

Product datasheet for SC111702

UCP3 (NM_003356) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UCP3 (NM_003356) Human Untagged Clone
Tag:	Tag Free
Symbol:	UCP3
Synonyms:	SLC25A9
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC111702 sequence for NM_003356 edited (data generated by NextGen Sequencing)

```

ATGGTTGGACTGAAGCCTTCAGACGTGCCTCCCACCATGGCTGTGAAGTTCCTGGGGCA
GGCACAGCAGCCTGTTTTGCTGACCTCGTTACCTTTCCACTGGACACAGCCAAGTCCGC
CTGCAGATCCAGGGGAGAACCAGGCGGTCCAGACGGCCCGGCTCGTGAGTACCGTGGC
GTGCTGGGCACCATCCTGACCATGGTGGGACTGAGGGTCCCTGCAGCCCTACAATGGG
CTGGTGGCCGGCCTGCAGCGCCAGATGAGCTTCGCCTCCATCCGCATCGGCCTCTATGAC
TCCGTCAAGCAGGTGTACACCCCAAAGGCGGGACAACCTCCAGCCTCACTACCCGGATT
TTGGCCGGCTGCACCACAGGAGCCATGGCGGTGACCTGTGCCAGCCACAGATGTGGTG
AAGGTCCGATTTAGGCCAGCATACACCTCGGGCCATCCAGGAGCGACAGAAAATACAGC
GGGACTATGGACGCCTACAGAACCATCGCCAGGGAGGAAGGAGTCAGGGGCCTGTGAAA
GGAACCTTTGCCAACATCATGAGGAATGCTATCGTCAACTGTGCTGAGGTGGTGACCTAC
GACATCCTCAAGGAGAAGCTGCTGGACTACCACCTGCTCACTGACAACCTCCCCTGCCAC
TTTGTCTCTGCCTTTGGAGCCGGCTTCTGTGCCACAGTGGTGGCCTCCCCGGTGGACGTG
GTGAAGACCCGGTATATGAACTCACCTCCAGGCCAGTACTTCAGCCCCCTCGACTGTATG
ATAAAGATGGTGGCCAGGAGGGCCCCACAGCCTTCTACAAGGGATTTACACCCTCCTTT
TTGCGTTTGGGATCCTGGAACGTGGTGTGTTTCGTAACCTATGAGCAGCTGAAACGGGCC
CTGATGAAAGTCCAGATGTTACGGGAATCACCGTTTTGA

```

Clone variation with respect to NM_003356.3



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003356 unedited
 ACAGTAGTTTTGTAAAACCCACGCTCTGGGGTGGCGGCAAAAACTTCGGCACGAGGATA
 TTTAGCACATAGTAGGCACAAAGAAATGACATTATTATTAAGAGACCTGGGAGAGCTGTG
 CCCAGCCTATCGTGGGAGGCCTTGACCTTTGGACTCAAAGTGGCAGCAGGTCCACCCCC
 CCATACACCCTTGTACCAAGGAAGCGTCCACAGCTTATAGTCGTATATTAAGCACCC
 CAAGTCAAGAGGACTGAACCAGATCTGGAACACTCACCTCCCCTCTCACCTCACTGCC
 CTCACCAGCCAGCCTCTTGTCAAGTGATCAGGCTGTCAACCAACTTCTCTAGGATAAGGT
 TTCAGGTAGCCCGTGTGTATAAGACCAGTGCCAAGCCAGAAGCAGCAGAGACAACAGTG
 AATGACAAGGAGGGGCCATCCAATCCCTGCTGCCACCTCCTGGGATGGAGCCCTAGGGAG
 CCCCTGTGCTGCCCTGCCGTGGCAGGACTCACAGCCCCACCGCTGCACTGAAGCCCATG
 GCTGTGGAGCAGCCTCTCTCCTTGGACCTCTCTCGGCCCTAAAGGGACTGGCAGAGCC
 TTCCAGGACTATGGTTGGACTGAAGCCTTCAGACGTGCCTCCACCATGGCTGTGAAGTT
 CCTGGGGCAAGCACAGCAGCCTGTTTTGCTGACCTCGTTACCTTTCCACTGGACACAGC
 CAATGTCCGCCTGCAGATCCAGGGGGGAGAACCATGCGGTCCAGACAGCCCGGCTCGTGC
 AGTACCGTGGCGTCTGGCACCATCCCTGACATGGTGGGACTGAGGGTCCCTGCAGCC
 CCTACAATGGGCTGGTGGCCCGGCTGCAACGCCAGATGAGCCTCGCCTNCATCCCGAT
 AGGCCTCTATGACTTCGTC AAGCAGTGTACACCCCAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_003356 unedited
 GGCACGCATTCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTCTTACTCCCACACCTAAGGTG
 TGAATTTTATTGAGTCATAATAATTTCCCGAGAATCCGAGTCTGCTACTTTAGGT
 TCTTGCCAGGAATCCACCTCTTTTCCCCAAGCCCAACAATCCTTTGAGGACTCATGA
 TTGAGCGCGTGGTGGGGGGGGTGGGAAGAGGCTGCATGGGGTGGGGCTCCTGTGGTT
 TCACGTTATTCAGTGAACCTCTGGTCCCCAAGAATATGGATCCTTTGGTATCACCTATA
 CACAACCGAATATTCAAACCTTCTCCCTGGCAACTACTCTCTGCCCGACTCAATCTC
 TTCAAAGGCCCTTGCTCTTGCTCTTACATTACACACAGCTTGTGCTTTTATAAAGCGCG
 TCTATGCCTACCTTACCCTTGCTGCCTTACTCCTTCTGGCGCCGCGGACAGGCAAGGG
 ACGGCCCTCCCTCCCGACCAAGTGGCGACTGCCCTTTCGCTTCTCCCTCGCCTTCT
 CGTCTACTCCTATCTCTTCCCTAATTGGCGCCCGTCCGCACCTCCTCACATAGCTACA
 CCCTCCTCCCTCGACCTCGCTCTCCACACCCCTCTTGTGTCATCGTCGCCTCCTTCCA
 TCCTTTCTCGTCCGACTCTTTTACGTTACACTCCCCCTCCAACCTCCGCTCCTTCT
 ATCCCCCTCCTTCCCCCCCCCTCCCTTCTCTTATCTCATTTTCTCTTTTATTCTCT
 TCTCTCCTCTCTTTTCCCCCTCTCTCTTCTCTCTACTCCATATATTTCTCTTT
 CTTTCCACCCCTCAACCATTCTTCTCTCTCTCCCTCCACTTCCACTTCCACTTTCC
 GTTCACTCCTCATCTACTTTTTTCTACTATTGTCCACCCTCACTCTCT

Restriction Sites:

NotI-NotI

ACCN:

NM_003356

Insert Size:

2660 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](#)

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_003356.2](#), [NP_003347.1](#)

RefSeq Size: 2263 bp

RefSeq ORF: 939 bp

Locus ID: 7352

UniProt ID: [P55916](#)

Cytogenetics: 11q13.4

Domains: mito_carr

Protein Families: Druggable Genome

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]

Transcript Variant: This variant (long) encodes the full length isoform.