

Serotype: O	Report date: 08/02/2007
WRL Ref No: LAO/2/2006	
Sender Ref: LAO 6/06 R2 B1	
Date collected: 23/04/2006	
Date received by WRLFMD: 23/07/2006	Topotype: Middle East-South Asia (ME-SA)
Date received for sequencing: 28/07/2006	Genotype/strain: PanAsia
Species: Cattle	Sequence filename: LAO06-02.SEQ
Material used: LK2 BHK1 BTy1	Date sequence last updated: 06/02/2007
Region sequenced: VP1	Total no. of comparisons: 1484
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: 200 days
No. of ambiguities: 0	Sequencing time: 195 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/LAO/17/2003 (DQ164912)	LAO03-17	635	633	1	99.69	0.31
2	O/LAO/15/2003	LAO03-15	500	498	4	99.6	0.4
3	O/LAO/19/2003 (DQ164913)	LAO03-19	638	634	1	99.37	0.63
4	O/LAO/20/2003	LAO03-20	630	625	9	99.21	0.79
5	O/BAR/1/99	BAR99-01	323	308	0	95.36	4.64
6	O/JPN/1/2000	JPN00-01	364	347	1	95.33	4.67
7	O/IND/416/97* (1996)	IND96-AG	355	337	1	94.93	5.07
8	O/SAU/1/99	SAU99-01	381	361	0	94.75	5.25
9	O/SAR/11/00* (AF306646)	SAR00--A	495	468	0	94.55	5.45
10	O/SAR/12/00* (AY009087)	SAR00--B	495	468	0	94.55	5.45

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	639	602	0	94.21	5.79
2	O/IND/53/79 [AF292107]	IND79A53	639	581	0	90.92	9.08
3	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	576	0	90.14	9.86
4	O/IND/R2/75* [AF204276]	IND75--A	639	565	0	88.42	11.58
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	564	0	88.26	11.74
6	O/MOR/1/91	MOR91-01	639	564	0	88.26	11.74
7	O/TAI/189/87* [TRRL]	TAI87-AC	639	556	0	87.01	12.99
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	522	0	81.69	18.31
9	O/HKN/6/83	HKN83-06	637	520	2	81.63	18.37
10	O1/BFS 1860/UK/67	UKG67--A	639	521	0	81.53	18.47

nt, nucleotides

*, not a WRLFMD reference number

Serotype: O	Report date: 08/02/2007
WRL Ref No: LAO/3/2006	
Sender Ref: LAO 7/06 R2 B1	
Date collected: 24/04/2006	
Date received by WRLFMD: 23/07/2006	Topotype: Middle East-South Asia (ME-SA)
Date received for sequencing: 28/07/2006	Genotype/strain: PanAsia
Species: Cattle	Sequence filename: LAO06-03.SEQ
Material used: LK2 BHK1 BTy1	Date sequence last updated: 06/02/2007
Region sequenced: VP1	Total no. of comparisons: 1484
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: 200 days
No. of ambiguities: 0	Sequencing time: 195 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/LAO/4/2006	LAO06-04	639	637	0	99.69	0.31
2	O/LAO/26/2003	LAO03-26	605	599	0	99.01	0.99
3	O/LAO/27/2003	LAO03-27	597	591	5	98.99	1.01
4	O/LAO/24/2003	LAO03-24	550	544	2	98.91	1.09
5	O/LAO/31/2003 (DQ164918)	LAO03-31	636	629	3	98.9	1.1
6	O/TAI/20/04R2* [TRRL]	TAI04-AA	639	631	0	98.75	1.25
7	O/LAO/21/2003 (DQ164914)	LAO03-21	637	628	2	98.59	1.41
8	O/LAO/23/2003 (DQ164915)	LAO03-23	639	630	0	98.59	1.41
9	O/LAO/28/2003 (DQ164916)	LAO03-28	639	630	0	98.59	1.41
10	O/LAO/30/2003 (DQ164917)	LAO03-30	638	629	1	98.59	1.41

