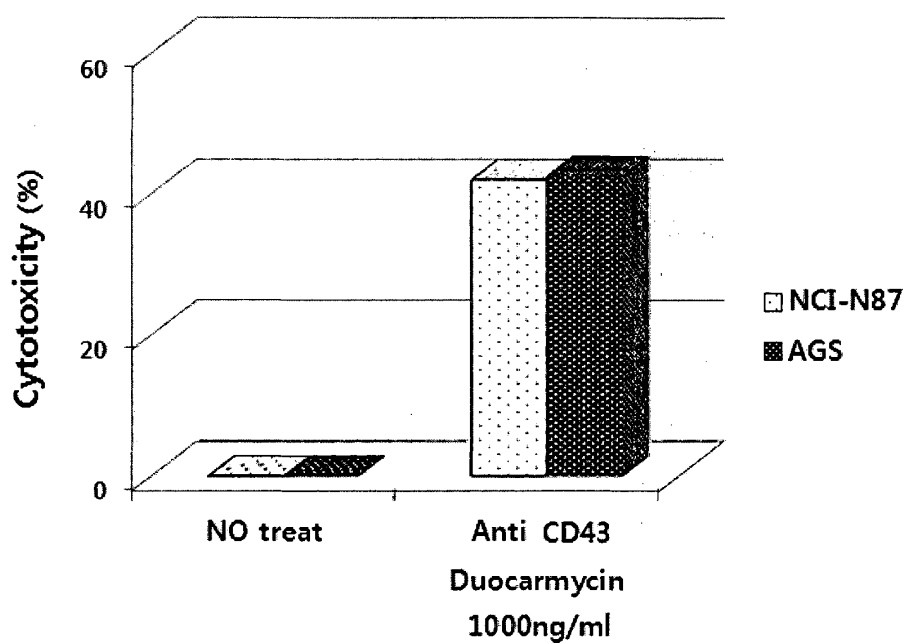
【도 3】



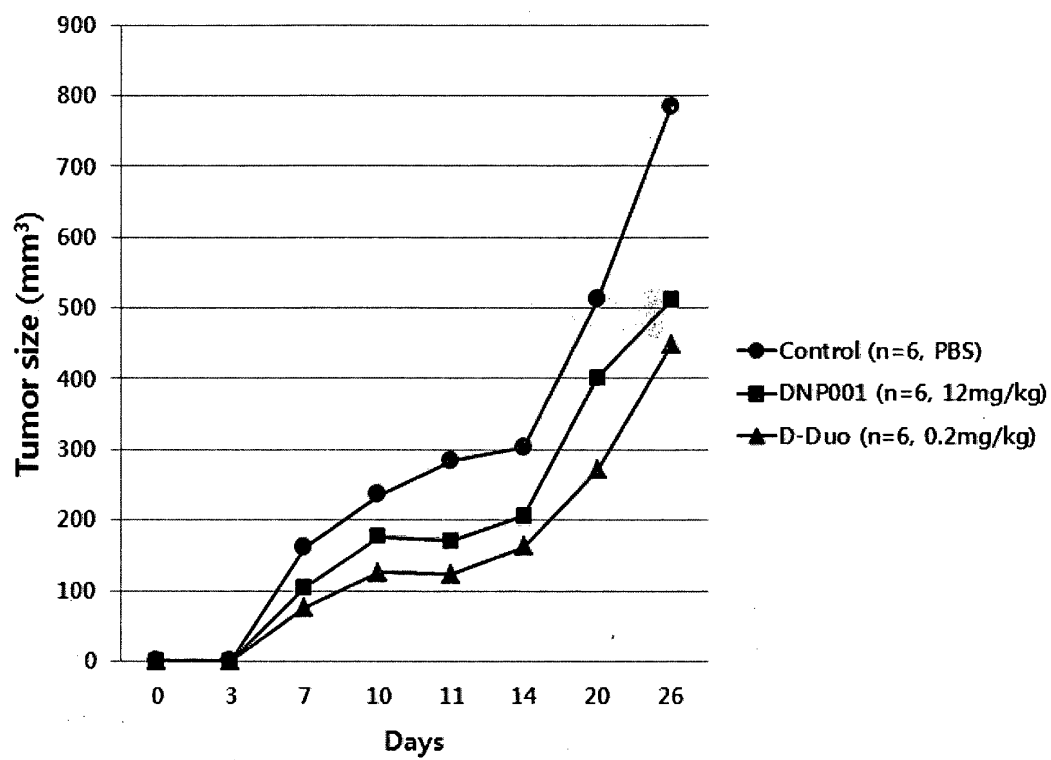
【도 4】



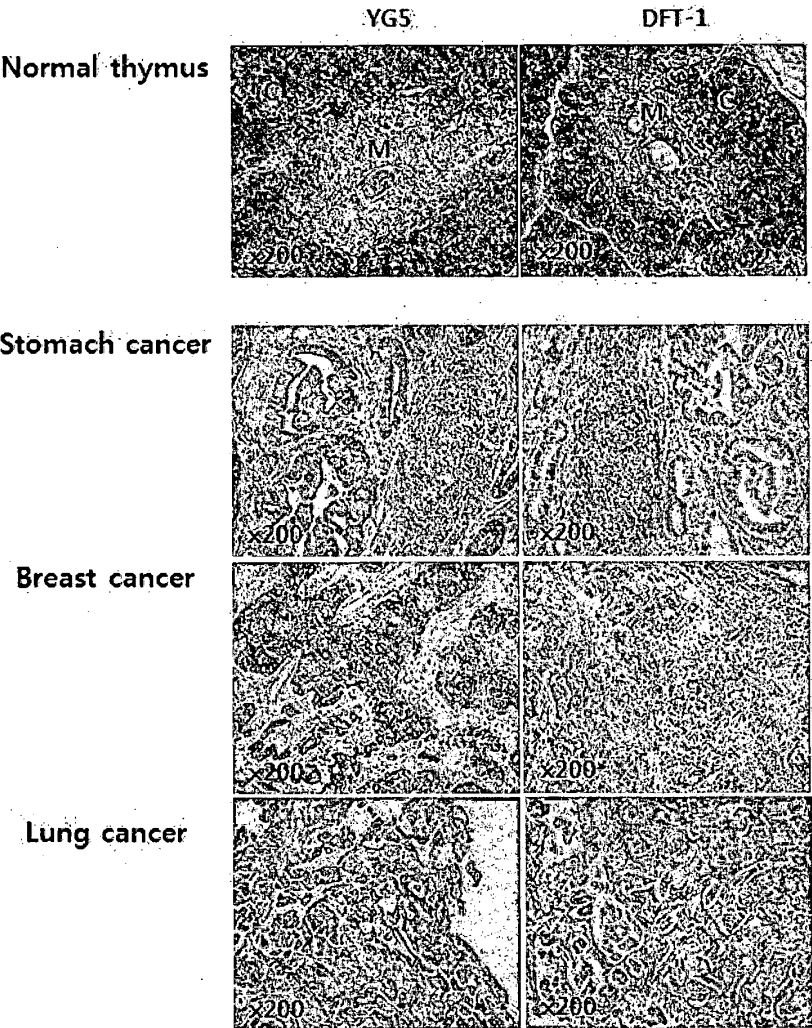
【도 5】



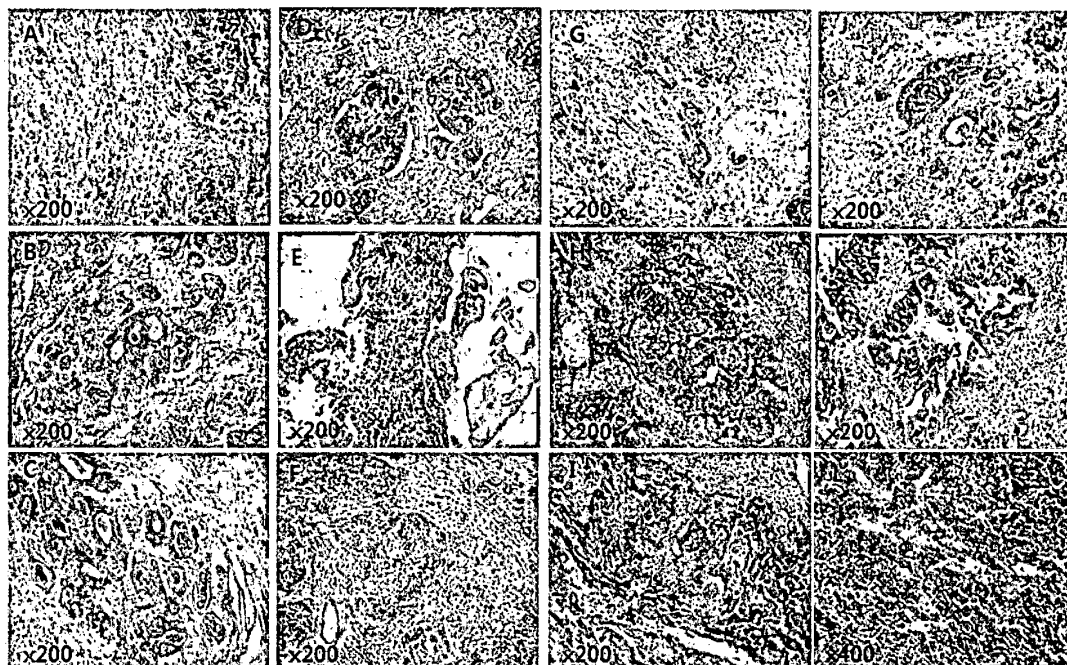
【도 6】



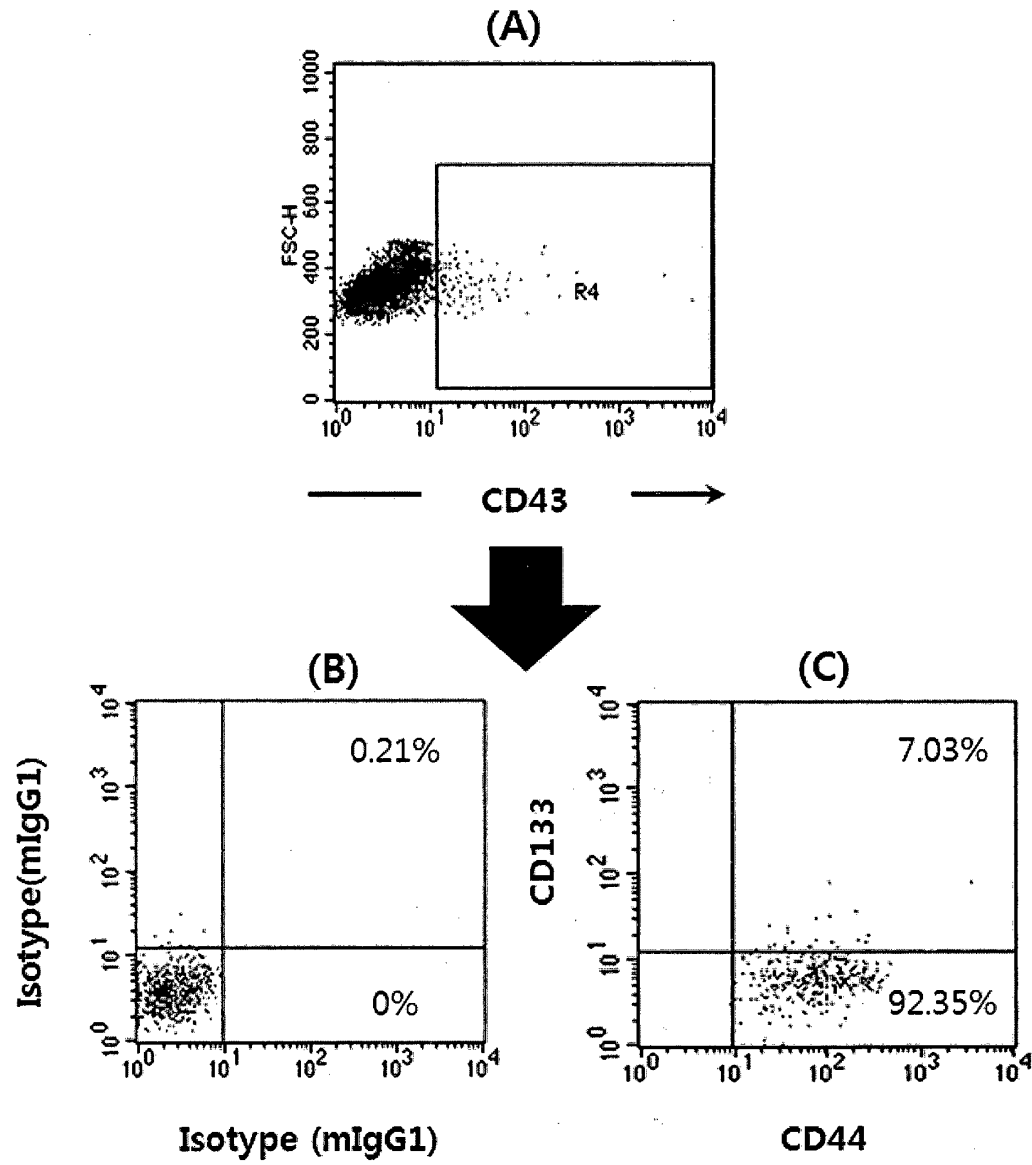
【도 7】



【도 8】



