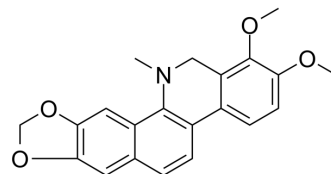


Dihydrochelerythrine

Cat. No.:	HY-N0903		
CAS No.:	6880-91-7		
Molecular Formula:	C ₂₁ H ₁₉ NO ₄		
Molecular Weight:	349.38		
Target:	Fungal		
Pathway:	Anti-infection		
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 : 20.83 mg/mL (59.62 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.8622 mL	14.3111 mL	28.6221 mL
5 mM	0.5724 mL	2.8622 mL	5.7244 mL
10 mM	0.2862 mL	1.4311 mL	2.8622 mL

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

BIOLOGICAL ACTIVITY

Description

Dihydrochelerythrine is a natural compound isolated from *Corydalis yanhusuo*; has antifungal activity. IC₅₀ value: Target: in vitro: Dihydrochelerythrine showed the highest antifungal activity against *B. cinerea* Pers, with 98.32% mycelial growth inhibition at 50 µg/mL. Dihydrochelerythrine inhibited spore germination in vitro in a concentration-dependent manner [1]. Dihydrochelerythrine appeared to be less cytotoxic since the viability of cells exposed to 20 microM dihydrochelerythrine for 24h was reduced only to 53%. A dose-dependent induction of apoptosis and necrosis by chelerythrine and dihydrochelerythrine was confirmed by annexin V/propidium iodide dual staining flow cytometry [2]. Dihydrochelerythrine (4) exhibited strong activity against methicillin-resistant *Staphylococcus aureus* SK1 and moderate activity against *Escherichia coli* TISTR 780 with MIC values of 8 and 16 µg/mL, respectively [3].

REFERENCES

- [1]. Feng G, et al. Inhibitory activity of dihydrosanguinarine and dihydrochelerythrine against phytopathogenic fungi. *Nat Prod Res.* 2011 Jul;25(11):1082-9.
- [2]. Vrba J, et al. Chelerythrine and dihydrochelerythrine induce G1 phase arrest and bimodal cell death in human leukemia HL-60 cells. *Toxicol In Vitro.* 2008

Jun;22(4):1008-17.

[3]. Tantapakul C, et al. Antibacterial compounds from *Zanthoxylum rhetsa*. Arch Pharm Res. 2012 Jul;35(7):1139-42.

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

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