

## Certificate of Analysis

**Product Name:** Piribedil dihydrochloride

**Catalog No.:** 1031

**Batch No.:** 4

CAS Number: 1451048-94-4

IUPAC Name: 2-[4-(1,3-Benzodioxol-5-ylmethyl)-1-piperazinyl]pyrimidine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>18</sub>N<sub>4</sub>O<sub>2</sub>·2HCl

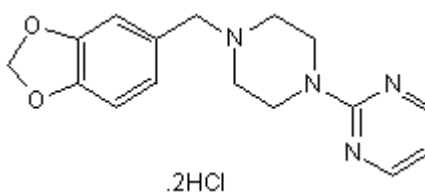
**Batch Molecular Weight:** 371.27

**Physical Appearance:** White solid

**Solubility:** water to 25 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.2 (Ethyl acetate:Petroleum ether [3:7])

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	51.76	5.43	15.09	19.1
Found	51.85	5.46	14.97	19.05

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

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**Description:**

A direct dopamine agonist, in clinical use for treatment of dopaminergic system dysfunction. Recent work suggests that it is selective for the D<sub>3</sub> subtype, for which it has 20 times higher affinity than for D<sub>2</sub>, and possesses no significant affinity for D<sub>1</sub> receptors.

**Physical and Chemical Properties:**

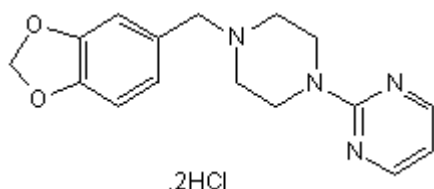
Batch Molecular Formula: C<sub>16</sub>H<sub>18</sub>N<sub>4</sub>O<sub>2</sub>.2HCl

Batch Molecular Weight: 371.27

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

Merck Index **12** 7648.

**Offermeier and van Rooyen** (1986) A comparative study of the locomotor activity effects of apomorphine and the 'atypical dopamine agonists' (piribedil and S36080). *Life Sci.* **38** 895. PMID: 3081774.

**Jenne** (1992) Parkinson's disease: pathological mechanisms and actions of piribedil. *J.Neurol.* **239** S2. PMID: 1634907.

**Cagnotto et al** (1996) In vitro affinity of piribedil for dopamine D<sub>3</sub> receptor subtypes, an autoradiographic study. *Eur.J.Pharmacol.* **313** 63. PMID: 8905329.

**Storage:** Store at RT

**Solubility & Usage Info:**

water to 25 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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