

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

## Genotyping Report

|                      |                    |
|----------------------|--------------------|
| FMDV serotype:       | SAT1               |
| Country:             | Iraq               |
| Year:                | 2025               |
| Batch:               | WRLFMD/2025/000006 |
| No. of sequences:    | 11                 |
| Report date:         | 20th March 2025    |
| Report generated by: | ██████████         |
| Report checked by:   | ██████████         |



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

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

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|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/1/2025                                             |
| Sender reference:                                                                   | Sample 1 L17                                           |
| Location of origin:                                                                 | Al-Wihdah, Baghdad                                     |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 04/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 11/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55880, genome 55881, sequence viba_55882, sequencing info 55883 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/2/2025                                             |
| Sender reference:                                                                   | Sample 3 L26                                           |
| Location of origin:                                                                 | Al-Wihdah, Baghdad                                     |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 12/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | OS                                                     |
| Harvest date of material:                                                           | n/a                                                    |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55884, genome 55885, sequence viba_55886, sequencing info 55887 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/3/2025                                             |
| Sender reference:                                                                   | Sample 9 L29                                           |
| Location of origin:                                                                 | Al-Wahdah, Baghdad                                     |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 13/02/2025                                             |
| Host species:                                                                       | cattle                                                 |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 11/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55888, genome 55889, sequence viba_55890, sequencing info 55891 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/4/2025                                             |
| Sender reference:                                                                   | Sample 2 L44                                           |
| Location of origin:                                                                 | Hilla, Babylon                                         |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 15/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 11/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55892, genome 55893, sequence viba_55894, sequencing info 55895 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/11/2025                                            |
| Sender reference:                                                                   | Sample 5 L80                                           |
| Location of origin:                                                                 | Al Numaniya, Wassit                                    |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 19/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | n/a                                                    |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55896, genome 55897, sequence viba_55898, sequencing info 55899 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/13/2025                                            |
| Sender reference:                                                                   | Sample 12 L137                                         |
| Location of origin:                                                                 | Taj El-Din, Wassit                                     |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 20/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 12/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55900, genome 55901, sequence viba_55902, sequencing info 55903 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.7  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.5  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 80.0  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.8  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.0  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 75.9  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.4  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.7  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.2  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/16/2025                                            |
| Sender reference:                                                                   | Sample 16 L185                                         |
| Location of origin:                                                                 | Khan Bani Saad, Diyala                                 |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 25/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 12/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55904, genome 55905, sequence viba_55906, sequencing info 55907 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/18/2025                                            |
| Sender reference:                                                                   | Samplr 18 L187                                         |
| Location of origin:                                                                 | Al Abbara, Diyala                                      |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 25/02/2025                                             |
| Host species:                                                                       | cattle                                                 |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 12/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55908, genome 55909, sequence viba_55910, sequencing info 55911 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/19/2025                                            |
| Sender reference:                                                                   | Sample 19 L186                                         |
| Location of origin:                                                                 | Khan Bani Saad, Diyala                                 |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 25/02/2025                                             |
| Host species:                                                                       | cattle                                                 |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 12/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55912, genome 55913, sequence viba_55914, sequencing info 55915 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/22/2025                                            |
| Sender reference:                                                                   | Sample 22 L172                                         |
| Location of origin:                                                                 | Al-Taji, Baghdad                                       |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 25/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 13/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55916, genome 55917, sequence viba_55918, sequencing info 55919 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55922 | IRQ/23/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55914 | IRQ/19/2025 | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.7  | 0        | SAT1     | I        |         |            |

### 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_466   | T155/71              | cattle          | 87.5  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 80.0  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.8  | 0        | SAT1     | II       |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.2  | 0        | SAT1     | IV       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.9  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.6  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 74.0  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.5  | 0        | SAT1     | III      |         |            |

|                                                                                     |                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------|
| Virus sample name:                                                                  | IRQ/23/2025                                            |
| Sender reference:                                                                   | Sample 23 L181                                         |
| Location of origin:                                                                 | Khan Bani Saad, Missan                                 |
| Country of origin:                                                                  | Iraq                                                   |
| Date of collection:                                                                 | 25/02/2025                                             |
| Host species:                                                                       | water buffalo                                          |
| Serotype:                                                                           | SAT1                                                   |
| Topotype:                                                                           | I                                                      |
| Lineage:                                                                            |                                                        |
| Sublineage:                                                                         |                                                        |
| Sequence length:                                                                    | 657                                                    |
| Ambiguities:                                                                        | 0                                                      |
| Material submitted for sequencing:                                                  | WRL-LFBK1                                              |
| Harvest date of material:                                                           | 12/03/2025                                             |
| Primers:                                                                            | SAT1-1C559F & SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R |
| Received for sequencing:                                                            | 18/03/2025                                             |
| Created:                                                                            | 19/03/2025                                             |
| Last updated:                                                                       | 20/03/2025                                             |
| VIBASys IDs: sample 55920, genome 55921, sequence viba_55922, sequencing info 55923 |                                                        |

