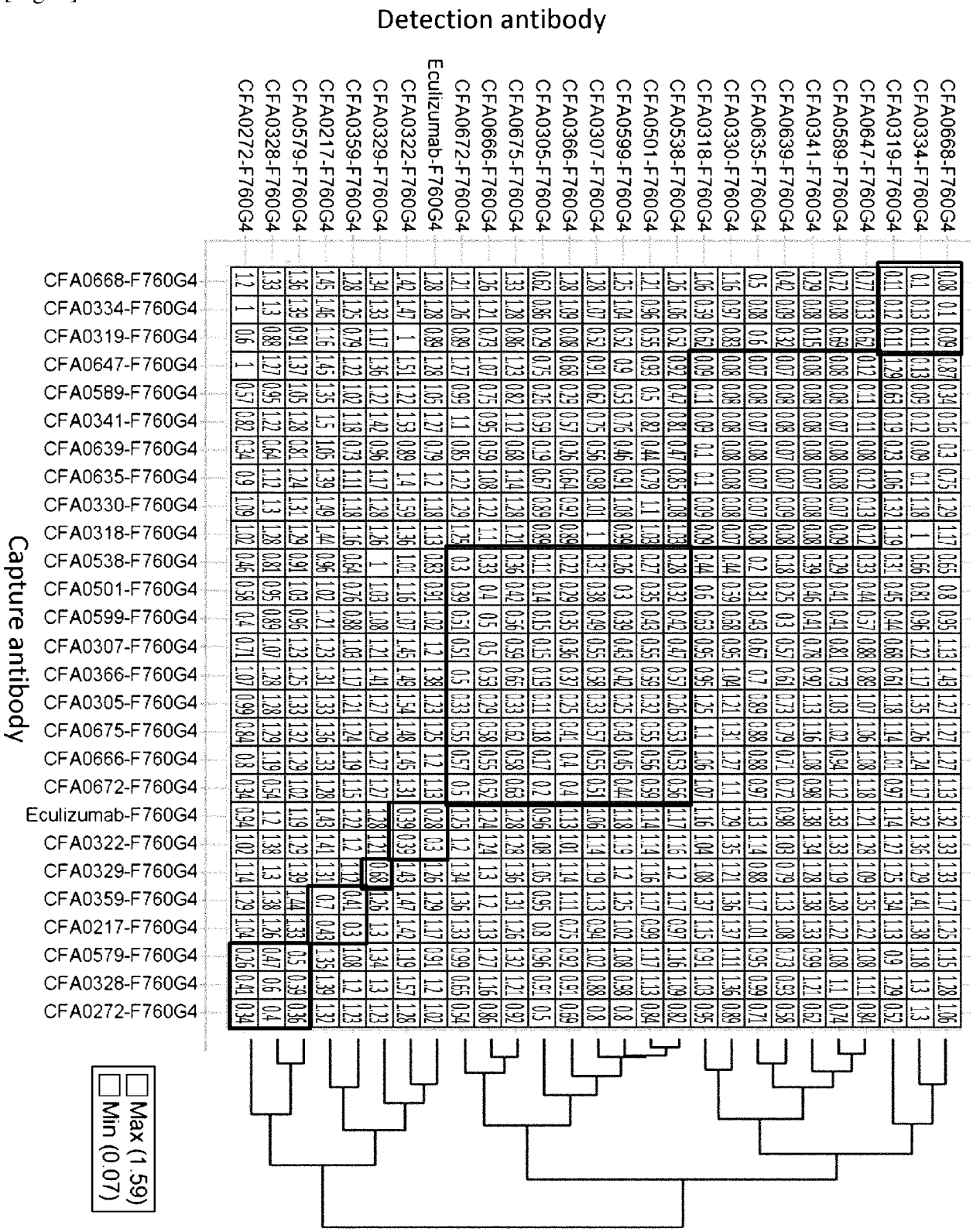
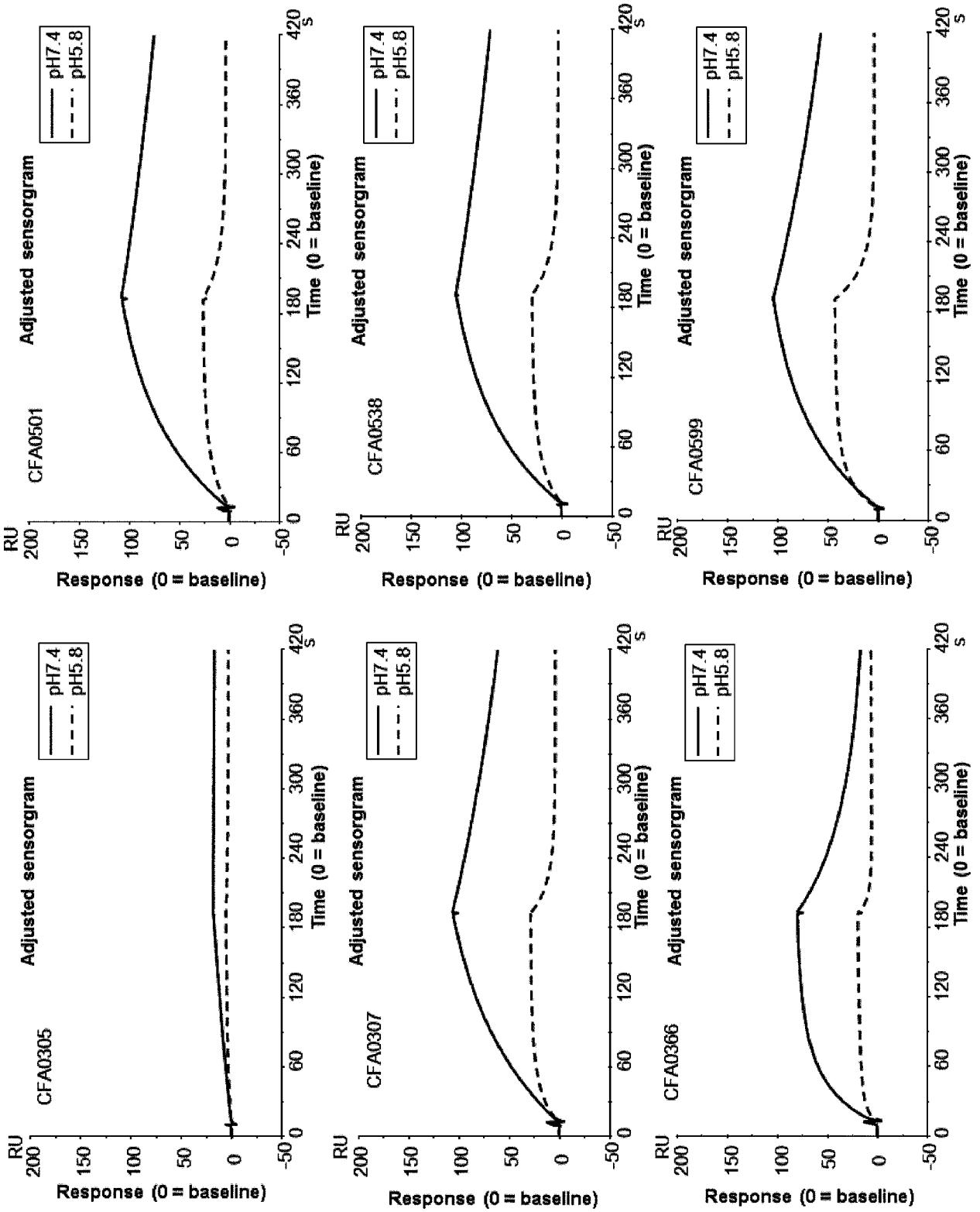
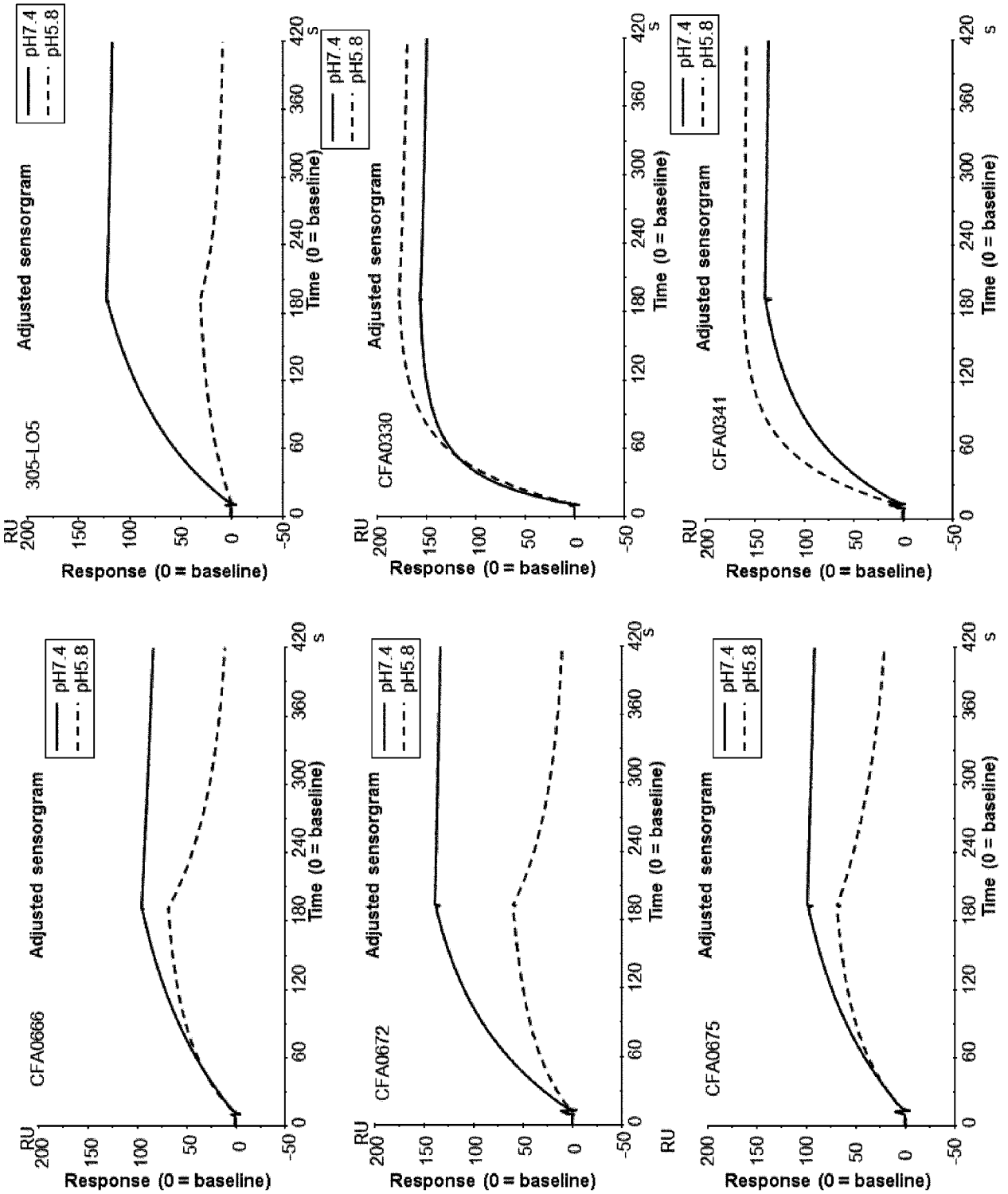
[Fig. 1]


Detection antibody
Capture antibody
CFA0668-F760G4
CFA0334-F760G4
CFA0319-F760G4
CFA0647-F760G4
CFA0589-F760G4
CFA0341-F760G4
CFA0639-F760G4
CFA0635-F760G4
CFA0330-F760G4
CFA0318-F760G4
CFA0538-F760G4
CFA0501-F760G4
CFA0599-F760G4
CFA0307-F760G4
CFA0366-F760G4
CFA0305-F760G4
CFA0675-F760G4
CFA0666-F760G4
CFA0672-F760G4
Eculizumab-F760G4
CFA0322-F760G4
CFA0329-F760G4
CFA0359-F760G4
CFA0217-F760G4
CFA0579-F760G4
CFA0328-F760G4
CFA0272-F760G4
Max (1.59)
Min (0.07)

