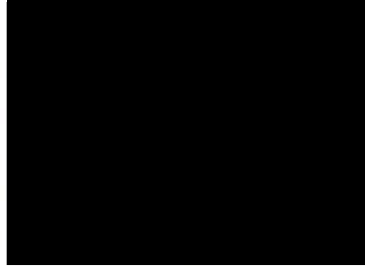




## FMD Genotyping Reports

Lab Reference WRL batch Number: WRLFMD/2026/000001

Sender Details:



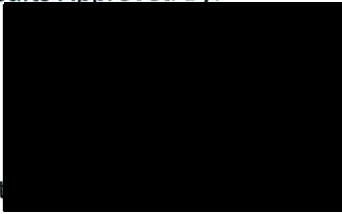
Date Received: 28<sup>th</sup> January 2026

Country of Origin\*: South Africa

Work has now been completed in respect of the samples recently submitted and the details are as attached.

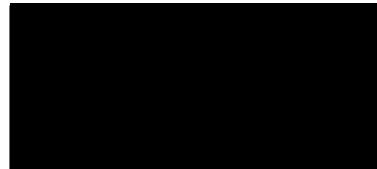
Please note that all our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Results Approved By:



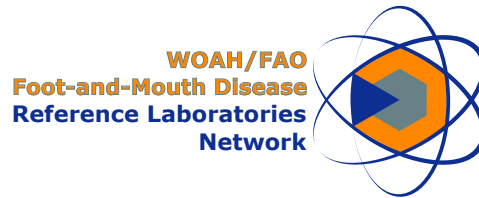
Date:

Official Stamp:



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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**Downloaded on:** 13 February 2026

**Citation:** WRLFMD. 2026. FMDV Genotyping Report [WRLFMD/2026/000001]. (Accessed 13/02/26)

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**FMDV serotype:** SAT1

**Country:** South Africa

**Year:** 2025

**Batch:** WRLFMD/2026/000001

**No. of sequences:** 5

**Reported date:** 13 February 2026

**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: SAR/2/2025

## Sample details

<b>Reception Date:</b>	2026-01-28
<b>Sender reference:</b>	25/4741-3
<b>Location of origin:</b>	Jozini, KwaZulu-Natal
<b>Country of origin:</b>	South Africa
<b>Date of collection:</b>	2025-09-22
<b>Host species:</b>	cattle

## Genotyping details

<b>Serotype:</b>	SAT1
<b>Topotype:</b>	II
<b>Lineage:</b>	None
<b>Sublineage:</b>	None

## Sequencing details

<b>Material submitted for sequencing:</b>	OS and WRL-LFBK1
<b>Material Harvest Date:</b>	NA
<b>Sequence length:</b>	657
<b>Ambiguities:</b>	0

## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
14012	KNP/11/03	Cattle	89.97	0	SAT1	II	None	None
13937	SAR/8/02	Cattle	87.98	0	SAT1	II	None	None
19328	ZIM/P26/90_HV-30	African Buffalo	85.15	0	SAT1	II	None	None
14082	KNP/196/91	African Buffalo	85.08	0	SAT1	II	None	None
854446	KNP/196/91-Pig	African Buffalo	85.08	0	SAT1	II	None	None
14212	unknown		84.93	0	SAT1	II	None	None
19324	ZIM/P26/90_HV-29	African Buffalo	84.93	0	SAT1	II	None	None
854445	KNP/196/91-Parental	African Buffalo	84.93	0	SAT1	II	None	None
854447	KNP/196/91-Recombinant	African Buffalo	84.93	0	SAT1	II	None	None
14186	KNP/7/03	Cattle	84.80	0	SAT1	II	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
13415	RV/11/37	Greater Kudu	84.47	0	SAT1	II	None	None
13400	RHO/5/66	Cattle	84.02	0	SAT1	II	None	None
15209	TAN/T155/71	Cattle	79.31	0	SAT1	I	None	None
19096	ZIM/23/2003	African Buffalo	77.00	0	SAT1	I	None	None
11146	MOZ/1/75	Cattle	76.72	0	SAT1	XIII	None	None

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

# Virus sample: SAR/3/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/5500-2
Location of origin:	Worcester, Western Cape
Country of origin:	South Africa
Date of collection:	2025-11-04
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.63	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.63	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.63	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.48	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.48	0	SAT1	III	None	None
19041	ZIM/13/2003		88.75	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.75	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.75	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.75	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.75	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.24	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.77	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.45	0	SAT1	I	None	None

