

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

## Genotyping Report

FMDV serotype: O  
Country: Nepal  
Year: 2018, 2019  
Batch: WRLFMD/2019/00021  
No. of sequences: 44  
Report date: 23rd May 2019  
Report generated by: Nick Knowles  
Report checked by: Jemma Wadsworth



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

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Virus sample name:	NEP/1/2018
Sender reference:	3 Np/075/076
Location of origin:	Dang
Country of origin:	Nepal
Date of collection:	02/04/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41554, genome 41555, sequence viba_41556, sequencing info 41557	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41564	NEP/3/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		87.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/2/2018
Sender reference:	9 Np/075/076
Location of origin:	Dang
Country of origin:	Nepal
Date of collection:	02/04/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41558, genome 41559, sequence viba_41560, sequencing info 41561	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41596	NEP/12/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41592	NEP/11/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41600	NEP/13/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	90.1	0	O	ME-SA	Ind-2001	c
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/3/2018
Sender reference:	4 Np/075/076
Location of origin:	Lalitpur
Country of origin:	Nepal
Date of collection:	02/05/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41562, genome 41563, sequence viba_41564, sequencing info 41565	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41556	NEP/1/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		87.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/4/2018
Sender reference:	5 Np/075/076
Location of origin:	Lalitpur
Country of origin:	Nepal
Date of collection:	02/05/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41566, genome 41567, sequence viba_41568, sequencing info 41569	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41692	NEP/40/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41564	NEP/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/5/2018
Sender reference:	6 Np/075/076
Location of origin:	Lalitpur
Country of origin:	Nepal
Date of collection:	02/05/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41570, genome 41571, sequence viba_41572, sequencing info 41573	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41708	NEP/44/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41712	NEP/45/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.4	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/6/2018
Sender reference:	44 Np/075/076
Location of origin:	Chitwan
Country of origin:	Nepal
Date of collection:	20/05/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41574, genome 41575, sequence viba_41576, sequencing info 41577	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41640	NEP/26/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41724	NEP/2/2019	water buffalo	99.5	0	O	ME-SA	Ind-2001	e
viba_41720	NEP/1/2019	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.2	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.4	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	87.6	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.5	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.5	0	O	ME-SA		
viba_576	IND/R2/75		87.4	0	O	ME-SA		

Virus sample name:	NEP/7/2018
Sender reference:	1 Np/075/076
Location of origin:	Rasuwa
Country of origin:	Nepal
Date of collection:	02/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	08/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41578, genome 41579, sequence viba_41580, sequencing info 41581	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_35813	NEP/35/2017	cattle	99.4	0	O	ME-SA	Ind-2001	d
viba_29931	NEP/7/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_26117	NEP/17/2015	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_31082	BAN/GKa-236(pig)/2015	porcine	97.3	0	O	ME-SA	Ind-2001	e
viba_31557	BHU/10/2016	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_31131	BAN/SI/Sh-234/2015	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_29963	NEP/17/2016	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_29927	NEP/6/2016	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_29907	NEP/28/2015	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_26125	NEP/19/2015	cattle	97.3	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	96.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	91.8	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_766	IRN/31/2009	cattle	89.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	89.1	0	O	ME-SA	PanAsia	
viba_666	IRN/18/2010	cattle	88.6	0	O	ME-SA	PanAsia-2	BAL-09
viba_650	IRN/8/2005	ovine	88.5	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		88.5	0	O	ME-SA	PanAsia-2	ANT-10



