

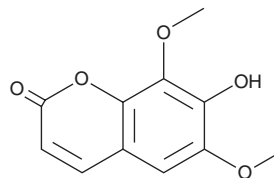
PRODUCT INFORMATION



Isofraxidin

Item No. 46174

CAS Registry No.: 486-21-5
Formal Name: 7-hydroxy-6,8-dimethoxy-2H-1-benzopyran-2-one
Synonyms: 7-hydroxy-6,8-dimethoxy Coumarin, IF, NSC 324637
MF: $C_{11}H_{10}O_5$
FW: 222.2
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Acanthopanax senticosus*



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

Laboratory Procedures

Isofraxidin is supplied as a solid. A stock solution may be made by dissolving the isofraxidin in the solvent of choice, which should be purged with an inert gas. Isofraxidin is soluble (≥ 10 mg/ml) in DMSO.

Description

Isofraxidin is a coumarin that has been found in *A. senticosus* and has diverse biological activities.¹⁻⁶ It induces apoptosis in, and inhibits the migration and invasion of, A549 lung cancer cells at $10\text{ }\mu\text{M}$.² Isofraxidin decreases IL- 1β -induced nitric oxide (NO) and prostaglandin E_2 (PGE_2 ; Item No. 14010) production in primary chondrocytes isolated from patients with osteoarthritis.³ It reduces infarct size in a mouse model of myocardial infarction and decreases motor impairments in a mouse model of Parkinson's disease.^{4,5} Isofraxidin (3-30 mg/kg) reverses stress-induced decreases in body weight gain and increases in immobility time in the forced swim test in mice.⁶ It also has antioxidant, antimalarial, and pain-reducing activities, among others.¹

References

1. Majnooni, M.B., Fakhri, S., Shokoohinia, Y., et al. Isofraxidin: Synthesis, biosynthesis, isolation, pharmacokinetic and pharmacological properties. *Molecules* **25**(9), 2040 (2020).
2. Zhang, H., Feng, Q.-Q., Gong, J.-H., et al. Anticancer effects of isofraxidin against A549 human lung cancer cells via the EGFR signaling pathway. *Mol. Med. Rep.* **18**(1), 407-414 (2018).
3. Lin, J., Li, X., Qi, W., et al. Isofraxidin inhibits interleukin- 1β induced inflammatory response in human osteoarthritis chondrocytes. *Int. Immunopharmacol.* **64**, 238-245 (2018).
4. Chen, G., Song, X., Lin, D., et al. Isofraxidin alleviates myocardial infarction through NLRP3 inflammasome inhibition. *Inflammation* **43**(2), 712-721 (2020).
5. Wang, T.-A., Li, S.-Y., Fann, L.-Y., et al. Neuroprotective potential of isofraxidin: Alleviating parkinsonian symptoms, inflammation and microglial activation. *J. Cent. Nerv. Syst. Dis.* **17**, 1-13 (2025).
6. Wu, X., Gu, J., Zou, Z., et al. Suppressive effects of isofraxidin on depressive-like behaviors induced by chronic unpredictable mild stress in mice. *Brain Sci.* **12**(10), 1376 (2022).

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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