



Rabbit Anti-PKN1 antibody

SL7478R

Product Name:	PKN1
Chinese Name:	蛋白激酶C相关激酶1抗体
Alias:	DBK; PAK 1; PAK-1; PAK1; PKC1; PKN ALPHA; PKN; Pkn1; PKN1_HUMAN; PRK1; PRKCL1; Protease activated kinase 1; Protease-activated kinase 1; Protein kinase C like 1; Protein kinase C like PKN; Protein kinase C related kinase 1; Protein kinase C-like 1; Protein kinase C-like PKN; Protein kinase N1; Protein kinase PKN alpha; Protein kinase PKN-alpha; Protein-kinase C-related kinase 1; Serine threonine kinase N; Serine threonine protein kinase N; Serine-threonine protein kinase N; Serine/threonine protein kinase N1; Serine/threonine-protein kinase N1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	104kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PKN1:201-300/942
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene belongs to the protein kinase C superfamily. This

kinase is activated by Rho family of small G proteins and may mediate the Rho-dependent signaling pathway. This kinase can be activated by phospholipids and by limited proteolysis. The 3-phosphoinositide dependent protein kinase-1 (PDPK1/PDK1) is reported to phosphorylate this kinase, which may mediate insulin signals to the actin cytoskeleton. The proteolytic activation of this kinase by caspase-3 or related proteases during apoptosis suggests its role in signal transduction related to apoptosis. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

Function:

PKC-related serine/threonine-protein kinase involved in various processes such as regulation of the intermediate filaments of the actin cytoskeleton, cell migration, tumor cell invasion and transcription regulation. Regulates the cytoskeletal network by phosphorylating proteins such as VIM and neurofilament proteins NEFH, NEFL and NEFM, leading to inhibit their polymerization. Phosphorylates 'Ser-575', 'Ser-637' and 'Ser-669' of MAPT/Tau, lowering its ability to bind to microtubules, resulting in disruption of tubulin assembly. Acts as a key coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and specifically mediating phosphorylation of 'Thr-11' of histone H3 (H3T11ph), a specific tag for epigenetic transcriptional activation that promotes demethylation of histone H3 'Lys-9' (H3K9me) by KDM4C/JMJD2C. Phosphorylates HDAC5, HDAC7 and HDAC9, leading to impair their import in the nucleus. Phosphorylates 'Thr-38' of PPP1R14A, 'Ser-159', 'Ser-163' and 'Ser-170' of MARCKS, and GFAP. Able to phosphorylate RPS6 in vitro.

Subcellular Location:

Cytoplasm. Nucleus. Endosome. Cell membrane. Cleavage furrow. Midbody. Associates with chromatin in a ligand-dependent manner. Localization to endosomes is mediated via its interaction with RHOB. Association to the cell membrane is dependent on Ser-374 phosphorylation. Accumulates during telophase at the cleavage furrow and finally concentrates around the midbody in cytokinesis.

Tissue Specificity:

Found ubiquitously. Expressed in heart, brain, placenta, lung, skeletal muscle, kidney and pancreas. Expressed in numerous tumor cell lines, especially in breast tumor cells.

Post-translational modifications:

Autophosphorylated; preferably on serine. Phosphorylated during mitosis. Activated by limited proteolysis with trypsin.

Similarity:

Belongs to the protein kinase superfamily.
AGC Ser/Thr protein kinase family.
PKC subfamily.
Contains 1 AGC-kinase C-terminal domain.
Contains 1 C2 domain.

Contains 1 protein kinase domain.
Contains 3 REM (Hr1) repeats.

SWISS:
Q16512

Gene ID:
5585

Database links:

[Entrez Gene: 5585](#) Human

[Entrez Gene: 320795](#) Mouse

[Entrez Gene: 29355](#) Rat

[Omim: 601032](#) Human

[SwissProt: Q16512](#) Human

[SwissProt: P70268](#) Mouse

[SwissProt: Q63433](#) Rat

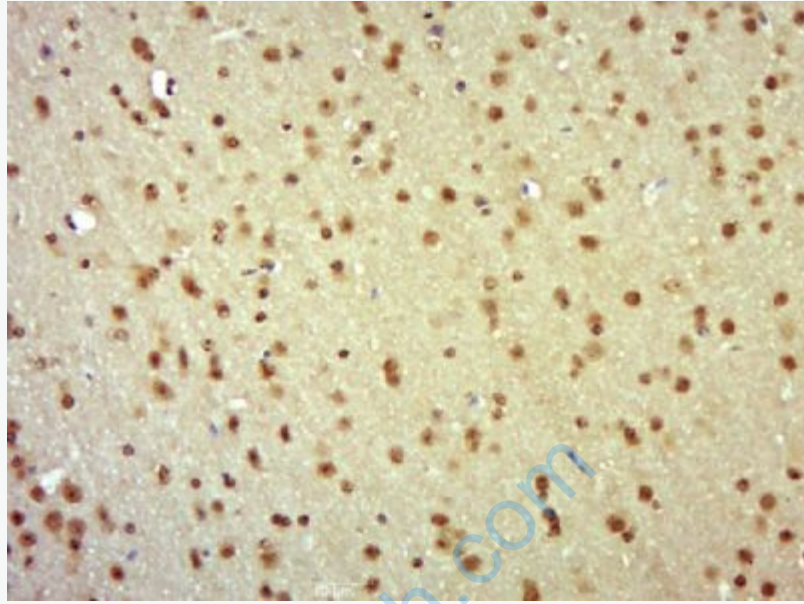
[Unigene: 466044](#) Human

[Unigene: 213000](#) Mouse

[Unigene: 49880](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PKN1) Polyclonal Antibody, Unconjugated (SL7478R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.