FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

Genotyping Report

Report Date for this Batch: 25 April 2013

FMDV type SAT 2
Country: Cameroon
Period: 2012
No. of samples: 9

BATCH: WRLFMD/2012/00038

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/1/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20101	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-01.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy2 12/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/2/2012	CAR12-02	648	647	0	99.85	0.15	VII	Lib-12
2	SAT2/CAR/3/2012	CAR12-03	648	647	0	99.85	0.15	VII	Lib-12
3	SAT2/CAR/4/2012	CAR12-04	648	647	0	99.85	0.15	VII	Lib-12
4	SAT2/CAR/24/2012	CAR12-24	648	646	0	99.69	0.31	VII	Lib-12
5	SAT2/CAR/10/2012	CAR12-10	648	645	0	99.54	0.46	VII	Lib-12
6	SAT2/CAR/9/2012	CAR12-09	648	645	0	99.54	0.46	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	641	0	98.92	1.08	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	640	0	98.77	1.23	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	640	0	98.77	1.23	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	640	0	98.77	1.23	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	482	0	75.08	24.92	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	481	0	74.23	25.77	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	481	0	74.23	25.77	XII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	479	0	73.92	26.08	VIII	unnamed
7	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/2/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20102	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-02.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy2 10/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/3/2012	CAR12-03	648	648	0	100.00	0.00	VII	Lib-12
2	SAT2/CAR/4/2012	CAR12-04	648	648	0	100.00	0.00	VII	Lib-12
3	SAT2/CAR/1/2012	CAR12-01	648	647	0	99.85	0.15	VII	Lib-12
4	SAT2/CAR/24/2012	CAR12-24	648	647	0	99.85	0.15	VII	Lib-12
5	SAT2/CAR/10/2012	CAR12-10	648	646	0	99.69	0.31	VII	Lib-12
6	SAT2/CAR/9/2012	CAR12-09	648	646	0	99.69	0.31	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	641	0	98.92	1.08	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	641	0	98.92	1.08	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	641	0	98.92	1.08	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	482	0	75.08	24.92	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	481	0	74.23	25.77	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	480	0	74.07	25.93	XII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	479	0	73.92	26.08	VIII	unnamed
7	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/3/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20103	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-03.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy2 10/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/2/2012	CAR12-02	648	648	0	100.00	0.00	VII	Lib-12
2	SAT2/CAR/4/2012	CAR12-04	648	648	0	100.00	0.00	VII	Lib-12
3	SAT2/CAR/1/2012	CAR12-01	648	647	0	99.85	0.15	VII	Lib-12
4	SAT2/CAR/24/2012	CAR12-24	648	647	0	99.85	0.15	VII	Lib-12
5	SAT2/CAR/10/2012	CAR12-10	648	646	0	99.69	0.31	VII	Lib-12
6	SAT2/CAR/9/2012	CAR12-09	648	646	0	99.69	0.31	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	641	0	98.92	1.08	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	641	0	98.92	1.08	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	641	0	98.92	1.08	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	482	0	75.08	24.92	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	481	0	74.23	25.77	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	480	0	74.07	25.93	XII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	479	0	73.92	26.08	VIII	unnamed
7	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/4/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20104	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-04.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy2 10/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/2/2012	CAR12-02	648	648	0	100.00	0.00	VII	Lib-12
2	SAT2/CAR/3/2012	CAR12-03	648	648	0	100.00	0.00	VII	Lib-12
3	SAT2/CAR/1/2012	CAR12-01	648	647	0	99.85	0.15	VII	Lib-12
4	SAT2/CAR/24/2012	CAR12-24	648	647	0	99.85	0.15	VII	Lib-12
5	SAT2/CAR/10/2012	CAR12-10	648	646	0	99.69	0.31	VII	Lib-12
6	SAT2/CAR/9/2012	CAR12-09	648	646	0	99.69	0.31	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	641	0	98.92	1.08	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	641	0	98.92	1.08	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	641	0	98.92	1.08	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	482	0	75.08	24.92	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	481	0	74.23	25.77	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	480	0	74.07	25.93	XII	unnamed
6	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	479	0	73.92	26.08	VIII	unnamed
7	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	477	0	73.61	26.39	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/8/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20203	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-08.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy1 09/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	645	0	99.54	0.46	VII	Lib-12
2	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	645	0	99.54	0.46	VII	Lib-12
3	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	645	0	99.54	0.46	VII	Lib-12
4	SAT2/CAR/24/2012	CAR12-24	648	643	0	99.23	0.77	VII	Lib-12
5	SAT2/CAR/78/2012	CAR12-78	648	643	0	99.23	0.77	VII	Lib-12
6	SAT2/CAR/10/2012	CAR12-10	648	642	0	99.07	0.93	VII	Lib-12
7	SAT2/CAR/2/2012	CAR12-02	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/CAR/3/2012	CAR12-03	648	642	0	99.07	0.93	VII	Lib-12
9	SAT2/CAR/4/2012	CAR12-04	648	642	0	99.07	0.93	VII	Lib-12
10	SAT2/CAR/9/2012	CAR12-09	648	642	0	99.07	0.93	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	582	0	89.81	10.19	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	579	1	89.49	10.51	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	480	0	74.77	25.23	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	482	0	74.38	25.62	XII	unnamed
6	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	478	0	73.77	26.23	XIV	unnamed
7	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	478	0	73.77	26.23	X	unnamed
8	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	476	0	73.46	26.54	IX	unnamed
9	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	476	0	73.46	26.54	VIII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/9/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20204	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-09.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy1 09/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/10/2012	CAR12-10	648	648	0	100.00	0.00	VII	Lib-12
2	SAT2/CAR/24/2012	CAR12-24	648	647	0	99.85	0.15	VII	Lib-12
3	SAT2/CAR/2/2012	CAR12-02	648	646	0	99.69	0.31	VII	Lib-12
4	SAT2/CAR/3/2012	CAR12-03	648	646	0	99.69	0.31	VII	Lib-12
5	SAT2/CAR/4/2012	CAR12-04	648	646	0	99.69	0.31	VII	Lib-12
6	SAT2/CAR/1/2012	CAR12-01	648	645	0	99.54	0.46	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	641	0	98.92	1.08	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	641	0	98.92	1.08	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	641	0	98.92	1.08	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	581	1	89.80	10.20	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	483	0	75.23	24.77	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	482	0	74.38	25.62	XII	unnamed
6	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	480	0	74.07	25.93	XIV	unnamed
7	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	480	0	74.07	25.93	VIII	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	479	0	73.92	26.08	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	476	0	73.46	26.54	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	475	1	73.42	26.58	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/10/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNA20205	
Location: Not known, Cameroon	Topotype: VII
Date collected: 16/06/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-10.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Not Known	No. of Nt determined: 648
Material used: BTy2 12/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/9/2012	CAR12-09	648	648	0	100.00	0.00	VII	Lib-12
2	SAT2/CAR/24/2012	CAR12-24	648	647	0	99.85	0.15	VII	Lib-12
3	SAT2/CAR/2/2012	CAR12-02	648	646	0	99.69	0.31	VII	Lib-12
4	SAT2/CAR/3/2012	CAR12-03	648	646	0	99.69	0.31	VII	Lib-12
5	SAT2/CAR/4/2012	CAR12-04	648	646	0	99.69	0.31	VII	Lib-12
6	SAT2/CAR/1/2012	CAR12-01	648	645	0	99.54	0.46	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	642	0	99.07	0.93	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	641	0	98.92	1.08	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	641	0	98.92	1.08	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	641	0	98.92	1.08	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	584	0	90.12	9.88	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	581	1	89.80	10.20	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	483	0	75.23	24.77	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	482	0	74.38	25.62	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	482	0	74.38	25.62	XII	unnamed
6	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	480	0	74.07	25.93	XIV	unnamed
7	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	480	0	74.07	25.93	VIII	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	479	0	73.92	26.08	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	476	0	73.46	26.54	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	475	1	73.42	26.58	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number

Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/24/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: DNL20603	
Location: Adamawa, Cameroon	Topotype: VII
Date collected: 23/06/2012	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-24.SEQ
Date received for sequencing: 16/04/2013	Date sequence last updated: 24/04/2013
Species: Bovine	No. of Nt determined: 648
Material used: BTy1 16/01/2013; BTy2 04/02/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 8 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/10/2012	CAR12-10	648	647	0	99.85	0.15	VII	Lib-12
2	SAT2/CAR/2/2012	CAR12-02	648	647	0	99.85	0.15	VII	Lib-12
3	SAT2/CAR/3/2012	CAR12-03	648	647	0	99.85	0.15	VII	Lib-12
4	SAT2/CAR/4/2012	CAR12-04	648	647	0	99.85	0.15	VII	Lib-12
5	SAT2/CAR/9/2012	CAR12-09	648	647	0	99.85	0.15	VII	Lib-12
6	SAT2/CAR/1/2012	CAR12-01	648	646	0	99.69	0.31	VII	Lib-12
7	SAT2/CAR/8/2012	CAR12-08	648	643	0	99.23	0.77	VII	Lib-12
8	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	642	0	99.07	0.93	VII	Lib-12
9	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	642	0	99.07	0.93	VII	Lib-12
10	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	642	0	99.07	0.93	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	585	0	90.28	9.72	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	580	1	89.64	10.36	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	482	0	75.08	24.92	VIII	unnamed
4	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	481	0	74.23	25.77	IX	unnamed
5	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	481	0	74.23	25.77	XII	unnamed
6	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	479	0	73.92	26.08	XIV	unnamed
7	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	479	0	73.92	26.08	VIII	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	478	0	73.77	26.23	X	unnamed
9	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	475	0	73.30	26.70	IX	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	474	1	73.26	26.74	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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FAO World Reference Laboratory for FMD Genotyping Report

