

# **Certificate of Analysis**

Print Date: Jul 13th 2018

Batch No.: 1

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Catalog No.: 6542

**Product Name: Ivabradine hydrochloride** 

CAS Number: 148849-67-6

IUPAC Name: 3-[3-[[[(7S)-3,4-Dimethoxybicyclo[4.2.0]octa-1,3,5-trien-7-yl]methyl]methylamino]propyl]

-1,3,4,5-tetrahydro-7,8-dimethoxy-2*H*-3-benzazepin-2-one hydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>27</sub>H<sub>36</sub>N<sub>2</sub>O<sub>5</sub>.HCl.<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O

**Batch Molecular Weight:** 518.56 **Physical Appearance:** White solid

Solubility: water to 100 mM DMSO to 100 mM

DIVISO 10 100 IIII

Storage: Store at -20°C

**Batch Molecular Structure:** 

#### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity

<sup>1</sup>H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 62.54 7.48 5.4 Found 62.69 7.56 5.39



## **Product Information**

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-1,3,4,5-tetrahydro-7,8-dimethoxy-2*H*-3-benzazepin-2-one hydrochloride

#### **Description:**

HCN channel blocker (IC  $_{50}$  is approximately 0.5 - 2.5  $\mu M).$  Bradycardic agent that inhibits I  $_f$  pacemaker current in sinoatrial node cells.

## **Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{27}H_{36}N_2O_5$ .HCl. $^3\!\!\!/_4H_2O$ 

Batch Molecular Weight: 518.56 Physical Appearance: White solid

Minimum Purity: >98%

#### **Batch Molecular Structure:**

Storage: Store at -20°C

## Solubility & Usage Info:

water to 100 mM DMSO 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).

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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:

**Novella Romanelli** *et al* (2016) HCN Channels Modulators: The Need for Selectivity. Curr.Top.Med.Chem. *16* 1764. PMID: 26975509. **Thollon** *et al* (1994) Electrophysiological effects of S 16257, a novel sino-atrial node modulator, on rabbit and guinea-pig cardiac preparations: comparison with UL-FS 49. Br.J.Pharmacol. *112* 37. PMID: 8032660.

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