

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

Genotyping Report

FMDV serotype: A
Country: Thailand
Year: 2021, 2022
Batch: WRLFMD/2023/000070
No. of sequences: 7
Report date: 26th September 2023
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth



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

email: reporting@pirbright.ac.uk

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Virus sample name:	TAI/8/2021
Sender reference:	42/21 R1B3
Location of origin:	Yu Wa, San Pa Tong, Chiang Mai, Northern Region
Country of origin:	Thailand
Date of collection:	11/11/2021
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 53990, genome 53991, sequence viba_53992, sequencing info 53993	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_51112	TAI/7/2021	cattle	100.0	0	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	100.0	0	A	ASIA	Sea-97	
viba_53996	TAI/9/2021	cattle	99.8	1	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_50802	TAI/40/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_51096	TAI/3/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_50782	TAI/20/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50806	TAI/50/21	bovine	99.8	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.6	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.4	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		86.1	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.8	0	A	ASIA	A22	
viba_336	IRN/1/96	bovine	80.7	1	A	ASIA	Iran-96	
viba_864	IND/40/2000	cattle	80.6	0	A	ASIA	G-VII	
viba_682	IRN/2/87	bovine	80.6	0	A	ASIA	Iran-87	
viba_173	UGA/13/66	bovine	80.2	0	A	AFRICA	G-VII	
viba_843	SAU/16/95		80.0	0	A	ASIA	G-VII	
viba_594	IRN/1/2011	bovine	79.9	0	A	ASIA	Iran-05	FAR-11

Virus sample name:	TAI/9/2021
Sender reference:	50-1/21 R1B3
Location of origin:	Wiang Yong, Mueang Lamphun, Lamphun, Northern Region
Country of origin:	Thailand
Date of collection:	11/11/2021
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	1
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 53994, genome 53995, sequence viba_53996, sequencing info 53997	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_51112	TAI/7/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_50806	TAI/50/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50822	TAI/64/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.7	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.7	0	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.7	0	A	ASIA	Sea-97	
viba_50802	TAI/40/21	bovine	99.7	0	A	ASIA	Sea-97	
viba_51096	TAI/3/2021	cattle	99.7	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.5	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.3	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		85.9	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.8	0	A	ASIA	A22	
viba_682	IRN/2/87	bovine	80.6	0	A	ASIA	Iran-87	
viba_336	IRN/1/96	bovine	80.5	1	A	ASIA	Iran-96	
viba_864	IND/40/2000	cattle	80.5	0	A	ASIA	G-VII	
viba_173	UGA/13/66	bovine	80.2	0	A	AFRICA	G-VII	
viba_843	SAU/16/95		79.9	0	A	ASIA	G-VII	
viba_178	SUD/3/77		79.5	0	A	AFRICA	G-IV	

Virus sample name:	TAI/10/2021
Sender reference:	53/21 R1B3
Location of origin:	Ban Klang, Mueang Lamphun, Lamphun, Northern Region
Country of origin:	Thailand
Date of collection:	11/11/2021
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 53998, genome 53999, sequence viba_54000, sequencing info 54001	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_51112	TAI/7/2021	cattle	100.0	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	100.0	0	A	ASIA	Sea-97	
viba_53996	TAI/9/2021	cattle	99.8	1	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_50802	TAI/40/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_51096	TAI/3/2021	cattle	99.8	0	A	ASIA	Sea-97	
viba_50782	TAI/20/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50806	TAI/50/21	bovine	99.8	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.6	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.4	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		86.1	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.8	0	A	ASIA	A22	
viba_336	IRN/1/96	bovine	80.7	1	A	ASIA	Iran-96	
viba_864	IND/40/2000	cattle	80.6	0	A	ASIA	G-VII	
viba_682	IRN/2/87	bovine	80.6	0	A	ASIA	Iran-87	
viba_173	UGA/13/66	bovine	80.2	0	A	AFRICA	G-VII	
viba_843	SAU/16/95		80.0	0	A	ASIA	G-VII	
viba_594	IRN/1/2011	bovine	79.9	0	A	ASIA	Iran-05	FAR-11

