

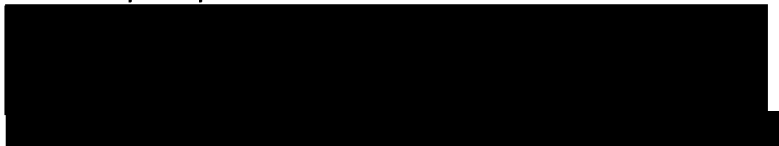


INSTITUTE FOR ANIMAL HEALTH
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Ash Road,
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FMD Genotyping Report

Lab Reference WRL Batch Number: WRLFMD/2011/00045

Sender Details:

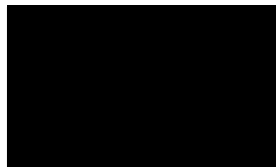


Date Received: 3rd November 2011
Country of Origin: Bahrain
Date Reported: 23rd November 2011

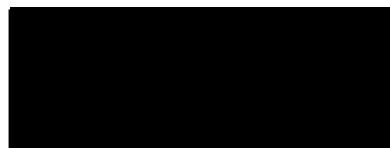
Dear Dr Shawq Al Manaie

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:

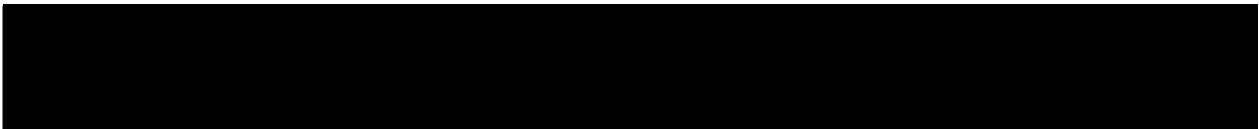


Official Stamp:



Date:

23/11/11



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. 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: 22 November 2011

FMDV type O

Country: Bahrain

Period: 2011

No. of samples: 2

BATCH: WRLFMD/2011/00045



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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: 17/11/2011
WRLFMD Ref No: BAR/17/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00045	Checked by: D.P. King
Sender Ref: 3	
Location: not given, Bahrain	Topotype: ME-SA
Date collected: 12/10/2011	Genotype/strain: PanAsia-2 ^{ANT-10}
Date received by WRLFMD: 03/11/2011	Sequence filename: BAR11-17.SEQ
Date received for sequencing: 09/11/2011	Date sequence last updated: 17/11/2011
Species: Cattle	No. of Nt determined: 639
Material used: 10% epith susp	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 3176
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 14 days
	Sequencing time: 8 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/AFG/59/2010	AFG10-59	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
2	O/AFG/61/2010	AFG10-61	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
3	O/AFG/89/2010	AFG10-89	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
4	O/IRN/30/2010	IRN10-30	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
5	O/IRN/4/2010	IRN10-04	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
6	O/IRN/69/2010	IRN10-69	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
7	O/IRN/96/2010	IRN10-96	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
8	O/PAK/3/2010	PAK10-03	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
9	O/PAK/4/2010	PAK10-04	639	635	0	99.37	0.63	ME-SA	PanAsia-2 ^{ANT-10}
10	O/AFG/110/2010	AFG10110	639	634	0	99.22	0.78	ME-SA	PanAsia-2 ^{ANT-10}
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	O/IRN/88/2009	IRN09-88	639	633	0	99.06	0.94	ME-SA	PanAsia-2 ^{ANT-10}
2	O/IRN/8/2005	IRN05-08	639	604	0	94.52	5.48	ME-SA	PanAsia-2
3	O/IRN/31/2009	IRN09-31	639	602	0	94.21	5.79	ME-SA	PanAsia-2 ^{FAR-09}
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	602	0	94.21	5.79	ME-SA	PanAsia-2 ^{TER-08}
5	O/TUR/264/2009* (FMDI)	TUR09-AK	639	597	0	93.43	6.57	ME-SA	PanAsia-2 ^{SAN-09}
6	O/IRN/18/2010	IRN10-18	639	595	0	93.11	6.89	ME-SA	PanAsia-2 ^{BAL-09}
7	O/PAK/16/2010	PAK10-16	639	594	0	92.96	7.04	ME-SA	PanAsia-2 ^{PUN-10}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	583	0	91.24	8.76	ME-SA	PanAsia
9	O/IRN/61/2001 (DQ164896)	IRN01-61	638	570	1	89.34	10.66	ME-SA	Irn-2001
10	O/KUW/3/97 (DQ164904)	KUW97-03	639	570	0	89.20	10.80	ME-SA	Ind-2001a

nt, nucleotides

*, not a WRLFMD reference number

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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: 22/11/2011
WRLFMD Ref No: BAR/19/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00045	Checked by: D.P. King
Sender Ref: 2	
Location: not given, Bahrain	Topotype: ME-SA
Date collected: 13/10/2011	Genotype/strain: PanAsia-2 ^{ANT-10}
Date received by WRLFMD: 03/11/2011	Sequence filename: BAR11-19.SEQ
Date received for sequencing: 09/11/2011	Date sequence last updated: 22/11/2011
Species: Cattle	No. of Nt determined: 639
Material used: 10% epith susp	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 3176
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 19 days
	Sequencing time: 13 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/IRN/11/2010	IRN10-11	639	630	0	98.59	1.41	ME-SA	PanAsia-2 ^{ANT-10}
2	O/IRN/2/2010	IRN10-02	639	630	0	98.59	1.41	ME-SA	PanAsia-2 ^{ANT-10}
3	O/IRN/12/2010	IRN10-12	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
4	O/IRN/27/2010	IRN10-27	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
5	O/IRN/30/2010	IRN10-30	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
6	O/IRN/31/2010	IRN10-31	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
7	O/IRN/4/2010	IRN10-04	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
8	O/PAK/15/2010	PAK10-15	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
9	O/PAK/21/2010	PAK10-21	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
10	O/PAK/22/2010	PAK10-22	639	629	0	98.44	1.56	ME-SA	PanAsia-2 ^{ANT-10}
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	O/IRN/88/2009	IRN09-88	639	627	0	98.12	1.88	ME-SA	PanAsia-2 ^{ANT-10}
2	O/IRN/8/2005	IRN05-08	639	600	0	93.90	6.10	ME-SA	PanAsia-2
3	O/IRN/31/2009	IRN09-31	639	598	0	93.58	6.42	ME-SA	PanAsia-2 ^{FAR-09}
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	598	0	93.58	6.42	ME-SA	PanAsia-2 ^{TER-08}
5	O/IRN/18/2010	IRN10-18	639	591	0	92.49	7.51	ME-SA	PanAsia-2 ^{BAL-09}
6	O/TUR/264/2009* (FMDI)	TUR09-AK	639	591	0	92.49	7.51	ME-SA	PanAsia-2 ^{SAN-09}
7	O/PAK/16/2010	PAK10-16	639	588	0	92.02	7.98	ME-SA	PanAsia-2 ^{PUN-10}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	579	0	90.61	9.39	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	570	0	89.20	10.80	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	568	1	89.03	10.97	ME-SA	Irn-2001

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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Report on FMDV O in Bahrain in 2011

Batch: WRLFMD/2011/00045

◆ 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, 22 November 2011

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