

Serotype: SAT2	Report date: 14/02/2007
WRL Ref No: CAR/1/2005	
Sender Ref: A/NY/01-03	
Date collected: 19/05/2005	
Date received by WRLFMD: 27/10/2005	Topotype: none defined
Date received for sequencing: 01/11/2005	Genotype/strain: none designated
Species: Cattle	Sequence filename: CAR05-01.SEQ
Material used: BTy1	Date sequence last updated: 06/10/2006
Region sequenced: VP1	Total no. of comparisons: 353
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 475 days
No. of ambiguities: 0	Sequencing time: 470 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/LIB/1/2003	LIB03-01	418	386	0	92.34	7.66
2	SAT2/LIB/7/2003	LIB03-07	418	386	0	92.34	7.66
3	SAT2/NGR/15/2005	NGR05-15	648	594	0	91.67	8.33
4	SAT2/SAU/6/2000 [AF367135]	SAU00A06	647	588	1	90.88	9.12
5	SAT2/CAR/P7/2000 (BRO 34/8)	CRC00-10	411	373	7	90.75	9.25
6	SAT2/CAR/P7/2000 (BRO 35/10)	CRC00-03	418	379	0	90.67	9.33
7	SAT2/CAR/P13/2000 (VWM 46/6)	CRC00-18	407	369	10	90.66	9.34
8	SAT2/CAR/P22/2000 (FKE 69/8)	CRC00-19	410	371	8	90.49	9.51
9	SAT2/SAU/9/2000	SAU00-09	333	301	4	90.39	9.61
10	SAT2/CAR/11/2000	CAR00-11	410	369	8	90	10

* not including Cameroon isolates in the same batch.

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	488	0	75.31	24.69
2	SAT2/KEN/3/57	KEN57-03	648	480	0	74.07	25.93
3	SAT2/K52/84 (A)	KEN84-AA	648	478	0	73.77	26.23
4	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	458	0	70.68	29.32
5	SAT2/SA/106/59 [AY593848]	RSA59--A	648	457	0	70.52	29.48
6	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	456	0	70.37	29.63
7	SAT2/K183/74 (Kenya)	KEN74183	648	454	0	70.06	29.94
8	SAT2/K65/82 (Kenya)	KEN82K65	648	454	0	70.06	29.94

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2	Report date: 14/02/2007
WRL Ref No: CAR/31/2005	
Sender Ref: B/BL/08-3	
Date collected: 23/05/2005	
Date received by WRLFMD: 27/10/2005	Topotype: none defined
Date received for sequencing: 09/11/2005	Genotype/strain: none designated
Species: Cattle	Sequence filename: CAR05-31.SEQ
Material used: BTy1	Date sequence last updated: 07/11/2006
Region sequenced: VP1	Total no. of comparisons: 353
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 475 days
No. of ambiguities: 0	Sequencing time: 462 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/LIB/1/2003	LIB03-01	418	386	0	92.34	7.66
2	SAT2/LIB/7/2003	LIB03-07	418	386	0	92.34	7.66
3	SAT2/NGR/15/2005	NGR05-15	648	594	0	91.67	8.33
4	SAT2/SAU/6/2000 [AF367135]	SAU00A06	647	588	1	90.88	9.12
5	SAT2/SAU/9/2000	SAU00-09	333	301	4	90.39	9.61
6	SAT2/CAR/P7/2000 (BRO 34/8)	CRC00-10	411	371	7	90.27	9.73
7	SAT2/CAR/P7/2000 (BRO 35/10)	CRC00-03	418	377	0	90.19	9.81
8	SAT2/CAR/P13/2000 (VWM 46/6)	CRC00-18	407	367	10	90.17	9.83
9	SAT2/CAR/P22/2000 (FKE 69/8)	CRC00-19	410	369	8	90	10
10	SAT2/CAR/P10/2000 (BBO 39/6)	CRC00-11	398	357	20	89.7	10.3

* not including Cameroon isolates in the same batch.

