

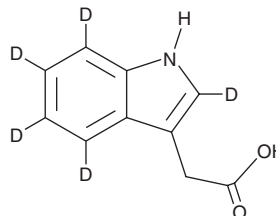
PRODUCT INFORMATION



Indole-3-acetic Acid-d₅

Item No. 38894

CAS Registry No.: 76937-78-5
Formal Name: 1H-indole-2,4,5,6,7-d₅-3-acetic acid
Synonyms: Heteroauxin-d₅, 3-Indoleacetic Acid-d₅
MF: C₁₀H₄D₅NO₂
FW: 180.2
Chemical Purity: ≥98% (Indole-3-acetic acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Indole-3-acetic acid-d₅ is intended for use as an internal standard for the quantification of indole-3-acetic acid (Item No. 16954) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Indole-3-acetic acid-d₅ is supplied as a solid. A stock solution may be made by dissolving the indole-3-acetic acid-d₅ in the solvent of choice, which should be purged with an inert gas. Indole-3-acetic acid-d₅ is slightly soluble in methanol.

Description

Indole-3-acetic acid is an auxin plant growth regulator that is found in all higher-order plants.¹ It reduces plant height and shoot growth in tomato plants when used at concentrations of 10 and 50 μM.² Root saturation with indole-3-acetic acid-loaded nanoparticles increases rooting efficiency in *P. elaeagnifolia*.³

References

1. Somei, M., Kizu, K., Kunitomo, M., *et al.* The chemistry of indoles. XXIV. Syntheses of 3-indoleacetic acid and 3-indoleacetonitrile having a halogeno group and a carbon functional group at the 4-position. *Chem. Pharm. Bull. (Tokyo)* **33**(9), 3696-3708 (1985).
2. Hansen, H. and Grossmann, K. Auxin-induced ethylene triggers abscisic acid biosynthesis and growth inhibition. *Plant Physiol.* **124**(3), 1437-1448 (2000).
3. Karakeçili, A., Korpayev, S., Dumanoglu, H., *et al.* Synthesis of indole-3-acetic acid and indole-3-butyric acid loaded zinc oxide nanoparticles: Effects on rhizogenesis. *J. Biotechnol.* **303**, 8-15 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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