

PNKP Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP14116a**Specification**

PNKP Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [Q96T60](#)**PNKP Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 11284**Other Names**

Bifunctional polynucleotide phosphatase/kinase, DNA 5'-kinase/3'-phosphatase, Polynucleotide kinase-3'-phosphatase, Polynucleotide 3'-phosphatase, 2'(3')-polynucleotidase, Polynucleotide 5'-hydroxyl-kinase, PNKP

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP14116a was selected from the N-term region of PNKP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PNKP Antibody (N-term) Blocking peptide - Protein Information**Name** PNKP {ECO:0000303|PubMed:10446192, ECO:0000312|HGNC:HGNC:9154}**Function**

Plays a key role in the repair of DNA damage, functioning as part of both the non-homologous end-joining (NHEJ) and base excision repair (BER) pathways (PubMed:10446192, PubMed:10446193, PubMed:15385968, PubMed:20852255, PubMed:28453785). 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:10446192, PubMed:10446193).

target="_blank">10446193).

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)

PNKP Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

PNKP Antibody (N-term) Blocking peptide - Images**PNKP Antibody (N-term) Blocking peptide - 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.

PNKP Antibody (N-term) Blocking peptide - References

Arora, M., et al. Leukemia 24(8):1470-1475(2010) Thyagarajan, B., et al. Biol. Blood Marrow Transplant. 16(8):1084-1089(2010) Briggs, F.B., et al. Am. J. Epidemiol. 172(2):217-224(2010) Shen, J., et al. Nat. Genet. 42(3):245-249(2010) Ali, A.A., et al. Nucleic Acids Res. 37(5):1701-1712(2009)