

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

Genotyping Report

Report Date for this Batch: 14 September 2015

FMDV type A

Country: Thailand

Period: 2014-2015

No. of samples: 16

BATCH: WRLFMD/2015/00016



The contents of this report are copyright and should not be reproduced without permission

© The Pirbright Institute

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A	Report date: 14/09/2015
WRLFMD Ref No: TAI/5/2014	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00016	Checked by: K. Bachanek-Bankowska
Sender Ref: 15-2/14 B3	
Location: Makham Luang, San Pa Tong, Chiang Mai, Thailand	Topotype: ASIA
Date collected: 17/01/2014	Genotype/strain: Sea-97
Date received by WRLFMD: 12/08/2015	Sequence filename: TAI14-05.SEQ
Date received for sequencing: 28/08/2015	Date sequence last updated: 09/09/2015
Species: Cattle	No. of Nt determined: 636
Material used: BTy1 19/08/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 636
RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Total no. of comparisons: 2059
	Min. no. of nt for comparison: 600
	Total turn-around time: 33 days
	Sequencing time: 17 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/TAI/4/2014	TAI14-04	633	632	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/12/2013	TAI13-12	633	631	0	99.68	0.32	ASIA	Sea-97
3	A/TAI/14/2013	TAI13-14	633	631	0	99.68	0.32	ASIA	Sea-97
4	A/TAI/15/2013	TAI13-15	633	631	0	99.68	0.32	ASIA	Sea-97
5	A/TAI/16/2013	TAI13-16	633	630	0	99.53	0.47	ASIA	Sea-97
6	A/VIT/42/2013	VIT13-42	636	633	0	99.53	0.47	ASIA	Sea-97
7	A/VIT/1/2015	VIT15-01	633	629	0	99.37	0.63	ASIA	Sea-97
8	A/VIT/19/2014	VIT14-19	636	631	0	99.21	0.79	ASIA	Sea-97
9	A/VIT/2/2014	VIT14-02	636	631	0	99.21	0.79	ASIA	Sea-97
10	A/VIT/20/2014	VIT14-20	636	631	0	99.21	0.79	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	591	0	92.92	7.08	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	575	0	90.41	9.59	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	559	0	87.89	12.11	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	524	0	82.39	17.61	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	521	0	82.31	17.69	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	522	0	82.08	17.92	ASIA	Iran-05 ^{FAR-11}
7	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	519	0	81.60	18.40	AFRICA	G-III
8	A/GHA/16/73 (KF561698)	GHA73-16	633	516	0	81.52	18.48	AFRICA	G-VI
9	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
10	A/IRN/78/2009	IRN09-78	636	517	0	81.29	18.71	ASIA	Iran-05 ^{FAR-09}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/6/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 16-1/14 B3 Location: Lam Sonthi, Lam Sonthi, Lop Buri, Thailand Date collected: 17/01/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 18/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-06.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/9/2014	TAI14-09	636	632	0	99.37	0.63	ASIA	Sea-97
2	A/VIT/62/2013	VIT13-62	636	632	0	99.37	0.63	ASIA	Sea-97
3	A/VIT/63/2013	VIT13-63	636	632	0	99.37	0.63	ASIA	Sea-97
4	A/LAO/1/2014	LAO14-01	633	628	0	99.21	0.79	ASIA	Sea-97
5	A/LAO/2/2014	LAO14-02	633	628	0	99.21	0.79	ASIA	Sea-97
6	A/LAO/3/2014	LAO14-03	633	628	0	99.21	0.79	ASIA	Sea-97
7	A/VIT/58/2013	VIT13-58	636	630	0	99.06	0.94	ASIA	Sea-97
8	A/MAY/17/2013	MAY13-17	636	629	0	98.90	1.10	ASIA	Sea-97
9	A/TAI/5/2014	TAI14-05	636	629	0	98.90	1.10	ASIA	Sea-97
10	A/TAI/17/2013	TAI13-17	633	626	0	98.89	1.11	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	587	0	92.30	7.70	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	572	0	89.94	10.06	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	519	0	81.60	18.40	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	516	0	81.52	18.48	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A/GHA/16/73 (KF561698)	GHA73-16	633	511	0	80.73	19.27	AFRICA	G-VI
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	513	0	80.66	19.34	AFRICA	G-III
9	A/IRN/1/96 (EF208771)	IRN96-01	635	512	1	80.63	19.37	ASIA	Iran-96
10	A/BAR/6/2008 (FJ755010)	BAR08-06	636	512	0	80.50	19.50	ASIA	Iran-05 ^{BAR-08}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/7/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 21-2/14 B3 Location: Huai Sat Yai, Hua Hin, Prachuap Kihiri Khan, Thailand Date collected: 28/01/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 18/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-07.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/MAY/17/2013	MAY13-17	636	631	0	99.21	0.79	ASIA	Sea-97
2	A/TAI/15/2014	TAI14-15	636	631	0	99.21	0.79	ASIA	Sea-97
3	A/TAI/17/2013	TAI13-17	633	628	0	99.21	0.79	ASIA	Sea-97
4	A/TAI/20/2013	TAI13-20	633	628	0	99.21	0.79	ASIA	Sea-97
5	A/MAY/21/2013	MAY13-21	636	630	0	99.06	0.94	ASIA	Sea-97
6	A/TAI/16/2014	TAI14-16	636	630	0	99.06	0.94	ASIA	Sea-97
7	A/TAI/9/2014	TAI14-09	636	630	0	99.06	0.94	ASIA	Sea-97
8	A/VIT/58/2013	VIT13-58	636	630	0	99.06	0.94	ASIA	Sea-97
9	A/VIT/62/2013	VIT13-62	636	630	0	99.06	0.94	ASIA	Sea-97
10	A/VIT/63/2013	VIT13-63	636	630	0	99.06	0.94	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	589	0	92.61	7.39	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	572	0	89.94	10.06	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A/IRN/2/87 (EF208770)	IRN87-02	633	521	0	82.31	17.69	ASIA	Iran-87
5	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
8	A/GHA/16/73 (KF561698)	GHA73-16	633	513	0	81.04	18.96	AFRICA	G-VI
9	A12/UK/119/32 (M10975)	UKG32119	636	514	0	80.82	19.18	EURO-SA	A ₁₂
10	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	514	0	80.82	19.18	AFRICA	G-III

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A	Report date: 14/09/2015
WRLFMD Ref No: TAI/8/2014	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00016	Checked by: K. Bachanek-Bankowska
Sender Ref: 44/14 B2	
Location: Sai Mun, Sai Mun, Yasothon, Thailand	Topotype: ASIA
Date collected: 24/02/2014	Genotype/strain: Sea-97
Date received by WRLFMD: 12/08/2015	Sequence filename: TAI14-08.SEQ
Date received for sequencing: 28/08/2015	Date sequence last updated: 09/09/2015
Species: Water Buffalo	No. of Nt determined: 636
Material used: BTy1 18/08/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 636
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 2059
A-1C612F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 33 days
	Sequencing time: 17 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/TAI/1/2014	TAI14-01	633	630	0	99.53	0.47	ASIA	Sea-97
2	A/VIT/58/2013	VIT13-58	636	633	0	99.53	0.47	ASIA	Sea-97
3	A/TAI/2/2014	TAI14-02	633	627	0	99.05	0.95	ASIA	Sea-97
4	A/TAI/9/2014	TAI14-09	636	629	0	98.90	1.10	ASIA	Sea-97
5	A/VIT/62/2013	VIT13-62	636	629	0	98.90	1.10	ASIA	Sea-97
6	A/VIT/63/2013	VIT13-63	636	629	0	98.90	1.10	ASIA	Sea-97
7	A/LAO/1/2014	LAO14-01	633	626	0	98.89	1.11	ASIA	Sea-97
8	A/LAO/2/2014	LAO14-02	633	626	0	98.89	1.11	ASIA	Sea-97
9	A/LAO/3/2014	LAO14-03	633	626	0	98.89	1.11	ASIA	Sea-97
10	A/TAI/17/2013	TAI13-17	633	626	0	98.89	1.11	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	589	0	92.61	7.39	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	575	0	90.41	9.59	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	559	0	87.89	12.11	ASIA	Thai-87
4	A/IRN/1/2011	IRN11-01	636	523	0	82.23	17.77	ASIA	Iran-05 ^{FAR-11}
5	A/IRN/2/87 (EF208770)	IRN87-02	633	519	0	81.99	18.01	ASIA	Iran-87
6	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
7	A/GHA/16/73 (KF561698)	GHA73-16	633	516	0	81.52	18.48	AFRICA	G-VI
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	518	0	81.45	18.55	AFRICA	G-III
9	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
10	A/BAR/6/2008 (FJ755010)	BAR08-06	636	517	0	81.29	18.71	ASIA	Iran-05 ^{BAR-08}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A	Report date: 14/09/2015
WRLFMD Ref No: TAI/9/2014	Reported by: N.J. Knowles
Batch No: WRLFMD/2015/00016	Checked by: K. Bachanek-Bankowska
Sender Ref: 45-2/14 B2	
Location: Samrong, Mueang Surin, Surin, Thailand	Topotype: ASIA
Date collected: 25/02/2014	Genotype/strain: Sea-97
Date received by WRLFMD: 12/08/2015	Sequence filename: TAI14-09.SEQ
Date received for sequencing: 28/08/2015	Date sequence last updated: 09/09/2015
Species: Water Buffalo	No. of Nt determined: 636
Material used: BTy1 19/08/2015	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 636
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 2059
A-1C612F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 33 days
