

## 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 C9H8O2

M.Wt 148.17

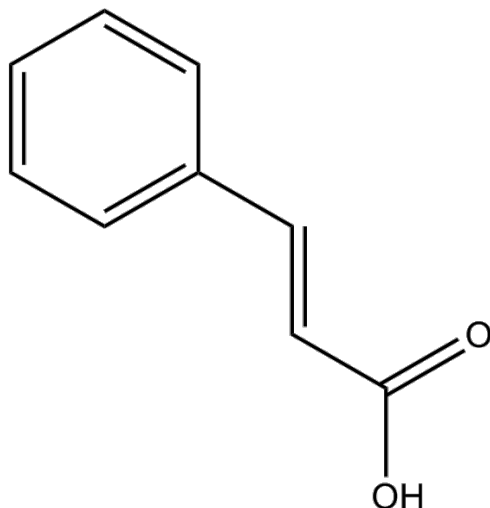
Solubility  $\geq 7.25\text{mg/mL}$  in DMSO

Storage Store at  $-20^{\circ}\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  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

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

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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 X10<sup>4</sup> 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.

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