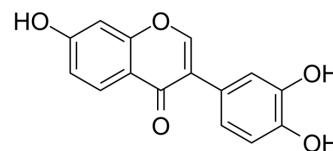


7,3',4'-Trihydroxyisoflavone

Cat. No.:	HY-124953		
CAS No.:	485-63-2		
Molecular Formula:	C ₁₅ H ₁₀ O ₅		
Molecular Weight:	270		
Target:	MAP3K; Apoptosis		
Pathway:	MAPK/ERK Pathway; Apoptosis		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (370.37 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass			
			1 mg	5 mg	10 mg	
			1 mM	3.7037 mL	18.5185 mL	37.0370 mL
			5 mM	0.7407 mL	3.7037 mL	7.4074 mL
10 mM	0.3704 mL	1.8519 mL	3.7037 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 (7.70 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	7,3',4'-Trihydroxyisoflavone, a major metabolite of Daidzein, is an ATP-competitive inhibitor of Cot (Tpl2/MAP3K8) and MKK4. 7,3',4'-Trihydroxyisoflavone has anticancer, anti-angiogenic, chemoprotective, and free radical scavenging activities ^{[1][2]} .
In Vitro	7,3',4'-Trihydroxyisoflavone triggers cell cycle arrest at the G1 phase and displays an anti-proliferative effect against EGF receptor-positive skin cancer ^[1] . 7,3',4'-Trihydroxyisoflavone also significantly inhibits UVB-induced COX-2 expression by suppressing the NF- κ B transcription activity in mouse skin epidermal JB6 P ⁺ cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In a mouse skin tumorigenesis model, 7,3',4'-Trihydroxyisoflavone strongly suppresses the incidence, multiplicity, and volume of UVB-induced mouse skin tumors. Consistent with the tumor data, 7,3',4'-Trihydroxyisoflavone clearly attenuates UVB-induced COX-2 expression in hairless mouse skin ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Yu-Li Lo, et al. 7,3',4'-Trihydroxyisoflavone modulates multidrug resistance transporters and induces apoptosis via production of reactive oxygen species. *Toxicology*. 2012 Dec 16;302(2-3):221-32.
- [2]. Dong Eun Lee, et al. 7,3',4'-Trihydroxyisoflavone, a metabolite of the soy isoflavone daidzein, suppresses ultraviolet B-induced skin cancer by targeting Cot and MKK4. *J Biol Chem*. 2011 Apr 22;286(16):14246-56.
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Caution: Product has not been fully validated for medical applications. For research use only.

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