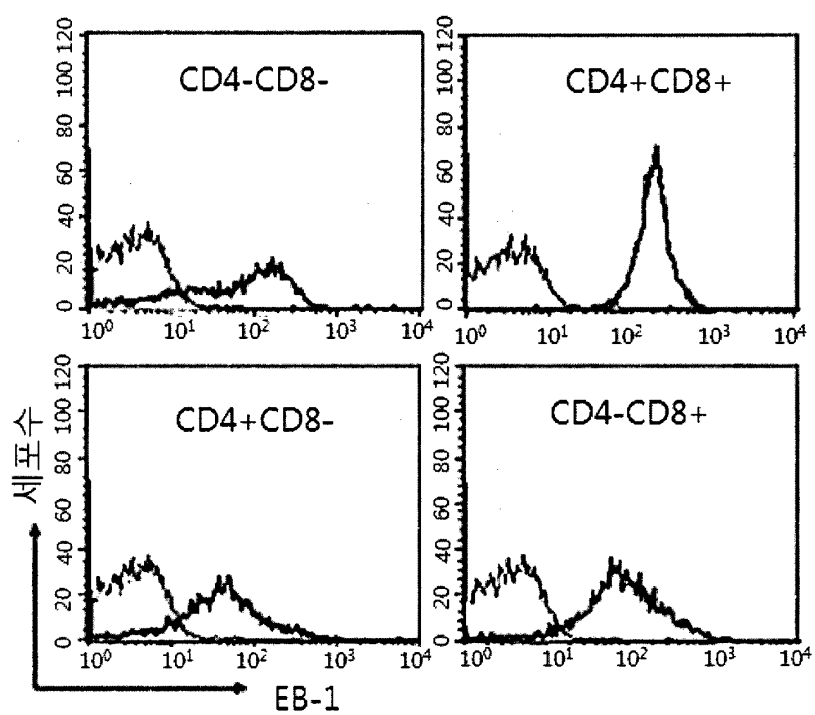
【도 9】



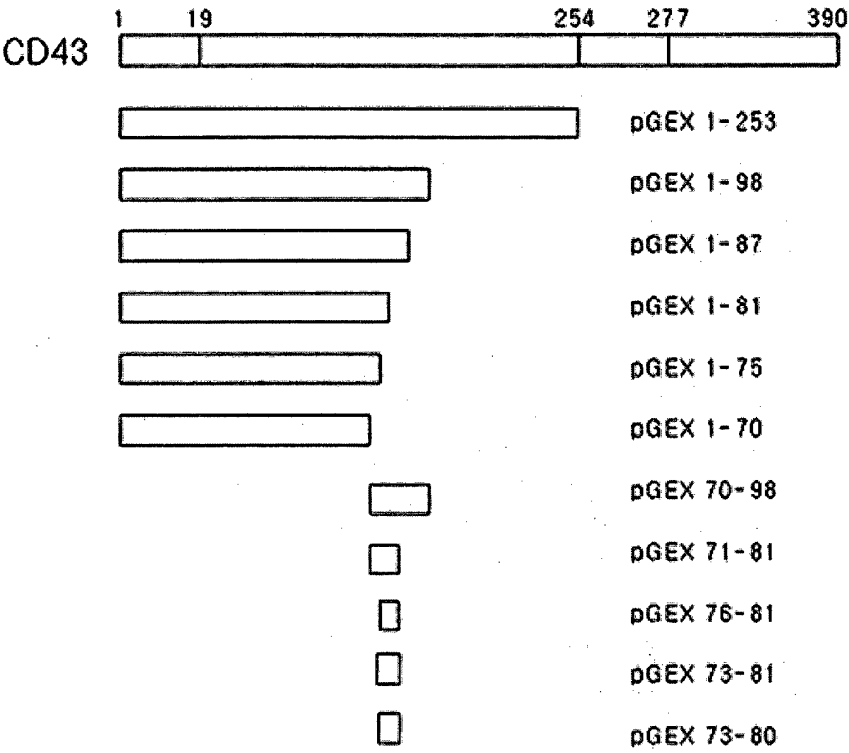
【도 10】



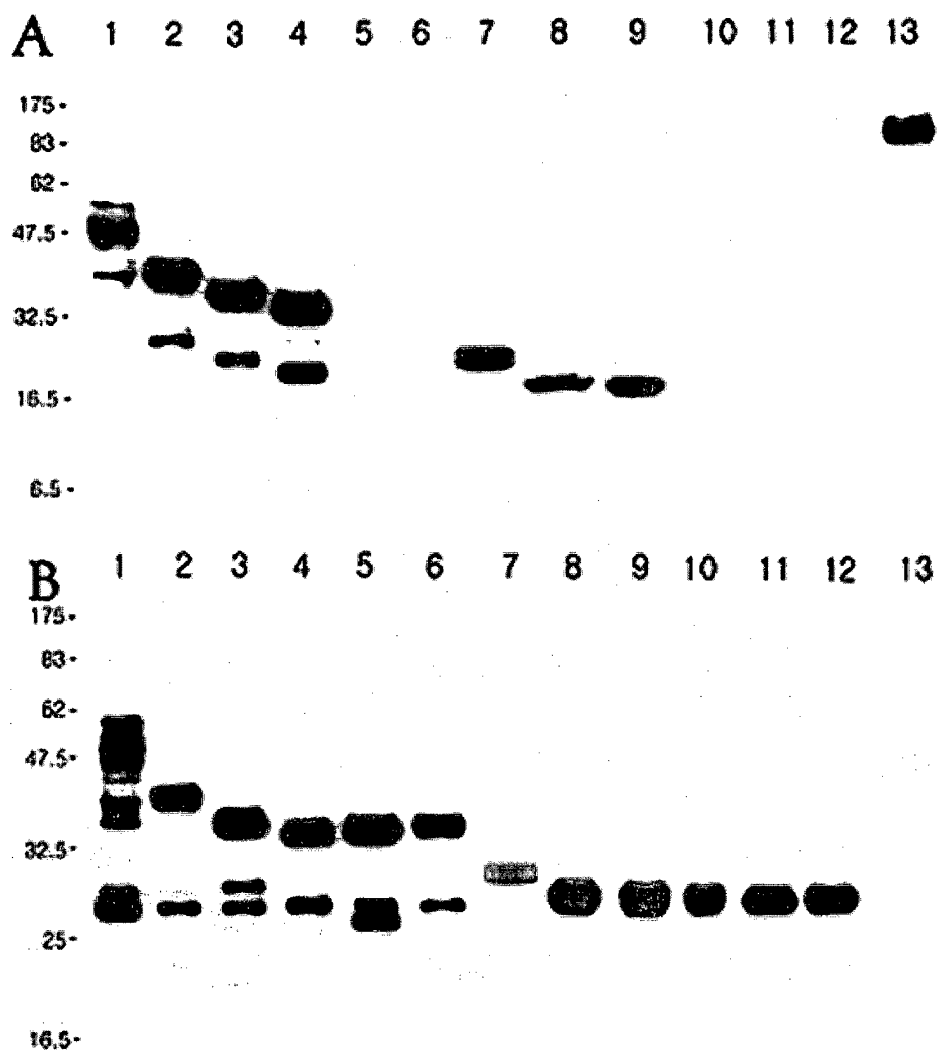
【도 11】



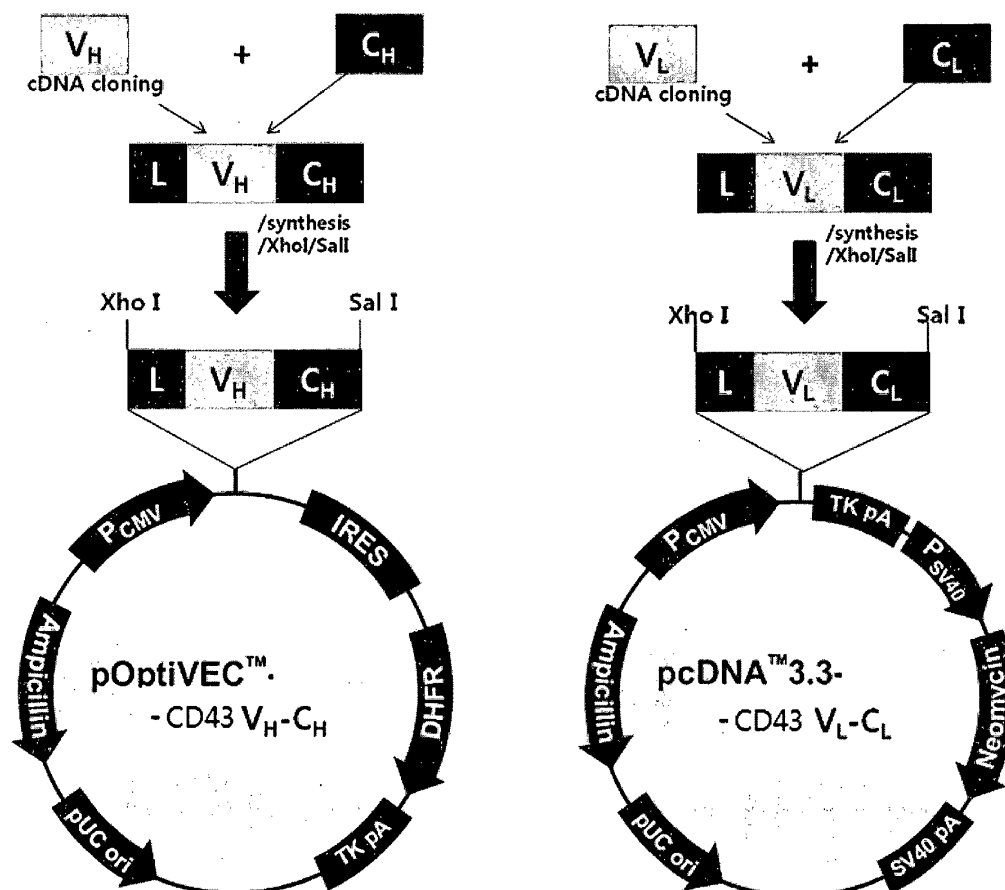
【도 12】



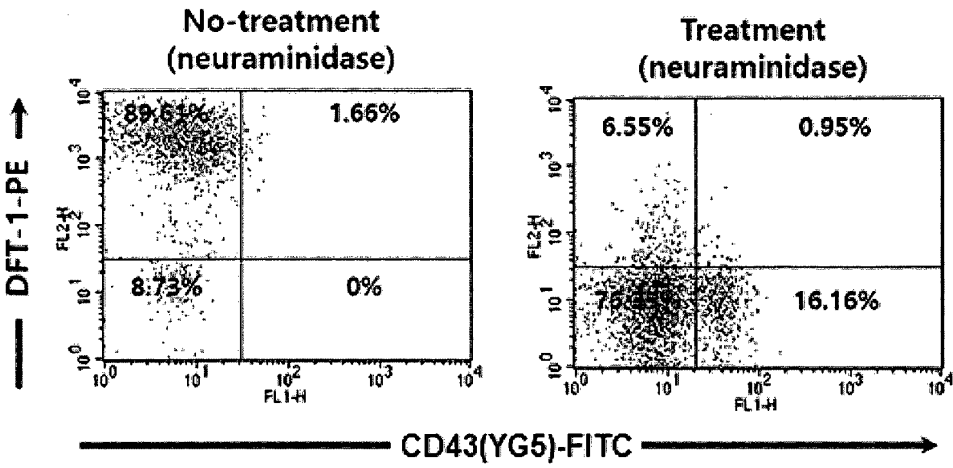
【도 13】



