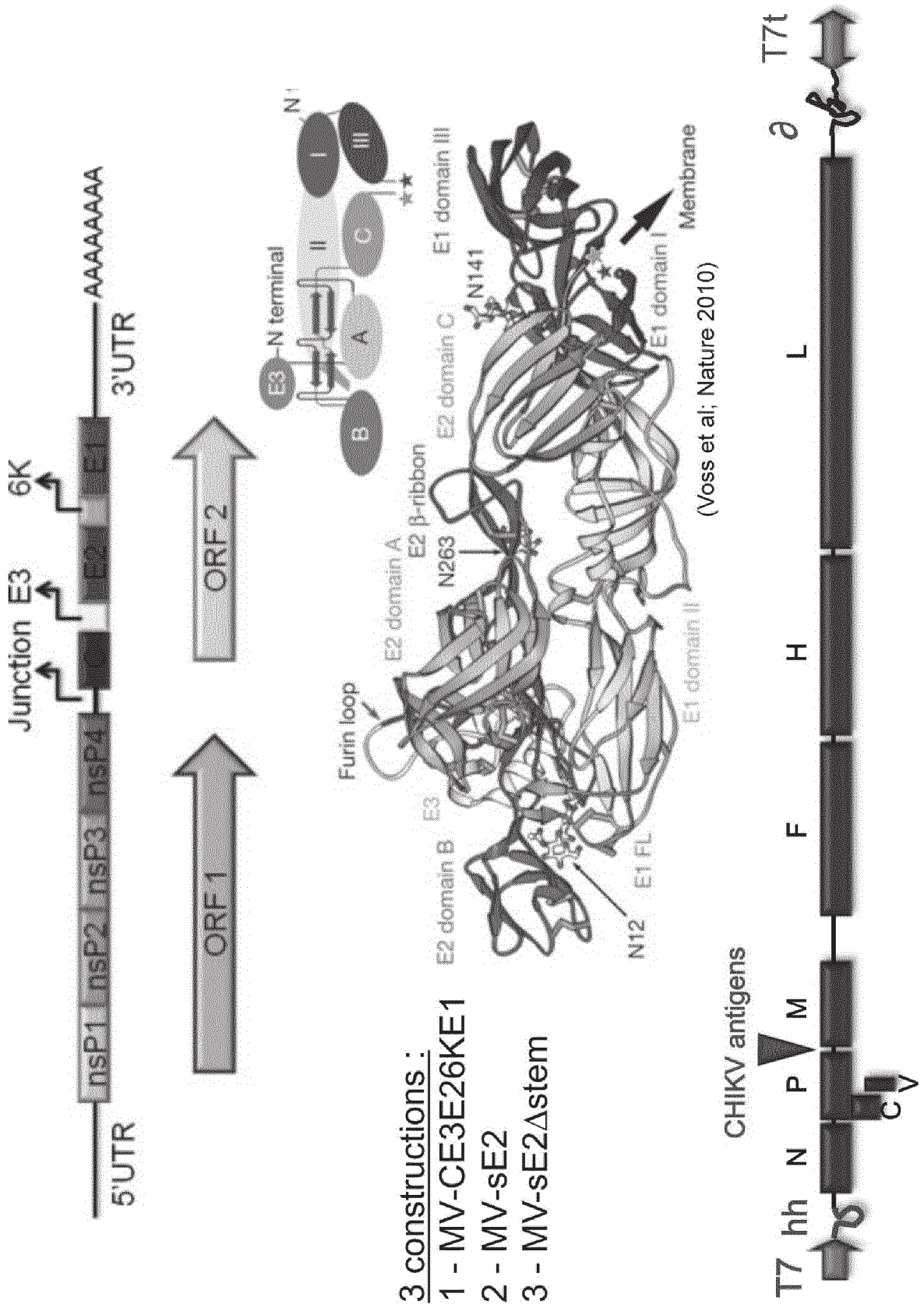

5'UTR
nsP1
nsP2
nsP3
nsP4
Junction
E3
E2
6K
E1
AAAAAAAA
3'UTR
ORF 1
ORF 2
N terminal
E3
E2 domain A
E2 β-ribbon
E2 domain C
E1 domain III
E1 domain I
Membrane
E1 domain II
E1 FL
N12
N263
N141
Furin loop
E2 domain B
E3
(Voss et al; Nature 2010)
3 constructions :
1 - MV-CE3E26KE1
2 - MV-sE2
3 - MV-sE2Δstem
T7
hh
N
P
M
F
H
L
∂
T7t
CHIKV antigens
C
V

