



Methanoculleus bourgensis (Ollivier et al.) Maestrojuan et al.

3281™

Description

- **Strain designation** MS2 [DSM 3045]
 - **Deposited As** *Methanogenium bourgense* Ollivier et al.
 - **Type strain** Yes
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Storage Conditions

- **Product format** Frozen
 - **Storage conditions** -80°C or colder
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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

⁴³²⁸¹ recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submerged 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 1340: MS medium for methanogens](#)
 - **Temperature** 37°C
 - **Atmosphere** 80% H₂, 20% CO₂
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Handling Procedures

- 1. Sterilize the top of the Balch tube spraying it with 70% ethanol and then flaming the top.
 2. If needed exchange the gas in the test tube for 80% H₂ - 20% CO₂.
 3. If the medium is pink (see discussion about resazurin), add 2.0 ml of reducing agent (3% cysteine, stock solution) per 100 ml of medium. Let the medium sit at room temperature for 10 to 20 minutes, until the resazurin becomes colorless, before inoculating.
 4. After the Balch tube is ready to be inoculated let the frozen vial thaw at room temperature under a gentle stream of sterile oxygen free gas.
 5. Using a 1.0 ml syringe tipped with 22 gauge needle, withdraw the cell suspension from the vial and transfer it to the broth and incubate at 37°C. Plate 0.1 ml of the inoculated culture onto a non-selective medium and incubate aerobically at 37°C.
 6. Growth should be detected in the broth within 72 hours. No growth should be detected on the anaerobic or aerobic plates.
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Notes

Cells are non-motile, irregular cocci. Growth may be enhanced by pressurizing the headspace of the culture tubes to 20 psi.

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Always use freshly prepared pre-reduced media or pre-reduced media that has been previously prepared but stored under anaerobic conditions. Resazurin in the media is a color indicator for anaerobic conditions. Observance of pink color in medium before use or during incubation shows anaerobic conditions have not been met and oxidation has occurred. Medium should be discarded.

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: *Methanoculleus bourgensis* (Ollivier et al.) Maestrojuan et al. (ATCC 43281)

References

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

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