

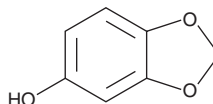
PRODUCT INFORMATION



Sesamol

Item No. 32903

CAS Registry No.: 533-31-3
Formal Name: 1,3-benzodioxol-5-ol
Synonym: NSC 59256
MF: C₇H₆O₃
FW: 138.1
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

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

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sesamol can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of sesamol in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Sesamol is a lignan originally isolated from *S. indicum* that has diverse biological activities, including antioxidant, antibacterial, anticancer, and anti-obesity properties¹⁻⁴. Sesamol scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals with an IC₅₀ value of 5.44 µg/ml and is active against *B. cereus* and *S. aureus* (MICs = 2 mg/ml for both).² It also inhibits the growth of HepG2 human hepatocellular carcinoma cells in a concentration-dependent manner.³ Sesamol (100 mg/kg) reduces weight gain and hepatic steatosis in a mouse model of obesity induced by a high-fat diet (HFD).⁴

References

1. Majdalawieh, A.F. and Mansour, Z.R. Sesamol, a major lignan in sesame seeds (*Sesamum indicum*): Anti-cancer properties and mechanisms of action. *Eur. J. Pharmacol.* **855**, 75-89 (2019).
2. Kumar, C.M. and Singh, S.A. Bioactive lignans from sesame (*Sesamum indicum* L.): Evaluation of their antioxidant and antibacterial effects for food applications. *J. Food Sci. Technol.* **52(5)**, 2934-2941 (2015).
3. Liu, Z., Ren, B., Wang, Y., *et al.* Sesamol induces human hepatocellular carcinoma cells apoptosis by impairing mitochondrial function and suppressing autophagy. *Sci. Rep.* **7**, 5728 (2017).
4. Lee, D.H., Chang, S.-H., Yang, D.-K., *et al.* Sesamol increases Ucp1 expression in white adipose tissues and stimulates energy expenditure in high-fat diet-fed obese mice. *Nutrients* **12(5)**, 1459 (2020).

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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