

Product datasheet for **SC309578**

UCP3 (NM_022803) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UCP3 (NM_022803) Human Untagged Clone
Tag:	Tag Free
Symbol:	UCP3
Synonyms:	SLC25A9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC309578 representing NM_022803. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGTTGGACTGAAGCCTTCAGACGTGCCTCCCACCATGGCTGTGAAGTTCCTGGGGCAGGCACAGCA
GCCTGTTTTGCTGACCTCGTTACCTTTCCACTGGACACAGCCAAGGTCCGCCTGCAGATCCAGGGGGAG
AACCAGGCGGTCCAGACGGCCCGCTCGTGCAGTACCGTGGCGTGTGGCCACCATCCTGACCATGGTG
CGGACTGAGGGTCCCTGCAGCCCTACAATGGGCTGGTGGCCGGCCTGCAGCGCCAGATGAGCTTCGCC
TCCATCCGCATCGCCTCTATGACTCCGTCAAGCAGGTGTACACCCCAAAGGCGCGGACAACCTCCAGC
CTCACTACCCGGATTTTGGCCGGCTGCACCACAGGAGCCATGGCGGTGACCTGTGCCAGCCACAGAT
GTGGTGAAGTCCGATTTTCAAGCCAGCATACACCTCGGGCCATCCAGGAGCGACAGAAAAATACAGCGGG
ACTATGGACGCCCTACAGAACCATCGCCAGGGAGGAAGGAGTCAGGGGCCTGTGAAAGGAACCTTTGCC
AACATCATGAGGAATGCTATCGTCAACTGTGCTGAGGTGGTGACCTACGACATCCTCAAGGAGAAGCTG
CTGGACTACCACCTGCTCACTGACAACCTCCCCTGCCACTTTGTCTCTGCCTTTGGAGCCGGCTTCTGT
GCCACAGTGGTGGCCTCCCGGTGGACGTGGTGAAGACCCGGTATATGAACCTCACCTCCAGGCCAGTAC
TTCAGCCCCCTCGACTGTATGATAAAGATGGTGGCCAGGAGGGCCCCACAGCCTTCTACAAGGGGTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites:	Sgfl-MluI
Plasmid Map:	□
ACCN:	NM_022803
Insert Size:	828 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_022803.2</u>
RefSeq Size:	2239 bp
RefSeq ORF:	828 bp
Locus ID:	7352
UniProt ID:	<u>P55916</u>
Cytogenetics:	11q13.4
Protein Families:	Druggable Genome
MW:	29.8 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]

Transcript Variant: This variant (short) encodes a protein which is different at the C-terminus from isoform UCP3L. It has an incomplete sixth transmembrane domain and an incomplete purine nucleotide binding domain. Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The extent of this RefSeq transcript is supported by transcript alignments.