

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

Genotyping Report

FMDV serotype: O
Country: Zambia
Year: 2019, 2020, 2021
Batch: WRLFMD/2021/00008
No. of sequences: 33
Report date: 26th July 2021
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:	ZAM/15/2019
Sender reference:	cvri 29/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	31/05/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	22/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48205, genome 48206, sequence viba_48207, sequencing info 48208

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48211	ZAM/16/2019	cattle	100.0	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.8	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.7	0	O	EA-2		

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_85	UGA/3/2002		90.0	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.4	0	O	EA-2		
viba_221	MAL/1/98		86.0	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.8	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.7	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/16/2019
Sender reference:	cvri 30/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	31/05/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48209, genome 48210, sequence viba_48211, sequencing info 48212

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48207	ZAM/15/2019	cattle	100.0	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.8	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.7	0	O	EA-2		

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_85	UGA/3/2002		90.0	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.4	0	O	EA-2		
viba_221	MAL/1/98		86.0	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.8	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.7	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/18/2019
Sender reference:	cvri 32/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	05/06/2019
Host species:	porcine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48213, genome 48214, sequence viba_48215, sequencing info 48216	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41422	ZAM/8/2019	bovine	100.0	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	100.0	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	100.0	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	100.0	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	100.0	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	100.0	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.8	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.8	0	O	EA-2		
viba_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.3	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/20/2019
Sender reference:	cvri 61/19
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	28/06/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48217, genome 48218, sequence viba_48219, sequencing info 48220	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42464	ZAM06/2019	bovine	100.0	0	O	EA-2		
viba_48231	ZAM/26/2019	cattle	100.0	0	O	EA-2		
viba_48235	ZAM/27/2019	cattle	100.0	0	O	EA-2		
viba_42468	ZAM07/2019	bovine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_48223	ZAM/21/2019	cattle	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/21/2019
Sender reference:	cvri 62/19
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	28/06/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	23/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48221, genome 48222, sequence viba_48223, sequencing info 48224	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48219	ZAM/20/2019	cattle	99.8	0	O	EA-2		
viba_42464	ZAM06/2019	bovine	99.8	0	O	EA-2		
viba_48231	ZAM/26/2019	cattle	99.8	0	O	EA-2		
viba_48235	ZAM/27/2019	cattle	99.8	0	O	EA-2		
viba_42468	ZAM07/2019	bovine	99.8	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.7	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.3	0	O	EA-2		
viba_719	IRN/88/2009		83.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_617	IND/53/79	bovine	82.6	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	82.2	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/24/2019
Sender reference:	cvri 63/19
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	17/07/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48225, genome 48226, sequence viba_48227, sequencing info 48228

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41422	ZAM/8/2019	bovine	100.0	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	100.0	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	100.0	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	100.0	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	100.0	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	100.0	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.8	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.8	0	O	EA-2		
viba_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.3	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/26/2019
Sender reference:	cvri 67/19
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	17/07/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48229, genome 48230, sequence viba_48231, sequencing info 48232	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48219	ZAM/20/2019	cattle	100.0	0	O	EA-2		
viba_42464	ZAM06/2019	bovine	100.0	0	O	EA-2		
viba_48235	ZAM/27/2019	cattle	100.0	0	O	EA-2		
viba_42468	ZAM07/2019	bovine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_48223	ZAM/21/2019	cattle	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/27/2019
Sender reference:	cvri 70/19
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	17/07/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48233, genome 48234, sequence viba_48235, sequencing info 48236

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48219	ZAM/20/2019	cattle	100.0	0	O	EA-2		
viba_42464	ZAM06/2019	bovine	100.0	0	O	EA-2		
viba_48231	ZAM/26/2019	cattle	100.0	0	O	EA-2		
viba_42468	ZAM07/2019	bovine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_48223	ZAM/21/2019	cattle	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/28/2019
Sender reference:	cvri 95/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	07/08/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48237, genome 48238, sequence viba_48239, sequencing info 48240

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48259	ZAM/58/2019	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.7	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.7	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.7	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.5	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.5	0	O	EA-2		

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_85	UGA/3/2002		89.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.3	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.2	0	O	EA-3		
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/54/2019
Sender reference:	cvri 96/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	01/09/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48241, genome 48242, sequence viba_48243, sequencing info 48244

