

CERTIFICATE OF ANALYSIS

Product:	beta-NAD+	Batch No:	PS-042271W, PS-072273W, PS-092272A
Date of Manufacture:	2022-10-20	Quantity:	97.5kg
Date of Certificate:	2022-10-20	CAS:	53-84-9
Date of Expire:	2025-10-20	Specification:	5kg/bag
Items	Requirements	Results	
Appearance	White Powder	Complies	
Solubility	Soluble in water	Complies	
ϵ at 260nm and pH 7.5	$(18.0 \pm 1.0) \times 10^3 \text{L/mole/cm}$	$17.8 \times 10^3 \text{L/mole/cm}$	
ϵ when reduced with alcohol dehydrogenase at 340nm and pH 10	$(6.3 \pm 0.2) \times 10^3 \text{L/mole/cm}$	$6.4 \times 10^3 \text{L/mole/cm}$	
Ratio at pH 7.5			
A250/A260	0.83 ± 0.03	0.83	
A280/A260	0.21 ± 0.02	0.20	
Ratio when reduced with alcohol dehydrogenase at pH 10			
A340/A260	0.43 ± 0.01	0.43	
Water (by K.F)	$\leq 10\%$	6.3%	
As	$\leq 1 \text{ppm}$	Conformity	
Total Bioburden	$< 100 \text{CFU/g}$	Conformity	
Staph aureus	Negative	Negative	
Molds	$< 100 \text{CFU/g}$	Conformity	
E. COLI	Negative	Negative	
Salmonella	Negative	Negative	
Content	$\geq 90\%$	99.76%	
Purity (HPLC)	$\geq 95\%$	99.80%	
Conclusion:	Conforms to the requirement.		
Storage:	Keep dry and away from light, storage at -20°C .		

QC Manager: Mike P. Analyst: Mike P.