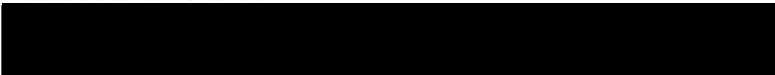




INSTITUTE FOR ANIMAL HEALTH
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath
PIRBRIGHT LABORATORY
Ash Road,
Pirbright,
Surrey,
GU24 0NF
Intn Tel: 00 44 1483 232441
Tel: 01483 232441, Fax: 01483 232621

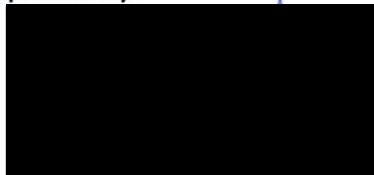
FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2012/00032
Sender Details: 
Date Received: 02/10/2012
Country of Origin: EGYPT
Date Reported: 6th November 2012

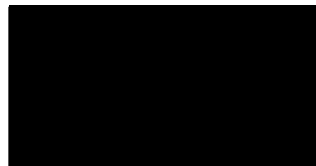
Dear General Organisation for Vet Services (GOVS),

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:

6/11/12


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: trish.ryder@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: 3 November 2012

FMDV type SAT 2

Country: Egypt

Period: 2012

No. of samples: 7

BATCH: WRLFMD/2012/00032



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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: SAT2 WRLFMD Ref No: EGY/16/2012 Batch No: WRLFMD/2012/00032 Sender Ref: R/256 (12) Location: Abo Greda, Farasqour, Domyat, Delta, Egypt Date collected: 08/03/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Buffalo Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-16.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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/17/2012	EGY12-17	648	648	0	100.00	0.00	VII	Ghb-12
2	SAT2/EGY/10/2012 (JX570623)	EGY12-10	648	645	0	99.54	0.46	VII	Ghb-12
3	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	645	0	99.54	0.46	VII	Ghb-12
4	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	645	0	99.54	0.46	VII	Ghb-12
5	SAT2/EGY/21/2012	EGY12-21	648	645	0	99.54	0.46	VII	Ghb-12
6	SAT2/EGY/22/2012	EGY12-22	648	645	0	99.54	0.46	VII	Ghb-12
7	SAT2/EGY/31/2012	EGY12-31	648	645	0	99.54	0.46	VII	Ghb-12
8	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	645	0	99.54	0.46	VII	Ghb-12
9	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	645	0	99.54	0.46	VII	Ghb-12
10	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	645	0	99.54	0.46	VII	Ghb-12
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 (JX570616)	CAR05-08	648	579	0	89.35	10.65	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	577	1	89.18	10.82	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	485	0	74.85	25.15	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	479	0	74.61	25.39	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	475	0	73.30	26.70	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	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

