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Datasheet for ABIN3096205
ULK2 Protein (AA 1-1036) (Strep Tag)

Overview

Quantity:	1 mg
Target:	ULK2
Protein Characteristics:	AA 1-1036
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ULK2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence: MEVVGDFEYS KRDLVGHGAF AVVFRGRHRQ KTDWEVAIKS INKKNLSKSQ ILLGKEIKIL
KELQHENIVA LYDVQELPNS VFLVMEYCNG GDLADYLQAK GTLSEDTIRV FLHQIAAAMR
ILHSGIIHR DLKPQNILLS YANRRKSSVS GIRIKIADFG FARYLHSNMM AATLCGSPMY
MAPEVIMSQH YDAKADLWSI GTVIYQCLVG KPPFQANSPQ DLRFYKKNR SLMPSIPRET
SPYLANLLLG LLQRNPKDRM DFEAFFSHPF LEQGPVKKSC PVPVPMYSGS VSGSSCGSSP
SCRFASPPSL PDMQHIQEN LSSPPLGPPN YLQVSKDSAS TSSKNSSCDT DDFVLVPHNI
SSDHSCDMPV GTAGRRASNE FLVCGGQCQP TVSPHSETAP IPVPTQIRNY QRIEQNLST
ASSGTNVHGS PRSAVRRSN TSPMGFLRPG SCSVPADTA QTVGRRLLSTG SSRPYSPL
VGTIPEQFSQ CCCGHPQGHG SRSRNSGSP VPQAQSPQSL LSGARLQAP TLTDIYQNKQ
KLRKQHSQPV CPSHTGAGYS YSPQSRPGS LGTSPTKHLG SSPRSSDWWF KTPLPTIIGS
PTKTTAPFKI PKTQASSNLL ALVTRHGPAE EQSKDGNPR ECAHCLLVQG SERQRAEQQS
KAVFGRSVST GKLSQQGKT PICRHQGSTD SLNTERPMDI APAGACGGVL APPAGTAASS

KAVLFTVGSP PHSAAAPTCT HMFLRTRTTS VGPSNSGGSL CAMSGRVCVG SPPGPGFGSS
PPGAEAAPSL RYVPYGASPP SLEGLITFEA PELPEETLME REHTDTRLRHL NVMLMFTECV
LDLTAMRGGN PELCTSAVSL YQIQESVVVD QISQLSKDWG RVEQLVLYMK AAQLLAASLH
LAKAQIKSGK LSPSTAVKQV VKNLNERYKF CITMCKKLTE KLNRRFFSDKQ RFIDEINSVT
AEKLIYNCAV EMVQSAALDE MFQQTEDIVY RYHKAALLLE GLSRILQDPA DIENVHKYKC
SIERRLSALC HSTATV

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.

Product Details

- 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.

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)

Target Details

Target:	ULK2
Alternative Name:	ULK2 (ULK2 Products)
Background:	Serine/threonine-protein kinase ULK2 (EC 2.7.11.1) (Unc-51-like kinase 2),FUNCTION: Serine/threonine-protein kinase involved in autophagy in response to starvation. Acts upstream of phosphatidylinositol 3-kinase PIK3C3 to regulate the formation of autophagophores, the precursors of autophagosomes. Part of regulatory feedback loops in autophagy: acts both as a downstream effector and a negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR. Activated via phosphorylation by AMPK, also acts as a negative regulator of AMPK through phosphorylation of the AMPK subunits PRKAA1, PRKAB2 and PRKAG1. May phosphorylate ATG13/KIAA0652, FRS2, FRS3 and RPTOR, however such data need additional evidences. Not involved in ammonia-induced autophagy or in autophagic response of cerebellar granule neurons (CGN) to low potassium concentration. Plays a role early in neuronal differentiation and is required for granule cell axon formation: may govern axon formation via Ras-like GTPase signaling and through regulation of the Rab5-mediated endocytic pathways within developing axons. {ECO:0000269 PubMed:18936157, ECO:0000269 PubMed:21460634, ECO:0000269 PubMed:21460635, ECO:0000269 PubMed:21690395, ECO:0000269 PubMed:21795849}.
Molecular Weight:	112.7 kDa

Target Details

UniProt:	Q8IYT8
Pathways:	Regulation of Cell Size, 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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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)
