Oxychlororaphine

Cat. No.: HY-W042191

CAS No.: 550-89-0

Molecular Formula: $C_{13}H_9N_3O$

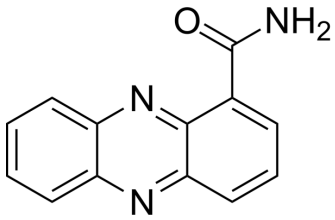
Molecular Weight: 223.23

Target: Fungal; Apoptosis; Caspase; Bcl-2 Family; MDM-2/p53; PARP

Pathway: Anti-infection; Apoptosis; Cell Cycle/DNA Damage; Epigenetics

Storage:

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (44.80 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.4797 mL	22.3984 mL	44.7968 mL
	5 mM	0.8959 mL	4.4797 mL	8.9594 mL
	10 mM	0.4480 mL	2.2398 mL	4.4797 mL

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

BIOLOGICAL ACTIVITY

Description

Oxychloroaphine could be isolated from the bacterium Pantoea agglomerans naturally present in soil. Oxychloroaphine has broad-spectrum antifungal activity. Oxychloroaphine has cytotoxicity in a dose-dependent manner and induces apoptosis. Oxychloroaphine can be used in research of cancer[1][2].

In Vitro

Oxychloroaphine (1-256 μM; 24 h) has cytotoxicity with IC_{50} values for A549, HeLa, and SW480 cancer cell lines between 32 and 40 μM[2].

Oxychloroaphine (1-150 μM; A549, HeLa, and SW480 cancer cell lines) causes cell membrane damage, leading to increase apoptosis and leakage of lactate dehydrogenase, and increases production of cytochrome c protein[2].

Oxychloroaphine (32 μM; A549 and SW480 cells) induces cycle arrest at G1 phase and induction of sub-G phase[2].

Oxychloroaphine (48 h; A549 cells) induces downregulation of antiapoptotic Bcl-2 protein and the activation of proapoptotic protein caspase-3 led to the cleavage of PARP[2].

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

Cell Viability Assay[2]

Cell Line:	A549, HeLa, and SW480 cancer cell lines
Concentration:	1, 2, 4, 8, 16, 32, 64, 128, and 256 μM
Incubation Time:	24 hours
Result:	Inhibited cell proliferative in a dose-dependent manner.

REFERENCES

[1]. Li S, et, al. Comparative metabolomics and transcriptomics analyses provide insights into the high-yield mechanism of phenazines biosynthesis in Pseudomonas chlororaphis GP72. J Appl Microbiol. 2022 Nov;133(5):2790-2801.

[2]. Ali HM, et, al. Isolation of Bioactive Phenazine-1-Carboxamide from the Soil Bacterium Pantoea agglomerans and Study of Its Anticancer Potency on Different Cancer Cell Lines. J AOAC Int. 2016 Sep;99(5):1233-9.

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