

FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

Genotyping Report

Report date for this batch: 26-Oct-2015

FMDV type: SAT 1

Country: BOTSWANA

Year: 2015

WRL BATCH: WRLFMD/2015/00019



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Genotyping Results

WRL Batch WRLFMD/2015/00019

Batch: IAHB/2015/00373

FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

Genotyping Report

Report Date for this Batch: 20 October 2015

FMDV type SAT 1
Country: Botswana
Period: 2015
No. of samples: 2

BATCH: WRLFMD/2015/00019



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FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

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Serotype: SAT1 WRLFMD Ref No: BOT/1/2015 Batch No: WRLFMD/2015/00019 Sender Ref: BOT 11/15 Location: Kasane, Chobe, Botswana Date collected: 27/06/2015 Date received by WRLFMD: 13/08/2015 Date received for sequencing: 13/10/2015 Species: Bovine Material used: BTy1 10/09/2015 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 19/10/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: III (WZ) Genotype/strain: unnamed Sequence filename: BOT15-01.SEQ Date sequence last updated: 19/10/2015 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 502 Min. no. of nt for comparison: 600 Total turn-around time: 67 days Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT1/BOT/11/2015* (BVI)	BOT15-AA	661	661	2	100.00	0.00	III (WZ)	unnamed
2	SAT1/BOT/13/2015* (BVI)	BOT15-AB	662	661	1	99.85	0.15	III (WZ)	unnamed
3	SAT1/BOT/2/2015	BOT15-02	663	662	0	99.85	0.15	III (WZ)	unnamed
4	SAT1/NMB/1/2000	NMB00-01	663	623	0	93.97	6.03	III (WZ)	unnamed
5	SAT1/BOT/P3/2000 NGO-2	BOT00NAA	663	618	0	93.21	6.79	III (WZ)	unnamed
6	SAT1/ZIM/P45/91 MT-9 buffalo	ZIM91B73	663	608	0	91.70	8.30	III (WZ)	unnamed
7	SAT1/ZIM/P12/90 A-10 buffalo	ZIM90B03	663	605	0	91.25	8.75	III (WZ)	unnamed
8	SAT1/BOT/15/2006	BOT06-15	663	604	0	91.10	8.90	III (WZ)	unnamed
9	SAT1/BOT/12/2006	BOT06-12	663	603	0	90.95	9.05	III (WZ)	unnamed
10	SAT1/BOT/13/2006	BOT06-13	663	603	0	90.95	9.05	III (WZ)	unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT1/BOT/1/77 (KF219686)	BOT77-01	663	576	0	86.88	13.12	III (WZ)	unnamed
2	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	569	0	85.82	14.18	III (WZ)	unnamed
3	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	566	0	85.37	14.63	III (WZ)	unnamed
4	SAT1/RV/11/37 (AY593839)	RHO37-11	663	501	0	75.57	24.43	II (SEZ)	unnamed
5	SAT1/T155/71 (KF561706)	TAN71155	663	500	0	75.41	24.59	I (NWZ)	unnamed
6	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	499	0	75.26	24.74	II (SEZ)	unnamed
7	SAT1/ZIM/23/2003 (KF219690)	ZIM03-23	663	489	0	73.76	26.24	I (NWZ)	unnamed
8	SAT1/UGA BUFF/21/70 (KF219682)	UGA70-21	663	486	0	73.30	26.70	IV (EA-1)	unnamed
9	SAT1/NIG/11/75 (AF431711)	NIG75-AA	660	465	0	70.45	29.55	V	unnamed
10	SAT1/UGA/13/74 (AY442010)	UGA74S13	663	467	0	70.44	29.56	VII (EA-2)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT1 WRLFMD Ref No: BOT/2/2015 Batch No: WRLFMD/2015/00019 Sender Ref: BOT 12/15 Location: Kasane, Chobe, Botswana Date collected: 27/06/2015 Date received by WRLFMD: 13/08/2015 Date received for sequencing: 13/10/2015 Species: Bovine Material used: BTy2 15/09/2015 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 19/10/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: III (WZ) Genotype/strain: unnamed Sequence filename: BOT15-02.SEQ Date sequence last updated: 19/10/2015 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 502 Min. no. of nt for comparison: 600 Total turn-around time: 67 days Sequencing time: 6 days
Comments:	

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2	SAT1/BOT/1/2015	BOT15-01	663	662	0	99.85	0.15	III (WZ)	unnamed
3	SAT1/BOT/11/2015* (BVI)	BOT15-AA	661	660	2	99.85	0.15	III (WZ)	unnamed
4	SAT1/NMB/1/2000	NMB00-01	663	624	0	94.12	5.88	III (WZ)	unnamed
5	SAT1/BOT/P3/2000 NGO-2	BOT00NAA	663	619	0	93.36	6.64	III (WZ)	unnamed
6	SAT1/ZIM/P45/91 MT-9 buffalo	ZIM91B73	663	609	0	91.86	8.14	III (WZ)	unnamed
7	SAT1/ZIM/P12/90 A-10 buffalo	ZIM90B03	663	606	0	91.40	8.60	III (WZ)	unnamed
8	SAT1/BOT/15/2006	BOT06-15	663	605	0	91.25	8.75	III (WZ)	unnamed
9	SAT1/BOT/12/2006	BOT06-12	663	604	0	91.10	8.90	III (WZ)	unnamed
10	SAT1/BOT/13/2006	BOT06-13	663	604	0	91.10	8.90	III (WZ)	unnamed
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2	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	570	0	85.97	14.03	III (WZ)	unnamed
3	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	567	0	85.52	14.48	III (WZ)	unnamed
4	SAT1/RV/11/37 (AY593839)	RHO37-11	663	502	0	75.72	24.28	II (SEZ)	unnamed
5	SAT1/T155/71 (KF561706)	TAN71155	663	501	0	75.57	24.43	I (NWZ)	unnamed
6	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	500	0	75.41	24.59	II (SEZ)	unnamed
7	SAT1/ZIM/23/2003 (KF219690)	ZIM03-23	663	490	0	73.91	26.09	I (NWZ)	unnamed
8	SAT1/UGA BUFF/21/70 (KF219682)	UGA70-21	663	487	0	73.45	26.55	IV (EA-1)	unnamed
9	SAT1/NIG/11/75 (AF431711)	NIG75-AA	660	465	0	70.45	29.55	V	unnamed
10	SAT1/UGA/13/74 (AY442010)	UGA74S13	663	467	0	70.44	29.56	VII (EA-2)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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Report on FMDV SAT 1 in Botswana in 2015

