

# Recombinant human NRK1/NMRK1 protein

Catalog Number: ATGP1570

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-199aa

### UniProt No.

Q9NWW6

### NCBI Accession No.

NP\_060351.1

### Alternative Names

nicotinamide riboside kinase 1 isoform 1, bA235O14.2, NRK1, RP11-235O14.2

## PRODUCT SPECIFICATION

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### Molecular Weight

25.6 kDa (222aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% Glycerol

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

NRK1 belongs to the uridine kinase family. NAD<sup>+</sup> is essential for life in all organisms, both as a coenzyme for oxidoreductases and as a source of ADPribosyl groups used in various reactions, including those that retard aging in experimental systems. Nicotinic acid and nicotinamide were defined as the vitamin precursors of NAD<sup>+</sup>. This enzyme catalyzes the phosphorylation of nicotinamide riboside (NR) and nicotinic acid riboside (NaR) to form nicotinamide mononucleotide (NMN) and nicotinic acid mononucleotide (NaMN). The enzyme also phosphorylates the antitumor drugs tiazofurin and 3-deazaguanosine. Recombinant human NRK1 protein, fused

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to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

### Amino acid Sequence

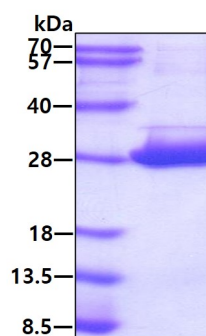
<MGSSHHHHHH SSGLVPRGSH MGS>MKTFIIG ISGVTNSGKT TLAKNLQKHL PNCVISQDD FFKPESEIET DKNGLQYDV  
LEALNMEKMM SAISCWMESA RHSVSTDQE SAEIPIILII EGFLLFNYKP LDTIWNRSYF LTIPYEECKR RRSTRVYQPP  
DSPGYFDGHV WPMYLYRQE MQDITWEVVY LDGKSEEDL FLQVYEDLIQ ELAKQKCLQV TA

### General References

Bieganowski P, et al.(2004) Cell. 14;117(4):495-502.  
Khan JA, et al. (2007) Structure. 15(8):1005-13.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.