



Product Sheet

# *Synechococcus elongatus* (ATCC® 33912™)

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: *Synechococcus elongatus* (ATCC® 33912™)

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:** PCC 7942  
**Deposited Name:** *Anacystis nidulans*  
**Product Description:** Xenic culture. Plasmid host. Genome sequenced strain.

## Propagation

**Medium**  
ATCC® Medium 616: Medium BG-11 for blue-green algae

**Growth Conditions**  
**Temperature:** 26°C  
**Atmosphere:** Aerobic under 2000-3000 LUX light

**Propagation Procedure**  
Incubate test tube cultures under above conditions upon receipt. DO NOT STORE IN A REFRIGERATOR. It is helpful to incubate test tubes in a slanted position to increase gas exchange in broth and to enhance exposure to light. Transfer culture to fresh media within one week of arrival, as follows:

1. Withdraw 0.6 mL from the base of a broth culture where cells are concentrated, or harvest cells from a slant culture with 0.6 mL of #616 broth.
2. Using this aliquot, inoculate one broth and one slant tube with 0.2 and 0.4 mL respectively.
3. Incubate tubes at 26°C under 50 foot candles (approximately 2000-3000 LUX) of light. It is helpful to incubate test tubes in a slanted position to increase gas exchange in broth and to enhance exposure to light.

## Notes

Good growth, indicated by increased pigmentation in the broth or on the slant, should occur after one to two weeks of incubation. Examine cells microscopically to assure that they are intact and healthy. At this time additional test tubes or flasks can be inoculated. A 5% inoculum is recommended (i.e. 5.0 ml of culture to 100.0 ml fresh medium).

To minimize change in a culture, it is recommended that a frozen seed stock be established from early passage cells. This may be accomplished by propagating the strain under ideal conditions, utilizing recommended medium, temperature and light. Prepare a concentrated cell suspension, after good growth is achieved. If grown in broth, pellet the cells by centrifugation. Decant the supernatant and resuspend the pellet in fresh #616 broth using 1/10 or less of the original volume. For slant cultures, wash cells off the agar surface with a minimal amount of #616 broth so that a concentrated cell suspension is attained. Add 50% DMSO solution to the concentrated cell suspension so that the final concentration of DMSO in the suspension is 5%. Dispense small aliquots (0.5 to 1 mL) of the suspension into small sterile vials. Store the vials at -50°C or colder.

This culture also has a secondary culture, which is *Bradyrhizobium* sp. This second culture does not affect the primary culture's growth. The second culture can be isolated on Blood agar and the colonies are circular, glistening, and smooth.

When needed, remove vials from storage, thaw contents in a 37°C water bath and inoculate into recommended medium. A minimum of 0.2 mL of the thawed stock should be used to inoculate 5 mL of broth or 1 agar slant.

Purified genomic DNA of this strain is available as ATCC® 33912D-5™.  
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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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).  
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