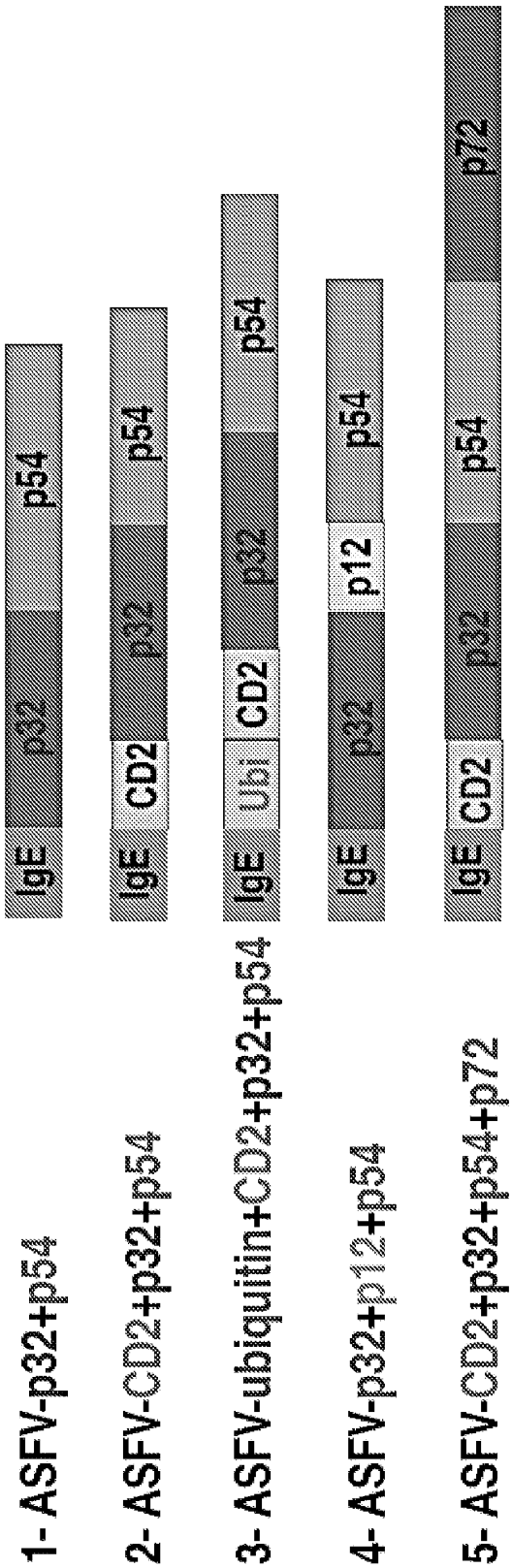
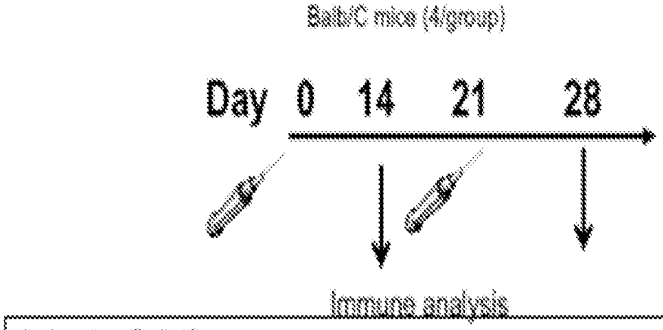

1- ASFV-p32+p54
IgE
p32
p54
2- ASFV-CD2+p32+p54
IgE
CD2
p32
p54
3- ASFV-ubiquitin+CD2+p32+p54
IgE
Ubi
CD2
p32
p54
4- ASFV-p32+p12+p54
IgE
p32
p12
p54
5- ASFV-CD2+p32+p54+p72
IgE
CD2
p32
p54
p72

Fig. 1



Animals –Balb/C
Devices – 3P
Immunization Schedule –ASFV-SEV Prime at day 0, boost at day 21, & 28 - immune analysis one-week post 3rd immunization.

Injection method – EP
Bleeding Schedule – Pre bleed (day 0) and at day 14, 21 & 28
Groups &Animals- 5 animals/group X 5 Groups

