

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

Genotyping Report

FMDV serotype: SAT2
Country: Egypt
Year: 2012
Batch: WRLFMD/2016/00017
No. of sequences: 1
Report date: 12th July 2016
Report generated by: Nick Knowles
Report checked by: Kasia Bankowska

Analysis Parameters

VP1 subsequence extractor: vp1_SAT2
Query sequence set: WRLFMD/2016/00017-Egypt-SAT2 (1 sequences)
Sequence database set: allseqs_SAT2 (726 sequences)
Prototype sequence set: prototypes_SAT2 (25 sequences)
Number of related sequences reported: 10
Minimal VP1 subsequence match length: 600
VIBASys version: reflabs-1.0.2



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

email: reporting@pirbright.ac.uk

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Virus sample name:	EGY/44/2012
Sender reference:	No. 3
Location of origin:	n/a
Country of origin:	Egypt
Date of collection:	01/01/2012
Host species:	cattle
Serotype:	SAT2
Topotype:	VII
Lineage:	Ghb-12
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	15/06/2016
Primers:	SAT2-1C445F/SAT-2B208R; SAT2-P1-1223F/SAT-2B208R
Received for sequencing:	28/06/2016
Created:	05/07/2016
Last updated:	05/07/2016

VIBASys IDs: sample 27744, genome 27745, sequence viba_27746, sequencing info 27747

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_20562	EGY/43/2012	cattle	100.0	0	SAT2	VII	Ghb-12	
viba_20550	EGY/28/2012	cattle	99.8	0	SAT2	VII	Ghb-12	
viba_20572	EGY/7/2012	water buffalo	99.5	0	SAT2	VII	Ghb-12	
viba_20526	EGY/14/2012		99.5	0	SAT2	VII	Ghb-12	
viba_20530	EGY/15/2012		99.5	0	SAT2	VII	Ghb-12	
viba_20546	EGY/22/2012	cattle	99.5	0	SAT2	VII	Ghb-12	
viba_20558	EGY/31/2012	cattle	99.5	0	SAT2	VII	Ghb-12	
viba_20514	EGY/10/2012		99.5	0	SAT2	VII	Ghb-12	
viba_20633	PAT/1/2012	cattle	99.5	0	SAT2	VII	Ghb-12	
viba_20506	EGY/6/2012		99.5	0	SAT2	VII	Ghb-12	

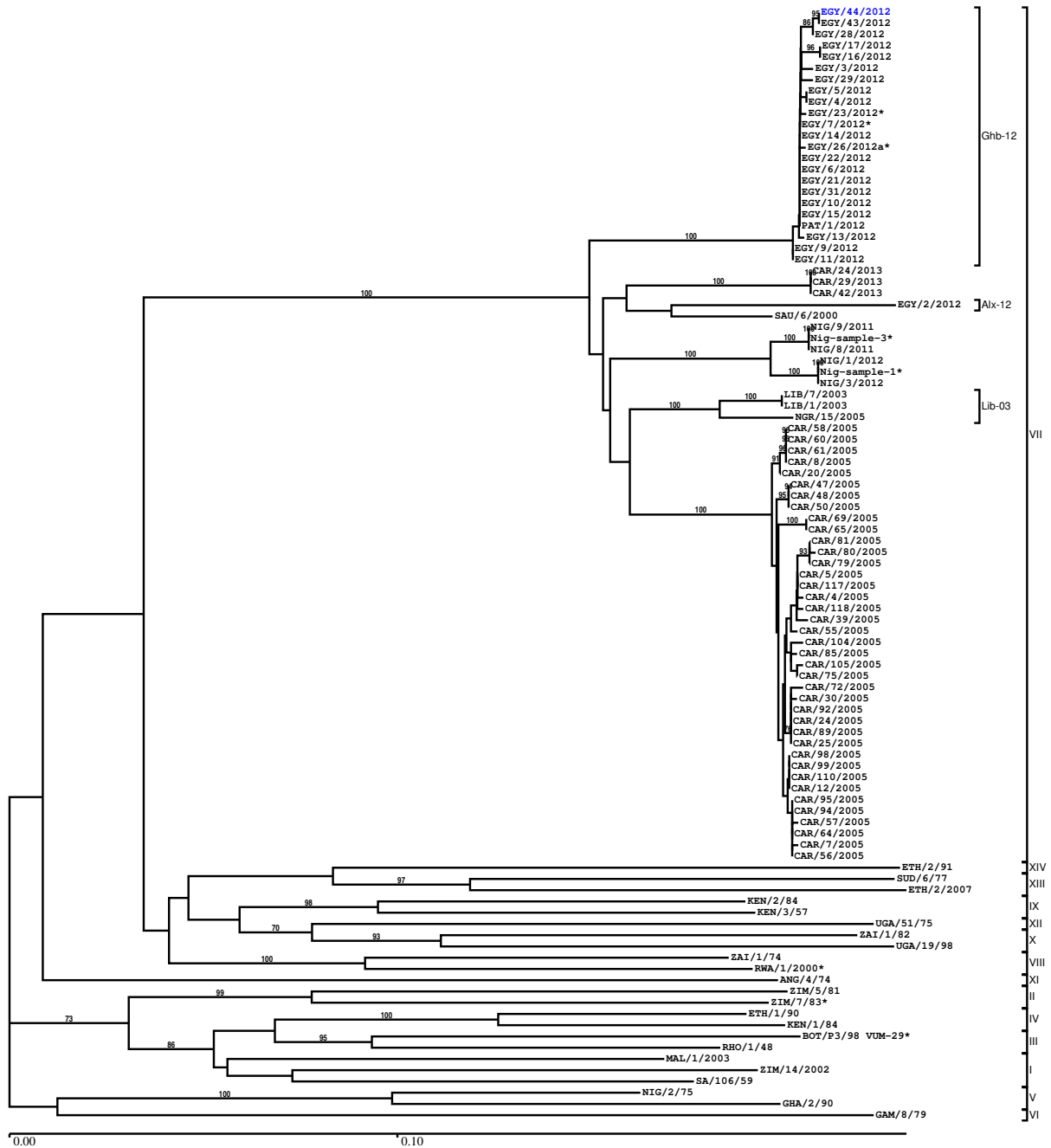
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_742	CAR/8/2005	cattle	89.4	0	SAT2	VII		
viba_424	SAU/6/2000	bovine	89.3	1	SAT2	VII		
viba_470	KEN/2/84	bovine	76.1	0	SAT2	IX		
viba_127	KEN/3/57		74.5	0	SAT2	IX		
viba_752	SA/106/59		74.0	0	SAT2	I		
viba_189	RWA/1/2000		73.9	0	SAT2	VIII		
viba_756	UGA/19/98		73.4	0	SAT2	X		
viba_374	ZAI/1/74		73.3	0	SAT2	VIII		
viba_500	NIG/2/75	bovine	73.2	0	SAT2	V		
viba_139	ETH/2/2007	cattle	73.0	0	SAT2	XIII		

