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# DATASHEET

## Zatebradine hydrochloride

### Product overview

<b>Name</b>	Zatebradine hydrochloride
<b>Cat No</b>	HB1151
<b>Alternative names</b>	UL-FS 49
<b>Biological action</b>	Blocker
<b>Purity</b>	>95%
<b>Description</b>	HCN channel blocker. Potent, selective bradycardic agent.

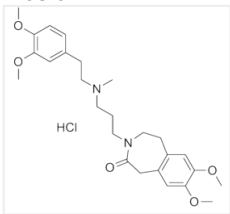
### Biological Data

<b>Biological description</b>	Hyperpolarization-activated, cyclic nucleotide-gated cation (HCN) channel blocker ( $IC_{50} = 1.96 \mu M$ ). Potent and selective bradycardic agent that acts at sinoatrial node. Also blocks voltage-gated outward $K^+$ currents (IK) and hyperpolarization-activated inward currents (I(f)). Exhibits little or no activity for L-type $Ca^{2+}$ currents (ICa). Displays antiarrhythmic properties.
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### Solubility & Handling

<b>Storage instructions</b>	+4 °C (desiccate)
<b>Solubility overview</b>	Soluble in water (100mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

### Chemical Data

<b>Chemical name</b>	3-[3-[[2-(3,4-Dimethoxyphenyl)ethyl][methylamino]propyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one hydrochloride
<b>Molecular Weight</b>	493.04
<b>Chemical structure</b>	
<b>Molecular Formula</b>	$C_{26}H_{36}N_2O_5 \cdot HCl$
<b>CAS Number</b>	91940-87-3
<b>PubChem identifier</b>	3045335
<b>SMILES</b>	<chem>Cl.COC1=CC=C(CCN(C)CCCN2CCC3=C(CC2=O)C=C(OC)C(OC)=C3)C=C1OC</chem>
<b>InChi</b>	<chem>InChI=1S/C26H36N2O5.ClH/c1-27(13-9-19-7-8-22(30-2)23(15-19)31-3)11-6-12-28-14-10-20-16-24(32-4)25(33-5)17-21(20)18-26(28)29;/h7-8,15-17H,6,9-14,18H2,1-5H3;1H</chem>
<b>InChiKey</b>	ZRNKXJHEQKMWCH-UHFFFAOYSA-N
<b>MDL number</b>	MFCD06798356

### References

**Multiple inhibitory effects of zatebradine (UL-FS 49) on the electrophysiological properties of retinal rod photoreceptors.**

Satoh TO *et al* (2002) *Pflugers Arch* 443(4)

**PubMedID** [11907819](#)

**Acute effects of zatebradine on cardiac conduction and repolarization.**

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**Three different bradycardic agents, zatebradine, diltiazem and propranolol, distinctly modify heart rate variability and QT-interval variability.**

Yamabe M *et al* (2007) *Pharmacology* 80(4)

**PubMedID** [17690562](#)

**Bradycardic and proarrhythmic properties of sinus node inhibitors.**

Stieber J *et al* (2006) *Mol Pharmacol* 69(4)

**PubMedID** [16387796](#)

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