

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

Genotyping Report

Report Date for this Batch: 18 April 2016

FMDV type SAT 2
Country: Ethiopia
Period: 2015
No. of samples: 7

BATCH: WRLFMD/2016/00010



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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT2	Report date: 07/04/2016
WRLFMD Ref No: ETH/7/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00010	Checked by: K. Bachanek-Bankowska
Sender Ref: Eth-1118/15	
Location: Angolela, North Shoa, Amhara, Ethiopia	Topotype: VII
Date collected: 18/04/2015	Genotype/strain: Alx-12
Date received by WRLFMD: 25/02/2016	Sequence filename: ETH15-07.SEQ
Date received for sequencing: 24/03/2016	Date sequence last updated: 06/04/2016
Species: Bovine	No. of Nt determined: 648
Material used: BTy1 18/03/2016	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 735
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 42 days
	Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/10/2015	ETH15-10	648	644	0	99.38	0.62	VII	Alx-12
2	SAT2/ETH/14/2015	ETH15-14	648	644	0	99.38	0.62	VII	Alx-12
3	SAT2/ETH/2/2015	ETH15-02	648	641	0	98.92	1.08	VII	Alx-12
4	SAT2/ETH/19/2014	ETH14-19	648	639	0	98.61	1.39	VII	Alx-12
5	SAT2/ETH/21/2014	ETH14-21	648	639	0	98.61	1.39	VII	Alx-12
6	SAT2/ETH/15/2015	ETH15-15	648	636	0	98.15	1.85	VII	Alx-12
7	SAT2/OMN/3/2015	OMN15-03	648	634	0	97.84	2.16	VII	Alx-12
8	SAT2/OMN/4/2015	OMN15-04	648	634	0	97.84	2.16	VII	Alx-12
9	SAT2/OMN/2/2015	OMN15-02	648	633	0	97.69	2.31	VII	Alx-12
10	SAT2/ETH/16/2015	ETH15-16	647	631	1	97.53	2.47	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	583	1	90.11	9.89	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	566	0	87.35	12.65	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	478	0	73.77	26.23	IX	unnamed
4	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed
5	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	474	0	73.15	26.85	IX	unnamed
6	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	469	0	73.05	26.95	VIII	unnamed
7	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	471	0	72.69	27.31	X	unnamed
9	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	468	0	72.22	27.78	XIV	unnamed
10	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	467	0	72.07	27.93	XIII	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2	Report date: 07/04/2016
WRLFMD Ref No: ETH/10/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00010	Checked by: K. Bachanek-Bankowska
Sender Ref: Eth-21280/15	
Location: Ankasha, Awi, Amhara, Ethiopia	Topotype: VII
Date collected: 15/08/2015	Genotype/strain: Alx-12
Date received by WRLFMD: 25/02/2016	Sequence filename: ETH15-10.SEQ
Date received for sequencing: 24/03/2016	Date sequence last updated: 06/04/2016
Species: Caprine	No. of Nt determined: 648
Material used: BTy1 18/03/2016	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 735
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 42 days
	Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/14/2015	ETH15-14	648	648	0	100.00	0.00	VII	Alx-12
2	SAT2/ETH/7/2015	ETH15-07	648	644	0	99.38	0.62	VII	Alx-12
3	SAT2/ETH/2/2015	ETH15-02	648	643	0	99.23	0.77	VII	Alx-12
4	SAT2/ETH/19/2014	ETH14-19	648	641	0	98.92	1.08	VII	Alx-12
5	SAT2/ETH/21/2014	ETH14-21	648	641	0	98.92	1.08	VII	Alx-12
6	SAT2/ETH/15/2015	ETH15-15	648	638	0	98.46	1.54	VII	Alx-12
7	SAT2/OMN/3/2015	OMN15-03	648	636	0	98.15	1.85	VII	Alx-12
8	SAT2/OMN/4/2015	OMN15-04	648	636	0	98.15	1.85	VII	Alx-12
9	SAT2/OMN/2/2015	OMN15-02	648	635	0	97.99	2.01	VII	Alx-12
10	SAT2/ETH/16/2015	ETH15-16	647	633	1	97.84	2.16	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	585	1	90.42	9.58	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	565	0	87.19	12.81	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	479	0	73.92	26.08	IX	unnamed
