

Product datasheet for **SC305606**

Melanopsin (OPN4) (NM_033282) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Melanopsin (OPN4) (NM_033282) Human Untagged Clone
Tag:	Tag Free
Symbol:	Melanopsin
Synonyms:	MOP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:	>OriGene sequence for NM_033282 edited <pre> GCTCCCTGTGCCCTTGTACTTCTGTGGGCTCGAGCAAGGACCATCCCAACTCAGGATGA ACCCTCCTTCGGGGCCAAGAGTCTGCCAGCCCAACCAAGAGCCAGCTGCATGGCCA CCCCAGCACCACCAGCTGGTGGGACAGCTCCCAGAGCAGCATCTCCAGCCTGGGCCGGC TTCCATCCATCAGTCCCACAGCACCTGGGACTTGGGCTGCTGCCTGGGTCCTCCCTCCCA CGGTTGATGTTCCAGACCATGCCACTATACCTGGGCACAGTGATCTTGCTGGTGGGAC TCACGGGGATGCTGGGCAACCTGACGGTCATCTATACCTTCTGCAGGAGCAGAAGCCTCC GGACACCTGCCAACATGTTCAATTATCAACCTCGCGGTACGCGACTTCTCATGTCTTCA CCCAGGCCCTGTCTTCTTACCAGTAGCCTCTATAAGCAGTGGCTCTTTGGGGAGACAG GCTGCGAGTTCTATGCCTTCTGTGGAGCTCTTTGGCATTTCCTCCATGATCACCCTGA CGGCCATCGCCCTGGACCGCTACCTGGTAATCACACGCCCGCTGGCCACCTTTGGTGTGG CGTCCAAGAGGCGTGGGCATTTGTCTGCTGGGCGTTTGGCTCTATGCCCTGGCCTGGA GTCTGCCACCCTTCTTCGGCTGGAGCGCCTACGTGCCGAGGGGTGCTGACATCCTGCT CCTGGGACTACATGAGCTTCACGCCGGCCGTGCGTGCCTACACCATGCTTCTCTGCTGCT TCGTGTTCTTCTCCCTCTGCTTATCATCATCTACTGCTACATCTTCATCTTCAGGGCCA TCCGGGAGACAGGACGGGCTCTCCAGACCTTCGGGGCCTGCAAGGGCAATGGCGAGTCCC TGTGGCAGCGGCAGCGGCTGCAGAGCGAGTGCAAGATGGCCAAGATCATGCTGCTGGTCA TCCTCCTCTTCTGCTCTCCTGGGCTCCCTATTCGGCTGTGGCCCTGGTGGCCTTTGCTG GGTACGCACACGTCTGACACCCTACATGAGCTCGGTGCCAGCCGTATCGCCAAGGCT CTGCAATCCACAACCCCATCATTTACGCCATCACCCACCCCAAGTACAGGGTGGCCATTG CCCAGCACCTGCCCTGCCCTGGGGGTGCTGCTGGGTGTATCACGCCGCACAGTCGCCCT ACCCAGCTACCGCTCCACCCACCGCTCCACGCTGACCAGCCACACCTCCAACCTCAGCT GGATCTCCATACGGAGGCGCCAGGAGTCCCTGGGCTCGGAGAGTGAGGTGGGCTGGACAC ACATGGAGGCAGCAGCTGTGTGGGAGCTGCCAGCAAGCAAAATGGGCGGTCCCTTACG GTCAGGGTCTGGAGGACTTGGAAGCCAAGGCACCCCCAGACCCAGGGACACGAAGCAG AGACTCCAGGGAAGACCAAGGGGCTGATCCCCAGCCAGGACCCAGGATGTAGGACGCC ACTGGCTCTCCCTTTCTTCTGAGACACATCCAGCCCCCCCACGTCTCCCTCATATACACA GACCCAGGATTATGCTGTGAGCCTGCAGGCTTTGGAAGTGGCCCTGTACCCGTGCTGCA CGGGATTACAGCCCCAGCCCCATGGCCCTCTCCACACCTCAAACTCCTGCCCATAA CGTCTCCGATCACTTTCCAGCTCAGCAGCCGACCCGAGGCTCAGCCTGAGGGGTGT GTGCCAGGCCCTCCCACTTCCGAGTTGTCTGCCTCTCTCAAATGCTGTGTGTGCAA TTGTCCAGGCGATGACAATGGTGATGGCTCCAGAGAACACACCAGCTATTATGAGCCTC TGCCCCAGGCTGGGCTGTCACTGGCATAGGAAGGCCA </pre>
Restriction Sites:	Please inquire
ACCN:	NM_033282
Insert Size:	1900 bp
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:	The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM_033282.2.
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:	<u>NM_033282.2, NP_150598.1</u>
RefSeq Size:	2308 bp
RefSeq ORF:	1437 bp
Locus ID:	94233
UniProt ID:	<u>Q9UHM6</u>
Cytogenetics:	10q23.2
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene projected to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (1) represents the shorter transcript and encodes the shorter isoform (1).