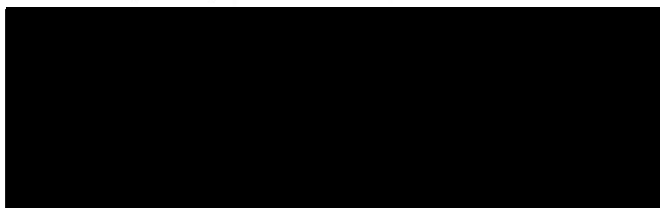




FMD Genotyping Report

Lab Reference WRL batch Number: WRLFMD/2025/000002

Sender Details:

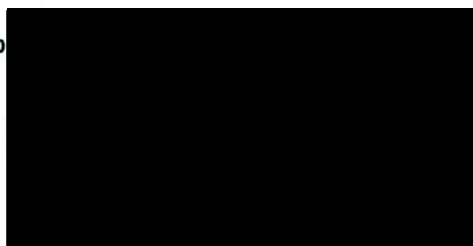


Date Received: 28/02/2025

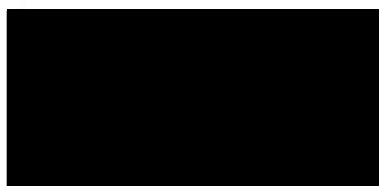
Country of Origin*: Bahrain

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 Ap



Official Stamp:



Date:

10/3/25

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).

* Data supplied by the customer

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

Genotyping Report

FMDV serotype: O
Country: Bahrain
Year: 2025
Batch: WRLFMD/2025/000002
No. of sequences: 1
Report date: 8th March 2025
Report generated by: [REDACTED]
Report checked by: [REDACTED]



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

email: reporting@pirbright.ac.uk

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Virus sample name:	BAR/47/2025
Sender reference:	SER-019 (27779 / N-785)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	21/01/2025
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	07/03/2025
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	07/03/2025
Last updated:	07/03/2025
VIBASys IDs: sample 55780, genome 55816, sequence viba_55817, sequencing info 55818	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54963	KEN/1/2023	cattle	97.2	0	O	EA-2		
viba_48624	KEN/6/2021	cattle	96.8	0	O	EA-2		
viba_48628	KEN/8/2021	cattle	96.8	0	O	EA-2		
viba_55810	TAN/04/2021	cattle	96.7	0	O	EA-2		
viba_55814	TAN/08/2021	cattle	96.5	0	O	EA-2		
viba_54955	KEN/2/2022	cattle	96.2	0	O	EA-2		
viba_54975	KEN/4/2023	cattle	95.6	0	O	EA-2		
viba_54967	KEN/2/2023	cattle	95.4	0	O	EA-2		
viba_41350	TAN-SUA-2017-0735	cattle	94.9	0	O	EA-2		
viba_54983	KEN/7/2023	cattle	94.9	0	O	EA-2		

