

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

## Genotyping Report

Report Date for this Batch: 26 November 2015

FMDV type Asia 1

Country: Turkey

Period: 2014-2015

No. of samples: 7

BATCH: WRLFMD/2015/00015



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**Comment:** It is not clear if Asia1/TUR/37/2014 and Asia1/TUR/39/2014 should be included as part of the Sindh-08 lineage or if they represent a new lineage.

# FAO World Reference Laboratory for FMD Genotyping Report

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

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Serotype: ASIA1	Report date: 26/11/2015
WRLFMD Ref No: TUR/37/2014	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (7) 334	
Location: Senemoglu, Gole, Ardahan, Turkey	Topotype: ASIA
Date collected: 24/10/2014	Genotype/strain: unnamed
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR14-37.SEQ
Date received for sequencing: 29/10/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 08/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 106 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/TUR/39/2014	TUR14-39	633	628	0	99.21	0.79	ASIA	unnamed
2	Asia1/TUR/2/2013	TUR13-02	633	614	0	97.00	3.00	ASIA	unnamed
3	Asia1/TUR/23/2014	TUR14-23	633	607	0	95.89	4.11	ASIA	unnamed
4	Asia1/IRN 1/2012*	IRN12-AE	633	603	0	95.26	4.74	ASIA	Sindh-08
5	Asia1/IRN/67/2011	IRN11-67	633	602	0	95.10	4.90	ASIA	Sindh-08
6	Asia1/IRN/75/2011	IRN11-75	633	602	0	95.10	4.90	ASIA	Sindh-08
7	Asia1/TUR/1/2012	TUR12-01	633	602	0	95.10	4.90	ASIA	Sindh-08
8	Asia1/IRN 3903/2012*	IRN12-AG	630	599	0	95.08	4.92	ASIA	Sindh-08
9	Asia1/AFG/48/2011	AFG11-48	633	601	0	94.94	5.06	ASIA	Sindh-08
10	Asia1/AFG/51/2011	AFG11-51	633	601	0	94.94	5.06	ASIA	Sindh-08
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	Asia1/PAK/8/2008	PAK08-08	633	592	0	93.52	6.48	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	571	0	90.21	9.79	ASIA	not defined
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	543	0	85.78	14.22	ASIA	Group III
4	Asia1/Shamir/ISR/89	ISR89--A	633	541	0	85.47	14.53	ASIA	Unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	539	0	85.15	14.85	?	unnamed
6	Asia1/IND/14/95* (AF390678)	IND95-AA	633	534	0	84.36	15.64	ASIA	Unnamed
7	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	531	0	83.89	16.11	?	unnamed
8	Asia1/IND/63/72* (AY304994)	IND72C63	630	528	0	83.81	16.19	ASIA	Unnamed
9	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	530	0	83.73	16.27	ASIA	Unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	527	0	83.25	16.75	?	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: ASIA1 WRLFMD Ref No: TUR/39/2014 Batch No: WRLFMD/2015/00015 Sender Ref: (9) 349 Location: Kupeler, Altieylul, Baliikesir, Turkey Date collected: 03/12/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 10/11/2015 Species: Cattle Material used: BTy1 09/10/2015 Region sequenced: VP1 RT-PCR primers: As1-1C530F/EUR-2B52R As1-1C613F/EUR-2B52R	Report date: 26/11/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: unnamed Sequence filename: TUR14-39.SEQ Date sequence last updated: 25/11/2015 No. of Nt determined: 633 No. of ambiguities: 0 Gene length: 633 Total no. of comparisons: 578 Min. no. of nt for comparison: 600 Total turn-around time: 106 days Sequencing time: 16 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	Asia1/TUR/37/2014	TUR14-37	633	628	0	99.21	0.79	ASIA	unnamed