1. ASFV-p32+p54
2. ASFV-CD2-p32+p54
3. ASFV- ubiquitin+CD2-p32+p54
4. ASFV-p32+p12+p54
5. pMV101-Vector

Fig. 2

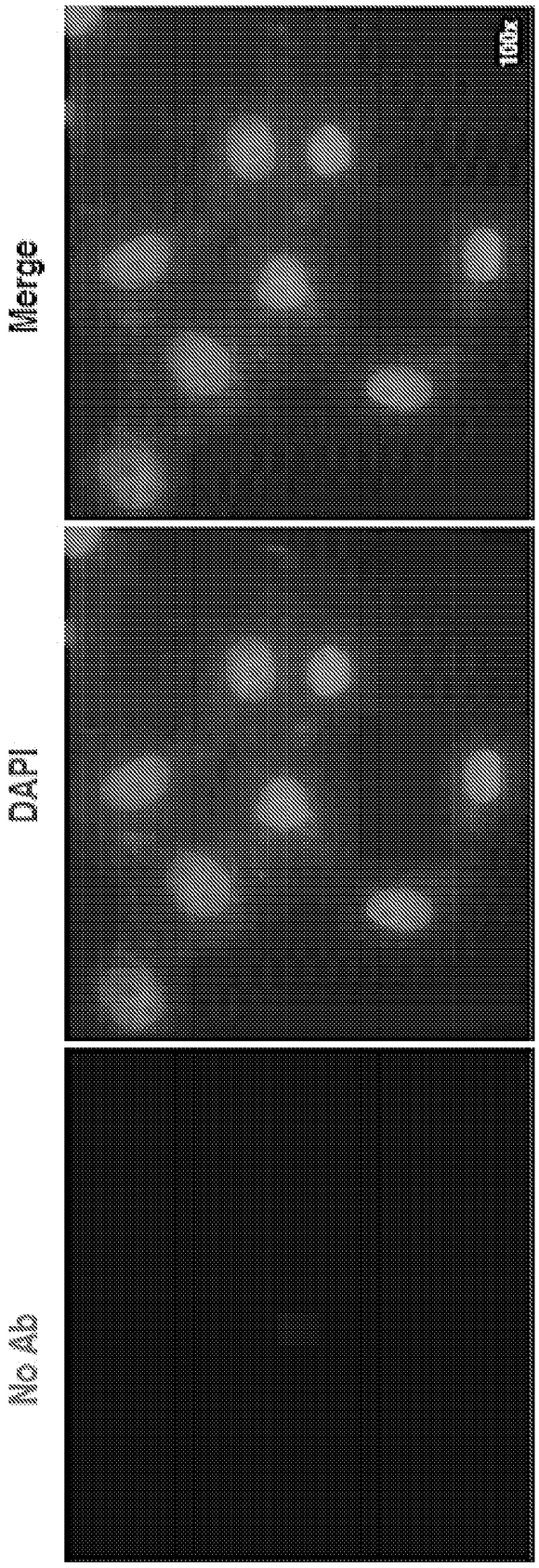

No Ab
DAPI
Merge
100x
Negative control pVax1 immune sera
Nucleus: DAPI (blue)
Ab: Alexa Fluor 488 (Green)

Fig. 3

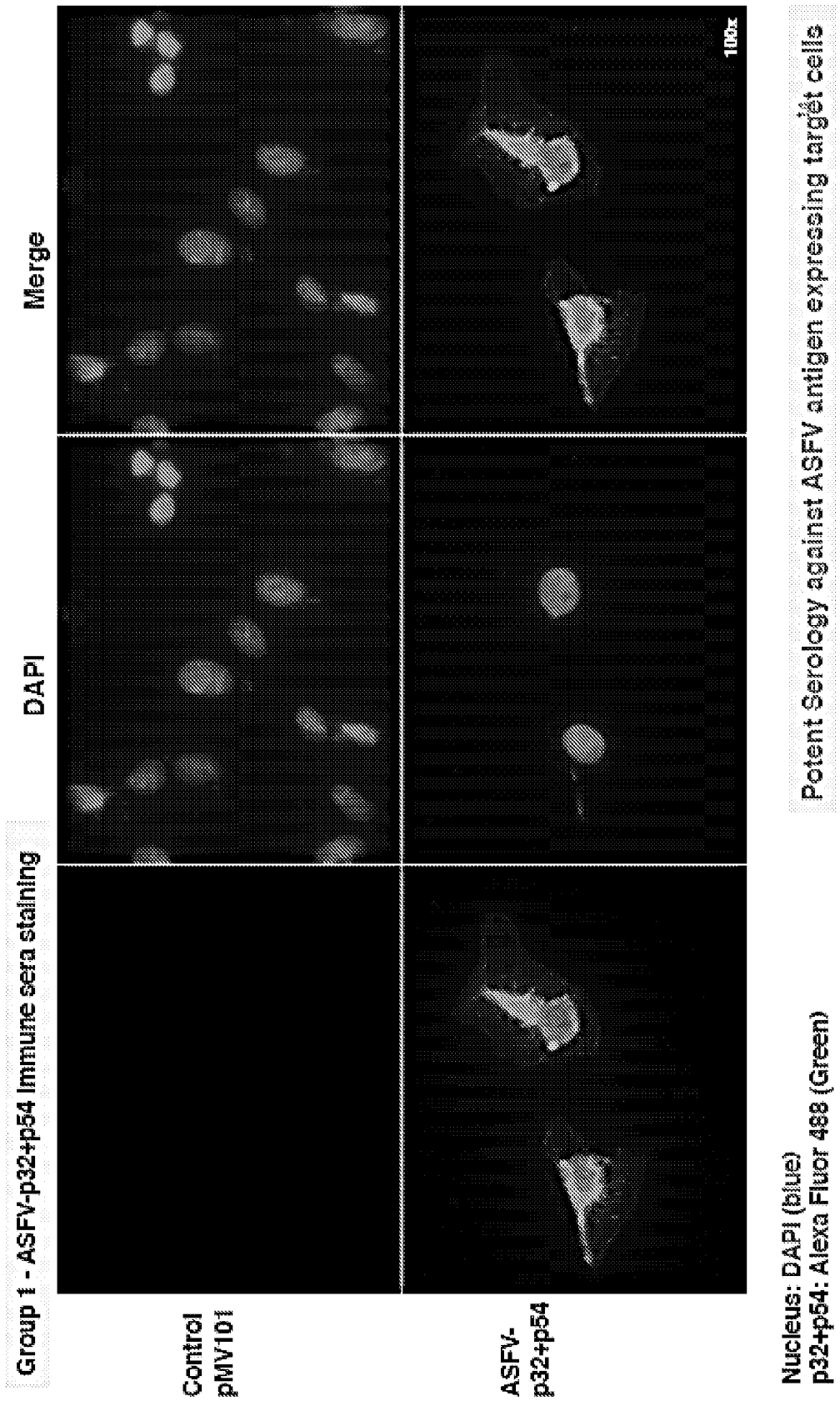

Group 1 - ASFV-p32+p54 Immune sera staining
DAPI
Merge
Control pMV101
ASFV-p32+p54
100x
Nucleus: DAPI (blue)
p32+p54: Alexa Fluor 488 (Green)
Potent Serology against ASFV antigen expressing target cells