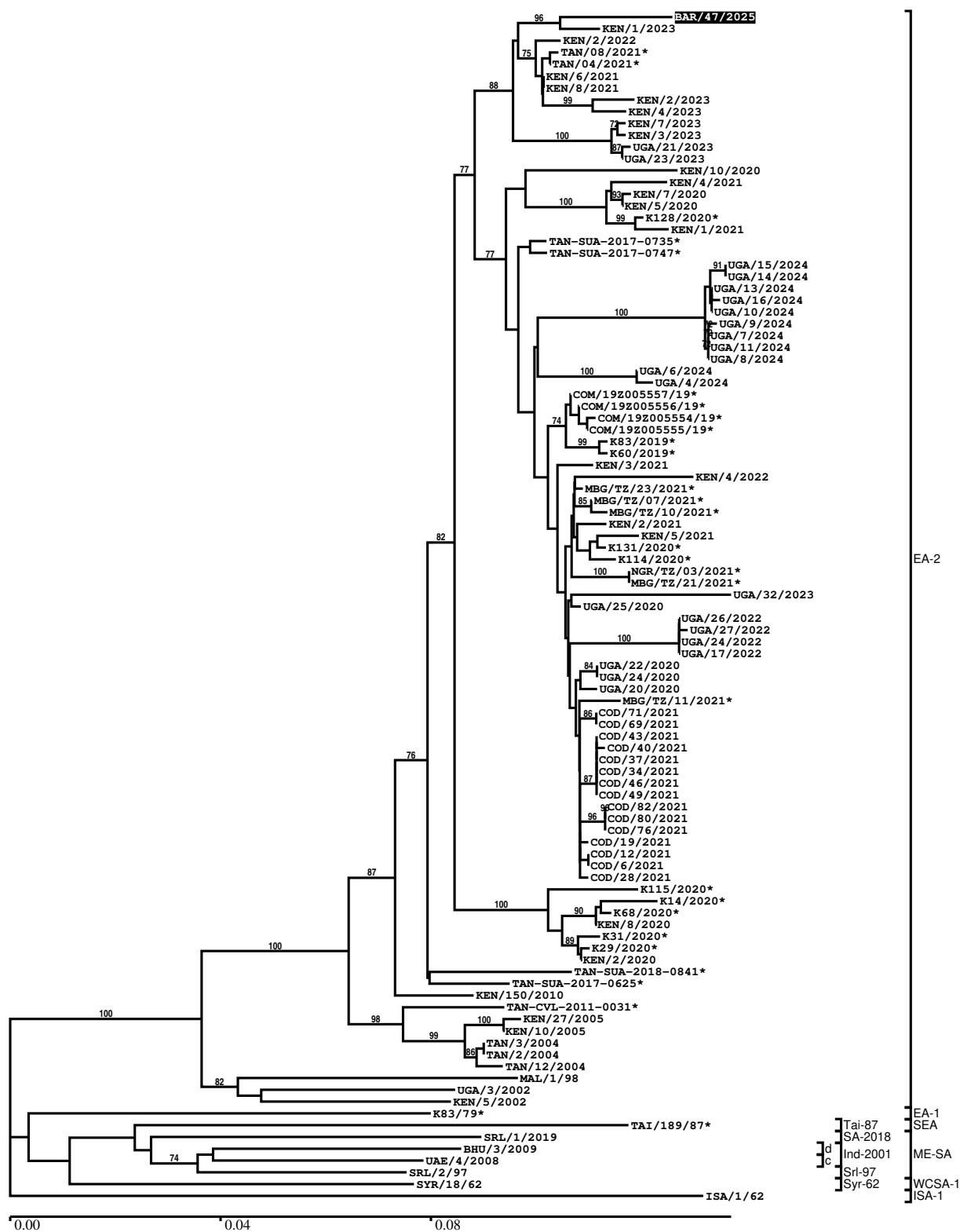
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_263	TAN/2/2004	bovine	92.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	87.7	0	O	EA-2		
viba_85	UGA/3/2002		86.6	0	O	EA-2		
viba_221	MAL/1/98		86.4	0	O	EA-2		
viba_397	UAE/4/2008	gazelle	84.2	0	O	ME-SA	Ind-2001	c
viba_47579	SRL/1/2019	cattle	83.8	0	O	ME-SA	SA-2018	
viba_27877	SRL/2/97	bovine	83.8	0	O	ME-SA	Srl-97	
viba_38646	SYR/18/62		83.6	0	O	WCSA-1	Syr-62	
viba_523	K83/79		83.6	0	O	EA-1		
viba_293	BHU/3/2009	cattle	83.5	0	O	ME-SA	Ind-2001	d

Report on FMDV O in Bahrain in 2025

Batch: WRLFMD/2025/000002



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2025/000002-Bahrain-O (1 sequences)
Sequence database set:	allseqs_O (6288 sequences)
Prototype sequence set:	!prototypes_O (58 sequences)
Number of related sequences reported:	10
Minimal VP1 subsequence match length	600
Sequence alignment method:	muscle (default parameters)
Sequence alignment length:	636
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/O

label	accession	host(s)	lab	country	taxonomic information
BAR/47/2025	n/a	cattle	WRLFMD	Bahrain	EA-2
KEN/1/2023	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/2/2022	n/a	cattle	WRLFMD	Kenya	EA-2
TAN/08/2021*	OM802510	cattle	SUA	Tanzania	EA-2
TAN/04/2021*	OM802509	cattle	SUA	Tanzania	EA-2
KEN/6/2021	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/8/2021	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/2/2023	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/4/2023	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/7/2023	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/3/2023	n/a	cattle	WRLFMD	Kenya	EA-2
UGA/21/2023	n/a	bovine	WRLFMD	Uganda	EA-2
UGA/23/2023	n/a	bovine	WRLFMD	Uganda	EA-2
KEN/10/2020	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/4/2021	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/7/2020	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/5/2020	n/a	cattle	WRLFMD	Kenya	EA-2
K128/2020*	OP184910	bovine	EMBAKASI	Kenya	EA-2
KEN/1/2021	n/a	cattle	WRLFMD	Kenya	EA-2
TAN-SUA-2017-0735*	n/a	cattle	SUA	Tanzania	EA-2
TAN-SUA-2017-0747*	n/a	cattle	SUA	Tanzania	EA-2
UGA/15/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/14/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/13/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/16/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/10/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/9/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/7/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/11/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/8/2024	n/a	n/a	WRLFMD	Uganda	EA-2
UGA/6/2024	n/a	bovine	WRLFMD	Uganda	EA-2
UGA/4/2024	n/a	bovine	WRLFMD	Uganda	EA-2
COM/19Z005557/19*	n/a	cattle	ANSES	Comoros	EA-2
COM/19Z005556/19*	n/a	cattle	ANSES	Comoros	EA-2
COM/19Z005554/19*	n/a	cattle	ANSES	Comoros	EA-2
COM/19Z005555/19*	n/a	cattle	ANSES	Comoros	EA-2

