

Serotype: SAT2	Report date: 26/05/2006						
WRL Ref No: BOT/1/2006							
Sender Ref: TSHUMO #3							
Date collected: 25/04/2006							
Date received by WRLFMD: 11/05/2006	Topotype: none defined						
Date received for sequencing: 18/05/2006	Genotype/strain: none designated						
Species: Cattle	Sequence filename: BOT06-01.SEQ						
Material used: BTy1	Date sequence last updated: 25/05/2006						
Region sequenced: VP1	Total no. of comparisons: 337						
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 300						
No. of Nt determined: 648	Total turn-around time: 15 days						
No. of ambiguities: 0	Sequencing time: 8 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/5/2006	BOT06-05	648	648	0	100	0
2	SAT2/BOT/8/2006	BOT06-08	648	647	0	99.85	0.15
3	SAT2/ZIM/1/2001 [OVI]	ZIM01A01	384	372	0	96.88	3.13
4	SAT2/ZIM/1/2001	ZIM01-01	648	627	0	96.76	3.24
5	SAT2/BOT/30/2002	BOT02-30	648	627	0	96.76	3.24
6	SAT2/BOT/29/2002	BOT02-29	648	627	0	96.76	3.24
7	SAT2/BOT/13/2002	BOT02-13	647	626	1	96.75	3.25
8	SAT2/BOT/11/2002	BOT02-11	384	371	0	96.61	3.39
9	SAT2/ZIM/2/2001	ZIM01-02	648	625	0	96.45	3.55
10	SAT2/BOT/8/2002	BOT02-08	418	403	0	96.41	3.59
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/ZIM/9/89	ZIM89-09	218	179	1	82.11	17.89
2	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	527	0	81.33	18.67
3	SAT2/K65/82 (Kenya)	KEN82K65	648	488	0	75.31	24.69
4	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	149	6	75.25	24.75
5	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	487	0	75.15	24.85
6	SAT2/K183/74 (Kenya)	KEN74183	648	486	0	75	25
7	SAT2/SA/106/59 [AY593848]	RSA59--A	648	484	0	74.69	25.31
8	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	473	0	72.99	27.01
9	SAT2/K52/84 (A)	KEN84-AA	648	467	0	72.07	27.93
10	SAT2/KEN/3/57	KEN57-03	648	465	0	71.76	28.24
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: SAT2 Report date: 26/05/2006
WRL Ref No: BOT/5/2006
Sender Ref: KHUNWANA 4
Date collected: 25/04/2006
Date received by WRLFMD: 11/05/2006 Topotype: none defined
Date received for sequencing: 18/05/2006 Genotype/strain: none designated
Species: Cattle Sequence filename: BOT06-05.SEQ
Material used: BTy1 Date sequence last updated: 25/05/2006
Region sequenced: VP1 Total no. of comparisons: 337
RT-PCR primers: SAT2-1C445F/SAT-2B208R Min. no. of nt for comparison: 300
No. of Nt determined: 648 Total turn-around time: 15 days
No. of ambiguities: 0 Sequencing time: 8 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/1/2006	BOT06-01	648	648	0	100	0
2	SAT2/BOT/8/2006	BOT06-08	648	647	0	99.85	0.15
3	SAT2/ZIM/1/2001 [OVI]	ZIM01A01	384	372	0	96.88	3.13
4	SAT2/ZIM/1/2001	ZIM01-01	648	627	0	96.76	3.24
5	SAT2/BOT/30/2002	BOT02-30	648	627	0	96.76	3.24
6	SAT2/BOT/29/2002	BOT02-29	648	627	0	96.76	3.24
7	SAT2/BOT/13/2002	BOT02-13	647	626	1	96.75	3.25
8	SAT2/BOT/11/2002	BOT02-11	384	371	0	96.61	3.39
9	SAT2/ZIM/2/2001	ZIM01-02	648	625	0	96.45	3.55
10	SAT2/BOT/8/2002	BOT02-08	418	403	0	96.41	3.59

