FIGURE 1

Integrated iciU83A from iciHHV-6A (KP128710.1)integrated at 17p13.3; features noted

```
atg tcc att cgg ctt ttt att gg(t ttt ttt t)at acg gca tat att ggt atg gct atc gga primer pairs (polyT)
 M   S   I   R   L   F   I   G   F   F   Y   T   A   Y   I   G   M   A   I   G
ttt ata tgt agt tcc ccc gat gcg gag ctg ttt tcc gaa aaa tca cgt att tcg tct tct SNP g-t/M-I no int init
 F   I   C   S   S   P   D   A   E   L   F   S   E   K   S   R   I   S   S   S  to mutate spl don cct-cca
gtc ttg tta gga tgt ttg ttg tgt tgc atg gat tgg tcc gct gcc gta c(ct ggg aaa aca to mutate DR gta-gtg
 V   L   L   G   C   L   L   C   C   M   D   W   S   A   A   V   P   G   K   T   probe primer
gag cct ttt aga aaa ctt ttt gat gca atc atg att aaa aag cta aaa agt tgt tct gct  (intron) encodes GAG binding
 E   P   F   R   K   L   F   D   A   I   M   I   K   K   L   K   S   C   S   A   to mutate ccg-cca pro
gct tac) ccg tct ggt ttg gag cag ggc tcg atg tgt gat atg gca gat gca tcg ccg aca to mutate spl ac tac-tat tyr
 A   Y   P   S   G   L   E   Q   G   S   M   C   D   M   A   D   A   S   P   T   SNP a-g/D-G in splice stop
agt ctt gaa tta gga ttg tcg aaa tta gac aaa gaa tca tga
 S   L   E   L   G   L   S   K   L   D   K   E   S   -
```

FIGURE 2

Spliced integrated iciU83A-N from iciHHV-6A with features noted

```
atg tcc att cgg ctt ttt att ggt ttt ttt tat acg gca tat att ggt atg gct atc gga
 M   S   I   R   L   F   I   G   F   F   Y   T   A   Y   I   G   M   A   I   G
ttt ata tgt agt tcc ccc gat gcg gag ctg ttt tcc gaa aaa tca cgt att tcg tct tct
 F   I   C   S   S   P   D   A   E   L   F   S   E   K   S   R   I   S   S   S  DR- TACC spliced
gtc ttg tta gga tgt ttg ttg tgt tgc atg gat tgg tcc gct gcc gta ccc gtc tgg ttt splice f/s
 V   L   L   G   C   L   L   C   C   M   D   W   S   A   A   V   P   V   W   F  SNP tga-tgg/*-W
gga gca ggg ctc gat gtg tga tat ggc aga tgc atc gcc gac aag tct tga att agg att gains 8aa to
 G   A   G   L   D   V   *                                                     next stop tga
gtc gaa att aga caa aga atc atg a
```

Gene without proximal splice site SNP showing splice to stop codon:

```
...gta ccc gtc tga ttt ...
... V   P   V   *     ...
```

FIGURE 3

A

Integrated iciHHV-6A iciU83A diagnostic primer pair and probe or primer pair

```
atg tcc att cgg ctt ttt att ggt ttt ttt tat acg gca tat att ggt atg gct atc gga
 M   S   I   R   L   F   I   G   F   F   Y   T   A   Y   I   G   M   A   I   G
ttt ata tgt agt tcc ccc gat gcg gag ctg ttt tcc gaa aaa tca cgt att tcg tct tct
 F   I   C   S   S   P   D   A   E   L   F   S   E   K   S   R   I   S   S   S
gtc ttg tta gga tgt ttg ttg tgt tgc atg gat tgg tcc gct gcc gta c(ct ggg aaa aca (intron)
 V   L   L   G   C   L   L   C   C   M   D   W   S   A   A   V   P   G   K   T
gag cct ttt aga aaa ctt ttt gat gca atc atg att aaa aag cta aaa agt tgt tct gct  probe
 E   P   F   R   K   L   F   D   A   I   M   I   K   K   L   K   S   C   S   A
gct tac) ccg tct ggt ttg gag cag ggc tcg atg tgt gat atg gca gat gca tcg ccg aca 3'end SNP
 A   Y   P   S   G   L   E   Q   G   S   M   C   D   M   A   D   A   S   P   T
agt ctt gaa tta gga ttg tcg aaa tta gac aaa gaa tca tga
 S   L   E   L   G   L   S   K   L   D   K   E   S   -
```

