

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

Genotyping Report

FMDV serotype: O
Country: Palestinian AT
Year: 2021, 2022
Batch: WRLFMD/2022/000013
No. of sequences: 12
Report date: 14th June 2022
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:	PAT/1/2021
Sender reference:	439462
Location of origin:	Jericho, West Bank
Country of origin:	Palestinian AT
Date of collection:	04/12/2021
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50693, genome 50694, sequence viba_50695, sequencing info 50696

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/2/2021
Sender reference:	439462 P1
Location of origin:	Jericho, West Bank
Country of origin:	Palestinian AT
Date of collection:	04/12/2021
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50697, genome 50698, sequence viba_50699, sequencing info 50700

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/3/2021
Sender reference:	437288-A
Location of origin:	Al-Hadedyah, Tubas
Country of origin:	Palestinian AT
Date of collection:	13/12/2021
Host species:	sheep
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50701, genome 50702, sequence viba_50703, sequencing info 50704

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/4/2021
Sender reference:	437288-A P2
Location of origin:	Al-Hadedyah, Tubas
Country of origin:	Palestinian AT
Date of collection:	13/12/2021
Host species:	sheep
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50705, genome 50706, sequence viba_50707, sequencing info 50708

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50715	PAT/6/2021	goat	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/5/2021
Sender reference:	437288-B
Location of origin:	Al-Hadedyah, Tubas
Country of origin:	Palestinian AT
Date of collection:	13/12/2021
Host species:	goat
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50709, genome 50710, sequence viba_50711, sequencing info 50712

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50715	PAT/6/2021	goat	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/6/2021
Sender reference:	437288-B P1
Location of origin:	Al-Hadedyah, Tubas
Country of origin:	Palestinian AT
Date of collection:	13/12/2021
Host species:	goat
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50713, genome 50714, sequence viba_50715, sequencing info 50716

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50404	443555/ISR/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_49951	JOR/574/2021	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50014	JOR/7/2021	cattle	100.0	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	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	89.1	0	O	ME-SA	PanAsia-2	
viba_293	BHU/3/2009	cattle	89.1	0	O	ME-SA	Ind-2001	d
viba_491	TUR/257/2008		88.9	0	O	ME-SA	PanAsia-2	TER-08
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	88.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_354	PAK/16/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.3	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/7/2021
Sender reference:	437694-3360
Location of origin:	East Jabalya, North Gaza
Country of origin:	Palestinian AT
Date of collection:	16/12/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50717, genome 50718, sequence viba_50719, sequencing info 50720

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50723	PAT/8/2021	cattle	100.0	0	O	EA-3		
viba_49588	437694-0257/PAT/2021	cattle	100.0	0	O	EA-3		
viba_50731	PAT/10/2021	cattle	99.8	0	O	EA-3		
viba_50727	PAT/9/2021	cattle	99.8	0	O	EA-3		
viba_34207	EGY/22/2017	water buffalo	99.7	0	O	EA-3		
viba_34211	EGY/25/2017	cattle	99.7	0	O	EA-3		
viba_35505	Giza 1/Egy/2017		99.7	0	O	EA-3		
viba_34167	EGY/7/2017	cattle	99.7	0	O	EA-3		
viba_34183	EGY/11/2017	water buffalo	99.7	0	O	EA-3		
viba_34171	EGY/8/2017	cattle	99.7	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	88.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.5	0	O	EA-3		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_408	ETH/3/2004	cattle	83.8	0	O	EA-3		
viba_263	TAN/2/2004	bovine	83.8	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		83.6	0	O	ME-SA		
viba_85	UGA/3/2002		83.5	0	O	EA-2		
viba_221	MAL/1/98		83.4	0	O	EA-2		
viba_302	CIV/8/99	bovine	83.3	0	O	WA		