Relationships to Reference Virus Strains

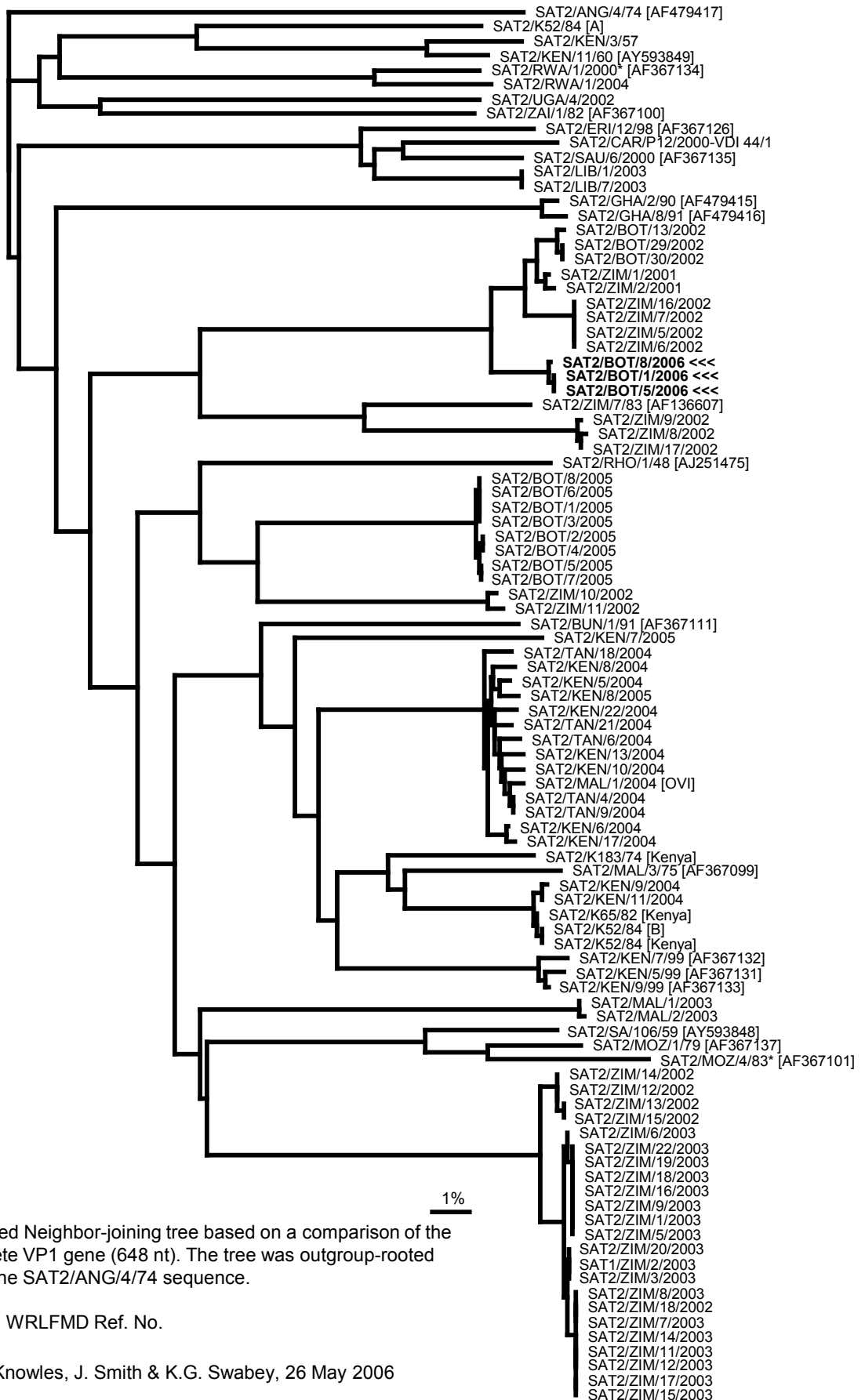
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/ZIM/9/89	ZIM89-09	218	179	1	82.11	17.89
2	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	527	0	81.33	18.67
3	SAT2/K65/82 (Kenya)	KEN82K65	648	488	0	75.31	24.69
4	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	149	6	75.25	24.75
5	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	487	0	75.15	24.85
6	SAT2/K183/74 (Kenya)	KEN74183	648	486	0	75	25
7	SAT2/SA/106/59 [AY593848]	RSA59--A	648	484	0	74.69	25.31
8	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	473	0	72.99	27.01
9	SAT2/K52/84 (A)	KEN84-AA	648	467	0	72.07	27.93
10	SAT2/KEN/3/57	KEN57-03	648	465	0	71.76	28.24

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2	Report date: 26/05/2006						
WRL Ref No: BOT/8/2006							
Sender Ref: TSHUMO							
Date collected: 29/04/2006	Topotype: none defined						
Date received by WRLFMD: 11/05/2006	Genotype/strain: none designated						
Date received for sequencing: 18/05/2006	Sequence filename: BOT06-08.SEQ						
Species: Cattle	Date sequence last updated: 25/05/2006						
Material used: BTy1	Total no. of comparisons: 337						
Region sequenced: VP1	Min. no. of nt for comparison: 300						
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total turn-around time: 15 days						
No. of Nt determined: 648	Sequencing time: 8 days						
No. of ambiguities: 0							
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/1/2006	BOT06-01	648	647	0	99.85	0.15
2	SAT2/BOT/5/2006	BOT06-05	648	647	0	99.85	0.15
3	SAT2/ZIM/1/2001 [OVI]	ZIM01A01	384	373	0	97.14	2.86
4	SAT2/ZIM/1/2001	ZIM01-01	648	628	0	96.91	3.09
5	SAT2/BOT/30/2002	BOT02-30	648	628	0	96.91	3.09
6	SAT2/BOT/29/2002	BOT02-29	648	628	0	96.91	3.09
7	SAT2/BOT/13/2002	BOT02-13	647	627	1	96.91	3.09
8	SAT2/BOT/11/2002	BOT02-11	384	372	0	96.88	3.13
9	SAT2/BOT/8/2002	BOT02-08	418	404	0	96.65	3.35
10	SAT2/ZIM/2/2001	ZIM01-02	648	626	0	96.6	3.4
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/ZIM/9/89	ZIM89-09	218	180	1	82.57	17.43
2	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	528	0	81.48	18.52
3	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	150	6	75.76	24.24
4	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	488	0	75.31	24.69
5	SAT2/K65/82 (Kenya)	KEN82K65	648	487	0	75.15	24.85
6	SAT2/K183/74 (Kenya)	KEN74183	648	487	0	75.15	24.85
7	SAT2/SA/106/59 [AY593848]	RSA59--A	648	483	0	74.54	25.46
8	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	472	0	72.84	27.16
9	SAT2/K52/84 (A)	KEN84-AA	648	466	0	71.91	28.09
10	SAT2/KEN/3/57	KEN57-03	648	464	0	71.6	28.4
nt, nucleotides							
*, not a WRLFMD reference number							

Report on FMDV SAT 2 isolates from Botswana in 2006



Unrooted Neighbor-joining tree based on a comparison of the complete VP1 gene (648 nt). The tree was outgroup-rooted using the SAT2/ANG/4/74 sequence.

* , not a WRLFMD Ref. No.