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Technical Information about
8- (6- Aminohexylamino)- cAMPS, Rp- isomer

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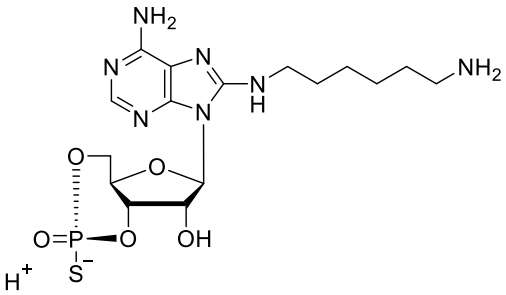

Abbreviation: **Rp-8-AHA-cAMPS**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{16}H_{26}N_7O_5PS$	[214272-02-3]	459.5	λ_{max} 273 nm / ε 17000 / pH 7	A 085

Name: 8- (6- Aminohexylamino)adenosine- 3', 5'- cyclic monophosphorothioate, Rp- isomer

Description: Rp-8-AHA-cAMPS is an analogue of the natural signal molecule cyclic AMP in which the hydrogen in position 8 of the nucleobase is replaced by an aminohexylamino group. In addition, the equatorial one of the two exocyclic oxygen atoms in the cyclic phosphate moiety is replaced by sulfur. The suffix "p" indicates that R/S nomenclature refers to phosphorus.

Properties: The free terminal primary amino group in Rp-8-AHA-cAMPS, separated from the nucleotide by a hexyl spacer, is suitable for coupling to gels for affinity chromatography and for binding of various labels, e.g. fluorescent dyes. Rp-8-AHA-cAMPS is also available as ligand immobilized to agarose (Rp-8-AHA-cAMPS-Agarose, Cat. No. A 012).

Specification: Crystallized or lyophilized solid. Equal concentrations of Rp-8-AHA-cAMPS can appear very different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 98% (HPLC / UV / 273 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Due to its ability to form internal and polymeric salts, Rp-8-AHA-cAMPS is often difficult to dissolve in water or buffer. However, it is better soluble in DMSO and DMF. Alternatively, the compound can be solved in dilute alkali of pH 9.5 and, after dissolution, titrated back to neutral. In addition, gentle heating usually helps to get complete dissolution. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: Rp-8-AHA-cAMPS is chemically rather stable. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism it is very likely that its analogues will interfere with many cell regulation processes *in vivo*. However, due to the rather small quantities to work with no health hazards have been reported. Nevertheless please keep in mind that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product.
Our products are designed, developed and sold for research purposes only. They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities
Not for drug, household or related uses!

Selected Reference for Rp-8-AHA-cAMPS-Agarose:

Stokka, A.J.; Gesellchen, F.; Carlson, C.R.; Scott, J.D.; Herberg, F.W.; Tasken, K., *Biochem. J.*, **400**, 493 - 499 (2006): "Characterization of A-Kinase-anchoring Disruptors Using a Solution-based Assay"

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