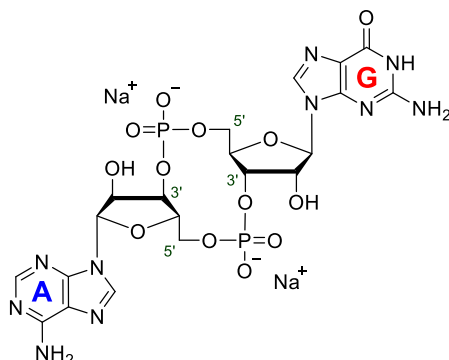


Technical Information about c-(ApGp)

Update: September 10, 2021 cw



Abbreviation: c-(ApGp)

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₂₀ H ₂₄ N ₁₀ O ₁₃ P ₂ (free acid)	[849214-04-6]	674.4 (free acid)	λ _{max} 256 nm / ε 25050 / pH 7	C 117

Name: Cyclic (adenosine monophosphate- guanosine monophosphate)

Syn.: cGAMP / cyclic GMP-AMP / cyclic-AMP-GMP / cyclic (3' → 5') adenylic acid guanylic acid / c[G(3',5')pA(3',5')p]

Description: c-(ApGp) is a hybrid cyclic dinucleotide in which a 5'-AMP unit is connected with a 5'-GMP unit to form a cyclic structure.

Properties: c-(ApGp) is an analogue of the bacterial second messengers c-diAMP (Cat. No. C 088) and c-diGMP (Cat. No. C 057). A novel *Vibrio cholerae* dinucleotide cyclase preferentially synthesizing c-(ApGp) has recently been described, implicating a potential role of c-(ApGp) in *Vibrio cholerae* pathogenesis (Davies et al. 2012). Also, c-(ApGp) has been reported to bind to the immune signalling protein STING leading to the activation of IRF3 and the induction of interferon β (Wu 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. Micro molar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 98% (HPLC / UV / 256 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: c-(ApGp) is easily soluble in water and aqueous buffers (> 10 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: c-(ApGp) 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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