

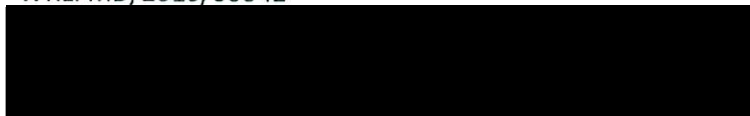


INSTITUTE FOR ANIMAL HEALTH
Director: Professor Martin W. Shirley, PhD
PIRBRIGHT LABORATORY
Ash Road,
Pirbright,
Surrey,
GU24 0NF
Intn Tel: 00 44 1483 232441
Tel: 01483 232441 Fax: 01483 232621

FMD Sequencing Report

Lab Reference WRL Batch Number: WRLFMD/2010/00042

Sender Details:



Date Received: 25th November 2010

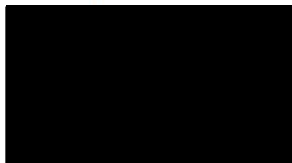
Country of Origin: Thailand

Date Reported: 5th January 2011

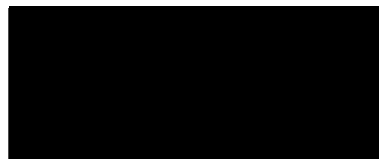
Dear Dr. Linchongsubongkoch,

Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

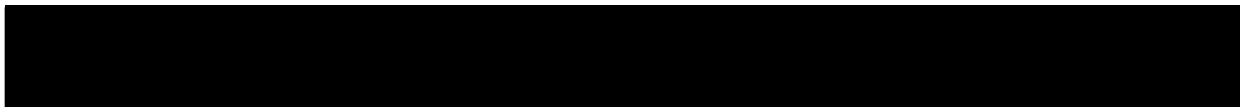
Results Approved By:



Official Stamp:



Date: 6/1/11



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: elizabeth.wilson@bbsrc.ac.uk)

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

Genotyping Report

Report Date for this Batch: 21 December 2010

FMDV type O

Country: Thailand

Period: 2009-2010

No. of isolates: 8

BATCH: WRLFMD/2010/00042



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FAO World Reference Laboratory for FMD Genotyping Report