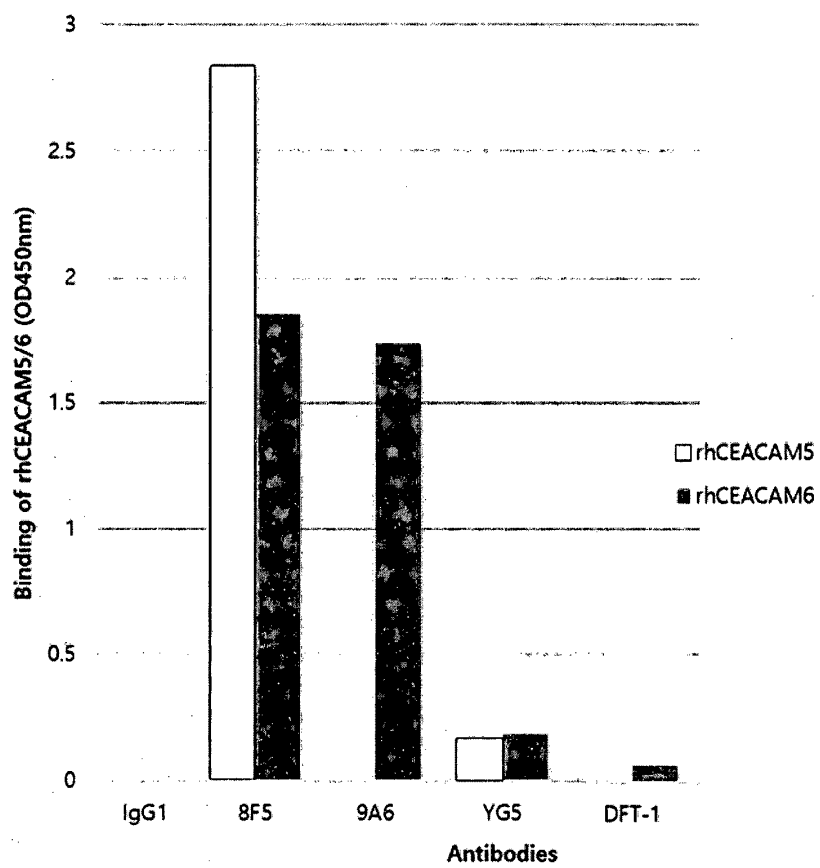
【도 14】



【도 15】

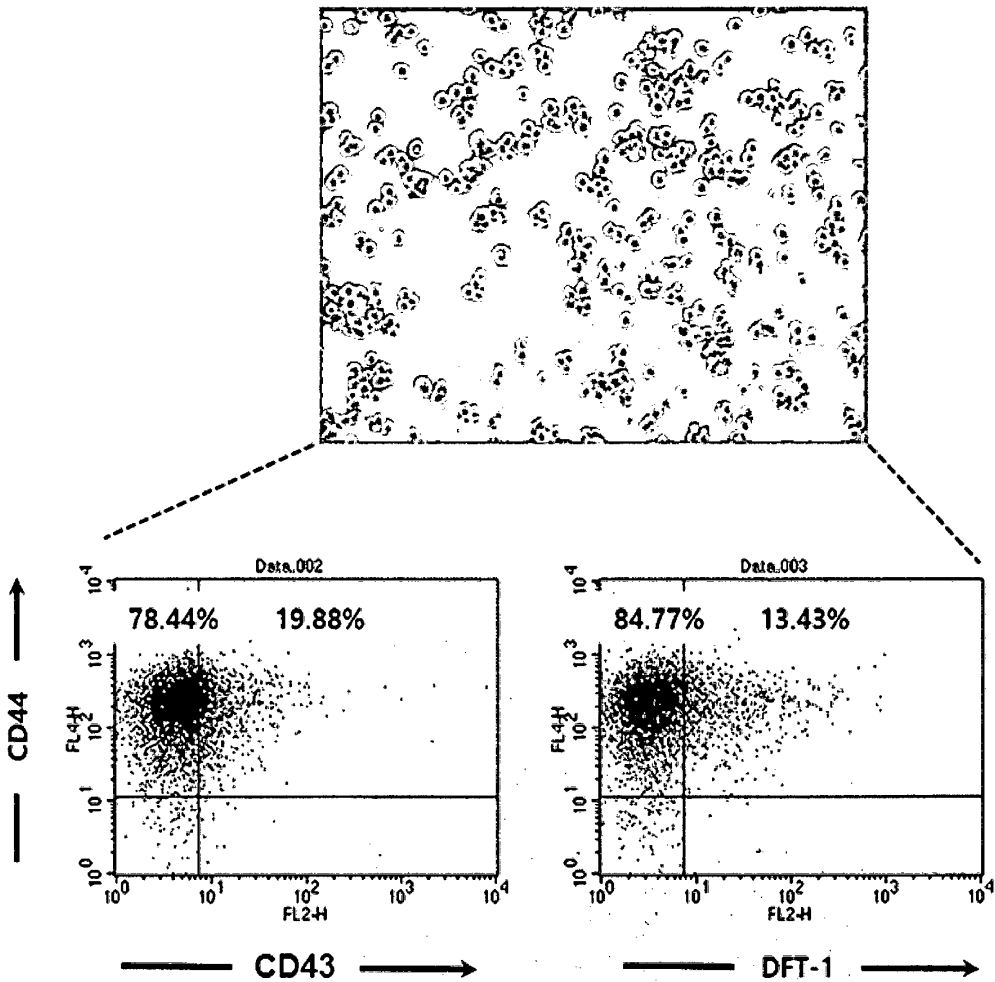


【도 16】



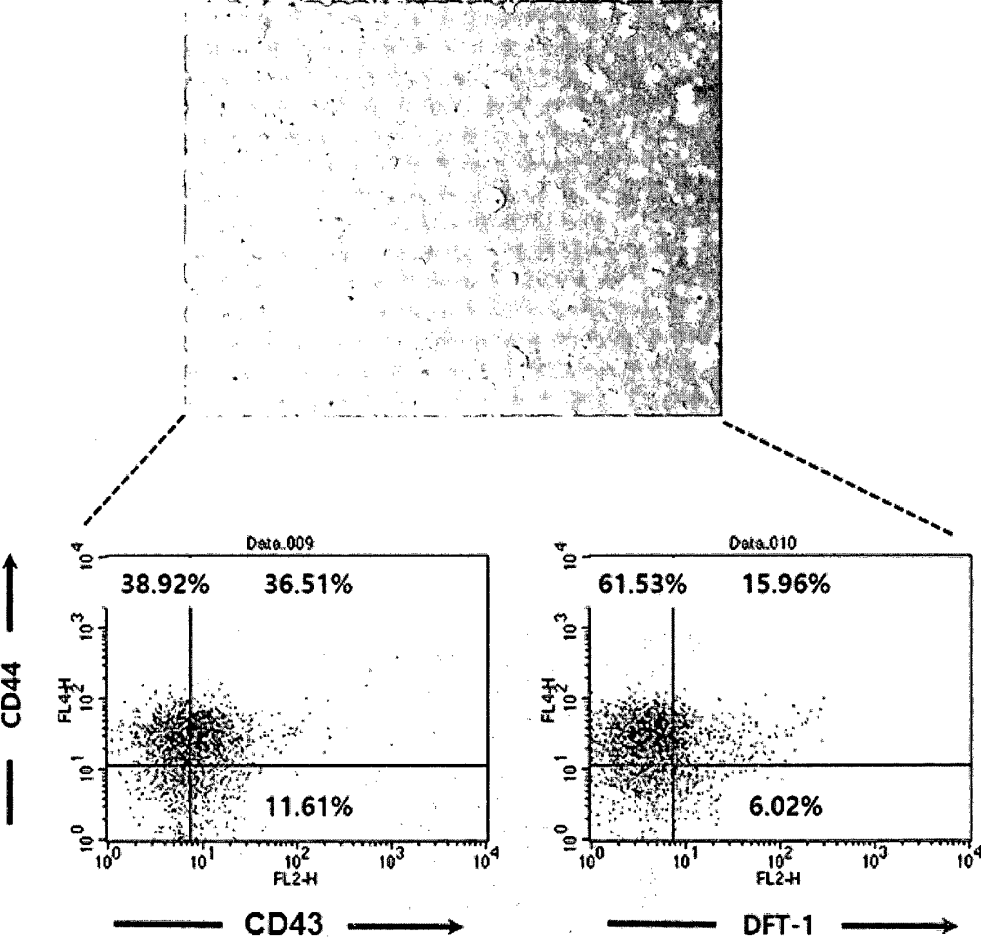
【도 17a】

0 hr

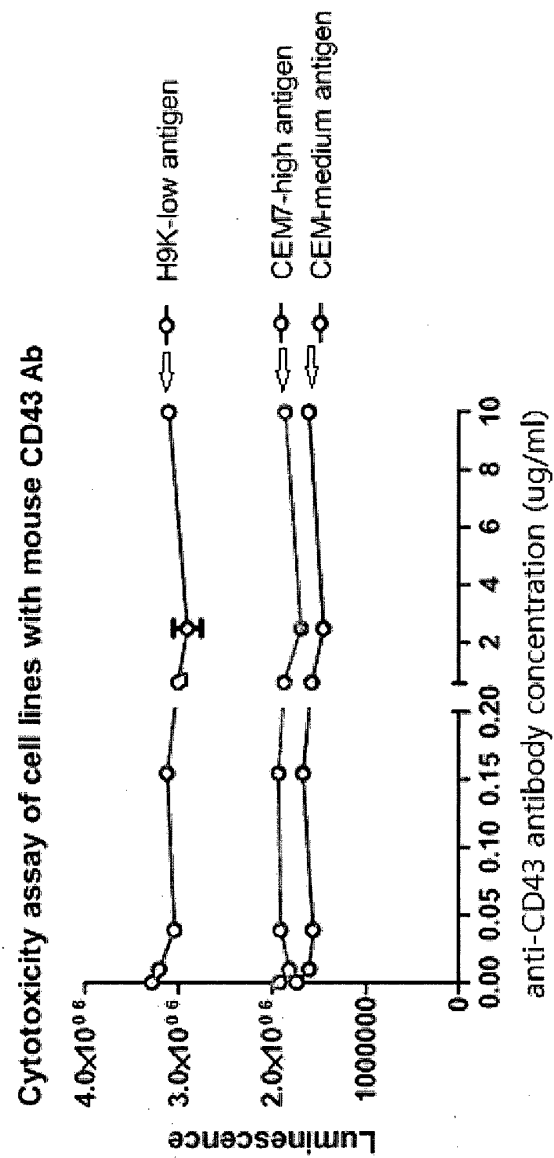


【도 17b】

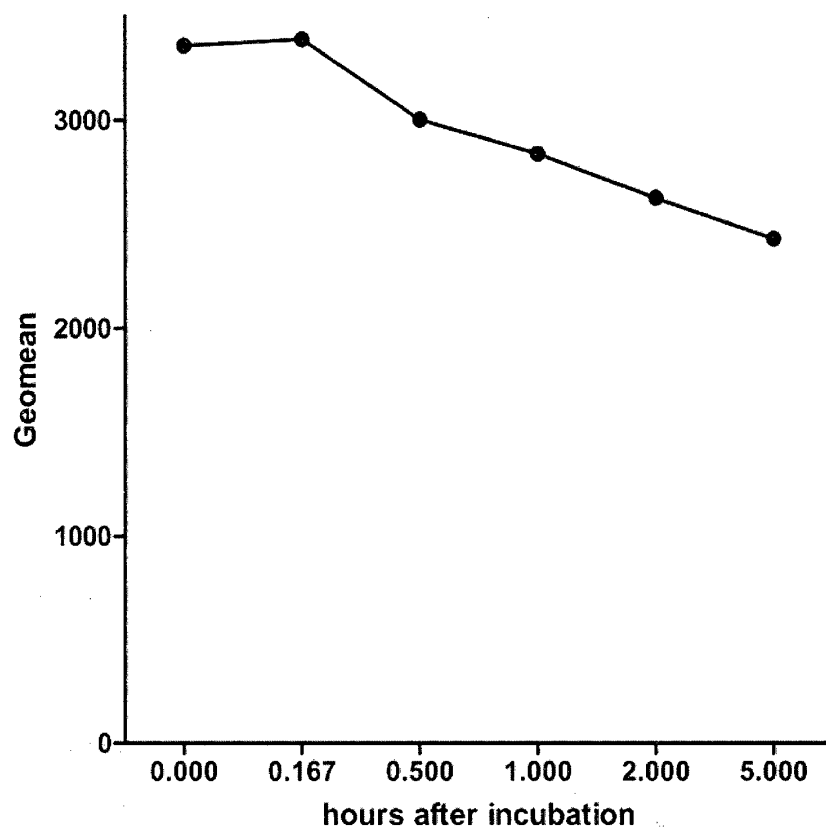
