



Product Sheet

# Trichoderma reesei

(ATCC® 26921™)

## Please read this FIRST

Storage Temp.  
**Frozen: -80°C or colder**  
**Freeze-Dried: 2°C to 8°C**  
**Live Culture: See Propagation Section**

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 reesei* (ATCC® 26921™)

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Manassas, VA 20108 USA  
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Fax: 703.365.2750  
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## Description

**Strain Designation:** QM 9414 [3019, CBS 392.92, T.V. B118]

**Deposited Name:** *Trichoderma viride* Persoon : Fries

**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 323: Malt agar medium  
ATCC® Medium 325: Malt extract agar (Blakeslee's formula)

## Growth Conditions

**Temperature:** 20°C to 25°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. Viability is typically noticeable after 2-3 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

## Notes

No special 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  
GGTCTCCGTTGGTGAACCGAGCGAGGGATCATTACCGAGTTTACAACCTCCCAAACCCCAATGTGAACG  
TTACCAATCTGTTGCCCTCGGGCGGATTCTCTGCCCGGGCGCGTCGACGCCCGGATCCCATGGCGCCC  
GCCGGAGGACCAACTCAAACCTCTTTTTCTCTCCGTCGCGGCTCCGTCGCGGCTCTGTTTTACCTTTGCT  
CTGAGCCTTTCTCGGCGACCCTAGCGGGCGTCTCGAAAATGAATCAAACTTTCAACAACGGATCTCTT  
GGTTCTGGCATCGATGAAGAACGACGCGAAATGCGATAAGTAATGTGAATTGCAGAAATCAGTGAAT  
CATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTCCGAGCGTCATTTT  
AACCCCTCGAACCCCTCCGGGGGGTTCGGCGTTGGGATCGGCCCTCACCGGGCCGCCCGGAAATACA  
GTGGCGGTCTCGCCGACGCTCTCTGCGCAGTAGTTTGCACACTCGCACCGGGAGCGCGCGCGGCC  
ACAGCCGTAAAACACCCCAAACCTCTGAAATGTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTA  
AGCATATCAATAA

D1D2 region of the 28S ribosomal RNA gene

ATATCAATAAGCGGAGGAAAAGAAACCAACAGGGATTGCCCGAGTAACGGCGAGTGAAGCGGCAAC  
AGCTCAAATTTGAAATCTGGCCCTTTTCGGGTCCGAGTTGTAATTTGTAGAGGATGCTTTTGGCAAGCGC  
CCGCCCGAGTTCCTGGAACGGGACGCCACAGAGGGTGAGAGCCCGTCTGGCTGGCCGCCGAGCCT  
CTGTAAGCTCCTTCGACGAGTCGAGTAGTTTGGGAATGCTGCTCAAAATGGGAGGTATATGCTTTCTA  
AAGCTAAATATTGGCCAGAGACCGATAGCGCACAAAGTAGAGTATCGAAAGATGAAAAGCACCTTG  
AAAAGAGGGTTAAATAGTACGTGAAATGTTGAAAAGGGAAGCGCTTGTGACCAGACTTGGGCGCGGC  
GGATCATCCGGGTTCTCCCGGTGCACTTCGCCGTGTCCAGGCCAGCATCAGTTCGTGCGGGGGAA  
AAAGCTTCGGGAACGTGGCTCCCTGGGAGTGTATAGCCGTTGCATAATACCTGCGGTGGACTG



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AGGACCGCGCATCTGCAAGGATGCTGGCGTAATGGTCACCAGCGAC

calmodulin gene

TCTTTGTGAGTTTTTTGAACGTCTTTACTGCGGCAACCCGGTAGGGGGTTGTTTTCAGGGTGTGACC  
GAGCTGCTCTACAGGACAAGGACGGCGATGGTACGTGATGGCGAGTGACGCGACAACACACCTATTG  
CCCTCTCGACGAAGCCGACCCGAAGCACTTTGTGCCGATCGATCACTCTATCGTCGACTCGAATCATGA  
TACATGGACAAGAACTGACAGGCTTGACCTCGTAGGCCAGATCACCACCAAGGAGTTGGGCACCGT  
GATGCGCTCTCTCGGCCAGAACCCTCCGAGTCGGAGCTGCAGGACATGATCAACGAGGTTGACGCCG  
ACAACAACGGCTCCATCGACTTCCCTGGTATGTGAATTGTTGGGAGATTGGTGGTTAGGTATACGGG  
CTGACGTGGAGCGGTGAAGAATTTCTCA

Elongation factor 1-alpha

CCAGGCCGACTGCGTATCCTCATCATCGCTGCCGGTACTGGTGTGAGTTCGAGGCTGGTATCTCCAAGGA  
TGGCCAGACCCGTGAGCAGCTCTGCTCGCCTACACCCTGGGTGTCAAGCAGCTCATCGTCGCCATCAA  
CAAGATGGACTGCCAACTGGGCCGAGGCTCGTTACCAGGAAATCATCAAGGAGACTTCCAACCTTC  
ATCAAGAAGGTGCGCTTCAACCCCAAGGCCGTTGCTTTCGTCGCCATCTCCGGCTTCAACGGTGACAAC  
ATGCTCACCCCTCCACCAACTGCCCTGGTACAAGGGCTGGGAGAAGGAGACCAAGGCTGGCAAGT  
TCACCGGCAAGACCCTCCTTGAGGCCATCGACTCCATCGAGCCCCCAAGCGTCCCACGGACAAGCCC  
CTGCGTCTTCCCCTCCAGGACGTCTACAAGATCGGTGGTATCGGAACAGTTCGCCGTCCGCCGTATCGAG  
ACTGGTGTCTCAAGCCCGGTATGGTCTGTTACCTTCGCTCCCTCCAACGTCAACACTGAAGTCAAGTCC  
GTGAGATGCACCACGAGCAGCTCGCTGAGGGCCAGCCTGGTACAACGTTGGTTTTCAACGTGAAGA  
ACGTTTTCCGTCAAGGAAATCCGCCGTGGCAACGTTGCCGGTACTCCAAGAACGACCCCCCATGGGC  
GCCGCTTCTTTACCCGCCAGGTCATGTCATGAACCACCCCGGCCAGGTCCGGTCCCGGCTACGCCCC  
GTCCTCGACTGCCACACTGCCACATTGCTGCAAGTTCGCCGAGCTCCTCGAGAAGATCGACCCCGT  
ACCGGTAAGGCTACCAGTCTGCCCCCAAGTTCATCAAGTCTGGTACTCCGCCATCGTCAAGATGATC  
CCCTCAAGCCATGTGCGTTGAGGCTTTCACCGACTACCCTCCCTGGGTGTTCCGCCGTCCGTGACA  
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Isolation

Mutant of ATCC 24449, QM 9123



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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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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