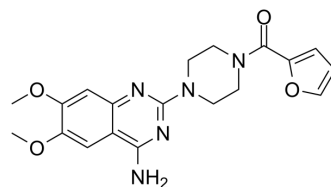


## Prazosin

Cat. No.:	HY-B0193
CAS No.:	19216-56-9
Molecular Formula:	C <sub>19</sub> H <sub>21</sub> N <sub>5</sub> O <sub>4</sub>
Molecular Weight:	383.4
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 41.67 mg/mL (108.69 mM; ultrasonic and warming and heat to 60°C)																			
	H <sub>2</sub> O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)																			
Preparing Stock Solutions	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th colspan="3">Mass</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>2.6082 mL</td> <td>13.0412 mL</td> <td>26.0824 mL</td> </tr> <tr> <td>5 mM</td> <td>0.5216 mL</td> <td>2.6082 mL</td> <td>5.2165 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2608 mL</td> <td>1.3041 mL</td> <td>2.6082 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass			1 mg	5 mg	10 mg	1 mM	2.6082 mL	13.0412 mL	26.0824 mL	5 mM	0.5216 mL	2.6082 mL	5.2165 mL	10 mM	0.2608 mL	1.3041 mL	2.6082 mL
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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: ≥ 5 mg/mL (13.04 mM); Clear solution																			

### BIOLOGICAL ACTIVITY

Description	<p>Prazosin is an alpha-adrenergic blocker and is a sympatholytic drug used to treat high blood pressure and anxiety, PTSD, and panic disorder. Target: Adrenergic Receptor Prazosin, is a sympatholytic drug used to treat high blood pressure and anxiety, PTSD, and panic disorder. It is an alpha-adrenergic blocker that is specific for the alpha-1 receptors. These receptors are found on vascular smooth muscle, where they are responsible for the vasoconstrictive action of norepinephrine. They are also found throughout the central nervous system. As of 2013, prazosin is off-patent in the US, and the FDA has approved at least one generic manufacturer. In addition to its alpha-blocking activity, prazosin is an antagonist of the MT3 receptor (which is not present in humans), with selectivity for this receptor over the MT1 and MT2 receptors. Prazosin is orally active and has a minimal effect on cardiac function due to its alpha-1 receptor selectivity. However, when prazosin is initially started, heart rate and contractility go up in order to maintain the pre-treatment blood pressures because the body has reached homeostasis at its abnormally high blood pressure. The blood pressure lowering effect becomes apparent when prazosin is taken for longer periods of time. The heart rate and contractility go back down over time and blood pressure decreases.</p>
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## CUSTOMER VALIDATION

- Cell Discov. 2023 Feb 7;9(1):16.
- J Exp Med. 2023 Nov 6;220(11):e20230577.
- Biomed Pharmacother. 2020 Apr;124:109731.
- J Transl Med. 2022 Oct 2;20(1):444.
- J Med Chem. 2021 Mar 11;64(5):2725-2738.

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## REFERENCES

- [1]. Day HE, et al. Distribution of alpha 1a-, alpha 1b- and alpha 1d-adrenergic receptor mRNA in the rat brain and spinal cord. J Chem Neuroanat. 1997 Jul;13(2):115-39.
- [2]. Yu CX, et al. Selective MT(2) melatonin receptor antagonist blocks melatonin-induced antinociception in rats. Neurosci Lett. 2000 Mar 24;282(3):161-4.
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**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