

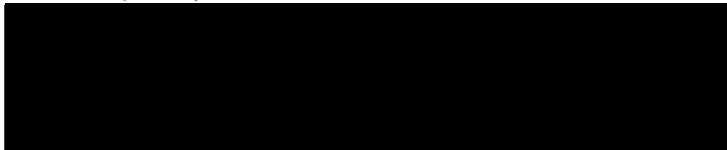


INSTITUTE FOR ANIMAL HEALTH
Director: Professor John Fazakerley BSc, MBA, PhD, FRCPath
PIRBRIGHT LABORATORY
Ash Road,
Pirbright,
Surrey,
GU24 0NF
Intn Tel: 00 44 1483 232441
Tel: 01483 232441 Fax: 01483 232621

FMD Sequencing Report

Lab Reference WRL Batch Number: WRLFMD/2011/00023

Sender Details:



Date Received: 31st March 2011

Country of Origin: Afghanistan

Date Reported: 15th June 2011

Dear Dr. Ehtisham Khan,

Re.: Serotype A.

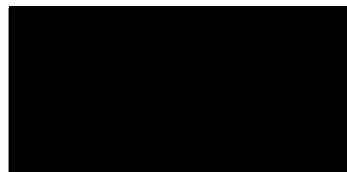
Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at:

<http://www.wrlfmd.org/>

Results Approved By:

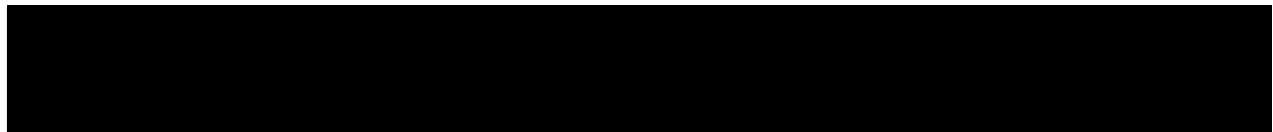


Official Stamp:



Date:

15/6/11



A UKAS accredited testing laboratory No. 4025.

To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: elizabeth.wilson@bbsrc.ac.uk)

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

Genotyping Report

Report Date for this Batch: 15 June 2011

FMDV type A

Country: Afghanistan

Period: 2011

No. of samples: 17

BATCH: WRLFMD/2011/00023



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| | |
|------------------------------------------|----------------------------------------|
| Serotype: A | Report date: 15/06/2011 |
| WRLFMD Ref No: AFG/12/2011 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2011/00023 | Checked by: D.P. King |
| Sender Ref: 544 | |
| Location: Charkia, Logar, Afghanistan | Topotype: ASIA |
| Date collected: 28/01/2011 | Genotype/strain: Iran-05 |
| Date received by WRLFMD: 31/03/2011 | Sequence filename: AFG11-12.SEQ |
| Date received for sequencing: 25/05/2011 | Date sequence last updated: 27/05/2011 |
| Species: Not Known | 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: 1316 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 76 days |
| | Sequencing time: 21 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/38/2011 | AFG11-38 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 2 | A/AFG/42/2011 | AFG11-42 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 3 | A/AFG/56/2011 | AFG11-56 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 4 | A/IRN/13/2009 | IRN09-13 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/IRN/18/2009 | IRN09-18 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 6 | A/IRN/19/2009 | IRN09-19 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 7 | A/IRN/10/2009 | IRN09-10 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 8 | A/IRN/23/2009 | IRN09-23 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 9 | A/IRN/24/2009 | IRN09-24 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 10 | A/IRN/5/2009 | IRN09-05 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 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/IRN/78/2009 | IRN09-78 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{FAR-09} |
| 2 | A/AFG/6/2007 | AFG07-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2010 | IRN10-09 | 639 | 590 | 0 | 92.33 | 7.67 | ASIA | Iran-05 ^{ESF-10} |
| 8 | A/IRN/9/2011 | IRN11-09 | 639 | 588 | 0 | 92.02 | 7.98 | ASIA | Iran-05 ^{QAZ-11} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 539 | 0 | 84.75 | 15.25 | ASIA | Iran-87 |
| 10 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Iran-99 |

