Designation: TGA [DSM 14008]
Deposited Name: *Arthrobacter methylotrophus* Borodina et al.

### Medium

**ATCC® Medium 3: Nutrient agar or nutrient broth**

### Growth Conditions

**Temperature:** 26.0°C  
**Atmosphere:** Aerobic

### Propagation Procedure

1. Open vial according to enclosed instructions.
2. From a single tube of #3 or #396 broth (5 to 6 ml), withdraw approximately 0.5 to 1.0 ml with a Pasteur or 1.0 ml pipette and use to rehydrate the entire pellet.
3. Use 0.1 ml of this suspension to inoculate #3 or #396 slants and 0.1 ml to inoculate #3 or #396 plates.
4. Incubate tubes and plates at 26°C, under aerobic conditions for 3 days.
5. After 3 days of incubation, wash cells from the slant and transfer this broth to a new slant and plate. Incubate another 3 days under aerobic conditions. This second transfer and incubation is necessary for complete removal of the cryoprotectant, which can inhibit growth.

Growth on agar yields convex colonies, 1-2 mm in diameter, with entire margins and an opaque hue. Cells are Gram positive, nonmotile rods, exhibiting a rod-coccus life cycle with age.

An alternative medium suggested by the depositor for methylotrophic growth is as follows:

\[
\begin{align*}
\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}, & \quad 7.9 \text{ g} \\
\text{KH}_2\text{PO}_4, & \quad 1.5 \text{ g} \\
\text{NH}_4\text{Cl}, & \quad 0.8 \text{ g} \\
\text{MgSO}_4 \cdot 7\text{H}_2\text{O}, & \quad 0.1 \text{ g} \\
\text{Trace metal sol'n (see below),} & \quad 10 \text{ ml} \\
\text{Agar (if desired),} & \quad 15.0 \text{ g} \\
\text{Dimethylsulfone,} & \quad 1.9 \text{ g} \\
\text{Distilled water,} & \quad 1 \text{ L} \\
\text{Initial pH 7.3-7.4.} & \\
\end{align*}
\]

[Also grows on methanol, methylamine, glucose, fructose]

Trace metal stock solution:

1. Dissolve 50 g EDTA (disodium salt) in 400 ml water.
2. Dissolve 9 g NaOH in the EDTA sol'n.
3. Dissolve the following salts individually in 30-40 ml aliquots of water and add to the EDTA-NaOH sol'n (plus 5-10 ml washings).
   - ZnSO_4 \cdot 7H_2O, 1.0 g
   - CaO_2, 5.0 g
   - MnCl_2 \cdot 4H_2O, 2.5 g
   - CoCl_2 \cdot 6H_2O, 0.5 g
   - Ammonium molybdate, 0.5 g
   - FeSO_4 \cdot 7H_2O O, 5.0 g
   - CuSO_4 \cdot 5H_2O, 0.2 g

Adjust pH to 6.0 with 1M NaOH (~ 24 ml). Store in an amber bottle.

### Notes

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 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

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 materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

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.

© ATCC 2018. All rights reserved. ATCC is a registered trademark of the American Type Culture Collection. [08/13]