Data Sheet (Cat.No.TMID-0688)

TargetMol

Quercetin-D3 hydrate

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Quercetin-D3 hydrate is a deuterated form of quercetin hydrate, known as a flavonoid that stimulates recombinant SIRT1 and acts as a PI3K inhibitor. It has IC50 values of 2.4 μM, 3.0 μM, and 5.4 μM for PI3Kγ, PI3K δ, and PI3Kβ, respectively.
Targets(IC50)	Apoptosis,Mitophagy,Reactive Oxygen Species,Autophagy,PI3K
In vitro	Quercetin hydrate is a plant-based chemical (phytochemical) used as a supplement and as an ingredient in beverages or foods. Some studies suggest it may have anti-inflammatory and antioxidant properties, with extensive potential health benefits under investigation. Quercetin hydrate functions as a PI3K inhibitor with an IC50 ranging from 2.4 to 5.4 μM. It effectively inhibits PI3K and Src kinase, moderately inhibits Akt1/2, and has minor effects on PKC, p38, and ERK1/2. Additionally, quercetin hydrate suppresses TNF-induced LDH% release, EC-dependent neutrophil adherence to bovine pulmonary artery endothelial cells (BPAEC), and inhibits BPAEC DNA synthesis and proliferation.
In vivo	The combination of quercetin hydrate (75 mg/kg) and 2-methoxyestradiol enhances the inhibition of xenograft tumor growth in human prostate cancer LNCaP and PC-3 cells.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481