Figure 1

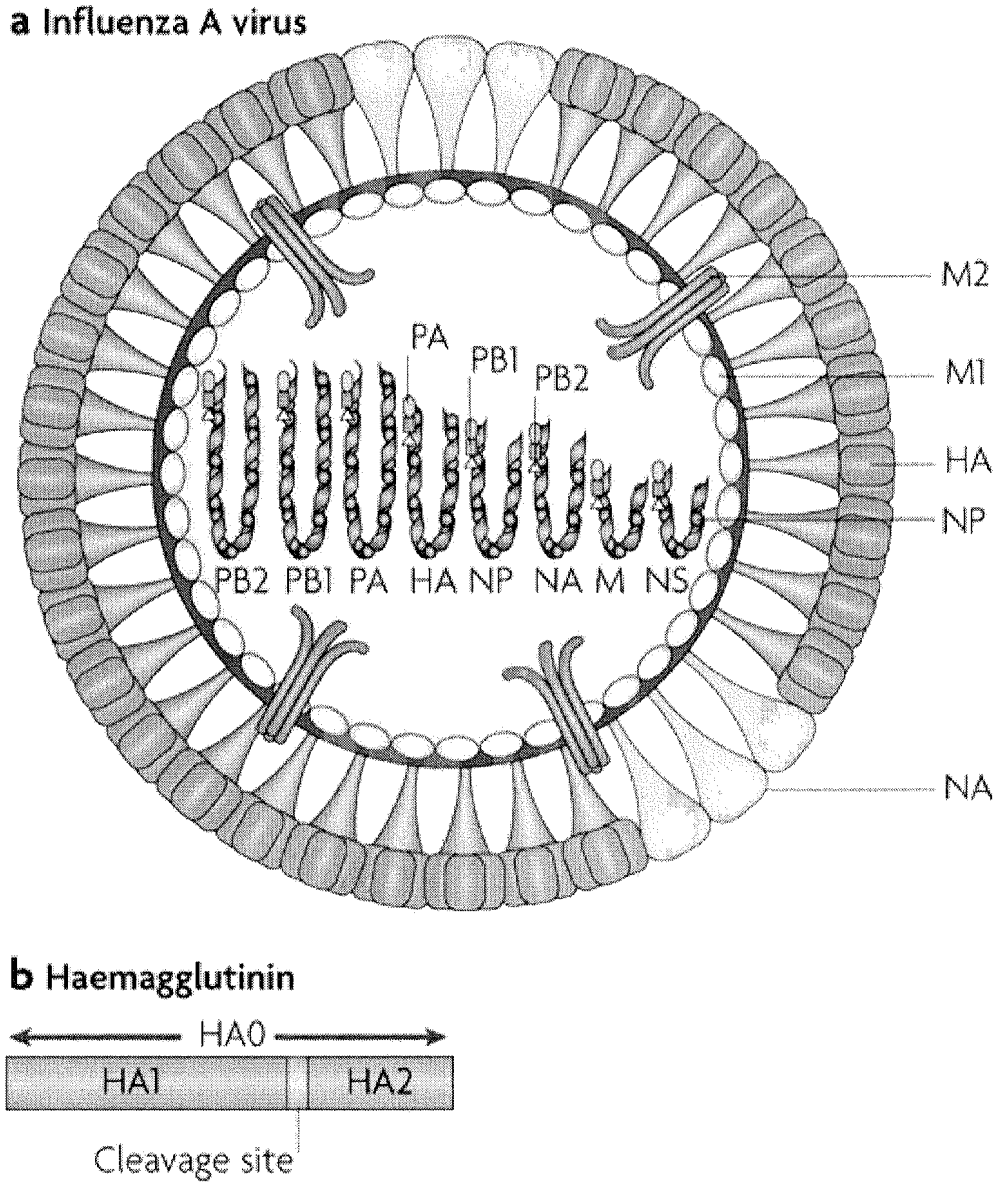

a Influenza A virus
M2
M1
HA
NP
NA
PA
PB1
PB2
PB2 PB1 PA HA NP NA M NS
b Haemagglutinin
HA0
HA1
HA2
Cleavage site

Figure 2

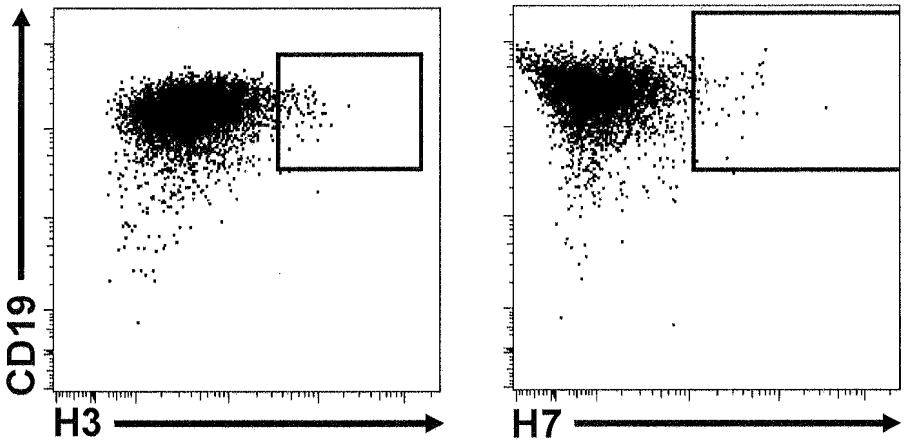


Figure 3

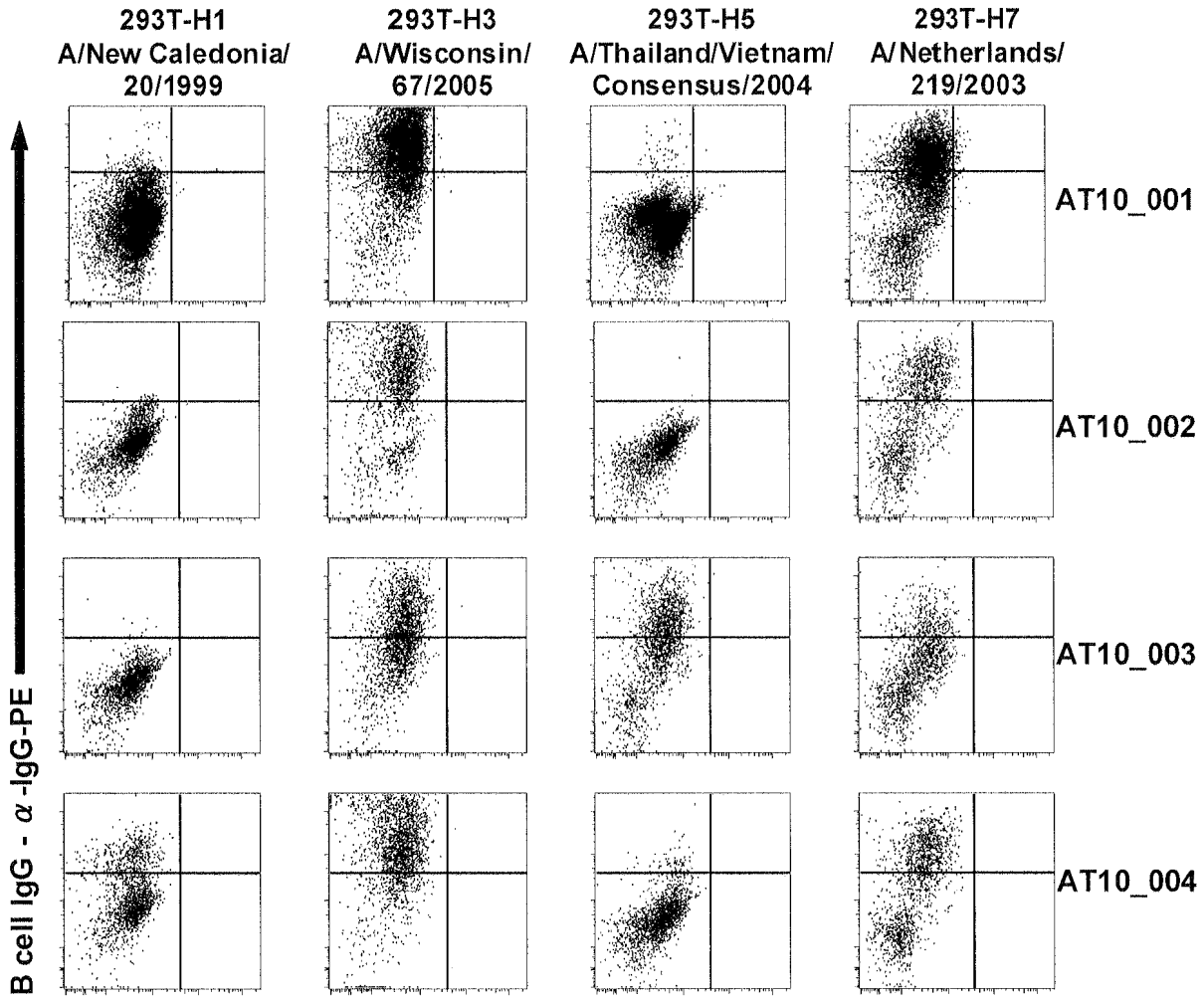

293T-H1
A/New Caledonia/
20/1999
293T-H3
A/Wisconsin/
67/2005
293T-H5
A/Thailand/Vietnam/
Consensus/2004
293T-H7
A/Netherlands/
219/2003
AT10_001
AT10_002
AT10_003
AT10_004
B cell IgG - α -IgG-PE

