

## Certificate of Analysis

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**Product Name:** Talopram hydrochloride

**Catalog No.:** 3145

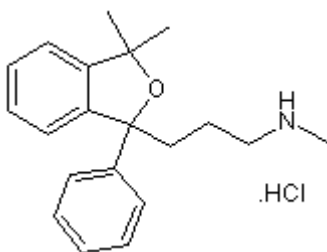
**Batch No.:** 1

**CAS Number:** 7013-41-4

**IUPAC Name:** 1,3-Dihydro-*N*,3,3-trimethyl-1-phenyl-1-isobenzofuranpropanamine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>20</sub>H<sub>25</sub>NO.HCl  
**Batch Molecular Weight:** 331.88  
**Physical Appearance:** White solid  
**Solubility:** water to 50 mM  
DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.28 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	72.38	7.9	4.22
Found	72.31	7.99	4.32

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

## Product Information

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### Description:

Potent, selective inhibitor of the noradrenalin transporter (NET) ( $IC_{50} = 2.9$  nM). Exhibits selectivity for NET against SERT (5-HT transporters) and DAT (dopamine transporters). Displays a similar structure but different pharmacological profile to citalopram (Cat. No. 1427).

### Physical and Chemical Properties:

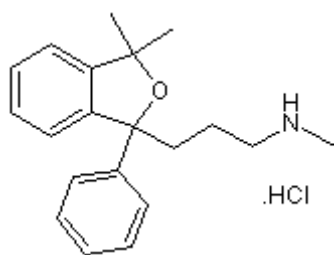
Batch Molecular Formula:  $C_{20}H_{25}NO \cdot HCl$

Batch Molecular Weight: 331.88

Physical Appearance: White solid

**Minimum Purity:** >99%

### Batch Molecular Structure:



**Storage:** Desiccate at RT

### Solubility & Usage Info:

water to 50 mM

DMSO to 100 mM

ethanol 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.

### References:

**Bogeso et al** (1985) 3-phenyl-1-indanamines. Potential antidepressant activity and potent inhibition of dopamine, norepinephrine, and serotonin uptake. *J.Med.Chem.* **28** 1817. PMID: 2999402.

**Schou et al** (2006) Synthesis and positron emission tomography evaluation of three norepinephrine transporter radioligands: [C-11] desipramine, [C-11]talopram and [C-11]talsupram. *Mol.Imaging Biol.* **8** 1.

**Eildal et al** (2008) From the selective serotonin transporter inhibitor citalopram to the selective norepinephrine transporter inhibitor talopram: synthesis and structure-activity relationship studies. *J.Med.Chem.* **51** 3045. PMID: 18429609.

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