



# *Metarhizium brunneum* Petch

90448™

## Description

An ampoule containing viable cells (may include spores and mycelia) suspended in cryoprotectant.

**Strain designation:** M.a. 43 [HRI 275.86]

**Deposited As:** *Metarhizium anisopliae* (Metschnikoff) Sorokin var. *anisopliae*

**Type strain:** No

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## Storage Conditions

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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## Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

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## BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

### Medium:

ATCC Medium 323: Malt agar medium

ATCC Medium 325: Malt extract agar (Blakeslee's formula)

ATCC Medium 336: Potato dextrose agar (PDA)

**Temperature:** 24-26°C

**Atmosphere:** Aerobic

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## Handling Procedures

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

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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 6-10 days of incubation. However, the time necessary for significant growth will vary from strain to strain.

**Morphology:** On Blakeslee's malt extract medium at 25°C after 15 days, two mycelial types were observed. White mycelium, cottony to floccose, dense. Yellowish tan mycelium velutinous to powdery with abundant dark brown to black sporodochium. Reverse creamy white to yellowish tan. Hyphae hyaline, guttulate. Conidia honey brown, elongated ovoid, smooth, single and in chains, 6-8 X 1.5-3 µm.

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### Notes

Additional information on this culture is available on the ATCC® web site at [www.atcc.org](http://www.atcc.org).

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### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Metarhizium brunneum* Petch (ATCC 90448)

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### References

References and other information relating to this material are available at

[www.atcc.org](http://www.atcc.org).

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