



Product Sheet

# *Desulfobacterium autotrophicum* (ATCC®) 43914™

Please read this **FIRST**



## 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<sub>2</sub> – 20% CO<sub>2</sub>

### 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 26°C. 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 4°C 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](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.

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Email: [Tech@atcc.org](mailto:Tech@atcc.org)

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function of this product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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**Disclaimers**

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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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