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Serotype: SAT2 WRLFMD Ref No: EGY/17/2012 Batch No: WRLFMD/2012/00032 Sender Ref: R/256 (13) Location: Abo Greda, Farasqour, Domyat, Delta, Egypt Date collected: 08/03/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Buffalo Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-17.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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/16/2012	EGY12-16	648	648	0	100.00	0.00	VII	Ghb-12
2	SAT2/EGY/10/2012 (JX570623)	EGY12-10	648	645	0	99.54	0.46	VII	Ghb-12
3	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	645	0	99.54	0.46	VII	Ghb-12
4	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	645	0	99.54	0.46	VII	Ghb-12
5	SAT2/EGY/21/2012	EGY12-21	648	645	0	99.54	0.46	VII	Ghb-12
6	SAT2/EGY/22/2012	EGY12-22	648	645	0	99.54	0.46	VII	Ghb-12
7	SAT2/EGY/31/2012	EGY12-31	648	645	0	99.54	0.46	VII	Ghb-12
8	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	645	0	99.54	0.46	VII	Ghb-12
9	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	645	0	99.54	0.46	VII	Ghb-12
10	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	645	0	99.54	0.46	VII	Ghb-12
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 (JX570616)	CAR05-08	648	579	0	89.35	10.65	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	577	1	89.18	10.82	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	485	0	74.85	25.15	IX	unnamed
5	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	479	0	74.61	25.39	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	475	0	73.30	26.70	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	470	1	72.64	27.36	X	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2 WRLFMD Ref No: EGY/21/2012 Batch No: WRLFMD/2012/00032 Sender Ref: R/291 (15) Location: Fwa, Sendion, Kafr El Sheikh, Delta, Egypt Date collected: 13/03/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-21.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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 (JX570623)	EGY12-10	648	648	0	100.00	0.00	VII	Ghb-12
2	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	648	0	100.00	0.00	VII	Ghb-12
3	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	648	0	100.00	0.00	VII	Ghb-12
4	SAT2/EGY/22/2012	EGY12-22	648	648	0	100.00	0.00	VII	Ghb-12
5	SAT2/EGY/31/2012	EGY12-31	648	648	0	100.00	0.00	VII	Ghb-12
6	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	648	0	100.00	0.00	VII	Ghb-12
7	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	648	0	100.00	0.00	VII	Ghb-12
8	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	648	0	100.00	0.00	VII	Ghb-12
9	SAT2/EGY/11/2012 (JX570624)	EGY12-11	648	647	0	99.85	0.15	VII	Ghb-12
10	SAT2/EGY/13/2012 (JX570625)	EGY12-13	648	647	0	99.85	0.15	VII	Ghb-12
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 (JX570616)	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

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Serotype: SAT2 WRLFMD Ref No: EGY/22/2012 Batch No: WRLFMD/2012/00032 Sender Ref: R/291 (14) Location: Fwa, Sendion, Kafr El Sheikh, Delta, Egypt Date collected: 13/03/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-22.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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 (JX570623)	EGY12-10	648	648	0	100.00	0.00	VII	Ghb-12
2	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	648	0	100.00	0.00	VII	Ghb-12
3	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	648	0	100.00	0.00	VII	Ghb-12
4	SAT2/EGY/21/2012	EGY12-21	648	648	0	100.00	0.00	VII	Ghb-12
5	SAT2/EGY/31/2012	EGY12-31	648	648	0	100.00	0.00	VII	Ghb-12
6	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	648	0	100.00	0.00	VII	Ghb-12
7	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	648	0	100.00	0.00	VII	Ghb-12
8	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	648	0	100.00	0.00	VII	Ghb-12
9	SAT2/EGY/11/2012 (JX570624)	EGY12-11	648	647	0	99.85	0.15	VII	Ghb-12
10	SAT2/EGY/13/2012 (JX570625)	EGY12-13	648	647	0	99.85	0.15	VII	Ghb-12
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 (JX570616)	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

