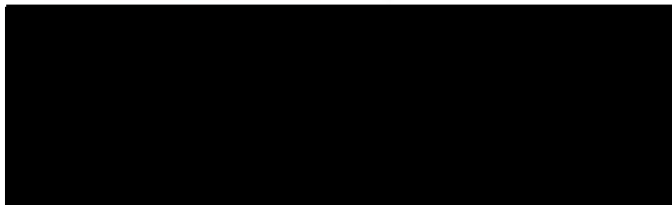




FMD Genotyping Report

Lab Reference WRL batch Number: WRLFMD/2025/000002

Sender Details:

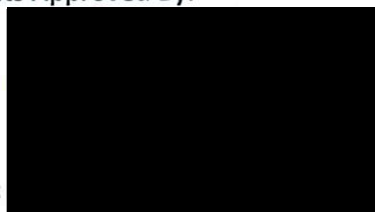


Date Received: 31/01/2025

Country of Origin*: Bahrain

Work has now been completed in respect of the sequences recently submitted and the details are as attached. Please note that all our phylogenetic trees can be accessed via the internet at:
<http://www.wrlfmd.org/>

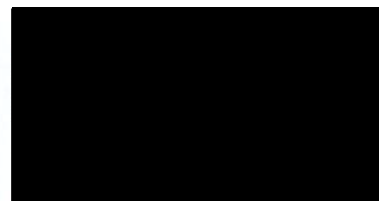
Results Approved By:



Date:

31/1/25

Official Stamp:



c.c.: L Bakkali-Kassimi, D King, M Henstock, H Hicks, N Knowles, A Ludi, N Mapitse, V Mioulet, J Pinto, J Wadsworth, B Wood, Donal Sammin, E Palamara, EuFMD, FAO Circulation, WOAHP Animal Health Information, Regional WOAHP Delegate.

To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by email (reflabsfeedback@pirbright.ac.uk).

* Data supplied by the customer

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

Genotyping Report

FMDV serotype:	SAT1
Country:	Bahrain
Year:	2025
Batch:	WRLFMD/2025/000002
No. of sequences:	14
Report date:	5th March 2025
Report generated by:	██████████
Report checked by:	██████████



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

email: reporting@pirbright.ac.uk

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Virus sample name:	BAR/1/2025
Sender reference:	SER-008 (N-1454)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	14/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	18/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55748, genome 55749, sequence viba_55750, sequencing info 55751	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55754	BAR/3/2025	cattle	100.0	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	100.0	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.7	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.7	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.1	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.2	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/3/2025
Sender reference:	SER-008 (N-1459)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	14/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1 & WRL-LFBK2
Harvest date of material:	21/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55752, genome 55753, sequence viba_55754, sequencing info 55755	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55750	BAR/1/2025	cattle	100.0	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	100.0	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.7	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.7	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.1	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.2	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/5/2025
Sender reference:	SER-008 (N-1459)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	14/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	18/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55756, genome 55757, sequence viba_55758, sequencing info 55759	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55754	BAR/3/2025	cattle	100.0	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	100.0	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.7	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.7	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.1	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.2	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/6/2025
Sender reference:	SER-008 (N-6253)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	14/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	19/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55760, genome 55761, sequence viba_55762, sequencing info 55763	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55754	BAR/3/2025	cattle	100.0	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	100.0	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.7	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.7	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.1	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.2	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/18/2025
Sender reference:	SER-011 (C-3683)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	16/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	19/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55764, genome 55765, sequence viba_55766, sequencing info 55767	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.7	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.7	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.7	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.7	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.7	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.7	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.7	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.4	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.4	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.4	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.2	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/25/2025
Sender reference:	SER-013 (N-2134)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	19/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK2
Harvest date of material:	21/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55768, genome 55769, sequence viba_55770, sequencing info 55771	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55798	BAR/52/2025	cattle	100.0	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	100.0	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.7	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.7	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.7	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.4	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.3	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/37/2025
Sender reference:	SER-019 (29666 / N-778)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	21/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	20/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55772, genome 55773, sequence viba_55774, sequencing info 55775	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55786	BAR/49/2025	cattle	100.0	0	SAT1	I		
viba_55782	BAR/47/2025	cattle	100.0	0	SAT1	I		
viba_55778	BAR/39/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.7	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.5	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.5	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.5	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.5	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.5	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	88.3	0	SAT1	I		
viba_243	ZIM/23/2003		80.2	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.3	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.1	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.3	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.1	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.0	0	SAT1	III		
viba_212	BEC/1/48		73.5	0	SAT1	III		

