

Serotype: SAT1		Report date: 15/11/2004					
WRL Ref No: MAL/2/2000							
Date collected: 01/04/2000							
Date received: 17/05/2004							
Species: Bovine		Topotype: Northwest Zimbabwe (NWZ)					
Material used: IRPI2 BTY1		Genotype/strain: none designated					
Region sequenced: VP1		Sequence filename: MAL00-02.SEQ					
RT-PCR primers: SAT1U-OS/SAT-2B208R		Date sequence last updated: 10/11/2004					
No. of Nt determined: 663		Total no. of comparisons: 209					
No. of ambiguities: 0		Min. no. of nt for comparison: 300					
Gene length: 663							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/MAL/3/2000	MAL00-03	663	663	0	100	0
2	SAT1/MAL/4/2000	MAL00-04	663	662	0	99.85	0.15
3	SAT1/ZAM/3/2000	ZAM00-03	663	661	0	99.7	0.3
4	SAT1/MAL/1/2001	MAL01-01	663	659	0	99.4	0.6
5	SAT1/MAL/2/2001	MAL01-02	663	656	0	98.94	1.06
6	SAT1/TAN/25/99	TAN99-25	315	278	16	88.25	11.75
7	SAT1/ZAM/5/2004	ZAM04-05	661	570	2	86.23	13.77
8	SAT1/ZAM/16/2004	ZAM04-16	663	571	0	86.12	13.88
9	SAT1/ZAM/14/2004	ZAM04-14	662	570	1	86.1	13.9
10	SAT1/ZAM/7/2004	ZAM04-07	662	570	1	86.1	13.9
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/SAR/9/81	SAR81-09	629	486	11	77.27	22.73
2	SAT1/RV/11/37 AY593839	RHO37-11	663	509	0	76.77	23.23
3	SAT1/RHO/5/66 AY593846	RHO66-05	663	505	0	76.17	23.83
4	SAT1/SWA/40/61 AY593843	SWA61-40	663	500	0	75.41	24.59
5	SAT1/SA/13/61 AY593842	SAR61-13	663	496	0	74.81	25.19
6	SAT1/BOT/1/68 Z98203	BOT68-B1	663	493	0	74.36	25.64
7	SAT1/SWA/1/49 AY593840	SWA49-01	663	493	0	74.36	25.64
8	SAT1/SA/2/58 AY593841	SAR58-02	663	492	0	74.21	25.79
9	SAT1/BEC/1/48 AY593838	BEC48-01	663	480	0	72.4	27.6
10	SAT1/ISR/4/62 AY593844	ISR62-04	663	465	0	70.14	29.86
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: SAT1	Report date: 15/11/2004
WRL Ref No: MAL/3/2000	
Date collected: 01/04/2000	
Date received: 17/05/2004	Topotype: Northwest Zimbabwe (NWZ)
Species: Bovine	Genotype/strain: none designated
Material used: IRPI2 BTY1	Sequence filename: MAL00-03.SEQ
Region sequenced: VP1	Date sequence last updated: 10/11/2004
RT-PCR primers: SAT1-P1-1228F/SAT-2B208R; SAT1U-OS/SAT-2B208R	Total no. of comparisons: 209
No. of Nt determined: 663	Min. no. of nt for comparison: 300
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/MAL/2/2000	MAL00-02	663	663	0	100	0
2	SAT1/MAL/4/2000	MAL00-04	663	662	0	99.85	0.15
3	SAT1/ZAM/3/2000	ZAM00-03	663	661	0	99.7	0.3
4	SAT1/MAL/1/2001	MAL01-01	663	659	0	99.4	0.6
5	SAT1/MAL/2/2001	MAL01-02	663	656	0	98.94	1.06
6	SAT1/TAN/25/99	TAN99-25	315	278	16	88.25	11.75
7	SAT1/ZAM/5/2004	ZAM04-05	661	570	2	86.23	13.77
8	SAT1/ZAM/16/2004	ZAM04-16	663	571	0	86.12	13.88
9	SAT1/ZAM/14/2004	ZAM04-14	662	570	1	86.1	13.9
10	SAT1/ZAM/7/2004	ZAM04-07	662	570	1	86.1	13.9