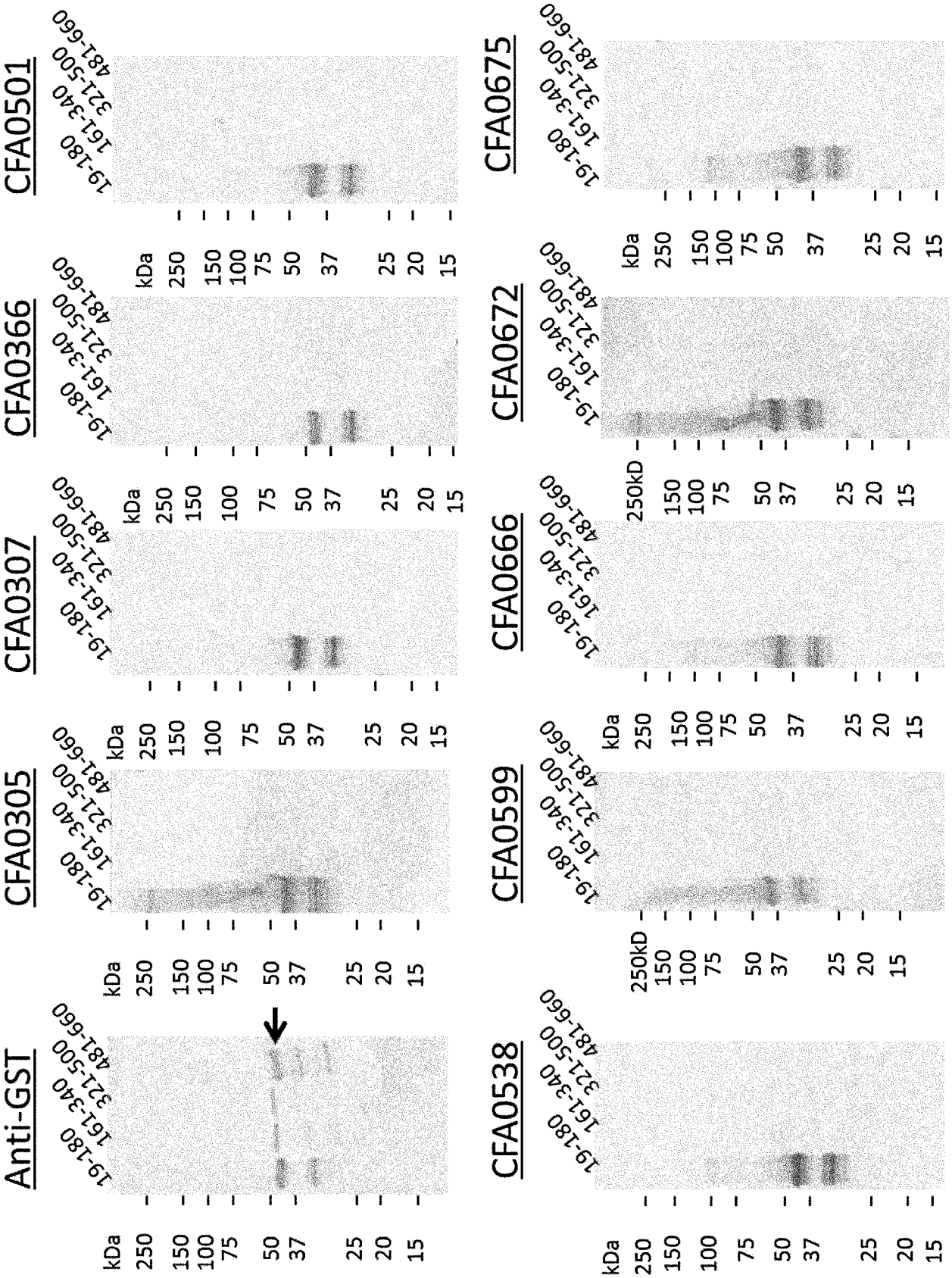
[Fig. 2A]


CFA0501
CFA0538
CFA0599
CFA0305
CFA0307
CFA0366
Adjusted sensorgram
pH7.4
pH5.8
RU
Response (0 = baseline)
Time (0 = baseline)
s

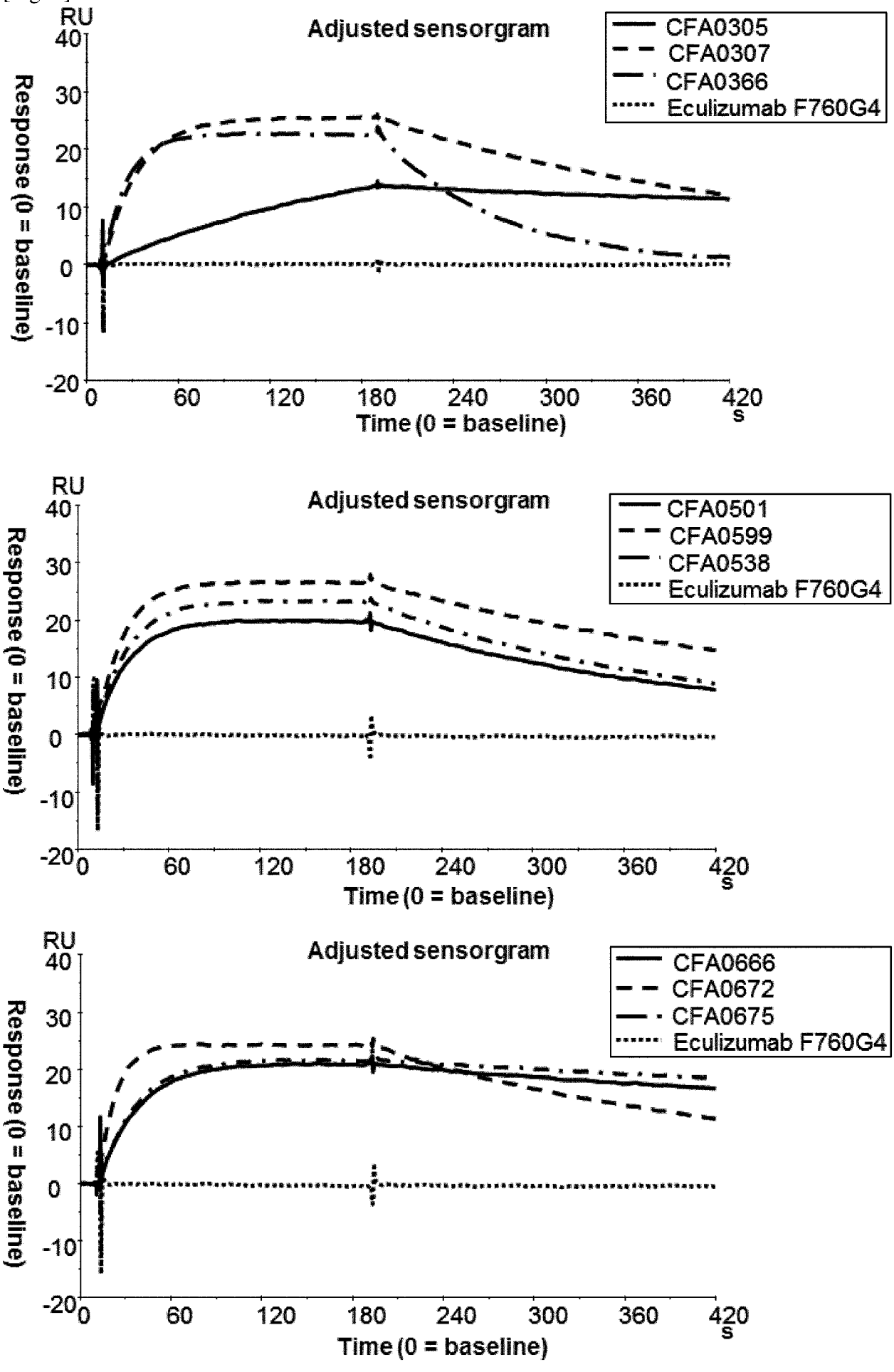
[Fig. 2B]


305-LO5
CFA0330
CFA0341
CFA0666
CFA0672
CFA0675
Adjusted sensorgram
pH7.4
pH5.8
RU
Response (0 = baseline)
Time (0 = baseline)
s

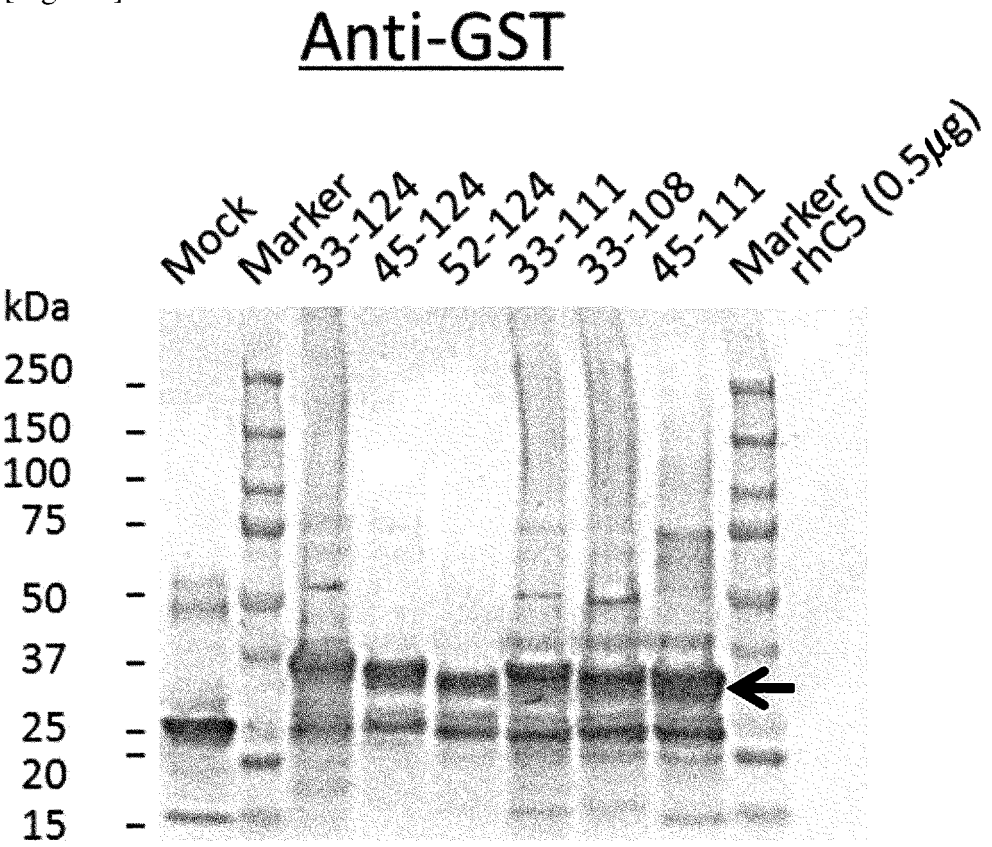
[Fig. 3]


Anti-GST
CFA0305
CFA0307
CFA0366
CFA0501
CFA0538
CFA0599
CFA0666
CFA0672
CFA0675
19-180
161-340
321-500
481-660
kDa
250
150
100
75
50
37
25
20
15
250kD

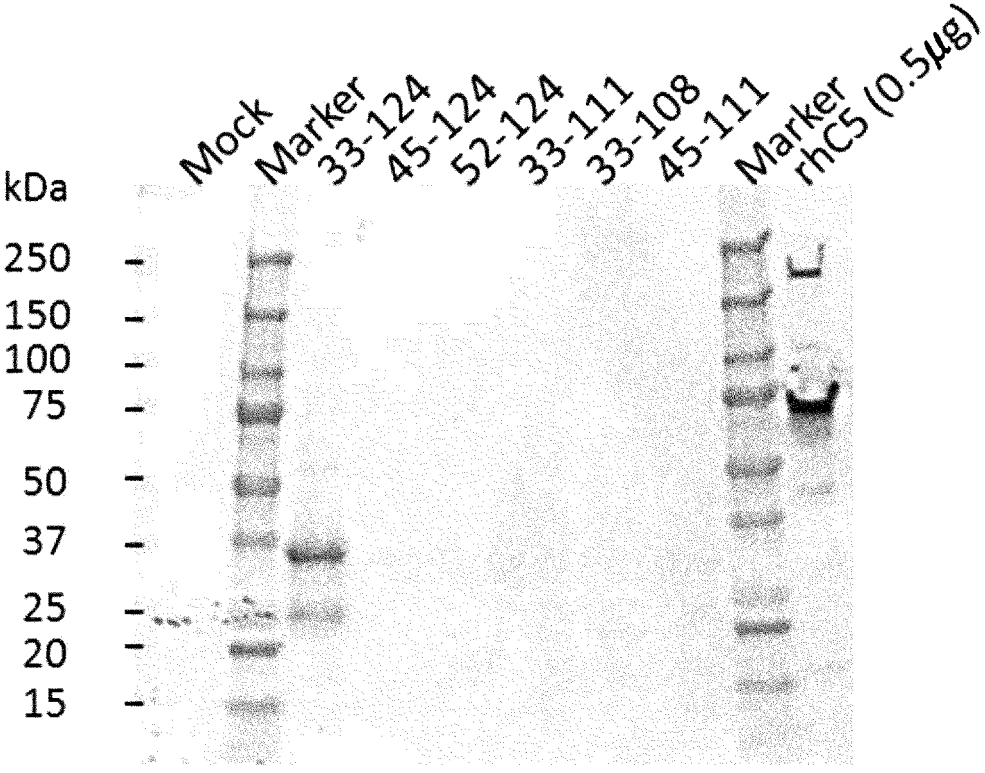
[Fig. 4]


RU
Adjusted sensorgram
CFA0305
CFA0307
CFA0366
Eculizumab F760G4
Response (0 = baseline)
40
30
20
10
0
-10
-20
0
60
120
180
240
300
360
420
s
Time (0 = baseline)
RU
Adjusted sensorgram
CFA0501
CFA0599
CFA0538
Eculizumab F760G4
Response (0 = baseline)
Time (0 = baseline)
RU
Adjusted sensorgram
CFA0666
CFA0672
CFA0675
Eculizumab F760G4
Response (0 = baseline)
Time (0 = baseline)

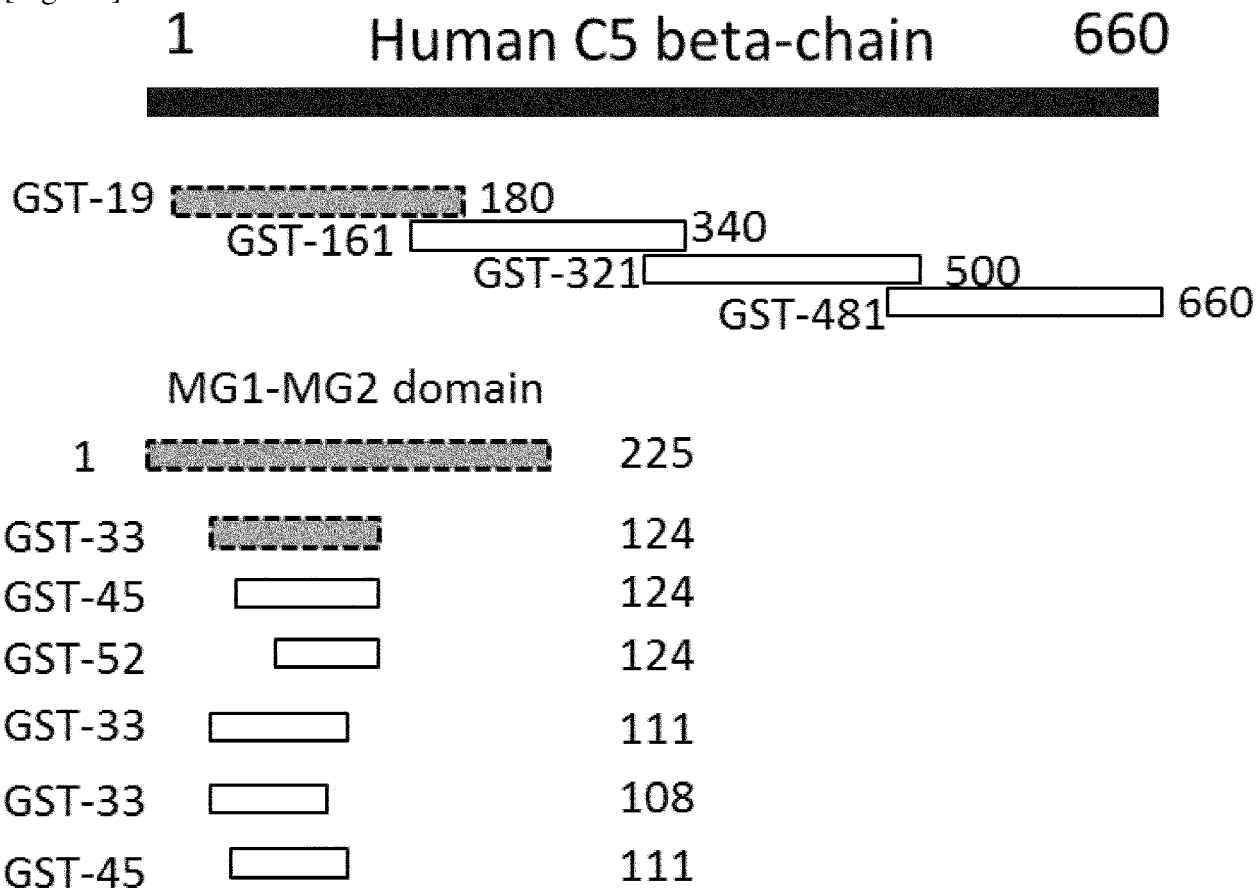
[Fig. 5A]


