SIRT2-IN-11

Cat. No.: HY-148408

CAS No.: 1005095-06-6

Molecular Formula: $C_{21}H_{22}N_2O$

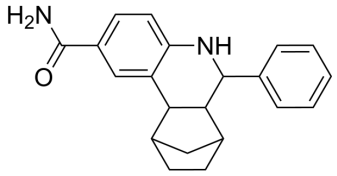
Molecular Weight: 318.41

Target: Sirtuin

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (785.15 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1406 mL	15.7030 mL	31.4060 mL
	5 mM	0.6281 mL	3.1406 mL	6.2812 mL
	10 mM	0.3141 mL	1.5703 mL	3.1406 mL

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

BIOLOGICAL ACTIVITY

Description

SIRT2-IN-11 (AEM1) is a selective SIRT2 inhibitor with an IC_{50} value of 18.5 μM. SIRT2-IN-11 p53-dependently induces apoptosis, activates expression of CDKN1A, PUMA and NOXA, and increases acetylation of p53. SIRT2-IN-11 can be used for the research of p53-related cancers[1].

IC_{50} & Target

SIRT2	SIRT1
18.5 μM (IC_{50})	118.4 μM (IC_{50})

In Vitro

SIRT2-IN-11 (0-1000 μM) shows inhibitory effect of SIRT2-dependent deacetylation of MAL with an IC_{50} value of 18.5 μM[1].
SIRT2-IN-11 (0-1000 μM) weakly inhibits SIRT1 with an IC_{50} value of 118.4 μM[1].
SIRT2-IN-11 (0-20 μM; 8 h) induces cell apoptosis of lung cancer cells[1].
SIRT2-IN-11 (20 μM; 6 h) increases p53 acetylation and expression levels of Cp53 target genes CDKN1A, PUMA and NOXA[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

RT-PCR[1]

Cell Line:	NSCLC cell lines

Concentration:	20 μM
Incubation Time:	6 hours
Result:	Increased the expression of CDKN1A, PUMA and NOXA.

Apoptosis Analysis[1]

Cell Line:	A549 cell line
Concentration:	0, 0.5, 1, 5, 10 and 20 μM
Incubation Time:	24 hours
Result:	Mildly increased apoptosis of A549 cells, but when combined treatment with etoposide caused a marked increase in apoptosis.

REFERENCES

[1]. Hoffmann G, et al. A novel sirtuin 2 (SIRT2) inhibitor with p53-dependent pro-apoptotic activity in non-small cell lung cancer. J Biol Chem. 2014 Feb 21;289(8):5208-16.

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