

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

Genotyping Report

Report Date for this Batch: 4 August 2010

FMDV type A

Country: Iran

Period: 2010

No. of isolates: 7

BATCH: WRLFMD/2010/00024



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FAO World Reference Laboratory for FMD Genotyping Report

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

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/73/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-96 | |
| Location: Gilan, Iran | Topotype: ASIA |
| Date collected: 09/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10-73.SEQ |
| Date received for sequencing: 11/06/2010 | Date sequence last updated: 21/06/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 47 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/AFG/6/2010 | AFG10-06 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/9/2010 | AFG10-09 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/IRN/80/2010 | IRN10-80 | 639 | 630 | 0 | 98.59 | 1.41 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/IRN/108/2010 | IRN10108 | 639 | 628 | 0 | 98.28 | 1.72 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/PAK/10/2008 | PAK08-10 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/PAK/12/2008 | PAK08-12 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/PAK/7/2008 | PAK08-07 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/PAK/9/2008 | PAK08-09 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/9/2009 | IRN09-09 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/IRN/15/2009 | IRN09-15 | 639 | 619 | 0 | 96.87 | 3.13 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 546 | 0 | 85.85 | 14.15 | ASIA | Thai-87 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 541 | 0 | 85.06 | 14.94 | ASIA | Iran-87 |
| 8 | A/TAI/2/97 (EF208778) | TAI97-02 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-97 |
| 9 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 532 | 0 | 83.65 | 16.35 | ASIA | Iran-99 |
| 10 | A22/IRQ/64 (AY593763) | IRQ64--A | 639 | 532 | 0 | 83.26 | 16.74 | ASIA | A ₂₂ |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/80/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-90 | |
| Location: Semnan, Iran | Topotype: ASIA |
| Date collected: 11/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10-80.SEQ |
| Date received for sequencing: 11/06/2010 | Date sequence last updated: 21/06/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 47 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/IRN/108/2010 | IRN10108 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/6/2010 | AFG10-06 | 639 | 632 | 0 | 98.90 | 1.10 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/9/2010 | AFG10-09 | 639 | 632 | 0 | 98.90 | 1.10 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/IRN/73/2010 | IRN10-73 | 639 | 630 | 0 | 98.59 | 1.41 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/PAK/10/2008 | PAK08-10 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/PAK/12/2008 | PAK08-12 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/PAK/7/2008 | PAK08-07 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/PAK/9/2008 | PAK08-09 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/9/2009 | IRN09-09 | 639 | 619 | 0 | 96.87 | 3.13 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/IRN/15/2009 | IRN09-15 | 639 | 618 | 0 | 96.71 | 3.29 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 543 | 0 | 85.38 | 14.62 | ASIA | Thai-87 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 536 | 0 | 84.28 | 15.72 | ASIA | Iran-87 |
| 8 | A/TAI/2/97 (EF208778) | TAI97-02 | 636 | 532 | 0 | 83.65 | 16.35 | ASIA | Thai-97 |
| 9 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 530 | 0 | 83.33 | 16.67 | ASIA | Iran-99 |
| 10 | A/IRN/1/96 (EF208771) | IRN96-01 | 638 | 529 | 1 | 82.92 | 17.08 | ASIA | Iran-96 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/108/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-75 | |
| Location: West Azerbaijan, Iran | Topotype: ASIA |
| Date collected: 18/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10108.SEQ |
| Date received for sequencing: 06/07/2010 | Date sequence last updated: 28/07/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy2 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 22 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/IRN/80/2010 | IRN10-80 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/6/2010 | AFG10-06 | 639 | 632 | 0 | 98.90 | 1.10 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/9/2010 | AFG10-09 | 639 | 630 | 0 | 98.59 | 1.41 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/IRN/73/2010 | IRN10-73 | 639 | 628 | 0 | 98.28 | 1.72 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/PAK/10/2008 | PAK08-10 | 639 | 618 | 0 | 96.71 | 3.29 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/PAK/12/2008 | PAK08-12 | 639 | 618 | 0 | 96.71 | 3.29 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/PAK/7/2008 | PAK08-07 | 639 | 618 | 0 | 96.71 | 3.29 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/PAK/9/2008 | PAK08-09 | 639 | 618 | 0 | 96.71 | 3.29 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/9/2009 | IRN09-09 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/IRN/15/2009 | IRN09-15 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 614 | 0 | 96.09 | 3.91 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 603 | 0 | 94.37 | 5.63 | ASIA | Iran-05 |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 594 | 0 | 92.96 | 7.04 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 543 | 0 | 85.38 | 14.62 | ASIA | Thai-87 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Iran-87 |
| 8 | A/TAI/2/97 (EF208778) | TAI97-02 | 636 | 532 | 0 | 83.65 | 16.35 | ASIA | Thai-97 |
| 9 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Iran-99 |
