

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

## Genotyping Report

FMDV serotype: SAT2  
Country: Uganda  
Year: 2016, 2017  
Batch: WRLMEG/2020/00003A  
No. of sequences: 31  
Report date: 20th January 2020  
Report generated by: Nick Knowles  
Report checked by: Antonello Di Nardo



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Virus sample name:	BUL-021-P/UGA/2016
Sender reference:	SAT2/BUL-021-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43063, genome 43064, sequence viba_43065, sequencing info 43066	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43097	BUL-033-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43081	BUL-050-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.5	0	SAT2	VII		

### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.0	0	SAT2	VII		
viba_756	UGA/19/98		75.1	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.1	0	SAT2	IX		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.8	1	SAT2	X		

Virus sample name:	BUL-059-P/UGA/2016
Sender reference:	SAT2/BUL-059-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43067, genome 43068, sequence viba_43069, sequencing info 43070	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43157	BUL-032-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43117	BUL-065-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43113	BUL-293-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43121	BUL-226-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.1	0	SAT2	VII		

### 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_424	SAU/6/2000	bovine	79.8	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.7	0	SAT2	VII		
viba_756	UGA/19/98		75.0	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.3	0	SAT2	II		
viba_189	RWA/1/2000		73.1	0	SAT2	VIII		
viba_374	ZAI/1/74		73.1	0	SAT2	VIII		
viba_127	KEN/3/57		72.6	0	SAT2	IX		
viba_456	ZAI/1/82	bovine	72.6	1	SAT2	X		

Virus sample name:	BUL-031-P/UGA/2016
Sender reference:	SAT2/BUL-031-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43071, genome 43072, sequence viba_43073, sequencing info 43074	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-003-P/UGA/2016
Sender reference:	SAT2/BUL-003-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43075, genome 43076, sequence viba_43077, sequencing info 43078	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43093	BUL-220-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43113	BUL-293-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43081	BUL-050-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.1	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	79.8	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.5	0	SAT2	VII		
viba_756	UGA/19/98		75.3	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_567	ZIM/7/83	bovine	73.4	0	SAT2	II		
viba_374	ZAI/1/74		73.4	0	SAT2	VIII		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	72.8	0	SAT2	IX		
viba_273	ETH/1/90	bovine	72.6	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.6	1	SAT2	X		

Virus sample name:	BUL-050-P/UGA/2016
Sender reference:	SAT2/BUL-050-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43079, genome 43080, sequence viba_43081, sequencing info 43082	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.3	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.0	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.7	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.2	0	SAT2	IX		
viba_273	ETH/1/90	bovine	73.1	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.9	1	SAT2	X		

Virus sample name:	BUL-224-P/UGA/2016
Sender reference:	SAT2/BUL-224-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43083, genome 43084, sequence viba_43085, sequencing info 43086	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-014-P/UGA/2016
Sender reference:	SAT2/BUL-014-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43087, genome 43088, sequence viba_43089, sequencing info 43090	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43153	BUL-278-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.6	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.4	0	SAT2	II		
viba_273	ETH/1/90	bovine	73.4	0	SAT2	IV		
viba_248	KEN/1/84	bovine	73.4	0	SAT2	IV		



Virus sample name:	BUL-220-P/UGA/2016
Sender reference:	SAT2/BUL-220-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43091, genome 43092, sequence viba_43093, sequencing info 43094	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43117	BUL-065-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.5	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.9	0	SAT2	VII		
viba_756	UGA/19/98		75.1	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.6	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.4	0	SAT2	II		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.1	0	SAT2	IX		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.8	1	SAT2	X		

Virus sample name:	BUL-033-P/UGA/2016
Sender reference:	SAT2/BUL-033-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43095, genome 43096, sequence viba_43097, sequencing info 43098	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43113	BUL-293-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43121	BUL-226-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.9	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.1	0	SAT2	IX		
viba_189	RWA/1/2000		73.1	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.8	1	SAT2	X		

