

Start F and F_{trunc} 50

F (1) ATGGATTGCGAATCCTCAAAACAAATGCAATTACCACAACTCTTGCTGC
F_{trunc} (1) ATGGATCTCCCATCTCTCAAGACCAACGCCATCACCACATCTTCGCCGC

51 100

F (51) AGTCACACTCTGTTTCGCTTCCAGTCAAAACATCACTGTAGAATTTTATC
F_{trunc} (51) CGTGACCTCTGTTTCGCGCAGCAGCCAGAACATCACCTGGAGTTCTACC

101 150

F (101) AATCAACATGCAGTGCAGTTAGCAAAGGCTATCTTAGTGCCTTTAAGAACT
F_{trunc} (101) AGAGCACCTGCAGCGCCGTGAGCAAGGGCTACCTGAGCGCCCTGAGGACC

151 200

F (151) GGTGGTATACTAGTGTATATACTATAGAATTAAGTAATATCAAGGAAAA
F_{trunc} (151) GGCTGGTACACAGCGTGATCAGCATCGAGCTGTCCAAATCAAAAGAAAA

201 250

F (201) TAAGTGTAATGCAACAGACGCTAAGCTAAAATGATAAAACAAGAATTAG
F_{trunc} (201) CAAGTGCAACGGCAGCCAGGCCAAAGTGAAGCTGATCAAGCAGGAACCTGG

251 300

F (251) ATAAATATAAAATGCTGTAAACAGAATTGCAGTTGCTCATGCAAAGCACAA
F_{trunc} (251) ACAAGTACAAGAACGCCGTGACCGAGCTGCAGCTGCTGATGCAGAGCAC

301 350

F (301) CCAGCAGCCAACAATCGGGCCAGAAAGAACTACCAAGGTTTATGAATTA
F_{trunc} (301) CCTGCCGCCAACAACAGAGCCAGGCCGAGCTGCCCGGTTTATGAATTA

F (351) TAACTCAACAATACCAAAAAATAACAATGTAACATTAAGCAAGAAAAGGA
F_{trunc} (351) CACCCTGAACAAACCAAGAACAACAACGTGACCCTGAGCAAGAAGCGGA

401 450

F (401) AAAGAAGATTCTTGGCTTCTGTAGGTGTTGGATCTGCAATCGCCAGT
F_{trunc} (401) AGCGGCGGTTCTTGGGCTTCTGCTGGGCGTGGGCAGCGCCATTCGCCAGC

451 500

primer A1
----->

F (451) GGCATTGCTGTATCTAAAGTCCCTGCACCTAGAAGGCGAAGTGAACAAAAT
F_{trunc} (451) GGCATTGCCGTCTCTAAGTCCCTGCATCTGGAAGGCGAGGTCAACAAGAT

501 550

F (501) CAAAAGTGCTTTACTATCCACAACAAGGCTGTAGTCAGCTTATCAAAATG
F_{trunc} (501) TAAGAGCGCCCTGCTGTCCACCAACAAGGCCGTGGTGTCCCTGAGCAACG

551 600

F (551) GAGTTAGTGTCTTAACCAGCAAAGTCTTAGACCTCAAAACTATATAGAT
F_{trunc} (551) GCGTGAGCGTCTGACCAGCAAAGTCTGGATCTGAAGAACTACATCGAC

601 650

F (601) AAACAATGTTTACCCATTGTGAACAAGCAAAGCTGCAGCATATCAAAACAT
F_{trunc} (601) AAGCAGCTGCTGCCCATCGTGAATAAGCAGTCTGCAGCATCAGCAACAT

Figure 1

		651		700
F	(651)	TGAAACTGTGATAGAAATCCAACAAAAGAGCAACAGACTACTAGAGATT		
F _{trunc}	(651)	CGACACAGTGATCGAGTTCCAGCAGAAGAGCAACCGGCTGCTGGAAATCA		
		701		750
F	(701)	CCAGGCAATTTAGTGTTAATGCAGGTGTAACACCTGTAAGCACTTAT		
F _{trunc}	(701)	CCCGGGAGTTTCCGCTGAATGCCGGCGTGACACCCCGTGTCCACCTAC		
		751		800
F	(751)	ATGTTAAGAAATAGTGAATTATTATCATTAAATCAATGATATGCCATATAAC		
F _{trunc}	(751)	ATGCTGACCAACAGCGAGCTGCTGTCCCTCATCAATGACATGCCCATCAC		
		801		850
F	(801)	AAATGATCAGAAAAAGTTAATGTCACAACATGTTCAAATAGTTAGACAGC		
F _{trunc}	(801)	CAACGACCAAAAAGAACTGATGAGCAACAACGTCCAGATCGTGCGGCAGC		
		851		900
F	(851)	AAAGTTACTCTATCATGTCCATAATAAAGGAGGAACTCTTAGCATATGTA		
F _{trunc}	(851)	AGAGCTACAGCATCATGAGCATCATCAAAGAAGAGGTGCTGGCCCTACGTG		
		901		950
F	(901)	GTACAATTACCACTATATGGTGTAAATAGATACACCTGTGTGGAAACTACA		
F _{trunc}	(901)	GTGCAGCTGCCCTGTACGGCGTGATCGACACCCCTGCTGGAAGCTGCA		
		951		1000
F	(951)	CACATCCCGTCTATGCACAACCAACACAAAGGAAGGGTCCAACATCTGTT		
F _{trunc}	(951)	CACCAGCCCTGTGTCACCACCAACACCAAAGAGGCAGCAACATCTGCC		
		1001		1050
F	(1001)	TAACAAGAACCGACAGAGGATGGTACTGTGACAATGCAGCATCAGTGTCT		
F _{trunc}	(1001)	TGACCCGACCGATAGGGCTGGTACTGCGACAACGCCGCAGCGTGTCC		
		1051		1100
F	(1051)	TTCTTTCCCAAGCTGAAACATGCAAAGTTCAATCGAATCGAGTATTTTG		
F _{trunc}	(1051)	TTCTTTCCCAAGCCGAGACTTGCAAGGTGAGAGCAACAGGGTGTCTCG		
		<-----		
		Primer B2		
		1101		1150
F	(1101)	TGACACAATGAACAGTTTAAACATTACCAAGTGAAGTAAATCTCTGCAACA		
F _{trunc}	(1101)	CGACACCATGAACAGCCTGACCTGCCCGAGCGAAGTGAACCTGTGCAACA		
		1151		1200
F	(1151)	TTGACATATTCAACCCTAAATATGATTGCAAAATTATGACTTCAAAAACA		
F _{trunc}	(1151)	TCGACATCTTTAACCCCAAGTACGACTGCAAGATCATGACCTCCAAGACC		
		1201		1250
F	(1201)	GATGTAAGCAGCTCCGTTATCACATCTCTAGGAGCCATTGTGTGATGCTA		
F _{trunc}	(1201)	GACGTGTCAGCTCCGTTATTACAGCCTGGGCGCCATCGTGTCTGCTA		
		1251		1300
F	(1251)	TGGCAAAACTAAATGTACAGCATCCAATAAAAATCGTGGAATCATAAAGA		
F _{trunc}	(1251)	CGGCAAGACCAAGTGCACCGCCAGCAACAAGAACCGGGCATCATCAAGA		

Figure 1 (continued)

```

1301                                     1350
F      (1301) CATTTCCTAACGGGTGTCGATTATCTATCAAACAAGGGCGTGGACACTGTA
F_trunc (1301) CCTTCAGCAACGGGTGCGACTACGTGTCCAATAAGGGCGTGGACACCGTG

1351                                     1400
F      (1351) TCTGTAGCTAATACGTTATATTATCTAAATAAGCAAGAGGAAAAAGTCT
F_trunc (1351) TCCGTGGCAACACACTGTACTACGTGAACAAGCAGGAAGGCAAGAGCCT

1401                                     1450
F      (1401) CTATGTAAAAGGTGAACCAATAATAAATTCTATGACCCATTAGTGTTC
F_trunc (1401) GTACGTGAAGGGCGAGCCCATCATCAACTTCTACGACCCCTGGTGTTC

1451                                     1500
F      (1451) CTTCTGATGAATTTGATGCATCAATATCTCAAGTCAATGAGAAGATTAAC
F_trunc (1451) CCAGCGACGAGTTGACGCCAGCATCAGCCAAGTGAACGAGAAGATCAAT

1501                                     1550
F      (1501) CAGAGCCTAGCATTATTCGTAAATCCGATGAATTATTACATAATGTAAA
F_trunc (1501) CAGTCCTCGGCTTCATCAGGAAGAGCGACGAGCTGCTGCAATGTCAA

1551                                     1600
F      (1551) TGTGGTAAATCCACCACAAATATCATGATAACTACTATAATTATAGTGA
F_trunc (1551) CGTGGCAAGTCCACCACCAACTGA-----
                                     stop F_trunc

1601                                     1650
F      (1601) TTATAGTAATATTGTTATTATTAAATTGCAGTTGGGCTGTTCTTACTATGC
F_trunc (1576) -----

1651                                     1700
F      (1651) AAGGCCAGAAGCACACCAGTCACACTAAGCAAGGATCAACTGAGTGGTAT
F_trunc (1576) -----

1701                                     1725
F      (1701) AAATAATATTGCATTTAGTAACTGA stop F
F_trunc (1576) -----

```

Figure 1 (continued)

BN_F-trunc optimized vs.BN_F full length
 Score = 992 bits (2564), Expect = 0.0, Identities = 524/524 (100%),
 Positives = 524/524 (100%), Gaps = 0/524 (0%)

F	1	MDLPILKTNAITTIFFAAVTLCFASSQNITVEFYQSTCSAVSKGYLSALRTGWYTSVITIE	60
F _{trunc}	1	MDLPILKTNAITTIFFAAVTLCFASSQNITVEFYQSTCSAVSKGYLSALRTGWYTSVITIE	60
F	61	LSNIKENKCGTDAKVKLIKQELDKYKNAVTELQLLMQSTPAANNRARELPRFMNYTLN	120
F _{trunc}	61	LSNIKENKCGTDAKVKLIKQELDKYKNAVTELQLLMQSTPAANNRARELPRFMNYTLN	120
F	121	NTKNNNVTLSSKKRRRFLGFLLGVGSAIASGIAVSKVLHLEGEVNIKSALLSTNKAVVS	180
F _{trunc}	121	NTKNNNVTLSSKKRRRFLGFLLGVGSAIASGIAVSKVLHLEGEVNIKSALLSTNKAVVS	180
F	181	LSNGVSVLTSKVLDLKNYIDKQLPIVKNQSCSISNIETVIEFQQKSNRLLLEITREFSVN	240
F _{trunc}	181	LSNGVSVLTSKVLDLKNYIDKQLPIVKNQSCSISNIETVIEFQQKSNRLLLEITREFSVN	240
F	241	AGVTPPVSTYMLTNSELLSLINDMPITNDQKKLMSNNVQIVRQQSYSIMSIIKEEVLAYV	300
F _{trunc}	241	AGVTPPVSTYMLTNSELLSLINDMPITNDQKKLMSNNVQIVRQQSYSIMSIIKEEVLAYV	300
F	301	VQLPLYGVIDTPCWKLHTSPLCTTNTKEGSNICLTRDRGWYCDNAGSVSFFPQAETCKV	360
F _{trunc}	301	VQLPLYGVIDTPCWKLHTSPLCTTNTKEGSNICLTRDRGWYCDNAGSVSFFPQAETCKV	360
F	361	QSNRVFCDTMNSLTLPSEVNLCNIDIFNPKYDCKIMTSKTDVSSSVITSLGAIVSCYGKT	420
F _{trunc}	361	QSNRVFCDTMNSLTLPSEVNLCNIDIFNPKYDCKIMTSKTDVSSSVITSLGAIVSCYGKT	420
F	421	KCTASNKNRGIKTFNSNGCDYVSNKGVDTVSVGNTLYYVKNQEGKSLYVKGEPIINFYDP	480
F _{trunc}	421	KCTASNKNRGIKTFNSNGCDYVSNKGVDTVSVGNTLYYVKNQEGKSLYVKGEPIINFYDP	480
F	481	LVFPSDEFDASISQVNEKINQSLAFIRKSDELLHNVNVGKSTTNIMITTIIIVIIIVILL	540
F _{trunc}	481	LVFPSDEFDASISQVNEKINQSLAFIRKSDELLHNVNVGKSTTN---- 524	
F	541	LIAGVGLFLYCKARSTPVTLSKDQLSGINNIAFSN	574
F _{trunc}	541	-----	

Figure 2

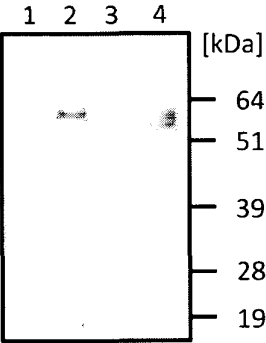


Figure 3

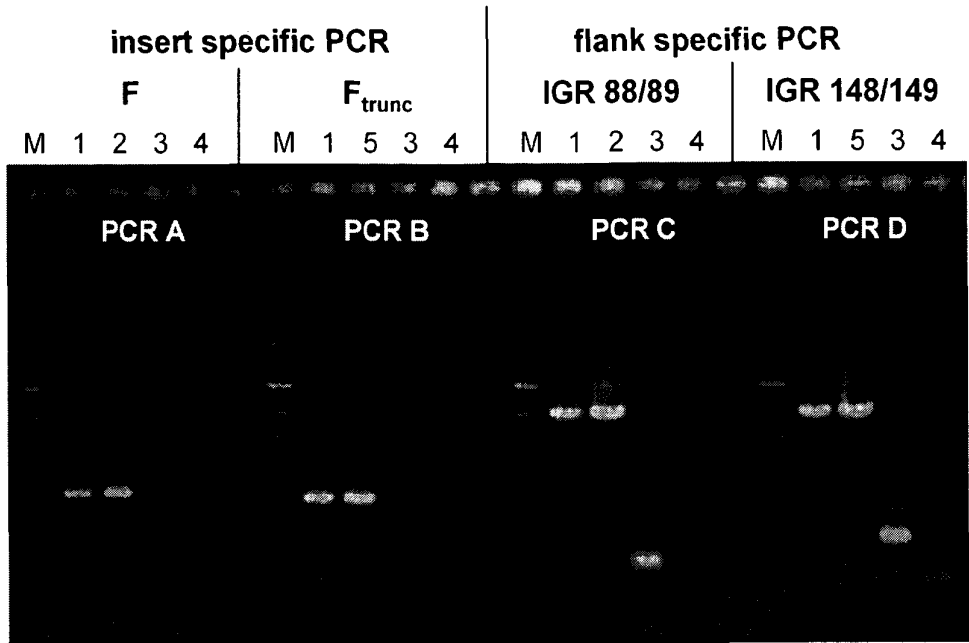
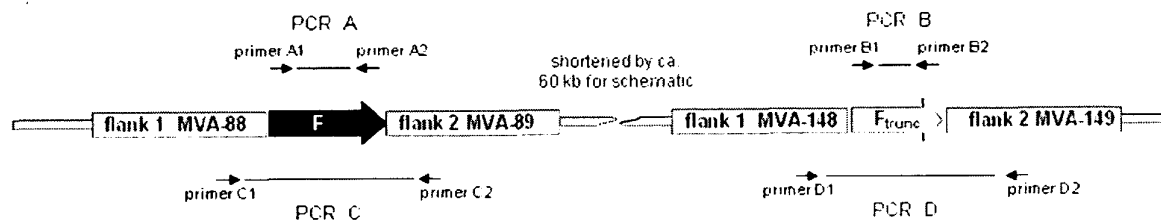
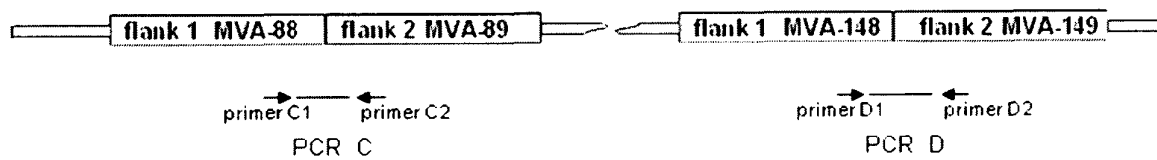
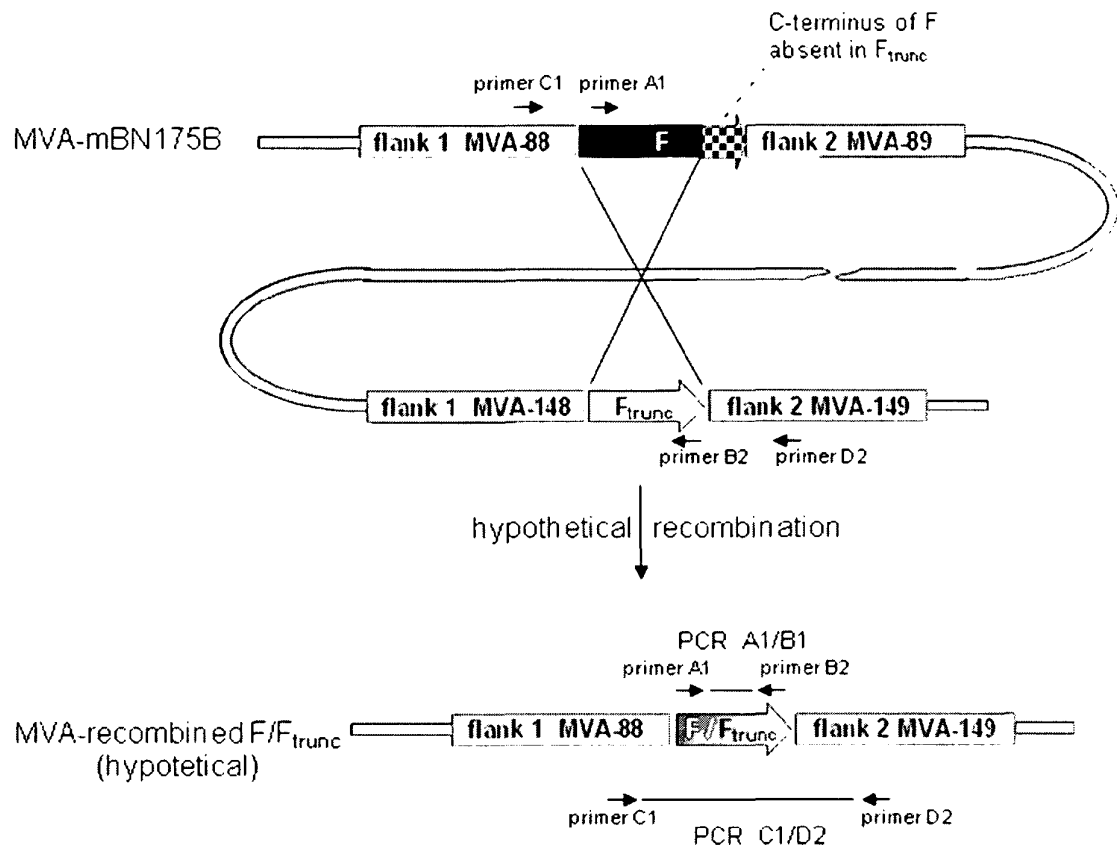
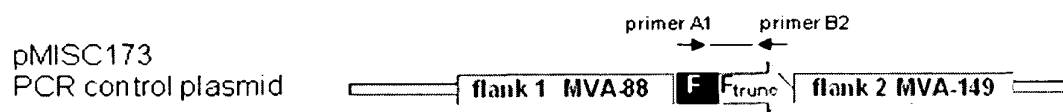
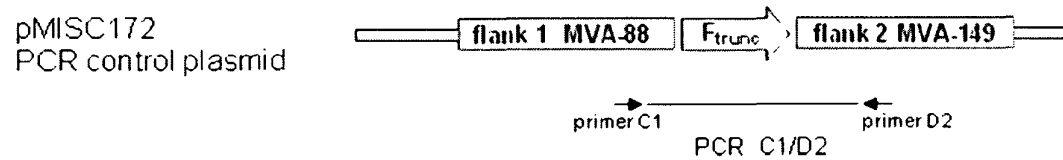


