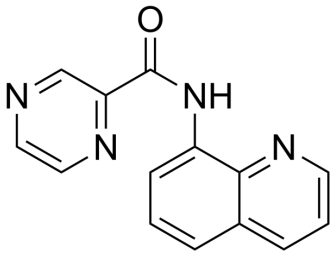
QN523

Cat. No.:	HY-148255
CAS No.:	878581-60-3
Molecular Formula:	$C_{14}H_{10}N_4O$
Molecular Weight:	250.26
Target:	Apoptosis; Autophagy
Pathway:	Apoptosis; Autophagy
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 16.67 mg/mL (66.61 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.9958 mL	19.9792 mL	39.9584 mL
5 mM	0.7992 mL	3.9958 mL	7.9917 mL
10 mM	0.3996 mL	1.9979 mL	3.9958 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

QN523 is a novel scaffold with agent-like properties, showing potent in vitro cytotoxicity in a panel of 12 cancer cell lines. QN523 induces apoptosis and autophagy. QN523 can be used in research of cancer[1].

In Vitro

QN523 (72 h) has cytotoxicity with IC_{50} values ranging from 0.1 to 5.7 μM across 12 cell lines[1].

QN523 (0.1 and 0.5 μM; 24 and 48 h; MIA PaCa-2 cells) arrests cell cycle at S phase and delays for pancreatic cancer cells to enter the G2-M phase. QN523 induces apoptosis and autophagy of MIA PaCa-2 Cells[1].

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

Cell Cycle Analysis[1]

Cell Line:	MIA PaCa-2 cells
Concentration:	0.1 and 0.5 μM
Incubation Time:	24 and 48 hours
Result:	Delayed for pancreatic cancer cells to enter the G2-M phase because of accumulation of

	cells in the S phase.

Apoptosis Analysis[1]

Cell Line:	MIA PaCa-2 cells
Concentration:	0.1 and 0.5 μM
Incubation Time:	24 and 48 hours
Result:	Increased the number of apoptotic cell in time- and dose-dependent manner.

In Vivo

QN523 (10 and 20 mg/kg; i.p.; daily, for 44 d) inhibits tumor growth in mice of pancreatic cancer xenografts[1].

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

Animal Model:	NOD/SCID mice of pancreatic cancer xenografts (6 weeks of age)
Dosage:	10 and 20 mg/kg
Administration:	Intraperitoneal administration; 1-9 days (10 mg/kg), 10-44 days (20 mg/kg)
Result:	Delayed growth of the tumors, and no systemic toxicity.

REFERENCES

[1]. Kuang Y, et, al. Induction of Genes Implicated in Stress Response and Autophagy by a Novel Quinolin-8-yl-nicotinamide QN523 in Pancreatic Cancer. J Med Chem. 2022 Apr 28;65(8):6133-6156.

[2]. Kuang Y, et, al. Induction of Genes Implicated in Stress Response and Autophagy by a Novel Quinolin-8-yl-nicotinamide QN523 in Pancreatic Cancer. J Med Chem. 2022 Apr 28;65(8):6133-6156.

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