B

Spliced iciHHV-6A iciU83A diagnostic primer pair and probe or nested primer

```
atg tcc att cgg ctt ttt att ggt ttt ttt tat acg gca tat att ggt atg gct atc gga
 M   S   I   R   L   F   I   G   F   F   Y   T   A   Y   I   G   M   A   I   G
ttt ata tgt agt tcc ccc gat gcg gag ctg ttt tcc gaa aaa tca cgt att tcg tct tct
 F   I   C   S   S   P   D   A   E   L   F   S   E   K   S   R   I   S   S   S   DR spliced
gtc ttg tta gga tgt ttg ttg tgt tgc atg gat tgg tcc gct gcc gta ccc gtc tgg ttt   splice f/s
 V   L   L   G   C   L   L   C   C   M   D   W   S   A   A   V   P   V   W   F   SNP tga-tgg
gga gca ggg ctc gat gtg tga tat ggc aga tgc atc gcc gac aag tct tga att agg att   gain 8aa to
 G   A   G   L   D   V   *                                                       next stop
gtc gaa att aga caa aga atc atg a
```

Figure 4

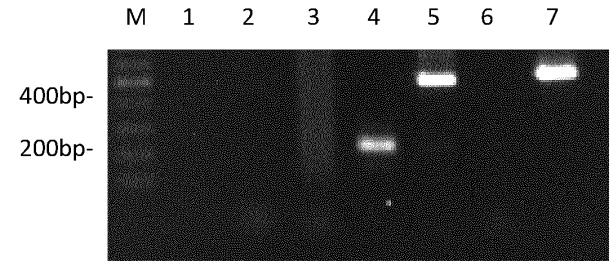


Figure 5

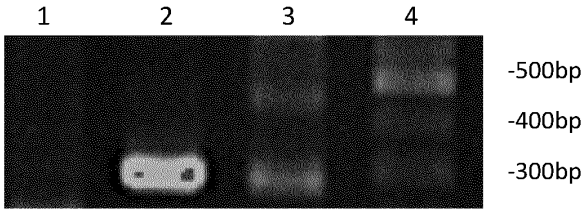


Figure 6

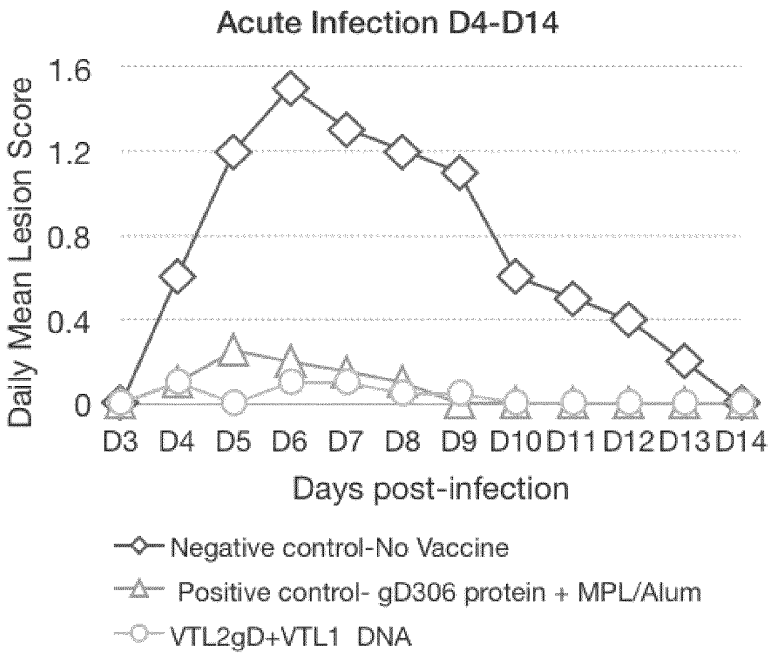

Acute Infection D4-D14
Daily Mean Lesion Score
1.6
1.2
0.8
0.4
0
D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14
Days post-infection
Negative control-No Vaccine
Positive control- gD306 protein + MPL/Alum
VTL2gD+VTL1 DNA