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

# Virus sample: SAR/6/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6309-2
Location of origin:	Sasolburg, Free State
Country of origin:	South Africa
Date of collection:	2025-12-01
Host species:	pig

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.48	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.48	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.48	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.33	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.33	0	SAT1	III	None	None
19041	ZIM/13/2003		88.91	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.91	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.91	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.91	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.91	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.39	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.92	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None

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

# Virus sample: SAR/7/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6370-1
Location of origin:	Lichtenburg, North West
Country of origin:	South Africa
Date of collection:	2025-12-08
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.48	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.48	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.48	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.33	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.33	0	SAT1	III	None	None
19041	ZIM/13/2003		88.91	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.91	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.91	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.91	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.91	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.09	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.92	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.75	0	SAT1	I	None	None

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

# Virus sample: SAR/8/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6349-3
Location of origin:	Middeldrift, Emalahleni, Mpumalanga
Country of origin:	South Africa
Date of collection:	2025-12-09
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

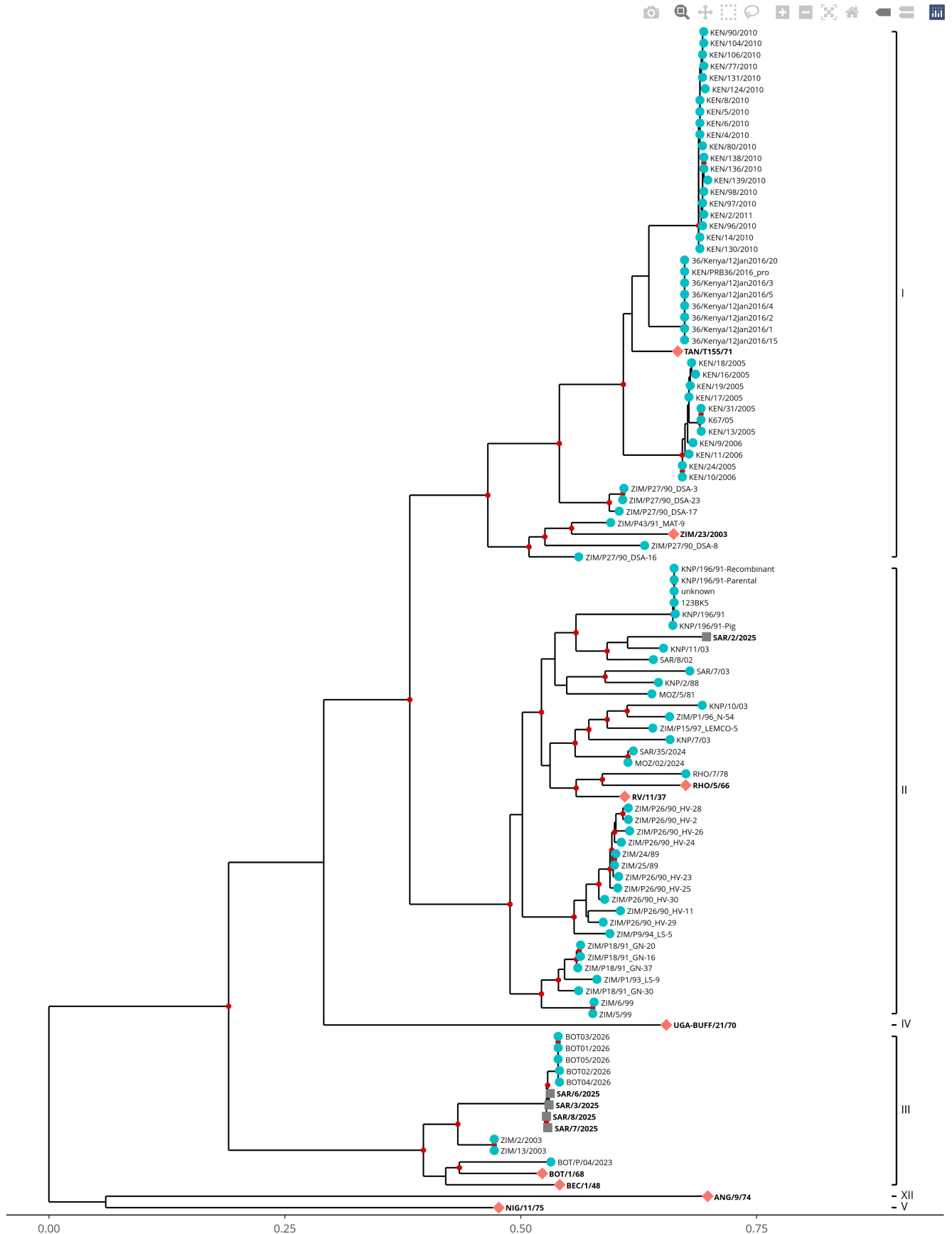
## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.63	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.63	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.63	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.48	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.48	0	SAT1	III	None	None
19041	ZIM/13/2003		89.06	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	89.06	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	89.06	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	89.06	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	89.06	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.24	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.77	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.75	0	SAT1	I	None	None

