



Product Sheet

# *Magnetospirillum magnetotacticum* (ATCC®) 31632™

Please read this **FIRST**



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

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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 magnetotacticum* (ATCC® 31632™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

## Description

**Designation:** MS-1

**Deposited Name:** *Aquaspirillum magnetotacticum* Maratea and Blakemore

**Product Description:** Type strain

## Propagation

### Medium

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

### Growth Conditions

**Temperature:** 30°C

**Atmosphere:** Microaerophilic

### Propagation Procedure

1. Thaw contents of the vial in a 37°C water bath with gentle agitation.
2. Inoculate a single 16 x 125 mm tube of #1653 broth with the contents of the thawed vial. Be sure the entire tube is filled with medium to achieve microaerophilic conditions.
3. Incubate at 28°C to 30°C for 4 to 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 filled to capacity.
6. Incubate as directed above.

## Notes

The medium may turn white. 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.

Additional information on this culture is available on the ATCC® web site at [www.atcc.org](http://www.atcc.org).

## References

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

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## Disclaimers



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Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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