

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

Genotyping Report

FMDV serotype: O
Country: Israel
Year: 2022, 2023
Batch: WRLFMD/2023/000075
No. of sequences: 6
Report date: 18th October 2023
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth



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

email: reporting@pirbright.ac.uk

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Virus sample name:	ISR/11/2022
Sender reference:	459506
Location of origin:	Snir, Northern district
Country of origin:	Israel
Date of collection:	14/07/2022
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	11/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023
VIBASys IDs: sample 54690, genome 54691, sequence viba_54692, sequencing info 54693	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54696	ISR/12/2022	cattle	99.7	2	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50715	PAT/6/2021	goat	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50678	ISR/7/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_50690	ISR/10/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10

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_719	IRN/88/2009		91.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	88.9	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		88.8	0	O	ME-SA	PanAsia-2	TER-08
viba_293	BHU/3/2009	cattle	88.6	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.6	0	O	ME-SA	Srl-97	
viba_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_505	TUR/264/2009		88.5	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.2	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	ISR/12/2022
Sender reference:	459506-P
Location of origin:	Snir, Northern district
Country of origin:	Israel
Date of collection:	14/07/2022
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	2
Material submitted for sequencing:	LFBKalphaVbeta6-P2 WRL-LFBK1
Harvest date of material:	10/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023

VIBASys IDs: sample 54694, genome 54695, sequence viba_54696, sequencing info 54697

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54692	ISR/11/2022	cattle	99.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50715	PAT/6/2021	goat	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50678	ISR/7/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_50690	ISR/10/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10

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_719	IRN/88/2009		91.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.1	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	88.8	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		88.6	0	O	ME-SA	PanAsia-2	TER-08
viba_293	BHU/3/2009	cattle	88.5	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.5	0	O	ME-SA	Srl-97	
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	88.3	0	O	ME-SA	PanAsia	
viba_666	IRN/18/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_47579	SRL/1/2019	cattle	88.0	0	O	ME-SA	SA-2018	

Virus sample name:	ISR/1/2023
Sender reference:	472632
Location of origin:	Ortal, Golan Heights
Country of origin:	Israel
Date of collection:	03/01/2023
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	10/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023

VIBASys IDs: sample 54698, genome 54699, sequence viba_54700, sequencing info 54701

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54704	ISR/2/2023	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_54708	ISR/3/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_54712	ISR/4/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_52381	472189/ISR/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_51827	465636/ISR/2022	cattle	99.4	0	O	ME-SA	PanAsia-2	ANT-10
viba_54696	ISR/12/2022	cattle	99.1	2	O	ME-SA	PanAsia-2	ANT-10
viba_54692	ISR/11/2022	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	98.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	98.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	98.9	0	O	ME-SA	PanAsia-2	ANT-10

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_719	IRN/88/2009		91.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		89.1	0	O	ME-SA	PanAsia-2	TER-08
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_505	TUR/264/2009		88.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_293	BHU/3/2009	cattle	88.5	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.5	0	O	ME-SA	Srl-97	
viba_666	IRN/18/2010	cattle	88.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_285	UKG/35/2001	porcine	88.3	0	O	ME-SA	PanAsia	

Virus sample name:	ISR/2/2023
Sender reference:	472632-P
Location of origin:	Ortal, Golan Heights
Country of origin:	Israel
Date of collection:	03/01/2023
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	LFBKalphaVbeta6-P1 WRL-LFBK1
Harvest date of material:	10/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023
VIBASys IDs: sample 54702, genome 54703, sequence viba_54704, sequencing info 54705	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54700	ISR/1/2023	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_54708	ISR/3/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_54712	ISR/4/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_52381	472189/ISR/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_51827	465636/ISR/2022	cattle	99.4	0	O	ME-SA	PanAsia-2	ANT-10
viba_54696	ISR/12/2022	cattle	99.1	2	O	ME-SA	PanAsia-2	ANT-10
viba_54692	ISR/11/2022	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	98.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	98.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	98.9	0	O	ME-SA	PanAsia-2	ANT-10

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_719	IRN/88/2009		91.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		89.1	0	O	ME-SA	PanAsia-2	TER-08
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_505	TUR/264/2009		88.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_293	BHU/3/2009	cattle	88.5	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.5	0	O	ME-SA	Srl-97	
viba_666	IRN/18/2010	cattle	88.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_285	UKG/35/2001	porcine	88.3	0	O	ME-SA	PanAsia	

Virus sample name:	ISR/3/2023
Sender reference:	473374
Location of origin:	Keshet, Golan Heights
Country of origin:	Israel
Date of collection:	12/01/2023
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	10/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023

VIBASys IDs: sample 54706, genome 54707, sequence viba_54708, sequencing info 54709

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54712	ISR/4/2023	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_54704	ISR/2/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_54700	ISR/1/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_52381	472189/ISR/2022	cattle	99.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_51827	465636/ISR/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_54692	ISR/11/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10

