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Technical Information about 8-N_3-6-Biotin-10-cAMP

Analogue for photoaffinity labelling of cAMP binding proteins

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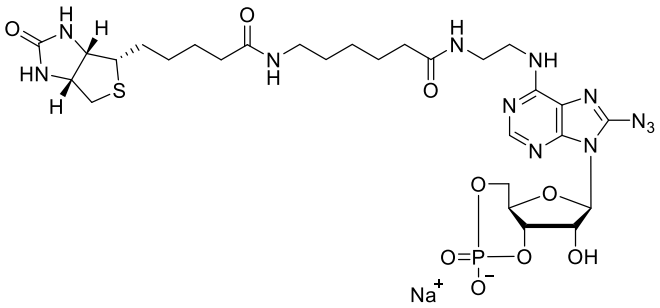

Abbreviation: **8-N_3-6-Biotin-10-cAMP / 8-N_3-6-[Biotin]-AE-cAMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat.No.
$C_{28}H_{40}N_{12}O_9PS{\cdot}Na$	[pending]	774.7	λ_{max} 290 nm / ε 17000 / pH 7	A 127

Name: 8- Azido- N^6- (2- (6- [biotinyl]aminohexanoyl)- aminoethyl)adenosine- 3', 5'- cyclic monophosphate

Description: 8-N_3-6-Biotin-10-cAMP is an analogue of the parent second messenger cyclic AMP (cAMP) in which a biotin moiety with a 10 atom spacer unit has been attached to the amino group in position 6 of the adenine nucleobase. In addition, the hydrogen in position 8 of the nucleobase is replaced by the light-sensitive azido moiety.

Properties: 8-N_3-6-Biotin-10-cAMP is an analogue for photoaffinity labelling of cAMP binding proteins which can be immobilized by UV light.

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 / 290 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-N_3-6-Biotin-10-cAMP is soluble in water (≥ 0.9 mM, limits have not been determined). 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: 8-N_3-6-Biotin-10-cAMP 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 AMP 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 8-N_3-6-Biotin-10-cAMP: 8-N_3-6-Biotin-10-cAMP is a new structure which has been synthesized by BIOLOG LSI for the first time. There are no corresponding references available at present.

Selected Reference for 8-N_3-cAMP and Photoaffinity Labelling:

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

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Selected Reference for Biotinylated Cyclic Nucleotide Analogues:

Dressendörfer, R.A.; Heim, J.-M.; Gerzer, R.; Strasburger, C.J., *J. Immunoassay*, **16**, 37 - 53 (1995): "A Non-Isotopic Immunoassay for Guanosine 3', 5'- cyclic monophosphate Using a Cyclic GMP-Biotin Conjugate as Tracer"

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