**Sequence: Codon optimized Vpx Range: 1 to 357**

10 20 30 40 50 60 70

AAAGAATTCAACATGAGCGACCCCAGAGAGAGAATCCCCCCCGGCAACAGCGGCGAGGAGACCATCGGCG

TTTCTTAAGTTGTACTCGCTGGGGTCTCTCTCTTAGGGGGGGCCGTTGTCGCCGCTCCTCTGGTAGCCGC

M S D P R E R I P P G N S G E E T I G>

\_\_\_\_"CODON OPTIMIZED SIV VPX (FULL LENGTH AA 1:112)"\_\_\_\_\_\_>

80 90 100 110 120 130 140

AGGCCTTCGAGTGGCTGAACAGAACCGTGGAGGAGATCAACAGAGAGGCCGTGAACCACCTGCCCAGAGA

TCCGGAAGCTCACCGACTTGTCTTGGCACCTCCTCTAGTTGTCTCTCCGGCACTTGGTGGACGGGTCTCT

E A F E W L N R T V E E I N R E A V N H L P R E>

\_\_\_\_\_\_\_\_\_\_"CODON OPTIMIZED SIV VPX (FULL LENGTH AA 1:112)"\_\_\_\_\_\_\_\_\_\_\_\_>

150 160 170 180 190 200 210

GCTGATCTTCCAGGTGTGGCAGAGAAGCTGGGAGTACTGGCACGACGAGCAGGGCATGAGCCCCAGCTAC

CGACTAGAAGGTCCACACCGTCTCTTCGACCCTCATGACCGTGCTGCTCGTCCCGTACTCGGGGTCGATG

L I F Q V W Q R S W E Y W H D E Q G M S P S Y>

\_\_\_\_\_\_\_\_\_\_"CODON OPTIMIZED SIV VPX (FULL LENGTH AA 1:112)"\_\_\_\_\_\_\_\_\_\_\_\_>

220 230 240 250 260 270 280

GTGAAGTACAGATACCTGTGCCTGATCCAGAAGGCCCTGTTCATGCACTGCAAGAAGGGCTGCAGATGCC

CACTTCATGTCTATGGACACGGACTAGGTCTTCCGGGACAAGTACGTGACGTTCTTCCCGACGTCTACGG

V K Y R Y L C L I Q K A L F M H C K K G C R C>

\_\_\_\_\_\_\_\_\_\_"CODON OPTIMIZED SIV VPX (FULL LENGTH AA 1:112)"\_\_\_\_\_\_\_\_\_\_\_\_>

290 300 310 320 330 340 350

TGGGCGAGGGCCACGGCGCCGGCGGCTGGAGACCCGGCCCTCCTCCTCCTCCTCCTCCTGGCCTGGCCCT

ACCCGCTCCCGGTGCCGCGGCCGCCGACCTCTGGGCCGGGAGGAGGAGGAGGAGGAGGACCGGACCGGGA

L G E G H G A G G W R P G P P P P P P P G L A>

\_\_\_\_\_\_\_\_\_"CODON OPTIMIZED SIV VPX (FULL LENGTH AA 1:112)"\_\_\_\_\_\_\_\_\_\_\_>

CGAGAAA

GCTCTTT