Datasheet for ABIN7554932

PKD2 Protein (AA 1-968) (His tag)

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Overview

Quantity:	1 mg
Target:	PKD2
Protein Characteristics:	AA 1-968
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKD2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat PKD2 Protein expressed in mammalien cells.
Sequence:	MVNSSRVQPQ QPGDAKRPPA PRAPDPGRLM AGCAAVGASL AAPGGLCEQR GLEIEMQRIR QAAARDPPAG AAASPSPPLS SCSRQAWSRD NPGFEAEEEE EEVEGEEGGM VVEMDVEWRP GSRRSAASSA VSSVGARSRG LGGYHGAGHP SGRRRRREDQ GPPCPSPVGG GDPLHRHLPL EGQPPRVAWA ERLVRGLRGL WGTRLMEESS TNREKYLKSV LRELVTYLLF LIVLCILTYG MMSSNVYYYT RMMSQLFLDT PVSKTEKTNF KTLSSMEDFW KFTEGSLLDG LYWKMQPSNQ TEADNRSFIF YENLLLGVPR IRQLRVRNGS CSIPQDLRDE IKECYDVYSV SSEDRAPFGP RNGTAWIYTS EKDLNGSSHW GIIATYSGAG YYLDLSRTRE ETAAQVASLK KNVWLDRGTR ATFIDFSVYN ANINLFCVVR LLVEFPATGG VIPSWQFQPL KLIRYVTTFD FFLAACEIIF CFFIFYYVVE EILEIRIHKL HYFRSFWNCL DVVIVVLSVV AIGINIYRTS NVEVLLQFLE DQNTFPNFEH LAYWQIQFNN IAAVTVFFVW IKLFKFINFN RTMSQLSTTM SRCAKDLFGF AIMFFIIFLA YAQLAYLVFG TQVDDFSTFQ ECIFTQFRII LGDINFAEIE EANRVLGPIY FTTFVFFMFF

Product Details

	ILLNMFLAII NDTYSEVKSD LAQQKAEMEL SDLIRKGYHK ALVKLKLKKN TVDDISESLR QGGGKLNFDE LRQDLKGKGH TDAEIEAIFT KYDQDGDQEL TEHEHQQMRD DLEKEREDLD LDHSSLPRPM SSRSFPRSLD DSEEDDDEDS GHSSRRRGSI SSGVSYEEFQ VLVRRVDRME HSIGSIVSKI DAVIVKLEIM ERAKLKRREV LGRLLDGVAE DERLGRDSEI HREQMERLVR EELERWESDD AASQISHGLG TPVGLNGQPR PRSSRPSSSQ STEGMEGAGG NGSSNVHV **Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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 try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	PKD2
Alternative Name:	PKD2 (PKD2 Products)
Background:	Polycystin-2 (PC2) (Autosomal dominant polycystic kidney disease type II protein) (Polycystic kidney disease 2 protein) (Polycystwin) (R48321) (Transient receptor potential cation channel subfamily P member 2),FUNCTION: Component of a heteromeric calcium-permeable ion channel formed by PKD1 and PKD2 that is activated by interaction between PKD1 and a Wnt family member, such as WNT3A and WNT9B (PubMed:27214281). Can also form a functional,

Target Details

	homotetrameric ion channel (PubMed:29899465). Functions as a cation channel involved in fluid-flow mechanosensation by the primary cilium in renal epithelium (PubMed:18695040). Functions as outward-rectifying K(+) channel, but is also permeable to Ca(2+), and to a much lesser degree also to Na(+) (PubMed:11854751, PubMed:15692563, PubMed:27071085, PubMed:27991905). May contribute to the release of Ca(2+) stores from the endoplasmic reticulum (PubMed:11854751, PubMed:20881056). Together with TRPV4, forms mechano- and thermosensitive channels in cilium (PubMed:18695040). PKD1 and PKD2 may function through a common signaling pathway that is necessary to maintain the normal, differentiated state of renal tubule cells. 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 via its role in sensing nodal flow, forms a complex with PKD1L1 in cilia to facilitate flow detection in left-right patterning. Detection of asymmetric nodal flow gives rise to a Ca(2+) signal that is required for normal, asymmetric expression of genes involved in the specification of body left-right laterality (By similarity). {ECO:0000250|UniProtKB:O35245, ECO:0000269|PubMed:11854751, ECO:0000269|PubMed:15692563, ECO:0000269|PubMed:16551655, ECO:0000269|PubMed:18695040, ECO:0000269|PubMed:20881056, ECO:0000269|PubMed:27214281, ECO:0000269|PubMed:27991905, ECO:0000269|PubMed:29899465, ECO:0000305}.
Molecular Weight:	109.7 kDa
UniProt:	Q13563
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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months