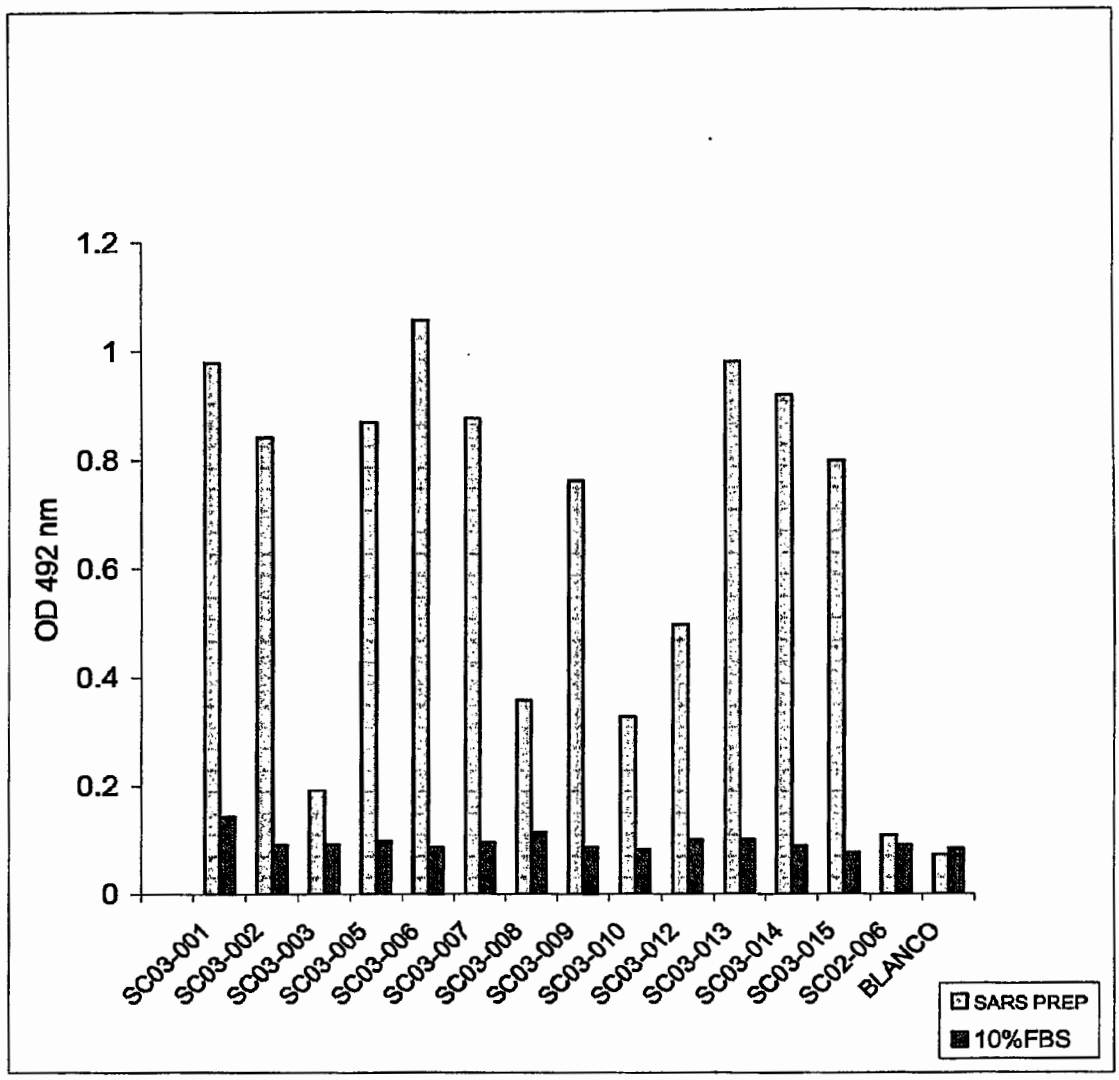

OD 492 nm
1.2
1
0.8
0.6
0.4
0.2
0
SC03-001
SC03-002
SC03-003
SC03-005
SC03-006
SC03-007
SC03-008
SC03-009
SC03-010
SC03-012
SC03-013
SC03-014
SC03-015
SC02-006
BLANCO
SARS PREP
10%FBS

Figure 1

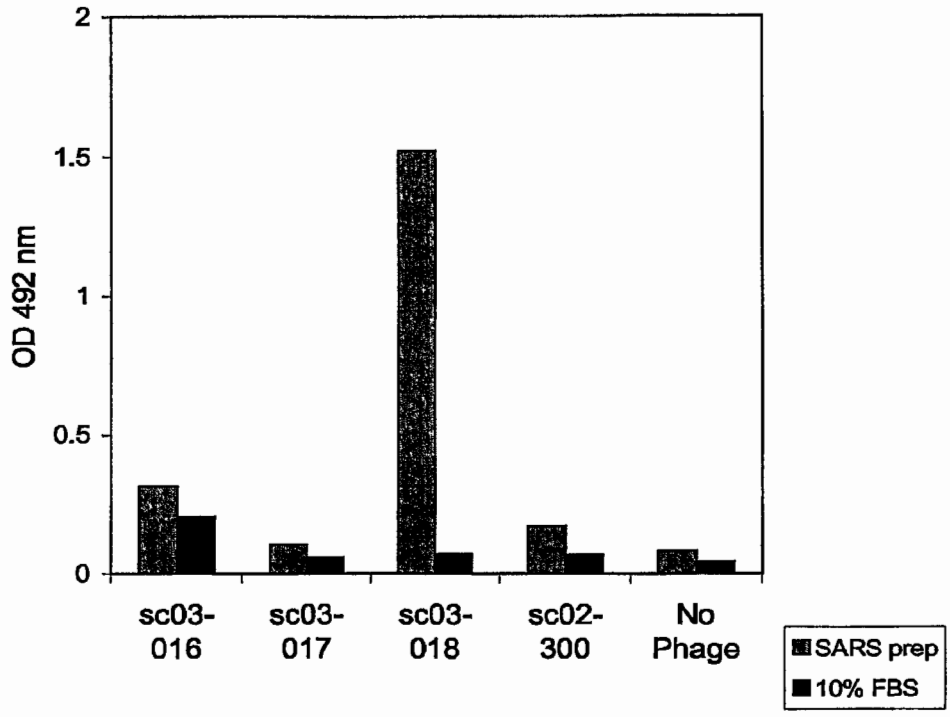

2
1.5
1
0.5
0
OD 492 nm
sc03-016
sc03-017
sc03-018
sc02-300
No Phage
SARS prep
10% FBS

Figure 2

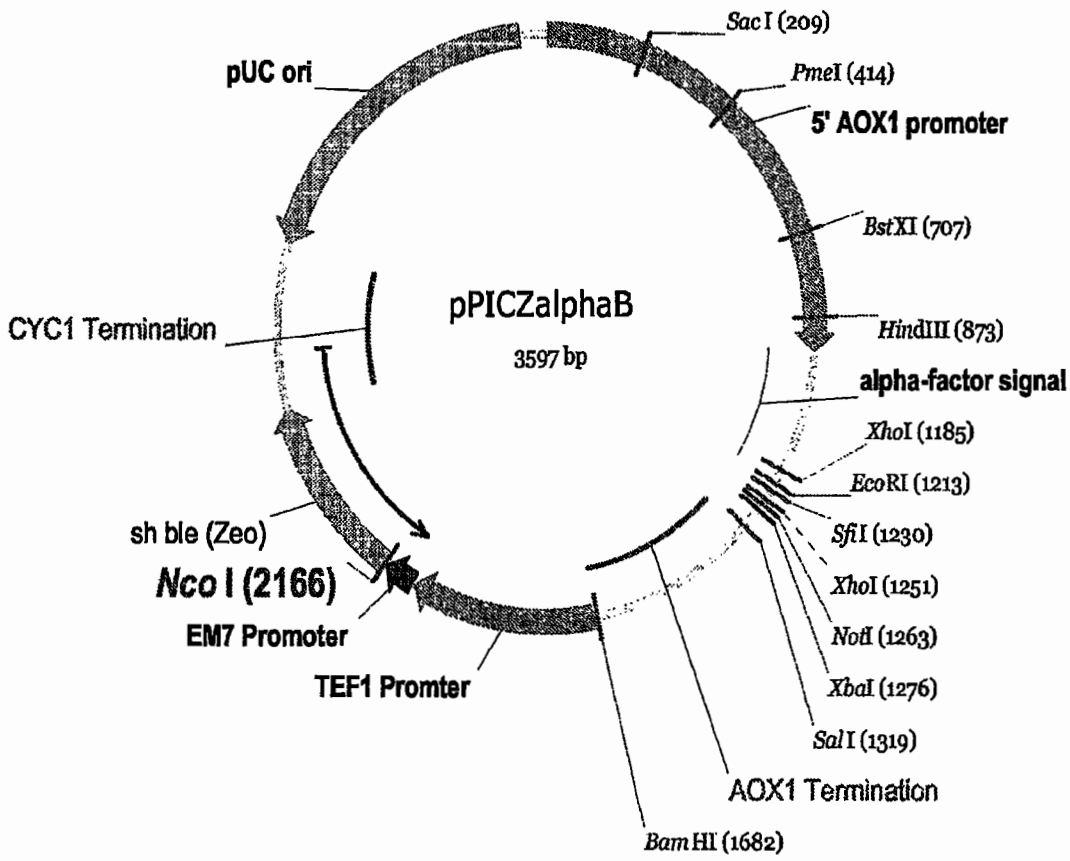

pUC ori
Sac I (209)
PmeI (414)
5' AOX1 promoter
BstXI (707)
HindIII (873)
alpha-factor signal
XhoI (1185)
EcoRI (1213)
SfiI (1230)
XhoI (1251)
NotI (1263)
XbaI (1276)
SalI (1319)
AOX1 Termination
BamHI (1682)
pPICZalphaB
3597 bp
CYC1 Termination
sh ble (Zeo)
Nco I (2166)
EM7 Promoter
TEF1 Promter