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

# Tree

■ Uploaded sequence ● Database sequence ◆ Reference sequence



# Analysis Parameters

**Query sequence set:** WRLFMD/2026/000001  
**Number of related sequences reported:** 90  
**Number of prototype sequences in tree:** 9  
**Minimal VP1 subsequence match length:** 610  
**Sequence alignment length:** 666

**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

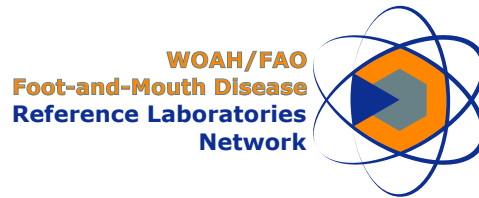
Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
KEN/2/2011	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/24/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/31/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/4/2010	KR188458	Hartebeest	WRLFMD	Kenya	SAT1/I	26630483
KEN/5/2010	KR188459	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/6/2010	KR188460	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/7/2010	KR188470	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/8/2010	KR188461	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/80/2010	KR188472	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/9/2006	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/90/2010	KR188474	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/96/2010	KR188477	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/97/2010	KR188478	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/98/2010	KR188479	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/PRB36/2016_pro *	MH882593	African Buffalo	PIADC	Kenya	SAT1/I	None
SAR/35/2024 *	None	Bovine	OVI	South Africa	SAT1/II	None
MOZ/5/81	MH053321	Cattle	WRLFMD	Mozambique	SAT1/II	29652800
MOZ/02/2024 *	None	Bovine	BVI	Mozambique	SAT1/II	None
RHO/7/78	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
BOT01/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT02/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT03/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT04/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT05/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
SAR/7/03 *	KJ999910	Cattle	OVI	South Africa	SAT1/II	None
SAR/8/02 *	KJ999909	Cattle	OVI	South Africa	SAT1/II	None
123BK5 *	KR108951		OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/10/03 *	KJ999916	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/11/03 *	KJ999917	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/196/91 *	AF283429	African Buffalo	OVI	South Africa (Kruger National Park)	SAT1/II	12036580
KNP/2/88	None	African Buffalo	WRLFMD	South Africa (Kruger National Park)	SAT1/II	None
KNP/7/03 *	KJ999915	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
unknown *	KR108962		OVI	South Africa (Kruger National Park)	SAT1/II	None
ZIM/13/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/2/2003	None	Bovine	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/24/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/25/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/5/99	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/6/99	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/93_LS-9	MT385600	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/96_N-54	MT385613	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P15/97_LEMCO-5	MT385616	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-16	MT385572	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-20	MT385574	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-30	MT385576	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-37	MT385579	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-11	MT385535	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-2	MT385533	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-23	MT385536	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-24	MT385537	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-25	MT385538	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-26	MT385539	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-28	MT385540	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-29	MT385541	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-30	MT385542	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P27/90_DSA-16	MT385545	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-17	MT385546	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-23	MT385548	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-3	MT385543	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-8	MT385544	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-9	MT385591	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P9/94_LS-5	MT385606	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None

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

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
BOT/P/04/2023 *	None	African Buffalo	BVI	Botswana	SAT1/III	None
KNP/196/91-Parental *	MN442538	African Buffalo	OVI	South Africa	SAT1/II	None
KNP/196/91-Pig *	MN442539	African Buffalo	OVI	South Africa	SAT1/II	None
KNP/196/91-Recombinant *	MN442540	African Buffalo	OVI	South Africa	SAT1/II	None
36/Kenya/12Jan2016/1 *	OM562535	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/15 *	OM562536	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/2 *	OM562537	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/20 *	OM562538	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/3 *	OM562539	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/4 *	OM562540	Bovine	KSU	Kenya	SAT1/I	None
36/Kenya/12Jan2016/5 *	OM562541	Bovine	KSU	Kenya	SAT1/I	None
K67/05 *	HQ267526	Cattle	MAKERERE	Kenya	SAT1/I	21118525
KEN/10/2006	KR188454	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/104/2010	KR188483	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/106/2010	KR188485	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/11/2006	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/124/2010	KR188501	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/13/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/130/2010	KR188505	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/131/2010	KR188506	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/136/2010	KR188509	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/138/2010	KR188510	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/139/2010	KR188511	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/14/2010	KR188465	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/16/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/17/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/18/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/19/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None

