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Product datasheet for RC211950

E2 230K (UBE2O) (NM_022066) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	E2 230K (UBE2O) (NM_022066) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	E2 230K
Synonyms:	E2-230K
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211950 representing NM_022066
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGATCCCGCAGCCCCCACGCCCGCAGCTCCCGCTCCAGCCCAGGCCCCGGCTCCAGCCCCGGAGG
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CGTGGCTCCGTGCACTTCGGGCTGGTGCGCCTCATCCACGGCGAGGACTCGGACTCGGAGGGCGAGGAGG
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CAACAGCAAGGACCTGCAGCACATCTGGCCCTTCATGTATGGGGACTACATTGCCTATGACTGCTGGCTG
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CGGAAGATGGCGCCAAGCTCTACGACGTCTGCCCGCACGTCAGCGACTCGGGTCTCTTCTTCGATGATTC
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CATGTCATGCTCCCCAGACACCCAGTGTTCCCGGGACCATTCCATGGAAGACCCAGACAAGAAGGGGGAA
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AGGCAGAGATGACAGGCTGCACTCGGCAGAGCAGGACGCAGATGATGAGGCTGCTGATGACACGGACGAC

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ACCAGTTCGGTGACCTCCTCTGCCAGCTCCACCACTTCCTCCCAGAGCGGCAGCGGCACGAGTCGCAAAA
AGAGCATCCCCTTGTCCATCAAGAACTTAAAGCGCAAACACAAGAGGAAGAAGAATAAAATCACTCGAGA
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Protein Sequence:

>RC211950 representing NM_022066
Red=Cloning site Green=Tags(s)

MADPAAPTPAAPAPAQAPAPAPEAVPAPAAAPVPAPAPASDSASGPSSDSGPEAGSQRLLFSHDLVSGRY
RGSVHFGLVRLIHGEDSDSEGEEEGRGSSGCSEAGGAGHEEGRASPLRRGYVRVQWYPEGVKQHVKETKL
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GKVYDLKNQIILKLSNGARCSMNTEDGAKLYDVCPHVSDSGLFFDDSYGFYPGQVLIGPAKIFSSVQWLS
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ERCLYVFPAKVEPAKIAWECPEKNCAQGEGSMAKKVKRLLKKQVVRIMSCSPDTQCSRDHSMEDPDKKGE
SKTKSEAESASPEETPDGSASPVEMQDEGAEEPHEAGEQLPPFLLKEGRDDRLHSAEQDADDEAADDTDD
TSSVTSSASSTTSSQSGSGTSRKKSIPLSIKNLKRKHKRKKNKITRDFKPGDRVAVEVVTTMTSADVMWQ
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VELIGEEEDVSVYDIADHPDFRFRTTDIVIRIGNTEDGAPHKEDEPSVGQVARVDVSSKVEVVWADNSKT
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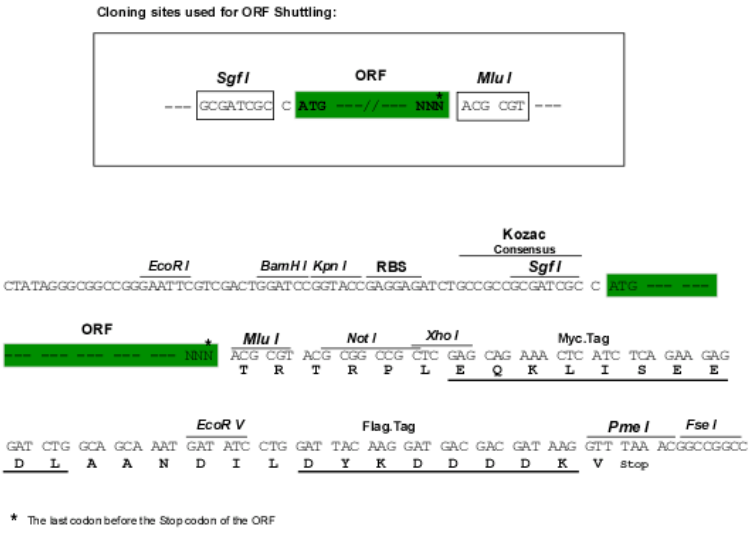
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8026_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022066

ORF Size: 3876 bp

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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_022066.4
RefSeq Size:	5073 bp
RefSeq ORF:	3879 bp
Locus ID:	63893
UniProt ID:	Q9C0C9
Cytogenetics:	17q25.1
Domains:	UBCc
Protein Pathways:	Ubiquitin mediated proteolysis
MW:	141.1 kDa
Gene Summary:	E2/E3 hybrid ubiquitin-protein ligase that displays both E2 and E3 ligase activities and mediates monoubiquitination of target proteins (PubMed:23455153, PubMed:24703950). Negatively regulates TRAF6-mediated NF-kappa-B activation independently of its E2 activity (PubMed:23381138). Acts as a positive regulator of BMP7 signaling by mediating monoubiquitination of SMAD6, thereby regulating adipogenesis (PubMed:23455153). Mediates monoubiquitination at different sites of the nuclear localization signal (NLS) of BAP1, leading to cytoplasmic retention of BAP1. Also able to monoubiquitinate the NLS of other chromatin-associated proteins, such as INO80 and CXXC1, affecting their subcellular location (PubMed:24703950). Acts as a regulator of retrograde transport by assisting the TRIM27:MAGEL2 E3 ubiquitin ligase complex to mediate 'Lys-63'-linked ubiquitination of WASHC1, leading to promote endosomal F-actin assembly (PubMed:23452853). [UniProtKB/Swiss-Prot Function]

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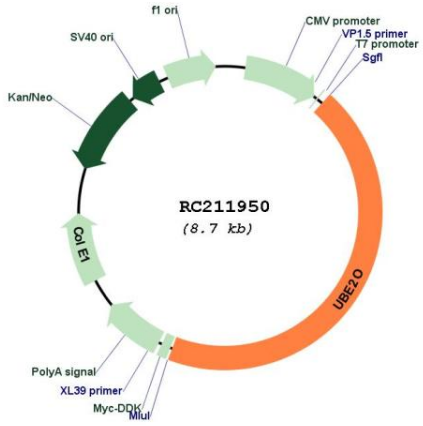
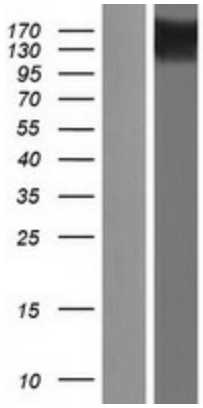
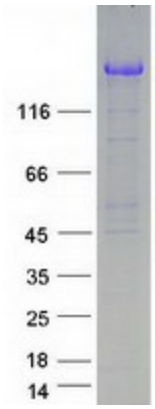
Product images:



Circular map for RC211950



Western blot validation of overexpression lysate (Cat# [LY411814]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211950 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified UBE2O protein (Cat# [TP311950]). The protein was produced from HEK293T cells transfected with UBE2O cDNA clone (Cat# RC211950) using MegaTran 2.0 (Cat# [TT210002]).

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