Certificate of Analysis

Product Name: **PPADS tetrasodium salt** **Catalog No.: 0625** **Batch No.: 8**

CAS Number: 192575-19-2

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

1. PHYSICAL AND CHEMICAL PROPERTIES

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

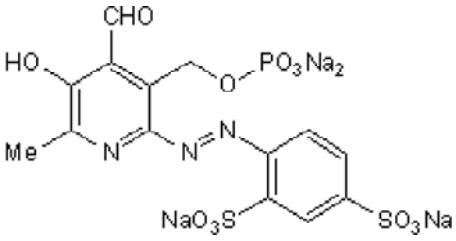
Batch Molecular Weight: 599.3

Physical Appearance: Orange solid

Solubility: water to 100 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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Description:

PPADS tetrasodium salt is a non-selective P2 purinergic antagonist. Blocks recombinant $P2X_1$, $P2X_2$, $P2X_3$, $P2X_5$ (IC_{50} = 1 - 2.6 µM), native $P2Y_2$-like (IC_{50} ~ 0.9 mM), and recombinant $P2Y_4$ (IC_{50} ~ 15 mM) receptors. PPADS tetrasodium salt delays onset of calcium responses to mild hypoosmotic stress in cortical slices. PPADS tetrasodium salt blocks P2X7 and reduces clinical and histological graft-versus-host disease development in a humanised mouse model. 2'5'-isomer also available.

Physical and Chemical Properties:

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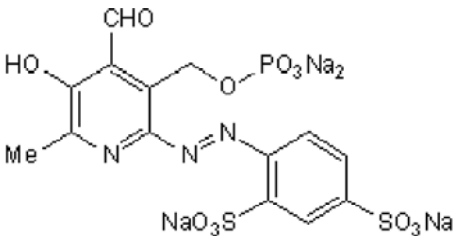

Storage: Desiccate at -20°C

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:

Cuthbertson *et al* (2021) P2X7 receptor antagonism increases regulatory T cells and reduces clinical and histological graft-versus-host disease in a humanised mouse model. Clin.Sci. ***135*** 495. PMID: 33463682.

Thrane *et al* (2011) Critical role of aquaporin-4 (AQP4) in astrocytic Ca2+ signaling events elicited by cerebral edema. Proc.Natl.Acad.Sci.U S A ***108*** 846. PMID: 21187412.

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