

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

## Genotyping Report

FMDV serotype: A  
Country: Turkey  
Year: 2015  
Batch: WRLMEG/2020/00023  
No. of sequences: 13  
Report date: 24th August 2020  
Report generated by: Nick Knowles  
Report checked by: Antonello Di Nardo



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Virus sample name:	TUR/209/2015.865
Sender reference:	A/TUR/209/2015.865
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	11/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45214, genome 45215, sequence viba_45216, sequencing info 45217	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.7	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.7	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.6	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.5	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.9	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.3	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.3	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.2	0	A	ASIA	Iran-05	AFG-07
viba_594	IRN/1/2011	bovine	82.2	0	A	ASIA	Iran-05	FAR-11

Virus sample name:	TUR/214/2015.865
Sender reference:	A/TUR/214/2015.865
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	11/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45218, genome 45219, sequence viba_45220, sequencing info 45221	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	100.0	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	100.0	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	100.0	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	100.0	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	100.0	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.8	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.8	0	A	ASIA	G-VII	
viba_32152	TUR/331/2015.923	cattle	99.8	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.6	0	A	ASIA	G-VII	
viba_843	SAU/16/95		90.1	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.7	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.6	0	A	ASIA	A22	
viba_699	UKG/119/32		83.2	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.8	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.4	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.3	0	A	ASIA	Iran-05	AFG-07
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11

Virus sample name:	TUR/229/2015.885
Sender reference:	A/TUR/229/2015.885
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	19/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45222, genome 45223, sequence viba_45224, sequencing info 45225	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.5	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.5	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.5	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.5	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.4	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.4	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.3	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.7	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.3	0	A	ASIA	A22	
viba_699	UKG/119/32		83.5	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.7	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.5	0	A	ASIA	Iran-05	SIS-13
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11
viba_308	IRN/9/2011	bovine	82.1	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.0	0	A	ASIA	Iran-05	AFG-07

Virus sample name:	TUR/243/2015.904
Sender reference:	A/TUR/243/2015.904
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	25/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45226, genome 45227, sequence viba_45228, sequencing info 45229	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.7	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.7	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		90.3	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.9	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.8	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.9	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.6	0	A	ASIA	Iran-05	SIS-13
viba_34575	BAD/AFG/L2814/2009	cattle	82.4	0	A	ASIA	Iran-05	BAD-09
viba_34671	BAL/PAK/05/2011	cattle	82.4	0	A	ASIA	Iran-05	BAL-11
viba_403	TUR/1/2008	cattle	82.4	0	A	ASIA	Iran-05	ARD-07

Virus sample name:	TUR/248/2015.904
Sender reference:	A/TUR/248/2015.904
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	25/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45230, genome 45231, sequence viba_45232, sequencing info 45233	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_45216	TUR/209/2015.865	cattle	99.7	0	A	ASIA	G-VII	
viba_32140	TUR/198/2015.808	cattle	99.5	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.5	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.5	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.5	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.4	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.1	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.6	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.6	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.3	0	A	ASIA	A22	
viba_699	UKG/119/32		83.4	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.9	0	A	ASIA	Iran-87	
viba_594	IRN/1/2011	bovine	82.5	0	A	ASIA	Iran-05	FAR-11
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11
viba_20943	IRN/27/2013	cattle	82.3	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.3	0	A	ASIA	Iran-05	QAZ-11

Virus sample name:	TUR/267/2015.904
Sender reference:	A/TUR/267/2015.904
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	25/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45234, genome 45235, sequence viba_45236, sequencing info 45237	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	100.0	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	100.0	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	100.0	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	100.0	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	100.0	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.8	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.8	0	A	ASIA	G-VII	
viba_32152	TUR/331/2015.923	cattle	99.8	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.6	0	A	ASIA	G-VII	
viba_843	SAU/16/95		90.1	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.7	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.6	0	A	ASIA	A22	
viba_699	UKG/119/32		83.2	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.8	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.4	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.3	0	A	ASIA	Iran-05	AFG-07
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11

