Datasheet for ABIN3096267

ULK1 Protein (AA 1-1050) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ULK1
Protein Characteristics:	AA 1-1050
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ULK1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEPGRGGTET VGKFEFSRKD LIGHGAFAVV FKGRHREKHD LEVAVKCINK KNLAKSQTLL GKEIKILKEL KHENIVALYD FQEMANSVYL VMEYCNGGDL ADYLHAMRTL SEDTIRLFLQ QIAGAMRLLH SKGIIHRDLK PQNILLSNPA GRRANPNSIR VKIADFGFAR YLQSNMMAAT LCGSPMYMAP EVIMSQHYDG KADLWSIGTI VYQCLTGKAP FQASSPQDLR LFYEKNKTLV PTIPRETSAP LRQLLLALLQ RNHKDRMDFD EFFHHPFLDA SPSVRKSPPV PVPSYPSSGS GSSSSSSSTS HLASPPSLGE MQQLQKTLAS PADTAGFLHS SRDSGGSKDS SCDTDDFVMV PAQFPGDLVA EAPSAKPPPD SLMCSGSSLV ASAGLESHGR TPSPSPPCSS SPSPSGRAGP FSSSRCGASV PIPVPTQVQN YQRIERNLQS PTQFQTPRSS AIRRSGSTSP LGFARASPSP PAHAEHGGVL ARKMSLGGGR PYTPSPQVGT IPERPGWSGT PSPQGAEMRG GRSPRPGSSA PEHSPRTSGL GCRLHSAPNL SDLHVVRPKL PKPPTDPLGA VFSPPQASPP QPSHGLQSCR NLRGSPKLPD FLQRNPLPPI LGSPTKAVPS FDFPKTPSSQ NLLALLARQG VVMTPPRNRT

LPDLSEVGPF HGQPLGPGLR PGEDPKGPFG RSFSTSRLTD LLLKAAFGTQ APDPGSTESL QEKPMEIAPS AGFGGSLHPG ARAGGTSSPS PVVFTVGSPP SGSTPPQGPR TRMFSAGPTG SASSSARHLV PGPCSEAPAP ELPAPGHGCS FADPITANLE GAVTFEAPDL PEETLMEQEH TEILRGLRFT LLFVQHVLEI AALKGSASEA AGGPEYQLQE SVVADQISLL SREWGFAEQL VLYLKVAELL SSGLQSAIDQ IRAGKLCLSS TVKQVVRRLN ELYKASVVSC QGLSLRLQRF FLDKQRLLDR IHSITAERLI FSHAVQMVQS AALDEMFQHR EGCVPRYHKA LLLLEGLQHM LSDQADIENV TKCKLCIERR LSALLTGICA

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	ULK1
Alternative Name:	ULK1 (ULK1 Products)
Background:	Serine/threonine-protein kinase ULK1 (EC 2.7.11.1) (Autophagy-related protein 1 homolog) (ATG1) (hATG1) (Unc-51-like kinase 1),FUNCTION: Serine/threonine-protein kinase involved in autophagy in response to starvation (PubMed:18936157, PubMed:21460634, PubMed:21795849, PubMed:23524951, PubMed:25040165, PubMed:31123703, PubMed:29487085). Acts upstream of phosphatidylinositol 3-kinase PIK3C3 to regulate the formation of autophagophores, the precursors of autophagosomes (PubMed:18936157, PubMed:21460634, PubMed:21795849, PubMed:25040165). Part of regulatory feedback loops in autophagy: acts both as a downstream effector and negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR (PubMed:21795849). Activated via phosphorylation by AMPK and also acts as a regulator of AMPK by mediating phosphorylation of AMPK subunits PRKAA1, PRKAB2 and PRKAG1, leading to negatively regulate AMPK activity (PubMed:21460634). May phosphorylate ATG13/KIAA0652 and RPTOR, however such data need additional evidences (PubMed:18936157). Plays a role early in neuronal differentiation and is required for granule cell axon formation (PubMed:11146101). Also phosphorylates SESN2 and SQSTM1 to regulate autophagy (PubMed:25040165, PubMed:37306101). Phosphorylates FLCN, promoting autophagy (PubMed:25126726). Phosphorylates AMBRA1 in response to autophagy induction, releasing AMBRA1 from the cytoskeletal docking site to induce autophagosome nucleation (PubMed:20921139). Phosphorylates ATG4B, leading to inhibit autophagy by decreasing both proteolytic activation and delipidation activities of ATG4B (PubMed:28821708). {ECO:0000269|PubMed:11146101, ECO:0000269|PubMed:18936157, ECO:0000269|PubMed:20921139, ECO:0000269|PubMed:21460634, ECO:0000269|PubMed:21795849,

Target Details

	ECO:0000269|PubMed:23524951, ECO:0000269|PubMed:25040165, ECO:0000269|PubMed:25126726, ECO:0000269|PubMed:28821708, ECO:0000269|PubMed:29487085, ECO:0000269|PubMed:31123703, ECO:0000269|PubMed:37306101}.
Molecular Weight:	112.6 kDa
UniProt:	O75385
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:	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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months