



FMD Genotyping Report

Lab Reference WRL batch Number: WRLFMD/2025/000017

Sender Details:



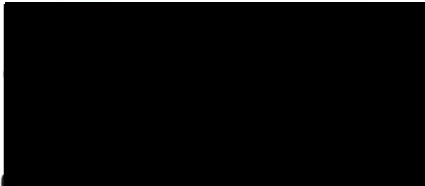
Date Received: 7/11/2025

Country of Origin*: Kenya

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

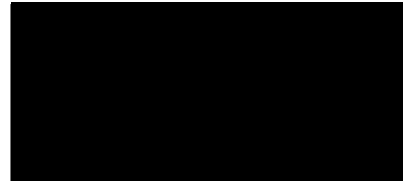
Please note that all our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Results Approved By:



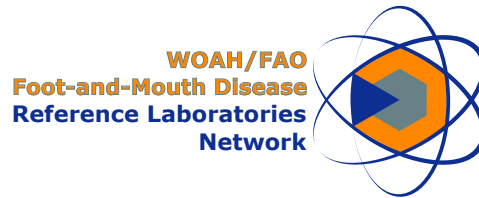
Date: 20/1/2026

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. 2026. FMDV Genotyping Report [WRLFMD/2025/000017]. (Accessed 19/01/26)

FMDV serotype: A

Country: Kenya

Year: 2023-2024

Batch: WRLFMD/2025/000017

No. of sequences: 2

Reported date: 19 January 2026

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

Email: reporting@pirbright.ac.uk

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FMDtype is supported through funding from

Virus sample: KEN/10/2023

Sample details

Reception Date:	2025-11-07
Sender reference:	K38/23
Location of origin:	Charagita, Nyandarua
Country of origin:	Kenya
Date of collection:	2023-09-06
Host species:	bovine

Genotyping details

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

Sequencing details

Material submitted for sequencing:	WRL-LFBK1
Material Harvest Date:	2025-12-02
Sequence length:	633
Ambiguities:	0

Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
659161	KEN/6/2023	Cattle	99.53	0	A	AFRICA	G-I	None
485544	KIB/TZ/05/2020	Zebu	95.97	0	A	AFRICA	G-I	None
15322	TAN-SUA-2017-0501	Cattle	94.31	0	A	AFRICA	G-I	None
15323	TAN-SUA-2017-0506	Cattle	94.31	0	A	AFRICA	G-I	None
15324	TAN-SUA-2017-0507	Cattle	94.31	0	A	AFRICA	G-I	None
10197	KEN/9/2017	Bovine	93.84	0	A	AFRICA	G-I	None
15332	TAN-SUA-2017-0633	Cattle	93.84	0	A	AFRICA	G-I	None
15333	TAN-SUA-2017-0634	Cattle	93.84	0	A	AFRICA	G-I	None
15334	TAN-SUA-2017-0635	Cattle	93.84	0	A	AFRICA	G-I	None
15048	TAN/16/2013	Cattle	93.68	0	A	AFRICA	G-I	None
FMDV VP1 Prototype Sequences*								
10103	KEN/42/66		85.65	0	A	AFRICA	G-I	None
10317	Lumbwa/KEN/64_(A21)		84.23	0	A	AFRICA	G-III	None
4935	EGY/1/72	Bovine	83.41	0	A	AFRICA	G-II	None
11670	NGR/2/73	Cattle	82.86	0	A	AFRICA	G-V	None
17154	UGA/13/66	Cattle	82.52	0	A	AFRICA	G-VII	None
10049	KEN/29/2005	Cattle	81.76	0	A	AFRICA	G-VII	None
5839	Allier/FRA/60_(A5)		81.72	0	A	EURO-SA	A5	None
17478	UKG/119/32_(A12)	Cattle	81.18	0	A	EURO-SA	A12	None
8476	IRN/22/99	Bovine	80.71	0	A	ASIA	Iran-99	None
8180	IRN/1/96	Bovine	80.51	1	A	ASIA	Iran-96	None

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

Virus sample: KEN/16/2024

Sample details

Reception Date:	2025-11-07
Sender reference:	K70/24
Location of origin:	Oldonyiva, Samburu
Country of origin:	Kenya
Date of collection:	2024-09-20
Host species:	bovine

Genotyping details

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

Sequencing details

Material submitted for sequencing:	WRL-LFBK1
Material Harvest Date:	2025-11-21
Sequence length:	633
Ambiguities:	0

