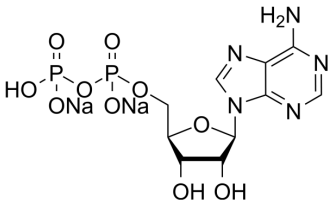
Adenosine 5'-diphosphate disodium

Cat. No.:	HY-D0199
CAS No.:	16178-48-6
Molecular Formula:	$C_{10}H_{13}N_5Na_2O_{10}P_2$
Molecular Weight:	471.16
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (265.30 mM; Need ultrasonic)
DMSO : 5 mg/mL (10.61 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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[1][2].

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

Adenosine 5'-diphosphate disodium (10 μmol/L) induces human platelets aggregation and $[Ca^{2+}]i$ increasing in platelets, B10 cells, and P2Y1-transfected cells[1].
Adenosine 5'-diphosphate disodium (5 μmol/L) increases cAMP levels in human platelets and in B10 cells[1].
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.

[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.

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

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