

Anti-PKC beta Antibody

ER1802-14



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 77 kDa

Description: 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. 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.

Immunogen: Recombinant protein within human PKC beta aa 537-665.

Positive control: Rat spleen tissue lysate, Hela cell lysate, Hela, HepG2, human tonsil tissue, human spleen tissue, mouse spleen tissue.

Subcellular location: Cytoplasm, Nucleus, Membrane.

Database links: SwissProt: P05771 Human | P68404 Mouse

Recommended Dilutions:

WB	1:500
IF-Cell	1:50-1:200
IHC-P	1:50-1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

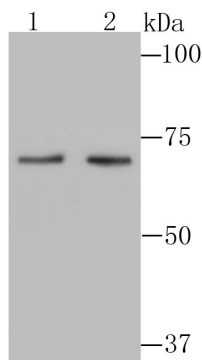


Fig1: Western blot analysis of PKC beta 2 on different lysates using anti-PKC beta 2 antibody at 1/500 dilution.

Positive control:

Lane 1: Rat spleen tissue lysate

Lane 2: Jurkat cell lysate

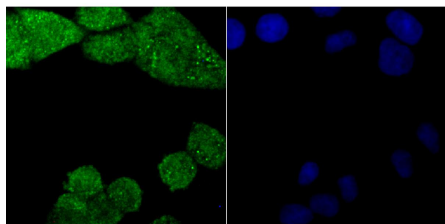


Fig2: ICC staining PKC beta 2 in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

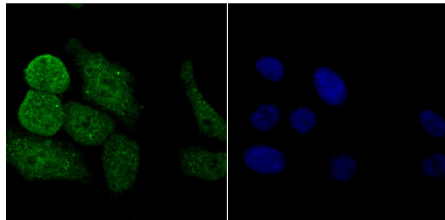


Fig3: ICC staining PKC beta 2 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

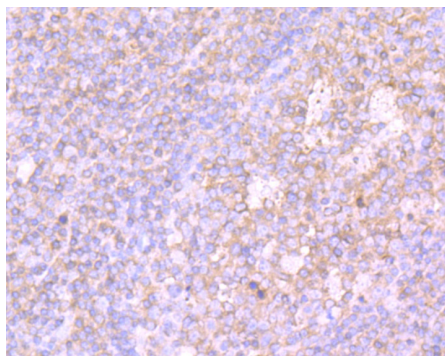


Fig4: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-PKC beta 2 antibody. Counter stained with hematoxylin.

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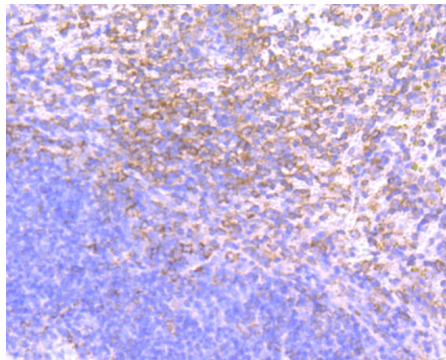


Fig5: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue using anti-PKC beta 2 antibody. Counter stained with hematoxylin.

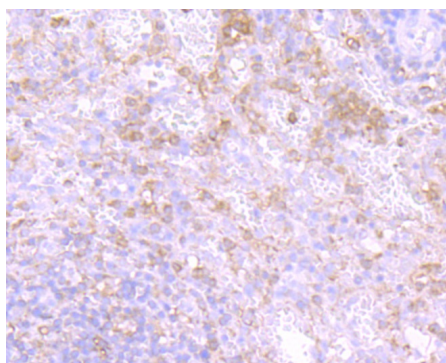


Fig6: Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-PKC beta 2 antibody. Counter stained with hematoxylin.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Kang S W et al. PKCbeta modulates antigen receptor signaling via regulation of Btk membrane localization. *EMBO J* 20:5692-5702 (2001).
2. Yamasaki T et al. Phosphorylation of activation transcription factor-2 at serine 121 by protein kinase c controls c-Jun-mediated activation of transcription. *J Biol Chem* 284:8567-8581 (2009).

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