5 day



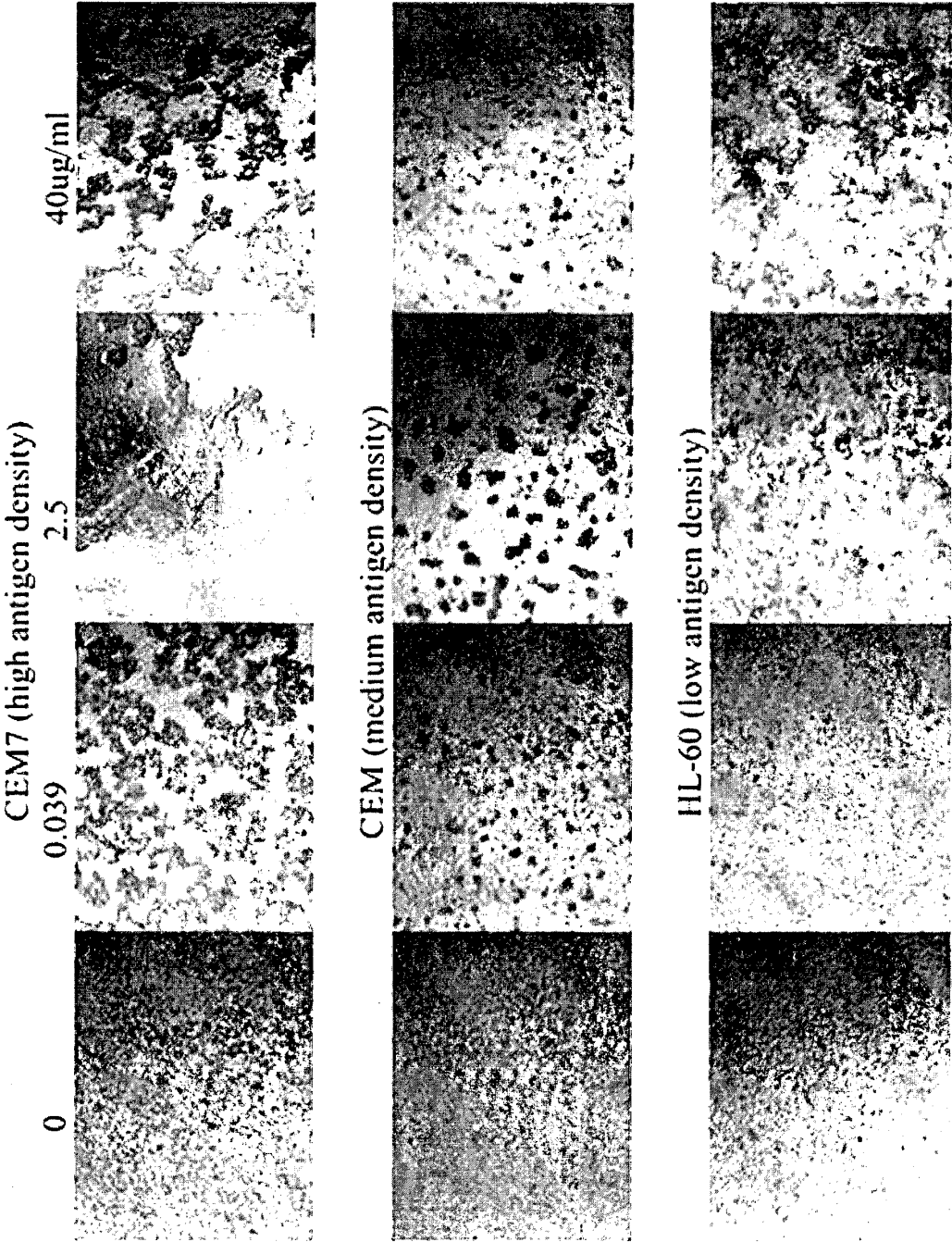
【도 18】



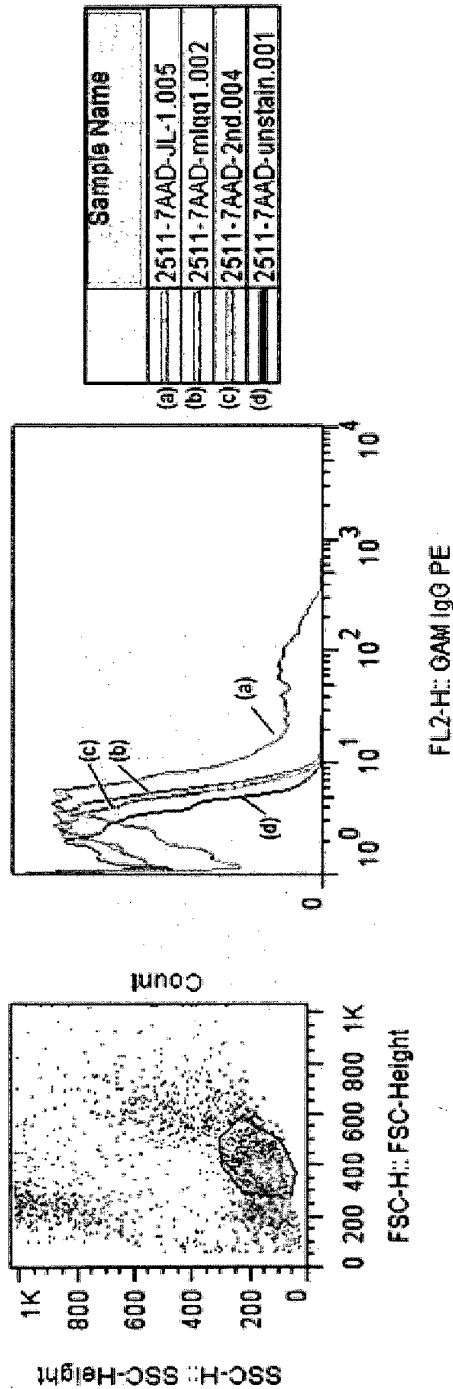
【도 20】



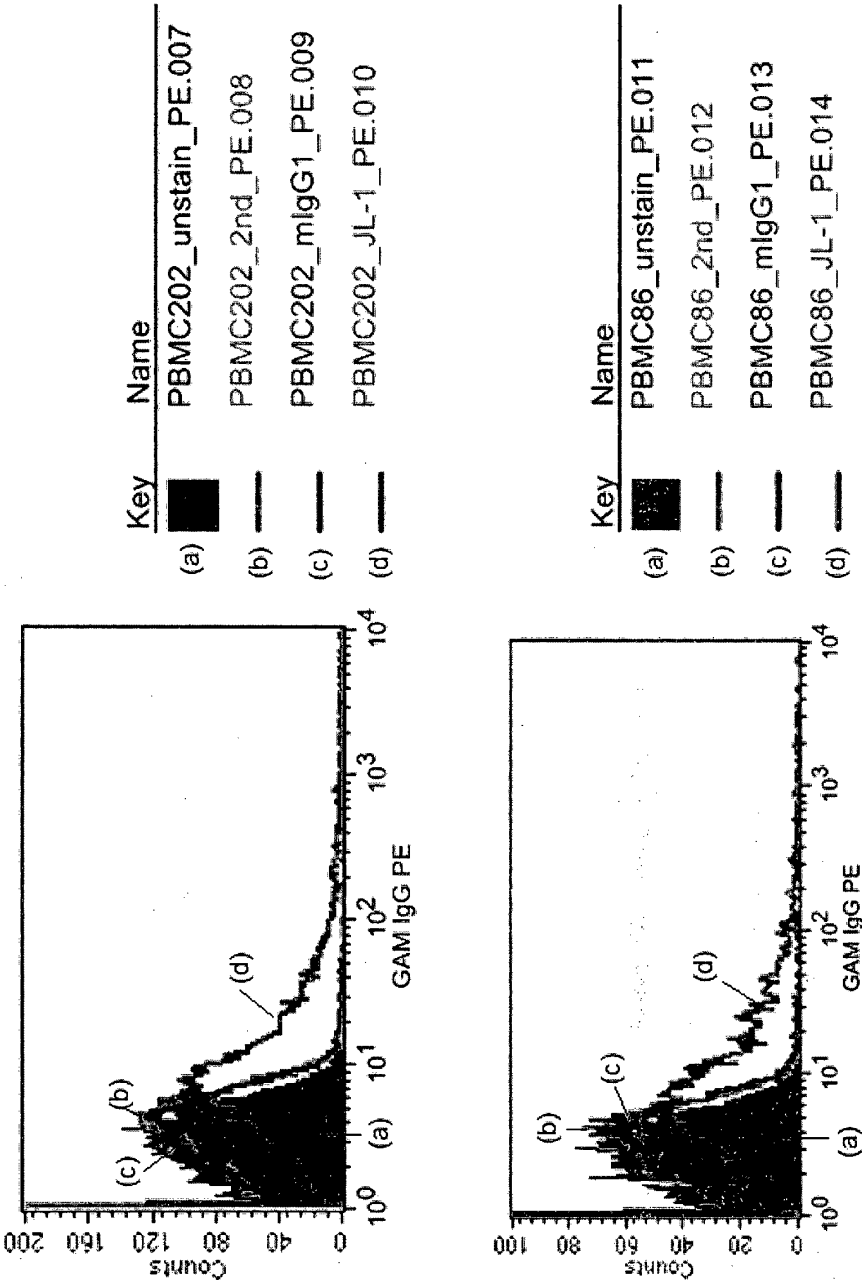
【도 21】



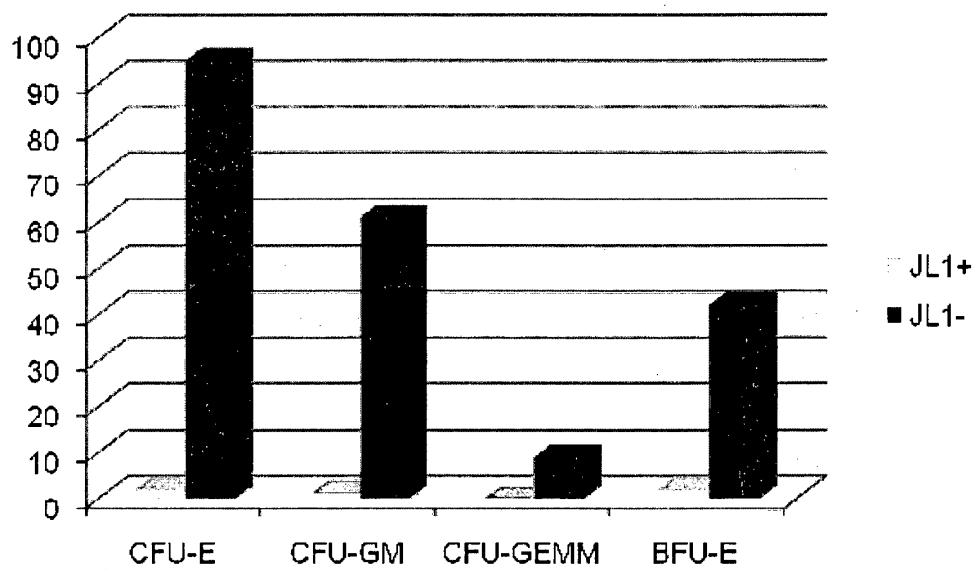
【도 22】



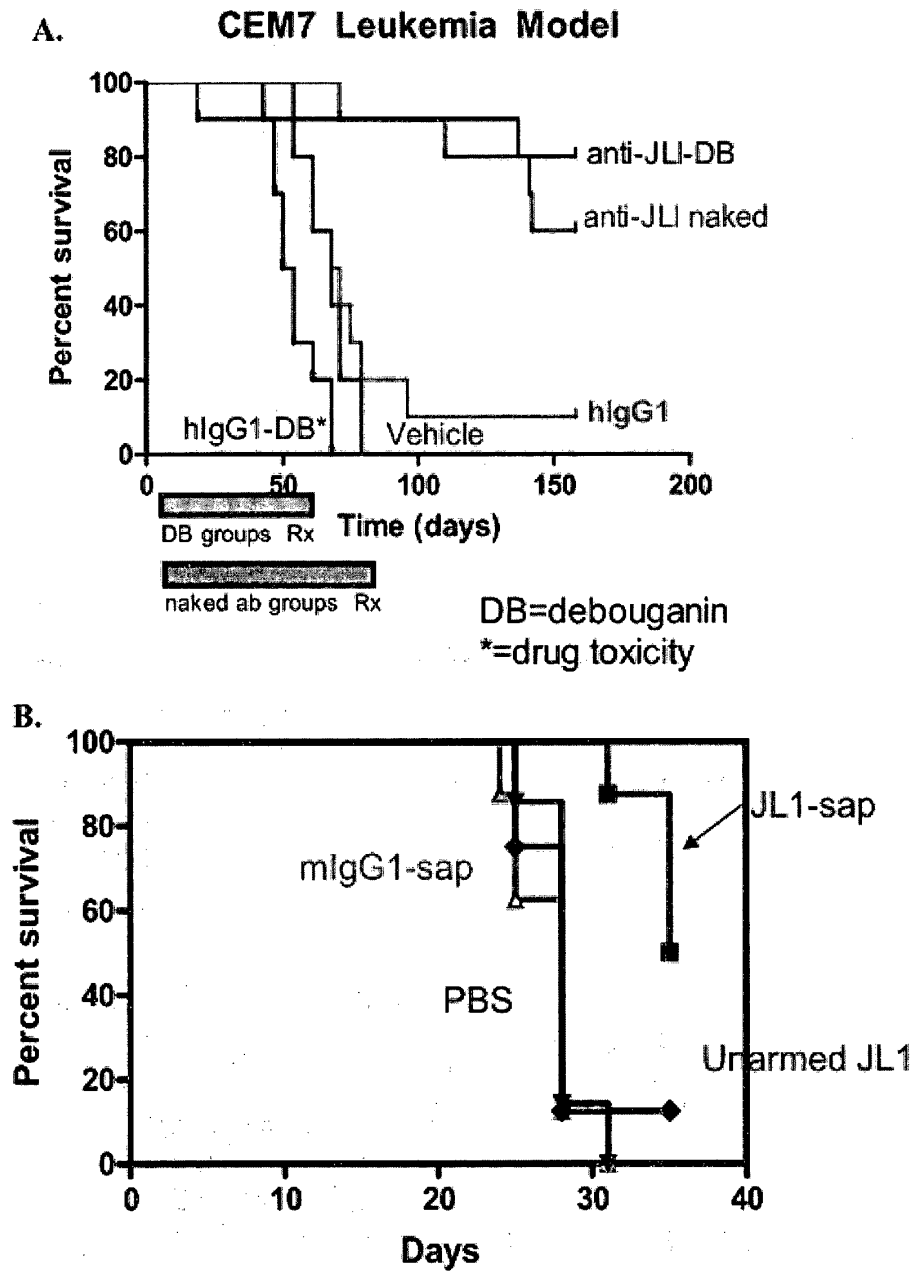
【도 23】



