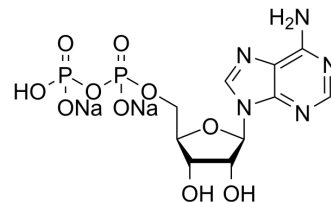


## Adenosine 5'-diphosphate disodium

<b>Cat. No.:</b>	HY-D0199		
<b>CAS No.:</b>	16178-48-6		
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> Na <sub>2</sub> O <sub>10</sub> P <sub>2</sub>		
<b>Molecular Weight:</b>	471.16		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 125 mg/mL (265.30 mM; Need ultrasonic)  
 DMSO : 5 mg/mL (10.61 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1224 mL	10.6121 mL	21.2242 mL
	5 mM	0.4245 mL	2.1224 mL	4.2448 mL
	10 mM	0.2122 mL	1.0612 mL	2.1224 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Adenosine 5'-diphosphate disodium is a nucleoside diphosphate. Adenosine 5'-diphosphate disodium is the product of ATP dephosphorylation by ATPases. Adenosine 5'-diphosphate disodium is a platelet aggregation agent for hemostasis and the development and extension of arterial thrombosis<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Human Endogenous Metabolite

#### In Vitro

Adenosine 5'-diphosphate disodium (10 μmol/L) induces human platelets aggregation and [Ca<sup>2+</sup>]<sub>i</sub> increasing in platelets, B10 cells, and P2Y1-transfected cells<sup>[1]</sup>.  
 Adenosine 5'-diphosphate disodium (5 μmol/L) increases cAMP levels in human platelets and in B10 cells<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Hechler B, et al. The P2Y1 receptor is necessary for adenosine 5'-diphosphate-induced platelet aggregation. *Blood*. 1998 Jul 1;92(1):152-9.

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[2]. Arts IC, et al. Adenosine 5'-triphosphate (ATP) supplements are not orally bioavailable: a randomized, placebo-controlled cross-over trial in healthy humans. J Int Soc Sports Nutr. 2012 Apr 17;9(1):16.

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

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