



LKT Laboratories, Inc.

L-(+)-Alliin

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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

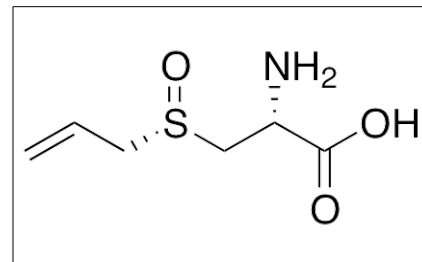
Purity ≥98%

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.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
A4443	25 mg	\$284.10
A4443	50 mg	\$482.30
A4443	100 mg	\$863.30
A4443	200 mg	\$1500.00
A4443	500 mg	\$3000.00

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 sulfoxide (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.