

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

Genotyping Report

FMDV serotype: O
Country: Egypt
Year: 2015, 2016
Batch: WRLFMD/2016/00024
No. of sequences: 18
Report date: 3rd August 2016
Report generated by: Nick Knowles
Report checked by: Kasia Bankowska

Analysis Parameters

VP1 subsequence extractor: vp1_O
Query sequence set: WRLFMD/2016/00024-Egypt-O (18 sequences)
Sequence database set: !allseqs_O (3126 sequences)
Prototype sequence set: !prototypes_O (47 sequences)
Number of related sequences reported: 10
Minimal VP1 subsequence match length: 600
VIBASys version: reflabs-1.0.3



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

email: reporting@pirbright.ac.uk

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Virus sample name:	EGY/3/2015
Sender reference:	3. RL /1094
Location of origin:	Elsaro, Abohomos, Beheira
Country of origin:	Egypt
Date of collection:	27/05/2015
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	12/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29564, genome 29565, sequence viba_29566, sequencing info 29567	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.4	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.4	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.4	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.6	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.6	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/9/2015
Sender reference:	12. RL /226 b
Location of origin:	Gizera El, Elrahmania, Beheira
Country of origin:	Egypt
Date of collection:	21/09/2015
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	13/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29568, genome 29569, sequence viba_29570, sequencing info 29571	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29618	EGY/12/2016	cattle	100.0	0	O	EA-3		
viba_29602	EGY/8/2016	cattle	100.0	0	O	EA-3		
viba_29626	EGY/16/2016	cattle	100.0	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.7	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_221	MAL/1/98		84.0	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_766	IRN/31/2009	cattle	83.6	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/10/2015
Sender reference:	13. RL /243
Location of origin:	Dashtot, Somesta, Beni Suef
Country of origin:	Egypt
Date of collection:	07/10/2015
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy2
Harvest date of material:	16/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29572, genome 29573, sequence viba_29574, sequencing info 29575	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.4	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.4	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.4	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.9	0	O	EA-3		
viba_617	IND/53/79	bovine	84.2	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_650	IRN/8/2005	ovine	83.8	0	O	ME-SA	PanAsia-2	
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	EGY/11/2015
Sender reference:	14. RV /209
Location of origin:	Shandora, Elganain, Suez
Country of origin:	Egypt
Date of collection:	05/11/2015
Host species:	water buffalo
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	15/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29576, genome 29577, sequence viba_29578, sequencing info 29579	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.4	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.4	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.4	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.4	0	O	EA-3		
viba_29590	EGY/4/2016	cattle	99.4	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.2	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.2	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.2	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.1	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.5	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.3	0	O	EA-3		
viba_408	ETH/3/2004	cattle	84.9	0	O	EA-3		
viba_285	UKG/35/2001	porcine	84.3	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_617	IND/53/79	bovine	83.8	0	O	ME-SA		
viba_85	UGA/3/2002		83.8	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/13/2015
Sender reference:	7. RL /371
Location of origin:	Damleg, Monof, Monufia
Country of origin:	Egypt
Date of collection:	03/12/2015
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	15/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29580, genome 29581, sequence viba_29582, sequencing info 29583	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	100.0	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	100.0	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.8	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.8	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.8	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.7	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.7	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.7	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.7	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.9	0	O	EA-3		
viba_617	IND/53/79	bovine	84.2	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/14/2015
Sender reference:	8. RL /444
Location of origin:	Seif Eldin, Elzarka, Damietta
Country of origin:	Egypt
Date of collection:	29/12/2015
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy2
Harvest date of material:	16/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	01/08/2016
Last updated:	01/08/2016
VIBASys IDs: sample 29584, genome 29585, sequence viba_29586, sequencing info 29587	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.8	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.8	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.8	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.7	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.7	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.5	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.5	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.5	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.7	0	O	EA-3		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_285	UKG/35/2001	porcine	84.1	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	84.1	0	O	ME-SA	Ind-2001	a
viba_85	UGA/3/2002		84.0	0	O	EA-2		
viba_354	PAK/16/2010	cattle	84.0	0	O	ME-SA	PanAsia-2	PUN-10
viba_221	MAL/1/98		84.0	0	O	EA-2		
viba_766	IRN/31/2009	cattle	83.9	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/4/2016
Sender reference:	18. RL /515
Location of origin:	Baroot, Banisuef, Beni Suef
Country of origin:	Egypt
Date of collection:	19/01/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	20/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29588, genome 29589, sequence viba_29590, sequencing info 29591	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29598	EGY/7/2016	water buffalo	100.0	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.4	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.4	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	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_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_85	UGA/3/2002		83.8	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.6	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/5/2016
Sender reference:	29. RL /517
Location of origin:	Aden, Pares, New Valley
Country of origin:	Egypt
Date of collection:	19/01/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29592, genome 29593, sequence viba_29594, sequencing info 29595	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.8	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.8	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.8	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.7	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.7	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.5	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.5	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.5	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.7	0	O	EA-3		
viba_617	IND/53/79	bovine	84.4	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_354	PAK/16/2010	cattle	84.0	0	O	ME-SA	PanAsia-2	PUN-10
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_766	IRN/31/2009	cattle	83.9	0	O	ME-SA	PanAsia-2	FAR-09
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a

