

cAMP sodium

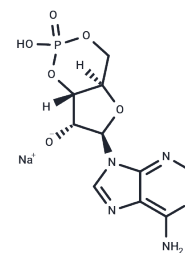
Chemical Properties

CAS No. : 37839-81-9

Formula: C₁₀H₁₁N₅NaO₆P

Molecular Weight: 351.19

Storage: Keep away from moisture, Keep away from direct sunlight, Store at low temperature
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	cAMP sodium (Cyclic adenosine monophosphate sodium) is a derivative of adenosine triphosphate (ATP) and a cellular second messenger. It transmits signals within cells that are carried by primary messengers (such as adrenaline) unable to enter the cell, performing crucial regulatory functions.
Targets (IC ₅₀)	Endogenous Metabolite
In vitro	cAMP sodium can regulate mediator production. cAMP sodium inhibits the expression of pro-inflammatory cytokines, including TNF- α and IL-12, while enhancing the production of the anti-inflammatory cytokine IL-10.

Solubility Information

Solubility	DMSO: 40 mg/mL (113.9 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 (5.69 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	2.8475 mL	14.2373 mL	28.4746 mL
5 mM	0.5695 mL	2.8475 mL	5.6949 mL
10 mM	0.2847 mL	1.4237 mL	2.8475 mL
50 mM	0.0569 mL	0.2847 mL	0.5695 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

G M Fimia, et al. Cyclic AMP signaling. *J Cell Sci.* 2001 Jun;114(Pt 11):1971-2.

Paolo Sassone-Corsi, et al. The cyclic AMP pathway. *Cold Spring Harb Perspect Biol.* 2012 Dec 1;4(12):a011148.

Aronoff DM, et, al. Short communication: differences between macrophages and dendritic cells in the cyclic AMP-dependent regulation of lipopolysaccharide-induced cytokine and chemokine synthesis. *J Interferon Cytokine Res.* 2006 Nov;26(11):827-33.

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