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/26/2009 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 1-2/10 R3 B2 | |
| Location: Maeon, Chiang Mai, Thailand | Topotype: SEA |
| Date collected: 16/12/2009 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI09-26.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK3 BHK2 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/25/2009 (HQ116272) | TAI09-25 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 2 | O/TAI/20/2009 (HQ116267) | TAI09-20 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 3 | O/TAI/21/2009 (HQ116268) | TAI09-21 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 4 | O/TAI/24/2009 (HQ116271) | TAI09-24 | 639 | 635 | 0 | 99.37 | 0.63 | SEA | Mya-98 |
| 5 | O/TAI/1/2010 | TAI10-01 | 639 | 633 | 0 | 99.06 | 0.94 | SEA | Mya-98 |
| 6 | O/TAI/7/2007 (HQ116243) | TAI07-07 | 639 | 628 | 0 | 98.28 | 1.72 | SEA | Mya-98 |
| 7 | O/MAY/6/2007 (HQ116210) | MAY07-06 | 639 | 627 | 0 | 98.12 | 1.88 | SEA | Mya-98 |
| 8 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 627 | 0 | 98.12 | 1.88 | SEA | Mya-98 |
| 9 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 626 | 0 | 97.97 | 2.03 | SEA | Mya-98 |
| 10 | O/MAY/4/2007 (HQ116208) | MAY07-04 | 639 | 626 | 0 | 97.97 | 2.03 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 594 | 0 | 92.96 | 7.04 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 567 | 0 | 88.73 | 11.27 | SEA | unnamed |
| 3 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 542 | 0 | 84.82 | 15.18 | ME-SA | unnamed |
| 4 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 540 | 0 | 84.51 | 15.49 | SEA | Cam-94 |
| 5 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | unnamed |
| 6 | O/IRN/31/2009 | IRN09-31 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 ^{FAR-09} |
| 7 | O1/Manisa/TUR/69 (AY593823) | TUR69--G | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | unnamed |
| 8 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |
| 9 | O/TUR/257/2008* (FMDI) | TUR08-AD | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | PanAsia-2 ^{TER-08} |
| 10 | O/TUR/264/2009* (FMDI) | TUR09-AK | 639 | 538 | 0 | 84.19 | 15.81 | ME-SA | PanAsia-2 ^{SAN-09} |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/27/2009 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 4/10 R1 B2 | |
| Location: Pardad, Chiang Rai, Thailand | Topotype: SEA |
| Date collected: 28/12/2009 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI09-27.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Buffalo | No. of Nt determined: 639 |
| Material used: LK1 BHK2 RS2 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/2/2010 | TAI10-02 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 2 | O/TAI/5/2010 | TAI10-05 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 3 | O/TAI/3/2010 | TAI10-03 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 4 | O/VIT/5/2010 | VIT10-05 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 5 | O/TAI/4/2010 | TAI10-04 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 6 | O/TAI/6/2010 | TAI10-06 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 608 | 0 | 95.15 | 4.85 | SEA | Mya-98 |
| 8 | O/TAI/1/2005 (HQ116234) | TAI05-01 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 9 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 10 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 591 | 0 | 92.49 | 7.51 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 569 | 0 | 89.05 | 10.95 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 547 | 0 | 85.60 | 14.40 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 542 | 0 | 84.82 | 15.18 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|---|--|
| Serotype: O WRLFMD Ref No: TAI/1/2010 Batch No: WRLFMD/2010/00042 Sender Ref: 9-2/10 R2 B1 Location: Tung Hua Chang, Lamphun, Thailand Date collected: 21/01/2010 Date received by WRLFMD: 25/11/2010 Date received for sequencing: 19/12/2010 Species: Cattle Material used: LK2 BHK1 BTy1 Region sequenced: VP1 RT-PCR primers: O-1C244F/EUR-2B52R O-1C272F/EUR-2B52R | Report date: 21/12/2010 Reported by: N.J. Knowles Checked by: D.P. King Topotype: SEA Genotype/strain: Mya-98 Sequence filename: TAI10-01.SEQ Date sequence last updated: 21/12/2010 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 2544 Min. no. of nt for comparison: 600 Total turn-around time: 26 days Sequencing time: 2 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/TAI/25/2009 (HQ116272) | TAI09-25 | 639 | 635 | 0 | 99.37 | 0.63 | SEA | Mya-98 |
| 2 | O/TAI/20/2009 (HQ116267) | TAI09-20 | 639 | 634 | 0 | 99.22 | 0.78 | SEA | Mya-98 |
| 3 | O/TAI/21/2009 (HQ116268) | TAI09-21 | 639 | 634 | 0 | 99.22 | 0.78 | SEA | Mya-98 |
| 4 | O/TAI/24/2009 (HQ116271) | TAI09-24 | 639 | 633 | 0 | 99.06 | 0.94 | SEA | Mya-98 |
| 5 | O/TAI/26/2009 | TAI09-26 | 639 | 633 | 0 | 99.06 | 0.94 | SEA | Mya-98 |
