

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

## Genotyping Report

FMDV serotype: A  
Country: Nigeria  
Year: 2020  
Batch: WRLFMD/2021/00016  
No. of sequences: 22  
Report date: 20th December 2021  
Report generated by: Nick Knowles  
Report checked by: Jemma Wadsworth



Copyright © 2021 The Pirbright Institute, Ash Road, Pirbright, Woking GU24 0NF, United Kingdom.

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

email: [reporting@pirbright.ac.uk](mailto:reporting@pirbright.ac.uk)

The contents of this report should not be reproduced without permission.

|   |   |
|---|---|
| Virus sample name:  | NIG/15/2020   |
| Sender reference:   | PL/QUA/1/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49265, genome 49266, sequence viba_49267, sequencing info 49268 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/16/2020   |
| Sender reference:   | PL/QUA/1/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49269, genome 49270, sequence viba_49271, sequencing info 49272 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/17/2020   |
| Sender reference:   | PL/QUA/2/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49273, genome 49274, sequence viba_49275, sequencing info 49276 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/18/2020   |
| Sender reference:   | PL/QUA/3/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49277, genome 49278, sequence viba_49279, sequencing info 49280 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/19/2020   |
| Sender reference:   | PL/QUA/4/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 27/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49281, genome 49282, sequence viba_49283, sequencing info 49284 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/20/2020   |
| Sender reference:   | PL/QUA/5/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 27/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49285, genome 49286, sequence viba_49287, sequencing info 49288 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.6  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.6  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.4  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.2  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.3  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.5  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.0  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 79.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.6  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/21/2020   |
| Sender reference:   | PL/QUA/6/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 27/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49289, genome 49290, sequence viba_49291, sequencing info 49292 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |



|   |   |
|---|---|
| Virus sample name:  | NIG/22/2020   |
| Sender reference:   | PL/QUA/7/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 27/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49293, genome 49294, sequence viba_49295, sequencing info 49296 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/23/2020   |
| Sender reference:   | PL/QUA/8/2020   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 28/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49297, genome 49298, sequence viba_49299, sequencing info 49300 |   |

### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/24/2020   |
| Sender reference:   | P1/G1/QUA   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   |   |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 28/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49301, genome 49302, sequence viba_49303, sequencing info 49304 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49307 | NIG/25/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/25/2020   |
| Sender reference:   | P1/G4/QUA   |
| Location of origin:   | Quampan, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 01/10/2020  |
| Host species:   |   |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK2   |
| Harvest date of material:   | 30/10/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 22/11/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49305, genome 49306, sequence viba_49307, sequencing info 49308 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49303 | NIG/24/2020 |        | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49267 | NIG/15/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49271 | NIG/16/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49295 | NIG/22/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49275 | NIG/17/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49279 | NIG/18/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49299 | NIG/23/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49291 | NIG/21/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49283 | NIG/19/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49287 | NIG/20/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 86.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 83.8  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 82.8  | 0        | A        | AFRICA   | G-VII   |            |
| viba_785 | KEN/3/64       |        | 82.5  | 0        | A        | AFRICA   | G-III   |            |
| viba_535 | NGR/2/73       | bovine | 82.3  | 0        | A        | AFRICA   | G-V     |            |
| viba_609 | GHA/16/73      | bovine | 81.4  | 0        | A        | AFRICA   | G-VI    |            |
| viba_688 | EGY/1/72       | bovine | 80.7  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.1  | 0        | A        | ASIA     | A15     |            |
| viba_435 | Allier/FRA/60  |        | 80.0  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32     |        | 79.8  | 0        | A        | EURO-SA  | A12     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/81/2020   |
| Sender reference:   | PL/SHD/1/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 25/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49309, genome 49310, sequence viba_49311, sequencing info 49312 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49335 | NIG/87/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49327 | NIG/85/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49319 | NIG/83/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 92.9  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 86.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/82/2020   |
| Sender reference:   | PL/SHD/2/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49313, genome 49314, sequence viba_49315, sequencing info 49316 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49327 | NIG/85/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49319 | NIG/83/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49335 | NIG/87/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49311 | NIG/81/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 87.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/83/2020   |
| Sender reference:   | PL/SHD/3/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49317, genome 49318, sequence viba_49319, sequencing info 49320 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49327 | NIG/85/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49335 | NIG/87/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49311 | NIG/81/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 87.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/84/2020   |
| Sender reference:   | PL/SHD/4/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49321, genome 49322, sequence viba_49323, sequencing info 49324 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49327 | NIG/85/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49319 | NIG/83/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49335 | NIG/87/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49311 | NIG/81/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 87.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |



|   |   |
|---|---|
| Virus sample name:  | NIG/85/2020   |
| Sender reference:   | PL/SHD/5/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 25/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49325, genome 49326, sequence viba_49327, sequencing info 49328 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49319 | NIG/83/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49335 | NIG/87/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49311 | NIG/81/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 87.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/86/2020   |
| Sender reference:   | PL/SHD/6/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 25/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49329, genome 49330, sequence viba_49331, sequencing info 49332 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49335 | NIG/87/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49311 | NIG/81/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49327 | NIG/85/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49319 | NIG/83/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 99.7  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 93.0  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 87.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66      |        | 84.4  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66      | bovine | 83.3  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73      | bovine | 83.0  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64       |        | 82.3  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72       | bovine | 81.5  | 0        | A        | AFRICA   | G-II    |            |
| viba_699 | UKG/119/32     |        | 81.2  | 0        | A        | EURO-SA  | A12     |            |
| viba_435 | Allier/FRA/60  |        | 81.1  | 0        | A        | EURO-SA  | A5      |            |
| viba_535 | NGR/2/73       | bovine | 80.6  | 0        | A        | AFRICA   | G-V     |            |
| viba_589 | Bangkok/TAI/60 |        | 79.0  | 0        | A        | ASIA     | A15     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/87/2020   |
| Sender reference:   | PL/SHD/7/2020   |
| Location of origin:   | Shendam, Plateau State                                      |
| Country of origin:  | Nigeria   |
| Date of collection:   | 15/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49333, genome 49334, sequence viba_49335, sequencing info 49336 |   |

#### Most Closely Related Sequences

| sequence   | virus name  | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49311 | NIG/81/2020 | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49331 | NIG/86/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49327 | NIG/85/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49319 | NIG/83/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49323 | NIG/84/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49315 | NIG/82/2020 | cattle | 99.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21051 | NIG/8/2013  | bovine | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_21047 | NIG/7/2013  | bovine | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11926 | NIG/36/2009 | cattle | 92.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_11934 | NIG/39/2009 | cattle | 92.9  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name    | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|---------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77      |        | 86.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_347 | KEN/42/66     |        | 84.2  | 0        | A        | AFRICA   | G-I     |            |
| viba_173 | UGA/13/66     | bovine | 83.1  | 0        | A        | AFRICA   | G-VII   |            |
| viba_609 | GHA/16/73     | bovine | 82.9  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64      |        | 82.2  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72      | bovine | 81.4  | 0        | A        | AFRICA   | G-II    |            |
| viba_435 | Allier/FRA/60 |        | 80.9  | 0        | A        | EURO-SA  | A5      |            |
| viba_699 | UKG/119/32    |        | 80.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_535 | NGR/2/73      | bovine | 80.4  | 0        | A        | AFRICA   | G-V     |            |
| viba_682 | IRN/2/87      | bovine | 79.0  | 0        | A        | ASIA     | Iran-87 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/89/2020   |
| Sender reference:   | PL/BS/7/2020  |
| Location of origin:   | Bassa, Plateau State  |
| Country of origin:  | Nigeria   |
| Date of collection:   | 16/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49337, genome 49338, sequence viba_49339, sequencing info 49340 |   |

