

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

Genotyping Report

FMDV serotype: SAT2
Country: Zambia
Year: 2020, 2021
Batch: WRLFMD/2021/00008
No. of sequences: 7
Report date: 29th July 2021
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth



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

email: reporting@pirbright.ac.uk

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Virus sample name:	ZAM/19/2020
Sender reference:	cvri 40/20
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	25/11/2020
Host species:	cattle
Serotype:	SAT2
Topotype:	III
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	01/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48343, genome 48344, sequence viba_48345, sequencing info 48346	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48365	ZAM/6/2021	cattle	99.2	0	SAT2	III		
viba_47503	NAM06/2021	bovine	98.9	0	SAT2	III		
viba_48357	ZAM/4/2021	cattle	98.9	0	SAT2	III		
viba_48353	ZAM/3/2021	cattle	98.8	0	SAT2	III		
viba_48361	ZAM/5/2021	cattle	98.8	0	SAT2	III		
viba_47507	NAM08/2021	bovine	98.8	0	SAT2	III		
viba_3519	BOT/P3/98 VUM-29	African buffalo	88.2	0	SAT2	III		
viba_451	BOT/P3/98 VUM-29	African buffalo	87.7	1	SAT2	III		
viba_7850	BOT/3/2005	cattle	87.3	0	SAT2	III		
viba_7862	BOT/6/2005	cattle	87.3	0	SAT2	III		

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_451	BOT/P3/98 VUM-29	African buffalo	87.7	1	SAT2	III		
viba_380	RHO/1/48		83.6	0	SAT2	III		
viba_183	ZIM/14/2002	bovine	79.7	0	SAT2	I		
viba_248	KEN/1/84	bovine	79.5	0	SAT2	IV		
viba_273	ETH/1/90	bovine	78.7	0	SAT2	IV		
viba_752	SA/106/59		78.5	0	SAT2	I		
viba_111	MAL/1/2003	bovine	77.7	0	SAT2	I		
viba_567	ZIM/7/83	bovine	74.9	0	SAT2	II		
viba_546	ZIM/5/81	bovine	73.9	0	SAT2	II		
viba_424	SAU/6/2000	bovine	73.0	1	SAT2	VII		

Virus sample name:	ZAM/2/2021
Sender reference:	cvri 12/21
Location of origin:	n/a
Country of origin:	Zambia
Date of collection:	23/02/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	IV
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	01/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48347, genome 48348, sequence viba_48349, sequencing info 48350	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48369	ZAM/8/2021	cattle	99.7	0	SAT2	IV		
viba_3526	BUN/1/91		91.6	0	SAT2	IV		
viba_16764	TAN/P7/2010	cattle	87.5	0	SAT2	IV		
viba_16768	TAN/P8/2010	cattle	87.5	0	SAT2	IV		
viba_27750	ZAM/2/2015	bovine	87.2	0	SAT2	IV		
viba_28823	K65/82		87.0	0	SAT2	IV		
viba_248	KEN/1/84	bovine	87.0	0	SAT2	IV		
viba_28875	KEN/1/87		87.0	0	SAT2	IV		
viba_28812	K81/81		87.0	0	SAT2	IV		
viba_8093	K70/05		86.8	0	SAT2	IV		

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_248	KEN/1/84	bovine	87.0	0	SAT2	IV		
viba_273	ETH/1/90	bovine	82.7	0	SAT2	IV		
viba_451	BOT/P3/98 VUM-29	African buffalo	81.8	1	SAT2	III		
viba_183	ZIM/14/2002	bovine	80.7	0	SAT2	I		
viba_752	SA/106/59		80.2	0	SAT2	I		
viba_111	MAL/1/2003	bovine	80.2	0	SAT2	I		
viba_380	RHO/1/48		79.4	0	SAT2	III		
viba_567	ZIM/7/83	bovine	77.3	0	SAT2	II		
viba_546	ZIM/5/81	bovine	74.7	0	SAT2	II		
viba_724	ETH/2/91	bovine	74.5	0	SAT2	XIV		