Report on FMDV SAT2 in Egypt in 2012

Batch: WRLFMD/2016/00017



Sequence alignment method: muscle (default parameters)
 Phylogeny reconstruction method: fdnadist, fneighbor
 Number of bootstrap samples: 1000
 Displaying bootstrap values above: 70.0%
 Number of sequences in tree capped at: 100
 *, not a WRLFMD Reference Number

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/44/2012	n/a	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/43/2012	KX258063	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/28/2012	KF112935	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/17/2012	KF112932	water buffalo	WRLFMD	Egypt	VII/Ghb-12
EGY/16/2012	KF112931	water buffalo	WRLFMD	Egypt	VII/Ghb-12
EGY/3/2012	JX570618	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/29/2012	KF112936	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/5/2012	JX570620	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/4/2012	JX570619	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/23/2012*	JX013980	cattle	n/a	Egypt	VII/Ghb-12
EGY/7/2012*	JX013978	water buffalo	n/a	Egypt	VII/Ghb-12
EGY/14/2012	JX570626	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/26/2012a*	JX013979	water buffalo	n/a	Egypt	VII/Ghb-12
EGY/22/2012	KF112934	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/6/2012	JX570621	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/21/2012	KF112933	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/31/2012	KF112937	cattle	WRLFMD	Egypt	VII/Ghb-12
EGY/10/2012	JX570623	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/15/2012	JX570627	n/a	WRLFMD	Egypt	VII/Ghb-12
PAT/1/2012	JX570637	cattle	WRLFMD	Palestinian AT	VII/Ghb-12
EGY/13/2012	JX570625	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/9/2012	JX570622	n/a	WRLFMD	Egypt	VII/Ghb-12
EGY/11/2012	JX570624	n/a	WRLFMD	Egypt	VII/Ghb-12
CAR/24/2013	n/a	cattle	WRLFMD	Cameroon	VII
CAR/29/2013	n/a	cattle	WRLFMD	Cameroon	VII
CAR/42/2013	n/a	cattle	WRLFMD	Cameroon	VII
EGY/2/2012	JX570617	n/a	WRLFMD	Egypt	VII/Alx-12
SAU/6/2000	AF367135	bovine	OVI	Saudi Arabia	VII
NIG/9/2011	KX258088	bovine	WRLFMD	Nigeria	VII
Nig-sample-3*	n/a	n/a	ANSES	Nigeria	VII
NIG/8/2011	KX258087	bovine	WRLFMD	Nigeria	VII
NIG/1/2012	KX258094	bovine	WRLFMD	Nigeria	VII
Nig-sample-1*	n/a	n/a	ANSES	Nigeria	VII
NIG/3/2012	KX258096	bovine	WRLFMD	Nigeria	VII
LIB/7/2003	JX570632	n/a	WRLFMD	Libya	VII/Lib-03
LIB/1/2003	JX570631	n/a	WRLFMD	Libya	VII/Lib-03
NGR/15/2005	KF112960	cattle	WRLFMD	Niger	VII/Lib-03
CAR/58/2005	KX258157	cattle	WRLFMD	Cameroon	VII
CAR/60/2005	KX258158	cattle	WRLFMD	Cameroon	VII
CAR/61/2005	KX258159	cattle	WRLFMD	Cameroon	VII
CAR/8/2005	JX570616	cattle	WRLFMD	Cameroon	VII
CAR/20/2005	KX258141	cattle	WRLFMD	Cameroon	VII
CAR/47/2005	KX258151	cattle	WRLFMD	Cameroon	VII
CAR/48/2005	KX258152	cattle	WRLFMD	Cameroon	VII
CAR/50/2005	KX258153	cattle	WRLFMD	Cameroon	VII
CAR/69/2005	KX258163	cattle	WRLFMD	Cameroon	VII
CAR/65/2005	KX258162	cattle	WRLFMD	Cameroon	VII
CAR/81/2005	KX258168	cattle	WRLFMD	Cameroon	VII
CAR/80/2005	KX258167	cattle	WRLFMD	Cameroon	VII
CAR/79/2005	KX258166	cattle	WRLFMD	Cameroon	VII
CAR/5/2005	KX258137	cattle	WRLFMD	Cameroon	VII
CAR/117/2005	KX258182	cattle	WRLFMD	Cameroon	VII
CAR/4/2005	KX258136	cattle	WRLFMD	Cameroon	VII
CAR/118/2005	KX258183	cattle	WRLFMD	Cameroon	VII
CAR/39/2005	KX258148	cattle	WRLFMD	Cameroon	VII
CAR/55/2005	KX258154	cattle	WRLFMD	Cameroon	VII
CAR/104/2005	KX258176	cattle	WRLFMD	Cameroon	VII
CAR/85/2005	KX258169	cattle	WRLFMD	Cameroon	VII
CAR/105/2005	KX258177	cattle	WRLFMD	Cameroon	VII
CAR/75/2005	KX258165	cattle	WRLFMD	Cameroon	VII

