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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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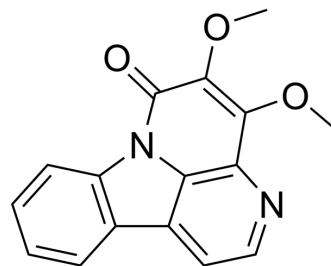
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4,5-Dimethoxycanthin-6-one

Cat. No.:	HY-N1882
CAS No.:	18110-87-7
Molecular Formula:	C ₁₆ H ₁₂ N ₂ O ₃
Molecular Weight:	280.28
Target:	Cytochrome P450
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (35.68 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.5679 mL	17.8393 mL	35.6786 mL
		5 mM	0.7136 mL	3.5679 mL	7.1357 mL
10 mM		0.3568 mL	1.7839 mL	3.5679 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (3.57 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (3.57 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (3.57 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	4,5-Dimethoxycanthin-6-one is a potent and uncompetitive inhibitor of CYP1A2-mediated phenacetin O-deethylation with an IC ₅₀ value of 1.7 μM and a K _i value of 2.6 μM. 4,5-Dimethoxycanthin-6-one, as an alkaloid, is isolated from the wood of <i>Picrasma quassioides</i> BENNET (Simaroubaceae) ^{[1][2]} .	
IC₅₀ & Target	CYP1A2 1.7 μM (IC ₅₀)	CYP1A2 2.6 μM (K _i)
In Vitro	4,5-Dimethoxycanthin-6-one is a potent and uncompetitive inhibitor of CYP1A2-mediated phenacetin O-deethylation with an IC ₅₀ value of 1.7 μM and a K _i value of 2.6 μM ^[2] .	

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

REFERENCES

- [1]. Taichi O, et al. Studies on the Constituents of *Picrasma quassioides* BENNET. III. The Alkaloidal Constituents
- [2]. Miao X, et al. In vitro metabolism of 4, 5-dimethoxycanthin-6-one by human liver microsomes and its inhibition on human CYP1A2. *Life Sci.* 2017;190:46-51.
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Caution: Product has not been fully validated for medical applications. For research use only.

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