Figure 1

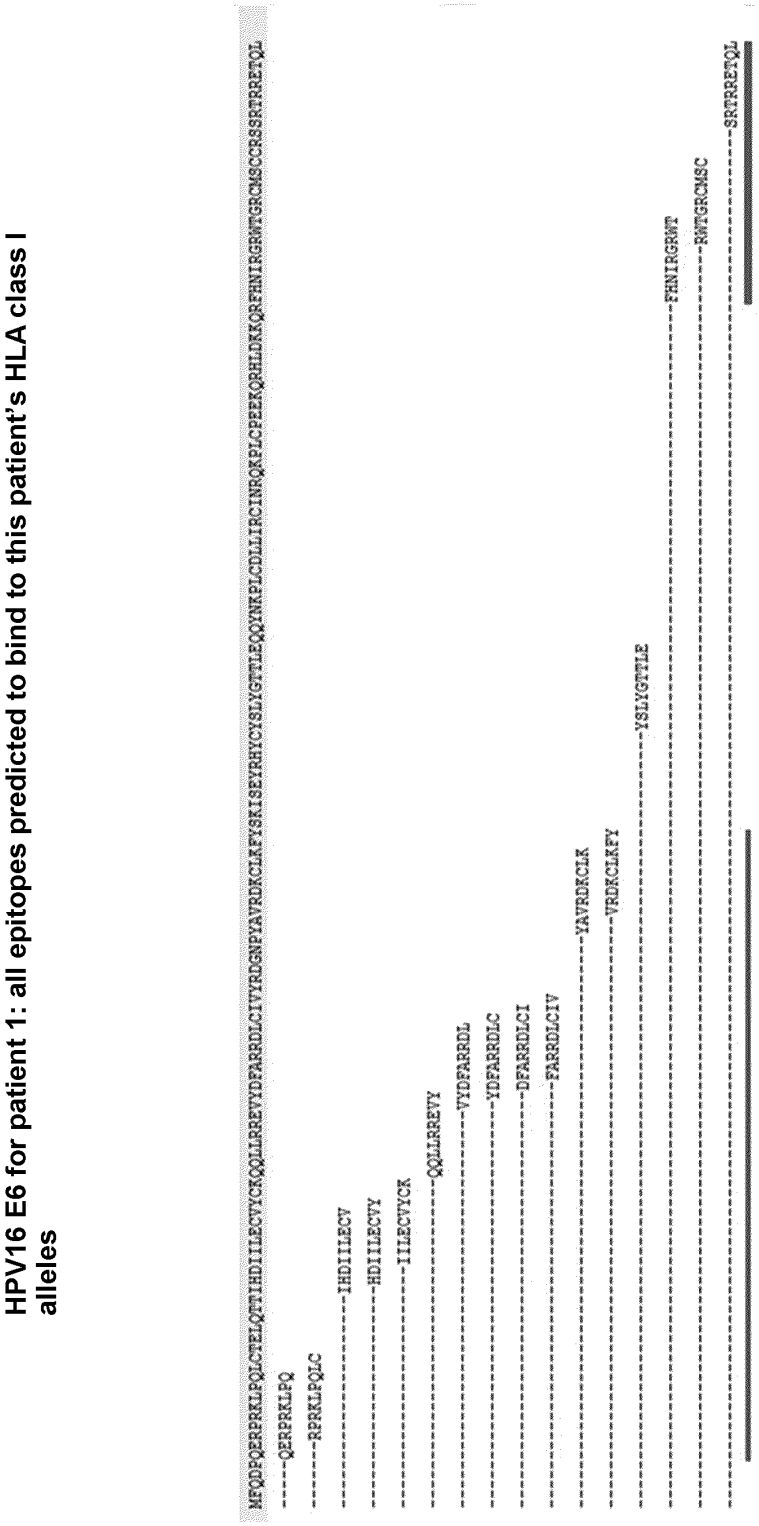

HPV16 E6 for patient 1: all epitopes predicted to bind to this patient's HLA class I alleles

Figure 2

HPV16 E6 for patient 1: all epitopes predicted to bind to this patient's HLA class I and II alleles

