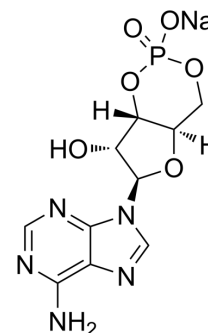


Cyclic AMP sodium

Cat. No.:	HY-B1511A
CAS No.:	37839-81-9
Molecular Formula:	C ₁₀ H ₁₁ N ₅ NaO ₆ P
Molecular Weight:	351.19
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (142.37 mM; ultrasonic and warming and heat to 60°C)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				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
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.12 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.12 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.12 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Cyclic AMP (Cyclic adenosine monophosphate) sodium, adenosine triphosphate derivative, is an intracellular signaling molecule responsible for directing cellular responses to extracellular signals. Cyclic AMP sodium is an important second messenger in many biological processes ^{[1][2][3]} .	
IC ₅₀ & Target	Human Endogenous Metabolite	Microbial Metabolite
In Vitro	Cyclic AMP (Cyclic adenosine monophosphate) sodium modulates mediator generation. Cyclic AMP sodium suppresses the expression of pro-inflammatory cytokines, including TNF-α and IL-12, and enhances the production of the anti-inflammatory	

cytokine IL-10.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Neurosci. 2022 May 30.
- Nat Protoc. 2023 Apr 12.
- Endocrinology. 2023 Feb 24;bqad035.
- J Reprod Immunol. 2022 Jun;151:103623.
- Methods Mol Biol. 2023;2683:103-111.

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REFERENCES

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

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

[3]. 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.

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

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