

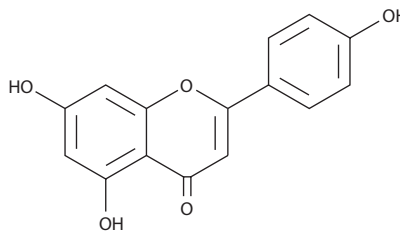
Product Information



Apigenin

Item No. 10010275

CAS Registry No.: 520-36-5
Formal Name: 5,7-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonyms: Chamomile, Flavone, NSC 83244, Versulin
MF: C₁₅H₁₀O₅
FW: 270.2
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that apigenin be stored as supplied at -20°C. It should be stable for at least two years.

Apigenin is supplied as a crystalline solid. A stock solution may be made by dissolving the apigenin in an organic solvent purged with an inert gas. Apigenin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of apigenin in these solvents is approximately 0.3, 15, and 25 mg/ml, respectively.

Apigenin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, apigenin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Apigenin has a solubility of approximately 0.1 mg/ml in a 1:8 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Apigenin is a flavonoid compound found in many fruits and vegetables that selectively inhibits casein kinase II (CK2). Apigenin inhibits CK2 activity in the renal cortex with an IC₅₀ value of 30 μM to improve renal function in a rat model of glomerulonephritis.¹ CK2 inhibition by 20 μM apigenin decreases the degradation of IκBα and down-regulates NF-κB levels in WEHI 231 cells.² Apigenin at 5 μM is a potent inhibitor of the synthesis of inflammatory mediators nitric oxide and prostaglandin E₂, reducing inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) expression by 56% and 64%, respectively, in the macrophage cell line J774A.1.³

References

1. Yamada, M., Katsuma, S., Adachi, T., *et al.* Inhibition of protein kinase CK2 prevents the progression of glomerulonephritis. *Proc. Natl. Acad. Sci. USA* **102(21)**, 7736-7741 (2005).
2. Shen, J., Channavajhala, P., Seldin, D.C., *et al.* Phosphorylation by the protein kinase CK2 promotes calpain-mediated degradation of IκBα.1. *J. Immunol.* **167**, 4919-4925 (2001).
3. Raso, G.M., Meli, R., Di Carlo, G., *et al.* Inhibition of inducible nitric oxide synthase and cyclooxygenase-2 expression by flavonoids in macrophage J774A.1. *Life Sci.* **68**, 921-931 (2001).

Related Products

Prostaglandin E₂ - Item No. 14010 • 5-Iodotubercidin - Item No. 10010375

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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.

MATERIAL SAFETY DATA

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