Caldicellulosiruptor obsidiansis

BAA-2073™

Description

Caldicellulosiruptor obsidiansis strain OB47 is a thermophilic bacterial type strain that was isolated from an obsidian pool from Yellowstone National Park. This strain is part of the National Park Service (NPS) Special Collection.

Strain designation: OB47

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 1698: Clostridium aldrichii medium
Temperature: 70-78°C
Atmosphere: 80% N_2, 20% CO_2; 100% N_2

Handling Procedures

1. Sterilize the top of the Balch tube (see A) by spraying it with 70% ethanol and then flaming the top.
2. Exchange the gas in the test tube for 80% N_2 - 20% CO_2; do not over pressurize.
3. Prepare tubes for inoculation: If there is any question about the medium being

anaerobic (see B), add 0.1 ml of reducing agent (3% Cysteien stock solution; see C) to each tube. Let the medium sit at room temperature for at least 2 hours before inoculating.

4. Immediately prior to working with the culture, open the FD vial according to the enclosed instructions. Using an anaerobic 1.0 ml syringe with a 22-gauge needle (see D.) withdraw 0.5 ml of the reduced #1698 medium from the primary tube. As you add the reduced medium to the freeze dried pellet place the vial under a gentle stream of anaerobic gas. Use the entire re-hydrated pellet to inoculate the primary broth. Transfer 0.5 ml of the inoculated culture to a second tube of anaerobic #1698 broth. Plate 0.1 ml of the inoculated culture onto a non-selective medium and incubate the plate aerobically at 37°C. Incubate culture tubes at 70-78°C.
5. Alternatively, work with the FD vial in an anaerobic chamber.
6. Growth should be detected in the broth within 24 hours. No growth should be detected on the aerobic plate.

Notes

No growth was detected on aerobic plates. Cells are gram-positive rods. This organism is very sensitive to oxygen, so the medium must be reduced prior to inoculation. Do not store for more than one week at 4°C.

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: *Caldicellulosiruptor obsidiansis* (ATCC BAA-2073)

References

References and other information relating to this material are available at

www.atcc.org.

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Revision

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