

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

## Genotyping Report

FMDV serotype: O  
Country: Laos  
Year: 2020  
Batch: WRLFMD/2020/00009  
No. of sequences: 5  
Report date: 8th February 2021  
Report generated by: Nick Knowles  
Report checked by: Jemma Wadsworth



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Virus sample name:	LAO/1/2020
Sender reference:	LAO 1/20
Location of origin:	Kone Village, Beng District, Oudomxay Province
Country of origin:	Laos
Date of collection:	30/01/2020
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:	15/01/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	28/01/2021
Created:	08/02/2021
Last updated:	08/02/2021

VIBASys IDs: sample 47281, genome 47282, sequence viba\_47283, sequencing info 47284

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_44967	VIT/17/2019	porcine	99.8	0	O	ME-SA	Ind-2001	e
viba_44983	VIT/27/2019	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_44979	VIT/25/2019	porcine	99.8	0	O	ME-SA	Ind-2001	e
viba_47299	LAO/5/2020	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_47291	LAO/3/2020	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_47295	LAO/4/2020	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_47308	TAI/2/2020	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_45022	VIT/7/2020	porcine	99.8	0	O	ME-SA	Ind-2001	e
viba_47287	LAO/2/2020	cattle	99.8	0	O	ME-SA	Ind-2001	e
viba_44987	VIT/28/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	95.9	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	91.0	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	89.7	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	88.0	0	O	ME-SA	PanAsia	
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		87.8	0	O	ME-SA	PanAsia-2	ANT-10
viba_359	Manisa/TUR/69		87.2	0	O	ME-SA		

Virus sample name:	LAO/2/2020
Sender reference:	LAO 2/20
Location of origin:	Kone Village, Beng District, Oudomxay Province
Country of origin:	Laos
Date of collection:	30/01/2020
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:	15/01/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	28/01/2021
Created:	08/02/2021
Last updated:	08/02/2021

VIBASys IDs: sample 47285, genome 47286, sequence viba\_47287, sequencing info 47288

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_44967	VIT/17/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_44983	VIT/27/2019	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44979	VIT/25/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47299	LAO/5/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_47291	LAO/3/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_47295	LAO/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45022	VIT/7/2020	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_44987	VIT/28/2019	water buffalo	100.0	0	O	ME-SA	Ind-2001	e
viba_47316	TAI/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45061	VIT/23/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e

### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	96.1	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	91.2	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	89.9	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	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.4	0	O	ME-SA		

Virus sample name:	LAO/3/2020
Sender reference:	LAO 4/20
Location of origin:	Kone Village, Beng District, Oudomxay Province
Country of origin:	Laos
Date of collection:	30/01/2020
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:	15/01/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	28/01/2021
Created:	08/02/2021
Last updated:	08/02/2021
VIBASys IDs: sample 47289, genome 47290, sequence viba_47291, sequencing info 47292	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_44967	VIT/17/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_44983	VIT/27/2019	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44979	VIT/25/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47299	LAO/5/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_47295	LAO/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45022	VIT/7/2020	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47287	LAO/2/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44987	VIT/28/2019	water buffalo	100.0	0	O	ME-SA	Ind-2001	e
viba_47316	TAI/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45061	VIT/23/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	96.1	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	91.2	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	89.9	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	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.4	0	O	ME-SA		

Virus sample name:	LAO/4/2020
Sender reference:	LAO 5/20
Location of origin:	Kone Village, Beng District, Oudomxay Province
Country of origin:	Laos
Date of collection:	30/01/2020
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:	15/01/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	28/01/2021
Created:	08/02/2021
Last updated:	08/02/2021

VIBASys IDs: sample 47293, genome 47294, sequence viba\_47295, sequencing info 47296

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_44967	VIT/17/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_44983	VIT/27/2019	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44979	VIT/25/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47299	LAO/5/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_47291	LAO/3/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45022	VIT/7/2020	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47287	LAO/2/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44987	VIT/28/2019	water buffalo	100.0	0	O	ME-SA	Ind-2001	e
viba_47316	TAI/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45061	VIT/23/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e

#### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	96.1	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	91.2	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	89.9	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	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.4	0	O	ME-SA		

Virus sample name:	LAO/5/2020
Sender reference:	LAO 8/20
Location of origin:	Kone Village, Beng District, Oudomxay Province
Country of origin:	Laos
Date of collection:	30/01/2020
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:	16/01/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	28/01/2021
Created:	08/02/2021
Last updated:	08/02/2021

