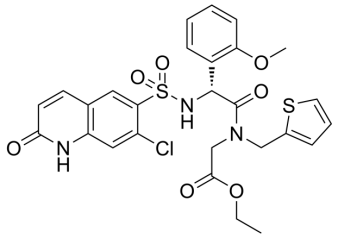
OSMI-4

Cat. No.:	HY-114361
CAS No.:	2260791-14-6
Molecular Formula:	$C_{27}H_{26}ClN_3O_7S_2$
Molecular Weight:	604.09
Target:	Acyltransferase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (103.46 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (3.44 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

OSMI-4 is a low nanomolar O-GlcNAc transferase (OGT) inhibitor, with an EC_{50} of 3 μM in cells.

IC_{50} & Target

EC50: 3 μM (OGT)[1].

In Vitro

OSMI-4 (4b) is the best OGT inhibitor reported to date, with a ⊠3 μM EC_{50} in cells, making it especially attractive for probing OGT's complex biology[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Biomed Sci. 2022 Feb 14;29(1):13.
- Acta Biomater. 2022 Aug 21;S1742-7061(22)00509-8.
- Burns Trauma. 08 October 2021.
- J Biol Chem. 2023 Jun 22;104950.
- J Biol Chem. 2022 Aug 2;102340.

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REFERENCES

[1]. 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.

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