



LKT Laboratories, Inc.

Brassinin

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Product Information

Product ID B6801

CAS No. 105748-59-2

Chemical Name methyl (1H-indol-3-ylmethylamino)methanedithioate

Synonym methyl *N*-(1*H*-indol-3-ylmethyl)-carbamodithioate

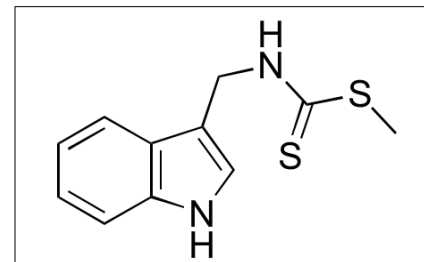
Formula C₁₁H₁₂N₂S₂

Formula Wt. 236.36

Melting Point 132-133 °C

Purity ≥98%

Solubility Soluble in DMSO.



Bulk quantities available upon request

Product ID **Size**

B6801 50 mg

B6801 100 mg

B6801 250 mg

Store Temp -20 °C

Ship Temp Ambient

Description Brassinin is a phytoalexin originally found in cruciferous vegetables. This indole exhibits anticancer chemotherapeutic and chemopreventive activities. In prostate cancer cells, brassinin induces G1 phase cell cycle arrest and apoptosis, decreases the mitochondrial membrane potential, suppresses caspase 3 and PARP activation, and limits PI3K/Akt/mTOR signaling. In vivo, brassinin inhibits indoleamine 2,3-dioxygenase, inducing regression of mammary gland tumors. In other animal models, this compound inhibits DMBA-induced skin tumor formation. Like other compounds produced by cruciferous vegetables, brassinin may induce phase II enzymes, displaying potential antioxidative benefit.

References Kim SM, Park JH, Kim KD, et al. Brassinin induces apoptosis in PC-3 human prostate cancer cells through the suppression of PI3K/Akt/mTOR/S6K1 signaling cascades. *Phytother Res.* 2014 Mar;28(3):423-31. PMID: 23686889.

Banerjee T, Duhadaway JB, Gaspari P, et al. A key in vivo antitumor mechanism of action of natural product-based brassinins is inhibition of indoleamine 2,3-dioxygenase. *Oncogene.* 2008 May 1;27(20):2851-7. PMID: 18026137.

Mehta RG, Liu J, Constantinou A, et al. Cancer chemopreventive activity of brassinin, a phytoalexin from cabbage. *Carcinogenesis.* 1995 Feb;16(2):399-404. PMID: 7859373.

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