

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

Genotyping Report v2

FMDV serotype: O
Country: Republic of Korea (South Korea)
Year: 2017
Batch: WRLFMD/2017/00001
No. of sequences: 2
Report date: 25th July 2023
Report generated by: Jemma Wadsworth
Report checked by: Nick Knowles



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www: <http://www.wrlfmd.org/>

email: reporting@pirbright.ac.uk

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Virus sample name:	SKR/1/2017
Sender reference:	2017-0001-01 or 02
Location of origin:	Boeun, Chungcheongbuk
Country of origin:	Republic of Korea (South Korea)
Date of collection:	05/02/2017
Host species:	cattle
Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	14/02/2017
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	21/02/2017
Created:	23/02/2017
Last updated:	23/02/2017
VIBASys IDs: sample 31945, genome 31946, sequence viba_31947, sequencing info 31948	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31565	170205/SKR/2017	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_31951	SKR/2/2017	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_31573	170206/SKR/2017	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_31082	BAN/GKa-236(pig)/2015	porcine	99.4	0	O	ME-SA	Ind-2001	e
viba_31492	VIT/20/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_42440	MYA/Yan/5/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e

Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	98.3	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.7	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_27877	SRL/2/97	bovine	90.4	0	O	ME-SA	Srl-97	
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.0	0	O	ME-SA	PanAsia	
viba_9021	LAO/2/2006	cattle	88.8	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	88.5	0	O	ME-SA	PanAsia-2	

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Received for sequencing:	21/02/2017
Created:	23/02/2017
Last updated:	23/02/2017
VIBASys IDs: sample 31949, genome 31950, sequence viba_31951, sequencing info 31952	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31947	SKR/1/2017	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_31565	170205/SKR/2017	cattle	100.0	0	O	ME-SA	Ind-2001	e
viba_31595	Zabaikalskiy/3/RUS/2016	cattle	99.5	0	O	ME-SA	Ind-2001	e
viba_30859	Zabaikalskiy/2/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_30855	Zabaikalskiy/1/RUS/2016	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_31573	170206/SKR/2017	cattle	99.4	0	O	ME-SA	Ind-2001	e
viba_31082	BAN/GKa-236(pig)/2015	porcine	99.4	0	O	ME-SA	Ind-2001	e
viba_31492	VIT/20/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_31599	Zabaikalskiy/4/RUS/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e
viba_42440	MYA/Yan/5/2016	cattle	99.2	0	O	ME-SA	Ind-2001	e

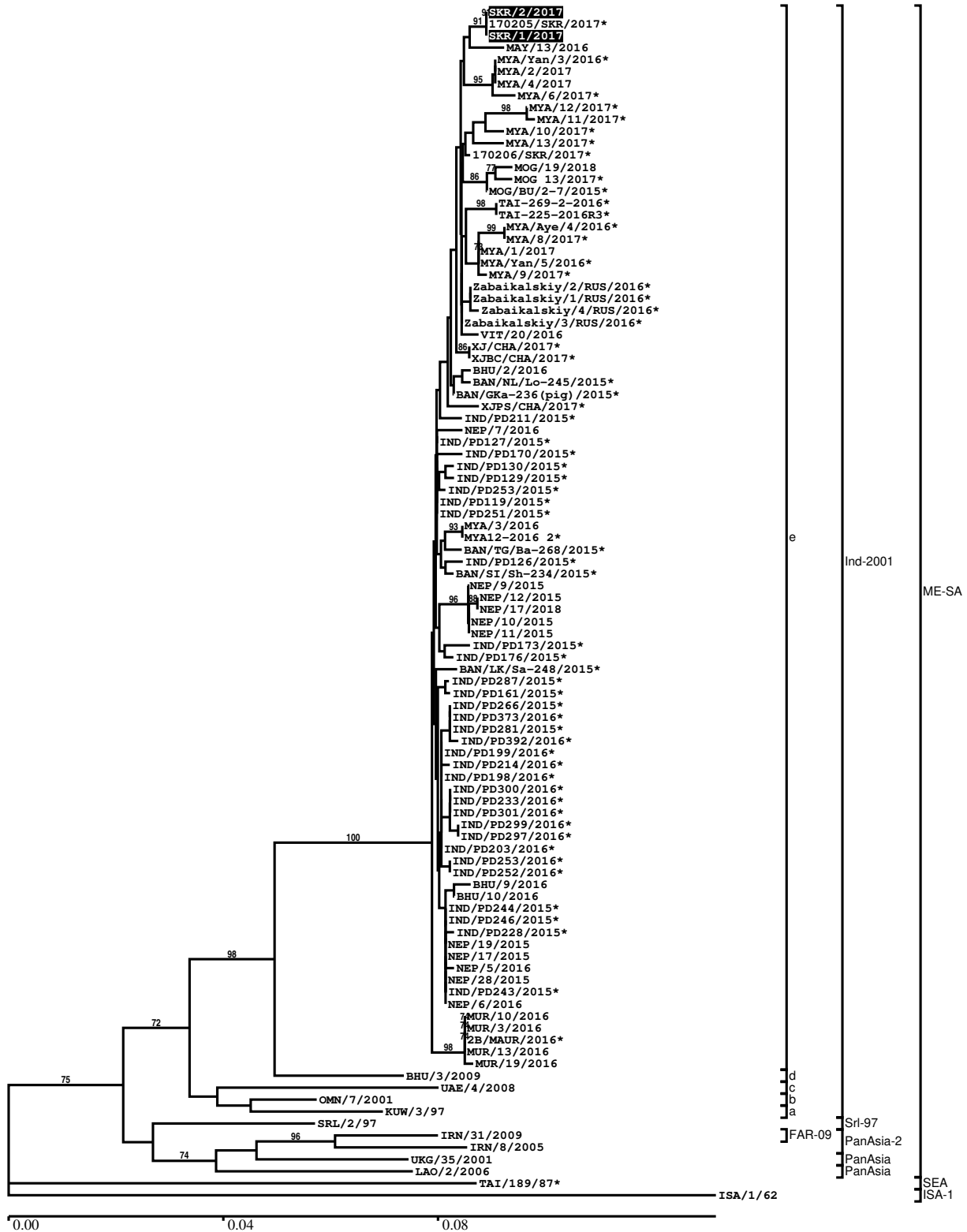
Most Closely Related Prototype Sequences

