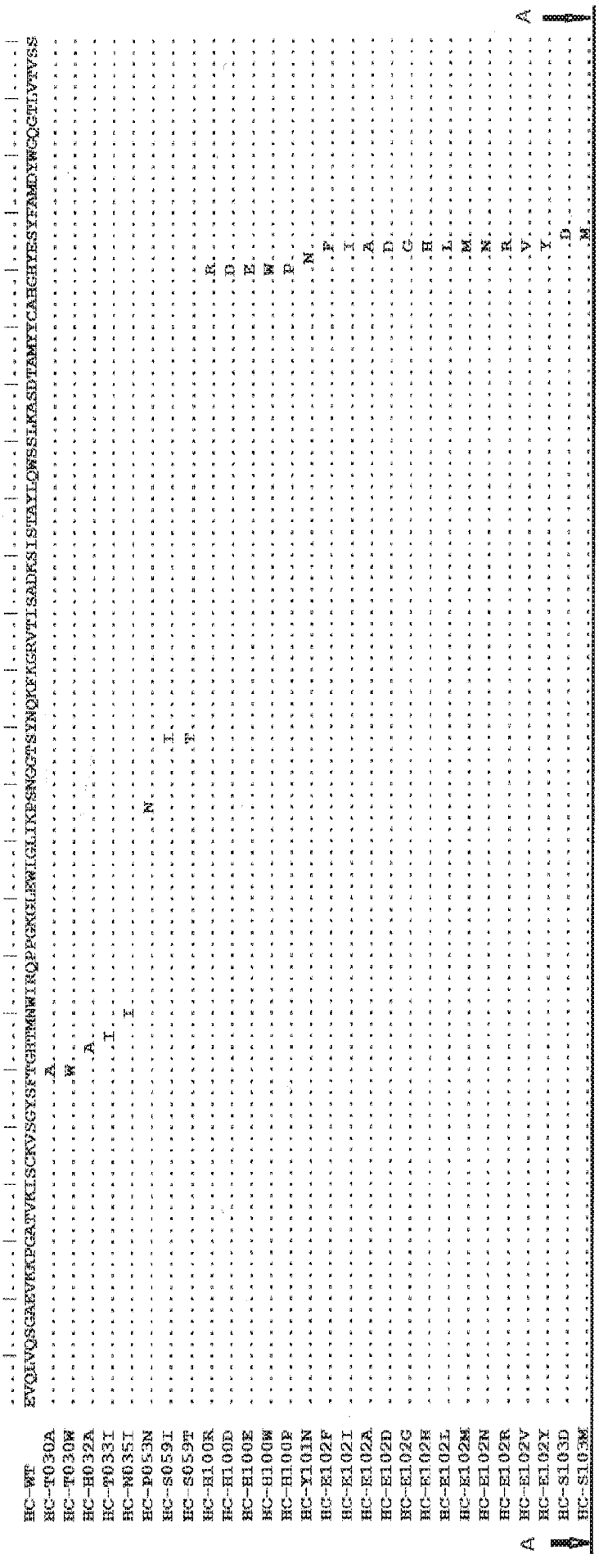

10 20 30 40 50 60 70 80 90 100 110 120
HC-WT EVQLVQSGAEVKKPGATVKISCKVSGYSFTGHFMNWIRQAPGKGLEWMGLIKPSNGGTSYNQKFKGRVTISADKSISTAYLQWSSLKASDTAMFYCARGHFESYFAMDYWGQGTLVTVSS
HC-T030A
HC-T030W
HC-H032A
HC-P033I
HC-M035I
HC-P053N
HC-S059I
HC-S059T
HC-E100R
HC-E100D
HC-H100E
HC-H100W
HC-H100P
HC-Y101N
HC-E102F
HC-E102I
HC-E102A
HC-E102D
HC-E102G
HC-E102H
HC-E102L
HC-E102M
HC-E102N
HC-E102R
A HC-E102V A
HC-E102Y
HC-S103D
D HC-S103M B

FIG. 1A

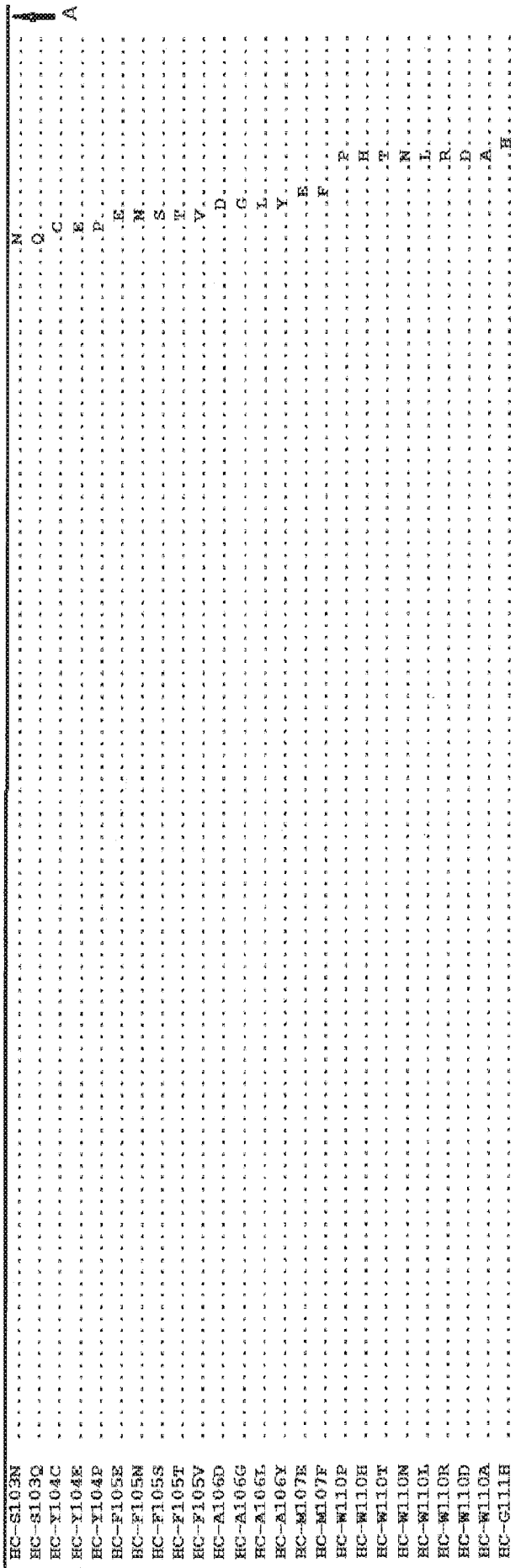

HC-S103N
HC-S103Q
HC-Y104C
HC-Y104E
HC-Y104P
HC-F105E
HC-F105N
HC-F105S
HC-F105T
HC-F105V
HC-A106D
HC-A106G
HC-A106L
HC-A106Y
HC-M107E
HC-M107F
HC-W110P
HC-W110H
HC-W110T
HC-W110N
HC-W110L
HC-W110R
HC-W110D
HC-W110A
HC-G111H

FIG. 1A

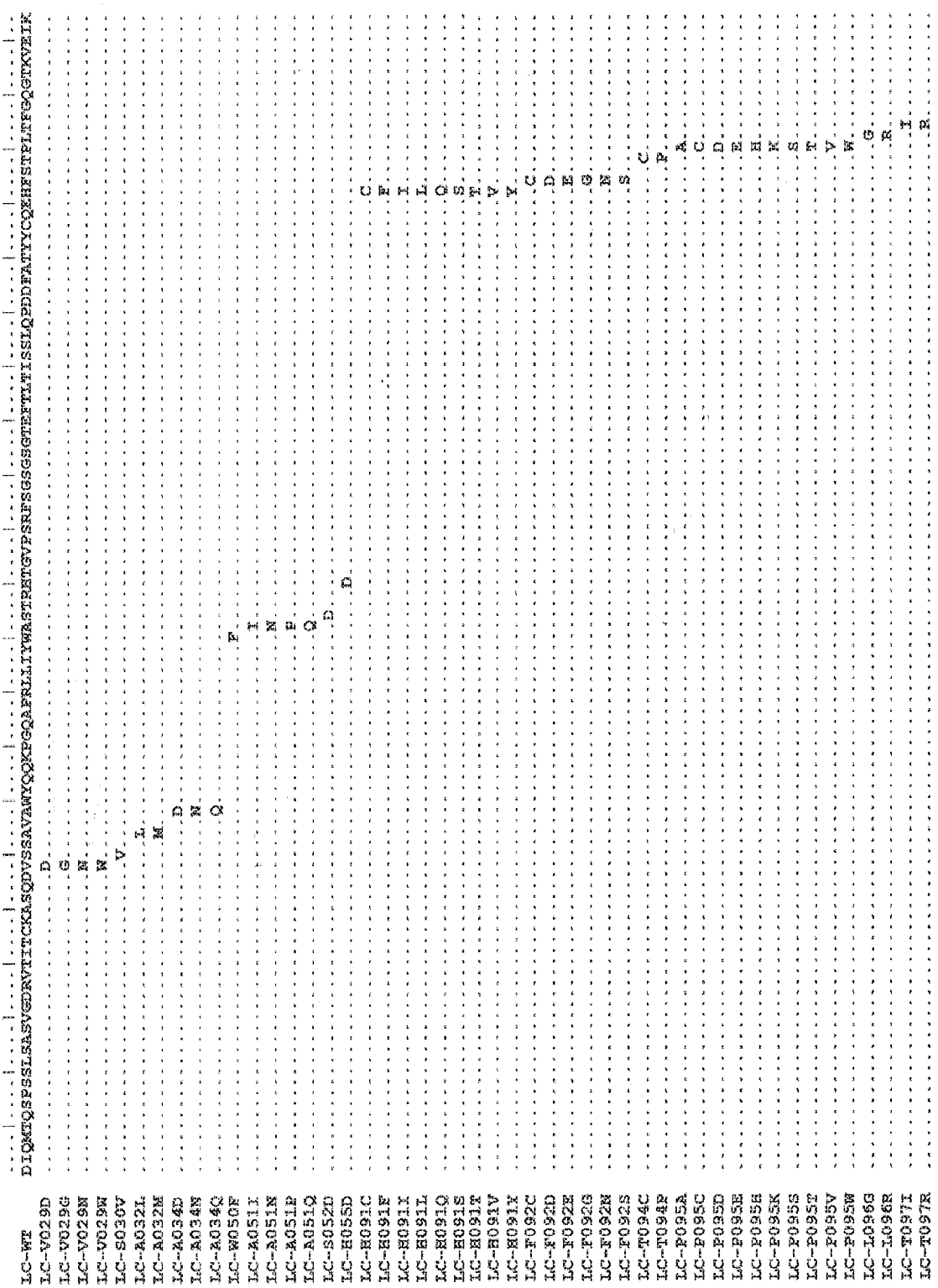

10
20
30
40
50
60
70
80
90
100
LC-WT DIQMTQSPSSLSASVGDRVTITCKASQDVSSAVAWYQQKPGQAPRLLIYWASTRETGVPSRFSGSGSGTEFTLTISSLQPDDFATYYCQEHFSTPLTFGQGTKVEIK
LC-V029D .....D.....
LC-V029G .....G.....
LC-V029N .....N.....
LC-V029W .....W.....
LC-S030V .....V.....
LC-A032L .....L.....
LC-A032M .....M.....
LC-A034D .....D.....
LC-A034N .....N.....
LC-A034Q .....Q.....
LC-W050F .....F.....
LC-A051I .....I.....
LC-A051N .....N.....
LC-A051P .....P.....
LC-A051Q .....Q.....
LC-S052D .....D.....
LC-E055D .....D.....
LC-E091C .....C.....
LC-E091F .....F.....
LC-E091I .....I.....
LC-E091L .....L.....
LC-E091Q .....Q.....
LC-E091S .....S.....
LC-E091T .....T.....
LC-E091V .....V.....
LC-E091Y .....Y.....
LC-F092C .....C.....
LC-F092D .....D.....
LC-F092E .....E.....
LC-F092G .....G.....
LC-F092M .....N.....
LC-F092S .....S.....
LC-T094C .....C.....
LC-T094P .....P.....
LC-P095A .....A.....
LC-P095C .....C.....
LC-P095D .....D.....
LC-P095E .....E.....
LC-P095H .....H.....
LC-P095K .....K.....
LC-P095S .....S.....
LC-P095T .....T.....
LC-P095V .....V.....
LC-P095W .....W.....
LC-I096G .....G.....
LC-I096R .....R.....
LC-T097I .....I.....
LC-T097R .....R.....

