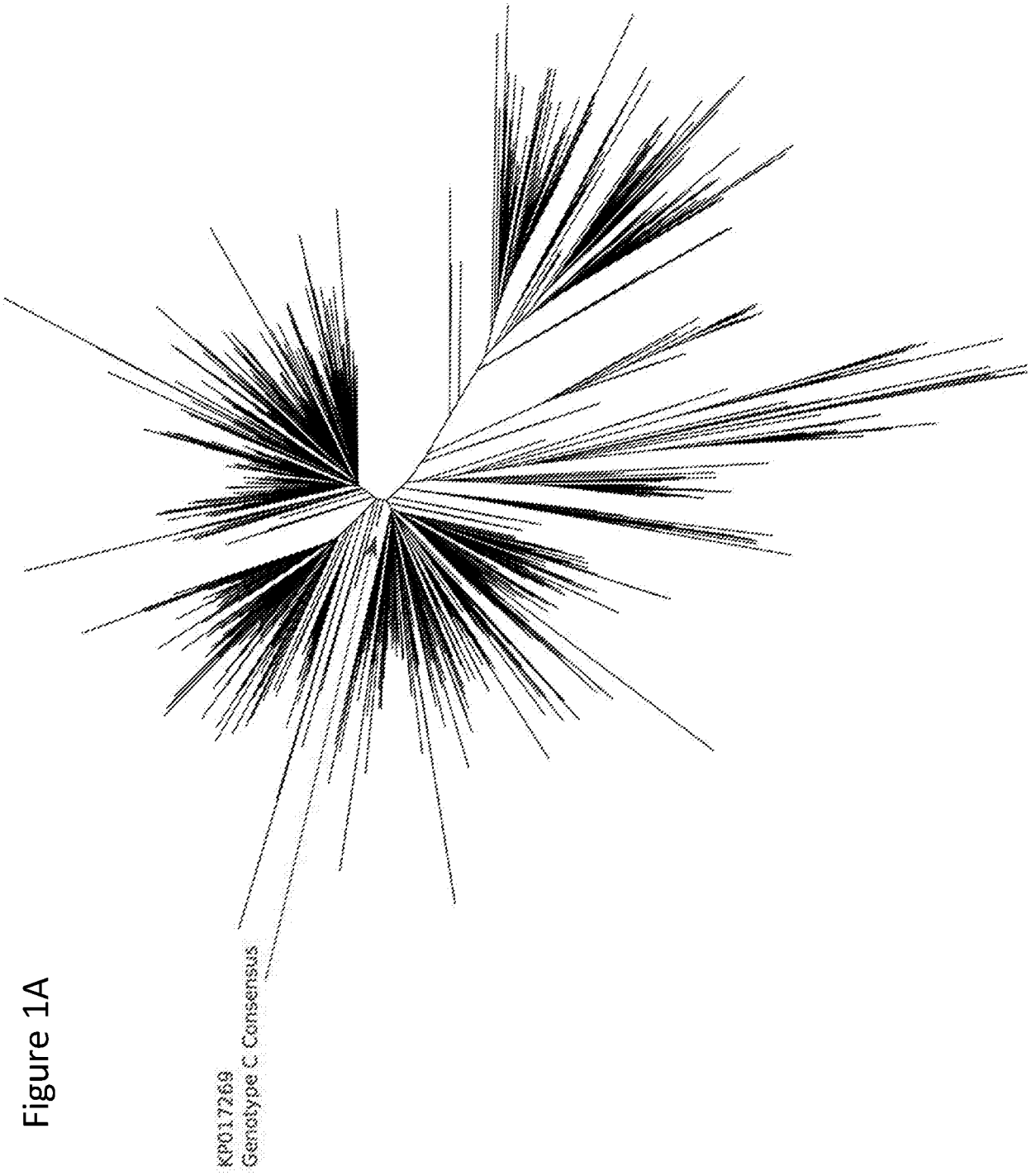


Figure 1A

Figure 1B...

```
genotype C consensus:
7269.1 HBV isolate JP-02:
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                                                t
tcaccatatgtcaatcttctggaggactgggaccctgcaccgaacatggagaacacaacatcaggattcctaggacccctgctcgtgttacagg
ttttcttgttgacaagaatcctcacaataccacagagtctagactcgtggtggacttctctcaattttctagggggaacccacgtgtcctggcc
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ctgctgctatgcctcatcttcttgttggttcttctggactaccaagqtatgttgcccgtttgtcctctacttccaggaacatcaactaccagcacgg
tgcaagacctgcacgattcctgctcaagqaacctctatgttcctcttgttgctgtacaaaaacctcggacggaaactgcactgtatttccatcc
tcctgggctttcgcaagattcctatgggagtgggcctcagtccgttttcctcctggctcagtttactagtgccatttgttcagtggttcgtagggctt
