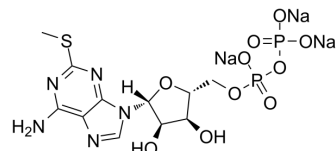


## 2-Methylthioadenosine diphosphate trisodium

<b>Cat. No.:</b>	HY-108648
<b>CAS No.:</b>	475193-31-8
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>14</sub> N <sub>5</sub> Na <sub>3</sub> O <sub>10</sub> P <sub>2</sub> S
<b>Molecular Weight:</b>	539.24
<b>Target:</b>	P2Y Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Solution, -20°C, 2 years



### BIOLOGICAL ACTIVITY

<b>Description</b>	2-Methylthioadenosine diphosphate trisodium is a potent purinergic P2Y receptors agonist, with EC <sub>50</sub> s of 19, 6.2, and 5 nM for human P2Y13, mouse P2Y13 and human P2Y12, respectively. 2-Methylthioadenosine diphosphate trisodium has pEC <sub>50</sub> s of 8.29 and 5.75 for human P2Y1 and rat P2Y6, respectively. 2-Methylthioadenosine diphosphate trisodium induces platelet aggregation and shape change, and inhibits cyclic AMP accumulation in platelets exposed to prostaglandin E1 <sup>[1][2][3]</sup> .
<b>In Vitro</b>	2-Methylthioadenosine diphosphate trisodium (2-Methylthio-ADP trisodium) is a powerful aggregating agent for human platelets. 2-Methylthioadenosine diphosphate trisodium is also a powerful inhibitor of the accumulation of cyclic AMP in intact platelets exposed to PGE1 and a phosphodiesterase inhibitor <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Zhang FL, et al. P2Y(13): identification and characterization of a novel Gα<sub>q</sub>-coupled ADP receptor from human and mouse. *J Pharmacol Exp Ther.* 2002;301(2):705-713.
- [2]. Sak K, et al. A retrospective of recombinant P2Y receptor subtypes and their pharmacology. *Arch Biochem Biophys.* 2002;397(1):131-136.
- [3]. Macfarlane DE, et al. 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.* 1983;71(3):420-428.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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