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48263	ZAM/60/2019	cattle	99.4	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.1	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.1	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.1	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.1	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.1	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.1	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.1	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.9	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	98.9	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.7	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.3	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/55/2019
Sender reference:	cvri 91/19
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	06/09/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48245, genome 48246, sequence viba_48247, sequencing info 48248	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.8	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.8	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.7	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.7	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.7	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.4	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	82.3	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/56/2019
Sender reference:	cvri 92/19
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	06/09/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy2
Harvest date of material:	29/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48249, genome 48250, sequence viba_48251, sequencing info 48252	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41422	ZAM/8/2019	bovine	100.0	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	100.0	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	100.0	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	100.0	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	100.0	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	100.0	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.8	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.8	0	O	EA-2		
viba_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		

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_85	UGA/3/2002		89.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.3	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/57/2019
Sender reference:	cvri 80/19
Location of origin:	Northern
Country of origin:	Zambia
Date of collection:	01/10/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48253, genome 48254, sequence viba_48255, sequencing info 48256

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.8	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.8	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.7	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.7	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.7	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.7	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.3	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/58/2019
Sender reference:	cvri 93/19
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	01/10/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48257, genome 48258, sequence viba_48259, sequencing info 48260

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48239	ZAM/28/2019	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.7	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.7	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.7	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.5	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.5	0	O	EA-2		

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_85	UGA/3/2002		89.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.3	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.2	0	O	EA-3		
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/60/2019
Sender reference:	cvri 88/19
Location of origin:	Northern western
Country of origin:	Zambia
Date of collection:	17/10/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	24/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48261, genome 48262, sequence viba_48263, sequencing info 48264

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48243	ZAM/54/2019	cattle	99.4	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.1	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.1	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.1	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.1	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.1	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.1	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.1	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.9	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	98.9	0	O	EA-2		

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_85	UGA/3/2002		90.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.7	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.8	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.3	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.5	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/62/2019
Sender reference:	cvri 84/19
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	01/12/2019
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48265, genome 48266, sequence viba_48267, sequencing info 48268

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48211	ZAM/16/2019	cattle	100.0	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.8	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.8	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.8	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.8	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.7	0	O	EA-2		

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_85	UGA/3/2002		90.0	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.4	0	O	EA-2		
viba_221	MAL/1/98		86.0	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.8	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	82.7	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/1/2020
Sender reference:	cvri 47/20
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	05/02/2020
Host species:	porcine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	09/07/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48269, genome 48270, sequence viba_48271, sequencing info 48272

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48275	ZAM/2/2020	porcine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.4	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.4	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.4	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.4	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.4	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.4	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.2	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.2	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	83.2	0	O	ME-SA	Ind-2001	c
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.1	0	O	EA-3		
viba_116	SUD/2/86	bovine	82.9	0	O	EA-3		
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	ZAM/2/2020
Sender reference:	cvri 47/20
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	05/02/2020
Host species:	porcine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48273, genome 48274, sequence viba_48275, sequencing info 48276

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48271	ZAM/1/2020	porcine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	99.4	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	99.4	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	99.4	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	99.4	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	99.4	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	99.4	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.2	0	O	EA-2		
viba_48219	ZAM/20/2019	cattle	99.2	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.6	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	83.2	0	O	ME-SA	Ind-2001	c
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.1	0	O	EA-3		
viba_116	SUD/2/86	bovine	82.9	0	O	EA-3		
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10

Virus sample name:	ZAM/3/2020
Sender reference:	cvri 11/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	16/03/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48277, genome 48278, sequence viba_48279, sequencing info 48280

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48291	ZAM/7/2020	cattle	100.0	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	100.0	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.8	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.8	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.8	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.7	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.5	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.2	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.2	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.3	0	O	EA-2		
viba_719	IRN/88/2009		83.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.6	0	O	EA-3		

Virus sample name:	ZAM/4/2020
Sender reference:	cvri 10/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	16/03/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48281, genome 48282, sequence viba_48283, sequencing info 48284	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48279	ZAM/3/2020	cattle	100.0	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	100.0	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.8	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.8	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.8	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.7	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.5	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.2	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.2	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.3	0	O	EA-2		
viba_719	IRN/88/2009		83.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.6	0	O	EA-3		