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	639	605	0	94.68	5.32
2	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	570	0	89.2	10.8
3	O/IND/53/79 [AF292107]	IND79A53	639	560	0	87.64	12.36
4	O/IND/R2/75* [AF204276]	IND75--A	639	558	0	87.32	12.68
5	O/TAI/189/87* [TRRL]	TAI87-AC	639	554	0	86.7	13.3
6	O/ISR/2/88 (DQ164899)	ISR88-02	639	544	0	85.13	14.87
7	O/MOR/1/91	MOR91-01	639	544	0	85.13	14.87
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	518	0	81.06	18.94
9	O/HKN/6/83	HKN83-06	637	510	2	80.06	19.94
10	O1/BFS 1860/UK/67	UKG67--A	639	506	0	79.19	20.81

nt, nucleotides

*, not a WRLFMD reference number

Serotype: O	Report date: 08/02/2007						
WRL Ref No: LAO/4/2006							
Sender Ref: LAO 8/06 R2 B1							
Date collected: 24/04/2006	Topotype: Middle East-South Asia (ME-SA)						
Date received by WRLFMD: 23/07/2006	Genotype/strain: PanAsia						
Date received for sequencing: 28/07/2006	Sequence filename: LAO06-04.SEQ						
Species: Cattle	Date sequence last updated: 06/02/2007						
Material used: LK2 BHK1 BTy1	Total no. of comparisons: 1484						
Region sequenced: VP1	Min. no. of nt for comparison: 300						
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Total turn-around time: 200 days						
No. of Nt determined: 639	Sequencing time: 195 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/LAO/3/2006	LAO06-03	639	637	0	99.69	0.31
2	O/LAO/27/2003	LAO03-27	597	591	5	98.99	1.01
3	O/LAO/31/2003 (DQ164918)	LAO03-31	636	629	3	98.9	1.1
4	O/LAO/26/2003	LAO03-26	605	598	0	98.84	1.16
5	O/TAI/20/04R2* [TRRL]	TAI04-AA	639	631	0	98.75	1.25
6	O/LAO/24/2003	LAO03-24	550	543	2	98.73	1.27
7	O/LAO/21/2003 (DQ164914)	LAO03-21	637	628	2	98.59	1.41
8	O/LAO/23/2003 (DQ164915)	LAO03-23	639	630	0	98.59	1.41
9	O/LAO/28/2003 (DQ164916)	LAO03-28	639	630	0	98.59	1.41
10	O/LAO/30/2003 (DQ164917)	LAO03-30	638	629	1	98.59	1.41
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	639	605	0	94.68	5.32
2	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	572	0	89.51	10.49
3	O/IND/53/79 [AF292107]	IND79A53	639	562	0	87.95	12.05
4	O/IND/R2/75* [AF204276]	IND75--A	639	560	0	87.64	12.36
5	O/TAI/189/87* [TRRL]	TAI87-AC	639	556	0	87.01	12.99
6	O/ISR/2/88 (DQ164899)	ISR88-02	639	546	0	85.45	14.55
7	O/MOR/1/91	MOR91-01	639	546	0	85.45	14.55
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	518	0	81.06	18.94
9	O/HKN/6/83	HKN83-06	637	512	2	80.38	19.62
10	O1/BFS 1860/UK/67	UKG67--A	639	508	0	79.5	20.5
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: O	Report date: 08/02/2007
WRL Ref No: LAO/5/2006	
Sender Ref: LAO 4/06 R2	
Date collected: 09/05/2006	
Date received by WRLFMD: 23/07/2006	Topotype: Middle East-South Asia (ME-SA)
Date received for sequencing: 28/07/2006	Genotype/strain: PanAsia
Species: Cattle	Sequence filename: LAO06-05.SEQ
Material used: LK2 BTy1	Date sequence last updated: 06/02/2007
Region sequenced: VP1	Total no. of comparisons: 1484
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: 200 days
No. of ambiguities: 0	Sequencing time: 195 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/LAO/24/2003	LAO03-24	550	550	2	100	0
2	O/LAO/27/2003	LAO03-27	597	594	5	99.5	0.5
3	O/LAO/13/2003 (DQ164911)	LAO03-13	639	635	0	99.37	0.63
4	O/LAO/21/2003 (DQ164914)	LAO03-21	637	633	2	99.37	0.63
5	O/LAO/23/2003 (DQ164915)	LAO03-23	639	635	0	99.37	0.63
6	O/LAO/31/2003 (DQ164918)	LAO03-31	636	632	3	99.37	0.63
7	O/LAO/29/2003	LAO03-29	608	604	1	99.34	0.66
8	O/LAO/11/2003 (DQ164909)	LAO03-11	638	633	1	99.22	0.78
9	O/TAI/20/04R2* [TRRL]	TAI04-AA	639	634	0	99.22	0.78
10	O/LAO/26/2003	LAO03-26	605	600	0	99.17	0.83

