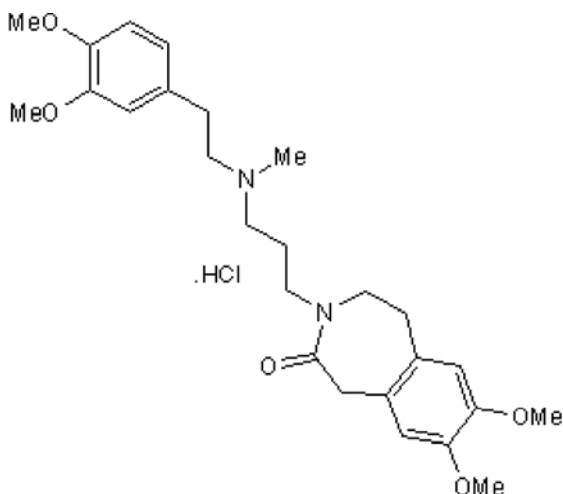


Product Name: Zatebradine hydrochloride **Catalog No.:** 2202 **Batch No.:** 1
CAS Number: 91940-87-3
IUPAC Name: 3-[3-[[2-(3,4-Dimethoxyphenyl)ethyl]methylamino]propyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₃₆N₂O₅.HCl.½H₂O
Batch Molecular Weight: 502.05
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.28 (Dichloromethane:Methanol [4:1])
Melting Point: Between 186 - 188°C
HPLC: Shows 98.2% purity
¹H NMR: Consistent with structure
¹³C NMR: Consistent with structure
Mass Spectrum: Consistent with structure

	Carbon Hydrogen Nitrogen		
	Carbon	Hydrogen	Nitrogen
Theoretical	62.2	7.63	5.58
Found	61.9	7.52	5.54

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

Product Name:	Zatebradine hydrochloride	Catalog No.:	2202	Batch No.:	1
CAS Number:	91940-87-3				
IUPAC Name:	3-[3-[[2-(3,4-Dimethoxyphenyl)ethyl]methylamino]propyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one hydrochloride				

Description:

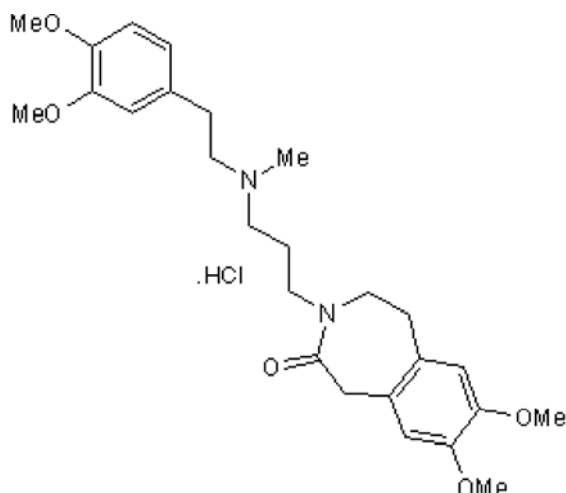
Zatebradine hydrochloride is a bradycardic agent that produces use-dependent inhibition of hyperpolarization-activated current I_f (HCN channel) in sinoatrial node cells (EC_{50} = 480 nM) and Purkinje fibres. Displays negative chronotropic activity in isolated guinea pig atria (EC_{50} of 13.4 μ M).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{26}H_{36}N_2O_5 \cdot HCl \cdot \frac{1}{2}H_2O$
 Batch Molecular Weight: 502.05
 Physical Appearance: White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



References:

- Romanelli et al** (2005) Design, synthesis and preliminary biological evaluation of zatebradine analogues as potential blockers of the hyperpolarization-activated current. *Bioorg.Med.Chem.* **13** 1211. PMID: 15670930.
- Goethals et al** (1993) Use-dependent block of the pacemaker current I_f in rabbit sinoatrial node cells by zatebradine (UL-FS 49). On the mode of action of sinus node inhibitors. *Circulation* **88** 2389. PMID: 8222132.
- Van Bogaert et al** (1990) Use- and frequency-dependent blockade by UL-FS 49 of the i_f pacemaker current in sheep cardiac Purkinje fibres. *Eur.J.Pharmacol.* **187** 241. PMID: 2272362.

Storage: Desiccate at +4°C. This product is packaged under an inert atmosphere.

Solubility & Usage Info:
water 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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