

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

Genotyping Report

FMDV serotype: SAT2
Country: Egypt
Year: 2018
Batch: WRLMEG/2020/00004
No. of sequences: 11
Report date: 28th January 2020
Report generated by: Nick Knowles
Report checked by: Antonello Di Nardo



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

email: reporting@pirbright.ac.uk

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Virus sample name:	EGY/Sharqia1/2018
Sender reference:	Sharqia1/2018
Location of origin:	Sharqia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43807, genome 43808, sequence viba_43809, sequencing info 43810	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43813	EGY/Sharqia2/2018		99.8	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.7	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		99.2	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		99.2	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.2	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		99.2	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	98.9	0	SAT2	VII	Lib-12	
viba_43845	EGY/Alexandria2/2018		98.6	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.5	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	85.8	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.7	0	SAT2	XII		
viba_374	ZAI/1/74		74.1	0	SAT2	VIII		
viba_127	KEN/3/57		73.7	0	SAT2	IX		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_728	GHA/2/90	bovine	72.9	0	SAT2	V		
viba_139	ETH/2/2007	cattle	72.8	0	SAT2	XIII		
viba_470	KEN/2/84	bovine	72.8	0	SAT2	IX		
viba_752	SA/106/59		72.2	0	SAT2	I		

Virus sample name:	EGY/Sharqia2/2018
Sender reference:	Sharqia2/2018
Location of origin:	Sharqia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43811, genome 43812, sequence viba_43813, sequencing info 43814	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43809	EGY/Sharqia1/2018		99.8	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		99.1	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		99.1	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		99.1	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.1	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	98.9	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	98.8	0	SAT2	VII	Lib-12	
viba_43845	EGY/Alexandria2/2018		98.4	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.7	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	85.7	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.8	0	SAT2	XII		
viba_374	ZAI/1/74		74.1	0	SAT2	VIII		
viba_127	KEN/3/57		73.7	0	SAT2	IX		
viba_756	UGA/19/98		73.5	0	SAT2	X		
viba_470	KEN/2/84	bovine	72.8	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.7	0	SAT2	V		
viba_500	NIG/2/75	bovine	72.1	0	SAT2	V		
viba_273	ETH/1/90	bovine	72.0	0	SAT2	IV		

Virus sample name:	EGY/Sharqia3/2018
Sender reference:	Sharqia3/2018
Location of origin:	Sharqia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43815, genome 43816, sequence viba_43817, sequencing info 43818	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43821	EGY/Sharqia4/2018		100.0	0	SAT2	VII	Lib-12	
viba_40224	EGY/7/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_36131	ETH/11/2018	cattle	98.1	0	SAT2	VII	Lib-12	
viba_43761	ERI/11/2019	bovine	96.9	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		96.9	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		96.9	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		96.9	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		96.9	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	96.7	0	SAT2	VII	Lib-12	
viba_43753	ERI/5/2019	bovine	96.7	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	87.2	1	SAT2	VII		
viba_369	UGA/51/75	bovine	75.0	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_127	KEN/3/57		73.8	0	SAT2	IX		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_470	KEN/2/84	bovine	73.6	0	SAT2	IX		
viba_189	RWA/1/2000		73.0	0	SAT2	VIII		
viba_728	GHA/2/90	bovine	72.4	0	SAT2	V		
viba_500	NIG/2/75	bovine	72.3	0	SAT2	V		

Virus sample name:	EGY/Sharqia4/2018
Sender reference:	Sharqia4/2018
Location of origin:	Sharqia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43819, genome 43820, sequence viba_43821, sequencing info 43822	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43817	EGY/Sharqia3/2018		100.0	0	SAT2	VII	Lib-12	
viba_40224	EGY/7/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_36131	ETH/11/2018	cattle	98.1	0	SAT2	VII	Lib-12	
viba_43761	ERI/11/2019	bovine	96.9	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		96.9	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		96.9	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		96.9	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		96.9	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	96.7	0	SAT2	VII	Lib-12	
viba_43753	ERI/5/2019	bovine	96.7	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	87.2	1	SAT2	VII		
viba_369	UGA/51/75	bovine	75.0	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_127	KEN/3/57		73.8	0	SAT2	IX		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_470	KEN/2/84	bovine	73.6	0	SAT2	IX		
viba_189	RWA/1/2000		73.0	0	SAT2	VIII		
viba_728	GHA/2/90	bovine	72.4	0	SAT2	V		
viba_500	NIG/2/75	bovine	72.3	0	SAT2	V		

