

## Certificate of Analysis

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

**Product Name:** PSB 11 hydrochloride

**Catalog No.:** 2012

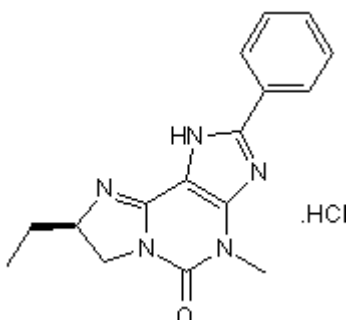
**Batch No.:** 1

CAS Number: 453591-58-7

IUPAC Name: (8*R*)-8-Ethyl-1,4,7,8-tetrahydro-4-5*H*-imidazo[2,1-*i*]purin-5-one hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>16</sub> H <sub>17</sub> N <sub>5</sub> O.½H <sub>2</sub> O
<b>Batch Molecular Weight:</b>	340.81
<b>Physical Appearance:</b>	Off-white solid
<b>Solubility:</b>	DMSO to 20 mM with gentle warming
<b>Storage:</b>	Store at +4°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>Melting Point:</b>	Between 317 - 322°C
<b>HPLC:</b>	Shows 98.8% purity
<b>Chiral HPLC:</b>	Shows 99.1% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure

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

**Product Name:** PSB 11 hydrochloride

**Catalog No.:** 2012

**Batch No.:** 1

CAS Number: 453591-58-7

IUPAC Name: (8*R*)-8-Ethyl-1,4,7,8-tetrahydro-4-5*H*-imidazo[2,1-*l*]purin-5-one hydrochloride

**Description:**

Potent and selective antagonist for the human adenosine A<sub>3</sub> receptor, with low affinity for the rat A<sub>3</sub> receptor (K<sub>i</sub> values are 2.3 and > 10000 nM respectively). Displays > 1000-fold selectivity over human A<sub>1</sub> and A<sub>2A</sub> receptors (K<sub>i</sub> values are 4.1 and 3.3 μM respectively) and > 180-fold selectivity over rat A<sub>1</sub>, rat A<sub>2A</sub> and mouse A<sub>2B</sub> receptors. Acts as an inverse agonist in the [<sup>35</sup>S]GTPγS binding assay in hA<sub>3</sub>-CHO cells (IC<sub>50</sub> = 36 nM).

**Physical and Chemical Properties:**

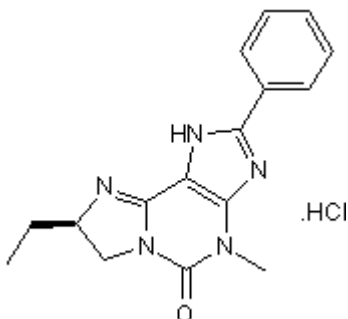
Batch Molecular Formula: C<sub>16</sub>H<sub>17</sub>N<sub>5</sub>O.½H<sub>2</sub>O

Batch Molecular Weight: 340.81

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Muller et al** (2002) Imidazo[2,1-*l*]purin-5-ones and related tricyclic water-soluble purine derivatives: potent A<sub>2A</sub>- and A<sub>3</sub>-adenosine receptor antagonists. *J. Med. Chem.* **45** 3440. PMID: 12139454.

**Muller** (2003) Medicinal chemistry of adenosine A<sub>3</sub> receptor ligands. *Curr. Top. Med. Chem.* **3** 445. PMID: 12570761.

**Ozola et al** (2003) 2-Phenylimidazo[2,1-*l*]purin-5-ones: structure-activity relationships and characterization of potent and selective inverse agonists at human A<sub>3</sub> adenosine receptors. *Bioorg. Med. Chem.* **11** 347. PMID: 12517430.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 20 mM with gentle warming

**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