



CERTIFICATE OF ANALYSIS

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1. Identification

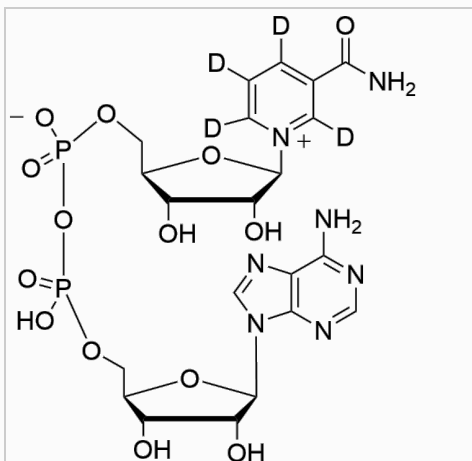
Catalogue Number: N407783

CAS Number: NA

Product: b-Nicotinamide Adenine Dinucleotide-d4 (major)

Synonym: β -NAD-d4 (major)

Structure:



Molecular Formula:

$C_{21}H_{23}D_4N_7O_{14}P_2$

Molecular weight:

667.45

Source of Product:

Synthetic

Solubility:

Aqueous Base (Slightly),
Water (Slightly)

Lot Number: 5-JAB-88-1

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:
Specific Rotation	Report Result	-28.9° (c = 0.1, Water)
Appearance	White to Off-White Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
P NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 36.47, %H: 4.42, %N: 14.06
HPLC Purity	Report Result	98.71% (205 nm)
Water Content	Report Result	~3.5% based on Elemental Analysis

Additional Information:

Normalized Intensity: d0 = 0.01%, d1 = 0.02%, d2 = 0.59%, d3 = 25.64%, d4 = 73.74% Contains: ~0.9% Methanol

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	2/18/2022	2/16/2026