	Sequencing time: 17 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/VIT/62/2013	VIT13-62	636	634	0	99.69	0.31	ASIA	Sea-97
2	A/VIT/63/2013	VIT13-63	636	634	0	99.69	0.31	ASIA	Sea-97
3	A/LAO/1/2014	LAO14-01	633	630	0	99.53	0.47	ASIA	Sea-97
4	A/LAO/2/2014	LAO14-02	633	630	0	99.53	0.47	ASIA	Sea-97
5	A/LAO/3/2014	LAO14-03	633	630	0	99.53	0.47	ASIA	Sea-97
6	A/TAI/6/2014	TAI14-06	636	632	0	99.37	0.63	ASIA	Sea-97
7	A/VIT/58/2013	VIT13-58	636	632	0	99.37	0.63	ASIA	Sea-97
8	A/MAY/17/2013	MAY13-17	636	631	0	99.21	0.79	ASIA	Sea-97
9	A/TAI/17/2013	TAI13-17	633	628	0	99.21	0.79	ASIA	Sea-97
10	A/TAI/20/2013	TAI13-20	633	628	0	99.21	0.79	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	587	0	92.30	7.70	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	570	0	89.62	10.38	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	519	0	81.60	18.40	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	516	0	81.52	18.48	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A/GHA/16/73 (KF561698)	GHA73-16	633	511	0	80.73	19.27	AFRICA	G-VI
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	513	0	80.66	19.34	AFRICA	G-III
9	A/IRN/1/96 (EF208771)	IRN96-01	635	512	1	80.63	19.37	ASIA	Iran-96
10	A/BAR/6/2008 (FJ755010)	BAR08-06	636	512	0	80.50	19.50	ASIA	Iran-05 ^{BAR-08}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/12/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 74/14 R1B1 Location: Ban Chan, Han Kha, Chai Nat, Thailand Date collected: 12/05/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 19/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-12.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/14/2014	TAI14-14	636	628	0	98.74	1.26	ASIA	Sea-97
2	A/TAI/4/2014	TAI14-04	633	624	0	98.58	1.42	ASIA	Sea-97
3	A/TAI/5/2014	TAI14-05	636	627	0	98.58	1.42	ASIA	Sea-97
4	A/VIT/8/2014	VIT14-08	636	626	0	98.43	1.57	ASIA	Sea-97
5	A/TAI/12/2013	TAI13-12	633	623	0	98.42	1.58	ASIA	Sea-97
6	A/TAI/14/2013	TAI13-14	633	623	0	98.42	1.58	ASIA	Sea-97
7	A/TAI/15/2013	TAI13-15	633	623	0	98.42	1.58	ASIA	Sea-97
8	A/TAI/16/2013	TAI13-16	633	622	0	98.26	1.74	ASIA	Sea-97
9	A/VIT/2/2015	VIT15-02	633	622	0	98.26	1.74	ASIA	Sea-97
10	A/VIT/1/2014	VIT14-01	636	624	0	98.11	1.89	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	587	0	92.30	7.70	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	573	0	90.09	9.91	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	557	0	87.58	12.42	ASIA	Thai-87
4	A/IRN/2/87 (EF208770)	IRN87-02	633	518	0	81.83	18.17	ASIA	Iran-87
5	A/IRN/1/2011	IRN11-01	636	520	0	81.76	18.24	ASIA	Iran-05 ^{FAR-11}
6	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
7	A/IRN/78/2009	IRN09-78	636	519	0	81.60	18.40	ASIA	Iran-05 ^{FAR-09}
8	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
9	A/TUR/3/2010	TUR10-03	636	517	0	81.29	18.71	ASIA	Iran-05 ^{KSS-09}
10	A12/UK/119/32 (M10975)	UKG32119	636	517	0	81.29	18.71	EURO-SA	A ₁₂

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/14/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 90/14 R2B2 Location: Khao Phanom, Khao Phanom, Krabi, Thailand Date collected: 02/06/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-14.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/5/2014	TAI14-05	636	629	0	98.90	1.10	ASIA	Sea-97
2	A/TAI/4/2014	TAI14-04	633	626	0	98.89	1.11	ASIA	Sea-97
3	A/TAI/12/2013	TAI13-12	633	625	0	98.74	1.26	ASIA	Sea-97
4	A/TAI/12/2014	TAI14-12	636	628	0	98.74	1.26	ASIA	Sea-97
5	A/TAI/14/2013	TAI13-14	633	625	0	98.74	1.26	ASIA	Sea-97
6	A/TAI/15/2013	TAI13-15	633	625	0	98.74	1.26	ASIA	Sea-97
7	A/VIT/35/2013	VIT13-35	636	628	0	98.74	1.26	ASIA	Sea-97
8	A/VIT/54/2013	VIT13-54	636	628	0	98.74	1.26	ASIA	Sea-97
9	A/VIT/8/2014	VIT14-08	636	628	0	98.74	1.26	ASIA	Sea-97
10	A/TAI/16/2013	TAI13-16	633	624	0	98.58	1.42	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	589	0	92.61	7.39	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	575	0	90.41	9.59	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	559	0	87.89	12.11	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	517	0	81.67	18.33	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A12/UK/119/32 (M10975)	UKG32119	636	516	0	81.13	18.87	EURO-SA	A ₁₂
8	A/IRN/1/96 (EF208771)	IRN96-01	635	515	1	81.10	18.90	ASIA	Iran-96
9	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	514	0	80.82	19.18	AFRICA	G-III
10	A/IRN/78/2009	IRN09-78	636	513	0	80.66	19.34	ASIA	Iran-05 ^{FAR-09}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/15/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 93-2/14 R2B2 Location: Sap Sanun, Mauk Lek, Saraburi, Thailand Date collected: 06/06/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 19/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-15.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/16/2014	TAI14-16	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/18/2014	TAI14-18	636	634	0	99.69	0.31	ASIA	Sea-97
3	A/TAI/7/2014	TAI14-07	636	631	0	99.21	0.79	ASIA	Sea-97
4	A/MAY/17/2013	MAY13-17	636	628	0	98.74	1.26	ASIA	Sea-97
5	A/TAI/17/2013	TAI13-17	633	625	0	98.74	1.26	ASIA	Sea-97
6	A/TAI/20/2013	TAI13-20	633	625	0	98.74	1.26	ASIA	Sea-97
7	A/VIT/56/2013	VIT13-56	636	628	0	98.74	1.26	ASIA	Sea-97
8	A/MAY/21/2013	MAY13-21	636	627	0	98.58	1.42	ASIA	Sea-97
9	A/TAI/9/2014	TAI14-09	636	627	0	98.58	1.42	ASIA	Sea-97
10	A/VIT/14/2014	VIT14-14	636	627	0	98.58	1.42	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	586	0	92.14	7.86	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	571	0	89.78	10.22	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	555	0	87.26	12.74	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	521	0	81.92	18.08	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	518	0	81.83	18.17	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	519	0	81.60	18.40	ASIA	Iran-05 ^{FAR-11}
7	A/IRN/1/96 (EF208771)	IRN96-01	635	518	1	81.57	18.43	ASIA	Iran-96
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	518	0	81.45	18.55	AFRICA	G-III
9	A/GHA/16/73 (KF561698)	GHA73-16	633	515	0	81.36	18.64	AFRICA	G-VI
10	A/BAR/6/2008 (FJ755010)	BAR08-06	636	517	0	81.29	18.71	ASIA	Iran-05 ^{BAR-08}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/16/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 96-1/14 R3B2 Location: Pa Sak, Mueang Lamphun, Lamphun, Thailand Date collected: 12/06/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-16.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/15/2014	TAI14-15	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/18/2014	TAI14-18	636	633	0	99.53	0.47	ASIA	Sea-97
3	A/TAI/7/2014	TAI14-07	636	630	0	99.06	0.94	ASIA	Sea-97
4	A/MAY/17/2013	MAY13-17	636	627	0	98.58	1.42	ASIA	Sea-97
5	A/TAI/17/2013	TAI13-17	633	624	0	98.58	1.42	ASIA	Sea-97
6	A/TAI/20/2013	TAI13-20	633	624	0	98.58	1.42	ASIA	Sea-97
7	A/VIT/56/2013	VIT13-56	636	627	0	98.58	1.42	ASIA	Sea-97
8	A/MAY/21/2013	MAY13-21	636	626	0	98.43	1.57	ASIA	Sea-97
9	A/TAI/9/2014	TAI14-09	636	626	0	98.43	1.57	ASIA	Sea-97
