

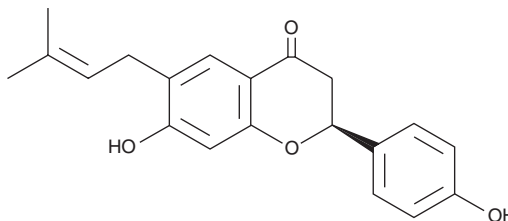
PRODUCT INFORMATION



Bavachin

Item No. 11685

CAS Registry No.: 19879-32-4
Formal Name: (2S)-2,3-dihydro-7-hydroxy-2-(4-hydroxyphenyl)-6-(3-methyl-2-butenyl)-4H-1-benzopyran-4-one
Synonym: Corylifolin
MF: C₂₀H₂₀O₄
FW: 324.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 236, 278, 322 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Bavachin is supplied as a crystalline solid. A stock solution may be made by dissolving the bavachin in the solvent of choice, which should be purged with an inert gas. Bavachin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of bavachin in these solvents is approximately 20, 30, and 50 mg/ml, respectively.

Bavachin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bavachin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Bavachin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Bavachin is a flavonoid first isolated from seeds of *P. corylifolia*. It is a phytoestrogen that activates the estrogen receptors ERα and ERβ (EC₅₀s = 320 and 680 nM, respectively).^{1,2} Through this action, bavachin stimulates osteoblast proliferation and differentiation and prevents bone loss following ovariectomy in rats.^{3,4} Bavachin less potently inhibits acyl-coenzyme A:cholesterol acyltransferase (IC₅₀ = 86 μM).⁵

References

1. Xin, D., Wang, H., Yang, J., *et al.* Phytoestrogens from *Psoralea corylifolia* reveal estrogen receptor-subtype selectivity. *Phytomedicine* **17**(2), 126-131 (2010).
2. Park, J., Kim, D. H., Ahn, H.-N., *et al.* Activation of estrogen receptor by bavachin from *Psoralea corylifolia*. *Biomol. Ther. (Seoul)* **20**(2), 183-188 (2012).
3. Li, W. D., Yan, C. P., Wu, Y., *et al.* Osteoblasts proliferation and differentiation stimulating activities of the main components of *Fructus Psoraleae corylifoliae*. *Phytomedicine* **21**(4), 400-405 (2014).
4. Weng, Z. B., Gao, Q. Q., Wang, F., *et al.* Positive skeletal effect of two ingredients of *Psoralea corylifolia* L. on estrogen deficiency-induced osteoporosis and the possible mechanisms of action. *Mol. Cell. Endocrinol.* **417**, 103-113 (2015).
5. Choi, J. H., Rho, M. C., Lee, S. W., *et al.* Bavachin and isobavachalcone, acyl-coenzyme A: Cholesterol acyltransferase inhibitors from *Psoralea corylifolia*. *Arch. Pharm. Res.* **31**(11), 1419-1423 (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.

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, 10/10/2022

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