actgttggctttcagttatatggatgatgtggtattgggggccaagtctgtacaacatcttgagtccctttttacctctattaccaattttcttttt
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Figure 1B continued

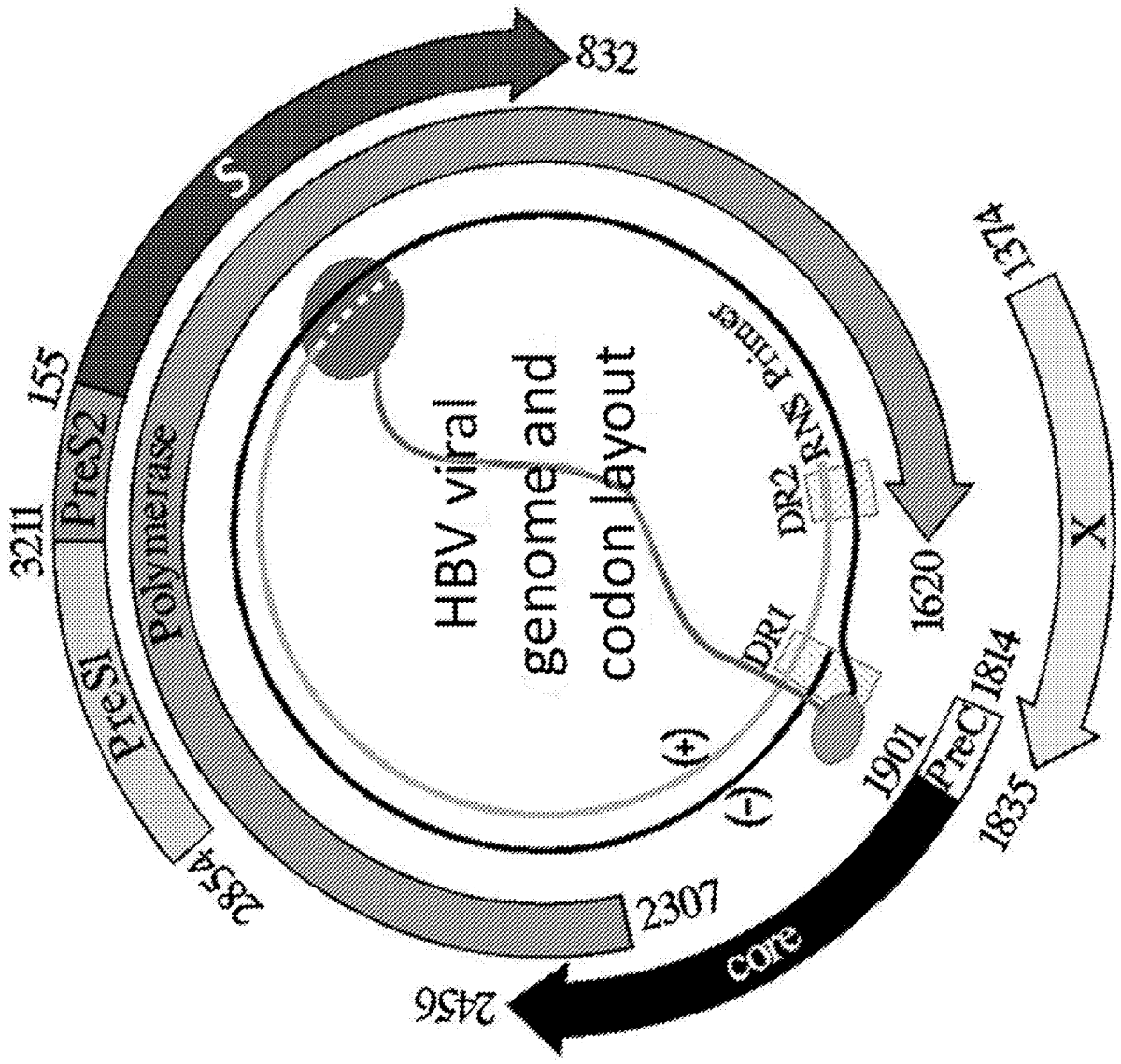

HBV viral genome and codon layout
S
832
155
PreS2
3211
Polymerase
PreS1
2854
2307
2456
Core
PreC
1901
1814
1835
X
1374
1620
RNS Primer
DR2
DR1
(+)
(-)

Figure 2A

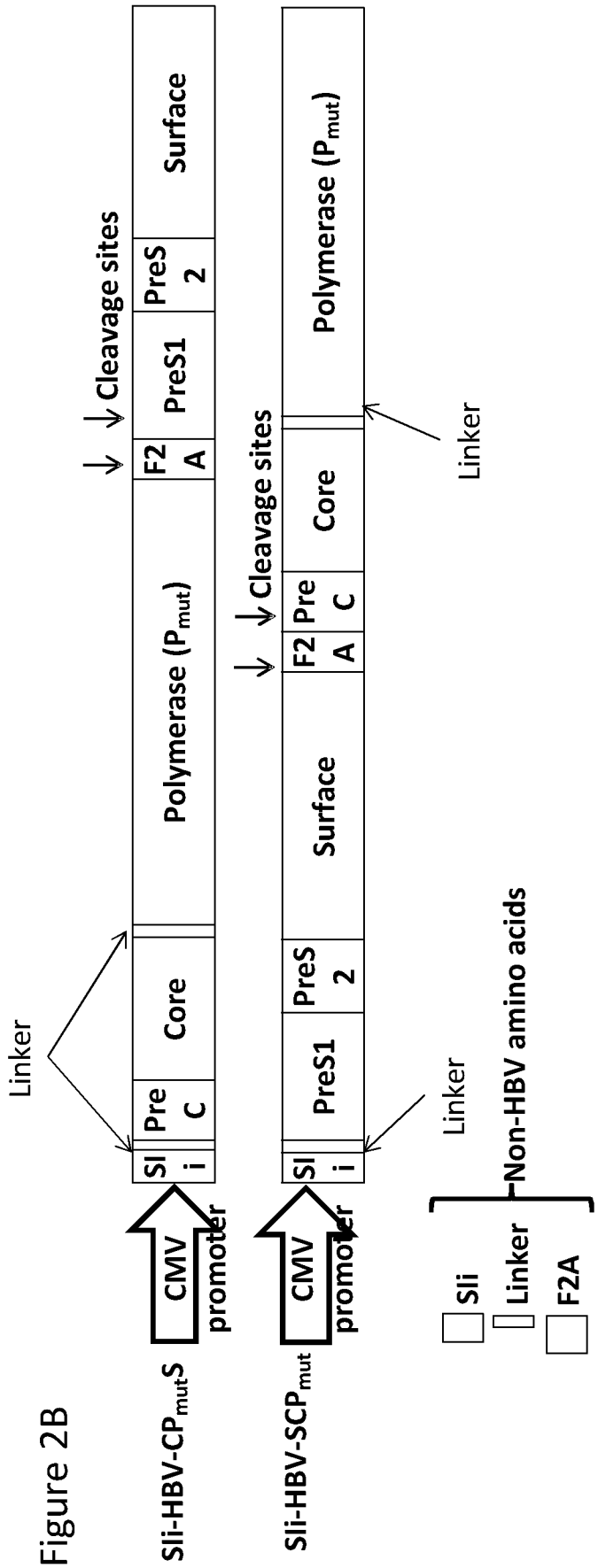
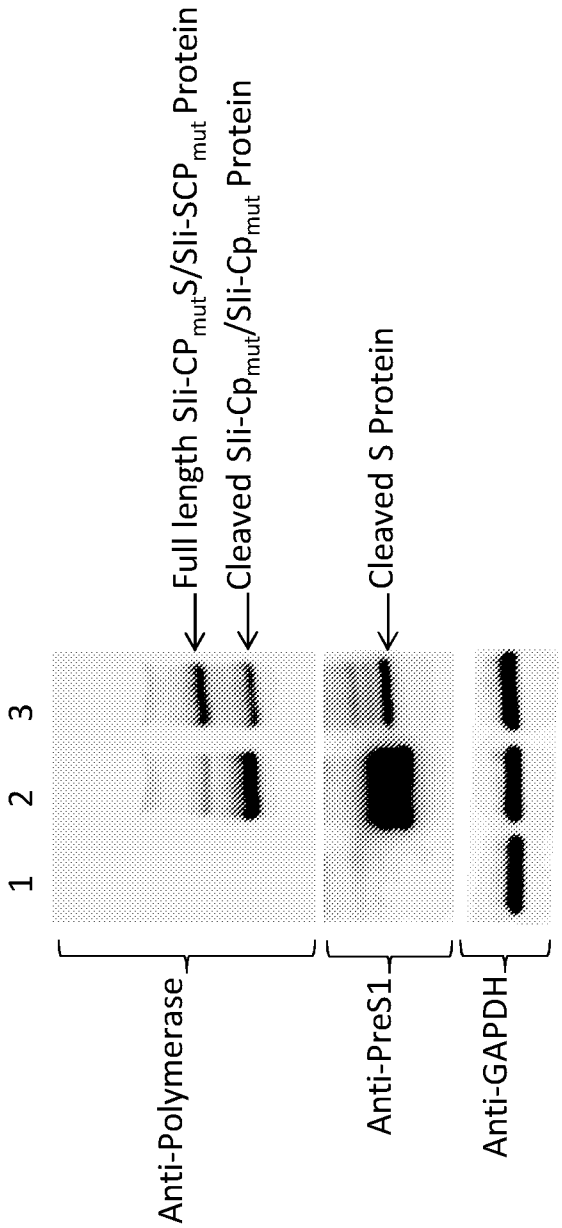

Sli-HBV-CP$_{mut}$S
CMV promoter
Sli
Pre C
Core
Linker
Polymerase (P$_{mut}$)
F2A
Cleavage sites
PreS1
PreS2
Surface
Sli-HBV-SCP$_{mut}$
CMV promoter
Sli
PreS1
PreS2
Surface
F2A
Pre C
Core
Linker
Polymerase (P$_{mut}$)