VIBASys IDs: sample 47297, genome 47298, sequence viba\_47299, sequencing info 47300

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_44967	VIT/17/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_44983	VIT/27/2019	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44979	VIT/25/2019	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47291	LAO/3/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_47295	LAO/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45022	VIT/7/2020	porcine	100.0	0	O	ME-SA	Ind-2001	e
viba_47287	LAO/2/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_44987	VIT/28/2019	water buffalo	100.0	0	O	ME-SA	Ind-2001	e
viba_47316	TAI/4/2020	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_45061	VIT/23/2019	water buffalo	99.8	0	O	ME-SA	Ind-2001	e

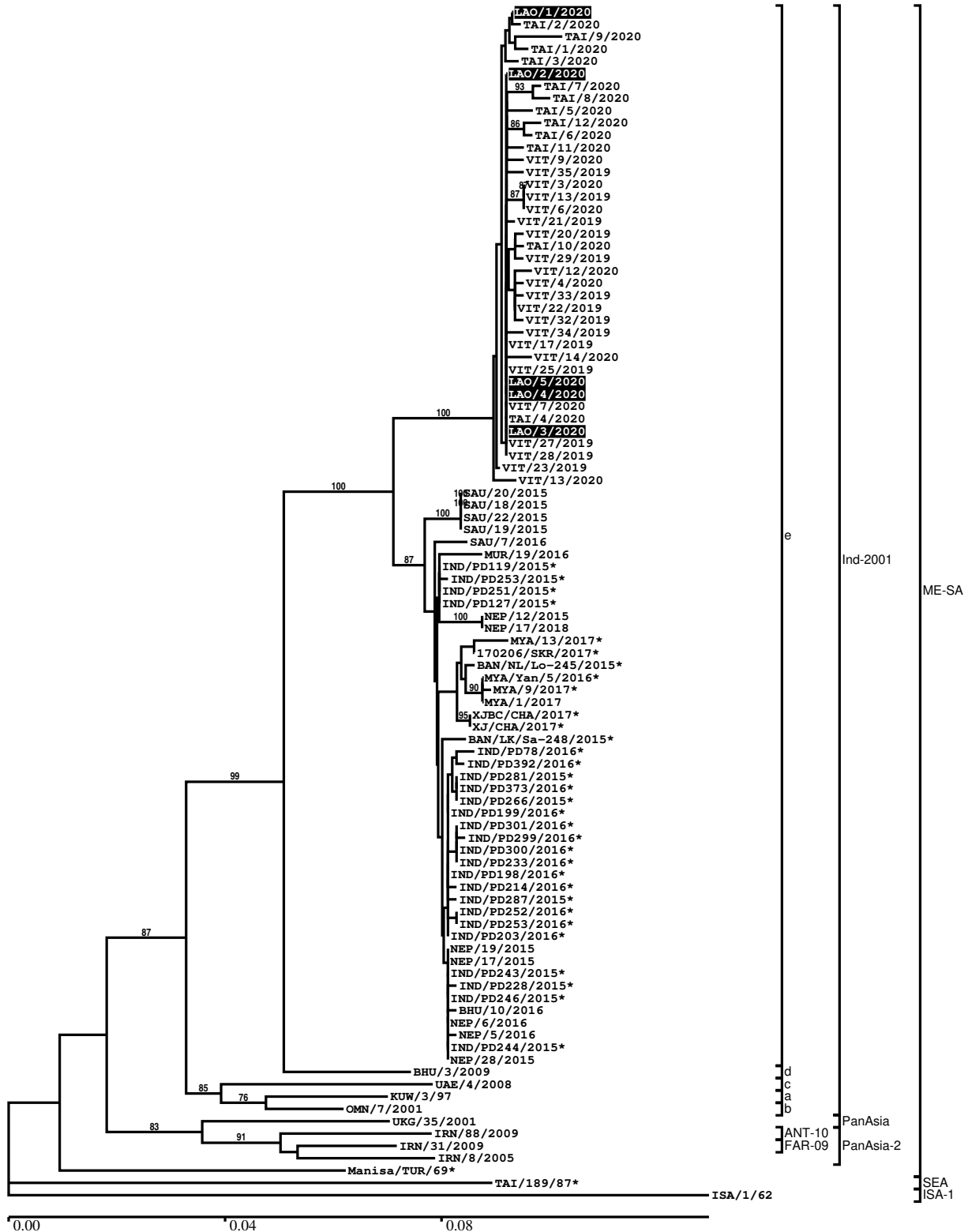
#### Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	96.1	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	91.2	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	89.9	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	88.2	0	O	ME-SA	PanAsia	
viba_719	IRN/88/2009		88.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	87.9	0	O	ME-SA	PanAsia-2	
viba_359	Manisa/TUR/69		87.4	0	O	ME-SA		

