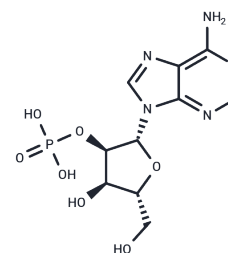


Adenosine-2'-monophosphate

Chemical Properties

CAS No. :	130-49-4
Formula:	C ₁₀ H ₁₄ N ₅ O ₇ P
Molecular Weight:	347.22
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Adenosine-2'-monophosphate (2'-AMP) is a nucleoside derived from the conversion of 2',3'-CAMP. It inhibits inflammatory cytokine production by microglia and suppresses TNF- α and CXCL10 production in activated primary mouse microglia through A2A receptors.
Targets(IC50)	Endogenous Metabolite, Adenosine Receptor
In vitro	Adenosine-2'-monophosphate (0-100 μ M; once daily for 4 days) is able to inhibit the proliferation of pro-glomerular vascular smooth muscle cells and glomerular thylakoid cells through activation of A2B receptors. [1] Adenosine-2'-monophosphate (30 μ M; treatment for 24 h) reduced lipopolysaccharide (LPS, 100 ng/ml)-induced secretion of TNF- α and CXCL10 in primary mouse microglia. [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (115.2 mM), Sonication is recommended. H ₂ O: 20 mg/mL (57.6 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.76 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.880 mL	14.4001 mL	28.8002 mL
5 mM	0.576 mL	2.880 mL	5.760 mL
10 mM	0.288 mL	1.440 mL	2.880 mL
50 mM	0.0576 mL	0.288 mL	0.576 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

- Jackson EK, et al. 2'-AMP and 3'-AMP inhibit proliferation of preglomerular vascular smooth muscle cells and glomerular mesangial cells via A2B receptors. *J Pharmacol Exp Ther.* 2011 May;337(2):444-50.
- Koellner G, et al. Crystal structure of the Tyr45Trp mutant of ribonuclease T1 in a complex with 2'-adenylic acid. *Eur J Biochem.* 1991 Oct 1;201(1):199-202.
- Newell EA, et al. 2',3'-cAMP, 3'-AMP, 2'-AMP and adenosine inhibit TNF- α and CXCL10 production from activated primary murine microglia via A2A receptors. *Brain Res.* 2015 Jan 12;1594:27-35.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481