



FMD Genotyping Report

Lab Reference WRL batch Number: WRLFMD/2025/000018

Sender Details:



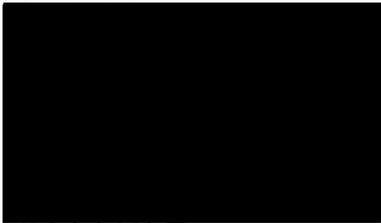
Date Received: 04/12/2025

Country of Origin*: EGYPT

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

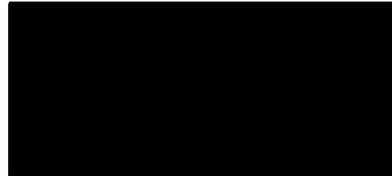
Please note that all our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

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).

* Data supplied by the customer



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

FMDV Genotyping Report

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Citation: WRLFMD. 2025. FMDV Genotyping Report [WRLFMD/2025/000018]. (Accessed 16/12/25)

FMDV serotype: A

Country: Egypt

Year: 2025

Batch: WRLFMD/2025/000018

No. of sequences: 1

Reported date: 16 December 2025

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

Email: reporting@pirbright.ac.uk

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FMDtype is supported through funding from

Virus sample: EGY/1/2025

Sample details

Reception Date:	2025-12-04
Sender reference:	RL/61
Location of origin:	Abdullah Village/EISantta, EISantta, Gharbyia
Country of origin:	Egypt
Date of collection:	2025-04-13
Host species:	cattle

Genotyping details

Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
Sublineage:	None

Sequencing details

Material submitted for sequencing:	WRL-LFBK1
Material Harvest Date:	2025-12-09
Sequence length:	633
Ambiguities:	0

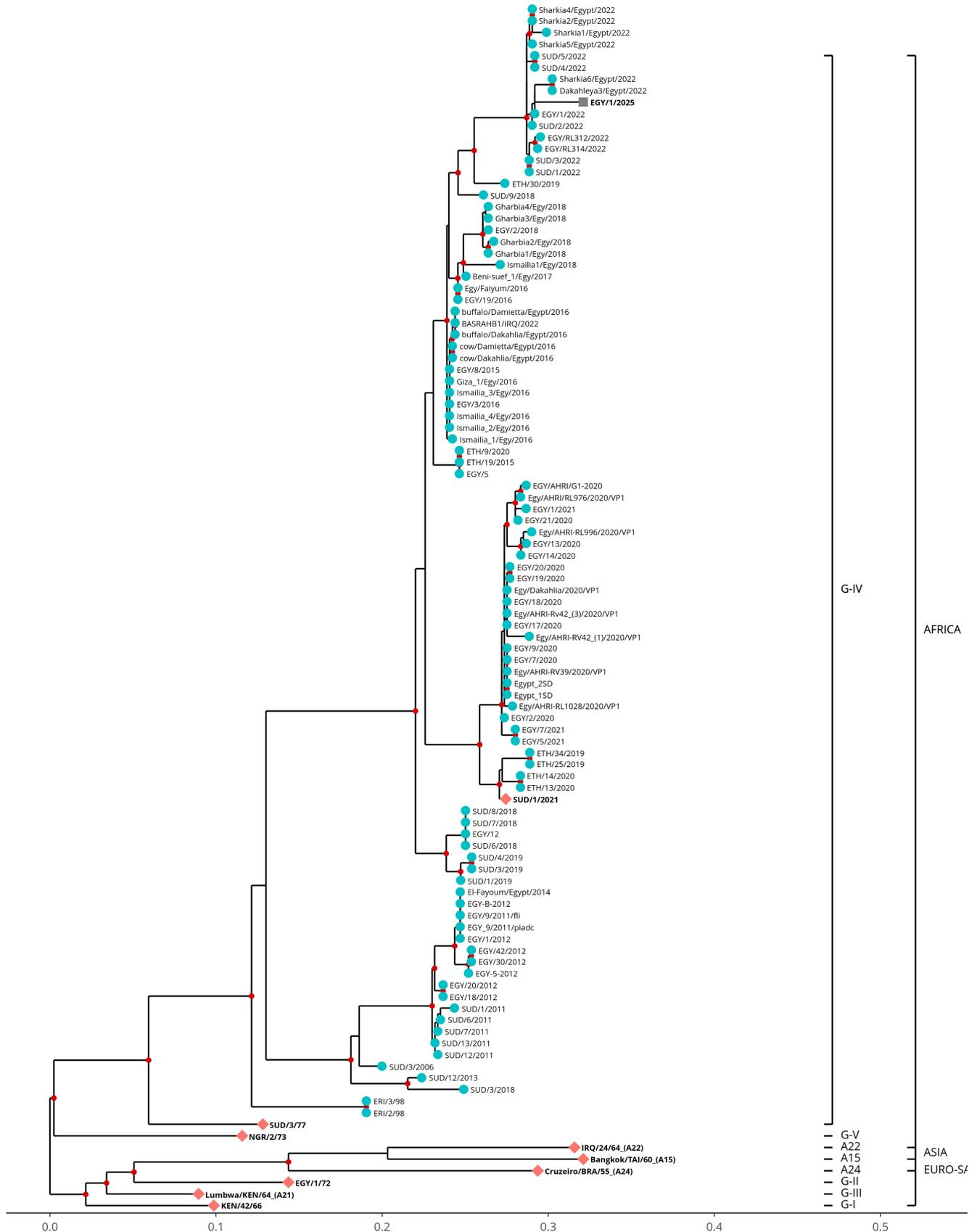
Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
296490	EGY/1/2022	Cattle	97.31	0	A	AFRICA	G-IV	None
296631	SUD/2/2022	Cattle	97.16	0	A	AFRICA	G-IV	None
296630	SUD/1/2022	Cattle	97.00	0	A	AFRICA	G-IV	None
296632	SUD/3/2022	Cattle	97.00	0	A	AFRICA	G-IV	None
855775	Sharkia2/Egypt/2022	Water Buffalo	96.86	0	A	AFRICA	G-IV	None
855777	Sharkia4/Egypt/2022	Cattle	96.86	0	A	AFRICA	G-IV	None
855778	Sharkia5/Egypt/2022	Cattle	96.86	0	A	AFRICA	G-IV	None
296633	SUD/4/2022	Cattle	96.68	0	A	AFRICA	G-IV	None
296634	SUD/5/2022	Cattle	96.68	0	A	AFRICA	G-IV	None
855867	EGY/RL314/2022	Cattle	96.44	0	A	AFRICA	G-IV	None
FMDV VP1 Prototype Sequences*								
296629	SUD/1/2021	Cattle	89.89	0	A	AFRICA	G-IV	None
14718	SUD/3/77	Cattle	83.57	0	A	AFRICA	G-IV	None
11670	NGR/2/73	Cattle	83.01	0	A	AFRICA	G-V	None
10103	KEN/42/66	Cattle	82.65	0	A	AFRICA	G-I	None
4935	EGY/1/72	Bovine	82.04	0	A	AFRICA	G-II	None
17154	UGA/13/66	Cattle	80.73	0	A	AFRICA	G-VII	None
17478	UKG/119/32_(A12)	Cattle	80.69	0	A	EURO-SA	A12	None
5839	Allier/FRA/60_(A5)	Cattle	80.56	0	A	EURO-SA	A5	None
10049	KEN/29/2005	Cattle	80.19	0	A	AFRICA	G-VII	None
559	Alem/ARG/81	Cattle	80.03	0	A	EURO-SA	A-81	None

