

Product Data Sheet

Product Name: ζ-Stat
Cat. No.: GC62478

Chemical Properties

Cas. No. 3316-02-7

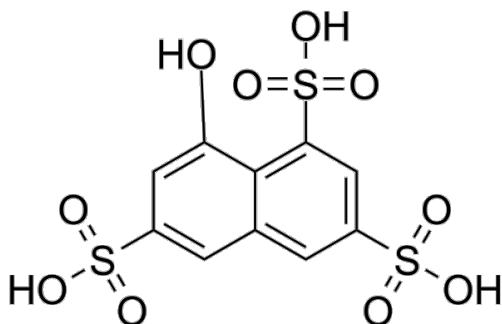
Formula $C_{10}H_8O_{10}S_3$ M.Wt 384.36

Solubility Water : 62.5 mg/mL (162.61 mM; Need ultrasonic) Storage Store at -20°C

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

ζ-Stat (NSC37044) is a specific and atypical PKC-ζ inhibitor, with an IC₅₀ of 5 μM. ζ-Stat can reduce

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

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melanoma cell lines proliferation and induce apoptosis, and has antitumor activity in vitro[1][2].

ζ-Stat (0.1-20 μM) shows only 13% inhibition on PKC-I at 20 μM, but shows a significant inhibition on PKC-ζ as 51% at 5 μM level[1].ζ-Stat (0.1-10 μM; 3 d) significantly decreases cell proliferation of SK-MEL-2 and MeWo upon increasing the concentrations[1].ζ-Stat (7 or 10 μM; 24-72?h) and 5-FU in combination is able to decrease the viability of LoVo CRC cells by more than 75%[2].ζ-Stat (5 μM; 3 d) shows a significant diminution of phosphorylated, total PKC-ζ, Bcl-2 and PARP levels, and increases Caspase-3 and cleaved-PARP levels in SK-MEL-2 and MeWo cells[1].ζ-Stat (5 μM; 1-10 h) does not show significant cytotoxicity on MEL-F-NEO, SK-MEL-2 and MeWo cells[1].

[1]. Ratnayake WS, et, al. Oncogenic PKC-I activates Vimentin during epithelial-mesenchymal transition in melanoma; a study based on PKC-I and PKC-ζ specific inhibitors. Cell Adh Migr. 2018; 12(5):447-463.

[2]. Islam SMA, et, al. Atypical Protein Kinase-C inhibitors exhibit a synergistic effect in facilitating DNA damaging effect of 5-fluorouracil in colorectal cancer cells. Biomed Pharmacother. 2020 Jan; 121:109665.

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