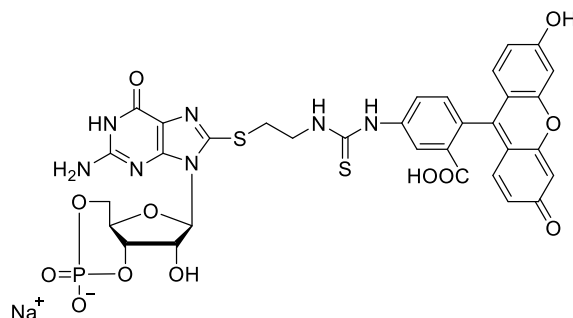


## Technical Information about 8-Fluo-cGMP

### Fluorescent analogue of cyclic GMP

Update: November 08, 2018 HU



#### Abbreviation: 8-[Fluo]-cGMP / 8-[Fluo]-AET-cGMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>33</sub> H <sub>27</sub> N <sub>7</sub> O <sub>12</sub> PS <sub>2</sub> ·Na	[pending]	831.7	λ <sub>max</sub> ~494nm / ε ~79000 / pH 9	F 001

**Name:** 8- (2- [Fluoresceinyl]aminoethylthio)guanosine- 3', 5'- cyclic monophosphate / syn.: 8- [[2-((Fluoresceinylthioureido)amino)ethyl]thio]guanosine- 3', 5'- cyclic monophosphate

**Description:** 8-[Fluo]-cGMP is a fluorescein-modified analogue of the parent second messenger cyclic GMP (cGMP), where the dye is connected to position 8 of the cyclic nucleotide's guanine nucleobase via a 6-atom spacer.

**Properties:** Similar to other 8-modified cGMP analogues 8-[Fluo]-cGMP is expected to bind to many cGMP-responsive receptors, e.g. cGMP-dependent protein kinase or cGMP-gated ion channels.

- **Fluorescent cGMP analogue:** λ<sub>exc</sub> 494 nm, λ<sub>em</sub> 517 nm
- **Potent activator of cGMP-dependent protein kinase and cGMP-gated ion channels**
- **Relatively high metabolic stability against cyclic nucleotide-responsive phosphodiesterases**

**Specification:** Crystallized or lyophilized sodium salt. Other salt forms of 8-[Fluo]-cGMP are available upon request. Please keep in mind that equal amounts of the compound 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/VIS at λ<sub>max</sub>. BIOLOG can offer the Rp- and Sp- isomers of the corresponding phosphorothioates as well. For other dyes coupled, please inquire.

**Purity:** Typical analysis is better than 95% (HPLC / UV/VIS / 494 nm). The product is not sterile and has not been tested for endotoxins.

**Stability and Storage:** 8-[Fluo]-cGMP has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, the compound should be protected from light and stored in the freezer, 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 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 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.

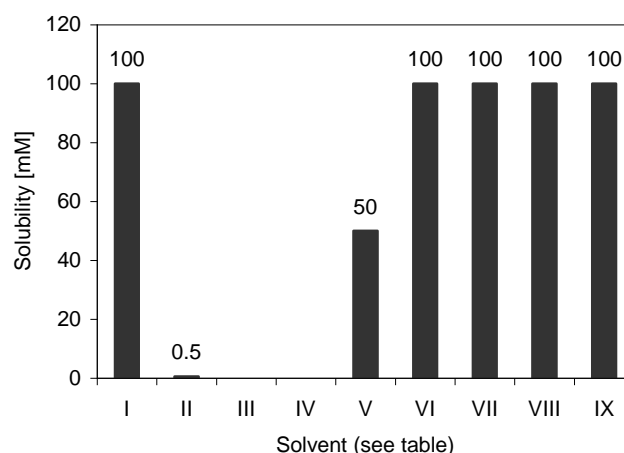
**Not for drug, household or related uses!**

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**Solubility:** Detailed information on the solubility of 8-[Fluo]-cGMP in water and various buffers are listed in the solubility chart below. Concentrations have been determined at ambient temperature and can be considered as minimum concentrations usually obtainable, however, slight batch-to-batch variations cannot be ruled out. 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 <sub>2</sub> O	100
II	DMSO	0.5
III	DMF	0
IV	Ethanol 96%	0
V	Methanol	50
VI	PBS, pH 7.4	100
VII	100 mM Na <sub>2</sub> HPO <sub>4</sub> , pH 7.0	100
VIII	25 mM HEPES/NaOH, pH 7.2	100
IX	25 mM Tris/HCl, pH 7.4	100



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