FIG. 1B

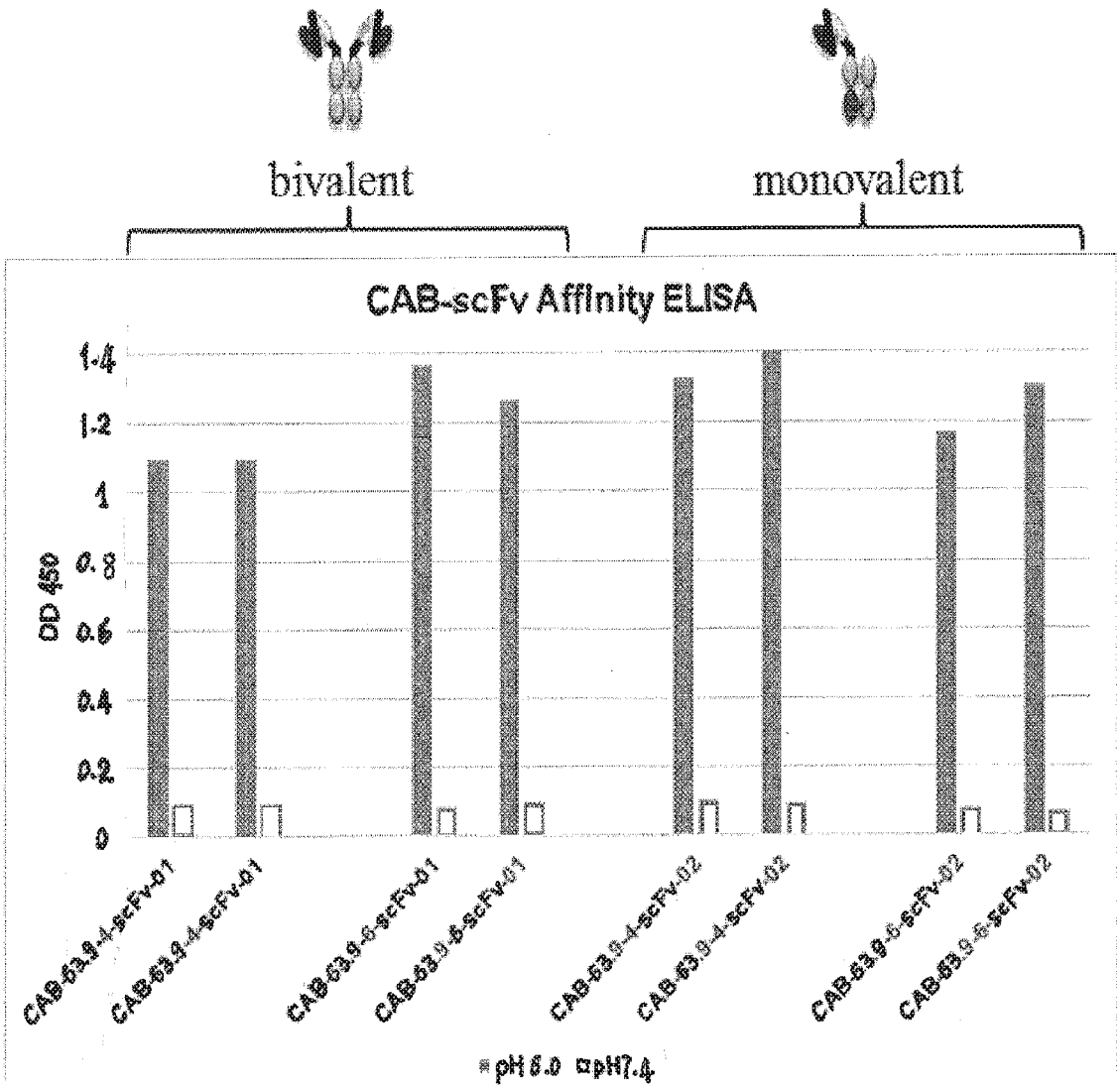

bivalent
monovalent
CAB-scFv Affinity ELISA
OD 450
1.4
1.2
1
0.8
0.6
0.4
0.2
0
CAB-63.9-4-scFv-01
CAB-63.9-4-scFv-01
CAB-63.9-6-scFv-01
CAB-63.9-6-scFv-01
CAB-63.9-4-scFv-02
CAB-63.9-4-scFv-02
CAB-63.9-6-scFv-02
CAB-63.9-6-scFv-02
pH 6.0
pH7.4

FIG. 2

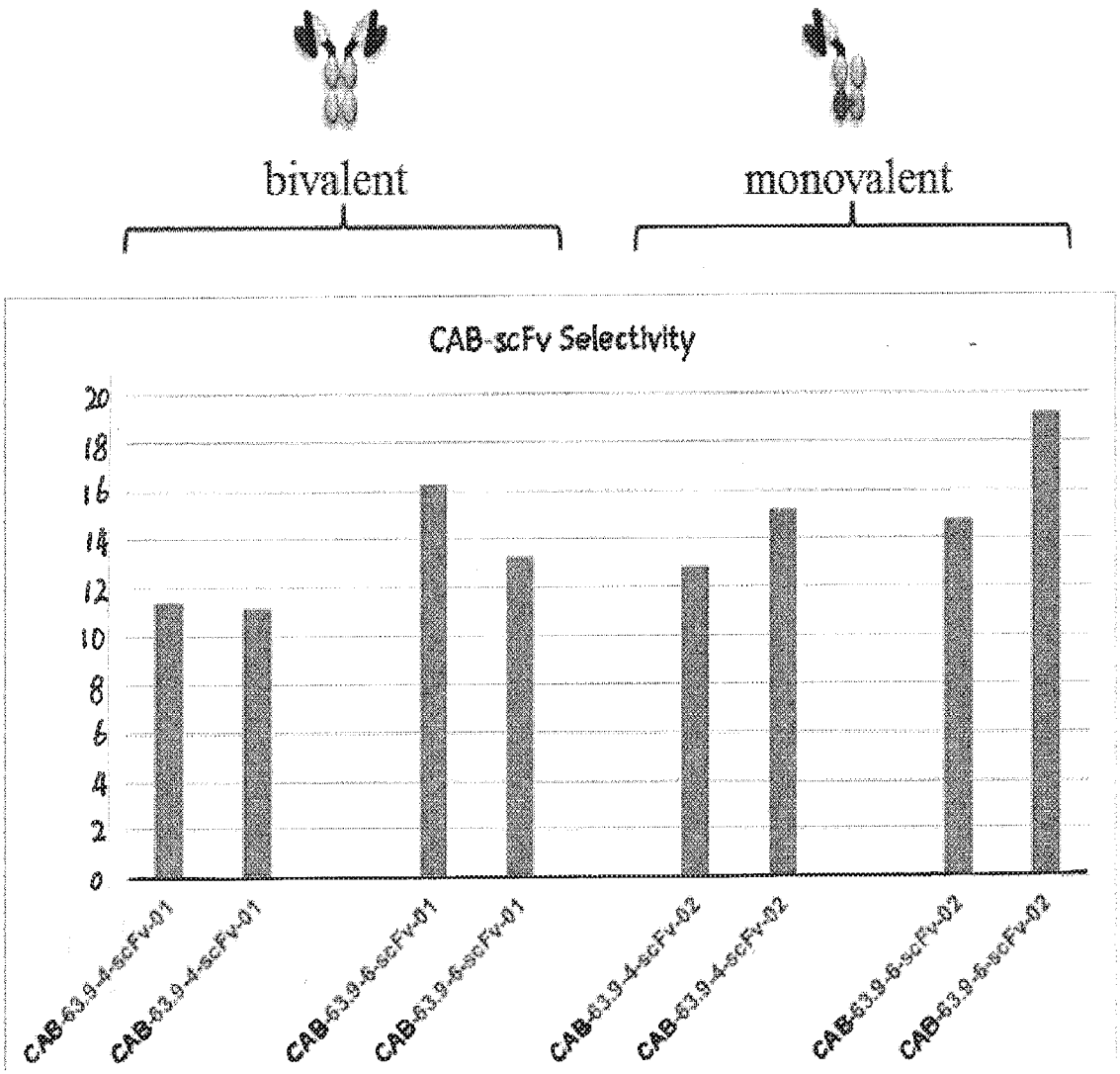

bivalent
monovalent
CAB-scFv Selectivity
20
18
16
14
12
10
8
6
4
2
0
CAB-63.9-4-scFv-01
CAB-63.9-4-scFv-01
CAB-63.9-6-scFv-01
CAB-63.9-6-scFv-01
CAB-63.9-4-scFv-02
CAB-63.9-4-scFv-02
CAB-63.9-6-scFv-02
CAB-63.9-6-scFv-02

FIG. 3

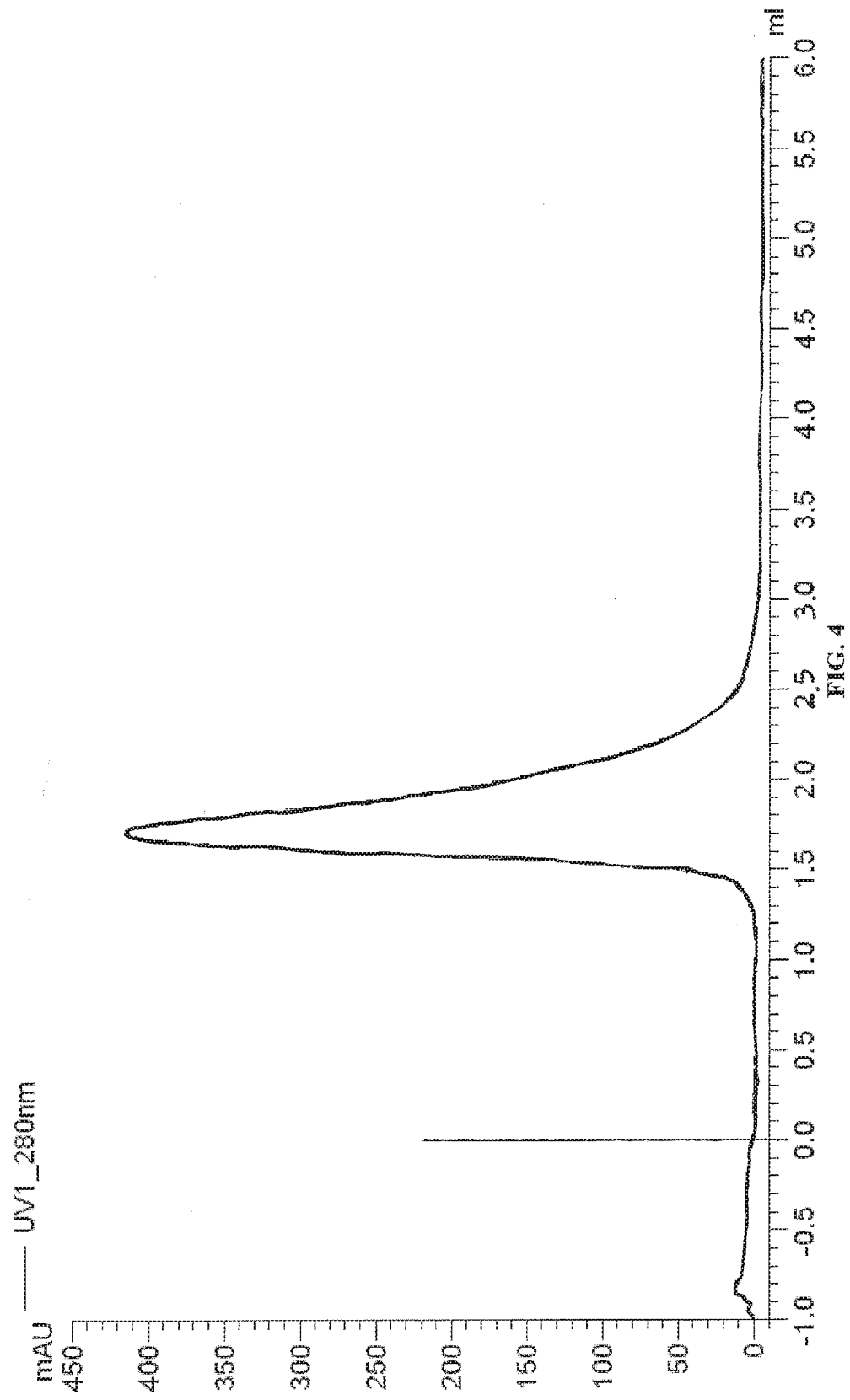
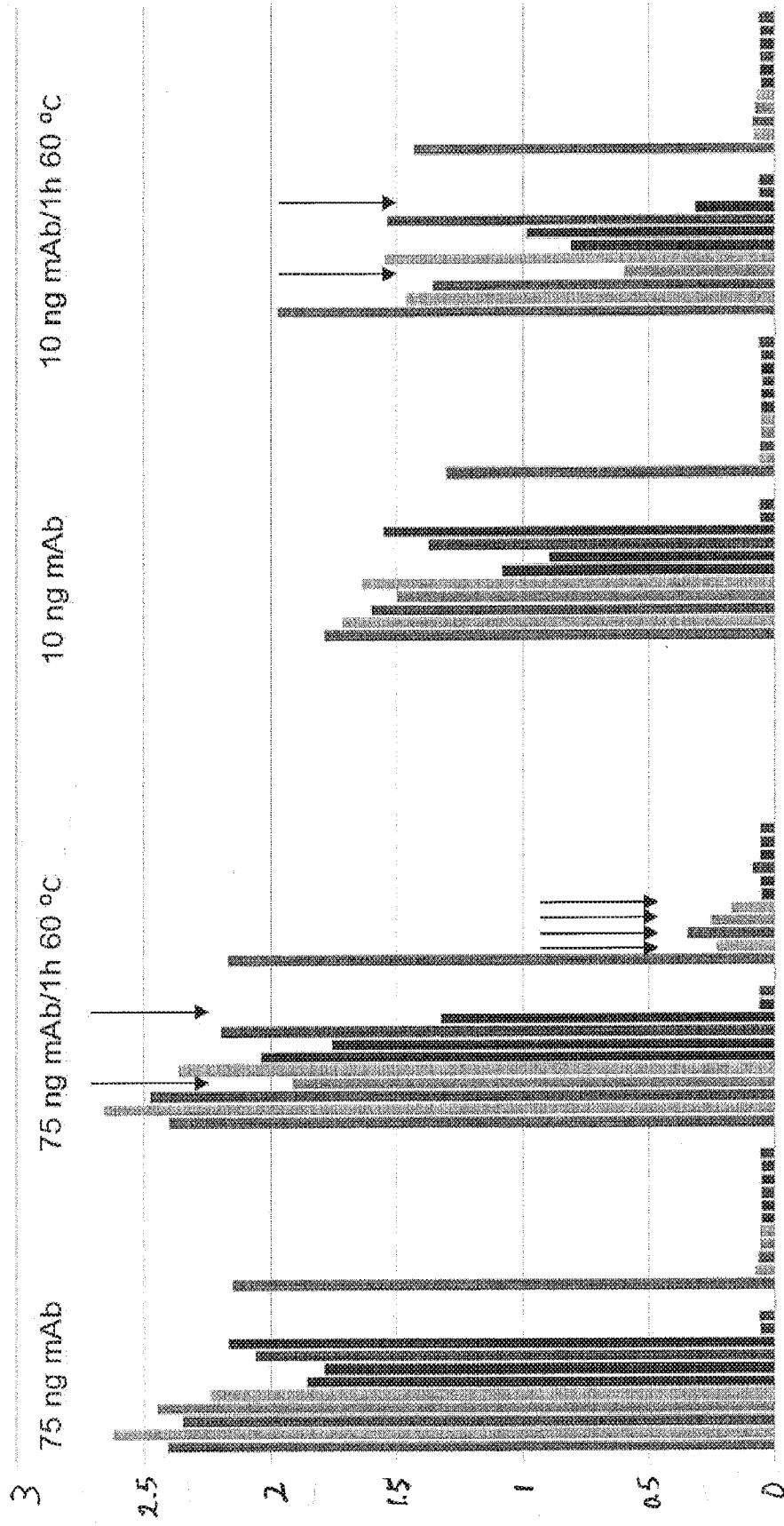

mAU
450
400
350
300
250
200
150
100
50
0
UV1_280nm
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
ml

FIG. 4



There are 11 antibodies tested under each condition (i.e., 11 bars in each set of bars). The 11 bars under each condition from left to right represent respectively clones BAP063 10F10, BAP063.9-13-1-FLAG, BAP063.9-29-2-FLAG, BAP063.9-45-2-FLAG, BAP063.9-13-3-FLAG, BAP063-21-3-FLAG, BAP063.9-21-4-FLAG, BAP063.9-29-4-FLAG, BAP063.9-48-3-FLAG, non-specific mAb, no mAb.

