

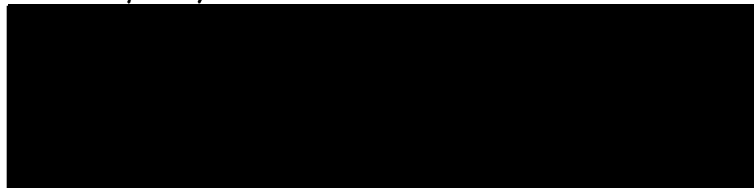


INSTITUTE FOR ANIMAL HEALTH
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath
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FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2012/00011

Sender Details:



Date Received: 12th March 2012

Country of Origin: Egypt

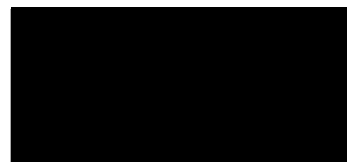
Date Reported: 10th April 2012

Dear Dr Soheir Hassan Abd El Kader

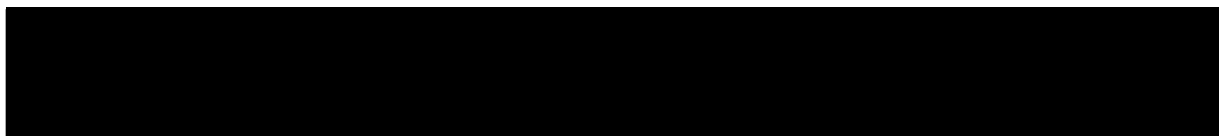
Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Results Approved By

Official Stamp:



Date: 10 / 4 / 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: 5 April 2012

FMDV type SAT 2

Country: Egypt

Period: 2012

No. of samples: 11

BATCH: WRLFMD/2012/00011



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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	Report date: 05/04/2012
WRLFMD Ref No: EGY/2/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00011	Checked by: D.P. King
Sender Ref: R/179 Sample 2 Outbreak 2	
Location: Alexandria, Egypt	Topotype: VII
Date collected: 17/02/2012	Genotype/strain: unnamed
Date received by WRLFMD: 12/03/2012	Sequence filename: EGY12-02.SEQ
Date received for sequencing: 04/04/2012	Date sequence last updated: 05/04/2012
Species: Not Known	No. of Nt determined: 648
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 516
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 24 days
	Sequencing time: 1 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/SAU/6/2000 (AF367135)	SAU00A06	647	596	1	92.12	7.88	VII	unnamed
2	SAT2/EGY/11/2012	EGY12-11	648	584	0	90.12	9.88	VII	unnamed
3	SAT2/EGY/9/2012	EGY12-09	648	584	0	90.12	9.88	VII	unnamed
4	SAT2/EGY/10/2012	EGY12-10	648	583	0	89.97	10.03	VII	unnamed
5	SAT2/EGY/14/2012	EGY12-14	648	583	0	89.97	10.03	VII	unnamed
6	SAT2/EGY/15/2012	EGY12-15	648	583	0	89.97	10.03	VII	unnamed
7	SAT2/EGY/6/2012	EGY12-06	648	583	0	89.97	10.03	VII	unnamed
8	SAT2/LIB/1/2003	LIB03-01	648	583	0	89.97	10.03	VII	unnamed
9	SAT2/LIB/7/2003	LIB03-07	648	583	0	89.97	10.03	VII	unnamed
10	SAT2/EGY/13/2012	EGY12-13	648	582	0	89.81	10.19	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/SAU/6/2000 (AF367135)	SAU00A06	647	596	1	92.12	7.88	VII	unnamed
2	SAT2/CAR/8/2005	CAR05-08	648	571	0	88.12	11.88	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	483	0	74.54	25.46	IX	unnamed
4	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	480	0	74.07	25.93	XIV	unnamed
5	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	480	0	74.07	25.93	IX	unnamed
6	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	474	0	73.83	26.17	VIII	unnamed
7	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	475	0	73.30	26.70	XII	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	474	0	73.15	26.85	X	unnamed
9	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	473	1	73.11	26.89	X	unnamed
10	SAT2/SUD/6/77 (AY343939)	SUD77-AA	648	473	0	72.99	27.01	XIII	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

