

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

## Genotyping Report

FMDV serotype: O  
Country: China  
Year: 2018  
Batch: WRLMEG/2018/00022  
No. of sequences: 1  
Report date: 12th May 2018  
Report generated by: Nick Knowles  
Report checked by: Kasia Bankowska



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Virus sample name:	GZSD/CHA/2018
Sender reference:	O/GZSD/CHA/2018
Location of origin:	Guizhou province
Country of origin:	China
Date of collection:	08/01/2018
Host species:	porcine
Serotype:	O
Topotype:	CATHAY
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	n/a
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	12/05/2018
Last updated:	12/05/2018
VIBASys IDs: sample 36601, genome 36602, sequence viba_36603, sequencing info 36604	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_31208	GD/CHA/JH12/2013	porcine	95.6	0	O	CATHAY		
viba_31212	HN/CHA/HK212/2013	porcine	93.2	0	O	CATHAY		
viba_14609	HKN/24/2010	porcine	92.7	0	O	CATHAY		
viba_14613	HKN/25/2010	porcine	92.7	0	O	CATHAY		
viba_31464	VIT/8/2016	porcine	92.6	0	O	CATHAY		
viba_36473	VIT/26/2017	porcine	92.6	0	O	CATHAY		
viba_36420	VIT/23/2016	porcine	92.4	0	O	CATHAY		
viba_36469	VIT/22/2017	porcine	91.8	0	O	CATHAY		
viba_26337	CanTho/VIT/15-20501	porcine	91.8	0	O	CATHAY		
viba_31216	SCGH/CHA/2016	porcine	91.8	0	O	CATHAY		

### Most Closely Related Prototype Sequences

see [http://www.wrlfmd.org/fmd\\_genotyping/prototypes.htm](http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_480	Yunlin/TAW/97	porcine	87.5	0	O	CATHAY		
viba_418	PHI/7/96	porcine	87.5	0	O	CATHAY		
viba_584	HKN/6/83	bovine	82.6	2	O	CATHAY		
viba_325	HKN/21/70	porcine	81.8	2	O	CATHAY		
viba_359	Manisa/TUR/69		80.5	0	O	ME-SA		
viba_541	OMN/7/2001	bovine	79.9	0	O	ME-SA	Ind-2001	b
viba_293	BHU/3/2009	cattle	79.2	0	O	ME-SA	Ind-2001	d
viba_705	KUW/3/97	bovine	78.8	0	O	ME-SA	Ind-2001	a
viba_850	NEP/1/2015	cattle	78.5	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	78.5	0	O	ME-SA	PanAsia-2	PUN-10



## Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLMEG/2018/00022-China-O (1 sequences)
Sequence database set:	allseqs_O (3789 sequences)
Prototype sequence set:	!prototypes_O (48 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
GZSD/CHA/2018*	MG840803	porcine	LVRI	China	CATHAY
GD/CHA/JH12/2013*	KU204894	porcine	SMU	China	CATHAY
HN/CHA/HK212/2013*	KU204893	porcine	SMU	China	CATHAY
HKN/25/2010	KM243163	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/24/2010	KM243162	porcine	WRLFMD	Hong Kong SAR	CATHAY
VIT/3/2017	n/a	porcine	WRLFMD	Vietnam	CATHAY
SCGH/CHA/2016*	KX161429	porcine	LVRI	China	CATHAY
VIT/27/2017	n/a	porcine	WRLFMD	Vietnam	CATHAY
CanTho/VIT/15-20501*	n/a	porcine	RAHO6	Vietnam	CATHAY
VIT/23/2016	n/a	porcine	WRLFMD	Vietnam	CATHAY
VIT/8/2016	n/a	porcine	WRLFMD	Vietnam	CATHAY
VIT/21/2017	n/a	porcine	WRLFMD	Vietnam	CATHAY
VIT/26/2017	n/a	porcine	WRLFMD	Vietnam	CATHAY
VIT/22/2017	n/a	porcine	WRLFMD	Vietnam	CATHAY
HKN/1/2007	KM243150	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/2/2007	KM243151	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/1/2008	KM243155	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/2/2008	KM243156	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/3/2007	KM243152	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/4/2007	KM243153	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/14/2005	KM243133	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/17/2005	KM243135	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/19/2005	KM243137	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/20/2005	KM243138	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/18/2005	KM243136	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/25/2005	KM243143	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/4/2006	KM243147	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/2/2006	KM243145	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/6/2006	KM243149	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/5/2006	KM243148	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/1/2006	KM243144	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/23/2005	KM243141	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/22/2005	KM243140	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/24/2005	KM243142	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/3/2006	KM243146	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/13/2004	KM243126	porcine	WRLFMD	Hong Kong SAR	CATHAY

