



LKT Laboratories, Inc.

1-Isothiocyanato-6-(methylsulfinyl)-hexane

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Product Information

Product ID 17457

CAS No.

Chemical Name

Synonym 6-Methylsulfinylhexyl isothiocyanate

Formula $C_8H_{15}NOS_2$

Formula Wt. 205.34

Melting Point

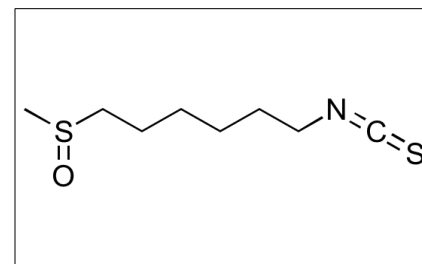
Purity $\geq 98\%$

Solubility

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description 1-Isothiocyanato-6-(methylsulfinyl)-hexane (6-Methylsulfinylhexyl isothiocyanate) is a synthetic derivative of 6-methylsulfinylhexane isothiocyanate, which was naturally produced by *Wasabia*; it is an analog of sulforaphane. This isothiocyanate (ITC) exhibits anticancer chemotherapeutic, anti-inflammatory, antioxidative, and neuroprotective activities. This compound inhibits SOX2 signaling, induces G2/M phase cell cycle arrest, and suppresses cell viability in pancreatic cancer cells. This compound also decreases tumor volume and weight in animal models of breast cancer. Additionally, this ITC inhibits expression of COX-2, iNOS, and inflammatory cytokines in macrophages. In striatal cultures, this compound activates Nrf2 and increases levels of heme oxygenase 1 (HO-1), suppressing oxidative stress. This isothiocyanate also inhibits GSK-3 β .



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
17457	5 mg	\$89.30
17457	25 mg	\$191.60
17457	50 mg	\$318.50
17457	100 mg	\$573.20

References Fuke Y, Hishinuma M, Namikawa M, et al. Wasabi-derived 6-(methylsulfinyl)hexyl isothiocyanate induces apoptosis in human breast cancer by possible involvement of the NF- κ B pathways. *Nutr Cancer*. 2014;66(5):879-87. PMID: 24895898.

Chen YJ, Huang YC, Tsai TH, et al. Effect of Wasabi Component 6-(Methylsulfinyl)hexyl Isothiocyanate and Derivatives on Human Pancreatic Cancer Cells. *Evid Based Complement Alternat Med*. 2014;2014:494739. PMID: 24575144.

Uto T, Hou DX, Morinaga O, et al. Molecular Mechanisms Underlying Anti-Inflammatory Actions of 6-(Methylsulfinyl)hexyl Isothiocyanate Derived from Wasabi (*Wasabia japonica*). *Adv Pharmacol Sci*. 2012;2012:614046. PMID: 22927840.

Mizuno K, Kume T, Muto C, et al. Glutathione biosynthesis via activation of the nuclear factor E2-related factor 2 (Nrf2)--antioxidant-response element (ARE) pathway is essential for neuroprotective effects of sulforaphane and 6-(methylsulfinyl)hexyl isothiocyanate. *J Pharmacol Sci*. 2011;115(3):320-8. PMID: 21358121.

Yoshida J, Nomura S, Nishizawa N, et al. Glycogen synthase kinase-3 β inhibition of 6-(methylsulfinyl)hexyl isothiocyanate derived from wasabi (*Wasabia japonica* Matsum). *Biosci Biotechnol Biochem*. 2011;75(1):136-9. PMID: 21228474.

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