

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

Genotyping Report

FMDV serotype: O
Country: Mongolia
Year: 2015, 2017
Batch: WRLFMD/2017/00010
No. of sequences: 8
Report date: 8th June 2017
Report generated by: Nick Knowles
Report checked by: Kasia Bankowska



Copyright © 2017 The Pirbright Institute, Ash Road, Pirbright, Woking GU24 0NF, United Kingdom.

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

email: reporting@pirbright.ac.uk

The contents of this report should not be reproduced without permission.

Virus sample name:	MOG/5/2015
Sender reference:	O/MOG/7Khovd/Ca/15
Location of origin:	Ulaanbaatar, Khovd, Bulgan
Country of origin:	Mongolia
Date of collection:	03/03/2015
Host species:	cattle
Serotype:	O
Topotype:	SEA
Lineage:	Mya-98
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	07/06/2017
Last updated:	07/06/2017
VIBASys IDs: sample 33739, genome 33740, sequence viba_33741, sequencing info 33742	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_25489	MOG/1/2015	cattle	100.0	0	O	SEA	Mya-98	
viba_25497	MOG/3/2015	cattle	100.0	0	O	SEA	Mya-98	
viba_25501	MOG/4/2015	cattle	100.0	0	O	SEA	Mya-98	
viba_25493	MOG/2/2015	cattle	100.0	0	O	SEA	Mya-98	
viba_22929	MAY/2/2014	cattle	99.4	0	O	SEA	Mya-98	
viba_30133	MAY/18/2014	cattle	99.1	0	O	SEA	Mya-98	
viba_23444	VIT/27/2014	cattle	99.1	0	O	SEA	Mya-98	
viba_23276	TAI/10/2014	cattle	99.1	0	O	SEA	Mya-98	
viba_30121	MAY/10/2014	cattle	99.1	0	O	SEA	Mya-98	
viba_23440	VIT/26/2014	cattle	99.1	0	O	SEA	Mya-98	

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_199	MYA/7/98	bovine	92.4	0	O	SEA	Mya-98	
viba_68	TAI/189/87	bovine	89.1	0	O	SEA		
viba_576	IND/R2/75		87.5	0	O	ME-SA		
viba_694	CAM/3/98	bovine	86.9	0	O	SEA	Cam-94	
viba_359	Manisa/TUR/69		86.6	0	O	ME-SA		
viba_505	TUR/264/2009		86.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_766	IRN/31/2009	cattle	86.1	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		86.0	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		86.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	85.7	0	O	ME-SA		

Virus sample name:	MOG/6/2015
Sender reference:	O/MOG/8/Sukhb/Ca/15
Location of origin:	Ulaanbaatar, Sukhbaatar, Uulbayan
Country of origin:	Mongolia
Date of collection:	12/05/2015
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	17/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	07/06/2017
Last updated:	07/06/2017
VIBASys IDs: sample 33743, genome 33744, sequence viba_33745, sequencing info 33746	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_22946	MOG/1/2014	cattle	98.6	0	O	ME-SA	PanAsia	
viba_22962	MOG/5/2014	cattle	98.4	0	O	ME-SA	PanAsia	
viba_22950	MOG/2/2014	cattle	98.4	0	O	ME-SA	PanAsia	
viba_22954	MOG/3/2014	cattle	98.4	0	O	ME-SA	PanAsia	
viba_22958	MOG/4/2014	cattle	98.3	0	O	ME-SA	PanAsia	
viba_22114	VIT/13/2013	cattle	98.1	0	O	ME-SA	PanAsia	
viba_22122	VIT/15/2013	cattle	98.1	0	O	ME-SA	PanAsia	
viba_22170	VIT/32/2013	cattle	97.9	0	O	ME-SA	PanAsia	
viba_22194	VIT/40/2013	cattle	97.9	0	O	ME-SA	PanAsia	
viba_22174	VIT/33/2013	cattle	97.9	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	91.6	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	90.7	0	O	ME-SA	Ind-2001	a
viba_541	OMN/7/2001	bovine	90.2	0	O	ME-SA	Ind-2001	b
viba_293	BHU/3/2009	cattle	89.4	0	O	ME-SA	Ind-2001	d
viba_650	IRN/8/2005	ovine	89.4	0	O	ME-SA	PanAsia-2	
viba_397	UAE/4/2008	gazelle	88.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_860	IRN/6/2015	cattle	88.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_666	IRN/18/2010	cattle	88.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_850	NEP/1/2015	cattle	88.2	1	O	ME-SA	PanAsia-2	KAT-15

