

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

Genotyping Report

FMDV serotype: O
Country: Algeria
Year: 2022
Batch: WRLFMD/2022/000009
No. of sequences: 4
Report date: 12th June 2022
Report generated by: Nick Knowles
Report checked by: Jemma Wadsworth



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

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Virus sample name:	ALG/1/2022
Sender reference:	412- DZ0000019561
Location of origin:	Boudjellil, Bejaia
Country of origin:	Algeria
Date of collection:	28/03/2022
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022

VIBASys IDs: sample 50636, genome 50637, sequence viba_50638, sequencing info 50639

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		
viba_50098	TUN/22Z751/22	cattle	99.8	0	O	EA-3		
viba_50114	TUN/22Z756/22	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	88.2	0	O	EA-3		
viba_50	UGA/17/98		85.5	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_30238	MUR/19/2016	cattle	84.3	0	O	ME-SA	Ind-2001	e
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:	ALG/2/2022
Sender reference:	507-9234
Location of origin:	Amizour, Bejaia
Country of origin:	Algeria
Date of collection:	31/03/2022
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:	24/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50640, genome 50641, sequence viba_50642, sequencing info 50643	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50646	ALG/3/2022	cattle	100.0	0	O	EA-3		
viba_50650	ALG/4/2022	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	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	88.2	0	O	EA-3		
viba_50	UGA/17/98		85.8	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_30238	MUR/19/2016	cattle	84.3	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		
viba_523	K83/79		83.3	0	O	EA-1		

Virus sample name:	ALG/3/2022
Sender reference:	507-6130
Location of origin:	Amizour, Bejaia
Country of origin:	Algeria
Date of collection:	31/03/2022
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:	25/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50644, genome 50645, sequence viba_50646, sequencing info 50647	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50650	ALG/4/2022	cattle	100.0	0	O	EA-3		
viba_50642	ALG/2/2022	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	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	88.2	0	O	EA-3		
viba_50	UGA/17/98		85.8	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_30238	MUR/19/2016	cattle	84.3	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		
viba_523	K83/79		83.3	0	O	EA-1		

Virus sample name:	ALG/4/2022
Sender reference:	507-1075
Location of origin:	Amizour, Bejaia
Country of origin:	Algeria
Date of collection:	31/03/2022
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:	24/05/2022
Primers:	O-1C244F/EUR-2B52R; FMD-3161F/FMD-4303R
Received for sequencing:	06/06/2022
Created:	12/06/2022
Last updated:	12/06/2022
VIBASys IDs: sample 50648, genome 50649, sequence viba_50650, sequencing info 50651	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_50646	ALG/3/2022	cattle	100.0	0	O	EA-3		
viba_50642	ALG/2/2022	cattle	100.0	0	O	EA-3		
viba_50102	TUN/22Z752/22	cattle	99.8	0	O	EA-3		
viba_50086	TUN/22Z747/22	cattle	99.8	0	O	EA-3		
viba_50118	TUN/22Z994/22	cattle	99.8	0	O	EA-3		
viba_50094	TUN/22Z750/22	cattle	99.8	0	O	EA-3		
viba_49976	TUN/V6/22	cattle	99.8	0	O	EA-3		
viba_50078	TUN/22Z745/22	cattle	99.8	0	O	EA-3		
viba_49972	TUN/V1/22	cattle	99.8	0	O	EA-3		
viba_50126	TUN/22Z996/22	cattle	99.8	0	O	EA-3		

