

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

## Genotyping Report

FMDV serotype: O  
Country: Zambia  
Year: 2019  
Batch: WRLFMD/2019/00022  
No. of sequences: 6  
Report date: 3rd 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:	ZAM/1/2019
Sender reference:	ZRC 1
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	18/01/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	26/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41400, genome 41401, sequence viba_41402, sequencing info 41403	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_36343	ZAM10/2018	bovine	98.4	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.4	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.4	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.4	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.3	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	97.9	0	O	EA-2		
viba_41414	ZAM/4/2019	bovine	97.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	97.0	0	O	EA-2		
viba_41418	ZAM/7/2019	bovine	97.0	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	97.0	0	O	EA-2		

#### 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_85	UGA/3/2002		90.0	0	O	EA-2		
viba_74	KEN/5/2002	bovine	88.9	0	O	EA-2		
viba_221	MAL/1/98		86.6	0	O	EA-2		
viba_263	TAN/2/2004	bovine	85.3	0	O	EA-2		
viba_617	IND/53/79	bovine	83.7	0	O	ME-SA		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.6	0	O	ME-SA	Ind-2001	a
viba_541	OMN/7/2001	bovine	83.3	0	O	ME-SA	Ind-2001	b
viba_719	IRN/88/2009		83.3	0	O	ME-SA	PanAsia-2	ANT-10
viba_285	UKG/35/2001	porcine	83.2	0	O	ME-SA	PanAsia	

Virus sample name:	ZAM/2/2019
Sender reference:	CVRI/04/19
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	11/02/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41404, genome 41405, sequence viba_41406, sequencing info 41407	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41414	ZAM/4/2019	bovine	100.0	0	O	EA-2		
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_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		
viba_36343	ZAM10/2018	bovine	98.6	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.6	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.6	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.6	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.4	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	98.3	0	O	EA-2		

#### 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_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/3/2019
Sender reference:	CVRI 01/19
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	11/02/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41408, genome 41409, sequence viba_41410, sequencing info 41411	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41414	ZAM/4/2019	bovine	99.8	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_36343	ZAM10/2018	bovine	98.4	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.4	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.4	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.4	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.3	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	98.1	0	O	EA-2		

#### 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_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_523	K83/79		82.4	0	O	EA-1		

Virus sample name:	ZAM/4/2019
Sender reference:	CVRI 08/19
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	11/03/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41412, genome 41413, sequence viba_41414, sequencing info 41415	

#### 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_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		
viba_36343	ZAM10/2018	bovine	98.6	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.6	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.6	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.6	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.4	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	98.3	0	O	EA-2		

#### 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_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/7/2019
Sender reference:	CVRI 16/19
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	30/03/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41416, genome 41417, sequence viba_41418, sequencing info 41419	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41414	ZAM/4/2019	bovine	100.0	0	O	EA-2		
viba_41422	ZAM/8/2019	bovine	100.0	0	O	EA-2		
viba_41406	ZAM/2/2019	bovine	100.0	0	O	EA-2		
viba_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		
viba_36343	ZAM10/2018	bovine	98.6	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.6	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.6	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.6	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.4	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	98.3	0	O	EA-2		

#### 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_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/8/2019
Sender reference:	CVRI 15/19
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	30/03/2019
Host species:	bovine
Serotype:	O
Topotype:	EA-2
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	25/04/2019
Primers:	O-1C244F/EUR-2B52R;FMD-3161F/FMD-4303R
Received for sequencing:	02/05/2019
Created:	03/05/2019
Last updated:	03/05/2019
VIBASys IDs: sample 41420, genome 41421, sequence viba_41422, sequencing info 41423	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41414	ZAM/4/2019	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_41410	ZAM/3/2019	bovine	99.8	0	O	EA-2		
viba_36343	ZAM10/2018	bovine	98.6	0	O	EA-2		
viba_36347	ZAM12/2018	bovine	98.6	0	O	EA-2		
viba_36376	ZAM/3/2018	cattle	98.6	0	O	EA-2		
viba_36372	ZAM/2/2018	cattle	98.6	0	O	EA-2		
viba_36368	ZAM/1/2018	cattle	98.4	0	O	EA-2		
viba_36713	ZAM21/2018	bovine	98.3	0	O	EA-2		

