

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

## Genotyping Report

Report Date for this Batch: 7 July 2015

FMDV type O

Country: Hong Kong SAR

Period: 2015

No. of samples: 2

BATCH: WRLFMD/2015/00011



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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: HKN/1/2015 Batch No: WRLFMD/2015/00011 Sender Ref: 15-05977, lot FMD 07/15 Location: Sheung Shui, New Territories, Hong Kong Date collected: 27/04/2015 Date received by WRLFMD: 29/05/2015 Date received for sequencing: 29/06/2015 Species: Pig Material used: RS1 07/06/2015 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 07/07/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: CATHAY Genotype/strain: unnamed Sequence filename: HKN15-01.SEQ Date sequence last updated: 06/07/2015 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4142 Min. no. of nt for comparison: 600 Total turn-around time: 39 days Sequencing time: 8 days
Comments:	

<b>Most Closely Related Viruses</b>									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/HKN/2/2015	HKN15-02	639	637	0	99.69	0.31	CATHAY	unnamed
2	O/HKN/15/2014	HKN14-15	639	635	0	99.37	0.63	CATHAY	unnamed
3	O/HKN/11/2014	HKN14-11	639	634	0	99.22	0.78	CATHAY	unnamed
4	O/HKN/4/2014	HKN14-04	639	632	0	98.90	1.10	CATHAY	unnamed
5	O/HKN/6/2014	HKN14-06	639	632	0	98.90	1.10	CATHAY	unnamed
6	O/HKN/13/2014	HKN14-13	639	631	0	98.75	1.25	CATHAY	unnamed
7	O/HKN/5/2014	HKN14-05	639	631	0	98.75	1.25	CATHAY	unnamed
8	O/HKN/7/2014	HKN14-07	639	630	0	98.59	1.41	CATHAY	unnamed
9	O/HKN/8/2014	HKN14-08	639	630	0	98.59	1.41	CATHAY	unnamed
10	O/HKN/1/2013 (KM243172)	HKN13-01	639	618	0	96.71	3.29	CATHAY	unnamed
<b>Most Closely Related Reference Viruses</b>									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/Yunlin/TAW/97 (AF308157)	TAW97--B	639	569	0	89.05	10.95	CATHAY	unnamed
2	O/PHI/7/96 (AJ294926;KM243058)	PHI96-07	639	566	0	88.58	11.42	CATHAY	unnamed
3	O/HKN/6/83 (AJ294919)	HKN83-06	637	547	2	85.87	14.13	CATHAY	unnamed
4	O/HKN/21/70 (AJ294911)	HKN70A21	637	523	2	82.10	17.90	CATHAY	unnamed
5	O/IND/53/79 (AF292107)	IND79A53	639	510	0	79.81	20.19	ME-SA	unnamed
6	O/UGA/17/98 (HM211075)	UGA98-17	639	510	0	79.81	20.19	EA-4	unnamed
7	O/TAN/2/2004 (KF561679)	TAN04-02	639	509	0	79.66	20.34	EA-2	unnamed
8	O/MAL/1/98 (DQ165074)	MAL98-01	639	508	0	79.50	20.50	EA-2	unnamed
9	O/UGA/3/2002 (DQ165077)	UGA02-03	639	508	0	79.50	20.50	EA-2	unnamed
10	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	508	0	79.50	20.50	ME-SA	unnamed

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

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Serotype: O WRLFMD Ref No: HKN/2/2015 Batch No: WRLFMD/2015/00011 Sender Ref: 15-06215(1), lot FMD 09/15 Location: Ma On Kong, Kam Tin, New Territories, Hong Kong Date collected: 28/04/2015 Date received by WRLFMD: 29/05/2015 Date received for sequencing: 29/06/2015 Species: Pig Material used: RS1 07/06/2015 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 07/07/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: CATHAY Genotype/strain: unnamed Sequence filename: HKN15-02.SEQ Date sequence last updated: 06/07/2015 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4142 Min. no. of nt for comparison: 600 Total turn-around time: 39 days Sequencing time: 8 days
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1	O/HKN/1/2015	HKN15-01	639	637	0	99.69	0.31	CATHAY	unnamed
2	O/HKN/15/2014	HKN14-15	639	633	0	99.06	0.94	CATHAY	unnamed
3	O/HKN/11/2014	HKN14-11	639	632	0	98.90	1.10	CATHAY	unnamed
4	O/HKN/4/2014	HKN14-04	639	630	0	98.59	1.41	CATHAY	unnamed
5	O/HKN/6/2014	HKN14-06	639	630	0	98.59	1.41	CATHAY	unnamed
6	O/HKN/13/2014	HKN14-13	639	629	0	98.44	1.56	CATHAY	unnamed
7	O/HKN/5/2014	HKN14-05	639	629	0	98.44	1.56	CATHAY	unnamed
8	O/HKN/7/2014	HKN14-07	639	628	0	98.28	1.72	CATHAY	unnamed
9	O/HKN/8/2014	HKN14-08	639	628	0	98.28	1.72	CATHAY	unnamed
10	O/HKN/1/2013 (KM243172)	HKN13-01	639	616	0	96.40	3.60	CATHAY	unnamed
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/PHI/7/96 (AJ294926;KM243058)	PHI96-07	639	564	0	88.26	11.74	CATHAY	unnamed
3	O/HKN/6/83 (AJ294919)	HKN83-06	637	547	2	85.87	14.13	CATHAY	unnamed
4	O/HKN/21/70 (AJ294911)	HKN70A21	637	521	2	81.79	18.21	CATHAY	unnamed
5	O/IND/53/79 (AF292107)	IND79A53	639	510	0	79.81	20.19	ME-SA	unnamed
6	O/UGA/17/98 (HM211075)	UGA98-17	639	508	0	79.50	20.50	EA-4	unnamed
7	O/UGA/3/2002 (DQ165077)	UGA02-03	639	508	0	79.50	20.50	EA-2	unnamed
8	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	508	0	79.50	20.50	ME-SA	unnamed
9	O/TAN/2/2004 (KF561679)	TAN04-02	639	507	0	79.34	20.66	EA-2	unnamed
10	O/MAL/1/98 (DQ165074)	MAL98-01	639	506	0	79.19	20.81	EA-2	unnamed

