



CERTIFICATE OF ANALYSIS

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1. Identification

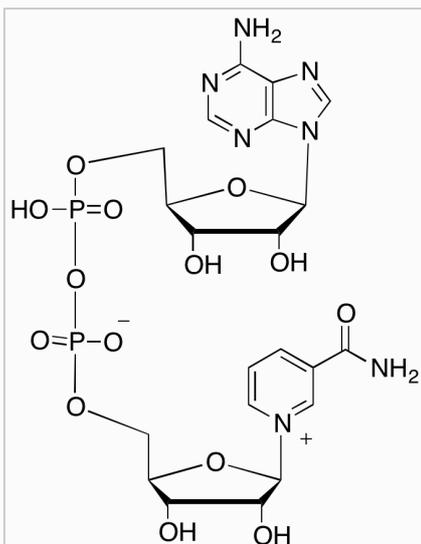
Catalogue Number: N407784

CAS Number: 53-84-9

Product: b-Nicotinamide Adenine Dinucleotide

Synonym: Adenosine 5'-(Trihydrogen Diphosphate), P' 5'-Ester with 3-(Aminocarbonyl)-1-?-D-ribofuranosylpyridinium Hydroxide, Inner Salt; Pyridinium, 3-Carbamoyl-1-?-D-ribofuranosyl-, Hydroxide, 5'?5'-Ester with Adenosine 5'-(Trihydrogen Pyrophosphate), Inner Salt (8CI); Adenine-nicotinamide Dinucleotide; CO-I; Codehydrase I; Codehydrogenase I; Coenzyme I; Cozymase I; DPN; Diphosphopyridine Nucleotide; Enzopride; NAD; NAD⁺; NSC 20272; Nadide; Nicotinamide-adenine Dinucleotide; Oxidized Diphosphopyridine N

Structure:



Molecular Formula:

C₂₁H₂₇N₇O₁₄P₂

Molecular weight:

663.43

Source of Product:

N/A

Solubility:

Aqueous Acid (Slightly),
DMSO (Slightly), Water
(Slightly)

Lot Number: 711952583-2-1

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: -20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Elemental Analysis	Conforms	%C: 34.53, %H: 4.66, %N: 13.29
NMR	Conforms to Structure	Conforms
P NMR	Conforms to Structure	Conforms
HPLC Purity	Report Result	98.52% (205 nm)
MS	Conforms to Structure	Conforms
Specific Rotation	Report Result	-27.7° (c = 0.1, Water)
Appearance	White to Pale Yellow Solid	White to Off-White Solid

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
swathi reddy	Toni Rantanen	Chanell Chu	2/15/2024	2/13/2028
				