Solidesulfovibrio carbinoliphilus (Allen et al.) Waite et al.

BAA-1241™

Description

Solidesulfovibrio carbinoliphilus strain D41 is a bacterial type strain that was isolated in Colorado from hydrocarbon-contaminated sediment.

Strain designation: D41

Type strain: Yes

Storage Conditions

Product format: Freeze-dried

Storage conditions: 2°C to 8°C

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.

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
Temperature: 30°C
Atmosphere: 80% N_2, 20% CO_2

Handling Procedures

1. Open the vial.
2. Perform all steps under anaerobic conditions. Media should be pre-reduced with the addition of 0.1 ml cysteine (3% stock; 0.1 ml for each 5 10 ml of ATCC Medium #1249). Once the cysteine has been added, let the tube sit for at least 30 minutes at room temperature under a head space of anaerobic gas. This will

give the cysteine time to scavenge the free oxygen in the medium.

3. Aseptically transfer 0.5 ml of #1249 broth to the vial and rehydrate the pellet. Transfer the suspension back into the broth tube. Inoculate a plate of a non-selective medium such as Tryptic Soy, Nutrient, or blood agar with 0.1 ml of the cell suspension.
4. Seal the tube with a rubber stopper and incubate anaerobically at 30°C. Incubate the plate(s) aerobically as a purity check.
5. After one or two days, growth should be evident as indicated by turbidity through out the broth. Once growth has been established the culture should be transferred to fresh broth every 48 to 96 hours.
6. This culture is very sensitive to oxygen when initially rehydrated, therefore steps should be taken to avoid exposure to oxygen. When the culture exhibits good growth it will remain viable for up to 1 week if stored at 4°C under anaerobic condition.

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.
- 100% nitrogen or 80% nitrogen-20% carbon dioxide gas mixture is typically employed as the oxygen free gas source.

Notes

When examined microscopically, the cells appear as single (some pairs) curved shaped rods that are motile. Ferrous ammonium does not need to be added to ATCC Medium #1249 to obtain growth.

Always use freshly prepared anaerobic medium. If there is any question about the anaerobic condition of the medium, the it can be reduced with the addition of 1.5% cysteine (2.0 ml per 100 ml of medium).

Other commonly used reducing agents are sodium sulfide, cysteine, dithiothreitol, and titanium citrate. Cysteine is the reducing agent of choice since it does not cause the ferrous ammonium sulfate to precipitate.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Solidesulfovibrio carbinoliphilus* (Allen et al.) Waite et al. (ATCC BAA-1241)

References

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

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