

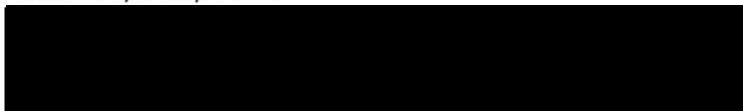


INSTITUTE FOR ANIMAL HEALTH
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath
PIRBRIGHT LABORATORY
Ash Road,
Pirbright,
Surrey,
GU24 0NF
Intn Tel: 00 44 1483 232441
Tel: 01483 232441, Fax: 01483 232621

FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2012/00031

Sender Details:

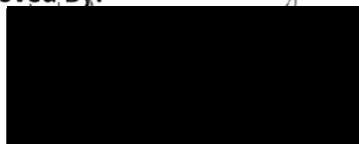


Date Received: 8th August 2012
Country of Origin: TANZANIA
Date Reported: 16th November 2012

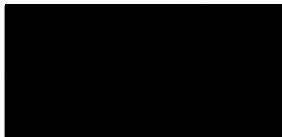
Dear Dr S. M. Das,

Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Results Approved By:

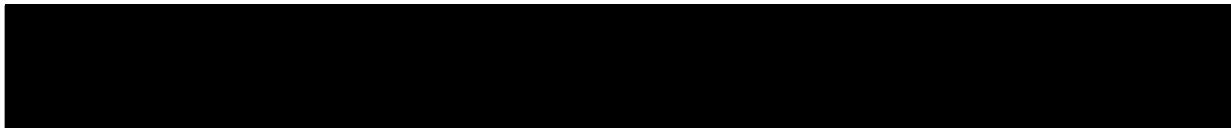


Official Stamp:



Date:

16 / 11 / 12



A UKAS accredited testing laboratory No. 4025.

To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: trish.ryder@p.ac.uk. IAH actively seeks and appreciates feedback, if you would like to offer feedback please complete the WRLFMD survey here: <http://www.surveymonkey.com/s/WRLFMD>