Virus sample name:	BUL-197-P/UGA/2016
Sender reference:	SAT2/BUL-197-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43099, genome 43100, sequence viba_43101, sequencing info 43102	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43089	BUL-014-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.4	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.6	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_756	UGA/19/98		75.3	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.7	0	SAT2	VIII		
viba_248	KEN/1/84	bovine	73.4	0	SAT2	IV		
viba_273	ETH/1/90	bovine	73.3	0	SAT2	IV		
viba_470	KEN/2/84	bovine	73.2	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.2	0	SAT2	II		
viba_189	RWA/1/2000		73.1	0	SAT2	VIII		

Virus sample name:	BUL-215-P/UGA/2016
Sender reference:	SAT2/BUL-215-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43103, genome 43104, sequence viba_43105, sequencing info 43106	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.5	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.8	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.5	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		74.2	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	74.1	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	74.1	0	SAT2	II		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_127	KEN/3/57		73.2	0	SAT2	IX		
viba_456	ZAI/1/82	bovine	73.2	1	SAT2	X		

Virus sample name:	BUL-204-P/UGA/2016
Sender reference:	SAT2/BUL-204-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43107, genome 43108, sequence viba_43109, sequencing info 43110	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-293-P/UGA/2016
Sender reference:	SAT2/BUL-293-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43111, genome 43112, sequence viba_43113, sequencing info 43114	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43097	BUL-033-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43121	BUL-226-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.4	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.7	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		

Virus sample name:	BUL-065-P/UGA/2016
Sender reference:	SAT2/BUL-065-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43115, genome 43116, sequence viba_43117, sequencing info 43118	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43093	BUL-220-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43121	BUL-226-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.4	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.0	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.9	0	SAT2	VII		
viba_756	UGA/19/98		75.2	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.4	0	SAT2	VIII		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.3	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.1	0	SAT2	IX		
viba_273	ETH/1/90	bovine	72.8	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.8	1	SAT2	X		

Virus sample name:	BUL-226-P/UGA/2016
Sender reference:	SAT2/BUL-226-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43119, genome 43120, sequence viba_43121, sequencing info 43122	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43097	BUL-033-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43113	BUL-293-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43105	BUL-215-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.4	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.4	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.0	0	SAT2	VII		
viba_756	UGA/19/98		75.6	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		74.0	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.9	0	SAT2	II		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.2	0	SAT2	IX		
viba_456	ZAI/1/82	bovine	72.9	1	SAT2	X		
viba_273	ETH/1/90	bovine	72.8	0	SAT2	IV		



Virus sample name:	BUL-004-P/UGA/2016
Sender reference:	SAT2/BUL-004-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43123, genome 43124, sequence viba_43125, sequencing info 43126	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43097	BUL-033-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43113	BUL-293-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43121	BUL-226-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	98.9	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.0	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	78.7	0	SAT2	VII		
viba_369	UGA/51/75	bovine	75.2	0	SAT2	XII		
viba_756	UGA/19/98		75.2	0	SAT2	X		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.8	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.5	0	SAT2	IX		
viba_456	ZAI/1/82	bovine	73.4	1	SAT2	X		
viba_189	RWA/1/2000		73.1	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		

Virus sample name:	BUL-060-P/UGA/2016
Sender reference:	SAT2/BUL-060-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43127, genome 43128, sequence viba_43129, sequencing info 43130	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.3	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_756	UGA/19/98		75.6	0	SAT2	X		
viba_369	UGA/51/75	bovine	75.0	0	SAT2	XII		
viba_374	ZAI/1/74		74.0	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_189	RWA/1/2000		73.6	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.5	0	SAT2	IX		
viba_273	ETH/1/90	bovine	73.4	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.2	1	SAT2	X		

Virus sample name:	BUL-259-P/UGA/2016
Sender reference:	SAT2/BUL-259-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43131, genome 43132, sequence viba_43133, sequencing info 43134	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43113	BUL-293-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.5	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.5	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.3	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.5	0	SAT2	XII		
viba_374	ZAI/1/74		73.6	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.4	0	SAT2	II		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		
viba_273	ETH/1/90	bovine	72.9	0	SAT2	IV		
viba_127	KEN/3/57		72.9	0	SAT2	IX		