\* Not a WRLFMD Reference Number;

^ Not Available



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

## FMDV Genotyping Report

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**Downloaded on:** 13 February 2026

**Citation:** WRLFMD. 2026. FMDV Genotyping Report [WRLFMD/2026/000001]. (Accessed 13/02/26)

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**FMDV serotype:** SAT1

**Country:** South Africa

**Year:** 2025

**Batch:** WRLFMD/2026/000001

**No. of sequences:** 1

**Reported date:** 13 February 2026

**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: SAR/2/2025

## Sample details

<b>Reception Date:</b>	2026-01-28
<b>Sender reference:</b>	25/4741-3
<b>Location of origin:</b>	Jozini, KwaZulu-Natal
<b>Country of origin:</b>	South Africa
<b>Date of collection:</b>	2025-09-22
<b>Host species:</b>	cattle

## Genotyping details

<b>Serotype:</b>	SAT1
<b>Topotype:</b>	II
<b>Lineage:</b>	None
<b>Sublineage:</b>	None

## Sequencing details

<b>Material submitted for sequencing:</b>	OS and WRL-LFBK1
<b>Material Harvest Date:</b>	NA
<b>Sequence length:</b>	657
<b>Ambiguities:</b>	0

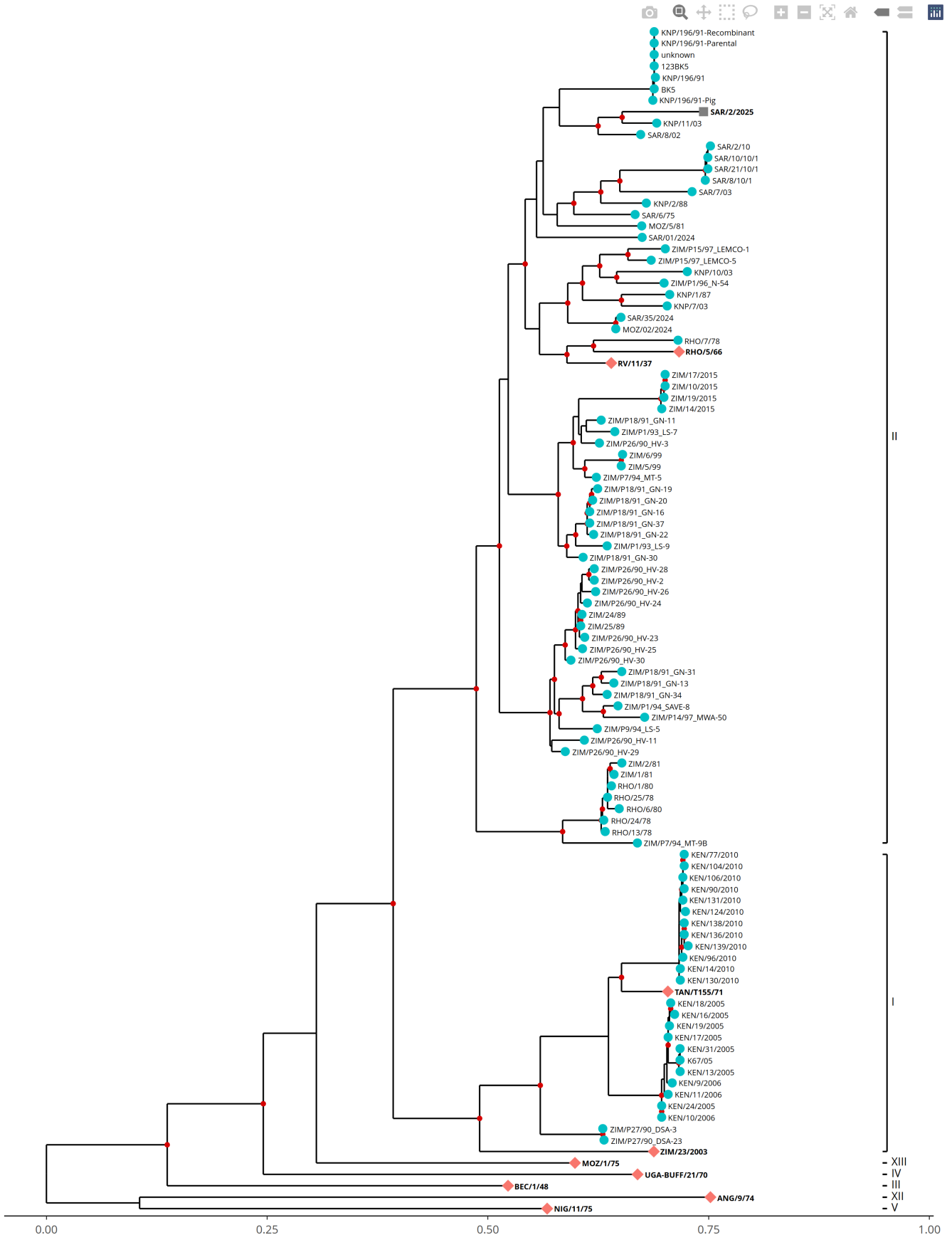
## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
14012	KNP/11/03	Cattle	89.97	0	SAT1	II	None	None
13937	SAR/8/02	Cattle	87.98	0	SAT1	II	None	None
19328	ZIM/P26/90_HV-30	African Buffalo	85.15	0	SAT1	II	None	None
14082	KNP/196/91	African Buffalo	85.08	0	SAT1	II	None	None
854446	KNP/196/91-Pig	African Buffalo	85.08	0	SAT1	II	None	None
14212	unknown		84.93	0	SAT1	II	None	None
19324	ZIM/P26/90_HV-29	African Buffalo	84.93	0	SAT1	II	None	None
854445	KNP/196/91-Parental	African Buffalo	84.93	0	SAT1	II	None	None
854447	KNP/196/91-Recombinant	African Buffalo	84.93	0	SAT1	II	None	None
14186	KNP/7/03	Cattle	84.80	0	SAT1	II	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
13415	RV/11/37	Greater Kudu	84.47	0	SAT1	II	None	None
13400	RHO/5/66	Cattle	84.02	0	SAT1	II	None	None
15209	TAN/T155/71	Cattle	79.31	0	SAT1	I	None	None
19096	ZIM/23/2003	African Buffalo	77.00	0	SAT1	I	None	None
11146	MOZ/1/75	Cattle	76.72	0	SAT1	XIII	None	None

