

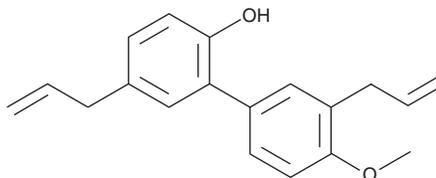
PRODUCT INFORMATION



4'-O-Methylhonokiol

Item No. 11089

CAS Registry No.: 68592-15-4
Formal Name: 4'-methoxy-3',5-di-2-propen-1-yl-[1,1'-biphenyl]-2-ol
Synonyms: 4-Methoxyhonokiol, NSC 293101
MF: C₁₉H₂₀O₂
FW: 280.4
Purity: ≥95%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Magnolia officinalis*



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

Laboratory Procedures

4'-O-Methylhonokiol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 4'-O-methylhonokiol in these solvents is approximately 33 mg/ml.

4'-O-Methylhonokiol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 4'-O-Methylhonokiol should be diluted with the aqueous buffer of choice. 4'-O-Methylhonokiol has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

4'-O-Methylhonokiol is a phenol that has been found in *M. grandiflora* and has diverse biological activities.¹⁻⁴ It is active against the bacteria *B. subtilis*, *S. aureus*, and *M. smegmatis* (MIC = 2.5 µg/ml for all) and the fungus *T. mentagrophytes* (MIC = 1.25 µg/ml).¹ 4'-O-Methylhonokiol (10 and 30 µM) inhibits LPS-induced activation of NF-κB and production of nitric oxide (NO) in RAW 264.7 macrophages.⁴ *In vivo*, 4'-O-Methylhonokiol (20 and 200 mg/kg) reduces carrageenan-induced paw edema in mice. It reduces neuronal apoptosis and escape latency in the Morris water maze in a mouse model of Alzheimer's disease induced by amyloid-β 1-42 (Aβ₄₂) when administered at a dose of 1 mg/kg.² 4'-O-methylhonokiol also reduces plasma cholesterol and triglyceride levels, ameliorates hepatic steatosis, and improves insulin resistance in a mouse model of high-fat diet-induced obesity.³

References

1. Clark, A.M., El-Feraly, F.S., Li, W.S. *J. Pharm. Sci.* **70(8)**, 951-952 (1981).
2. Lee, J.W., Lee, Y.K., Lee, B.J., et al. *Pharmacol. Biochem. Behav.* **95(1)**, 31-40 (2010).
3. Zhang, Z., Chen, J., Jiang, X., et al. *Oxid. Med. Cell. Longev.* 965954 (2014).
4. Zhou, H.Y., Shin, E.M., Guo, L.Y., et al. *Eur. J. Pharmacol.* **586(1-3)**, 340-349 (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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