

## Certificate of Analysis

**Product Name:** Alfuzosin hydrochloride

**Catalog No.:** 3305

**Batch No.:** 1

CAS Number: 81403-68-1

IUPAC Name: *N*-[3-[(4-Amino-6,7-dimethoxy-2-quinazoliny)methylamino]propyl]tetrahydro-2-furancarboxamide hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>19</sub>H<sub>27</sub>N<sub>5</sub>O<sub>4</sub>·HCl·1½H<sub>2</sub>O

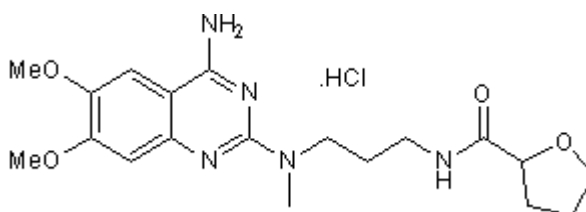
**Batch Molecular Weight:** 448.43

**Physical Appearance:** White crystalline solid

**Solubility:** water to 25 mM  
DMSO to 25 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** Between 226 - 228°C

**HPLC:** Shows >99.3% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	50.89	6.86	15.62
Found	50.9	6.61	15.35

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:** Alfuzosin hydrochloride

**Catalog No.:** 3305

**Batch No.:** 1

CAS Number: 81403-68-1

IUPAC Name: *N*-[3-[(4-Amino-6,7-dimethoxy-2-quinazoliny)methylamino]propyl]tetrahydro-2-furancarboxamide hydrochloride

**Description:**

Functionally uro-selective  $\alpha_1$  adrenoceptor antagonist that does not discriminate between  $\alpha_1$  subtypes. Inhibits increases in intraurethral pressure caused by phenylephrine-induced contraction by 81% with minor cardiovascular effects. Also relaxes corpus cavernosum tissue ( $pIC_{50} = 7.64$ ) in vitro.

**Physical and Chemical Properties:**

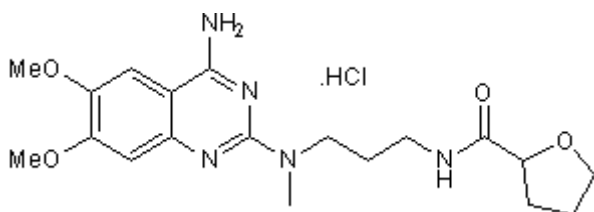
Batch Molecular Formula:  $C_{19}H_{27}N_5O_4 \cdot HCl \cdot 1\frac{1}{4}H_2O$

Batch Molecular Weight: 448.43

Physical Appearance: White crystalline solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 25 mM

DMSO to 25 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Palea and Barras** (2003) Comparison of the relaxant effects of alfuzosin, phentolamine and sildenafil on rabbit isolated corpus cavernosum. *BJU Int.* **91** 873. PMID: 12780851.

**Lee** (2003) Alfuzosin hydrochloride for the treatment of benign prostatic hyperplasia. *Am.J.Health Syst.Pharm.* **60** 1426. PMID: 12892027.

**Yamaguchi et al** (2005) Effects of different alpha-1 adrenoceptor blockers on proximal urethral function using *in vivo* isovolumetric pressure changes. *J.Smooth Muscle Res.* **41** 247. PMID: 16428864.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956