nt, nucleotides

*, not a WRLFMD reference number

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serotype: A WRLFMD Ref No: AFG/13/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 520 Location: Deh??, Paghman, Kabul, Afghanistan Date collected: 31/01/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 11/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-13.SEQ Date sequence last updated: 16/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 35 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/15/2011 | AFG11-15 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/31/2011 | AFG11-31 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/43/2011 | AFG11-43 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/20/2011 | AFG11-20 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/22/2011 | AFG11-22 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/24/2011 | AFG11-24 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/25/2011 | AFG11-25 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/26/2011 | AFG11-26 | 639 | 635 | 0 | 99.37 | 0.63 | 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 | 611 | 0 | 95.62 | 4.38 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 |
| 3 | A/IRN/78/2009 | IRN09-78 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{FAR-09} |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 594 | 0 | 92.96 | 7.04 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 586 | 0 | 91.71 | 8.29 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 583 | 0 | 91.24 | 8.76 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Iran-87 |
| 10 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Thai-87 |

nt, nucleotides

*, not a WRLFMD reference number

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|----------------------------------------------|--------------------------------------------|
| Serotype: A | Report date: 15/06/2011 |
| WRLFMD Ref No: AFG/15/2011 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2011/00023 | Checked by: D.P. King |
| Sender Ref: 522 | |
| Location: Deh??, Paghman, Kabul, Afghanistan | Topotype: ASIA |
| Date collected: 31/01/2011 | Genotype/strain: Iran-05 ^{AFG-07} |
| Date received by WRLFMD: 31/03/2011 | Sequence filename: AFG11-15.SEQ |
| Date received for sequencing: 11/05/2011 | Date sequence last updated: 16/05/2011 |
| Species: Not Known | 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: 1316 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 76 days |
| | Sequencing time: 35 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/13/2011 | AFG11-13 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/31/2011 | AFG11-31 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/43/2011 | AFG11-43 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/20/2011 | AFG11-20 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/22/2011 | AFG11-22 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/24/2011 | AFG11-24 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/25/2011 | AFG11-25 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/26/2011 | AFG11-26 | 639 | 635 | 0 | 99.37 | 0.63 | 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 | 611 | 0 | 95.62 | 4.38 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 |
| 3 | A/IRN/78/2009 | IRN09-78 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{FAR-09} |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 594 | 0 | 92.96 | 7.04 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 586 | 0 | 91.71 | 8.29 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 583 | 0 | 91.24 | 8.76 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Iran-87 |
| 10 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Thai-87 |

