

## Certificate of Analysis

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**Product Name:** Ro 10-5824 dihydrochloride

**Catalog No.:** 2329

**Batch No.:** 2

CAS Number: 189744-94-3

IUPAC Name: 5-[(3,6-Dihydro-4-phenyl-1(2*H*)-pyridinyl)methyl]-2-methyl-4-pyrimidinamine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>20</sub>N<sub>4</sub>·2HCl

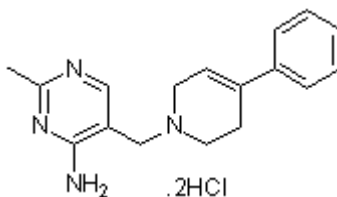
**Batch Molecular Weight:** 353.29

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 75 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.6 (Chloroform:Methanol [9:1])

**HPLC:** Shows >99.85% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	57.8	6.28	15.85
Found	58.05	6.21	16.03

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**Description:**

Selective dopamine D<sub>4</sub> receptor partial agonist (EC<sub>50</sub> = 205 nM) that binds with high affinity (K<sub>i</sub> = 5.2 nM). Displays 250-fold selectivity over D<sub>3</sub> receptors and > 1000-fold selectivity over D<sub>2</sub>, D<sub>1</sub> and D<sub>5</sub> receptors.

**Physical and Chemical Properties:**

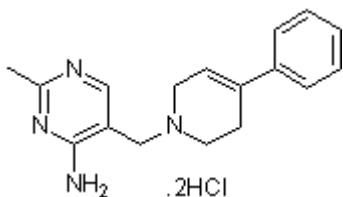
Batch Molecular Formula: C<sub>17</sub>H<sub>20</sub>N<sub>4</sub>.2HCl

Batch Molecular Weight: 353.29

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM

DMSO to 75 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:**

**Powell et al** (2003) RO-10-5824 is a selective dopamine D<sub>4</sub> receptor agonist that increases novel object exploration in C57 mice. *Neuropharmacology* **44** 473. PMID: 12646284.

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