

## Product datasheet

# Recombinant human PKC iota protein ab60850

6 Images

### Description

<b>Product name</b>	Recombinant human PKC iota protein
<b>Purity</b>	> 90 % Densitometry. Affinity purified.
<b>Expression system</b>	Baculovirus infected Sf9 cells
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human

### Specifications

Our **Abpromise guarantee** covers the use of **ab60850** in the following tested applications.

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

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

### Preparation and Storage

<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
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### General Info

<b>Function</b>	Calcium-independent, phospholipid-dependent, serine- and threonine-specific kinase. May play a
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role in the secretory response to nutrients. Involved in cell polarization processes and the formation of epithelial tight junctions. Implicated in the activation of several signaling pathways including Ras, c-Src and NF-kappa-B pathways. Functions in both pro- and anti-apoptotic pathways. Functions in the RAC1/ERK signaling required for transformed growth. Plays a role in microtubule dynamics through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs).

#### Tissue specificity

Predominantly expressed in lung and brain, but also expressed at lower levels in many tissues including pancreatic islets. Highly expressed in non-small cell lung cancers.

#### 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 OPR domain. Contains 1 phorbol-ester/DAG-type zinc finger. Contains 1 protein kinase domain.

#### Domain

The OPR domain mediates interaction with SQSTM1. The C1 domain does not bind diacylglycerol (DAG).

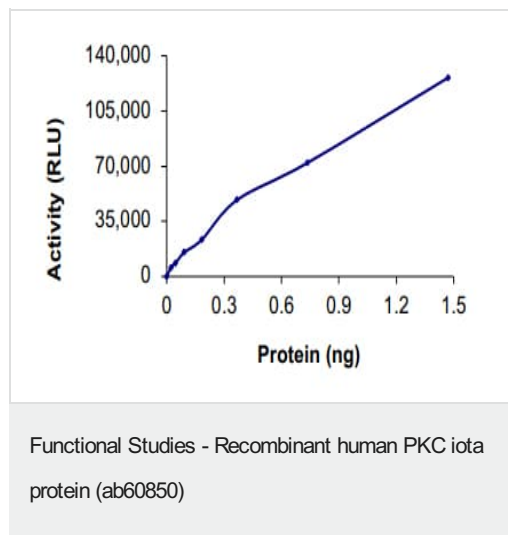
#### Post-translational modifications

On neuronal growth factor (NGF) stimulation, phosphorylated by Src on Tyr-265, Tyr-280 and Tyr-334. Phosphorylation on Tyr-265 facilitates binding to KPNB1/importin-beta regulating entry of PRKCI into the nucleus. Phosphorylation on Tyr-334 is important for NF-kappa-B stimulation.

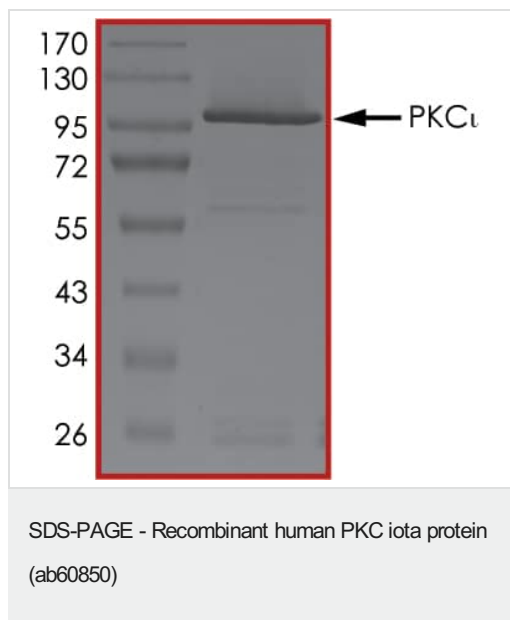
#### Cellular localization

Cytoplasm. Membrane. Endosome. Nucleus. Transported into the endosome through interaction with SQSTM1/p62. After phosphorylation by cSrc, transported into the nucleus through interaction with KPNB1. Colocalizes with CDK7 in the cytoplasm and nucleus. Vesicular tubular clusters. Transported to VTCs through interaction with RAB2A.

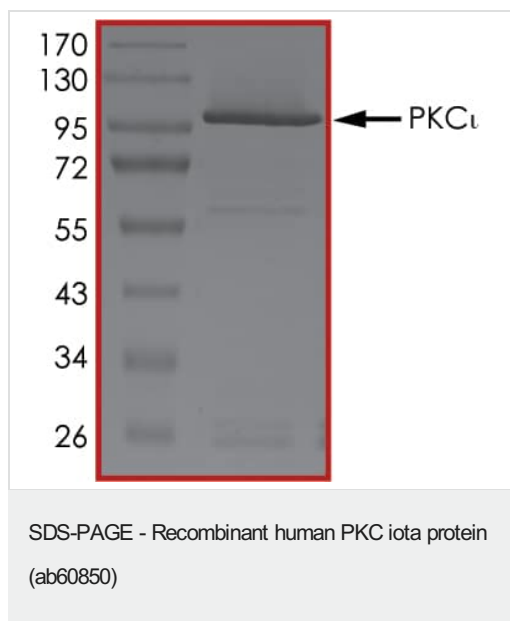
## Images



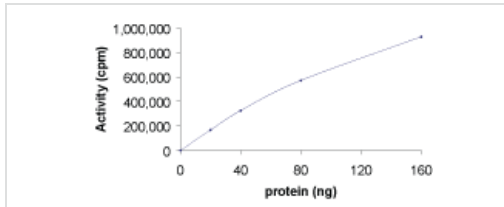
The specific activity of PKC iota (ab60850) was determined to be 572 nmol/min/mg as per activity assay protocol and was equivalent to 564 nmol/min/mg as per radiometric assay



SDS PAGE analysis of ab60850

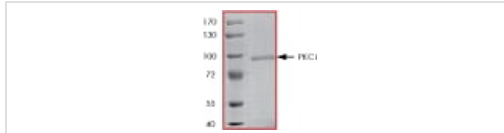


SDS PAGE analysis of ab60850



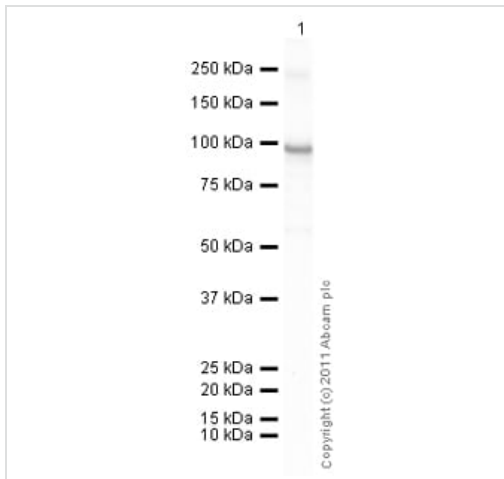
Sample Kinase Activity Plot.

Functional Studies - Recombinant human PKC iota protein (ab60850)



ab60850 on SDS-PAGE, MW ~98 kDa.

SDS-PAGE - Recombinant human PKC iota protein (ab60850)



Western blot - Recombinant human PKC iota protein (ab60850)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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