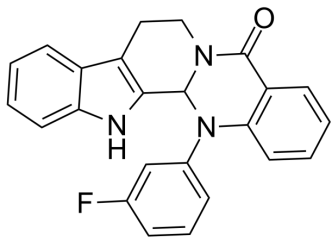
Antitumor agent-53

Cat. No.:	HY-146743
CAS No.:	2757145-67-6
Molecular Formula:	$C_{24}H_{18}FN_3O$
Molecular Weight:	383.42
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antitumor agent-53 is a potent antitumor agent. Antitumor agent-53 induces cell cycle arrest at the G2/M phase. Antitumor agent-53 inhibits the PI3K/AKT pathway to induce the apoptosis of HGC-27 cells. Antitumor agent-53 has the potential for the research of gastrointestinal tumors[1].

In Vitro

Antitumor agent-53 (compound 6f) (0, 0.22, 0.67, 2, 6, 18 μM; 72 h) shows anti-proliferation activity with IC_{50}s of 3.10, 0.37, 4.01, >18, 7.87, 9.11 μM for HGC-27, HT-29, HepG-2, A549, MCF7, GES-1 cells[1].

Antitumor agent-53 (0.15, 0.3, 0.6 μM) shows anti-proliferative activity in HGC-27 and HT-29 cells with a dose-dependent manner[1].

Antitumor agent-53 (100, 200 μM) shows a certain inhibitory activity against Topo I at 200 μM[1].

Antitumor agent-53 (0.1, 0.3, 0.9 μM; 24 h) induces cell cycle arrest at the G2/M phase in HGC-27, HT-29 cells[1].

Antitumor agent-53 (0.1, 0.3, 0.9, 2.7 μM; 24 h) induces the apoptosis of HGC-27 and HT-29 cells in a concentration-dependent manner[1].

Antitumor agent-53 (0.15, 0.3, 0.6 μM; 24 h) inhibits the migration and invasion of HGC-27 cells in a concentration-dependent manner[1].

Antitumor agent-53 (0.1, 0.3, 0.9 μM; 24 h) suppresses the PI3K/AKT pathway to induce the apoptosis of HGC-27 cells[1].

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

Cell Proliferation Assay[1]

Cell Line:	HGC-27, HT-29, HepG-2, A549, MCF7, GES-1 cells
Concentration:	0, 0.22, 0.67, 2, 6, 18 μM
Incubation Time:	72 h
Result:	Showed anti-proliferation activity with IC_{50}s of 3.10, 0.37, 4.01, >18, 7.87, 9.11 μM for HGC-27, HT-29, HepG-2, A549, MCF7, GES-1 cells.

Cell Cycle Analysis[1]

Cell Line:	HGC-27, HT-29 cells
Concentration:	0.1, 0.3, 0.9 μM
Incubation Time:	24 h

Result:	Cells were arrest at the G2/M phase.

Apoptosis Analysis[1]

Cell Line:	HGC-27, HT-29 cells
Concentration:	0.1, 0.3, 0.9, 2.7 μM
Incubation Time:	24 h
Result:	Induced the apoptosis of HGC-27 and HT-29 cells in a concentration-dependent manner.

Western Blot Analysis[1]

Cell Line:	HGC-27 cells
Concentration:	0.1, 0.3, 0.9 μM
Incubation Time:	24 h
Result:	Suppressed the PI3K/AKT pathway to induce the apoptosis of HGC-27 cells.

REFERENCES

[1]. Hao X, et al. Design, synthesis and bioactivity evaluation of novel N-phenyl-substituted evodiamine derivatives as potent anti-tumor agents. Bioorg Med Chem. 2021; 55:116595.

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

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