

Product datasheet for **SC303348**

ULK1 (NM_003565) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ULK1 (NM_003565) Human Untagged Clone
Tag: Tag Free
Symbol: ULK1
Synonyms: ATG1; ATG1A; hATG1; UNC51; Unc51.1
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_003565 edited
GGCCGTC AAGGCCACCATGGAGCCCGCGCGGCACAGAGACCGTGGGCAAGTTCG
AGTTCTCCCGCAAGGACCTGATCGGCCACGGCGCCTTCGCGGTGTTCTCAAGGGCCGCG
ACCGCGAGAAGCACGATTTGGAGGTCGCGCTCAAGTGCATTAACAAGAAGAACCTCGCCA
AGTCTCAGACGCTGCTGGGAAGGAAATCAAATCCTGAAGGAACTGAAACATGAAAACA
TCGTGGCCCTGTACGACTTCCAGGAAATGGCTAATTCTGTCTACCTGGTTATGGAGTACT
GCAACGGTGGGGACCTGGCCGACTACCTGCACGCCATGCGCACGCTGAGCGAGGACACCA
TCAGGCTCTTCTGCAGCAGATCGCGGGCGCCATGCGGCTTCTGCACAGCAAAGGCATCA
TCCACCGCACCTGAAACCGCAGAATCCTGCTGTCCAACCCCGCGCGCCGCGCGCCA
ACCCCAACAGCATCCGCGTCAAGATCGCTGACTTCGGCTTCGCGCGGTACCTCCAGAGCA
ACATGATGGCGGCCACACTCTGCGGCTCCCCATGTACATGGCCCCGAGGTCATCATGT
CCCAGCACTACGACGGGAAGGCGGACCTGTGGAGCATCGGCACCATCGTCTACCAGTGCC
TGACGGGAAGGCGCCCTTCCAGGCCAGCAGCCCCAGGACCTGCGCCTGTTCTACGAGA
AGAAACAAGACGTTGGTCCCCACCATCCCCGGGAGACCTCGGCCCGCTGCGGCAGCTGC
TCCTGGCCCTACTGCAACGCAACCACAAGGACCGCATGGACTTCGATGAGTTTTTTCATC
ACCCTTCTCGATGCCAGCCCCGCGTCCAGGAAATCCCCACCGTGCCTGTGCCCTCGT
ACCCAAGCTCGGGTCCGGCAGCAGCTCCAGCAGCAGCTCCACCTCCCACCTGGCCTCCC
CGCCGTCCTGGCGGAGATGCAGCAGCTGCAGAAGACCTGGCCTCCCCGGCTGACACCG
CTGGCTTCTGCACAGCTCCCGGACTCTGGTGGCAGCAAGGACTTTCCTGTGACACAG
ACGACTTCGTCATGGTCCCCGCGAGTTTCCAGGTGACCTGGTGGCTGAGGCGCCAGTG
CCAAACCCCGCCAGACAGCCTGATGTGACAGTGGGAGCTCACTGGTGGCCTCTGCGGGCT
TGGAGAGCCACGGCCGACCCCATCTCCATCCCCACCCTGCAGCAGCTCCCCAGTCCCT
CAGGCCGGCTGGCCCGTTCTCCAGCAGCAGGTGCGGCGCTCTGTCCCCATCCCAGTCC
CCACGCAGGTGCAGAATACCAGCGCATTGAGCGAAACCTGCAGTACCCACCCAGTTCC
AAACACCTCGGTCTCTGCCATCCGACGGTCAGGCAGCACCAGCCCCCTGGGCTTTGCAA
GGGCCAGCCCCTCGCCCCCTGCCACGCTGAGCATGGAGGCGTCTGGCCAGGAAGATGT
CTCTGGGTGGAGCGCCCTACACGCATCTCCTCAAGTTGGAACCATCCTGAGCGGC