Cleavage sites
Linker
Sli
Linker
Non-HBV amino acids
F2A

Figure 2B

Figure 2C


Full length Sli-CP$_{mut}$S/Sli-SCP$_{mut}$ Protein
Cleaved Sli-Cp$_{mut}$/Sli-Cp$_{mut}$ Protein
Cleaved S Protein
1
2
3
Anti-Polymerase
Anti-PreS1
Anti-GAPDH

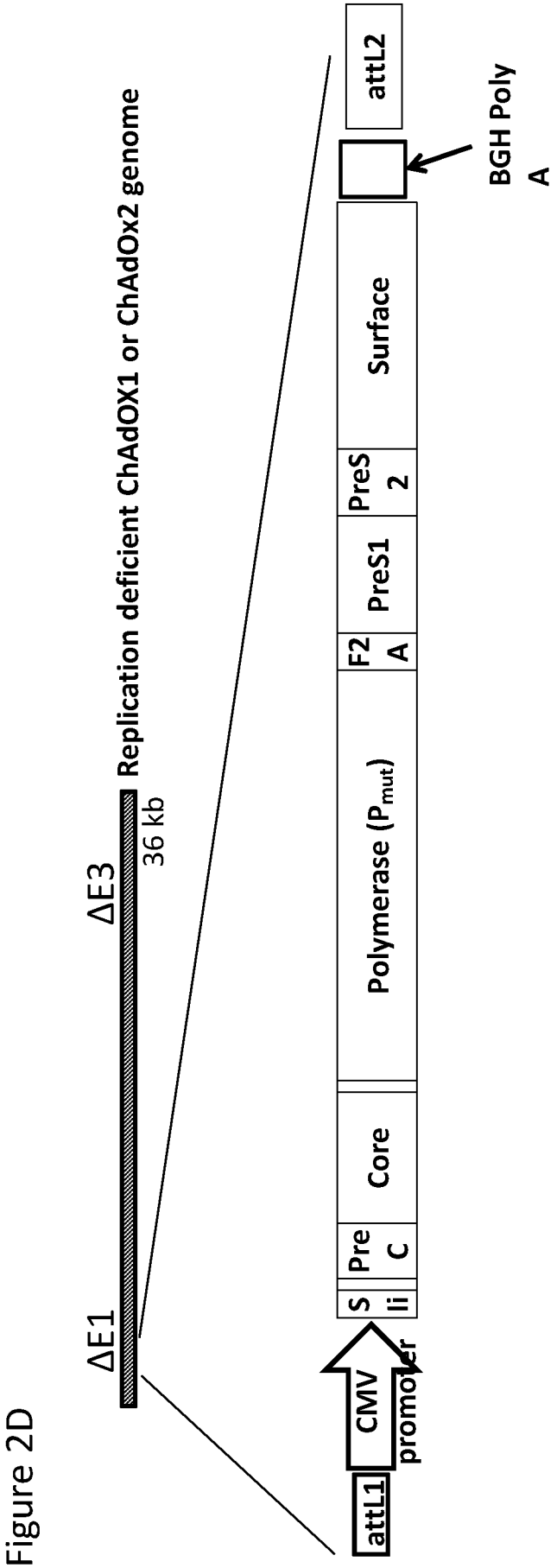

ΔE1
ΔE3
Replication deficient ChAdOX1 or ChAdOx2 genome
36 kb
attL1
CMV promoter
Sli
Pre C
Core
Polymerase (Pmut)
F2A
PreS1
PreS2
Surface
BGH Poly A
attL2

Figure 2D

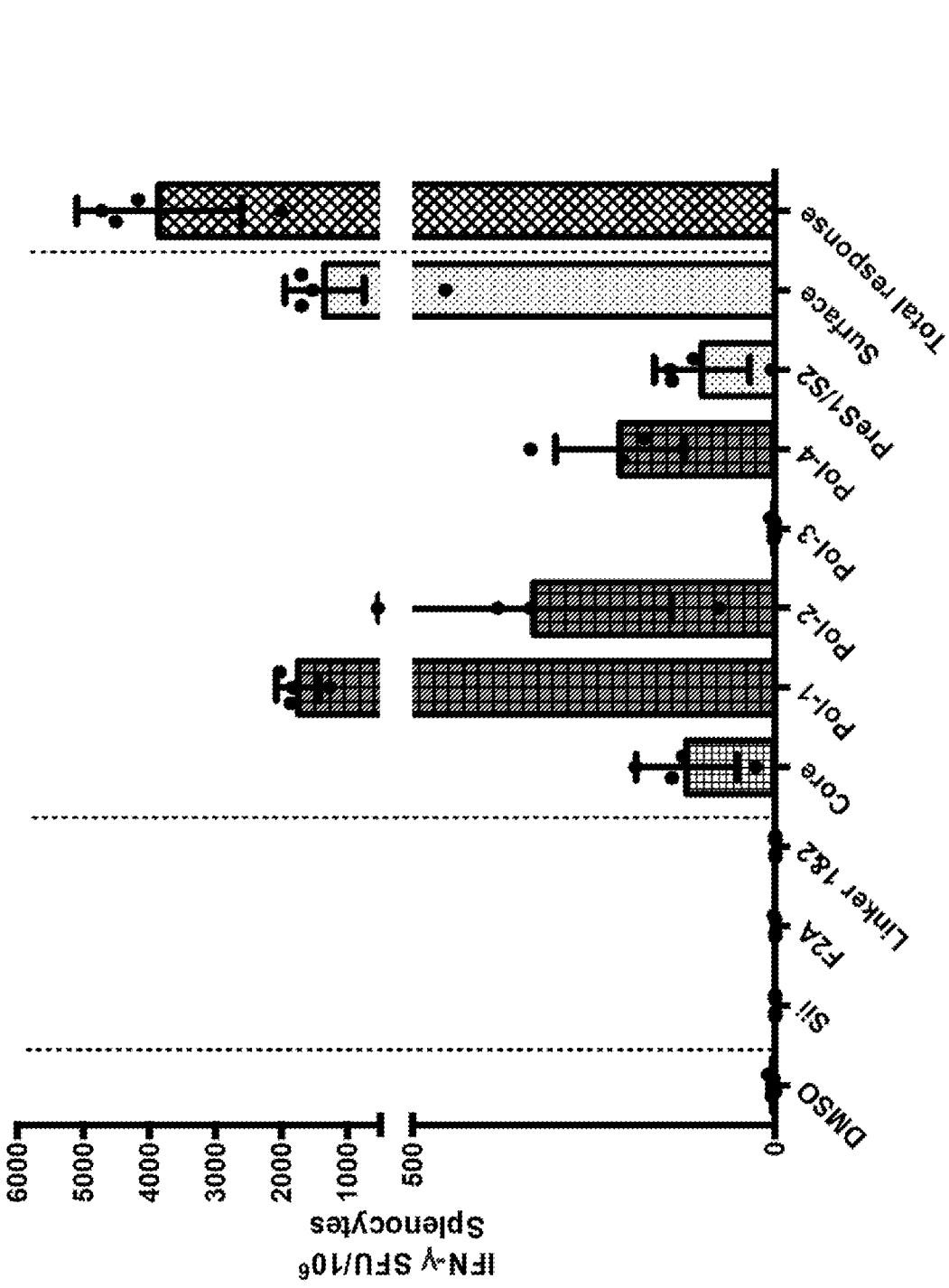

BALB/c mice vaccinated with 4x10^7 IU of ChAdOx2-Sli-HBV-CPmutS
Splenocyte response
IFN-γ SFU/10^6 Splenocytes
6000
5000
4000
3000
2000
1000
500
0
DMSO
Sli
F2A
Linker 1&2
Core
Pol-1
Pol-2
Pol-3
Pol-4
PreS1/S2
Surface
Total response