Figure 4

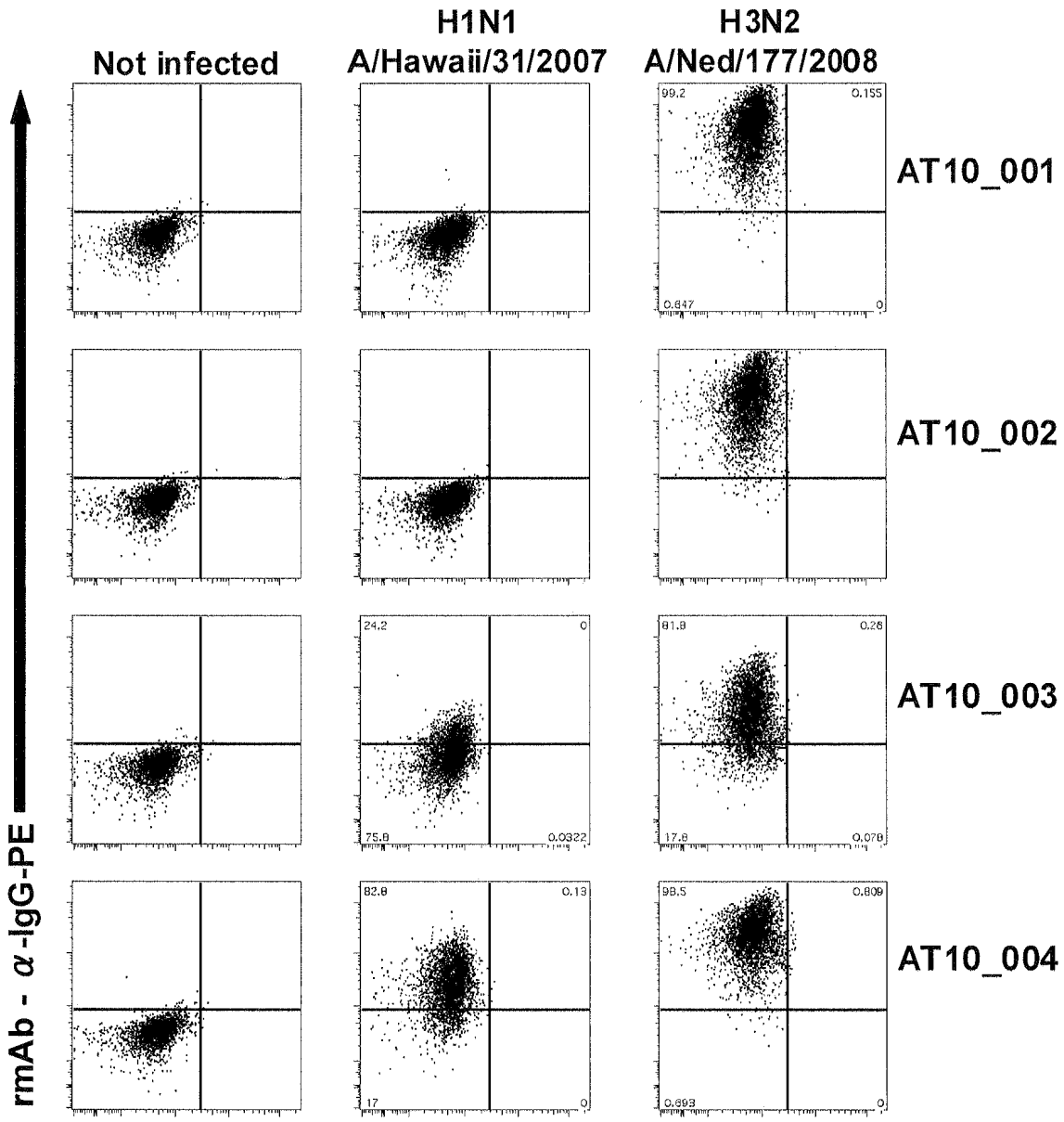

Not infected
H1N1
A/Hawaii/31/2007
H3N2
A/Ned/177/2008
AT10_001
AT10_002
AT10_003
AT10_004
rmAb - α-IgG-PE
99.2
0.155
0.847
0
24.2
0
75.8
0.0322
81.8
0.26
17.8
0.078
82.8
0.13
17
0
98.5
0.809
0.693
0

Figure 5

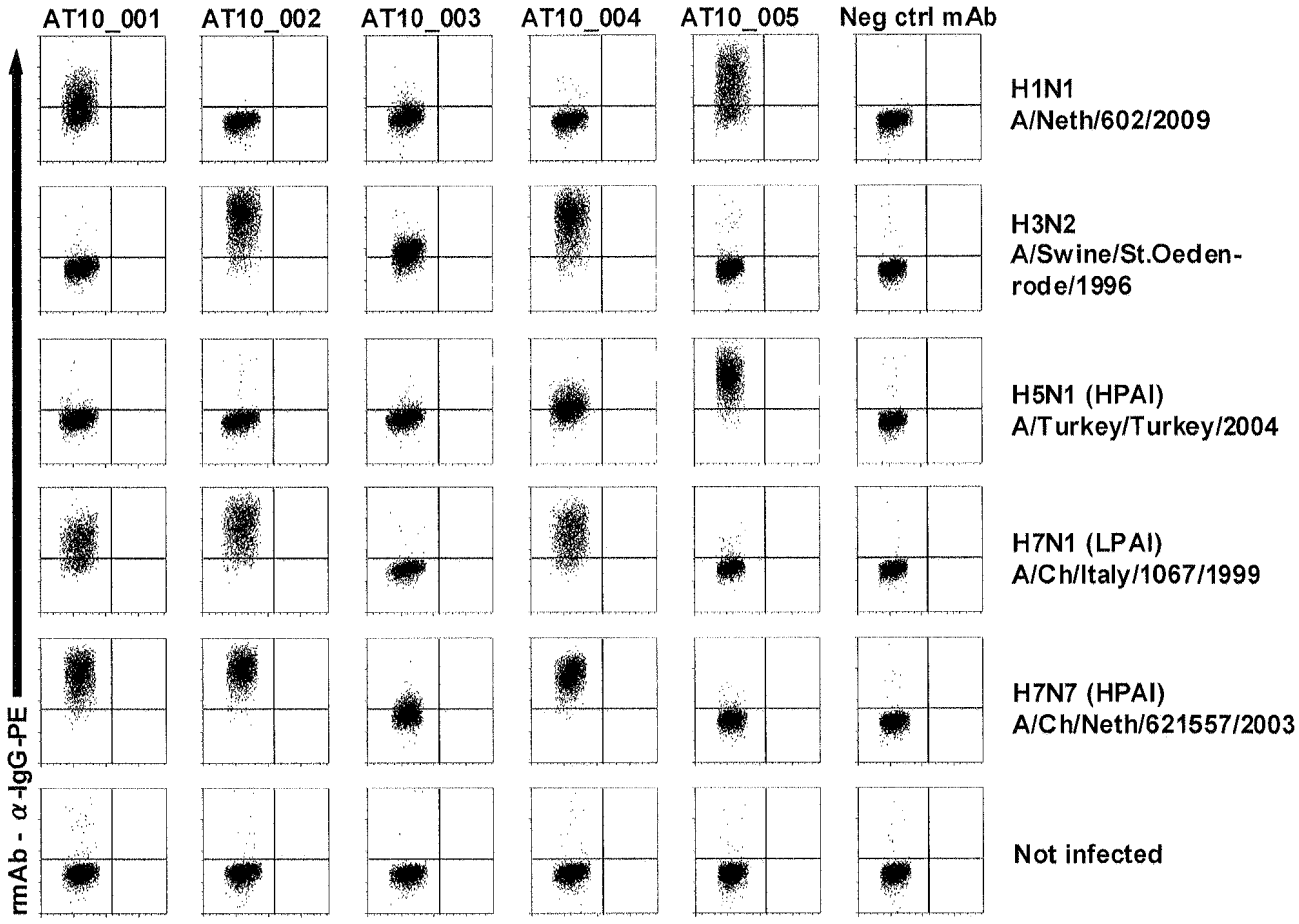

AT10_001
AT10_002
AT10_003
AT10_004
AT10_005
Neg ctrl mAb
H1N1
A/Neth/602/2009
H3N2
A/Swine/St.Oeden-
rode/1996
H5N1 (HPAI)
A/Turkey/Turkey/2004
H7N1 (LPAI)
A/Ch/Italy/1067/1999
H7N7 (HPAI)
A/Ch/Neth/621557/2003
Not infected
mAb - α-IgG-PE

