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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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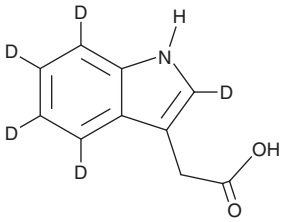
PRODUCT INFORMATION

Indole-3-acetic Acid-d_5

Item No. 38894

CAS Registry No.:	76937-78-5
Formal Name:	1H-indole-2,4,5,6,7-d_5-3-acetic acid
Synonyms:	Heteroauxin-d_5, 3-Indoleacetic Acid-d_5
MF:	$C_{10}H_4D_5NO_2$
FW:	180.2
Chemical Purity:	≥98% (Indole-3-acetic acid)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_5); ≤1% d_0
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-d_5 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-d_5 is supplied as a solid. A stock solution may be made by dissolving the indole-3-acetic acid-d_5 in the solvent of choice, which should be purged with an inert gas. Indole-3-acetic acid-d_5 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. elaegrifolia*.[3]

References

1. Somei, M., Kizu, K., Kunimoto, 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. Karakeçilia, A., Korpayev, S., Dumanoğlu, 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).

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