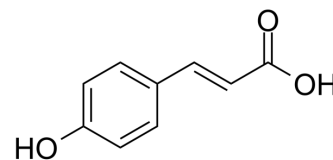


p-Hydroxycinnamic acid

Cat. No.:	HY-N2391		
CAS No.:	7400-08-0		
Molecular Formula:	C ₉ H ₈ O ₃		
Molecular Weight:	164.16		
Target:	Endogenous Metabolite; Prostaglandin Receptor		
Pathway:	Metabolic Enzyme/Protease; GPCR/G Protein		
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 : ≥ 100 mg/mL (609.16 mM)
 Ethanol : 33.33 mg/mL (203.03 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	6.0916 mL	30.4581 mL	60.9162 mL
	5 mM	1.2183 mL	6.0916 mL	12.1832 mL
	10 mM	0.6092 mL	3.0458 mL	6.0916 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (15.23 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (15.23 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (15.23 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (12.67 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (12.67 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (12.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	p-Hydroxycinnamic acid, a common dietary phenol, could inhibit platelet activity, with IC ₅₀ s of 371 μM, 126 μM for thromboxane B ₂ production and lipopolysaccharide-induced prostaglandin E ₂ generation, respectively.		
IC₅₀ & Target	PGE ₂ 126 μM (IC ₅₀)	TXB ₂ 371 μM (IC ₅₀)	Human Endogenous Metabolite
In Vitro	<p>p-Hydroxycinnamic acid (p-Coumaric acid), is a ubiquitous plant metabolite with antioxidant and anti-inflammatory properties. p-Hydroxycinnamic acid (500 μM and 1 mM) reduces ADP-induced platelet aggregation (55•2 (SE 4•01) % and 35•6 (SE 2•35) % relative to basal level, respectively). p-Hydroxycinnamic acid is able to modify platelet function, a shear-inducing device that simulates primary haemostasis. p-Hydroxycinnamic acid interferes also with arachidonic acid cascade, reducing thromboxane B₂ production and lipopolysaccharide-induced prostaglandin E₂ generation (IC₅₀ 371 and 126 μM, respectively)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>		

REFERENCES

[1]. Luceri C, et al. p-Coumaric acid, a common dietary phenol, inhibits platelet activity in vitro and in vivo. Br J Nutr. 2007 Mar;97(3):458-63.

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

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