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FMD Genotyping Report

Lab Reference WRL Batch Number: WRLMEG/2012/00009
Country of Origin: Kazakhstan
Date Reported: 19th June 2012

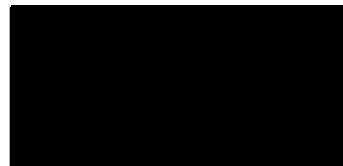
Dear All,

Please find attached sequence analysis carried out on recent additions to GenBank. Please note that all of our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Approved By:



Official Stamp:



Date:

19 / 6 / 12



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: 17 June 2012

FMDV type O

Country: Kazakhstan

Period: 2010-2012

No. of sequences: 6

Originator: GenBank: submitted 12-Mar-2012 by Stochkov, V.,
Orynbayev, M., Kerembayev, A., Musaeva, G. and
Sultankulova, K., Ministry of Education and Science, Research
Institute for Biological Safety Problems, Gvardeyskiy,
Zhambyl oblast 080409, Kazakhstan.



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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: O	Report date: 17/06/2012
WRLFMD Ref No: Korday/KAZ/2010*	Reported by: N.J. Knowles
Batch No: WRLMEG/2012/00009	Checked by: D.P. King
Sender Ref: Korday/2010	
Location: Korday, Kazakhstan	Topotype: ME-SA
Date collected: 01/05/2010	Genotype/strain: PanAsia-2
Date received by WRLFMD: 17/06/2012	Sequence filename: KAZ10-AB.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/06/2012
Species: Not Known	No. of Nt determined: 639
Material used: not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: not known	Total no. of comparisons: 3282
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 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/KAZ/2010 (ARRIAH)	KAZ10-AA	636	630	0	99.06	0.94	ME-SA	PanAsia-2
2	O/IRN/56/2006	IRN06-56	636	620	0	97.48	2.52	ME-SA	PanAsia-2
3	O/KAZ/2007 (ARRIAH)	KAZ07-AA	636	620	0	97.48	2.52	ME-SA	PanAsia-2
4	O/PAK/10/2006	PAK06-10	636	620	0	97.48	2.52	ME-SA	PanAsia-2
5	O/PAK/10/2006 (EF494503)	PAK06-AE	636	620	0	97.48	2.52	ME-SA	PanAsia-2
6	O/PAK/16/2006	PAK06-16	636	620	0	97.48	2.52	ME-SA	PanAsia-2
7	O/PAK/4/2006	PAK06-04	636	620	0	97.48	2.52	ME-SA	PanAsia-2
8	O/PAK/4/2006 (EF494500)	PAK06-AB	636	620	0	97.48	2.52	ME-SA	PanAsia-2
9	O/PAK/6/2006	PAK06-06	636	620	0	97.48	2.52	ME-SA	PanAsia-2
10	O/PAK/6/2006 (EF494501)	PAK06-AC	636	620	0	97.48	2.52	ME-SA	PanAsia-2
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/31/2009	IRN09-31	636	614	0	96.54	3.46	ME-SA	PanAsia-2 ^{FAR-09}
2	O/IRN/8/2005	IRN05-08	636	611	0	96.07	3.93	ME-SA	PanAsia-2
3	O/TUR/257/2008* (FMDI)	TUR08-AD	636	607	0	95.44	4.56	ME-SA	PanAsia-2 ^{TER-08}
4	O/IRN/18/2010	IRN10-18	636	604	0	94.97	5.03	ME-SA	PanAsia-2 ^{BAL-09}
5	O/IRN/88/2009	IRN09-88	636	604	0	94.97	5.03	ME-SA	PanAsia-2 ^{ANT-10}
6	O/TUR/264/2009* (FMDI)	TUR09-AK	636	603	0	94.81	5.19	ME-SA	PanAsia-2 ^{SAN-09}
7	O/PAK/16/2010	PAK10-16	636	602	0	94.65	5.35	ME-SA	PanAsia-2 ^{PUN-10}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	636	590	0	92.77	7.23	ME-SA	PanAsia
9	O/KUW/3/97 (DQ164904)	KUW97-03	636	577	0	90.72	9.28	ME-SA	Ind-2001a
10	O/OMN/7/2001 (DQ164941)	OMN01-07	636	574	0	90.25	9.75	ME-SA	Ind-2001b