Virus sample name:	TUR/231/2015.904
Sender reference:	A/TUR/231/2015.904
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	25/11/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45238, genome 45239, sequence viba_45240, sequencing info 45241	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	100.0	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	100.0	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	100.0	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	100.0	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	100.0	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	100.0	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.8	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.8	0	A	ASIA	G-VII	
viba_32152	TUR/331/2015.923	cattle	99.8	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.6	0	A	ASIA	G-VII	
viba_843	SAU/16/95		90.1	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.7	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.6	0	A	ASIA	A22	
viba_699	UKG/119/32		83.2	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.8	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.4	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.3	0	A	ASIA	Iran-05	AFG-07
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11



Virus sample name:	TUR/274/2015.923
Sender reference:	A/TUR/274/2015.923
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	02/12/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45242, genome 45243, sequence viba_45244, sequencing info 45245	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_25313	TUR/203/2015.827	cattle	99.7	0	A	ASIA	G-VII	
viba_32140	TUR/198/2015.808	cattle	99.5	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.5	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.5	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.5	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.5	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.5	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.4	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.1	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.6	0	A	ASIA	G-VII	
viba_677	IRQ/24/64	bovine	84.5	0	A	ASIA	A22	
viba_336	IRN/1/96	bovine	84.3	1	A	ASIA	Iran-96	
viba_699	UKG/119/32		82.9	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.6	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.6	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.3	0	A	ASIA	Iran-05	QAZ-11
viba_403	TUR/1/2008	cattle	82.1	0	A	ASIA	Iran-05	ARD-07
viba_13615	IRN/134/2010	cattle	82.0	0	A	ASIA	Iran-05	HER-10

Virus sample name:	TUR/565/2015.962
Sender reference:	A/TUR/565/2015.962
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	17/12/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45246, genome 45247, sequence viba_45248, sequencing info 45249	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_45252	TUR/569/2015.962	cattle	100.0	0	A	ASIA	G-VII	
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_45269	TUR/43/2016.019	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.9	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.8	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_589	Bangkok/TAI/60		82.7	0	A	ASIA	A15	
viba_20943	IRN/27/2013	cattle	82.6	0	A	ASIA	Iran-05	SIS-13
viba_403	TUR/1/2008	cattle	82.5	0	A	ASIA	Iran-05	ARD-07
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11

Virus sample name:	TUR/569/2015.962
Sender reference:	A/TUR/569/2015.962
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	17/12/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45250, genome 45251, sequence viba_45252, sequencing info 45253	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_45248	TUR/565/2015.962	cattle	100.0	0	A	ASIA	G-VII	
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_45269	TUR/43/2016.019	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.9	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.8	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_589	Bangkok/TAI/60		82.7	0	A	ASIA	A15	
viba_20943	IRN/27/2013	cattle	82.6	0	A	ASIA	Iran-05	SIS-13
viba_403	TUR/1/2008	cattle	82.5	0	A	ASIA	Iran-05	ARD-07
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11

Virus sample name:	TUR/679/2015.981
Sender reference:	A/TUR/679/2015.981
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	24/12/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45254, genome 45255, sequence viba_45256, sequencing info 45257	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.7	0	A	ASIA	G-VII	
viba_32152	TUR/331/2015.923	cattle	99.7	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.6	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.5	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	82.9	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.8	0	A	ASIA	Iran-05	SIS-13
viba_308	IRN/9/2011	bovine	82.6	0	A	ASIA	Iran-05	QAZ-11
viba_414	AFG/6/2007	bovine	82.5	0	A	ASIA	Iran-05	AFG-07
viba_319	BAR/6/2008	bovine	82.5	0	A	ASIA	Iran-05	BAR-08

Virus sample name:	TUR/657/2015.981
Sender reference:	A/TUR/657/2015.981
Location of origin:	n/a
Country of origin:	Turkey
Date of collection:	24/12/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45258, genome 45259, sequence viba_45260, sequencing info 45261	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.8	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.8	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.8	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.8	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.8	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.8	0	A	ASIA	G-VII	
viba_27649	IRN/20/2016	cattle	99.7	0	A	ASIA	G-VII	
viba_45256	TUR/679/2015.981	cattle	99.7	0	A	ASIA	G-VII	

