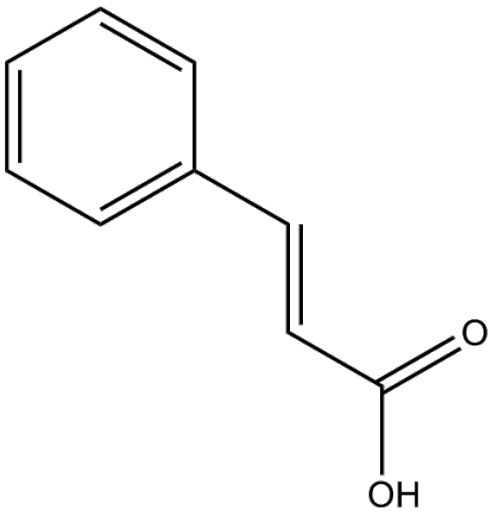
Product Data Sheet

Product Name: Cinnamic acid
Cat. No.: GN10190

Chemical Properties

Cas. No.	140-10-3		
Chemical Name	(E)-3-phenylprop-2-enoic acid		
SMILES	C1=CC=C(C=C1)C=CC(=O)O		
Formula	$C_9H_8O_2$	M.Wt	148.17
Solubility	≥ 7.25mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Protocol

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Cell experiment: The cell lines used, established from human malignant tumors, are A549 (lung cancer); PC3(M), Du145, and LNCaP (prostate cancer); A172, U251 (glioblastoma); and SKMEL28, A375(M), 1011 (melanoma). Growth rates are determined by cell counting. Briefly, 5 X104 cells are plated in each well of a 24-well plate, allowed to attach overnight, and treated with compounds (e.g., Cinnamic acid: 2.5, 5, 10, 20, 30 mM) the following day. Cells are grown for 3 days at 37°C in the presence or absence of the drug, then detached with trypsin/EDTA and counted in a Coulter counter. Viability is determined by Trypan-blue exclusion assay[1].

References:

[1]. Liu L, et al. Cinnamic acid: a natural product with potential use in cancer intervention. Int J Cancer. 1995 Jul 28;62(3):345-50.

Background

trans-Cinnamic acid is a natural antimicrobial, with minimal inhibitory concentration (MIC) of 250 µg/mL against fish pathogen A. sobria, SY-AS1[1].

trans-Cinnamic acid is an antimicrobial activity, with minimal inhibitory concentration (MIC) of 250 µg/mL against fish pathogen A. sobria, SY-AS1. trans-cinnamic acid shows moderate inhibition on the rainbow trout intestinal isolates A. sobria 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].

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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