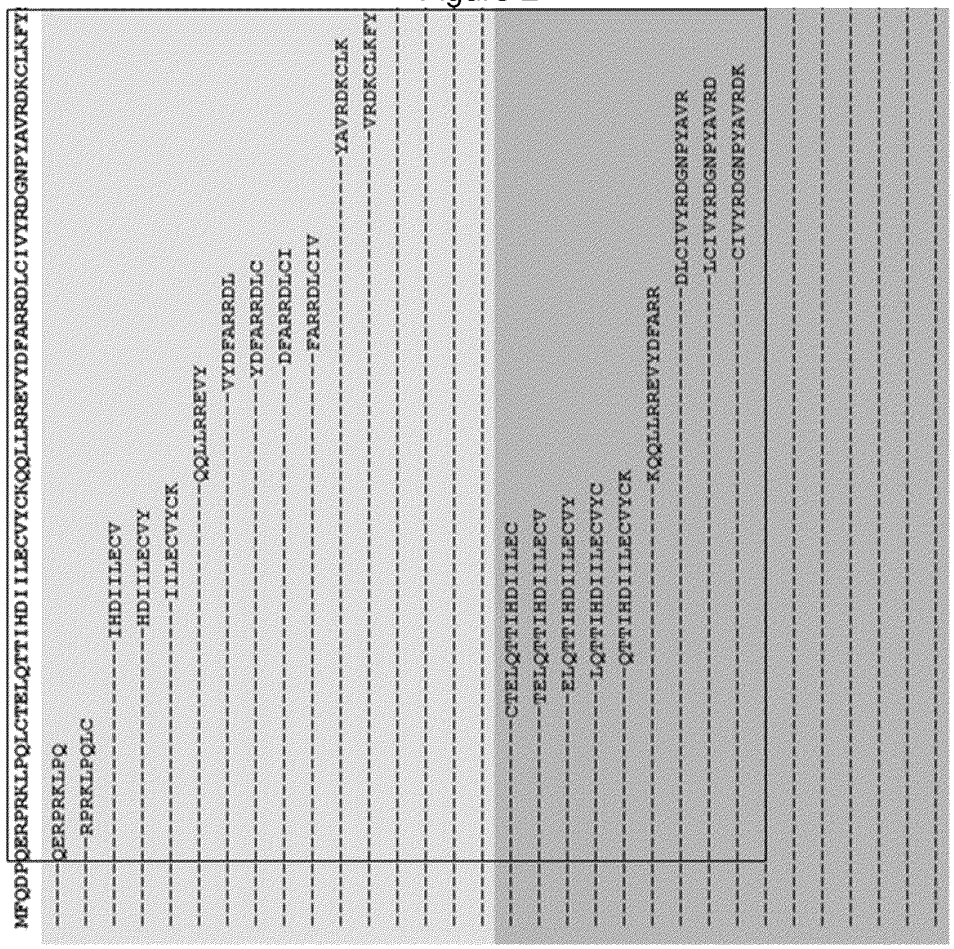


Figure 2 continued

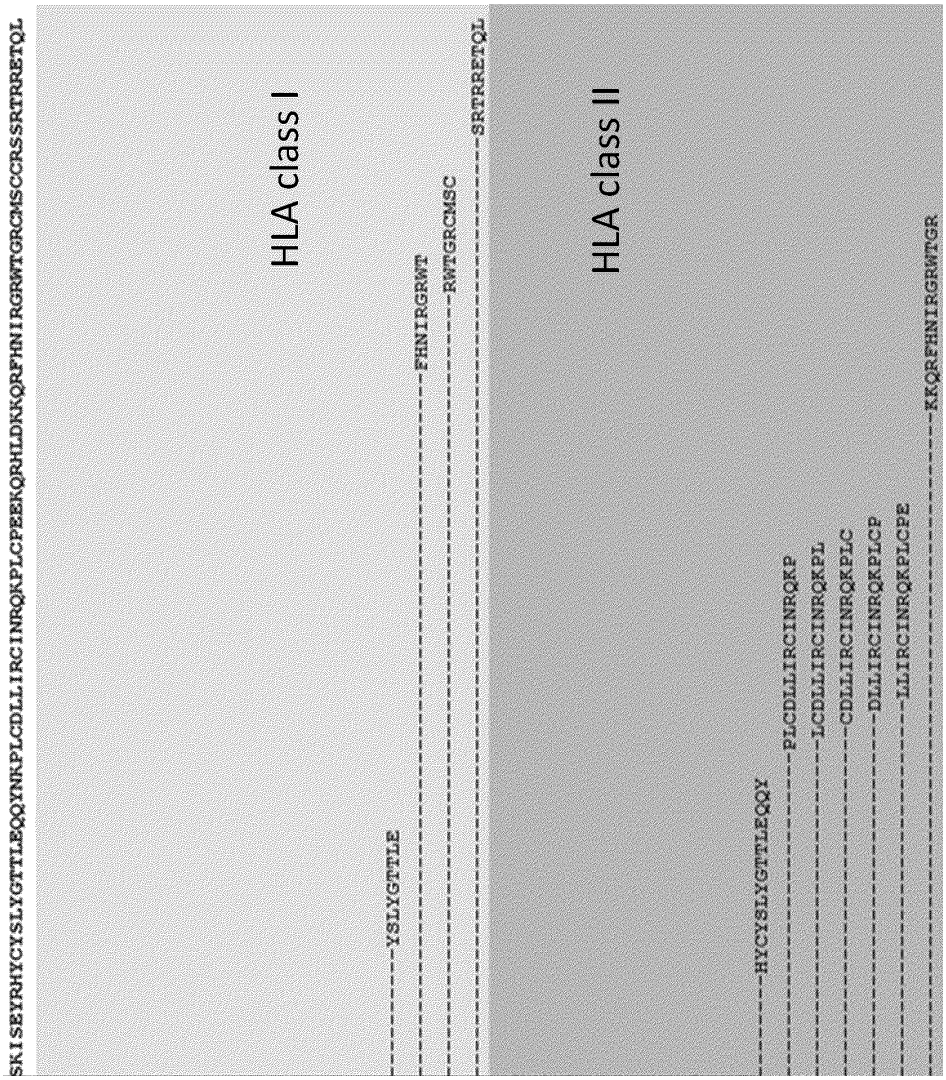


Figure 3

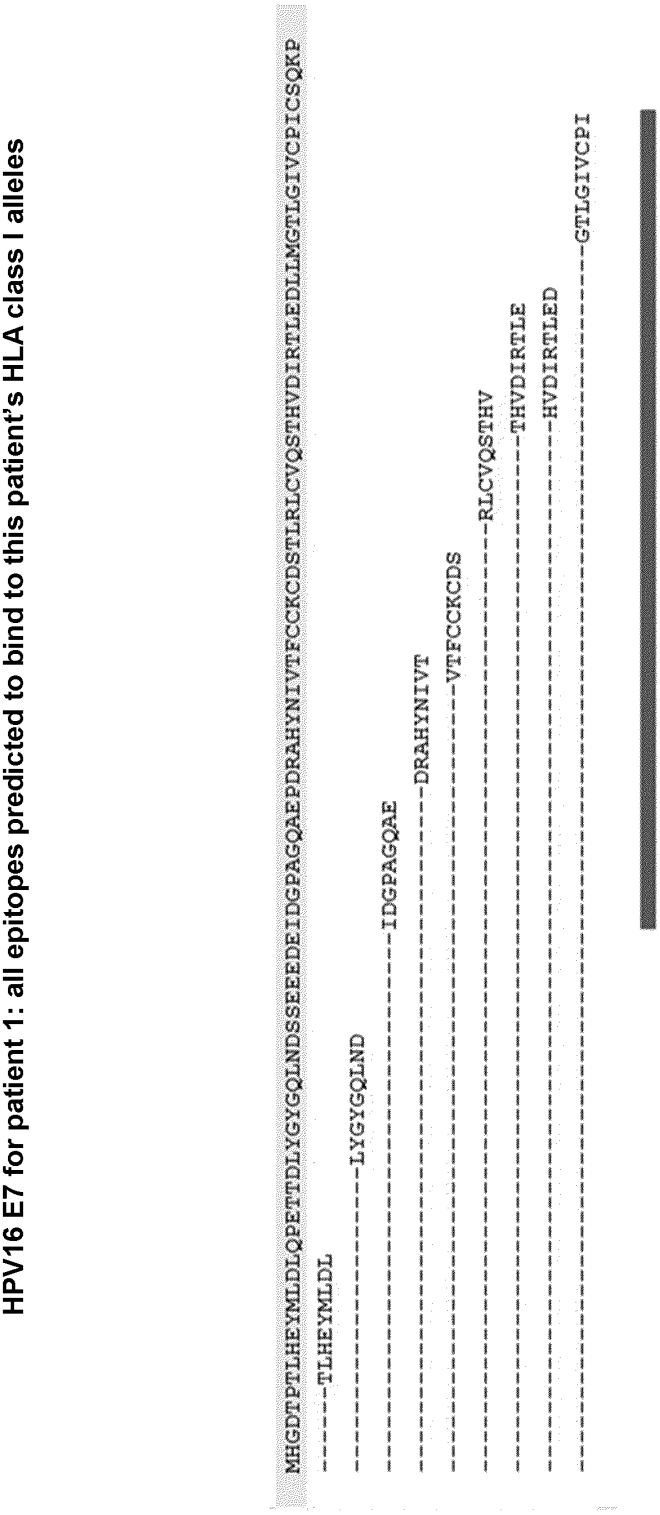

HPV16 E7 for patient 1: all epitopes predicted to bind to this patient's HLA class I alleles
MHGDTPTLHEYMLDLQPETTDLYGYGQLNDSSEEEDEIDGPAGQAEPDRAHYNIVTFCCKCDSTLRLCVQSTHVDIRTLEDLLMGTLGIVCPICSQKP
------TLHEYMLDL
----------LYGYGQLND
----------IDGPAGQAE