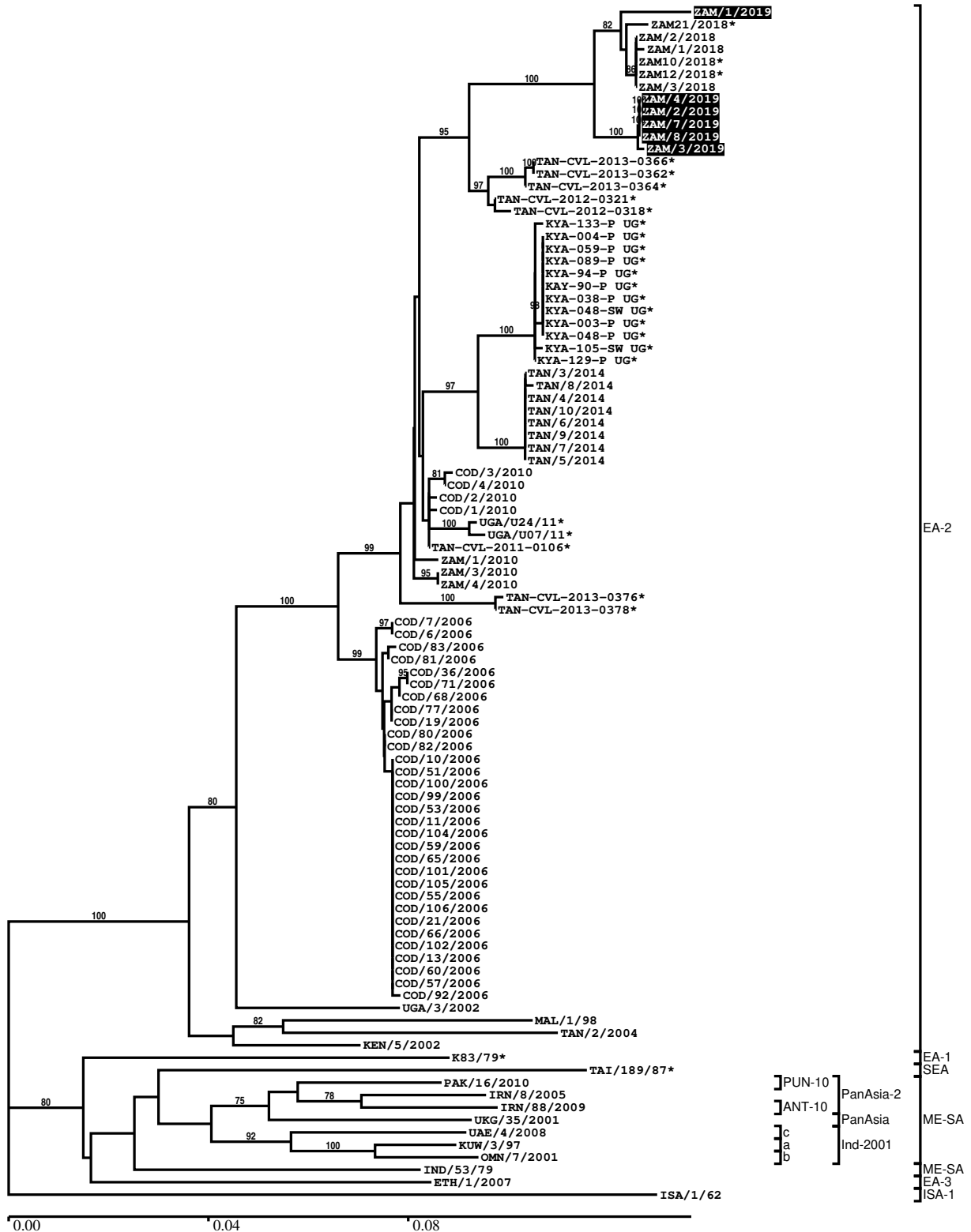
#### Most Closely Related Prototype Sequences