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

Tree

■ Uploaded sequence
 ● Database sequence
 ◆ Reference sequence



Analysis Parameters

Query sequence set: WRLFMD/2025/000018
Number of related sequences reported: 94
Number of prototype sequences in tree: 9
Minimal VP1 subsequence match length: 610
Sequence alignment length: 634

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
SUD/1/2011	MK422575	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/12/2011	MK422579	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/12/2013	MK422583	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/13/2011	MK422578	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/3/2006	GU566070	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	20626708
SUD/3/2018	MK422589	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/6/2011	MK422576	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/6/2018	MK422591	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/7/2011	MK422577	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/7/2018	MK422592	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/8/2018	MK422593	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/9/2018	MK422594	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
EGY/2/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/7/2020	None	Water Buffalo	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/9/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/13/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/14/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/17/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/18/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/19/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/20/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/21/2020	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/1/2021	None	Water Buffalo	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/5/2021	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/7/2021	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/1/2022	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
ETH/25/2019	PQ847908	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
ETH/30/2019	PQ847909	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
ETH/34/2019	PQ847910	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
ETH/9/2020	PQ847912	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
ETH/13/2020	PQ847913	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
ETH/14/2020	PQ847914	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
SUD/1/2019	PQ587554	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/3/2019	PQ587555	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/4/2019	PQ587556	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/1/2022	PQ587558	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/2/2022	PQ587559	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/3/2022	PQ587560	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/4/2022	PQ587561	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
SUD/5/2022	PQ587562	Cattle	WRLFMD	Sudan	A/AFRICA/G-IV	None
EGY_9/2011/piadc *	KC440881		PIADC	Egypt	A/AFRICA/G-IV	None
EGY_9/2011/fli *	KY825726		FLI	Egypt	A/AFRICA/G-IV	28442328
BASRAHB1/IRQ/2022 *	LC771233	Water Buffalo	U-BASRAH	Iraq	A/AFRICA/G-IV	None
Beni-suef_1/Egy/2017 *	MF322693		MEVAC	Egypt	A/AFRICA/G-IV	None
EGY/1/2012	MK422572		WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/18/2012	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/19/2016	MK572799	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/2/2018	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/20/2012	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/3/2016	MK422574	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/30/2012	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/42/2012	None	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/8/2015	MK422573	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
Egy/Faiyum/2016 *	MG552843	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
EGY-5-2012 *	None		AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
EGY-B-2012 *	None		AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
El-Fayoum/Egypt/2014 *	KP940474	Cattle	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Giza_1/Egy/2016 *	KX447000	Cattle	SCU	Egypt	A/AFRICA/G-IV	None
Ismailia_1/Egy/2016 *	KX446996	Cattle	SCU	Egypt	A/AFRICA/G-IV	None
Ismailia_2/Egy/2016 *	KX446997	Cattle	SCU	Egypt	A/AFRICA/G-IV	None
Ismailia_3/Egy/2016 *	KX446998	Cattle	SCU	Egypt	A/AFRICA/G-IV	None
Ismailia_4/Egy/2016 *	KX446999	Cattle	SCU	Egypt	A/AFRICA/G-IV	None

