

## Product datasheet for **MR219200**

### **Ulk3 (NM\_027895) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ulk3 (NM_027895) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ulk3
Synonyms:	1200015E14Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR219200 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTGGGCCAGCTGGGGTCTCCCTCGGCTGGACGGTTTCATCCTTACCGAGCGCTGGGCAGTGGCA  
 CGTACGCCACGGGTACAAGGCCTACGCCAAGAAGGATACTCGGAAGTGGTAGCCATAAAATGCGTGGC  
 CAAGAAGAGTCTCAACAAGGCGTCAGTGGAAAACCTCCTGACTGAGATTGAGATCCTCAAGGGCATTTCGG  
 CACCCCATATCGTGCAGCTGAAAGACTCCAGTGGGACAATGACAATATCTACCTCATCATGGAGTTCT  
 GTGCAGGGGGTGACCTGTCTCGCTTCATTCATACCCGCAGGATCTGCCTGAGAAGGTGGCCCGTGT  
 CATGCAGCAGTTGGCTAGTGCCTGCAGTTCCTGCATGAACGAAACATCTCTCACTTGGATCTGAAACCG  
 CAGAACATCCTGTGAGCTCTTTGGAGAAGCCCCACCTGAACTGGCAGACTTTGGCTTTGCCAGCACA  
 TGTCCCGTGGGACGAAAAACACGTGCTCCGTGGCTCCCGCTCTATATGGCTCCTGAGATGGTGTGTCG  
 GCGGCAGTATGATGCGCGTGTGGACCTCTGGTCTGTGGGGGTGATCCTGTACGAAGCCCTCTTTGGCAG  
 CCCCCCTTGCCTCCAGATCGTTCTCAGAGCTAGAAGAAAAGATTGCGAGCAATCGGGTATTGAGCTCC  
 CTCTTCGGCCCCAACTCTCCCTAGACTGCCGGACCTGTTGCAGCGACTTCTAGAGCGGGACCCCGCCCG  
 TCGAATCTCCTCAAGGACTTCTTTGCCATCCCTGGGTGGACCTGGAGCACATGCCAGTGGGGAGAGC  
 CTGGCACAGGCAAGGGCCCTTGTGGTGGAGGCTGTGAAGAAGGACCAGGAGGGGGATGCTGCCGCTGCC  
 TGTCTGCTACTGCAAGGCTCTGGACTTCTTTGTACCTGCGCTACACTACGAAGTGGATGCCAGAGGAA  
 GGAGGCAATTAAGGCGAAGGTGGGACAGTATGTGTCCCGGCAGAGGAGCTCAAAGCCATTGTCTCTCC  
 TCCAATCAGGCCCTGCTAAGACAGGGCACAACGTCCAAGAGCTGCTTCGAGAGATGGCCCGTGACAAAC  
 CACGCTCCTGGCTGCCCTGGAAGTGGCTCAGCTGCCCTGGCCAAGGAGGAGGAAGCTGGCAAAGAGCA  
 GGATGCCCTGGACTGTACCAGCACAGCCTCGGGGAGCTGCTAGTGTGTTGGCAGCAGAGGCCCCAGGC  
 CGAAGGCGGGAGCTCCTTACACCGAGGTTCAGAACCTCATGGCTCGAGCTGAATACCTGAAGGAGCAGA  
 TCAAGATAAGGGAGTCTCACTGGGAAGCGGAGAGTCTGGACAAAGAGGGGCTGTCGGAGTCTGTTCTAG  
 TTCTTGCACACTGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR219200 protein sequence  
 Red=Cloning site Green=Tags(s)

MAGPSWGLPRLDGFILTERLGSPTYATVYKAYAKKDTREVVAIKCVAKKSLNKASVENLLTEIEILKGIR  
 HPHIVQLKDFQWDNDNIYLIMEFCAGGDLSRFIHTRRILPEKVARVFMQQLASALQFLHERNISHLDLKP  
 QNILLSSLEKPHLKLADFGFAQHMSPWDEKHLVLRGSPLYMAPEMVCRRQYDARVDLWSVGVILYEALFGQ  
 PPFASRSFSELEEKIRSNRVIPLRPQLSLDCRDLLQRLLERDPARRISFKDFFAHPWVDLEHMPSGES  
 LAQARALVVEAVKKDQEGDAAAALSLYCKALDFFVPALHYEVDAQRKEAIKAKVGQYVSRAEELKAIYSS  
 SNQALLRQGTTVQELLREMARKPRLAALVASAALAKEEEAGKEQDALDLYQHSLGELLVLLAAEAPG  
 RRRELLHTEVQNLMAAEYLKEQIKIRESHWEAESLDKEGLSESVRSSTLQ

**TR**TRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_027895

**ORF Size:** 1419 bp

**OTI Disclaimer:** 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:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_027895.1](#), [NP\\_082171.1](#)
**RefSeq Size:** 2826 bp

**RefSeq ORF:** 1419 bp

**Locus ID:** 71742

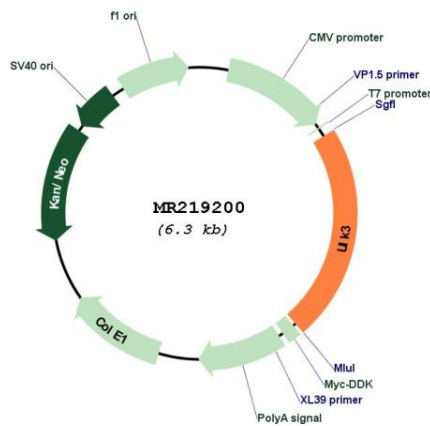
**UniProt ID:** [Q3U3Q1](#)

**Cytogenetics:** 9 B

**MW:** 53.6 kDa

**Gene Summary:** Serine/threonine protein kinase that acts as a regulator of Sonic hedgehog (SHH) signaling and autophagy. Acts as a negative regulator of SHH signaling in the absence of SHH ligand: interacts with SUFU, thereby inactivating the protein kinase activity and preventing phosphorylation of GLI proteins (GLI1, GLI2 and/or GLI3). Positively regulates SHH signaling in the presence of SHH: dissociates from SUFU, autophosphorylates and mediates phosphorylation of GLI2, activating it and promoting its nuclear translocation. Phosphorylates in vitro GLI2, as well as GLI1 and GLI3, although less efficiently. Also acts as a regulator of autophagy: following cellular senescence, able to induce autophagy (By similarity). [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR219200