

Serotype: SAT1	Report date: 05/08/2008
WRL Ref No: KEN/11/2006	Reported by: N.J. Knowles
Sender Ref: K37/06	Checked by: D.P. King
Date collected: 02/06/2006	
Date received by WRLFMD: 22/05/2008	Topotype: Northwest Zimbabwe (NWZ)
Date received for sequencing: 16/06/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: KEN06-11.SEQ
Material used: BTy1	Date sequence last updated: 02/08/2008
Region sequenced: VP1	Total no. of comparisons: 296
RT-PCR primers: SAT1-1C559F/SAT-2B208R;	Min. no. of nt for comparison: 300
SAT1U-OS/SAT-2B208R	Total turn-around time: 75 days
No. of Nt determined: 663	Sequencing time: 50 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/KEN/10/2006	KEN06-10	663	658	0	99.25	0.75
2	SAT1/KEN/24/2005	KEN05-24	663	658	0	99.25	0.75
3	SAT1/KEN/17/2005	KEN05-17	663	657	0	99.1	0.9
4	SAT1/KEN/19/2005	KEN05-19	663	656	0	98.94	1.06
5	SAT1/KEN/18/2005	KEN05-18	663	655	0	98.79	1.21
6	SAT1/KEN/16/2005	KEN05-16	663	654	0	98.64	1.36
7	SAT1/KEN/9/2006	KEN06-09	663	654	0	98.64	1.36
8	SAT1/KEN/13/2005	KEN05-13	663	648	0	97.74	2.26
9	SAT1/KEN/31/2005	KEN05-31	663	648	0	97.74	2.26
10	SAT1/KEN/32/2005	KEN05-32	663	648	0	97.74	2.26

#### 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	593	0	89.44	10.56
2	SAT1/RV/11/37 (AY593839)	RHO37-11	663	514	0	77.53	22.47
3	SAT1/SAR/9/81	SAR81-09	629	483	11	76.79	23.21
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	504	0	76.02	23.98
5	SAT1/SR/2/58	ZIM58-02	663	502	0	75.72	24.28
6	SAT1/SWA/40/61	SWA61-40	663	498	0	75.11	24.89
7	SAT1/SA/13/61 (AY593842)	SAR61-13	663	496	0	74.81	25.19
8	SAT1/BOT/1/68 (Z98203)	BOT68-B1	663	494	0	74.51	25.49
9	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	483	0	72.85	27.15
10	SAT1/ISR/4/62 (AY593844)	ISR62-04	663	466	0	70.29	29.71

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: SAT1	Report date: 05/08/2008
WRL Ref No: KEN/14/2006	Reported by: N.J. Knowles
Sender Ref: K47/06	Checked by: D.P. King
Date collected: 05/07/2006	
Date received by WRLFMD: 22/05/2008	Topotype: Northwest Zimbabwe (NWZ)
Date received for sequencing: 16/06/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: KEN06-14.SEQ
Material used: BHK1 BTy1	Date sequence last updated: 02/08/2008
Region sequenced: VP1	Total no. of comparisons: 296
RT-PCR primers: SAT1-1C559F/SAT-2B208R;	Min. no. of nt for comparison: 300
SAT1U-OS/SAT-2B208R	Total turn-around time: 75 days
No. of Nt determined: 663	Sequencing time: 50 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/KEN/32/2005	KEN05-32	663	656	0	98.94	1.06
2	SAT1/KEN/5/2006	KEN06-05	663	656	0	98.94	1.06
3	SAT1/KEN/17/2005	KEN05-17	663	648	0	97.74	2.26
4	SAT1/KEN/13/2005	KEN05-13	663	647	0	97.59	2.41
5	SAT1/KEN/19/2005	KEN05-19	663	647	0	97.59	2.41
6	SAT1/KEN/31/2005	KEN05-31	663	647	0	97.59	2.41
7	SAT1/KEN/18/2005	KEN05-18	663	646	0	97.44	2.56
8	SAT1/KEN/16/2005	KEN05-16	663	645	0	97.29	2.71
9	SAT1/KEN/9/2006	KEN06-09	663	645	0	97.29	2.71
10	SAT1/KEN/10/2006	KEN06-10	663	643	0	96.98	3.02

#### 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	592	0	89.29	10.71
2	SAT1/RV/11/37 (AY593839)	RHO37-11	663	507	0	76.47	23.53
3	SAT1/SAR/9/81	SAR81-09	629	478	11	75.99	24.01
4	SAT1/RHO/5/66 (AY593846)	RHO66-05	663	502	0	75.72	24.28
5	SAT1/SR/2/58	ZIM58-02	663	499	0	75.26	24.74
6	SAT1/SA/13/61 (AY593842)	SAR61-13	663	497	0	74.96	25.04
7	SAT1/SWA/40/61	SWA61-40	663	494	0	74.51	25.49
8	SAT1/BOT/1/68 (Z98203)	BOT68-B1	663	490	0	73.91	26.09
9	SAT1/BEC/1/48 (AY593838)	BEC48-01	663	482	0	72.7	27.3
10	SAT1/ISR/4/62 (AY593844)	ISR62-04	663	459	0	69.23	30.77

nt, nucleotides

\*, not a WRLFMD reference number

# Report on FMDV SAT 1 from Kenya in 2006

Software: MEGA 4.0  
 No. of Taxa : 112  
 Data File : n:\evd\meg\db\fmdv\sat1\KEN2006c.meg  
 Data Title : SAT 1 Kenya 2006  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 ->Method : Neighbor-Joining  
 ->Phylogeny Test and options : Bootstrap (1000 replicates; seed=64238)  
 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, K. Ebert & J. Wadsworth,  
 5 August 2008

