

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2023-01-30 16:24:38
Date of Next Testing:	2027-01-29 16:24:38
Product Name:	<b>β-Nicotinamide adenine dinucleotide (NAD)</b>
CAS Number:	53-84-9
Specifications & Purity:	>98.0% (HPLC)
Lot #:	A2312200
SKU #	<b>N111610</b>
<b>Analysis:</b>	<b>170602</b>
Storage Temperature:	Store at -20°C

Parameter	Limit Values	Result
abs-ratio(2a/2b)(E280/E260)	0.19-0.23	0.21
Solvent Content	0-3 (%)	0.00 %
Water by Karl Fischer	0-8 (%)	1.45 %
Purity(HPLC)	98-100 (%)	99.35700 %
abs-ratio(a/b)(E250/E260)	0.8-0.86	0.83
Molar extinction coefficient(H <sub>2</sub> O, 260.0 nm) (calcd.on anh.sub)	17000-18500	17001.00
Appearance (N111610)	white to pale yellow Powder, Crystals and/or Chunk	white to pale yellow Powder, Crystals and/or Chunk
Solubility in H <sub>2</sub> O , Colorless to Faint Yellow , Clear , 50 mg/ml H <sub>2</sub> O	pass	Pass
Carbon NMR Spectrum	Conforms to Structure	Conforms to Structure
Enzyme detection test	to pass test	to pass test



John Su  
QA & QC Manager