

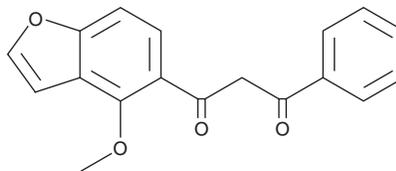
PRODUCT INFORMATION



Pongamol

Item No. 44520

CAS Registry No.: 484-33-3
Formal Name: 1-(4-methoxy-5-benzofuranyl)-3-phenyl-1,3-propanedione
MF: C₁₈H₁₄O₄
FW: 294.3
Purity: ≥95%
Supplied as: A 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

Pongamol is supplied as a solid. A stock solution may be made by dissolving the pongamol in the solvent of choice, which should be purged with an inert gas. Pongamol is slightly soluble (0.1-1 mg/ml) in acetonitrile:water (1:1).

Description

Pongamol is a flavonoid that has been found in *P. pinnata* seeds and has diverse biological activities.¹⁻⁴ It is active against *E. coli* and *S. aureus* (MICs = 8 and 6 µg/ml, respectively).² Pongamol (2-80 µM) inhibits hydrogen peroxide-induced apoptosis in PC12 cells.¹ *In vivo*, pongamol (50 mg/kg) reduces blood glucose levels in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104) and in *db/db* mice.³ It decreases tau phosphorylation, amyloid-β (Aβ) aggregation, and the nuclear translocation of NF-κB in brain and improves memory function in a mouse model of Alzheimer's disease induced by D-galactose, sodium nitrite, and aluminum chloride.⁴

References

1. Wu, S., Miao, J., Zhu, S., *et al.* Pongamol prevents neurotoxicity via the activation of MAPKs/Nrf2 signaling pathway in H₂O₂-induced neuronal PC12 cells and prolongs the lifespan of *Caenorhabditis elegans*. *Mol. Neurobiol.* **61(10)**, 8219-8233 (2024).
2. Jahan, S., Mahmud, M.H., Khan, Z., *et al.* Health promoting benefits of pongamol: An overview. *Biomed. Pharmacother.* **142**, 112109 (2021).
3. Tamrakar, A.K., Yadav, P.P., Tiwari, P., *et al.* Identification of pongamol and karanjin as lead compounds with antihyperglycemic activity from *Pongamia pinnata* fruits. *J. Ethnopharmacol.* **118(3)**, 435-439 (2008).
4. Hu, K., Wu, S., Xu, J., *et al.* Pongamol alleviates neuroinflammation and promotes autophagy in Alzheimer's disease by regulating the Akt/mTOR signaling pathway. *J. Agric. Food Chem.* (2024).

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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