

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

Genotyping Report

Report Date for this Batch: 18 June 2014

FMDV type A

Country: Egypt

Period: 2013

No. of samples: 2

BATCH: WRLFMD/2014/00017



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FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: EGY/21/2013 Batch No: WRLFMD/2014/00017 Sender Ref: 30 Location: El Mashroa, El Ganain, Suez, Egypt Date collected: 11/02/2013 Date received by WRLFMD: 23/04/2014 Date received for sequencing: 19/05/2014 Species: Cattle Material used: BTy1 29/04/2014 & BTy2 03/05/2014 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 11/06/2014 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Iran-05 ^{BAR-08} Sequence filename: EGY13-21.SEQ Date sequence last updated: 22/05/2014 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1942 Min. no. of nt for comparison: 600 Total turn-around time: 49 days Sequencing time: 23 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/EGY/11/2013	EGY13-11	639	638	0	99.84	0.16	ASIA	Iran-05 ^{BAR-08}
2	A/EGY/12/2013	EGY13-12	639	638	0	99.84	0.16	ASIA	Iran-05 ^{BAR-08}
3	A/EGY/15/2013	EGY13-15	639	638	0	99.84	0.16	ASIA	Iran-05 ^{BAR-08}
4	A/PAT/10/2013	PAT13-10	639	637	0	99.69	0.31	ASIA	Iran-05 ^{BAR-08}
5	A/PAT/11/2013	PAT13-11	639	637	0	99.69	0.31	ASIA	Iran-05 ^{BAR-08}
6	A/PAT/12/2013	PAT13-12	639	637	0	99.69	0.31	ASIA	Iran-05 ^{BAR-08}
7	A/EGY/13/2013	EGY13-13	639	636	0	99.53	0.47	ASIA	Iran-05 ^{BAR-08}
8	A/EGY/14/2013	EGY13-14	639	636	0	99.53	0.47	ASIA	Iran-05 ^{BAR-08}
9	A/EGY/6/2013	EGY13-06	639	636	0	99.53	0.47	ASIA	Iran-05 ^{BAR-08}
10	A/EGY/17/2013	EGY13-17	639	635	0	99.37	0.63	ASIA	Iran-05 ^{BAR-08}
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	A/BAR/6/2008 (FJ755010)	BAR08-06	639	610	0	95.46	4.54	ASIA	Iran-05 ^{BAR-08}
2	A/AFG/6/2007 (FJ755007)	AFG07-06	639	601	0	94.05	5.95	ASIA	Iran-05 ^{AFG-07}
3	A/IRN/1/2005 (EF208769)	IRN05-01	639	600	0	93.90	6.10	ASIA	Iran-05
4	A/IRN/78/2009	IRN09-78	639	597	0	93.43	6.57	ASIA	Iran-05 ^{FAR-09}
5	A/TUR/1/2008 (FJ755133)	TUR08-01	639	595	0	93.11	6.89	ASIA	Iran-05 ^{ARD-07}
6	A/TUR/33/2008 (FJ755155)	TUR08-33	639	595	0	93.11	6.89	ASIA	Iran-05 ^{EZM-07}
7	A/AFG/10/2010	AFG10-10	639	594	0	92.96	7.04	ASIA	Iran-05 ^{HER-10}
8	A/IRN/1/2011	IRN11-01	639	592	0	92.64	7.36	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/15/2012	IRN12-15	639	592	0	92.64	7.36	ASIA	Iran-05 ^{SIS-12}
10	A/IRN/125/2010	IRN10125	639	590	0	92.33	7.67	ASIA	Iran-05 ^{SIS-10}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: EGY/22/2013 Batch No: WRLFMD/2014/00017 Sender Ref: 1 Location: Orabi, El Ameria, Alexandria, Egypt Date collected: 05/10/2013 Date received by WRLFMD: 23/04/2014 Date received for sequencing: 05/06/2014 Species: Cattle Material used: BTy1 02/05/2014 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 11/06/2014 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Iran-05 ^{BAR-08} Sequence filename: EGY13-22.SEQ Date sequence last updated: 09/06/2014 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1942 Min. no. of nt for comparison: 600 Total turn-around time: 49 days Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/EGY/11/2013	EGY13-11	639	630	0	98.59	1.41	ASIA	Iran-05 ^{BAR-08}
2	A/EGY/12/2013	EGY13-12	639	630	0	98.59	1.41	ASIA	Iran-05 ^{BAR-08}
3	A/EGY/15/2013	EGY13-15	639	630	0	98.59	1.41	ASIA	Iran-05 ^{BAR-08}
4	A/EGY/21/2013	EGY13-21	639	629	0	98.44	1.56	ASIA	Iran-05 ^{BAR-08}
5	A/EGY/3/2013	EGY13-03	639	629	0	98.44	1.56	ASIA	Iran-05 ^{BAR-08}
6	A/PAT/10/2013	PAT13-10	639	629	0	98.44	1.56	ASIA	Iran-05 ^{BAR-08}
7	A/PAT/11/2013	PAT13-11	639	629	0	98.44	1.56	ASIA	Iran-05 ^{BAR-08}
8	A/PAT/12/2013	PAT13-12	639	629	0	98.44	1.56	ASIA	Iran-05 ^{BAR-08}
9	A/EGY/13/2013	EGY13-13	639	628	0	98.28	1.72	ASIA	Iran-05 ^{BAR-08}
10	A/EGY/14/2013	EGY13-14	639	628	0	98.28	1.72	ASIA	Iran-05 ^{BAR-08}
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	A/BAR/6/2008 (FJ755010)	BAR08-06	639	606	0	94.84	5.16	ASIA	Iran-05 ^{BAR-08}
2	A/AFG/6/2007 (FJ755007)	AFG07-06	639	597	0	93.43	6.57	ASIA	Iran-05 ^{AFG-07}
3	A/IRN/1/2005 (EF208769)	IRN05-01	639	596	0	93.27	6.73	ASIA	Iran-05
4	A/IRN/78/2009	IRN09-78	639	593	0	92.80	7.20	ASIA	Iran-05 ^{FAR-09}
5	A/TUR/1/2008 (FJ755133)	TUR08-01	639	591	0	92.49	7.51	ASIA	Iran-05 ^{ARD-07}
6	A/TUR/33/2008 (FJ755155)	TUR08-33	639	591	0	92.49	7.51	ASIA	Iran-05 ^{EZM-07}
7	A/AFG/10/2010	AFG10-10	639	590	0	92.33	7.67	ASIA	Iran-05 ^{HER-10}
8	A/IRN/125/2010	IRN10125	639	588	0	92.02	7.98	ASIA	Iran-05 ^{SIS-10}
9	A/IRN/15/2012	IRN12-15	639	588	0	92.02	7.98	ASIA	Iran-05 ^{SIS-12}
10	A/IRN/1/2011	IRN11-01	639	586	0	91.71	8.29	ASIA	Iran-05 ^{FAR-11}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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Report on FMDV A in Egypt in 2013

