

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

Genotyping Report

FMDV serotype: O
Country: Iran
Year: 2016
Batch: WRLFMD/2016/00018
No. of sequences: 16
Report date: 6th July 2016
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth

Analysis Parameters

VP1 subsequence extractor: vp1_O
Query sequence set: WRLFMD/2016/00018-Iran-O (16 sequences)
Sequence database set: allseqs_O (2888 sequences)
Prototype sequence set: prototypes_O (47 sequences)
Number of related sequences reported: 10
Minimal VP1 subsequence match length: 600
VIBASys version: reflabs-1.0.2



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

email: reporting@pirbright.ac.uk

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Virus sample name:	IRN/4/2016
Sender reference:	IR/95/28
Location of origin:	n/a
Country of origin:	Iran
Date of collection:	04/01/2016
Host species:	
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	16/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	05/07/2016
Last updated:	05/07/2016
VIBASys IDs: sample 27659, genome 27660, sequence viba_27661, sequencing info 27662	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	92.9	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	91.9	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.6	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.6	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.3	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.7	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.2	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/5/2016
Sender reference:	IR/95/29
Location of origin:	n/a
Country of origin:	Iran
Date of collection:	04/01/2016
Host species:	
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	16/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27663, genome 27664, sequence viba_27665, sequencing info 27666	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.3	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.9	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.0	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.5	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/9/2016
Sender reference:	IR/95/19
Location of origin:	Esfahan
Country of origin:	Iran
Date of collection:	14/02/2016
Host species:	dog (canis lupus familiaris)
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27667, genome 27668, sequence viba_27669, sequencing info 27670	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.9	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.6	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.3	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.9	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.8	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/10/2016
Sender reference:	IR/95/8
Location of origin:	Markazi
Country of origin:	Iran
Date of collection:	26/02/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	17/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	05/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27671, genome 27672, sequence viba_27673, sequencing info 27674	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.4	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.8	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.4	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/13/2016
Sender reference:	IR/95/18
Location of origin:	Khuzestan
Country of origin:	Iran
Date of collection:	13/03/2016
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	17/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27675, genome 27676, sequence viba_27677, sequencing info 27678	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.9	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.6	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.3	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.9	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.8	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/15/2016
Sender reference:	IR/95/13
Location of origin:	Mazandaran
Country of origin:	Iran
Date of collection:	17/03/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	18/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27679, genome 27680, sequence viba_27681, sequencing info 27682	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27677	IRN/13/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.9	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.6	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.3	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.9	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.8	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/16/2016
Sender reference:	IR/95/11
Location of origin:	Esfahan
Country of origin:	Iran
Date of collection:	18/03/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	17/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27683, genome 27684, sequence viba_27685, sequencing info 27686	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.9	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.6	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.3	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.9	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.8	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/17/2016
Sender reference:	IR/95/9
Location of origin:	Kermanshah
Country of origin:	Iran
Date of collection:	21/03/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	18/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27687, genome 27688, sequence viba_27689, sequencing info 27690	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.1	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		91.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_491	TUR/257/2008		91.8	0	O	ME-SA	PanAsia-2	TER-08
viba_850	NEP/1/2015	cattle	91.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.4	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/18/2016
Sender reference:	IR/95/12
Location of origin:	Kordestan
Country of origin:	Iran
Date of collection:	24/03/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	18/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27691, genome 27692, sequence viba_27693, sequencing info 27694	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27701	IRN/21/2016	cattle	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27681	IRN/15/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27697	IRN/19/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.4	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.1	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.2	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.7	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/19/2016
Sender reference:	IR/95/10
Location of origin:	Zanjan
Country of origin:	Iran
Date of collection:	29/03/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	18/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27695, genome 27696, sequence viba_27697, sequencing info 27698	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27693	IRN/18/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27681	IRN/15/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.1	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.8	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.5	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.4	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/21/2016
Sender reference:	IR/95/7
Location of origin:	East Azerbaijan
Country of origin:	Iran
Date of collection:	04/04/2016
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	22/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27699, genome 27700, sequence viba_27701, sequencing info 27702	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27693	IRN/18/2016	sheep	100.0	0	O	ME-SA	PanAsia-2	QOM-15
viba_27681	IRN/15/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27697	IRN/19/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.4	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.1	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.2	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.7	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/22/2016
Sender reference:	IR/95/23
Location of origin:	West Azerbaijan
Country of origin:	Iran
Date of collection:	05/04/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/06/2016
Created:	30/06/2016
Last updated:	30/06/2016
VIBASys IDs: sample 27703, genome 27704, sequence viba_27705, sequencing info 27706	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.2	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	92.9	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.1	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.6	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.6	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.7	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.2	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/25/2016
Sender reference:	IR/95/6
Location of origin:	Gilan
Country of origin:	Iran
Date of collection:	12/04/2016
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27707, genome 27708, sequence viba_27709, sequencing info 27710	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.4	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.1	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.2	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.7	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/27/2016
Sender reference:	IR/95/22
Location of origin:	West Azerbaijan
Country of origin:	Iran
Date of collection:	19/04/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27711, genome 27712, sequence viba_27713, sequencing info 27714	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.6	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.3	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.9	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.5	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/28/2016
Sender reference:	IR/95/25
Location of origin:	East Azerbaijan
Country of origin:	Iran
Date of collection:	25/04/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27715, genome 27716, sequence viba_27717, sequencing info 27718	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_27721	IRN/29/2016	sheep	99.4	0	O	ME-SA	PanAsia-2	QOM-15

