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Datasheet for ABIN3094657
PIK3C3 Protein (AA 1-887) (Strep Tag)

Overview

Quantity:	1 mg
Target:	PIK3C3
Protein Characteristics:	AA 1-887
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIK3C3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MGEAEKFHYI YSCDLINQV LKIGSLEGKR EQKSYKAVLE DPMLKFSGLY QETCSDLYVT
CQVFAEGKPL ALPVRTSYKA FSTRWNWNEW LKLPVKYPDL PRNAQVALTI WDVYGP GKAV
PVGTTVSLF GKYGMFRQGM HDLKVWPVNE ADGSEPTKTP GRTSSTLSED QMSRLAKLTK
AHRQGHMVKV DWLDRLTFRE IEMINESEKR SSNFMVLMVE FRCVKCDDKE YGIVYEEKDG
DESSPILTSF ELVKVPDPQM SMENLVESKH HKLARSLRSG PSDHDLKPNA ATRDQLNIIV
SYPPTKQLTY EEQDLVWKFR YYLTNQEAL TKFLKCVNWD LPQEAQALE LLGKWKPM DV
EDSLELLSSH YTNPTVRRYA VARLRQADDE DLLMYLLQLV QALKYENFDD IKNGLEPTKK
DSQSSVSENV SNSGINS AEI DSSQIITSPL PSVSSPPPAS KTKEVPDGEN LEQDLCTFLI
SRACKNSTLA NYLYWYVIVE CEDQDTQQRD PKTHEMYLNV MRRFSQALLK GDKSVRVMRS
LLAAQQT FVD RLVHLMKAVQ RESGNRKKKN ERLQALLGDN EKMNLSDEL IPLPLEPQVK
IRGIIPETAT LFKSALMPAQ LFFKTEDGGK YPVIFKHGDD LRQDQLILQI ISLMDKLLRK
ENLCLKLTPY KVLATSTKHG FMQFIQSVPV AEVLDTEGSI QNFFRKYAPS ENGPNGISAE

VMDTYVKSCA GYCVITYILG VGDRHLDNLL LTKTGKLFHI DFGYILGRDP KPLPPPMKLN
KEMVEGMGGT QSEQYQEFRK QCYTAFLHLR RYSNLILNLF SLMVDANIPD IALEPDKTVK
KVQDKFRLDL SDEEAVHYMQ SLIDESVHAL FAAVVEQIHK FAQYWRK

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	PIK3C3
Alternative Name:	PIK3C3 (PIK3C3 Products)
Background:	<p>Phosphatidylinositol 3-kinase catalytic subunit type 3 (PI3-kinase type 3) (PI3K type 3) (PtdIns-3-kinase type 3) (EC 2.7.1.137) (Phosphatidylinositol 3-kinase p100 subunit) (Phosphoinositide-3-kinase class 3) (hVps34),FUNCTION: Catalytic subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate, different complex forms are believed to play a role in multiple membrane trafficking pathways: PI3KC3-C1 is involved in initiation of autophagosomes and PI3KC3-C2 in maturation of autophagosomes and endocytosis (PubMed:14617358, PubMed:7628435, PubMed:33637724). As part of PI3KC3-C1, promotes endoplasmic reticulum membrane curvature formation prior to vesicle budding (PubMed:32690950). Involved in regulation of degradative endocytic trafficking and required for the abscission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed:20208530, PubMed:20643123). Involved in the transport of lysosomal enzyme precursors to lysosomes (By similarity). Required for transport from early to late endosomes (By similarity). {ECO:0000250 UniProtKB:O88763, ECO:0000269 PubMed:14617358, ECO:0000269 PubMed:20208530, ECO:0000269 PubMed:20643123, ECO:0000269 PubMed:32690950, ECO:0000269 PubMed:33637724, ECO:0000269 PubMed:7628435},. FUNCTION: (Microbial infection) Kinase activity is required for SARS coronavirus-2/SARS-CoV-2 replication. {ECO:0000269 PubMed:34320401}.</p>
Molecular Weight:	101.5 kDa
UniProt:	Q8NEB9

Target Details

Pathways: [AMPK Signaling](#), [Activation of Innate immune Response](#), [Inositol Metabolic Process](#), [Toll-Like Receptors Cascades](#), [Autophagy](#)

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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)