

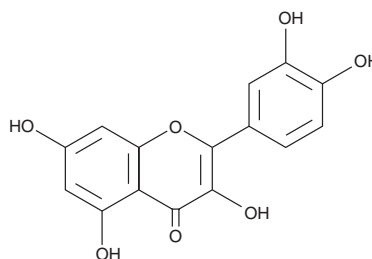
Product Information



Quercetin

Item No. 10005169

CAS Registry No.: 117-39-5
Formal Name: 2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-4-one
MF: C₁₅H₁₀O₇
FW: 302.2
Purity: ≥95%
Stability: ≥2 years at 22°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that quercetin be stored as supplied at 22°C. It should be stable for at least two years.

Quercetin is supplied as a crystalline solid. A stock solution may be made by dissolving the quercetin in an organic solvent purged with an inert gas. Quercetin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of quercetin in these solvents is 2 mg/ml in ethanol and 30 mg/ml in DMSO and DMF.

Quercetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, quercetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Quercetin has a solubility of 1 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Quercetin is a flavonoid compound found in the bark and rinds of many plants and fruits.¹ The estimated human normal dietary intake of quercetin, primarily as glycosides, is 0.1-0.2 mg/kg.² Quercetin is present in much greater amounts in nutritional supplements. Quercetin is carcinogenic in male rats, inducing renal adenomas when fed at 2,000 mg/kg.³ Quercetin has been reported to inhibit phosphodiesterases of both cGMP and cAMP.^{4,5}

References

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2. Young, J.F., Nielsen, S.E., Haraldsdottir, J., *et al.* Effect of fruit juice intake on urinary quercetin excretion and biomarkers of antioxidative status. *Am. J. Clin. Nutr.* **69(1)**, 87-94 (1999).
3. Toxicology and carcinogenesis studies of quercetin in F344/N rats. National Toxicology Program, Technical Report, TR-409, 1-171. Retrieved August 4, 2004, from <http://ntp-server.niehs.nih.gov/htdocs/LT-studies/tr409.html>
4. Ruckstuhl, M., Beretz, A., and Anton, R. Flavonoids are selective cyclic GMP phosphodiesterase inhibitors. *Biochem. Pharmacol.* **28(4)**, 535-538 (1979).
5. Lang, D.R. and Racker, E. Effect of quercetin and F1 inhibitor on mitochondrial ATPase and energy-linked reactions in submitochondrial particles. *Biochim. Biophys. Acta* **333(2)**, 180-186 (1974).

Related Products

Daidzein - Item No. 10005166 • Genistein - Item No. 10005167 • Zaprinas - Item No. 10010421

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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

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

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