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Datasheet for ABIN3094436
PIK3R1 Protein (AA 2-724) (His tag)

Overview

Quantity:	1 mg
Target:	PIK3R1 (PI3K p85a)
Protein Characteristics:	AA 2-724
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIK3R1 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	SAEGYQYRAL YDYKKEREED IDLHLGDILT VNKGSLVALG FSDGQEARPE EIGWLNGYNE TTGERGDFPG TYVEYIGRKK ISPPTPKPRP PRPLPVAPGS SKTEADVEQQ ALTLPLDAEQ FAPPDIAPPL LIKLVEAIEK KGLECSTLYR TQSSSNLAEL RQLLDCDTPS VDLEMIDVHV LADAFKRYLL DLPNPVIPAA VYSEMISLAP EVQSSEYIQ LLKKLIRSPS IPHQYWLTQ YLLKHFFKLS QTSSKNLLNA RVLSEIFSPM LFRFSAASSD NTENLIKVIE ILISTEWNER QPAPALPPKP PKPTTVANNG MNNNMSLQDA EWYWGDISRE EVNEKLRDTA DGTFLVRDAS TKMHGDYTLT LRKGGNNKLI KIFHRDGKYG FSDPLTFSSV VELINHYRNE SLAQYNPKLD VKLLYPVSKY QQDQVVKEDN IEAVGKKLHE YNTQFQEKSR EYDRLYEEYT RTSQEIQMKR TAIEAFNETI KIFEEQCQTQ ERYKEYIEK FKREGNEKEI QRIMHNYDKL KSRISEIIDS RRRLEEDLKK QAAEYREIDK RMNSIKPDLI QLRKTRDQYL MWLTQKGVQR KKLNEWLGNE NTEDQYSLVE DDEDLPHHDE KTWNVGSSNR NKAENLLRGK RDGTFLVRES SKQGCYACSV VVDGEVKHCV INKTATGYGF AEPYNLYSSL KELVLHYQHT SLVQHNSLNL VTLAYPVYQAQ QRR
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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.
- Human PIK3R1 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 receipt 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.
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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:	PIK3R1 (PI3K p85a)
Alternative Name:	PIK3R1 (PI3K p85a Products)
Background:	<p>Binds to activated (phosphorylated) protein-Tyr kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. Plays an important role in signaling in response to FGFR1, FGFR2, FGFR3, FGFR4, KITLG/SCF, KIT, PDGFRA and PDGFRB. Likewise, plays a role in ITGB2 signaling (PubMed:17626883, PubMed:19805105, PubMed:7518429). Modulates the cellular response to ER stress by promoting nuclear translocation of XBP1 isoform 2 in a ER stress-and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement (PubMed:20348923). {ECO:0000269 PubMed:17626883, ECO:0000269 PubMed:19805105, ECO:0000269 PubMed:20348923, ECO:0000269 PubMed:7518429}.</p>
Molecular Weight:	84.4 kDa Including tag.
UniProt:	P27986
Pathways:	TCR Signaling , Response to Growth Hormone Stimulus , Regulation of Muscle Cell Differentiation , Skeletal Muscle Fiber Development , Hepatitis C , Protein targeting to Nucleus , VEGF Signaling , BCR Signaling , Warburg Effect

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.
Comment:	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

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)