Product Name: **2-Methylthioadenosine diphosphate trisodium salt** **Catalog No.: 1624** **Batch No.: 7**

CAS Number: 475193-31-8

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{14}N_5Na_3O_{10}P_2S$

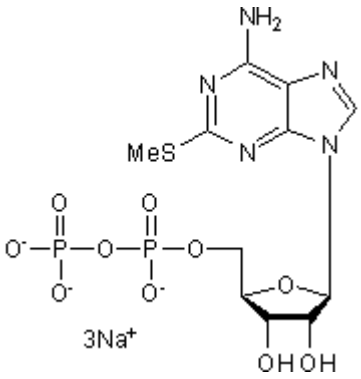
Batch Molecular Weight: 539.24

Physical Appearance: Colourless 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 99.5% purity

Mass Spectrum: Consistent with structure

Product Name: **2-Methylthioadenosine diphosphate trisodium salt** **Catalog No.: 1624** **Batch No.: 7**

CAS Number: 475193-31-8

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

Description:

Potent purinergic agonist displaying selectivity for $P2Y_1$, $P2Y_{12}$ and $P2Y_{13}$ receptors (pEC_{50} = 8.29 and 9.05 for $P2Y_1$ and $P2Y_{12}$, EC_{50} = 19 nM for $P2Y_{13}$). Induces aggregation of, and inhibits cAMP accumulation in, platelets in vitro.

Physical and Chemical Properties:

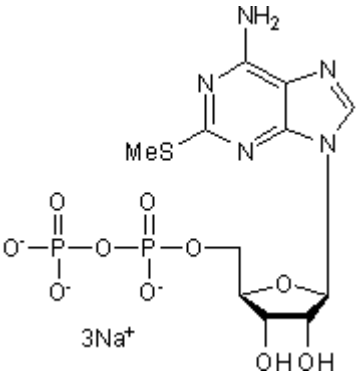
Batch Molecular Formula: $C_{11}H_{14}N_5Na_3O_{10}P_2S$

Batch Molecular Weight: 539.24

Physical Appearance: Colourless 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. 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:

Macfarlane *et al* (1983) 2-Methylthioadenosine[β-^{32}P]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.

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) $P2Y_{13}$: identification and characterization of a novel Gαi-coupled ADP receptor from human and mouse. J.Pharmacol.Exp.Ther. ***301*** 705. PMID: 11961076.