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

# Tree

■ Uploaded sequence   
 ● Database sequence   
 ◆ Reference sequence



# Analysis Parameters

**Query sequence set:** WRLFMD/2026/000001  
**Number of related sequences reported:** 94  
**Number of prototype sequences in tree:** 9  
**Minimal VP1 subsequence match length:** 610  
**Sequence alignment length:** 665

**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

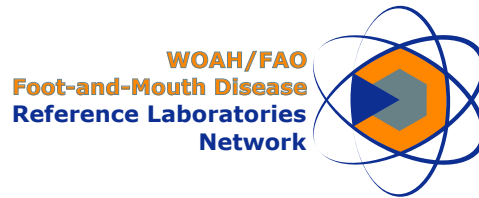
Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
KEN/24/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/31/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/77/2010	KR188470	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/9/2006	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/90/2010	KR188474	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/96/2010	KR188477	Cattle	WRLFMD	Kenya	SAT1/I	26630483
SAR/01/2024 *	None	Bovine	OVI	South Africa	SAT1/II	None
SAR/35/2024 *	None	Bovine	OVI	South Africa	SAT1/II	None
MOZ/5/81	MH053321	Cattle	WRLFMD	Mozambique	SAT1/II	29652800
MOZ/02/2024 *	None	Bovine	BVI	Mozambique	SAT1/II	None
RHO/1/80	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
RHO/13/78	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
RHO/24/78	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
RHO/25/78	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
RHO/6/80	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
RHO/7/78	None	Cattle	WRLFMD	Rhodesia	SAT1/II	None
SAR/2/10 *	KJ999913	Cattle	OVI	South Africa	SAT1/II	None
SAR/6/75	None	Cattle	WRLFMD	South Africa	SAT1/II	None
SAR/7/03 *	KJ999910	Cattle	OVI	South Africa	SAT1/II	None
SAR/8/02 *	KJ999909	Cattle	OVI	South Africa	SAT1/II	None
123BK5 *	KR108951		OVI	South Africa (Kruger National Park)	SAT1/II	None
BK5 *	KR108953		OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/1/87	None	African Buffalo	WRLFMD	South Africa (Kruger National Park)	SAT1/II	None
KNP/10/03 *	KJ999916	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/11/03 *	KJ999917	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/196/91 *	AF283429	African Buffalo	OVI	South Africa (Kruger National Park)	SAT1/II	12036580
KNP/2/88	None	African Buffalo	WRLFMD	South Africa (Kruger National Park)	SAT1/II	None
KNP/7/03 *	KJ999915	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
unknown *	KR108962		OVI	South Africa (Kruger National Park)	SAT1/II	None
ZIM/1/81	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/10/2015	None	Bovine	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/14/2015	None	Bovine	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/17/2015	None	Bovine	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/19/2015	None	Bovine	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/2/81	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/24/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/25/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/5/99	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/6/99	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/93_LS-7	MT385599	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/93_LS-9	MT385600	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/94_SAVE-8	MT385601	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/96_N-54	MT385613	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P14/97_MWA-50	MT385614	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P15/97_LEMCO-1	MT385615	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P15/97_LEMCO-5	MT385616	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-11	MT385569	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-13 *	GU194497	African Buffalo	OVI	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-16	MT385572	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-19	MT385573	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-20	MT385574	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-22	MT385575	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-30	MT385576	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-31	MT385577	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-34	MT385578	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-37	MT385579	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-11	MT385535	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-2	MT385533	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-23	MT385536	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-24	MT385537	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-25	MT385538	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-26	MT385539	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None