Batch: WRLFMD/2014/00017

◆ indicates viruses in this batch

Software: MEGA 6.06

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 : 639

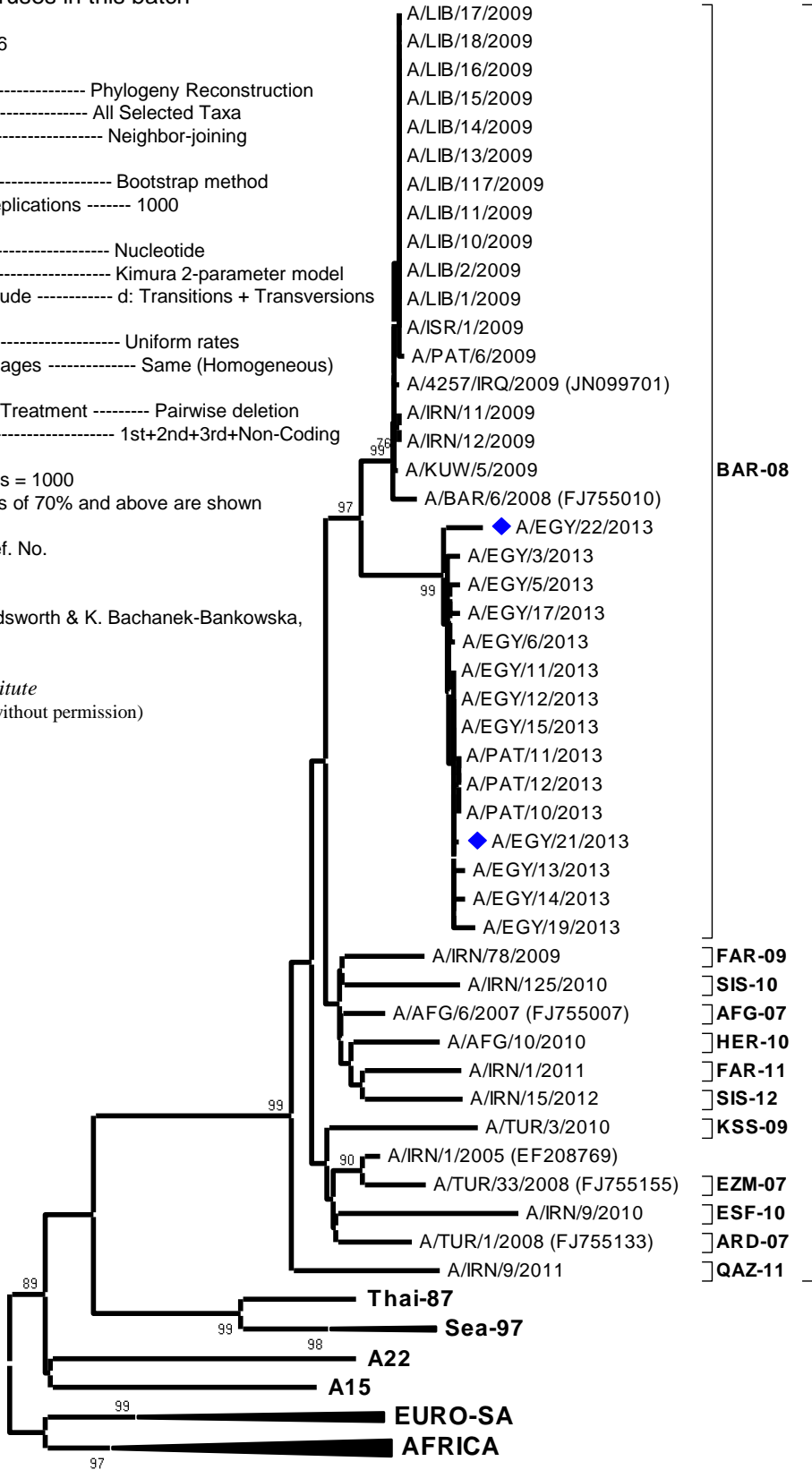
No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska,
16 June 2014

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BAR-08

Iran-05

ASIA

FAR-09

SIS-10

AFG-07

HER-10

FAR-11

SIS-12

KSS-09

EZM-07

ESF-10

ARD-07

QAZ-11

0.02