

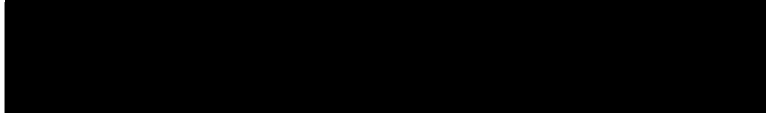


INSTITUTE FOR ANIMAL HEALTH
Director: Professor Martin W. Shirley, PhD
PIRBRIGHT LABORATORY
Ash Road,
Pirbright,
Surrey,
GU24 0NF
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FMD Sequencing Report

Lab Reference WRL Batch Number: WRLFMD/2010/00014

Sender Details:



Date Received: 10th March 2010

Country of Origin: Tanzania

Date Reported: 16th June 2010

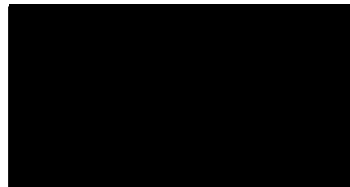
Dear Dr. Mdelumbe-Ngeleja C.A.R.,

Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at: <http://www.wrlfmd.org/>

Results Approved By:



Official Stamp:



Date:

16/6/10



To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: elizabeth.wilson@bbsrc.ac.uk)

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

Genotyping Report

Date: 12 June 2010

FMDV type A

Country: Tanzania

Period: 2008-2009

No. of isolates: 8

BATCH: WRLFMD/2010/00014



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FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/11/2008	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 36 FMD TISSUE 3	
Location: Iringa, Tanzania	Topotype: AFRICA
Date collected: 01/08/2008	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN08-11.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/12/2008	TAN08-12	639	639	0	100.00	0.00	AFRICA	G-I
2	A/TAN/9/2009	TAN09-09	639	604	0	94.52	5.48	AFRICA	G-I
3	A/KEN/12/2005 (K44/2005)	KEN05-12	639	545	0	85.29	14.71	AFRICA	G-I
4	A/KEN/28/2008	KEN08-28	639	543	0	84.98	15.02	AFRICA	G-I
5	A/KEN/8/2008	KEN08-08	639	543	0	84.98	15.02	AFRICA	G-I
6	A/KEN/3/2006	KEN06-03	639	542	0	84.82	15.18	AFRICA	G-I
7	A/TAN/4/2009	TAN09-04	639	542	0	84.82	15.18	AFRICA	G-I
8	A/KEN/7/2008	KEN08-07	639	541	0	84.66	15.34	AFRICA	G-I
9	A/TAN/11/2009	TAN09-11	639	540	0	84.51	15.49	AFRICA	G-I
10	A/TAN/42/2009	TAN09-42	639	540	0	84.51	15.49	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	518	0	81.06	18.94	AFRICA	G-I
2	A/SUD/3/77 (GU566064)	SUD77-03	639	510	0	79.81	20.19	AFRICA	G-IV
3	A/UGA/13/66	UGA66-13	639	510	0	79.81	20.19	AFRICA	G-VII
4	A/EGY/1/72 (EF208756)	EGY72-01	639	509	0	79.66	20.34	AFRICA	G-II
5	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	509	0	79.66	20.34	AFRICA	G-III
6	A/GHA/16/73	GHA73-16	636	503	0	79.09	20.91	AFRICA	G-VI
7	A/NGR/2/73	NGR73-02	639	503	0	78.72	21.28	AFRICA	G-V
8	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	639	500	0	78.25	21.75	ASIA	A ₁₅
9	A/IRN/1/2005 (EF208769)	IRN05-01	639	494	0	77.31	22.69	ASIA	Iran-05
10	A11/GER/29 (AGB)(EU553852)	GER29--A	639	494	0	77.31	22.69	EURO-SA	A ₁₁