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/SAR/9/81	SAR81-09	629	486	11	77.27	22.73
2	SAT1/RV/11/37 AY593839	RHO37-11	663	509	0	76.77	23.23
3	SAT1/RHO/5/66 AY593846	RHO66-05	663	505	0	76.17	23.83
4	SAT1/SWA/40/61 AY593843	SWA61-40	663	500	0	75.41	24.59
5	SAT1/SA/13/61 AY593842	SAR61-13	663	496	0	74.81	25.19
6	SAT1/BOT/1/68 Z98203	BOT68-B1	663	493	0	74.36	25.64
7	SAT1/SWA/1/49 AY593840	SWA49-01	663	493	0	74.36	25.64
8	SAT1/SA/2/58 AY593841	SAR58-02	663	492	0	74.21	25.79
9	SAT1/BEC/1/48 AY593838	BEC48-01	663	480	0	72.4	27.6
10	SAT1/ISR/4/62 AY593844	ISR62-04	663	465	0	70.14	29.86

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: SAT1	Report date: 15/11/2004
WRL Ref No: MAL/4/2000	
Date collected: 01/04/2000	
Date received: 17/05/2004	Topotype: Northwest Zimbabwe (NWZ)
Species: Bovine	Genotype/strain: none designated
Material used: IRPI2 BTY1	Sequence filename: MAL00-04.SEQ
Region sequenced: VP1	Date sequence last updated: 10/11/2004
RT-PCR primers: SAT1-P1-1228F/SAT-2B208R; SAT1U-OS/SAT-2B208R	Total no. of comparisons: 209
No. of Nt determined: 663	Min. no. of nt for comparison: 300
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/MAL/3/2000	MAL00-03	663	662	0	99.85	0.15
2	SAT1/MAL/2/2000	MAL00-02	663	662	0	99.85	0.15
3	SAT1/ZAM/3/2000	ZAM00-03	663	660	0	99.55	0.45
4	SAT1/MAL/1/2001	MAL01-01	663	658	0	99.25	0.75
5	SAT1/MAL/2/2001	MAL01-02	663	655	0	98.79	1.21
6	SAT1/TAN/25/99	TAN99-25	315	279	16	88.57	11.43
7	SAT1/ZAM/5/2004	ZAM04-05	661	571	2	86.38	13.62
8	SAT1/ZAM/16/2004	ZAM04-16	663	572	0	86.27	13.73
9	SAT1/ZAM/14/2004	ZAM04-14	662	571	1	86.25	13.75
10	SAT1/ZAM/7/2004	ZAM04-07	662	571	1	86.25	13.75

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/SAR/9/81	SAR81-09	629	486	11	77.27	22.73
2	SAT1/RV/11/37 AY593839	RHO37-11	663	510	0	76.92	23.08
3	SAT1/RHO/5/66 AY593846	RHO66-05	663	506	0	76.32	23.68
4	SAT1/SWA/40/61 AY593843	SWA61-40	663	501	0	75.57	24.43
5	SAT1/SA/13/61 AY593842	SAR61-13	663	495	0	74.66	25.34
6	SAT1/BOT/1/68 Z98203	BOT68-B1	663	494	0	74.51	25.49
7	SAT1/SA/2/58 AY593841	SAR58-02	663	493	0	74.36	25.64
8	SAT1/SWA/1/49 AY593840	SWA49-01	663	492	0	74.21	25.79
9	SAT1/BEC/1/48 AY593838	BEC48-01	663	479	0	72.25	27.75
10	SAT1/ISR/4/62 AY593844	ISR62-04	663	464	0	69.98	30.02