Virus sample name:	MOG/1/2017
Sender reference:	O/MOG/1/Ca/Sb/17
Location of origin:	Ulaanbaatar, Sukhbaatar, Erdenetsagaan
Country of origin:	Mongolia
Date of collection:	28/01/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	07/06/2017
Last updated:	07/06/2017
VIBASys IDs: sample 33747, genome 33748, sequence viba_33749, sequencing info 33750	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33753	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33761	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33769	MOG/12/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	99.8	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	94.0	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.8	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.8	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_541	OMN/7/2001	bovine	90.8	0	O	ME-SA	Ind-2001	b
viba_860	IRN/6/2015	cattle	90.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_491	TUR/257/2008		90.4	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		90.2	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	MOG/2/2017
Sender reference:	O/MOG/2/Ca/Sb/17
Location of origin:	Ulaanbaatar, Sukhbaatar, Erdenetsagaan
Country of origin:	Mongolia
Date of collection:	28/01/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	07/06/2017
Last updated:	07/06/2017
VIBASys IDs: sample 33751, genome 33752, sequence viba_33753, sequencing info 33754	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33538	MOG/1/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33749	MOG/1/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33761	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33769	MOG/12/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	99.8	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	94.0	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.8	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.8	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_541	OMN/7/2001	bovine	90.8	0	O	ME-SA	Ind-2001	b
viba_860	IRN/6/2015	cattle	90.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_491	TUR/257/2008		90.4	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		90.2	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	MOG/3/2017
Sender reference:	O/MOG/3/Ca/Do/17
Location of origin:	Ulaanbaatar, Dornod, Matad
Country of origin:	Mongolia
Date of collection:	31/01/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	07/06/2017
Last updated:	07/06/2017
VIBASys IDs: sample 33755, genome 33756, sequence viba_33757, sequencing info 33758	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33769	MOG/12/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.7	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.7	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	93.7	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.5	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.5	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.5	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_541	OMN/7/2001	bovine	90.5	0	O	ME-SA	Ind-2001	b
viba_860	IRN/6/2015	cattle	90.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_491	TUR/257/2008		90.0	0	O	ME-SA	PanAsia-2	TER-08

Virus sample name:	MOG/10/2017
Sender reference:	O/MOG/5/Ca/Kh/17
Location of origin:	Ulaanbaatar, Khentii, Batnorov
Country of origin:	Mongolia
Date of collection:	23/03/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	08/06/2017
Last updated:	08/06/2017
VIBASys IDs: sample 33759, genome 33760, sequence viba_33761, sequencing info 33762	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33753	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33749	MOG/1/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33769	MOG/12/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	99.8	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	94.0	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.8	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.8	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_541	OMN/7/2001	bovine	90.8	0	O	ME-SA	Ind-2001	b
viba_860	IRN/6/2015	cattle	90.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_491	TUR/257/2008		90.4	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		90.2	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	MOG/11/2017
Sender reference:	O/MOG/6/Ca/Kh/17
Location of origin:	Ulaanbaatar, Khentii, Batnorov
Country of origin:	Mongolia
Date of collection:	23/03/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	08/06/2017
Last updated:	08/06/2017
VIBASys IDs: sample 33763, genome 33764, sequence viba_33765, sequencing info 33766	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33769	MOG/12/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017a	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.7	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.7	0	O	ME-SA	PanAsia	

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_285	UKG/35/2001	porcine	93.7	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.5	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.5	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.5	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.5	0	O	ME-SA	PanAsia-2	BAL-09
viba_860	IRN/6/2015	cattle	90.5	0	O	ME-SA	PanAsia-2	QOM-15
viba_541	OMN/7/2001	bovine	90.5	0	O	ME-SA	Ind-2001	b
viba_491	TUR/257/2008		90.0	0	O	ME-SA	PanAsia-2	TER-08
viba_850	NEP/1/2015	cattle	90.0	1	O	ME-SA	PanAsia-2	KAT-15