Virus sample name:	TAI/1/2022
Sender reference:	16/22 R3B3
Location of origin:	Si Dong Yen, Chai Prakan, Chiang Mai, Northern Region
Country of origin:	Thailand
Date of collection:	27/01/2022
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 54002, genome 54003, sequence viba_54004, sequencing info 54005	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50806	TAI/50/21	bovine	99.5	0	A	ASIA	Sea-97	
viba_50822	TAI/64/21	bovine	99.5	0	A	ASIA	Sea-97	
viba_51112	TAI/7/2021	cattle	99.4	0	A	ASIA	Sea-97	
viba_53996	TAI/9/2021	cattle	99.4	1	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	99.4	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	99.4	0	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.2	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.2	0	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_50802	TAI/40/21	bovine	99.2	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.0	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		87.7	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		85.6	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	82.0	0	A	ASIA	A22	
viba_682	IRN/2/87	bovine	80.4	0	A	ASIA	Iran-87	
viba_864	IND/40/2000	cattle	80.2	0	A	ASIA	G-VII	
viba_594	IRN/1/2011	bovine	80.1	0	A	ASIA	Iran-05	FAR-11
viba_173	UGA/13/66	bovine	80.0	0	A	AFRICA	G-VII	
viba_336	IRN/1/96	bovine	79.9	1	A	ASIA	Iran-96	
viba_34575	BAD/AFGL/2814/2009	cattle	79.4	0	A	ASIA	Iran-05	BAD-09

Virus sample name:	TAI/2/2022
Sender reference:	65B00022-0001 R3B3
Location of origin:	Pa Deng, Kaeng Krachan, Phetchaburi, Western Region
Country of origin:	Thailand
Date of collection:	16/03/2022
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 54006, genome 54007, sequence viba_54008, sequencing info 54009	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50794	TAI/32/21	bovine	99.7	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.7	0	A	ASIA	Sea-97	
viba_54012	TAI/3/2022	cattle	99.7	0	A	ASIA	Sea-97	
viba_51112	TAI/7/2021	cattle	99.5	0	A	ASIA	Sea-97	
viba_51108	TAI/6/2021	cattle	99.5	0	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	99.5	0	A	ASIA	Sea-97	
viba_50798	TAI/48/21	bovine	99.5	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	99.5	0	A	ASIA	Sea-97	
viba_53996	TAI/9/2021	cattle	99.4	1	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.4	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.5	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.3	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		85.9	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.7	0	A	ASIA	A22	
viba_336	IRN/1/96	bovine	80.2	1	A	ASIA	Iran-96	
viba_864	IND/40/2000	cattle	80.2	0	A	ASIA	G-VII	
viba_682	IRN/2/87	bovine	80.2	0	A	ASIA	Iran-87	
viba_173	UGA/13/66	bovine	80.0	0	A	AFRICA	G-VII	
viba_843	SAU/16/95		79.6	0	A	ASIA	G-VII	
viba_178	SUD/3/77		79.5	0	A	AFRICA	G-IV	

Virus sample name:	TAI/3/2022
Sender reference:	65B00033-0001 R3B3
Location of origin:	Huai Sat Yai, Hua Hin, Prachuap Khiri Khan, Western Region
Country of origin:	Thailand
Date of collection:	21/04/2022
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	08/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 54010, genome 54011, sequence viba_54012, sequencing info 54013	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54008	TAI/2/2022	cattle	99.7	0	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.4	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.4	0	A	ASIA	Sea-97	
viba_51112	TAI/7/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_51108	TAI/6/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_50798	TAI/48/21	bovine	99.2	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_53996	TAI/9/2021	cattle	99.0	1	A	ASIA	Sea-97	
viba_51104	TAI/5/2021	cattle	99.0	0	A	ASIA	Sea-97	

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_122	TAI/7/2003	bovine	90.5	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.3	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		85.9	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	82.1	0	A	ASIA	A22	
viba_864	IND/40/2000	cattle	80.4	0	A	ASIA	G-VII	
viba_336	IRN/1/96	bovine	80.1	1	A	ASIA	Iran-96	
viba_34575	BAD/AFG/L2814/2009	cattle	80.0	0	A	ASIA	Iran-05	BAD-09
viba_173	UGA/13/66	bovine	79.8	0	A	AFRICA	G-VII	
viba_682	IRN/2/87	bovine	79.5	0	A	ASIA	Iran-87	
viba_594	IRN/1/2011	bovine	79.4	0	A	ASIA	Iran-05	FAR-11

