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: C_{15}H_{10}O_{7}
FW: 302.2
Purity: ≥ 95%
UV/Vis.: \lambda_{\text{max}}: 256, 368 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥ 2 years

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

Laboratory Procedures

Quercetin is supplied as a crystalline solid. A stock solution may be made by dissolving the quercetin in the 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 approximately 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 approximately 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.

Description

Quercetin is a flavonoid compound found in many fruits, vegetables, leaves, and grains that scavenges free radicals to reduce oxidation.\(^1\) 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