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/12/2008	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 37 FMD TISSUE 4	
Location: Iringa, Tanzania	Topotype: AFRICA
Date collected: 01/08/2008	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN08-12.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/11/2008	TAN08-11	639	639	0	100.00	0.00	AFRICA	G-I
2	A/TAN/9/2009	TAN09-09	639	604	0	94.52	5.48	AFRICA	G-I
3	A/KEN/12/2005 (K44/2005)	KEN05-12	639	545	0	85.29	14.71	AFRICA	G-I
4	A/KEN/28/2008	KEN08-28	639	543	0	84.98	15.02	AFRICA	G-I
5	A/KEN/8/2008	KEN08-08	639	543	0	84.98	15.02	AFRICA	G-I
6	A/KEN/3/2006	KEN06-03	639	542	0	84.82	15.18	AFRICA	G-I
7	A/TAN/4/2009	TAN09-04	639	542	0	84.82	15.18	AFRICA	G-I
8	A/KEN/7/2008	KEN08-07	639	541	0	84.66	15.34	AFRICA	G-I
9	A/TAN/11/2009	TAN09-11	639	540	0	84.51	15.49	AFRICA	G-I
10	A/TAN/42/2009	TAN09-42	639	540	0	84.51	15.49	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	518	0	81.06	18.94	AFRICA	G-I
2	A/SUD/3/77 (GU566064)	SUD77-03	639	510	0	79.81	20.19	AFRICA	G-IV
3	A/UGA/13/66	UGA66-13	639	510	0	79.81	20.19	AFRICA	G-VII
4	A/EGY/1/72 (EF208756)	EGY72-01	639	509	0	79.66	20.34	AFRICA	G-II
5	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	509	0	79.66	20.34	AFRICA	G-III
6	A/GHA/16/73	GHA73-16	636	503	0	79.09	20.91	AFRICA	G-VI
7	A/NGR/2/73	NGR73-02	639	503	0	78.72	21.28	AFRICA	G-V
8	A15/Bangkok/TAI/60 (AY593755)	TAI60--D	639	500	0	78.25	21.75	ASIA	A ₁₅
9	A/IRN/1/2005 (EF208769)	IRN05-01	639	494	0	77.31	22.69	ASIA	Iran-05
10	A11/GER/29 (AGB)(EU553852)	GER29--A	639	494	0	77.31	22.69	EURO-SA	A ₁₁

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/4/2009	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 60 FMD TISSUE 27	
Location: Morogoro, Tanzania	Topotype: AFRICA
Date collected: 01/05/2009	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN09-04.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/11/2009	TAN09-11	639	633	0	99.06	0.94	AFRICA	G-I
2	A/KEN/28/2008	KEN08-28	639	632	0	98.90	1.10	AFRICA	G-I
3	A/TAN/45/2009	TAN09-45	639	632	0	98.90	1.10	AFRICA	G-I
4	A/TAN/47/2009	TAN09-47	639	627	0	98.12	1.88	AFRICA	G-I
5	A/TAN/42/2009	TAN09-42	639	626	0	97.97	2.03	AFRICA	G-I
6	A/KEN/22/2009	KEN09-22	639	624	0	97.65	2.35	AFRICA	G-I
7	A/KEN/3/2006	KEN06-03	639	598	0	93.58	6.42	AFRICA	G-I
8	A/KEN/12/2005 (K44/2005)	KEN05-12	639	593	0	92.80	7.20	AFRICA	G-I
9	A/KEN/7/2008	KEN08-07	639	591	0	92.49	7.51	AFRICA	G-I
10	A/KEN/8/2008	KEN08-08	639	589	0	92.18	7.82	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	547	0	85.60	14.40	AFRICA	G-I
2	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	529	0	82.79	17.21	AFRICA	G-III
3	A/NGR/2/73	NGR73-02	639	525	0	82.16	17.84	AFRICA	G-V
4	A/GHA/16/73	GHA73-16	636	522	0	82.08	17.92	AFRICA	G-VI
5	A/UGA/13/66	UGA66-13	639	522	0	81.69	18.31	AFRICA	G-VII
6	A/SUD/3/77 (GU566064)	SUD77-03	639	521	0	81.53	18.47	AFRICA	G-IV
7	A/EGY/1/72 (EF208756)	EGY72-01	639	520	0	81.38	18.62	AFRICA	G-II
8	A12/UK/119/32 (M10975)	UKG32119	639	517	0	80.91	19.09	EURO-SA	A ₁₂
9	A5/Allier/FRA/60 (AY593780)	FRA60--F	636	510	0	80.19	19.81	EURO-SA	A ₅
10	A22/IRQ/64 (AY593763)	IRQ64--A	639	512	0	80.13	19.87	ASIA	A ₂₂