nt, nucleotides

*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: O WRLFMD Ref No: Tynali/KAZ/05/2011* Batch No: WRLMEG/2012/00009 Sender Ref: Tynali/05/2011 Location: Tynali, Kazakhstan Date collected: 01/05/2011 Date received by WRLFMD: 17/06/2012 Date received for sequencing: n/a Species: Not Known Material used: not known Region sequenced: VP1 RT-PCR primers: not known	Report date: 17/06/2012 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ME-SA Genotype/strain: PanAsia-2 Sequence filename: KAZ11-AB.SEQ Date sequence last updated: 17/06/2012 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 3282 Min. no. of nt for comparison: 600 Total turn-around time: 0 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/Akterek/KAZ/02/2012* (JQ765584)	KAZ12-AA	639	633	0	99.06	0.94	ME-SA	PanAsia-2
2	O/Korday/KAZ/02/2012* (JQ765585)	KAZ12-AB	639	633	0	99.06	0.94	ME-SA	PanAsia-2
3	O/IRN/45/2006	IRN06-45	636	616	0	96.86	3.14	ME-SA	PanAsia-2
4	O/IRN/56/2006	IRN06-56	636	616	0	96.86	3.14	ME-SA	PanAsia-2
5	O/IRN/17/2006	IRN06-17	636	615	0	96.70	3.30	ME-SA	PanAsia-2
6	O/PAK/3/2007	PAK07-03	636	615	0	96.70	3.30	ME-SA	PanAsia-2
7	O/PAK/53/2007 (FJ798179)	PAK07-53	636	615	0	96.70	3.30	ME-SA	PanAsia-2
8	O/TUR/30/2007	TUR07-30	636	615	0	96.70	3.30	ME-SA	PanAsia-2
9	O/IRN/11/2006	IRN06-11	636	614	0	96.54	3.46	ME-SA	PanAsia-2
10	O/IRN/12/2006	IRN06-12	636	614	0	96.54	3.46	ME-SA	PanAsia-2
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/31/2009	IRN09-31	636	608	0	95.60	4.40	ME-SA	PanAsia-2 ^{FAR-09}
2	O/IRN/8/2005	IRN05-08	636	604	0	94.97	5.03	ME-SA	PanAsia-2
3	O/TUR/257/2008* (FMDI)	TUR08-AD	636	603	0	94.81	5.19	ME-SA	PanAsia-2 ^{TER-08}
4	O/IRN/88/2009	IRN09-88	636	600	0	94.34	5.66	ME-SA	PanAsia-2 ^{ANT-10}
5	O/IRN/18/2010	IRN10-18	636	599	0	94.18	5.82	ME-SA	PanAsia-2 ^{BAL-09}
6	O/PAK/16/2010	PAK10-16	636	599	0	94.18	5.82	ME-SA	PanAsia-2 ^{PUN-10}
7	O/TUR/264/2009* (FMDI)	TUR09-AK	636	598	0	94.03	5.97	ME-SA	PanAsia-2 ^{SAN-09}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	636	591	0	92.92	7.08	ME-SA	PanAsia
9	O/KUW/3/97 (DQ164904)	KUW97-03	636	577	0	90.72	9.28	ME-SA	Ind-2001a
10	O/PAK/16/2003 (DQ165068)	PAK03-16	636	571	0	89.78	10.22	ME-SA	Pak-98

