Indole-2-carboxylic acid

Cat. No.: HY-I0096

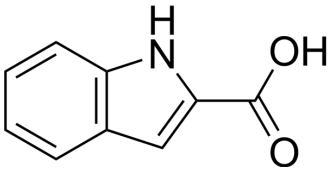
CAS No.: 1477-50-5

Molecular Formula: $C_9H_7NO_2$

Molecular Weight: 161.16

Target: Endogenous Metabolite; iGluR

Pathway: Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Neuronal Signaling



Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (620.50 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.2050 mL	31.0251 mL	62.0501 mL
	5 mM	1.2410 mL	6.2050 mL	12.4100 mL
	10 mM	0.6205 mL	3.1025 mL	6.2050 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 (15.51 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (15.51 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (15.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Indole-2-carboxylic acid is a strong inhibitor of lipid peroxidation. Indole-2-carboxylic acid (I2CA) specifically and competitively inhibits the potentiation by glycine of NMDA-gated current[1][2].

IC_{50} & Target		
	NMDA Receptor	Human Endogenous Metabolite

REFERENCES

[1]. 2-Indolecarboxylic acid.

[2]. J E Huettner, et al. Indole-2-carboxylic Acid: A Competitive Antagonist of Potentiation by Glycine at the NMDA Receptor. Science. 1989 Mar 24;243(4898):1611-3.

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