ATCC

Product Sheet

Sterolibacterium denitrificans (ATCC® BAA-354™)

Please read this FIRST

Biosafety Level
1

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: *Sterolibacterium denitrificans* (ATCC® BAA-354™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Designation: DSM 13999 [Chol-1S]
Deposited Name: *Sterolibacterium denitrificans* Tarlera and Denner

Propagation

Medium
ATCC® Medium 2298: Medium for Sterolibacterium denitrificans

Growth Conditions
Atmosphere: nitrogen (N2), 80%; carbon dioxide (CO2), 20%
Temperature: 30.0°C

Propagation Procedure
1. Sterilize the top of the Balch tube (*see below*) by spraying it with 70% ethanol and then flaming the top.
2. If needed exchange the gas in the test tube for 80% N_2-20% CO_2. Best results are obtained if the tube is pressurized to approximately 1.52 bar.
3. If the medium is pink (see discussion about resazurin) add 2.0 ml of reducing agent (3% cysteine, stock solution) per 100 ml of medium. Let the medium sit at room temperature for 10 to 20 minutes - until the resazurin becomes colorless - before inoculating.
4. When the Balch tube is ready to inoculate, open the vial according to enclosed instructions.

5. For inoculation, use an anaerobic 1.0 ml syringe (*see below*) tipped with 22-gauge needle. Withdraw 0.5 ml of #2298 broth and use this to rehydrate the freeze-dried pellet. Immediately place the rehydrated vial under a stream of sterile oxygen-free gas.
6. Using the same syringe, transfer the rehydrated cell suspension back to a tube of #2298 broth. Plate 0.1 ml of the inoculated culture onto a non-selective medium and incubate aerobically at 30ºC. Inoculate a nonselective anaerobic and aerobic broth. Incubate the inoculated tubes at 30°C.
7. Growth should be detected in the #2298 broth within 7 days. There should be no growth detected on the aerobic plate. There should be no growth in the nonselective aerobic or anaerobic broth.
ANAEROBIC CONDITIONS:
a. Balch tube refers to a special type of test tube that is designed to be pressurized and is suited for anaerobic work. The Balch test tubes can be purchased form Bellco glass (www.bellcoglass.com; stock no. 2048-00150).
b. Resazurin is a commonly used redox indicator that is pink when the redox potential is above 50 mv., and colorless when the redox potential is below 110 mv. i.e. highly reducing. Most strict anaerobes require this low redox potential for optimum growth.
c. To obtain a fully reduced medium, it is necessary that the medium be anoxic and that a reducing agent be added. Common reducing agents are sodium sulfide, cysteine, dithiothreitol, and titanium citrate.
d. Syringes can be made anaerobic by one of two methods. 1. Displace the dead space in the syringe with a sterile

References

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

Biosafety Level: 1

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 for Health.

ATCC Warranty

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.

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

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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