Virus sample name:	EGY/Ismailia1/2018
Sender reference:	Ismailia1/2018
Location of origin:	Ismailia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43823, genome 43824, sequence viba_43825, sequencing info 43826	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43833	EGY/Ismailia3/2018		100.0	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		100.0	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		100.0	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.4	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40236	EGY/31/2018	cattle	98.9	0	SAT2	VII	Lib-12	

Most Closely Related Prototype Sequences

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sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.0	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_127	KEN/3/57		73.4	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.9	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.5	0	SAT2	V		
viba_139	ETH/2/2007	cattle	72.1	0	SAT2	XIII		
viba_500	NIG/2/75	bovine	71.9	0	SAT2	V		

Virus sample name:	EGY/Ismailia2/2018
Sender reference:	Ismailia2/2018
Location of origin:	Ismailia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43827, genome 43828, sequence viba_43829, sequencing info 43830	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43825	EGY/Ismailia1/2018		100.0	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		100.0	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		100.0	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.4	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40236	EGY/31/2018	cattle	98.9	0	SAT2	VII	Lib-12	

Most Closely Related Prototype Sequences

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sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.0	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_127	KEN/3/57		73.4	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.9	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.5	0	SAT2	V		
viba_139	ETH/2/2007	cattle	72.1	0	SAT2	XIII		
viba_500	NIG/2/75	bovine	71.9	0	SAT2	V		

Virus sample name:	EGY/Ismailia3/2018
Sender reference:	Ismailia3/2018
Location of origin:	Ismailia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43831, genome 43832, sequence viba_43833, sequencing info 43834	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43825	EGY/Ismailia1/2018		100.0	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		100.0	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		100.0	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.4	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40236	EGY/31/2018	cattle	98.9	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.0	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_127	KEN/3/57		73.4	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.9	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.5	0	SAT2	V		
viba_139	ETH/2/2007	cattle	72.1	0	SAT2	XIII		
viba_500	NIG/2/75	bovine	71.9	0	SAT2	V		

Virus sample name:	EGY/Ismailia4/2018
Sender reference:	Ismailia4/2018
Location of origin:	Ismailia
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43835, genome 43836, sequence viba_43837, sequencing info 43838	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_40240	EGY/34/2018	cattle	99.7	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		99.4	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		99.4	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		99.4	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		99.4	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.2	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40236	EGY/31/2018	cattle	98.6	0	SAT2	VII	Lib-12	

Most Closely Related Prototype Sequences

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sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_742	CAR/8/2005	cattle	87.4	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	85.4	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_127	KEN/3/57		73.2	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.6	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.2	0	SAT2	V		
viba_752	SA/106/59		72.0	0	SAT2	I		
viba_500	NIG/2/75	bovine	71.9	0	SAT2	V		

Virus sample name:	EGY/Alexandria1/2018
Sender reference:	Alexandria1/2018
Location of origin:	Alexandria
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43839, genome 43840, sequence viba_43841, sequencing info 43842	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43825	EGY/Ismailia1/2018		100.0	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		100.0	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		100.0	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	99.5	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		99.4	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		99.2	0	SAT2	VII	Lib-12	
viba_40240	EGY/34/2018	cattle	99.1	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		99.1	0	SAT2	VII	Lib-12	
viba_40236	EGY/31/2018	cattle	98.9	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.9	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.0	1	SAT2	VII		
viba_369	UGA/51/75	bovine	74.2	0	SAT2	XII		
viba_374	ZAI/1/74		73.8	0	SAT2	VIII		
viba_756	UGA/19/98		73.7	0	SAT2	X		
viba_127	KEN/3/57		73.4	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.9	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.5	0	SAT2	V		
viba_139	ETH/2/2007	cattle	72.1	0	SAT2	XIII		
viba_500	NIG/2/75	bovine	71.9	0	SAT2	V		

Virus sample name:	EGY/Alexandria2/2018
Sender reference:	Alexandria2/2018
Location of origin:	Alexandria
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43843, genome 43844, sequence viba_43845, sequencing info 43846	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43849	EGY/Alexandria3/2018		99.8	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	98.9	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	98.9	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		98.8	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		98.8	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		98.8	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		98.8	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		98.6	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		98.4	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		98.4	0	SAT2	VII	Lib-12	

