

## Certificate of Analysis

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**Product Name:** (R)-(-)-Rolipram

**Catalog No.:** 1349

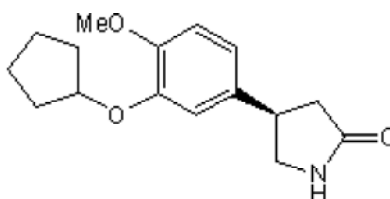
**Batch No.:** 15

CAS Number: 85416-75-7

IUPAC Name: (4R)-4-[3-(Cyclopentyloxy)-4-methoxyphenyl]pyrrolidin-2-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub>  
**Batch Molecular Weight:** 275.35  
**Physical Appearance:** Off White solid  
**Solubility:** ethanol to 100 mM  
 DMSO to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 98.5% purity  
**Chiral HPLC:** Shows 100% purity  
<sup>1</sup>H NMR: Consistent with structure  
 Mass Spectrum: Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.79	7.69	5.09
Found	70.15	7.69	5.01

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

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**Description:**

More active enantiomer of the PDE4 inhibitor rolipram; 2-10-fold more potent than the S-(+) enantiomer. Racemate and S-enantiomer also available.

**Physical and Chemical Properties:**

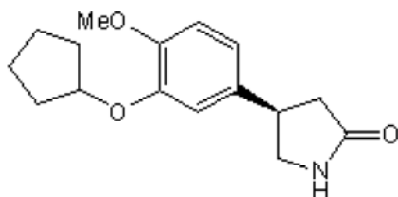
Batch Molecular Formula: C<sub>16</sub>H<sub>21</sub>NO<sub>3</sub>

Batch Molecular Weight: 275.35

Physical Appearance: Off 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. 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:**

**Ohsawa et al** (1998) Inhibitory effects of rolipram on partially purified phosphodiesterase 4 from rat brains. *Jpn.J.Pharmacol.* **77** 147. PMID: 9681571.

**Owens et al** (1997) Human phosphodiesterase 4A: characterization of full-length and truncated enzymes expressed in COS cells. *Biochem.J.* **326** 53. PMID: 9337850.

**Schneider et al** (1986) Stereospecific binding of the antidepressant rolipram to brain protein structures. *Eur.J.Pharmacol.* **127** 105. PMID: 3019721.

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