

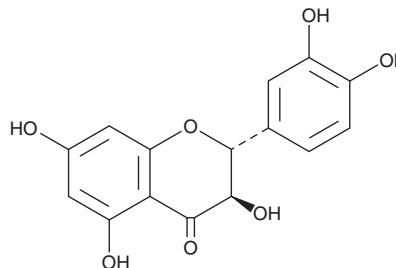
PRODUCT INFORMATION



(±)-Taxifolin

Item No. 18647

CAS Registry No.: 24198-97-8
Formal Name: (2R,3R)-*rel*-2-(3,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-4H-1-benzopyran-4-one
Synonym: (±)-Dihydroquercetin
MF: C₁₅H₁₂O₇
FW: 304.3
Purity: ≥98%
UV/Vis.: λ_{max}: 290 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

(±)-Taxifolin is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-taxifolin in the solvent of choice, which should be purged with an inert gas. (±)-Taxifolin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (±)-taxifolin in ethanol is approximately 3 mg/ml and approximately 30 mg/ml in DMSO and DMF.

(±)-Taxifolin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-taxifolin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (±)-Taxifolin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Taxifolin is a flavonoid that has been found in *M. butyracea* and has diverse biological activities.¹⁻⁴ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in cell-free assays.¹ (±)-Taxifolin is cytotoxic to HCT116 cells (IC₅₀ = 63.42 μM).² It inhibits HMG-CoA reductase activity and cholesterol synthesis in HepG2 cells by 47 and 86%, respectively, when used at a concentration of 200 μM.³ *In vivo*, (±)-taxifolin reduces carrageenan-induced paw edema in rats (ED₅₀ = 12.9 mg/kg).⁴

References

1. Madsen, H.L., Andersen, C.M., Jørgensen, L.V., *et al.* Radical scavenging by dietary flavonoids. A kinetic study of antioxidant efficiencies. *Eur. Food Res. Technol.* **211**, 240-246 (2000).
2. Lee, S.B., Cha, K.H., Selenge, D., *et al.* The chemopreventive effect of taxifolin is exerted through ARE-dependent gene regulation. *Biol. Pharm. Bull.* **30(6)**, 1074-1079 (2015).
3. Theriault, A., Wang, Q., Van Iderstine, S.C., *et al.* Modulation of hepatic lipoprotein synthesis and secretion by taxifolin, a plant flavonoid. *J. Lipid Res.* **41(12)**, 1969-1979 (2000).
4. Gupta, M.B., Bhalla, T.N., Gupta, G.P., *et al.* Anti-inflammatory activity of taxifolin. *Jpn. J. Pharmacol.* **21(3)**, 377-382 (1971).

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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