

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

Genotyping Report

FMDV serotype: O
Country: Myanmar
Year: 2017
Batch: WRLMEG/2017/00032
No. of sequences: 8
Report date: 20th April 2017
Report generated by: Nick Knowles
Report checked by: Antonello Di Nardo

Sequences submitted on the 20th April 2017 by Dr. Pranee Rodtian, OIE Regional Reference Laboratory for FMD in Southeast Asia, Department of Livestock Development, Pakchong, Thailand.



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

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Virus sample name:	MYA/1/2017
Sender reference:	O/MYA/1/2017 (MYA-17/1 : 2354)
Location of origin:	Khin Oo township, Sagging state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	SEA
Lineage:	Mya-98
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32419, genome 32420, sequence viba_32421, sequencing info 32422	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_6643	MYA/4/2004	cattle	94.2	0	O	SEA	Mya-98	
viba_9071	MYA/2/2006	cattle	94.2	0	O	SEA	Mya-98	
viba_12881	MYA/3/2009	cattle	94.0	0	O	SEA	Mya-98	
viba_7762	VIT/6/2005	cattle	93.5	0	O	SEA	Mya-98	
viba_7487	MAY/2/2005	cattle	93.0	0	O	SEA	Mya-98	
viba_7694	TAI/1/2005	cattle	92.9	0	O	SEA	Mya-98	
viba_7706	TAI/8/2005	cattle	92.9	0	O	SEA	Mya-98	
viba_10129	TAI/10/2007	cattle	92.7	0	O	SEA	Mya-98	
viba_7483	MAY/1/2005	cattle	92.7	0	O	SEA	Mya-98	
viba_15645	MYA/3/2010	cattle	92.6	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	92.6	0	O	SEA	Mya-98	
viba_68	TAI/189/87	bovine	90.5	0	O	SEA		
viba_694	CAM/3/98	bovine	87.0	0	O	SEA	Cam-94	
viba_576	IND/R2/75		86.5	0	O	ME-SA		
viba_359	Manisa/TUR/69		86.0	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	85.6	0	O	ME-SA	PanAsia	
viba_505	TUR/264/2009		85.5	0	O	ME-SA	PanAsia-2	SAN-09
viba_766	IRN/31/2009	cattle	85.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_116	SUD/2/86	bovine	85.0	0	O	EA-3		
viba_354	PAK/16/2010	cattle	84.9	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	MYA/4/2017
Sender reference:	O/MYA/4/2017 (MYA-17/4 : 2534)
Location of origin:	Pyin Oo township, Mandalay state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	SEA
Lineage:	Mya-98
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32423, genome 32424, sequence viba_32425, sequencing info 32426	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_26288	TAI/22/2015	water buffalo	99.1	0	O	SEA	Mya-98	
viba_25518	MYA/1/2015	bovine	98.9	0	O	SEA	Mya-98	
viba_30498	TAI/26/2016	cattle	98.9	0	O	SEA	Mya-98	
viba_30518	TAI/34/2016	cattle	98.7	0	O	SEA	Mya-98	
viba_26312	TAI/30/2015	cattle	98.6	0	O	SEA	Mya-98	
viba_30506	TAI/31/2016	cattle	98.6	0	O	SEA	Mya-98	
viba_30514	TAI/33/2016	porcine	98.6	0	O	SEA	Mya-98	
viba_31484	VIT/15/2016	water buffalo	98.6	0	O	SEA	Mya-98	
viba_30522	TAI/35/2016	cattle	98.6	0	O	SEA	Mya-98	
viba_30502	TAI/30/2016	cattle	98.6	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	91.9	0	O	SEA	Mya-98	
viba_68	TAI/189/87	bovine	88.8	0	O	SEA		
viba_766	IRN/31/2009	cattle	84.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		84.6	0	O	ME-SA	PanAsia-2	TER-08
viba_719	IRN/88/2009		84.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_505	TUR/264/2009		84.3	0	O	ME-SA	PanAsia-2	SAN-09
viba_666	IRN/18/2010	cattle	84.2	0	O	ME-SA	PanAsia-2	BAL-09
viba_860	IRN/6/2015	cattle	84.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_650	IRN/8/2005	ovine	84.1	0	O	ME-SA	PanAsia-2	
viba_354	PAK/16/2010	cattle	84.0	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	MYA/5/2017
Sender reference:	O/MYA/5/2017 (MYA-17/5 : 2546)
Location of origin:	Ingapu township, Ayeyarwaddy state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	SEA
Lineage:	Mya-98
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32427, genome 32428, sequence viba_32429, sequencing info 32430	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_25522	MYA/5/2015	bovine	99.2	0	O	SEA	Mya-98	
viba_26300	TAI/27/2015	cattle	98.3	0	O	SEA	Mya-98	
viba_23845	TAI/5/2016	porcine	98.1	0	O	SEA	Mya-98	
viba_31428	VIT/11/2015	porcine	97.9	0	O	SEA	Mya-98	
viba_23849	TAI/14/2016	cattle	97.6	0	O	SEA	Mya-98	
viba_26296	TAI/26/2015	cattle	97.6	0	O	SEA	Mya-98	
viba_26308	TAI/29/2015	cattle	97.5	0	O	SEA	Mya-98	
viba_19975	MAY/12/2012	cattle	92.7	0	O	SEA	Mya-98	
viba_19991	MAY/16/2012	cattle	92.7	0	O	SEA	Mya-98	
viba_19971	MAY/11/2012	cattle	92.7	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	90.3	0	O	SEA	Mya-98	
viba_68	TAI/189/87	bovine	87.6	0	O	SEA		
viba_694	CAM/3/98	bovine	84.3	0	O	SEA	Cam-94	
viba_491	TUR/257/2008		83.5	0	O	ME-SA	PanAsia-2	TER-08
viba_850	NEP/11/2015	cattle	83.4	1	O	ME-SA	PanAsia-2	KAT-15
viba_666	IRN/18/2010	cattle	83.0	0	O	ME-SA	PanAsia-2	BAL-09
viba_860	IRN/6/2015	cattle	82.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_576	IND/R2/75		82.9	0	O	ME-SA		
viba_293	BHU/3/2009	cattle	82.6	0	O	ME-SA	Ind-2001	d
viba_505	TUR/264/2009		82.5	0	O	ME-SA	PanAsia-2	SAN-09

