

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

## Genotyping Report

Report Date for this Batch: 10 March 2016

FMDV type O

Country: Israel

Period: 2015

No. of samples: 10

BATCH: WRLFMD/2016/00007



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# FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: O WRLFMD Ref No: ISR/1/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-1 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-01.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/9/2015	ISR15-09	639	636	0	99.53	0.47	ME-SA	PanAsia
10	O/PAT/1/2015	PAT15-01	639	636	0	99.53	0.47	ME-SA	PanAsia
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	O/UKG/35/2001 (AJ539141)	UKG01-35	639	594	0	92.96	7.04	ME-SA	PanAsia
2	O/KUW/3/97 (DQ164904)	KUW97-03	639	586	0	91.71	8.29	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	580	0	90.77	9.23	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	572	0	89.51	10.49	ME-SA	PanAsia-2 <sup>SAN-09</sup>

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: ISR/2/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-2 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 26/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-02.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/1/2015	ISR15-01	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/9/2015	ISR15-09	639	636	0	99.53	0.47	ME-SA	PanAsia
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3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	580	0	90.77	9.23	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	572	0	89.51	10.49	ME-SA	PanAsia-2 <sup>SAN-09</sup>

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Serotype: O WRLFMD Ref No: ISR/3/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-3 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-03.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/1/2015	ISR15-01	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
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3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
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6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
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9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
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Serotype: O WRLFMD Ref No: ISR/4/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-4 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-04.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 days
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2	O/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/9/2015	ISR15-09	639	636	0	99.53	0.47	ME-SA	PanAsia
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Most Closely Related Reference Viruses									
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2	O/KUW/3/97 (DQ164904)	KUW97-03	639	586	0	91.71	8.29	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
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5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
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nt, nucleotides

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Serotype: O WRLFMD Ref No: ISR/5/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-5 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-05.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 days
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2	O/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
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7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
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Most Closely Related Reference Viruses									
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Serotype: O WRLFMD Ref No: ISR/6/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, (Acco, HaZafon), Heart-6 Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-06.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 days
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4	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
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## Most Closely Related Reference Viruses

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5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	572	0	89.51	10.49	ME-SA	PanAsia-2 <sup>SAN-09</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: O WRLFMD Ref No: ISR/7/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, Heart-2 IBRS Pass-1 from B/mice Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-07.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/1/2015	ISR15-01	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/8/2015	ISR15-08	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/9/2015	ISR15-09	639	636	0	99.53	0.47	ME-SA	PanAsia
10	O/PAT/1/2015	PAT15-01	639	636	0	99.53	0.47	ME-SA	PanAsia

## Most Closely Related Reference Viruses

(see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](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	639	594	0	92.96	7.04	ME-SA	PanAsia
2	O/KUW/3/97 (DQ164904)	KUW97-03	639	586	0	91.71	8.29	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	580	0	90.77	9.23	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	572	0	89.51	10.49	ME-SA	PanAsia-2 <sup>SAN-09</sup>

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: ISR/8/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245561 Fasuta, Heart-6 IBRS Pas-1 from B/mice Location: Fasuta, HaZafon, Israel Date collected: 20/11/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Pig Material used: RS1 27/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-08.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/1/2015	ISR15-01	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/ISR/2/2015	ISR15-02	639	639	0	100.00	0.00	ME-SA	PanAsia
3	O/ISR/3/2015	ISR15-03	639	639	0	100.00	0.00	ME-SA	PanAsia
4	O/ISR/4/2015	ISR15-04	639	639	0	100.00	0.00	ME-SA	PanAsia
5	O/ISR/5/2015	ISR15-05	639	639	0	100.00	0.00	ME-SA	PanAsia
6	O/ISR/6/2015	ISR15-06	639	639	0	100.00	0.00	ME-SA	PanAsia
7	O/ISR/7/2015	ISR15-07	639	639	0	100.00	0.00	ME-SA	PanAsia
8	O/ISR/10/2015	ISR15-10	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/9/2015	ISR15-09	639	636	0	99.53	0.47	ME-SA	PanAsia
10	O/PAT/1/2015	PAT15-01	639	636	0	99.53	0.47	ME-SA	PanAsia

