

1 **SUPPLEMENTARY INFORMATION**

2

3 **Table S1**

4

<b>Subunit</b>	<b>Domain</b>	<b>position</b>	<b>EBOV1976-GP</b>	<b>EBOV2014-GP</b>
GP1	Receptor binding domain	82	alanine	valine
	Glycan cap	262	threonine	alanine
		310	valine	alanine
	Mucin-like domain	315	alanine	proline
		331	glycine	glutamic acid
		336	threonine	asparagine
		359	glutamic acid	lysine
		377	serine	proline
		378	leucine	proline
		382	proline	threonine
		405	glutamic acid	glycine
		411	threonine	alanine
		422	serine	proline
		430	proline	leucine
		441	threonine	alanine
		443	phenylalanine	serine
446	proline	leucine		
455	histidine	tyrosine		
GP2	Pre-internal fusion loop	503	alanine	valine
	Internal fusion loop	544	isoleucine	threonine

5

6 **Table S1: Amino acid differences between EBOV1976-GP and EBOV2014-GP.**

7 Shown are the location of amino acid polymorphisms between EBOV1976-GP and EBOV2014-  
8 GP in distinct domain of the EBOV-GP subunits 1 (GP1) and 2 (GP2).  
9

<b>Genus</b>	<b>Species</b>	<b>Sequence(s)</b>
<i>Ebolavirus</i>	<i>Zaire ebolavirus</i>	KU182898.1, KU182899.1, KU182900.1, KU182901.1, KU182902.1, KU182903.1, KU182904.1, KU182905.1, KU182906.1, KU182907.1, KU182908.1, KU182909.1, KR819004.1, KR063671.1, KR063672.1, KF827427.1, KC242784.1, KC242785.1, KC242786.1, KC242787.1, KC242788.1, KC242789.1, KC242790.1, KC242791.1, L11365.1, U28077.1, U23187.1, U81161.1, U77384.1, NC_002549.1, AF086833.2, AF272001.1, AX092102.1, AY058898.1, AF499101.1, AY142960.1, AX717723.1, AY354458.1, AY526104.1, AY526101.1, AY526102.1, AY526100.1, AY526099.1, AY526098.1, EU051635.1, EU051634.1, EU051633.1, EU051632.1, EU051631.1, EU051630.1, EU224440.2, HQ849547.1, HQ613403.1, HQ613402.1, JQ352763.1, JC008053.1, KM655246.1, KM519951.1, KP271020.1, KP271019.1, KP271018.1, KC242801.1, KC242800.1, KC242799.1, KC242798.1, KC242797.1, KC242796.1, KC242795.1, KC242794.1, KC242793.1, KC242792.1
	<i>Sudan ebolavirus</i>	KC545389.1, JC008055.1, KC545390.1, KC545391.1, KC545392.1, JN638998.1, KC589025.1, AY316199.1, AY344234.1, AY729654.1, NC_006432.1, KR063670.1, KU182912.1, U23069.1, U28134.1, EU338380.1, KT750754.1, KC242783.2, KT878488.1, FJ968794.1
	<i>Bundibugyo ebolavirus</i>	KC545396.1, KC545395.1, KC545394.1, KC545393.1, FJ217161.1, KR063673.1, NC_014373.1, KU182911.1
	<i>Tai Forest ebolavirus</i>	U28006.1, NC_014372.1, KU182910.1, FJ217162.1
	<i>Reston ebolavirus</i>	FJ621584.1, JX477165.1, FJ621583.1, FJ621585.1, U23416.1, AB050936.1, JX477166.1, U23417.1, AF522874.1, NC_004161.1, AY769362.1, AF034645.1, U23152.1
<i>Marburgvirus</i>	<i>Marburg marburgvirus</i>	JX458854.1, JX458853.1, JX458852.1, JX458851.1, JX458850.1, JX458849.1, JX458848.1, JX458847.1, JX458846.1, JX458845.1, JX458844.1, JX458843.1, JX458842.1, JX458841.1, JX458840.1, JX458839.1, JX458838.1, JX458837.1, JX458836.1, JX458835.1, JX458834.1, JX458833.1, JX458832.1, JX458831.1, JX458830.1, JX458829.1, JX458828.1, JX458827.1, JX458826.1, JX458825.1,