Anti-GST
Mock
Marker
33-124
45-124
52-124
33-111
33-108
45-111
Marker
rhC5 (0.5μg)
kDa
250
150
100
75
50
37
25
20
15

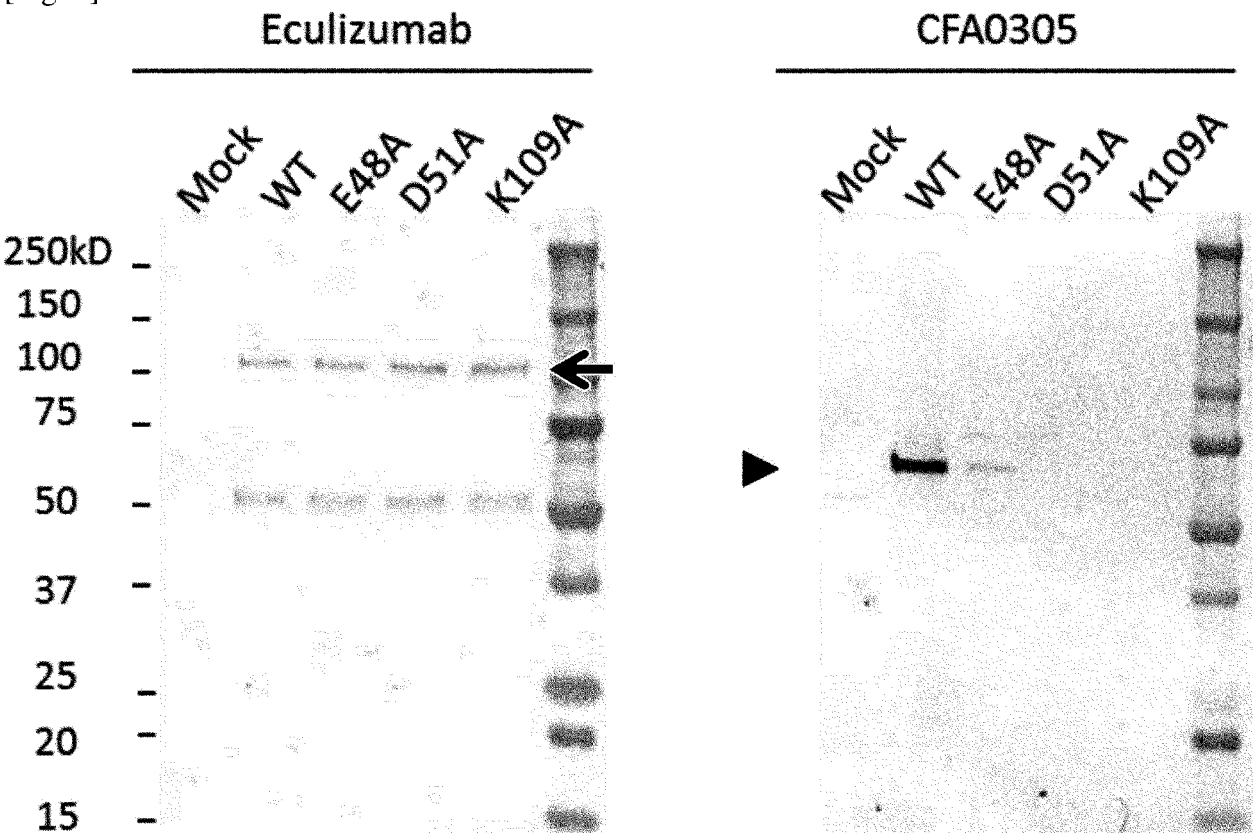
[Fig. 5B]


CFA0305
Mock
Marker
33-124
45-124
52-124
33-111
33-108
45-111
Marker
rhC5 (0.5μg)
kDa
250
150
100
75
50
37
25
20
15

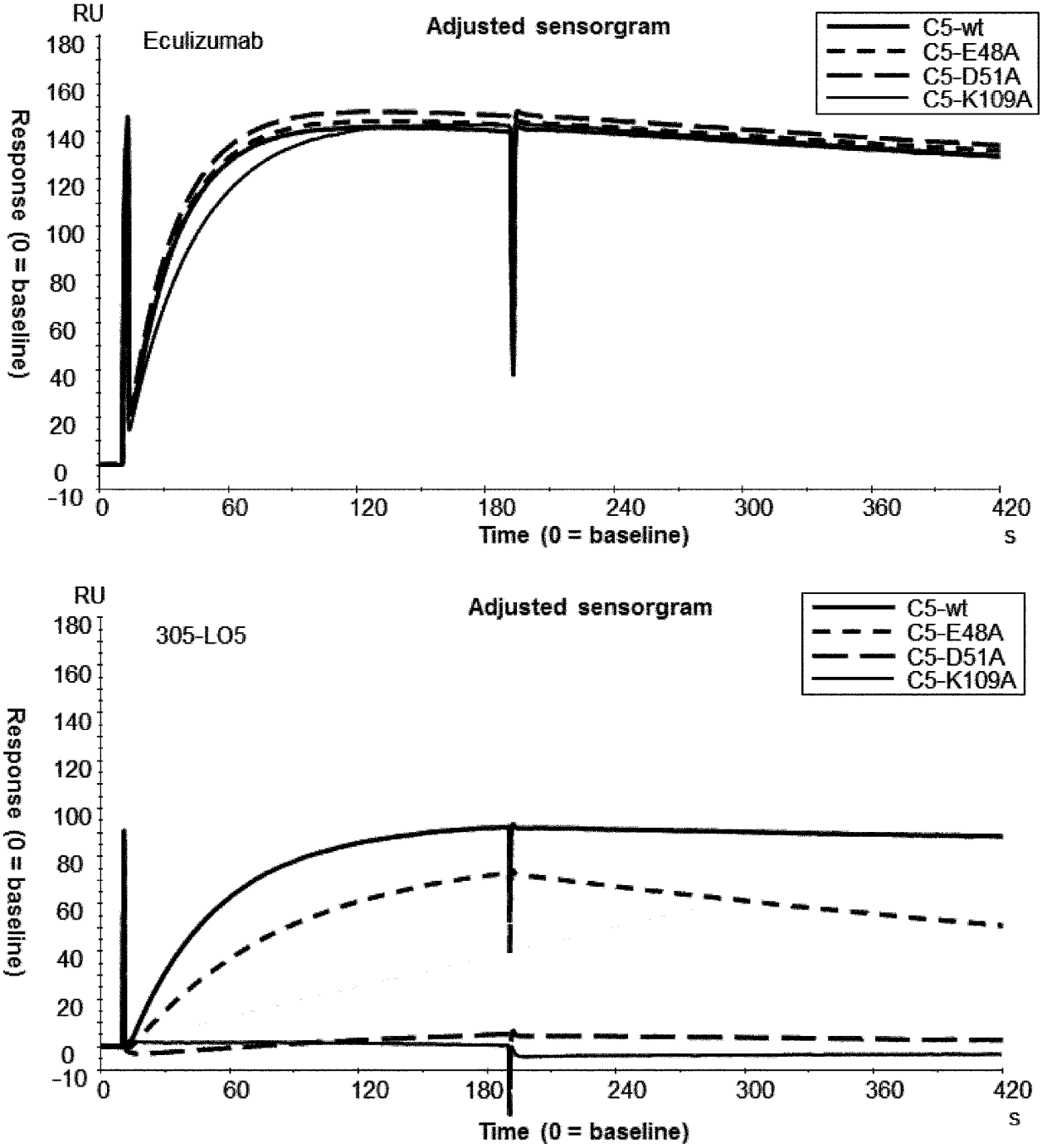
[Fig. 5C]


1
Human C5 beta-chain
660
GST-19
180
GST-161
340
GST-321
500
GST-481
660
MG1-MG2 domain
1
225
GST-33
124
GST-45
124
GST-52
124
GST-33
111
GST-33
108
GST-45
111

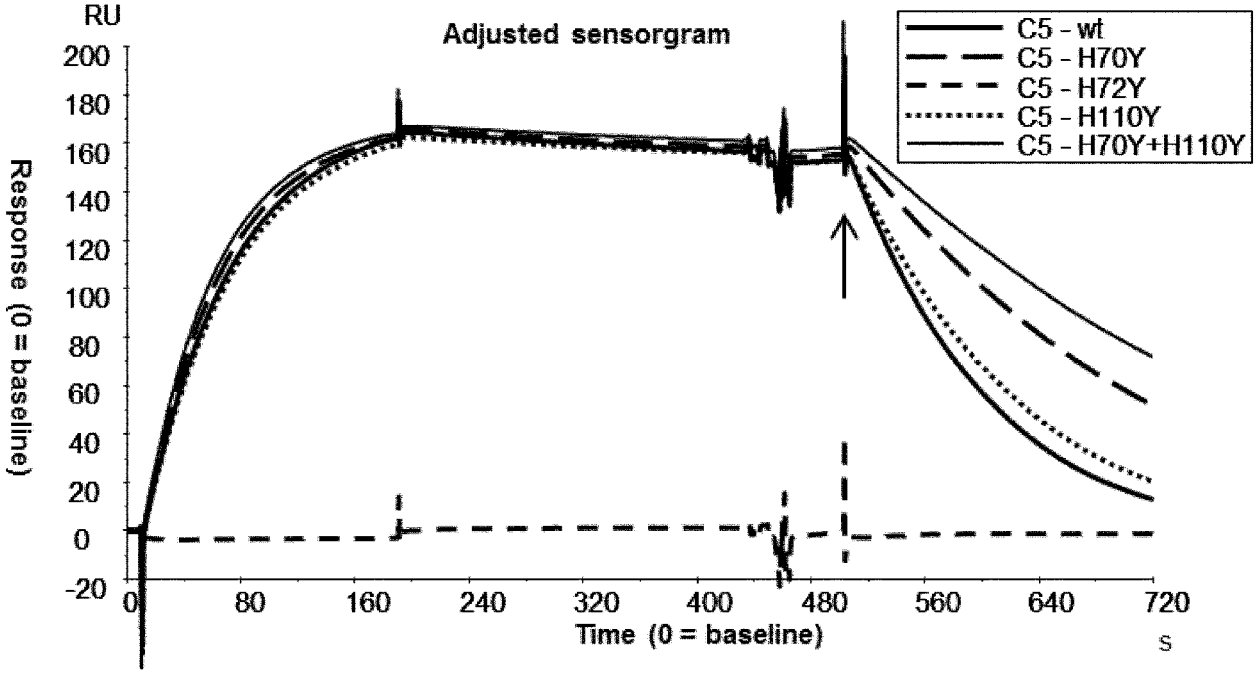
[Fig. 6]


Eculizumab
CFA0305
Mock
WT
E48A
D51A
K109A
250kD
150
100
75
50
37
25
20
15

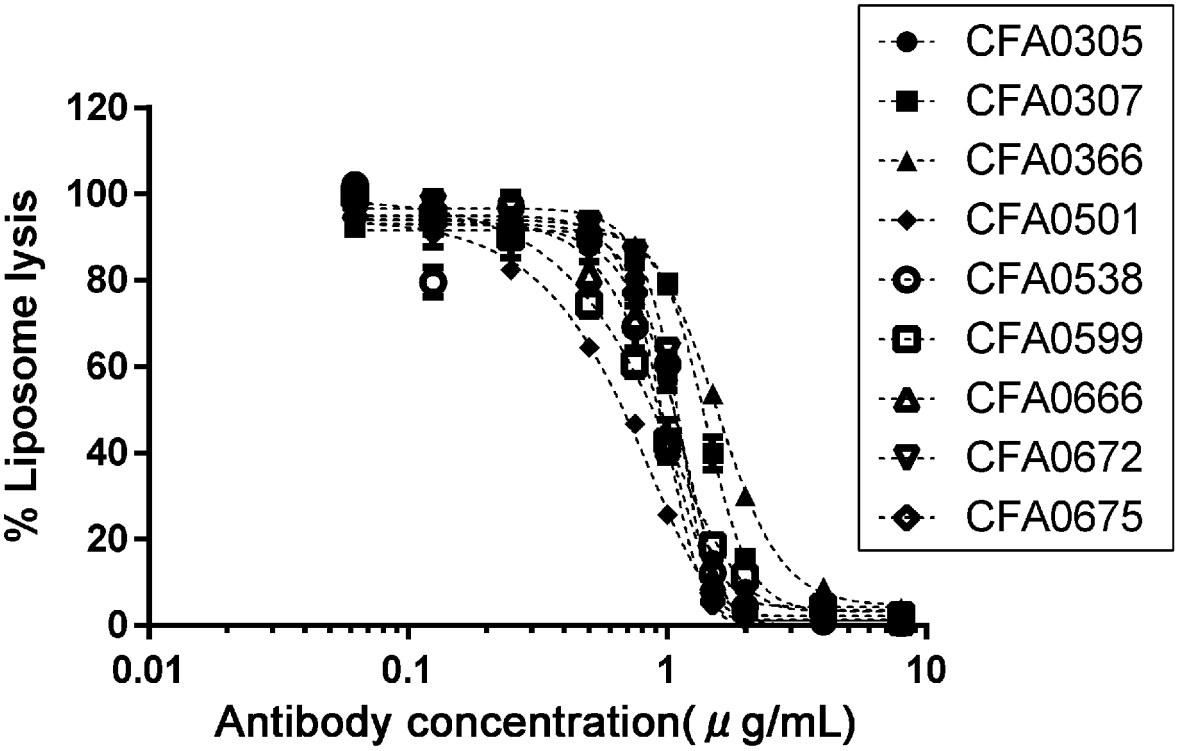
[Fig. 7]