Virus sample name:	NEP/8/2018
Sender reference:	2 Np/075/076
Location of origin:	Rasuwa
Country of origin:	Nepal
Date of collection:	03/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41582, genome 41583, sequence viba_41584, sequencing info 41585	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41728	NEP/4/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e
viba_41241	BHU/6/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41249	BHU/9/2018	goat	99.7	0	O	ME-SA	Ind-2001	e
viba_41700	NEP/42/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.9	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.8	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.8	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/10/2018
Sender reference:	8 Np/075/076
Location of origin:	Okhaldhunga
Country of origin:	Nepal
Date of collection:	12/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41586, genome 41587, sequence viba_41588, sequencing info 41589	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41564	NEP/3/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		87.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/11/2018
Sender reference:	10 Np/075/076
Location of origin:	Surkhet
Country of origin:	Nepal
Date of collection:	15/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41590, genome 41591, sequence viba_41592, sequencing info 41593	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41596	NEP/12/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41600	NEP/13/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41560	NEP/2/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	90.1	0	O	ME-SA	Ind-2001	c
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/12/2018
Sender reference:	11 Np/075/076
Location of origin:	Surkhet
Country of origin:	Nepal
Date of collection:	15/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41594, genome 41595, sequence viba_41596, sequencing info 41597	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41592	NEP/11/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41600	NEP/13/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41560	NEP/2/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	90.1	0	O	ME-SA	Ind-2001	c
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/13/2018
Sender reference:	12 Np/075/076
Location of origin:	Surkhet
Country of origin:	Nepal
Date of collection:	15/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019

VIBASys IDs: sample 41598, genome 41599, sequence viba\_41600, sequencing info 41601

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41596	NEP/12/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41592	NEP/11/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41560	NEP/2/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	90.1	0	O	ME-SA	Ind-2001	c
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/14/2018
Sender reference:	13 Np/075/076
Location of origin:	Surkhet
Country of origin:	Nepal
Date of collection:	15/06/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41602, genome 41603, sequence viba_41604, sequencing info 41605	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41608	NEP/16/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41628	NEP/23/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	88.0	0	O	ME-SA		

Virus sample name:	NEP/16/2018
Sender reference:	14 Np/075/076
Location of origin:	Nuwakot
Country of origin:	Nepal
Date of collection:	10/07/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41606, genome 41607, sequence viba_41608, sequencing info 41609	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41604	NEP/14/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41628	NEP/23/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	88.0	0	O	ME-SA		

Virus sample name:	NEP/17/2018
Sender reference:	19 Np/075/076
Location of origin:	Bhaktapur
Country of origin:	Nepal
Date of collection:	16/07/2018
Host species:	goat
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41610, genome 41611, sequence viba_41612, sequencing info 41613	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_26105	NEP/12/2015	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_26097	NEP/10/2015	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_26101	NEP/11/2015	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_26093	NEP/9/2015	cattle	99.7	1	O	ME-SA	Ind-2001	e
viba_26117	NEP/17/2015	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_31082	BAN/GKa-236(pig)/2015	porcine	98.9	0	O	ME-SA	Ind-2001	e
viba_31131	BAN/SI/Sh-234/2015	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_29927	NEP/6/2016	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_29907	NEP/28/2015	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_26125	NEP/19/2015	cattle	98.9	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	94.5	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.6	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.3	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.7	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_650	IRN/8/2005	ovine	88.0	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10



Virus sample name:	NEP/19/2018
Sender reference:	16 Np/075/076
Location of origin:	Darchula
Country of origin:	Nepal
Date of collection:	25/07/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTY2
Harvest date of material:	11/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41614, genome 41615, sequence viba_41616, sequencing info 41617	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41596	NEP/12/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41592	NEP/11/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41600	NEP/13/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	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	90.7	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.7	0	O	ME-SA		
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.4	0	O	ME-SA		

Virus sample name:	NEP/20/2018
Sender reference:	50 Np/075/076
Location of origin:	Rolpa
Country of origin:	Nepal
Date of collection:	25/07/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41618, genome 41619, sequence viba_41620, sequencing info 41621	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41672	NEP/35/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41668	NEP/34/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41688	NEP/39/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.2	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.6	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/22/2018
Sender reference:	21 Np/075/076
Location of origin:	Palpa
Country of origin:	Nepal
Date of collection:	24/08/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41622, genome 41623, sequence viba_41624, sequencing info 41625	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41628	NEP/23/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	94.2	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	90.4	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.0	0	O	ME-SA		
viba_617	IND/53/79	bovine	88.0	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/23/2018
Sender reference:	22 Np/075/076
Location of origin:	Syangja
Country of origin:	Nepal
Date of collection:	09/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41626, genome 41627, sequence viba_41628, sequencing info 41629	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.0	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/24/2018
Sender reference:	47 Np/075/076
Location of origin:	Doti
Country of origin:	Nepal
Date of collection:	10/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41630, genome 41631, sequence viba_41632, sequencing info 41633	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41628	NEP/23/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.3	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.2	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	90.7	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.0	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	87.9	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.5	0	O	ME-SA		
viba_719	IRN/88/2009		87.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.2	0	O	ME-SA		

