Human Coronavirus, NL63

Catalog No. NR-470

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:

**Virus Classification:** Coronaviridae, Alphacoronavirus

**Species:** Human coronavirus

**Strain/Isolate:** NL63 (also referred to as Amsterdam I)

**Original Source:** Human coronavirus (HCoV), NL63 was isolated in 2003 from nasopharyngeal aspirate of human infant with acute respiratory disease in Amsterdam.¹

**Comments:** The complete genome of HCoV, NL63 has been sequenced (GenBank: AY956748).³

Coronaviruses (CoV) are enveloped, positive-stranded RNA viruses with approximately 30 kb genomes. ²,³ CoV are classified into three groups based on serological and genetic similarities: group 1 includes HCoV, 229E and HCoV, NL63, group 2 includes HCoV, OC43 and HCoV, HKU1 and group 3 contains avian infectious bronchitis virus and turkey CoV. ²,³,⁴ SARS-CoV is not assigned to any group, but is most closely associated with group 2. ²,³ HCoV are enveloped vertebrate viruses associated with respiratory and enteric diseases and are responsible for 10 to 20% of all common colds. HCoV infect all age groups and reinfection is common.²

**Material Provided:**
Each vial contains approximately 1 mL of cell lysate and supernatant from Macaca mulatta kidney epithelial cells infected with HCoV, NL63.

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

**Packaging/Storage:**
NR-470 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 at -60°C or colder immediately upon arrival. For long-term storage, cryovials. The product is provided frozen and should be stored.

**Growth Conditions:**

**Host:** Macaca mulatta kidney epithelial cells (LLC-MK2 cells; ATCC® CCL-7.1™)

**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% to 90% confluent

**Incubation:** 6 to 8 days at 34°C and 5% CO₂

**Cytopathic Effect:** Cell rounding and sloughing

**Citation:**
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Human Coronavirus, NL63, NR-470.”

**Biosafety Level:** 2


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References:


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