

# Recombinant human Purine nucleoside phosphorylase/PNP protein

Catalog Number: ATGP0786

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-289aa

### UniProt No.

P00491

### NCBI Accession No.

NP\_000261

### Alternative Names

Purine nucleoside phosphorylase, NP, Inosine phosphorylase, PRO1837, PuNP

## PRODUCT SPECIFICATION

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### Molecular Weight

34.2 kDa (309aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 2mM DTT, 10% glycerol

### Purity

> 90% by SDS-PAGE

### Biological Activity

Specific activity is > 120unit/mg, and is defined as the amount of enzyme that phosphorolysis of 1.0 umole of inosine with inorganic phosphate per minute at pH 7.5 at 25C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### 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

PNP belongs to the PNP/MTAP phosphorylase family of proteins. This protein catalyzes the reversible phosphorolysis of ribonucleosides and 2'-deoxyribonucleosides with specificity for guanine, hypoxanthine and their analogs. PNP deficiency is a rare autosomal recessive genetic disease associated with a severe defect in T-

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lymphocyte function and neurologic disorder in children, comprising four percent of combined immunodeficiency cases. Recombinant human PNP protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques

## Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MENGYTYEDY KNTAEWLLSH TKHRPQVAII CGSGLGGLTD KLTQAQIFDY  
GEIPNFRST VPGHAGRLVF GFLNGRACVM MQGRFHMYEG YPLWKVTFPV RVFHLLGVDL LVTNAAGGL NPKFEVGDIM  
LIRDHINLPG FSGQNPLRGP NDERFGDRFP AMSDAYDRTM RQRALSTWKQ MGEQRELQEG TYVMVAGPSF ETVAECRVLQ  
KLGADAVGMS TVPEVIVARH CGLRVFGFSL ITNKVIMDYE SLEKANHEEV LAAGKQAAQK LEQFVSILMA SIPLPKAS

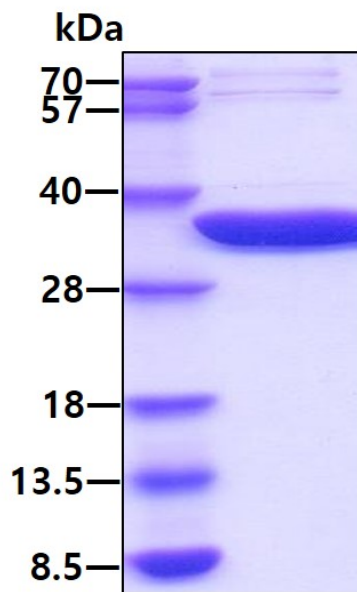
## General References

Dautant A., et al. (2010) J Biol Chem. 285(38):29502-10.

Balakrishnan K., et al. (2010) Blood. 116(6):886-92.

## DATA

### SDS-PAGE



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