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: O	Report date: 17/06/2012
WRLFMD Ref No: Kurchum/KAZ/08/2011*	Reported by: N.J. Knowles
Batch No: WRLMEG/2012/00009	Checked by: D.P. King
Sender Ref: Kurchum/08/2011	
Location: Kurchum, Kazakhstan	Topotype: ME-SA
Date collected: 01/08/2011	Genotype/strain: PanAsia
Date received by WRLFMD: 17/06/2012	Sequence filename: KAZ11-AC.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/06/2012
Species: Not Known	No. of Nt determined: 639
Material used: not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: not known	Total no. of comparisons: 3282
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 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/Kazakhstan/Aug2011 (ARRIAH)	KAZ11-AA	636	636	0	100.00	0.00	ME-SA	PanAsia
2	O/Urdzhaz/KAZ/12/2011* (JQ765582)	KAZ11-AD	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/VIT/17/2011	VIT11-17	636	634	0	99.69	0.31	ME-SA	PanAsia
4	O/VIT/16/2011	VIT11-16	636	632	0	99.37	0.63	ME-SA	PanAsia
5	O/VIT/5/2011	VIT11-05	636	632	0	99.37	0.63	ME-SA	PanAsia
6	O/VIT/6/2011	VIT11-06	636	632	0	99.37	0.63	ME-SA	PanAsia
7	O/VIT/12/2011	VIT11-12	636	631	0	99.21	0.79	ME-SA	PanAsia
8	O/VIT/37/2011	VIT11-37	636	631	0	99.21	0.79	ME-SA	PanAsia
9	O/VIT/4/2011	VIT11-04	636	631	0	99.21	0.79	ME-SA	PanAsia
10	O/VIT/9/2011	VIT11-09	636	631	0	99.21	0.79	ME-SA	PanAsia
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/UKG/35/2001 (AJ539141)	UKG01-35	636	595	0	93.55	6.45	ME-SA	PanAsia
2	O/IRN/31/2009	IRN09-31	636	583	0	91.67	8.33	ME-SA	PanAsia-2 ^{FAR-09}
3	O/KUW/3/97 (DQ164904)	KUW97-03	636	582	0	91.51	8.49	ME-SA	Ind-2001a
4	O/IRN/8/2005	IRN05-08	636	578	0	90.88	9.12	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	636	577	0	90.72	9.28	ME-SA	Ind-2001b
6	O/IRN/18/2010	IRN10-18	636	576	0	90.57	9.43	ME-SA	PanAsia-2 ^{BAL-09}
7	O/BHU/3/2009	BHU09-03	636	574	0	90.25	9.75	ME-SA	Ind-2001d
8	O/UAE/4/2008	UAE08-04	633	570	0	90.05	9.95	ME-SA	Ind-2001c
9	O/PAK/16/2010	PAK10-16	636	571	0	89.78	10.22	ME-SA	PanAsia-2 ^{PUN-10}
10	O/TUR/257/2008* (FMDI)	TUR08-AD	636	571	0	89.78	10.22	ME-SA	PanAsia-2 ^{TER-08}

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: O	Report date: 17/06/2012
WRLFMD Ref No: Urdzhaz/KAZ/12/2011*	Reported by: N.J. Knowles
Batch No: WRLMEG/2012/00009	Checked by: D.P. King
Sender Ref: Urdzhaz/12/2011	
Location: Urdzhaz, Kazakhstan	Topotype: ME-SA
Date collected: 01/12/2011	Genotype/strain: PanAsia
Date received by WRLFMD: 17/06/2012	Sequence filename: KAZ11-AD.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/06/2012
Species: Not Known	No. of Nt determined: 639
Material used: not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: not known	Total no. of comparisons: 3282
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 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/Kazakhstan/Aug2011 (ARRIAH)	KAZ11-AA	636	636	0	100.00	0.00	ME-SA	PanAsia
2	O/Kurchum/KAZ/08/2011* (JQ765581)	KAZ11-AC	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/VIT/17/2011	VIT11-17	636	634	0	99.69	0.31	ME-SA	PanAsia
4	O/VIT/16/2011	VIT11-16	636	632	0	99.37	0.63	ME-SA	PanAsia
5	O/VIT/5/2011	VIT11-05	636	632	0	99.37	0.63	ME-SA	PanAsia
6	O/VIT/6/2011	VIT11-06	636	632	0	99.37	0.63	ME-SA	PanAsia
7	O/VIT/12/2011	VIT11-12	636	631	0	99.21	0.79	ME-SA	PanAsia
8	O/VIT/37/2011	VIT11-37	636	631	0	99.21	0.79	ME-SA	PanAsia
9	O/VIT/4/2011	VIT11-04	636	631	0	99.21	0.79	ME-SA	PanAsia
10	O/VIT/9/2011	VIT11-09	636	631	0	99.21	0.79	ME-SA	PanAsia