Virus sample name:	MOG/12/2017
Sender reference:	O/MOG/4/Ca/Do/17
Location of origin:	Ulaanbaatar, Dornod, Tsagaan-Ovoo
Country of origin:	Mongolia
Date of collection:	03/04/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/05/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	05/06/2017
Created:	08/06/2017
Last updated:	08/06/2017
VIBASys IDs: sample 33767, genome 33768, sequence viba_33769, sequencing info 33770	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017a	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33753	MOG/2/2017	cattle	99.8	0	O	ME-SA	PanAsia	

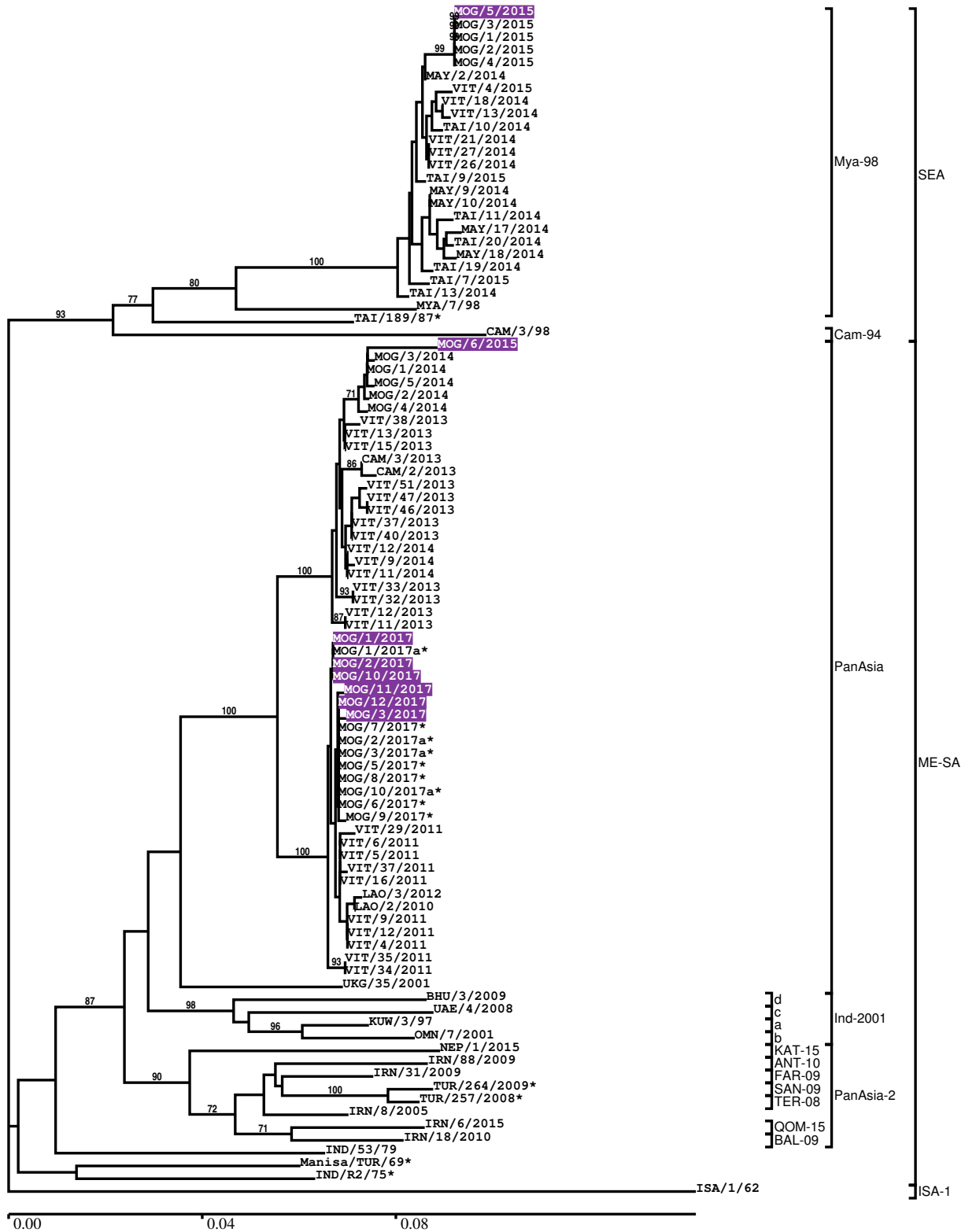
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_285	UKG/35/2001	porcine	93.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	91.6	0	O	ME-SA	Ind-2001	a
viba_650	IRN/8/2005	ovine	91.6	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	91.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
viba_666	IRN/18/2010	cattle	90.7	0	O	ME-SA	PanAsia-2	BAL-09
viba_541	OMN/7/2001	bovine	90.7	0	O	ME-SA	Ind-2001	b
viba_860	IRN/6/2015	cattle	90.4	0	O	ME-SA	PanAsia-2	QOM-15
viba_491	TUR/257/2008		90.2	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		90.0	0	O	ME-SA	PanAsia-2	ANT-10

Report on FMDV O in Mongolia in 2015, 2017

Batch: WRLFMD/2017/00010



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor: vp1_O
 Query sequence set: WRLFMD/2017/00010-Mongolia-O (8 sequences)
 Sequence database set: allseqs_O (3506 sequences)
 Prototype sequence set: !prototypes_O (47 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: master-1.1.0-17-gf69a4d1

Sequences in the Phylogenetic Tree

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

label	accession	host(s)	lab	country	taxonomic information
MOG/5/2015	n/a	cattle	WRLFMD	Mongolia	SEA/Mya-98
MOG/3/2015	n/a	cattle	WRLFMD	Mongolia	SEA/Mya-98
MOG/1/2015	n/a	cattle	WRLFMD	Mongolia	SEA/Mya-98
MOG/2/2015	n/a	cattle	WRLFMD	Mongolia	SEA/Mya-98
MOG/4/2015	n/a	cattle	WRLFMD	Mongolia	SEA/Mya-98
MAY/2/2014	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
VIT/4/2015	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
VIT/18/2014	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
VIT/13/2014	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
TAI/10/2014	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
VIT/21/2014	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
VIT/27/2014	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
VIT/26/2014	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
TAI/9/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
MAY/9/2014	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/10/2014	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
TAI/11/2014	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
MAY/17/2014	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
TAI/20/2014	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
MAY/18/2014	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
TAI/19/2014	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/7/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/13/2014	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
MYA/7/98	DQ164925	bovine	WRLFMD	Myanmar	SEA/Mya-98
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
CAM/3/98	AJ294910	bovine	WRLFMD	Cambodia	SEA/Cam-94
MOG/6/2015	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/3/2014	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/1/2014	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/5/2014	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/2/2014	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/4/2014	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
VIT/38/2013	KY492071	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/13/2013	KX944715	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/15/2013	KX944717	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
CAM/3/2013	n/a	cattle	WRLFMD	Cambodia	ME-SA/PanAsia

continued on next page

label	accession	host(s)	lab	country	taxonomic information
CAM/2/2013	n/a	cattle	WRLFMD	Cambodia	ME-SA/PanAsia
VIT/51/2013	KY492073	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/47/2013	KY492072	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/46/2013	KX944731	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/37/2013	KX944727	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/40/2013	KX944729	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/12/2014	KY492074	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/9/2014	KX944732	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/11/2014	KX944733	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/33/2013	KY492070	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/32/2013	KX944725	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/12/2013	KY492065	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/11/2013	KX944714	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
MOG/1/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/1/2017a*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/2/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/10/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/11/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/12/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/3/2017	n/a	cattle	WRLFMD	Mongolia	ME-SA/PanAsia
MOG/7/2017*	n/a	gazelle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/2/2017a*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/3/2017a*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/5/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/8/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/10/2017a*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/6/2017*	n/a	gazelle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/9/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
VIT/29/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/6/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/5/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/37/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/16/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
LAO/3/2012	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
LAO/2/2010	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
VIT/9/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/12/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/4/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/35/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/34/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
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
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
NEP/1/2015	n/a	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
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
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
IRN/6/2015	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/18/2010	KY091283	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/BAL-09
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
IND/R2/75*	AF204276	n/a	PD-FMD	India	ME-SA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available