FIGURE 1A

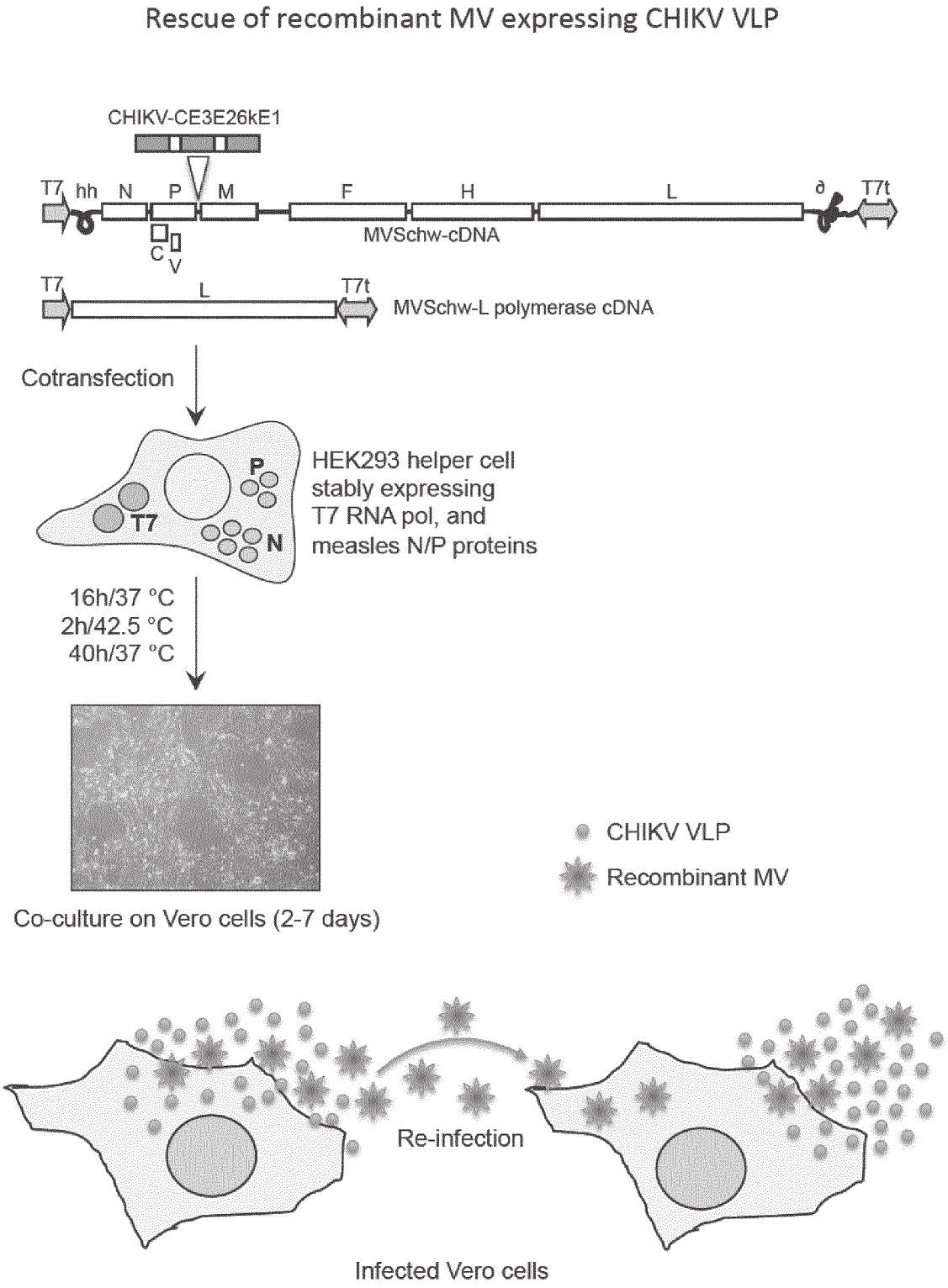

Rescue of recombinant MV expressing CHIKV VLP
CHIKV-CE3E26kE1
T7
hh
N
P
M
F
H
L
∂
T7t
MVSchw-cDNA
C
V
T7
L
T7t
MVSchw-L polymerase cDNA
Cotransfection
P
T7
N
HEK293 helper cell
stably expressing
T7 RNA pol, and
measles N/P proteins
16h/37 °C
2h/42.5 °C
40h/37 °C
CHIKV VLP
Recombinant MV
Co-culture on Vero cells (2-7 days)
Re-infection
Infected Vero cells