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Serotype: SAT2	Report date: 03/11/2012
WRLFMD Ref No: EGY/28/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00032	Checked by: D.P. King
Sender Ref: SUR/16 (19)	
Location: Manzala, El Daqahleya, Delta, Egypt	Topotype: VII
Date collected: 17/05/2012	Genotype/strain: Ghb-12
Date received by WRLFMD: 02/10/2012	Sequence filename: EGY12-28.SEQ
Date received for sequencing: 22/10/2012	Date sequence last updated: 02/11/2012
Species: Cattle	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: 568
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 32 days
	Sequencing time: 12 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 (JX570623)	EGY12-10	648	646	0	99.69	0.31	VII	Ghb-12
2	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	646	0	99.69	0.31	VII	Ghb-12
3	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	646	0	99.69	0.31	VII	Ghb-12
4	SAT2/EGY/21/2012	EGY12-21	648	646	0	99.69	0.31	VII	Ghb-12
5	SAT2/EGY/22/2012	EGY12-22	648	646	0	99.69	0.31	VII	Ghb-12
6	SAT2/EGY/31/2012	EGY12-31	648	646	0	99.69	0.31	VII	Ghb-12
7	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	646	0	99.69	0.31	VII	Ghb-12
8	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	646	0	99.69	0.31	VII	Ghb-12
9	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	646	0	99.69	0.31	VII	Ghb-12
10	SAT2/EGY/11/2012 (JX570624)	EGY12-11	648	645	0	99.54	0.46	VII	Ghb-12
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	580	1	89.64	10.36	VII	unnamed
2	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	580	0	89.51	10.49	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	476	0	74.14	25.86	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/NIG/2/75 (AF367139)	NIG75-02	648	471	0	72.69	27.31	V	unnamed
9	SAT2/SA/106/59 (AY593848)	RSA59--A	648	471	0	72.69	27.31	I	unnamed
10	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	471	0	72.69	27.31	XII	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: EGY/29/2012 Batch No: WRLFMD/2012/00032 Sender Ref: SUR/13 (18) Location: Rawda, Faras Qour, Domyat, Delta, Egypt Date collected: 19/05/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-29.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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 (JX570623)	EGY12-10	648	646	0	99.69	0.31	VII	Ghb-12
2	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	646	0	99.69	0.31	VII	Ghb-12
3	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	646	0	99.69	0.31	VII	Ghb-12
4	SAT2/EGY/21/2012	EGY12-21	648	646	0	99.69	0.31	VII	Ghb-12
5	SAT2/EGY/22/2012	EGY12-22	648	646	0	99.69	0.31	VII	Ghb-12
6	SAT2/EGY/31/2012	EGY12-31	648	646	0	99.69	0.31	VII	Ghb-12
7	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	646	0	99.69	0.31	VII	Ghb-12
8	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	646	0	99.69	0.31	VII	Ghb-12
9	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	646	0	99.69	0.31	VII	Ghb-12
10	SAT2/EGY/11/2012 (JX570624)	EGY12-11	648	645	0	99.54	0.46	VII	Ghb-12
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 (JX570616)	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	487	0	75.15	24.85	IX	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	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/SA/106/59 (AY593848)	RSA59--A	648	471	0	72.69	27.31	I	unnamed
9	SAT2/MAL/1/2003	MAL03-01	648	470	0	72.53	27.47	I	unnamed
10	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	470	0	72.53	27.47	XII	unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: SAT2 WRLFMD Ref No: EGY/31/2012 Batch No: WRLFMD/2012/00032 Sender Ref: SUR/21 (20) Location: Kafr El Tagi, Kafr El Sheikh, Kafr El Sheikh, Delta, Egypt Date collected: 21/05/2012 Date received by WRLFMD: 02/10/2012 Date received for sequencing: 22/10/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: SAT2-1C445F/SAT-2B208R SAT2-P1-1223F/SAT-2B208R	Report date: 03/11/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: VII Genotype/strain: Ghb-12 Sequence filename: EGY12-31.SEQ Date sequence last updated: 02/11/2012 No. of Nt determined: 648 No. of ambiguities: 0 Gene length: 648 Total no. of comparisons: 568 Min. no. of nt for comparison: 600 Total turn-around time: 32 days Sequencing time: 12 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 (JX570623)	EGY12-10	648	648	0	100.00	0.00	VII	Ghb-12
2	SAT2/EGY/14/2012 (JX570626)	EGY12-14	648	648	0	100.00	0.00	VII	Ghb-12
3	SAT2/EGY/15/2012 (JX570627)	EGY12-15	648	648	0	100.00	0.00	VII	Ghb-12
4	SAT2/EGY/21/2012	EGY12-21	648	648	0	100.00	0.00	VII	Ghb-12
5	SAT2/EGY/22/2012	EGY12-22	648	648	0	100.00	0.00	VII	Ghb-12
6	SAT2/EGY/6/2012 (JX570621)	EGY12-06	648	648	0	100.00	0.00	VII	Ghb-12
7	SAT2/EGY/7/2012* (JX013978)	EGY12-AB	648	648	0	100.00	0.00	VII	Ghb-12
8	SAT2/PAT/1/2012 (JX570637)	PAT12-01	648	648	0	100.00	0.00	VII	Ghb-12
9	SAT2/EGY/11/2012 (JX570624)	EGY12-11	648	647	0	99.85	0.15	VII	Ghb-12
10	SAT2/EGY/13/2012 (JX570625)	EGY12-13	648	647	0	99.85	0.15	VII	Ghb-12
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 (JX570616)	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

