

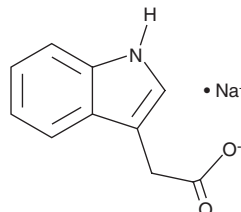
PRODUCT INFORMATION



Indole-3-acetic Acid (sodium salt)

Item No. 16954

CAS Registry No.:	6505-45-9
Formal Name:	1H-indole-3-acetic acid, monosodium salt
Synonyms:	Heteroauxin, IAA
MF:	C ₁₀ H ₈ NO ₂ • Na
FW:	197.2
Purity:	≥98%
UV/Vis.:	λ _{max} : 225, 279 nm
Supplied as:	A crystalline 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 (IAA) (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the IAA (sodium salt) in the solvent of choice, which should be purged with an inert gas. IAA (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of IAA (sodium salt) in these solvents is approximately 1, 15, and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of IAA (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of IAA (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

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., 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.* **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).

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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