FIGURE 1B

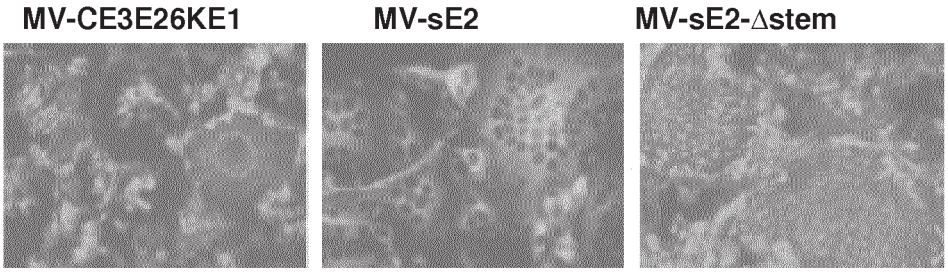


FIGURE 2

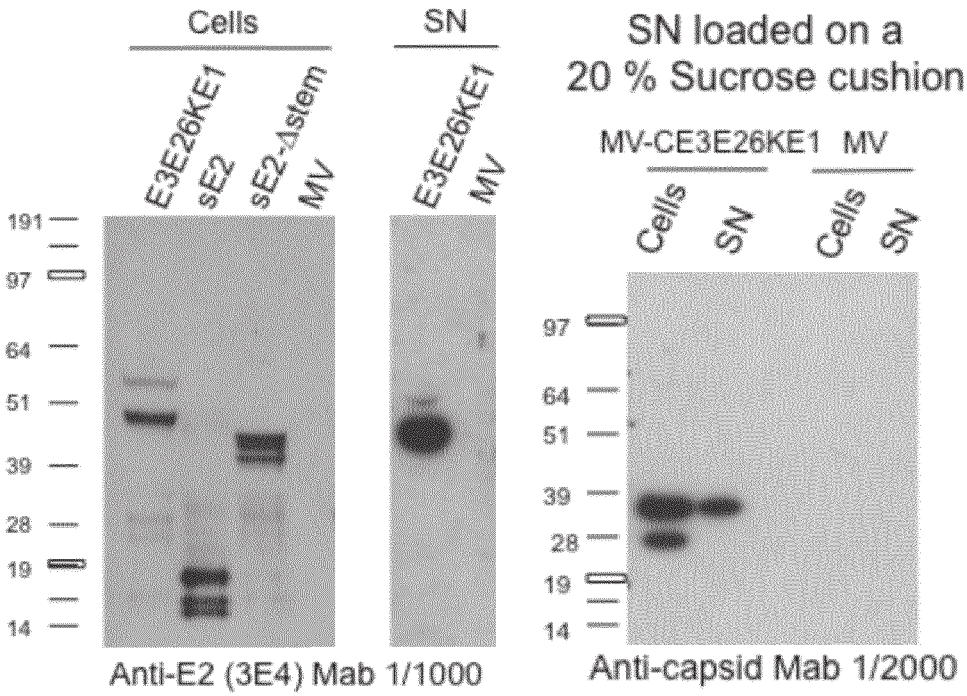


FIGURE 3

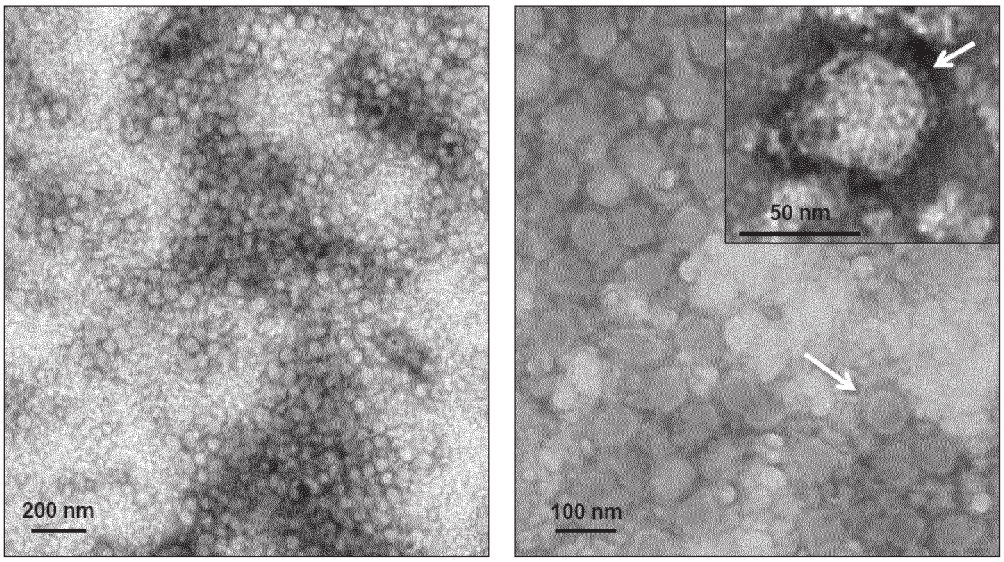


FIGURE 4

SLAIPVMCLLANTTFPCSQDNFNVYKATRPYLAHCPDCGEGHSCHSPVAL
ERIRNEATDGTLKIQVSLQIGIKTDDSHDWTKLRYMDNHMPADAERAGLF
VRTSAPCTITGTMGHFILARCPKGETLTVGFTDSRKISHSCTHPFHHDPP
VIGRE*

