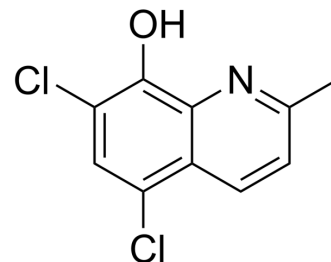


Chlorquinaldol

Cat. No.:	HY-B1360		
CAS No.:	72-80-0		
Molecular Formula:	C ₁₀ H ₇ Cl ₂ NO		
Molecular Weight:	228.07		
Target:	Antibiotic; Bacterial; Fungal; β -catenin; Apoptosis		
Pathway:	Anti-infection; Stem Cell/Wnt; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (219.23 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.3846 mL	21.9231 mL	43.8462 mL
		5 mM	0.8769 mL	4.3846 mL	8.7692 mL
10 mM		0.4385 mL	2.1923 mL	4.3846 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: \geq 2.08 mg/mL (9.12 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: \geq 2.08 mg/mL (9.12 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Chlorquinaldol (Chloquinan) is an antibacterial agent with the potential use in topical skin conditions and vaginal infections. Chlorquinaldol is a β -catenin/TCF4 inhibitor, showing anti-proliferation, anti-migration, and apoptosis-inducing activity in cancer cells ^{[1][2]} .
In Vitro	<p>Chlorquinaldol (Chloquinan; 5, 10 μM; 24 h) inhibits Wnt/β-catenin signaling by disrupting β-catenin/TCF4 complex in colorectal cancer (CRC) cell^[2].</p> <p>Chlorquinaldol (5, 10 μM; 24 h) inhibits β-catenin acetylation in CRC cells, thereby reducing the interaction of β-catenin with TCF4^[2].</p> <p>Chlorquinaldol (0.5, 1, 2 μM; 24 h) inhibits the stemness of CRC cells and exerts anti-CRC activity in vitro and in vivo^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

RT-PCR^[2]

Cell Line:	SW480, HCT116, HT29 and DLD1 cells
Concentration:	5, 10 μ M
Incubation Time:	24 h
Result:	Decreased the mRNA levels of these target genes in all four CRC cell lines in a dose-dependent manner.

CUSTOMER VALIDATION

- Clin Transl Med. 2023 Jun;13(6):e1300.
- Front Microbiol. 2017 Jun 8;8:1039.
- Infect Drug Resist. 2019 Jul 19;12:2177-2189.

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REFERENCES

[1]. Bortolin M, et al. In vitro Antimicrobial Activity of Chlorquinaldol against Microorganisms Responsible for Skin and Soft Tissue Infections: Comparative Evaluation with Gentamicin and Fusidic Acid. Front Microbiol. 2017 Jun 8;8:1039.

[2]. Wang L, et al. Chlorquinaldol targets the β -catenin and T-cell factor 4 complex and exerts anti-colorectal cancer activity. Pharmacol Res. 2020 Sep;159:104955.

Caution: Product has not been fully validated for medical applications. For research use only.

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