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PRKX Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7940a

Product Information

Application	WB, IHC-P, E
Primary Accession	P51817
Reactivity	Human, Mouse
Predicted	Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40896
Antigen Region	312-343

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	This PRKX antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 312-343 amino acids from the C-terminal region of human PRKX.
Dilution	WB~~1:2000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PRKX Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

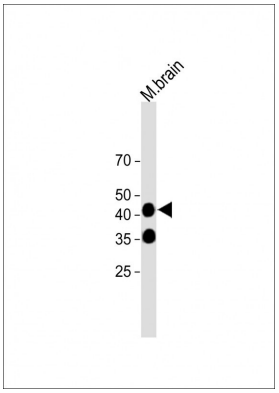
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g 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 Ca2+/CaM and close relative family (CAMK, CAMKL, DAPK, MAPKAPK).

References

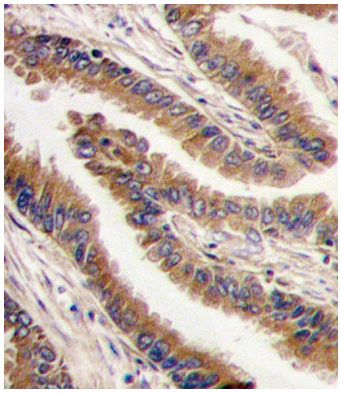
Li, X., et al., Proc. Natl. Acad. Sci. U.S.A. 99(14):9260-9265 (2002).
Klink, A., et al., Hum. Mol. Genet. 4(5):869-878 (1995).

Images



All lanes: Anti-PRKX Antibody (C-term) at 1:2000 dilution + mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 42KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with PRKX antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Citations

- PRKX critically regulates endothelial cell proliferation, migration, and vascular-like structure formation.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.