Figure 3A

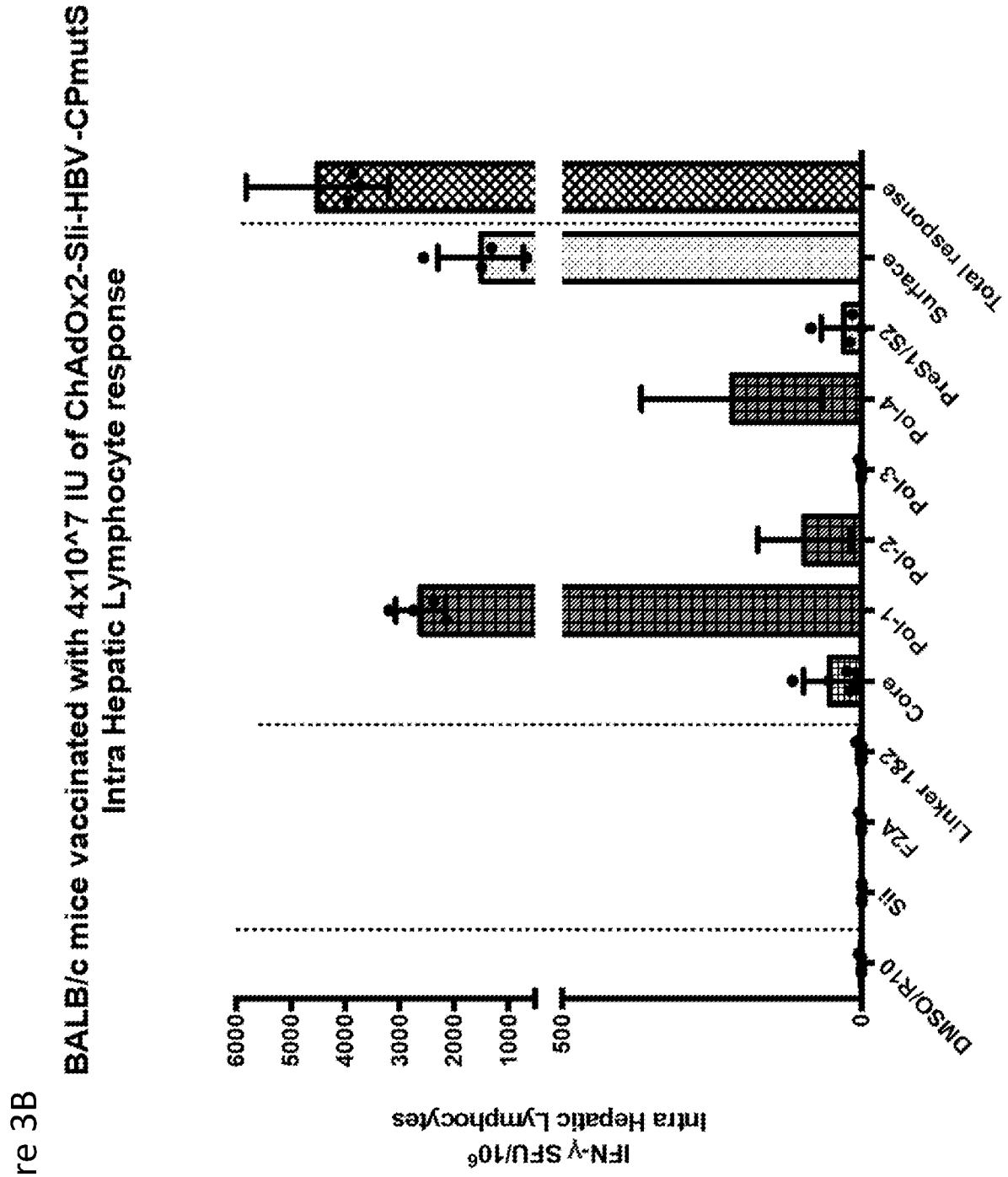
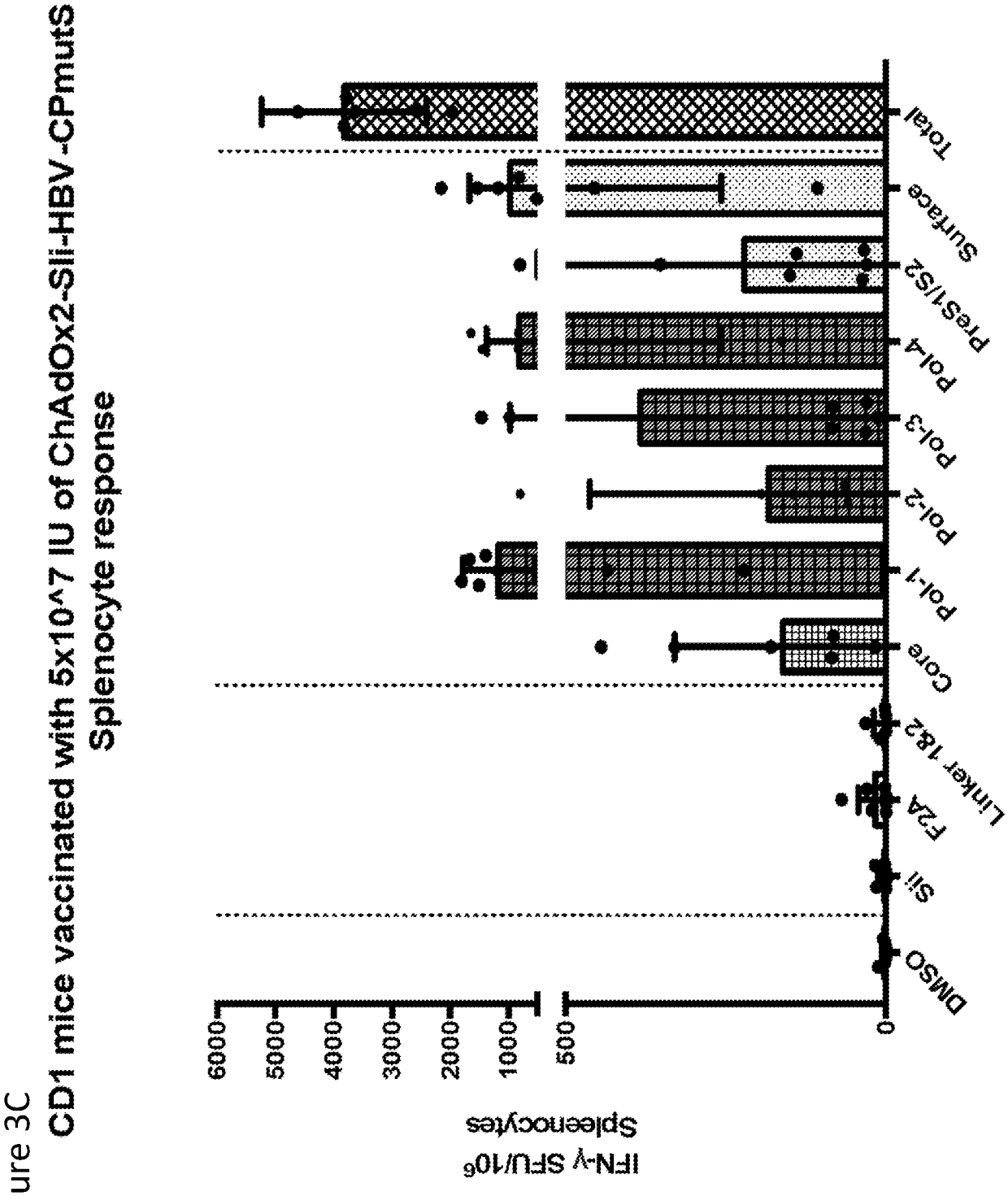

BALB/c mice vaccinated with 4x10^7 IU of ChAdOx2-Sli-HBV-CPmutS
Intra Hepatic Lymphocyte response
IFN-γ SFU/10^6
Intra Hepatic Lymphocytes
6000
5000
4000
3000
2000
1000
500
0
DMSO/R10
Sli
F2A
Linker 1&2
Core
Pol-1
Pol-2
Pol-3
Pol-4
Pres1/S2
Surface
Total response

Figure 3B

Figure 3C


CD1 mice vaccinated with 5x10^7 IU of ChAdOx2-Sli-HBV-CPmutS
Splenocyte response
IFN-γ SFU/10^6 Splenocytes
6000
5000
4000
3000
2000
1000
500
0
DMSO
Sli
F2A
Linker 1&2
Core
Pol-1
Pol-2
Pol-3
Pol-4
Pres1/S2
Surface
Total

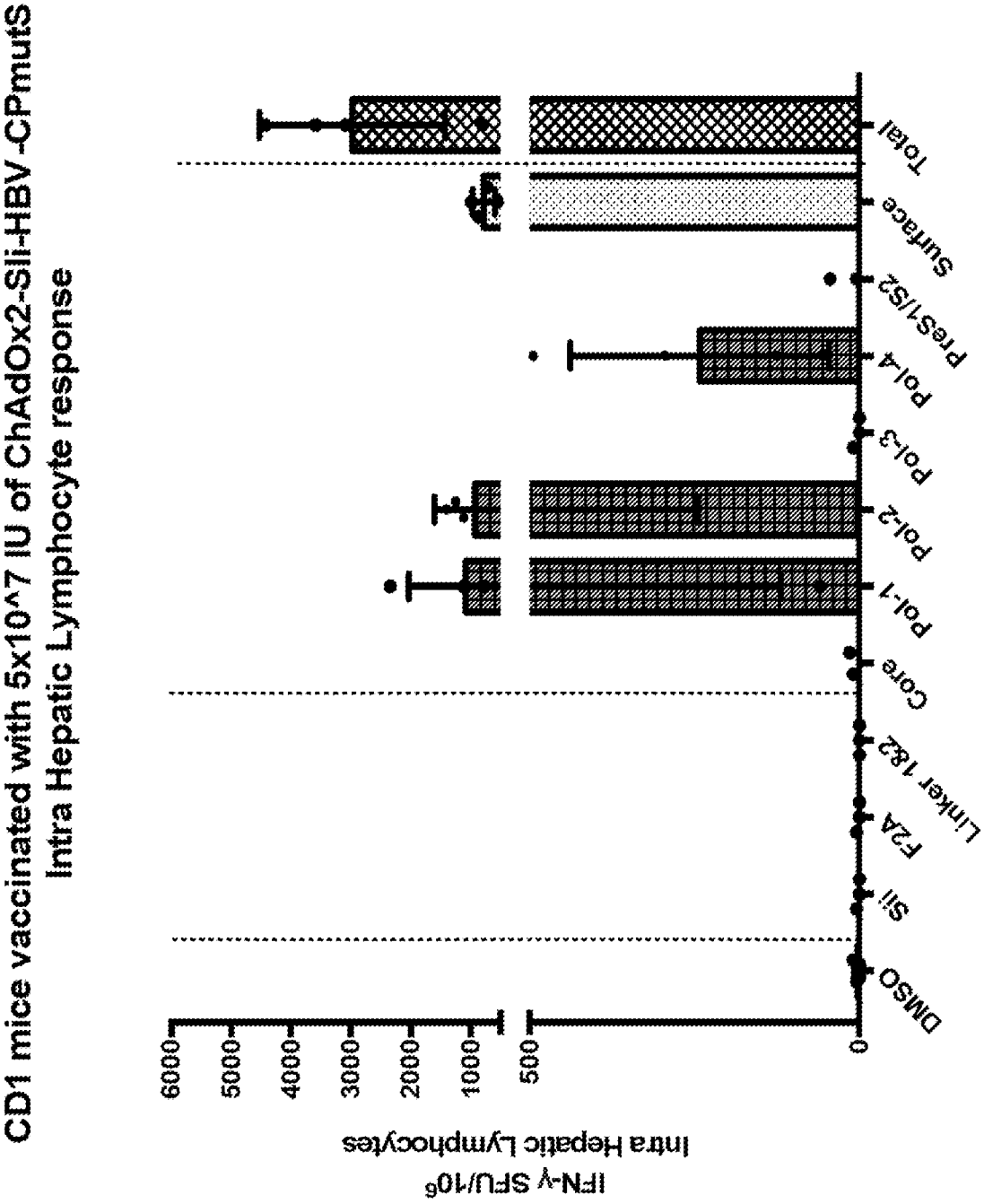

CD1 mice vaccinated with 5x10^7 IU of ChAdOx2-Sli-HBV-CPmutS