continued on next page

label	accession	host(s)	lab	country	taxonomic information
CAR/72/2005	KX258164	cattle	WRLFMD	Cameroon	VII
CAR/30/2005	KX258144	cattle	WRLFMD	Cameroon	VII
CAR/92/2005	KX258171	cattle	WRLFMD	Cameroon	VII
CAR/24/2005	KX258142	cattle	WRLFMD	Cameroon	VII
CAR/89/2005	KX258170	cattle	WRLFMD	Cameroon	VII
CAR/25/2005	KX258143	cattle	WRLFMD	Cameroon	VII
CAR/98/2005	KX258174	cattle	WRLFMD	Cameroon	VII
CAR/99/2005	KX258175	cattle	WRLFMD	Cameroon	VII
CAR/110/2005	KX258181	cattle	WRLFMD	Cameroon	VII
CAR/12/2005	KX258140	cattle	WRLFMD	Cameroon	VII
CAR/95/2005	KX258173	cattle	WRLFMD	Cameroon	VII
CAR/94/2005	KX258172	cattle	WRLFMD	Cameroon	VII
CAR/57/2005	KX258156	cattle	WRLFMD	Cameroon	VII
CAR/64/2005	KX258161	cattle	WRLFMD	Cameroon	VII
CAR/7/2005	KX258138	cattle	WRLFMD	Cameroon	VII
CAR/56/2005	KX258155	cattle	WRLFMD	Cameroon	VII
ETH/2/91	AY343938	bovine	OVI	Ethiopia	XIV
SUD/6/77	AY343939	n/a	OVI	Sudan	XIII
ETH/2/2007	FJ798161	cattle	WRLFMD	Ethiopia	XIII
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
ZAI/1/74	DQ009737	n/a	OVI	Zaire	VIII
RWA/1/2000*	AF367134	n/a	OVI	Rwanda	VIII
ANG/4/74	AF479417	n/a	OVI	Angola	XI
ZIM/5/81	EF134951	bovine	WRLFMD	Zimbabwe	II
ZIM/7/83*	AF136607	bovine	OVI	Zimbabwe	II
ETH/1/90	AY343935	bovine	OVI	Ethiopia	IV
KEN/1/84	AY344505	bovine	OVI	Kenya	IV
BOT/P3/98 VUM-29*	AF367124	african buffalo	OVI	Botswana	III
RHO/1/48	AY593847	n/a	PIADC	Rhodesia	III
MAL/1/2003	n/a	bovine	WRLFMD	Malawi	I
ZIM/14/2002	KF219689	bovine	WRLFMD	Zimbabwe	I
SA/106/59	AY593848	n/a	PIADC	South Africa	I
NIG/2/75	AF367139	bovine	OVI	(SA) Nigeria	V
GHA/2/90	AF479415	bovine	OVI	Ghana	V
GAM/8/79	AF479410	bovine	OVI	Gambia	VI

*, not a WRLFMD Reference Number

n/a, not available