Fig. 4

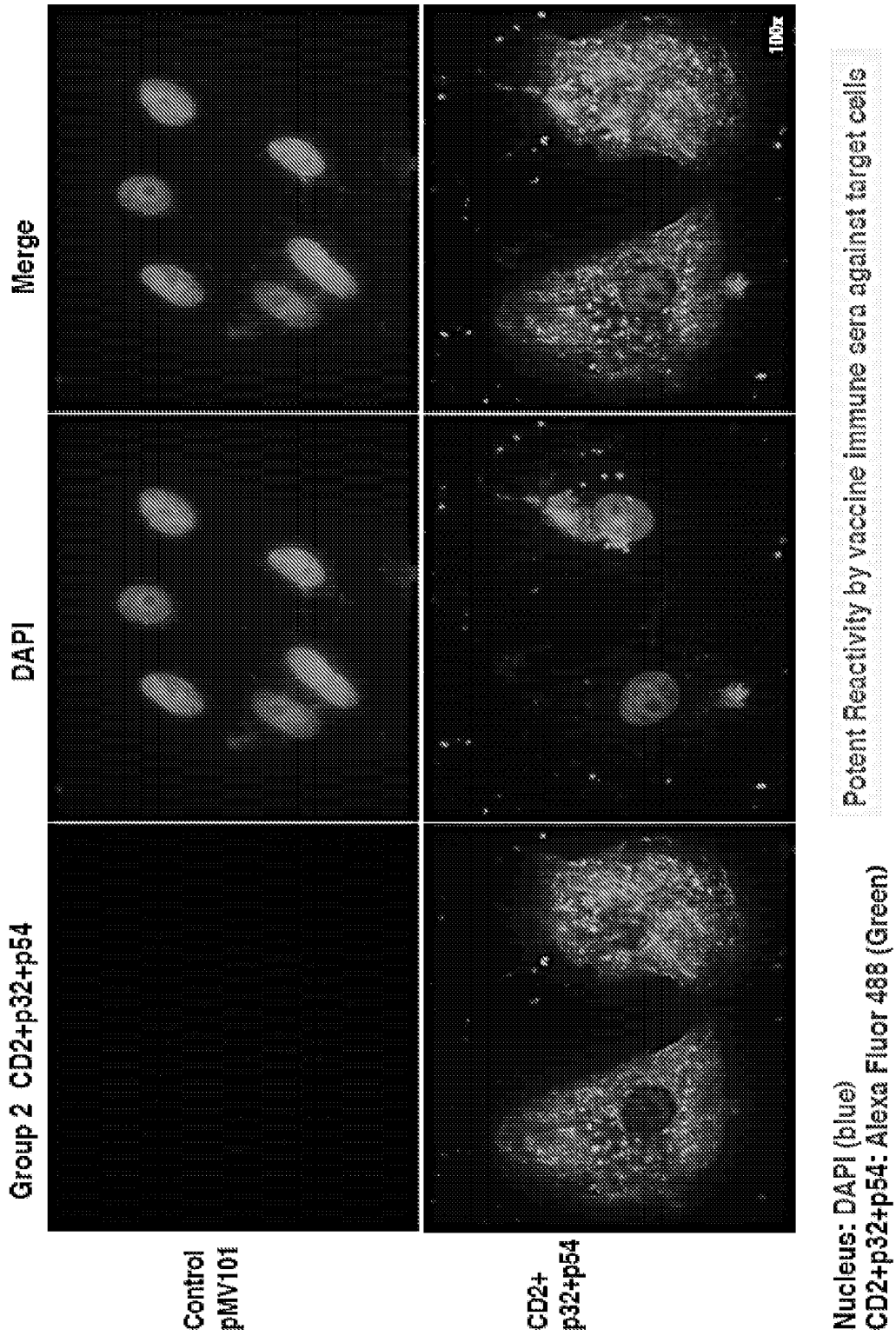

Group 2 CD2+p32+p54
DAPI
Merge
Control pMV101
CD2+ p32+p54
Nucleus: DAPI (blue)
CD2+p32+p54: Alexa Fluor 488 (Green)
Potent Reactivity by vaccine immune sera against target cells