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	490	0	75.62	24.38
2	SAT2/KEN/3/57	KEN57-03	648	482	0	74.38	25.62
3	SAT2/K52/84 (A)	KEN84-AA	648	479	0	73.92	26.08
4	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	461	0	71.14	28.86
5	SAT2/K65/82 (Kenya)	KEN82K65	648	455	0	70.22	29.78
6	SAT2/SA/106/59 [AY593848]	RSA59--A	648	455	0	70.22	29.78
7	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	454	0	70.06	29.94
8	SAT2/K183/74 (Kenya)	KEN74183	648	453	0	69.91	30.09

nt, nucleotides

*, not a WRLFMD reference number

Serotype: SAT2	Report date: 14/02/2007
WRL Ref No: CAR/107/2005	
Sender Ref: D/LK/1-3	
Date collected: 16/06/2005	
Date received by WRLFMD: 27/10/2005	Topotype: none defined
Date received for sequencing: 23/11/2005	Genotype/strain: none designated
Species: Cattle	Sequence filename: CAR05107.SEQ
Material used: BTy1	Date sequence last updated: 11/10/2006
Region sequenced: VP1	Total no. of comparisons: 353
RT-PCR primers: SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 300
No. of Nt determined: 648	Total turn-around time: 475 days
No. of ambiguities: 0	Sequencing time: 448 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/LIB/1/2003	LIB03-01	418	384	0	91.87	8.13
2	SAT2/LIB/7/2003	LIB03-07	418	384	0	91.87	8.13
3	SAT2/NGR/15/2005	NGR05-15	648	595	0	91.82	8.18
4	SAT2/SAU/6/2000 [AF367135]	SAU00A06	647	589	1	91.04	8.96
5	SAT2/SAU/9/2000	SAU00-09	333	302	4	90.69	9.31
6	SAT2/CAR/P7/2000 (BRO 34/8)	CRC00-10	411	371	7	90.27	9.73
7	SAT2/CAR/P7/2000 (BRO 35/10)	CRC00-03	418	377	0	90.19	9.81
8	SAT2/CAR/P13/2000 (VWM 46/6)	CRC00-18	407	367	10	90.17	9.83
9	SAT2/CAR/P22/2000 (FKE 69/8)	CRC00-19	410	369	8	90	10
10	SAT2/SAU/11/2000	SAU00-11	330	297	7	90	10

* not including Cameroon isolates in the same batch.

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	SAT2/KEN/11/60 [AY593849]	KEN60--A	648	488	0	75.31	24.69
2	SAT2/KEN/3/57	KEN57-03	648	480	0	74.07	25.93
3	SAT2/K52/84 (A)	KEN84-AA	648	477	0	73.61	26.39
4	SAT2/RHO/1/48 [AJ251475]	ZAM48A01	648	461	0	71.14	28.86
5	SAT2/SA/106/59 [AY593848]	RSA59--A	648	454	0	70.06	29.94
6	SAT2/K183/74 (Kenya)	KEN74183	648	453	0	69.91	30.09
7	SAT2/K65/82 (Kenya)	KEN82K65	648	453	0	69.91	30.09
8	SAT2/ZIM/7/83 [AF136607]	ZIM83A07	648	453	0	69.91	30.09

nt, nucleotides

*, not a WRLFMD reference number

Report on the Genetic Characterisation of FMD viruses

WRLFMD Batch No.: WRLFMD-2005-00030

Report date: 15/02/2007

Country (code): Cameroon (CAR)