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_742	CAR/8/2005	cattle	87.4	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.5	1	SAT2	VII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_369	UGA/51/75	bovine	73.6	0	SAT2	XII		
viba_756	UGA/19/98		73.3	0	SAT2	X		
viba_127	KEN/3/57		73.2	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.7	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.3	0	SAT2	V		
viba_500	NIG/2/75	bovine	71.8	0	SAT2	V		
viba_189	RWA/1/2000		71.5	0	SAT2	VIII		

Virus sample name:	EGY/Alexandria3/2018
Sender reference:	Alexandria3/2018
Location of origin:	Alexandria
Country of origin:	Egypt
Date of collection:	2018
Host species:	
Serotype:	SAT2
Topotype:	VII
Lineage:	Lib-12
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:	28/01/2020
Last updated:	28/01/2020
VIBASys IDs: sample 43847, genome 43848, sequence viba_43849, sequencing info 43850	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_43845	EGY/Alexandria2/2018		99.8	0	SAT2	VII	Lib-12	
viba_40232	EGY/21/2018	cattle	98.8	0	SAT2	VII	Lib-12	
viba_40228	EGY/19/2018	cattle	98.8	0	SAT2	VII	Lib-12	
viba_43825	EGY/Ismailia1/2018		98.6	0	SAT2	VII	Lib-12	
viba_43833	EGY/Ismailia3/2018		98.6	0	SAT2	VII	Lib-12	
viba_43841	EGY/Alexandria1/2018		98.6	0	SAT2	VII	Lib-12	
viba_43829	EGY/Ismailia2/2018		98.6	0	SAT2	VII	Lib-12	
viba_43809	EGY/Sharqia1/2018		98.4	0	SAT2	VII	Lib-12	
viba_43837	EGY/Ismailia4/2018		98.3	0	SAT2	VII	Lib-12	
viba_43813	EGY/Sharqia2/2018		98.3	0	SAT2	VII	Lib-12	

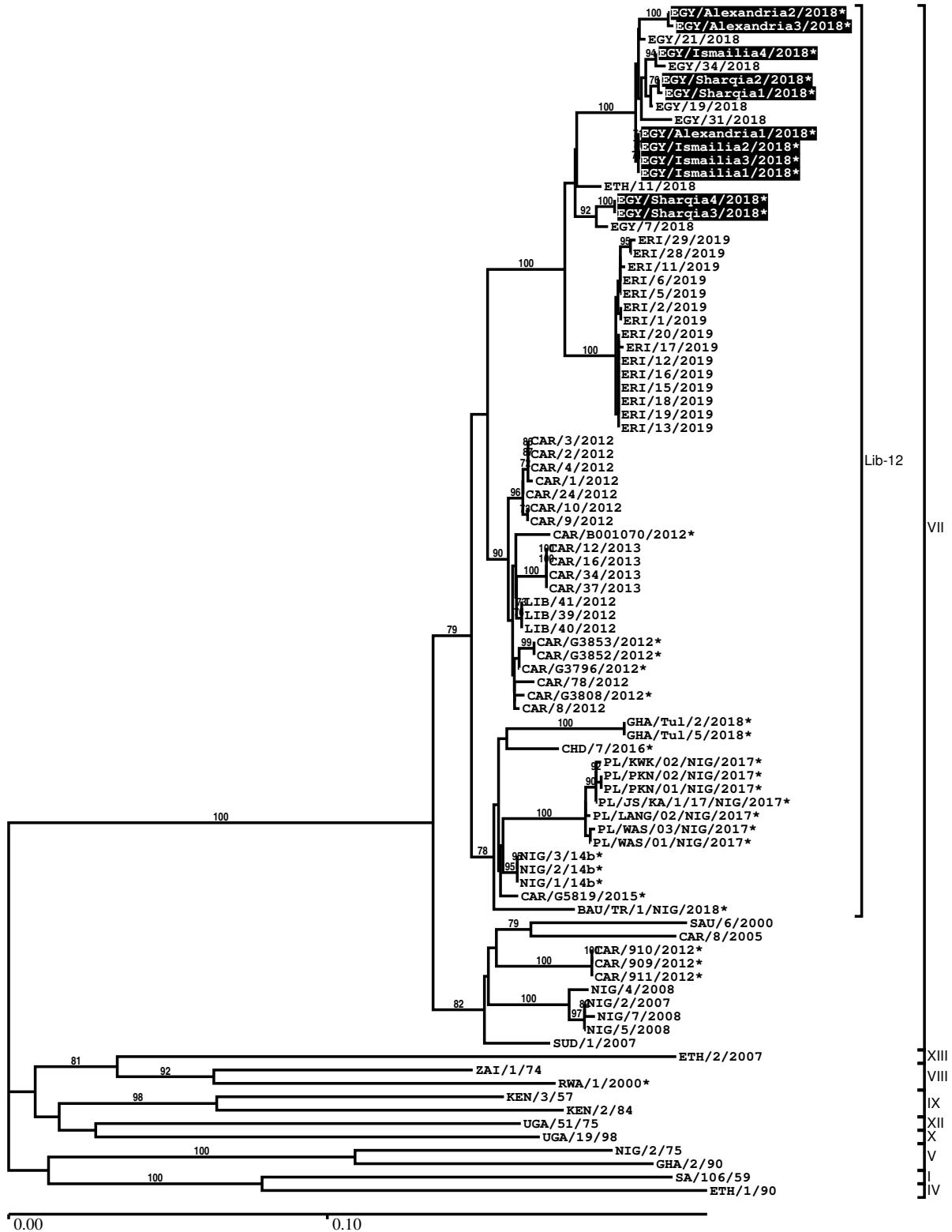
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_742	CAR/8/2005	cattle	87.2	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	86.4	1	SAT2	VII		
viba_374	ZAI/1/74		73.9	0	SAT2	VIII		
viba_369	UGA/51/75	bovine	73.6	0	SAT2	XII		
viba_756	UGA/19/98		73.2	0	SAT2	X		
viba_127	KEN/3/57		73.1	0	SAT2	IX		
viba_470	KEN/2/84	bovine	72.6	0	SAT2	IX		
viba_728	GHA/2/90	bovine	72.1	0	SAT2	V		
viba_500	NIG/2/75	bovine	71.6	0	SAT2	V		
viba_189	RWA/1/2000		71.4	0	SAT2	VIII		