Virus sample name:	MYA/6/2017
Sender reference:	O/MYA/6/2017 (MYA-17/6 : 2563)
Location of origin:	Sarlingyi township, Sagging state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	d
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32431, genome 32432, sequence viba_32433, sequencing info 32434	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	98.9	0	O	ME-SA	Ind-2001	d
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_31082	BAN/GKa-236(pig)/2015	porcine	98.7	0	O	ME-SA	Ind-2001	d
viba_31573	170206/SKR/2017	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_31492	VIT/20/2016	cattle	98.6	0	O	ME-SA	Ind-2001	d
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	98.6	0	O	ME-SA	Ind-2001	d
viba_32124	XJBC/CHA/2017		98.6	0	O	ME-SA	Ind-2001	d
viba_31947	SKR/1/2017	cattle	98.4	0	O	ME-SA	Ind-2001	d
viba_31565	170205/SKR/2017	cattle	98.4	0	O	ME-SA	Ind-2001	d

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_293	BHU/3/2009	cattle	93.2	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.3	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	90.9	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.7	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	87.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	87.4	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		87.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_666	IRN/18/2010	cattle	87.0	0	O	ME-SA	PanAsia-2	BAL-09

Virus sample name:	MYA/8/2017
Sender reference:	O/MYA/8/2017 (MYA-17/8 : 2573)
Location of origin:	Wahkhalma township, Ayeyawaddy state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	water buffalo
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	d
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32435, genome 32436, sequence viba_32437, sequencing info 32438	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_32441	MYA/9/2017	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	99.2	0	O	ME-SA	Ind-2001	d
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31082	BAN/GKa-236(pig)/2015	porcine	99.1	0	O	ME-SA	Ind-2001	d
viba_31573	170206/SKR/2017	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31135	BAN/NL/Lo-245/2015	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31541	BHU/2/2016	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31492	VIT/20/2016	cattle	98.9	0	O	ME-SA	Ind-2001	d
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	98.9	0	O	ME-SA	Ind-2001	d

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_293	BHU/3/2009	cattle	93.7	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.1	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	90.9	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.3	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_666	IRN/18/2010	cattle	87.3	0	O	ME-SA	PanAsia-2	BAL-09
viba_650	IRN/8/2005	ovine	87.3	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	87.2	0	O	ME-SA		