Prepared by: XXXXXXXXXX

Date received: 27/10/2005

Summary of Results

Serotype	WRLFMD Ref. No.	Topotype	Strain
A	CAR/36/2005	AFRICA	None designated
A	CAR/115/2005	AFRICA	None designated
A	CAR/116/2005	AFRICA	None designated
O	CAR/2/2005	WEST AFRICA	None designated
O	CAR/3/2005	WEST AFRICA	None designated
O	CAR/10/2005	WEST AFRICA	None designated
O	CAR/11/2005	WEST AFRICA	None designated
O	CAR/15/2005	WEST AFRICA	None designated
O	CAR/16/2005	WEST AFRICA	None designated
O	CAR/17/2005	WEST AFRICA	None designated
O	CAR/18/2005	WEST AFRICA	None designated
O	CAR/27/2005	WEST AFRICA	None designated
O	CAR/28/2005	WEST AFRICA	None designated
O	CAR/52/2005	WEST AFRICA	None designated
O	CAR/54/2005	WEST AFRICA	None designated
O	CAR/71/2005	WEST AFRICA	None designated
O	CAR/76/2005	WEST AFRICA	None designated
O	CAR/77/2005	WEST AFRICA	None designated
O	CAR/82/2005	WEST AFRICA	None designated
O	CAR/84/2005	WEST AFRICA	None designated
O	CAR/86/2005	WEST AFRICA	None designated
O	CAR/87/2005	WEST AFRICA	None designated
O	CAR/88/2005	WEST AFRICA	None designated
O	CAR/91/2005	WEST AFRICA	None designated
O	CAR/93/2005	WEST AFRICA	None designated
O	CAR/97/2005	WEST AFRICA	None designated
O	CAR/103/2005	WEST AFRICA	None designated
SAT 2	CAR/1/2005	None designated	None designated
SAT 2	CAR/4/2005	None designated	None designated
SAT 2	CAR/5/2005	None designated	None designated
SAT 2	CAR/7/2005	None designated	None designated
SAT 2	CAR/8/2005	None designated	None designated
SAT 2	CAR/9/2005	None designated	None designated
SAT 2	CAR/12/2005	None designated	None designated
SAT 2	CAR/20/2005	None designated	None designated
SAT 2	CAR/24/2005	None designated	None designated
SAT 2	CAR/25/2005	None designated	None designated
SAT 2	CAR/30/2005	None designated	None designated
SAT 2	CAR/31/2005	None designated	None designated
SAT 2	CAR/34/2005	None designated	None designated
SAT 2	CAR/38/2005	None designated	None designated
SAT 2	CAR/39/2005	None designated	None designated
SAT 2	CAR/40/2005	None designated	None designated
SAT 2	CAR/45/2005	None designated	None designated
SAT 2	CAR/46/2005	None designated	None designated
SAT 2	CAR/47/2005	None designated	None designated
SAT 2	CAR/48/2005	None designated	None designated
SAT 2	CAR/49/2005	None designated	None designated
SAT 2	CAR/50/2005	None designated	None designated
SAT 2	CAR/55/2005	None designated	None designated
SAT 2	CAR/56/2005	None designated	None designated
SAT 2	CAR/57/2005	None designated	None designated
SAT 2	CAR/58/2005	None designated	None designated
SAT 2	CAR/60/2005	None designated	None designated
SAT 2	CAR/61/2005	None designated	None designated

Serotype	WRLFMD Ref. No.	Topotype	Strain
SAT 2	CAR/62/2005	None designated	None designated
SAT 2	CAR/64/2005	None designated	None designated
SAT 2	CAR/68/2005	None designated	None designated
SAT 2	CAR/69/2005	None designated	None designated
SAT 2	CAR/72/2005	None designated	None designated
SAT 2	CAR/75/2005	None designated	None designated
SAT 2	CAR/79/2005	None designated	None designated
SAT 2	CAR/80/2005	None designated	None designated
SAT 2	CAR/81/2005	None designated	None designated
SAT 2	CAR/85/2005	None designated	None designated
SAT 2	CAR/89/2005	None designated	None designated
SAT 2	CAR/92/2005	None designated	None designated
SAT 2	CAR/94/2005	None designated	None designated
SAT 2	CAR/95/2005	None designated	None designated
SAT 2	CAR/98/2005	None designated	None designated
SAT 2	CAR/99/2005	None designated	None designated
SAT 2	CAR/104/2005	None designated	None designated
SAT 2	CAR/105/2005	None designated	None designated
SAT 2	CAR/107/2005	None designated	None designated
SAT 2	CAR/108/2005	None designated	None designated
SAT 2	CAR/109/2005	None designated	None designated
SAT 2	CAR/110/2005	None designated	None designated
SAT 2	CAR/117/2005	None designated	None designated
SAT 2	CAR/118/2005	None designated	None designated
SAT 2	CAR/119/2005	None designated	None designated

