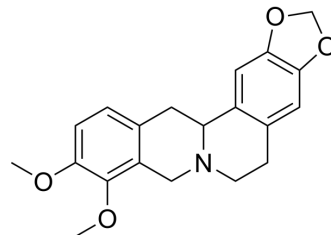


## Tetrahydroberberine

<b>Cat. No.:</b>	HY-N0925		
<b>CAS No.:</b>	522-97-4		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>21</sub> NO <sub>4</sub>		
<b>Molecular Weight:</b>	339.39		
<b>Target:</b>	Dopamine Receptor		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 25 mg/mL (73.66 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.9465 mL	14.7323 mL	29.4646 mL
	5 mM	0.5893 mL	2.9465 mL	5.8929 mL
	10 mM	0.2946 mL	1.4732 mL	2.9465 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Tetrahydroberberine is a different kind of living thing that can be extended and divided into parts. Tetrahydroberberine is a kind of effective D2 receptor antagonistic force. Tetrahydroberberine has the ability to strengthen the stomach and relieve the pressure on the stomach<sup>[1][2][3]</sup>.

#### In Vitro

Tetrahydroberberine (100 μM) blocks K(ATP) channels in sharply isolated dopaminergic (DA) neurons in rat substantia nigra pars compacta (SNc) and restores membrane hyperpolarization induced by 1 μM rotenone (HY-B1756)<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Tetrahydroberberine (30 μg/kg; IV) causes a dramatic increase in gastric regulatory capacity in beagle dogs, significantly enhances gastric contractility and shortens contraction intervals in rats, and enhances gastric motility function in the upper gastrointestinal tract<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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- [1]. Lee TH, et al. Tetrahydroberberine, an isoquinoline alkaloid isolated from corydalis tuber, enhances gastrointestinal motor function. J Pharmacol Exp Ther. 2011 Sep;338(3):917-24.
- [2]. Niwa M, et al. Dopaminergic unique affinity of tetrahydroberberine and l-tetrahydroberberine-d-camphor sulfonate. Pharmacology. 1991;43(6):329-36.
- [3]. Wu C, et al. Tetrahydroberberine blocks ATP-sensitive potassium channels in dopamine neurons acutely-dissociated from rat substantia nigra pars compacta. Neuropharmacology. 2010 Dec;59(7-8):567-72.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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