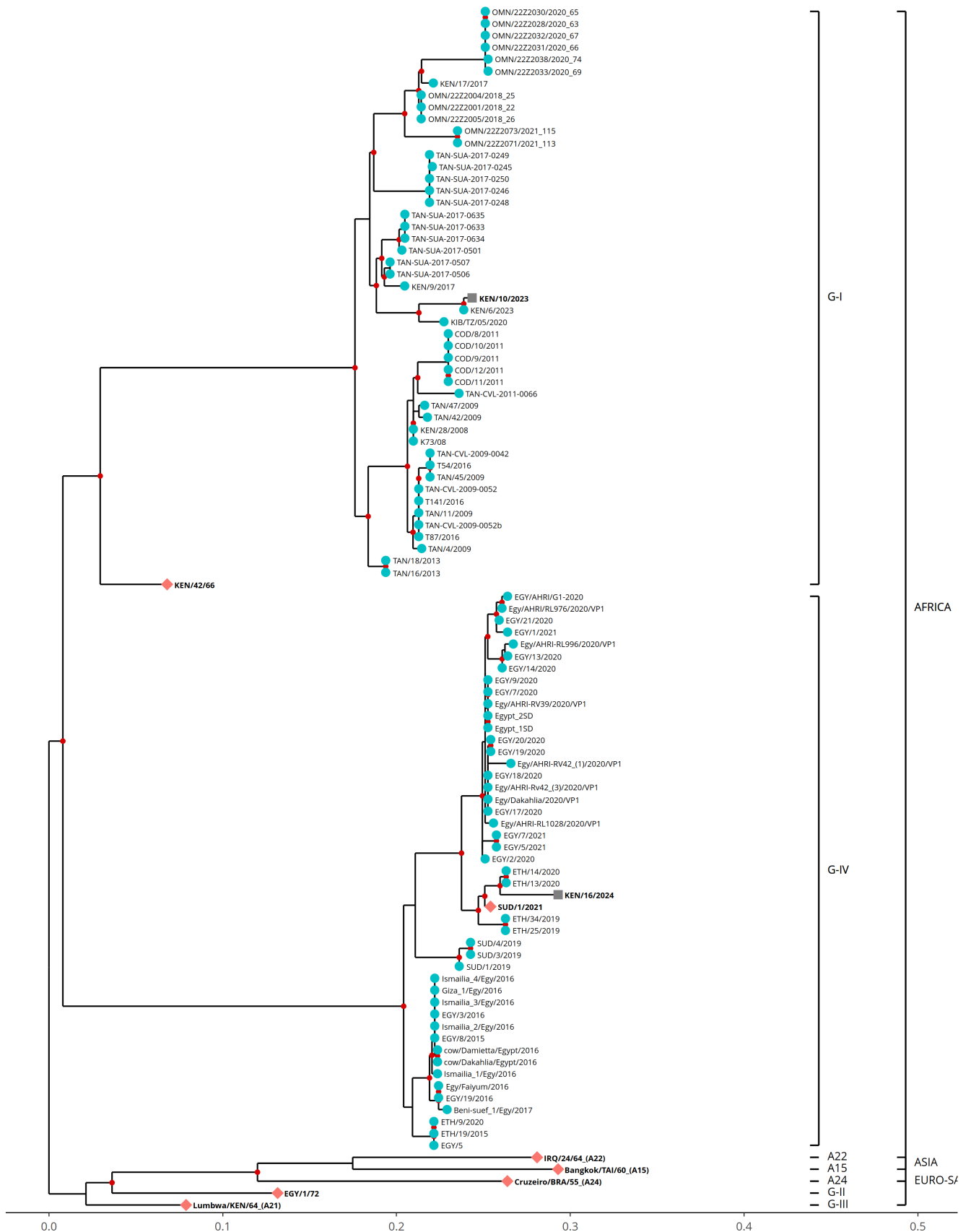
Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
296503	ETH/13/2020	Bovine	96.68	0	A	AFRICA	G-IV	None
296504	ETH/14/2020	Bovine	96.68	0	A	AFRICA	G-IV	None
296498	ETH/25/2019	Bovine	95.26	0	A	AFRICA	G-IV	None
296500	ETH/34/2019	Bovine	95.26	0	A	AFRICA	G-IV	None
855519	Egypt_1SD	Cattle	94.22	0	A	AFRICA	G-IV	None
855520	Egypt_2SD	Cattle	94.22	0	A	AFRICA	G-IV	None
296478	EGY/7/2020	Water Buffalo	94.00	0	A	AFRICA	G-IV	None
296479	EGY/9/2020	Cattle	94.00	0	A	AFRICA	G-IV	None
854757	Egy/AHRI-RV39/2020/VP1	Cattle	94.00	0	A	AFRICA	G-IV	None
296477	EGY/2/2020	Cattle	93.84	0	A	AFRICA	G-IV	None
FMDV VP1 Prototype Sequences*								
296629	SUD/1/2021	Cattle	96.05	0	A	AFRICA	G-IV	None
10103	KEN/42/66		82.97	0	A	AFRICA	G-I	None
11670	NGR/2/73	Cattle	82.73	0	A	AFRICA	G-V	None
17154	UGA/13/66	Cattle	82.14	0	A	AFRICA	G-VII	None
4935	EGY/1/72	Bovine	81.04	0	A	AFRICA	G-II	None
17478	UKG/119/32_(A12)	Cattle	80.79	0	A	EURO-SA	A12	None
15377	Bangkok/TAI/60_(A15)		80.44	0	A	ASIA	A15	None
8476	IRN/22/99	Bovine	80.31	0	A	ASIA	Iran-99	None
9031	IRQ/24/64_(A22)		80.16	0	A	ASIA	A22	None
8404	IRN/2/87	Bovine	79.78	0	A	ASIA	Iran-87	None

