

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

Genotyping Report

Report Date for this Batch: 18 February 2014

FMDV type A

Country: Russian Federation

Period: 2014

No. of sequences: 2 (VP1)

Originator: ██████████ Federal Centre for Animal
Health (FGI ARRIAH), Yur'evets, Vladimir, 600900, Russia,
600900 Yur'evets.



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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: Zabaikalsky/1/RUS/2014* Batch No: WRLMEG/2014/00003 Sender Ref: A/Zabaikalsky/1/RUS/2014 Location: Duroy, Priargunsky, Zabaikalsky krai, Russia Date collected: 27/01/2013 Date received by WRLFMD: 18/02/2014 Date received for sequencing: n/a Species: Cattle Material used: epithelium Region sequenced: VP1 RT-PCR primers: Not known	Report date: 18/02/2014 Reported by: N.J. Knowles Checked by: B. Valdazo-Gonzalez Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: RUS14-AA.SEQ Date sequence last updated: 18/02/2014 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 1845 Min. no. of nt for comparison: 600 Total turn-around time: 0 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/Zabaikalsky/6/RUS/2013 (ARRIAH)	RUS13-AL	636	633	0	99.53	0.47	ASIA	Sea-97
2	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	630	0	99.06	0.94	ASIA	Sea-97
3	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	630	0	99.06	0.94	ASIA	Sea-97
4	A/GDMM-CHA-2013-S (LVRI)	CHA13-AA	636	628	0	98.74	1.26	ASIA	Sea-97
5	A/Zabaikalsky/RUS/2013 (ARRIAH)	RUS13-AA	636	628	0	98.74	1.26	ASIA	Sea-97
6	A/Amur/3/RUS/2013 (ARRIAH)	RUS13-AI	636	627	0	98.58	1.42	ASIA	Sea-97
7	A/KAZ/2/2013* (ARRIAH)	KAZ13-AB	636	627	0	98.58	1.42	ASIA	Sea-97
8	A/Amur/RUS/2013* (ARRIAH)	RUS13-AG	636	626	0	98.43	1.57	ASIA	Sea-97
9	A/MOG/11/2013	MOG13-11	636	626	0	98.43	1.57	ASIA	Sea-97
10	A/MOG/12/2013	MOG13-12	636	626	0	98.43	1.57	ASIA	Sea-97
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/TAI/7/2003 (HQ116312)	TAI03-07	636	590	0	92.77	7.23	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	568	0	89.31	10.69	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	552	0	86.79	13.21	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A22
5	A/IRN/2/87 (EF208770)	IRN87-02	633	516	0	81.52	18.48	ASIA	Iran-87
6	A/GHA/16/73 (KF561698)	GHA73-16	633	511	0	80.73	19.27	AFRICA	G-VI
7	A/IRN/78/2009	IRN09-78	636	513	0	80.66	19.34	ASIA	Iran-05 ^{FAR-09}
8	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	513	0	80.66	19.34	ASIA	A15
9	A/BAR/6/2008 (FJ755010)	BAR08-06	636	512	0	80.50	19.50	ASIA	Iran-05 ^{BAR-08}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	512	0	80.50	19.50	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

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

Page 1 of 1

Serotype: A WRLFMD Ref No: Zabaikalsky/2/RUS/2014* Batch No: WRLMEG/2014/00003 Sender Ref: A/Zabaikalsky/2/RUS/2014 Location: Kulusutai, Ononsky, Zabaikalsky krai, Russia Date collected: 11/02/2013 Date received by WRLFMD: 18/02/2014 Date received for sequencing: n/a Species: Cattle Material used: epithelium Region sequenced: VP1 RT-PCR primers: Not known	Report date: 18/02/2014 Reported by: N.J. Knowles Checked by: B. Valdazo-Gonzalez Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: RUS14-AC.SEQ Date sequence last updated: 18/02/2014 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 1845 Min. no. of nt for comparison: 600 Total turn-around time: 0 days
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2	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	624	0	98.11	1.89	ASIA	Sea-97
3	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	624	0	98.11	1.89	ASIA	Sea-97
4	A/GDMM-CHA-2013-S (LVRI)	CHA13-AA	636	624	0	98.11	1.89	ASIA	Sea-97
5	A/Zabaikalsky/RUS/2013 (ARRIAH)	RUS13-AA	636	624	0	98.11	1.89	ASIA	Sea-97
6	A/Amur/3/RUS/2013 (ARRIAH)	RUS13-AI	636	623	0	97.96	2.04	ASIA	Sea-97
7	A/KAZ/2/2013* (ARRIAH)	KAZ13-AB	636	623	0	97.96	2.04	ASIA	Sea-97
8	A/VIT/25/2012	VIT12-25	636	623	0	97.96	2.04	ASIA	Sea-97
9	A/Amur/RUS/2013* (ARRIAH)	RUS13-AG	636	622	0	97.80	2.20	ASIA	Sea-97
10	A/MOG/11/2013	MOG13-11	636	622	0	97.80	2.20	ASIA	Sea-97
Most Closely Related Reference Viruses									
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2	A/TAI/2/97 (EF208778)	TAI97-02	636	569	0	89.47	10.53	ASIA	Sea-97
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5	A/IRN/2/87 (EF208770)	IRN87-02	633	516	0	81.52	18.48	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	514	0	80.82	19.18	ASIA	Iran-05 ^{FAR-11}
7	A/IRN/78/2009	IRN09-78	636	514	0	80.82	19.18	ASIA	Iran-05 ^{FAR-09}
8	A/TUR/1/2008 (FJ755133)	TUR08-01	636	513	0	80.66	19.34	ASIA	Iran-05 ^{ARD-07}
9	A/TUR/33/2008 (FJ755155)	TUR08-33	636	513	0	80.66	19.34	ASIA	Iran-05 ^{EZM-07}
10	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	513	0	80.66	19.34	ASIA	A15

