

Serotype: SAT2	Report date: 14/05/2006
WRL Ref No: KEN/13/2004	
Sender Ref: K12/2004	
Date collected: 13/01/2004	
Date received by WRLFMD: 24/01/2006	Topotype: none defined
Date received for sequencing: 08/02/2006	Genotype/strain: none designated
Species: Cattle	Sequence filename: KEN04-13.SEQ
Material used: BTy2	Date sequence last updated: 14/05/2006
Region sequenced: VP1	Total no. of comparisons: 334
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R; SAT2VP3-AB/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 110 days
No. of ambiguities: 0	Sequencing time: 95 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/TAN/4/2004	TAN04-04	648	643	0	99.23	0.77
2	SAT2/TAN/9/2004	TAN04-09	648	643	0	99.23	0.77
3	SAT2/KEN/5/2004	KEN04-05	648	642	0	99.07	0.93
4	SAT2/KEN/8/2005	KEN05-08	648	641	0	98.92	1.08
5	SAT2/TAN/6/2004	TAN04-06	648	640	0	98.77	1.23
6	SAT2/KEN/8/2004	KEN04-08	648	640	0	98.77	1.23
7	SAT2/KEN/10/2004	KEN04-10	648	640	0	98.77	1.23
8	SAT2/TAN/21/2004	TAN04-21	648	640	0	98.77	1.23
9	SAT2/MAL/1/2004 (OVI)	MAL04-01	384	379	0	98.7	1.3
10	SAT2/KEN/17/2004	KEN04-17	648	639	0	98.61	1.39

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/K65/82 (Kenya)	KEN82K65	648	570	0	87.96	12.04
2	SAT2/K183/74 (Kenya)	KEN74183	648	569	0	87.81	12.19
3	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	513	0	79.17	20.83
4	SAT2/RSA/106/59 [AY593848]	RSA59--A	648	511	0	78.86	21.14
5	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	151	6	76.26	23.74
6	SAT2/ZIM/9/89	ZIM89-09	218	166	1	76.15	23.85
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	485	0	74.85	25.15
8	SAT2/K52/84 (A)	KEN84-AA	648	461	0	71.14	28.86
9	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	455	0	70.22	29.78
10	SAT2/KEN/3/57	KEN57-03	648	453	0	69.91	30.09

nt, nucleotides
*, not a WRLFMD reference number

Serotype: SAT2

Report date: 14/05/2006

WRL Ref No: KEN/17/2004

Sender Ref: K68/2004

Date collected: 16/03/2004

Date received by WRLFMD: 24/01/2006

Topotype: none defined

Date received for sequencing: 08/02/2006

Genotype/strain: none designated

Species: Cattle

Sequence filename: KEN04-17.SEQ

Material used: BTy1

Date sequence last updated: 11/05/2006

Region sequenced: VP1

Total no. of comparisons: 334

RT-PCR primers: SAT2-P1-1223F/SAT-2B208R;

Min. no. of nt for comparison: 300

SAT2VP3-AB/SAT-2B208R

Total turn-around time: 110 days

No. of Nt determined: 648

Sequencing time: 95 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/KEN/6/2004	KEN04-06	648	646	0	99.69	0.31
2	SAT2/KEN/5/2004	KEN04-05	648	641	0	98.92	1.08
3	SAT2/TAN/9/2004	TAN04-09	648	640	0	98.77	1.23
4	SAT2/TAN/4/2004	TAN04-04	648	640	0	98.77	1.23
5	SAT2/KEN/8/2004	KEN04-08	648	639	0	98.61	1.39
6	SAT2/TAN/21/2004	TAN04-21	648	639	0	98.61	1.39
7	SAT2/KEN/13/2004	KEN04-13	648	639	0	98.61	1.39
8	SAT2/KEN/8/2005	KEN05-08	648	638	0	98.46	1.54
9	SAT2/KEN/22/2004	KEN04-22	648	638	0	98.46	1.54
10	SAT2/MAL/1/2004 (OVI)	MAL04-01	384	378	0	98.44	1.56