----------DRAHYNIVT
----------VTFCCKCDS
----------RLCVQSTHV
----------THVDIRTLE
----------HVDIRTLED
----------GTLGIVCPI

Figure 4

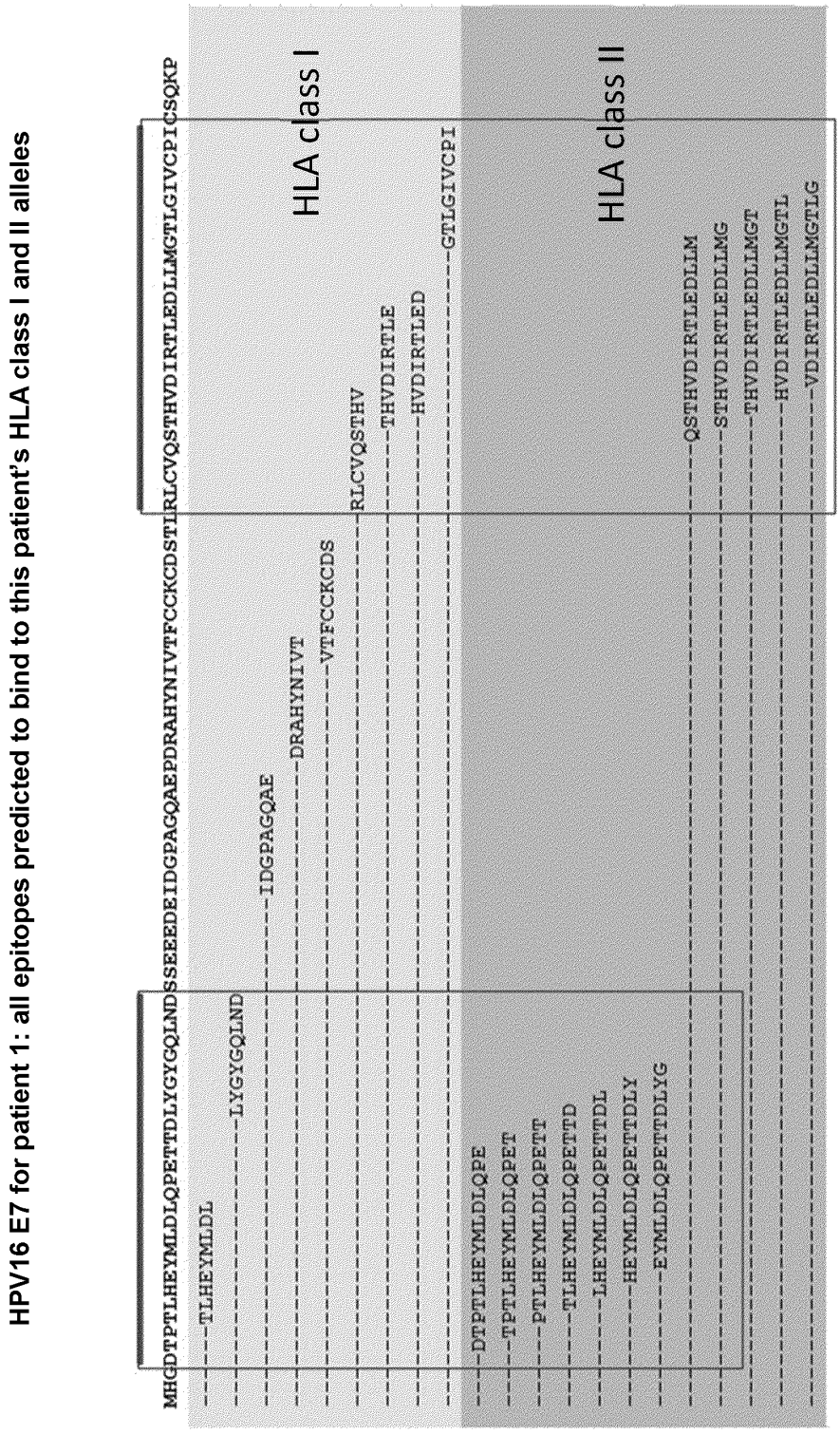

HPV16 E7 for patient 1: all epitopes predicted to bind to this patient's HLA class I and II alleles
MHGDTPTLHEYMLDLQPETTDLYGYGQLNDSSEEEDEIDGPAGQAEPDRAHYNIVTFCCKCDSTLRLCVQSTHVDIRTLEDLLMGTLGIVCPICSQKP
HLA class I
HLA class II