Figure 4A

**Figure 4B****Figure 4C**

**Figure 5A**

**Figure 5B****Figure 5C**

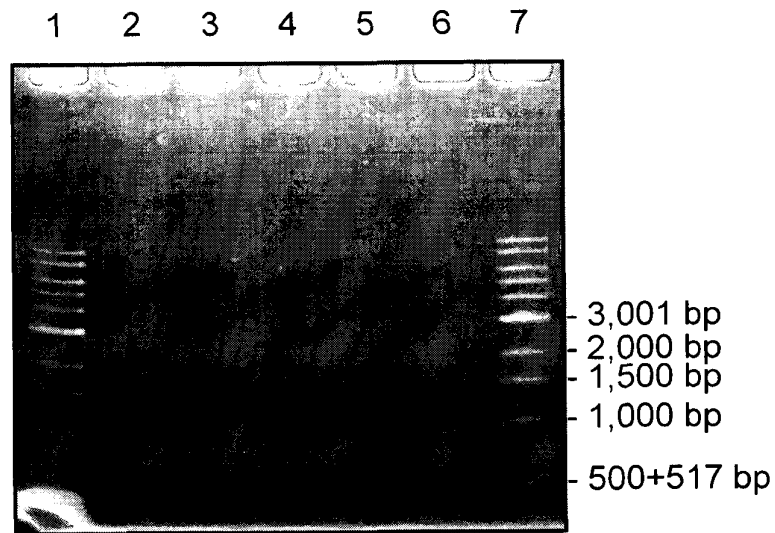


Figure 6

1 50

EBOV-B (1) MVTSGILQLPREERFKTSFFVWVILFHKVFPPLGVVHNNTLQVSDIDK
EBOV-S (1) MGGLSLLQLPRDKFKSSFFVWVILFQKAFSMP LGVVTN STLEVTEIDQ
EBOV-Z (1) MGVTSILQLPRDRFKTSFFLWVILFQRTFSIPLGVIHNSTLQVSDVDK
51 100

EBOV-B (51) LVC RDKLSSTS QLSVGLNLEGNVATDVPTATKRWGFRA GVPVKVNYE
EBOV-S (51) LVCKDHLASTDQLKSVGLNLEGSVSTDI PSATKRWGFRSGVPPKVVS YE
EBOV-Z (51) LVC RDKLSSTNQLRSVGLNLEGNVATDVPSATKRWGFRSGVPPKVV NYE
101 150

EBOV-B (101) AGEWAENCYNLDIKKADGSECLPEAPEGVRGFP RCRVYHKVSGTGPCPEG
EBOV-S (101) AGEWAENCYNLEIKKPDGSECLPPPPDGVRGFP RCRVYHKAQGTGPCPGD
EBOV-Z (101) AGEWAENCYNLEIKKPDGSECLPAAPDGIRGFPRCRVYHKVSGTGPCAGD
151 200

EBOV-B (151) YAFHKEGAFFLYDRLASTIIYRSTTFSEGVVAF LILPETKKDFEQSPPLH
EBOV-S (151) YAFHKDGAFFLYDRLASTVIYRCVNEAEGVIA FLILAKPKETFLQSPPIR
EBOV-Z (151) FAFHKEGAFFLYDRLASTVIYRGTTFAEGV VAF LILQAKKDFESSHPLR
201 250

EBOV-B (201) EPANMTTDESSYYHTVTLNLYVADNFGT NMTNFLFQVDHLITYVQLEPRFT P
EBOV-S (201) EAVNYTENTSSYYATSYLEYIEINFGAQH STTLFKIDNNTFVRLDRPH TP
EBOV-Z (201) EPVNATEDESSGYYSTTIRYQATGFGT NETEYLFV DNLITYVQLESRF TP
251 300

EBOV-B (251) QFLVQLNETIYTNGRRSNTTGTLWKVNPT VDTGVGEWAFWENKKNFTKT
EBOV-S (251) QFLFQLNDTIHLHQQLSNTTGRLIWTLD ANINADIGEWAFWENKKNLSEQ
EBOV-Z (251) QFLLQLNETIYTSCKRSNTTGKLIWKVN PEIDTTIGEWAFWETKKNLTRK
301 350

EBOV-B (301) LSSEELSVIFVPRAQDPGSNOKTKVTPTSF ANNOTSKNHEDLVPEDPASV
EBOV-S (301) LRGEELSEALSNETEDDDAASSRITKGRIS DRATRKYSDLVPKNSPGM
EBOV-Z (301) IRSEELSFVVSNGAKNISGQSPARTSSDP GTNTTTEDHKIMASENSSAM
351 400

EBOV-B (351) VQVRDLORENTVETPPPD TVPTLIPDTMEEQT TSHYEPNISRNHQERN
EBOV-S (351) VPLHIPEGETTILFSQNSTEGRRVG VNTQETITETAATIIGTNGNHMQIST
EBOV-Z (351) VQVHSQGREAAVSHLTTLATISTSPQSLT TKPGPDNSTHNPVYKLDISE
401 450

EBOV-B (401) NTAHPETLANNPPDNTTPSTPPQDGERT SSHTTPSPRPVFTSTIHPTTRE
EBOV-S (401) IGIRPSSSQIPSSSPTTAPSPAQTPTHTSG PSVMATEEPTTPPGSSPG
EBOV-Z (401) ATQVEQHHRTDNDSTASDTPSATTAAG PPKAENTNTSKSTDFLDPATTT
451 500

EBOV-B (451) THIPTMTTSHD TDSNRPNPIDISESTEPGL TNTRGAANLLTGSRRT R
EBOV-S (451) PTTEAPTLTPENITTAVKTVLPQESTS NGLITSTVTGILGSLGLRKR SR
EBOV-Z (451) SPQNHSETAGNNNTHHQDTGEESASSG KGLLITNTIAGVAGLITGGRRT R
501 550

EBOV-B (501) REITLRTQAKCNPNLHYWTTQDEGAATGLAW IPYFGPAEGIYTEGLMHN
EBOV-S (501) RQNTKATGKCNPNLHYWTAQEQHNAAGI AWIPYFGPGAEGIYTEGLMHN
EBOV-Z (501) REAIVNAQPKCNPNLHYWTTQDEGAATGLAW IPYFGPAEGIYIEGLMHN
551 600

EBOV-B (551) QNGLICGLRQLANETTQALQLFLRATTELRTFS ILNRKAIDFLLQRWGGT
EBOV-S (551) QNALVCGLRQLANETTQALQLFLRATTELRTY TILNRKAIDFLLRRWGGT
EBOV-Z (551) QDGLICGLRQLANETTQALQLFLRATTELRTFS ILNRKAIDFLLQRWGGT
601 650

EBOV-B (601) CHILGPDCCIEPHDWTKNITDKIDQIIHDFID KPLPDQTDNDNWWTGWRQ
EBOV-S (601) CRILGPDCCIEPHDWTKNITDKINQIIHDFI DNEPLNQDNDNWWTGWRQ
EBOV-Z (601) CHILGPDCCIEPHDWTKNITDKIDQIIHDFVD KTLPDQGDNDNWWTGWRQ
651 676

EBOV-B (651) WVPAGIGITGVIIAIVIALLCICKETL
EBOV-S (651) WIPAGIGITGIIIAIIALLCVCKLLC
EBOV-Z (651) WIPAGIGVTGVIIAIVIALFCICKETVF

Figure 7

		1	50
EBOV-B non-opt	(1)	ATGGTTACATCAGGAATTCTACAATTGCCCGGTGAACGCTTCAGAAAAAC	
EBOV-S non-opt	(1)	ATGGGCGGTCTTAGCCTACTCCAATTGCCGAGGGACAAATTTCCGAAAG	
EBOV-Z non-opt	(1)	ATGGGCGTTACAGGAATTATGCAGTTACCTCGTGATCGATTCAAGAGGAC	
		51	100
EBOV-B non-opt	(51)	ATCATTTTTTTCTTTGGGTATAATCGTATTTCACAAAGTTTTCCCTATCC	
EBOV-S non-opt	(51)	CTCTTTCTTTCTTTGGGTATCATCTTTATTCAAAAGGCTTTTCCATGC	
EBOV-Z non-opt	(51)	ATCATTTCTTTCTTTGGGTATTATCGTTTTTCAAAGAACATTTCCATCC	
		101	150
EBOV-B non-opt	(101)	CATTGGCGTAGTTTCAACAACACCTCTCCAGGTAACTGATATAGATAAA	
EBOV-S non-opt	(101)	CTTTGGGTGTTTGGACTAACAGCACTTTTGAAGTAACAGAGATTGACCAG	
EBOV-Z non-opt	(101)	CATTGGAGTCATCCACAATAGCACATTACAGGTTAGTGATGTGCAACAA	
		151	200
EBOV-B non-opt	(151)	TTGGTGTGCCGGATAAACTTTCTCCACAACTCAGCTGAATCGGTCGG	
EBOV-S non-opt	(151)	CTAGTCTGCAAGGATCATCTTGCATCTACTGACCAGCTGAATCAGTTGG	
EBOV-Z non-opt	(151)	CTAGTTTGTCTGACAAACTGTCTATCCACAATCAATTGAGATCAGTTGG	
		201	250
EBOV-B non-opt	(201)	GCTTAACTAGAGGTAATGGAGTCCACAGATGTACCAACAGCAACGA	
EBOV-S non-opt	(201)	TCTCAACCTCGAGGGGAGCGGAGTATCTACTGATATCCCATCTGCAACAA	
EBOV-Z non-opt	(201)	ACTGAATCTCGAAGGGAATGGAGTGCACAACGACGTGCCATCTGCAACTA	
		251	300
EBOV-B non-opt	(251)	AGAGATGGGGATTCCGAGCTGGTGTCCACCCAAAGTGGTGAATACGAA	
EBOV-S non-opt	(251)	AGCGTTGGGGCTTCAGATCTGGTGTTCCTCCAAAGTGGTCAAGTATGAA	
EBOV-Z non-opt	(251)	AAAGATGGGGCTTCAGGTCCGGTGTCCCACCAAAGTGGTCAATATGAA	
		301	350
EBOV-B non-opt	(301)	GCTGGGGAGTGGGCTGAAAAGTGTCTACAACCTGGACATGAAGAAAGCAGA	
EBOV-S non-opt	(301)	GCGGGAGAAATGGCTGAAAATTGCTACAATCTTGAAATAAAGAGCCGGA	
EBOV-Z non-opt	(301)	GCTGGTGAAATGGGCTGAAAAGTGTCTACAATCTTGAAATGAAAAACCTGA	
		351	400
EBOV-B non-opt	(351)	TGGTAGCGAATGCTTACCTCAAGCCCTGAGGGTGTAGCAGGCTTCCCTC	
EBOV-S non-opt	(351)	CGGGAGCGAATGCTTACCCCCACCCCGAGATGGTGTCTCAGGGCTTCCAA	
EBOV-Z non-opt	(351)	CGGGAGTGAGTGTCTACCAAGAGCCCGAGCGGATTGCGGGCTTCCCCC	
		401	450
EBOV-B non-opt	(401)	GCTGCCGTATGTCCACAAGGTTCTGGAAACAGGGCCCTGCGCTGAAGGT	
EBOV-S non-opt	(401)	GGTGGCGTATGTTCAAAAGCCCAAGGAACCGGCGCTGCCAGGTGAC	
EBOV-Z non-opt	(401)	GCTGCCGTATGTCCACAAGTATCAGGAACGGGACCCTGTGCCGGAGAC	
		451	500
EBOV-B non-opt	(451)	TACGCTTTCACAAAGAAGGCGCTTTCTTCCTGTATGATCGACTCGCATC	
EBOV-S non-opt	(451)	TACGCTTTCACAAGGATGGAGCTTTCTTCCTCTATGACAGGCTGGCTTC	
EBOV-Z non-opt	(451)	TTTGCTTTCATAAAGAGGGTGCTTTCTTCCTGTATGATCGACTGTCTTC	
		501	550
EBOV-B non-opt	(501)	AACAATCATCTATCGAAGCACCAAGTTTTCAGAAAGGTGTTGTGGCTTTCT	
EBOV-S non-opt	(501)	AAGTGAATTTACAGAGGAGTCAATTTTGTGAGGGGGTAATTCATTCT	
EBOV-Z non-opt	(501)	CACAGTTATCTACCGAGGAACGACTTTCGCTGAAGGTGTCGTTGCATTTC	
		551	600
EBOV-B non-opt	(551)	TGATCCTCCCGAAACTAAAGAGGACTTTTCCAATCGCCACCACTACAT	
EBOV-S non-opt	(551)	TGATATTGGCTAAACCAAAAGAAACGTTCTTCAGTCAACCCCATTCGA	
EBOV-Z non-opt	(551)	TGATACTGCCCAAGCTAAGAGGACTTCTTCAGCTCACACCCCTTGAGA	
		601	650
EBOV-B non-opt	(601)	GAACCGGCCAATATGACAACAGACCGCTCCAGCTACTACACACAGTCAC	
EBOV-S non-opt	(601)	GAGGCAGTAAACTACACTGAAATACATCAAGTTATTATGCCACATTCCTA	
EBOV-Z non-opt	(601)	GAGCCGCTCAATGCAACGGAGGACCGCTCTAGTGGCTACTATTCTACCC	
		651	700
EBOV-B non-opt	(651)	ACTTAATTATGTGGCTGACAAATTTTGGGACCAATATGACTAACCTTCTGT	
EBOV-S non-opt	(651)	CTTGGAGTATGAAATCGAAATTTTGGTGCTCAACACTCCACGACCTTT	
EBOV-Z non-opt	(651)	AATTAGATATCAGGCTACCGGTTTTTGGAAACCAATGAGACAGAGTACTTGT	
		701	750
EBOV-B non-opt	(701)	TTCAAGTGGATCATCTAACCTATGTGCAACTTGAAACCAAGATTCAACCA	
EBOV-S non-opt	(701)	TCAAAATGACAATAATACCTTTGTTCGTCTGGACAGGCCCCACAGCCT	
EBOV-Z non-opt	(701)	TGAGGTTGACAATTGACCTACGTCCAACCTGAATCAAGATTCAACCA	