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/UKG/35/2001 (AJ539141)	UKG01-35	636	595	0	93.55	6.45	ME-SA	PanAsia
2	O/IRN/31/2009	IRN09-31	636	583	0	91.67	8.33	ME-SA	PanAsia-2 ^{FAR-09}
3	O/KUW/3/97 (DQ164904)	KUW97-03	636	582	0	91.51	8.49	ME-SA	Ind-2001a
4	O/IRN/8/2005	IRN05-08	636	578	0	90.88	9.12	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	636	577	0	90.72	9.28	ME-SA	Ind-2001b
6	O/IRN/18/2010	IRN10-18	636	576	0	90.57	9.43	ME-SA	PanAsia-2 ^{BAL-09}
7	O/BHU/3/2009	BHU09-03	636	574	0	90.25	9.75	ME-SA	Ind-2001d
8	O/UAE/4/2008	UAE08-04	633	570	0	90.05	9.95	ME-SA	Ind-2001c
9	O/PAK/16/2010	PAK10-16	636	571	0	89.78	10.22	ME-SA	PanAsia-2 ^{PUN-10}
10	O/TUR/257/2008* (FMDI)	TUR08-AD	636	571	0	89.78	10.22	ME-SA	PanAsia-2 ^{TER-08}

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: O	Report date: 17/06/2012
WRLFMD Ref No: Akterek/KAZ/02/2012*	Reported by: N.J. Knowles
Batch No: WRLMEG/2012/00009	Checked by: D.P. King
Sender Ref: Akterek/02/2012	
Location: Akterek, Kazakhstan	Topotype: ME-SA
Date collected: 01/02/2012	Genotype/strain: PanAsia-2
Date received by WRLFMD: 17/06/2012	Sequence filename: KAZ12-AA.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/06/2012
Species: Not Known	No. of Nt determined: 639
Material used: not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: not known	Total no. of comparisons: 3282
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 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/Korday/KAZ/02/2012* (JQ765585)	KAZ12-AB	639	639	0	100.00	0.00	ME-SA	PanAsia-2
2	O/Tynali/KAZ/05/2011* (JQ765583)	KAZ11-AB	639	633	0	99.06	0.94	ME-SA	PanAsia-2
3	O/PAK/3/2007	PAK07-03	636	613	0	96.38	3.62	ME-SA	PanAsia-2
4	O/PAK/53/2007 (FJ798179)	PAK07-53	636	613	0	96.38	3.62	ME-SA	PanAsia-2
5	O/Korday/KAZ/2010* (JQ765586)	KAZ10-AB	639	615	0	96.24	3.76	ME-SA	PanAsia-2
6	O/IRN/45/2006	IRN06-45	636	612	0	96.23	3.77	ME-SA	PanAsia-2
7	O/IRN/56/2006	IRN06-56	636	612	0	96.23	3.77	ME-SA	PanAsia-2
8	O/KAZ/2010 (ARRIAH)	KAZ10-AA	636	612	0	96.23	3.77	ME-SA	PanAsia-2
9	O/PAK/10/2006	PAK06-10	636	612	0	96.23	3.77	ME-SA	PanAsia-2
10	O/PAK/10/2006 (EF494503)	PAK06-AE	636	612	0	96.23	3.77	ME-SA	PanAsia-2
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/31/2009	IRN09-31	636	606	0	95.28	4.72	ME-SA	PanAsia-2 ^{FAR-09}
2	O/IRN/8/2005	IRN05-08	636	602	0	94.65	5.35	ME-SA	PanAsia-2
3	O/TUR/257/2008* (FMDI)	TUR08-AD	636	601	0	94.50	5.50	ME-SA	PanAsia-2 ^{TER-08}
4	O/PAK/16/2010	PAK10-16	636	599	0	94.18	5.82	ME-SA	PanAsia-2 ^{PUN-10}
5	O/IRN/18/2010	IRN10-18	636	597	0	93.87	6.13	ME-SA	PanAsia-2 ^{BAL-09}
6	O/IRN/88/2009	IRN09-88	636	596	0	93.71	6.29	ME-SA	PanAsia-2 ^{ANT-10}
7	O/TUR/264/2009* (FMDI)	TUR09-AK	636	596	0	93.71	6.29	ME-SA	PanAsia-2 ^{SAN-09}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	636	589	0	92.61	7.39	ME-SA	PanAsia
9	O/KUW/3/97 (DQ164904)	KUW97-03	636	575	0	90.41	9.59	ME-SA	Ind-2001a
10	O/PAK/16/2003 (DQ165068)	PAK03-16	636	569	0	89.47	10.53	ME-SA	Pak-98

