Datasheet for ABIN3131925

PIP5K1C Protein (AA 1-661) (His tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	PIP5K1C
Protein Characteristics:	AA 1-661
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIP5K1C protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MELEVPDEAE SAEAGAVTAE AAWSAESGAA AGMTQKKAGL AEAPLVTGQP GPGHGKKLGH RGVDASGETT YKKTTSSTLK GAIQLGIGYT VGNLSSKPER DVLMQDFYVV ESIFFPSEGS NLTPAHHFQD FRFKTYAPVA FRYFRELFGI RPDDYLYSLC NEPLIELSNP GASGSVFYVT SDDEFIIKTV MHKEAEFLQK LLPGYYMNLN QNPRTLLPKF YGLYCVQSGG KNIRVVVMNN VLPRVVKMHL KFDLKGSTYK RRASKKEKEK SLPTYKDLDF MQDMPEGLLL DSDTFGALVK TLQRDCLVLE SFKIMDYSLL LGVHNIDQQE RERQAEGAQS KADEKRPVAQ KALYSTAMES IQGGAARGEA IETDDTMGGI PAVNGRGERL LLHIGIIDIL QSYRFIKKLE HTWKALVHDG DTVSVHRPSF YAERFFKFMS STVFRKSSSL KSSPSKKGRG ALLAVKPLGP TAAFSASQIP SEREDVQYDL RGARSYPTLE DEGRPDLLPC TPPSFEEATT ASIATTLSST SLSIPERSPS DTSEQPRYRR RTQSSGQDGR PQEEPHAEDL QKITVQVEPV CGVGVVPKEE GAGVEVPPCG ASAAASVEID AASQASEPAS QASDEEDAPS TDIYFPTDER SWVYSPLHYS ARPASDGESD T **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 Pip5k1c 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:	PIP5K1C
Alternative Name:	Pip5k1c (PIP5K1C Products)
Background:	Catalyzes the phosphorylation of phosphatidylinositol 4-phosphate (PtdIns4P) to form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2). PtdIns(4,5)P2 is involved in a variety of cellular processes and is the substrate to form phosphatidylinositol 3,4,5-trisphosphate (PtdIns(3,4,5)P3), another second messenger. The majority of PtdIns(4,5)P2 is thought to occur via type I phosphatidylinositol 4-phosphate 5-kinases given the abundance of PtdIns4P. Participates in a variety of cellular processes such as vesicle mediated transport, cell adhesion, cell polarization and cell migration. Together with PIP5K1A is required for phagocytosis, but they regulate different types of actin remodeling at sequential steps. Promotes particle attachment by generating the pool of PtdIns(4,5)P2 that induces controlled actin depolymerization to facilitate Fc-gamma-R clustering. Mediates RAC1-dependent reorganization of actin filaments. Required for synaptic vesicle transport. Controls the plasma membrane pool of PtdIns(4,5)P2 implicated in synaptic vesicle endocytosis and exocytosis. Plays a role in endocytosis mediated by clathrin and AP-2 (adaptor protein complex 2). Required for clathrin-coated pits assembly at the synapse. Participates in cell junction assembly. Modulates adherens junctions formation by facilitating CDH1 trafficking. Required for focal adhesion dynamics. Modulates the targeting of talins (TLN1 and TLN2) to the plasma membrane and their efficient assembly into focal adhesions. Regulates the interaction between talins (TLN1 and TLN2) and beta-integrins. Required for uropodium formation and retraction of the cell rear during directed migration. Has a role in growth factor- stimulated directional cell migration and adhesion. Required for talin assembly into nascent adhesions forming at the leading edge toward the direction of the growth factor. Negative regulator of T-cell activation and adhesion. Negatively regulates integrin alpha-L/beta-2 (LFA-1) polarization and adhesion induced by T-cell receptor. Together with PIP5K1A have a role during embryogenesis and together with PIP5K1B may have a role immediately after birth. {ECO:0000269|PubMed:12422220, ECO:0000269|PubMed:15386003, ECO:0000269|PubMed:16707488, ECO:0000269|PubMed:17609388, ECO:0000269|PubMed:17635937, ECO:0000269|PubMed:17928408, ECO:0000269|PubMed:19153220, ECO:0000269|PubMed:20622009, ECO:0000269|PubMed:20855869, ECO:0000269|PubMed:9535851}.
Molecular Weight:	73.4 kDa Including tag.
UniProt:	O70161
Pathways:	PI3K-Akt Signaling, Inositol Metabolic Process, Cell-Cell Junction Organization, Maintenance of

Target Details

Protein Location, Synaptic Vesicle Exocytosis

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)

Images

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