

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/5/2008	Reported by: N.J. Knowles
Sender Ref: 13/08	Checked by: D.P. King
Date collected: 15/01/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-05.SEQ
Material used: BTy1	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R;	Min. no. of nt for comparison: 300
O-1C272F/EUR-2B52R	Total turn-around time: 44 days
No. of Nt determined: 639	Sequencing time: 28 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	O/TUR/13/2007	TUR07-13	639	629	0	98.44	1.56
2	O/IRN/7/2007	IRN07-07	639	628	0	98.28	1.72
3	O/IRN/15/2006	IRN06-15	639	627	0	98.12	1.88
4	O/IRN/33/2006	IRN06-33	639	627	0	98.12	1.88
5	O/IRN/55/2006	IRN06-55	639	627	0	98.12	1.88
6	O/TUR/11/2007	TUR07-11	639	627	0	98.12	1.88
7	O/IRN/12/2006	IRN06-12	639	626	0	97.97	2.03
8	O/IRN/29/2006	IRN06-29	639	626	0	97.97	2.03
9	O/IRN/37/2006	IRN06-37	639	626	0	97.97	2.03
10	O/IRN/43/2006	IRN06-43	639	626	0	97.97	2.03

**Relationships to Reference Virus Strains**

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99 (AJ294927)	TAW99-02	639	594	0	92.96	7.04
2	O/IND/53/79 [AF292107]	IND79A53	639	568	0	88.89	11.11
3	O/IND/R2/75* [AF204276]	IND75--A	639	563	0	88.11	11.89
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	555	0	86.85	13.15
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	552	0	86.38	13.62
6	O/MOR/1/91	MOR91-01	639	548	0	85.76	14.24
7	O/TAI/189/87* [TRRL]	TAI87-AC	639	548	0	85.76	14.24
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	515	0	80.59	19.41
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	509	2	79.91	20.09
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	504	0	78.87	21.13

nt, nucleotides  
 \*, not a WRLFMD reference number

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/9/2008	Reported by: N.J. Knowles
Sender Ref: 90/08	Checked by: D.P. King
Date collected: 08/02/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-09.SEQ
Material used: BTy1	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 44 days
No. of ambiguities: 0	Sequencing time: 28 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	O/TUR/10/2008	TUR08-10	639	639	0	100	0
2	O/TUR/16/2008	TUR08-16	639	634	0	99.22	0.78
3	O/TUR/1032/2007* (FMDI-Ankara)	TUR07-AD	635	628	0	98.9	1.1
4	O/IRN/15/2006	IRN06-15	639	630	0	98.59	1.41
5	O/IRN/12/2006	IRN06-12	639	629	0	98.44	1.56
6	O/IRN/24/2006	IRN06-24	639	629	0	98.44	1.56
7	O/IRN/37/2006	IRN06-37	639	629	0	98.44	1.56
8	O/IRN/56/2006	IRN06-56	639	629	0	98.44	1.56
9	O/IRN/59/2006	IRN06-59	639	629	0	98.44	1.56
10	O/IRN/10/2006	IRN06-10	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	O/TAW/2/99 (AJ294927)	TAW99-02	639	597	0	93.43	6.57
2	O/IND/53/79 [AF292107]	IND79A53	639	570	0	89.2	10.8
3	O/IND/R2/75* [AF204276]	IND75--A	639	564	0	88.26	11.74
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	562	0	87.95	12.05
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	556	0	87.01	12.99
6	O/MOR/1/91	MOR91-01	639	550	0	86.07	13.93
7	O/TAI/189/87* [TRRL]	TAI87-AC	639	550	0	86.07	13.93
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	523	0	81.85	18.15
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	513	2	80.53	19.47
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	509	0	79.66	20.34

nt, nucleotides  
 \*, not a WRLFMD reference number

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/10/2008	Reported by: N.J. Knowles
Sender Ref: 91/08	Checked by: D.P. King
Date collected: 08/02/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-10.SEQ
Material used: BTy2	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 44 days
No. of ambiguities: 0	Sequencing time: 28 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	O/TUR/9/2008	TUR08-09	639	639	0	100	0
2	O/TUR/16/2008	TUR08-16	639	634	0	99.22	0.78
3	O/TUR/1032/2007* (FMDI-Ankara)	TUR07-AD	635	628	0	98.9	1.1
4	O/IRN/15/2006	IRN06-15	639	630	0	98.59	1.41
5	O/IRN/12/2006	IRN06-12	639	629	0	98.44	1.56
6	O/IRN/24/2006	IRN06-24	639	629	0	98.44	1.56
7	O/IRN/37/2006	IRN06-37	639	629	0	98.44	1.56
8	O/IRN/56/2006	IRN06-56	639	629	0	98.44	1.56
9	O/IRN/59/2006	IRN06-59	639	629	0	98.44	1.56
10	O/IRN/10/2006	IRN06-10	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	O/TAW/2/99 (AJ294927)	TAW99-02	639	597	0	93.43	6.57
2	O/IND/53/79 [AF292107]	IND79A53	639	570	0	89.2	10.8
3	O/IND/R2/75* [AF204276]	IND75--A	639	564	0	88.26	11.74
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	562	0	87.95	12.05
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	556	0	87.01	12.99
6	O/MOR/1/91	MOR91-01	639	550	0	86.07	13.93
7	O/TAI/189/87* [TRRL]	TAI87-AC	639	550	0	86.07	13.93
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	523	0	81.85	18.15
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	513	2	80.53	19.47
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	509	0	79.66	20.34