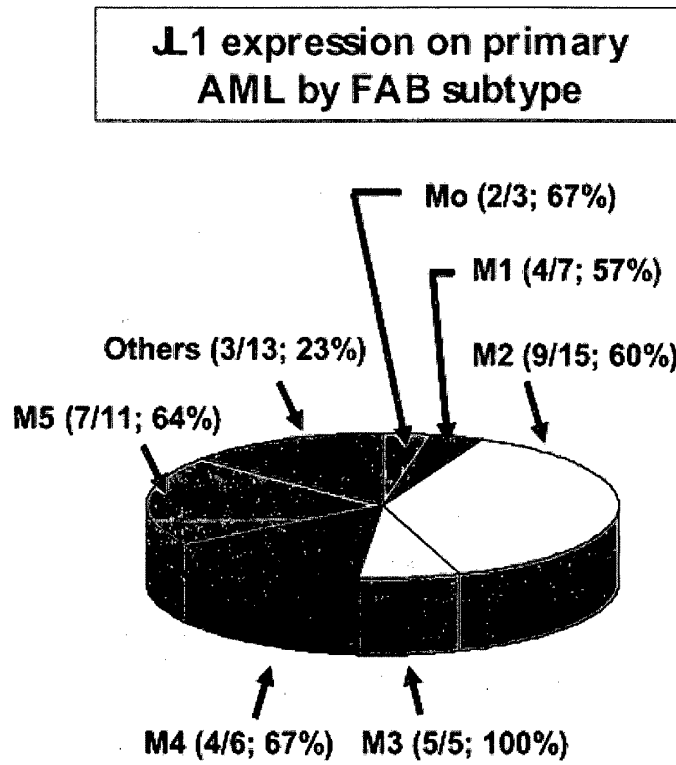
【도 24】



【도 25】



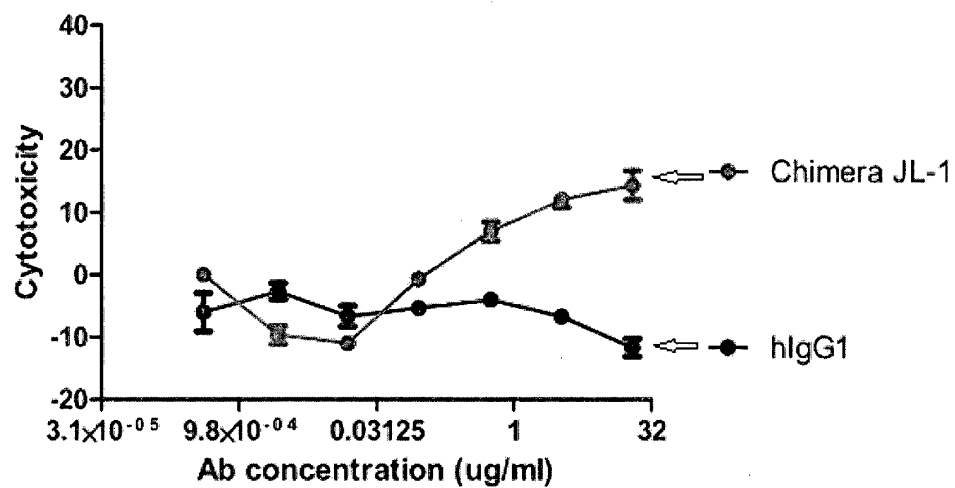
【도 26】



【도 27】

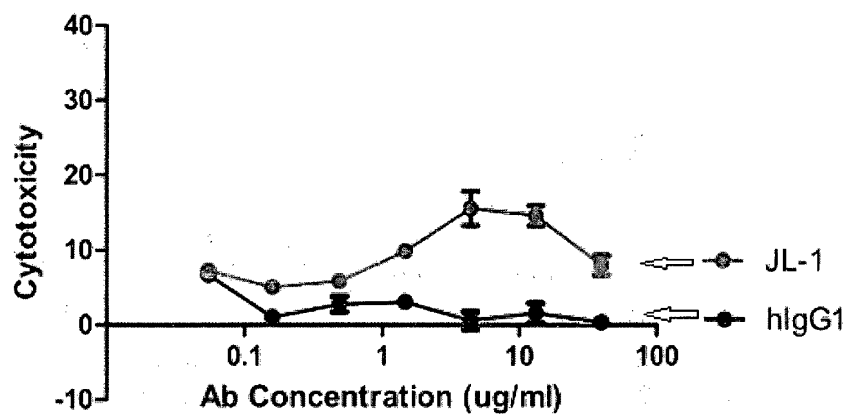
A.

ADCC assay of chimeric JL-1 in CEM7 cells



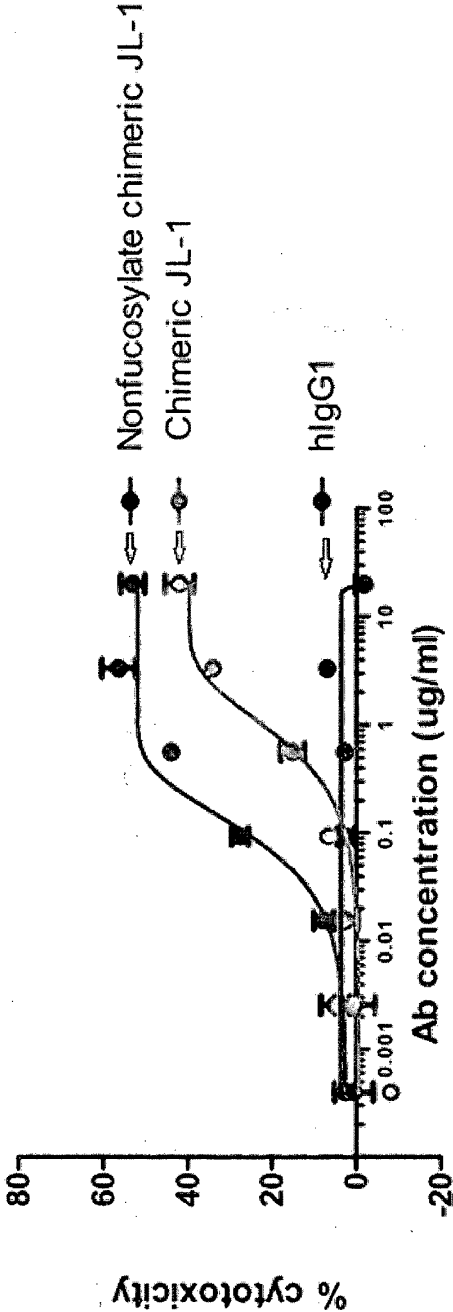
B.

