



Porcine respiratory coronavirus

VR-2384™

Description

Porcine respiratory coronavirus (PRCV) strain AR310 is propagated in ST cells (ATCC CRL-1746). This strain was isolated from the culture of a novel Transmissible gastroenteritis virus (TGEV)-related PRCV and provides a biologically pure culture of a novel PRCV; a vaccine derived therefrom will be effective against PRCV infection and TGEV infection. This virus produces a moderate pneumonia in pigs; there is no indication of human health hazard. It has applications in agricultural research and vaccine development.

Strain designation: AR310

Common name: PRCV

Deposited As: Porcine respiratory coronavirus

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Patent number:

5,419,907

Technical information: ATCC Product Experience does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

Storage Conditions

Product format: Frozen

Storage conditions: -70°C or colder

Intended Use

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BSL 2

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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.

Growth Conditions

Host: ST (ATCC CRL-1746)

Effects: cell rounding; cell sloughing; CPE; syncytia

Complete medium:

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

Temperature: 37°C

Atmosphere: 95% Air, 5% CO₂

Recommendations for infection: For best results, infection should be performed on a 80-90% confluent, 18-48 hour old cellular monolayer. Prepare dilution of virus in minimum amount of volume (e.g. 1 mL per 25 cm²). Wash monolayer with PBS or serum free medium prior to inoculation. Adsorb virus dilution for 1-2 hours at 37°C in a humidified 5% CO₂ atmosphere, rocking every 20-30 minutes to redistribute inoculum. End adsorption by adding virus growth medium.

Incubation: 2-3 days at 37°C in a humidified 5% CO₂ atmosphere, until CPE is progressed through 80% of the monolayer.

Handling Procedures

Mycoplasma contamination: Not detected

Notes

This strain provides a biological pure culture of a novel pathogenic porcine respiratory coronavirus (PRCV) and a vaccine derived therefrom effective against PRCV infection and Transmissible gastroenteritis virus (TGEV) infection. The virus produces a moderate pneumonia in pigs. There is no indication of human health hazard.

This material is cited in U.S. and/or other patent # 5,419,907 May 30, 1995.

Key Abbreviations: °C, Degrees Celsius; CO₂, Carbon dioxide; CPE, Cytopathic effect; EMEM, Eagle's Minimum Essential Medium; FBS, Fetal bovine serum; PBS, Phosphate-buffered saline; PRCV, Porcine respiratory coronavirus; ST, Porcine fetal testis cells; TGE, transmissible gastroenteritis

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Porcine respiratory coronavirus (ATCC VR-2384)

References

References and other information relating to this material are available at www.atcc.org.

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Revision

This information on this document was last updated on 2026-05-20

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