

PRODUCT INFORMATION



ϵ -NAD⁺ (sodium salt)

Item No. 38385

Formal Name: 3-(aminocarbonyl)-1-[5-O-(hydroxy(phosphonooxy)phosphinyl)- β -D-ribofuranosyl]-pyridinium, P' \rightarrow 5'-ester with 3- β -D-ribofuranosyl-3H-imidazo[2,1-i]purine, inner salt, monosodium salt

Synonyms: N⁶-Ethenoadenine dinucleotide, β -Nicotinamide-1, ϵ -Nicotinamide adenine dinucleotide

MF: C₂₃H₂₆N₇O₁₄P₂ • Na

FW: 709.4

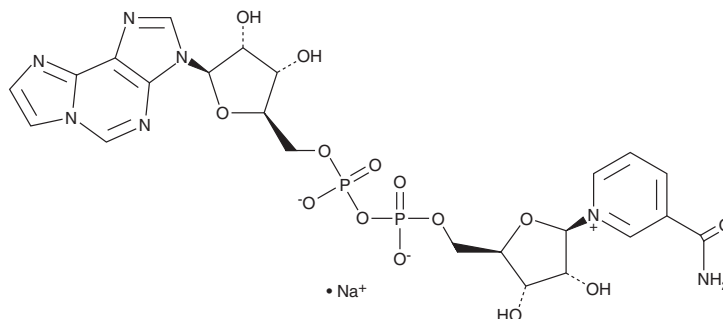
Purity: \geq 95%

Ex./Em. Max: 295-300/410 nm

Supplied as: A solid

Storage: -20°C

Stability: \geq 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ϵ -NAD⁺ (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the ϵ -NAD⁺ (sodium salt) in water. We do not recommend storing the aqueous solution for more than one day.

Description

ϵ -NAD⁺ is a fluorescent probe for enzymes that use the signaling molecule and enzyme cofactor NAD⁺ (Item No. 16077), such as glutamate dehydrogenase (GDH) or alcohol dehydrogenase (ADH).^{1,2} Upon enzymatic cleavage, 5'- ϵ -AMP is released and its fluorescence can be used to quantify enzyme activity.² ϵ -NAD⁺ displays an emission maximum of 410 nm upon excitation at 295-300 nm.{66339}

References

1. Favilla, R. and Mazzini, A. The binding of 1,N⁶-etheno-NAD to bovine liver glutamate dehydrogenase. *Biochim. Biophys. Acta* **788(1)**, 48-57 (1984).
2. Barrio, J.R., Secrist, J.A., 3rd., and Leonard, N.J. A fluorescent analog of nicotinamide adenine dinucleotide. *Proc. Natl. Acad. Sci. USA* **69(8)**, 2039-2042 (1972).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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