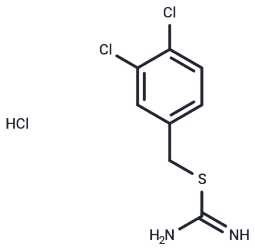
Data Sheet (Cat.No.T24994)

TargetMol

MreB Perturbing Compound A22 hydrochloride

Chemical Properties



CAS No. : 22816-60-0

Formula: C8H9Cl3N2S

Molecular Weight: 271.58

Storage: Keep away from moisture
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	MreB Perturbing Compound A22 hydrochloride is an effective inhibitor of MreB, a bacterial actin-like protein. It disrupts cell wall assembly and causes morphological changes, used for bacterial morphogenesis and antibiotic research.
Targets(IC50)	Antibacterial
In vitro	MreB Perturbing Compound A22 hydrochloride disrupts the rod-like shape of E. coli and inhibits chromosome segregation by binding to MreB [1].

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble) DMF: 16 mg/mL (58.91 mM),Sonication is recommmended. DMSO: 16 mg/mL (58.91 mM),Sonication is recommmended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6822 mL	18.4108 mL	36.8216 mL
5 mM	0.7364 mL	3.6822 mL	7.3643 mL
10 mM	0.3682 mL	1.8411 mL	3.6822 mL
50 mM	0.0736 mL	0.3682 mL	0.7364 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

Enju Wang, et al. Optical sensors for sodium, potassium and ammonium ions based on lipophilic fuorescein anionic dye and neutral carriers. Analytica Chimica Acta 357 (1997) 85-90.

Bonez PC, Ramos AP, Nascimento K, Copetti PM, Souza ME, Rossi GG, Agertt VA, Sagrillo MR, Santos RC, Campos MM. Antibacterial, cyto and genotoxic activities of A22 compound ((S-3, 4 -dichlorobenzyl) isothiourea hydrochloride). Microb Pathog. 2016 Oct;99:14-18. doi: 10.1016/j.micpath.2016.07.007. Epub 2016 Jul 16. PubMed PMID: 27427089.

Nicholson A, Perry JD, James AL, Stanforth SP, Carnell S, Wilkinson K, Anjam Khan CM, De Soyza A, Gould FK. In vitro activity of S-(3,4-dichlorobenzyl)isothiourea hydrochloride and novel structurally related compounds against multidrug-resistant bacteria, including Pseudomonas aeruginosa and Burkholderia cepacia complex. Int J Antimicrob Agents. 2012 Jan;39(1):27-32. doi: 10.1016/j.ijantimicag.2011.08.015. Epub 2011 Oct 10. PubMed PMID: 21993484.