

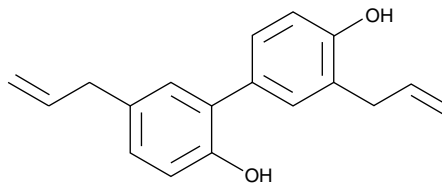
Product Information



Honokiol

Item No. 14597

CAS Registry No.: 35354-74-6
Formal Name: 3',5-di-2-propen-1-yl-[1,1'-biphenyl]-2,4'-diol
Synonym: NSC 293100
MF: C₁₈H₁₈O₂
FW: 266.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 258, 294 nm



Laboratory Procedures

For long term storage, we suggest that honokiol be stored as supplied at -20°C. It should be stable for at least two years.

Honokiol is supplied as a crystalline solid. A stock solution may be made by dissolving the honokiol in the solvent of choice. Honokiol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of honokiol in these solvents is approximately 33 mg/ml.

Honokiol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, honokiol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Honokiol has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Honokiol is a natural product derived from parts of the plant *M. grandiflora* used in Oriental herbal medicine. It is a lignan that produces diverse therapeutic effects, including acting as an anxiolytic in mice.¹ Honokiol also inhibits nuclear factor-κB and phosphoinositide 3-kinase/Akt signaling, preventing inflammation, and interferes with angiogenesis while preventing tumor growth *in vivo*.²⁻⁵ It also scavenges superoxide and peroxyl radicals.⁶

References

1. Maruyama, Y., Kuribara, H., Morita, M., *et al.* Identification of magnolol and honokiol as anxiolytic agents in extracts of Saiboku-to, an oriental herbal medicine. *J. Nat. Prod.* **61(1)**, 135-138 (1998).
2. Bai, X., Cerimele, F., Ushio-Fukai, M., *et al.* Honokiol, a small molecular weight natural product, inhibits angiogenesis *in vitro* and tumor growth *in vivo*. *J. Biol. Chem.* **278(37)**, 35501-35507 (2003).
3. Ahn, K.S., Sethi, G., Shishodia, S., *et al.* Honokiol potentiates apoptosis, suppresses osteoclastogenesis, and inhibits invasion through modulation of nuclear factor-κB activation pathway. *Mol. Cancer Res.* **4(9)**, 621-633 (2006).
4. Singh, T. and Katiyar, S.K. Honokiol inhibits non-small cell lung cancer cell migration by targeting PGE₂-mediated activation of β-catenin signaling. *PLoS One* **8(4)**, (2013).
5. Kim, B.H. and Cho, J.Y. Anti-inflammatory effect of honokiol is mediated by PI3K/Akt pathway suppression. *Acta. Pharmacol. Sin.* **29(1)**, 113-122 (2008).
6. Dikalov, S., Losik, T., and Arbiser, J.L. Honokiol is a potent scavenger of superoxide and peroxyl radicals. *Biochem. Pharmacol.* **76(5)**, 589-596 (2008).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14597

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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