

# Monitoring of Ebola Virus Makona Evolution through Establishment of Advanced Genomic Capability in Liberia

## Technical Appendix 1



**Technical Appendix 1 Figure 1.** Map of Liberia counties showing the 25 Ebola virus (EBOV) isolates described in this study. Samples were collected from persons in 7 coastal Liberian counties (highlighted in green) during September 2014–February 2015.



Technical Appendix 1. Diagnostic probe information, used for Figure 2 and Supplementary Figure S4, highlighting mutated probe positions.

Figure references	Author	Gene	Name	Forward	Reverse	Probe	Reference
Fig. 2: Kulesh-MGB	Trombley, A	NP	Kulesh- MGB	<b>TCTGACATGGATTACCACAAGATC</b>	<b>GGATGACTCTTTGCCGAACAA TC</b>	<b>AGGTCTGTCCGTTCAA</b>	Am J Trop Med Hyg. 2010 May;82(5):954- 60. doi: 10.4269/ajtmh.2010.09-0636.
Fig. 2: Kulesh-TM	Trombley, A	GP	Kulesh- TM	<b>TTTTCAATCCTCAACCGTAAGGC</b>	<b>CAGTCCGGTCCCAGAATGTG</b>	<b>GCAGCGATGGGG CCG CACATG</b>	Am J Trop Med Hyg. 2010 May;82(5):954-60. doi: 10.4269/ajtmh.2010.09-0636.
Fig. S4 #1	Sanchez, A	NP	ZAI-NP	<b>GGACCGCCAAGGT AAAAAATGA</b>	<b>GCATATTGTTGGAGTTGCTTCTCAGC</b>		J Infect Dis. 1999 Feb;179 Suppl 1:S164- 9.
Fig. S4 #2	Towner, J.	NP	EboZNP	<b>TGG AAA AAAACATTAAGAGAACACTTGC</b>	<b>AGGAGAG A AACTGACCGGC A T</b>	<b>CATGCCGGAAGAGGAG AC AACTGAAGC</b>	Biosecur. Bioterror. 9, 361–371 (2011)
Fig. S4 #3	Weidmann, M.	NP	ENZ	<b>ATGATGGA AGCTACGGCG</b>	<b>AGGACCAAGTCATCTGGTGC</b>		J. Clin. Virol. 30, 94–99 (2004).
Fig. S4 #4	Trombley, A	NP	Ebola MGB- EBOV	<b>ACT CAGAGAGGC TGCCACTG</b>	<b>CAAGTCCAAGATGGTCAAGTTC G</b>		Am J Trop Med Hyg. 2010 May;82(5):954- 60. doi: 10.4269/ajtmh.2010.09-0636.
Fig. S4 #5	Gire, SK	VP24*	KGH	<b>GTCGTTCC AACAATCGAGCG</b>	<b>CGTCCCGTAGCTTTRGCCAT</b>		Science. 2014 Sep 12;345(6202):1369- 72. doi: 10.1126/science.1259657. Epub 2014 Aug 28.
Fig. S4 #6	Sanchez, A	GP	EBO-GP	<b>AATGGGCTGAAAA TGCTACAATC</b>	<b>TTTTTTTAGTTTCCC A GAAGGCCACT</b>		J Infect Dis. 1999 Feb;179 Suppl 1:S164- 9.
Fig. S4 #7	Gunther, S.	GP	EBOGP	<b>TGGGCTGAAAAYTGCTACAATC</b>	<b>CTTTGTGMACATASC GG CAC</b>	<b>CTACCAGCAGCGCCAG ACGG</b>	Antiviral Res. 2004 Sep;63(3):209-15.
Fig. S4 #8	Morvan, J. M.	GP	EBO1/2	<b>TGGGTAATYATCCTYTTCCA</b>	<b>ACGACACCTTCAGCRAAAGT</b>		Microbes Infect. 1, 1193–1201 (1999).
Fig. S4 #9	Strong, J.E.	GP	ZebovG P	<b>GGCCAACGA GACGACTCAA</b>	<b>AAAGGT GCG TAGCTCAGTTGTG</b>		Proc Natl Acad Sci U S A. 2008 Nov 18;105(46):17982- 7. doi: 10.1073/pnas.0809698105. Epub 2008 Nov 3.
Fig. S4 #10	Morvan, J. M.	GP	EBO3/4	<b>GTTTGTGCGKACAACTGTC</b>	<b>TGGAARGCWAAGTCWCCGG</b>		Microbes Infect. 1, 1193–1201 (1999).
Fig. S4 #11	Leroy, E	L	modified Filo AB	<b>ATCGGAATTTTCTTTCTCATTGAAAGA</b>	<b>ATG TGGTGG GTTATAATAACTACTGACATGCAT</b>		J Med Virol. 2000 Apr;60(4):463- 7.
Fig. S4 #12	Sanchez, A	L	Filo AB	<b>ATCGGAATTTTCTTTCTCATT*</b>	<b>ATG TGGTGG GTTATAATAACTACTGACATG</b>		J Infect Dis. 1999 Feb;179 Suppl 1:S164- 9.
Fig. S4 #13	Panning, M	L		<b>AAGCATTTCCTAGCAATATGATGGT</b>	<b>ATG TGGTGG GTTATAATAACTACTGACATG</b>	<b>CC AAAATCATCACTIGT GTGGTGCCA</b>	J Infect Dis. 2007 Nov 15;196 Suppl 2:S199-204.
Fig. S4 #14	Palacios, G.	L		<b>AACACCGGGTCTTAATTCTTATATCAA</b>	<b>GGTGGTAAAATCCCATAG TAGTCTTT</b>		Emerg Infect Dis. 2006 Apr;12(4):692- 5.
Fig. S4 #15	Zhai, J.	L		<b>TATTTTCCAT TCAAAAACACTGGG</b>	<b>GCTTCACAAAGTGTTTGAACATT</b>		J Clin Microbiol. 2007 Jan;45(1):224- 6. Epub 2006 Nov 1.
Fig. S4 #16	Grard, G.	L	PanFilo- L1/2	<b>ATMGRAAYTTTTCYTTYTCWYT</b>	<b>TG WGGHGGRYTATAAWARTCACTDACAT</b>		J. Infect. Dis. 204 (suppl. 3), S776–S784 (2011).

Figure references	Author	Gene	Name	Forward	Reverse	Probe	Reference
Fig. S4 #17	Grard, G.	L	PanFilo-L3/4	GCNAARGCMTTYCCHAGYAAAYATGATGG	ATAAWARTCACTDACAATGCATRTARCA		J. Infect. Dis. 204 (suppl. 3), S776–S784 (2011).
Fig. S4 #18		L	GAB-1	GAATGTAGGTAGAACAATTCGG	GCATATAACACTGTGGGATTG		