nt, nucleotides

\*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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# Report on FMDV O in Hong Kong SAR in 2015

Batch: WRLFMD/2015/00011

◆ 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

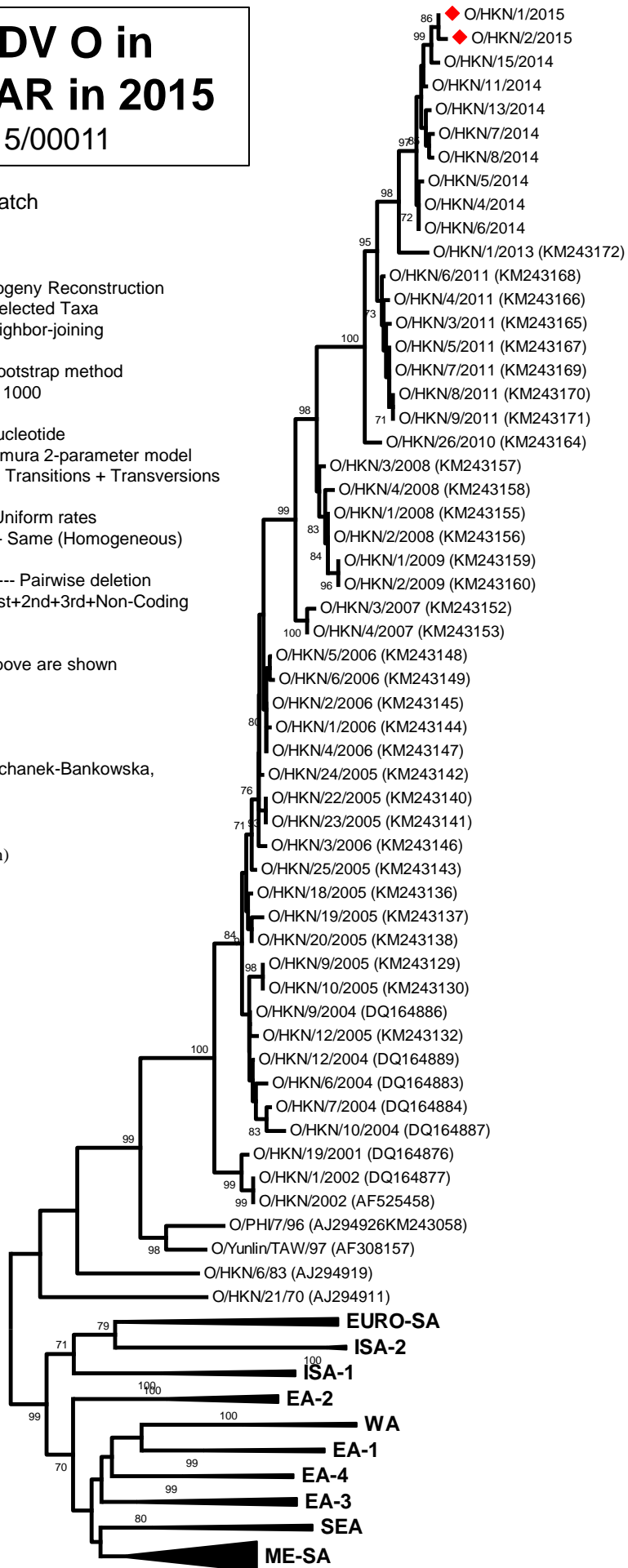
Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska,  
07 July 2015

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CATHAY

0.02