FIGURE 5

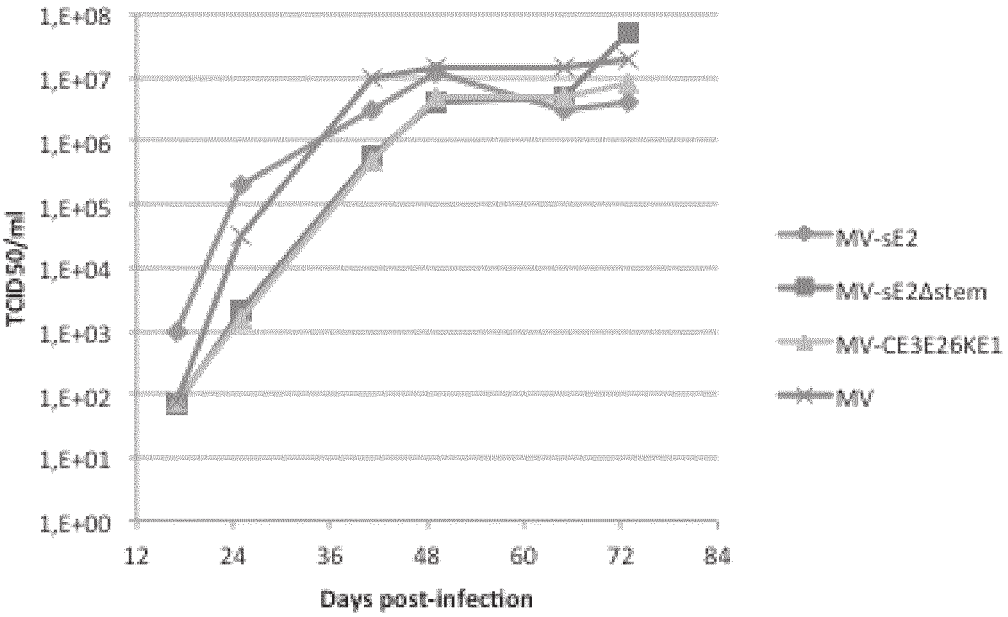


FIGURE 6

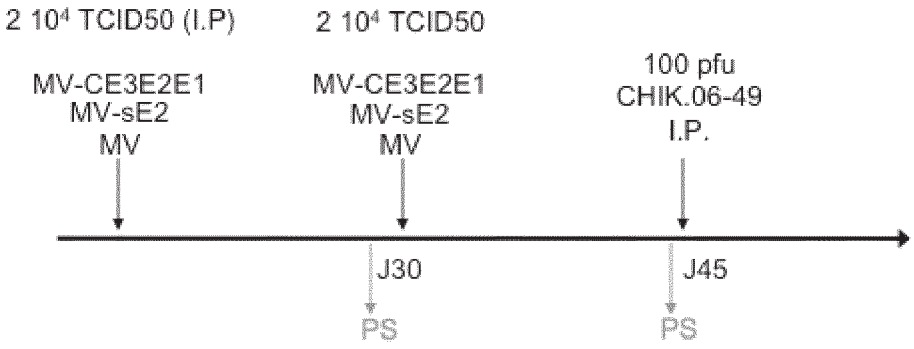


FIGURE 7

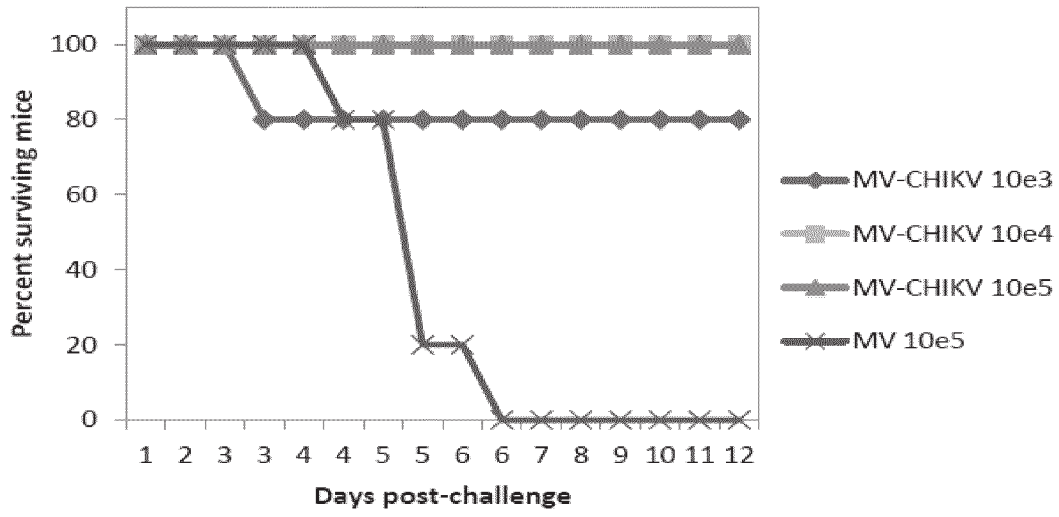


FIGURE 8

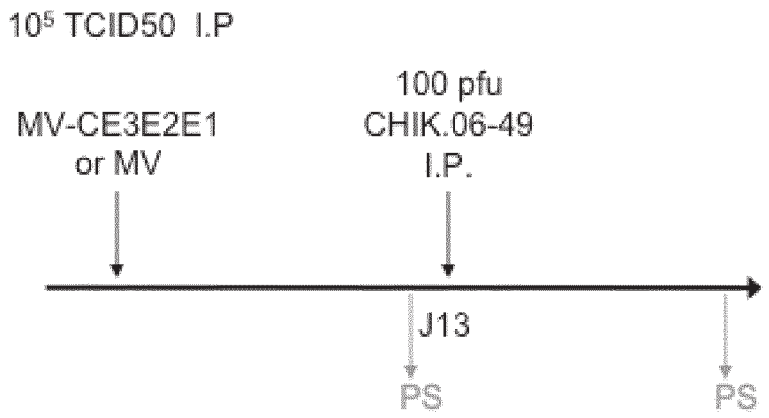


