

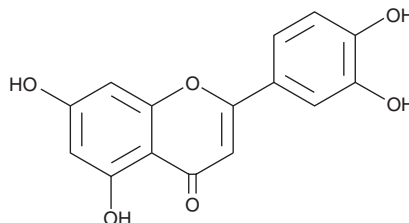
PRODUCT INFORMATION



Luteolin

Item No. 10004161

CAS Registry No.: 491-70-3
Formal Name: 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one
MF: C₁₅H₁₀O₆
FW: 286.2
Purity: ≥98%
UV/Vis.: λ_{max}: 255, 348 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Luteolin is supplied as a crystalline solid. A stock solution may be made by dissolving the luteolin in the solvent of choice, which should be purged with an inert gas. Luteolin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of luteolin in these solvents is approximately 5, 10, and 20 mg/ml, respectively.

Luteolin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, luteolin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Luteolin has a solubility of approximately 1 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Luteolin is a polyphenolic flavone found in many plants including soybeans and perilla leaves.¹ Luteolin is one of the most potent flavanoid inhibitors of soybean and reticulocyte 15-lipoxygenases, with an IC₅₀ of 0.6 μM.² Luteolin has also been found to inhibit the release of TNFα from neutrophils, and to inhibit matrix metalloproteinases.³

References

1. Ueda, H., Yamazaki, C., and Yamazaki, M. Luteolin as an anti-inflammatory and anti-allergic constituent of *Perilla frutescens*. *Biological and Pharmaceutical Bulletin* **25(9)**, 1197-1202 (2002).
2. Sadik, C.D., Sies, H., and Schewe, T. Inhibition of 15-lipoxygenases by flavonoids: Structure-activity relations and mode of action. *Biochemical Pharmacology* **65(5)**, 773-781 (2003).
3. Sartor, L., Pezzato, E., Dell'Aica, I., et al. Inhibition of matrix-proteases by polyphenols: Chemical insights for anti-inflammatory and anti-invasion drug design. *Biochemical Pharmacology* **64(2)**, 229-237 (2002).

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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