

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

Genotyping Report

FMDV serotype: O
Country: Tunisia
Year: 2022
Batch: WRLMEG/2022/00006
No. of sequences: 13
Report date: 3rd February 2022
Report generated by: Nick Knowles
Report checked by: Don King

This report has been prepared on behalf of the Laboratoire de Virologie, Institut de la Recherche Vétérinaire de Tunisie, Tunisia and European Union Reference Laboratory (EURL), FAO Reference Centre & OIE Reference Laboratory for Foot-and-Mouth Disease chez Agence nationale de sécurité sanitaire –ANSES, Maisons-Alfort, Île-de-France, France and covers VP1 sequences submitted to the WRLFMD on 03/02/2022.



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

email: reporting@pirbright.ac.uk

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Virus sample name:	TUN/22Z745/22
Sender reference:	V1/22
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	04/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50076, genome 50077, sequence viba_50078, sequencing info 50079	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z746/22
Sender reference:	V2/22
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	04/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50080, genome 50081, sequence viba_50082, sequencing info 50083	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z747/22
Sender reference:	V3/22
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	04/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50084, genome 50085, sequence viba_50086, sequencing info 50087	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z749/22
Sender reference:	V5/22
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	04/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50088, genome 50089, sequence viba_50090, sequencing info 50091	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50110	TUN/22Z754/22	cattle	100.0	0	O	EA-3		
viba_50106	TUN/22Z753/22	cattle	100.0	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	99.8	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		

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_116	SUD/2/86	bovine	88.5	0	O	EA-3		
viba_50	UGA/17/98		85.5	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.6	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_523	K83/79		83.6	0	O	EA-1		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		

Virus sample name:	TUN/22Z750/22
Sender reference:	V6/22
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	04/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50092, genome 50093, sequence viba_50094, sequencing info 50095	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z751/22
Sender reference:	SSA
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50096, genome 50097, sequence viba_50098, sequencing info 50099	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z752/22
Sender reference:	SSB
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50100, genome 50101, sequence viba_50102, sequencing info 50103	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z753/22
Sender reference:	SSC
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50104, genome 50105, sequence viba_50106, sequencing info 50107	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50090	TUN/22Z749/22	cattle	100.0	0	O	EA-3		
viba_50110	TUN/22Z754/22	cattle	100.0	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	99.8	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		

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_116	SUD/2/86	bovine	88.5	0	O	EA-3		
viba_50	UGA/17/98		85.5	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.6	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_523	K83/79		83.6	0	O	EA-1		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		

Virus sample name:	TUN/22Z754/22
Sender reference:	SSD
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50108, genome 50109, sequence viba_50110, sequencing info 50111	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50090	TUN/22Z749/22	cattle	100.0	0	O	EA-3		
viba_50106	TUN/22Z753/22	cattle	100.0	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	99.8	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		

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_116	SUD/2/86	bovine	88.5	0	O	EA-3		
viba_50	UGA/17/98		85.5	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.6	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_523	K83/79		83.6	0	O	EA-1		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		

Virus sample name:	TUN/22Z756/22
Sender reference:	Epithelium 67/22
Location of origin:	Teboulba, Monastir
Country of origin:	Tunisia
Date of collection:	13/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	epithelium
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50112, genome 50113, sequence viba_50114, sequencing info 50115	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z994/22
Sender reference:	Surnageant d'epithelium
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	epithelium
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50116, genome 50117, sequence viba_50118, sequencing info 50119	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

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_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Virus sample name:	TUN/22Z995/22
Sender reference:	SSE
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	swab
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50120, genome 50121, sequence viba_50122, sequencing info 50123	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	99.8	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	99.8	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	99.8	0	O	EA-3		

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_116	SUD/2/86	bovine	88.5	0	O	EA-3		
viba_50	UGA/17/98		85.8	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.6	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.5	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_68	TAI/189/87	bovine	83.6	0	O	SEA		
viba_523	K83/79		83.6	0	O	EA-1		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	

Virus sample name:	TUN/22Z996/22
Sender reference:	Epithelium
Location of origin:	Morneg, Ben Arous
Country of origin:	Tunisia
Date of collection:	05/01/2022
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	epithelium
Harvest date of material:	n/a
Primers:	n/a
Received for sequencing:	n/a
Created:	03/02/2022
Last updated:	03/02/2022
VIBASys IDs: sample 50124, genome 50125, sequence viba_50126, sequencing info 50127	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50078	TUN/22Z745/22	cattle	100.0	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	100.0	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	100.0	0	O	EA-3		
viba_50082	TUN/22Z746/22	cattle	100.0	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	100.0	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	100.0	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	100.0	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	100.0	0	O	EA-3		
viba_50114	TUN/22Z756/22	cattle	100.0	0	O	EA-3		