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: SAT1	Report date: 15/11/2004						
WRL Ref No: MAL/1/2001							
Date collected: 13/02/2001							
Date received: 17/05/2004							
Species: Bovine	Topotype: Northwest Zimbabwe (NWZ)						
Material used: IRPI2 BTY1	Genotype/strain: none designated						
Region sequenced: VP1	Sequence filename: MAL01-01.SEQ						
RT-PCR primers: SAT1U-OS/SAT-2B208R	Date sequence last updated: 26/08/2004						
No. of Nt determined: 663	Total no. of comparisons: 209						
No. of ambiguities: 0	Min. no. of nt for comparison: 300						
Gene length: 663							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/MAL/2/2001	MAL01-02	663	660	0	99.55	0.45
2	SAT1/MAL/3/2000	MAL00-03	663	659	0	99.4	0.6
3	SAT1/MAL/2/2000	MAL00-02	663	659	0	99.4	0.6
4	SAT1/MAL/4/2000	MAL00-04	663	658	0	99.25	0.75
5	SAT1/ZAM/3/2000	ZAM00-03	663	657	0	99.1	0.9
6	SAT1/TAN/25/99	TAN99-25	315	277	16	87.94	12.06
7	SAT1/ZAM/5/2004	ZAM04-05	661	566	2	85.63	14.37
8	SAT1/ZAM/16/2004	ZAM04-16	663	567	0	85.52	14.48
9	SAT1/ZAM/14/2004	ZAM04-14	662	566	1	85.5	14.5
10	SAT1/ZAM/7/2004	ZAM04-07	662	566	1	85.5	14.5
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/SAR/9/81	SAR81-09	629	484	11	76.95	23.05
2	SAT1/RV/11/37 AY593839	RHO37-11	663	505	0	76.17	23.83
3	SAT1/RHO/5/66 AY593846	RHO66-05	663	501	0	75.57	24.43
4	SAT1/SWA/40/61 AY593843	SWA61-40	663	496	0	74.81	25.19
5	SAT1/SA/13/61 AY593842	SAR61-13	663	494	0	74.51	25.49
6	SAT1/BOT/1/68 Z98203	BOT68-B1	663	493	0	74.36	25.64
7	SAT1/SWA/1/49 AY593840	SWA49-01	663	490	0	73.91	26.09
8	SAT1/SA/2/58 AY593841	SAR58-02	663	488	0	73.6	26.4
9	SAT1/BEC/1/48 AY593838	BEC48-01	663	476	0	71.79	28.21
10	SAT1/ISR/4/62 AY593844	ISR62-04	663	464	0	69.98	30.02
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: SAT1	Report date: 15/11/2004
WRL Ref No: MAL/2/2001	
Date collected: 13/02/2001	
Date received: 17/05/2004	
Species: Bovine	Topotype: Northwest Zimbabwe (NWZ)
Material used: IRPI2 BTY1	Genotype/strain: none designated
Region sequenced: VP1	Sequence filename: MAL01-02.SEQ
RT-PCR primers: SAT1U-OS/SAT-2B208R	Date sequence last updated: 26/08/2004
No. of Nt determined: 663	Total no. of comparisons: 209
No. of ambiguities: 0	Min. no. of nt for comparison: 300
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/MAL/1/2001	MAL01-01	663	660	0	99.55	0.45
2	SAT1/ZAM/3/2000	ZAM00-03	663	656	0	98.94	1.06
3	SAT1/MAL/2/2000	MAL00-02	663	656	0	98.94	1.06
4	SAT1/MAL/3/2000	MAL00-03	663	656	0	98.94	1.06
5	SAT1/MAL/4/2000	MAL00-04	663	655	0	98.79	1.21
6	SAT1/TAN/25/99	TAN99-25	315	276	16	87.62	12.38
7	SAT1/ZAM/5/2004	ZAM04-05	661	563	2	85.17	14.83
8	SAT1/ZAM/16/2004	ZAM04-16	663	564	0	85.07	14.93
9	SAT1/ZAM/14/2004	ZAM04-14	662	563	1	85.05	14.95
10	SAT1/ZAM/7/2004	ZAM04-07	662	563	1	85.05	14.95