Comments:

The program MEGA 3.1 was used to compute and draw the trees (parameters are shown on the trees). For types O and SAT 2 only example reports (n=3 in each case) have been prepared since all isolates are closely related. A table of percentage nucleotide differences is also included for types O and SAT2. Three of the SAT2's are only partial sequences and are not included on the tree; however, they have been included table of differences. They are:
SAT2/CAR/40/2005 (360 nt)
SAT2/CAR/49/2005 (429 nt)
SAT2/CAR/68/2005 (438 nt)

Percentage nucleotide difference matrix for FMDV SAT 2 Cameroon 2005

	1	4	5	7	8	9	12	20	24	25	30	31	34	38	39	40*	45	46	47	48	49*	50	55	56	57	58	60
SAT2/CAR/1/2005	0.00	0.77	0.62	1.39	1.54	1.54	1.08	1.39	1.08	1.08	1.23	2.01	0.77	1.54	0.93	0.56	1.08	1.08	1.39	1.39	1.40	1.39	0.93	1.23	1.39	1.54	1.54
SAT2/CAR/4/2005	0.77	0.00	0.15	0.93	1.08	1.08	0.62	0.93	0.62	0.62	0.77	1.54	0.62	1.08	0.46	0.56	0.62	0.62	0.93	0.93	1.40	0.93	0.46	0.77	0.93	1.08	1.08
SAT2/CAR/5/2005	0.62	0.15	0.00	0.77	0.93	0.93	0.46	0.77	0.46	0.46	0.62	1.39	0.46	0.93	0.31	0.28	0.46	0.46	0.77	0.77	1.17	0.77	0.31	0.62	0.77	0.93	0.93
SAT2/CAR/7/2005	1.39	0.93	0.77	0.00	1.08	1.08	0.31	0.93	0.62	0.62	0.77	1.23	1.23	1.08	1.08	1.39	0.93	0.93	0.93	0.93	0.93	0.93	0.77	0.15	0.31	1.08	1.08
SAT2/CAR/8/2005	1.54	1.08	0.93	1.08	0.00	0.00	0.77	0.15	0.77	0.77	0.93	1.39	1.08	1.23	1.23	1.67	1.08	1.08	0.77	0.77	0.93	0.77	0.93	0.93	1.08	0.00	0.00
SAT2/CAR/9/2005	1.54	1.08	0.93	1.08	0.00	0.00	0.77	0.15	0.77	0.77	0.93	1.39	1.08	1.23	1.23	1.67	1.08	1.08	0.77	0.77	0.93	0.77	0.93	0.93	1.08	0.00	0.00
SAT2/CAR/12/2005	1.08	0.62	0.46	0.31	0.77	0.77	0.00	0.62	0.31	0.31	0.46	0.93	0.93	0.77	0.77	0.83	0.62	0.62	0.62	0.62	0.93	0.62	0.46	0.15	0.31	0.77	0.77
SAT2/CAR/20/2005	1.39	0.93	0.77	0.93	0.15	0.15	0.62	0.00	0.62	0.62	0.77	1.54	1.23	1.08	1.08	1.39	0.93	0.93	0.62	0.62	0.70	0.62	0.77	0.93	0.15	0.15	0.15
