Anticancer agent 47

Cat. No.: HY-146040

CAS No.: 2461795-23-1

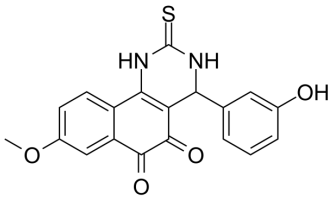
Molecular Formula: $C_{19}H_{14}N_2O_4S$

Molecular Weight: 366.39

Target: Apoptosis

Pathway: Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anticancer agent 47 (compound 4j) is a potent anticancer agent. Anticancer agent 47 shows antiproliferative activities. Anticancer agent 47 induces apoptosis and cell cycle arrest at G0/G1 phase. Anticancer agent 47 shows shows antitumor activities in vivo[1].

In Vitro

Anticancer agent 47 (compound 4j) shows antiproliferative activities with IC_{50}s of 1.6, 0.72, 7.07 μM for HepG2, A549, H596 cells, respectively[1].

Anticancer agent 47 (0.8, 1.6, 3.2 μM; 24 h) induces apoptosis and cell cycle arrest at G0/G1 phase[1].

Anticancer agent 47 (5 μM; 5h) significantly increases ROS production[1].

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

Apoptosis Analysis[1]

Cell Line:	HepG2, H596 cells
Concentration:	0.8, 1.6, 3.2 μM
Incubation Time:	24 h
Result:	Induced apoptosis with the apoptotic cell rates were 14.23, 20.47 and 27.66% at 0.8, 1.6, 3.2 μM in HepG2 cell, respectively.

Cell Cycle Analysis[1]

Cell Line:	HepG2 cells
Concentration:	0.8, 1.6, 3.2 μM
Incubation Time:	24 h
Result:	Showed 48.54%, 49.60% and 53.00% cells were at G0/G1 phase at 0.6, 1.2 and 2.4 μM, respectively.

In Vivo

Anticancer agent 47 (20 mg/kg; i.v.; once every 2 days for 19 days) shows antitumor activities[1].

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Animal Model:	BALB/c nude mice (HepG2 xenografts)[1]
Dosage:	20 mg/kg
Administration:	I.v.; once every 2 days for 19 days
Result:	Effectively inhibited tumor growth with the 58.7% tumor inhibition rate.

REFERENCES

[1]. Wu L, et al. Synthesis and biological evaluation of β-lapachone-monastrol hybrids as potential anticancer agents. Eur J Med Chem. 2020 Oct 1;203:112594.

Caution: Product has not been fully validated for medical applications. For research use only.

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