Datasheet for ABIN3136323

PKD2 Protein (AA 1-875) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PKD2
Protein Characteristics:	AA 1-875
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKD2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MAAAPSHPAG LPGSPGPGSP PPPGGLDLQS PPPLLPQIPA PGSGVSFHIQ IGLTREFVLL PAASELAHVK QLACSIVDQK FPECGFYGLY DKILLFKHDP TSANLLQLVR SAADIQEGDL VEVVLSASAT FEDFQIRPHA LTVHSYRAPA FCDHCGEMLF GLVRQGLKCD GCGLNYHKRC AFSIPNNCSG ARKRRLSSTS LASGHSVRLG SSESLPCTAE ELSRSTTDLL PRRPPSSSSS SSSSSFYTGR PIELDKMLMS KVKVPHTFLI HSYTRPTVCQ ACKKLLKGLF RQGLQCKDCK FNCHKRCATR VPNDCLGEAL INGDVPMEEA ADYSEADKSS ISDELEDSGV IPGSHSESAL HASEEEEGEG HKAQSSLGYI PLMRVVQSVR HTTRKSSTTL REGWVVHYSN KDTLRKRHYW RLDCKCITLF QNNTTNRYYK EIPLSEILAV EPAQNFSLVP PGTNPHCFEI ITANVTYFVG ETPGGAPGGP SGQGTEAVRG WETAIRQALM PVILQDAPSA PGHTPHRQAS LSISVSNSQI QENVDIATVY QIFPDEVLGS GQFGVVYGGK HRKTGRDVAV KVIDKLRFPT KQESQLRNEV AILQSLRHPG IVNLECMFET PEKVFVVMEK LHGDMLEMIL SSEKGRLPER LTKFLITQIL VALRHLHFKN IVHCDLKPEN VLLASADPFP QVKLCDFGFA RIIGEKSFRR SVVGTPAYLA

Product Details

	PEVLLNQGYN RSLDMWSVGV IMYVSLSGTF PFNEDEDIND QIQNAAFMYP ASPWSHISSG AIDLINNLLQ VKMRKRYSVD KSLSHPWLQE YQTWLDLREL EGKMGERYIT HESDDARWDQ FVAERHGTPA EGDLGGACLP QDHEMQGLAE RISIL **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Prkd2 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 receival 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

Product Details

Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	PKD2
Alternative Name:	Prkd2 (PKD2 Products)
Background:	Serine/threonine-protein kinase that converts transient diacylglycerol (DAG) signals into prolonged physiological effects downstream of PKC, and is involved in the regulation of cell proliferation via MAPK1/3 (ERK1/2) signaling, oxidative stress-induced NF-kappa-B activation, inhibition of HDAC7 transcriptional repression, signaling downstream of T-cell antigen receptor (TCR) and cytokine production, and plays a role in Golgi membrane trafficking, angiogenesis, secretory granule release and cell adhesion. May potentiate mitogenesis induced by the neuropeptide bombesin by mediating an increase in the duration of MAPK1/3 (ERK1/2) signaling, which leads to accumulation of immediate-early gene products including FOS that stimulate cell cycle progression. In response to oxidative stress, is phosphorylated at Tyr-439 by ABL1, which leads to the activation of PRKD2 without increasing its catalytic activity, and mediates activation of NF-kappa-B. In response to the activation of the gastrin receptor CCKBR, is phosphorylated at Ser-244 by CSNK1D and CSNK1E, translocates to the nucleus, phosphorylates HDAC7, leading to nuclear export of HDAC7 and inhibition of HDAC7 transcriptional repression of NR4A1/NUR77. Upon TCR stimulation, is activated independently of ZAP70, translocates from the cytoplasm to the nucleus and is required for interleukin-2 (IL2) promoter up-regulation. During adaptive immune responses, is required in peripheral T-lymphocytes for the production of the effector cytokines IL2 and IFNG after TCR engagement and for optimal induction of antibody responses to antigens. In epithelial cells stimulated with lysophosphatidic acid (LPA), is activated through a PKC-dependent pathway and mediates LPA-stimulated interleukin-8 (IL8) secretion via a NF-kappa-B-dependent pathway. During TCR-induced T-cell activation, interacts with and is activated by the tyrosine kinase LCK, which results in the activation of the NFAT transcription factors. In the trans-Golgi network (TGN), regulates the fission of transport vesicles that are on their way to the plasma membrane and in polarized cells is involved in the transport of proteins from the TGN to the basolateral membrane. Plays an important role in endothelial cell proliferation and migration prior to angiogenesis, partly through modulation of the expression of KDR/VEGFR2 and FGFR1, two key growth factor receptors involved in angiogenesis. In secretory pathway, is required for the release of chromogranin-A (CHGA)-containing secretory granules from the TGN. Downstream

Target Details

	of PRKCA, plays important roles in angiotensin-2-induced monocyte adhesion to endothelial cells. {ECO:0000269|PubMed:17226786, ECO:0000269|PubMed:20819079}.
Molecular Weight:	97.5 kDa Including tag.
UniProt:	Q8BZ03
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 gurantee 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.
Expiry Date:	Unlimited (if stored properly)

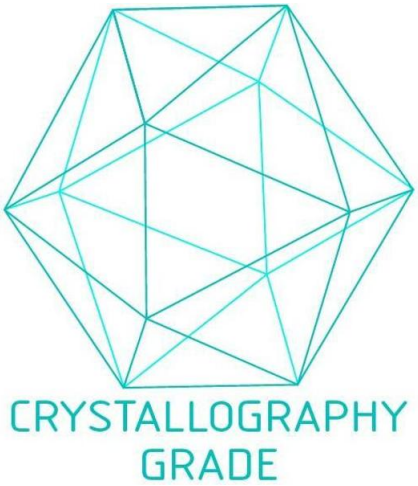

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process