

Serotype: A	Report date: 25/06/2007						
WRL Ref No: AFG/6/2007							
Sender Ref: 6							
Date collected: 2007							
Date received by WRLFMD: 01/06/2007	Topotype: ASIA						
Date received for sequencing: 21/06/2007	Genotype/strain: Irn-05						
Species: Cattle	Sequence filename: AFG07-06.SEQ						
Material used: BTy1	Date sequence last updated: 25/06/2007						
Region sequenced: VP1	Total no. of comparisons: 871						
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R	Min. no. of nt for comparison: 300						
No. of Nt determined: 639	Total turn-around time: 24 days						
No. of ambiguities: 0	Sequencing time: 4 days						
Gene length: 639							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/AFG/44/2007	AFG07-44	639	638	0	99.84	0.16
2	A/PAK/5/2006	PAK06-05	639	628	0	98.28	1.72
3	A/IRN/3/2007	IRN07-03	639	623	0	97.5	2.5
4	A/IRN/22/2005	IRN05-22	639	619	0	96.87	3.13
5	A/IRN/27/2005	IRN05-27	639	619	0	96.87	3.13
6	A/IRN/5/2005	IRN05-05	639	619	0	96.87	3.13
7	A/SAU/15/2005	SAU05-15	639	619	0	96.87	3.13
8	A/SAU/16/2005	SAU05-16	639	619	0	96.87	3.13
9	A/IRN/24/2005	IRN05-24	639	618	0	96.71	3.29
10	A/IRN/28/2005	IRN05-28	639	618	0	96.71	3.29
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/IND/7/82 (1980)	IND82-07	639	542	0	84.82	15.18
2	A/SAU/41/91	SAU91-41	636	539	0	84.75	15.25
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	534	0	83.96	16.04
4	A/IRN/87	IRN87--M	634	532	2	83.91	16.09
5	A/IRN/22/99 (EF208772)	IRN99-22	636	532	0	83.65	16.35
6	A/SAU/23/86	SAU86-23	639	531	0	83.1	16.9
7	A/IRN/1/96 (EF208771)	IRN96-01	638	529	1	82.92	17.08
8	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	529	0	82.79	17.21
9	A/TAI/2/97 (EF208778)	TAI97-02	636	526	0	82.7	17.3
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	517	0	80.91	19.09
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: A  
WRL Ref No: AFG/7/2007  
Sender Ref: 7  
Date collected: 2007  
Date received by WRLFMD: 01/06/2007  
Date received for sequencing: 21/06/2007  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: A-1C562F/EUR-2B52R;  
A-1C612F/EUR-2B52R  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 25/06/2007  
Topotype: ASIA  
Genotype/strain: Irn-05  
Sequence filename: AFG07-07.SEQ  
Date sequence last updated: 25/06/2007  
Total no. of comparisons: 871  
Min. no. of nt for comparison: 300  
Total turn-around time: 24 days  
Sequencing time: 4 days

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/PAK/5/2006	PAK06-05	639	622	0	97.34	2.66
2	A/IRN/7/2005	IRN05-07	639	620	0	97.03	2.97
3	A/IRN/22/2005	IRN05-22	639	619	0	96.87	3.13
4	A/IRN/27/2005	IRN05-27	639	619	0	96.87	3.13
5	A/IRN/5/2005	IRN05-05	639	619	0	96.87	3.13
6	A/SAU/15/2005	SAU05-15	639	619	0	96.87	3.13
7	A/SAU/16/2005	SAU05-16	639	619	0	96.87	3.13
8	A/AFG/44/2007	AFG07-44	639	618	0	96.71	3.29
9	A/IRN/24/2005	IRN05-24	639	618	0	96.71	3.29
10	A/IRN/44/2005	IRN05-44	639	618	0	96.71	3.29

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/SAU/41/91	SAU91-41	636	545	0	85.69	14.31
2	A/IND/7/82 (1980)	IND82-07	639	542	0	84.82	15.18
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	538	0	84.59	15.41
4	A/IRN/22/99 (EF208772)	IRN99-22	636	537	0	84.43	15.57
5	A/IRN/87	IRN87--M	634	535	2	84.38	15.62
6	A/TAI/2/97 (EF208778)	TAI97-02	636	530	0	83.33	16.67
7	A/SAU/23/86	SAU86-23	639	529	0	82.79	17.21
8	A/IRN/1/96 (EF208771)	IRN96-01	638	526	1	82.45	17.55
9	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	524	0	82	18
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	510	0	79.81	20.19

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: A		Report date: 25/06/2007					
WRL Ref No: AFG/44/2007							
Sender Ref: 44							
Date collected: 2007							
Date received by WRLFMD: 01/06/2007		Topotype: ASIA					
Date received for sequencing: 21/06/2007		Genotype/strain: Irn-05					
Species: Cattle		Sequence filename: AFG07-44.SEQ					
Material used: BTy1		Date sequence last updated: 25/06/2007					
Region sequenced: VP1		Total no. of comparisons: 871					
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R		Min. no. of nt for comparison: 300					
No. of Nt determined: 639		Total turn-around time: 24 days					
No. of ambiguities: 0		Sequencing time: 4 days					
Gene length: 639							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/AFG/6/2007	AFG07-06	639	638	0	99.84	0.16
2	A/PAK/5/2006	PAK06-05	639	629	0	98.44	1.56
3	A/IRN/3/2007	IRN07-03	639	624	0	97.65	2.35
4	A/IRN/22/2005	IRN05-22	639	620	0	97.03	2.97
5	A/IRN/27/2005	IRN05-27	639	620	0	97.03	2.97
6	A/IRN/5/2005	IRN05-05	639	620	0	97.03	2.97
7	A/SAU/15/2005	SAU05-15	639	620	0	97.03	2.97
8	A/SAU/16/2005	SAU05-16	639	620	0	97.03	2.97
9	A/IRN/24/2005	IRN05-24	639	619	0	96.87	3.13
10	A/IRN/28/2005	IRN05-28	639	619	0	96.87	3.13
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/IND/7/82 (1980)	IND82-07	639	543	0	84.98	15.02
2	A/SAU/41/91	SAU91-41	636	540	0	84.91	15.09
3	A/TAI/118/87* (EF208777)	TAI87-AD	636	535	0	84.12	15.88
4	A/IRN/87	IRN87--M	634	533	2	84.07	15.93
5	A/IRN/22/99 (EF208772)	IRN99-22	636	533	0	83.81	16.19
6	A/SAU/23/86	SAU86-23	639	532	0	83.26	16.74
7	A/IRN/1/96 (EF208771)	IRN96-01	638	530	1	83.07	16.93
8	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	530	0	82.94	17.06
9	A/TAI/2/97 (EF208778)	TAI97-02	636	527	0	82.86	17.14
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	516	0	80.75	19.25
nt, nucleotides							
*, not a WRLFMD reference number							

# Report on FMDV A sequences from Afghanistan in 2007

Software: MEGA 3.1  
 No. of Taxa : 125  
 Data File : n:\evd\meg\db\fmdv\af\AFG2007a.meg  
 Data Title : A/AFG/2007  
 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 : 645  
 No Of Bootstrap Reps = 1000  
 Only bootstrap values of 70% and above are shown

N.J. Knowles & J. Wadsworth, 25 June 2007

