

# PRODUCT INFORMATION

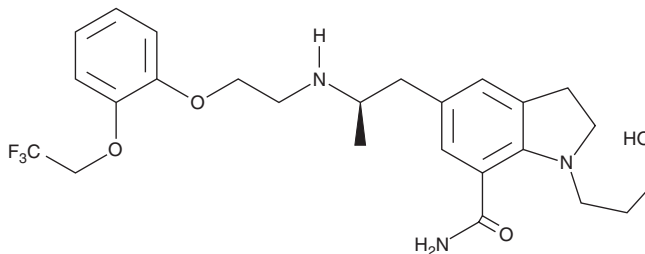


## Silodosin

Item No. 14866

**CAS Registry No.:** 160970-54-7  
**Formal Name:** 2,3-dihydro-1-(3-hydroxypropyl)-5-  
[[2R)-2-[[2-[2-(2,2,2-trifluoroethoxy)  
phenoxy]ethyl]amino]propyl]-1H-  
indole-7-carboxamide

**Synonym:** KMD-3213  
**MF:** C<sub>25</sub>H<sub>32</sub>F<sub>3</sub>N<sub>3</sub>O<sub>4</sub>  
**FW:** 495.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 269, 311 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Silodosin is supplied as a crystalline solid. A stock solution may be made by dissolving the silodosin in the solvent of choice, which should be purged with an inert gas. Silodosin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of silodosin in these solvents is approximately 25 mg/ml.

Silodosin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, silodosin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Silodosin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Silodosin is a potent  $\alpha_{1A}$ -adrenoceptor antagonist ( $K_i = 0.036$  nM).<sup>1,2</sup> It shows selectivity for the prostatic adrenoceptor.<sup>1,3</sup> As a result, it is effective against lower urinary tract symptoms associated with benign prostatic hyperplasia.<sup>4,5</sup>

### References

1. Moriyama, N., Akiyama, K., Murata, S., *et al.* KMD-3213, a novel  $\alpha_{1A}$ -adrenoceptor antagonist, potently inhibits the functional  $\alpha_1$ -adrenoceptor in human prostate. *Eur. J. Pharmacol.* **331(1)**, 39-42 (1997).
2. Li, M.Y., Tsai, K.C., and Xia, L. Pharmacophore identification of  $\alpha_{1A}$ -adrenoceptor antagonists. *Bioorg. Med. Chem. Lett.* **15(3)**, 657-664 (2005).
3. Akiyama, K., Hora, M., Tatemichi, S., *et al.* KMD-3213, a uroselective and long-acting  $\alpha_{1a}$ -adrenoceptor antagonist, tested in a novel rat model. *J. Pharmacol. Exp. Ther.* **291(1)**, 81-91 (1999).
4. Ding, H., Du, W., Hou, Z.Z., *et al.* Silodosin is effective for treatment of LUTS in men with BPH: A systematic review. *Asian J. Androl.* **15(1)**, 121-128 (2013).
5. Yoshida, M., Kudoh, J., Homma, Y., *et al.* Safety and efficacy of silodosin for the treatment of benign prostatic hyperplasia. *Clin. Interv. Aging* **6**, 161-172 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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