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

FMDV Genotyping Report

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Citation: WRLFMD. 2026. FMDV Genotyping Report [WRLMEG/2026/000009]. (Accessed 17/03/26)

FMDV serotype: O

Country: South Korea

Year: 2026

Batch: WRLMEG/2026/000009

No. of sequences: 2

Reported date: 17 March 2026

WRLFMD Website: <https://www.wrlfmd.org/>

Email: reporting@pirbright.ac.uk

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Biotechnology and
Biological Sciences
Research Council

Virus sample: O/GH/SKR/1/2026

Sample details

Reception Date:	2026-03-17
Sender reference:	NA
Location of origin:	NA
Country of origin:	NA
Date of collection:	NA
Host species:	NA

Genotyping details

Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e

Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	636
Ambiguities:	0

Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
485489	TAI/18/2022	Cattle	97.31	0	O	ME-SA	Ind-2001	e
485492	TAI/1/2023	Cattle	97.31	0	O	ME-SA	Ind-2001	e
1200394	TAI/2/2023	Cattle	96.52	0	O	ME-SA	Ind-2001	e
297245	ISA/PangkalPinang/PVT/2022	Cattle	95.47	0	O	ME-SA	Ind-2001	e
297236	ISA/DeliSerdang/A01220762/2022	Cattle	95.45	0	O	ME-SA	Ind-2001	e
3238	BHU/12/2017	Cattle	95.34	0	O	ME-SA	Ind-2001	e
3240	BHU/13/2017	Cattle	95.34	0	O	ME-SA	Ind-2001	e
3242	BHU/14/2017	Cattle	95.34	0	O	ME-SA	Ind-2001	e
3251	BHU/18/2017	Cattle	95.34	0	O	ME-SA	Ind-2001	e
297254	ISA/Purbalingga/A04222607/2022	Cattle	95.34	0	O	ME-SA	Ind-2001	e
FMDV VP1 Prototype Sequences*								
10989	MUR/19/2016	Cattle	94.47	0	O	ME-SA	Ind-2001	e
3294	BHU/3/2009	Cattle	91.31	0	O	ME-SA	Ind-2001	d
10350	KUW/3/97		91.18	0	O	ME-SA	Ind-2001	a
11999	OMN/7/2001		91.18	0	O	ME-SA	Ind-2001	b
17330	UAE/4/2008	Gazelle	89.60	0	O	ME-SA	Ind-2001	c
12780	PAK/58/2012	Cattle	89.26	0	O	ME-SA	PanAsia-2	ICT-12
12855	PAK/7/2016	Cattle	89.26	0	O	ME-SA	PanAsia-2	PUN-16
14504	SRL/2/97	Bovine	89.26	0	O	ME-SA	Srl-97	None
8875	IRN/8/2005	Sheep	88.26	0	O	ME-SA	PanAsia-2	None
17602	UKG/35/2001		87.87	0	O	ME-SA	PanAsia	None

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

Virus sample: O/GY/SKR/2/2026

Sample details

Reception Date:	2026-01-29
Sender reference:	NA
Location of origin:	NA
Country of origin:	NA
Date of collection:	NA
Host species:	NA