2	Asia1/TUR/2/2013	TUR13-02	633	615	0	97.16	2.84	ASIA	unnamed
3	Asia1/TUR/23/2014	TUR14-23	633	608	0	96.05	3.95	ASIA	unnamed
4	Asia1/IRN 1/2012*	IRN12-AE	633	604	0	95.42	4.58	ASIA	Sindh-08
5	Asia1/IRN/67/2011	IRN11-67	633	603	0	95.26	4.74	ASIA	Sindh-08
6	Asia1/IRN/75/2011	IRN11-75	633	603	0	95.26	4.74	ASIA	Sindh-08
7	Asia1/TUR/1/2012	TUR12-01	633	603	0	95.26	4.74	ASIA	Sindh-08
8	Asia1/IRN 3903/2012*	IRN12-AG	630	600	0	95.24	4.76	ASIA	Sindh-08
9	Asia1/AFG/48/2011	AFG11-48	633	602	0	95.10	4.90	ASIA	Sindh-08
10	Asia1/AFG/51/2011	AFG11-51	633	602	0	95.10	4.90	ASIA	Sindh-08
<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	Asia1/PAK/8/2008	PAK08-08	633	593	0	93.68	6.32	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	not defined
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	542	0	85.62	14.38	ASIA	Group III
4	Asia1/Shamir/ISR/89	ISR89--A	633	542	0	85.62	14.38	ASIA	Unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	538	0	84.99	15.01	?	unnamed
6	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	534	0	84.36	15.64	?	unnamed
7	Asia1/IND/14/95* (AF390678)	IND95-AA	633	533	0	84.20	15.80	ASIA	Unnamed
8	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IND/63/72* (AY304994)	IND72C63	630	525	0	83.33	16.67	ASIA	Unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	?	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: ASIA1	Report date: 25/11/2015
WRLFMD Ref No: TUR/2/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (12) 10	
Location: Yazikonak, Merkez, Elqzig, Turkey	Topotype: ASIA
Date collected: 03/02/2014	Genotype/strain: Sindh-08
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR15-02.SEQ
Date received for sequencing: 29/10/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 07/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 105 days
	Sequencing time: 27 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	Asia1/TUR/7/2015	TUR15-07	633	633	0	100.00	0.00	ASIA	Sindh-08
2	Asia1/TUR/12/2015	TUR15-12	633	631	0	99.68	0.32	ASIA	Sindh-08
3	Asia1/TUR/9/2015	TUR15-09	633	630	0	99.53	0.47	ASIA	Sindh-08
4	Asia1/PAK/1/2015	PAK15-01	633	629	0	99.37	0.63	ASIA	Sindh-08
5	Asia1/TUR/18/2015	TUR15-18	633	628	0	99.21	0.79	ASIA	Sindh-08
6	Asia1/PAK/19/2014	PAK14-19	633	622	0	98.26	1.74	ASIA	Sindh-08
7	Asia1/PAK/20/2014	PAK14-20	633	621	0	98.10	1.90	ASIA	Sindh-08
8	Asia1/IRN/49/2011	IRN11-49	633	605	0	95.58	4.42	ASIA	Sindh-08
9	Asia1/IRN/7/2012	IRN12-07	633	605	0	95.58	4.42	ASIA	Sindh-08
10	Asia1/IRN/9/2012	IRN12-09	633	605	0	95.58	4.42	ASIA	Sindh-08
<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	Asia1/PAK/8/2008	PAK08-08	633	593	0	93.68	6.32	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	567	0	89.57	10.43	ASIA	unnamed
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	535	0	84.52	15.48	ASIA	Group III
4	Asia1/IND/63/72* (AY304994)	IND72C63	630	528	0	83.81	16.19	ASIA	unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	527	0	83.25	16.75	ASIA	unnamed
6	Asia1/IND/14/95* (AF390678)	IND95-AA	633	525	0	82.94	17.06	ASIA	unnamed
7	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	524	0	82.78	17.22	ASIA	unnamed
8	Asia1/Shamir/ISR/89	ISR89--A	633	524	0	82.78	17.22	ASIA	unnamed
9	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	523	0	82.62	17.38	ASIA	unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	520	0	82.15	17.85	ASIA	unnamed