Figure 7

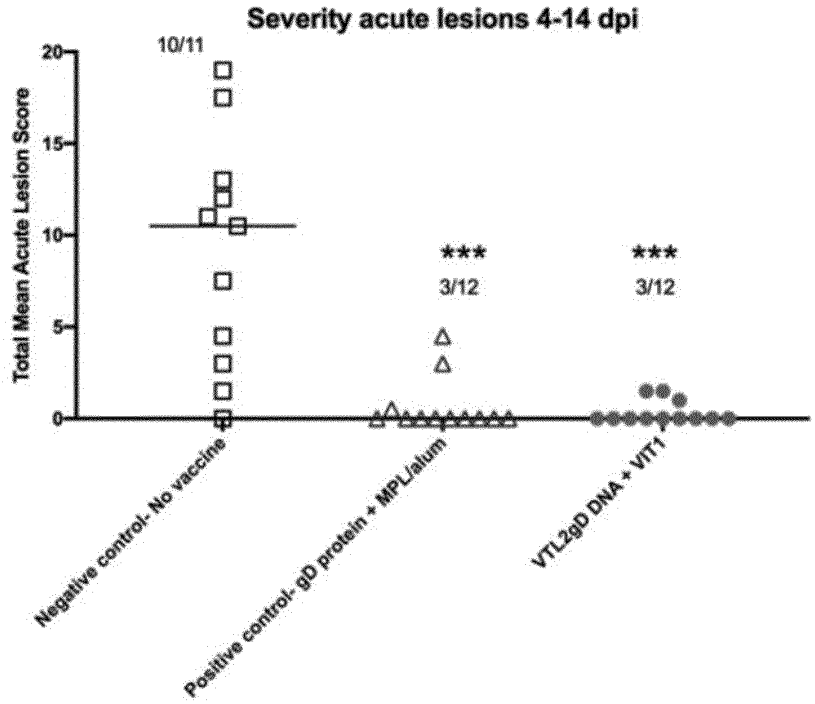

Severity acute lesions 4-14 dpi
Total Mean Acute Lesion Score
20
15
10
5
0
10/11
***
3/12
***
3/12
Negative control- No vaccine
Positive control- gD protein + MPL/alum
VTL2gD DNA + VIT1