Virus sample name:	PAT/8/2021
Sender reference:	437694-3360 P2
Location of origin:	East Jabalya, North Gaza
Country of origin:	Palestinian AT
Date of collection:	16/12/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50721, genome 50722, sequence viba_50723, sequencing info 50724	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50719	PAT/7/2021	cattle	100.0	0	O	EA-3		
viba_49588	437694-0257/PAT/2021	cattle	100.0	0	O	EA-3		
viba_50731	PAT/10/2021	cattle	99.8	0	O	EA-3		
viba_50727	PAT/9/2021	cattle	99.8	0	O	EA-3		
viba_34207	EGY/22/2017	water buffalo	99.7	0	O	EA-3		
viba_34211	EGY/25/2017	cattle	99.7	0	O	EA-3		
viba_35505	Giza 1/Egy/2017		99.7	0	O	EA-3		
viba_34167	EGY/7/2017	cattle	99.7	0	O	EA-3		
viba_34183	EGY/11/2017	water buffalo	99.7	0	O	EA-3		
viba_34171	EGY/8/2017	cattle	99.7	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	88.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.5	0	O	EA-3		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_408	ETH/3/2004	cattle	83.8	0	O	EA-3		
viba_263	TAN/2/2004	bovine	83.8	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		83.6	0	O	ME-SA		
viba_85	UGA/3/2002		83.5	0	O	EA-2		
viba_221	MAL/1/98		83.4	0	O	EA-2		
viba_302	CIV/8/99	bovine	83.3	0	O	WA		

Virus sample name:	PAT/9/2021
Sender reference:	437954
Location of origin:	East Jabalya, North Gaza
Country of origin:	Palestinian AT
Date of collection:	19/12/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	26/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50725, genome 50726, sequence viba_50727, sequencing info 50728	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50731	PAT/10/2021	cattle	100.0	0	O	EA-3		
viba_50723	PAT/8/2021	cattle	99.8	0	O	EA-3		
viba_50719	PAT/7/2021	cattle	99.8	0	O	EA-3		
viba_49588	437694-0257/PAT/2021	cattle	99.8	0	O	EA-3		
viba_34207	EGY/22/2017	water buffalo	99.5	0	O	EA-3		
viba_34211	EGY/25/2017	cattle	99.5	0	O	EA-3		
viba_35505	Giza 1/Egy/2017		99.5	0	O	EA-3		
viba_34167	EGY/7/2017	cattle	99.5	0	O	EA-3		
viba_34183	EGY/11/2017	water buffalo	99.5	0	O	EA-3		
viba_34171	EGY/8/2017	cattle	99.5	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	87.8	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.4	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.0	0	O	EA-3		
viba_617	IND/53/79	bovine	83.8	0	O	ME-SA		
viba_359	Manisa/TUR/69		83.8	0	O	ME-SA		
viba_263	TAN/2/2004	bovine	83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.3	0	O	EA-2		
viba_221	MAL/1/98		83.3	0	O	EA-2		
viba_302	CIV/8/99	bovine	83.1	0	O	WA		

Virus sample name:	PAT/10/2021
Sender reference:	437954 P2
Location of origin:	East Jabalya, North Gaza
Country of origin:	Palestinian AT
Date of collection:	19/12/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	27/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50729, genome 50730, sequence viba_50731, sequencing info 50732	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50727	PAT/9/2021	cattle	100.0	0	O	EA-3		
viba_50723	PAT/8/2021	cattle	99.8	0	O	EA-3		
viba_50719	PAT/7/2021	cattle	99.8	0	O	EA-3		
viba_49588	437694-0257/PAT/2021	cattle	99.8	0	O	EA-3		
viba_34207	EGY/22/2017	water buffalo	99.5	0	O	EA-3		
viba_34211	EGY/25/2017	cattle	99.5	0	O	EA-3		
viba_35505	Giza 1/Egy/2017		99.5	0	O	EA-3		
viba_34167	EGY/7/2017	cattle	99.5	0	O	EA-3		
viba_34183	EGY/11/2017	water buffalo	99.5	0	O	EA-3		
viba_34171	EGY/8/2017	cattle	99.5	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	87.8	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.4	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.0	0	O	EA-3		
viba_617	IND/53/79	bovine	83.8	0	O	ME-SA		
viba_359	Manisa/TUR/69		83.8	0	O	ME-SA		
viba_263	TAN/2/2004	bovine	83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.3	0	O	EA-2		
viba_221	MAL/1/98		83.3	0	O	EA-2		
viba_302	CIV/8/99	bovine	83.1	0	O	WA		

Virus sample name:	PAT/1/2022
Sender reference:	447251
Location of origin:	Dir Dibwan, Rammallah
Country of origin:	Palestinian AT
Date of collection:	23/03/2022
Host species:	sheep
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:	26/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50733, genome 50734, sequence viba_50735, sequencing info 50736