RU
Eculizumab
Adjusted sensorgram
C5-wt
C5-E48A
C5-D51A
C5-K109A
Response (0 = baseline)
180
160
140
120
100
80
60
40
20
0
-10
0
60
120
180
240
300
360
420
Time (0 = baseline)
s
RU
305-LO5
Adjusted sensorgram
C5-wt
C5-E48A
C5-D51A
C5-K109A
Response (0 = baseline)
Time (0 = baseline)
s

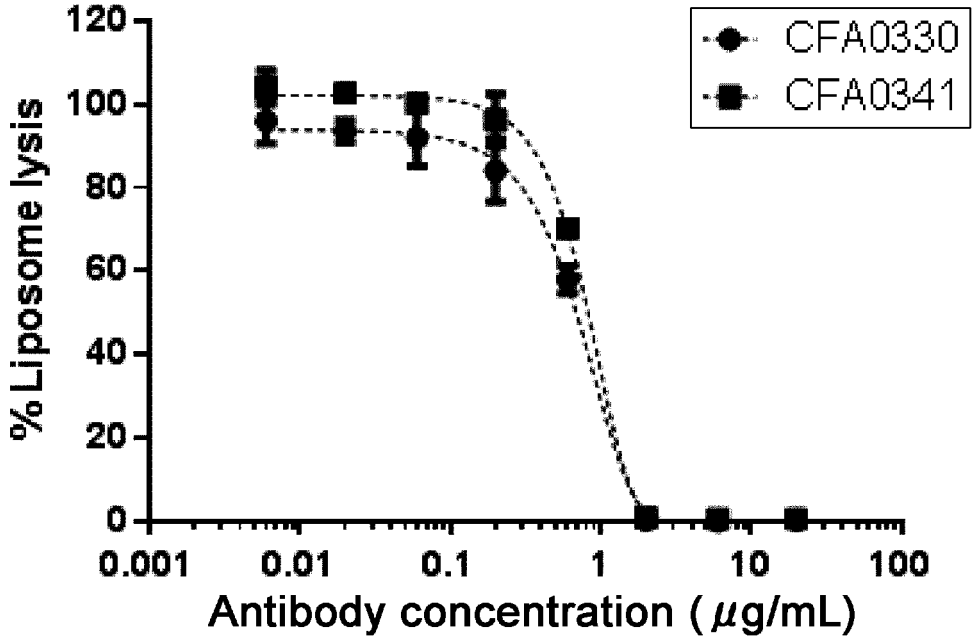
[Fig. 8]


RU
Adjusted sensorgram
C5 - wt
C5 - H70Y
C5 - H72Y
C5 - H110Y
C5 - H70Y+H110Y
Response (0 = baseline)
200
180
160
140
120
100
80
60
40
20
0
-20
0
80
160
240
320
400
480
560
640
720
Time (0 = baseline)
s

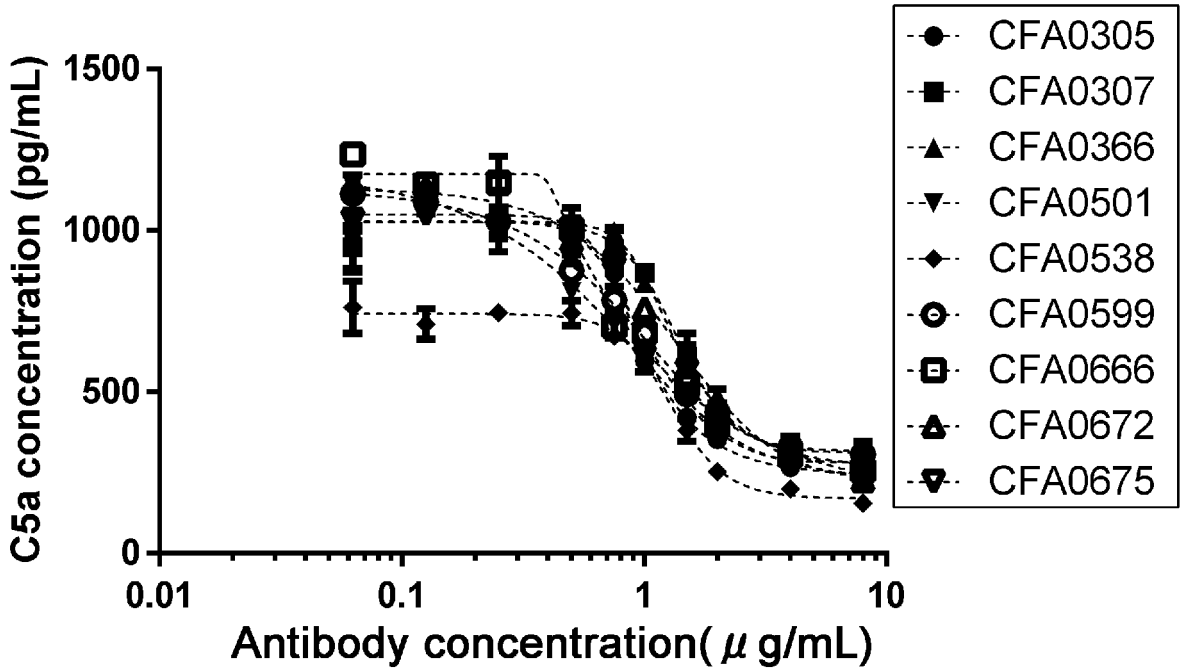
[Fig. 9A]


CFA0305
CFA0307
CFA0366
CFA0501
CFA0538
CFA0599
CFA0666
CFA0672
CFA0675
% Liposome lysis
120
100
80
60
40
20
0
0.01
0.1
1
10
Antibody concentration(μ g/mL)

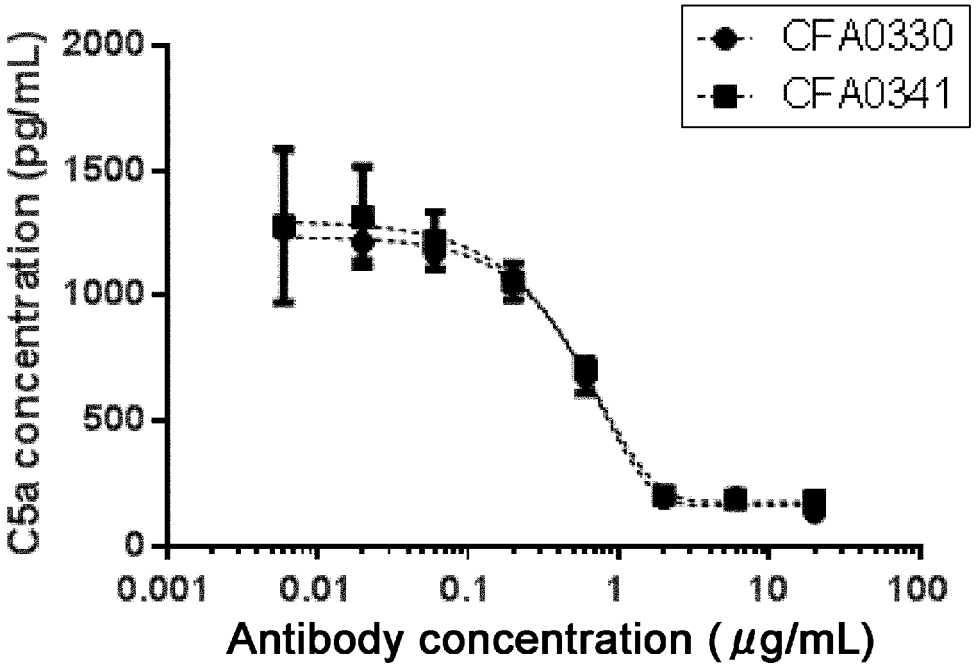
[Fig. 9B]



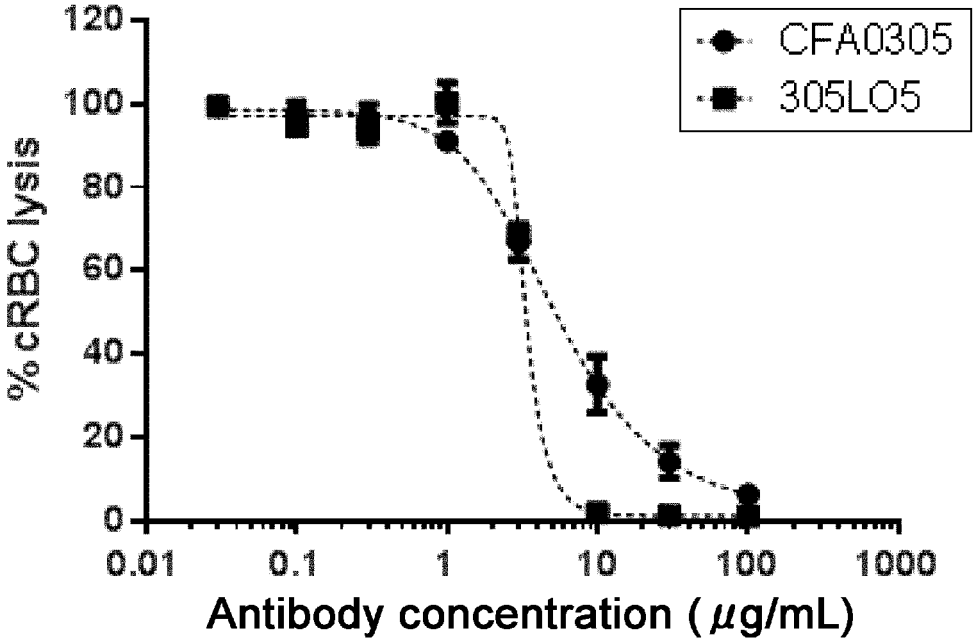
[Fig. 10A]



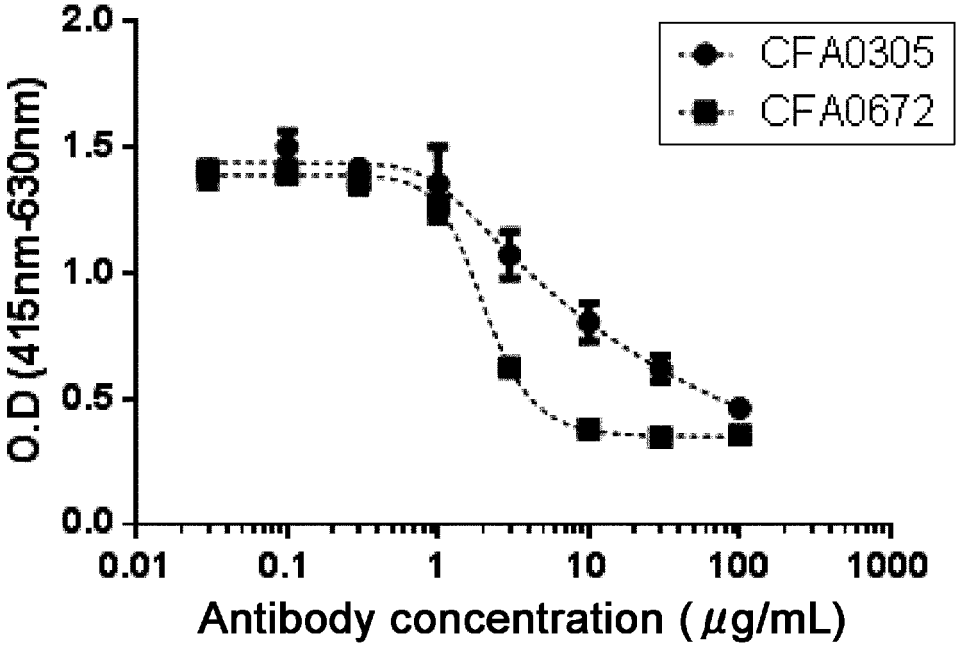
[Fig. 10B]



