

Serotype: A		Report date: 12/09/2007					
WRL Ref No: TUR/2/2007							
Sender Ref: 10/2007							
Date collected: 02/01/2007							
Date received by WRLFMD: 27/07/2007		Topotype: ASIA					
Date received for sequencing: 23/08/2007		Genotype/strain: Irn-05					
Species: Cattle		Sequence filename: TUR07-02.SEQ					
Material used: BTy1		Date sequence last updated: 05/09/2007					
Region sequenced: VP1		Total no. of comparisons: 905					
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C621F/EUR-2B52R		Min. no. of nt for comparison: 300					
No. of Nt determined: 639		Total turn-around time: 47 days					
No. of ambiguities: 0		Sequencing time: 20 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/IRN/31/2005	IRN05-31	639	633	0	99.06	0.94
2	A/TUR/1/2006	TUR06-01	639	633	0	99.06	0.94
3	A/TUR/3/2006	TUR06-03	639	633	0	99.06	0.94
4	A/TUR/9/2005	TUR05-09	639	633	0	99.06	0.94
5	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	632	0	98.9	1.1
6	A/IRN/10/2005	IRN05-10	639	632	0	98.9	1.1
7	A/IRN/13/2005	IRN05-13	639	632	0	98.9	1.1
8	A/IRN/16/2005	IRN05-16	639	632	0	98.9	1.1
9	A/IRN/7/2006	IRN06-07	639	632	0	98.9	1.1
10	A/TUR/10/2005	TUR05-10	639	632	0	98.9	1.1
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/SAU/41/91	SAU91-41	636	539	0	84.75	15.25
2	A/IRN/87	IRN87--M	634	535	2	84.38	15.62
3	A/IND/7/82 (1980)	IND82-07	639	538	0	84.19	15.81
4	A/IRN/22/99 (EF208772)	IRN99-22	636	532	0	83.65	16.35
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	530	0	83.33	16.67
6	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	529	0	82.79	17.21
7	A/TAI/2/97 (EF208778)	TAI97-02	636	525	0	82.55	17.45
8	A/IRN/1/96 (EF208771)	IRN96-01	638	526	1	82.45	17.55
9	A/SAU/23/86	SAU86-23	639	526	0	82.32	17.68
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	509	0	79.66	20.34
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: A Report date: 12/09/2007  
WRL Ref No: TUR/5/2007  
Sender Ref: 41/2007  
Date collected: 12/01/2007  
Date received by WRLFMD: 27/07/2007 Topotype: ASIA  
Date received for sequencing: 23/08/2007 Genotype/strain: Irn-05  
Species: Cattle Sequence filename: TUR07-05.SEQ  
Material used: BTy1 Date sequence last updated: 05/09/2007  
Region sequenced: VP1 Total no. of comparisons: 905  
RT-PCR primers: A-1C562F/EUR-2B52R; Min. no. of nt for comparison: 300  
A-1C621F/EUR-2B52R Total turn-around time: 47 days  
No. of Nt determined: 639 Sequencing time: 20 days  
No. of ambiguities: 0  
Gene length: 639

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/TUR/7/2007	TUR07-07	639	631	0	98.75	1.25
2	A/TUR/10/2006	TUR06-10	639	627	0	98.12	1.88
3	A/TUR/25/2007	TUR07-25	639	627	0	98.12	1.88
4	A/TUR/1/2006	TUR06-01	639	626	0	97.97	2.03
5	A/TUR/17/2006	TUR06-17	639	626	0	97.97	2.03
6	A/TUR/3/2006	TUR06-03	639	626	0	97.97	2.03
7	A/TUR/7/2006	TUR06-07	639	626	0	97.97	2.03
8	A/TUR/9/2005	TUR05-09	639	626	0	97.97	2.03
9	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	625	0	97.81	2.19
10	A/IRN/10/2005	IRN05-10	639	625	0	97.81	2.19

### 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	538	0	84.59	15.41
2	A/IND/7/82 (1980)	IND82-07	639	540	0	84.51	15.49
3	A/IRN/87	IRN87--M	634	532	2	83.91	16.09
4	A/IRN/22/99 (EF208772)	IRN99-22	636	530	0	83.33	16.67
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	530	0	83.33	16.67
6	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	527	0	82.47	17.53
7	A/TAI/2/97 (EF208778)	TAI97-02	636	523	0	82.23	17.77
8	A/SAU/23/86	SAU86-23	639	523	0	81.85	18.15
9	A/IRN/1/96 (EF208771)	IRN96-01	638	521	1	81.66	18.34
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	506	0	79.19	20.81

