

Product datasheet for **MC223326**

Ulk2 (NM_013881) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ulk2 (NM_013881) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ulk2
Synonyms: A830085I22Rik; AU015340; mKIAA0623; Unc51.2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC223326 representing NM_013881
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGTGGTGGGCGACTTCGAGTACTGCAAGCGGGACCTCGTGGGACACGGGGCCTTCGCTGTGGTCT
 TCCGGGGCGGCACCGCCAGAAAATGATTGGGAGGTGGCTATTAAGTATTAATAAAAAGAAGCTTGTG
 AAAATCACAAATCTGCTTGGAAAGGAAATAAAAATCTTAAAGGAGCTTCAGCATGAAAACATCGTAGCG
 CTCTATGATGTTGAGGAATTGCCAACTCTGTCTTCTGGTGATGGAGTATTGCAATGGTGGAGACTGG
 CAGATTATTTGCAAGCTAAAGGAACTCTGAGTGAAGATACTATCAGAGTGTTCATCAGATTGCGGC
 AGCCATGCGAATCTGCACAGCAAAGGATAATCCACAGGGATCTCAAACACAGAATATCCTGTTGTCT
 TATGCCAATCGAAGGAAGTCAATGTCAGTGGTATTTCGATTAATAAATAGCTGATTTTGGTTTCGCACGGT
 ACCTACATAGTAACACAATGGCAGCGCACTGTGTGGATCCCAATGTACATGGCTCCCGAGGTTATTAT
 GTCTCAACATTATGATGCTAAGGCAGATTTATGGAGCATAGGAACAGTGATCTATCAATGCCTAGTTGGA
 AAACACCTTTTCAGGCTAATAGTCCTCAGGACCTAAGGATGTTTTATGAAAAAACAGGAGCTTAATGC
 CTAGTATCCAGAGAAACATCACCTTACTTGGCTAATCTCCTTTGGGTTTGGTTCAGAGAAATCAAAA
 GGATAGAATGGACTTTGAAGCATTTTCAGCCATCCTTTTCCTTGAGCAAGTCCAGTTAAAAAATCTTGC
 CCAGTCCCAGTGCCTGTGTATTCTGGCCCTGTCCCTGGAAGCTCCTGCAGCAGCTCACCATCTTGTGCTG
 TTGCTTCTCCACCATCCCTTCCAGATATGCAGCATATTCAGGAAGAAAATTTATCCTCCCCACCGTTGGG
 TCCTCCAACTATCTACAGGTGTCCAAAGACTCTGCGAGTAATAGTAGCAAGAATCTTCTTGTGACACG
 GATGACTTTGTTTGGTTCCACACAACATCTCGTCAGACCACTCATATGACATGCCAATGGGGACTACGG
 CCAGACGTGCTTCAATGAATCTTTATGTGTGGAGGGCAGTGTCAACCTACTGTGTACCTCACAGCGA
 AACAGCCCAATCCAGTTCCTACTCAAGTAAGGAATTATCAGCGCATAGAACAGAATCTTATATCCACT
 GCCAGCTCTGGCACAACCCACATGGTTCTCAAGATCTGCAGTAGTACGAAGGTCTAATACCAGCCCCA
 TGGGCTTCTCCGGTGGGTCTGCTCCCTGTACCAGGAGACACAGTGCAGACAGGAGGACGAAGACT
 CTCTACTGGCTTCCAGGCCTTACTCACCATCCCTTTGGTTGGTACCATTCTGAACAGTTTAGTCAG