Figure 6A

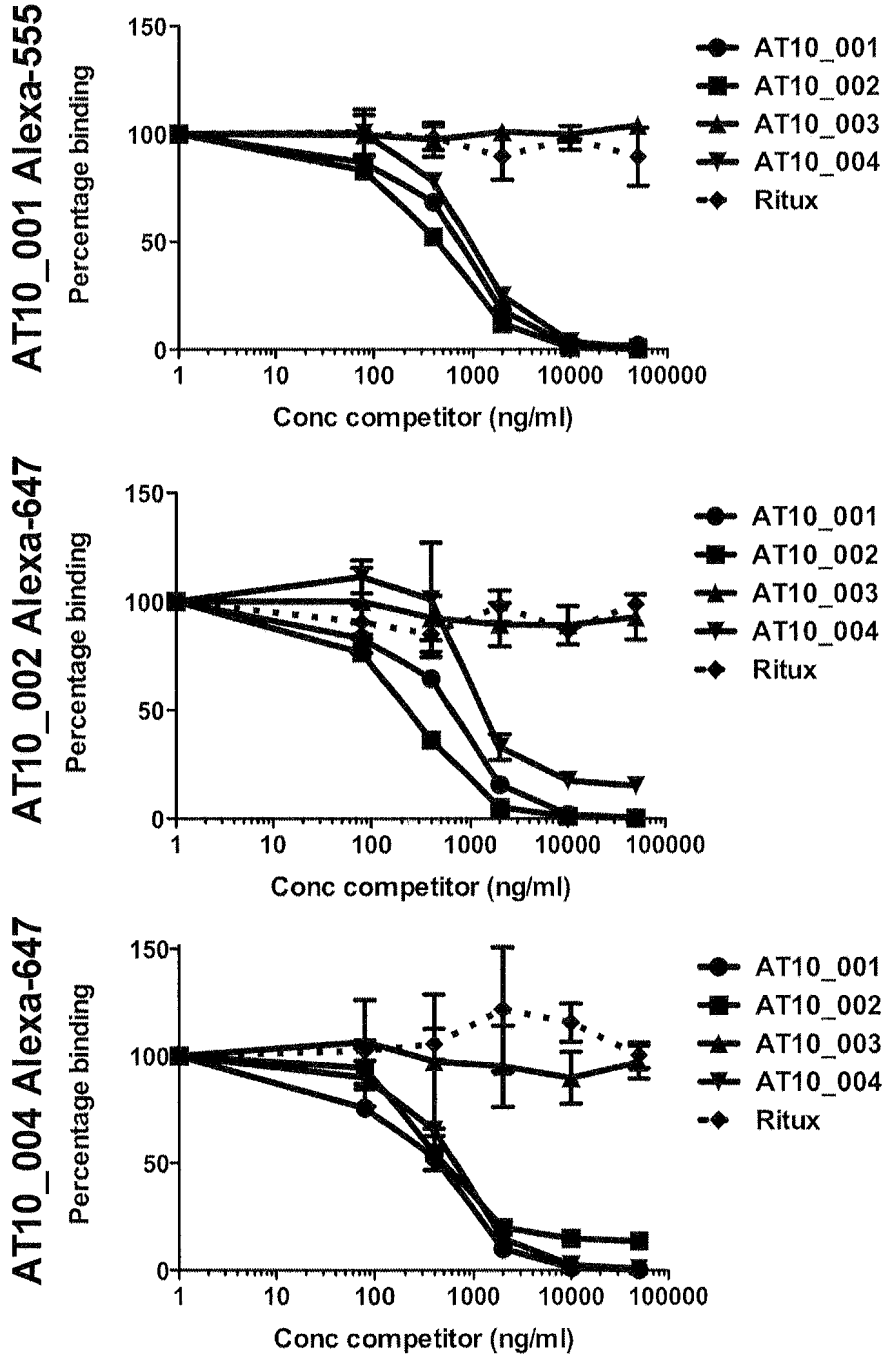
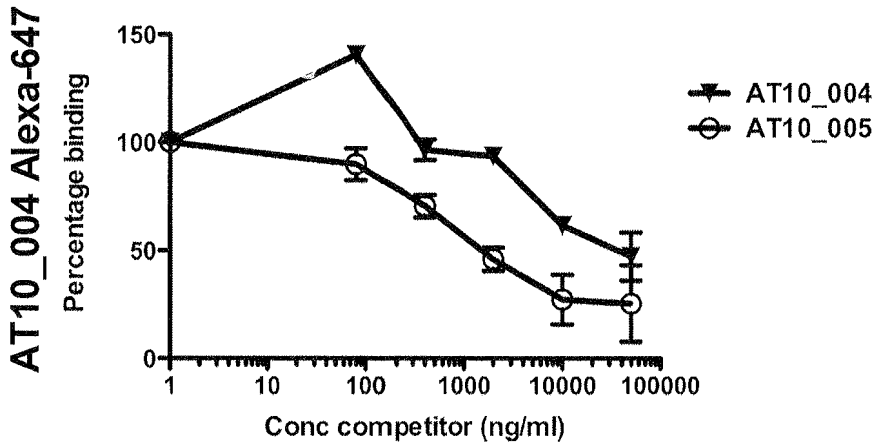

AT10_001 Alexa-555
Percentage binding
150
100
50
0
1
10
100
1000
10000
100000
Conc competitor (ng/ml)
AT10_001
AT10_002
AT10_003
AT10_004
Ritux
AT10_002 Alexa-647
Percentage binding
Conc competitor (ng/ml)
AT10_004 Alexa-647
Percentage binding
Conc competitor (ng/ml)
H3N2 A/Ned/177/2008
Infected cells

