

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

Genotyping Report

FMDV serotype: A
Country: China
Year: 2018
Batch: WRLMEG/2018/00003
No. of sequences: 1
Report date: 12th January 2018
Report generated by: Nick Knowles
Report checked by: Kasia Bankowska

This report is prepared on behalf of the Lanzhou Veterinary Research Institute (Gansu, People's Republic of China) and covers a VP1 sequence submitted to the WRLFMD on 12/01/2018.



Copyright ©2018 The Pirbright Institute, Ash Road, Pirbright, Woking GU24 0NF, United Kingdom.

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

email: reporting@pirbright.ac.uk

The contents of this report should not be reproduced without permission.

Virus sample name:	GZChSh/CHA/2018-B
Sender reference:	A-GZChSh-2018-B
Location of origin:	Changshun, Guizhou
Country of origin:	China
Date of collection:	01/01/2018
Host species:	
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	12/01/2018
Last updated:	12/01/2018
VIBASys IDs: sample 35463, genome 35464, sequence viba_35465, sequencing info 35466	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_21147	Amur/2/RUS/2013	cattle	99.2	0	A	ASIA	Sea-97	
viba_25175	MYA/3/2015	bovine	99.2	0	A	ASIA	Sea-97	
viba_21156	Amur/4/RUS/2013	cattle	99.2	0	A	ASIA	Sea-97	
viba_25171	MYA/2/2015	bovine	99.2	0	A	ASIA	Sea-97	
viba_25179	MYA/4/2015	bovine	99.2	0	A	ASIA	Sea-97	
viba_20799	GDMM-CHA-2013-S	porcine	99.0	0	A	ASIA	Sea-97	
viba_22520	TAI/17/2014	cattle	99.0	0	A	ASIA	Sea-97	
viba_31524	VIT/16/2016	porcine	99.0	0	A	ASIA	Sea-97	
viba_21164	Zabaikalsky/6/RUS/2013	cattle	99.0	0	A	ASIA	Sea-97	
viba_21117	Zabaikalsky/RUS/2013	cattle	99.0	0	A	ASIA	Sea-97	

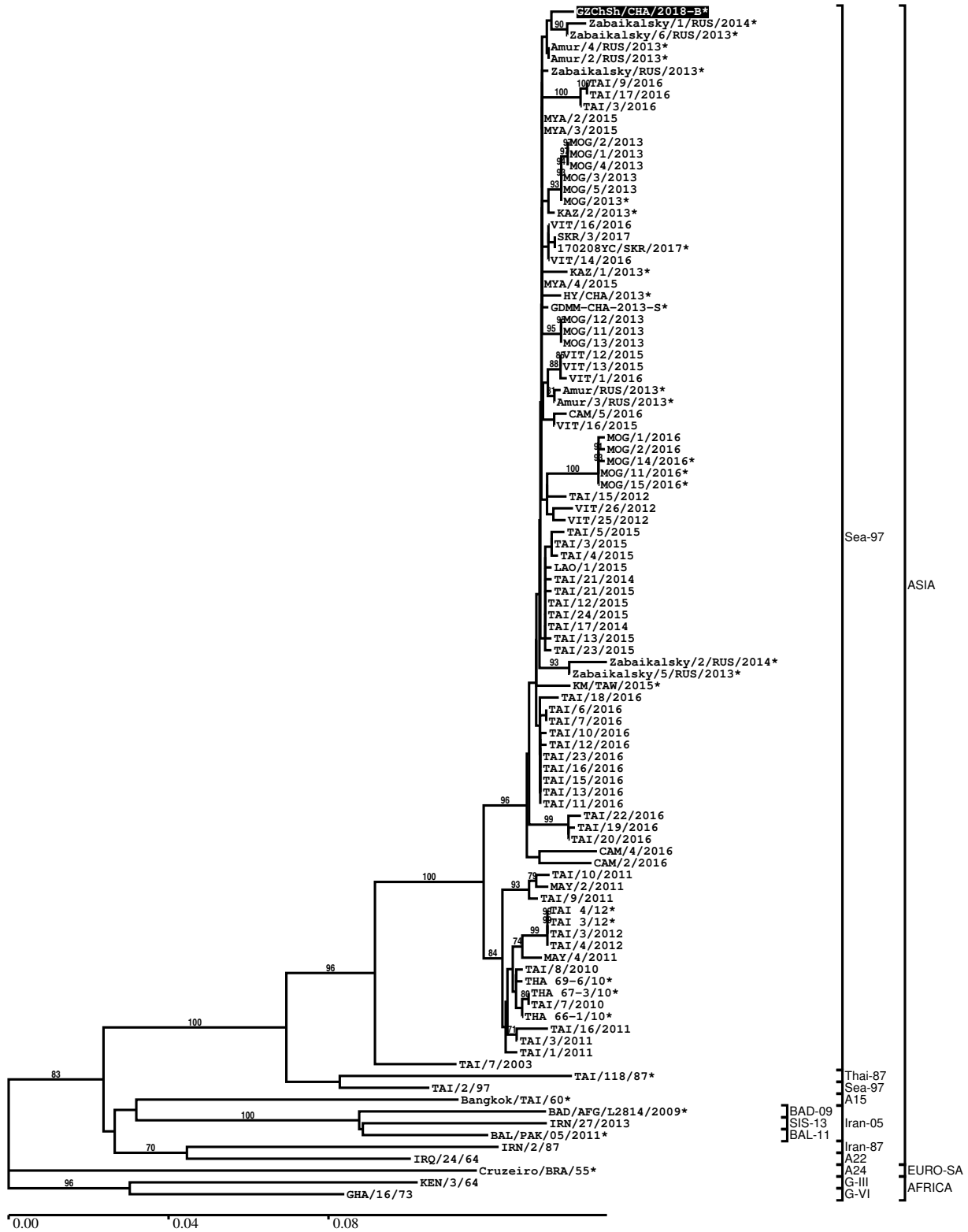
Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_122	TAI/7/2003	bovine	93.3	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		89.4	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		87.0	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.7	0	A	ASIA	A22	
viba_34671	BAL/PAK/05/2011	cattle	81.6	0	A	ASIA	Iran-05	BAL-11
viba_682	IRN/2/87	bovine	81.3	0	A	ASIA	Iran-87	
viba_589	Bangkok/TAI/60		80.8	0	A	ASIA	A15	
viba_20943	IRN/27/2013	cattle	80.4	0	A	ASIA	Iran-05	SIS-13
viba_34575	BAD/AFG/L2814/2009	cattle	80.1	0	A	ASIA	Iran-05	BAD-09
viba_609	GHA/16/73	bovine	80.0	0	A	AFRICA	G-VI	

