



# Betacoronavirus 1

VR-1558™

## Description

Betacoronavirus 1 strain OC43 is propagated in HCT-8 [HRT-18] cells (ATCC CCL-244). This strain was isolated from a man with a cold-like illness. It has applications in respiratory disease research and infectious disease research.

**Strain designation:** OC43

**Common name:** Human coronavirus OC43

**Deposited As:** Human coronavirus OC43

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -70°C or colder

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## 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.

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## 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.

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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.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

**Host:** HCT-8 [HRT-18] (ATCC CCL-244)

**Effects:** CPE; cell vacuolization; cell sloughing

**Complete medium:** RPMI-1640 (ATCC 30-2001) + 2% HS (ATCC 30-2040)

**Temperature:** 33°C

**Recommendations for infection:** For best results, infection should be performed on an 80-90% confluent, 18-48 hour old cellular monolayer. Prepare dilution of virus in minimum amount of volume (e.g. 1 mL per 25 cm<sup>2</sup>), optimized for propagation (e.g. MOI 0.01-0.1 recommended). Wash monolayer two times with PBS or serum free medium prior to inoculation. Adsorb virus dilution for 1-2 hours at 33°C in a humidified 5% CO<sub>2</sub> atmosphere, while rocking continuously. End adsorption by adding virus growth medium.

**Incubation:** 4-6 days at 33°C in a humidified 5% CO<sub>2</sub> atmosphere, rocking continuously, until CPE is progressed through 80% of the monolayer.

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## Handling Procedures

**Mycoplasma contamination:** Not detected

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## Notes

ATCC VR-1558 is a TC-adapted item derived from virus passaged in mice (ATCC VR-759). Cleaned of mycoplasma with MRA. No antigenic cross reaction with Human coronavirus 229E (ATCC VR-740).

**Key Abbreviations:** RPMI, Roswell Park Memorial Institute; TC, Tissue culture; CPE, Cytopathic effect; HCT-8, adult human colon epithelial cells; HS, Horse serum; MOI, Multiplicity of infection; MRA, Mycoplasma removal agent; PBS, Phosphate-buffered saline

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Betacoronavirus 1 (ATCC VR-1558)

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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