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_719	IRN/88/2009		91.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		89.1	0	O	ME-SA	PanAsia-2	TER-08
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_505	TUR/264/2009		88.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_293	BHU/3/2009	cattle	88.5	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.5	0	O	ME-SA	Srl-97	
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_285	UKG/35/2001	porcine	88.3	0	O	ME-SA	PanAsia	

Virus sample name:	ISR/4/2023
Sender reference:	473374-P
Location of origin:	Keshet, Golan Heights
Country of origin:	Israel
Date of collection:	12/01/2023
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	ANT-10
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	LFBKalphaVbeta6-P2 WRL-LFBK1
Harvest date of material:	10/10/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	16/10/2023
Created:	18/10/2023
Last updated:	18/10/2023

VIBASys IDs: sample 54710, genome 54711, sequence viba_54712, sequencing info 54713

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54708	ISR/3/2023	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_54704	ISR/2/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_54700	ISR/1/2023	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_52381	472189/ISR/2022	cattle	99.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_51827	465636/ISR/2022	cattle	99.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_54692	ISR/11/2022	cattle	99.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_49959	JOR/609/2021	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_50658	ISR/1/2022	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_49250	435458/PAT/2021	sheep	99.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.1	0	O	ME-SA	PanAsia-2	ANT-10

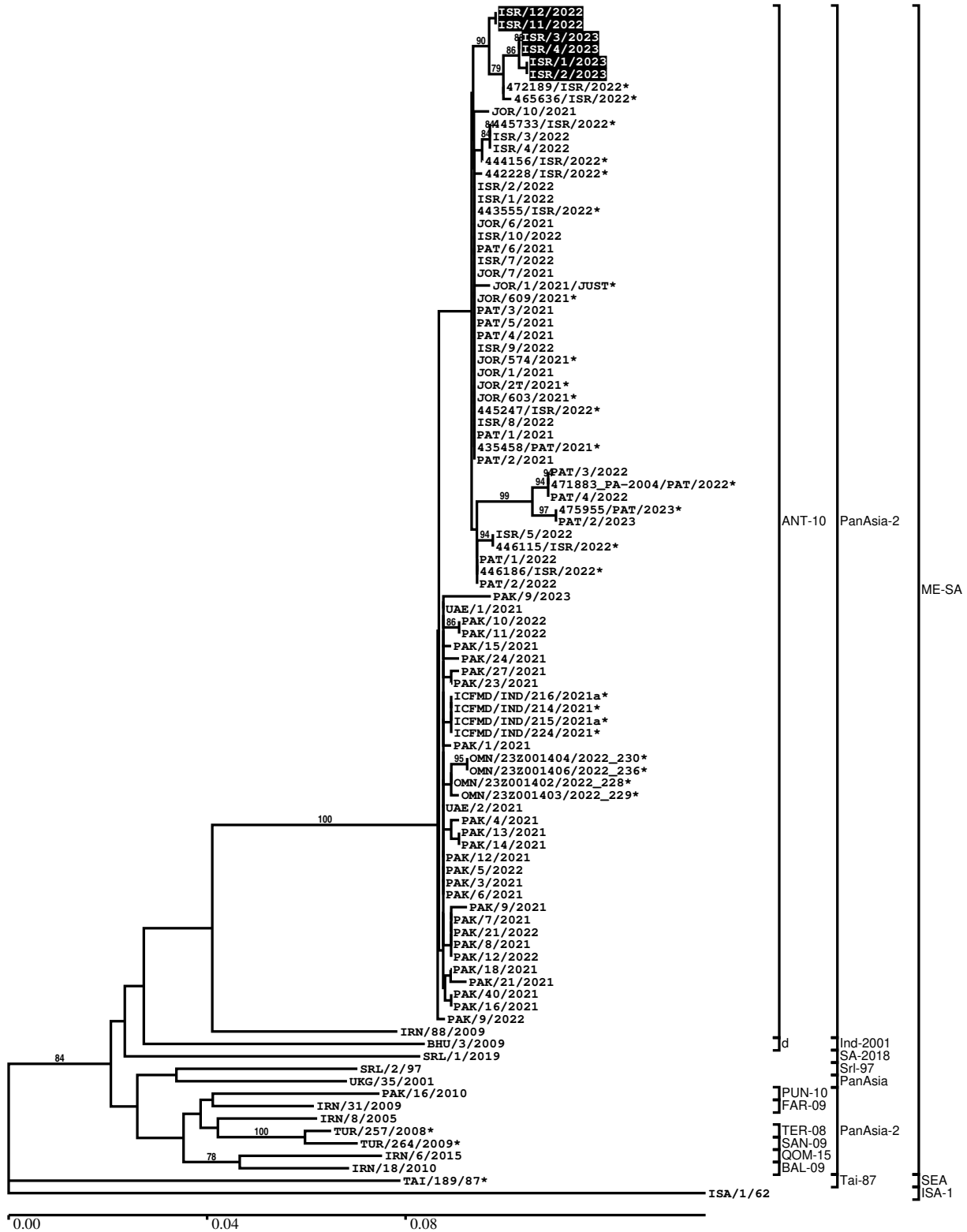
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_719	IRN/88/2009		91.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_766	IRN/31/2009	cattle	89.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		89.1	0	O	ME-SA	PanAsia-2	TER-08
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_505	TUR/264/2009		88.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_293	BHU/3/2009	cattle	88.5	0	O	ME-SA	Ind-2001	d
viba_27877	SRL/2/97	bovine	88.5	0	O	ME-SA	Srl-97	
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_285	UKG/35/2001	porcine	88.3	0	O	ME-SA	PanAsia	

Report on FMDV O in Israel in 2022, 2023

Batch: WRLFMD/2023/000075



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2023/000075-Israel-O (6 sequences)
Sequence database set:	allseqs_O (6163 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
ISR/12/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/11/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/3/2023	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/4/2023	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/1/2023	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/2/2023	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
472189/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
465636/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
JOR/10/2021	n/a	sheep	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
445733/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
ISR/3/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/4/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
444156/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
442228/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
ISR/2/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/1/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
443555/ISR/2022*	n/a	sheep	KVI	Israel	ME-SA/PanAsia-2/ANT-10
JOR/6/2021	n/a	cattle	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
ISR/10/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
PAT/6/2021	n/a	goat	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
ISR/7/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
JOR/7/2021	n/a	cattle	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
JOR/1/2021/JUST*	n/a	cattle	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
JOR/609/2021*	n/a	cattle	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
PAT/3/2021	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/5/2021	n/a	goat	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/4/2021	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
ISR/9/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
JOR/574/2021*	n/a	cattle	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
JOR/1/2021	n/a	cattle	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
JOR/2T/2021*	n/a	sheep	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
JOR/603/2021*	n/a	cattle	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
445247/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
ISR/8/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
PAT/1/2021	n/a	cattle	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
435458/PAT/2021*	n/a	sheep	KVI	Palestinian AT	ME-SA/PanAsia-2/ANT-10

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label	accession	host(s)	lab	country	taxonomic information
PAT/2/2021	n/a	cattle	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/3/2022	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
471883_PA-2004/PAT/2022*	n/a	sheep	KVI	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/4/2022	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
475955/PAT/2023*	n/a	n/a	KVI	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/2/2023	n/a	goat	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
ISR/5/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
446115/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
PAT/1/2022	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
446186/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
PAT/2/2022	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAK/9/2023	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
UAE/1/2021	n/a	Arabian oryx	WRLFMD	United Arab Emirates	ME-SA/PanAsia-2/ANT-10
PAK/10/2022	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/11/2022	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/15/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/24/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/27/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/23/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
ICFMD/IND/216/2021a*	OQ847009	cattle	ICAR-DFMD	India	ME-SA/PanAsia-2/ANT-10
ICFMD/IND/214/2021*	OQ847002	cattle	ICAR-DFMD	India	ME-SA/PanAsia-2/ANT-10
ICFMD/IND/215/2021a*	OQ847008	cattle	ICAR-DFMD	India	ME-SA/PanAsia-2/ANT-10
ICFMD/IND/224/2021*	OQ847003	cattle	ICAR-DFMD	India	ME-SA/PanAsia-2/ANT-10
PAK/1/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
OMN/23Z001404/2022_230*	n/a	cattle	ANSES	Oman	ME-SA/PanAsia-2/ANT-10
OMN/23Z001406/2022_236*	n/a	cattle	ANSES	Oman	ME-SA/PanAsia-2/ANT-10
OMN/23Z001402/2022_228*	n/a	cattle	ANSES	Oman	ME-SA/PanAsia-2/ANT-10
OMN/23Z001403/2022_229*	n/a	cattle	ANSES	Oman	ME-SA/PanAsia-2/ANT-10
UAE/2/2021	n/a	Arabian oryx	WRLFMD	United Arab Emirates	ME-SA/PanAsia-2/ANT-10
PAK/4/2021	n/a	water buffalo	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/13/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/14/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/12/2021	n/a	water buffalo	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/5/2022	n/a	water buffalo	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/3/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/6/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/9/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/7/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/21/2022	n/a	water buffalo	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/8/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/12/2022	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/18/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/21/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/40/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/16/2021	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
PAK/9/2022	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/ANT-10
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
SRL/1/2019	n/a	cattle	WRLFMD	Sri Lanka	ME-SA/SA-2018
SRL/2/97	AJ303531	bovine	WRLFMD	Sri Lanka	ME-SA/Srl-97
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
TUR/257/2008*	n/a	n/a	FMDI-Ankara	Turkiye	ME-SA/PanAsia-2/TER-08
TUR/264/2009*	n/a	n/a	FMDI-Ankara	Turkiye	ME-SA/PanAsia-2/SAN-09
IRN/6/2015	MN276044	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/18/2010	KY091283	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/BAL-09
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA/Tai-87
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number
n/a, not available