Genotyping details

Serotype:	O
Topotype:	ME-SA
Lineage:	Ind-2001
Sublineage:	e

Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	636
Ambiguities:	0

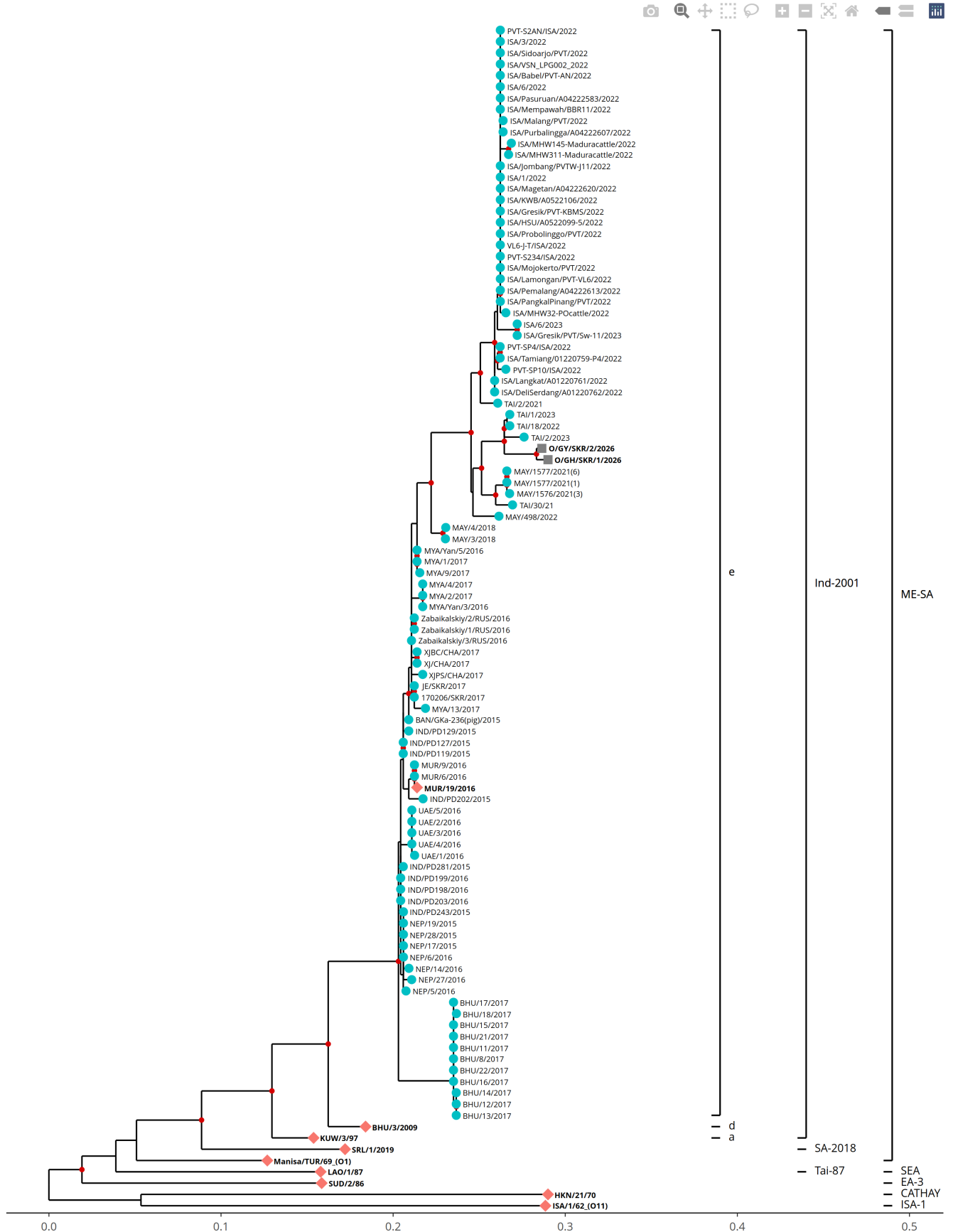
Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
FMDV VP1 Sequences								
485489	TAI/18/2022	Cattle	97.63	0	O	ME-SA	Ind-2001	e
485492	TAI/1/2023	Cattle	97.63	0	O	ME-SA	Ind-2001	e
1200394	TAI/2/2023	Cattle	96.84	0	O	ME-SA	Ind-2001	e
297245	ISA/PangkalPinang/PVT/2022	Cattle	95.63	0	O	ME-SA	Ind-2001	e
4556	XJ/CHA/2017	Cattle	95.58	0	O	ME-SA	Ind-2001	e
4559	XJBC/CHA/2017	Cattle	95.58	0	O	ME-SA	Ind-2001	e
297225	ISA/1/2022	Cattle	95.58	0	O	ME-SA	Ind-2001	e
297226	ISA/3/2022	Cattle	95.58	0	O	ME-SA	Ind-2001	e
297227	ISA/6/2022	Cattle	95.58	0	O	ME-SA	Ind-2001	e
297228	VL6-J-T/ISA/2022	Cattle	95.58	0	O	ME-SA	Ind-2001	e
FMDV VP1 Prototype Sequences*								
10989	MUR/19/2016	Cattle	94.79	0	O	ME-SA	Ind-2001	e
11999	OMN/7/2001		91.64	0	O	ME-SA	Ind-2001	b
3294	BHU/3/2009	Cattle	91.63	0	O	ME-SA	Ind-2001	d
10350	KUW/3/97		91.01	0	O	ME-SA	Ind-2001	a
17330	UAE/4/2008	Gazelle	89.42	0	O	ME-SA	Ind-2001	c
12855	PAK/7/2016	Cattle	89.40	0	O	ME-SA	PanAsia-2	PUN-16
14504	SRL/2/97	Bovine	89.26	0	O	ME-SA	Srl-97	None
12780	PAK/58/2012	Cattle	89.08	0	O	ME-SA	PanAsia-2	ICT-12
17602	UKG/35/2001		88.17	0	O	ME-SA	PanAsia	None
14465	SRL/1/2019	Cattle	88.00	0	O	ME-SA	SA-2018	None

