

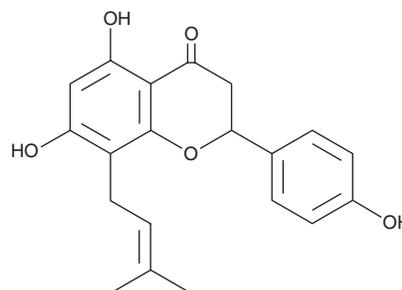
PRODUCT INFORMATION



8-Prenylaringenin

Item No. 17462

CAS Registry No.: 68682-02-0
Formal Name: 2,3-dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-8-(3-methyl-2-buten-1-yl)-4H-1-benzopyran-4-one
Synonym: 8-PN
MF: C₂₀H₂₀O₅
FW: 340.4
Purity: ≥98%
UV/Vis.: λ_{max}: 294 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

8-Prenylaringenin (8-PN) is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-PN in the solvent of choice, which should be purged with an inert gas. 8-PN is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 8-PN in these solvents is approximately 2, 5, and 10 mg/ml, respectively.

8-PN is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 8-PN should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 8-PN has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

8-PN is a prenylflavonoid with potent estrogenic activity that can be isolated from hops.^{1,2} It inhibits both isoforms of the human estrogen receptor (ER; IC₅₀s = 57 and 68 nM for ERα and ERβ, respectively).³ 8-PN is effective *in vivo*, suppressing loss of bone mineral density in ovariectomized rats and blocking changes in tail skin temperature in a rat model of postmenopausal hot flashes.⁴

References

1. Milligan, S., Kalita, J., Pocock, V., *et al.* Oestrogenic activity of the hop phyto-oestrogen, 8-prenylaringenin. *Reproduction* **123**(2), 235-242 (2002).
2. Hajirahimkhan, A., Simmler, C., Yuan, Y., *et al.* Evaluation of estrogenic activity of licorice species in comparison with hops used in botanicals for menopausal symptoms. *PLoS One* **8**(7), e67947 (2013).
3. Roelens, F., Heldring, N., Dhooze, W., *et al.* Subtle side-chain modifications of the hop phytoestrogen 8-prenylaringenin result in distinct agonist/antagonist activity profiles for estrogen receptors α and β. *J. Med. Chem.* **49**(25), 7357-7365 (2006).
4. Keiler, A.M., Zierau, O., and Kretzschmar, G. Hop extracts and hop substances in treatment of menopausal complaints. *Planta Med.* **79**(7), 576-579 (2013).

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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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