

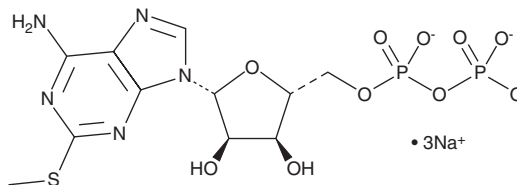
PRODUCT INFORMATION



2-Methylthioadenosine diphosphate (sodium salt)

Item No. 21230

CAS Registry No.: 475193-31-8
Formal Name: 2-(methylthio)-adenosine 5'-(trihydrogen diphosphate), trisodium salt
Synonyms: 2-MeSADP, 2-methylthio ADP
MF: C₁₁H₁₄N₅O₁₀P₂S • 3Na
FW: 539.2
Purity: ≥98%
UV/Vis.: λ_{max}: 236, 275 nm
Supplied as: A solution in water
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2-Methylthioadenosine diphosphate (2-MeSADP) (sodium salt) is supplied as a solution in water. 2-MeSADP (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the water solution of 2-MeSADP (sodium salt) should be diluted with the aqueous buffer of choice. The solubility of 2-MeSADP (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2-MeSADP is an agonist of purinergic P2Y receptors with EC₅₀s of 5.13 and 0.89 nM for human recombinant P2Y₁ and P2Y₁₂ receptors, respectively.¹ It also acts as an agonist at rat P2Y₁ and P2Y₁₂ and mouse P2Y₁₃ receptors (EC₅₀s = 0.58, 0.89, and 6.2 nM, respectively).^{1,2} It induces platelet aggregation and inhibits cyclic AMP accumulation in platelet-rich plasma stimulated by prostaglandin E₁ (PGE₁; Item No. 13010) more potently than ADP (Item Nos. 21121 | 16778).³

References

1. Sak, K. and Webb, T.E. A retrospective of recombinant P2Y receptor subtypes and their pharmacology. *Arch. Biochem. Biophys.* **397**(1), 131-136 (2002).
2. Zhang, F.L., Luo, L., Gustafson, E., *et al.* P2Y₁₃: Identification and characterization of a novel G_{αi}-coupled ADP receptor from human and mouse. *J. Pharmacol. Exp. Ther.* **301**(2), 705-713 (2002).
3. Macfarlane, D.E., Srovastava, P.C., and Mills, D.C. 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**(3), 420-428 (1983).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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