

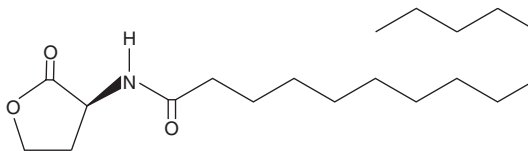
PRODUCT INFORMATION



N-pentadecanoyl-L-Homoserine lactone

Item No. 13094

CAS Registry No.: 182359-66-6
Formal Name: N-[(3S)-tetrahydro-2-oxo-3-furanyl]-pentadecanamide
Synonym: C15-HSL
MF: C₁₉H₃₅NO₃
FW: 325.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

N-pentadecanoyl-L-homoserine lactone is supplied as a crystalline solid. A stock solution may be made by dissolving the N-pentadecanoyl-L-homoserine lactone in the solvent of choice, which should be purged with an inert gas. N-pentadecanoyl-L-homoserine lactone is soluble in the organic solvent dimethyl formamide at a concentration of approximately 0.25 mg/ml. While N-pentadecanoyl-L-homoserine lactone is also soluble in ethanol and other primary alcohols, their use is not recommended as they have been shown to open the lactone ring.

Description

N-pentadecanoyl-L-Homoserine lactone is an N-acyl homoserine lactone produced by *Y. pseudotuberculosis* and a bacterial quorum-sensing signaling molecule.¹ It activates the LasR quorum sensing receptor of bacteria in a reporter assay.² N-pentadecanoyl-L-Homoserine lactone induces GFP production in a *P. putida* F117 reporter strain expressing the pKR-C12 quorum-sensing operon when used at a concentration of 0.094 nM.³

References

1. Ortori, C.A., Atkinson, S., Chhabra, S.R., *et al.* Comprehensive profiling of N-acylhomoserine lactones produced by *Yersinia pseudotuberculosis* using liquid chromatography coupled to hybrid quadrupole-linear ion trap mass spectrometry. *Anal. Bioanal. Chem.* **387**(2), 497-511 (2007).
2. Passador, L., Tucker, K.D., Guertin, K.R., *et al.* Functional analysis of the *Pseudomonas aeruginosa* autoinducer PAI. *J. Bacteriol.* **178**(20), 5995-6000 (1996).
3. Girard, L., Blanchet, É., Intertaglia, L., *et al.* Characterization of N-acyl homoserine lactones in *Vibrio tasmaniensis* LGP32 by a biosensor-based UHPLC-HRMS/MS method. *Sensors (Basel)* **17**(4), 906 (2017).

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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