

Product datasheet for **SC118051**

UCP2 (NM_003355) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UCP2 (NM_003355) Human Untagged Clone
Tag:	Tag Free
Symbol:	UCP2
Synonyms:	BMIQ4; SLC25A8; UCPH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_003355.2
 TGTCCACGCTCGCCCGGCTCGTCCGACGCGCCCTCCGCCAGCCGACAGACACAGCCGCAC
 GCACTGCCGTGTTCTCCCTGCGGCTCGGACACATAGTATGACCATTAGGTGTTTCGTCTC
 CCACCCATTTTCTATGGAAAACCAAGGGGATCGGGCCATGATAGCCACTGGCAGCTTTGA
 AGAACGGGACACCTTTAGAGAAGCTTGATCTTGGAGGCCCTACCGTGAGACCTTACAAG
 CCGGATTCCGGCAGAGTTCCTCTATCTCGTCTTGTGCTGATTAAGGTGCCCTGTCTC
 CAGTTTTTCTCCATCTCCTGGGACGTAGCAGAAATCAGCATCATGGTTGGTTCAAGGC
 CACAGATGTGCCCTACTGCCACTGTGAAGTTTCTTGGGGCTGGCACAGCTGCCTGCAT
 CGCAGATCTCATCACCTTTCCTCTGGATACTGCTAAAGTCCGGTTACAGATCCAAGGAGA
 AAGTCAGGGGCCAGTGCGCGCTACAGCCAGCGCCAGTACCGGGTGTGATGGGCACCAT
 TCTGACCATGGTGCCTACTGAGGGCCCCGAAGCCTCTACAATGGGCTGGTTGCCGGCT
 GCAGCGCCAAATGAGCTTTCCTCTGTCCGCATCGGCCTGTATGATTCTGTCAAACAGTT
 CTACACCAAGGGCTCTGAGCATGCCAGCATTGGGAGCCGCCTCCTAGCAGGCAGCACCAC
 AGGTGCCCTGGCTGTGGCTGTGGCCAGCCACGGATGTGGTAAAGGTCCGATTCCAAGC
 TCAGGCCCGGGCTGGAGGTGGTGGAGATACCAAAGCACCGTCAATGCCTACAAGACCAT
 TGCCCCAGAGGAAGGGTTCCGGGGCCTCTGGAAAGGGACCTCTCCAATGTTGCTCGTAA
 TGCCATTGTCAACTGTGCTGAGCTGGTGACCTATGACCTCATCAAGGATGCCCTCTGAA
 AGCCAACCTCATGACAGATGACCTCCCTTGCCACTTCACTTCTGCCTTTGGGGCAGGCTT
 CTGACCACCTGTATCGCTCCCTGTAGACGTGGTCAAGACGAGATACATGAACTCTGC
 CCTGGGCCAGTACAGTAGCGTGGCCACTGTGCCCTTACCATGCTCCAGAAGGAGGGGCC
 CCGAGCCTTCTACAAAGGGTTTATGCCCTCCTTCTCCGTTGGGTTCTGGAACGTGGT
 GATGTTTCGTACCTATGAGCAGCTGAAACGAGCCCTCATGGCTGCCTGCCTTCCCGAGA
 GGCTCCCTCTGAGCCTCTCCTGCTGACCTGATCACCTCTGGCTTTGTCTCTAGCG
 GGCCATGCTTTCTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT
 TTCCCCACCTTCTTCTTCCGCTCCTTTACCTACCACCTTCCCTCTTCTTCTTCTTCTTCT
 TACTCATTGTCTCAGTGTGGTGGAGTTGACATTTGACAGTGTGGGAGGCCTCGTACCAG
 CCAGGATCCCAAGCGTCCCGTCCCTTGGAAAGTTCAGCCAGAATCTTCGCTCCTGCCCCG
 ACAGCCCAGCCTAGCCCCTTGCATCCATAAAGCAAGCTCAACCTTGAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: NotI-NotI

ACCN: NM_003355

Insert Size: 1660 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_003355.2](#), [NP_003346.2](#)

RefSeq Size: 1646 bp

RefSeq ORF: 930 bp

Locus ID: 7351

UniProt ID: [P55851](#)

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. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H⁺/OH⁻ are not known. UCPs contain the three homologous protein domains of MACPs. This gene is expressed in many tissues, with the greatest expression in skeletal muscle. It is thought to play a role in nonshivering thermogenesis, obesity and diabetes. Chromosomal order is 5'-UCP3-UCP2-3'. [provided by RefSeq, Jul 2008]