

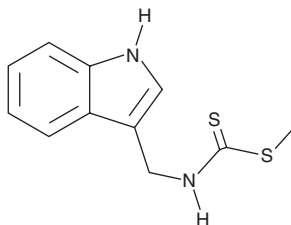
PRODUCT INFORMATION



Brassinin

Item No. 20922

CAS Registry No.: 105748-59-2
Formal Name: N-(1H-indol-3-ylmethyl)-
carbamodithioic acid, methyl ester
Synonym: BSN
MF: C₁₁H₁₂N₂S₂
FW: 236.4
Purity: ≥98%
UV/Vis.: λ_{max}: 220, 270 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Brassinin (BSN) is supplied as a crystalline solid. A stock solution may be made by dissolving the BSN in the solvent of choice, which should be purged with an inert gas. BSN is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BSN in these solvents is approximately 10 mg/ml.

Description

BSN is a phytoalexin isolated from *B. campestris* that exhibits anticancer, chemopreventative, antiproliferative, and antifungal activities.^{1,2} Brassinin suppresses constitutive and IL-6-induced STAT3 activation *in vitro* and attenuates tumor growth in a xenograft lung cancer mouse model through modulation of E3 SUMO-protein ligase 3 (PIAS-3) and suppressor of cytokine signaling-3 (SOCS-3).³ Brassinin also induces apoptosis in PC3 cells through suppression of PI3K, Akt, mTOR, and S6K1.¹

References

1. Kim, S.-M., Park, J.H., Kim, K.D., *et al.* Brassinin induces apoptosis in PC-3 human prostate cancer cells through the suppression of PI3K/Akt/mTOR/S6K1 signaling cascades. *Phytother. Res.* **28(3)**, 423-431 (2014).
2. Pedras, M.S., Montaut, S., and Suchy, M. Phytoalexins from the crucifer rutabaga: Structures, syntheses, biosyntheses, and antifungal activity. *J. Org. Chem.* **69(13)**, 4471-4476 (2004).
3. Lee, J.H., Kim, C., Sethi, G., *et al.* Brassinin inhibits STAT3 signaling pathway through modulation of PIAS-3 and SOCS-3 expression and sensitizes human lung cancer xenograft in nude mice to paclitaxel. *Oncotarget* **6(8)**, 6386-6405 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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