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: A	Report date: 12/09/2007
WRL Ref No: TUR/7/2007	
Sender Ref: 132/2007	
Date collected: 23/01/2007	
Date received by WRLFMD: 27/07/2007	
Date received for sequencing: 23/08/2007	Topotype: ASIA
Species: Cattle	Genotype/strain: Irn-05
Material used: BTy1	Sequence filename: TUR07-07.SEQ
Region sequenced: VP1	Date sequence last updated: 05/09/2007
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C621F/EUR-2B52R	Total no. of comparisons: 905
No. of Nt determined: 639	Min. no. of nt for comparison: 300
No. of ambiguities: 0	Total turn-around time: 47 days
Gene length: 639	Sequencing time: 20 days

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/TUR/5/2007	TUR07-05	639	631	0	98.75	1.25
2	A/TUR/25/2007	TUR07-25	639	625	0	97.81	2.19
3	A/IRN/38/2005	IRN05-38	639	624	0	97.65	2.35
4	A/TUR/1/2006	TUR06-01	639	624	0	97.65	2.35
5	A/TUR/17/2006	TUR06-17	639	624	0	97.65	2.35
6	A/TUR/3/2006	TUR06-03	639	624	0	97.65	2.35
7	A/TUR/7/2006	TUR06-07	639	624	0	97.65	2.35
8	A/TUR/9/2005	TUR05-09	639	624	0	97.65	2.35
9	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	623	0	97.5	2.5
10	A/IRN/10/2005	IRN05-10	639	623	0	97.5	2.5

### 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	534	0	83.96	16.04
2	A/IND/7/82 (1980)	IND82-07	639	536	0	83.88	16.12
3	A/IRN/87	IRN87--M	634	530	2	83.6	16.4
4	A/IRN/22/99 (EF208772)	IRN99-22	636	528	0	83.02	16.98
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	526	0	82.7	17.3
6	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	525	0	82.16	17.84
7	A/IRN/1/96 (EF208771)	IRN96-01	638	523	1	81.97	18.03
8	A/SAU/23/86	SAU86-23	639	523	0	81.85	18.15
9	A/TAI/2/97 (EF208778)	TAI97-02	636	519	0	81.6	18.4
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	504	0	78.87	21.13

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: A  
WRL Ref No: TUR/8/2007  
Sender Ref: 210/2007  
Date collected: 01/02/2007  
Date received by WRLFMD: 27/07/2007  
Date received for sequencing: 23/08/2007  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: A-1C562F/EUR-2B52R;  
A-1C621F/EUR-2B52R  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 12/09/2007  
Topotype: ASIA  
Genotype/strain: Irn-05  
Sequence filename: TUR07-08.SEQ  
Date sequence last updated: 10/09/2007  
Total no. of comparisons: 905  
Min. no. of nt for comparison: 300  
Total turn-around time: 47 days  
Sequencing time: 20 days

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/TUR/10/2007	TUR07-10	639	635	0	99.37	0.63
2	A/TUR/1/2006	TUR06-01	639	629	0	98.44	1.56
3	A/TUR/17/2006	TUR06-17	639	629	0	98.44	1.56
4	A/TUR/3/2006	TUR06-03	639	629	0	98.44	1.56
5	A/TUR/7/2006	TUR06-07	639	629	0	98.44	1.56
6	A/TUR/9/2005	TUR05-09	639	629	0	98.44	1.56
7	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	628	0	98.28	1.72
8	A/IRN/10/2005	IRN05-10	639	628	0	98.28	1.72
9	A/IRN/13/2005	IRN05-13	639	628	0	98.28	1.72
10	A/IRN/16/2005	IRN05-16	639	628	0	98.28	1.72

### 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	539	0	84.75	15.25
2	A/IRN/87	IRN87--M	634	531	2	83.75	16.25
3	A/IND/7/82 (1980)	IND82-07	639	533	0	83.41	16.59
4	A/IRN/22/99 (EF208772)	IRN99-22	636	529	0	83.18	16.82
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	529	0	83.18	16.82
6	A/TAI/2/97 (EF208778)	TAI97-02	636	524	0	82.39	17.61
7	A/SAU/23/86	SAU86-23	639	522	0	81.69	18.31
8	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	522	0	81.69	18.31
9	A/IRN/1/96 (EF208771)	IRN96-01	638	520	1	81.5	18.5
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	507	0	79.34	20.66