#### Most Closely Related Sequences

| sequence   | virus name         | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|--------------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49343 | NIG/90/2020        | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_45820 | FMD/KD/02/NIG/2020 | bovine | 98.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49263 | NIG/101/2020       | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45824 | FMD/KD/03/NIG/2020 | bovine | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49259 | NIG/100/2020       | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40944 | NIG/5/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40936 | NIG/3/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40976 | NIG/13/16a         | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40940 | NIG/4/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40960 | NIG/9/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 85.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_173 | UGA/13/66      | bovine | 84.4  | 0        | A        | AFRICA   | G-VII   |            |
| viba_347 | KEN/42/66      |        | 83.9  | 0        | A        | AFRICA   | G-I     |            |
| viba_609 | GHA/16/73      | bovine | 82.8  | 0        | A        | AFRICA   | G-VI    |            |
| viba_699 | UKG/119/32     |        | 82.3  | 0        | A        | EURO-SA  | A12     |            |
| viba_785 | KEN/3/64       |        | 81.9  | 0        | A        | AFRICA   | G-III   |            |
| viba_435 | Allier/FRA/60  |        | 81.6  | 0        | A        | EURO-SA  | A5      |            |
| viba_589 | Bangkok/TAI/60 |        | 81.2  | 0        | A        | ASIA     | A15     |            |
| viba_688 | EGY/1/72       | bovine | 81.1  | 0        | A        | AFRICA   | G-II    |            |
| viba_336 | IRN/1/96       | bovine | 80.5  | 1        | A        | ASIA     | Iran-96 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/90/2020   |
| Sender reference:   | PL/BS/8/2020  |
| Location of origin:   | Bassa, Plateau State  |
| Country of origin:  | Nigeria   |
| Date of collection:   | 16/10/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 26/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49341, genome 49342, sequence viba_49343, sequencing info 49344 |   |

#### Most Closely Related Sequences

| sequence   | virus name         | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|--------------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49339 | NIG/89/2020        | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_45820 | FMD/KD/02/NIG/2020 | bovine | 98.3  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49263 | NIG/101/2020       | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45824 | FMD/KD/03/NIG/2020 | bovine | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49259 | NIG/100/2020       | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40944 | NIG/5/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40936 | NIG/3/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40976 | NIG/13/16a         | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40940 | NIG/4/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40960 | NIG/9/16a          | cattle | 94.5  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 85.5  | 0        | A        | AFRICA   | G-IV    |            |
| viba_173 | UGA/13/66      | bovine | 84.4  | 0        | A        | AFRICA   | G-VII   |            |
| viba_347 | KEN/42/66      |        | 83.9  | 0        | A        | AFRICA   | G-I     |            |
| viba_609 | GHA/16/73      | bovine | 82.8  | 0        | A        | AFRICA   | G-VI    |            |
| viba_699 | UKG/119/32     |        | 82.3  | 0        | A        | EURO-SA  | A12     |            |
| viba_785 | KEN/3/64       |        | 81.9  | 0        | A        | AFRICA   | G-III   |            |
| viba_435 | Allier/FRA/60  |        | 81.6  | 0        | A        | EURO-SA  | A5      |            |
| viba_589 | Bangkok/TAI/60 |        | 81.2  | 0        | A        | ASIA     | A15     |            |
| viba_688 | EGY/1/72       | bovine | 81.1  | 0        | A        | AFRICA   | G-II    |            |
| viba_336 | IRN/1/96       | bovine | 80.5  | 1        | A        | ASIA     | Iran-96 |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/100/2020  |
| Sender reference:   | PL/PKS/1/2020   |
| Location of origin:   | Pankshin, Plateau State                                     |
| Country of origin:  | Nigeria   |
| Date of collection:   | 04/11/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 30/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49257, genome 49258, sequence viba_49259, sequencing info 49260 |   |

#### Most Closely Related Sequences

| sequence   | virus name         | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|--------------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49263 | NIG/101/2020       | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49339 | NIG/89/2020        | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49343 | NIG/90/2020        | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45820 | FMD/KD/02/NIG/2020 | bovine | 97.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45824 | FMD/KD/03/NIG/2020 | bovine | 97.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40944 | NIG/5/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40936 | NIG/3/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40976 | NIG/13/16a         | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40940 | NIG/4/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40960 | NIG/9/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |

#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 84.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_173 | UGA/13/66      | bovine | 84.4  | 0        | A        | AFRICA   | G-VII   |            |
| viba_347 | KEN/42/66      |        | 83.4  | 0        | A        | AFRICA   | G-I     |            |
| viba_699 | UKG/119/32     |        | 82.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_435 | Allier/FRA/60  |        | 82.2  | 0        | A        | EURO-SA  | A5      |            |
| viba_609 | GHA/16/73      | bovine | 82.1  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64       |        | 82.0  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72       | bovine | 81.1  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.9  | 0        | A        | ASIA     | A15     |            |
| viba_98  | Alem/ARG/81    |        | 80.8  | 0        | A        | EURO-SA  | A81     |            |