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/K65/82 (Kenya)	KEN82K65	648	571	0	88.12	11.88
2	SAT2/K183/74 (Kenya)	KEN74183	648	570	0	87.96	12.04
3	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	519	0	80.09	19.91
4	SAT2/RSA/106/59 [AY593848]	RSA59--A	648	514	0	79.32	20.68
5	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	153	6	77.27	22.73
6	SAT2/ZIM/9/89	ZIM89-09	218	167	1	76.61	23.39
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	486	0	75	25
8	SAT2/K52/84 (A)	KEN84-AA	648	463	0	71.45	28.55
9	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	456	0	70.37	29.63
10	SAT2/KEN/3/57	KEN57-03	648	450	0	69.44	30.56

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2

Report date: 14/05/2006

WRL Ref No: KEN/22/2004

Sender Ref: K113/2004

Date collected: 18/06/2004

Date received by WRLFMD: 24/01/2006

Topotype: none defined

Date received for sequencing: 08/02/2006

Genotype/strain: none designated

Species: Cattle

Sequence filename: KEN04-22.SEQ

Material used: BTy1

Date sequence last updated: 12/05/2006

Region sequenced: VP1

Total no. of comparisons: 334

RT-PCR primers: SAT2-P1-1223F/SAT-2B208R;

Min. no. of nt for comparison: 300

SAT2VP3-AB/SAT-2B208R

Total turn-around time: 110 days

No. of Nt determined: 648

Sequencing time: 95 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/TAN/4/2004	TAN04-04	648	642	0	99.07	0.93
2	SAT2/TAN/9/2004	TAN04-09	648	642	0	99.07	0.93
3	SAT2/TAN/21/2004	TAN04-21	648	641	0	98.92	1.08
4	SAT2/KEN/5/2004	KEN04-05	648	641	0	98.92	1.08
5	SAT2/MAL/1/2004 (OVI)	MAL04-01	384	379	0	98.7	1.3
6	SAT2/TAN/18/2004	TAN04-18	648	639	0	98.61	1.39
7	SAT2/KEN/8/2004	KEN04-08	648	639	0	98.61	1.39
8	SAT2/KEN/13/2004	KEN04-13	648	639	0	98.61	1.39
9	SAT2/KEN/10/2004	KEN04-10	648	639	0	98.61	1.39
10	SAT2/TAN/6/2004	TAN04-06	648	639	0	98.61	1.39

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/K65/82 (Kenya)	KEN82K65	648	573	0	88.43	11.57
2	SAT2/K183/74 (Kenya)	KEN74183	648	572	0	88.27	11.73
3	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	513	0	79.17	20.83
4	SAT2/RSA/106/59 [AY593848]	RSA59--A	648	511	0	78.86	21.14
5	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	153	6	77.27	22.73
6	SAT2/ZIM/9/89	ZIM89-09	218	168	1	77.06	22.94
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	486	0	75	25
8	SAT2/K52/84 (A)	KEN84-AA	648	463	0	71.45	28.55
9	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	457	0	70.52	29.48
10	SAT2/KEN/3/57	KEN57-03	648	452	0	69.75	30.25

