



href="http://www.uniprot.org/citations/20852255" target="\_blank">20852255</a>, PubMed:<a href="http://www.uniprot.org/citations/28453785" target="\_blank">28453785</a>). Through its two catalytic activities, PNK ensures that DNA termini are compatible with extension and ligation by either removing 3'-phosphates from, or by phosphorylating 5'-hydroxyl groups on, the ribose sugar of the DNA backbone (PubMed:<a href="http://www.uniprot.org/citations/10446192" target="\_blank">10446192</a>, PubMed:<a href="http://www.uniprot.org/citations/10446193" target="\_blank">10446193</a>).

#### **Cellular Location**

Nucleus. Chromosome. Note=Localizes to site of double-strand breaks.

#### **Tissue Location**

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)

### **Goat Anti-PNKP / PNK Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Goat Anti-PNKP / PNK Antibody - Images**

### **Goat Anti-PNKP / PNK Antibody - 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.

### **Goat Anti-PNKP / PNK Antibody - References**

Polymorphisms in the base excision repair pathway and graft-versus-host disease. Arora M, et al. Leukemia, 2010 Aug. PMID 20574454.  
Variation within DNA repair pathway genes and risk of multiple sclerosis. Briggs FB, et al. Am J Epidemiol, 2010 Jul 15. PMID 20522537.  
Association between genetic variants in the base excision repair pathway and outcomes after hematopoietic cell transplantations. Thyagarajan B, et al. Biol Blood Marrow Transplant, 2010 Aug. PMID 20226869.  
Mutations in PNKP cause microcephaly, seizures and defects in DNA repair. Shen J, et al. Nat Genet, 2010 Mar. PMID 20118933.  
Specific recognition of a multiply phosphorylated motif in the DNA repair scaffold XRCC1 by the FHA domain of human PNK. Ali AA, et al. Nucleic Acids Res, 2009 Apr. PMID 19155274.