Virus sample name:	BUL-285-P/UGA/2016
Sender reference:	SAT2/BUL-285-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43135, genome 43136, sequence viba_43137, sequencing info 43138	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-288-P/UGA/2016
Sender reference:	SAT2/BUL-288-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43139, genome 43140, sequence viba_43141, sequencing info 43142	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-284-P/UGA/2016
Sender reference:	SAT2/BUL-284-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43143, genome 43144, sequence viba_43145, sequencing info 43146	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43105	BUL-215-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43101	BUL-197-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.1	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.6	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_756	UGA/19/98		74.8	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.4	0	SAT2	XII		
viba_374	ZAI/1/74		73.7	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.6	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.6	0	SAT2	II		
viba_127	KEN/3/57		73.0	0	SAT2	IX		
viba_189	RWA/1/2000		72.9	0	SAT2	VIII		
viba_456	ZAI/1/82	bovine	72.8	1	SAT2	X		

Virus sample name:	BUL-273-P/UGA/2016
Sender reference:	SAT2/BUL-273-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43147, genome 43148, sequence viba_43149, sequencing info 43150	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-278-P/UGA/2016
Sender reference:	SAT2/BUL-278-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43151, genome 43152, sequence viba_43153, sequencing info 43154	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43089	BUL-014-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.6	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.4	0	SAT2	II		
viba_273	ETH/1/90	bovine	73.4	0	SAT2	IV		
viba_248	KEN/1/84	bovine	73.4	0	SAT2	IV		



Virus sample name:	BUL-032-P/UGA/2016
Sender reference:	SAT2/BUL-032-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43155, genome 43156, sequence viba_43157, sequencing info 43158	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43161	BUL-271-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.7	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.7	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.3	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.5	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.9	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-271-P/UGA/2016
Sender reference:	SAT2/BUL-271-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43159, genome 43160, sequence viba_43161, sequencing info 43162	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43085	BUL-224-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	100.0	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	99.8	0	SAT2	VII		
viba_43129	BUL-060-P/UGA/2016	cattle	99.8	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.2	0	SAT2	VII		
viba_756	UGA/19/98		75.4	0	SAT2	X		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.2	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	73.1	1	SAT2	X		

Virus sample name:	BUL-189-P/UGA/2016
Sender reference:	SAT2/BUL-189-P
Location of origin:	Buliisa, Western Region
Country of origin:	Uganda
Date of collection:	2016
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43163, genome 43164, sequence viba_43165, sequencing info 43166	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43129	BUL-060-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43157	BUL-032-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43089	BUL-014-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43153	BUL-278-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	98.9	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.3	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.0	0	SAT2	VII		
viba_369	UGA/51/75	bovine	74.9	0	SAT2	XII		
viba_756	UGA/19/98		74.7	0	SAT2	X		
viba_189	RWA/1/2000		74.0	0	SAT2	VIII		
viba_374	ZAI/1/74		74.0	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.2	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.2	0	SAT2	II		
viba_273	ETH/1/90	bovine	73.0	0	SAT2	IV		
viba_456	ZAI/1/82	bovine	72.9	1	SAT2	X		

Virus sample name:	KRD3-033-P/UGA/2017
Sender reference:	SAT2/KRD3-033-P
Location of origin:	Kiryandongo, Western Region
Country of origin:	Uganda
Date of collection:	2017
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43167, genome 43168, sequence viba_43169, sequencing info 43170	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43173	KRD3-042-P/UGA/2017	cattle	99.8	0	SAT2	VII		
viba_43185	KRD3-186-P/UGA/2017	cattle	99.8	0	SAT2	VII		
viba_43177	KRD3-055-P/UGA/2017	cattle	99.5	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43181	KRD3-116-P/UGA/2017	cattle	99.1	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.1	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.1	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.3	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.5	0	SAT2	VII		
viba_369	UGA/51/75	bovine	75.0	0	SAT2	XII		
viba_756	UGA/19/98		74.6	0	SAT2	X		
viba_567	ZIM/7/83	bovine	73.9	0	SAT2	II		
viba_374	ZAI/1/74		73.6	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.5	0	SAT2	IX		
viba_273	ETH/1/90	bovine	73.5	0	SAT2	IV		
viba_127	KEN/3/57		73.5	0	SAT2	IX		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		

