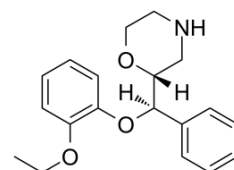


## Reboxetine mesylate

<b>Cat. No.:</b>	HY-14560C		
<b>CAS No.:</b>	98769-84-7		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>27</sub> NO <sub>6</sub> S		
<b>Molecular Weight:</b>	409.5		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



relative stereochemistry



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (305.25 mM; Need ultrasonic)  
 H<sub>2</sub>O : 50 mg/mL (122.10 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.4420 mL	12.2100 mL	24.4200 mL
	5 mM		0.4884 mL	2.4420 mL	4.8840 mL
	10 mM		0.2442 mL	1.2210 mL	2.4420 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 (5.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (5.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (5.08 mM); Clear solution
- Add each solvent one by one: PBS  
Solubility: 110 mg/mL (268.62 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Reboxetine mesylate is a norepinephrine reuptake inhibitor use in the treatment of unipolar depression. Target: Others  
 Reboxetine is a drug of the norepinephrine reuptake inhibitor class. Reboxetine dose-dependently and potently inhibits locus coeruleus neuronal firing in rats with ED<sub>50</sub> of 191 μg/kg. Reboxetine inhibition of the locus coeruleus neurons is reversible by the α<sub>2</sub> antagonist piperoxan (1.5 mg/kg, IV). Reboxetine dose-dependently reverses reserpine-induced

blepharospasm and hypothermia in the mouse. Reboxetine is also found to antagonize clonidine-induced hypothermia dose-dependently in mice. Reboxetine reverses reserpine-induced blepharospasm and hypothermia in rats with ED50 of 10 mg/kg and 3 mg/kg (p.o.), respectively [1]. Reboxetine is associated with a markedly lower relapse rate than placebo (22% vs. 56%) and a greater cumulative probability of a maintained response during long-term treatment in patients with recurrent DSM-III-R major depression. Reboxetine effectively prevents recurrence of depressive symptoms following episode resolution [2]. Acute systemic administration of Reboxetine (0.3 mg/kg-20 mg/kg) dose-dependently increases extracellular norepinephrine in the rat frontal cortex while having no effect on extracellular serotonin. Reboxetine (20 mg/kg) also increases extracellular dopamine in the rat frontal cortex. Chronic administration of Reboxetine for 14 days results in elevated basal concentrations of extracellular norepinephrine and dopamine and a greater net increase of extracellular norepinephrine and dopamine, but not serotonin in the rat frontal cortex [3].

## CUSTOMER VALIDATION

- Nat Med. 2019 Sep;25(9):1428-1441.

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## REFERENCES

- [1]. Wong, E.H., et al., Reboxetine: a pharmacologically potent, selective, and specific norepinephrine reuptake inhibitor. *Biol Psychiatry*, 2000. 47(9): p. 818-29.
- [2]. Versiani, M., et al., Reboxetine, a unique selective NRI, prevents relapse and recurrence in long-term treatment of major depressive disorder. *J Clin Psychiatry*, 1999. 60(6): p. 400-6.
- [3]. Page, M.E. and I. Lucki, Effects of acute and chronic reboxetine treatment on stress-induced monoamine efflux in the rat frontal cortex. *Neuropsychopharmacology*, 2002. 27(2): p. 237-47.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA