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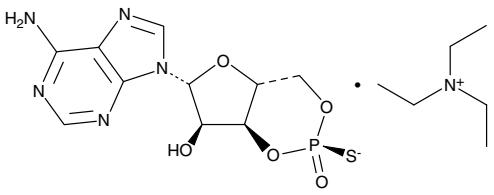
Product Information

Rp-Cyclic AMPS (triethylammonium salt)

Item No. 16985

CAS Registry No.: 151837-09-1
Formal Name: cyclic 3',5'-[hydrogen (R)-phosphorothioate] adenosine, triethylammonium salt
Synonym: Rp-cAMPS
MF: $C_{10}H_{11}N_5O_5PS \bullet C_6H_{16}N$
FW: 446.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 260 nm



Laboratory Procedures

For long term storage, we suggest that Rp-Cyclic AMPS (Rp-cAMPS) (triethylammonium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Rp-cAMPS (triethylammonium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the Rp-cAMPS (triethylammonium salt) in the solvent of choice. Rp-cAMPS (triethylammonium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of Rp-cAMPS (triethylammonium salt) in ethanol and DMF is approximately 1 mg/ml and approximately 10 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Rp-cAMPS (triethylammonium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Rp-cAMPS (triethylammonium salt) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Rp-cAMPS is a non-hydrolyzable phosphorothioate analog of cAMP.[1] It is a competitive inhibitor of cAMP-dependent protein kinases I and II (IC_{50}s = 12.5 and 4.5 µM, respectively).[2,3] Rp-cAMPS is not hydrolyzed by bovine heart cAMP phosphodiesterase but can be hydrolyzed by yeast phosphodiesterase.[4] It is broadly used in research involving cAMP-dependent signaling *in vitro* and *in vivo*.[1,5,6]

References

1. Schaap, P., van Ments-Cohen, M., Soede, R.D., *et al.* Cell-permeable non-hydrolyzable cAMP derivatives as tools for analysis of signaling pathways controlling gene regulation in Dictyostelium. *J. Biol. Chem.* **268(9)**, 6323-6331 (1993).
2. De Wit, R.J.W., Hekstra, D., Jastorff, B., *et al.* Inhibitory action of certain cyclophosphate derivatives of cAMP on cAMP-dependent protein kinases. *Eur. J. Biochem.* **142(2)**, 255-260 (1984).
3. Van Haastert, P.J.M., van Driel, R., Jastorff, B., *et al.* Competitive cAMP antagonists for cAMP-receptor proteins. *J. Biol. Chem.* **259(16)**, 10020-10024 (1984).
4. Jarvest, R.L., Lowe, G., Baraniak, J., *et al.* A stereochemical investigation of the hydrolysis of cyclic AMP and the (Sp)-and (Rp)-diastereoisomers of adenosine cyclic 3':5'-phosphorothioate by bovine heart and baker's-yeast cyclic AMP phosphodiesterases. *Biochem. J.* **203(2)**, 461-470 (1982).
5. Schwede, F., Maronde, F., Genieser, H., *et al.* Cyclic nucleotide analogs as biochemical tools and prospective drugs. *Pharmacol. Ther.* **87(2)**, 199-226 (2000).
6. Yokozaki, H., Tortora, G., Pepe, S., *et al.* Unhydrolyzable analogues of adenosine 3':5'-monophosphate demonstrating growth inhibition and differentiation in human cancer cells. *Cancer Res.* **52(9)**, 2504-2508 (1992).

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