SAT2/CAR/24/2005	1.08	0.62	0.46	0.62	0.77	0.77	0.31	0.62	0.00	0.00	0.15	1.23	0.93	0.77	0.77	0.83	0.62	0.62	0.62	0.62	0.70	0.62	0.46	0.46	0.62	0.77	0.77
SAT2/CAR/25/2005	1.08	0.62	0.46	0.62	0.77	0.77	0.31	0.62	0.00	0.00	0.15	1.23	0.93	0.77	0.77	0.83	0.62	0.62	0.62	0.62	0.70	0.62	0.46	0.46	0.62	0.77	0.77
SAT2/CAR/30/2005	1.23	0.77	0.62	0.77	0.93	0.93	0.46	0.77	0.15	0.15	0.00	1.39	1.08	0.93	0.93	0.83	0.77	0.77	0.77	0.77	0.70	0.77	0.62	0.62	0.77	0.93	0.93
SAT2/CAR/31/2005	2.01	1.54	1.39	1.23	1.39	1.39	0.93	1.54	1.23	1.23	1.39	0.00	1.54	1.39	1.70	2.22	1.54	1.54	1.54	1.54	2.10	1.54	1.39	1.08	1.23	1.39	1.39
SAT2/CAR/34/2005	0.77	0.62	0.46	1.23	1.08	1.08	0.93	1.23	0.93	0.93	1.08	1.54	0.00	1.39	0.77	1.11	0.93	0.93	1.23	1.23	1.86	1.23	0.77	1.08	1.23	1.08	1.08
SAT2/CAR/38/2005	1.54	1.08	0.93	1.08	1.23	1.23	0.77	1.08	0.77	0.77	0.93	1.39	1.39	0.00	1.23	1.39	1.08	1.08	1.08	1.08	1.17	1.08	0.93	0.93	1.08	1.23	1.23
SAT2/CAR/39/2005	0.93	0.46	0.31	1.08	1.23	1.23	0.77	1.08	0.77	0.77	0.93	1.70	0.77	1.23	0.00	0.00	0.77	0.77	1.08	1.08	1.40	1.08	0.62	0.93	1.08	1.23	1.23
SAT2/CAR/40/2005*	0.56	0.56	0.28	1.39	1.67	1.67	0.83	1.39	0.83	0.83	0.83	2.22	1.11	1.39	0.00	0.00	1.11	1.11	1.67	1.67	1.39	1.67	0.83	1.11	1.39	1.67	1.67
SAT2/CAR/45/2005	1.08	0.62	0.46	0.93	1.08	1.08	0.62	0.93	0.62	0.62	0.77	1.54	0.93	1.08	0.77	1.11	0.00	0.00	0.93	0.93	1.40	0.93	0.46	0.77	0.93	1.08	1.08
SAT2/CAR/46/2005	1.08	0.62	0.46	0.93	1.08	1.08	0.62	0.93	0.62	0.62	0.77	1.54	0.93	1.08	0.77	1.11	0.00	0.00	0.93	0.93	1.40	0.93	0.46	0.77	0.93	1.08	1.08
SAT2/CAR/47/2005	1.39	0.93	0.77	0.93	0.77	0.77	0.62	0.62	0.62	0.62	0.77	1.54	1.23	1.08	1.08	1.67	0.93	0.93	0.00	0.00	0.93	0.00	0.77	0.77	0.93	0.77	0.77
SAT2/CAR/48/2005	1.39	0.93	0.77	0.93	0.77	0.77	0.62	0.62	0.62	0.62	0.77	1.54	1.23	1.08	1.08	1.67	0.93	0.93	0.00	0.00	0.93	0.00	0.77	0.77	0.93	0.77	0.77
SAT2/CAR/49/2005*	1.40	1.40	1.17	0.93	0.93	0.93	0.93	0.70	0.70	0.70	0.70	2.10	1.86	1.17	1.40	1.39	1.40	1.40	0.93	0.93	0.00	0.93	1.17	0.70	0.93	0.93	0.93
