

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

Genotyping Report

FMDV serotype: O
Country: Mauritania
Year: 2018
Batch: WRLFMD/2019/00017
No. of sequences: 1
Report date: 5th April 2019
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth



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www: <http://www.wrlfmd.org/>

email: reporting@pirbright.ac.uk

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| | |
|---|---|
| Virus sample name: | MAU/1/2018 |
| Sender reference: | O/MAU/18Z007129/2018/181023i |
| Location of origin: | Hodh Chargui |
| Country of origin: | Mauritania |
| Date of collection: | 07/08/2018 |
| Host species: | cattle |
| Serotype: | O |
| Topotype: | EA-3 |
| Lineage: | |
| Sublineage: | |
| Sequence length: | 633 |
| Ambiguities: | 0 |
| Material submitted for sequencing: | BTy1 |
| Harvest date of material: | 29/03/2019 |
| Primers: | O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing: | 03/04/2019 |
| Created: | 05/04/2019 |
| Last updated: | 05/04/2019 |
| VIBASys IDs: sample 41165, genome 41166, sequence viba_41167, sequencing info 41168 | |

Most Closely Related Sequences

| sequence | virus name | Host | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|------------------|--------|-------|----------|----------|----------|---------|------------|
| viba_37538 | MAU/18Z007130/18 | | 100.0 | 0 | O | EA-3 | | |
| viba_37526 | MAU/18Z007127/18 | | 100.0 | 0 | O | EA-3 | | |
| viba_37534 | MAU/18Z007129/18 | | 100.0 | 0 | O | EA-3 | | |
| viba_36938 | ALG/1/2018 | cattle | 99.8 | 0 | O | EA-3 | | |
| viba_37530 | MAU/18Z007128/18 | | 99.8 | 0 | O | EA-3 | | |
| viba_37575 | SEN/4/2018 | cattle | 99.8 | 0 | O | EA-3 | | |
| viba_37583 | SEN/9/2018 | cattle | 99.8 | 0 | O | EA-3 | | |
| viba_36947 | ALG/2/2018 | cattle | 99.7 | 0 | O | EA-3 | | |
| viba_41158 | GNA/2/2018 | cattle | 99.7 | 0 | O | EA-3 | | |
| viba_40787 | GHA/Asu/11/2018 | cattle | 99.7 | 0 | O | EA-3 | | |

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

| sequence | virus name | Host | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------|-------|----------|----------|----------|----------|------------|
| viba_116 | SUD/2/86 | bovine | 89.3 | 0 | O | EA-3 | | |
| viba_854 | ETH/1/2007 | cattle | 86.1 | 0 | O | EA-3 | | |
| viba_408 | ETH/3/2004 | cattle | 86.0 | 0 | O | EA-3 | | |
| viba_30238 | MUR/19/2016 | cattle | 85.6 | 0 | O | ME-SA | Ind-2001 | e |
| viba_50 | UGA/17/98 | | 85.1 | 0 | O | EA-4 | | |
| viba_285 | UKG/35/2001 | porcine | 84.6 | 0 | O | ME-SA | PanAsia | |
| viba_85 | UGA/3/2002 | | 84.5 | 0 | O | EA-2 | | |
| viba_523 | K83/79 | | 84.2 | 0 | O | EA-1 | | |
| viba_576 | IND/R2/75 | | 84.2 | 0 | O | ME-SA | | |
| viba_104 | GHA/5/93 | bovine | 84.2 | 0 | O | WA | | |

Report on FMDV O in Mauritania in 2018

Batch: WRLFMD/2019/00017



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor: vp1_O
 Query sequence set: WRLFMD/2019/00017-Mauritania-O (1 sequences)
 Sequence database set: allseqs_O (4429 sequences)
 Prototype sequence set: !prototypes_O (49 sequences)
 Number of related sequences reported: 10
 Minimal VP1 subsequence match length: 600
 Sequence alignment method: muscle (default parameters)
 Sequence alignment length: 636
 Phylogeny reconstruction method: fdnadist, fneighbor
 Number of bootstrap samples: 1000
 Random seed for bootstrapping: 1
 Displaying bootstrap values above: 70.0%
 Number of sequences in tree capped at: 100
 Number of prototype sequences in tree: 10
 VIBASys version: reflabs-1.1.2

