

Alphacoronavirus 1, 79-1146 [formerly Feline Infectious Peritonitis Virus (FIPV)]

Catalog No. NR-43287

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Coronaviridae*, *Coronavirinae*, *Alphacoronavirus*

Species: Alphacoronavirus 1 [formerly feline infectious peritonitis virus (FIPV), feline coronavirus]¹

Strain/Isolate: 79-1146

Original Source: FIPV, 79-1146 was isolated from a 4-day-old domestic cat diagnosed with pneumonia and pleuritis upon neonatal death.^{2,3}

Comment: The complete genome sequence of FIPV, 79-1146 is available (GenBank: [AY994055](https://www.ncbi.nlm.nih.gov/nuccore/AY994055)).⁴

NR-43287 was derived from BEI Resources NR-736 by removal of contaminating mycoplasma. This process required six additional passages in Crandell Rees feline kidney (CRFK) cells (ATCC® CCL-94™). NR-736 is no longer available.

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from CRFK cells infected with alphacoronavirus 1, 79-1146.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-43287 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Host: Crandell Rees feline kidney cells (CRFK; ATCC® CCL-94™)

Medium: Eagle's Minimum Essential Medium with Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1500 mg per L

sodium bicarbonate, supplemented with 2% fetal bovine serum

Infection: Cells should be approximately 80% confluent

Incubation: 2 to 7 days at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and detachment

Alternate Host: *Felis catus* whole fetus (FCWF) cells⁵

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Alphacoronavirus 1, 79-1146 [formerly Feline Infectious Peritonitis Virus (FIPV)], NR-43287."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. [ICTV Taxonomy History for Alphacoronavirus 1](#)
2. McKeirnan, A. J., et al. "Isolation of Feline Coronaviruses from Two Cats with Diverse Disease Manifestations." *Feline Pract.* 11 (1981): 16-20.
3. de Groot-Mijnes, J. D. F., et al. "Natural History of a Recurrent Feline Coronavirus Infection and the Role of Cellular Immunity in Survival and Disease." *J. Virol.* 79 (2005): 1036-1044. PubMed: 15613332.
4. Hajjema, B. J., et al. "Feline Infectious Peritonitis Virus, Complete Genome." Direct Submission, 30 Mar 2005. GenBank: AY994055.
5. Pedersen, N. C., et al. "Pathogenicity Studies of Feline Coronavirus Isolates 79-1146 and 79-1683." *Am. J. Vet. Res.* 45 (1984): 2580-2585. PubMed: 6084432.

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