nt, nucleotides

*, not a WRLFMD reference number

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serotype: A WRLFMD Ref No: AFG/20/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 525 Location: Qargha, Paghman, Kabul, Afghanistan Date collected: 03/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 11/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-20.SEQ Date sequence last updated: 16/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 35 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/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serotype: A WRLFMD Ref No: AFG/22/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 527 Location: Qargha, Paghman, Kabul, Afghanistan Date collected: 03/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 11/05/2011 Species: Not Known Material used: BTy2 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-22.SEQ Date sequence last updated: 16/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 35 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/24/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 529 Location: Qargha, Paghman, Kabul, Afghanistan Date collected: 03/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 11/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-24.SEQ Date sequence last updated: 16/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 35 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/25/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 530 Location: Dahonaghar, Pqaghman, Kabul, Afghanistan Date collected: 04/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-25.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/26/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 531 Location: Dahonaghar, Pqaghman, Kabul, Afghanistan Date collected: 04/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-26.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/27/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 532 Location: Dahonaghar, Pqaghman, Kabul, Afghanistan Date collected: 04/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-27.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/29/2011 | AFG11-29 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/29/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 534 Location: Dahonaghar, Pqaghman, Kabul, Afghanistan Date collected: 04/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-29.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/20/2011 | AFG11-20 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/24/2011 | AFG11-24 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/25/2011 | AFG11-25 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/26/2011 | AFG11-26 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/27/2011 | AFG11-27 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/57/2011 | AFG11-57 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/IRN/134/2010 | IRN10134 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/32/2011 | IRN11-32 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/PAK/86/2011 | PAK11-86 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 613 | 0 | 95.93 | 4.07 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 605 | 0 | 94.68 | 5.32 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 604 | 0 | 94.52 | 5.48 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 587 | 0 | 91.86 | 8.14 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 585 | 0 | 91.55 | 8.45 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 533 | 0 | 83.81 | 16.19 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/31/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 536 Location: Chararhi Sarsabzy, District 4, Kabul, Afghanistan Date collected: 09/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-31.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/13/2011 | AFG11-13 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/15/2011 | AFG11-15 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/43/2011 | AFG11-43 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/57/2011 | AFG11-57 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/32/2011 | IRN11-32 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/20/2011 | AFG11-20 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/22/2011 | AFG11-22 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/24/2011 | AFG11-24 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/25/2011 | AFG11-25 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/26/2011 | AFG11-26 | 639 | 633 | 0 | 99.06 | 0.94 | 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/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/IRN/78/2009 | IRN09-78 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{FAR-09} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 594 | 0 | 92.96 | 7.04 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 586 | 0 | 91.71 | 8.29 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 583 | 0 | 91.24 | 8.76 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 531 | 0 | 83.49 | 16.51 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 529 | 0 | 83.18 | 16.82 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/34/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 538 Location: Baba Ali, subgrhanh, Jwzjan, Afghanistan Date collected: 16/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-34.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/20/2011 | AFG11-20 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/22/2011 | AFG11-22 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/24/2011 | AFG11-24 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/25/2011 | AFG11-25 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/26/2011 | AFG11-26 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/27/2011 | AFG11-27 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/29/2011 | AFG11-29 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/57/2011 | AFG11-57 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/IRN/134/2010 | IRN10134 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/IRN/32/2011 | IRN11-32 | 639 | 633 | 0 | 99.06 | 0.94 | 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 | 610 | 0 | 95.46 | 4.54 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/IRN/78/2009 | IRN09-78 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{FAR-09} |
| 3 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 601 | 0 | 94.05 | 5.95 | ASIA | Iran-05 |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 598 | 0 | 93.58 | 6.42 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 596 | 0 | 93.27 | 6.73 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 593 | 0 | 92.80 | 7.20 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2010 | IRN10-09 | 639 | 584 | 0 | 91.39 | 8.61 | ASIA | Iran-05 ^{ESF-10} |
| 8 | A/IRN/9/2011 | IRN11-09 | 639 | 584 | 0 | 91.39 | 8.61 | ASIA | Iran-05 ^{QAZ-11} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 532 | 0 | 83.65 | 16.35 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 528 | 0 | 83.02 | 16.98 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/38/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 545 Location: Khoja Pai Takht, Memana, Faryab, Afghanistan Date collected: 24/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 Sequence filename: AFG11-38.SEQ Date sequence last updated: 26/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/12/2011 | AFG11-12 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 2 | A/AFG/42/2011 | AFG11-42 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 3 | A/AFG/56/2011 | AFG11-56 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 4 | A/IRN/13/2009 | IRN09-13 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/IRN/18/2009 | IRN09-18 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 6 | A/IRN/19/2009 | IRN09-19 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 7 | A/IRN/10/2009 | IRN09-10 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 8 | A/IRN/23/2009 | IRN09-23 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 9 | A/IRN/24/2009 | IRN09-24 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 10 | A/IRN/5/2009 | IRN09-05 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 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/IRN/78/2009 | IRN09-78 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{FAR-09} |
| 2 | A/AFG/6/2007 | AFG07-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2010 | IRN10-09 | 639 | 590 | 0 | 92.33 | 7.67 | ASIA | Iran-05 ^{ESF-10} |
| 8 | A/IRN/9/2011 | IRN11-09 | 639 | 588 | 0 | 92.02 | 7.98 | ASIA | Iran-05 ^{QAZ-11} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 539 | 0 | 84.75 | 15.25 | ASIA | Iran-87 |
| 10 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Iran-99 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/42/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 542 Location: Seaqala Dasht, Guldara, Kabul, Afghanistan Date collected: 26/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 Sequence filename: AFG11-42.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/12/2011 | AFG11-12 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 2 | A/AFG/38/2011 | AFG11-38 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 3 | A/AFG/56/2011 | AFG11-56 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 4 | A/IRN/13/2009 | IRN09-13 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/IRN/18/2009 | IRN09-18 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 6 | A/IRN/19/2009 | IRN09-19 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 7 | A/IRN/10/2009 | IRN09-10 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 8 | A/IRN/23/2009 | IRN09-23 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 9 | A/IRN/24/2009 | IRN09-24 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 10 | A/IRN/5/2009 | IRN09-05 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 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/IRN/78/2009 | IRN09-78 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{FAR-09} |
| 2 | A/AFG/6/2007 | AFG07-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2010 | IRN10-09 | 639 | 590 | 0 | 92.33 | 7.67 | ASIA | Iran-05 ^{ESF-10} |
| 8 | A/IRN/9/2011 | IRN11-09 | 639 | 588 | 0 | 92.02 | 7.98 | ASIA | Iran-05 ^{QAZ-11} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 539 | 0 | 84.75 | 15.25 | ASIA | Iran-87 |
| 10 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Iran-99 |