FIGURE 9

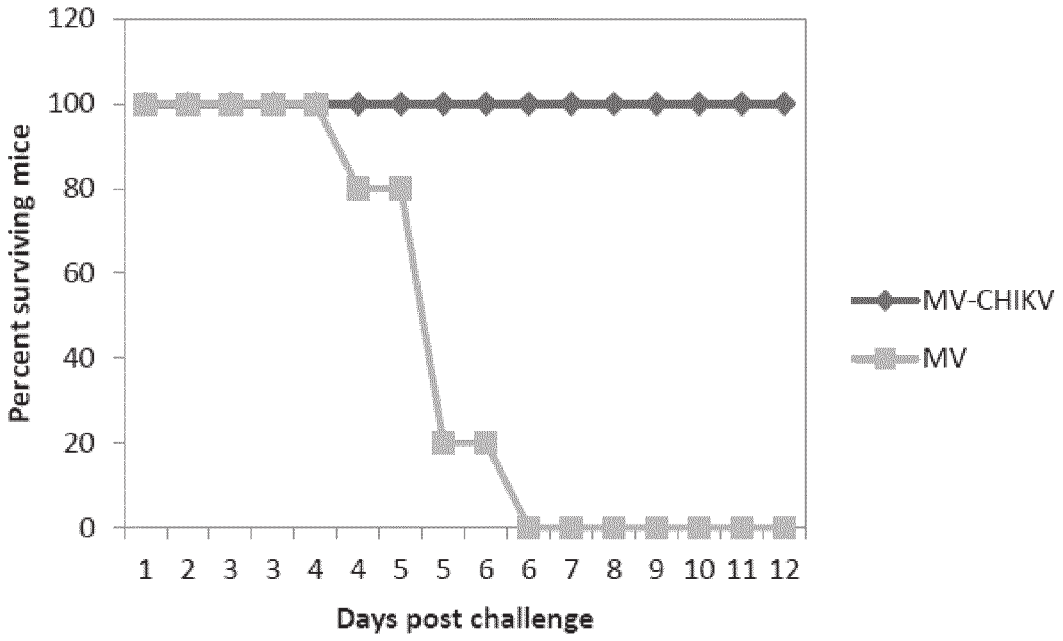
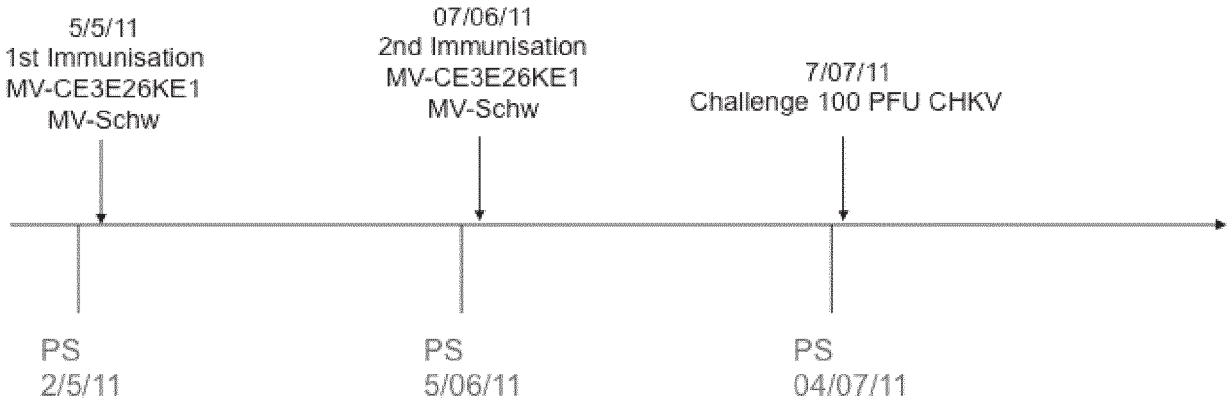


FIGURE 10



MV-CE3E26KE1 :
Group 1 : 6 mice 10^3 TCID/mice
Group 2 : 6 mice 10^4 TCID/mice
Group 3 : 6 mice 10^5 TCID/mice

