

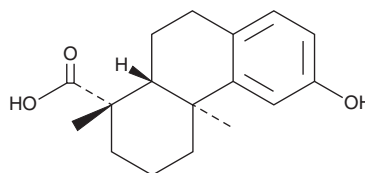
PRODUCT INFORMATION



Podocarpic Acid

Item No. 44334

CAS Registry No.: 5947-49-9
Formal Name: 1S,2,3,4,4aS,9,10,10aR-octahydro-6-hydroxy-1,4a-dimethyl-1-phenanthrenecarboxylic acid
Synonyms: NSC 231784, (+)-Podocarpic Acid
MF: C₁₇H₂₂O₃
FW: 274.4
Purity: ≥98%
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

Podocarpic acid is supplied as a solid. A stock solution may be made by dissolving the podocarpic acid in the solvent of choice, which should be purged with an inert gas. Podocarpic acid is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

Podocarpic acid is a diterpenoid that has been found in *D. cupressinum* resins and has diverse biological activities.¹⁻³ It increases ionic currents in a patch-clamp assay using CHO-K1 cells expressing human large-conductance calcium-activated potassium channels (K_{Ca}1.1/BKα) when used at a concentration of 30 μM.¹ Podocarpic acid (20 μM) reduces hyperesthesia, neuronal damage, and increases lifespan in a model of α-dicarbonyl-related stress using *C. elegans* expressing a mutant form of the gene encoding glyoxylase 1.² It inhibits the infection of MDCK cells by influenza A virus (EC₅₀ = 18.2 μM).³ Podocarpic acid has also been used as a building block in the synthesis of podocarpic acid dimers, such as acetyl podocarpic acid anhydride (APD; Item No. 10007686), with liver X receptor (LXR) agonist activity.⁴

References

1. Cui, Y.-M., Yasutomi, E., Otani, Y., *et al.* Design, synthesis and characterization of podocarpate derivatives as openers of BK channels. *Bioorg. Med. Chem. Lett.* **18**(19), 5197-5200 (2008).
2. Chaudhuri, J., Bose, N., Gong, J., *et al.* A Caenorhabditis elegans model elucidates a conserved role for TRPA1-Nrf signaling in reactive α-dicarbonyl detoxification. *Curr. Biol.* **26**(22), 3014-3025 (2016).
3. Dang, Z., Jung, K., Zhu, L., *et al.* Phenolic diterpenoid derivatives as anti-influenza A virus agents. *ACS Med. Chem. Lett.* **6**(3), 355-358 (2015).
4. Singh, S.B., Ondeyka, J.G., Liu, W., *et al.* Discovery and development of dimeric podocarpic acid leads as potent agonists of liver X receptor with HDL cholesterol raising activity in mice and hamsters. *Bioorg. Med. Chem. Lett.* **15**(11), 2824-2828 (2005).

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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