

SPECIFICATION SHEET

Product Name: Nicotinamide Adenine Dinucleotide Phosphate Disodium Salt (NADP- Na_2) **Catalog #** NN02-C59

Product Description: Coenzyme Nicotinamide Adenine Dinucleotide Phosphate Disodium Salt (NADP- Na_2), CAS 24292-60-2, for catalytic reactions.

CAS: 24292-60-2

Storage and Stability: Product can be stored at 2~8°C for transportation process up to ten days but long-term storage should be at -20°C.

Alternate Names

: β -Nicotinamide Adenine Dinucleotide Phosphate Disodium Salt, Coenzyme-II Disodium Salt, β -NADP⁺ disodium salt

Appearance

: White or off white powder

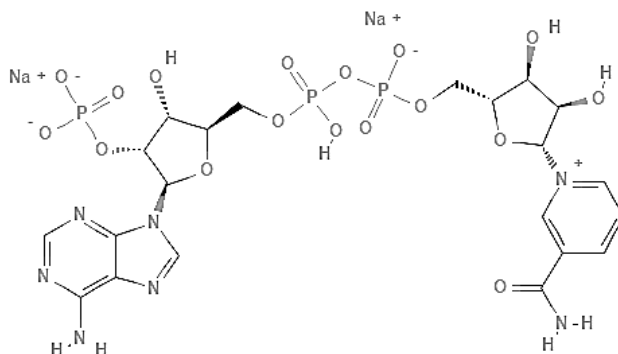
Molecular Weight

: 787.37 g/mol

Molecular Formula

: $\text{C}_{21}\text{H}_{26}\text{N}_7\text{O}_{17}\text{P}_3\text{Na}_2$

Molecular Structure



Purity Analysis

Purity: $\geq 95\%$ (HPLC)

Water Content: $\leq 8\%$

Scientific Background

: Nicotinamide adenine dinucleotide phosphate disodium salt (NADP- Na_2) is the disodium salt of Nicotinamide adenine dinucleotide phosphate (NADP⁺) coenzyme. NADP⁺ is an essential oxidizing agent and electron acceptor found in all forms of life (1). It serves as a cofactor in anabolic reactions driving the biosynthesis of all major cell components (i.e. lipid and nucleic acid synthesis) and the generation of reactive oxygen species (2). It plays an essential role in the activity of NADPH-dependent biosynthetic enzymes (3). Scientific applications of this product include enzymatic reactions, and pharmacological studies. It can be used as a cofactor in various diagnostic tests.

References

1. Spaans SK, Weusthuis RA, van der Oost J, Kengen SW. NADPH-generating systems in bacteria and archaea. *Front Microbiol.* 2015 Jul 29;6:742. doi: 10.3389/fmicb.2015.00742. PMID: 26284036; PMCID: PMC4518329.
2. Nakamura M, Bhatnagar A, Sadoshima J. Overview of pyridine nucleotides review series. *Circ Res.* 2012 Aug 17;111(5):604-10. doi: 10.1161/CIRCRESAHA.111.247924. PMID: 22904040; PMCID: PMC3523884.
3. Papagianni M. Recent advances in engineering the central carbon metabolism of industrially important bacteria. *Microb Cell Fact.* 2012 Apr 30;11:50. doi: 10.1186/1475-2859-11-50. PMID: 22545791; PMCID: PMC3461431.

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