Datasheet for ABIN7165698

anti-PKC beta antibody (AA 517-643)

3 Images

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Overview

Quantity:	100 µg
Target:	PKC beta (PRKCB)
Binding Specificity:	AA 517-643
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PKC beta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Protein kinase C beta type protein (517-643AA)
Isotype:	IgG
Cross-Reactivity:	Human, Rat
Purification:	>95%, Protein G purified

Target Details

Target:	PKC beta (PRKCB)
Alternative Name:	PRKCB (PRKCB Products)
Background:	Background: 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. 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 (ANDR)-dependent transcription, by being recruited to ANDR 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. In insulin signaling, may function downstream of IRS1 in muscle cells and mediate insulin-dependent DNA synthesis through the RAF1-MAPK/ERK signaling cascade. May participate in the regulation of glucose transport in adipocytes by negatively modulating the insulin-stimulated translocation of the glucose transporter SLC2A4/GLUT4. 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. Aliases: KPCB_HUMAN antibody, PKC Beta antibody, PKC-B antibody, PKC-beta antibody, PKCB antibody, Prkcb antibody, PRKCB II antibody, PRKCB2 antibody, Protein kinase C beta antibody, Protein kinase C beta type antibody
UniProt:	P05771
Pathways:	WNT Signaling, TCR Signaling, Thyroid Hormone Synthesis, Nuclear Hormone Receptor Binding , Chromatin Binding, Myometrial Relaxation and Contraction, VEGF Signaling, Unfolded Protein Response, BCR Signaling

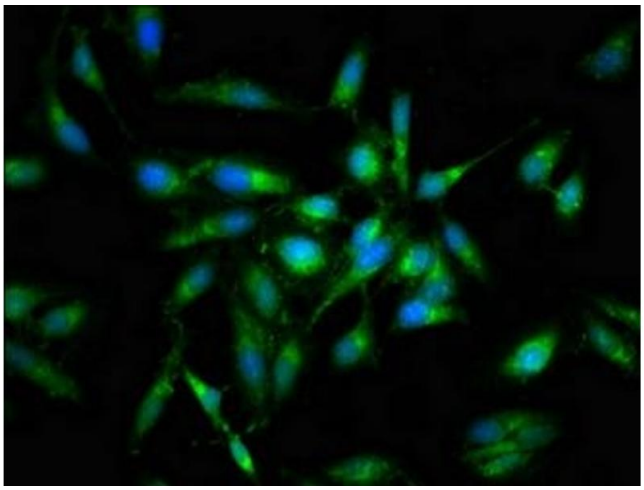
Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200, IF:1:50-1:200,
Restrictions:	For Research Use only

Handling

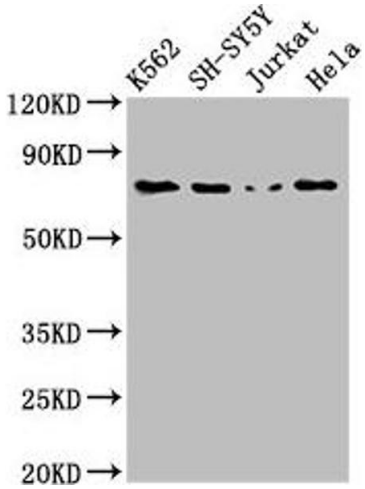
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



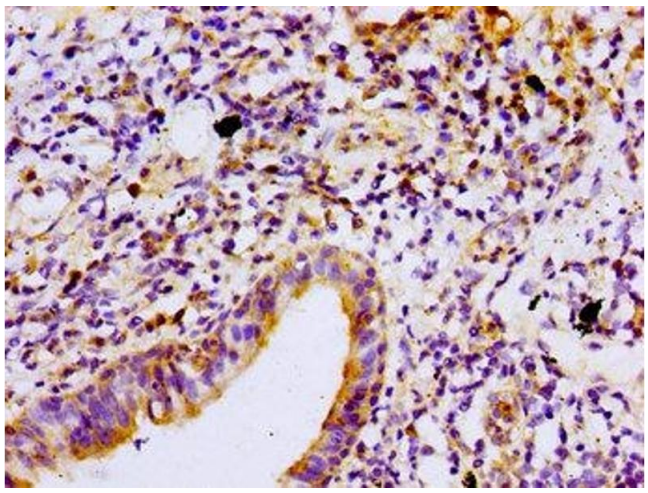
Immunofluorescence

Image 1. Immunofluorescent analysis of Hela cells using ABIN7165698 at dilution of 1:100 and Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L)



Western Blotting

Image 2. Western Blot Positive WB detected in: K562 whole cell lysate, SH-SY5Y whole cell lysate, Jurkat whole cell lysate, Hela whole cell lysate All lanes: PRKCB antibody at 3 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 77, 78 kDa Observed band size: 77 kDa



Immunohistochemistry

Image 3. Immunohistochemistry of paraffin-embedded human lung cancer using ABIN7165698 at dilution of 1:100