Virus sample name:	NEP/25/2018
Sender reference:	28 Np/075/076
Location of origin:	Acham
Country of origin:	Nepal
Date of collection:	17/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41634, genome 41635, sequence viba_41636, sequencing info 41637	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41660	NEP/32/2018	porcine	99.7	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41680	NEP/37/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
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	90.4	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.6	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/26/2018
Sender reference:	25 Np/075/076
Location of origin:	Kaski
Country of origin:	Nepal
Date of collection:	24/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41638, genome 41639, sequence viba_41640, sequencing info 41641	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41576	NEP/6/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41724	NEP/2/2019	water buffalo	99.4	0	O	ME-SA	Ind-2001	e
viba_41720	NEP/1/2019	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_41564	NEP/3/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.0	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	92.9	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	91.8	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	89.5	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	87.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		87.7	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	87.7	0	O	ME-SA	PanAsia	
viba_617	IND/53/79	bovine	87.2	0	O	ME-SA		
viba_719	IRN/88/2009		87.1	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/27/2018
Sender reference:	26 Np/075/076
Location of origin:	Nawalparasi
Country of origin:	Nepal
Date of collection:	24/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41642, genome 41643, sequence viba_41644, sequencing info 41645	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41628	NEP/23/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	89.8	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.0	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.4	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_766	IRN/31/2009	cattle	87.2	0	O	ME-SA	PanAsia-2	FAR-09



Virus sample name:	NEP/28/2018
Sender reference:	23 Np/075/076
Location of origin:	Sindhuli
Country of origin:	Nepal
Date of collection:	26/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	09/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41646, genome 41647, sequence viba_41648, sequencing info 41649	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41652	NEP/29/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
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	90.1	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.7	0	O	ME-SA		
viba_576	IND/R2/75		87.5	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.4	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.3	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/29/2018
Sender reference:	24 Np/075/076
Location of origin:	Sindhuli
Country of origin:	Nepal
Date of collection:	26/09/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41650, genome 41651, sequence viba_41652, sequencing info 41653	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41648	NEP/28/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.0	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	88.2	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_576	IND/R2/75		87.7	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.5	0	O	ME-SA		

Virus sample name:	NEP/31/2018
Sender reference:	30 Np/075/076
Location of origin:	Nuwakot
Country of origin:	Nepal
Date of collection:	08/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41654, genome 41655, sequence viba_41656, sequencing info 41657	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41684	NEP/38/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41644	NEP/27/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41676	NEP/36/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.3	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/32/2018
Sender reference:	31 Np/075/076
Location of origin:	Kavre
Country of origin:	Nepal
Date of collection:	09/10/2018
Host species:	porcine
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	RS1
Harvest date of material:	11/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41658, genome 41659, sequence viba_41660, sequencing info 41661	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41636	NEP/25/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41680	NEP/37/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
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	90.4	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.6	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.5	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_617	IND/53/79	bovine	88.0	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/33/2018
Sender reference:	48 Np/075/076
Location of origin:	Rolpa
Country of origin:	Nepal
Date of collection:	09/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41662, genome 41663, sequence viba_41664, sequencing info 41665	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41692	NEP/40/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41564	NEP/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/34/2018
Sender reference:	49 Np/075/076
Location of origin:	Rolpa
Country of origin:	Nepal
Date of collection:	09/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41666, genome 41667, sequence viba_41668, sequencing info 41669	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41620	NEP/20/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41672	NEP/35/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41688	NEP/39/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.2	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.6	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/35/2018
Sender reference:	33 Np/075/076
Location of origin:	Rolpa
Country of origin:	Nepal
Date of collection:	11/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41670, genome 41671, sequence viba_41672, sequencing info 41673	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41620	NEP/20/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41668	NEP/34/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41688	NEP/39/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.2	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.6	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.1	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/36/2018
Sender reference:	17 Np/075/076
Location of origin:	Bardiya
Country of origin:	Nepal
Date of collection:	14/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41674, genome 41675, sequence viba_41676, sequencing info 41677	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e
viba_41273	BHU/25/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41277	BHU/27/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41269	BHU/24/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.6	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.8	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		



