Human Coronavirus, OC43

Catalog No. NR-52725

For research use only. Not for human use.

Contributor: ATCC®

Manufacturer: BEI Resources

Product Description:
Virus Classification: Coronaviridae, Betacoronavirus
Species: Human coronavirus
Strain/Isolate: OC43
Original Source: Human coronavirus (HCoV), OC43 was isolated in 1967 from a respiratory sample from a human adult with a cold-like illness in the Common Cold Unit, Salisbury, England, United Kingdom.¹
Comments: HCoV, OC43 was deposited with ATCC as VR-759™, which was later cleaned of mycoplasma contamination and adapted to cell culture by passaging three times with Mycoplasma Removal Agent (MRA), followed by three passages without MRA to become ATCC VR-1558™.
ATCC VR-1558 was used to produce BEI Resources NR-52725. The complete genome of HCoV, OC43 has been sequenced (GenBank: AY585228).

Coronaviruses (CoV) are enveloped, positive-stranded RNA viruses with approximately 30 kb genomes.¹,² CoV are classified into three groups based on serological and genetic similarities: group 1 includes HCoV, 229E, group 2 includes HCoV, OC43 and group 3 contains avian infectious bronchitis virus and turkey CoV. SARS-CoV is not assigned to any group but is most closely associated with group 2.¹,² 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.¹

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from human ileocecal colorectal adenocarcinoma cells infected with HCoV, OC43.

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

Packaging/Storage:
NR-52725 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 ileocecal colorectal adenocarcinoma cells (HCT-8 [HRT-18]; ATCC CCL-244™)
Growth Medium: Roswell Park Memorial Institute Medium (RPMI 1640) supplemented with 2% heat-inactivated horse serum, or equivalent
Infection: Cells should be 70% to 80% confluent
Incubation: 6 to 11 days at 33°C and 5% CO₂ with slow rocking
Cytopathic Effect: Cell vacuolization and sloughing

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Human Coronavirus, OC43, NR-52725."

Biosafety Level: 2

Disclaimers:
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References:

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