

Product datasheet for TP315643L

ULK1 (NM_003565) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human unc-51-like kinase 1 (C. elegans) (ULK1), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC215643 representing NM_003565 Red=Cloning site Green=Tags(s)

MEPGRGGTETVGKFEFSRKDLIGHGAFVWFKGRHREKHDLEVAVKCIKKNLAKSQTLGKEIKILKEL
KHENIVALYDFQEMANSVYLVMEYCNGGDLADYLHAMRTLSEDTIRLFLQQIAGAMRLLHSGKIIHRDLK
PQNILLSNPAGRRANPNRSIRVKIADFGFARYLQSNMMAATLCGSPMYMAPEVIMSQHYDYGKADLWSIGTI
VYQCLTGKAPFQASSPQDLRLFYEKNKTLVPTIPRETSAPLRQLLALLQRNHKDRMDFDEFFHHPFLDA
SPSVRKSPVPVPSYPSSGSGSSSSSSSTSHLASPPSLGEMQQLQKTLASPADTAGFLHSSRDSGGSKDS
SCDTDDFVMVPAQFPGDLVAEAPSAKPPPDSLMSGSSLVASAGLESHGRTSPSPPCSSPSPSGRAGP
FSSSRCGASVPIPVPTQVQNYQRIERNLQSPQFQTPRSSAIRRSGSTSPGFARASPPAHAHEGGVL
ARKMSLGGGRPYTPSPQVGTIPERPGWSGTPSPQGAEMRGRSPRGSSAPEHSPRTSGLGCRLLHSAPNL
SDLHWRPKLPKPPTDPLGAVFSPQASPPQPSHGLQSCRNLRGSPKLPDFLQRNPLPILGSPTKAVPS
FDFPKTPSSQNLLALLARQGVVMTPPRNRTLPLDLSEVGFPHGQPLGPGLRPGEDPKGPFGRSFSTSRLLD
LLLKAAFQGTQAPDPGSTESLQEKPMEIAPSAGFGGSLHPGARAGGTSSPSPVFTVGSPPSGSTPPQGPR
TRMFSAGPTGSASSARHLVPGPCSEAPAPELPAPGHGCSFADPITANLEGAVTFEAPDLPEETLMEQEH
TEILRGLRFTLLFVQHVLVLEIAALKGSASEAAGGPEYQLQESVWADQISLLSREWGFAEQLVLYLKVAELL
SSGLQSAIDQIRAGKLCSSVTKQVRRNLNELYKASVSCQGLSLRLQRFFLDKQRLLDRIHSITAERLI
FSHAVQMVQSAALDEMFQHREGCVPRYHKALLLLEGLQHMLSDQADIENVTKCKLCIERLSALLTGICA

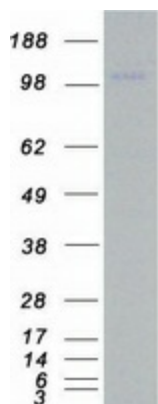
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	112.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_003556
Locus ID:	8408
UniProt ID:	O75385
RefSeq Size:	5228
Cytogenetics:	12q24.33
RefSeq ORF:	3150
Synonyms:	ATG1; ATG1A; hATG1; UNC51; Unc51.1
Summary:	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 (PubMed:25040165). [UniProtKB/Swiss-Prot Function]
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	mTOR signaling pathway, Regulation of autophagy

Product images:

Coomassie blue staining of purified ULK1 protein (Cat# [TP315643]). The protein was produced from HEK293T cells transfected with ULK1 cDNA clone (Cat# [RC215643]) using MegaTran 2.0 (Cat# [TT210002]).