ATCC

Product Sheet

Magnetospirillum magneticum (ATCC® 700264™)

Please read this FIRST

Storage Temp.
Frozen: -80°C or colder
Freeze-Dried: 2°C to 8°C
Live Culture: See Propagation Section

Biosafety Level
1

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: *Magnetospirillum magneticum* (ATCC® 700264™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Designation: AMB-1
Deposited Name: *Magnetospirillum* sp.
Product Description: Produces magnetite. Transformation host.

Propagation

Medium
ATCC® Medium 1653: Revised magnetic Spirillum growth medium (MSGM)

Growth Conditions
Temperature: 30°C
Atmosphere: Microaerophilic

Propagation Procedure

1. Keep vial frozen until ready to use, then thaw. Thaw contents of the vial in a 37°C water bath with gentle agitation.
2. Inoculate a single tube of #1653 broth with the entire contents of the thawed vial. Be sure the entire tube is filled with medium to achieve microaerophilic conditions.
3. Incubate at 30°C for 4-10 days.
4. When broth becomes cloudy and a small gray sediment is visible at the bottom of the tube, cells can be harvested. Divide contents of the tube into two tubes and spin in a tabletop centrifuge.
5. Discard the supernatant liquid. Do not bubble or shake cells. Resuspend cells in a 125 mL flask.
6. Incubate as directed above.

Notes

For best results, use fresh media and microaerophilic conditions. Cells are motile, spiral rods. Test for magnetism by subjecting flasks to magnetic stirring plate. The cells will swirl.

For storage, centrifuge cells for 30 minutes at 7,000 rpm. Discard the supernatant liquid. Resuspend cells in approximately 6 ml of fresh broth. Add an equal amount of sterile 20% glycerol. Freeze at as low a temperature as available.

When this strain is grown under microaerophilic conditions, the cells are magnetotactic. They have magnetite inclusions, which cause the cells to turn in a magnetic field. This can be observed in a wet mount from a broth culture. The strain will grow aerobically but will not be magnetic.

Purified genomic DNA of this strain is available as ATCC® 700264D-5™.
Additional information on this culture is available on the ATCC® web site at www.atcc.org.

References

References and other information relating to this product are available online at 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

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. 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 strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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

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.

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