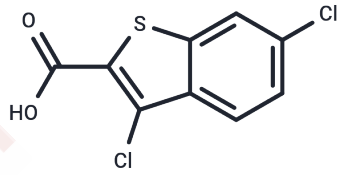
Data Sheet (Cat.No.T14834)

BT2

Chemical Properties



CAS No. : 34576-94-8

Formula: C9H4Cl2O2S

Molecular Weight: 247.1

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	BT2, a BCKDC kinase (BDK) inhibitor, exhibits an IC50 of 3.19 μM and functions as a potent, selective Mcl-1 inhibitor with a Ki value of 59 μM. Its interaction with BDK induces helix movements in the N-terminal domain, leading to BDK's dissociation from the branched-chain α-ketoacid dehydrogenase complex (BCKDC).
Targets(IC50)	Bcl-2 Family
In vivo	BT2 treatment reduces the protein levels of BDK in kidneys and heart. The -fold activation of BCKDC activity in the above tissues correlates with decreased phosphorylation in heart, muscle, and kidney after the long term BT2 treatment. BT2 (20 mg/kg/day; i.p.; daily; for 7 days; C57BL/6J male mice) treatment robustly enhances BCKDC activity in the heart (12.3-fold) compared with the vehicle-treated animals. Less activation is obtained in muscle and kidney at 3.6- and 3.8-fold, respectively [1].

Solubility Information

Solubility	DMSO: 83.33 mg/mL (337.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0469 mL	20.2347 mL	40.4694 mL
5 mM	0.8094 mL	4.0469 mL	8.0939 mL
10 mM	0.4047 mL	2.0235 mL	4.0469 mL
50 mM	0.0809 mL	0.4047 mL	0.8094 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.

Reference

Tso SC, et al. Benzothiophene carboxylate derivatives as novel allosteric inhibitors of branched-chain α-ketoacid dehydrogenase kinase. J Biol Chem. 2014 Jul 25;289(30):20583-93.
Friberg A, et al. Discovery of potent myeloid cell leukemia 1 (Mcl-1) inhibitors using fragment-based methods and structure-based design. J Med Chem. 2013 Jan 10;56(1):15-30.