Report on FMDV A in China in 2018

Batch: WRLMEG/2018/00003



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor: vp1_A
 Query sequence set: WRLMEG/2018/00003-China-A (1 sequences)
 Sequence database set: allseqs_A (1774 sequences)
 Prototype sequence set: !prototypes_A (40 sequences)
 Number of related sequences reported: 10
 Minimal VP1 subsequence match length: 600
 Sequence alignment method: muscle (default parameters)
 Sequence alignment length: 630
 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/A

label	accession	host(s)	lab	country	taxonomic information
GZChSh/CHA/2018-B*	n/a	n/a	LVRI	China	ASIA/Sea-97
Zabaikalsky/1/RUS/2014*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Zabaikalsky/6/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Amur/4/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Amur/2/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Zabaikalsky/RUS/2013*	n/a	cattle	n/a	Russia	ASIA/Sea-97
TAI/9/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/17/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/3/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
MYA/2/2015	n/a	bovine	WRLFMD	Myanmar	ASIA/Sea-97
MYA/3/2015	n/a	bovine	WRLFMD	Myanmar	ASIA/Sea-97
MOG/2/2013	n/a	yak	WRLFMD	Mongolia	ASIA/Sea-97
MOG/1/2013	n/a	yak	WRLFMD	Mongolia	ASIA/Sea-97
MOG/4/2013	n/a	yak	WRLFMD	Mongolia	ASIA/Sea-97
MOG/3/2013	n/a	yak	WRLFMD	Mongolia	ASIA/Sea-97
MOG/5/2013	n/a	yak	WRLFMD	Mongolia	ASIA/Sea-97
MOG/2013*	n/a	cattle	ARRIAH	Mongolia	ASIA/Sea-97
KAZ/2/2013*	n/a	cattle	ARRIAH	Kazakhstan	ASIA/Sea-97
VIT/16/2016	n/a	porcine	WRLFMD	Vietnam	ASIA/Sea-97
SKR/3/2017	n/a	cattle	WRLFMD	Republic of Korea (South Korea)	ASIA/Sea-97
170208YC/SKR/2017*	n/a	cattle	QIA	Republic of Korea (South Korea)	ASIA/Sea-97
VIT/14/2016	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
KAZ/1/2013*	n/a	cattle	ARRIAH	Kazakhstan	ASIA/Sea-97
MYA/4/2015	n/a	bovine	WRLFMD	Myanmar	ASIA/Sea-97
HY/CHA/2013*	KT968663	yak	Sichuan Univ	China	ASIA/Sea-97
GDMM-CHA-2013-S*	KF450794	porcine	n/a	China	ASIA/Sea-97
MOG/12/2013	n/a	cattle	WRLFMD	Mongolia	ASIA/Sea-97
MOG/11/2013	n/a	cattle	WRLFMD	Mongolia	ASIA/Sea-97
MOG/13/2013	n/a	cattle	WRLFMD	Mongolia	ASIA/Sea-97
VIT/12/2015	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/13/2015	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/1/2016	n/a	water buffalo	WRLFMD	Vietnam	ASIA/Sea-97

