Feline immunodeficiency virus complete genome

GenBank: M25381.1

FASTA Graphics

Go to:

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LOCUS       FIVCG                9474 bp ss-RNA     linear   VRL 25-JUL-2016
DEFINITION  Feline immunodeficiency virus complete genome.
ACCESSION   M25381 M25729
VERSION     M25381.1
KEYWORDS    complete genome; env protein; gag protein; long terminal repeat;
            pol protein.
SOURCE      Feline immunodeficiency virus
  ORGANISM  Feline immunodeficiency virus
            Viruses; Riboviria; Pararnavirae; Artverviricota; Revtraviricetes;
            Ortervirales; Retroviridae; Orthoretrovirinae; Lentivirus.
REFERENCE   1  (bases 1 to 355)
  AUTHORS   Olmsted,R.A., Barnes,A.K., Yamamoto,J.K., Hirsch,V.M., Purcell,R.H.
            and Johnson,P.R.
  TITLE     Molecular cloning of feline immunodeficiency virus
  JOURNAL   Proc. Natl. Acad. Sci. U.S.A. 86 (7), 2448-2452 (1989)
   PUBMED   2928341
REFERENCE   2  (bases 1 to 9472)
  AUTHORS   Talbott,R.L., Sparger,E.E., Lovelace,K.M., Fitch,W.M.,
            Pedersen,N.C., Luciw,P.A. and Elder,J.H.
  TITLE     Nucleotide sequence and genomic organization of feline
            immunodeficiency virus
  JOURNAL   Proc. Natl. Acad. Sci. U.S.A. 86 (15), 5743-5747 (1989)
   PUBMED   2762293
REFERENCE   3  (bases 1 to 9474)
  AUTHORS   Olmsted,R.A., Hirsch,V.M., Purcell,R.H. and Johnson,P.R.
  TITLE     Nucleotide sequence analysis of feline immunodeficiency virus:
            genome organization and relationship to other lentiviruses
  JOURNAL   Proc. Natl. Acad. Sci. U.S.A. 86 (20), 8088-8092 (1989)
   PUBMED   2813380
REFERENCE   4  (bases 7175 to 7182)
  AUTHORS   Elder,J.H.
  JOURNAL   Unpublished
COMMENT     Original source text: Feline immunodeficiency virus (strain
            Petaluma) (clone: 34TF10) cDNA to genomic RNA; and Feline
            immunodeficiency virus (strain Petaluma) (clone:  FIV-14) cDNA to
            genomic RNA.
            [4]  revision.
            [2] sequence kindly provided in computer-readable form by John
            Elder, Scripps Institute, La Jolla, CA. [3] sequence kindly
            provided in computer-readable form by Robert Olmstead, NIAID, NIH,
```

Bethesda, MD. [1] contains the LTR sequence from the complete genome in [3].

The sequence from [3] is shown (with differences from [2]); the substantive difference from [2] is at position 6123 where the latter possesses an early stop codon in orf2, which is thought to encode the transactivator protein. Clone 34TF10 is, nevertheless, biologically active as described in [2]. A difference earlier reported at 7175-7182 turns out to have been a typo [2,4]. Orf1 is weakly homologous (PLSEARCH) with the Q orf of visna and has no detectable similarity to the vif protein of HIV and SIV. This is consistent with the clustering of FIV with the ungulate lentiviruses [2],[3]. Several 'urfs' are identified by [2] and [3] of which only orf3, possibly analogous to the L orf of visna, is annotated below; a small, possibly associated, orf is found at 8955-9170. For a fuller discussion of the reading frames, see [2] and [3].

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