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: A		Report date: 12/09/2007					
WRL Ref No: TUR/10/2007							
Sender Ref: 275/2007							
Date collected: 05/02/2007							
Date received by WRLFMD: 27/07/2007		Topotype: ASIA					
Date received for sequencing: 23/08/2007		Genotype/strain: Irn-05					
Species: Cattle		Sequence filename: TUR07-10.SEQ					
Material used: BTy1		Date sequence last updated: 05/09/2007					
Region sequenced: VP1		Total no. of comparisons: 905					
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C621F/EUR-2B52R		Min. no. of nt for comparison: 300					
No. of Nt determined: 639		Total turn-around time: 47 days					
No. of ambiguities: 0		Sequencing time: 20 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/TUR/8/2007	TUR07-08	639	635	0	99.37	0.63
2	A/TUR/1/2006	TUR06-01	639	633	0	99.06	0.94
3	A/TUR/17/2006	TUR06-17	639	633	0	99.06	0.94
4	A/TUR/3/2006	TUR06-03	639	633	0	99.06	0.94
5	A/TUR/7/2006	TUR06-07	639	633	0	99.06	0.94
6	A/TUR/9/2005	TUR05-09	639	633	0	99.06	0.94
7	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	632	0	98.9	1.1
8	A/IRN/10/2005	IRN05-10	639	632	0	98.9	1.1
9	A/IRN/13/2005	IRN05-13	639	632	0	98.9	1.1
10	A/IRN/16/2005	IRN05-16	639	632	0	98.9	1.1
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/SAU/41/91	SAU91-41	636	542	0	85.22	14.78
2	A/IRN/87	IRN87--M	634	535	2	84.38	15.62
3	A/IND/7/82 (1980)	IND82-07	639	537	0	84.04	15.96
4	A/IRN/22/99 (EF208772)	IRN99-22	636	533	0	83.81	16.19
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	531	0	83.49	16.51
6	A/TAI/2/97 (EF208778)	TAI97-02	636	526	0	82.7	17.3
7	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	526	0	82.32	17.68
8	A/SAU/23/86	SAU86-23	639	525	0	82.16	17.84
9	A/IRN/1/96 (EF208771)	IRN96-01	638	522	1	81.82	18.18
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: 12/09/2007
WRL Ref No: TUR/12/2007	
Sender Ref: 370/2007	
Date collected: 23/02/2007	
Date received by WRLFMD: 27/07/2007	Topotype: ASIA
Date received for sequencing: 23/08/2007	Genotype/strain: Irn-05
Species: Cattle	Sequence filename: TUR07-12.SEQ
Material used: BTy1	Date sequence last updated: 05/09/2007
Region sequenced: VP1	Total no. of comparisons: 905
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C621F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 47 days
No. of ambiguities: 0	Sequencing time: 20 days
Gene length: 639	

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	633	0	99.06	0.94
2	A/TUR/6/2005	TUR05-06	639	633	0	99.06	0.94
3	A/TUR/1/2006	TUR06-01	639	632	0	98.9	1.1
4	A/TUR/3/2006	TUR06-03	639	632	0	98.9	1.1
5	A/TUR/9/2005	TUR05-09	639	632	0	98.9	1.1
6	A/IRN/10/2005	IRN05-10	639	631	0	98.75	1.25
7	A/IRN/13/2005	IRN05-13	639	631	0	98.75	1.25
8	A/IRN/16/2005	IRN05-16	639	631	0	98.75	1.25
9	A/IRN/31/2005	IRN05-31	639	631	0	98.75	1.25
10	A/IRN/7/2006	IRN06-07	639	631	0	98.75	1.25

#### 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	546	0	85.85	14.15
2	A/IND/7/82 (1980)	IND82-07	639	544	0	85.13	14.87
3	A/IRN/87	IRN87--M	634	535	2	84.38	15.62
4	A/TAI/118/87* (EF208777)	TAI87-AD	636	533	0	83.81	16.19
5	A/IRN/22/99 (EF208772)	IRN99-22	636	531	0	83.49	16.51
6	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	530	0	82.94	17.06
7	A/IRN/1/96 (EF208771)	IRN96-01	638	528	1	82.76	17.24
8	A/SAU/23/86	SAU86-23	639	528	0	82.63	17.37
9	A/TAI/2/97 (EF208778)	TAI97-02	636	522	0	82.08	17.92
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	513	0	80.28	19.72

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: A	Report date: 12/09/2007
WRL Ref No: TUR/24/2007	
Sender Ref: 532/2007	
Date collected: 02/04/2007	
Date received by WRLFMD: 27/07/2007	Topotype: ASIA
Date received for sequencing: 23/08/2007	Genotype/strain: Irn-05
Species: Cattle	Sequence filename: TUR07-24.SEQ
Material used: BTy1	Date sequence last updated: 05/09/2007
Region sequenced: VP1	Total no. of comparisons: 905
RT-PCR primers: A-1C562F/EUR-2B52R; A-1C621F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 47 days
No. of ambiguities: 0	Sequencing time: 20 days
Gene length: 639	