Intra Hepatic Lymphocyte response
IFN-γ SFU/10^6
Intra Hepatic Lymphocytes
6000
5000
4000
3000
2000
1000
500
0
DMSO
Sli
F2A
Linker 1&2
Core
Pol-1
Pol-2
Pol-3
Pol-4
PreS1/S2
Surface
Total

Figure 3D

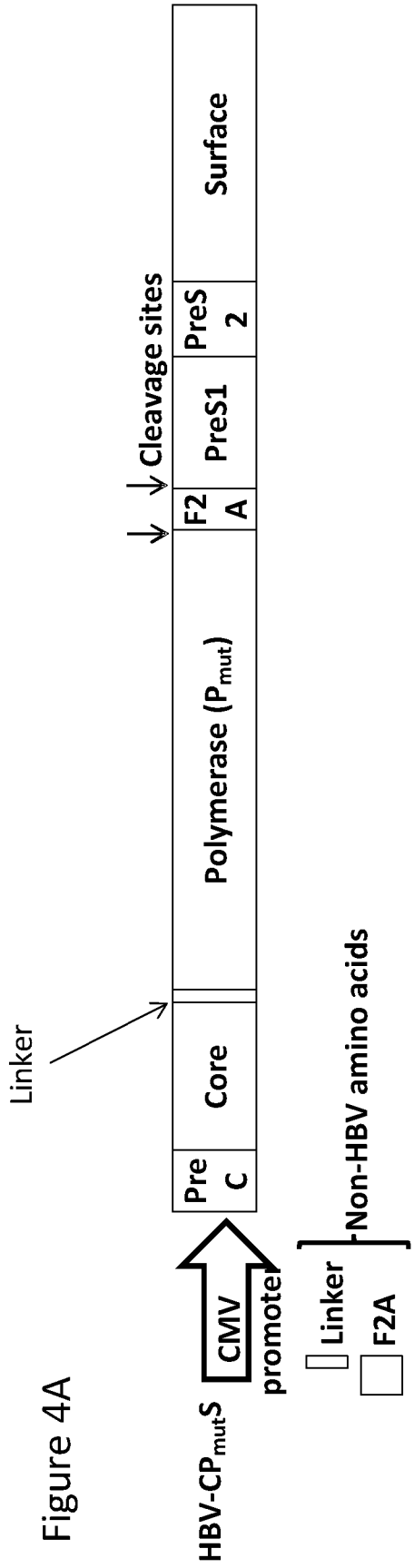

HBV-CP$_{mut}$S
CMV promoter
Pre C
Core
Linker
Polymerase (P$_{mut}$)
F2 A
Cleavage sites
PreS1
PreS 2
Surface
Linker
F2A
Non-HBV amino acids

Figure 4A

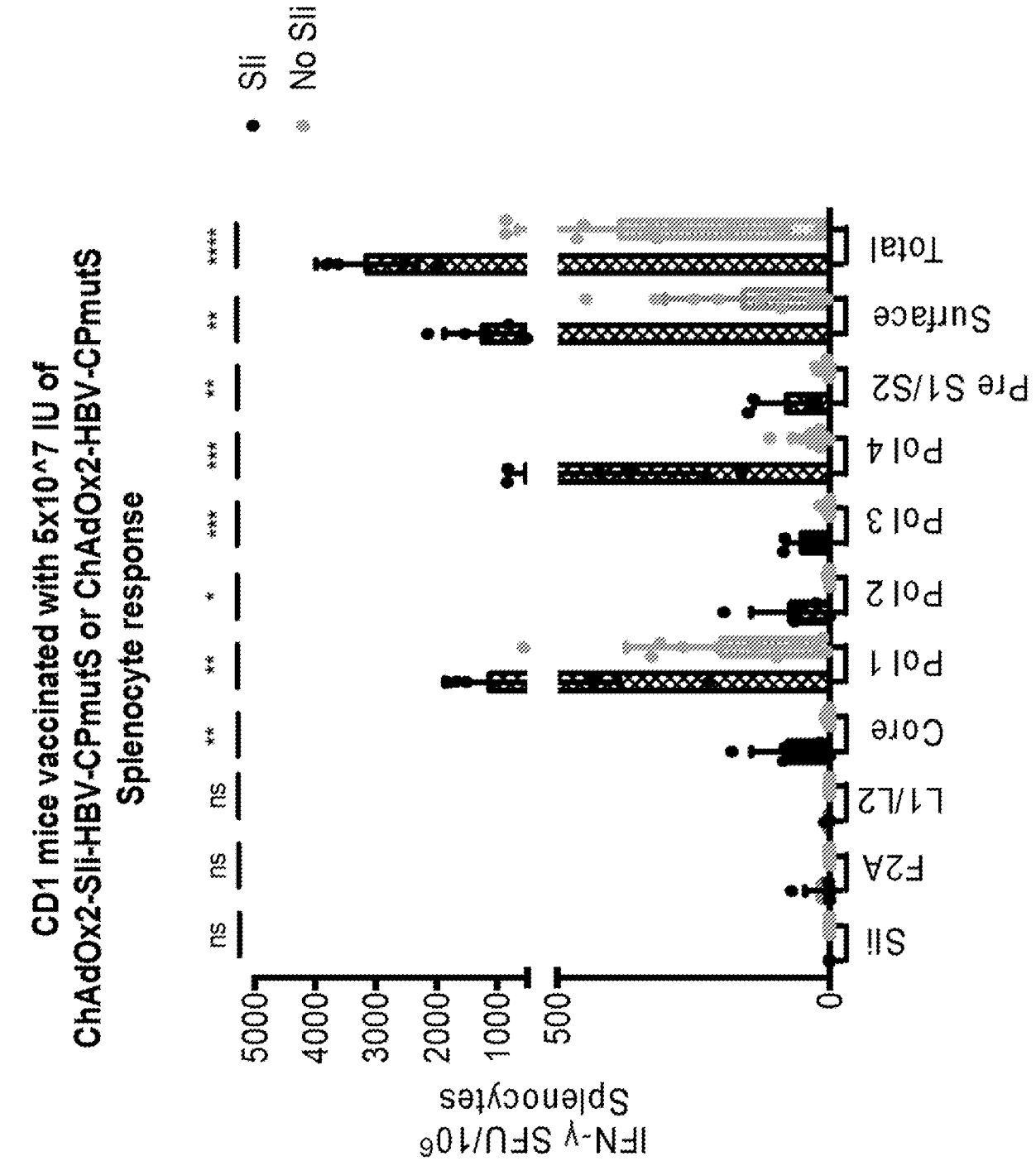

CD1 mice vaccinated with 5x10^7 IU of
ChAdOx2-Sli-HBV-CPmutS or ChAdOx2-HBV-CPmutS
Splenocyte response
Sli
No Sli
IFN-γ SFU/10^6 Splenocytes
5000
4000
3000
2000
1000
500
0
ns
ns
ns
**
**
*
***
***
**
****
Sli
F2A
L1/L2
Core
Pol 1
Pol 2
Pol 3
Pol 4
Pre S1/S2
Surface
Total

Figure 4B

