



Product Sheet

# *Geobacter sp.* (ATCC®) BAA-2173™)

Please read this **FIRST**



Storage Temp.  
**Frozen: -80°C or colder**  
**Freeze-Dried: 2°C to 8°C**  
**Live Culture: See Propagation Section**

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Biosafety Level  
**1**

## Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: *Geobacter sp.* (ATCC® BAA-2173™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

## Description

Designation: IFRC128

## Propagation

### Medium

ATCC® Medium 2784: *Geobacter* Dfr2 Medium w/ Iron citrate  
ATCC® Medium 2785: *Geobacter* Dfr2 Medium

### Growth Conditions

**Temperature:** 26°C

**Atmosphere:** Anaerobic gas mixture; 80% N<sub>2</sub>-20% CO<sub>2</sub>

### Propagation Procedure

1. Prior to inoculation, media should be reduced with 3% cysteine (0.1 mL per 10 mL media) and gas exchanged using 80% N<sub>2</sub>-20% CO<sub>2</sub>.
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](http://www.atcc.org).

## References

References and other information relating to this product are available online at [www.atcc.org](http://www.atcc.org).

## Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S.

Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

## ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media



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may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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## **Disclaimers**

This product is intended for laboratory research purposes only. It is not intended for use in humans.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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