#### 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_864	IND/40/2000	cattle	90.4	0	A	ASIA	G-VII	
viba_843	SAU/16/95		90.1	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	84.6	1	A	ASIA	Iran-96	
viba_677	IRQ/24/64	bovine	84.5	0	A	ASIA	A22	
viba_699	UKG/119/32		83.1	0	A	EURO-SA	A12	
viba_682	IRN/2/87	bovine	83.0	0	A	ASIA	Iran-87	
viba_20943	IRN/27/2013	cattle	82.8	0	A	ASIA	Iran-05	SIS-13
viba_34671	BAL/PAK/05/2011	cattle	82.3	0	A	ASIA	Iran-05	BAL-11
viba_594	IRN/1/2011	bovine	82.3	0	A	ASIA	Iran-05	FAR-11
viba_308	IRN/9/2011	bovine	82.3	0	A	ASIA	Iran-05	QAZ-11

Virus sample name:	TUR/15 vaccine
Sender reference:	A/TUR/15
Location of origin:	Van province
Country of origin:	Turkey
Date of collection:	09/2015
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	G-VII
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	24/08/2020
Last updated:	24/08/2020
VIBASys IDs: sample 45262, genome 45263, sequence viba_45264, sequencing info 45265	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32140	TUR/198/2015.808	cattle	99.2	0	A	ASIA	G-VII	
viba_32136	TUR/175/2015.712	cattle	99.2	0	A	ASIA	G-VII	
viba_45240	TUR/231/2015.904	cattle	99.2	0	A	ASIA	G-VII	
viba_25136	ARM/1/2015	cattle	99.2	0	A	ASIA	G-VII	
viba_45220	TUR/214/2015.865	cattle	99.2	0	A	ASIA	G-VII	
viba_45273	TUR/65/2016.038	cattle	99.2	0	A	ASIA	G-VII	
viba_45236	TUR/267/2015.904	cattle	99.2	0	A	ASIA	G-VII	
viba_25144	ARM/3/2015	cattle	99.2	0	A	ASIA	G-VII	
viba_45285	TUR/1222/2016.769	cattle	99.2	0	A	ASIA	G-VII	
viba_32168	TUR/1218/2016.769	cattle	99.2	0	A	ASIA	G-VII	

