

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

Genotyping Report

FMDV serotype: O
Country: Nigeria
Year: 2023
Batch: WRLFMD/2023/000073
No. of sequences: 10
Report date: 2nd October 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:	NIG/2/2023
Sender reference:	BA/BG/2/23
Location of origin:	Baram-gada, Bauchi State
Country of origin:	Nigeria
Date of collection:	05/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	12/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54351, genome 54352, sequence viba_54353, sequencing info 54354

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54385	NIG/12/2023	cattle	100.0	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	100.0	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	100.0	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	100.0	0	O	EA-3		
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.6	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_27877	SRL/2/97	bovine	83.6	0	O	ME-SA	Srl-97	

Virus sample name:	NIG/3/2023
Sender reference:	BA/BG/3/23
Location of origin:	Baram-gada, Bauchi State
Country of origin:	Nigeria
Date of collection:	05/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	13/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54355, genome 54356, sequence viba_54357, sequencing info 54358

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54385	NIG/12/2023	cattle	100.0	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	100.0	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	100.0	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	100.0	0	O	EA-3		
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.6	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_27877	SRL/2/97	bovine	83.6	0	O	ME-SA	Srl-97	

Virus sample name:	NIG/4/2023
Sender reference:	BA/T/1/23
Location of origin:	Toro, Bauchi State
Country of origin:	Nigeria
Date of collection:	19/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	13/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54359, genome 54360, sequence viba_54361, sequencing info 54362

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54369	NIG/6/2023	cattle	100.0	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	100.0	0	O	EA-3		
viba_54385	NIG/12/2023	cattle	99.8	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.8	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	99.8	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	99.8	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	99.8	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.7	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.1	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	86.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.9	0	O	EA-3		
viba_50	UGA/17/98		84.5	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.0	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	83.9	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.6	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	NIG/5/2023
Sender reference:	BA/T/2/23
Location of origin:	Toro, Bauchi State
Country of origin:	Nigeria
Date of collection:	19/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	13/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54363, genome 54364, sequence viba_54365, sequencing info 54366

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54385	NIG/12/2023	cattle	99.7	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	99.7	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	99.7	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	99.7	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.3	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.8	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	NIG/6/2023
Sender reference:	BA/T/3/23
Location of origin:	Toro, Bauchi State
Country of origin:	Nigeria
Date of collection:	19/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	13/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54367, genome 54368, sequence viba_54369, sequencing info 54370

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54361	NIG/4/2023	cattle	100.0	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	100.0	0	O	EA-3		
viba_54385	NIG/12/2023	cattle	99.8	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.8	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	99.8	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	99.8	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	99.8	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.7	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.1	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	86.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.9	0	O	EA-3		
viba_50	UGA/17/98		84.5	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.0	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	83.9	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.6	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	NIG/7/2023
Sender reference:	BA/B/1/23
Location of origin:	Bogoro, Bauchi State
Country of origin:	Nigeria
Date of collection:	19/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	13/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023
VIBASys IDs: sample 54371, genome 54372, sequence viba_54373, sequencing info 54374	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54369	NIG/6/2023	cattle	100.0	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	100.0	0	O	EA-3		
viba_54385	NIG/12/2023	cattle	99.8	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.8	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	99.8	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	99.8	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	99.8	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.7	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.1	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	86.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.9	0	O	EA-3		
viba_50	UGA/17/98		84.5	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.1	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.0	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	83.9	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.6	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.5	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	NIG/8/2023
Sender reference:	BA/D/1/23
Location of origin:	Dri, Bauchi State
Country of origin:	Nigeria
Date of collection:	21/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK2
Harvest date of material:	15/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54375, genome 54376, sequence viba_54377, sequencing info 54378

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54369	NIG/6/2023	cattle	99.7	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.7	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.7	0	O	EA-3		
viba_54385	NIG/12/2023	cattle	99.5	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	99.5	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.5	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	99.5	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	99.5	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	97.8	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	86.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	84.9	0	O	EA-3		
viba_50	UGA/17/98		84.5	0	O	EA-4		
viba_1893	K40/84	bovine	83.9	0	O	EA-1		
viba_860	IRN/6/2015	cattle	83.8	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	83.7	0	O	SEA	Tai-87	
viba_30238	MUR/19/2016	cattle	83.6	0	O	ME-SA	Ind-2001	e
viba_850	NEP/1/2015	cattle	83.6	1	O	ME-SA	PanAsia-2	KAT-15
viba_354	PAK/16/2010	cattle	83.2	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	NIG/9/2023
Sender reference:	BA/D/2/23
Location of origin:	Dri, Bauchi State
Country of origin:	Nigeria
Date of collection:	21/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	15/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54379, genome 54380, sequence viba_54381, sequencing info 54382