MV-Schw :
Group 4 : 6 mice 10^5 TCID/mice

FIGURE 11

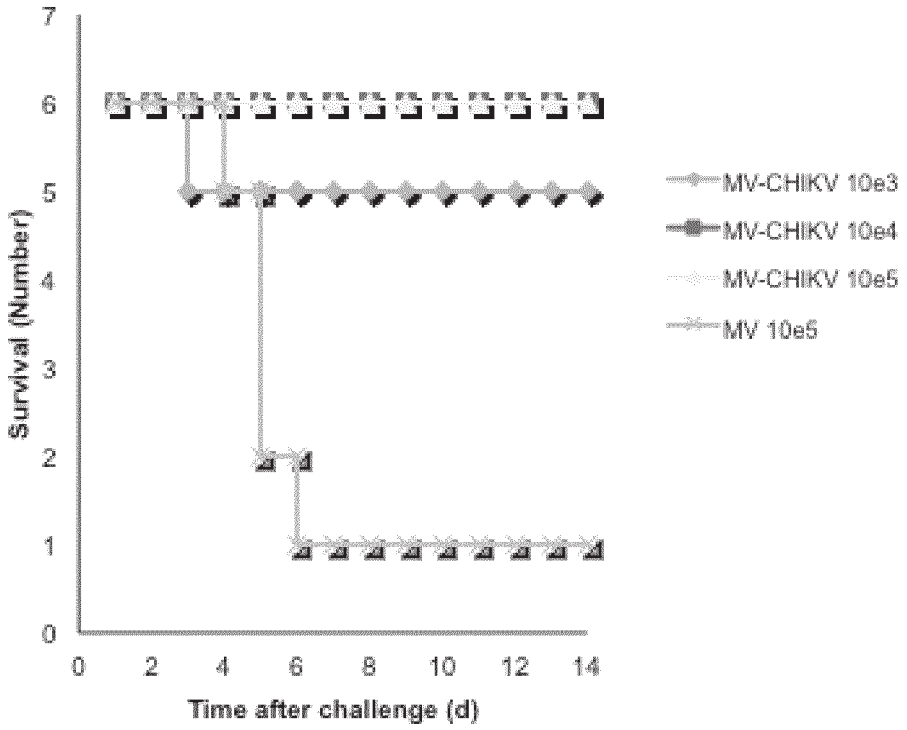


FIGURE 12

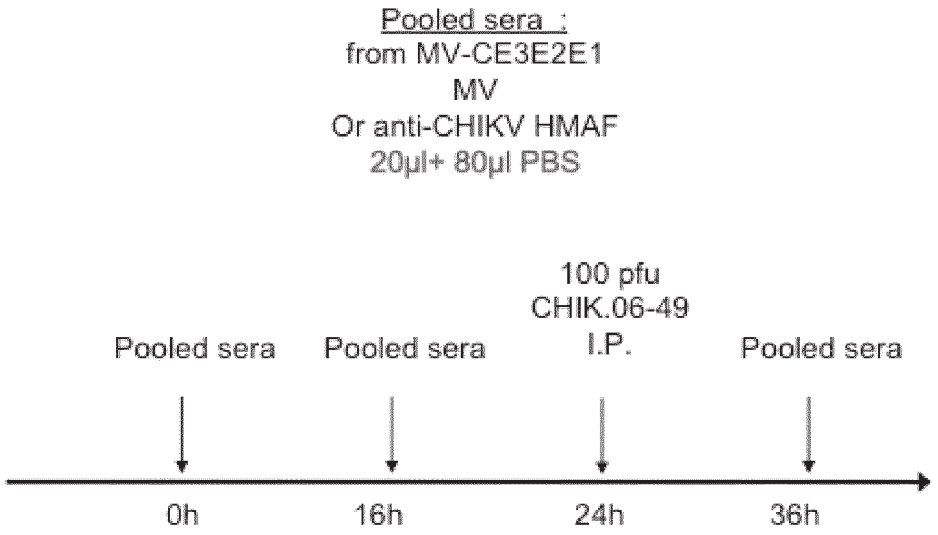


FIGURE 13

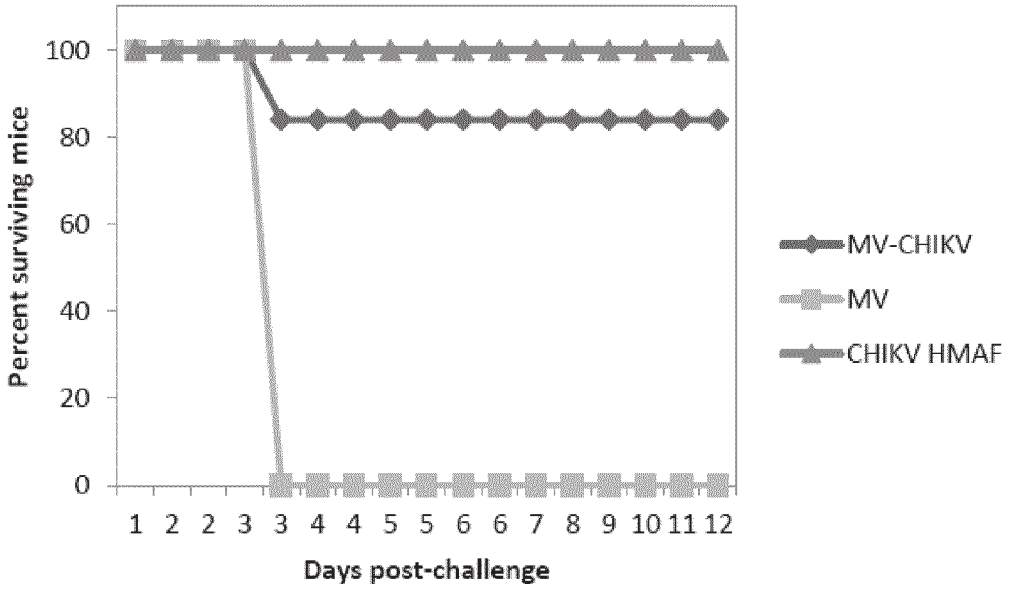