10	A/VIT/14/2014	VIT14-14	636	626	0	98.43	1.57	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	585	0	91.98	8.02	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	570	0	89.62	10.38	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	554	0	87.11	12.89	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	517	0	81.67	18.33	ASIA	Iran-87
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	517	0	81.29	18.71	AFRICA	G-III
9	A/GHA/16/73 (KF561698)	GHA73-16	633	514	0	81.20	18.80	AFRICA	G-VI
10	A/BAR/6/2008 (FJ755010)	BAR08-06	636	516	0	81.13	18.87	ASIA	Iran-05 ^{BAR-08}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/17/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 112-1/14 R2B2 Location: Phang Tru, Tha Muang, Kanchanaburi, Thailand Date collected: 28/07/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 19/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-17.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/LAO/1/2015	LAO15-01	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/21/2014	TAI14-21	636	635	0	99.84	0.16	ASIA	Sea-97
3	A/TAI/3/2015	TAI15-03	636	635	0	99.84	0.16	ASIA	Sea-97
4	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	634	0	99.69	0.31	ASIA	Sea-97
5	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	634	0	99.69	0.31	ASIA	Sea-97
6	A/GDMM-CHA-2013-S (KF450794)	CHA13-AA	636	634	0	99.69	0.31	ASIA	Sea-97
7	A/GZ-HX/CHA/2013 (KJ646647)	CHA13-AG	636	634	0	99.69	0.31	ASIA	Sea-97
8	A/GZ-JC/CHA/2013 (KJ646650)	CHA13-AJ	636	634	0	99.69	0.31	ASIA	Sea-97
9	A/GZ-ZB/CHA/2013 (KJ646649)	CHA13-AI	636	634	0	99.69	0.31	ASIA	Sea-97
10	A/TAI/4/2015	TAI15-04	636	634	0	99.69	0.31	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	597	0	93.87	6.13	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	575	0	90.41	9.59	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	557	0	87.58	12.42	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	525	0	82.55	17.45	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	520	0	82.15	17.85	ASIA	Iran-87
6	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	517	0	81.29	18.71	ASIA	A15
7	A/GHA/16/73 (KF561698)	GHA73-16	633	514	0	81.20	18.80	AFRICA	G-VI
8	A/IRN/1/2011	IRN11-01	636	516	0	81.13	18.87	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/78/2009	IRN09-78	636	516	0	81.13	18.87	ASIA	Iran-05 ^{FAR-09}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	515	0	80.97	19.03	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/18/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 117-1/14 R1B2 Location: Lam Phaya Klang, Muak Lek, Saraburi, Thailand Date collected: 29/07/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-18.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/15/2014	TAI14-15	636	634	0	99.69	0.31	ASIA	Sea-97
2	A/TAI/16/2014	TAI14-16	636	633	0	99.53	0.47	ASIA	Sea-97
3	A/TAI/7/2014	TAI14-07	636	629	0	98.90	1.10	ASIA	Sea-97
4	A/MAY/17/2013	MAY13-17	636	626	0	98.43	1.57	ASIA	Sea-97
5	A/VIT/56/2013	VIT13-56	636	626	0	98.43	1.57	ASIA	Sea-97
6	A/TAI/17/2013	TAI13-17	633	623	0	98.42	1.58	ASIA	Sea-97
7	A/TAI/20/2013	TAI13-20	633	623	0	98.42	1.58	ASIA	Sea-97
8	A/MAY/21/2013	MAY13-21	636	625	0	98.27	1.73	ASIA	Sea-97
9	A/TAI/9/2014	TAI14-09	636	625	0	98.27	1.73	ASIA	Sea-97
10	A/VIT/14/2014	VIT14-14	636	625	0	98.27	1.73	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	584	0	91.82	8.18	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	569	0	89.47	10.53	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	553	0	86.95	13.05	ASIA	Thai-87
4	A/IRN/2/87 (EF208770)	IRN87-02	633	518	0	81.83	18.17	ASIA	Iran-87
5	A22/IRQ/64 (AY593763)	IRQ64--A	636	520	0	81.76	18.24	ASIA	A ₂₂
6	A/IRN/1/2011	IRN11-01	636	518	0	81.45	18.55	ASIA	Iran-05 ^{FAR-11}
7	A/IRN/1/96 (EF208771)	IRN96-01	635	517	1	81.42	18.58	ASIA	Iran-96
8	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	636	517	0	81.29	18.71	AFRICA	G-III
9	A/BAR/6/2008 (FJ755010)	BAR08-06	636	516	0	81.13	18.87	ASIA	Iran-05 ^{BAR-08}
10	A/GHA/16/73 (KF561698)	GHA73-16	633	513	0	81.04	18.96	AFRICA	G-VI

