

# Technical Information about 8-Biotin-11-c-diAMP

Update: August 05, 2019 нл

$$\begin{array}{c} O \\ H \\ H \\ H \\ \end{array}$$

$$\begin{array}{c} O \\ H \\ \end{array}$$

$$\begin{array}{c} N \\ H \\ \end{array}$$

$$\begin{array}{c} N \\ H \\ \end{array}$$

$$\begin{array}{c} N \\ A \\ \end{array}$$

#### Abbreviation:

#### 8-Biotin-11-c-diAMP / 8-[Biotin]-AET-c-diAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>38</sub> H <sub>54</sub> N <sub>14</sub> O <sub>15</sub> P <sub>2</sub> S <sub>2</sub> (free acid)	[pending]	1073.0 (free acid)	$\lambda_{\text{max}}$ 267 nm / $\epsilon$ 22900 / pH 7	B 156

Name: 8- (2- (6- [Biotinyl]aminohexanoyl) aminoethylthio)- cyclic diadenosine monophosphate

**Description:** 8-Biotin-11-c-diAMP is an analogue of the bacterial second messenger c-diAMP (BIOLOG Cat. No. C 088) in which a biotin moiety has been attached to position 8 of one of the two adenine nucleobases via a 11 atom spacer.

Properties: Analogue of c-diAMP with biotin conjugate most probably suitable as tracer in immunoassays.

**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  $\lambda_{max}$ .

Purity: Typical analysis is better than 95% (HPLC / UV / 267 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 8-Biotin-11-c-diAMP is soluble in water and aqueous buffers (≥ 1.5 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:** 8-Biotin-11-c-diAMP 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:** 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 8-Biotin-11-c-diAMP:

Gundlach, J.; Dickmanns, A.; Schröder-Tittmann, K.; Neumann, P.; Kaesler, J.; Kampf, J.; Herzberg, C.; Hammer, E.; Schwede, F.; Kaever, V.; Tittmann, K.; Stülke, J.; Ficner, R., *J.Biol.Chem.*, **290**, 3069 – 3080 (2015): " Identification, Characterization, and Structure Analysis of the Cyclic di-AMP-binding PII-like Signal Transduction Protein DarA"

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## Selected References for the Parent Compound c-diAMP:

Abdul-Sater, A.A.; Grajkowski, A.; Erdjument-Bromage, H.; Plumlee, C.; Levi, A.; Schreiber, M.T.; Lee, C.; Shuman, H.; Beaucage, S.L.; Schindler, C., *Microbes Infect.*, **14**, 188 - 197 (2012): "The Overlapping Host Reponses to Bacterial Cyclic Dinucleotides"

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