

Serotype: SAT2	Report date: 01/12/2008
WRL Ref No: BOT/16/2008	Reported by: N.J. Knowles
Sender Ref: BOT 24/08	Checked by: D.P. King
Date collected: 04/10/2008	
Date received by WRLFMD: 12/11/2008	Topotype: none defined
Date received for sequencing: 21/11/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: BOT08-16.SEQ
Material used: BTy3	Date sequence last updated: 30/11/2008
Region sequenced: VP1	Total no. of comparisons: 444
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R; SAT2-1C445F/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 19 days
No. of ambiguities: 0	Sequencing time: 10 days
Gene length: 648	

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/BOT/18/2008	BOT08-18	648	647	0	99.85	0.15
2	SAT2/BOT/10/2008	BOT08-10	648	643	0	99.23	0.77
3	SAT2/BOT/2/2007	BOT07-02	648	643	0	99.23	0.77
4	SAT2/BOT/3/2007	BOT07-03	648	643	0	99.23	0.77
5	SAT2/BOT/5/2007	BOT07-05	648	643	0	99.23	0.77
6	SAT2/BOT/11/2008	BOT08-11	648	642	0	99.07	0.93
7	SAT2/BOT/6/2007	BOT07-06	648	642	0	99.07	0.93
8	SAT2/BOT/7/2008	BOT08-07	648	642	0	99.07	0.93
9	SAT2/BOT/8/2008	BOT08-08	648	642	0	99.07	0.93
10	SAT2/BOT/9/2008	BOT08-09	648	642	0	99.07	0.93

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	530	0	81.79	18.21
2	SAT2/K183/74 (Kenya)	KEN74183	648	503	0	77.62	22.38
3	SAT2/K52/84 (Kenya)	KEN84K52	648	503	0	77.62	22.38
4	SAT2/SA/106/59 (AY593848)	RSA59--A	648	500	0	77.16	22.84
5	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	483	0	74.54	25.46
6	SAT2/GHA/2/90 (AF479415)	GHA90A02	648	476	0	73.46	26.54
7	SAT2/KEN/3/57	KEN57-03	648	466	0	71.91	28.09
8	SAT2/ANG/4/74 [AF479417]	ANG74-04	648	460	0	70.99	29.01
9	SAT2/SAU/6/2000 [AF367135]	SAU00A06	647	457	1	70.63	29.37
10	SAT2/GAM/8/79 [AF479410]	GAM79-08	648	452	0	69.75	30.25

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2	Report date: 21/11/2008
WRL Ref No: BOT/18/2008	Reported by: N.J. Knowles
Sender Ref: BOT 26/08	Checked by: D.P. King
Date collected: 04/10/2008	
Date received by WRLFMD: 12/11/2008	Topotype: none defined
Date received for sequencing: 18/11/2008	Genotype/strain: none designated
Species: Cattle	Sequence filename: BOT08-18.SEQ
Material used: BTy1	Date sequence last updated: 21/11/2008
Region sequenced: VP1	Total no. of comparisons: 443
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R; SAT2-1C445F/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 9 days
No. of ambiguities: 0	Sequencing time: 3 days
Gene length: 648	

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/BOT/10/2008	BOT08-10	648	644	0	99.38	0.62
2	SAT2/BOT/2/2007	BOT07-02	648	644	0	99.38	0.62
3	SAT2/BOT/3/2007	BOT07-03	648	644	0	99.38	0.62
4	SAT2/BOT/5/2007	BOT07-05	648	644	0	99.38	0.62
5	SAT2/BOT/11/2008	BOT08-11	648	643	0	99.23	0.77
6	SAT2/BOT/6/2007	BOT07-06	648	643	0	99.23	0.77
7	SAT2/BOT/7/2008	BOT08-07	648	643	0	99.23	0.77
8	SAT2/BOT/8/2008	BOT08-08	648	643	0	99.23	0.77
9	SAT2/BOT/9/2008	BOT08-09	648	643	0	99.23	0.77
10	SAT2/BOT/6/2008	BOT08-06	648	642	0	99.07	0.93

