Human Respiratory Syncytial Virus, A2001/2-20, Purified from HEp-2 Cells

Catalog No. NR-43938

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:
Virus Classification: Pneumoviridae, Orthopneumovirus, Human orthopneumovirus
Species: Human respiratory syncytial virus
Strain/Isolate: A2001/2-20
Original Source: Human respiratory syncytial virus (hRSV), A2001/2-20 was isolated from a nasal wash from an infant with hRSV bronchiolitis in Nashville, Tennessee, on February 20, 2001.1
Comments: hRSV A2001/2-20 is one of six clinical hRSV isolates that recently were shown to induce variable disease severity, lung interleukin-13 (IL-13) levels, and gob-5 levels in BALB/cJ mice.2-3,4 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, hRSV A2001/2-20 infection led to relatively high levels of gob-5 and significantly elevated levels of IL-13 in lung tissue. This isolate also induced a bimodal weight loss pattern in infected mice, with peaks at day 2 and day 6 post-infection. hRSV A2001/2-20 infection caused the most severe disease of any isolate tested and was characterized by airway hyperresponsiveness and mucin expression, perivascular edema, epithelial desquamation, bronchiolitis, and increased breathing effort.2

NR-43938 was prepared by inoculation of human epithelial carcinoma cells (HEp-2; ATCC® CCL-23™) with hRSV, A2001/2-20. 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 purified virus in TBS (0.15 M sodium chloride, 0.05 M Tris-HCl, pH 7.6).

Packaging/Storage:
NR-43938 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: Human Epithelial carcinoma cells (HEp-2; 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 1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent
Infection: Cells should be 60% to 80% confluent
Incubation: 5 to 10 days at 37°C and 5% CO₂
Cytopathic Effect: Syncytia, cell rounding and sloughing

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Human Respiratory Syncytial Virus, A2001/2-20, Purified from HEp-2 Cells, NR-43938.”

Biosafety Level: 2

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References:

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