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

Genotyping Report

Report Date for this Batch: 10 November 2012

FMDV type SAT 1
Country: Tanzania
Period: 2012
No. of samples: 8

BATCH: WRLFMD/2012/00031



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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT1 WRLFMD Ref No: TAN/11/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 6972 Location: Nadonjok, Simanjiro district, Manyara region, Tanzania Date collected: 25/03/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 13/09/2012 Species: Cattle Material used: BTy2 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-11.SEQ Date sequence last updated: 25/09/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 58 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/TAN/12/2012	TAN12-12	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/25/2012	TAN12-25	663	649	0	97.89	2.11	I (NWZ)	unnamed
3	SAT1/TAN/27/2012	TAN12A27	663	648	0	97.74	2.26	I (NWZ)	unnamed
4	SAT1/TAN/22/2012	TAN12-22	663	647	0	97.59	2.41	I (NWZ)	unnamed
5	SAT1/TAN/23/2012	TAN12-23	663	647	0	97.59	2.41	I (NWZ)	unnamed
6	SAT1/TAN/44/2012	TAN12-44	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/45/2012	TAN12-45	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/19/99	TAN99-19	663	625	0	94.27	5.73	I (NWZ)	unnamed
9	SAT1/TAN/21/99	TAN99-21	663	625	0	94.27	5.73	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	625	0	94.27	5.73	I (NWZ)	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/T155/71	TAN71155	663	594	0	89.59	10.41	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	544	0	82.05	17.95	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	522	0	78.73	21.27	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	513	0	77.38	22.62	II (SEZ)	unnamed
5	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	500	0	75.41	24.59	IV (EA-1)	unnamed
6	SAT1/BOT/1/77	BOT77-01	663	498	0	75.11	24.89	III (WZ)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	493	0	74.36	25.64	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	483	0	72.85	27.15	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	476	0	72.45	27.55	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	477	0	71.95	28.05	VIII (EA-3)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT1 WRLFMD Ref No: TAN/12/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 6977 Location: Nandonjok, Simanjiro district, Manyara region, Tanzania Date collected: 25/03/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 13/09/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-12.SEQ Date sequence last updated: 25/09/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 58 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/TAN/11/2012	TAN12-11	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/25/2012	TAN12-25	663	649	0	97.89	2.11	I (NWZ)	unnamed
3	SAT1/TAN/27/2012	TAN12A27	663	648	0	97.74	2.26	I (NWZ)	unnamed
4	SAT1/TAN/22/2012	TAN12-22	663	647	0	97.59	2.41	I (NWZ)	unnamed
5	SAT1/TAN/23/2012	TAN12-23	663	647	0	97.59	2.41	I (NWZ)	unnamed
6	SAT1/TAN/44/2012	TAN12-44	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/45/2012	TAN12-45	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/19/99	TAN99-19	663	625	0	94.27	5.73	I (NWZ)	unnamed
9	SAT1/TAN/21/99	TAN99-21	663	625	0	94.27	5.73	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	625	0	94.27	5.73	I (NWZ)	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/T155/71	TAN71155	663	594	0	89.59	10.41	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	544	0	82.05	17.95	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	522	0	78.73	21.27	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	513	0	77.38	22.62	II (SEZ)	unnamed
5	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	500	0	75.41	24.59	IV (EA-1)	unnamed
6	SAT1/BOT/1/77	BOT77-01	663	498	0	75.11	24.89	III (WZ)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	493	0	74.36	25.64	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	483	0	72.85	27.15	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	476	0	72.45	27.55	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	477	0	71.95	28.05	VIII (EA-3)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT1 WRLFMD Ref No: TAN/22/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 7176 Location: Loiborsiret, Simanjiro district, Manyara region, Tanzania Date collected: 30/04/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 26/09/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-22.SEQ Date sequence last updated: 17/10/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 45 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/TAN/23/2012	TAN12-23	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/27/2012	TAN12A27	663	662	0	99.85	0.15	I (NWZ)	unnamed
3	SAT1/TAN/25/2012	TAN12-25	663	661	0	99.70	0.30	I (NWZ)	unnamed
4	SAT1/TAN/44/2012	TAN12-44	663	649	0	97.89	2.11	I (NWZ)	unnamed
5	SAT1/TAN/45/2012	TAN12-45	663	649	0	97.89	2.11	I (NWZ)	unnamed
6	SAT1/TAN/11/2012	TAN12-11	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/12/2012	TAN12-12	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	623	0	93.97	6.03	I (NWZ)	unnamed
9	SAT1/TAN/19/99	TAN99-19	663	621	0	93.67	6.33	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	621	0	93.67	6.33	I (NWZ)	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/T155/71	TAN71155	663	592	0	89.29	10.71	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	541	0	81.60	18.40	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	519	0	78.28	21.72	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	508	0	76.62	23.38	II (SEZ)	unnamed
5	SAT1/BOT/1/77	BOT77-01	663	496	0	74.81	25.19	III (WZ)	unnamed
6	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	495	0	74.66	25.34	IV (EA-1)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	486	0	73.30	26.70	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	482	0	72.70	27.30	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	473	0	71.99	28.01	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	474	0	71.49	28.51	VIII (EA-3)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT1 WRLFMD Ref No: TAN/23/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 7178 Location: Loiborsiret, Simanjiro district, Manyara region, Tanzania Date collected: 30/04/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 26/09/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-23.SEQ Date sequence last updated: 17/10/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 45 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/TAN/22/2012	TAN12-22	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/27/2012	TAN12A27	663	662	0	99.85	0.15	I (NWZ)	unnamed
3	SAT1/TAN/25/2012	TAN12-25	663	661	0	99.70	0.30	I (NWZ)	unnamed
4	SAT1/TAN/44/2012	TAN12-44	663	649	0	97.89	2.11	I (NWZ)	unnamed
5	SAT1/TAN/45/2012	TAN12-45	663	649	0	97.89	2.11	I (NWZ)	unnamed
6	SAT1/TAN/11/2012	TAN12-11	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/12/2012	TAN12-12	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	623	0	93.97	6.03	I (NWZ)	unnamed
9	SAT1/TAN/19/99	TAN99-19	663	621	0	93.67	6.33	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	621	0	93.67	6.33	I (NWZ)	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/T155/71	TAN71155	663	592	0	89.29	10.71	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	541	0	81.60	18.40	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	519	0	78.28	21.72	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	508	0	76.62	23.38	II (SEZ)	unnamed
5	SAT1/BOT/1/77	BOT77-01	663	496	0	74.81	25.19	III (WZ)	unnamed
6	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	495	0	74.66	25.34	IV (EA-1)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	486	0	73.30	26.70	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	482	0	72.70	27.30	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	473	0	71.99	28.01	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	474	0	71.49	28.51	VIII (EA-3)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT1 WRLFMD Ref No: TAN/25/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 7214 Location: Loiborsiret, Simanjiro district, Manyara region, Tanzania Date collected: 01/05/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 26/09/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-25.SEQ Date sequence last updated: 17/10/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 45 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/TAN/27/2012	TAN12A27	663	662	0	99.85	0.15	I (NWZ)	unnamed
2	SAT1/TAN/22/2012	TAN12-22	663	661	0	99.70	0.30	I (NWZ)	unnamed
3	SAT1/TAN/23/2012	TAN12-23	663	661	0	99.70	0.30	I (NWZ)	unnamed
4	SAT1/TAN/11/2012	TAN12-11	663	649	0	97.89	2.11	I (NWZ)	unnamed
5	SAT1/TAN/12/2012	TAN12-12	663	649	0	97.89	2.11	I (NWZ)	unnamed
6	SAT1/TAN/44/2012	TAN12-44	663	649	0	97.89	2.11	I (NWZ)	unnamed
7	SAT1/TAN/45/2012	TAN12-45	663	649	0	97.89	2.11	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	625	0	94.27	5.73	I (NWZ)	unnamed
9	SAT1/TAN/19/99	TAN99-19	663	623	0	93.97	6.03	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	623	0	93.97	6.03	I (NWZ)	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/T155/71	TAN71155	663	594	0	89.59	10.41	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	543	0	81.90	18.10	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	521	0	78.58	21.42	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	510	0	76.92	23.08	II (SEZ)	unnamed
5	SAT1/BOT/1/77	BOT77-01	663	498	0	75.11	24.89	III (WZ)	unnamed
6	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	497	0	74.96	25.04	IV (EA-1)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	488	0	73.60	26.40	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	484	0	73.00	27.00	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	474	0	72.15	27.85	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	476	0	71.79	28.21	VIII (EA-3)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT1 WRLFMD Ref No: TAN/27/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 7258 Location: Kimotorok, Simanjiro district, Manyara region, Tanzania Date collected: 02/05/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 07/11/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12A27.SEQ Date sequence last updated: 08/11/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 3 days
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Comments:

