

## Certificate of Analysis

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

**Catalog No.:** 0834

**Batch No.:** 3

CAS Number: 4199-10-4

EC Number: 224-096-0

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

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>21</sub>NO<sub>2</sub>.HCl

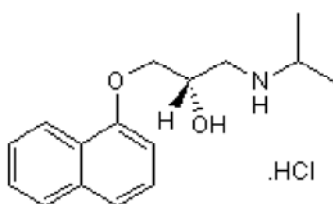
**Batch Molecular Weight:** 295.81

**Physical Appearance:** White solid

**Solubility:** water to 20 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity

**Chiral HPLC:** Shows 98.8% purity

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

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** [α]<sub>D</sub> = -30 (Concentration = 1, Solvent = Ethanol)

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.97	7.5	4.74
Found	65.05	7.48	4.72

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

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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:**

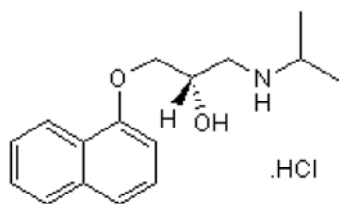
Batch Molecular Formula: C<sub>16</sub>H<sub>21</sub>NO<sub>2</sub>.HCl

Batch Molecular Weight: 295.81

Physical Appearance: White solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**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.

**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. 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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