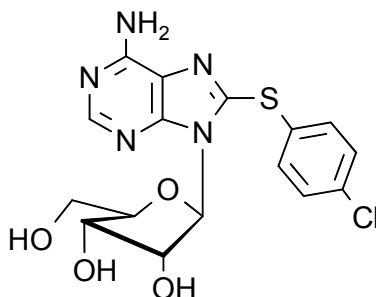


Technical Information about 8-(4-Chlorophenylthio)adenosine

Update: April 20, 2011 wh



Abbreviation: 8-pCPT-Ado

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₆ H ₁₆ ClN ₅ O ₄ S	[85352-87-0]	409.9	λ _{max} 282 nm / ε 16000 / pH 7	C 086

Name: 8- (4- Chlorophenylthio)adenosine

Description: 8-pCPT-Ado is an analogue of adenosine in which the hydrogen in position 8 of the heterocyclic nucleobase is replaced by the lipophilic 4-chlorophenylthio moiety.

Properties: 8-pCPT-Ado is a potential metabolite of 8-CPT-cAMP (Cat. No. C 010) which is a lipophilic activator of both cAMP- and cGMP-dependent protein kinase and of the exchange protein activated by cyclic AMP (Epac). The corresponding 5'-monophosphate 8-pCPT-5'-AMP (Cat. No. C 101) as well as the nucleobase 8-pCPT-Ade (Cat. No. C 069) are also offered.

Specification: Crystallized or lyophilized solid. Please keep in mind that equal concentrations of the compound may look 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 97% (HPLC / UV / 282 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Due to its increased lipophilicity the solubility of 8-pCPT-Ado in water or buffer is limited, however, it is better soluble in organic solvents such as DMSO (≥ 40 mM). It is recommended to use a small amount of anhydrous organic solvent such as DMSO or DMF for dissolution, and to dilute with water or buffer down to the concentrations required. 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-pCPT-Ado has sufficient stability for short term exposure to ambient temperature and does not need special care during handling or shipment. 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 adenosine has multiple tasks in every organism, it is very likely that adenosine 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 8-pCPT-Ado:

Waidmann, O.; Pleli, T.; Dvorak, K.; Baehr, C.; Mondorf, U.; Plotz, G.; Biondi, R.M.; Zeuzem, S.; Piiper, A., *J.Biol.Chem.*, **284**, 32256 - 32263 (2009): "Inhibition of the Equilibrative Nucleoside Transporter 1 and Activation of A2A Adenosine Receptors by 8-(4-Chlorophenylthio)-modified cAMP Analogs and their Hydrolytic Products"