

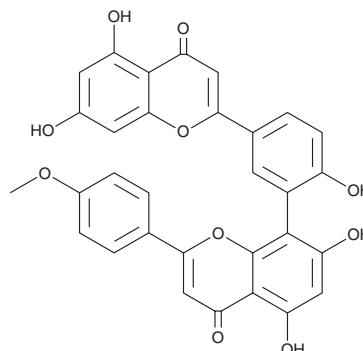
PRODUCT INFORMATION



Podocarpusflavone A

Item No. 34613

CAS Registry No.: 22136-74-9
Formal Name: 8-[5-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)-2-hydroxyphenyl]-5,7-dihydroxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one
Synonym: PCFA
MF: C₃₁H₂₀O₁₀
FW: 552.5
Purity: ≥98%
UV/Vis.: λ_{max}: 272, 334 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Selaginella*



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

Laboratory Procedures

Podocarpusflavone A is supplied as a solid. A stock solution may be made by dissolving the podocarpusflavone A in the solvent of choice, which should be purged with an inert gas. Podocarpusflavone A is soluble in ethanol and DMSO.

Description

Podocarpusflavone A is a biflavone that has been found in *D. araucarioides* and has diverse biological activities.¹⁻⁴ It inhibits dengue virus NS5 RNA-dependent RNA polymerase (DENV-NS5 RdRp; IC₅₀ = 0.75 μM).³ Podocarpusflavone A also inhibits cathepsin B with an IC₅₀ value of 1.68 μM and inhibits STAT3 in a reporter assay in a concentration-dependent manner.^{1,2} It reduces the production of reactive oxygen species (ROS) and superoxide anions induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in isolated human neutrophils when used at concentrations of 1 and 10 μM, respectively.⁴ Podocarpusflavone A also inhibits aggregation of amyloid-β (1-40) peptide (Aβ40; Item No. 21617) in a cell-free assay with an IC₅₀ value of 4.9 μM.⁵ Podocarpusflavone A (20 μM) decreases viability of A375, MALME-3M, SK-MEL-1, and SK-MEL-5 melanoma cells and reduces tumor growth in an A375 mouse xenograft model when administered at doses of 20 and 40 mg/kg.²

References

1. Zhang, Y., Tan, N.S., Huang, H., *et al.* Three bioactive biflavones isolated from *Taxodium mucronatum*. *Yunnan Zhiwu Yanjiu* **27(1)**, 107-110 (2005).
2. Meng, H., Pang, Y., Liu, G., *et al.* Podocarpusflavone A inhibits cell growth of skin cutaneous melanoma by suppressing STAT3 signaling. *J. Dermatol. Sci.* **100(3)**, 201-208 (2020).
3. Coulerie, P., Nour, M., Maciuk, A., *et al.* Structure-activity relationship study of biflavonoids on the Dengue virus polymerase DENV-NS5 RdRp. *Planta Med.* **79(14)**, 1313-1318 (2013).
4. Arwa, P.S., Zeraik, M.L., Ximenes, V.F., *et al.* Redox-active biflavonoids from *Garcinia brasiliensis* as inhibitors of neutrophil oxidative burst and human erythrocyte membrane damage. *J. Ethnopharmacol.* **174**, 410-418 (2015).
5. Sirimangkalakitti, N., Juliawaty, L.D., Hakim, E.H., *et al.* Naturally occurring biflavonoids with amyloid β aggregation inhibitory activity for development of anti-Alzheimer agent. *Bioorg. Med. Chem. Lett.* **29(15)**, 1994-1997 (2019).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM