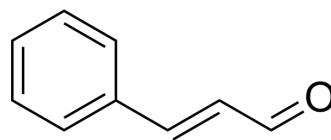


trans-Cinnamaldehyde

Cat. No.:	HY-W019711
CAS No.:	14371-10-9
Molecular Formula:	C ₉ H ₈ O
Molecular Weight:	132.16
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (378.33 mM; Need ultrasonic)				
	Preparing Stock Solutions	Concentration	1 mg	5 mg	10 mg
		1 mM	7.5666 mL	37.8329 mL	75.6659 mL
		5 mM	1.5133 mL	7.5666 mL	15.1332 mL
		10 mM	0.7567 mL	3.7833 mL	7.5666 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: ≥ 2.5 mg/mL (18.92 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (18.92 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (18.92 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	trans-Cinnamaldehyde can be used to prepare highly polyfunctionalized furan ring by reaction of alkyl isocyanides with dialkyl acetylenedicarboxylate ^[1] . trans-Cinnamaldehyde can be used to synthesize trans-cinnamaldehyde-β-cyclodextrin complex, an antimicrobial edible coating that increases the shelf life of fresh-cut fruits ^[2] .
In Vitro	trans-cinnamaldehyde-β-cyclodextrin complex against Salmonella spp. and Lis-teria spp. with minimum inhibitory concentrations ranging from 10 to 20 mg/mL, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Mol Med Rep. July 7, 2021.
- bioRxiv. 2023 Jun 3.
- Dis Markers. 19 Jan 2022.

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REFERENCES

- [1]. Asghari S, et al. A Facile One-Pot Synthesis of Amino Furans Using Trans-Cinnamaldehyde in the Presence of Nucleophilic Isocyanides. Acta Chimica Slovenica 54(3), 341-350, (2007)
- [2]. Brasil IM, et al. Polysaccharide-based multilayered antimicrobial edible coating enhances quality of fresh-cut papaya. LWT--Food Science and Technology 47(1), 39-45, (2012)
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Caution: Product has not been fully validated for medical applications. For research use only.

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