

**Report from the Molecular Epidemiology Section of the Dept. of Exotic Disease Control to  
the Head of the World Reference Laboratory for FMD (Non-QAU Form)**

Serotype: O	Report date:	09/03/2004					
WRL Ref No: TUR/1/2003	Reported by N.J. Knowles:						
Date collected: not known	Validated by J.-F. Valarcher:						
Date received: 22/11/2003	Topotype: ME-SA						
Species: Cattle	Genotype/strain: PanAsia						
Material used: 10% epith susp	Sequence filename: TUR03-01.SEQ						
Region sequenced: VP1	Date sequence last updated: 09/03/2004						
RT-PCR primers: O-1C283F/NK61	Total no. of comparisons: 1368						
No. of Nt determined: 638							
No. of ambiguities: 1							
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	O/BAR/1/99	BAR99-01	323	316	0	97.83	2.17
2	O/TUR/2/2001	TUR01-02	638	624	1	97.81	2.19
3	O/IND/64/97*	IND97-AI	252	246	0	97.62	2.38
4	O/IND/160/99*	IND99-AF	209	204	1	97.61	2.39
5	O/IND/209/99* (1998)	IND98-AU	165	161	0	97.58	2.42
6	O/IND/61/97* (1996)	IND96-AB	165	161	0	97.58	2.42
7	O/IND/289/97*	IND97-AW	165	161	0	97.58	2.42
8	O/TUR/2/2001 (Aktas)	TUR01-AH	164	160	1	97.56	2.44
9	O/IRN/1/99	IRN99-01	276	269	6	97.46	2.54
10	O/SKR/2/2000	SKR00-02	230	224	7	97.39	2.61
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	638	613	1	96.08	3.92
2	O1/Manisa/TUR/69	TUR69--E	638	572	1	89.66	10.34
3	O/IND/53/79	IND79A53	638	570	1	89.34	10.66
4	O/IND/R2/75*	IND75--A	638	564	1	88.40	11.60
5	O/TAI/189/87*	TAI87--B	527	453	3	85.96	14.04
6	O/MOR/1/91	MOR91-01	207	177	3	85.51	14.49
7	O/ISR/1/88	ISR88-01	193	165	5	85.49	14.51
8	O/HKN/6/83	HKN83-06	636	517	3	81.29	18.71
9	O/PHI/5/95	PHI95-05	516	418	6	81.01	18.99
10	O1/BFS 1860/UK/67	UKG67--A	638	511	1	80.09	19.91
nt, nucleotides							
*, not a WRLFMD reference number							

**Report from the Molecular Epidemiology Section of the Dept. of Exotic Disease Control to  
the Head of the World Reference Laboratory for FMD (Non-QAU Form)**

Serotype: O	Report date: 09/03/2004						
WRL Ref No: TUR/3/2003	Reported by N.J. Knowles:						
Date collected: not known	Validated by J.-F. Valarcher:						
Date received: 22/11/2003	Topotype: ME-SA						
Species: Cattle	Genotype/strain: PanAsia						
Material used: 10% epith susp	Sequence filename: TUR03-03.SEQ						
Region sequenced: VP1	Date sequence last updated: 09/03/2004						
RT-PCR primers: O-1C272F/NK61	Total no. of comparisons: 1368						
No. of Nt determined: 638							
No. of ambiguities: 1							
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	O/TUR/3/2002	TUR02-03	638	632	1	99.06	0.94
2	O/TUR/2/2002	TUR02-02	632	626	1	99.05	0.95
3	O/TUR/12/2002	TUR02-12	638	630	1	98.75	1.25
4	O/SYR/3/2002	SYR02-03	638	627	1	98.28	1.72
5	O/SYR/2/2002	SYR02-02	638	627	1	98.28	1.72
6	O/SYR/1/2002	SYR02-01	637	626	2	98.27	1.73
7	O/BAR/1/99	BAR99-01	323	311	0	96.28	3.72
8	O/TUR/15/2001	TUR01-15	535	514	17	96.07	3.93
9	O/IRN/1/99	IRN99-01	275	264	7	96.00	4.00
10	O/TUR/2/2001	TUR01-02	638	612	1	95.92	4.08
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	638	607	1	95.14	4.86
2	O1/Manisa/TUR/69	TUR69--E	638	567	1	88.87	11.13
3	O/IND/53/79	IND79A53	638	566	1	88.71	11.29
4	O/MOR/1/91	MOR91-01	206	181	4	87.86	12.14
5	O/ISR/1/88	ISR88-01	192	167	6	86.98	13.02
6	O/IND/R2/75*	IND75--A	638	554	1	86.83	13.17
7	O/TAI/189/87*	TAI87--B	527	449	3	85.20	14.80
8	O/PHI/5/95	PHI95-05	515	422	7	81.94	18.06
9	O/HKN/6/83	HKN83-06	636	521	3	81.92	18.08
10	O1/BFS 1860/UK/67	UKG67--A	638	511	1	80.09	19.91
nt, nucleotides							
*, not a WRLFMD reference number							

