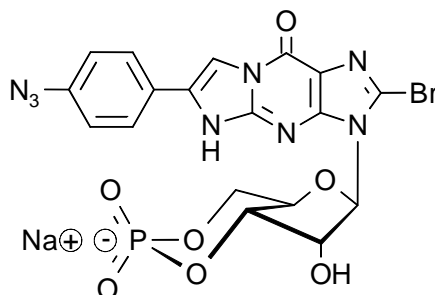


Technical Information about 4-N₃-PET-8-Br-cGMP

Light sensitive analogue of cyclic GMP for photoaffinity labelling

Update: January 18, 2012 AI



Abbreviation:

4-N₃-PET-8-Br-cGMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat.No.
C ₁₈ H ₁₃ BrN ₈ O ₇ P·Na	[pending]	587.2	λ _{max} 278 nm / ε 40000 / pH 7	A 102

Name: β- (4- Azidophenyl)- 1, N²- etheno- 8- bromoguanosine- 3', 5'- cyclic monophosphate

Description: 4-N₃-PET-8-Br-cGMP is an analogue of the parent second messenger cyclic GMP (cGMP) in which both, the amino group in position 2 and the nitrogen in position 1 are involved in a 4-azidophenyl-substituted 5-membered ring system fused to the purine structure. The hydrogen in position 8 of the nucleobase is replaced by bromine.

Properties: 4-N₃-PET-8-Br-cGMP is a light-sensitive analogue of cGMP for photoaffinity labelling of cGMP-responsive receptors. It is considered to be an isozyme-selective activator of cGMP-dependent protein kinase I α and β.

Specification: Crystallized or lyophilized sodium salt. Other salt forms are available upon request. 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 / 278 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 4-N₃-PET-8-Br-cGMP is soluble to at least 5 mM in water. When opening the tube please make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

Stability and Storage: 4-N₃-PET-8-Br-cGMP is chemically rather stable. Nevertheless, it should be protected from light and stored in the freezer (-20°C necessary, -80°C recommended), for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since cyclic GMP 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 References for 4-N₃-PET-8-Br-cGMP: 4-N₃-PET-8-Br-cGMP is a new structure which has been synthesized by BIOLOG LSI for the first time. There are no corresponding references available at the moment.

Selected Reference for 8-N₃-cAMP and photoaffinity labelling:

Haley, B.E., *Methods Enzymol.*, **46**, 339 - 346 (1977): "Adenosine 3',5'-Cyclic Monophosphate Binding Sites"