### Most Closely Related Sequences

| sequence   | virus name  | Host          | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|-------------|---------------|-------|----------|----------|----------|---------|------------|
| viba_55914 | IRQ/19/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55910 | IRQ/18/2025 | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55886 | IRQ/2/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55894 | IRQ/4/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55890 | IRQ/3/2025  | cattle        | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55882 | IRQ/1/2025  | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55906 | IRQ/16/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55898 | IRQ/11/2025 | water buffalo | 100.0 | 0        | SAT1     | I        |         |            |
| viba_55918 | IRQ/22/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |
| viba_55902 | IRQ/13/2025 | water buffalo | 99.8  | 0        | SAT1     | I        |         |            |

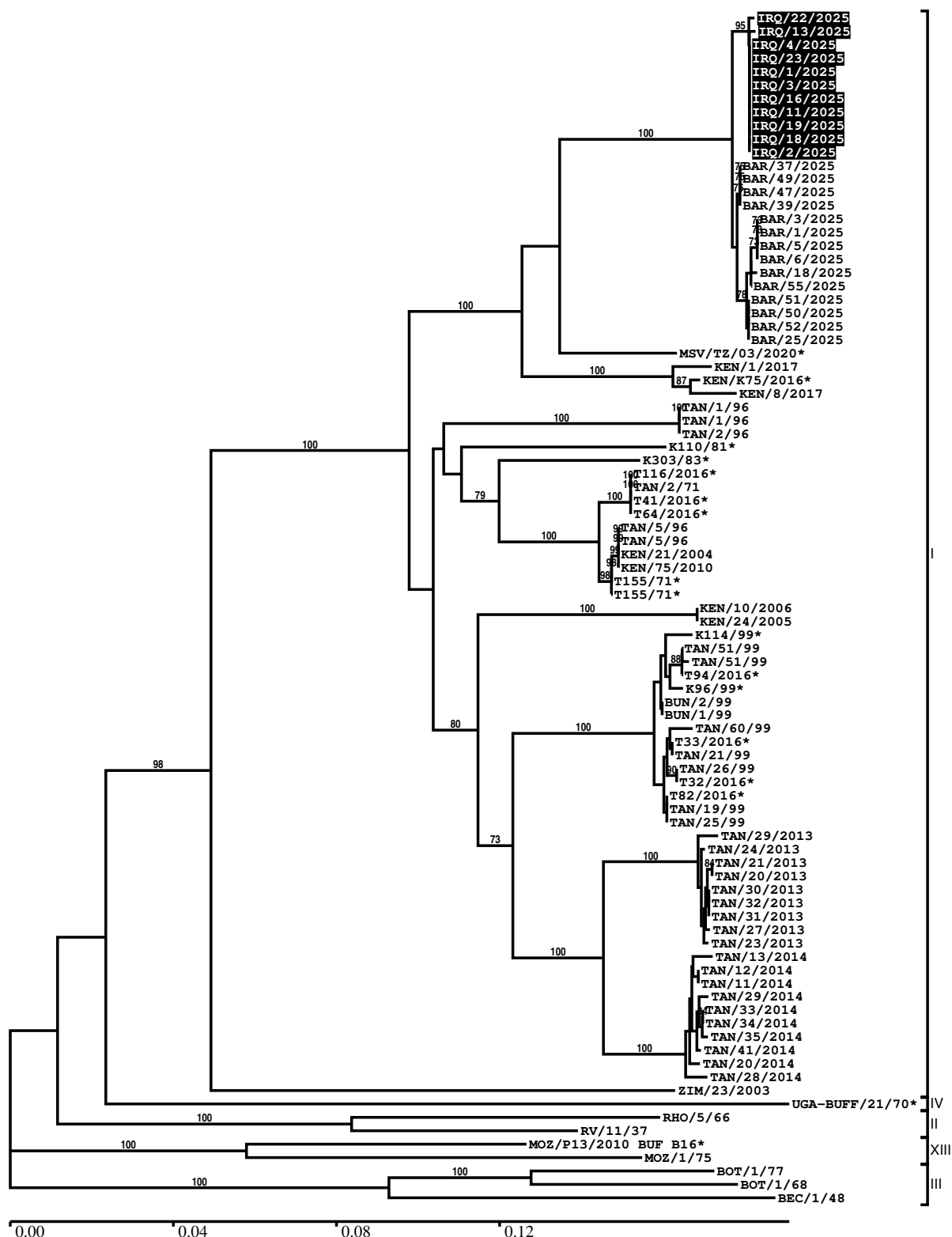
### Most Closely Related Prototype Sequences

