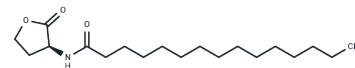


N-pentadecanoyl-L-Homoserine lactone

Chemical Properties

CAS No. :	182359-66-6
Formula:	C ₁₉ H ₃₅ NO ₃
Molecular Weight:	325.49
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Quorum sensing is a regulatory system used by bacteria for controlling gene expression in response to increasing cell density. This regulatory process manifests itself with a variety of phenotypes including biofilm formation and virulence factor production. Coordinated gene expression is achieved by the production, release, and detection of small diffusible signal molecules called autoinducers. The N-acylated homoserine lactones (AHLs) comprise one such class of autoinducers, each of which generally consists of a fatty acid coupled with homoserine lactone (HSL). Regulation of bacterial quorum sensing signaling systems to inhibit pathogenesis represents a new approach to antimicrobial therapy in the treatment of infectious diseases. AHLs vary in acyl group length (C₄-C₁₈), in the substitution of C₃ (hydrogen, hydroxyl, or oxo group), and in the presence or absence of one or more carbon-carbon double bonds in the fatty acid chain. These differences confer signal specificity through the affinity of transcriptional regulators of the LuxR family. C₁₅-HSL is a product of <i>Y. pseudotuberculosis</i>.
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Solubility Information

Solubility	DMF: 0.25 mg/mL (< 1 mg/mL refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0723 mL	15.3615 mL	30.7229 mL
5 mM	0.6145 mL	3.0723 mL	6.1446 mL
10 mM	0.3072 mL	1.5361 mL	3.0723 mL
50 mM	0.0614 mL	0.3072 mL	0.6145 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

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