see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_30238	MUR/19/2016	cattle	98.3	0	O	ME-SA	Ind-2001	e
viba_293	BHU/3/2009	cattle	93.7	0	O	ME-SA	Ind-2001	d
viba_541	OMN/7/2001	bovine	92.7	0	O	ME-SA	Ind-2001	b
viba_705	KUW/3/97	bovine	91.8	0	O	ME-SA	Ind-2001	a
viba_27877	SRL/2/97	bovine	90.4	0	O	ME-SA	Srl-97	
viba_397	UAE/4/2008	gazelle	90.2	0	O	ME-SA	Ind-2001	c
viba_285	UKG/35/2001	porcine	89.0	0	O	ME-SA	PanAsia	
viba_9021	LAO/2/2006	cattle	88.8	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	88.6	0	O	ME-SA	PanAsia-2	FAR-09
viba_650	IRN/8/2005	ovine	88.5	0	O	ME-SA	PanAsia-2	

Report on FMDV O in Republic of Korea (South Korea) in 2017

Batch: WRLFMD/2017/00001



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2017/00001-South Korea, Republic of-O (2 sequences)
Sequence database set:	allseqs_O (5965 sequences)
Prototype sequence set:	!prototypes_O (58 sequences)
Number of related sequences reported:	10
Minimal VP1 subsequence match length	600
Sequence alignment method:	muscle (default parameters)
Sequence alignment length:	636
Phylogeny reconstruction method:	fdnadist, fneighbor
Number of bootstrap samples:	1000
Random seed for bootstrapping:	1
Displaying bootstrap values above:	70.0%
Number of sequences in tree capped at:	100
Number of prototype sequences in tree:	10
VIBASys version:	reflabs-1.1.2

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/O

label	accession	host(s)	lab	country	taxonomic information
SKR/2/2017	MG972600	cattle	WRLFMD	Republic of Korea (South Korea)	ME-SA/Ind-2001/e
170205/SKR/2017*	n/a	cattle	QIA	Republic of Korea (South Korea)	ME-SA/Ind-2001/e
SKR/1/2017	MG972599	cattle	WRLFMD	Republic of Korea (South Korea)	ME-SA/Ind-2001/e
MAY/13/2016	n/a	gaur (Indian bison)	WRLFMD	Malaysia	ME-SA/Ind-2001/e
MYA/Yan/3/2016*	LC438822	cattle	NIAH-Japan	Myanmar	ME-SA/Ind-2001/e
MYA/2/2017	MG972518	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/e
MYA/4/2017	MG972519	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/e
MYA/6/2017*	MG972521	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/12/2017*	MG972526	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/11/2017*	MG972525	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/10/2017*	MG972524	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/13/2017*	MG972527	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
170206/SKR/2017*	n/a	cattle	QIA	Republic of Korea (South Korea)	ME-SA/Ind-2001/e
MOG/19/2018	n/a	sheep	WRLFMD	Mongolia	ME-SA/Ind-2001/e
MOG 13/2017*	n/a	cattle	ARRIAH	Mongolia	ME-SA/Ind-2001/e
MOG/BU/2-7/2015*	LC320038	cattle	NIAH-Japan	Mongolia	ME-SA/Ind-2001/e
TAI-269-2-2016*	MG972602	cattle	TRRL	Thailand	ME-SA/Ind-2001/e
TAI-225-2016R3*	MG972601	cattle	TRRL	Thailand	ME-SA/Ind-2001/e
MYA/Aye/4/2016*	LC439252	water buffalo	NIAH-Japan	Myanmar	ME-SA/Ind-2001/e
MYA/8/2017*	MG972522	water buffalo	TRRL	Myanmar	ME-SA/Ind-2001/e
MYA/1/2017	MG972517	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/e
MYA/Yan/5/2016*	LC438823	cattle	NIAH-Japan	Myanmar	ME-SA/Ind-2001/e
MYA/9/2017*	MG972523	cattle	TRRL	Myanmar	ME-SA/Ind-2001/e
Zabaikalskiy/2/RUS/2016*	MG972583	cattle	ARRIAH	Russia	ME-SA/Ind-2001/e
Zabaikalskiy/1/RUS/2016*	MG983720	cattle	ARRIAH	Russia	ME-SA/Ind-2001/e
Zabaikalskiy/4/RUS/2016*	MG972585	cattle	ARRIAH	Russia	ME-SA/Ind-2001/e
Zabaikalskiy/3/RUS/2016*	MG972584	cattle	ARRIAH	Russia	ME-SA/Ind-2001/e
VIT/20/2016	MG972619	cattle	WRLFMD	Vietnam	ME-SA/Ind-2001/e
XJ/CHA/2017*	MF461724	cattle	LVRI	China	ME-SA/Ind-2001/e