Report on FMDV SAT2 in Egypt in 2018

Batch: WRLMEG/2020/00004



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_SAT2
Query sequence set:	WRLMEG/2020/00004-Egypt-SAT2 (11 sequences)
Sequence database set:	allseqs_SAT2 (1026 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:	13
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
EGY/Alexandria2/2018*	MK493346	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Alexandria3/2018*	MK493347	n/a	MEVAC	Egypt	VII/Lib-12
EGY/21/2018	n/a	cattle	WRLFMD	Egypt	VII/Lib-12
EGY/Ismailia4/2018*	MK493344	n/a	MEVAC	Egypt	VII/Lib-12
EGY/34/2018	n/a	cattle	WRLFMD	Egypt	VII/Lib-12
EGY/Sharqia2/2018*	MK493338	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Sharqia1/2018*	MK493337	n/a	MEVAC	Egypt	VII/Lib-12
EGY/19/2018	n/a	cattle	WRLFMD	Egypt	VII/Lib-12
EGY/31/2018	n/a	cattle	WRLFMD	Egypt	VII/Lib-12
EGY/Alexandria1/2018*	MK493345	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Ismailia2/2018*	MK493342	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Ismailia3/2018*	MK493343	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Ismailia1/2018*	MK493341	n/a	MEVAC	Egypt	VII/Lib-12
ETH/11/2018	MN987552	cattle	WRLFMD	Ethiopia	VII/Lib-12
EGY/Sharqia4/2018*	MK493340	n/a	MEVAC	Egypt	VII/Lib-12
EGY/Sharqia3/2018*	MK493339	n/a	MEVAC	Egypt	VII/Lib-12
EGY/7/2018	n/a	cattle	WRLFMD	Egypt	VII/Lib-12
ERI/29/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/28/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/11/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/6/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/5/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/2/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/1/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/20/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/17/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/12/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/16/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/15/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/18/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/19/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
ERI/13/2019	n/a	bovine	WRLFMD	Eritrea	VII/Lib-12
CAR/3/2012	KX266285	n/a	WRLFMD	Cameroon	VII/Lib-12
CAR/2/2012	KX266284	n/a	WRLFMD	Cameroon	VII/Lib-12
CAR/4/2012	KX266286	n/a	WRLFMD	Cameroon	VII/Lib-12
CAR/1/2012	KX266283	n/a	WRLFMD	Cameroon	VII/Lib-12

