

Nucleoside phosphorylase/PNP Protein, Human (His)

Cat. No.:	HY-P74665
Synonyms:	Purine nucleoside phosphorylase; PNP; Inosine phosphorylase; NP
Species:	Human
Source:	E. coli
Accession:	P00491 (M1-S289)
Gene ID:	4860
Molecular Weight:	Approximately 33.5 kDa

PROPERTIES

AA Sequence	<p>M E N G Y T Y E D Y K N T A E W L L S H T K H R P Q V A I I C G S G L G G L T D</p> <p>K L T Q A Q I F D Y G E I P N F P R S T V P G H A G R L V F G F L N G R A C V M</p> <p>M Q G R F H M Y E G Y P L W K V T F P V R V F H L L G V D T L V V T N A A G G L</p> <p>N P K F E V G D I M L I R D H I N L P G F S G Q N P L R G P N D E R F G D R F P</p> <p>A M S D A Y D R T M R Q R A L S T W K Q M G E Q R E L Q E G T Y V M V A G P S F</p> <p>E T V A E C R V L Q K L G A D A V G M S T V P E V I V A R H C G L R V F G F S L</p> <p>I T N K V I M D Y E S L E K A N H E E V L A A G K Q A A Q K L E Q F V S I L M A</p> <p>S I P L P D K A S</p>
Biological Activity	Measured by the phosphorolysis of 7-methyl-6-thioguanosine. The specific activity is 4672.43 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.2 μm filtered solution of PBS, 25% glycerol, pH 7.5 or 50 mM Tris-HCL, 300 mM NaCl, 200 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The Nucleoside phosphorylase/PNP protein assumes a crucial role in cellular processes by catalyzing the phosphorolytic
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breakdown of N-glycosidic bonds in beta-(deoxy)ribonucleoside molecules. This enzymatic activity results in the formation of the corresponding free purine bases and pentose-1-phosphate, as documented in relevant literature. Notably, the protein exhibits a preference for 6-oxopurine nucleosides, such as inosine and guanosine. The substrate specificity of Nucleoside phosphorylase/PNP underscores its significance in the regulated degradation of nucleosides, providing insights into its role in maintaining cellular purine homeostasis and contributing to the overall dynamics of nucleotide metabolism.

Caution: Product has not been fully validated for medical applications. For research use only.

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