

Product Information

Product ID A4443
CAS No. 556-27-4
Chemical Name 3-[(S)-2-Propenylsulfinyl]-L-alanine

Synonym S-Allyl-L-cysteine sulfoxide, 3-(Allylsulfinyl)alanin, Alliin, EINECS 209-118-9, S-Allyl-L-cysteine-S-oxide

Formula C₆H₁₁NO₃S

Formula Wt. 177.22

Melting Point 164-166 °C

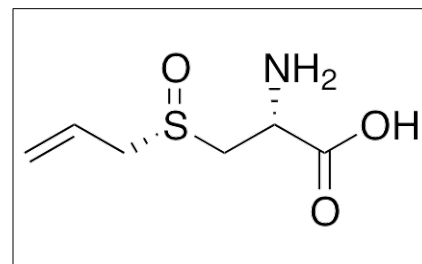
Purity ≥98%

Solubility Soluble in water, PBS (10 mg/mL). Insoluble in ethanol, or acetone.

Store Temp -20 °C

Ship Temp Ambient

Description L-(+)-Alliin is a cysteine derivative originally found in *Allium sativum* (garlic); it exhibits anti-inflammatory, neuromodulatory, anti-diabetic, anti-hyperlipidemic, antioxidative, cardioprotective, and anti-angiogenic activities; it is the optically active and orally bioavailable isomer of alliin. In adipocytes, L-alliin inhibits LPS-stimulated activation of ERK1/2 and increases in inflammatory signaling. In animal models of myocardial infarction, L-alliin increases activity of superoxide dismutase, glutathione peroxidase, catalase, and glutathione-S-transferase. L-Alliin also activates NMDA-R subunits NR2A and NR2B. In diabetic rats, this compound decreases levels of LDL, VLDL, glucose, triglycerides, total cholesterol, and total lipids. Additionally, L-alliin inhibits VEGF-induced angiogenesis and FGF2 and VEGF secretion in fibrosarcoma cells.



Bulk quantities available upon request

Product ID	Size
A4443	25 mg
A4443	50 mg
A4443	100 mg

References Jeong Tou W, Chang SS, Wu D, et al. Molecular level activation insights from a NR2A/NR2B agonist. *J Biomol Struct Dyn.* 2014;32(5):683-93. PMID: 23600691.

Quintero-Fabián S, Ortuño-Sahagún D, Vázquez-Carrera M, et al. Alliin, a garlic (*Allium sativum*) compound, prevents LPS-induced inflammation in 3T3-L1 adipocytes. *Mediators Inflamm.* 2013;2013:381815. PMID: 24453416.

Nasim SA, Dhir B, Kapoor R, et al. Alliin obtained from leaf extract of garlic grown under in situ conditions possess higher therapeutic potency as analyzed in alloxan-induced diabetic rats. *Pharm Biol.* 2011 Apr;49(4):416-21. PMID: 21391887.

Sangeetha T, Darlin Quine S. Preventive effect of S-allyl cysteine sulphoxide (Alliin) on mitochondrial dysfunction in normal and isoproterenol induced cardiotoxicity in male Wistar rats: a histopathological study. *Mol Cell Biochem.* 2009 Aug;328(1-2):1-8. PMID: 19262997.

Mousa AS, Mousa SA. Anti-angiogenesis efficacy of the garlic ingredient alliin and antioxidants: role of nitric oxide and p53. *Nutr Cancer.* 2005;53(1):104-10. PMID: 16351512.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.