CDC assay of chimeric JL-1 in CEM7 cells



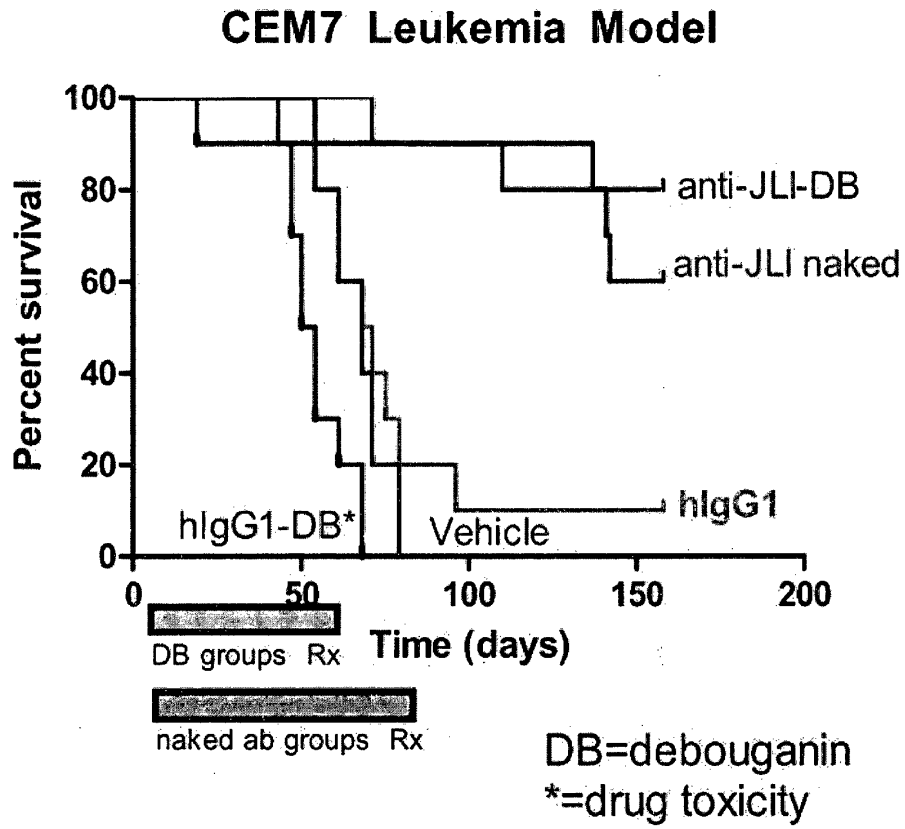
【图 28】

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



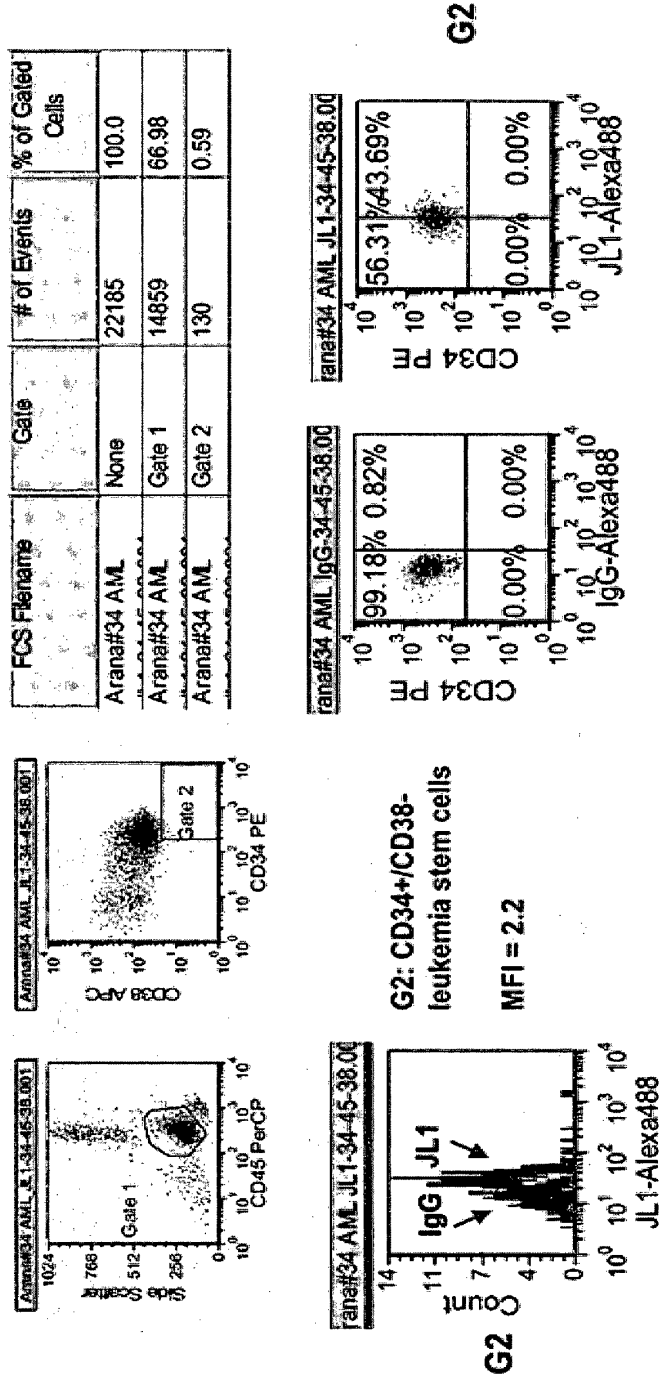
	hlgG1	Nonfucosylate chimeric JL-1	Chimeric JL-1
EC50		0.1093	2.828

【도 29】

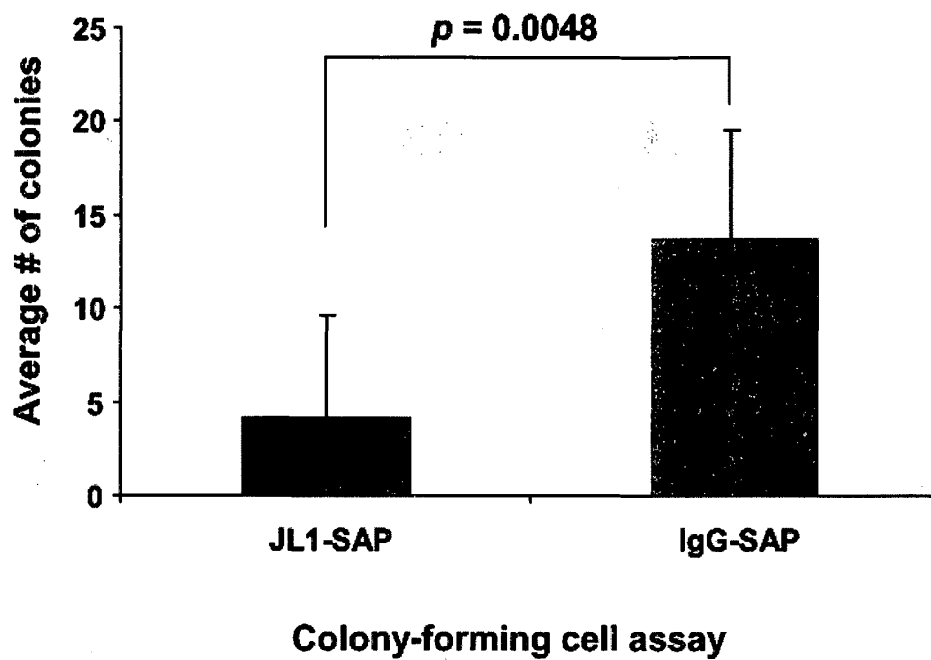


【도 30】

JL1 expression in leukemia stem cells

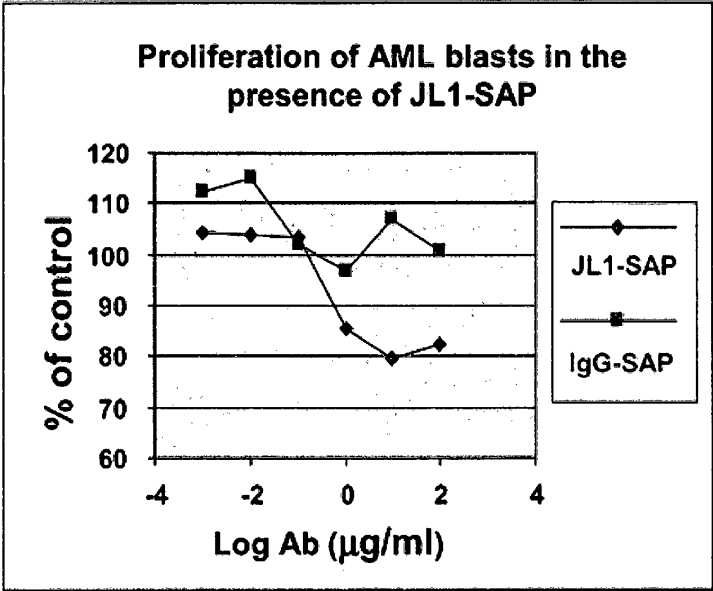


【도 31】

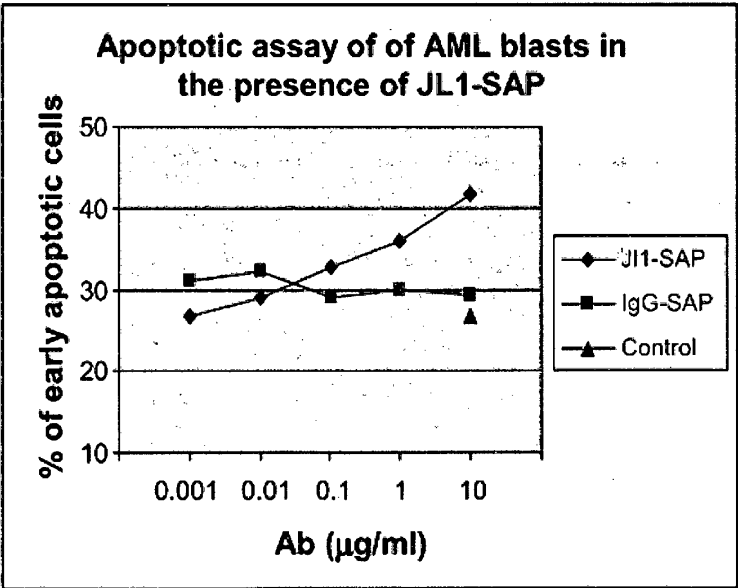
Effect of JL1-SAP on colony-forming cells of AML blasts

【도 32】

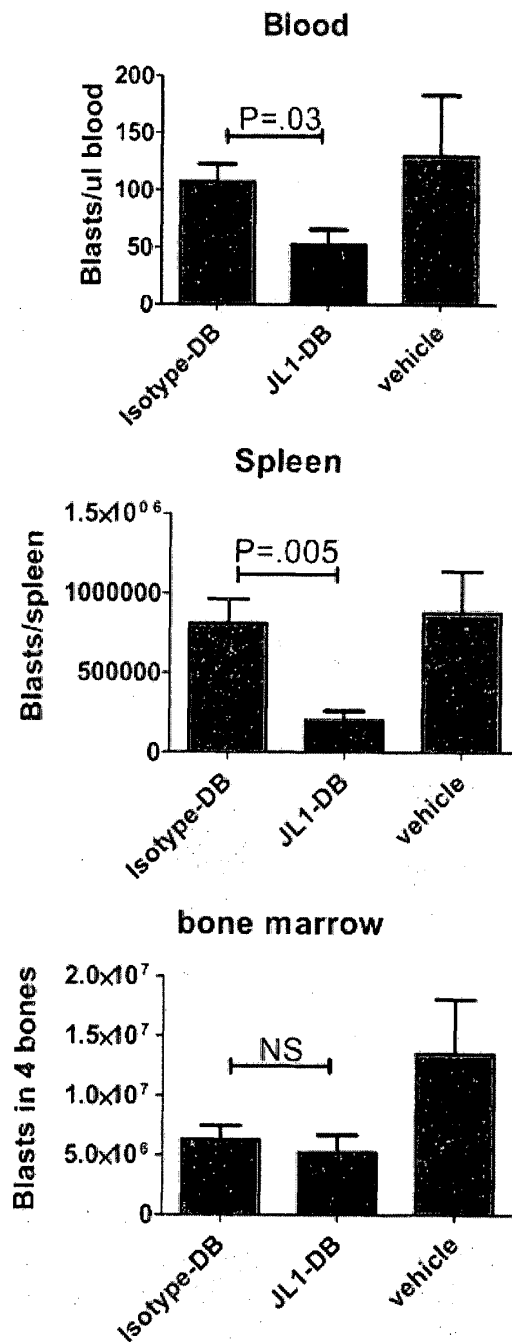
A.



B.