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

Tree

■ Uploaded sequence ● Database sequence ◆ Reference sequence



Analysis Parameters

Query sequence set: WRLMEG/2026/000009
Number of related sequences reported: 94
Number of prototype sequences in tree: 9
Minimal VP1 subsequence match length: 610
Sequence alignment length: 635

Number of sequences in tree capped at: 100
Sequence alignment method: MAFFT 7.522
Phylogeny reconstruction method: IQ-TREE 2.26
Number of bootstrap samples: 1000
Displaying bootstrap values above: 75

FMDV VP1 Sequences included in the Phylogenetic Tree

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
MAY/3/2018	None	Cattle	WRLFMD	Malaysia	O/ME-SA/Ind-2001/e	None
MAY/4/2018	None	Cattle	WRLFMD	Malaysia	O/ME-SA/Ind-2001/e	None
MUR/6/2016	MG972498	Cattle	WRLFMD	Mauritius	O/ME-SA/Ind-2001/e	None
MUR/9/2016	MG972501	Cattle	WRLFMD	Mauritius	O/ME-SA/Ind-2001/e	None
MYA/1/2017	MG972517	Cattle	WRLFMD	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/13/2017 *	MG972527	Cattle	TRRL	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/2/2017	MG972518	Cattle	WRLFMD	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/4/2017	MG972519	Cattle	WRLFMD	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/9/2017 *	MG972523	Cattle	TRRL	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/Yan/3/2016 *	LC438822	Cattle	NIAH-JAPAN	Myanmar	O/ME-SA/Ind-2001/e	None
MYA/Yan/5/2016 *	LC438823	Cattle	NIAH-JAPAN	Myanmar	O/ME-SA/Ind-2001/e	None
NEP/14/2016	MG972562	Water Buffalo	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/17/2015	KY449050	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/19/2015	KY449051	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/27/2016	MG972569	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/28/2015	KY449052	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/5/2016	KY449053	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
NEP/6/2016	KY449054	Cattle	WRLFMD	Nepal	O/ME-SA/Ind-2001/e	None
TAI/2/2023	None	Cattle	WRLFMD	Thailand	O/ME-SA/Ind-2001/e	None
Zabaikalskiy/1/RUS/2016 *	MG983720	Cattle	ARRIAH	Russian Federation	O/ME-SA/Ind-2001/e	None
Zabaikalskiy/2/RUS/2016 *	MG972583	Cattle	ARRIAH	Russian Federation	O/ME-SA/Ind-2001/e	None
Zabaikalskiy/3/RUS/2016 *	MG972584	Cattle	ARRIAH	Russian Federation	O/ME-SA/Ind-2001/e	None
170206/SKR/2017 *	None	Cattle	APQA	South Korea (Republic of Korea)	O/ME-SA/Ind-2001/e	None
JE/SKR/2017 *	KY766149	Cattle	APQA	South Korea (Republic of Korea)	O/ME-SA/Ind-2001/e	None
UAE/1/2016	MG972606	Cattle	WRLFMD	United Arab Emirates	O/ME-SA/Ind-2001/e	None
UAE/2/2016	MG972607	Cattle	WRLFMD	United Arab Emirates	O/ME-SA/Ind-2001/e	None
UAE/3/2016	MG972608	Cattle	WRLFMD	United Arab Emirates	O/ME-SA/Ind-2001/e	None
UAE/4/2016	MG972609	Cattle	WRLFMD	United Arab Emirates	O/ME-SA/Ind-2001/e	None
UAE/5/2016	MG972610	Cattle	WRLFMD	United Arab Emirates	O/ME-SA/Ind-2001/e	None
IND/PD119/2015 *	MT909624	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD127/2015 *	MT909627	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD129/2015 *	MT909628	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD202/2015 *	MT909643	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD243/2015 *	MT909648	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD281/2015 *	MT909658	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD198/2016 *	MT909672	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD199/2016 *	MT909673	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
IND/PD203/2016 *	MT909674	Cattle	PD-FMD	India	O/ME-SA/Ind-2001/e	None
ISA/1/2022	None	Cattle	WRLFMD	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/3/2022	None	Cattle	WRLFMD	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/6/2022	None	Cattle	WRLFMD	Indonesia	O/ME-SA/Ind-2001/e	None
VL6-J-T/ISA/2022 *	None		PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
PVT-SP4/ISA/2022 *	None	Cattle	PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
PVT-SP10/ISA/2022 *	None	Cattle	PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
PVT-S2AN/ISA/2022 *	None	Cattle	PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
PVT-S234/ISA/2022 *	None	Cattle	PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Tamiang/01220759-P4/2022 *	ON783873	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Langkat/A01220761/2022 *	ON854934	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/DeliSerdang/A01220762/2022 *	ON854935	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Lamongan/PVT-VL6/2022 *	ON854936	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Sidoarjo/PVT/2022 *	ON854937	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Mojokerto/PVT/2022 *	ON854938	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Babel/PVT-AN/2022 *	ON854939	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Probolinggo/PVT/2022 *	ON854940	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Malang/PVT/2022 *	ON854941	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Pasuruan/A04222583/2022 *	ON854943	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/PangkalPinang/PVT/2022 *	ON854944	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Mempawah/BBR11/2022 *	ON854947	Goat	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/KWB/A0522106/2022 *	ON854948	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Jombang/PVTW-J11/2022 *	ON854951	Goat	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Gresik/PVT-KBMS/2022 *	ON854952	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Purbalingga/A04222607/2022 *	ON854953	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None

