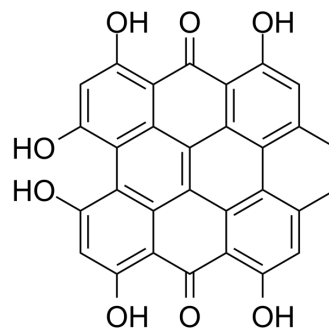


Hypericin

Cat. No.:	HY-N0453												
CAS No.:	548-04-9												
Molecular Formula:	C ₃₀ H ₁₆ O ₈												
Molecular Weight:	504.44												
Target:	Apoptosis; Influenza Virus; Antibiotic; Monoamine Oxidase; PKC; Cytochrome P450; Dopamine β-hydroxylase; Reverse Transcriptase; Telomerase												
Pathway:	Apoptosis; Anti-infection; Neuronal Signaling; Epigenetics; TGF-beta/Smad; Metabolic Enzyme/Protease; Cell Cycle/DNA Damage												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
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	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (495.60 mM); ultrasonic and warming and heat to 60°C				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	1.9824 mL	9.9120 mL	19.8240 mL
		5 mM	0.3965 mL	1.9824 mL	3.9648 mL
	10 mM	0.1982 mL	0.9912 mL	1.9824 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.08 mg/mL (4.12 mM); Suspended solution; Need ultrasonic				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (4.12 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Hypericin is a naturally occurring substance found in Hypericum perforatum L. Hypericin is an inhibitor of PKC (protein kinase C), MAO (monoaminoxidase), dopamine-beta-hydroxylase, reverse transcriptase, telomerase and CYP (cytochrome P450). Hypericin shows antitumor, antiviral, antidepressive activities, and can induce apoptosis ^{[1][2][3]} .
In Vitro	Hypericin (0.25-4 μM; 24 h) inhibits the growth of fibroblasts (Fb), melanocytes (Mc), and keratinocytes (Kc) ^[2] . Hypericin (3 μM; 24 h) treatment can induce cells apoptosis ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[2]

	Cell Line:	Fibroblasts (Fb), melanocytes (Mc), and keratinocytes (Kc)
	Concentration:	0.25 μ M; 0.5 μ M; 1 μ M; 2 μ M; 3 μ M; 4 μ M
	Incubation Time:	24 hours
	Result:	Showed the LD ₅₀ for Fb and Mc at 1.75 μ M and 3.5 μ M, respectively, and for Kc at a greater dose than 4 μ M.
	Apoptosis Analysis ^[2]	
	Cell Line:	Fibroblasts (Fb), melanocytes (Mc), and keratinocytes (Kc)
	Concentration:	3 μ M
	Incubation Time:	24 hours
	Result:	Showed a significant (p<0.001) early apoptotic Fb population (64%), and a smaller, significant (p<0.05) early apoptotic Mc population (20%).
In Vivo	Hypericin (Intravenous injection; 10 mg/kg; once) treatment delays tumor growth ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	18-20 week-old female BALB/c mice injected with CT26 carcinomas ^[3]
	Dosage:	10 mg/kg
	Administration:	Intravenous injection; 10 mg/kg; once
	Result:	Showed a four times delayed tumor growth compared to the control groups.

CUSTOMER VALIDATION

- Cancers (Basel). 2022 Mar 19;14(6):1575.

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REFERENCES

- [1]. A Kubin, et al. Hypericin--the facts about a controversial agent. *Curr Pharm Des.* 2005;11(2):233-53.
- [2]. A Popovic, et al. Differential susceptibility of primary cultured human skin cells to hypericin PDT in an in vitro model. *J Photochem Photobiol B.* 2015 Aug;149:249-56.
- [3]. Renata Sanovic, et al. Low dose hypericin-PDT induces complete tumor regression in BALB/c mice bearing CT26 colon carcinoma. *Photodiagnosis Photodyn Ther.* 2011 Dec;8(4):291-6.

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

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