

**PRKX Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7940a****Specification**

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**PRKX Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P51817](#)**PRKX Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 5613**Other Names**

cAMP-dependent protein kinase catalytic subunit PRKX, PrKX, Protein kinase X, Protein kinase X-linked, Serine/threonine-protein kinase PRKX, Protein kinase PKX1, PRKX, PKX1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7940a](/product/products/AP7940a) was selected from the C-term region of human PRKX. 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.

**PRKX Antibody (C-term) Blocking Peptide - Protein Information****Name** PRKX**Synonyms** PKX1**Function**

Serine/threonine protein kinase regulated by and mediating cAMP signaling in cells. Acts through phosphorylation of downstream targets that may include CREB, SMAD6 and PKD1 and has multiple functions in cellular differentiation and epithelial morphogenesis. Regulates myeloid cell differentiation through SMAD6 phosphorylation. Involved in nephrogenesis by stimulating renal epithelial cell migration and tubulogenesis. Also involved in angiogenesis through stimulation of endothelial cell proliferation, migration and vascular-like structure formation.

**Cellular Location**

Cytoplasm. Nucleus. Note=cAMP induces nuclear translocation

**Tissue Location**

Widely expressed (at protein level). Specifically expressed in blood by macrophages and granulocytes according to PubMed:9860982.

**PRKX Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**PRKX Antibody (C-term) Blocking Peptide - Images****PRKX Antibody (C-term) 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 AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK). The calcium/calmodulin-dependent kinase (CAMK) group consists of 75 kinases regulated by  $\text{Ca}^{2+}$ /CaM and close relative family (CAMK, CAMKL, DAPK, MAPKAPK).

**PRKX Antibody (C-term) Blocking Peptide - References**

Li, X., et al., Proc. Natl. Acad. Sci. U.S.A. 99(14):9260-9265 (2002). Klink, A., et al., Hum. Mol. Genet. 4(5):869-878 (1995).