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TGCTGCTGTGGACATCCTCAGGGCCATGAAGCCAGGAGTAGGCACTCCTCAGTTCTCCAGTGCCACAGA
 CCCAGGCACCACAGTCACTCTTACTGGGTGCTAGACTGCAGAGTGCACCCACCCTCACCGATATCTATCA
 GAACAAGCAGAAGCTCAGAAAGCAGCACTCTGACCCTGTGTGCCGTCCCATGCTGGAGCTGGGTATAGT
 TACTCACCTCAGCCTAGTCGGCCTGGCAGCCTTGGGACCTCTCCACCAAGCACACGGGGTCTCTCCAC
 GGAATTCTGACTGGTTCTTTAAACTCCTTTACCAACAATCATTGGCTCTCTACTAAGACTACAGCTCC
 TTCAAATCCCTAAAACACAAGCATCTTCTAACCTGTTAGCCTTGTTACTCGTCATGGCCTGCTGAA
 AGCCAGTCCAAAGATGGGAATGACCCTCGTGAGTGTCCCACTGCCTCTCAGTACAAGGAAGCGAGAGGC
 ATCGATCTGAGCAGCAGCAGAGCAAGGAGTGTGGCAGATCTGTCAGTACTGGGAAGTTATCAGAACA
 ACAAGTAAAGGCACCTTTAGGTGGACACCAGGGCAGCAGGATAGTTTAAACACAGAACGACCAATGGAT
 GTAGTCTGCAGGAGCCTGTGGTGTATGCTGGCATTGCCAGCAGGAACAGCAGCAAGCGCCAGAGCTG
 TCCTCTTACCCTGGGTCTCCTCCACACAGTCCACAGCCCCACTTGTACTCATATGGTCTTGAAC
 AAGAACCACCTCAGTGGGTCCAGCAGCTCAGGAGTTCCTTGTGTTCTGCAAGTGGCCGAGTATGTGTG
 GGCTCCCCTCTGGACCAGGTTGGGCTCTCCACCAGGAGCAGAGGGAGCTCCAGCCTAAGATACG
 TGCTTATGGTGTTCACCACCCAGCCTAGAGGGTCTCATCACCTTTGAAGCCCCGAACTACCAGAGGA
 GCACTGATGGAGCGAGACACAGACACCTTACGCCATCTGAACATGATGTTAATGTTTACTGAGTGT
 GTGCTGGACCTGACGGCAGTGGGGTGGGAACCTGAGCTGTGCACATCTGCTGTGTCCTGTACCAGA
 TTCAGGAGAGTGTAGTTGTGGACCAGATCAGCCAGCTAAGCAAAGATTGGGGCGGGTGGAGCAGCTGGT
 GTTGATACATGAAGGCAGCACAGCTGCTGGCGGCTTCCCTGCATCTCGCCAAAGCTCAGGTCAAGTCTGG
 AAGCTGAGCCCATCCATGGCTGTGAAACAAGTTGTTAAAAATCTGAATGAAAGATACAAATTCTGCATCA
 CCATGTGCAAGAACTTACAGAAAAGCTGAATCGCTTCTTCTCCGATAAACAGAGATTTATTGATGAAAT
 CAACAGTGTGACTGCAGAGAACTATCTATAATTGTGCTGTGAAATGGTTCAATCTGCAGCCCTGGAT
 GAGATGTTTTCAGCAGACTGAAGACATCGTTTATCGCTACCACAAGGCAGCCCTTCTTTTGAAGGCTTAA
 GTAAGATCCTGCAGGACCCTACAGATGTTGAAAATGTGCATAAGTATAAATGTAGTATTGAAAGAAGATT
 GTCAGCACTCTGCTGTAGCACTGCAACTGTG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_013881
- Insert Size:** 3114 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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:**
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:** [NM_013881.4](#), [NP_038909.3](#)
- RefSeq Size:** 5813 bp

RefSeq ORF: 3114 bp

Locus ID: 29869

UniProt ID: [Q9QY01](#)

Cytogenetics: 11 B2

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 a negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR. Activated via phosphorylation by AMPK, also acts as a negative regulator of AMPK through phosphorylation of the AMPK subunits PRKAA1, PRKAB2 and PRKAG1. May phosphorylate ATG13/KIAA0652, FRS2, FRS3 and RPTOR; however such data need additional evidences. Not involved in ammonia-induced autophagy or in autophagic response of cerebellar granule neurons (CGN) to low potassium concentration. Plays a role early in neuronal differentiation and is required for granule cell axon formation: may govern axon formation via Ras-like GTPase signaling and through regulation of the Rab5-mediated endocytic pathways within developing axons.[UniProtKB/Swiss-Prot Function]