



Product Sheet

Zygosaccharomyces biporus (ATCC® 34890™)

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: *Zygosaccharomyces biporus* (ATCC® 34890™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Strain Designation: NARD 3344 [CBS 6683]

Deposited Name: *Saccharomyces biporus* var. *mellis* (Fabian et Quinet) van der Walt

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 28: Emmons' modification of Sabouraud's agar

ATCC® Medium 200: YM agar or YM broth

ATCC® Medium 1245: YEPD

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. The sign of viability is noticeable typically after 1-2 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

Colony and Cell Morphology: After 3 days at 25°C on YM agar, the cells are spherical to ellipsoidal, 2-5 x 3-9 µm, and occur singly, in pairs or in small clusters. Growth is butyrous and tannish-white in color.

Notes

High benzoic acid tolerance; causes citrus juice spoilage; deposited as *Saccharomyces biporus* var. *mellis*; the species identity was confirmed by DNA sequences.

Additional, updated information on this product may be available on the ATCC web site at 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 26S ribosomal RNA gene, partial sequence:
GGTTTCCGTAGGTGAACCTGCGGAAGGATCATTATAGAAAAATCTGATTGCAAGTCAATGGGGCA
GTAGAGTTTTTCGGCTCTTTCTTTTGGCCTGCGCTTAGTTGCGCGGTCTAGAGTAGAGGGAGC
TTCTACTGCTTCGGCTTACAATTTACACACAGTGGAGTTCTACTATTTTTCTTTGGGAGGATGATGA
AAATCTATCTACTCCCAGAGGTAACACAAACAATATTTTTATTTTTATTTTACCCACAGTCAAATGAA
TACAAAAAAAATTATAATATTTCAAACTTTCAACAACGGATCTCTTGGTTCTCGCATCGATGAAGA
ACGCAGCGAAATGCGATACGTAATGTGAATTGCAGAATCCGTGAATCATCGAATCTTTGAACGCACA
TTGCGCCCTTGGTATTCAGGGGCGATGCCTGTTTGAGCGTCATTTCTCTCAAACACTTGTGTTTGGT
AGTGAGTGATACTCTGTTAAAAGTGGGTTAGCTTGAAATGCAAGCCTTTTGGGGATGCGTCTAGAGA
AGAGTTTTAGGCGGAAACGCTGCGCTCCTCTATTTTCTTTAAACCAATGTCGTATTAGGTTTTACCG
ACTCGGCAGACAGGTTACTGGAGACTGAGGTGGGTGATAGAAATATCGAACTTTCTGCGCGCCTTTG
GCAACAATACTCTCTAAGCTTGACCTCAAATCAGGTAGGATTAC

D1D2 region of the 26S ribosomal RNA gene
ATATCAATAAGCGGAGGAAAAGAAACCAACCGGGATTGCCTTAGTAACGGCGAGTGAAGCGGCAAA
AGCTCAAATTTGAAATCTGGTACCTTTGGTGTCTGAGTTGTAATTTGTAGAAGGCGACTCTGGGGCTGG
TCCTGTCTATGTTCTTGAACAGGACGTCATGGAGGGTGAGAATCCCGTGTGGCGAGGATCCCGATT



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CTTTGTAGAGTGCCTTCGAAGAGTCGAGTTGTTGGGAATGCAGCTCTAAGTGGGTGGTAAATCCATC  
TAAAGCTAAATATTGGCGAGAGACCGATAGCGAACCAAGTACAGTGATGGAAAGATGAAAAGAACTT  
TGAAAAGAGAGTGAAAAGTACGTGAAAATTGTTGAAAGGGAAGGGCATTGATCAGACATGGTGT  
TGTGCCCTCGCTCCTCGTGGGTGGGGGAATCTCGCAGCTCACTGGGCCAGCATCAGTTTTGGCGGCAG  
GATAAATCCCTGGGAATGTAGCTCTGGCATTATGTTGGAGAACCTATAGCTCAGGGGAATACTGCCA  
GCCGGGACTGAGGAATGCCACTTTTAGTCAAGGATGCTGGCATAATGGTTATATGCCGC
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Flavored sugar syrup, Iraq



References and other information relating to this product are available online at www.atcc.org.



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.
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