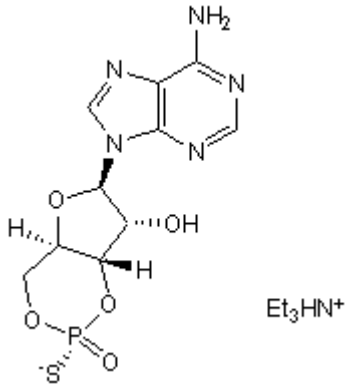
Product Name: **cAMPS-Rp, triethylammonium salt** **Catalog No.: 1337** **Batch No.: 12**

CAS Number: 151837-09-1

IUPAC Name: (*R*)-Adenosine, cyclic 3',5'-(hydrogenphosphorothioate) triethylammonium

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{10}H_{12}N_5O_5PS.C_6H_{15}N$
Batch Molecular Weight:	446.46
Physical Appearance:	White lyophilised solid
Solubility:	water to 100 mM
Storage:	Desiccate at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 99.8% purity
Mass Spectrum:	Consistent with structure

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Description:

Cell-permeable cAMP analog; acts as a competitive antagonist of cAMP-induced activation of PKA (IC_{50} = 11 - 16 µM) by interacting with cAMP binding sites on the regulatory subunits. Resistant to hydrolysis by phosphodiesterases. Enantiomer cAMPS-Sp, triethylammonium salt (Cat. No. 1333) also available.

Physical and Chemical Properties:

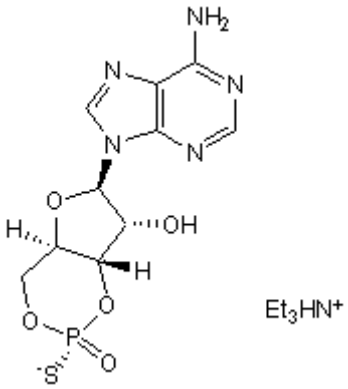
Batch Molecular Formula: $C_{10}H_{12}N_5O_5PS.C_6H_{15}N$

Batch Molecular Weight: 446.46

Physical Appearance: White lyophilised solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

water to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. Solutions should be made up as soon as the vial is opened. This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Van Haastert *et al* (1984) Competitive cAMP antagonists for cAMP-receptor proteins. J.Biol.Chem. ***259*** 10020. PMID: 6088478.

Rothermel and Botelho (1988) 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. ***251*** 757. PMID: 2843164.

Dostmann *et al* (1990) Probing the cyclic nucleotide binding sites of cAMP-dependent protein kinases I and II with analogs of adenosine 3',5'-cyclic phosphorothioates. J.Biol.Chem. ***265*** 10484. PMID: 2162349.

Kuriyama *et al* (1995) Isoproterenol inhibits rod outer segment phagocytosis by both cAMP-dependent and independent pathways. Invest.Ophthalmol.Vis.Sci. ***36*** 730. PMID: 7890503.

Fu *et al* (2008) PKA and ERK, but not PKC, in the amygdala contribute to pain-related synaptic plasticity and behavior. Mol.Pain ***4*** 26. PMID: 18631385.