

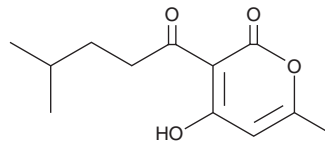
PRODUCT INFORMATION



Pogostone

Item No. 27812

CAS Registry No.: 23800-56-8
Formal Name: 4-hydroxy-6-methyl-3-(4-methyl-1-oxopentyl)-2H-pyran-2-one
MF: C₁₂H₁₆O₄
FW: 224.3
Purity: ≥98%
UV/Vis.: λ_{max}: 224, 310 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item origin: Plant/Pogostemonis herba



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

Laboratory Procedures

Pogostone is supplied as a solid. A stock solution may be made by dissolving the pogostone in the solvent of choice, which should be purged with an inert gas. Pogostone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pogostone in ethanol and DMSO is approximately 3 mg/ml and approximately 1.6 mg/ml in DMF.

Pogostone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pogostone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Pogostone has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pogostone is a pyranone that has been found in the essential oil of *P. cablin*, also known as patchouli oil, and has antifungal and insecticidal activities.¹ It is active against a laboratory strain and clinical isolates of *C. albicans* (MICs = 49 and 12-97 µg/ml, respectively). It reduces fungal load in the vagina in a mouse model of fluconazole-resistant vulvovaginal candidiasis when administered at topical doses of 1, 2, and 4 mg/kg per day or oral doses of 20, 40, and 80 mg/kg per day.² Pogostone is toxic to *S. exigua* and *S. litura* larvae with LC₅₀ values of 545.61 and 986.88 mg/L, respectively, for dietary administration and 519.48 and 1,041.42 mg/L, respectively, for contact application.³ It also has antifeedant activity against third instar larvae of *S. exigua* and *S. litura*.

References

1. Yi, Y.-Y., He, J.-J., Su, J.-Q., et al. Synthesis and antimicrobial evaluation of pogostone and its analogues. *Fitoterapia* **84**, 135-139 (2013).
2. Li, Y.-C., Liang, H.-C., Chen, H.-M., et al. Anti-*Candida albicans* activity and pharmacokinetics of pogostone isolated from *Pogostemonis Herba*. *Phytomedicine* **20**(1), 77-83 (2012).
3. Huang, S.-H., Xian, J.-D., Kong, S.-Z., et al. Insecticidal activity of pogostone against *Spodoptera litura* and *Spodoptera exigua* (Lepidoptera: Noctuidae). *Pest Manag. Sci.* **70**(3), 510-516 (2014).

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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