Virus sample name:	ZAM/3/2021
Sender reference:	cvri 01/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	06/03/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	III
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	04/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	29/07/2021
Last updated:	29/07/2021
VIBASys IDs: sample 48351, genome 48352, sequence viba_48353, sequencing info 48354	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48365	ZAM/6/2021	cattle	99.2	0	SAT2	III		
viba_48345	ZAM/19/2020	cattle	98.8	0	SAT2	III		
viba_47503	NAM06/2021	bovine	98.6	0	SAT2	III		
viba_47507	NAM08/2021	bovine	98.4	0	SAT2	III		
viba_48357	ZAM/4/2021	cattle	98.3	0	SAT2	III		
viba_48361	ZAM/5/2021	cattle	98.1	0	SAT2	III		
viba_3519	BOT/P3/98 VUM-29	African buffalo	88.4	0	SAT2	III		
viba_451	BOT/P3/98 VUM-29	African buffalo	87.9	1	SAT2	III		
viba_7850	BOT/3/2005	cattle	86.8	0	SAT2	III		
viba_7862	BOT/6/2005	cattle	86.8	0	SAT2	III		

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_451	BOT/P3/98 VUM-29	African buffalo	87.9	1	SAT2	III		
viba_380	RHO/1/48		82.7	0	SAT2	III		
viba_248	KEN/1/84	bovine	80.0	0	SAT2	IV		
viba_273	ETH/1/90	bovine	79.4	0	SAT2	IV		
viba_183	ZIM/14/2002	bovine	79.4	0	SAT2	I		
viba_752	SA/106/59		79.2	0	SAT2	I		
viba_111	MAL/1/2003	bovine	78.3	0	SAT2	I		
viba_567	ZIM/7/83	bovine	75.0	0	SAT2	II		
viba_546	ZIM/5/81	bovine	74.2	0	SAT2	II		
viba_424	SAU/6/2000	bovine	73.2	1	SAT2	VII		

Virus sample name:	ZAM/4/2021
Sender reference:	cvri 05/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	06/03/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	III
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	02/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48355, genome 48356, sequence viba_48357, sequencing info 48358	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48361	ZAM/5/2021	cattle	99.5	0	SAT2	III		
viba_48345	ZAM/19/2020	cattle	98.9	0	SAT2	III		
viba_48365	ZAM/6/2021	cattle	98.8	0	SAT2	III		
viba_47503	NAM06/2021	bovine	98.4	0	SAT2	III		
viba_48353	ZAM/3/2021	cattle	98.3	0	SAT2	III		
viba_47507	NAM08/2021	bovine	98.3	0	SAT2	III		
viba_3519	BOT/P3/98 VUM-29	African buffalo	88.0	0	SAT2	III		
viba_451	BOT/P3/98 VUM-29	African buffalo	87.6	1	SAT2	III		
viba_7850	BOT/3/2005	cattle	87.0	0	SAT2	III		
viba_7862	BOT/6/2005	cattle	87.0	0	SAT2	III		

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_451	BOT/P3/98 VUM-29	African buffalo	87.6	1	SAT2	III		
viba_380	RHO/1/48		83.8	0	SAT2	III		
viba_248	KEN/1/84	bovine	80.2	0	SAT2	IV		
viba_183	ZIM/14/2002	bovine	80.0	0	SAT2	I		
viba_752	SA/106/59		79.4	0	SAT2	I		
viba_273	ETH/1/90	bovine	79.2	0	SAT2	IV		
viba_111	MAL/1/2003	bovine	78.0	0	SAT2	I		
viba_567	ZIM/7/83	bovine	74.8	0	SAT2	II		
viba_546	ZIM/5/81	bovine	73.6	0	SAT2	II		
viba_424	SAU/6/2000	bovine	72.9	1	SAT2	VII		

Virus sample name:	ZAM/5/2021
Sender reference:	cvri 09/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	07/03/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	III
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	01/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48359, genome 48360, sequence viba_48361, sequencing info 48362	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48357	ZAM/4/2021	cattle	99.5	0	SAT2	III		
viba_48345	ZAM/19/2020	cattle	98.8	0	SAT2	III		
viba_48365	ZAM/6/2021	cattle	98.6	0	SAT2	III		
viba_47503	NAM06/2021	bovine	98.3	0	SAT2	III		
viba_48353	ZAM/3/2021	cattle	98.1	0	SAT2	III		
viba_47507	NAM08/2021	bovine	98.1	0	SAT2	III		
viba_3519	BOT/P3/98 VUM-29	African buffalo	88.2	0	SAT2	III		
viba_451	BOT/P3/98 VUM-29	African buffalo	87.7	1	SAT2	III		
viba_7850	BOT/3/2005	cattle	87.0	0	SAT2	III		
viba_7862	BOT/6/2005	cattle	87.0	0	SAT2	III		