Figure 5

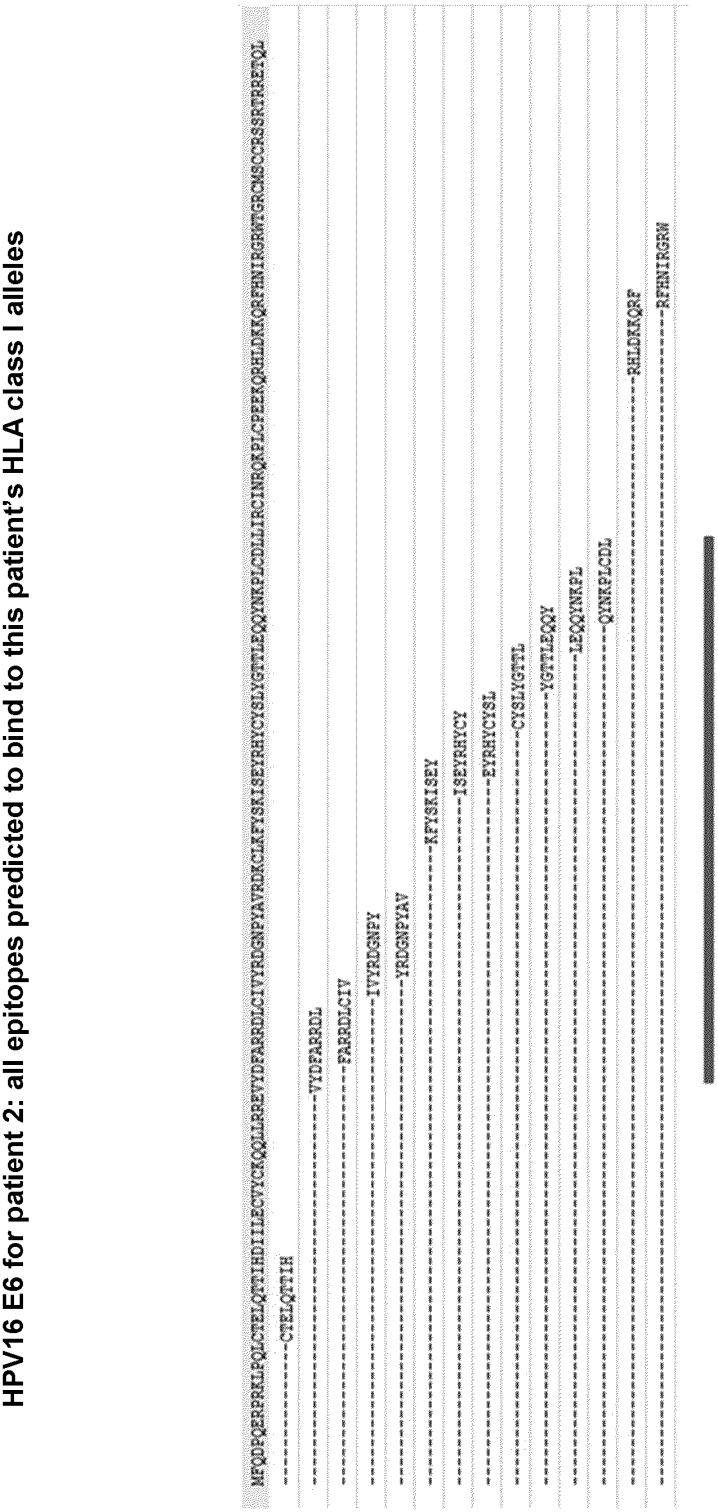

HPV16 E6 for patient 2: all epitopes predicted to bind to this patient's HLA class I alleles

