

Product Information

Product ID I5213

CAS No. 700-06-1

Chemical Name

Synonym 3-Indomethanol, 3-Hydroxymethylindole, 3-Indolyl- carbinol

Formula C₉H₉NO

Formula Wt. 147.17

Melting Point 96-98 °C

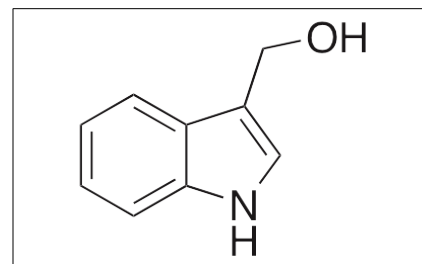
Purity ≥98%

Solubility Slightly soluble in cold water.

Store Temp -20 °C

Ship Temp Ambient

Description Indole-3-carbinol is a glucosinolate originally found in cruciferous vegetables that exhibits anti-hyperlipidemic, anti-fibrotic, neuroprotective, anti-angiogenic, anti-metastatic, and anticancer chemotherapeutic activities. Indole-3-carbinol inhibits adipogenesis in vitro and in vivo and also suppresses adipocyte differentiation and expression of CEBP, PPAR γ , and triglycerides. Indole-3-carbinol also inhibits the formation of amyloid-B (AB) fibrils in cellular models of Alzheimer's disease. In cellular and animal models of nasopharyngeal carcinoma, indole-3-carbinol inhibits cell proliferation, decreases tumor growth, induces apoptosis, and decreases PI3K/Akt signaling. In other animal models, this compound induces hepatic stellate cell apoptosis, increases the Bax:Bcl-2 ratio, promotes degradation of the extracellular matrix, and prevents the development of fibrosis. Additionally, indole-3-carbinol inhibits cell migration and invasion and decreases expression of MCP-2 and signaling by ERK in breast cancer cells. In endothelial cells, this compound inhibits tube formation.



Bulk quantities available upon request

Product ID	Size
I5213	1 g
I5213	5 g
I5213	25 g

References Choi HS, Jeon HJ, Lee OH, et al. Indole-3-carbinol, a vegetable phytochemical, inhibits adipogenesis by regulating cell cycle and AMPK α signaling. *Biochimie*. 2014 Sep;104:127-36. PMID: 24952351.

Mao CG, Tao ZZ, Chen Z, et al. Indole-3-carbinol inhibits nasopharyngeal carcinoma cell growth in vivo and in vitro through inhibition of the PI3K/Akt pathway. *Exp Ther Med*. 2014 Jul;8(1):207-12. PMID: 24944623.

Ping J, Gao AM, Xu D, et al. Therapeutic effect of indole-3-carbinol on pig serum-induced hepatic fibrosis in rats. *Yao Xue Xue Bao*. 2011 Aug;46(8):915-21. PMID: 22007515.

Hung WC, Chang HC. Indole-3-carbinol inhibits Sp1-induced matrix metalloproteinase-2 expression to attenuate migration and invasion of breast cancer cells. *J Agric Food Chem*. 2009 Jan 14;57(1):76-82. PMID: 19061309.

Kunimasa K, Kobayashi T, Sugiyama S, et al. Indole-3-carbinol suppresses tumor-induced angiogenesis by inhibiting tube formation and inducing apoptosis. *Biosci Biotechnol Biochem*. 2008 Aug;72(8):2243-6. PMID: 18685185.

Morshedi D, Rezaei-Ghaleh N, Ebrahim-Habibi A, et al. Inhibition of amyloid fibrillation of lysozyme by indole derivatives--possible mechanism of action. *FEBS J*. 2007 Dec;274(24):6415-25. PMID: 18028426.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.