Virus sample name:	KRD3-042-P/UGA/2017
Sender reference:	SAT2/KRD3-042-P
Location of origin:	Kiryandongo, Western Region
Country of origin:	Uganda
Date of collection:	2017
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43171, genome 43172, sequence viba_43173, sequencing info 43174	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43169	KRD3-033-P/UGA/2017	cattle	99.8	0	SAT2	VII		
viba_43185	KRD3-186-P/UGA/2017	cattle	99.7	0	SAT2	VII		
viba_43177	KRD3-055-P/UGA/2017	cattle	99.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43181	KRD3-116-P/UGA/2017	cattle	98.9	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	98.9	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_369	UGA/51/75	bovine	75.2	0	SAT2	XII		
viba_756	UGA/19/98		74.8	0	SAT2	X		
viba_470	KEN/2/84	bovine	73.7	0	SAT2	IX		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_273	ETH/1/90	bovine	73.6	0	SAT2	IV		
viba_127	KEN/3/57		73.6	0	SAT2	IX		
viba_189	RWA/1/2000		73.4	0	SAT2	VIII		
viba_374	ZAI/1/74		73.4	0	SAT2	VIII		

Virus sample name:	KRD3-055-P/UGA/2017
Sender reference:	SAT2/KRD3-055-P
Location of origin:	Kiryandongo, Western Region
Country of origin:	Uganda
Date of collection:	2017
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43175, genome 43176, sequence viba_43177, sequencing info 43178	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43185	KRD3-186-P/UGA/2017	cattle	99.7	0	SAT2	VII		
viba_43181	KRD3-116-P/UGA/2017	cattle	99.5	0	SAT2	VII		
viba_43169	KRD3-033-P/UGA/2017	cattle	99.5	0	SAT2	VII		
viba_43173	KRD3-042-P/UGA/2017	cattle	99.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	98.9	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	98.9	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.5	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.6	0	SAT2	VII		
viba_369	UGA/51/75	bovine	75.2	0	SAT2	XII		
viba_756	UGA/19/98		75.0	0	SAT2	X		
viba_567	ZIM/7/83	bovine	73.9	0	SAT2	II		
viba_127	KEN/3/57		73.7	0	SAT2	IX		
viba_374	ZAI/1/74		73.6	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.5	0	SAT2	IX		
viba_189	RWA/1/2000		73.3	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.3	0	SAT2	IV		

Virus sample name:	KRD3-116-P/UGA/2017
Sender reference:	SAT2/KRD3-116-P
Location of origin:	Kiryandongo, Western Region
Country of origin:	Uganda
Date of collection:	2017
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43179, genome 43180, sequence viba_43181, sequencing info 43182	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43177	KRD3-055-P/UGA/2017	cattle	99.5	0	SAT2	VII		
viba_43185	KRD3-186-P/UGA/2017	cattle	99.2	0	SAT2	VII		
viba_43169	KRD3-033-P/UGA/2017	cattle	99.1	0	SAT2	VII		
viba_43173	KRD3-042-P/UGA/2017	cattle	98.9	0	SAT2	VII		
viba_43133	BUL-259-P/UGA/2016	cattle	98.6	0	SAT2	VII		
viba_43065	BUL-021-P/UGA/2016	cattle	98.4	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	98.4	0	SAT2	VII		
viba_43093	BUL-220-P/UGA/2016	cattle	98.4	0	SAT2	VII		
viba_43097	BUL-033-P/UGA/2016	cattle	98.4	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	98.4	0	SAT2	VII		

#### 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_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_756	UGA/19/98		74.5	0	SAT2	X		
viba_567	ZIM/7/83	bovine	73.6	0	SAT2	II		
viba_127	KEN/3/57		73.4	0	SAT2	IX		
viba_374	ZAI/1/74		73.3	0	SAT2	VIII		
viba_470	KEN/2/84	bovine	73.2	0	SAT2	IX		
viba_273	ETH/1/90	bovine	73.0	0	SAT2	IV		
viba_189	RWA/1/2000		72.9	0	SAT2	VIII		

