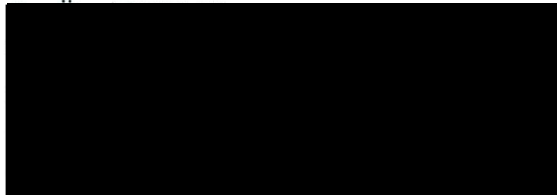




## FMD Genotyping Report

Lab Reference WRL batch Number: WRLMEG/2025/000019, 20 & 21

Sender Details:



Date Received: 25/06/2025

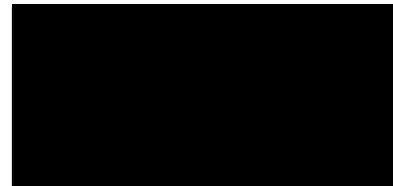
Country of Origin\*: Iraq, Syria, Turkiye

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

Results Attached: [Redacted]

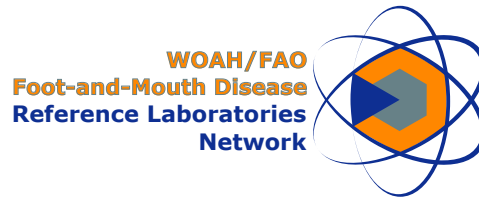
Official Stamp:

Date: [Redacted]



To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by email ([reflabsfeedback@pirbright.ac.uk](mailto:reflabsfeedback@pirbright.ac.uk)).

\* Data supplied by the customer



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

# FMDV Genotyping Report

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**Generated from:** FMDtype | FMDV Genotyping Tool

**Downloaded on:** 26 June 2025

**Citation:** WRLFMD. 2025. FMDV Genotyping Report [WRLMEG/2025/000021]. (Accessed 26/06/25)

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**FMDV serotype:** SAT1

**Country:** Iraq

**Year:** 2025

**Batch:** WRLMEG/2025/000021

**No. of sequences:** 1

**Reported date:** 26 June 2025 on behalf of Şap Enstitüsü Müdürlüğü,  
Ankara, Türkiye for sequences kindly submitted to the Pirbright Institute

**WRLFMD Website:** <https://www.wrlfmd.org/>

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

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FMDtype is supported through funding from

# Virus sample: IRQ/L66/2025

## Sample details

|                     |                    |
|---------------------|--------------------|
| Reception Date:     | 2025-06-25         |
| Sender reference:   | SAT1/IRAQ/L66/2025 |
| Location of origin: | NA                 |
| Country of origin:  | Iraq               |
| Date of collection: | NA                 |
| Host species:       | NA                 |

## Genotyping details

|             |      |
|-------------|------|
| Serotype:   | SAT1 |
| Topotype:   | I    |
| Lineage:    | None |
| Sublineage: | None |

