

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

Genotyping Report

FMDV serotype:	SAT1
Country:	Cameroon
Year:	2016
Batch:	WRLMEG/2019/00043
No. of sequences:	15
Report date:	2nd September 2019
Report generated by:	Nick Knowles
Report checked by:	Jemma Wadsworth



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

email: reporting@pirbright.ac.uk

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Virus sample name:	CAR/Saigue/2016
Sender reference:	SAT1/CAR/Saigue/2016
Location of origin:	Djalingo
Country of origin:	Cameroon
Date of collection:	15/09/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42720, genome 42721, sequence viba_42722, sequencing info 42723	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42666	CAR/73/2016	cattle	100.0	0	SAT1	X		
viba_42718	CAR/2293/2016	cattle	100.0	0	SAT1	X		
viba_42694	CAR/2115/2016	cattle	99.7	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	99.7	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	99.7	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	99.7	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	99.7	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	99.7	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	99.7	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	99.7	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.5	0	SAT1	X		
viba_440	SUD/3/76		73.2	0	SAT1	VI		
viba_258	UGA/13/74	bovine	71.7	0	SAT1	VII		
viba_446	NIG/11/75	bovine	71.3	0	SAT1	V		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_243	ZIM/23/2003		70.5	0	SAT1	I		
viba_30740	ANG/9/74		70.3	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	69.8	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	69.7	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.5	0	SAT1	III		

Virus sample name:	CAR/73/2016
Sender reference:	SAT1/CAR/73/2016
Location of origin:	Djalingo
Country of origin:	Cameroon
Date of collection:	13/09/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42664, genome 42665, sequence viba_42666, sequencing info 42667	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42722	CAR/Saigue/2016	cattle	100.0	0	SAT1	X		
viba_42718	CAR/2293/2016	cattle	100.0	0	SAT1	X		
viba_42694	CAR/2115/2016	cattle	99.7	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	99.7	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	99.7	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	99.7	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	99.7	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	99.7	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	99.7	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	99.7	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.5	0	SAT1	X		
viba_440	SUD/3/76		73.2	0	SAT1	VI		
viba_258	UGA/13/74	bovine	71.7	0	SAT1	VII		
viba_446	NIG/11/75	bovine	71.3	0	SAT1	V		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_243	ZIM/23/2003		70.5	0	SAT1	I		
viba_30740	ANG/9/74		70.3	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	69.8	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	69.7	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.5	0	SAT1	III		

Virus sample name:	CAR/154/2016
Sender reference:	SAT1/CAR/154/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42668, genome 42669, sequence viba_42670, sequencing info 42671	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/171/2016
Sender reference:	SAT1/CAR/171/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42672, genome 42673, sequence viba_42674, sequencing info 42675	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

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sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/177/2016
Sender reference:	SAT1/CAR/177/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42676, genome 42677, sequence viba_42678, sequencing info 42679	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/182/2016
Sender reference:	SAT1/CAR/182/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42680, genome 42681, sequence viba_42682, sequencing info 42683	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/954/2016
Sender reference:	SAT1/CAR/954/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42684, genome 42685, sequence viba_42686, sequencing info 42687	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2101/2016
Sender reference:	SAT1/CAR/2101/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42688, genome 42689, sequence viba_42690, sequencing info 42691	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2115/2016
Sender reference:	SAT1/CAR/2115/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42692, genome 42693, sequence viba_42694, sequencing info 42695	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2169/2016
Sender reference:	SAT1/CAR/2169/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42696, genome 42697, sequence viba_42698, sequencing info 42699	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2183/2016
Sender reference:	SAT1/CAR/2183/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42700, genome 42701, sequence viba_42702, sequencing info 42703	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2186/2016
Sender reference:	SAT1/CAR/2186/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42704, genome 42705, sequence viba_42706, sequencing info 42707	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2194/2016
Sender reference:	SAT1/CAR/2194/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42708, genome 42709, sequence viba_42710, sequencing info 42711	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	99.8	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	99.8	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	99.8	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	99.8	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	99.8	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	99.8	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	99.8	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	99.8	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	99.8	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	99.8	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.6	0	SAT1	X		
viba_440	SUD/3/76		72.9	0	SAT1	VI		
viba_446	NIG/11/75	bovine	71.8	0	SAT1	V		
viba_258	UGA/13/74	bovine	71.8	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.0	0	SAT1	IV		
viba_30740	ANG/9/74		70.3	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	69.9	0	SAT1	XIII		
viba_243	ZIM/23/2003		69.7	0	SAT1	I		
viba_509	BOT/1/77	bovine	69.6	0	SAT1	III		