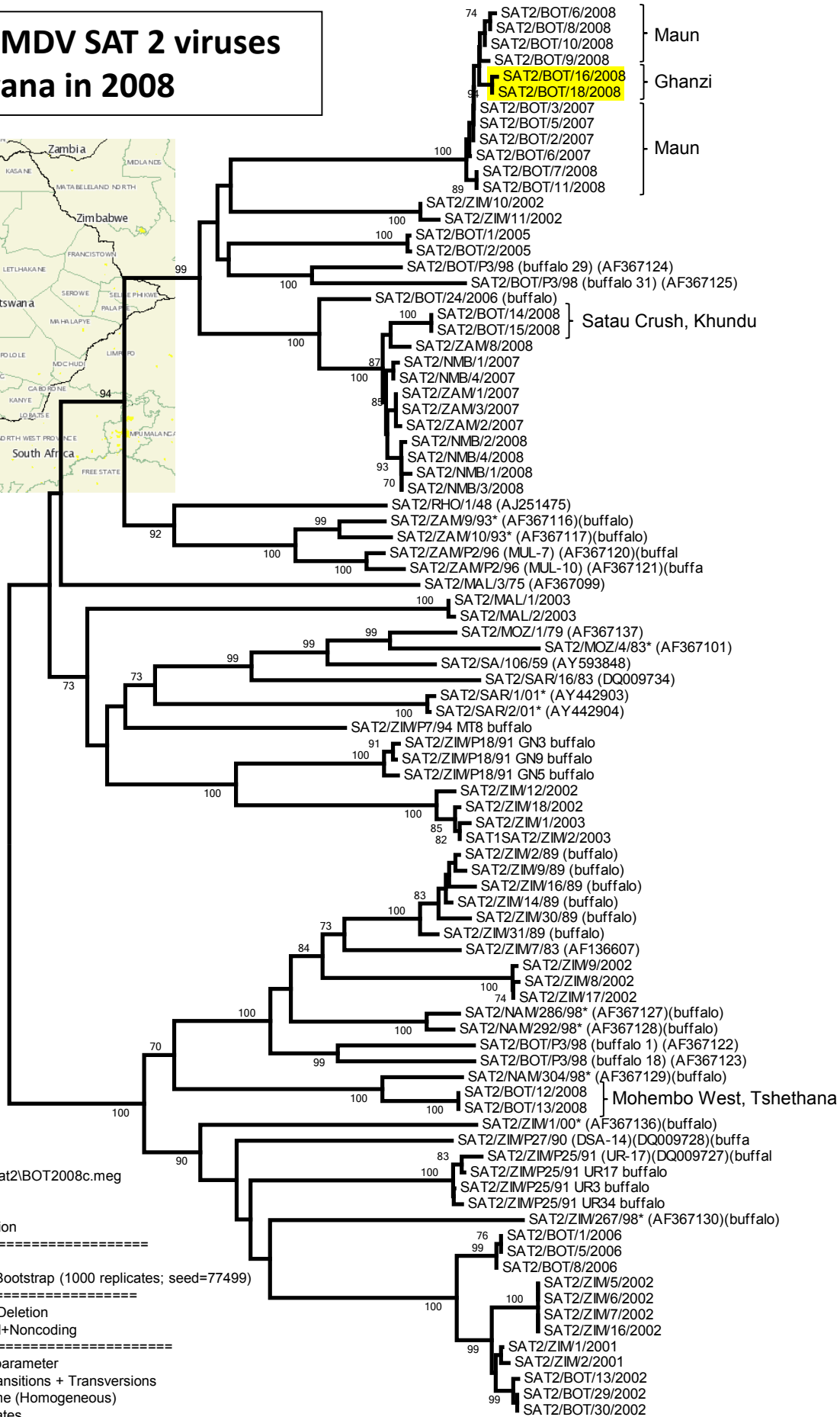
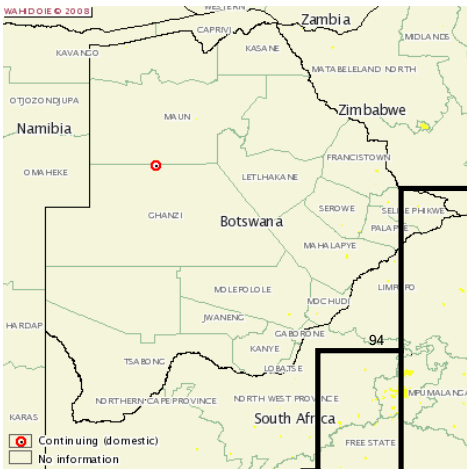
Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	531	0	81.94	18.06
2	SAT2/K183/74 (Kenya)	KEN74183	648	504	0	77.78	22.22
3	SAT2/K52/84 (Kenya)	KEN84K52	648	504	0	77.78	22.22
4	SAT2/SA/106/59 (AY593848)	RSA59--A	648	501	0	77.31	22.69
5	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	484	0	74.69	25.31
6	SAT2/GHA/2/90 (AF479415)	GHA90A02	648	477	0	73.61	26.39
7	SAT2/KEN/3/57	KEN57-03	648	467	0	72.07	27.93
8	SAT2/ANG/4/74 [AF479417]	ANG74-04	648	461	0	71.14	28.86
9	SAT2/SAU/6/2000 [AF367135]	SAU00A06	647	458	1	70.79	29.21
10	SAT2/GAM/8/79 [AF479410]	GAM79-08	648	453	0	69.91	30.09

nt, nucleotides

*, not a WRLFMD reference number

Report on FMDV SAT 2 viruses from Botswana in 2008



No. of Taxa : 89

Data File : n:\evd\meg\db\fmdv\sat2\BOT2008c.meg

Data Title : Botswana 2008

Data Type : Nucleotide (Coding)

Analysis : Phylogeny reconstruction

Tree Inference : =====

->Method : Neighbor-Joining

->Phylogeny Test and options : Bootstrap (1000 replicates; seed=77499)

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 : 648

No Of Bootstrap Reps = 1000

0.05

N.J. Knowles, K. Ebert & J. Wadsworth, 01 December 2008