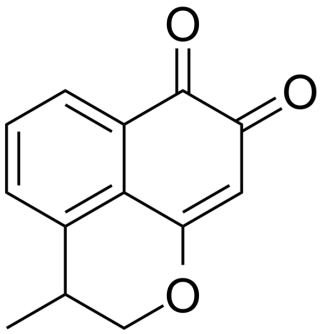
MSN8C

Cat. No.:	HY-149410
CAS No.:	1314798-31-6
Molecular Formula:	$C_{13}H_{10}O_3$
Molecular Weight:	214.22
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MSN8C, an analog of mansonone E, is a novel catalytic inhibitor of human DNA topoisomerase II. MSN8C induces cancer cell apoptosis. MSN8C shows significant anti-tumor cell proliferation activity in vitro[1].

In Vitro

MSN8C prevents supercoiled DNA from entering the catalytic cycle to avoid capture by Topo II poisons and reduces fragmented DNA generation[1].

MSN8C (1-10 μM, 24 h) induces HL-60 cancer cell apoptosis via increases caspases-3 expression in a dose-dependent manner.[1].

MSN8C (1, 5, 10, 20 μM, 12 h) increases caspase-8 and caspase-9 activity in HL-60 cells[1].

MSN8C (48 h) inhibits human 11 tumor cell lines from various origins with an average IC_{50} value of 2.6 μM[1].

MSN8C has strong antiproliferative effects on the human breast cancer adriamycin (HY-15142)-resistant cell line MCF-7/Adr and mitoxantrone (HY-13502)-resistant cell line HL-60/MX2[1].

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

Western Blot Analysis[1]

Cell Line:	HL-60 cells
Concentration:	10 μM
Incubation Time:	1 h
Result:	Reduced γ-H2AX expression levels. Weakened the production of γ-H2AX by VP-16.

Western Blot Analysis[1]

Cell Line:	HL-60 cells
Concentration:	1, 5, 10, 20 μM
Incubation Time:	1, 5, 10, 20 μM
Result:	Induced caspases-3 express in a dose-dependent manner.

Apoptosis Analysis[1]

Cell Line:	HL-60 cells
Concentration:	5, 10 μM
Incubation Time:	12 h
Result:	Promoted caspase-8 and caspase-9 activity in a dose-dependent manner.

In Vivo

MSN8C (10 mg/kg, i.p, two-day intervals for 2 weeks) in a A549 tumor xenograft model inhibits tumor growth with less toxic [1].

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

Animal Model:	A549 tumor xenograft model, female BALB/c nude mice[1]
Dosage:	10 mg/kg
Administration:	Intraperitoneal injection (i.p.), two-day intervals for 2 weeks
Result:	Inhibits tumor with the tumor weight inhibition (TWI) value of 74.2%.

REFERENCES

[1]. Jie-Bin Ou, et al. MSN8C: A Promising Candidate for Antitumor Applications as a Novel Catalytic Inhibitor of Topoisomerase II. Molecules. 2023 Jul, 28(14).

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA