



ORIENTAL YEAST CO., LTD.

Spec.NADH-S-0010

BIOSCIENCE DIVISION

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SPECIFICATIONS

NADH-S

β -Nicotinamide-adenine dinucleotide, reduced form, disodium salt

(β -NADH, β -DPNH, Reduced Coenzyme- I)

Formula: $C_{21}H_{29}N_7O_{14}P_2$

Formula weight: 665.4 (as anhydrous free acid)

781.5 (as disodium tetrahydrate)

Purity	\geq 90 % when determined by enzymatic analysis with Alcohol dehydrogenase. Purity is calculated as anhydrous free acid as sodium, water and sodium carbonate are constituents.
Contents	\geq 75 %
Sodium contents	6.5 ± 1.5 % by atomic absorption spectrophotometry
Water contents	$<$ 10 % by Karl Fischer method
Hydrogen carbonate	$<$ 5 %
Contaminants	
1. Ethanol contents	\leq 4 %
2. Heavy metal (as Pb)	\leq 10 ppm
3. Arsenite(As)	\leq 1 ppm
4. Microorganisms	
a) Standard plate assay	\leq 10^2 CFU/g powder
b) Coliform	Negative
c) <i>Staph.aureus</i>	Negative
d) Yeast and fungus	\leq 10^2 CFU/g powder
e) Thermo-tolerant spore	\leq 10^2 CFU/g powder