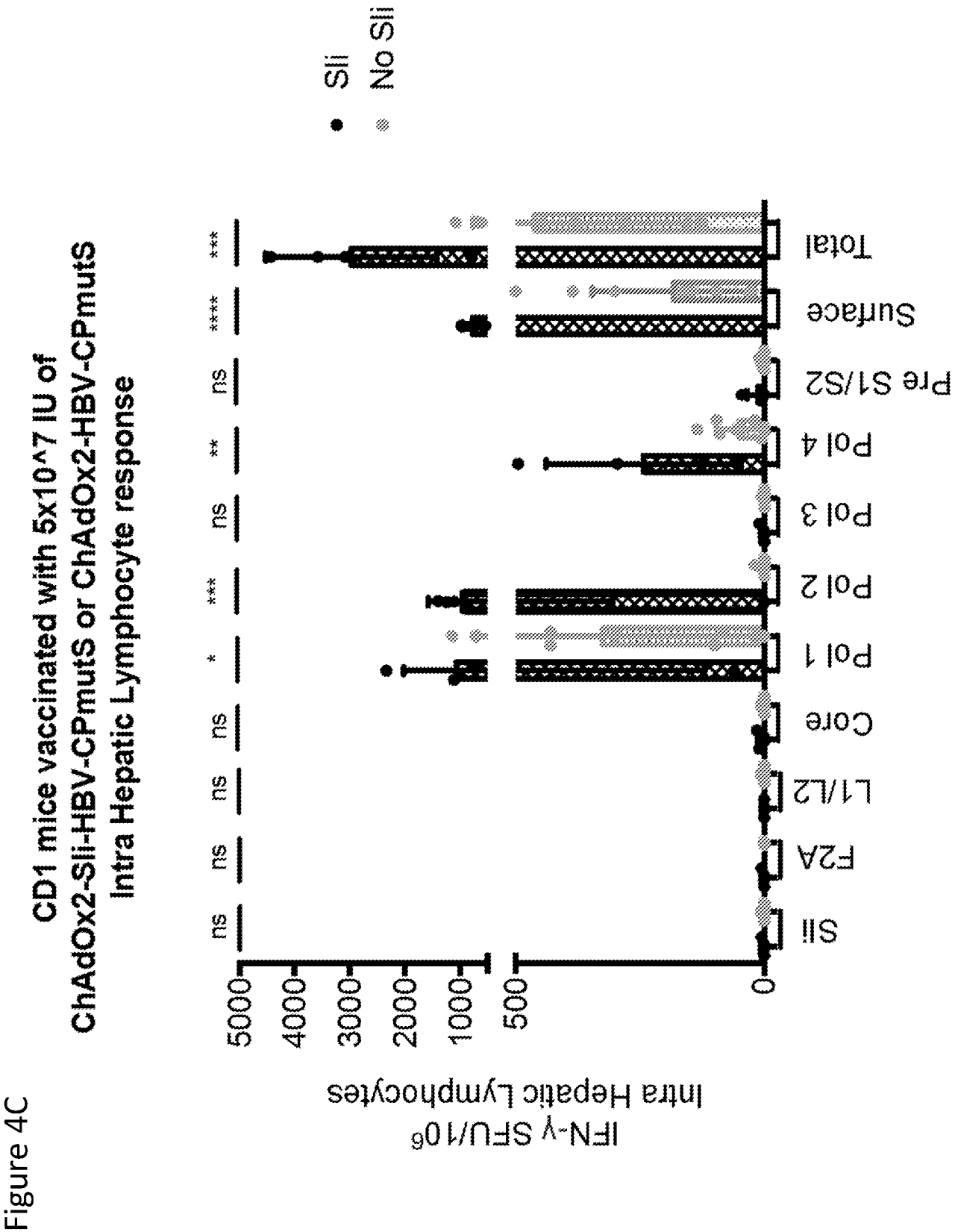

CD1 mice vaccinated with 5x10^7 IU of
ChAdOx2-Sli-HBV-CPmutS or ChAdOx2-HBV-CPmutS
Intra Hepatic Lymphocyte response
Sli
No Sli
IFN-γ SFU/10^6
Intra Hepatic Lymphocytes
5000
4000
3000
2000
1000
500
0
ns
ns
ns
ns
*
***
ns
**
ns
****
***
Sli
F2A
L1/L2
Core
Pol 1
Pol 2
Pol 3
Pol 4
Pre S1/S2
Surface
Total

Figure 4C

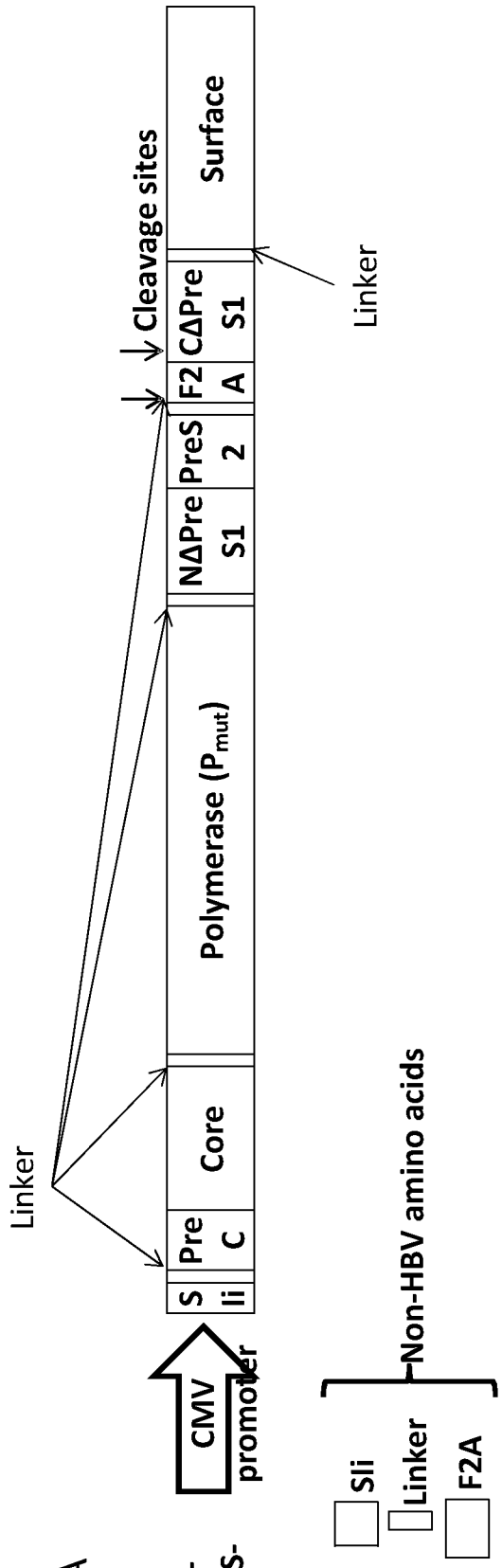


Figure 5A

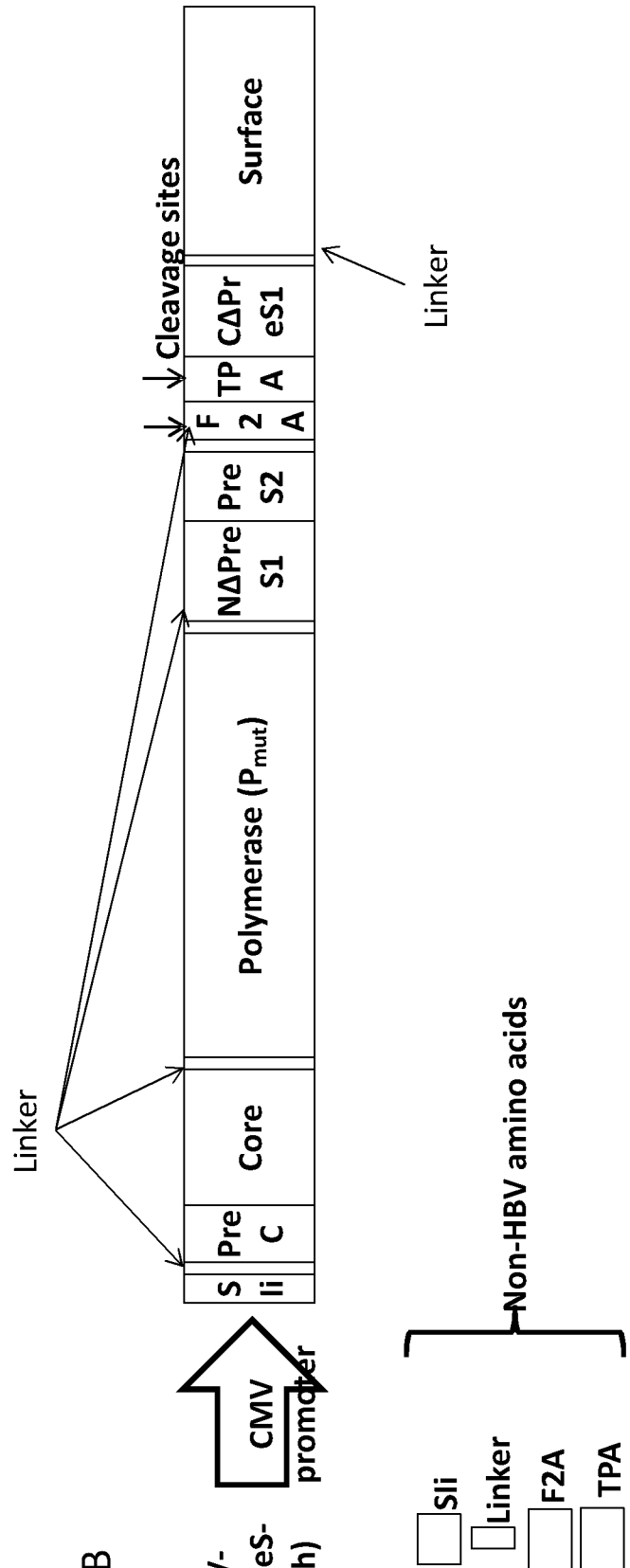


Figure 5B

Figure 6A

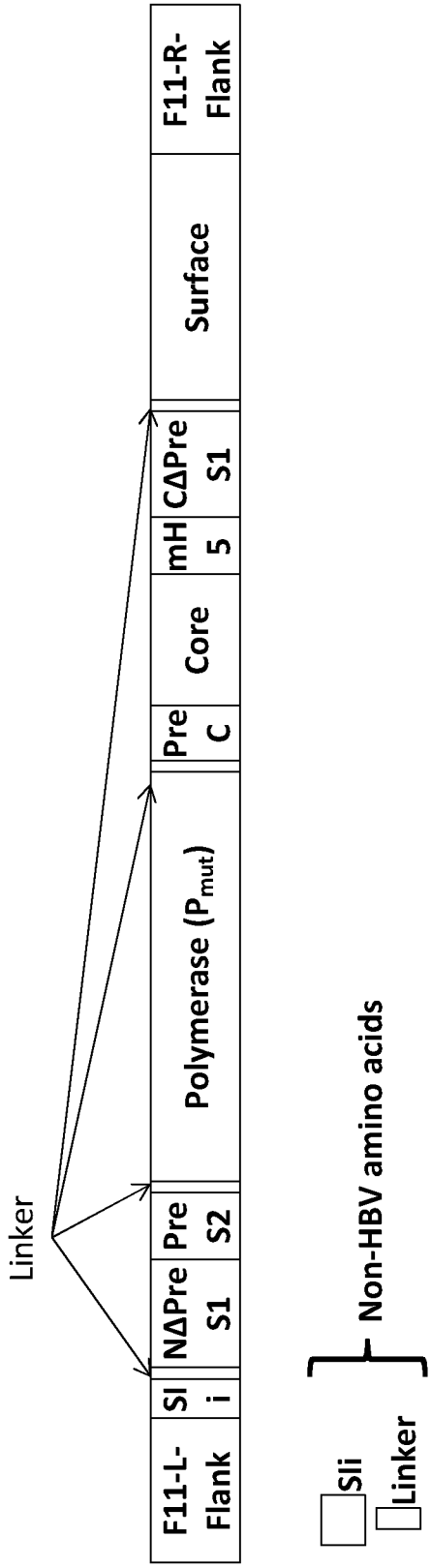


Figure 6B

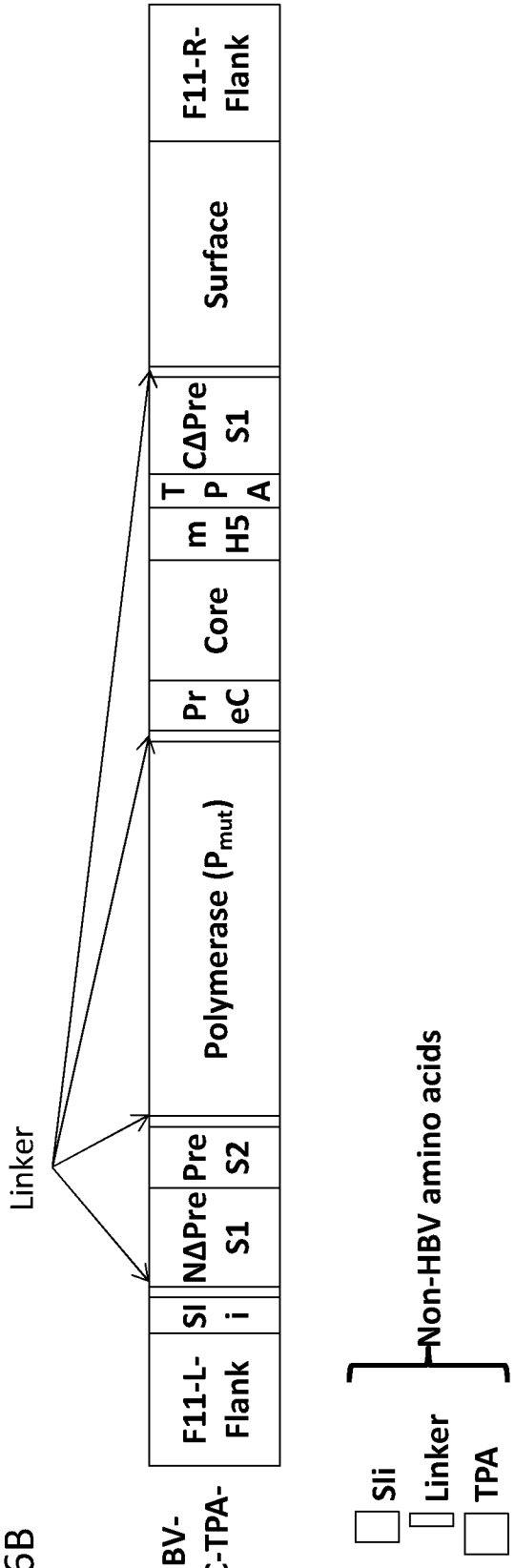


Figure 7

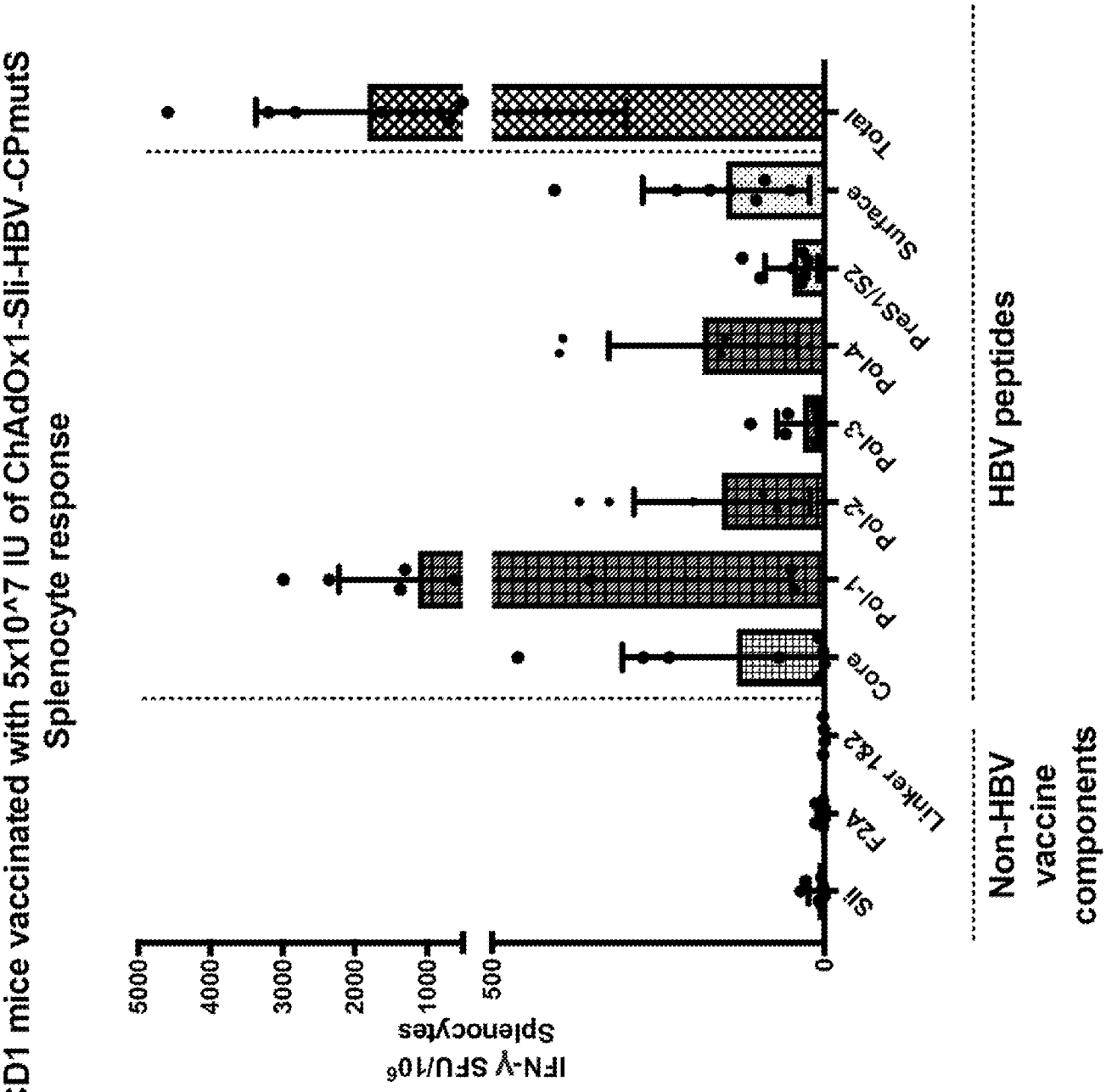

CD1 mice vaccinated with 5x10^7 IU of ChAdOx1-Sli-HBV-CPmutS
Splenocyte response
IFN-γ SFU/10^6 Splenocytes
