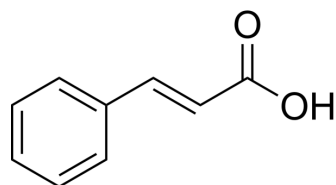


trans-Cinnamic acid

Cat. No.:	HY-N0610		
CAS No.:	140-10-3		
Molecular Formula:	C ₉ H ₈ O ₂		
Molecular Weight:	148.16		
Target:	Bacterial; Endogenous Metabolite		
Pathway:	Anti-infection; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (674.95 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.7495 mL	33.7473 mL	67.4946 mL
		5 mM	1.3499 mL	6.7495 mL	13.4989 mL
10 mM		0.6749 mL	3.3747 mL	6.7495 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: ≥ 2.5 mg/mL (16.87 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (16.87 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (16.87 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	trans-Cinnamic acid is a natural antimicrobial, with minimal inhibitory concentration (MIC) of 250 µg/mL against fish pathogen <i>A. sobria</i> , SY-AS1 ^[1] .	
IC₅₀ & Target	Microbial Metabolite	Human Endogenous Metabolite
In Vitro	trans-Cinnamic acid is an antimicrobial activity, with minimal inhibitory concentration (MIC) of 250 µg/mL against fish pathogen <i>A. sobria</i> , SY-AS1. trans-cinnamic acid shows moderate inhibition on the rainbow trout intestinal isolates <i>A. sobria</i>	

SY-AS3 and *S. baltica*, SY-S145, gill isolate *F. spartansii* SY-FS1 and fish pathogens *A. salmonicida* ATCC 33658, *Listonella anguillarum*, SY-L24, *V. crassostreae* SY-VC10 and *Y. ruckeri* E42. trans-cinnamic acid is more effective on bacteria when the pH of the culture media is not neutralized^[1].

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

REFERENCES

[1]. Yilmaz S, et al. Antimicrobial activity of trans-cinnamic acid and commonly used antibiotics against important fish pathogens and nonpathogenic isolates. *J Appl Microbiol.* 2018 Sep 4.

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

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