Designation: C-107  
Deposited Name: Nitrosococcus oceanus (Watson) Watson  
Product Description: Type strain. Genome sequenced strain.

### Medium

ATCC® Medium 928: Nitrosococcus medium

### Growth Conditions

Temperature: 26°C  
Atmosphere: Aerobic

### Propagation Procedure

1. Thaw frozen vial at room temperature and aseptically transfer vial contents to 10.0 mL of ATCC Medium #928 contained in an Erlenmeyer or tissue culture flask. Remove 1.0 mL and transfer to a second flask containing 10.0 mL.
2. Incubate flask in the dark at 26°C. When using a tissue culture flask, it should be laid down for incubation to promote air exchange.
3. Growth is very slow but is evident by the change of color due to pH changes and microscopically with round cells found in pairs. After growth has been established the culture can be transferred (see notes).

Transfer culture every four to six weeks, storing the fully-grown culture at 4°C. A 10% inoculum (10.0 mL per 100.0 mL fresh medium) is recommended. Cells may be preserved by freezing with a suitable cryoprotectant.

When starting ATCC® 19707™ in a flask of broth, ATCC typically observes pink medium changing to yellow within two weeks and growth that settles on the bottom of the flask. ATCC uses a T-25 with 10 mL of medium (laid flat) and incubate at 26°C. It is very important that the media needs to be fresh. The media should have a pink coloration and is sensitive to light. The media should be kept away from the light and refrigerated (this helps with keeping the media a little longer).

Within two weeks of starting the culture the media should have changed coloration to a pale yellow but the culture will not be dense enough to transfer. The culture should be fed K₂CO₃, until the color changes back to pink. You need to do this by a drop by drop basis so that you don’t add too much.

The culture should be examined microscopically once the K₂CO₃ is beginning to be utilized. This culture does not get very dense and there will be only a few cells per field. The cells will appear as cocci in pairs and singles, motile by tuft of flagella.

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

### Notes

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