Figure 6

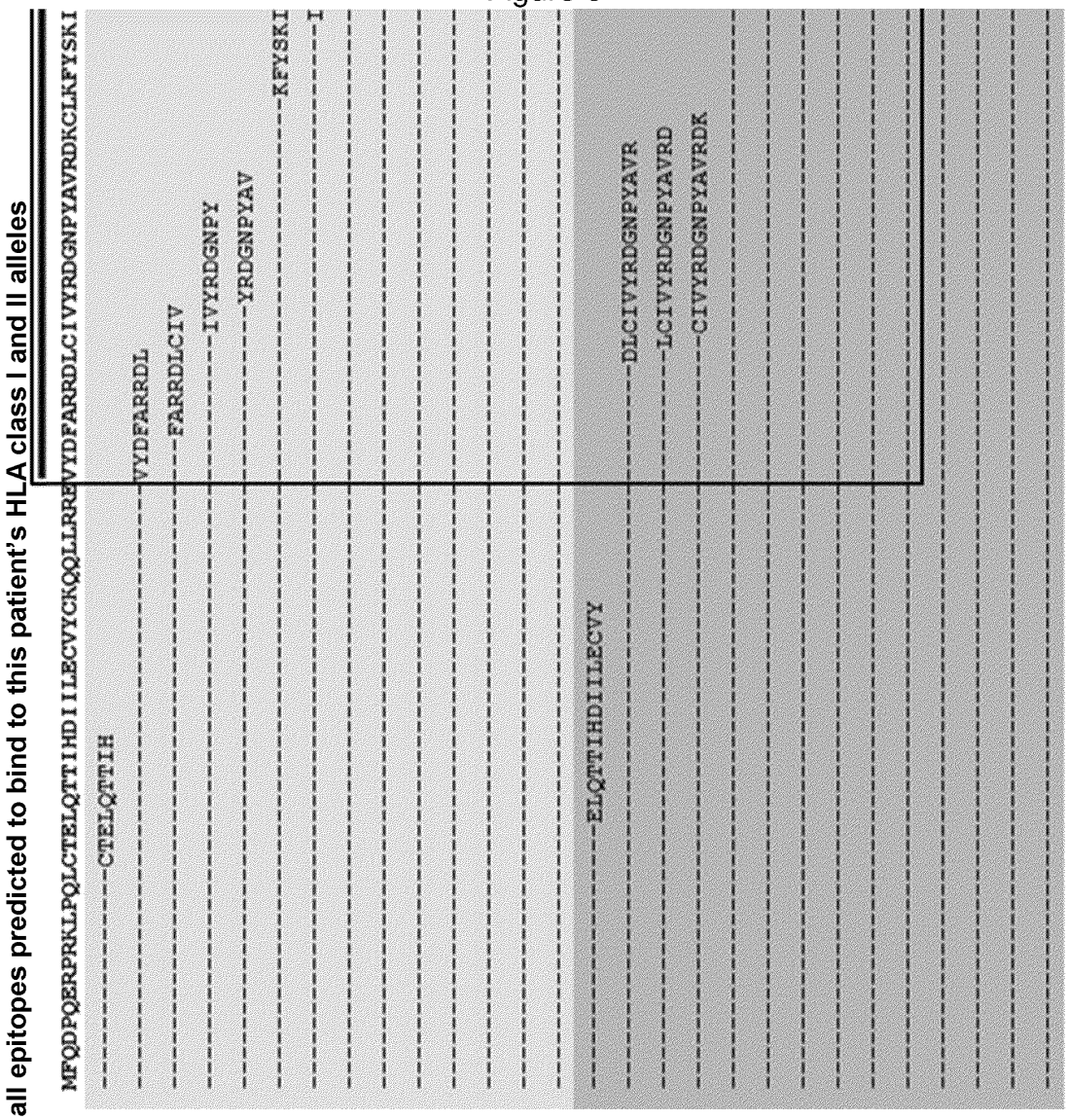

HPV16 E6 for patient 2: all epitopes predicted to bind to this patient's HLA class I and II alleles
MFQDPQERPRKLPQLCTELQTTIHDIILECVYCKQQLLRREVYDFARRDLCIVYRDGNPYAVRDKCLKFYSKI
----------CTELQTTIH
---------VYDFARRDL
--------FARRDLCIV
-------IVYRDGNPY
------YRDGNPYAV
-----KFYSKI
----I
ELQTTIHDIILECVY
DLCIVYRDGNPYAVR
LCIVYRDGNPYAVRD
CIVYRDGNPYAVRDK