Virus sample name:	CAR/2199/2016
Sender reference:	SAT1/CAR/2199/2016
Location of origin:	Dembo Babi
Country of origin:	Cameroon
Date of collection:	22/08/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42712, genome 42713, sequence viba_42714, sequencing info 42715	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42694	CAR/2115/2016	cattle	100.0	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	100.0	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	100.0	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	100.0	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	100.0	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	100.0	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	100.0	0	SAT1	X		
viba_42682	CAR/182/2016	cattle	100.0	0	SAT1	X		
viba_42686	CAR/954/2016	cattle	100.0	0	SAT1	X		
viba_42670	CAR/154/2016	cattle	100.0	0	SAT1	X		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.8	0	SAT1	X		
viba_440	SUD/3/76		73.3	0	SAT1	VI		
viba_446	NIG/11/75	bovine	72.0	0	SAT1	V		
viba_258	UGA/13/74	bovine	72.0	0	SAT1	VII		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_30740	ANG/9/74		70.4	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	70.1	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	70.0	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.8	0	SAT1	III		
viba_243	ZIM/23/2003		69.8	0	SAT1	I		

Virus sample name:	CAR/2293/2016
Sender reference:	SAT1/CAR/2293/2016
Location of origin:	Djalingo
Country of origin:	Cameroon
Date of collection:	14/09/2016
Host species:	cattle
Serotype:	SAT1
Topotype:	X
Lineage:	
Sublineage:	
Sequence length:	654
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	02/09/2019
Last updated:	02/09/2019
VIBASys IDs: sample 42716, genome 42717, sequence viba_42718, sequencing info 42719	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42666	CAR/73/2016	cattle	100.0	0	SAT1	X		
viba_42722	CAR/Saigue/2016	cattle	100.0	0	SAT1	X		
viba_42694	CAR/2115/2016	cattle	99.7	0	SAT1	X		
viba_42702	CAR/2183/2016	cattle	99.7	0	SAT1	X		
viba_42714	CAR/2199/2016	cattle	99.7	0	SAT1	X		
viba_42678	CAR/177/2016	cattle	99.7	0	SAT1	X		
viba_42698	CAR/2169/2016	cattle	99.7	0	SAT1	X		
viba_42674	CAR/171/2016	cattle	99.7	0	SAT1	X		
viba_42706	CAR/2186/2016	cattle	99.7	0	SAT1	X		
viba_42690	CAR/2101/2016	cattle	99.7	0	SAT1	X		

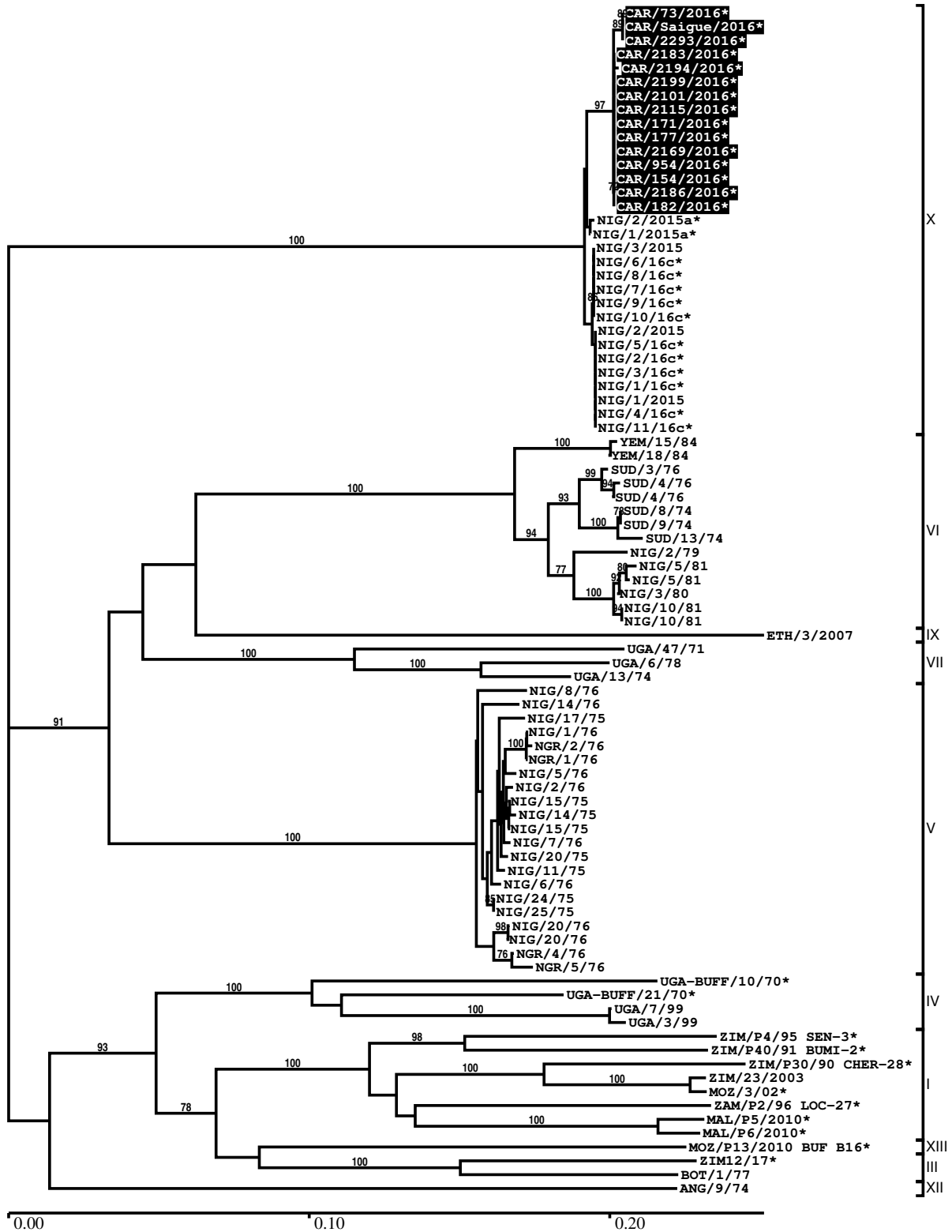
Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30939	NIG/1/2015	cattle	98.5	0	SAT1	X		
viba_440	SUD/3/76		73.2	0	SAT1	VI		
viba_258	UGA/13/74	bovine	71.7	0	SAT1	VII		
viba_446	NIG/11/75	bovine	71.3	0	SAT1	V		
viba_514	UGA-BUFF/21/70	African buffalo	71.1	0	SAT1	IV		
viba_243	ZIM/23/2003		70.5	0	SAT1	I		
viba_30740	ANG/9/74		70.3	0	SAT1	XII		
viba_232	ETH/3/2007	cattle	69.8	0	SAT1	IX		
viba_16635	MOZ/P13/2010 BUF B16	African buffalo	69.7	0	SAT1	XIII		
viba_509	BOT/1/77	bovine	69.5	0	SAT1	III		

