Ferribacterium limneticum Cummings et al.

700589™

Description

Ferribacterium limneticum strain CdA-1 is a bacterial type strain that was isolated in Idaho from iron and trace-element enriched sediment from Lake Coeur d'Alene.
Strain designation: CdA-1
Deposited As: Unidentified bacterium
Type strain: Yes

Storage Conditions

Product format: Frozen
Storage conditions: -80°C or colder

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 2827: Ferribacterium limneticum Medium
Temperature: 30°C
Atmosphere: Anaerobic

Handling Procedures

1. Sterilize the top of the Balch tube by spraying it with 70% ethanol and then flaming the top.
2. Exchange the gas in the test tube for 80% H_2 20% CO_2, do not pressurize over 5psi. If the tubes are over pressurized (20 psi.), inoculating the tubes will prove

difficult.

3. Prepare tubes for inoculation: If there is concern that the medium is not anaerobic (see discussion about resazurin B), add 0.1 mL of reducing agent (3% Cysteine stock solution) per 10 mL of medium. Let the medium sit at room temperature for at least 1 hour before inoculating.
4. Thaw the frozen vial under a gentle stream of anaerobic gas. Using an anaerobic (see D) 1.0 mL syringe tipped with 22-gauge needle, withdraw the cell suspension from the vial and transfer to the tube of broth. Transfer 0.5 mL of the inoculated culture to a second tube of broth. Plate 0.1 mL of the inoculated culture onto a non-selective medium and incubate the plate aerobically at 30ºC. Incubate culture tubes at 30°C.
5. Growth should be detected in the broth within 5 to 7 days. Growth is enhanced by incubating the cultures with shaking. No growth should be detected on the aerobic plate.

ANAEROBIC CONDITIONS:

a. Balch tubes (available from Bellco Glass, Vineland, NJ; are specially designed for anaerobic work and use an aluminum crimp cap to hold a rubber stopper in place. Needles can easily be inserted through the stopper, and the tubes can be pressurized. Alternatively, serum vials may be used, or screw cap tubes with butyl rubber stoppers, in the latter case the stopper may be removed and the tube placed under a cannula system that dispenses sterile, oxygen free gas for addition of reducing agents or inoculation.
b. 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, titanium citrate and Co-enzyme M.
c. We suggest adding the reducing agent to the medium at least one hour before the medium is to be inoculated.
d. Syringes can be made anaerobic by one of two methods.
    1. Displace the dead space in the syringe with a sterile oxygen-free gas.
    2. Displace the dead space in the syringe with a reducing agent.

Notes

No growth was detected on agar.

Cells are straight or slightly curved rods that occur singly, in pairs and short chains of

three to four cells.
Fumarate was found to enhance growth.
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: *Ferribacterium limneticum* Cummings et al. (ATCC 700589)

References

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

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