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

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
ZIM/P26/90_HV-28	MT385540	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-29	MT385541	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-3	MT385534	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-30	MT385542	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P27/90_DSA-23	MT385548	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-3	MT385543	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P7/94_MT-5	MT385602	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P7/94_MT-9B	MT385603	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P9/94_LS-5	MT385606	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
KNP/196/91-Parental *	MN442538	African Buffalo	OVI	South Africa	SAT1/II	None
KNP/196/91-Pig *	MN442539	African Buffalo	OVI	South Africa	SAT1/II	None
KNP/196/91-Recombinant *	MN442540	African Buffalo	OVI	South Africa	SAT1/II	None
SAR/8/10/1 *	MT227872	Zebu	OVI	South Africa	SAT1/II	None
SAR/10/10/1 *	MT227873	Zebu	OVI	South Africa	SAT1/II	None
SAR/21/10/1 *	MT227874	Zebu	OVI	South Africa	SAT1/II	None
K67/05 *	HQ267526	Cattle	MAKERERE	Kenya	SAT1/I	21118525
KEN/10/2006	KR188454	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/104/2010	KR188483	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/106/2010	KR188485	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/11/2006	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/124/2010	KR188501	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/13/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/130/2010	KR188505	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/131/2010	KR188506	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/136/2010	KR188509	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/138/2010	KR188510	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/139/2010	KR188511	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/14/2010	KR188465	Cattle	WRLFMD	Kenya	SAT1/I	26630483
KEN/16/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/17/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/18/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None
KEN/19/2005	None	Cattle	WRLFMD	Kenya	SAT1/I	None

\* Not a WRLFMD Reference Number;

^ Not Available



# 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:** 13 February 2026

**Citation:** WRLFMD. 2026. FMDV Genotyping Report [WRLFMD/2026/000001]. (Accessed 13/02/26)

---

**FMDV serotype:** SAT1

**Country:** South Africa

**Year:** 2025

**Batch:** WRLFMD/2026/000001

**No. of sequences:** 4

**Reported date:** 13 February 2026

**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: SAR/3/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/5500-2
Location of origin:	Worcester, Western Cape
Country of origin:	South Africa
Date of collection:	2025-11-04
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.63	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.63	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.63	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.48	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.48	0	SAT1	III	None	None
19041	ZIM/13/2003		88.75	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.75	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.75	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.75	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.75	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.24	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.77	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.45	0	SAT1	I	None	None

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

# Virus sample: SAR/6/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6309-2
Location of origin:	Sasolburg, Free State
Country of origin:	South Africa
Date of collection:	2025-12-01
Host species:	pig

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.48	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.48	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.48	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.33	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.33	0	SAT1	III	None	None
19041	ZIM/13/2003		88.91	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.91	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.91	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.91	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.91	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.39	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.92	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None

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

# Virus sample: SAR/7/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6370-1
Location of origin:	Lichtenburg, North West
Country of origin:	South Africa
Date of collection:	2025-12-08
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	WRL-LFBK1
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
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.48	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.48	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.48	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.33	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.33	0	SAT1	III	None	None
19041	ZIM/13/2003		88.91	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.91	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.91	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.91	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.91	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.09	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.92	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.75	0	SAT1	I	None	None

