Human Respiratory Syncytial Virus, A2001/3-12

Catalog No. NR-28526

For research use only. Not for use in humans.

Contributor:
Martin L. Moore, Ph.D., Department of Pediatrics, Emory University, Atlanta, Georgia, USA

Manufacturer:
BEI Resources

Product Description:

Virus Classification: Pneumoviridae, Orthopneumovirus
Species: Human respiratory syncytial virus
Strain/Isolate: A2001/3-12

Original Source: Human respiratory syncytial virus (RSV), A2001/3-12 was isolated from a nasal wash from an infant with RSV bronchiolitis in Nashville, Tennessee, USA, on March 12, 2001.
Comments: A2001/3-12 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. IL-13 is a cytokine linked to mucus production and gob-5 is a calcium-activated chloride channel family member implicated in airway inflammation. Compared to mock infection, RSV, A2001/3-12 infection led to relatively low levels of gob-5 in lung tissue, and no significant elevation in IL-13 expression, but did induce early weight loss and lung damage in infected mice. The complete genome of RSV, A2001/3-12 has been sequenced (GenBank: JX069799).

RSV is an enveloped, negative-sense, non-segmented, single-stranded RNA virus first isolated in 1955 from chimpanzees suffering from respiratory illness. RSV is a major pathogen in children, causing severe lower respiratory tract disease in infants and young children. RSV can also infect adults, causing severe illness in the elderly. RSV genome contains 10 genes encoding for 11 proteins including G and F surface glycoproteins with important roles in entry. RSV is divided into two distinct subtypes, A and B, with each divided into multiple genotypes. Most genetic studies in RSV are focused on G glycoprotein, which is the most variable structural protein among RSV isolates.

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from HEp-2 cells infected with human respiratory syncytial virus, A2001/3-12.

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

Packaging/Storage:
NR-28526 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: HEp-2 cells (ATCC® CCL-23™)
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 1500 mg per L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent
Infection: Cells should be 60% to 80% confluent
Incubation: 3 to 8 days at 37°C and 5% CO₂
Cytopathic Effect: Syncytia formation

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Human Respiratory Syncytial Virus, A2001/3-12, NR-28526.”

Biosafety Level: 2

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:

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