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: EGY/3/2012 Batch No: WRLFMD/2012/00011 Sender Ref: R/179 Sample 3 outbreak 3 Location: Garbia, Egypt Date collected: 18/02/2012 Date received by WRLFMD: 12/03/2012 Date received for sequencing: 04/04/2012 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 05/04/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: EGY12-03.SEQ Date sequence last updated: 05/04/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 516 Min. no. of nt for comparison: 600 Total turn-around time: 24 days Sequencing time: 1 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/EGY/10/2012	EGY12-10	648	646	0	99.69	0.31	VII	unnamed
2	SAT2/EGY/14/2012	EGY12-14	648	646	0	99.69	0.31	VII	unnamed
3	SAT2/EGY/15/2012	EGY12-15	648	646	0	99.69	0.31	VII	unnamed
4	SAT2/EGY/6/2012	EGY12-06	648	646	0	99.69	0.31	VII	unnamed
5	SAT2/EGY/11/2012	EGY12-11	648	645	0	99.54	0.46	VII	unnamed
6	SAT2/EGY/13/2012	EGY12-13	648	645	0	99.54	0.46	VII	unnamed
7	SAT2/EGY/4/2012	EGY12-04	648	645	0	99.54	0.46	VII	unnamed
8	SAT2/EGY/5/2012	EGY12-05	648	645	0	99.54	0.46	VII	unnamed
9	SAT2/EGY/9/2012	EGY12-09	648	645	0	99.54	0.46	VII	unnamed
10	SAT2/CAR/75/2005	CAR05-75	648	583	0	89.97	10.03	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	580	0	89.51	10.49	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	578	1	89.34	10.66	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	488	0	75.31	24.69	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	484	0	74.69	25.31	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	476	0	74.14	25.86	VIII	unnamed
6	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	475	0	73.30	26.70	X	unnamed
7	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	474	0	73.15	26.85	VIII	unnamed
8	SAT2/NIG/2/75 (AF367139)	NIG75-02	648	472	0	72.84	27.16	V	unnamed
9	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	471	1	72.80	27.20	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

Page 1 of 1

Serotype: SAT2	Report date: 15/03/2012
WRLFMD Ref No: EGY/5/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00011	Checked by: D.P. King
Sender Ref: R/193 Sample 5	
Location: Menia, Egypt	Topotype: VII
Date collected: 27/02/2012	Genotype/strain: unnamed
Date received by WRLFMD: 12/03/2012	Sequence filename: EGY12-05.SEQ
Date received for sequencing: 14/03/2012	Date sequence last updated: 15/03/2012
Species: Not Known	No. of Nt determined: 648
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 508
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 3 days
	Sequencing time: 1 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/EGY/6/2012	EGY12-06	648	647	0	99.85	0.15	VII	unnamed
2	SAT2/EGY/9/2012	EGY12-09	648	646	0	99.69	0.31	VII	unnamed
3	SAT2/LIB/1/2003	LIB03-01	648	585	0	90.28	9.72	VII	unnamed
4	SAT2/LIB/7/2003	LIB03-07	648	585	0	90.28	9.72	VII	unnamed
5	SAT2/CAR/75/2005	CAR05-75	648	584	0	90.12	9.88	VII	unnamed
6	SAT2/CAR/85/2005	CAR05-85	648	584	0	90.12	9.88	VII	unnamed
7	SAT2/CAR/104/2005	CAR05104	648	583	0	89.97	10.03	VII	unnamed
8	SAT2/CAR/105/2005	CAR05105	648	583	0	89.97	10.03	VII	unnamed
9	SAT2/CAR/118/2005	CAR05118	648	583	0	89.97	10.03	VII	unnamed
10	SAT2/CAR/4/2005	CAR05-04	648	583	0	89.97	10.03	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	579	1	89.49	10.51	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	488	0	75.31	24.69	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	483	0	74.54	25.46	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	477	0	74.30	25.70	VIII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	475	0	73.30	26.70	VIII	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	475	0	73.30	26.70	X	unnamed
8	SAT2/SA/106/59 (AY593848)	RSA59--A	648	472	0	72.84	27.16	I	unnamed
9	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	471	0	72.69	27.31	XII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	470	1	72.64	27.36	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

