



Product Sheet

## ***Caldanaerobius zeae*** **(ATCC® BAA-16™)**

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: *Caldanaerobius zeae* (ATCC® BAA-16™)

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)

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### Description

**Designation:** Mel2 [DSM 13642]  
**Deposited Name:** *Thermoanaerobacterium zeae* Cann et al.

### Propagation

#### Medium

ATCC® Medium 1053: Reinforced Clostridial medium (Oxoid CM149)

#### Growth Conditions

**Temperature:** 65.0°C  
**Atmosphere:** Anaerobic

#### Propagation Procedure

1. Sterilize the top of the Balch tube by spraying it with 70% ethanol and then flame the top.
  2. If needed exchange the gas in the test tube for 100% N<sub>2</sub>.
  3. If the medium is pink (see discussion about resazurin) add 0.1 ml of reducing agent (1.5% sodium sulfide, stock solution) per each 5 to 6 ml of medium. Let the medium sit at room temperature for 10 to 20 minutes - until the resazurin becomes colorless - before inoculating.
  4. When the Balch tube is ready to inoculate, open the vial according to enclosed instructions.
  6. Growth is detected in the broth within 24 to 48 hours. There should be no growth detected on the aerobic plate.
- 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.

### Notes

Cells appear as rods single and pairs.

### 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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### 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,



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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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