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/16/2008	Reported by: N.J. Knowles
Sender Ref: 84/08	Checked by: D.P. King
Date collected: 02/03/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-16.SEQ
Material used: BTy1	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 44 days
No. of ambiguities: 0	Sequencing time: 28 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	O/TUR/10/2008	TUR08-10	639	634	0	99.22	0.78
2	O/TUR/9/2008	TUR08-09	639	634	0	99.22	0.78
3	O/TUR/1032/2007* (FMDI-Ankara)	TUR07-AD	635	627	0	98.74	1.26
4	O/IRN/12/2006	IRN06-12	639	628	0	98.28	1.72
5	O/IRN/24/2006	IRN06-24	639	628	0	98.28	1.72
6	O/IRN/32/2006	IRN06-32	639	628	0	98.28	1.72
7	O/IRN/37/2006	IRN06-37	639	628	0	98.28	1.72
8	O/IRN/56/2006	IRN06-56	639	628	0	98.28	1.72
9	O/IRN/59/2006	IRN06-59	639	628	0	98.28	1.72
10	O/IRN/10/2006	IRN06-10	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	O/TAW/2/99 (AJ294927)	TAW99-02	639	596	0	93.27	6.73
2	O/IND/53/79 [AF292107]	IND79A53	639	571	0	89.36	10.64
3	O/IND/R2/75* [AF204276]	IND75--A	639	563	0	88.11	11.89
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	559	0	87.48	12.52
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	555	0	86.85	13.15
6	O/TAI/189/87* [TRRL]	TAI87-AC	639	551	0	86.23	13.77
7	O/MOR/1/91	MOR91-01	639	549	0	85.92	14.08
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	521	0	81.53	18.47
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	509	2	79.91	20.09
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	508	0	79.5	20.5

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/16/2008	Reported by: N.J. Knowles
Sender Ref: 84/08	Checked by: D.P. King
Date collected: 02/03/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-16.SEQ
Material used: BTy1	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 44 days
No. of ambiguities: 0	Sequencing time: 28 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	O/TUR/10/2008	TUR08-10	639	634	0	99.22	0.78
2	O/TUR/9/2008	TUR08-09	639	634	0	99.22	0.78
3	O/TUR/1032/2007* (FMDI-Ankara)	TUR07-AD	635	627	0	98.74	1.26
4	O/IRN/12/2006	IRN06-12	639	628	0	98.28	1.72
5	O/IRN/24/2006	IRN06-24	639	628	0	98.28	1.72
6	O/IRN/32/2006	IRN06-32	639	628	0	98.28	1.72
7	O/IRN/37/2006	IRN06-37	639	628	0	98.28	1.72
8	O/IRN/56/2006	IRN06-56	639	628	0	98.28	1.72
9	O/IRN/59/2006	IRN06-59	639	628	0	98.28	1.72
10	O/IRN/10/2006	IRN06-10	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	O/TAW/2/99 (AJ294927)	TAW99-02	639	596	0	93.27	6.73
2	O/IND/53/79 [AF292107]	IND79A53	639	571	0	89.36	10.64
3	O/IND/R2/75* [AF204276]	IND75--A	639	563	0	88.11	11.89
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	559	0	87.48	12.52
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	555	0	86.85	13.15
6	O/TAI/189/87* [TRRL]	TAI87-AC	639	551	0	86.23	13.77
7	O/MOR/1/91	MOR91-01	639	549	0	85.92	14.08
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	521	0	81.53	18.47
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	509	2	79.91	20.09
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	508	0	79.5	20.5

