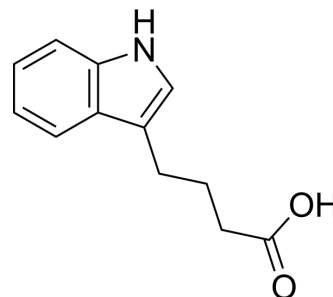


Indole-3-butyric acid

| | | | |
|---------------------------|---|-------|---------|
| 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 | Solvent | | Mass | | |
|---------------------------|---------------|--|-----------|------------|------------|
| | 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].

IC₅₀ & 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.

CUSTOMER VALIDATION

- ACS Omega. 2024 Feb 28;9(10):11870-11882.

See more customer validations on www.MedChemExpress.com

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.

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

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