



Human astrovirus

VR-1945™

Description

Human astrovirus strain Type 4 is propagated in Caco-2 [Caco2] cells (ATCC HTB-37). This strain was isolated from a human stool sample in Oxford, United Kingdom, and was deposited by the Centers for Disease Control and Prevention, Division of Viral Diseases. It can be used in a variety of applications, including virucide testing, antiviral studies, spiking studies, virus ultrastructural studies, immunological-based assays, enteric disease research, assay development, and vaccine development.

Strain designation: Type 4

Deposited As: Human astrovirus

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: Caco-2 [Caco2] (ATCC HTB-37)

Effects: CPE may not be visible – confirm infection by IFA; sloughing and detachment may result from trypsin supplemented growth medium

Complete medium:

Growth Medium: EMEM (ATCC 30-2003) + 1 µg/mL 1X-S trypsin (Sigma-Aldrich® T0303)

Diluent/Pre-treatment Medium: EMEM (ATCC 30-2003) + 5 µg/mL 1X-S trypsin (Sigma-Aldrich® T0303)

Temperature: 37°C

Atmosphere: 95% Air, 5% CO₂

Recommendations for infection: Plate cells 18-24 hours prior to infection and infect

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when cultures are 90-100% confluent. Pre-treat inoculum in EMEM (ATCC 30-2003) + 5 µg/mL 1X-S trypsin (Sigma-Aldrich® T0303) for 30 minutes at 37°C. Remove medium and wash cells two times with DPBS. Inoculate with a small volume of virus (e.g., 1 mL per 25 cm²) diluted to provide an optimal MOI (e.g., 1.0). Adsorb 1 hour at 37°C in a humidified 5% CO₂ atmosphere. End adsorption by removing inoculum and adding virus growth medium.

Incubation: 1-5 days at 37°C in a humidified 5% CO₂ atmosphere, until CPE is progressed through 80% of the monolayer.

Notes

Freeze-thaw twice at harvest.

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

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Human astrovirus (ATCC VR-1945)

References

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

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