

PRODUCT INFORMATION



Orfamide A

Item No. 28131

CAS Registry No.: 939960-34-6
Formal Name: N-(3-hydroxy-1-oxotetradecyl)-L-leucyl-D- α -glutamyl-D-allothreonyl-D-alloisoleucyl-L-leucyl-D-seryl-L-leucyl-L-leucyl-D-seryl-L-valine, (10 \rightarrow 3)-lactone

MF: C₆₄H₁₁₄N₁₀O₁₇

FW: 1,295.7

Purity: \geq 95%

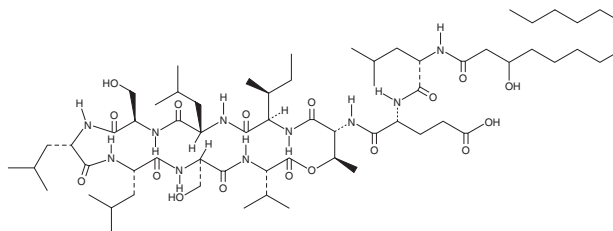
Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years

Item Origin: Bacterium/*Pseudomonas fluorescens*

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



Laboratory Procedures

Orfamide A is supplied as a solid. A stock solution may be made by dissolving the orfamide A in the solvent of choice, which should be purged with an inert gas. Orfamide A is soluble in ethanol, methanol, dimethyl formamide, and DMSO.

Description

Orfamide A is a lipopeptide biosurfactant originally isolated from *P. protegens*.^{1,2,3} It induces mortality in adult green peach aphids (LC₅₀ = 34.5 μ g/ml).¹ Orfamide A (50 μ M) blocks appressoria formation in *M. oryzae* isolates and reduces the number of sporulating blast lesions in *M. oryzae*-infected plants.² It is also active against *T. b. brucei* (IC₅₀ = 6 μ M).³

References

1. Jang, J.Y., Yang, S.Y., Kim, Y.C., *et al.* Identification of orfamide A as an insecticidal metabolite produced by *Pseudomonas protegens* F6. *J. Agric. Food Chem.* **61(28)**, 6786-6791 (2013).
2. Ma, Z., Geudens, N., Kieu, N.P., *et al.* Biosynthesis, chemical structure, and structure-activity relationship of orfamide lipopeptides produced by *Pseudomonas protegens* and related species. *Front. Microbiol.* **7**, 382 (2016).
3. Gross, H., Stockwell, V.O., Henkels, M.D., *et al.* The genomisotopic approach: A systematic method to isolate products of orphan biosynthetic gene clusters. *Chem. Biol.* **14(1)**, 53-63 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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