

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

Genotyping Report

Report Date for this Batch: 25 April 2013

FMDV type SAT 1
Country: Tanzania
Period: 2012
No. of samples: 2

BATCH: WRLFMD/2013/00005



The contents of this report are copyright and should not be reproduced without permission

© The Pirbright Institute

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

| | |
|--|--|
| Serotype: SAT1 WRLFMD Ref No: TAN/49/2012 Batch No: WRLFMD/2013/00005 Sender Ref: 7297 Location: Simanjiro, Tanzania Date collected: 03/05/2012 Date received by WRLFMD: 13/03/2013 Date received for sequencing: 16/04/2013 Species: Cattle Material used: BTy1 20/03/2013 Region sequenced: VP1 RT-PCR primers: SAT1-1C559F/SAT-2B208R SAT1U-OS/SAT-2B208R | Report date: 24/04/2013 Reported by: N.J. Knowles Checked by: D.P. King Topotype: I (NWZ) Genotype/strain: unnamed Sequence filename: TAN12-49.SEQ Date sequence last updated: 24/04/2013 No. of Nt determined: 663 No. of ambiguities: 0 Gene length: 663 Total no. of comparisons: 433 Min. no. of nt for comparison: 600 Total turn-around time: 42 days Sequencing time: 8 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/27/2012 | TAN12B27 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 3 | SAT1/TAN/50/2012 | TAN12-50 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 4 | SAT1/TAN/22/2012 | TAN12-22 | 663 | 661 | 0 | 99.70 | 0.30 | I (NWZ) | unnamed |
| 5 | SAT1/TAN/23/2012 | TAN12-23 | 663 | 661 | 0 | 99.70 | 0.30 | I (NWZ) | unnamed |
| 6 | SAT1/TAN/25/2012 | TAN12-25 | 663 | 661 | 0 | 99.70 | 0.30 | I (NWZ) | unnamed |
| 7 | SAT1/TAN-CVL-2012-0355 | TAN12-AD | 663 | 657 | 0 | 99.10 | 0.90 | I (NWZ) | unnamed |
| 8 | SAT1/TAN-CVL-2012-0354 | TAN12-AC | 663 | 656 | 0 | 98.94 | 1.06 | I (NWZ) | unnamed |
| 9 | SAT1/TAN-CVL-2012-0359 | TAN12-AE | 663 | 655 | 0 | 98.79 | 1.21 | I (NWZ) | unnamed |
| 10 | SAT1/TAN-CVL-2012-0361 | TAN12-AG | 663 | 655 | 0 | 98.79 | 1.21 | I (NWZ) | unnamed |
| Most Closely Related Reference Viruses | | | | | | | | | |
| (see http://www.wrlfmd.org/find_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 | 497 | 0 | 74.96 | 25.04 | 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 | 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 | 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

Assembled with Report Generator v4.1

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

| | |
|--|--|
| Serotype: SAT1 | Report date: 24/04/2013 |
| WRLFMD Ref No: TAN/50/2012 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2013/00005 | Checked by: D.P. King |
| Sender Ref: 7351 | |
| Location: Simanjiro, Tanzania | Topotype: I (NWZ) |
| Date collected: 03/05/2012 | Genotype/strain: unnamed |
| Date received by WRLFMD: 13/03/2013 | Sequence filename: TAN12-50.SEQ |
| Date received for sequencing: 16/04/2013 | Date sequence last updated: 24/04/2013 |
| Species: Cattle | No. of Nt determined: 663 |
| Material used: BTy1 20/03/2013 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 663 |
| RT-PCR primers: SAT1-1C559F/SAT-2B208R | Total no. of comparisons: 433 |
| SAT1U-OS/SAT-2B208R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 42 days |
| | Sequencing time: 8 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 | 663 | 0 | 100.00 | 0.00 | I (NWZ) | unnamed |
| 2 | SAT1/TAN/27/2012 | TAN12B27 | 663 | 663 | 0 | 100.00 | 0.00 | I (NWZ) | unnamed |
| 3 | SAT1/TAN/22/2012 | TAN12-22 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 4 | SAT1/TAN/23/2012 | TAN12-23 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 5 | SAT1/TAN/25/2012 | TAN12-25 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 6 | SAT1/TAN/49/2012 | TAN12-49 | 663 | 662 | 0 | 99.85 | 0.15 | I (NWZ) | unnamed |
| 7 | SAT1/TAN-CVL-2012-0355 | TAN12-AD | 663 | 658 | 0 | 99.25 | 0.75 | I (NWZ) | unnamed |
| 8 | SAT1/TAN-CVL-2012-0354 | TAN12-AC | 663 | 657 | 0 | 99.10 | 0.90 | I (NWZ) | unnamed |
| 9 | SAT1/TAN-CVL-2012-0359 | TAN12-AE | 663 | 656 | 0 | 98.94 | 1.06 | I (NWZ) | unnamed |
| 10 | SAT1/TAN-CVL-2012-0361 | TAN12-AG | 663 | 656 | 0 | 98.94 | 1.06 | I (NWZ) | unnamed |
| Most Closely Related Reference Viruses | | | | | | | | | |
| (see http://www.wrlfind.org/find_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

Assembled with Report Generator v4.1

© The Pirbright Institute (not to be reproduced without permission)

Report on FMDV SAT 1 in Tanzania in 2012

Batch: WRLFMD/2013/00005

◆ indicates viruses in this batch

Software: MEGA 5.1

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, K. Bachanek-Bankowska & J. Wadsworth,
25 April 2013

© The Pirbright Institute

(not to be reproduced without permission)

