Human Respiratory Syncytial Virus, A2000/3-4

Catalog No. NR-28530

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:

Virus Classification: Pneumoviridae, Orthopneumovirus
Species: Human respiratory syncytial virus
Strain/Isolate: A2000/3-4

Original Source: Human respiratory syncytial virus (RSV), A2000/3-4 was isolated from a nasal wash from an infant with RSV bronchiolitis in Nashville, Tennessee, USA, on March 4, 2000.1

Comments: A2000/3-4 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, A2000/3-4 infection led to high levels of gob-5 and elevation in IL-13 expression in lung tissue, but no weight loss in infected mice.5 The complete genome of RSV, A2000/3-4 has been sequenced (GenBank: JX069803).

RSV is an enveloped, negative-sense, non-segmented, single-stranded RNA virus first isolated in 1955 from chimpanzees suffering from respiratory illness.5 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.5,6 RSV genome contains 10 genes encoding for 11 proteins including G and F surface glycoproteins with important roles in entry.6 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.5,6

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from HEp-2 cells infected with human respiratory syncytial virus, A2000/3-4.

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

Packaging/Storage:
NR-28530 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, A2000/3-4, NR-28530."

Biosafety Level: 2

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References:

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