

Recombinant Full Length Human ULK1 Protein, C-Flag-tagged

Cat. No. ULK1-275HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human ULK1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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 negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR. 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. May phosphorylate ATG13/KIAA0652 and RPTOR; however such data need additional evidences. Plays a role early in neuronal differentiation and is required for granule cell axon formation. May also phosphorylate SESN2 and SQSTM1 to regulate autophagy.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	112.4 kDa
AA Sequence	MEPGRGGTETVGKFEFSRKDLIGHGAFVVFVKGRHREKHDLEVAVKCKINKKNLAKS QTLLGKEIKILKEL KHENIVALYDFQEMANSVYLVMEYCNGGDLADYLDHAMRTLSED

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TIRLFLQQIAGAMRLLHSGKIIHRDLK PQNILLSNPAGRRANPNSIRVKIADFGFARYL
 QSNMMAATLCGSPMYMAPEVIMSQHYDGGKADLWSIGTI VYQCLTGKAPFQASSPQ
 DLRLFYEKNKTLVPTIPRETSAPLRQLLLALLQRNHKDRMDFDEFFHHPFLDA SPSV
 RKSPVPVPSYPSSSGSGSSSSSSSTSHLASPPSLGEMQQLQKTLASPADTAGFLHS
 SRDSGGSKDS SCDTDDFVMVPAQFPGDLVAEAPSAKPPPDSLMCSGSSLVASAGL
 ESHGRTPSPSPCCSSSPSPSGRAGP FSSSRCGASVPIPVPTQVQNYQRIERNLQSP
 TQFQTPRSSAIRRSGSTSPLGFARASPSPPAHAHGGVL ARKMSLGGGRPYTPSP
 QVGTIPERPGWSGTPSPQGAEMRGGRSPRPGSSAPEHSPRTSGLGCRLHSAPNL
 SDLHVVRPKLPKPPTDPLGAVFSPPQASPPQPSHGLQSCRNLRGSPKLPDFLQRNP
 LPPILGSPTKAVPS FDFPKTPSSQNLLALLARQGVVMTPPRNRTLDPDLSEVGPFHGQ
 PLGPGLRPGEDPKGPFGRSFSTSRLTD LLLKAAFQTQAPDPGSTESLQEKPMEIAP
 SAGFGGSLHPGARAGGTSSPSPVFTVGSPPSGSTPPQGPR TRMFSAGPTGSAS
 SSARHLVPGPCSEAPAPELPAPGHGCSFADPITANLEGAVTFEAPDLPEETLMEQEH
 TEILRGLRFTLLFVQHVLEIAALKGSASEAAGGPEYQLQESVVADQISLLSREWGFAE
 QLVLYLKVAELL SSSLQSAIDQIRAGKLCSSSTVKQVVRRLNELYKASVVSCQGLSL
 RLQRFFLDKQRLLDRIHSITAERLI FSHAVQMVQSAALDEMFAQHREGCVPRYHKALL
 LLEGLQHMLSDQADIENVTKCKLCIERRLSALLTGICATRTRPLEQKLISEEDLAANDIL
 DYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

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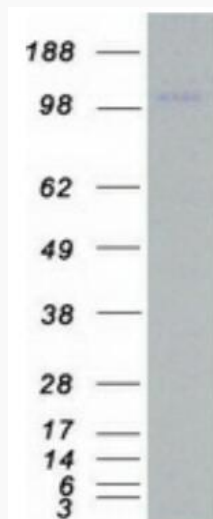
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Protein Families	Druggable Genome, Protein Kinase
Protein Pathways	mTOR signaling pathway, Regulation of autophagy
Full Length	Full L.
GENE INFORMATION	
Gene Name	ULK1 unc-51 like autophagy activating kinase 1 [Homo sapiens (human)]
Official Symbol	ULK1
Synonyms	ATG1; ATG1A; UNC51; hATG1; Unc51.1
Gene ID	8408
mRNA Refseq	NM_003565.4
Protein Refseq	NP_003556.2
MIM	603168
UniProt ID	O75385

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Coomassie blue staining of purified ULK1 protein.

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