Virus sample name:	TAI/14/2022
Sender reference:	65B00152-0001 R3B3
Location of origin:	Tha Pla Duk, Mae Tha, Lamphun, Northern Region
Country of origin:	Thailand
Date of collection:	30/09/2022
Host species:	cattle
Serotype:	A
Topotype:	ASIA
Lineage:	Sea-97
Sublineage:	
Sequence length:	630
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	12/09/2023
Primers:	A-1C562F/EUR-2B52R; A-1C612F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	18/09/2023
Created:	25/09/2023
Last updated:	25/09/2023
VIBASys IDs: sample 54014, genome 54015, sequence viba_54016, sequencing info 54017	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50814	TAI/56/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50810	TAI/57/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50818	TAI/62/21	bovine	99.8	0	A	ASIA	Sea-97	
viba_50794	TAI/32/21	bovine	99.4	0	A	ASIA	Sea-97	
viba_50826	TAI/79/21	bovine	99.4	0	A	ASIA	Sea-97	
viba_51112	TAI/7/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_51108	TAI/6/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_54000	TAI/10/2021	cattle	99.2	0	A	ASIA	Sea-97	
viba_50798	TAI/48/21	bovine	99.2	0	A	ASIA	Sea-97	
viba_53992	TAI/8/2021	cattle	99.2	0	A	ASIA	Sea-97	

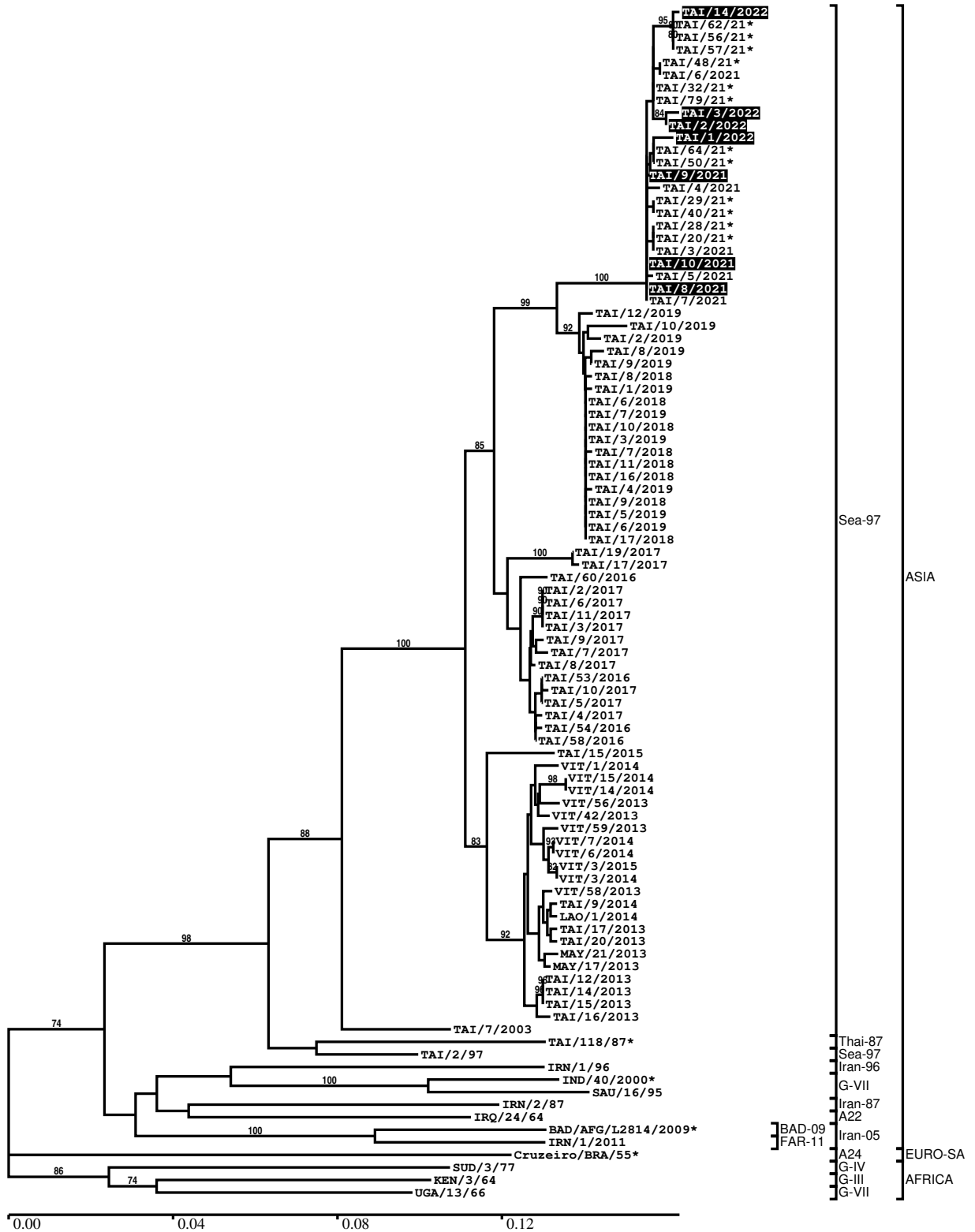
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_122	TAI/7/2003	bovine	90.0	0	A	ASIA	Sea-97	
viba_625	TAI/2/97		88.1	0	A	ASIA	Sea-97	
viba_630	TAI/118/87		85.7	0	A	ASIA	Thai-87	
viba_677	IRQ/24/64	bovine	81.5	0	A	ASIA	A22	
viba_682	IRN/2/87	bovine	80.5	0	A	ASIA	Iran-87	
viba_336	IRN/1/96	bovine	80.2	1	A	ASIA	Iran-96	
viba_864	IND/40/2000	cattle	80.0	0	A	ASIA	G-VII	
viba_173	UGA/13/66	bovine	80.0	0	A	AFRICA	G-VII	
viba_34575	BAD/AFG/L2814/2009	cattle	79.9	0	A	ASIA	Iran-05	BAD-09
viba_594	IRN/1/2011	bovine	79.7	0	A	ASIA	Iran-05	FAR-11

