




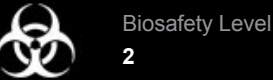
Product Sheet

# Avian coronavirus (ATCC® VR-21™)

Please read this **FIRST**



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## Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Avian coronavirus (ATCC® VR-21™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
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## Description

**Strain:** M41

**Classification:** Coronaviridae, Gammacoronavirus

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

**Original Source:**

Isolated in 1941 from 19-day old chicks accidentally infected in the laboratory, University of Massachusetts.

**Depositor:** CH Cunningham, Michigan State University

## Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

## Propagation

**Propagation Host:**

**Production Host:** Embryonated chicken egg (9 to 10-day old).

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

**Alternate Host:** Chicken (10-day old, intratracheal inoculation).

**Effect on Host:**

Yes, in vivo effects: curling, stunting and pale coloring of infected embryos or chickens; may cause death.

**Medium:**

Chicken egg allantoic fluid

**Growth Conditions**

**Temperature:** 37.0°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

## Comments

The M41 (Massachusetts [Michigan State University Repository Code 41]) strain is the prototype of IBV, however it should be noted that antigenicity 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.

## References

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

## Key Abbreviations

°C, degrees Celsius

CO<sub>2</sub> (CO2), carbon dioxide

CPE, cytopathic effect

mL, milliliter

MOI, multiplicity of infection

NCBI, National Center for Biotechnology Information

DPBS, Dulbeccos Phosphate Buffered Saline

CEID<sub>50</sub> (CEID[50]), the 50% infectious endpoint in chicken eggs, i. e. the dilution that, under the conditions of the assay, can be expected to infect 50% of the eggs inoculated, just as a Lethal Dose 50% (LD<sub>50</sub>) is expected to kill half of the animals exposed. Expressed as TCID<sub>50</sub> per volume inoculated per egg. The reciprocal of the dilution required to yield the CEID<sub>50</sub> provides a measure of the titer (or infectivity) of a preparation.

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06/2011, KKJ/MJA

## Biosafety Level: 2


Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes



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Storage Temp.  
**-70°C or colder**

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for Health.

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**ATCC Warranty**

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The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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**Disclaimers**

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This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).  
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