

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

## Genotyping Report

FMDV serotype: O  
Country: Nigeria  
Year: 2017, 2018  
Batch: WRLMEG/2019/00046  
No. of sequences: 8  
Report date: 16th December 2019  
Report generated by: Nick Knowles  
Report checked by: Antonello Di Nardo

This report has been prepared on behalf of the FAO Reference Centre for Foot-and-Mouth Disease, Canadian Food Inspection Agency (CFIA/ACIA), Winnipeg, Manitoba, Canada and the National Veterinary Research Institute (NVRI), Vom, Nigeria and covers VP1 sequences extracted from near complete genome sequences submitted to the WRLFMD on 15/12/2019.



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email: [reporting@pirbright.ac.uk](mailto:reporting@pirbright.ac.uk)

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Virus sample name:	PL/JS/KA/2/17/NIG/2017
Sender reference:	PL/JS/KA/2/17
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42902, genome 42903, sequence viba_42904, sequencing info 42905	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_41020	NIG/8/16b	cattle	99.1	0	O	EA-3		
viba_41012	NIG/6/16b	cattle	99.1	0	O	EA-3		
viba_30965	NIG/5/2016	cattle	99.1	0	O	EA-3		
viba_31009	NIG/17/2016	cattle	99.1	0	O	EA-3		
viba_30961	NIG/4/2016	cattle	99.1	0	O	EA-3		
viba_41024	NIG/9/16b	cattle	99.1	0	O	EA-3		
viba_41008	NIG/5/16b	cattle	99.1	0	O	EA-3		
viba_31017	NIG/19/2016	cattle	99.1	0	O	EA-3		
viba_31013	NIG/18/2016	cattle	98.9	0	O	EA-3		
viba_41004	NIG/4/16b	cattle	98.9	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	88.2	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.3	0	O	EA-3		
viba_50	UGA/17/98		84.8	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	84.4	0	O	ME-SA	Ind-2001	e
viba_576	IND/R2/75		83.8	0	O	ME-SA		
viba_523	K83/79		83.8	0	O	EA-1		
viba_285	UKG/35/2001	porcine	83.7	0	O	ME-SA	PanAsia	
viba_766	IRN/31/2009	cattle	83.5	0	O	ME-SA	PanAsia-2	FAR-09
viba_104	GHA/5/93	bovine	83.4	0	O	WA		

Virus sample name:	PL/BLD/02A/NIG/2017
Sender reference:	PL/BLD/02A
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42906, genome 42907, sequence viba_42908, sequencing info 42909	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42912	PL/BLD/02B/NIG/2017	bovine	99.8	0	O	EA-3		
viba_42920	PL/BLD/03B/NIG/2017	bovine	99.8	0	O	EA-3		
viba_42916	PL/BLD/03A/NIG/2017	bovine	99.8	0	O	EA-3		
viba_41020	NIG/8/16b	cattle	98.3	0	O	EA-3		
viba_41012	NIG/6/16b	cattle	98.3	0	O	EA-3		
viba_30965	NIG/5/2016	cattle	98.3	0	O	EA-3		
viba_31009	NIG/17/2016	cattle	98.3	0	O	EA-3		
viba_30961	NIG/4/2016	cattle	98.3	0	O	EA-3		
viba_41024	NIG/9/16b	cattle	98.3	0	O	EA-3		
viba_41008	NIG/5/16b	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	88.0	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.5	0	O	EA-3		
viba_50	UGA/17/98		85.0	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	84.1	0	O	ME-SA	Ind-2001	e
viba_576	IND/R2/75		83.9	0	O	ME-SA		
viba_104	GHA/5/93	bovine	83.8	0	O	WA		
viba_285	UKG/35/2001	porcine	83.7	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_359	Manisa/TUR/69		83.3	0	O	ME-SA		

