

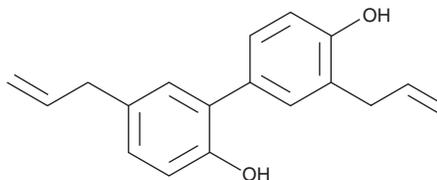
# PRODUCT INFORMATION



## 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:** C<sub>18</sub>H<sub>18</sub>O<sub>2</sub>  
**FW:** 266.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 258, 294 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

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

### Description

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.<sup>1</sup> Honokiol also inhibits nuclear factor-κB and phosphoinositide 3-kinase/Akt signaling, preventing inflammation, and interferes with angiogenesis while preventing tumor growth *in vivo*.<sup>2-5</sup> It also scavenges superoxide and peroxy radicals.<sup>6</sup>

### 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)**, e60749 (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 peroxy radicals. *Biochem. Pharmacol.* **76(5)**, 589-596 (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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