

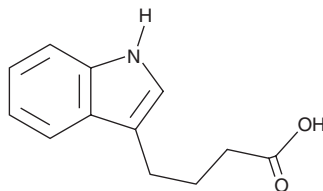
PRODUCT INFORMATION



Indole-3-butyric Acid

Item No. 22591

CAS Registry No.: 133-32-4
Formal Name: 1H-indole-3-butanoic acid
Synonyms: IBA, NSC 3130
MF: $C_{12}H_{13}NO_2$
FW: 203.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 223 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

Indole-3-butyric acid (IBA) is supplied as a crystalline solid. A stock solution may be made by dissolving the IBA in the solvent of choice, which should be purged with an inert gas. IBA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of IBA in these solvents is approximately 25 mg/ml.

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 IBA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of IBA in PBS (pH 7.2) is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

IBA is a plant hormone of the auxin class that encourages plant growth and root production.^{1,2} Addition of IBA to rooting medium enhances root formation and improves *S. rebaudiana* plant survival.¹ IBA also increases the amount of differentiated tissue and solasodine production by *S. elaeagnifolium* seedlings in a dose-dependent manner.² Formulations containing indole-3-butyric acid have been used to enhance the growth of food crops in agriculture.

References

1. Ferreira, C.M. and Handro, W. Micropropagation of *Stevia rebaudiana* through leaf explants from adult plants. *Planta Med.* **54**(2), 157-160 (1988).
2. Nigra, H.M., Alvarez, M.A., and Giulietti, A.M. The influence of auxins, light and cell differentiation on solasodine production by *Solanum elaeagnifolium* Cav. calli. *Plant Cell Rep.* **8**(4), 230-233 (1989).

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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