Figure 3A

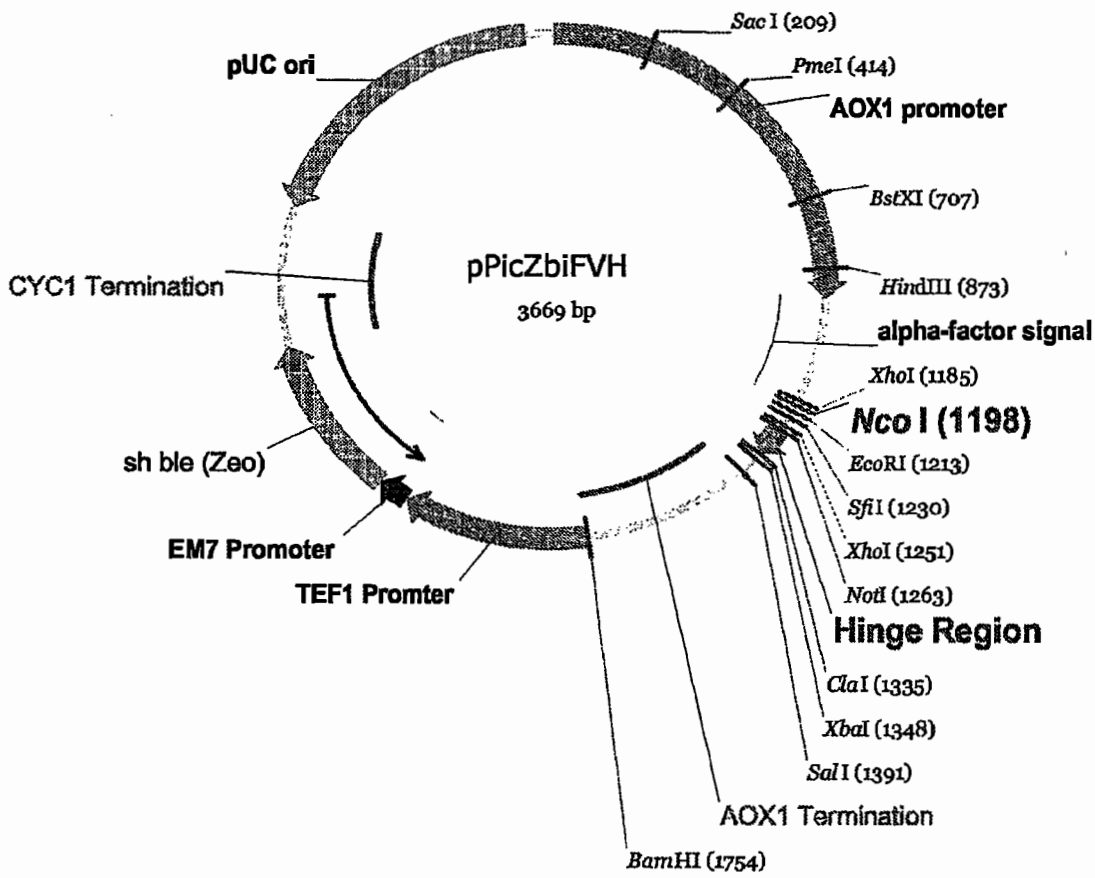
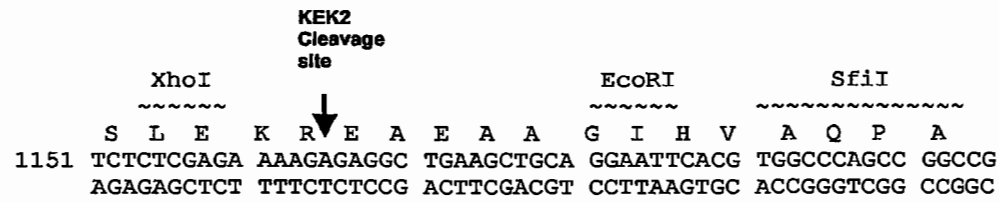
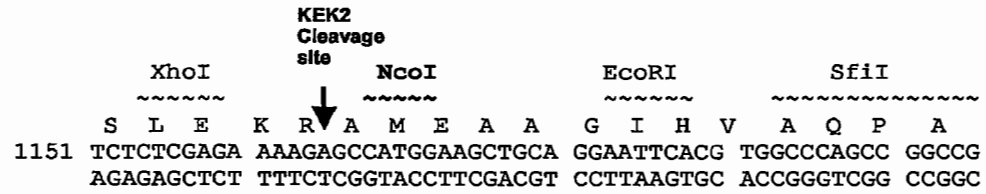

pPicZbiFVH
3669 bp
pUC ori
Sac I (209)
PmeI (414)
AOX1 promoter
BstXI (707)
HindIII (873)
alpha-factor signal
XhoI (1185)
Nco I (1198)
EcoRI (1213)
SfiI (1230)
XhoI (1251)
NotI (1263)
Hinge Region
ClaI (1335)
XbaI (1348)
SalI (1391)
AOX1 Termination
BamHI (1754)
CYC1 Termination
sh ble (Zeo)
EM7 Promoter
TEF1 Promter

Figure 3B

5' Cloning site of pPicZαB



5' Cloning site of pPicZFVH



synthetic hinge fragment

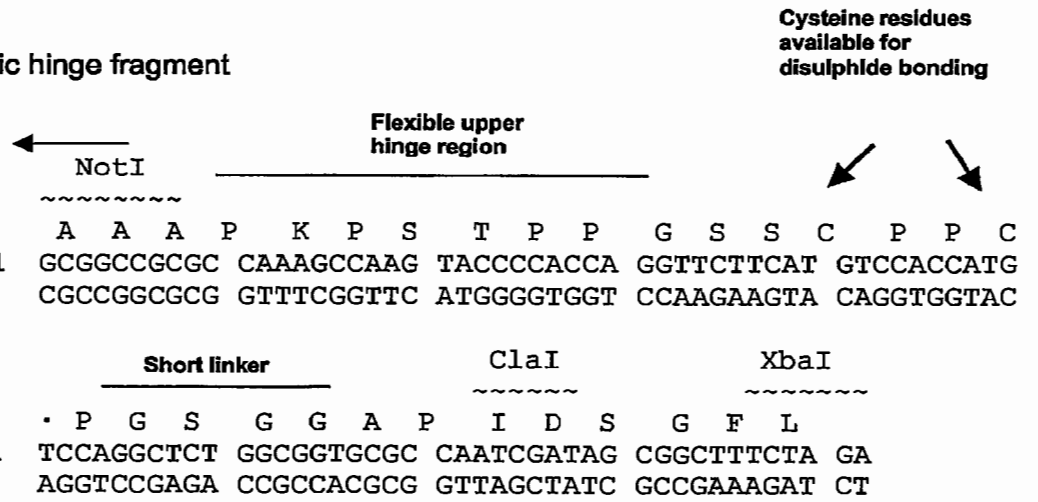


Figure 3C

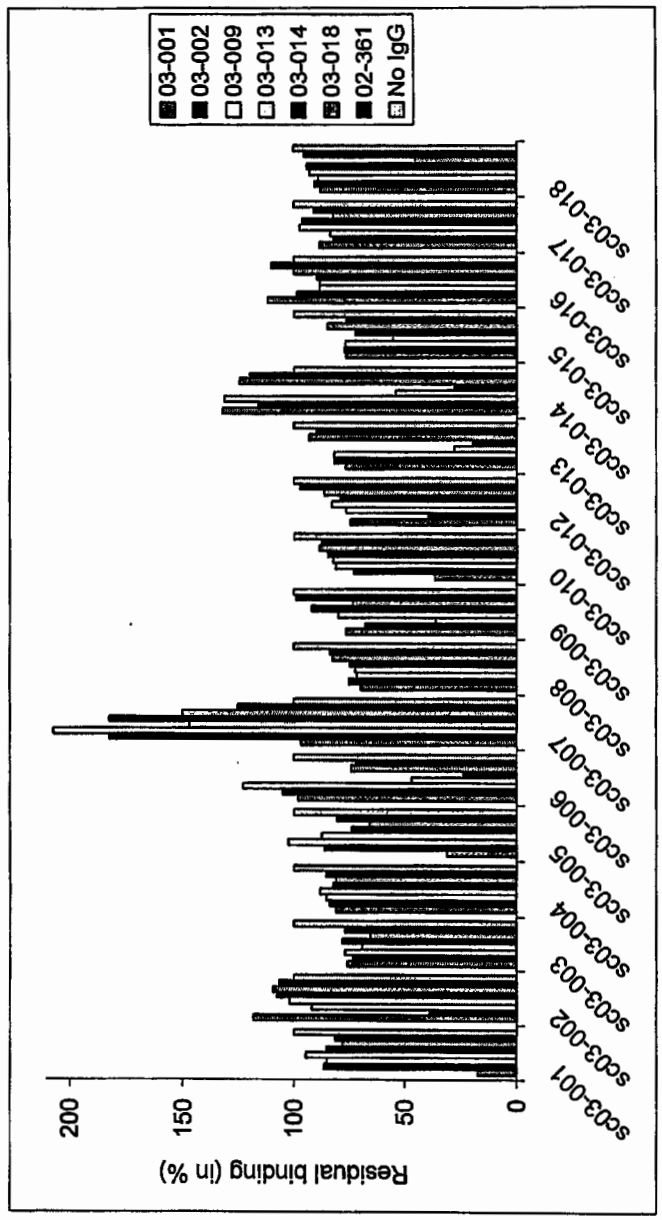

03-001
03-002
03-009
03-013
03-014
03-018
02-361
No IgG
Residual binding (in %)
200
150
100
50
0
sco3-001
sco3-002
sco3-003
sco3-004
sco3-005
sco3-006
sco3-007
sco3-008
sco3-009
sco3-010
sco3-012
sco3-013
sco3-014
sco3-015
sco3-016
sco3-017
sco3-018

Figure 4

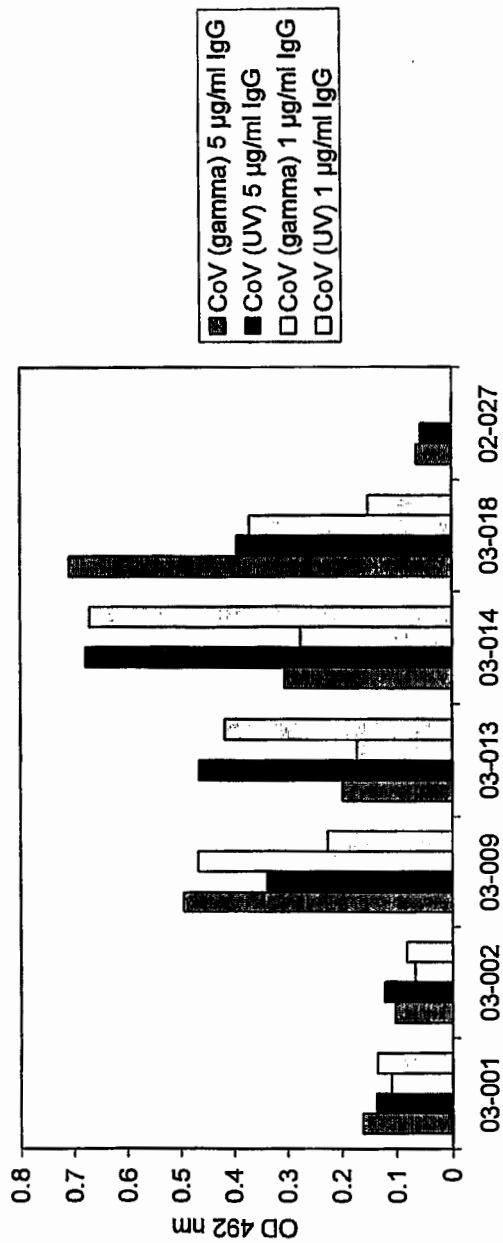

CoV (gamma) 5 µg/ml IgG
CoV (UV) 5 µg/ml IgG
CoV (gamma) 1 µg/ml IgG
CoV (UV) 1 µg/ml IgG
OD 492 nm
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
03-001
03-002
03-009
03-013
03-014
03-018
02-027

Figure 5

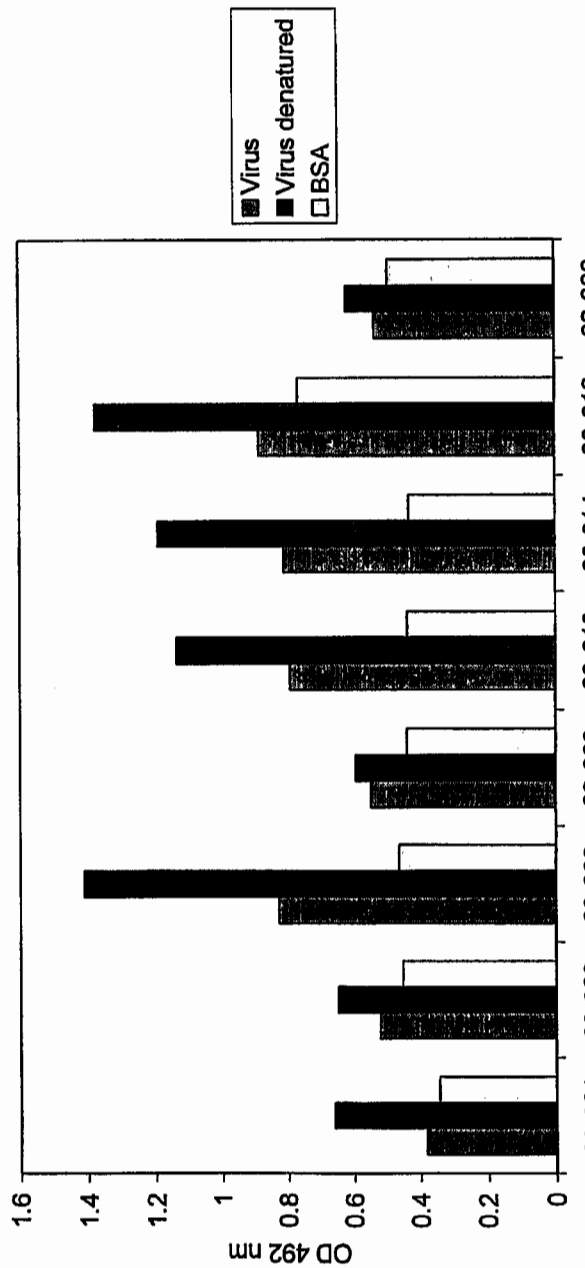

Virus
Virus denatured
BSA
OD 492 nm
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
03-001
03-002
03-009
02-300
03-013
03-014
03-018
02-300

Figure 6A

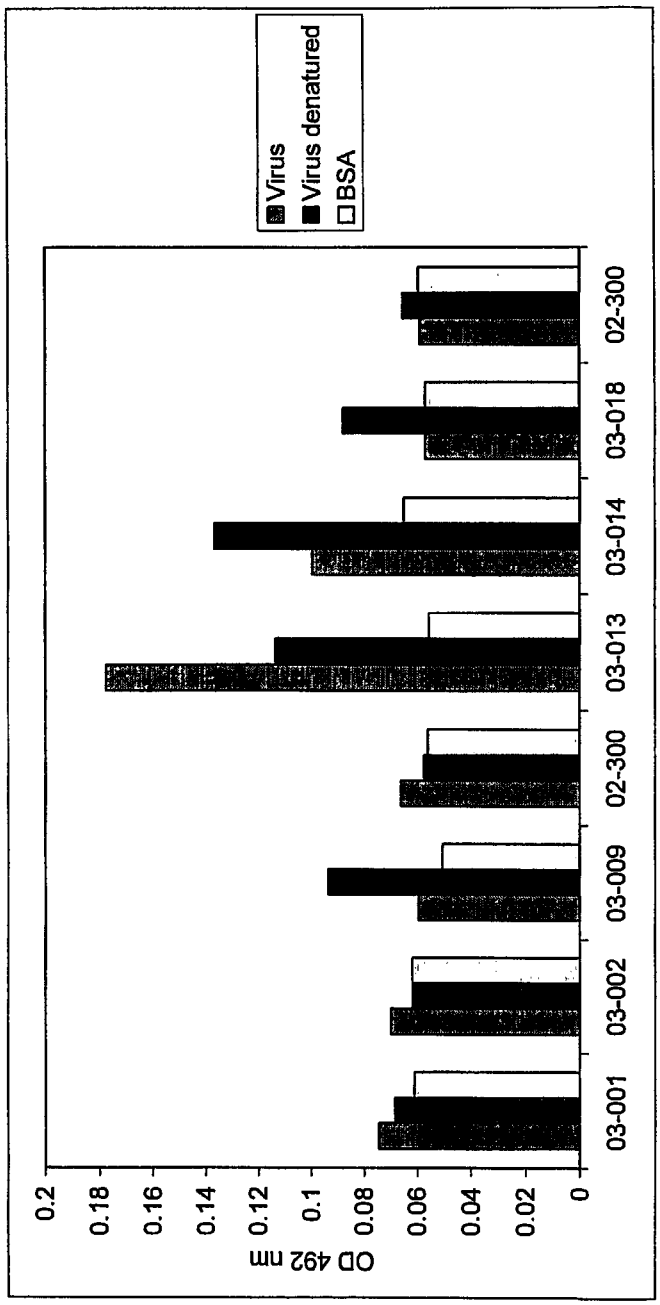

Virus
Virus denatured
BSA
OD 492 nm
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
03-001
03-002
03-009
02-300
03-013
03-014
03-018
02-300

Figure 6B

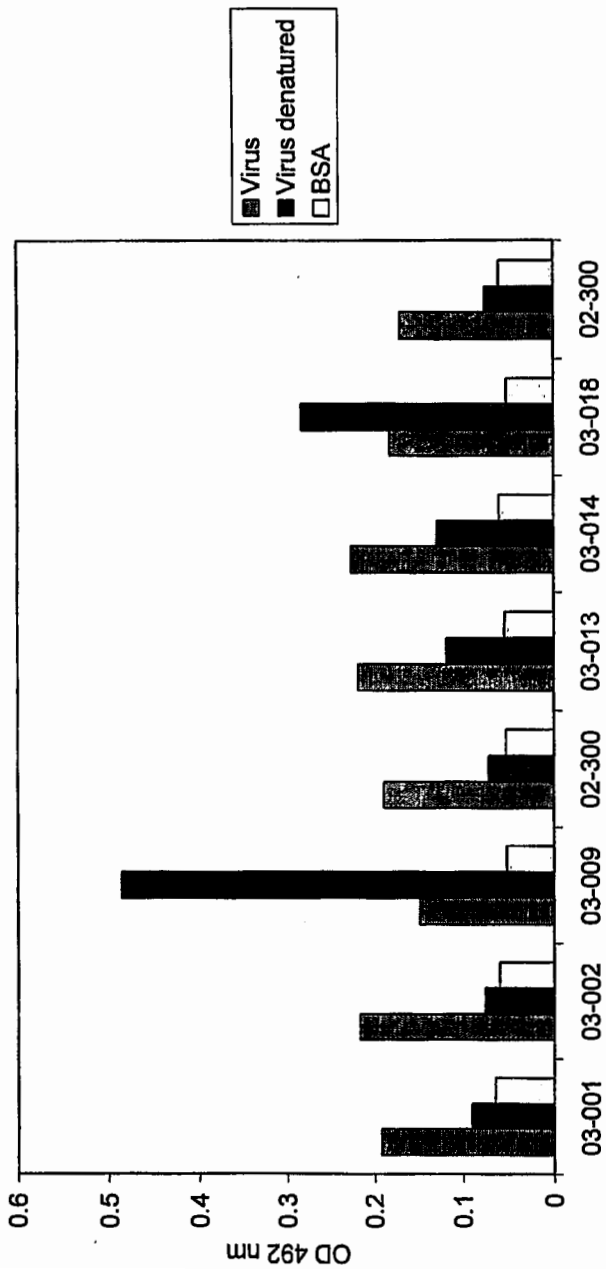

Virus
Virus denatured
BSA
OD 492 nm
0
0.1
0.2
0.3
0.4
0.5
0.6
03-001
03-002
03-009
02-300
03-013
03-014
03-018
02-300

