Anti-PKN antibody

Description	Rabbit polyclonal to PKN.

Model	STJ95143
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human PKN.
Immunogen Region	Internal
Gene ID	5585
Gene Symbol	PKN1
Dilution range	WB 1:500-1:2000ELISA 1:20000
Specificity	PKN Polyclonal Antibody detects endogenous levels of PKN protein.
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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Serine/threonine-protein kinase N1 Protease-activated kinase 1 PAK-1 Protein kinase C-like 1 Protein kinase C-like PKN Protein kinase PKN-alpha Protein-kinase C-related kinase 1 Serine-threonine protein kinase N

Molecular Weight	105 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:9405OMIM:601032
Alternative Names	Serine/threonine-protein kinase N1 Protease-activated kinase 1 PAK-1 Protein kinase C-like 1 Protein kinase C-like PKN Protein kinase PKN-alpha Protein-kinase C-related kinase 1 Serine-threonine protein kinase N
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. Part of a signaling cascade that begins with the activation of the adrenergic receptor ADRA1B and leads to the activation of MAPK14. 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.
Sequence and Domain Family	The C1 domain does not bind the diacylglycerol (DAG).
Cellular Localization	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-377 phosphorylation. Accumulates during telophase at the cleavage furrow and finally concentrates around the midbody in cytokinesis.
Post-translational Modifications	Autophosphorylated; preferably on serine. Phosphorylated during mitosis. Activated by limited proteolysis with trypsin. (Microbial infection) In case of infection, polyubiquitinated by the bacterial E3 ubiquitin-protein ligase SspH1, leading to its proteasomal degradation.