



# Bovine viral diarrhea virus

VR-534™

## Description

Both BVDV1 and BVDV2 are present.

**Strain designation:** NADL

**Deposited As:** Bovine viral diarrhea

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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 submerged 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 submerged 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:** BT (ATCC CRL-1390)

primary bovine embryonic kidney cells

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

**Complete medium:**

DMEM (ATCC<sup>®</sup> 30-2002™) + 10% Horse Serum (ATCC<sup>®</sup> 30-2040™)

**Temperature:** 37°C

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

**Recommendations for infection:** For best results cells should be 24 to 48 hours old and 80% - 90% confluent (not 100% confluent).

**Incubation:** 2-6 days

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### Handling Procedures

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**Mycoplasma contamination:** Not detected

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### Notes

BVD viruses cross-fluoresce and have a

common soluble antigen with hog cholera viruses.

The buoyant density of BVD viruses is 1.15 g/mL

and the size of the virion is thought to be 80-100

millimicrons. This preparation may be readily

adapted to growth in PK-15 cells (ATCC CCL-33)

(Malmquist, W.A. et al., American Journal of

Veterinary Research 26: 1316, 1965). ATCC VR-

1422 is a variant of this strain that is amenable to

being grown at higher titers. VR-534 is a

recognized reference strain by the Western

Hemisphere Committee on Non-primate Animal

Virus Characterization (WHO).

**Key Abbreviations:** BEK, Bovine embryonic kidney cells; BT, Bovine turbinate cells; CO<sub>2</sub>, Carbon dioxide; CPE, Cytopathic effect; DMEM, Dulbecco's Modified Eagle's Medium; HS, Horse serum; PK-15, Porcine kidney cells, clone 15; Pr, Primary; TCID<sub>50</sub>, Median tissue culture infective dose; USDA, United States Department of Agriculture; WHO, World Health Organization

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### Material Citation

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If use of this material results in a scientific publication, please cite the material in the following manner: Bovine viral diarrhea virus (ATCC VR-534)

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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 2025-10-19

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## Bovine viral diarrhea virus

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