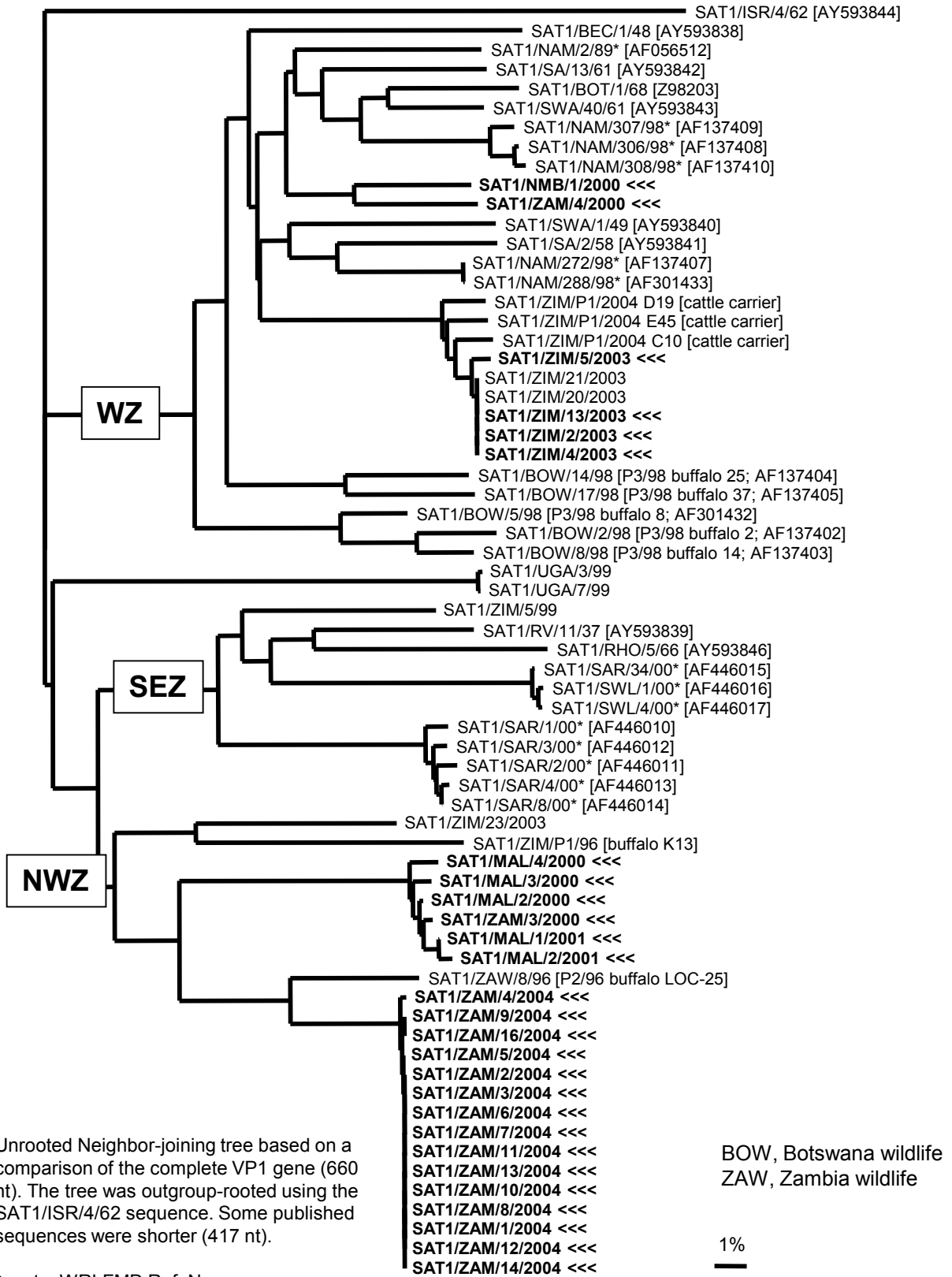
### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT1/SAR/9/81	SAR81-09	629	481	11	76.47	23.53
2	SAT1/RV/11/37 AY593839	RHO37-11	663	502	0	75.72	24.28
3	SAT1/RHO/5/66 AY593846	RHO66-05	663	498	0	75.11	24.89
4	SAT1/SWA/40/61 AY593843	SWA61-40	663	494	0	74.51	25.49
5	SAT1/SA/13/61 AY593842	SAR61-13	663	492	0	74.21	25.79
6	SAT1/BOT/1/68 Z98203	BOT68-B1	663	491	0	74.06	25.94
7	SAT1/SWA/1/49 AY593840	SWA49-01	663	488	0	73.6	26.4
8	SAT1/SA/2/58 AY593841	SAR58-02	663	487	0	73.45	26.55
9	SAT1/BEC/1/48 AY593838	BEC48-01	663	474	0	71.49	28.51
10	SAT1/ISR/4/62 AY593844	ISR62-04	663	464	0	69.98	30.02

nt, nucleotides

\*, not a WRLFMD reference number

# Report on FMDV SAT 1 isolates received from the Botswana Vaccine Institute during 2004



\* , not a WRLFMD Ref. No.