

Product Name: Baicalein

Catalog No.: 1761

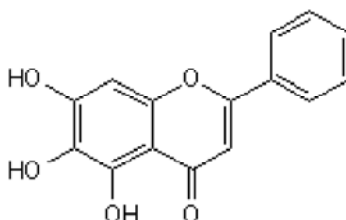
Batch No.: 2

CAS Number: 491-67-8

IUPAC Name: 5,6,7-Trihydroxy-2-phenyl-(4*H*)-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₀O₅
Batch Molecular Weight: 270.24
Physical Appearance: Yellow solid
Solubility: DMSO to 50 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.64	3.73	
Found	66.42	3.76	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Inhibitor of 5- and platelet 12-lipoxygenases (IC₅₀ values are 9.5 and 0.12 μM respectively). Also inhibits Raf-mediated MEK-1 phosphorylation in C6 rat glioma cells and induces G₁ and G₂ cell cycle arrest by decreasing cdk1, cdk2, cyclin D2 and cyclin A expression. Inhibits production of inflammatory cytokines by inhibiting NF-κB activation. Also inhibits erastin-induced ferroptosis.

Physical and Chemical Properties:

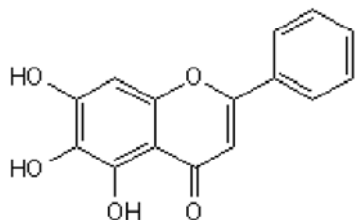
Batch Molecular Formula: C₁₅H₁₀O₅

Batch Molecular Weight: 270.24

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

- Xie et al** (2016) Identification of Baicalein as a ferroptosis inhibitor by natural product library screening. *Biochem.Biophys.Res.Commun.* **473** 775. PMID: 27037021.
- Hsieh et al** (2007) Baicalein inhibits IL-1β- and TNFα-induced inflammatory cytokine production from human mast cells via regulation of the NF-κB pathway. *Clin.Mol.Allergy* **26** 5. PMID: 18039391.
- Nakahata et al** (2003) Baicalein inhibits Raf-1-mediated phosphorylation of MEK-1 in C6 rat glioma cells. *Eur.J.Pharmacol.* **461** 1. PMID: 12568909.
- Hsu et al** (2001) Baicalein induces a dual growth arrest by modulating multiple cell cycle regulatory molecules. *Eur.J.Pharmacol.* **425** 165. PMID: 11513834.
- Sekiya and Okuda** (1982) Selective inhibition of platelet lipoxygenase by baicalein. *Biochem.Biophys.Res.Commun.* **105** 1090. PMID: 6807310.

Storage: Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 50 mM

CAUTION - Solutions of this product should also be kept cold and used only on the day of preparation.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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