

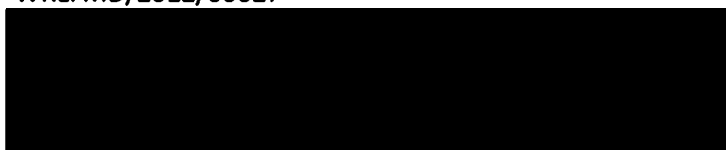


**INSTITUTE FOR ANIMAL HEALTH**  
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath  
**PIRBRIGHT LABORATORY**  
Ash Road,  
Pirbright,  
Surrey,  
GU24 0NF  
Intn Tel: 00 44 1483 232441  
Tel: 01483 232441 Fax: 01483 232621

## **FMD Genotyping Report**

**Lab Reference WRL Batch Number:** WRLFMD/2012/00027

**Sender Details:**

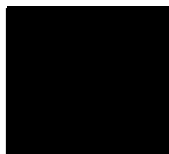


**Date Received:** 20<sup>th</sup> July 2012  
**Country of Origin:** Iran  
**Date Reported:** 29<sup>th</sup> August 2012

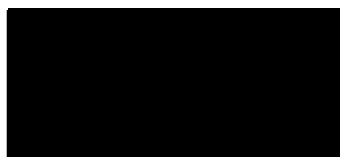
Dear Darab Abdollahi

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:**

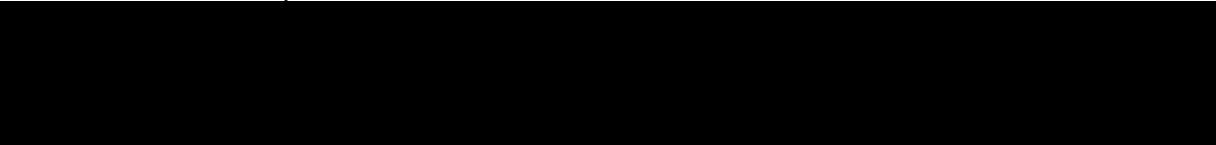


**Official Stamp:**



**Date:**

29/08/2012



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: 28 August 2012

FMDV type A

Country: Iran

Period: 2012

No. of samples: 6

BATCH: WRLFMD/2012/00027



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# FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: IRN/15/2012 Batch No: WRLFMD/2012/00027 Sender Ref: FMD SA 91-1 Location: Zahedan, Sistan and Baluchestan, Iran Date collected: 24/06/2012 Date received by WRLFMD: 20/07/2012 Date received for sequencing: 08/08/2012 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 28/08/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 <sup>AFG-07</sup> Sequence filename: IRN12-15.SEQ Date sequence last updated: 09/08/2012 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1434 Min. no. of nt for comparison: 600 Total turn-around time: 39 days Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/16/2012	IRN12-16	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/IRN/20/2012	IRN12-20	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/17/2012	IRN12-17	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
4	A/IRN/18/2012	IRN12-18	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
5	A/AFG/232/2010	AFG10232	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
6	A/PAK/1/2009	PAK09-01	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
7	A/PAK/12/2010	PAK10-12	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
8	A/PAK/2/2009	PAK09-02	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
9	A/PAK/13/2008	PAK08-13	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
10	A/PAK/23/2010	PAK10-23	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/AFG/6/2007	AFG07-06	639	608	0	95.15	4.85	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/AFG/10/2010	AFG10-10	639	606	0	94.84	5.16	ASIA	Iran-05 <sup>HER-10</sup>
3	A/IRN/78/2009	IRN09-78	639	604	0	94.52	5.48	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/IRN/1/2005 (EF208769)	IRN05-01	639	603	0	94.37	5.63	ASIA	Iran-05
5	A/BAR/6/2008	BAR08-06	639	598	0	93.58	6.42	ASIA	Iran-05 <sup>BAR-08</sup>
6	A/TUR/33/2008	TUR08-33	639	596	0	93.27	6.73	ASIA	Iran-05 <sup>EZM-07</sup>
7	A/IRN/125/2010	IRN10125	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/TUR/1/2008	TUR08-01	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	585	0	91.55	8.45	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	582	0	91.08	8.92	ASIA	Iran-05 <sup>QAZ-11</sup>

