

产品概述 (Summary)

产品名称 (Production Name) PKC beta 1 (9E18) Rabbit Monoclonal Antibody

描述 (Description) Recombinant rabbit monoclonal antibody

宿主 (Host) Rabbit

应用 (Application)WB,IHC,ICC/IF,FC种属反应性 (Reactivity)Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)Unconjugated修饰 (Modification)Unmodified

同种型 (Isotype) IgG

克隆 (Clonality) Monoclonal 形式 (Form) Liquid

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid 存放说明 (Storage)

freeze/thaw cycles.

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% New

储存溶液 (Buffer) type preservative N and 50% glycerol. Store at +4°C short term. Store at -

20°C long term. Avoid freeze / thaw cycle.

纯化方式 (Purification) Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name) PRKCB

protein kinase C beta type; PRKCB; Prkcb; PKC-B; PKC-beta; PRKCB1; PKC 别名 (Alternative Names)

Beta-I; EC:2.7.11.13

基因 ID (Gene ID) 5579.0 **蛋白 ID (SwissProt ID)** P05771.

产品应用 (Application)

稀释比 (Dilution Ratio) WB 1:500-1:2000,IHC 1:50-1:200,ICC/IF 1:100-1:200,FC 1:100-1:200

蛋白分子量 (Molecular Weight) 77kDa

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研究背景 (Background)

Plays a key role in B-cell activation and function by regulating BCR-induced NF-kappa-B activation and B-cell suvival. 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 VEGFAinduced 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).

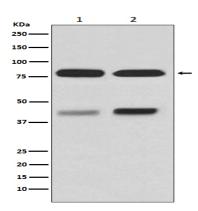
研究领域(Research Area)

Signal Transduction

图片 (Image Data)

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Western blot analysis of PKC beta 1 expression in (1) HeLa cell lysate; (2) NIH/3T3 cell lysate.

注意事项 (Note)

For research use only .

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