5000
4000
3000
2000
1000
500
0
Sli
F2A
Linker 182
Core
Pol-1
Pol-2
Pol-3
Pol-4
PreS1/S2
Surface
Total
Non-HBV vaccine components
HBV peptides

Figure 8

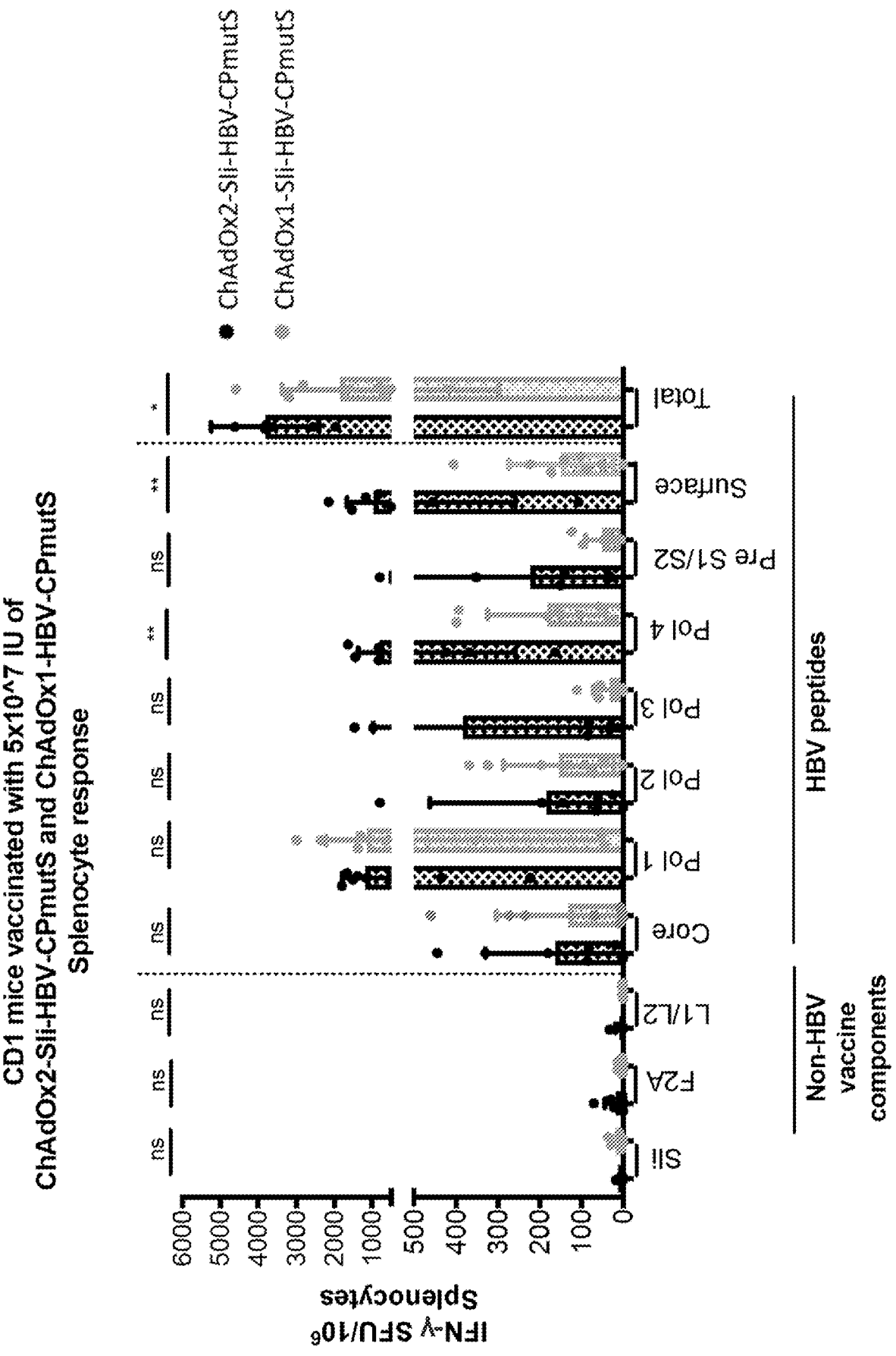

CD1 mice vaccinated with 5x10^7 IU of
ChAdOx2-Sli-HBV-CPmutS and ChAdOx1-HBV-CPmutS
Splenocyte response
ChAdOx2-Sli-HBV-CPmutS
ChAdOx1-Sli-HBV-CPmutS
IFN-γ SFU/10^6 Splenocytes
6000
5000
4000
3000
2000
1000
500
400
300
200
100
0
ns
ns
ns
ns
ns
ns
**
ns
**
*
Sli
F2A
L1/L2
Core
Pol 1
Pol 2
Pol 3
Pol 4
Pre S1/S2
Surface
Total
Non-HBV vaccine components
HBV peptides

Figure 9

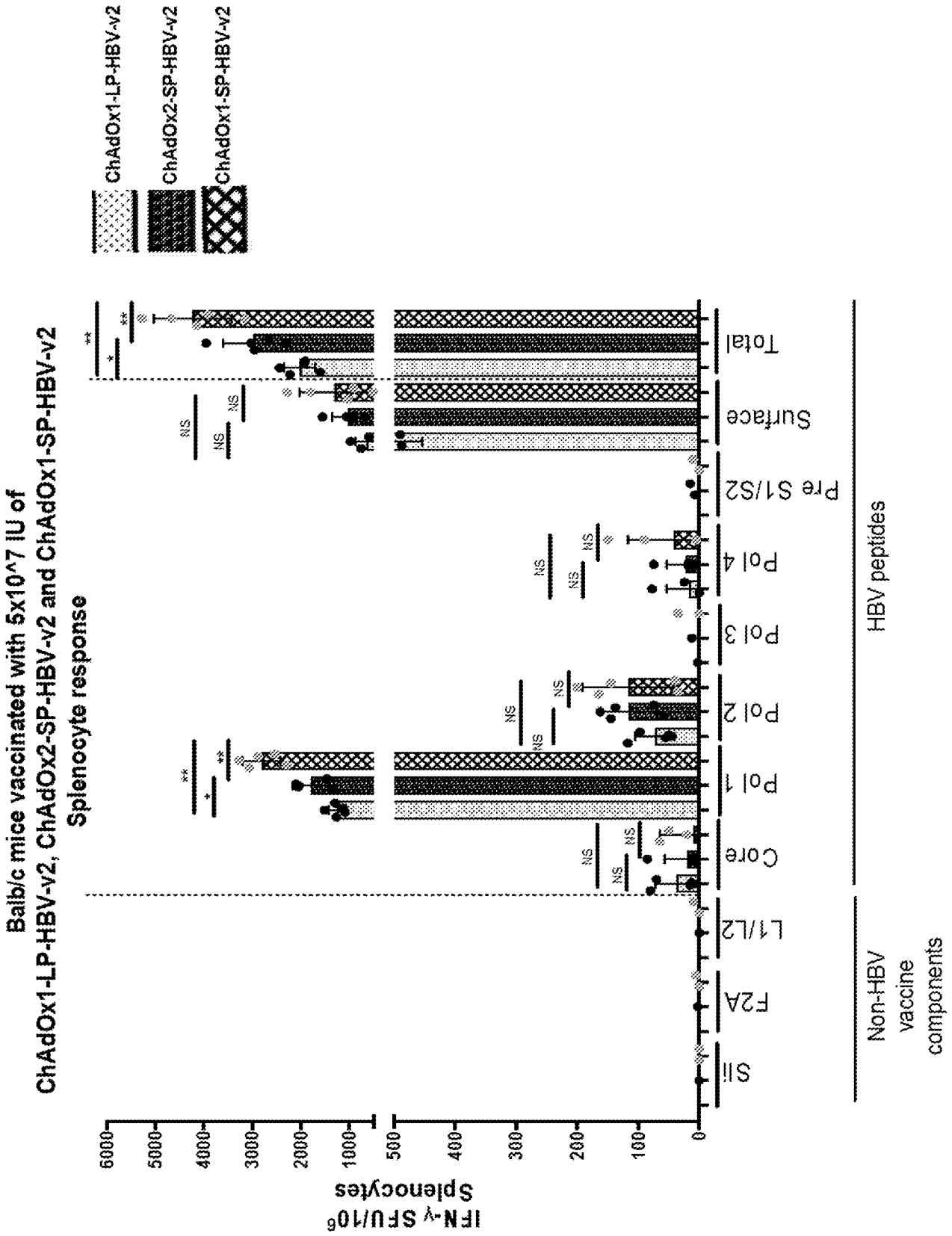

ChAdOx1-LP-HBV-v2
ChAdOx2-SP-HBV-v2
ChAdOx1-SP-HBV-v2
Balb/c mice vaccinated with 5x10^7 IU of
