

Certificate of Analysis

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Product Name: 2-Methylthioadenosine diphosphate trisodium salt

Catalog No.: 1624

Batch No.: 15

CAS Number: 475193-31-8

IUPAC Name: 2-(Methylthio)adenosine-5'-(trihydrogen diphosphate) trisodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₄N₅Na₃O₁₀P₂S

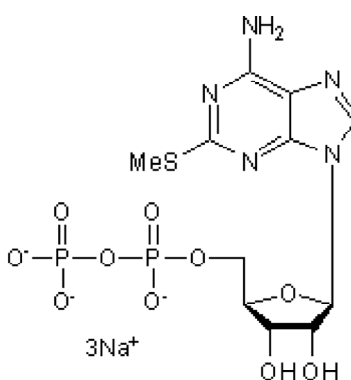
Batch Molecular Weight: 539.24

Physical Appearance: solution

Solubility: Soluble in water (supplied pre-dissolved at a concentration of 10mM)

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

Mass Spectrum: Consistent with structure

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

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CAS Number: 475193-31-8

IUPAC Name: 2-(Methylthio)adenosine-5'-(trihydrogen diphosphate) trisodium salt

Description:

2-Methylthioadenosine diphosphate trisodium salt is a potent purinergic agonist displaying selectivity for P2Y₁, P2Y₁₂ and P2Y₁₃ receptors (pEC₅₀ = 8.29 and 9.05 for P2Y₁ and P2Y₁₂, EC₅₀ = 19 nM for P2Y₁₃). Induces aggregation of, and inhibits cAMP accumulation in, platelets in vitro.

Physical and Chemical Properties:

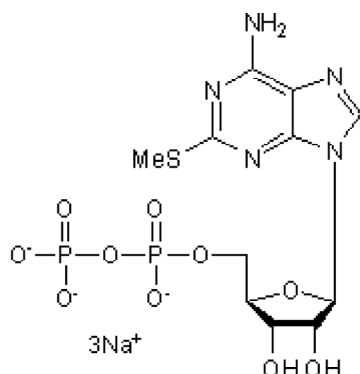
Batch Molecular Formula: C₁₁H₁₄N₅Na₃O₁₀P₂S

Batch Molecular Weight: 539.24

Physical Appearance: solution

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble in water (supplied pre-dissolved at a concentration of 10mM)

This product is supplied dissolved in water at a concentration of 10mM

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Sak and Webb (2002) A retrospective of recombinant P2Y receptor subtypes and their pharmacology. Arch.Biochem.Biophys. **397** 131. PMID: 11747319.

Zhang et al (2002) P2Y₁₃: identification and characterization of a novel Gαi-coupled ADP receptor from human and mouse. J.Pharmacol.Exp.Ther. **301** 705. PMID: 11961076.

Macfarlane et al (1983) 2-Methylthioadenosine[β-³²P]diphosphate. An agonist and radioligand for the receptor that inhibits the accumulation of cyclic AMP in intact blood platelets. J.Clin.Invest. **71** 420. PMID: 6298277.

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