



## FMD Supplementary Genotyping Report

Lab Reference WRL batch Number: WRLFMD/2024/000005

Sender Details:



Date Received: 20/03/2024

Country of Origin\*: Ethiopia

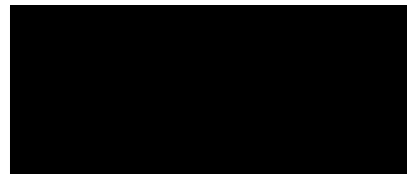
Following PCR application of the sample ETH/21/2022 using various primer sets (O, SAT1, SAT2), sequencing revealed a full type O VP1 sequence with no evidence of SAT1 or SAT 2. This has been added to the other type Os from the batch and version 2 of the genotyping report is attached.

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

Results Approved By:



Official Stamp:



Date

22/7/24

c.c.: D King, M Henstock, H Hicks, N Knowles, A Ludi, V Mioulet, J Wadsworth, B Wood, K van Maanen, M Dhingra, F Rosso, P Motta, E Palamaro, J Pinto, D Sammin, S Metwally, M Mclaws, FAO Circulation, L Bakkali-Kassimi, Min-Kyung Park, N Mapitse, WOAHA Animal Health Information, Regional WOAHA Delegate

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)

## Genotyping Report v2

FMDV serotype: O  
Country: Ethiopia  
Year: 2022  
Batch: WRLFMD/2024/000005  
No. of sequences: 6  
Report date: 7th July 2024  
Report generated by: Nick Knowles  
Report checked by: Jemma Wadsworth



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

email: [reporting@pirbright.ac.uk](mailto:reporting@pirbright.ac.uk)

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Virus sample name:	ETH/21/2022
Sender reference:	22749
Location of origin:	Bombasi mender 47, Assosa, Benshangul Gumz
Country of origin:	Ethiopia
Date of collection:	05/07/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	1
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2024
Created:	07/07/2024
Last updated:	07/07/2024
VIBASys IDs: sample 55397, genome 55398, sequence viba_55399, sequencing info 55400	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55212	ETH/96/2022	cattle	99.2	0	O	EA-3		
viba_55196	ETH/100/2022	cattle	98.9	0	O	EA-3		
viba_55208	ETH/93/2022	cattle	98.9	0	O	EA-3		
viba_55200	ETH/102/2022	cattle	98.9	0	O	EA-3		
viba_55204	ETH/103/2022	cattle	98.9	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	96.1	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.9	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.9	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.9	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.9	0	O	EA-3		

### 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_116	SUD/2/86	bovine	86.9	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.7	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	84.7	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.2	0	O	EA-3		
viba_85	UGA/3/2002		84.2	0	O	EA-2		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_850	NEP/1/2015	cattle	83.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_30238	MUR/19/2016	cattle	83.6	0	O	ME-SA	Ind-2001	e
viba_285	UKG/35/2001	porcine	83.5	0	O	ME-SA	PanAsia	

Virus sample name:	ETH/93/2022
Sender reference:	4
Location of origin:	Seyo, Kellem wollega, Oromia
Country of origin:	Ethiopia
Date of collection:	30/11/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	03/06/2024
Created:	30/06/2024
Last updated:	30/06/2024
VIBASys IDs: sample 55206, genome 55207, sequence viba_55208, sequencing info 55209	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55196	ETH/100/2022	cattle	100.0	0	O	EA-3		
viba_55200	ETH/102/2022	cattle	100.0	0	O	EA-3		
viba_55212	ETH/96/2022	cattle	99.7	0	O	EA-3		
viba_55204	ETH/103/2022	cattle	99.4	0	O	EA-3		
viba_55399	ETH/21/2022	cattle	98.9	1	O	EA-3		
viba_29586	EGY/14/2015	cattle	95.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.6	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.6	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.6	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.6	0	O	EA-3		

### 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_116	SUD/2/86	bovine	86.7	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.7	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	84.2	0	O	EA-3		
viba_408	ETH/3/2004	cattle	83.7	0	O	EA-3		
viba_617	IND/53/79	bovine	83.6	0	O	ME-SA		
viba_354	PAK/16/2010	cattle	83.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_850	NEP/1/2015	cattle	83.3	1	O	ME-SA	PanAsia-2	KAT-15
viba_705	KUW/3/97	bovine	83.3	0	O	ME-SA	Ind-2001	a
viba_30238	MUR/19/2016	cattle	83.1	0	O	ME-SA	Ind-2001	e
viba_860	IRN/6/2015	cattle	83.0	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	ETH/96/2022
Sender reference:	10
Location of origin:	Seyo, Kellem wollega, Oromia
Country of origin:	Ethiopia
Date of collection:	30/11/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	03/06/2024
Created:	30/06/2024
Last updated:	30/06/2024