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_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

Report on FMDV O in Zambia in 2019

Batch: WRLFMD/2019/00022



\*, not a WRLFMD Reference Number



## Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2019/00022-Zambia-O (6 sequences)
Sequence database set:	allseqs_O (4471 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/1/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM21/2018*	n/a	bovine	BVI	Zambia	EA-2
ZAM/2/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/1/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM10/2018*	n/a	bovine	BVI	Zambia	EA-2
ZAM12/2018*	n/a	bovine	BVI	Zambia	EA-2
ZAM/3/2018	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/4/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/2/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/7/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/8/2019	n/a	bovine	WRLFMD	Zambia	EA-2
ZAM/3/2019	n/a	bovine	WRLFMD	Zambia	EA-2
TAN-CVL-2013-0366*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
TAN-CVL-2013-0362*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
TAN-CVL-2013-0364*	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
KYA-133-P UG*	KY558331	cattle	PIADC	Uganda	EA-2
KYA-004-P UG*	KY558324	cattle	PIADC	Uganda	EA-2
KYA-059-P UG*	KY558327	cattle	PIADC	Uganda	EA-2
KYA-089-P UG*	KY558328	cattle	PIADC	Uganda	EA-2
KYA-94-P UG*	KY558329	cattle	PIADC	Uganda	EA-2
KAY-90-P UG*	KY548474	cattle	PIADC	Uganda	EA-2
KYA-038-P UG*	KY558325	cattle	PIADC	Uganda	EA-2
KYA-048-SW UG*	KY558332	cattle	PIADC	Uganda	EA-2
KYA-003-P UG*	KY558323	cattle	PIADC	Uganda	EA-2
KYA-048-P UG*	KY558326	cattle	PIADC	Uganda	EA-2
KYA-105-SW UG*	KY558333	cattle	PIADC	Uganda	EA-2
KYA-129-P UG*	KY558330	cattle	PIADC	Uganda	EA-2
TAN/3/2014	MF592665	bovine	WRLFMD	Tanzania	EA-2
TAN/8/2014	MF592669	bovine	WRLFMD	Tanzania	EA-2
TAN/4/2014	MF592666	bovine	WRLFMD	Tanzania	EA-2
TAN/10/2014	MF592671	bovine	WRLFMD	Tanzania	EA-2
TAN/6/2014	MF592667	bovine	WRLFMD	Tanzania	EA-2
TAN/9/2014	MF592670	bovine	WRLFMD	Tanzania	EA-2
TAN/7/2014	MF592668	bovine	WRLFMD	Tanzania	EA-2

*continued on next page*

label	accession	host(s)	lab	country	taxonomic information
TAN/5/2014	n/a	bovine	WRLFMD	Tanzania	EA-2
COD/3/2010	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/4/2010	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/2/2010	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/1/2010	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
UGA/U24/11*	KF478941	cattle	Makerere University	Uganda	EA-2
UGA/U07/11*	KF478939	cattle	Makerere University	Uganda	EA-2
TAN-CVL-2011-0106*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
ZAM/1/2010	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/3/2010	n/a	cattle	WRLFMD	Zambia	EA-2
ZAM/4/2010	n/a	cattle	WRLFMD	Zambia	EA-2
TAN-CVL-2013-0376*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
TAN-CVL-2013-0378*	n/a	cattle	CVL, Tanzania	Tanzania	EA-2
COD/7/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/6/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/83/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/81/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/36/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/71/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/68/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/77/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/19/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/80/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/82/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/10/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/51/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/100/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/99/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2

*continued on next page*

label	accession	host(s)	lab	country	taxonomic information
COD/53/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/11/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/104/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/59/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/65/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/101/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/105/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/55/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/106/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/21/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/66/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/102/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/13/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/60/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/57/2006	n/a	cattle	WRLFMD	Democratic Republic of the Congo	EA-2
COD/92/2006	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
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
IRN/88/2009	KY091282	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
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
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
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