continued on next page

label	accession	host(s)	lab	country	taxonomic information
CAR/24/2012	KX266290	bovine	WRLFMD	Cameroon	VII/Lib-12
CAR/10/2012	KX266289	n/a	WRLFMD	Cameroon	VII/Lib-12
CAR/9/2012	KX266288	n/a	WRLFMD	Cameroon	VII/Lib-12
CAR/B001070/2012*	KY581675	cattle	PIADC	Cameroon	VII/Lib-12
CAR/12/2013	n/a	cattle	WRLFMD	Cameroon	VII/Lib-12
CAR/16/2013	n/a	cattle	WRLFMD	Cameroon	VII/Lib-12
CAR/34/2013	n/a	cattle	WRLFMD	Cameroon	VII/Lib-12
CAR/37/2013	n/a	cattle	WRLFMD	Cameroon	VII/Lib-12
LIB/41/2012	JX570635	cattle	WRLFMD	Libya	VII/Lib-12
LIB/39/2012	JX570633	cattle	WRLFMD	Libya	VII/Lib-12
LIB/40/2012	JX570634	cattle	WRLFMD	Libya	VII/Lib-12
CAR/G3853/2012*	KY581671	cattle	PIADC	Cameroon	VII/Lib-12
CAR/G3852/2012*	KY581672	cattle	PIADC	Cameroon	VII/Lib-12
CAR/G3796/2012*	KY581674	cattle	PIADC	Cameroon	VII/Lib-12
CAR/78/2012	KX266291	bovine	WRLFMD	Cameroon	VII/Lib-12
CAR/G3808/2012*	KY581673	cattle	PIADC	Cameroon	VII/Lib-12
CAR/8/2012	KX266287	n/a	WRLFMD	Cameroon	VII/Lib-12
GHA/Tul/2/2018*	LC456874	cattle	NIAH-JAPAN	Ghana	VII/Lib-12
GHA/Tul/5/2018*	LC456875	cattle	NIAH-JAPAN	Ghana	VII/Lib-12
CHD/7/2016*	MH748579	cattle	ANSES	Chad	VII/Lib-12
PL/KWK/02/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/PKN/02/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/PKN/01/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/JS/KA/1/17/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/LANG/02/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/WAS/03/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
PL/WAS/01/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
NIG/3/14b*	MH894446	cattle	PIADC	Nigeria	VII/Lib-12
NIG/2/14b*	MH894445	cattle	PIADC	Nigeria	VII/Lib-12
NIG/1/14b*	MH894444	cattle	PIADC	Nigeria	VII/Lib-12
CAR/G5819/2015*	MG873224	cattle	PIADC	Cameroon	VII/Lib-12
BAU/TR/1/NIG/2018*	n/a	bovine	CFIA/NVRI	Nigeria	VII/Lib-12
SAU/6/2000	AF367135	bovine	OVI	Saudi Arabia	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
NIG/4/2008	KX258079	cattle	WRLFMD	Nigeria	VII
NIG/2/2007	JX570636	cattle	WRLFMD	Nigeria	VII
NIG/7/2008	KX258082	cattle	WRLFMD	Nigeria	VII
NIG/5/2008	KX258080	cattle	WRLFMD	Nigeria	VII
SUD/1/2007	GU566071	cattle	WRLFMD	Sudan	VII
ETH/2/2007	FJ798161	cattle	WRLFMD	Ethiopia	XIII
ZAI/1/74	DQ009737	n/a	OVI	Zaire	VIII
RWA/1/2000*	AF367134	n/a	OVI	Rwanda	VIII
KEN/3/57	AJ251473	n/a	WRLFMD	Kenya	IX
KEN/2/84	AY343941	bovine	OVI	Kenya	IX
UGA/51/75	AY343963	bovine	OVI	Uganda	XII
UGA/19/98	AY343969	n/a	OVI	Uganda	X
NIG/2/75	AF367139	bovine	OVI	Nigeria	V
GHA/2/90	AF479415	bovine	OVI	Ghana	V
SA/106/59	AY593848	n/a	PIADC	South Africa	I
ETH/1/90	AY343935	bovine	OVI	(SA) Ethiopia	IV

*, not a WRLFMD Reference Number
n/a, not available