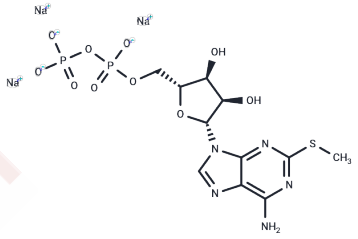
Data Sheet (Cat.No.T23581)

TargetMol

2-Methylthioadenosine diphosphate trisodium

Chemical Properties



CAS No. : 475193-31-8

Formula: C11H14N5Na3O10P2S

Molecular Weight: 539.24

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	2-Methylthioadenosine diphosphate trisodium (2-MeS-ADP) is the salt form of 2-Methylthioadenosine diphosphate, a synthetic analog of adenosine diphosphate (ADP), a potent purinergic P2Y receptor agonist that agonizes human P2Y13 at nanomolar levels, mouse P2Y13 and human P2Y12, induces platelet aggregation and morphological changes, and is indicated for neurological and cardiovascular disease studies.
Targets(IC50)	P2Y Receptor
In vitro	2-Methylthioadenosine diphosphate trisodium is a potent inhibitor of cyclic AMP accumulation in intact platelets exposed to PGE1 and is a potent human platelet aggregator.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8545 mL	9.2723 mL	18.5446 mL
5 mM	0.3709 mL	1.8545 mL	3.7089 mL
10 mM	0.1854 mL	0.9272 mL	1.8545 mL
50 mM	0.0371 mL	0.1854 mL	0.3709 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Gao ZG, et al. Distinct Signaling Patterns of Allosteric Antagonism at the P2Y(1) Receptor. Mol Pharmacol. 2017 Nov;92(5):613-626. doi: 10.1124/mol.117.109660. Epub 2017 Sep 1.
Muscella A, et al. Inhibition of ZL55 cell proliferation by ADP via PKC-dependent signalling pathway. J Cell Physiol. 2018 Mar;233(3):2526-2536.
Guarracino JF, et al. P2Y13 receptors mediate presynaptic inhibition of acetylcholine release induced by adenine nucleotides at the mouse neuromuscular junction. Neuroscience. 2016 Jun 21;326:31-44.
Förster D, Reiser G. Nucleotides protect rat brain astrocytes against hydrogen peroxide toxicity and induce antioxidant defense via P2Y receptors. Neurochem Int. 2016 Mar;94:57-66.
Zhang FL, et al. P2Y(13): identification and characterization of a novel Galphai-coupled ADP receptor from human and mouse. J Pharmacol Exp Ther. 2002;301(2):705-713.

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