Virus sample name:	BAR/39/2025
Sender reference:	SER-019 (N-779)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	21/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	21/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55776, genome 55777, sequence viba_55778, sequencing info 55779	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55786	BAR/49/2025	cattle	100.0	0	SAT1	I		
viba_55782	BAR/47/2025	cattle	100.0	0	SAT1	I		
viba_55774	BAR/37/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.7	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.5	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.5	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.5	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.5	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.5	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	88.3	0	SAT1	I		
viba_243	ZIM/23/2003		80.2	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.3	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.1	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.3	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.1	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.0	0	SAT1	III		
viba_212	BEC/1/48		73.5	0	SAT1	III		

Virus sample name:	BAR/47/2025
Sender reference:	SER-019 (27779 / N-785)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	21/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55780, genome 55781, sequence viba_55782, sequencing info 55783	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55786	BAR/49/2025	cattle	100.0	0	SAT1	I		
viba_55774	BAR/37/2025	cattle	100.0	0	SAT1	I		
viba_55778	BAR/39/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.7	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.5	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.5	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.5	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.5	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.5	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	88.3	0	SAT1	I		
viba_243	ZIM/23/2003		80.2	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.3	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.1	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.3	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.1	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.0	0	SAT1	III		
viba_212	BEC/1/48		73.5	0	SAT1	III		

Virus sample name:	BAR/49/2025
Sender reference:	SER-019 (23217 / N-786)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	21/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55784, genome 55785, sequence viba_55786, sequencing info 55787	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55782	BAR/47/2025	cattle	100.0	0	SAT1	I		
viba_55774	BAR/37/2025	cattle	100.0	0	SAT1	I		
viba_55778	BAR/39/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.7	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.5	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.5	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.5	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.5	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.5	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	88.3	0	SAT1	I		
viba_243	ZIM/23/2003		80.2	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.3	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.1	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.3	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.1	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.0	0	SAT1	III		
viba_212	BEC/1/48		73.5	0	SAT1	III		

Virus sample name:	BAR/50/2025
Sender reference:	SER-013 (N-1403)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	22/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55788, genome 55789, sequence viba_55790, sequencing info 55791	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55798	BAR/52/2025	cattle	100.0	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	100.0	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.7	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.7	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.7	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.4	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.3	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/51/2025
Sender reference:	SER-013 (N-2134)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	22/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55792, genome 55793, sequence viba_55794, sequencing info 55795	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55798	BAR/52/2025	cattle	100.0	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	100.0	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.7	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.7	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.7	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.4	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.3	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/52/2025
Sender reference:	SER-013 (N-3213)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	22/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55796, genome 55797, sequence viba_55798, sequencing info 55799	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55794	BAR/51/2025	cattle	100.0	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	100.0	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	100.0	0	SAT1	I		
viba_55802	BAR/55/2025	cattle	99.8	0	SAT1	I		
viba_55754	BAR/3/2025	cattle	99.7	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.7	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.7	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.7	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.7	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.5	0	SAT1	I		

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_466	T155/71	cattle	87.8	0	SAT1	I		
viba_243	ZIM/23/2003		80.0	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.8	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.4	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.0	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.6	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.1	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.3	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	73.9	0	SAT1	III		
viba_212	BEC/1/48		73.2	0	SAT1	III		

