



大连汉德姆精细化学品有限公司

**DALIAN HANDOM CHEMICALS CO.,LTD.**

## Certificate of Analysis

### $\beta$ -NADH, disodium salt, Grade II

$\beta$ -Nicotinamide adenine dinucleotide, reduced form, (Reduced Coenzyme-I) disodium salt

Formula:  $C_{21}H_{27}N_7Na_2O_{14}P_2$  Formula Weight:  $M_r = 709.4$ ;  
CAS No.: 606-68-8 Maximum Absorption Wave Length: 260 nm and 340 nm

**Batch No.:** HDC20221118001

**Quantity:** 20.00kg

**Manufacturing Date:** Nov 18<sup>th</sup>, 2022

**Retest Date:** Nov 17<sup>th</sup>, 2024

Test Items	Specifications	Test Results
Appearance	White to yellowish powder	Conforms
Purity(HPLC)	$\geq 95\%$	97.8%
Assay of $\beta$ -NADH(enzym.) (Calc. on sodium-free and dry basis)	$\geq 90\%$	97.5%
Assay of $\beta$ -NADH, $Na_2$ (enzym.) (Calc. on dry basis)	$\geq 90\%$	97.4%
Sodium Content(IC)	$6.5 \pm 1\%$	6.08%
Water Content(KF)	$\leq 8\%$	3.82%
pH Value in water(100mg/ml)	7.0-10.0	9.20
<b>Heavy Metal Content(AAS)</b>		
Lead(Pb)	$\leq 0.5\text{ppm}$	Not detected
Arsenic(As)	$\leq 0.5\text{ppm}$	Not detected
Mercury(Hg)	$\leq 0.1\text{ppm}$	Not detected
Cadmium(Cd)	$\leq 0.5\text{ppm}$	Not detected
Total Microbial Count(GB 4789.2)	$\leq 750\text{ CFU/g}$	15 CFU/g
Coliforms(GB 4789.3)	$< 3\text{ MPN/g}$	Not detected
Molds & Yeasts(GB 4789.15)	$\leq 50\text{ CFU/g}$	Not detected

**Conclusion:** This batch of product is complied with all above requested specifications.

**Shelf Life:** The product may be stored for 24 months if kept in the unopened original containers at room temperature.

**Storage:** Kept away from light and moisture, long-term storage at  $-25^\circ\text{C}$  to  $-15^\circ\text{C}$ .