Virus sample name:	EGY/7/2016
Sender reference:	25. RL /586
Location of origin:	Abobaker, Ganakles, Beheira
Country of origin:	Egypt
Date of collection:	20/02/2016
Host species:	water buffalo
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	20/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016

VIBASys IDs: sample 29596, genome 29597, sequence viba_29598, sequencing info 29599

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29590	EGY/4/2016	cattle	100.0	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.4	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.4	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	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_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_85	UGA/3/2002		83.8	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.6	0	O	ME-SA	PanAsia	
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.6	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.4	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/8/2016
Sender reference:	28. RL /584
Location of origin:	Mobarak, Somesta, Beni Suef
Country of origin:	Egypt
Date of collection:	22/02/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	13/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29600, genome 29601, sequence viba_29602, sequencing info 29603	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29618	EGY/12/2016	cattle	100.0	0	O	EA-3		
viba_29626	EGY/16/2016	cattle	100.0	0	O	EA-3		
viba_29570	EGY/9/2015	cattle	100.0	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.7	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_221	MAL/1/98		84.0	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_766	IRN/31/2009	cattle	83.6	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/9/2016
Sender reference:	20. RL /601
Location of origin:	Sentres, Ashmon, Monufia
Country of origin:	Egypt
Date of collection:	24/02/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29604, genome 29605, sequence viba_29606, sequencing info 29607	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29582	EGY/13/2015	cattle	100.0	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	100.0	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.8	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.8	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.8	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.7	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.7	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.7	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.7	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.9	0	O	EA-3		
viba_617	IND/53/79	bovine	84.2	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/10/2016
Sender reference:	21. RL /637a
Location of origin:	Elkrea, Belkas, Dakahlia
Country of origin:	Egypt
Date of collection:	07/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	20/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016

VIBASys IDs: sample 29608, genome 29609, sequence viba_29610, sequencing info 29611

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29614	EGY/11/2016	cattle	99.5	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.5	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.5	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.5	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.4	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.4	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.4	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.4	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.2	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.2	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.7	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.0	0	O	EA-3		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	EGY/11/2016
Sender reference:	22. RL /637 b
Location of origin:	Elkrea, Belkas, Dakahlia
Country of origin:	Egypt
Date of collection:	07/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	20/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29612, genome 29613, sequence viba_29614, sequencing info 29615	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		
viba_29610	EGY/10/2016	cattle	99.5	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.4	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.4	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.6	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	83.9	0	O	ME-SA		
viba_221	MAL/1/98		83.9	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09
viba_85	UGA/3/2002		83.6	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.6	0	O	ME-SA	PanAsia-2	PUN-10