[View online »](#)

```

CAGGCTGGAGCGGGACGCCCTCCCCACAGGGAGCTGAGATGCGGGGTGGCAGGTCCCCTC
GTCCAGGCTCCTGTGCACCCGAGCACTCTCCCCGCACTTCCGGGCTGGGCTGCCGCTGC
ACAGCGCCCCAACCTGTCTGACTTGCACGTCTCGCCCAAGCTGCCAAACCCCCCA
CGGACCCCTGGGAGCTGTGTTACAGCCACCACAGGCCAGCCCTCCCCAGCCGTCACG
GCCTGCAGTCTGCCGAACTGCGGGGCTCACCAAGCTGCCGACTTCTGCAGCGAA
ACCCCCGCCCCCATCTGGGCTCCCCACCAAGGCTGTGCCCTCCTTTGACTTCCCGA
AGACCCCGAGCTCCAGAACCTGCTGGCCCTCTAGCCCGCAGGGCGTGGTGTGACGC
CCCTCGAAACCGGACGCTGCCGACCTCTCGGAGGTGGGACCCTTCCATGGTCAGCCGT
TGGGCCCTGGCCTGCGGGCAGGGCAGGACCCCAAGGGCCCTTTGGCCGGTCTTTTCAGCA
CCAGCCGCTCACTGACCTGCTCCTTAAGGCGGCGTTTGGGACACAAGCCCCGGACCCGG
GCAGCACGGAGAGCCTGCAGGAGAAGCCCATGGAGATCGCACCCCTCAGCTGGCTTTGGAG
GGAGCCTGCACCCAGGAGCCGCTGCTGGGGCACCAGCAGCCCTTCCCCGGTGGTCTTCA
CCGTGGGCTCTCCCCGAGCGGGAGCACGCCCCCAGGGCCCCCGCACCAGGATGTTCT
CAGCGGGCCCCACTGGCTCTGCCAGCTTCTGCCCCGACCTGGTGCCTGGGCCCTGCA
GCGAGGCCCCAGCCCTGAGCTCCCTGCTCCAGGACACGGCTGCAGCTTTGCCGACCCCA
TTACTGCGAACCTGGAGGGGGCTGTGACCTTCGAGGCCCCCGACCTCCCTGAGGAGACCC
TCATGGAGCAAGAGCACACGGAGATCCTGCGTGGCCTGCGCTTACGCTGCTGTTTCGTGC
AGCACGCTCCTGGAGATCGCAGCCCTGAAGGGCAGCGCCAGTGAGGCGGGGGGGCCCTG
AGTACCAGCTGCAGGAGAGTGTGGTGGCCGACCAGATCAGCCTGCTGAGCCGAGAATGGG
GCTTCGCGGAACAGCTGGTGTGTACTTGAAGGTGGCCGAGCTACTGTCTCCGGCCTGC
AAAGTGCCATCGACCAGATCCGGGCCGGCAAGCTCTGCCTGTCTCCACTGTGAAGCAGG
TGGTGCGCAGGCTGAATGAGCTGTACAAGGCCAGCGTGGTGTCTGCCAGGGCCTGAGCC
TGCGGCTGCAGCGCTTCTCCTGGACAAGCAGCGGCTCCTGGACCGCATTACAGCATCA
CTGCCGAGAGGCTCATCTTCAGCCACGCTGTGCAGATGGTGCAGTCGGCTGCCCTGGACG
AGATGTTCCAGCACCGTGAAGGGTGCCTCCACGCTACCAAGGCCCTGCTGCTCCTGG
AGGGGCTGCAGCACATGCTCTCGGACCAGGCCGACATCGAGAACGTCACCAAGTGAAGC
TGTGCATTGAGCGGAGACTCTCGGCGCTGCTGACTGGCATCTGTGCCTGAG

```

Restriction Sites:

Please inquire

ACCN:

NM_003565

Insert Size:

3200 bp

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation:

The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM_003565.1.

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_003565.1, NP_003556.1</u>
RefSeq Size:	5228 bp
RefSeq ORF:	3153 bp
Locus ID:	8408
UniProt ID:	<u>O75385</u>
Cytogenetics:	12q24.33
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	mTOR signaling pathway, Regulation of autophagy
Gene 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]