

Product datasheet for RC216165

UCP3 (NM_022803) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UCP3 (NM_022803) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	UCP3
Synonyms:	SLC25A9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216165 representing NM_022803 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTTGGACTGAAGCCTTCAGACGTGCCTCCACCATGGCTGTGAAGTTCCTGGGGCAGGCACAGCAG
 CCTGTTTTGCTGACCTCGTTACCTTTCCACTGGACACAGCCAAGGTCCGCCTGCAGATCCAGGGGAGAA
 CCAGGCGGTCCAGACGGCCCGGCTCGTGAGTACCGTGGCGTGTGGGCACCATCCTGACCATGGTGCGG
 ACTGAGGGTCCCTGCAGCCCCTACAATGGGCTGGTGGCCGGCCTGCAGCGCCAGATGAGCTTCGCCTCCA
 TCCGCATCGGCCTCTATGACTCCGTCAAGCAGGTGTACACCCCAAAGGCGCGGACAACCTCCAGCCTCAC
 TACCCGGATTTTGGCCGGCTGCACCACAGGAGCCATGGCGGTGACCTGTGCCAGCCACAGATGTGGTG
 AAGGTCCGATTTTCAGGCCAGCATACACCTCGGGCCATCCAGGAGCGACAGAAAATACAGCGGGACTATGG
 ACGCCTACAGAACCATCGCCAGGGAGGAAGGAGTCAGGGGCCTGTGGAAGGAACCTTTGCCCAACATCAT
 GAGGAATGCTATCGTCAACTGTGCTGAGGTGGTGACCTACGACATCCTCAAGGAGAAGCTGCTGGACTAC
 CACCTGCTCACTGACAACTTCCCTGCCACTTTGTCTCTGCCTTTGGAGCCGGCTTCTGTGCCACAGTGG
 TGGCCTCCCCGGTGGACGTGGTGAAGACCCGGTATATGAACCTCACCTCCAGGCCAGTACTTCAGCCCCCT
 CGACTGTATGATAAAGATGGTGGCCAGGAGGGCCCCACAGCCTTCTACAAGGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC216165 representing NM_022803
 Red=Cloning site Green=Tags(s)

MVGLKPSDVPPTMAVKFLGAGTAACFADLVTFPLDTAKVRLQIQGENQAVQTARLVQYRGVLGTILTMVR
 TEGPCSPYNGLVAGLQRQMSFASIRIGLYDSVKQYVTPKGADNSSLTTRILAGCTTGAMAVTCAQPTDVV
 KVRFAQASIHLPSSDRKYSGMTDAYRTIAREEGVRGLWKGTLNIMRNAIVNCAEVVTDILKEKLLDY
 HLLTDNFPCHFVSAFAGFCATVVASPDVVVKTRYMNSPPGQYFSPLDCKIMVAQEGPTAFYKG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8048_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022803

ORF Size: 825 bp

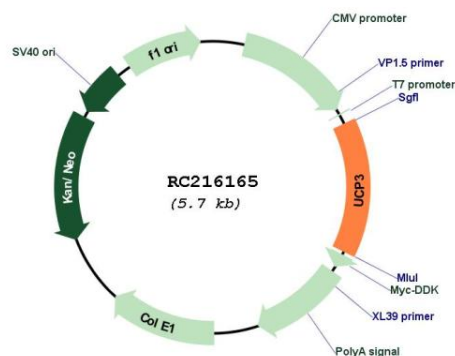
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

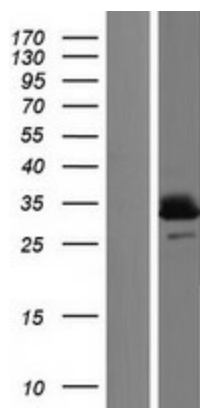
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_022803.2, NP_073714.1</u>
RefSeq Size:	1182 bp
RefSeq ORF:	828 bp
Locus ID:	7352
UniProt ID:	<u>P55916</u>
Cytogenetics:	11q13.4
Protein Families:	Druggable Genome
MW:	29.6 kDa
Gene Summary:	<p>Mitochondrial uncoupling proteins (UCP) are members of the larger family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. The different UCPs have tissue-specific expression; this gene is primarily expressed in skeletal muscle. This gene's protein product is postulated to protect mitochondria against lipid-induced oxidative stress. Expression levels of this gene increase when fatty acid supplies to mitochondria exceed their oxidation capacity and the protein enables the export of fatty acids from mitochondria. UCPs contain the three solcar protein domains typically found in MACPs. Two splice variants have been found for this gene.[provided by RefSeq, Nov 2008]</p>

Product images:



Circular map for RC216165



Western blot validation of overexpression lysate (Cat# [LY411548]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216165 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).