Figure 8A

		751	800
EBOV-B non-opt	(751)	CAATTCTTGTCCAACCTCAATGACACCATTTATACCTAATGGGCGTCCAG	
EBOV-S non-opt	(751)	CAGTTCTCTTCCAGCTCAATGATACCATTCACCTTCACCAACAGTTGAG	
EBOV-Z non-opt	(751)	CAGTTCTGCTCCAGCTCAATGACACAATATATACAGTGGGAAAGGAG	
		801	850
EBOV-B non-opt	(801)	CAACACACAGGACACCTAATTTGGAAAGTAAATCCTACTGTGACACCG	
EBOV-S non-opt	(801)	TAATACAACCTGGGAGACTAATTTGGACACTAGATGCTAATATCAATGCTG	
EBOV-Z non-opt	(801)	CAATACACGGGAAACTAATTTGGAAAGTCAACCCGGAATTTGATACAA	
		851	900
EBOV-B non-opt	(851)	GCGTAGGTGAATGGGCCTTCTGGGAAAATAAGAAGAACTTCACAAAACCC	
EBOV-S non-opt	(851)	ATATTGGTGAATGGGCCTTTTGGGAAAATAAAATAATCTCTCCGACCAA	
EBOV-Z non-opt	(851)	CAATCGGGAGTGGGCCTTCTGGGAACTAAATAAACCTCTACTAGAAAA	
		901	950
EBOV-B non-opt	(901)	CTTTCAGTGAAGAGCTGTCTGTCTATTTCTACCAAGAGCCAGGATCC	
EBOV-S non-opt	(901)	CTACGTGGAGAAGAGCTGTCTTTCGAAGCTTATCGCTCAACGAGACAGA	
EBOV-Z non-opt	(901)	ATTCGCACTGAAGAGTTGTCTTTCCAGTTCTATCAACCGGAGCCAAAAA	
		951	1000
EBOV-B non-opt	(951)	AGGCAGCAACCAAGACGAAGGTCACTCCCACCAGCTTCGCCAACAACC	
EBOV-S non-opt	(951)	AGACGATGATCGGCATCGTCGAGATTACAAAGGAAGAATCTCCGACC	
EBOV-Z non-opt	(951)	CATCAGTGGTCAGAGTCCGGCGCGAAGTTCTTCCGACCCAGGGACCAACA	
		1001	1050
EBOV-B non-opt	(1001)	AAACCTCCAAGAACCAAGAACTGGTTCCAGAGGATCCCGCTTCAGTG	
EBOV-S non-opt	(1001)	GGGCCACCGAGGAGTATTCGGACCTGGTTCCAAAGAATTCCTCTGGGATG	
EBOV-Z non-opt	(1001)	CAACAACCTGAAGACCAAAATCATGGCTTCAGAAATTCCTCTGCAATG	
		1051	1100
EBOV-B non-opt	(1051)	GTTCAATGCGAGACCTCCAGAGGAAACACAGTGGCGAGCCCGCCCC	
EBOV-S non-opt	(1051)	GTTCCATTGCACATACCAAGAGGGGAAACACATTTGCGTCTCAGAAATTC	
EBOV-Z non-opt	(1051)	GTTCAATGCGACAGTCAAGCAAGGAAGCTGCAGTGTGCGCATCTAACAAC	
		1101	1150
EBOV-B non-opt	(1101)	AGACACAGTCCCAACAACCTGTATCCCGACACAATGAGGAAAGAAACCA	
EBOV-S non-opt	(1101)	GACAGAGGTGAGAGAGTAGGTGTGAACACTCAGGAGACCATTAACAGAG	
EBOV-Z non-opt	(1101)	CCTTGCCACAATCTCCAGAGTCCCAATCCCTCACAACCAAAACCAGGTC	
		1151	1200
EBOV-B non-opt	(1151)	CCAGCCACTACGAACCAACCAACCTTTCAGAAACCATCAAGAGAGGAAC	
EBOV-S non-opt	(1151)	CAGCTGCATCAATTATAGGCACTAACGGCAACCATATGAGATCTCCACC	
EBOV-Z non-opt	(1151)	CGGACACAGCACCCATAATACACCCGTGTATAACTTGACATCTCTGAG	
		1201	1250
EBOV-B non-opt	(1201)	AACACCGCACACCCGAACTCTCGCCAAACATCCCCAGACAAACAAAC	
EBOV-S non-opt	(1201)	ATCGGGATAAGACCGAGCTCAGCCAAATCCGAGTTCTCACCAGACCAC	
EBOV-Z non-opt	(1201)	GCAAGTCAAGTTGAACAACATCACCCGAGAACAGACAACGACGACAGC	
		1251	1300
EBOV-B non-opt	(1251)	CCGTGAGACCACTCAAGACGGTGAGCGGACAAGTTCCCACACACACAC	
EBOV-S non-opt	(1251)	GGCACCAAGCCCTGAGGCTCAGACCCCCACACACCAACATCAGTCCAT	
EBOV-Z non-opt	(1251)	CTCCGACAGTCCCTCTGCCACGACCCGAGCCGACCCCAAAAGCAGAGA	
		1301	1350
EBOV-B non-opt	(1301)	CCTCCCCCGCCCACTCCCAACAGCACAATCCATCCCAGCACAGGAGAG	
EBOV-S non-opt	(1301)	CAGTGTATGGCCACCGAGGAACCAACAAACCAACCGGGAGGCTCCCGCGC	
EBOV-Z non-opt	(1301)	ACACCAACACGAGCAAGAGCTGTGACTTCTTGGACCCCGCACCAACA	
		1351	1400
EBOV-B non-opt	(1351)	ACTCACATTTCCACCACAATGACAACAGCCATGACACGACAGCAATCG	
EBOV-S non-opt	(1351)	CCAAACACAGAAGACCCACTCTCACCACCCAGAAAATATAACAACAGC	
EBOV-Z non-opt	(1351)	ACTCCCAAAACCAACAGCGAGACCGGTGGCAACAACAACCTCATCAACA	
		1401	1450
EBOV-B non-opt	(1401)	ACCCAACCAATTGACATCAGCGAGTCTACAGAGCCAGGACCACTCACCA	
EBOV-S non-opt	(1401)	GCTTAAACTGTCTCTCCACAGGAGTCCACAAGCAACGGTCTAATAACTT	
EBOV-Z non-opt	(1401)	AGATACCGGAGAAAGAGTGCAGCAGCGGGAGGCTAGGCTTAATTACCA	
		1451	1500
EBOV-B non-opt	(1451)	ACACCAACAGAGGGGCTGCAATCTGCTGACAGGCTCAACAAGAACCCGA	
EBOV-S non-opt	(1451)	CAACAGTAACAGGGAATTTCTTGGAGTCTTGGGCTTCGAAAACGCAGCAGA	
EBOV-Z non-opt	(1451)	ATACTATTGCTGGAGTCTGCAGGACTGATCACAGGCGGGAGAGAACTCGA	

Figure 8A (continued)

```

1501                                     1550
EBOV-B non-opt (1501) AGGGAATCACCCTGAGACACAAGCCAAATGCAAACCAAACTACACTA
EBOV-S non-opt (1501) AGACAAACTAAACCAAAGCCACGGTAAGTGCAATCCCAACTTACACTA
EBOV-Z non-opt (1501) AGAGAGCAATTGTCAATGCTCAACCCAAATGCAACCCCTAATTACATTA
1551                                     1600
EBOV-B non-opt (1551) TTGGACATCCCAAGATGAACGGGCTGCCATTGGTTTAGCCTGGATACCTT
EBOV-S non-opt (1551) CTGGACTGCACAGGAACAACATAATGCTGCTGGGATTGCCTGGATCCCGT
EBOV-Z non-opt (1551) CTGGACTACTCAGGATGAAGGTGCTGCAATCGGACTGGCCTGGATACCAT
1601                                     1650
EBOV-B non-opt (1601) ACTTCGGGCCCCGAGCAGAGGGAATTTATACGGAAGGGATATGCACAAT
EBOV-S non-opt (1601) ACTTTGGACCGGTGCGGAAGGCATATACACTGAAGGCTGATGCATAAC
EBOV-Z non-opt (1601) ATTTGGGCCAGCAGCCGAGGGAATTTACATAGAGGGCTAATGCACAAT
1651                                     1700
EBOV-B non-opt (1651) CAAAATGGGCTAATTTGCGGGTTAGGCAGCTAGCAATGAGACCACTCA
EBOV-S non-opt (1651) CAAAATGCCTTACTCTGTGGACTTAGGCACTTGCAATGAACAACCTCA
EBOV-Z non-opt (1651) CAAGATGGTTTAACTCTGTGGGTTAGACAGCTGGCCAACGAGCACTCA
1701                                     1750
EBOV-B non-opt (1701) AGCCCTACAGTTATTCTTCGTGCTACCACGAATTCCGCACTTCTCTTA
EBOV-S non-opt (1701) AGCTCTGCAGCTTTTCTTAAGAGCCACAACGAGCTCCGACATATACCA
EBOV-Z non-opt (1701) AGCTCTTCAACTGTTTCTTGAAGCCACAACACTGAGCTACGCACTTTTCA
1751                                     1800
EBOV-B non-opt (1751) TATTGAATCGAAAAGCCATCGACTTTTACTCCAAAGATGGGGAGGAACG
EBOV-S non-opt (1751) TACTCAATAGGAAGGCCATAGATTTCTTCTCGACGATGGGGGGGACA
EBOV-Z non-opt (1751) TCCTCAACCGTAAGGCAATTGATTTCTTGCTCCAGCGATGGGGGGGCACA
1801                                     1850
EBOV-B non-opt (1801) TGCCACATCTTAGGCCCGATTTGCTGATGACCCCCATGATTGGACTAA
EBOV-S non-opt (1801) TGCAGGATCCTCGGACCGAGATTGTTGCATGAGCCACATGATTGGACAAA
EBOV-Z non-opt (1801) TGCCACATTCTEGGACCGGACTGCTGATCGAACCACATGATTGGACCAA
1851                                     1900
EBOV-B non-opt (1851) GAACATTACTGACAAAATAGATCAATCATTCATGATTTTATGATAAAC
EBOV-S non-opt (1851) AAACATCACTGATAAAATCAACCAATCATCCATGATTTTATCGACAACC
EBOV-Z non-opt (1851) GAACATAACAGACAAAATTGATCAGATTATTCATGATTTTGTGATAAAA
1901                                     1950
EBOV-B non-opt (1901) CTCTACCAGATCAAACAATATGACAATTGGTGGACGGGTGGAGGCAC
EBOV-S non-opt (1901) CCTTACCTAATCAGGATAATGATGATAATTGGTGGACGGGCTGGAGACAG
EBOV-Z non-opt (1901) CCTTCCGGACCAAGGGGACCAATGACAATTGGTGGACGGATGGAGACAA
1951                                     2000
EBOV-B non-opt (1951) TGGGTTCCCGCCGGGATCGGGATCACGGGGTAATATCGCAATTATAGC
EBOV-S non-opt (1951) TGGATCCCTGCAGGAATAGGCATTACTGGAATTATTATTGCAATTATTGC
EBOV-Z non-opt (1951) TGGATACCGGCAGGTATTGGAGTTACAGGCCTTATAATTGCAATTATCGC
2001                                     2031
EBOV-B non-opt (2001) ACTGCTGTGTATTGCAAAATTCTACTCTAA
EBOV-S non-opt (2001) TCTTCTTTGCGTTTGCAAGCTGCTTGCTGA
EBOV-Z non-opt (2001) TTTATTCTGTATATGCAAAATTGCTTTTGG

```

Figure 8A (continued)

		1	50
EBOV-B opt	(1)	ATGGTCACATCTGGAATTCTCCAGCTCCCTAGGGAACGGTTCCGGA	AAAC
EBOV-S opt	(1)	ATGGGCGGCCTGAGCTGTCTGAGCTGCCCGGACAAAGTTCCGGA	AGTC
EBOV-Z opt	(1)	ATGGGCGGTGACAGGCTTTCTGAGCTCCCAGAGACAGATTCAAGCG	GAC
		51	100
EBOV-B opt	(51)	CAGTTTCTTTGTCTGGGTATCATCTCTTCCATAAGGTGTTCC	TATCC
EBOV-S opt	(51)	CAGCTTCTTCGTGTGGGTGATCATCTCTTCCAGAAAGCCTTCAG	CATGC
EBOV-Z opt	(51)	CTCCTTTTTCTCTGGGTATCATTTCTGTTTCAGCGGACCTTCT	CAATCC
		101	150
EBOV-B opt	(101)	CCCTGGGGGTCTCCATAACAATACATTGCAAGTGTGAGATATGATA	AAG
EBOV-S opt	(101)	CCCTGGGCGTGGTGACCAACAGCACCTCGAAGTGACCGAGATGAC	CAG
EBOV-Z opt	(101)	CTCTGGGCGTGATCCACAATAGCACCTCCAGGTGTCCGACGTGGA	CAAG
		151	200
EBOV-B opt	(151)	TTGCTGTGTCCGATAACTGTCTATCTACCTCCAGCTGAAAAG	CGTCGG
EBOV-S opt	(151)	CTGCTGTGCAAGGACCACTGGCCAGCACCGATCAGCTGAAGTCC	CGTGG
EBOV-Z opt	(151)	CTCGTGTGCCGGGACAGCTGTCTCTCCACCAACCAGCTGAGA	AAGCGTGG
		201	250
EBOV-B opt	(201)	CTCAACCTCGAAGGGAATGGTGTGCCACTGATGTCCCTACTGCC	CAAA
EBOV-S opt	(201)	CTCAACCTCGAAGGACAGCGGCGTGAGCACCGACATCCCAGCG	CCACCA
EBOV-Z opt	(201)	GCTCAATCTCGAGGGCAATGGCGTGGCCACAGACGTGCCCTCC	GCCACAA
		251	300
EBOV-B opt	(251)	AACGATGGGGTTTCCGGGTGGTGTCCCCCAAAAGTGGTCAACT	ATGAA
EBOV-S opt	(251)	AGAGATGGGGCTTCAGATCGGGGTGCCCCCAAGGTGGTGTCTTA	TGAG
EBOV-Z opt	(251)	AGCGCTGGGGCTTTCCGACGGCGTCCCTCCTAAAGTCGTGAAC	TACGAG
		301	350
EBOV-B opt	(301)	GCTGGCGAATGGGCAGAGAAATGCTATAATCTGACATTAAAAG	GCAGA
EBOV-S opt	(301)	GCCGCGGAGTGGGCCGAGAACTGCTACAACCTGAAATCAAGAAG	CCCGA
EBOV-Z opt	(301)	GCAGGGGAATGGGCTGAAAATGTTTACAATCTCGAGATCAAAA	AAACAGA
		351	400
EBOV-B opt	(351)	TGGCTCCGAGTGTCTCCCTCAAGCTCCTGAGGGCGTCCGGGGAT	TCCCAA
EBOV-S opt	(351)	CGGCAGCGAGTGTCTCCCTCCCTCCCGATGGCTGAGAGGCTT	CCCCC
EBOV-Z opt	(351)	TGGCTCTGAGTGCCTCCCTCCCGCACCAGACGGCATCAGGGG	CTTCCCTA
		401	450
EBOV-B opt	(401)	GATGTCCCTACGTCCATAAAGTGTCTGGCACCGGCCCTTGCCCT	GAAGGA
EBOV-S opt	(401)	GGTGAGATAGGTGCACAAAGCACAAGGCACGGTCCATGCCAGG	CGGAC
EBOV-Z opt	(401)	GATGCCGTATGTGCACAAAGTGTAGTGGTACAGGCCCTTGTGCC	GGCGAT
		451	500
EBOV-B opt	(451)	TACGCCCTTCATAAAGAAGGGGCTTTTCTCTATGATGCCTCGCT	TTC
EBOV-S opt	(451)	TACGCCCTCCACAAGGACGGCGCTTTTCTCTGTAGACGGGCTGG	CTC
EBOV-Z opt	(451)	TTTGCCCTTCACAAAGAGGGGCTTTCTTTCTGTAGACAGGCTCG	CCAG
		501	550
EBOV-B opt	(501)	CACAATTATCTATCGCTCTACTACCTTTCCGAGGGGGTGCTCG	CTTTTC
EBOV-S opt	(501)	CACCGTATCTACCGGGCGTGAACCTTGCCGAGGGGTGATCGCT	TTCC
EBOV-Z opt	(501)	TACAGTGATATACCGAGGTACTACCTTCGCCGAAGCGTGGTGG	CTTTTC
		551	600
EBOV-B opt	(551)	TCATCCTCCGAGACAAAGAAATTTCTTTTCAGAGTCCCCCTGC	AT
EBOV-S opt	(551)	TGATCCTGCCAAGCCCAAAGAGACATTCTGACAGGCCCCCCAT	CCGG
EBOV-Z opt	(551)	TGATTCTGCCCGAGGCCAAGAGGACTTCTTCAGCAGCCACCCCT	GAGA
		601	650
EBOV-B opt	(601)	GAGCCTGCCAATATGACTACCGATCTTCTCTTACTATCATAGCG	TGAC
EBOV-S opt	(601)	GAGGCCGTCAACTACACCGAGAACACAGCAGCTACTAGCCACCT	CTTA
EBOV-Z opt	(601)	GAACCCGTCAAGGCCACAGAGGACCCAGCAGCGGCTACTACAG	CACCAC
		651	700
EBOV-B opt	(651)	ACTCAATTATGTGGCTGATAACTTCGGCACTAACATACCAACT	TTTCTGT
EBOV-S opt	(651)	CCTGGAAATACGAGATCGAGAACTTCGGCGCCAGCACAGCAC	CCCTGT
EBOV-Z opt	(651)	AATCAGATACAGGCCACAGGCTTCGGCACTAATGAGACAGAGT	ACTGT

