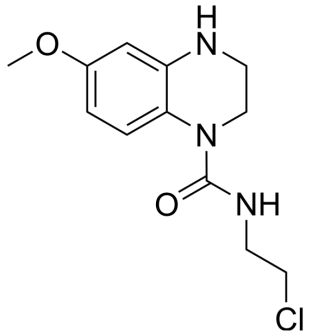
Anticancer agent 194



Cat. No.:	HY-162311
CAS No.:	2767204-90-8
Molecular Formula:	$C_{12}H_{16}ClN_3O_2$
Molecular Weight:	269.73
Target:	Ferroptosis; Autophagy; Reactive Oxygen Species
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Anticancer agent 194 (compound 10p) is a ferroptosis and autophagy inducer. Anticancer agent 194 arrests colon cancer cell cycle at G2/M phase, but can't induce cell apoptosis. Anticancer agent 194 independently triggeres cell ferroptosis and autophagy through the massive accumulation of ROS[1].

In Vitro

Anticancer agent 194 (compound 10p; 1-10 μM; 48 h) presents antiproliferative activity against HT-29 cancer cells with an IC50 of 1.97 μM[1].

Anticancer agent 194 (compound 10p; 1-4 μM; 48 h) arrests cell cycle at G2/M phase in a concentration-dependent manner[1].

Anticancer agent 194 (compound 10p; 0.5-4 μM; 48 h) decreases the expression of GPX4 in a concentration-dependent manner[1].

Anticancer agent 194 (compound 10p; 1-4 μM; 48 h) induces HT-29 cells autophagy[1].

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

Cell Viability Assay[1]

Cell Line:	HT-29 cells
Concentration:	1 μM, 5 μM and 10 μM
Incubation Time:	48 h
Result:	Induced cell death.

Cell Cycle Analysis[1]

Cell Line:	HT-29 cells
Concentration:	1 μM, 2 μM and 4 μM
Incubation Time:	48 h
Result:	Arrested cell cycle at G2/M phase.

Western Blot Analysis[1]

Cell Line:	HT-29 cells
Concentration:	0.5 μM, 1 μM, 2 μM and 4 μM
Incubation Time:	48 h
Result:	Decreased the expression of GPX4 in a concentration-dependent manner.

Cell Autophagy Assay[1]

Cell Line:	HT-29 cells
Concentration:	1 μM, 2 μM and 4 μM
Incubation Time:	48 h
Result:	Induced autophagy of HT-29 cells.

REFERENCES

[1]. Tingting Liang, et al. Discovery of novel urea derivatives as ferroptosis and autophagy inducer for human colon cancer treatment. Eur J Med Chem. 2024 Feb 24:268:116277.

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

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