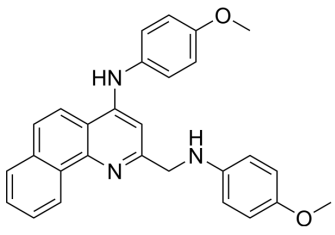
SDU-071

Cat. No.:	HY-162352
Molecular Formula:	$C_{28}H_{25}N_3O_2$
Molecular Weight:	435.52
Target:	Epigenetic Reader Domain; Apoptosis
Pathway:	Epigenetics; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

SDU-071 is a potent and orally active inhibitor of BRD4-p53 inhibitor. SDU-071 inhibits MDA-MB-231 cells proliferation with an IC_{50} of 10.5 μM. SDU-071 induces cell cycle arrest and apoptosis[1].

In Vitro

SDU-071 (10 μM, 24 h) induces cell-cycle arrest and apoptosis in MDA-MB-231 cells[1].
SDU-071 (10 μM, 72 h) inhibits cell proliferation, migration, and invasion in MDA-MB-231 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	MDA-MB-231cells
Concentration:	2.5, 5, and 10 μM
Incubation Time:	24 hours
Result:	Altered cell cycle progression in the G1, S, and G2/M phases. Induced apoptosis in MDA-MB-231 cells.

In Vivo

SDU-071 (250 mg/kg for i.g; once daily for 21 days) inhibits tumor growth in a MDA-MB-231 orthotopic mouse xenograft mammary tumor model[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	DA-MB-231 Orthotopic Mouse Xenograft Mammary Tumor Model[1]
Dosage:	50 and 250 mg/kg; Once daily for 21 days
Administration:	Gavage administration (i.g.)
Result:	Significantly inhibited tumor growth with 49.1% inhibition. Reduced the Protein levels for BRD4, Mucin5AC, c-Myc, CDK4, and CDK6, upregulated the p21 protein.

REFERENCES

[1]. Wang S, et al. Novel BRD4-p53 Inhibitor SDU-071 Suppresses Proliferation and Migration of MDA-MB-231 Triple-Negative Breast Cancer Cells[J]. ACS Pharmacology & Translational Science, 2024.

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