

**PRPK Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8097c****Specification**

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**PRPK Antibody (Center) Blocking Peptide - Product Information**Primary Accession  
Other Accession[O96S44](#)  
[PRPK\\_HUMAN](#)**PRPK Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 112858**Other Names**

TP53-regulating kinase, Atypical serine/threonine protein kinase TP53RK, EKC/KEOPS complex subunit TP53RK, 36--, Nori-2, p53-related protein kinase, TP53RK, C20orf64, PRPK

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8097c](#) was selected from the Center region of human PRPK. 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.

**PRPK Antibody (Center) Blocking Peptide - Protein Information****Name** TP53RK ([HGNC:16197](#))**Function**

Component of the EKC/KEOPS complex that is required for the formation of a threonylcarbamoyl group on adenosine at position 37 (t(6)A37) in tRNAs that read codons beginning with adenine (PubMed: [22912744](#), PubMed: [27903914](#)). The complex is probably involved in the transfer of the threonylcarbamoyl moiety of threonylcarbamoyl-AMP (TC-AMP) to the N6 group of A37 (PubMed: [22912744](#), PubMed: [27903914](#)). TP53RK has ATPase activity in the context of the EKC/KEOPS complex and likely plays a supporting role to the catalytic subunit OSGEP (By similarity). Atypical protein kinase that phosphorylates 'Ser-15' of p53/TP53 protein and may therefore participate in its activation (PubMed: [22912744](#)).

href="http://www.uniprot.org/citations/11546806" target="\_blank">11546806</a>).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Highly expressed in testis. Weakly expressed in heart kidney and spleen.

**PRPK Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**PRPK Antibody (Center) Blocking Peptide - Images****PRPK Antibody (Center) Blocking Peptide - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

**PRPK Antibody (Center) Blocking Peptide - References**

Miyoshi, A., et al., Biochem. Biophys. Res. Commun. 303(2):399-405 (2003). Abe, Y., et al., J. Biol. Chem. 276(47):44003-44011 (2001).