

Product datasheet for RC210759

Nucleoside phosphorylase (PNP) (NM_000270) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nucleoside phosphorylase (PNP) (NM_000270) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nucleoside phosphorylase
Synonyms:	NP; PRO1837; PUNP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210759 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAACGGATACACCTATGAAGATTATAAGAACACTGCAGAATGGCTTCTGTCTCACACTAAGCACC
GACCTCAAGTTGCAATAATCTGTGGTTCTGGATTAGGAGGTCTGACTGATAAATTAAGTCAAGGCCAGAT
CTTTGACTACGGTGAAATCCCAACTTTCCCGAAGTACAGTGCCAGGTCATGCTGGCCGACTGGTGT
GGTTCTCTGAATGGCAGGCCTGTGTGATGATGCAGGGCAGGTTCCACATGTATGAAGGGTACCCACTCT
GGAAGGTGACATCCAGTGAGGTTTTCCACCTTCTGGGTGTGGACACCCTGGTAGTCACCAATGCAGC
AGGAGGGCTGAACCCCAAGTTTGAAGTTGGAGATATCATGCTGATCCGTGACCATATCAACCTACCTGGT
TTCAGTGGTCAGAACCTCTCAGAGGGCCAATGATGAAAGGTTTGGAGATCGTTTTCCCTGCCATGTCTG
ATGCCTACGACCGGACTATGAGGCAGAGGGCTCTCAGTACCTGGAAACAAATGGGGGAGCAACGTGAGCT
ACAGGAAGGCACCTATGTGATGGTGGCAGGCCAGCTTTGAGACTGTGGCAGAAATGTCGTGTGCTGCAG
AAGCTGGGAGCAGACGCTGTTGGCATGAGTACAGTACCAGAAATTATCGTTGCACGGCACTGTGGACTTC
GAGTCTTTGGCTTCTCACTCATCACTAACAAAGGTATCATGGATTATGAAAGCCTGGAGAAGGCCAACCA
TGAAGAAGTCTTAGCAGCTGGCAAACAAGCTGCACAGAAATTGGAACAGTTTGTCTCCATTCTTATGGCC
AGCATTCCACTCCCTGACAAAGCCAGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210759 protein sequence
 Red=Cloning site Green=Tags(s)

MENGYTYEDYKNTAEWLLSHTKHRPQVAICGSGLGGLTDKLTQAQIFDYGEIPNFPSTVPGHAGRLVF
 GFLNGRACVMMQGRFHMYEGYPLWKVTFPVRVHLLGVDTLVVTNAAGGLNPKFEVGDIMLIRDHINLPG
 FSGQNPLRGPNDERF GDRFPAMSDAYDRMTMRQALSTWKQMGEQRELQEGTYVMVAGPSFETVAECRVLQ
 KLGADAVGMSTVPEVIVARHCGLRVFGFSLITNKVIMDYESLEKANHEEVLAAGKQAAQKLEQFVSILMA
 SIPLPKAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6267_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000270

ORF Size: 867 bp

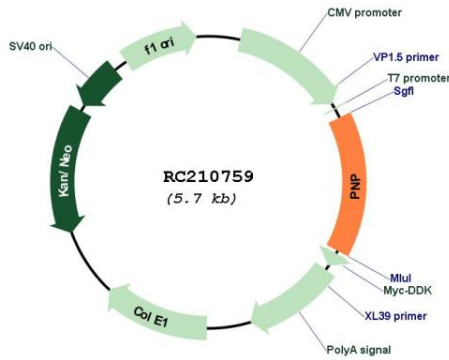
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

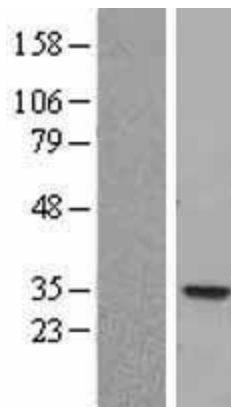
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_000270.4
RefSeq Size:	2438 bp
RefSeq ORF:	870 bp
Locus ID:	4860
UniProt ID:	P00491
Cytogenetics:	14q11.2
Domains:	Mtap_PNP
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Metabolic pathways, Nicotinate and nicotinamide metabolism, Purine metabolism, Pyrimidine metabolism
MW:	32.1 kDa
Gene Summary:	This gene 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. [provided by RefSeq, Jul 2008]

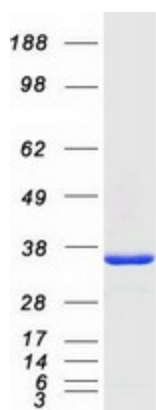
Product images:



Circular map for RC210759



Western blot validation of overexpression lysate (Cat# [LY424829]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210759 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PNP protein (Cat# [TP310759]). The protein was produced from HEK293T cells transfected with PNP cDNA clone (Cat# RC210759) using MegaTran 2.0 (Cat# [TT210002]).