SIRT1-IN-3

Cat. No.: HY-146690

CAS No.: 2470969-91-4

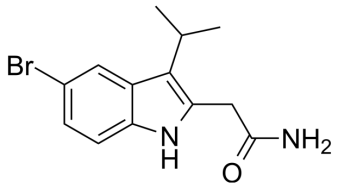
Molecular Formula: $C_{13}H_{15}BrN_2O$

Molecular Weight: 295.18

Target: Sirtuin

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (338.78 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3878 mL	16.9388 mL	33.8776 mL
	5 mM	0.6776 mL	3.3878 mL	6.7755 mL
	10 mM	0.3388 mL	1.6939 mL	3.3878 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: ≥ 2.5 mg/mL (8.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SIRT1-IN-3 (compound 3j) is a potent and selective SIRT1 inhibitor, with an IC_{50} of 4.2 μM[1].

IC_{50} & Target

SIRT1	SIRT2
4.2 μM (IC_{50})	38 μM (IC_{50})

In Vitro

SIRT1-IN-3 (compound 3j) (0-100 μM, 48 h) inhibits the proliferation of human cancer cell lines including K562, HCT-116, H460, HepG2, A549, and MCF-7, and shows low cytotoxic on 293T and HUVEC[1].

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

Cell Cytotoxicity Assay

Cell Line:	Human cancer cell lines (K562, HCT-116, H460, HepG2, A549, HT-29, MCF-7) and normal cell lines (293T, HUVEC)[1]

Concentration:	0, 0.01, 0.1, 1, 10, 100 μM
Incubation Time:	48 h
Result:	Inhibited the proliferation of Human cancer cell lines including K562, HCT-116, H460, HepG2, A549, and MCF-7, with IC_{50} values of 47, 41, 66, 93, 52, and 64 μM, respectively. And showed low cytotoxic on 293T and HUVEC, with an IC_{50} values of 49 and 45 μM, respectively.

REFERENCES

[1]. Laaroussi H, Ding Y, Teng Y, et al. Synthesis of indole inhibitors of silent information regulator 1 (SIRT1), and their evaluation as cytotoxic agents. Eur J Med Chem. 2020;202:112561.

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