Virus sample name:	ZAM/6/2020
Sender reference:	cvri 22/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	15/05/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48285, genome 48286, sequence viba_48287, sequencing info 48288	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48279	ZAM/3/2020	cattle	99.8	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.8	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.8	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.7	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.7	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.5	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.4	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.4	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.4	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	99.4	0	O	EA-2		

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_85	UGA/3/2002		89.7	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		86.0	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_719	IRN/88/2009		83.6	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.2	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.2	0	O	EA-3		
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.7	0	O	EA-3		

Virus sample name:	ZAM/7/2020
Sender reference:	cvri 24/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	15/05/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48289, genome 48290, sequence viba_48291, sequencing info 48292	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48279	ZAM/3/2020	cattle	100.0	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	100.0	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.8	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.8	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.8	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.7	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.5	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.2	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.2	0	O	EA-2		

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_85	UGA/3/2002		89.6	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		85.8	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.3	0	O	EA-2		
viba_719	IRN/88/2009		83.5	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.4	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	83.0	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	83.0	0	O	EA-3		
viba_617	IND/53/79	bovine	82.9	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.6	0	O	EA-3		

Virus sample name:	ZAM/8/2020
Sender reference:	cvri 28/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	10/08/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48293, genome 48294, sequence viba_48295, sequencing info 48296	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48299	ZAM/9/2020	cattle	99.8	0	O	EA-2		
viba_48279	ZAM/3/2020	cattle	99.8	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.8	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.8	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.7	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.7	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.5	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.4	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.1	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.1	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.8	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.2	0	O	EA-2		
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	82.9	0	O	EA-3		
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.4	0	O	EA-3		

Virus sample name:	ZAM/9/2020
Sender reference:	cvri 25/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	10/08/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	27/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48297, genome 48298, sequence viba_48299, sequencing info 48300	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48295	ZAM/8/2020	cattle	99.8	0	O	EA-2		
viba_48279	ZAM/3/2020	cattle	99.7	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.7	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.7	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.5	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.5	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.4	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.2	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.9	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	98.9	0	O	EA-2		

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_85	UGA/3/2002		89.3	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.6	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.0	0	O	EA-2		
viba_719	IRN/88/2009		83.2	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.7	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	82.7	0	O	EA-3		
viba_617	IND/53/79	bovine	82.6	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.2	0	O	EA-3		

Virus sample name:	ZAM/10/2020
Sender reference:	cvri 27/20
Location of origin:	Southern
Country of origin:	Zambia
Date of collection:	10/08/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48301, genome 48302, sequence viba_48303, sequencing info 48304

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48295	ZAM/8/2020	cattle	99.5	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.4	0	O	EA-2		
viba_48279	ZAM/3/2020	cattle	99.4	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.4	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.4	0	O	EA-2		
viba_48307	ZAM/11/2020	cattle	99.2	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.2	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	98.9	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.6	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	98.6	0	O	EA-2		

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_85	UGA/3/2002		88.9	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.3	0	O	EA-2		
viba_221	MAL/1/98		85.5	0	O	EA-2		
viba_263	TAN/2/2004	bovine	84.7	0	O	EA-2		
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	82.8	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.4	0	O	ME-SA	PanAsia-2	
viba_854	ETH/1/2007	cattle	82.4	0	O	EA-3		
viba_617	IND/53/79	bovine	82.2	0	O	ME-SA		
viba_397	UAE/4/2008	gazelle	82.2	0	O	ME-SA	Ind-2001	c

Virus sample name:	ZAM/11/2020
Sender reference:	cvri 29/20
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	18/08/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	27/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48305, genome 48306, sequence viba_48307, sequencing info 48308	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48279	ZAM/3/2020	cattle	99.8	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.8	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.8	0	O	EA-2		
viba_48311	ZAM/12/2020	cattle	99.7	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.7	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.7	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.5	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	99.2	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	99.1	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	99.1	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.8	0	O	EA-2		
viba_221	MAL/1/98		86.0	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.2	0	O	EA-3		
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.7	0	O	ME-SA		
viba_116	SUD/2/86	bovine	82.7	0	O	EA-3		