SAT2/CAR/50/2005	1.39	0.93	0.77	0.93	0.77	0.77	0.62	0.62	0.62	0.62	0.77	1.54	1.23	1.08	1.08	1.67	0.93	0.93	0.00	0.00	0.93	0.00	0.77	0.77	0.93	0.77	0.77
SAT2/CAR/55/2005	0.93	0.46	0.31	0.77	0.93	0.93	0.46	0.77	0.46	0.46	0.62	1.39	0.77	0.93	0.62	0.83	0.46	0.46	0.77	0.77	1.17	0.77	0.00	0.62	0.77	0.93	0.93
SAT2/CAR/56/2005	1.23	0.77	0.62	0.15	0.93	0.93	0.15	0.77	0.46	0.46	0.62	1.08	1.08	0.93	0.93	1.11	0.77	0.77	0.77	0.77	0.70	0.77	0.62	0.00	0.15	0.93	0.93
SAT2/CAR/57/2005	1.39	0.93	0.77	0.31	1.08	1.08	0.31	0.93	0.62	0.62	0.77	1.23	1.23	1.08	1.08	1.39	0.93	0.93	0.93	0.93	0.93	0.93	0.77	0.15	0.00	1.08	1.08
SAT2/CAR/58/2005	1.54	1.08	0.93	1.08	0.00	0.00	0.77	0.15	0.77	0.77	0.93	1.39	1.08	1.23	1.23	1.67	1.08	1.08	0.77	0.77	0.93	0.77	0.93	0.93	1.08	0.00	0.00
SAT2/CAR/60/2005	1.54	1.08	0.93	1.08	0.00	0.00	0.77	0.15	0.77	0.77	0.93	1.39	1.08	1.23	1.23	1.67	1.08	1.08	0.77	0.77	0.93	0.77	0.93	0.93	1.08	0.00	0.00
SAT2/CAR/61/2005	1.54	1.08	0.93	1.08	0.00	0.00	0.77	0.15	0.77	0.77	0.93	1.39	1.08	1.23	1.23	1.67	1.08	1.08	0.77	0.77	0.93	0.77	0.93	0.93	1.08	0.00	0.00
SAT2/CAR/62/2005	0.77	0.62	0.46	1.23	1.08	1.08	0.93	1.23	0.93	0.93	1.08	1.54	0.31	1.39	0.77	1.11	0.93	0.93	1.23	1.23	1.86	1.23	0.77	1.08	1.23	1.08	1.08
SAT2/CAR/64/2005	1.23	0.77	0.62	0.15	0.93	0.93	0.15	0.77	0.46	0.46	0.62	1.08	1.08	0.93	0.93	1.11	0.77	0.77	0.77	0.77	0.70	0.77	0.62	0.00	0.15	0.93	0.93
SAT2/CAR/65/2005	1.85	1.39	1.23	1.08	1.23	1.23	1.08	1.08	1.08	1.08	1.23	2.01	1.70	1.54	1.54	1.94	1.39	1.39	1.08	1.08	0.70	1.08	1.23	0.93	1.08	1.23	1.23
SAT2/CAR/68/2005*	1.83	1.83	1.60	1.37	1.37	1.37	1.37	1.14	1.14	1.14	1.14	2.51	2.28	1.60	1.83	1.94	1.83	1.83	1.37	1.37	0.47	1.37	1.60	1.14	1.37	1.37	1.37
SAT2/CAR/69/2005	1.85	1.39	1.23	1.08	1.23	1.23	1.08	1.08	1.08	1.08	1.23	2.01	1.70	1.54	1.54	1.94	1.39	1.39	1.08	1.08	0.70	1.08	1.23	0.93	1.08	1.23	1.23

