

Serotype: SAT2 Report date: 10/05/2007
WRL Ref No: SUD/1/2007
Sender Ref: FMARF/FMD Sud-6
Date collected: 21/01/2007 Topotype: none defined
Date received by WRLFMD: 10/04/2007 Genotype/strain: none designated
Date received for sequencing: 20/04/2007 Sequence filename: SUD07-01.SEQ
Species: Cattle Date sequence last updated: 09/05/2007
Material used: BTy2 Total no. of comparisons: 371
Region sequenced: VP1 Min. no. of nt for comparison: 300
RT-PCR primers: SAT2-1C445F/SAT-2B208R; Total turn-around time: 30 days
SAT2-P1-1223F/SAT-2B208R Sequencing time: 20 days
No. of Nt determined: 648
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/NGR/15/2005 | NGR05-15 | 648 | 603 | 0 | 93.06 | 6.94 |
| 2 | SAT2/LIB/1/2003 | LIB03-01 | 418 | 388 | 0 | 92.82 | 7.18 |
| 3 | SAT2/LIB/7/2003 | LIB03-07 | 418 | 388 | 0 | 92.82 | 7.18 |
| 4 | SAT2/CAR/20/2005 | CAR05-20 | 648 | 600 | 0 | 92.59 | 7.41 |
| 5 | SAT2/CAR/24/2005 | CAR05-24 | 648 | 600 | 0 | 92.59 | 7.41 |
| 6 | SAT2/CAR/25/2005 | CAR05-25 | 648 | 600 | 0 | 92.59 | 7.41 |
| 7 | SAT2/CAR/89/2005 | CAR05-89 | 648 | 600 | 0 | 92.59 | 7.41 |
| 8 | SAT2/CAR/92/2005 | CAR05-92 | 648 | 600 | 0 | 92.59 | 7.41 |
| 9 | SAT2/CAR/30/2005 | CAR05-30 | 648 | 599 | 0 | 92.44 | 7.56 |
| 10 | SAT2/CAR/58/2005 | CAR05-58 | 648 | 599 | 0 | 92.44 | 7.56 |

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 | 481 | 0 | 74.23 | 25.77 |
| 2 | SAT2/K52/84 (Kenya) | KEN84-AA | 648 | 475 | 0 | 73.3 | 26.7 |
| 3 | SAT2/KEN/3/57 | KEN57-03 | 648 | 473 | 0 | 72.99 | 27.01 |
| 4 | SAT2/RHO/1/48 [AJ251475] | ZAM48A01 | 648 | 466 | 0 | 71.91 | 28.09 |
| 5 | SAT2/K65/82 (Kenya) | KEN82K65 | 648 | 454 | 0 | 70.06 | 29.94 |
| 6 | SAT2/ZIM/7/83 [AF136607] | ZIM83A07 | 648 | 453 | 0 | 69.91 | 30.09 |
| 7 | SAT2/SA/106/59 (AY593848) | RSA59--A | 648 | 452 | 0 | 69.75 | 30.25 |
| 8 | SAT2/K183/74 (Kenya) | KEN74183 | 648 | 444 | 0 | 68.52 | 31.48 |

nt, nucleotides

*, not a WRLFMD reference number

Report on FMDV in Sudan in 2007

Software: MEGA 3.1
No. of Taxa : 133
Data File : n:\levd\meg\ldb\fmdv\sat2\SUD2007a.meg
Data Title : Sudan 2007
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: p-distance
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

N.J. Knowles & J. Wadsworth, 10 May 2007

