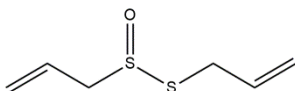


# Allicin

**ALTERNATE NAMES:** 3-prop-2-enylsulfanylprop-1-ene; 2-propene-1-sulfinothioic acid, S-2-propen-1-yl ester; S-allyl prop-2-ene-1-sulfinothioate

**CATALOG #:** B2960-1 1 mg  
B2960-5 5 mg

**STRUCTURE:**



**MOLECULAR FORMULA:** C<sub>6</sub>H<sub>10</sub>OS<sub>2</sub>

**MOLECULAR WEIGHT:** 162.27

**CAS NUMBER:** 539-86-6

**APPEARANCE:** Oil

**PURITY:** ≥98%

**SOLUBILITY:** Soluble in Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone

**DESCRIPTION:** Allicin is a natural product isolated from garlic (*Allium sativum*) that exhibits many biological effects including antioxidative, anticancer, antimicrobial, and antifungal activities. Allicin (5-10 μM) dose-dependently inhibits cell adhesion, invasion, and migration in lung adenocarcinoma cell lines A549 and H1299. It also alters the balance of tissue inhibitors of metalloproteinases (TIMPs) and matrix metalloproteinases (MMPs), decreases phosphorylation of Akt, and decreases PI3K/Akt signaling.

**STORAGE TEMPERATURE:** -80°C. Store in the dark. Product is light sensitive. Protect from air. Store under desiccating conditions.

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**REFERENCES:**

- Burian, J.P., Sacramento, L.V.S., and Carlos, I.Z. Fungal infection control by garlic extracts (*Allium sativum* L.) and modulation of peritoneal macrophages activity in murine model of sporotrichosis. *Braz. J. Biol.* (2017).
- Ankri, S., and Mirelman, D. Antimicrobial properties of allicin from garlic. *Microbes Infect.* 1(2), 125-129 (1999).
- Chan, J.Y., Yuen, A.C., Chan, R.Y., et al. A review of the cardiovascular benefits and antioxidant properties of allicin. *Phytotherapy Research* 27(5), 637-646 (2013).
- Huang, L., Song, Y., Lian, J., et al. Allicin inhibits the invasion of lung adenocarcinoma cells by altering tissue inhibitor of metalloproteinase/matrix metalloproteinase balance via reducing the activity of phosphoinositide 3-kinase/AKT signaling. *Oncol. Lett.* 14(1), 468-474 (2017).

**RELATED PRODUCTS:**

Diallyl trisulfide (Cat. No. B1062)  
 Curcumin, *Curcuma longa* (High Purity) (Cat. No. 1850)  
 Iberin (Cat. No. B2827)  
 Sulforaphane (Cat. No. B2801)  
 Indole-3-carbinol (Cat. No. B2839)

**DISCLAIMER:** ***FOR RESEARCH USE ONLY! Not to be used on humans.***