Virus sample name:	PL/BLD/02B/NIG/2017
Sender reference:	PL/BLD/02B
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42910, genome 42911, sequence viba_42912, sequencing info 42913	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42920	PL/BLD/03B/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42916	PL/BLD/03A/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42908	PL/BLD/02A/NIG/2017	bovine	99.8	0	O	EA-3		
viba_41020	NIG/8/16b	cattle	98.4	0	O	EA-3		
viba_41012	NIG/6/16b	cattle	98.4	0	O	EA-3		
viba_30965	NIG/5/2016	cattle	98.4	0	O	EA-3		
viba_31009	NIG/17/2016	cattle	98.4	0	O	EA-3		
viba_30961	NIG/4/2016	cattle	98.4	0	O	EA-3		
viba_41024	NIG/9/16b	cattle	98.4	0	O	EA-3		
viba_41008	NIG/5/16b	cattle	98.4	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	88.2	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.0	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.5	0	O	EA-3		
viba_50	UGA/17/98		85.2	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	84.2	0	O	ME-SA	Ind-2001	e
viba_576	IND/R2/75		84.1	0	O	ME-SA		
viba_104	GHA/5/93	bovine	83.9	0	O	WA		
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		83.5	0	O	ME-SA		

Virus sample name:	PL/BLD/03A/NIG/2017
Sender reference:	PL/BLD/03A
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42914, genome 42915, sequence viba_42916, sequencing info 42917	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42912	PL/BLD/02B/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42920	PL/BLD/03B/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42908	PL/BLD/02A/NIG/2017	bovine	99.8	0	O	EA-3		
viba_41020	NIG/8/16b	cattle	98.4	0	O	EA-3		
viba_41012	NIG/6/16b	cattle	98.4	0	O	EA-3		
viba_30965	NIG/5/2016	cattle	98.4	0	O	EA-3		
viba_31009	NIG/17/2016	cattle	98.4	0	O	EA-3		
viba_30961	NIG/4/2016	cattle	98.4	0	O	EA-3		
viba_41024	NIG/9/16b	cattle	98.4	0	O	EA-3		
viba_41008	NIG/5/16b	cattle	98.4	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	88.2	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.0	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.5	0	O	EA-3		
viba_50	UGA/17/98		85.2	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	84.2	0	O	ME-SA	Ind-2001	e
viba_576	IND/R2/75		84.1	0	O	ME-SA		
viba_104	GHA/5/93	bovine	83.9	0	O	WA		
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		83.5	0	O	ME-SA		

Virus sample name:	PL/BLD/03B/NIG/2017
Sender reference:	PL/BLD/03B
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42918, genome 42919, sequence viba_42920, sequencing info 42921	

#### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42912	PL/BLD/02B/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42916	PL/BLD/03A/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42908	PL/BLD/02A/NIG/2017	bovine	99.8	0	O	EA-3		
viba_41020	NIG/8/16b	cattle	98.4	0	O	EA-3		
viba_41012	NIG/6/16b	cattle	98.4	0	O	EA-3		
viba_30965	NIG/5/2016	cattle	98.4	0	O	EA-3		
viba_31009	NIG/17/2016	cattle	98.4	0	O	EA-3		
viba_30961	NIG/4/2016	cattle	98.4	0	O	EA-3		
viba_41024	NIG/9/16b	cattle	98.4	0	O	EA-3		
viba_41008	NIG/5/16b	cattle	98.4	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	88.2	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.0	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.5	0	O	EA-3		
viba_50	UGA/17/98		85.2	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	84.2	0	O	ME-SA	Ind-2001	e
viba_576	IND/R2/75		84.1	0	O	ME-SA		
viba_104	GHA/5/93	bovine	83.9	0	O	WA		
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.7	0	O	ME-SA	PanAsia	
viba_359	Manisa/TUR/69		83.5	0	O	ME-SA		

Virus sample name:	PL/IDF/1/NIG/2017
Sender reference:	PL/IDF/1
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42922, genome 42923, sequence viba_42924, sequencing info 42925	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42928	PL/IDH/3/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42932	PL/NV/2018/NIG/2018	bovine	99.2	0	O	EA-3		
viba_37583	SEN/9/2018	cattle	98.9	0	O	EA-3		
viba_37575	SEN/4/2018	cattle	98.9	0	O	EA-3		
viba_37530	MAU/18Z007128/18		98.9	0	O	EA-3		
viba_36938	ALG/1/2018	cattle	98.9	0	O	EA-3		
viba_37526	MAU/18Z007127/18		98.7	0	O	EA-3		
viba_41167	MAU/1/2018	cattle	98.7	0	O	EA-3		
viba_41158	GNA/2/2018	cattle	98.7	0	O	EA-3		
viba_40779	GHA/Asu/9/2018	cattle	98.7	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	89.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.4	0	O	EA-3		
viba_50	UGA/17/98		86.3	0	O	EA-4		
viba_408	ETH/3/2004	cattle	86.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	85.6	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.9	0	O	WA		
viba_285	UKG/35/2001	porcine	84.6	0	O	ME-SA	PanAsia	
viba_62	ETH/2/2006	bovine	84.6	0	O	EA-3		
viba_576	IND/R2/75		84.5	0	O	ME-SA		
viba_85	UGA/3/2002		84.4	0	O	EA-2		