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/21/2014 Batch No: WRLFMD/2015/00016 Sender Ref: 132-1/14 R2B2 Location: Khlong Ta Kot, Photharam, Ratchaburi, Thailand Date collected: 25/08/2014 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI14-21.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/17/2014	TAI14-17	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/LAO/1/2015	LAO15-01	636	634	0	99.69	0.31	ASIA	Sea-97
3	A/TAI/3/2015	TAI15-03	636	634	0	99.69	0.31	ASIA	Sea-97
4	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	633	0	99.53	0.47	ASIA	Sea-97
5	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	633	0	99.53	0.47	ASIA	Sea-97
6	A/GDMM-CHA-2013-S (KF450794)	CHA13-AA	636	633	0	99.53	0.47	ASIA	Sea-97
7	A/GZ-HX/CHA/2013 (KJ646647)	CHA13-AG	636	633	0	99.53	0.47	ASIA	Sea-97
8	A/GZ-JC/CHA/2013 (KJ646650)	CHA13-AJ	636	633	0	99.53	0.47	ASIA	Sea-97
9	A/GZ-ZB/CHA/2013 (KJ646649)	CHA13-AI	636	633	0	99.53	0.47	ASIA	Sea-97
10	A/TAI/4/2015	TAI15-04	636	633	0	99.53	0.47	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	596	0	93.71	6.29	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	574	0	90.25	9.75	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	524	0	82.39	17.61	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	519	0	81.99	18.01	ASIA	Iran-87
6	A/GHA/16/73 (KF561698)	GHA73-16	633	514	0	81.20	18.80	AFRICA	G-VI
7	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	516	0	81.13	18.87	ASIA	A15
8	A/IRN/1/2011	IRN11-01	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/78/2009	IRN09-78	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-09}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	514	0	80.82	19.18	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/1/2015 Batch No: WRLFMD/2015/00016 Sender Ref: 1-2/15 R3B2 Location: Huai Yap, Ban Thi, Lamphun, Thailand Date collected: 05/01/2015 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI15-01.SEQ Date sequence last updated: 09/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/16/2012	TAI12-16	636	624	0	98.11	1.89	ASIA	Sea-97
2	A/TAI/13/2012	TAI12-13	636	622	0	97.80	2.20	ASIA	Sea-97
3	A/VIT/15/2012	VIT12-15	636	622	0	97.80	2.20	ASIA	Sea-97
4	A/VIT/16/2012	VIT12-16	636	622	0	97.80	2.20	ASIA	Sea-97
5	A/VIT/17/2012	VIT12-17	636	622	0	97.80	2.20	ASIA	Sea-97
6	A/VIT/18/2012	VIT12-18	636	622	0	97.80	2.20	ASIA	Sea-97
7	A/VIT/19/2012	VIT12-19	636	622	0	97.80	2.20	ASIA	Sea-97
8	A/VIT/20/2012 (KT223562)	VIT12-20	636	622	0	97.80	2.20	ASIA	Sea-97
9	A/THA 66-1/10* (TRRL)	TAI10-AA	636	619	0	97.33	2.67	ASIA	Sea-97
10	A/TAI/24/2011	TAI11-24	636	618	0	97.17	2.83	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	596	0	93.71	6.29	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	579	0	91.04	8.96	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	559	0	87.89	12.11	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	527	0	82.86	17.14	ASIA	A ₂₂
5	A/IRN/78/2009	IRN09-78	636	525	0	82.55	17.45	ASIA	Iran-05 ^{FAR-09}
6	A/IRN/2/87 (EF208770)	IRN87-02	633	522	0	82.46	17.54	ASIA	Iran-87
7	A/AFG/10/2010	AFG10-10	636	524	0	82.39	17.61	ASIA	Iran-05 ^{HER-10}
8	A/IRN/1/2011	IRN11-01	636	524	0	82.39	17.61	ASIA	Iran-05 ^{FAR-11}
9	A/BAR/6/2008 (FJ755010)	BAR08-06	636	523	0	82.23	17.77	ASIA	Iran-05 ^{BAR-08}