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

# Virus sample: SAR/8/2025

## Sample details

Reception Date:	2026-01-28
Sender reference:	25/6349-3
Location of origin:	Middeldrift, Emalahleni, Mpumalanga
Country of origin:	South Africa
Date of collection:	2025-12-09
Host species:	cattle

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	OS and WRL-LFBK1
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

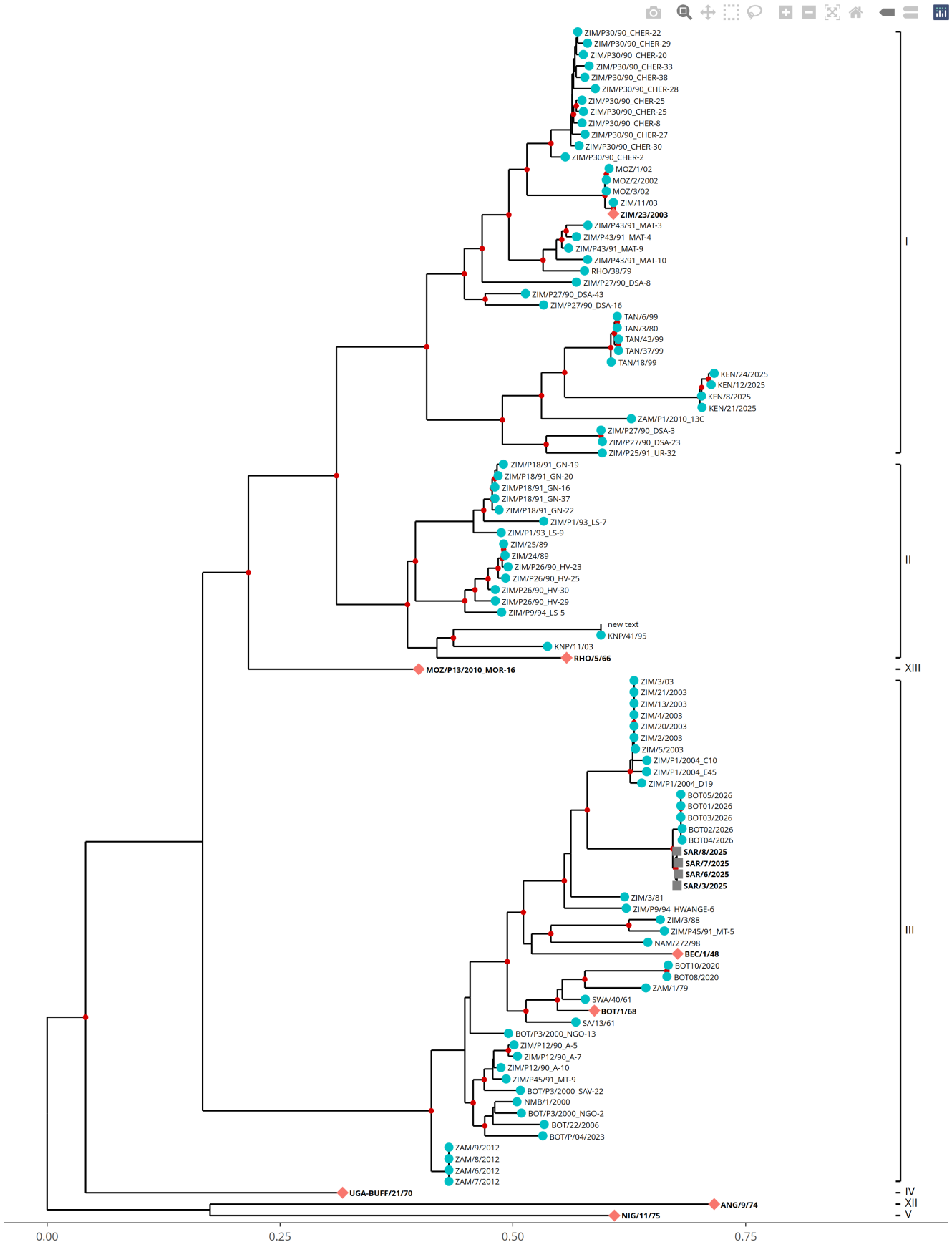
## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
1373865	BOT01/2026	Bovine	98.63	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.63	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.63	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.48	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.48	0	SAT1	III	None	None
19041	ZIM/13/2003		89.06	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	89.06	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	89.06	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	89.06	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	89.06	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.24	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.77	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.75	0	SAT1	I	None	None

