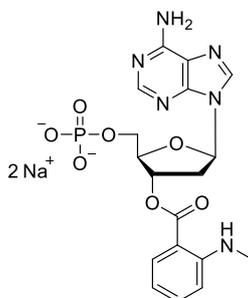


## Technical Information about MANT-5'-dAMP

Fluorescent analogue of 2'-deoxyadenosine-5'-O-monophosphate

Update: April 30, 2021 HU



**Abbreviation:** MANT-5'-dAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>18</sub> H <sub>21</sub> N <sub>6</sub> O <sub>7</sub> P (free acid)	[1417724-26-5]	464.4 (free acid)	λ <sub>max</sub> 255 nm / ε 23300/ pH 8	D 081

**Name:** 2'- Deoxy- 3'- O- (N'- methylanthraniloyl)adenosine- 5'- O- monophosphate

**Description:** MANT-5'-dAMP is an analogue of the parent nucleotide 2'-deoxyadenosine-5'-O-monophosphate (5'-dAMP) in which the 3'-hydroxy group has been esterified by the fluorescent methylisatoic acid.

**Properties:** Fluorescent analogue with λ<sub>exc</sub> 350 nm and λ<sub>em</sub> 446 nm, useful for research into 5'-dAMP-dependent receptor proteins. The MANT fluorophore has a certain sensitivity for its environment and can change its spectral properties upon binding.

**Specification:** Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of MANT-5'-dAMP 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 355 nm.

**Purity:** Typical analysis is better than 97% (HPLC / UV / 255 nm). The product is not sterile and has not been tested for endotoxins.

**Stability and Storage:** MANT-5'-dAMP is chemically rather stable. Nevertheless, we recommend that the compound should be protected from light and stored in the freezer, for longer storage periods preferably in freeze-dried form.

**Solubility:** MANT-5'-dAMP is soluble to at least 21 mM in water. 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.

**Toxicity and Safety:** Since 5'-dAMP has multiple tasks in every organism it is very likely that its 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!**

**References for MANT-5'-dAMP:** MANT-5'-dAMP is a relatively new structure and there are no corresponding references available at the moment. For information on related compounds compare:

Hiratsuka, T., *Biochim Biophys Acta*, **742**, 496 - 508 (1983): "New Ribose-modified Fluorescent Analogs of Adenine and Guanine Nucleotides Available as Substrates for Various Enzymes"