ATCC

Product Sheet

# *Desulfobacterium autotrophicum* (ATCC® 43914™)

**Please read this FIRST**

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: *Desulfobacterium autotrophicum* (ATCC® 43914™)

## Description

**Designation:** DSM 3382 [HRM2]
**Deposited Name:** *Desulfobacterium autotrophicum* Brysch et al.

## Propagation

**Medium**
ATCC® Medium 1875: Desulfobacterium medium (ATCC medium 1627) with 10 micro-M lactate

**Growth Conditions**
**Temperature:** 26°C
**Atmosphere:** Anaerobic gas mixture, 80% $H_2$ – 20% $CO_2$

**Propagation Procedure**

1. Open the vial according to enclosed instructions.
2. Perform all steps under anaerobic conditions.
3. Aseptically transfer 0.5 mL of #1875 broth to the vial and rehydrate the pellet. Transfer the suspension back into the broth tube. Inoculate a plate of a non-selective medium such as Tryptic Soy, Nutrient, or blood agar with 0.1 mL of the cell suspension.
4. Seal the tube with a rubber stopper and incubate anaerobically at 26ºC. Incubate the plate(s) aerobically as a purity check.
5. After five to seven days, growth should be evident as indicated by turbidity through out the broth. Once growth has been established the culture should be transferred to fresh broth every 4 to 6 days.
6. This culture is very sensitive to oxygen when initially rehydrated, therefore steps should be taken to avoid exposure to oxygen. When the culture exhibits good growth it will remain viable for up to 1 week if stored at 4ºC under anaerobic condition.

ANAEROBIC CONDITIONS:

- Tubes of media are placed under a gassing cannula system hooked to a source of oxygen free gas.
- All transfers are performed while the test tubes are on the cannula system with a gentle stream of oxygen free gas flowing through the system.
- As the test tubes are removed from the cannula system each is sealed with butyl rubber stopper thus maintaining the anaerobic headspace.
- 100% nitrogen or 80% nitrogen-20% carbon dioxide gas mixture is typically employed as the oxygen free gas source.

## Notes

When examined microscopically, the cells appear as motile rods arranged singles, pairs, and chains.
Always use freshly prepared anaerobic medium. If there is any question about the anaerobic condition of the medium, the medium can be reduced with the addition of 1.5% sodium sulfide (2.0 mL per 100 mL of medium). Other commonly used reducing agents are sodium sulfide, cysteine, dithiothreitol, and titanium citrate. Cysteine is the reducing agent of choice since it does not cause the ferrous ammonium sulfate to precipitate.
Additional information on this culture is available on the ATCC® web site at www.atcc.org.

## References

References and other information relating to this product are available online at 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 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

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

*Or contact your local distributor*

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formulation is used, the ATCC warranty for viability is no longer valid.

**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

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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