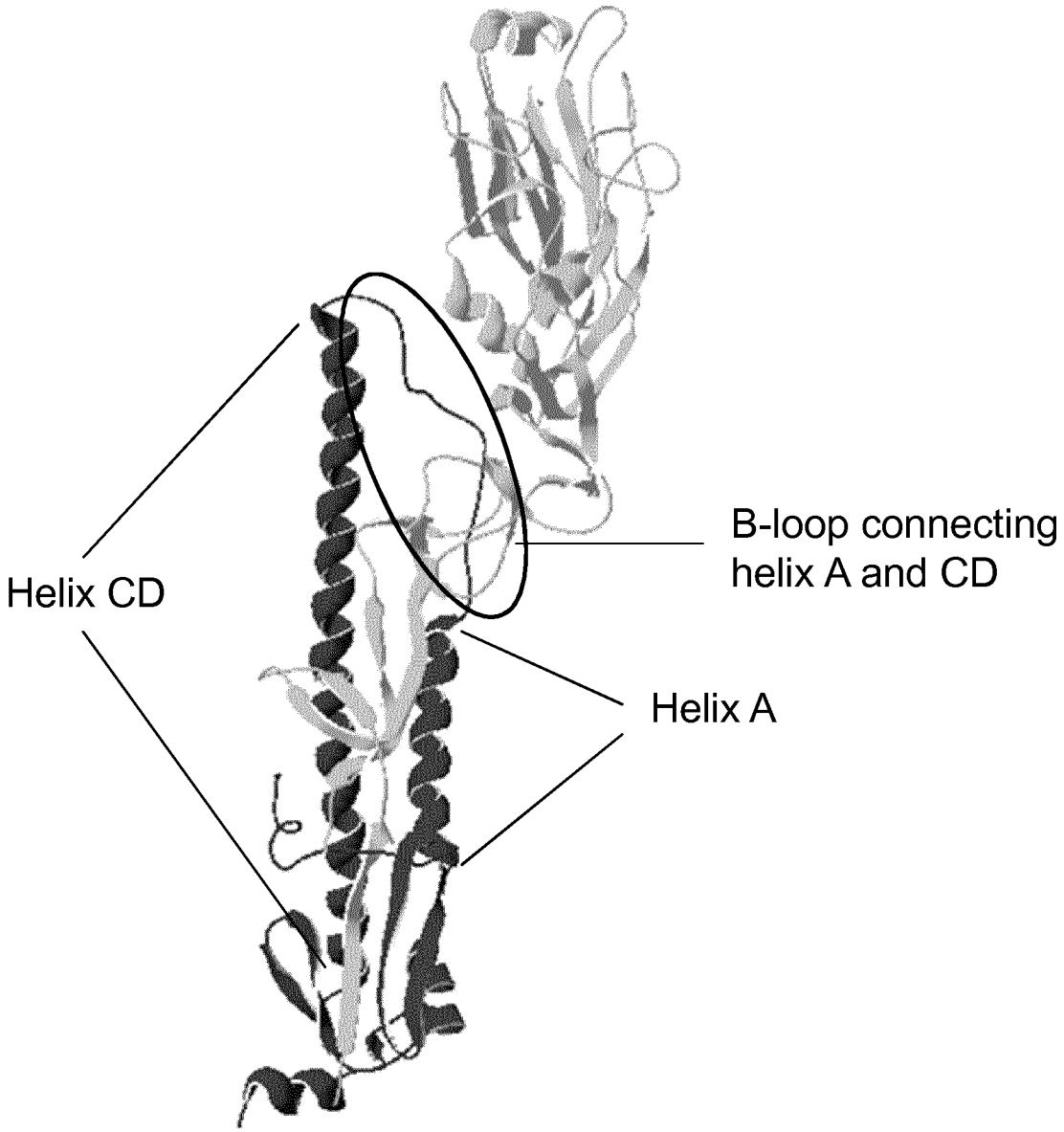
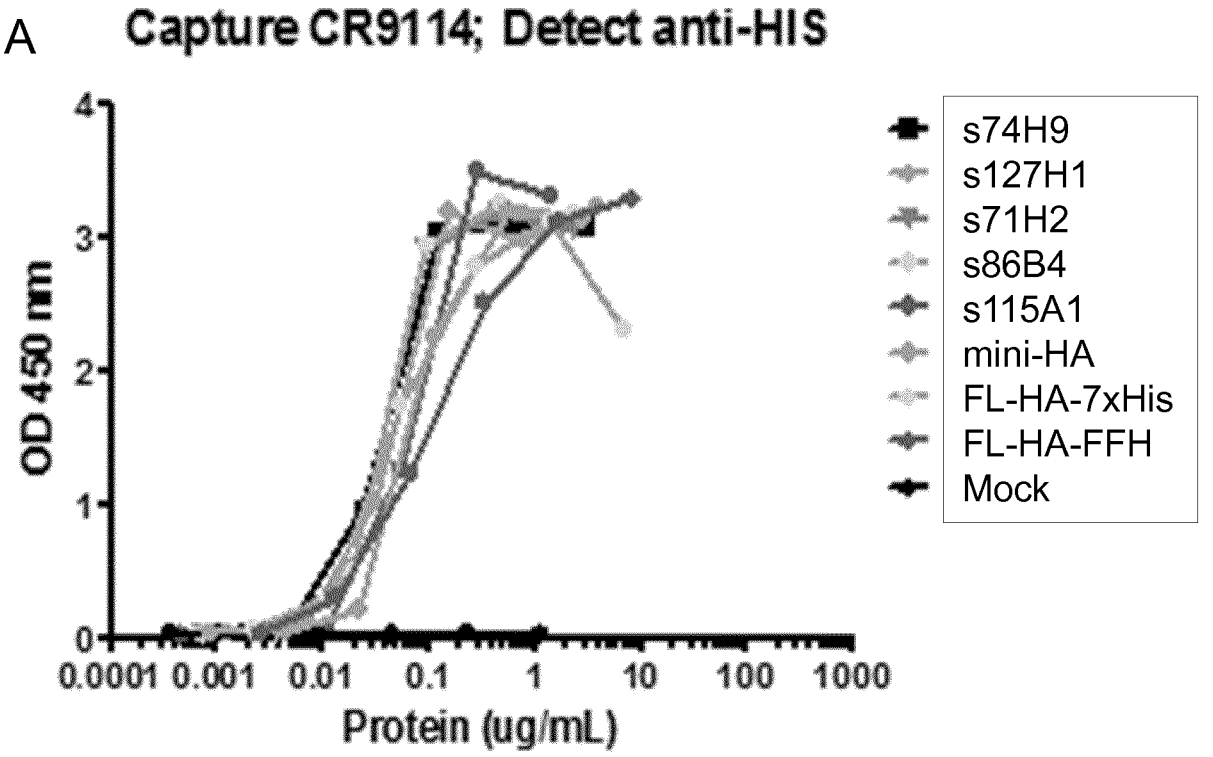


FIG. 1

A


Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s74H9
s127H1
s71H2
s86B4
s115A1
mini-HA
FL-HA-7xHis
FL-HA-FFH
Mock

B

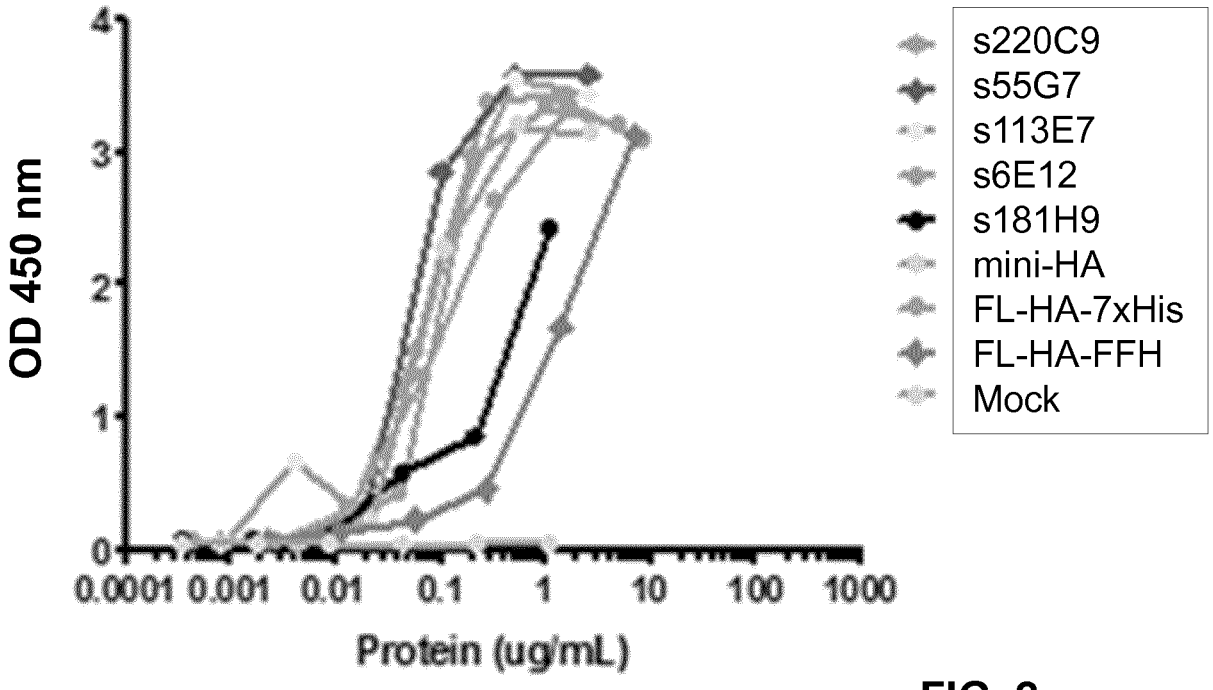
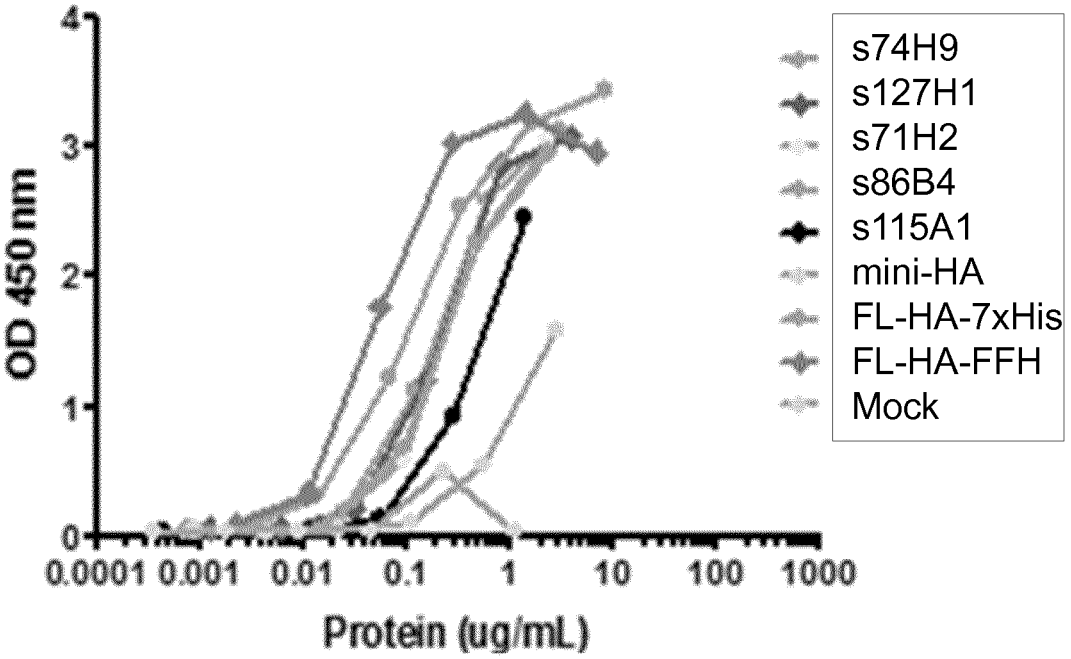

Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s220C9
s55G7
s113E7
s6E12
s181H9
mini-HA
FL-HA-7xHis
FL-HA-FFH
Mock

FIG. 2

C



D

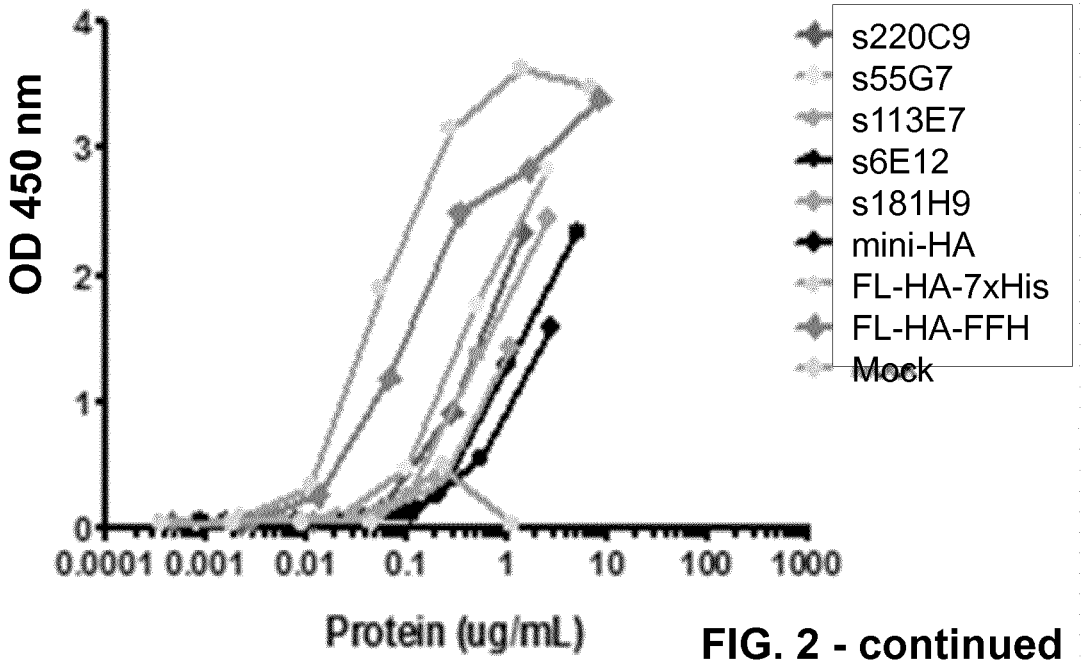
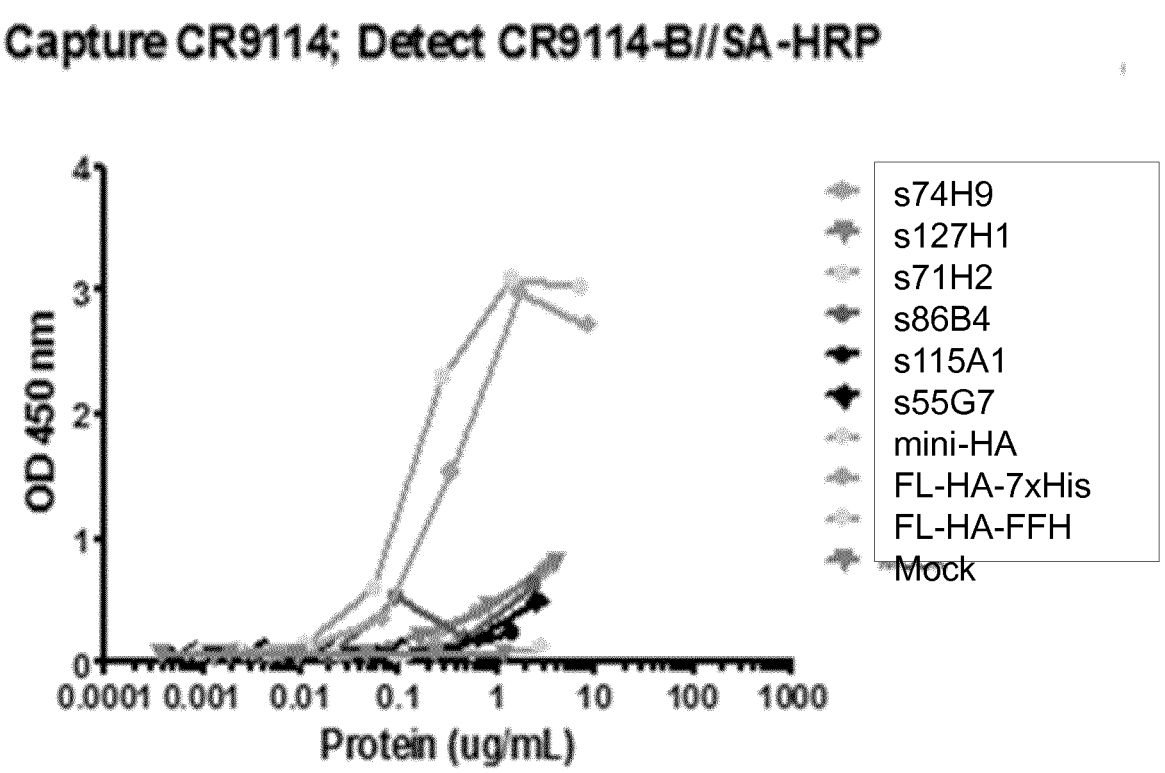


FIG. 2 - continued

E



F

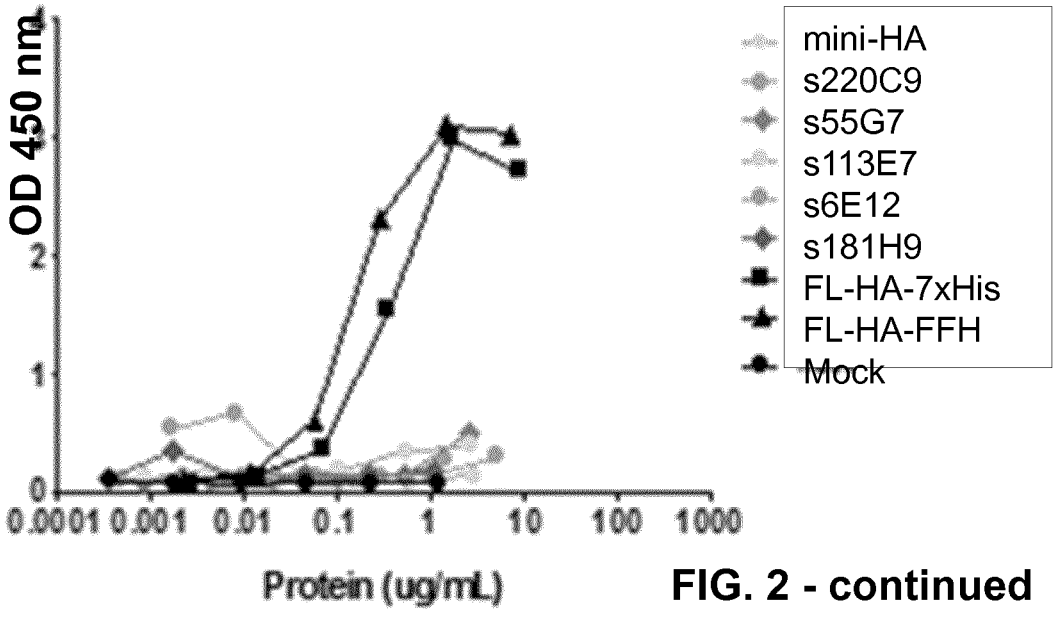
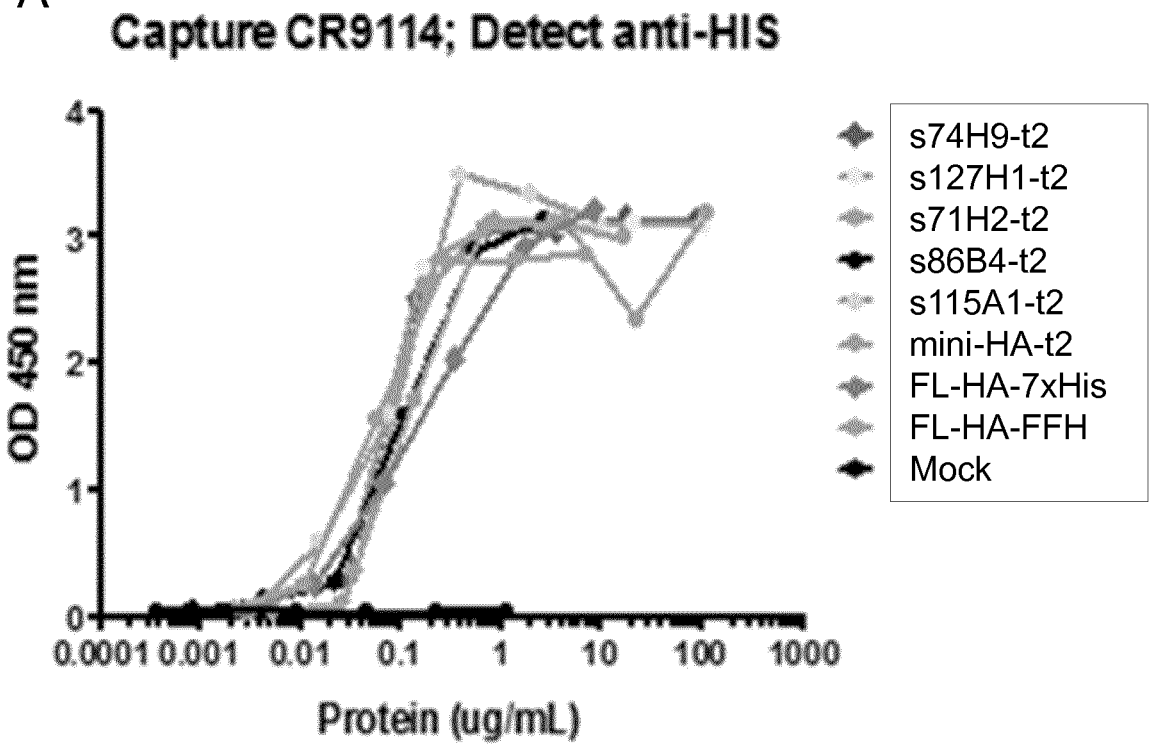


FIG. 2 - continued

A


Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s74H9-t2
s127H1-t2
s71H2-t2
s86B4-t2
s115A1-t2
mini-HA-t2
FL-HA-7xHis
FL-HA-FFH
Mock

B

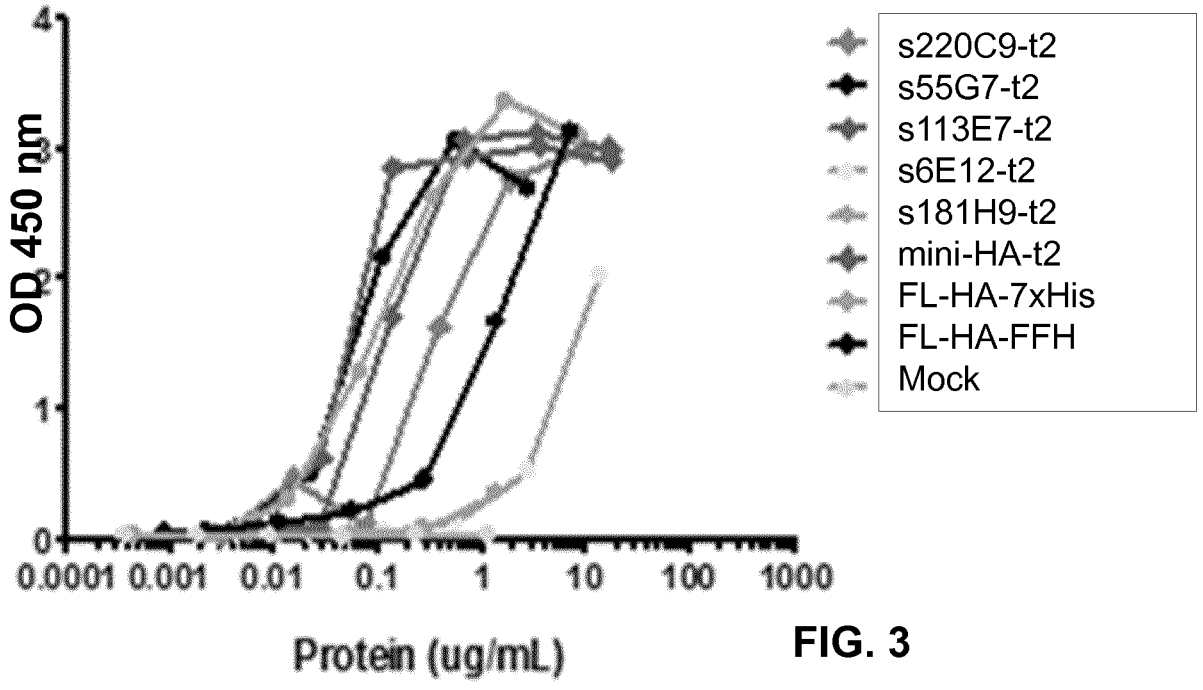
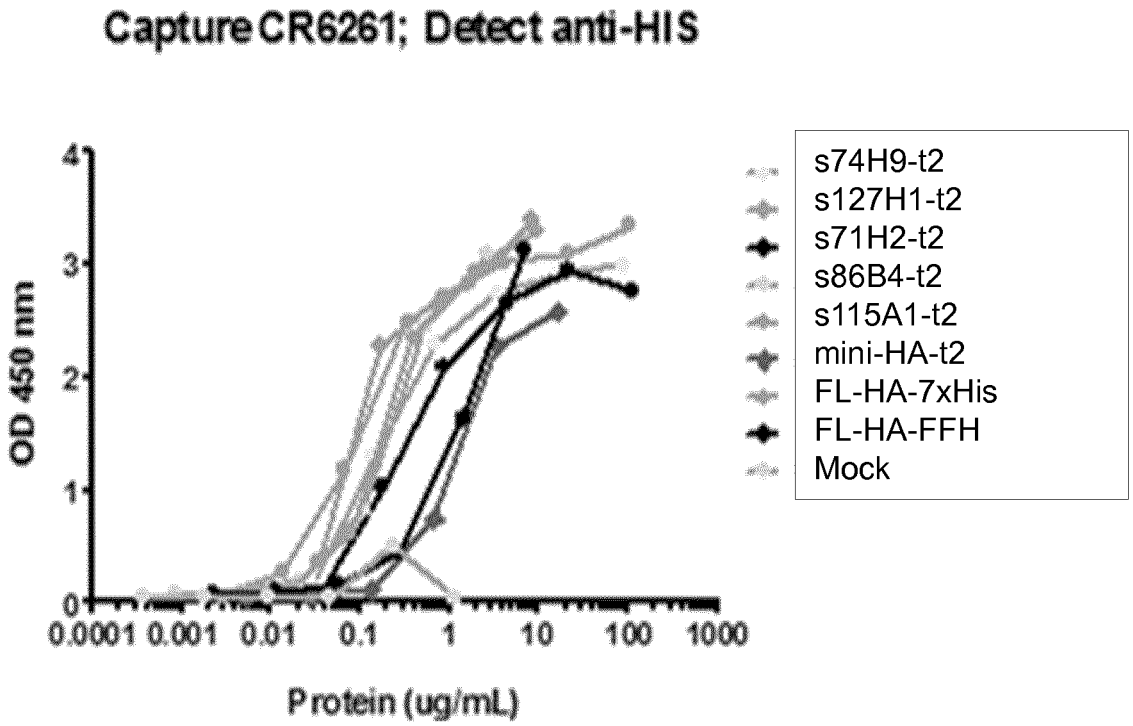

Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s220C9-t2
s55G7-t2
s113E7-t2
s6E12-t2
s181H9-t2
mini-HA-t2
FL-HA-7xHis
FL-HA-FFH
Mock

FIG. 3

C



D

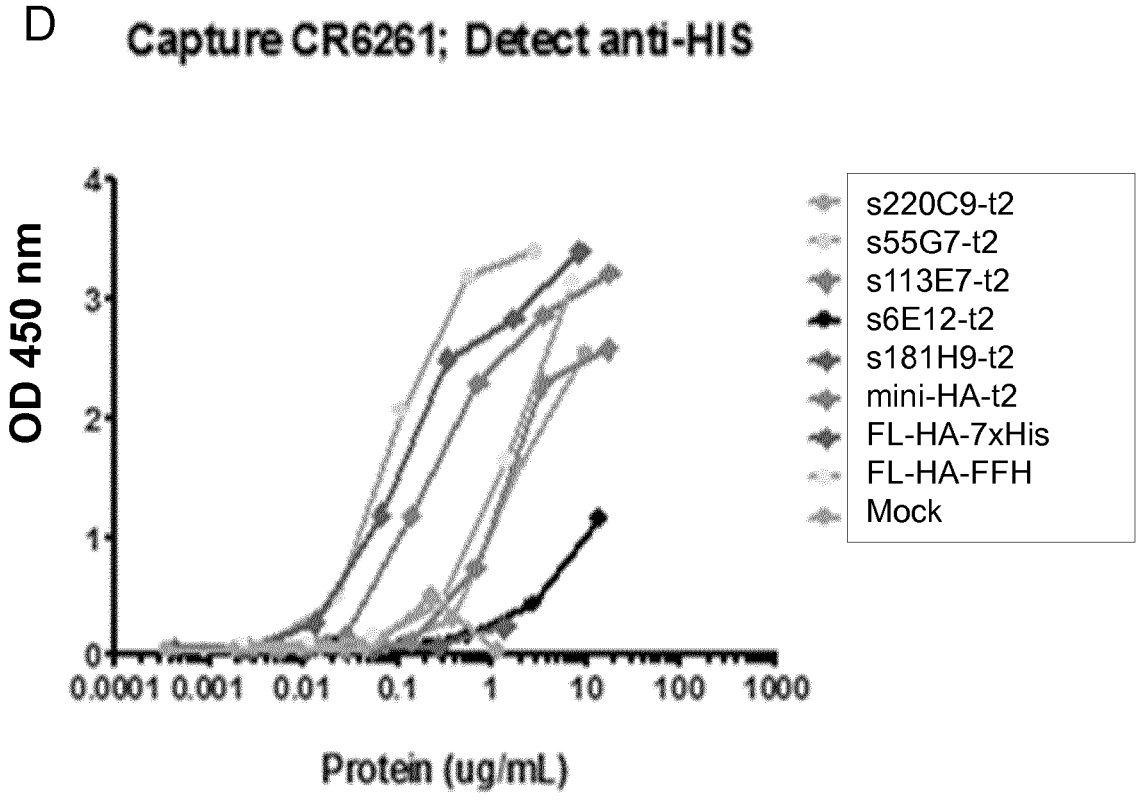
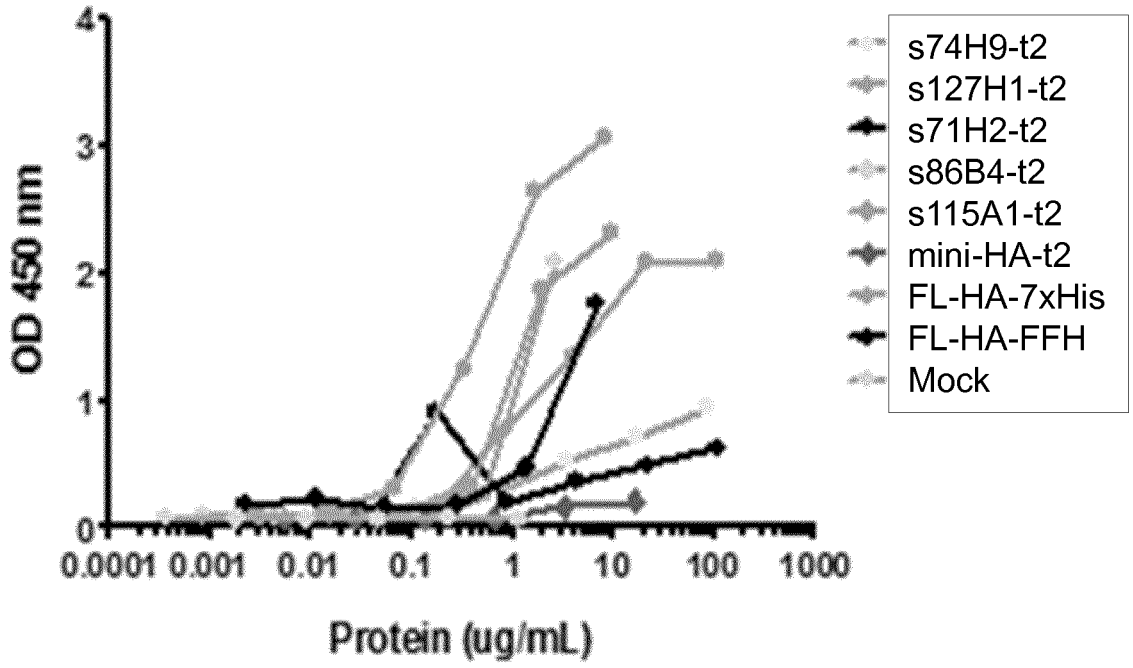


FIG. 3 - continued

E



F

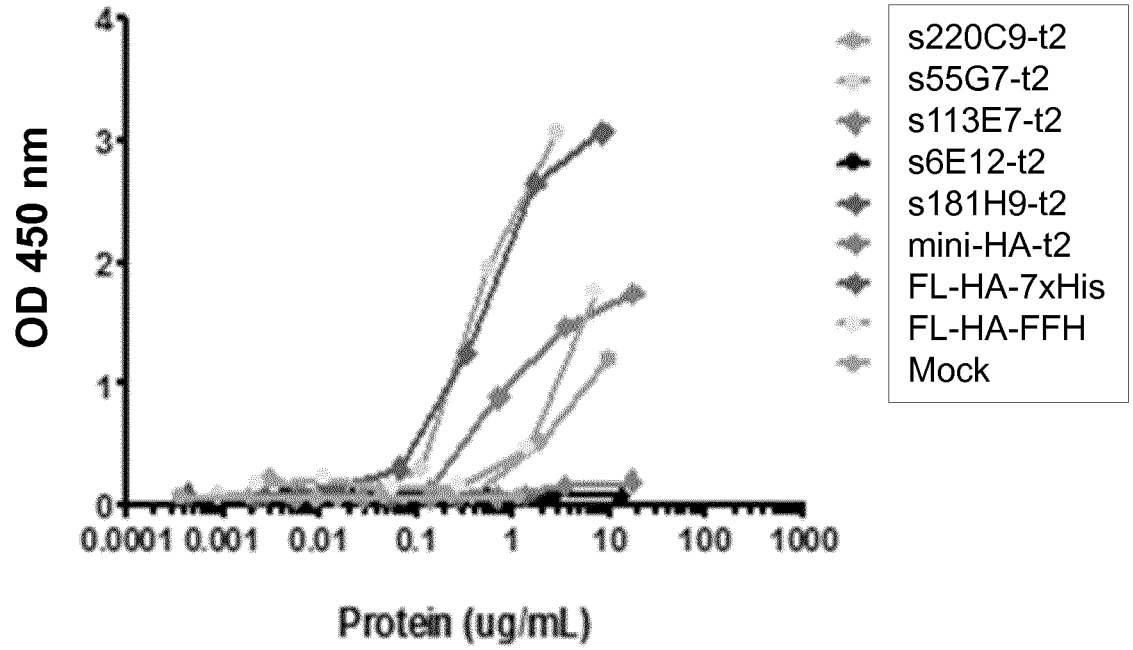
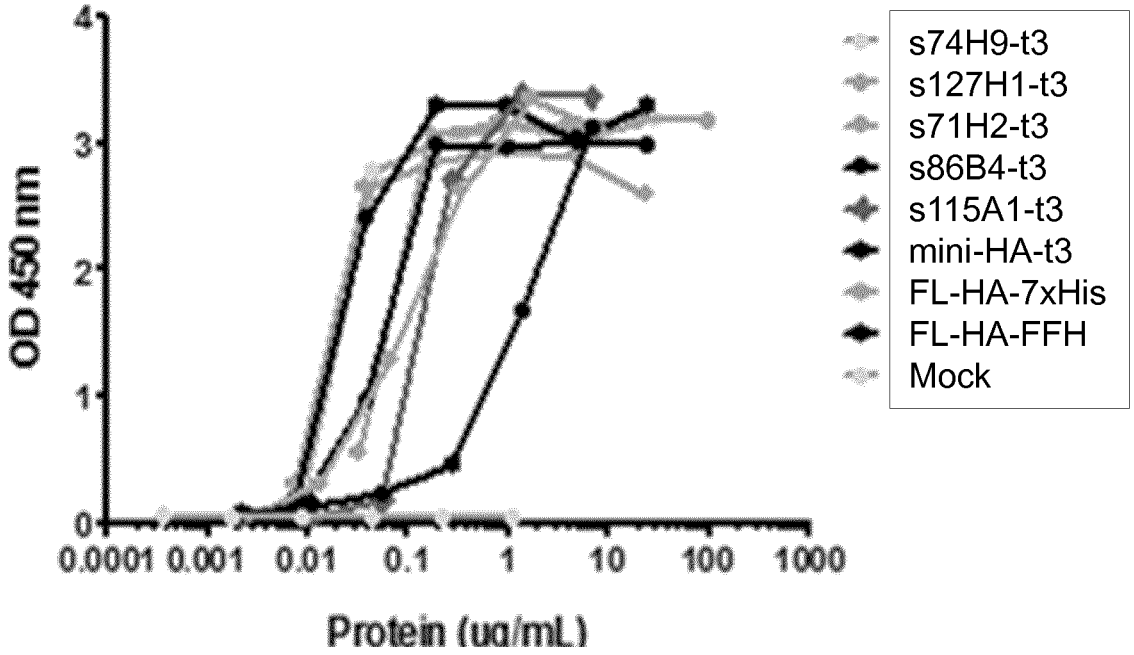


FIG. 3 - continued

A


Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s74H9-t3
s127H1-t3
s71H2-t3
s86B4-t3
s115A1-t3
mini-HA-t3
FL-HA-7xHis
FL-HA-FFH
Mock

B

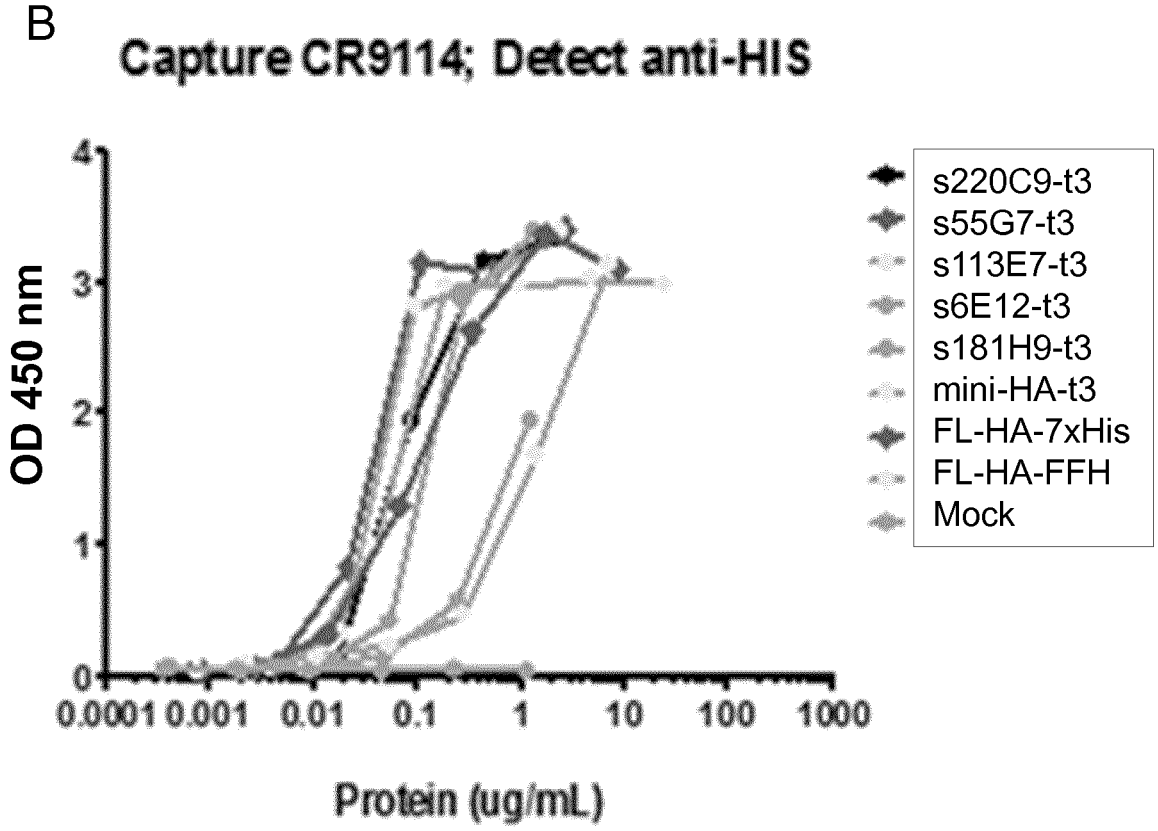
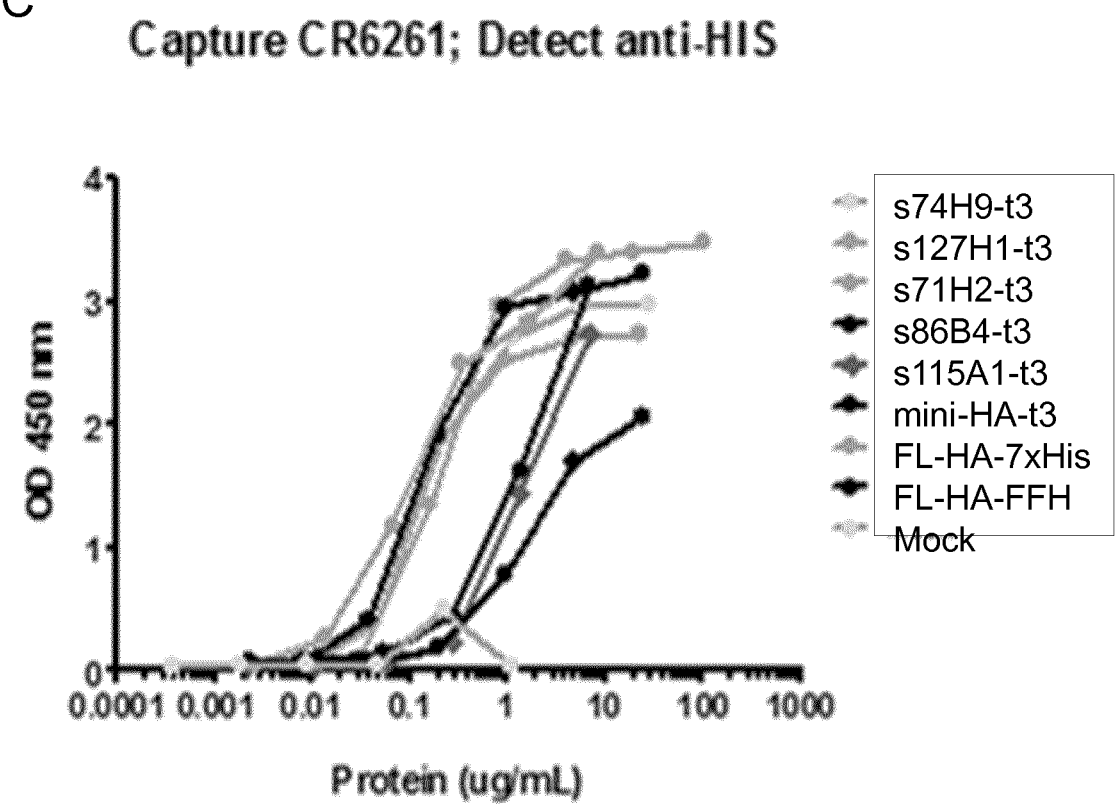

Capture CR9114; Detect anti-HIS
OD 450 nm
0
1
2
3
4
0.0001 0.001 0.01 0.1 1 10 100 1000
Protein (ug/mL)
s220C9-t3
s55G7-t3
s113E7-t3
s6E12-t3
s181H9-t3
mini-HA-t3
FL-HA-7xHis
FL-HA-FFH
Mock

FIG. 4

C



D

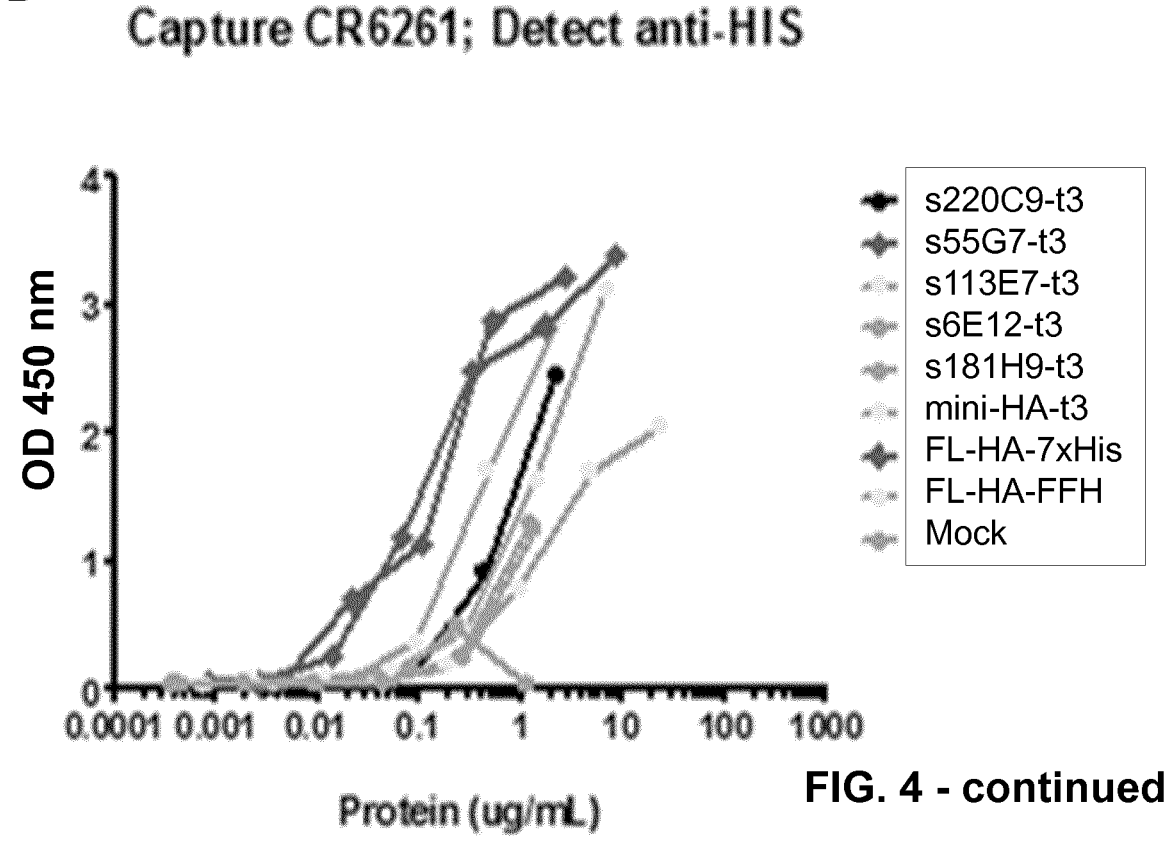
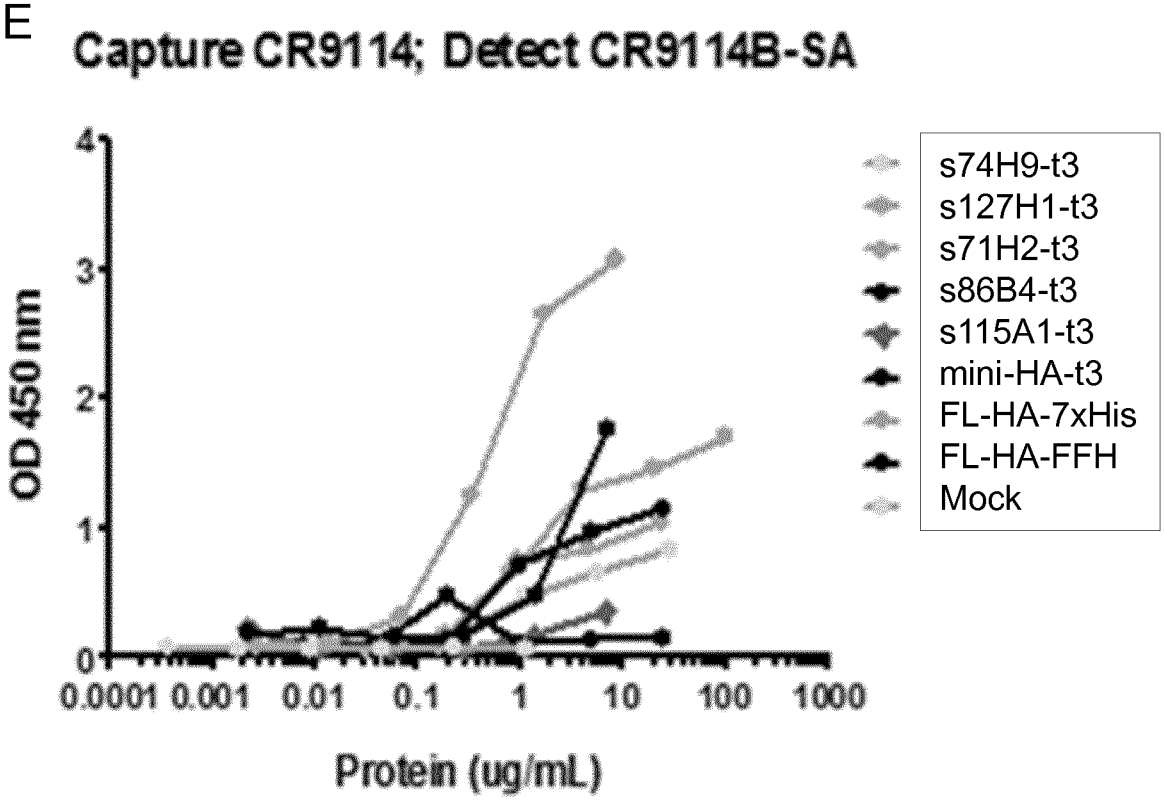


FIG. 4 - continued

E



F

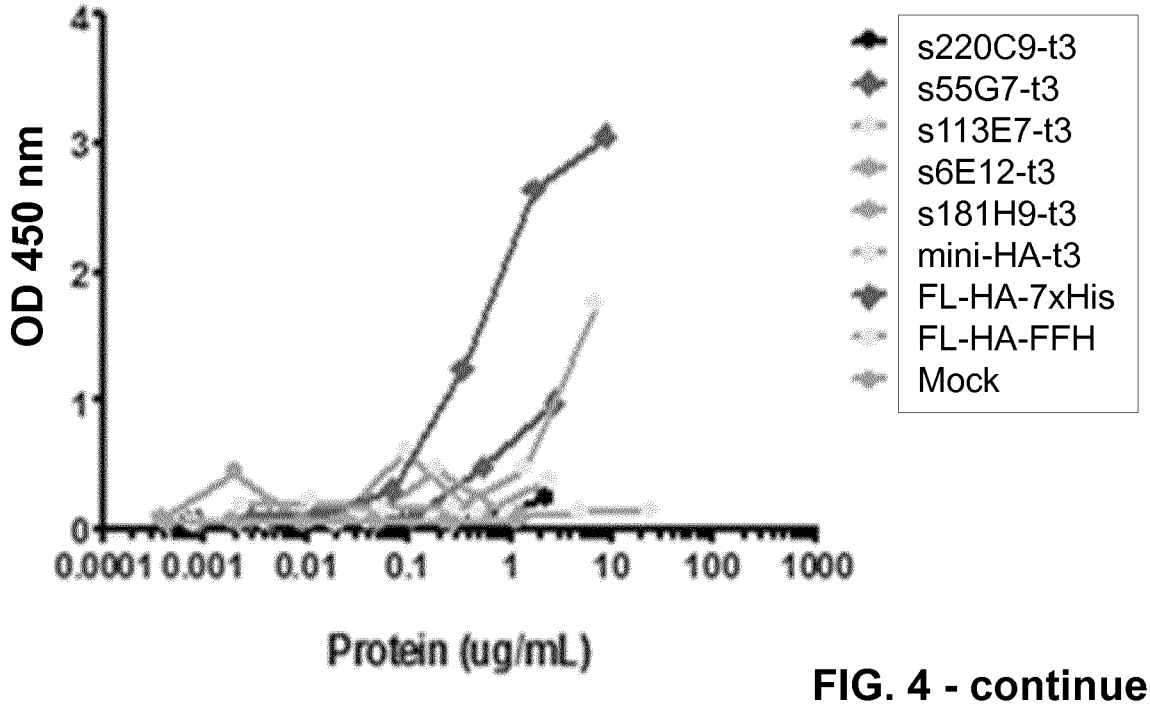
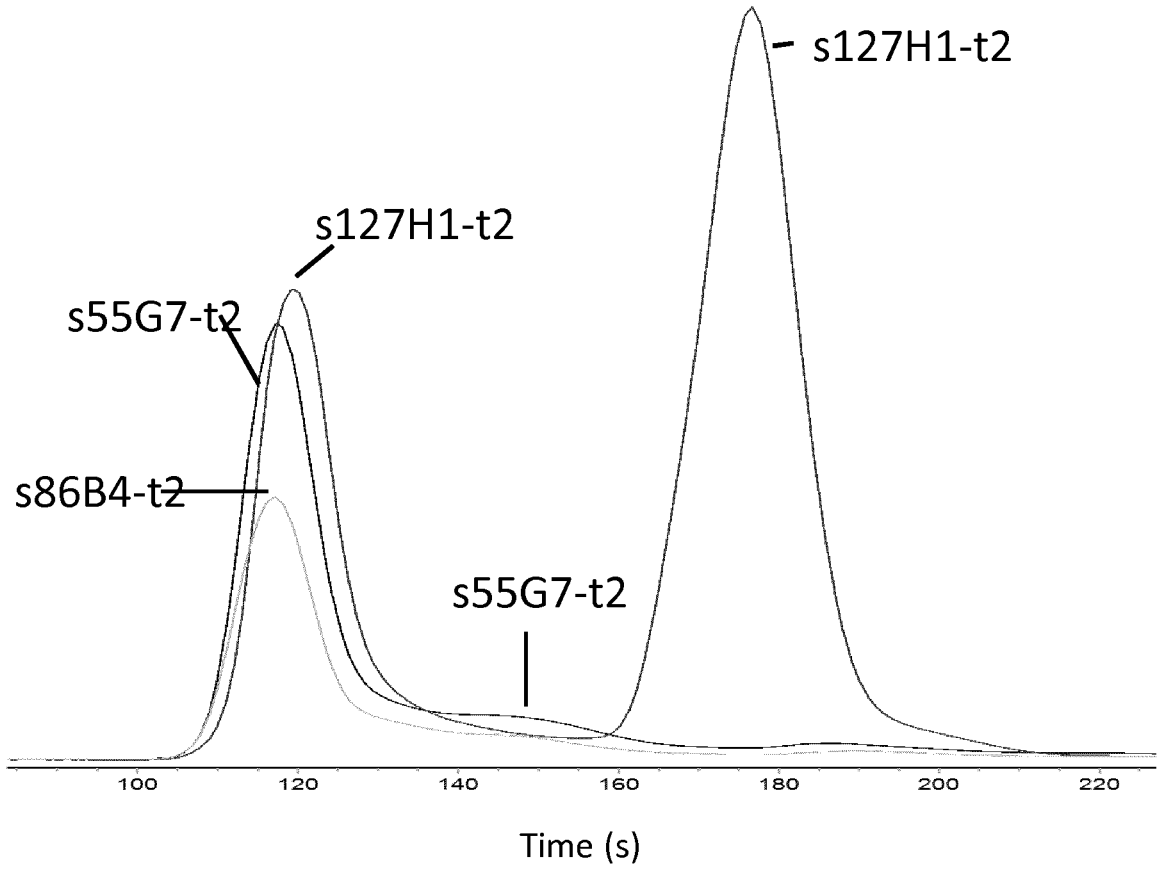


FIG. 4 - continued


s127H1-t2
s127H1-t2
s55G7-t2
s86B4-t2
s55G7-t2
100
120
140
160
180
200
220
Time (s)

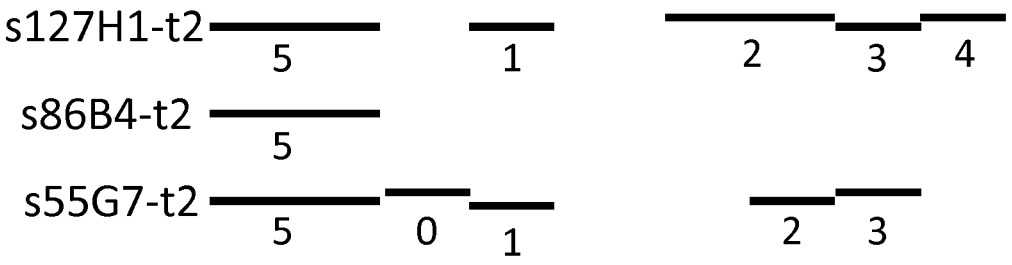

s127H1-t2
5
1
2
3
4
s86B4-t2
5
s55G7-t2
5
0
1
2
3

FIG. 5

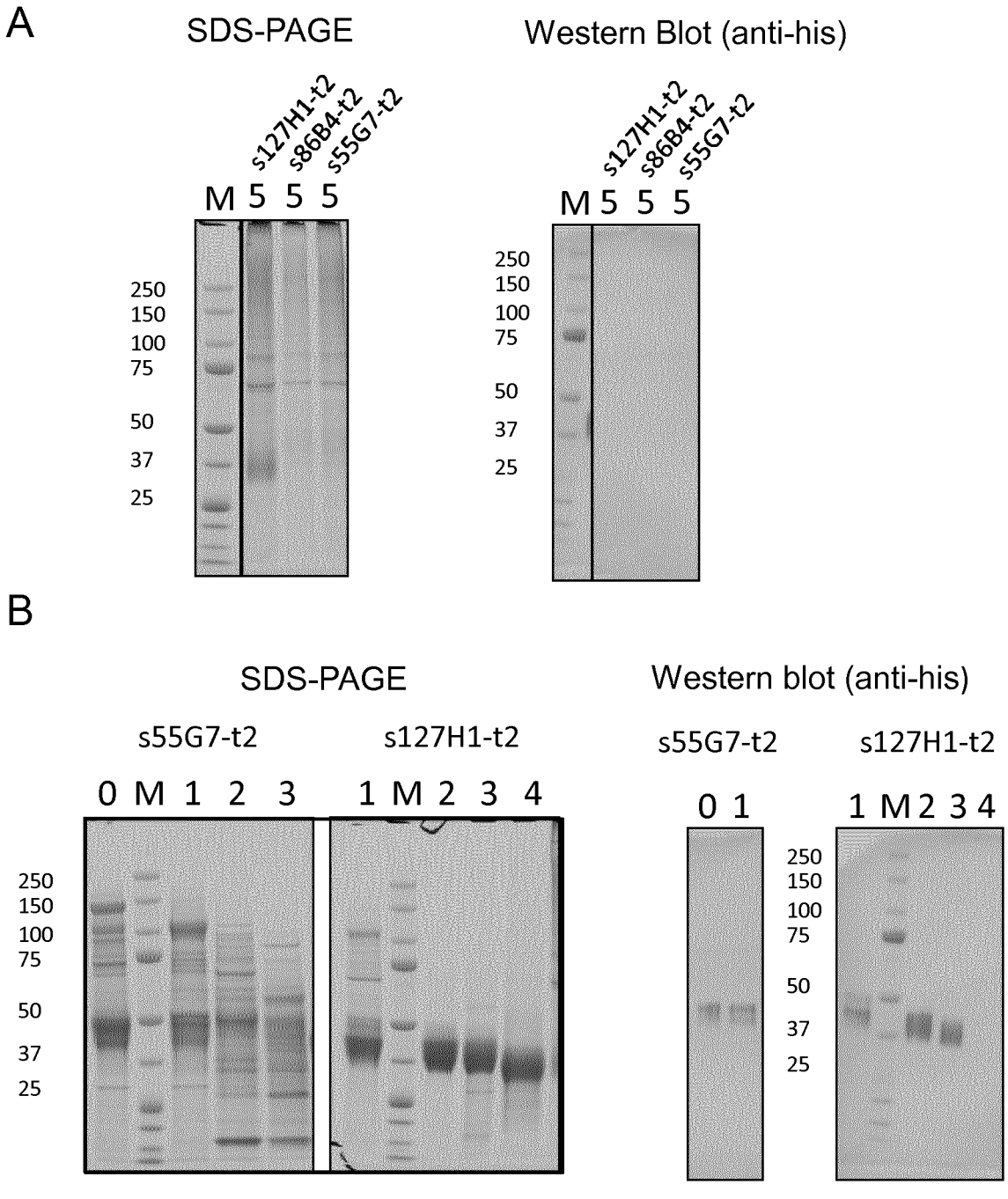

A
SDS-PAGE
Western Blot (anti-his)
s127H1-t2
s86B4-t2
s55G7-t2
M 5 5 5
250
150
100
75
50
37
25
B
SDS-PAGE
Western blot (anti-his)
s55G7-t2
s127H1-t2
0 M 1 2 3
1 M 2 3 4
0 1
1 M 2 3 4

FIG. 6

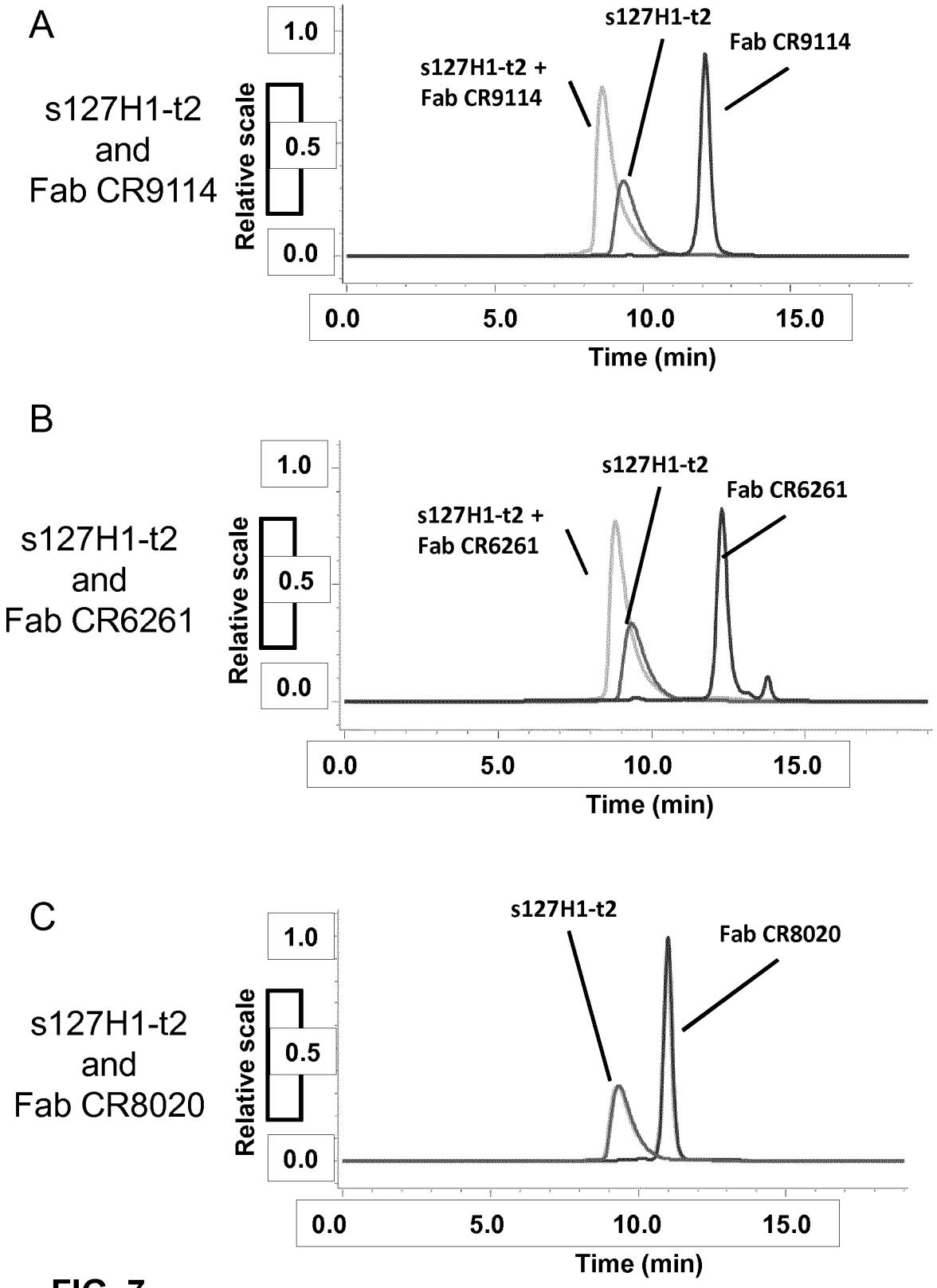
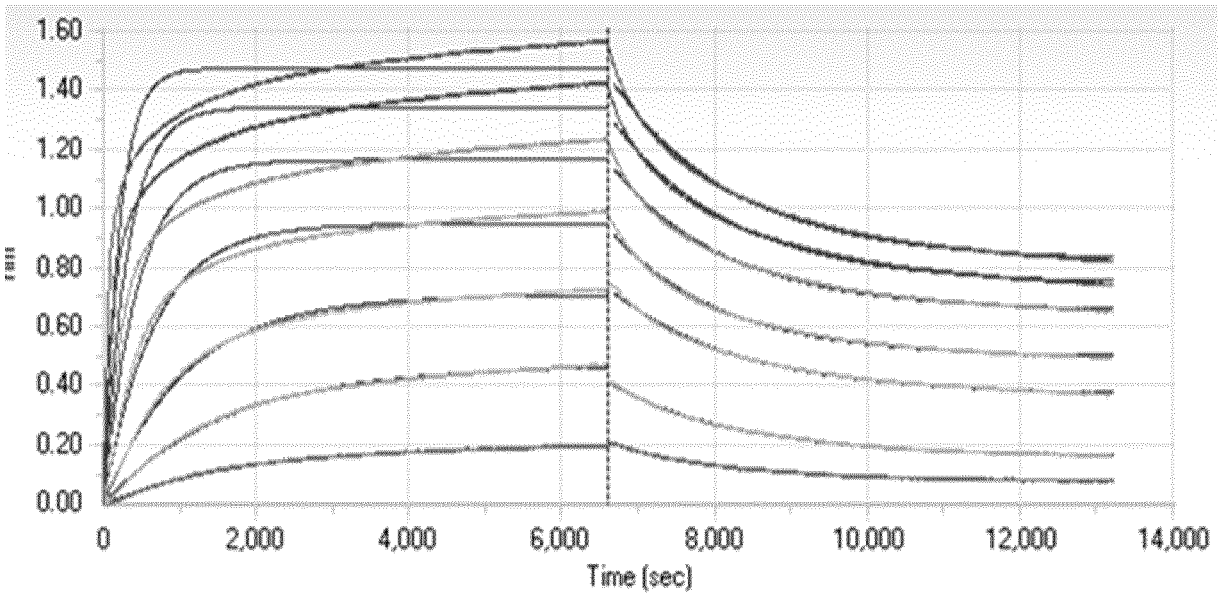

A
s127H1-t2
and
Fab CR9114
1.0
0.5
0.0
Relative scale
s127H1-t2 +
Fab CR9114
s127H1-t2
Fab CR9114
0.0
5.0
10.0
15.0
Time (min)
B
s127H1-t2
and
Fab CR6261
1.0
0.5
0.0
Relative scale
s127H1-t2 +
Fab CR6261
s127H1-t2
Fab CR6261
0.0
5.0
10.0
15.0
Time (min)
C
s127H1-t2
and
Fab CR8020
1.0
0.5
0.0
Relative scale
s127H1-t2
Fab CR8020
0.0
5.0
10.0
15.0
Time (min)

FIG. 7

A

CR6261



C

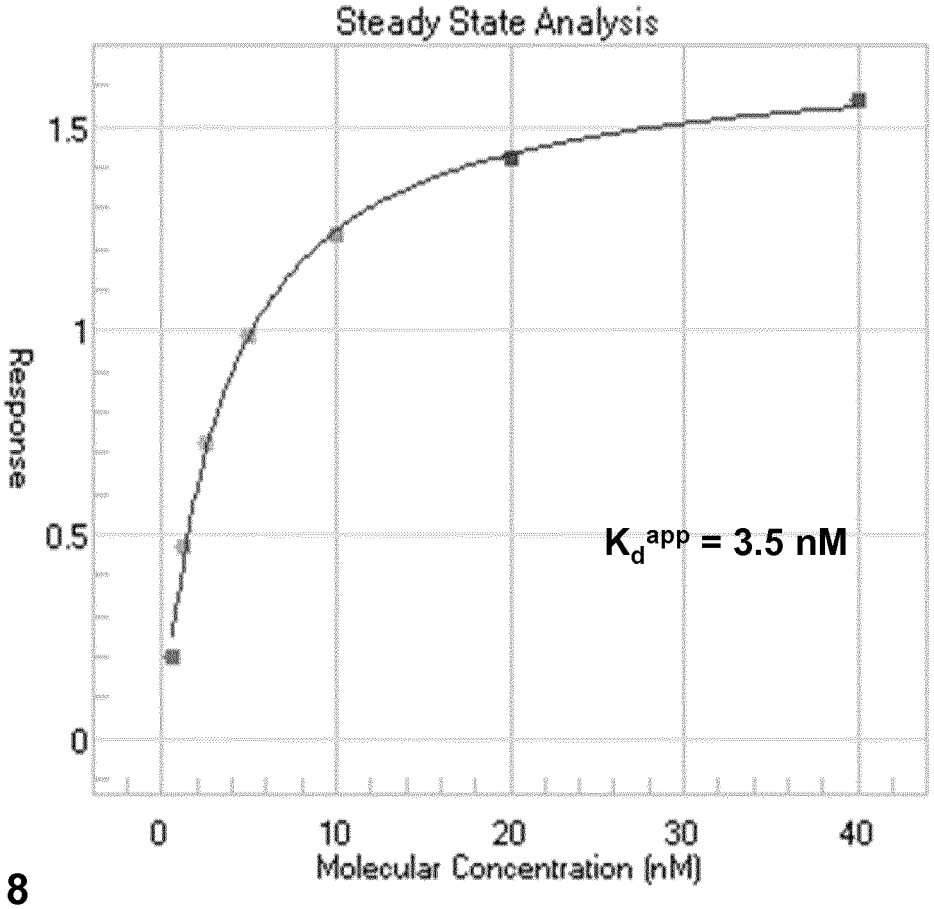
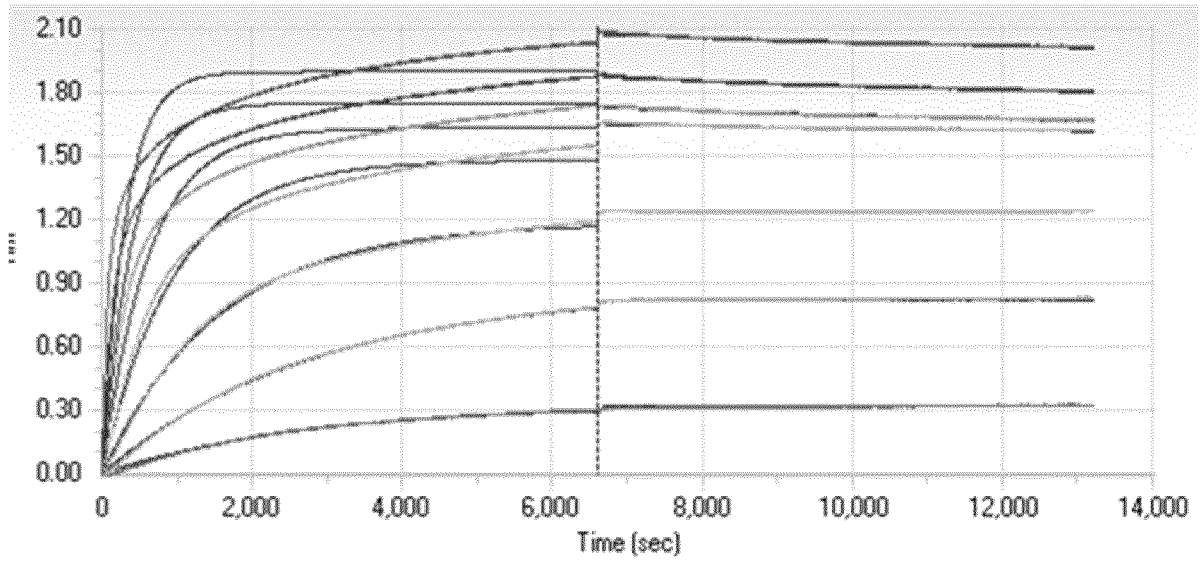


FIG. 8

B

CR9114



D

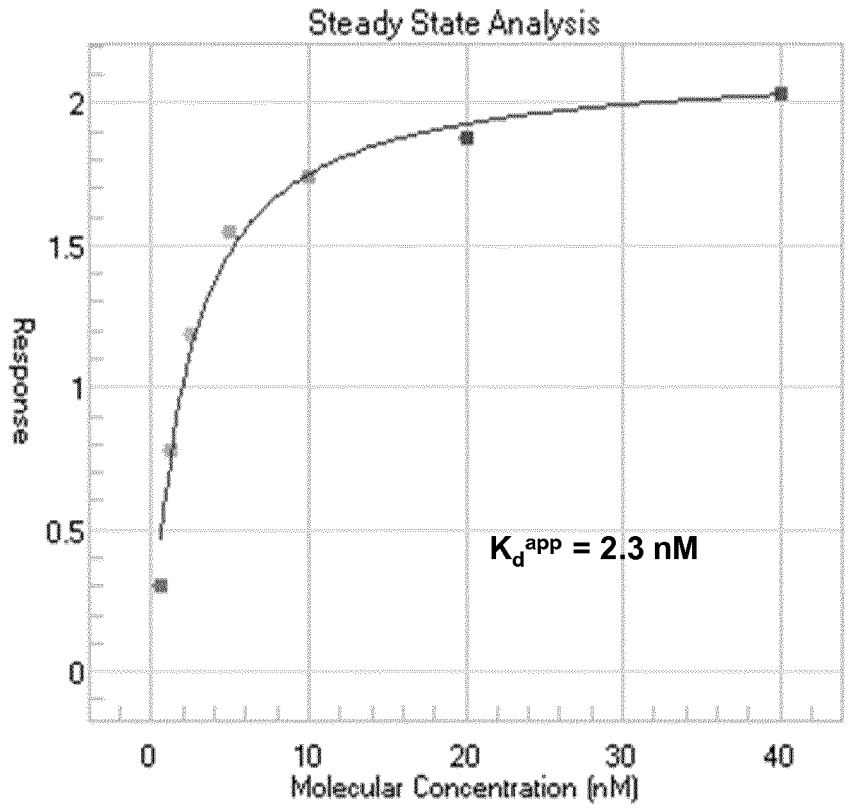
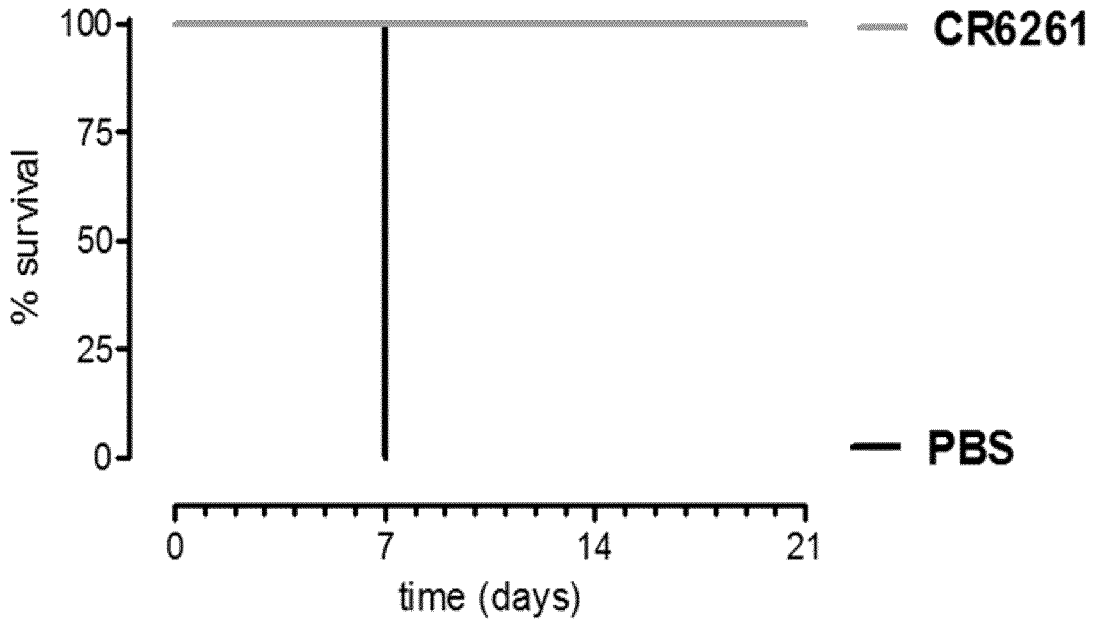


FIG. 8 - continued

A


100
75
50
25
0
% survival
CR6261
PBS
0
7
14
21
time (days)

B

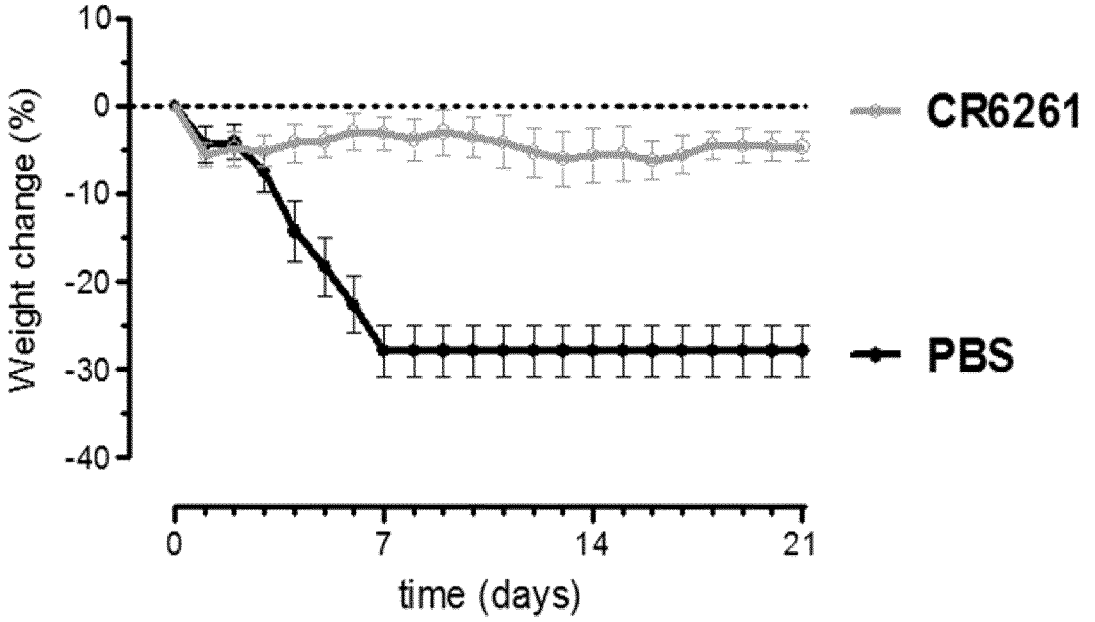

10
0
-10
-20
-30
-40
Weight change (%)
CR6261
PBS
0
7
14
21
time (days)

FIG. 9

C

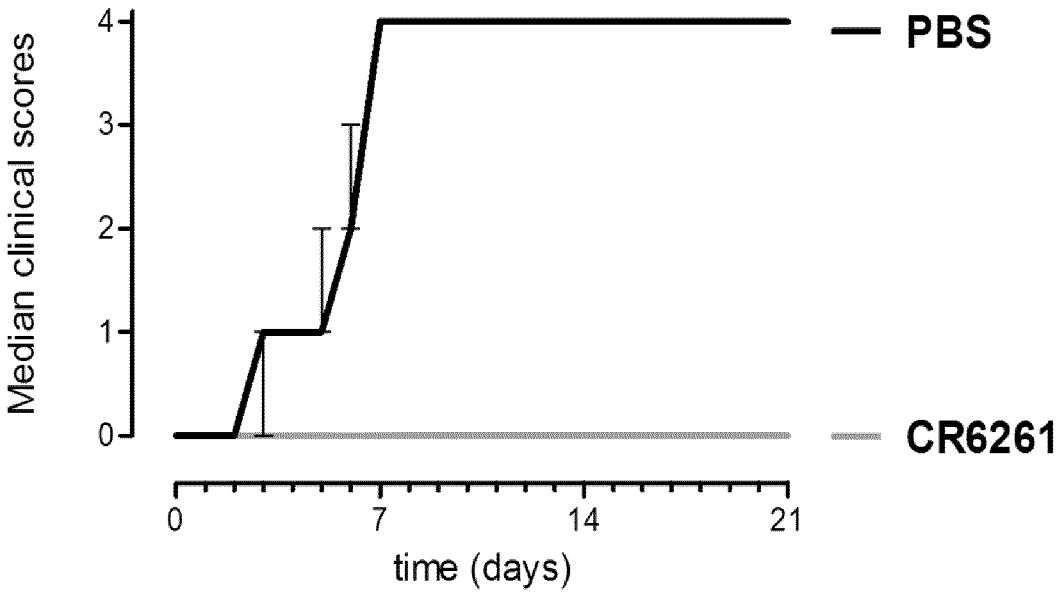


FIG. 9 - continued

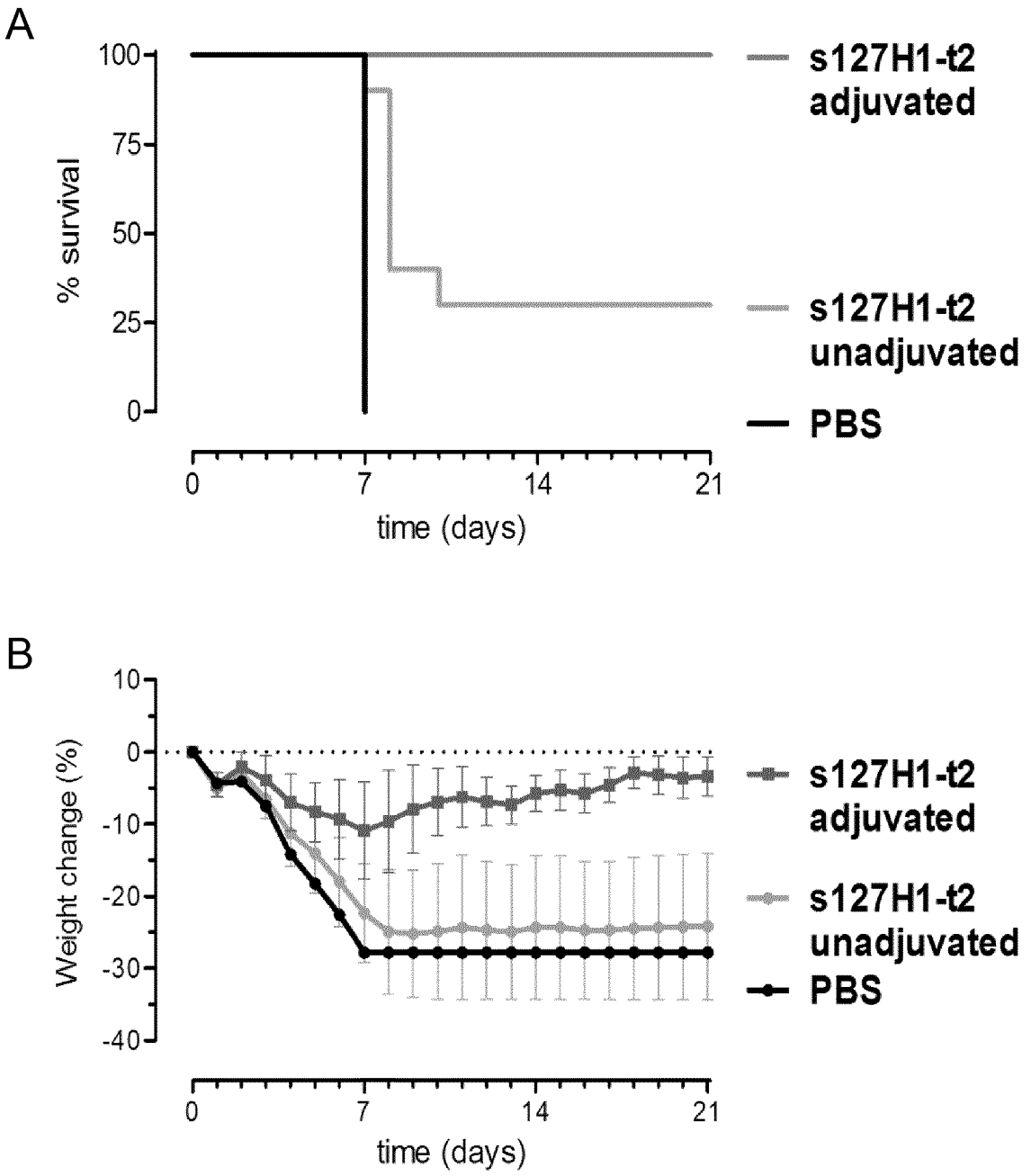

A
100
75
50
25
0
% survival
0
7
14
21
time (days)
s127H1-t2 adjuvated
s127H1-t2 unadjuvated
PBS
B
10
0
-10
-20
-30
-40
Weight change (%)
0
7
14
21
time (days)
s127H1-t2 adjuvated
s127H1-t2 unadjuvated
PBS

FIG. 10

C

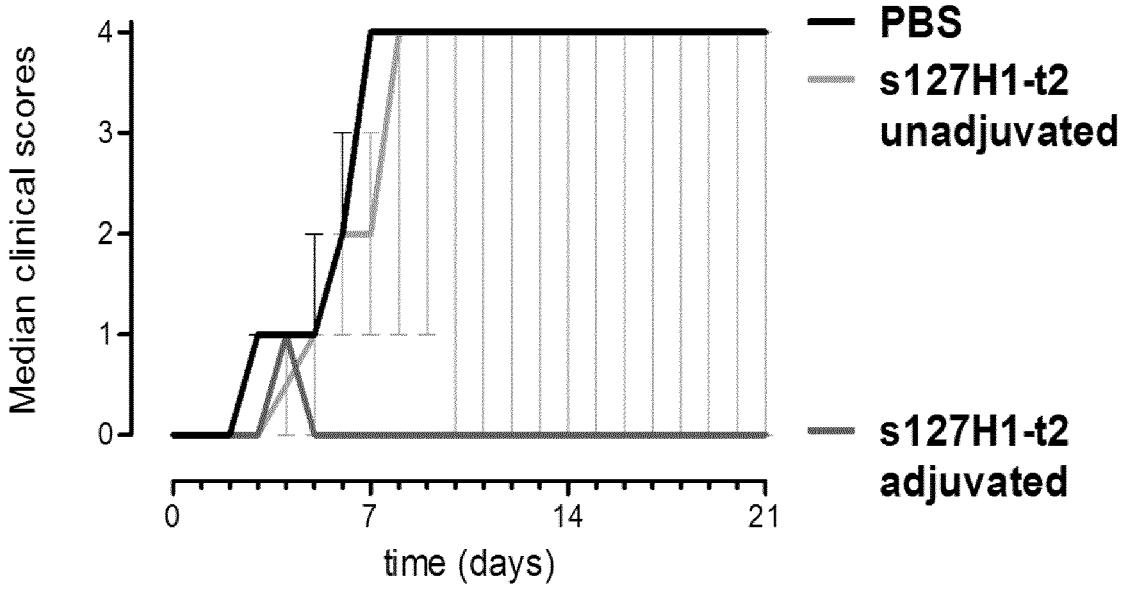


FIG. 10 - continued

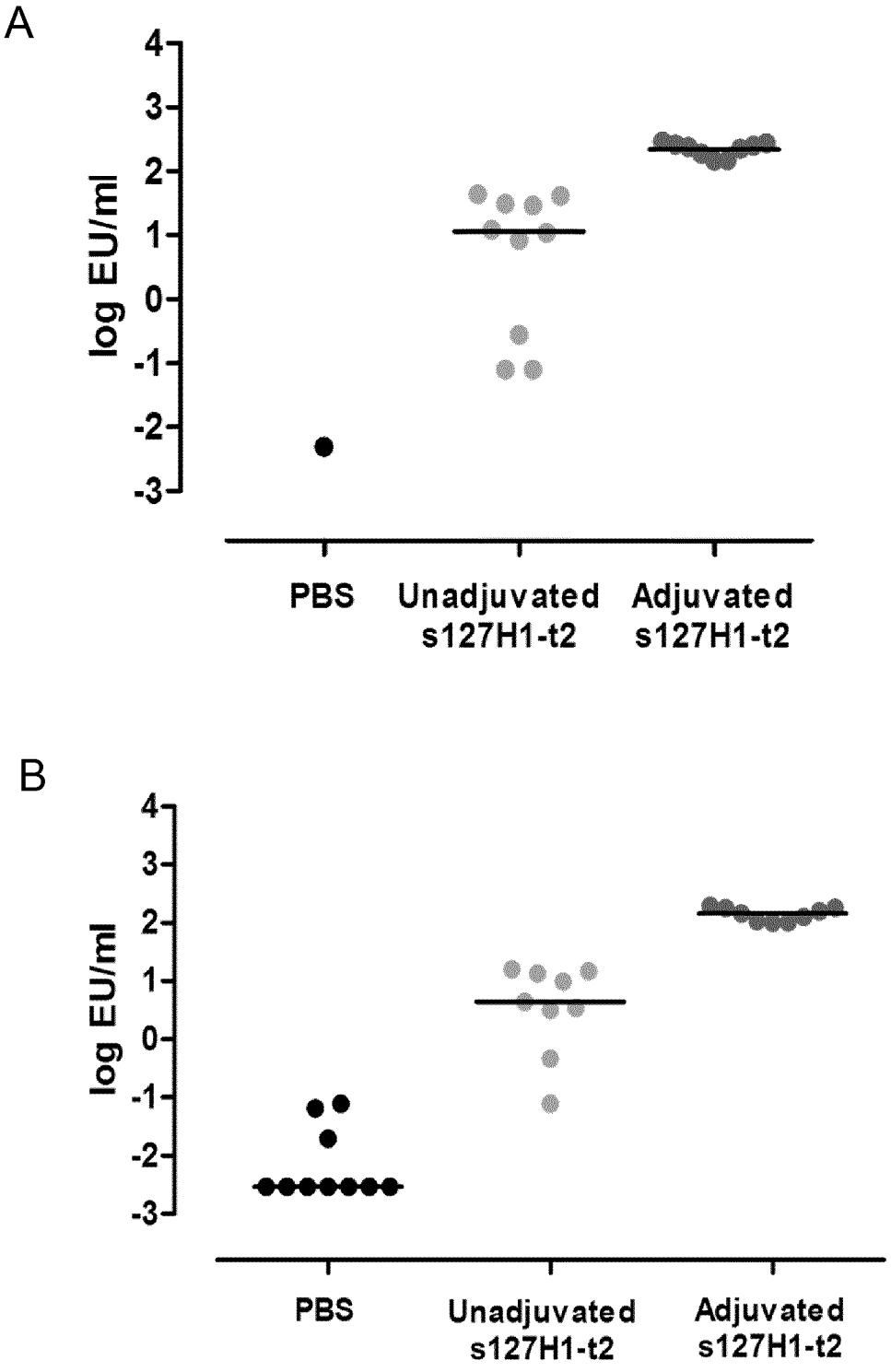

A
log EU/ml
4
3
2
1
0
-1
-2
-3
PBS
Unadjuvated s127H1-t2
Adjuvated s127H1-t2
B
log EU/ml
4
3
2
1
0
-1
-2
-3
PBS
Unadjuvated s127H1-t2
Adjuvated s127H1-t2

FIG. 11

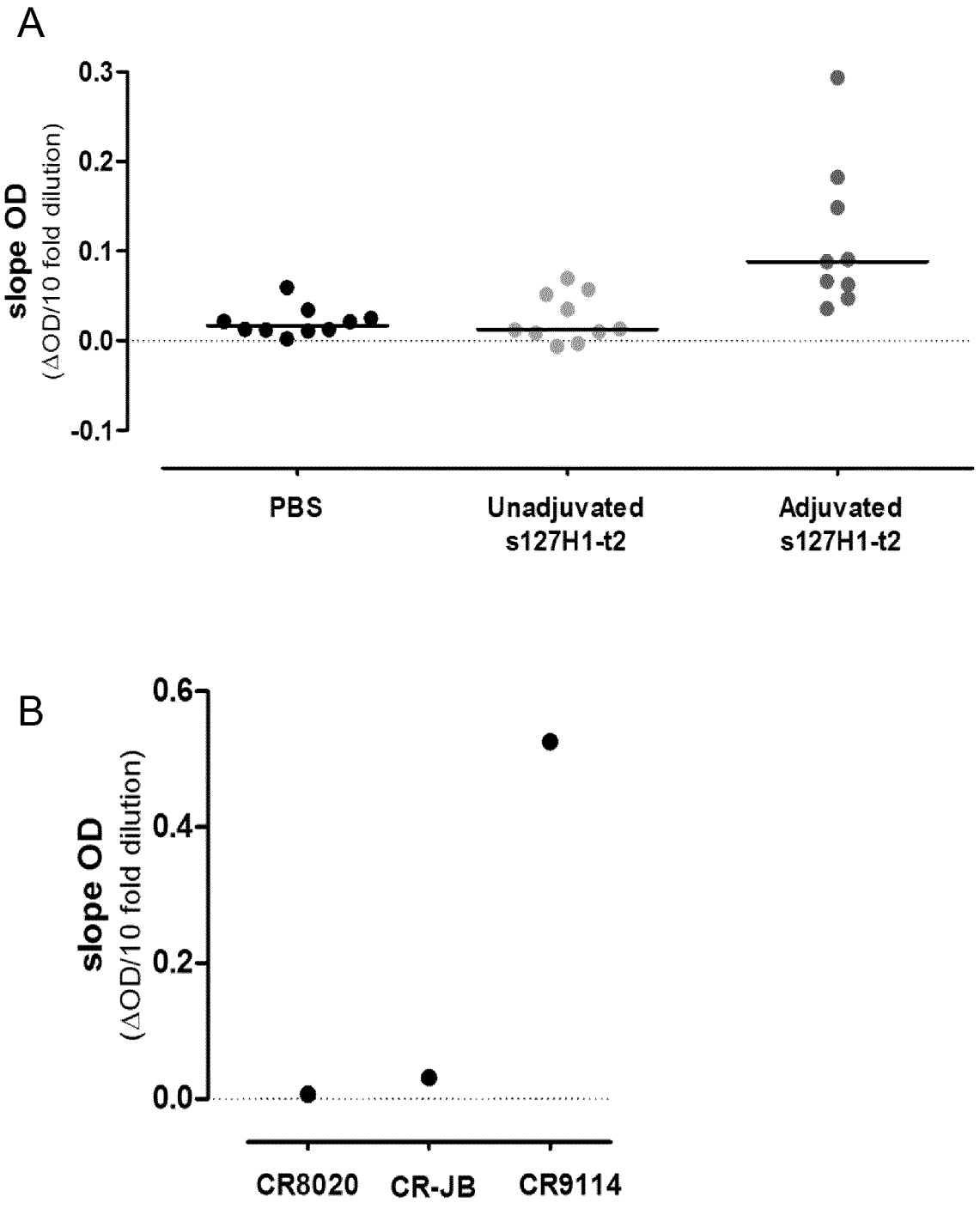

A
slope OD
(ΔOD/10 fold dilution)
0.3
0.2
0.1
0.0
-0.1
PBS
Unadjuvated s127H1-t2
Adjuvated s127H1-t2
B
slope OD
(ΔOD/10 fold dilution)
0.6
0.4
0.2
0.0
CR8020
CR-JB
CR9114

FIG. 12

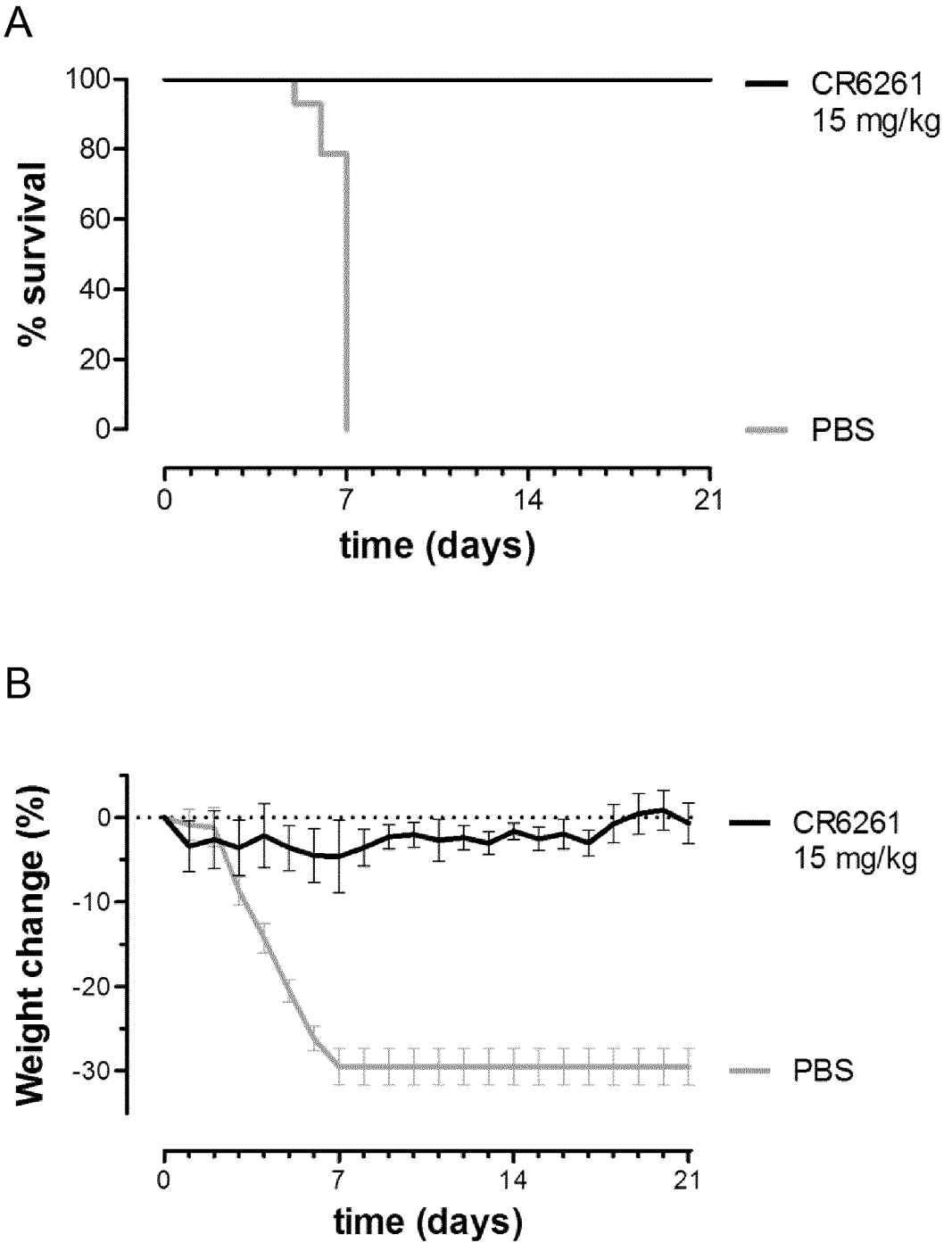

A
100
80
60
40
20
0
% survival
CR6261
15 mg/kg
PBS
0
7
14
21
time (days)
B
0
-10
-20
-30
Weight change (%)
CR6261
15 mg/kg
PBS
0
7
14
21
time (days)

FIG. 13

C

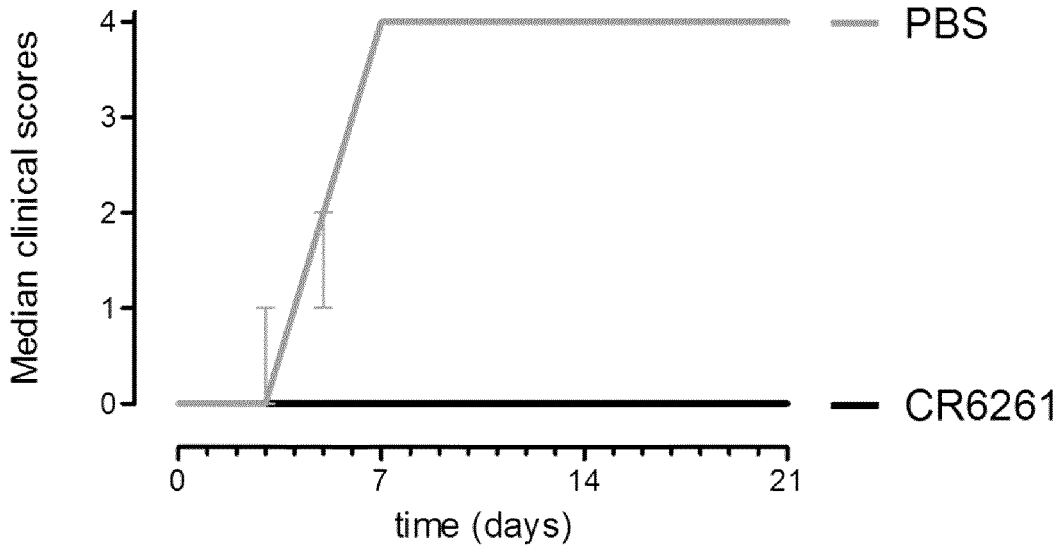
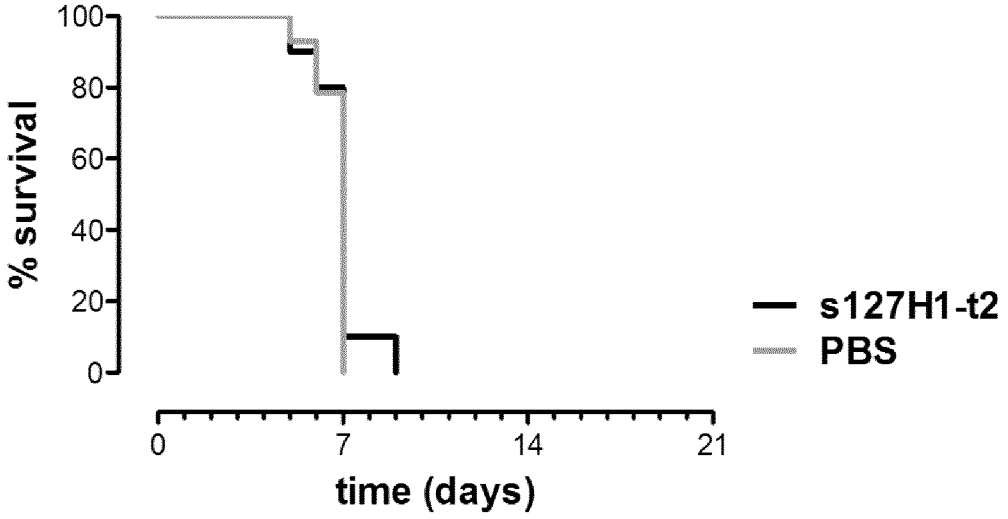