Virus sample name:	NEP/37/2018
Sender reference:	18 Np/075/076
Location of origin:	Bardiya
Country of origin:	Nepal
Date of collection:	14/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41678, genome 41679, sequence viba_41680, sequencing info 41681	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	94.2	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.6	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.6	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.5	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.8	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		
viba_719	IRN/88/2009		87.8	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	NEP/38/2018
Sender reference:	29 Np/075/076
Location of origin:	Nuwakot
Country of origin:	Nepal
Date of collection:	18/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41682, genome 41683, sequence viba_41684, sequencing info 41685	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41656	NEP/31/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41644	NEP/27/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41676	NEP/36/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.2	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.3	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/39/2018
Sender reference:	32 Np/075/076
Location of origin:	Chitwan
Country of origin:	Nepal
Date of collection:	28/10/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41686, genome 41687, sequence viba_41688, sequencing info 41689	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41660	NEP/32/2018	porcine	99.5	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41257	BHU/16/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41680	NEP/37/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41620	NEP/20/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.3	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_719	IRN/88/2009		87.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.8	0	O	ME-SA		

Virus sample name:	NEP/40/2018
Sender reference:	45 Np/075/076
Location of origin:	Okhaldhunga
Country of origin:	Nepal
Date of collection:	18/11/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	11/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019

VIBASys IDs: sample 41690, genome 41691, sequence viba\_41692, sequencing info 41693

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41664	NEP/33/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41564	NEP/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/41/2018
Sender reference:	34 Np/075/076
Location of origin:	Kathmandu
Country of origin:	Nepal
Date of collection:	27/11/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41694, genome 41695, sequence viba_41696, sequencing info 41697	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41257	BHU/16/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41261	BHU/18/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41660	NEP/32/2018	porcine	99.1	0	O	ME-SA	Ind-2001	e
viba_41636	NEP/25/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41237	BHU/5/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.1	0	O	ME-SA	Ind-2001	e
viba_41680	NEP/37/2018	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	98.9	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	98.9	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	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	91.3	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.7	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_719	IRN/88/2009		87.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_576	IND/R2/75		87.5	0	O	ME-SA		

Virus sample name:	NEP/42/2018
Sender reference:	35 Np/075/076
Location of origin:	Nuwakot
Country of origin:	Nepal
Date of collection:	04/12/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41698, genome 41699, sequence viba_41700, sequencing info 41701	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41241	BHU/6/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41249	BHU/9/2018	goat	99.7	0	O	ME-SA	Ind-2001	e
viba_41728	NEP/4/2019	water buffalo	99.5	0	O	ME-SA	Ind-2001	e
viba_41584	NEP/8/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	90.7	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.8	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/43/2018
Sender reference:	36 Np/075/076
Location of origin:	Ilam
Country of origin:	Nepal
Date of collection:	05/12/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41702, genome 41703, sequence viba_41704, sequencing info 41705	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36750	BHU/2/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_41628	NEP/23/2018	cattle	99.2	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.5	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.4	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.0	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	90.7	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.6	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.3	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		87.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		87.8	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.4	0	O	ME-SA		

Virus sample name:	NEP/44/2018
Sender reference:	37 Np/075/076
Location of origin:	Dailekh
Country of origin:	Nepal
Date of collection:	21/12/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	10/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41706, genome 41707, sequence viba_41708, sequencing info 41709	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41712	NEP/45/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41572	NEP/5/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.8	0	O	ME-SA	Ind-2001	e
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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		88.2	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15



Virus sample name:	NEP/45/2018
Sender reference:	38 Np/075/076
Location of origin:	Dailekh
Country of origin:	Nepal
Date of collection:	21/12/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	11/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41710, genome 41711, sequence viba_41712, sequencing info 41713	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41708	NEP/44/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41572	NEP/5/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41608	NEP/16/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	91.0	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	89.9	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.5	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		88.0	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.8	0	O	ME-SA	PanAsia-2	QOM-15

