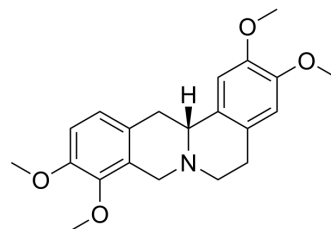


D-Tetrahydropalmatine

Cat. No.:	HY-N2003		
CAS No.:	3520-14-7		
Molecular Formula:	C ₂₁ H ₂₅ NO ₄		
Molecular Weight:	355.43		
Target:	Dopamine Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
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 : 50 mg/mL (140.67 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8135 mL	14.0675 mL	28.1349 mL
		5 mM	0.5627 mL	2.8135 mL	5.6270 mL
10 mM		0.2813 mL	1.4067 mL	2.8135 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: ≥ 2.5 mg/mL (7.03 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	D-Tetrahydropalmatine is an isoquinoline alkaloid, mainly in the genus <i>Corydalis</i> ^[1] . D-Tetrahydropalmatine is a dopamine (DA) receptor antagonist with preferential affinity toward the D ₁ receptors ^[2] . D-Tetrahydropalmatine is a potent organic cation transporter 1 (OCT1) inhibitor ^[3] .
IC₅₀ & Target	D ₁ Receptor

REFERENCES

[1]. Ma ZJ, et al. [Effects of different types and standard of processing vinegar on inherent constituents in rhizoma of *Corydalis yanhusuo*]. *Zhongguo Zhong Yao Za Zhi*. 2006 Mar;31(6):465-7.

[2]. Xu SX, et al. Effects of tetrahydroprotoberberines on dopamine receptor subtypes in brain. Zhongguo Yao Li Xue Bao. 1989 Mar;10(2):104-10.

[3]. Tu M, et al. Organic cation transporter 1 mediates the uptake of monocrotaline and plays an important role in its hepatotoxicity. Toxicology. 2013 Sep 15;311(3):225-30.

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

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