Figure 8B

		701		750
EBOV-B opt	(701)	TCCAGGTCGACCACCTGACATATGTCCAGCTCGAGCCTCGCTTTACCCCA		
EBOV-S opt	(701)	TCAAGATGACAACAACACCTTGTGCGGCTGACAGACCCACACCCCC		
EBOV-Z opt	(701)	TCGAGGTGGACAACCTGACCTACGTGCAAGCTGAAAGCCGGTTTACCCCT		
		751		800
EBOV-B opt	(751)	CAGTTCTGCTGCTCAGCTCAATGAAACTATCTATAGTAACGGACGGGCTC		
EBOV-S opt	(751)	CAGTTTCTGTTCCAGCTGAACGACACCATCCATCTGCAATCAGCAGCTGTC		
EBOV-Z opt	(751)	CAGTTCTCCTGTCAGCTAACGAGACAATCTACACCTCCGGCAAGCGGAG		
		801		850
EBOV-B opt	(801)	TAATACCAACGGGACCCTCATTGGAAGTCAATCCACTGTCTATACCG		
EBOV-S opt	(801)	CAACACCAACGGGAGACTGATCTGGACCCTGGACGCCAACATCAACGCC		
EBOV-Z opt	(801)	CAACACAACAGGCAAGTCAATCTGGAAGTGAACCCCGAGATCGATACCA		
		851		900
EBOV-B opt	(851)	GCGTGGAGAGTGGGCCTTTGGGAACAAGAAGAATTTTACCAAGACC		
EBOV-S opt	(851)	ACATCGGTGAATGGGCTTTTGGGAGAACAAGAAGAATCTGAGCGAGCAG		
EBOV-Z opt	(851)	CTATAGGGGAGTGGGCTTTCTGGGAACATAAGAAGAATCTACCCGGAAG		
		901		950
EBOV-B opt	(901)	CTGAGTAGCGAGGAACCTCTGTGTATCTTTGTGCTCGCGCTCAGGATCC		
EBOV-S opt	(901)	CTCGGGGCGAAGAACCTAGCTTCGAGGCCCTGAGCCTGAACGAGACAGA		
EBOV-Z opt	(901)	ATCAGATCCGAGGAACCTGTCCTTCAACCGTGTGTCAACCGGCGCAAGAA		
		951		1000
EBOV-B opt	(951)	TGGATCCAACCAGAAAACCAAGTGACACCTACATCTTTTTGCCAACAAAC		
EBOV-S opt	(951)	GGACGACGAGCGCGCCAGCAGCCGGATCACCAGGGCCGGATCAGCGACC		
EBOV-Z opt	(951)	CATTTCAGGACAGAGCCCGCCAGAACAAAGCAGCCACCCCGCACCCACA		
		1001		1050
EBOV-B opt	(1001)	AGACAGCAAGAAACCATGAGGAACCTCGTCCCGAAGATCCTGCTCTGTG		
EBOV-S opt	(1001)	GGGCCACGAGAAAGTACAGCGACCTGGTGGCCAGAACAGCCCGGCATG		
EBOV-Z opt	(1001)	CCACAAACGAGGACCAACAGATCATGGCCAGCGAAGTCCAGCGCCATG		
		1051		1100
EBOV-B opt	(1051)	GTCCAGGTCCGGGACCTCCAGCGGAAAATACCGTGCTACTCCCCCGCC		
EBOV-S opt	(1051)	GTGCTCTGACATCCCGAGGGGAGACAACTCTCCCTAGTCAGAATAG		
EBOV-Z opt	(1051)	GTCCAGGTCCACAGCCAGGGAAGAGAAAGCCGCGCTGAGCCACCTGACCAC		
		1101		1150
EBOV-B opt	(1101)	TGATACCGTCCCTACTACCTCATTTCCGATACAAATGGAAGAACAGACCA		
EBOV-S opt	(1101)	CACCGAGCGGAGACGGGTGGCGGTGAACACCCAGGAACCATCAGCGAGA		
EBOV-Z opt	(1101)	ACTGCCACCATCAGCACCAGCCCCAGAGCCTGACCACCAAGCCTGGCC		
		1151		1200
EBOV-B opt	(1151)	CCTCTCATTACGAGCCACCTAACATCTCCAGAAATCACCAAGGAACGAAT		
EBOV-S opt	(1151)	CAGCCGCCACCATCATTGGTACTAACGGCAACCACATGGAGATCAGCACC		
EBOV-Z opt	(1151)	CCGACAAACAGCAACACAACACCCCGTGTACAAGCTTGACATCAGCGAG		
		1201		1250
EBOV-B opt	(1201)	AACACCGCTCATCCCGAGACTCTGGCTAATAACCCCGGACAATACTAC		
EBOV-S opt	(1201)	ATCGGCATCGGCCCAGCAGCAGCCAGATCCCAAGTAGTAGTCCTACCAC		
EBOV-Z opt	(1201)	GCCACCCAGGTGGAGCAGCACCACAGACGGACCGACAACGACAGCACCGC		
		1251		1300
EBOV-B opt	(1251)	CCCTAGTACCCCCCTCAGGACGGGAGAGAACAGTTCCATAGTACAC		
EBOV-S opt	(1251)	AGCCCTAGCCCTGAGGCCCAGACCCCTACCACACACACAGCGGCCCTA		
EBOV-Z opt	(1251)	CAGCGATACCCCTTCTGCCACCAAGCCGCGGACCCCTAAGGCCGAGA		
		1301		1350
EBOV-B opt	(1301)	CCTCCCCAAGACCGGTCCCTACATCTACCATTTCATCCACACACCCCGGAG		
EBOV-S opt	(1301)	GCGTGATGGCCAGCGAGGAACCTACCACCCCTCCTGGCAGCAGCCAGGT		
EBOV-Z opt	(1301)	ATACCAACACCAAGCAAGAGCAACCGACTTTCTGGATCCAGCCACACACC		
		1351		1400
EBOV-B opt	(1351)	ACACACATTCCTACCACTATGACCAATCCCATGACACGATTCCAATCG		
EBOV-S opt	(1351)	CCAATACCGAGGCACCAACCTGACCAACCCCGAGACATCAGCACCGC		
EBOV-Z opt	(1351)	AGTCCACAGAACCAAGCGAAACCGCCGGCAACAACATACCCACCACCA		

Figure 8B (continued)

			1401		1450
EBOV-B opt	(1401)		CCCTAAGCCCATCGATATCAGCGAATCTACCGAGCCGGACCCCTGACAA		
EBOV-S opt	(1401)		CGTGAAACCGGTGCTGCCCCAGGAAAGCAGCAGCAACGGGCTGATACCA		
EBOV-Z opt	(1401)		GGACACCGGCGAGGAAGCGCCAGCTCTGGCAAGCTGGGCTTGATTACCA		
			1451		1500
EBOV-B opt	(1451)		ATACAAACCGCGGAGCCCGTAATCTGCTGACTGGCTCCCGGCGCACTCGA		
EBOV-S opt	(1451)		GCACCGTGACCGGCATGCTGGGCGGCTGGGCTGCGGAAGCGGAGCAGA		
EBOV-Z opt	(1451)		ACACAATCGCCGGCTGGCCGGAAGTATCACCAGCGGCAGACGACACAGA		
			1501		1550
EBOV-B opt	(1501)		AGAGAAATCACCCCTGCGAACACAGGCCAAGTGTAACCCAAACCTGCATTA		
EBOV-S opt	(1501)		CGGCAGACCAACACCAGGCCACCGGCAAGTGCAACCCCAACCTGCACATA		
EBOV-Z opt	(1501)		CGGGAGGCCATCGTGAACGCCGAGCCCAAATGTAAATCCTAATCTCCACTA		
			1551		1600
EBOV-B opt	(1551)		TTGGACAACCCAGGATGAAGGGGGCCGCTATTGGCTCGCTTGATCCCTT		
EBOV-S opt	(1551)		CTGGACCGCCAGGAACAGCACAAAGCGCTGGGATCGCTTGATCCCTT		
EBOV-Z opt	(1551)		TTGGACCAACAGGAGGAGGGCGCTGCCATCGGACTGGCATGGATTCCCTT		
			1601		1650
EBOV-B opt	(1601)		ATTTGGGCGCTGCAGCCGAGGGGATCTATAACGAAGGTATAATGCATAAT		
EBOV-S opt	(1601)		ACTTTGGTCCCTGGTGCTGAGGGAATATACACGAGGGGCTGATGCACAAC		
EBOV-Z opt	(1601)		ACTTCGGACCAGCCGCTGAAGGGATCTATATCGAGGGGCTCATGCATAAC		
			1651		1700
EBOV-B opt	(1651)		CAGAACGGGCTGATTTGGGGCTCGGCCAGCTCGCCAAACGAGACTACCCA		
EBOV-S opt	(1651)		CAGAACGCCCTGGTGTGGGGCTGAGACAGCTGCCAAACGAACCACTCA		
EBOV-Z opt	(1651)		CAGGATGCTCTGATTTGTGGTCTCGGGCAGCTGCTAATGAGACAACACA		
			1701		1750
EBOV-B opt	(1701)		GGCCCTCCAGCTCTTCTCCGGGCTACTACCGAACTGCCAACCTTTTCCA		
EBOV-S opt	(1701)		GGCACTGCAGCTGTTCCCTCGGGGCCACCACGAGCTGGGGACCTACACCA		
EBOV-Z opt	(1701)		GGCTCTCCAGCTGTTTCTGAGAGCCACAACAGAGCTGAGAACCCTCAGCA		
			1751		1800
EBOV-B opt	(1751)		TTCTCAATAGGAAAGCTATCGATTTCTTGCTCCAGCGCTGGGGGGGAACC		
EBOV-S opt	(1751)		TCCTGAACAGGAAGGCCATCGAGTTTCTGCTGCCGAGATGGGGCGGCAC		
EBOV-Z opt	(1751)		TTCTCAACCGCAAGGCTATTGACTTCCTGCTCCAAACGATGGGGAGGCACA		
			1801		1850
EBOV-B opt	(1801)		TGTCATATCCTCGGACCAGATTGCTGTATTGAGCCACATGATGGACTAA		
EBOV-S opt	(1801)		TGTAGAATCCTGGGCCCAGCTGCTGCATCGAGCCCCACGACTGGACCAA		
EBOV-Z opt	(1801)		TGCCACATCCTGGGGCCTGATTGTTGTATCGAACCTCACGATTGGACAAA		
			1851		1900
EBOV-B opt	(1851)		AAACATCACTGACAAAATTCAACAGATCATTCATGATTTCAATTGATAAAC		
EBOV-S opt	(1851)		GAATATCACCGACAAGATCAACCAGATCATCCACGACTTCATCGACAACC		
EBOV-Z opt	(1851)		GAACATTACAGATAAGATCGATCAGATTATCCATGACTTTGTGGAACAAGA		
			1901		1950
EBOV-B opt	(1901)		CCCTCCCCGATCAGACTGATATGACAATTTGGTGGACGGGATGGCGCCAG		
EBOV-S opt	(1901)		CCCTGCCCAACCAGGACAAACGACGACAACCTGGTGGACTGGTTGGCGACAG		
EBOV-Z opt	(1901)		CCCTGCCCGATCAGGGCGACAAACGATAATTGGTGGACAGGGTGGAGACAG		
			1951		2000
EBOV-B opt	(1951)		TGGGTGCCCGCTGGGATGGCATTACAGGTGTCATTATTGCCGTGATTGC		
EBOV-S opt	(1951)		TGGATCCCTGCCGGGCATCGGCATCACGGGCATCATCATTGCCATTATCGC		
EBOV-Z opt	(1951)		TGGATTCCAGCCGGGATGGCGTGACCGGCGTGATTATCGCCGTGATCGC		
			2001		2031
EBOV-B opt	(2001)		ACTCCTGTGTATCTGTAAATTCTGCTGTGA		
EBOV-S opt	(2001)		TCTCCTCTGGGTGTGCAAGCTCCTCTGCTGA		
EBOV-Z opt	(2001)		CCTGTTCTGCATCTGCAAGTTCTGTCTCTGA		

Figure 8B (continued)

		1	50
EBOV-B non-opt	(1)	ATGGTTACATCAGGAATTCTACAATTGCCCGTGAACGCTTCAGAAAAAC	
EBOV-S non-opt	(1)	ATGGGGGGTCTTAGCCTACTCCAATTGCCCAGGGACAAATTCGGAAAAAG	
		51	100
EBOV-B non-opt	(51)	ATCATTTTTTTGTTTGGGTAATAATCCTATTTACAAAAGTTTTCCCTATCC	
EBOV-S non-opt	(51)	CTCTTTCTTTGTTTGGGTCATCATCTTATCCAAAAGGCCTTTCCATGC	
		101	150
EBOV-B non-opt	(101)	CATTGGGCGTAGTTACAACAACACTCTCCAGGTAAGTGATATAGATAAA	
EBOV-S non-opt	(101)	CTTTGGGTGTTGTGACTAACAGCACTTTAGAAGTAACAGAGATTGACCAG	
		151	200
EBOV-B non-opt	(151)	TTGGTGTGCCGGGATAAACTTTCTCCACAAGTCAGCTGAAATCGGTCGG	
EBOV-S non-opt	(151)	CTAGTCTGCAAGGATCATCTTGCATCTACTGACCAGCTGAAATCAGTTGG	
		201	250
EBOV-B non-opt	(201)	GCTTAATCTAGAAGGTAATGGAGTTGCCACAGATGTACCAACAGCAACGA	
EBOV-S non-opt	(201)	TCTCAACCTCGAGGGGAGCGGAGTATCTACTGATATCCCATCTGCAACAA	
		251	300
EBOV-B non-opt	(251)	AGAGATGGGGATTCCGAGCTGGTGTTCACCCAAAGTGGTGAACACTACGAA	
EBOV-S non-opt	(251)	AGCGTTGGGGCTTCAGATCTGGTGTTCCTCCCAAGGTGGTCAGTATGAA	
		301	350
EBOV-B non-opt	(301)	GCTGGGGAGTGGGCTGAAAACCTGTACAACCTGGACATCAAGAAAGCAGA	
EBOV-S non-opt	(301)	GCGGGAGAATGGGCTGAAAATTGTACAATCTTGAAATAAAGAAGCCGGA	
		351	400
EBOV-B non-opt	(351)	TGGTAGCGAATGCCTACCTGAAGCCCCTGAGGGTGTAAGAGGCTTCCCTC	
EBOV-S non-opt	(351)	CGGGAGCGAATGCTTACCCCCACCGCCAGATGGTGTGAGAGGCTTTCCAA	
		401	450
EBOV-B non-opt	(401)	GCTGCCGTTATGTGCACAAGGTTTCTGGAACAGGGCGTGCCTGAAAGT	
EBOV-S non-opt	(401)	GGTGCCGCTATGTTTACAAAGCCCAAGGAACCGGGCCCTGCCAGGTGAC	
		451	500
EBOV-B non-opt	(451)	TACGCTTTCCACAAAGAAGGCGCTTCTTCTCTGTATGATCGACTGGCATC	
EBOV-S non-opt	(451)	TACGCCCTTTCACAAGGATGGAGCTTCTTCTCTATGACAGGCTGGCTTC	
		501	550
EBOV-B non-opt	(501)	AACAATCATCTATCGAAGCACCACGTTTTTCAGAAGGTGTTGTGGCTTTCT	
EBOV-S non-opt	(501)	AACTGTAATTTACAGAGGAGTCAATTTTGCTGAGGGGGTAATTGCATTCT	
		551	600
EBOV-B non-opt	(551)	TGATCCTCCCCGAAACTAAAAAGGACTTTTTTCCAATCGCCACCCTACAT	
EBOV-S non-opt	(551)	TGATATTGGCTAAACCAAAAGAAACGTTCTTCAGTCACCCCCCATTCGA	
		601	650
EBOV-B non-opt	(601)	GAACCGCCAATATGACAACAGACCCATCCAGCTACTACCACACAGTCAC	
EBOV-S non-opt	(601)	GAGGCAGTAAACTACACTGAAAATACATCAAGTTATTATGCCACATCCTA	
		651	700
EBOV-B non-opt	(651)	ACTTAATTATGTGGCTGACAATTTTGGGACCAATATGACTAACTTTCTGT	
EBOV-S non-opt	(651)	CTTGGAGTATGAAATCGAAAATTTTGGTGTCTCAACACTCCACGACCCTTT	
		701	750
EBOV-B non-opt	(701)	TTCAAGTGGATCATCTAATTATGTGCAACTTGAACCAAGATTACACCA	
EBOV-S non-opt	(701)	TCAAAATTGACAATAATACTTTTGTTCGTCTGGACAGGCCCCACACGCCT	
		751	800
EBOV-B non-opt	(751)	CAATTTCTTGTCCAACCTCAATGAGACCATTATATACTAATGGGCGTCGCAG	
EBOV-S non-opt	(751)	CAGTTCCTTTTCCAGCTGAATGATACCATTACCTTCACCAACAGTTGAG	
		801	850
EBOV-B non-opt	(801)	CAACACCACAGGAACACTAATTTGGAAAGTAAATCCTACTGTTGACACCG	
EBOV-S non-opt	(801)	TAATACAACTGGGAGACTAATTTGGACACTAGATGCTAATATCAATGCTG	
		851	900
EBOV-B non-opt	(851)	GCGTAGGTGAATGGGCCTTCTGGGAAAATAAGAAGAACTTCACAAAAACC	
EBOV-S non-opt	(851)	ATATTGGTGAATGGGCTTTTGGGAAAATAAAAAAATCTCTCCGAACAA	
		901	950
EBOV-B non-opt	(901)	CTTTCAAGTGAAGAGCTGTCTGTCTATTTGTACCAAGAGCCCAGGATCC	
EBOV-S non-opt	(901)	CTACGTGGAGAAGAGCTGTCTTTCGAAGCTTTATCGCTCAACGAGACAGA	
		951	1000
EBOV-B non-opt	(951)	AGGCAGCAACCAGAAGACGAAGGTCACTCCACCAAGCTTCGCCAACCAACC	
EBOV-S non-opt	(951)	AGACGATGATGCGGCATCGTCGAGAATTACAAAGGGAAGAATCTCCGACC	