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/9/2009	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 41 FMD TISSUE 8	
Location: Njombe Munc, Tanzania	Topotype: AFRICA
Date collected: 13/06/2009	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN09-09.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/11/2008	TAN08-11	639	604	0	94.52	5.48	AFRICA	G-I
2	A/TAN/12/2008	TAN08-12	639	604	0	94.52	5.48	AFRICA	G-I
3	A/KEN/28/2008	KEN08-28	639	547	0	85.60	14.40	AFRICA	G-I
4	A/TAN/47/2009	TAN09-47	639	545	0	85.29	14.71	AFRICA	G-I
5	A/KEN/8/2008	KEN08-08	639	542	0	84.82	15.18	AFRICA	G-I
6	A/TAN/11/2009	TAN09-11	639	542	0	84.82	15.18	AFRICA	G-I
7	A/TAN/4/2009	TAN09-04	639	542	0	84.82	15.18	AFRICA	G-I
8	A/TAN/42/2009	TAN09-42	639	542	0	84.82	15.18	AFRICA	G-I
9	A/KEN/22/2009	KEN09-22	639	541	0	84.66	15.34	AFRICA	G-I
10	A/TAN/45/2009	TAN09-45	639	541	0	84.66	15.34	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	525	0	82.16	17.84	AFRICA	G-I
2	A/EGY/1/72 (EF208756)	EGY72-01	639	519	0	81.22	18.78	AFRICA	G-II
3	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	518	0	81.06	18.94	AFRICA	G-III
4	A/NGR/2/73	NGR73-02	639	517	0	80.91	19.09	AFRICA	G-V
5	A/UGA/13/66	UGA66-13	639	517	0	80.91	19.09	AFRICA	G-VII
6	A/SUD/3/77 (GU566064)	SUD77-03	639	511	0	79.97	20.03	AFRICA	G-IV
7	A11/GER/29 (AGB)(EU553852)	GER29--A	639	511	0	79.97	20.03	EURO-SA	A ₁₁
8	A/GHA/16/73	GHA73-16	636	508	0	79.87	20.13	AFRICA	G-VI
9	A24/Cruzeiro/BRA/55 (AY593768)	BRA55--H	639	510	0	79.81	20.19	EURO-SA	A ₂₄
10	A12/UK/119/32 (M10975)	UKG32119	639	508	0	79.50	20.50	EURO-SA	A ₁₂

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/11/2009	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 73 FMD TISSUE 40	
Location: Kibaha, Tanzania	Topotype: AFRICA
Date collected: 21/06/2009	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN09-11.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/45/2009	TAN09-45	639	634	0	99.22	0.78	AFRICA	G-I
2	A/TAN/4/2009	TAN09-04	639	633	0	99.06	0.94	AFRICA	G-I
3	A/KEN/28/2008	KEN08-28	639	632	0	98.90	1.10	AFRICA	G-I
4	A/TAN/47/2009	TAN09-47	639	627	0	98.12	1.88	AFRICA	G-I
5	A/KEN/22/2009	KEN09-22	639	626	0	97.97	2.03	AFRICA	G-I
6	A/TAN/42/2009	TAN09-42	639	626	0	97.97	2.03	AFRICA	G-I
7	A/KEN/3/2006	KEN06-03	639	598	0	93.58	6.42	AFRICA	G-I
8	A/KEN/12/2005 (K44/2005)	KEN05-12	639	593	0	92.80	7.20	AFRICA	G-I
9	A/KEN/7/2008	KEN08-07	639	591	0	92.49	7.51	AFRICA	G-I
10	A/KEN/8/2008	KEN08-08	639	589	0	92.18	7.82	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	551	0	86.23	13.77	AFRICA	G-I
2	A/NGR/2/73	NGR73-02	639	531	0	83.10	16.90	AFRICA	G-V
3	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	531	0	83.10	16.90	AFRICA	G-III
4	A/GHA/16/73	GHA73-16	636	526	0	82.70	17.30	AFRICA	G-VI
5	A/UGA/13/66	UGA66-13	639	526	0	82.32	17.68	AFRICA	G-VII
6	A/EGY/1/72 (EF208756)	EGY72-01	639	524	0	82.00	18.00	AFRICA	G-II
7	A12/UK/119/32 (M10975)	UKG32119	639	523	0	81.85	18.15	EURO-SA	A ₁₂
8	A/SUD/3/77 (GU566064)	SUD77-03	639	522	0	81.69	18.31	AFRICA	G-IV
9	A5/Allier/FRA/60 (AY593780)	FRA60--F	636	514	0	80.82	19.18	EURO-SA	A ₅
10	A22/IRQ/64 (AY593763)	IRQ64--A	639	516	0	80.75	19.25	ASIA	A ₂₂