Virus sample name:	EGY/12/2016
Sender reference:	23. RL /637 c
Location of origin:	Elkrea, Belkas, Dakahlia
Country of origin:	Egypt
Date of collection:	07/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	29/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29616, genome 29617, sequence viba_29618, sequencing info 29619	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29602	EGY/8/2016	cattle	100.0	0	O	EA-3		
viba_29626	EGY/16/2016	cattle	100.0	0	O	EA-3		
viba_29570	EGY/9/2015	cattle	100.0	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.7	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_221	MAL/1/98		84.0	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_766	IRN/31/2009	cattle	83.6	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/14/2016
Sender reference:	27. RV /237 b
Location of origin:	Elrab, Elsedek, Faiyum
Country of origin:	Egypt
Date of collection:	10/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	13/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29620, genome 29621, sequence viba_29622, sequencing info 29623	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	100.0	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	100.0	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.8	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.8	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.8	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.7	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.7	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.7	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.7	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.9	0	O	EA-3		
viba_617	IND/53/79	bovine	84.2	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/16/2016
Sender reference:	30. RL/ 676 a
Location of origin:	Baghor, Edwa, Minya
Country of origin:	Egypt
Date of collection:	14/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29624, genome 29625, sequence viba_29626, sequencing info 29627	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29618	EGY/12/2016	cattle	100.0	0	O	EA-3		
viba_29602	EGY/8/2016	cattle	100.0	0	O	EA-3		
viba_29570	EGY/9/2015	cattle	100.0	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.8	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.7	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.7	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.7	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.5	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.5	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	87.8	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.7	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.6	0	O	EA-3		
viba_617	IND/53/79	bovine	84.1	0	O	ME-SA		
viba_221	MAL/1/98		84.0	0	O	EA-2		
viba_285	UKG/35/2001	porcine	83.8	0	O	ME-SA	PanAsia	
viba_705	KUW/3/97	bovine	83.8	0	O	ME-SA	Ind-2001	a
viba_85	UGA/3/2002		83.7	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.7	0	O	ME-SA	PanAsia-2	PUN-10
viba_766	IRN/31/2009	cattle	83.6	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/17/2016
Sender reference:	31. RL/ 676 b
Location of origin:	Abdel Khale, Edwa, Minya
Country of origin:	Egypt
Date of collection:	24/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	21/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016
VIBASys IDs: sample 29628, genome 29629, sequence viba_29630, sequencing info 29631	

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29606	EGY/9/2016	cattle	99.8	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.8	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.8	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.7	0	O	EA-3		
viba_29634	EGY/18/2016	cattle	99.7	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.7	0	O	EA-3		
viba_29614	EGY/11/2016	cattle	99.5	0	O	EA-3		
viba_29618	EGY/12/2016	cattle	99.5	0	O	EA-3		
viba_29598	EGY/7/2016	water buffalo	99.5	0	O	EA-3		
viba_29566	EGY/3/2015	cattle	99.5	0	O	EA-3		

Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

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	85.9	0	O	EA-3		
viba_617	IND/53/79	bovine	84.4	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_766	IRN/31/2009	cattle	83.7	0	O	ME-SA	PanAsia-2	FAR-09

Virus sample name:	EGY/18/2016
Sender reference:	32. RL /679
Location of origin:	Bayad Elarab, Banisuef, Beni Suef
Country of origin:	Egypt
Date of collection:	27/03/2016
Host species:	cattle
Serotype:	O
Topotype:	EA-3
Lineage:	
Sublineage:	
Sequence length:	633
Ambiguities:	0
Material submitted for sequencing:	BTy1
Harvest date of material:	22/07/2016
Primers:	O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R
Received for sequencing:	28/07/2016
Created:	02/08/2016
Last updated:	02/08/2016

VIBASys IDs: sample 29632, genome 29633, sequence viba_29634, sequencing info 29635

Most Closely Related Sequences

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_29618	EGY/12/2016	cattle	99.8	0	O	EA-3		
viba_29602	EGY/8/2016	cattle	99.8	0	O	EA-3		
viba_29626	EGY/16/2016	cattle	99.8	0	O	EA-3		
viba_29606	EGY/9/2016	cattle	99.8	0	O	EA-3		
viba_29582	EGY/13/2015	cattle	99.8	0	O	EA-3		
viba_29570	EGY/9/2015	cattle	99.8	0	O	EA-3		
viba_29622	EGY/14/2016	cattle	99.8	0	O	EA-3		
viba_29630	EGY/17/2016	cattle	99.7	0	O	EA-3		
viba_29594	EGY/5/2016	cattle	99.7	0	O	EA-3		
viba_29586	EGY/14/2015	cattle	99.7	0	O	EA-3		

