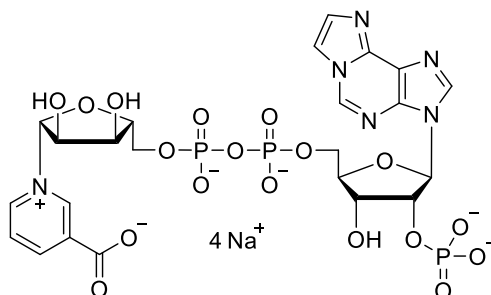


Technical Information about ϵ -NAADP⁺

Update: May 10, 2017 AI



Abbreviation:

ϵ -NAADP⁺

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₂₃ H ₂₇ N ₆ O ₁₈ P ₃ (free acid)	[217313-72-9]	768.4 (free acid)	λ_{max} 267 nm / ϵ 9000 / pH 7	N 019

Name: β - Nicotinic acid- 1, N⁶- ethenoadenine dinucleotide phosphate

Description: ϵ -NAADP⁺ is an analogue of the Ca²⁺-mobilizing agent nicotinic acid adenine dinucleotide phosphate (β -NAADP⁺, BIOLOG Cat. No. N 018) 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.

Properties: ϵ -NAADP⁺ is a fluorescent analogue of the Ca²⁺-releasing messenger β -NAADP⁺ (BIOLOG Cat. No. N 018) with λ_{exc} 300 nm and λ_{em} 410 nm. ϵ -NAADP⁺ activates Ca²⁺ release from sea urchin egg homogenates with a half-maximal effective concentration of 5 μ M (Lee & Aarhus 1998).

Specification: Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of ϵ -NAADP⁺ 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 / 267 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: ϵ -NAADP⁺ is soluble in water (\geq 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 -NAADP⁺ has limited stability at ambient temperature. 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 -NAADP⁺:

Lee, H.C.; Aarhus, R., *Biochim. Biophys. Acta*, **1425**, 263 - 271 (1998): "Fluorescent Analogs of NAADP with Calcium Mobilizing Activity"