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/O

| label | accession | host(s) | lab | country | taxonomic information |
|-------------------|-----------|---------|------------|---------------|-----------------------|
| MAU/1/2018 | n/a | cattle | WRLFMD | Mauritania | EA-3 |
| MAU/18Z007129/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| MAU/18Z007127/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| MAU/18Z007130/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| CIV/2/2018 | n/a | porcine | WRLFMD | Cote d'Ivoire | EA-3 |
| CIV/18Z008487/18* | n/a | porcine | ANSES | Cote d'Ivoire | EA-3 |
| BKF/15/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| TUN/19Z002379/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| TUN/19Z002380/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| TUN/1/2019 | n/a | cattle | WRLFMD | Tunisia | EA-3 |
| BKF/4/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| ALG/1/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| SEN/9/2018 | n/a | cattle | WRLFMD | Senegal | EA-3 |
| BKF/1/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| BKF/2/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| MAU/18Z007128/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| SEN/4/2018 | n/a | cattle | WRLFMD | Senegal | EA-3 |
| GNA/18Z005582/18* | n/a | n/a | ANSES | Guinea | EA-3 |
| GNA/3/2018 | n/a | cattle | WRLFMD | Guinea | EA-3 |
| SEL/13/2018 | n/a | cattle | WRLFMD | Sierra Leone | EA-3 |
| GNA/18Z005583/18* | n/a | n/a | ANSES | Guinea | EA-3 |
| GNA/2/2018 | n/a | cattle | WRLFMD | Guinea | EA-3 |
| GNA/18Z005587/18* | n/a | n/a | ANSES | Guinea | EA-3 |
| ALG/2/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| GHA/Asu/12/2018* | LC456873 | cattle | NIAH-JAPAN | Ghana | EA-3 |
| GHA/Asu/9/2018* | LC456870 | cattle | NIAH-JAPAN | Ghana | EA-3 |
| GHA/Asu/11/2018* | LC456872 | cattle | NIAH-JAPAN | Ghana | EA-3 |
| GHA/Asu/10/2018* | LC456871 | cattle | NIAH-JAPAN | Ghana | EA-3 |
| CIV/1/2018 | n/a | porcine | WRLFMD | Cote d'Ivoire | EA-3 |
| CIV/18Z008483/18* | n/a | porcine | ANSES | Cote d'Ivoire | EA-3 |
| MAU/18Z007168/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| MAU/18Z007170/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| MAU/18Z007167/18* | n/a | n/a | ANSES | Mauritania | EA-3 |
| MOR/4/2019 | n/a | cattle | WRLFMD | Morocco | EA-3 |
| MOR/19Z01730/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| MOR/2/2019 | n/a | cattle | WRLFMD | Morocco | EA-3 |

