

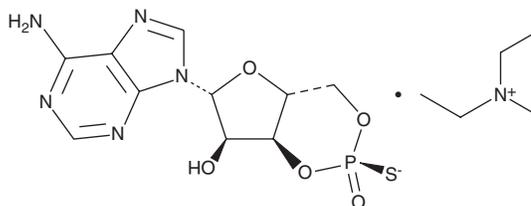
PRODUCT INFORMATION



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: C₁₀H₁₁N₅O₅PS • C₆H₁₆N⁺
FW: 446.5
Purity: ≥98%
UV/Vis.: λ_{max}: 260 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rp-Cyclic AMPS (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, which should be purged with an inert gas. Rp-cAMPS (triethylammonium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). 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.

Description

Rp-cAMPS is a non-hydrolyzable phosphorothioate analog of cAMP.¹ It is a competitive inhibitor of cAMP-dependent protein kinases I and II (IC₅₀s = 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

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3. Van Haastert, P.J.M., van Driel, R., Jastorff, B., et al. *J. Biol. Chem.* **259**(16), 10020-10024 (1984).
4. Jarvest, R.L., Lowe, G., Baraniak, J., et al. *Biochem. J.* **203**(2), 461-470 (1982).
5. Schwede, F., Maronde, F., Genieser, H., et al. *Pharmacol. Ther.* **87**(2), 199-226 (2000).
6. Yokozaki, H., Tortora, G., Pepe, S., et al. *Cancer Res.* **52**(9), 2504-2508 (1992).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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