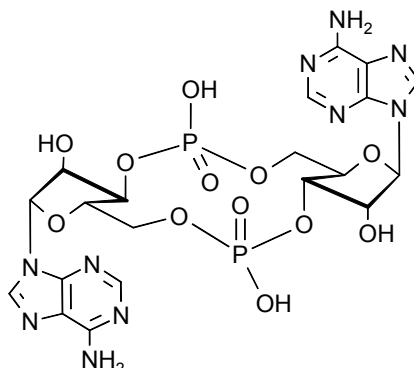


## Technical Information about c-diAMP

Update: December 28, 2011 AI



**Abbreviation:** c-diAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>20</sub> H <sub>24</sub> N <sub>10</sub> O <sub>12</sub> P <sub>2</sub> for free acid	[54447-84-6]	658.4 for free acid	λ <sub>max</sub> 259 nm / ε 27000 / pH 7	C 088

**Name:** Cyclic diadenosine monophosphate ( c-diAMP ) / cyclic bis ( 3' → 5' ) diadenylic acid

**Description:** In c-diAMP two 5'-AMP units are connected to form a cyclic structure.

**Properties:** c-diAMP was identified as a second messenger that signals DNA integrity in *Bacillus subtilis* during sporulation, and is considered to be an additional purine-based signalling nucleotide with a more general function in prokaryotes (Witte et al. 2008, Oppenheimer-Shaanan et al. 2011). The structurally related bacterial second messenger cyclic diguanosine monophosphate (c-diGMP) is offered as well (Cat. No. C 057).

**Specification:** Crystallized or lyophilized sodium salt. Please keep in mind that equal amounts 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. Micro molar 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:** c-diAMP is soluble in water (≥ 5 mM). 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:** 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!**

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