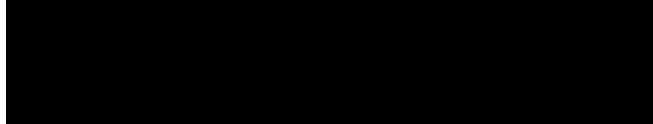




FMD Genotyping Report

Lab Reference WRL batch Number: WRLMEG/2023/00005

Sender Details:



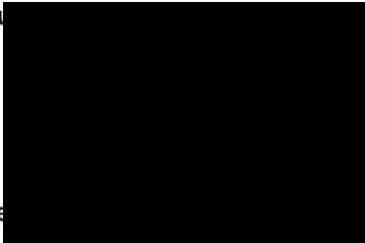
Date Received: 03/02/2023

Country of Origin*: Jordan

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

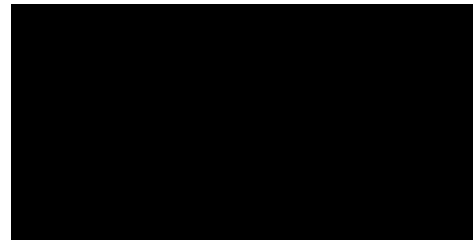
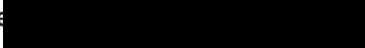
<http://www.wrlfmd.org/>

Result



Official Stamp:

Date



c.c.: L Bakkali-Kassimi, D King, M Henstock, H Hicks, N Knowles, A Ludi, N Mapitse, S Metwally, V Mioulet, J Pinto, K Sumption, J Wadsworth, B Wood, Amani Khdair (CVO Jordan), FAO Circulation, OIE Animal Health Information, Regional OIE Delegate.

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

* Data supplied by the customer

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

Genotyping Report

FMDV serotype: SAT2
Country: Jordan
Year: 2023
Batch: WRLMEG/2023/00005
No. of sequences: 1
Report date: 3rd February 2023
Report generated by: Nick Knowles
Report checked by: Don King

This report is prepared on behalf of the Jordan University of Science and Technology (JUST) and covers a VP1 sequence submitted to the WRLFMD on 3rd February 2023.



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

email: reporting@pirbright.ac.uk

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Virus sample name:	JOR/2023
Sender reference:	n/a
Location of origin:	n/a
Country of origin:	Jordan
Date of collection:	01/2023
Host species:	cattle
Serotype:	SAT2
Topotype:	XIV
Lineage:	
Sublineage:	
Sequence length:	642
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	SAT2-P1-1223F/SAT-2B208R
Received for sequencing:	n/a
Created:	03/02/2023
Last updated:	03/02/2023
VIBASys IDs: sample 52403, genome 52404, sequence viba_52405, sequencing info 52406	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_51516	ETH/2/2022	bovine	98.8	0	SAT2	XIV		
viba_52397	IRQ/S41/Nineveh/2023		98.6	0	SAT2	XIV		
viba_51520	ETH/3/2022	bovine	98.6	0	SAT2	XIV		
viba_3530	ETH/1/91	cattle	84.1	0	SAT2	XIV		
viba_3533	ETH/2/91	cattle	84.1	0	SAT2	XIV		
viba_3537	ETH/3/91	cattle	84.1	0	SAT2	XIV		
viba_724	ETH/2/91	cattle	84.1	0	SAT2	XIV		
viba_27119	KNP/7/88	African buffalo	75.7	1	SAT2	I		
viba_8085	KEN/7/2005	cattle	75.7	0	SAT2	IV		
viba_11306	SUD/2/2008	cattle	75.4	0	SAT2	XIII		

