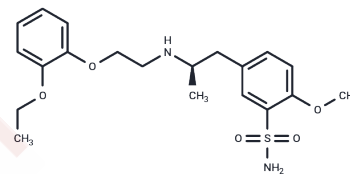


## Tamsulosin

## Chemical Properties

CAS No. : 106133-20-4  
 Formula: C<sub>20</sub>H<sub>28</sub>N<sub>2</sub>O<sub>5</sub>  
 Molecular Weight: 408.51  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
*Actual storage temperature shall be subject to the COA.*



## Biological Description

Description	Tamsulosin ((R)-(-)-YM12617 free base) is an alpha1A adrenergic receptor antagonist used for the symptomatic treatment of benign prostatic hyperplasia (BPH). It treats difficulty urinating, a common symptom of an enlarged prostate, by relaxing the neck muscles of the bladder and muscle fibers in the prostate itself, easing urination.
Targets(IC50)	Apoptosis,Endogenous Metabolite,Adrenergic Receptor

## Solubility Information

Solubility	DMSO: 250 mg/mL (611.98 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 25 mg/mL (61.2 mM),Solution. 10% DMSO+90% Saline: < 25 mg/mL (61.2 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4479 mL	12.2396 mL	24.4792 mL
5 mM	0.4896 mL	2.4479 mL	4.8958 mL
10 mM	0.2448 mL	1.224 mL	2.4479 mL
50 mM	0.049 mL	0.2448 mL	0.4896 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Özsoy M, Liatsikos E, Scheffbuch N, Kallidonis P. Comparison of silodosin to tamsulosin for medical expulsive treatment of ureteral stones: a systematic review and meta-analysis. *Urolithiasis*. 2016 Mar 28.
- Dimitropoulos K, Gravas S. Fixed-dose combination therapy with dutasteride and tamsulosin in the management of benign prostatic hyperplasia. *Ther Adv Urol*. 2016 Feb;8(1):19-28.
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- Shim SR, et al. General effect of low-dose tamsulosin (0.2mg) as a first-line treatment for lower urinary tract symptoms associated with benign prostatic hyperplasia: a systematic review and meta-analysis. *Curr Med Res Opin*. 2015 Feb;31(2):353-65.

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