Product Data Sheet

Product Name:	Quercetin dihydrate
Cat. No.:	GC15665

Chemical Properties

Cas. No.	6151-25-3		
Chemical Name	2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxychromen-4-one;dihydrate		
SMILES	C1=CC(=C(C=C1C2=C(C(=O)C3=C(C=C(C=C3O2)O)O)O)O)O.O.O		
Formula	$C_{15}H_{10}O_7.2H_2O$	M.Wt	338.27
Solubility	≥ 33.8mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Quercetin dihydrate		

Background

Quercetin (dihydrate), a natural flavonoid, is a stimulator of recombinant SIRT1 and a PI3K inhibitor with IC50s of 2.4 μM, 3.0 μM and 5.4 μM for PI3K γ, PI3K δ and PI3K β, respectively[1].

Quercetin (dihydrate) is a type of plant-based chemical, or phytochemical, used as an ingredient in supplements, beverages or foods. In several studies, it may have anti-inflammatory and antioxidant properties, and it is being investigated for a wide range of potential health benefits[1].Quercetin (dihydrate) is a PI3K inhibitor with IC50s of 2.4-5.4 μM. Quercetin dihydrate (Sophoretin dihydrate) strongly abrogates PI3K and Src kinases, mildly inhibits Akt1/2, and slightly affected PKC, p38 and ERK1/2[1].Quercetin (dihydrate) inhibits TNF-induced LDH% release, EC-dependent neutrophils adhesion to bovine pulmonary artery endothelial cells (BPAEC), and BPAEC DNA synthesis and proliferation[2].

References:

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[1]. Navarro-Núñez L, et al. Effect of quercetin on platelet spreading on collagen and fibrinogen and on multiple platelet kinases. Fitoterapia. 2010 Mar;81(2):75-80.
[2]. Yu XB, et al. Inhibitory effects of protein kinase C inhibitors on tumor necrosis factor induced bovine pulmonary artery endothelial cell injuries. Yao Xue Xue Bao. 1996;31(3):176-81.
[3]. Yang F, et al. Combination of Quercetin and 2-Methoxyestradiol Enhances Inhibition of Human Prostate Cancer LNCaP and PC-3 Cells Xenograft Tumor Growth. PLoS One. 2015 May 26;10(5):e0128277.

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