# *Nitrosomonas cryotolerans* Jones et al.

**49181™**

## Description

**Strain designation:** 4W30
**Deposited As:** *Nitrosomonas cryotolerans* Jones et al.
**Type strain:** No

## Storage Conditions

**Product format:** Frozen

## 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.

## BSL 1

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

## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

## Growth Conditions

**Medium:**
ATCC Medium 1953: Seawater Nitrosomonas medium
**Temperature:** 26°C

## Handling Procedures

1. Thaw frozen vial and aseptically transfer vial contents to 50 ml of #1953 broth contained in an Erlenmeyer flask or a tissue culture flask.

2. Incubate flask in the dark at 26ºC. When using a tissue culture flask, flask should be laid down for incubation to promote air exchange.

3. As the cells multiply, the indicator in the medium will change from pink to yellow. The pH of the medium should be maintained at approximately 7.8 (pink) during growth by neutralizing with a drop or two of sterile 2M $K_2CO_3$.

4. Growth should be evident in static culture in 7 to 10 days. The rate of growth can be accelerated by incubation on a reciprocal shaker.

## Notes

Transfer culture every four to six weeks, storing the fully-grown culture at 4ºC. A 10% inoculum is recommended. A fully-grown culture has a cell density of only 10 to 15 cells per field at 1000X magnification. Cells are large, ovoid and non-motile. Frozen stocks are recommended for long term storage. Prepare a concentrated cell suspension by centrifugation. Add DMSO to a final concentration of 5%. Dispense small aliquots of the cell suspension into small sterile vials and store the vials at -50ºC or below.

Additional information on this culture is available on the ATCC web site at www.atcc.org.

## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Nitrosomonas cryotolerans* Jones et al. (ATCC 49181)

## References

References and other information relating to this material are available at www.atcc.org.

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## Revision

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