Report on FMDV SAT2 Cameroon 2005

No. of Taxa : 119

Data File : n:\evd\meg\db\fmv\sat2\CAR2005A.MEG

Data Title : FMDV-SAT2 Cameroon 2005

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)

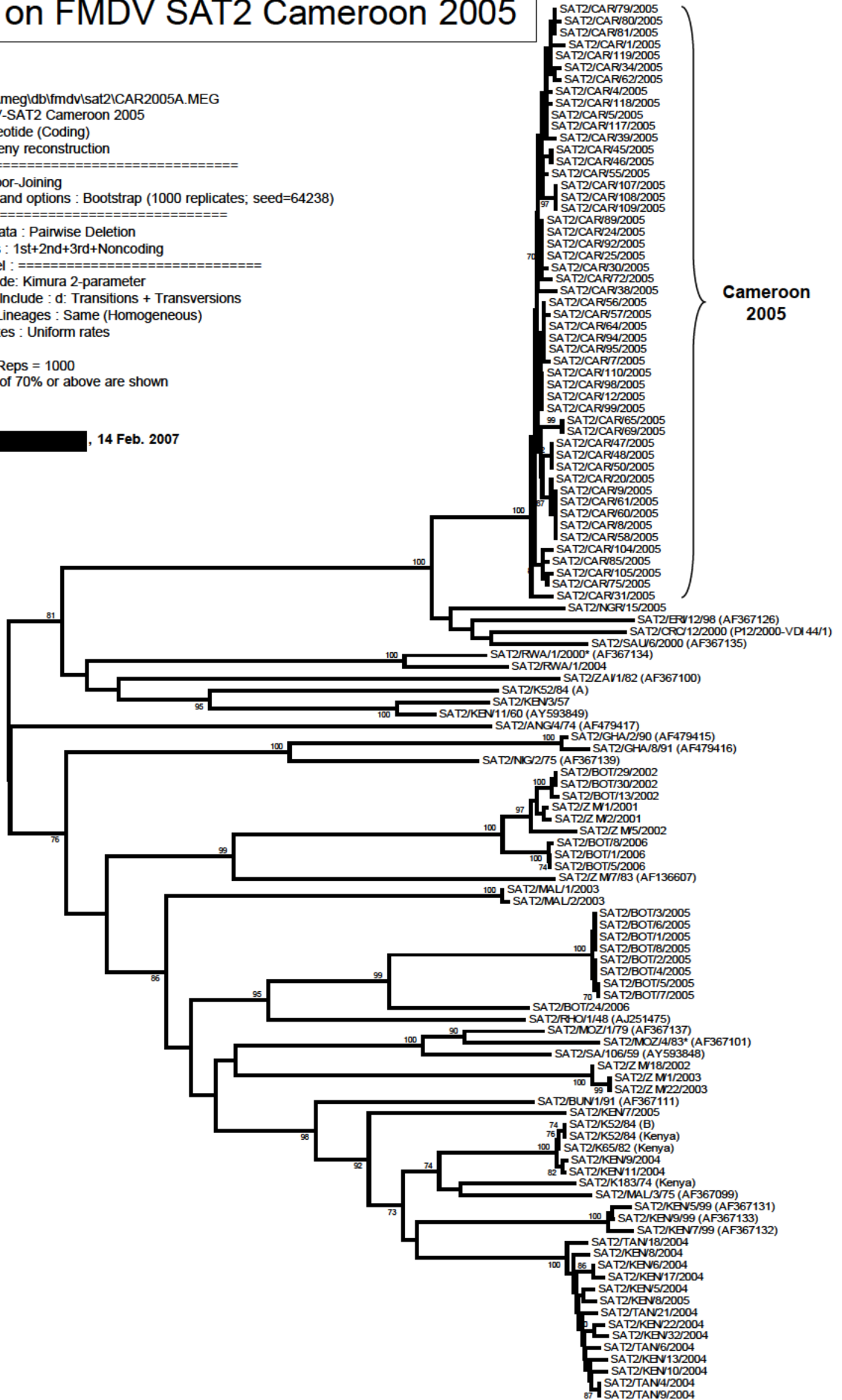
Rates among sites : Uniform rates

No. of Sites : 648

No Of Bootstrap Reps = 1000

Bootstrap values of 70% or above are shown

██████████, 14 Feb. 2007



Cameroon
2005

0.05