Figure 6C

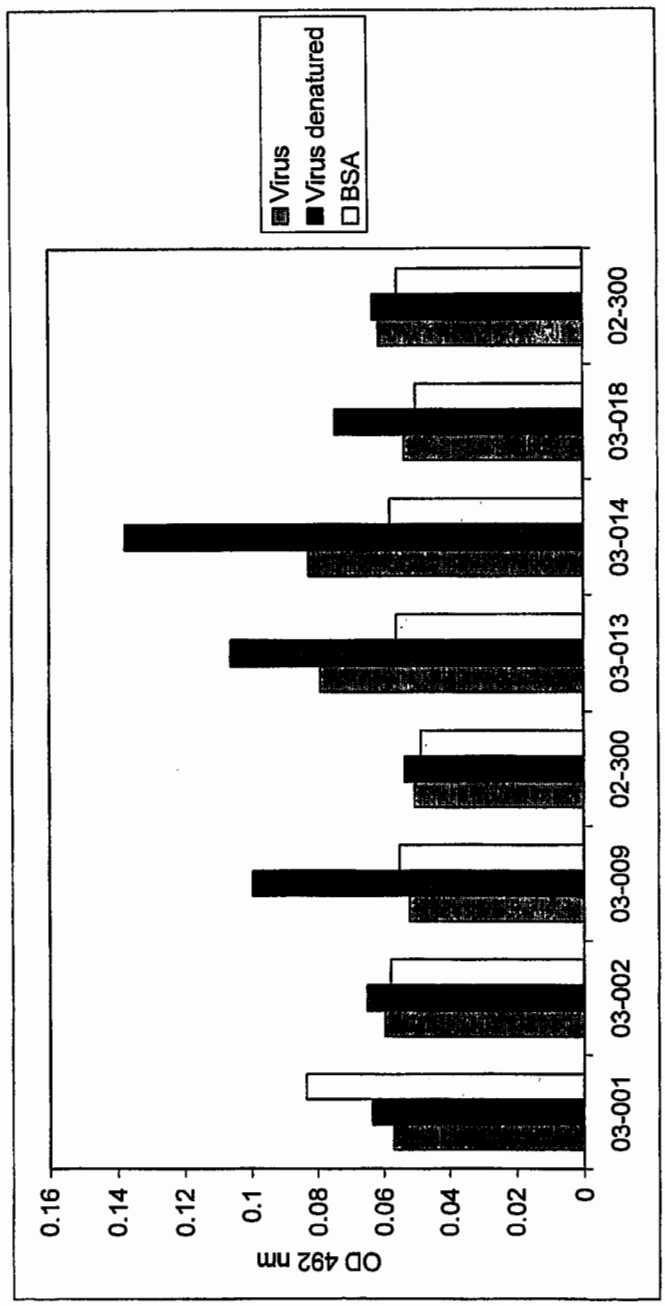

Virus
Virus denatured
BSA
OD 492 nm
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
03-001
03-002
03-009
02-300
03-013
03-014
03-018
02-300

Figure 6D

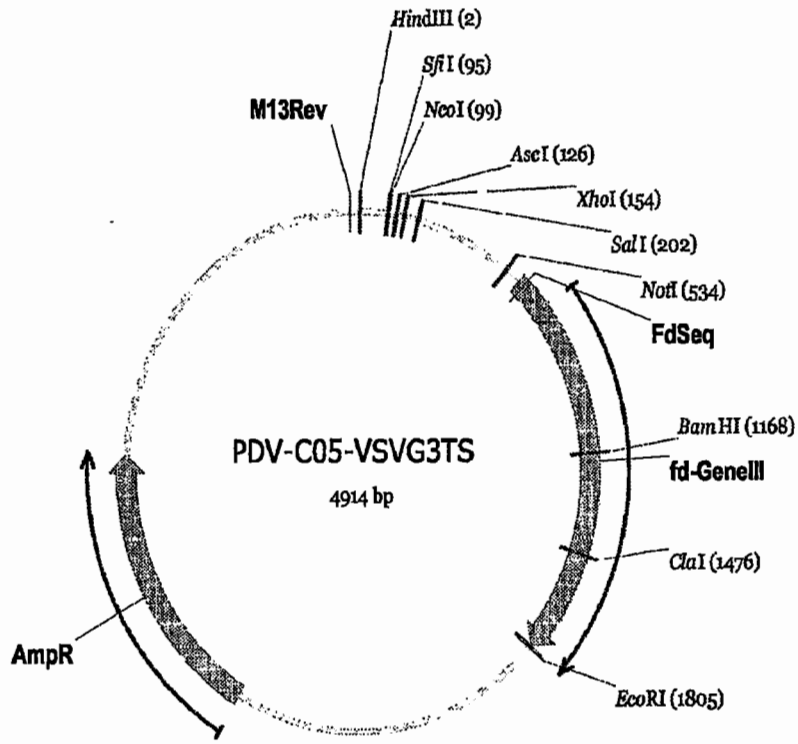

HindIII (2)
SfiI (95)
NcoI (99)
M13Rev
AscI (126)
XhoI (154)
SalI (202)
NotI (534)
FdSeq
BamHI (1168)
fd-GeneIII
PDV-C05-VSVG3TS
4914 bp
ClaI (1476)
AmpR
EcoRI (1805)

Figure 7

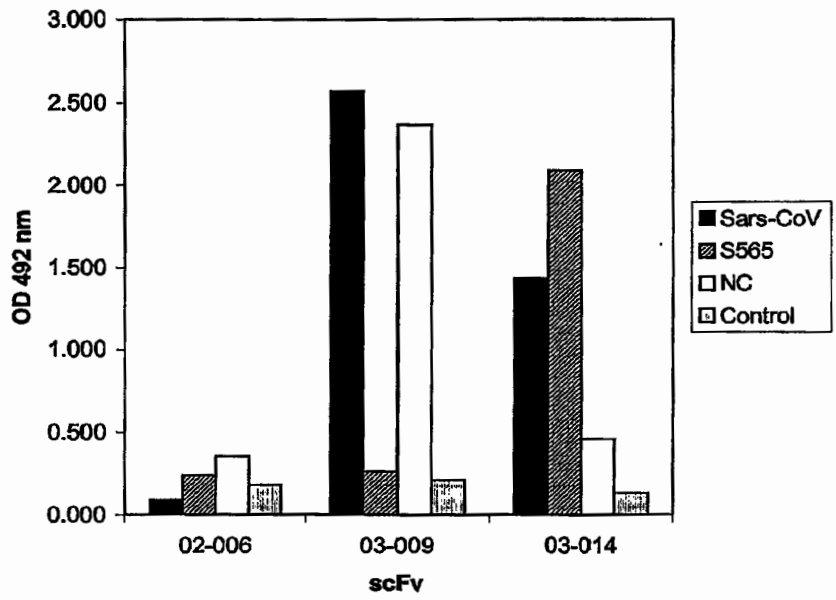

3.000
2.500
2.000
1.500
1.000
0.500
0.000
OD 492 nm
02-006
03-009
03-014
scFv
Sars-CoV
S565
NC
Control

