

# FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

## Genotyping Report

Report Date for this Batch: 17 December 2010

FMDV type O

Country: Republic of Korea

Period: 2010

No. of isolates: 1 (VP1 sequence)

VP1 sequence received from Foreign Animal Disease Research Division, National Veterinary Research and Quarantine Service, Republic of Korea, 17/12/2010.



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# FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

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Serotype: O	Report date: 17/12/2010
WRLFMD Ref No: Paju/SKR/2010	Reported by: N.J. Knowles
Batch No: n/a	Checked by: D.P. King
Sender Ref: O/KOR/Paju/2010	
Location: Bugok-ri, Paju-eup, Paju city, Gyeonggi-do, South Korea	Topotype: SEA
Date collected: 15/12/2010	Genotype/strain: Mya-98
Date received by WRLFMD: 17/12/2010	Sequence filename: SKR10-AF.SEQ
Date received for sequencing: n/a	Date sequence last updated: 17/12/2010
Species: Cattle	No. of Nt determined: 639
Material used: Not known	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: Not known	Total no. of comparisons: 2513
	Min. no. of nt for comparison: 600
	Total turn-around time: 0 days
	Sequencing time: n/a
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/Yeoncheon/SKR/2010 (NVRQS)	SKR10-AE	639	635	0	99.37	0.63	SEA	Mya-98
2	O/Andong 1/SKR/2010 (NVRQS)	SKR10-AC	639	634	0	99.22	0.78	SEA	Mya-98
3	O/HKN/13/2010	HKN10-13	639	634	0	99.22	0.78	SEA	Mya-98
4	O/HKN/14/2010	HKN10-14	639	634	0	99.22	0.78	SEA	Mya-98
5	O/HKN/15/2010	HKN10-15	639	634	0	99.22	0.78	SEA	Mya-98
6	O/HKN/7/2010	HKN10-07	639	634	0	99.22	0.78	SEA	Mya-98
7	O/HKN/8/2010	HKN10-08	639	634	0	99.22	0.78	SEA	Mya-98
8	O/RUS/Jul 2010 (ARRIAH)	RUS10-AA	639	634	0	99.22	0.78	SEA	Mya-98
9	O/Yangju/SKR/2010 (NVRQS)	SKR10-AD	639	634	0	99.22	0.78	SEA	Mya-98
10	O/HKN/10/2010	HKN10-10	639	633	0	99.06	0.94	SEA	Mya-98
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/MYA/7/98 (DQ164925)	MYA98-07	639	596	0	93.27	6.73	SEA	Mya-98
2	O/TAI/189/87* (TRRL)	TAI87-AC	639	572	0	89.51	10.49	SEA	unnamed
3	O/CAM/3/98 (AJ294910)	CAM98-03	639	544	0	85.13	14.87	SEA	Cam-94
4	O/IND/R2/75* (AF204276)	IND75--A	639	544	0	85.13	14.87	ME-SA	unnamed
5	O/IRN/8/2005	IRN05-08	639	542	0	84.82	15.18	ME-SA	PanAsia-2
6	O/PAK/16/2010	PAK10-16	639	541	0	84.66	15.34	ME-SA	PanAsia-2 <sup>PUN-10</sup>
7	O/ETH/3/2004 (FJ798109)	ETH04-03	639	539	0	84.35	15.65	EA-3	unnamed
8	O/TUR/257/2008* (FMDI)	TUR08-AD	639	538	0	84.19	15.81	ME-SA	PanAsia-2 <sup>TER-08</sup>
9	O/UKG/35/2001 (AJ539141)	UKG01-35	639	538	0	84.19	15.81	ME-SA	PanAsia
10	O/IRN/88/2009	IRN09-88	639	537	0	84.04	15.96	ME-SA	PanAsia-2 <sup>ANT-10</sup>

nt, nucleotides

\*, not a WRLFMD reference number

Assembled with Report Generator v3.11

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# Report on FMDV O in the Republic of Korea in 2010

