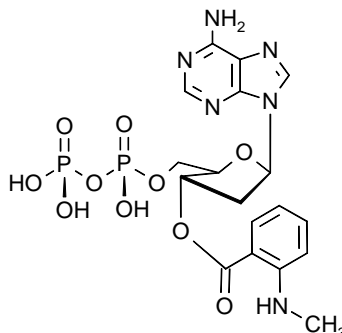


## Technical Information about MANT-dADP

Update: January 2, 2008 AI



**Abbreviation:** MANT-dADP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>18</sub> H <sub>22</sub> N <sub>6</sub> O <sub>10</sub> P <sub>2</sub> (free acid)	[91828-83-0]	544.4 (free acid)	λ <sub>max</sub> 255 nm / ε 22200 / pH 7	D 083

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

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

**Properties:** Fluorescent analogue with λ<sub>exc</sub> 355 nm and λ<sub>em</sub> 448 nm, useful for research into 5'-dADP-dependent receptor proteins. The MANT fluorophore has a certain sensitivity for its environment and can change its spectral properties upon binding.

**Specification:** Aqueous solution of the sodium salt (10 mM, pH 7.6). Other salt forms of MANT-dADP are available upon request. Micromolar quantities are determined by UV at λ<sub>max</sub>. When opening the tube please make sure that no liquid is lost within the cap. A short spin-down in a bench centrifuge is recommended before use.

**Purity:** Typical purity is better than 95% (HPLC / UV / 255 nm) at time of quality control and packing. However, actual purity depends on storage and transport conditions. The product is not sterile and has not been tested for endotoxins.

**Stability and Storage:** MANT-dADP is most stable when stored as aqueous solution in the freezer (-20° Celsius necessary, -80° recommended), however, at ambient temperature the compound slowly starts to decompose. Thus, in order to maintain its original high quality it is recommended to allow thawing only before using the product. If you will not use up the vial with one application, please aliquot the contents of the vial in order to avoid repeated freeze/thaw cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible.

**Toxicity and Safety:** Since nucleoside diphosphates have multiple tasks in every organism, it is very likely that ADP 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 Reference for MANT-dADP:

Bujalowski, W.; Klonowska, M.M., *Biochemistry*, **33**, 4682 - 4694 (1994): "Structural Characteristics of the Nucleotide-Binding Site of Escherichia coli Primary Replicative Helicase DnaB Protein. Studies with Ribose and Base-Modified Fluorescent Nucleotide Analogs"