Virus sample name:	PL/IDH/3/NIG/2017
Sender reference:	PL/IDH/3
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2017
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42926, genome 42927, sequence viba_42928, sequencing info 42929	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42924	PL/IDF/1/NIG/2017	bovine	100.0	0	O	EA-3		
viba_42932	PL/NV/2018/NIG/2018	bovine	99.2	0	O	EA-3		
viba_37583	SEN/9/2018	cattle	98.9	0	O	EA-3		
viba_37575	SEN/4/2018	cattle	98.9	0	O	EA-3		
viba_37530	MAU/18Z007128/18		98.9	0	O	EA-3		
viba_36938	ALG/1/2018	cattle	98.9	0	O	EA-3		
viba_37526	MAU/18Z007127/18		98.7	0	O	EA-3		
viba_41167	MAU/1/2018	cattle	98.7	0	O	EA-3		
viba_41158	GNA/2/2018	cattle	98.7	0	O	EA-3		
viba_40779	GHA/Asu/9/2018	cattle	98.7	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	89.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.4	0	O	EA-3		
viba_50	UGA/17/98		86.3	0	O	EA-4		
viba_408	ETH/3/2004	cattle	86.3	0	O	EA-3		
viba_30238	MUR/19/2016	cattle	85.6	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.9	0	O	WA		
viba_285	UKG/35/2001	porcine	84.6	0	O	ME-SA	PanAsia	
viba_62	ETH/2/2006	bovine	84.6	0	O	EA-3		
viba_576	IND/R2/75		84.5	0	O	ME-SA		
viba_85	UGA/3/2002		84.4	0	O	EA-2		



Virus sample name:	PL/NV/2018/NIG/2018
Sender reference:	PL/NV/2018
Location of origin:	n/a
Country of origin:	Nigeria
Date of collection:	2018
Host species:	bovine
Serotype:	O
Topotype:	EA-3
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:	16/12/2019
Last updated:	16/12/2019
VIBASys IDs: sample 42930, genome 42931, sequence viba_42932, sequencing info 42933	

### Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_42924	PL/IDF/1/NIG/2017	bovine	99.2	0	O	EA-3		
viba_42928	PL/IDH/3/NIG/2017	bovine	99.2	0	O	EA-3		
viba_37583	SEN/9/2018	cattle	98.7	0	O	EA-3		
viba_37575	SEN/4/2018	cattle	98.7	0	O	EA-3		
viba_37530	MAU/18Z007128/18		98.7	0	O	EA-3		
viba_36938	ALG/1/2018	cattle	98.7	0	O	EA-3		
viba_37526	MAU/18Z007127/18		98.6	0	O	EA-3		
viba_41167	MAU/1/2018	cattle	98.6	0	O	EA-3		
viba_41158	GNA/2/2018	cattle	98.6	0	O	EA-3		
viba_40779	GHA/Asu/9/2018	cattle	98.6	0	O	EA-3		

