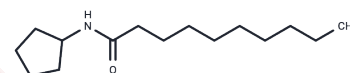


## N-Decanoyl cyclopentylamide

## Chemical Properties

CAS No. :	540796-75-6
Formula:	C <sub>15</sub> H <sub>29</sub> NO
Molecular Weight:	239.40
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-Decanoyl cyclopentylamide (C10-CPA) serves as a potent quorum sensing inhibitor in <i>Pseudomonas aeruginosa</i> , disrupting the expression of virulence factors governed by both the las and rhl systems. It effectively suppresses the production of elastase, pyocyanin, rhamnolipid, and hinders biofilm formation.
Targets(IC50)	Antibacterial
In vitro	N-Decanoyl cyclopentylamide (C10-CPA) inhibits quorum sensing in <i>Pseudomonas aeruginosa</i> , with half-maximal inhibitory concentrations for lasB-lacZ and rhlA-lacZ expression at 80 μM and 90 μM, respectively [1]. It also suppresses the production of virulence factors such as elastase, pyocyanin, rhamnolipids, and biofilm formation without affecting the growth of <i>Pseudomonas aeruginosa</i> PAO1 [1]. N-Decanoyl cyclopentylamide interferes with the las and rhl quorum sensing systems by disrupting the interaction between their response regulators (LasR and RhIR) and autoinducers [1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1771 mL	20.8855 mL	41.7711 mL
5 mM	0.8354 mL	4.1771 mL	8.3542 mL
10 mM	0.4177 mL	2.0886 mL	4.1771 mL
50 mM	0.0835 mL	0.4177 mL	0.8354 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.

**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