FIG. 13 – continued

A


100
80
60
40
20
0
% survival
0
7
14
21
time (days)
s127H1-t2
PBS

B

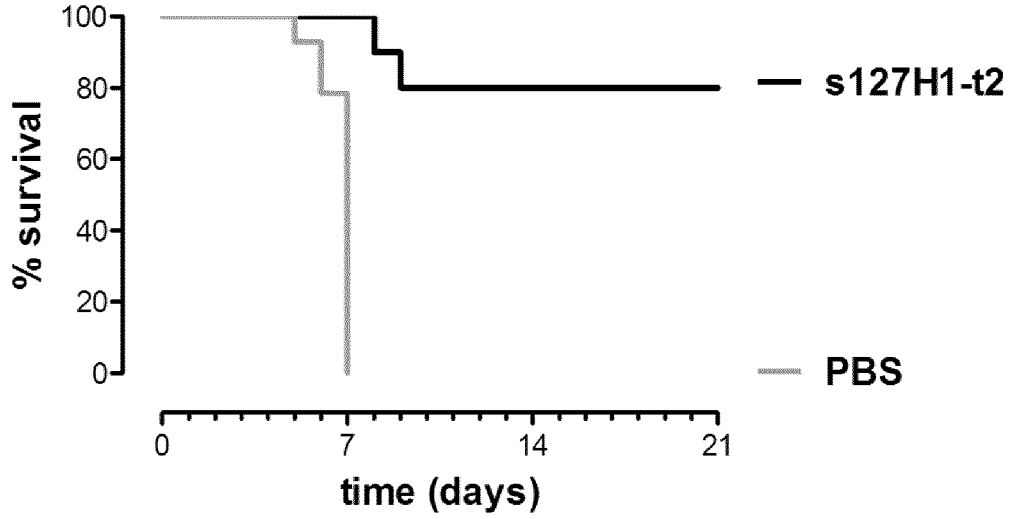

100
80
60
40
20
0
% survival
0
7
14
21
time (days)
s127H1-t2
PBS

FIG. 14

C

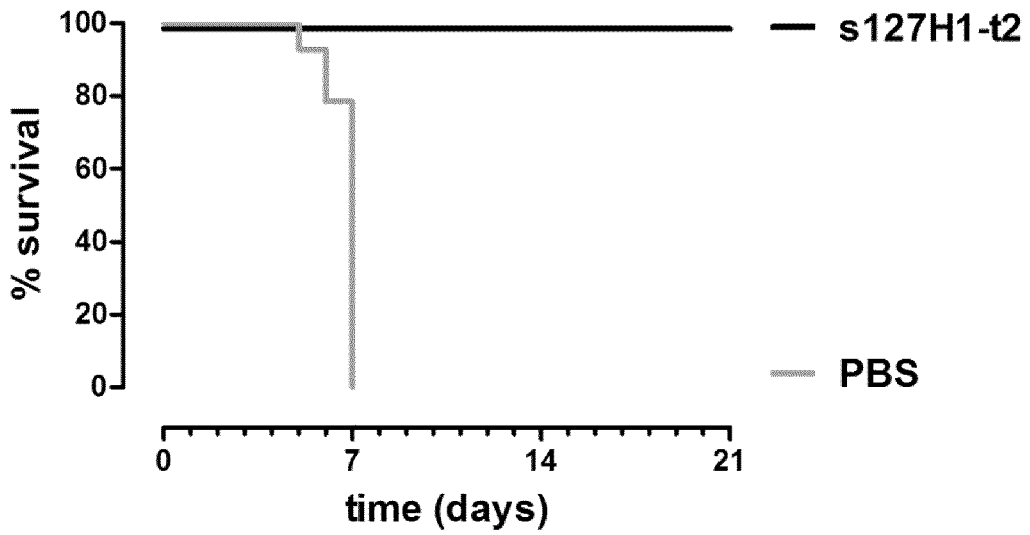
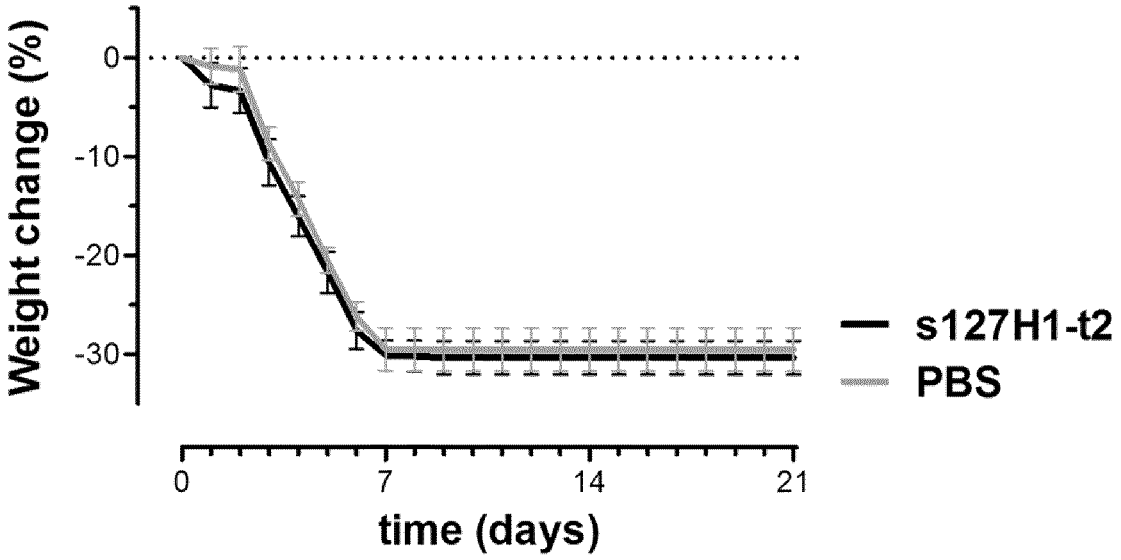


FIG. 14 – continued

A


Weight change (%)
0
-10
-20
-30
0
7
14
21
time (days)
s127H1-t2
PBS

B

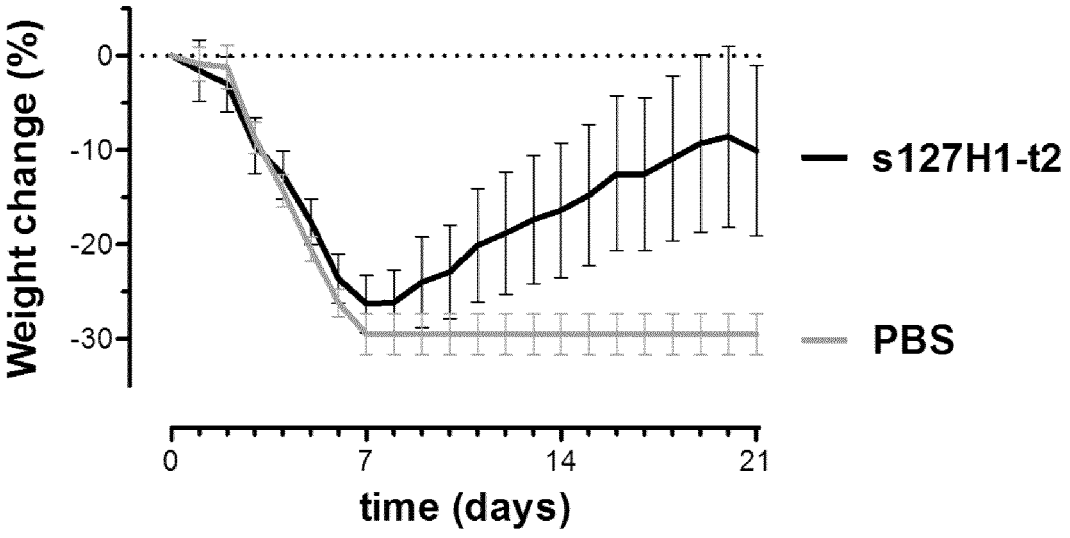

Weight change (%)
0
-10
-20
-30
0
7
14
21
time (days)
s127H1-t2
PBS

FIG. 15

C

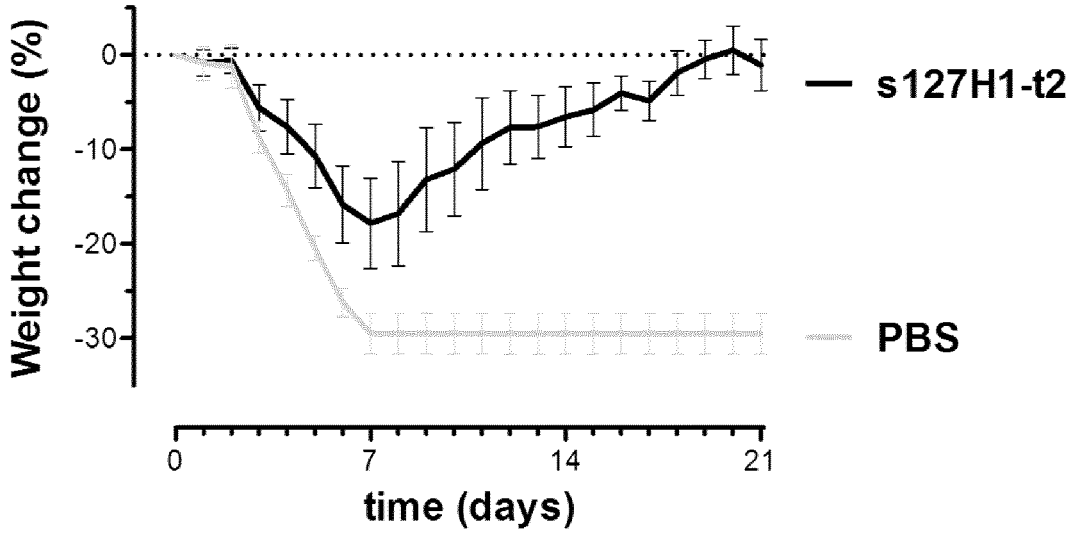


FIG. 15 - continued

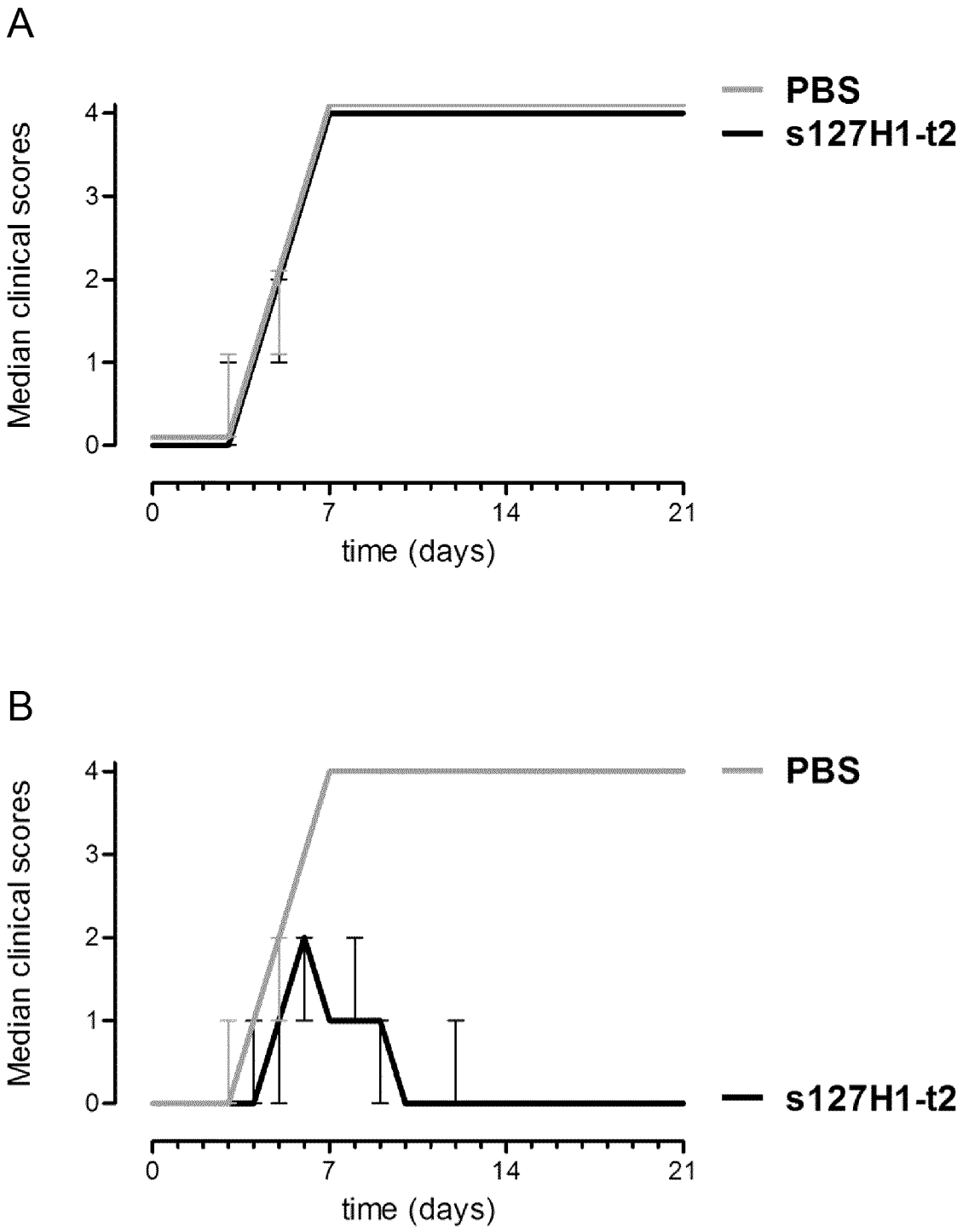

A
Median clinical scores
4
3
2
1
0
0
7
14
21
time (days)
PBS
s127H1-t2
B
Median clinical scores
4
3
2
1
0
0
7
14
21
time (days)
PBS
s127H1-t2

FIG. 16

C

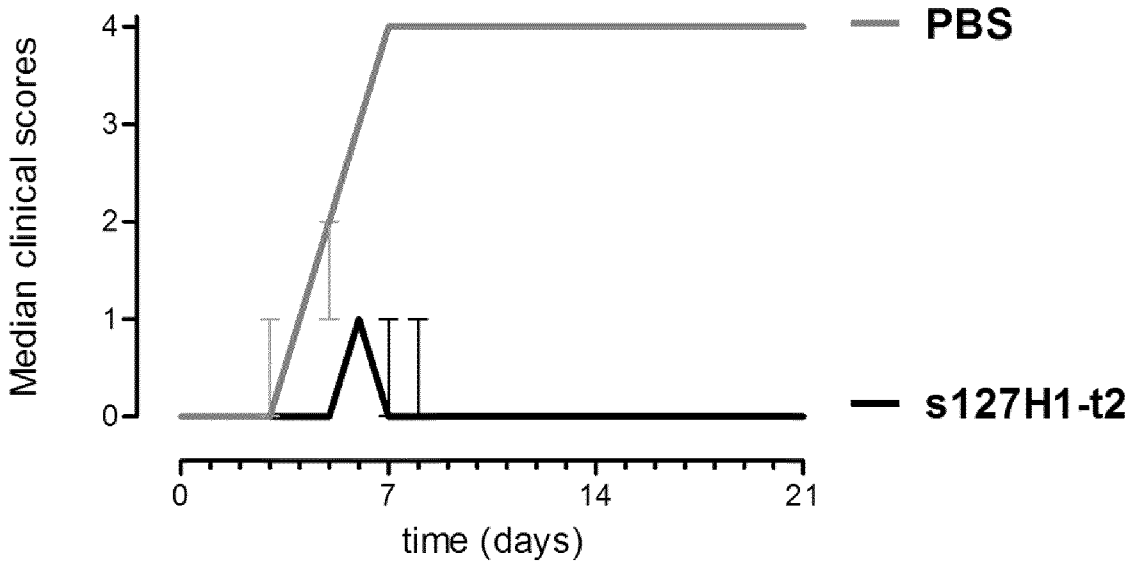


FIG. 16 - continued

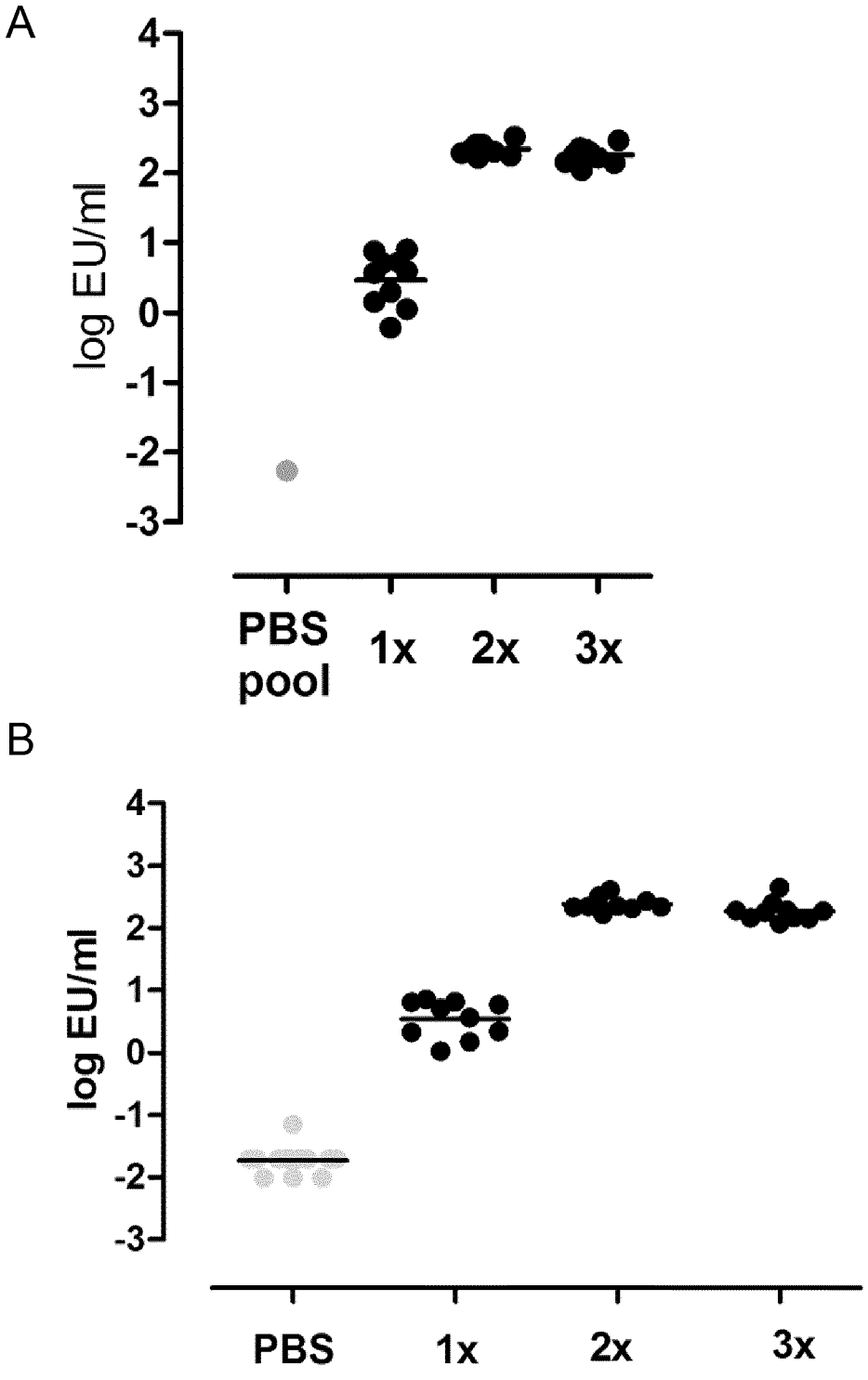

A
log EU/ml
4
3
2
1
0
-1
-2
-3
PBS pool
1x
2x
3x
B
log EU/ml
4
3
2
1
0
-1
-2
-3
PBS
1x
2x
3x

FIG. 17

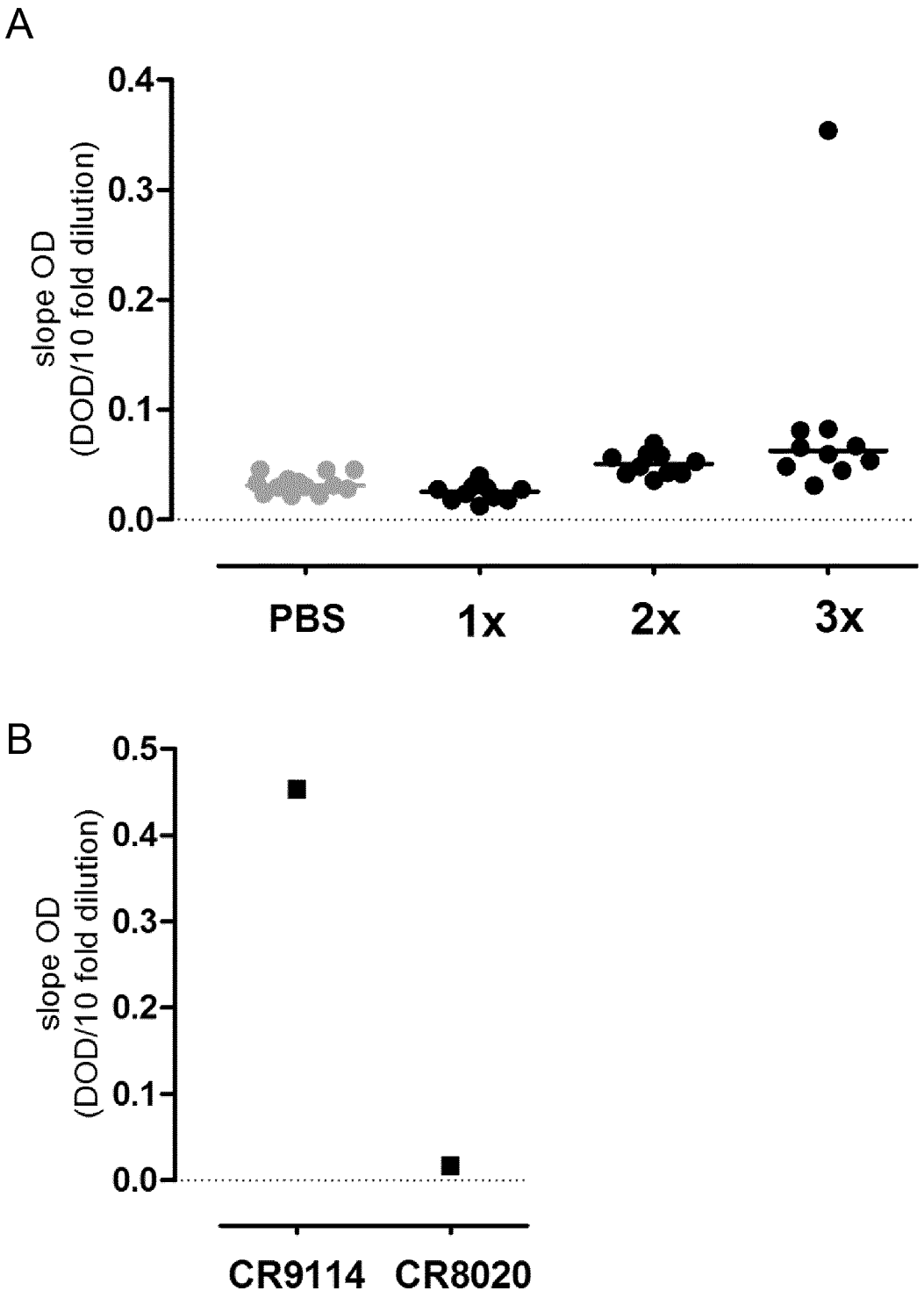

A
slope OD
(DOD/10 fold dilution)
0.4
0.3
0.2
0.1
0.0
PBS
1x
2x
3x
B
slope OD
(DOD/10 fold dilution)
0.5
0.4
0.3
0.2
0.1
0.0
CR9114
CR8020

FIG. 18

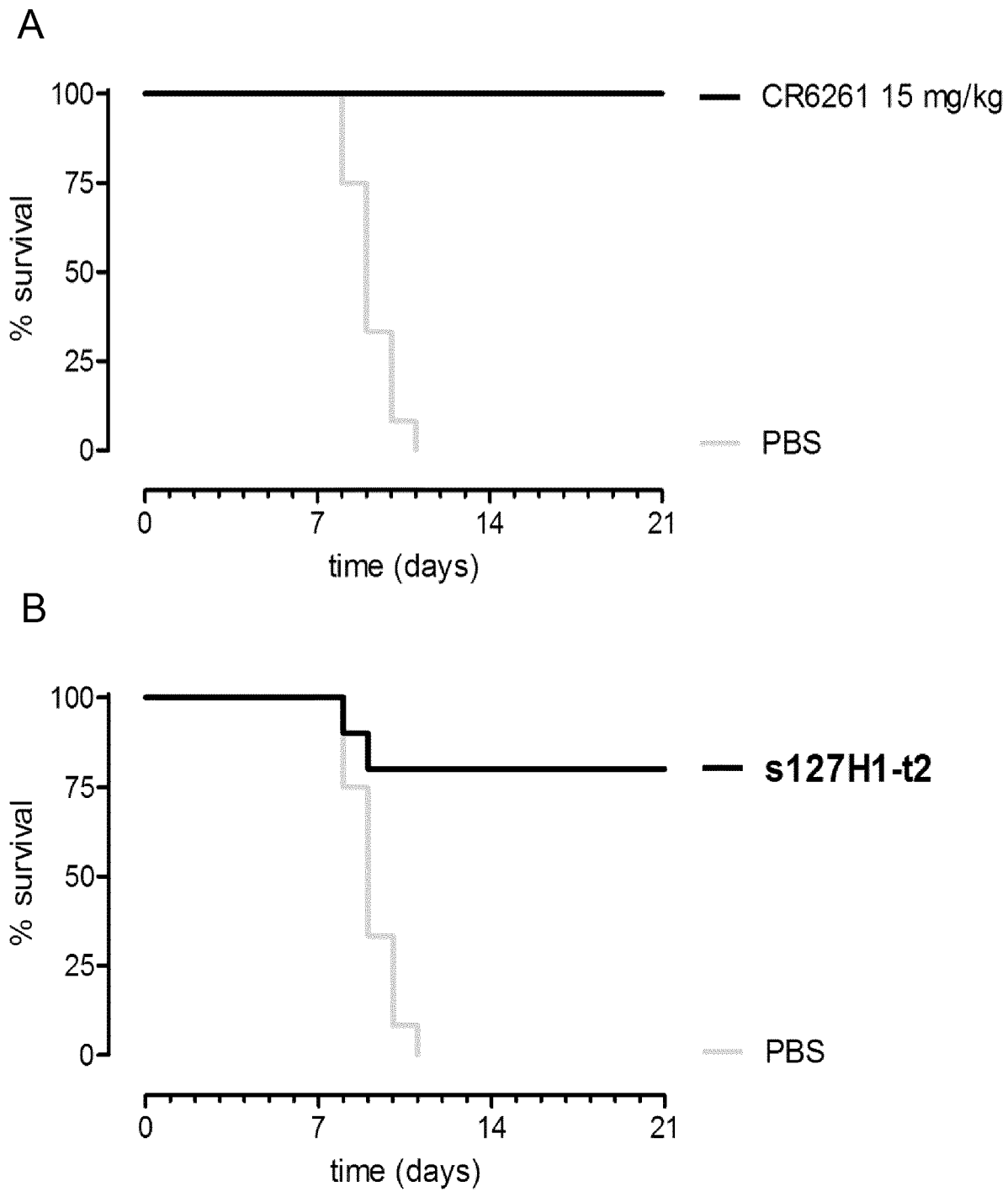

A
100
75
50
25
0
% survival
CR6261 15 mg/kg
PBS
0
7
14
21
time (days)
B
100
75
50
25
0
% survival
s127H1-t2
PBS
0
7
14
21
time (days)

FIG. 19

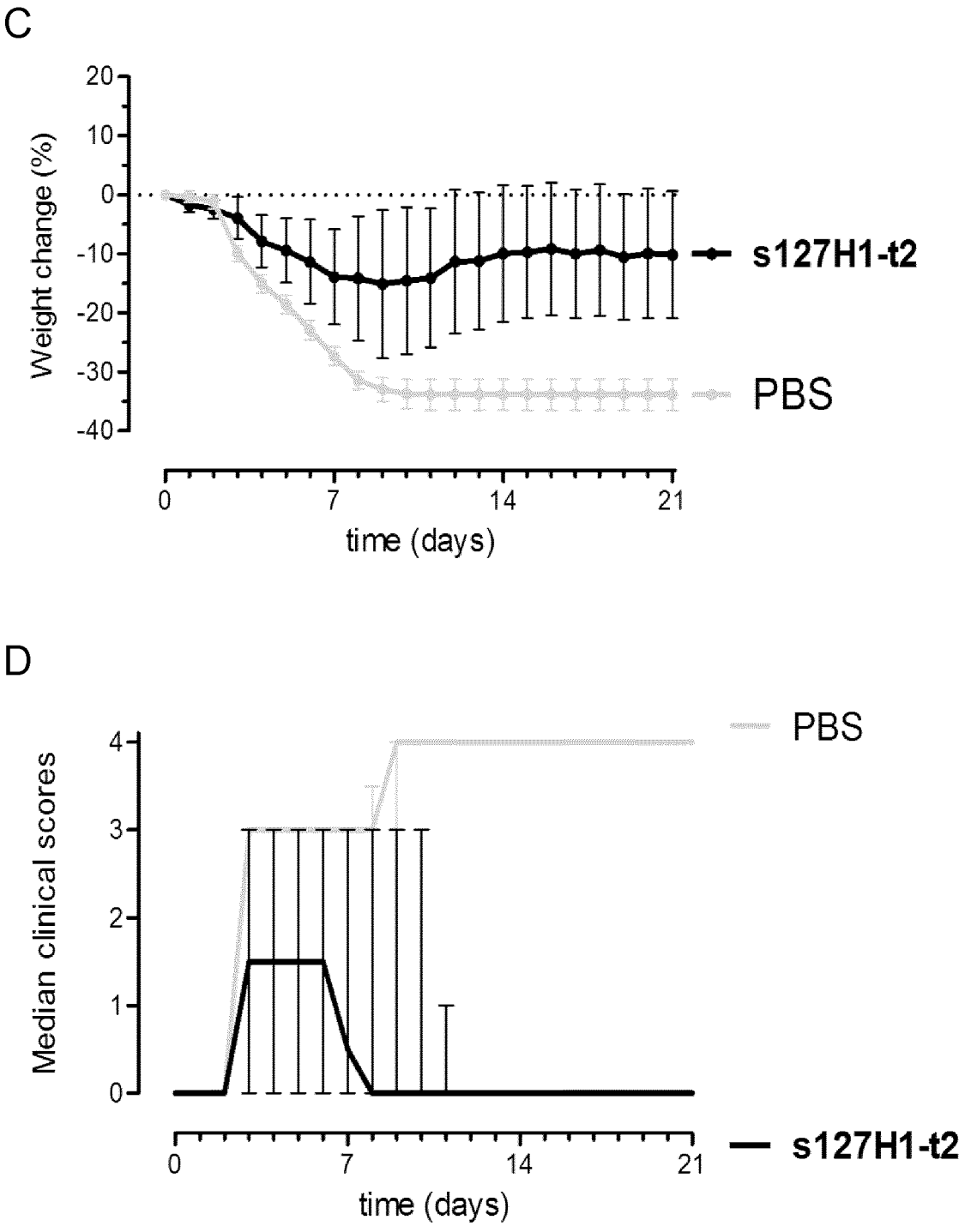
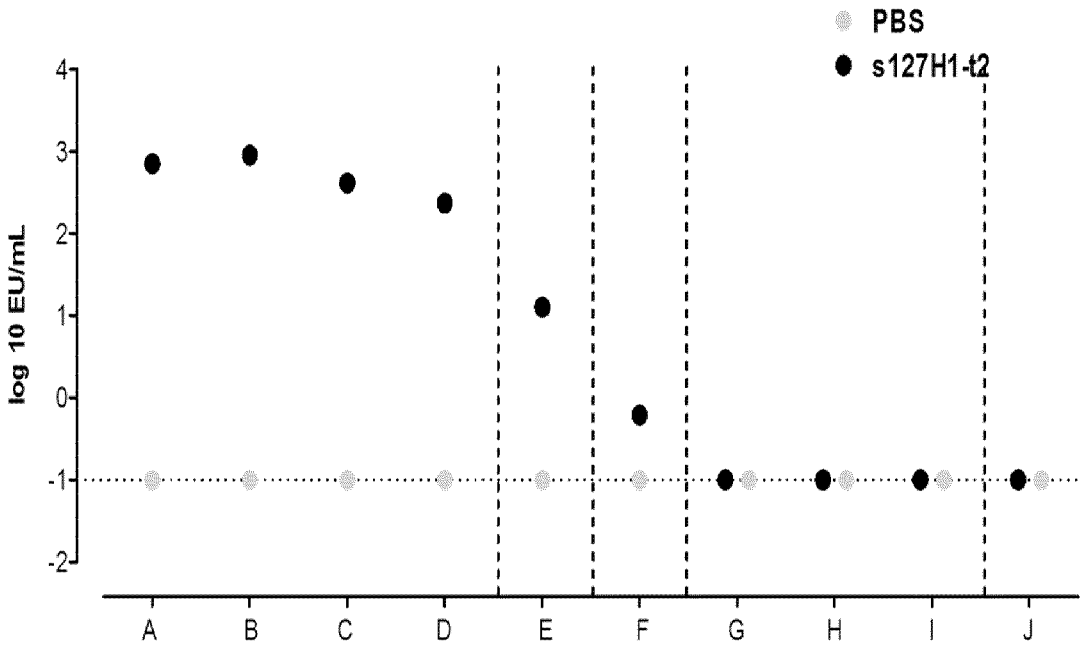


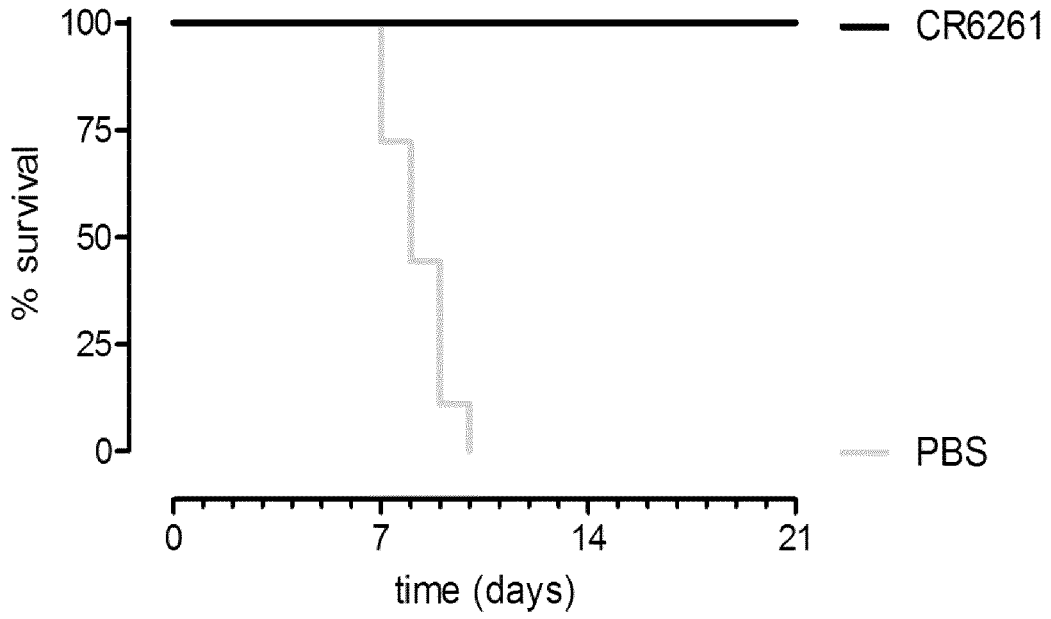
FIG. 19 – continued



Code	Strain
A	H1 A/Brisbane/59/2007
B	H1 A/California/07/09
C	H1 A/New Caledonia/20/1999
D	H1 A/Puerto Rico/8/1934
E	H5 A/Vietnam/1203/2004
F	H9 A/Hong Kong/ 1073/1999
G	H3 A/Brisbane/10/2007
H	H3 A/Wisconsin/67/2005
I	H3 A/Texas/50/2012
J	H7 A/Netherlands/219/03

FIG. 20

A


100
75
50
25
0
% survival
0
7
14
21
time (days)
CR6261
PBS

B

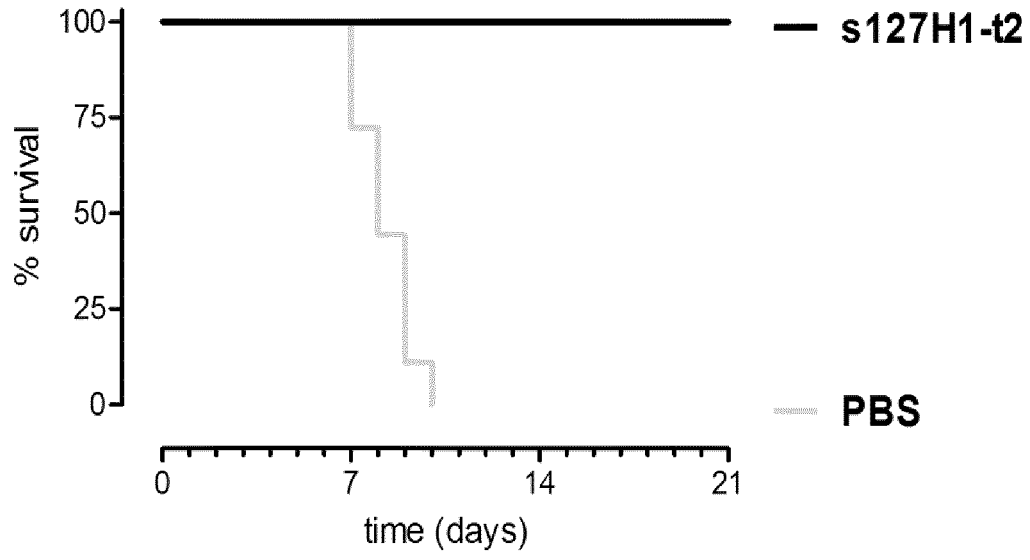

100
75
50
25
0
% survival
0
7
14
21
time (days)
s127H1-t2
PBS

FIG. 21

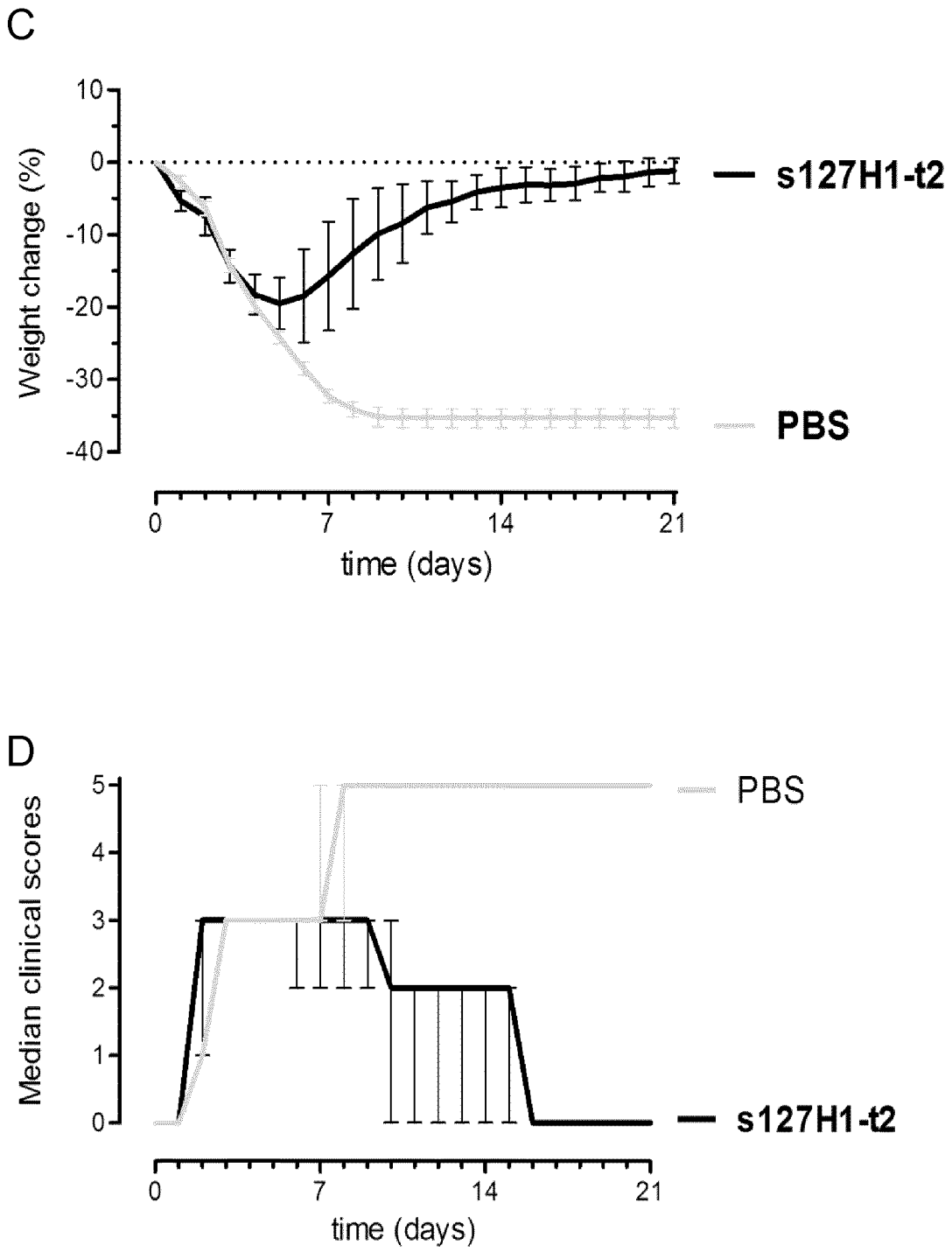


FIG. 21 - continued

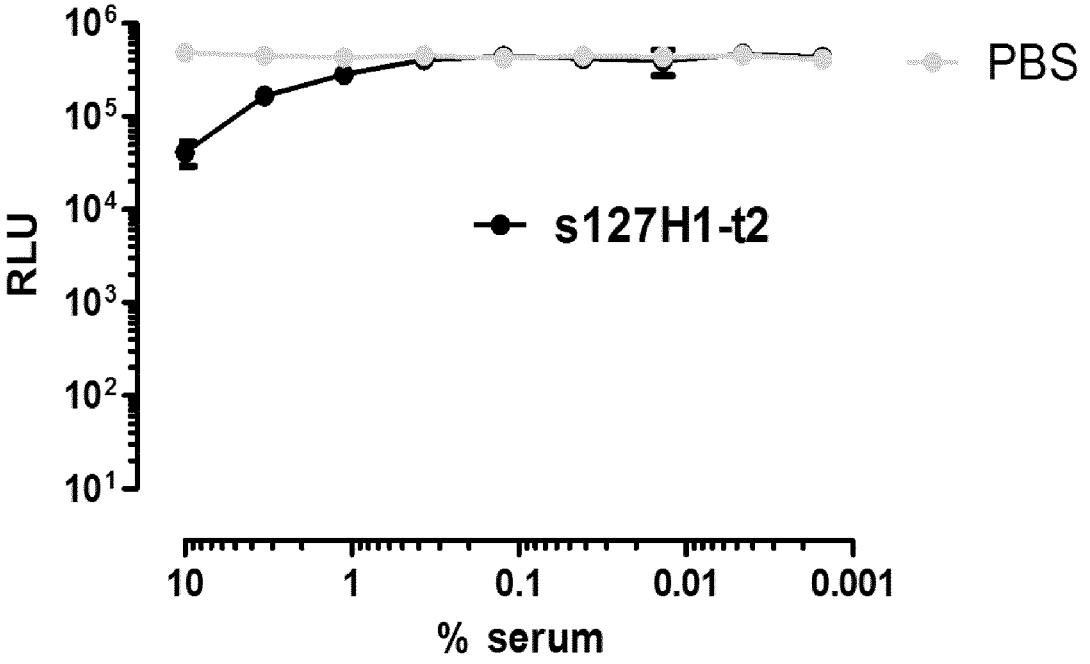


FIG. 22

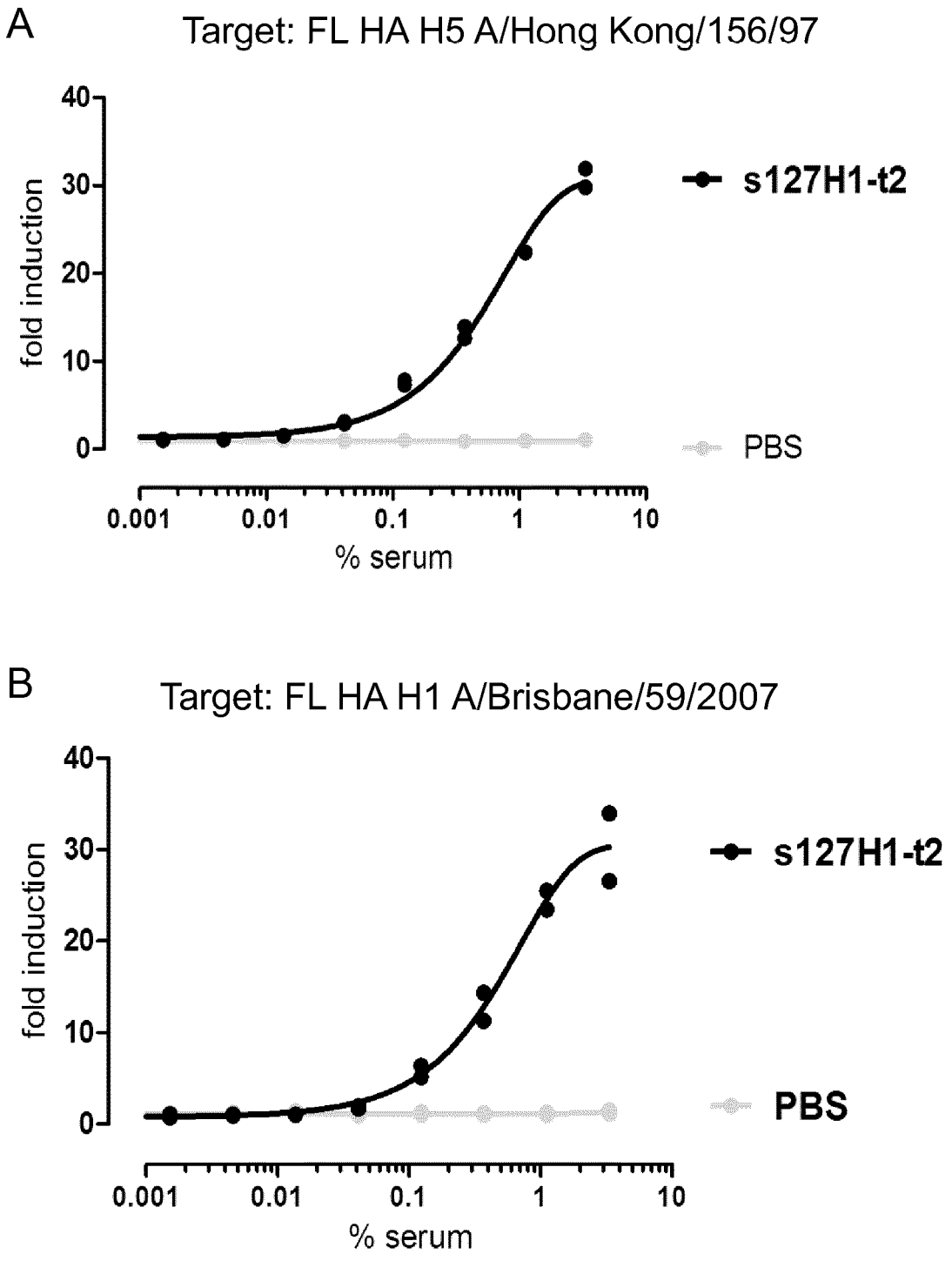

A
Target: FL HA H5 A/Hong Kong/156/97
fold induction
40
30
20
10
0
0.001
0.01
0.1
1
10
% serum
s127H1-t2
PBS
B
Target: FL HA H1 A/Brisbane/59/2007
fold induction
40
30
20
10
0
0.001
0.01
0.1
1
10
% serum
s127H1-t2
PBS

FIG. 23

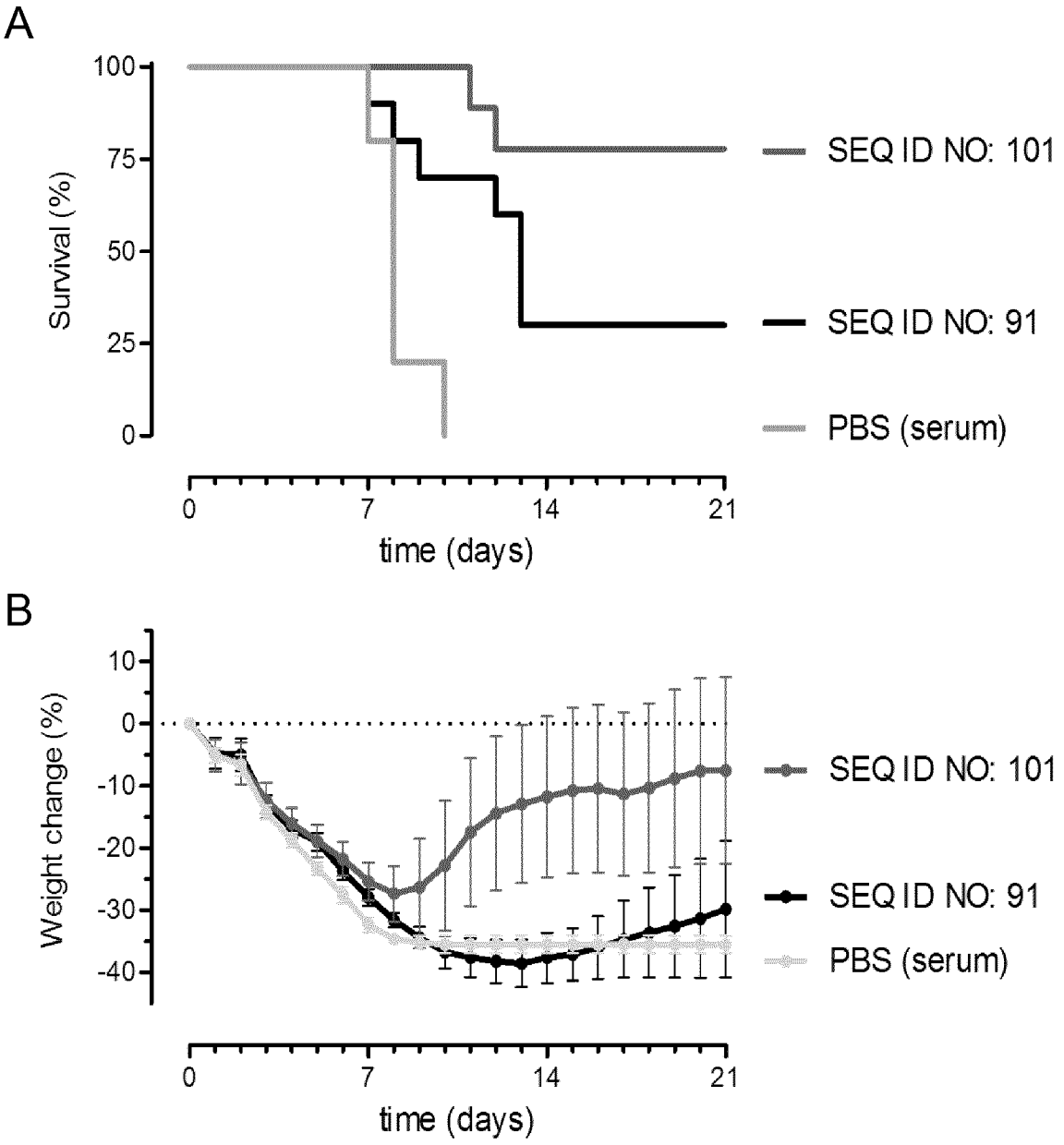

A
100
75
50
25
0
Survival (%)
0
7
14
21
time (days)
SEQ ID NO: 101
SEQ ID NO: 91
PBS (serum)
B
10
0
-10
-20
-30
-40
Weight change (%)
0
7
14
21
time (days)
SEQ ID NO: 101
SEQ ID NO: 91
PBS (serum)

FIG. 24

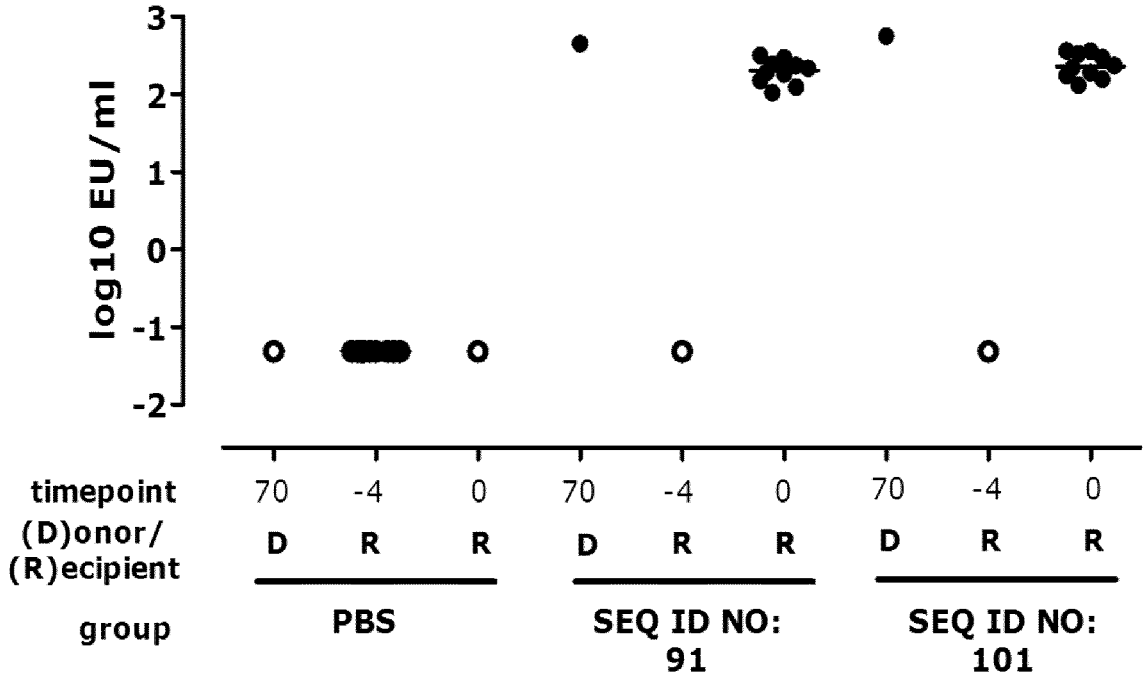
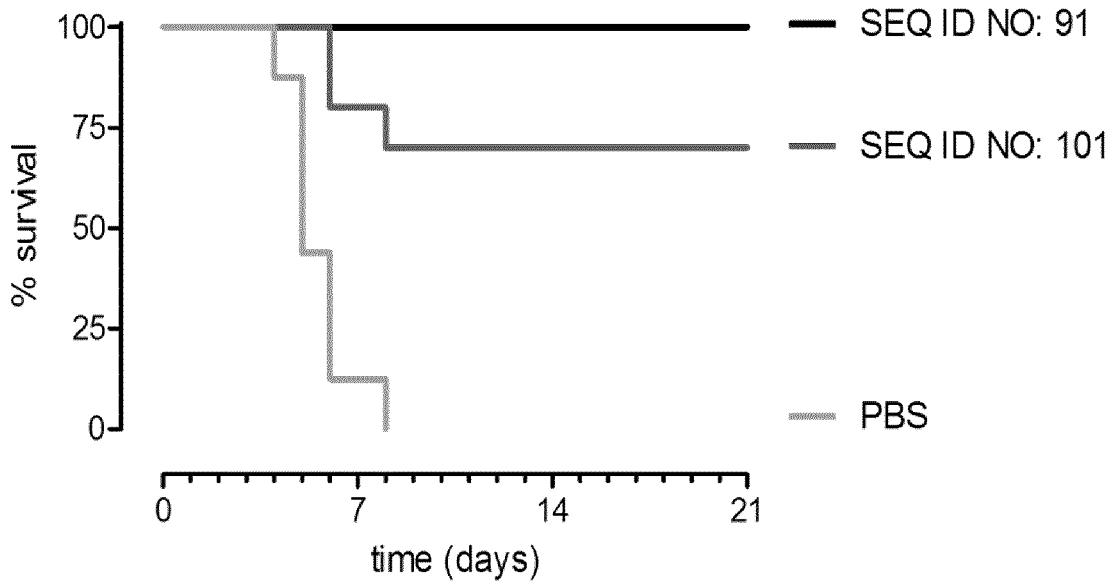

log10 EU/ml
3
2
1
0
-1
-2
timepoint
(D)onor/
(R)ecipient
group
70
-4
0
D
R
R
PBS
SEQ ID NO:
91
SEQ ID NO:
101

FIG. 25

A


100
75
50
25
0
% survival
0
7
14
21
time (days)
SEQ ID NO: 91
SEQ ID NO: 101
PBS

B

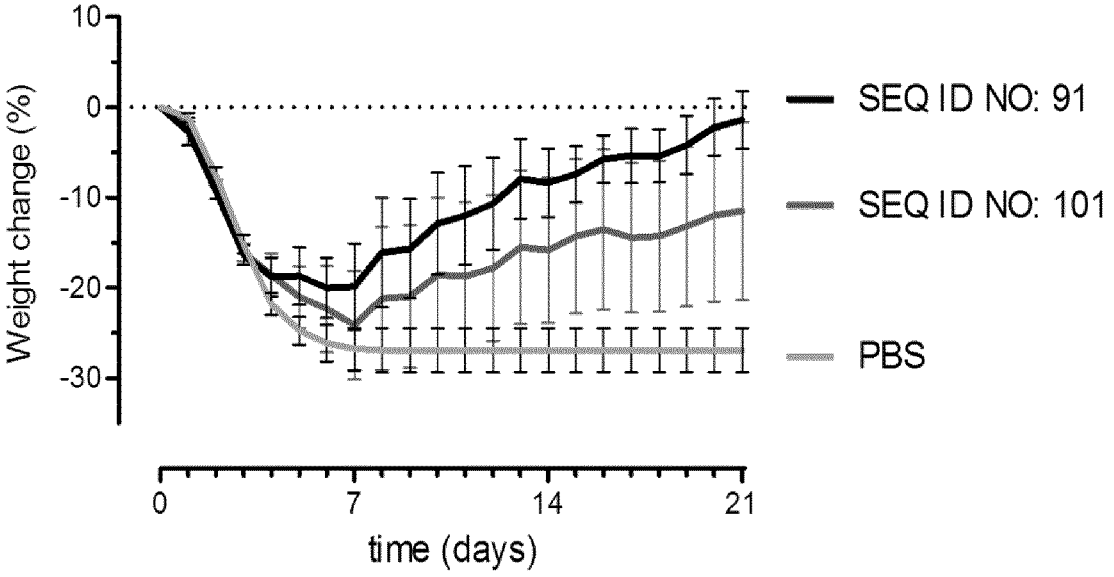
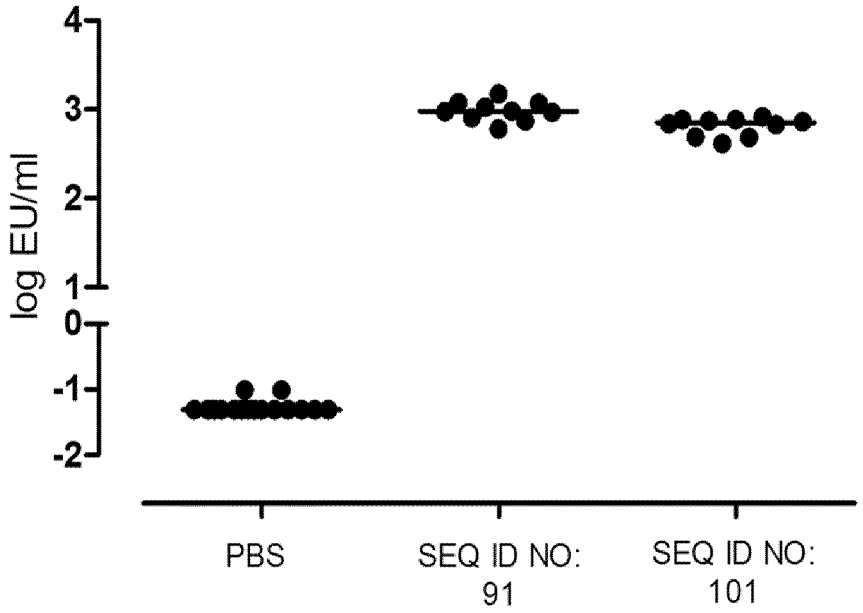

10
0
-10
-20
-30
Weight change (%)
0
7
14
21
time (days)
SEQ ID NO: 91
SEQ ID NO: 101
PBS

FIG. 26

A


log EU/ml
4
3
2
1
0
-1
-2
PBS
SEQ ID NO: 91
SEQ ID NO: 101

B

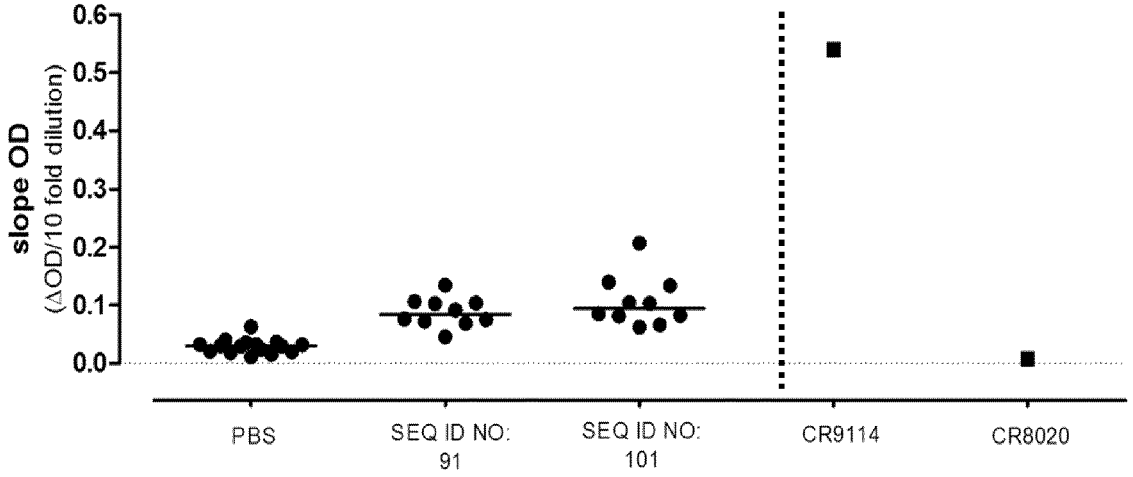
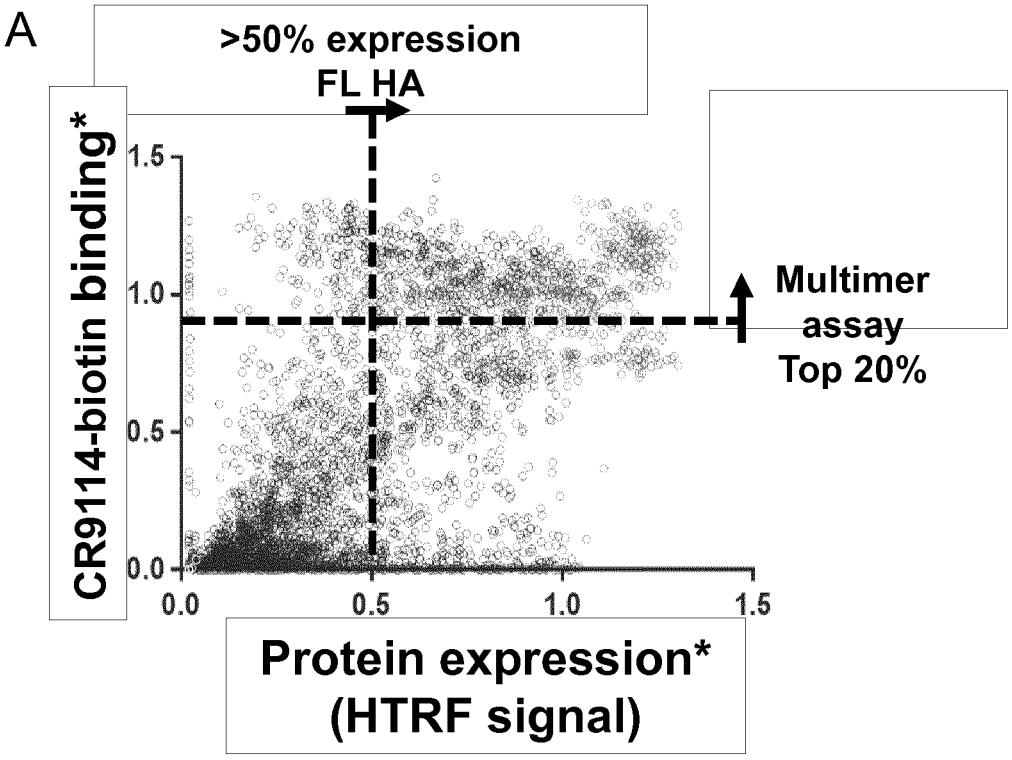

slope OD
(ΔOD/10 fold dilution)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
PBS
SEQ ID NO: 91
SEQ ID NO: 101
CR9114
CR8020

FIG. 27


A
>50% expression
FL HA
CR9114-biotin binding*
1.5
1.0
0.5
0.0
0.0
0.5
1.0
1.5
Multimer
assay
Top 20%
Protein expression*
(HTRF signal)

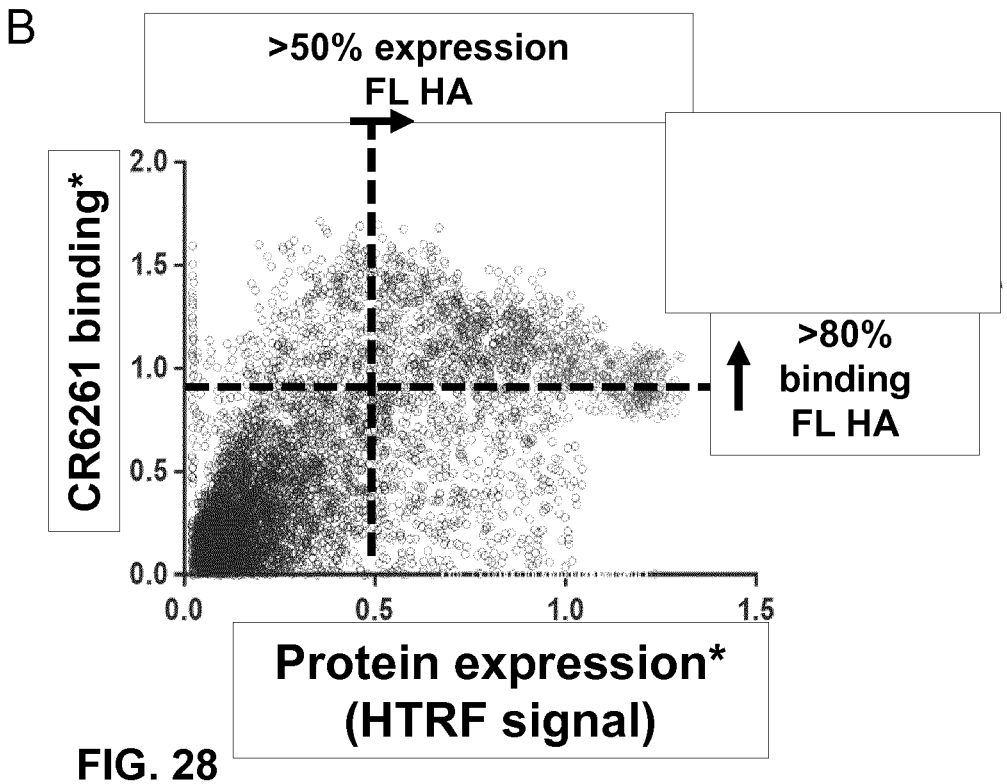

B
>50% expression
FL HA
CR6261 binding*
2.0
1.5
1.0
0.5
0.0
0.0
0.5
1.0
1.5
>80%
binding
FL HA
Protein expression*
(HTRF signal)

FIG. 28

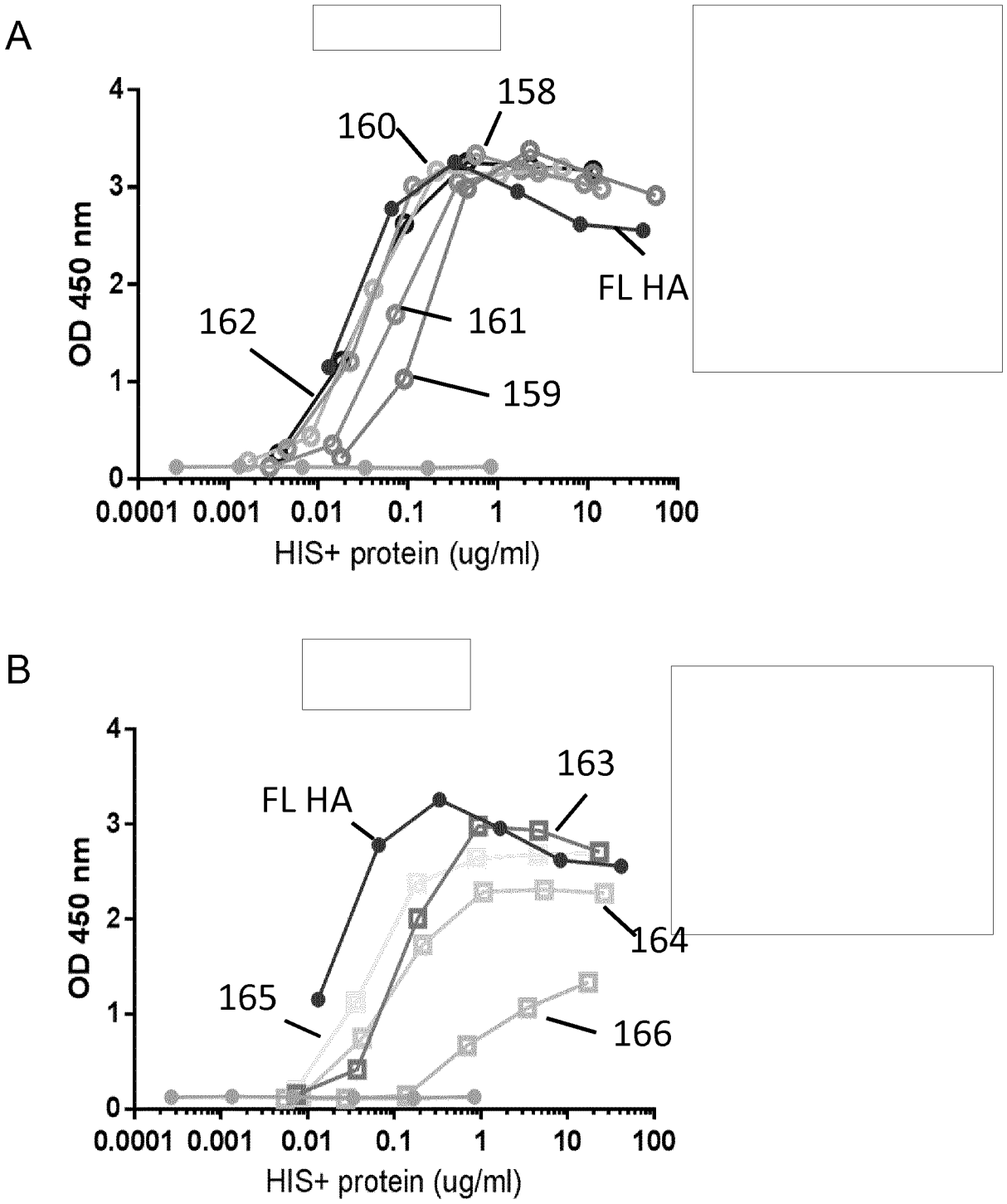

A
158
160
FL HA
162
161
159
OD 450 nm
HIS+ protein (ug/ml)
B
163
FL HA
164
165
166
OD 450 nm
HIS+ protein (ug/ml)

FIG. 29

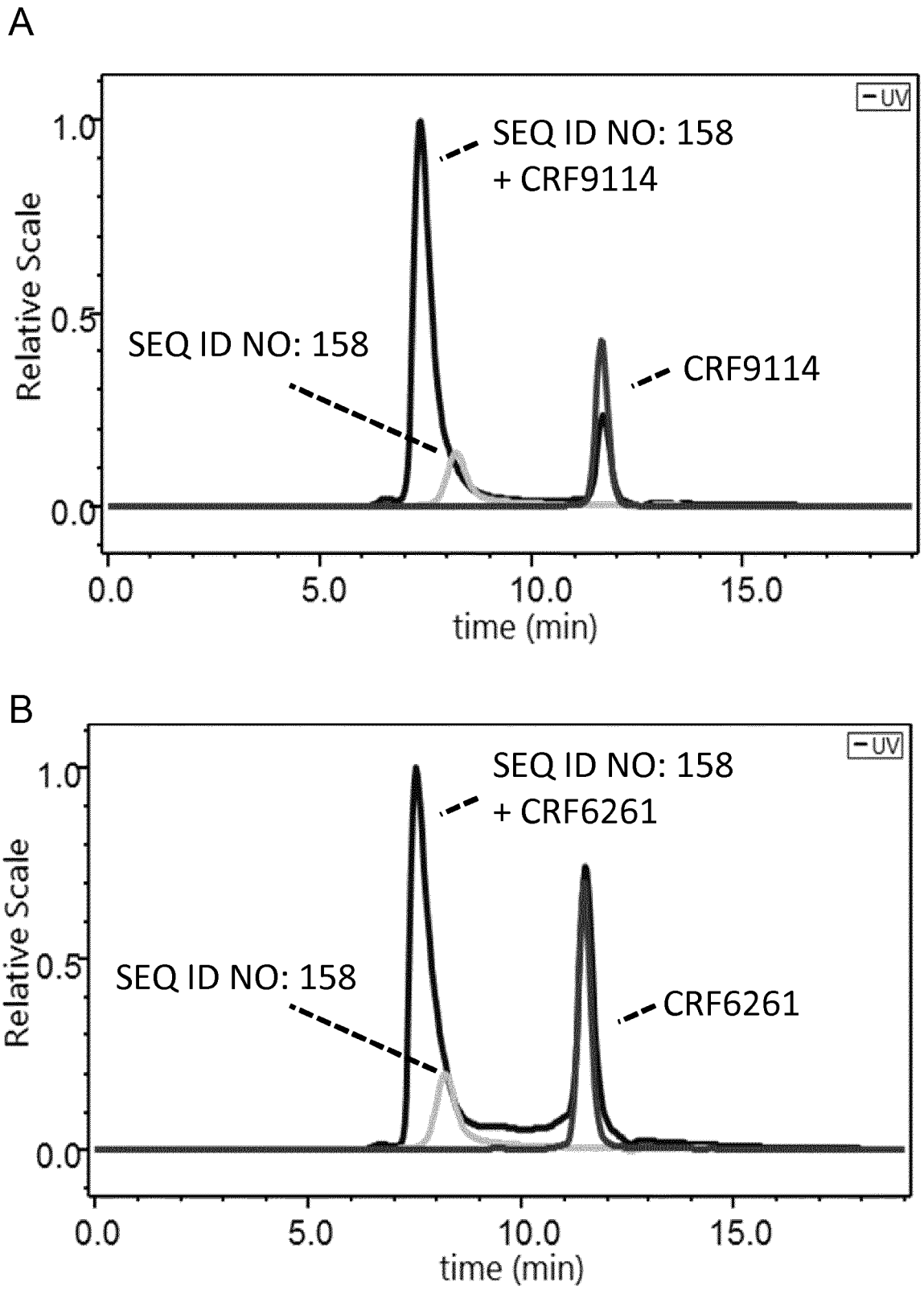

A
UV
SEQ ID NO: 158
+ CRF9114
SEQ ID NO: 158
CRF9114
Relative Scale
1.0
0.5
0.0
0.0
5.0
10.0
15.0
time (min)
B
UV
SEQ ID NO: 158
+ CRF6261
SEQ ID NO: 158
CRF6261
Relative Scale
1.0
0.5
0.0
0.0
5.0
10.0
15.0
time (min)