## Sequencing details

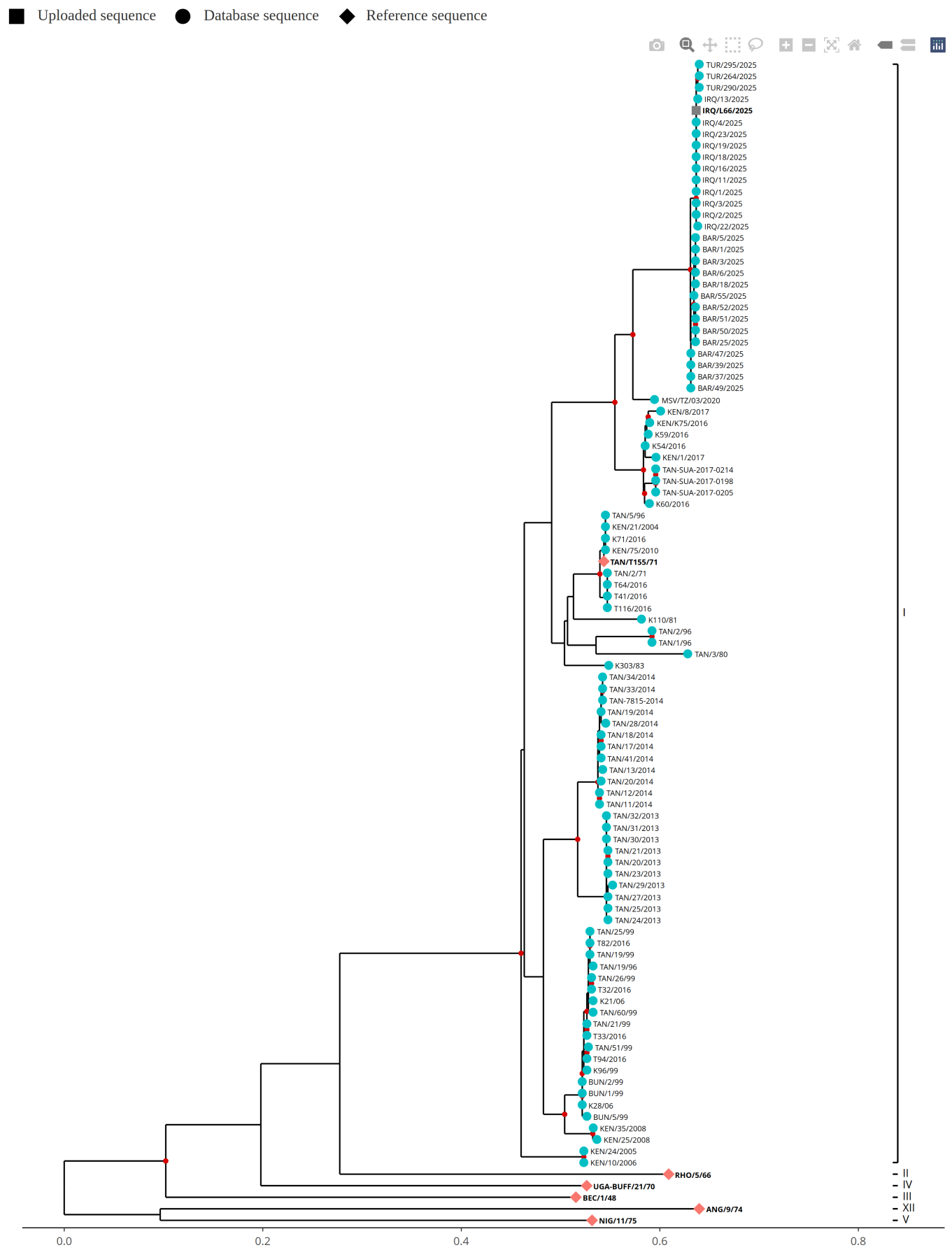
|                                    |     |
|------------------------------------|-----|
| Material submitted for sequencing: | NA  |
| Material Harvest Date:             | NA  |
| Sequence length:                   | 657 |
| Ambiguities:                       | 0   |

## Most Closely Related FMDV Isolates

| Sequence ID                   | Virus Name  | Host          | % Id   | #Ambig. | Serotype | Topotype | Lineage | Sublineage |
|-------------------------------|-------------|---------------|--------|---------|----------|----------|---------|------------|
| FMDV VP1 Sequences            |             |               |        |         |          |          |         |            |
| 1049132                       | IRQ/1/2025  | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049133                       | IRQ/2/2025  | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049134                       | IRQ/3/2025  | Cattle        | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049135                       | IRQ/4/2025  | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049610                       | IRQ/11/2025 | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049612                       | IRQ/16/2025 | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049613                       | IRQ/18/2025 | Cattle        | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049614                       | IRQ/19/2025 | Cattle        | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049616                       | IRQ/23/2025 | Water Buffalo | 100.00 | 0       | SAT1     | I        | None    | None       |
| 1049611                       | IRQ/13/2025 | Water Buffalo | 99.85  | 0       | SAT1     | I        | None    | None       |
| FMDV VP1 Prototype Sequences* |             |               |        |         |          |          |         |            |
| 15209                         | TAN/T155/71 | Cattle        | 87.90  | 0       | SAT1     | I        | None    | None       |

