

## Certificate of Analysis

www.tocris.com

**Product Name:** Bicifadine hydrochloride

**Catalog No.:** 4357

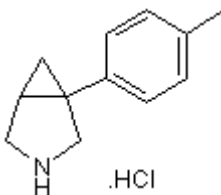
**Batch No.:** 1

CAS Number: 66504-75-4

IUPAC Name: 1-(4-Methylphenyl)-3-azabicyclo[3.1.0]hexane hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>12</sub>H<sub>15</sub>N.HCl  
**Batch Molecular Weight:** 209.72  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.45 (Chloroform:Methanol:Ammonia soln. [90:10:0.1])  
**HPLC:** Shows 98.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	68.73	7.69	6.68
Found	68.52	7.62	6.69

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

**Product Name:** Bicifadine hydrochloride

**Catalog No.:** 4357

**Batch No.:** 1

CAS Number: 66504-75-4

IUPAC Name: 1-(4-Methylphenyl)-3-azabicyclo[3.1.0]hexane hydrochloride

**Description:**

Potent antagonist of the noradrenalin transporter ( $IC_{50} = 55$  nM); also displays antagonist activity at the 5-HT and dopamine transporters ( $IC_{50}$  values are 117 nM and 910 nM respectively). Orally active. Exhibits antinociceptive and antialloodynic activity in rodent models of acute, persistent, and chronic pain.

**Physical and Chemical Properties:**

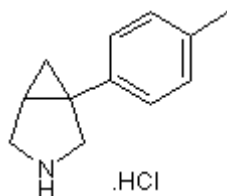
Batch Molecular Formula:  $C_{12}H_{15}N.HCl$

Batch Molecular Weight: 209.72

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Epstein** (1981) 1-Aryl-3-azabicyclo[3.1.0]hexanes, a new series of nonnarcotic analgesic agents. *J.Med.Chem.* **24** (5) 481. PMID: 7241504.

**Basile** (2007) Characterization of the antinociceptive actions of bicifadine in models of acute, persistent, and chronic pain. *J.Pharmacol.Exp.Ther* **321** (3) 1208. PMID: 17325229.

**Storage:** Desiccate at RT

**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).

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.

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

Tel:+1 612 379 2956