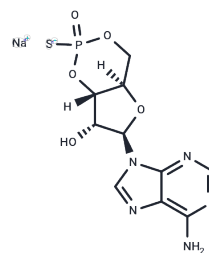


## Sp-Cyclic AMPS (sodium salt)

## Chemical Properties

CAS No. :	142439-95-0
Formula:	C <sub>10</sub> H <sub>12</sub> N <sub>5</sub> NaO <sub>5</sub> PS+
Molecular Weight:	367.25
Storage:	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	Sp-cAMPS sodium salt is an analog of cAMP that serves as a potent activator of cAMP-dependent PKA I and PKA II, and as a competitive phosphodiesterase (PDE3A) inhibitor with a $K_i$ of 47.6 $\mu$ M. It also binds the PDE10 GAF domain with an $EC_{50}$ of 40 $\mu$ M [1] [2] [3].
Targets(IC50)	Others,PDE,PKA
In vitro	The glucagon-stimulated increases in the level of Ca <sup>2+</sup> can be mimicked by Sp-cAMPS. Treatment of hepatocytes with Sp-cAMPS which is the stimulatory diastereomer of adenosine cyclic 3',5'-phosphorothioate, mimics the response seen with glucagon [4].
In vivo	In chronic alcohol consumption (CAC) mice, direct infusion of the PKA activator (Sp-cAMPS) (1 $\mu$ g/ $\mu$ L) into the prefrontal cortex significantly improves working memory performance in withdrawn animals and impairs it in water animals [5].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7229 mL	13.6147 mL	27.2294 mL
5 mM	0.5446 mL	2.7229 mL	5.4459 mL
10 mM	0.2723 mL	1.3615 mL	2.7229 mL
50 mM	0.0545 mL	0.2723 mL	0.5446 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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