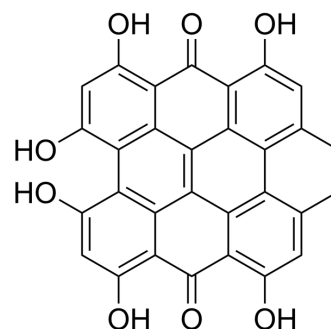


Hypericin

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
Powder	-20°C	3 years											
	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)

Preparing Stock Solutions	Solvent Concentration	Mass		
		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

- Add each solvent one by one: 0.5% CMC-Na/saline water
Solubility: 25 mg/mL (49.56 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 50% PEG300 >> 50% saline
Solubility: 10 mg/mL (19.82 mM); Suspended solution; Need ultrasonic
- 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
- 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 μ M; 24 h) inhibits the growth of fibroblasts (Fb), melanocytes (Mc), and keratinocytes (Kc) ^[2] . ?Hypericin (3 μ M; 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

- Biomed Pharmacother. 2023 Sep 19;167:115545.
- 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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