



# *Desulfovibrio desulfuricans* subsp. *desulfuricans* (Beijerinck) Kluyver and van Niel

27774™

## Description

*Desulfovibrio desulfuricans* subsp. *desulfuricans* strain MB is a whole-genome sequenced bacterium that was isolated from the rumen of sheep. This product produce restriction endonuclease *DdsI* and iron-sulfur protein and is capable of utilizing nitrate as well as sulfate during the anaerobic fermentation of lactate.

**Strain designation:** MB

**Deposited As:** *Desulfovibrio desulfuricans* subsp. *desulfuricans* (Beijerinck) Kluyver and van Niel

**Type strain:** No

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## Storage Conditions

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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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.

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## BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as

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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.

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### Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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### Growth Conditions

#### Medium:

ATCC Medium 1249: Modified Baar's medium for sulfate reducers

ATCC Medium 260: Trypticase soy agar/broth with defibrinated sheep blood

ATCC Medium 2755: *Desulfovibrio* Medium

**Temperature:** 37°C

**Atmosphere:** 80% N<sub>2</sub>, 20% CO<sub>2</sub>

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## Handling Procedures

1. Open vial according to enclosed instructions or visit [www.atcc.org](http://www.atcc.org) for instructions.
2. Under anaerobic conditions aseptically rehydrate the entire pellet with approximately 0.5 mL of #1249 broth. Aseptically transfer the entire contents to a 5-6 mL tube of #1249 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes. Best practice dictates the use of pre-reduced media.
3. Use several drops of the primary broth tube to inoculate a #260 plate and/or #260 agar slant.
4. Incubate in an anaerobic atmosphere at 37°C for 72 to 96 hours. Incubate one agar plate aerobically at 37°C to check for contamination.

### ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by the use of an anaerobic gas chamber or placement of test tubes under a gassing cannula system connected to anaerobic gas.

Anaerobic conditions for incubation may be obtained by any of the following:

- Loose screw caps on test tubes in an anaerobic chamber
- Loose screw caps on test tubes in an activated anaerobic gas pack jar
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained

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## Notes

Always use freshly prepared anaerobic media.

This culture grows well in broth when hungate tubes (18ANA) are used. For larger volumes, use serum bottles (SRM bottles).

Anaerobe Systems Brucella Blood plate (AS-111 or AS-141) can be used to analyze colony morphology and purity

ATCC Medium 2755: *Desulfovibrio* Medium may be substituted for #1249.

Purified genomic DNA of this strain is available as ATCC 27774D-5.

Additional information on this culture is available on the ATCC web site at

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[www.atcc.org](http://www.atcc.org)

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### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Desulfovibrio desulfuricans* subsp. *desulfuricans* (Beijerinck) Kluyver and van Niel (ATCC 27774)

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### References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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### Revision

***Desulfovibrio desulfuricans* subsp. *desulfuricans***  
**(Beijerinck) Kluyver and van Niel**

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