



Product Sheet

# *Xanthophyllomyces dendrorhous* (ATCC®) 24228™

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: *Xanthophyllomyces dendrorhous* (ATCC® 24228™)

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

**Strain Designation:** UCD 68-653C

**Deposited Name:** *Phaffia rhodozyma* Miller et al., anamorph

**Product Description:** An ampoule containing viable cells suspended in cryoprotectant.

## Propagation

The information recommended in this section is to assist users in obtaining living culture(s) for their studies. The recommendation does not imply that the conditions or procedures provided below are optimum. Experienced researchers may initiate the growth of a culture in their own way.

ATCC® Medium 200: YM agar or YM broth

ATCC® Medium 307: Cornmeal agar

ATCC® Medium 1245: YEPD

## Growth Conditions

**Temperature:** 20°C

**Atmosphere:** Typical aerobic

## Recommended Procedure

For **freeze-dry (lyophilized)** ampoules:

1. Open an ampoule according to enclosed instructions.
2. From a single test tube of **sterile distilled water** (5 to 6 mL), withdraw approximately 0.5 to 1.0 mL with a sterile pipette and apply directly to the pellet. Stir to form a suspension.
3. Aseptically transfer the suspension back into the test tube of sterile distilled water.
4. Let the test tube sit at room temperature (25°C) undisturbed for at least 2 hours; longer (e.g., overnight) rehydration might increase viability of some fungi.
5. Mix the suspension well. Use several drops (or make dilutions if desired) to inoculate recommended solid or liquid medium. Include a control that receives no inoculum.
6. Incubate the inoculum at the propagation conditions recommended.
7. Inspect for growth of the inoculum/strain regularly. The sign of viability is noticeable typically after 3-5 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

**Colony and Cell Morphology:** After 23 days on YM agar at 20°C, colonies pale orange, smooth, butyrous. Cells ovoidal, single or with bud, pseudohyphae not observed.

## Notes

No specific notes.

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

## DNA Sequence

18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and 28S ribosomal RNA gene, partial sequence  
AAGGATCATTAGTGAAATTTATTCGGGGTCTGCTTTTCGACGGGGCCCTACTCTTTCTATTCTTTAAC  
CCACACCTGTGTCTCTCTCGGGAGACGCAAGCTCTTTTATCATTTAAACAAACACCAGTCGATTGTATGT  
TCGAAACACTATAAAACACAATAAACTTCAACAACGGATCTCTTGGTTCTCGCATCGATGAAGAAC  
GCAGCGAATTGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTT  
GCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGTGAGTGTATGAAACACTCTCAACCGGGTGTCTTTTC  
TTTGTGAGAGGGCCTGGCTTGGACTTGGACGGTTCTGCTGGCCCTGATTTGGTTCCGGGGTCCGGCTC  
GCTTAAACGATCAGTGGGTGTGTGCGCTGTGCTGGCGAAGCGGGCGGTGCCCTTGACATGATAA  
GAAATTGTCGTCGAGTGTGCTGTGCTGTGAGTGTGTTGGTTTCTCGGGAACACGCAGACTAGCTAG  
TACAACAAACGACGCATGCGAAGTCTTAACTGATACTGTGTGTGGTCTTTGCGGACTGCATGCG  
CACACTTCTGATCGGGCCTCAAATCAGGTAGGACTACCCGCTGAACCTTAAG

D1D2 region of the 28S ribosomal RNA gene

CATATCAATAAGCGGAGGAAAAGAACTAACAAGGATCCCCTAGTAACGGCGAGTGAAGCGGGAT  
GAGCTCAAATTTGAAATCTGGCAGCCTCCGGTTGTCCGAGTTGTAACACTAGAGAAGCGTTTTCCGTGCC  
GGCCTGTGTACAAGTCCCTTGGAAATAGGGCGTCATAGAGGGTGAGAATCCCCTTGCACACAGACCA  
CCGGTGTATGTGATACGCTCTCGACGAGTCGAGTTGTTTGGGAATGCAGCTCAAATTGGGTGGTAAAT  
TCCATCTAAGGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAAGGAAAGATGAAAA  
GCACCTTGGAAAGAGAGTTAAACAGTACGTGAAATTGTTGAAAGGAAACGATTGAAGTCAGTCATG



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CGTGCTCGGACTCAGCTGGGTTCCGCCAGTCTATTTCCGGGTGCCGAGGTCAGCATCAGTTTCGGGC  
GGTGGAAAACGGCGGGGGAAGGTGGCATCTCCGGATGTGTTATAGCCCCGTTTGGATGCATCGCGT  
GGGACTGAGGAACGCAGCGCCCTTTACGGGGTCCGGTCTCCGGACACGAACGCGCTTAGGATGCT  
GGCATAATGGCTTTAAACGAC
```



## Isolation

Betula papyrifera, Rainbow Lake, AK



## 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.

## ATCC Warranty

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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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