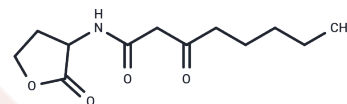


## N-(3-Oxo-octanoyl)-DL-homoserine lactone

## Chemical Properties

CAS No. :	106983-27-1
Formula:	C <sub>12</sub> H <sub>19</sub> NO <sub>4</sub>
Molecular Weight:	241.28
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	N-(3-Oxo-octanoyl)-DL-homoserine lactone is an N-acyl homoserine lactone (AHL) synthesized by Gram-negative bacteria. Its regulatory activity on plant root growth is stereostructure-dependent.
Targets(IC50)	Endogenous Metabolite
In vitro	Methods: Sugarcane was treated with the R and S enantiomers of N-(3-Oxo-octanoyl)-DL-homoserine lactone, respectively, and root germination and root cell elongation were observed. Results: In sugarcane, the S enantiomer of N-(3-Oxo-octanoyl)-DL-homoserine lactone showed significantly better effects in promoting root germination than the R enantiomer. Both enantiomers (R and S) induced root cell elongation [1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (331.56 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1446 mL	20.7228 mL	41.4456 mL
5 mM	0.8289 mL	4.1446 mL	8.2891 mL
10 mM	0.4145 mL	2.0723 mL	4.1446 mL
50 mM	0.0829 mL	0.4145 mL	0.8289 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Olher VG, et al. Acyl-homoserine Lactone from *Saccharum x officinarum* with Stereochemistry-Dependent Growth Regulatory Activity. *J Nat Prod.* 2016 May 27;79(5):1316-21.

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