nt, nucleotides

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Report on FMDV A in the Russian Federation in 2014

Batch: WRLMEG/2014/00003

◆ 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

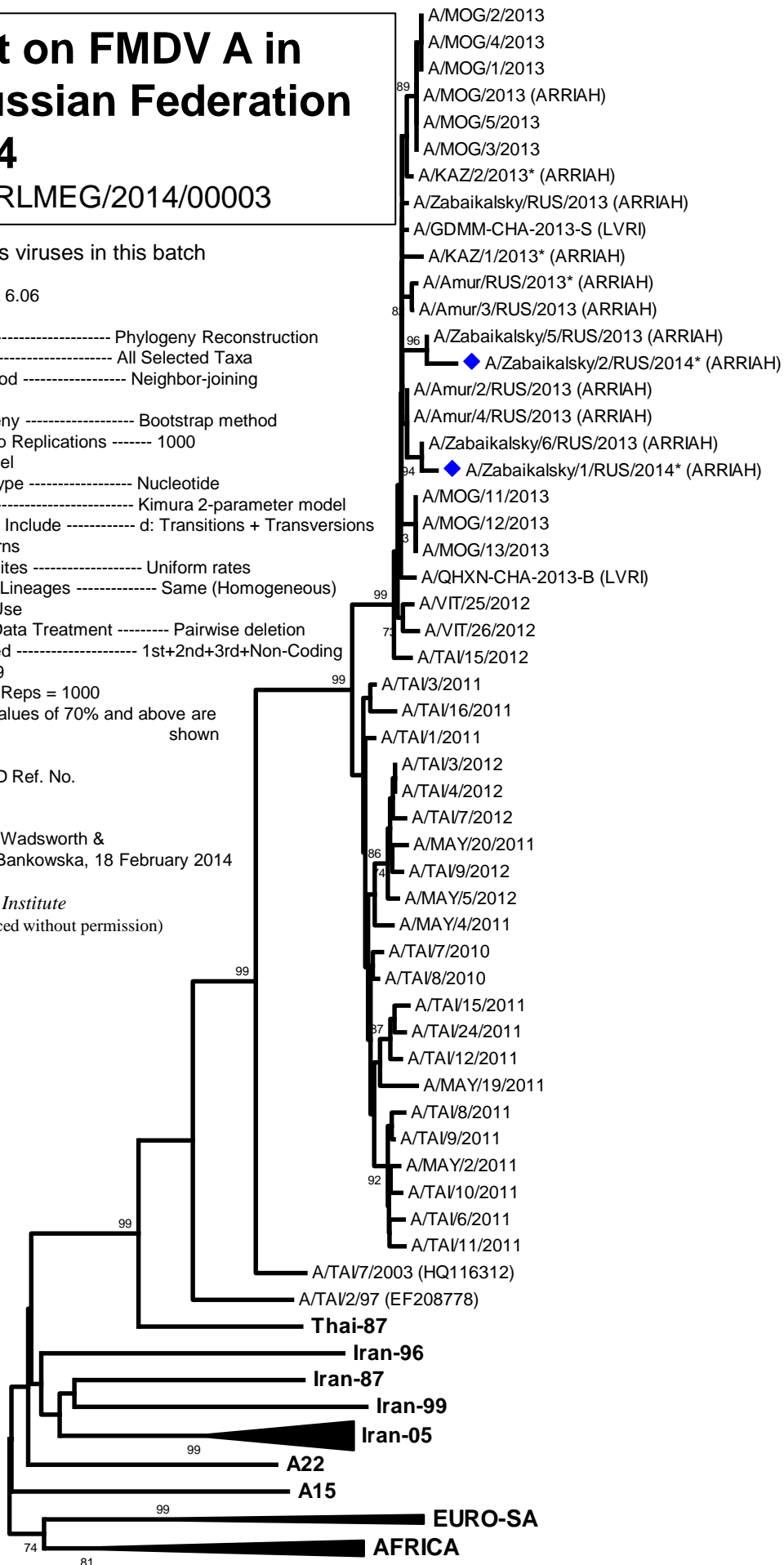
*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth &

K. Bachanek-Bankowska, 18 February 2014

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Sea-97

ASIA

0.02