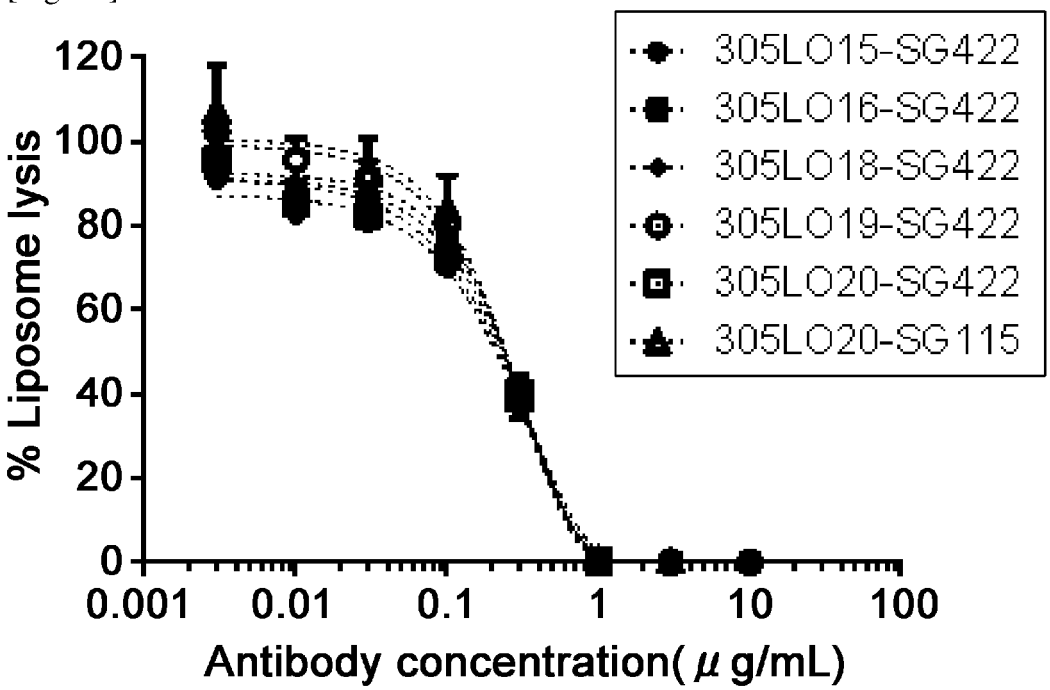
[Fig. 11]



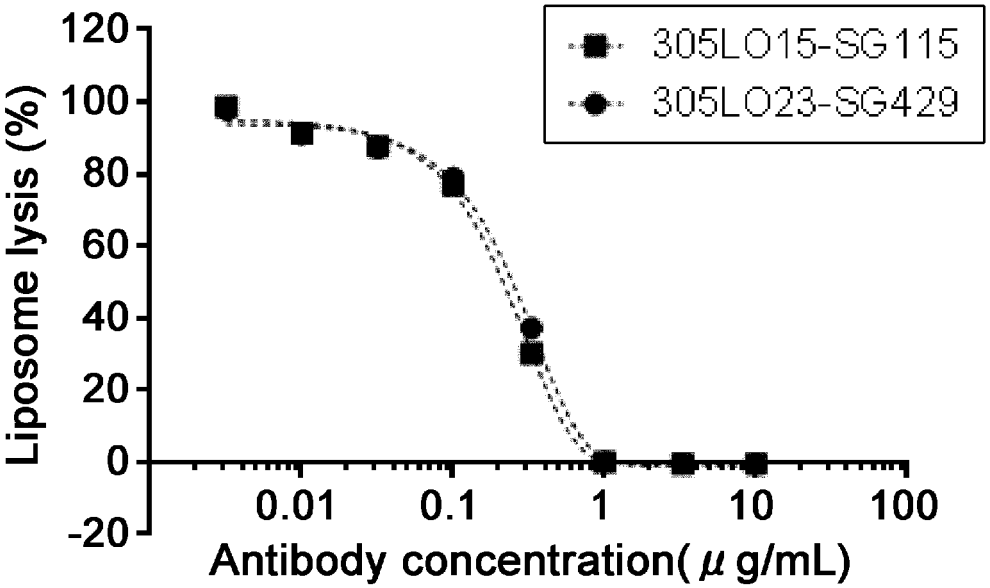
[Fig. 12]


CFA0305
CFA0672
O.D (415nm-630nm)
2.0
1.5
1.0
0.5
0.0
0.01
0.1
1
10
100
1000
Antibody concentration (μg/mL)

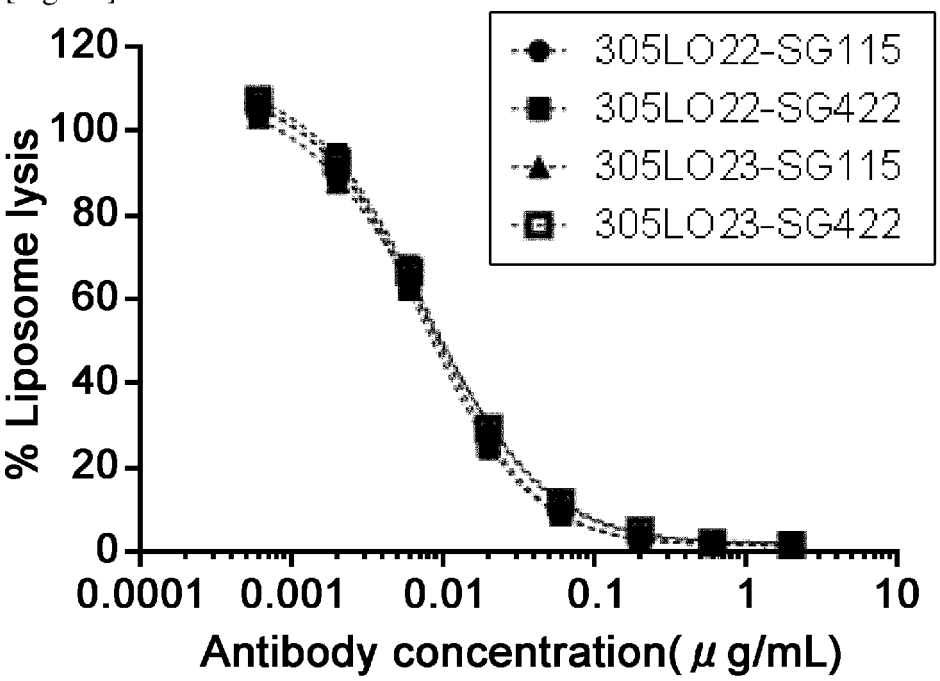
[Fig. 13]


305LO15-SG422
305LO16-SG422
305LO18-SG422
305LO19-SG422
305LO20-SG422
305LO20-SG115
% Liposome lysis
120
100
80
60
40
20
0
0.001
0.01
0.1
1
10
100
Antibody concentration(μg/mL)

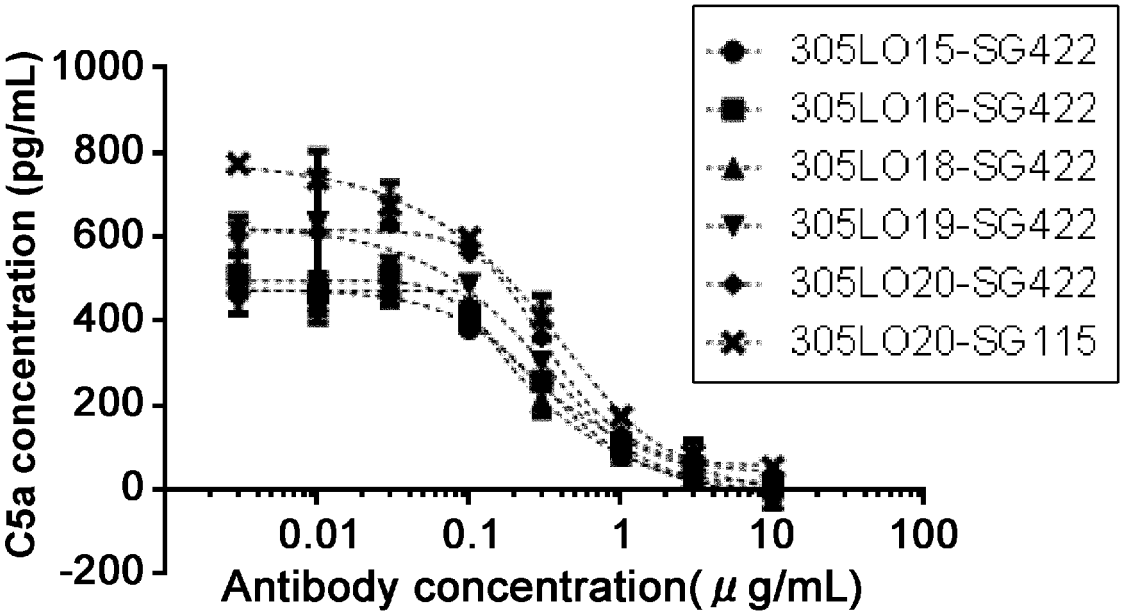
[Fig. 14]



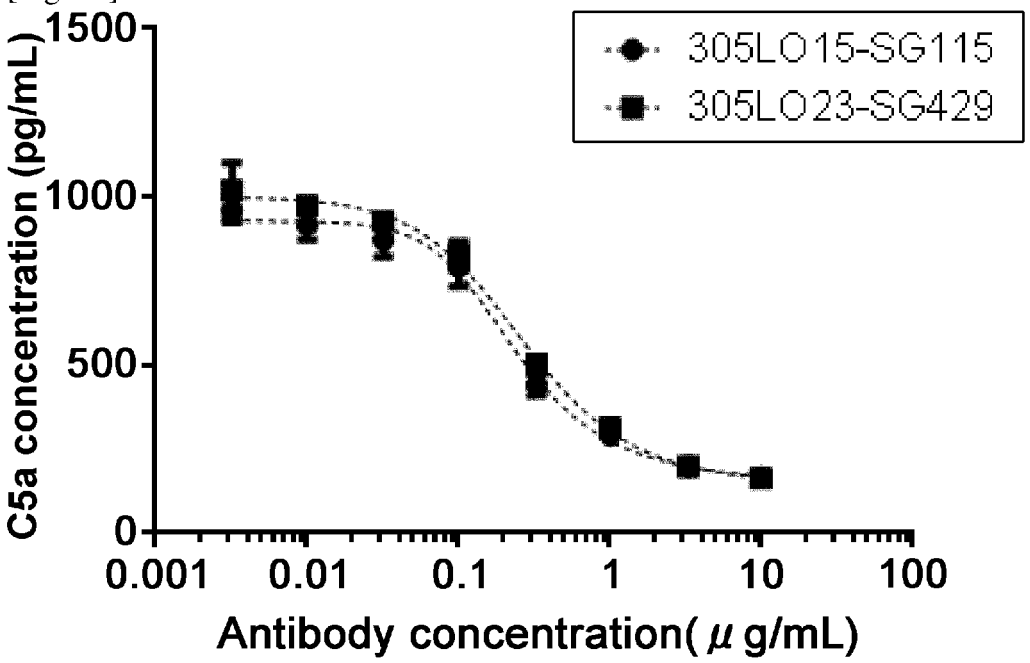
[Fig. 15]



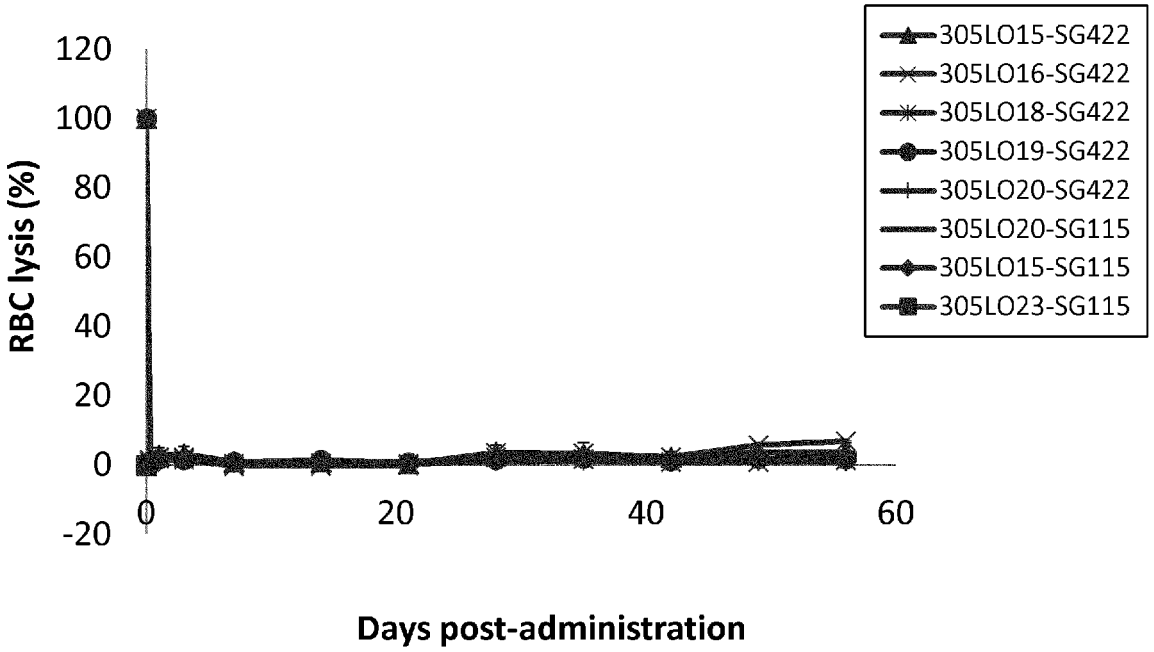
[Fig. 16]



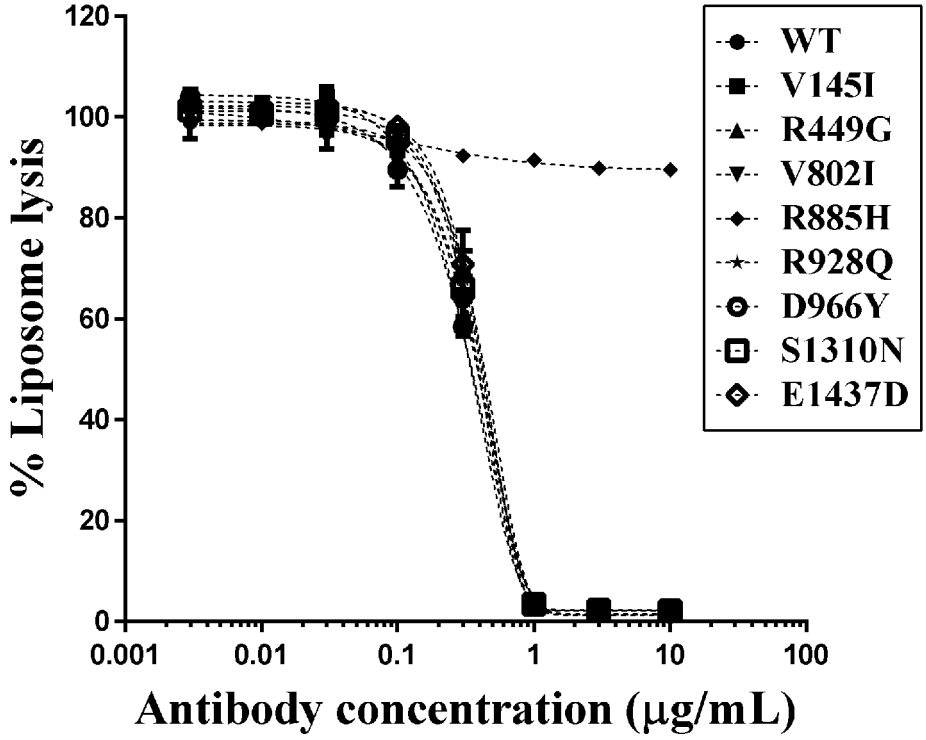
[Fig. 17]


