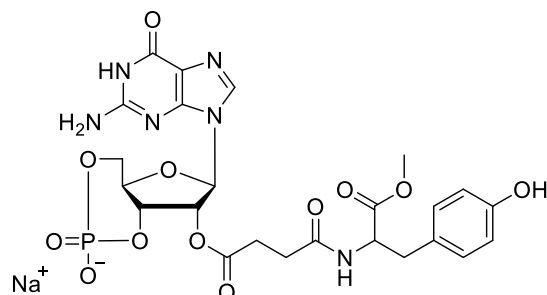


## Technical Information about 2'-O-Monosuccinyl-cGMP, tyrosylmethyl ester

Update: September 03, 2018 HJ



**Abbreviation:** **2'-O-MS-TME-cGMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>24</sub> H <sub>26</sub> N <sub>6</sub> O <sub>12</sub> P·Na	[104872-93-7]	644.5	λ <sub>max</sub> 252 nm / ε 13500 / pH 7	M 023

**Name:** 2'- O- Monosuccinylguanosine- 3', 5'- cyclic monophosphate, tyrosylmethyl ester

**Description:** 2'-O-MS-TME-cGMP is an analogue of the natural signal molecule cyclic GMP which has been modified to carry a tyrosine. The amino acid is bound via its amine by means of a succinyl spacer connected to the hydroxy group in position 2' of the ribose moiety.

**Specification:** Crystallized or lyophilized sodium salt. Other salt forms are available upon request. Equal concentrations of 2'-O-MS-TME-cGMP can appear very 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<sub>max</sub>.

**Purity:** Typical analysis is better than 95% (HPLC / UV / 252 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 2'-O-MS-TME-cGMP has sufficient solubility in water or buffers for most applications. 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'-O-MS-TME-cGMP has sufficient stability for short term exposure to ambient temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer (-20° Celsius necessary, -70° recommended), for longer storage periods preferably in freeze-dried form.

**Toxicity and Safety:** Since cyclic GMP has multiple tasks in every organism, it is very likely that 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 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'-O-MS-TME-cGMP:

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Steiner, A.L.; Parker, C.W.; Kipnis, D.M., *J. Biol. Chem.*, **247**, 1106 - 1113 (1972): "Radioimmunoassay for Cyclic Nucleotides. I. Preparation of Antibodies and Iodinated Cyclic Nucleotides"