Figure 8A

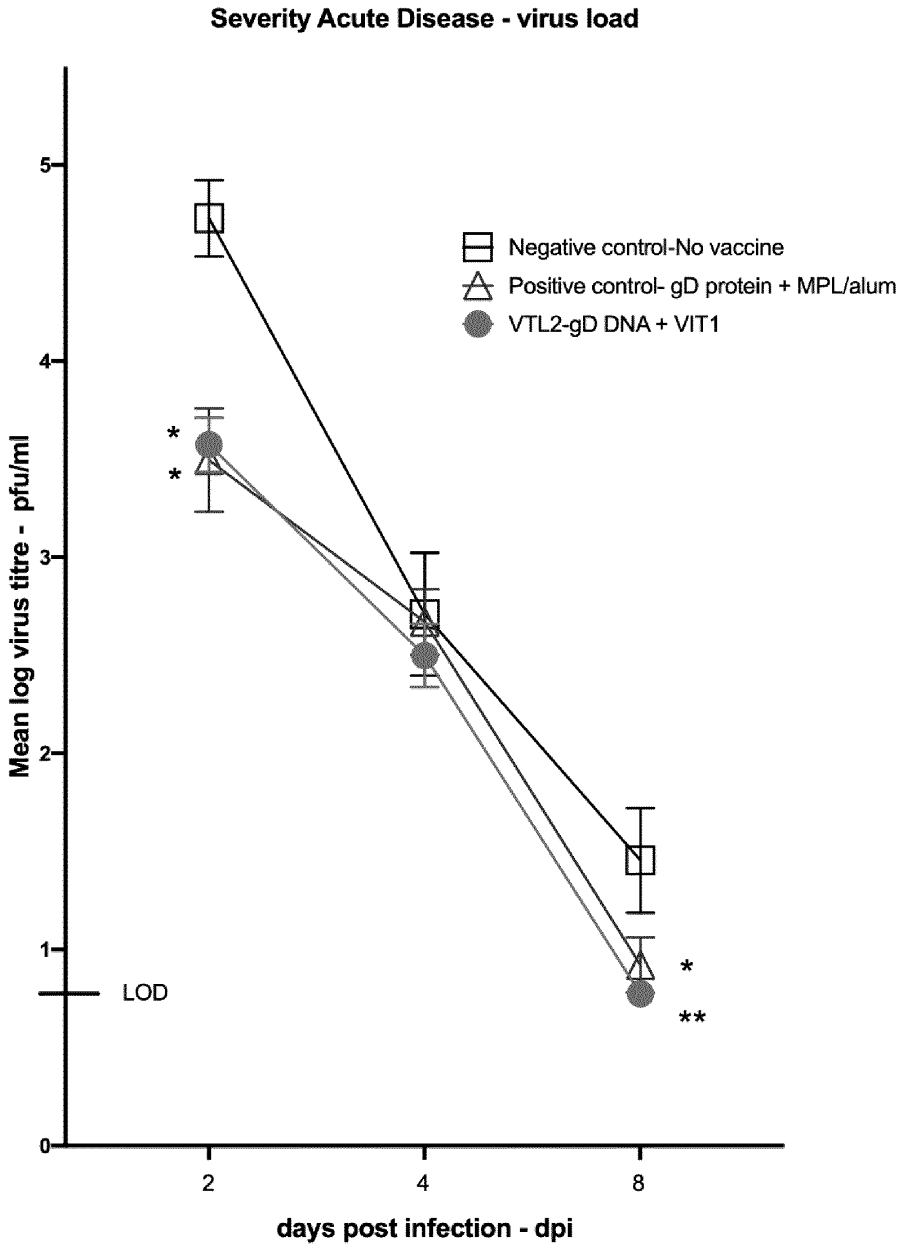

Severity Acute Disease - virus load
Negative control-No vaccine
Positive control- gD protein + MPL/alum
VTL2-gD DNA + VIT1
Mean log virus titre - pfu/ml
days post infection - dpi
LOD
0
1
2
3
4
5
2
4
8
*
*
*
**

