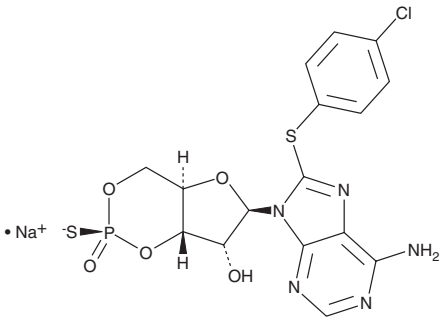
PRODUCT INFORMATION

Sp-8-CPT-Cyclic AMPS (sodium salt)

Item No. 21854



Formal Name:	8-[(4-chlorophenyl)thio]-cyclic 3',5'-[hydrogen (S)-phosphorothioate]-adenosine, monosodium salt
Synonym:	Sp-8-CPT-cAMPS
MF:	$C_{16}H_{14}ClN_5O_5PS_2 \bullet Na$
FW:	509.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 284 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

Sp-8-CPT-Cyclic AMPS (sodium salt) (Sp-8-CPT-cAMPS) is supplied as a crystalline solid. A stock solution may be made by dissolving the Sp-8-CPT-cAMPS in the solvent of choice, which should be purged with an inert gas. Sp-8-CPT-cAMPS is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of Sp-8-CPT-cAMPS in these solvents is approximately 0.5, 25, and 30 mg/ml, respectively.

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 Sp-8-CPT-cAMPS can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Sp-8-CPT-cAMPS in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Sp-8-CPT-cAMPS is a cell permeable cAMP analog that potently and selectively activates protein kinase A.[1] Sp-8-CPT-cAMPS is a structural combination of the lipophilic and non-hydrolyzable cAMP analogs 8-CPT-Cyclic AMP (Item No. 12011) and Sp-Cyclic AMPS (Item No. 14983). It is used to investigate the effects of cAMP-dependent PKA signaling pathway.[1] Sp-8-CPT-cAMPS (10 µM; 30 min) reduces the spasmogenic response (pEC_{50} = 4.74) in guinea-pig trachealis.[2]

References

1. Dostmann, W.R., Taylor, S.S., Genieser, H.G., *et al.* 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(18)**, 10484-10491 (1990).
2. Spicuzza, L., Belvisi, M.G., Birrell, M.A., *et al.* Evidence that the anti-spasmogenic effect of the β-adrenoceptor agonist, isoprenaline, on guinea-pig trachealis is not mediated by cyclic AMP-dependent protein kinase. *Br. J. Pharmacol.* **133(8)**, 1201-1212 (2001).

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