Figure 6B



H1N1 A/Hawaii/31/2007
Infected cells

Figure 7

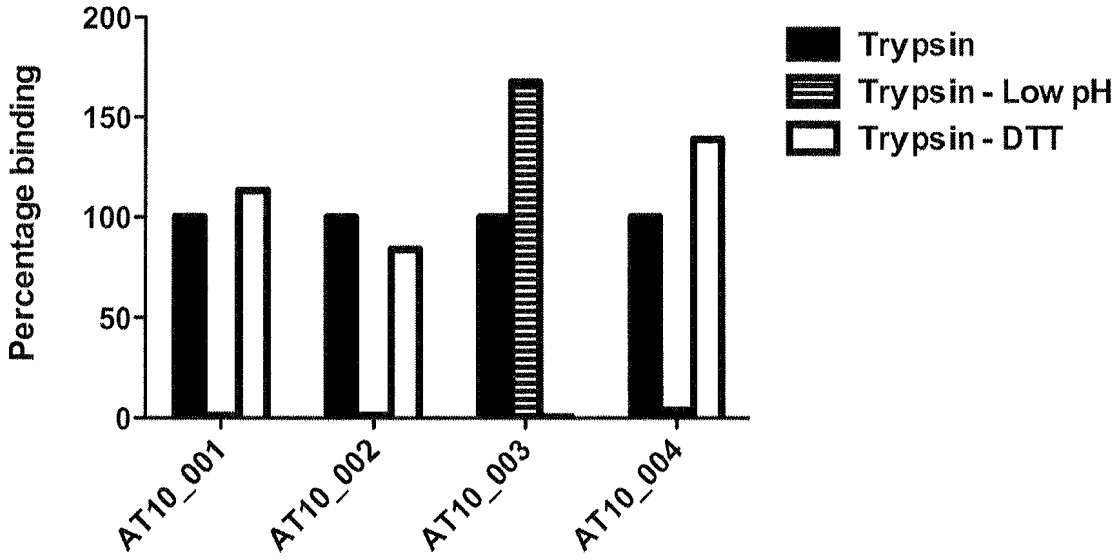
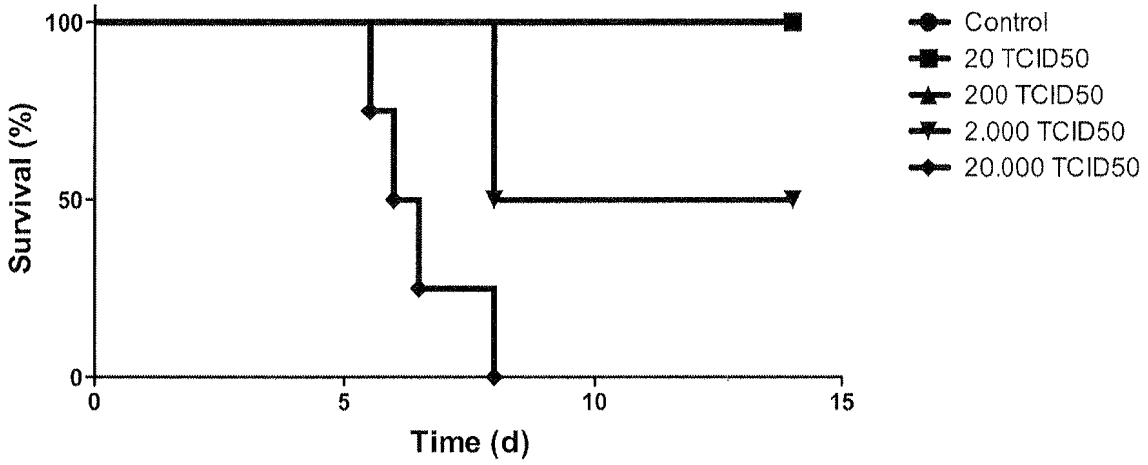

Percentage binding
200
150
100
50
0
AT10_001
AT10_002
AT10_003
AT10_004
Trypsin
Trypsin - Low pH
Trypsin - DTT

Figure 8

A


100
50
0
Survival (%)
0
5
10
15
Time (d)
Control
20 TCID50
200 TCID50
2.000 TCID50
20.000 TCID50

B

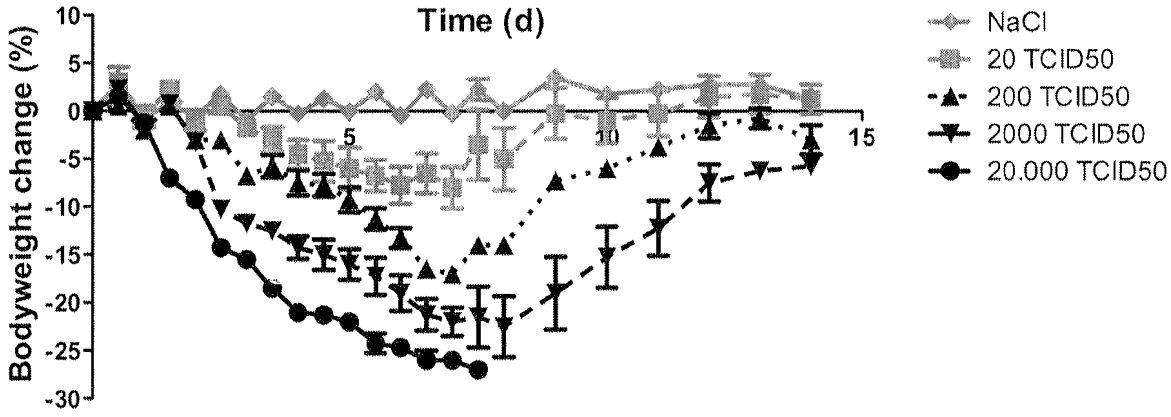
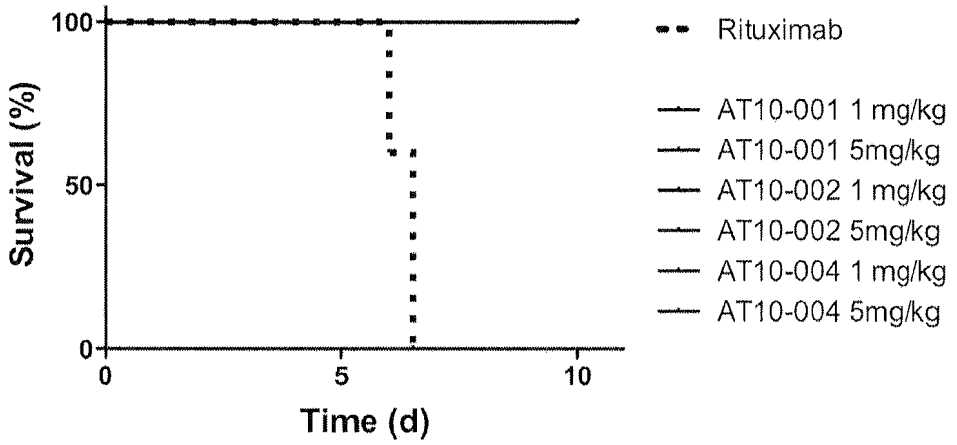

Time (d)
10
5
0
-5
-10
-15
-20
-25
-30
Bodyweight change (%)
5
10
15
NaCl
20 TCID50
200 TCID50
2000 TCID50
20.000 TCID50

Figure 9

A


100
50
0
Survival (%)
0
5
10
Time (d)
Rituximab
AT10-001 1 mg/kg
AT10-001 5mg/kg
AT10-002 1 mg/kg
AT10-002 5mg/kg
AT10-004 1 mg/kg
AT10-004 5mg/kg