nt, nucleotides

\*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 25/11/2015
WRLFMD Ref No: TUR/7/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (17) 28	
Location: Karagunduz, Ipekyolu, Van, Turkey	Topotype: ASIA
Date collected: 23/02/2015	Genotype/strain: Sindh-08
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR15-07.SEQ
Date received for sequencing: 29/10/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 20/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 105 days
	Sequencing time: 27 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/TUR/2/2015	TUR15-02	633	633	0	100.00	0.00	ASIA	Sindh-08
2	Asia1/TUR/12/2015	TUR15-12	633	631	0	99.68	0.32	ASIA	Sindh-08
3	Asia1/TUR/9/2015	TUR15-09	633	630	0	99.53	0.47	ASIA	Sindh-08
4	Asia1/PAK/1/2015	PAK15-01	633	629	0	99.37	0.63	ASIA	Sindh-08
5	Asia1/TUR/18/2015	TUR15-18	633	628	0	99.21	0.79	ASIA	Sindh-08
6	Asia1/PAK/19/2014	PAK14-19	633	622	0	98.26	1.74	ASIA	Sindh-08
7	Asia1/PAK/20/2014	PAK14-20	633	621	0	98.10	1.90	ASIA	Sindh-08
8	Asia1/IRN/49/2011	IRN11-49	633	605	0	95.58	4.42	ASIA	Sindh-08
9	Asia1/IRN/7/2012	IRN12-07	633	605	0	95.58	4.42	ASIA	Sindh-08
10	Asia1/IRN/9/2012	IRN12-09	633	605	0	95.58	4.42	ASIA	Sindh-08
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	Asia1/PAK/8/2008	PAK08-08	633	593	0	93.68	6.32	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	567	0	89.57	10.43	ASIA	unnamed
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	535	0	84.52	15.48	ASIA	Group III
4	Asia1/IND/63/72* (AY304994)	IND72C63	630	528	0	83.81	16.19	ASIA	unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	527	0	83.25	16.75	ASIA	unnamed
6	Asia1/IND/14/95* (AF390678)	IND95-AA	633	525	0	82.94	17.06	ASIA	unnamed
7	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	524	0	82.78	17.22	ASIA	unnamed
8	Asia1/Shamir/ISR/89	ISR89--A	633	524	0	82.78	17.22	ASIA	unnamed
9	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	523	0	82.62	17.38	ASIA	unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	520	0	82.15	17.85	ASIA	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: ASIA1	Report date: 25/11/2015
WRLFMD Ref No: TUR/9/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (20) 79	
Location: Ciftlikkoy, Ekinozu, K. Maras, Turkey	Topotype: ASIA
Date collected: 26/03/2015	Genotype/strain: Sindh-08
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR15-09.SEQ
Date received for sequencing: 29/10/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 20/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 105 days
	Sequencing time: 27 days
<b>Comments:</b>	