Virus sample name:	BAR/55/2025
Sender reference:	SER-022 (2)
Location of origin:	Quarantine Isolation Station, Buri, Northern province
Country of origin:	Bahrain
Date of collection:	28/01/2025
Host species:	cattle
Serotype:	SAT1
Topotype:	I
Lineage:	
Sublineage:	
Sequence length:	657
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	25/02/2025
Primers:	SAT1-1C559F/SAT-2B208R; SAT1U-OS/SAT-2B208R; FMD-3161F/FMD-4303R
Received for sequencing:	28/02/2025
Created:	05/03/2025
Last updated:	05/03/2025
VIBASys IDs: sample 55800, genome 55801, sequence viba_55802, sequencing info 55803	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_55754	BAR/3/2025	cattle	99.8	0	SAT1	I		
viba_55798	BAR/52/2025	cattle	99.8	0	SAT1	I		
viba_55750	BAR/1/2025	cattle	99.8	0	SAT1	I		
viba_55758	BAR/5/2025	cattle	99.8	0	SAT1	I		
viba_55762	BAR/6/2025	cattle	99.8	0	SAT1	I		
viba_55766	BAR/18/2025	cattle	99.8	0	SAT1	I		
viba_55794	BAR/51/2025	cattle	99.8	0	SAT1	I		
viba_55770	BAR/25/2025	cattle	99.8	0	SAT1	I		
viba_55790	BAR/50/2025	cattle	99.8	0	SAT1	I		
viba_55786	BAR/49/2025	cattle	99.7	0	SAT1	I		

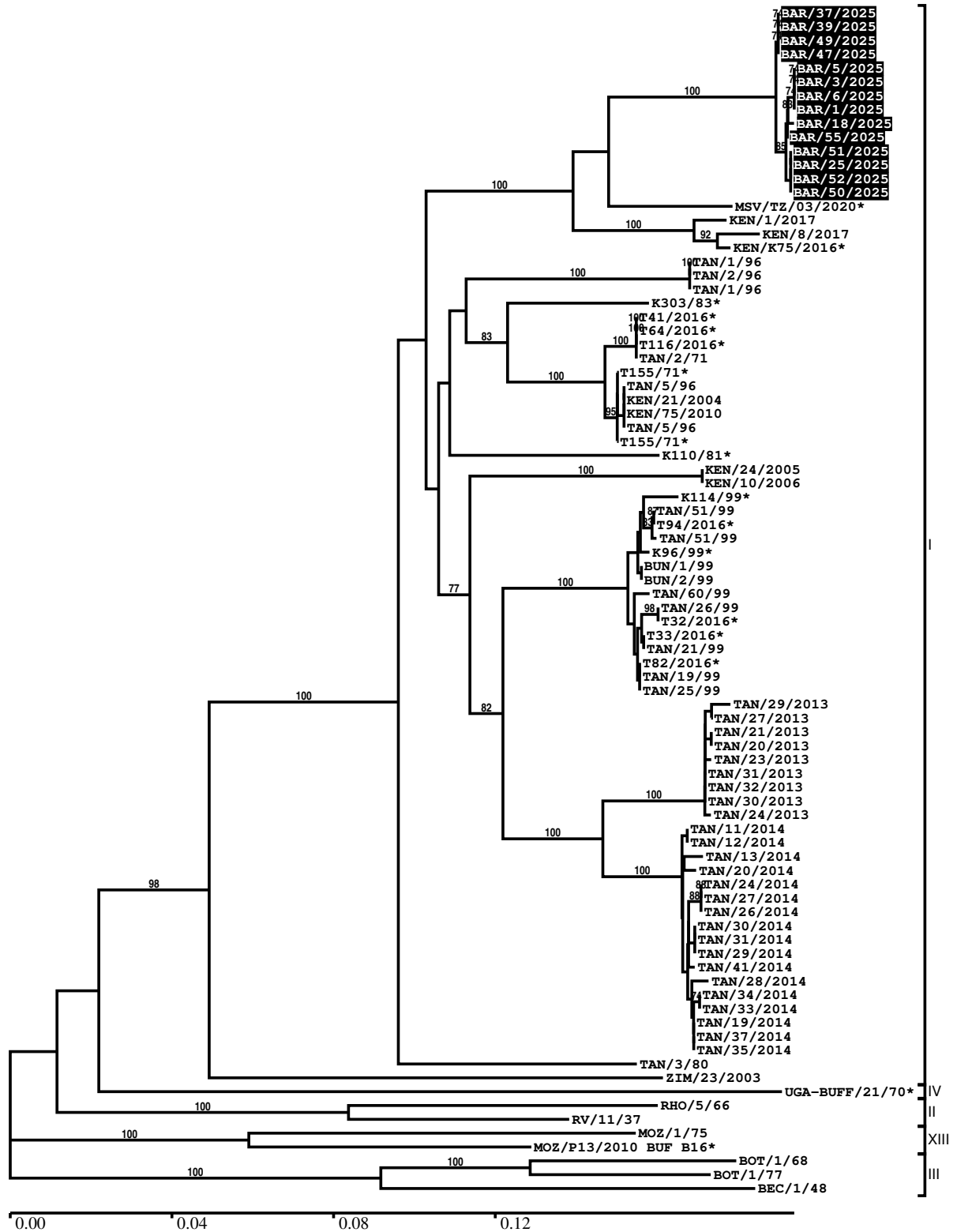
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_466	T155/71	cattle	88.0	0	SAT1	I		
viba_243	ZIM/23/2003		80.2	0	SAT1	I		
viba_462	RV/11/37	greater kudu	76.9	0	SAT1	II		
viba_514	UGA-BUFF/21/70	African buffalo	76.3	0	SAT1	IV		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	76.1	0	SAT1	XIII		
viba_709	RHO/5/66	bovine	75.7	0	SAT1	II		
viba_509	BOT/1/77	bovine	75.3	0	SAT1	III		
viba_30769	MOZ/1/75	cattle	74.4	0	SAT1	XIII		
viba_495	BOT/1/68	bovine	74.0	0	SAT1	III		
viba_212	BEC/1/48		73.3	0	SAT1	III		

