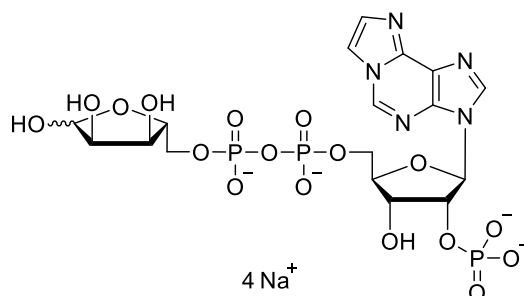


Technical Information about ϵ -ADPRP

Fluorescent analogue of ADP-ribose phosphate

Update: May 20, 2019 HU



Abbreviation: ϵ -ADPRP / ϵ -ADP-ribose phosphate

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₇ H ₂₄ N ₅ O ₁₇ P ₃ (free acid)	[98088-66-5]	663.3 (free acid)	λ_{max} 265 nm / ϵ 6000 / pH 7	E 016

Name: 1, N⁶- Ethenoadenosine- 5'- O- diphosphoribose phosphate / syn.: 2'- monophospho- 1, N⁶- ethenoadenosine- 5'- diphosphoribose, ϵ - ADP- ribose- 2'- phosphate

Description: ϵ -ADPRP is an analogue of adenosine-5'-O-diphosphoribose (ADP-ribose or ADPR) in which both the N¹ and the N⁶ nitrogen atoms in the adenine nucleobase are connected by an etheno bridge forming a tricyclic ring system. In addition, the ribose 2'-hydroxy group is monophosphorylated.

Properties: The fluorescent ϵ -ADPRP is a potential metabolite of ϵ -NADP⁺ (BIOLOG Cat. No. N 024) and ϵ -NAADP (BIOLOG Cat. No. N 019) with λ_{exc} 300 nm and λ_{em} 410 nm.

Specification: Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of ϵ -ADPRP can appear very 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_{max} .

Purity: Typical analysis is better than 95% (HPLC / UV / 265 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: ϵ -ADPRP is soluble to at least 30 mM in water. 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: ϵ -ADPRP is chemically relatively stable. Nevertheless, we recommend that the compound should be protected from light and stored in the freezer (-20° Celsius necessary, -80° recommended), for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: 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 ϵ -ADPRP:

Bailey J. M. Colman F., *Biochemistry*, 24, 5367 - 5377 (1985), "Affinity Labeling of NADP⁺-Specific Isocitrate Dehydrogenase by a New Fluorescent Nucleotide Analogue 2-[(4-Bromo-2,3-dioxybutyl)thio]-1,N⁶-ethenoadenosine 2',5'-Bisphosphate"

Schuber, F.; Lund, F.E., *Curr. Mol. Med.*, **4**, 249 - 261 (2004): "Structure and Enzymology of ADP-ribosyl Cyclases: Conserved Enzymes that Produce Multiple Calcium Mobilizing Metabolites"