Virus sample name:	KRD3-186-P/UGA/2017
Sender reference:	SAT2/KRD3-186-P
Location of origin:	Kiryandongo, Western Region
Country of origin:	Uganda
Date of collection:	2017
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	18/01/2020
Last updated:	18/01/2020
VIBASys IDs: sample 43183, genome 43184, sequence viba_43185, sequencing info 43186	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43169	KRD3-033-P/UGA/2017	cattle	99.8	0	SAT2	VII		
viba_43173	KRD3-042-P/UGA/2017	cattle	99.7	0	SAT2	VII		
viba_43177	KRD3-055-P/UGA/2017	cattle	99.7	0	SAT2	VII		
viba_43085	BUL-224-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43181	KRD3-116-P/UGA/2017	cattle	99.2	0	SAT2	VII		
viba_43137	BUL-285-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43073	BUL-031-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43149	BUL-273-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43109	BUL-204-P/UGA/2016	cattle	99.2	0	SAT2	VII		
viba_43141	BUL-288-P/UGA/2016	cattle	99.2	0	SAT2	VII		

#### Most Closely Related Prototype Sequences

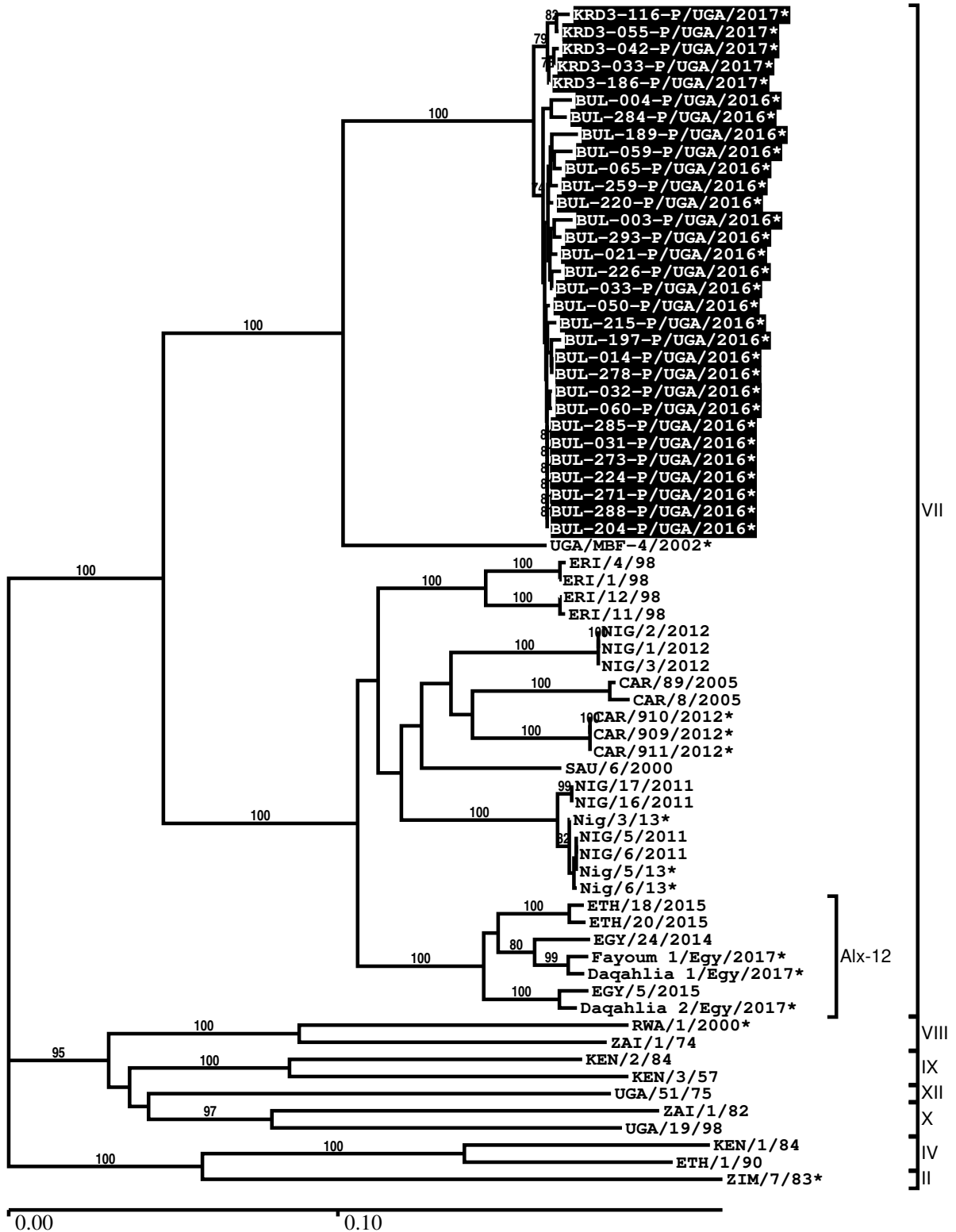
see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_424	SAU/6/2000	bovine	80.2	1	SAT2	VII		
viba_742	CAR/8/2005	cattle	79.3	0	SAT2	VII		
viba_369	UGA/51/75	bovine	75.0	0	SAT2	XII		
viba_756	UGA/19/98		74.8	0	SAT2	X		
viba_567	ZIM/7/83	bovine	73.7	0	SAT2	II		
viba_127	KEN/3/57		73.5	0	SAT2	IX		
viba_470	KEN/2/84	bovine	73.4	0	SAT2	IX		
viba_374	ZAI/1/74		73.4	0	SAT2	VIII		
viba_273	ETH/1/90	bovine	73.3	0	SAT2	IV		
viba_189	RWA/1/2000		73.1	0	SAT2	VIII		



