Description

Designation: PCC 73102
Deposited Name: Nostoc sp.

Propagation

Medium
ATCC® Medium 819: Blue-green nitrogen-fixing medium

Growth Conditions
Temperature: 26.0°C
Atmosphere: Under light intensity of 2,000-3,000 lux

Propagation Procedure

Incubate test tube cultures under above conditions upon receipt. 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 #819 broth.
2. Using this aliquot, inoculate one broth and one slant tube with 0.2 and 0.4 ml respectively.

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 ml of culture to 100 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 #819 broth using 1/10 or less of the original volume. For slant cultures, wash cells off the agar surface with a minimal amount of #819 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 below.

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.

Notes

References

References and other information relating to this product are available online at 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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