Figure 9A

		1001	1050
EBOV-B non-opt	(1001)	AAACCTCCAAGAACCACGAAGACTTGGTTCCAGAGGATCCCGCTTCAGTG	
EBOV-S non-opt	(1001)	GGGCCACCAGGAAGTATTCGGACCTGGTTCCAAAGAATTCCTGGGATG	
		1051	1100
EBOV-B non-opt	(1051)	GTTCAAGTGCAGACCTCCAGAGGGAAAACACAGTGCCGACCCACCCCC	
EBOV-S non-opt	(1051)	GTTCCATTGCACATACCAGAAGGGGAAAACAACATTGCCGTCTCAGAATTC	
		1101	1150
EBOV-B non-opt	(1101)	AGACACAGTCCCCACAACCTCTGATCCCCGACACAATGGAGGAACAAACCA	
EBOV-S non-opt	(1101)	GACAGAAGGTCAAGAGTAGGTGTGAACACTCAGGAGACCATTACAGAGA	
		1151	1200
EBOV-B non-opt	(1151)	CCAGCCACTACGAACCACCAACATTTCCAGAAACCATCAAGAGAGGAAC	
EBOV-S non-opt	(1151)	CAGCTGCAACAATTATAGGCACTAACGGCAACCATATGCAGATCTCCACC	
		1201	1250
EBOV-B non-opt	(1201)	AACACCGCACACCCCGAAACTCTCGCCAACAATCCCCAGACAACACAAC	
EBOV-S non-opt	(1201)	ATCGGGATAAGACCGAGCTCCAGCCAAATCCCGAGTTCTCACCAGACCAC	
		1251	1300
EBOV-B non-opt	(1251)	CCCGTCGACACCACCTCAAGACGGTGAGCGGACAAGTTCCACACACACAC	
EBOV-S non-opt	(1251)	GGCACCAAGCCCTGAGGCTCAGACCCCAACCCACACATCAGGTCCAT	
		1301	1350
EBOV-B non-opt	(1301)	CCTCCCCCGCCAGTCCCAACCAGCACAATCCATCCCACCACACGAGAG	
EBOV-S non-opt	(1301)	CAGTGATGGCCACCGAGGAACCAACAACACCACCGGAAGTCCCCCGGC	
		1351	1400
EBOV-B non-opt	(1351)	ACTCACATTTCCACCACAATGACAACAAGCCATGACACCGACAGCAATCG	
EBOV-S non-opt	(1351)	CCAACAACAGAAGCACCCACTCTCACCACCCAGAAATATAACAACAGC	
		1401	1450
EBOV-B non-opt	(1401)	ACCCAACCAATTGACATCAGCGAGTCTACAGAGCCAGGACCCTACCA	
EBOV-S non-opt	(1401)	GGTTAAACTGTCTGCCACAGGAGTCCACAAGCAACGGTCTAATAACTT	
		1451	1500
EBOV-B non-opt	(1451)	ACACCACAAGAGGGGCTGCAAATCTGCTGACAGGCTCAAGAAGAACCCGA	
EBOV-S non-opt	(1451)	CAACAGTAACAGGGATTCTTGGGAGTCTTGGGCTTCGAAAACGCAGCAGA	
		1501	1550
EBOV-B non-opt	(1501)	AGGGAAATCACCTGAGAACACAAAGCCAAATGCAACCCAAACCTACACTA	
EBOV-S non-opt	(1501)	AGACAACTAACACCAAGCCACGGGTAAGTGCAATCCCACTTACACTA	
		1551	1600
EBOV-B non-opt	(1551)	TTGGACAACCAAGATGAAGGGGCTGCCATTGGTTTAGCCTGGATACCTT	
EBOV-S non-opt	(1551)	CTGGACTGCACAAGAACAACATAATGCTGCTGGGATTGCCTGGATCCCGT	
		1601	1650
EBOV-B non-opt	(1601)	ACTTCGGGCCCCGAGCAGAGGGAATTTATACGGAAGGGATAATGCACAAT	
EBOV-S non-opt	(1601)	ACTTTGGACCGGGTGCGGAAGGCATATACACTGAAGGCCTGATGCATAAC	
		1651	1700
EBOV-B non-opt	(1651)	CAAAATGGGCTAATTTGCGGGTTGAGGCAGCTAGCAAATGAGACGACTCA	
EBOV-S non-opt	(1651)	CAAAATGCCTTAGTCTGTGGACTTAGGCAACTTGCAAATGAACAACCTCA	
		1701	1750
EBOV-B non-opt	(1701)	AGCCCTACAGTTATTCTTTCGCTGCTACCACGGAATTGCGCACTTTCTCTA	
EBOV-S non-opt	(1701)	AGCTCTGCAGCTTTTCTTAAGAGCCACAACGGAGCTGCGGACATATACCA	
		1751	1800
EBOV-B non-opt	(1751)	TATTGAATCGAAAAGCCATCGACTTTTTACTCCAAAGATGGGGAGGAACG	
EBOV-S non-opt	(1751)	TACTCAATAGGAAGGCCATAGATTTCCTTCTGCGACGATGGGGCGGGACA	
		1801	1850
EBOV-B non-opt	(1801)	TGCCACATCTTAGGCCAGATTGCTGTATTGAGCCCCATGATTGGACTAA	
EBOV-S non-opt	(1801)	TGCAGGATCCTGGGACCAGATTGTTGCATTGAGCCACATGATTGGACAAA	
		1851	1900
EBOV-B non-opt	(1851)	GAACATTACTGACAAAATAGATCAAATCATTCATGATTTTCATTGATAAAC	
EBOV-S non-opt	(1851)	AAACATCACTGATAAAATCAACCAAATCATCCATGATTTTCATCGACAACC	
		1901	1950
EBOV-B non-opt	(1901)	CTCTACCAGATCAAACAGATAATGACAATTGGTGGACAGGGTGGAGGCAA	
EBOV-S non-opt	(1901)	CCTTACCTAATCAGGATAATGATGATAATTGGTGGACGGGCTGGAGACAG	
		1951	2000
EBOV-B non-opt	(1951)	TGGGTTCTGCGGGGATCGGGATCAGGGGGTAATAATCGCAGTTATAGC	
EBOV-S non-opt	(1951)	TGGATCCCTGCAGGAATAGGCATTACTGGAATTATTATGCAATTATTGC	

Figure 9A (continued)

		2001	2031
EBOV-B non-opt	(2001)	ACTGCTGTGTATTTGCAAATTTCTACTCTAA	
EBOV-S non-opt	(2001)	TCTTCTTTGCGTTTGCAAGCTGCTTTGCTGA	
		1	50
EBOV-B non-opt	(1)	ATGGTTACATCAGGAATTCTACAATTGCCCCGTGAACGCTTCAGAAAAAC	
EBOV-Z non-opt	(1)	ATGGGCGTTACAGGAATATTGCAGTTACCTCGTGATCGATTCAAGAGGAC	
		51	100
EBOV-B non-opt	(51)	ATCATTTTTTTGTTTGGGTAATAATCCTATTTACAAAAGTTTTCCCTATCC	
EBOV-Z non-opt	(51)	ATCATTTCTTTCTTTGGGTAATTATCCTTTTCCAAAGAACATTTTCCATCC	
		101	150
EBOV-B non-opt	(101)	CATTGGGCGTAGTTACACAACAACACTCTCCAGGTAAGTGATATAGATAAA	
EBOV-Z non-opt	(101)	CACTTGGAGTCATCCACAATAGCACATTACAGGTTAGTGATGTCGACAAA	
		151	200
EBOV-B non-opt	(151)	TTGGTGTGCCGGGATAAACTTTCTCCACAAGTCAGCTGAAATCGGTCGG	
EBOV-Z non-opt	(151)	CTAGTTTGTCTGACAAACTGTCATCCACAAATCAATTGAGATCAGTTGG	
		201	250
EBOV-B non-opt	(201)	GCTTAATCTAGAAGGTAAATGGAGTTGCCACAGATGTACCAACAGCAACGA	
EBOV-Z non-opt	(201)	ACTGAATCTCGAAGGGAATGGAGTGGCAACTGACGTGCCATCTGCAACTA	
		251	300
EBOV-B non-opt	(251)	AGAGATGGGGATTCCGAGCTGGTGTCCACCCAAAGTGGTGAACACGAA	
EBOV-Z non-opt	(251)	AAAGATGGGGCTTCAGGTCCGGTGTCCCACCAAGGTGGTCAATTATGAA	
		301	350
EBOV-B non-opt	(301)	GCTGGGGAGTGGGCTGAAAACCTGCTACAACCTGGACATCAAGAAAGCAGA	
EBOV-Z non-opt	(301)	GCTGGTGAATGGGCTGAAAACCTGCTACAATCTTGAAATCAAAAAACCTGA	
		351	400
EBOV-B non-opt	(351)	TGGTAGCGAATGCCTACCTGAAGCCCCTGAGGGTGTAAGAGGCTTCCCTC	
EBOV-Z non-opt	(351)	CGGGAGTGAGTGTCTACCAGCAGCGCCAGACGGGATTCTGGGGCTTCCCC	
		401	450
EBOV-B non-opt	(401)	GCTGCCGTTATGTGCACAAAGGTTTCTGGAACAGGGCCGTGCCCTGAAGGT	
EBOV-Z non-opt	(401)	GGTGCCGGTATGTGCACAAAGTATCAGGAACGGGACCGTGTGCCGGAGAC	
		451	500
EBOV-B non-opt	(451)	TACGCTTTCCACAAAGAAGGCGCTTTCTTCTGTATGATCGACTGGCATC	
EBOV-Z non-opt	(451)	TTTGCCCTTCATAAAGAGGGTGCTTTCTTCTGTATGATCGACTTGCTTC	
		501	550
EBOV-B non-opt	(501)	AACAATCATCTATCGAAGCACCACGTTTTTCAGAAGGTGTTGTGGCTTTCT	
EBOV-Z non-opt	(501)	CACAGTTATCTACCGAGGAACGACTTTTCGCTGAAGGTGTCGTTGCATTTC	
		551	600
EBOV-B non-opt	(551)	TGATCCTCCCCGAAACTAAAAAGGACTTTTTTCCAATCGCCACCACTACAT	
EBOV-Z non-opt	(551)	TGATACTGCCCAAGCTAAGAAGGACTTCTTCAGCTCACACCCCTTGAGA	
		601	650
EBOV-B non-opt	(601)	GAACCGGCCAATATGACAACAGACCCATCCAGCTACTACCACACAGTCAC	
EBOV-Z non-opt	(601)	GAGCCGGTCAATGCAACGGAGGACCCGTCTAGTGGCTACTATTCTACCAC	
		651	700
EBOV-B non-opt	(651)	ACTTAATTATGTGGCTGACAATTTTGGGACCAATATGACTAATTTCTGT	
EBOV-Z non-opt	(651)	AATTAGATATCAGGCTACCGGTTTTTGGAAACCAATGAGACAGAGTACTTGT	
		701	750
EBOV-B non-opt	(701)	TTCAAGTGGATCATCTAACTTATGTGCAACTGAACCAAGATTACACCA	
EBOV-Z non-opt	(701)	TCGAGGTTGACAATTTGACCTACGTCCAACCTGAATCAAGATTACACCA	
		751	800
EBOV-B non-opt	(751)	CAATTTCTTGTCCTCAACTCAATGAGACCATTATATACTAATGGGCGTCGCAG	
EBOV-Z non-opt	(751)	CAGTTTCTGCTCCAGCTGAATGAGACAATATATACAAGTGGGAAAAGGAG	
		801	850
EBOV-B non-opt	(801)	CAACACCACAGGAACACTAATTTGGAAAGTAAATCCTACTGTTGACACCG	
EBOV-Z non-opt	(801)	CAATACCACGGGAAAACCTAATTTGGAAAGGTCAACCCCGAAATTGATACAA	
		851	900
EBOV-B non-opt	(851)	GCGTAGGTGAATGGGCCTTCTGGGAAAATAAGAAGAACTTCACAAAAACC	
EBOV-Z non-opt	(851)	CAATCGGGGAGTGGGCCTTCTGGGAAACTAAAAAACCTCACTAGAAAA	

Figure 9A (continued)

		901		950
EBOV-B non-opt	(901)	CTTTCAAGTGAAGAGCTGTCTGTATATTTGTACCAAGAGCCCAGGATCC		
EBOV-Z non-opt	(901)	ATTTCGAGTGAAGAGTTGTCTTTACAGTTGTATCAAACGGAGCCAAAAA		
		951		1000
EBOV-B non-opt	(951)	AGGCAGCAACCAGAAGACGAAGGTCACTCCCACCAGCTTCGCCAACCAACC		
EBOV-Z non-opt	(951)	CATCAGTGGTCAGAGTCCGGCGCGAACTTCTCCGACCCAGGGACCAACA		
		1001		1050
EBOV-B non-opt	(1001)	AAACCTCCAAGAACCACGAAGACTTGGTTCCAGAGGATCCCGCTTCAGTG		
EBOV-Z non-opt	(1001)	CAACAACTGAAGACCACAAAATCATGGCTTCAGAAAATTCTCTGCAATG		
		1051		1100
EBOV-B non-opt	(1051)	GTTCAAGTGCAGAGCCTCCAGAGGGAAAACACAGTGCCGACCCCAACCC		
EBOV-Z non-opt	(1051)	GTTCAAGTGCACAGTCAAGGAAGGGAAGCTGCAGTGTGCAATCTAACAA		
		1101		1150
EBOV-B non-opt	(1101)	AGACACAGTCCCCACAACCTCTGATCCCCGACACAATGGAGGAACAAACCA		
EBOV-Z non-opt	(1101)	CCTTGCCACAATCTCCACGAGTCCCCAATCCCTCACAACCAAAACAGGTC		
		1151		1200
EBOV-B non-opt	(1151)	CCAGCCACTACGAACCACCAAAACATTTCCAGAAACCATCAAGAGAGGAAC		
EBOV-Z non-opt	(1151)	CGGACAAACAGCACCCATAATACACCCGTGTATAAACTTGACATCTCTGAG		
		1201		1250
EBOV-B non-opt	(1201)	AACACCGCACACCCGAAACTCTCGCCAACAATCCCCCAGACAACACAAC		
EBOV-Z non-opt	(1201)	GCAACTCAAGTTGAACAACATCACCGCAGAACAGACAACGACAGCACAGC		
		1251		1300
EBOV-B non-opt	(1251)	CCCGTCGACACCACCTCAAGACGGTGAGCGGACAAGTTCCCAACAACAC		
EBOV-Z non-opt	(1251)	CTCCGACACTCCCTCTGCCACGACCGCAGCCGGACCCCAAAAGCAGAGA		
		1301		1350
EBOV-B non-opt	(1301)	CCTCCCCCGCCAGTCCCAACCAGCACAATCCATCCCACCACACGAGAG		
EBOV-Z non-opt	(1301)	ACACCAACACGAGCAAGAGCACTGACTTCCTGGACCCCGCCACCACAACA		
		1351		1400
EBOV-B non-opt	(1351)	ACTCACATTTCCCAACCAATGACAACAAGCCATGACACCGACAGCAATCG		
EBOV-Z non-opt	(1351)	AGTCCCCAAAACCACAGCGAGACCGCTGGCAACAACAACACTCATCACC		
		1401		1450
EBOV-B non-opt	(1401)	ACCCAACCCAATTGACATCAGCGAGTCTACAGAGCCAGGACCACTCACCA		
EBOV-Z non-opt	(1401)	AGATACCGGAGAAGAGAGTGCCAGCAGCGGAAGCTAGGCTTAATTACCA		
		1451		1500
EBOV-B non-opt	(1451)	ACACCACAAGAGGGGCTGCAAATCTGCTGACAGGCTCAAGAAGAACCCGA		
EBOV-Z non-opt	(1451)	ATACTATTGCTGGAGTCGCAGGACTGATCACAGGCGGGAGAAGAAGCTCGA		
		1501		1550
EBOV-B non-opt	(1501)	AGGGAAATCACCCCTGAGAACACAAGCCAAATGCAACCCAAACCTACACTA		
EBOV-Z non-opt	(1501)	AGAGAAGCAATTGTCAATGCTCAACCCAAATGCAACCTAATTTACATTA		
		1551		1600
EBOV-B non-opt	(1551)	TTGGACAACCCAAGATGAAGGGGCTGCCATTGGTTTAGCCTGGATACCTT		
EBOV-Z non-opt	(1551)	CTGGACTACTCAGGATGAAGGTGCTGCAATCGGACTGGCCTGGATACCAT		
		1601		1650
EBOV-B non-opt	(1601)	ACTTCGGGCCCGCAGCAGAGGGAATTTATACGGAAGGGATAATGCACAAT		
EBOV-Z non-opt	(1601)	ATTTCCGGCCAGCAGCCGAGGGAATTTACATAGAGGGGCTAATGCACAAT		
		1651		1700
EBOV-B non-opt	(1651)	CAAAATGGGCTAATTTGCGGGTTGAGGCAGCTAGCAAATGAGACGACTCA		
EBOV-Z non-opt	(1651)	CAAGATGGTTTAATCTGTGGGTTGAGACAGCTGGCCAACGAGACGACTCA		
		1701		1750
EBOV-B non-opt	(1701)	AGCCCTACAGTTATTCTTGCGTGCTACCACGGAATTGCGCACTTTCTCTA		
EBOV-Z non-opt	(1701)	AGCTCTTCAACTGTTCTTGAGAGCCACAACCTAGCTACGCACCTTTTCAA		
		1751		1800
EBOV-B non-opt	(1751)	TATTGAATCGAAAAGCCATCGACTTTTACTCCAAAGATGGGGAGGAACG		
EBOV-Z non-opt	(1751)	TCCTCAACCGTAAGGCAATTGATTTCTTGCTGCAGCGATGGGGCGGCACA		
		1801		1850
EBOV-B non-opt	(1801)	TGCCACATCTTAGGCCAGATTGCTGTATTGAGCCCCATGATTGGACTAA		
EBOV-Z non-opt	(1801)	TGCCACATTCTGGGACCGGACTGCTGTATCGAACCACATGATTGGACCAA		

Figure 9A (continued)

