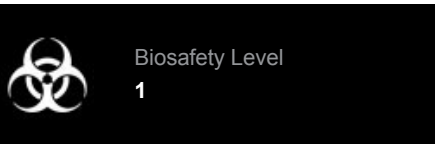
ATCC

Product Sheet

Desulfotomaculum acetoxidans (ATCC® 49208™)

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: *Desulfotomaculum acetoxidans* (ATCC® 49208™)

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 771 [5575]
Deposited Name: *Desulfotomaculum acetoxidans* Widdel and Pfennig
Product Description: Type strain

Propagation

Medium
ATCC® Medium 1964: Desulfotomaculum acetoxidans medium

Growth Conditions
Temperature: 37°C in shaking condition
Atmosphere: Anaerobic gas mixture, 80% N_2 - 10% CO_2 - 10% H_2

Propagation Procedure

1. Keep cryovial frozen until ready for use.
2. Perform all steps under anaerobic conditions (*see below*).
3. Thaw the vial and aseptically transfer the suspension into a tube of #1964 broth. Inoculate a plate of non-selective medium with 0.1 mL of the culture.
4. Seal the test tube with a rubber stopper and incubate anaerobically at 37ºC in shaking condition. Incubate the plate(s) aerobically as a purity check.
5. Within 7 to 14 days, growth is evident by moderate to good turbidity in the broth, with sediment in the bottom of the tube. Cells are motile medium rods in singles, and pairs. No growth should occur on the blood agar plate incubated aerobically. Once growth is achieved, transfer the culture to fresh #1964 broth. This culture does not grow well on agar.

ANAEROBIC CONDITIONS:
Anaerobic conditions for transfer may be obtained by either of the following:

- Use of an anaerobic gas chamber, or
- Placement of test tubes under a gassing cannula system connected to anaerobic gas.
- Anaerobic conditions for incubation may be obtained by any of the following:

Loose screw caps on test tubes in anaerobic chamber,

- Loose screw caps on test tubes in an activated anaerobic gas pack jar, or
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Notes

Prior to inoculation, reduce the medium with the addition of 0.1 mL of a 1.5 % $Na_2S{\cdot}9H_2O$ (stock solution) for each 10 mL of medium to be inoculated; let the medium sit for minimum of 30 minute before inoculating.

Once growth has been detected, it has been noted that adding 0.1 mL of a 1.5 % $Na_2S{\cdot}9H_2O$ stock solution for each 10 mL of medium may enhance growth.

Always use freshly prepared anaerobic media.

For best results, use an anaerobe chamber. If one is not available, use a gassing cannula system. Using an anaerobic jar after rehydration of the freeze-dried pellet is not recommended. Once the culture has been established, using an anaerobic jar will work if the inoculum is 20% or greater.

A culture that has good growth and is fresh can be maintained at 4ºC for up to a week. The cells can be stored at -70ºC to -80ºC by growing a large volume in #1964 broth, harvesting the cells, and then mixing the cell pellet in an equal volume of fresh #1964 and 20% glycerol (10% final glycerol concentration). Distribute the cells into vials (approximately 0.5 to 1.0 mL per vial), and freeze rapidly. Both the #1964 broth and glycerol need to be pre-reduced. This may be accomplished by adding 0.1 mL (for each 5 to 6 mL medium) of a 1.5% sodium sulfide solution.

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.

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Biosafety Level
1

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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

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Disclaimers

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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

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