**Report from the Molecular Epidemiology Section of the Dept. of Exotic Disease Control to  
the Head of the World Reference Laboratory for FMD (Non-QAU Form)**

Serotype: O	Report date: 09/03/2004						
WRL Ref No: TUR/6/2003	Reported by N.J. Knowles:						
Date collected: not known	Validated by J.-F. Valarcher:						
Date received: 22/11/2003	Topotype: ME-SA						
Species: Cattle	Genotype/strain: PanAsia						
Material used: 10% epith susp	Sequence filename: TUR03-06.SEQ						
Region sequenced: VP1	Date sequence last updated: 09/03/2004						
RT-PCR primers: O-1C272/NK61	Total no. of comparisons: 1368						
No. of Nt determined: 630							
No. of ambiguities: 3							
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	O/LEB/1/2003	LEB03-01	630	620	3	98.41	1.59
2	O/ISR/4/2004	ISR04-04	587	574	4	97.79	2.21
3	O/ISR/3/2004	ISR04-03	628	614	5	97.77	2.23
4	O/ISR/2/2004	ISR04-02	605	590	5	97.52	2.48
5	O/LEB/2/2002	LEB02-02	299	291	1	97.32	2.68
6	O/TUR/7/2003	TUR03-07	630	612	3	97.14	2.86
7	O/IND/61/97* (1996)	IND96-AB	157	151	2	96.18	3.82
8	O/IND/209/99* (1998)	IND98-AU	157	151	2	96.18	3.82
9	O/IND/289/97*	IND97-AW	157	151	2	96.18	3.82
10	O/IND/143/99*	IND99-AB	156	150	3	96.15	3.85
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	630	600	3	95.24	4.76
2	O1/Manisa/TUR/69	TUR69--E	630	564	3	89.52	10.48
3	O/IND/53/79	IND79A53	630	563	3	89.37	10.63
4	O/IND/R2/75*	IND75--A	630	557	3	88.41	11.59
5	O/TAI/189/87*	TAI87--B	523	455	6	87.00	13.00
6	O/ISR/1/88	ISR88-01	185	159	7	85.95	14.05
7	O/MOR/1/91	MOR91-01	199	170	5	85.43	14.57
8	O/HKN/6/83	HKN83-06	628	513	5	81.69	18.31
9	O/PHI/5/95	PHI95-05	507	414	9	81.66	18.34
10	O1/BFS 1860/UK/67	UKG67--A	630	507	3	80.48	19.52
nt, nucleotides							
*, not a WRLFMD reference number							

**Report from the Molecular Epidemiology Section of the Dept. of Exotic Disease Control to  
the Head of the World Reference Laboratory for FMD (Non-QAU Form)**

Serotype: O	Report date: 09/03/2004						
WRL Ref No: TUR/7/2003	Reported by N.J. Knowles:						
Date collected: not known	Validated by J.-F. Valarcher:						
Date received: 22/11/2003	Topotype: ME-SA						
Species: Cattle	Genotype/strain: PanAsia						
Material used: 10% epith susp	Sequence filename: TUR03-07.SEQ						
Region sequenced: VP1	Date sequence last updated: 09/03/2004						
RT-PCR primers: O-1C283F/NK61	Total no. of comparisons: 1368						
No. of Nt determined: 639							
No. of ambiguities: 0							
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	O/LEB/1/2003	LEB03-01	639	623	0	97.50	2.50
2	O/LEB/2/2002	LEB02-02	299	291	1	97.32	2.68
3	O/ISR/3/2004	ISR04-03	637	619	2	97.17	2.83
4	O/ISR/4/2004	ISR04-04	596	579	1	97.15	2.85
5	O/ISR/2/2004	ISR04-02	614	595	2	96.91	3.09
6	O/LEB/6/98	LEB98-06	560	536	0	95.71	4.29
7	O/UAE/7/99	UAE99-07	254	243	4	95.67	4.33
8	O/UAE/2/99	UAE99-02	224	214	7	95.54	4.46
9	O/VIT/2/2002	VIT02-02	488	466	4	95.49	4.51
10	O/BAR/8/98	BAR98-08	639	610	0	95.46	4.54
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	609	0	95.31	4.69
2	O1/Manisa/TUR/69	TUR69--E	639	570	0	89.20	10.80
3	O/IND/53/79	IND79A53	639	569	0	89.05	10.95
4	O/IND/R2/75*	IND75--A	639	564	0	88.26	11.74
5	O/TAI/189/87*	TAI87--B	527	457	3	86.72	13.28
6	O/MOR/1/91	MOR91-01	207	176	3	85.02	14.98
7	O/ISR/1/88	ISR88-01	193	164	5	84.97	15.03
8	O/PHI/5/95	PHI95-05	516	426	6	82.56	17.44
9	O/HKN/6/83	HKN83-06	637	523	2	82.10	17.90
10	O1/BFS 1860/UK/67	UKG67--A	639	516	0	80.75	19.25
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: O Report date: 07/06/2004  
WRL Ref No: TUR/8/2003  
Date collected: not known  
Date received: 22/11/2003  
Species: Cattle  
Material used: 10% epith susp Topotype: ME-SA  
Region sequenced: VP1 Genotype/strain: PanAsia  
RT-PCR primers: FMD-VP1UF/NK61 Sequence filename: TUR03-08.SEQ  
No. of Nt determined: 142 Date sequence last updated: 07/06/2004  
No. of ambiguities: 0 Total no. of comparisons: 1403  
Gene length: 639

