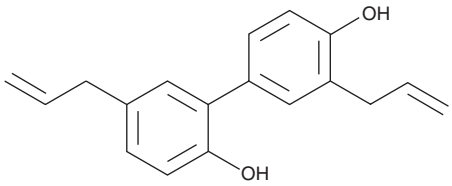
PRODUCT INFORMATION

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:	$C_{18}H_{18}O_2$
FW:	266.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 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.[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).
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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 peroxyl radicals. *Biochem. Pharmacol.* **76(5)**, 589-596 (2008).

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