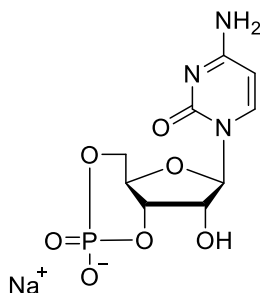


## Technical Information about Cytidine-3', 5'-cyclic monophosphate

Update: July 12, 2018 HU



### Abbreviation:

cCMP

| Formula   | CAS No.      | Molecular Weight | UV                                      | BIOLOG Cat.No. |
|---|--------------|------------------|---|----------------|
| C <sub>9</sub> H <sub>11</sub> N <sub>3</sub> O <sub>7</sub> P·Na | [54925-33-6] | 327.2            | λ <sub>max</sub> 270 nm / ε 9000 / pH 7 | C 001          |

**Name:** Cytidine- 3', 5'- cyclic monophosphate, sodium salt

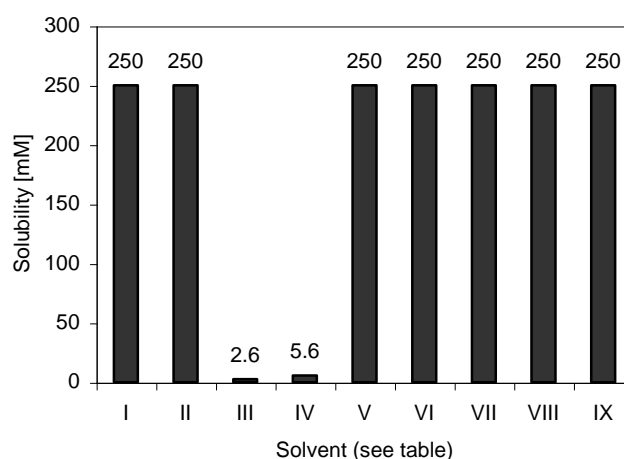
**Description:** cCMP is a cyclic nucleotide with a pyrimidine nucleobase and probably a further second messenger.

**Specification:** Lyophilized or crystallized sodium salt. The free acid or other salt forms are available upon request. Equal concentrations of cCMP 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 98% (HPLC / UV / 270 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** Detailed information on the solubility of cCMP 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 <sub>2</sub> O                                 | 250             |
| II   | DMSO   | 250             |
| III  | DMF  | 2.6             |
| IV   | Ethanol 96%                                      | 5.6             |
| V    | Methanol   | 250             |
| VI   | PBS, pH 7.4                                      | 250             |
| VII  | 100 mM Na <sub>2</sub> HPO <sub>4</sub> , pH 7.0 | 250             |
| VIII | 25 mM Hepes/NaOH, pH 7.2                         | 250             |
| IX   | 25 mM Tris/HCl, pH 7.4                           | 250             |



**Stability and Storage:** cCMP is chemically rather stable. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

**Toxicity and Safety:** Since cCMP could have multiple tasks in every organism it is not unlikely that it could 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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