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2

Report date: 14/05/2006

WRL Ref No: KEN/7/2005

Sender Ref: K21/2005

Date collected: 22/03/2005

Date received by WRLFMD: 24/01/2006

Topotype: none defined

Date received for sequencing: 08/02/2006

Genotype/strain: none designated

Species: Cattle

Sequence filename: KEN05-07.SEQ

Material used: BTy1

Date sequence last updated: 12/05/2006

Region sequenced: VP1

Total no. of comparisons: 334

RT-PCR primers: SAT2-P1-1223F/SAT-2B208R;
SAT2VP3-AB/SAT-2B208R

Min. no. of nt for comparison: 300

No. of Nt determined: 648

Total turn-around time: 110 days

No. of ambiguities: 0

Sequencing time: 95 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/MAL/3/75 [AF367099]	MAL75-03	648	578	0	89.2	10.8
2	SAT2/MAL/1/2004 (OVI)	MAL04-01	384	339	0	88.28	11.72
3	SAT2/K183/74 (Kenya)	KEN74183	648	570	0	87.96	12.04
4	SAT2/KEN/11/2004	KEN04-11	648	567	0	87.5	12.5
5	SAT2/KEN/1/84 (K7/84) [AY344505]	KEN84-AB	648	566	0	87.35	12.65
6	SAT2/KEN/9/2004	KEN04-09	648	566	0	87.35	12.65
7	SAT2/K65/82 (Kenya)	KEN82K65	648	566	0	87.35	12.65
8	SAT2/K52/84 (B)	KEN84-BB	648	565	0	87.19	12.81
9	SAT2/K52/84 (Kenya)	KEN84K52	648	565	0	87.19	12.81
10	SAT2/KEN/23/98	KEN98-23	382	333	8	87.17	12.83

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/K183/74 (Kenya)	KEN74183	648	570	0	87.96	12.04
2	SAT2/K65/82 (Kenya)	KEN82K65	648	566	0	87.35	12.65
3	SAT2/RSA/106/59 [AY593848]	RSA59--A	648	524	0	80.86	19.14
4	SAT2/ZIM/9/89	ZIM89-09	218	173	1	79.36	20.64
5	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	512	0	79.01	20.99
6	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	154	6	77.78	22.22
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	493	0	76.08	23.92
8	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	472	0	72.84	27.16
9	SAT2/K52/84 (A)	KEN84-AA	648	468	0	72.22	27.78
10	SAT2/KEN/3/57	KEN57-03	648	467	0	72.07	27.93

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2

Report date: 14/05/2006

WRL Ref No: KEN/8/2005

Sender Ref: K25/2005

Date collected: 19/04/2005

Date received by WRLFMD: 24/01/2006

Topotype: none defined

Date received for sequencing: 08/02/2006

Genotype/strain: none designated

Species: Cattle

Sequence filename: KEN05-08.SEQ

Material used: BTy1

Date sequence last updated: 12/05/2006

Region sequenced: VP1

Total no. of comparisons: 334

RT-PCR primers: SAT2-P1-1223F/SAT-2B208R;

Min. no. of nt for comparison: 300

SAT2VP3-AB/SAT-2B208R

Total turn-around time: 110 days

No. of Nt determined: 648

Sequencing time: 95 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/KEN/5/2004	KEN04-05	648	643	0	99.23	0.77
2	SAT2/KEN/13/2004	KEN04-13	648	641	0	98.92	1.08
3	SAT2/TAN/9/2004	TAN04-09	648	640	0	98.77	1.23
4	SAT2/TAN/4/2004	TAN04-04	648	640	0	98.77	1.23
5	SAT2/MAL/1/2004 (OVI)	MAL04-01	384	379	0	98.7	1.3
6	SAT2/KEN/8/2004	KEN04-08	648	639	0	98.61	1.39
7	SAT2/TAN/21/2004	TAN04-21	648	639	0	98.61	1.39
8	SAT2/KEN/22/2004	KEN04-22	648	638	0	98.46	1.54
9	SAT2/KEN/6/2004	KEN04-06	648	638	0	98.46	1.54
10	SAT2/KEN/17/2004	KEN04-17	648	638	0	98.46	1.54

