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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Indole-3-butyric acid

Cat. No.: HY-N0186

CAS No.: 133-32-4

Molecular Formula: $C_{12}H_{13}NO_2$

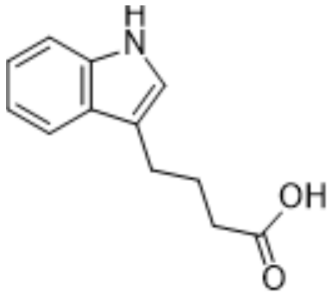
Molecular Weight: 203.24

Target: Endogenous Metabolite

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

DMSO : ≥ 35 mg/mL (172.21 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.9203 mL	24.6015 mL	49.2029 mL
	5 mM	0.9841 mL	4.9203 mL	9.8406 mL
	10 mM	0.4920 mL	2.4601 mL	4.9203 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.30 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Indole-3-butyric acid (3-indolebutyric acid) is a plant growth auxin and a good rooting agent. It can promote herbs and woody ornamental plant rooting and used for improving fruit rate. Indole 3-butyric acid is an auxin precursor, and is converted to indole 3-acetic acid (IAA) in a peroxisomal β-oxidation process[1].

IC_{50} & Target	Microbial Metabolite	Human Endogenous Metabolite

In Vitro

Indole-3-butyric acid (10 μM) induces adventitious root (AR) formation in the thin cell layers (TCLs)[2].

Indole-3-butyric acid (1 μM) induces lateral root formation by the promotion of NO production in Arabidopsis[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Damodaran S, Strader LC. Indole 3-Butyric Acid Metabolism and Transport in Arabidopsis thaliana. Front Plant Sci. 2019 Jul 3;10:851.

[2]. Fattorini L, et al. Indole-3-butyric acid promotes adventitious rooting in Arabidopsis thaliana thin cell layers by conversion into indole-3-acetic acid and stimulation of anthranilate synthase activity. BMC Plant Biol. 2017 Jul 11;17(1):121.

[3]. Schlicht M, et al. Indole-3-butyric acid induces lateral root formation via peroxisome-derived indole-3-acetic acid and nitric oxide. New Phytol. 2013 Oct;200(2):473-482.

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