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# Anti-PNP Picoband Antibody

Catalog # ABO12910

## Product Information

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| **Application** | WB, IHC |
| **Primary Accession** | P00491 |
| **Host** | Rabbit |
| **Isotype** | Rabbit IgG |
| **Reactivity** | Human, Mouse, Rat |
| **Clonality** | Polyclonal |
| **Format** | Lyophilized |
| **Description** | Rabbit IgG polyclonal antibody for Purine nucleoside phosphorylase(PNP) detection. Tested with WB, IHC-P in Human;Mouse;Rat. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Gene ID** | 4860 |
| **Other Names** | Purine nucleoside phosphorylase, PNP, 2.4.2.1, Inosine phosphorylase, Inosine-guanosine phosphorylase, PNP, NP |
| **Calculated MW** | 32118 |
| **Application Details** | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat<br><br>Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat |
| **Subcellular Localization** | Cytoplasm, cytoskeleton . Cytoplasm . |
| **Tissue Specificity** | Expressed in red blood cells; overexpressed in red blood cells (cytoplasm) of patients with hereditary non- spherocytic hemolytic anemia of unknown etiology. . |
| **Source** | Eukaryota |
| **Contents** | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| **Immunogen** | A synthetic peptide corresponding to a sequence in the middle region of human PNP (161-189aa AMSDAYDRTMRQRALSTWKQMGEQRELQE), different from the related mouse sequence by six amino acids, and from the related rat sequence by five amino acids. |
| **Cross Reactivity** | No cross reactivity with other proteins. |

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| **Storage** | At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and thawing. |

## Protein Information

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| **Name** | PNP |
| **Synonyms** | NP |
| **Function** | Catalyzes the phosphorolytic breakdown of the N-glycosidic bond in the beta-(deoxy)ribonucleoside molecules, with the formation of the corresponding free purine bases and pentose-1-phosphate (PubMed:23438750, PubMed:3029074, PubMed:9305964). Preferentially acts on 6-oxopurine nucleosides including inosine and guanosine (PubMed:9305964). |
| **Cellular Location** | Cytoplasm, cytosol |
| **Tissue Location** | Expressed in red blood cells; overexpressed in red blood cells (cytoplasm) of patients with hereditary non-spherocytic hemolytic anemia of unknown etiology. |

## Background

The PNP gene encodes purine nucleoside phosphorylase, an enzyme that catalyzes the reversible phosphorolysis of the purine nucleosides and deoxynucleosides inosine, guanosine, deoxyinosine, and deoxyguanosine. It is presented results from gene dosage studies consistent with assignment of the PNP locus to band 14q13. PNP is expressed in most tissues, with markedly greater expression in lymphoid tissues. Genetic deficiencies of PNP result in severely compromised T?lymphocyte function and neurologic dysfunction.

## Images

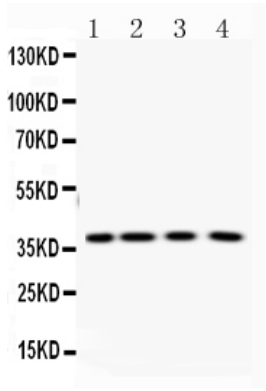



Figure 1. Western blot analysis of PNP using anti-PNP antibody (ABO12910). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: rat thymus tissue lysates,Lane 2: rat ovary tissue lysates,Lane 3: mouse liver tissue lysates,Lane 4: human placneta tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PNP antigen affinity purified polyclonal antibody (Catalog # ABO12910) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PNP at approximately 38KD. The expected band size for PNP is at

38KD.

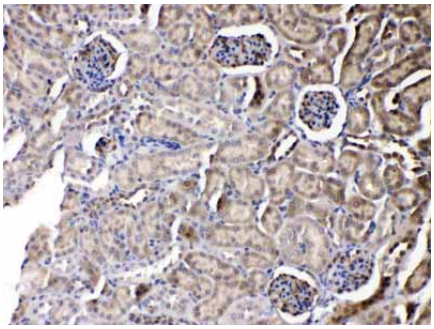


Figure 2. IHC analysis of PNP using anti-PNP antibody (ABO12910).PNP was detected in paraffin-embedded section of mouse kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-PNP Antibody (ABO12910) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

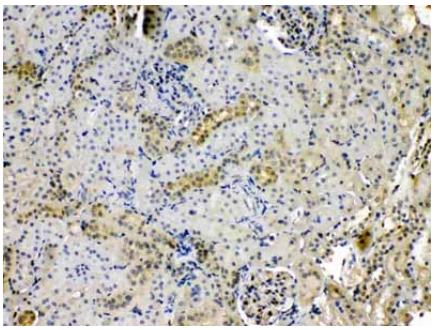


Figure 3. IHC analysis of PNP using anti-PNP antibody (ABO12910).PNP was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-PNP Antibody (ABO12910) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

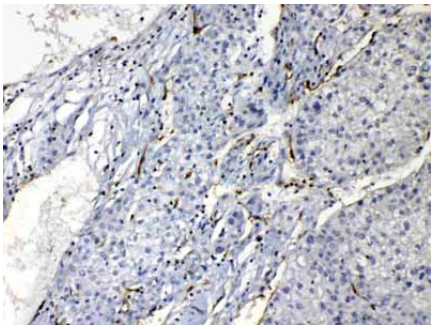


Figure 4. IHC analysis of PNP using anti-PNP antibody (ABO12910).PNP was detected in paraffin-embedded section of human liver cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-PNP Antibody (ABO12910) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

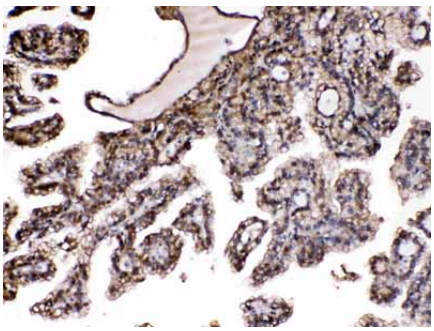


Figure 5. IHC analysis of PNP using anti-PNP antibody (ABO12910).PNP was detected in paraffin-embedded section of human renal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-PNP Antibody (ABO12910) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.