

Recombinant human PKC beta 2 protein ab60841

2 References 5 Images

Description

Product name	Recombinant human PKC beta 2 protein
Biological activity	423 nmol/min/mg Specific activity defined by radiometric assay, nmol of gamma-phosphate from ATP transferred to PKCtide peptide substrate
Purity	> 70 % Affinity purified. Purified by affinity chromatography
Expression system	Baculovirus infected Sf9 cells
Accession	<u>P05771-2</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MADPAAGPPP SEGEESTVRF ARKGALRQKN VHEVKNHKFT ARFFKQPTFC SHCTDFWGF GKQGFQCQVC CFVVHKRCHE FVTFSCPGAD KGPASDDPRS KHKFKIHTYS SPTFCDHCGS LLYGLIHQGM KCDTCMMNVH KRCVMNVPSL CGTDHTERRG RYQAHIDR DVLMLVRDA KNLVPMDPNG LSDPYVKLKL IPDPKSESKQ KTKTIKCSLN PEWNETFRFQ LKESDKDRRL SVEIWDWDLT SRNDFMGSLs FGISELQKAS VDGWFKLLSQ EEGEYFNVPV PPEGSEANEE LRQKFERAKI SQGTKVPEEK TTNTVSKFDN NGNRDRMKLT DFNFLMVLGK GSFGKVMLSE RKGTDELYAV KILKKDVVIQ DDDVECTMVE KRVLALPGKP PFLTQLHSCF QTMDRLYFVM EYVNGGDLMY HIQQVGRFKE PHAVFYAAEI AIGLFFLQSK GIYRDLKLD NVMLDSEGHI KIADFGMCKE NWDGVTTKT FCGTPDYIAP EIAYQPYGK SVDWWAFGVL LYEMLAGQAP FEGEDESELF QSIMEHNVAY PKSMSKEAVA ICKGLMTKHP GKRLGCGPEG ERDIKEHAFF RYIDWEKLER KEIQPPYKPK ACGRNAENFD RFFTRHPPVL TPPDQEVIRN IDQSEFEGFS FVNSEFLKPE VKS

Predicted molecular weight	105 kDa
Amino acids	1 to 671
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab60841** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Liquid
Additional notes	ab204856 (CREB peptide) can be utilized as a substrate for assessing kinase activity

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride, 0.31% Glutathione This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

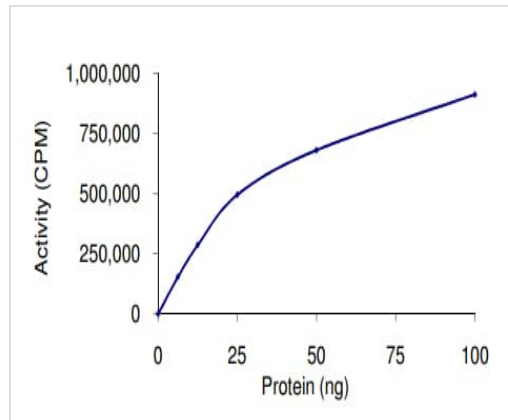
Function	Calcium-activated and phospholipid-dependent serine/threonine-protein kinase involved in various processes such as regulation of the B-cell receptor (BCR) signalosome, apoptosis and transcription regulation. Plays a key role in B-cell activation and function by regulating BCR-induced NF-kappa-B activation and B-cell survival. Required for recruitment and activation of the IKK kinase to lipid rafts and mediates phosphorylation of CARD11/CARMA1 at 'Ser-559', 'Ser-644' and 'Ser-652', leading to activate the NF-kappa-B signaling. 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. Also involved in triglyceride homeostasis. Serves as the receptor for phorbol esters, a class of tumor promoters.
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.
Post-translational modifications	Phosphorylation on Thr-500 within the activation loop renders it competent to autophosphorylate. Subsequent autophosphorylation of Thr-642 maintains catalytic competence, and autophosphorylation on Ser-661 appears to release the kinase into the cytosol. Autophosphorylation on other sites i.e. in the N-terminal and hinge regions have no effect on

enzyme activity.

Cellular localization

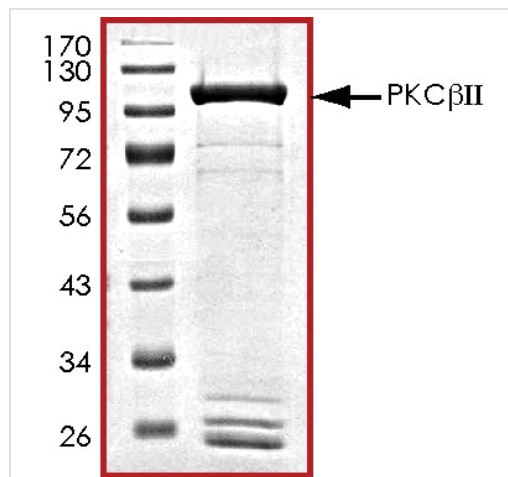
Cytoplasm. Nucleus. Membrane.

Images



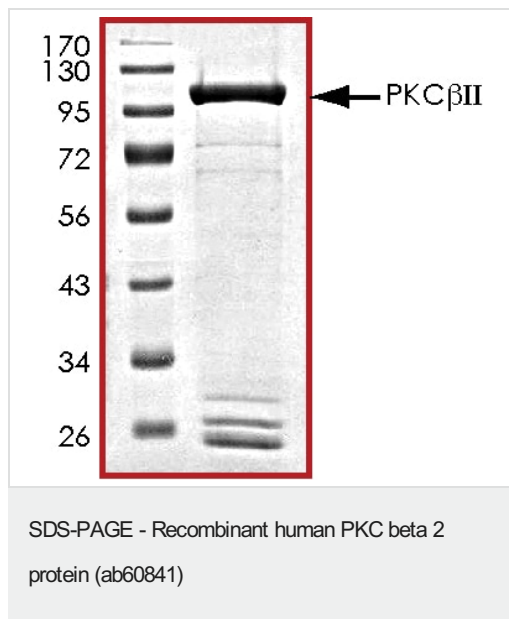
The specific activity of PKC beta 2 (ab60841) was determined to be 423 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human PKC beta 2 protein (ab60841)

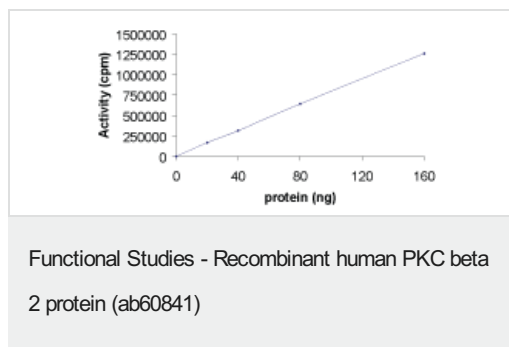


SDS PAGE analysis of ab60841

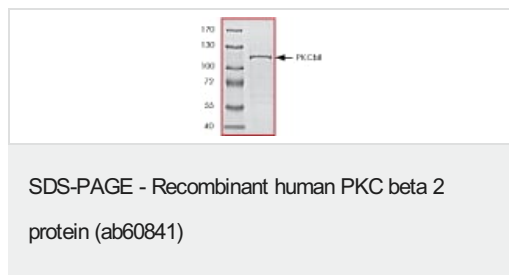
SDS-PAGE - Recombinant human PKC beta 2 protein (ab60841)



SDS PAGE analysis of ab60841



Sample Kinase Activity Plot.



ab60841 on SDS-PAGE, MW ~105 kDa.

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