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

# Tree

■ Uploaded sequence ● Database sequence ◆ Reference sequence



# Analysis Parameters

**Query sequence set:** WRLFMD/2026/000001  
**Number of related sequences reported:** 92  
**Number of prototype sequences in tree:** 8  
**Minimal VP1 subsequence match length:** 610  
**Sequence alignment length:** 669

**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
MOZ/1/02 *	KJ999928	Cattle	OVI	Mozambique	SAT1/I	None
MOZ/2/2002	None		WRLFMD	Mozambique	SAT1/I	None
MOZ/3/02 *	DQ009720		OVI	Mozambique	SAT1/I	None
NAM/272/98 *	KJ999921	African Buffalo	OVI	Namibia	SAT1/III	None
NMB/1/2000	None	Bovine	WRLFMD	Namibia	SAT1/III	None
RHO/38/79	None	Cattle	WRLFMD	Rhodesia	SAT1/I	None
KEN/8/2025	None	Bovine	WRLFMD	Kenya	SAT1/I	None
KEN/12/2025	None	Bovine	WRLFMD	Kenya	SAT1/I	None
KEN/21/2025	None	Bovine	WRLFMD	Kenya	SAT1/I	None
KEN/24/2025	None	Bovine	WRLFMD	Kenya	SAT1/I	None
BOT01/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT02/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT03/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT04/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT05/2026 *	None	Bovine	BVI	Botswana	SAT1/III	None
SA/13/61 *	AY593842	Cattle	PIADC	South Africa	SAT1/III	15858032
KNP/11/03 *	KJ999917	Cattle	OVI	South Africa (Kruger National Park)	SAT1/II	None
KNP/41/95 *	GU194498	African Buffalo	OVI	South Africa (Kruger National Park)	SAT1/II	None
-	-	-	-	-	-	-
SWA/40/61 *	AY593843		PIADC	South West Africa	SAT1/III	15858032
TAN/18/99	KF561713	Cattle	WRLFMD	Tanzania	SAT1/I	None
TAN/3/80 *	AY442006	Cattle	OVI	Tanzania	SAT1/I	17187294
TAN/37/99 *	AY442005	Cattle	OVI	Tanzania	SAT1/I	17187294
TAN/43/99	KF561719	Cattle	WRLFMD	Tanzania	SAT1/I	None
TAN/6/99	KF561712	Cattle	WRLFMD	Tanzania	SAT1/I	None
ZAM/1/79	None		WRLFMD	Zambia	SAT1/III	None
ZAM/6/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/7/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/8/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/9/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/P1/2010_13C	None	Cattle	WRLFMD	Zambia	SAT1/I	None
ZIM/11/03 *	KJ999927	African Buffalo	OVI	Zimbabwe	SAT1/I	None
ZIM/13/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/2/2003	None	Bovine	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/20/2003	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/21/2003	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/24/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/25/89	None	Cattle	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/3/03 *	KJ999926	Cattle	OVI	Zimbabwe	SAT1/III	None
ZIM/3/81	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/3/88	MT385529	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/4/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/5/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_C10	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_D19	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_E45	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/93_LS-7	MT385599	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P1/93_LS-9	MT385600	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P12/90_A-10	MT385532	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P12/90_A-5	MT385530	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P12/90_A-7	MT385531	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P18/91_GN-16	MT385572	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-19	MT385573	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-20	MT385574	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-22	MT385575	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P18/91_GN-37	MT385579	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P25/91_UR-32	MT385585	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P26/90_HV-23	MT385536	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-25	MT385538	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-29	MT385541	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-30	MT385542	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P27/90_DSA-16	MT385545	African Buffalo	WRLFMD	Zimbabwe	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
ZIM/P27/90_DSA-23	MT385548	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-3	MT385543	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-43	MT385553	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P27/90_DSA-8	MT385544	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-2	MT385555	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-20	MT385558	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-22	MT385559	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-25 *	GU194499	African Buffalo	OVI	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-25	MT385560	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-27	MT385561	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-28	MT385562	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-29	MT385563	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-30	MT385564	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-33	MT385565	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-38	MT385566	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-8	MT385556	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-10	MT385592	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-3	MT385588	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-4	MT385589	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-9	MT385591	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P45/91_MT-5	MT385594	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P45/91_MT-9	MT385596	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P9/94_HWANGE-6	MT385605	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P9/94_LS-5	MT385606	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
BOT/22/2006	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_NGO-13	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_NGO-2	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_SAV-22	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT08/2020 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT10/2020 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT/P/04/2023 *	None	African Buffalo	BVI	Botswana	SAT1/III	None

\* Not a WRLFMD Reference Number;

^ Not Available