

## Datasheet for ABIN3093385 PKC iota Protein (AA 2-596) (His tag)



[Go to Product page](#)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	PKC iota (PRKCI)
Protein Characteristics:	AA 2-596
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKC iota protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence:	<p>PTQRDSSTMS HTVAGGGSGD HSHQVRVKAY YRGDIMITHF EPSISFEGLC NEVRDMCSFD</p> <p>NEQLFTMKWI DEEGDPCTVS SQLELEEA FR LYELNKDSEL LIHVFPVPE RPGMPCPGED</p> <p>KSIYRRGARR WRKLYCANGH TFQAKRFNRR AHCAICTDRI WGLGRQGYKC INCKLLVHKK</p> <p>CHKLVTIECG RHSLPQEPVM PMDQSSMHSD HAQTVIPYNP SSHESLDQVG EEKEAMNTRE</p> <p>SGKASSSLGL QDFDLLRVIG RGSYAKVLLV RLKKTDRYA MKVVKKELVN DDEDIDWVQT</p> <p>EKHVFEQASN HPFLVGLHSC FQTESRLFFV IEYVNGGDLM FHMQRQRKLP EEHARFYSAE</p> <p>ISLALNYLHE RGIIYRDLKL DNVLLDSEGH IKLTDYGMCK EGLRPGDTTS TFCGTPNYIA</p> <p>PEILRGEDYG FSVDWWALGV LMFEMMAGRS PFDIVGSSDN PDQNTEDYLF QVILEKQIRI</p> <p>PRSLSVKAAS VLKSFNLKDP KERLGCHPQT GFADIQGH PF FRNVDWDMME QKQVVPF KP</p> <p>NISGEFGLDN FDSQFTNEPV QLTPDDDDIV RKIDQSEFEG FEYINPLLMS AEECV</p> <p><b>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</b></p>
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## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human PRKCI Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
  - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

- Purification:
- Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
  2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target:	PKC iota (PRKCI)
Alternative Name:	PRKCI ( <a href="#">PRKCI Products</a> )
Background:	<p>Calcium- and diacylglycerol-independent serine/ threonine-protein kinase that plays a general protective role against apoptotic stimuli, is involved in NF-kappa-B activation, cell survival, differentiation and polarity, and contributes to the regulation of microtubule dynamics in the early secretory pathway. Is necessary for BCR-ABL oncogene-mediated resistance to apoptotic drug in leukemia cells, protecting leukemia cells against drug-induced apoptosis. In cultured neurons, prevents amyloid beta protein-induced apoptosis by interrupting cell death process at a very early step. In glioblastoma cells, may function downstream of phosphatidylinositol 3-kinase (PI(3)K) and PDPK1 in the promotion of cell survival by phosphorylating and inhibiting the pro-apoptotic factor BAD. Can form a protein complex in non-small cell lung cancer (NSCLC) cells with PARD6A and ECT2 and regulate ECT2 oncogenic activity by phosphorylation, which in turn promotes transformed growth and invasion. In response to nerve growth factor (NGF), acts downstream of SRC to phosphorylate and activate IRAK1, allowing the subsequent activation of NF-kappa-B and neuronal cell survival. Functions in the organization of the apical domain in epithelial cells by phosphorylating EZR. This step is crucial for activation and normal distribution of EZR at the early stages of intestinal epithelial cell differentiation. Forms a protein complex with LLGL1 and PARD6B independently of PARD3 to regulate epithelial cell polarity. Plays a role in microtubule dynamics in the early secretory pathway through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs). In human coronary artery endothelial cells (HCAEC), is activated by saturated fatty acids and mediates lipid-induced apoptosis. {ECO:0000269 PubMed:10356400, ECO:0000269 PubMed:10467349, ECO:0000269 PubMed:10906326, ECO:0000269 PubMed:11042363, ECO:0000269 PubMed:11724794, ECO:0000269 PubMed:12871960, ECO:0000269 PubMed:14684752, ECO:0000269 PubMed:15994303, ECO:0000269 PubMed:18270268, ECO:0000269 PubMed:19327373, ECO:0000269 PubMed:21189248, ECO:0000269 PubMed:21419810, ECO:0000269 PubMed:8226978, ECO:0000269 PubMed:9346882}.</p>
Molecular Weight:	69.1 kDa Including tag.
UniProt:	<a href="#">P41743</a>
Pathways:	<a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Cell-Cell Junction Organization</a> , <a href="#">Tube Formation</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process