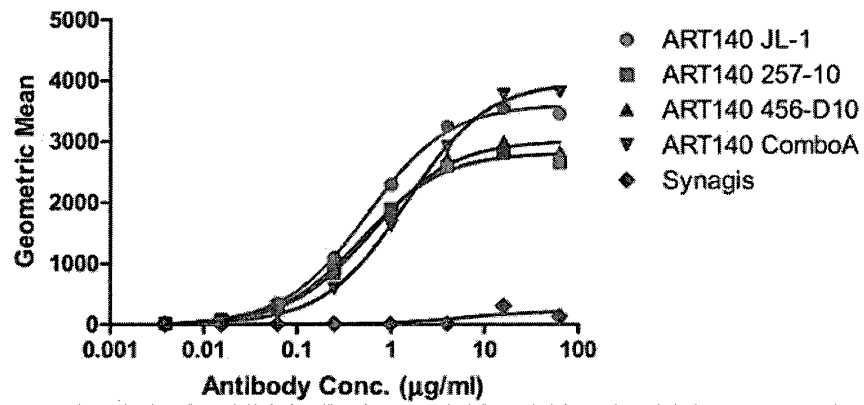


【도 33】



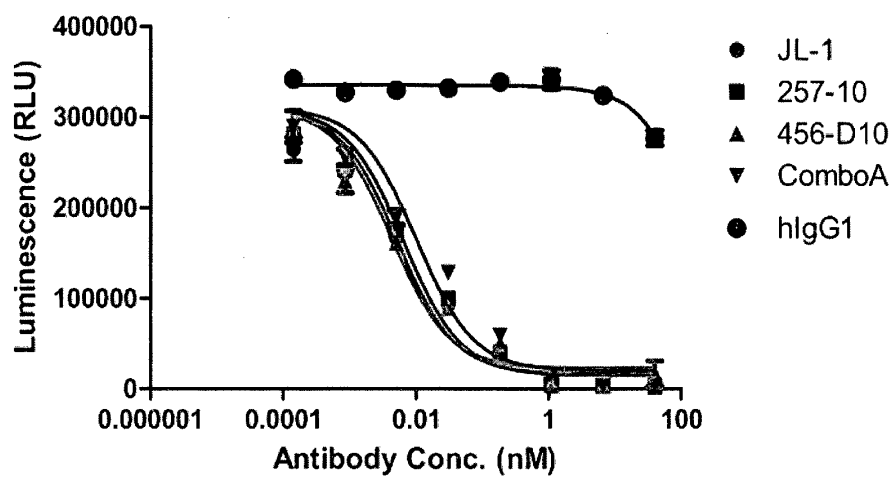
【도 34】

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

【도 35】

Killing activity of toxin linked humanized variants

	JL-1	257-10	456-D10	ComboA	hlgG1
IC50	0.005186	0.006470	0.004285	0.01010	~ 3796

【도 36】

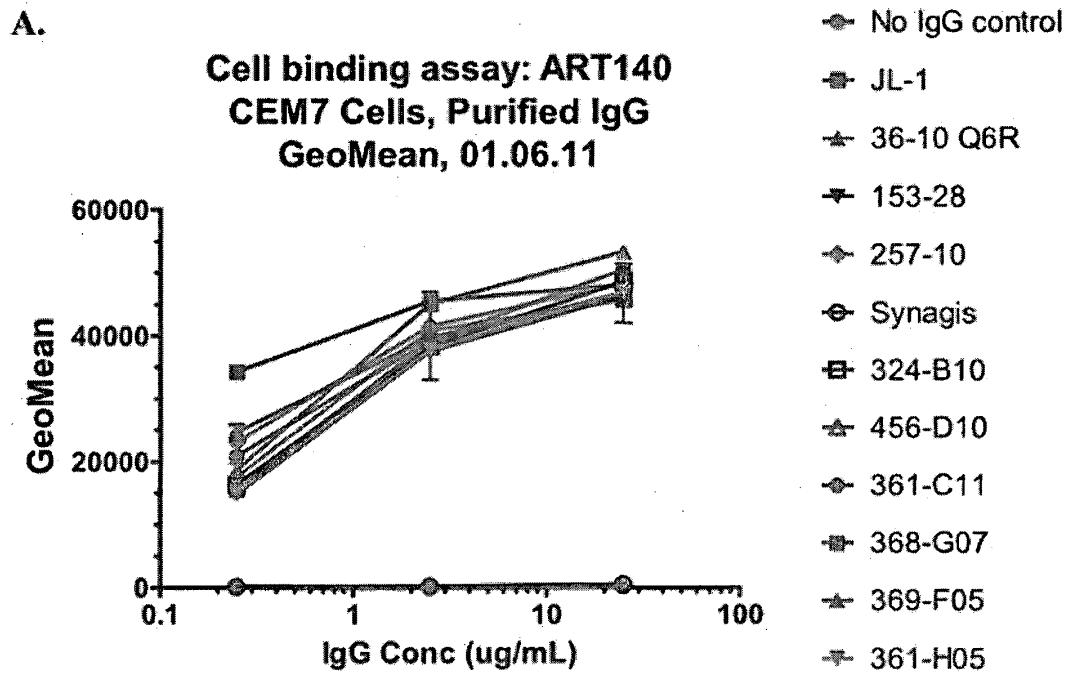
8146-112 VH
 36-10 QR VH
 153-28 VH
 324-B10
 361-C11
 368-G07
 369-P05
 361-H05
 Quickchange mutant
 45-37 VH
 257-10 VH
 456-D10

QYGLVQSGAEYKKKPCASVYKSCASCTTFTGTFPSAVTAAPOGCEPAGKRIYSPKEDAPFVQLEFAPRTTRTSTVYHLSLPSLESDTAVYVCARSTYCGGCGALDYAGCTGCTVYSS (SEQ ID NO:831)
 -----SIG-----K-----R----- (SEQ ID NO:84)
 -----SIG-----K----- (SEQ ID NO:85)
 -----SIG-----K----- (SEQ ID NO:86)
 -----SIG--Y-----S-----K----- (SEQ ID NO:87)
 -----SIG-----K----- (SEQ ID NO:88)
 -----SIG-----K-----M----- (SEQ ID NO:89)
 -----SIG-----K-----T----- (SEQ ID NO:90)
 -----SIG--Y-----S-----K-----T-----M----- (SEQ ID NO:91)
 -----R----- (SEQ ID NO:92)
 -----R----- (SEQ ID NO:93)
 -----R-----P----- (SEQ ID NO:94)

8146-112 VL
 36-10 QR VL
 153-28 VH
 324-B10
 361-C11
 368-G07
 369-P05
 361-H05
 Quickchange mutant
 45-37 VL
 257-10 VH
 456-D10

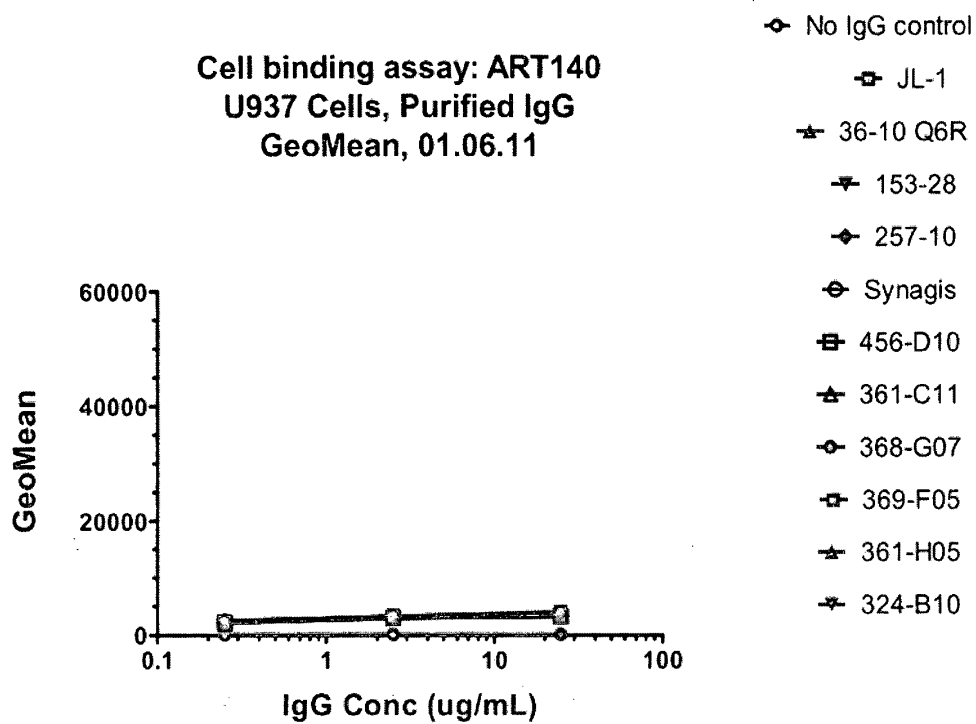
DICTQTSPSSVSAASVQDNVPIYCHESQDIASTLVYCKGKAPKLLIYTERLRKSGVPSRSGSSGCTPTLTSSLOPEDFATYVCGGEMPTTFPGGTLKIKR (SEQ ID NO:95)
 -----R-----S----- (SEQ ID NO:96)
 -----R-----S----- (SEQ ID NO:97)
 -----R-----S----- (SEQ ID NO:98)
 -----R-----S----- (SEQ ID NO:99)
 -----R-----S----- (SEQ ID NO:100)
 -----R-----S----- (SEQ ID NO:101)
 -----R-----S----- (SEQ ID NO:102)
 -----R-----S----- (SEQ ID NO:103)
 -----R-----S----- (SEQ ID NO:104)
 -----R-----S----- (SEQ ID NO:105)
 -----R-----S----- (SEQ ID NO:106)

【도 37a】

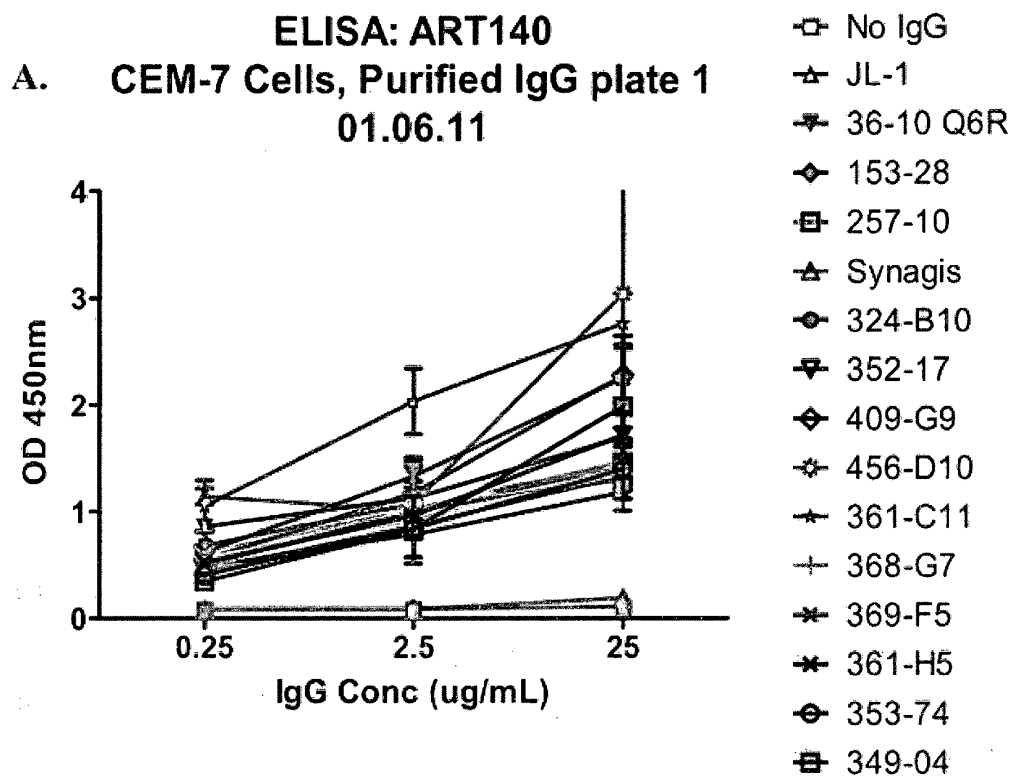


【도 37b】

B.