Report on FMDV SAT1 in Cameroon in 2016

Batch: WRLMEG/2019/00043



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_SAT1
Query sequence set:	WRLMEG/2019/00043-Cameroon-SAT1 (15 sequences)
Sequence database set:	allseqs_SAT1 (703 sequences)
Prototype sequence set:	!prototypes_SAT1 (19 sequences)
Number of related sequences reported:	10
Minimal VP1 subsequence match length	600
Sequence alignment method:	muscle (default parameters)
Sequence alignment length:	654
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
CAR/73/2016*	MK469979	cattle	PIADC	Cameroon	X
CAR/Saigue/2016*	MK469993	cattle	PIADC	Cameroon	X
CAR/2293/2016*	MK469992	cattle	PIADC	Cameroon	X
CAR/2183/2016*	MK469988	cattle	PIADC	Cameroon	X
CAR/2194/2016*	MK469990	cattle	PIADC	Cameroon	X
CAR/2199/2016*	MK469991	cattle	PIADC	Cameroon	X
CAR/2101/2016*	MK469985	cattle	PIADC	Cameroon	X
CAR/2115/2016*	MK469986	cattle	PIADC	Cameroon	X
CAR/171/2016*	MK469981	cattle	PIADC	Cameroon	X
CAR/177/2016*	MK469982	cattle	PIADC	Cameroon	X
CAR/2169/2016*	MK469987	cattle	PIADC	Cameroon	X
CAR/954/2016*	MK469984	cattle	PIADC	Cameroon	X
CAR/154/2016*	MK469980	cattle	PIADC	Cameroon	X
CAR/2186/2016*	MK469989	cattle	PIADC	Cameroon	X
CAR/182/2016*	MK469983	cattle	PIADC	Cameroon	X
NIG/2/2015a*	KX822795	bovine	CODA-CERVA	Nigeria	X
NIG/1/2015a*	KX822796	bovine	CODA-CERVA	Nigeria	X
NIG/3/2015	n/a	cattle	WRLFMD	Nigeria	X
NIG/6/16c*	MH894438	cattle	PIADC	Nigeria	X
NIG/8/16c*	MH894440	cattle	PIADC	Nigeria	X
NIG/7/16c*	MH894439	cattle	PIADC	Nigeria	X
NIG/9/16c*	MH894441	cattle	PIADC	Nigeria	X
NIG/10/16c*	MH894442	cattle	PIADC	Nigeria	X
NIG/2/2015	n/a	cattle	WRLFMD	Nigeria	X
NIG/5/16c*	MH894437	cattle	PIADC	Nigeria	X
NIG/2/16c*	MH894434	cattle	PIADC	Nigeria	X
NIG/3/16c*	MH894435	cattle	PIADC	Nigeria	X
NIG/1/16c*	MH894433	cattle	PIADC	Nigeria	X
NIG/1/2015	n/a	cattle	WRLFMD	Nigeria	X
NIG/4/16c*	MH894436	cattle	PIADC	Nigeria	X
NIG/11/16c*	MH894443	cattle	PIADC	Nigeria	X
YEM/15/84	n/a	cattle	WRLFMD	Yemen	VI
YEM/18/84	n/a	n/a	WRLFMD	Yemen	VI
SUD/3/76	DQ009725	n/a	OVI	Sudan	VI

