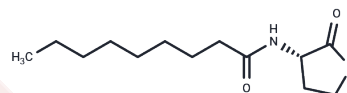


N-Nonanoyl-L-homoserine lactone

Chemical Properties

CAS No. :	177158-21-3
Formula:	C ₁₃ H ₂₃ NO ₃
Molecular Weight:	241.33
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-Acyl homoserine lactones (AHLs) are a class of autoinducers used by bacteria in quorum sensing, a regulatory system controlling gene expression in response to increased cell density. This regulation leads to diverse phenotypes, such as biofilm formation and production of virulence factors. Coordinated gene expression is achieved through the generation, release, and detection of small diffusible signal molecules called autoinducers. AHLs typically consist of fatty acids linked to homoserine lactone (HSL). Modulating bacterial quorum sensing signal systems to suppress pathogenesis offers a novel antimicrobial approach in studying infectious diseases. AHLs vary in acyl chain length (C ₄ -C ₁₈), C ₃ substitution (hydrogen, hydroxyl, or oxo groups), and the presence or absence of carbon-carbon double bonds, providing signal specificity via LuxR family transcription factors. C ₉ -HSL, characterized by an unusual odd-numbered acyl carbon chain, is produced by the wild-type <i>Erwinia carotovora</i> subsp. <i>carotovora</i> strain SCC 3193 grown in nutrient-rich Luria-Bertani broth (LB).
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1437 mL	20.7185 mL	41.437 mL
5 mM	0.8287 mL	4.1437 mL	8.2874 mL
10 mM	0.4144 mL	2.0719 mL	4.1437 mL
50 mM	0.0829 mL	0.4144 mL	0.8287 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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