VIBASys IDs: sample 55210, genome 55211, sequence viba\_55212, sequencing info 55213

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55196	ETH/100/2022	cattle	99.7	0	O	EA-3		
viba_55208	ETH/93/2022	cattle	99.7	0	O	EA-3		
viba_55200	ETH/102/2022	cattle	99.7	0	O	EA-3		
viba_55204	ETH/103/2022	cattle	99.7	0	O	EA-3		
viba_55399	ETH/21/2022	cattle	99.2	1	O	EA-3		
viba_29586	EGY/14/2015	cattle	95.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.6	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.6	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.6	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.6	0	O	EA-3		

### 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_116	SUD/2/86	bovine	86.7	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.7	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	84.2	0	O	EA-3		
viba_85	UGA/3/2002		84.1	0	O	EA-2		
viba_408	ETH/3/2004	cattle	83.7	0	O	EA-3		
viba_617	IND/53/79	bovine	83.6	0	O	ME-SA		
viba_850	NEP/1/2015	cattle	83.3	1	O	ME-SA	PanAsia-2	KAT-15
viba_705	KUW/3/97	bovine	83.3	0	O	ME-SA	Ind-2001	a
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_30238	MUR/19/2016	cattle	83.1	0	O	ME-SA	Ind-2001	e

Virus sample name:	ETH/100/2022
Sender reference:	20
Location of origin:	Seyo, Kellem wollega, Oromia
Country of origin:	Ethiopia
Date of collection:	30/11/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	03/06/2024
Created:	30/06/2024
Last updated:	30/06/2024
VIBASys IDs: sample 55194, genome 55195, sequence viba_55196, sequencing info 55197	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55208	ETH/93/2022	cattle	100.0	0	O	EA-3		
viba_55200	ETH/102/2022	cattle	100.0	0	O	EA-3		
viba_55212	ETH/96/2022	cattle	99.7	0	O	EA-3		
viba_55204	ETH/103/2022	cattle	99.4	0	O	EA-3		
viba_55399	ETH/21/2022	cattle	98.9	1	O	EA-3		
viba_29586	EGY/14/2015	cattle	95.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.6	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.6	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.6	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.6	0	O	EA-3		

### 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_116	SUD/2/86	bovine	86.7	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.7	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	84.2	0	O	EA-3		
viba_408	ETH/3/2004	cattle	83.7	0	O	EA-3		
viba_617	IND/53/79	bovine	83.6	0	O	ME-SA		
viba_354	PAK/16/2010	cattle	83.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_850	NEP/1/2015	cattle	83.3	1	O	ME-SA	PanAsia-2	KAT-15
viba_705	KUW/3/97	bovine	83.3	0	O	ME-SA	Ind-2001	a
viba_30238	MUR/19/2016	cattle	83.1	0	O	ME-SA	Ind-2001	e
viba_860	IRN/6/2015	cattle	83.0	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	ETH/102/2022
Sender reference:	23
Location of origin:	Seyo, Kellem wollega, Oromia
Country of origin:	Ethiopia
Date of collection:	30/11/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	03/06/2024
Created:	30/06/2024
Last updated:	30/06/2024
VIBASys IDs: sample 55198, genome 55199, sequence viba_55200, sequencing info 55201	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55196	ETH/100/2022	cattle	100.0	0	O	EA-3		
viba_55208	ETH/93/2022	cattle	100.0	0	O	EA-3		
viba_55212	ETH/96/2022	cattle	99.7	0	O	EA-3		
viba_55204	ETH/103/2022	cattle	99.4	0	O	EA-3		
viba_55399	ETH/21/2022	cattle	98.9	1	O	EA-3		
viba_29586	EGY/14/2015	cattle	95.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.6	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.6	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.6	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.6	0	O	EA-3		

