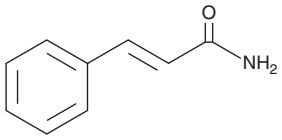
# PRODUCT INFORMATION

## Cinnamamide

*Item No. 25117*

**CAS Registry No.:** 621-79-4
**Formal Name:** 3-phenyl-2-propenamide
**Synonym:** NSC 32953
**MF:** $C_9H_9NO$
**FW:** 147.2
**Purity:** ≥95%
**UV/Vis.:** $\lambda_{max}$: 211, 216, 222, 273 nm
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Cinnamamide is supplied as a solid. A stock solution may be made by dissolving the cinnamamide in the solvent of choice, which should be purged with an inert gas. Cinnamamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cinnamamide in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Cinnamamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cinnamamide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cinnamamide has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cinnamamide is an amide form of *trans*-cinnamic acid and a metabolite of *Streptomyces*.[1] Cinnamamide exhibits low cytotoxicity against BEL-7402 human hepatoma cells and HT-1080 fibrosarcoma cells and inhibits cell growth ($IC_{50}$s = 1.94 and 1.29 mM, respectively).[2] *In vivo*, cinnamamide (40 and 100 mg/kg, i.p.) reduces tumor weight in a mouse model of C26 murine colon carcinoma. Cinnamamide (75 and 150 mg/kg, i.p.) also reduces tumor weight in a mouse model of murine hepatoma 22 by 42% and 49%, respectively, without reducing body weight when delivered one or three days following tumor implantation. When presented with cinnamamide-treated food at a concentration of 0.8% w/w, house and wood mice food consumption is reduced to 32% and 17% of pretreatment levels, respectively, however, wood mouse consumption returns to pretrial levels by day two.[3]

### References


1. Sekizawa, Y. *Trans*-cinnamic acide amide as a metabolic product of *Streptomyces*. *J. Biochem.* **45(1)**, 9-11 (1958).
2. Jiang, X.-f. and Zhen, Y.-s. Cinnamamide, an antitumor agent with low cytotoxicity acting on matrix metalloproteinase. *Anticancer Drugs* **11(1)**, 49-54 (2000).
3. Gurney, J.E., Watkins, R.W., Gill, E.L., *et al.* Non-lethal mouse repellents: Evaluation of cinnamamide as a repellent against commensal and field rodents. *Appl. Annimal Behav. Sci.* **49(4)**, 353-363 (1996).





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