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	98.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	94.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.1	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		91.8	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		91.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.5	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.3	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		90.8	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	90.4	0	O	ME-SA	PanAsia	

Virus sample name:	IRN/29/2016
Sender reference:	IR/95/24
Location of origin:	East Azerbaijan
Country of origin:	Iran
Date of collection:	28/04/2016
Host species:	sheep
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia-2
Sublineage:	QOM-15
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	04/07/2016
Created:	06/07/2016
Last updated:	06/07/2016
VIBASys IDs: sample 27719, genome 27720, sequence viba_27721, sequencing info 27722	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_27681	IRN/15/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27677	IRN/13/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27669	IRN/9/2016	dog (canis lupus familiaris)	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23736	KUW/1/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23740	KUW/2/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27685	IRN/16/2016	sheep	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_23744	KUW/4/2016	cattle	99.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_27709	IRN/25/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27693	IRN/18/2016	sheep	99.7	0	O	ME-SA	PanAsia-2	QOM-15
viba_27701	IRN/21/2016	cattle	99.7	0	O	ME-SA	PanAsia-2	QOM-15

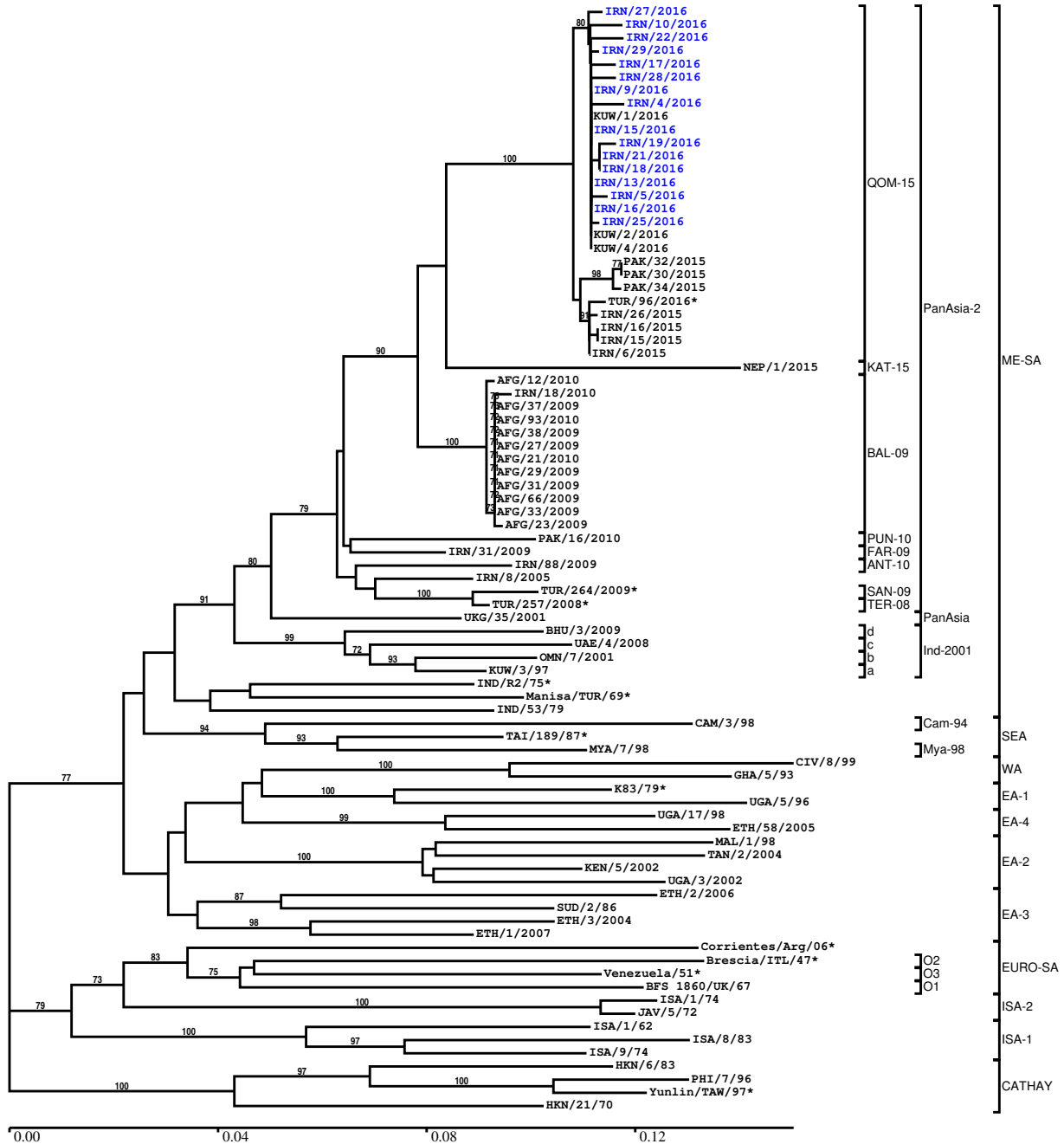
Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_860	IRN/6/2015	cattle	99.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	95.1	0	O	ME-SA	PanAsia-2	BAL-09
viba_766	IRN/31/2009	cattle	93.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	92.4	0	O	ME-SA	PanAsia-2	
viba_491	TUR/257/2008		92.1	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		92.1	0	O	ME-SA	PanAsia-2	ANT-10
viba_850	NEP/1/2015	cattle	91.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	91.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_505	TUR/264/2009		91.2	0	O	ME-SA	PanAsia-2	SAN-09
viba_285	UKG/35/2001	porcine	91.0	0	O	ME-SA	PanAsia	

Report on FMDV O in Iran in 2016

Batch: WRLFMD/2016/00018



Sequence alignment method: muscle (default parameters)
 Phylogeny reconstruction method: fdnadist, fneighbor
 Number of bootstrap samples: 1000
 Displaying bootstrap values above: 70.0%
 Number of sequences in tree capped at: 100
 *, not a WRLFMD Reference Number

