

Datasheet for ABIN3131489

**PKD2 Protein (AA 678-966) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	PKD2
Protein Characteristics:	AA 678-966
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKD2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	<p>INDSYSEVKS DLAQQKAEME LSDLRKGCQ KALVKLKLKR NTVDAISESL RQGGGKLNFD ELRQDLKGKG HTDAEIEAIF TKYDQDGDQE LTEREHQQMR DDLEKEREDL DLEHSSLPRP MSSRSFPRSL DDSEEEDEDD SGHSSRRRGS ISSGVSYYEF QVLVRRVDRM EHSIGSIVSK IDAVIVKLEI MERAKLKRRE VLGRLLDGVA EDARLGRDSE IHREQMERLV REELERWESD DAASQTGHGV STQVGLGGQP HPRNPRPPSS QSAEGLEGGG GNGSANVHA</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>
Characteristics:	<ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Mouse Pkd2 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>This protein is a made to order protein and will be made for the first time for your order. Our</p>

## Product Details

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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 bacterial culture:  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:	Endotoxin has not been removed. Please contact us if you require endotoxin removal.
Grade:	Crystallography grade

## Target Details

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Target:	PKD2
Alternative Name:	Pkd2 ( <a href="#">PKD2 Products</a> )
Background:	Functions as a calcium permeable cation channel involved in fluid-flow mechanosensation by the primary cilium in renal epithelium. Together with TRPV4, forms mechano- and

## Target Details

thermosensitive channels in cilium (PubMed:18695040). PKD1 and PKD2 may function through a common signaling pathway that is necessary for normal tubulogenesis. Acts as a regulator of cilium length, together with PKD1. The dynamic control of cilium length is essential in the regulation of mechanotransductive signaling. The cilium length response creates a negative feedback loop whereby fluid shear-mediated deflection of the primary cilium, which decreases intracellular cAMP, leads to cilium shortening and thus decreases flow-induced signaling. Also involved in left/right axis specification downstream of nodal flow: forms a complex with PKD1L1 in cilia to facilitate flow detection in left/right patterning (PubMed:21307093). {ECO:0000269|PubMed:12514735, ECO:0000269|PubMed:18695040, ECO:0000269|PubMed:20096584, ECO:0000269|PubMed:21307093}.

Molecular Weight: 33.3 kDa Including tag.

UniProt: [O35245](#)

Pathways: [cAMP Metabolic Process](#), [Maintenance of Protein Location](#), [Negative Regulation of Transporter Activity](#)

## 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: Protein has not been tested for activity yet. 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.

## Handling

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Expiry Date: Unlimited (if stored properly)

## Images

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