Virus sample name:	ZAM/12/2020
Sender reference:	cvri 30/20
Location of origin:	Lusaka
Country of origin:	Zambia
Date of collection:	18/08/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48309, genome 48310, sequence viba_48311, sequencing info 48312

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48307	ZAM/11/2020	cattle	99.7	0	O	EA-2		
viba_48279	ZAM/3/2020	cattle	99.5	0	O	EA-2		
viba_48291	ZAM/7/2020	cattle	99.5	0	O	EA-2		
viba_48283	ZAM/4/2020	cattle	99.5	0	O	EA-2		
viba_48287	ZAM/6/2020	cattle	99.4	0	O	EA-2		
viba_48295	ZAM/8/2020	cattle	99.4	0	O	EA-2		
viba_48299	ZAM/9/2020	cattle	99.2	0	O	EA-2		
viba_48303	ZAM/10/2020	cattle	98.9	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.7	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	98.7	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.5	0	O	EA-2		
viba_221	MAL/1/98		85.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.5	0	O	EA-2		
viba_854	ETH/11/2007	cattle	83.5	0	O	EA-3		
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.0	0	O	ME-SA	PanAsia-2	ANT-10
viba_116	SUD/2/86	bovine	82.7	0	O	EA-3		
viba_650	IRN/8/2005	ovine	82.5	0	O	ME-SA	PanAsia-2	
viba_617	IND/53/79	bovine	82.4	0	O	ME-SA		

Virus sample name:	ZAM/14/2020
Sender reference:	cvri 37/20
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	28/10/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	29/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48313, genome 48314, sequence viba_48315, sequencing info 48316

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48319	ZAM/15/2020	cattle	100.0	0	O	EA-2		
viba_48323	ZAM/16/2020	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	98.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	98.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	98.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	98.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	98.7	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	98.7	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	98.7	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.6	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.3	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.2	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	82.6	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.6	0	O	EA-3		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/15/2020
Sender reference:	cvri 38/20
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	28/10/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	29/06/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48317, genome 48318, sequence viba_48319, sequencing info 48320

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48315	ZAM/14/2020	cattle	100.0	0	O	EA-2		
viba_48323	ZAM/16/2020	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	98.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	98.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	98.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	98.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	98.7	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	98.7	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	98.7	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.6	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.3	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.2	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	82.6	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.6	0	O	EA-3		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/16/2020
Sender reference:	cvri 39/20
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	28/10/2020
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	30/07/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48321, genome 48322, sequence viba_48323, sequencing info 48324	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48315	ZAM/14/2020	cattle	100.0	0	O	EA-2		
viba_48319	ZAM/15/2020	cattle	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	98.7	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	98.7	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	98.7	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	98.7	0	O	EA-2		
viba_48215	ZAM/18/2019	porcine	98.7	0	O	EA-2		
viba_48251	ZAM/56/2019	cattle	98.7	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	98.7	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	98.6	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	89.1	0	O	EA-2		
viba_221	MAL/1/98		85.3	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.2	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.1	0	O	ME-SA	PanAsia-2	PUN-10
viba_650	IRN/8/2005	ovine	82.9	0	O	ME-SA	PanAsia-2	PAN-10
viba_719	IRN/88/2009		82.9	0	O	ME-SA	PanAsia-2	ANT-10
viba_617	IND/53/79	bovine	82.6	0	O	ME-SA		
viba_854	ETH/1/2007	cattle	82.6	0	O	EA-3		
viba_576	IND/R2/75		82.4	0	O	ME-SA		

Virus sample name:	ZAM/7/2021
Sender reference:	cvri 14/21
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	18/03/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	01/07/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48325, genome 48326, sequence viba_48327, sequencing info 48328	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48331	ZAM/9/2021	cattle	97.8	0	O	EA-2		
viba_48335	ZAM/11/2021	cattle	97.8	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	97.0	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	97.0	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	97.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	96.8	0	O	EA-2		
viba_48259	ZAM/58/2019	cattle	96.8	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	96.8	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	96.8	0	O	EA-2		
viba_48227	ZAM/24/2019	cattle	96.8	0	O	EA-2		

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_85	UGA/3/2002		90.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		86.4	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.8	0	O	EA-2		
viba_116	SUD/2/86	bovine	84.0	0	O	EA-3		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_854	ETH/1/2007	cattle	83.8	0	O	EA-3		
viba_397	UAE/4/2008	gazelle	83.5	0	O	ME-SA	Ind-2001	c
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_617	IND/53/79	bovine	83.3	0	O	ME-SA		

