

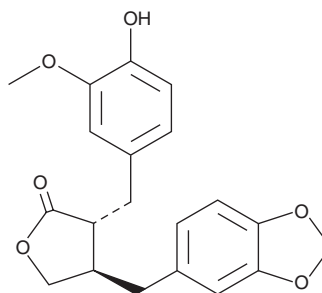
PRODUCT INFORMATION



Pluviatolide

Item No. 29582

CAS Registry No.: 28115-68-6
Formal Name: (3R,4R)-4-(1,3-benzodioxol-5-ylmethyl) dihydro-3-[(4-hydroxy-3-methoxyphenyl)methyl]-2(3H)-furanone
Synonym: (-)-Pluviatolide
MF: C₂₀H₂₀O₆
FW: 356.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Zanthoxylum pluviatile*



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

Laboratory Procedures

Pluviatolide is supplied as a solid. A stock solution may be made by dissolving the pluviatolide in the solvent of choice, which should be purged with an inert gas. Pluviatolide is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Pluviatolide is a lignan that has been found in *B. chinense* and has diverse biological activities, including antioxidant, enzyme inhibitory, and antispasmodic properties.¹⁻³ It scavenges ABTS (Item No. 27317) and 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in cell-free assays (IC₅₀s = 23.2 and 88.5 μM, respectively).¹ Pluviatolide inhibits matrix metalloproteinase-7 (MMP-7) with an IC₅₀ value of 260 μM.² It decreases contractions induced by acetylcholine (Item No. 23829) in isolated guinea pig ileum when used at concentrations of 30 and 100 μM.³

References

1. Li, D.-Q., Wang, D., Zhou, L., *et al.* Antioxidant and cytotoxic lignans from the roots of *Bupleurum chinense*. *J. Asian Nat. Prod. Res.* **19(5)**, 519-527 (2017).
2. Muta, Y., Oyama, S., Umezawa, T., *et al.* Inhibitory effects of lignans on the activity of human matrix metalloproteinase 7 (matrilysin). *J. Agric. Food Chem.* **52(19)**, 5888-5894 (2004).
3. Zhang, G., Shimokawa, S., Mochizuki, M., *et al.* Chemical constituents of *Aristolochia constricta*: Antispasmodic effects of its constituents in guinea-pig ileum and isolation of a diterpeno-lignan hybrid. *J. Nat. Prod.* **71(7)**, 1167-1172 (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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