Scytonema hofmanni

29171™

Description

Xenic culture of *Scytonema hofmanni* and *Sphingomonas* sp.
Strain designation: PCC 7110
Deposited As: *Scytonema* sp.
Type strain: Yes

Storage Conditions

Product format: Test tube
Storage conditions: See handling procedure

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 616: Medium BG-11 for blue-green algae
Temperature: 26°C
Atmosphere: Aerobic
Incubation: Under light intensity of 2,000-3,000 lux

Handling Procedures

1. Open thawed vial according to enclosed instructions or visit www.atcc.org for instructions.
2. Aseptically transfer the entire contents to a 5-6 mL tube of #616 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary tubes.
3. Use several drops of the primary broth tube to inoculate a #616 agar slant.

4. Incubate at 26°C for 1-2 weeks under 2000-3000 lux lights.

Notes

Scytonema grows as large clumps of thick green filaments. This is a xenic culture also containing *Sphingomonas*. The *Sphingomonas* does not multiply well in #616 media, but will grow on nutrient media.

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 (e.g. 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 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.

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: *Scytonema hofmanni* (ATCC 29171)

References

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

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