

PRODUCT INFORMATION



Sesamolin

Item No. 11754

CAS Registry No.: 526-07-8
Formal Name: 5-[(1S,3aR,4R,6aR)-4-(1,3-benzodioxol-5-yloxy)tetrahydro-1H,3H-furo[3,4-c]furan-1-yl]-1,3-benzodioxole

MF: C₂₀H₁₈O₇

FW: 370.4

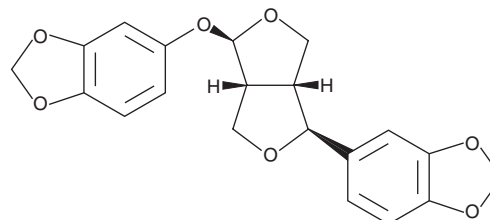
Purity: ≥98%

UV/Vis.: λ_{max}: 237, 289 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

Sesamolin is supplied as a crystalline solid. A stock solution may be made by dissolving the sesamolin in the solvent of choice. Sesamolin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of sesamolin in these solvents is approximately 0.5, 12, and 30 mg/ml, respectively.

Sesamolin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sesamolin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Sesamolin has a solubility of approximately 0.05 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sesamolin is a lignin found in *S. indicum* with diverse biological activities. It reduces lipid peroxidation in rat liver and kidneys *in vivo* but has no effect on lipid peroxidation activity of rat liver microsomes *in vitro*.¹ *In vivo*, sesamolin reduces epididymal white adipose tissue weight and serum triacylglycerol, free fatty acid, phospholipid, and cholesterol concentrations in rats.² Sesamolin inhibits growth of Molt-4B human lymphoid leukemia cells *via* induction of apoptosis in a dose-dependent manner.³ It also reduces hypoxia-induced lactate hydrogenase (LDH) release and dichlorofluorescein-sensitive reactive oxygen species (ROS) production in BV-2 microglia grown under hypoxic conditions.⁴

References

1. Kang, M.H., Naito, M., Tsujihara, N., *et al.* Sesamolin inhibits lipid peroxidation in rat liver and kidney. *J. Nutr.* **128**(6), 1018-1022 (1998).
2. Ide, T., Lim, J.S., Odbayer, T.O., *et al.* Comparative study of sesame lignans (sesamin, episesamin and sesamolin) affecting gene expression profile and fatty acid oxidation in rat liver. *J. Nutr. Sci. Vitaminol. (Tokyo)* **55**(1), 31-43 (2009).
3. Miyahara, Y., Hibasami, H., Katsuzaki, H., *et al.* Sesamolin from sesame seed inhibits proliferation by inducing apoptosis in human lymphoid leukemia Molt 4B cells. *Int. J. Mol. Med.* **7**(4), 369-371 (2001).
4. Hou, R.C., Wu, C.C., Yang, C.H., *et al.* Protective effects of sesamin and sesamolin on murine BV-2 microglia cell line under hypoxia. *Neurosci. Lett.* **367**(1), 10-13 (2004).

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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