ChAdOx1-LP-HBV-v2, ChAdOx2-SP-HBV-v2 and ChAdOx1-SP-HBV-v2
Splenocyte response
IFN-γ SFU/10^6 Splenocytes
6000
5000
4000
3000
2000
1000
500
400
300
200
100
0
SII
F2A
L1/L2
Core
Pol 1
Pol 2
Pol 3
Pol 4
Pre S1/S2
Surface
Total
NS
*
**
Non-HBV vaccine components
HBV peptides

Figure 10A

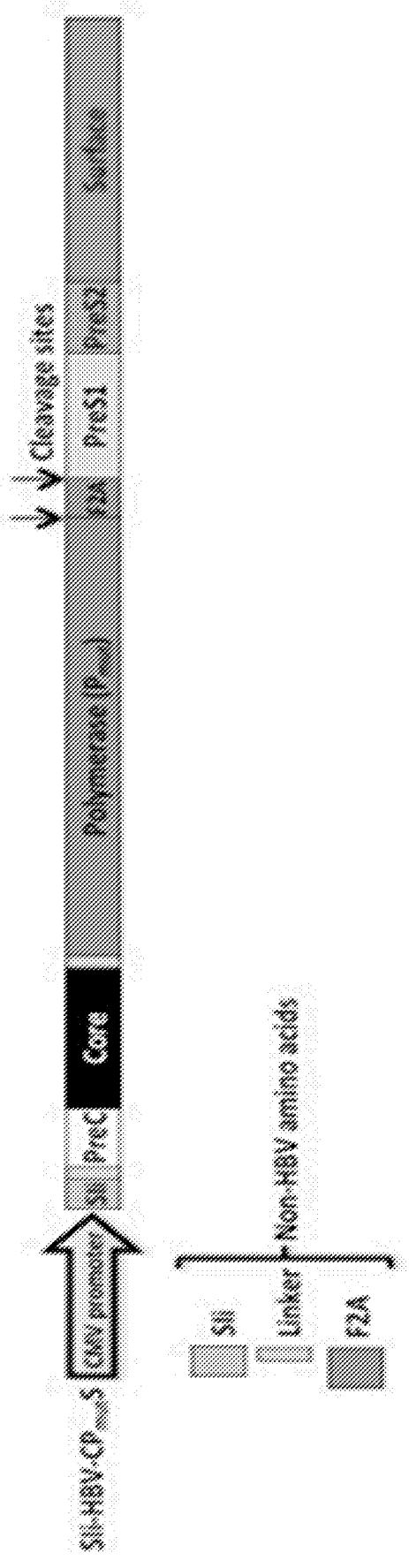


Figure 10B

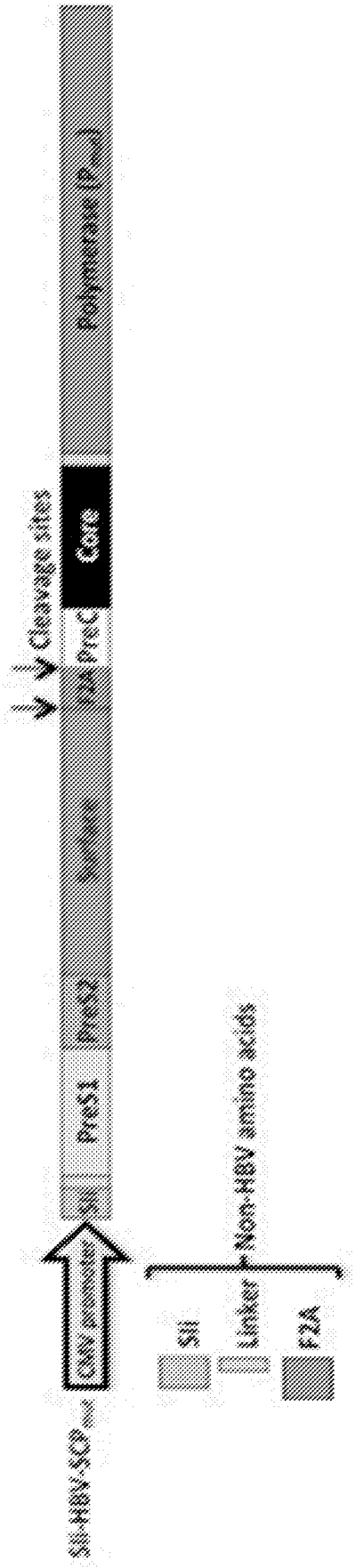


Figure 10C

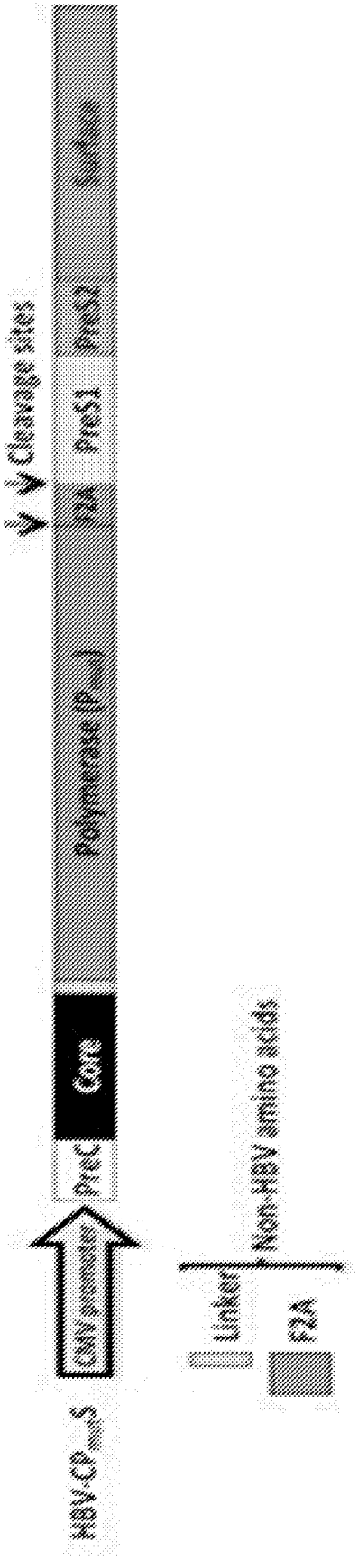


Figure 10D

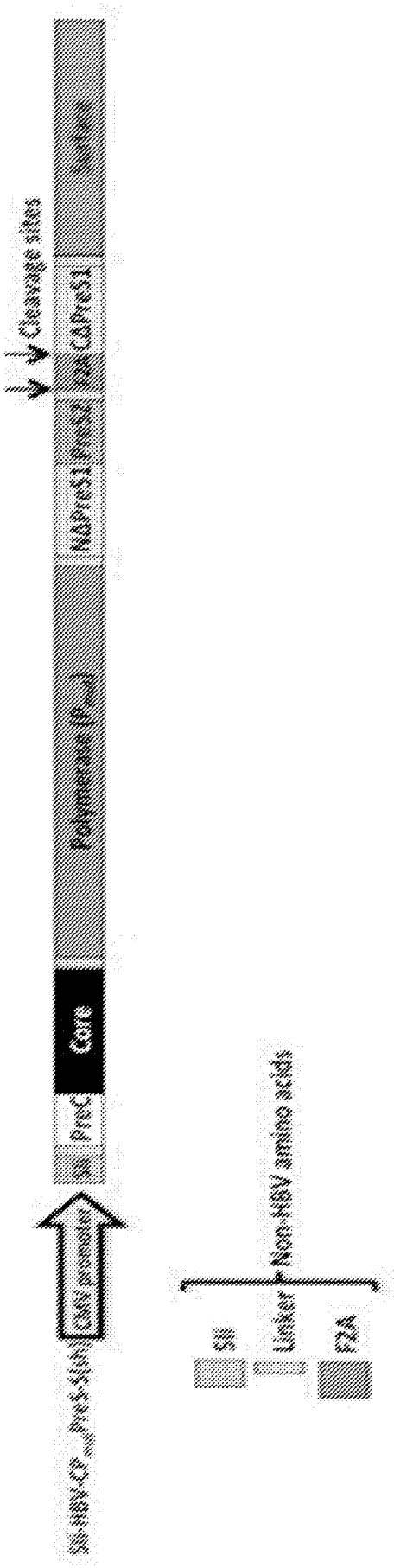


Figure 10E

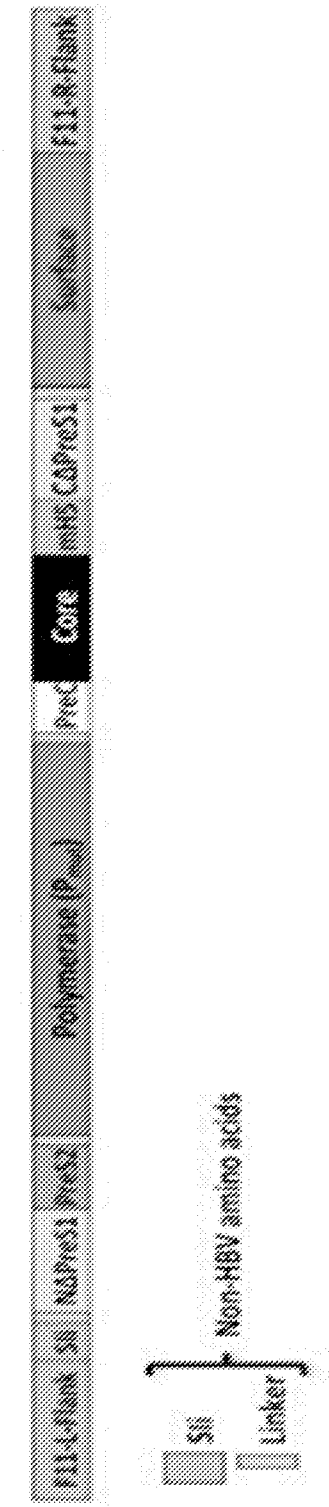


Figure 10F

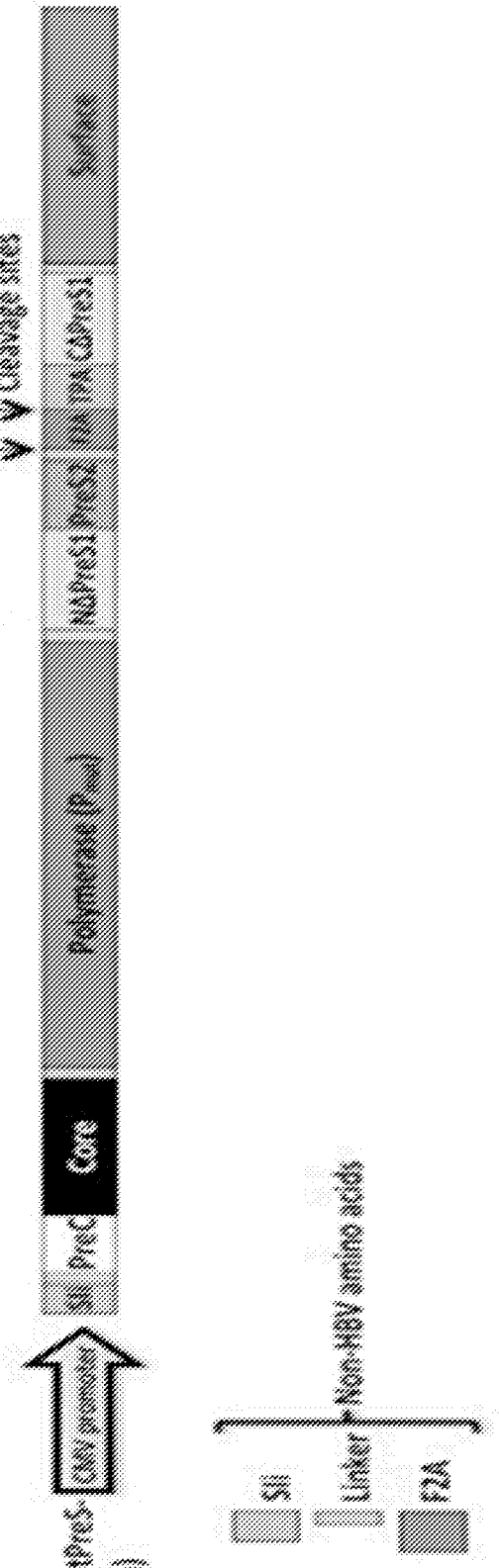
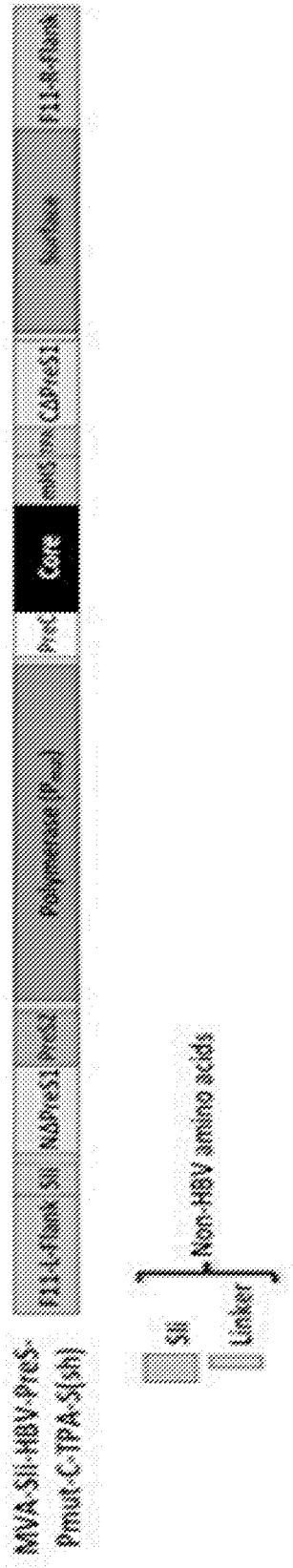


Figure 10G


MVA-SH-HBV-PreS-Pmut-C-TPA-S(sh)
Core
Non-HBV amino acids
SS
Linker