Report on FMDV SAT2 in Uganda in 2016, 2017

Batch: WRLMEG/2020/00003A



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor:	vp1_SAT2
Query sequence set:	WRLMEG/2020/00003A-Uganda-SAT2 (31 sequences)
Sequence database set:	allseqs_SAT2 (1000 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:	12
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
KRD3-116-P/UGA/2017*	MH367440	cattle	PIADC	Uganda	VII
KRD3-055-P/UGA/2017*	MH367439	cattle	PIADC	Uganda	VII
KRD3-042-P/UGA/2017*	MH367438	cattle	PIADC	Uganda	VII
KRD3-033-P/UGA/2017*	MH367437	cattle	PIADC	Uganda	VII
KRD3-186-P/UGA/2017*	MH367441	cattle	PIADC	Uganda	VII
BUL-004-P/UGA/2016*	MH367457	cattle	PIADC	Uganda	VII
BUL-284-P/UGA/2016*	MH367462	cattle	PIADC	Uganda	VII
BUL-189-P/UGA/2016*	MH367467	cattle	PIADC	Uganda	VII
BUL-059-P/UGA/2016*	MH367443	cattle	PIADC	Uganda	VII
BUL-065-P/UGA/2016*	MH367455	cattle	PIADC	Uganda	VII
BUL-259-P/UGA/2016*	MH367459	cattle	PIADC	Uganda	VII
BUL-220-P/UGA/2016*	MH367449	cattle	PIADC	Uganda	VII
BUL-003-P/UGA/2016*	MH367445	cattle	PIADC	Uganda	VII
BUL-293-P/UGA/2016*	MH367454	cattle	PIADC	Uganda	VII
BUL-021-P/UGA/2016*	MH367442	cattle	PIADC	Uganda	VII
BUL-226-P/UGA/2016*	MH367456	cattle	PIADC	Uganda	VII
BUL-033-P/UGA/2016*	MH367450	cattle	PIADC	Uganda	VII
BUL-050-P/UGA/2016*	MH367446	cattle	PIADC	Uganda	VII
BUL-215-P/UGA/2016*	MH367452	cattle	PIADC	Uganda	VII
BUL-197-P/UGA/2016*	MH367451	cattle	PIADC	Uganda	VII
BUL-014-P/UGA/2016*	MH367448	cattle	PIADC	Uganda	VII
BUL-278-P/UGA/2016*	MH367464	cattle	PIADC	Uganda	VII
BUL-032-P/UGA/2016*	MH367465	cattle	PIADC	Uganda	VII
BUL-060-P/UGA/2016*	MH367458	cattle	PIADC	Uganda	VII
BUL-285-P/UGA/2016*	MH367460	cattle	PIADC	Uganda	VII
BUL-031-P/UGA/2016*	MH367444	cattle	PIADC	Uganda	VII
BUL-273-P/UGA/2016*	MH367463	cattle	PIADC	Uganda	VII
BUL-224-P/UGA/2016*	MH367447	cattle	PIADC	Uganda	VII
BUL-271-P/UGA/2016*	MH367466	cattle	PIADC	Uganda	VII
BUL-288-P/UGA/2016*	MH367461	cattle	PIADC	Uganda	VII
BUL-204-P/UGA/2016*	MH367453	cattle	PIADC	Uganda	VII
UGA/MBF-4/2002*	FJ461346	African buffalo	Lindholm	Uganda	VII
ERI/4/98	AY343934	n/a	OVI	Eritrea	VII
ERI/1/98	AY343933	n/a	OVI	Eritrea	VII
ERI/12/98	AF367126	n/a	OVI	Eritrea	VII
ERI/11/98	n/a	bovine	WRLFMD	Eritrea	VII

