



Rat coronavirus

VR-1410™

Description

This strain was isolated from the lungs of a rat. It has applications in respiratory and infectious disease research. ATCC catalog VR-1410 has not been viable in numerous replenishment attempts, and an alternative host cell line is being sought.

Strain designation: 8190

Common name: Rat coronavirus

Deposited As: Rat Coronavirus

Storage Conditions

Product format: Frozen

Storage conditions: -70°C or colder

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Host: Rat; mouse; L2 cells; primary rat kidney cells

Effects: CPE; death of host animal; respiratory distress; syncytia

Complete medium: EMEM (ATCC 30-2003) + 10% FBS (ATCC 30-2020)

Depositor reports that concentrations of 50 to 400 µg/mL of DEAE-D enhances growth of Rat coronavirus in LBC cells and RBL-02 cells.

Temperature: 37°C

Atmosphere: 95% Air, 5% CO₂

Recommendations for infection: Plant cells 24 hours in advance and infect when cultures are 80-90% confluent. Remove medium and rinse cell sheet with 1X DPBS. Remove 1X DPBS and then inoculate with a small volume (e.g. 1 mL per 25 cm²) of virus diluted to provide a MOI of about 0.01. Adsorb for 1 hour at 37°C in a humidified 5% CO₂ atmosphere. End adsorption by adding virus growth medium.

Incubation: Incubate infected culture for 2 days at 37°C in a humidified 5% CO₂

atmosphere, until CPE are well advance through 90% of the culture.

Handling Procedures

Mycoplasma contamination: Not detected

Notes

Key Abbreviations: °C, Degrees Celsius; CO₂, Carbon dioxide; CPE, Cytopathic effect; EMEM, Eagle's Minimum Essential Medium; mL, Milliliter; MOI, Multiplicity of infection; D-PBS, Dulbecco's Phosphate-buffered saline

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Rat coronavirus (ATCC VR-1410)

References

References and other information relating to this material are available at www.atcc.org.

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