

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

Genotyping Report

FMDV serotype: A
Country: Nigeria
Year: 2020
Batch: WRLMEG/2021/00019
No. of sequences: 9
Report date: 22nd December 2021
Report generated by: Nick Knowles
Report checked by: Don King

This report has been prepared on behalf of the National Centre for Foreign Animal Disease (NCFAD), Canadian Food Inspection Agency (CFIA), Winnipeg, Manitoba, Canada and the National Veterinary Research Institute (NVRI), Vom, Nigeria and covers VP1 sequences (extracted from whole genome sequences) submitted to the WRLFMD on 11/12/2021.



Copyright © 2021 The Pirbright Institute, Ash Road, Pirbright, Woking GU24 0NF, United Kingdom.

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

email: reporting@pirbright.ac.uk

The contents of this report should not be reproduced without permission.

Virus sample name:	KD/KGR/01/NIG/2020
Sender reference:	KD/KGR/01
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	11/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49631, genome 49632, sequence viba_49633, sequencing info 49634	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49649	KD/KGR/04/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

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_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/02/NIG/2020
Sender reference:	KD/KGR/02
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	11/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49635, genome 49636, sequence viba_49637, sequencing info 49638	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49633	KD/KGR/01/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

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_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/05/NIG/2020
Sender reference:	KD/KGR/05
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	11/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49639, genome 49640, sequence viba_49641, sequencing info 49642	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49633	KD/KGR/01/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

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_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/03/NIG/2020
Sender reference:	KD/KGR/03
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49643, genome 49644, sequence viba_49645, sequencing info 49646	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49633	KD/KGR/01/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

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_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/04/NIG/2020
Sender reference:	KD/KGR/04
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49647, genome 49648, sequence viba_49649, sequencing info 49650	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49633	KD/KGR/01/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

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_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/07/NIG/2020
Sender reference:	KD/KGR/07
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49651, genome 49652, sequence viba_49653, sequencing info 49654	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_45820	FMD/KD/02/NIG/2020	bovine	99.8	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.8	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.8	0	A	AFRICA	G-IV	
viba_49633	KD/KGR/01/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.7	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	

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_178	SUD/3/77		86.1	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		84.1	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	83.1	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		82.2	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		82.0	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.4	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.9	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.7	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/08/NIG/2020
Sender reference:	KD/KGR/08
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49655, genome 49656, sequence viba_49657, sequencing info 49658	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49653	KD/KGR/07/NIG/2020	cattle	99.8	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.7	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49633	KD/KGR/01/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	

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_178	SUD/3/77		86.3	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		84.2	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.8	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.9	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.6	0	A	AFRICA	G-III	
viba_699	UKG/119/32		82.3	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.9	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.6	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		81.1	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/09/NIG/2020
Sender reference:	KD/KGR/09
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49659, genome 49660, sequence viba_49661, sequencing info 49662	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49653	KD/KGR/07/NIG/2020	cattle	99.8	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.7	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_49633	KD/KGR/01/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49665	KD/KGR/10/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	

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_178	SUD/3/77		86.0	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.8	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	83.1	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.4	0	A	AFRICA	G-III	
viba_435	Allier/FRA/60		82.0	0	A	EURO-SA	A5	
viba_699	UKG/119/32		82.0	0	A	EURO-SA	A12	
viba_688	EGY/1/72	bovine	81.3	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		81.1	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.7	0	A	EURO-SA	A81	

Virus sample name:	KD/KGR/10/NIG/2020
Sender reference:	KD/KGR/10
Location of origin:	Kajeru, Kaduna State
Country of origin:	Nigeria
Date of collection:	14/09/2020
Host species:	cattle
Serotype:	A
Topotype:	AFRICA
Lineage:	G-IV
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:	22/12/2021
Last updated:	22/12/2021
VIBASys IDs: sample 49663, genome 49664, sequence viba_49665, sequencing info 49666	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_49633	KD/KGR/01/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49649	KD/KGR/04/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49641	KD/KGR/05/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49637	KD/KGR/02/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49645	KD/KGR/03/NIG/2020	cattle	100.0	0	A	AFRICA	G-IV	
viba_49653	KD/KGR/07/NIG/2020	cattle	99.7	0	A	AFRICA	G-IV	
viba_45820	FMD/KD/02/NIG/2020	bovine	99.5	0	A	AFRICA	G-IV	
viba_49657	KD/KGR/08/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_49661	KD/KGR/09/NIG/2020	cattle	99.5	0	A	AFRICA	G-IV	
viba_45824	FMD/KD/03/NIG/2020	bovine	99.4	0	A	AFRICA	G-IV	

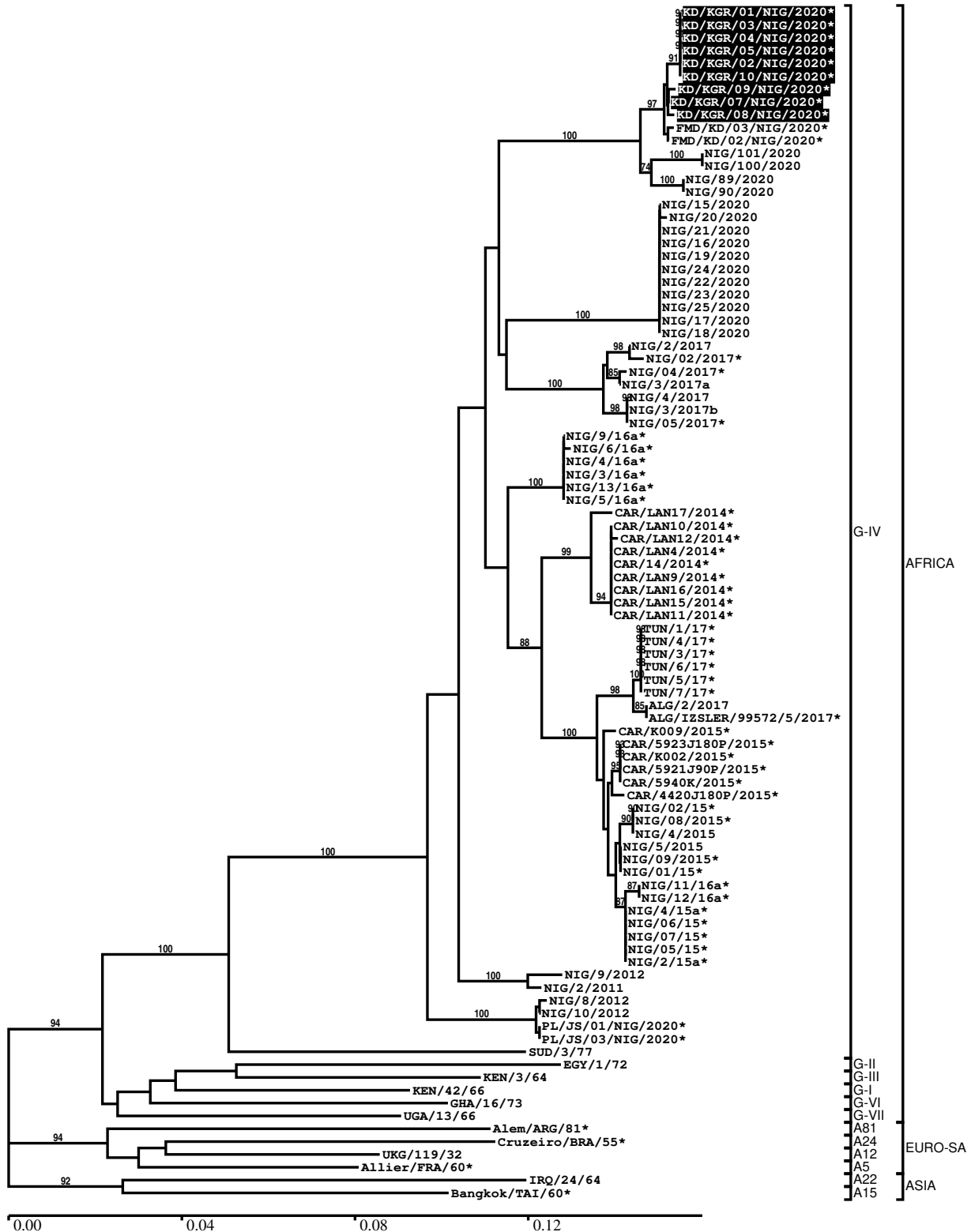
Most Closely Related Prototype Sequences

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

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_178	SUD/3/77		85.8	0	A	AFRICA	G-IV	
viba_347	KEN/42/66		83.9	0	A	AFRICA	G-I	
viba_173	UGA/13/66	bovine	83.9	0	A	AFRICA	G-VII	
viba_609	GHA/16/73	bovine	82.8	0	A	AFRICA	G-VI	
viba_785	KEN/3/64		82.5	0	A	AFRICA	G-III	
viba_699	UKG/119/32		81.8	0	A	EURO-SA	A12	
viba_435	Allier/FRA/60		81.7	0	A	EURO-SA	A5	
viba_688	EGY/1/72	bovine	81.1	0	A	AFRICA	G-II	
viba_589	Bangkok/TAI/60		80.6	0	A	ASIA	A15	
viba_98	Alem/ARG/81		80.5	0	A	EURO-SA	A81	

Report on FMDV A in Nigeria in 2020

Batch: WRLMEG/2021/00019



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_A
Query sequence set:	WRLMEG/2021/00019-Nigeria-A (9 sequences)
Sequence database set:	allseqs_A (2305 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:	10
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
KD/KGR/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/03/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/10/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/09/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/07/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
KD/KGR/08/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	AFRICA/G-IV
FMD/KD/03/NIG/2020*	n/a	bovine	NCFAD/NVRI	Nigeria	AFRICA/G-IV
FMD/KD/02/NIG/2020*	n/a	bovine	NCFAD/NVRI	Nigeria	AFRICA/G-IV
NIG/101/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/100/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/89/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/90/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/15/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/20/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/21/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/16/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/19/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/24/2020	n/a	n/a	WRLFMD	Nigeria	AFRICA/G-IV
NIG/22/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/23/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/25/2020	n/a	n/a	WRLFMD	Nigeria	AFRICA/G-IV
NIG/17/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/18/2020	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/2/2017	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/02/2017*	MT220002	cattle	Sciensano	Nigeria	AFRICA/G-IV
NIG/04/2017*	MT228048	cattle	Sciensano	Nigeria	AFRICA/G-IV
NIG/3/2017a	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/4/2017	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/3/2017b	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/05/2017*	MT228049	cattle	Sciensano	Nigeria	AFRICA/G-IV
NIG/9/16a*	MH894413	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/6/16a*	MH894410	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/4/16a*	MH894408	cattle	PIADC	Nigeria	AFRICA/G-IV