| 10 | A/IRN/1/96 (EF208771) | IRN96-01 | 638 | 531 | 1 | 83.23 | 16.77 | ASIA | Iran-96 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/119/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-79 | |
| Location: East Azerbaijan, Iran | Topotype: ASIA |
| Date collected: 20/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10119.SEQ |
| Date received for sequencing: 06/07/2010 | Date sequence last updated: 28/07/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 22 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/IRN/9/2009 | IRN09-09 | 639 | 624 | 0 | 97.65 | 2.35 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/26/2009 | IRN09-26 | 639 | 623 | 0 | 97.50 | 2.50 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/BAR/2/2009 | BAR09-02 | 639 | 622 | 0 | 97.34 | 2.66 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/BAR/4/2009 | BAR09-04 | 639 | 622 | 0 | 97.34 | 2.66 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/15/2009 | IRN09-15 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/IRN/20/2009 | IRN09-20 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/IRN/4/2009 | IRN09-04 | 639 | 621 | 0 | 97.18 | 2.82 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/44/2007 | AFG07-44 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/53/2009 | IRN09-53 | 639 | 620 | 0 | 97.03 | 2.97 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/6/2007 | AFG07-06 | 639 | 619 | 0 | 96.87 | 3.13 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 619 | 0 | 96.87 | 3.13 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/BAR/6/2008 | BAR08-06 | 639 | 609 | 0 | 95.31 | 4.69 | ASIA | Iran-05 ^{BAR-08} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 603 | 0 | 94.37 | 5.63 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 534 | 0 | 83.96 | 16.04 | ASIA | Thai-87 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |
| 8 | A/TAI/2/97 (EF208778) | TAI97-02 | 636 | 530 | 0 | 83.33 | 16.67 | ASIA | Thai-97 |
| 9 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 527 | 0 | 82.86 | 17.14 | ASIA | Iran-99 |
| 10 | A/IRN/1/96 (EF208771) | IRN96-01 | 638 | 527 | 1 | 82.60 | 17.40 | ASIA | Iran-96 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/125/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-84 | |
| Location: Sistan and Baluchistan, Iran | Topotype: ASIA |
| Date collected: 21/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10125.SEQ |
| Date received for sequencing: 06/07/2010 | Date sequence last updated: 28/07/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 22 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/IRN/151/2010 | IRN10151 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/4/2008 (FJ755067) | IRN08-04 | 639 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/44/2007 | AFG07-44 | 639 | 610 | 0 | 95.46 | 4.54 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/6/2007 | AFG07-06 | 639 | 609 | 0 | 95.31 | 4.69 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/PAK/5/2006 | PAK06-05 | 639 | 608 | 0 | 95.15 | 4.85 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/PAK/5/2006 (EF494488) | PAK06-AC | 639 | 608 | 0 | 95.15 | 4.85 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/BAR/2/2009 | BAR09-02 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/BAR/4/2009 | BAR09-04 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/9/2009 | IRN09-09 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/15/2010 | AFG10-15 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 609 | 0 | 95.31 | 4.69 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 538 | 0 | 84.59 | 15.41 | ASIA | Iran-99 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |
| 8 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 530 | 0 | 83.33 | 16.67 | ASIA | Thai-87 |
| 9 | A15/Bangkok/TAI/60 (AY593755) | TAI60--D | 639 | 526 | 0 | 82.32 | 17.68 | ASIA | A ₁₅ |
| 10 | A22/IRQ/64 (AY593763) | IRQ64--A | 639 | 526 | 0 | 82.32 | 17.68 | ASIA | A ₂₂ |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|--|--|
| Serotype: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/134/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-83 | |
| Location: Sistan and Baluchistan, Iran | Topotype: ASIA |
| Date collected: 23/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10134.SEQ |
| Date received for sequencing: 06/07/2010 | Date sequence last updated: 28/07/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 22 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/AFG/10/2010 | AFG10-10 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/44/2007 | AFG07-44 | 639 | 615 | 0 | 96.24 | 3.76 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/IRN/9/2009 | IRN09-09 | 639 | 615 | 0 | 96.24 | 3.76 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/6/2007 | AFG07-06 | 639 | 614 | 0 | 96.09 | 3.91 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/26/2009 | IRN09-26 | 639 | 614 | 0 | 96.09 | 3.91 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/BAR/2/2009 | BAR09-02 | 639 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/BAR/4/2009 | BAR09-04 | 639 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/6/2010 | AFG10-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/9/2010 | AFG10-09 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/IRN/15/2009 | IRN09-15 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 614 | 0 | 96.09 | 3.91 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 598 | 0 | 93.58 | 6.42 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |
| 8 | A15/Bangkok/TAI/60 (AY593755) | TAI60--D | 639 | 530 | 0 | 82.94 | 17.06 | ASIA | A ₁₅ |
| 9 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 527 | 0 | 82.86 | 17.14 | ASIA | Iran-99 |
| 10 | A/TAI/2/97 (EF208778) | TAI97-02 | 636 | 526 | 0 | 82.70 | 17.30 | ASIA | Thai-97 |