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT1/TAN/22/2012	TAN12-22	663	662	0	99.85	0.15	I (NWZ)	unnamed
2	SAT1/TAN/23/2012	TAN12-23	663	662	0	99.85	0.15	I (NWZ)	unnamed
3	SAT1/TAN/25/2012	TAN12-25	663	662	0	99.85	0.15	I (NWZ)	unnamed
4	SAT1/TAN/44/2012	TAN12-44	663	650	0	98.04	1.96	I (NWZ)	unnamed
5	SAT1/TAN/45/2012	TAN12-45	663	650	0	98.04	1.96	I (NWZ)	unnamed
6	SAT1/TAN/11/2012	TAN12-11	663	648	0	97.74	2.26	I (NWZ)	unnamed
7	SAT1/TAN/12/2012	TAN12-12	663	648	0	97.74	2.26	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	624	0	94.12	5.88	I (NWZ)	unnamed
9	SAT1/TAN/19/99	TAN99-19	663	622	0	93.82	6.18	I (NWZ)	unnamed
10	SAT1/TAN/25/99	TAN99-25	663	622	0	93.82	6.18	I (NWZ)	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/T155/71	TAN71155	663	593	0	89.44	10.56	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	542	0	81.75	18.25	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	520	0	78.43	21.57	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	509	0	76.77	23.23	II (SEZ)	unnamed
5	SAT1/BOT/1/77	BOT77-01	663	497	0	74.96	25.04	III (WZ)	unnamed
6	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	496	0	74.81	25.19	IV (EA-1)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	487	0	73.45	26.55	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	483	0	72.85	27.15	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	474	0	72.15	27.85	VI	unnamed
10	SAT1/UGA/1/97 (AY442012)	UGA97S01	663	475	0	71.64	28.36	VIII (EA-3)	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