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: A	Report date: 28/08/2012
WRLFMD Ref No: IRN/16/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00027	Checked by: D.P. King
Sender Ref: FMD SA 91-3	
Location: Zahedan, Sistan and Baluchestan, Iran	Topotype: ASIA
Date collected: 24/06/2012	Genotype/strain: Iran-05 <sup>AFG-07</sup>
Date received by WRLFMD: 20/07/2012	Sequence filename: IRN12-16.SEQ
Date received for sequencing: 08/08/2012	Date sequence last updated: 09/08/2012
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C612F/EUR-2B52R	Total no. of comparisons: 1434
	Min. no. of nt for comparison: 600
	Total turn-around time: 39 days
	Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/15/2012	IRN12-15	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/IRN/20/2012	IRN12-20	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/17/2012	IRN12-17	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
4	A/IRN/18/2012	IRN12-18	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
5	A/AFG/232/2010	AFG10232	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
6	A/PAK/1/2009	PAK09-01	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
7	A/PAK/12/2010	PAK10-12	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
8	A/PAK/2/2009	PAK09-02	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
9	A/PAK/13/2008	PAK08-13	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
10	A/PAK/23/2010	PAK10-23	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/AFG/6/2007	AFG07-06	639	608	0	95.15	4.85	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/AFG/10/2010	AFG10-10	639	606	0	94.84	5.16	ASIA	Iran-05 <sup>HER-10</sup>
3	A/IRN/78/2009	IRN09-78	639	604	0	94.52	5.48	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/IRN/1/2005 (EF208769)	IRN05-01	639	603	0	94.37	5.63	ASIA	Iran-05
5	A/BAR/6/2008	BAR08-06	639	598	0	93.58	6.42	ASIA	Iran-05 <sup>BAR-08</sup>
6	A/TUR/33/2008	TUR08-33	639	596	0	93.27	6.73	ASIA	Iran-05 <sup>EZM-07</sup>
7	A/IRN/125/2010	IRN10125	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/TUR/1/2008	TUR08-01	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	585	0	91.55	8.45	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	582	0	91.08	8.92	ASIA	Iran-05 <sup>QAZ-11</sup>

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

Page 1 of 1

Serotype: A	Report date: 28/08/2012
WRLFMD Ref No: IRN/17/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00027	Checked by: D.P. King
Sender Ref: Lab Samples 2	
Location: Sistan and Baluchestan, Iran	Topotype: ASIA
Date collected: 26/06/2012	Genotype/strain: Iran-05 <sup>AFG-07</sup>
Date received by WRLFMD: 20/07/2012	Sequence filename: IRN12-17.SEQ
Date received for sequencing: 08/08/2012	Date sequence last updated: 09/08/2012
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C612F/EUR-2B52R	Total no. of comparisons: 1434
	Min. no. of nt for comparison: 600
	Total turn-around time: 39 days
	Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/18/2012	IRN12-18	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/IRN/15/2012	IRN12-15	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/16/2012	IRN12-16	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
4	A/IRN/20/2012	IRN12-20	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
5	A/AFG/232/2010	AFG10232	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
6	A/PAK/1/2009	PAK09-01	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
7	A/PAK/12/2010	PAK10-12	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
8	A/PAK/2/2009	PAK09-02	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
9	A/PAK/13/2008	PAK08-13	639	611	0	95.62	4.38	ASIA	Iran-05 <sup>AFG-07</sup>
10	A/PAK/23/2010	PAK10-23	639	611	0	95.62	4.38	ASIA	Iran-05 <sup>AFG-07</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/AFG/6/2007	AFG07-06	639	605	0	94.68	5.32	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/AFG/10/2010	AFG10-10	639	603	0	94.37	5.63	ASIA	Iran-05 <sup>HER-10</sup>
3	A/IRN/78/2009	IRN09-78	639	601	0	94.05	5.95	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/IRN/1/2005 (EF208769)	IRN05-01	639	600	0	93.90	6.10	ASIA	Iran-05
5	A/BAR/6/2008	BAR08-06	639	595	0	93.11	6.89	ASIA	Iran-05 <sup>BAR-08</sup>
6	A/TUR/33/2008	TUR08-33	639	595	0	93.11	6.89	ASIA	Iran-05 <sup>EZM-07</sup>
7	A/IRN/125/2010	IRN10125	639	593	0	92.80	7.20	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/TUR/1/2008	TUR08-01	639	591	0	92.49	7.51	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	582	0	91.08	8.92	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	579	0	90.61	9.39	ASIA	Iran-05 <sup>QAZ-11</sup>