Assembled with Report Generator v4.1

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Report on FMDV SAT 2 in Egypt in 2012

Batch: WRLFMD/2012/00032

◆ 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

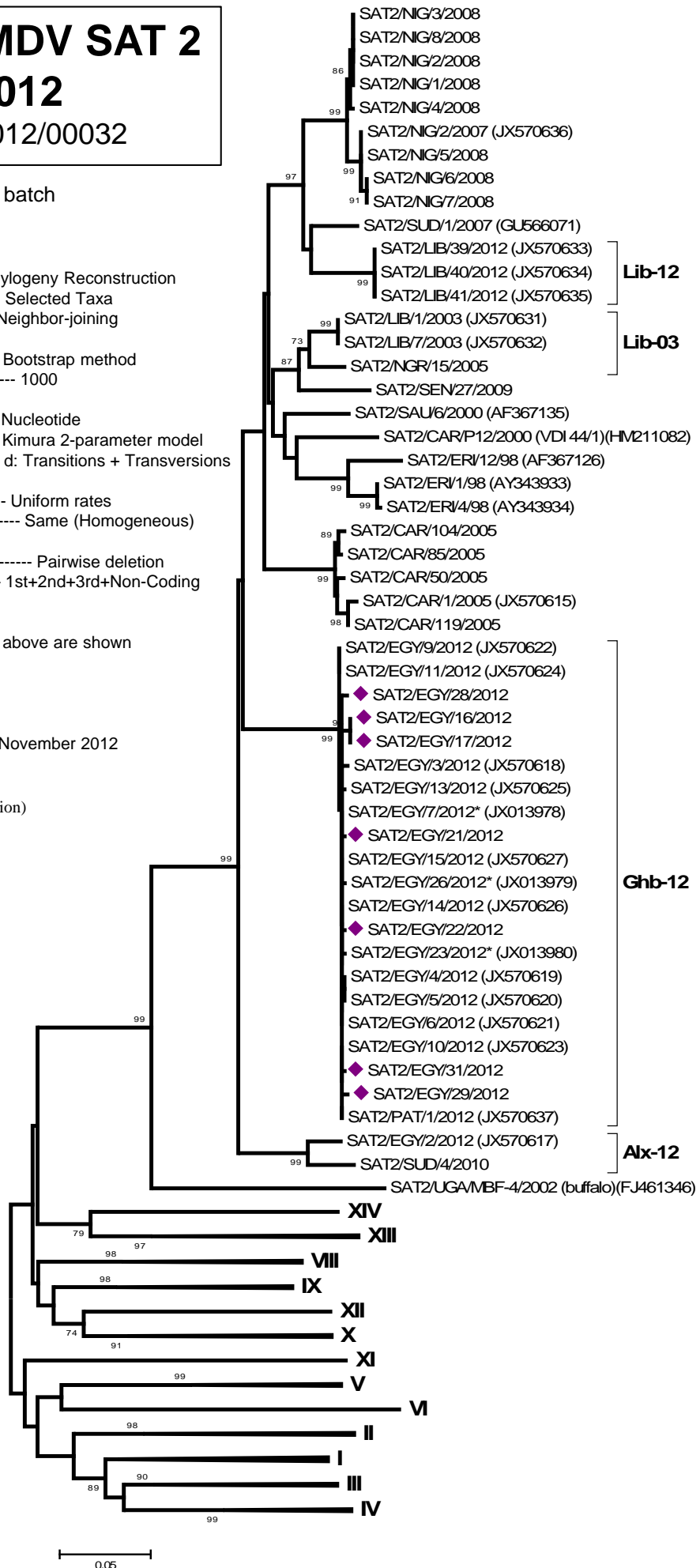
Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 03 November 2012

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