Fig. 5

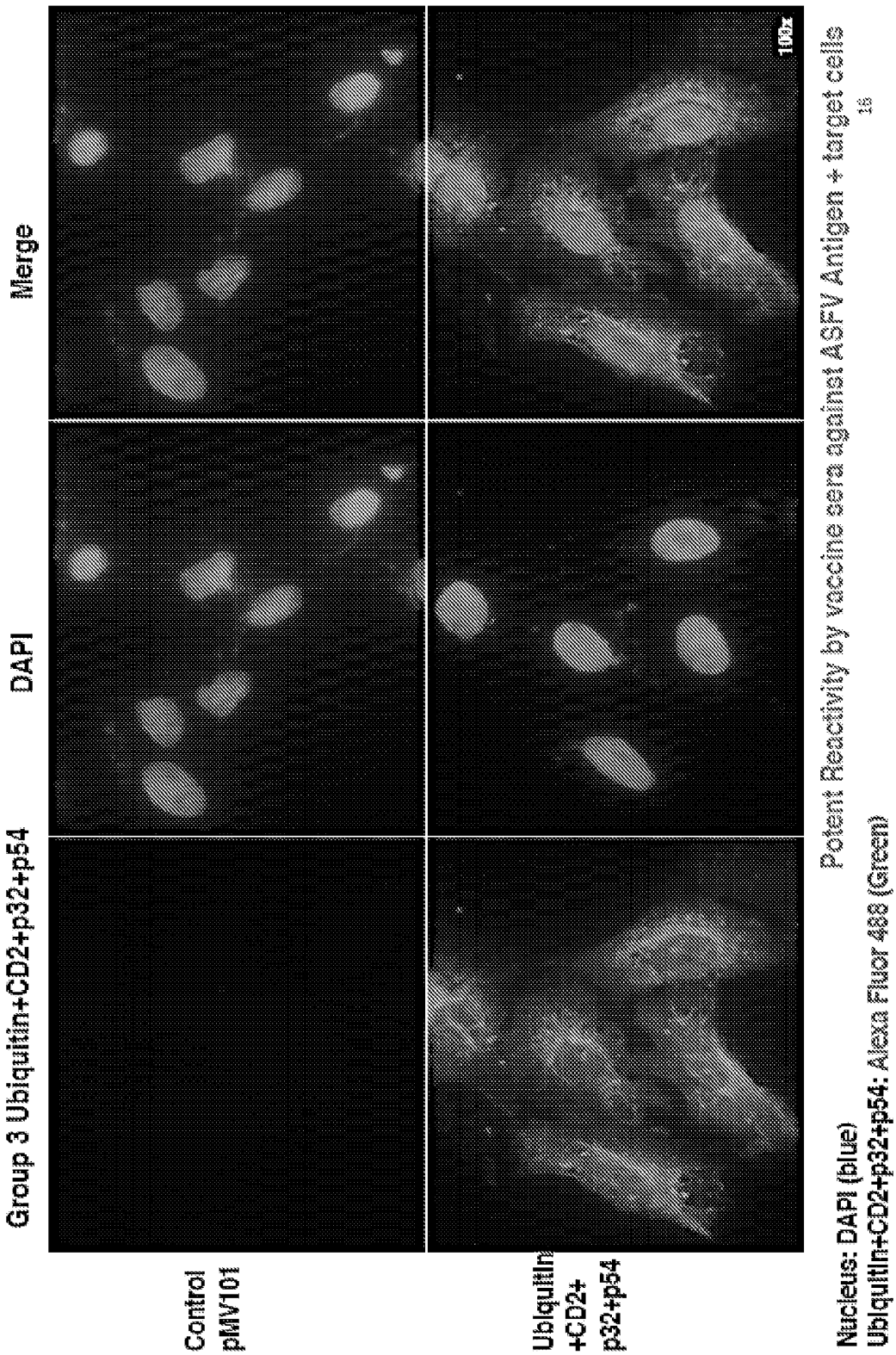

Group 3 Ubiquitin+CD2+p32+p54
DAPI
Merge
Control pMV101
Ubiquitin +CD2+ p32+p54
Potent Reactivity by vaccine sera against ASFV Antigen + target cells
16
Nucleus: DAPI (blue)
Ubiquitin+CD2+p32+p54: Alexa Fluor 488 (Green)

Fig. 6

Vaccine Groups
1- ASFV-p32+p54
2- ASFV-CD2-p32+p54
3- ASFV-ubiquitin+CD2-p32+p54
4- ASFV-p32+p12+p54
Day 0 14 21 28
Immune analysis
Animals –Balb/C
Devices – 3P
Immunization Schedule –ASFV-Synthetic enhanced vaccines
Prime at day 0, boost at day 21, & 28 - immune analysis one-week post 3rd immunization.
Injection method – 3P- EP
Bleeding Schedule – Pre bleed (day 0) and at day 14, 21 & 28
Balb/C mice (8-10/group)

