ATCC

Product Sheet

Geomyces destructans (ATCC® MYA-4855™)

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
2

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: *Geomyces destructans* (ATCC® MYA-4855™)

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: 20631-21
Product Description: An ampoule containing viable cells (yeast cells, spores, or agar cubes with 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 28: Emmons' modification of Sabouraud's agar

Growth Conditions
Temperature: 4°C to 10°C
Atmosphere: Typical aerobic

Recommended Procedure
Frozen ampoules packed in dry ice should either be thawed immediately or stored in liquid nitrogen. If liquid nitrogen storage facilities are not available, frozen ampoules may be stored at or below -70°C for approximately one week. **Do not under any circumstance store frozen ampoules at refrigerator freezer temperatures (generally -20°C).** Storage of frozen material at this temperature will result in the death of the culture.

1. To thaw a frozen ampoule, place in a **25°C to 30°C** water bath, until just thawed **(approximately 5 minutes).** Immerse the ampoule just sufficient to cover the frozen material. Do not agitate the ampoule.
2. Immediately after thawing, wipe down ampoule with 70% ethanol and aseptically transfer 50 µL (or 2 to 3 agar cubes) of the content onto a plate or broth with medium recommended.
3. Incubate the inoculum/strain at the temperature and conditions recommended.
4. Inspect for growth of the inoculum/strain regularly. The sign of viability is noticeable typically after 3 to 4 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

Colony and Cell Morphology: On SDA at 10°C after 38 days, colonies white to grayish white, raised, dense velvety texture, slow growing, colony diameter after 38 days 1.8-2.3 cm. Production of light to dark brown exudate. Reverse buff to tan. Hyphae guttulate, 2.25 µm thick. Conidiophores with whorls of 2-6 verticils. Conidia formed singly and in short chains of 2-5, smooth, amygdaliform to allantoids with apical scar, containing oil droplets, 6-10.5 µm x 3-4.5 µm.

Notes

Type strain of the species; Pathogen causing bat white-nose syndrome; Psychrophilic fungus; Genome sequencing strain (The Broad Institute, USA); Individuals that have contacted with *G. destructans* should observe a personal quarantine and not enter bat congregation sites during active work and for 7 days after last contact with the fungus. Lab processes should be managed to avoid inadvertent contact with culture materials, and clothing and other materials brought into the laboratory should be segregated from those transported to any potential bat congregation sites.
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 28S ribosomal RNA gene, partial sequence
AAGTATGGAGCAATCTCAATGATTCTTCCGTGGCGACACTTATGGAAGCCTTTGCAGCCCCGCAAGGG
GTGGGGAGCACGACTGTAAATAAGTCTCCCTTCATGCAAGTCAGCACCCGCTGGCAACACGATCGAAT
TGACGGGGACGTCCTAAAGCCTACAACACCAACCCGCCCGGGAAACCGAGGCGGGGGCCCGTGCTA
ACTCCACGGGGTGGTAAAAGAGTGTATGGATACTCCCTCTGGGGAACTATGGATAATCCGCAGCGAA
GACCCTAAGTAGCGCTAGCTATACGGGTAACGTTCACAGACTAAGTGGTTGTGGGTGGAGCCTAGCTC
TGCTTAAGATATAGTCGGGCCCTACGTGAAAGCGCAGGGGTGAGTCGCTACGAACTCGAAACCGTTCC
GTAGGTGAACCTGCGGAAGGATCATTACAGTAGTCGCCCGGGTTGCCGCAAGGCCTCCCGGGTAACCT
ACCACCCTTTGTTTATTACACTTTGTTGCTTTGGCAGGCCTGCCCTCGGGCTGCTGGCTCCGGCCGGCGA
GCGCTTGCCAGAGGACTAAACTCTGTTTGTCTATACTGTCTGAGTACTATATAATAGTTAAAACTTTCAA

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CAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAG
AATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTGGTATTCCGGGGGGCATGCCTGTCC
GAGCGTCATTACAACCCTCAAGCTCAGCTTGGTATTGGGCCCCGCCGACCCGGCGGGCCCTAAAGTCA
GTGGCGGTGCCGTCCGGCTCCGAGCGTAGTAATTCTTCTCGCTCCGGAGGTCCGGTCGTGTGCTTGCCA
GCAACCCCCAATTTTTTCAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATATCAAT
AA

D1D2 region of the 28S ribosomal RNA gene
ATATCAATAAGCGGAGGAAAAGAAACCAACAGGGATTACCTCAGTAACGGCGAGTGAAGCGGTAAC
AGCTCAAATTTGAAATCTGGCCTCACGGTCCGAGTTGTAATTTGTAGAGGATGCTTCGAGCATGGTCTG
GCCTAAGTTCCTTGGAACAGGACGTCATAGAGGGTGAGAATCCCGTATGCGGCCAGGTGCCTACGCTC
ATGTGAAGCTCCTTCGACGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTAAATTTCATCTA
AAGCTAAATATTGGCCAGAGACCGATAGCGCACAAGTAGAGTGATCGAAAGATGAAAAGCACTTTG
GAAAGAGAGTTAAACAGTACGTGAAATTGTTGAAAGGGAAGCGCTTGCAACCAGACTTGCGCGCGGC
CGATCATCCGGTGTTCTCACCGGTGCACTCGGCCGTGCTCAGGCCAGCATCGGTTTTGGCGGCTGGATA
AAGGCCCTAGGAATGTAGCTCCTCTCGGGGAGTGTTATAGTCTAGGGTGCAATGCAGCCTGCTGGGAC
CGAGGACCGCGCTTCGGCTAGGATGCTGGCGTAATGGTTGTAAGCGGC

Isolation

Wing skin of *Myotis lucifugus*, little brown bat, in Williams Hotel Mine, Ulster County, New York, USA, February 2008.

References

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

Biosafety Level: 2

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.

ATCC Warranty

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.
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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

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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