4	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	470	0	73.21	26.79	VIII	unnamed
6	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	472	1	72.95	27.05	X	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	471	0	72.69	27.31	X	unnamed
8	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	470	0	72.53	27.47	XIV	unnamed
9	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	470	0	72.53	27.47	XII	unnamed
10	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	468	0	72.22	27.78	XIII	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2	Report date: 07/04/2016
WRLFMD Ref No: ETH/14/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00010	Checked by: K. Bachanek-Bankowska
Sender Ref: Eth-23635/15	
Location: Kuyu degam, North Shoa, Oromia, Ethiopia	Topotype: VII
Date collected: 01/10/2015	Genotype/strain: Alx-12
Date received by WRLFMD: 25/02/2016	Sequence filename: ETH15-14.SEQ
Date received for sequencing: 24/03/2016	Date sequence last updated: 06/04/2016
Species: Bovine	No. of Nt determined: 648
Material used: BTy1 18/03/2016	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 735
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 42 days
	Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/10/2015	ETH15-10	648	648	0	100.00	0.00	VII	Alx-12
2	SAT2/ETH/7/2015	ETH15-07	648	644	0	99.38	0.62	VII	Alx-12
3	SAT2/ETH/2/2015	ETH15-02	648	643	0	99.23	0.77	VII	Alx-12
4	SAT2/ETH/19/2014	ETH14-19	648	641	0	98.92	1.08	VII	Alx-12
5	SAT2/ETH/21/2014	ETH14-21	648	641	0	98.92	1.08	VII	Alx-12
6	SAT2/ETH/15/2015	ETH15-15	648	638	0	98.46	1.54	VII	Alx-12
7	SAT2/OMN/3/2015	OMN15-03	648	636	0	98.15	1.85	VII	Alx-12
8	SAT2/OMN/4/2015	OMN15-04	648	636	0	98.15	1.85	VII	Alx-12
9	SAT2/OMN/2/2015	OMN15-02	648	635	0	97.99	2.01	VII	Alx-12
10	SAT2/ETH/16/2015	ETH15-16	647	633	1	97.84	2.16	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	585	1	90.42	9.58	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	565	0	87.19	12.81	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	479	0	73.92	26.08	IX	unnamed
4	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	470	0	73.21	26.79	VIII	unnamed
6	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	472	1	72.95	27.05	X	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	471	0	72.69	27.31	X	unnamed
8	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	470	0	72.53	27.47	XIV	unnamed
9	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	470	0	72.53	27.47	XII	unnamed
10	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	468	0	72.22	27.78	XIII	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2 WRLFMD Ref No: ETH/15/2015 Batch No: WRLFMD/2016/00010 Sender Ref: Eth-28262/15 Location: Melga & boricha, Sidama, SNNPRS, Ethiopia Date collected: 22/10/2015 Date received by WRLFMD: 25/02/2016 Date received for sequencing: 24/03/2016 Species: Bovine Material used: BTy1 19/03/2016 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 07/04/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: VII Genotype/strain: Alx-12 Sequence filename: ETH15-15.SEQ Date sequence last updated: 06/04/2016 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 735 Min. no. of nt for comparison: 600 Total turn-around time: 42 days Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/16/2015	ETH15-16	647	642	1	99.23	0.77	VII	Alx-12
2	SAT2/ETH/19/2014	ETH14-19	648	639	0	98.61	1.39	VII	Alx-12
3	SAT2/ETH/21/2014	ETH14-21	648	639	0	98.61	1.39	VII	Alx-12
4	SAT2/ETH/10/2015	ETH15-10	648	638	0	98.46	1.54	VII	Alx-12
5	SAT2/ETH/14/2015	ETH15-14	648	638	0	98.46	1.54	VII	Alx-12
6	SAT2/OMN/3/2015	OMN15-03	648	638	0	98.46	1.54	VII	Alx-12
7	SAT2/OMN/4/2015	OMN15-04	648	638	0	98.46	1.54	VII	Alx-12
