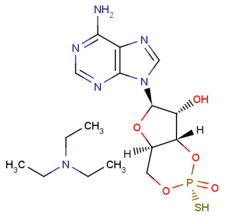
Data Sheet (Cat.No.T12764)

TargetMol
A DRUG SCREENING EXPERT

Rp-cAMPS triethylammonium salt

Chemical Properties



CAS No.:	151837-09-1
Formula:	C16H27N6O5PS
Molecular Weight:	446.46
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Rp-cAMPS triethylammonium salt is an analog of cAMP.It acts as a potent, competitive and cell-permeable antagonist of cAMP-induced activation of cAMP-dependent PKA I and II with Kis of 6.05 μM and 9.75 μM, respectively.
Targets(IC_{50})	PKA I: ki: 6.05 μM PKA II: 9.75 μM (ki)
In vitro	A membrane-permeable competitive antagonist of cAMP that blocks PKA activation by binding to the regulatory subunits without dissociating the kinase holoenzyme inhibits synaptic plasticity[1].
In vivo	The monosynaptic EPSCs evoked at the PB-CeLC and BLA-CeLC synapses in slices from arthritic rats decreased by Rp-cAMPS (10 μM, 15 min) 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[1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.24 mL	11.199 mL	22.398 mL
5 mM	0.448 mL	2.24 mL	4.48 mL
10 mM	0.224 mL	1.12 mL	2.24 mL
50 mM	0.045 mL	0.224 mL	0.448 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Rothermel JD, et al. A mechanistic and kinetic analysis of the interactions of the diastereoisomers of adenosine 3',5'-(cyclic)phosphorothioate with purified cyclic AMP-dependent protein kinase. Biochem J. 1988 May 1;251(3):757-62.

2. Fu Y, et al. PKA and ERK, but not PKC, in the amygdala contribute to pain-related synaptic plasticity and behavior. Mol Pain. 2008 Jul 16;4:26.

3. Kuriyama S, et al. Isoproterenol inhibits rod outer segment phagocytosis by both cAMP-dependent and independent pathways. Invest Ophthalmol Vis Sci. 1995 Mar;36(3):730-6.

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