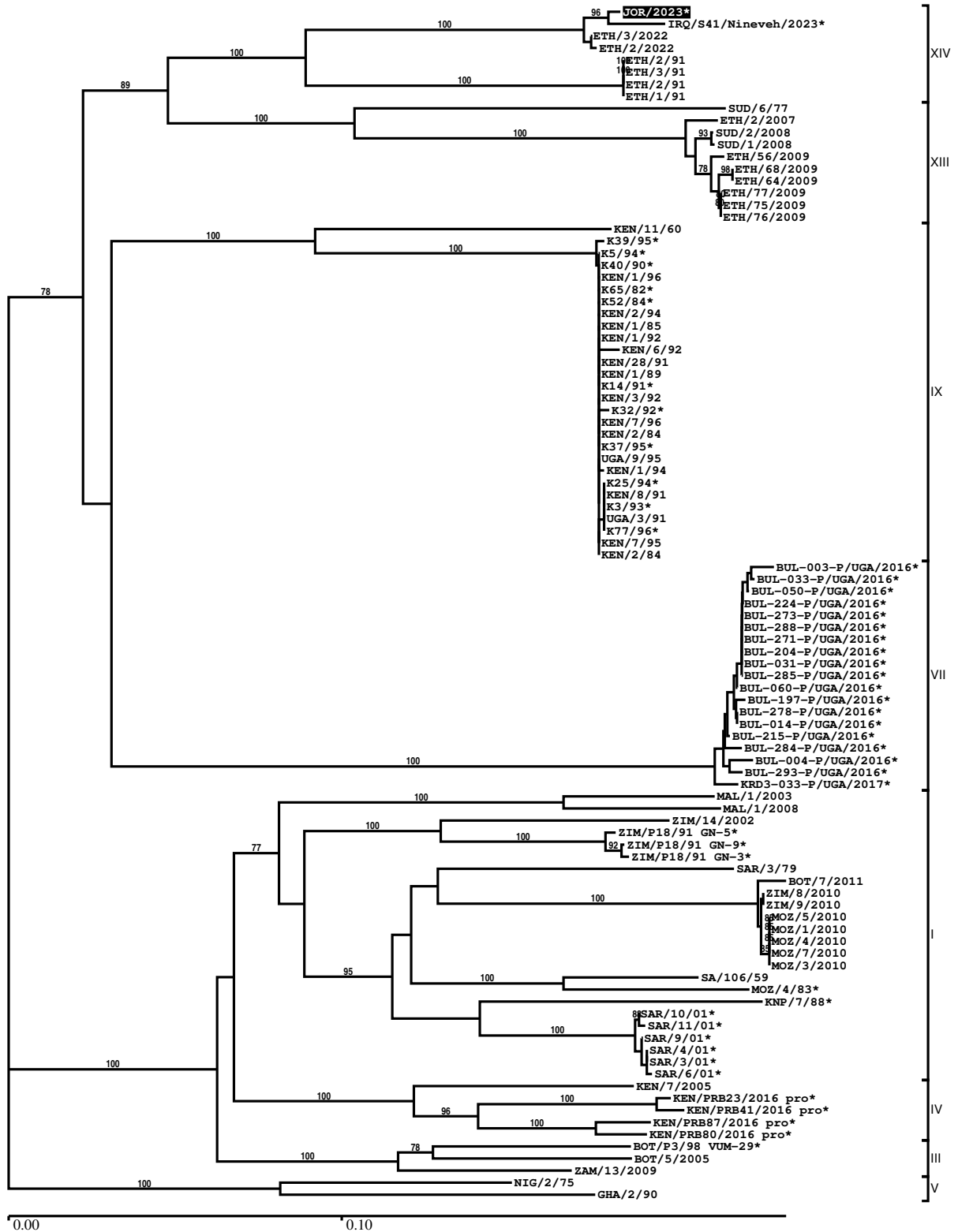
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_724	ETH/2/91	cattle	84.1	0	SAT2	XIV		
viba_139	ETH/2/2007	cattle	75.3	0	SAT2	XIII		
viba_470	KEN/2/84	bovine	75.1	0	SAT2	IX		
viba_500	NIG/2/75	bovine	74.7	0	SAT2	V		
viba_111	MAL/1/2003	bovine	74.2	0	SAT2	I		
viba_752	SA/106/59		73.9	0	SAT2	I		
viba_183	ZIM/14/2002	bovine	73.9	0	SAT2	I		
viba_451	BOT/P3/98 VUM-29	African buffalo	73.7	1	SAT2	III		
viba_193	SUD/6/77		73.4	0	SAT2	XIII		
viba_728	GHA/2/90	bovine	73.4	0	SAT2	V		