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: 17/06/2012
WRLFMD Ref No: Korday/KAZ/02/2012*	Reported by: N.J. Knowles
Batch No: WRLMEG/2012/00009	Checked by: D.P. King
Sender Ref: Korday/02/2012	
Location: Korday, Kazakhstan	Topotype: ME-SA
Date collected: 01/02/2012	Genotype/strain: PanAsia-2
Date received by WRLFMD: 17/06/2012	Sequence filename: KAZ12-AB.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/06/2012
Species: Not Known	No. of Nt determined: 639
Material used: not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: not known	Total no. of comparisons: 3282
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 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/Akterek/KAZ/02/2012* (JQ765584)	KAZ12-AA	639	639	0	100.00	0.00	ME-SA	PanAsia-2
2	O/Tynali/KAZ/05/2011* (JQ765583)	KAZ11-AB	639	633	0	99.06	0.94	ME-SA	PanAsia-2
3	O/PAK/3/2007	PAK07-03	636	613	0	96.38	3.62	ME-SA	PanAsia-2
4	O/PAK/53/2007 (FJ798179)	PAK07-53	636	613	0	96.38	3.62	ME-SA	PanAsia-2
5	O/Korday/KAZ/2010* (JQ765586)	KAZ10-AB	639	615	0	96.24	3.76	ME-SA	PanAsia-2
6	O/IRN/45/2006	IRN06-45	636	612	0	96.23	3.77	ME-SA	PanAsia-2
7	O/IRN/56/2006	IRN06-56	636	612	0	96.23	3.77	ME-SA	PanAsia-2
8	O/KAZ/2010 (ARRIAH)	KAZ10-AA	636	612	0	96.23	3.77	ME-SA	PanAsia-2
9	O/PAK/10/2006	PAK06-10	636	612	0	96.23	3.77	ME-SA	PanAsia-2
10	O/PAK/10/2006 (EF494503)	PAK06-AE	636	612	0	96.23	3.77	ME-SA	PanAsia-2
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/31/2009	IRN09-31	636	606	0	95.28	4.72	ME-SA	PanAsia-2 ^{FAR-09}
2	O/IRN/8/2005	IRN05-08	636	602	0	94.65	5.35	ME-SA	PanAsia-2
3	O/TUR/257/2008* (FMDI)	TUR08-AD	636	601	0	94.50	5.50	ME-SA	PanAsia-2 ^{TER-08}
4	O/PAK/16/2010	PAK10-16	636	599	0	94.18	5.82	ME-SA	PanAsia-2 ^{PUN-10}
5	O/IRN/18/2010	IRN10-18	636	597	0	93.87	6.13	ME-SA	PanAsia-2 ^{BAL-09}
6	O/IRN/88/2009	IRN09-88	636	596	0	93.71	6.29	ME-SA	PanAsia-2 ^{ANT-10}
7	O/TUR/264/2009* (FMDI)	TUR09-AK	636	596	0	93.71	6.29	ME-SA	PanAsia-2 ^{SAN-09}
8	O/UKG/35/2001 (AJ539141)	UKG01-35	636	589	0	92.61	7.39	ME-SA	PanAsia
9	O/KUW/3/97 (DQ164904)	KUW97-03	636	575	0	90.41	9.59	ME-SA	Ind-2001a
10	O/PAK/16/2003 (DQ165068)	PAK03-16	636	569	0	89.47	10.53	ME-SA	Pak-98