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 08/08/2008
WRL Ref No: TUR/30/2008	Reported by: N.J. Knowles
Sender Ref: 143/08	Checked by: D.P. King
Date collected: 18/04/2008	
Date received by WRLFMD: 25/06/2008	Topotype: ME-SA
Date received for sequencing: 11/07/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: TUR08-30.SEQ
Material used: BTy1	Date sequence last updated: 05/08/2008
Region sequenced: VP1	Total no. of comparisons: 1775
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 44 days
No. of ambiguities: 0	Sequencing time: 28 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	O/TUR/126/2008* (FMDI-Ankara)	TUR08-AC	639	638	0	99.84	0.16
2	O/TUR/25/2008	TUR08-25	639	638	0	99.84	0.16
3	O/TUR/18/2007	TUR07-18	639	630	0	98.59	1.41
4	O/IRN/20/2007	IRN07-20	639	629	0	98.44	1.56
5	O/IRN/17/2006	IRN06-17	639	628	0	98.28	1.72
6	O/IRN/20/2006	IRN06-20	639	628	0	98.28	1.72
7	O/TUR/30/2007	TUR07-30	639	628	0	98.28	1.72
8	O/IRN/12/2006	IRN06-12	639	627	0	98.12	1.88
9	O/IRN/26/2006	IRN06-26	639	627	0	98.12	1.88
10	O/AZB/1/2007* (ARRIAH)	AZB07-AA	639	626	0	97.97	2.03

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99 (AJ294927)	TAW99-02	639	599	0	93.74	6.26
2	O/IND/53/79 [AF292107]	IND79A53	639	560	0	87.64	12.36
3	O/IND/R2/75* [AF204276]	IND75--A	639	558	0	87.32	12.68
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	558	0	87.32	12.68
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	549	0	85.92	14.08
6	O/TAI/189/87* [TRRL]	TAI87-AC	639	548	0	85.76	14.24
7	O/MOR/1/91	MOR91-01	639	547	0	85.6	14.4
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	515	0	80.59	19.41
9	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	511	0	79.97	20.03
10	O/HKN/6/83 (AJ294919)	HKN83-06	637	507	2	79.59	20.41

nt, nucleotides

\*, not a WRLFMD reference number

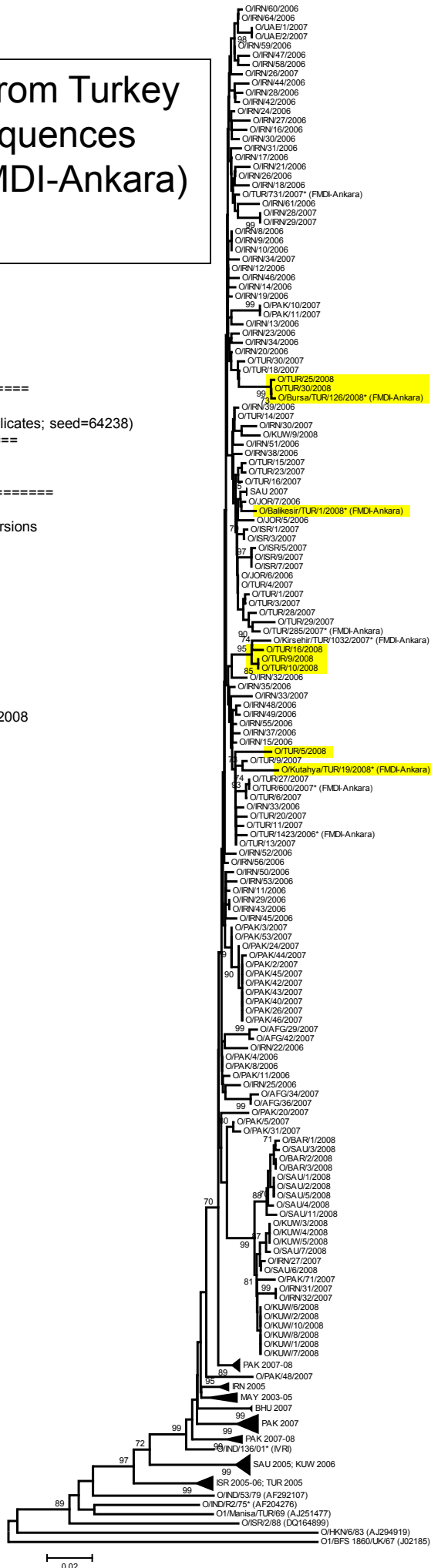
# Report on FMDV O from Turkey in 2008 (including sequences determined at the FMDI-Ankara)

Batch: WRLFMD/2008/00020

Software: MEGA 4.0  
 No. of Taxa : 219  
 Data File : n:\levd\meg\ldb\fmvd\o\tur2008b.meg  
 Data Title : Turkey 2008  
 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, K. Ebert & J. Wadsworth, 11 August 2008



PanAsia-2

PanAsia

ME-SA toptotype

CATHAY toptotype  
 EURO-SA toptotype