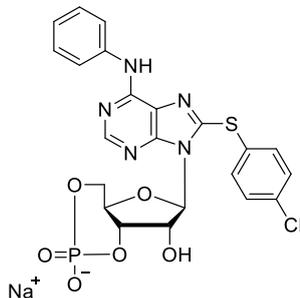


Technical Information about 8-CPT-6-Phe-cAMP

Potent activator of protein kinase A with high lipophilicity and PDE stability

Update: July 03, 2018 HU



Abbreviation: 8-CPT-6-Phe-cAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₂₂ H ₁₈ ClN ₅ O ₆ PS·Na	[72549-36-1]	569.9	λ _{max} 309 nm / ε 25000 / pH 7	C 043

Name: 8- (4- Chlorophenylthio)- N⁶- phenyladenosine- 3', 5'- cyclic monophosphate (8-CPT-6-Phe-cAMP)

Description: 8-CPT-6-Phe-cAMP is an analogue of the natural signal molecule cyclic AMP in which the hydrogen of the amino group in position 6 has been replaced by a phenyl ring system and position 8 carries a chlorophenylthio moiety.

Properties:

- potent activator of protein kinase A,
- high lipophilicity and hence excellent membrane permeability while still soluble in aqueous solvents,
- high metabolic stability towards cyclic nucleotide-responsive phosphodiesterases due to multiple modifications in positions 6 & 8.

Specification: Crystallized or lyophilized sodium salt. Other salts of 8-CPT-6-Phe-cAMP are available upon request. Please keep in mind that equal amounts of the compound may look different in volume. Micro molar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 98% (HPLC / UV / 309 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Due to its increased lipophilicity the solubility of 8-CPT-6-Phe-cAMP in water or buffer is limited. If high concentrations are needed, it is a good idea to dissolve first in a small volume of dimethyl sulfoxide (DMSO) and to pipet subsequently into the aqueous stock solution needed. 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: 8-CPT-6-Phe-cAMP has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer.

Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism, it is likely that lipophilic cAMP 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!

References for 8-CPT-6-Phe-cAMP:

Christensen, A.E.; Selheim, F.; de Rooij, J.; Dremier, S.; Schwede, F.; Dao, K.K.; Martinez, A.; Maenhaut, C.; Bos, J.L.; Genieser, H.-G.; Døskeland, S.O., *J. Biol. Chem.*, **278**, 35394 - 35402 (2003): "cAMP Analog Mapping of Epac1 and cAMP-Kinase. Discriminating Analogs Demonstrate that Epac and cAMP-Kinase Act Synergistically to Promote PC-12 Cell Neurite Extension"

Miller, J.P.; Boswell, K.H.; Meyer, R.B.; Christensen, L.F.; Robins, R.K., *J. Med. Chem.*, **23**, 242 - 251 (1980): "Synthesis and Enzymatic and Inotropic Activity of Some New 8-Substituted and 6,8-Disubstituted Derivatives of Adenosine Cyclic 3',5'-Monophosphate"