

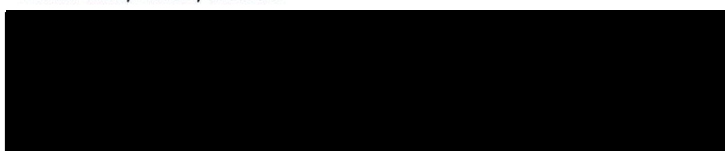


INSTITUTE FOR ANIMAL HEALTH
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FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2012/00010

Sender Details:



Date Received: 27th February 2012

Country of Origin: Libya

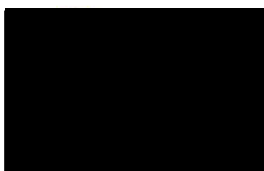
Date Reported: 8th March 2012

Dear Dr Milad Farhat

Sequencing work has now been completed in respect of the samples you 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/>

Results Approved By:



Official Stamp:



Date:

9/3/12

A UKAS accredited testing laboratory No. 4025.

To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: gareth.shimmon@iah.ac.uk. IAH actively seeks and appreciates feedback, if you would like to offer feedback please complete the WRLFMD survey here: <http://www.surveymonkey.com/s/WRLFMD>

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

Genotyping Report

Report Date for this Batch: 8 March 2012

FMDV type SAT 2

Country: Libya

Period: 2012

No. of samples: 3

BATCH: WRLFMD/2012/00010



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FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: LIB/39/2012 Batch No: WRLFMD/2012/00010 Sender Ref: D2 Location: Abu Attni, Benghazi, East Province, Libya Date collected: 16/02/2012 Date received by WRLFMD: 27/02/2012 Date received for sequencing: 06/03/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 08/03/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: LIB12-39.SEQ Date sequence last updated: 08/03/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 505 Min. no. of nt for comparison: 600 Total turn-around time: 10 days Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/LIB/40/2012	LIB12-40	648	648	0	100.00	0.00	VII	unnamed
2	SAT2/LIB/41/2012	LIB12-41	648	648	0	100.00	0.00	VII	unnamed
3	SAT2/SUD/1/2007 (GU566071)	SUD07-01	648	611	0	94.29	5.71	VII	unnamed
4	SAT2/NIG/2/2007	NIG07-02	648	602	0	92.90	7.10	VII	unnamed
5	SAT2/NIG/5/2008	NIG08-05	648	602	0	92.90	7.10	VII	unnamed
6	SAT2/NIG/1/2008	NIG08-01	648	601	0	92.75	7.25	VII	unnamed
7	SAT2/NIG/2/2008	NIG08-02	648	601	0	92.75	7.25	VII	unnamed
8	SAT2/NIG/3/2008	NIG08-03	648	601	0	92.75	7.25	VII	unnamed
9	SAT2/NIG/4/2008	NIG08-04	648	601	0	92.75	7.25	VII	unnamed
10	SAT2/NIG/8/2008	NIG08-08	648	601	0	92.75	7.25	VII	unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005	CAR05-08	648	581	0	89.66	10.34	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	580	1	89.64	10.36	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	480	0	74.77	25.23	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	479	0	73.92	26.08	XII	unnamed
6	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
7	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	477	0	73.61	26.39	IX	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	475	0	73.30	26.70	VIII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	473	1	73.11	26.89	X	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT2 WRLFMD Ref No: LIB/40/2012 Batch No: WRLFMD/2012/00010 Sender Ref: E1 Location: Abu Attni, Benghazi, East Province, Libya Date collected: 16/02/2012 Date received by WRLFMD: 27/02/2012 Date received for sequencing: 06/03/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 08/03/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: LIB12-40.SEQ Date sequence last updated: 08/03/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 505 Min. no. of nt for comparison: 600 Total turn-around time: 10 days Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/LIB/39/2012	LIB12-39	648	648	0	100.00	0.00	VII	unnamed
2	SAT2/LIB/41/2012	LIB12-41	648	648	0	100.00	0.00	VII	unnamed
3	SAT2/SUD/1/2007 (GU566071)	SUD07-01	648	611	0	94.29	5.71	VII	unnamed
4	SAT2/NIG/2/2007	NIG07-02	648	602	0	92.90	7.10	VII	unnamed
5	SAT2/NIG/5/2008	NIG08-05	648	602	0	92.90	7.10	VII	unnamed
6	SAT2/NIG/1/2008	NIG08-01	648	601	0	92.75	7.25	VII	unnamed
7	SAT2/NIG/2/2008	NIG08-02	648	601	0	92.75	7.25	VII	unnamed
8	SAT2/NIG/3/2008	NIG08-03	648	601	0	92.75	7.25	VII	unnamed
9	SAT2/NIG/4/2008	NIG08-04	648	601	0	92.75	7.25	VII	unnamed
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8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	475	0	73.30	26.70	VIII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	473	1	73.11	26.89	X	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

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Serotype: SAT2 WRLFMD Ref No: LIB/41/2012 Batch No: WRLFMD/2012/00010 Sender Ref: D1 Location: Abu Attni, Benghazi, East Province, Libya Date collected: 16/02/2012 Date received by WRLFMD: 27/02/2012 Date received for sequencing: 06/03/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 08/03/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: LIB12-41.SEQ Date sequence last updated: 08/03/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 505 Min. no. of nt for comparison: 600 Total turn-around time: 10 days Sequencing time: 2 days
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3	SAT2/SUD/1/2007 (GU566071)	SUD07-01	648	611	0	94.29	5.71	VII	unnamed
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6	SAT2/NIG/1/2008	NIG08-01	648	601	0	92.75	7.25	VII	unnamed
7	SAT2/NIG/2/2008	NIG08-02	648	601	0	92.75	7.25	VII	unnamed
8	SAT2/NIG/3/2008	NIG08-03	648	601	0	92.75	7.25	VII	unnamed
9	SAT2/NIG/4/2008	NIG08-04	648	601	0	92.75	7.25	VII	unnamed
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4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	479	0	73.92	26.08	XII	unnamed
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9	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	475	0	73.30	26.70	VIII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	473	1	73.11	26.89	X	unnamed

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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Report on FMDV SAT 2 in Libya in 2012

Batch: WRLFMD/2012/00009

◆ indicates viruses in this batch

Software: MEGA 5.0

Analysis

----- Phylogeny Reconstruction

Scope ----- All Selected Taxa

Statistical Method ----- Neighbor-joining

Phylogeny Test

Test of Phylogeny ----- Bootstrap method

No. of Bootstrap Replications ----- 1000

Substitution Model

Substitutions Type ----- Nucleotide

Model/Method ----- Kimura 2-parameter model

Substitutions to Include ----- d: Transitions + Transversions

Rates and Patterns

Rates among Sites ----- Uniform rates

Pattern among Lineages ----- Same (Homogeneous)

Data Subset to Use

Gaps/Missing Data Treatment ----- Pairwise deletion

Codons Included ----- 1st+2nd+3rd+Non-Coding

No. of Sites : 651

No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 08 March 2012

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