### 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_116	SUD/2/86	bovine	86.7	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.7	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	84.2	0	O	EA-3		
viba_408	ETH/3/2004	cattle	83.7	0	O	EA-3		
viba_617	IND/53/79	bovine	83.6	0	O	ME-SA		
viba_354	PAK/16/2010	cattle	83.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_850	NEP/1/2015	cattle	83.3	1	O	ME-SA	PanAsia-2	KAT-15
viba_705	KUW/3/97	bovine	83.3	0	O	ME-SA	Ind-2001	a
viba_30238	MUR/19/2016	cattle	83.1	0	O	ME-SA	Ind-2001	e
viba_860	IRN/6/2015	cattle	83.0	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	ETH/103/2022
Sender reference:	24
Location of origin:	Seyo, Kellem wollega, Oromia
Country of origin:	Ethiopia
Date of collection:	30/11/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	OS
Harvest date of material:	n/a
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	03/06/2024
Created:	30/06/2024
Last updated:	30/06/2024
VIBASys IDs: sample 55202, genome 55203, sequence viba_55204, sequencing info 55205	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55212	ETH/96/2022	cattle	99.7	0	O	EA-3		
viba_55196	ETH/100/2022	cattle	99.4	0	O	EA-3		
viba_55208	ETH/93/2022	cattle	99.4	0	O	EA-3		
viba_55200	ETH/102/2022	cattle	99.4	0	O	EA-3		
viba_55399	ETH/21/2022	cattle	98.9	1	O	EA-3		
viba_29586	EGY/14/2015	cattle	95.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	95.6	0	O	EA-3		
viba_30370	El-Behira 2/Egy/2016	cattle	95.6	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	95.6	0	O	EA-3		
viba_39505	Egypt/54/2016	cattle	95.6	0	O	EA-3		

### Most Closely Related Prototype Sequences

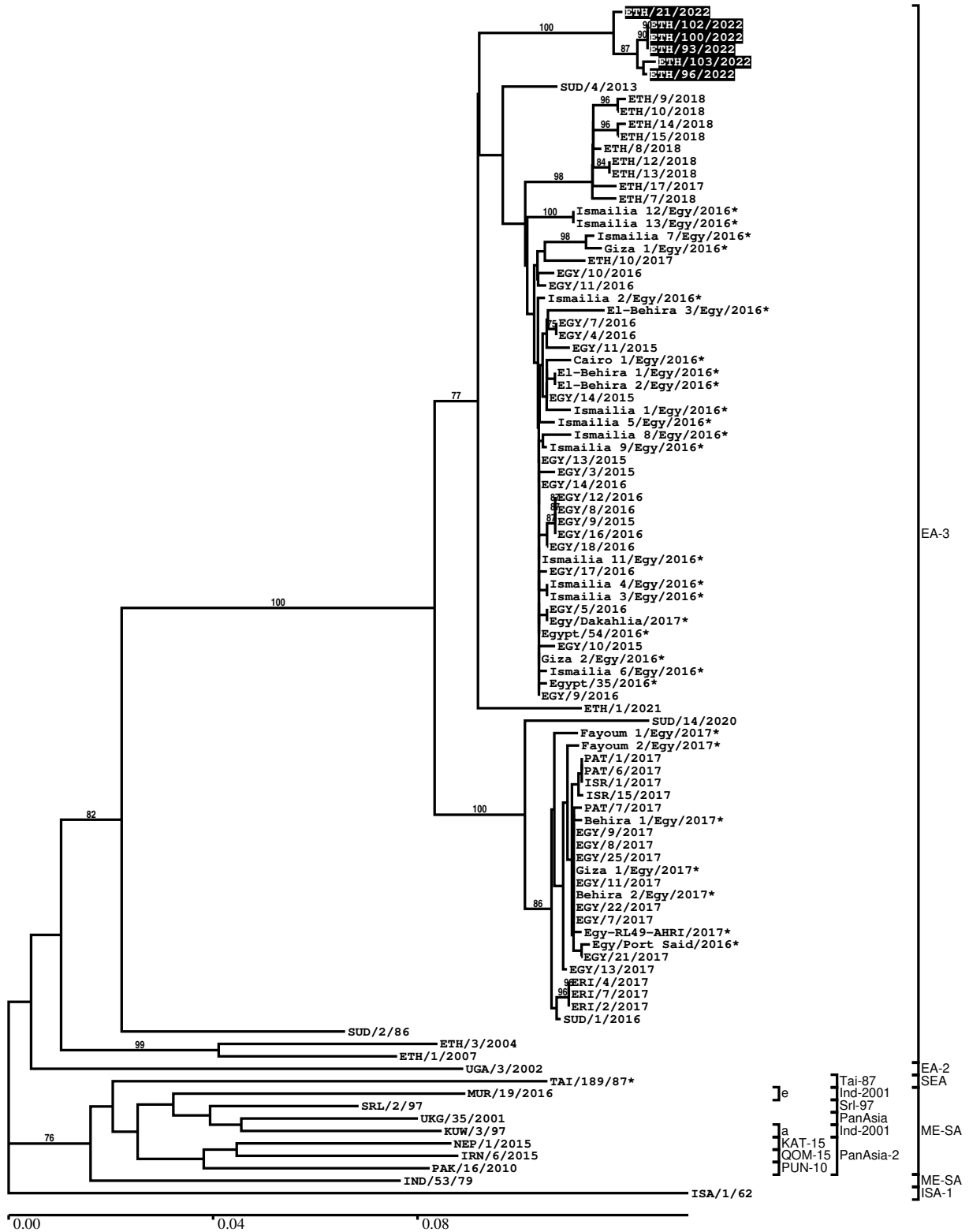
see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	86.4	0	O	EA-3		
viba_27877	SRL/2/97	bovine	84.4	0	O	ME-SA	Srl-97	
viba_854	ETH/1/2007	cattle	83.9	0	O	EA-3		
viba_85	UGA/3/2002		83.8	0	O	EA-2		
viba_408	ETH/3/2004	cattle	83.7	0	O	EA-3		
viba_617	IND/53/79	bovine	83.3	0	O	ME-SA		
viba_30238	MUR/19/2016	cattle	83.1	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.0	1	O	ME-SA	PanAsia-2	KAT-15
viba_705	KUW/3/97	bovine	83.0	0	O	ME-SA	Ind-2001	a
viba_354	PAK/16/2010	cattle	82.8	0	O	ME-SA	PanAsia-2	PUN-10



