

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

## Genotyping Report

Report Date for this Batch: 11 May 2016

FMDV type O

Country: United Arab Emirates

Period: 2016

No. of samples: 5

BATCH: WRLFMD/2016/00012



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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 WRLFMD Ref No: UAE/1/2016 Batch No: WRLFMD/2016/00012 Sender Ref: D517.1/16 Location: Al-Tawalaa, Al maddam, Sharjah, United Arab Emirates Date collected: 16/02/2016 Date received by WRLFMD: 20/04/2016 Date received for sequencing: 09/05/2016 Species: Cattle Material used: BTy1 21/04/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 11/05/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ME-SA Genotype/strain: Ind-2001d Sequence filename: UAE16-01.SEQ Date sequence last updated: 11/05/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4303 Min. no. of nt for comparison: 600 Total turn-around time: 21 days Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/UAE/2/2016	UAE16-02	639	638	0	99.84	0.16	ME-SA	Ind-2001d
2	O/UAE/3/2016	UAE16-03	639	638	0	99.84	0.16	ME-SA	Ind-2001d
3	O/UAE/4/2016	UAE16-04	639	638	0	99.84	0.16	ME-SA	Ind-2001d
4	O/UAE/5/2016	UAE16-05	639	638	0	99.84	0.16	ME-SA	Ind-2001d
5	O/NEP/17/2015	NEP15-17	639	633	0	99.06	0.94	ME-SA	Ind-2001d
6	O/NEP/19/2015	NEP15-19	639	633	0	99.06	0.94	ME-SA	Ind-2001d
7	O/NEP/14/2015	NEP15-14	639	630	0	98.59	1.41	ME-SA	Ind-2001d
8	O/NEP/15/2015	NEP15-15	639	630	0	98.59	1.41	ME-SA	Ind-2001d
9	O/SAU/1/2016	SAU16-01	639	630	0	98.59	1.41	ME-SA	Ind-2001d
10	O/NEP/10/2015	NEP15-10	639	629	0	98.44	1.56	ME-SA	Ind-2001d
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
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2	O/OMN/7/2001 (DQ164941)	OMN01-07	639	593	0	92.80	7.20	ME-SA	Ind-2001b
3	O/KUW/3/97 (DQ164904)	KUW97-03	639	585	0	91.55	8.45	ME-SA	Ind-2001a
4	O/UAE/4/2008 (KM921876)	UAE08-04	636	573	0	90.09	9.91	ME-SA	Ind-2001c
5	O/UKG/35/2001 (AJ539141)	UKG01-35	639	569	0	89.05	10.95	ME-SA	PanAsia
6	O/IRN/31/2009	IRN09-31	639	566	0	88.58	11.42	ME-SA	PanAsia-2 <sup>FAR-09</sup>
7	O/IRN/8/2005	IRN05-08	639	562	0	87.95	12.05	ME-SA	PanAsia-2
8	O/PAK/16/2010	PAK10-16	639	562	0	87.95	12.05	ME-SA	PanAsia-2 <sup>PUN-10</sup>
9	O/IRN/88/2009	IRN09-88	639	561	0	87.79	12.21	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	561	0	87.79	12.21	ME-SA	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: O WRLFMD Ref No: UAE/2/2016 Batch No: WRLFMD/2016/00012 Sender Ref: D517.2/16 Location: Al-Tawalaa, Al maddam, Sharjah, United Arab Emirates Date collected: 16/02/2016 Date received by WRLFMD: 20/04/2016 Date received for sequencing: 09/05/2016 Species: Cattle Material used: BTy1 21/04/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 11/05/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ME-SA Genotype/strain: Ind-2001d Sequence filename: UAE16-02.SEQ Date sequence last updated: 11/05/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4303 Min. no. of nt for comparison: 600 Total turn-around time: 21 days Sequencing time: 2 days
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3	O/UAE/5/2016	UAE16-05	639	639	0	100.00	0.00	ME-SA	Ind-2001d
4	O/UAE/1/2016	UAE16-01	639	638	0	99.84	0.16	ME-SA	Ind-2001d
5	O/NEP/17/2015	NEP15-17	639	634	0	99.22	0.78	ME-SA	Ind-2001d
6	O/NEP/19/2015	NEP15-19	639	634	0	99.22	0.78	ME-SA	Ind-2001d
7	O/SAU/1/2016	SAU16-01	639	631	0	98.75	1.25	ME-SA	Ind-2001d
8	O/NEP/10/2015	NEP15-10	639	630	0	98.59	1.41	ME-SA	Ind-2001d
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3	O/KUW/3/97 (DQ164904)	KUW97-03	639	584	0	91.39	8.61	ME-SA	Ind-2001a
4	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
5	O/UKG/35/2001 (AJ539141)	UKG01-35	639	568	0	88.89	11.11	ME-SA	PanAsia
6	O/IRN/31/2009	IRN09-31	639	565	0	88.42	11.58	ME-SA	PanAsia-2 <sup>FAR-09</sup>
7	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	562	0	87.95	12.05	ME-SA	unnamed
8	O/IRN/8/2005	IRN05-08	639	561	0	87.79	12.21	ME-SA	PanAsia-2
9	O/PAK/16/2010	PAK10-16	639	561	0	87.79	12.21	ME-SA	PanAsia-2 <sup>PUN-10</sup>
10	O/IRN/88/2009	IRN09-88	639	560	0	87.64	12.36	ME-SA	PanAsia-2 <sup>ANT-10</sup>

nt, nucleotides

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7	O/SAU/1/2016	SAU16-01	639	631	0	98.75	1.25	ME-SA	Ind-2001d
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nt, nucleotides

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# Report on FMDV O in the United Arab Emirates in 2016

Batch: WRLFMD/2016/00012

◆ 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 : 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,  
11 May 2016

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