



Rotavirus A

VR-1546™

Description

Rotavirus A strain Hu/Australia/1-9-12/77/S was isolated in 1977 from human feces in Melbourne, Australia. This strain is whole-genome sequenced and has applications in enteric disease research.

Strain designation: Hu/Australia/1-9-12/77/S

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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

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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: MA-104 Clone 1 (ATCC CRL-2378.1)

Effects: cell rounding; CPE; debris generation

Complete medium: EMEM (ATCC 30-2003) + 1 µg/mL Trypsin

Temperature: 37°C

Recommendations for infection: Plate cells 24 hours prior to infection and infect when cultures are 90-100% confluent. Pre-treat virus in an EMEM (ATCC 30-2003) + 20 µg/mL Trypsin solution for 30 minutes at 37°C. Remove medium, rinse cells, and inoculate with a small volume of virus (e.g., 1 mL per 25 cm²) diluted to provide an optimal MOI (e.g., 0.01). Adsorb 1-2 hours at 37°C in a humidified 5% CO₂ atmosphere while continuously rocking. End adsorption by removing inoculum and adding virus growth medium.

Incubation: 3-4 days, rocking may be necessary to increase titer.

Handling Procedures

Mycoplasma contamination: Not detected

Notes

This material is cited in a U.S. and/or other patent and may not be used to infringe the patent claims. VR-1546 created by freeze-thawing VR-2105 three times, then sterile-filtering it through 0.45 micron filter one time and 0.2 micron filter two times before inoculating. The virus shows typical rotavirus morphology by electron microscopy. It has a diameter of 65-75 nm for the double-shelled form and 55-65 nm for the single-shelled form. This virus appears to be attenuated. The virus must be grown in serum-free media containing trypsin and should be pre-treated with trypsin to activate the virus before inoculation. Cell monolayers must be washed before inoculation to remove any FBS that would inactivate the trypsin.

Key Abbreviations: CPE, Cytopathic effect; EMEM, Eagle's Minimum Essential Medium; FA, Fluorescent antibody assay; FBS, Fetal bovine serum; MAb, Monoclonal antibody; MA-104, Embryonic rhesus monkey kidney cells; µg, Microgram; mL, Milliliter; nm, Nanometer; PBS, Phosphate-buffered saline; TC, Tissue culture; TCID₅₀, Median tissue culture infective dose

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Rotavirus A (ATCC VR-1546)

References

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

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