Figure 8B

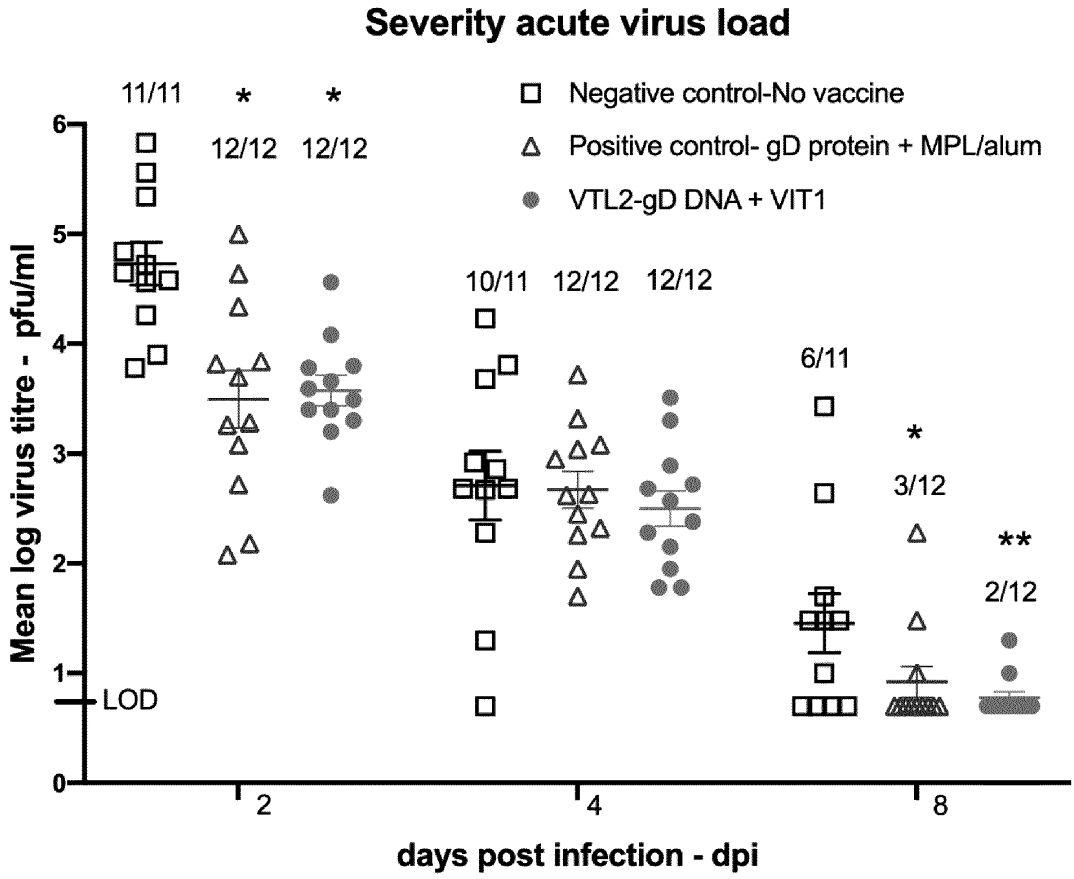

Severity acute virus load
Negative control-No vaccine
Positive control- gD protein + MPL/alum
VTL2-gD DNA + VIT1
Mean log virus titre - pfu/ml
days post infection - dpi
LOD
11/11
12/12
12/12
10/11
12/12
12/12
6/11
3/12
2/12
*
*
*
**
0
1
2
3
4
5
6
2
4
8