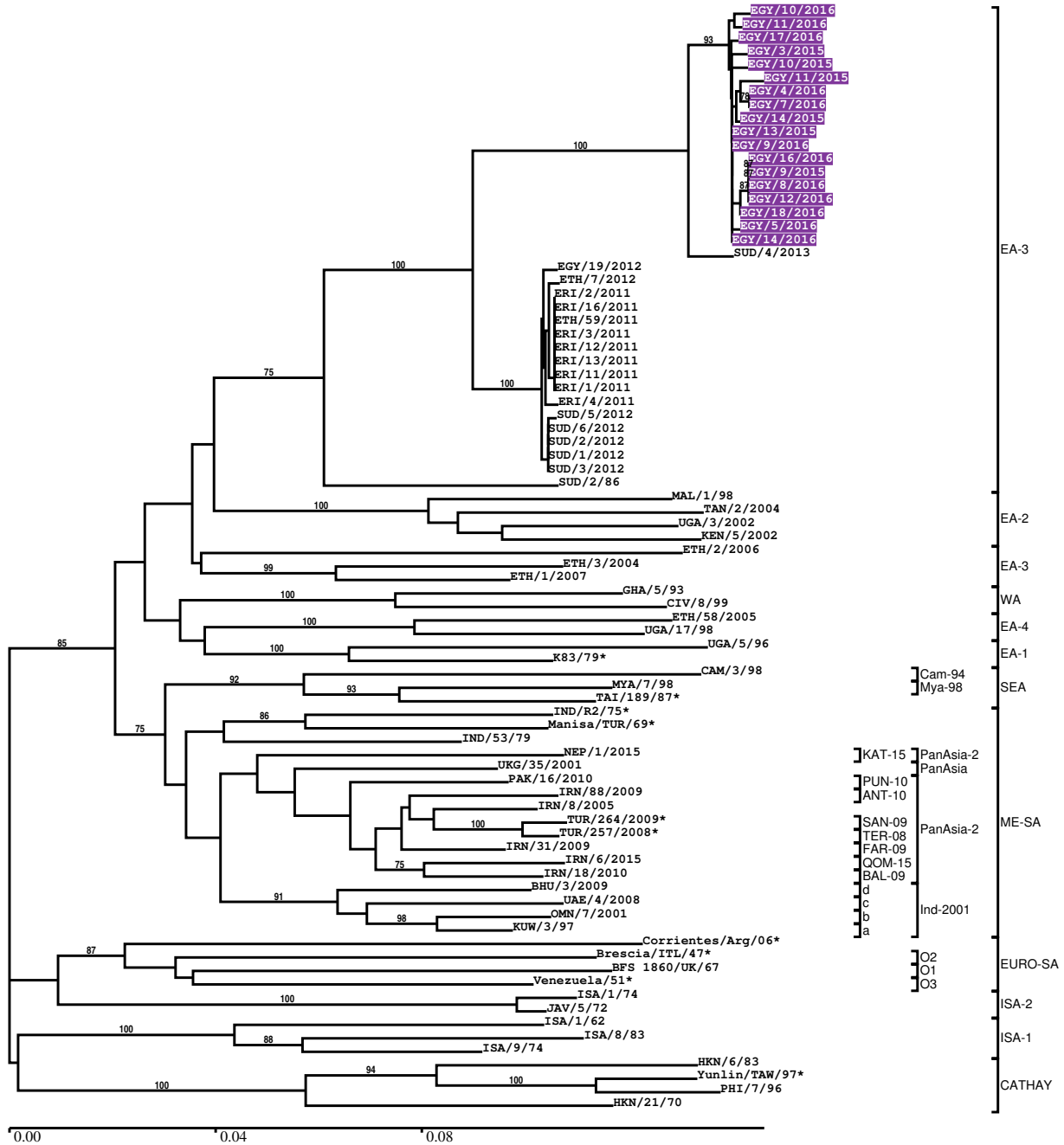
Most Closely Related Prototype Sequences

