



Product Sheet

# *Geobacter sulfurreducens* (ATCC® 51573™)

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 sulfurreducens* (ATCC® 51573™)

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:** PCA

**Deposited Name:** *Geobacter sulfurreducens* Caccavo et al.

**Product Description:** Type strain. Genome sequencing strain.

## Propagation

### Medium

ATCC® Medium 1957: *Geobacter* medium

### Growth Conditions

**Temperature:** 26°C to 30°C

**Atmosphere:** Anaerobic gas mixture, 80% N<sub>2</sub>-10% CO<sub>2</sub>-10% H<sub>2</sub> or 80% N<sub>2</sub>-20% CO<sub>2</sub>

### Propagation Procedure

1. Keep vial frozen until ready to use.
2. To reduce media before inoculation, use 5% coenzyme M (0.1 mL per 10 mL). 1 M Fumarate (0.2 mL per 10 mL of broth and 0.2 mL per plate) needs to be added before inoculation. If needed, exchange the gas in the test tube for 80% N<sub>2</sub>-20% CO<sub>2</sub> or 80% N<sub>2</sub>-10% CO<sub>2</sub>-10% H<sub>2</sub>.
3. Under anaerobic conditions, thaw vial and then quickly transfer into a single tube of #1957 broth. A second tube of #1957 broth can also be inoculated with 0.5 mL from the original broth.
4. Incubate at 26°C to 30°C for 5 to 6 days. Subsequent transfers will grow faster following the initial recovery period.
5. Growth is evident by turbidity and an accumulation of cells at the bottom of the broth that are an orange/pink coloration.

### 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

This culture grows well in broth. Incubation of up to 20 days may be required for growth on agar. Add 0.2 mL of 1M Fumarate to each plate prior to inoculation. Colonies on #1957 agar are pinpoint, circular, entire, low convex, pale orange and are best observed with a microscope.

No growth should occur on nonselective media. We strongly suggest obtaining reference Caccavo *et al.* Appl. Environ. Microbiol. 60: 37523759 (1994) for further information.

Purified genomic DNA of this strain is available as ATCC® 51573D-5™.

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

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the



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product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. While other, unspecified media 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 product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

### **Disclaimers**

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