| 6 | O/TAI/7/2007 (HQ116243) | TAI07-07 | 639 | 626 | 0 | 97.97 | 2.03 | SEA | Mya-98 |
| 7 | O/MAY/6/2007 (HQ116210) | MAY07-06 | 639 | 625 | 0 | 97.81 | 2.19 | SEA | Mya-98 |
| 8 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 625 | 0 | 97.81 | 2.19 | SEA | Mya-98 |
| 9 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 624 | 0 | 97.65 | 2.35 | SEA | Mya-98 |
| 10 | O/MAY/4/2007 (HQ116208) | MAY07-04 | 639 | 624 | 0 | 97.65 | 2.35 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 594 | 0 | 92.96 | 7.04 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 566 | 0 | 88.58 | 11.42 | SEA | unnamed |
| 3 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 541 | 0 | 84.66 | 15.34 | SEA | Cam-94 |
| 4 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | unnamed |
| 5 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | unnamed |
| 6 | O/IRN/31/2009 | IRN09-31 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 ^{FAR-09} |
| 7 | O1/Manisa/TUR/69 (AY593823) | TUR69--G | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | unnamed |
| 8 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |
| 9 | O/TUR/257/2008* (FMDI) | TUR08-AD | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | PanAsia-2 ^{TER-08} |
| 10 | O/TUR/264/2009* (FMDI) | TUR09-AK | 639 | 538 | 0 | 84.19 | 15.81 | ME-SA | PanAsia-2 ^{SAN-09} |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/2/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 30-2/10 R2 B1 | |
| Location: Maesord, Tak, Thailand | Topotype: SEA |
| Date collected: 01/01/2010 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI10-02.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK2 BHK1 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/27/2009 | TAI09-27 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 2 | O/TAI/5/2010 | TAI10-05 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 3 | O/TAI/3/2010 | TAI10-03 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 4 | O/VIT/5/2010 | VIT10-05 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 5 | O/TAI/4/2010 | TAI10-04 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 6 | O/TAI/6/2010 | TAI10-06 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 608 | 0 | 95.15 | 4.85 | SEA | Mya-98 |
| 8 | O/TAI/1/2005 (HQ116234) | TAI05-01 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 9 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 10 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 591 | 0 | 92.49 | 7.51 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 569 | 0 | 89.05 | 10.95 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 547 | 0 | 85.60 | 14.40 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 542 | 0 | 84.82 | 15.18 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/3/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 32/10 R3 B1 | |
| Location: Maung, Sukhothai, Thailand | Topotype: SEA |
| Date collected: 01/01/2010 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI10-03.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK3 BHK1 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/2/2010 | TAI10-02 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 2 | O/TAI/27/2009 | TAI09-27 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 3 | O/TAI/5/2010 | TAI10-05 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 4 | O/VIT/5/2010 | VIT10-05 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 5 | O/TAI/4/2010 | TAI10-04 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 6 | O/TAI/6/2010 | TAI10-06 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 607 | 0 | 94.99 | 5.01 | SEA | Mya-98 |
| 8 | O/TAI/1/2005 (HQ116234) | TAI05-01 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 9 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 10 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 604 | 0 | 94.52 | 5.48 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 590 | 0 | 92.33 | 7.67 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 568 | 0 | 88.89 | 11.11 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 542 | 0 | 84.82 | 15.18 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 541 | 0 | 84.66 | 15.34 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 538 | 0 | 84.19 | 15.81 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/4/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 38-1/10 R1 | |
| Location: Lungsuan, Chumporn, Thailand | Topotype: SEA |
