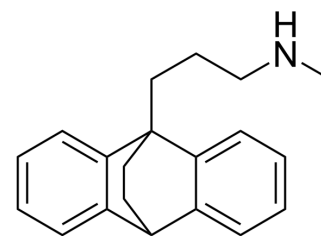


## Maprotiline hydrochloride

<b>Cat. No.:</b>	HY-B0444
<b>CAS No.:</b>	10347-81-6
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>24</sub> ClN
<b>Molecular Weight:</b>	313.86
<b>Target:</b>	Autophagy
<b>Pathway:</b>	Autophagy
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



HCl

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 83.33 mg/mL (265.50 mM; ultrasonic and warming and heat to 60°C)  
H<sub>2</sub>O : 2.2 mg/mL (7.01 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.1861 mL	15.9307 mL	31.8613 mL
	5 mM	0.6372 mL	3.1861 mL	6.3723 mL
	10 mM	0.3186 mL	1.5931 mL	3.1861 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (6.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (6.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (6.63 mM); Clear solution
- Add each solvent one by one: PBS  
Solubility: 2 mg/mL (6.37 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

### BIOLOGICAL ACTIVITY

#### Description

Maprotiline hydrochloride is a selective noradrenalin re-uptake inhibitor and a tetracyclic antidepressant. Target: Others Maprotiline (sold as Depilept, Ludiomil, Psymion) is a tetracyclic antidepressant (TeCA). However, Maprotiline's fourth ring is spurious, as formed by a bridge across the central tricyclic ring. It is a strong norepinephrine reuptake inhibitor with only weak effects on serotonin and dopamine reuptake. It exerts strong blocking effect at H1 receptors, moderate at 5-HT2 and alpha1 and weak blocking effect at D2 and mACh postsynaptic receptors [1, 2].

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## CUSTOMER VALIDATION

- PLoS Negl Trop Dis. 2019 Aug 20;13(8):e0007681.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Peng, W.H., et al., Berberine produces antidepressant-like effects in the forced swim test and in the tail suspension test in mice. Life Sci, 2007. 81(11): p. 933-8.
- [2]. <http://en.wikipedia.org/wiki/Maprotiline>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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