Batch: WRLFMD/2015/00019

◆ indicates viruses in this batch

Software: MEGA 6.06

Analysis

Analysis ----- Phylogeny Reconstruction

Scope ----- All Selected Taxa

Statistical Method ----- Neighbor-joining

Phylogeny Test

Test of Phylogeny ----- Bootstrap method

No. of Bootstrap Replications ----- 1000

Substitution Model

Substitutions Type ----- Nucleotide

Model/Method ----- Kimura 2-parameter model

Substitutions to Include ----- d: Transitions + Transversions

Rates and Patterns

Rates among Sites ----- Uniform rates

Pattern among Lineages ----- Same (Homogeneous)

Data Subset to Use

Gaps/Missing Data Treatment ----- Pairwise deletion

Codons Included ----- 1st+2nd+3rd+Non-Coding

No. of Sites : 663

No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

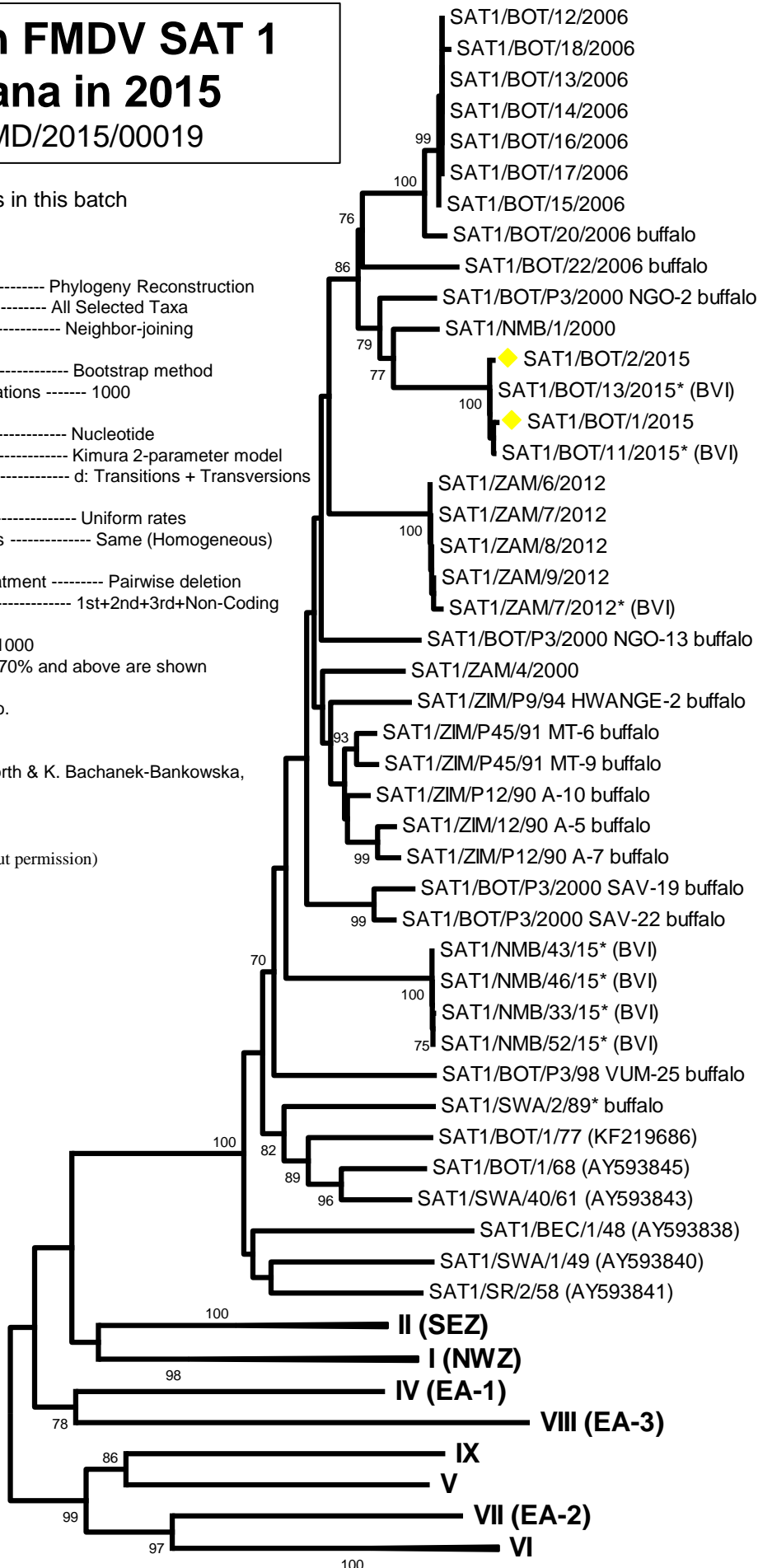
*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska,

20 October 2015

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III (WZ)

0.05