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/42/2009	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 82 FMD TISSUE 49	
Location: Mpwapwa, Tanzania	Topotype: AFRICA
Date collected: 07/09/2009	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN09-42.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/47/2009	TAN09-47	639	634	0	99.22	0.78	AFRICA	G-I
2	A/KEN/28/2008	KEN08-28	639	633	0	99.06	0.94	AFRICA	G-I
3	A/TAN/11/2009	TAN09-11	639	626	0	97.97	2.03	AFRICA	G-I
4	A/TAN/4/2009	TAN09-04	639	626	0	97.97	2.03	AFRICA	G-I
5	A/KEN/22/2009	KEN09-22	639	625	0	97.81	2.19	AFRICA	G-I
6	A/TAN/45/2009	TAN09-45	639	623	0	97.50	2.50	AFRICA	G-I
7	A/KEN/3/2006	KEN06-03	639	605	0	94.68	5.32	AFRICA	G-I
8	A/KEN/12/2005 (K44/2005)	KEN05-12	639	596	0	93.27	6.73	AFRICA	G-I
9	A/KEN/7/2008	KEN08-07	639	595	0	93.11	6.89	AFRICA	G-I
10	A/KEN/8/2008	KEN08-08	639	593	0	92.80	7.20	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	546	0	85.45	14.55	AFRICA	G-I
2	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	533	0	83.41	16.59	AFRICA	G-III
3	A/GHA/16/73	GHA73-16	636	521	0	81.92	18.08	AFRICA	G-VI
4	A/NGR/2/73	NGR73-02	639	523	0	81.85	18.15	AFRICA	G-V
5	A/UGA/13/66	UGA66-13	639	523	0	81.85	18.15	AFRICA	G-VII
6	A/EGY/1/72 (EF208756)	EGY72-01	639	521	0	81.53	18.47	AFRICA	G-II
7	A/SUD/3/77 (GU566064)	SUD77-03	639	518	0	81.06	18.94	AFRICA	G-IV
8	A12/UK/119/32 (M10975)	UKG32119	639	516	0	80.75	19.25	EURO-SA	A ₁₂
9	A22/IRQ/64 (AY593763)	IRQ64--A	639	515	0	80.59	19.41	ASIA	A ₂₂
10	A5/Allier/FRA/60 (AY593780)	FRA60--F	636	509	0	80.03	19.97	EURO-SA	A ₅

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A WRLFMD Ref No: TAN/45/2009 Batch No: WRLFMD/2010/00014 Sender Ref: 76 FMD TISSUE 43 Location: Iringa Rural, Tanzania Date collected: 06/11/2009 Date received by WRLFMD: 10/03/2010 Date received for sequencing: 27/05/2010 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: A-1C562F/EUR-2B52R	Report date: 12/06/2010 Reported by: N.J. Knowles Checked by: D.P. King Topotype: AFRICA Genotype/strain: G-I Sequence filename: TAN09-45.SEQ Date sequence last updated: 04/06/2010 No. of Nt determined: 639 No. of ambiguities: 0 Gene length: 639 Total no. of comparisons: 1297 Min. no. of nt for comparison: 300 Total turn-around time: 94 days Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/TAN/11/2009	TAN09-11	639	634	0	99.22	0.78	AFRICA	G-I
2	A/TAN/4/2009	TAN09-04	639	632	0	98.90	1.10	AFRICA	G-I
3	A/KEN/28/2008	KEN08-28	639	629	0	98.44	1.56	AFRICA	G-I
4	A/TAN/47/2009	TAN09-47	639	624	0	97.65	2.35	AFRICA	G-I
5	A/KEN/22/2009	KEN09-22	639	623	0	97.50	2.50	AFRICA	G-I
6	A/TAN/42/2009	TAN09-42	639	623	0	97.50	2.50	AFRICA	G-I
7	A/KEN/3/2006	KEN06-03	639	595	0	93.11	6.89	AFRICA	G-I
8	A/KEN/12/2005 (K44/2005)	KEN05-12	639	590	0	92.33	7.67	AFRICA	G-I
9	A/KEN/7/2008	KEN08-07	639	588	0	92.02	7.98	AFRICA	G-I
10	A/KEN/8/2008	KEN08-08	639	586	0	91.71	8.29	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	546	0	85.45	14.55	AFRICA	G-I
2	A/NGR/2/73	NGR73-02	639	526	0	82.32	17.68	AFRICA	G-V
3	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	526	0	82.32	17.68	AFRICA	G-III
4	A/GHA/16/73	GHA73-16	636	521	0	81.92	18.08	AFRICA	G-VI
5	A/UGA/13/66	UGA66-13	639	522	0	81.69	18.31	AFRICA	G-VII
6	A/EGY/1/72 (EF208756)	EGY72-01	639	519	0	81.22	18.78	AFRICA	G-II
7	A/SUD/3/77 (GU566064)	SUD77-03	639	518	0	81.06	18.94	AFRICA	G-IV
8	A12/UK/119/32 (M10975)	UKG32119	639	518	0	81.06	18.94	EURO-SA	A ₁₂
9	A5/Allier/FRA/60 (AY593780)	FRA60--F	636	511	0	80.35	19.65	EURO-SA	A ₅
10	A22/IRQ/64 (AY593763)	IRQ64--A	639	512	0	80.13	19.87	ASIA	A ₂₂

