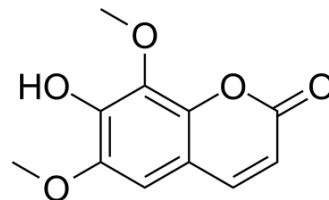


Isofraxidin

Cat. No.:	HY-N0774		
CAS No.:	486-21-5		
Molecular Formula:	C ₁₁ H ₁₀ O ₅		
Molecular Weight:	222.19		
Target:	COX; MMP; Toll-like Receptor (TLR)		
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease		
Storage:	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 (1125.16 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.5007 mL	22.5033 mL	45.0065 mL
		5 mM	0.9001 mL	4.5007 mL	9.0013 mL
10 mM		0.4501 mL	2.2503 mL	4.5007 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 (9.36 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (9.36 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Isofraxidin, a coumarin component from <i>Acanthopanax senticosus</i> , inhibits MMP-7 expression and cell invasion of human hepatoma cells. Isofraxidin inhibits the phosphorylation of ERK1/2 in hepatoma cells ^[1] . Isofraxidin attenuates the expression of iNOS and COX-2, Isofraxidin also inhibits TLR4/myeloid differentiation protein-2 (MD-2) complex formation ^[2] .		
IC₅₀ & Target	COX-2	TLR4	MMP-7
In Vitro	Isofraxidin inhibits expression of MMP-7 and in vitro cell invasion at a non-toxic level through inhibiting ERK1/2 phosphorylation in hepatoma cell lines ^[1] . Isofraxidin competitively inhibits TLR4/MD-2 complex formation, and thus TLR4/NF-κB signalling cascades. Isofraxidin has potential in the treatment of Osteoarthritis (OA) ^[2] .		

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

REFERENCES

- [1]. Yamazaki T, et al. Isofraxidin, a coumarin component from *Acanthopanax senticosus*, inhibits matrix metalloproteinase-7 expression and cell invasion of human hepatoma cells. *Biol Pharm Bull.* 2010;33(10):1716-22.
- [2]. Jin J , et al. Isofraxidin targets the TLR4/MD-2 axis to prevent osteoarthritis development. *Food Funct.* 2018 Nov 14;9(11):5641-5652.
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Caution: Product has not been fully validated for medical applications. For research use only.

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