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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Report on FMDV O in Kazakhstan in 2010-2012

Batch: WRLMEG/2012/00009

◆ 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 : 645

No Of Bootstrap Reps = 1000

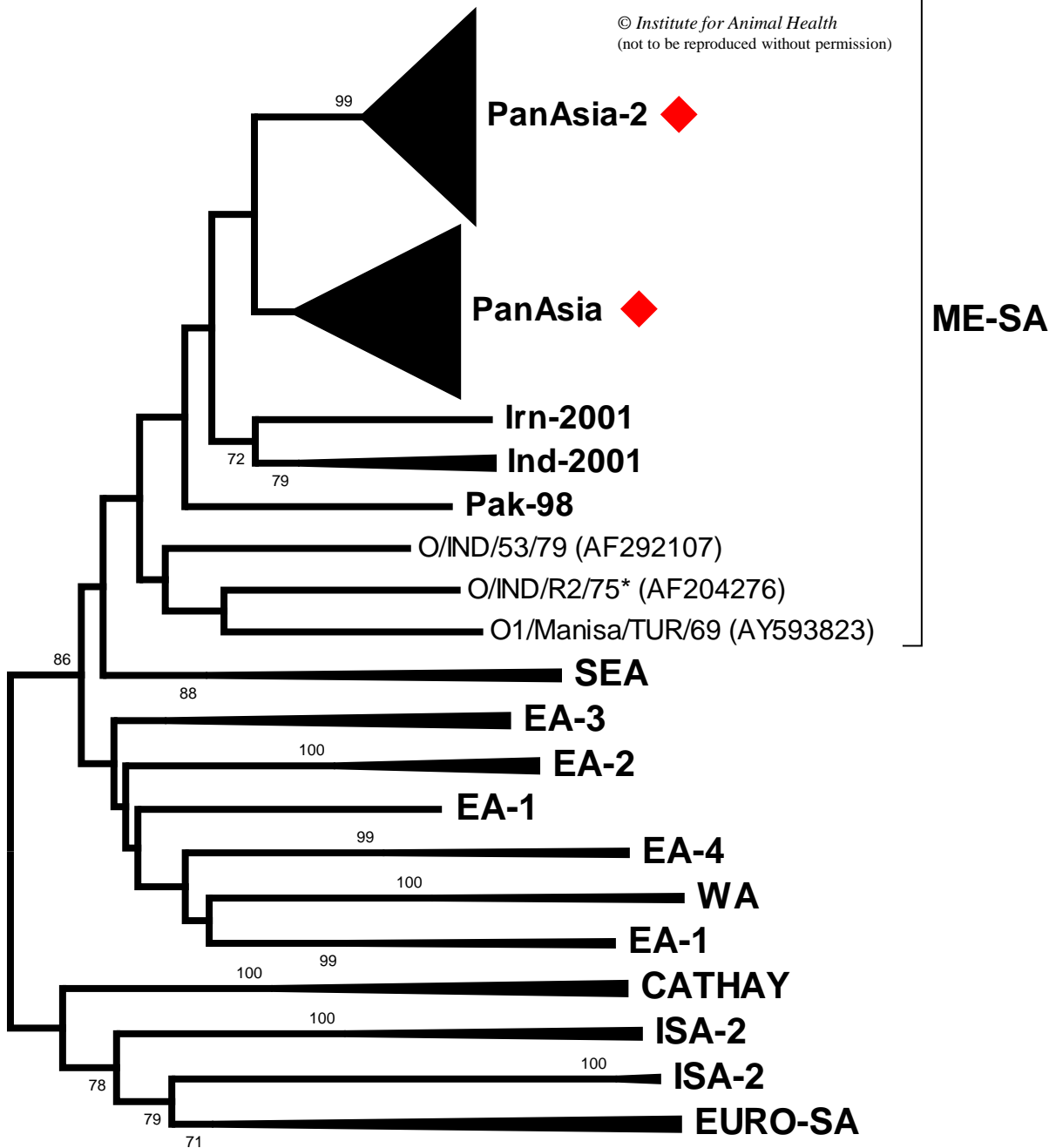
Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 17 June 2012