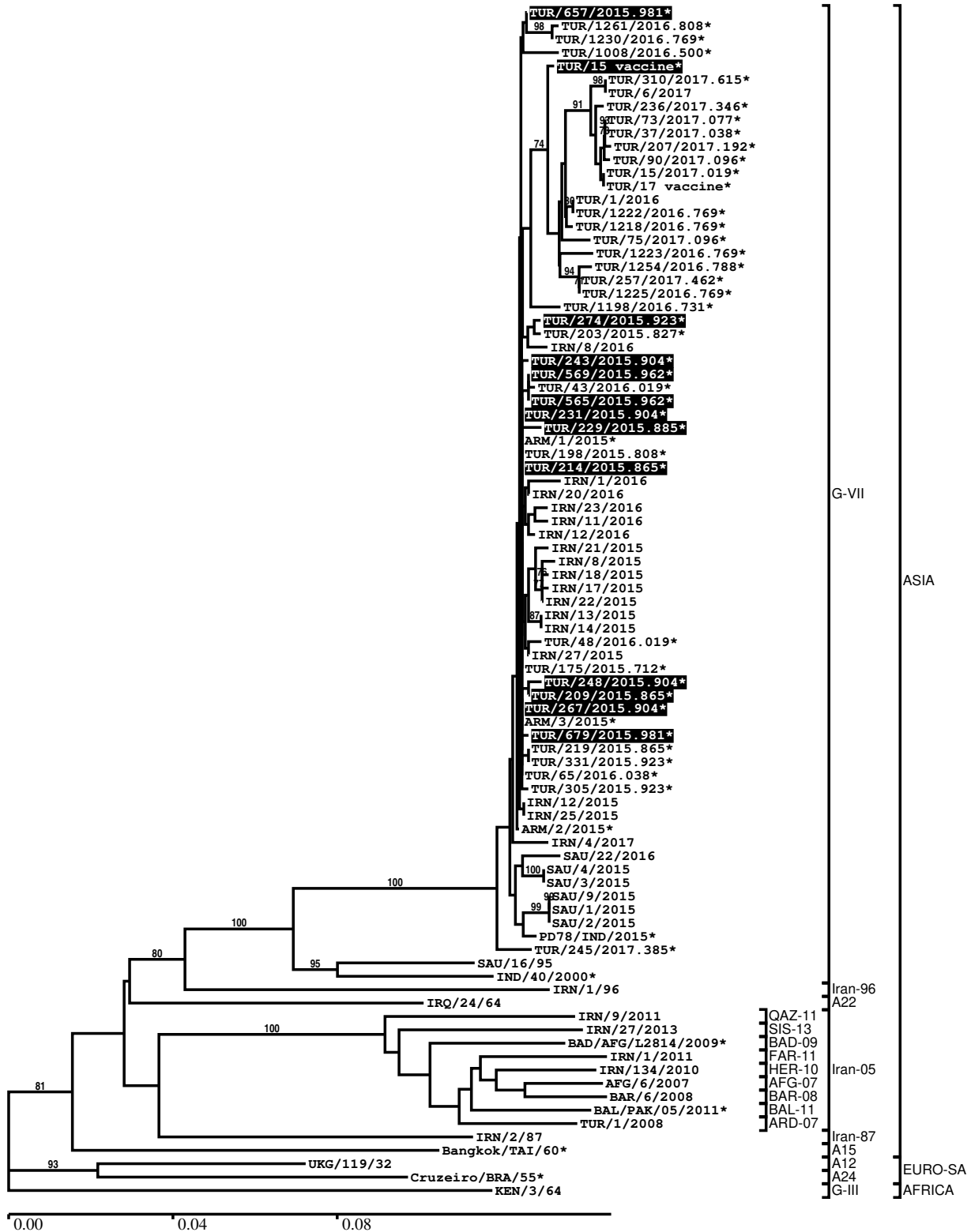
#### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_864	IND/40/2000	cattle	90.1	0	A	ASIA	G-VII	
viba_843	SAU/16/95		89.9	0	A	ASIA	G-VII	
viba_677	IRQ/24/64	bovine	84.8	0	A	ASIA	A22	
viba_336	IRN/1/96	bovine	84.4	1	A	ASIA	Iran-96	
viba_682	IRN/2/87	bovine	83.5	0	A	ASIA	Iran-87	
viba_699	UKG/119/32		83.2	0	A	EURO-SA	A12	
viba_20943	IRN/27/2013	cattle	82.6	0	A	ASIA	Iran-05	SIS-13
viba_594	IRN/1/2011	bovine	82.5	0	A	ASIA	Iran-05	FAR-11
viba_13615	IRN/134/2010	cattle	82.3	0	A	ASIA	Iran-05	HER-10
viba_403	TUR/1/2008	cattle	82.1	0	A	ASIA	Iran-05	ARD-07

Report on FMDV A in Turkey in 2015

Batch: WRLMEG/2020/00023



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor: vp1\_A  
 Query sequence set: WRLMEG/2020/00023-Turkey-A (13 sequences)  
 Sequence database set: allseqs\_A (2195 sequences)  
 Prototype sequence set: !prototypes\_A (40 sequences)  
 Number of related sequences reported: 10  
 Minimal VP1 subsequence match length: 600  
 Sequence alignment method: muscle (default parameters)  
 Sequence alignment length: 633  
 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: 16  
 VIBASys version: reflabs-1.1.2

