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

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

## SPECIFICATION

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| **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** | MEPGRGGTETVGKFEFSRKDLIGHGAFAVVFKGRHREKHDLEVAVKCINKKNLAKS QTLLGKEIKILKEL KHENIVALYDFQEMANSVYLVMEYCNGGDLADYLHAMRTLSED |

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| | TIRLFLQQIAGAMRLLHSKGIIHRDLK PQNILLSNPAGRRANPNSIRVKIADFGFARYL QSNMMAATLCGSPMYMAPEVIMSQHYDGKADLWSIGTI VYQCLTGKAPFQASSPQ DLRLFYEKNKTLVPTIPRETSAPLRQLLLALLQRNHKDRMDFDEFFHHPFLDA SPSV RKSPPVPVPSYPSSGSGSSSSSSSTSHLASPPSLGEMQQLQKTLASPADTAGFLHS SRDSGGSKDS SCDTDDFVMVPAQFPGDLVAEAPSAKPPPDSLMCSGSSLVASAGL ESHGRTPSPSPPCSSSPSPSGRAGP FSSSRCGASVPIPVPTQVQNYQRIERNLQSP TQFQTPRSSAIRRSGSTSPLGFARASPSPPAHAEHGGVL ARKMSLGGGRPYTPSP QVGTIPERPGWSGTPSPQGAEMRGGRSPRPGSSAPEHSPRTSGLGCRLHSAPNL SDLHVVRPKLPKPPTDPLGAVFSPPQASPPQPSHGLQSCRNLRGSPKLPDFLQRNP LPPILGSPTKAVPS FDFPKTPSSQNLLALLARQGVVMTPPRNRTLPDLSEVGPFHGQ PLGPGLRPGEDPKGPFGRSFSTSRLTD LLLKAAFGTQAPDPGSTESLQEKPMEIAP SAGFGGSLHPGARAGGTSSPSPVVFTVGSPPSGSTPPQGPR TRMFSAGPTGSAS SSARHLVPGPCSEAPAPELPAPGHGCSFADPITANLEGAVTFEAPDLPEETLMEQEH TEILRGLRFTLLFVQHVLEIAALKGSASEAAGGPEYQLQESVVADQISLLSREWGFAE QLVLYLKVAELL SSGLQSAIDQIRAGKLCLSSTVKQVVRRLNELYKASVVSCQGLSL RLQRFFLDKQRLLDRIHSITAERLI FSHAVQMVQSAALDEMFQHREGCVPRYHKALL 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. |

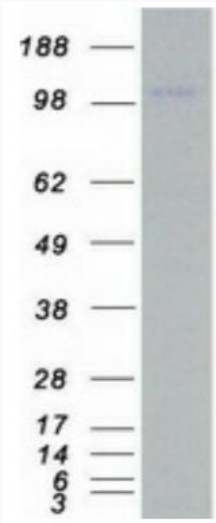
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| **Protein Families** | Druggable Genome, Protein Kinase |
| **Protein Pathways** | mTOR signaling pathway, Regulation of autophagy |
| **Full Length** | Full L. |

## GENE INFORMATION

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| **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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