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label	accession	host(s)	lab	country	taxonomic information
K83/2019*	OP184915	bovine	EMBAKASI	Kenya	EA-2
K60/2019*	OP184914	bovine	EMBAKASI	Kenya	EA-2
KEN/3/2021	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/4/2022	n/a	cattle	WRLFMD	Kenya	EA-2
MBG/TZ/23/2021*	OQ615919	zebu cattle	SUA	Tanzania	EA-2
MBG/TZ/07/2021*	OQ615920	zebu cattle	SUA	Tanzania	EA-2
MBG/TZ/10/2021*	OQ615921	zebu cattle	SUA	Tanzania	EA-2
KEN/2/2021	n/a	cattle	WRLFMD	Kenya	EA-2
KEN/5/2021	n/a	cattle	WRLFMD	Kenya	EA-2
K131/2020*	OP184912	bovine	EMBAKASI	Kenya	EA-2
K114/2020*	OP184913	bovine	EMBAKASI	Kenya	EA-2
NGR/TZ/03/2021*	OQ615917	zebu cattle	SUA	Tanzania	EA-2
MBG/TZ/21/2021*	OQ615918	zebu cattle	SUA	Tanzania	EA-2
UGA/32/2023	n/a	bovine	WRLFMD	Uganda	EA-2
UGA/25/2020	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/26/2022	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/27/2022	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/24/2022	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/17/2022	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/22/2020	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/24/2020	n/a	cattle	WRLFMD	Uganda	EA-2
UGA/20/2020	n/a	cattle	WRLFMD	Uganda	EA-2
MBG/TZ/11/2021*	OQ615922	zebu cattle	SUA	Tanzania	EA-2
COD/71/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/69/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/43/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/40/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/37/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/34/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/46/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/49/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/82/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/80/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/76/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/19/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/12/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/6/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/28/2021	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2

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label	accession	host(s)	lab	country	taxonomic information
K115/2020*	OP184902	bovine	EMBAKASI	Kenya	EA-2
K14/2020*	OP184908	bovine	EMBAKASI	Kenya	EA-2
K68/2020*	OP184909	bovine	EMBAKASI	Kenya	EA-2
KEN/8/2020	n/a	cattle	WRLFMD	Kenya	EA-2
K31/2020*	OP184906	bovine	EMBAKASI	Kenya	EA-2
K29/2020*	OP184903	bovine	EMBAKASI	Kenya	EA-2
KEN/2/2020	n/a	cattle	WRLFMD	Kenya	EA-2
TAN-SUA-2018-0841*	n/a	porcine	SUA	Tanzania	EA-2
TAN-SUA-2017-0625*	n/a	cattle	SUA	Tanzania	EA-2
KEN/150/2010	KF135286	cattle	WRLFMD	Kenya	EA-2
TAN-CVL-2011-0031*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
KEN/27/2005	KF135274	cattle	WRLFMD	Kenya	EA-2
KEN/10/2005	n/a	cattle	WRLFMD	Kenya	EA-2
TAN/3/2004	KF561680	bovine	WRLFMD	Tanzania	EA-2
TAN/2/2004	KF561679	bovine	WRLFMD	Tanzania	EA-2
TAN/12/2004	KF561681	bovine	WRLFMD	Tanzania	EA-2
MAL/1/98	DQ165074	n/a	WRLFMD	Malawi	EA-2
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
KEN/5/2002	DQ165073	bovine	WRLFMD	Kenya	EA-2
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA/Tai-87
SRL/1/2019	n/a	cattle	WRLFMD	Sri Lanka	ME-SA/SA-2018
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
SRL/2/97	AJ303531	bovine	WRLFMD	Sri Lanka	ME-SA/Srl-97
SYR/18/62	MK390935	n/a	WRLFMD	Syria	WCSA-1/Syr-62
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available