## Sequences in the Phylogenetic Tree

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

label	accession	host(s)	lab	country	taxonomic information
TUR/657/2015.981*	MT681228	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1261/2016.808*	MT681210	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1230/2016.769*	MT681224	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1008/2016.500*	KY982328	cattle	FMDI	Turkey	ASIA/G-VII
TUR/15 vaccine*	MT681263	cattle	FMDI	Turkey	ASIA/G-VII
TUR/310/2017.615*	MT681258	cattle	FMDI	Turkey	ASIA/G-VII
TUR/6/2017	n/a	cattle	WRLFMD	Turkey	ASIA/G-VII
TUR/236/2017.346*	MT681238	cattle	FMDI	Turkey	ASIA/G-VII
TUR/73/2017.077*	MT681249	cattle	FMDI	Turkey	ASIA/G-VII
TUR/37/2017.038*	MT681247	cattle	FMDI	Turkey	ASIA/G-VII
TUR/207/2017.192*	MT681255	cattle	FMDI	Turkey	ASIA/G-VII
TUR/90/2017.096*	MT681250	cattle	FMDI	Turkey	ASIA/G-VII
TUR/15/2017.019*	MT681245	cattle	FMDI	Turkey	ASIA/G-VII
TUR/17 vaccine*	MT681265	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1/2016	n/a	cattle	WRLFMD	Turkey	ASIA/G-VII
TUR/1222/2016.769*	MT681232	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1218/2016.769*	KY982331	cattle	FMDI	Turkey	ASIA/G-VII
TUR/75/2017.096*	MT681236	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1223/2016.769*	MT681231	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1254/2016.788*	MT681233	cattle	FMDI	Turkey	ASIA/G-VII
TUR/257/2017.462*	MT681239	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1225/2016.769*	KY982332	cattle	FMDI	Turkey	ASIA/G-VII
TUR/1198/2016.731*	MT681218	cattle	FMDI	Turkey	ASIA/G-VII
TUR/274/2015.923*	MT681227	cattle	FMDI	Turkey	ASIA/G-VII
TUR/203/2015.827*	KY982323	cattle	FMDI	Turkey	ASIA/G-VII
IRN/8/2016	KY982293	cattle	WRLFMD	Iran	ASIA/G-VII
TUR/243/2015.904*	MT681220	cattle	FMDI	Turkey	ASIA/G-VII
TUR/569/2015.962*	MT681215	cattle	FMDI	Turkey	ASIA/G-VII
TUR/43/2016.019*	MT681213	cattle	FMDI	Turkey	ASIA/G-VII
TUR/565/2015.962*	MT681214	cattle	FMDI	Turkey	ASIA/G-VII
TUR/231/2015.904*	MT681229	cattle	FMDI	Turkey	ASIA/G-VII
TUR/229/2015.885*	MT681225	cattle	FMDI	Turkey	ASIA/G-VII
ARM/1/2015*	KY982279	cattle	ARRIAH	Armenia	ASIA/G-VII
TUR/198/2015.808*	KY982322	cattle	FMDI	Turkey	ASIA/G-VII
TUR/214/2015.865*	MT681219	cattle	FMDI	Turkey	ASIA/G-VII
IRN/1/2016	KY982292	cattle	WRLFMD	Iran	ASIA/G-VII