continued on next page

label	accession	host(s)	lab	country	taxonomic information
SUD/4/76	AY441997	n/a	OVI	Sudan	VI
SUD/4/76	n/a	n/a	WRLFMD	Sudan	VI
SUD/8/74	AY441998	n/a	OVI	Sudan	VI
SUD/9/74	AY441999	n/a	OVI	Sudan	VI
SUD/13/74	AY442000	n/a	OVI	Sudan	VI
NIG/2/79	AF431728	n/a	OVI	Nigeria	VI
NIG/5/81	AF431730	n/a	OVI	Nigeria	VI
NIG/5/81	DQ009723	n/a	OVI	Nigeria	VI
NIG/3/80	AF431729	n/a	OVI	Nigeria	VI
NIG/10/81	n/a	n/a	WRLFMD	Nigeria	VI
NIG/10/81	AF431731	n/a	OVI	Nigeria	VI
ETH/3/2007	FJ798154	cattle	WRLFMD	Ethiopia	IX
UGA/4/71	n/a	bovine	WRLFMD	Uganda	VII
UGA/6/78	n/a	n/a	WRLFMD	Uganda	VII
UGA/13/74	AY442010	bovine	OVI	Uganda	VII
NIG/8/76	AF431724	n/a	OVI	Nigeria	V
NIG/14/76	AF431725	n/a	OVI	Nigeria	V
NIG/17/75	AF431712	n/a	OVI	Nigeria	V
NIG/1/76	AF431721	n/a	OVI	Nigeria	V
NGR/2/76	AF431718	n/a	OVI	Niger	V
NGR/1/76	AF431717	n/a	OVI	Niger	V
NIG/5/76	AF431723	n/a	OVI	Nigeria	V
NIG/2/76	AF431722	n/a	OVI	Nigeria	V
NIG/15/75	AF431710	n/a	OVI	Nigeria	V
NIG/14/75	AF431709	n/a	OVI	Nigeria	V
NIG/15/75	DQ009724	n/a	OVI	Nigeria	V
NIG/7/76	AF431726	n/a	OVI	Nigeria	V
NIG/20/75	AF431713	n/a	OVI	Nigeria	V
NIG/11/75	AF431711	bovine	OVI	Nigeria	V
NIG/6/76	AF431716	n/a	OVI	Nigeria	V
NIG/24/75	AF431714	n/a	OVI	Nigeria	V
NIG/25/75	AF431715	n/a	OVI	Nigeria	V
NIG/20/76	n/a	cattle	WRLFMD	Nigeria	V
NIG/20/76	AF431727	cattle	OVI	Nigeria	V
NGR/4/76	AF431719	n/a	OVI	Niger	V
NGR/5/76	AF431720	n/a	OVI	Niger	V
UGA-BUFF/10/70*	KF219681	African buffalo	WRLFMD	Uganda	IV
UGA-BUFF/21/70*	KF219682	African buffalo	WRLFMD	Uganda	IV
UGA/7/99	AY442011	n/a	OVI	Uganda	IV
UGA/3/99	DQ009722	n/a	OVI	Uganda	IV
ZIM/P4/95 SEN-3*	n/a	African buffalo	WRLFMD	Zimbabwe	I
ZIM/P40/91 BUMI-2*	n/a	African buffalo	WRLFMD	Zimbabwe	I
ZIM/P30/90 CHER-28*	n/a	African buffalo	WRLFMD	Zimbabwe	I
ZIM/23/2003	KF219690	n/a	WRLFMD	Zimbabwe	I
MOZ/3/02*	DQ009720	n/a	OVI	Mozambique	I
ZAM/P2/96 LOC-27*	n/a	African buffalo	WRLFMD	Zambia	I
MAL/P5/2010*	n/a	African buffalo	WRLFMD	Malawi	I
MAL/P6/2010*	n/a	African buffalo	WRLFMD	Malawi	I
MOZ/P13/2010 BUF B16*	KF219691	African buffalo	WRLFMD	Mozambique	XIII
ZIM12/17*	n/a	bovine	BVI	Zimbabwe	III
BOT/1/77	KF219686	bovine	WRLFMD	Botswana	III
ANG/9/74	MG972460	n/a	WRLFMD	Angola	XII

*, not a WRLFMD Reference Number

n/a, not available