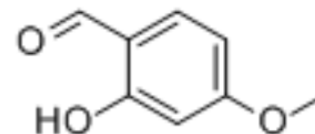


2-Hydroxy-4-methoxybenzaldehyde

Cat. No.:	HY-N0445
CAS No.:	673-22-3
Molecular Formula:	C ₈ H ₈ O ₃
Molecular Weight:	152.15
Target:	Tyrosinase
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, stored under nitrogen



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (328.62 mM)
 H₂O : 2 mg/mL (13.14 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	6.5725 mL	32.8623 mL	65.7246 mL
	5 mM	1.3145 mL	6.5725 mL	13.1449 mL
	10 mM	0.6572 mL	3.2862 mL	6.5725 mL

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

In Vivo

- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
 Solubility: ≥ 2.5 mg/mL (16.43 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
 Solubility: ≥ 2.5 mg/mL (16.43 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
 Solubility: ≥ 2.5 mg/mL (16.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2-Hydroxy-4-methoxybenzaldehyde, a chemical compound and an isomer of Vanillin, could be used to synthesis Urolithin M7^[1]. 2-hydroxy-4-methoxybenzaldehyde is a potent **tyrosinase** inhibitor from three East African medicinal plants, *Mondia whitei*, *Rhus vulgaris* Meikle, and *Sclerocarya caffra* Sond^[2].

IC₅₀ & Target

Tyrosinase^[2].

REFERENCES

- [1]. Bodwell Graham, et al. An Inverse Electron-Demand Diels-Alder-Based Total Synthesis of Urolithin M7. *Synlett*. 2011 (15): 2245.
- [2]. Kubo I, et al. 2-Hydroxy-4-methoxybenzaldehyde: a potent tyrosinase inhibitor from African medicinal plants. *Planta Med.* 1999 Feb;65(1):19-22.
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Caution: Product has not been fully validated for medical applications. For research use only.

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