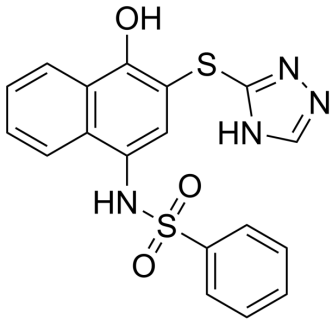
Sirt1/2-IN-2

Cat. No.:	HY-155727
CAS No.:	670267-73-9
Molecular Formula:	$C_{18}H_{14}N_4O_3S_2$
Molecular Weight:	398.46
Target:	Sirtuin; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Sirt1/2-IN-2 (compound hsa55) is a dual inhibitor of SIRT1/2 with IC_{50}s of 1.8 μM (SIRT1) and 2.4 μM (SIRT2), respsectivley. Sirt1/2-IN-2 completely blocks p53 deacetylation, and increase of p53 and α-tubulin acetylation. Sirt1/2-IN-2 induces apoptosis and shows anti-proliferation activity against human leukemia cell lines[1].
IC_{50} & Target	IC50: 1.8 μM (SIRT1), 2.4 μM (SIRT2), 65 μM (SIRT3)[1]
In Vitro	Sirt1/2-IN-2 (compound hsa55) (5 μM; 48 h) induces apoptosis in different tumor cells, with IC_{50}s of 13 μM (MV4-11), 11.5 μM (MOLM-13), 34.4 μM (THP1), 27.5 μM (Jurkat), respectively[1]. Sirt1/2-IN-2 (100 μM; 30 min) decreases the thermal stability of both SIRT1 and SIRT2 proteins at different temperatures, and also (25 μM, 30 μM; 24 h) increase level of the acetylated form of p53 and α-tubulin in MOLM-13 cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Cai H, et al. Discovery of Novel SIRT1/2 Inhibitors with Effective Cytotoxicity against Human Leukemia Cells. J Chem Inf Model. 2023 Aug 14;63(15):4780-4790.

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