

Product Name: MRS 2179 tetrasodium salt

Catalog No.: 0900

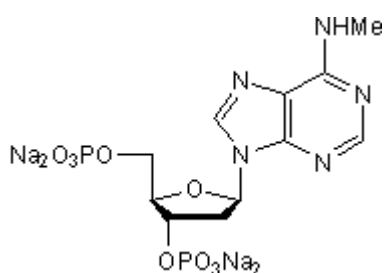
Batch No.: 8

CAS Number: 1454889-37-2

IUPAC Name: 2'-Deoxy-N⁶-methyladenosine 3',5'-bisphosphate tetrasodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₃N₅O₉P₂Na₄·3½H₂O
Batch Molecular Weight: 576.21
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	22.93	3.5	12.15
Found	22.88	3.76	11.97

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

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Description:

A competitive antagonist at P2Y₁ receptors (K_B = 100 nM). Selective over P2X₁ (IC₅₀ = 1.15 μM), P2X₃ (IC₅₀ = 12.9 μM), P2X₂, P2X₄, P2Y₂, P2Y₄ and P2Y₆ receptors. Inhibits the upregulation of NTPDase1 by ATPγS.

Physical and Chemical Properties:

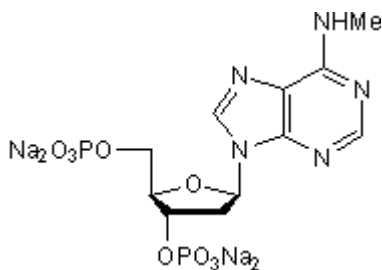
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Batch Molecular Weight: 576.21

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

water 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.

References:

Boyer et al (1998) Competitive and selective antagonism of P2Y₁ receptors by *N*⁶-methyl 2'-deoxyadenosine 3',5'-bisphosphate. Br.J.Pharmacol. **124** 1. PMID: 9630335.

Nandan et al (2000) Synthesis, biological activity, and molecular modeling of ribose-modified deoxyadenosine bisphosphate analogues as P2Y₁ receptor ligands. J.Med.Chem. **43** 829. PMID: 10715151.

Brown et al (2000) Activity of novel adenine nucleotide derivatives as agonists and antagonists at recombinant rat P2X receptors. Drug Dev.Res. **49** 253.

Lu et al (2007) Stimulation of the P2Y₁ receptor up-regulates nucleoside-triphosphate diphosphohydrolase-1 in human retinal pigment epithelial cells. J.Pharmacol.Exp.Ther. **323** 157. PMID: 17626796.

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