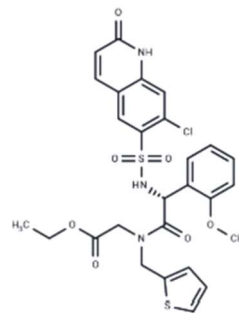


OSMI-4

#Cat: NB-64-03681-1ml	Size: 1 ml
#Cat: NB-64-03681-1mg	Size: 1 mg
#Cat: NB-64-03681-5mg	Size: 5 mg
#Cat: NB-64-03681-10mg	Size: 10 mg
#Cat: NB-64-03681-25mg	Size: 25 mg
#Cat: NB-64-03681-50mg	Size: 50 mg
#Cat: NB-64-03681-100mg	Size: 100 mg
#Cat: NB-64-03681-500mg	Size: 500 mg

Chemical Properties:

CAS No:	2260791-14-6
Formula:	C ₂₇ H ₂₆ ClN ₃ O ₇ S ₂
Molecular Weight:	604.09
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description:

Description	OSMI-4 is a low nanomolar O-GlcNAc transferase (OGT) inhibitor (EC ₅₀ of 3 µM in cells) that can be used to study OGT inhibition in different human cell lines.
Targets (IC₅₀)	Others, Acyltransferase, Transferase
In vitro	METHODS: HEK293T cells were treated with OSMI-4 (10 µM, 2 hours) and quantitative PCR was performed using primers for the OGT retained intron (intron 4) and spliced exon (exon 4). RESULTS The bar graph shows that OSMI-4 increases retained intron splicing. [1] METHODS: HEK293T cells were treated with OSMI-4 (20, 50 µM, 24 hours); HEK293T cells were treated with OSMI-4 (0.1, 1, 5, 5, 10, 20 µM, 2, 24, 48 hours); Western blot analysis of total O-GlcNAc was performed. RESULTS O-GlcNAc levels were reduced to a greater extent following OSMI-4 treatment; 24 hours of OSMI-4 treatment of HEK293T cells resulted in a dose-dependent decrease in O-GlcNAc levels, with effects seen with only 5 µM of compound treatment, and these effects could be observed in as little as 2 hours or 48 hours. [1]

Solubility Information:

Solubility	DMSO: 252.5 mg/mL (417.98 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 (8.28 mM), Sonication is recommended. 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

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6554 mL	8.2769 mL	16.5538 mL
5 mM	0.3311 mL	1.6554 mL	3.3108 mL
10 mM	0.1655 mL	0.8277 mL	1.6554 mL
50 mM	0.0331 mL	0.1655 mL	0.3311 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.

Reference

Martin SES, et al. Structure-Based Evolution of Low Nanomolar O-GlcNAc Transferase Inhibitors. J Am Chem Soc. 2018 Oct 24;140(42):13542-13545.

Balsollier C, et al. Design of OSMI-4 Analogs Using Scaffold Hopping: Investigating the Importance of the Uridine Mimic in the Binding of OGT Inhibitors. ChemMedChem. 2023 Apr 17;18(8):e202300001.

Loi EM, et al. Intracellular Hydrolysis of Small-Molecule O-Linked N-Acetylglucosamine Transferase Inhibitors Differs among Cells and Is Not Required for Its Inhibition. Molecules. 2020 Jul 25;25(15):3381.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins
This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use