

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

Genotyping Report

Report Date for this Batch: 20 December 2013

FMDV type O

Country: Israel

Period: 2013

No. of samples: 3

BATCH: WRLFMD/2013/000028



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FAO World Reference Laboratory for FMD Genotyping Report

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

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Serotype: O	Report date: 20/12/2013
WRLFMD Ref No: ISR/1/2013	Reported by: N.J. Knowles
Batch No: WRLFMD/2013/00028	Checked by: K. Bachanek-Bankowska
Sender Ref: 183966 cattle 1	
Location: Majdal Shams, Golan, Hazafon, Israel	Topotype: ME-SA
Date collected: 17/11/2013	Genotype/strain: PanAsia-2 ^{FAR-09}
Date received by WRLFMD: 04/12/2013	Sequence filename: ISR13-01.SEQ
Date received for sequencing: 17/12/2013	Date sequence last updated: 20/12/2013
Species: Cattle	No. of Nt determined: 639
Material used: 10% epi susp 04/12/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 3749
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 16 days
	Sequencing time: 3 days

Comments: This sequence differs from O/PAT/13/2013 and O/PAT/14/2013 by 11 nt (1.72%)

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/ISR/2/2013	ISR13-02	639	639	0	100.00	0.00	ME-SA	PanAsia-2 ^{FAR-09}
2	O/ISR/3/2013	ISR13-03	639	639	0	100.00	0.00	ME-SA	PanAsia-2 ^{FAR-09}
3	O/TUR/12/2013	TUR13-12	639	631	0	98.75	1.25	ME-SA	PanAsia-2 ^{FAR-09}
4	O/TUR/26/2013	TUR13-26	639	631	0	98.75	1.25	ME-SA	PanAsia-2 ^{FAR-09}
5	O/TUR/38/2013	TUR13-38	639	631	0	98.75	1.25	ME-SA	PanAsia-2 ^{FAR-09}
6	O/TUR/25/2013	TUR13-25	639	630	0	98.59	1.41	ME-SA	PanAsia-2 ^{FAR-09}
7	O/TUR/33/2013	TUR13-33	639	630	0	98.59	1.41	ME-SA	PanAsia-2 ^{FAR-09}
8	O/TUR/37/2013	TUR13-37	639	630	0	98.59	1.41	ME-SA	PanAsia-2 ^{FAR-09}
9	O/TUR/24/2013	TUR13-24	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{FAR-09}
10	O/TUR/27/2013	TUR13-27	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{FAR-09}

Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
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1	O/IRN/31/2009	IRN09-31	639	627	0	98.12	1.88	ME-SA	PanAsia-2 ^{FAR-09}
2	O/IRN/18/2010	IRN10-18	639	603	0	94.37	5.63	ME-SA	PanAsia-2 ^{BAL-09}
3	O/TUR/257/2008* (FMDI)	TUR08-AD	639	601	0	94.05	5.95	ME-SA	PanAsia-2 ^{TER-08}
4	O/IRN/8/2005	IRN05-08	639	599	0	93.74	6.26	ME-SA	PanAsia-2
5	O/PAK/16/2010	PAK10-16	639	598	0	93.58	6.42	ME-SA	PanAsia-2 ^{PUN-10}
6	O/TUR/264/2009* (FMDI)	TUR09-AK	639	598	0	93.58	6.42	ME-SA	PanAsia-2 ^{SAN-09}
7	O/IRN/88/2009	IRN09-88	639	594	0	92.96	7.04	ME-SA	PanAsia-2 ^{ANT-10}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	591	0	92.49	7.51	ME-SA	PanAsia
9	O/KUW/3/97 (DQ164904)	KUW97-03	639	576	0	90.14	9.86	ME-SA	Ind-2001a
10	O/OMN/7/2001 (DQ164941)	OMN01-07	639	573	0	89.67	10.33	ME-SA	Ind-2001b

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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Serotype: O WRLFMD Ref No: ISR/2/2013 Batch No: WRLFMD/2013/00028 Sender Ref: 183966 cattle 2 Location: Majdal Shams, Golan, Hazafon, Israel Date collected: 17/11/2013 Date received by WRLFMD: 04/12/2013 Date received for sequencing: 17/12/2013 Species: Cattle Material used: 10% epi susp 04/12/2013 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 20/12/2013 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ME-SA Genotype/strain: PanAsia-2 ^{FAR-09} Sequence filename: ISR13-02.SEQ Date sequence last updated: 20/12/2013 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 3749 Min. no. of nt for comparison: 600 Total turn-around time: 16 days Sequencing time: 3 days
Comments: This sequence differs from O/PAT/13/2013 and O/PAT/14/2013 by 11 nt (1.72%)	