Report on FMDV A in Thailand in 2021, 2022

Batch: WRLFMD/2023/000070



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_A
Query sequence set:	WRLFMD/2023/000070-Thailand-A (7 sequences)
Sequence database set:	allseqs_A (2387 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:	633
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:	12
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
TAI/14/2022	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/62/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/56/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/57/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/48/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/6/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/32/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/79/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/3/2022	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/2/2022	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/1/2022	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/64/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/50/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/9/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/4/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/29/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/40/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/28/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/20/21*	n/a	bovine	TRRL	Thailand	ASIA/Sea-97
TAI/3/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/10/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/5/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/8/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2021	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/12/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/10/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/2/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/8/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/9/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/8/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/1/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/6/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/10/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/3/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97

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label	accession	host(s)	lab	country	taxonomic information
TAI/11/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/16/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/4/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/9/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/5/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/6/2019	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/17/2018	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/19/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/17/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/60/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/2/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/6/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/11/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/3/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/9/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/7/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/8/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/53/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/10/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/5/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/4/2017	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/54/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/58/2016	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/15/2015	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
VIT/1/2014	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/15/2014	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/14/2014	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/56/2013	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/42/2013	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/59/2013	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/7/2014	n/a	porcine	WRLFMD	Vietnam	ASIA/Sea-97
VIT/6/2014	n/a	porcine	WRLFMD	Vietnam	ASIA/Sea-97
VIT/3/2015	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/3/2014	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
VIT/58/2013	n/a	cattle	WRLFMD	Vietnam	ASIA/Sea-97
TAI/9/2014	n/a	water buffalo	WRLFMD	Thailand	ASIA/Sea-97
LAO/1/2014	n/a	cattle	WRLFMD	Laos	ASIA/Sea-97
TAI/17/2013	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/20/2013	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
MAY/21/2013	n/a	cattle	WRLFMD	Malaysia	ASIA/Sea-97
MAY/17/2013	n/a	cattle	WRLFMD	Malaysia	ASIA/Sea-97
TAI/12/2013	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/14/2013	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/15/2013	n/a	cattle	WRLFMD	Thailand	ASIA/Sea-97
TAI/16/2013	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
IRN/1/96	EF208771	bovine	WRLFMD	Iran	ASIA/Iran-96
IND/40/2000*	AF390646	cattle	PD-FMD	India	ASIA/G-VII
SAU/16/95	EU553874	n/a	WRLFMD	Saudi Arabia	ASIA/G-VII
IRN/2/87	EF208770	bovine	WRLFMD	Iran	ASIA/Iran-87
IRQ/24/64	AY593763	bovine	PIADC	Iraq	ASIA/A22
BAD/AFG/L2814/2009*	HQ439296	cattle	LINDHOLM	Afghanistan	ASIA/Iran-05/BAD-09
IRN/1/2011	KY091292	bovine	WRLFMD	Iran	ASIA/Iran-05/FAR-11
Cruzeiro/BRA/55*	AY593768	bovine	PIADC	Brazil	EURO-SA/A24
SUD/3/77	GU566064	n/a	WRLFMD	Sudan	AFRICA/G-IV
KEN/3/64	AY593761	n/a	PIADC	Kenya	AFRICA/G-III
UGA/13/66	KF561705	bovine	WRLFMD	Uganda	AFRICA/G-VII

*, not a WRLFMD Reference Number

n/a, not available