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

# Tree



# Analysis Parameters

Query sequence set: WRLMEG/2025/000021  
Number of related sequences reported: 94  
Number of prototype sequences in tree: 6  
Minimal VP1 subsequence match length: 610  
Sequence alignment length: 659

Number of sequences in tree capped at: 100  
Sequence alignment method: MAFFT 7.522  
Phylogeny reconstruction method: IQ-TREE 2.26  
Number of bootstrap samples: 1000  
Displaying bootstrap values above: 75

## FMDV VP1 Sequences included in the Phylogenetic Tree

| Sequence Name  | GenBank Accession | Host          | Ref Lab | Country  | FMDV Taxonomy | Pubmed Reference Number |
|----------------|-------------------|---------------|---------|----------|---------------|-------------------------|
| KEN/21/2004    | KR188451          | Cattle        | WRLFMD  | Kenya    | SAT1/I        | 26630483                |
| KEN/24/2005    | None              | Cattle        | WRLFMD  | Kenya    | SAT1/I        | None                    |
| KEN/25/2008    | None              | Cattle        | WRLFMD  | Kenya    | SAT1/I        | None                    |
| KEN/35/2008    | None              | Cattle        | WRLFMD  | Kenya    | SAT1/I        | None                    |
| KEN/75/2010    | KR188468          | Cattle        | WRLFMD  | Kenya    | SAT1/I        | 26630483                |
| KEN/8/2017     | None              | Bovine        | WRLFMD  | Kenya    | SAT1/I        | None                    |
| KEN/K75/2016 * | MN116691          | Bovine        | PIADC   | Kenya    | SAT1/I        | None                    |
| BAR/1/2025     | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/3/2025     | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/5/2025     | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/6/2025     | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/18/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/25/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/37/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/39/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/47/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/49/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/50/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/51/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/52/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| BAR/55/2025    | None              | Cattle        | WRLFMD  | Bahrain  | SAT1/I        | None                    |
| IRQ/1/2025     | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/2/2025     | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/3/2025     | None              | Cattle        | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/4/2025     | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/11/2025    | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/13/2025    | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/16/2025    | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/18/2025    | None              | Cattle        | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/19/2025    | None              | Cattle        | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/22/2025    | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| IRQ/23/2025    | None              | Water Buffalo | WRLFMD  | Iraq     | SAT1/I        | None                    |
| TUR/264/2025 * | None              |               | FMDI    | Turkiye  | SAT1/I        | None                    |
| TUR/290/2025 * | None              |               | FMDI    | Turkiye  | SAT1/I        | None                    |
| TUR/295/2025 * | None              |               | FMDI    | Turkiye  | SAT1/I        | None                    |
| T116/2016 *    | MH931420          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T32/2016 *     | MH931413          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T33/2016 *     | MH931418          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T41/2016 *     | MH936366          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T64/2016 *     | MH931407          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T82/2016 *     | MH931411          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| T94/2016 *     | MH931415          | Cattle        | PAU     | Tanzania | SAT1/I        | None                    |
| TAN/1/96 *     | AY442003          | Cattle        | OVI     | Tanzania | SAT1/I        | 17187294                |
| TAN/11/2014    | MF592672          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/12/2014    | MF592673          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/13/2014    | MF592674          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/17/2014    | MF592677          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/18/2014    | MF592678          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/19/2014    | MF592679          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/19/96 *    | AY442013          |               | OVI     | Tanzania | SAT1/I        | 17187294                |
| TAN/19/99      | KF561714          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/2/71       | KF561707          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/2/96 *     | AY442001          |               | OVI     | Tanzania | SAT1/I        | 17187294                |
| TAN/20/2013    | MF592655          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/20/2014    | MF592680          | Bovine        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/21/2013    | None              | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/21/99      | KF561715          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/23/2013    | MF592657          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/24/2013    | MF592658          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/25/2013    | MF592659          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/25/99      | KF561716          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |
| TAN/26/99      | KF561717          | Cattle        | WRLFMD  | Tanzania | SAT1/I        | None                    |

