



Product Sheet

# *Nitrosospira multiformis* (ATCC® 25196™)

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: *Nitrosospira multiformis* (ATCC® 25196™)

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:** C 71

**Deposited Name:** *Nitrosolobus multiformis* Watson et al.

**Product Description:** Type strain

## Propagation

### Medium

ATCC® Medium 929: Nitrosolobus medium

### Growth Conditions

**Temperature:** 26°C with shaking

**Atmosphere:** Aerobic

### Propagation Procedure

1. Open vial according to enclosed instructions.
2. Rehydrate the entire contents of the vial with 0.5 mL of #929 broth.
3. Transfer this aliquot into a 25 cm<sup>2</sup> T-flask with 5 mL #929.
4. Establish growth in the primary culture before transferring.
5. Additional medium may be inoculated when culture pH needs adjustment every 1 to 2 days and cell numbers reach greater than 1 cell per field at 1000X magnification. A 10% inoculum is suggested. It can take up to 3 weeks for cultures to become turbid.
6. Incubate with shaking at 26°C.
7. For optimal growth, the pH of the medium must be periodically adjusted to 7.5. Medium #929 contains the pH indicator phenol red. As growth occurs, medium pH will drop. Medium color will change from pink to orange and then to yellow. Whenever the medium becomes yellow, adjust pH as follows: aseptically add 0.3 M K<sub>2</sub>CO<sub>3</sub> dropwise until color returns to pink. Avoid raising the pH of the culture above 7.5.
8. The medium should turn yellow indicating initial growth within the first week of incubation. Adjust pH and check cell numbers microscopically. Continue incubation, adjusting medium pH as needed.

## Notes

This strain was originally deposited as *Nitrosolobus multiformis*.

If strain is received as a broth culture, transfer to fresh medium upon arrival.

*It is imperative that the medium be prepared according to directions in clean glassware. Medium may be dispensed into tissue culture flasks rather than glass flasks to avoid trace contaminants sometimes found on glassware.*

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.

## 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



Product Sheet

## *Nitrosospira multiformis* (ATCC® 25196™)

### 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: *Nitrosospira multiformis* (ATCC® 25196™)

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

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

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

© ATCC 2015. All rights reserved. ATCC is a registered trademark of the American Type Culture Collection. [04/17]

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