FIGURE 14

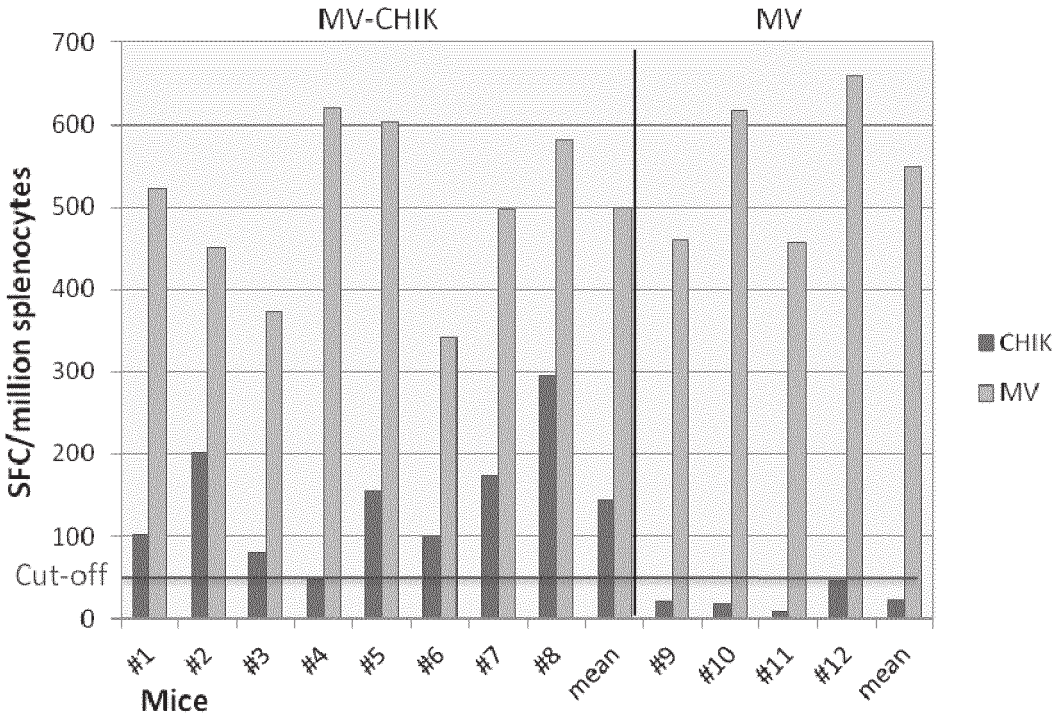

MV-CHIK
MV
700
600
500
400
300
200
100
Cut-off
0
SFC/million splenocytes
#1
#2
#3
#4
#5
#6
#7
#8
mean
#9
#10
#11
#12
mean
Mice
CHIK
MV

