

## **Product** Data Sheet

## N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone

Cat. No.:HY-123087CAS No.:172670-99-4Molecular Formula: $C_{18}H_{33}NO_4$ Molecular Weight:327.46Target:Bacterial

Pathway: Anti-infection

Powder -20°C 3 years 4°C 2 years

In solvent -80°C 6 months

-20°C 1 month

	ρн	0
^	<b>/</b>	$\mathbb{A}^{\mathbb{N}} \mathbb{A}^{-}$
		н

## **BIOLOGICAL ACTIVITY**

Storage:

Description	N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone (N-(3-oxodecanoyl)-homoserine lactone) is a member of N-Acyl homoserine lactone (AHL) from V. alginolyticus strains. N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone is used for biofilm formation and has antibacterial activity <sup>[1]</sup> .
In Vitro	Moderate levels of exogenous N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone (N-(3-oxodecanoyl)-homoserine lactone; $10$ and $20~\mu\text{M}$ ) can induce or enhance biofilm formation and alter its structure, while high levels ( $40$ and $100~\mu\text{M}$ ) does not significantly improve and even inhibits biofilm formation in V. alginolyticus <sup>[1]</sup> . N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone ( $2$ , $5$ , $10$ , $20~\mu\text{M}$ ; $36~\text{hours}$ ) increases the biofilms of strain N°24 significantly <sup>[1]</sup> . Moderate addition of N-(3-Hydroxytetradecanoyl)-DL-homoserine lactone ( $10~\text{or}~20~\mu\text{M}$ ) also increases biofilm formation of non-AHL-producing peanut-nodulating bacteria <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[1]. Liu J, et al. Detection of Diverse N-Acyl-Homoserine Lactones in Vibrio alginolyticus and Regulation of Biofilm Formation by N-(3-Oxodecanoyl) Homoserine Lactone In vitro. Front Microbiol. 2017 Jun 16;8:1097.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA