Datasheet for ABIN7555972

ULK1 Protein (AA 1-1050) (His tag)

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Overview

Quantity:	1 mg
Target:	ULK1
Protein Characteristics:	AA 1-1050
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ULK1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant ULK1 Protein expressed in mammalian cells.
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

Product Details

	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 Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, 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

Target Details

	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, 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:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