8	SAT2/ETH/2/2015	ETH15-02	648	637	0	98.30	1.70	VII	Alx-12
9	SAT2/OMN/2/2015	OMN15-02	648	637	0	98.30	1.70	VII	Alx-12
10	SAT2/ETH/7/2015	ETH15-07	648	636	0	98.15	1.85	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	587	1	90.73	9.27	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	571	0	88.12	11.88	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
4	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	474	0	73.83	26.17	VIII	unnamed
5	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	474	0	73.15	26.85	XIV	unnamed
6	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	474	0	73.15	26.85	IX	unnamed
7	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	472	1	72.95	27.05	X	unnamed
8	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	472	0	72.84	27.16	XIII	unnamed
9	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	471	0	72.69	27.31	X	unnamed
10	SAT2/MAL/1/2003	MAL03-01	648	467	0	72.07	27.93	I	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2	Report date: 07/04/2016
WRLFMD Ref No: ETH/16/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00010	Checked by: K. Bachanek-Bankowska
Sender Ref: Eth-29211/15	
Location: Kofele, West-Arsi, Oromia, Ethiopia	Topotype: VII
Date collected: 14/11/2015	Genotype/strain: Alx-12
Date received by WRLFMD: 25/02/2016	Sequence filename: ETH15-16.SEQ
Date received for sequencing: 24/03/2016	Date sequence last updated: 06/04/2016
Species: Bovine	No. of Nt determined: 647
Material used: BTy1 18/03/2016	No. of ambiguities: 1
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 735
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 42 days
	Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/15/2015	ETH15-15	647	642	0	99.23	0.77	VII	Alx-12
2	SAT2/ETH/19/2014	ETH14-19	647	634	0	97.99	2.01	VII	Alx-12
3	SAT2/ETH/21/2014	ETH14-21	647	634	0	97.99	2.01	VII	Alx-12
4	SAT2/ETH/10/2015	ETH15-10	647	633	0	97.84	2.16	VII	Alx-12
5	SAT2/ETH/14/2015	ETH15-14	647	633	0	97.84	2.16	VII	Alx-12
6	SAT2/OMN/3/2015	OMN15-03	647	633	0	97.84	2.16	VII	Alx-12
7	SAT2/OMN/4/2015	OMN15-04	647	633	0	97.84	2.16	VII	Alx-12
8	SAT2/ETH/2/2015	ETH15-02	647	632	0	97.68	2.32	VII	Alx-12
9	SAT2/OMN/2/2015	OMN15-02	647	632	0	97.68	2.32	VII	Alx-12
10	SAT2/ETH/7/2015	ETH15-07	647	631	0	97.53	2.47	VII	Alx-12
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(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
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2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	647	566	0	87.48	12.52	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	647	482	0	74.50	25.50	IX	unnamed
4	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	641	476	0	74.26	25.74	VIII	unnamed
5	SAT2/ETH/2/91 (AY343938)	ETH91-AB	647	475	0	73.42	26.58	XIV	unnamed
6	SAT2/KEN/2/84 (AY343941)	KEN84-AC	647	474	0	73.26	26.74	IX	unnamed
7	SAT2/SUD/6/77 (AY343939)	SUD77-AA	647	473	0	73.11	26.89	XIII	unnamed
8	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	646	470	1	72.76	27.24	X	unnamed
9	SAT2/UGA/19/98 (AY343969)	UGA98-AA	647	469	0	72.49	27.51	X	unnamed
10	SAT2/MAL/1/2003	MAL03-01	647	468	0	72.33	27.67	I	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2	Report date: 07/04/2016
WRLFMD Ref No: ETH/18/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00010	Checked by: K. Bachanek-Bankowska
Sender Ref: Eth-31056/15	
Location: Adama, East Shoa, Oromia, Ethiopia	Topotype: VII
Date collected: 18/12/2015	Genotype/strain: Alx-12
Date received by WRLFMD: 25/02/2016	Sequence filename: ETH15-18.SEQ
Date received for sequencing: 24/03/2016	Date sequence last updated: 06/04/2016
Species: Bovine	No. of Nt determined: 648
Material used: BTy1 19/03/2016	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 735
