

Hepatitis A Virus, HM175/18f

Catalog No. NR-137

Derived from ATCC® VR-1402™

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Picornaviridae*, *Hepatovirus*

Species: Hepatitis A virus

Strain/Isolate: HM175/18f (HM175 cytopathic clone B)

Original Source: Hepatitis A virus, HM175/18f was isolated from the feces of a patient with acute viral hepatitis during an outbreak of hepatitis A in a semirural area on the outskirts of Melbourne, Australia during October/November of 1976.¹ The sample was collected one week after the onset of symptoms and the virus was initially passaged through marmosets, isolated from marmoset liver on primary African green monkey kidney (BS-C-1) cells and subsequently passaged and plaque-purified in BS-C-1 cells.² Strain HM175/18f demonstrates a rapid replication/cytopathic effect (RR/CPE+) phenotype in BS-C-1 cells but retains the antigenic characteristics of low culture passage hepatitis A virus.³

Comments: The complete genome of hepatitis A virus, HM175/18f has been sequenced (GenBank: [KP879216](#)).

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Macaca mulatta* fetal kidney cells (FRhK-4) infected with hepatitis A virus, HM175/18f.

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

Packaging/Storage:

NR-137 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: *Macaca mulatta* fetal kidney cells (FRhK-4; ATCC® CRL- 1688™)

Growth Medium: Eagle's Minimum Essential Medium containing Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

Infection: Cells should be 70% to 90% confluent

Incubation: 6 to 7 days at 35°C and 5% CO₂

Cytopathic Effect: Refractile rounding and sloughing

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Hepatitis A Virus, HM175/18f, NR-137."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

- Gust, I. D., et al. "The Origin of the HM175 Strain of Hepatitis A Virus." *J. Infect. Dis.* 151 (1985): 365-367. PubMed: 2981939.

2. Binn, L. N., et al. "Primary Isolation and Serial Passage of Hepatitis A Virus Strains in Primate Cell Cultures." J. Clin. Microbiol. 20 (1984): 28-33. PubMed: 6086708.
3. Lemon, S. M., et al. "Antigenic and Genetic Variation in Cytopathic Hepatitis A Virus Variants Arising During Persistent Infection: Evidence for Genetic Recombination." J. Virol. 65 (1991): 2056-2065. PubMed: 1705995.

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