305LO15-SG115
305LO23-SG429
C5a concentration (pg/mL)
1500
1000
500
0
0.001
0.01
0.1
1
10
100
Antibody concentration(μ g/mL)

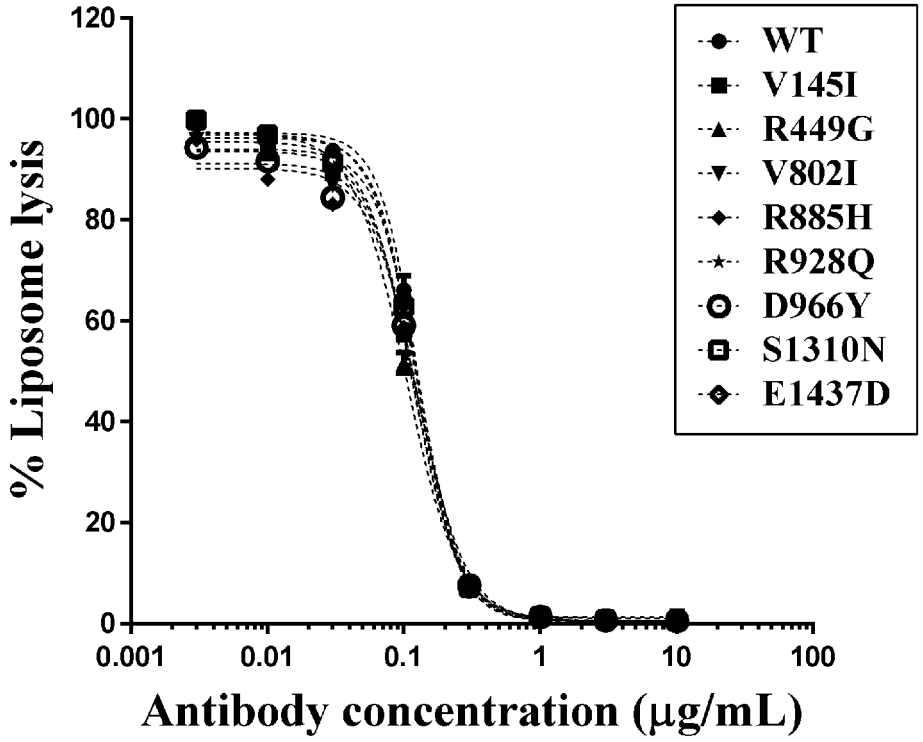
[Fig. 18]


305LO15-SG422
305LO16-SG422
305LO18-SG422
305LO19-SG422
305LO20-SG422
305LO20-SG115
305LO15-SG115
305LO23-SG115
RBC lysis (%)
120
100
80
60
40
20
0
-20
0
20
40
60
Days post-administration

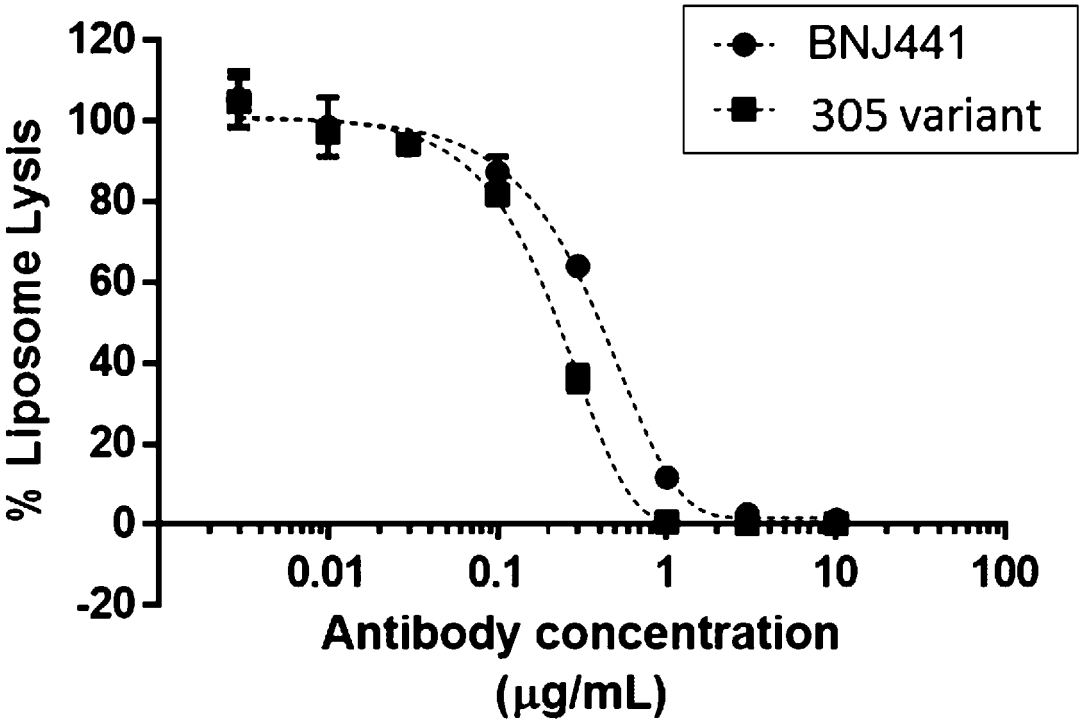
[Fig. 19]


% Liposome lysis
120
100
80
60
40
20
0
0.001
0.01
0.1
1
10
100
Antibody concentration (μg/mL)
WT
V145I
R449G
V802I
R885H
R928Q
D966Y
S1310N
E1437D

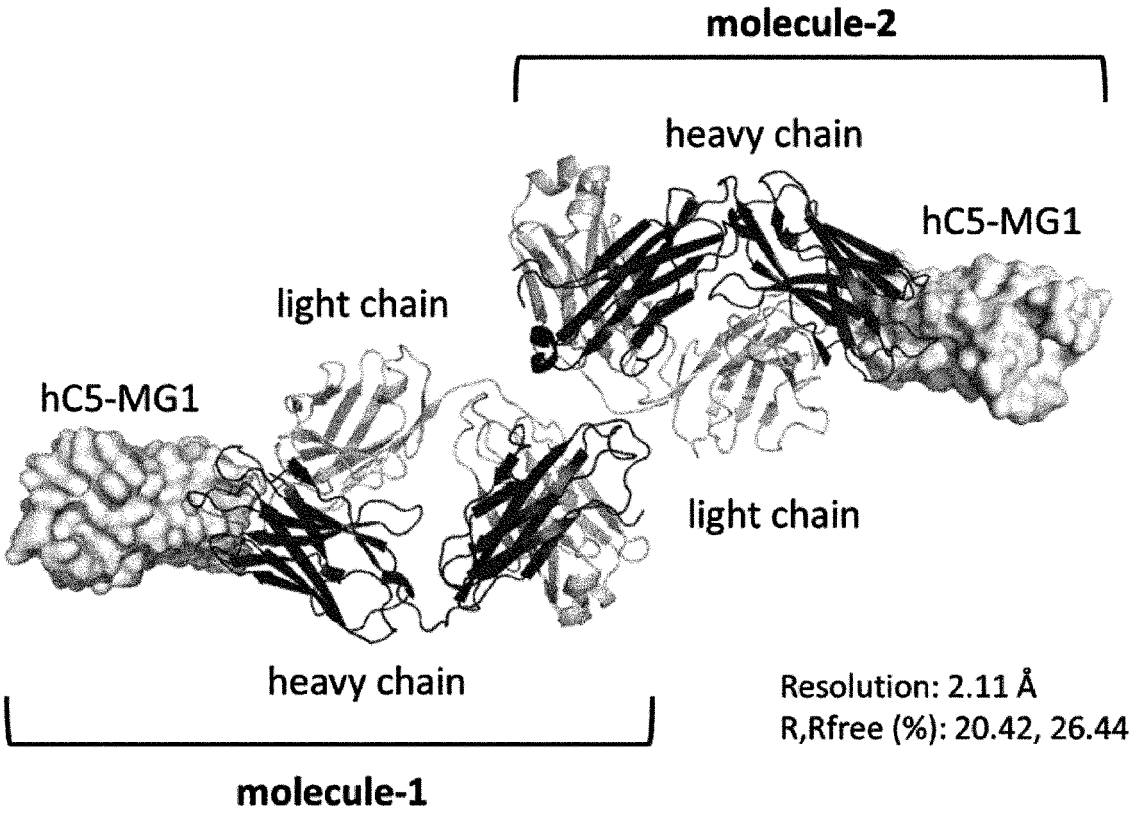
[Fig. 20]


% Liposome lysis
120
100
80
60
40
20
0
0.001
0.01
0.1
1
10
100
Antibody concentration (μg/mL)
WT
V145I
R449G
V802I
R885H
R928Q
D966Y
S1310N
E1437D

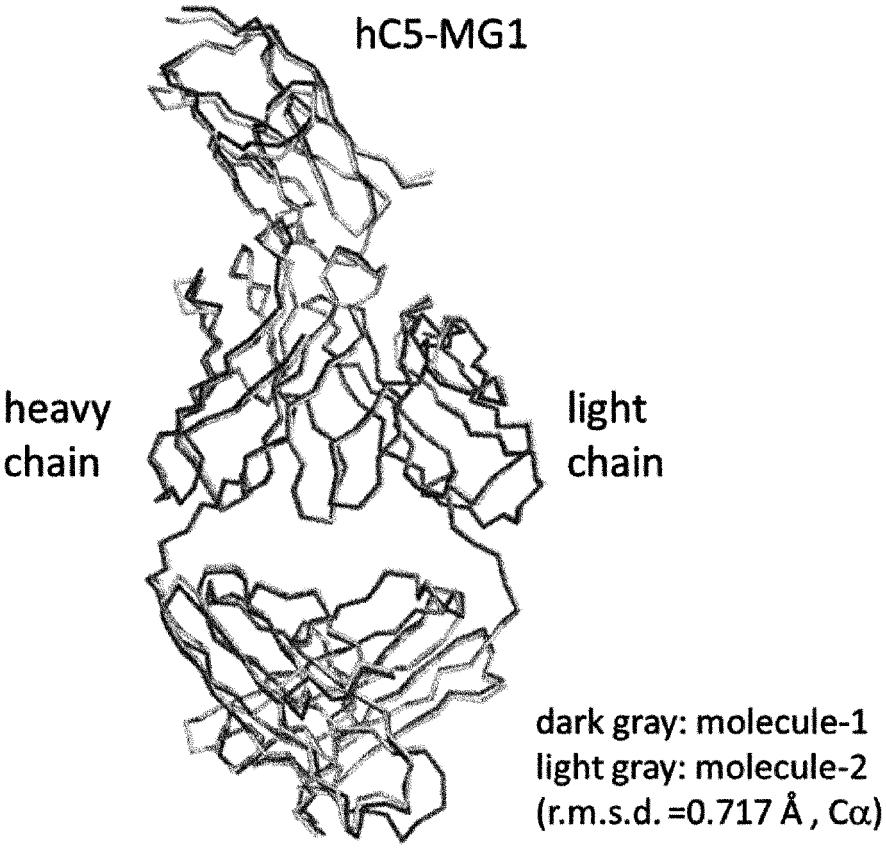
[Fig. 21]


BNJ441
305 variant
% Liposome Lysis
120
100
80
60
40
20
0
-20
0.01
0.1
1
10
100
Antibody concentration
(μg/mL)

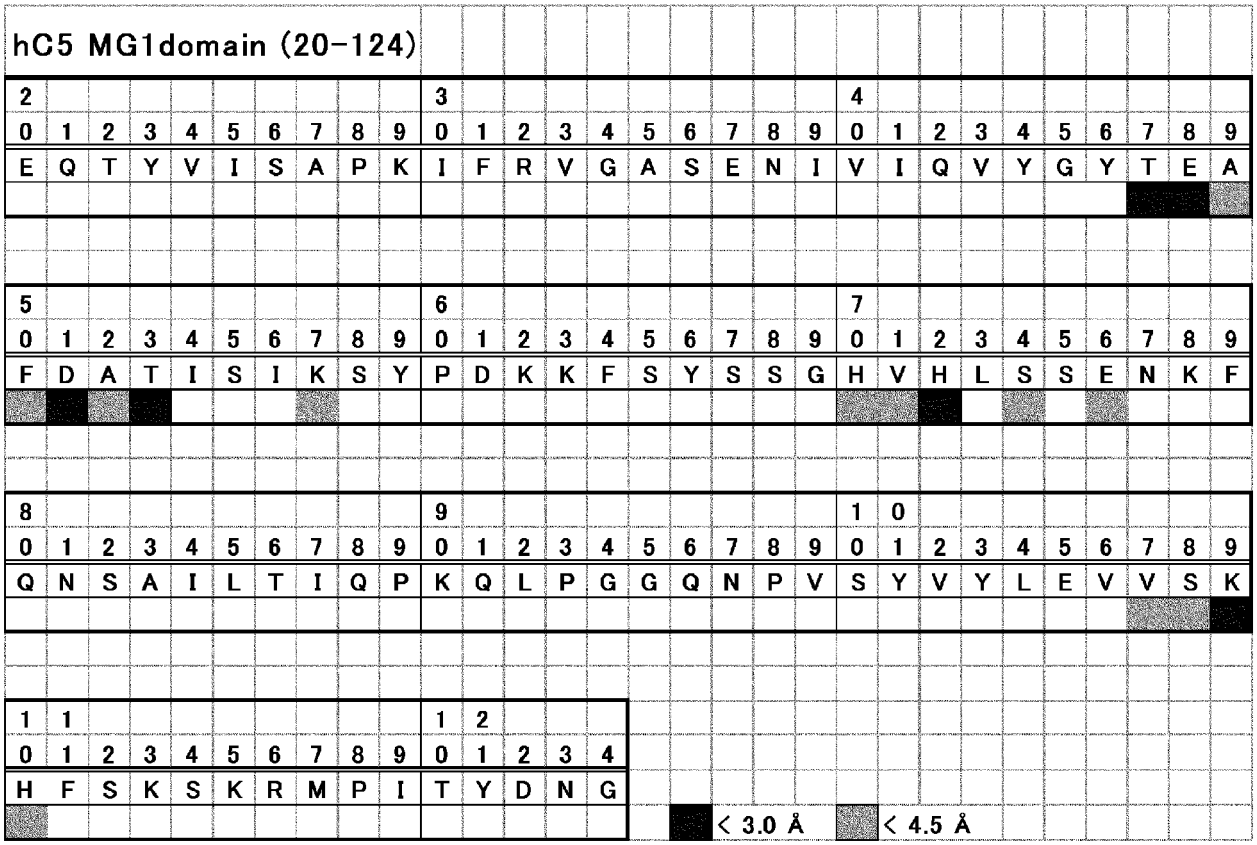
[Fig. 22]
A)


molecule-2
heavy chain
hC5-MG1
light chain
hC5-MG1
light chain
heavy chain
molecule-1
Resolution: 2.11 Å
R,Rfree (%): 20.42, 26.44