Page 1 of 1

Serotype: SAT2	Report date: 15/03/2012
WRLFMD Ref No: EGY/6/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00011	Checked by: D.P. King
Sender Ref: R/187 Sample 6 Outbreak 5	
Location: Kafre El-Shaisk, Egypt	Topotype: VII
Date collected: 27/02/2012	Genotype/strain: unnamed
Date received by WRLFMD: 12/03/2012	Sequence filename: EGY12-06.SEQ
Date received for sequencing: 14/03/2012	Date sequence last updated: 15/03/2012
Species: Not Known	No. of Nt determined: 648
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 508
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 3 days
	Sequencing time: 1 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/EGY/5/2012	EGY12-05	648	647	0	99.85	0.15	VII	unnamed
2	SAT2/EGY/9/2012	EGY12-09	648	647	0	99.85	0.15	VII	unnamed
3	SAT2/CAR/75/2005	CAR05-75	648	585	0	90.28	9.72	VII	unnamed
4	SAT2/CAR/85/2005	CAR05-85	648	585	0	90.28	9.72	VII	unnamed
5	SAT2/CAR/104/2005	CAR05104	648	584	0	90.12	9.88	VII	unnamed
6	SAT2/CAR/105/2005	CAR05105	648	584	0	90.12	9.88	VII	unnamed
7	SAT2/CAR/118/2005	CAR05118	648	584	0	90.12	9.88	VII	unnamed
8	SAT2/CAR/4/2005	CAR05-04	648	584	0	90.12	9.88	VII	unnamed
9	SAT2/CAR/56/2005	CAR05-56	648	584	0	90.12	9.88	VII	unnamed
10	SAT2/CAR/64/2005	CAR05-64	648	584	0	90.12	9.88	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	582	0	89.81	10.19	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	580	1	89.64	10.36	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	489	0	75.46	24.54	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	484	0	74.69	25.31	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	478	0	74.45	25.55	VIII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	476	0	73.46	26.54	VIII	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	476	0	73.46	26.54	X	unnamed
8	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
9	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	471	1	72.80	27.20	X	unnamed
10	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	471	0	72.69	27.31	XIV	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

Page 1 of 1

Serotype: SAT2	Report date: 15/03/2012
WRLFMD Ref No: EGY/9/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00011	Checked by: D.P. King
Sender Ref: R/203 Sample 9 Outbreak 8	
Location: El-Suiz, Egypt	Topotype: VII
Date collected: 29/02/2012	Genotype/strain: unnamed
Date received by WRLFMD: 12/03/2012	Sequence filename: EGY12-09.SEQ
Date received for sequencing: 14/03/2012	Date sequence last updated: 15/03/2012
Species: Not Known	No. of Nt determined: 648
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 508
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 3 days
	Sequencing time: 1 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/EGY/6/2012	EGY12-06	648	647	0	99.85	0.15	VII	unnamed
2	SAT2/EGY/5/2012	EGY12-05	648	646	0	99.69	0.31	VII	unnamed
3	SAT2/CAR/75/2005	CAR05-75	648	586	0	90.43	9.57	VII	unnamed
4	SAT2/CAR/85/2005	CAR05-85	648	586	0	90.43	9.57	VII	unnamed
5	SAT2/CAR/104/2005	CAR05104	648	585	0	90.28	9.72	VII	unnamed
6	SAT2/CAR/105/2005	CAR05105	648	585	0	90.28	9.72	VII	unnamed
7	SAT2/CAR/118/2005	CAR05118	648	585	0	90.28	9.72	VII	unnamed
8	SAT2/CAR/4/2005	CAR05-04	648	585	0	90.28	9.72	VII	unnamed
9	SAT2/CAR/56/2005	CAR05-56	648	585	0	90.28	9.72	VII	unnamed
10	SAT2/CAR/64/2005	CAR05-64	648	585	0	90.28	9.72	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	583	0	89.97	10.03	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	581	1	89.80	10.20	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	490	0	75.62	24.38	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	485	0	74.85	25.15	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	478	0	74.45	25.55	VIII	unnamed
6	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
7	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	476	0	73.46	26.54	VIII	unnamed
8	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	473	0	72.99	27.01	XII	unnamed
9	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	472	1	72.95	27.05	X	unnamed
10	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	472	0	72.84	27.16	XIV	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

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: EGY/13/2012 Batch No: WRLFMD/2012/00011 Sender Ref: R/214 Sample 12 Outbreak 11 Location: Qalubia-Banha, Egypt Date collected: 01/03/2012 Date received by WRLFMD: 12/03/2012 Date received for sequencing: 04/04/2012 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 05/04/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: EGY12-13.SEQ Date sequence last updated: 05/04/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 516 Min. no. of nt for comparison: 600 Total turn-around time: 24 days Sequencing time: 1 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/EGY/10/2012	EGY12-10	648	647	0	99.85	0.15	VII	unnamed
2	SAT2/EGY/14/2012	EGY12-14	648	647	0	99.85	0.15	VII	unnamed
3	SAT2/EGY/15/2012	EGY12-15	648	647	0	99.85	0.15	VII	unnamed
4	SAT2/EGY/6/2012	EGY12-06	648	647	0	99.85	0.15	VII	unnamed
5	SAT2/EGY/11/2012	EGY12-11	648	646	0	99.69	0.31	VII	unnamed
6	SAT2/EGY/4/2012	EGY12-04	648	646	0	99.69	0.31	VII	unnamed
7	SAT2/EGY/5/2012	EGY12-05	648	646	0	99.69	0.31	VII	unnamed
8	SAT2/EGY/9/2012	EGY12-09	648	646	0	99.69	0.31	VII	unnamed
9	SAT2/EGY/3/2012	EGY12-03	648	645	0	99.54	0.46	VII	unnamed
10	SAT2/LIB/1/2003	LIB03-01	648	585	0	90.28	9.72	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	583	0	89.97	10.03	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	490	0	75.62	24.38	IX	unnamed
4	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	479	0	74.61	25.39	VIII	unnamed
5	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	483	0	74.54	25.46	IX	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	477	0	73.61	26.39	VIII	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	476	0	73.46	26.54	X	unnamed
8	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	472	0	72.84	27.16	XIV	unnamed
9	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	471	1	72.80	27.20	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

