

## Certificate of Analysis

<b>Product Name</b>	β-Nicotinamide adenine dinucleotide (coenzyme-I, β-NAD )		
<b>Formula</b>	C <sub>21</sub> H <sub>27</sub> N <sub>7</sub> O <sub>14</sub> P <sub>2</sub>	<b>Formula weight</b>	M <sub>r</sub> =663.4
<b>CAS No.</b>	53-84-9	<b>Maximum absorption wave length</b>	260nm
<b>MFG Date</b>	2020.01.15	<b>Batch no.</b>	20200115
<b>Testing Date</b>	2020.01.25	<b>Expiry Date</b>	2022.01.14
<b>Test Items</b>	<b>Specification</b>	<b>Results</b>	
<b>Appearance</b>	White to yellowish powder	Conform	
<b>Purity (HPLC)</b>	≥98%	99.4%	
<b>Assay of β -NAD (enzym.) (calc. on dry basis)</b>	≥97%	98.9%	
<b>Sodium content (IC)</b>	≤1%	0.020%	
<b>Water content (KF)</b>	≤5%	2.42%	
<b>pH value in water (100mg/ml)</b>	2.0-4.0	2.35	
<b>Methanol (by GC)</b>	≤1%	0.025%	
<b>ethanol (by GC)</b>	≤2%	0.0071%	
<b>Pb</b>	≤0.5ppm	Conform	
<b>As</b>	≤0.5ppm	Conform	
<b>Hg</b>	≤0.5ppm	Conform	
<b>Cd</b>	≤0.5ppm	Conform	
<b>Total microbial count (GB 4789.2)</b>	≤750 CFU/g	231 CFU/g	
<b>Coliform (GB 4789.3)</b>	<3MPN/g	N.D	
<b>Conclusion</b>	Conformable to all requested specifications.		