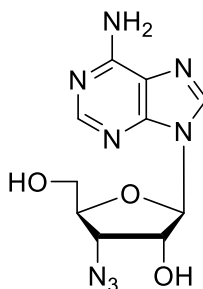


## Technical Information about 3'-N<sub>3</sub>-Ado

Update: June 08, 2023 ss



**Abbreviation:**

**3'-N<sub>3</sub>-Ado**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>10</sub> H <sub>12</sub> N <sub>8</sub> O <sub>3</sub>	[58699-62-0]	292.3	λ <sub>max</sub> 259 nm / ε 15000 / pH 7	A 243

**Name:** 3'- Azido- 3'- deoxyadenosine

**Description:** 3'-N<sub>3</sub>-Ado is an analogue of adenosine in which the ribose 3'-hydroxyl group is replaced by a reactive azido group.

**Properties:** The reactive azido group in 3'-N<sub>3</sub>-Ado allows for reaction with suitable ligands.

**Specification:** Crystallized or lyophilized solid. 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 95% (HPLC / UV / 259 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** Due to its increased lipophilicity the solubility of 3'-N<sub>3</sub>-Ado in water or buffer is limited. It is a good idea to dissolve first in a small volume of dimethyl sulfoxide (DMSO) and to pipet subsequently into the aqueous stock solution needed. 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:** If protected from light, 3'-N<sub>3</sub>-Ado 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 (-20° Celsius necessary, -70° Celsius recommended), for longer storage periods preferably in freeze-dried form.

**Toxicity and Safety:** Since adenosine 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!**

### Selected References for 3'-N<sub>3</sub>-Ado:

Gadthula S.; Chu C. K.; Schinazi R. F., *Nucleotides Nucleic Acids*, **24**, 1707 - 1727 (2005): "Synthesis and Anti-HIV Activity of β-D-3'-Azido-2',3'-Unsaturated Nucleosides and β-D-3'-Azido-3'-deoxyribofuranosyl nucleosides"

De Clercq, E.; Balzarini, J.; Descamps, J.; Eckstein, F., *Biochem. Pharmacol.*, **29**, 1849 - 1851 (1980): "Antiviral, Antimetabolic and Antineoplastic Activities of 2'- or 3'-Amino or -Azido-Substituted Deoxyribonucleosides"