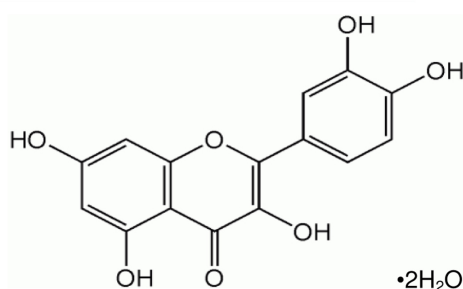


Quercetin

2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-4-one

Protein Kinase Inhibitor

Cat. No.	Amount
INH-003	100 mg



For *in vitro* use only
 Quality guaranteed for 12 months
 Store at -20°C

Synonyms

3,3',4',5,7-Pentahydroxyflavone dihydrate.

Form

Sodium salt.

Solubility

30 mg/ml soluble in DMSO, 2 mg/ml in Acetic Acid and Aqueous Alkaline.

Molecular formula

$C_{15}H_{10}O_7 \cdot 2H_2O$.

Molecular Weight

338.26 g/mol

Purity

≥ 98%

Description

Quercetin is a flavonoid with anticancer activity. It inhibits mitochondrial ATPase, phosphodiesterase, PI3-kinase activity ($IC_{50} = 3.8 \mu M$) and slightly PIP kinase activity. It has antiproliferative effects on cancer cell lines; reduces cancer cell growth via type II estrogen receptors and has been reported to arrest human leukemic T cells in late G1 phase of the cell cycle.

It induces apoptosis in K562, Molt-4, Raji, A549 and MCAS tumor cell lines.

Selected References:

Walker *et al.* (2000) Structural Determinants of Phosphoinositide 3-Kinase Inhibition by Wortmannin, LY294002, Quercetin, Myricetin, and Staurosporine. *Mol. Cell.* **6**:909.

De *et al.* (2004) Comparative evaluation of cancer chemopreventive efficacy of alpha-tocopherol and quercetin in a murine model. *J. Exp. Clin. Cancer Res.* **23**:251.

Picq *et al.* (1982) Pentasubstituted quercetin analogues as selective inhibitors of particulate 3':5'-cyclic-AMP phosphodiesterase from rat brain. *J. Med. Chem.* **25**:1192.

Nguyen *et al.* (2004) The role of activated MEK-ERK pathway in quercetin-induced growth inhibition and apoptosis in A549 lung cancer cells. *Carcinogenesis.* **25**:647.

Mertens-Talcoff *et al.* (2003) Low concentrations of quercetin and ellagic acid synergistically influence proliferation, cytotoxicity and apoptosis in MOLT-4 human leukemia cells. *J. Nutr.* **133**:2669.