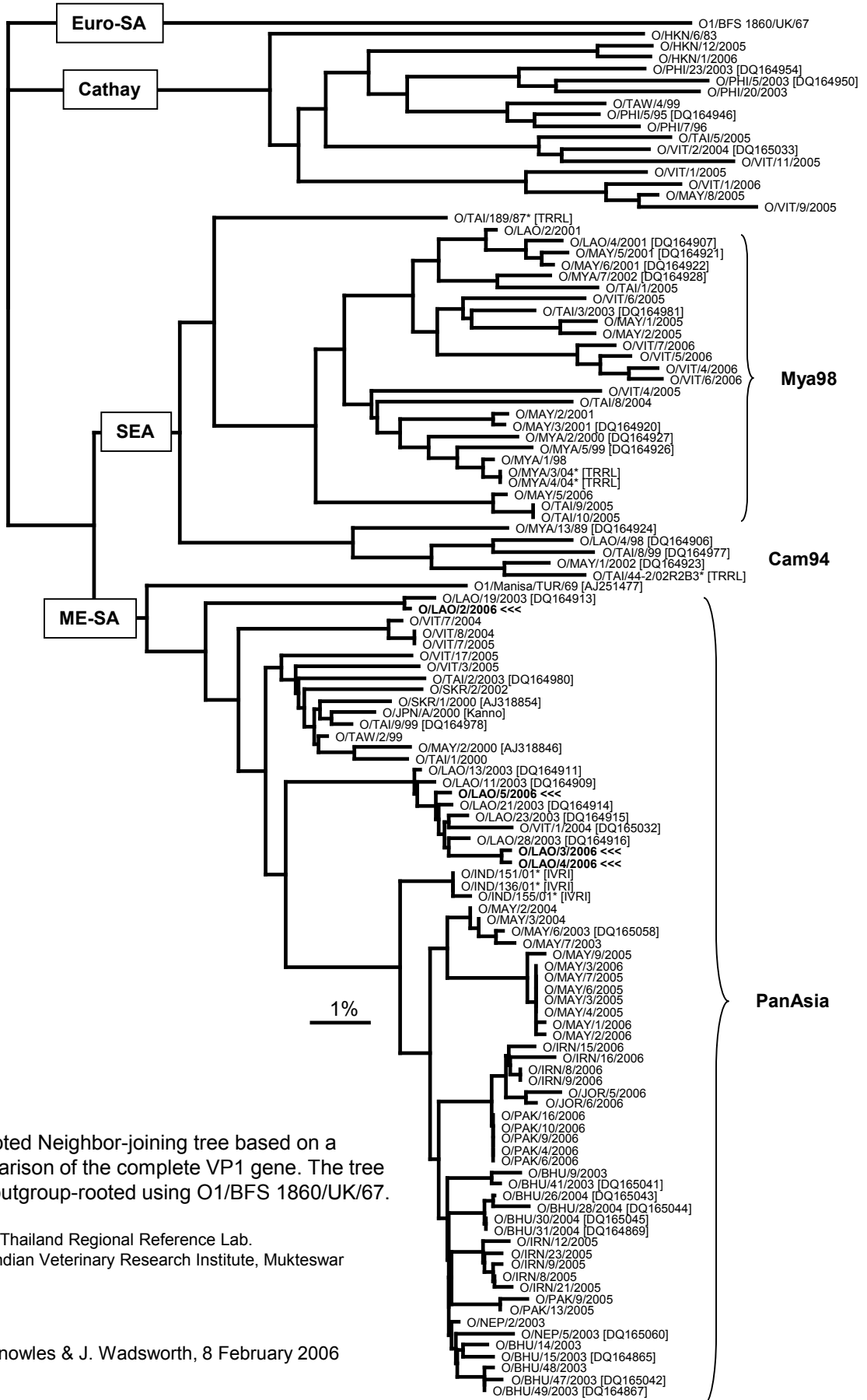
Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	612	0	95.77	4.23
2	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	571	0	89.36	10.64
3	O/IND/53/79 [AF292107]	IND79A53	639	568	0	88.89	11.11
4	O/IND/R2/75* [AF204276]	IND75--A	639	563	0	88.11	11.89
5	O/TAI/189/87* [TRRL]	TAI87-AC	639	558	0	87.32	12.68
6	O/ISR/2/88 (DQ164899)	ISR88-02	639	548	0	85.76	14.24
7	O/MOR/1/91	MOR91-01	639	546	0	85.45	14.55
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	520	0	81.38	18.62
9	O/HKN/6/83	HKN83-06	637	512	2	80.38	19.62
10	O1/BFS 1860/UK/67	UKG67--A	639	509	0	79.66	20.34

nt, nucleotides

*, not a WRLFMD reference number

Report on FMDV O Laos 2006



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

TRRL, Thailand Regional Reference Lab.
IVRI, Indian Veterinary Research Institute, Mukteswar

N.J. Knowles & J. Wadsworth, 8 February 2006