

3-Hydroxy-C4-HSL

Chemical Properties

CAS No. : 1325550-06-8

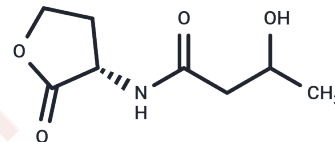
Formula: C₈H₁₃NO₄

Molecular Weight: 187.19

Store at low temperature

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	3-Hydroxy-C4-HSL (N-3-hydroxybutyryl-L-Homoserine lactone) is an N-acyl homoserine lactone obtained from pathogenic <i>Vibrio vulnificus</i> in fish and is a bacterial group sensing (QS) inducer that modulates bacterial signaling and can be used in the study of bacterial infections.
Targets(IC50)	Antibacterial

Solubility Information

Solubility	Methanol: 1 mg/mL (5.34 mM), Sonication is recommended. Ethanol: 1 mg/mL (5.34 mM), Sonication is recommended. DMSO: 1 mg/mL (5.34 mM), Sonication is recommended. DMF: 1 mg/mL (5.34 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	5.3422 mL	26.7108 mL	53.4217 mL
5 mM	1.0684 mL	5.3422 mL	10.6843 mL
10 mM	0.5342 mL	2.6711 mL	5.3422 mL
50 mM	0.1068 mL	0.5342 mL	1.0684 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

Purohit AA, et al. Presence of acyl-homoserine lactones in 57 members of the Vibrionaceae family. J Appl Microbiol. 2013 Sep;115(3):835-47.

Feng Z, et al. Operational pattern affects nitritation, microbial community and quorum sensing in nitrifying wastewater treatment systems. Sci Total Environ. 2019 Aug 10;677:456-465.

Ke X, et al. Determinants governing ligand specificity of the Vibrio harveyi LuxN quorum-sensing receptor. Mol Microbiol. 2015 Jan;95(1):127-42.

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