		KC545388.1, KC545387.1, KM261523.1, NC_024781.1, KP117261.1, KP117260.1, KP117259.1, KR063674.1, KR867677.1, KU179482.1, Z12132.1, AF005733.1, AX717721.1, AX717725.1, X68493.1, AY430365.1, AY430366.1, DQ447660.1, DQ447659.1, DQ447658.1, DQ447657.1, DQ447656.1, DQ447654.1, DQ447653.1, DQ447652.1, DQ447651.1, DQ217792.1, DQ466190.1, DQ466191.1, DQ466188.1, DQ466189.1, DQ466192.1, DQ466193.1, DQ466187.1, DQ466186.1, GQ433351.1, DQ447649.1, DQ447650.1, AY358025.2, AF005734.1, AF005735.1, NC_001608.3, Z29337.1, EU500826.1, EU500827.1, EF446132.1, EF446131.1, EU500828.1, FJ750959.1, FJ750958.1, FJ750957.1, FJ750956.1, FJ750955.1, FJ750954.1, FJ750953.1, GQ433353.1, GQ433352.1, JN408064.1, JX458858.1, JX458857.1, JX458856.1, JX458855.1
<i>Cuevavirus</i>	<i>Lloviu cuevavirus</i>	JF828358.1 <sup>a</sup>

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13 **Table S2: GenBank accession numbers for GP sequences used for sequence analysis.**

14 <sup>a</sup>, modified GP sequence to yield full-length, membrane-bound GP

15

16 **Table S3**

17

<b>Accession no.</b>	<b>Virus/Sequence background</b>	<b>Source of information</b>
KM655246.1	Passaged (no information on cell line)	(1)
EU224440.2	Passaged (guinea pig)	(2)
U23187.1	Lab strain, passaged (Vero E6)	(3)
U31033.1	Lab strain, passaged (Vero E6)	(4, 5)
L11365.1	Passaged (Vero E6)	(6, 7)
U77384.1	Lab strain (passaged, Vero E6)	(4)
NC_002549.1	Lab strain, passaged (Vero E6)	(4, 8-10)
AF086833.2	Lab strain, passaged (Vero E6)	(4, 8-10)
AF272001.1	Lab strain, passaged (Vero E6, monkey, L68)	(11)
KU182898.1	Passaged (Vero E6)	GenBank entry
KU182899.1	Passaged (Vero E6)	GenBank entry
KU182900.1	Passaged (Vero E6)	GenBank entry
KU182901.1	Passaged (Vero E6)	GenBank entry
KU182902.1	Passaged (Vero E6)	GenBank entry
KU182903.1	Passaged (Vero E6)	GenBank entry
KU182904.1	Passaged (Vero E6)	GenBank entry
KU182905.1	Passaged (Vero E6)	GenBank entry
KU182906.1	Passaged (Vero E6)	GenBank entry
KU182907.1	Passaged (Vero E6)	GenBank entry
KU182908.1	Passaged (Vero E6)	GenBank entry
KU182909.1	Passaged (Vero E6)	GenBank entry

18

19 **Table S3: Passage background of pre-epidemic EBOV containing I544.**

20 Summary of pre-epidemic EBOV whose GP harbors I544. Indicated is the accession number (left  
21 column), passage history the virus (middle column) and the respective references (right column).

22

23 **Table S4**

24

<b>Accession no.</b>	<b>Virus/Sequence background</b>	<b>Source of information</b>
KR824525.1	Passaged (no information on cell line)	(12)
KX000400.1	Passaged (no information on cell line)	GenBank entry
KP096422.1	Passaged (Vero E6)	(13)
KX000399.1	Passaged (no information on cell line)	GenBank entry
KP096420.1	Passaged (Vero E6)	(13)
KX000398.1	Passaged (no information on cell line)	GenBank entry
KT013258.3	Sample material (Human blood)	GenBank entry
KT013254.3	Sample material (Human blood)	GenBank entry
KT013255.3	Sample material (Human blood)	GenBank entry
KT013259.3	Sample material (Human blood)	GenBank entry

25

26 **Table S4: Passage background of EBOV from the West African EVD epidemic that carry**  
 27 **I544 in their GP.**

28 Summary of EBOV isolates from the West African EVD epidemic whose GP harbors I544.

29 Indicated is the accession number (left column), information on the sample material or passage  
 30 history the virus (middle column), and the respective references (right column).

31

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