|   |   |
|---|---|
| Virus sample name:  | NIG/101/2020  |
| Sender reference:   | PL/PKS/2/2020   |
| Location of origin:   | Pankshin, Plateau State                                     |
| Country of origin:  | Nigeria   |
| Date of collection:   | 04/11/2020  |
| Host species:   | cattle  |
| Serotype:   | A   |
| Topotype:   | AFRICA  |
| Lineage:  | G-IV  |
| Sublineage:   |   |
| Sequence length:  | 633   |
| Ambiguities:  | 0   |
| Material submitted for sequencing:  | WRL-LFBK1   |
| Harvest date of material:   | 30/11/2021  |
| Primers:  | A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R |
| Received for sequencing:  | 08/12/2021  |
| Created:  | 20/12/2021  |
| Last updated:   | 20/12/2021  |
| VIBASys IDs: sample 49261, genome 49262, sequence viba_49263, sequencing info 49264 |   |

#### Most Closely Related Sequences

| sequence   | virus name         | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|--------------------|--------|-------|----------|----------|----------|---------|------------|
| viba_49259 | NIG/100/2020       | cattle | 100.0 | 0        | A        | AFRICA   | G-IV    |            |
| viba_49339 | NIG/89/2020        | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_49343 | NIG/90/2020        | cattle | 98.1  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45820 | FMD/KD/02/NIG/2020 | bovine | 97.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_45824 | FMD/KD/03/NIG/2020 | bovine | 97.8  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40944 | NIG/5/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40936 | NIG/3/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40976 | NIG/13/16a         | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40940 | NIG/4/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |
| viba_40960 | NIG/9/16a          | cattle | 94.2  | 0        | A        | AFRICA   | G-IV    |            |

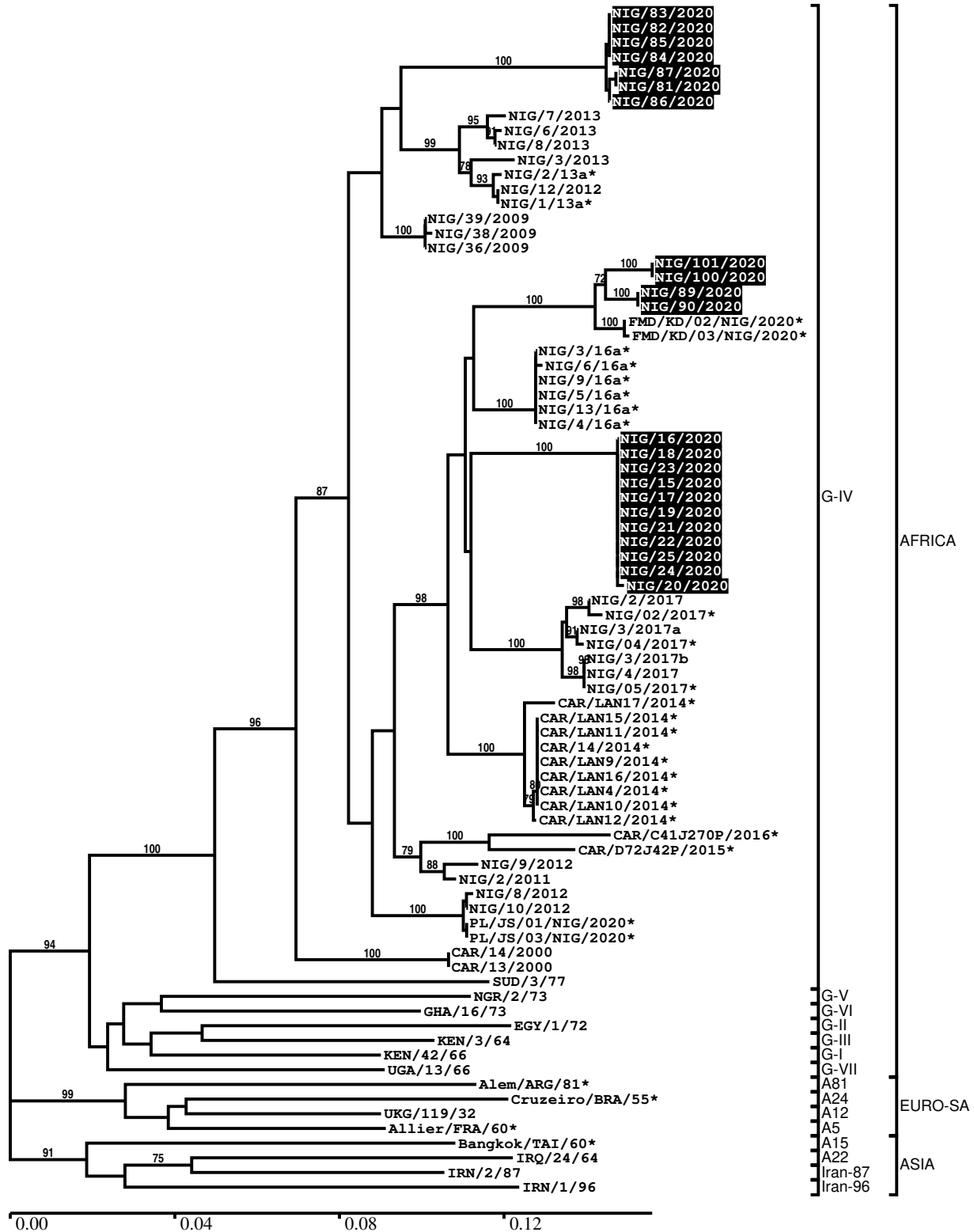
#### Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

