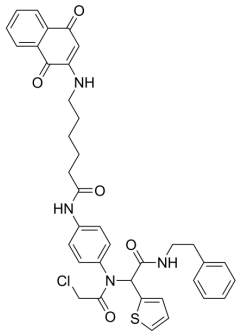
GIC-20

Cat. No.:	HY-162449
CAS No.:	2942242-60-4
Molecular Formula:	$C_{38}H_{37}ClN_4O_5S$
Molecular Weight:	697.24
Target:	Apoptosis; Ferroptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

GIC-20 is a dual inducer for apoptosis and ferroptosis. GIC-20 exhibits antitumor efficacy against fibrosarcoma[1].

In Vitro

GIC-20 (1 μM, 48 h) inhibits proliferation and migration of HT1080 fibrosarcoma cells, exhibits cytotoxicity with IC_{50} of 1.6 μM [1].

GIC-20 (0.5-4 μM, 24 h) induces ferroptosis by inducing intracellular lipid peroxide and ROS accumulation, or by degradation of GPX4[1].

GIC-20 (0-1 μM, 24 h) inhibits cell viability of drug-resistant MIA-PaCa-2-AMG510R cells, enhances the sensitivity of MIA-PaCa-2-AMG510R cells to AMG510[1].

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

Western Blot Analysis[1]

Cell Line:	HT1080
Concentration:	0-4 μM
Incubation Time:	24 h
Result:	Inhibited expression of GPX4 and Bcl-2, promoted expression of Bax.

Apoptosis Analysis[1]

Cell Line:	HT1080
Concentration:	0-4 μM
Incubation Time:	24 h
Result:	Induced apoptosis in a dose-dependent manner.

In Vivo

GIC-20 (20-40 mg/kg, i.p., once daily for 19 days) exhibits antitumor efficacy in HT1080 xenograft BALB/c mice, without significant toxicity in major organs[1].

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

Animal Model:	HT1080 xenograft BALB/c mice[1]

Dosage:	20-40 mg/kg
Administration:	i.p., once a day for 19 days
Result:	Inhibited tumor growth, with a TGI of 63% at 40 mg/kg. Maintained a complete morphology without obvious cellular inflammatory, oedema, or necrosis in major organs.

REFERENCES

[1]. Ma F, et al., ML162 derivatives incorporating a naphthoquinone unit as ferroptosis/apoptosis inducers: Design, synthesis, anti-cancer activity, and drug-resistance reversal evaluation. Eur J Med Chem. 2024 Apr 15;270:116387.

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