FIG. 30

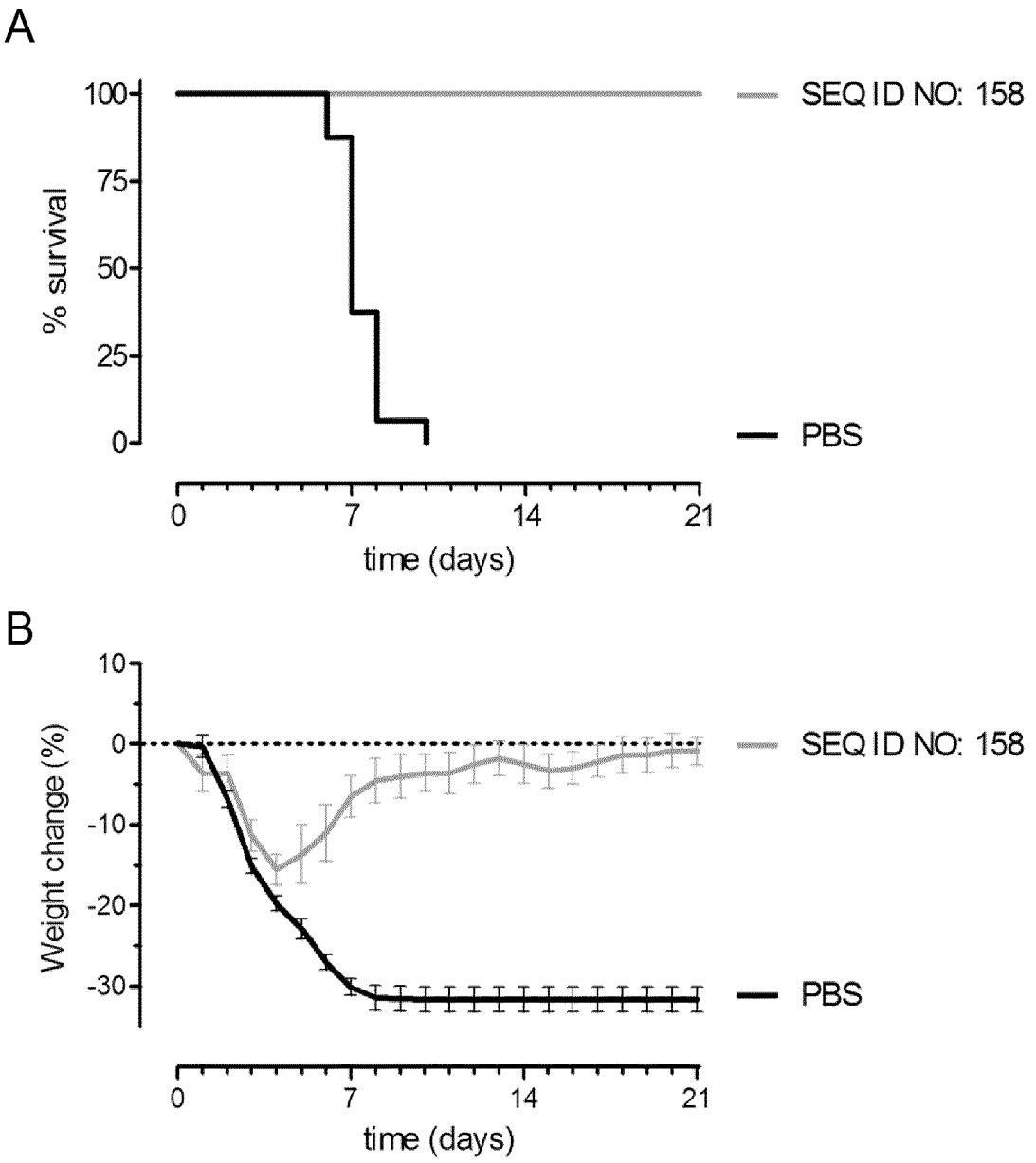

A
100
75
50
25
0
% survival
SEQ ID NO: 158
PBS
0
7
14
21
time (days)
B
10
0
-10
-20
-30
Weight change (%)
SEQ ID NO: 158
PBS
0
7
14
21
time (days)

FIG. 31

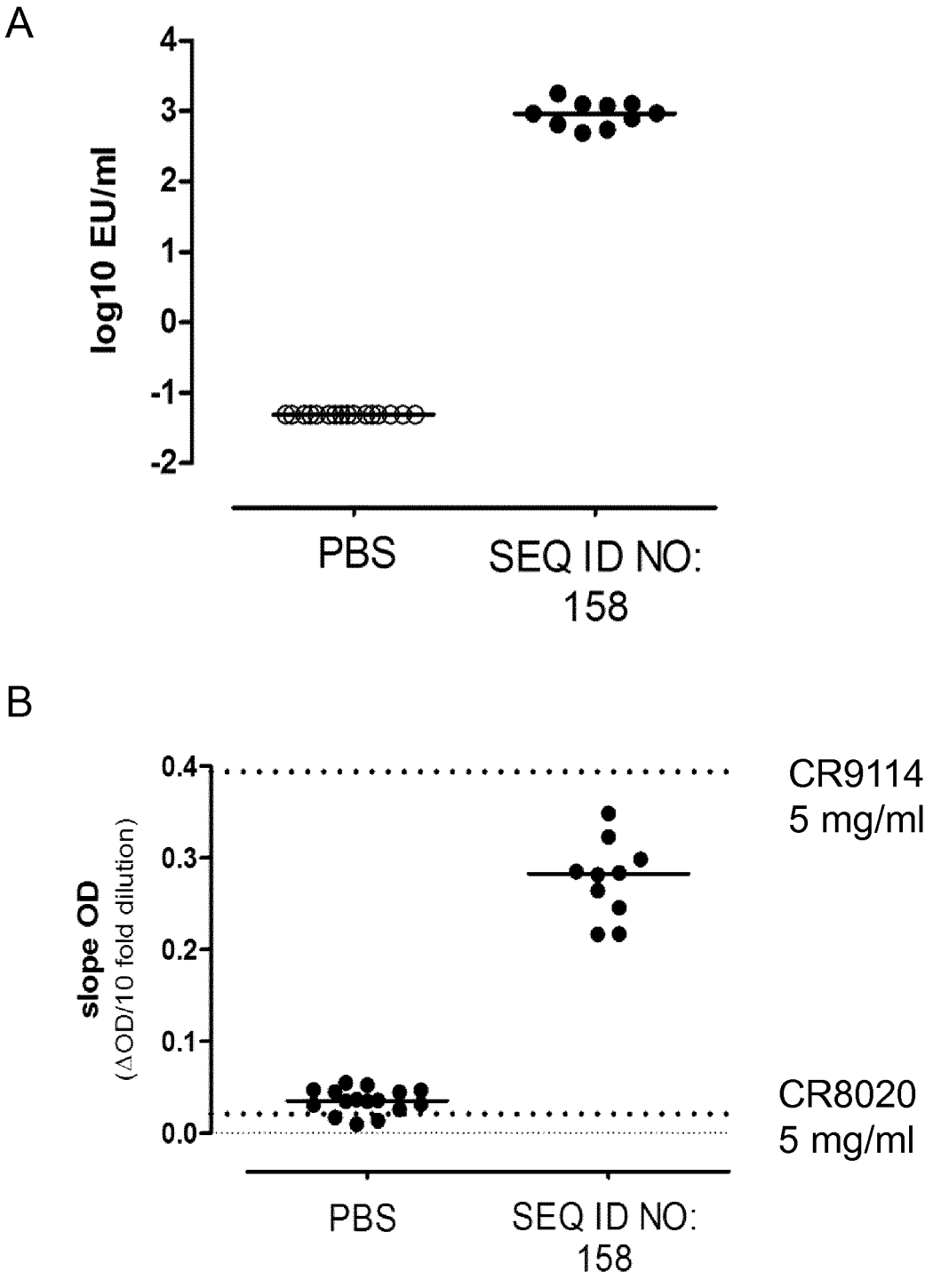

A
log10 EU/ml
4
3
2
1
0
-1
-2
PBS
SEQ ID NO: 158
B
slope OD
(ΔOD/10 fold dilution)
0.4
0.3
0.2
0.1
0.0
CR9114
5 mg/ml
CR8020
5 mg/ml
PBS
SEQ ID NO: 158

FIG. 32

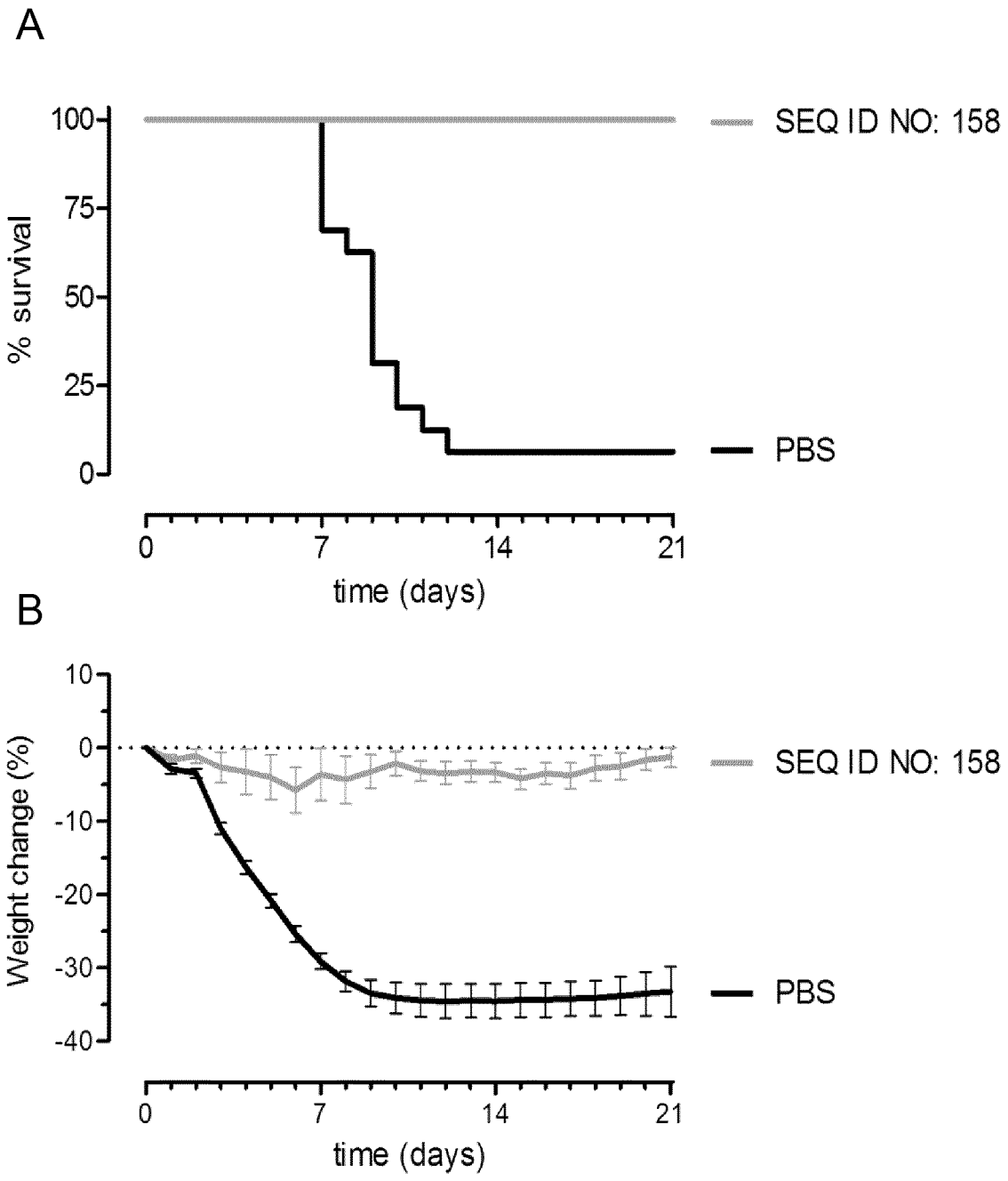

A
100
75
50
25
0
% survival
SEQ ID NO: 158
PBS
0
7
14
21
time (days)
B
10
0
-10
-20
-30
-40
Weight change (%)
SEQ ID NO: 158
PBS
0
7
14
21
time (days)

FIG. 33

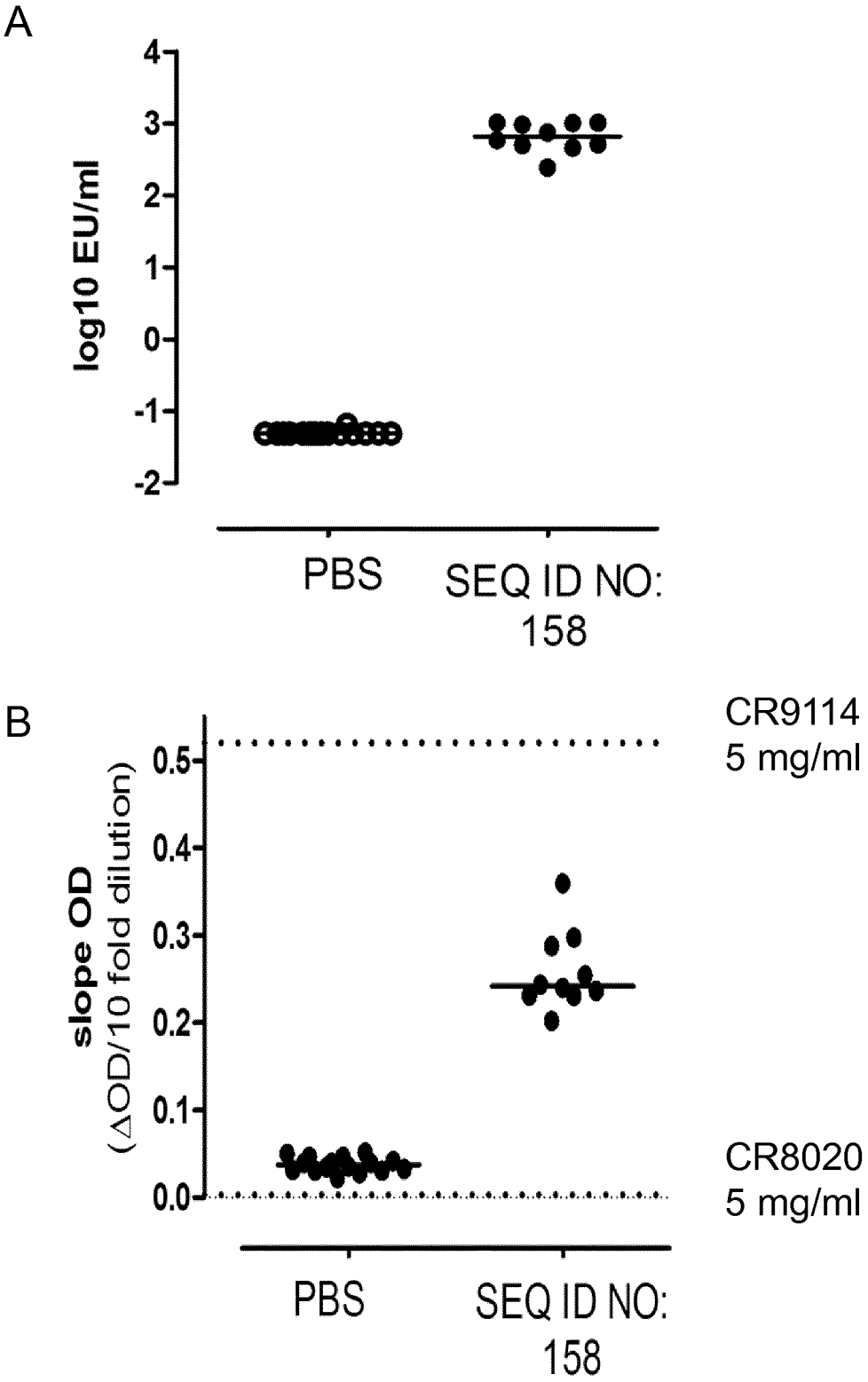

A
log10 EU/ml
4
3
2
1
0
-1
-2
PBS
SEQ ID NO: 158
B
slope OD (ΔOD/10 fold dilution)
0.5
0.4
0.3
0.2
0.1
0.0
CR9114 5 mg/ml
CR8020 5 mg/ml
PBS
SEQ ID NO: 158

FIG. 34

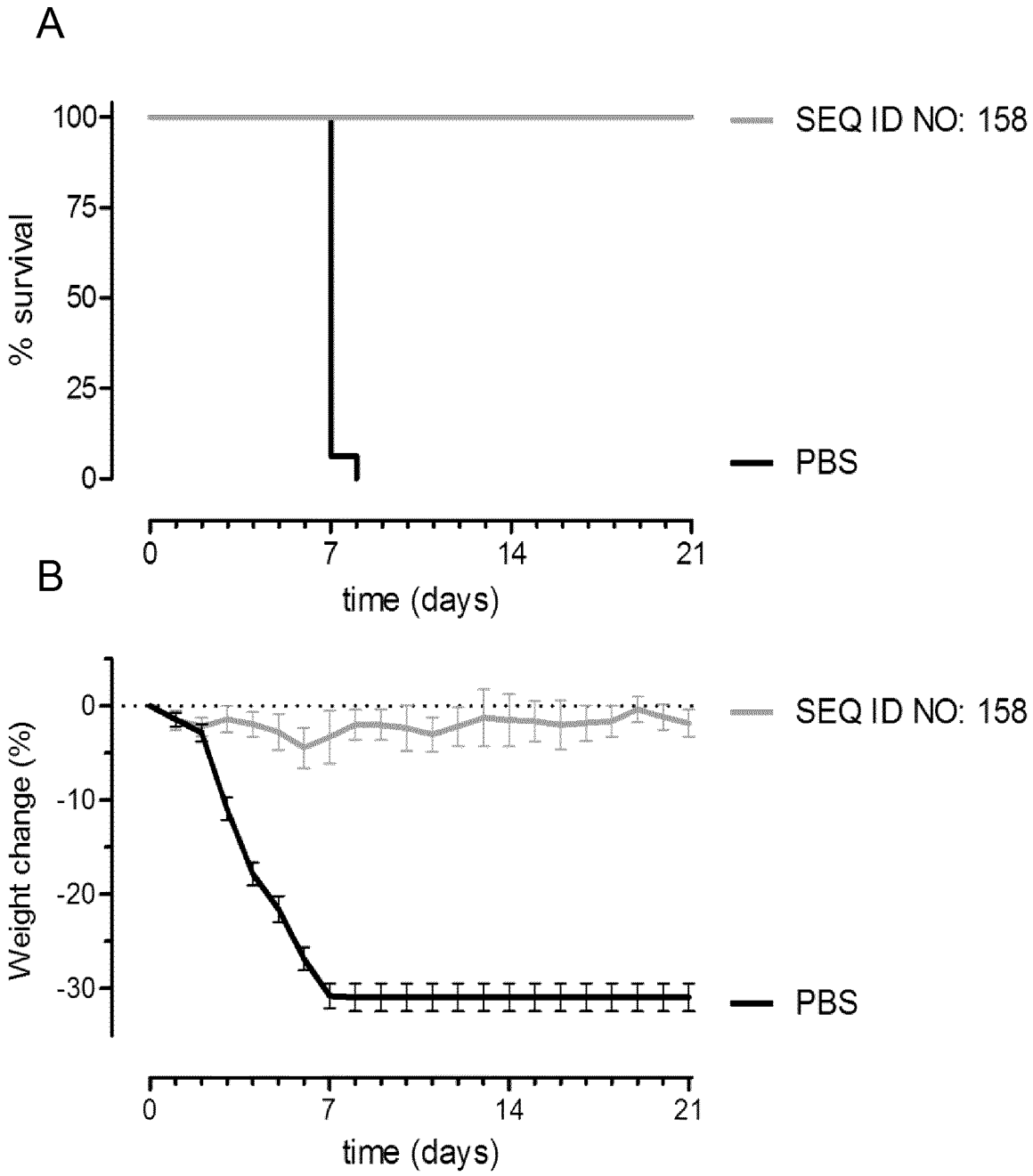

A
100
75
50
25
0
% survival
SEQ ID NO: 158
PBS
0
7
14
21
time (days)
B
0
-10
-20
-30
Weight change (%)
SEQ ID NO: 158
PBS
0
7
14
21
time (days)

FIG. 35

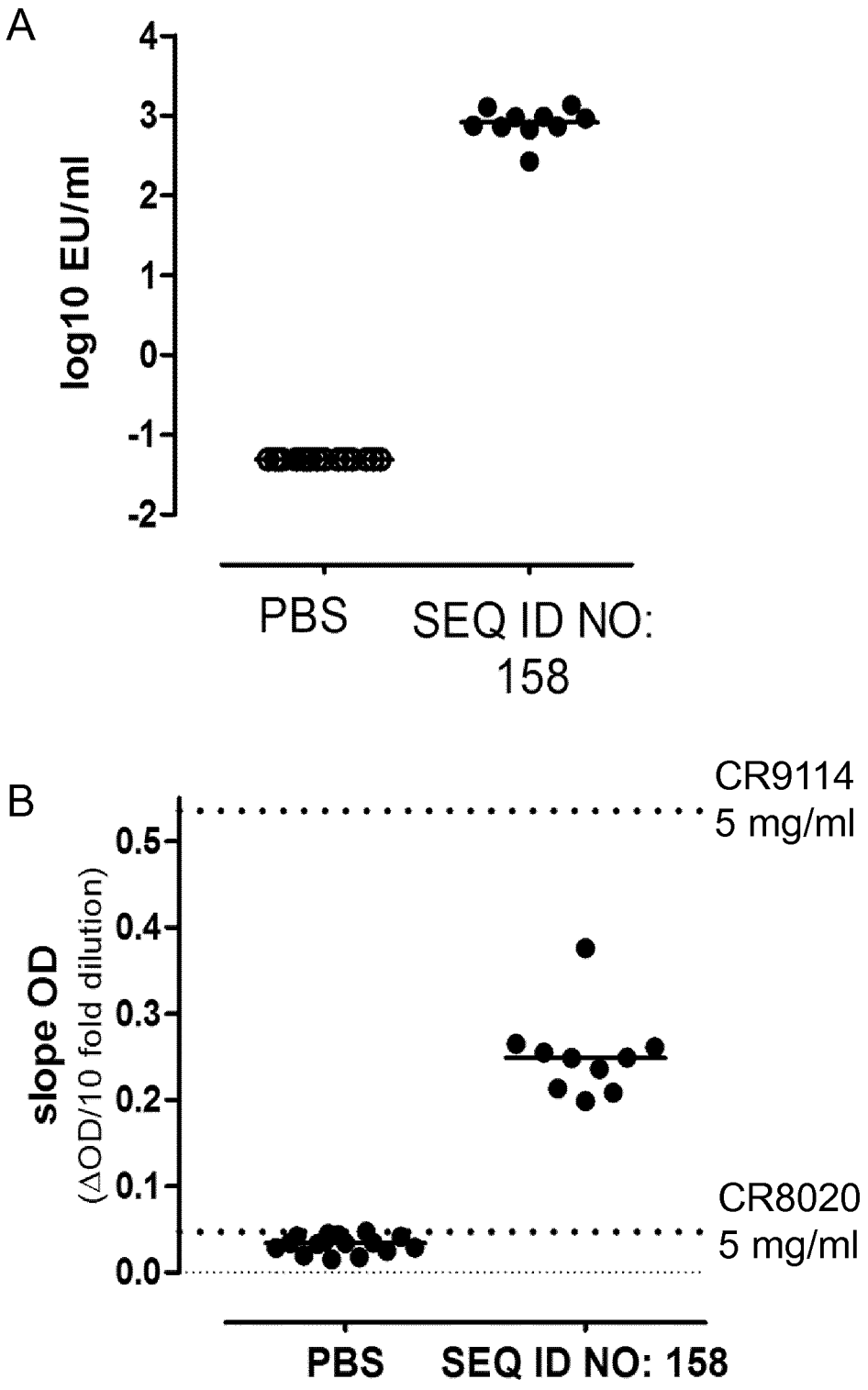

A
log10 EU/ml
4
3
2
1
0
-1
-2
PBS
SEQ ID NO: 158
B
slope OD
(ΔOD/10 fold dilution)
0.5
0.4
0.3
0.2
0.1
0.0
CR9114
5 mg/ml
CR8020
5 mg/ml
PBS
SEQ ID NO: 158

FIG. 36