Report on FMDV SAT2 in Jordan in 2023

Batch: WRLMEG/2023/00005



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor: vp1_SAT2
 Query sequence set: WRLMEG/2023/00005-Jordan-SAT2 (1 sequences)
 Sequence database set: allseqs_SAT2 (1120 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: 10
 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
JOR/2023*	n/a	cattle	JUST	Jordan	XIV
IRQ/S41/Nineveh/2023*	n/a	n/a	FMDI	Iraq	XIV
ETH/3/2022	n/a	bovine	WRLFMD	Ethiopia	XIV
ETH/2/2022	n/a	bovine	WRLFMD	Ethiopia	XIV
ETH/2/91	AY343938	cattle	OVI	Ethiopia	XIV
ETH/3/91	FJ798160	cattle	WRLFMD	Ethiopia	XIV
ETH/2/91	FJ798159	cattle	WRLFMD	Ethiopia	XIV
ETH/1/91	FJ798158	cattle	WRLFMD	Ethiopia	XIV
SUD/6/77	AY343939	n/a	OVI	Sudan	XIII
ETH/2/2007	FJ798161	cattle	WRLFMD	Ethiopia	XIII
SUD/2/2008	GU566073	cattle	WRLFMD	Sudan	XIII
SUD/1/2008	GU566072	cattle	WRLFMD	Sudan	XIII
ETH/56/2009	KF112943	cattle	WRLFMD	Ethiopia	XIII
ETH/68/2009	KF112947	cattle	WRLFMD	Ethiopia	XIII
ETH/64/2009	KF112944	cattle	WRLFMD	Ethiopia	XIII
ETH/77/2009	KF112955	cattle	WRLFMD	Ethiopia	XIII
ETH/75/2009	KF112953	cattle	WRLFMD	Ethiopia	XIII
ETH/76/2009	KF112954	cattle	WRLFMD	Ethiopia	XIII
KEN/11/60	AY593849	n/a	PIADC	Kenya	IX
K39/95*	HM623696	n/a	Makerere University	Kenya	IX
K5/94*	HM623692	n/a	Makerere University	Kenya	IX
K40/90*	HM623688	n/a	Makerere University	Kenya	IX
KEN/1/96	AY343960	n/a	OVI	Kenya	IX
K65/82*	HM623680	n/a	Makerere University	Kenya	IX
K52/84*	n/a	n/a	WRLFMD	Kenya	IX
KEN/2/94	AY343955	n/a	OVI	Kenya	IX
KEN/1/85	AY343942	n/a	OVI	Kenya	IX
KEN/1/92	AY343953	n/a	OVI	Kenya	IX
KEN/6/92	AY343952	n/a	OVI	Kenya	IX
KEN/28/91	AY343948	n/a	OVI	Kenya	IX
KEN/1/89	AY343947	n/a	OVI	Kenya	IX
K14/91*	HM623689	n/a	Makerere University	Kenya	IX