FIG. 5

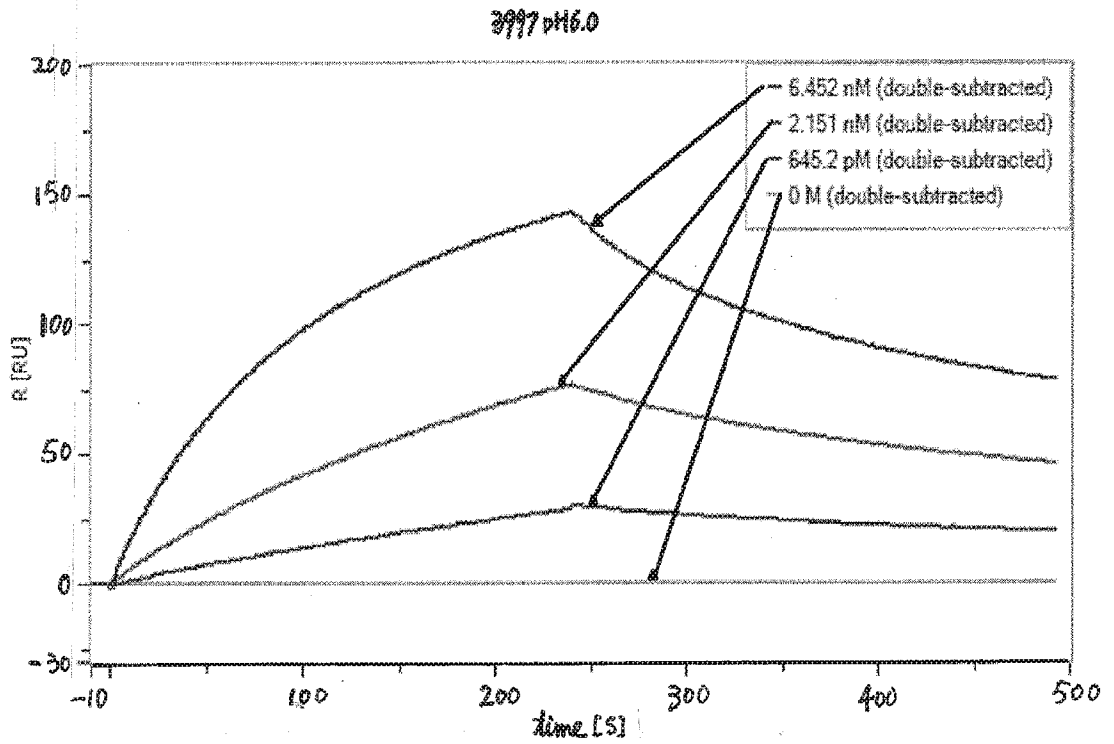

3997 pH6.0
6.452 nM (double-subtracted)
2.151 nM (double-subtracted)
645.2 pM (double-subtracted)
0 M (double-subtracted)
R [RU]
time [s]

FIG. 6A

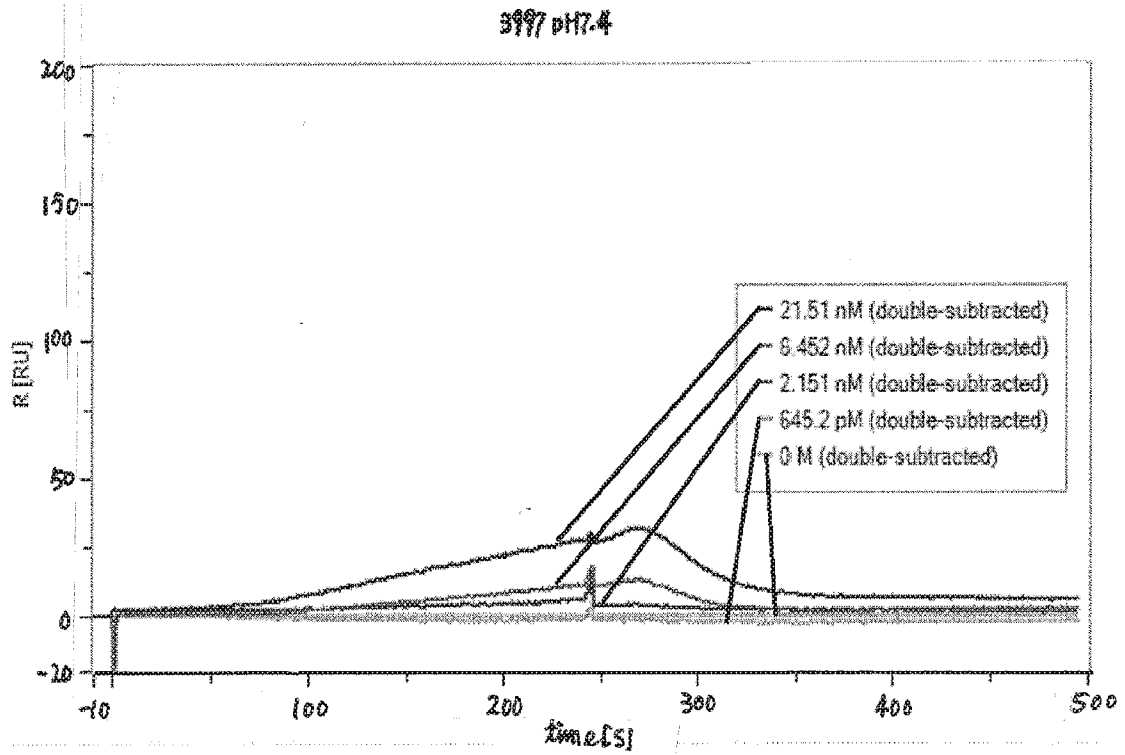

3997 pH7.4
21.51 nM (double-subtracted)
6.452 nM (double-subtracted)
2.151 nM (double-subtracted)
645.2 pM (double-subtracted)
0 M (double-subtracted)
R [RU]
time [s]

FIG. 6B

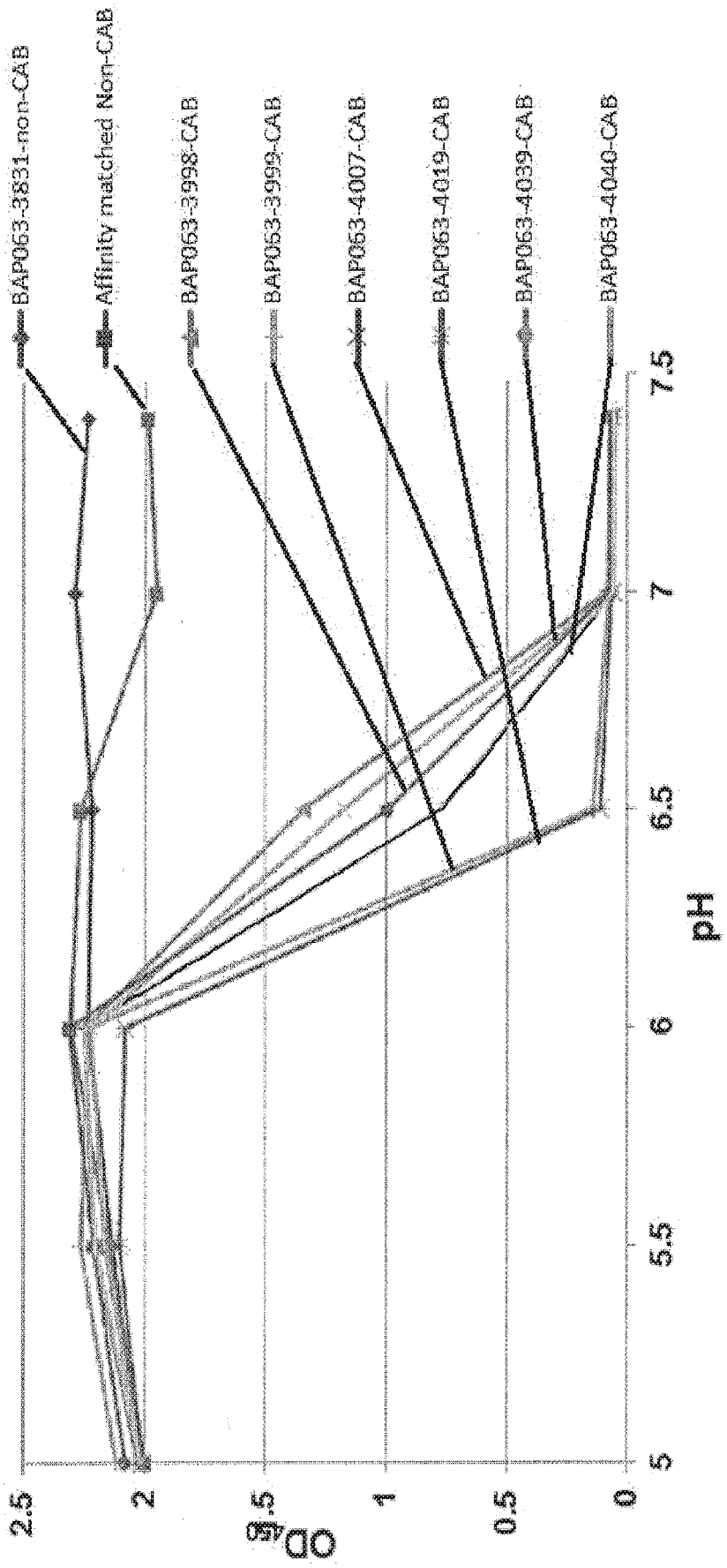

BAP063-3831-non-CAB
Affinity matched Non-CAB
BAP063-3998-CAB
BAP063-3999-CAB
BAP063-4007-CAB
BAP063-4019-CAB
BAP063-4039-CAB
BAP063-4040-CAB
OD450
2.5
2
1.5
1
0.5
0
5
5.5
6
6.5
7
7.5
pH

FIG. 7

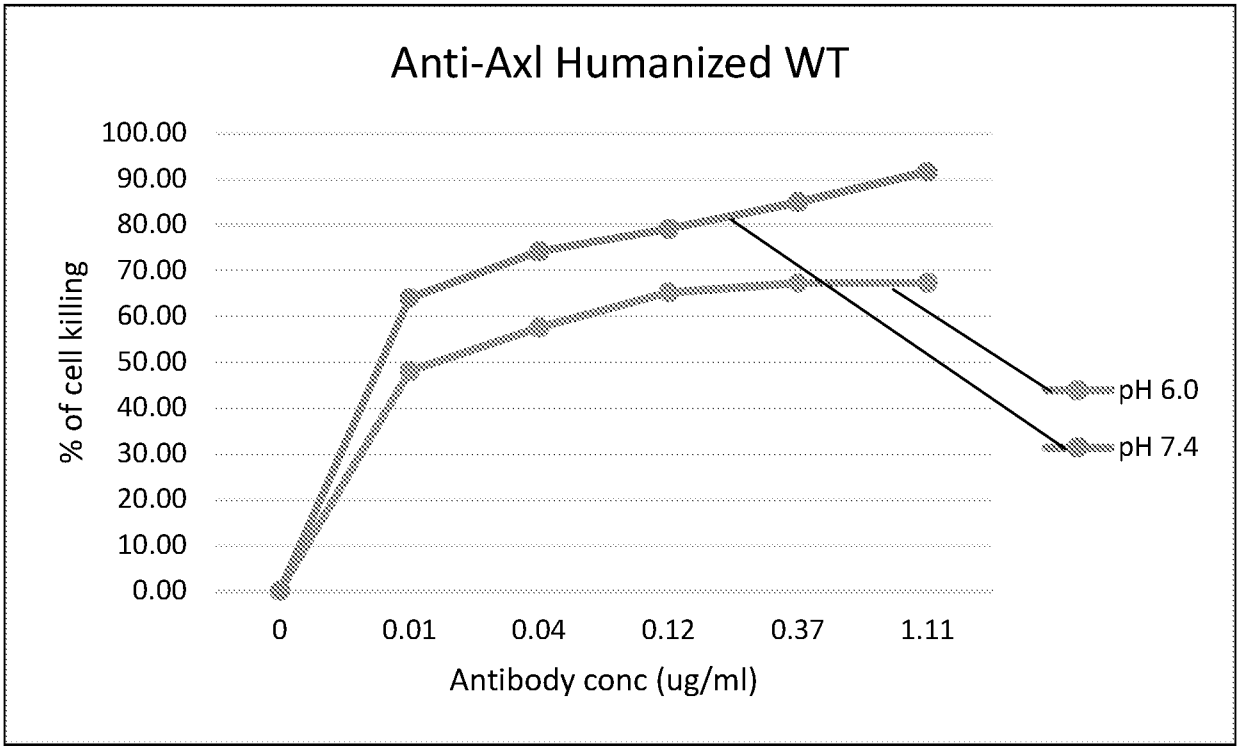

Anti-Axl Humanized WT
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
% of cell killing
0
0.01
0.04
0.12
0.37
1.11
Antibody conc (ug/ml)
pH 6.0
pH 7.4