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54385	NIG/12/2023	cattle	100.0	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	100.0	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	100.0	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	100.0	0	O	EA-3		
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.6	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_27877	SRL/2/97	bovine	83.6	0	O	ME-SA	Srl-97	

Virus sample name:	NIG/12/2023
Sender reference:	BA/BG/4/23
Location of origin:	Baram-gada, Bauchi State
Country of origin:	Nigeria
Date of collection:	23/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK1
Harvest date of material:	14/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54383, genome 54384, sequence viba_54385, sequencing info 54386

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54381	NIG/9/2023	cattle	100.0	0	O	EA-3		
viba_54389	NIG/13/2023	cattle	100.0	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	100.0	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	100.0	0	O	EA-3		
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.6	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_27877	SRL/2/97	bovine	83.6	0	O	ME-SA	Srl-97	

Virus sample name:	NIG/13/2023
Sender reference:	BA/BG/5/23
Location of origin:	Baram-gada, Bauchi State
Country of origin:	Nigeria
Date of collection:	23/07/2023
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	WRL-LFBK2
Harvest date of material:	16/09/2023
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	25/09/2023
Created:	02/10/2023
Last updated:	02/10/2023

VIBASys IDs: sample 54387, genome 54388, sequence viba_54389, sequencing info 54390

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_54385	NIG/12/2023	cattle	100.0	0	O	EA-3		
viba_54381	NIG/9/2023	cattle	100.0	0	O	EA-3		
viba_54357	NIG/3/2023	cattle	100.0	0	O	EA-3		
viba_54353	NIG/2/2023	cattle	100.0	0	O	EA-3		
viba_54369	NIG/6/2023	cattle	99.8	0	O	EA-3		
viba_54361	NIG/4/2023	cattle	99.8	0	O	EA-3		
viba_54373	NIG/7/2023	cattle	99.8	0	O	EA-3		
viba_54365	NIG/5/2023	cattle	99.7	0	O	EA-3		
viba_54377	NIG/8/2023	cattle	99.5	0	O	EA-3		
viba_53274	TUN/5946/2023	cattle	98.3	0	O	EA-3		

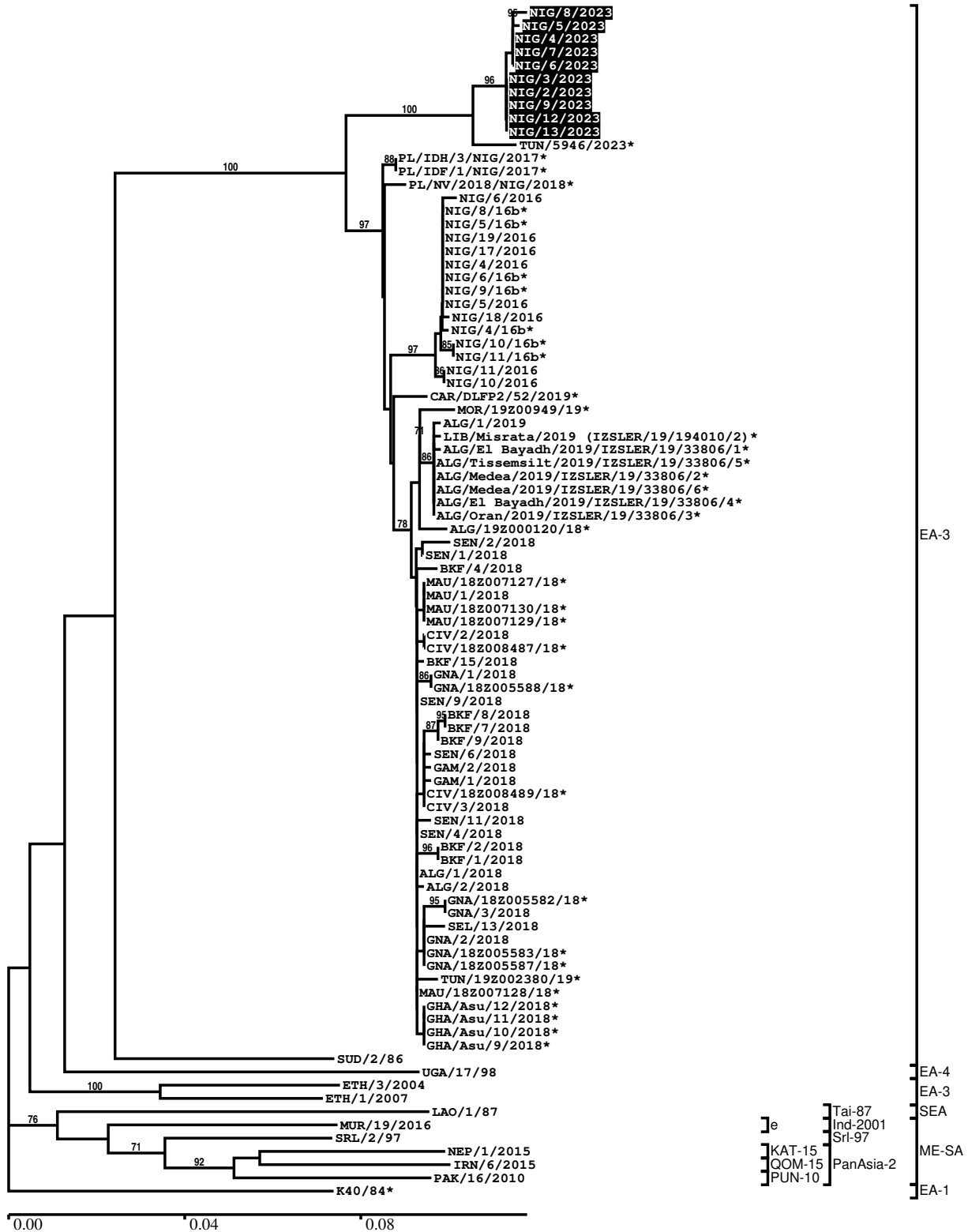
Most Closely Related Prototype Sequences