		1851	1900
EBOV-B non-opt	(1851)	GAACATTACTGACAAAATAGATCAAATCATTCATGATTTTCATTGATAAAC	
EBOV-Z non-opt	(1851)	GAACATAACAGACAAAATTGATCAGATTATTCATGATTTTGTGATAAAA	
		1901	1950
EBOV-B non-opt	(1901)	CTCTACCAGATCAAACAGATAATGACAATTGGTGGACAGGGTGGAGGCAA	
EBOV-Z non-opt	(1901)	CCCTTCCGGACCAGGGGACAATGACAATTGGTGGACAGGATGGAGACAA	
		1951	2000
EBOV-B non-opt	(1951)	TGGGTTCCCTGCCGGGATCGGGATCACGGGGTAATAATCGCAGTTATAGC	
EBOV-Z non-opt	(1951)	TGGATACCGGCAGGTATTGGAGTTACAGCGTTATAATTGCAGTTATCGC	
		2001	2031
EBOV-B non-opt	(2001)	ACTGCTGTGTATTTGCAAATTTCTACTCTAA	
EBOV-Z non-opt	(2001)	TTTATTCTGTATATGCAAATTTGTCTTTTAG	
		1	50
EBOV-S non-opt	(1)	ATGGGGGGTCTTAGCCTACTCCAATTGCCAGGGACAAATTTCCGAAAAG	
EBOV-Z non-opt	(1)	ATGGGCGTTACAGGAATATTGCAGTTACCTCGTGATCGATTCAAGAGGAC	
		51	100
EBOV-S non-opt	(51)	CTCTTCTTTTGTGGGTGTCATCATCTTATTCAAAAGGCCTTTTCCATGC	
EBOV-Z non-opt	(51)	ATCATTTCTTTCTTTGGGTAATTATCCTTTTCCAAAGAACATTTTCCATCC	
		101	150
EBOV-S non-opt	(101)	CTTTGGGTGTTGTGACTAACAGCACTTTAGAAGTAACAGAGATTGACCAG	
EBOV-Z non-opt	(101)	CAGTTGGAGTCATCCACAATAGCACATTACAGGTTAGTGATGTCGACAAA	
		151	200
EBOV-S non-opt	(151)	CTAGTCTGCAAGGATCATCTTGTCATCTACTGACCAGCTGAAATCAGTTGG	
EBOV-Z non-opt	(151)	CTAGTTTGTCGTGACAACTGTCATCCACAAATCAATTGAGATCAGTTGG	
		201	250
EBOV-S non-opt	(201)	TCTCAACCTCGAGGGGAGCGGAGTATCTACTGATATCCCATCTGCAACAA	
EBOV-Z non-opt	(201)	ACTGAATCTCGAAGGGAATGGAGTGGCAACTGACGTGCCATCTGCAACTA	
		251	300
EBOV-S non-opt	(251)	AGCGTTGGGGCTTCAGATCTGGTGTTCCTCCCAAGGTGGTCAGCTATGAA	
EBOV-Z non-opt	(251)	AAAGATGGGGCTTCAGGTCCGGTGTCCACCAAAGGTGGTCAATTATGAA	
		301	350
EBOV-S non-opt	(301)	GCGGGAGAATGGGCTGAAAATTGCTACAATCTTGAAATAAAGAAGCCGGA	
EBOV-Z non-opt	(301)	GCTGGTGAATGGGCTGAAAACCTGCTACAATCTTGAAATCAAAAAACCTGA	
		351	400
EBOV-S non-opt	(351)	CGGGAGCGAATGCTTACCCCCACCGCCAGATGGTGTGAGAGGCTTTCCAA	
EBOV-Z non-opt	(351)	CGGGAGTGAGTGCTTACCAGCAGCGCCAGACGGGATTCGGGGCTTCCCC	
		401	450
EBOV-S non-opt	(401)	GGTGCCGCTATGTTACAAAGCCCCAAGGAACCGGGCCCTGCCAGGTGAC	
EBOV-Z non-opt	(401)	GGTGCCGCTATGTGCACAAAGTATCAGGAACGGGACCGTGTGCCGGAGAC	
		451	500
EBOV-S non-opt	(451)	TACGCCTTTCACAAGGATGGAGCTTCTTCTCTATGACAGGCTGGCTTC	
EBOV-Z non-opt	(451)	TTTGCTTCCATAAAGAGGGTGCTTCTTCTCTGTATGATCGACTTGCTTC	
		501	550
EBOV-S non-opt	(501)	AACTGTAATTTACAGAGGAGTCAATTTTGCTGAGGGGGTAATTGCATTCT	
EBOV-Z non-opt	(501)	CACAGTTATCTACCGAGGAACGACTTTCGCTGAAGGTGTCGTTGCATTTC	
		551	600
EBOV-S non-opt	(551)	TGATATTGGCTAAACCAAAAGAAACGTTCTTCAGTCACCCCCCATTCGA	
EBOV-Z non-opt	(551)	TGATACTGCCCCAAGCTAAGAAGGACTTCTTCAGCTCACACCCTTGAGA	
		601	650
EBOV-S non-opt	(601)	GAGGCAGTAACTACACTGAAAATACATCAAGTTATTATGCCACATCCTA	
EBOV-Z non-opt	(601)	GAGCCGGTCAATGCAACGGAGGACCCGTCTAGTGGCTACTATTCTACCAC	
		651	700
EBOV-S non-opt	(651)	CTTGGAGTATGAAATCGAAAATTTTGGTGCTCAACACTCCACGACCCCTT	
EBOV-Z non-opt	(651)	AATTAGATATCAGGCTACCGGTTTTTGAACCAATGAGACAGAGTACTTGT	
		701	750
EBOV-S non-opt	(701)	TCAAAATTGACAATAATACTTTTGTTCGTCTGGACAGGCCCCACACGCCT	
EBOV-Z non-opt	(701)	TCGAGGTTGACAATTTGACCTACGTCCAACCTGAATCAAGATTACACCA	

Figure 9A (continued)

		751	800
EBOV-S non-opt	(751)	CAGTTCCCTTTTCCAGCTGAATGATACCATTCACCTTCACCAACAGTTGAG	
EBOV-Z non-opt	(751)	CAGTTTCTGTCCAGCTGAATGAGACAATATATACAAGTGGGAAAAGGAG	
		801	850
EBOV-S non-opt	(801)	TAATACAACCTGGGAGACTAATTTGGACACTAGATGCTAATATCAATGCTG	
EBOV-Z non-opt	(801)	CAATACCACGGGAAAACATAATTTGGAAGGTCAACCCCGAAATTGATACAA	
		851	900
EBOV-S non-opt	(851)	ATATTGGTGAATGGGCTTTTGGGAAAATAAAAAAATCTCTCCGAACAA	
EBOV-Z non-opt	(851)	CAATCGGGGAGTGGGCCTTCTGGGAAACTAAAAAAACCTCACTAGAAAA	
		901	950
EBOV-S non-opt	(901)	CTACGTGGAGAAGAGCTGTCTTTCGAAGCTTTATCGCTCAACGAGACAGA	
EBOV-Z non-opt	(901)	ATTCGCAGTGAAGAGTTGTCTTTCACAGTTGTATCAAACGGAGCCAAAAA	
		951	1000
EBOV-S non-opt	(951)	AGACGATGATGCGGCATCGTCGAGAATTACAAAGGGAAGAATCTCCGACC	
EBOV-Z non-opt	(951)	CATCAGTGGTCAGAGTCCGGCGCAACTTCTTCGACCCAGGGACCAACA	
		1001	1050
EBOV-S non-opt	(1001)	GGGCCACCAGGAAGTATTTCGGACCTGGTTCCAAAGAATTCCCTGGGATG	
EBOV-Z non-opt	(1001)	CAACAACCTGAAGACCACAAAATCATGGCTTCAGAAAATTCCTCTGCAATG	
		1051	1100
EBOV-S non-opt	(1051)	GTTCCATTGCACATACCAGAAGGGGAAACAACATTGCCGTCTCAGAATTC	
EBOV-Z non-opt	(1051)	GTTCAAGTGCACAGTCAAGGAAGGGAAGCTGCAGTGTGCGATCTAACAAAC	
		1101	1150
EBOV-S non-opt	(1101)	GACAGAAGGTGGAAGAGTAGGTGTGAACACTCAGGAGACCATTACAGAGA	
EBOV-Z non-opt	(1101)	CCTTGCCACAATCTCCACGAGTCCCAATCCCTCACAACCAAAACCAGGTC	
		1151	1200
EBOV-S non-opt	(1151)	CAGCTGCAACAATTATAGGCACTAACGGCAACCATATGCAGATCTCCACC	
EBOV-Z non-opt	(1151)	CGGACAACAGCACCATAATAACCCGTGTATAAACTTGACATCTCTGAG	
		1201	1250
EBOV-S non-opt	(1201)	ATCGGGATAAGACCGAGCTCCAGCCAAATCCCGAGTTCTCACCAGCCAC	
EBOV-Z non-opt	(1201)	GCAACTCAAGTTGAACAACATCACCAGCAGAACAGACAACGACAGCACAGC	
		1251	1300
EBOV-S non-opt	(1251)	GGCACCAGCCCTGAGGCTCAGACCCCCACAACCCACACATCAGGTCCAT	
EBOV-Z non-opt	(1251)	CTCCGACACTCCCTCTGCCACGACCGCAGCCGACCCCAAAAGCAGAGA	
		1301	1350
EBOV-S non-opt	(1301)	CAGTGATGGCCACCGAGGAACCAACAACACCACCGGAAGCTCCCCGGC	
EBOV-Z non-opt	(1301)	ACACCAACACGAGCAAGAGCACTGACTTCCTGGACCCCGCCACCACAACA	
		1351	1400
EBOV-S non-opt	(1351)	CCAACAACAGAACGACCCACTCTCACCACCCAGAAAAATATAACAACAGC	
EBOV-Z non-opt	(1351)	AGTCCCCAAAACCACAGCGAGACCGCTGGCAACAACAACACTCATCACC	
		1401	1450
EBOV-S non-opt	(1401)	GGTTAAAACCTGTCTGCCACAGGAGTCCACAAGCAACGGTCTAATAACTT	
EBOV-Z non-opt	(1401)	AGATACCGGAGAAGAGAGTGCCAGCAGCGGAAGCTAGGCTTAATTACCA	
		1451	1500
EBOV-S non-opt	(1451)	CAACAGTAACAGGGATTCTTGGGAGTCTTGGGCTTCGAAAACGCAGCAGA	
EBOV-Z non-opt	(1451)	ATACTATTGCTGGAGTTCGAGGACTGATCACAGGCGGAGAGAAGAACTCGA	
		1501	1550
EBOV-S non-opt	(1501)	AGACAAACTAACACCAAGCCACGGGTAAGTGCAATCCCAACTTACACTA	
EBOV-Z non-opt	(1501)	AGAGAAGCAATTGTCAATGCTCAACCCAAATGCAACCCTAATTTACATTA	
		1551	1600
EBOV-S non-opt	(1551)	CTGGACTGCACAAGAACAACATAATGCTGCTGGGATTGCTGGATCCCGT	
EBOV-Z non-opt	(1551)	CTGGACTACTCAGGATGAAGGTGCTGCAATCGGACTGGCCTGGATACCAT	
		1601	1650
EBOV-S non-opt	(1601)	ACTTTGGACCGGGTGCAGGAGCATATACACTGAAGGCCTGATGCATAAC	
EBOV-Z non-opt	(1601)	ATTTTCGGGCCAGCAGCCGAGGGAATTTACATAGAGGGGCTAATGCACAAT	
		1651	1700
EBOV-S non-opt	(1651)	CAAAATGCCTTAGTCTGTGGACTTAGGCAACTTGCAATGAAACAACCTCA	
EBOV-Z non-opt	(1651)	CAAGATGGTTTAATCTGTGGGTTGAGACAGCTGGCCAACGAGACGACTCA	
		1701	1750
EBOV-S non-opt	(1701)	AGCTCTGCAGCTTTTCTTAAGAGCCACAACGGAGCTGCGGACATATACCA	
EBOV-Z non-opt	(1701)	AGCTCTTCAACTGTTCTTGAGAGCCACAACCTGAGCTACGCACCTTTTCAA	

Figure 9A (continued)

		1751		1800
EBOV-S non-opt	(1751)	TACTCAATAGGAAGGCCATAGATTTCTTCTGCGACGATGGGGCGGGACA		
EBOV-Z non-opt	(1751)	TCCTCAACCGTAAGGCAATTGATTTCTTGCTGCAGCGATGGGGCGGCACA		
		1801		1850
EBOV-S non-opt	(1801)	TGCAGGATCCTGGGACCAGATTGTTGCATTGAGCCACATGATTGGACAAA		
EBOV-Z non-opt	(1801)	TGCCACATTCTGGGACCGGACTGCTGTATCGAACCACATGATTGGACCAA		
		1851		1900
EBOV-S non-opt	(1851)	AAACATCACTGATAAAATCAACCAAATCATCCATGATTTTCATCGACAACC		
EBOV-Z non-opt	(1851)	GAACATAACAGACAAAATTGATCAGATTATTCATGATTTTGTGATAAAA		
		1901		1950
EBOV-S non-opt	(1901)	CCTTACCTAATCAGGATAATGATGATAATTGGTGGACGGGCTGGAGACAG		
EBOV-Z non-opt	(1901)	CCCTTCCGGACCAGGGGGACAATGACAATTGGTGGACAGGATGGAGACAA		
		1951		2000
EBOV-S non-opt	(1951)	TGGATCCCTGCAGGAATAGGCATTACTGGAATTATTATTGCAATTATTGC		
EBOV-Z non-opt	(1951)	TGGATACCGGCAGGTATTGGAGTTACAGGCGTTATAATTGCAGTTATCGC		
		2001		2031
EBOV-S non-opt	(2001)	TCTTCTTTGCGTTTGCAAGCTGCTTTGCTGA		
EBOV-Z non-opt	(2001)	TTTATTCTGTATATGCAAATTTGTCTTTTAG		

Figure 9A (continued)

		1	50
EBOV-B opt	(1)	ATGGTCACATCTGGAATTCTCCAGCTCCCTAGGGAACGGTTCGGGAAAC	
EBOV-S opt	(1)	ATGGGCGGCTGAGCTGCTGCAGCTGCCCCGGGACAAGTTCCGGAAAGTC	
		51	100
EBOV-B opt	(51)	CAGTTTCTTTGTCTGGGTCATCATCCTCTCCATAAGGTGTTCCCTATCC	
EBOV-S opt	(51)	CAGCTTCTTCGTGTGGGTGATCATCCTGTTCCAGAAAGCCTTCAGCATGC	
		101	150
EBOV-B opt	(101)	CCCTGGGGGTCGTCCATAACAATACATTGCAAGTGTGAGATATCGATAAG	
EBOV-S opt	(101)	CCCTGGGCGTGGTGACCAACAGCACCTGGAAGTGACCGAGATCGACCAG	
		151	200
EBOV-B opt	(151)	TTGGTGTGTGCGGATAAACTGTATCTACCTCTCAGCTGAAAAGCGTCGG	
EBOV-S opt	(151)	CTGGTGTGCAAGGACCACCTGGCCAGCACCGATCAGCTGAAGTCCGTGGG	
		201	250
EBOV-B opt	(201)	CCTCAACCTCGAAGGGAATGGTGTGCGCCACTGATGTCCCTACTGCCACAA	
EBOV-S opt	(201)	CCTGAACCTGGAAGGCAGCGGCGTGAGCACCGACATCCCAGCGCCACCA	
		251	300
EBOV-B opt	(251)	AACGATGGGGTTTCCGGGCTGGTGTCCCCCAGAAAGTGGTCAACTATGAA	
EBOV-S opt	(251)	AGAGATGGGGCTTCAGATCCGGCGTGCCCCCAAGGTGGTGTCTTATGAG	
		301	350
EBOV-B opt	(301)	GCTGGCGAATGGGCAGAGAATTGCTATAATCTGGACATTAAGGAGCCGA	
EBOV-S opt	(301)	GCCGCGGAGTGGGCCGAGAACTGCTACAACCTGGAATCAAGAAGCCCGA	
		351	400
EBOV-B opt	(351)	TGGCTCCGAGTGTCTCCCTGAAGCTCCTGAGGGCGTGCGGGGATTCCCAA	
EBOV-S opt	(351)	CGGCAGCGAGTGTCTGCCTCCCCCTCCCGATGGCGTGAGAGGCTTCCCCC	
		401	450
EBOV-B opt	(401)	GATGTCGCTACGTCCATAAAGTGTCTGGCACCGGCCCTTGCCTGAAGGA	
EBOV-S opt	(401)	GGTGCAGATACGTGCACAAGGCACAAGGCACCGGTCCATGCCAGGCGAC	
		451	500
EBOV-B opt	(451)	TACGCCTTTTCATAAAGAGGGGCCTTTTTCCTCTATGATCGCCTGGCTTC	
EBOV-S opt	(451)	TACGCCTTCCACAAGGACGGCGCCTTTTTCCTGTACGACCGGCTGGCCTC	
		501	550
EBOV-B opt	(501)	CACAATTATCTATCGCTCTACTACCTTTTCCGAGGGGGTGGTCTGCTTTTC	
EBOV-S opt	(501)	CACCGTGATCTACCGGGCGTGAACCTTTCGCGAGGGCGTGATCGCCTTCC	
		551	600
EBOV-B opt	(551)	TCATCCTCCCCGAGACAAAGAAAGATTTCTTTTCAGAGTCCCCCCTGCAT	
EBOV-S opt	(551)	TGATCCTGGCCAAGCCCAAAGAGACATTCTGCAGAGCCCCCCTCCGG	
		601	650
EBOV-B opt	(601)	GAGCCTGCCAATATGACTACCGATCCTTCTTACTATCATACCGTGAC	
EBOV-S opt	(601)	GAGGCCGTGAACCTACACCGAGAACACCAGCAGCTACTACGCCACCTCCTA	
		651	700
EBOV-B opt	(651)	ACTCAATTATGTGCTGATAACTTCGGCACTAACATGACCAACTTTCTGT	
EBOV-S opt	(651)	CCTGGAATACGAGATCGAGAACTTCGGCGCCAGCACAGCACCACTGT	
		701	750
EBOV-B opt	(701)	TCCAGGTCGACCACCTGACATATGTCCAGCTCGAGCCTCGCTTTACCCCA	
EBOV-S opt	(701)	TCAAGATCGACAACAACACCTTCGTGCGGCTGGACAGACCCACACCCCC	
		751	800
EBOV-B opt	(751)	CAGTTCCTGGTCCAGCTCAATGAAACTATCTATACTAACGGACGGCGCTC	
EBOV-S opt	(751)	CAGTTTCTGTTCCAGCTGAACGACACCATCCATCTGCATCAGCAGCTGTC	
		801	850
EBOV-B opt	(801)	TAATACCACCGGGACCTCATTGGAAGTCAATCCCACTGTCGATACCG	
EBOV-S opt	(801)	CAACACCACCGGCAGACTGATCTGGACCTGGACGCCAACATCAACGCCG	
		851	900
EBOV-B opt	(851)	GCGTCGGAGAGTGGGCCTTTTGGGAAAACAAGAAGAACTTTACCAAGACC	
EBOV-S opt	(851)	ACATCGGTGAATGGGCTTTTGGGAGAACAAAGAAGAACTTGAGCGAGCAG	
		901	950
EBOV-B opt	(901)	CTGAGTAGCGAGGAACCTCTGTGATCTTTGTGCCTCGCGCTCAGGATCC	
EBOV-S opt	(901)	CTGCGGGGCGAAGAACTCAGCTTCGAGGCCCTGAGCCTGAACGAGACAGA	
		951	1000
EBOV-B opt	(951)	TGGATCCAACCAGAAAACCAAGTGACACCTACATCTTTTGCCAACAACC	
EBOV-S opt	(951)	GGACGACGACGCCGCCAGCAGCCGGATACCAAGGGCCGGATCAGCGACC	
		1001	1050
EBOV-B opt	(1001)	AGACAAGCAAGAACCATGAGGACCTCGTCCCCGAAGATCCTGCCTCTGTG	
EBOV-S opt	(1001)	GGGCCACCAGAAAGTACAGCGACCTGGTGCCCAAGAAGAGCCCGGCATG	