FIG. 8A

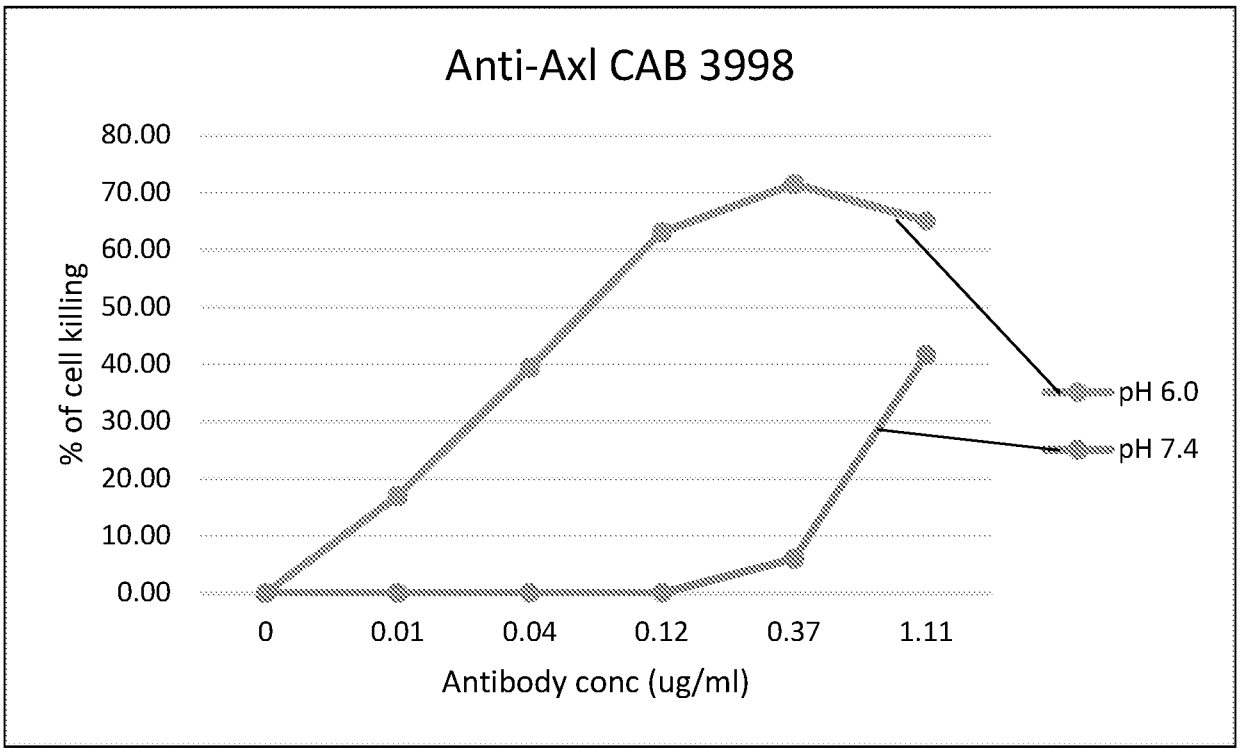

Anti-Axl CAB 3998
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
% of cell killing
0
0.01
0.04
0.12
0.37
1.11
Antibody conc (ug/ml)
pH 6.0
pH 7.4

FIG. 8B

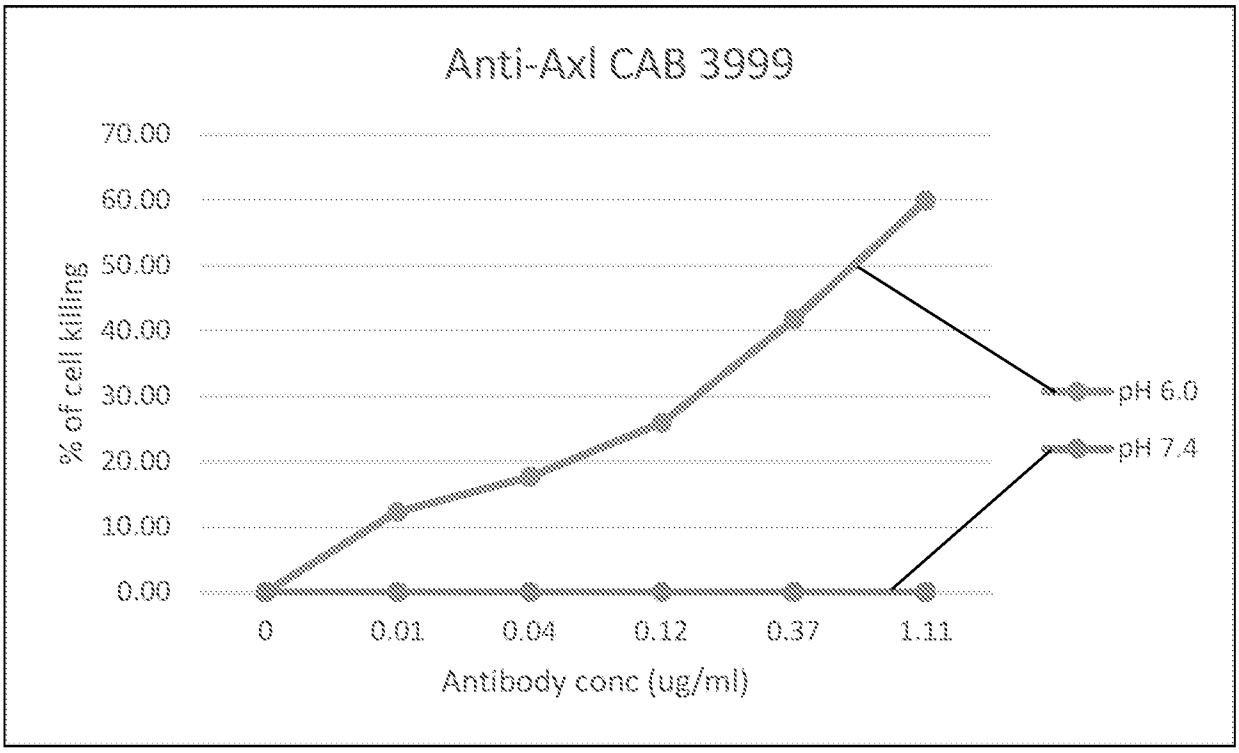

Anti-Axl CAB 3999
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
% of cell killing
0
0.01
0.04
0.12
0.37
1.11
Antibody conc (ug/ml)
pH 6.0
pH 7.4

FIG. 8C

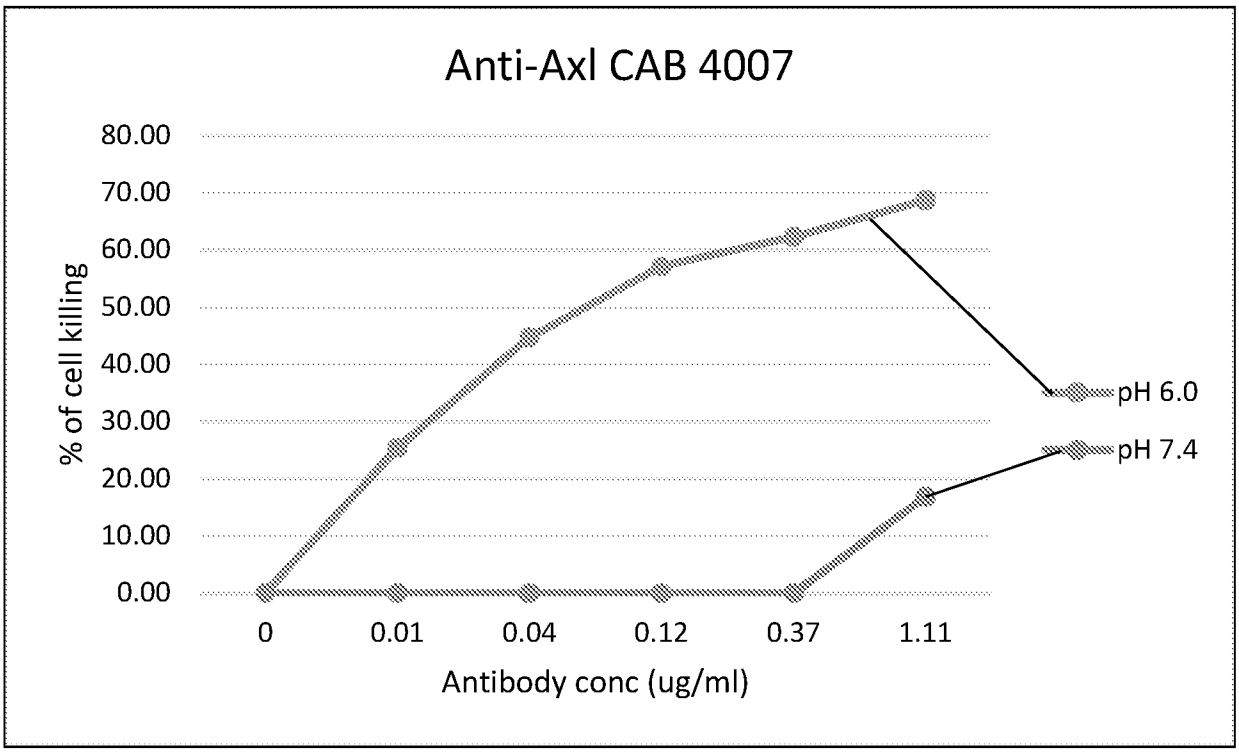

Anti-Axl CAB 4007
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
% of cell killing
0
0.01
0.04
0.12
0.37
1.11
Antibody conc (ug/ml)
pH 6.0
pH 7.4

FIG. 8D

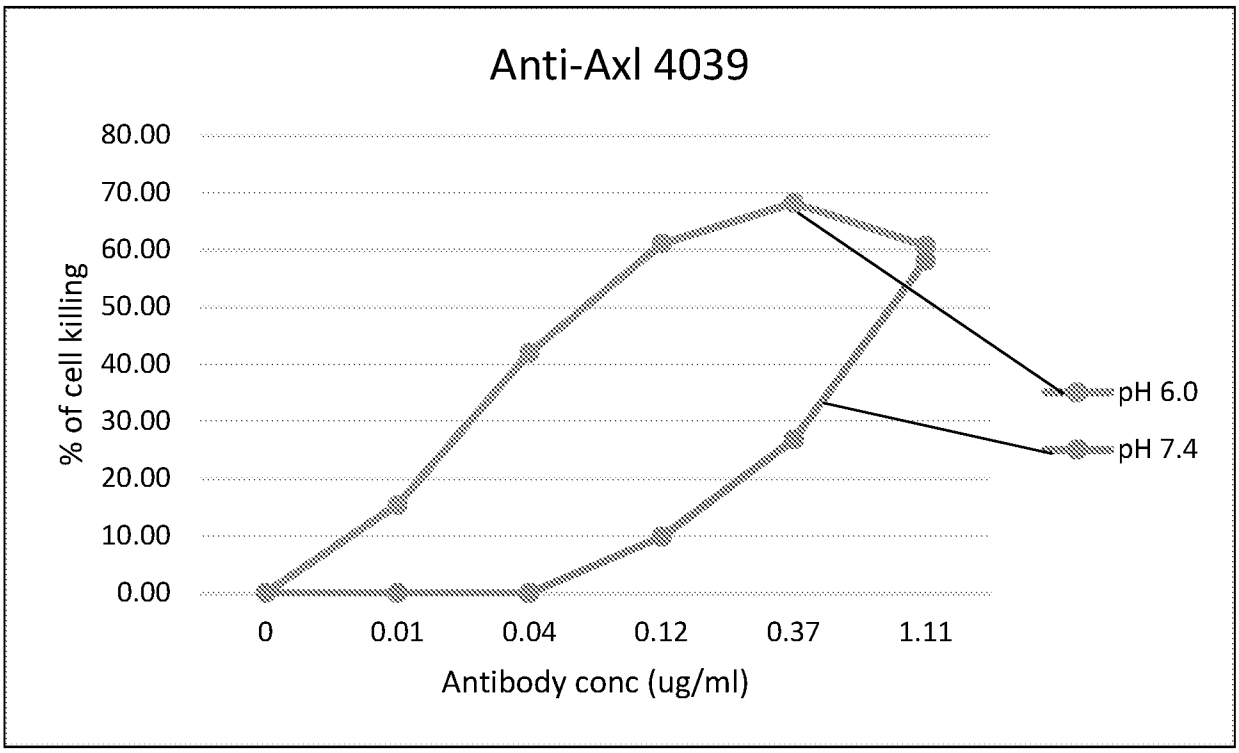

Anti-Axl 4039
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
% of cell killing
0
0.01
0.04
0.12
0.37
1.11
Antibody conc (ug/ml)
pH 6.0
pH 7.4