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

Tree

■ Uploaded sequence ● Database sequence ◆ Reference sequence



Analysis Parameters

Query sequence set: WRLFMD/2025/000017
Number of related sequences reported: 92
Number of prototype sequences in tree: 7
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
KEN/28/2008	KF561702	Cattle	WRLFMD	Kenya	A/AFRICA/G-I	None
KEN/9/2017	OQ214929	Bovine	WRLFMD	Kenya	A/AFRICA/G-I	None
T141/2016 *	MH686519	Cattle	PAU	Tanzania	A/AFRICA/G-I	None
T54/2016 *	MH686516	Cattle	PAU	Tanzania	A/AFRICA/G-I	None
T87/2016 *	MH686517	Cattle	PAU	Tanzania	A/AFRICA/G-I	None
TAN/11/2009	KF561694	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/16/2013	MF592653	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/18/2013	MF592654	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/4/2009	KF561692	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/42/2009	KF561695	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/45/2009	KF561696	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN/47/2009	KF561697	Cattle	WRLFMD	Tanzania	A/AFRICA/G-I	None
TAN-CVL-2009-0042 *	KJ947814	Cattle	CVL-TAN	Tanzania	A/AFRICA/G-I	None
TAN-CVL-2009-0052 *	KJ947812	Bovine	CVL-TAN	Tanzania	A/AFRICA/G-I	None
TAN-CVL-2009-0052b *	KJ947822	Cattle	CVL-TAN	Tanzania	A/AFRICA/G-I	None
TAN-CVL-2011-0066 *	KJ947819	Bovine	CVL-TAN	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0245 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0246 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0248 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0249 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0250 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0501 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0506 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0507 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0633 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0634 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	None
TAN-SUA-2017-0635 *	None	Cattle	SUA	Tanzania	A/AFRICA/G-I	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
ETH/25/2019	PQ847908	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
OMN/22Z2001/2018_22 *	OQ240509	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2004/2018_25 *	OQ240510	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2005/2018_26 *	OQ240511	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2028/2020_63 *	OQ240512	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2030/2020_65 *	OQ240513	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2031/2020_66 *	OQ240514	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2032/2020_67 *	OQ240515	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2033/2020_69 *	OQ240516	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2038/2020_74 *	OQ240517	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2071/2021_113 *	OQ240506	Cattle	ANSES	Oman	A/AFRICA/G-I	None
OMN/22Z2073/2021_115 *	OQ240508	Cattle	ANSES	Oman	A/AFRICA/G-I	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
COD/10/2011	None	Cattle	WRLFMD	Democratic Republic of the Congo	A/AFRICA/G-I	None
COD/11/2011	None	Cattle	WRLFMD	Democratic Republic of the Congo	A/AFRICA/G-I	None
COD/12/2011	None	Cattle	WRLFMD	Democratic Republic of the Congo	A/AFRICA/G-I	None

FMDV VP1 Sequences included in the Phylogenetic Tree (continued)

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
COD/8/2011	None	Cattle	WRLFMD	Democratic Republic of the Congo	A/AFRICA/G-I	None
COD/9/2011	None	Cattle	WRLFMD	Democratic Republic of the Congo	A/AFRICA/G-I	None
KIB/TZ/05/2020 *	OQ615923	Zebu	SUA	Tanzania	A/AFRICA/G-I	None
Beni-suef_1/Egy/2017 *	MF322693		MEVAC	Egypt	A/AFRICA/G-IV	None
EGY/19/2016	MK572799	Cattle	WRLFMD	Egypt	A/AFRICA/G-IV	None
EGY/3/2016	MK422574	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
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
ETH/19/2015	MN987497	Bovine	WRLFMD	Ethiopia	A/AFRICA/G-IV	None
KEN/6/2023	None	Cattle	WRLFMD	Kenya	A/AFRICA/G-I	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
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
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
EGY/5 *	PP335530	Cattles	NRC-EGYPT	Egypt	A/AFRICA/G-IV	None
K73/08 *	KJ440870	Cattle	EMBAKASI	Kenya	A/AFRICA/G-I	24368254
KEN/17/2017	OQ214930	Bovine	WRLFMD	Kenya	A/AFRICA/G-I	None

* Not a WRLFMD Reference Number;

^ Not Available