# **Certificate of Analysis**

#### www.tocris.com

#### (S)-(-)-Propranolol hydrochloride Product Name:

Catalog No.: 0834 EC Number: 224-096-0 Batch No.: 4

IUPAC Name: (S)-(-)-1-[(1-methylethyl)amino]-3-(1-naphthalenyloxy)-2-propanol hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

4199-10-4

**Batch Molecular Formula: Batch Molecular Weight: Physical Appearance:** Solubility: Storage: **Batch Molecular Structure:** 

 $C_{16}H_{21}NO_2.HCI.$ 295.81 White solid water to 20 mM Store at RT

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65.13

7.38

4.73

#### 2. ANALYTICAL DATA

HPLC:	Shows 99.8% purity			
Chiral HPLC:	Shows 99.7% purity			
<sup>1</sup> H NMR:	Consistent with structure			
Mass Spectrum:	Consistent with structure			
Optical Rotation:	$[\alpha]_D$ = -26 (Concentration = 1, Solvent = Ethanol)			
Microanalysis:	Carbon Hydrogen Nitrogen			
	Theoretical 64.97 7.5 4.74			

Found

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

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CAS Number:

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### Print Date: Oct 4<sup>th</sup> 2024

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#### **Description:**

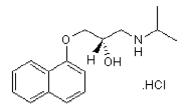
(S)-(-)-Propranolol hydrochloride is a more active enantiomer of the  $\beta$ -adrenoceptor antagonist propranolol. Racemate, R-enantiomer and Glycol Metabolite also available.

#### Physical and Chemical Properties:

Batch Molecular Formula: C<sub>16</sub>H<sub>21</sub>NO<sub>2</sub>.HCI. Batch Molecular Weight: 295.81 Physical Appearance: White solid

Minimum Purity: ≥98%

**Batch Molecular Structure:** 



Storage: Store at RT

Solubility & Usage Info: water to 20 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. \*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:**

**Barrett** *et al* (1968) The biological properties of the optical isomers of propra. and their effects on cardiac arrhythmias. Br.J.Pharmacol. *34* 43. PMID: 19108278.

**Bond** *et al* (1967) Metabolism of propra. (Inderal) a potent, specific  $\beta$ -adrenergic receptor blocking agent. Nature **213** 721. PMID: 6031788.

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