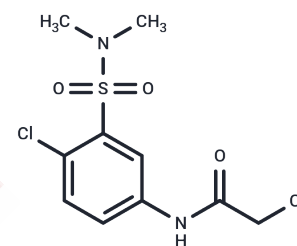


GSTO1-IN-1

Chemical Properties

CAS No. :	568544-03-6
Formula:	C10H12Cl2N2O3S
Molecular Weight:	311.18
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	GSTO1-IN-1 is a potent glutathione S-transferase omega 1 inhibitor (GSTO1) with an IC50 of 31 nM.
Targets(IC50)	Glutathione Peroxidase,GST
In vitro	GSTO1-IN-1 inhibits the clonogenic survival of HCT116 cells at sub-micromolar concentrations. GSTO1-IN-1 also potently competes with 5-chloromethylfluorescein diacetate (CMFDA) for binding to the recombinant protein, as well as endogenous GSTO1 in the milieu of a soluble proteome. HCT116 cells treated with GSTO1-IN-1 also show a decrease in cell viability in a dose-dependent manner.
In vivo	GSTO1-IN-1 (20-45 mg/kg) is administered as a single agent to nude mice bearing HCT116 xenografts. After 5 weeks of treatment, tumor growth is significantly inhibited in GSTO1-IN-1-treated mice compared with the vehicle-treated group (P<0.05). GSTO1-IN-1 treatment is generally well tolerated by mice up to 45 mg/kg, with no overt signs of toxicity and no significant variations in average body weights throughout the duration of the study.

Solubility Information

Solubility	DMSO: 300 mg/mL (964.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (16.07 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2136 mL	16.0679 mL	32.1357 mL
5 mM	0.6427 mL	3.2136 mL	6.4271 mL
10 mM	0.3214 mL	1.6068 mL	3.2136 mL
50 mM	0.0643 mL	0.3214 mL	0.6427 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

Ramkumar K, et al. Mechanistic evaluation and transcriptional signature of a glutathione S-transferase omega 1 inhibitor. Nat Commun. 2016 Oct 5;7:13084.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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