nt, nucleotides

*, not a WRLFMD reference number

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| Serotype: A WRLFMD Ref No: AFG/43/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 548 Location: Medan Howai, Memana, Faryab, Afghanistan Date collected: 27/02/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-43.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/13/2011 | AFG11-13 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/15/2011 | AFG11-15 | 639 | 637 | 0 | 99.69 | 0.31 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/31/2011 | AFG11-31 | 639 | 635 | 0 | 99.37 | 0.63 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/57/2011 | AFG11-57 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/IRN/32/2011 | IRN11-32 | 639 | 634 | 0 | 99.22 | 0.78 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/20/2011 | AFG11-20 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/22/2011 | AFG11-22 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/24/2011 | AFG11-24 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/25/2011 | AFG11-25 | 639 | 633 | 0 | 99.06 | 0.94 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/26/2011 | AFG11-26 | 639 | 633 | 0 | 99.06 | 0.94 | 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/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 |
| 3 | A/IRN/78/2009 | IRN09-78 | 639 | 599 | 0 | 93.74 | 6.26 | ASIA | Iran-05 ^{FAR-09} |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 597 | 0 | 93.43 | 6.57 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 595 | 0 | 93.11 | 6.89 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 592 | 0 | 92.64 | 7.36 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 584 | 0 | 91.39 | 8.61 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 583 | 0 | 91.24 | 8.76 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 529 | 0 | 83.18 | 16.82 | ASIA | Iran-87 |
| 10 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 529 | 0 | 83.18 | 16.82 | ASIA | Thai-87 |

nt, nucleotides

*, not a WRLFMD reference number

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|----------------------------------------------|----------------------------------------|
| Serotype: A | Report date: 15/06/2011 |
| WRLFMD Ref No: AFG/56/2011 | Reported by: N.J. Knowles |
| Batch No: WRLFMD/2011/00023 | Checked by: D.P. King |
| Sender Ref: 550 | |
| Location: Dasht, Guldara, Kabul, Afghanistan | Topotype: ASIA |
| Date collected: 15/03/2011 | Genotype/strain: Iran-05 |
| Date received by WRLFMD: 31/03/2011 | Sequence filename: AFG11-56.SEQ |
| Date received for sequencing: 25/05/2011 | Date sequence last updated: 26/05/2011 |
| Species: Not Known | 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: 1316 |
| A-1C612F/EUR-2B52R | Min. no. of nt for comparison: 600 |
| | Total turn-around time: 76 days |
| | Sequencing time: 21 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/12/2011 | AFG11-12 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 2 | A/AFG/38/2011 | AFG11-38 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 3 | A/AFG/42/2011 | AFG11-42 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 |
| 4 | A/IRN/13/2009 | IRN09-13 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/IRN/18/2009 | IRN09-18 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 6 | A/IRN/19/2009 | IRN09-19 | 639 | 617 | 0 | 96.56 | 3.44 | ASIA | Iran-05 ^{BAR-08} |
| 7 | A/IRN/10/2009 | IRN09-10 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 8 | A/IRN/23/2009 | IRN09-23 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 9 | A/IRN/24/2009 | IRN09-24 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 10 | A/IRN/5/2009 | IRN09-05 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{BAR-08} |
| 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/IRN/78/2009 | IRN09-78 | 639 | 616 | 0 | 96.40 | 3.60 | ASIA | Iran-05 ^{FAR-09} |
| 2 | A/AFG/6/2007 | AFG07-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/BAR/6/2008 | BAR08-06 | 639 | 612 | 0 | 95.77 | 4.23 | ASIA | Iran-05 ^{BAR-08} |
| 4 | A/IRN/1/2005 (EF208769) | IRN05-01 | 639 | 607 | 0 | 94.99 | 5.01 | ASIA | Iran-05 |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2010 | IRN10-09 | 639 | 590 | 0 | 92.33 | 7.67 | ASIA | Iran-05 ^{ESF-10} |
| 8 | A/IRN/9/2011 | IRN11-09 | 639 | 588 | 0 | 92.02 | 7.98 | ASIA | Iran-05 ^{QAZ-11} |
| 9 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 539 | 0 | 84.75 | 15.25 | ASIA | Iran-87 |
| 10 | A/IRN/22/99 (EF208772) | IRN99-22 | 636 | 535 | 0 | 84.12 | 15.88 | ASIA | Iran-99 |