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: A | Report date: 28/07/2010 |
| WRLFMD Ref No: IRN/151/2010 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2010/00024 | Checked by: V. Mioulet |
| Sender Ref: IR-89-50 | |
| Location: Hormozgan, Iran | Topotype: ASIA |
| Date collected: 27/04/2010 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 26/05/2010 | Sequence filename: IRN10151.SEQ |
| Date received for sequencing: 16/07/2010 | Date sequence last updated: 28/07/2010 |
| Species: Cattle | No. of Nt determined: 639 |
| Material used: BTy1 | No. of ambiguities: 0 |
| Region sequenced: VP1 | Gene length: 639 |
| RT-PCR primers: A-1C562F/EUR-2B52R | Total no. of comparisons: 1166 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 63 days |
| | Sequencing time: 12 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/IRN/125/2010 | IRN10125 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/4/2008 (FJ755067) | IRN08-04 | 639 | 611 | 0 | 95.62 | 4.38 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/44/2007 | AFG07-44 | 639 | 608 | 0 | 95.15 | 4.85 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/6/2007 | AFG07-06 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/PAK/5/2006 | PAK06-05 | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/PAK/5/2006 (EF494488) | PAK06-AC | 639 | 606 | 0 | 94.84 | 5.16 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/16/2009 | AFG09-16 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/17/2009 | AFG09-17 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/BAR/2/2009 | BAR09-02 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/BAR/4/2009 | BAR09-04 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 ^{AFG-07} |
| 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/AFG/6/2007 | AFG07-06 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/BAR/6/2008 | BAR08-06 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{BAR-08} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 |
| 4 | A/TUR/1/2008 | TUR08-01 | 639 | 595 | 0 | 93.11 | 6.89 | ASIA | Iran-05 ^{ARD-07} |
| 5 | A/TUR/33/2008 | TUR08-33 | 639 | 594 | 0 | 92.96 | 7.04 | ASIA | Iran-05 ^{EZM-07} |
| 6 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 536 | 0 | 84.28 | 15.72 | ASIA | Iran-99 |
| 7 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Iran-87 |
| 8 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 528 | 0 | 83.02 | 16.98 | ASIA | Thai-87 |
| 9 | A15/Bangkok/TAI/60 (AY593755) | TAI60--D | 639 | 526 | 0 | 82.32 | 17.68 | ASIA | A ₁₅ |
| 10 | A22/IRQ/64 (AY593763) | IRQ64--A | 639 | 524 | 0 | 82.00 | 18.00 | ASIA | A ₂₂ |

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v3.1

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Report on FMDV A in Iran in 2010

Batch: WRLFMD/2010/00024

Software: MEGA 4.0
 No. of Taxa : 194
 Data File : n:\evd\meg\db\fmvd\A\IRN2010c.meg
 Data Title : A Iran 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, 04 August 2010

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Iran-05

ASIA

AFG-07

BAR-08

ARD-07

EZM-07

Pakistan 2009

Iran-99

Iran-96

EURO-SA AFRICA

0.02