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: A	Report date: 28/08/2012
WRLFMD Ref No: IRN/18/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00027	Checked by: D.P. King
Sender Ref: Lab Samples 1	
Location: Sistan and Baluchestan, Iran	Topotype: ASIA
Date collected: 28/06/2012	Genotype/strain: Iran-05 <sup>AFG-07</sup>
Date received by WRLFMD: 20/07/2012	Sequence filename: IRN12-18.SEQ
Date received for sequencing: 08/08/2012	Date sequence last updated: 14/08/2012
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C612F/EUR-2B52R	Total no. of comparisons: 1434
	Min. no. of nt for comparison: 600
	Total turn-around time: 39 days
	Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/17/2012	IRN12-17	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/IRN/15/2012	IRN12-15	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/16/2012	IRN12-16	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
4	A/IRN/20/2012	IRN12-20	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
5	A/AFG/232/2010	AFG10232	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
6	A/PAK/1/2009	PAK09-01	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
7	A/PAK/12/2010	PAK10-12	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
8	A/PAK/2/2009	PAK09-02	639	612	0	95.77	4.23	ASIA	Iran-05 <sup>AFG-07</sup>
9	A/PAK/13/2008	PAK08-13	639	611	0	95.62	4.38	ASIA	Iran-05 <sup>AFG-07</sup>
10	A/PAK/23/2010	PAK10-23	639	611	0	95.62	4.38	ASIA	Iran-05 <sup>AFG-07</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/AFG/6/2007	AFG07-06	639	605	0	94.68	5.32	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/AFG/10/2010	AFG10-10	639	603	0	94.37	5.63	ASIA	Iran-05 <sup>HER-10</sup>
3	A/IRN/78/2009	IRN09-78	639	601	0	94.05	5.95	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/IRN/1/2005 (EF208769)	IRN05-01	639	600	0	93.90	6.10	ASIA	Iran-05
5	A/BAR/6/2008	BAR08-06	639	595	0	93.11	6.89	ASIA	Iran-05 <sup>BAR-08</sup>
6	A/TUR/33/2008	TUR08-33	639	595	0	93.11	6.89	ASIA	Iran-05 <sup>EZM-07</sup>
7	A/IRN/125/2010	IRN10125	639	593	0	92.80	7.20	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/TUR/1/2008	TUR08-01	639	591	0	92.49	7.51	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	582	0	91.08	8.92	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	579	0	90.61	9.39	ASIA	Iran-05 <sup>QAZ-11</sup>

nt, nucleotides

\*, not a WRLFMD reference number

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# FAO World Reference Laboratory for FMD Genotyping Report

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Page 1 of 1

Serotype: A	Report date: 28/08/2012
WRLFMD Ref No: IRN/20/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00027	Checked by: D.P. King
Sender Ref: Lab Samples 4	
Location: Sistan and Baluchestan, Iran	Topotype: ASIA
Date collected: 30/06/2012	Genotype/strain: Iran-05 <sup>AFG-07</sup>
Date received by WRLFMD: 20/07/2012	Sequence filename: IRN12-20.SEQ
Date received for sequencing: 08/08/2012	Date sequence last updated: 14/08/2012
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1434
A-1C612F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 39 days
	Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/15/2012	IRN12-15	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/IRN/16/2012	IRN12-16	639	639	0	100.00	0.00	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/17/2012	IRN12-17	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
4	A/IRN/18/2012	IRN12-18	639	636	0	99.53	0.47	ASIA	Iran-05 <sup>AFG-07</sup>
5	A/AFG/232/2010	AFG10232	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
6	A/PAK/1/2009	PAK09-01	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
7	A/PAK/12/2010	PAK10-12	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
8	A/PAK/2/2009	PAK09-02	639	615	0	96.24	3.76	ASIA	Iran-05 <sup>AFG-07</sup>
9	A/PAK/13/2008	PAK08-13	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
10	A/PAK/23/2010	PAK10-23	639	614	0	96.09	3.91	ASIA	Iran-05 <sup>AFG-07</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/AFG/6/2007	AFG07-06	639	608	0	95.15	4.85	ASIA	Iran-05 <sup>AFG-07</sup>
2	A/AFG/10/2010	AFG10-10	639	606	0	94.84	5.16	ASIA	Iran-05 <sup>HER-10</sup>
3	A/IRN/78/2009	IRN09-78	639	604	0	94.52	5.48	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/IRN/1/2005 (EF208769)	IRN05-01	639	603	0	94.37	5.63	ASIA	Iran-05
5	A/BAR/6/2008	BAR08-06	639	598	0	93.58	6.42	ASIA	Iran-05 <sup>BAR-08</sup>
6	A/TUR/33/2008	TUR08-33	639	596	0	93.27	6.73	ASIA	Iran-05 <sup>EZM-07</sup>
7	A/IRN/125/2010	IRN10125	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/TUR/1/2008	TUR08-01	639	594	0	92.96	7.04	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	585	0	91.55	8.45	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	582	0	91.08	8.92	ASIA	Iran-05 <sup>QAZ-11</sup>