| sequence | virus name     | Host   | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|----------|----------------|--------|-------|----------|----------|----------|---------|------------|
| viba_178 | SUD/3/77       |        | 84.9  | 0        | A        | AFRICA   | G-IV    |            |
| viba_173 | UGA/13/66      | bovine | 84.4  | 0        | A        | AFRICA   | G-VII   |            |
| viba_347 | KEN/42/66      |        | 83.4  | 0        | A        | AFRICA   | G-I     |            |
| viba_699 | UKG/119/32     |        | 82.5  | 0        | A        | EURO-SA  | A12     |            |
| viba_435 | Allier/FRA/60  |        | 82.2  | 0        | A        | EURO-SA  | A5      |            |
| viba_609 | GHA/16/73      | bovine | 82.1  | 0        | A        | AFRICA   | G-VI    |            |
| viba_785 | KEN/3/64       |        | 82.0  | 0        | A        | AFRICA   | G-III   |            |
| viba_688 | EGY/1/72       | bovine | 81.1  | 0        | A        | AFRICA   | G-II    |            |
| viba_589 | Bangkok/TAI/60 |        | 80.9  | 0        | A        | ASIA     | A15     |            |
| viba_98  | Alem/ARG/81    |        | 80.8  | 0        | A        | EURO-SA  | A81     |            |

Report on FMDV A in Nigeria in 2020

Batch: WRLFMD/2021/00016



\*, not a WRLFMD Reference Number



## Analysis Parameters

|  |  |
|--|--|
| VP1 subsequence extractor:             | vp1_A                                      |
| Query sequence set:                    | WRLFMD/2021/00016-Nigeria-A (22 sequences) |
| Sequence database set:                 | allseqs_A (2296 sequences)                 |
| Prototype sequence set:                | !prototypes_A (40 sequences)               |
| Number of related sequences reported:  | 10   |
| Minimal VP1 subsequence match length   | 600  |
| Sequence alignment method:             | muscle (default parameters)                |
| Sequence alignment length:             | 633  |
| 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: | 13   |
| VIBASys version:                       | reflabs-1.1.2                              |

## Sequences in the Phylogenetic Tree

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

| label               | accession | host(s) | lab        | country | taxonomic information |
|---------------------|-----------|---------|------------|---------|-----------------------|
| NIG/83/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/82/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/85/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/84/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/87/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/81/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/86/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/7/2013          | KX258060  | bovine  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/6/2013          | KX258059  | bovine  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/8/2013          | KX258061  | bovine  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/3/2013          | KX258058  | bovine  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/2/13a*          | KY584071  | bovine  | CODA-CERVA | Nigeria | AFRICA/G-IV           |
| NIG/12/2012         | KX258057  | bovine  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/1/13a*          | KY584070  | bovine  | CODA-CERVA | Nigeria | AFRICA/G-IV           |
| NIG/39/2009         | KX258052  | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/38/2009         | KX258051  | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/36/2009         | KX258050  | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/101/2020        | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/100/2020        | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/89/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/90/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| FMD/KD/02/NIG/2020* | n/a       | bovine  | NCFAD/NVRI | Nigeria | AFRICA/G-IV           |
| FMD/KD/03/NIG/2020* | n/a       | bovine  | NCFAD/NVRI | Nigeria | AFRICA/G-IV           |
| NIG/3/16a*          | MH894407  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/6/16a*          | MH894410  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/9/16a*          | MH894413  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/5/16a*          | MH894409  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/13/16a*         | MH894417  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/4/16a*          | MH894408  | cattle  | PIADC      | Nigeria | AFRICA/G-IV           |
| NIG/16/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/18/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/23/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/15/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/17/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/19/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |
| NIG/21/2020         | n/a       | cattle  | WRLFMD     | Nigeria | AFRICA/G-IV           |

