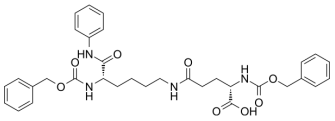
MC3482

Cat. No.:	HY-112587
CAS No.:	2922280-86-0
Molecular Formula:	$C_{33}H_{38}N_4O_8$
Molecular Weight:	618.68
Target:	Sirtuin
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 130 mg/mL (210.12 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	1.6163 mL	8.0817 mL	16.1634 mL
	5 mM	0.3233 mL	1.6163 mL	3.2327 mL
	10 mM	0.1616 mL	0.8082 mL	1.6163 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: ≥ 2.17 mg/mL (3.51 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.17 mg/mL (3.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MC3482 is a specific sirtuin5 (SIRT5) inhibitor.

IC_{50} & Target

SIRT5[1]

In Vitro

MC3482 inhibits sirtuin5. 50 μM 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].

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

PROTOCOL

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].

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

CUSTOMER VALIDATION

- Heliyon. 2023 Jul, 7(9), e17765.
- J Diabetes Complicat. 11 August 2021, 108020.
- Research Square Preprint. 2023 Aug 31.

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REFERENCES

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

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