Datasheet for ABIN3133355

PKC eta Protein (AA 1-683) (His tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	PKC eta (PRKCH)
Protein Characteristics:	AA 1-683
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKC eta protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MSSGTMKFNG YLRVRIGEAV GLQPTRWSLR HSLFKKGHQL LDPYLTVSVD QVRVGQTSTK QKTNKPTYNE EFCANVTDGG HLELAVFHET PLGYDHFVAN CTLQFQELLR TAGTSDTFEG WVDLEPEGKV FVVITLTGSF TEATLQRDRI FKHFTRKRQR AMRRRVHQVN GHKFMATYLR QPTYCSHCRE FIWGVFGKQG YQCQVCTCVV HKRCHHLIVT ACTCQNNINK VDAKIAEQRF GINIPHKFNV HNYKVPTFCD HCGSLLWGIM RQGLQCKICK MNVHIRCQAN VAPNCGVNAV ELAKTLAGMG LQPGNISPTS KLISRSTLRR QGKEGSKEGN GIGVNSSSRF GIDNFEFIRV LGKGSFGKVM LARIKETGEL YAVKVLKKDV ILQDDDVECT MTEKRILSLA RNHPFLTQLF CCFQTPDRLF FVMEFVNGGD LMFHIQKSRR FDEARARFYA AEIISALMFL HEKGIIYRDL KLDNVLLDHE GHCKLADFGM CKEGICNGVT TATFCGTPDY IAPEILQEML YGPAVDWWAM GVLLYEMLCG HAPFEAENED DLFEAILNDE VVYPTWLHED ATGILKSFMT KNPTMRLGSL TQGGEHEILR HPFFKEIDWA QLNHRQLEPP FRPRIKSRED VSNFDPDFIK EEPVLTPIDE GHLPMINQDE FRNFSYVSPE LQL

Product Details

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

Target Details

Target:	PKC eta (PRKCH)
Alternative Name:	Prkch (PRKCH Products)
Background:	Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that is involved in the regulation of cell differentiation in keratinocytes and pre-B cell receptor, mediates regulation of epithelial tight junction integrity and foam cell formation, and is required for glioblastoma proliferation and apoptosis prevention in MCF-7 cells. In keratinocytes, binds and activates the tyrosine kinase FYN, which in turn blocks epidermal growth factor receptor (EGFR) signaling and leads to keratinocyte growth arrest and differentiation. Associates with the cyclin CCNE1-CDK2-CDKN1B complex and inhibits CDK2 kinase activity, leading to RB1 dephosphorylation and thereby G1 arrest in keratinocytes. In association with RALA activates actin depolymerization, which is necessary for keratinocyte differentiation. In the pre-B cell receptor signaling, functions downstream of BLNK by up-regulating IRF4, which in turn activates L chain gene rearrangement. Regulates epithelial tight junctions (TJs) by phosphorylating occludin (OCLN) on threonine residues, which is necessary for the assembly and maintenance of TJs. In association with PLD2 and via TLR4 signaling, is involved in lipopolysaccharide (LPS)-induced RGS2 down-regulation and foam cell formation. Upon PMA stimulation, mediates glioblastoma cell proliferation by activating the mTOR pathway, the PI3K/AKT pathway and the ERK1-dependent phosphorylation of ELK1. Involved in the protection of glioblastoma cells from irradiation-induced apoptosis by preventing caspase-9 activation. In camptothecin-treated MCF-7 cells, regulates NF-kappa-B upstream signaling by activating IKBKB, and confers protection against DNA damage-induced apoptosis. Promotes oncogenic functions of ATF2 in the nucleus while blocking its apoptotic function at mitochondria. Phosphorylates ATF2 which promotes its nuclear retention and transcriptional activity and negatively regulates its mitochondrial localization. {ECO:0000269|PubMed:11106751, ECO:0000269|PubMed:18780722, ECO:0000269|PubMed:21346190}.
Molecular Weight:	78.9 kDa Including tag.
UniProt:	P23298
Pathways:	Myometrial Relaxation and Contraction, Thromboxane A2 Receptor Signaling

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

Application Details

	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)

Images

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