




Product Sheet


# Rhizopus oryzae (ATCC® 9363™)

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: *Rhizopus oryzae* (ATCC® 9363™)

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 395 [IMI 40564]

**Deposited Name:** *Rhizopus oryzae* Went et Prinsen Geerligs

**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 323: Malt agar medium

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 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  
GGTTTCCGTAGGTGAACCTGCGGAAGGATCATTAAATTGTTAAAGCGCCTTACCTAGGGTTTCCTCTG  
GGGTAAGTGATTGCTTCTACACTGTGAAAATTTGGCTGAGAGACTCAGACTGGTTCATGGGTAGACCTA  
TCTGGGTTTGATCGATGCCACTCCTGGTTTCAGGAGTACCCTTCATAATAAACCTAGAAATTCAGTATT  
ATAAAGTTTAATAAAAAACAACCTTTTAACAATGGATCTCTTGGTTCTCGCATCGATGAAGAACGTAGC  
AAAGTGCATAACTAGTGTGAATTGCATATTCAGTGAATCATCGAGTCTTTGAACGCAGCTTGCACTCT  
ATGGTTTTTCTATAGAGTACGCCTGCTTCAGTATCATCACAAACCCACACATAACATTTGTTTATGTGGT  
GATGGTTCGCATCGCTGTTTTATTACAGTGTGACCTAAAATGTGTGTGATTTTCTGTCTGGCTTGCTAG  
GCAGGAATATTACGCTGGTCTCAGGATCTTTTTTTTTGGTTCGCCAGGAAGTAAAGTACAAGAGTATA  
ATCCAGTAACTTTCAAATATGATCTGAAGTCAGGTGGGATTACCCGCTGAACCTAAGCATATCAATAA

D1D2 region of the 28S ribosomal RNA gene

ATATCAATAAGCGGAGGAAAAGAAAATAACAATGATTTCCCTAGTAACGGCGAGTGAAGAGGAAAG  
AGCTCAAAGTTGGAACCTGTTTGGCTAGCTAAACCGGATTGTAGACTGTAGAAGTGTTCAGGCA  
AGCCGAGTAAATAAGTCCCTTTGGAACAGGGCATCATAGAGGGTGAAGTCCCGTCTTTGGCTTGAGCA  
TTTGCTTTTGTGATACGCTTTCAAAGAGTCAAGTGTGGGAAATGCAGCCTAAATGGGTGGAATC  
TCACCTAAAGCTAAATATTGGCGAGAAACCGATAGCGAACAAAGTACCGTGAGGGAAAGATGAAAAG  
AACTTTGAAAAGAGAGTTAAACAGTATGTGAAATGTTAAAAGGGAACCGTTTGGAGCCAGACTGGC  
TTGTCTGTAATCAATCTAGGCTTCGGCTGGATGCACCTGCAGGCTATGCCCAACGACAATTTGACT  
TGAGGAAAAAACTAGGGGAAATGTGGCCACTTGTGGGTGTTATAGTCCCTTAGAAAAATACCTTGGG  
TTGGATTGAGGAACGCAGCGAATGCTTATTGGCGAGTTTTCCAGGAAGTTTTCTGAGGTACTACGGTA  
TCAAGTTGATCTTTTTGGTTATACTTCTATTCCGCTTAGGTTGTTGGCTAATGACTCTAAATGAC



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## Isolation

Source of lactate dehydrogenase genes used in the construction of expression vectors

## 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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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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