*continued on next page*

| label              | accession | host(s) | lab            | country        | taxonomic information |
|--------------------|-----------|---------|----------------|----------------|-----------------------|
| NIG/22/2020        | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/25/2020        | n/a       | n/a     | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/24/2020        | n/a       | n/a     | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/20/2020        | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/2/2017         | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/02/2017*       | MT220002  | cattle  | Sciensano      | Nigeria        | AFRICA/G-IV           |
| NIG/3/2017a        | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/04/2017*       | MT228048  | cattle  | Sciensano      | Nigeria        | AFRICA/G-IV           |
| NIG/3/2017b        | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/4/2017         | n/a       | cattle  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/05/2017*       | MT228049  | cattle  | Sciensano      | Nigeria        | AFRICA/G-IV           |
| CAR/LAN17/2014*    | MH383076  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN15/2014*    | MH383074  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN11/2014*    | MH383072  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/14/2014*       | KY581683  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN9/2014*     | MH383070  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN16/2014*    | MH383075  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN4/2014*     | MH383069  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN10/2014*    | MH383071  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/LAN12/2014*    | MH383073  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/C41J270P/2016* | MG873204  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| CAR/D72J42P/2015*  | MG873205  | cattle  | PIADC          | Cameroon       | AFRICA/G-IV           |
| NIG/9/2012         | KX258055  | bovine  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/2/2011         | KX258053  | bovine  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/8/2012         | KX258054  | bovine  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| NIG/10/2012        | KX258056  | bovine  | WRLFMD         | Nigeria        | AFRICA/G-IV           |
| PL/JS/01/NIG/2020* | n/a       | n/a     | NCFAD/NVRI     | Nigeria        | AFRICA/G-IV           |
| PL/JS/03/NIG/2020* | n/a       | n/a     | NCFAD/NVRI     | Nigeria        | AFRICA/G-IV           |
| CAR/14/2000        | KX258132  | n/a     | WRLFMD         | Cameroon       | AFRICA/G-IV           |
| CAR/13/2000        | KX258131  | n/a     | WRLFMD         | Cameroon       | AFRICA/G-IV           |
| SUD/3/77           | GU566064  | n/a     | WRLFMD         | Sudan          | AFRICA/G-IV           |
| NGR/2/73           | KF561704  | bovine  | WRLFMD         | Niger          | AFRICA/G-V            |
| GHA/16/73          | KF561698  | bovine  | WRLFMD         | Ghana          | AFRICA/G-VI           |
| EGY/1/72           | EF208756  | bovine  | WRLFMD         | Egypt          | AFRICA/G-II           |
| KEN/3/64           | AY593761  | n/a     | PIADC          | Kenya          | AFRICA/G-III          |
| KEN/42/66          | KF561699  | n/a     | WRLFMD         | Kenya          | AFRICA/G-I            |
| UGA/13/66          | KF561705  | bovine  | WRLFMD         | Uganda         | AFRICA/G-VII          |
| Alem/ARG/81*       | AJ306219  | n/a     | INTA-Argentina | Argentina      | EURO-SA/A81           |
| Cruzeiro/BRA/55*   | AY593768  | bovine  | PIADC          | Brazil         | EURO-SA/A24           |
| UKG/119/32         | M10975    | n/a     | PIADC          | United Kingdom | EURO-SA/A12           |
| Allier/FRA/60*     | AY593780  | n/a     | PIADC          | France         | EURO-SA/A5            |
| Bangkok/TAI/60*    | AY593755  | n/a     | PIADC          | Thailand       | ASIA/A15              |
| IRQ/24/64          | AY593763  | bovine  | PIADC          | Iraq           | ASIA/A22              |
| IRN/2/87           | EF208770  | bovine  | WRLFMD         | Iran           | ASIA/Iran-87          |
| IRN/1/96           | EF208771  | bovine  | WRLFMD         | Iran           | ASIA/Iran-96          |

\*, not a WRLFMD Reference Number

n/a, not available