LKT Laboratories, Inc.

R,S-Sulforaphane, Research Grade

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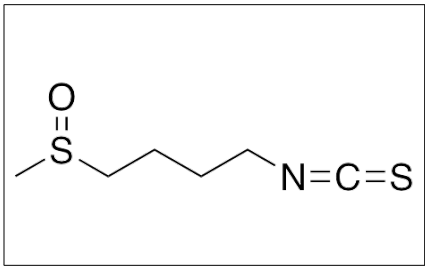
Product Information

Product ID S8047
CAS No. 4478-93-7
Chemical Name 1-Isothiocyanato-4-(methylsulfinyl)-butane

Synonym D,L-Sulforaphane, Sulforaphane



Formula $C_6H_{11}NOS_2$
Formula Wt. 177.29
Melting Point
Purity ≥97%
Solubility Soluble in ethanol, methanol, or ethyl acetate. Miscible with water and/or DMSO.
Store Temp -20˚C
Ship Temp Ambient

Bulk quanitites available upon request

Product ID	Size
S8047	25 mg
S8047	250 mg
S8047	1 g
S8047	5 g

Description R,S-Sulforaphane is a synthetic isothiocyanate. R-Sulforaphane is the naturally-occurring isomer, found in broccoli. This compound exhibits antioxidative, neuroprotective, anti-inflammatory, anti-atherosclerotic, neuromodulatory, cardioprotective, anticoagulant, antibiotic, anticancer chemotherapeutic, and chemopreventive activities; research suggests that the R-isomer may be more bioactive than the S-isomer. R,S-Sulforaphane induces activity and expression of phase II enzymes, inhibits the aryl hydrocarbon receptor, and downregulates expression of HDACs and STAT5. In cellular and animal models of melanoma, this compound inhibits tumor growth and cell proliferation. R,S-Sulforaphane also induces autophagy. In animal models of Alzheimer's disease, R,S-sulforaphane lessens cognitive impairment. Additionally, this compound increases activity of Nrf2 and expression of catalase, protecting against UV-induced oxidative damage in ex vivo models. In other animal models, R,S-sulforaphane inhibits TNF-α-induced adhesion of monocytes to epithelial cells and decreases levels of VCAM-1. In myocytes, this compound prevents angiotensin II-induced hypertrophy. Additionally, R,S-sulforaphane inhibits platelet aggregation by suppressing PI3K/Akt signaling. R,S-Sulforaphane also displays antibacterial efficacy against *Escherichia*.

Please note: This compound is a neat liquid at room temperature, clear to slightly yellow in color. It is not dissolved in solvent. In small quantities the material will coat the sides of the ampule it is shipped in and may appear to be invisible, or it may be trapped in the tip of the ampule. Wash the upper and lower parts of the ampoule with solvent to ensure all of the material is obtained.

References

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Nallasamy P, Si H, Babu PV, et al. Sulforaphane reduces vascular inflammation in mice and prevents TNF-α-induced monocyte adhesion to primary endothelial cells through interfering with the NF-κB pathway. J Nutr Biochem. 2014 Aug;25(8):824-33. PMID: 24880493.

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