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Datasheet for ABIN3094600

PKD2L1 Protein (AA 1-805) (Strep Tag)

1 Image

Overview

Quantity:	0.5 mg
Target:	PKD2L1
Protein Characteristics:	AA 1-805
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKD2L1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MNAVGSPEGQ ELQKLGSGAW DNPAYSGPPS PHGTLRVCTI SSTGPLQPQP KKPEDEPQET AYRTQVSSCC LHICQGIRGL WGTTLTENTA ENRELYIKTT LRELLVYIVF LVDICLLTYG MTSSSAYYYT KVMSFLHT PSDTGVSFQA ISSMADFADF AQGPLLDSLY WTKWYNNQSL GHGSHSFIYY ENMLLGVPR LRLKVRNDSC VVHEDFREDI LSCYDVYSPD KEEQLPFGPF NGTAWTYHSQ DELGGFSHWG RLTSYSGGGY YLDLPGSRQG SAEALRALQE GLWLDGRTRV VFIDFSVYNA NINLFCVLR LVEFPATGGA IPSWQIRTVK LIRYVSNWDF FIVGCEVIFC VFIFYVVEE ILELHIHRLR YLSSIWNILD LVILLSIVA VGFHIFRTLE VNRLMGKLLQ QPNTYADFEF LAFWQTQYNN MNAVNLFFAW IKIFYISFN KTMTQLSSTL ARCAKDILGF AVMFFIVFFA YAQLGYLLFG TQVENFSTFI KCIFTQFRII LGDFDYNAID NANRILGPAY FVTYVFFVFF VLLNMFLAII NDTYSEVKEE LAGQKDELQL SDLLKQGYNK TLLRLRLRKE RVSDVQKVLQ GGEQEIQFED FTNTLRELGH AEHEITELTA TFTKFDRDGN RILDEKEQEK MRQDLEERV ALNTEIEKLG RSIVSSPQ GKSGPEAARAGG WWSGEEFYML TRRVLQLETV LEGVVSQIDA VGSKLKMLER</p>
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KGWLAPSPGV KEQAIWKHPQ PAPA VTPDPW GVQGGQSEV PYKREEEALE ERRLSRGEIP
TLQRS

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	PKD2L1
Alternative Name:	PKD2L1 (PKD2L1 Products)
Background:	<p>Polycystin-2-like protein 1 (Polycystin-2L1) (Polycystic kidney disease 2-like 1 protein) (Polycystin-2 homolog) (Polycystin-L) (Polycystin-L1),FUNCTION: Pore-forming subunit of a heterotetrameric, non-selective cation channel that is permeable to Ca(2+) (PubMed:10517637, PubMed:11959145, PubMed:25820328, PubMed:27754867, PubMed:29425510, PubMed:23212381, PubMed:30004384). Pore-forming subunit of a calcium-permeant ion channel formed by PKD1L2 and PKD1L1 in primary cilia, where it controls cilium calcium concentration, but does not affect cytoplasmic calcium concentration (PubMed:24336289). The channel formed by PKD1L2 and PKD1L1 in primary cilia regulates sonic hedgehog/SHH signaling and GLI2 transcription (PubMed:24336289). Pore-forming subunit of a channel formed by PKD1L2 and PKD1L3 that contributes to sour taste perception in gustatory cells (PubMed:19812697). The heteromeric channel formed by PKD1L2 and PKD1L3 is activated by low pH , but opens only when the extracellular pH rises again (PubMed:23212381). May play a role in the perception of carbonation taste (By similarity). May play a role in the sensory perception of water, via a mechanism that activates the channel in response to dilution of salivary bicarbonate and changes in salivary pH (By similarity).</p> <p>{ECO:0000250 UniProtKB:A2A259, ECO:0000269 PubMed:10517637, ECO:0000269 PubMed:11959145, ECO:0000269 PubMed:19812697, ECO:0000269 PubMed:23212381, ECO:0000269 PubMed:24336289, ECO:0000269 PubMed:25820328, ECO:0000269 PubMed:27754867, ECO:0000269 PubMed:29425510, ECO:0000269 PubMed:30004384}.</p>

Target Details

Molecular Weight: 92.0 kDa

UniProt: [Q9P0L9](#)

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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



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