



Desulfosporosinus orientis **(Campbell and Postgate)** **Stackebrandt et al.**

23598™

Description

Strain designation: NCIB 8445 [Singapore II, Ulu]

Deposited As: *Desulfovibrio orientis* Adams and Postgate

Type strain: No

Storage Conditions

Product format: Freeze-dried

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.

BSL 1

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.

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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 submersed 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 submersed in liquid nitrogen.

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

Medium:

ATCC Medium 1249: Modified Baar's medium for sulfate reducers

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ATCC Medium 207: Modified Starkey's medium C

Temperature: 30°C

Atmosphere: Anaerobic

Handling Procedures

- 1. Open vial according to enclosed instructions.**
- 2. Perform all steps under anaerobic conditions. (*see below*)**
- 3. Aseptically transfer 0.5 ml of ATCC Medium #1249 to the vial and rehydrate the**

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freeze-dried pellet. Transfer the suspension back into the tube of broth. Inoculate a plate of non-selective medium with 0.1 of the culture.

4. Seal the test tube with a rubber stopper and incubate anaerobically at 30°C. Incubate the plate(s) aerobically as a purity check.

5. Within 24 to 48 hours, growth should be evident by moderate to good turbidity in the broth, with sediment in the bottom of the tube. No growth should occur on the blood agar plate incubated aerobically. Once growth is achieved, transfer the culture to fresh #1249 broth. This culture does not grow well on agar.

ANAEROBIC CONDITIONS:

- Tubes of media are placed under a gassing cannula system hooked to a source of oxygen free gas.

- All transfers are performed while the test tubes are on the cannula system with a gentle stream of oxygen-free gas flowing through the system.

- As the test tubes are removed from the cannula system, each is sealed with butyl rubber stopper, thus maintaining the anaerobic headspace.

Notes

Always use freshly prepared anaerobic media.

The best results have been obtained using the 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.

Either 100% N₂ or 80% N₂-10% CO₂-10% H₂ can be used as the anaerobic gas for culturing this organism.

Once growth has been obtained this culture is fairly easy to maintain by transferring every other day. A culture that has good growth and is fresh can be maintained at 4°C for up to a week. The cells can be stored at 70 to 80°C by growing a large volume in #1249 broth, harvesting the cells and then mixing the cell pellet in

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an equal volume of fresh #1249 and 20% glycerol (10% final concentration). Distribute the cells into vials (approximately 0.5 to 1.0 ml per vial) and freeze rapidly. Both the #1249 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.

Cells appear as rods in singles and pairs with pointed ends. The cells are motile and produce spores.

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

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Desulfosporosinus orientis* (Campbell and Postgate) Stackebrandt et al. (ATCC 23598)

References

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

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