FIG. 8E

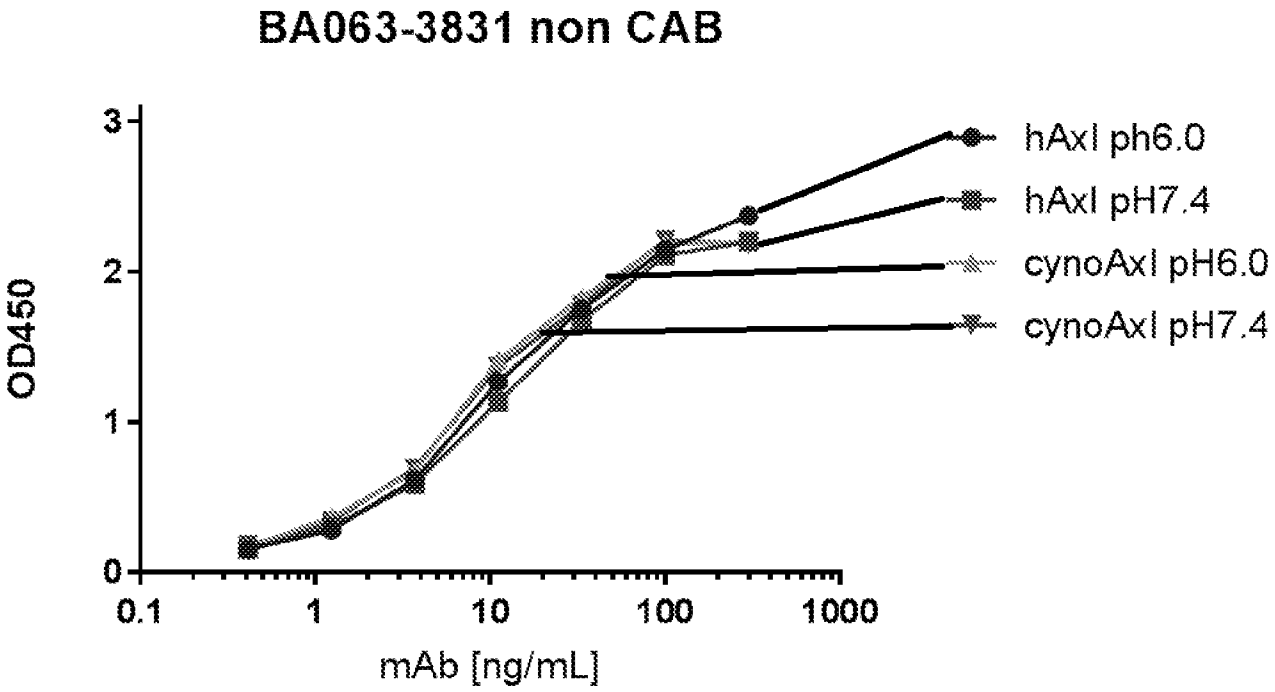

BA063-3831 non CAB
OD450
3
2
1
0
0.1
1
10
100
1000
mAb [ng/mL]
hAxl ph6.0
hAxl pH7.4
cynoAxl pH6.0
cynoAxl pH7.4

FIG. 9A

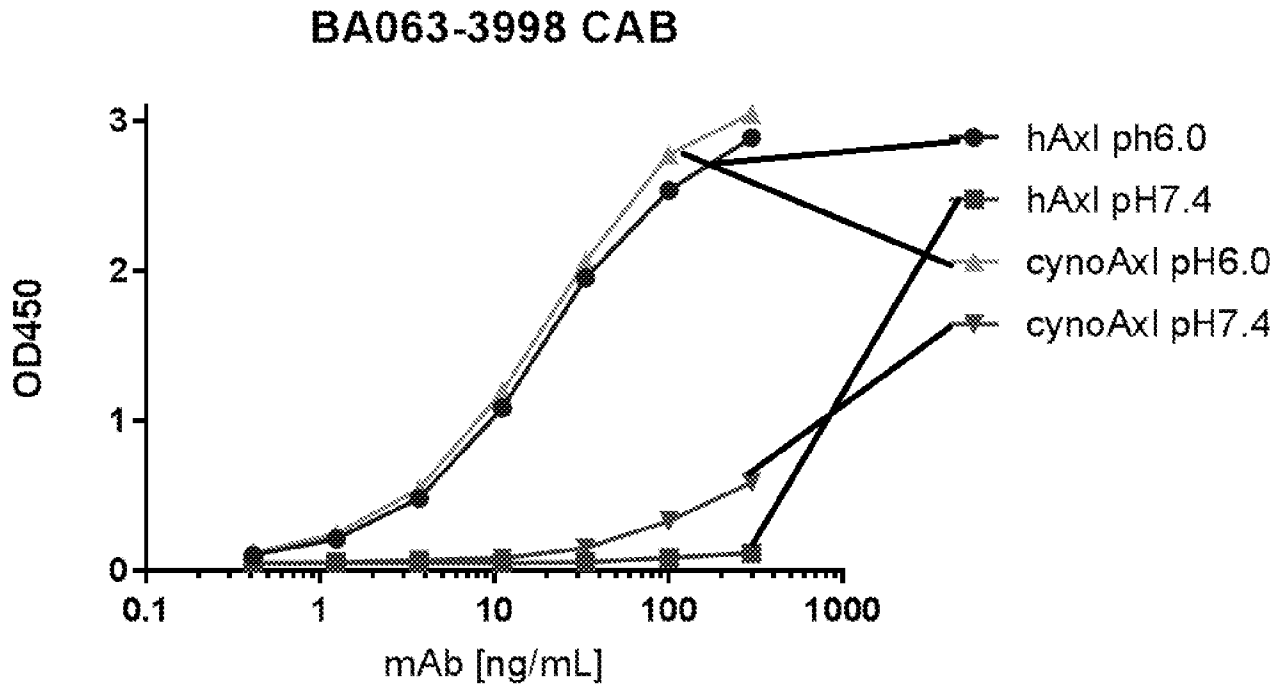

BA063-3998 CAB
OD450
3
2
1
0
0.1
1
10
100
1000
mAb [ng/mL]
hAxl ph6.0
hAxl pH7.4
cynoAxl pH6.0
cynoAxl pH7.4

FIG. 9B

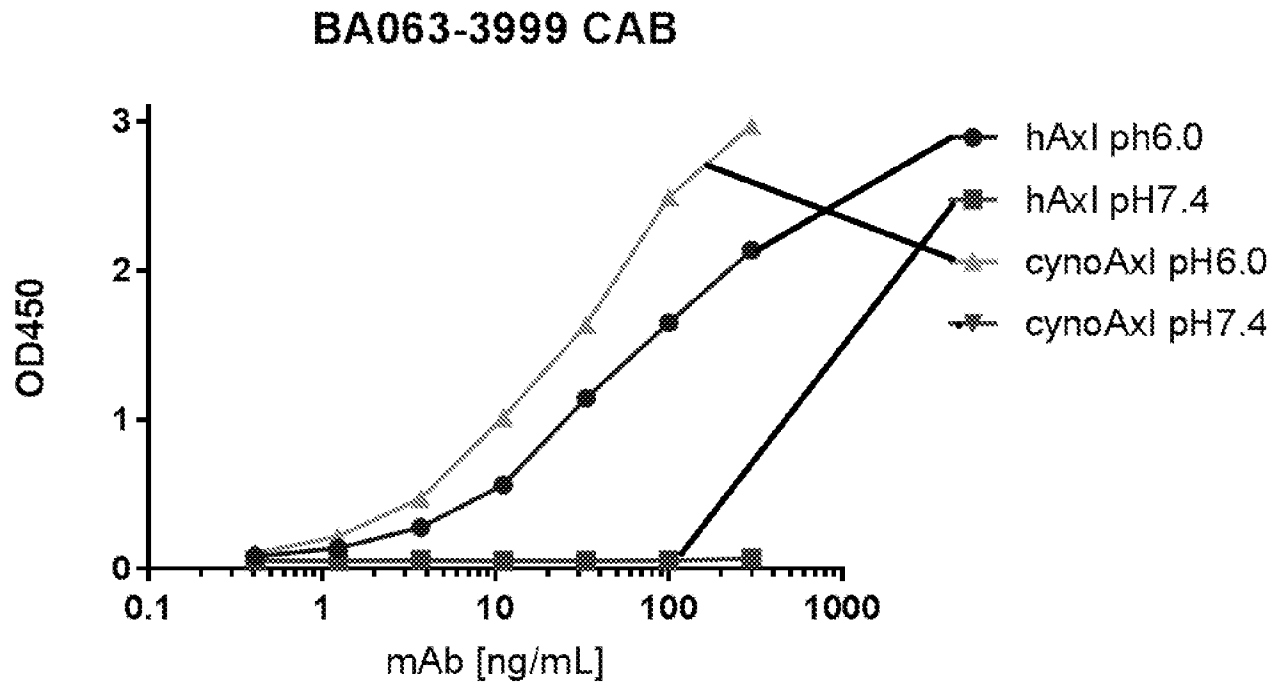

BA063-3999 CAB
OD450
3
2
1
0
0.1
1
10
100
1000
mAb [ng/mL]
hAxl ph6.0
hAxl pH7.4
cynoAxl pH6.0
cynoAxl pH7.4

FIG. 9C

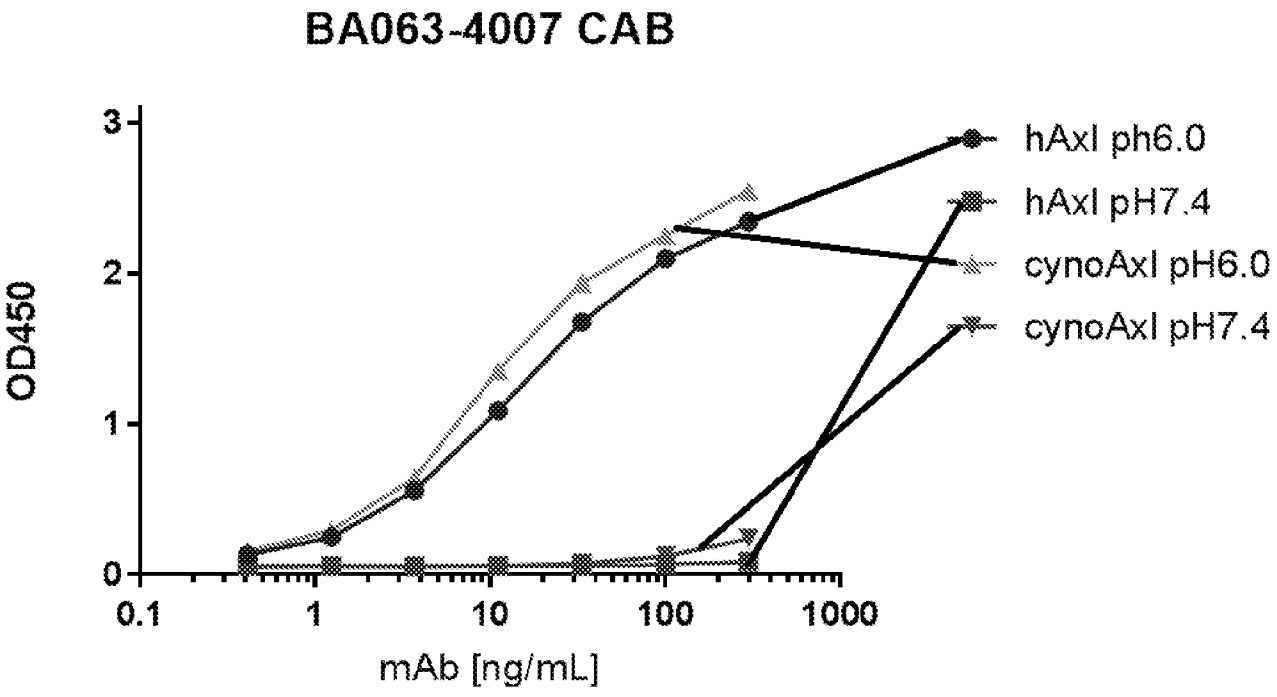

BA063-4007 CAB
OD450
3
2
1
0
0.1
1
10
100
1000
mAb [ng/mL]
hAxl ph6.0
hAxl pH7.4
cynoAxl pH6.0
cynoAxl pH7.4

