

**Product Name:** Trequinsin hydrochloride

**Catalog No.:** 2337

**Batch No.:** 1

CAS Number: 78416-81-6

IUPAC Name: 2,3,6,7-Tetrahydro-9,10-dimethoxy-3-methyl-2-[(2,4,6-trimethylphenyl)imino]-4H-pyrimido[6,1-a]isoquinolin-4-one hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>24</sub>H<sub>27</sub>N<sub>3</sub>O<sub>3</sub>.HCl

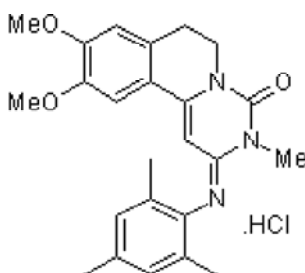
**Batch Molecular Weight:** 441.95

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM  
ethanol to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.2 (Ether:Petroleum ether [2:1])

**HPLC:** Shows 96.6% purity

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

**<sup>13</sup>C NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.22	6.39	9.5
Found	64.95	6.46	9.32

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**Description:**

Trequinsin hydrochloride is a highly potent inhibitor of cGMP-inhibited phosphodiesterase (PDE3; IC<sub>50</sub> = 250 pM). Potently inhibits arachidonic acid-induced aggregation of human platelets (IC<sub>50</sub> = 50 pM). Orally active antihypertensive agent; reduces systemic blood pressure in both normotensive and hypertensive animal models. Also activates CatSper channels, increases intracellular Ca<sup>2+</sup> and cGMP levels, and decreases potassium channel activity in sperm.

**Physical and Chemical Properties:**

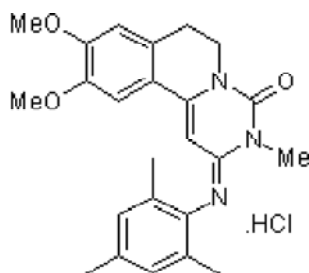
Batch Molecular Formula: C<sub>24</sub>H<sub>27</sub>N<sub>3</sub>O<sub>3</sub>.HCl

Batch Molecular Weight: 441.95

Physical Appearance: Pale yellow solid

**Minimum Purity:** ≥97%

**Batch Molecular Structure:**



**References:**

**McBrinn et al** (2019) Novel pharmacological actions of Trequinsin Hydrochloride improve human sperm cell motility and function. *Br.J.Pharmacol.* PMID: 31368510.

**Agarwal et al** (1987) Role of plasma adenosine in the antiplatelet action of HL 725, a potent inhibitor of cAMP phosphodiesterase: species differences. *Thromb.Res.* **47** 191. PMID: 2821650.

**Lal et al** (1984) Trequinsin, a potent new antihypertensive vasodilator in the series of 2-(arylimino)-3-alkyl-9,10-dimethoxy-3,4,6,7-tetrahydro-2H-pyrimido[6,1-a]isoquinolin-4-ones. *J.Med.Chem.* **27** 1470. PMID: 6492077.

**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 100 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.

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