

## Certificate of Analysis

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

**Product Name:** Bupropion hydrochloride

**Catalog No.:** 2831

**Batch No.:** 2

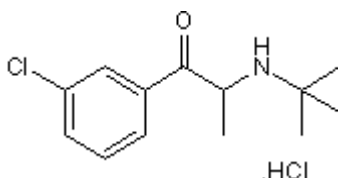
CAS Number: 31677-93-7

EC Number: 250-759-9

IUPAC Name: 1-(3-Chlorophenyl)-2-[(1,1-dimethylethyl)amino]-1-propanone hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>13</sub>H<sub>18</sub>ClNO.HCl  
**Batch Molecular Weight:** 276.2  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Desiccate at RT  
**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	56.53	6.93	5.07
Found	56.61	7.08	5.08

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

## Product Information

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IUPAC Name: 1-(3-Chlorophenyl)-2-[(1,1-dimethylethyl)amino]-1-propanone hydrochloride

**Description:**

Non-selective inhibitor of dopamine and noradrenalin transporters ( $K_i$  values are 1.4, 2.8 and 45  $\mu$ M for NET, DAT and SERT transporters respectively). Also inhibits neuronal nicotinic acetylcholine receptors. Displays antidepressant activity and augments nicotine self-administration at low doses in vivo.

**Physical and Chemical Properties:**

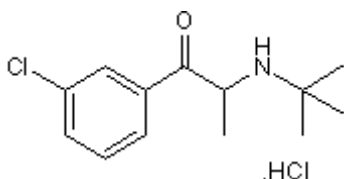
Batch Molecular Formula:  $C_{13}H_{18}ClNO.HCl$

Batch Molecular Weight: 276.2

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 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:**

**Slemmer *et al*** (2000) Bupropion is a nicotinic antagonist. *J.Pharmacol.Exp.Ther.* **295** 321. PMID: 10991997.

**Torres *et al*** (2003) Plasma membrane monoamine transporters: structure regulation and function. *Nat.Rev.Neurosci.* **4** 13. PMID: 12511858.

**Dwoskin *et al*** (2006) Review of the pharmacology and clinical profile of bupropion, antidepressant and tobacco use cessation agent. *CNS Drug Rev.* **12** 178. PMID: 17227286.

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