continued on next page

| label | accession | host(s) | lab | country | taxonomic information |
|-------------------|-----------|---------|--------|----------------|-----------------------|
| MOR/19Z01728/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| TUN/1/2018 | n/a | cattle | WRLFMD | Tunisia | EA-3 |
| TUN/19Z002372/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| TUN/19Z002373/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| SEN/2/2018 | n/a | porcine | WRLFMD | Senegal | EA-3 |
| SEN/1/2018 | n/a | cattle | WRLFMD | Senegal | EA-3 |
| SEN/11/2018 | n/a | cattle | WRLFMD | Senegal | EA-3 |
| ALG/11/2018 | n/a | n/a | WRLFMD | Algeria | EA-3 |
| ALG/19Z000124/18* | n/a | caprine | ANSES | Algeria | EA-3 |
| ALG/19Z000117/18* | n/a | bovine | ANSES | Algeria | EA-3 |
| ALG/19Z000123/18* | n/a | caprine | ANSES | Algeria | EA-3 |
| ALG/19Z000122/18* | n/a | caprine | ANSES | Algeria | EA-3 |
| ALG/19Z000121/18* | n/a | caprine | ANSES | Algeria | EA-3 |
| ALG/12/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| ALG/6/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| ALG/19Z000116/18* | n/a | bovine | ANSES | Algeria | EA-3 |
| ALG/7/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| ALG/5/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| ALG/19Z000118/18* | n/a | bovine | ANSES | Algeria | EA-3 |
| ALG/19Z000119/18* | n/a | bovine | ANSES | Algeria | EA-3 |
| ALG/10/2018 | n/a | sheep | WRLFMD | Algeria | EA-3 |
| TUN/19Z002374/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| BKF/8/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| BKF/7/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| BKF/9/2018 | n/a | cattle | WRLFMD | Burkina Faso | EA-3 |
| CIV/3/2018 | n/a | porcine | WRLFMD | Cote d'Ivoire | EA-3 |
| SEN/6/2018 | n/a | cattle | WRLFMD | Senegal | EA-3 |
| CIV/18Z008489/18* | n/a | porcine | ANSES | Cote d'Ivoire | EA-3 |
| GAM/2/2018 | n/a | cattle | WRLFMD | Gambia | EA-3 |
| GAM/1/2018 | n/a | cattle | WRLFMD | Gambia | EA-3 |
| TUN/19Z002378/19* | n/a | bovine | ANSES | Tunisia | EA-3 |
| GNA/1/2018 | n/a | cattle | WRLFMD | Guinea | EA-3 |
| GNA/18Z005588/18* | n/a | n/a | ANSES | Guinea | EA-3 |
| ALG/1/2019 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| ALG/8/2018 | n/a | cattle | WRLFMD | Algeria | EA-3 |
| MOR/19Z01729/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| MOR/3/2019 | n/a | cattle | WRLFMD | Morocco | EA-3 |
| MOR/19Z01727/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| MOR/19Z00949/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| MOR/19Z00948/19* | n/a | bovine | ANSES | Morocco | EA-3 |
| MOR/1/2019 | n/a | cattle | WRLFMD | Morocco | EA-3 |
| ALG/19Z000120/18* | n/a | ovine | ANSES | Algeria | EA-3 |
| NIG/9/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/11/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/10/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/5/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/19/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/9/16b* | MH894429 | cattle | PIADC | Nigeria | EA-3 |
| NIG/6/16b* | MH894426 | cattle | PIADC | Nigeria | EA-3 |
| NIG/17/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/4/2016 | n/a | cattle | WRLFMD | Nigeria | EA-3 |
| NIG/5/16b* | MH894425 | cattle | PIADC | Nigeria | EA-3 |
| NIG/4/16b* | MH894424 | cattle | PIADC | Nigeria | EA-3 |
| SUD/2/86 | DQ165075 | bovine | WRLFMD | Sudan | EA-3 |
| UGA/17/98 | HM211075 | n/a | WRLFMD | Uganda | EA-4 |
| GHA/5/93 | AJ303488 | bovine | WRLFMD | Ghana | WA |
| MUR/19/2016 | MG972510 | cattle | WRLFMD | Mauritius | ME-SA/Ind-2001/e |
| ETH/3/2004 | FJ798109 | cattle | WRLFMD | Ethiopia | EA-3 |
| ETH/1/2007 | FJ798137 | cattle | WRLFMD | Ethiopia | EA-3 |
| UGA/3/2002 | DQ165077 | n/a | WRLFMD | Uganda | EA-2 |
| K83/79* | AJ303511 | n/a | WRLFMD | Kenya | EA-1 |
| TAI/189/87* | KY091288 | bovine | TRRL | Thailand | SEA |
| UKG/35/2001 | AJ539141 | porcine | PIADC | United Kingdom | ME-SA/PanAsia |
| IND/R2/75* | AF204276 | n/a | PD-FMD | India | ME-SA |
| ISA/1/62 | AJ303500 | n/a | WRLFMD | Indonesia | ISA-1 |

*, not a WRLFMD Reference Number

n/a, not available