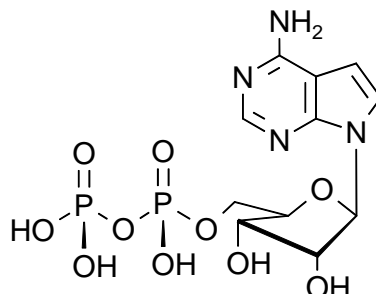


Technical Information about 7-Deazaadenosine-5'-O-diphosphate

Update: September 8, 2009 AI



Abbreviation: 7-CH-ADP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₁ H ₁₆ N ₄ O ₁₀ P ₂ (for free acid)	[21080-53-5]	426.2 (for free acid)	λ _{max} 269 nm / ε 12000 / pH 7	D 091

Name: 7- Deazaadenosine- 5'- O- diphosphate / Tubercidin- 5'- O- diphosphate (TuDP)

Description: 7-CH-ADP is an analogue of adenosine-5'-O-diphosphate (ADP) in which the nitrogen atom in position 7 of the adenine nucleobase has been replaced by carbon and hydrogen, respectively.

Properties: Isosteric modification of ADP. Potential substrate, competitive inhibitor or regulator of enzymes that interact with ADP.

Specification: Aqueous solution of the sodium salt (10 mM). Other salt forms of 7-CH-ADP are available upon request. Micromolar quantities are determined by UV at λ_{max}. 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 / 269 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: 7-CH-ADP 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 diphosphates have multiple tasks in every organism, it is very likely that ADP analogues will interfere with many cell regulation processes *in vivo*. Please keep in mind, that the *in vivo* properties of this compound are not sufficiently characterized up to now, and that the compound may be harmful if swallowed, inhaled or if absorbed through the skin. Wear appropriate protective clothing and avoid skin contact or ingestion. 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 7-CH-ADP:

Petrescu, I.; Lascu, I.; Goia, I.; Markert, M.; Schmidt, F.H.; Deaciuc, I.V.; Kezdi, M.; Bârzu, O., *Biochemistry*, **21**, 886 - 893 (1982): "Phosphorylation and Hydrolysis of 7-Deazaadenine Nucleotides by Rat Liver and Beef Heart Mitochondria"