Figure 9

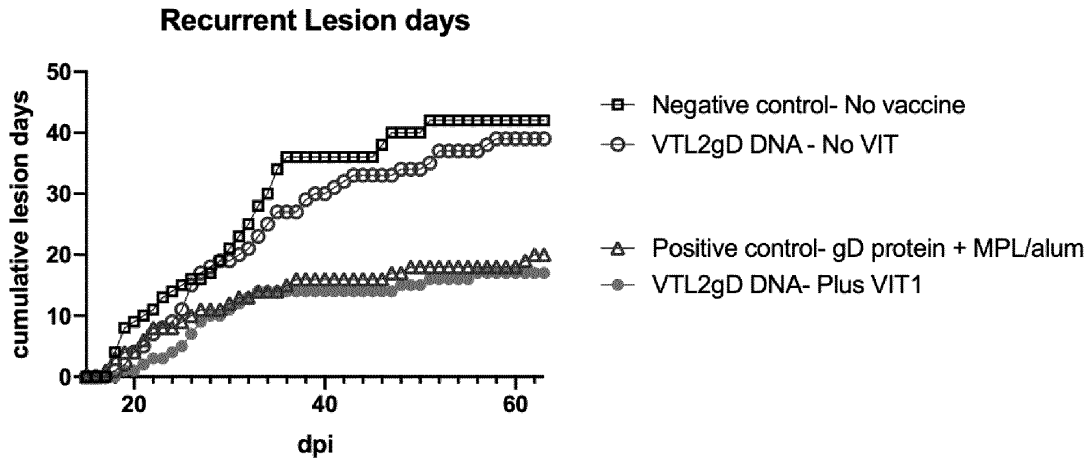


Figure 10

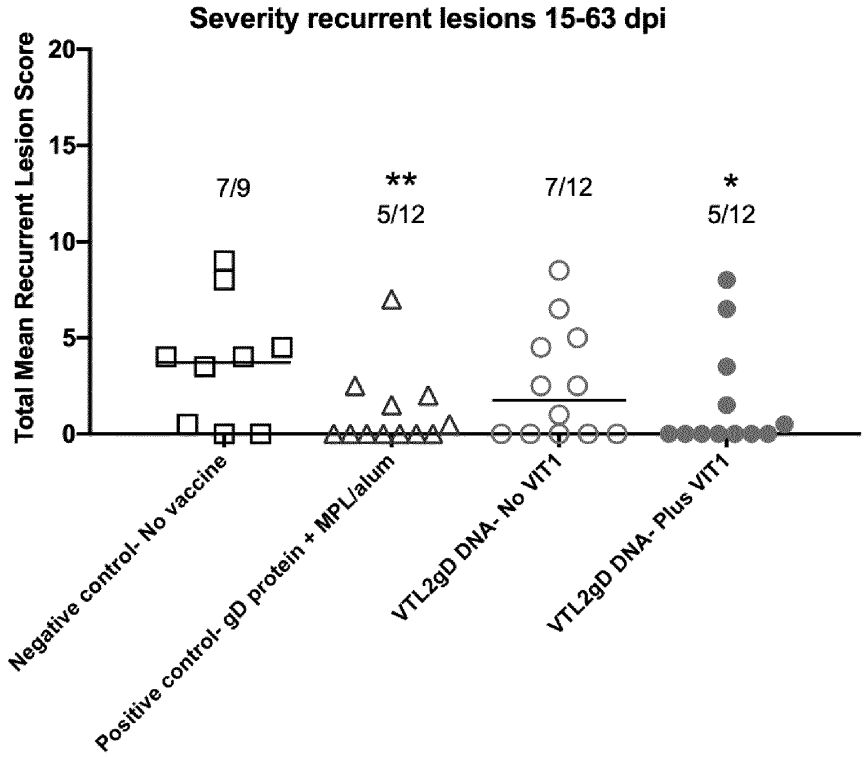


Figure 11

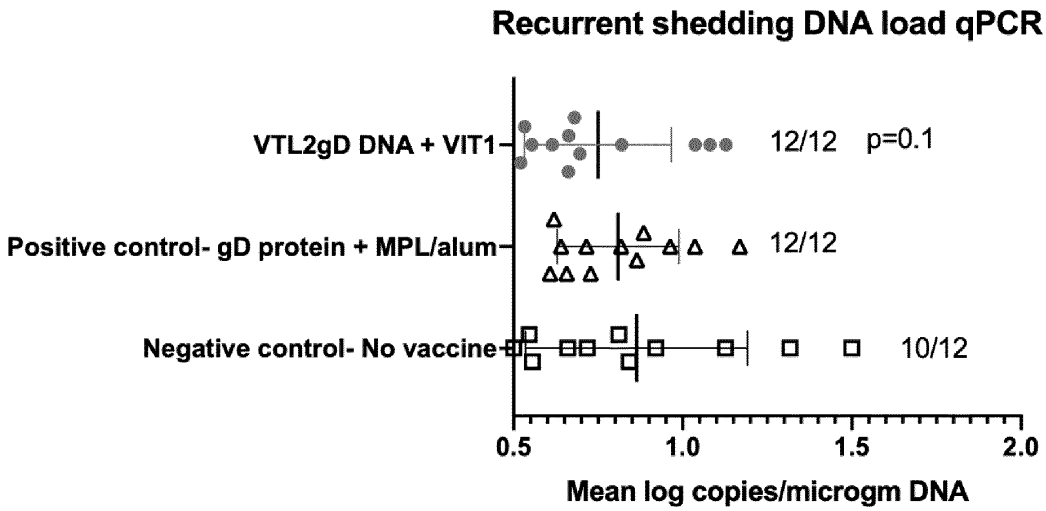


Figure 12

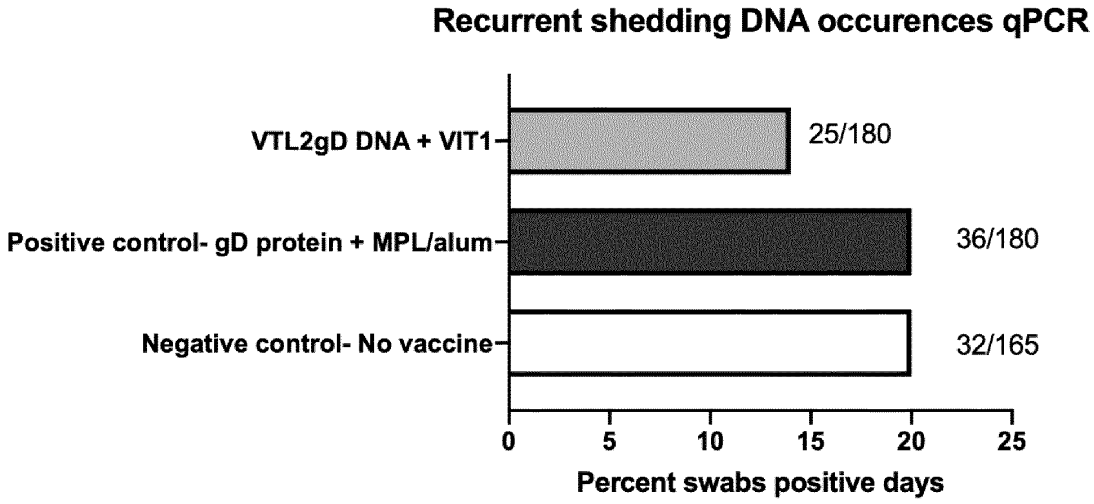