Fig. 7

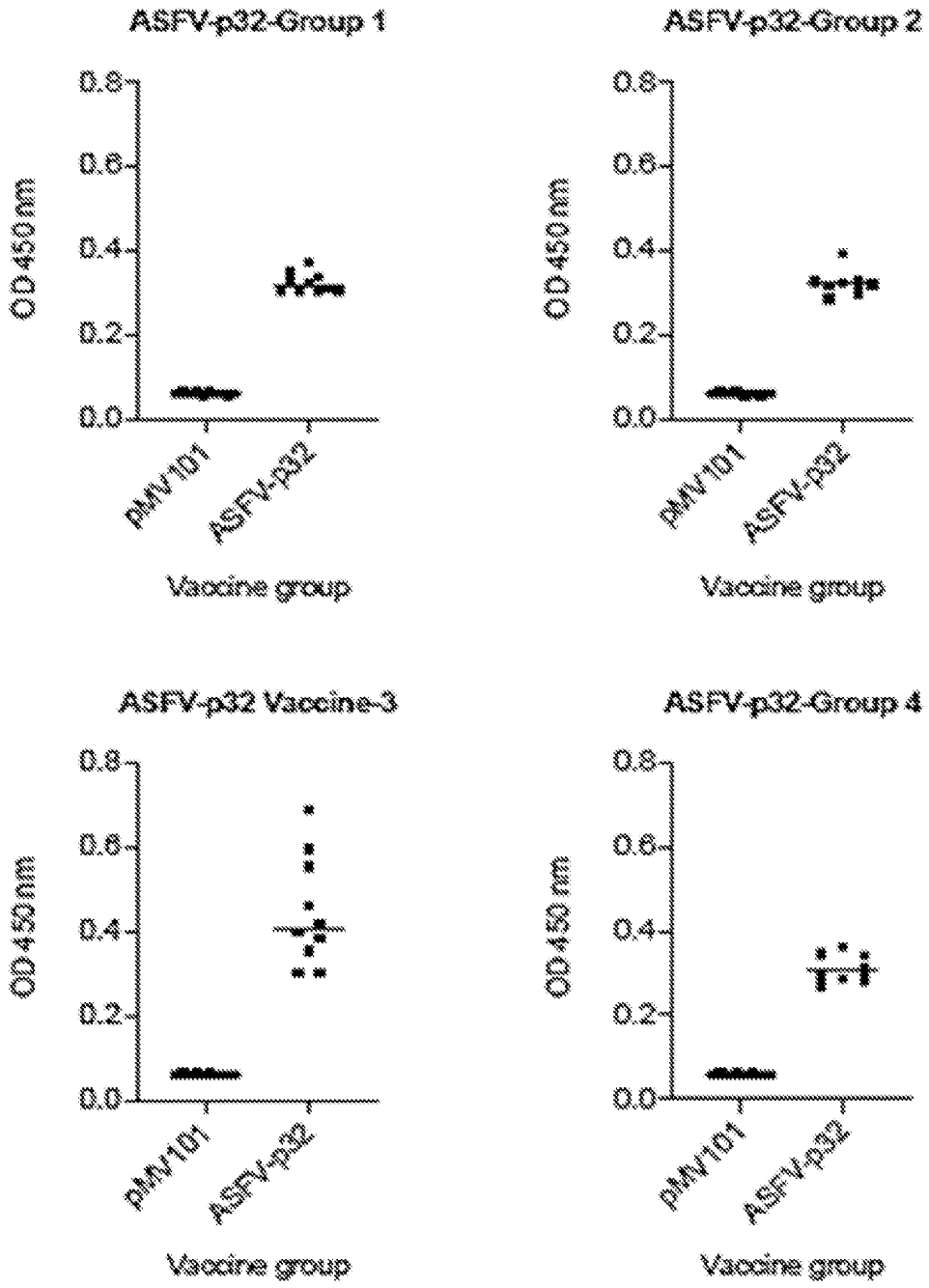

ASFV-p32-Group 1
OD 450 nm
0.8
0.6
0.4
0.2
0.0
pMV101
ASFV-p32
Vaccine group
ASFV-p32-Group 2
OD 450 nm
0.8
0.6
0.4
0.2
0.0
pMV101
ASFV-p32
Vaccine group
ASFV-p32 Vaccine-3
OD 450 nm
0.8
0.6
0.4
0.2
0.0
pMV101
ASFV-p32
Vaccine group
ASFV-p32-Group 4
OD 450 nm
0.8
0.6
0.4
0.2
0.0
pMV101
ASFV-p32
Vaccine group

Fig. 8

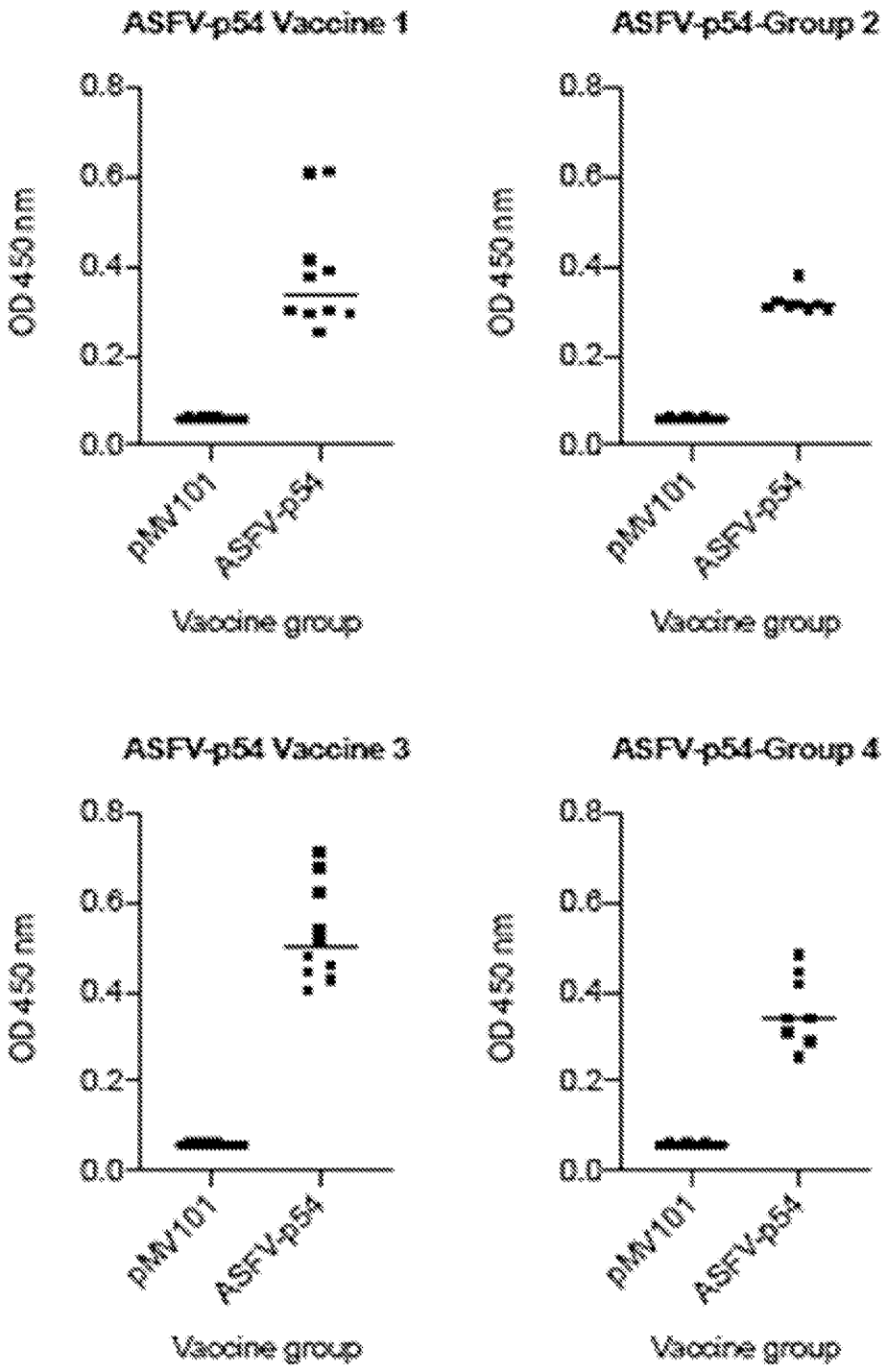

ASFV-p54 Vaccine 1
ASFV-p54-Group 2
ASFV-p54 Vaccine 3
ASFV-p54-Group 4
OD 450 nm
0.0
0.2
0.4
0.6
0.8
pMN'101
ASFV-p54
Vaccine group