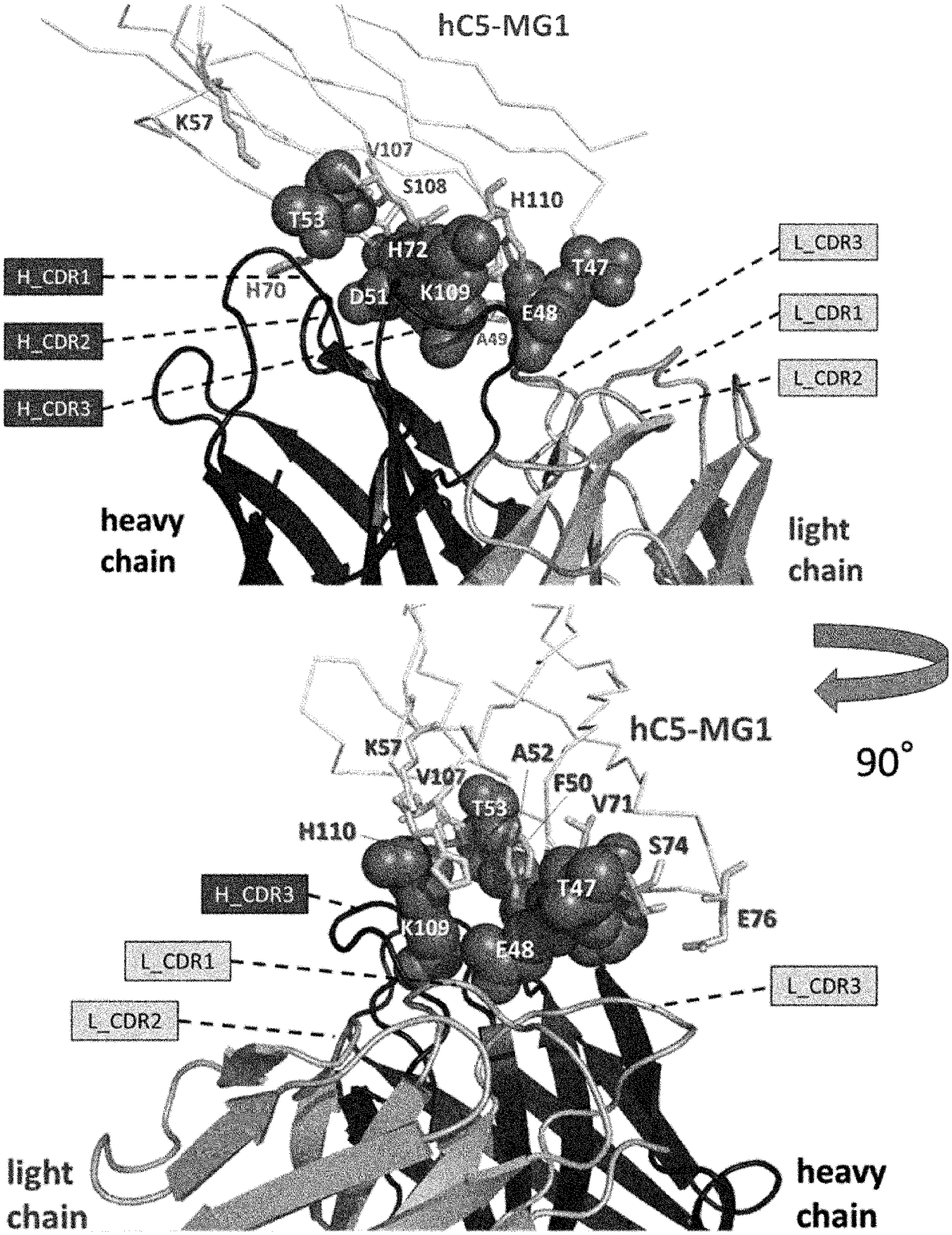
B)


hC5-MG1
heavy chain
light chain
dark gray: molecule-1
light gray: molecule-2
(r.m.s.d. =0.717 Å , Cα)

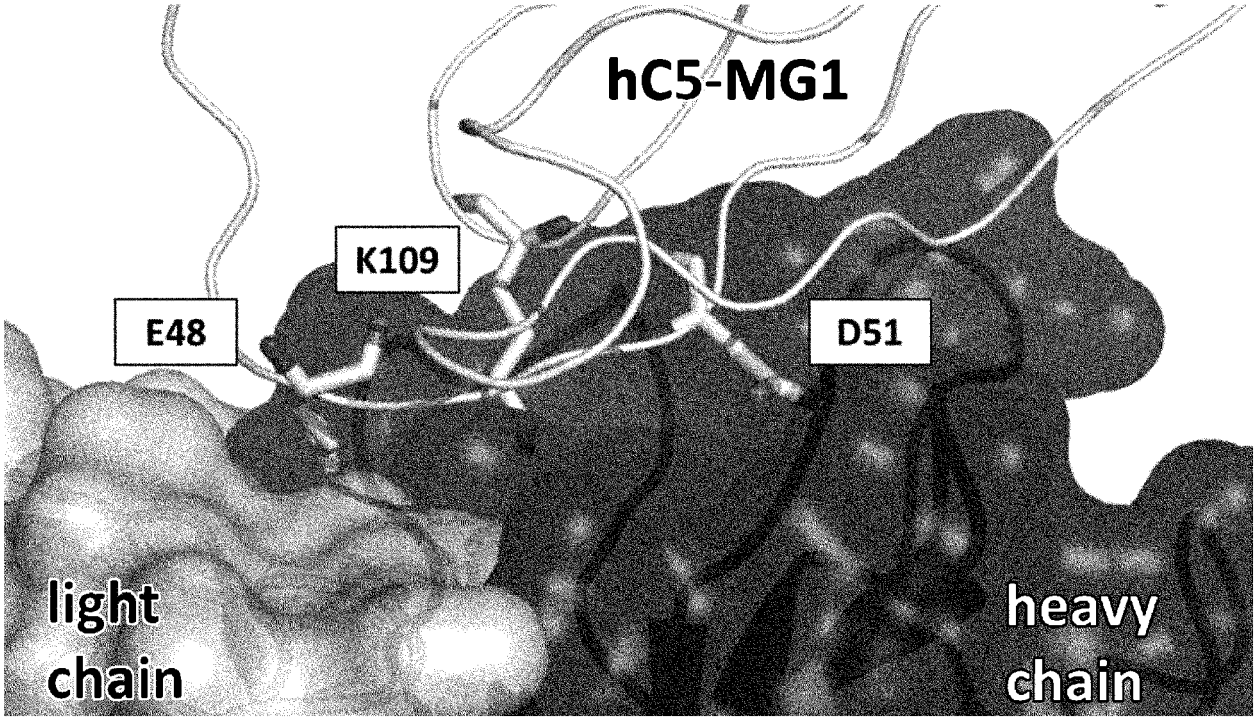
[Fig. 23A]


hC5 MG1domain (20-124)
2 3 4
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9
E Q T Y V I S A P K I F R V G A S E N I V I Q V Y G Y T E A
5 6 7
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9
F D A T I S I K S Y P D K K F S Y S S G H V H L S S E N K F
8 9 10
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9
Q N S A I L T I Q P K Q L P G G Q N P V S Y V Y L E V V S K
11 12
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4
H F S K S K R M P I T Y D N G
< 3.0 Å
< 4.5 Å

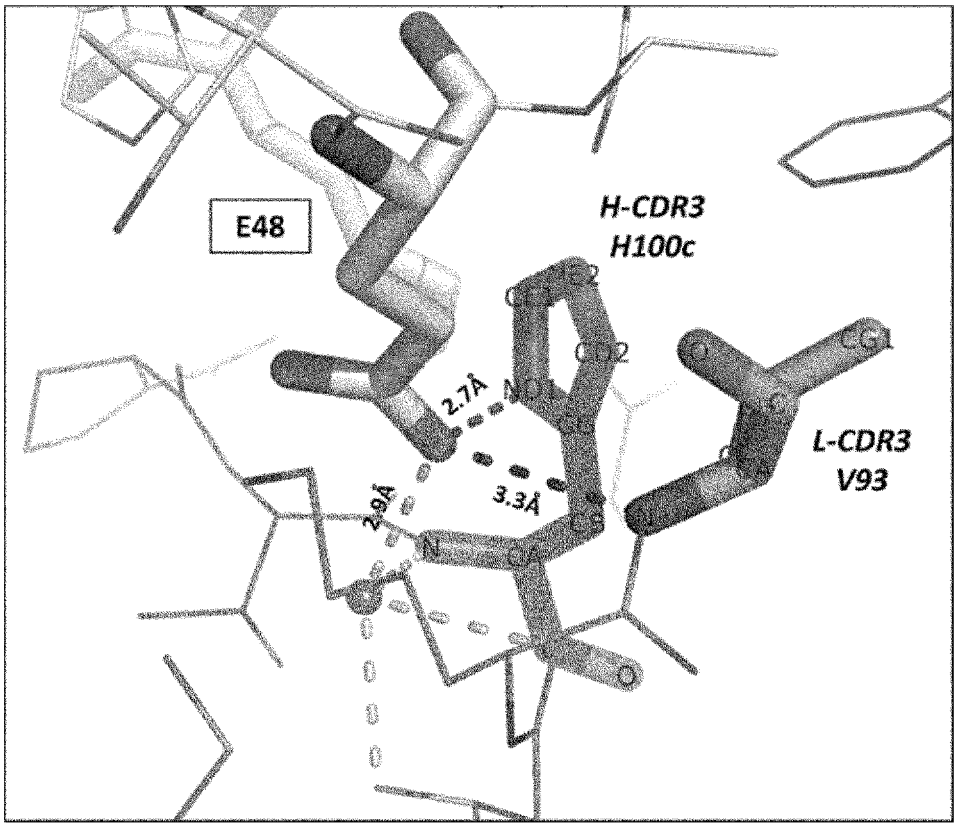
[Fig. 23B]


hC5-MG1
K57
V107
S108
H110
T53
H72
T47
H_CDR1
H70
D51
K109
E48
H_CDR2
A49
H_CDR3
L_CDR3
L_CDR1
L_CDR2
heavy chain
light chain
90°
hC5-MG1
K57
A52
V107
F50
V71
T53
H110
S74
H_CDR3
T47
E76
K109
E48
L_CDR1
L_CDR3
L_CDR2
light chain
heavy chain

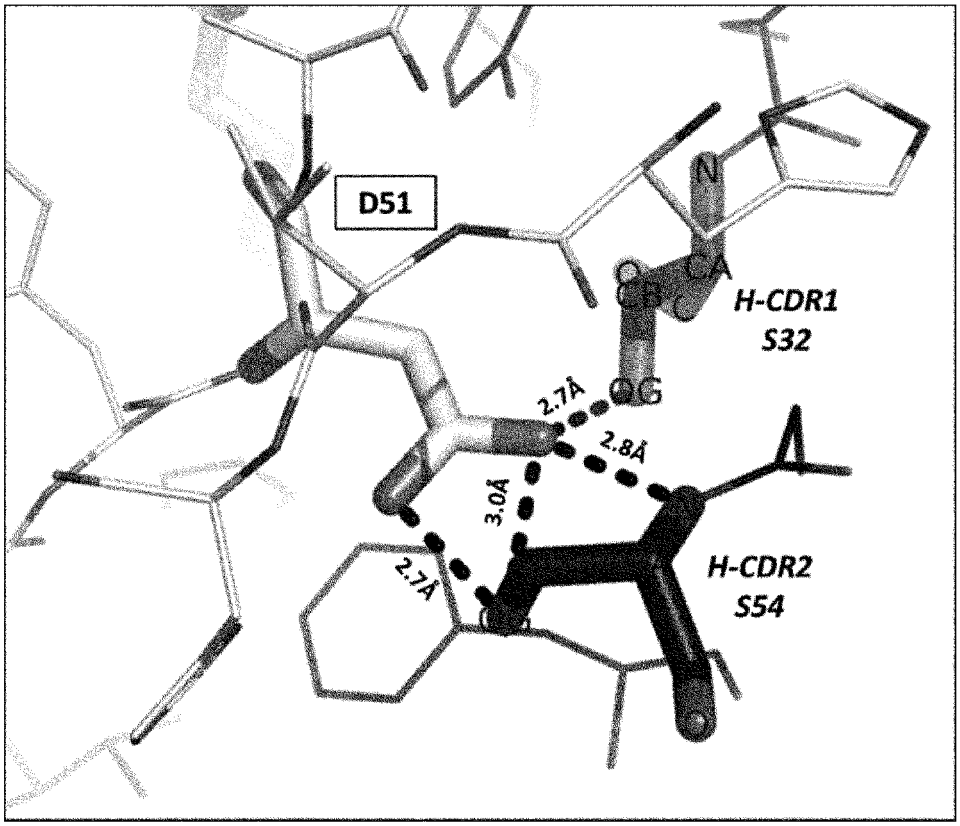
[Fig. 24A]



