

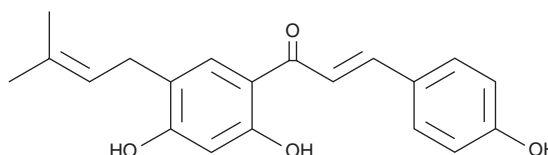
PRODUCT INFORMATION



Bavachalcone

Item No. 34673

CAS Registry No.: 28448-85-3
Formal Name: (2E)-1-[2,4-dihydroxy-5-(3-methyl-2-buten-1-yl)phenyl]-3-(4-hydroxyphenyl)-2-propen-1-one
Synonym: Brousochalcone B
MF: C₂₀H₂₀O₄
FW: 324.4
Purity: ≥98%
UV/Vis.: λ_{max}: 377 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Psoralea corylifolia*



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

Laboratory Procedures

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

Description

Bavachalcone is a polyketide synthase-derived chalcone and flavonoid that has been found in *P. corylifolia* and has diverse biological activities.¹⁻⁵ It inhibits α-glucosidase and the UDP-glucuronosyltransferase (UGT) isoforms UGT1A1 and UGT1A7 (IC₅₀s = 11.1, 11.3, and 3.6 μM, respectively).^{2,3} Bavachalcone is cytotoxic to K562 chronic myeloid leukemia cells (IC₅₀ = 2.77 μM).⁴ It inhibits RANKL-induced osteoclastogenesis of isolated mouse bone marrow-derived macrophages (BMDMs) when used at a concentration of 5 μg/ml.⁵

References

1. Zhou, K., Yang, S., and Li, S.-M. Naturally occurring prenylated chalcones from plants: Structural diversity, distribution, activities and biosynthesis. *Nat. Prod. Rep.* (2021).
2. Ryu, H.W., Lee, B.W., Curtis-Long, M.J., et al. Polyphenols from *Broussonetia papyrifera* displaying potent α-glucosidase inhibition. *J. Agric. Food Chem.* **58**(1), 202-208 (2010).
3. Shan, L., Yang, S., Zhang, G., et al. Comparison of the inhibitory potential of bavachalcone and corylin against UDP-glucuronosyltransferases. *Evid. Based Complement. Alternat. Med.* 958937 (2014).
4. Wang, H.-M., Zhang, L., Liu, J., et al. Synthesis and anti-cancer activity evaluation of novel prenylated and geranylated chalcone natural products and their analogs. *Eur. J. Med. Chem.* **92**, 439-448 (2015).
5. Park, C.K., Lee, Y., Chang, E.-J., et al. Bavachalcone inhibits osteoclast differentiation through suppression of NFATc1 induction by RANKL. *Biochem. Pharmacol.* **75**(11), 2175-2182 (2008).

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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