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: EGY/14/2012 Batch No: WRLFMD/2012/00011 Sender Ref: R/221 Sample 13 Outbreak 12 Location: Garbia, Egypt Date collected: 03/03/2012 Date received by WRLFMD: 12/03/2012 Date received for sequencing: 04/04/2012 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 05/04/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: EGY12-14.SEQ Date sequence last updated: 05/04/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 516 Min. no. of nt for comparison: 600 Total turn-around time: 24 days Sequencing time: 1 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/EGY/10/2012	EGY12-10	648	648	0	100.00	0.00	VII	unnamed
2	SAT2/EGY/15/2012	EGY12-15	648	648	0	100.00	0.00	VII	unnamed
3	SAT2/EGY/6/2012	EGY12-06	648	648	0	100.00	0.00	VII	unnamed
4	SAT2/EGY/11/2012	EGY12-11	648	647	0	99.85	0.15	VII	unnamed
5	SAT2/EGY/13/2012	EGY12-13	648	647	0	99.85	0.15	VII	unnamed
6	SAT2/EGY/4/2012	EGY12-04	648	647	0	99.85	0.15	VII	unnamed
7	SAT2/EGY/5/2012	EGY12-05	648	647	0	99.85	0.15	VII	unnamed
8	SAT2/EGY/9/2012	EGY12-09	648	647	0	99.85	0.15	VII	unnamed
9	SAT2/EGY/3/2012	EGY12-03	648	646	0	99.69	0.31	VII	unnamed
10	SAT2/CAR/75/2005	CAR05-75	648	585	0	90.28	9.72	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	582	0	89.81	10.19	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	580	1	89.64	10.36	VII	unnamed
3	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	489	0	75.46	24.54	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	484	0	74.69	25.31	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	478	0	74.45	25.55	VIII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	476	0	73.46	26.54	VIII	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	476	0	73.46	26.54	X	unnamed
8	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
9	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	471	1	72.80	27.20	X	unnamed
10	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	471	0	72.69	27.31	XIV	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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

Page 1 of 1

Serotype: SAT2 WRLFMD Ref No: EGY/15/2012 Batch No: WRLFMD/2012/00011 Sender Ref: R/220 Sample 14 Outbreak 13 Location: Fayoum, Egypt Date collected: 04/03/2012 Date received by WRLFMD: 12/03/2012 Date received for sequencing: 04/04/2012 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 05/04/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: unnamed Sequence filename: EGY12-15.SEQ Date sequence last updated: 05/04/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 516 Min. no. of nt for comparison: 600 Total turn-around time: 24 days Sequencing time: 1 days
Comments:	

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Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/EGY/10/2012	EGY12-10	648	648	0	100.00	0.00	VII	unnamed
2	SAT2/EGY/14/2012	EGY12-14	648	648	0	100.00	0.00	VII	unnamed
3	SAT2/EGY/6/2012	EGY12-06	648	648	0	100.00	0.00	VII	unnamed
4	SAT2/EGY/11/2012	EGY12-11	648	647	0	99.85	0.15	VII	unnamed
5	SAT2/EGY/13/2012	EGY12-13	648	647	0	99.85	0.15	VII	unnamed
6	SAT2/EGY/4/2012	EGY12-04	648	647	0	99.85	0.15	VII	unnamed
7	SAT2/EGY/5/2012	EGY12-05	648	647	0	99.85	0.15	VII	unnamed
8	SAT2/EGY/9/2012	EGY12-09	648	647	0	99.85	0.15	VII	unnamed
9	SAT2/EGY/3/2012	EGY12-03	648	646	0	99.69	0.31	VII	unnamed
10	SAT2/CAR/75/2005	CAR05-75	648	585	0	90.28	9.72	VII	unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
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6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	476	0	73.46	26.54	VIII	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	476	0	73.46	26.54	X	unnamed
8	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	472	0	72.84	27.16	XII	unnamed
9	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	471	1	72.80	27.20	X	unnamed
10	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	471	0	72.69	27.31	XIV	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Report on FMDV SAT 2 in Egypt in 2012

Batch: WRLFMD/2012/00011

◆ indicates viruses in this batch

Software: MEGA 5.0

Analysis

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, 05 April 2012

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