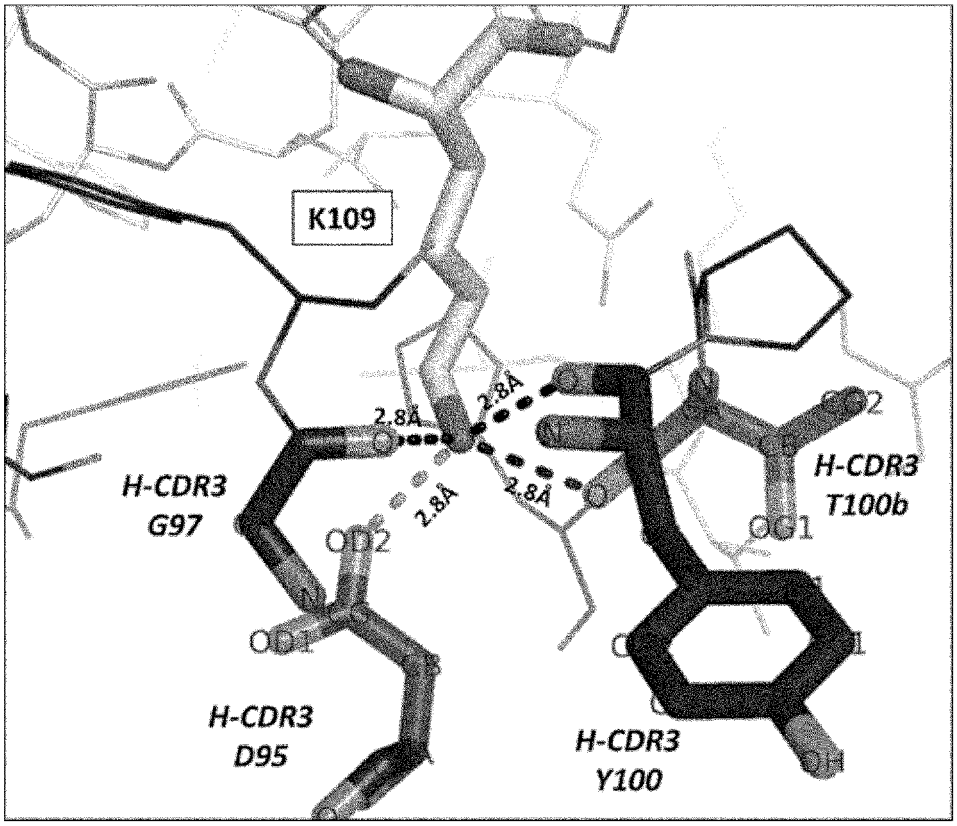
[Fig. 24B]



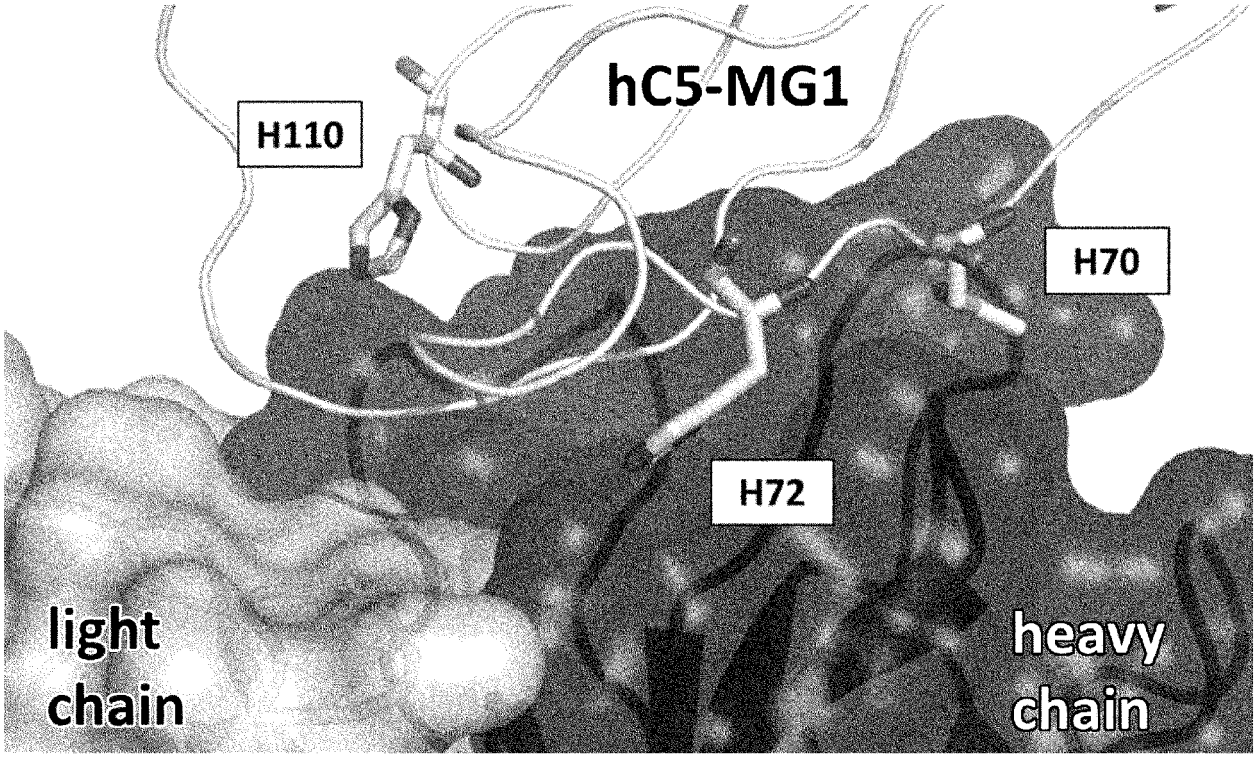
[Fig. 24C]



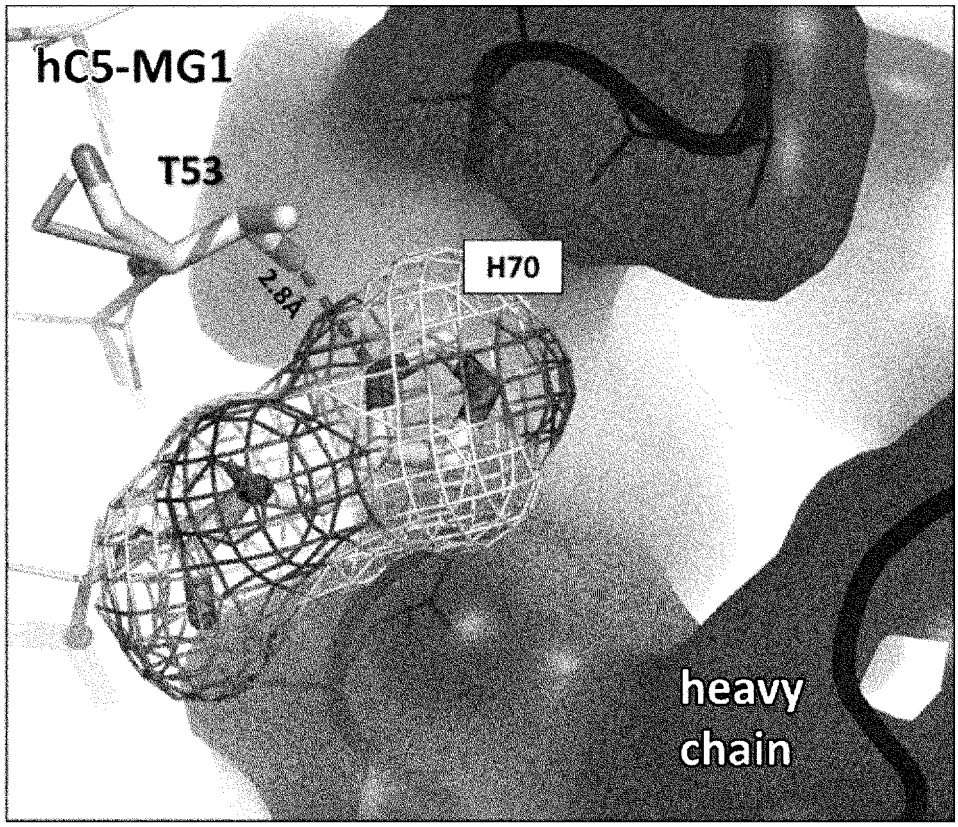
[Fig. 24D]



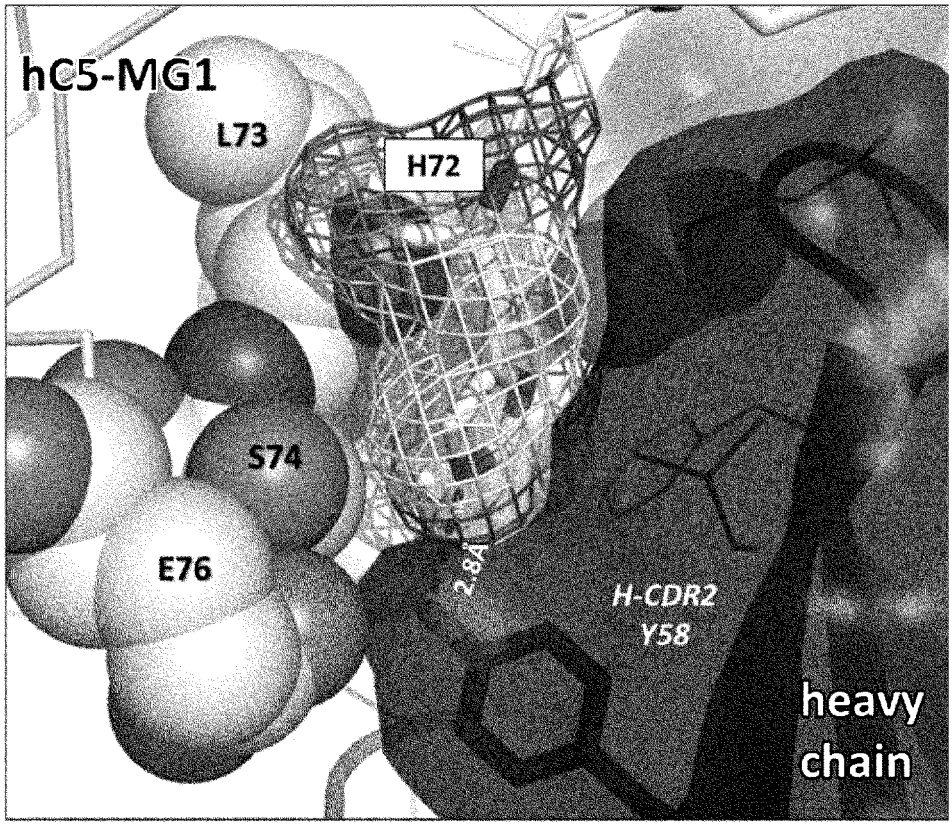
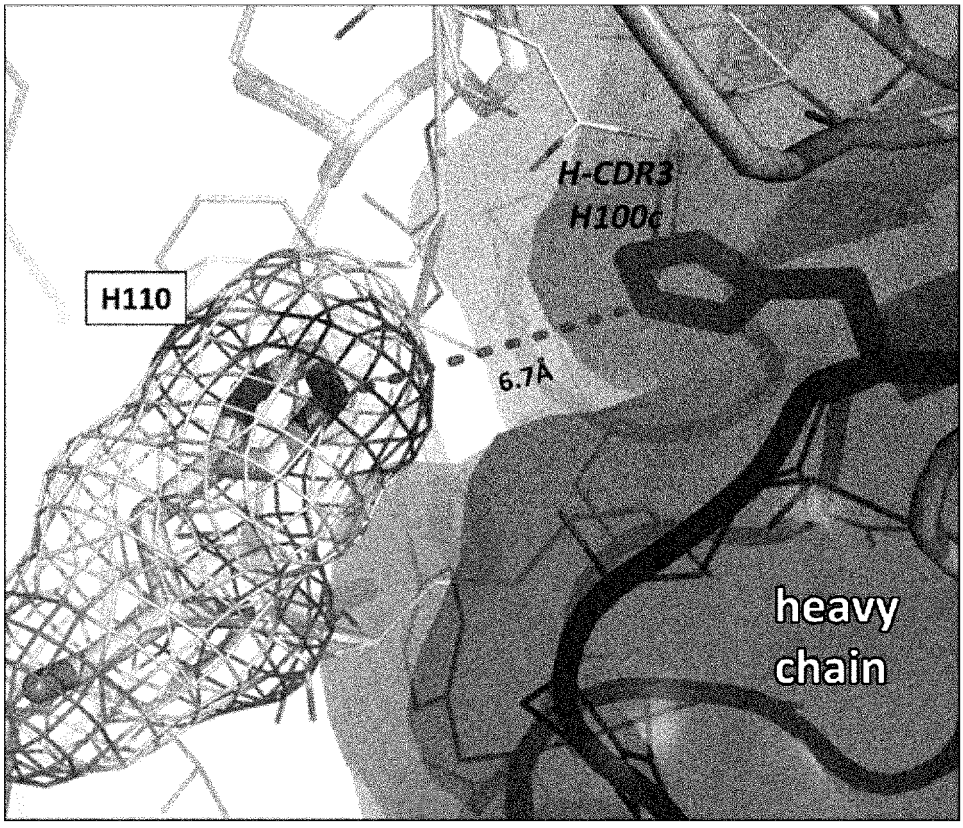
[Fig. 25A]



[Fig. 25B]



[Fig. 25C]



[Fig. 25D]