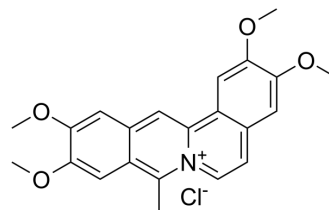


Coralyne chloride

Cat. No.:	HY-118581
CAS No.:	38989-38-7
Molecular Formula:	C ₂₂ H ₂₂ ClNO ₄
Molecular Weight:	399.87
Target:	Topoisomerase
Pathway:	Cell Cycle/DNA Damage
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 4 mg/mL (10.00 mM; ultrasonic and warming and heat to 60°C)
DMSO : 1.82 mg/mL (4.55 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	2.5008 mL	12.5041 mL	25.0081 mL
	5 mM	0.5002 mL	2.5008 mL	5.0016 mL	
	10 mM	0.2501 mL	1.2504 mL	2.5008 mL	

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

BIOLOGICAL ACTIVITY

Description

Coralyne chloride is a protoberberine alkaloid with potent anti-cancer activities. Coralyne chloride acts as a potent topoisomerase I poison and induces Top I mediated DNA cleavage^[2]. Coralyne chloride can be used for preparing coralyne derivatives as DNA binding fluorescent probes^[3].

IC₅₀ & Target

Topoisomerase I

In Vitro

Coralyne (6.25-100 μM; 24-72 hours) has cytotoxicity effect on breast cancer cell lines. It against MCF-7, MDA-MB-231 and MCF-10A cells with IC₅₀s of 76.4 μM, 76.4 μM, and 99 μM, respectively at 24 hours. And it against MCF-7, MDA-MB-231 and MCF-10A cells with IC₅₀s of 21.9 μM, 19.1 μM, and 91 μM, respectively at 72 hours^[1].
Coralyne (25 μM; 48 hours) significantly downregulates cancer cell attachment of MCF-7 and MDA-MB-231 compared to the untreated controls. The percent of reduction in adhesion of MCF-7 is 55%, whereas 53% in reduction in the adhesion of MDA-MB-23 and 62% in reduction of MCF-10A, respectively^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Seema Kumari, et al. Synergistic effects of coralyne and paclitaxel on cell migration and proliferation of breast cancer cells lines. Biomed Pharmacother. 2017 Jul;91:436-445.
- [2]. D Makhey, et al. Coralyne and related compounds as mammalian topoisomerase I and topoisomerase II poisons. Bioorg Med Chem. 1996 Jun;4(6):781-91.
- [3]. P M Pithan, et al. 8-Styryl-substituted coralyne derivatives as DNA binding fluorescent probes. RSC Adv. 2017 Feb 8;7(18):10660-10667.
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Caution: Product has not been fully validated for medical applications. For research use only.

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