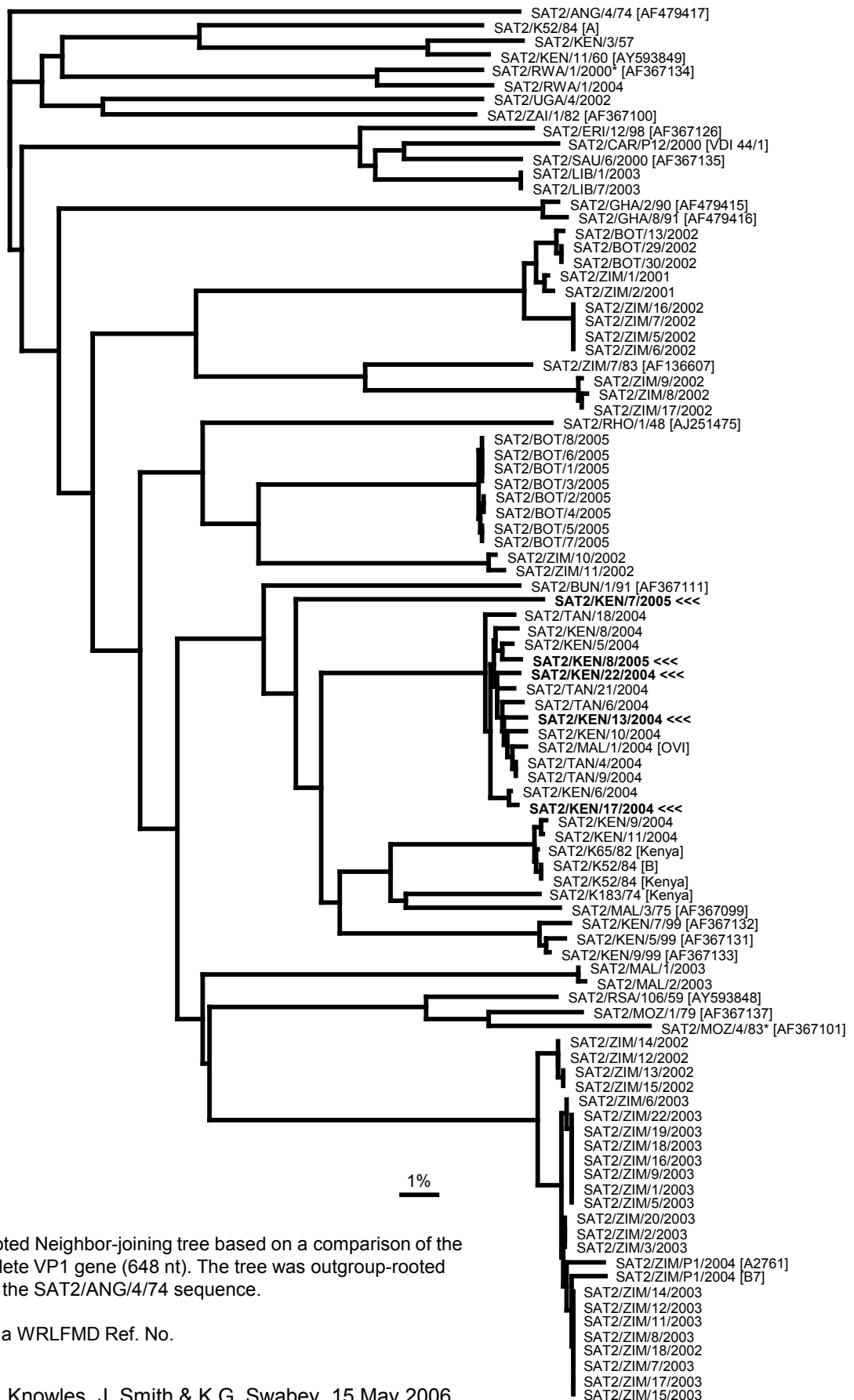
Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/K65/82 (Kenya)	KEN82K65	648	573	0	88.43	11.57
2	SAT2/K183/74 (Kenya)	KEN74183	648	570	0	87.96	12.04
3	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	515	0	79.48	20.52
4	SAT2/RSA/106/59 [AY593848]	RSA59--A	648	510	0	78.7	21.3
5	SAT2/ZIM/9/89	ZIM89-09	218	167	1	76.61	23.39
6	SAT2/ZAM/3/81 (OVI)	ZAM81V03	198	151	6	76.26	23.74
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	488	0	75.31	24.69
8	SAT2/K52/84 (A)	KEN84-AA	648	463	0	71.45	28.55
9	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	457	0	70.52	29.48
10	SAT2/KEN/3/57	KEN57-03	648	453	0	69.91	30.09

nt, nucleotides

*, not a WRLFMD reference number

Report on FMDV SAT 2 isolates from Kenya in 2004-2005



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.