B

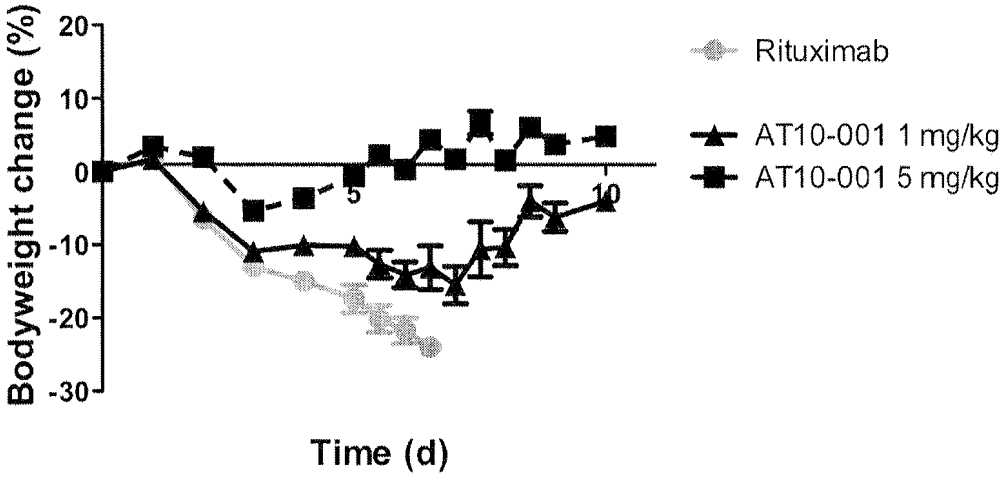
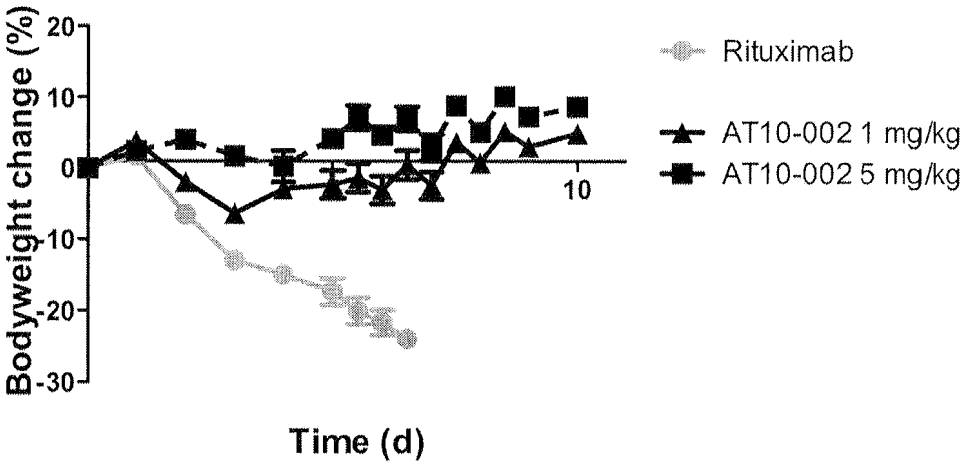

20
10
0
-10
-20
-30
Bodyweight change (%)
5
10
Time (d)
Rituximab
AT10-001 1 mg/kg
AT10-001 5 mg/kg

Figure 9 continued

C



D

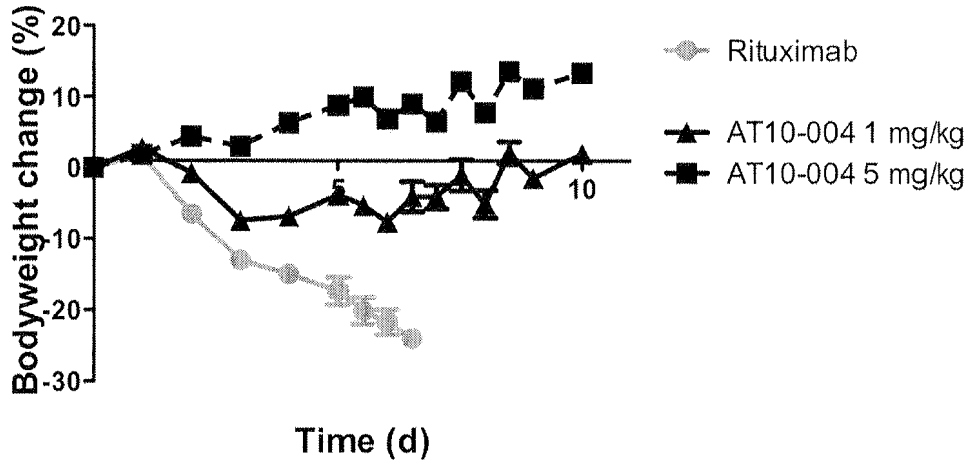


Figure 10

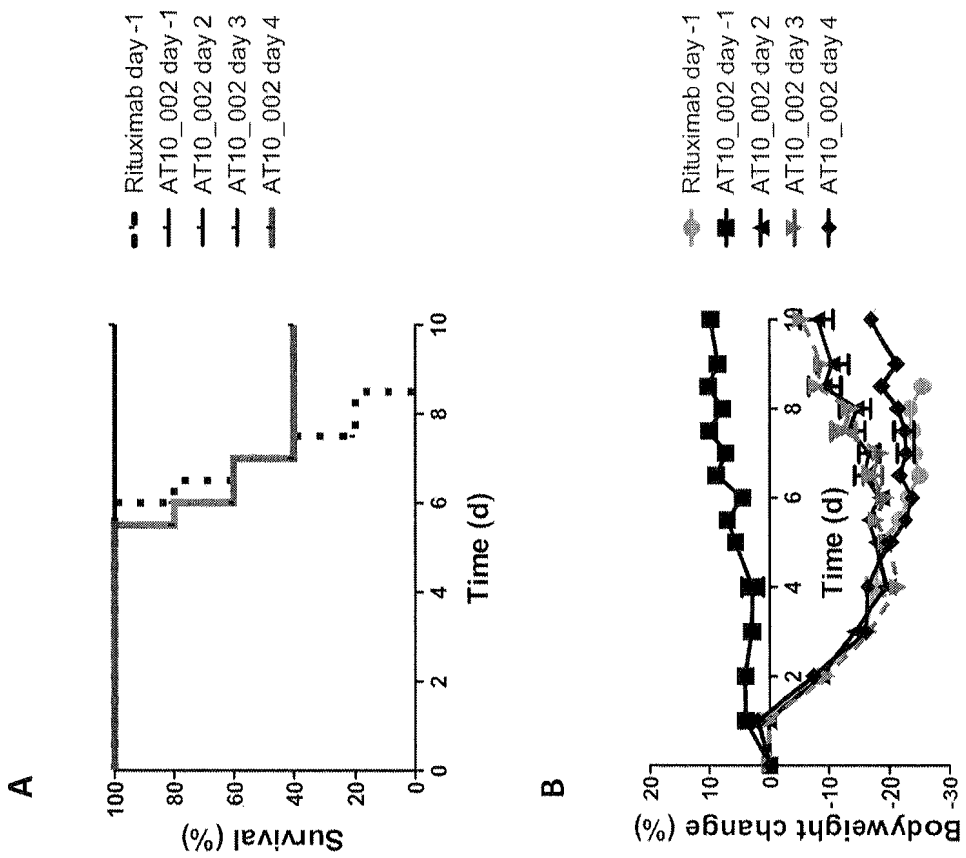

A
Survival (%)
Time (d)
Rituximab day -1
AT10_002 day -1
AT10_002 day 2
AT10_002 day 3
AT10_002 day 4
B
Bodyweight change (%)
Time (d)
Rituximab day -1
AT10_002 day -1
AT10_002 day 2
AT10_002 day 3
AT10_002 day 4

Figure 11

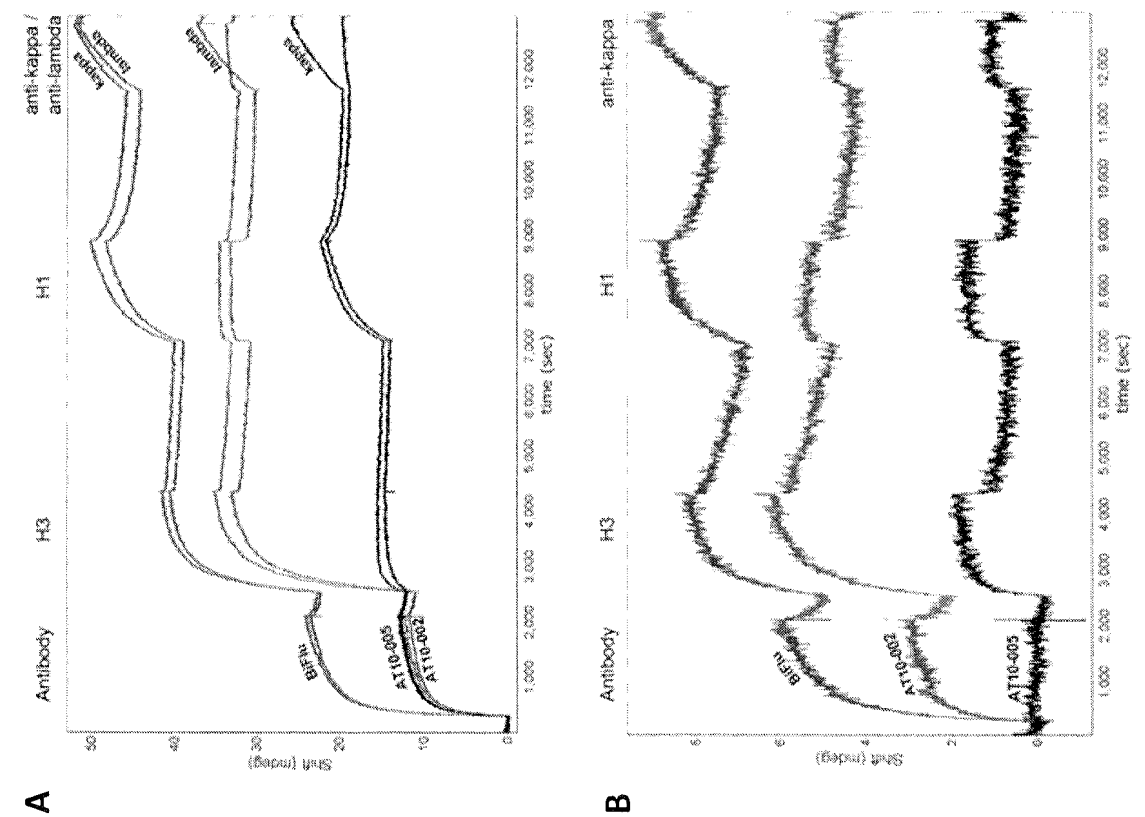

A
Antibody
H3
H1
anti-kappa / anti-lambda
kappa
lambda
kappa
BiFTn
AT10-005
AT10-002
Shift (nm)
time (sec)
B
Antibody
H3
H1
anti-kappa
BiFTn
AT10-002
AT10-005
Shift (nm)
time (sec)