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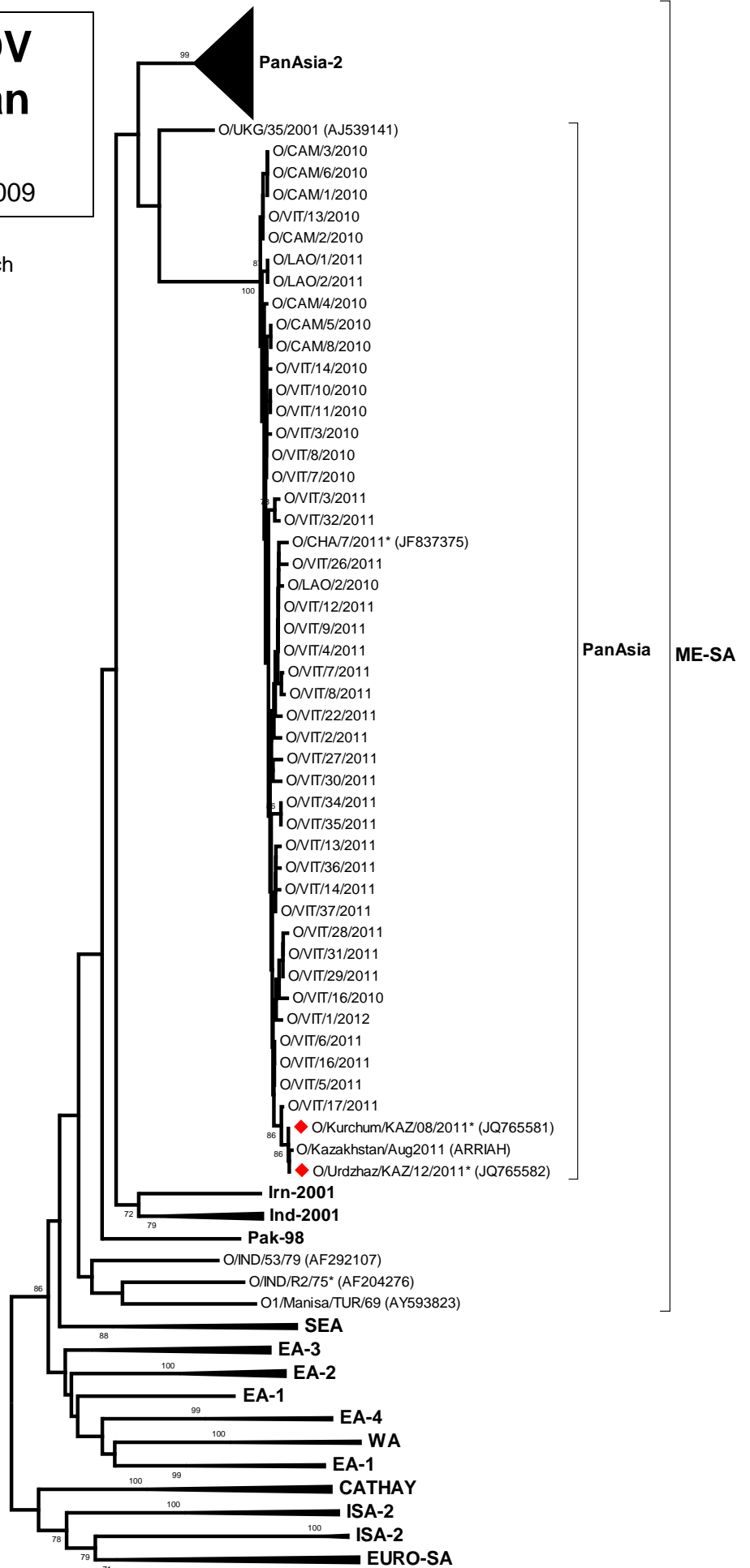
(not to be reproduced without permission)