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

| sequence   | virus name           | Host            | % Id. | # Ambig. | serotype | topotype | lineage | sublineage |
|------------|----------------------|-----------------|-------|----------|----------|----------|---------|------------|
| viba_466   | T155/71              | cattle          | 87.7  | 0        | SAT1     | I        |         |            |
| viba_243   | ZIM/23/2003          |                 | 79.8  | 0        | SAT1     | I        |         |            |
| viba_462   | RV/11/37             | greater kudu    | 76.6  | 0        | SAT1     | II       |         |            |
| viba_16635 | MOZ/P13/2010 BUF B16 | African buffalo | 76.1  | 0        | SAT1     | XIII     |         |            |
| viba_514   | UGA-BUFF/21/70       | African buffalo | 76.0  | 0        | SAT1     | IV       |         |            |
| viba_709   | RHO/5/66             | bovine          | 75.7  | 0        | SAT1     | II       |         |            |
| viba_509   | BOT/1/77             | bovine          | 75.4  | 0        | SAT1     | III      |         |            |
| viba_30769 | MOZ/1/75             | cattle          | 74.2  | 0        | SAT1     | XIII     |         |            |
| viba_495   | BOT/1/68             | bovine          | 73.9  | 0        | SAT1     | III      |         |            |
| viba_212   | BEC/1/48             |                 | 73.3  | 0        | SAT1     | III      |         |            |

## Report on FMDV SAT1 in Iraq in 2025

Batch: WRLFMD/2025/000006



\*, not a WRLFMD Reference Number

## Analysis Parameters

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| VP1 subsequence extractor:             | vp1_SAT1                                    |
| Query sequence set:                    | WRLFMD/2025/000006-Iraq-SAT1 (11 sequences) |
| Sequence database set:                 | allseqs_SAT1 (838 sequences)                |
| Prototype sequence set:                | !prototypes_SAT1 (21 sequences)             |
| Number of related sequences reported:  | 10                                          |
| Minimal VP1 subsequence match length   | 600                                         |
| Sequence alignment method:             | muscle (default parameters)                 |
| Sequence alignment length:             | 657                                         |
| 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/SAT1

| label           | accession | host(s)       | lab    | country  | taxonomic information |
|-----------------|-----------|---------------|--------|----------|-----------------------|
| IRQ/22/2025     | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/13/2025     | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/4/2025      | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/23/2025     | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/1/2025      | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/3/2025      | n/a       | cattle        | WRLFMD | Iraq     | I                     |
| IRQ/16/2025     | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/11/2025     | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| IRQ/19/2025     | n/a       | cattle        | WRLFMD | Iraq     | I                     |
| IRQ/18/2025     | n/a       | cattle        | WRLFMD | Iraq     | I                     |
| IRQ/2/2025      | n/a       | water buffalo | WRLFMD | Iraq     | I                     |
| BAR/37/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/49/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/47/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/39/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/3/2025      | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/1/2025      | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/5/2025      | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/6/2025      | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/18/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/55/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/51/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/50/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/52/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| BAR/25/2025     | n/a       | cattle        | WRLFMD | Bahrain  | I                     |
| MSV/TZ/03/2020* | OQ615916  | zebu cattle   | SUA    | Tanzania | I                     |
| KEN/1/2017      | n/a       | cattle        | WRLFMD | Kenya    | I                     |
| KEN/K75/2016*   | MH882581  | cattle        | PIADC  | Kenya    | I                     |
| KEN/8/2017      | n/a       | bovine        | WRLFMD | Kenya    | I                     |
| TAN/1/96        | KF561710  | cattle        | WRLFMD | Tanzania | I                     |
| TAN/1/96        | AY442003  | cattle        | OVI    | Tanzania | I                     |
| TAN/2/96        | AY442001  | n/a           | OVI    | Tanzania | I                     |
| K110/81*        | HQ267521  | n/a           | n/a    | Kenya    | I                     |
| K303/83*        | n/a       | n/a           | TPI    | Kenya    | I                     |
| T116/2016*      | MH931420  | cattle        | PAU    | Tanzania | I                     |
| TAN/2/71        | KF561707  | cattle        | WRLFMD | Tanzania | I                     |

