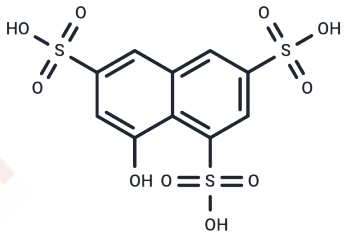
Data Sheet (Cat.No.T35407)

TargetMol

Z-Stat

Chemical Properties



CAS No. : 3316-02-7

Formula: C10H8O10S3

Molecular Weight: 384.36

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	ζ-Stat (NSC37044), a specific and atypical inhibitor of PKC-ζ with an IC50 of 5 μM, demonstrates the ability to inhibit proliferation and induce apoptosis in melanoma cell lines, exhibiting antitumor activity in vitro[1][2].
Targets(IC50)	Apoptosis,PKC
In vitro	Z-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].Z-Stat (0.1-10 μM; 3 d) significantly decreases cell proliferation of SK-MEL-2 and MeWo upon increasing the concentrations[1].Z-Stat (7 or 10 μM; 24-72h) and 5-FU in combination is able to decrease the viability of LoVo CRC cells by more than 75%[2].Z-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].Z-Stat (5 μM; 1-10 h) does not show significant cytotoxicity on MEL-F-NEO, SK-MEL-2 and MeWo cells[1].

Solubility Information

Solubility	H2O: 62.5 mg/mL (162.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6017 mL	13.0086 mL	26.0173 mL
5 mM	0.5203 mL	2.6017 mL	5.2035 mL
10 mM	0.2602 mL	1.3009 mL	2.6017 mL
50 mM	0.052 mL	0.2602 mL	0.5203 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.
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.