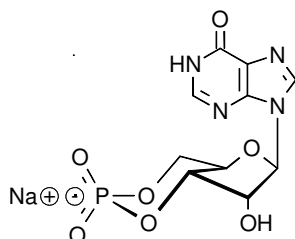


Technical Information about Inosine- 3', 5'- monophosphate (cIMP)

Update: October 04, 2007 TR



Abbreviation: cIMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₀ N ₄ O ₇ P·Na	[41092-64-2]	352.2	λ _{max} 249 nm / ε 12000 / pH7	I 001

Name: Inosine- 3', 5'- cyclic monophosphate (cIMP)

Description: cIMP is an analogue of the natural signal molecule cyclic AMP where the amino group in position 6 has been replaced by oxygen, reducing the possible molecular interactions to H-bond acceptor function only.

Properties: Since cIMP is structurally related to cAMP and cGMP it is accepted by both PKA and PKG, however with considerably reduced affinity.

Specification: Crystallized or lyophilized sodium salt. Other salts of cIMP 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/ 249 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: cIMP is readily soluble in water or buffer. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube make sure that no substance is lost within the cap.

Stability and Storage: cIMP 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, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since cyclic AMP and cyclic GMP have multiple tasks in every organism, it is not unlikely that cIMP 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.

P.t.o.

Selected references for cIMP:

- 1 Garbers, D.L.; Suddath, J. L.; Hardman, J.G., *Biochim. Biophys. Acta*, **377**, 174 - 185 (1975):
"Enzymatic Formation of Inosine 3', 5'- Monophosphate and of 2'- Deoxyguanosine 3', 5'- Monophosphate - Inosinate and Deoxyguanylate Cyclase Activity"
- 2 Wolfe, L.; Corbin, J.D.; Francis, S.H., *J. Biol. Chem.*, **264**, 7734 - 7741 (1989):
"Characterization of a Novel Isozyme of cGMP-dependent Protein Kinase From Bovine Aorta"
- 3 Poteet-Smith, C. E.; Shabb, J. B.; Francis, S. H.; Corbin, J. D., *J. Biol. Chem.*, **272**, 379 - 388 (1997):
"Identification of Critical Determinants for Autoinhibition in the Pseudosubstrate Region of Type I(Alpha) cAMP-dependent Protein Kinase"