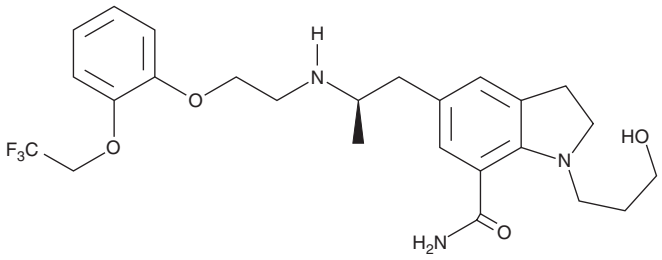
PRODUCT INFORMATION

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:	$C_{25}H_{32}F_3N_3O_4$
FW:	495.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 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 α_{1A}-adrenoceptor antagonist (K_i = 0.036 nM).[1,2] It shows selectivity for the prostatic adrenoceptor.[1,3] As a result, it is effective against lower urinary tract symptoms associated with benign prostatic hyperplasia.[4,5]

References

1. Moriyama, N., Akiyama, K., Murata, S., *et al.* KMD-3213, a novel α_{1A}-adrenoceptor antagonist, potently inhibits the functional α_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 α_{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 α_{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).

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