

Product datasheet

Anti-PKC (phospho S660) antibody [EP1902Y] ab75837

RabMAb[®]

★★★★☆ 1 Abreviews 5 References 5 Images

Overview

| | |
|----------------------------|---|
| Product name | Anti-PKC (phospho S660) antibody [EP1902Y] |
| Description | Rabbit monoclonal [EP1902Y] to PKC (phospho S660) |
| Host species | Rabbit |
| Specificity | ab75837 detects various isoforms of PKC phosphorylated. |
| Tested applications | Suitable for: IHC-P, WB Unsuitable for: Flow Cyt, ICC or IP |
| Species reactivity | Reacts with: Mouse, Rat, Human |
| Immunogen | Synthetic peptide within Human PKC aa 650 to the C-terminus (phospho S660). The exact sequence is proprietary. Database link: P05771-2 |
| Positive control | WB: HEK293 whole cell lysates, untreated or treated with Phorbol-12-myristate-13-acetate, Jurkat cell lysates, untreated or treated with AP. IHC-P: human breast carcinoma. |
| General notes | A trial size is available to purchase for this antibody. Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| Storage buffer | PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05% |
| Purity | Tissue culture supernatant |
| Clonality | Monoclonal |
| Clone number | EP1902Y |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab75837** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| IHC-P | | 1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |
| WB | ★★★★☆ | 1/50000 - 1/200000. Detects a band of approximately 77 kDa (predicted molecular weight: 77 kDa). |

Application notes Is unsuitable for Flow Cyt, ICC or IP.

Target

Function

Calcium-activated, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that is involved in positive and negative regulation of cell proliferation, apoptosis, differentiation, migration and adhesion, tumorigenesis, cardiac hypertrophy, angiogenesis, platelet function and inflammation, by directly phosphorylating targets such as RAF1, BCL2, CSPG4, TNNT2/CTNT, or activating signaling cascade involving MAPK1/3 (ERK1/2) and RAP1GAP. Involved in cell proliferation and cell growth arrest by positive and negative regulation of the cell cycle. Can promote cell growth by phosphorylating and activating RAF1, which mediates the activation of the MAPK/ERK signaling cascade, and/or by up-regulating CDKN1A, which facilitates active cyclin-dependent kinase (CDK) complex formation in glioma cells. In intestinal cells stimulated by the phorbol ester PMA, can trigger a cell cycle arrest program which is associated with the accumulation of the hyper-phosphorylated growth-suppressive form of RB1 and induction of the CDK inhibitors CDKN1A and CDKN1B. Exhibits anti-apoptotic function in glioma cells and protects them from apoptosis by suppressing the p53/TP53-mediated activation of IGF1R, and in leukemia cells mediates anti-apoptotic action by phosphorylating BCL2. During macrophage differentiation induced by macrophage colony-stimulating factor (CSF1), is translocated to the nucleus and is associated with macrophage development. After wounding, translocates from focal contacts to lamellipodia and participates in the modulation of desmosomal adhesion. Plays a role in cell motility by phosphorylating CSPG4, which induces association of CSPG4 with extensive lamellipodia at the cell periphery and polarization of the cell accompanied by increases in cell motility. Is highly expressed in a number of cancer cells where it can act as a tumor promoter and is implicated in malignant phenotypes of several tumors such as gliomas and breast cancers. Negatively regulates myocardial contractility and positively regulates angiogenesis, platelet aggregation and thrombus formation in arteries. Mediates hypertrophic growth of neonatal cardiomyocytes, in part through a MAPK1/3 (ERK1/2)-dependent signaling pathway, and upon PMA treatment, is required to induce cardiomyocyte hypertrophy up to heart failure and death, by increasing protein synthesis, protein-DNA ratio and cell surface area. Regulates cardiomyocyte function by phosphorylating cardiac troponin T (TNNT2/CTNT), which induces significant reduction in actomyosin ATPase activity, myofilament calcium sensitivity and myocardial contractility. In angiogenesis, is required for full endothelial cell migration, adhesion to vitronectin (VTN), and vascular endothelial growth factor A (VEGFA)-dependent regulation of kinase activation and vascular tube formation. Involved in the stabilization of VEGFA mRNA at post-transcriptional level and mediates VEGFA-induced cell proliferation. In the regulation of calcium-induced platelet aggregation, mediates signals from the CD36/GP4 receptor for granule release, and activates the integrin heterodimer ITGA2B-ITGB3 through the RAP1GAP pathway for adhesion. During response to lipopolysaccharides (LPS), may regulate selective LPS-induced macrophage functions involved in host defense and inflammation. But in some inflammatory responses, may negatively regulate NF-kappa-B-induced genes, through IL1A-dependent

induction of NF-kappa-B inhibitor alpha (NFKBIA/IKBA). Upon stimulation with 12-O-tetradecanoylphorbol-13-acetate (TPA), phosphorylates EIF4G1, which modulates EIF4G1 binding to MKNK1 and may be involved in the regulation of EIF4E phosphorylation. Phosphorylates KIT, leading to inhibition of KIT activity. Phosphorylates ATF2 which promotes cooperation between ATF2 and JUN, activating transcription.

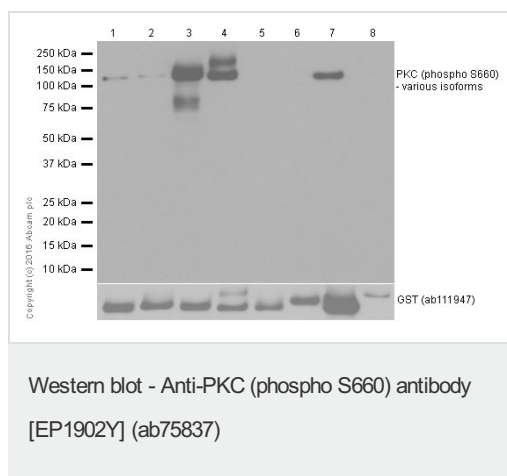
Sequence similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 C2 domain. Contains 2 phorbol-ester/DAG-type zinc fingers. Contains 1 protein kinase domain.

Cellular localization

Cytoplasm. Cell membrane. Mitochondrion membrane. Nucleus.

Images



All lanes : Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837) at 1/20000 dilution

Lane 1 : Recombinant human PKC alpha protein (ab55672)

Lane 2 : Recombinant human PKC beta 1 protein (ab60840)

Lane 3 : Recombinant human PKC beta 2 protein (ab60841)

Lane 4 : Recombinant human PKC delta protein (ab60844)

Lane 5 : Recombinant human PKC eta protein (ab60849)

Lane 6 : Recombinant human PKC epsilon protein (ab60847)

Lane 7 : Recombinant human PKC theta protein (ab56641)

Lane 8 : Recombinant human PKC mu protein (ab60873)

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 77 kDa

Observed band size: 100-150 kDa

Exposure time: 1 second

Blocking and dilution buffer: 5% NFDM/TBST.

Active human PKC alpha full length protein
([ab55672](#)) contains aa1-672 with GST-tag.

Active human PKC beta 1 full length protein
([ab60840](#)) contains aa1-671 with GST-tag.

Active human PKC beta 2 full length protein
([ab60841](#)) contains aa1-673 with GST-tag.

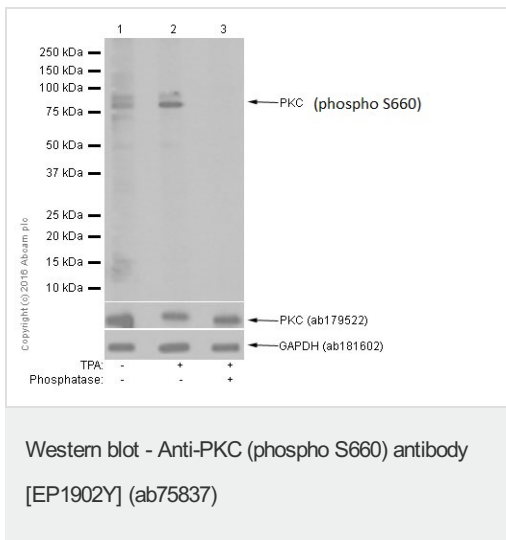
Active human PKC delta full length protein
([ab60844](#)) contains aa1-676 with GST-tag.

Active human PKC eta full length protein
([ab60849](#)) contains aa1-683 with GST-tag.

Active human PKC epsilon full length protein
([ab60847](#)) contains aa1-737 with GST-tag.

Active human PKC theta full length protein
([ab56641](#)) contains aa1-706 with GST-tag.

Active human PKC mu full length protein
([ab60873](#)) contains aa1-912 with GST-tag.



All lanes : Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837) at 1/5000 dilution

Lane 1 : HEK293 (Human epithelial cell line from embryonic kidney) whole cell lysates

Lane 2 : HEK293 (Human epithelial cell line from embryonic kidney) treated with Phorbol-12-myristate-13-acetate at 100nM for 1 hour whole cell lysates

Lane 3 : HEK293 (Human epithelial cell line from embryonic kidney) treated with Phorbol-12-myristate-13-acetate at 100nM for 1 hour whole cell lysates. Then the membrane was incubated with phosphatase.

Lysates/proteins at 15 µg per lane.

Secondary

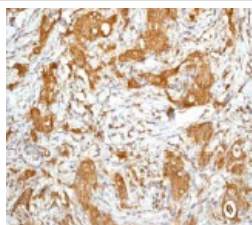
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 77 kDa

Observed band size: 77 kDa

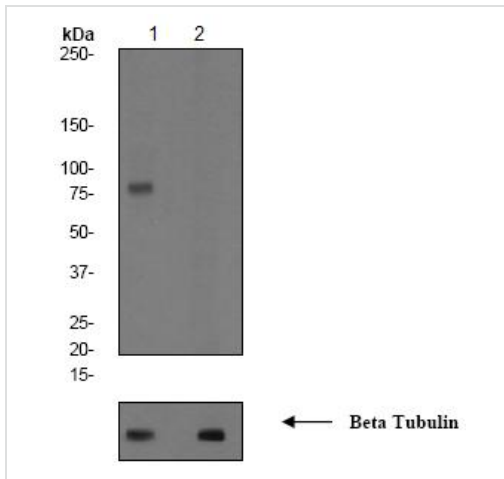
Exposure time: 3 minutes

Blocking and dilution buffer: 5% NFDm/TBST.



ab75837, at a 1/100 dilution, staining PKC in paraffin embedded human breast carcinoma tissue by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837)



Western blot - Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837)

All lanes : Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837) at 1/100000 dilution

Lane 1 : Jurkat cell lysates, untreated

Lane 2 : Jurkat cell lysates, treated with AP

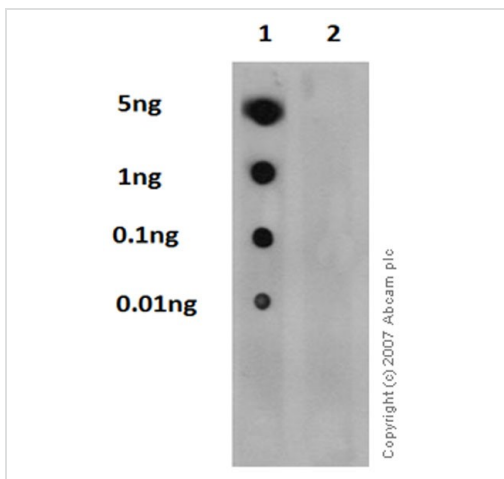
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 77 kDa

Observed band size: 77 kDa



Dot Blot - Anti-PKC (phospho S660) antibody [EP1902Y] (ab75837)

Dot blot analysis of PKC beta 2 (phospho S660) phospho peptide (Lane 1), PKC beta 2 Non-phospho peptide (Lane 2), labelling PKC (phospho S660) with ab75837 at a dilution of 1/1000.

Peroxidase conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and diluting buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.

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