Report on FMDV O in Kazakhstan in 2010-2012

Batch: WRLMEG/2012/00009

◆ indicates viruses in this batch

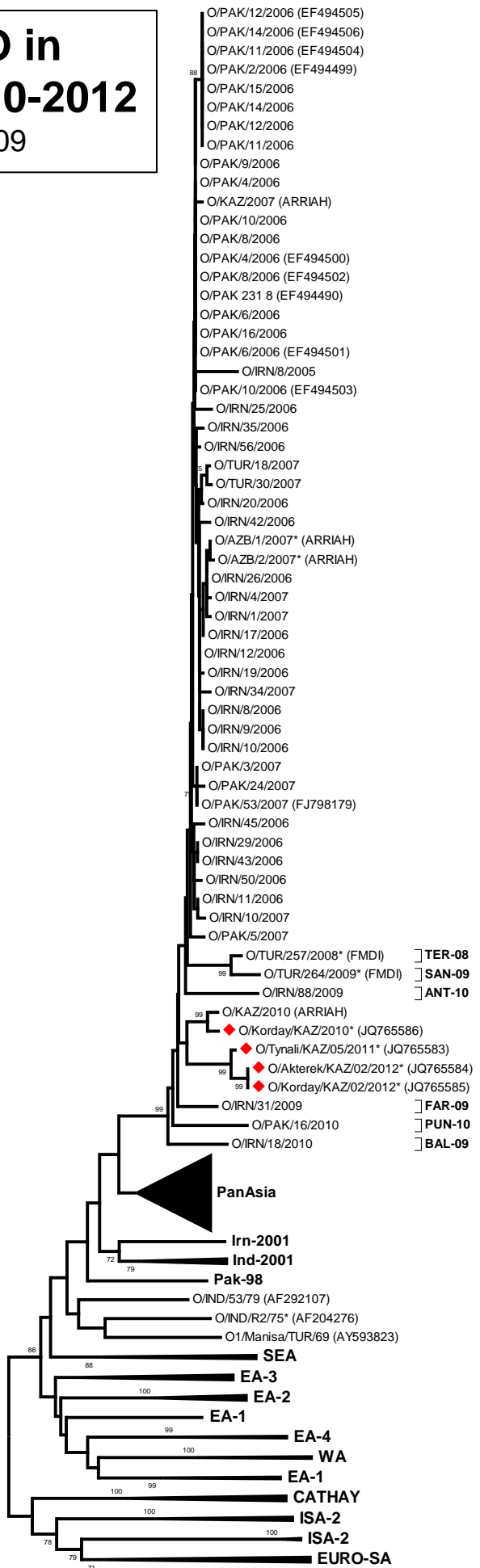


PanAsia ME-SA

Report on FMDV O in Kazakhstan in 2010-2012

Batch: WRLMEG/2012/00009

◆ indicates viruses in this batch



PanAsia-2

ME-SA

0.02