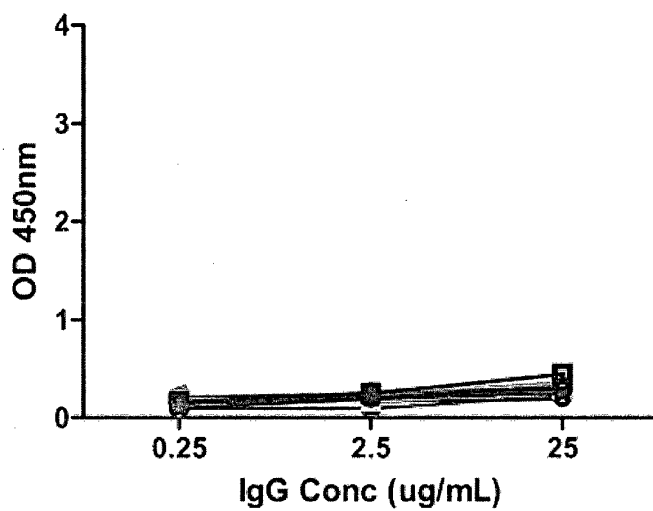


【도 38a】



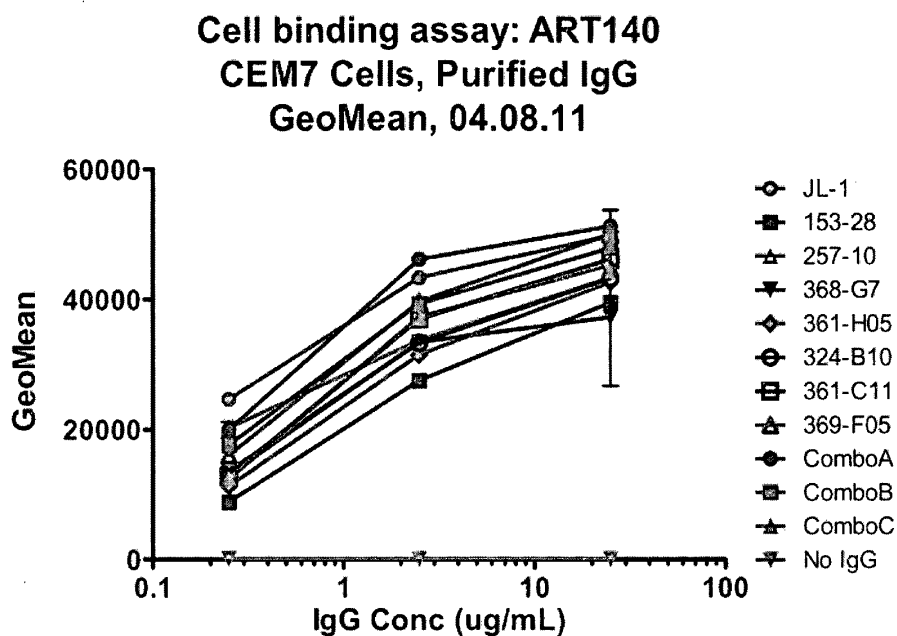
【도 38b】

ELISA: ART140
B. U937 Cells, Purified IgG plate 2
01.06.11

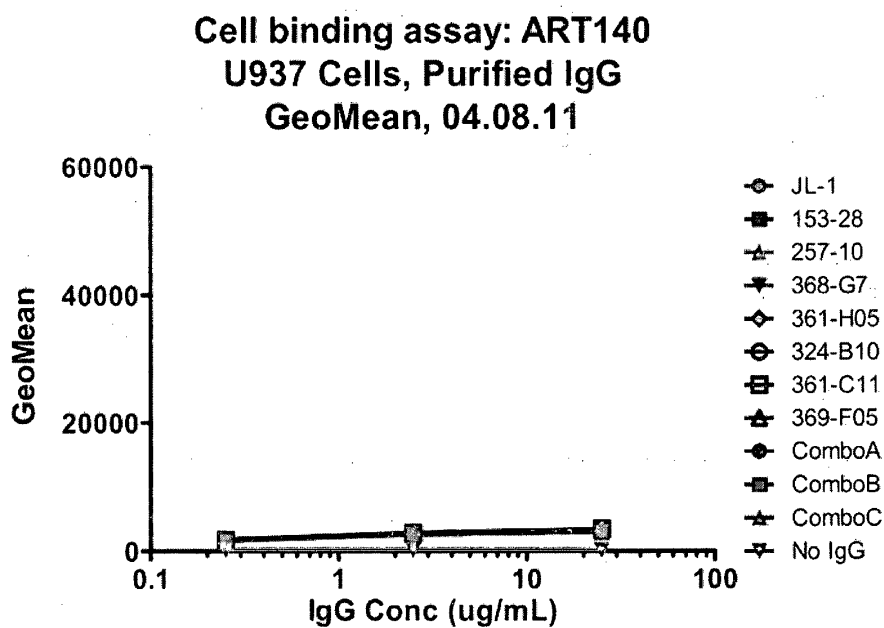


-  No IgG
 JL-1
 36-10 Q6R
 153-28
 257-10
 Synagis
 324-74
 352-B10
 409-G9
 456-D10
 361-C11
 368-G7
 369-F5
 361-H5
 353-74
 349-04

A.

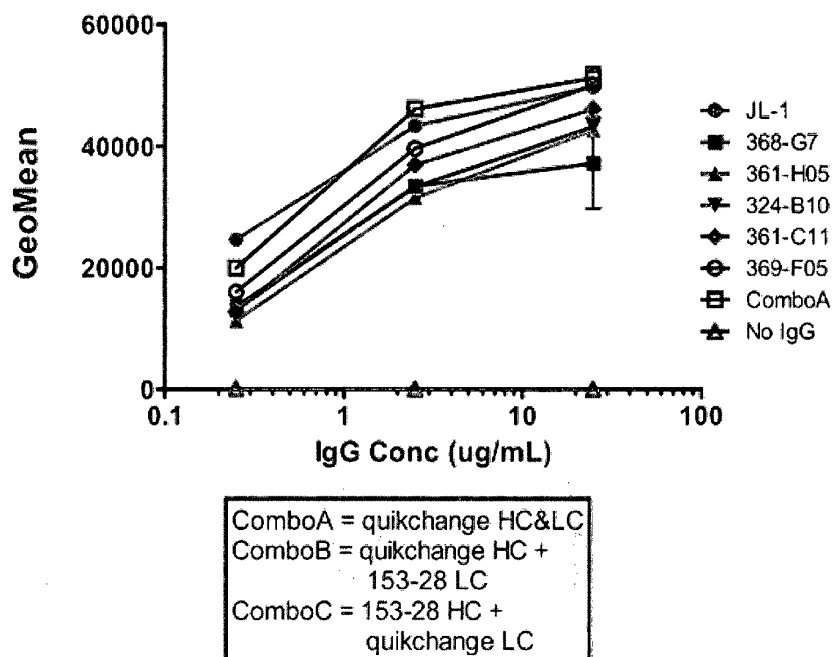


B.



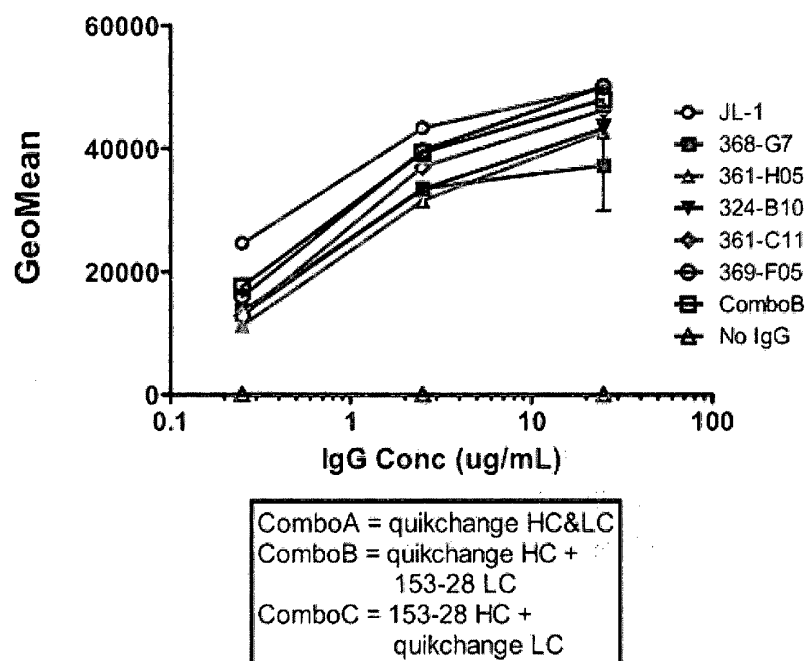
【도 40a】

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



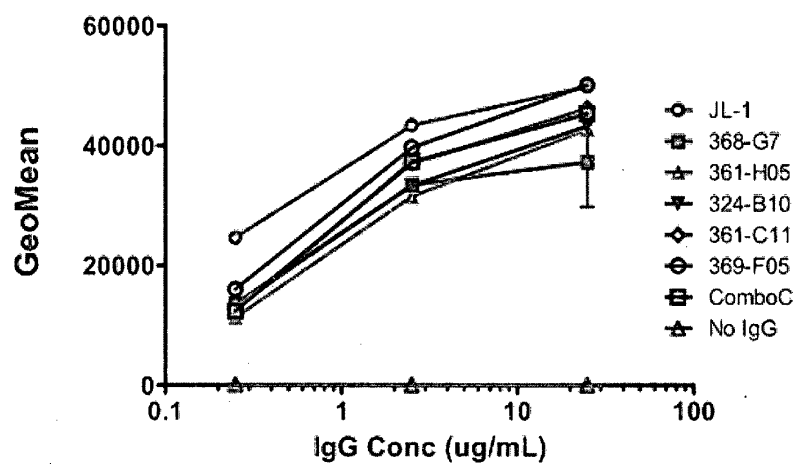
【도 40b】

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



【도 40c】

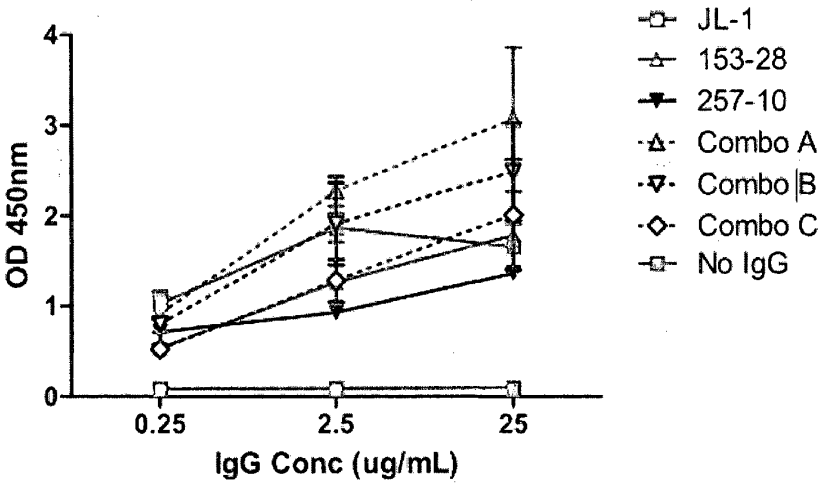
C. Cell binding assay: ART140
CEM7 Cells, Purified IgG GeoMean, 04.08.11
153-28 HC + Quikchange LC Vs Round 3 parental frameworks



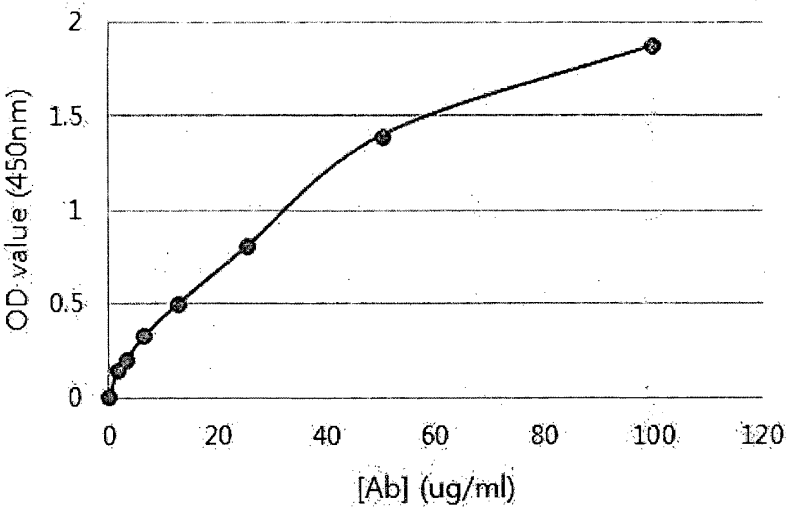
ComboA = quikchange HC&LC
ComboB = quikchange HC +
153-28 LC
ComboC = 153-28 HC +
quikchange LC

【도 41c】

C. ART140 Cell Based ELISA
combined mutations



【도 42】



【도 43】

huJL-1 257-10 Vk

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

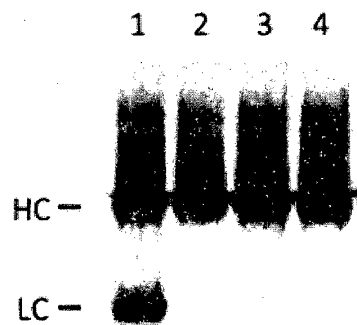
huJL-1 257-10 VH

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

122

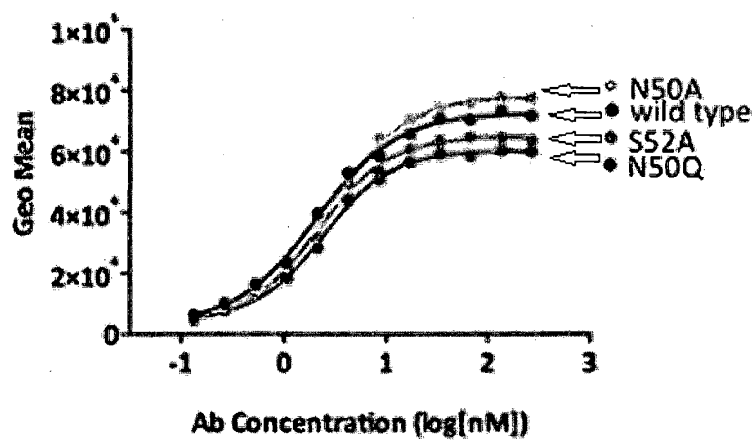
SS

【도 44】



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

【도 45】



	WT	S52A	N50Q	N50A
EC50	2.052	2.134	2.393	2.843

【도 46】

CEM7 cell binding

