Datasheet for ABIN3137255

PIK3 gamma Protein (AA 1-1102) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PIK3 gamma (PIK3CG)
Protein Characteristics:	AA 1-1102
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIK3 gamma protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MELENYEQPV VLREDNLRRR RRMKPRSAAG SLSSMELIPI EFVLPTSQRI SKTPETALLH VAGHGNVEQM KAQVWLRALE TSVAAEFYHR LGPDQFLLLY QKKGQWYEIY DRYQVVQTLD CLHYWKLMHK SPGQIHVVQR HVPSEETLAF QKQLTSLIGY DVTDISNVHD DELEFTRRRL VTPRMAEVAG RDAKLYAMHP WVTSKPLPDY LSKKIANNCI FIVIHRGTTS QTIKVSADDT PGTILQSFFT KMAKKKSLMN ISESQSEQDF VLRVCGRDEY LVGETPLKNF QWVRQCLKNG DEIHLVLDTP PDPALDEVRK EEWPLVDDCT GVTGYHEQLT IHGKDHESVF TVSLWDCDRK FRVKIRGIDI PVLPRNTDLT VFVEANIQHG QQVLCQRRTS PKPFAEEVLW NVWLEFGIKI KDLPKGALLN LQIYCCKTPS LSSKASAETP GSESKGKAQL LYYVNLLLID HRFLLRHGDY VLHMWQISGK AEEQGSFNAD KLTSATNPDK ENSMSISILL DNYCHPIALP KHRPTPDPEG DRVRAEMPNQ LRKQLEAIIA TDPLNPLTAE DKELLWHFRY ESLKHPKAYP KLFSSVKWGQ QEIVAKTYQL LARREIWDQS ALDVGLTMQL LDCNFSDENV RAIAVQKLES LEDDDVLHYL LQLVQAVKFE PYHDSALARF LLKRGLRNKR IGHFLFWFLR SEIAQSRHYQ QRFAVILEAY

	LRGCGTAMLQ DFTQQVHVIE MLQKVTIDIK SLSAEKYDVS SQVISQLKQK LESLQNSNLP ESFRVPYDPG LKAGTLVIEK CKVMASKKKP LWLEFKCADP TVLSNETIGI IFKHGDDLRQ DMLILQILRI MESIWETESL DLCLLPYGCI STGDKIGMIE IVKDATTIAQ IQQSTVGNTG AFKDEVLNHW LKEKCPIEEK FQAAVERFVY SCAGYCVATF VLGIGDRHND NIMISETGNL FHIDFGHILG NYKSFLGINK ERVPFVLTPD FLFVMGSSGK KTSPHFQKFQ DVCVRAYLAL RHHTNLLIIL FSMMLMTGMP QLTSKEDIEY IRDALTVGKS EEDAKKYFLD QIEVCRDKGW TVQFNWFLHL VLGIKQGEKH SA **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 Pik3cg 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

Product Details

	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:	PIK3 gamma (PIK3CG)
Alternative Name:	Pik3cg (PIK3CG Products)
Background:	Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns(4,5)P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Links G-protein coupled receptor activation to PIP3 production. Involved in immune, inflammatory and allergic responses. Modulates leukocyte chemotaxis to inflammatory sites and in response to chemoattractant agents. May control leukocyte polarization and migration by regulating the spatial accumulation of PIP3 and by regulating the organization of F-actin formation and integrin-based adhesion at the leading edge. Controls motility of dendritic cells. Together with PIK3CD is involved in natural killer (NK) cell development and migration towards the sites of inflammation. Participates in T-lymphocyte migration. Regulates T-lymphocyte proliferation and cytokine production. Together with PIK3CD participates in T-lymphocyte development. Required for B-lymphocyte development and signaling. Together with PIK3CD participates in neutrophil respiratory burst. Together with PIK3CD is involved in neutrophil chemotaxis and extravasation. Together with PIK3CB promotes platelet aggregation and thrombosis. Regulates alpha-IIb/beta-3 integrins (ITGA2B/ITGB3) adhesive function in platelets downstream of P2Y12 through a lipid kinase activity-independent mechanism. May have also a lipid kinase activity-dependent function in platelet aggregation. Involved in endothelial progenitor cell migration. Negative regulator of cardiac contractility. Modulates cardiac contractility by anchoring protein kinase A (PKA) and PDE3B activation, reducing cAMP levels. Regulates cardiac contractility also by promoting beta-adrenergic receptor internalization by binding to ADRBK1 and by non-muscle tropomyosin phosphorylation. Also has serine/threonine protein kinase activity: both lipid and protein kinase

Target Details

	activities are required for beta-adrenergic receptor endocytosis. May also have a scaffolding role in modulating cardiac contractility. Contribute to cardiac hypertrophy under pathological stress. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which the PI3K gamma complex is activated by RAPGEF3 and which is involved in angiogenesis (By similarity). {ECO:0000250, ECO:0000269|PubMed:10669416, ECO:0000269|PubMed:10669418, ECO:0000269|PubMed:12297047, ECO:0000269|PubMed:15294162, ECO:0000269|PubMed:15318168, ECO:0000269|PubMed:16116162, ECO:0000269|PubMed:16127437, ECO:0000269|PubMed:17673465, ECO:0000269|PubMed:19297623, ECO:0000269|PubMed:21474070}.
Molecular Weight:	127.4 kDa Including tag.
UniProt:	Q9JHG7
Pathways:	PI3K-Akt Signaling, RTK Signaling, AMPK Signaling, TLR Signaling, Inositol Metabolic Process, Hepatitis C, VEGF 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 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.

Handling

Expiry Date:	Unlimited (if stored properly)

Images

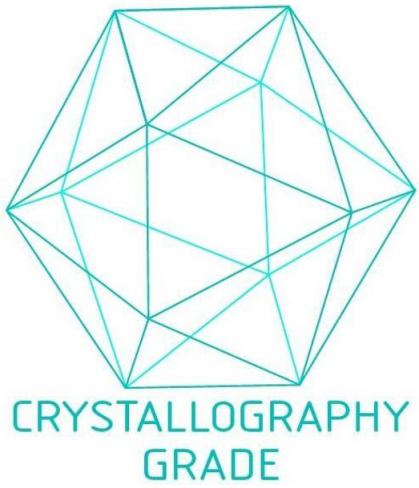

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process