Figure 13

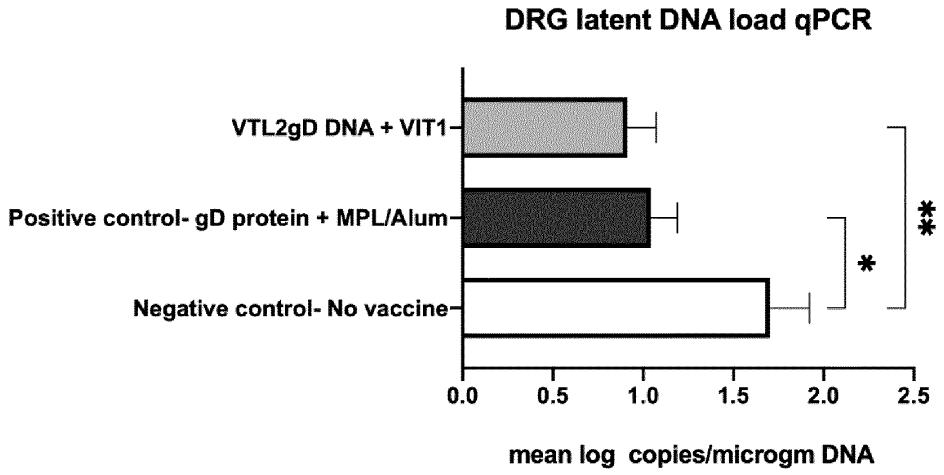


Figure 14

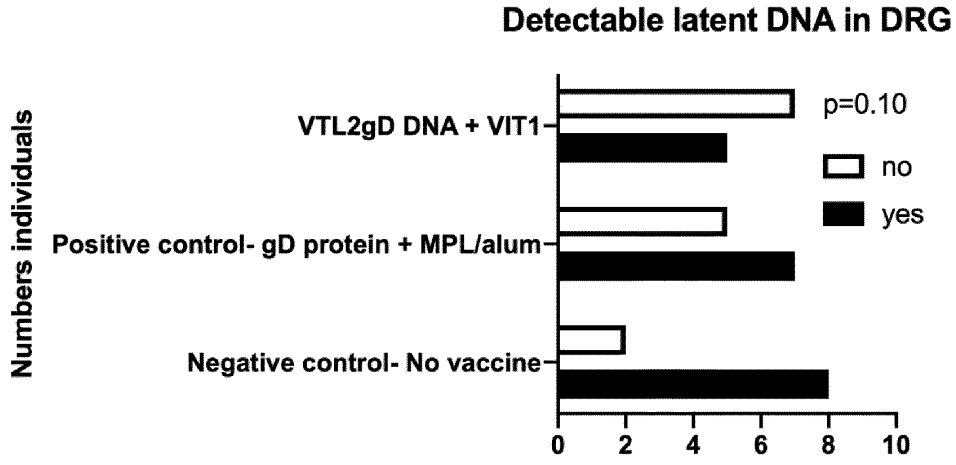


Figure 15

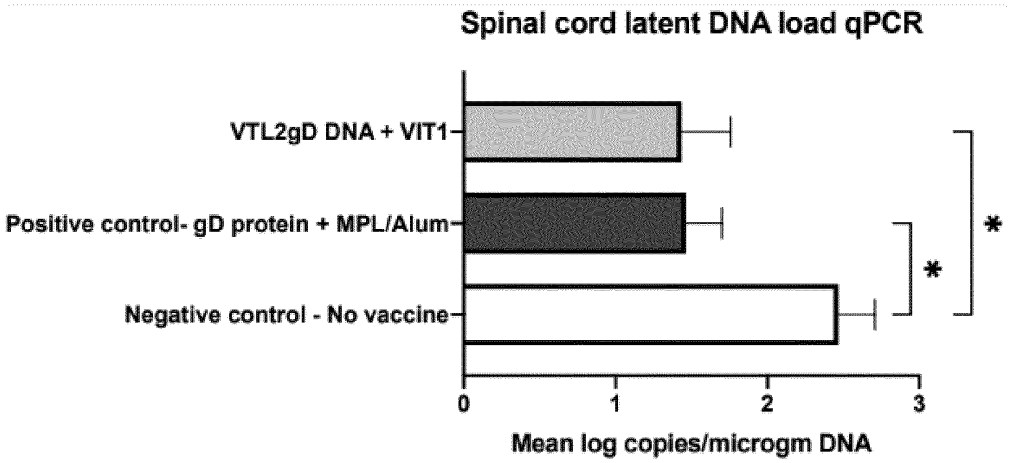


Figure 16