Virus sample name:	NEP/46/2018
Sender reference:	39 Np/075/076
Location of origin:	Kavre
Country of origin:	Nepal
Date of collection:	26/12/2018
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	12/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41714, genome 41715, sequence viba_41716, sequencing info 41717	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41692	NEP/40/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41568	NEP/4/2018	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41564	NEP/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41556	NEP/1/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41588	NEP/10/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	99.7	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.9	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.8	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	91.2	0	O	ME-SA	Ind-2001	a
viba_397	UAE/4/2008	gazelle	90.1	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		88.3	0	O	ME-SA		
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	87.7	0	O	ME-SA		

Virus sample name:	NEP/1/2019
Sender reference:	40 Np/075/076
Location of origin:	Gorkha
Country of origin:	Nepal
Date of collection:	15/01/2019
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	11/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41718, genome 41719, sequence viba_41720, sequencing info 41721	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41724	NEP/2/2019	water buffalo	100.0	0	O	ME-SA	Ind-2001	e
viba_41576	NEP/6/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41640	NEP/26/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.0	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	92.9	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	91.5	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	89.2	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	87.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	87.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.0	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.0	0	O	ME-SA		
viba_576	IND/R2/75		86.9	0	O	ME-SA		

Virus sample name:	NEP/2/2019
Sender reference:	41 Np/075/076
Location of origin:	Gorkha
Country of origin:	Nepal
Date of collection:	15/01/2019
Host species:	water buffalo
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	12/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41722, genome 41723, sequence viba_41724, sequencing info 41725	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41720	NEP/1/2019	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_41576	NEP/6/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41640	NEP/26/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41624	NEP/22/2018	cattle	98.7	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	98.6	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	98.4	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.0	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	92.9	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	91.5	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	89.2	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	87.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	87.4	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		87.0	0	O	ME-SA		
viba_617	IND/53/79	bovine	87.0	0	O	ME-SA		
viba_576	IND/R2/75		86.9	0	O	ME-SA		

Virus sample name:	NEP/4/2019
Sender reference:	43 Np/075/076
Location of origin:	Tanahu
Country of origin:	Nepal
Date of collection:	17/03/2019
Host species:	water buffalo
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	12/05/2019
Primers:	FMD-3161F/FMD-4303R
Received for sequencing:	21/05/2019
Created:	23/05/2019
Last updated:	23/05/2019
VIBASys IDs: sample 41726, genome 41727, sequence viba_41728, sequencing info 41729	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41241	BHU/6/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41584	NEP/8/2018	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_41249	BHU/9/2018	goat	99.8	0	O	ME-SA	Ind-2001	e
viba_41700	NEP/42/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36750	BHU/2/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_36754	BHU/3/2018	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_41692	NEP/40/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41664	NEP/33/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41604	NEP/14/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_41716	NEP/46/2018	cattle	99.4	0	O	ME-SA	Ind-2001	e