Figure 6 continued

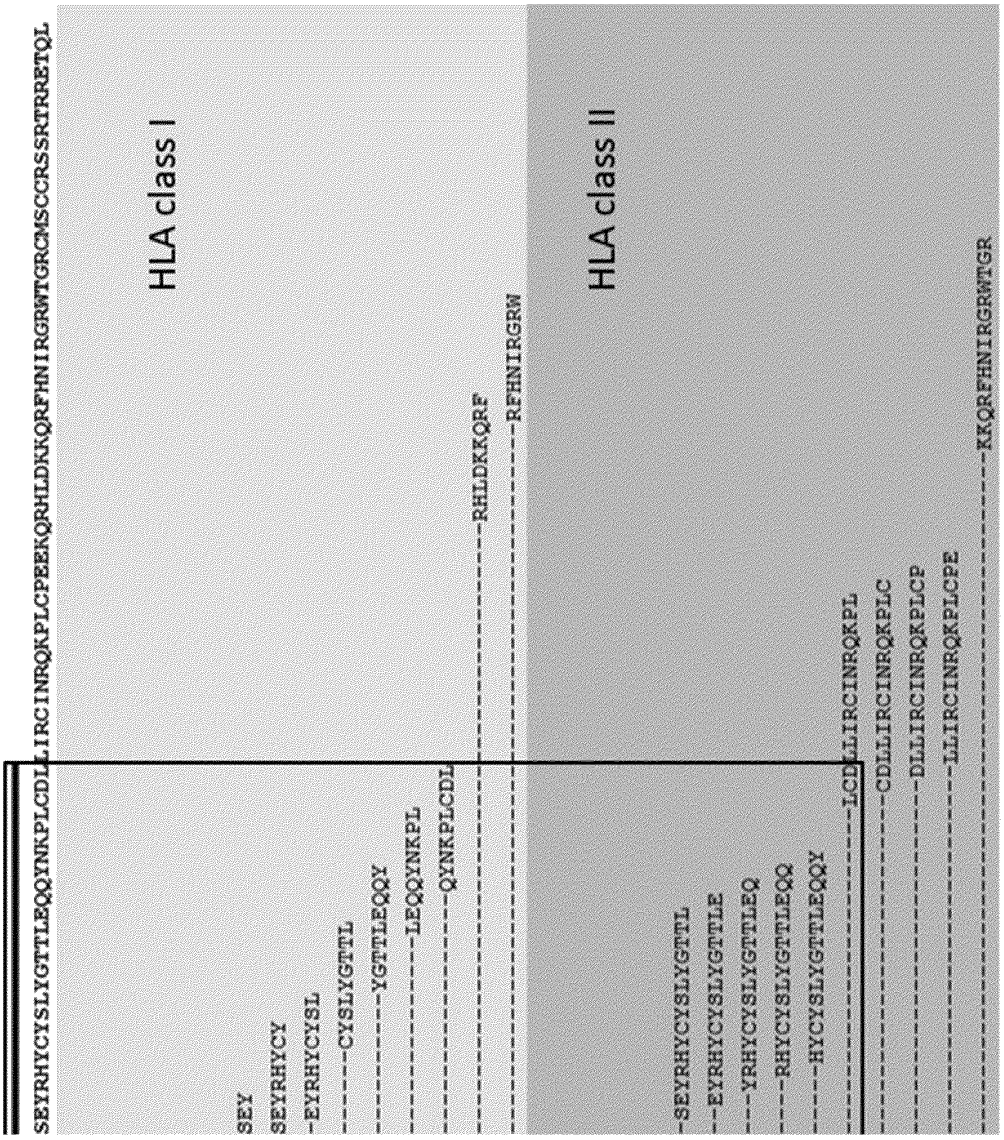


Figure 7

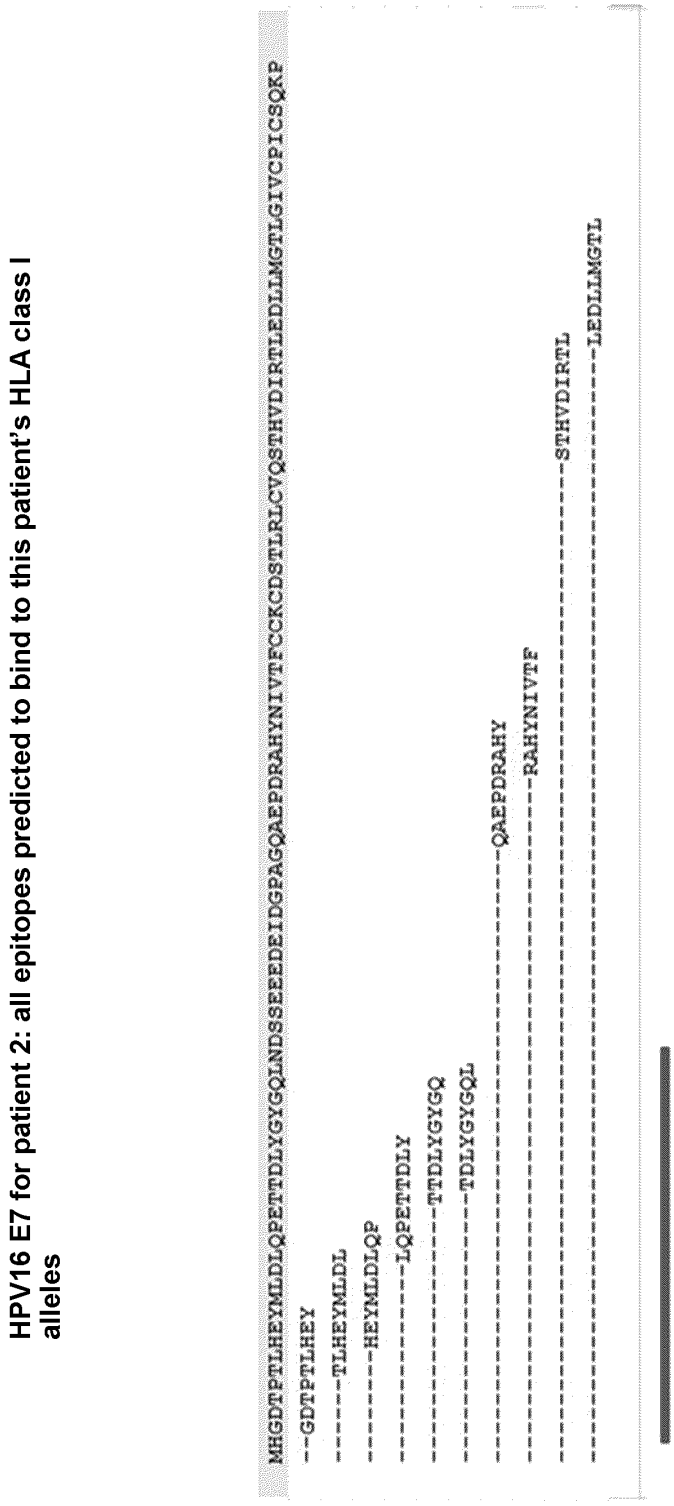

HPV16 E7 for patient 2: all epitopes predicted to bind to this patient's HLA class I alleles
MHGDTPTLHEYMLDLQPETTDLYGYGQLNDSSEEEDEIDGPAGQAEPDRAHYNIVTFCCKCDSTLRLCVQSTHVDIRTLEDLLMGTLGIVCPICSQKP
--GDTPTLHEY
------TLHEYMLDL
---------HEYMLDLQP
----------LQPETTDLY
----------TTDLYGYGQ
----------TDLYGYGQL
----------QAEPDRAHY
----------RAHYNIVTF
----------STHVDIRTL
----------LEDLLMGTL

