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

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.

For best results, use fresh media and microaerophilic conditions. 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

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™)

Notes
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.
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

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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™)

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