Serotype: SAT2	Report date: 24/04/2013
WRLFMD Ref No: CAR/78/2012	Reported by: N.J. Knowles
Batch No: WRLFMD/2012/00038	Checked by: D.P. King
Sender Ref: VNG21801	
Location: Adamawa, Cameroon	Topotype: VII
Date collected: 09/07/2008	Genotype/strain: Lib-12
Date received by WRLFMD: 17/08/2012	Sequence filename: CAR12-78.SEQ
Date received for sequencing: 19/03/2013	Date sequence last updated: 22/03/2013
Species: Bovine	No. of Nt determined: 648
Material used: BTy1 07/03/2013	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 648
RT-PCR primers: SAT2-1C445F/SAT-2B208R	Total no. of comparisons: 632
SAT2-P1-1223F/SAT-2B208R	Min. no. of nt for comparison: 600
	Total turn-around time: 250 days
	Sequencing time: 36 days

Comments:

Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2012	CAR12-08	648	643	0	99.23	0.77	VII	Lib-12
2	SAT2/LIB/39/2012 (JX570633)	LIB12-39	648	642	0	99.07	0.93	VII	Lib-12
3	SAT2/LIB/40/2012 (JX570634)	LIB12-40	648	642	0	99.07	0.93	VII	Lib-12
4	SAT2/LIB/41/2012 (JX570635)	LIB12-41	648	642	0	99.07	0.93	VII	Lib-12
5	SAT2/CAR/24/2012	CAR12-24	648	640	0	98.77	1.23	VII	Lib-12
6	SAT2/CAR/10/2012	CAR12-10	648	639	0	98.61	1.39	VII	Lib-12
7	SAT2/CAR/2/2012	CAR12-02	648	639	0	98.61	1.39	VII	Lib-12
8	SAT2/CAR/3/2012	CAR12-03	648	639	0	98.61	1.39	VII	Lib-12
9	SAT2/CAR/4/2012	CAR12-04	648	639	0	98.61	1.39	VII	Lib-12
10	SAT2/CAR/9/2012	CAR12-09	648	639	0	98.61	1.39	VII	Lib-12

Most Closely Related Reference Viruses

(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)

Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	SAT2/CAR/8/2005 (JX570616)	CAR05-08	648	583	0	89.97	10.03	VII	unnamed
2	SAT2/SAU/6/2000 (AF367135)	SAU00A06	647	578	1	89.34	10.66	VII	unnamed
3	SAT2/ZAI/1/74 (DQ009737)	ZAI74-AA	642	478	0	74.45	25.55	VIII	unnamed
4	SAT2/ETH/2/91 (AY343938)	ETH91-AB	648	479	0	73.92	26.08	XIV	unnamed
5	SAT2/KEN/3/57 (AJ251473)	KEN57G03	648	479	0	73.92	26.08	IX	unnamed
6	SAT2/UGA/51/75 (AY343963)	UGA75-AA	648	479	0	73.92	26.08	XII	unnamed
7	SAT2/KEN/2/84 (AY343941)	KEN84-AC	648	477	0	73.61	26.39	IX	unnamed
8	SAT2/UGA/19/98 (AY343969)	UGA98-AA	648	476	0	73.46	26.54	X	unnamed
9	SAT2/RWA/1/2000* (AF367134)	RWA00-01	648	475	0	73.30	26.70	VIII	unnamed
10	SAT2/ZAI/1/82 (AF367100)	ZAI82-01	647	473	1	73.11	26.89	X	unnamed

nt, nucleotides
*, not a WRLFMD reference number
Assembled with Report Generator v4.1

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Report on FMDV SAT 2 in Cameroon in 2012