Report on FMDV O in Ethiopia in 2022

Batch: WRLFMD/2024/000005



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor: vp1\_O  
 Query sequence set: WRLFMD/2024/000005-Ethiopia-O (6 sequences)  
 Sequence database set: allseqs\_O (6223 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: 12  
 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
ETH/21/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
ETH/102/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
ETH/100/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
ETH/93/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
ETH/103/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
ETH/96/2022	n/a	cattle	WRLFMD	Ethiopia	EA-3
SUD/4/2013	MK422562	cattle	WRLFMD	Sudan	EA-3
ETH/9/2018	MN987460	cattle	WRLFMD	Ethiopia	EA-3
ETH/10/2018	MN987461	cattle	WRLFMD	Ethiopia	EA-3
ETH/14/2018	MN987464	cattle	WRLFMD	Ethiopia	EA-3
ETH/15/2018	MN987465	cattle	WRLFMD	Ethiopia	EA-3
ETH/8/2018	MN987459	cattle	WRLFMD	Ethiopia	EA-3
ETH/12/2018	MN987462	cattle	WRLFMD	Ethiopia	EA-3
ETH/13/2018	MN987463	cattle	WRLFMD	Ethiopia	EA-3
ETH/17/2017	MN987457	cattle	WRLFMD	Ethiopia	EA-3
ETH/7/2018	MN987458	cattle	WRLFMD	Ethiopia	EA-3
Ismailia 12/Egy/2016*	MF322678	n/a	MEVAC	Egypt	EA-3
Ismailia 13/Egy/2016*	MF322679	n/a	MEVAC	Egypt	EA-3
Ismailia 7/Egy/2016*	KX447133	cattle	Suez Canal Univ	Egypt	EA-3
Giza 1/Egy/2016*	KX447131	cattle	Suez Canal Univ	Egypt	EA-3
ETH/10/2017	MN987456	cattle	WRLFMD	Ethiopia	EA-3
EGY/10/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/11/2016	n/a	cattle	WRLFMD	Egypt	EA-3
Ismailia 2/Egy/2016*	KX447125	cattle	Suez Canal Univ	Egypt	EA-3
El-Behira 3/Egy/2016*	KX447123	cattle	Suez Canal Univ	Egypt	EA-3
EGY/7/2016	n/a	water buffalo	WRLFMD	Egypt	EA-3
EGY/4/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/11/2015	n/a	water buffalo	WRLFMD	Egypt	EA-3
Cairo 1/Egy/2016*	KX447130	cattle	Suez Canal Univ	Egypt	EA-3
El-Behira 1/Egy/2016*	KX447121	cattle	Suez Canal Univ	Egypt	EA-3