Virus sample name:	ZAM/9/2021
Sender reference:	cvri 26/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	08/05/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	02/07/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48329, genome 48330, sequence viba_48331, sequencing info 48332

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48335	ZAM/11/2021	cattle	100.0	0	O	EA-2		
viba_48327	ZAM/7/2021	cattle	97.8	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	96.7	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	96.7	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	96.7	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	96.5	0	O	EA-2		
viba_48223	ZAM/21/2019	cattle	96.5	0	O	EA-2		
viba_48259	ZAM/58/2019	cattle	96.5	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	96.5	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	96.5	0	O	EA-2		

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_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.3	0	O	EA-2		
viba_221	MAL/1/98		86.3	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.0	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.4	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		83.3	0	O	ME-SA	PanAsia-2	TER-08
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		

Virus sample name:	ZAM/11/2021
Sender reference:	cvri 27/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	12/05/2021
Host species:	cattle
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	03/07/2021
Primers:	O-1C244F/EUR-2B52R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021

VIBASys IDs: sample 48333, genome 48334, sequence viba_48335, sequencing info 48336

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48331	ZAM/9/2021	cattle	100.0	0	O	EA-2		
viba_48327	ZAM/7/2021	cattle	97.8	0	O	EA-2		
viba_48211	ZAM/16/2019	cattle	96.7	0	O	EA-2		
viba_48207	ZAM/15/2019	cattle	96.7	0	O	EA-2		
viba_48267	ZAM/62/2019	cattle	96.7	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	96.5	0	O	EA-2		
viba_48223	ZAM/21/2019	cattle	96.5	0	O	EA-2		
viba_48259	ZAM/58/2019	cattle	96.5	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	96.5	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	96.5	0	O	EA-2		

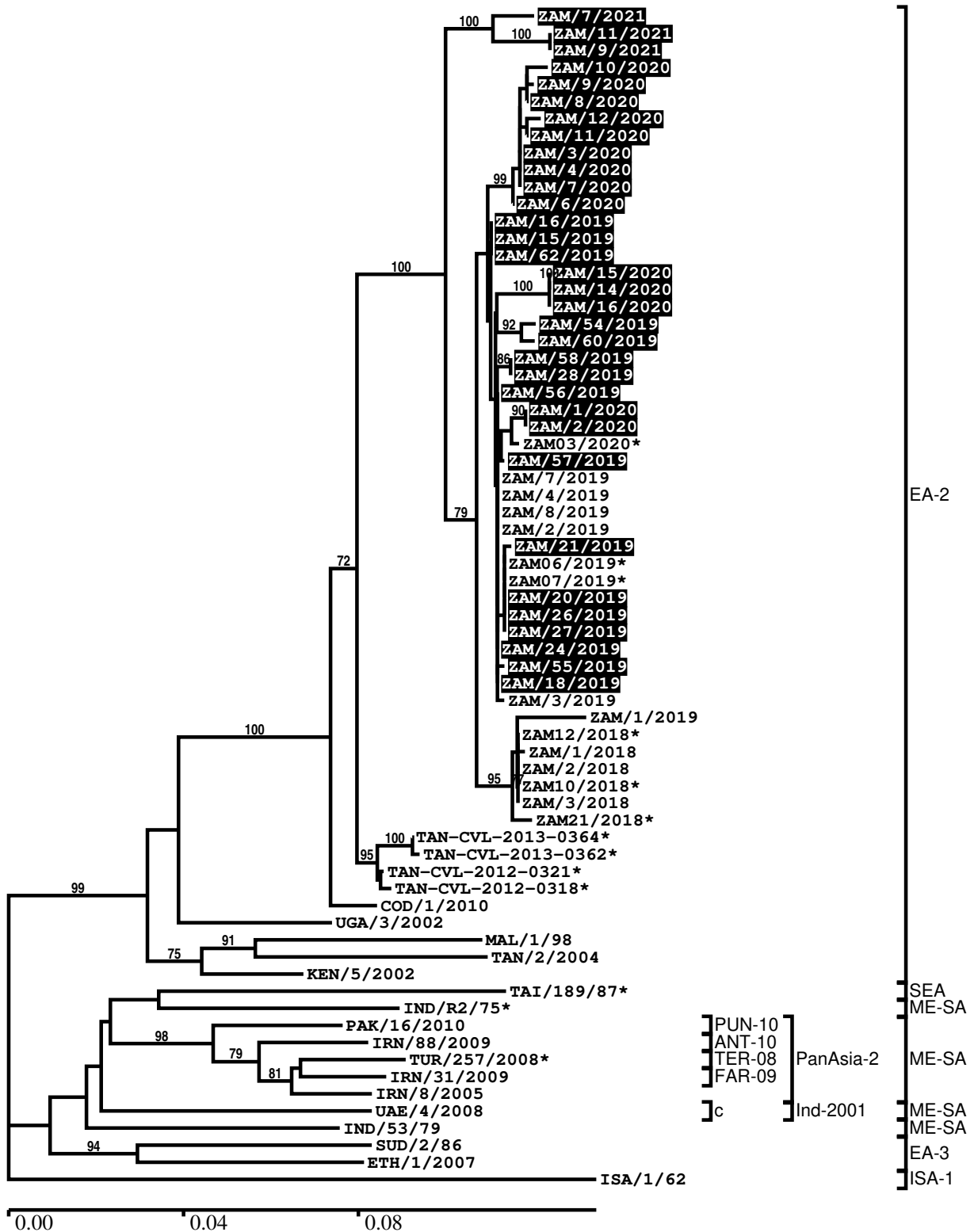
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_85	UGA/3/2002		89.4	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.3	0	O	EA-2		
viba_221	MAL/1/98		86.3	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.0	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_719	IRN/88/2009		83.7	0	O	ME-SA	PanAsia-2	ANT-10
viba_650	IRN/8/2005	ovine	83.4	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09
viba_491	TUR/257/2008		83.3	0	O	ME-SA	PanAsia-2	TER-08
viba_617	IND/53/79	bovine	83.0	0	O	ME-SA		

