



Product Sheet

# *Kluyveromyces marxianus* (ATCC® 8554™)

## 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: *Kluyveromyces marxianus* (ATCC® 8554™)

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:** [15, type E, ATCC 34439, CBS 5795, CCRC 21480, DSM 5418, NCCYC 1426, NRRL Y-1109, UCD 55-61, VTTC-81112]

**Deposited Name:** *Kluyveromyces fragilis* (Jorgensen) 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:** 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 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 cells are globose, ellipsoidal, to cylindrical in single, pairs, or short chains. Growth is butyrous, glossy, cream-colored to brown.

## 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 26S ribosomal RNA gene, partial sequence  
GGTTTCCGTAGGTGAACCTGCGGAAGGATCATTAAAGATTATGAATGAATAGATTGCTGGGGGAATCG  
TCTGAACAAGCCCTGCGCTTAATTGCGCGGCCAGTTCTTGATTCTCTGCTATCAGTTTTCTATTCTCATC  
CTAAACACAATGGAGTTCTTTCTCTATGAACACTTCCCTGGAGAGCTCGTCTCTCCAGTGGACATAAA  
CACAAACAATATTTTGATTATGAAAACTATTATACTATAAAATTTAATATTCAAAACTTTCAACAAC  
GGATCTCTTGGTCTCGCATCGATGAAGAACGCAGCGAATTGCGATATGATTGTGAATTGCAGATTTT  
CGTGAATCATCAAATCTTTGAACGCACATTGCGCCCTCTGGTATTCAGGGGGCATGCCTGTTTGAGCG  
TCATTTCTCTCAAACCTTTGGGTTTGGTAGTGAGTGATACTCGTCTCGGGTTAACTTGAAGTGGCTA  
GCCGTTGCCATCTGCGTGAGCAGGGCTGCGTGTCAAGTCTATGGACTCGACTCTGCACATCTACGTCTT  
AGGTTTGCGCCAATTCGTGGTAAGCTTGGGTCATAGAGACTCATAGGTGTTATAAAGACTCGCTGGTGT  
TTGTCTCCTTGAGGCATACGGCTTTAACCAAACTCTCAAAGTTTGACCTCAAATCAGGTAGGAGTACC  
CGCTGAACCTAAGCATATCAATAA

D1D2 region of the 26S ribosomal RNA gene

ATATCAATAAGCGGAGGAAAAGAAACCAACCGGGATTGCCTTAGTAACGGCGAGTGAAGCGGCAAA  
AGCTCAAATTTGAAATCTGGCGTCTTCGACCTCGAGTTGTAATTTGAAGAAGCGACTTTGTAGCTGG  
TCCTTGTCTATGTTCTTGGAAACAGGACGTATAGAGGGTGAGAATCCCGTGTGGCGAGGATCCCAGTT  
ATTTGTAAGTGCTTTTCGACGAGTTCGAGTTGTTTGGGAATGCAGCTCTAAGTGGGTGGTAAATTCATC



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TAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAAGTACAGTGATGGAAAGATGAAAAGAAGCTT  
TGAAAAGAGAGTGAAAAAGTACGTGAAATTGTTGAAAAGGAAGGGCATTGATCAGACATGGCGTTT  
GCTTCGGCTTTTCGCTGGGCCAGCATCAGTTTTAGCGGTTGGATAAATCCTCGGGAATGTGGCTCTGCTTC  
GGTAGAGTGTATAGCCCGTGGGAATACAGCCAGCTGGGACTGAGGATTGCGACTTTTGTCAAGGATG  
CTGGCGTAATGGTTAAATGCCGC



## Isolation

Meadowgold creamery, USA



## 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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