Report on FMDV SAT1 in Bahrain in 2025

Batch: WRLFMD/2025/000002



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_SAT1
Query sequence set:	WRLFMD/2025/000002-Bahrain-SAT1 (14 sequences)
Sequence database set:	allseqs_SAT1 (827 sequences)
Prototype sequence set:	!prototypes_SAT1 (21 sequences)
Number of related sequences reported:	10
Minimal VP1 subsequence match length	600
Sequence alignment method:	muscle (default parameters)
Sequence alignment length:	657
Phylogeny reconstruction method:	fdnadist, fneighbor
Number of bootstrap samples:	1000
Random seed for bootstrapping:	1
Displaying bootstrap values above:	70.0%
Number of sequences in tree capped at:	100
Number of prototype sequences in tree:	10
VIBASys version:	reflabs-1.1.2

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/SAT1

label	accession	host(s)	lab	country	taxonomic information
BAR/37/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/39/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/49/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/47/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/5/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/3/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/6/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/1/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/18/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/55/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/51/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/25/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/52/2025	n/a	cattle	WRLFMD	Bahrain	I
BAR/50/2025	n/a	cattle	WRLFMD	Bahrain	I
MSV/TZ/03/2020*	OQ615916	zebu cattle	SUA	Tanzania	I
KEN/1/2017	n/a	cattle	WRLFMD	Kenya	I
KEN/8/2017	n/a	bovine	WRLFMD	Kenya	I
KEN/K75/2016*	MH882581	cattle	PIADC	Kenya	I
TAN/1/96	AY442003	cattle	OVI	Tanzania	I
TAN/2/96	AY442001	n/a	OVI	Tanzania	I
TAN/1/96	KF561710	cattle	WRLFMD	Tanzania	I
K303/83*	n/a	n/a	TPI	Kenya	I
T41/2016*	MH936366	cattle	PAU	Tanzania	I
T64/2016*	MH931407	cattle	PAU	Tanzania	I
T116/2016*	MH931420	cattle	PAU	Tanzania	I
TAN/2/71	KF561707	cattle	WRLFMD	Tanzania	I
T155/71*	HQ267519	cattle	n/a	Tanzania	I
TAN/5/96	AY442007	cattle	OVI	Tanzania	I
KEN/21/2004	KR188451	cattle	WRLFMD	Kenya	I
KEN/75/2010	KR188468	cattle	WRLFMD	Kenya	I
TAN/5/96	KF561711	cattle	WRLFMD	Tanzania	I
T155/71*	KF561706	cattle	WRLFMD	Tanzania	I
K110/81*	HQ267521	n/a	n/a	Kenya	I
KEN/24/2005	n/a	cattle	WRLFMD	Kenya	I
KEN/10/2006	KR188454	cattle	WRLFMD	Kenya	I
K114/99*	HQ267524	n/a	n/a	Kenya	I

continued on next page

label	accession	host(s)	lab	country	taxonomic information
TAN/51/99	KF561720	cattle	WRLFMD	Tanzania	I
T94/2016*	MH931415	cattle	PAU	Tanzania	I
TAN/51/99	AY442004	cattle	OVI	Tanzania	I
K96/99*	HQ267523	n/a	n/a	Kenya	I
BUN/1/99	n/a	cattle	WRLFMD	Burundi	I
BUN/2/99	n/a	cattle	WRLFMD	Burundi	I
TAN/60/99	KF561721	wildebeest	WRLFMD	Tanzania	I
TAN/26/99	KF561717	cattle	WRLFMD	Tanzania	I
T32/2016*	MH931413	cattle	PAU	Tanzania	I
T33/2016*	MH931418	cattle	PAU	Tanzania	I
TAN/21/99	KF561715	cattle	WRLFMD	Tanzania	I
T82/2016*	MH931411	cattle	PAU	Tanzania	I
TAN/19/99	KF561714	cattle	WRLFMD	Tanzania	I
TAN/25/99	KF561716	cattle	WRLFMD	Tanzania	I
TAN/29/2013	MF592662	cattle	WRLFMD	Tanzania	I
TAN/27/2013	MF592661	cattle	WRLFMD	Tanzania	I
TAN/21/2013	n/a	cattle	WRLFMD	Tanzania	I
TAN/20/2013	MF592655	cattle	WRLFMD	Tanzania	I
TAN/23/2013	MF592657	cattle	WRLFMD	Tanzania	I
TAN/31/2013	MF592664	cattle	WRLFMD	Tanzania	I
TAN/32/2013	n/a	cattle	WRLFMD	Tanzania	I
TAN/30/2013	MF592663	cattle	WRLFMD	Tanzania	I
TAN/24/2013	MF592658	cattle	WRLFMD	Tanzania	I
TAN/11/2014	MF592672	bovine	WRLFMD	Tanzania	I
TAN/12/2014	MF592673	bovine	WRLFMD	Tanzania	I
TAN/13/2014	MF592674	bovine	WRLFMD	Tanzania	I
TAN/20/2014	MF592680	bovine	WRLFMD	Tanzania	I
TAN/24/2014	MF592683	bovine	WRLFMD	Tanzania	I
TAN/27/2014	n/a	bovine	WRLFMD	Tanzania	I
TAN/26/2014	MF592685	bovine	WRLFMD	Tanzania	I
TAN/30/2014	MF592688	bovine	WRLFMD	Tanzania	I
TAN/31/2014	n/a	bovine	WRLFMD	Tanzania	I
TAN/29/2014	MF592687	bovine	WRLFMD	Tanzania	I
TAN/41/2014	MF592696	bovine	WRLFMD	Tanzania	I
TAN/28/2014	MF592686	bovine	WRLFMD	Tanzania	I
TAN/34/2014	MF592691	bovine	WRLFMD	Tanzania	I
TAN/33/2014	MF592690	bovine	WRLFMD	Tanzania	I
TAN/19/2014	MF592679	bovine	WRLFMD	Tanzania	I
TAN/37/2014	MF592694	bovine	WRLFMD	Tanzania	I
TAN/35/2014	MF592692	bovine	WRLFMD	Tanzania	I
TAN/3/80	KF561709	cattle	WRLFMD	Tanzania	I
ZIM/23/2003	KF219690	n/a	WRLFMD	Zimbabwe	I
UGA-BUFF/21/70*	KF219682	African buffalo	WRLFMD	Uganda	IV
RHO/5/66	AY593846	bovine	PIADC	Rhodesia	II
RV/11/37	AY593839	greater kudu	PIADC	Rhodesia (RV)	II
MOZ/1/75	MG972461	cattle	WRLFMD	Mozambique	XIII
MOZ/P13/2010 BUF B16*	KF219691	African buffalo	WRLFMD	Mozambique	XIII
BOT/1/68	AY593845	bovine	PIADC	Botswana	III
BOT/1/77	KF219686	bovine	WRLFMD	Botswana	III
BEC/1/48	AY593838	n/a	PIADC	Bechuanaland	III

*, not a WRLFMD Reference Number

n/a, not available