



Product Sheet

# Trichoderma longibrachiatum (ATCC® 18648™)

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: *Trichoderma longibrachiatum* (ATCC® 18648™)

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:** 13423 [4576, CBS 816.68]

**Deposited Name:** *Trichoderma longibrachiatum* Rifai

**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 200: YM agar or YM broth

ATCC® Medium 340: Rabbit food agar

ATCC® Medium 336: Potato dextrose agar (PDA)

## 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 2-3 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

## 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  
GGTCTCCGTTGGTGAACCGAGCGGAGGATCATTACCGAGTTTACAACCTCCCAAACCCCAATGTGAACG  
TTACCAATCTGTTGCCTCGGCGGGATTCTCTGCCCGGGCGCTCGCAGCCCCGGATCCCATGGCGCC  
CGCCGGAGGACCAACTCCAAACTCTTTTTTCTCTCCGTCGCGGCTCCCGTCGCGGCTCTGTTTTATTTTT  
GCTCTGAGCCTTTCTCGGCGACCCTAGCGGGCTCTCGAAAATGAATCAAACCTTTCAACAACGGATCT  
CTTGGTTCTGGCATCGATGAAGAACGCAGCGAAAATGCGATAAGTAATGTGAATTGCAGAAATTCAGTGA  
ATCATCGAATCTTTGAACGCACATTGCGCCCGCAGTATTCTGGCGGGCATGCCTGTCCGAGCGTCATT  
TCAACCCTCGAACCCTCCGGGGGTCGCGCTTGGGGATCGGCCCTCACCGGGCCGCCCCGAAATA  
CAGTGGCGGTCTCGCCGAGCCTCTCTGCGCAGTAGTTTGCACACTCGCACCAGGAGCGCGGGCGCGG  
CCACAGCCGTAACCAACCCCAAACTTCTGAAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAAC  
TTAAGCATATCAATAA

D1D2 region of the 28S ribosomal RNA gene

ATATCAATAAGCGGAGGAAAAGAAACCAACAGGGATTGCCCGAGTAACGGCGAGTGAAGCGGCAAC  
AGCTCAAATTTGAAATCTGCCCTTACGGGTCGAGTTGTAATTTGTAGAGGATGCTTTTGCAAGGCG  
CCGCCCGAGTTCCCTGGAACGGGACGCCACAGAGGGTGAAGAGCCCGTCTGGCTGGCCCGGAGCCT  
CTGTAAGCTCCTTCGACGAGTCGAGTAGTTGGGAATGCTGCTCAAAATGGGAGGTATATGCTTCTA  
AAGCTAAATATTGGCCAGACCCGATAGCGCACAAGTAGAGTGATCGAAAGATGAAAGCACCTTG  
AAAAGAGGGTTAAATAGTACGTGAAATTTGAAAGGGAAGCGCTTGTGACCAGACTTGGCCGCGG  
GGATATCCGGGGTTCTCCCGGTGCACCTTCGCCCGTCCAGGCCAGCATCAGTTCTGCGCGGGGAA  
AAAGCTTCGGAACGTGGCTCCCTCGGAGTGTATAGCCGTTGCGTAATACCTGCGGTGGACTG  
AGGACCGCATCTGCAAGGATGCTGGCGTAATGGTCACCAGCGAC



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## Trichoderma

### longibrachiatum (ATCC®)

18648™

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beta tubulin gene

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CTATCTCTTCGTTCCCGCCCTCTTCGTTGTTCACTTTGGGTTACTCTCGCAACGCGTTTGGCGATTGGAGCC  
CCTGAAATTGTACCCCGCCAAAGTCAACGAAACGAACACTTTGGCGTTTTCCCGCCCGAATGAAGGCC  
CAATTCTGCTCGATCGAGGCGTTTTGTGATGCTGTGCGGATGACATTGCTAATTGCTGAGTTTCTTTGC  
GATGAATAGTTACATCCAGACCGGCCAGTGCCTAAGTCACTTCTCCCTAACGATTGCGCCCGCT  
GAATCTGCGGACGGGAGCTTACAATCTCGACAGGGTAACCAAATCGGTGCCGCTTTTGGCAGACC  
ATCTCTGGCGAGCAGGTCTCGACAGCAATGGTATCTACGGCGGCTTCCGAGCTCCAGCTGGAGCG  
CATGAACGTCTATTTCAACGAGGTACGGGCTTTTCCCGCTCGCTGATAGCGTTTACGGCTTGCTAGATGA  
GCACTCTGGGAGGGGGCCCTATTCTAACTTCAGGTGGTGCAGGCCAACAACAACAAGTACGTTCCCTC  
GCGTGTCCCTCGTGCATCTCGAGCCCGTACTATGGACGCCGTCCGTGCCGGTCCCTTCGGTCAGCTCT  
CCGACCCGACAACCTCATCTTCGGCCAGTCCAGTGCCGGCAACAACCTGG
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#### Isolation

Mud, Ohio



#### 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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