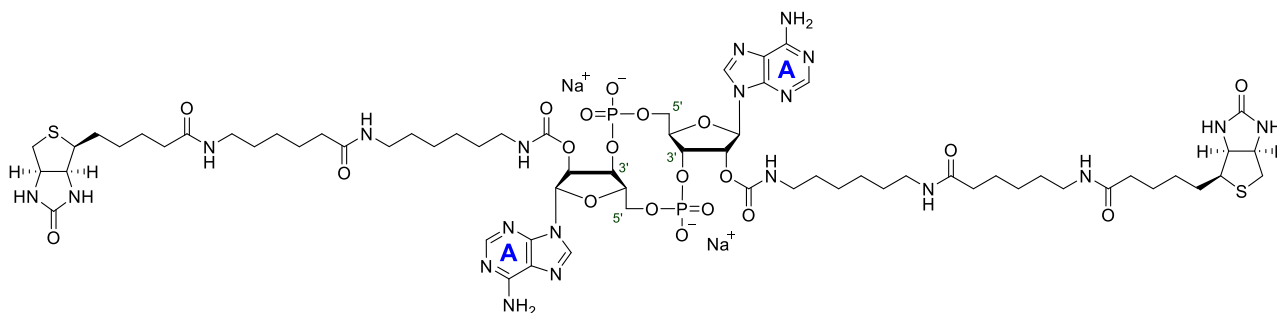


Technical Information about 2',2''-Di-Biotin-16-c-diAMP

Update: April 30, 2019 HU



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

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₆₆ H ₁₀₂ N ₂₀ O ₂₀ P ₂ S ₂ (free acid)	[pending]	1621.8 (free acid)	λ _{max} 259 nm / ε 27000 / pH 7	D 122

Name: 2'-, 2''- O- (Di- (6- (6- [biotinyl]aminohexanoyl)amino)hexylcarbamoyl)- cyclic diadenosine monophosphate

Description: 2',2''-Di-Biotin-16-c-diAMP is an analogue of the bacterial second messenger c-diAMP (BIOLOG Cat. No. C 088) in which biotin moieties have been attached to both ribose 2'-hydroxy groups via 16-atom spacers.

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 λ_{max}.

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',2''-Di-Biotin-16-c-diAMP is soluble in water and aqueous buffers (> 1 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',2''-Di-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, 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',2''-Di-Biotin-16-c-diAMP:

2',2''-Di-Biotin-16-c-diAMP 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 References for the Parent Compound c-diAMP:

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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 Responses to Bacterial Cyclic Dinucleotides"

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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