



# ***Borrelia carolinensis*** **Rudenko et al.**

**BAA-1773™**

## **Description**

*Borrelia carolinensis* strain SCW22 is a bacterial type strain that was isolated in South Carolina from a hard tick.

**Strain designation:** SCW22

**Type strain:** Yes

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## **Storage Conditions**

**Product format:** Frozen

**Storage conditions:** -80°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 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

**Medium:**

ATCC Medium 1914: Revised BSK medium

ATCC Medium 260: Trypticase soy agar/broth with defibrinated sheep blood

**Temperature:** 33°C**Atmosphere:** 95% Air, 5% CO<sub>2</sub>

## Handling Procedures

1. Open thawed vial.
2. Aseptically transfer the entire contents to a 5-6 mL tube of #1914 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes.
3. Use several drops of the primary broth tube to inoculate a #260 plate and/or

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agar slant.

4. Or, to obtain a biphasic culture, add several drops of the primary broth tube to an agar slant. Best practice is to incubate these slants at an angle.
  5. Incubate at 33°C in the dark in an atmosphere of 5% CO<sub>2</sub> for 7-10 days. Use an anaerobe jar with an active catalyst and a microaerophilic gas generator pack or other acceptable method. All tubes and slants should be incubated with caps loosened.
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**Notes**

Growth usually occurs after 5 days, although some strains may take up to 10 days to grow. Acid formation during growth will change the medium to a light or yellowish-orange color. Turbidity is not evident. Cells can be monitored under phase microscopy as long spiral rods and motility by twitching movement.

*Borrelia carolinensis* is a fragile, sensitive organism that must have the appropriate medium for growth. Rabbit serum is essential for the growth of this organism. Fresh medium enhances growth. Medium older than one month should not be used.

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

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**Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Borrelia carolinensis* Rudenko et al. (ATCC BAA-1773)

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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 2024-10-25

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