



Geobacter sp.

BAA-2173™

Product Sheet

Description

Strain designation: IFRC128

Type strain: No

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 2784: Geobacter Dfr2 Medium w/ Iron citrate

ATCC Medium 2785: Geobacter Dfr2 Medium

Temperature: 26°C

Atmosphere: 80% N₂, 20% CO₂

Handling Procedures

1. Prior to inoculation, media should be reduced with 3% cysteine (0.1 mL per 10 mL media) and gas exchanged using 80% N₂-20% CO₂.
2. Just prior to inoculation, place the frozen vial at room temperature to thaw.
3. Transfer the entire contents of the vial to a tube of #2785 broth (10 mL).
4. Additional #2785 or #2784 broth tubes may be inoculated by transferring 0.5 mL of the primary tube to each addition broth tube.
5. Inoculate a non-selective media to check for contamination. One should be incubated aerobically and a second should be incubated anaerobically at 26°C.

6. Incubate the tubes and plate at 26°C for 48 to 96 hours

ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by either of the following:

- Use of an anaerobic gas chamber, or
- Placement of test tubes under a gassing cannula system hooked to anaerobic gas.

Anaerobic conditions for incubation may be obtained by any of the following:

- Loose screw caps on test tubes in anaerobic chamber,
- Loose screw caps on test tubes in an activated anaerobic gas pack jar, or
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Notes

Always use freshly prepared pre-reduced media or pre-reduced media that has been previously prepared but stored under anaerobic conditions.

This culture grows in the presence of either Fe (III) citrate or fumarate. The initial growth should be incubated in the presence of fumarate; it is difficult to achieve growth initially using Fe (III) citrate. Once the culture has recovered from the preservation process, the culture can be transferred to media with Fe (III) citrate. When grown in Fe (III) citrate, the culture degrades the iron, changing the media pigmentation from a dark brown to a tan or clear pigmentation. When grown with fumarate, a pink pigmentation is produced.

No growth should occur on non-selective media, such as a blood plate, either aerobically or anaerobically.

The cell morphology is a gram negative non-motile rod that occurs in singles or pairs.

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: *Geobacter* sp. (ATCC BAA-2173)

References

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

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***Geobacter* sp.**

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Product Sheet

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