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label	accession	host(s)	lab	country	taxonomic information
XJBC/CHA/2017*	KY696708	n/a	LVRI	China	ME-SA/Ind-2001/e
BHU/2/2016	MG972480	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/e
BAN/NL/Lo-245/2015*	KY077611	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
BAN/GKa-236(pig)/2015*	KX712091	porcine	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
XJPS/CHA/2017*	KY696707	n/a	LVRI	China	ME-SA/Ind-2001/e
IND/PD211/2015*	MT909645	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/7/2016	KY449055	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
IND/PD127/2015*	MT909627	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD170/2015*	MT909639	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD130/2015*	MT909629	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD129/2015*	MT909628	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD253/2015*	MT909653	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD119/2015*	MT909624	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD251/2015*	MT909652	cattle	PD-FMD	India	ME-SA/Ind-2001/e
MYA/3/2016	MG972516	cattle	WRLFMD	Myanmar	ME-SA/Ind-2001/e
MYA12-2016 2*	n/a	n/a	TRRL	Myanmar	ME-SA/Ind-2001/e
BAN/TG/Ba-268/2015*	KY077621	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
IND/PD126/2015*	MT909626	cattle	PD-FMD	India	ME-SA/Ind-2001/e
BAN/SI/Sh-234/2015*	KY077610	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
NEP/9/2015	MG972542	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/12/2015	MG972545	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/17/2018	n/a	goat	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/10/2015	MG972543	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/11/2015	MG972544	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
IND/PD173/2015*	MT909640	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD176/2015*	MT909641	cattle	PD-FMD	India	ME-SA/Ind-2001/e
BAN/LK/Sa-248/2015*	KY077612	cattle	Univ Dhaka	Bangladesh	ME-SA/Ind-2001/e
IND/PD287/2015*	MT909659	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD161/2015*	MT909637	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD266/2015*	MT909655	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD373/2016*	MT909702	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD281/2015*	MT909658	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD392/2016*	MT909703	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD199/2016*	MT909673	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD214/2016*	MT909675	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD198/2016*	MT909672	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD300/2016*	MT909687	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD233/2016*	MT909676	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD301/2016*	MT909688	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD299/2016*	MT909686	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD297/2016*	MT909685	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD203/2016*	MT909674	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD253/2016*	MT909681	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD252/2016*	MT909680	cattle	PD-FMD	India	ME-SA/Ind-2001/e
BHU/9/2016	MG972483	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/e
BHU/10/2016	MG972484	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/e
IND/PD244/2015*	MT909649	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD246/2015*	MT909650	cattle	PD-FMD	India	ME-SA/Ind-2001/e
IND/PD228/2015*	MT909646	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/19/2015	KY449051	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/17/2015	KY449050	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/5/2016	KY449053	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
NEP/28/2015	KY449052	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
IND/PD243/2015*	MT909648	cattle	PD-FMD	India	ME-SA/Ind-2001/e
NEP/6/2016	KY449054	cattle	WRLFMD	Nepal	ME-SA/Ind-2001/e
MUR/10/2016	MG972502	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
MUR/3/2016	MG972495	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
2B/MAUR/2016*	n/a	bovine	ANSES	Mauritius	ME-SA/Ind-2001/e
MUR/13/2016	MG972504	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
SRL/2/97	AJ303531	bovine	WRLFMD	Sri Lanka	ME-SA/Srl-97
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09

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label	accession	host(s)	lab	country	taxonomic information
IRN/8/2005	KY091281	ovine	WRLFMD	Iran	ME-SA/PanAsia-2
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
LAO/2/2006	EU667451	cattle	WRLFMD	Laos	ME-SA/PanAsia
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available