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PNKP Rabbit mAb

Catalog # AP76661

Product Information

Application	WB, IHC-P, IP
Primary Accession	Q96T60
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	57076

Additional Information

Gene ID	11284
Other Names	PNKP
Dilution	WB~~1:1000 IHC-P~~N/A IP~~N/A
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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).
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)

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.

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