

Product datasheet for **RC220632**

UCP3 (NM_003356) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: UCP3 (NM_003356) 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: >RC220632 representing NM_003356
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTTGGACTGAAGCCTTCAGACGTGCCTCCCACCATGGCTGTGAAGTTCCTGGGGCAGGCACAGCAG
CCTGTTTTGCTGACCTCGTTACCTTTCCACTGGACACAGCCAAGGTCCGCCTGCAGATCCAGGGGAGAA
CCAGGGCGTCCAGACGGCCCGGCTCGTGCAGTACCGTGGCGTGTGGCACCATCCTGACCATGGTGCGG
ACTGAGGGTCCCTGCAGCCCTACAATGGGCTGGTGGCCGGCCTGCAGCGCCAGATGAGCTTCGCCTCCA
TCCGCATCGGCCCTATGACTCCGTCAAGCAGGTGTACACCCCAAAGGCGCGGACAACCTCCAGCCTCAC
TACCCGGATTTTGGCCGGCTGCACCACAGGAGCCATGGCCGGTACCTGTGCCAGCCACAGATGTGGTG
AAGGTCGGATTTCAAGCCAGCATACACCTCGGGCCATCCAGGAGCGACAGAAAATACAGCGGGACTATGG
ACGCCTACAGAACCATCGCCAGGGAGGAAGGAGTCAAGGGCCTGTGGAAAGGAACTTTGCCAACATCAT
GAGGAATGCTATCGTCAACTGTGCTGAGGTGGTGACCTACGACATCCTCAAGGAGAAGCTGCTGGACTAC
CACCTGCTCACTGACAACCTCCCTGCCACTTTGTCTCTGCCTTTGGAGCCGGCTTCTGTGCCACAGTGG
TGGCCTCCCGGTGGACGTGGTGAAGACCCGGTATATGAACCTCACCTCCAGGCCAGTACTCAGCCCCCT
CGACTGTATGATAAAGATGGTGGCCAGGAGGGCCCCACAGCCTTCTACAAGGGATTTACACCCTCCTTT
TTGCGTTTGGGATCCTGGAACGTGGTGTGTTTCGTAACCTATGAGCAGCTGAAACGGGCCCTGATGAAAG
TCCAGATGTTACGGGAATCACCGTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC220632 representing NM_003356
Red=Cloning site Green=Tags(s)

MVGLKPSDVPPTMAVKFLGAGTAACFADLVTFFPLDTAKVRLQIQGENQAVQTARLVQYRGVLGTILTMVR
 TEGPCSPYNGLVAGLQRQMSFASIRIGLYDSVKQVYTPKGADNSSLTTRILAGCTTGAMAVTCAQPTDVV
 KVRFAQASIHLPSSRDRKYSGMTDAYRTIAREEGVRGLWKGTLNIMRNAIVNCAEVVYDILKEKLLDY
 HLLTDNFPCHFVSFAFGAGFCATVVASPDVVKTRYMNSPPGQYF SPLDCMIKMQAEGPTAFYKGF T P S F
 LRLGSWNVVMFVTYEQLKRALMKVQMLRESPF

TRTRPLEQKLISEEDLAANDILDYKDDDDK

Chromatograms: https://cdn.origene.com/chromatograms/mk6172_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003356

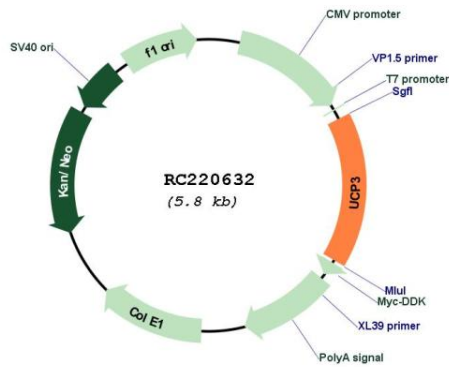
ORF Size: 936 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

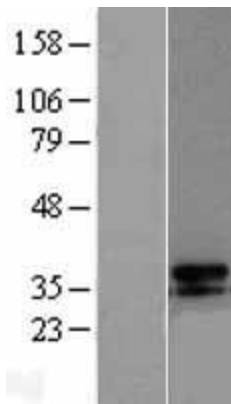
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
RefSeq:	NM_003356.4
RefSeq Size:	2263 bp
RefSeq ORF:	939 bp
Locus ID:	7352
UniProt ID:	P55916
Cytogenetics:	11q13.4
Domains:	mito_carr
Protein Families:	Druggable Genome
MW:	34 kDa
Gene Summary:	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]

Product images:



Circular map for RC220632



Western blot validation of overexpression lysate (Cat# [LY401147]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220632 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).