



Cupriavidus necator Makkar and Casida

17697™

Description

Cupriavidus necator strain 335 is a whole-genome sequenced bacterium that was isolated from soil. This strain produces poly-D-3-hydroxybutyric acid from carbon dioxide.

Strain designation: 335 [CCUG 1776, CIP 104763, DSM 531, ICPB 3984, JCM 11282, LMG 1199, NCCB 82041, NCIB 11842, NRRL B-14690, NRRL B-4383, R-10-e]

Deposited As: *Hydrogenomonas eutropha* Wittenberg and Repaske

Type strain: No

Storage Conditions

Product format: Freeze-dried

Storage conditions: 2°C to 8°C

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies

and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Medium:

ATCC Medium 3: Nutrient agar or nutrient broth

Temperature: 26°C

Atmosphere: Aerobic

Handling Procedures

1. Open vial.
2. Rehydrate the entire pellet with approximately 0.5 mL of #3 broth. Aseptically

transfer the entire contents to a 5-6 mL tube of #3 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary tubes.

3. Use several drops of the primary broth tube to inoculate a #3 plate and/or #3 agar slant.
4. Incubate at 26°C for 1-2 days.

Notes

This strain may be tested for autotrophic growth in Medium #1246 (*see formula below*) with the gas mixture indicated:

KH₂PO₄, 2.3 g

Na₂HPO₄·2H₂O, 2.9 g

NH₄Cl, 1.0 g

MgSO₄·7H₂O, 0.5 g

NaHCO₃, 0.5 g

CaCl₂·2H₂O, 0.01 g

Ferric ammonium citrate, 0.05 g

Distilled water, 980.0 mL

Agar (*if needed*), 15.0 g

Sterilize ferric ammonium citrate (0.05 g in 20 mL H₂O) separately and then add to basal medium. Incubate at 30°C under a gas mixture of 60% H₂, 10% CO₂, 25% N₂, 5% O₂.

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

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Cupriavidus necator* Makkar and Casida (ATCC 17697)

References

References and other information relating to this material are available at www.atcc.org.

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