see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	sublineage
viba_116	SUD/2/86	bovine	88.0	0	O	EA-3		
viba_408	ETH/3/2004	cattle	85.9	0	O	EA-3		
viba_854	ETH/1/2007	cattle	85.8	0	O	EA-3		
viba_617	IND/53/79	bovine	84.2	0	O	ME-SA		
viba_221	MAL/1/98		84.2	0	O	EA-2		
viba_285	UKG/35/2001	porcine	84.0	0	O	ME-SA	PanAsia	
viba_85	UGA/3/2002		83.9	0	O	EA-2		
viba_354	PAK/16/2010	cattle	83.9	0	O	ME-SA	PanAsia-2	PUN-10
viba_705	KUW/3/97	bovine	83.9	0	O	ME-SA	Ind-2001	a
viba_850	NEP/1/2015	cattle	83.8	1	O	ME-SA	PanAsia-2	KAT-15

Report on FMDV O in Egypt in 2015, 2016

Batch: WRLFMD/2016/00024



Sequence alignment method: muscle (default parameters)
 Phylogeny reconstruction method: fdnadist, fneighbor
 Number of bootstrap samples: 1000
 Displaying bootstrap values above: 70.0%
 Number of sequences in tree capped at: 100
 *, not a WRLFMD Reference Number

Sequences in the Phylogenetic Tree

All sequences in the tree are in taxonomic group FMDV/O

label	accession	host(s)	lab	country	taxonomic information
EGY/10/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/11/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/17/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/3/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/10/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/11/2015	n/a	water buffalo	WRLFMD	Egypt	EA-3
EGY/4/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/7/2016	n/a	water buffalo	WRLFMD	Egypt	EA-3
EGY/14/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/13/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/9/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/16/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/9/2015	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/8/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/12/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/18/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/5/2016	n/a	cattle	WRLFMD	Egypt	EA-3
EGY/14/2016	n/a	cattle	WRLFMD	Egypt	EA-3
SUD/4/2013	n/a	cattle	WRLFMD	Sudan	EA-3
EGY/19/2012	n/a	cattle	WRLFMD	Egypt	EA-3
ETH/7/2012	n/a	cattle	WRLFMD	Ethiopia	EA-3
ERI/2/2011	n/a	cattle	WRLFMD	Eritrea	EA-3
ERI/16/2011	n/a	porcine	WRLFMD	Eritrea	EA-3
ETH/59/2011	n/a	cattle	WRLFMD	Ethiopia	EA-3
ERI/3/2011	n/a	cattle	WRLFMD	Eritrea	EA-3
ERI/12/2011	n/a	porcine	WRLFMD	Eritrea	EA-3
ERI/13/2011	n/a	porcine	WRLFMD	Eritrea	EA-3
ERI/11/2011	n/a	porcine	WRLFMD	Eritrea	EA-3
ERI/1/2011	n/a	cattle	WRLFMD	Eritrea	EA-3
ERI/4/2011	n/a	cattle	WRLFMD	Eritrea	EA-3
SUD/5/2012	n/a	cattle	WRLFMD	Sudan	EA-3
SUD/6/2012	n/a	cattle	WRLFMD	Sudan	EA-3
SUD/2/2012	n/a	cattle	WRLFMD	Sudan	EA-3
SUD/1/2012	n/a	cattle	WRLFMD	Sudan	EA-3
SUD/3/2012	n/a	cattle	WRLFMD	Sudan	EA-3
SUD/2/86	DQ165075	bovine	WRLFMD	Sudan	EA-3
MAL/1/98	DQ165074	n/a	WRLFMD	Malawi	EA-2
TAN/2/2004	KF561679	bovine	WRLFMD	Tanzania	EA-2
UGA/3/2002	DQ165077	n/a	WRLFMD	Uganda	EA-2
KEN/5/2002	DQ165073	bovine	WRLFMD	Kenya	EA-2
ETH/2/2006	FJ798127	bovine	WRLFMD	Ethiopia	EA-3
ETH/3/2004	FJ798109	cattle	WRLFMD	Ethiopia	EA-3
ETH/1/2007	FJ798137	cattle	WRLFMD	Ethiopia	EA-3
GHA/5/93	AJ303488	bovine	WRLFMD	Ghana	WA
CIV/8/99	AJ303485	bovine	WRLFMD	Cote d'Ivoire	WA
ETH/58/2005	FJ798141	bovine	WRLFMD	Ethiopia	EA-4
UGA/17/98	HM211075	n/a	WRLFMD	Uganda	EA-4
UGA/5/96	AJ296327	bovine	WRLFMD	Uganda	EA-1
K83/79*	AJ303511	n/a	WRLFMD	Kenya	EA-1
CAM/3/98	AJ294910	bovine	WRLFMD	Cambodia	SEA/Cam-94
MYA/7/98	DQ164925	bovine	WRLFMD	Myanmar	SEA/Mya-98
TAI/189/87*	n/a	bovine	TRRL	Thailand	SEA
IND/R2/75*	AF204276	n/a	PD-FMD	India	ME-SA
Manisa/TUR/69*	AY593823	n/a	PIADC	Turkey	ME-SA
IND/53/79	AF292107	bovine	PD-FMD	India	ME-SA
NEP/1/2015	n/a	cattle	WRLFMD	Nepal	ME-SA/PanAsia-2/KAT-15
UKG/35/2001	AJ539141	porcine	PIADC	United Kingdom	ME-SA/PanAsia
PAK/16/2010	n/a	cattle	WRLFMD	Pakistan	ME-SA/PanAsia-2/PUN-10
IRN/88/2009	n/a	n/a	WRLFMD	Iran	ME-SA/PanAsia-2/ANT-10
IRN/8/2005	n/a	ovine	WRLFMD	Iran	ME-SA/PanAsia-2

