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Product datasheet for RR216748

Ulk3 (NM_001271135) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ulk3 (NM_001271135) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ulk3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RR216748 representing NM_001271135
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGGGTCCGGCTGGGGTCTCCCTCGGCTGGACGGTTTCATCCTTACCGAGCGCCTGGGCAGTGGCA
CGTACGCCACGGTGTACAAGGCCTACGCCAAGAAGGCTACTCGGGAAGTGGTAGCCATAAAATGCGTGGC
CAAGAAAAGTCTCAACAAGGCGTCAGTGGAAAACCTCCTGACTGAGATTGAGATCCTCAAGGGCATTCGG
CACCCCCATATCGTGCAGCTGAAAGACTTCCAGTGGGACAATGACAATATCTACCTCATCATGGAGTTCT
GTGCAGGGGGTGACCTGTCTCGCTTCATCCATACCCGCAGGATTCTGCCTGAGAAGGTGGCCCGTGTTTT
CATGCAGCAGTTGGCTAGTGCCCTGCAGTTCCTGCATGAACGAAACATCTCTCACTTGGATCTGAAGCCG
CAGAACATCCTCCTGAGTTCTTTGGAGAAGCCCCACCTGAAACTGGCAGACTTTGGCTTTGCCCAGCATA
TGTCCCCGTGGGATGAGAAACATGTGCTTCGTGGCTCCCCGCTCTACATGGCTCCTGAGATGGTGTGTCG
GCGGCAGTATGACGCGCGTGTGGACCTCTGGTCTGTGGGGGTCATCCTGTACGAAGCTCTCTTTGGGCAG
CCTCCCTTTGCCTCCAGATCGTTCTCAGAGCTAGAAGAGAAGATTCGTAGCAATCGGGTTATTGAGCTCC
CTCTTCGGCCCCAACTCTCCCTAGACTGCCGGGACCTGTTGCAGCGACTTCTAGAGCGGGACCCCAGCCA
TCGAATCTCCTTTCAGGACTTCTTTGCCCACCCCTGGGTGGACCTGGAGCACATGCCTAGTGGGGAGAGC
CTGGCACAAGCAACAGCCCTTGTGGTGGAGGCCGTGAAGAAGGACCAGGAGGGGGACGCTGCTGCTGCCC
TGTCACTCTACTGCAAGGCCCTGGACTTCTTTGTACCTGCACTACACTACGAAGTGGATGCCCAGAGGAA
AGAGGCGATTAAGGCGAAGGTGGGGCAGTATGTGTCCAGGGCAGAGGAGCTCAAAGCCATTGTCTCCTCC
TCCAATCAGGCCCTGCTAAGGCAGGGCACAACTGGCCAAGAGCTGCTGCGAGAGATGGCCCGTGACAAGC
CACGCCTCCTAGCTGCCCTGGAAGTGGCCTCAGCTGCCATGGCCAAGGAGGAGGAAGCTGGCAAAGAGCA
GGATGCCCTGGACCTGTACCAGCACAGCCTCGGGGAGCTGCTACTGCTGTTGGCAGCAGAAGCCCCAGGC
CGAAGGCGGGAGCTCCTTCACACTGAGGTTCAGAACCTCATGGCTCGAGCTGAATACCTGAAGGAGCAGA
TCAAGATCAGGGAATCTCACTGGGAAGCAGAGAGTCTGGACAAAGAGGGGCTGTCGGAGTCTGTTCGAAG
TTCTTGCACACTGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

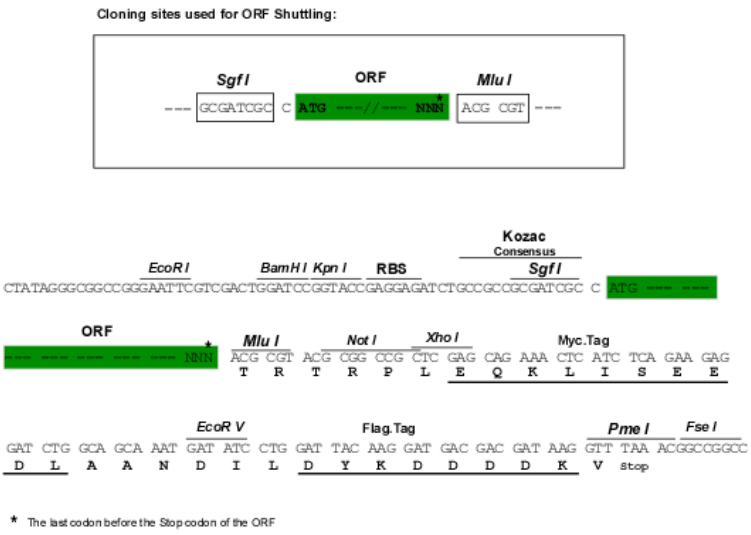
>RR216748 representing NM_001271135
Red=Cloning site Green=Tags(s)

MAGSGWGLPRLDGFILTERLGSGTYATVYKAYAKKATREVVAIKCVAKKSLNKASVENLLTEIEILKGIR
HPHIVQLKDFQWDNDNIYLIMEFCAGGDLSRFIHTRRILPEKVARVFMQQLASALQFLHERNISHLDLKP
QNILLSSLEKPHLKLADFGFAQHMSPWDEKHVLRGSPLYMAPEMVCRRQYDARVDLWSVGVILYEALFGQ
PPFASRSFSELEEKIRSNRVIELPLRPQLSLDCRDLLQRLLERDPSHRISFQDFFAHPWVDLEHMPSGES
LAQATALVVEAVKKDQEGDAAAALSLYCKALDFFVPALHYEVDAQRKEAIKAKVGQYVSRAEELKAIVSS
SNQALLRQGTTGQELLREMARDKPRLLAALEVASAAMAKEEEAGKEQDALDLYQHSLGELLLLLAAEAPG
RRRELLHTEVQNLMARAEYLKEQIKIRESHWEAESLDKEGLSESVRSSCTLQ

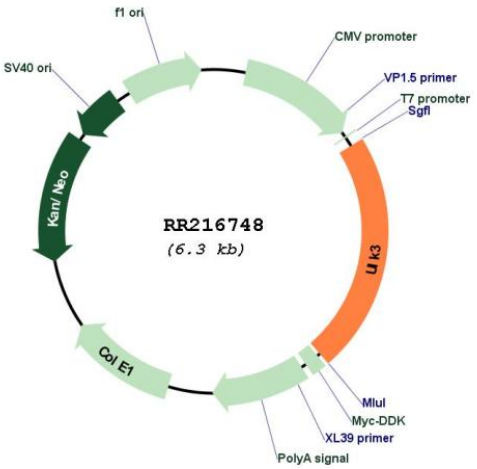
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001271135

ORF Size: 1416 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_001271135.1, NP_001258064.1
RefSeq Size:	1729 bp
RefSeq ORF:	1419 bp
Locus ID:	691171
UniProt ID:	D3ZHP7
Cytogenetics:	8q24
MW:	53.4 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]