Virus sample name:	MYA/9/2017
Sender reference:	O/MYA/9/2017 (MYA-17/9 : 2577)
Location of origin:	Mingaladon township, Yangon state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	d
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32439, genome 32440, sequence viba_32441, sequencing info 32442	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	99.5	0	O	ME-SA	Ind-2001	d
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_31082	BAN/GKa-236(pig)/2015	porcine	99.4	0	O	ME-SA	Ind-2001	d
viba_31573	170206/SKR/2017	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_31135	BAN/NL/Lo-245/2015	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_31541	BHU/2/2016	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_32437	MYA/8/2017	water buffalo	99.4	0	O	ME-SA	Ind-2001	d
viba_30551	TAI-269-2-2016	cattle	99.2	0	O	ME-SA	Ind-2001	d
viba_31492	VIT/20/2016	cattle	99.2	0	O	ME-SA	Ind-2001	d

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_293	BHU/3/2009	cattle	94.0	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.4	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.5	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_666	IRN/18/2010	cattle	87.7	0	O	ME-SA	PanAsia-2	BAL-09
viba_719	IRN/88/2009		87.5	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	MYA/10/2017
Sender reference:	O/MYA/10/2017 (MYA-17/10 : 2595)
Location of origin:	Kani township, Sagging state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	d
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32443, genome 32444, sequence viba_32445, sequencing info 32446	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	99.2	0	O	ME-SA	Ind-2001	d
viba_31947	SKR/1/2017	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31565	170205/SKR/2017	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31082	BAN/GKa-236(pig)/2015	porcine	99.1	0	O	ME-SA	Ind-2001	d
viba_31573	170206/SKR/2017	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31951	SKR/2/2017	cattle	99.1	0	O	ME-SA	Ind-2001	d
viba_31492	VIT/20/2016	cattle	98.9	0	O	ME-SA	Ind-2001	d
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	98.9	0	O	ME-SA	Ind-2001	d

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_293	BHU/3/2009	cattle	93.7	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.4	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.9	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.0	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_666	IRN/18/2010	cattle	88.2	0	O	ME-SA	PanAsia-2	BAL-09
viba_650	IRN/8/2005	ovine	88.2	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	MYA/11/2017
Sender reference:	O/MYA/11/2017 (MYA-17/11 : 2601)
Location of origin:	Myin Mu township, Sagging state
Country of origin:	Myanmar
Date of collection:	2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	d
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	1C609/NK61
Received for sequencing:	n/a
Created:	20/04/2017
Last updated:	20/04/2017
VIBASys IDs: sample 32447, genome 32448, sequence viba_32449, sequencing info 32450	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31947	SKR/1/2017	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_32445	MYA/10/2017	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_31565	170205/SKR/2017	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_31951	SKR/2/2017	cattle	98.7	0	O	ME-SA	Ind-2001	d
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	98.6	0	O	ME-SA	Ind-2001	d
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	98.6	0	O	ME-SA	Ind-2001	d
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	98.4	0	O	ME-SA	Ind-2001	d
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	98.4	0	O	ME-SA	Ind-2001	d
viba_31082	BAN/GKa-236(pig)/2015	porcine	98.4	0	O	ME-SA	Ind-2001	d
viba_31573	170206/SKR/2017	cattle	98.4	0	O	ME-SA	Ind-2001	d