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
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Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/20/2015	ETH15-20	648	642	0	99.07	0.93	VII	Alx-12
2	SAT2/ETH/22/2014	ETH14-22	648	638	0	98.46	1.54	VII	Alx-12
3	SAT2/ETH/15/2015	ETH15-15	648	635	0	97.99	2.01	VII	Alx-12
4	SAT2/ETH/19/2014	ETH14-19	648	634	0	97.84	2.16	VII	Alx-12
5	SAT2/ETH/21/2014	ETH14-21	648	634	0	97.84	2.16	VII	Alx-12
6	SAT2/ETH/10/2015	ETH15-10	648	633	0	97.69	2.31	VII	Alx-12
7	SAT2/ETH/14/2015	ETH15-14	648	633	0	97.69	2.31	VII	Alx-12
8	SAT2/ETH/2/2015	ETH15-02	648	632	0	97.53	2.47	VII	Alx-12
9	SAT2/ETH/7/2015	ETH15-07	648	631	0	97.38	2.62	VII	Alx-12
10	SAT2/OMN/3/2015	OMN15-03	648	631	0	97.38	2.62	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	590	1	91.19	8.81	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	566	0	87.35	12.65	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	489	0	75.46	24.54	IX	unnamed
4	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	481	1	74.34	25.66	X	unnamed
5	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	481	0	74.23	25.77	IX	unnamed
6	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	474	0	73.83	26.17	VIII	unnamed
7	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	476	0	73.46	26.54	XIV	unnamed
8	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	474	0	73.15	26.85	XIII	unnamed
9	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	474	0	73.15	26.85	X	unnamed
10	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	471	0	72.69	27.31	XII	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: ETH/20/2015 Batch No: WRLFMD/2016/00010 Sender Ref: Eth-31054/15 Location: Huruta, Arsi, Oromia, Ethiopia Date collected: 22/12/2015 Date received by WRLFMD: 25/02/2016 Date received for sequencing: 24/03/2016 Species: Bovine Material used: BTy1 18/03/2016 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 07/04/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: VII Genotype/strain: Alx-12 Sequence filename: ETH15-20.SEQ Date sequence last updated: 06/04/2016 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 735 Min. no. of nt for comparison: 600 Total turn-around time: 42 days Sequencing time: 14 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/ETH/18/2015	ETH15-18	648	642	0	99.07	0.93	VII	Alx-12
2	SAT2/ETH/22/2014	ETH14-22	648	636	0	98.15	1.85	VII	Alx-12
3	SAT2/ETH/15/2015	ETH15-15	648	633	0	97.69	2.31	VII	Alx-12
4	SAT2/ETH/19/2014	ETH14-19	648	632	0	97.53	2.47	VII	Alx-12
5	SAT2/ETH/21/2014	ETH14-21	648	632	0	97.53	2.47	VII	Alx-12
6	SAT2/ETH/10/2015	ETH15-10	648	631	0	97.38	2.62	VII	Alx-12
7	SAT2/ETH/14/2015	ETH15-14	648	631	0	97.38	2.62	VII	Alx-12
8	SAT2/ETH/16/2015	ETH15-16	647	629	1	97.22	2.78	VII	Alx-12
9	SAT2/ETH/2/2015	ETH15-02	648	630	0	97.22	2.78	VII	Alx-12
10	SAT2/ETH/7/2015	ETH15-07	648	629	0	97.07	2.93	VII	Alx-12
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	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	588	1	90.88	9.12	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	564	0	87.04	12.96	VII	unnamed
3	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	487	0	75.15	24.85	IX	unnamed
4	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	482	1	74.50	25.50	X	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	476	0	74.14	25.86	VIII	unnamed
6	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	480	0	74.07	25.93	IX	unnamed
7	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	475	0	73.30	26.70	XIII	unnamed
8	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	474	0	73.15	26.85	XIV	unnamed
9	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	473	0	72.99	27.01	X	unnamed
10	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	469	0	72.38	27.62	XII	unnamed

