

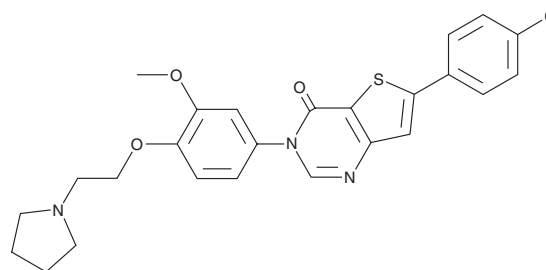
# PRODUCT INFORMATION



## Alfuzosin (hydrochloride)

Item No. 13648

**CAS Registry No.:** 81403-68-1  
**Formal Name:** N-[3-[(4-amino-6,7-dimethoxy-2-quinazoliny)methylamino]propyl]tetrahydro-2-furancarboxamide, monohydrochloride  
**Synonyms:** SL 77499-10, Uroxatral  
**MF:** C<sub>19</sub>H<sub>27</sub>N<sub>5</sub>O<sub>4</sub> • HCl  
**FW:** 425.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 246, 331, 344 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

Alfuzosin (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the alfuzosin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Alfuzosin (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of alfuzosin (hydrochloride) in these solvents is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of alfuzosin (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of alfuzosin (hydrochloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Alfuzosin is a post-synaptic  $\alpha_1$ -adrenergic receptor antagonist commonly used to improve lower urinary tract symptoms associated with benign prostatic hyperplasia (BPH).<sup>1,2</sup> It displays high-affinity with non-selectivity for the three known human  $\alpha_1$  adrenoceptors ( $pK_i = 8.0, 8.0,$  and  $8.5$  for  $\alpha_{1A}, \alpha_{1B},$  and  $\alpha_{1D}$ , respectively).<sup>3</sup> Consistent with a role for  $\alpha_1$  adrenoceptors in mediating contraction of smooth muscle, alfuzosin was first described as having anti-hypertensive effects with peripheral vasodilator properties.<sup>1</sup> In patients with BPH, alfuzosin increases mean urinary flow rate and decreases residual volume.<sup>2</sup> Alfuzosin produces minimal vasodilatory and sexual function side effects.<sup>4-6</sup>

### References

1. Sinclair, A.J., Davies, I.B., and Warrington, S.J. *Br. J. Clin. Pharmacol.* **27**, 19-22 (1989).
2. Jardin, A., Bensadoun, H., Delauche-Cavallier, M.C., et al. *Lancet* **337**, 1457-1461 (1991).
3. Kenny, B.A., Miller, A.M., Williamson, I.J.R., et al. *Br. J. Pharmacol.* **118**, 871-878 (1996).
4. Roehrborn, C.G. and Rosen, R.C. *Clin. Interv. Aging* **3(3)**, 511-524 (2008).
5. Nickel, J.C., Sander, S., and Moon, T.D. *Int. J. Clin. Pract.* **62(10)**, 1547-1559 (2008).
6. Michel, M.C. *J. Pharmacol. Sci.* **112**, 151-157 (2010).

#### 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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