

Certificate of Analysis

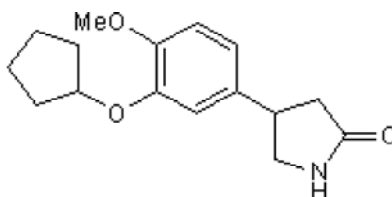
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Product Name: Rolipram
CAS Number: 61413-54-5
IUPAC Name: 4-(3-(Cyclopentyloxy)-4-methoxyphenyl)pyrrolidin-2-one

Catalog No.: 0905 **Batch No.:** 19
EC Number: 262-771-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₁NO₃
Batch Molecular Weight: 275.35
Physical Appearance: Off-white solid
Solubility: DMSO to 75 mM
 ethanol to 75 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.79	7.69	5.09
Found	69.62	7.69	5.35

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

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CAS Number: 61413-54-5

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

Description:

Rolipram is a selective inhibitor of cAMP phosphodiesterase (PDE4) ($IC_{50} = 2.0 \mu M$). Discriminates between two conformational states of PDE4 isoenzymes. R-enantiomer also available.

Physical and Chemical Properties:

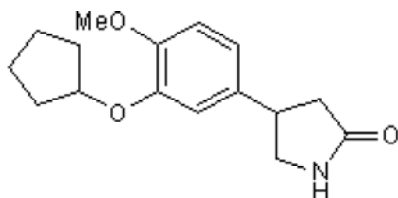
Batch Molecular Formula: $C_{16}H_{21}NO_3$

Batch Molecular Weight: 275.35

Physical Appearance: Off-white solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



References:

Teixeira et al (1997) Phosphodiesterase (PDE)4 inhibitors: anti-inflammatory drugs of the future? *Trends Pharmacol.Sci.* **18** 164. PMID: 9184477.

Kato et al (1995) Rolipram, a cyclic AMP-selective phosphodiesterase inhibitor, reduces neuronal damage following cerebral ischemia in the gerbil. *Eur.J.Pharmacol.* **272** 107. PMID: 7713141.

O'Donnell (1993) Antidepressant-like effects of rolipram and other inhibitors of cyclic adenosine monophosphate phosphodiesterase on behaviour maintained by differential reinforcement of low response rate. *J.Pharmacol.Exp.Ther.* **264** 1168. PMID: 8383740.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 75 mM

ethanol 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.

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techsupport@bio-techne.com

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