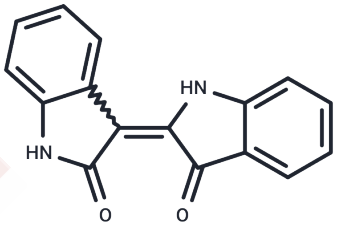
Data Sheet (Cat.No.T6169)

TargetMol

Indirubin

Chemical Properties



CAS No. : 479-41-4

Formula: C16H10N2O2

Molecular Weight: 262.26

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Indirubin (Couroupitine B) is a potent inhibitor of cyclin-dependent kinases and GSK-3β, with IC50 values of approximately 5 μM and 0.6 μM, respectively.
Targets(IC50)	Apoptosis,Raf,CDK,GSK-3
In vitro	Indirubin is the active ingredient of Danggui Longhui Wan, a mixture of plants that is used in traditional Chinese medicine to treat chronic diseases. Indirubin inhibits CDKs activity with IC50 of 2.2 - 10 μM resulting in cell cycle arrest in the G2/M phase. [1] Indirubin also inhibits GSK-3β with an IC50 of 0.6 μM, attenuating CDK5- and GSK-3β-mediated tau phosphorylation, a process over-active in Alzheimer disease states. [2] It also suppresses tumor necrosis factor (TNF)-induced NF-κB activation in a dose- and time-dependent manner. Indirubin also suppresses the NF-κB activation induced by various inflammatory agents and carcinogens. Indirubin blocks the phosphorylation and degradation of IκBα through the inhibition of activation of IκBα kinase and phosphorylation and nuclear translocation of p65. [3]

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 5 mg/mL (19.07 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.81 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.813 mL	19.065 mL	38.1301 mL
5 mM	0.7626 mL	3.813 mL	7.626 mL
10 mM	0.3813 mL	1.9065 mL	3.813 mL
50 mM	0.0763 mL	0.3813 mL	0.7626 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hoessel R, et al. Nat Cell Biol, 1999, 1(1), 60-67.
Leclerc S, et al. J Biol Chem, 2001, 276(1), 251-260.
Sethi G, et al. J Biol Chem, 2006, 281(33), 23425-2335.

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