Fig. 9

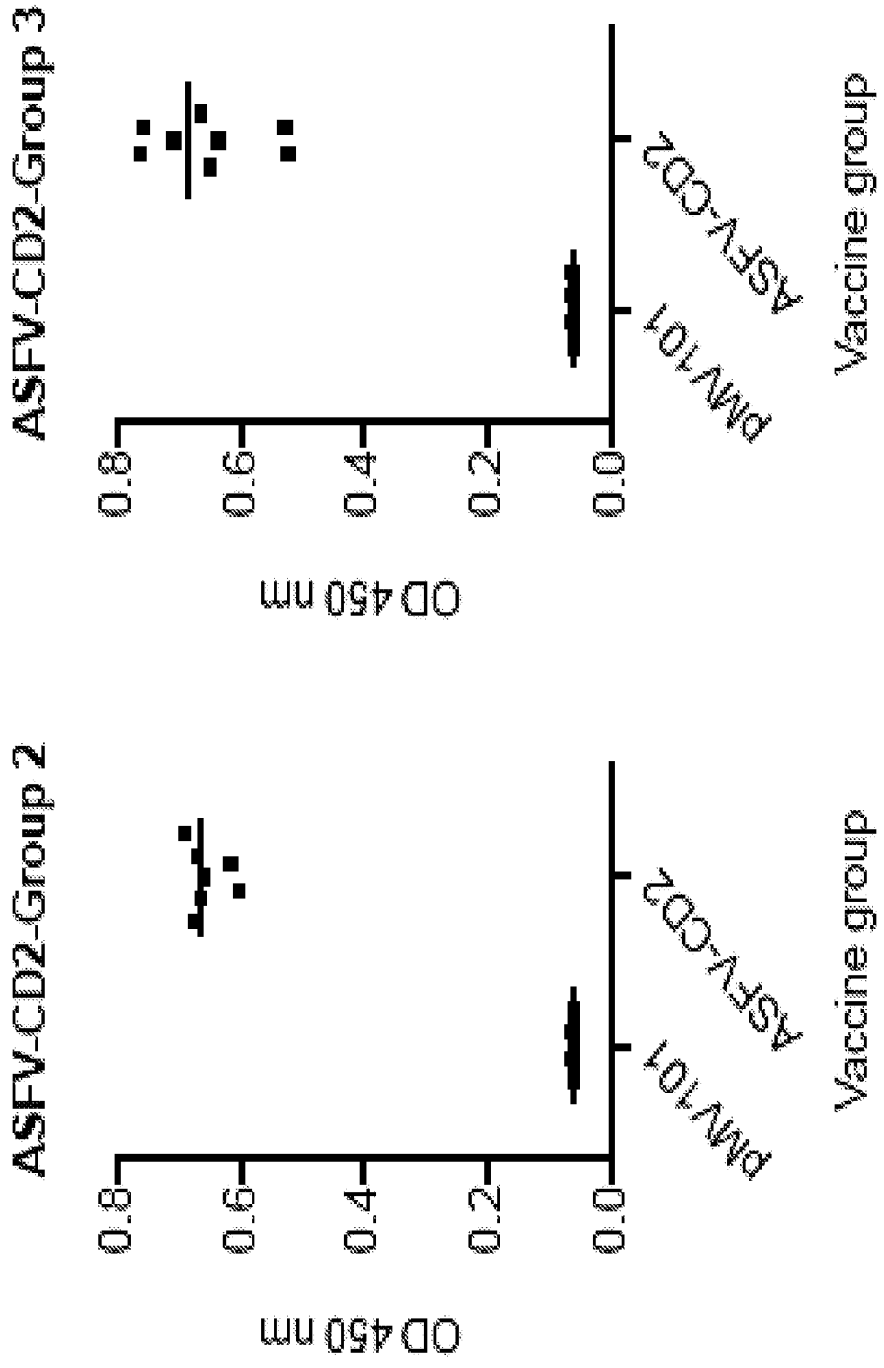

ASFV-CD2-Group 3
OD 450 nm
0.0
0.2
0.4
0.6
0.8
PMV/01
ASFV-CD2
Vaccine group
ASFV-CD2-Group 2
OD 450 nm
0.0
0.2
0.4
0.6
0.8
PMV/01
ASFV-CD2
Vaccine group