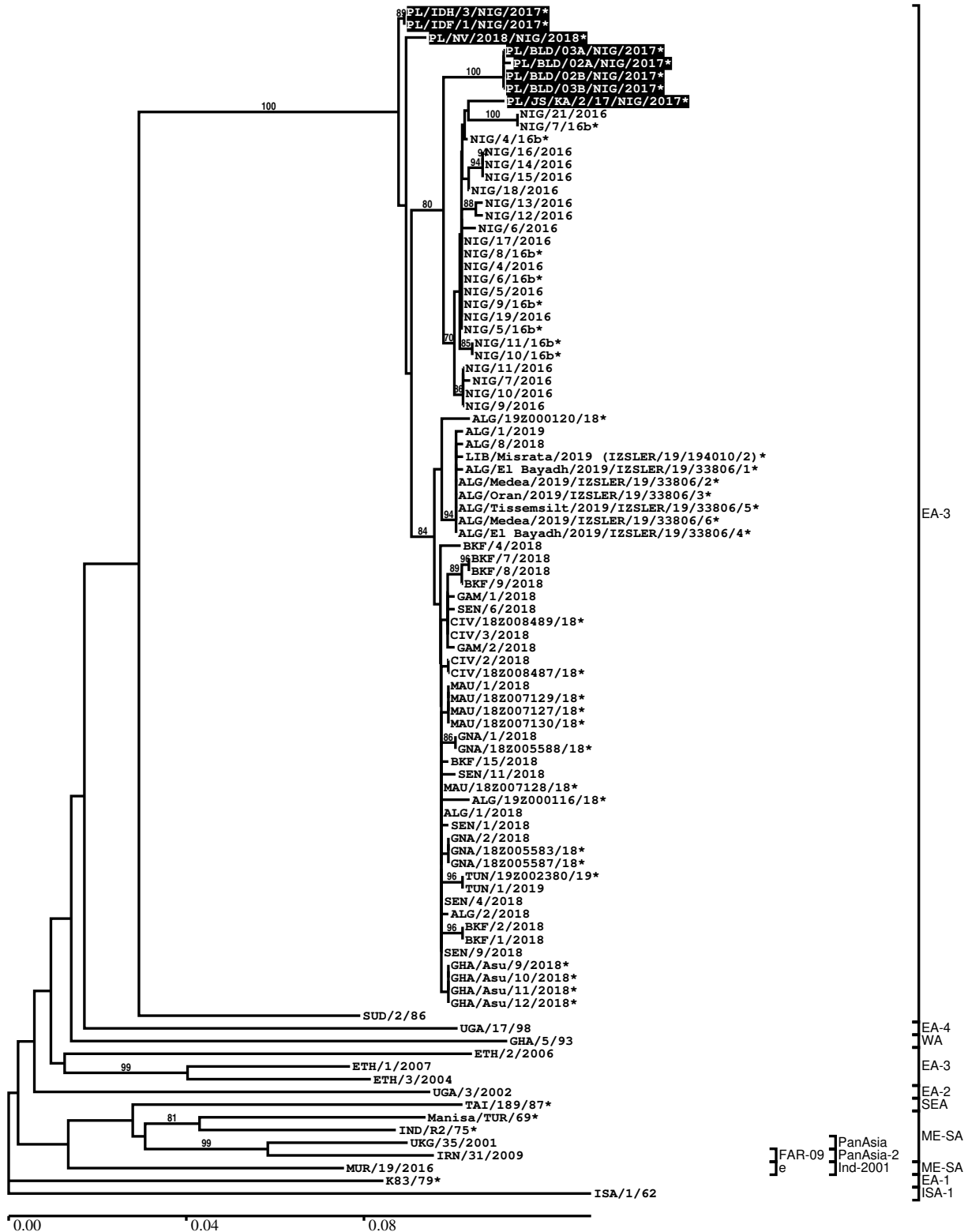
### Most Closely Related Prototype Sequences

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	89.4	0	O	EA-3		
viba_408	ETH/3/2004	cattle	86.6	0	O	EA-3		
viba_854	ETH/1/2007	cattle	86.4	0	O	EA-3		
viba_50	UGA/17/98		85.9	0	O	EA-4		
viba_30238	MUR/19/2016	cattle	85.8	0	O	ME-SA	Ind-2001	e
viba_104	GHA/5/93	bovine	84.7	0	O	WA		
viba_766	IRN/31/2009	cattle	84.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_576	IND/R2/75		84.7	0	O	ME-SA		
viba_523	K83/79		84.7	0	O	EA-1		
viba_285	UKG/35/2001	porcine	84.6	0	O	ME-SA	PanAsia	

