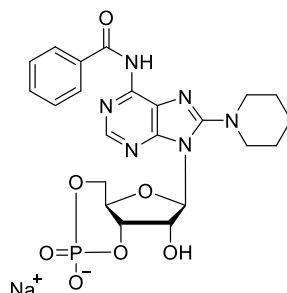


Technical Information about 6-Bnz-8-PIP-cAMP

Site-selective activator of cAMP-dependent protein kinase which does not activate Epac

Update: July 02, 2018 HU



Abbreviation: **6-Bnz-8-PIP-cAMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₂₂ H ₂₆ N ₆ O ₇ P·Na	[pending]	540.4	λ _{max} 263 nm / ε 14000 / pH 7	B 055

Name: N⁶- Benzoyl- 8- piperidinoadenosine- 3', 5'- cyclic monophosphate

Description: 6-Bnz-8-PIP-cAMP is an analogue of the natural signal molecule cyclic AMP in which one hydrogen atom of the amino group in position 6 of the heterocyclic nucleobase and the hydrogen in position 8 are replaced by a lipophilic benzoyl group and a piperidine ring, respectively.

Properties: 6-Bnz-8-PIP-cAMP is a membrane-permeant activator of cAMP-dependent protein kinase (PKA) with increased metabolic stability which does not activate Epac. It selects site A I of PKA and thus can be combined with a B I-selective analogue (e.g. 8-AHA-2-Cl-cAMP, Cat. No. A 199 or 2-Cl-8-HA-cAMP, Cat. No. C 071) for synergistic activation of PKA type I.

Specification: Crystallized or lyophilized sodium salt. 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 98% (HPLC / UV / 263 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 6-Bnz-8-PIP-cAMP is readily soluble in water (≥ 26 mM, limits have not been determined). 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: 6-Bnz-8-PIP-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, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since cAMP has multiple tasks in every organism, it is possible that 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!

Selected Reference for 6-Bnz-8-PIP-cAMP:

Gausdal, G.; Wergeland, A.; Skavland, J.; Nguyen, E.; Pendino, F.; Rouhee, N.; McCormack, E.; Herfindal, L.; Kleppe, R.; Havemann, U.; Schwede, F.; Bruserud, Ø; Gjertsen, B.T.; Lanotte, M.; Ségal-Bendirdjian; Døskeland, S.O., *Cell Death Dis.*, **4** e516, (2013): "Cyclic AMP Can Promote APL Progression and Protect Myeloid Leukemia Cells Against Anthracycline-Induced Apoptosis"

Huseby, S.; Gausdal, G.; Keen, T.J.; Kjærland, E.; Krakstad, C.; Myhren, L.; Brønstad, K.; Kunick, C.; Schwede, F.; Genieser, H.-G.; Kleppe, R.; Døskeland, S.O., *Cell Death Dis.*, **2(12)**: e237 (2011): "Cyclic AMP Induces IPC Leukemia Cell Apoptosis via CRE-and CDK-dependent Bim Transcription"