FIG. 9D

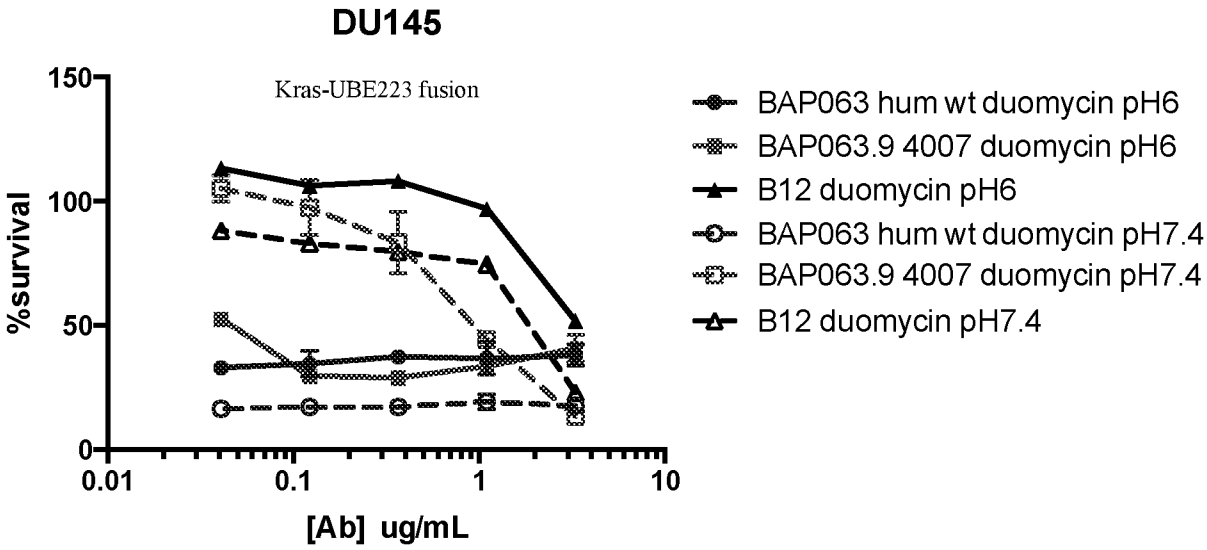


FIG. 10A

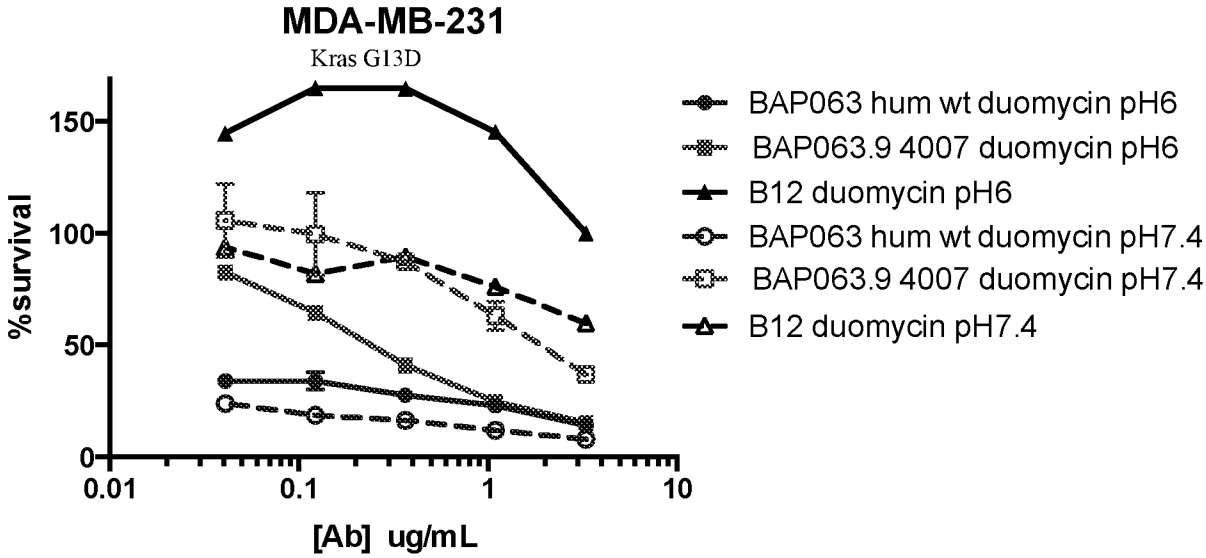


FIG. 10B

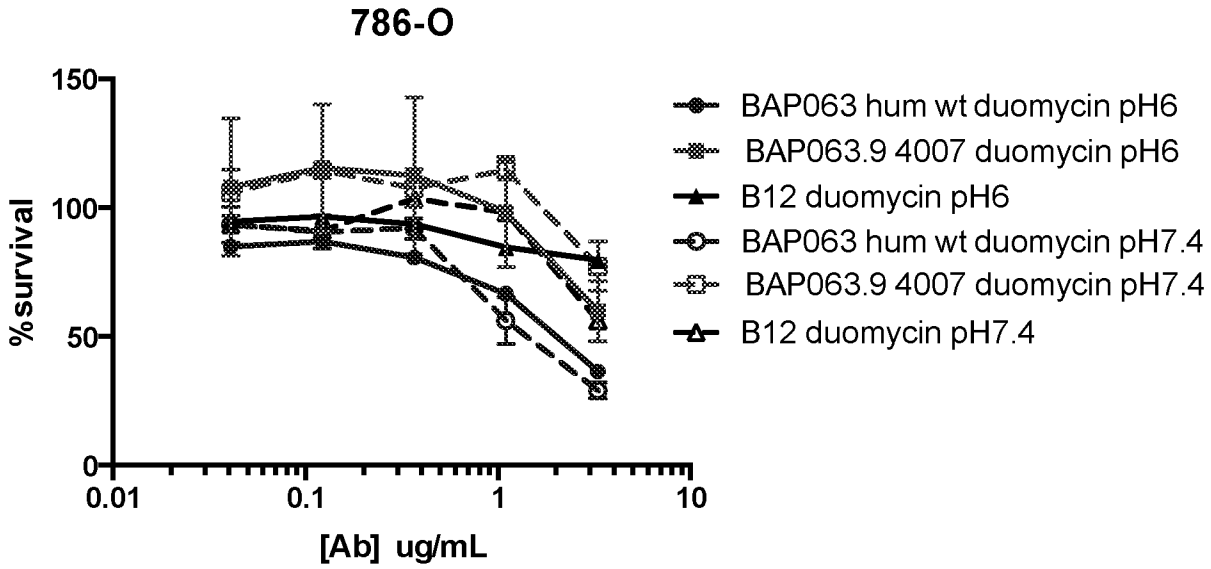


FIG. 10C

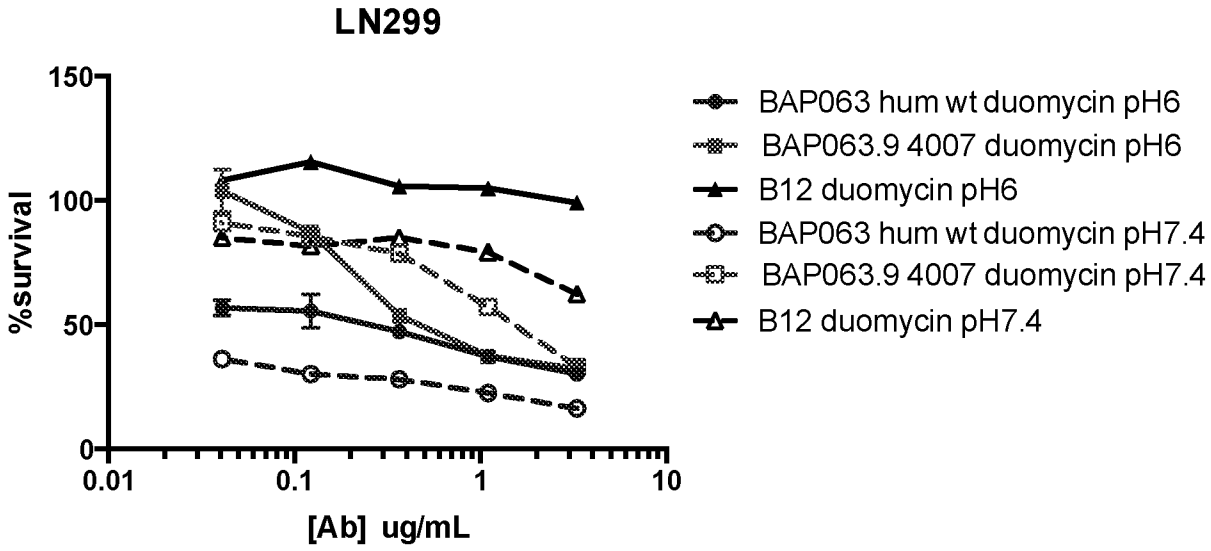


FIG. 10D

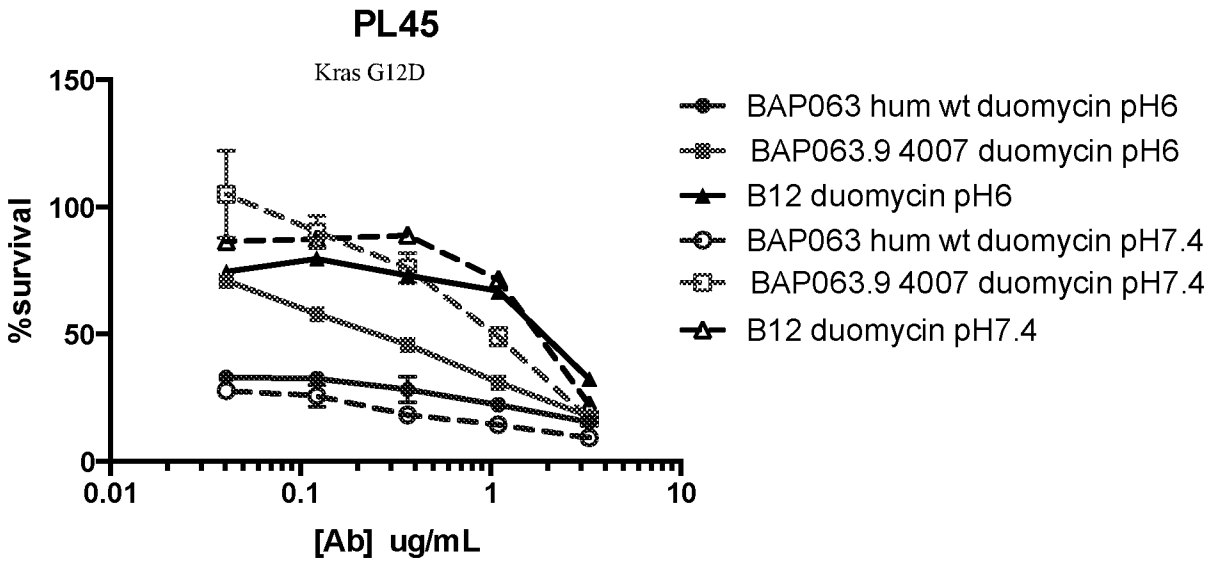


FIG. 10E

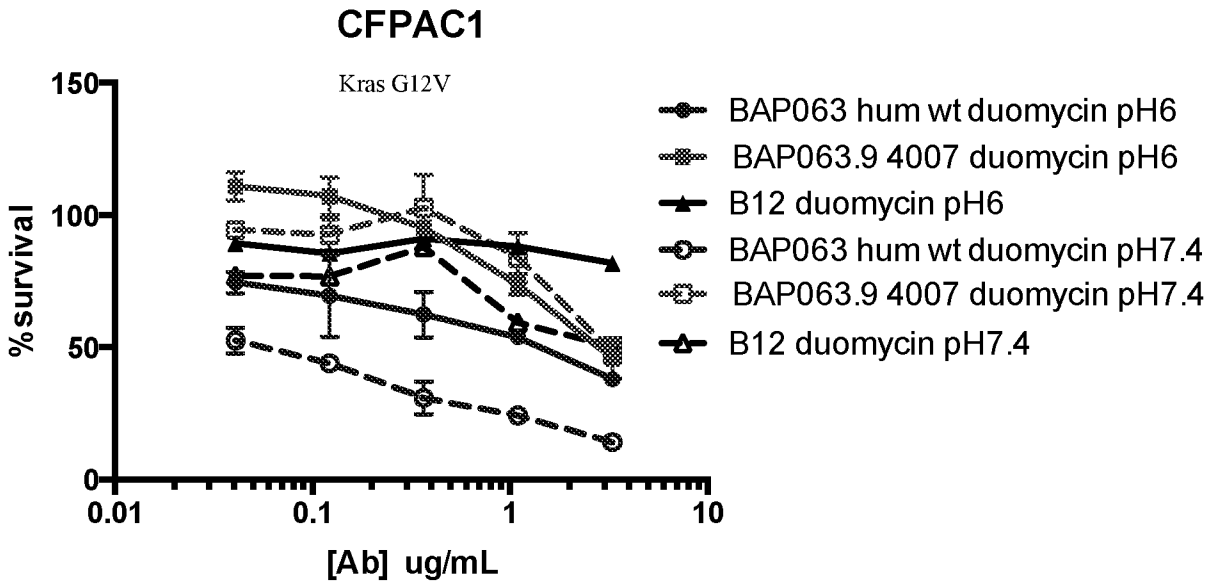


FIG. 10F

