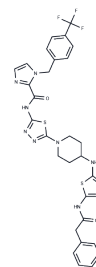


## GLS1 Inhibitor-4

## Chemical Properties

CAS No. :	2768599-97-7
Formula:	C29H27F3N10O2S2
Molecular Weight:	668.72
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	GLS1 Inhibitor-4 (compound 41e) is a potent GLS1 inhibitor with an IC <sub>50</sub> of 11.86 nM, exhibiting antiproliferative effects, substantial metabolic stability, and strong GLS1 binding affinity. It disrupts glutamine metabolism, induces ROS production, triggers apoptosis, and demonstrates notable antitumor activity [1].
Targets(IC <sub>50</sub> )	Apoptosis, Glutaminase
In vitro	GLS1 Inhibitor-4 (compound 41e) exhibits potent antiproliferative effects with IC <sub>50</sub> values of 0.051 μM for HCT116, 0.37 μM for MDA-MB-436, 0.32 μM for CT26, and 1.34 μM for H22 cells, demonstrating high stability in human plasma (96%) and liver microsomes, and binding strongly to the GLS1 protein with a dissociation constant (K <sub>d</sub> ) of 52 nM. It inhibits colony formation in HCT116 cells dose-dependently at 0.1, 0.5, and 1 μM, reduces key metabolite levels at 100 and 300 nM within 12 hours, increases ROS levels at 30, 50, and 200 nM in 6 hours, induces apoptosis over 24 hours, significantly reduces ATP production, and suppresses aerobic glycolysis by lowering basal and maximal OCRs in HCT116 cells at 1 mmol/L after 12 hours [1].
In vivo	GLS1 Inhibitor-4, administered intraperitoneally at doses of 50 and 100 mg/kg twice daily for 21 consecutive days, demonstrates dose-dependent antitumor efficacy [1].

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.4954 mL	7.477 mL	14.9539 mL
5 mM	0.2991 mL	1.4954 mL	2.9908 mL
10 mM	0.1495 mL	0.7477 mL	1.4954 mL
50 mM	0.0299 mL	0.1495 mL	0.2991 mL

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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

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