# Inhibitors



# **Product** Data Sheet

# 1-Cyclohexyl-3-dodecyl urea

Cat. No.:HY-135795CAS No.:402939-18-8Molecular Formula: $C_{19}H_{38}N_2O$ Molecular Weight:310.52

Target: Epoxide Hydrolase

Pathway: Metabolic Enzyme/Protease

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 2 years

-20°C 1 year

### **SOLVENT & SOLUBILITY**

In Vitro

Ethanol: 16.67 mg/mL (53.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.2204 mL	16.1020 mL	32.2040 mL
	5 mM	0.6441 mL	3.2204 mL	6.4408 mL
	10 mM	0.3220 mL	1.6102 mL	3.2204 mL

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

In Vivo

1. Add each solvent one by one: 10% EtOH >> 90% corn oil Solubility: ≥ 1.67 mg/mL (5.38 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description 1-Cyclohexyl-3-dodecyl urea (CDU; N-Cyclohexyl-N-dodecyl urea; NCND) is a highly selective soluble epoxide hydrolase (sEH) inhibitor. 1-Cyclohexyl-3-dodecyl urea (CDU; N-Cyclohexyl-N-dodecyl urea; NCND) increases epoxyeicosatrienoic acids

(EETs) levels and lowers blood pressure in angiotensin II (Ang II) hypertension<sup>[1]</sup>.

IC50: soluble epoxide hydrolase (sEH)<sup>[1]</sup>

In Vivo 1-Cyclohexyl-3-dodecyl urea (CDU; N-Cyclohexyl-N-dodecyl urea; NCND) (intraperitoneal injection; 3mg/day; 4 days) lowers systolic blood pressure by 30 mm Hg in Ang II hypertensive animals, whereas the corn oil vehicle has no effect on blood

pressure in normotensive or Ang II hypertensive animals<sup>[1]</sup>.

 $\label{eq:mce} \mbox{MCE has not independently confirmed the accuracy of these methods. They are for reference only.}$ 

Animal Model:	Male Sprague-Dawley rats <sup>[1]</sup>	
Dosage:	3mg/day	
Administration:	Intraperitoneal injection; 4 days	
Result:	Had antihypertensive properties.	

### **REFERENCES**

[1]. Imig JD, et al. Soluble epoxide hydrolase inhibition lowers arterial blood pressure in angiotensin II hypertension. Hypertension. 2002 Feb;39(2 Pt 2):690-4.

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

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