<b>Most Closely Related Viruses</b>									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/TUR/12/2015	TUR15-12	633	630	0	99.53	0.47	ASIA	Sindh-08
2	Asia1/TUR/2/2015	TUR15-02	633	630	0	99.53	0.47	ASIA	Sindh-08
3	Asia1/TUR/7/2015	TUR15-07	633	630	0	99.53	0.47	ASIA	Sindh-08
4	Asia1/PAK/1/2015	PAK15-01	633	628	0	99.21	0.79	ASIA	Sindh-08
5	Asia1/TUR/18/2015	TUR15-18	633	627	0	99.05	0.95	ASIA	Sindh-08
6	Asia1/PAK/19/2014	PAK14-19	633	623	0	98.42	1.58	ASIA	Sindh-08
7	Asia1/PAK/20/2014	PAK14-20	633	622	0	98.26	1.74	ASIA	Sindh-08
8	Asia1/IRN/49/2011	IRN11-49	633	608	0	96.05	3.95	ASIA	Sindh-08
9	Asia1/IRN/7/2012	IRN12-07	633	608	0	96.05	3.95	ASIA	Sindh-08
10	Asia1/IRN/9/2012	IRN12-09	633	608	0	96.05	3.95	ASIA	Sindh-08
<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	Asia1/PAK/8/2008	PAK08-08	633	594	0	93.84	6.16	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	570	0	90.05	9.95	ASIA	unnamed
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
4	Asia1/IND/63/72* (AY304994)	IND72C63	630	531	0	84.29	15.71	ASIA	unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	530	0	83.73	16.27	ASIA	unnamed
6	Asia1/IND/14/95* (AF390678)	IND95-AA	633	528	0	83.41	16.59	ASIA	unnamed
7	Asia1/Shamir/ISR/89	ISR89--A	633	527	0	83.25	16.75	ASIA	unnamed
8	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	525	0	82.94	17.06	ASIA	unnamed
9	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	524	0	82.78	17.22	ASIA	unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	523	0	82.62	17.38	ASIA	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: ASIA1	Report date: 25/11/2015
WRLFMD Ref No: TUR/12/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (22) 83	
Location: Ataturk, Merék, Ardahan, Turkey	Topotype: ASIA
Date collected: 30/03/2015	Genotype/strain: Sindh-08
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR15-12.SEQ
Date received for sequencing: 29/10/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 22/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 105 days
	Sequencing time: 27 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/TUR/2/2015	TUR15-02	633	631	0	99.68	0.32	ASIA	Sindh-08
2	Asia1/TUR/7/2015	TUR15-07	633	631	0	99.68	0.32	ASIA	Sindh-08
3	Asia1/TUR/18/2015	TUR15-18	633	630	0	99.53	0.47	ASIA	Sindh-08
4	Asia1/TUR/9/2015	TUR15-09	633	630	0	99.53	0.47	ASIA	Sindh-08
5	Asia1/PAK/1/2015	PAK15-01	633	629	0	99.37	0.63	ASIA	Sindh-08
6	Asia1/PAK/19/2014	PAK14-19	633	622	0	98.26	1.74	ASIA	Sindh-08
7	Asia1/PAK/20/2014	PAK14-20	633	621	0	98.10	1.90	ASIA	Sindh-08
8	Asia1/IRN/49/2011	IRN11-49	633	605	0	95.58	4.42	ASIA	Sindh-08
9	Asia1/IRN/7/2012	IRN12-07	633	605	0	95.58	4.42	ASIA	Sindh-08
10	Asia1/IRN/9/2012	IRN12-09	633	605	0	95.58	4.42	ASIA	Sindh-08
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	Asia1/PAK/8/2008	PAK08-08	633	593	0	93.68	6.32	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	567	0	89.57	10.43	ASIA	unnamed
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	535	0	84.52	15.48	ASIA	Group III
4	Asia1/IND/63/72* (AY304994)	IND72C63	630	530	0	84.13	15.87	ASIA	unnamed
5	Asia1/IND/18/80 (DQ121116)	IND80-18	633	527	0	83.25	16.75	ASIA	unnamed
6	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	525	0	82.94	17.06	ASIA	unnamed
7	Asia1/IND/14/95* (AF390678)	IND95-AA	633	525	0	82.94	17.06	ASIA	unnamed
8	Asia1/Shamir/ISR/89	ISR89--A	633	524	0	82.78	17.22	ASIA	unnamed
9	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	524	0	82.78	17.22	ASIA	unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	520	0	82.15	17.85	ASIA	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

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

Page 1 of 1

Serotype: ASIA1	Report date: 25/11/2015
WRLFMD Ref No: TUR/18/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00015	Checked by: K. Bachanek-Bankowska
Sender Ref: (28) 112	
Location: Sogutlu, Merkez, Igdir, Turkey	Topotype: ASIA
Date collected: 13/05/2015	Genotype/strain: Sindh-08
Date received by WRLFMD: 12/08/2015	Sequence filename: TUR15-18.SEQ
Date received for sequencing: 10/11/2015	Date sequence last updated: 25/11/2015
Species: Cattle	No. of Nt determined: 633
Material used: BTy1 24/10/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 578
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 105 days
	Sequencing time: 15 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/TUR/12/2015	TUR15-12	633	630	0	99.53	0.47	ASIA	Sindh-08
2	Asia1/TUR/2/2015	TUR15-02	633	628	0	99.21	0.79	ASIA	Sindh-08
3	Asia1/TUR/7/2015	TUR15-07	633	628	0	99.21	0.79	ASIA	Sindh-08
4	Asia1/TUR/9/2015	TUR15-09	633	627	0	99.05	0.95	ASIA	Sindh-08
5	Asia1/PAK/1/2015	PAK15-01	633	626	0	98.89	1.11	ASIA	Sindh-08
6	Asia1/PAK/19/2014	PAK14-19	633	619	0	97.79	2.21	ASIA	Sindh-08
7	Asia1/PAK/20/2014	PAK14-20	633	618	0	97.63	2.37	ASIA	Sindh-08
8	Asia1/IRN/49/2011	IRN11-49	633	604	0	95.42	4.58	ASIA	Sindh-08
9	Asia1/IRN/7/2012	IRN12-07	633	604	0	95.42	4.58	ASIA	Sindh-08
10	Asia1/IRN/9/2012	IRN12-09	633	604	0	95.42	4.58	ASIA	Sindh-08
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	Asia1/PAK/8/2008	PAK08-08	633	592	0	93.52	6.48	ASIA	Sindh-08
2	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	566	0	89.42	10.58	ASIA	unnamed
3	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	534	0	84.36	15.64	ASIA	Group III
4	Asia1/IND/63/72* (AY304994)	IND72C63	630	529	0	83.97	16.03	ASIA	unnamed
5	Asia1/HKN/19/74 (FJ785230)	HKN74-19	633	526	0	83.10	16.90	ASIA	unnamed
6	Asia1/IND/18/80 (DQ121116)	IND80-18	633	526	0	83.10	16.90	ASIA	unnamed
7	Asia1/IND/14/95* (AF390678)	IND95-AA	633	524	0	82.78	17.22	ASIA	unnamed
8	Asia1/Shamir/ISR/89	ISR89--A	633	523	0	82.62	17.38	ASIA	unnamed
9	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	523	0	82.62	17.38	ASIA	unnamed
10	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	519	0	81.99	18.01	ASIA	unnamed