FMDV VP1 Sequences included in the Phylogenetic Tree (continued)

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
ISA/Pemalang/A04222613/2022 *	ON854954	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Magetan/A04222620/2022 *	ON854956	Cattle	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/HSU/A0522099-5/2022 *	ON854957	Goat	DICWY	Indonesia	O/ME-SA/Ind-2001/e	None
MAY/1576/2021(3) *	None	Cattle	MNFMDL	Malaysia	O/ME-SA/Ind-2001/e	None
MAY/1577/2021(1) *	None	Cattle	MNFMDL	Malaysia	O/ME-SA/Ind-2001/e	None
MAY/1577/2021(6) *	None	Cattle	MNFMDL	Malaysia	O/ME-SA/Ind-2001/e	None
MAY/498/2022 *	None	Cattle	MNFMDL	Malaysia	O/ME-SA/Ind-2001/e	None
TAI/2/2021	None	Cattle	WRLFMD	Thailand	O/ME-SA/Ind-2001/e	None
TAI/30/21 *	None	Bovine	TRRL	Thailand	O/ME-SA/Ind-2001/e	None
BHU/11/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/12/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/13/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/14/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/15/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/16/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/17/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/18/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/21/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/22/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
BHU/8/2017	None	Cattle	WRLFMD	Bhutan	O/ME-SA/Ind-2001/e	None
XJ/CHA/2017 *	MF461724	Cattle	LVRI	China	O/ME-SA/Ind-2001/e	None
XJBC/CHA/2017 *	KY696708	Cattle	LVRI	China	O/ME-SA/Ind-2001/e	None
XJPS/CHA/2017 *	KY696707	Cattle	LVRI	China	O/ME-SA/Ind-2001/e	None
TAI/18/2022	None	Cattle	WRLFMD	Thailand	O/ME-SA/Ind-2001/e	None
TAI/1/2023	None	Cattle	WRLFMD	Thailand	O/ME-SA/Ind-2001/e	None
ISA/6/2023	None	Cattle	WRLFMD	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/Gresik/PVT/Sw-11/2023 *	None	Cattle	PUSVETMA	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/VSN_LPG002_2022 *	OP751924	Cattle	VAKSINDO-SN	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/MHW32-POcattle/2022 *	OR570805	Peranakan Ongole	UGM	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/MHW145-Maduracattle/2022 *	OR570808	Madura	UGM	Indonesia	O/ME-SA/Ind-2001/e	None
ISA/MHW311-Maduracattle/2022 *	OR570809	Madura	UGM	Indonesia	O/ME-SA/Ind-2001/e	None
BAN/GKa-236(pig)/2015 *	KX712091	Pig	UNIV-DHAKA	Bangladesh	O/ME-SA/Ind-2001/e	None

* Not a WRLFMD Reference Number;

^ Not Available