Figure 8

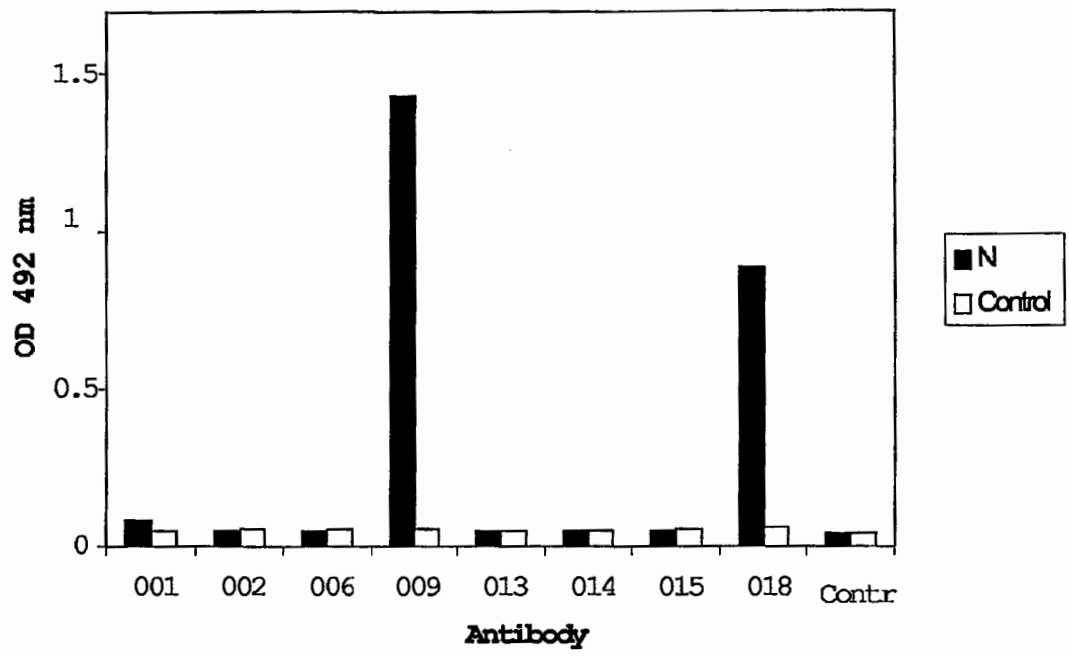

1.5
1
0.5
0
OD 492 nm
001
002
006
009
013
014
015
018
Contr
Antibody
N
Control

Figure 9

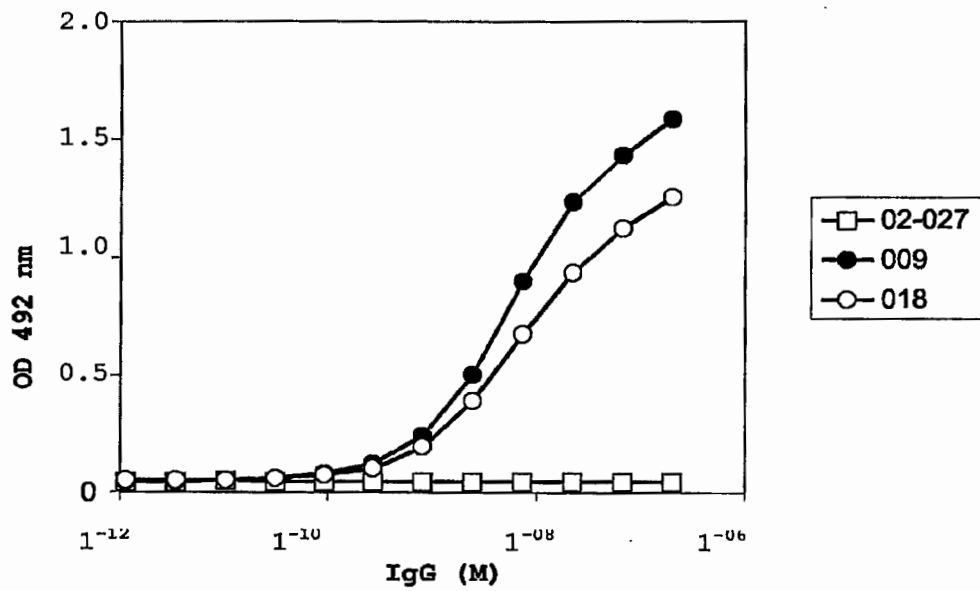


Figure 10

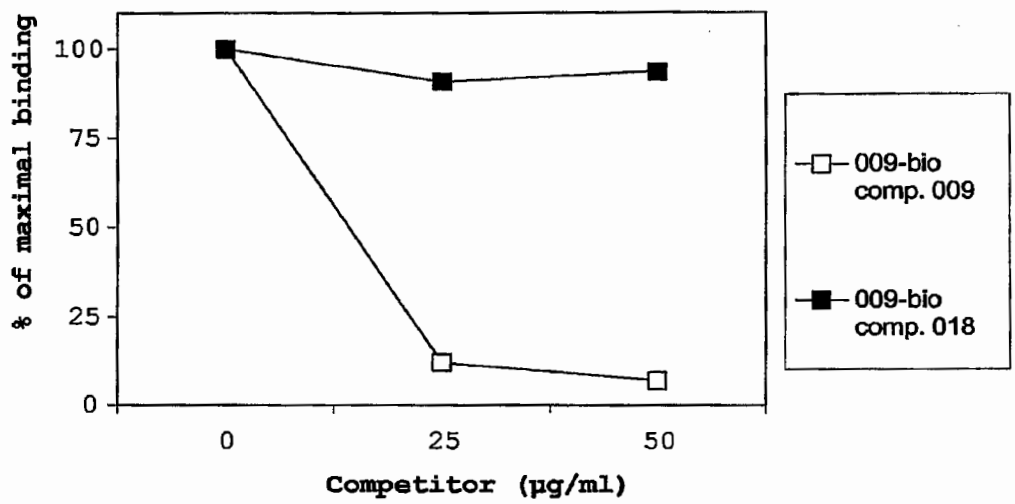

% of maximal binding
100
75
50
25
0
0
25
50
Competitor (µg/ml)
009-bio comp. 009
009-bio comp. 018

Figure 11

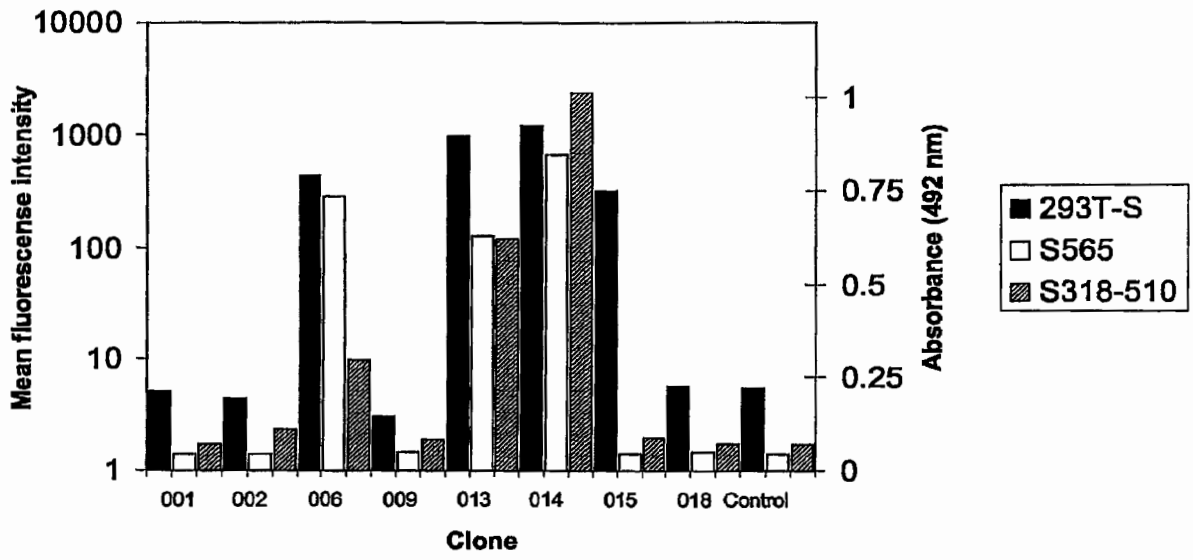

10000
1000
100
10
1
Mean fluorescense intensity
1
0.75
0.5
0.25
0
Absorbance (492 nm)
001
002
006
009
013
014
015
018
Control
Clone
293T-S
S565
S318-510

Figure 12

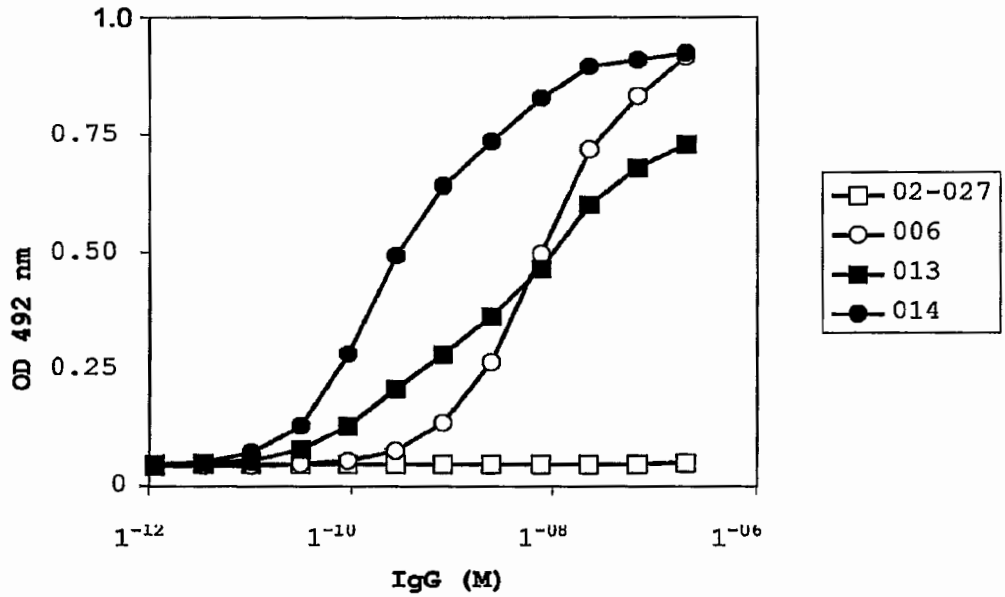


Figure 13

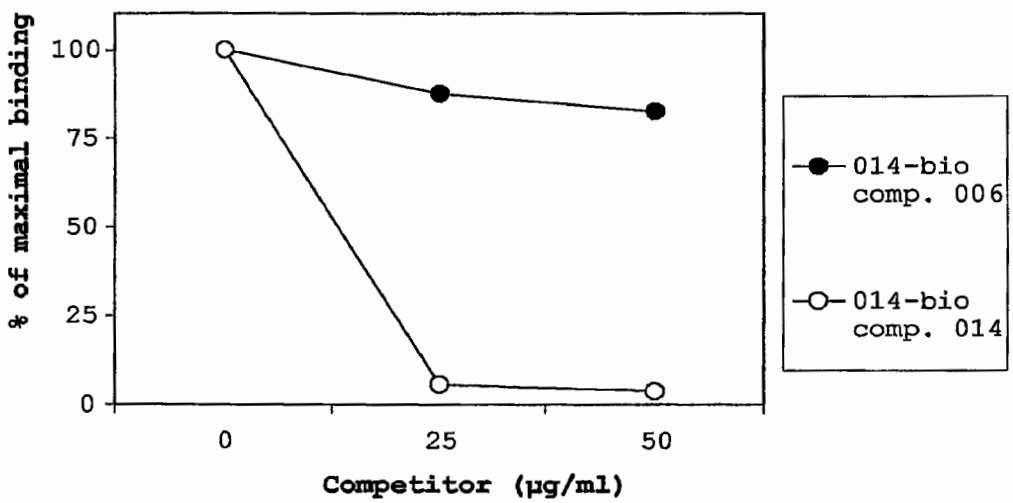

% of maximal binding
100
75
50
25
0
0
25
50
Competitor (µg/ml)
014-bio comp. 006
014-bio comp. 014

