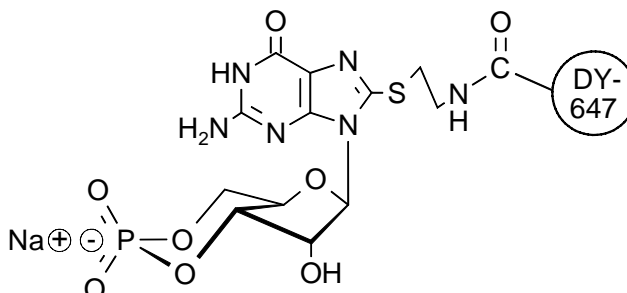


Technical Information about 8-[DY-647]-AET-cGMP

Fluorescent analogue of cGMP

Update: November 17, 2009 AI



Abbreviation: 8-[DY-647]-AET-cGMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₄₄ H ₅₃ N ₈ O ₁₄ PS ₃ ·Na ₂	[pending]	1091.1	λ _{max} 650 nm / ε 250000 (EtOH)	D 090

Name: 8- (2- [DY-647]- aminoethylthio)guanosine- 3', 5'- cyclic monophosphate

Description: 8-[DY-647]-AET-cGMP is a fluorescent analogue of the parent second messenger cyclic GMP in which the dye is connected to position 8 of the guanine nucleobase via a 5-atom spacer.

Properties: 8-[DY-647]-AET-cGMP is a fluorescent cGMP analogue (λ_{exc} 649 nm, λ_{em} 666 nm), e.g. for research focussed on kinetic studies of CNG ion channels and other cGMP-responsive binding proteins.

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 98% (HPLC / UV / 650 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-[DY-647]-AET-cGMP has good solubility in water and aqueous buffers. 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-[DY-647]-AET-cGMP is chemically rather stable. Nevertheless, it should be protected from exposure to light and stored in the freezer, 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!

Reference for 8-[DY-647]-AET-cGMP: 8-[DY-647]-AET-cGMP is a new structure which has been synthesized by BIOLOG LSI for the first time. There are no corresponding references available. For information on the related cGMP analogue 8-[DY-547]-AET-cGMP (Cat. No. D 087) compare:

Biskup, C.; Kusch, J.; Schulz, E.; Nache, V.; Schwede, F.; Lehmann, F.; Hagen, V.; Benndorf, K., *Nature*, **446**, 440 - 443 (2007): "Relating Ligand Binding to Activation Gating in CNGA2 Channels"