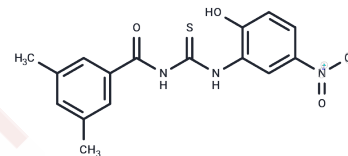


3,5-dimethyl PIT-1

Chemical Properties

CAS No. :	701947-53-7
Formula:	C ₁₆ H ₁₅ N ₃ O ₄ S
Molecular Weight:	345.37
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	PtdIns-(3,4,5)-P3 (PIP3) serves as an anchor for the binding of signal transduction proteins bearing pleckstrin homology (PH) domains such as phosphatidylinositol 3-kinase (PI3K) or PTEN. Protein binding to PIP3 is important for cytoskeletal rearrangement and membrane trafficking and initiates an intricate signaling cascade that has been implicated in cancer. 3,5-dimethyl PIT-1 is a dimethyl analog of PIT-1, the selective inhibitor of PIP3/Akt PH domain binding, that is designed for more favorable solubility in vivo. 3,5-dimethyl PIT-1 inhibits PI3K/Akt signaling (IC ₅₀ = 27 μM), suppressing PI3K-PDK1-Akt-dependent phosphorylation, which has been shown to reduce cell viability and induce apoptosis in PTEN-deficient U87MG glioblastoma cells (IC ₅₀ = 36 μM). 4T1 breast cancer growth is significantly attenuated in BALB/c mice with a dose of 1 mg/kg of 3,5-dimethyl PIT-1 per day.
Targets(IC ₅₀)	Apoptosis,Others,PI3K

Solubility Information

Solubility	DMF: 30 mg/mL (86.86 mM),Sonication is recommended. Ethanol: 0.2 mg/mL (0.58 mM),Sonication is recommended. DMSO: 20 mg/mL (57.91 mM),Sonication is recommended. DMF:PBS(pH 7.2)(1:1): 0.5 mg/mL (1.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8954 mL	14.4772 mL	28.9545 mL
5 mM	0.5791 mL	2.8954 mL	5.7909 mL
10 mM	0.2895 mL	1.4477 mL	2.8954 mL
50 mM	0.0579 mL	0.2895 mL	0.5791 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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