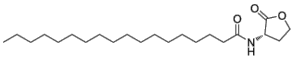
N-octadecanoyl-L-Homoserine lactone

货号: B27416



产品信息

生物活性	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 therapy 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. C18-HSL, one of four lipophilic long acyl side chain AHLs produced by the LuxI AHL synthase homolog SinI, is involved in quorum-sensing signaling in strains of Rhizobium meliloti (a nitrogen-fixing **bacterial** symbiont of the legume M. sativa) . C18-HSL and other hydrophobic AHLs tend to localize in the relatively lipophilic environment of **bacterial** cells and cannot diffuse freely across the cell membrane. Long-chain N-acyl homoserine lactones can be exported from cells by efflux pumps, or can be transported between communicating cells by extracellular outer membrane vesicles.
CAS	479050-96-9
中文名称	十八酰基 -L-高丝氨酸内酯
分子量	367.57
体外研究	
体内研究	
形式	
运输条件	Room temperature in continental US; may vary elsewhere.
保存条件	Please store the product under the recommended conditions in the Certificate of Analysis.
溶解性	
纯度	