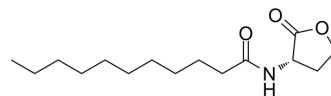


N-Undecanoyl-L-homoserine lactone

Cat. No.:	HY-114773
CAS No.:	216596-71-3
Molecular Formula:	C ₁₅ H ₂₇ NO ₃
Molecular Weight:	269.38
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Quorum sensing is a regulatory system used by bacteria to control gene expression in response to increased cell density. This regulatory process manifests itself in a variety of phenotypes, including biofilm formation and virulence factor production. Coordinated gene expression is achieved through the production, release and detection of small diffusible signaling molecules called autoinducers. N-acylated homoserine lactones (AHLs) comprise a class of such autoinducers, each of which generally consists of a fatty acid coupled to a homoserine lactone (HSL). Modulation of bacterial quorum-sensing signaling systems to suppress pathogenesis represents a new approach to antimicrobial research for infectious diseases. AHLs differ in acyl length (C4-C18), C3 substitution (hydrogen, hydroxyl, or oxo group), and the presence or absence of one or more carbon-carbon double bonds in the fatty acid chain. These differences confer signaling specificity through the affinity of the LuxR family of transcriptional regulators. C11-HSL has a rare odd-numbered acyl carbon chain and may be a minor quorum-sensing signaling molecule in *Pseudomonas aeruginosa* strains.

Caution: Product has not been fully validated for medical applications. For research use only.

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