Bat SARS-Like Coronavirus, HKU5, Recombinant, Containing the SARS Coronavirus, Urbani Spike Glycoprotein Ectodomain

Catalog No. NR-48814

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:

Virus Classification: Nodovirales, Coronaviridae, Coronavirinae, Betacoronavirus

Agent: Bat severe acute respiratory syndrome (SARS)-like coronavirus (CoV), HKU5

Strain/Isolate: Synthetic recombinant bat SARS-like CoV, HKU5, containing the spike glycoprotein ectodomain of the SARS-CoV Urbani strain (BtCoV HKU5-SE).

Comments: The complete genome of bat CoV HKU5 has been sequenced (GenBank: EF065512), as has the complete genome of SARS-CoV, Urbani (GenBank:AY278741), and a mouse-adapted variant (GenBank: DQ497008).

NR-48814 is a synthetic chimeric recombinant coronavirus based on a consensus bat SARS-like coronavirus (SCoV) sequence. The region of the bat SCoV genome encoding the spike (S) glycoprotein ectodomain was replaced with the corresponding region from the SARS-CoV, Urbani genome. A histidine for tyrosine substitution at position 436, previously shown to enhance replication in mice, was also included in the S gene. This virus replicates efficiently in cell culture and in young and aged mice, where the virus targets airway and alveolar epithelial cells.

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from Cercopithecus aethiops kidney epithelial cells (Vero 76, clone E6: ATCC® CRL-1586™) infected with BtCoV HKU5-SE.

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

Packaging/Storage:
NR-48814 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: Vero 76, clone E6 cells; ATCC® CRL-1586™

Growth Medium: Dulbecco’s Modified Eagle’s Medium modified to contain 4 mM L-glutamine, 4500 mg per liter glucose, 1 mM sodium pyruvate, and 1500 mg per liter sodium bicarbonate, supplemented with 5% fetal bovine serum, or equivalent

Infection: Cells should be 70% to 80% confluent

Incubation: 2 to 8 days at 37°C and 5% CO2

Cytopathic Effect: Syncytial rounding and sloughing

Biosafety Level: 3


Disclaimers:
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References:

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