continued on next page

label	accession	host(s)	lab	country	taxonomic information
Amur/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Amur/3/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
CAM/5/2016	n/a	n/a	WRLFMD	Cambodia	ASIA/Sea-97
VIT/16/2015	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
MOG/1/2016	n/a	cattle	WRLFMD	Mongolia	ASIA/Sea-97
MOG/2/2016	n/a	sheep	WRLFMD	Mongolia	ASIA/Sea-97
MOG/14/2016*	n/a	cattle	ARRIAH	Mongolia	ASIA/Sea-97
MOG/11/2016*	n/a	cattle	ARRIAH	Mongolia	ASIA/Sea-97
MOG/15/2016*	n/a	cattle	ARRIAH	Mongolia	ASIA/Sea-97
TAI/15/2012	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
VIT/26/2012	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/25/2012	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
TAI/5/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/3/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/4/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
LAO/1/2015	n/a	cattle	WRLFMD	Laos	ASIA/Sea-97
TAI/21/2014	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/21/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/12/2015	n/a	porcine	WRLFMD	Thailand	ASIA/Sea-97
TAI/24/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/17/2014	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/13/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/23/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
Zabaikalsky/2/RUS/2014*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
Zabaikalsky/5/RUS/2013*	n/a	cattle	ARRIAH	Russia	ASIA/Sea-97
KM/TAW/2015*	n/a	cattle	NVRI	Taiwan	ASIA/Sea-97
TAI/18/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/6/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/10/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/12/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/23/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/16/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/15/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/13/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/11/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/22/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/19/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/20/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
CAM/4/2016	n/a	n/a	WRLFMD	Cambodia	ASIA/Sea-97
CAM/2/2016	n/a	n/a	WRLFMD	Cambodia	ASIA/Sea-97
TAI/10/2011	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
MAY/2/2011	n/a	cattle	WRLFMD	Malaysia	ASIA/Sea-97
TAI/9/2011	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI 4/12*	n/a	n/a	TRRL	Thailand	ASIA/Sea-97
TAI 3/12*	n/a	n/a	TRRL	Thailand	ASIA/Sea-97
TAI/3/2012	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/4/2012	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
MAY/4/2011	n/a	cattle	WRLFMD	Malaysia	ASIA/Sea-97
TAI/8/2010	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
THA 69-6/10*	n/a	cattle	TRRL	Thailand	ASIA/Sea-97
THA 67-3/10*	n/a	cattle	TRRL	Thailand	ASIA/Sea-97
TAI/7/2010	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
THA 66-1/10*	n/a	cattle	TRRL	Thailand	ASIA/Sea-97
TAI/16/2011	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/3/2011	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/1/2011	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2003	HQ116312	bovine	WRLFMD	Thailand	ASIA/Sea-97
TAI/118/87*	EF208777	n/a	WRLFMD	Thailand	ASIA/Thai-87
TAI/2/97	EF208778	n/a	WRLFMD	Thailand	ASIA/Sea-97
Bangkok/TAI/60*	AY593755	n/a	PIADC	Thailand	ASIA/A15
BAD/AFG/L2814/2009*	HQ439296	cattle	LINDHOLM	Afghanistan	ASIA/Iran-05/BAD-09
IRN/27/2013	n/a	cattle	WRLFMD	Iran	ASIA/Iran-05/SIS-13
BAL/PAK/05/2011*	KT832824	cattle	Univ Malakand	Pakistan	ASIA/Iran-05/BAL-11
IRN/2/87	EF208770	bovine	WRLFMD	Iran	ASIA/Iran-87
IRQ/24/64	AY593763	bovine	PIADC	Iraq	ASIA/A22
Cruzeiro/BRA/55*	AY593768	bovine	PIADC	Brazil	EURO-SA/A24

continued on next page

label	accession	host(s)	lab	country	taxonomic information
KEN/3/64	AY593761	n/a	PIADC	Kenya	AFRICA/G-III
GHA/16/73	KF561698	bovine	WRLFMD	Ghana	AFRICA/G-VI

*, not a WRLFMD Reference Number

n/a, not available