Comments: No FMD virus was detected by ELISA or cell culture, however, FMDV-specific RNA was detected by RT-PCR in both the 5' UTR and VP1 regions. Serotype and strain diagnosis was made on this partial VP1 sequence data.

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TUR/2/2002	TUR02-02	135	135	1	100.00	0.00
2	O/TUR/3/2002	TUR02-03	142	142	0	100.00	0.00
3	O/TUR/12/2002	TUR02-12	142	141	0	99.30	0.70
4	O/TUR/10/2003	TUR03-10	142	141	0	99.30	0.70
5	O/SYR/3/2002	SYR02-03	142	141	0	99.30	0.70
6	O/SYR/2/2002	SYR02-02	142	141	0	99.30	0.70
7	O/SYR/1/2002	SYR02-01	141	140	1	99.29	0.71
8	O/TUR/3/2003	TUR03-03	141	139	1	98.58	1.42
9	O/TUR/1/2003	TUR03-01	142	139	0	97.89	2.11
10	O/TUR/2/2001	TUR01-02	142	139	0	97.89	2.11

#### 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	TAW99-02	142	137	0	96.48	3.52
2	O/IND/R2/75*	IND75--A	142	127	0	89.44	10.56
3	O/IND/53/79	IND79A53	142	127	0	89.44	10.56
4	O1/Manisa/TUR/69	TUR69--E	142	126	0	88.73	11.27
5	O/MOR/1/91	MOR91-01	139	123	3	88.49	11.51
6	O/TAI/189/87*	TAI87-AC	142	125	0	88.03	11.97
7	O/ISR/1/88	ISR88-01	139	122	3	87.77	12.23
8	O/HKN/6/83	HKN83-06	142	115	0	80.99	19.01
9	O1/BFS 1860/UK/67	UKG67--A	142	114	0	80.28	19.72
10	O/PHI/5/95	PHI95-05	142	113	0	79.58	20.42

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O Report date: 07/06/2004  
WRL Ref No: TUR/10/2003  
Date collected: not known  
Date received: 22/11/2003  
Species: Cattle  
Material used: 10% epith susp Topotype: ME-SA  
Region sequenced: VP1 Genotype/strain: PanAsia  
RT-PCR primers: FMD-VP1UF/NK61 Sequence filename: TUR03-10.SEQ  
No. of Nt determined: 142 Date sequence last updated: 07/06/2004  
No. of ambiguities: 0 Total no. of comparisons: 1403  
Gene length: 639

Comments: No FMD virus was detected by ELISA or cell culture, however, FMDV-specific RNA was detected by RT-PCR in both the 5' UTR and VP1 regions. Serotype and strain diagnosis was made on this partial VP1 sequence data.

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TUR/8/2003	TUR03-08	142	141	0	99.30	0.70
2	O/TUR/3/2002	TUR02-03	142	141	0	99.30	0.70
3	O/TUR/2/2002	TUR02-02	135	134	1	99.26	0.74
4	O/TUR/12/2002	TUR02-12	142	140	0	98.59	1.41
5	O/SYR/3/2002	SYR02-03	142	140	0	98.59	1.41
6	O/SYR/2/2002	SYR02-02	142	140	0	98.59	1.41
7	O/SYR/1/2002	SYR02-01	141	139	1	98.58	1.42
8	O/TUR/3/2003	TUR03-03	141	138	1	97.87	2.13
9	O/TUR/2/2001	TUR01-02	142	138	0	97.18	2.82
10	O/TUR/1/2003	TUR03-01	142	138	0	97.18	2.82

