



Mucochytrium quahogii

TSD-50™

Description

Mucochytrium quahogii strain NY0313808BC7 is a protist type strain isolated from a hard clam from New York. This strain grows best at 23°C and FBS is recommended for new cultures of reviving cryopreserved cultures.

Strain designation: NY0313808BC7

Type strain: Yes

Type strain description: This culture provided to the ATCC type strain depository is neither produced nor characterized by ATCC. No technical information is available on this material. Refer to depositor for technical information on this strain.

Technical information: ATCC Product Experience does not have technical information on type strain deposits that are not fully characterized. Additional information can be found in the depositor's publication.

Storage Conditions

Product format: Frozen

Storage conditions: -80°C or colder

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 2

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

Temperature: 20-25°C

Atmosphere: Ambient

Incubation: Active growth phase (endosporeulation) between 5 - 7 days

Handling Procedures

Depositor-recommended growth conditions: Culture medium described by

TSD-50

Kleinschuster et al. (1998) consists of 5.1 g/L Minimum Essential Medium (MEM) Eagle (α modification, Sigma 0644), 1.82 g/L $\text{CaCl}_2 \times 2 \text{H}_2\text{O}$, 0.68 g/L KCl, 4.36 g/L $\text{MgCl}_2 \times 6 \text{H}_2\text{O}$, 24.26 g/L NaCl, 3.16 g/L $\text{MgSO}_4 \times 7 \text{H}_2\text{O}$, 5 g/L HEPES, 0.5 g/L D+ glucose, 100 U/ml penicillin, and 0.1 mg/ml streptomycin supplemented with 10% by volume heat-inactivated fetal bovine serum (FBS; Gibco), adjusted to a pH of 7.2 with 1M NaOH and filter sterilized (0.2 μm).

For revival the depositor recommends: Thaw cryovial at 30°C in a water bath for 3 min until just melted (add a minute if not thawed enough up to 5 minutes), slowly pour into 10 ml of QPX medium and incubate at 20°C for 1 week; be careful not to agitate or shake the culture flask for the 1 week then check for growth. If endosporulation is observed, subculture 1 ml to new 10 ml of medium. We have successfully revived cryopreserved cultures stored this way that were >4 years old.

Culture maintenance: Subculturing is performed every 1-2 months (although can be stretched to 3 months). 1 ml of inoculum is put into 10 ml of fresh QPX medium in an unvented culturing flask maintained at 20 or 23°C. Due to mucus production, the depositor recommends using a 1ml syringe (no needle) to transfer the inoculum.

Cryopreservation: The depositor recommends 0.5 ml of QPX culture + 1.2 ml of QPX medium with 10% DMSO; invert several times to mix and let sit for 10 minutes at room temperature. Freeze at -80°C using Mr. Frosty overnight and then store at -80°C.

Notes

Usually maintained at 23°C. Can be grown on an orbital shaker (~ 45 rpm) to reduce mucus production; Can also be grown without FBS to reduce mucus production (although FBS is recommended for new cultures or reviving cryopreserved cultures).

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Mucochytrium quahogii* (ATCC TSD-50)

References

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

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ATCC may fully accessions new type strains into its general culture collection. At that time, ATCC will provide an "ATCC" designation to the strain, fully characterize the strain, and provide a Certificate of Analysis with authentication data for that specific item.

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