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/O

label	accession	host(s)	lab	country	taxonomic information
IRN/27/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/10/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/22/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/29/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/17/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/28/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/9/2016	n/a	dog (canis lupus familiaris)	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/4/2016	n/a	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
KUW/1/2016	n/a	cattle	WRLFMD	Kuwait	ME-SA/PanAsia-2/QOM-15
IRN/15/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/19/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/21/2016	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/18/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/13/2016	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/5/2016	n/a	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/16/2016	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/25/2016	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
KUW/2/2016	n/a	cattle	WRLFMD	Kuwait	ME-SA/PanAsia-2/QOM-15
KUW/4/2016	n/a	cattle	WRLFMD	Kuwait	ME-SA/PanAsia-2/QOM-15
PAK/32/2015	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/QOM-15
PAK/30/2015	n/a	water buffalo	WRLFMD	Pakistan	ME-SA/PanAsia-2/QOM-15
PAK/34/2015	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/QOM-15
TUR/96/2016*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/QOM-15
IRN/26/2015	n/a	sheep	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/16/2015	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/15/2015	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/6/2015	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
NEP/1/2015	n/a	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
AFG/12/2010	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
IRN/18/2010	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/BAL-09
AFG/37/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/93/2010	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/38/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/27/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/21/2010	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/29/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/31/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/66/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/33/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
AFG/23/2009	n/a	n/a	WRLFMD	Afghanistan	ME-SA/PanAsia-2/BAL-09
PAK/16/2010	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/31/2009	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/88/2009	n/a	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
IRN/8/2005	n/a	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
TUR/264/2009*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/SAN-09
TUR/257/2008*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/TER-08
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
IND/R2/75*	AF204276	n/a	PD-FMD	India	ME-SA
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
CAM/3/98	AJ294910	bovine	WRLFMD	Cambodia	SEA/Cam-94
TAI/189/87*	n/a	bovine	TRRL	Thailand	SEA
MYA/7/98	DQ164925	bovine	WRLFMD	Myanmar	SEA/Mya-98
CIV/8/99	AJ303485	bovine	WRLFMD	Cote d'Ivoire	WA
GHA/5/93	AJ303488	bovine	WRLFMD	Ghana	WA

continued on next page

label	accession	host(s)	lab	country	taxonomic information
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
UGA/5/96	AJ296327	bovine	WRLFMD	Uganda	EA-1
UGA/17/98	HM211075	n/a	WRLFMD	Uganda	EA-4
ETH/58/2005	FJ798141	bovine	WRLFMD	Ethiopia	EA-4
MAL/1/98	DQ165074	n/a	WRLFMD	Malawi	EA-2
TAN/2/2004	KF561679	bovine	WRLFMD	Tanzania	EA-2
KEN/5/2002	DQ165073	bovine	WRLFMD	Kenya	EA-2
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
ETH/2/2006	FJ798127	bovine	WRLFMD	Ethiopia	EA-3
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
Corrientes/Arg/06*	DQ834727	n/a	PAFMDC	Argentina	EURO-SA
Brescia/ITL/47*	M55287	n/a	BFAV	Italy	EURO-SA/O2
Venezuela/51*	AJ004645	n/a	BFAV	Venezuela	EURO-SA/O3
BFS 1860/UK/67	AY593815	bovine	PIADC	United Kingdom (BFS)	EURO-SA/O1
ISA/1/74	AJ303501	bovine	WRLFMD	Indonesia	ISA-2
JAV/5/72	AJ303509	n/a	WRLFMD	Java	ISA-2
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1
ISA/8/83	AJ303503	bovine	WRLFMD	Indonesia	ISA-1
ISA/9/74	AJ303502	bovine	WRLFMD	Indonesia	ISA-1
HKN/6/83	AJ294919	bovine	WRLFMD	Hong Kong SAR	CATHAY
PHI/7/96	AJ294926	porcine	WRLFMD	Philippines	CATHAY
Yunlin/TAW/97*	AF308157	porcine	PIADC	Taiwan	CATHAY
HKN/21/70	AJ294911	porcine	WRLFMD	Hong Kong SAR	CATHAY

*, not a WRLFMD Reference Number

n/a, not available