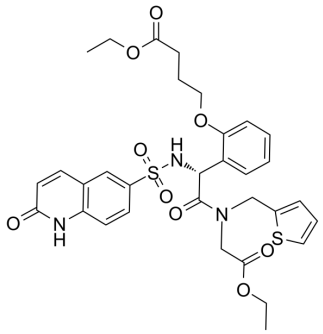
OSMI-3

Cat. No.:	HY-135785
CAS No.:	2260791-13-5
Molecular Formula:	$C_{32}H_{35}N_3O_9S_2$
Molecular Weight:	669.77
Target:	Acyltransferase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	OSMI-3 (Compound 2b) is a potent, long-lasting, and cell-permeable O-linked N-acetylglucosamine transferase (OGT) inhibitor. Cells contain a large nuclear pool of partially spliced OGT transcript, and OSMI-3 increases detained intron splicing in cells[1].
IC_{50} & Target	O-linked N-acetylglucosamine transferase (OGT)[1]
In Vitro	OSMI-3 (Compound 2b; 20-50 μM; 4-24 hours; HCT116 cells) treatment significantly reduces O-GlcNAc levels, and has more sustained cellular effects than OSMI-2[1]. A decrease in HCF-1 cleavage products and the appearance of uncleaved HCF-1 in cells treated with OSMI-3 (Compound 2b) is observed. Because OGT knockdown is known to decrease cell proliferation, the effects of OSMI-3 on cell growth in culture over 96h is also monitored. Although there is no evidence of apoptosis, the reduced growth of cells over time is observed, consistent with the knockdown results[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis[1]

Cell Line:	HCT116 cells
Concentration:	20 μM, 40 μM, 50 μM
Incubation Time:	4 hours, 24 hours
Result:	Reduced O-GlcNAc levels.

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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