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50739	PAT/2/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50424	446186/ISR/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50404	443555/ISR/2022	sheep	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	99.8	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_293	BHU/3/2009	cattle	89.0	0	O	ME-SA	Ind-2001	d
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_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-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
viba_354	PAK/16/2010	cattle	88.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.2	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	PAT/2/2022
Sender reference:	447251 P1
Location of origin:	Dir Dibwan, Rammallah
Country of origin:	Palestinian AT
Date of collection:	23/03/2022
Host species:	sheep
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:	27/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50737, genome 50738, sequence viba_50739, sequencing info 50740

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50424	446186/ISR/2022	cattle	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50735	PAT/1/2022	sheep	100.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_50404	443555/ISR/2022	sheep	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50711	PAT/5/2021	goat	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50682	ISR/8/2022	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50662	ISR/2/2022	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_49955	JOR/603/2021	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50010	JOR/6/2021	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50707	PAT/4/2021	sheep	99.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_50686	ISR/9/2022	cattle	99.8	0	O	ME-SA	PanAsia-2	ANT-10

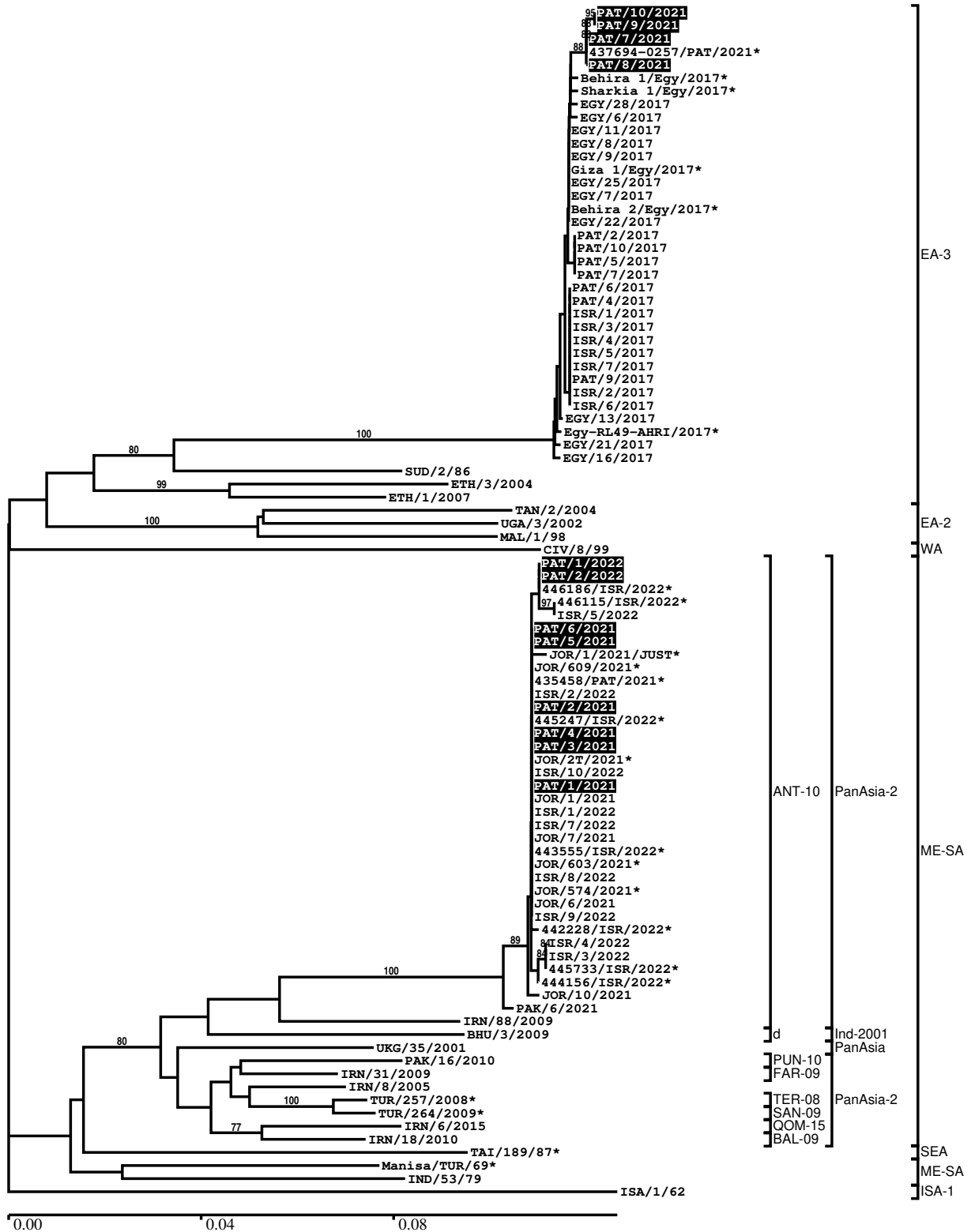
Most Closely Related Prototype Sequences

