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Description

Thermoanaerobacterium thermosulfurigenes strain 4B is a thermophilic type strain isolated in 1979 from a microbial mat at Yellowstone National Park. This strain is known to produce ethanol from starch.

Strain designation: 4B [DSM 2229]

Deposited As: *Clostridium thermosulfurigenes* Schink and Zeikus

Type strain: Yes

Patent depository: This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.

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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.

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BSL 1

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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 1398: Modified low phosphate buffered basal medium

Temperature: 60°C

Atmosphere: Anaerobic

Handling Procedures

1. Open vial according to enclosed instructions or visit www.atcc.org for instructions.
2. Under anaerobic conditions aseptically rehydrate the entire pellet with approximately 0.5 mL of #1398 broth. Aseptically transfer the entire contents to a 5-6 mL tube of #1398 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes. Best practice dictates the use of pre-reduced media.
3. Use several drops of the primary broth tube to inoculate a #1398 plate and/or #1398 agar slant.
4. Incubate in an anaerobic atmosphere at 60°C for 48 hours. Incubate one agar plate aerobically at 37°C to check for contamination.

ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by the 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 an anaerobic chamber
- Loose screw caps on test tubes in an activated anaerobic gas pack jar
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: 33743 (ATCC 33743)

References

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

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