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Serotype: O WRLFMD Ref No: ISR/3/2013 Batch No: WRLFMD/2013/00028 Sender Ref: 183966-3 Cattle 2 Location: Majdal Shams, Golan, Hazafon, Israel Date collected: 17/11/2013 Date received by WRLFMD: 04/12/2013 Date received for sequencing: 17/12/2013 Species: Cattle Material used: 10% epi susp 04/12/2013 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 20/12/2013 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ME-SA Genotype/strain: PanAsia-2 ^{FAR-09} Sequence filename: ISR13-03.SEQ Date sequence last updated: 20/12/2013 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 3749 Min. no. of nt for comparison: 600 Total turn-around time: 16 days Sequencing time: 3 days
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Report on FMDV O in Israel in 2013

Batch: WRLFMD/2013/00028

◆ indicates viruses in this batch

Software: MEGA 5.2

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 : 642

No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

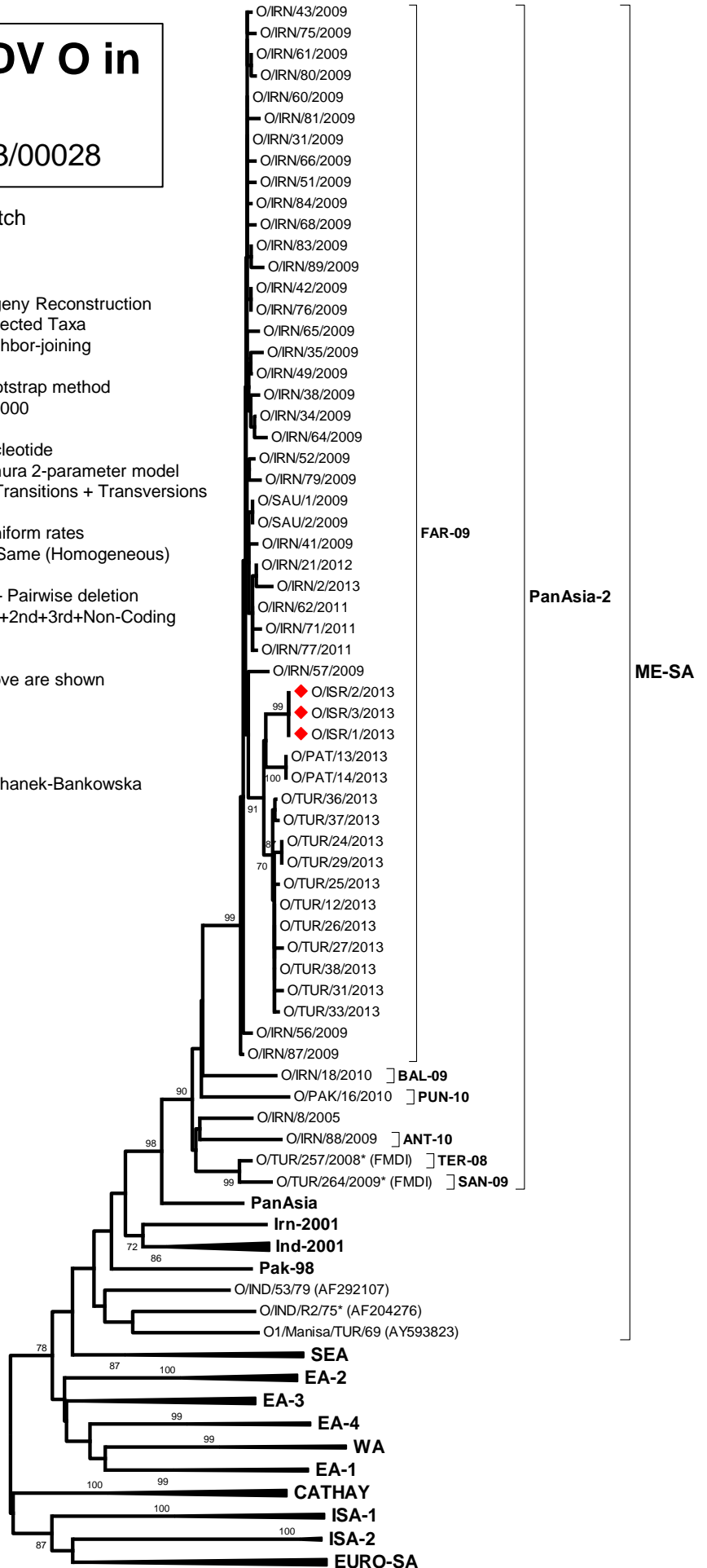
*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska

20 December 2013

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