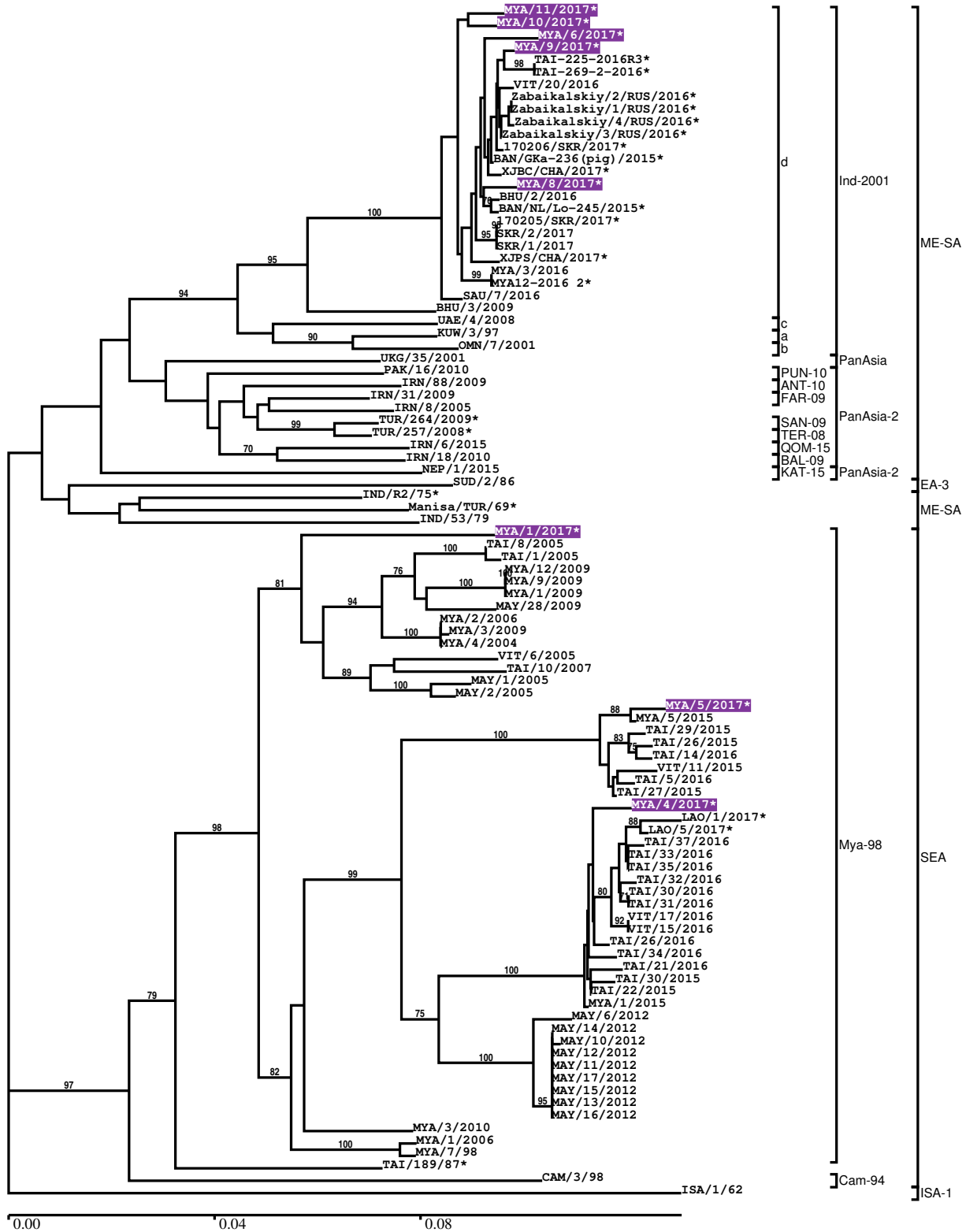
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.1	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_666	IRN/18/2010	cattle	88.8	0	O	ME-SA	PanAsia-2	BAL-09
viba_285	UKG/35/2001	porcine	88.8	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	88.6	0	O	ME-SA	PanAsia-2	
viba_505	TUR/264/2009		88.4	0	O	ME-SA	PanAsia-2	SAN-09
viba_491	TUR/257/2008		88.4	0	O	ME-SA	PanAsia-2	TER-08

Report on FMDV O in Myanmar in 2017

Batch: WRLMEG/2017/00032



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLMEG/2017/00032-Myanmar-O (8 sequences)
Sequence database set:	allseqs_O (3357 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:	21
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
MYA/11/2017*	n/a	cattle	TRRL	Myanmar	ME-SA/Ind-2001/d
MYA/10/2017*	n/a	cattle	TRRL	Myanmar	ME-SA/Ind-2001/d
MYA/6/2017*	n/a	cattle	TRRL	Myanmar	ME-SA/Ind-2001/d
MYA/9/2017*	n/a	cattle	TRRL	Myanmar	ME-SA/Ind-2001/d
TAI-225-2016R3*	n/a	cattle	TRRL	Thailand	ME-SA/Ind-2001/d
TAI-269-2-2016*	n/a	cattle	TRRL	Thailand	ME-SA/Ind-2001/d
VIT/20/2016	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/d
Zabaikalskiy/2/RUS/2016*	n/a	cattle	ARRIAH	Russia	ME-SA/Ind-2001/d
Zabaikalskiy/1/RUS/2016*	n/a	cattle	ARRIAH	Russia	ME-SA/Ind-2001/d
Zabaikalskiy/4/RUS/2016*	n/a	cattle	ARRIAH	Russia	ME-SA/Ind-2001/d
Zabaikalskiy/3/RUS/2016*	n/a	cattle	ARRIAH	Russia	ME-SA/Ind-2001/d
170206/SKR/2017*	n/a	cattle	QIA	South Korea, Republic of Bangladesh	ME-SA/Ind-2001/d
BAN/GKa-236(pig)/2015*	KX712091	porcine	Univ Dhaka	China	ME-SA/Ind-2001/d
XJBC/CHA/2017*	n/a	n/a	LVRI	Myanmar	ME-SA/Ind-2001/d
MYA/8/2017*	n/a	water buffalo	TRRL	Bhutan	ME-SA/Ind-2001/d
BHU/2/2016	n/a	cattle	WRLFMD	Bangladesh	ME-SA/Ind-2001/d
BAN/NL/Lo-245/2015*	KY077611	cattle	Univ Dhaka	South Korea, Republic of	ME-SA/Ind-2001/d
170205/SKR/2017*	n/a	cattle	QIA	South Korea, Republic of	ME-SA/Ind-2001/d
SKR/2/2017	n/a	cattle	WRLFMD	South Korea, Republic of	ME-SA/Ind-2001/d
SKR/1/2017	n/a	cattle	WRLFMD	South Korea, Republic of	ME-SA/Ind-2001/d
XJPS/CHA/2017*	n/a	n/a	LVRI	China	ME-SA/Ind-2001/d
MYA/3/2016	n/a	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/d
MYA12-2016 2*	n/a	n/a	TRRL	Myanmar	ME-SA/Ind-2001/d
SAU/7/2016	n/a	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/d
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
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10