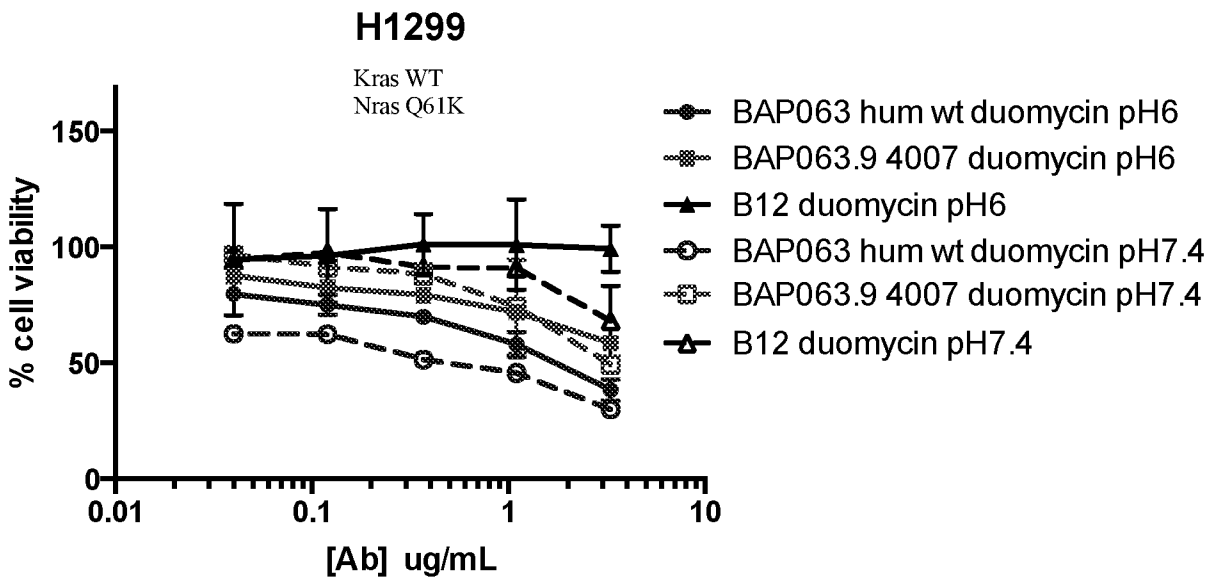


FIG. 10G

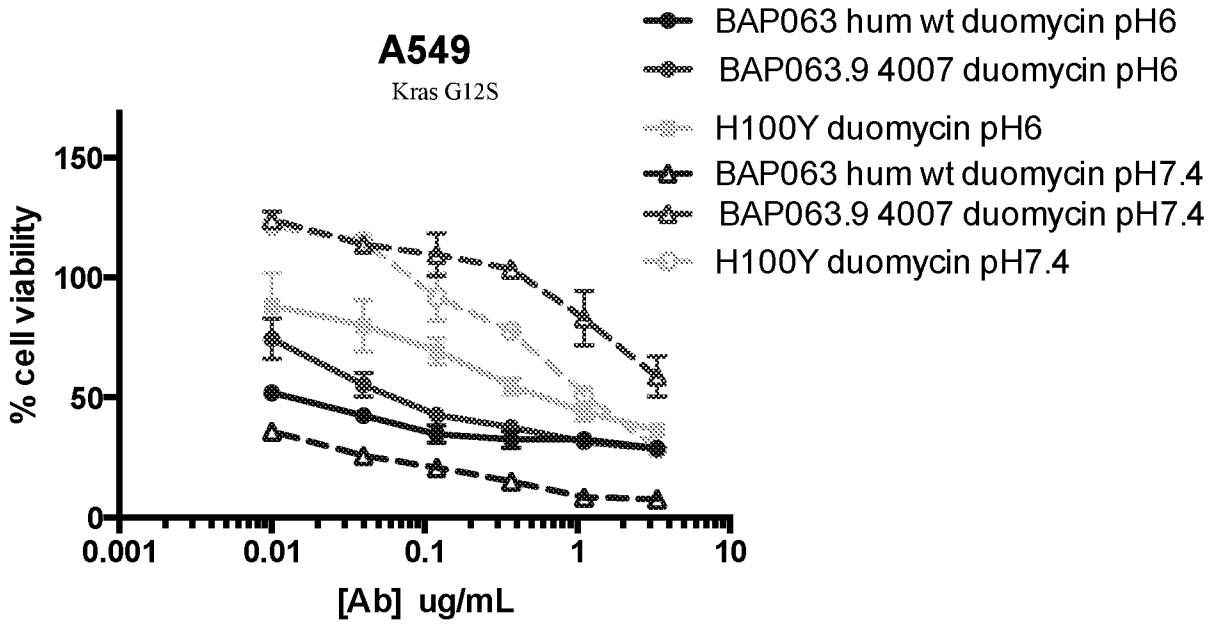


FIG. 10H

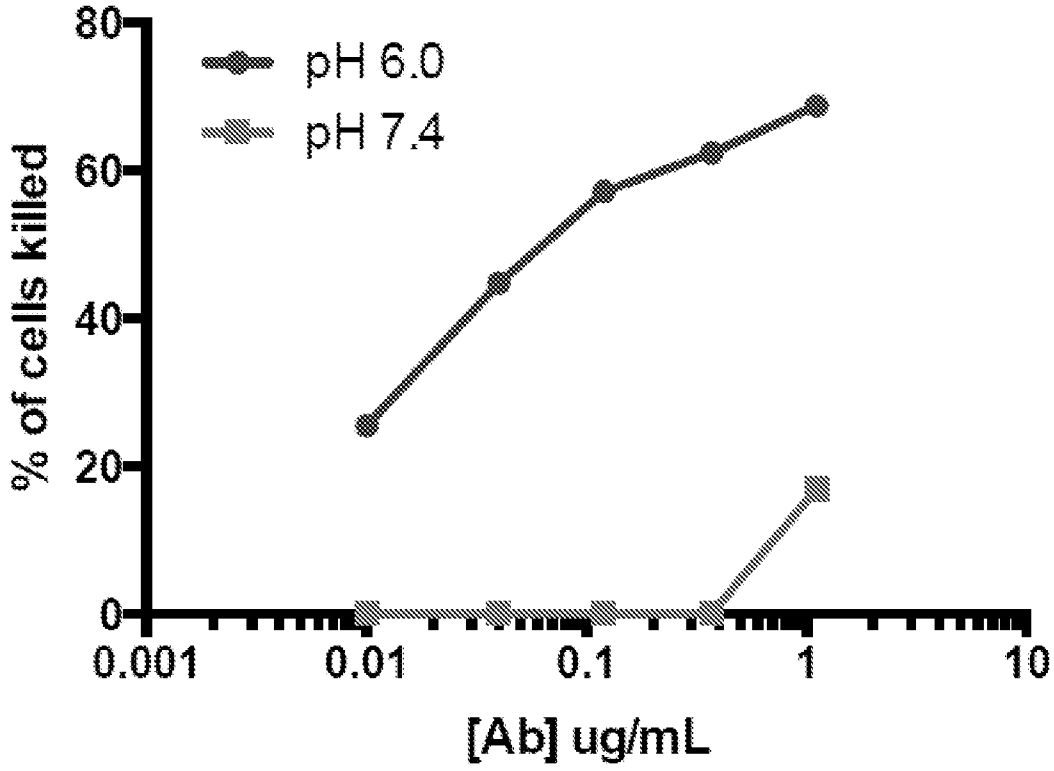


FIG. 11

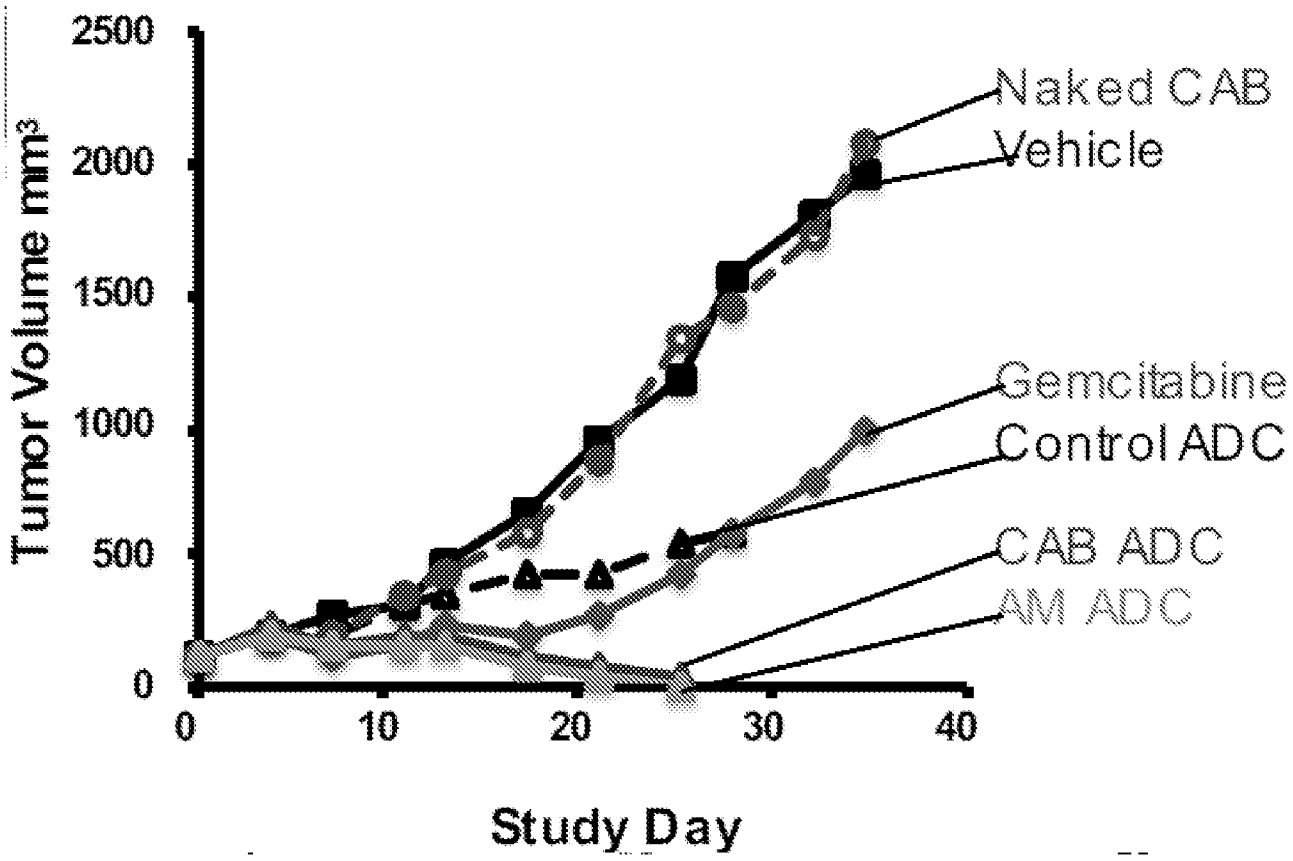

Tumor Volume mm3
2500
2000
1500
1000
500
0
0
10
20
30
40
Study Day
Naked CAB
Vehicle
Gemcitabine
Control ADC
CAB ADC
AM ADC