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: A	Report date: 12/06/2010
WRLFMD Ref No: TAN/47/2009	Reported by: N.J. Knowles
Batch No: WRLFMD/2010/00014	Checked by: D.P. King
Sender Ref: 61 FMD TISSUE 28	
Location: Bagamoyo, Tanzania	Topotype: AFRICA
Date collected: 01/11/2009	Genotype/strain: G-I
Date received by WRLFMD: 10/03/2010	Sequence filename: TAN09-47.SEQ
Date received for sequencing: 27/05/2010	Date sequence last updated: 04/06/2010
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: A-1C562F/EUR-2B52R	Total no. of comparisons: 1297
	Min. no. of nt for comparison: 300
	Total turn-around time: 94 days
	Sequencing time: 16 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/28/2008	KEN08-28	639	634	0	99.22	0.78	AFRICA	G-I
2	A/TAN/42/2009	TAN09-42	639	634	0	99.22	0.78	AFRICA	G-I
3	A/TAN/11/2009	TAN09-11	639	627	0	98.12	1.88	AFRICA	G-I
4	A/TAN/4/2009	TAN09-04	639	627	0	98.12	1.88	AFRICA	G-I
5	A/KEN/22/2009	KEN09-22	639	626	0	97.97	2.03	AFRICA	G-I
6	A/TAN/45/2009	TAN09-45	639	624	0	97.65	2.35	AFRICA	G-I
7	A/KEN/3/2006	KEN06-03	639	604	0	94.52	5.48	AFRICA	G-I
8	A/KEN/12/2005 (K44/2005)	KEN05-12	639	596	0	93.27	6.73	AFRICA	G-I
9	A/KEN/7/2008	KEN08-07	639	596	0	93.27	6.73	AFRICA	G-I
10	A/KEN/8/2008	KEN08-08	639	594	0	92.96	7.04	AFRICA	G-I
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	A/KEN/42/66 (K18/66)	KEN66-42	639	547	0	85.60	14.40	AFRICA	G-I
2	A21/Lumbwa/KEN/64 (AY593761)	KEN64-AA	639	534	0	83.57	16.43	AFRICA	G-III
3	A/UGA/13/66	UGA66-13	639	524	0	82.00	18.00	AFRICA	G-VII
4	A/NGR/2/73	NGR73-02	639	523	0	81.85	18.15	AFRICA	G-V
5	A/GHA/16/73	GHA73-16	636	520	0	81.76	18.24	AFRICA	G-VI
6	A/EGY/1/72 (EF208756)	EGY72-01	639	521	0	81.53	18.47	AFRICA	G-II
7	A12/UK/119/32 (M10975)	UKG32119	639	519	0	81.22	18.78	EURO-SA	A ₁₂
8	A5/Allier/FRA/60 (AY593780)	FRA60--F	636	514	0	80.82	19.18	EURO-SA	A ₅
9	A/SUD/3/77 (GU566064)	SUD77-03	639	515	0	80.59	19.41	AFRICA	G-IV
10	A22/IRQ/64 (AY593763)	IRQ64--A	639	514	0	80.44	19.56	ASIA	A ₂₂

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v3.1

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Report on FMDV A in Tanzania in 2008-2009

Batch: WRLFMD/2010/00014

Software: MEGA 4.0

No. of Taxa : 139

Data File : n:\evd\meg\db\fmdv\la\tan2009a.meg

Data Title : A Tanzania 2008-2009

Data Type : Nucleotide (Coding)

Analysis : Phylogeny reconstruction

Tree Inference : =====

->Method : Neighbor-Joining

->Phylogeny Test and options : Bootstrap (1000 replicates; seed=24054)