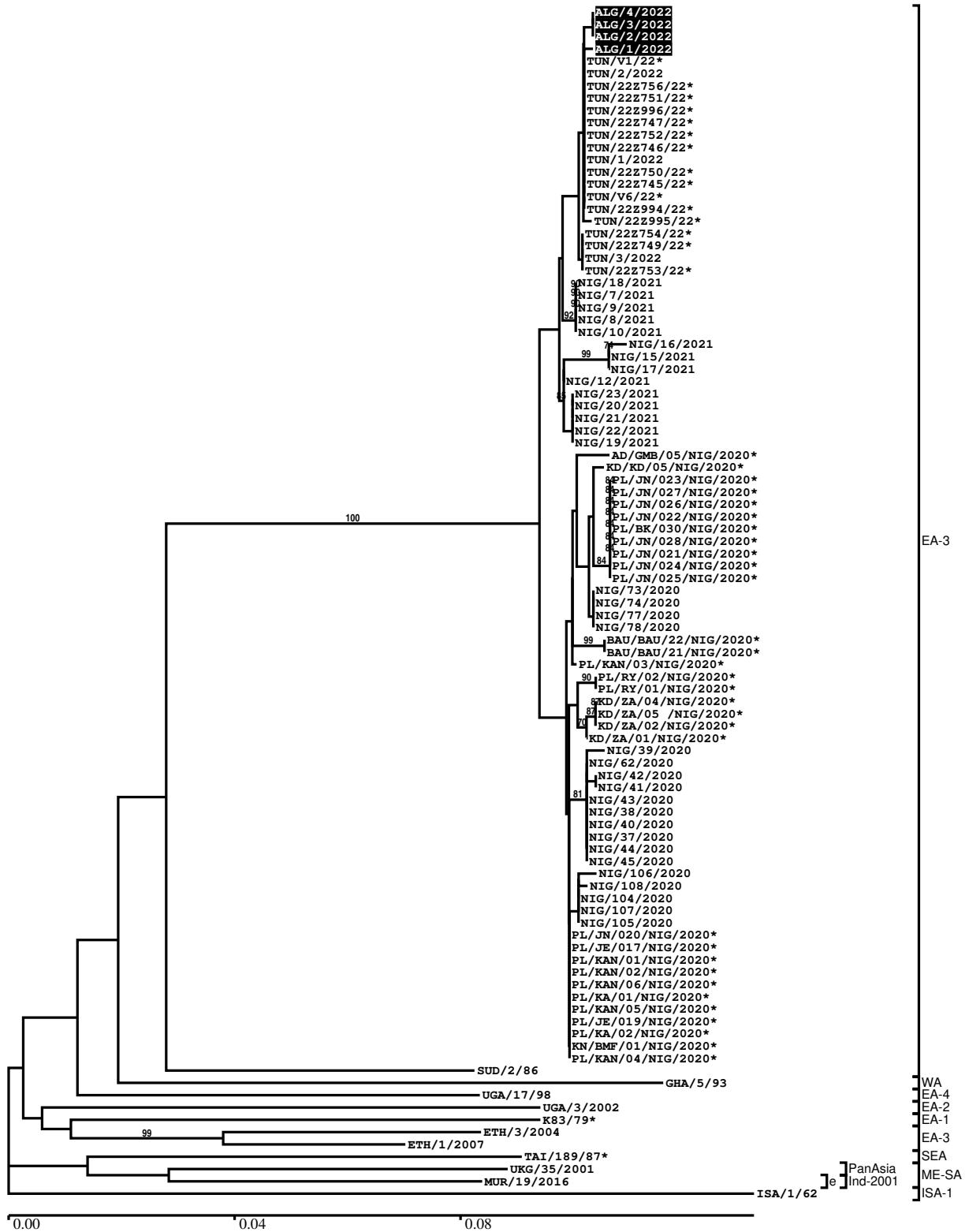
Most Closely Related Prototype Sequences

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	88.2	0	O	EA-3		
viba_50	UGA/17/98		85.8	0	O	EA-4		
viba_854	ETH/1/2007	cattle	85.0	0	O	EA-3		
viba_104	GHA/5/93	bovine	84.4	0	O	WA		
viba_30238	MUR/19/2016	cattle	84.3	0	O	ME-SA	Ind-2001	e
viba_408	ETH/3/2004	cattle	84.1	0	O	EA-3		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.4	0	O	ME-SA	PanAsia	
viba_68	TAI/189/87	bovine	83.3	0	O	SEA		
viba_523	K83/79		83.3	0	O	EA-1		

Report on FMDV O in Algeria in 2022

Batch: WRLFMD/2022/000009



*, not a WRLFMD Reference Number

Analysis Parameters

VP1 subsequence extractor:	vp1_O
Query sequence set:	WRLFMD/2022/000009-Algeria-O (4 sequences)
Sequence database set:	allseqs_O (5576 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
ALG/4/2022	n/a	cattle	WRLFMD	Algeria	EA-3
ALG/3/2022	n/a	cattle	WRLFMD	Algeria	EA-3
ALG/2/2022	n/a	cattle	WRLFMD	Algeria	EA-3
ALG/1/2022	n/a	cattle	WRLFMD	Algeria	EA-3
TUN/V1/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/2/2022	n/a	cattle	WRLFMD	Tunisia	EA-3
TUN/22Z756/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z751/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z996/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z747/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z752/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z746/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/1/2022	n/a	cattle	WRLFMD	Tunisia	EA-3
TUN/22Z750/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z745/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/V6/22*	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
TUN/22Z754/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/22Z749/22*	n/a	cattle	ANSES	Tunisia	EA-3
TUN/3/2022	n/a	cattle	WRLFMD	Tunisia	EA-3
TUN/22Z753/22*	n/a	cattle	ANSES	Tunisia	EA-3
NIG/18/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/7/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/9/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/8/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/10/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/16/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/15/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/17/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/12/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/23/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/20/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/21/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/22/2021	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/19/2021	n/a	cattle	WRLFMD	Nigeria	EA-3

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label	accession	host(s)	lab	country	taxonomic information
AD/GMB/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KD/KD/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/023/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/027/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/022/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/028/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/021/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/024/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JN/025/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
NIG/73/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/74/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/77/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/78/2020	n/a	sheep	WRLFMD	Nigeria	EA-3
BAU/BAU/22/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
BAU/BAU/21/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/04/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/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/62/2020	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/43/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/38/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/40/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/37/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/44/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/45/2020	n/a	sheep	WRLFMD	Nigeria	EA-3
NIG/106/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/108/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/104/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/107/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
NIG/105/2020	n/a	cattle	WRLFMD	Nigeria	EA-3
PL/JN/020/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JE/017/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/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/06/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KA/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/05/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/JE/019/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KA/02/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
KN/BMF/01/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	EA-3
PL/KAN/04/NIG/2020*	n/a	cattle	NCFAD/NVRI	Nigeria	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