Creative Enzymes®

NAD Kinase (Crude Enzyme)

Cat. No. NATE-1824

Lot. No. (See product label)

Introduction

Description	NAD + kinase (EC 2. 7. 1. 23, NADK) is an enzyme that converts nicotinamide adenine dinucleotide (NAD +) into NADP + through phosphorylating the NAD + coenzyme. NADP + is an essential coenzyme that is reduced to NADPH primarily by the pentose phosphate pathway to provide reducing power in biosynthetic processes such as fatty acid biosynthesis and nucleotide synthesis. The structure of the NADK from the archaean Archaeoglobus fulgidus has been determined. In humans, the genes NADK and MNADK encode NAD + kinases localized in cytosol and mitochondria,respectively. Similarly, yeast have both cytosolic and mitochondrial isoforms, and the yeast mitochondrial isoform accepts both NAD + and NADH as substrates for phosphorylation. This product with the indicated enzyme activity was briefly purified from engineered E. coli.
Applications	synthesis; agriculture; analysis
Synonyms	DPN kinase; nicotinamide adenine dinucleotide kinase (phosphorylating); nicotinamide adenine dinucleotide kinase; NAD kinase; NADK

Product Information

Source	E. coli
Appearance	Clear to translucent yellow solution
EC Number	EC 2.7.1.23
CAS No.	9032-66-0
Activity	Undetermined
Reaction	ATP + NAD + = ADP + NADP +
Notes	Since this product needs to be freshly prepared, it will take about 2 weeks after you confirm the order. Each time of the freeze-thawing may cause partial inactivation. Therefore, it should be dispensed as required and stored at -20 ° C or lower. With the preservation of the extension of time, the enzyme activity will decline to a certain extent, so the product should be used as soon as possible. This product may have turbidity or precipitation in the production and preservation process, it can be mixed after melting and will not affect the normal use. This product is limited to scientific research use, shall not be used for clinical diagnosis or treatment, shall not be used for food or medicine, shall not be stored in ordinary residential. For your safety and health, please wear an experimental suit and wear disposable gloves.

Usage and Packaging

Package	100ml

Storage and Shipping Information

Storage	at -20 °C or lower, for at least 1 month.