



LKT Laboratories, Inc.

Indirubin

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Product Information

Product ID I5212

CAS No. 479-41-4

Chemical Name

Synonym

Formula $C_{16}H_{10}N_2O_2$

Formula Wt. 262.26

Melting Point

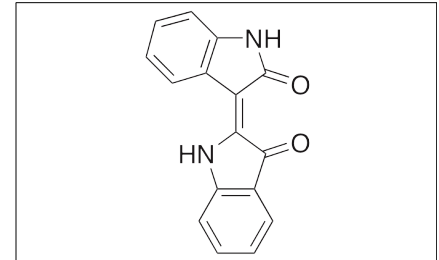
Purity $\geq 98\%$

Solubility 1mg/ml in DMSO and
dimethyl formamide

Store Temp 4°C

Ship Temp Ambient

Description Indirubin is a bisindole isomer of indigo found in *Indigo naturalis*. Indirubin exhibits anti-inflammatory, anti-angiogenic, and anticancer chemotherapeutic activities. In vivo, indirubin decreases levels of IgE and production of inflammatory cytokines, decreasing overall inflammation as well as skin lesion thickness and hyperkeratosis. In vitro, indirubin downregulates expression of CDC25B and inhibits EGFR and CDKs. In leukemia cells, this compound inhibits expression of IAP1, IAP2, Bcl-2, Bcl-xL, TRAF1, cyclin D1, c-Myc, COX-2, and MMP-9. In endothelial cells, indirubin inhibits cell migration, tube formation, and survival; additionally, it suppresses VEGFR2-mediated JAK/STAT signaling. Indirubin also inhibits growth of prostate tumors in animal models.



Bulk quantities available upon request

Product ID	Size
I5212	5 mg
I5212	25 mg
I5212	100 mg

References Kim MH, Choi YY, Yang G, et al. Indirubin, a purple 3,2- bisindole, inhibited allergic contact dermatitis via regulating T helper (Th)-mediated immune system in DNCB-induced model. *J Ethnopharmacol.* 2013 Jan 9;145(1):214-9. PMID: 23149289.

Hsieh WL, Lin YK, Tsai CN, et al. Indirubin, an acting component of indigo naturalis, inhibits EGFR activation and EGF-induced CDC25B gene expression in epidermal keratinocytes. *J Dermatol Sci.* 2012 Aug;67(2):140-6. PMID: 22721997.

Zhang X, Song Y, Wu Y, et al. Indirubin inhibits tumor growth by antitumor angiogenesis via blocking VEGFR2-mediated JAK/STAT3 signaling in endothelial cell. *Int J Cancer.* 2011 Nov 15;129(10):2502-11. PMID: 21207415.

Kim SH, Choi SJ, Kim YC, et al. Anti-tumor activity of noble indirubin derivatives in human solid tumor models in vitro. *Arch Pharm Res.* 2009 Jun;32(6):915-22. PMID: 19557370.

Sethi G, Ahn KS, Sandur SK, et al. Indirubin enhances tumor necrosis factor-induced apoptosis through modulation of nuclear factor-kappa B signaling pathway. *J Biol Chem.* 2006 Aug 18;281(33):23425-35. PMID: 16785236.

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