Figure 14

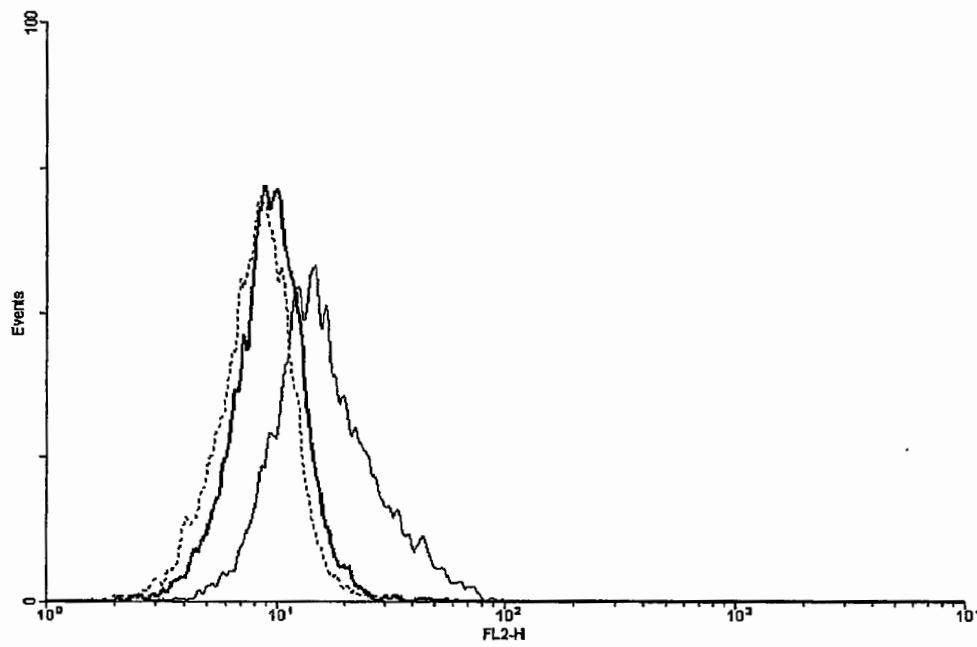


Figure 15

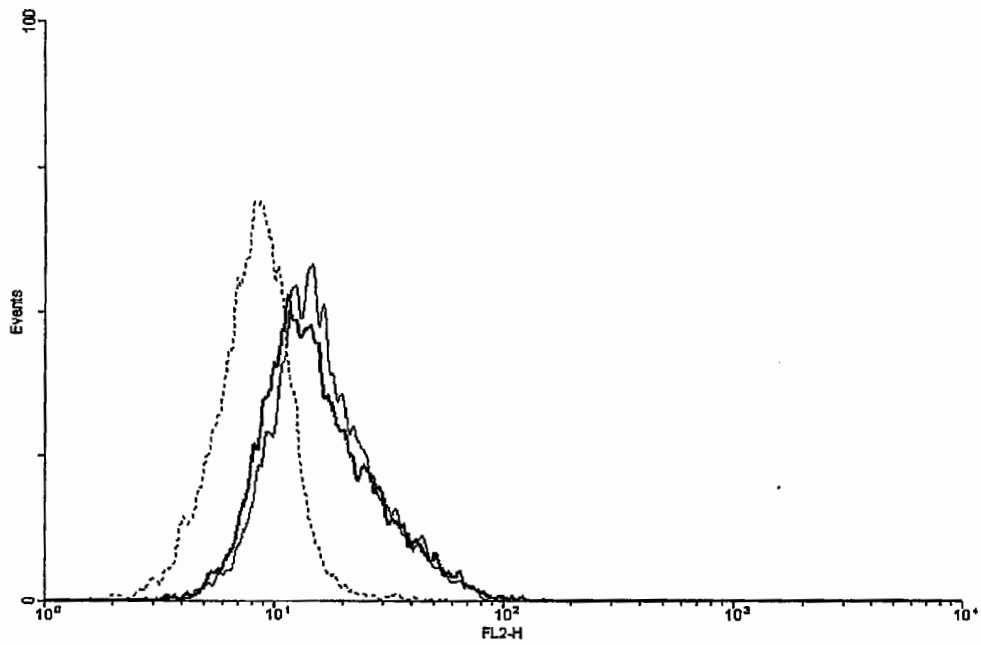


Figure 16

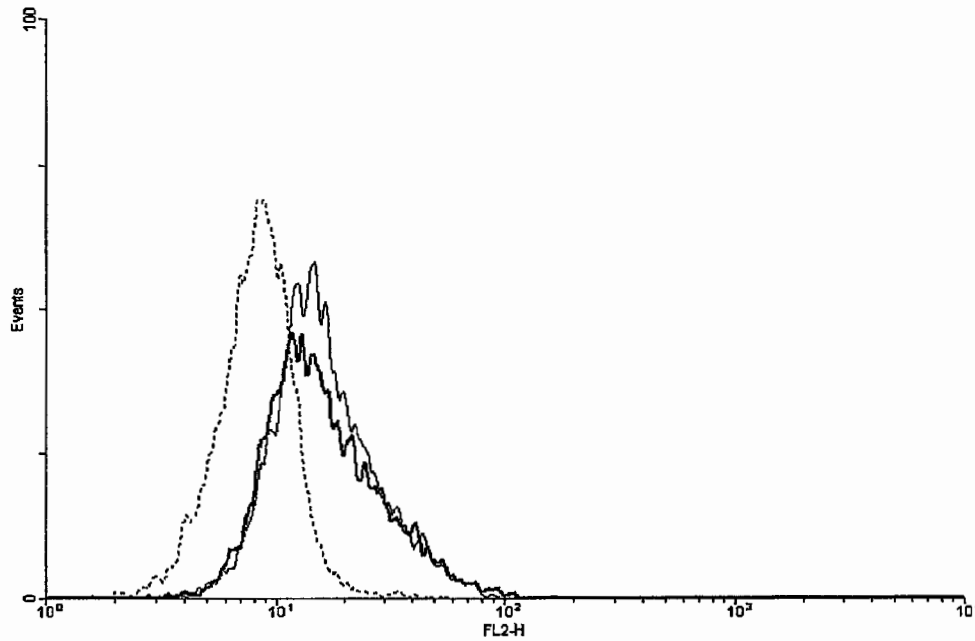


Figure 17

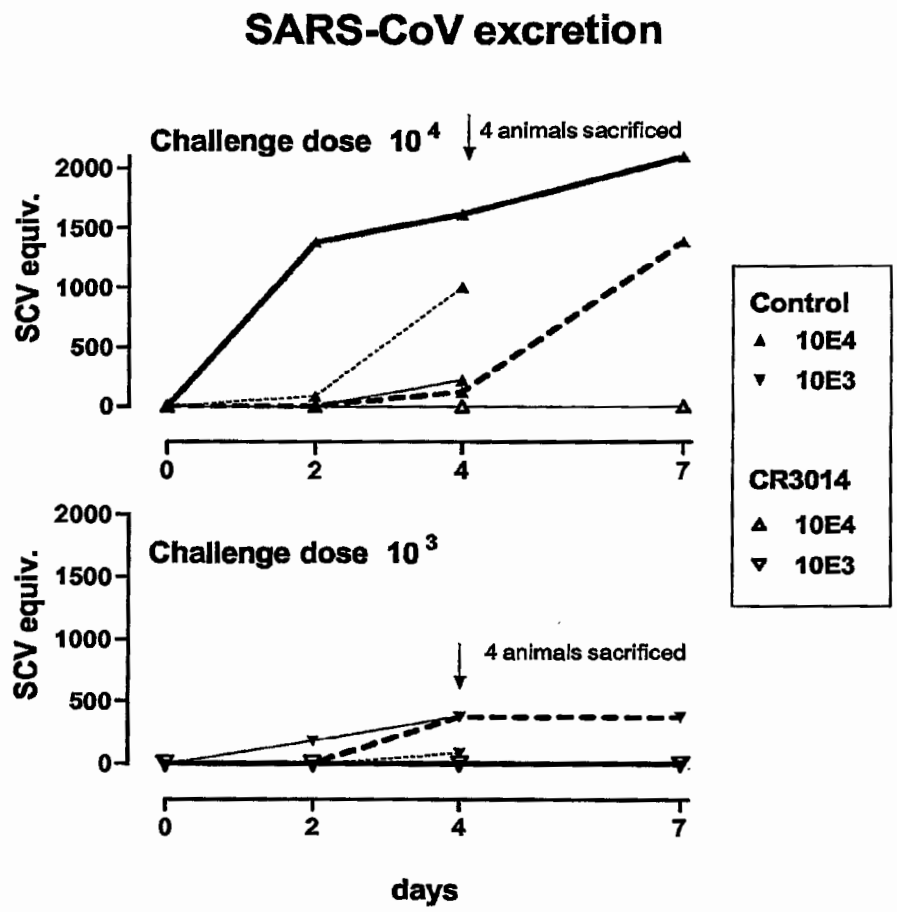

SARS-CoV excretion
Challenge dose 10 4
4 animals sacrificed
SCV equiv.
2000
1500
1000
500
0
0
2
4
7
Challenge dose 10 3
4 animals sacrificed
days
Control
10E4
10E3
CR3014
10E4
10E3

Figure 18

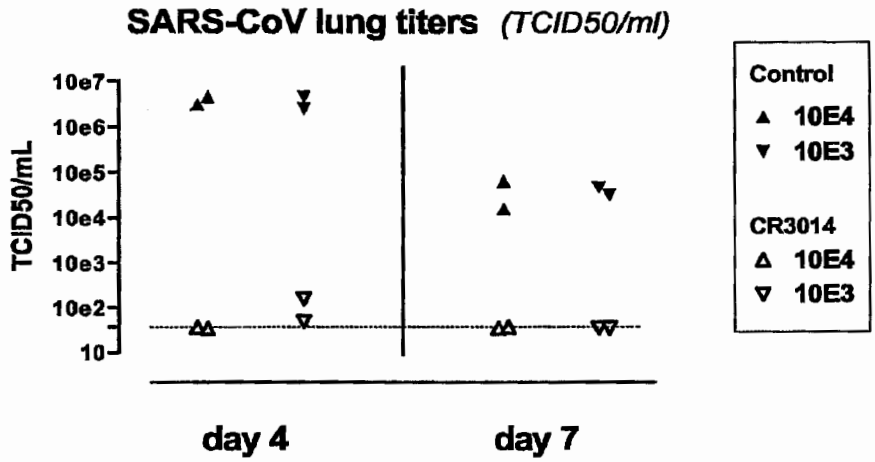

SARS-CoV lung titers (TCID50/ml)
TCID50/mL
10e7
10e6
10e5
10e4
10e3
10e2
10
day 4
day 7
Control
10E4
10E3
CR3014
10E4
10E3

