

Serotype: SAT1	Report date: 19/05/2008
WRL Ref No: ZAM/5/2008	
Sender Ref: ZAM 05/08	
Date collected: 2008	Topotype: Western Zimbabwe (WZ)
Date received by WRLFMD: 17/04/2008	Genotype/strain: none designated
Date received for sequencing: 24/04/2008	Sequence filename: ZAM08-05.SEQ
Species: Cattle	Date sequence last updated: 08/05/2008
Material used: BTy1	Total no. of comparisons: 294
Region sequenced: VP1	Min. no. of nt for comparison: 300
RT-PCR primers: SAT1-P1-1228F/SAT-2B208R; SAT-1D209F/SAT-2B208R	Total turn-around time: 32 days
No. of Nt determined: 663	Sequencing time: 25 days
No. of ambiguities: 0	
Gene length: 663	

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/ZAM/6/2008	ZAM08-06	663	663	0	100	0
2	SAT1/ZAM/7/2008	ZAM08-07	663	663	0	100	0
3	SAT1/ZAM/5/2004	ZAM04-05	661	628	2	95.01	4.99
4	SAT1/ZAM/1/2005	ZAM05-01	663	629	0	94.87	5.13
5	SAT1/ZAM/16/2004	ZAM04-16	663	629	0	94.87	5.13
6	SAT1/ZAM/2/2005	ZAM05-02	663	629	0	94.87	5.13
7	SAT1/ZAM/1/2004	ZAM04-01	661	627	2	94.86	5.14
8	SAT1/ZAM/10/2004	ZAM04-10	662	628	1	94.86	5.14
9	SAT1/ZAM/11/2004	ZAM04-11	662	628	1	94.86	5.14
10	SAT1/ZAM/12/2004	ZAM04-12	661	627	2	94.86	5.14

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/T155/71	TAN71155	663	576	0	86.88	13.12
2	SAT1/RV/11/37 (AY593839)	RHO37-11	663	514	0	77.53	22.47
3	SAT1/SAR/9/81	SAR81-09	629	476	11	75.68	24.32
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	500	0	75.41	24.59
5	SAT1/SWA/40/61	SWA61-40	663	492	0	74.21	25.79
6	SAT1/SA/13/61 (AY593842)	SAR61-13	663	488	0	73.6	26.4
7	SAT1/BOT/1/68 (Z98203)	BOT68-B1	663	487	0	73.45	26.55
8	SAT1/SR/2/58	ZIM58-02	663	485	0	73.15	26.85
9	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	481	0	72.55	27.45
10	SAT1/ISR/4/62 (AY593844)	ISR62-04	663	445	0	67.12	32.88

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: SAT1	Report date: 19/05/2008
WRL Ref No: ZAM/6/2008	
Sender Ref: ZAM 06/08	
Date collected: 2008	
Date received by WRLFMD: 17/04/2008	Topotype: Western Zimbabwe (WZ)
Date received for sequencing: 24/04/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: ZAM08-06.SEQ
Material used: BTy1	Date sequence last updated: 08/05/2008
Region sequenced: VP1	Total no. of comparisons: 294
RT-PCR primers: SAT1-P1-1228F/SAT-2B208R;	Min. no. of nt for comparison: 300
SAT-1D209F/SAT-2B208R	Total turn-around time: 32 days
No. of Nt determined: 663	Sequencing time: 25 days
No. of ambiguities: 0	
Gene length: 663	

Comments:

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1	SAT1/ZAM/5/2008	ZAM08-05	663	663	0	100	0
2	SAT1/ZAM/7/2008	ZAM08-07	663	663	0	100	0
3	SAT1/ZAM/5/2004	ZAM04-05	661	628	2	95.01	4.99
4	SAT1/ZAM/1/2005	ZAM05-01	663	629	0	94.87	5.13
5	SAT1/ZAM/16/2004	ZAM04-16	663	629	0	94.87	5.13
6	SAT1/ZAM/2/2005	ZAM05-02	663	629	0	94.87	5.13
7	SAT1/ZAM/1/2004	ZAM04-01	661	627	2	94.86	5.14
8	SAT1/ZAM/10/2004	ZAM04-10	662	628	1	94.86	5.14
9	SAT1/ZAM/11/2004	ZAM04-11	662	628	1	94.86	5.14
10	SAT1/ZAM/12/2004	ZAM04-12	661	627	2	94.86	5.14

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1	SAT1/T155/71	TAN71155	663	576	0	86.88	13.12
2	SAT1/RV/11/37 (AY593839)	RHO37-11	663	514	0	77.53	22.47
3	SAT1/SAR/9/81	SAR81-09	629	476	11	75.68	24.32
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	500	0	75.41	24.59
5	SAT1/SWA/40/61	SWA61-40	663	492	0	74.21	25.79
6	SAT1/SA/13/61 (AY593842)	SAR61-13	663	488	0	73.6	26.4
7	SAT1/BOT/1/68 (Z98203)	BOT68-B1	663	487	0	73.45	26.55
8	SAT1/SR/2/58	ZIM58-02	663	485	0	73.15	26.85
9	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	481	0	72.55	27.45
10	SAT1/ISR/4/62 (AY593844)	ISR62-04	663	445	0	67.12	32.88

