

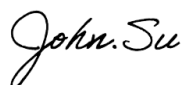
ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-11-10 13:30:49
 Date of Next Testing: 2026-11-09 13:30:49
 Product Name: **β-Nicotinamide adenine dinucleotide (NAD)**
 CAS Number: 53-84-9
 Specifications & Purity: >98.0% (HPLC)
 Lot #: K2204629
 SKU #: **N111610**
Analysis: 128867
 Storage Temperature: Store at -20°C

Parameter	Limit Values	Result
Water by Karl Fischer	0-8 (%)	1.98 %
Purity(HPLC)	98-100 (%)	98.60000 %
Molar extinction coefficient(H ₂ O, 260.0 nm) (calcd.on anh.sub	17000-18500	17540.00
abs-ratio(2a/2b)(E280/E260)	0.19-0.23	0.22
Solvent Content	0-3 (%)	2.50 %
abs-ratio(a/b)(E250/E260)	0.8-0.86	0.81
Appearance (N111610)	white to pale yellow Powder, Crystals and/or Chunk	white to pale yellow Powder, Crystals and/or Chunk
Carbon NMR Spectrum	Conforms to Structure	Conforms to Structure
Enzyme detection test	to pass test	to pass test
Solubility in H ₂ O , Colorless to Faint Yellow , Clear , 50 mg/ml H ₂ O	pass	Pass



John Su
QA & QC Manager