| Date collected: 01/01/2010 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI10-04.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK1 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/2/2010 | TAI10-02 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 2 | O/TAI/27/2009 | TAI09-27 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 3 | O/TAI/5/2010 | TAI10-05 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 4 | O/TAI/3/2010 | TAI10-03 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 5 | O/VIT/5/2010 | VIT10-05 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 6 | O/TAI/6/2010 | TAI10-06 | 639 | 635 | 0 | 99.37 | 0.63 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 8 | O/MYA/6/2002 (HQ116223) | MYA02-06 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 9 | O/MYA/7/2002 (DQ164928) | MYA02-07 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 10 | O/MYA/2/2006 (HQ116225) | MYA06-02 | 639 | 604 | 0 | 94.52 | 5.48 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 591 | 0 | 92.49 | 7.51 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 569 | 0 | 89.05 | 10.95 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 547 | 0 | 85.60 | 14.40 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 540 | 0 | 84.51 | 15.49 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/5/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 42/10 R1 | |
| Location: Lomsak, Phetchaboon, Thailand | Topotype: SEA |
| Date collected: 01/01/2010 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI10-05.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK2 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/TAI/2/2010 | TAI10-02 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 2 | O/TAI/27/2009 | TAI09-27 | 639 | 639 | 0 | 100.00 | 0.00 | SEA | Mya-98 |
| 3 | O/TAI/3/2010 | TAI10-03 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 4 | O/VIT/5/2010 | VIT10-05 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 5 | O/TAI/4/2010 | TAI10-04 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 6 | O/TAI/6/2010 | TAI10-06 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 608 | 0 | 95.15 | 4.85 | SEA | Mya-98 |
| 8 | O/TAI/1/2005 (HQ116234) | TAI05-01 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 9 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 10 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 591 | 0 | 92.49 | 7.51 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 569 | 0 | 89.05 | 10.95 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 547 | 0 | 85.60 | 14.40 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 542 | 0 | 84.82 | 15.18 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: O | Report date: 21/12/2010 |
| WRLFMD Ref No: TAI/6/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00042 | Checked by: D.P. King |
| Sender Ref: 44/10 R2 | |
| Location: Kangkoi, Saraburi, Thailand | Topotype: SEA |
| Date collected: 01/01/2010 | Genotype/strain: Mya-98 |
| Date received by WRLFMD: 25/11/2010 | Sequence filename: TAI10-06.SEQ |
| Date received for sequencing: 19/12/2010 | Date sequence last updated: 21/12/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: LK2 BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: O-1C244F/EUR-2B52R | Total no. of comparisons: 2544 |
| O-1C272F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 26 days |
| | Sequencing time: 2 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/VIT/5/2010 | VIT10-05 | 639 | 638 | 0 | 99.84 | 0.16 | SEA | Mya-98 |
| 2 | O/TAI/2/2010 | TAI10-02 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 3 | O/TAI/27/2009 | TAI09-27 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 4 | O/TAI/5/2010 | TAI10-05 | 639 | 637 | 0 | 99.69 | 0.31 | SEA | Mya-98 |
| 5 | O/TAI/3/2010 | TAI10-03 | 639 | 636 | 0 | 99.53 | 0.47 | SEA | Mya-98 |
| 6 | O/TAI/4/2010 | TAI10-04 | 639 | 635 | 0 | 99.37 | 0.63 | SEA | Mya-98 |
| 7 | O/TAI/8/2005 (HQ116237) | TAI05-08 | 639 | 608 | 0 | 95.15 | 4.85 | SEA | Mya-98 |
| 8 | O/TAI/1/2005 (HQ116234) | TAI05-01 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 9 | O/TAI/9/2007 (HQ116245) | TAI07-09 | 639 | 606 | 0 | 94.84 | 5.16 | SEA | Mya-98 |
| 10 | O/LAO/1/2007 (HQ116175) | LAO07-01 | 639 | 605 | 0 | 94.68 | 5.32 | SEA | Mya-98 |
| 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/MYA/7/98 (DQ164925) | MYA98-07 | 639 | 591 | 0 | 92.49 | 7.51 | SEA | Mya-98 |
| 2 | O/TAI/189/87* (TRRL) | TAI87-AC | 639 | 569 | 0 | 89.05 | 10.95 | SEA | unnamed |
| 3 | O/IRN/31/2009 | IRN09-31 | 639 | 547 | 0 | 85.60 | 14.40 | ME-SA | PanAsia-2 ^{FAR-09} |
| 4 | O/IND/R2/75* (AF204276) | IND75--A | 639 | 546 | 0 | 85.45 | 14.55 | ME-SA | unnamed |
| 5 | O/UKG/35/2001 (AJ539141) | UKG01-35 | 639 | 545 | 0 | 85.29 | 14.71 | ME-SA | PanAsia |
| 6 | O/IND/53/79 (AF292107) | IND79A53 | 639 | 544 | 0 | 85.13 | 14.87 | ME-SA | unnamed |
| 7 | O/PAK/16/2010 | PAK10-16 | 639 | 543 | 0 | 84.98 | 15.02 | ME-SA | PanAsia-2 ^{PUN-10} |
| 8 | O/CAM/3/98 (AJ294910) | CAM98-03 | 639 | 540 | 0 | 84.51 | 15.49 | SEA | Cam-94 |
| 9 | O/IRN/8/2005 | IRN05-08 | 639 | 540 | 0 | 84.51 | 15.49 | ME-SA | PanAsia-2 |
| 10 | O/PAK/16/2003 (DQ165068) | PAK03-16 | 639 | 539 | 0 | 84.35 | 15.65 | ME-SA | Pak-98 |

