

Bioactive Molecules, Building Blocks, Intermediates

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Data Sheet

Product Name:	MC3482
Cat. No.:	CS-0047672
Molecular Formula:	C33H38N4O8
Molecular Weight:	618.68
Target:	Sirtuin
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Solubility:	$\label{eq:def-DMSO} DMSO: \geq 130 \text{ mg/mL} \text{ (210.12 mM); H2O: < 0.1 mg/mL} \text{ (insoluble)}$

BIOLOGICAL ACTIVITY:

MC3482 is a specific sirtuin5 (**SIRT5**) inhibitor. IC50 & Target: SIRT5^[1] **In Vitro**: MC3482 inhibits sirtuin5. 50 μ M MC3482 inhibits SIRT5 desuccinylating activity without affecting SIRT5 intracellular expression levels. Autophagy and mitophagy increase in SIRT5-silenced cells and in WT cells treated with MC3482 and decrease in SIRT5-overexpressing cells^[1].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: ^[1]MDA-MB-231 and C2C12 cells are treated with 50µM of SIRT5 inhibitor MC3482 for 24 h. Ammonia levels are measured in the culture medium every other day^[1].

References:

[1]. Polletta L, et al. SIRT5 regulation of ammonia-induced autophagy and mitophagy. Autophagy. 2015;11(2):253-70.

CAIndexNames:

N2-((Benzyloxy)carbonyl)-N5-((S)-5-(((benzyloxy)carbonyl)amino)-6-oxo-6-(phenylamino)hexyl)-L-glutamine

SMILES:

O=C(N[C@H](C(NC1=CC=CC=C1)=O)CCCCNC(CC[C@@H](C(O)=O)NC(OCC2=CC=CC=C2)=O)=O)OCC3=CC=CC=C3

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

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