

## Product Data Sheet

Product Name: Podocarpic acid

Cat. No.: GC33675

### Chemical Properties

Cas. No. 5947-49-9

SMILES O=C([C@@]1(C)CCC[C@]2(C)C3=C(CC[C@@]12[H])C=CC(O)=C3)O

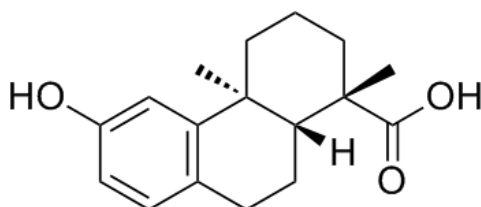
Formula  $C_{17}H_{22}O_3$  M.Wt 274.35

Solubility DMSO:  $\geq 100$  mg/mL (364.50 mM) Storage Store at  $-20^{\circ}\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



### Background

Podocarpic acid is a natural product, which has the best all-round positive effect and acts as a novel TRPA1 activator.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Podocarpic acid anhydride acts as a 1 nM agonist of LXRalpha and beta receptors. It shows over 8-10-fold better activator of LXR receptors compared to one of the natural ligands, 22-(R)-hydroxy cholesterol, in HEK-293 cells[2].

Podocarpic acid activates SKN-1 in *C. elegans*, similar to known Nrf2 activators such as  $\alpha$ -lipoic acid (LA). Podocarpic acid- or LA-induced SKN-1 activation also requires TRPodocarpic acid-1: trPodocarpic acid-1 knockdown in *glod-4;gst-4p::gfp* animals reduces expression of *gst-4* to wild-type levels. A and LA supplementation results in a robust  $\text{Ca}^{2+}$  flux, which is significantly reduced when the  $\text{Ca}^{2+}$ -impermeable TRPodocarpic acid-1E1018A channel is present, suggesting that TRPodocarpic acid-1 activation is key for these drugs' function. Finally, Podocarpic acid and LA alleviate the Podocarpic acidthogenic phenotypes of *glod-4* animals by reverting the high endogenous MGO and GO to almost wild-type-like levels[1].

[1]. Baraka HN. Microbial transformation of podocarpic acid and evaluation of transformation products for antioxidant activity. *Planta Med.* 2010 May;76(8):815-7. [2]. Singh S, 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.* 2005 Jun 2;15(11):2824-8.

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