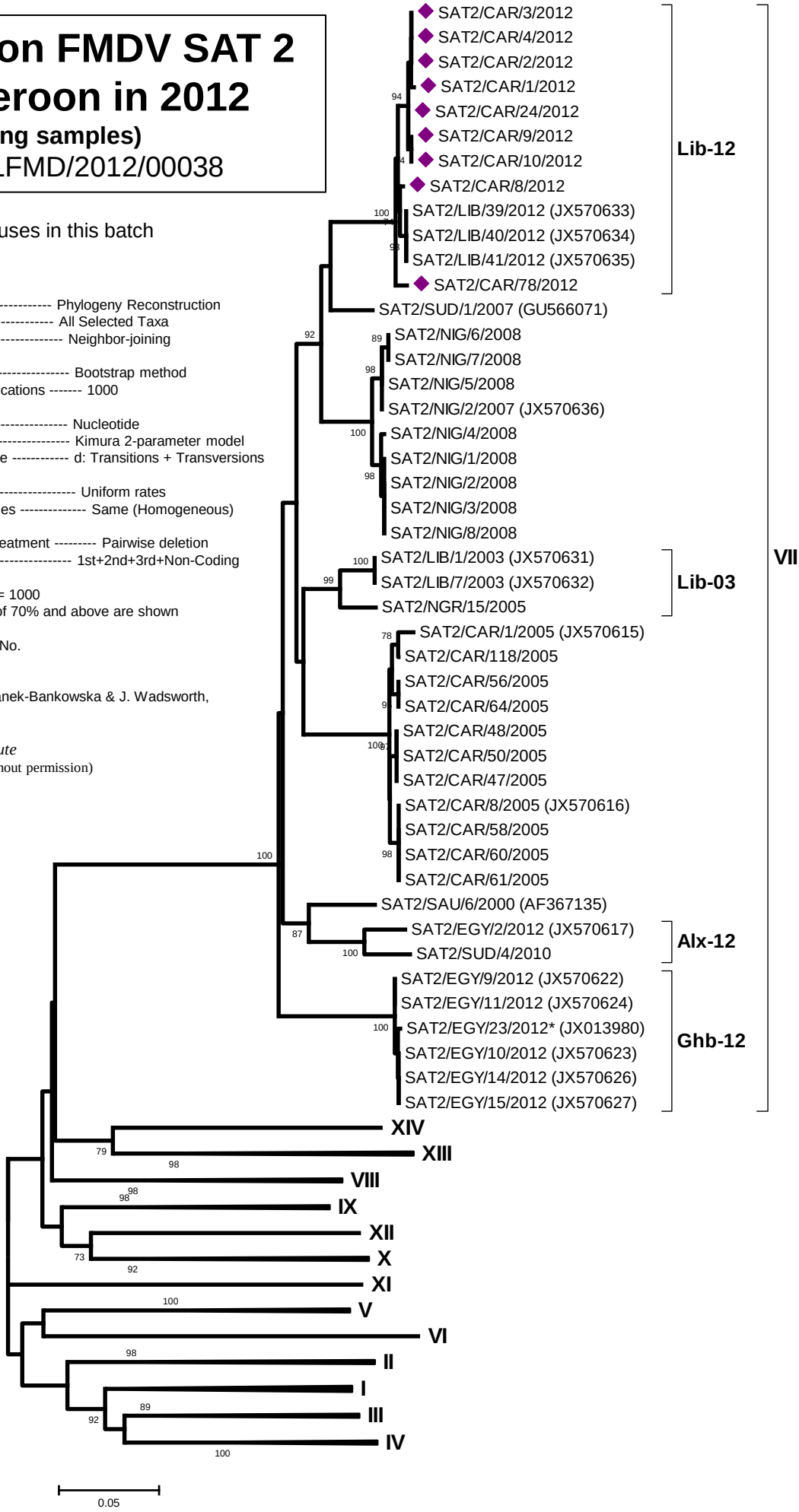
(cattle probang samples)

Batch: WRLFMD/2012/00038

◆ indicates viruses in this batch

Software: MEGA 5.1
Analysis
  Analysis ---------- Phylogeny Reconstruction
  Scope ---------- All Selected Taxa
  Statistical Method ---------- Neighbor-joining
Phylogeny Test
  Test of Phylogeny ---------- Bootstrap method
  No. of Bootstrap Replications ------- 1000
Substitution Model
  Substitutions Type ---------- Nucleotide
  Model/Method ---------- Kimura 2-parameter model
  Substitutions to Include ---------- d: Transitions + Transversions
Rates and Patterns
  Rates among Sites ---------- Uniform rates
  Pattern among Lineages ---------- Same (Homogeneous)
Data Subset to Use
  Gaps/Missing Data Treatment --------- Pairwise deletion
  Codons Included ---------- 1st+2nd+3rd+Non-Coding
No. of Sites : 651
No Of Bootstrap Reps = 1000
Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles, K. Bachanek-Bankowska & J. Wadsworth,
25 April 2013

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