

Product Data Sheet

Product Name: Fisetin quarterhydrate

Cat. No.: GC71830

Chemical Properties

Cas. No.

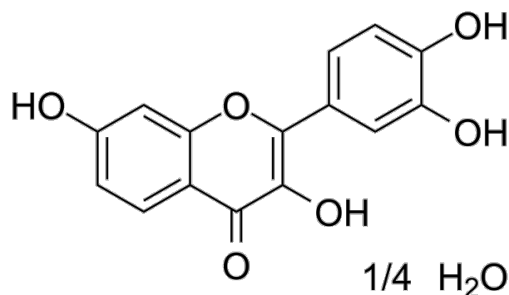
Formula $C_{15}H_{10}O_6 \cdot 1/4 H_2O$ M.Wt 290.75

Solubility DMSO : 100 mg/mL (343.94 mM; Storage 4°C, stored under nitrogen
Need ultrasonic; Hygroscopic DMSO
has a significant impact on the
solubility of product, please use
newly opened DMSO)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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



Background

Fisetin quarterhydrate is a natural flavonol found in many fruits and vegetables with various benefits, such as antioxidant, anticancer, neuroprotection effects.

Fisetin quarterhydrate inhibits lipid accumulation and suppresses the expression of PPAR γ in 3T3-L1

Caution: Product has not been fully validated for medical applications. For research use only.

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cells. Fisetin quarterhydrate suppresses early stages of preadipocyte differentiation, and induces expression of Sirt1. Fisetin quarterhydrate facilitates Sirt1-mediated deacetylation of PPAR γ and FoxO1, and enhances the association of Sirt1 with the PPAR γ promoter, leading to suppression of PPAR γ transcriptional activity, thereby repressing adipogenesis^[1]. Fisetin quarterhydrate binds to tubulin and stabilizes microtubules with binding characteristics far superior than paclitaxel. Fisetin quarterhydrate treatment of human prostate cancer cells results in robust up-regulation of microtubule associated proteins (MAP)-2 and -4. Fisetin quarterhydrate significantly inhibits PCa cell proliferation, migration, and invasion. Nudc, a protein associated with microtubule motor dynein/dynactin complex that regulates microtubule dynamics, is inhibited with Fisetin quarterhydrate treatment^[2].

Fisetin quarterhydrate treatment to UVB exposed mice results in decreased hyperplasia and reduces infiltration of inflammatory cells. Fisetin quarterhydrate treatment also reduces inflammatory mediators such as COX-2, PGE2 as well as its receptors (EP1- EP4), and MPO activity. Furthermore, Fisetin quarterhydrate reduces the level of inflammatory cytokines TNF α , IL-1 β and IL-6 in UVB exposed skin. Fisetin quarterhydrate treatment also reduces cell proliferation markers as well as DNA damage as evidenced by increased expression of p53 and p21 proteins^[3].

References:

- [1]. Kim SC, et al. Fisetin induces Sirt1 expression while inhibiting early adipogenesis in 3T3-L1 cells. *Biochem Biophys Res Commun*. 2015 Nov 27;467(4):638-44.
- [2]. Mukhtar E, et al. Dietary flavonoid fisetin binds to β -tubulin and disrupts microtubule dynamics in prostate cancer cells. *Cancer Lett*. 2015 Oct 28;367(2):173-83.

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