



Product Sheet

# *Desulfohalobus propionicus* (ATCC® 33891™)

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: *Desulfohalobus propionicus* (ATCC® 33891™)

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:** DSM 2032 [1 pr 3]

**Deposited Name:** *Desulfohalobus propionicus* Widdel

## Propagation

### Medium

ATCC® Medium 2821: Modified *Desulfohalobus propionicus* Medium

### Growth Conditions

**Temperature:** 37°C

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

### Propagation Procedure

1. Sterilize the top of the Balch tube (*see below*) by spraying it with 70% ethanol and then flaming the top.
2. Exchange the gas in the test tube for the appropriate gas mixture.
3. Add 0.1 to 0.2 mL of reducing agent (Cysteine 3% w./v) per 10 mL of medium. Let the medium sit at room temperature overnight before inoculating.
4. When the Balch tube is ready to inoculate, open the vial according to enclosed instructions.
5. Perform all steps under anaerobic conditions.
6. Aseptically transfer 0.5 mL of #2821 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.
7. Seal the tube with a rubber stopper and incubate anaerobically at 37°C. Incubate the plate(s) aerobically as a purity check. No growth should occur on the aerobic plate.
8. After two or three days, growth should be evident as indicated by faint turbidity throughout the broth. Once growth has been established the culture should be transferred to fresh broth every 72 to 96 hours.
9. 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:

- a. Balch tube refers to a special type of test tube that is designed to be pressurized and is suited for anaerobic work. The Balch test tubes can be purchased from Bellco glass ([www.bellcoglass.com](http://www.bellcoglass.com); stock no. 2048-00150).
- b. Resazurin is a commonly used redox indicator that is pink when the redox potential is above -50 mv., and colorless when the redox potential is below -110 mv. i.e. highly reducing. Most strict anaerobes require this low redox potential for optimum growth.
- c. To obtain a fully reduced medium, it is necessary that the medium be anoxic and that a reducing agent be added. Common reducing agents are sodium sulfide, cysteine, dithiothreitol, and titanium citrate.
- d. Syringes can be made anaerobic by one of two methods.
  1. Displace the dead space in the syringe with a sterile oxygen-free gas.
  2. Displace the dead space in the syringe with a reducing agent.
- e. 100% nitrogen or 80% nitrogen-10% carbon dioxide-10% hydrogen gas mixture is typically employed as the oxygen free gas source.

## Notes

Cells are short rods with pointed ends.

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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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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