Figure 9B

		1051		1100
EBOV-B opt	(1051)	GTCCAGGTCCGGGACCTCCAGCGCGAAAATACCGTGCCTACTCCCCCCCC		
EBOV-S opt	(1051)	GTGCCTCTGCACATCCCCGAGGCGAGACAACTCTCCCTAGTCAGAATAG		
		1101		1150
EBOV-B opt	(1101)	TGATACCGTCCCTACTACCCTCATTCCCGATACAATGGAAGAACAGACCA		
EBOV-S opt	(1101)	CACCGAGGGCAGACGCGTGGCGTGAACACCCAGGAAACCATCACCGAGA		
		1151		1200
EBOV-B opt	(1151)	CCTCTCATTACGAGCCACCTAACATCTCCAGAAATCACCAGGAACGAAAT		
EBOV-S opt	(1151)	CAGCCGCCACCATCATTGGTACTAACGGCAACCACATGCAGATCAGCACC		
		1201		1250
EBOV-B opt	(1201)	AACACCGCTCATCCCGAGACTCTGGCTAATAACCCCCCGACAATACTAC		
EBOV-S opt	(1201)	ATCGGCATCCGGCCAGCAGCAGCCAGATCCCAAGTAGTAGTCTCTACCAC		
		1251		1300
EBOV-B opt	(1251)	CCCTAGTACCCCCCTCAGGACGGGAGAGAACCAGTTCCCATACTACAC		
EBOV-S opt	(1251)	AGCCCCTAGCCCTGAGGCCAGACCCCTACCACACACACCAGCGGCCCTA		
		1301		1350
EBOV-B opt	(1301)	CCTCCCCAAGACCCGTCCTTACATCTACCATTCTATCCACCACCCGCGAG		
EBOV-S opt	(1301)	GCGTGATGGCCACCGAGGAACCTACCACCCCTCCTGGCAGCAGCCAGGT		
		1351		1400
EBOV-B opt	(1351)	ACACACATTCTTACCCTATGACCACATCCCATGACACCGATTCCAATCG		
EBOV-S opt	(1351)	CCAACTACCGAGGCACCAACCCCTGACCACCCCGAGAATCACCACCGC		
		1401		1450
EBOV-B opt	(1401)	CCCTAACCCCCATCGATATCAGCGAATCTACCGAGCCCGGACCCCTCACA		
EBOV-S opt	(1401)	CGTGAAAACCGTGCTGCCCCAGGAAAGCACCAGCAACGGCCTGATCACC		
		1451		1500
EBOV-B opt	(1451)	ATACAACCCGCGGAGCCGCTAATCTGCTGACTGGCTCCCGGCGCACTCGA		
EBOV-S opt	(1451)	GCACCGTGACCGGCATCCTGGGCAGCCTGGGCCTGCGGAAGCGGAGCAGA		
		1501		1550
EBOV-B opt	(1501)	AGAGAAATCACCCTGCGAACACAGGCCAAGTGTAACCCAAACCTCCATTA		
EBOV-S opt	(1501)	CGGCAGACCAACACCAAGGCCACCGGCAAGTGCAACCCCAACCTGCACTA		
		1551		1600
EBOV-B opt	(1551)	TTGGACAACCCAGGATGAAGGGGCCGCTATTGGCCTCGCTTGGATCCCTT		
EBOV-S opt	(1551)	CTGGACCGCCAGGAACAGCACACGCCGCTGGGATCGCCTGGATCCCTT		
		1601		1650
EBOV-B opt	(1601)	ATTTGGGGCCTGCAGCCGAGGGGATCTATACCGAAGGTATAATGCATAAT		
EBOV-S opt	(1601)	ACTTTGGTCTTGGTGCTGAGGGAATATACCCGAGGGCCTGATGCACAAC		
		1651		1700
EBOV-B opt	(1651)	CAGAACGGGCTGATTTGCGGGCTGCGCCAGCTCGCCAACGAGACTACCCA		
EBOV-S opt	(1651)	CAGAACGCCCTGGTGTGCGGCCCTGAGACAGCTGGCCAACGAAACCACTCA		
		1701		1750
EBOV-B opt	(1701)	GGCCCTCCAGCTCTTTCTCGGGCTACTACCGAACTGCGAACCTTTTCCA		
EBOV-S opt	(1701)	GGCACTGCAGCTGTTCTGCGGGCCACCACCGAGCTGCGGACCTACACCA		
		1751		1800
EBOV-B opt	(1751)	TTCTCAATAGGAAAGCTATCGATTCTTGCTCCAGCGCTGGGGGGGAACC		
EBOV-S opt	(1751)	TCCTGAACAGGAAGGCCATCGACTTTCTGCTGCGGAGATGGGGCGGCACC		
		1801		1850
EBOV-B opt	(1801)	TGTCATATCCTCGGACCCGATTGCTGTATTGAGCCACATGATTGGACTAA		
EBOV-S opt	(1801)	TGTAGAATCCTGGGCCCCGACTGCTGCATCGAGCCCCACGACTGGACCAA		
		1851		1900
EBOV-B opt	(1851)	AAACATCACTGACAAAATTGATCAGATCATTCATGATTTCATTGATAAAC		
EBOV-S opt	(1851)	GAATATCACCGACAAGATCAACCAGATCATCCACGACTTCATCGACAACC		
		1901		1950
EBOV-B opt	(1901)	CCCTCCCCGATCAGACTGATAATGACAATTGGTGGACGGGATGGCGCCAG		
EBOV-S opt	(1901)	CCCTGCCCAACCAGGACAACGACGACAACCTGGTGGACTGGTTGGCGACAG		
		1951		2000
EBOV-B opt	(1951)	TGGGTGCCCCGCTGGGATTGGCATTACAGGTGTCTATTGCCGTGATTGC		
EBOV-S opt	(1951)	TGGATCCCTGCCGGCATCGGCATCACCGGCATCATCTTGCCATTATCGC		
		2001		2031
EBOV-B opt	(2001)	ACTCTGTGTATCTGTAAATTTCTGCTGTGA		
EBOV-S opt	(2001)	TCTCTCTGCGTGTGCAAGCTCCTCTGCTGA		

Figure 9B (continued)

		1	50
EBOV-B opt	(1)	ATGGTCACATCTGGAATTCTCCAGCTCCCTAGGGAACGGTTCCGGAAAAC	
EBOV-Z opt	(1)	ATGGGCGTGACAGGCATTCTGCAGCTCCCCAGAGACAGATTCAAGCGGAC	
		51	100
EBOV-B opt	(51)	CAGTTTCTTTGTCTGGGTCATCATCCTCTCCATAAGGTGTTCCGTATCC	
EBOV-Z opt	(51)	CTCCTTTTCTCTGGGTCATCATTCTGTTTCAGCGGACCTTCTCCATCC	
		101	150
EBOV-B opt	(101)	CCCTGGGGGTCGTCCATAACAATACATTGCAAGTGTGAGATATCGATAAG	
EBOV-Z opt	(101)	CTCTGGGCGTGATCCACAATAGCACCCCTCCAGGTGTCCGACGTGGACAAG	
		151	200
EBOV-B opt	(151)	TTGGTGTGTGCGGATAAACTGTCTACCTCTCAGCTGAAAAGCGTCGG	
EBOV-Z opt	(151)	CTCGTGTGCCGGGACAAGCTGTCTCCACCAACCAGCTGAGAAGCGTGGG	
		201	250
EBOV-B opt	(201)	CCTCAACCTCGAAGGGAATGGTGTGCGCCACTGATGTCCCTACTGCCACAA	
EBOV-Z opt	(201)	GCTGAATCTCGAGGGCAATGGCGTGGCCACAGAGCTGCCCTCCGCCACAA	
		251	300
EBOV-B opt	(251)	AACGATGGGGTTTCCGGGCTGGTGTCCCCCAAAAGTGGTCAACTATGAA	
EBOV-Z opt	(251)	AGCGCTGGGGCTTTTCGGAGCGCGTCCCTCCTAAAGTCGTGAACACGAG	
		301	350
EBOV-B opt	(301)	GCTGGCGAATGGGCAGAGAATTGCTATAATCTGGACATTAATAAGGCCGA	
EBOV-Z opt	(301)	GCAGGGGAATGGGCTGAAAATTGTTACAATCTCGAGATCAAAAAACCAGA	
		351	400
EBOV-B opt	(351)	TGGCTCCGAGTGTCTCCCTGAAGCTCCTGAGGGCGTGCGGGGATTCCCAA	
EBOV-Z opt	(351)	TGGCTCTGAGTGCCTGCCGACCAGACGGCATCAGGGGCTTCCCTA	
		401	450
EBOV-B opt	(401)	GATGTCGCTACGTCCATAAAGTGTCTGGCACCGGCCCTTGCCTGAAGGA	
EBOV-Z opt	(401)	GATGCCGCTATGTGCACAAGGTGAGTGGTACAGGCCCTTGTGCCGGCGAT	
		451	500
EBOV-B opt	(451)	TACGCCTTTTCATAAAGAAGGGGCCTTTTCTCTATGATCGCTGGCTTC	
EBOV-Z opt	(451)	TTTGCCCTTTCACAAAGAGGGGGCTTTCTTCTGTACGACAGGCTCGCCAG	
		501	550
EBOV-B opt	(501)	CACAATTATCTATCGCTCTACTACCTTTTCCGAGGGGGTGGTTCGCTTTC	
EBOV-Z opt	(501)	TACAGTGATATACCGAGGTACTACCTTCGCCGAAGGCGTGGTGGCCTTTC	
		551	600
EBOV-B opt	(551)	TCATCCTCCCCGAGACAAAGAAAGATTTCTTTCAGAGTCCCCCCTGCAT	
EBOV-Z opt	(551)	TGATTCTGCCCCAGGCCAAGAAGGACTTCTTCAGCAGCCACCCCTGAGA	
		601	650
EBOV-B opt	(601)	GAGCCTGCCAATATGACTACCGATCCTTCTTACTATCATACCGTGAC	
EBOV-Z opt	(601)	GAACCCGTGAACGCCACAGAGGACCCAGCAGCGGCTACTACAGCACCAC	
		651	700
EBOV-B opt	(651)	ACTCAATTATGTCGCTGATAACTTCGGCACTAACATGACCAACTTTCTGT	
EBOV-Z opt	(651)	AATCAGATACCAGGCCACAGGCTTCGGCACCATGAGACAGAGTACCTGT	
		701	750
EBOV-B opt	(701)	TCCAGGTCGACCACCTGACATATGTCCAGCTCGAGCCTCGCTTTACCCCA	
EBOV-Z opt	(701)	TCGAGGTGGACAACCTGACCTACGTGCAGCTGGAAGCCGGTTTACCCCT	
		751	800
EBOV-B opt	(751)	CAGTTCCTGGTCCAGCTCAATGAACTATCTATACTAACGGACGGCGCTC	
EBOV-Z opt	(751)	CAGTTCCTCCTGCAGCTCAACGAGACAATCTACACCTCCGGCAAGCGGAG	
		801	850
EBOV-B opt	(801)	TAATACCACCGGGACCCTCATTTGGAAAGTCAATCCCACTGTGATACCG	
EBOV-Z opt	(801)	CAACACAACAGGCAAGCTCATCTGGAAAGTGAACCCGAGATCGATACCA	
		851	900
EBOV-B opt	(851)	GCGTCGGAGAGTGGGCCTTTTGGGAAAACAAGAAGAACTTTACCAAGACC	
EBOV-Z opt	(851)	CTATAGGGGAGTGGGCTTTCTGGGAAACTAAGAAGAACCTCACCCGGAAG	
		901	950
EBOV-B opt	(901)	CTGAGTAGCGAGGAACCTCTGTGATCTTTGTGCCTCGCGCTCAGGATCC	
EBOV-Z opt	(901)	ATCAGATCCGAGGAACGTCTTACCGTGGTGTCCAACGGCGCCAAGAA	
		951	1000
EBOV-B opt	(951)	TGGATCCAACCAGAAAACCAAGTGACACCTACATCTTTTGCCAACAACC	
EBOV-Z opt	(951)	CATTTCAGGACAGAGCCCGCCAGAACCAAGCAGCAGCCCGGCACCAACA	

Figure 9B (continued)

		1001		1050
EBOV-B opt	(1001)	AGACAAGCAAGAACCATGAGGACCTCGTCCCCGAAGATCCTGCCTCTGTG		
EBOV-Z opt	(1001)	CCACAACCGAGGACCACAAGATCATGGCCAGCGAGAATCCAGCGCCATG		
		1051		1100
EBOV-B opt	(1051)	GTCCAGGTCCGGGACCTCCAGCGCGAAAATACCGTGCCTACTCCCCCCC		
EBOV-Z opt	(1051)	GTGCAGGTCCACAGCCAGGGAAGAGAAGCCCGGTGAGCCACCTGACCAC		
		1101		1150
EBOV-B opt	(1101)	TGATACCGTCCCTACTACCCTCATTTCCCGATACAATGGAAGAACAGACCA		
EBOV-Z opt	(1101)	ACTGGCCACCATCAGCACCAGCCCCCAGAGCCTGACCACCAAGCCTGGCC		
		1151		1200
EBOV-B opt	(1151)	CCTCTCATTACGAGCCACCTAACATCTCCAGAAATCACCAGGAACGAAAT		
EBOV-Z opt	(1151)	CCGACAACAGCACACACAACCCCCGTGTACAAGCTGGACATCAGCGAG		
		1201		1250
EBOV-B opt	(1201)	AACACCGCTCATCCCGAGACTCTGGCTAATAACCCCCCGACAATACTAC		
EBOV-Z opt	(1201)	GCCACCCAGGTGGAGCAGCACACAGACGGACCGACAACGACAGCACC		
		1251		1300
EBOV-B opt	(1251)	CCCTAGTACCCCCCTCAGGACGGGGAGAGAACCAGTTCCCATACTACAC		
EBOV-Z opt	(1251)	CAGCGATACCCCTTCTGCCACCACAGCCGCGGACCCCTAAGGCCGAGA		
		1301		1350
EBOV-B opt	(1301)	CCTCCCCAAGACCCGTCCCTACATCTACCATTATCCCAACCCCGCGAG		
EBOV-Z opt	(1301)	ATACCAACACCAGCAAGAGCACCAGCTTTCTGGATCCAGCCACCACCACC		
		1351		1400
EBOV-B opt	(1351)	ACACACATTCTTACCCTATGACCACATCCCATGACACCGATTCCCAATCG		
EBOV-Z opt	(1351)	AGTCCACAGAACCACAGCGAAACCGCCGGCAACAACAATACCCACCACCA		
		1401		1450
EBOV-B opt	(1401)	CCCTAACCCCATCGATATCAGCGAATCTACCGAGCCCGGACCCCTCACA		
EBOV-Z opt	(1401)	GGACACCGGCGAGGAAAGCGCCAGCTCTGGCAAGCTGGGCCTGATTACCA		
		1451		1500
EBOV-B opt	(1451)	ATACAACCCGCGGAGCCGCTAATCTGTGACTGGCTCCCGGCGCACTCGA		
EBOV-Z opt	(1451)	ACACAATCGCCGGCGTGGCCGGACTGATCACCGGCGGAGACGGACCAGA		
		1501		1550
EBOV-B opt	(1501)	AGAGAAATCACCTGCGAACACAGGCCAAGTGTAAACCAAACCTCCATTA		
EBOV-Z opt	(1501)	CGGGAGGCCATCGTGAACGCCAGCCCAAATGTAATCTTAATCTCCACTA		
		1551		1600
EBOV-B opt	(1551)	TTGGACAACCCAGGATGAAGGGGCGCTATTGGCCTCGCTTGGATCCCTT		
EBOV-Z opt	(1551)	TTGGACCACACAGGACGAGGGCGCTGCCATCGGACTGGCATGGATTCCCTT		
		1601		1650
EBOV-B opt	(1601)	ATTTTCGGGCTGCAGCCGAGGGGATCTATACCGAAGGTATAATGCATAAT		
EBOV-Z opt	(1601)	ACTTCGGACCAGCCGCTGAAGGGATCTATATCGAGGGCTCATGCATAAC		
		1651		1700
EBOV-B opt	(1651)	CAGAACGGGCTGATTTGCGGGCTGCGCCAGCTCGCCAACGAGACTACCCA		
EBOV-Z opt	(1651)	CAGGATGGTCTGATTTGTGGTCTCCGGCAGCTGGCTAATGAGACAACACA		
		1701		1750
EBOV-B opt	(1701)	GGCCCTCCAGCTCTTTCTCCGGGCTACTACCGAAGTGCGAACCTTTTCCA		
EBOV-Z opt	(1701)	GGCTCTCCAGCTGTTTCTGAGAGCCACAACAGAGCTGAGAACCTTCAGCA		
		1751		1800
EBOV-B opt	(1751)	TTCTCAATAGGAAAGCTATCGATTTCTTGCTCCAGCGCTGGGGGGGAACC		
EBOV-Z opt	(1751)	TTCTCAACCGCAAGGCTATTGACTTCCTGCTCCAACGATGGGGAGGCACA		
		1801		1850
EBOV-B opt	(1801)	TGTCATATCCTCGACCCGATTGCTGTATTGAGCCACATGATTGGACTAA		
EBOV-Z opt	(1801)	TGCCACATCCTGGGGCCTGATTGTTGTATCGAACCTCACGATTGGACAAA		
		1851		1900
EBOV-B opt	(1851)	AAACATCACTGACAAAATTGATCAGATCATTCATGATTTTCATTGATAAAC		
EBOV-Z opt	(1851)	GAACATTACAGATAAGATCGATCAGATTATCCATGACTTTGTGGACAAGA		
		1901		1950
EBOV-B opt	(1901)	CCCTCCCCGATCAGACTGATAATGACAATTGGTGGACGGGATGGCGCCAG		
EBOV-Z opt	(1901)	CCCTGCCCCGATCAGGGCGACAACGATAATTGGTGGACAGGGTGGAGACAG		
		1951		2000
EBOV-B opt	(1951)	TGGGTGCCCCGCTGGGATTGGCATTACAGGTGTATTATTGCCGTGATTGC		
EBOV-Z opt	(1951)	TGGATTCCAGCCGGGATTGGCGTGACCGGCGTGATTATCGCCGTGATCGC		
		2001		2031
EBOV-B opt	(2001)	ACTCCTGTGTATCTGTAAATTTCTGCTGTGA		
EBOV-Z opt	(2001)	CCTGTTCTGCATCTGCAAGTTCTGTGTTCTGA		

