

Product Data Sheet

3,4-Methylenedioxycinnamic acid

Cat. No.: HY-W009993 CAS No.: 2373-80-0 Molecular Formula: $C_{10}H_8O_4$ Molecular Weight: 192.17 Target: Others

Pathway: Others

Storage: Powder -20°C

4°C 2 years

3 years

In solvent -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (520.37 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.2037 mL	26.0186 mL	52.0373 mL
	5 mM	1.0407 mL	5.2037 mL	10.4075 mL
	10 mM	0.5204 mL	2.6019 mL	5.2037 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: ≥ 1 mg/mL (5.20 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (5.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

3,4-Methylenedioxycinnamic acid is an inhibitor of the phenylpropanoid enzyme 4-hydroxycinnamoyl-CoA ligase. 3,4-Methylenedioxycinnamic acid increases the formation of soluble phenolics in particular of vanillic acid^[1].

REFERENCES

[1]. Funk C, Brodelius PE. Phenylpropanoid Metabolism in Suspension Cultures of Vanilla planifolia Andr.: II. Effects of Precursor Feeding and Metabolic Inhibitors. Plant Physiol. 1990 Sep;94(1):95-101.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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