*continued on next page*

label	accession	host(s)	lab	country	taxonomic information
NIG/2/2012	KX258095	bovine	WRLFMD	Nigeria	VII
NIG/1/2012	KX258094	bovine	WRLFMD	Nigeria	VII
NIG/3/2012	KX258096	bovine	WRLFMD	Nigeria	VII
CAR/89/2005	KX258170	cattle	WRLFMD	Cameroon	VII
CAR/8/2005	JX570616	cattle	WRLFMD	Cameroon	VII
CAR/910/2012*	KU720583	cattle	PIADC	Cameroon	VII
CAR/909/2012*	KU720582	cattle	PIADC	Cameroon	VII
CAR/911/2012*	KU720584	cattle	PIADC	Cameroon	VII
SAU/6/2000	AF367135	bovine	OVI	Saudi Arabia	VII
NIG/17/2011	KX258093	bovine	WRLFMD	Nigeria	VII
NIG/16/2011	KX258092	bovine	WRLFMD	Nigeria	VII
Nig/3/13*	MF624358	bovine	CODA- CERVA	Nigeria	VII
NIG/5/2011	KX258084	bovine	WRLFMD	Nigeria	VII
NIG/6/2011	KX258085	bovine	WRLFMD	Nigeria	VII
Nig/5/13*	MF624360	bovine	CODA- CERVA	Nigeria	VII
Nig/6/13*	MF683468	bovine	CODA- CERVA	Nigeria	VII
ETH/18/2015	n/a	bovine	WRLFMD	Ethiopia	VII/Alx-12
ETH/20/2015	n/a	bovine	WRLFMD	Ethiopia	VII/Alx-12
EGY/24/2014	KX258067	cattle	WRLFMD	Egypt	VII/Alx-12
Fayoum 1/Egy/2017*	MF322696	n/a	MEVAC	Egypt	VII/Alx-12
Daqahlia 1/Egy/2017*	MF322694	n/a	MEVAC	Egypt	VII/Alx-12
EGY/5/2015	n/a	cattle	WRLFMD	Egypt	VII/Alx-12
Daqahlia 2/Egy/2017*	MF322695	n/a	MEVAC	Egypt	VII/Alx-12
RWA/1/2000*	AF367134	n/a	OVI	Rwanda	VIII
ZAI/1/74	DQ009737	n/a	OVI	Zaire	VIII
KEN/2/84	AY343941	bovine	OVI	Kenya	IX
KEN/3/57	AJ251473	n/a	WRLFMD	Kenya	IX
UGA/51/75	AY343963	bovine	OVI	Uganda	XII
ZAI/1/82	AF367100	bovine	OVI	Zaire	X
UGA/19/98	AY343969	n/a	OVI	Uganda	X
KEN/1/84	AY344505	bovine	OVI	Kenya	IV
ETH/1/90	AY343935	bovine	OVI	Ethiopia	IV
ZIM/7/83*	AF136607	bovine	OVI	Zimbabwe	II

\*, not a WRLFMD Reference Number

n/a, not available