

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

FMDV Genotyping Report

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Citation: WRLFMD. 2026. FMDV Genotyping Report [WRLMEG/2026/000006]. (Accessed 11/02/26)

FMDV serotype: SAT1

Country: Eswatini

Year: 2025

Batch: WRLMEG/2026/000006

No. of sequences: 1

Reported date: 11 February 2026

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

Email: reporting@pirbright.ac.uk

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FMDtype is supported through funding from

Virus sample: SWZ18/2025

Sample details

Reception Date:	2026-02-09
Sender reference:	SWA18/2025
Location of origin:	Nkonjane
Country of origin:	Eswatini
Date of collection:	NA
Host species:	bovine

Genotyping details

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

Sequencing details

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

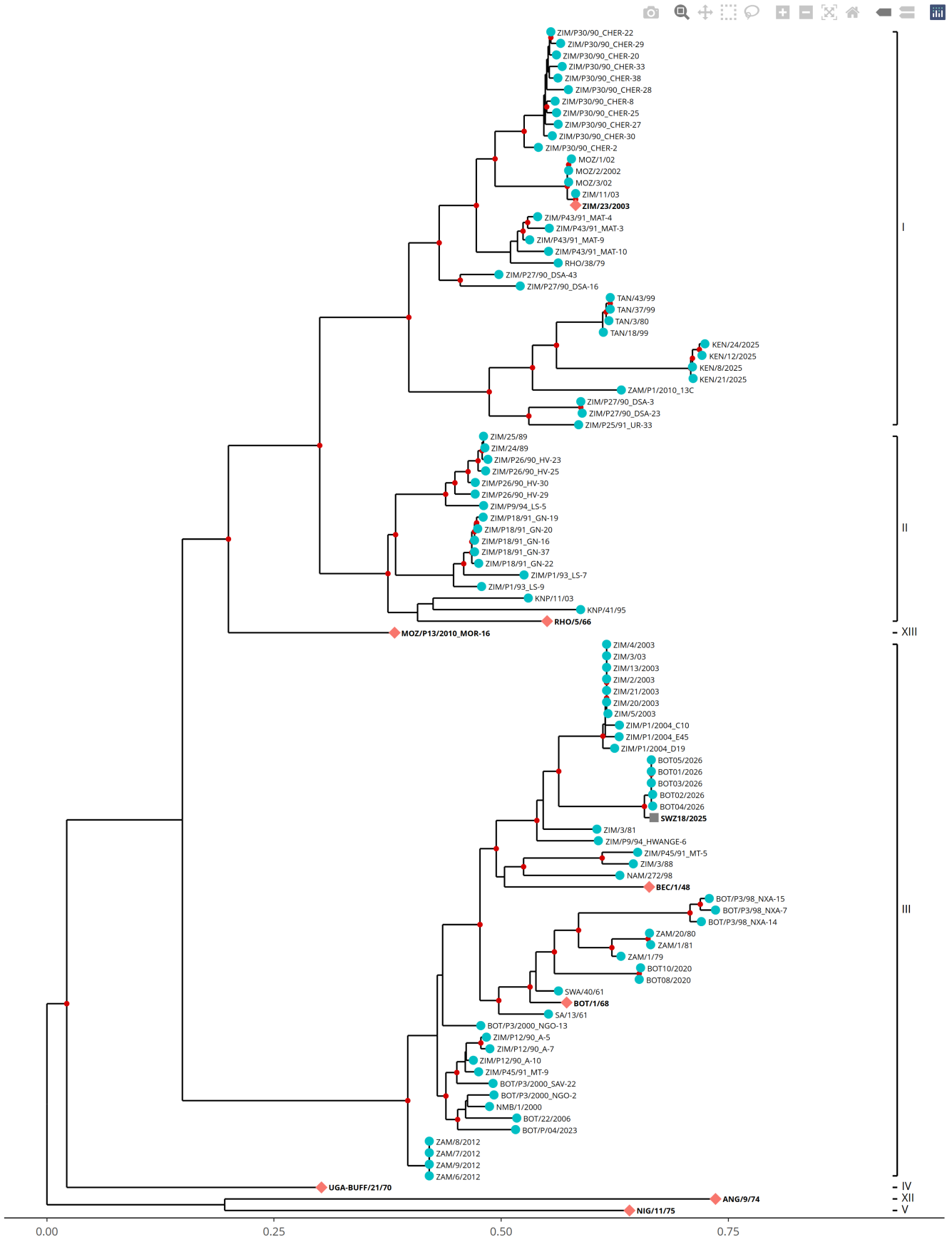
Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
1373865	BOT01/2026	Bovine	98.17	0	SAT1	III	None	None
1373867	BOT03/2026	Bovine	98.17	0	SAT1	III	None	None
1373869	BOT05/2026	Bovine	98.17	0	SAT1	III	None	None
1373866	BOT02/2026	Bovine	98.02	0	SAT1	III	None	None
1373868	BOT04/2026	Bovine	98.02	0	SAT1	III	None	None
19041	ZIM/13/2003		88.30	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.30	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.30	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.30	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.30	0	SAT1	III	None	None
FMDV VP1 Prototype Sequences*								
3410	BOT/1/68	Cattle	84.39	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	75.60	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: WRLMEG/2026/000006
Number of related sequences reported: 94
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
ZAM/1/79	None		WRLFMD	Zambia	SAT1/III	None
ZAM/1/81	None	Cattle	WRLFMD	Zambia	SAT1/III	None
ZAM/20/80	None	Cattle	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-33	MT385586	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/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-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
BOT/P3/98_NXA-14	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_NXA-15	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_NXA-7	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

From: [Nick Knowles](#)
To: [Donald King](#)
Cc: [Antonello Di Nardo](#); [Jemma Wadsworth](#); [Hayley Hicks](#); [Mark Henstock](#); [Reference Laboratories Reporting](#)
Subject: Genotyping reports on sequences sent by the BVI
Date: 11 February 2026 16:27:11
Attachments: [WRLMEG-2026-000006-SWZ-SAT1.pdf](#)
[WRLMEG-2026-000006-SWZ-SAT2.pdf](#)

Dear Don,

Here are two genotyping reports on VP1 sequences sent from the BVI. They are SAT1 and SAT2 sequences from virus samples from Eswatini.

Regards,

Nick

Nick Knowles MPhil

Senior Advisor: Molecular Epidemiology

t: +44 1483 231133 **e:** nick.knowles@pirbright.ac.uk **w:** <http://www.iah-virus.org/>



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The Pirbright Institute, Ash Road, Pirbright, Woking, Surrey GU24 0NF

t: +44 1483 232441 **f:** +44 1483 232448

e: enquiries@pirbright.ac.uk **w:** www.pirbright.ac.uk

