

# Certificate of Analysis

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**Product Name:** Ro 20-1724

**Catalog No.:** 0415

**Batch No.:** 6

CAS Number: 29925-17-5

IUPAC Name: 4-(3-Butoxy-4-methoxyphenyl)methyl-2-imidazolidone

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>15</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>.

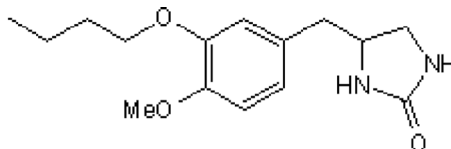
**Batch Molecular Weight:** 278.35

**Physical Appearance:** White solid

**Solubility:** ethanol to 100 mM  
DMSO to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	64.73	7.97	10.06
Found	64.93	8.01	10.14

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

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**IUPAC Name:** 4-(3-Butoxy-4-methoxyphenyl)methyl-2-imidazolidone

**Description:**

Ro 20-1724 is a widely used inhibitor of cyclic nucleotide phosphodiesterase, selective for PDE4 ( $IC_{50} = 2.0 \mu M$ ).

**Physical and Chemical Properties:**

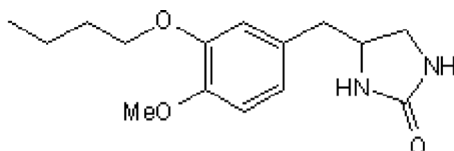
Batch Molecular Formula:  $C_{15}H_{22}N_2O_3$ .

Batch Molecular Weight: 278.35

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Soderling *et al*** (1998) Cloning and characterization of a cAMP-specific cyclic nucleotide phosphodiesterase. *Proc.Natl.Acad.Sci.U.S.A.* **95** 8991. PMID: 9671792.

**Nicholson *et al*** (1991) Differential modulation of tissue function and therapeutic potential of selective inhibitors of cyclic nucleotide phosphodiesterase isoenzymes. *TIPS* **12** 19. PMID: 1848733.

**Reeves *et al*** (1987) The identification of a new cyclic nucleotide phosphodiesterase activity in human and guinea-pig cardiac ventricle. *Biochem.J.* **241** 535. PMID: 3036066.

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