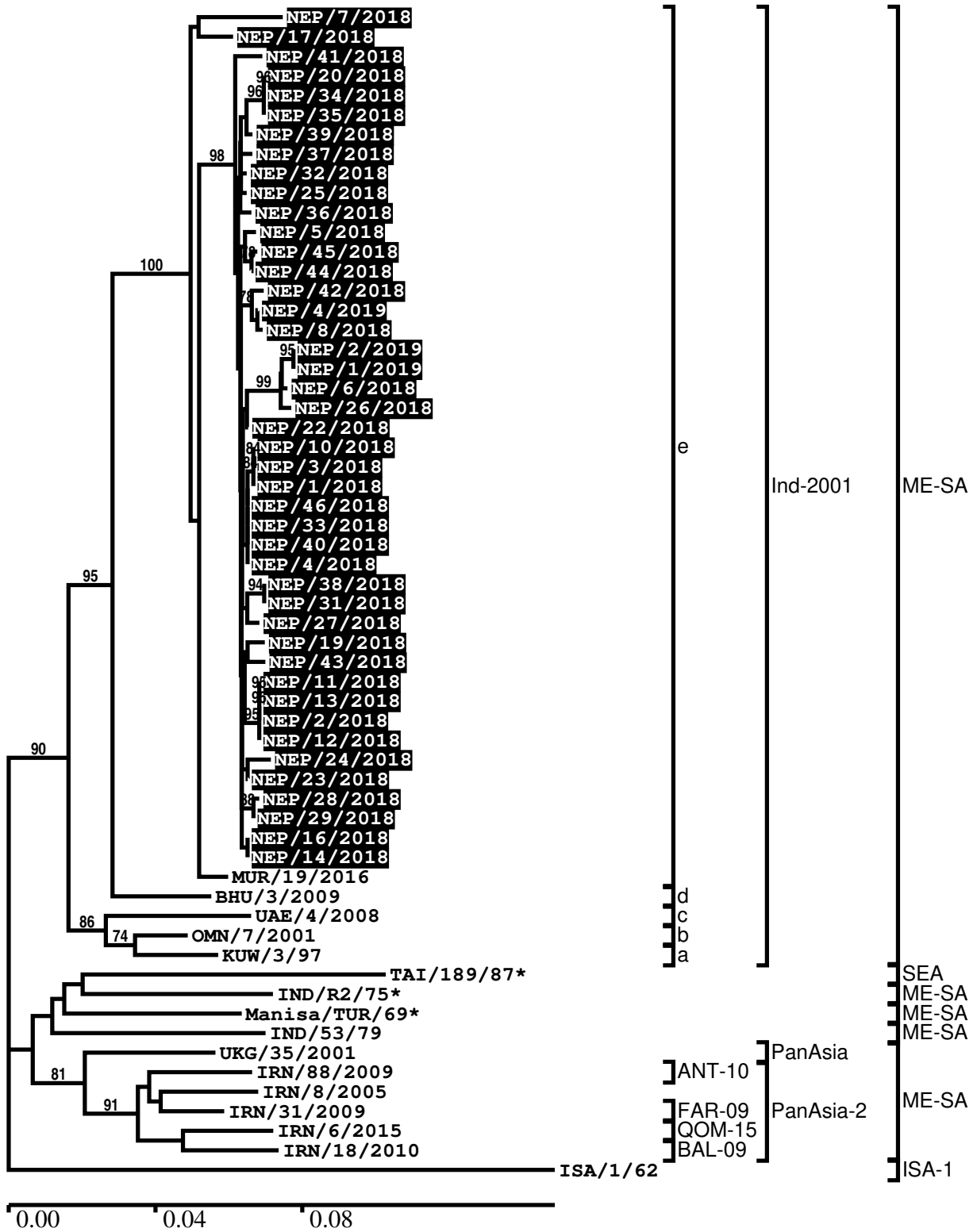
#### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	97.6	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.5	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	89.8	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	88.8	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	88.7	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		88.0	0	O	ME-SA		
viba_860	IRN/6/2015	cattle	87.9	0	O	ME-SA	PanAsia-2	QOM-15

Report on FMDV O in Nepal in 2018, 2019 - Phylogentic tree of all samples in this batch (please see page 47 to see relationship with other related sequenced virus).

