

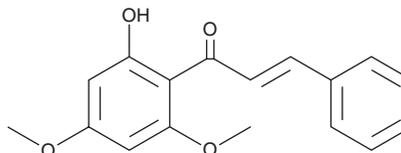
PRODUCT INFORMATION



Flavokawain B

Item No. 19652

CAS Registry No.: 1775-97-9
Formal Name: (2E)-1-(2-hydroxy-4,6-dimethoxyphenyl)-3-phenyl-2-propen-1-one
Synonym: Flavokavain B
MF: C₁₇H₁₆O₄
FW: 284.3
Purity: ≥98%
UV/Vis.: λ_{max}: 339 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

Flavokawain B is supplied as a crystalline solid. A stock solution may be made by dissolving the flavokawain B in the solvent of choice, which should be purged with an inert gas. Flavokawain B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of flavokawain B in these solvents is approximately 10, 50, and 30 mg/ml, respectively.

Description

Flavokawain B is a natural chalcone first isolated from extracts of kava roots. It induces apoptosis in androgen receptor-negative, hormone-refractory prostate cancer cell lines (IC₅₀s = 32, 48, 6.2, and 3.9 μM for LAPC4, LNCaP, PC-3, and DU145 cells, respectively, treated for 48 hours), with increased expression of the proapoptotic protein Bim.¹ Flavokawain B increases Bim expression and inhibits growth of DU145 xenografts in mice.¹ It also increases Bim expression, promotes apoptosis, and induces cell cycle arrest in uterine leiomyosarcoma cells.² However, flavokawain B is hepatotoxic, triggering oxidative stress, inhibiting NF-κB signaling, and activating MAPK pathways, culminating in HepG2 and L-02 cell death (LD₅₀s = 15 and 32 μM, respectively).³

References

1. Tang, Y., Xuesen, L., Zhongbo, L., *et al.* Flavokawain B, a kava chalcone, exhibits robust apoptotic mechanisms on androgen receptor-negative, hormone-refractory prostate cancer cell lines and reduces tumor growth in a preclinical model. *Int. J. Cancer* **127(8)**, 1758-1768 (2010).
2. Eskander, R.N., Randall, L.M., Sakai, T., *et al.* Flavokawain B, a novel, naturally occurring chalcone, exhibits robust apoptotic effects and induces G₂/M arrest of a uterine leiomyosarcoma cell line. *J. Obstet. Gynaecol. Res.* **38(8)**, 1086-1094 (2012).
3. Zhou, P., Gross, S., Liu, J.-H., *et al.* Flavokawain B, the hepatotoxic constituent from kava root, induces GSH-sensitive oxidative stress through modulation of IKK/NF-κB and MAPK signaling pathways. *FASEB J.* **24(12)**, 4722-4732 (2010).

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, 08/08/2023

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