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_451	BOT/P3/98 VUM-29	African buffalo	87.7	1	SAT2	III		
viba_380	RHO/1/48		83.8	0	SAT2	III		
viba_248	KEN/1/84	bovine	80.2	0	SAT2	IV		
viba_183	ZIM/14/2002	bovine	80.0	0	SAT2	I		
viba_273	ETH/1/90	bovine	79.5	0	SAT2	IV		
viba_752	SA/106/59		79.0	0	SAT2	I		
viba_111	MAL/1/2003	bovine	78.0	0	SAT2	I		
viba_567	ZIM/7/83	bovine	75.1	0	SAT2	II		
viba_546	ZIM/5/81	bovine	73.6	0	SAT2	II		
viba_424	SAU/6/2000	bovine	73.0	1	SAT2	VII		

Virus sample name:	ZAM/6/2021
Sender reference:	cvri 08/21
Location of origin:	Western
Country of origin:	Zambia
Date of collection:	07/03/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	III
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	02/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48363, genome 48364, sequence viba_48365, sequencing info 48366	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48345	ZAM/19/2020	cattle	99.2	0	SAT2	III		
viba_48353	ZAM/3/2021	cattle	99.2	0	SAT2	III		
viba_47503	NAM06/2021	bovine	99.1	0	SAT2	III		
viba_47507	NAM08/2021	bovine	98.9	0	SAT2	III		
viba_48357	ZAM/4/2021	cattle	98.8	0	SAT2	III		
viba_48361	ZAM/5/2021	cattle	98.6	0	SAT2	III		
viba_3519	BOT/P3/98 VUM-29	African buffalo	88.4	0	SAT2	III		
viba_451	BOT/P3/98 VUM-29	African buffalo	87.9	1	SAT2	III		
viba_7850	BOT/3/2005	cattle	87.2	0	SAT2	III		
viba_7862	BOT/6/2005	cattle	87.2	0	SAT2	III		

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_451	BOT/P3/98 VUM-29	African buffalo	87.9	1	SAT2	III		
viba_380	RHO/1/48		83.5	0	SAT2	III		
viba_248	KEN/1/84	bovine	79.8	0	SAT2	IV		
viba_183	ZIM/14/2002	bovine	79.5	0	SAT2	I		
viba_752	SA/106/59		79.4	0	SAT2	I		
viba_273	ETH/1/90	bovine	79.2	0	SAT2	IV		
viba_111	MAL/1/2003	bovine	78.2	0	SAT2	I		
viba_567	ZIM/7/83	bovine	75.3	0	SAT2	II		
viba_546	ZIM/5/81	bovine	74.0	0	SAT2	II		
viba_424	SAU/6/2000	bovine	73.6	1	SAT2	VII		

Virus sample name:	ZAM/8/2021
Sender reference:	cvri 23/21
Location of origin:	Central
Country of origin:	Zambia
Date of collection:	14/04/2021
Host species:	cattle
Serotype:	SAT2
Topotype:	IV
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	02/07/2021
Primers:	SAT2-1C445F/SAT-2B208R, SAT2-P1-1223F/SAT-2B208R, FMD-3161F/FMD-4303R
Received for sequencing:	20/07/2021
Created:	26/07/2021
Last updated:	26/07/2021
VIBASys IDs: sample 48367, genome 48368, sequence viba_48369, sequencing info 48370	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_48349	ZAM/2/2021	cattle	99.7	0	SAT2	IV		
viba_3526	BUN/1/91		91.6	0	SAT2	IV		
viba_16764	TAN/P7/2010	cattle	87.5	0	SAT2	IV		
viba_16768	TAN/P8/2010	cattle	87.5	0	SAT2	IV		
viba_28823	K65/82		87.0	0	SAT2	IV		
viba_248	KEN/1/84	bovine	87.0	0	SAT2	IV		
viba_28875	KEN/1/87		87.0	0	SAT2	IV		
viba_28812	K81/81		87.0	0	SAT2	IV		
viba_8093	K70/05		86.8	0	SAT2	IV		
viba_28846	K34/84		86.8	0	SAT2	IV		

