

**Product Name:** RO-3

**Catalog No.:** 3052

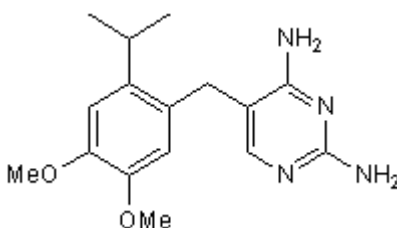
**Batch No.:** 3

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:** C<sub>16</sub>H<sub>22</sub>N<sub>4</sub>O<sub>2</sub>  
**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<sub>f</sub> = 0.22 (Dichloromethane:Methanol:Ammonia soln. [99:9:1])  
**HPLC:** Shows 99.1% purity  
**<sup>1</sup>H 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

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**Description:**

Selective homomeric P2X<sub>3</sub> and heteromeric P2X<sub>2/3</sub> receptor antagonist (pIC<sub>50</sub> values are 7.0 and 5.9 respectively) that exhibits no activity at P2X<sub>1</sub>, P2X<sub>2</sub>, P2X<sub>4</sub>, P2X<sub>5</sub> and P2X<sub>7</sub> receptors (IC<sub>50</sub> > 10 μM). Attenuates nociceptive sensitivity in animal models of pain. Orally active and brain penetrant.

**Physical and Chemical Properties:**

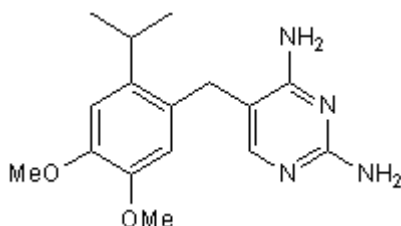
Batch Molecular Formula: C<sub>16</sub>H<sub>22</sub>N<sub>4</sub>O<sub>2</sub>

Batch Molecular Weight: 302.37

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**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.

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

**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.

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