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: SAT1	Report date: 19/05/2008
WRL Ref No: ZAM/7/2008	
Sender Ref: ZAM 07/08	
Date collected: 2008	
Date received by WRLFMD: 17/04/2008	Topotype: Western Zimbabwe (WZ)
Date received for sequencing: 24/04/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: ZAM08-07.SEQ
Material used: BTy1	Date sequence last updated: 08/05/2008
Region sequenced: VP1	Total no. of comparisons: 294
RT-PCR primers: SAT1-P1-1228F/SAT-2B208R;	Min. no. of nt for comparison: 300
SAT-1D209F/SAT-2B208R	Total turn-around time: 32 days
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2	SAT1/ZAM/6/2008	ZAM08-06	663	663	0	100	0
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4	SAT1/ZAM/1/2005	ZAM05-01	663	629	0	94.87	5.13
5	SAT1/ZAM/16/2004	ZAM04-16	663	629	0	94.87	5.13
6	SAT1/ZAM/2/2005	ZAM05-02	663	629	0	94.87	5.13
7	SAT1/ZAM/1/2004	ZAM04-01	661	627	2	94.86	5.14
8	SAT1/ZAM/10/2004	ZAM04-10	662	628	1	94.86	5.14
9	SAT1/ZAM/11/2004	ZAM04-11	662	628	1	94.86	5.14
10	SAT1/ZAM/12/2004	ZAM04-12	661	627	2	94.86	5.14

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1	SAT1/T155/71	TAN71155	663	576	0	86.88	13.12
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3	SAT1/SAR/9/81	SAR81-09	629	476	11	75.68	24.32
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	500	0	75.41	24.59
5	SAT1/SWA/40/61	SWA61-40	663	492	0	74.21	25.79
6	SAT1/SA/13/61 (AY593842)	SAR61-13	663	488	0	73.6	26.4
7	SAT1/BOT/1/68 (Z98203)	BOT68-B1	663	487	0	73.45	26.55
8	SAT1/SR/2/58	ZIM58-02	663	485	0	73.15	26.85
9	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	481	0	72.55	27.45
10	SAT1/ISR/4/62 (AY593844)	ISR62-04	663	445	0	67.12	32.88

nt, nucleotides

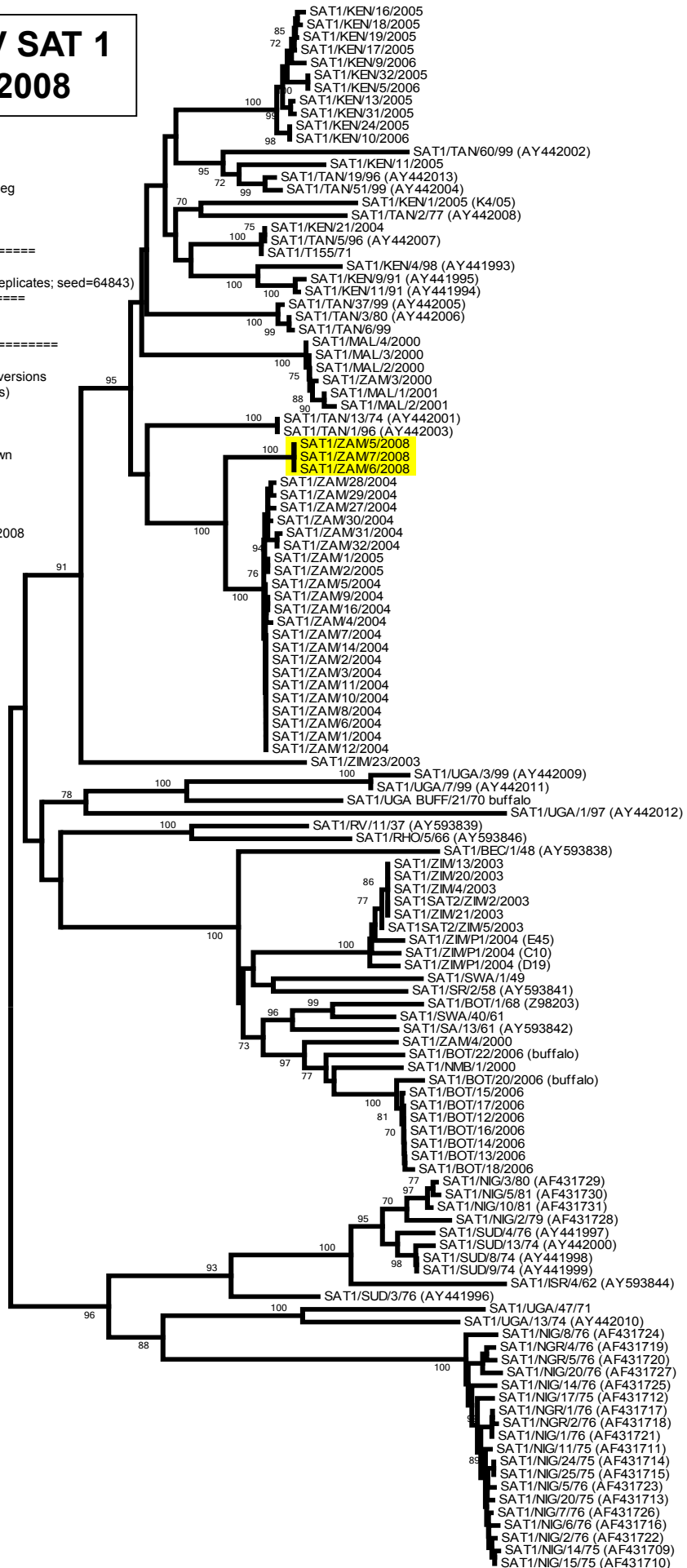
\*, not a WRLFMD reference number

# Report on FMDV SAT 1 from Zambia in 2008

Software: MEGA 4.0  
 No. of Taxa : 123  
 Data File : n:\evd\meg\db\fmvdsat1\ZAM2008a.meg  
 Data Title : Zambia 2008  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 ->Method : Neighbor-Joining  
 ->Phylogeny Test and options : Bootstrap (1000 replicates; seed=64843)  
 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 : 663  
 No Of Bootstrap Reps = 1000  
 Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles, J. Wadsworth & K. Ebert, 12 June 2008



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