



Product Sheet

# *Talaromyces varians* (ATCC® 10509™)

## 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: *Talaromyces varians* (ATCC® 10509™)

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:** NRRL 2096 [CBS 386.48, G. Smith LSHB BB91, IFO 6112, IMI 40586, NCTC 4152, QM 7691]

**Deposited Name:** *Penicillium varians* Smith

**Product Description:** An ampoule containing viable cells (may include spores and mycelia) 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 336: Potato dextrose agar (PDA)

ATCC® Medium 307: Cornmeal agar

ATCC® Medium 28: Emmons' modification of Sabouraud's agar

## Growth Conditions

**Temperature:** 24°C to 26°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 3-4 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

**Colony and Cell Morphology:** After 10 days on PDA at 25°C, colony is flat, velutinous to slightly floccose, dull grey. Reverse turning red, with dark green stippling. Penicilli biverticillate on short, pigmented stipes, with long slender phialides. Conidia ellipsoidal to near-cylindrical.

## Notes

Additional, updated information on this product may be 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  
CGGCCGCTGGCGACACTTTCGAATTGCGGGGATACCCTAAAGCCAATCGCACCAACCCGGGCGGGAA  
ACCGCTGGGGGGCCATGGGCACACCATGGGGGATGGTAACAGCCGATCTGGATAGTTCTGCCGCGC  
CAGAGACCATGGGCAATCCGCAGCGAAGCCCCTACGTCCTCGTGGAGGATATGGGGAACGTTACAG  
ACTAAGTGAAGTGGGTGGGCCCCCGTTCCGAGGGGCTGCTTAAGATATAGTCGGGCTTTCTGGGCG  
ACCAGGAAGGCAAAGTACACTGGGTCTGGCCCCGGAGGCTGGACCCCGCAGCAACGCCAACCGTTCCG  
TAGGTGAACCTGCGGAAGGATCATTACCGAGTGCGAGCTCTTGAGCTCAACCTCCACCCGTTGCTGT  
TTTTAACACCTGTTGCTTTGGCAGGCCACTGGGGTCTCCCGGTGCGCTGCGGACGCGCTGTCTCGG  
GCCTGCGCCTGCCAGAGCACCCCTGAACCTCTGAAGAAGATAGGGCTGTCTGAGTACCTAGAAAATTG  
TCAAACTTTCAACAATGGATCTCTGGTTCGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTA  
ATGTGAATTGCAGAAATCCGTGAATCATCGAATCTTTGAACGCACATTGCCCCCTGGCATTCCGGGG  
GGCATGCCTGTCCGAGCGTCATTTCTGCCCTCAAGCGCGGCTGTGTGTTGGGTGTGGTCCCCCGGGG  
ACCTGCCCCAAGGCAGCGCGCAGCCTGTTGGTCTCGAGCGCATGGGGCTTTGTCACCTCGCTCGG  
GAGGGACTCGCGGGCGTTGGTACCACCACCATCTTTTACGGTTGACCTCGGATCAGGTAGGAGTTAC  
CCGCTGAACTTAAGCATATCAATAA


D1D2 region of the 28S ribosomal RNA gene



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ATATCAATAAGCGGAGGAAAAGAAACCAACCGGGATTGCCTCAGTAACGGCGAGTGAAGCGGCAAG
AGCTCAAATTTGAAATCTGGCCCTTTGAGGGTCCGAGTTGTAATTTGCAGAGGATGCTTCGGGTGCGGT
CCCCGTCTAAGTGCCCTGGAACGGGCGCTCATAGAGGGTGAGAATCCCGTCTGGGATGGGCGGCCG
GCCCGTGTGAAGCGCCTTCGACGAGTCGAGTTGTTGGGAATGCAGCTCTAAGTGGGTGGTAAATTTTC
ATCTAAAGCTAAATACTGGCCGAGACCGATAGCGCACAAGTAGAGTGATCGAAAGATGAAAAGCA
CTTTGAAAAGAGAGTTAAACAGCACGTGAAATTGTTGAAAAGGGAAGCGTTGTCCACCAGACTCGCC
GGGAGGCTCAGCCGGCACTTGTGCCGGTGTACTCTCCTCGGGCGGGCCAGCATCGGTTTGGGCGGC
TGGTAAAGGCCCTGGGAATGTAAACACCCTCGGGGTGCCTTATAGCCAGGGTGTATCGCGCCAGC
CTGGACCGAGGCCCGCTTCGGCGAGGATGCTGCCGTAATGGTGTCAACGGC
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## beta-tubulin gene

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CCTACATTCTTCCCTCCCCCTCTCTCTCAGGAACGCGTCTCGGGTATTGCTGTTTTGCACAATCCCCT
GAGCCCAACCCACTTTGTTGCTCCTGTCTGGTATGTGTCTACAACATGCTAATCAACCGTTTTCTGTTG
CTTTAGGTTTCAACCGTCAATGCGTGAGTATTGAAATGTTTATTATTGTTTTATATTTCCCGG
CCCCGGGAGAAGAAAACGAGAACGAGATGTTAAAACAAATGGTGGTGAATAGGGTAACCAAATC
GGTGCTGCTTTCTGGTAAGTGGTATGAAGCTGTCTCGACGCGATCATCCATCCATTCTCGTCACTTGC
GCTAATTGTCTTAGGCAATCATCTCTGCTGAGCACGGCCTTGATGGCTCTGGTGTGAAGTAAACG
TGTTGAGTGCAGTGCATGTGACGTGACATCGAAGTCCATCCGCGATCACTCCAGTCTGACACACA
ACCAGCTACAATGGCTCTTCCGACCTCCAACGGAACGCATGAACGTCTACTTCAACGAGGTGCGCCA
ATTCCAAACAACGCACATACGAGTCAATCAACTAATGCAAAAATAGGCCAATGGCAACAATACTGT
TCCTCGTGTCTCCTCGTGCATCTGGAGCCCGGTACCATGGACGCGGTCCGCGCTGGTCCCTTTGGTCAG
CTCTCCGTCCCGACAACCTTTGTTTTCGGCCAGTCCGGCGCCGGTAACAACCTGG
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## Isolation

Cotton yarn, England

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

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