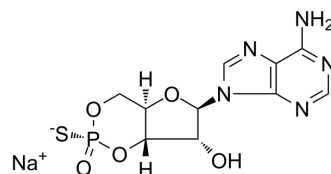


Rp-cAMPS sodium salt

Cat. No.:	HY-100530D
CAS No.:	142439-94-9
Molecular Formula:	C ₁₀ H ₁₁ N ₅ NaO ₅ PS
Molecular Weight:	367.25
Target:	PKA
Pathway:	Stem Cell/Wnt
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 250 mg/mL (680.74 mM; Need ultrasonic)						
		Solvent Concentration	Mass				
	Preparing Stock Solutions	1 mM	2.7229 mL	5 mg	13.6147 mL	10 mg	27.2294 mL
		5 mM	0.5446 mL	5 mg	2.7229 mL	5 mg	5.4459 mL
		10 mM	0.2723 mL	5 mg	1.3615 mL	10 mg	2.7229 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (272.29 mM); Clear solution; Need ultrasonic						

BIOLOGICAL ACTIVITY

Description	Rp-cAMPS sodium salt, a cAMP analog, is a potent, competitive cAMP-induced activation of cAMP-dependent PKA I and II (K _i s of 12.5 μM and 4.5 μM, respectively) antagonist. Rp-cAMPS sodium salt is resistant to hydrolysis by phosphodiesterases ^{[1][2][3][4][5][6]} .
IC₅₀ & Target	Ki: 6.05 μM (PKA I) and 9.75 μM (PKA II) ^[1]
In Vitro	A membrane-permeable competitive cAMP antagonist (Rp-cAMPS) that blocks PKA activation by binding to the regulatory subunits without dissociating the kinase holoenzyme also inhibits synaptic plasticity but has no effect on normal synaptic transmission ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Rp-cAMPS (10 μM, 15 min) decreases the monosynaptic EPSCs evoked at the PB-CeLC and BLA-CeLC synapses in slices from arthritic rats but not in control neurons from normal animals. The inhibitory effect of Rp-cAMPS is significant compared to

predrug (ACSF) control values obtained in the same neurons^[2].

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

CUSTOMER VALIDATION

- Theranostics. 2021 Mar 24;11(12):5650-5674.

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

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