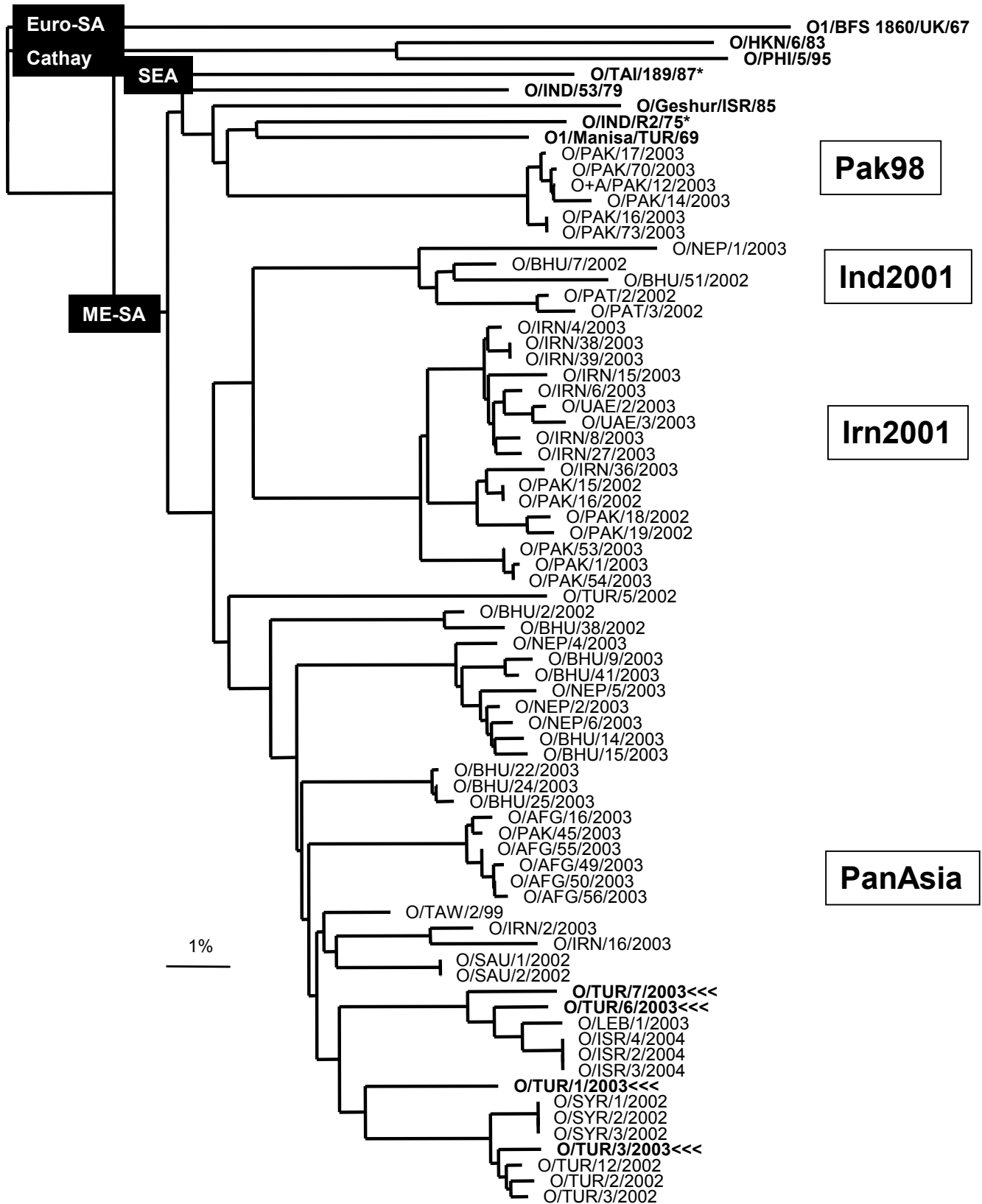
#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	142	136	0	95.77	4.23
2	O/IND/53/79	IND79A53	142	128	0	90.14	9.86
3	O/MOR/1/91	MOR91-01	139	124	3	89.21	10.79
4	O/IND/R2/75*	IND75--A	142	126	0	88.73	11.27
5	O/ISR/1/88	ISR88-01	139	123	3	88.49	11.51
6	O1/Manisa/TUR/69	TUR69--E	142	125	0	88.03	11.97
7	O/TAI/189/87*	TAI87-AC	142	124	0	87.32	12.68
8	O/HKN/6/83	HKN83-06	142	116	0	81.69	18.31
9	O1/BFS 1860/UK/67	UKG67--A	142	115	0	80.99	19.01
10	O/PHI/5/95	PHI95-05	142	114	0	80.28	19.72

nt, nucleotides

\*, not a WRLFMD reference number

Report on: O TURKEY 2003



Unrooted Neighbor-joining tree based on a comparison of the complete VP1 gene. The tree was outgroup-rooted using O1/BFS 1860/UK/67.