continued on next page

label	accession	host(s)	lab	country	taxonomic information
TUR/264/2009*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/SAN-09
TUR/257/2008*	n/a	n/a	FMDI-Ankara	Turkey	ME-SA/PanAsia-2/TER-08
IRN/31/2009	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/FAR-09
IRN/6/2015	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/QOM-15
IRN/18/2010	n/a	cattle	WRLFMD	Iran	ME-SA/PanAsia-2/BAL-09
BHU/3/2009	KM921814	cattle	WRLFMD	Bhutan	ME-SA/Ind-2001/d
UAE/4/2008	KM921876	gazelle	WRLFMD	United Arab Emirates	ME-SA/Ind-2001/c
OMN/7/2001	DQ164941	bovine	WRLFMD	Oman	ME-SA/Ind-2001/b
KUW/3/97	DQ164904	bovine	WRLFMD	Kuwait	ME-SA/Ind-2001/a
Corrientes/Arg/06*	DQ834727	n/a	PAFMDC	Argentina	EURO-SA
Brescia/ITL/47*	M55287	n/a	BFAV	Italy	EURO-SA/O2
BFS 1860/UK/67	AY593815	bovine	PIADC	United Kingdom (BFS)	EURO-SA/O1
Venezuela/51*	AJ004645	n/a	BFAV	Venezuela	EURO-SA/O3
ISA/1/74	AJ303501	bovine	WRLFMD	Indonesia	ISA-2
JAV/5/72	AJ303509	n/a	WRLFMD	Java	ISA-2
ISA/1/62	AJ303500	n/a	WRLFMD	Indonesia	ISA-1
ISA/8/83	AJ303503	bovine	WRLFMD	Indonesia	ISA-1
ISA/9/74	AJ303502	bovine	WRLFMD	Indonesia	ISA-1
HKN/6/83	AJ294919	bovine	WRLFMD	Hong Kong SAR	CATHAY
Yunlin/TAW/97*	AF308157	porcine	PIADC	Taiwan	CATHAY
PHI/7/96	AJ294926	porcine	WRLFMD	Philippines	CATHAY
HKN/21/70	AJ294911	porcine	WRLFMD	Hong Kong SAR	CATHAY

*, not a WRLFMD Reference Number

n/a, not available