# N-Hexanoyl-L-homoserine lactone

**Cat. No.:** HY-133685

**CAS No.:** 147852-83-3

**Molecular Formula:** $C_{10}H_{17}NO_3$

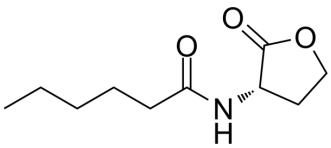
**Molecular Weight:** 199.25

**Target:** Bacterial

**Pathway:** Anti-infection

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (501.88 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 5.0188 mL | 25.0941 mL | 50.1882 mL |
| | 5 mM | 1.0038 mL | 5.0188 mL | 10.0376 mL |
| | 10 mM | 0.5019 mL | 2.5094 mL | 5.0188 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (12.55 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.55 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.55 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

N-Hexanoyl-L-homoserine lactone is a short-chained N-acyl homoserine lactone (AHL). Diatoms are frequently found in association with Proteobacteria, many members of which employ cell-to-cell communication via AHLs in aquatic habitats[1].

## REFERENCES

[1]. Frederike Stock,et al. Distinctive Growth and Transcriptional Changes of the Diatom Seminavis robusta in Response to Quorum Sensing Related Compounds. Front Microbiol. 2020 Jun 9;11:1240.



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