



INSTITUTE FOR ANIMAL HEALTH  
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath  
PIRBRIGHT LABORATORY  
Ash Road,  
Pirbright,  
Surrey,  
GU24 0NF  
Intn Tel: 00 44 1483 232441  
Tel: 01483 232441 Fax: 01483 232621

## FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2011/00047

Sender Details:



Date Received: 7th December 2011

Country of Origin: Hong Kong, Special Admin. Regi

Date Reported: 14th December 2011

Dear Dr Elaine Francis Lee

Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at:

<http://www.wrlfmd.org/>

Results Approved By:



Official Stamp:

Date:

14/12/11



A UKAS accredited testing laboratory No. 4025.

To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: [gareth.shimmon@iah.ac.uk](mailto:gareth.shimmon@iah.ac.uk). IAH actively seeks and appreciates feedback, if you would like to offer feedback please complete the WRLFMD survey here: <http://www.surveymonkey.com/s/WRLFMD>

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

## Genotyping Report

Report Date for this Batch: 14 December 2011

FMDV type O

Country: Hong Kong SAR

Period: 2011

No. of samples: 2

BATCH: WRLFMD/2011/00047



The contents of this report are copyright and should not be reproduced without permission

© Institute for Animal Health

# FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: O WRLFMD Ref No: HKN/8/2011 Batch No: WRLFMD/2011/00047 Sender Ref: FMD 03/11 11-05460 (1) Location: Not given, Hong Kong Date collected: 14/11/2011 Date received by WRLFMD: 07/12/2011 Date received for sequencing: 12/12/2011 Species: Pig Material used: RS1 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 14/12/2011 Reported by: N.J. Knowles Checked by: V. Mioulet  Topotype: CATHAY Genotype/strain: unnamed Sequence filename: HKN11-08.SEQ Date sequence last updated: 14/12/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 3195 Min. no. of nt for comparison: 600 Total turn-around time: 7 days Sequencing time: 2 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/9/2011	HKN11-09	639	639	0	100.00	0.00	CATHAY	unnamed
2	O/HKN/5/2011	HKN11-05	639	638	0	99.84	0.16	CATHAY	unnamed
3	O/HKN/7/2011	HKN11-07	639	638	0	99.84	0.16	CATHAY	unnamed
4	O/HKN/3/2011	HKN11-03	639	636	0	99.53	0.47	CATHAY	unnamed
5	O/HKN/6/2011	HKN11-06	639	636	0	99.53	0.47	CATHAY	unnamed
6	O/HKN/4/2011	HKN11-04	639	635	0	99.37	0.63	CATHAY	unnamed
7	O/HKN/26/2010	HKN10-26	639	627	0	98.12	1.88	CATHAY	Unnamed
8	O/HKN/3/2008	HKN08-03	639	617	0	96.56	3.44	CATHAY	unnamed
9	O/HKN/1/2008	HKN08-01	639	614	0	96.09	3.91	CATHAY	unnamed
10	O/HKN/2/2008	HKN08-02	639	614	0	96.09	3.91	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/PHI/7/96 (AJ294926)	PHI96-07	639	568	0	88.89	11.11	CATHAY	unnamed
2	O/Yunlin/TAW/97 (AF308157)	TAW97--B	639	568	0	88.89	11.11	CATHAY	unnamed
3	O/HKN/6/83 (AJ294919)	HKN83-06	637	549	2	86.19	13.81	CATHAY	unnamed
4	O/HKN/21/70 (AJ294911)	HKN70A21	637	526	2	82.57	17.43	CATHAY	unnamed
5	O/IRN/61/2001 (DQ164896)	IRN01-61	638	510	1	79.94	20.06	ME-SA	Iran-2001
6	O/IND/53/79 (AF292107)	IND79A53	639	510	0	79.81	20.19	ME-SA	unnamed
7	O/UGA/17/98 (HM211075)	UGA98-17	639	509	0	79.66	20.34	EA-4	unnamed
8	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	507	0	79.34	20.66	ME-SA	unnamed
9	O/ETH/1/2007 (FJ798137)	ETH07-01	639	506	0	79.19	20.81	EA-3	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 v4.1

© Institute for Animal Health (not to be reproduced without permission)

# FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: O WRLFMD Ref No: HKN/9/2011 Batch No: WRLFMD/2011/00047 Sender Ref: FMD 03/11 11-05460 (2) Location: Not given, Hong Kong Date collected: 14/11/2011 Date received by WRLFMD: 07/12/2011 Date received for sequencing: 12/12/2011 Species: Pig Material used: RS1 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 14/12/2011 Reported by: N.J. Knowles Checked by: V. Mioulet  Topotype: CATHAY Genotype/strain: unnamed Sequence filename: HKN11-09.SEQ Date sequence last updated: 14/12/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 3195 Min. no. of nt for comparison: 600 Total turn-around time: 7 days Sequencing time: 2 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/8/2011	HKN11-08	639	639	0	100.00	0.00	CATHAY	unnamed
2	O/HKN/5/2011	HKN11-05	639	638	0	99.84	0.16	CATHAY	unnamed
3	O/HKN/7/2011	HKN11-07	639	638	0	99.84	0.16	CATHAY	unnamed
4	O/HKN/3/2011	HKN11-03	639	636	0	99.53	0.47	CATHAY	unnamed
5	O/HKN/6/2011	HKN11-06	639	636	0	99.53	0.47	CATHAY	unnamed
6	O/HKN/4/2011	HKN11-04	639	635	0	99.37	0.63	CATHAY	unnamed
7	O/HKN/26/2010	HKN10-26	639	627	0	98.12	1.88	CATHAY	Unnamed
8	O/HKN/3/2008	HKN08-03	639	617	0	96.56	3.44	CATHAY	unnamed
9	O/HKN/1/2008	HKN08-01	639	614	0	96.09	3.91	CATHAY	unnamed
10	O/HKN/2/2008	HKN08-02	639	614	0	96.09	3.91	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/PHI/7/96 (AJ294926)	PHI96-07	639	568	0	88.89	11.11	CATHAY	unnamed
2	O/Yunlin/TAW/97 (AF308157)	TAW97--B	639	568	0	88.89	11.11	CATHAY	unnamed
3	O/HKN/6/83 (AJ294919)	HKN83-06	637	549	2	86.19	13.81	CATHAY	unnamed
4	O/HKN/21/70 (AJ294911)	HKN70A21	637	526	2	82.57	17.43	CATHAY	unnamed
5	O/IRN/61/2001 (DQ164896)	IRN01-61	638	510	1	79.94	20.06	ME-SA	Irn-2001
6	O/IND/53/79 (AF292107)	IND79A53	639	510	0	79.81	20.19	ME-SA	unnamed
7	O/UGA/17/98 (HM211075)	UGA98-17	639	509	0	79.66	20.34	EA-4	unnamed
8	O1/Manisa/TUR/69 (AY593823)	TUR69--G	639	507	0	79.34	20.66	ME-SA	unnamed
9	O/ETH/1/2007 (FJ798137)	ETH07-01	639	506	0	79.19	20.81	EA-3	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 v4.1

© Institute for Animal Health (not to be reproduced without permission)

# Report on FMDV O in Hong Kong SAR in 2011

Batch: WRLFMD/2011/00047

◆ indicates viruses in this batch

Software: MEGA 5.0

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

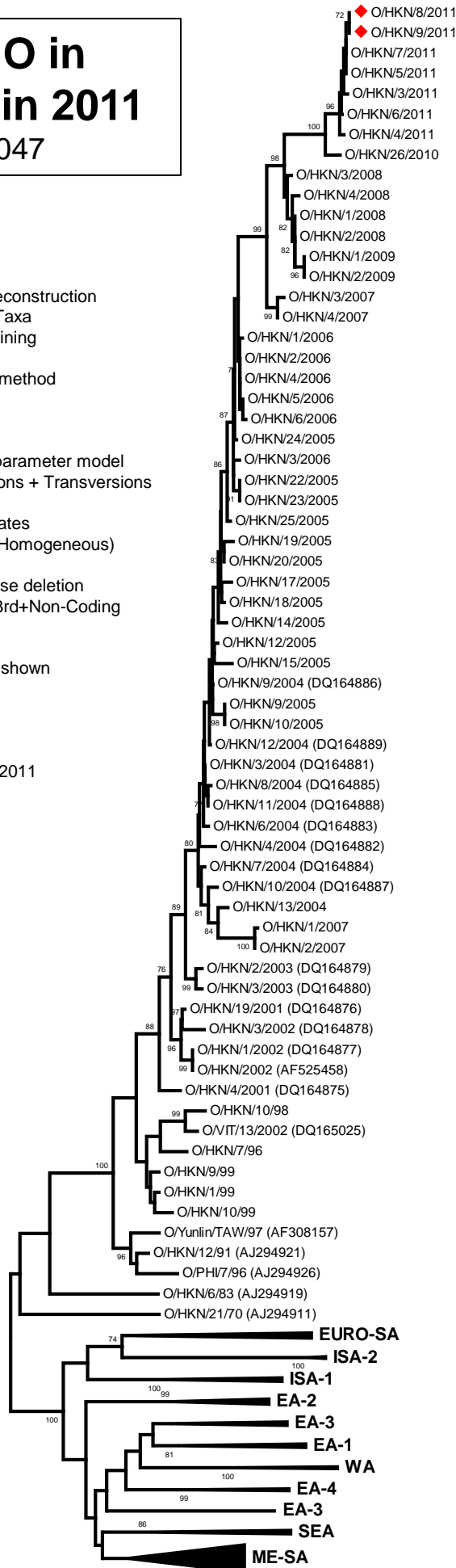
Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 14 December 2011

© Institute for Animal Health

(not to be reproduced without permission)



CATHAY

0.02