FMDV VP1 Sequences included in the Phylogenetic Tree (continued)

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
ERI/2/98	KX258044	Bovine	WRLFMD	Eritrea	A/AFRICA/G-IV	27718336
ERI/3/98	KX258045	Bovine	WRLFMD	Eritrea	A/AFRICA/G-IV	27718336
ETH/19/2015	MN987497	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
cow/Dakahlia/Egypt/2016 *	MT863264	Cattle	FLI	Egypt	A/AFRICA/G-IV	32899903
cow/Damietta/Egypt/2016 *	MT863265	Cattle	FLI	Egypt	A/AFRICA/G-IV	32899903
buffalo/Damietta/Egypt/2016 *	MT863266	Water Buffalo	FLI	Egypt	A/AFRICA/G-IV	32899903
buffalo/Dakahlia/Egypt/2016 *	MT863267	Water Buffalo	FLI	Egypt	A/AFRICA/G-IV	32899903
Egy/AHRI-RL1028/2020/VP1 *	MW413345	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Egy/AHRI-RL996/2020/VP1 *	MW413346	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Egy/AHRI-RV39/2020/VP1 *	MW413347	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Egy/AHRI/RL976/2020/VP1 *	MW413348	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Egy/AHRI-RV42_(1)/2020/VP1 *	MW413350	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Egy/AHRI-Rv42_(3)/2020/VP1 *	MW413351	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	34980196
Ismailia1/Egy/2018 *	MW792216	Cattle And Buffalo	SCU	Egypt	A/AFRICA/G-IV	None
Gharbia1/Egy/2018 *	MW792217	Cattle And Buffalo	SCU	Egypt	A/AFRICA/G-IV	None
Gharbia2/Egy/2018 *	MW792218	Cattle And Buffalo	SCU	Egypt	A/AFRICA/G-IV	None
Gharbia3/Egy/2018 *	MW792219	Cattle And Buffalo	SCU	Egypt	A/AFRICA/G-IV	None
Gharbia4/Egy/2018 *	MW792220	Cattle And Buffalo	SCU	Egypt	A/AFRICA/G-IV	None
Egy/Dakahlia/2020/VP1 *	OL456140	Cattle	BENHA-U	Egypt	A/AFRICA/G-IV	None
EGY/AHRI/G1-2020 *	OL769313	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
Egypt_1SD *	ON380439	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
Egypt_2SD *	ON380440	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
Sharkia1/Egypt/2022 *	OP321260	Cattle	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Sharkia2/Egypt/2022 *	OP321261	Water Buffalo	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Dakahleya3/Egypt/2022 *	OP321262	Water Buffalo	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Sharkia4/Egypt/2022 *	OP321263	Cattle	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Sharkia5/Egypt/2022 *	OP321264	Cattle	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
Sharkia6/Egypt/2022 *	OP321265	Cattle	ZAGAZIG-U	Egypt	A/AFRICA/G-IV	None
EGY/RL312/2022 *	OQ302223	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
EGY/RL314/2022 *	OQ302224	Cattle	AHRI-GIZA	Egypt	A/AFRICA/G-IV	None
EGY/5 *	PP335530	Cattles	NRC-EGYPT	Egypt	A/AFRICA/G-IV	None
EGY/12 *	PP335531	Cattles	NRC-EGYPT	Egypt	A/AFRICA/G-IV	None

* Not a WRLFMD Reference Number;

† Not Available