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	86.9	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_50	UGA/17/98		84.6	0	O	EA-4		
viba_860	IRN/6/2015	cattle	84.3	0	O	ME-SA	PanAsia-2	QOM-15
viba_38517	LAO/1/87	water buffalo	84.2	0	O	SEA	Tai-87	
viba_1893	K40/84	bovine	84.1	0	O	EA-1		
viba_30238	MUR/19/2016	cattle	83.8	0	O	ME-SA	Ind-2001	e
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_27877	SRL/2/97	bovine	83.6	0	O	ME-SA	Srl-97	

Report on FMDV O in Nigeria in 2023

Batch: WRLFMD/2023/000073



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2023/000073-Nigeria-O (10 sequences)
Sequence database set:	allseqs_O (6150 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:	11
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
NIG/8/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/5/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/4/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/7/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/6/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/3/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/2/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/9/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/12/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/13/2023	n/a	cattle	WRLFMD	Nigeria	EA-3
TUN/5946/2023*	n/a	cattle	ANSES	Tunisia	EA-3
PL/IDH/3/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/IDF/1/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/NV/2018/NIG/2018*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
NIG/6/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/8/16b*	MH894428	cattle	PIADC	Nigeria	EA-3
NIG/5/16b*	MH894425	cattle	PIADC	Nigeria	EA-3
NIG/19/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/17/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/4/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/6/16b*	MH894426	cattle	PIADC	Nigeria	EA-3
NIG/9/16b*	MH894429	cattle	PIADC	Nigeria	EA-3
NIG/5/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/18/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/4/16b*	MH894424	cattle	PIADC	Nigeria	EA-3
NIG/10/16b*	MH894430	cattle	PIADC	Nigeria	EA-3
NIG/11/16b*	MH894431	cattle	PIADC	Nigeria	EA-3
NIG/11/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/10/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
CAR/DLFP2/52/2019*	n/a	environmental	WRLFMD	Cameroon	EA-3
MOR/19Z00949/19*	n/a	bovine	ANSES	Morocco	EA-3
ALG/1/2019	n/a	cattle	WRLFMD	Algeria	EA-3
LIB/Misrata/2019 (IZSLER/19/194010/2)*	n/a	cattle	IZSLER	Libya	EA-3
ALG/EI Bayadh/2019/IZSLER/19/33806/1*	n/a	bovine	IZSLER	Algeria	EA-3
ALG/Tissemsilt/2019/IZSLER/19/33806/5*	n/a	ovine	IZSLER	Algeria	EA-3
ALG/Medea/2019/IZSLER/19/33806/2*	n/a	bovine	IZSLER	Algeria	EA-3

