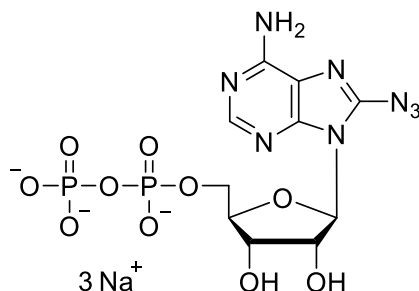


## Technical Information about 8-N<sub>3</sub>-ADP

Analogue of ADP for photoaffinity labelling of ADP-binding receptor proteins

Update: October 16, 2018 HU



**Abbreviation:** 8-N<sub>3</sub>-ADP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>10</sub> H <sub>14</sub> N <sub>8</sub> O <sub>10</sub> P <sub>2</sub> (free acid)	[59432-65-4]	468.2 (free acid)	λ <sub>max</sub> 281 nm / ε 13000 / pH 6	A 044

**Name:** 8- Azidoadenosine- 5'- O- diphosphate

**Description:** In 8-N<sub>3</sub>-ADP the position 8 of the adenine nucleobase of adenosine-5'-diphosphate has been modified by an azido group.

**Properties:** 8-N<sub>3</sub>-ADP is useful for photoaffinity labelling of ADP binding proteins

**Specification:** 10 mM aqueous solution of the sodium salt. Other salts of 8-N<sub>3</sub>-ADP 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 / 281 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:** 8-N<sub>3</sub>-ADP is relatively stable when stored frozen in the dark in aqueous solution (- 20° Celsius necessary, - 80° recommended). Avoid bright light or UV radiation during handling. In order to maintain its original high quality, and especially if you want to avoid any decomposition, 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 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 References for 8-N<sub>3</sub>-ADP:**

Tomblin, G.; Bartholomew, L.A.; Urbatsch, I.L.; Senior, A.E., *J. Biol. Chem.*, **279**, 31212 - 31220 (2004): "Combined Mutation of Catalytic Glutamate Residues in the Two Nucleotide Binding Domains of P-Glycoprotein Generates a Conformation that Binds ATP and ADP Tightly"

Potter, R.L.; Haley, B.E., *Methods Enzymol.*, **91**, 613 - 633 (1983): "Photoaffinity Labeling of Nucleotide Binding Sites with 8-Azidopurine Analogs: Techniques and Applications"

Czarnecki, J.; Geahlen, R.; Haley, B.E., *Methods Enzymol.*, **56**, 642 - 653 (1979): "Synthesis and Use of Azido Photoaffinity Analogs of Adenine and Guanine Nucleotides"