

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

Genotyping Report

FMDV serotype: O
Country: Mongolia
Year: 2017
Batch: WRLMEG/2017/00036
No. of sequences: 9
Report date: 16th May 2017
Report generated by: Nick Knowles
Report checked by: Kasia Bankowska



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Virus sample name:	MOG/1/2017
Sender reference:	O/MOG/01/Ca/Sb/17
Location of origin:	Sukhbaatar province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33534, genome 33537, sequence viba_33538, sequencing info 33539	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.7	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.7	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	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	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_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_293	BHU/3/2009	cattle	90.8	0	O	ME-SA	Ind-2001	d
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/02/Ca/Sb/17
Location of origin:	Sukhbaatar province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33540, genome 33541, sequence viba_33542, sequencing info 33543	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/3/2017
Sender reference:	O/MOG/03/Ca/Sb/17
Location of origin:	Sukhbaatar province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33544, genome 33545, sequence viba_33546, sequencing info 33547	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/5/2017
Sender reference:	O/MOG/05/Ca/Sb/17
Location of origin:	Sukhbaatar province
Country of origin:	Mongolia
Date of collection:	07/02/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
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:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33548, genome 33549, sequence viba_33550, sequencing info 33551	

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_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/6/2017
Sender reference:	O/MOG/06/Ga/Do/17
Location of origin:	Sukhbaatar province
Country of origin:	Mongolia
Date of collection:	07/02/2017
Host species:	gazelle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
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:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33552, genome 33553, sequence viba_33554, sequencing info 33555	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/7/2017
Sender reference:	O/MOG/07/Ga/Do/17
Location of origin:	Sukhbaatar province
Country of origin:	Mongolia
Date of collection:	07/02/2017
Host species:	gazelle
Serotype:	O
Topotype:	ME-SA
Lineage:	PanAsia
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:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33556, genome 33557, sequence viba_33558, sequencing info 33559	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/8/2017
Sender reference:	O/MOG/08/Ca/Do/17
Location of origin:	Dornod province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33560, genome 33561, sequence viba_33562, sequencing info 33563	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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

Virus sample name:	MOG/9/2017
Sender reference:	O/MOG/09/Ca/Do/17
Location of origin:	Dornod province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33564, genome 33565, sequence viba_33566, sequencing info 33567	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33570	MOG/10/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	99.8	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.7	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.7	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	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	91.8	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_541	OMN/7/2001	bovine	90.8	0	O	ME-SA	Ind-2001	b
viba_293	BHU/3/2009	cattle	90.8	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	90.2	0	O	ME-SA	PanAsia-2	QOM-15
viba_850	NEP/1/2015	cattle	90.0	1	O	ME-SA	PanAsia-2	KAT-15
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/10/Ca/Do/17
Location of origin:	Dornod province
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:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	16/05/2017
Last updated:	16/05/2017
VIBASys IDs: sample 33568, genome 33569, sequence viba_33570, sequencing info 33571	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_33550	MOG/5/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33554	MOG/6/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33546	MOG/3/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33558	MOG/7/2017	gazelle	100.0	0	O	ME-SA	PanAsia	
viba_33562	MOG/8/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_33542	MOG/2/2017	cattle	100.0	0	O	ME-SA	PanAsia	
viba_18732	VIT/5/2011	cattle	99.8	0	O	ME-SA	PanAsia	
viba_18736	VIT/6/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_18776	VIT/16/2011	water buffalo	99.8	0	O	ME-SA	PanAsia	
viba_33538	MOG/1/2017	cattle	99.8	0	O	ME-SA	PanAsia	

