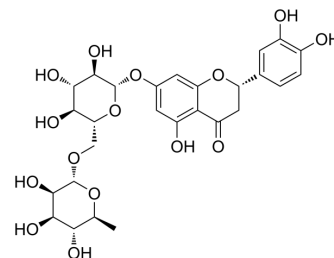


Eriocitrin

Cat. No.:	HY-N0636
CAS No.:	13463-28-0
Molecular Formula:	C ₂₇ H ₃₂ O ₁₅
Molecular Weight:	596.53
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (167.64 mM; Need ultrasonic)				
	Methanol : 31.25 mg/mL (52.39 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
		Concentration			
		1 mM	1.6764 mL	8.3818 mL	16.7636 mL
5 mM		0.3353 mL	1.6764 mL	3.3527 mL	
10 mM	0.1676 mL	0.8382 mL	1.6764 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 (3.49 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (3.49 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Eriocitrin is a flavonoid isolated from lemons that is a powerful antioxidant. Eriocitrin inhibits the proliferation of liver cancer cells by arresting the cell cycle in the S phase by upregulating p53, cyclin A, cyclin D3 and CDK6. Eriocitrin triggers apoptosis by activating intrinsic signaling pathways involving mitochondria ^{[1][1][2]} .
In Vitro	Eriocitrin (25-75 μM; 24 h) arrests the cell cycle in the S phase, (5-10 μM; 24 h) and inhibits proliferation and focus formation of liver cancer cell lines HepG2 and Huh7 ^[1] . Eriocitrin (25-75 μM; 12 h) upregulates p53, cyclin A, cyclin D3, and CDK6 levels in HepG2 cells ^[1] . Eriocitrin (25-75 μM; 48 h) triggers apoptosis by activating mitochondria-related intrinsic signaling pathways ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Eriocitrin (10-60 mg/kg; ip; once daily, from the day of modeling until the end of the experiment) attenuates acute kidney injury (AKI) induced by ischemia reperfusion (IR) in rats, and reduces renal tissue cell apoptosis, turns its kidney inflammatory response and oxidative stress^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Microbiol Spectr. 2023 Sep 21;e0267123.

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REFERENCES

[1]. Wang Z, et al. Eriocitrin from lemon suppresses the proliferation of human hepatocellular carcinoma cells through inducing apoptosis and arresting cell cycle. Cancer Chemother Pharmacol. 2016 Dec;78(6):1143-1150.

[2]. Xu J, et al. Eriocitrin attenuates ischemia reperfusion-induced oxidative stress and inflammation in rats with acute kidney injury by regulating the dual-specificity phosphatase 14 (DUSP14)-mediated Nrf2 and nuclear factor- κ B (NF- κ B) pathways. Ann Transl Med. 2021 Feb;9(4):350.

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

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