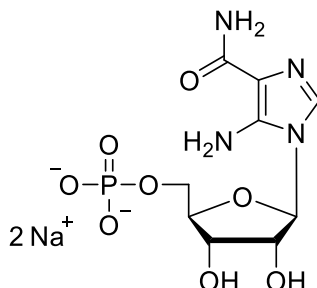


## Technical Information about 8-N<sub>3</sub>-5'-AMP

Update: October 02, 2018 HU



**Abbreviation:** 8-N<sub>3</sub>-5'-AMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>10</sub> H <sub>13</sub> N <sub>8</sub> O <sub>7</sub> P (free acid)	[60731-47-7]	388.2 (free acid)	λ <sub>max</sub> 281 nm / ε 13000 / pH 6	A 179

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

**Description:** 8-N<sub>3</sub>-5'-AMP is an analogue of adenosine-5'-O-monophosphate (5'-AMP) in which the hydrogen in position 8 of the heterocyclic nucleobase is replaced by the light-sensitive azido moiety.

**Properties:** The photoreactive 5'-AMP analogue 8-N<sub>3</sub>-5'-AMP is useful for covalent photoaffinity labelling of AMP-binding sites.

**Specification:** Crystallized or lyophilized sodium salt. The free acid or other salt forms are available upon request. Please keep in mind that equal concentrations of the compound may look 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 97% (HPLC / UV / 281 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 8-N<sub>3</sub>-5'-AMP is soluble in water (≥ 130 mM). 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.

**Stability and Storage:** 8-N<sub>3</sub>-5'-AMP is a light-sensitive structure, but if protected from bright light it has sufficient stability at room temperature and does not need special care during handling or shipment. 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 AMP has multiple tasks in every organism it is very likely that AMP 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>-5'-AMP:

Patil, R.V.; Datta, P., *Eur. J. Biochem.*, **177**, 569 - 574 (1988): "Photoaffinity Labeling of the Allosteric AMP Site of Biodegradative Threonine Dehydratase of Escherichia Coli with 8-Azido-AMP"

Larsen, C.E.; Preiss, J., *Biochemistry*, **25**, 4371 - 4376 (1986): "Covalent Modification of the Inhibitor Binding Site(s) of Escherichia Coli ADP-Glucose Synthetase: Specific Incorporation of the Photoaffinity Analogue 8-Azidoadenosine 5'-Monophosphate"

Seery, V.L., *Biochim. Biophys. Acta*, **612**, 195 - 204 (1980): "Interaction of Glycogen Phosphorylase with 8-Azidoadenosine 5'-Monophosphate, a Photoaffinity Analog of AMP"

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"