continued on next page

label	accession	host(s)	lab	country	taxonomic information
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
TUR/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/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
NEP/1/2015	n/a	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
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
MYA/1/2017*	n/a	cattle	TRRL	Myanmar	SEA/Mya-98
TAI/8/2005	HQ116237	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/1/2005	HQ116234	cattle	WRLFMD	Thailand	SEA/Mya-98
MYA/12/2009	JQ070318	cattle	WRLFMD	Myanmar	SEA/Mya-98
MYA/9/2009	HQ116230	cattle	WRLFMD	Myanmar	SEA/Mya-98
MYA/1/2009	n/a	cattle	WRLFMD	Myanmar	SEA/Mya-98
MAY/28/2009	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MYA/2/2006	HQ116225	cattle	WRLFMD	Myanmar	SEA/Mya-98
MYA/3/2009	JQ070317	cattle	WRLFMD	Myanmar	SEA/Mya-98
MYA/4/2004	HQ116224	cattle	WRLFMD	Myanmar	SEA/Mya-98
VIT/6/2005	HQ116279	cattle	WRLFMD	Vietnam	SEA/Mya-98
TAI/10/2007	HQ116246	cattle	WRLFMD	Thailand	SEA/Mya-98
MAY/1/2005	HQ116196	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/2/2005	HQ116197	cattle	WRLFMD	Malaysia	SEA/Mya-98
MYA/5/2017*	n/a	cattle	TRRL	Myanmar	SEA/Mya-98
MYA/5/2015	n/a	bovine	WRLFMD	Myanmar	SEA/Mya-98
TAI/29/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/26/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/14/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
VIT/11/2015	n/a	porcine	WRLFMD	Vietnam	SEA/Mya-98
TAI/5/2016	n/a	porcine	WRLFMD	Thailand	SEA/Mya-98
TAI/27/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
MYA/4/2017*	n/a	cattle	TRRL	Myanmar	SEA/Mya-98
LAO/1/2017*	n/a	n/a	TRRL	Laos	SEA/Mya-98
LAO/5/2017*	n/a	n/a	TRRL	Laos	SEA/Mya-98
TAI/37/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/33/2016	n/a	porcine	WRLFMD	Thailand	SEA/Mya-98
TAI/35/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/32/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/30/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/31/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
VIT/17/2016	n/a	cattle	WRLFMD	Vietnam	SEA/Mya-98
VIT/15/2016	n/a	water buffalo	WRLFMD	Vietnam	SEA/Mya-98
TAI/26/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/34/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/21/2016	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/30/2015	n/a	cattle	WRLFMD	Thailand	SEA/Mya-98
TAI/22/2015	n/a	water buffalo	WRLFMD	Thailand	SEA/Mya-98
MYA/1/2015	n/a	bovine	WRLFMD	Myanmar	SEA/Mya-98
MAY/6/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/14/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/10/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/12/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/11/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/17/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/15/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/13/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MAY/16/2012	n/a	cattle	WRLFMD	Malaysia	SEA/Mya-98
MYA/3/2010	JQ070319	cattle	WRLFMD	Myanmar	SEA/Mya-98
MYA/1/2006	JQ070316	porcine	WRLFMD	Myanmar	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
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available