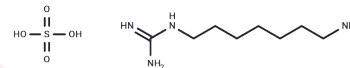


## GC7 Sulfate

## Chemical Properties

CAS No. :	150417-90-6
Formula:	C <sub>8</sub> H <sub>22</sub> N <sub>4</sub> O <sub>4</sub> S
Molecular Weight:	270.35
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	GC7 Sulfate is a potent inhibitor of deoxyhypusine synthase (DHS). Eukaryotic translation initiation factor 5A2 (eIF5A2) is the only known substrate for DHS, so GC7 inhibits the activation of eIF5A2 by inhibiting DHS activity.
Targets(IC50)	Autophagy,DNA/RNA Synthesis
In vitro	Cell cycle analysis show that GC7 Sulfate reduces the CHO-K1 cell population in the G1-phase of the cell cycle by 42% and increases the number of cells in the S-phase by 44%. Furthermore, GC7 Sulfate inhibited the growth of H9 cells in a concentration-dependent manner. While 1 μM GC7 Sulfate had no significant effect on H9 cell proliferation, inhibition of growth became evident with 3 μM GC7 Sulfate. At 10 μM GC7 Sulfate, H9 cell growth was completely blocked within 1 or 2 days after the addition of the drug[1].

## Solubility Information

Solubility	H <sub>2</sub> O: 90 mg/mL (332.9 mM),Sonication and heating are recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6989 mL	18.4945 mL	36.9891 mL
5 mM	0.7398 mL	3.6989 mL	7.3978 mL
10 mM	0.3699 mL	1.8495 mL	3.6989 mL
50 mM	0.074 mL	0.3699 mL	0.7398 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

Shi XP, et al. Effects of N1-guanyl-1,7-diaminoheptane, an inhibitor of deoxyhypusine synthase, on the growth of tumorigenic cell lines in culture. *Biochim Biophys Acta*. 1996 Jan 10;1310(1):119-26.

Lou B, et al. N1-guanyl-1,7-diaminoheptane (GC7) enhances the therapeutic efficacy of doxorubicin by inhibiting activation of eukaryotic translation initiation factor 5A2 (eIF5A2) and preventing the epithelial-mesenchymal transition in hepatocellular carcinoma cells. *Exp Cell Res*. 2013 Oct 15;319(17):2708-17.

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