



Product Sheet

# *Pseudomonas protegens* (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**

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

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

**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

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 and BAA-477D.

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

## 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.

## 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.



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### Disclaimers

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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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