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Serotype: SAT1 WRLFMD Ref No: TAN/44/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 6 Location: Emboreet, Simanjiro district, Manyara region, Tanzania Date collected: 12/07/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 07/11/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-44.SEQ Date sequence last updated: 08/11/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 3 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/TAN/45/2012	TAN12-45	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/27/2012	TAN12A27	663	650	0	98.04	1.96	I (NWZ)	unnamed
3	SAT1/TAN/22/2012	TAN12-22	663	649	0	97.89	2.11	I (NWZ)	unnamed
4	SAT1/TAN/23/2012	TAN12-23	663	649	0	97.89	2.11	I (NWZ)	unnamed
5	SAT1/TAN/25/2012	TAN12-25	663	649	0	97.89	2.11	I (NWZ)	unnamed
6	SAT1/TAN/11/2012	TAN12-11	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/12/2012	TAN12-12	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	623	0	93.97	6.03	I (NWZ)	unnamed
9	SAT1/K96/99* (HQ267523)	KEN99-AB	663	621	0	93.67	6.33	I (NWZ)	Unnamed
10	SAT1/TAN/19/99	TAN99-19	663	621	0	93.67	6.33	I (NWZ)	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/T155/71	TAN71155	663	592	0	89.29	10.71	I (NWZ)	unnamed
2	SAT1/ZIM/23/2003	ZIM03-23	663	539	0	81.30	18.70	I (NWZ)	unnamed
3	SAT1/RV/11/37 (AY593839)	RHO37-11	663	514	0	77.53	22.47	II (SEZ)	unnamed
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	505	0	76.17	23.83	II (SEZ)	unnamed
5	SAT1/BOT/1/77	BOT77-01	663	498	0	75.11	24.89	III (WZ)	unnamed
6	SAT1/UGA BUFF/21/70 buffalo	UGA70-21	663	497	0	74.96	25.04	IV (EA-1)	unnamed
7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	491	0	74.06	25.94	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	482	0	72.70	27.30	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	475	0	72.30	27.70	VI	unnamed
10	SAT1/UGA/13/74 (AY442010)	UGA74S13	663	472	0	71.19	28.81	VII (EA-2)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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

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Serotype: SAT1 WRLFMD Ref No: TAN/45/2012 Batch No: WRLFMD/2012/00031 Sender Ref: 18 Location: Emboreet, Simanjiro district, Manyara region, Tanzania Date collected: 12/07/2012 Date received by WRLFMD: 08/08/2012 Date received for sequencing: 07/11/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R	Report date: 10/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-45.SEQ Date sequence last updated: 08/11/2012 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 401 Min. no. of nt for comparison: 600 Total turn-around time: 94 days Sequencing time: 3 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/TAN/44/2012	TAN12-44	663	663	0	100.00	0.00	I (NWZ)	unnamed
2	SAT1/TAN/27/2012	TAN12A27	663	650	0	98.04	1.96	I (NWZ)	unnamed
3	SAT1/TAN/22/2012	TAN12-22	663	649	0	97.89	2.11	I (NWZ)	unnamed
4	SAT1/TAN/23/2012	TAN12-23	663	649	0	97.89	2.11	I (NWZ)	unnamed
5	SAT1/TAN/25/2012	TAN12-25	663	649	0	97.89	2.11	I (NWZ)	unnamed
6	SAT1/TAN/11/2012	TAN12-11	663	647	0	97.59	2.41	I (NWZ)	unnamed
7	SAT1/TAN/12/2012	TAN12-12	663	647	0	97.59	2.41	I (NWZ)	unnamed
8	SAT1/TAN/21/99	TAN99-21	663	623	0	93.97	6.03	I (NWZ)	unnamed
9	SAT1/K96/99* (HQ267523)	KEN99-AB	663	621	0	93.67	6.33	I (NWZ)	Unnamed
10	SAT1/TAN/19/99	TAN99-19	663	621	0	93.67	6.33	I (NWZ)	unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
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4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	505	0	76.17	23.83	II (SEZ)	unnamed
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7	SAT1/BOT/1/68 (AY593845)	BOT68-C1	663	491	0	74.06	25.94	III (WZ)	unnamed
8	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	482	0	72.70	27.30	III (WZ)	unnamed
9	SAT1/SUD/3/76 (DQ009725)	SUD76M03	657	475	0	72.30	27.70	VI	unnamed
10	SAT1/UGA/13/74 (AY442010)	UGA74S13	663	472	0	71.19	28.81	VII (EA-2)	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Report on FMDV SAT 1 in Tanzania in 2012

Batch: WRLFMD/2012/00031

◆ indicates viruses in this batch

Software: MEGA 5.1

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, 08 November 2012

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