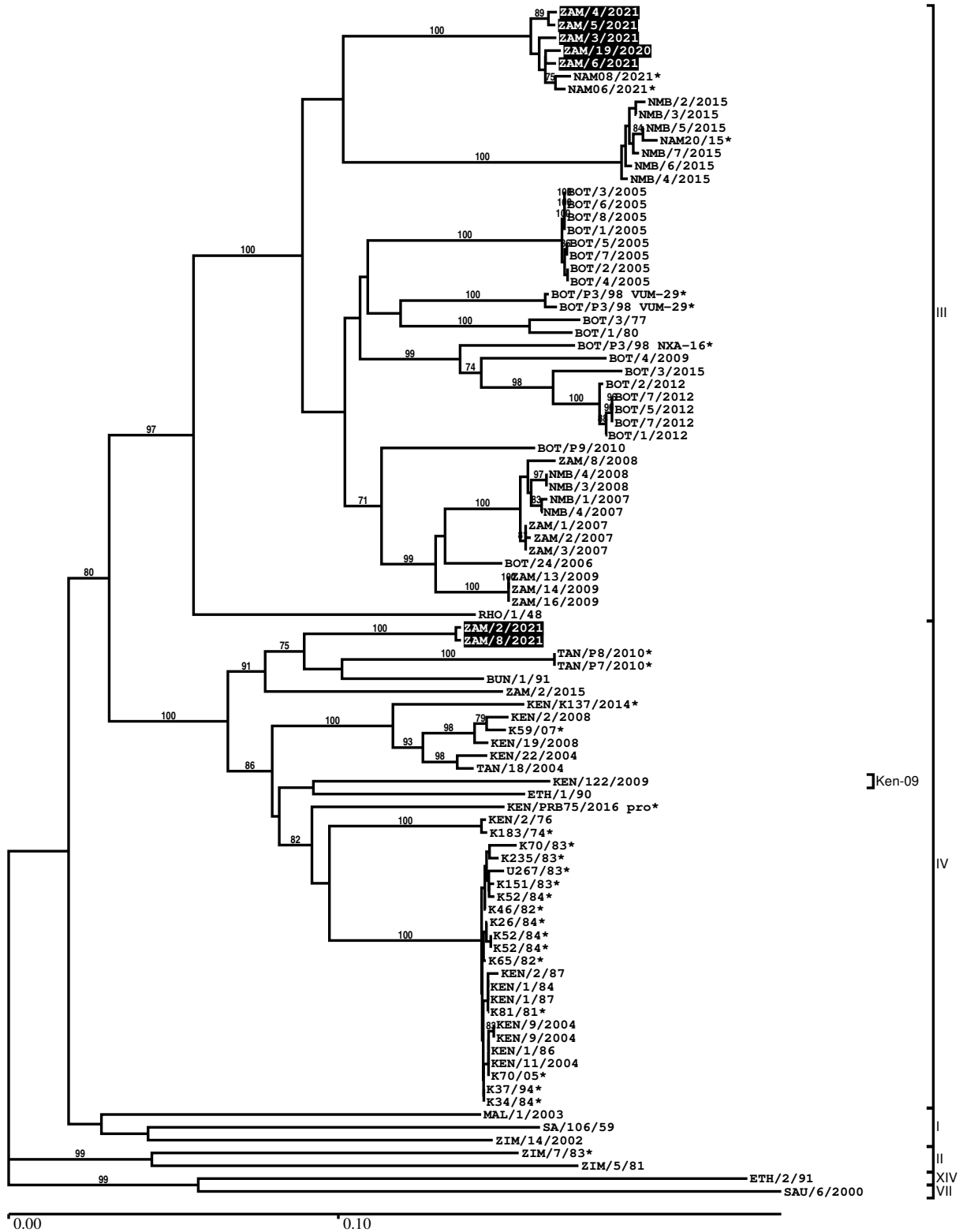
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_248	KEN/1/84	bovine	87.0	0	SAT2	IV		
viba_273	ETH/1/90	bovine	82.7	0	SAT2	IV		
viba_451	BOT/P3/98 VUM-29	African buffalo	81.8	1	SAT2	III		
viba_183	ZIM/14/2002	bovine	80.7	0	SAT2	I		
viba_752	SA/106/59		80.2	0	SAT2	I		
viba_111	MAL/1/2003	bovine	80.2	0	SAT2	I		
viba_380	RHO/1/48		79.4	0	SAT2	III		
viba_567	ZIM/7/83	bovine	77.3	0	SAT2	II		
viba_546	ZIM/5/81	bovine	74.7	0	SAT2	II		
viba_724	ETH/2/91	bovine	74.6	0	SAT2	XIV		

Report on FMDV SAT2 in Zambia in 2020, 2021

Batch: WRLFMD/2021/00008



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor: vp1_SAT2
 Query sequence set: WRLFMD/2021/00008-Zambia-SAT2 (7 sequences)
 Sequence database set: allseqs_SAT2 (1056 sequences)
 Prototype sequence set: !prototypes_SAT2 (25 sequences)
 Number of related sequences reported: 10
 Minimal VP1 subsequence match length: 600
 Sequence alignment method: muscle (default parameters)
 Sequence alignment length: 642
 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: 11
 VIBASys version: reflabs-1.1.2

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/SAT2

label	accession	host(s)	lab	country	taxonomic information
ZAM/4/2021	n/a	cattle	WRLFMD	Zambia	III
ZAM/5/2021	n/a	cattle	WRLFMD	Zambia	III
ZAM/3/2021	n/a	cattle	WRLFMD	Zambia	III
ZAM/19/2020	n/a	cattle	WRLFMD	Zambia	III
ZAM/6/2021	n/a	cattle	WRLFMD	Zambia	III
NAM08/2021*	n/a	bovine	BVI	Namibia	III
NAM06/2021*	n/a	bovine	BVI	Namibia	III
NMB/2/2015	n/a	bovine	WRLFMD	Namibia	III
NMB/3/2015	n/a	bovine	WRLFMD	Namibia	III
NMB/5/2015	n/a	bovine	WRLFMD	Namibia	III
NAM20/15*	n/a	cattle	BVI	Namibia	III
				(NAM)	
NMB/7/2015	n/a	bovine	WRLFMD	Namibia	III
NMB/6/2015	n/a	bovine	WRLFMD	Namibia	III
NMB/4/2015	n/a	bovine	WRLFMD	Namibia	III
BOT/3/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/6/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/8/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/1/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/5/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/7/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/2/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/4/2005	n/a	cattle	WRLFMD	Botswana	III
BOT/P3/98 VUM-29*	KY091305	African buffalo	WRLFMD	Botswana	III
BOT/P3/98 VUM-29*	AF367124	African buffalo	OVI	Botswana	III
BOT/3/77	KF112928	cattle	OVI	Botswana	III
BOT/1/80	KF112929	cattle	WRLFMD	Botswana	III
BOT/P3/98 NXA-16*	n/a	African buffalo	WRLFMD	Botswana	III
BOT/4/2009	n/a	cattle	WRLFMD	Botswana	III
BOT/3/2015	n/a	bovine	WRLFMD	Botswana	III
BOT/2/2012	n/a	bovine	WRLFMD	Botswana	III
BOT/7/2012	n/a	bovine	WRLFMD	Botswana	III
BOT/5/2012	n/a	bovine	WRLFMD	Botswana	III
BOT/7/2012	n/a	bovine	WRLFMD	Botswana	III
BOT/1/2012	n/a	bovine	WRLFMD	Botswana	III
BOT/P9/2010	n/a	African buffalo	WRLFMD	Botswana	III

