

Product Name: RO-3

Catalog No.: 3052

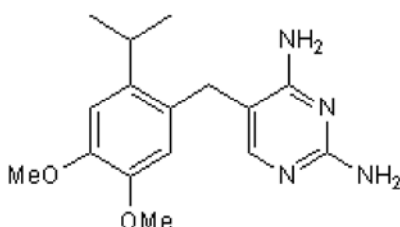
Batch No.: 3

CAS Number: 1026582-88-6

IUPAC Name: 5-[[4,5-Dimethoxy-2-(methylethyl)phenyl]methyl]-2,4-pyrimidinediamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₂N₄O₂
Batch Molecular Weight: 302.37
Physical Appearance: Off-white solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.22 (Dichloromethane:Methanol:Ammonia soln. [99:9:1])
HPLC: Shows 99.1% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.55	7.33	18.53
Found	63.65	7.35	18.55

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

Product Name: RO-3

Catalog No.: 3052

Batch No.: 3

CAS Number: 1026582-88-6

IUPAC Name: 5-[[4,5-Dimethoxy-2-(methylethyl)phenyl]methyl]-2,4-pyrimidinediamine

Description:

RO-3 is a selective homomeric P2X₃ and heteromeric P2X_{2/3} receptor antagonist (pIC₅₀ values are 7.0 and 5.9 respectively) that exhibits no activity at P2X₁, P2X₂, P2X₄, P2X₅ and P2X₇ receptors (IC₅₀ > 10 μM). Attenuates nociceptive sensitivity in animal models of pain. Orally active and brain penetrant.

Physical and Chemical Properties:

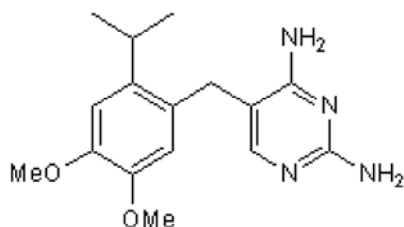
Batch Molecular Formula: C₁₆H₂₂N₄O₂

Batch Molecular Weight: 302.37

Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Donnelly-Roberts et al (2008) Painful purinergic receptors. *J.Pharmacol.Exp.Ther.* **324** 409. PMID: 18042830.

Ford et al (2006) Purinoceptors as therapeutic targets for lower urinary tract dysfunction. *Br.J.Pharmacol.* **147** S132. PMID: 16465177.

Gever et al (2006) Pharmacology of P2X channels. *Eur.J.Physiol.* **452** 513.

Storage: Store at RT

Solubility & Usage Info:

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.

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