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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

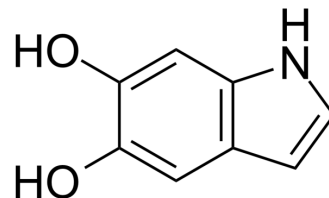
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

5,6-Dihydroxyindole

Cat. No.:	HY-W018025
CAS No.:	3131-52-0
Molecular Formula:	C ₈ H ₇ NO ₂
Molecular Weight:	149.15
Target:	Bacterial; Fungal; Parasite; Endogenous Metabolite
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (335.23 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	6.7047 mL	33.5233 mL	67.0466 mL
	5 mM	1.3409 mL	6.7047 mL	13.4093 mL
	10 mM	0.6705 mL	3.3523 mL	6.7047 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 1.25 mg/mL (8.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 1.25 mg/mL (8.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 1.25 mg/mL (8.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

5,6-Dihydroxyindole, a melanin precursor, has a broad-spectrum antibacterial, antifungal, antiviral, antiparasitic activity. 5,6-Dihydroxyindole has cytotoxic effects and is strongly toxic against various pathogens^[1].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

5,6-Dihydroxyindole (1, 10, 20, 50, 100 μM; for 4 hours) dose-dependently decreases OD₄₉₂ values. Pretreatment of Sf9 cells with 1.0 mM 5,6-Dihydroxyindole for 4 hours results in 97% mortality, and LC₅₀ values of 20.3 μM in buffer and 131.8 μM in a

culture medium^[1].

Preincubation of a baculovirus stock with 1.25 mM 5,6-Dihydroxyindole for 3 hours near fully disables recombinant protein production. The LC₅₀ for lambda bacteriophage and eggs of the wasp *Microplitis demolitor* are 5.6 and 111.0 μM, respectively^[1].

5,6-Dihydroxyindole and its spontaneous oxidation products are also active against viruses and parasitic wasps^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zhao P, et al. Antiviral, anti-parasitic, and cytotoxic effects of 5,6-dihydroxyindole (DHI), a reactive compound generated by phenoloxidase during insect immune response. *Insect Biochem Mol Biol.* 2011 Sep;41(9):645-52.

[2]. Heiduschka P, et al. Melanin precursor 5,6-dihydroxyindol: protective effects and cytotoxicity on retinal cells in vitro and in vivo. *Toxicol Pathol.* 2007 Dec;35(7):1030-8.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA