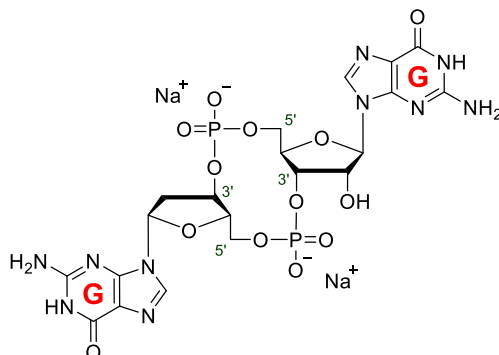


Technical Information about c-di-2'-dGMP

Analogue of the bacterial second messenger c-diGMP

Update: August 08, 2019 HU



Abbreviation: c-di-2'-dGMP / c-(2'-dGpGp)

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₂₀ H ₂₄ N ₁₀ O ₁₃ P ₂ (free acid)	[132182-18-4]	674.4 (free acid)	λ _{max} 254 nm / ε 23700 / pH 7	D 145

Name: 2'- Deoxy- cyclic diguanosine monophosphate (c-di-2'-dGMP / c-(2'-dGpGp) / c-dG-GMP)

Description: c-di-2'-dGMP is an analogue of the bacterial second messenger c-diGMP (Cat. No. C 057) lacking one of the two ribose 2'-hydroxy groups.

Properties: c-di-2'-dGMP can be useful in studies on ligand-receptor interactions.

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 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 / 254 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: c-di-2'-dGMP is soluble in water (≥ 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: c-di-2'-dGMP 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 c-di-2'-dGMP:

Shanahan, C.A.; Gaffney, B.L.; Jones, R.A.; Strobel, S.A., *J. Am. Chem. Soc.*, **133**, 15578 - 15592 (2011): "Differential Analog Binding by two Classes of c-di-GMP Riboswitches"

Mano, E.; Hyodo, M.; Sato, Y.; Ishihara, Y.; Ohta, M.; Hayakawa, Y., *ChemMedChem*, **2**, 1410 - 1413 (2007): "Synthesis of Cyclic Bis(3'-5')-2'-deoxyguanylic/guanylic acid (c-dGpGp) and Its Biological Activities to Microbes"