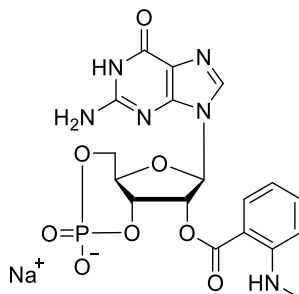


Technical Information about 2'- O- (N'- Methylantraniloyl)- cGMP

Fluorescent analogue of cyclic GMP

Update: August 07, 2018 HU



Abbreviation:

MANT-cGMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₈ H ₁₈ N ₆ O ₈ P·Na	[83707-15-7]	500.3	λ_{\max} 252/350 nm / ϵ 21500/5300 / pH 7	M 009

Name: 2'- O- (N'- Methylantraniloyl) guanosine- 3', 5'- cyclic monophosphate

Description: MANT-cGMP is an analogue of the parent second messenger cyclic GMP in which the 2'-hydroxy group of the ribose is esterified by the fluorescent methylisatoic acid.

Properties: MANT-cGMP is a fluorescent analogue of cyclic GMP, suitable for phosphodiesterase studies. λ_{exc} 350 nm, λ_{em} 441 nm. Upon hydrolysis the intensity of the fluorescence is decreased considerably. Due to the modified 2'-position, this analogue will not activate protein kinase G.

Specification: Yellow-coloured, crystallized or lyophilized sodium salt. Other salt forms of MANT-cGMP are available upon request. Please keep in mind that equal amounts of MANT-cGMP may look different in volume depending on 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 252 nm.

Purity: Typical analysis is better than 98% (HPLC / UV / 252 nm). The product is not sterile and has not been tested for endotoxins.

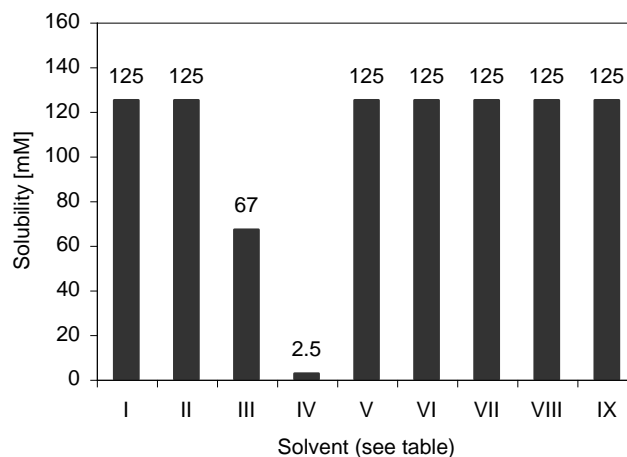
Stability and Storage: MANT-cGMP has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless the compound and its solution should be stored in the refrigerator and should be lyophilized and frozen for longer storage periods.

Toxicity and Safety: Since cyclic GMP has multiple tasks in every organism it is very likely that lipophilic cGMP analogues will interfere with many cell regulation processes *in vivo*. However, due to the rather small quantities to work with no health hazards have been reported. Nevertheless please keep in mind that the *in vivo* properties of this compounds 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!

Solubility: Detailed information on the solubility of MANT-cGMP in water and various buffers are listed in the solubility chart below. Concentrations have been tested at ambient temperature and can be considered as minimum concentrations usually obtainable. When opening the tube please make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

No.	Solvent	Solubility [mM]
I	H ₂ O	125
II	DMSO	125
III	DMF	67
IV	Ethanol 96%	2.5
V	Methanol	125
VI	PBS, pH 7.4	125
VII	100 mM Na ₂ HPO ₄ , pH 7.0	125
VIII	25 mM HEPES/NaOH, pH 7.2	125
IX	25 mM Tris/HCl, pH 7.4	125



Selected References for MANT-cGMP:

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