Report on FMDV O in Nigeria in 2017, 2018

Batch: WRLMEG/2019/00046



\*, not a WRLFMD Reference Number

## Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLMEG/2019/00046-Nigeria-O (8 sequences)
Sequence database set:	allseqs_O (4621 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:	13
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
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
PL/BLD/03A/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/BLD/02A/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/BLD/02B/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/BLD/03B/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
PL/JS/KA/2/17/NIG/2017*	n/a	bovine	CFIA/NVRI	Nigeria	EA-3
NIG/21/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/7/16b*	MH894427	cattle	PIADC	Nigeria	EA-3
NIG/4/16b*	MH894424	cattle	PIADC	Nigeria	EA-3
NIG/16/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/14/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/15/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/18/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/13/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/12/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/6/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/17/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/8/16b*	MH894428	cattle	PIADC	Nigeria	EA-3
NIG/4/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/6/16b*	MH894426	cattle	PIADC	Nigeria	EA-3
NIG/5/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/9/16b*	MH894429	cattle	PIADC	Nigeria	EA-3
NIG/19/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/5/16b*	MH894425	cattle	PIADC	Nigeria	EA-3
NIG/11/16b*	MH894431	cattle	PIADC	Nigeria	EA-3
NIG/10/16b*	MH894430	cattle	PIADC	Nigeria	EA-3
NIG/11/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/7/2016	n/a	sheep	WRLFMD	Nigeria	EA-3
NIG/10/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/9/2016	n/a	cattle	WRLFMD	Nigeria	EA-3
ALG/19Z000120/18*	n/a	ovine	ANSES	Algeria	EA-3
ALG/1/2019	n/a	cattle	WRLFMD	Algeria	EA-3
ALG/8/2018	n/a	cattle	WRLFMD	Algeria	EA-3
LIB/Misrata/2019 (IZSLER/19/194010/2)*	n/a	cattle	IZSLER	Libya	EA-3

*continued on next page*

label	accession	host(s)	lab	country	taxonomic information
ALG/EI Bayadh/2019/IZSLER/19/33806/1*	n/a	bovine	IZSLER	Algeria	EA-3
ALG/Medea/2019/IZSLER/19/33806/2*	n/a	bovine	IZSLER	Algeria	EA-3
ALG/Oran/2019/IZSLER/19/33806/3*	n/a	ovine	IZSLER	Algeria	EA-3
ALG/Tissemsilt/2019/IZSLER/19/33806/5*	n/a	ovine	IZSLER	Algeria	EA-3
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
BKF/4/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/7/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/8/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/9/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
GAM/1/2018	n/a	cattle	WRLFMD	Gambia	EA-3
SEN/6/2018	n/a	cattle	WRLFMD	Senegal	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
GAM/2/2018	n/a	cattle	WRLFMD	Gambia	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
MAU/1/2018	n/a	cattle	WRLFMD	Mauritania	EA-3
MAU/18Z007129/18*	n/a	n/a	ANSES	Mauritania	EA-3
MAU/18Z007127/18*	n/a	n/a	ANSES	Mauritania	EA-3
MAU/18Z007130/18*	n/a	n/a	ANSES	Mauritania	EA-3
GNA/1/2018	n/a	cattle	WRLFMD	Guinea	EA-3
GNA/18Z005588/18*	n/a	n/a	ANSES	Guinea	EA-3
BKF/15/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
SEN/11/2018	n/a	cattle	WRLFMD	Senegal	EA-3
MAU/18Z007128/18*	n/a	n/a	ANSES	Mauritania	EA-3
ALG/19Z000116/18*	n/a	bovine	ANSES	Algeria	EA-3
ALG/1/2018	n/a	cattle	WRLFMD	Algeria	EA-3
SEN/1/2018	n/a	cattle	WRLFMD	Senegal	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
TUN/1/2019	n/a	cattle	WRLFMD	Tunisia	EA-3
SEN/4/2018	n/a	cattle	WRLFMD	Senegal	EA-3
ALG/2/2018	n/a	cattle	WRLFMD	Algeria	EA-3
BKF/2/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
BKF/1/2018	n/a	cattle	WRLFMD	Burkina Faso	EA-3
SEN/9/2018	n/a	cattle	WRLFMD	Senegal	EA-3
GHA/Asu/9/2018*	LC456870	cattle	NIAH- JAPAN	Ghana	EA-3
GHA/Asu/10/2018*	LC456871	cattle	NIAH- JAPAN	Ghana	EA-3
GHA/Asu/11/2018*	LC456872	cattle	NIAH- JAPAN	Ghana	EA-3
GHA/Asu/12/2018*	LC456873	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
GHA/5/93	AJ303488	bovine	WRLFMD	Ghana	EA-3
ETH/2/2006	FJ798127	bovine	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
TAI/189/87*	KY091288	bovine	TRRL	Thailand	SEA
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
IND/R2/75*	AF204276	n/a	PD-FMD	India	ME-SA
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
IRN/31/2009	KY091284	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
MUR/19/2016	MG972510	cattle	WRLFMD	Mauritius	ME-SA/Ind-2001/e
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1

\*, not a WRLFMD Reference Number

n/a, not available