Fig. 10

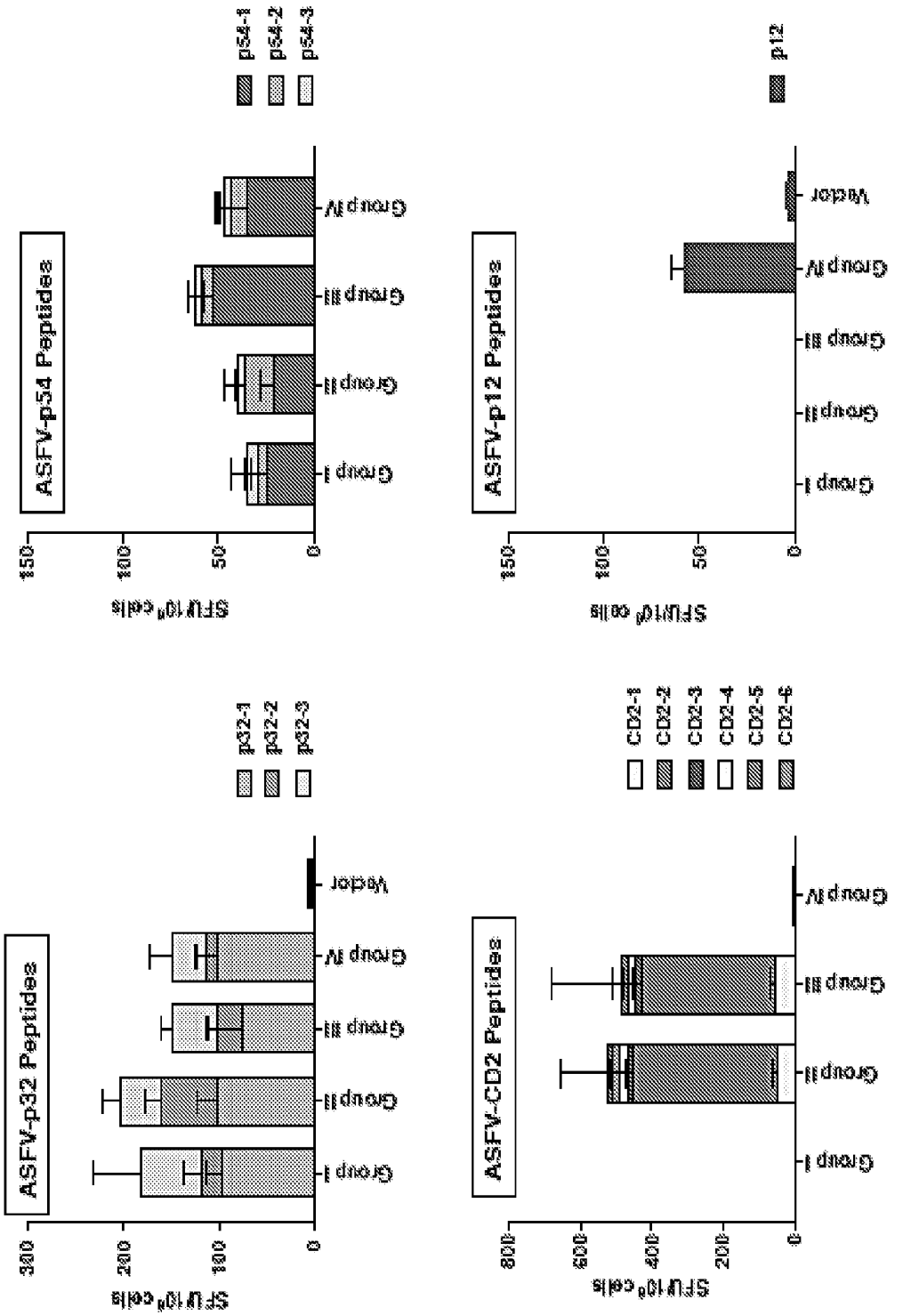

ASFV-p54 Peptides
p54-1
p54-2
p54-3
SFU/10^6 cells
150
100
50
0
Group I
Group II
Group III
Group IV
ASFV-p12 Peptides
p12
Vector
ASFV-p32 Peptides
p32-1
p32-2
p32-3
300
200
100
ASFV-CD2 Peptides
CD2-1
CD2-2
CD2-3
CD2-4
CD2-5
CD2-6
800
600
400
200