### Most Closely Related Reference Viruses

(see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](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	639	594	0	92.96	7.04	ME-SA	PanAsia
2	O/KUW/3/97 (DQ164904)	KUW97-03	639	586	0	91.71	8.29	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	580	0	90.77	9.23	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	580	0	90.77	9.23	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	580	0	90.77	9.23	ME-SA	Ind-2001b
6	O/BHU/3/2009 (KM921814)	BHU09-03	639	578	0	90.45	9.55	ME-SA	Ind-2001d
7	O/IRN/18/2010	IRN10-18	639	577	0	90.30	9.70	ME-SA	PanAsia-2 <sup>BAL-09</sup>
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	574	0	90.25	9.75	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	572	0	89.51	10.49	ME-SA	PanAsia-2 <sup>SAN-09</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: O	Report date: 09/03/2016
WRLFMD Ref No: ISR/9/2015	Reported by: N.J. Knowles
Batch No: WRLFMD/2016/00007	Checked by: K. Bachanek-Bankowska
Sender Ref: 245838 Zuriel, Epithelum - Cattle	
Location: Zuriel, HaZafon, Israel	Topotype: ME-SA
Date collected: 24/11/2015	Genotype/strain: PanAsia
Date received by WRLFMD: 09/02/2016	Sequence filename: ISR15-09.SEQ
Date received for sequencing: 08/03/2016	Date sequence last updated: 09/03/2016
Species: Cattle	No. of Nt determined: 639
Material used: BTY1 27/02/2016	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 4250
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 29 days
	Sequencing time: 1 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/ISR/10/2015	ISR15-10	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/PAT/1/2015	PAT15-01	639	637	0	99.69	0.31	ME-SA	PanAsia
3	O/PAT/2/2015	PAT15-02	639	637	0	99.69	0.31	ME-SA	PanAsia
4	O/PAT/5/2015	PAT15-05	639	637	0	99.69	0.31	ME-SA	PanAsia
5	O/ISR/1/2015	ISR15-01	639	636	0	99.53	0.47	ME-SA	PanAsia
6	O/ISR/2/2015	ISR15-02	639	636	0	99.53	0.47	ME-SA	PanAsia
7	O/ISR/3/2015	ISR15-03	639	636	0	99.53	0.47	ME-SA	PanAsia
8	O/ISR/4/2015	ISR15-04	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/5/2015	ISR15-05	639	636	0	99.53	0.47	ME-SA	PanAsia
10	O/ISR/6/2015	ISR15-06	639	636	0	99.53	0.47	ME-SA	PanAsia
<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/UKG/35/2001 (AJ539141)	UKG01-35	639	595	0	93.11	6.89	ME-SA	PanAsia
2	O/KUW/3/97 (DQ164904)	KUW97-03	639	585	0	91.55	8.45	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	581	0	90.92	9.08	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	581	0	90.92	9.08	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	579	0	90.61	9.39	ME-SA	Ind-2001b
6	O/IRN/18/2010	IRN10-18	639	578	0	90.45	9.55	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/BHU/3/2009 (KM921814)	BHU09-03	639	577	0	90.30	9.70	ME-SA	Ind-2001d
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	573	0	90.09	9.91	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	574	0	89.83	10.17	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>SAN-09</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: O WRLFMD Ref No: ISR/10/2015 Batch No: WRLFMD/2016/00007 Sender Ref: 245838 Zuriel, Epithelium IBRS P-2 from B/mice Location: Zuriel, HaZafon, Israel Date collected: 15/12/2015 Date received by WRLFMD: 09/02/2016 Date received for sequencing: 08/03/2016 Species: Cattle Material used: BTY1 26/02/2016 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R	Report date: 09/03/2016 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska  Topotype: ME-SA Genotype/strain: PanAsia Sequence filename: ISR15-10.SEQ Date sequence last updated: 09/03/2016 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 4250 Min. no. of nt for comparison: 600 Total turn-around time: 29 days Sequencing time: 1 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/ISR/9/2015	ISR15-09	639	639	0	100.00	0.00	ME-SA	PanAsia
2	O/PAT/1/2015	PAT15-01	639	637	0	99.69	0.31	ME-SA	PanAsia
3	O/PAT/2/2015	PAT15-02	639	637	0	99.69	0.31	ME-SA	PanAsia
4	O/PAT/5/2015	PAT15-05	639	637	0	99.69	0.31	ME-SA	PanAsia
5	O/ISR/1/2015	ISR15-01	639	636	0	99.53	0.47	ME-SA	PanAsia
6	O/ISR/2/2015	ISR15-02	639	636	0	99.53	0.47	ME-SA	PanAsia
7	O/ISR/3/2015	ISR15-03	639	636	0	99.53	0.47	ME-SA	PanAsia
8	O/ISR/4/2015	ISR15-04	639	636	0	99.53	0.47	ME-SA	PanAsia
9	O/ISR/5/2015	ISR15-05	639	636	0	99.53	0.47	ME-SA	PanAsia
10	O/ISR/6/2015	ISR15-06	639	636	0	99.53	0.47	ME-SA	PanAsia
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	O/UKG/35/2001 (AJ539141)	UKG01-35	639	595	0	93.11	6.89	ME-SA	PanAsia
2	O/KUW/3/97 (DQ164904)	KUW97-03	639	585	0	91.55	8.45	ME-SA	Ind-2001a
3	O/IRN/31/2009	IRN09-31	639	581	0	90.92	9.08	ME-SA	PanAsia-2 <sup>FAR-09</sup>
4	O/IRN/8/2005	IRN05-08	639	581	0	90.92	9.08	ME-SA	PanAsia-2
5	O/OMN/7/2001 (DQ164941)	OMN01-07	639	579	0	90.61	9.39	ME-SA	Ind-2001b
6	O/IRN/18/2010	IRN10-18	639	578	0	90.45	9.55	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/BHU/3/2009 (KM921814)	BHU09-03	639	577	0	90.30	9.70	ME-SA	Ind-2001d
8	O/UAE/4/2008 (KM921876)	UAE08-04	636	573	0	90.09	9.91	ME-SA	Ind-2001c
9	O/TUR/257/2008* (FMDI)	TUR08-AD	639	574	0	89.83	10.17	ME-SA	PanAsia-2 <sup>TER-08</sup>
10	O/TUR/264/2009* (FMDI)	TUR09-AK	639	573	0	89.67	10.33	ME-SA	PanAsia-2 <sup>SAN-09</sup>