Figure 19

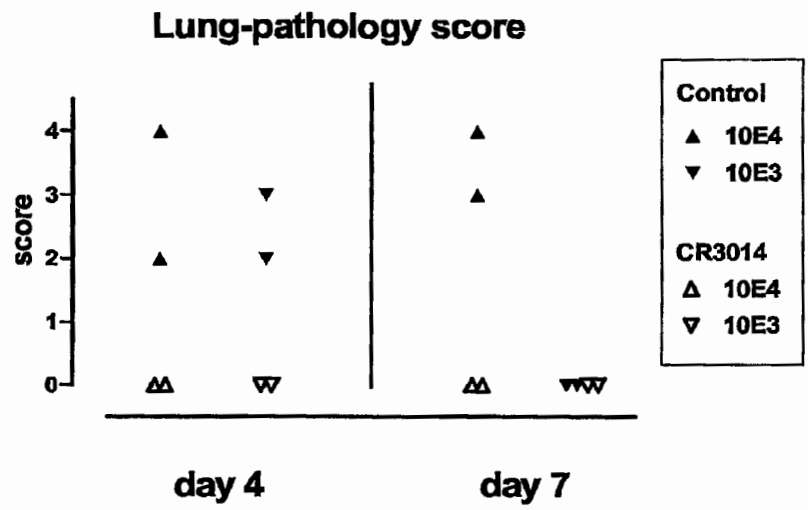

Lung-pathology score
score
4
3
2
1
0
day 4
day 7
Control
10E4
10E3
CR3014
10E4
10E3

Figure 20

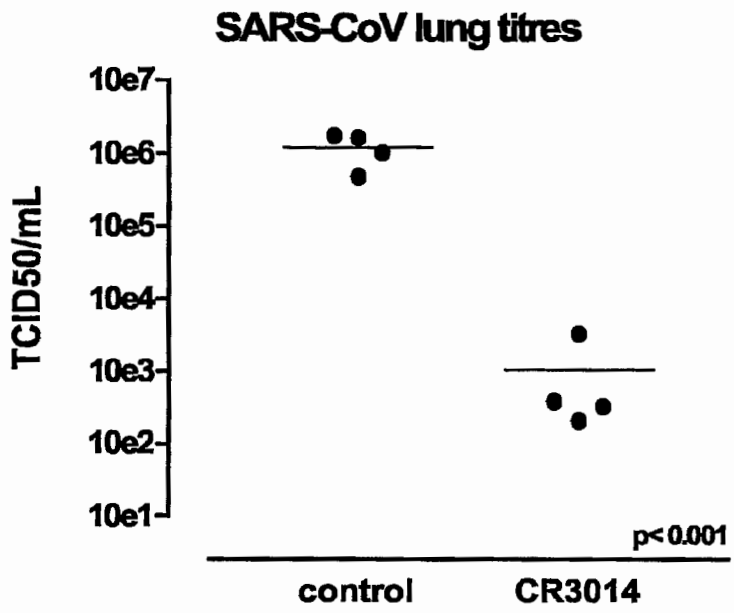

SARS-CoV lung titres
TCID50/mL
10e7
10e6
10e5
10e4
10e3
10e2
10e1
p<0.001
control
CR3014

Figure 21

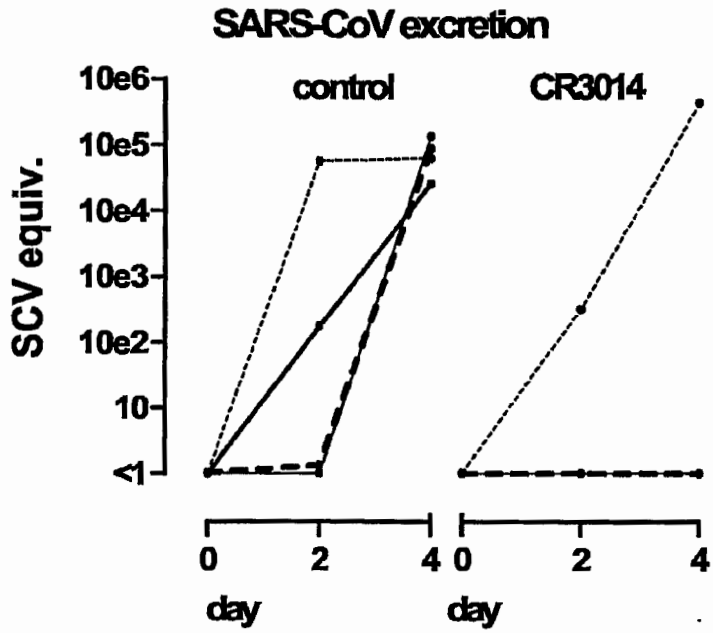

SARS-CoV excretion
control
CR3014
SCV equiv.
10e6
10e5
10e4
10e3
10e2
10
<1
0
2
4
day
0
2
4
day

Figure 22

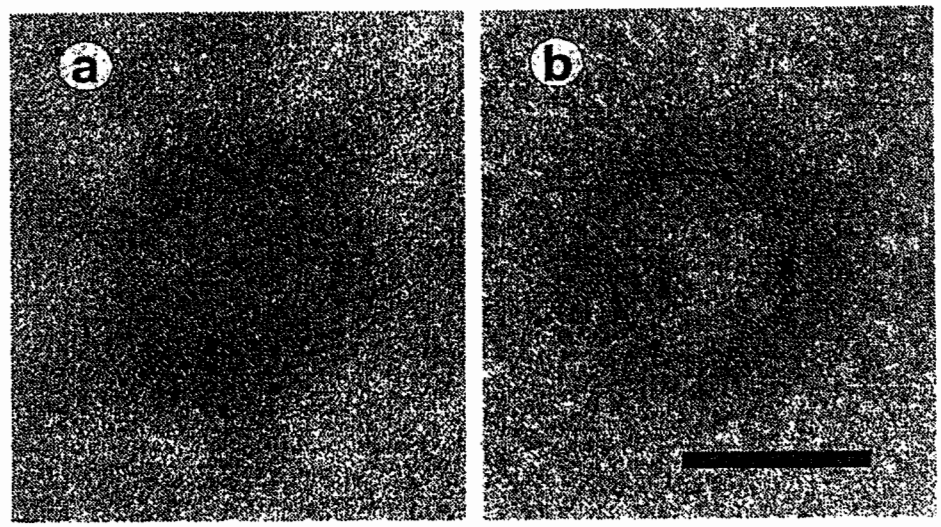


Figure 23

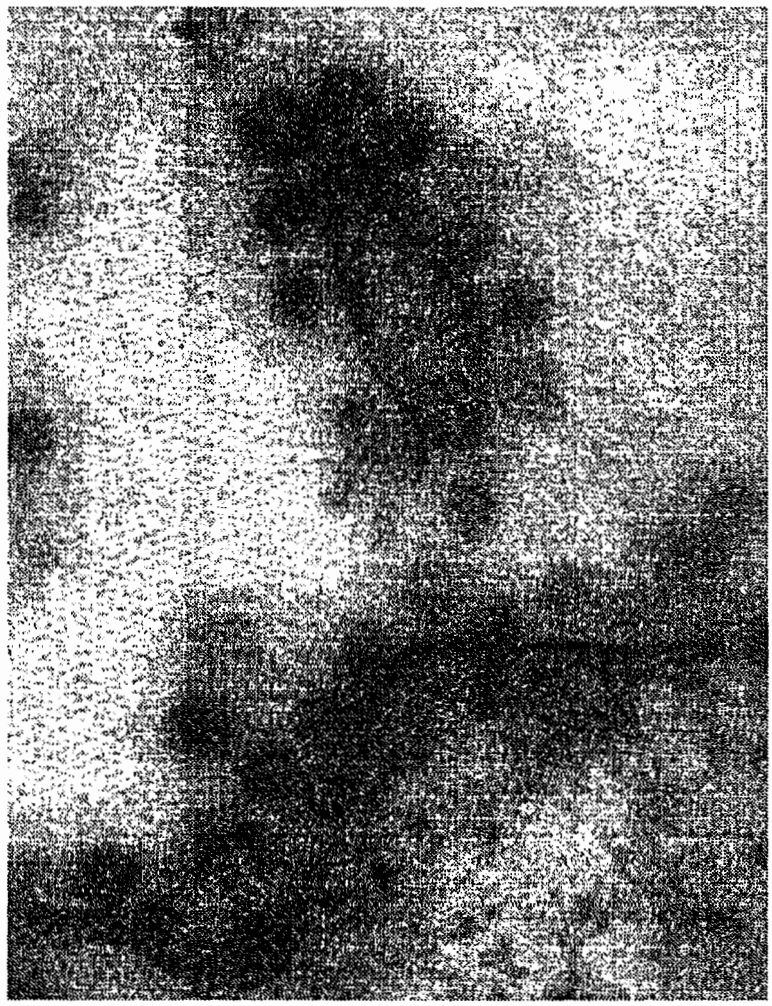


Figure 24A

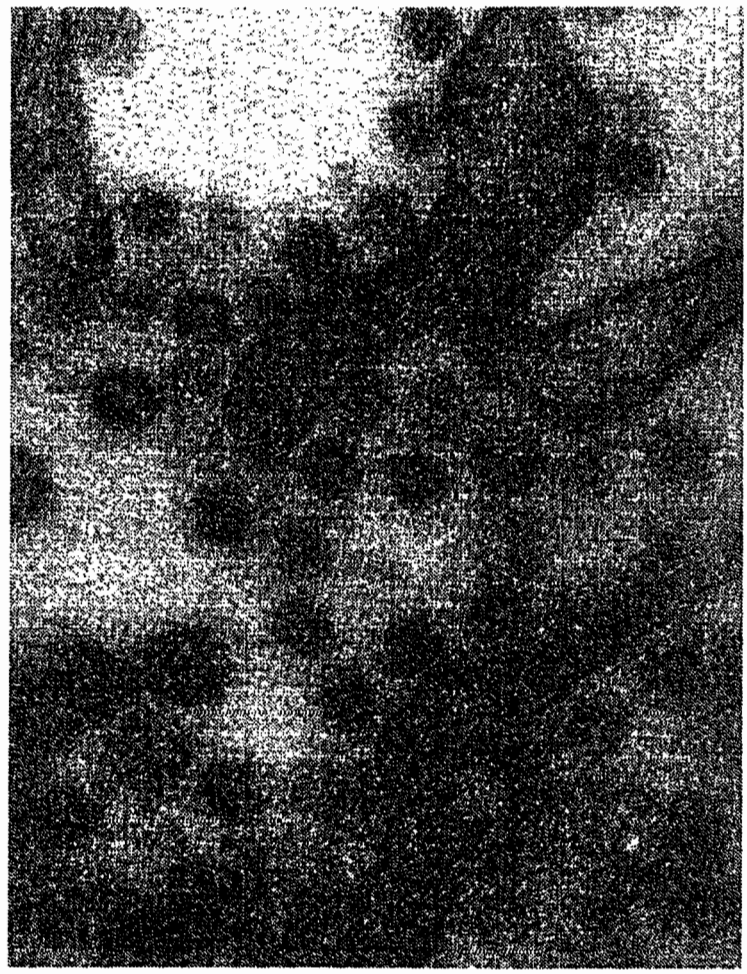


Figure 24B

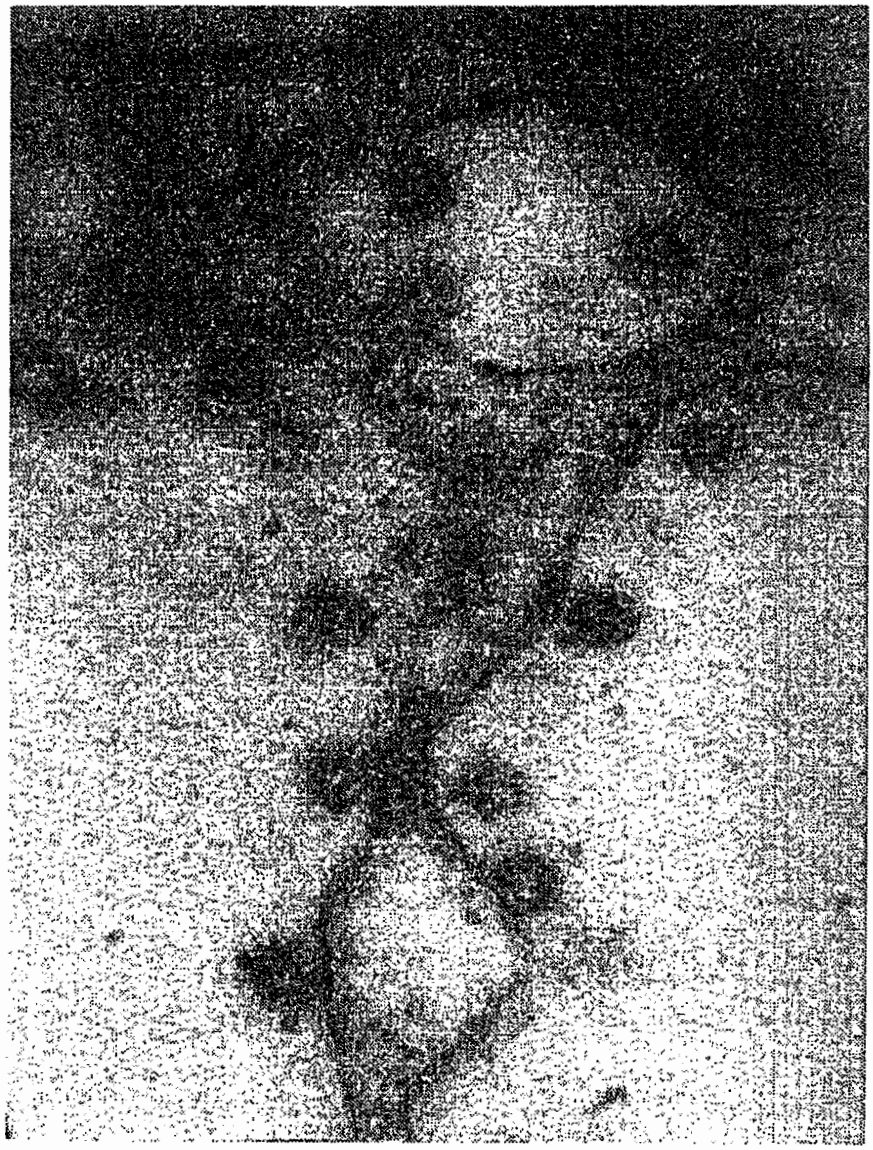


Figure 24C

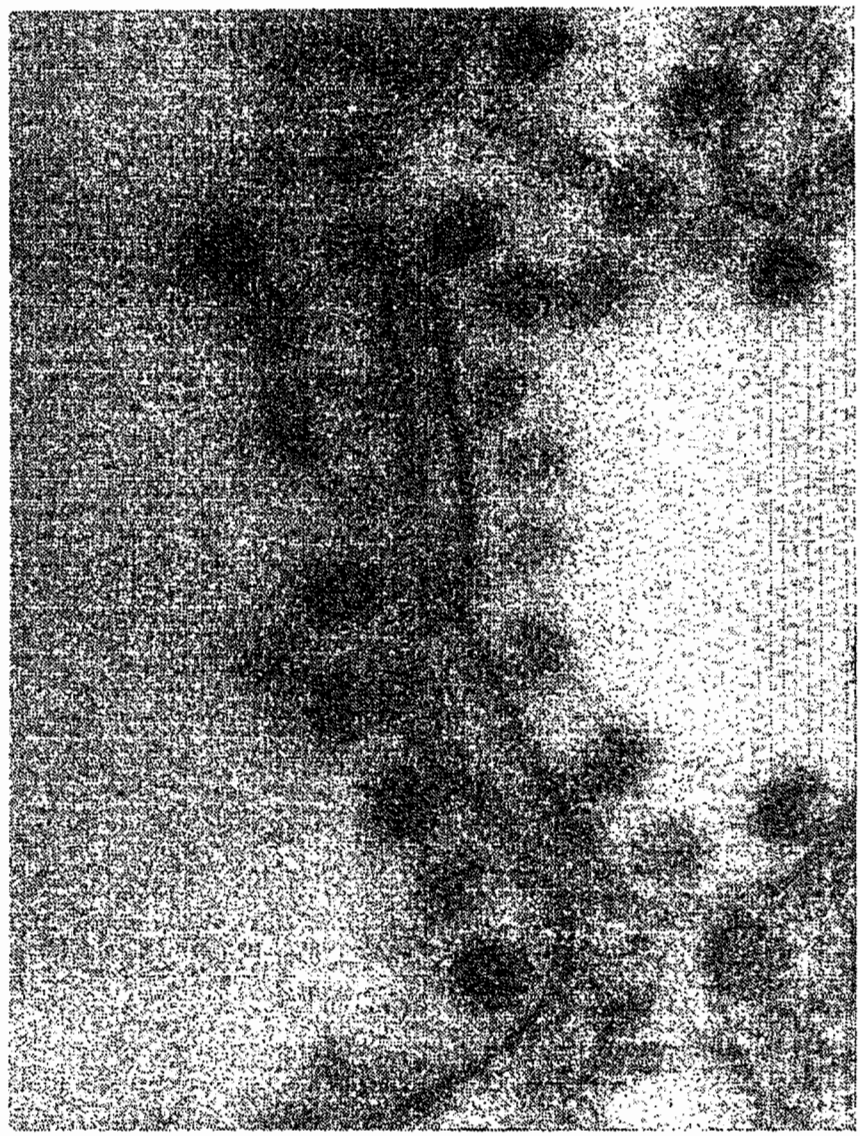


Figure 24D

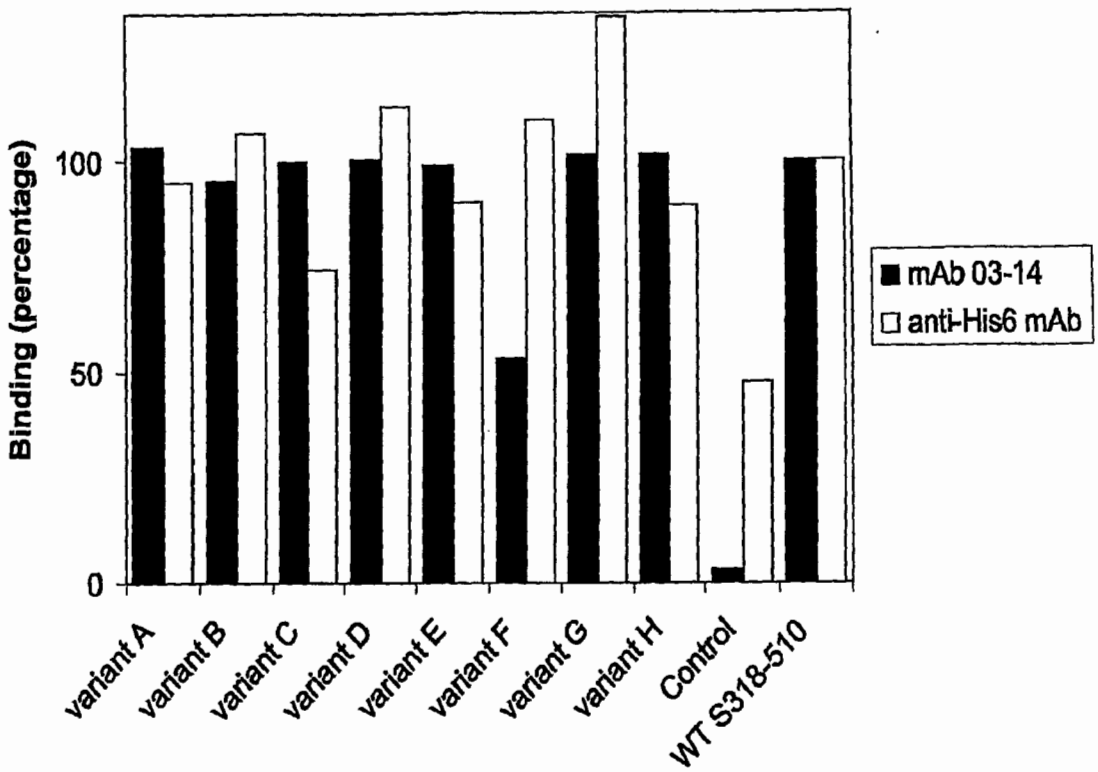

Binding (percentage)
100
50
0
variant A
variant B
variant C
variant D
variant E
variant F
variant G
variant H
Control
WT S318-510
mAb 03-14
anti-His6 mAb

Figure 25