Iberverin

Cat. No.: HY-121204

CAS No.: 505-79-3

Molecular Formula: $C_5H_9NS_2$

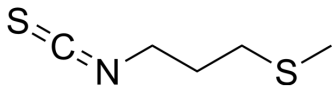
Molecular Weight: 147.26

Target: Apoptosis; Reactive Oxygen Species

Pathway: Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (679.07 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.7907 mL	33.9536 mL	67.9071 mL
	5 mM	1.3581 mL	6.7907 mL	13.5814 mL
	10 mM	0.6791 mL	3.3954 mL	6.7907 mL

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

BIOLOGICAL ACTIVITY

Description

Iberverin (-Methylthiopropyl isothiocyanate) is a sulforaphane homolog. Iberverin has anticancer activity. Iberverin inhibits cell proliferation and migration. Iberverin induces mitochondrial-related apoptosis and intracellular reactive oxygen species [1].

In Vitro

Iberverin (0-200 μM, 48 h) inhibits the viability and proliferation of HCC cells, with IC_{50}s less than 25 μM for Huh7, Huh7.5.1, and SNU739[1].

Iberverin (10 μM, 24-72 h) inhibits migration and invasion in Huh7, Huh7.5.1 and SNU739 cells[1].

Iberverin (40 μM, 12 h) induces mitochondrial-related apoptosis, induces DNA damage and causes G2/M cell cycle arrest in Huh7, Huh7.5.1 and SNU739 cells[1].

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

Western Blot Analysis[1]

Cell Line:	Huh7, Huh7.5.1 and SNU739 cells
Concentration:	40 μM

Incubation Time:	12 h
Result:	Enhanced the level of apoptotic protein Bax but repressed the expression of Bcl-2.

In Vivo

Iberverin (20 mg/kg, i.p., every 3 days for five cycles) inhibits the growth of HCC xenograft tumor in mice[1].

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

Animal Model:	Huh7.5.1 cells were subcutaneously injected into immunodeficient BALB/c nude mice[1]
Dosage:	20 mg/kg
Administration:	i.p., every 3 days for five cycles
Result:	Reduction the tumor size by 73.4% and weight by 55.3% of Huh7.5.1 xenograft tumors, with no systematic toxicity. Decreased Ki-67 and PCNA level in tumor.

REFERENCES

[1]. 1. Zhang Y, et al. Iberverin exhibits antineoplastic activities against human hepatocellular carcinoma via DNA damage-mediated cell cycle arrest and mitochondrial-related apoptosis. Front Pharmacol. 2023 Dec 13;14:1326346.

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