Aspergillus brasiliensis (ATCC® 16404-MINI-PACK™)

Description

Strain Designation: WLRI 034(120) [CBS 733.88, DSM 1387, DSM 1988, IFO 9455, IMI 149007, NCPF 2275]

Deposited Name: Aspergillus niger van Tieghem

Product Description: ATCC® 16404-MINI-PACK™ consists of 6 ready-to-use vials of ATCC® 16404™ frozen in 200 µL of glycerol stock, eliminating the need to rehydrate and culture the strain prior to use. Each vial is provided with a 2-D barcode for easy storage and tracking, as well as peel-off labels for fast and reliable recordkeeping.

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 325: Malt extract agar (Blakeslee's formula)

ATCC® Medium 28: Ennons' modification of Sabouraud's agar

Growth Conditions

Temperature: 20°C to 25°C

Atmosphere: Typical aerobic

Recommended Procedure

Frozen mini-cryovials packed in dry ice should either be thawed immediately for use or stored at or below -70°C until the expiration date printed on the label. Short-term storage at -20°C is acceptable for up to 9 months.

1. To thaw a frozen mini-cryovial, place the vial upright in a 25°C to 30°C water bath, until just thawed (approximately 2-3 minutes). Immerse the mini-cryovial just sufficient to cover the frozen material. Do not agitate the mini-cryovial.
2. Immediately after thawing, wipe down the mini-cryovial with 70% ethanol and aseptically transfer at least 50 µL (or 2-3 agar cubes) of the content onto a plate or broth with the recommended medium.
3. Discard the empty vial. Do not refreeze any unused portion as it will result in a loss of viability.
4. Incubate the inoculum/strain at the temperature and conditions recommended. 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.

Colony and Cell Morphology:

Colonies initially white or yellowish, mycelium growing rapidly producing a dense layer of erect smooth-stippled, conidiophores terminated by globose vesicles bearing phialides (uniseriate) or metulae with phialides (biseriate) which produce dry chains of conidia. Reverse pale to grayish or greenish yellow. Vesicles radiate, initially pale, becoming dark brown to black. Conidia spherical, mid-to-dark brown, highly roughened with ridges and blunt or pointed protuberances, (3)-4-(5)-(6) µm in diameter. Sporulation may be inhibited when grown in vessels with reduced gas exchange. Colonies may exhibit sectoring with areas of varying levels of sporulation. Use of freshly produced spores as inoculum should reduce sectoring.

Notes

This strain was identified as belonging to the new species Aspergillus brasiliensis (see Varga et al. 2007 and Houseknight et al., 2008.)

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.

GTTTCATGTAGTGTAACCTCGGCGAAGGGATCATATTACCGAGTGGCCGGTCTTTGCGCCCAACCTCCATCC GTGTTCTATGTGACCTGTTTGCGGCGCCCGCCCGCTTGTCGCGGCGCGGCGGGGCGCGCTGTCGCCC CGCCGCCGTGCCCGCGGAAGACCCCAACACGAAACCCGCTGAAAACGGTGAGCTGAGTCAGTTGTT TGCCAATCGTAAAACCTTTCACAGAATGGATCCTTGCTTGGGCGATCGATGAAGAAAGGCAACGCGAAT GCGTATACATGTGAAATTGCAATTTCAATATCGTGAATACATCGAATCTTGGAAACCGACATTTGGCGCCCTGCG TATTCCGCCGCGAGATCGTCCGCGGCGGATGTTCGCGATCGCGCCCTCAAGCGCGGTATGTTGATGCGTGG TCCGCTCCTCGGGCGAGCGCGCGAAGCGAAGCGCGACCOCCGTCCATCGAGCGATAG GGGGTGTCATCACGTGCTGTAGTTGGATCGGCACGCGCCCTGCGGCTGTTTACCCAAACATCTTTCACCGGGGTTG
ACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATATCAATAA

D1D2 region of the 28S Ribosomal RNA gene

ATATCAATAAGCGGAGGAAAAGAAACCAACCGGGATTGCCTCAGTAACGGCGAGTGAAGCGGCAAG
AGCTCAAATTTGAAAGCTGGCTCCTTCGGAGTCCGCATTGTAATTTGCAGAGGATGCTTTGGGTGCGGC
CCCCGTCTAAGTGCCCTGGAACGGGCCGTCAGAGAGGGTGAGAATCCCGTCTTGGGCGGGGTGTCCGT
GCCCGTGTAAAGCTCCTTCGACGAGTCGAGTTGTTTGGGAATGCAGCTCTAAATGGGTGGTAAATTTCA
TCTAAAGCTTAAATACCTGGCCGGAACCGGACGATAGCGCACAAGTAGAGTGATCGAAAGATGAAAAGCAC
TTTGAAGGAAGGTAAACACGACGATAGCTGAAGATTTGGGAATGCAGCTCTAAATGGGTGGTAAATTTCA
TCTAAAGCTTAAATACCTGGCCGGAACCGGACGATAGCGCACAAGTAGAGTGATCGAAAGATGAAAAGCAC
Blueberry, North Carolina

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.