Technical Information about ε-ADPR

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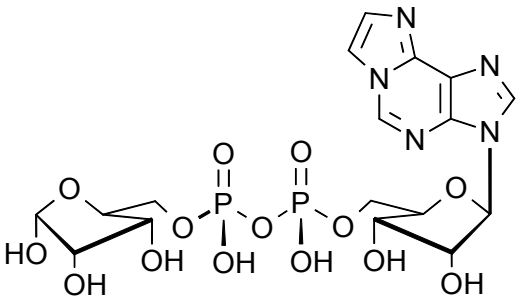

Abbreviation: **ε-ADPR / ε-ADP-ribose**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{17}H_{23}N_5O_{14}P_2$ (free acid)	[69699-76-9]	583.3 (free acid)	λ_{max} 275 nm / ε 6000 / pH 7	E 013

Name: 1, N^6- Ethenoadenosine- 5'- O- diphosphoribose

Description: ε-ADPR is an analogue of ADP-ribose in which both the N^1 and the N^6 nitrogen atoms in the adenine nucleobase are connected by an etheno bridge forming a tricyclic ring system.

Properties: ε-ADPR is a fluorescent analogue of ADP-ribose (λ_{exc} 300 nm and λ_{em} 410 nm) and can be used in fluorometric assays.

Specification: Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of ε-ADPR 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 / 275 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: ε-ADPR is soluble in water (≥ 20 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: ε-ADPR is chemically rather stable and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be protected from light and stored in the freezer, 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 References for ε-ADPR:

Song, E.-K.; Park, H.-J.; Kim, J.-S.; Lee, H.-H.; Kim, U.-H.; Han, M.-K., *J. Biochem. Biophys. Methods*, **63**, 161 - 169 (2005): "A Novel Fluorometric Assay for ADP-ribose Pyrophosphatase Activity"

Bobalova, J.; Bobal, P.; Mutafova-Yambolieva, V.N., *Anal. Biochem.*, **305**, 269 - 276 (2002): "High-Performance Liquid Chromatographic Technique for Detection of a Fluorescent Analogue of ADP-Ribose in Isolated Blood Vessel Preparations"

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