*continued on next page*

| label                 | accession | host(s)         | lab    | country       | taxonomic information |
|-----------------------|-----------|-----------------|--------|---------------|-----------------------|
| T41/2016*             | MH936366  | cattle          | PAU    | Tanzania      | I                     |
| T64/2016*             | MH931407  | cattle          | PAU    | Tanzania      | I                     |
| TAN/5/96              | AY442007  | cattle          | OVI    | Tanzania      | I                     |
| TAN/5/96              | KF561711  | cattle          | WRLFMD | Tanzania      | I                     |
| KEN/21/2004           | KR188451  | cattle          | WRLFMD | Kenya         | I                     |
| KEN/75/2010           | KR188468  | cattle          | WRLFMD | Kenya         | I                     |
| T155/71*              | HQ267519  | cattle          | n/a    | Tanzania      | I                     |
| T155/71*              | KF561706  | cattle          | WRLFMD | Tanzania      | I                     |
| KEN/10/2006           | KR188454  | cattle          | WRLFMD | Kenya         | I                     |
| KEN/24/2005           | n/a       | cattle          | WRLFMD | Kenya         | I                     |
| K114/99*              | HQ267524  | n/a             | n/a    | Kenya         | I                     |
| TAN/51/99             | KF561720  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/51/99             | AY442004  | cattle          | OVI    | Tanzania      | I                     |
| T94/2016*             | MH931415  | cattle          | PAU    | Tanzania      | I                     |
| K96/99*               | HQ267523  | n/a             | n/a    | Kenya         | I                     |
| BUN/2/99              | n/a       | cattle          | WRLFMD | Burundi       | I                     |
| BUN/1/99              | n/a       | cattle          | WRLFMD | Burundi       | I                     |
| TAN/60/99             | KF561721  | wildebeest      | WRLFMD | Tanzania      | I                     |
| T33/2016*             | MH931418  | cattle          | PAU    | Tanzania      | I                     |
| TAN/21/99             | KF561715  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/26/99             | KF561717  | cattle          | WRLFMD | Tanzania      | I                     |
| T32/2016*             | MH931413  | cattle          | PAU    | Tanzania      | I                     |
| T82/2016*             | MH931411  | cattle          | PAU    | Tanzania      | I                     |
| TAN/19/99             | KF561714  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/25/99             | KF561716  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/29/2013           | MF592662  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/24/2013           | MF592658  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/21/2013           | n/a       | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/20/2013           | MF592655  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/30/2013           | MF592663  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/32/2013           | n/a       | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/31/2013           | MF592664  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/27/2013           | MF592661  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/23/2013           | MF592657  | cattle          | WRLFMD | Tanzania      | I                     |
| TAN/13/2014           | MF592674  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/12/2014           | MF592673  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/11/2014           | MF592672  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/29/2014           | MF592687  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/33/2014           | MF592690  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/34/2014           | MF592691  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/35/2014           | MF592692  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/41/2014           | MF592696  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/20/2014           | MF592680  | bovine          | WRLFMD | Tanzania      | I                     |
| TAN/28/2014           | MF592686  | bovine          | WRLFMD | Tanzania      | I                     |
| ZIM/23/2003           | KF219690  | n/a             | WRLFMD | Zimbabwe      | I                     |
| UGA-BUFF/21/70*       | KF219682  | African buffalo | WRLFMD | Uganda        | IV                    |
| RHO/5/66              | AY593846  | bovine          | PIADC  | Rhodesia      | II                    |
| RV/11/37              | AY593839  | greater kudu    | PIADC  | Rhodesia (RV) | II                    |
| MOZ/P13/2010 BUF B16* | KF219691  | African buffalo | WRLFMD | Mozambique    | XIII                  |
| MOZ/1/75              | MG972461  | cattle          | WRLFMD | Mozambique    | XIII                  |
| BOT/1/77              | KF219686  | bovine          | WRLFMD | Botswana      | III                   |
| BOT/1/68              | AY593845  | bovine          | PIADC  | Botswana      | III                   |
| BEC/1/48              | AY593838  | n/a             | PIADC  | Bechuanaland  | III                   |

\*, not a WRLFMD Reference Number

n/a, not available