## FMDV VP1 Sequences included in the Phylogenetic Tree (continued)

| Sequence Name       | GenBank Accession | Host            | Ref Lab  | Country  | FMDV Taxonomy | Pubmed Reference Number |
|---------------------|-------------------|-----------------|----------|----------|---------------|-------------------------|
| TAN/27/2013         | MF592661          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/28/2014         | MF592686          | Bovine          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/29/2013         | MF592662          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/3/80            | KF561709          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/30/2013         | MF592663          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/31/2013         | MF592664          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/32/2013         | None              | Cattle          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/33/2014         | MF592690          | Bovine          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/34/2014         | MF592691          | Bovine          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/41/2014         | MF592696          | Bovine          | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN/5/96 *          | AY442007          | Cattle          | OVI      | Tanzania | SAT1/I        | 17187294                |
| TAN/51/99 *         | AY442004          | Cattle          | OVI      | Tanzania | SAT1/I        | 17187294                |
| TAN/60/99           | KF561721          | Blue Wildebeest | WRLFMD   | Tanzania | SAT1/I        | None                    |
| TAN-7815-2014       | MH791040          | Cattle          | WRLFMD   | Tanzania | SAT1/I        | 30740915                |
| TAN-SUA-2017-0198 * | None              | Cattle          | SUA      | Tanzania | SAT1/I        | None                    |
| TAN-SUA-2017-0205 * | None              | Cattle          | SUA      | Tanzania | SAT1/I        | None                    |
| TAN-SUA-2017-0214 * | None              | Cattle          | SUA      | Tanzania | SAT1/I        | None                    |
| BUN/1/99            | None              | Cattle          | WRLFMD   | Burundi  | SAT1/I        | None                    |
| BUN/2/99            | None              | Cattle          | WRLFMD   | Burundi  | SAT1/I        | None                    |
| BUN/5/99            | None              | Cattle          | WRLFMD   | Burundi  | SAT1/I        | None                    |
| MSV/TZ/03/2020 *    | OQ615916          | Zebu            | SUA      | Tanzania | SAT1/I        | None                    |
| K110/81 *           | HQ267521          | Cattle          | MAKERERE | Kenya    | SAT1/I        | 21118525                |
| K21/06 *            | HQ267528          | Cattle          | MAKERERE | Kenya    | SAT1/I        | 21118525                |
| K28/06 *            | HQ267529          | Cattle          | MAKERERE | Kenya    | SAT1/I        | 21118525                |
| K303/83             | MH053320          | Cattle          | WRLFMD   | Kenya    | SAT1/I        | 29652800                |
| K54/2016 *          | MK238991          | Cattle          | KAGRC    | Kenya    | SAT1/I        | None                    |
| K59/2016 *          | MK238992          | Cattle          | KAGRC    | Kenya    | SAT1/I        | None                    |
| K60/2016 *          | MK238993          | Cattle          | KAGRC    | Kenya    | SAT1/I        | None                    |
| K71/2016 *          | MK238994          | Cattle          | KAGRC    | Kenya    | SAT1/I        | None                    |
| K96/99 *            | HQ267523          | Cattle          | MAKERERE | Kenya    | SAT1/I        | 21118525                |
| KEN/1/2017          | None              | Cattle          | WRLFMD   | Kenya    | SAT1/I        | None                    |
| KEN/10/2006         | KR188454          | Cattle          | WRLFMD   | Kenya    | SAT1/I        | 26630483                |

\* Not a WRLFMD Reference Number;

^ Not Available