10	A/IRN/125/2010	IRN10125	636	523	0	82.23	17.77	ASIA	Iran-05 ^{SIS-10}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/3/2015 Batch No: WRLFMD/2015/00016 Sender Ref: 9/15 R1B2 Location: Yang Khram, King Amphoe Doi Lo, Chaing Mai, Thailand Date collected: 16/01/2015 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI15-03.SEQ Date sequence last updated: 14/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/17/2014	TAI14-17	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/4/2015	TAI15-04	636	635	0	99.84	0.16	ASIA	Sea-97
3	A/LAO/1/2015	LAO15-01	636	634	0	99.69	0.31	ASIA	Sea-97
4	A/TAI/21/2014	TAI14-21	636	634	0	99.69	0.31	ASIA	Sea-97
5	A/TAI/5/2015	TAI15-05	636	634	0	99.69	0.31	ASIA	Sea-97
6	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	633	0	99.53	0.47	ASIA	Sea-97
7	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	633	0	99.53	0.47	ASIA	Sea-97
8	A/GDMM-CHA-2013-S (KF450794)	CHA13-AA	636	633	0	99.53	0.47	ASIA	Sea-97
9	A/GZ-HX/CHA/2013 (KJ646647)	CHA13-AG	636	633	0	99.53	0.47	ASIA	Sea-97
10	A/GZ-JC/CHA/2013 (KJ646650)	CHA13-AJ	636	633	0	99.53	0.47	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	596	0	93.71	6.29	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	574	0	90.25	9.75	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	524	0	82.39	17.61	ASIA	A ₂₂
5	A/IRN/2/87 (EF208770)	IRN87-02	633	521	0	82.31	17.69	ASIA	Iran-87
6	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	516	0	81.13	18.87	ASIA	A15
7	A/GHA/16/73 (KF561698)	GHA73-16	633	513	0	81.04	18.96	AFRICA	G-VI
8	A/IRN/1/2011	IRN11-01	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/78/2009	IRN09-78	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-09}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	514	0	80.82	19.18	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/4/2015 Batch No: WRLFMD/2015/00016 Sender Ref: 12/15 R3B3 Location: Don Krabueang, Phothram, Ratchaburi, Thailand Date collected: 20/01/2015 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI15-04.SEQ Date sequence last updated: 14/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/3/2015	TAI15-03	636	635	0	99.84	0.16	ASIA	Sea-97
2	A/TAI/17/2014	TAI14-17	636	634	0	99.69	0.31	ASIA	Sea-97
3	A/LAO/1/2015	LAO15-01	636	633	0	99.53	0.47	ASIA	Sea-97
4	A/TAI/21/2014	TAI14-21	636	633	0	99.53	0.47	ASIA	Sea-97
5	A/TAI/5/2015	TAI15-05	636	633	0	99.53	0.47	ASIA	Sea-97
6	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	632	0	99.37	0.63	ASIA	Sea-97
7	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	632	0	99.37	0.63	ASIA	Sea-97
8	A/GDMM-CHA-2013-S (KF450794)	CHA13-AA	636	632	0	99.37	0.63	ASIA	Sea-97
9	A/GZ-HX/CHA/2013 (KJ646647)	CHA13-AG	636	632	0	99.37	0.63	ASIA	Sea-97
10	A/GZ-JC/CHA/2013 (KJ646650)	CHA13-AJ	636	632	0	99.37	0.63	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	597	0	93.87	6.13	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	575	0	90.41	9.59	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	557	0	87.58	12.42	ASIA	Thai-87
4	A/IRN/2/87 (EF208770)	IRN87-02	633	522	0	82.46	17.54	ASIA	Iran-87
5	A22/IRQ/64 (AY593763)	IRQ64--A	636	523	0	82.23	17.77	ASIA	A ₂₂
6	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	517	0	81.29	18.71	ASIA	A15
7	A/GHA/16/73 (KF561698)	GHA73-16	633	514	0	81.20	18.80	AFRICA	G-VI
8	A/IRN/1/2011	IRN11-01	636	516	0	81.13	18.87	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/78/2009	IRN09-78	636	516	0	81.13	18.87	ASIA	Iran-05 ^{FAR-09}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	515	0	80.97	19.03	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