Figure 8

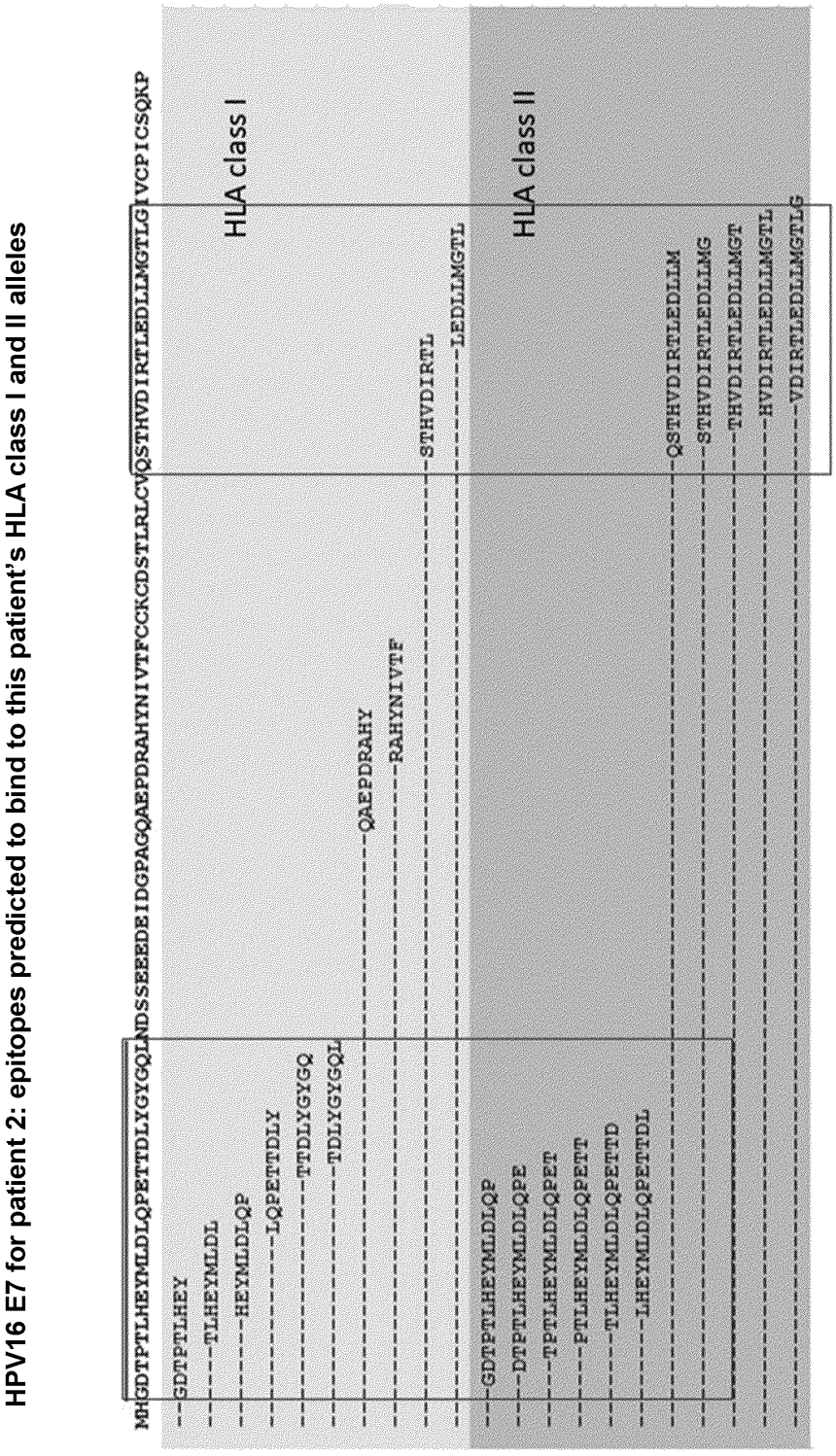

HPV16 E7 for patient 2: epitopes predicted to bind to this patient's HLA class I and II alleles
MHGDTPTLHEYMLDLQPETTDLYGYGQLNDSSEEEDEIDGPAGQAEPDRAHYNIVTFCCKCDSTLRLCVQSTHVDIRTLEDLLMGTLGIVCPICSQKP
HLA class I
HLA class II

Figure 9

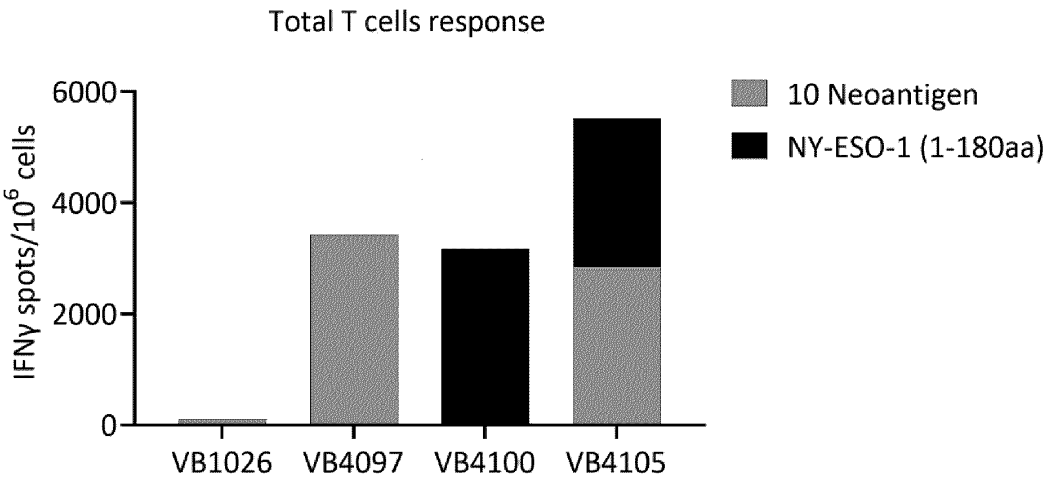


Figure 10

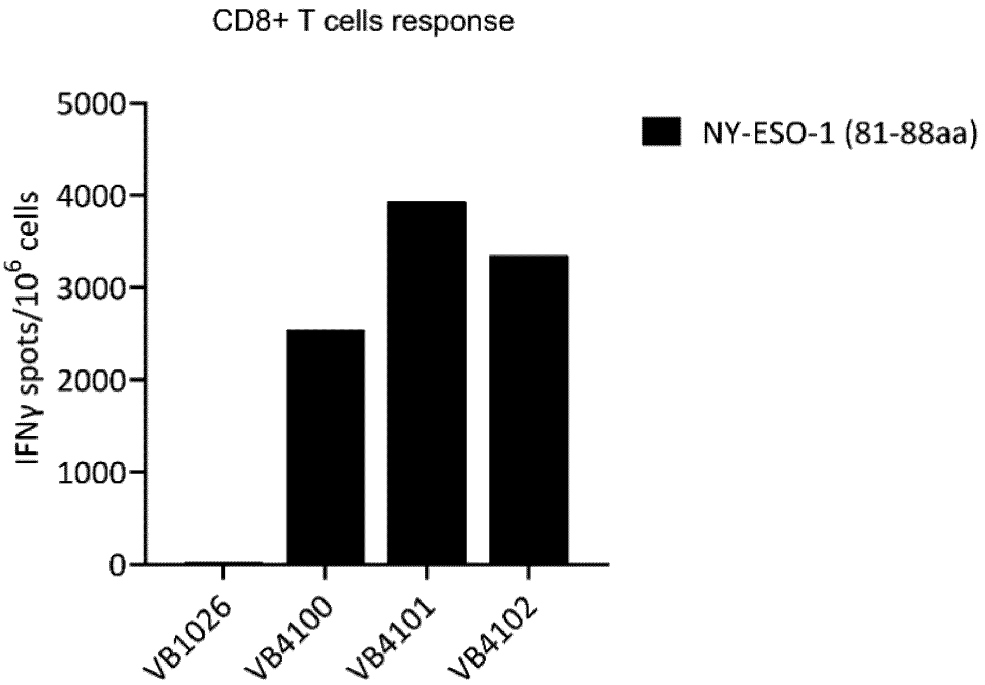


Figure 11

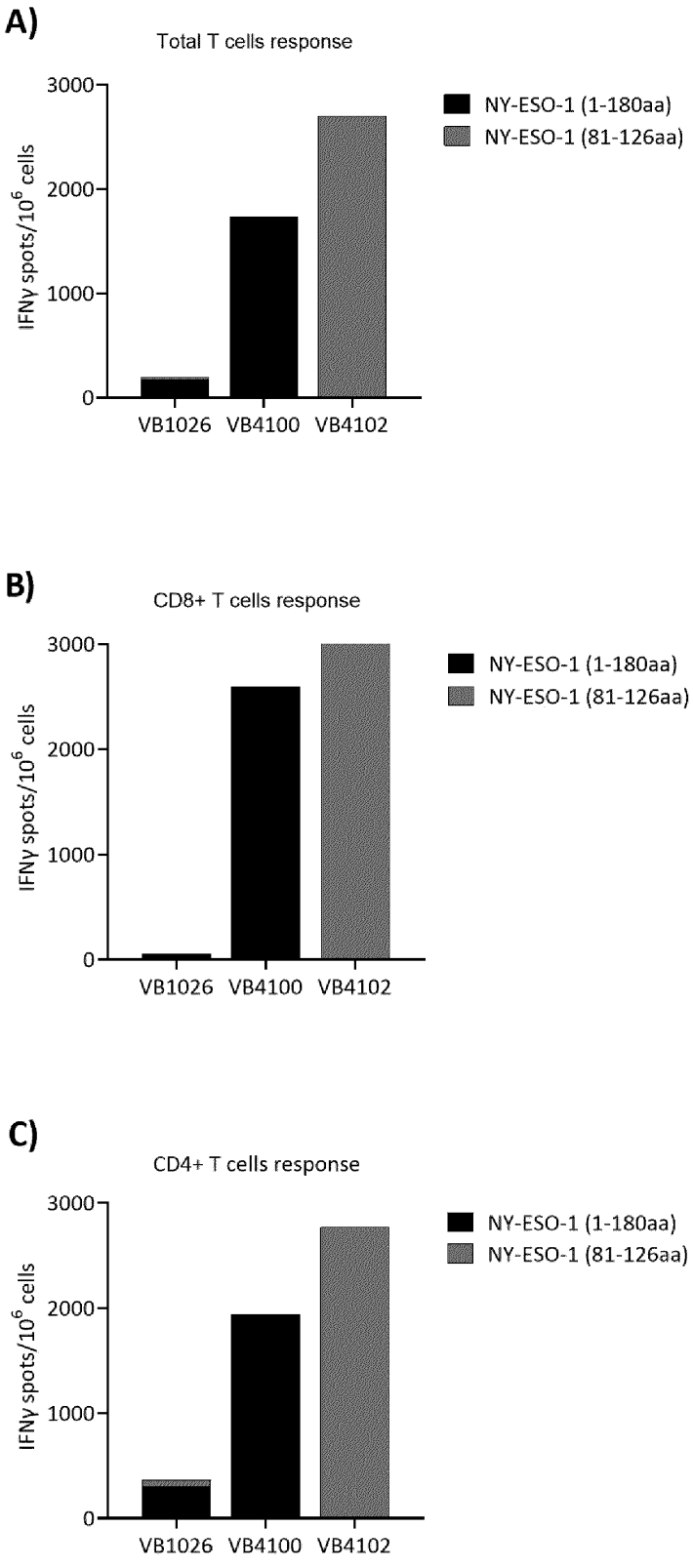
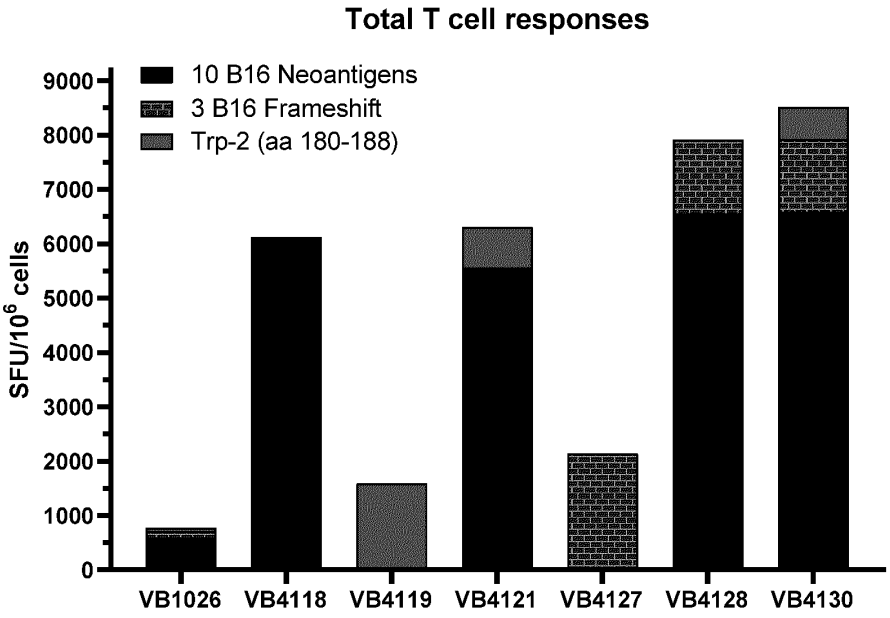

A)
Total T cells response
IFNγ spots/10^6 cells
3000
2000
1000
0
VB1026
VB4100
VB4102
NY-ESO-1 (1-180aa)
NY-ESO-1 (81-126aa)
B)
CD8+ T cells response
IFNγ spots/10^6 cells
3000
2000
1000
0
VB1026
VB4100
VB4102
NY-ESO-1 (1-180aa)
NY-ESO-1 (81-126aa)
C)
CD4+ T cells response
IFNγ spots/10^6 cells
3000
2000
1000
0
VB1026
VB4100
VB4102
NY-ESO-1 (1-180aa)
NY-ESO-1 (81-126aa)

Figure 12


Total T cell responses
10 B16 Neoantigens
3 B16 Frameshift
Trp-2 (aa 180-188)
SFU/10^6 cells
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
VB1026
VB4118
VB4119
VB4121
VB4127
VB4128
VB4130