continued on next page

label	accession	host(s)	lab	country	taxonomic information
NIG/3/16a*	MH894407	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/13/16a*	MH894417	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/5/16a*	MH894409	cattle	PIADC	Nigeria	AFRICA/G-IV
CAR/LAN17/2014*	MH383076	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN10/2014*	MH383071	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN12/2014*	MH383073	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN4/2014*	MH383069	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/14/2014*	KY581683	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN9/2014*	MH383070	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN16/2014*	MH383075	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN15/2014*	MH383074	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/LAN11/2014*	MH383072	cattle	PIADC	Cameroon	AFRICA/G-IV
TUN/1/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
TUN/4/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
TUN/3/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
TUN/6/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
TUN/5/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
TUN/7/17*	n/a	n/a	ANSES	Tunisia	AFRICA/G-IV
ALG/2/2017	n/a	cattle	WRLFMD	Algeria	AFRICA/G-IV
ALG/IZSLER/99572/5/2017*	n/a	cattle	IZSLER	Algeria	AFRICA/G-IV
CAR/K009/2015*	MG873207	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/5923J180P/2015*	MG873200	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/K002/2015*	MG873206	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/5921J90P/2015*	MG873199	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/5940K/2015*	MG873202	cattle	PIADC	Cameroon	AFRICA/G-IV
CAR/4420J180P/2015*	MG873198	cattle	PIADC	Cameroon	AFRICA/G-IV
NIG/02/15*	KY655492	bovine	CODA-CERVA	Nigeria	AFRICA/G-IV
NIG/08/2015*	MG712579	cattle	Sciensano	Nigeria	AFRICA/G-IV
NIG/4/2015	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/5/2015	n/a	cattle	WRLFMD	Nigeria	AFRICA/G-IV
NIG/09/2015*	MT211640	cattle	Sciensano	Nigeria	AFRICA/G-IV
NIG/01/15*	KY655491	bovine	CODA-CERVA	Nigeria	AFRICA/G-IV
NIG/11/16a*	MH894415	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/12/16a*	MH894416	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/4/15a*	MH894404	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/06/15*	KY655489	bovine	CODA-CERVA	Nigeria	AFRICA/G-IV
NIG/07/15*	KY655490	bovine	CODA-CERVA	Nigeria	AFRICA/G-IV
NIG/05/15*	KY655488	bovine	CODA-CERVA	Nigeria	AFRICA/G-IV
NIG/2/15a*	MH894402	cattle	PIADC	Nigeria	AFRICA/G-IV
NIG/9/2012	KX258055	bovine	WRLFMD	Nigeria	AFRICA/G-IV
NIG/2/2011	KX258053	bovine	WRLFMD	Nigeria	AFRICA/G-IV
NIG/8/2012	KX258054	bovine	WRLFMD	Nigeria	AFRICA/G-IV
NIG/10/2012	KX258056	bovine	WRLFMD	Nigeria	AFRICA/G-IV
PL/JS/01/NIG/2020*	n/a	n/a	NCFAD/NVRI	Nigeria	AFRICA/G-IV
PL/JS/03/NIG/2020*	n/a	n/a	NCFAD/NVRI	Nigeria	AFRICA/G-IV
SUD/3/77	GU566064	n/a	WRLFMD	Sudan	AFRICA/G-IV
EGY/1/72	EF208756	bovine	WRLFMD	Egypt	AFRICA/G-II
KEN/3/64	AY593761	n/a	PIADC	Kenya	AFRICA/G-III
KEN/42/66	KF561699	n/a	WRLFMD	Kenya	AFRICA/G-I
GHA/16/73	KF561698	bovine	WRLFMD	Ghana	AFRICA/G-VI
UGA/13/66	KF561705	bovine	WRLFMD	Uganda	AFRICA/G-VII
Alem/ARG/81*	AJ306219	n/a	INTA- Argentina	Argentina	EURO-SA/A81
Cruzeiro/BRA/55*	AY593768	bovine	PIADC	Brazil	EURO-SA/A24
UKG/119/32	M10975	n/a	PIADC	United Kingdom	EURO-SA/A12
Allier/FRA/60*	AY593780	n/a	PIADC	France	EURO-SA/A5
IRQ/24/64	AY593763	bovine	PIADC	Iraq	ASIA/A22
Bangkok/TAI/60*	AY593755	n/a	PIADC	Thailand	ASIA/A15

*, not a WRLFMD Reference Number

n/a, not available