

## Product datasheet

# Recombinant human PKC theta/PRKCQ protein ab56641

[5 Images](#)

### Description

<b>Product name</b>	Recombinant human PKC theta/PRKCQ protein
<b>Biological activity</b>	Specific activity: 792 nmol/min/mg
<b>Purity</b>	> 75 % 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
<b>Predicted molecular weight</b>	110 kDa
<b>Tags</b>	GST tag N-Terminus

### Specifications

Our **Abpromise guarantee** covers the use of **ab56641** 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
<b>Form</b>	Liquid
<b>Additional notes</b>	<b>ab204875</b> (PKC epsilon peptide) can be utilized as a substrate for assessing kinase activity This product was previously labelled as PKC theta

### 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%
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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.

## General Info

### Function

This is a calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. Essential for T-cell receptor (TCR)-mediated T-cell activation, but is dispensable during TCR-dependent thymocyte development. Links the TCR signaling complex to the activation of NF-kappa-B in mature T lymphocytes. Required for interleukin-2 (IL2) production. PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters.

### Tissue specificity

Skeletal muscle, megakaryoblastic cells and platelets.

### 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.

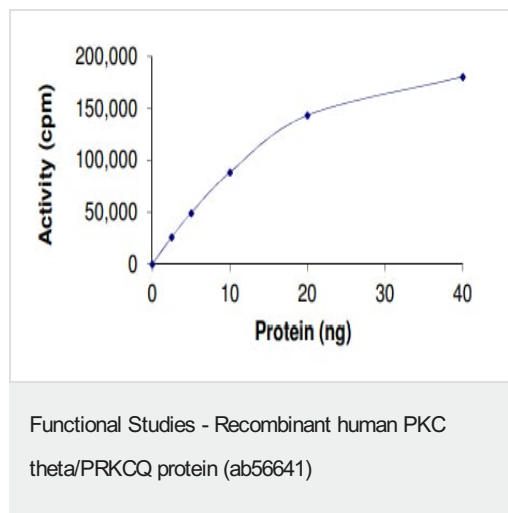
### Domain

The C1 domain, containing the phorbol ester/DAG-type region 1 (C1A) and 2 (C1B), is the diacylglycerol sensor and the C2 domain is a non-calcium binding domain.

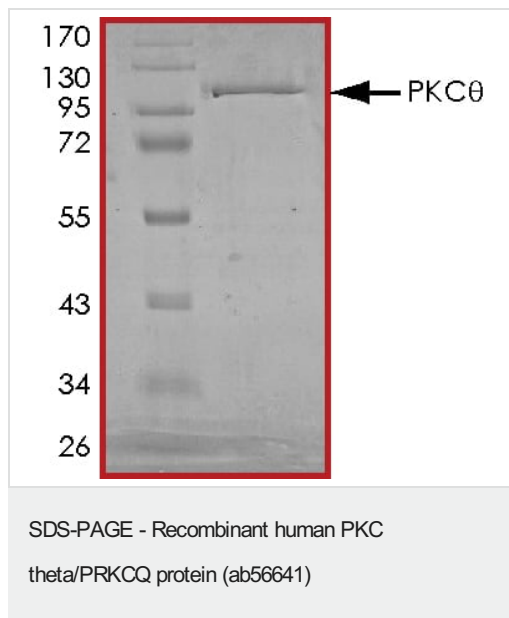
### Post-translational modifications

Autophosphorylation at Thr-219 is required for targeting to the TCR and cellular function of PKC upon antigen receptor ligation.

## Images



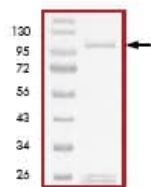
The specific activity of PKC theta/PRKCQ (ab56641) was determined to be 800 nmol/min/mg as per activity assay protocol



SDS PAGE analysis of ab56641

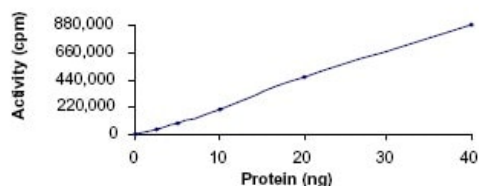


SDS PAGE analysis of ab56641



SDS Page analysis of ab56641

SDS-PAGE - Recombinant human PKC  
theta/PRKCQ protein (ab56641)



Specific kinase activity of ab56641

Functional Studies - Recombinant human PKC  
theta/PRKCQ protein (ab56641)

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

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