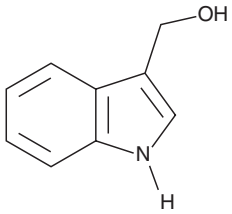
PRODUCT INFORMATION

Indole-3-carbinol

Item No. 11325

CAS Registry No.:	700-06-1
Formal Name:	1H-indole-3-methanol
Synonyms:	3-hydroxymethyl Indole, I3C, Indinol, 1H-Indole-3-methanol, 3-Indolylmethanol, NSC 525801
MF:	C_9H_9NO
FW:	147.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 220, 279 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years



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

Laboratory Procedures

Indole-3-carbinol is supplied as a crystalline solid. A stock solution may be made by dissolving the Indole-3-carbinol in the solvent of choice, which should be purged with an inert gas. Indole-3-carbinol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Indole-3-carbinol in ethanol and DMF is approximately 10 mg/ml and approximately 3 mg/ml in DMSO.

Indole-3-carbinol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Indole-3-carbinol is a natural phytochemical produced in crucifers by the action of myrosinase on glucobrassinin.[1] It has been shown to have anti-cancer effects, at least in part through inhibition of NF-κB and Akt signaling pathways.[2] Indole-3-carbinol may undergo a condensation reaction *in vivo*, leading to the production of 3,3'-diindolylmethane (Item No. 15927), which alters the expression of oncogenes and tumor suppressor genes.[3]

References

1. Bradlow, H. L., Indole-3-carbinol as a chemoprotective agent in breast and prostate cancer. *In vivo* **22(4)**, 441-445 (2008).
2. Sarkar, F. H., Li, Y., Wang, Z., *et al*. Cellular signaling perturbation by natural products. *Cell Signal* **21(11)** (2009).
3. Phuah, N. H., and Nagoor, N. H., Regulation of microRNAs by natural agents: new strategies in cancer therapies. *Biomed. Res. Int.* **2014:804510** (2014).

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