Figure 9B (continued)

		1	50
EBOV-S opt	(1)	ATGGGCGGCTGAGCTGCTGCAGCTGCCCCGGGACAAGTTCCGGAAGTC	
EBOV-Z opt	(1)	ATGGGCGTGACAGGCATTCTGCAGCTCCCCAGAGACAGATTCAAGCGGAC	
		51	100
EBOV-S opt	(51)	CAGCTTCTTCGTGTGGGTGATCATCCTGTTCCAGAAAGCCTTCAGCATGC	
EBOV-Z opt	(51)	CTCCTTTTCTCTGGGTATCATTCTGTTTCAGCGGACCTTCTCCATCC	
		101	150
EBOV-S opt	(101)	CCCTGGGCGTGGTGACCAACAGCACCCCTGGAAGTGACCGAGATCGACCAG	
EBOV-Z opt	(101)	CTCTGGGCGTGATCCACAATAGCACCCCTCCAGGTGTCCGACGTGGACAAG	
		151	200
EBOV-S opt	(151)	CTGGTGTGCAAGGACCACCTGGCCAGCACCGATCAGCTGAAGTCCGTGGG	
EBOV-Z opt	(151)	CTCGTGTGCCGGGACAAGCTGTCTCCACCAACCAGCTGAGAAGCGTGGG	
		201	250
EBOV-S opt	(201)	CCTGAACCTGGAAGGCAGCGCGTGAGCACCGACATCCCCAGCGCCACCA	
EBOV-Z opt	(201)	GCTGAATCTCGAGGGCAATGGCGTGGCCACAGACGTGCCCTCCGCCACAA	
		251	300
EBOV-S opt	(251)	AGAGATGGGGCTTCAGATCCGGCGTCCCCCAAGGTGGTGTCTTATGAG	
EBOV-Z opt	(251)	AGCGCTGGGGCTTTTCGGAGCGCGTCCCTCCTAAAGTCGTGAACCTACGAG	
		301	350
EBOV-S opt	(301)	GCCGGCGAGTGGGCGGAGAACTGCTACAACCTGGAAATCAAGAAGCCCGA	
EBOV-Z opt	(301)	GCAGGGGAATGGGCTGAAAATTGTTACAATCTCGAGATCAAAAAACCAGA	
		351	400
EBOV-S opt	(351)	CGGCAGCGAGTGTCTGCCTCCCCCTCCCGATGGCGTGAGAGGCTTCCCCC	
EBOV-Z opt	(351)	TGGCTCTGAGTGCCTGCCGCACCAGACGGCATCAGGGGCTTCCCTA	
		401	450
EBOV-S opt	(401)	GGTGCAGATACGTGCACAAGGCACAAGGCACCGGTCCATGCCAGGCGAC	
EBOV-Z opt	(401)	GATGCCGCTATGTGCACAAGGTGAGTGGTACAGGCCCTTGTGCCGGCGAT	
		451	500
EBOV-S opt	(451)	TACGCCTTCCACAAGGACGGCGCCTTTTTCCTGTACGACCGGCTGGCCTC	
EBOV-Z opt	(451)	TTTGCCTTTTCAAAAGAGGGGGCTTTCTTTCTGTACGACAGGCTCGCCAG	
		501	550
EBOV-S opt	(501)	CACCGTGATCTACCGGGGCGTGAACCTTTCGCGAGGGCGTGATCGCCTTCC	
EBOV-Z opt	(501)	TACAGTGATATACCGAGGTACTACCTTCGCCGAAGGCGTGGTGGCCTTTC	
		551	600
EBOV-S opt	(551)	TGATCCTGGCCAAGCCCAAAGAGACATTCTGCAGAGCCCCCATCCGG	
EBOV-Z opt	(551)	TGATTCTGCCCCAGGCCAAGAAGGACTTCTTCAGCAGCCACCCCTGAGA	
		601	650
EBOV-S opt	(601)	GAGGCCGTGAACCTACACCGAGAACACCAGCAGCTACTACGCCACCTCCTA	
EBOV-Z opt	(601)	GAACCCGTGAACGCCACAGAGGACCCACAGCAGCGCTACTACAGCACCAC	
		651	700
EBOV-S opt	(651)	CCTGGAATACGAGATCGAGAACTTCGGCGCCCAGCACAGCACCACCTGT	
EBOV-Z opt	(651)	AATCAGATACAGGCCACAGGCTTCGGCACCAATGAGACAGAGTACCTGT	
		701	750
EBOV-S opt	(701)	TCAAGATCGACAACAACACCTTCGTGCGGCTGGACAGACCCACACCCCC	
EBOV-Z opt	(701)	TCGAGGTGGACAACCTGACCTACGTGCAGCTGGAAAGCCGGTTTACCCT	
		751	800
EBOV-S opt	(751)	CAGTTTCTGTTCCAGCTGAACGACACCATCCATCTGCATCAGCAGCTGTC	
EBOV-Z opt	(751)	CAGTTCTCTCTGCAGCTCAACGAGACAATCTACACCTCCGGCAAGCGGAG	
		801	850
EBOV-S opt	(801)	CAACACCACCGGCAGACTGATCTGGACCCCTGGACGCCAACATCAACGCCG	
EBOV-Z opt	(801)	CAACACAACAGGCAAGCTCATCTGGAAAGTGAACCCGAGATCGATACCA	
		851	900
EBOV-S opt	(851)	ACATCGGTGAATGGGCTTTTGGGAGAACAGAAGAATCTGAGCGAGCAG	
EBOV-Z opt	(851)	CTATAGGGGAGTGGGCTTTCTGGGAACTAAGAAGAACCTCACCCGGAAG	
		901	950
EBOV-S opt	(901)	CTGCGGGGCGAAGAACTCAGCTTCGAGGCCCTGAGCCTGAACGAGACAGA	
EBOV-Z opt	(901)	ATCAGATCCGAGGAACTGTCTTACCGTGGTGTCCAACGGCGCCAAGAA	
		951	1000
EBOV-S opt	(951)	GGACGACGACGCCGCCAGCAGCCGGATACCAAGGGCCGGATCAGCGACC	
EBOV-Z opt	(951)	CATTTCAGGACAGAGCCCCGCCAGAACCAAGCAGCAGCCCGGCACCAACA	

Figure 9B (continued)

		1001		1050
EBOV-S opt	(1001)	GGGCCACCAGAAAGTACAGCGACCTGGTGCCCAAGAACAGCCCCGGCATG		
EBOV-Z opt	(1001)	CCACAACCGAGGACCACAAGATCATGGCCAGCGAGAACTCCAGCGCCATG		
		1051		1100
EBOV-S opt	(1051)	GTGCCTCTGCACATCCCCGAGGGCGAGACAACCTCTCCCTAGTCAGAATAG		
EBOV-Z opt	(1051)	GTGCAGGTCCACAGCCAGGGAAGAGAAGCCGCCGTGAGCCACCTGACCAC		
		1101		1150
EBOV-S opt	(1101)	CACCGAGGGCAGACGCGTGGGCGTGAACACCCAGGAAACCATCACCGAGA		
EBOV-Z opt	(1101)	ACTGGCCACCATCAGCACCAGCCCCAGAGCCTGACCACCAAGCCTGGCC		
		1151		1200
EBOV-S opt	(1151)	CAGCCGCCACCATCATTGGTACTAACGGCAACCACATGCAGATCAGCACC		
EBOV-Z opt	(1151)	CCGACAACAGCACACACAACACCCCGTGTACAAGCTGGACATCAGCGAG		
		1201		1250
EBOV-S opt	(1201)	ATCGGCATCCGGCCCAGCAGCAGCCAGATCCCAAGTAGTAGTCCTACCAC		
EBOV-Z opt	(1201)	GCCACCCAGGTGGAGCAGCACCACAGACGGACCGACAACGACAGCACC		
		1251		1300
EBOV-S opt	(1251)	AGCCCTTAGCCCTGAGGCCAGACCCCTACCACACACACCAGCGGCCCTA		
EBOV-Z opt	(1251)	CAGCGATACCCCTTCTGCCACCACAGCCGCCGACCCCTAAGGCCGAGA		
		1301		1350
EBOV-S opt	(1301)	GCGTGATGGCCACCGAGGAACCTACCACCCCTCCTGGCAGCAGCCCAGGT		
EBOV-Z opt	(1301)	ATACCAACACCAGCAAGAGCACCAGACTTTCTGGATCCAGCCACCACACC		
		1351		1400
EBOV-S opt	(1351)	CCAACTACCGAGGCACCAACCCCTGACCAACCCCGAGAACATCACCAACGC		
EBOV-Z opt	(1351)	AGTCCACAGAACACAGCGAAACCGCCGGCAACAACAATACCCACCACCA		
		1401		1450
EBOV-S opt	(1401)	CGTGAAAACCGTGCTGCCCCAGGAAAGCACCAGCAACGGCCTGATACCA		
EBOV-Z opt	(1401)	GGACACCGGCGAGGAAAGCGCCAGCTCTGGCAAGCTGGGCCTGATTACCA		
		1451		1500
EBOV-S opt	(1451)	GCACCGTGACCGGCATCCTGGGCAGCCTGGGCCTGCGGAAGCGGAGCAGA		
EBOV-Z opt	(1451)	ACACAATCGCCGGCGTGGCCGACTGATCACCGCGGCAGACGGACCAGA		
		1501		1550
EBOV-S opt	(1501)	CGGCAGACCAACCAAGGCCACCGGCAAGTGCAACCCCAACCTGCACCTA		
EBOV-Z opt	(1501)	CGGGAGGCCATCGTGAACGCCCGAGCCCAATGTATCCTAATCTCCACTA		
		1551		1600
EBOV-S opt	(1551)	CTGGACCGCCCAGGAACAGCACAAACGCCGCTGGGATCGCCTGGATCCCTT		
EBOV-Z opt	(1551)	TTGGACCACACAGGACGAGGGCGCTGCCATCGGACTGGCATGGATTCTCTT		
		1601		1650
EBOV-S opt	(1601)	ACTTTGGTCTGGTGCTGAGGGAATATACACCGAGGGCCTGATGCACAAC		
EBOV-Z opt	(1601)	ACTTCGGAACGAGCCGCTGAAGGGATCTATATCGAGGGGCTCATGCATAAC		
		1651		1700
EBOV-S opt	(1651)	CAGAACGCCCTGGTGTGCGGCCTGAGACAGCTGGCCAACGAAACCACTCA		
EBOV-Z opt	(1651)	CAGGATGGTCTGATTTGTGGTCTCCGGCAGCTGGCTAATGAGACAACACA		
		1701		1750
EBOV-S opt	(1701)	GGCACTGCAGCTGTTCTGCGGGCCACCACCGAGCTGCGGACCTACACCA		
EBOV-Z opt	(1701)	GGCTCTCCAGCTGTTTCTGAGAGCCACAACAGAGCTGAGAACCTTCAGCA		
		1751		1800
EBOV-S opt	(1751)	TCCTGAACAGGAAGGCCATCGACTTTCTGCTGCGGAGATGGGGCGGCACC		
EBOV-Z opt	(1751)	TTCTCAACCGCAAGGCTATTGACTTCCTGCTCCAACGATGGGGAGGCACA		
		1801		1850
EBOV-S opt	(1801)	TGTAGAATCCTGGGCCCCGACTGCTGCATCGAGCCCCACGACTGGACCAA		
EBOV-Z opt	(1801)	TGCCACATCCTGGGGCCTGATTGTTGTATCGAACCTCACGATTGGACAAA		
		1851		1900
EBOV-S opt	(1851)	GAATATCACCGACAAGATCAACCAGATCATCCACGACTTCATCGACAACC		
EBOV-Z opt	(1851)	GAACATTACAGATAAGATCGATCAGATTATCCATGACTTTGTGGACAAGA		
		1901		1950
EBOV-S opt	(1901)	CCCTGCCCCAACAGGACAACGACGACAACCTGGTGGACTGGTTGGCGACAG		
EBOV-Z opt	(1901)	CCCTGCCCAGTCAGGGCGACAACGATAATTGGTGGACAGGGTGGAGACAG		

Figure 9B (continued)

		1951	2000
EBOV-S	opt	(1951)	TGGATCCCTGCCGGCATCGGCATCACCGGCATCATCATTGCCATTATCGC
EBOV-Z	opt	(1951)	TGGATTCCAGCCGGGATTGGCGTGACCGGCGTGATTATCGCCGTGATCGC
			2001 2031
EBOV-S	opt	(2001)	TCTCCTCTGCGTGTGCAAGCTCCTCTGCTGA
EBOV-Z	opt	(2001)	CCTGTTCTGCATCTGCAAGTTCGTGTTCTGA

Figure 9B (continued)

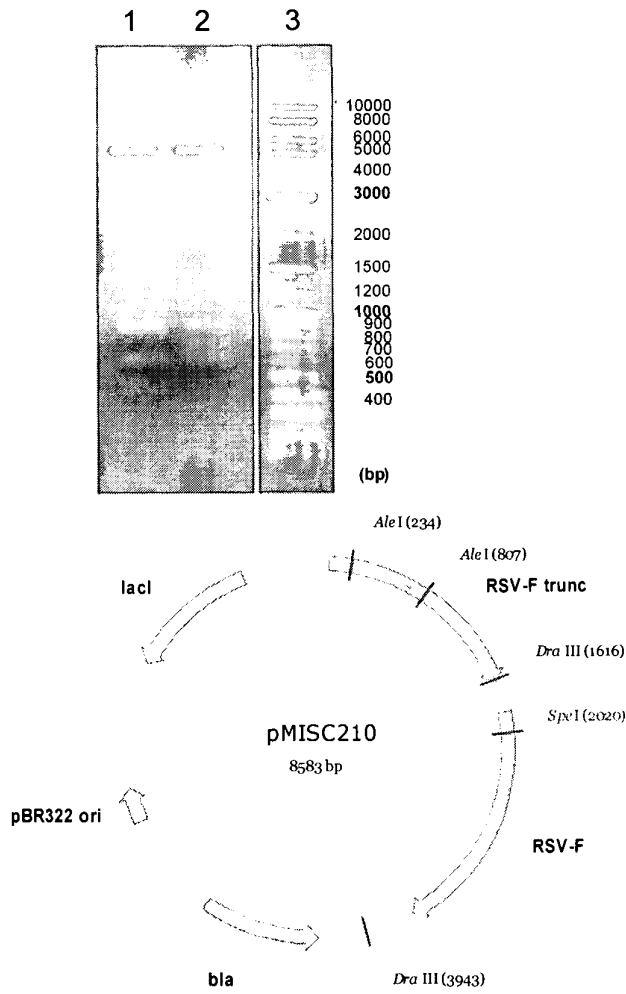


Figure 10