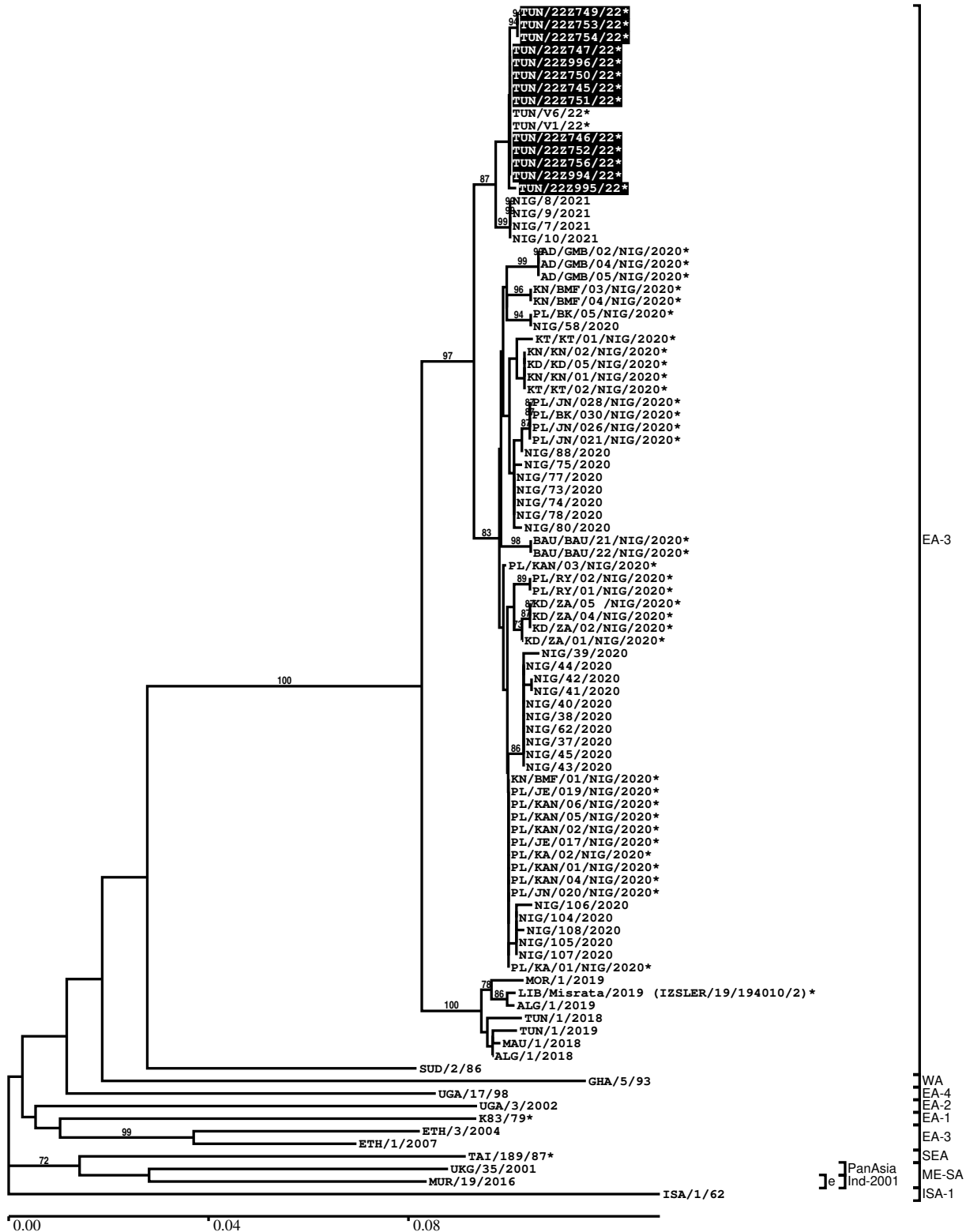
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	88.3	0	O	EA-3		
viba_50	UGA/17/98		85.6	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.2	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	84.5	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.3	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.2	0	O	WA		
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.5	0	O	SEA		
viba_523	K83/79		83.4	0	O	EA-1		

Report on FMDV O in Tunisia in 2022

Batch: WRLMEG/2022/00006



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLMEG/2022/00006/TUN/O-Tunisia-O (13 sequences)
Sequence database set:	allseqs_O (5517 sequences)
Prototype sequence set:	!prototypes_O (49 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
TUN/22Z749/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z753/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z754/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z747/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z996/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z750/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z745/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z751/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/V6/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/V1/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z746/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z752/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z756/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z994/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z995/22*	n/a	cattle	ANSES	Tunisia	EA-3
NIG/8/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/9/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/7/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/10/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
AD/GMB/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
AD/GMB/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
AD/GMB/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KN/BMF/03/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KN/BMF/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/BK/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
NIG/58/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
KT/KT/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KN/KN/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/KD/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KN/KN/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KT/KT/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/028/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/BK/030/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/026/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/021/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
NIG/88/2020	n/a	cattle	WRLFMD	Nigeria	EA-3

continued on next page

label	accession	host(s)	lab	country	taxonomic information
NIG/75/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/77/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/73/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/74/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/78/2020	n/a	sheep	WRLFMD	Nigeria	EA-3
NIG/80/2020	n/a	sheep	WRLFMD	Nigeria	EA-3
BAU/BAU/21/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
BAU/BAU/22/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/03/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/RV/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/RV/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/ZA/05 /NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/ZA/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/ZA/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/ZA/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
NIG/39/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/44/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/42/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/41/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/40/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/38/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/62/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/37/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/45/2020	n/a	sheep	WRLFMD	Nigeria	EA-3
NIG/43/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
KN/BMF/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JE/019/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/06/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JE/017/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KA/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/020/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
NIG/106/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/104/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/108/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/105/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/107/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
PL/KA/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
MOR/1/2019	n/a	cattle	WRLFMD	Morocco	EA-3
LIB/Misrata/2019 (IZSLER/19/194010/2)*	n/a	cattle	IZSLER	Libya	EA-3
ALG/1/2019	n/a	cattle	WRLFMD	Algeria	EA-3
TUN/1/2018	n/a	cattle	WRLFMD	Tunisia	EA-3
TUN/1/2019	n/a	cattle	WRLFMD	Tunisia	EA-3
MAU/1/2018	n/a	cattle	WRLFMD	Mauritania	EA-3
ALG/1/2018	n/a	cattle	WRLFMD	Algeria	EA-3
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
GHA/5/93	AJ303488	bovine	WRLFMD	Ghana	WA
UGA/17/98	HM211075	n/a	WRLFMD	Uganda	EA-4
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

*, not a WRLFMD Reference Number

n/a, not available