FIG. 12

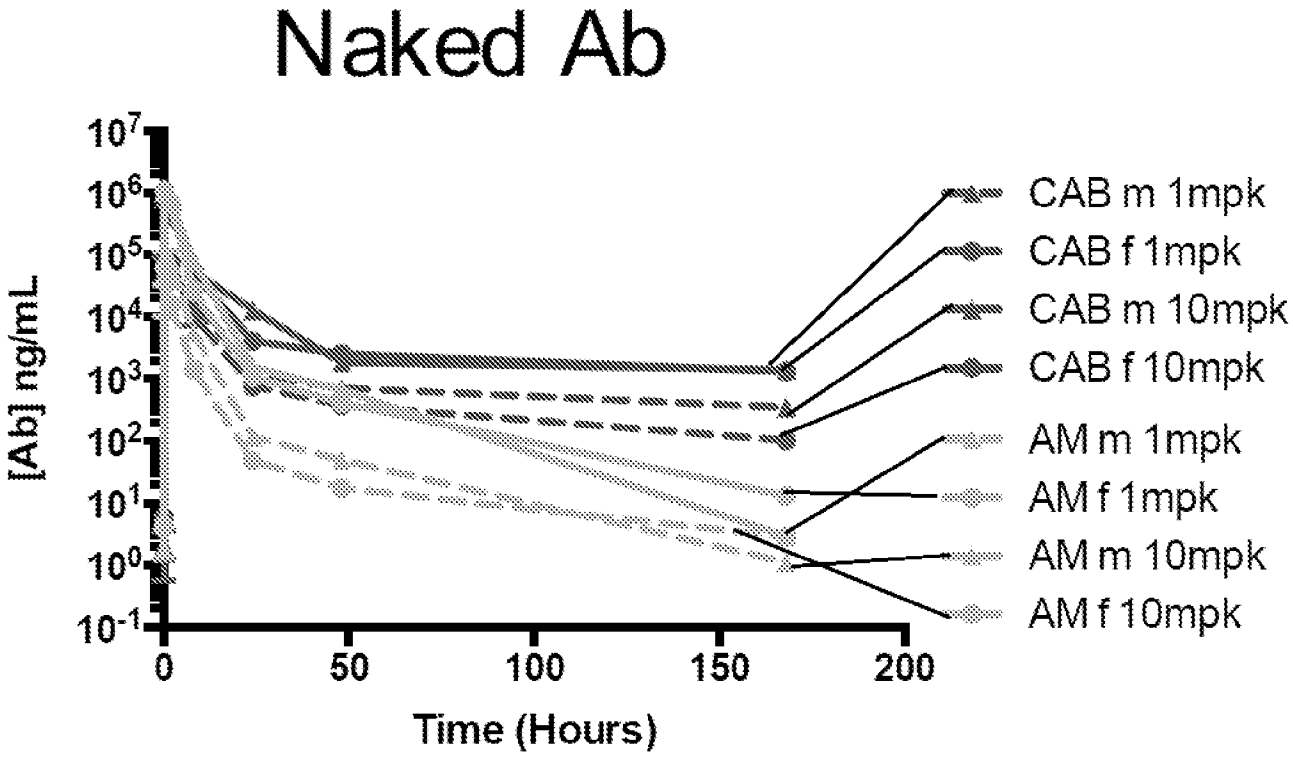


FIG. 13A

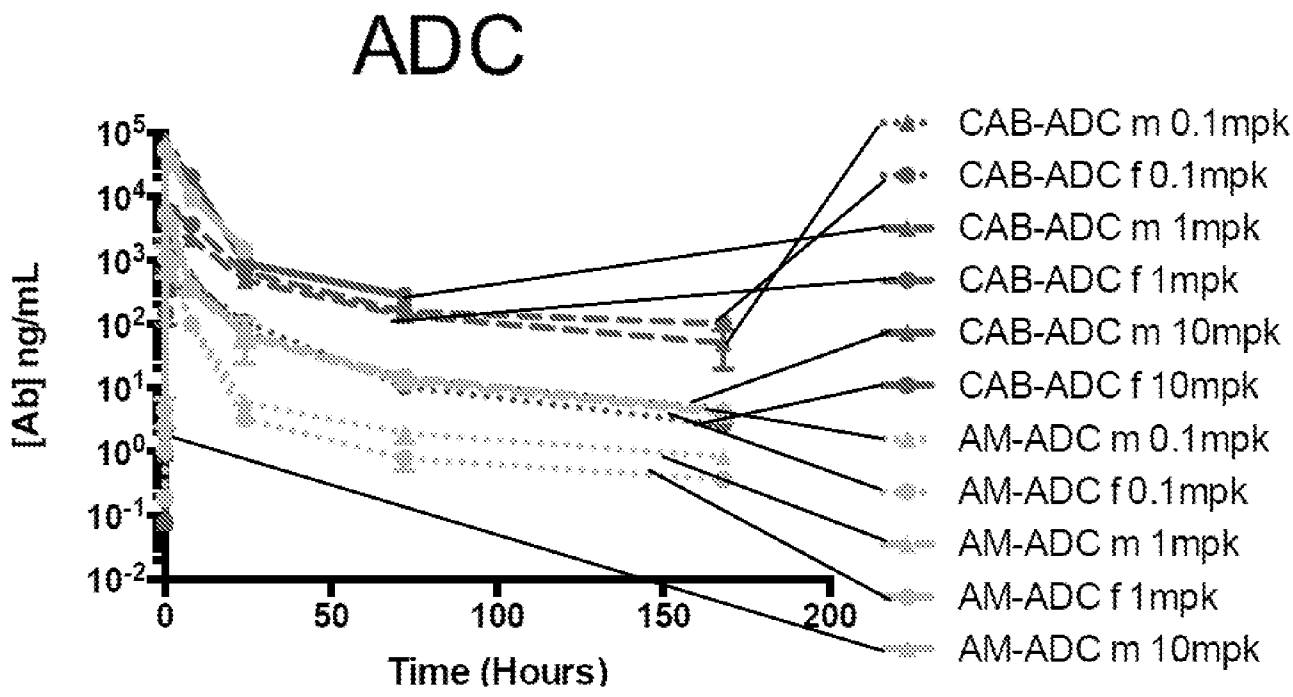


FIG. 13B

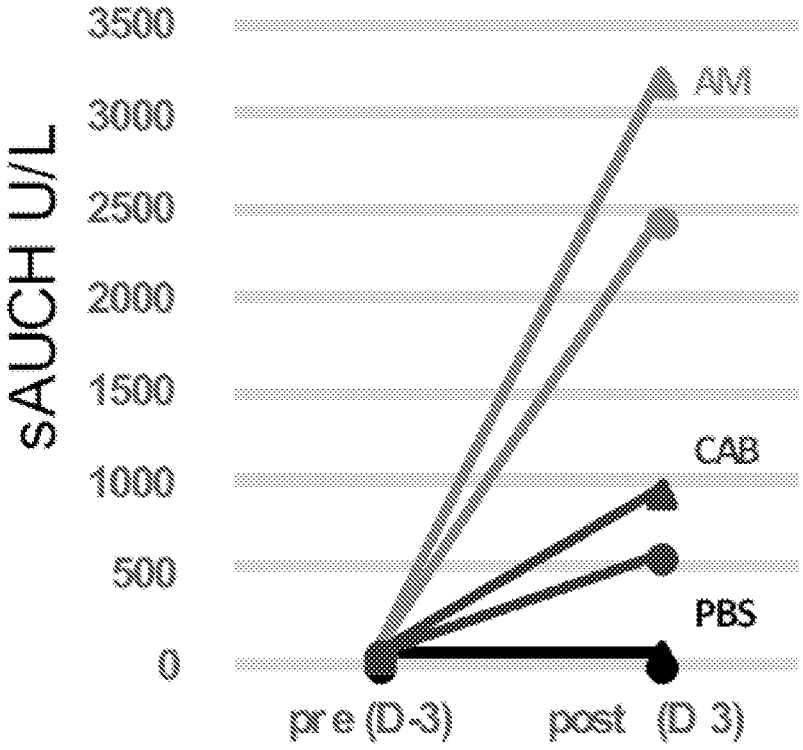


FIG. 14A

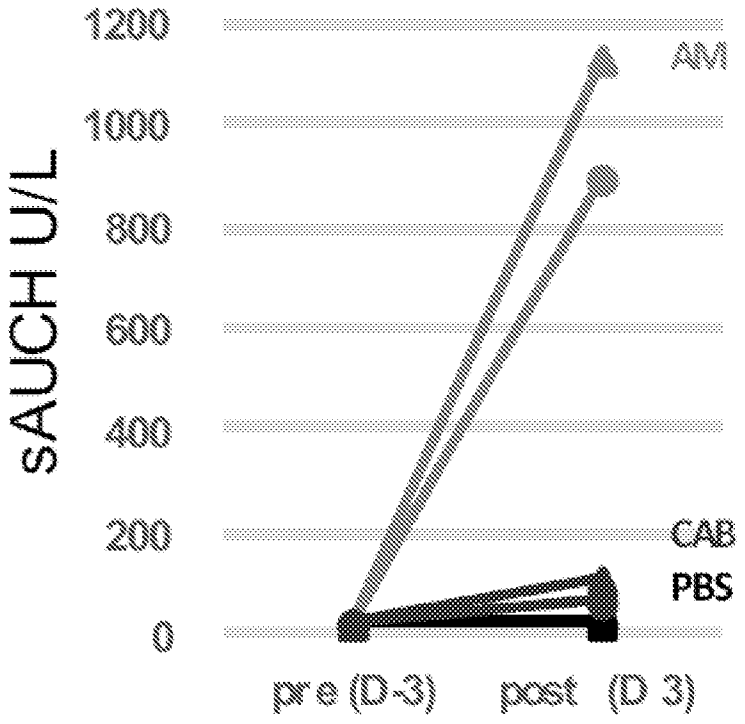


FIG. 14B

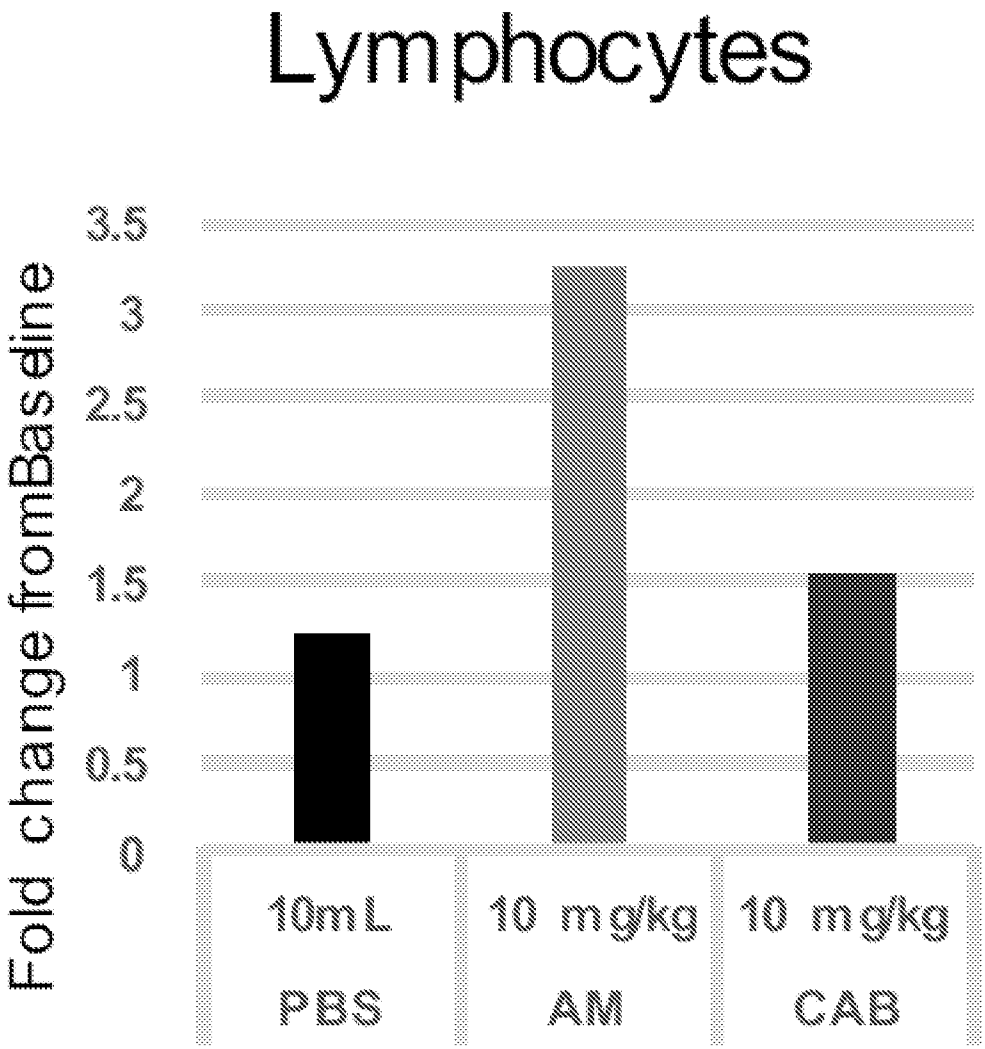

Lymphocytes
Fold change fromBasedine
3.5
3
2.5
2
1.5
1
0.5
0
10mL PBS
10 mg/kg AM
10 mg/kg CAB

FIG. 15

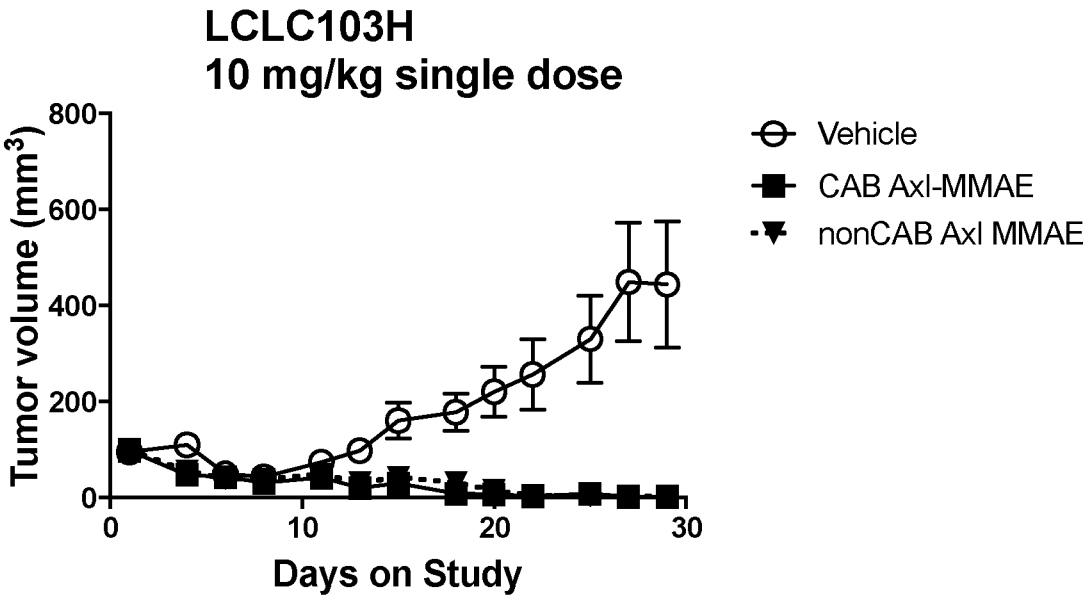


FIG. 16A

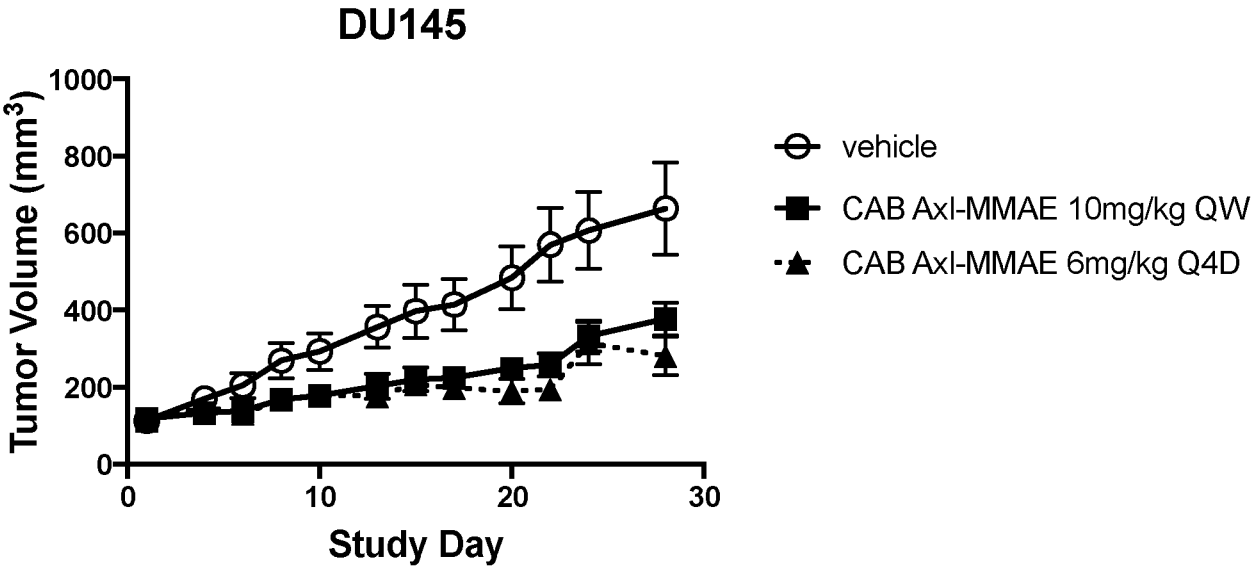


FIG. 16B