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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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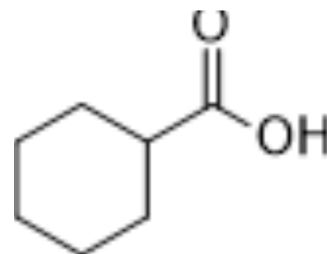
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Cyclohexanecarboxylic acid

Cat. No.:	HY-Y1373	
CAS No.:	98-89-5	
Molecular Formula:	C ₇ H ₁₂ O ₂	
Molecular Weight:	128.17	
Target:	Endogenous Metabolite; Drug Intermediate	
Pathway:	Metabolic Enzyme/Protease; Others	
Storage:	Pure form	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (390.10 mM; Need ultrasonic)
 H₂O : 10 mg/mL (78.02 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	7.8021 mL	39.0104 mL	78.0208 mL
5 mM	1.5604 mL	7.8021 mL	15.6042 mL
10 mM	0.7802 mL	3.9010 mL	7.8021 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (19.51 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (19.51 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (19.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cyclohexanecarboxylic acid is a Valproate structural analogue. Cyclohexanecarboxylic acid is an essential intermediate for the aromatization of Shikimic acid (HY-N0130) by mammals. Cyclohexanecarboxylic acid has anticonvulsant action^{[1][2][3]}.

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Cyclohexanecarboxylic acid (5-10 μM for cell suspensions; 0.1-1.0 μM for cell-free systems) is metabolized aerobically by

	Acinetobacter anitratum to produce cyclohex-1-ene-1-carboxylate, 2-hydroxycyclohexanecarboxylate and pimelate ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cyclohexanecarboxylic acid (0.05 mmol/kg, i.v.) shows anticonvulsant action in rats ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Rho EM, et al. The aerobic metabolism of cyclohexanecarboxylic acid by Acinetobacter anitratum. Biochem J. 1975 Apr;148(1):11-5.
- [2]. Brewster D, et al. The metabolism of cyclohexanecarboxylic acid in the isolated perfused rat liver. Xenobiotica. 1977 Oct;7(10):601-9.
- [3]. Liu MJ, et al. Pharmacokinetics and pharmacodynamics of valproate analogues in rats. IV. Anticonvulsant action and neurotoxicity of octanoic acid, cyclohexanecarboxylic acid, and 1-methyl-1-cyclohexanecarboxylic acid. Epilepsia. 1994 Jan-Feb;35(1):234-43.
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Caution: Product has not been fully validated for medical applications. For research use only.

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