



# Human rhinovirus 49

VR-1644™

## Description

**Strain designation:** 8213

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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.

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:** H1HeLa (ATCC CRL-1958)

Alternate Hosts: WI-38 (ATCC CCL-75 ), HeLa (ATCC CCL-2 ), KB (ATCC CCL-17 ) and other human cells

**Effects:** cell rounding; cell sloughing; CPE

**Complete medium:**

EMEM (ATCC® 30-2003™) + 2% FBS (ATCC® 30-2020™)

**Temperature:** 33°C

**Atmosphere:** 95% Air, 5% CO<sub>2</sub>

**Recommendations for infection:** For best results, plate cells 24-48 hours in advance.

Infect at 80%-90% confluence using a multiplicity of infection (MOI) of 0.01 to 1.0.

Incubate at 33°C in a humidified, 5% CO<sub>2</sub> atmosphere for 2-7 days with rocking, until CPE are well advanced in 100% of the culture. Harvest cells and culture fluids; cell debris can be removed by centrifugation if desired.

**Incubation:** Incubate at 33°C in a humidified, 5% CO<sub>2</sub> atmosphere for 2-7 days with rocking, until CPE are well advanced in 100% of the culture. Harvest cells and culture fluids; cell debris can be removed by centrifugation if desired. Freeze preparation as rapidly as

## Handling Procedures

**Mycoplasma contamination:** Not detected

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## Notes

This product is a mycoplasma free preparation derived from NIAID Research Reference Reagent V-116-002-021 (ATCC® VR-1159). It replaces VR-1159 and VR-516, which will be discontinued when inventory is depleted. Strain 8213 is the prototype strain for human rhinovirus 49 and it has been fully sequenced. GenBank: DQ473496.1.

**Key Abbreviations:** EMEM, Eagle's Minimum Essential Medium; FBS, Fetal bovine serum; °C, Degrees Celsius; CO<sub>2</sub>, Carbon dioxide; CPE, Cytopathic effect

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Human rhinovirus 49 (ATCC VR-1644)

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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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## Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product.

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While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

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## Contact Information

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

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