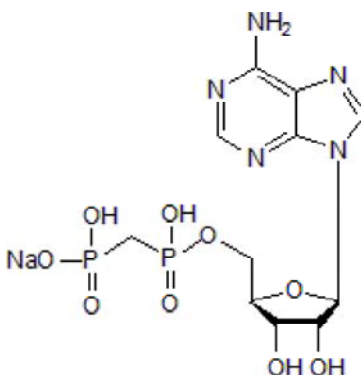


**Product Name:** Adenosine 5'-( $\alpha,\beta$ -methylene)diphosphate sodium salt      **Catalog No.:** 3633      **Batch No.:** 5  
**CAS Number:** 89016-30-8  
**IUPAC Name:**  $\alpha,\beta$ -Methyleneadenosine 5'-diphosphate monosodium salt

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>11</sub>H<sub>16</sub>N<sub>5</sub>NaO<sub>9</sub>P<sub>2</sub>  
**Batch Molecular Weight:** 447.21  
**Physical Appearance:** Colourless liquid  
**Solubility:** Soluble in water (supplied pre-dissolved at a concentration of 10mM)  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity  
**Mass Spectrum:** Consistent with structure

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**Description:**

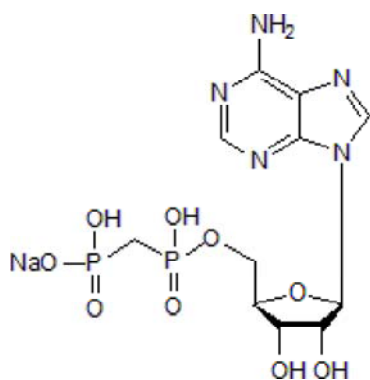
Ecto-5'-nucleotidase/CD73 inhibitor. Blocks ecto-5'-nucleotidase-mediated adenosine production by preventing the conversion of AMP to adenosine. Reverses the doxorubicin-resistance in ecto-5'-nucleotidase-positive MDR cells (MCF7/A6 and L1210/A). Also increases rhodamine uptake and inhibits rhodamine efflux from ecto-5'-nucleotidase-positive MDR cells. Vasoconstrictor.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>11</sub>H<sub>16</sub>N<sub>5</sub>NaO<sub>9</sub>P<sub>2</sub>  
 Batch Molecular Weight: 447.21  
 Physical Appearance: Colourless liquid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble in water (supplied pre-dissolved at a concentration of 10mM)

This compound is supplied in aqueous solution at a concentration of 10mM.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Chen et al** (2019) Asthmatic augmentation of airway vagal activity involves decreased central expression and activity of CD73 in rats. *ACS Chem.Neurosci.* **10** 2809. PMID: 30913879.

**Kur et al** (2014) Purinergic control of vascular tone in the retina. *J.Physiol.* **592** 491. PMID: 24277867.

**Niemelä et al** (2008) IFN-beta regulates CD73 and adenosine expression at the blood-brain barrier. *Eur.J.Immunol.* **38** 2718. PMID: 18825744.

**Ujházy et al** (1996) Evidence for the involvement of ecto-5'-nucleotidase (CD73) in drug resistance. *Int.J.Cancer.* **68** 493. PMID: 8945621.

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**bio-techne.com**

info@bio-techne.com  
 techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com  
 Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors  
 Tel:+1 612 379 2956