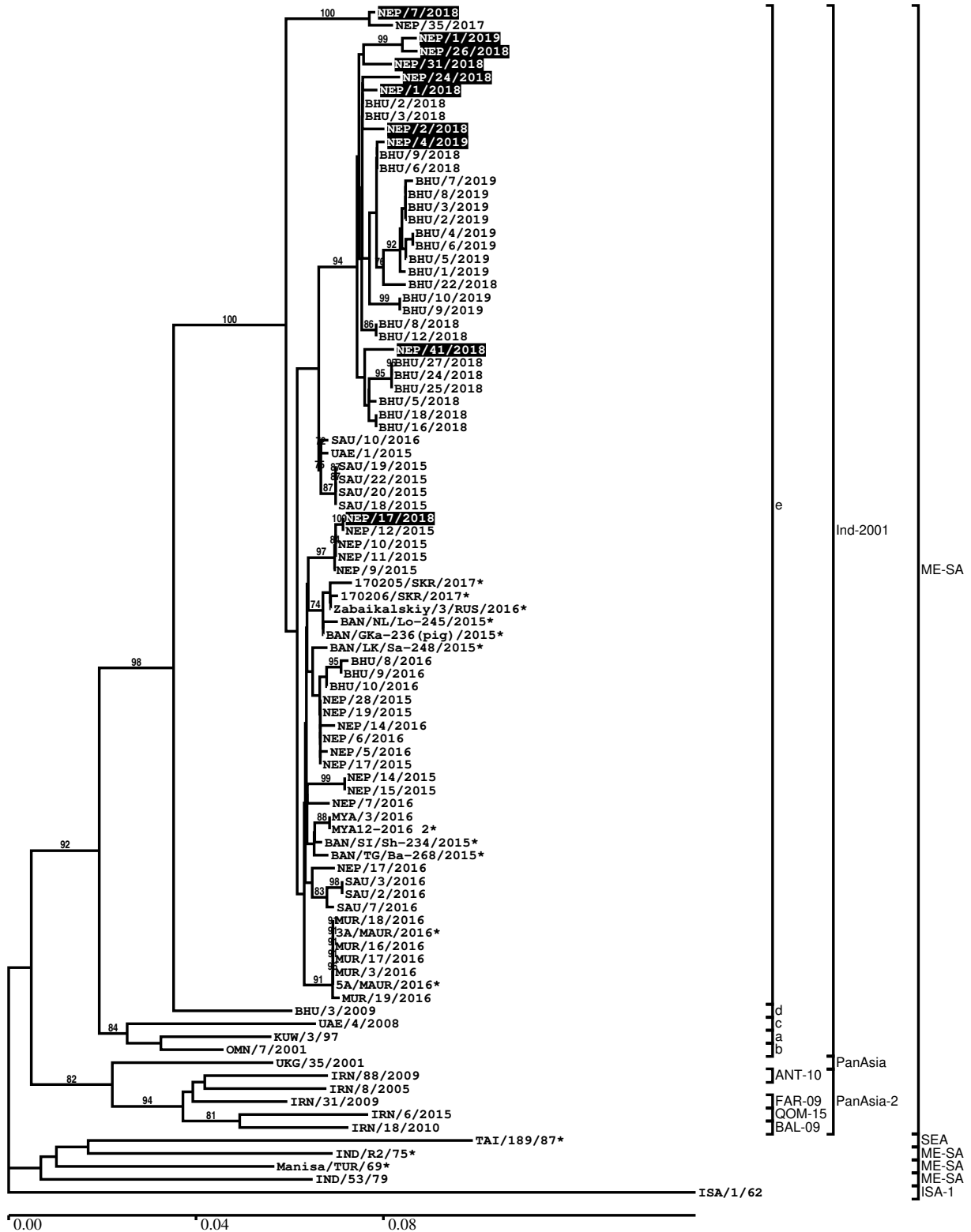
Batch: WRLFMD/2019/00021



\*, not a WRLFMD Reference Number

Report on FMDV O in Nepal in 2018, 2019 - Selected samples showing context to other related O/Me-SA/Ind-2001 viruses.

Batch: WRLFMD/2019/00021A



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2019/00021-Nepal-O (44 sequences)
Sequence database set:	allseqs_O (4528 sequences)
Prototype sequence set:	!prototypes_O (49 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:	14
VIBASys version:	reflabs-1.1.2

## Sequences in the Phylogenetic Tree

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

label	accession	host(s)	lab	country	taxonomic information
NEP/7/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/17/2018	n/a	goat	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/41/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/20/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/34/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/35/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/39/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/37/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/32/2018	n/a	porcine	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/25/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/36/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/5/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/45/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/44/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/42/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/4/2019	n/a	water buffalo	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/8/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/2/2019	n/a	water buffalo	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/1/2019	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/6/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/26/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/22/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/10/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/3/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/1/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/46/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/33/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/40/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/4/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/38/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/31/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/27/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/19/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/43/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/11/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/13/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e

*continued on next page*



label	accession	host(s)	lab	country	taxonomic information
NEP/2/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/12/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/24/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/23/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/28/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/29/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/16/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/14/2018	n/a	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
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
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
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
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

\*, not a WRLFMD Reference Number

n/a, not available