

Hepatitis A Virus, HM175/18f

Catalog No. NR-137

Derived from ATCC® VR-1402™

For research use only. Not for human use.

Contributor:

Stanley M. Lemon, M.D., Professor, Division of Infectious Diseases, University of North Carolina School of Medicine, Chapel Hill, North Carolina

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 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 (AGMK) 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

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Macaca mulatta* kidney FRhK-4 cells (ATCC® CRL-1688™) infected with 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: FRhK-4 cells (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 80% confluent. Thaw virus rapidly

in a 37°C water bath. Then adsorb diluted virus to cells for one hour at 35°C; MOI = 0.01.

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 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/bmb15/index.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. 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.

ATCC® is a trademark of the American Type Culture Collection.

