



# Avian coronavirus

VR-21™

## Description

**Strain designation:** M41

**Common name:** Infectious bronchitis virus (IBV)

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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

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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:** Embryonated chicken egg (9 to 10 day old)

**Effects:** curling; death of host animal; pale coloring; stunting

**Temperature:** 37°C

**Recommendations for infection:** Inoculate embryonated chicken eggs (9 to 10 day old) by the allantoic cavity route with 0.2 mL of a 1:10 to 1:100 dilution of virus in DPBS.

**Incubation:** 2-6 days

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### Handling Procedures

**Mycoplasma contamination:** Not detected

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### Notes

The M41 (Massachusetts [Michigan State University Repository Code 41]) strain is the

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prototype of IBV, however it should be noted that antigencity and virulence of IBV change readily with passage in culture. Unlike fully egg-adapted strains that are non-immunogenic, this strain produces satisfactory immunity as determined by neutralization test for antibodies.

**Key Abbreviations:** °C, Degrees Celsius; CO<sub>2</sub>, Carbon dioxide; CPE, Cytopathic effect; mL, Milliliter; MOI, Multiplicity of infection; NCBI, National Center for Biotechnology Information; D-PBS, Dulbecco's Phosphate-buffered saline; CEID<sub>50</sub>, The Chicken Embryo Infectious Dose 50% endpoint is the 50% infectious endpoint in a chicken embryo.

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### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Avian coronavirus (ATCC VR-21)

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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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### Revision

This information on this document was last updated on 2024-09-20

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