nt, nucleotides

\*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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# FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A	Report date: 28/08/2012
WRLFMD Ref No: IRN/22/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00027	Checked by: D.P. King
Sender Ref: FMD SA-91-4	
Location: Qom, Iran	Topotype: ASIA
Date collected: 09/07/2012	Genotype/strain: Iran-05 <sup>SIS-10</sup>
Date received by WRLFMD: 20/07/2012	Sequence filename: IRN12-22.SEQ
Date received for sequencing: 08/08/2012	Date sequence last updated: 09/08/2012
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C612F/EUR-2B52R	Total no. of comparisons: 1434
	Min. no. of nt for comparison: 600
	Total turn-around time: 39 days
	Sequencing time: 20 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/68/2011	IRN11-68	639	627	0	98.12	1.88	ASIA	Iran-05 <sup>SIS-10</sup>
2	A/IRN/69/2011	IRN11-69	639	627	0	98.12	1.88	ASIA	Iran-05 <sup>SIS-10</sup>
3	A/IRN/65/2011	IRN11-65	639	626	0	97.97	2.03	ASIA	Iran-05 <sup>SIS-10</sup>
4	A/IRN/20/2011	IRN11-20	639	620	0	97.03	2.97	ASIA	Iran-05 <sup>SIS-10</sup>
5	A/IRN/52/2011	IRN11-52	639	620	0	97.03	2.97	ASIA	Iran-05 <sup>SIS-10</sup>
6	A/TUR/14/2011	TUR11-14	639	619	0	96.87	3.13	ASIA	Iran-05 <sup>SIS-10</sup>
7	A/TUR/23/2011	TUR11-23	639	617	0	96.56	3.44	ASIA	Iran-05 <sup>SIS-10</sup>
8	A/IRN/125/2010	IRN10125	639	616	0	96.40	3.60	ASIA	Iran-05 <sup>SIS-10</sup>
9	A/IRN/4/2011	IRN11-04	639	616	0	96.40	3.60	ASIA	Iran-05 <sup>SIS-10</sup>
10	A/TUR/41/2011	TUR11-41	639	616	0	96.40	3.60	ASIA	Iran-05 <sup>SIS-10</sup>
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> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/IRN/125/2010	IRN10125	639	616	0	96.40	3.60	ASIA	Iran-05 <sup>SIS-10</sup>
2	A/AFG/6/2007	AFG07-06	639	593	0	92.80	7.20	ASIA	Iran-05 <sup>AFG-07</sup>
3	A/IRN/78/2009	IRN09-78	639	589	0	92.18	7.82	ASIA	Iran-05 <sup>FAR-09</sup>
4	A/AFG/10/2010	AFG10-10	639	584	0	91.39	8.61	ASIA	Iran-05 <sup>HER-10</sup>
5	A/TUR/33/2008	TUR08-33	639	583	0	91.24	8.76	ASIA	Iran-05 <sup>EZM-07</sup>
6	A/BAR/6/2008	BAR08-06	639	581	0	90.92	9.08	ASIA	Iran-05 <sup>BAR-08</sup>
7	A/IRN/1/2005 (EF208769)	IRN05-01	639	581	0	90.92	9.08	ASIA	Iran-05
8	A/TUR/1/2008	TUR08-01	639	580	0	90.77	9.23	ASIA	Iran-05 <sup>ARD-07</sup>
9	A/IRN/9/2010	IRN10-09	639	568	0	88.89	11.11	ASIA	Iran-05 <sup>ESF-10</sup>
10	A/IRN/9/2011	IRN11-09	639	567	0	88.73	11.27	ASIA	Iran-05 <sup>QAZ-11</sup>

nt, nucleotides

\*, not a WRLFMD reference number

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# Report on FMDV A in Iran in 2012

Batch: WRLFMD/2012/00027

◆ 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 : 639

No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 28 August 2012

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