Report on FMDV O in Zambia in 2019, 2020, 2021

Batch: WRLFMD/2021/00008



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2021/00008-Zambia-O (33 sequences)
Sequence database set:	allseqs_O (5264 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
ZAM/7/2021	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/11/2021	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/9/2021	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/10/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/9/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/8/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/12/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/11/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/3/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/4/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/7/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/6/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/16/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/15/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/62/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/15/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/14/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/16/2020	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/54/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/60/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/58/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/28/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/56/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/1/2020	n/a	porcine	WRLFMD	Zambia	EA-2
ZAM/2/2020	n/a	porcine	WRLFMD	Zambia	EA-2
ZAM03/2020*	n/a	bovine	BVI	Zambia	EA-2
ZAM/57/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/7/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/4/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/8/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/2/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/21/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM06/2019*	n/a	bovine	BVI	Zambia	EA-2
ZAM07/2019*	n/a	bovine	BVI	Zambia	EA-2
ZAM/20/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/26/2019	n/a	cattle	WRLFMD	Zambia	EA-2

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label	accession	host(s)	lab	country	taxonomic information
ZAM/27/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/24/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/55/2019	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/18/2019	n/a	porcine	WRLFMD	Zambia	EA-2
ZAM/3/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/1/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM12/2018*	n/a	bovine	BVI	Zambia	EA-2
ZAM/1/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/2/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM10/2018*	n/a	bovine	BVI	Zambia	EA-2
ZAM/3/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM21/2018*	n/a	bovine	BVI	Zambia	EA-2
TAN-CVL-2013-0364*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
TAN-CVL-2013-0362*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
TAN-CVL-2012-0321*	n/a	bovine	CVL	Tanzania	EA-2
TAN-CVL-2012-0318*	n/a	bovine	CVL	Tanzania	EA-2
COD/1/2010	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
MAL/1/98	DQ165074	n/a	WRLFMD	Malawi	EA-2
TAN/2/2004	KF561679	bovine	WRLFMD	Tanzania	EA-2
KEN/5/2002	DQ165073	bovine	WRLFMD	Kenya	EA-2
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
IND/R2/75*	AF204276	n/a	PD-FMD	India	ME-SA
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
TUR/257/2008*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/TER-08
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available