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label	accession	host(s)	lab	country	taxonomic information
ALG/Medea/2019/IZSLER/19/33806/6*	n/a	bovine	IZSLER	Algeria	EA-3
ALG/EI Bayadh/2019/IZSLER/19/33806/4*	n/a	bovine	IZSLER	Algeria	EA-3
ALG/Oran/2019/IZSLER/19/33806/3*	n/a	ovine	IZSLER	Algeria	EA-3
ALG/19Z000120/18*	n/a	ovine	ANSES	Algeria	EA-3
SEN/2/2018	n/a	porcine	WRLFMD	Senegal	EA-3
SEN/1/2018	n/a	cattle	WRLFMD	Senegal	EA-3
BKF/4/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
MAU/18Z007127/18*	n/a	n/a	ANSES	Mauritania	EA-3
MAU/1/2018	n/a	cattle	WRLFMD	Mauritania	EA-3
MAU/18Z007130/18*	n/a	n/a	ANSES	Mauritania	EA-3
MAU/18Z007129/18*	n/a	n/a	ANSES	Mauritania	EA-3
CIV/2/2018	n/a	porcine	WRLFMD	Cote d'Ivoire	EA-3
CIV/18Z008487/18*	n/a	porcine	ANSES	Cote d'Ivoire	EA-3
BKF/15/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
GNA/1/2018	n/a	cattle	WRLFMD	Guinea	EA-3
GNA/18Z005588/18*	n/a	n/a	ANSES	Guinea	EA-3
SEN/9/2018	n/a	cattle	WRLFMD	Senegal	EA-3
BKF/8/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/7/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/9/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
SEN/6/2018	n/a	cattle	WRLFMD	Senegal	EA-3
GAM/2/2018	n/a	cattle	WRLFMD	Gambia	EA-3
GAM/1/2018	n/a	cattle	WRLFMD	Gambia	EA-3
CIV/18Z008489/18*	n/a	porcine	ANSES	Cote d'Ivoire	EA-3
CIV/3/2018	n/a	porcine	WRLFMD	Cote d'Ivoire	EA-3
SEN/11/2018	n/a	cattle	WRLFMD	Senegal	EA-3
SEN/4/2018	n/a	cattle	WRLFMD	Senegal	EA-3
BKF/2/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/1/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
ALG/1/2018	n/a	cattle	WRLFMD	Algeria	EA-3
ALG/2/2018	n/a	cattle	WRLFMD	Algeria	EA-3
GNA/18Z005582/18*	n/a	n/a	ANSES	Guinea	EA-3
GNA/3/2018	n/a	cattle	WRLFMD	Guinea	EA-3
SEL/13/2018	n/a	cattle	WRLFMD	Sierra Leone	EA-3
GNA/2/2018	n/a	cattle	WRLFMD	Guinea	EA-3
GNA/18Z005583/18*	n/a	n/a	ANSES	Guinea	EA-3
GNA/18Z005587/18*	n/a	n/a	ANSES	Guinea	EA-3
TUN/19Z002380/19*	n/a	bovine	ANSES	Tunisia	EA-3
MAU/18Z007128/18*	n/a	n/a	ANSES	Mauritania	EA-3
GHA/Asu/12/2018*	LC456873	cattle	NIAH-JAPAN	Ghana	EA-3
GHA/Asu/11/2018*	LC456872	cattle	NIAH-JAPAN	Ghana	EA-3
GHA/Asu/10/2018*	LC456871	cattle	NIAH-JAPAN	Ghana	EA-3
GHA/Asu/9/2018*	LC456870	cattle	NIAH-JAPAN	Ghana	EA-3
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
UGA/17/98	HM211075	n/a	WRLFMD	Uganda	EA-4
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
LAO/1/87	MK390898	water buffalo	WRLFMD	Laos	SEA/Tai-87
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
SRL/2/97	AJ303531	bovine	WRLFMD	Sri Lanka	ME-SA/Sri-97

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label	accession	host(s)	lab	country	taxonomic information
NEP/1/2015	MN276045	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
IRN/6/2015	MN276044	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
PAK/16/2010	KY091285	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
K40/84*	KY091280	bovine	WRLFMD	Kenya	EA-1

*, not a WRLFMD Reference Number

n/a, not available