

PRKCB / PKC-Beta Antibody (aa606-655)
Rabbit Polyclonal Antibody
Catalog # ALS17001**Specification**

PRKCB / PKC-Beta Antibody (aa606-655) - Product Information

Application	IHC, WB
Primary Accession	P05771
Other Accession	5579
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	76869

PRKCB / PKC-Beta Antibody (aa606-655) - Additional Information**Gene ID** 5579**Other Names**

PRKCB, PKC beta 2, Pkc betall, PRKCB2, Protein kinase c beta, Protein kinase c beta 2, Protein kinase c beta i, Protein kinase C beta type, Protein kinase C, beta, Protein kinase C, beta 1, PRKCB1, Pkc betal, PKC-beta, PKCB, Pkcbeta, Pkcbetal, PKC-B, ...

Target/Specificity

PKCB Antibodyantibody detects endogenous levels of PKCB.

Reconstitution & Storage

PBS, pH 7.4, 150 mM sodium chloride, 0.02% sodium azide, 50% glycerol. Store at -20°C.

Precautions

PRKCB / PKC-Beta Antibody (aa606-655) is for research use only and not for use in diagnostic or therapeutic procedures.

PRKCB / PKC-Beta Antibody (aa606-655) - Protein Information**Name** PRKCB**Synonyms** PKCB, PRKCB1**Function**

Calcium-activated, phospholipid- and diacylglycerol (DAG)- dependent serine/threonine-protein kinase involved in various cellular processes such as regulation of the B-cell receptor (BCR) signalosome, oxidative stress-induced apoptosis, androgen receptor-dependent transcription regulation, insulin signaling and endothelial cells proliferation. Plays a key role in B-cell activation by regulating BCR- induced NF-kappa-B activation. Mediates the activation of the canonical NF-kappa-B pathway (NFKB1) by direct phosphorylation of CARD11/CARMA1 at 'Ser-559', 'Ser-644' and 'Ser-652'. Phosphorylation induces CARD11/CARMA1 association with lipid rafts and

recruitment of the BCL10-MALT1 complex as well as MAP3K7/TAK1, which then activates IKK complex, resulting in nuclear translocation and activation of NFkB1. Plays a direct role in the negative feedback regulation of the BCR signaling, by down-modulating BTK function via direct phosphorylation of BTK at 'Ser-180', which results in the alteration of BTK plasma membrane localization and in turn inhibition of BTK activity (PubMed:11598012). Involved in apoptosis following oxidative damage: in case of oxidative conditions, specifically phosphorylates 'Ser-36' of isoform p66Shc of SHC1, leading to mitochondrial accumulation of p66Shc, where p66Shc acts as a reactive oxygen species producer. Acts as a coactivator of androgen receptor (AR)-dependent transcription, by being recruited to AR target genes and specifically mediating phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag for epigenetic transcriptional activation that prevents demethylation of histone H3 'Lys-4' (H3K4me) by LSD1/KDM1A (PubMed:20228790). In insulin signaling, may function downstream of IRS1 in muscle cells and mediate insulin-dependent DNA synthesis through the RAF1-MAPK/ERK signaling cascade. Participates in the regulation of glucose transport in adipocytes by negatively modulating the insulin-stimulated translocation of the glucose transporter SLC2A4/GLUT4. Phosphorylates SLC2A1/GLUT1, promoting glucose uptake by SLC2A1/GLUT1 (PubMed:25982116). Under high glucose in pancreatic beta-cells, is probably involved in the inhibition of the insulin gene transcription, via regulation of MYC expression. In endothelial cells, activation of PRKCB induces increased phosphorylation of RB1, increased VEGFA-induced cell proliferation, and inhibits PI3K/AKT-dependent nitric oxide synthase (NOS3/eNOS) regulation by insulin, which causes endothelial dysfunction. Also involved in triglyceride homeostasis (By similarity). Phosphorylates ATF2 which promotes cooperation between ATF2 and JUN, activating transcription (PubMed:19176525). Phosphorylates KLHL3 in response to angiotensin II signaling, decreasing the interaction between KLHL3 and WNK4 (PubMed:25313067). Phosphorylates and activates LRRK1, which phosphorylates RAB proteins involved in intracellular trafficking (PubMed:36040231).

Cellular Location

Cytoplasm. Nucleus. Membrane; Peripheral membrane protein

Volume

50 µl

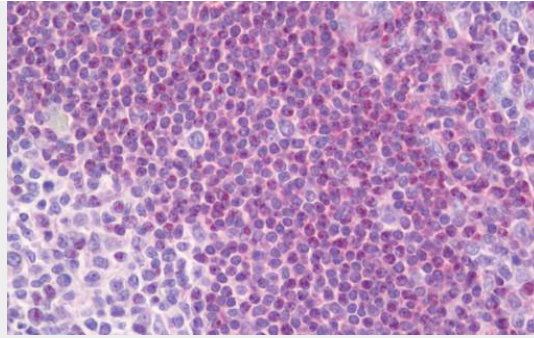
PRKCB / PKC-Beta Antibody (aa606-655) - Protocols

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

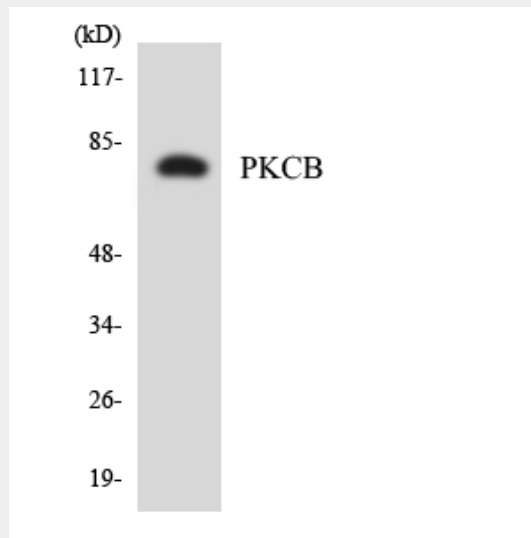
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PRKCB / PKC-Beta Antibody (aa606-655) - Images





Anti-PRKCB / PKC-Beta antibody IHC staining of human tonsil.



Western blot of the lysates from HepG2 cells using PKCB antibody.

PRKCB / PKC-Beta Antibody (aa606-655) - Background

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PRKCB / PKC-Beta Antibody (aa606-655) - References

Coussens L., et al. *Science* 233:859-866(1986).
Kubo K., et al. *FEBS Lett.* 223:138-142(1987).
Loftus B.J., et al. *Genomics* 60:295-308(1999).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Mahajna J., et al. *DNA Cell Biol.* 14:213-222(1995).