

Human Respiratory Syncytial Virus, A1998/3-2, Purified from HEp-2 Cells

Catalog No. NR-44233

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Paramyxoviridae, Pneumovirinae, Pneumovirus, Human respiratory syncytial virus*

Species: Human respiratory syncytial virus

Strain: A1998/3-2

Original Source: Human respiratory syncytial virus (RSV), A1998/3-2 was isolated from a nasal wash from an infant with RSV bronchiolitis in Nashville, Tennessee, USA on March 2, 1998.¹

Comments: A1998/3-2 is one of six clinical RSV isolates that recently were shown to induce variable disease severity, lung interleukin-13 (IL-13) levels, and gob-5 levels in BALB/cJ mice.² IL-13 is a cytokine linked to mucus production and gob-5 is a calcium-activated chloride channel family member implicated in airway inflammation.^{3,4} Compared to mock infection, RSV A1998/3-2 infection led to low levels of gob-5 in lung tissue, no significant elevation in IL-13 expression, and no weight loss in infected mice.²

NR-44233 was prepared by inoculation of HEp-2 cells (ATCC® CCL-23™) with RSV, A1998/3-2. The virus was purified from clarified supernatant by high speed centrifugation.

A similarly processed preparation of mock-infected HEp-2 cell clarified supernatant, suitable for use as a control, is available as BEI Resources NR-43974.

Material Provided:

Each vial contains approximately 0.5 mL of NR-44233 in TBS (0.15 M sodium chloride, 0.05 M Tris-HCl, pH 7.6).

Packaging/Storage:

NR-44233 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -80°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: HEp-2 cells (ATCC® CCL-23™)

Growth Medium: Eagle's Minimum Essential Medium supplemented with 2% fetal bovine serum

Infection: Cells should be 60% to 90% confluent

Incubation: 6 to 7 days at 37°C and 5% CO₂

Cytopathic Effect: Rounding and syncytia formation

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Human Respiratory Syncytial Virus, A1998/3-2, Purified from HEp-2 Cells, NR-44233."

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.

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References:

1. M. L. Moore, personal communication.
2. Stokes, K. L., et al. "Differential Pathogenesis of Respiratory Syncytial Virus Clinical Isolates in BALB/c Mice." J. Virol. 85 (2011): 5782-5793. PubMed: 21471228.
3. Nakanishi, A., et al. "Role of gob-5 in Mucus Overproduction and Airway Hyperresponsiveness in Asthma." Proc. Natl. Acad. Sci. U.S.A. 98 (2001): 5175-5180. PubMed: 11296262.
4. Walter, D. M., et al. "Critical Role for IL-13 in the Development of Allergen-Induced Airway Hyperreactivity." J. Immunol. 167 (2001): 4668-4675. PubMed: 11591797.

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