



Product Sheet

Pseudomonas fluorescens (ATCC® BAA-477™)

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: *Pseudomonas fluorescens* (ATCC® BAA-477™)

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

Designation: Pf-5

Deposited Name: *Pseudomonas fluorescens* Migula

Product Description: Genome sequencing strain. Biological control agent that suppresses a number of plant diseases caused by soil fungi. Produces hydrogen cyanide, pyochelin, pyoluteorin, 2,4-diacetylphloroglucinol, pyoverdine, and pyrrolnitrin.

Propagation

Medium

ATCC® Medium 18: Trypticase Soy Agar/Broth

Growth Conditions

Temperature: 30°C

Atmosphere: Aerobic

Propagation Procedure

1. Open vial according to enclosed instructions.
2. Using a single tube of #18 broth (5 to 6 mL), withdraw approximately 0.5 to 1.0 mL with a Pasteur or 1.0 mL pipette. Rehydrate the entire pellet.
3. Aseptically transfer this aliquot back into the broth tube. Mix well.
4. Use several drops of the suspension to inoculate a #18 agar slant and/or plate.
5. Incubate the tubes and plate at 30°C for 24 to 48 hours.

Notes

Colonies on #18 agar are tan-pigmented, convex, circular, smooth, and entire, with a diffusible pigment developing in the media as the culture ages.
Cells in #18 broth are motile rods.

*Strain Pf-5, like many other strains of *P. fluorescens*, exhibits some genetic instability if it is grown for several days in culture. Fortunately, one can detect variants of the strain that arise in culture simply by carefully observing the morphologies of colonies grown on agar media. On LB Media, colonies of "variants" are larger than the "wild type" colonies and have orange pigmentation. On King's Medium B, colonies of "variants" are larger and more fluorescent than "wild type" colonies. Colony sectoring and the presence of multiple colony morphologies in cultures of *Pseudomonas* spp. have perplexed scientists for decades, but it is now clear that some (or maybe most) of the colonies with these characteristics have mutations in the *gacA* or *apdA* (= *lemA*) genes. *GacA*- or *ApdA*- mutants typically are deficient in extracellular protease production or tryptophan side chain oxidase activity whereas the wild type Pf-5 produces these enzymes. Therefore, we recommend that you select a colony that produces these enzymes to store as a stock culture for future experiments in your laboratory. References listed below provide information on the *gacA* and *apdA* genes and methods for assessing phenotypes described herein.

1. Corbell and Loper. J. Bacteriol. 177: 6230-6236, 1995.
2. Duffy and Defago. Phytopathology 85: 1146, 1995.
3. Gaffney et al. Molec. Plant-Microbe Interact. 7: 455-463, 1994.
4. LaVille et al. PNAS 89: 1562-1566, 1992.

Purified genomic DNA of this strain is available as ATCC® BAA-477D-5™.

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

References

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


ATCC Warranty




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The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. 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 strain. 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.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

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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