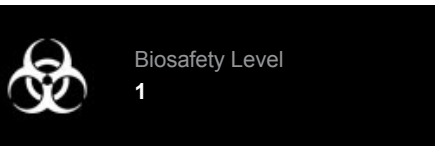
ATCC

Product Sheet

Acidianus ambivalens (ATCC® 49204™)

Please read this FIRST



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: *Acidianus ambivalens* (ATCC® 49204™)

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 3772 [CIP 104912, JCM 9191, Lei10]
Deposited Name: *Desulfurolobus ambivalens* Zillig and Bock

Propagation

Propagation Procedure

1. Sterilize the top of the Hungate test tube with 70% ethanol.
2. Exchange gas in the Hungate test tube for 80% H_2 - 20% CO_2.
3. If the medium is oxidized (see discussion about resazurin below) add 0.1 ml of reducing agent (*see above*) to the medium and let the medium sit for 30 minutes before inoculating.
4. When the Hungate test tube is ready to be inoculated, place the frozen LN_2 vial under a stream of oxygen free gas and thaw at room temperature.
5. Using a syringe, in which the dead space has been filled with an anaerobic gas mixture or reducing agent (see below), withdraw the cell suspension from vial and transfer to a single tube (5 to 6 ml) of the recommended broth. Withdraw 0.5 ml of broth from this tube and transfer it to a second tube (5 to 6 ml).
6. Over pressurize the headspace to 150 kPa using a gas mixture of 80% H_2 20% CO_2. Place the tubes at 80ºC.

ANAEROBIC CONDITIONS:

a. Balch tube refers to a special type of test tube that is
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

Notes

Within 48 to 72 hours, growth should evident under microscopic inspection at 1000X. Cells are non-motile, Gram-negative, irregular cocci.
Using the syringe transfer method, you must make the transfer as quickly as possible. Sometimes during transfer the medium will oxidize and turn pink (due to resazurin), however it may reduce itself back to the clear broth color during incubation. If the color does not change back, anaerobic conditions were not met and the culture will not grow.
Additional information on this culture is available on the ATCC web site at www.atcc.org.

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

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. 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 product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

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1

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