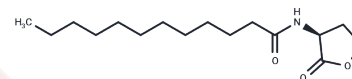


## N-dodecanoyl-L-Homoserine lactone

## Chemical Properties

CAS No. :	137173-46-7
Formula:	C <sub>16</sub> H <sub>29</sub> NO <sub>3</sub>
Molecular Weight:	283.41
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-dodecanoyl-L-Homoserine lactone (C12-HSL) is a quorum sensing (QS) signaling molecule that impacts biofilm formation in bioreactors through acyl homoserine lactone (AHL) mediated microbial communication.
Targets(IC50)	Others,Antibacterial
In vitro	N-dodecanoyl-L-Homoserine lactone inhibits IgE dependent and independent degranulation and mediator release from primary mast cells[1].

## Solubility Information

Solubility	DMSO: 25 mg/mL (88.21 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	3.5285 mL	17.6423 mL	35.2846 mL
5 mM	0.7057 mL	3.5285 mL	7.0569 mL
10 mM	0.3528 mL	1.7642 mL	3.5285 mL
50 mM	0.0706 mL	0.3528 mL	0.7057 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

Tabraiz S, et al. Temperature and immigration effects on quorum sensing in the biofilms of anaerobic membrane bioreactors. J Environ Manage. 2021 Sep 1;293:112947.

Wang R, et al. Exploring the Influence of Signal Molecules on Marine Biofilms Development. Front Microbiol. 2020 Nov 13;11:571400.

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