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label	accession	host(s)	lab	country	taxonomic information
ZAM/8/2008	n/a	cattle	WRLFMD	Zambia	III
NMB/4/2008	n/a	cattle	WRLFMD	Namibia	III
NMB/3/2008	n/a	cattle	WRLFMD	Namibia	III
NMB/1/2007	n/a	cattle	WRLFMD	Namibia	III
NMB/4/2007	n/a	cattle	WRLFMD	Namibia	III
ZAM/1/2007	n/a	n/a	WRLFMD	Zambia	III
ZAM/2/2007	n/a	n/a	WRLFMD	Zambia	III
ZAM/3/2007	n/a	n/a	WRLFMD	Zambia	III
BOT/24/2006	n/a	African buffalo	WRLFMD	Botswana	III
ZAM/13/2009	n/a	cattle	WRLFMD	Zambia	III
ZAM/14/2009	n/a	cattle	WRLFMD	Zambia	III
ZAM/16/2009	n/a	cattle	WRLFMD	Zambia	III
RHO/1/48	AY593847	n/a	PIADC	Rhodesia	III
ZAM/2/2021	n/a	cattle	WRLFMD	Zambia	IV
ZAM/8/2021	n/a	cattle	WRLFMD	Zambia	IV
TAN/P8/2010*	n/a	cattle	WRLFMD	Tanzania	IV
TAN/P7/2010*	n/a	cattle	WRLFMD	Tanzania	IV
BUN/1/91	AF367111	n/a	OVI	Burundi	IV
ZAM/2/2015	n/a	bovine	WRLFMD	Zambia	IV
KEN/K137/2014*	MH882612	cattle	PIADC	Kenya	IV
KEN/2/2008	n/a	cattle	WRLFMD	Kenya	IV
K59/07*	HM623708	n/a	n/a	Kenya	IV
KEN/19/2008	n/a	cattle	WRLFMD	Kenya	IV
KEN/22/2004	n/a	cattle	WRLFMD	Kenya	IV
TAN/18/2004	KF561725	cattle	WRLFMD	Tanzania	IV
KEN/122/2009	JX570630	cattle	WRLFMD	Kenya	IV/Ken-09
ETH/1/90	AY343935	bovine	OVI	Ethiopia	IV
KEN/PRB75/2016 pro*	MH882655	African buffalo	PIADC	Kenya	IV
KEN/2/76	AY343940	cattle	OVI	Kenya	IV
K183/74*	n/a	cattle	WRLFMD	Kenya	IV
K70/83*	HM623681	n/a	Makerere University	Kenya	IV
K235/83*	n/a	n/a	WRLFMD	Kenya	IV
U267/83*	HM623682	n/a	Makerere University,	Uganda	IV
K151/83*	HM623683	n/a	Makerere University	Kenya	IV
K52/84*	HM623685	n/a	Makerere University	Kenya	IV
K46/82*	HM623679	n/a	Makerere University	Kenya	IV
K26/84*	n/a	n/a	WRLFMD	Kenya	IV
K52/84*	n/a	n/a	WRLFMD	Kenya	IV
K52/84*	n/a	n/a	WRLFMD	Kenya	IV
K65/82*	n/a	n/a	WRLFMD	Kenya	IV
KEN/2/87	AY343945	n/a	OVI	Kenya	IV
KEN/1/84	AY344505	bovine	OVI	Kenya	IV
KEN/1/87	AY343944	n/a	OVI	Kenya	IV
K81/81*	HM623678	n/a	Makerere University	Kenya	IV
KEN/9/2004	n/a	cattle	WRLFMD	Kenya	IV
KEN/9/2004	n/a	cattle	WRLFMD	Kenya	IV
KEN/1/86	AY343943	n/a	OVI	Kenya	IV
KEN/11/2004	n/a	cattle	WRLFMD	Kenya	IV
K70/05*	HM623701	n/a	n/a	Kenya	IV
K37/94*	HM623694	n/a	Makerere University	Kenya	IV
K34/84*	HM623684	n/a	Makerere University	Kenya	IV
MAL/1/2003	n/a	bovine	WRLFMD	Malawi	I
SA/106/59	AY593848	n/a	PIADC	South Africa (SA)	I
ZIM/14/2002	KF219689	bovine	WRLFMD	Zimbabwe	I
ZIM/7/83*	AF136607	bovine	OVI	Zimbabwe	II
ZIM/5/81	EF134951	bovine	WRLFMD	Zimbabwe	II
ETH/2/91	AY343938	bovine	OVI	Ethiopia	XIV

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label	accession	host(s)	lab	country	taxonomic information
SAU/6/2000	AF367135	bovine	OVI	Saudi Arabia	VII

*, not a WRLFMD Reference Number

n/a, not available