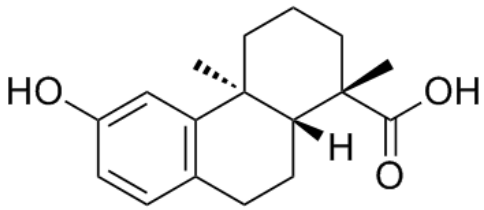
Product Data Sheet

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: ≥ 100 mg/mL (364.50 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°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 α-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 Ca2+ flux, which is significantly reduces when the Ca2+-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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