nt, nucleotides

*, not a WRLFMD reference number

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Report on FMDV O in Thailand in 2009-2010

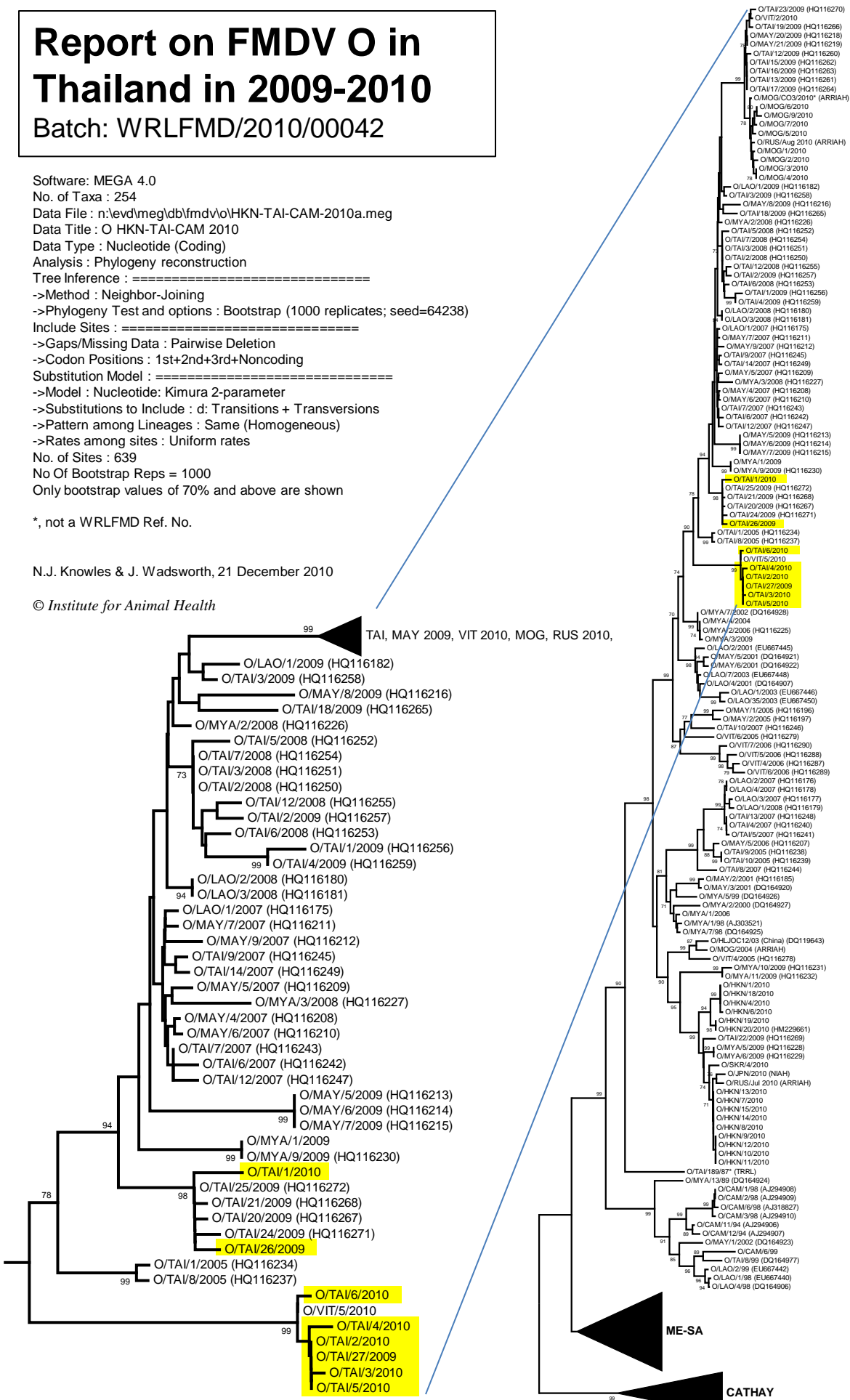
Batch: WRLFMD/2010/00042

Software: MEGA 4.0
 No. of Taxa : 254
 Data File : n:\levd\meg\db\fmvd\o\HKN-TAI-CAM-2010a.meg
 Data Title : O HKN-TAI-CAM 2010
 Data Type : Nucleotide (Coding)
 Analysis : Phylogeny reconstruction
 Tree Inference : =====
 ->Method : Neighbor-Joining
 ->Phylogeny Test and options : Bootstrap (1000 replicates; seed=64238)
 Include Sites : =====
 ->Gaps/Missing Data : Pairwise Deletion
 ->Codon Positions : 1st+2nd+3rd+Noncoding
 Substitution Model : =====
 ->Model : Nucleotide: Kimura 2-parameter
 ->Substitutions to Include : d: Transitions + Transversions
 ->Pattern among Lineages : Same (Homogeneous)
 ->Rates among sites : Uniform rates
 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, 21 December 2010

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0.02