nt, nucleotides

\*, not a WRLFMD reference number

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# Report on FMDV O in Israel in 2015

Batch: WRLFMD/2016/0007

◆ indicates viruses in this batch

Software: MEGA 6.06

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

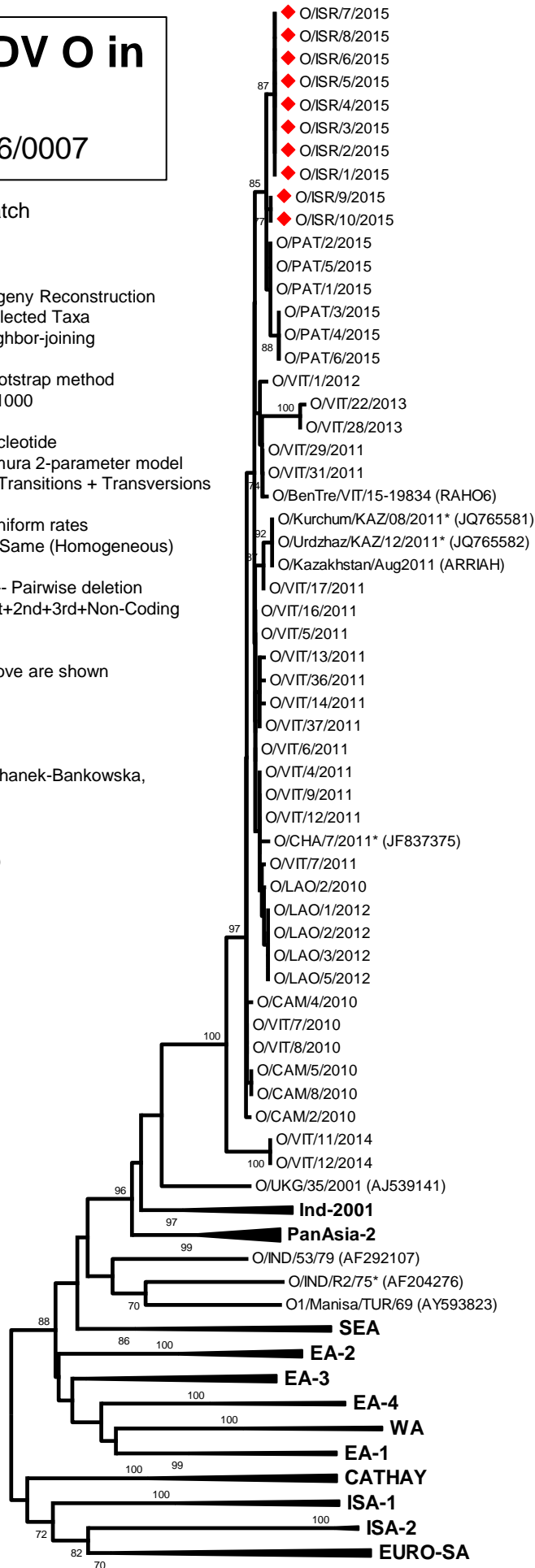
Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Bachanek-Bankowska,  
10 March 2016

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0.02