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Report on FMDV SAT 2 in Ethiopia in 2015

Batch: WRLFMD/2016/00010

◆ 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 : 651

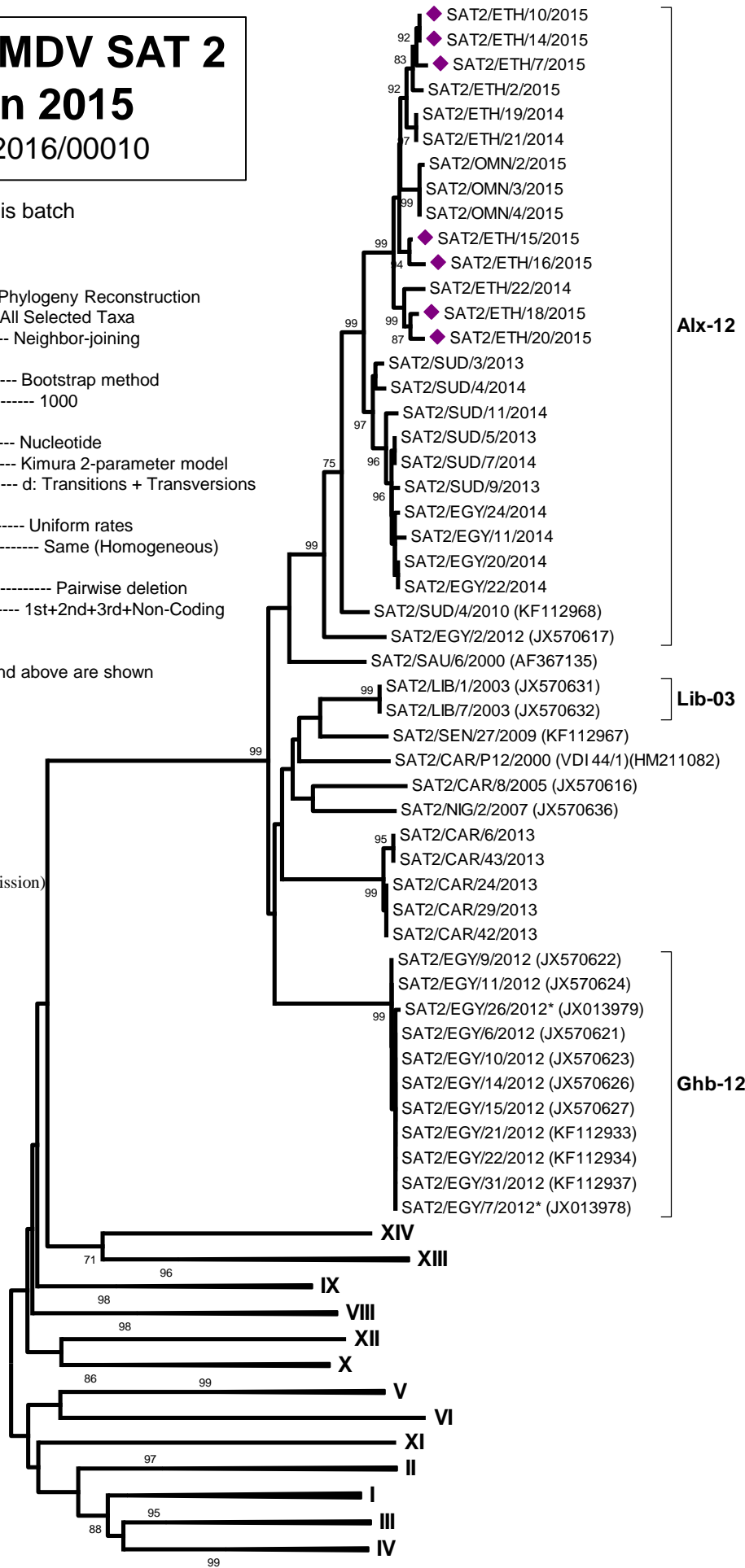
No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth &
K. Bachanek-Bankowska,
18 April 2016

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