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label	accession	host(s)	lab	country	taxonomic information
HKN/10/2004	DQ164887	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/7/2004	DQ164884	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/4/2004	DQ164882	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/6/2004	DQ164883	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/8/2004	DQ164885	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/11/2004	DQ164888	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/3/2004	DQ164881	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/15/2005	KM243134	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/10/2005	KM243130	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/9/2005	KM243129	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/12/2005	KM243132	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/9/2004	DQ164886	porcine	WRLFMD	Hong Kong SAR	CATHAY
HKN/12/2004	DQ164889	porcine	WRLFMD	Hong Kong SAR	CATHAY
Yunlin/TAW/97*	AF308157	porcine	PIADC	Taiwan	CATHAY
PHI/2/94	KM243034	porcine	WRLFMD	Philippines	CATHAY
PHI/5/94	KM243035	porcine	WRLFMD	Philippines	CATHAY
PHI/6/94	KM243036	porcine	WRLFMD	Philippines	CATHAY
PHI/10/94	KM243038	porcine	WRLFMD	Philippines	CATHAY
PHI/5/95	DQ164946	n/a	WRLFMD	Philippines	CATHAY
PHI/9/95	KM243045	porcine	WRLFMD	Philippines	CATHAY
PHI/8/94	KM243037	porcine	WRLFMD	Philippines	CATHAY
PHI/3/95	KM243043	porcine	WRLFMD	Philippines	CATHAY
PHI/11/94	KM243039	porcine	WRLFMD	Philippines	CATHAY
PHI/10/95	KM243046	porcine	WRLFMD	Philippines	CATHAY
PHI/11/95	KM243047	porcine	WRLFMD	Philippines	CATHAY
PHI/2/96	KM243054	porcine	WRLFMD	Philippines	CATHAY
PHI/15/98	KM243088	porcine	WRLFMD	Philippines	CATHAY
PHI/7/96	AJ294926	porcine	WRLFMD	Philippines	CATHAY
PHI/3/96	KM243055	porcine	WRLFMD	Philippines	CATHAY
PHI/6/97	KM243063	porcine	WRLFMD	Philippines	CATHAY
PHI/8/97	KM243065	porcine	WRLFMD	Philippines	CATHAY
PHI/5/97	KM243062	porcine	WRLFMD	Philippines	CATHAY
PHI/8/98	KM243081	porcine	WRLFMD	Philippines	CATHAY
PHI/21/98	KM243093	porcine	WRLFMD	Philippines	CATHAY
PHI/22/98	KM243094	porcine	WRLFMD	Philippines	CATHAY
PHI/9/98	KM243082	porcine	WRLFMD	Philippines	CATHAY
PHI/1/98	KM243075	porcine	WRLFMD	Philippines	CATHAY
PHI/16/98	KM243089	porcine	WRLFMD	Philippines	CATHAY
PHI/12/98	KM243085	porcine	WRLFMD	Philippines	CATHAY
PHI/13/98	KM243086	porcine	WRLFMD	Philippines	CATHAY
PHI/19/98	KM243091	porcine	WRLFMD	Philippines	CATHAY
PHI/11/98	KM243084	porcine	WRLFMD	Philippines	CATHAY
PHI/10/98	KM243083	porcine	WRLFMD	Philippines	CATHAY
PHI/6/98	KM243080	porcine	WRLFMD	Philippines	CATHAY
PHI/2/98	KM243076	porcine	WRLFMD	Philippines	CATHAY
PHI/5/98	KM243079	porcine	WRLFMD	Philippines	CATHAY
PHI/4/98	KM243078	porcine	WRLFMD	Philippines	CATHAY
PHI/13/97	KM243071	porcine	WRLFMD	Philippines	CATHAY
PHI/15/97	KM243073	porcine	WRLFMD	Philippines	CATHAY
PHI/18/98	KM243090	porcine	WRLFMD	Philippines	CATHAY
PHI/20/98	KM243092	porcine	WRLFMD	Philippines	CATHAY
PHI/16/97	KM243074	porcine	WRLFMD	Philippines	CATHAY
PHI/7/97	KM243064	porcine	WRLFMD	Philippines	CATHAY
PHI/2/97	KM243059	porcine	WRLFMD	Philippines	CATHAY
PHI/4/97	KM243061	porcine	WRLFMD	Philippines	CATHAY
HKN/6/83	AJ294919	bovine	WRLFMD	Hong Kong SAR	CATHAY
HKN/21/70	AJ294911	porcine	WRLFMD	Hong Kong SAR	CATHAY
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
NEP/1/2015	n/a	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

\*, not a WRLFMD Reference Number

n/a, not available