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label	accession	host(s)	lab	country	taxonomic information
KEN/3/92	AY343951	n/a	OVI	Kenya	IX
K32/92*	HM623690	n/a	Makerere University	Kenya	IX
KEN/7/96	AY343959	n/a	OVI	Kenya	IX
KEN/2/84	n/a	bovine	WRLFMD	Kenya	IX
K37/95*	HM623695	n/a	Makerere University	Kenya	IX
UGA/9/95	AY343967	n/a	OVI	Uganda	IX
KEN/1/94	AY343954	n/a	OVI	Kenya	IX
K25/94*	HM623693	n/a	Makerere University	Kenya	IX
KEN/8/91	AY343949	n/a	OVI	Kenya	IX
K3/93*	HM623691	n/a	Makerere University	Kenya	IX
UGA/3/91	AY343966	n/a	OVI	Uganda	IX
K77/96*	HM623697	n/a	Makerere University	Kenya	IX
KEN/7/95	AY343956	n/a	OVI	Kenya	IX
KEN/2/84	AY343941	bovine	OVI	Kenya	IX
BUL-003-P/UGA/2016*	MH367445	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-224-P/UGA/2016*	MH367447	cattle	PIADC	Uganda	VII
BUL-273-P/UGA/2016*	MH367463	cattle	PIADC	Uganda	VII
BUL-288-P/UGA/2016*	MH367461	cattle	PIADC	Uganda	VII
BUL-271-P/UGA/2016*	MH367466	cattle	PIADC	Uganda	VII
BUL-204-P/UGA/2016*	MH367453	cattle	PIADC	Uganda	VII
BUL-031-P/UGA/2016*	MH367444	cattle	PIADC	Uganda	VII
BUL-285-P/UGA/2016*	MH367460	cattle	PIADC	Uganda	VII
BUL-060-P/UGA/2016*	MH367458	cattle	PIADC	Uganda	VII
BUL-197-P/UGA/2016*	MH367451	cattle	PIADC	Uganda	VII
BUL-278-P/UGA/2016*	MH367464	cattle	PIADC	Uganda	VII
BUL-014-P/UGA/2016*	MH367448	cattle	PIADC	Uganda	VII
BUL-215-P/UGA/2016*	MH367452	cattle	PIADC	Uganda	VII
BUL-284-P/UGA/2016*	MH367462	cattle	PIADC	Uganda	VII
BUL-004-P/UGA/2016*	MH367457	cattle	PIADC	Uganda	VII
BUL-293-P/UGA/2016*	MH367454	cattle	PIADC	Uganda	VII
KRD3-033-P/UGA/2017*	MH367437	cattle	PIADC	Uganda	VII
MAL/1/2003	n/a	bovine	WRLFMD	Malawi	I
MAL/1/2008	n/a	cattle	WRLFMD	Malawi	I
ZIM/14/2002	KF219689	bovine	WRLFMD	Zimbabwe	I
ZIM/P18/91 GN-5*	n/a	African buffalo	WRLFMD	Zimbabwe	I
ZIM/P18/91 GN-9*	n/a	African buffalo	WRLFMD	Zimbabwe	I
ZIM/P18/91 GN-3*	n/a	African buffalo	WRLFMD	Zimbabwe	I
SAR/3/79	KF112966	cattle	WRLFMD	Republic of South Africa	I
BOT/7/2011	n/a	cattle	WRLFMD	Botswana	I
ZIM/8/2010	n/a	bovine	WRLFMD	Zimbabwe	I
ZIM/9/2010	n/a	bovine	WRLFMD	Zimbabwe	I
MOZ/5/2010	n/a	cattle	WRLFMD	Mozambique	I
MOZ/1/2010	n/a	cattle	WRLFMD	Mozambique	I
MOZ/4/2010	n/a	cattle	WRLFMD	Mozambique	I
MOZ/7/2010	n/a	n/a	WRLFMD	Mozambique	I
MOZ/3/2010	n/a	cattle	WRLFMD	Mozambique	I
SA/106/59	AY593848	n/a	PIADC	South Africa (SA)	I
MOZ/4/83*	AF367101	n/a	OVI	Mozambique	I
KNP/7/88*	AF367103	African buffalo	OVI	South Africa (KNP)	I
SAR/10/01*	AY442912	n/a	OVI	Republic of South Africa	I
SAR/11/01*	AY442913	n/a	OVI	Republic of South Africa	I
SAR/9/01*	AY442911	n/a	OVI	Republic of South Africa	I
SAR/4/01*	AY442906	n/a	OVI	Republic of South Africa	I

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label	accession	host(s)	lab	country	taxonomic information
SAR/3/01*	AY442905	n/a	OVI	Republic of South Africa	I
SAR/6/01*	AY442908	n/a	OVI	Republic of South Africa	I
KEN/7/2005	n/a	cattle	WRLFMD	Kenya	IV
KEN/PRB23/2016 pro*	MH882624	African buffalo	PIADC	Kenya	IV
KEN/PRB41/2016 pro*	MH882630	African buffalo	PIADC	Kenya	IV
KEN/PRB87/2016 pro*	MH882662	African buffalo	PIADC	Kenya	IV
KEN/PRB80/2016 pro*	MH882657	African buffalo	PIADC	Kenya	IV
BOT/P3/98 VUM-29*	AF367124	African buffalo	OVI	Botswana	III
BOT/5/2005	n/a	cattle	WRLFMD	Botswana	III
ZAM/13/2009	n/a	cattle	WRLFMD	Zambia	III
NIG/2/75	AF367139	bovine	OVI	Nigeria	V
GHA/2/90	AF479415	bovine	OVI	Ghana	V

*, not a WRLFMD Reference Number

n/a, not available