nt, nucleotides

\*, not a WRLFMD reference number

Assembled with Report Generator v4.3

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# Report on FMDV Asia 1 in Turkey in 2014-2015

Batch: WRLFMD/2015/00015

◆ 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 : 633

No Of Bootstrap Reps = 1000

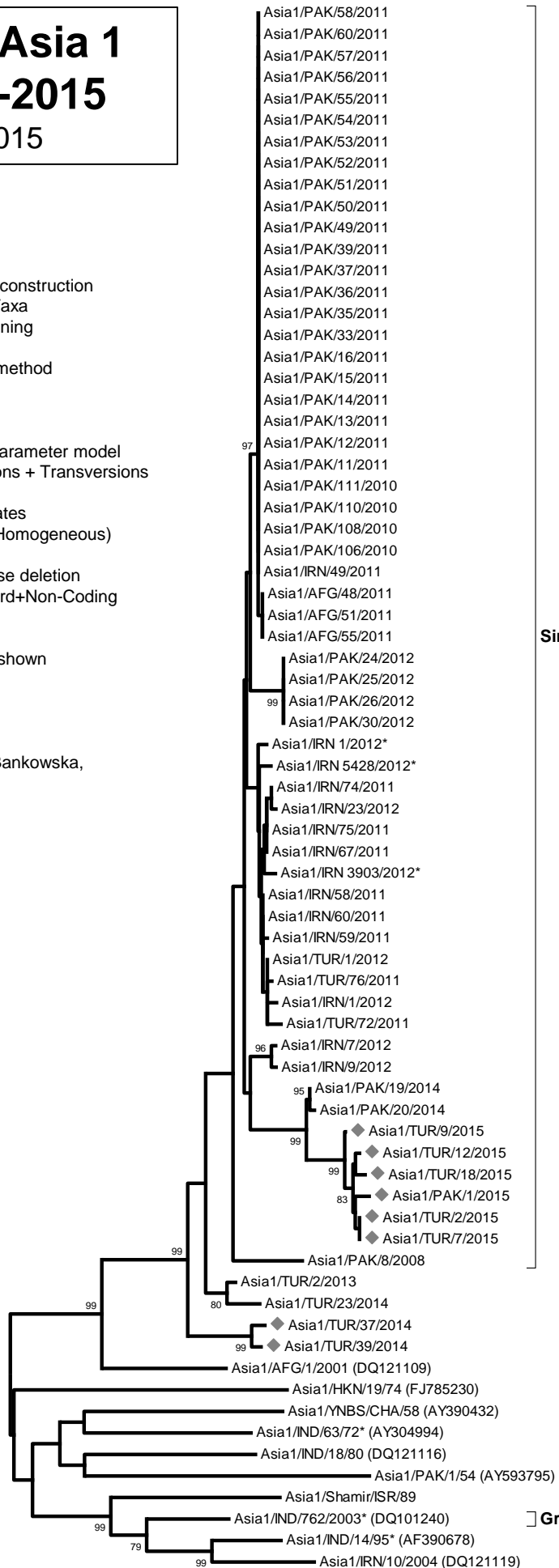
Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska,  
26 November 2015

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Sindh-08

Group III

0.02