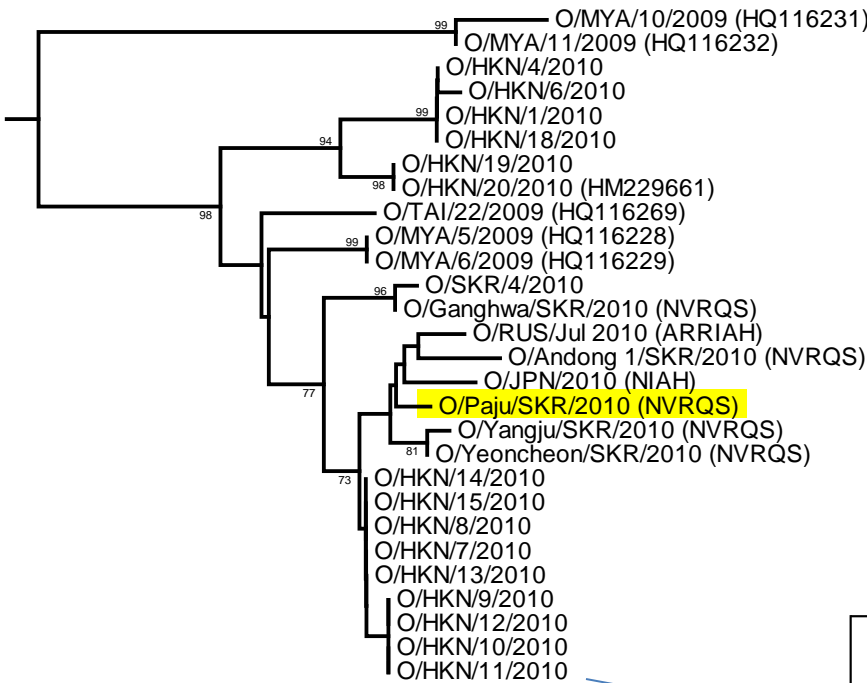
VP1 sequences received from National Veterinary Research and Quarantine Service (NVRQS), Anyang, Gyeonggi 430-824, Republic of Korea, 17/12/2010

Software: MEGA 4.0  
 No. of Taxa : 260  
 Data File : n:\evd\meg\db\fmvd\o\SKR2010e.meg  
 Data Title : O South Korea 2010  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 ->Method : Neighbor-Joining  
 ->Phylogeny Test and options : Bootstrap (1000 replicates; seed=64843)  
 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

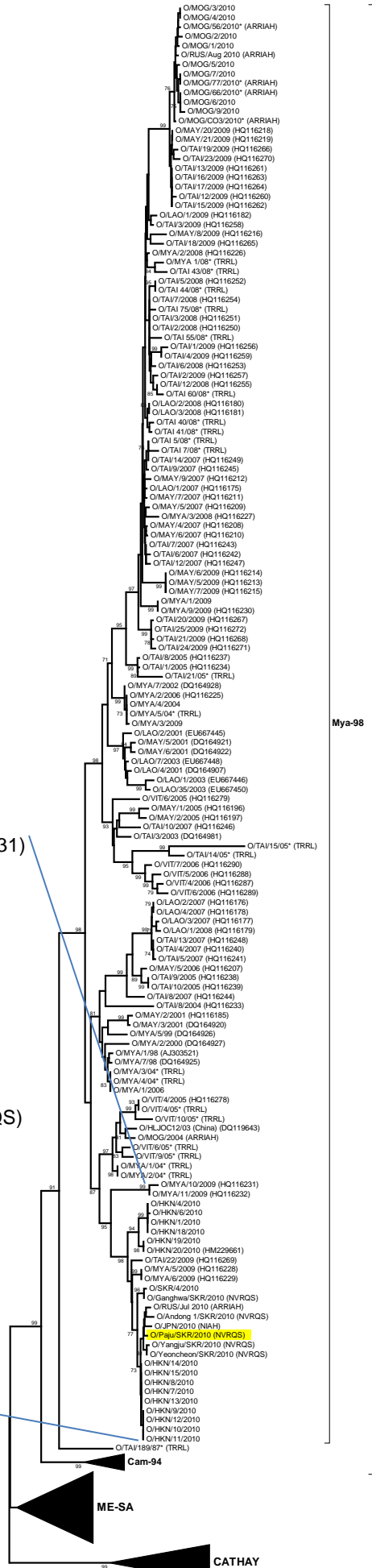
\*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 17 December 2010

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0.005



0.02

Mya-98

SEA