nt, nucleotides

*, not a WRLFMD reference number

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| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serotype: A WRLFMD Ref No: AFG/57/2011 Batch No: WRLFMD/2011/00023 Sender Ref: 551 Location: Qalai Murad Bek, Shakardara, Kabul, Afghanistan Date collected: 15/03/2011 Date received by WRLFMD: 31/03/2011 Date received for sequencing: 25/05/2011 Species: Not Known Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R A-1C612F/EUR-2B52R | Report date: 15/06/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Iran-05 ^{AFG-07} Sequence filename: AFG11-57.SEQ Date sequence last updated: 27/05/2011 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1316 Min. no. of nt for comparison: 600 Total turn-around time: 76 days Sequencing time: 21 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/32/2011 | IRN11-32 | 639 | 639 | 0 | 100.00 | 0.00 | ASIA | Iran-05 ^{AFG-07} |
| 2 | A/AFG/13/2011 | AFG11-13 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 3 | A/AFG/15/2011 | AFG11-15 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 4 | A/AFG/20/2011 | AFG11-20 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 5 | A/AFG/22/2011 | AFG11-22 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 6 | A/AFG/24/2011 | AFG11-24 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 7 | A/AFG/25/2011 | AFG11-25 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 8 | A/AFG/26/2011 | AFG11-26 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 9 | A/AFG/27/2011 | AFG11-27 | 639 | 636 | 0 | 99.53 | 0.47 | ASIA | Iran-05 ^{AFG-07} |
| 10 | A/AFG/29/2011 | AFG11-29 | 639 | 636 | 0 | 99.53 | 0.47 | 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 | 612 | 0 | 95.77 | 4.23 | 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/IRN/78/2009 | IRN09-78 | 639 | 602 | 0 | 94.21 | 5.79 | ASIA | Iran-05 ^{FAR-09} |
| 4 | A/BAR/6/2008 | BAR08-06 | 639 | 600 | 0 | 93.90 | 6.10 | ASIA | Iran-05 ^{BAR-08} |
| 5 | A/TUR/1/2008 | TUR08-01 | 639 | 598 | 0 | 93.58 | 6.42 | ASIA | Iran-05 ^{ARD-07} |
| 6 | A/TUR/33/2008 | TUR08-33 | 639 | 595 | 0 | 93.11 | 6.89 | ASIA | Iran-05 ^{EZM-07} |
| 7 | A/IRN/9/2011 | IRN11-09 | 639 | 586 | 0 | 91.71 | 8.29 | ASIA | Iran-05 ^{QAZ-11} |
| 8 | A/IRN/9/2010 | IRN10-09 | 639 | 584 | 0 | 91.39 | 8.61 | ASIA | Iran-05 ^{ESF-10} |
| 9 | A/TAI/118/87* (EF208777) | TAI87-AD | 636 | 534 | 0 | 83.96 | 16.04 | ASIA | Thai-87 |
| 10 | A/IRN/2/87 (EF208770) | IRN87-02 | 636 | 532 | 0 | 83.65 | 16.35 | ASIA | Iran-87 |

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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Report on FMDV A in Afghanistan in 2011

Batch: WRLFMD/2011/00023

◆ indicates viruses in this batch

Software: MEGA 5.0

Analysis

Analysis ----- Phylogeny Reconstruction

Scope ----- All Selected Taxa

Statistical Method ----- Neighbor-joining

Phylogeny Test

Test of Phylogeny ----- Bootstrap method

No. of Bootstrap Replications ----- 1000

Substitution Model

Substitutions Type ----- Nucleotide

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

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

Rates and Patterns

Rates among Sites ----- Uniform rates

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

Data Subset to Use

Gaps/Missing Data Treatment ----- Pairwise deletion

Codons Included ----- 1st+2nd+3rd+Non-Coding

No. of Sites : 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, 15 June 2011

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