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_293	BHU/3/2009	cattle	89.0	0	O	ME-SA	Ind-2001	d
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_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-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
viba_354	PAK/16/2010	cattle	88.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		88.2	0	O	ME-SA	PanAsia-2	SAN-09

Report on FMDV O in Palestinian AT in 2021, 2022

Batch: WRLFMD/2022/000013



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2022/000013-Palestinian AT-O (12 sequences)
Sequence database set:	allseqs_O (5618 sequences)
Prototype sequence set:	!prototypes_O (49 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:	19
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
PAT/10/2021	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/9/2021	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/7/2021	n/a	cattle	WRLFMD	Palestinian AT	EA-3
437694-0257/PAT/2021*	n/a	cattle	KVI	Palestinian AT	EA-3
PAT/8/2021	n/a	cattle	WRLFMD	Palestinian AT	EA-3
Behira 1/Egy/2017*	MF322686	n/a	MEVAC	Egypt	EA-3
Sharkia 1/Egy/2017*	MF322684	n/a	MEVAC	Egypt	EA-3
EGY/28/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/6/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/11/2017	n/a	water buffalo	WRLFMD	Egypt	EA-3
EGY/8/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/9/2017	n/a	cattle	WRLFMD	Egypt	EA-3
Giza 1/Egy/2017*	MF322682	n/a	MEVAC	Egypt	EA-3
EGY/25/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/7/2017	n/a	cattle	WRLFMD	Egypt	EA-3
Behira 2/Egy/2017*	MF322687	n/a	MEVAC	Egypt	EA-3
EGY/22/2017	n/a	water buffalo	WRLFMD	Egypt	EA-3
PAT/2/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/10/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/5/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/7/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/6/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
PAT/4/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
ISR/1/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/3/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/4/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/5/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/7/2017	n/a	cattle	WRLFMD	Israel	EA-3
PAT/9/2017	n/a	cattle	WRLFMD	Palestinian AT	EA-3
ISR/2/2017	n/a	cattle	WRLFMD	Israel	EA-3
ISR/6/2017	n/a	cattle	WRLFMD	Israel	EA-3
EGY/13/2017	n/a	cattle	WRLFMD	Egypt	EA-3
Egy-RL49-AHRI/2017*	MH729321	water buffalo	AHRI	Egypt	EA-3
EGY/21/2017	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/16/2017	n/a	cattle	WRLFMD	Egypt	EA-3
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3

continued on next page

label	accession	host(s)	lab	country	taxonomic information
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
TAN/2/2004	KF561679	bovine	WRLFMD	Tanzania	EA-2
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
MAL/1/98	DQ165074	n/a	WRLFMD	Malawi	EA-2
CIV/8/99	AJ303485	bovine	WRLFMD	Cote d'Ivoire	WA
PAT/1/2022	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/2/2022	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
446115/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
ISR/5/2022	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
PAT/5/2021	n/a	goat	WRLFMD	Palestinian AT	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
435458/PAT/2021*	n/a	sheep	KVI	Palestinian AT	ME-SA/PanAsia-2/ANT-10
ISR/2/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
PAT/2/2021	n/a	cattle	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
445247/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
PAT/4/2021	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
PAT/3/2021	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia-2/ANT-10
JOR/2T/2021*	n/a	sheep	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
ISR/10/2022	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
JOR/1/2021	n/a	cattle	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
ISR/1/2022	n/a	cattle	WRLFMD	Israel	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
443555/ISR/2022*	n/a	sheep	KVI	Israel	ME-SA/PanAsia-2/ANT-10
JOR/603/2021*	n/a	cattle	JUST	Jordan	ME-SA/PanAsia-2/ANT-10
ISR/8/2022	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/6/2021	n/a	cattle	WRLFMD	Jordan	ME-SA/PanAsia-2/ANT-10
ISR/9/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
442228/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
ISR/4/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
ISR/3/2022	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia-2/ANT-10
445733/ISR/2022*	n/a	cattle	KVI	Israel	ME-SA/PanAsia-2/ANT-10
444156/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
PAK/6/2021	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
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	Turkey	ME-SA/PanAsia-2/TER-08
TUR/264/2009*	n/a	n/a	FMDI-Ankara	Turkey	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
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
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