

## PNP cDNA

Catalog Number: ATGD0131

### PRODUCT INFORMATION

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**Catalog number**

ATGD0131

**Product type**

cDNA

**Species**

Human

**NCBI Accession No.**

NP\_000261.2

**Alternative Names**

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

**mRNA Refseq**

NM\_000270.3

**OMIM**

164050

**Chromosome location**

14q13.1

### PRODUCT SPECIFICATION

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**Formulation**

Lyophilized

**Storage**

Store the plasmid at -20C.

**cDNA Size**

870bp

**Preparation before usage**

1. Centrifuge at 7000rpm for 1 minute.
2. Carefully open the vial and add 100ul of sterile water to dissolve the DNA. Each tube contains approximately 10ug of lyophilized plasmid.

**Vector description**

This shuttle vector contains the complete ORF. It is inseted BamH I to Xho I. The gene insert contains multiple cloning sites which can be used to easily cut and transfer the gene and recombination site into your expression vector.

**Cloning Vector**

pATGen (puc19-derived cloning vector)

**General Description**

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PNP encodes an enzyme which reversibly catalyzes the phosphorolysis of purine nucleosides. The enzyme is trimeric, containing three identical subunits. Mutations which result in nucleoside phosphorylase deficiency result in defective T-cell (cell-mediated) immunity but can also affect B-cell immunity and antibody responses. Neurologic disorders may also be apparent in patients with immune defects. A known polymorphism at aa position 51 that does not affect enzyme activity has been described. A pseudogene has been identified on chromosome 2.

### DATA

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#### Sequence nucleotides

```
ATGGAGAACGGATACACCTATGAAGATTATAAGAACACTGCAGAATGGCTTCTGTCTCACACTAAGCACCGACCTCAAGTTG
CAATAATCTGTGGTTCTGGATTAGGAGGTCTGACTGATAAATTAAGTCTGAGCCAGATCTTTGACTACGGTCAAATCCCCAA
CTTTCCCCGAAGTACAGTGCCAGGTCATGCTGGCCGACTGGTGTTTGGGTTCCCTGAATGGCAGGGCCTGTGTGATGATGCA
GGGCAGGTTCCACATGTATGAAGGGTACCCACTCTGGAAGGTGACATTCCCAGTGAGGGTTTTCCACCTTCTGGGTGTGGA
CACCTGGTAGTCACCAATGCAGCAGGAGGGCTGAACCCCAAGTTTGAGGTTGGAGATATCATGCTGATCCGTGACCATAT
CAACCTACCTGGTTTTAGTGGTCAGAACCCTCTCAGAGGGCCCAATGATGAAAGGTTTGGAGATCGTTTCCCTGCCATGTCT
GATGCCTACGACCGGACTATGAGGCAGAGGGCTCTCAGTACCTGAAACAAATGGGGGAGCAACGTGAGCTACAGGAAGG
CACCTATGTGATGGTGGCAGGCCCCAGCTTTGAGACTGTGGCAGAATGTCGTGTGCTGCAGAAGCTGGGAGCAGACGCTG
TTGGCATGAGTACAGTACCAGAAGTTATCGTTGCACGGCACTGTGGACTTCGAGTCTTTGGCTTCTCACTCATCACTAACAA
GGTCATCATGGATTATGAAAGCCTGGAGAAGGCCAACCATGAAGAAGTCTTAGCAGCTGGCAAACAAGCTGCACAGAAATT
GGAACAGTTTGTCTCCATTCTTATGGCCAGCATTCCACTCCCTGACAAAGCCAGTTGA
```

#### Transaction Sequence

```
MENGYTYEDY KNTAEWLLSH TKHRPQVAII CGSGLGGLTD KLTQAQIFDY GEIPNFPRST VPGHAGRLVF GFLNGRACVM
MQGRFHMYEG YPLWKVTFPV RVFHLLGVDV LVTNAAGGL NPKFEVGDIM LIRDHINLPG FSGQNPLRGP NDERFGDRFP
AMSDAYDRTM RQRALSTWKQ MGEQRELQEG TYVMVAGPSF ETVAECRVLQ KLGADAVGMS TVPEVIVARH CGLRVFGFSL
ITNKVIMDYE SLEKANHEEV LAAGKQAAQK LEQFVSILMA SIPLPKAS
```