

Product Name: Biotin-NAD⁺

Catalog No.: 6573

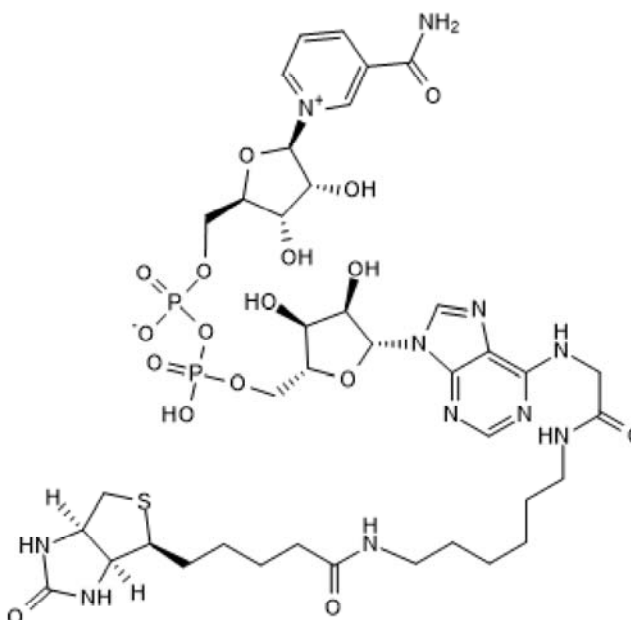
Batch No.: 2

CAS Number: 146385-37-7

IUPAC Name: β -Nicotinamide-*N*⁶-[2-[[6-[biotinyl]amino]hexyl]amino]-2-oxoethyl]adenine dinucleotide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₉H₅₇N₁₁O₁₇P₂S
Batch Molecular Weight: 1045.95
Physical Appearance: Colourless solution
Solubility: Soluble in water (supplied pre-dissolved at a concentration of 0.25mM)
Storage: Store at -80°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 87.7% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Provides a convenient non-isotopic alternative to radiolabeled NAD⁺ for determination of IC₅₀ values for candidate PARP inhibitors and studies requiring this substrate. Biotinylated-NAD⁺ allows an indirect measure of PARP activity when biotin incorporation is detected using a conjugated-streptavidin detection system. Acts as a substrate for ADP-ribosylation. Can be used to label and purify biotinyl-ADP ribosylated proteins. This product is a replacement for R&D Systems product 4670-500-01. 131 µg is supplied as 500 µl of a 0.25 mM solution in water. Please see product datasheet on www.tocris.com for full description.

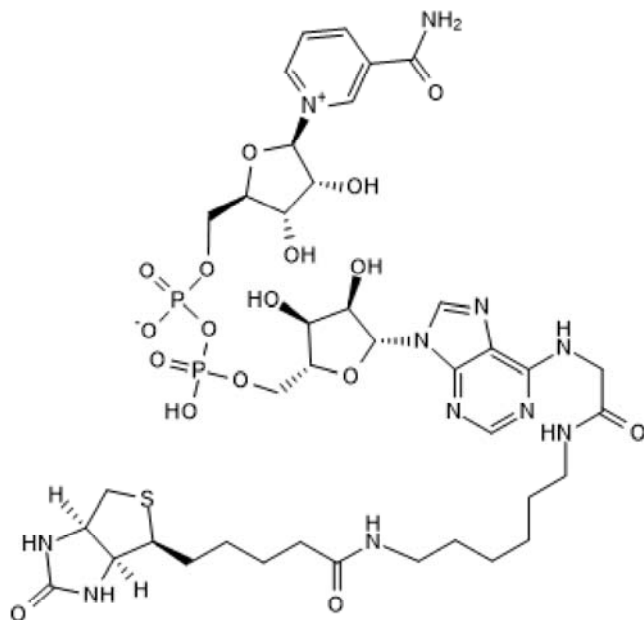
Physical and Chemical Properties:

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Physical Appearance: Colourless solution

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Storage: Store at -80°C

Solubility & Usage Info:

Soluble in water (supplied pre-dissolved at a concentration of 0.25mM)

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Schuster et al (2017) The Hsp90 machinery facilitates the transport of diphtheria toxin into human cells. *Sci.Rep.* **7** 613. PMID: 28377614.

Yang et al (2017) Ubiquitin Modification by the E3 Ligase/ADP-Ribosyltransferase Dtx3L/Parp9 *Mol. Cell* **66** 613. PMID: 28525742.

Yang (2013) Antitumor activity of a pyrrole-imidazole polyamide. *Proc.Natl.Acad.Sci.USA* **110** 1863. PMID: 23319609.

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