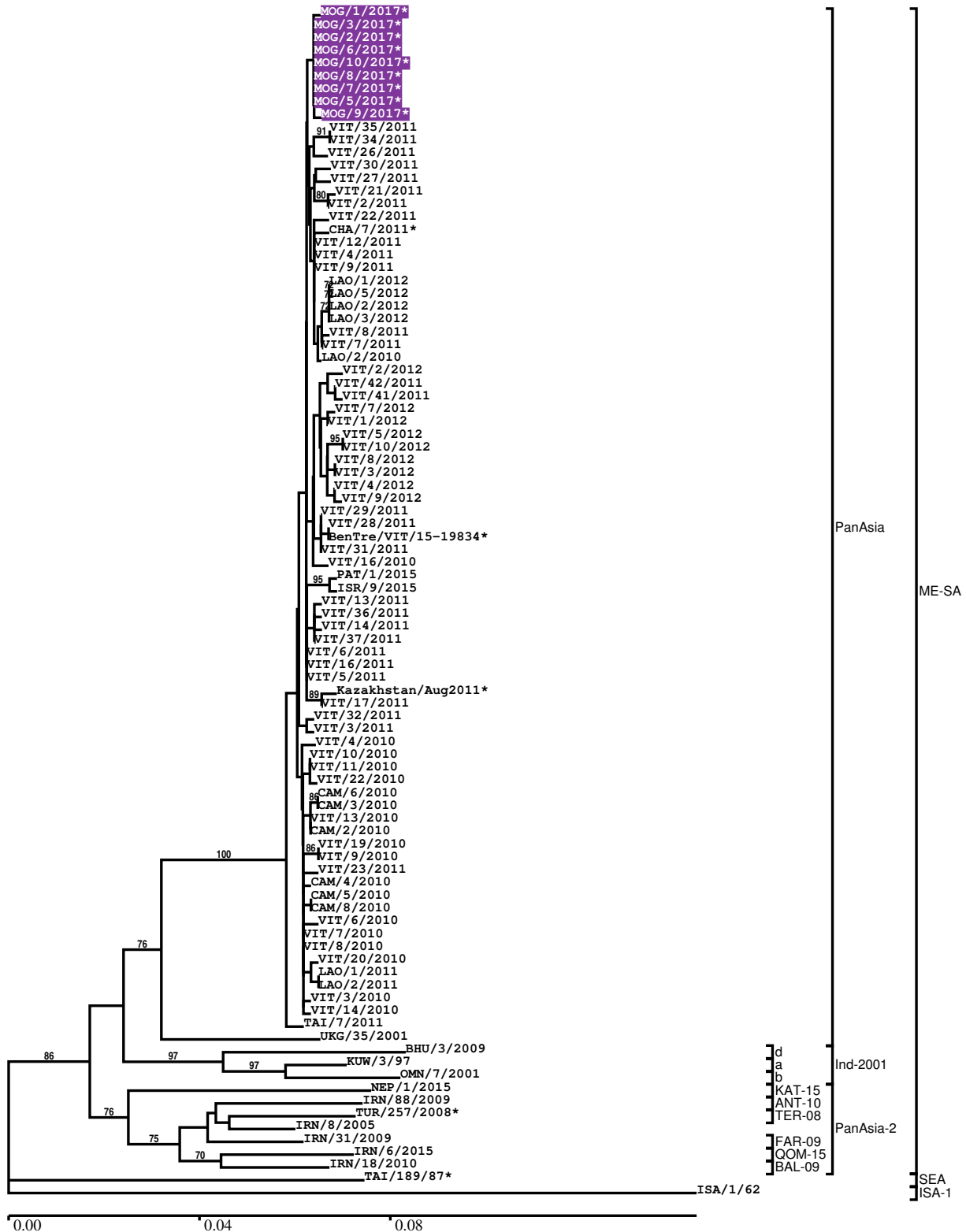
Most Closely Related Prototype Sequences

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_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_293	BHU/3/2009	cattle	90.7	0	O	ME-SA	Ind-2001	d
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 2017

Batch: WRLMEG/2017/00036



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLMEG/2017/00036-Mongolia-O (9 sequences)
Sequence database set:	allseqs_O (3489 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:	11
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/1/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/3/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/2/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/6/2017*	n/a	gazelle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/10/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/8/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/7/2017*	n/a	gazelle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/5/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/PanAsia
MOG/9/2017*	n/a	cattle	ARRIAH	Mongolia	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
VIT/26/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/30/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/27/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/21/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/2/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/22/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
CHA/7/2011*	JF837375	n/a	LVRI	China	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/9/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
LAO/1/2012	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
LAO/5/2012	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
LAO/2/2012	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
LAO/3/2012	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
VIT/8/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/7/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
LAO/2/2010	n/a	cattle	WRLFMD	Laos	ME-SA/PanAsia
VIT/2/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/42/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/41/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/7/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/1/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/5/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/10/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/8/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia

continued on next page

label	accession	host(s)	lab	country	taxonomic information
VIT/3/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/4/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/9/2012	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/29/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/28/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
BenTre/VIT/15-19834*	n/a	cattle	RAHO6	Vietnam	ME-SA/PanAsia
VIT/31/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/16/2010	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
PAT/1/2015	n/a	sheep	WRLFMD	Palestinian AT	ME-SA/PanAsia
ISR/9/2015	n/a	cattle	WRLFMD	Israel	ME-SA/PanAsia
VIT/13/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/36/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/14/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/37/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/6/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/16/2011	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/5/2011	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
Kazakhstan/Aug2011*	n/a	cattle	ARRIAH	Kazakhstan	ME-SA/PanAsia
VIT/17/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/32/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/3/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/4/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/10/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/11/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/22/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
CAM/6/2010	n/a	cattle	WRLFMD	Cambodia	ME-SA/PanAsia
CAM/3/2010	n/a	n/a	WRLFMD	Cambodia	ME-SA/PanAsia
VIT/13/2010	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
CAM/2/2010	n/a	cattle	WRLFMD	Cambodia	ME-SA/PanAsia
VIT/19/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/9/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/23/2011	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
CAM/4/2010	n/a	n/a	WRLFMD	Cambodia	ME-SA/PanAsia
CAM/5/2010	n/a	n/a	WRLFMD	Cambodia	ME-SA/PanAsia
CAM/8/2010	n/a	cattle	WRLFMD	Cambodia	ME-SA/PanAsia
VIT/6/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/7/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/8/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/20/2010	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/PanAsia
LAO/1/2011	n/a	water buffalo	WRLFMD	Laos	ME-SA/PanAsia
LAO/2/2011	n/a	water buffalo	WRLFMD	Laos	ME-SA/PanAsia
VIT/3/2010	n/a	porcine	WRLFMD	Vietnam	ME-SA/PanAsia
VIT/14/2010	n/a	cattle	WRLFMD	Vietnam	ME-SA/PanAsia
TAI/7/2011	n/a	cattle	WRLFMD	Thailand	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
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
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/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
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
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available