Recombinant human Purine nucleoside phosphorylase/PNP protein

Catalog Number: ATGP0786

PRODUCT INFORMATION

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

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

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

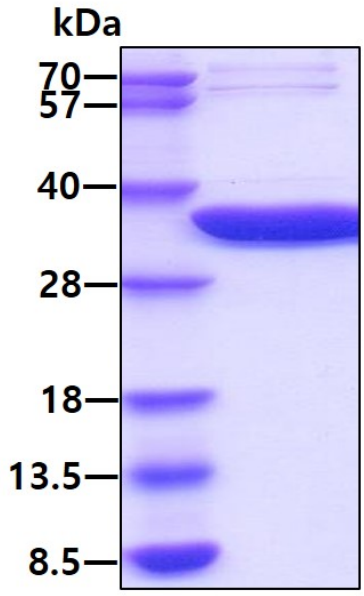
<MGSSHHHHHH SSGLVPRGSH> MENGYTYEDY KNTAEWLLSH TKHRPQVAII CGSGLGGLTD KLTQAQIFDY GEIPNFPRST VPGHAGRLVF GFLNGRACVM MQGRFHMYEG YPLWKVTFPV RVFHLLGVDT LVVTNAAGGL NPKFEVGDIM LIRDHINLPG FSGQNPLRGP NDERFGDRFP AMSDAYDRTM RQRALSTWKQ MGEQRELQEG TYVMVAGPSF ETVAECRVLQ KLGADAVGMS TVPEVIVARH CGLRVFGFSL ITNKVIMDYE SLEKANHEEV LAAGKQAAQK LEQFVSILMA SIPLPDKAS

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.