

Product datasheet for PH315643

ULK1 (NM_003565) Human Mass Spec Standard

Product data:

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| Product Type: | Mass Spec Standards |
| Description: | ULK1 MS Standard C13 and N15-labeled recombinant protein (NP_003556) |
| Species: | Human |
| Expression Host: | HEK293 |
| Expression cDNA Clone or AA Sequence: | RC215643 |
| Predicted MW: | 112.4 kDa |
| Protein Sequence: | >RC215643 representing NM_003565 Red=Cloning site Green=Tags(s) |

MEPGRGGTETVGKFEFSRKDLIGHGAFVVFVKGRHREKHDLEAVKCIKKNLAKSQTLGKEIKILKEL
KHENIVALYDFQEMANSVYL VMEYCNGGDLADYLHAMRTLSEDTIRLFLQQIAGAMRLLHSKGI IHRDLK
PQNILLSNPAGRANPNSIRVKIADFGFARYLQSNMMAATLCGSPMYMAPEVIMSHYDQADLWSIGTI
VYQCLTGKAPFQASSPQDLRLFYEKNKTLVPTIPRETSAPLRQLLLALLQRNHKDRMDDFEFFHHPFLDA
SPSVRKSPPVPVPSYPSSGSGSSSSSSSTSHLASPPSLGEMQQLKTLASPADTAGFLHSSRDSGGSKDS
SCDTDDFVMVPAQFPGDLVAEAPSAKPPDLSMCSGSSLVASAGLESHGRTPSPSPCCSSPSPSGRAGP
FSSSRGASVPIPVPTQVQNYQRIERNLQSQPTQFQTPRSSAIRRSGSTSP LGFARASPPPAHAHEGGVL
ARKMSLGGGRPYTPSPQVGTIPERPGWGTTPSPQGAEMRGRSPRPGSSAPEHSPRTSGLGCR LHSAPNL
SDLHVVRPKLPKPTDPLGAVFSPQASPPQPSHGLQSCRNLRGSPKLPDFLQRNPLPPI LGSPTKAVPS
FDFPKTPSSQNL LALLARQGVVMTPPRRTL PDLSEVGPFHGQPLGPGLRPGEDPKGPFGRSFSTSR L TD
LLLKAAFQGTQAPDPGSTE SLQEKPMEIAPSAGFGGSLHPGARAGGTSSPSVVFTVGSPPSGSTPPQGP R
TRMFSAGPTGSASSARHLVPGPCSEAPAPELPAPGHGCSFADPITANLEGAVT FEAPDLPEETLMEQE H
TEILRGLRFTLLFVQHVLEIAALKGSASEAAGGPEYQLQESVVADQISLLSREWGF AEQLVLYLKV AELL
SSGLQSAIDQIRAGKLC LSSTVKQVRRNLNELYKASVVSCQGLSLRLQRFFLDKQRLLDRIHSITAE RLI
FSHAVQMVQSAALDEMFQHREGCVPRYHKALLLEGLQHMLSDQADIENVTKCKLCIERRLSALLTGICA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

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| Tag: | C-Myc/DDK |
| Purity: | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method |
| Labeling Method: | Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine |
| Buffer: | 25 mM Tris-HCl, 100 mM glycine, pH 7.3 |
| Storage: | Store at -80°C. Avoid repeated freeze-thaw cycles. |



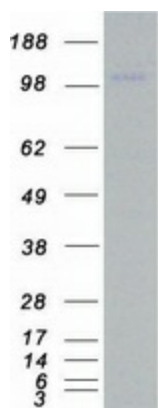
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| Stability: | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| RefSeq: | NP_003556 |
| RefSeq Size: | 5228 |
| RefSeq ORF: | 3150 |
| Synonyms: | ATG1; ATG1A; hATG1; UNC51; Unc51.1 |
| Locus ID: | 8408 |
| UniProt ID: | O75385 |
| Cytogenetics: | 12q24.33 |
| 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]).