Figure 12

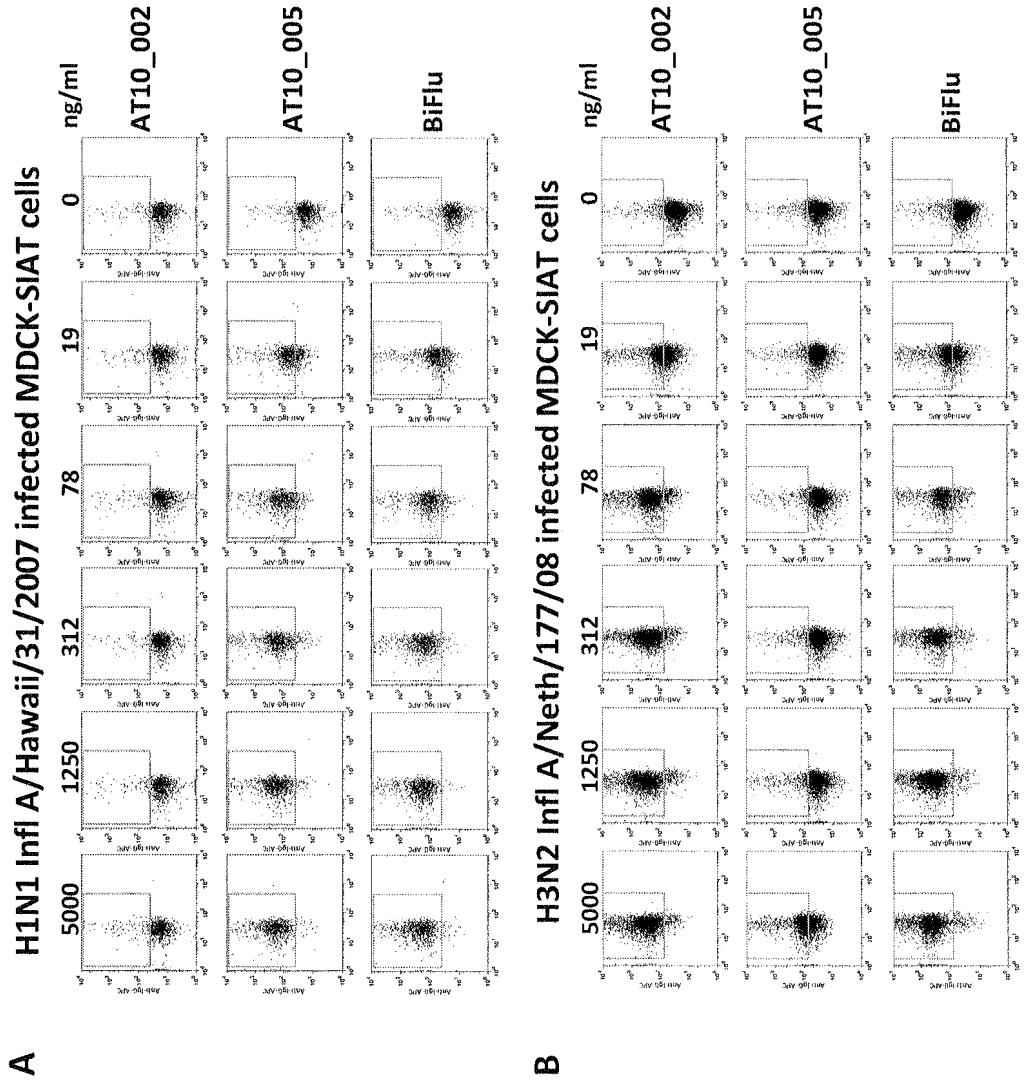

A
H1N1 Infl A/Hawaii/31/2007 infected MDCK-SIAT cells
ng/ml
0
19
78
312
1250
5000
AT10_002
AT10_005
BiFlu
B
H3N2 Infl A/Neth/177/08 infected MDCK-SIAT cells
ng/ml
0
19
78
312
1250
5000
AT10_002
AT10_005
BiFlu

Figure 13

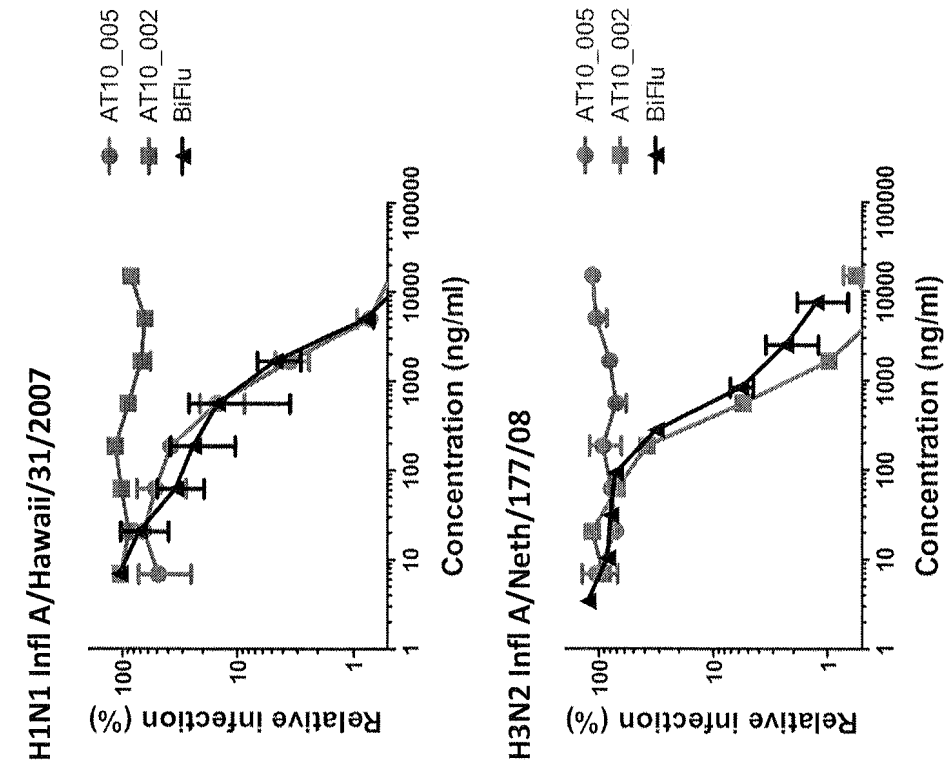
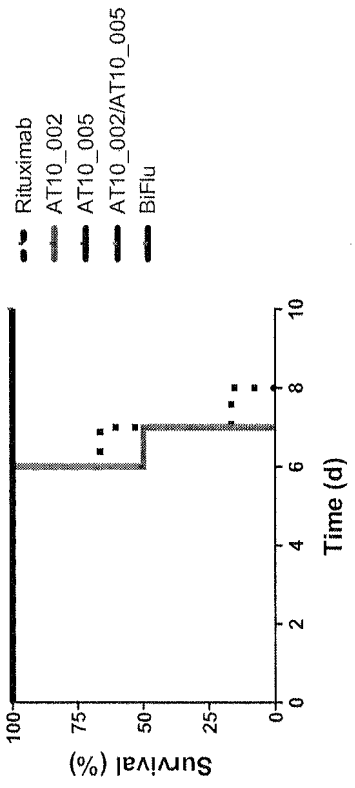
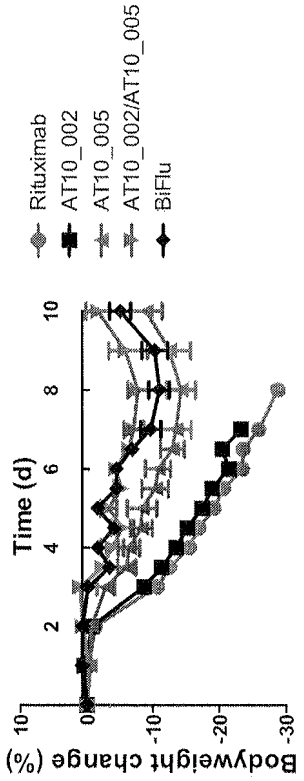

A
H1N1 Infl A/Hawaii/31/2007
AT10_005
AT10_002
BiFlu
Relative infection (%)
100
10
1
1
10
100
1000
10000
100000
Concentration (ng/ml)
B
H3N2 Infl A/Neth/177/08
AT10_005
AT10_002
BiFlu
Relative infection (%)
100
10
1
1
10
100
1000
10000
100000
Concentration (ng/ml)

Figure 14


A
Survival (%)
100
75
50
25
0
0
2
4
6
8
10
Time (d)
Rituximab
AT10_002
AT10_005
AT10_002/AT10_005
BiFlu


B
Bodyweight change (%)
10
0
-10
-20
-30
0
2
4
6
8
10
Time (d)
Rituximab
AT10_002
AT10_005
AT10_002/AT10_005
BiFlu