Fig. 11

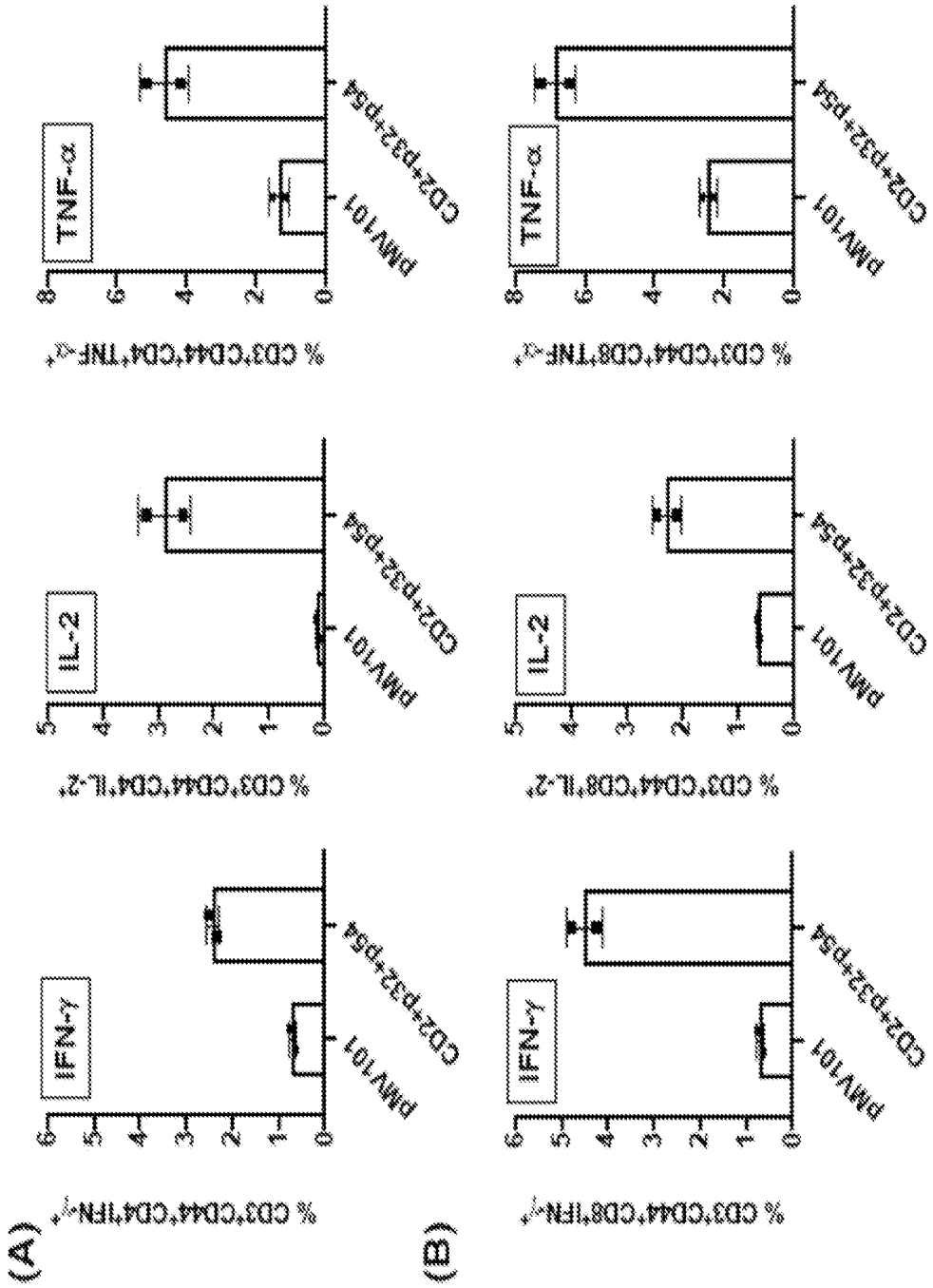


Fig. 12A – Fig. 12B

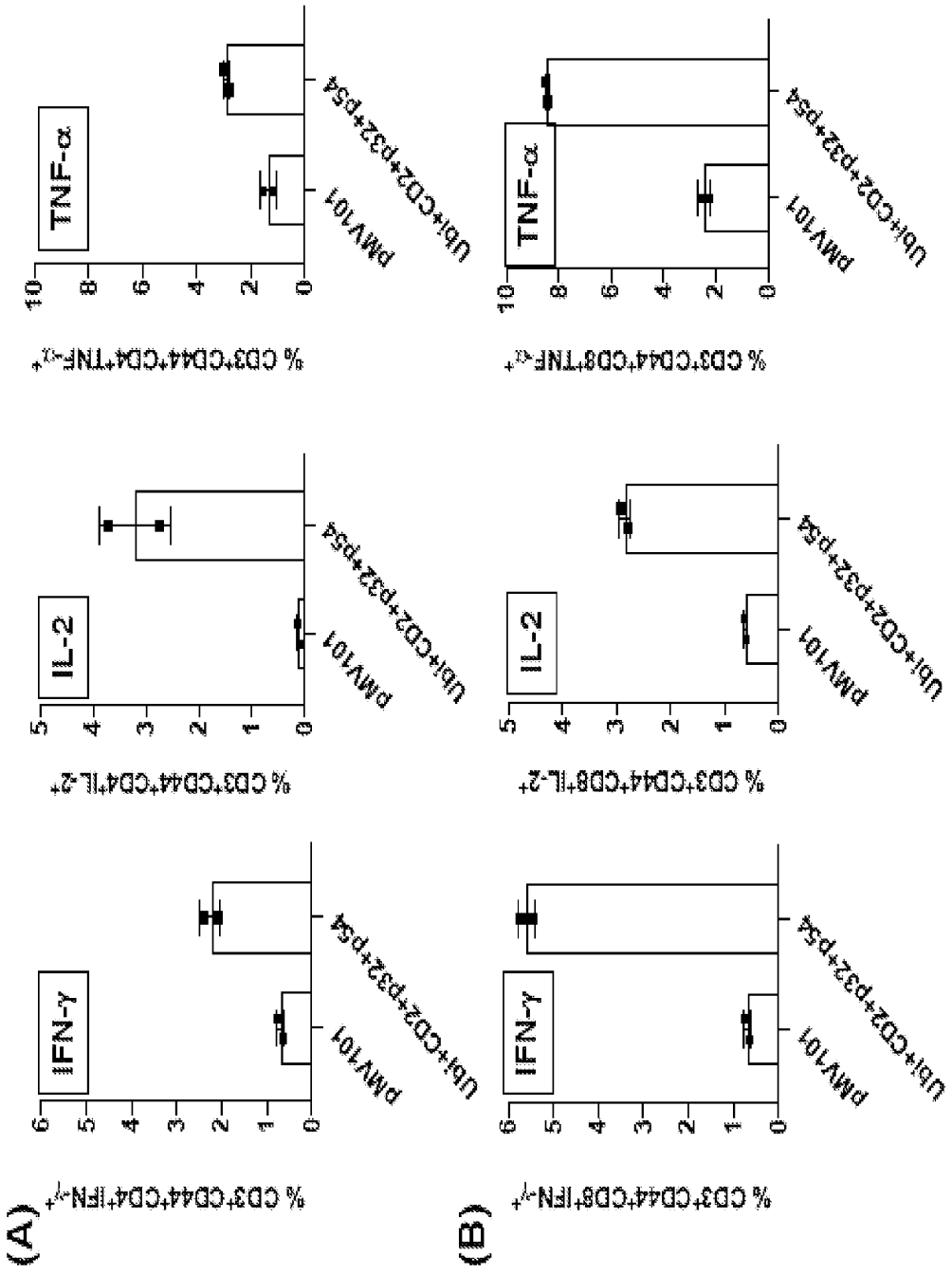


Fig. 13A – Fig. 13B