FIGURE 15

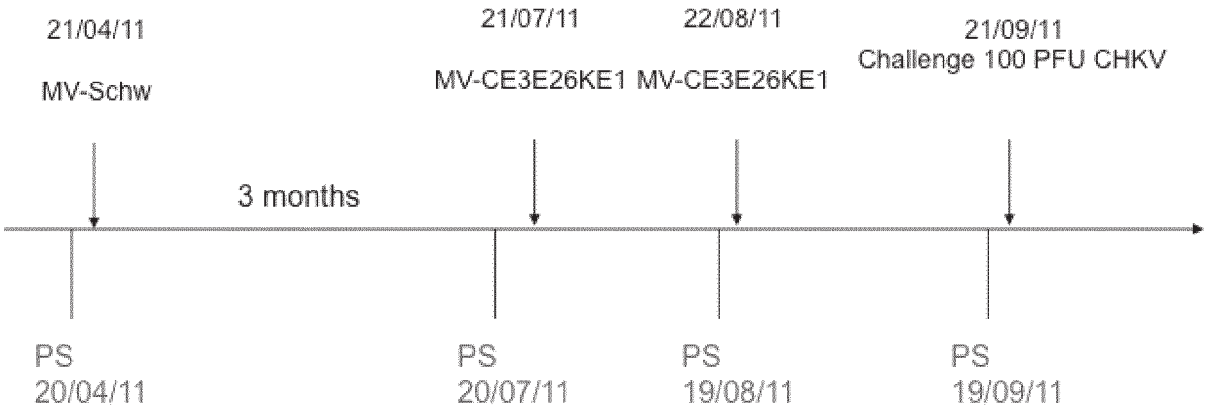


FIGURE 16

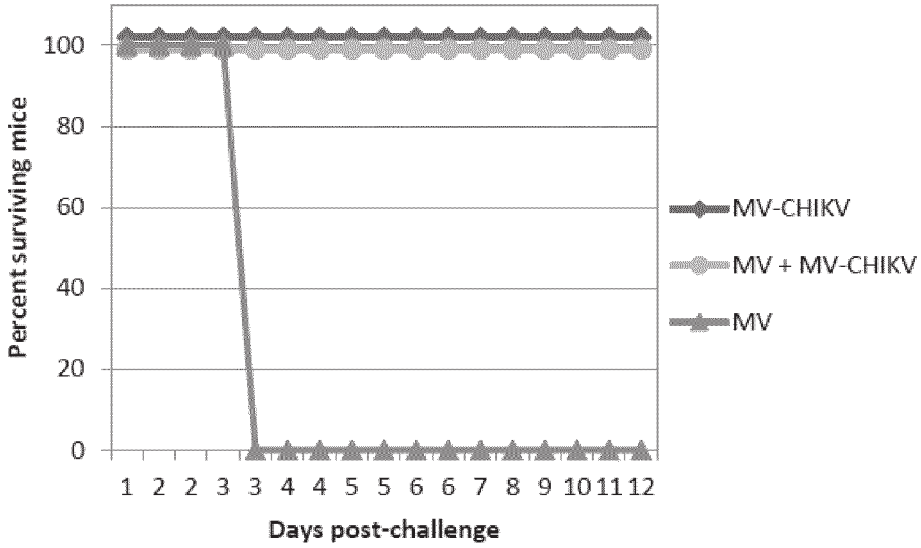


FIGURE 17

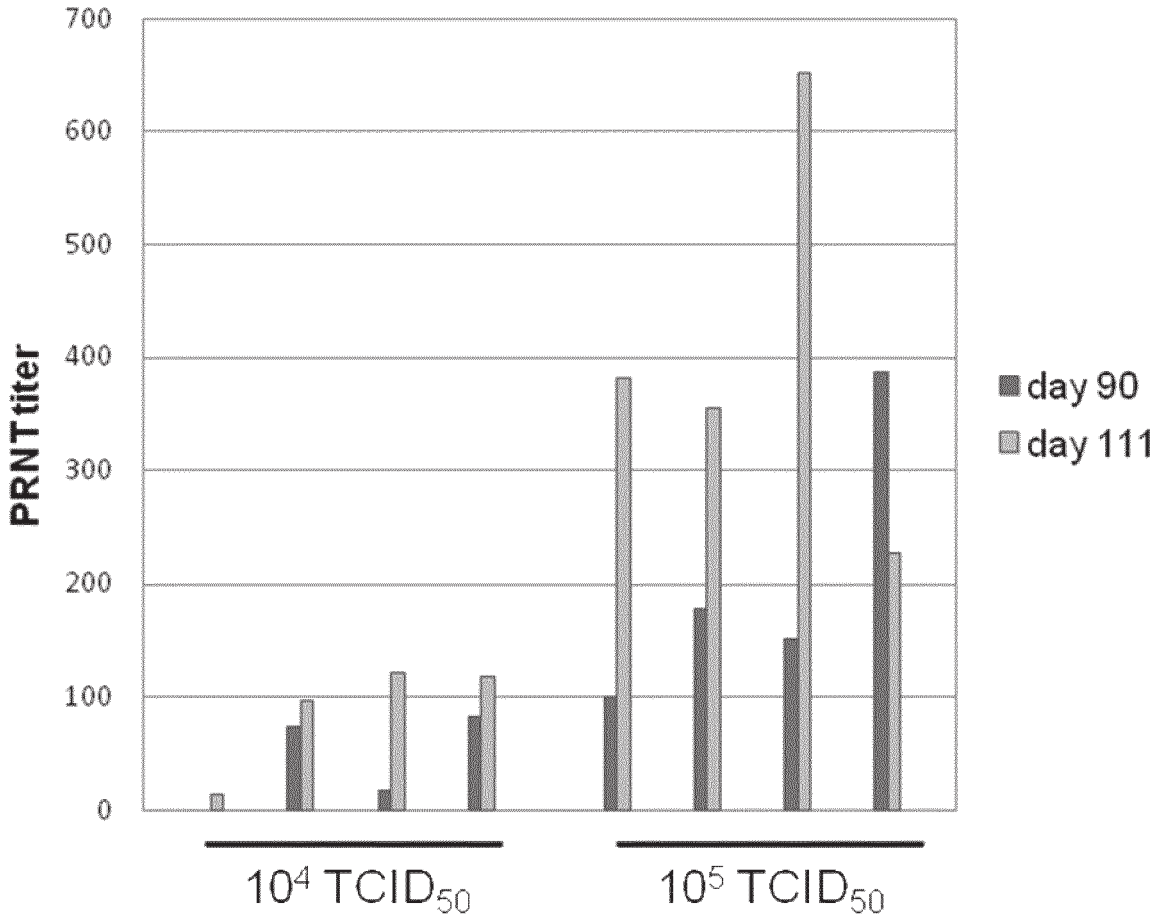

700
600
500
400
300
200
100
0
PRNT titer
day 90
day 111
10^4 TCID50
10^5 TCID50

FIGURE 18