*continued on next page*

label	accession	host(s)	lab	country	taxonomic information
El-Behira 2/Egy/2016*	<a href="#">KX447122</a>	cattle	Suez Canal Univ	Egypt	EA-3
EGY/14/2015	n/a	cattle	WRLFMD	Egypt	EA-3
Ismailia 1/Egy/2016*	<a href="#">KX447124</a>	cattle	Suez Canal Univ	Egypt	EA-3
Ismailia 5/Egy/2016*	<a href="#">KX447128</a>	cattle	Suez Canal Univ	Egypt	EA-3
Ismailia 8/Egy/2016*	<a href="#">KX447134</a>	cattle	Suez Canal Univ	Egypt	EA-3
Ismailia 9/Egy/2016*	<a href="#">KX447135</a>	cattle	Suez Canal Univ	Egypt	EA-3
EGY/13/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/3/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/14/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/12/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/8/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/9/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/16/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/18/2016	n/a	cattle	WRLFMD	Egypt	EA-3
Ismailia 11/Egy/2016*	<a href="#">KX447138</a>	cattle	Suez Canal Univ	Egypt	EA-3
EGY/17/2016	n/a	cattle	WRLFMD	Egypt	EA-3
Ismailia 4/Egy/2016*	<a href="#">KX447127</a>	cattle	Suez Canal Univ	Egypt	EA-3
Ismailia 3/Egy/2016*	<a href="#">KX447126</a>	cattle	Suez Canal Univ	Egypt	EA-3
EGY/5/2016	n/a	cattle	WRLFMD	Egypt	EA-3
Egy/Dakahlia/2017*	<a href="#">MG552848</a>	water buffalo	AHRI	Egypt	EA-3
Egypt/54/2016*	<a href="#">MG925051</a>	cattle	NRC-CAIRO	Egypt	EA-3
EGY/10/2015	n/a	cattle	WRLFMD	Egypt	EA-3
Giza 2/Egy/2016*	<a href="#">KX447132</a>	cattle	Suez Canal Univ	Egypt	EA-3
Ismailia 6/Egy/2016*	<a href="#">KX447129</a>	cattle	Suez Canal Univ	Egypt	EA-3
Egypt/35/2016*	<a href="#">MG925050</a>	cattle	NRC-CAIRO	Egypt	EA-3
EGY/9/2016	n/a	cattle	WRLFMD	Egypt	EA-3
ETH/1/2021	n/a	bovine	WRLFMD	Ethiopia	EA-3
SUD/14/2020	n/a	cattle	WRLFMD	Sudan	EA-3
Fayoum 1/Egy/2017*	<a href="#">MF322688</a>	n/a	MEVAC	Egypt	EA-3
Fayoum 2/Egy/2017*	<a href="#">MF322689</a>	n/a	MEVAC	Egypt	EA-3
PAT/1/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/6/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
ISR/1/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/15/2017	n/a	cattle	WRLFMD	Israel	EA-3
PAT/7/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
Behira 1/Egy/2017*	<a href="#">MF322686</a>	n/a	MEVAC	Egypt	EA-3
EGY/9/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/8/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/25/2017	n/a	cattle	WRLFMD	Egypt	EA-3
Giza 1/Egy/2017*	<a href="#">MF322682</a>	n/a	MEVAC	Egypt	EA-3
EGY/11/2017	n/a	water buffalo	WRLFMD	Egypt	EA-3
Behira 2/Egy/2017*	<a href="#">MF322687</a>	n/a	MEVAC	Egypt	EA-3
EGY/22/2017	n/a	water buffalo	WRLFMD	Egypt	EA-3
EGY/7/2017	n/a	cattle	WRLFMD	Egypt	EA-3
Egy-RL49-AHRI/2017*	<a href="#">MH729321</a>	water buffalo	AHRI	Egypt	EA-3
Egy/Port Said/2016*	<a href="#">MG552846</a>	cattle	AHRI	Egypt	EA-3
EGY/21/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/13/2017	n/a	cattle	WRLFMD	Egypt	EA-3
ERI/4/2017	n/a	bovine	WRLFMD	Eritrea	EA-3
ERI/7/2017	n/a	porcine	WRLFMD	Eritrea	EA-3
ERI/2/2017	n/a	bovine	WRLFMD	Eritrea	EA-3
SUD/1/2016	<a href="#">MK422563</a>	cattle	WRLFMD	Sudan	EA-3
SUD/2/86	<a href="#">DQ165075</a>	bovine	WRLFMD	Sudan	EA-3
ETH/3/2004	<a href="#">FJ798109</a>	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	<a href="#">FJ798137</a>	cattle	WRLFMD	Ethiopia	EA-3
UGA/3/2002	<a href="#">DQ165077</a>	n/a	WRLFMD	Uganda	EA-2
TAI/189/87*	<a href="#">KY091288</a>	bovine	TRRL	Thailand	SEA/Tai-87

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label	accession	host(s)	lab	country	taxonomic information
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
SRL/2/97	AJ303531	bovine	WRLFMD	Sri Lanka	ME-SA/Srl-97
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
NEP/1/2015	MN276045	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
IRN/6/2015	MN276044	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

\*, not a WRLFMD Reference Number

n/a, not available