Include Sites : =====

->Gaps/Missing Data : Pairwise Deletion

->Codon Positions : 1st+2nd+3rd+Noncoding

Substitution Model : =====

->Model : Nucleotide: Kimura 2-parameter

->Substitutions to Include : d: Transitions + Transversions

->Pattern among Lineages : Same (Homogeneous)

->Rates among sites : Uniform rates

No. of Sites : 642

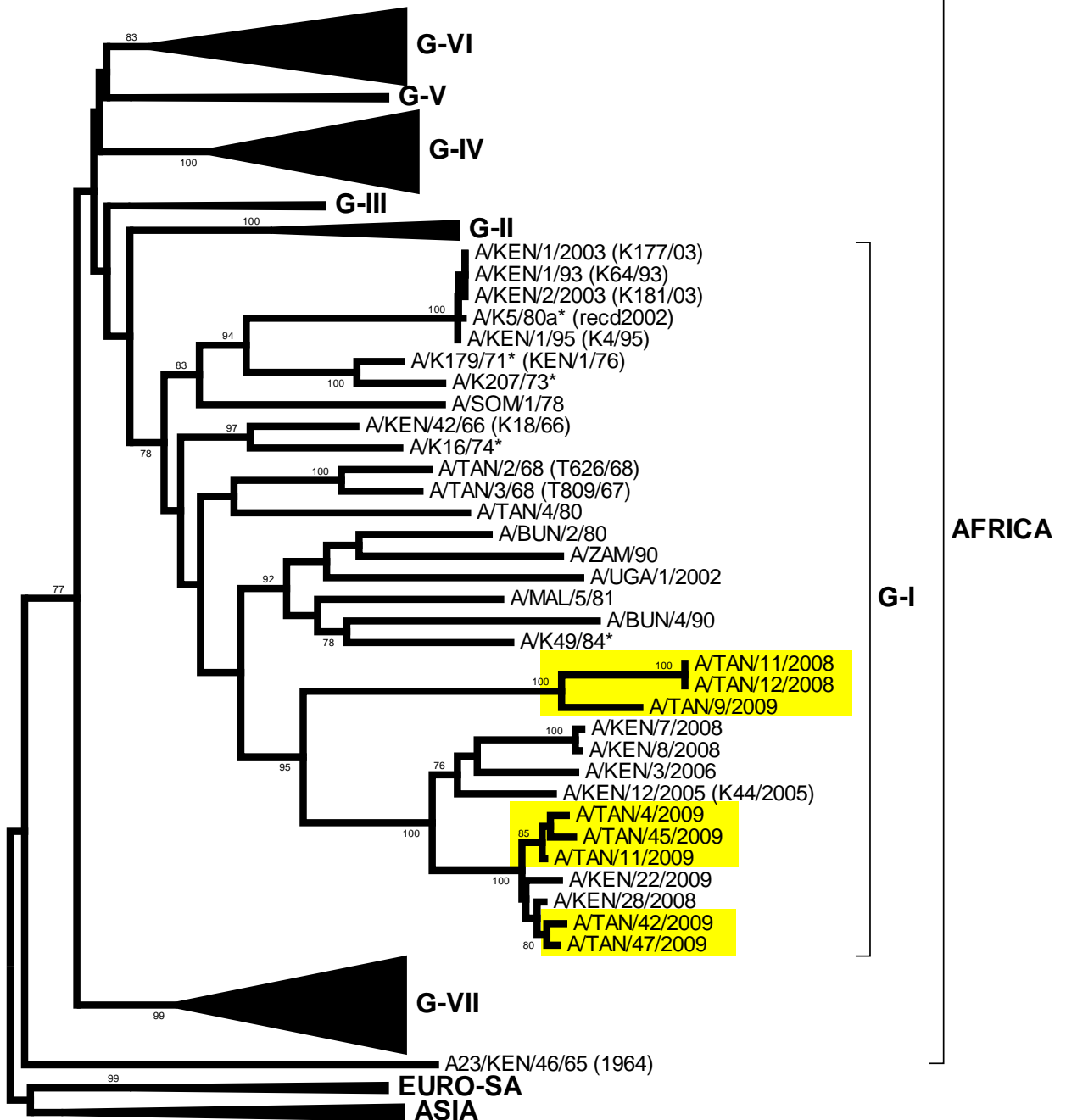
No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

N.J. Knowles & J. Wadsworth, 12 June 2010

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*, not a WRLFMD Ref. No.



0.02