

**Product Name:** PPADS tetrasodium salt

**Catalog No.:** 0625

**Batch No.:** 8

CAS Number: 192575-19-2

IUPAC Name: Pyridoxal phosphate-6-azophenyl-2',4'-disulfonic acid tetrasodium salt

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:**  $C_{14}H_{10}N_3Na_4O_{12}PS_2$

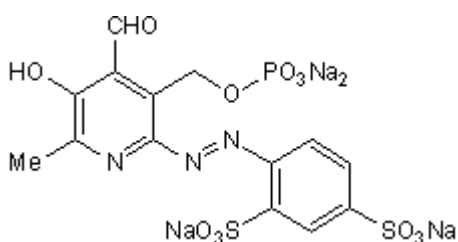
**Batch Molecular Weight:** 599.3

**Physical Appearance:** Orange solid

**Solubility:** water to 100 mM

**Storage:** Desiccate at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

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

**Mass Spectrum:** Consistent with structure

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

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**Description:**

A non-selective P<sub>2</sub> purinergic antagonist. Blocks recombinant P<sub>2</sub>X<sub>1</sub>, P<sub>2</sub>X<sub>2</sub>, P<sub>2</sub>X<sub>3</sub>, P<sub>2</sub>X<sub>5</sub> (IC<sub>50</sub> = 1 - 2.6 μM), native P<sub>2</sub>Y<sub>2</sub>-like (IC<sub>50</sub> ~ 0.9 mM), and recombinant P<sub>2</sub>Y<sub>4</sub> (IC<sub>50</sub> ~ 15 mM) receptors. Delays onset of calcium responses to mild hypoosmotic stress in cortical slices. iso-PPADS (Cat. No. 0683) also available.

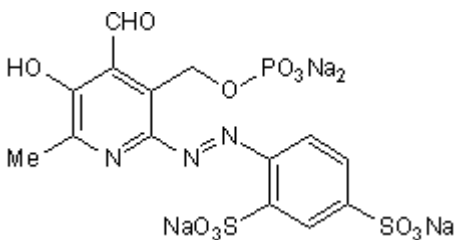
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>10</sub>N<sub>3</sub>Na<sub>4</sub>O<sub>12</sub>PS<sub>2</sub>

Batch Molecular Weight: 599.3

Physical Appearance: Orange solid

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

water to 100 mM

CAUTION - This product is hygroscopic and light sensitive. Solutions should be made up as soon as the vial is opened and protected from exposure to light.

**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:**

**Lambrech** *et al* (1992) PPADS, a novel functionally selective antagonist of P<sub>2</sub> purinoceptor-mediated responses. *Eur.J.Pharmacol.* **217** 217. PMID: 1330591.

**McLaren** *et al* (1994) Investigation of the actions of PPADS, a novel P<sub>2x</sub>-purinoceptor antagonist, in the guinea-pig isolated vas deferens. *Br.J.Pharmacol.* **111** 913. PMID: 8019769.

**Ziganshin** *et al* (1994) Selective antagonism by PPADS at P<sub>2x</sub>-purinoceptors in rabbit isolated blood vessels. *Br.J.Pharmacol.* **111** 923. PMID: 8019770.

**Ralevic and Burnstock** (1998) Receptors for purines and pyrimidines. *Pharmacol.Rev.* **50** 413. PMID: 9755289.

**Thrane** *et al* (2011) Critical role of aquaporin-4 (AQP4) in astrocytic Ca<sup>2+</sup> signaling events elicited by cerebral edema. *Proc.Natl.Acad.Sci.U S A* **108** 846. PMID: 21187412.

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