Print Date: Sep 23rd 2024

# Certificate of Analysis

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**Product Name:** **Terazosin hydrochloride** **Catalog No.: 1506** **Batch No.: 1**

CAS Number: 63074-08-8

IUPAC Name: 1-(4-Amino-6,7-dimethoxy-2-quinazolinyl)-4-[(tetrahydro-2-furanyl)carbonyl]-piperazine hydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{19}H_{25}N_5O_4.HCl.2H_2O$

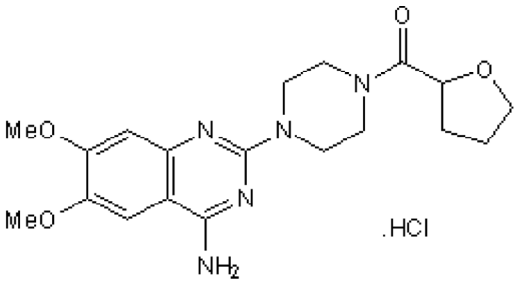
**Batch Molecular Weight:** 459.93

**Physical Appearance:** White solid

**Solubility:** water to 20 mM with gentle warming

**Storage:** Store at RT

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**TLC:** $R_f$ = 0.56 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])

**Melting Point:** Between 295 - 296°C

**HPLC:** Shows >99.7% purity

**$^1$H NMR:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 49.62 | 6.57 | 15.23 |
| Found | 49.52 | 6.69 | 14.99 |



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IUPAC Name: 1-(4-Amino-6,7-dimethoxy-2-quinazolinyl)-4-[(tetrahydro-2-furanyl)carbonyl]-piperazine hydrochloride

**Description:**

Terazosin hydrochloride is a selective $\alpha_1$ antagonist. Increases phosphoglycerate kinase 1 (PGK1) activity ($K_d$ = 2.9 µM). Upregulates glucose metabolism and increases ATP production. In an in vitro model of GI disease, terazosin reduces inflammation and protects against oxidative damage. Neuroprotective in in vivo models of ALS and Parkinson's Disease. Antihypertensive following oral or intravenous administration in vivo.

**Physical and Chemical Properties:**

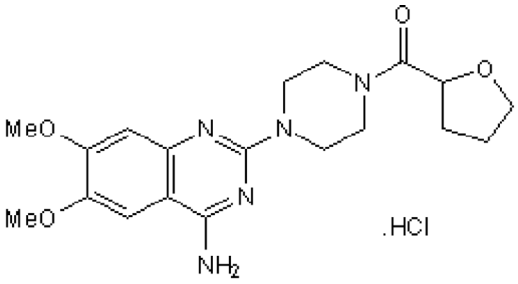
Batch Molecular Formula: $C_{19}H_{25}N_5O_4.HCl.2H_2O$

Batch Molecular Weight: 459.93

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**




**Storage:** Store at RT

**Solubility & Usage Info:**

water to 20 mM with gentle warming

**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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:**

**Hancock** *et al* (1995) Actions of tera. and its enantiomers at subtypes of α1- and α2-adrenoceptors *in vitro*. J.Recept.Signal Transduct.Res. ***15*** 863. PMID: 8673721.

**Maruyama** *et al* (1994) Comparison of displacemental potencies of tera. enantiomers for $\alpha_1$-adrenoceptor subtypes. Biol.Pharm.Bull. ***17*** 1126. PMID: 7820122.

**Kyncl** (1986) Pharmacology of tera. Am.J.Med. ***80*** 12. PMID: 2872801.