



# PNKP Monoclonal Antibody

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| Catalog No                  | YP-mAb-04940                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Isotype                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Reactivity                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Applications                | WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Gene Name                   | PNKP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Immunogen                   | Synthesized peptide derived from human protein . at AA range: 50-130                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Specificity                 | PNKP Monoclonal Antibody detects endogenous levels of protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Formulation                 | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Source                      | Monoclonal, Mouse,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Purification                | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                           |
| Dilution                    | WB 1:500-1:2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Concentration               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Purity                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Storage Stability           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Synonyms                    | DNA 5 kinase/3 phosphatase;PNK;PNKP;Bifunctional polynucleotide phosphatase/kinase (DNA 5'-kinase/3'-phosphatase) (Polynucleotide kinase-3'-phosphatase) [Includes: Polynucleotide 3'-phosphatase (EC 3.1.3.32) (2'(3')-polynucleotidase);P                                                                                                                                                                                                                                                                                    |
| Observed Band               | 57 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Calculated Molecular Weight | 521 aa, 57 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cell Pathway                | Nucleus . Chromosome . Localizes to site of double-strand breaks. .                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Tissue Specificity          | Expressed in many tissues with highest expression in spleen and testis, and lowest expression in small intestine (PubMed:10446192). Expressed in higher amount in pancreas, heart and kidney and at lower levels in brain, lung and liver (PubMed:10446193).                                                                                                                                                                                                                                                                   |
| Function                    | catalytic activity:A 3'-phosphopolynucleotide + H(2)O = a polynucleotide + phosphate.,catalytic activity:ATP + 5'-dephospho-DNA = ADP + 5'-phospho-DNA.,function:Catalyzes the phosphorylation of DNA at 5'-hydroxyl termini and can dephosphorylate its 3'-phosphate termini. Plays an important function in DNA repair following ionizing radiation or oxidative damage., PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:In the N-terminal section; belongs to the DNA 3' phosphatase family.,tissue |



specificity: Expressed in many tissues with highest expression in spleen and testis, and lowest expression in small intestine (PubMed:10446192). Expressed in higher amount in pancreas, heart and kidney and at lower levels in brain, lung and liver (PubMed:10446193).

**Background**

This locus represents a gene involved in DNA repair. In response to ionizing radiation or oxidative damage, the protein encoded by this locus catalyzes 5' phosphorylation and 3' dephosphorylation of nucleic acids. Mutations at this locus have been associated with microcephaly, seizures, and developmental delay. [provided by RefSeq, Sep 2010],

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images