

## Datasheet for ABIN3094699 PKN2 Protein (AA 1-984) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	PKN2
Protein Characteristics:	AA 1-984
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKN2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence:	<p>MASNPGEI LLTELQGDSR SLPFSENVSA VQKLDFSDTM VQQLDDIKD RIKREIRKEL</p> <p>KIKEGAENLR KVTDDKKSLA YVDNLLKSN KKLEELHHKL QELNAHIVVS DPEDITDCPR</p> <p>TPDTPNNDPR CSTSNNRLKA LQKQLDIELK VKQGAENMIQ MYSNGSSKDR KLHGTAQQLL</p> <p>QDSKTKIEVI RMQILQAVQT NELAFDNAKP VISPLELRME ELRHHFRIEF AVAEGAKNVM</p> <p>KLLGSGKVTD RKALSEAQAR FNESSQKLDL LKYSLEQLRN EVPKNHPKSR IIIEELSLVA</p> <p>ASPTLSPRQS MISTQNQYST LSKPAALTGT LEVRLMGCQD ILENVPGRSK ATSVALPGWS</p> <p>PSETRSSFMS RTSKSKSGSS RNLLKTDDLS NDVCAVLKLD NTVVGQTSWK PISNQSWDQK</p> <p>FTLELDRSRE LEISVYWRDW RSLCAVKFLR LEDFLDNQRH GMCLYLEPQG TLFAEVTFN</p> <p>PVIERRPKLQ RQKKIFSKQQ GKTFLRAPQM NINIATWGRL VRRAIPTVNH SGTFSPPAPV</p> <p>PTTVPVVDVR IPQLAPPASD STVTKLDFDL EPEPPPAPPR ASSLGEIDES SELRVLDIPG</p> <p>QDSETVFDIQ NDRNSILPKS QSEYKPDTPQ SGLEYSIGIE LEDRRSQQRQ QFNLQDFRCC</p> <p>AVLGRGHFGK VLLAEYKNTN EMFAIKALKK GDIVARDEVD SLMCEKRIFE TVNSVRHPFL</p>
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VNLFACFQTK EHVCFVMEYA AGGDLMMHIIH TDVFSEPRAV FYAACVVLGL QYLHEHKIVY  
RDLKLDNLLL DTEGFVKIAD FGLCKEGMGY GDRTSTFCGT PEFLAPEVLT ETSYTRAVDW  
WGLGVLIYEM LVGESPFPGD DEEEVFDSIV NDEVRYPRFL STEAISIMRR LLRRNPERRL  
GASEKDAEDV KKHPFFRLID WSALMDKKVK PFIPTIRGR EDVSNFDDEF TSEAPILTPP  
REPRILSEEE QEMFRDFDYI ADWC

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human PKN2 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.

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### 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.

## Product Details

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:	PKN2
Alternative Name:	PKN2 ( <a href="#">PKN2 Products</a> )
Background:	<p>PKC-related serine/threonine-protein kinase and Rho/Rac effector protein that participates in specific signal transduction responses in the cell. Plays a role in the regulation of cell cycle progression, actin cytoskeleton assembly, cell migration, cell adhesion, tumor cell invasion and transcription activation signaling processes. Phosphorylates CTTN in hyaluronan-induced astrocytes and hence decreases CTTN ability to associate with filamentous actin.</p> <p>Phosphorylates HDAC5, therefore lead to impair HDAC5 import. Direct RhoA target required for the regulation of the maturation of primordial junctions into apical junction formation in bronchial epithelial cells. Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in a ECT2-dependent manner. Stimulates FYN kinase activity that is required for establishment of skin cell-cell adhesion during keratinocytes differentiation. Regulates epithelial bladder cells speed and direction of movement during cell migration and tumor cell invasion. Inhibits Akt pro-survival-induced kinase activity. Mediates Rho protein-induced transcriptional activation via the c-fos serum response factor (SRF). Phosphorylates HCV NS5B leading to stimulation of HCV RNA replication. {ECO:0000269 PubMed:10226025, ECO:0000269 PubMed:10926925, ECO:0000269 PubMed:11777936, ECO:0000269 PubMed:11781095, ECO:0000269 PubMed:15364941, ECO:0000269 PubMed:17332740, ECO:0000269 PubMed:20188095, ECO:0000269 PubMed:20974804, ECO:0000269 PubMed:21754995, ECO:0000269 PubMed:9121475}.</p>
Molecular Weight:	113.0 kDa Including tag.
UniProt:	<a href="#">Q16513</a>
Pathways:	<a href="#">Cell-Cell Junction Organization</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