FAO World Reference Laboratory for FMD Genotyping Report

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

Page 1 of 1

Serotype: A WRLFMD Ref No: TAI/5/2015 Batch No: WRLFMD/2015/00016 Sender Ref: 14/15 R2B2 Location: Ban Lueak, Photharam, Ratchaburi, Thailand Date collected: 23/01/2015 Date received by WRLFMD: 12/08/2015 Date received for sequencing: 28/08/2015 Species: Cattle Material used: BTy1 20/08/2015 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R	Report date: 14/09/2015 Reported by: N.J. Knowles Checked by: K. Bachanek-Bankowska Topotype: ASIA Genotype/strain: Sea-97 Sequence filename: TAI15-05.SEQ Date sequence last updated: 14/09/2015 No. of Nt determined: 636 No. of ambiguities: 0 Gene length: 636 Total no. of comparisons: 2059 Min. no. of nt for comparison: 600 Total turn-around time: 33 days Sequencing time: 17 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/TAI/3/2015	TAI15-03	636	634	0	99.69	0.31	ASIA	Sea-97
2	A/TAI/17/2014	TAI14-17	636	633	0	99.53	0.47	ASIA	Sea-97
3	A/TAI/4/2015	TAI15-04	636	633	0	99.53	0.47	ASIA	Sea-97
4	A/LAO/1/2015	LAO15-01	636	632	0	99.37	0.63	ASIA	Sea-97
5	A/TAI/21/2014	TAI14-21	636	632	0	99.37	0.63	ASIA	Sea-97
6	A/Amur/2/RUS/2013 (ARRIAH)	RUS13-AH	636	631	0	99.21	0.79	ASIA	Sea-97
7	A/Amur/4/RUS/2013 (ARRIAH)	RUS13-AJ	636	631	0	99.21	0.79	ASIA	Sea-97
8	A/GDMM-CHA-2013-S (KF450794)	CHA13-AA	636	631	0	99.21	0.79	ASIA	Sea-97
9	A/GZ-HX/CHA/2013 (KJ646647)	CHA13-AG	636	631	0	99.21	0.79	ASIA	Sea-97
10	A/GZ-JC/CHA/2013 (KJ646650)	CHA13-AJ	636	631	0	99.21	0.79	ASIA	Sea-97
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	A/TAI/7/2003 (HQ116312)	TAI03-07	636	594	0	93.40	6.60	ASIA	Sea-97
2	A/TAI/2/97 (EF208778)	TAI97-02	636	572	0	89.94	10.06	ASIA	Sea-97
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	556	0	87.42	12.58	ASIA	Thai-87
4	A22/IRQ/64 (AY593763)	IRQ64--A	636	524	0	82.39	17.61	ASIA	A22
5	A/IRN/2/87 (EF208770)	IRN87-02	633	519	0	81.99	18.01	ASIA	Iran-87
6	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	636	516	0	81.13	18.87	ASIA	A15
7	A/GHA/16/73 (KF561698)	GHA73-16	633	513	0	81.04	18.96	AFRICA	G-VI
8	A/IRN/1/2011	IRN11-01	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-11}
9	A/IRN/78/2009	IRN09-78	636	515	0	80.97	19.03	ASIA	Iran-05 ^{FAR-09}
10	A/TUR/1/2008 (FJ755133)	TUR08-01	636	514	0	80.82	19.18	ASIA	Iran-05 ^{ARD-07}

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.3

© The Pirbright Institute (not to be reproduced without permission)

Report on FMDV A in Thailand in 2014-2015

Batch: WRLFMD/2015/00016

◆ indicates viruses in this batch

Software: MEGA 6.06

Analysis

----- Phylogeny Reconstruction

Scope ----- All Selected Taxa

Statistical Method ----- Neighbor-joining

Phylogeny Test

----- Bootstrap method

No. of Bootstrap Replications ----- 1000

Substitution Model

----- Nucleotide

Model/Method ----- Kimura 2-parameter model

Substitutions to Include ----- d: Transitions + Transversions

Rates and Patterns

----- Uniform rates

Pattern among Lineages ----- Same (Homogeneous)

Data Subset to Use

----- 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 & K. Bachanek-Bankowska,
14 September 2015

© *The Pirbright Institute*

(not to be reproduced without permission)

