

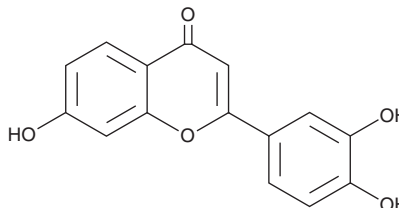
PRODUCT INFORMATION



7,3',4'-Trihydroxyflavone

Item No. 29880

CAS Registry No.: 2150-11-0
Formal Name: 2-(3,4-dihydroxyphenyl)-7-hydroxy-4H-1-benzopyran-4-one
Synonyms: 3',4',7-Trihydroxyflavone, 5-Deoxyluteolin
MF: C₁₅H₁₀O₅
FW: 270.2
Purity: ≥98%
UV/Vis.: λ_{max}: 238, 343 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

7,3',4'-Trihydroxyflavone is supplied as a crystalline solid. A stock solution may be made by dissolving the 7,3',4'-trihydroxyflavone in the solvent of choice, which should be purged with an inert gas. 7,3',4'-Trihydroxyflavone is soluble in DMSO and DMF. The solubility of 7,3',4'-trihydroxyflavone in these solvents is 5 mg/ml.

Description

7,3',4'-Trihydroxyflavone is a flavonoid that has been found in *A. julibrissin* bark and has diverse biological activities.¹⁻⁴ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and peroxynitrite radicals in cell-free assays (IC₅₀s = 2.2 and 5.78 μM, respectively), as well as reduces total reactive oxygen species in rat kidney homogenates (IC₅₀ = 3.9 μM).¹ 7,3',4'-Trihydroxyflavone inhibits COX-1 (IC₅₀ = 36.7 μM).² It is active against *M. tuberculosis* (MIC = 50 μg/ml).⁴ It decreases mRNA expression of the osteoclastic marker genes encoding the calcitonin receptor, cathepsin K1 V-ATPase V0 subunit d2 (Atp6v0d2), and dendritic cell specific transmembrane protein (Dcstamp) in and inhibits RANKL-induced osteoclastic differentiation of mouse bone marrow-derived macrophages (BMDMs).⁴

References

1. Jung, M.J., Chung, H.Y., Kang, S.S., *et al.* Antioxidant activity from the stem bark of *Albizia julibrissin* *Arch. Pharm. Res.* **26(6)**, 458-462 (2003).
2. Selvam, C., Jachak, S.M., and Bhutani, K.K. Cyclooxygenase inhibitory flavonoids from the stem bark of *Semecarpus anacardium* Linn. *Phytother. Res.* **18(7)**, 582-584 (2004).
3. Chokchaisiri, R., Suaisom, C., Sriphota, S., *et al.* Bioactive flavonoids of the flowers of *Butea monosperma*. *Chem. Pharm. Bull. (Tokyo)* **57(4)**, 428-432 (2009).
4. Kang, J.H., Lee, J., Moon, M., *et al.* 3',4',7-Trihydroxyflavone inhibits RANKL-induced osteoclast formation via NFATc1. *Pharmazie* **70(10)**, 661-667 (2015).

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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