Data Sheet (Cat.No.T15472)

TargetMol

Hepsulfam

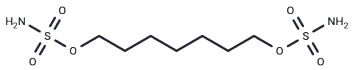
Chemical Properties

CAS No. : 96892-57-8

Formula: C7H18N2O6S2

Molecular Weight: 290.36

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	Hepsulfam is an anticancer agent. It also displays excellent antileukemic activity (a median IC50: 0.91 μg/mL in a panel of different tumors).
Targets(IC50)	Others,DNA Alkylator/Crosslinker
In vitro	Hepsulfam exhibits greater toxicity towards L1210 leukemia cells compared to busulfan, its structural analogue, by inducing DNA interstrand cross-links in these cells, an effect not seen with busulfan. This compound also shows increased cytotoxicity against human leukemia (111-60 and K562) and colon carcinoma (BE and HT-29) cell lines relative to busulfan, correlating with higher levels of DNA interstrand cross-links. In a clonogenic assay, hepsulfam demonstrated activity in 22% (8 out of 37) of tumors at a concentration of 1.0 μg/mL. Additionally, it significantly affects human bone marrow cells (CFU-GM) from healthy donors, indicating its potency. In vitro evaluations reveal hepsulfam's superior activity, notably against non-small cell lung cancer, even at tenfold reduced concentrations and extended exposure times (12 h), underscoring its potential therapeutic benefit in a broad spectrum of cancers.
In vivo	The preclinical activity of hepsulfam suggests its potential in treating solid human malignancies, demonstrating superior in vivo efficacy in large cell lung cancer xenograft and gastric carcinoma models. However, its increased bone marrow toxicity compared to busulfan may be significant for future clinical applications[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.444 mL	17.220 mL	34.440 mL
5 mM	0.6888 mL	3.444 mL	6.888 mL
10 mM	0.3444 mL	1.722 mL	3.444 mL
50 mM	0.0689 mL	0.3444 mL	0.6888 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

Berger DP, et al. Preclinical activity of hepsulfam and busulfan in solid human tumor xenografts and human bone marrow. Anticancer Drugs. 1992 Oct;3(5):531-9.
Pacheco DY, et al. Mechanisms of toxicity of hepsulfam in human tumor cell lines. Cancer Res. 1990 Dec 1;50(23): 7555-8.