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/TUR/1/2006	TUR06-01	639	628	0	98.28	1.72
2	A/TUR/17/2006	TUR06-17	639	628	0	98.28	1.72
3	A/TUR/3/2006	TUR06-03	639	628	0	98.28	1.72
4	A/TUR/7/2006	TUR06-07	639	628	0	98.28	1.72
5	A/TUR/9/2005	TUR05-09	639	628	0	98.28	1.72
6	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	627	0	98.12	1.88
7	A/IRN/10/2005	IRN05-10	639	627	0	98.12	1.88
8	A/IRN/13/2005	IRN05-13	639	627	0	98.12	1.88
9	A/IRN/16/2005	IRN05-16	639	627	0	98.12	1.88
10	A/IRN/31/2005	IRN05-31	639	627	0	98.12	1.88

### 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	538	0	84.59	15.41
2	A/IND/7/82 (1980)	IND82-07	639	536	0	83.88	16.12
3	A/IRN/22/99 (EF208772)	IRN99-22	636	532	0	83.65	16.35
4	A/TAI/118/87* (EF208777)	TAI87-AD	636	531	0	83.49	16.51
5	A/IRN/87	IRN87--M	634	529	2	83.44	16.56
6	A/TAI/2/97 (EF208778)	TAI97-02	636	524	0	82.39	17.61
7	A/SAU/23/86	SAU86-23	639	525	0	82.16	17.84
8	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	525	0	82.16	17.84
9	A/IRN/1/96 (EF208771)	IRN96-01	638	524	1	82.13	17.87
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	506	0	79.19	20.81

nt, nucleotides  
\*, not a WRLFMD reference number

Serotype: A  
WRL Ref No: TUR/25/2007  
Sender Ref: 544/2007  
Date collected: 06/04/2007  
Date received by WRLFMD: 27/07/2007  
Date received for sequencing: 23/08/2007  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: A-1C562F/EUR-2B52R;  
A-1C621F/EUR-2B52R  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 12/09/2007  
Topotype: ASIA  
Genotype/strain: Irn-05  
Sequence filename: TUR07-25.SEQ  
Date sequence last updated: 05/09/2007  
Total no. of comparisons: 905  
Min. no. of nt for comparison: 300  
Total turn-around time: 47 days  
Sequencing time: 20 days

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	A/TUR/1/2006	TUR06-01	639	634	0	99.22	0.78
2	A/TUR/3/2006	TUR06-03	639	634	0	99.22	0.78
3	A/TUR/9/2005	TUR05-09	639	634	0	99.22	0.78
4	A/Elazig/TUR/548/05* (Lindholm)	TUR05-AG	639	633	0	99.06	0.94
5	A/IRN/10/2005	IRN05-10	639	633	0	99.06	0.94
6	A/IRN/13/2005	IRN05-13	639	633	0	99.06	0.94
7	A/IRN/16/2005	IRN05-16	639	633	0	99.06	0.94
8	A/IRN/31/2005	IRN05-31	639	633	0	99.06	0.94
9	A/IRN/7/2006	IRN06-07	639	633	0	99.06	0.94
10	A/TUR/10/2005	TUR05-10	639	633	0	99.06	0.94

#### 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	544	0	85.53	14.47
2	A/IRN/87	IRN87--M	634	538	2	84.86	15.14
3	A/IND/7/82 (1980)	IND82-07	639	542	0	84.82	15.18
4	A/IRN/22/99 (EF208772)	IRN99-22	636	532	0	83.65	16.35
5	A/TAI/118/87* (EF208777)	TAI87-AD	636	532	0	83.65	16.35
6	A22/IRQ/24/64 (AJ251474)	IRQ64-24	639	530	0	82.94	17.06
7	A/TAI/2/97 (EF208778)	TAI97-02	636	527	0	82.86	17.14
8	A/IRN/1/96 (EF208771)	IRN96-01	638	527	1	82.6	17.4
9	A/SAU/23/86	SAU86-23	639	527	0	82.47	17.53
10	A24/Cruzeiro/BRA/55 (AJ251476)	BRA55--C	639	510	0	79.81	20.19

nt, nucleotides

\*, not a WRLFMD reference number



# Report on 8 FMD type A viruses from Turkey in 2007

Software: MEGA 3.1  
 No. of Taxa : 133  
 Data File : n:\evd\meg\db\fmdv\atTUR2007b.meg  
 Data Title : A Turkey 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, 12 September 2007