Report on FMDV O in Laos in 2020

Batch: WRLFMD/2020/00009



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2020/00009-Laos-O (5 sequences)
Sequence database set:	allseqs_O (5144 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:	10
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
LAO/1/2020	n/a	cattle	WRLFMD	Laos	ME-SA/Ind-2001/e
TAI/2/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/9/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/11/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/3/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
LAO/2/2020	n/a	cattle	WRLFMD	Laos	ME-SA/Ind-2001/e
TAI/7/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/8/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/5/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/12/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/6/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
TAI/11/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
VIT/9/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/35/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/3/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/13/2019	n/a	porcine	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/6/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/21/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/20/2019	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/Ind-2001/e
TAI/10/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
VIT/29/2019	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/12/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/4/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/33/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/22/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/32/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/34/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/17/2019	n/a	porcine	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/14/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/25/2019	n/a	porcine	WRLFMD	Vietnam	ME-SA/Ind-2001/e
LAO/5/2020	n/a	cattle	WRLFMD	Laos	ME-SA/Ind-2001/e
LAO/4/2020	n/a	cattle	WRLFMD	Laos	ME-SA/Ind-2001/e
VIT/7/2020	n/a	porcine	WRLFMD	Vietnam	ME-SA/Ind-2001/e
TAI/4/2020	n/a	cattle	WRLFMD	Thailand	ME-SA/Ind-2001/e
LAO/3/2020	n/a	cattle	WRLFMD	Laos	ME-SA/Ind-2001/e
VIT/27/2019	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e

*continued on next page*



label	accession	host(s)	lab	country	taxonomic information
VIT/28/2019	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/23/2019	n/a	water buffalo	WRLFMD	Vietnam	ME-SA/Ind-2001/e
VIT/13/2020	n/a	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
SAU/20/2015	MG972591	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/e
SAU/18/2015	MG972589	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/e
SAU/22/2015	MG972592	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/e
SAU/19/2015	MG972590	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/e
SAU/7/2016	MG972596	bovine	WRLFMD	Saudi Arabia	ME-SA/Ind-2001/e
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
IND/PD119/2015*	MT909624	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD253/2015*	MT909653	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD251/2015*	MT909652	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD127/2015*	MT909627	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/12/2015	MG972545	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/17/2018	n/a	goat	WRLFMD	Nepal	ME-SA/Ind-2001/e
MYA/13/2017*	MG972527	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
170206/SKR/2017*	n/a	cattle	QIA	Republic of Korea (South Korea)	ME-SA/Ind-2001/e
BAN/NL/Lo-245/2015*	KY077611	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
MYA/Yan/5/2016*	LC438823	cattle	NIAH-Japan	Myanmar	ME-SA/Ind-2001/e
MYA/9/2017*	MG972523	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/1/2017	MG972517	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/e
XJBC/CHA/2017*	KY696708	n/a	LVRI	China	ME-SA/Ind-2001/e
XJ/CHA/2017*	MF461724	cattle	LVRI	China	ME-SA/Ind-2001/e
BAN/LK/Sa-248/2015*	KY077612	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
IND/PD78/2016*	MT909668	water buffalo	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD392/2016*	MT909703	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD281/2015*	MT909658	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD373/2016*	MT909702	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD266/2015*	MT909655	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD199/2016*	MT909673	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD301/2016*	MT909688	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD299/2016*	MT909686	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD300/2016*	MT909687	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD233/2016*	MT909676	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD198/2016*	MT909672	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD214/2016*	MT909675	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD287/2015*	MT909659	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD252/2016*	MT909680	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD253/2016*	MT909681	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD203/2016*	MT909674	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/19/2015	KY449051	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/17/2015	KY449050	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
IND/PD243/2015*	MT909648	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD228/2015*	MT909646	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD246/2015*	MT909650	cattle	PD-FMD	India	ME-SA/Ind-2001/e
BHU/10/2016	MG972484	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/e
NEP/6/2016	KY449054	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/5/2016	KY449053	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
IND/PD244/2015*	MT909649	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/28/2015	KY449052	cattle	WRLFMD	Nepal	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
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

\*, not a WRLFMD Reference Number

n/a, not available