

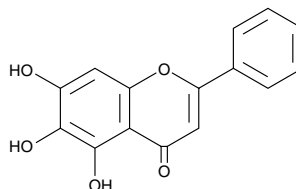
Product Information



Baicalein

Item No. 70610

CAS Registry No.: 491-67-8
Formal Name: 5,6,7-trihydroxyflavone
MF: C₁₅H₁₀O₅
FW: 270.2
Purity: ≥95%
Stability: ≥1 year at -20°C
Supplied as: A yellow crystalline solid
UV/Vis.: λ_{max}: 216, 277, 324 nm



Laboratory Procedures

For long term storage, we suggest that baicalein be stored as supplied at -20°C. It should be stable for at least one year.

Baicalein is supplied as a crystalline solid. A stock solution may be made by dissolving the baicalein in an organic solvent. Baicalein is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of baicalein in these solvents is approximately 1.3, 28, and 52 mg/ml, respectively.

Baicalein is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, baicalein should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Baicalein has a solubility of approximately 26 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Baicalein is a flavonoid originally isolated from the roots of *Scutellaria baicalensis* Georgi. Several different functions of baicalein have been reported. Platelet 12-lipoxygenase is inhibited by baicalein with an ID₅₀ value of 0.12 μM, with minimal inhibition of platelet cyclooxygenase-1 (IC₅₀ = 0.83 mM).¹ Baicalein inhibits lipid peroxidation, as assessed by production of TBARS, with an IC₅₀ value of 5 μM.² In addition to these effects, baicalein may play a role in apoptosis, as the compound inhibits cell growth of three human hepatocellular carcinoma cell lines with IC₅₀ values ranging from 17-70 μg/ml.³

References

1. Sekiya, K. and Okuda, H. Selective inhibition of platelet lipoxygenase by baicalein. *Biochem. Biophys. Res. Commun.* **105**, 1090-1095 (1982).
2. Gao, D., Sakurai, K., Katoh, M., *et al.* Inhibition of microsomal lipid peroxidation by biacalein: A possible formation of an iron-baicalein complex. *Biochem. Mol. Biol. Int.* **39**, 215-225 (1996).
3. Matsuzaki, Y., Korokawa, N., Terai, S., *et al.* Cell death induced by baicalein in human hepatocellular carcinoma cell lines. *Jpn. J. Cancer Res.* **87**, 170-177 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/70610

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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