*continued on next page*



label	accession	host(s)	lab	country	taxonomic information
IRN/20/2016	KY982296	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/23/2016	KY982297	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/11/2016	KY982294	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/12/2016	KY982295	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/21/2015	KY982288	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/8/2015	KY982282	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/18/2015	KY982287	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/17/2015	KY982286	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/22/2015	KY982289	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/13/2015	KY982284	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/14/2015	KY982285	cattle	WRLFMD	Iran	ASIA/G-VII
TUR/48/2016.019*	KY982327	sheep	FMDI	Turkey	ASIA/G-VII
IRN/27/2015	KY982291	cattle	WRLFMD	Iran	ASIA/G-VII
TUR/175/2015.712*	KY982321	cattle	FMDI	Turkey	ASIA/G-VII
TUR/248/2015.904*	MT681221	cattle	FMDI	Turkey	ASIA/G-VII
TUR/209/2015.865*	MT681212	cattle	FMDI	Turkey	ASIA/G-VII
TUR/267/2015.904*	MT681226	cattle	FMDI	Turkey	ASIA/G-VII
ARM/3/2015*	KY982281	cattle	ARRIAH	Armenia	ASIA/G-VII
TUR/679/2015.981*	MT681211	cattle	FMDI	Turkey	ASIA/G-VII
TUR/219/2015.865*	KY982324	cattle	FMDI	Turkey	ASIA/G-VII
TUR/331/2015.923*	KY982326	cattle	FMDI	Turkey	ASIA/G-VII
TUR/65/2016.038*	MT681223	cattle	FMDI	Turkey	ASIA/G-VII
TUR/305/2015.923*	KY982325	cattle	FMDI	Turkey	ASIA/G-VII
IRN/12/2015	KY982283	cattle	WRLFMD	Iran	ASIA/G-VII
IRN/25/2015	KY982290	cattle	WRLFMD	Iran	ASIA/G-VII
ARM/2/2015*	KY982280	cattle	ARRIAH	Armenia	ASIA/G-VII
IRN/4/2017	n/a	cattle	WRLFMD	Iran	ASIA/G-VII
SAU/22/2016	KY982315	cattle	WRLFMD	Saudi Arabia	ASIA/G-VII
SAU/4/2015	KY982300	cattle	WRLFMD	Saudi Arabia	ASIA/G-VII
SAU/3/2015	KY982299	cattle	WRLFMD	Saudi Arabia	ASIA/G-VII
SAU/9/2015	KY982305	bovine	WRLFMD	Saudi Arabia	ASIA/G-VII
SAU/1/2015	KU127247	cattle	WRLFMD	Saudi Arabia	ASIA/G-VII
SAU/2/2015	KY982298	cattle	WRLFMD	Saudi Arabia	ASIA/G-VII
PD78/IND/2015*	KY780958	cattle	PD-FMD	India	ASIA/G-VII
TUR/245/2017.385*	MT681216	cattle	FMDI	Turkey	ASIA/G-VII
SAU/16/95	EU553874	n/a	WRLFMD	Saudi Arabia	ASIA/G-VII
IND/40/2000*	AF390646	cattle	PD-FMD	India	ASIA/G-VII
IRN/1/96	EF208771	bovine	WRLFMD	Iran	ASIA/Iran-96
IRQ/24/64	AY593763	bovine	PIADC	Iraq	ASIA/A22
IRN/9/2011	KY091295	bovine	WRLFMD	Iran	ASIA/Iran-05/QAZ-11
IRN/27/2013	n/a	cattle	WRLFMD	Iran	ASIA/Iran-05/SIS-13
BAD/AFG/L2814/2009*	HQ439296	cattle	LINDHOLM	Afghanistan	ASIA/Iran-05/BAD-09
IRN/1/2011	KY091292	bovine	WRLFMD	Iran	ASIA/Iran-05/FAR-11
IRN/134/2010	n/a	cattle	WRLFMD	Iran	ASIA/Iran-05/HER-10
AFG/6/2007	FJ755007	bovine	WRLFMD	Afghanistan	ASIA/Iran-05/AFG-07
BAR/6/2008	FJ755010	bovine	WRLFMD	Bahrain	ASIA/Iran-05/BAR-08
BAL/PAK/05/2011*	KT832824	cattle	Univ Malakand	Pakistan	ASIA/Iran-05/BAL-11
TUR/1/2008	FJ755133	cattle	WRLFMD	Turkey	ASIA/Iran-05/ARD-07
IRN/2/87	EF208770	bovine	WRLFMD	Iran	ASIA/Iran-87
Bangkok/TAI/60*	AY593755	n/a	PIADC	Thailand	ASIA/A15
UKG/119/32	M10975	n/a	PIADC	United Kingdom	EURO-SA/A12
Cruzeiro/BRA/55*	AY593768	bovine	PIADC	Brazil	EURO-SA/A24
KEN/3/64	AY593761	n/a	PIADC	Kenya	AFRICA/G-III

\*, not a WRLFMD Reference Number

n/a, not available