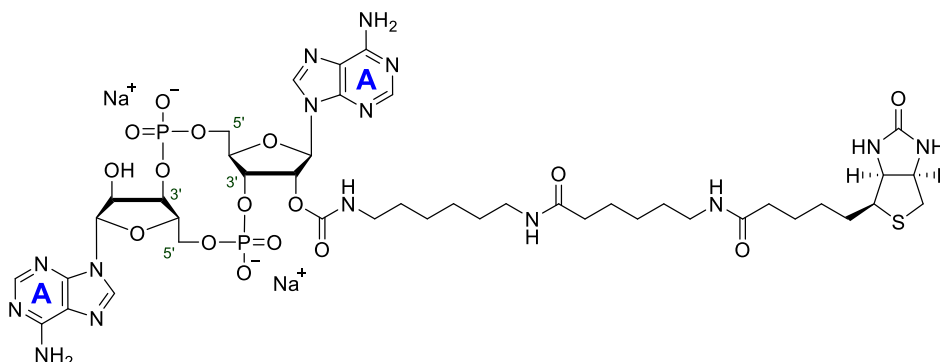


## Technical Information about 2'-Biotin-16-c-diAMP

Update: April 16, 2019 HJ



**Abbreviation:** 2'-Biotin-16-c-diAMP / 2'-[Biotin]-AHC-c-diAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>43</sub> H <sub>63</sub> N <sub>15</sub> O <sub>16</sub> P <sub>2</sub> S (free acid)	[pending]	1140.1 (free acid)	λ <sub>max</sub> 259 nm / ε 27000 / pH 7	B 106

**Name:** 2'- O- (6- (6- [Biotinyl]aminohexanoyl)aminohexylcarbamoyl)- cyclic diadenosine monophosphate

**Description:** 2'-Biotin-16-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 the 2'-hydroxy group of one ribose via a 16-atom spacer.

**Properties:** Analogue of c-diAMP with biotin conjugate suitable as tracer in immunoassays. 2'-Biotin-16-c-diAMP can be attached to streptavidin-coupled magnetic beads for identification of c-diAMP binding proteins in affinity pull-down assays (Corrigan et al. 2013).

**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<sub>max</sub>.

**Purity:** Typical analysis is better than 95% (HPLC / UV / 259 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 2'-Biotin-16-c-diAMP is soluble in water and aqueous buffers (≥ 2.3 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:** 2'-Biotin-16-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 (- 20 °C necessary, - 80 °C recommended), 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 References for 2'-Biotin-16-c-diAMP:

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

Oppenheimer-Shaanan, Y.; Wexselblatt, E.; Katzhendler, J.; Yavin, E.; Ben-Yehuda, S., *EMBO Rep.*, **12**, 594 - 601 (2011): "c-di-AMP Reports DNA Integrity During Sporulation in *Bacillus subtilis*"

Woodward, J.J.; Iavarone, A.T.; Portnoy, D.A., *Science*, **328**, 1703 - 1705 (2010): "c-di-AMP Secreted by Intracellular *Listeria monocytogenes* Activates a Host Type I Interferon Response"

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