

N-3-Oxo-octanoyl-L-homoserine lactone

Chemical Properties

CAS No. : 147795-39-9

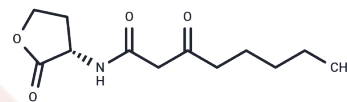
Formula: C₁₂H₁₉NO₄

Molecular Weight: 241.28

Keep away from direct sunlight

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-3-Oxo-octanoyl-L-homoserine lactone is a quorum-sensing signal molecule and an autoinducer for *Agrobacterium*. |
| Targets(IC50) | Others |
| In vitro | Pretreatment with N-3-Oxo-octanoyl-L-homoserine lactone (3OC8-HSL) (10µM; for 2 days) strongly inhibits pathogen proliferation in leaves and increases activities of defense-related enzymes such as peroxidase, catalase, phenylalanine ammonialyase, and superoxide dismutase[1]. |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 250 mg/mL (1036.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Saline: 10 mg/mL (41.45 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.29 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 4.1446 mL | 20.7228 mL | 41.4456 mL |
| 5 mM | 0.8289 mL | 4.1446 mL | 8.2891 mL |
| 10 mM | 0.4145 mL | 2.0723 mL | 4.1446 mL |
| 50 mM | 0.0829 mL | 0.4145 mL | 0.8289 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.

Reference

Fang Liu, et al. N-3-oxo-octanoyl-homoserine lactone-mediated priming of resistance to *Pseudomonas syringae* requires the salicylic acid signaling pathway in *Arabidopsis thaliana*. *BMC Plant Biol.* 2020 Jan 28;20(1):38.

Hai-Bao Zhang, et al. Genetic control of quorum-sensing signal turnover in *Agrobacterium tumefaciens*. *Proc Natl Acad Sci U S A*

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481