

Product datasheet for **SC118656**

MC1 Receptor (MC1R) (NM_002386) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MC1 Receptor (MC1R) (NM_002386) Human Untagged Clone
Tag:	Tag Free
Symbol:	MC1 Receptor
Synonyms:	CMM5; MSH-R; SHEP2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_002386 edited
 ATGGCTGTGCAGGGATCCCAGAGAAGACTTCTGGGCTCCCTCAACTCCACCCCCACAGCC
 ATCCCCCAGCTGGGGCTGGCTGCCAACCAGACAGGAGCCCGGTGCCTGGAGGTGCCATC
 TCTGACGGCTCTTCTCAGCCTGGGGCTGGTGAGCTTGGTGGAGAACCGCTGGTGGTG
 GCCACCATCGCCAAGAACCAGAACCTGCACTCACCCATGTAAGTCTTCTGCTGCCTG
 GCCTTGTGCGACCTGCTGGTGGAGCGGGAGCAACGTGCTGGAGACGGCCGTCATCCTCTG
 CTGGAGGCCGGTGCAGTGGTGGCCCGGGCTGCGGTGCTGCAGCAGCTGGACAATGTCATT
 GACGTGATCACCTGCAGCTCCATGCTGTCCAGCCTCTGCTTCTGGGCGCCATCGCCGTG
 GACCGCTACATCTCCATTTCTACGCACTGCGCTACCACAGCATCGTGACCCTGCCGCGG
 GCGCGGAAGCCGTTGCGCCATCTGGGTGGCCAGTGTGCTTTCAGCACGCTCTTCATC
 GCCTACTACGACCAGTGGCCGTCCTGCTGTGCCTCGTGGTCTTCTTCTGGCTATGCTG
 GTGCTCATGGCCGTGCTGTACGTCCACATGCTGGCCCGGGCTGCCAGCACGCCAGGGC
 ATCGCCCGGCTCCACAAGAGGCAGCGCCCGGTCCACCAGGGCTTTGGCCTTAAAGGCGCT
 GTCACCCTCACCATCCTGCTGGGCATTTTCTTCTCTGCTGGGGCCCTTCTTCTGCTG
 CTCACACTCATCGTCTCTGCCCGAGCACCCACGTGCGGTGCATCTTCAAGAAGTTC
 AACCTCTTCTCGCCCTCATCATCTGCAATGCCATCATCGACCCCTCATCTACGCCCTC
 CACAGCCAGGAGCTCCGCAGGACGCTCAAGGAGGTGCTGACATGCTCCTGGTGA



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002386 unedited
 CCCCCCGTTTGAATGTATACGACTCATATAGGCGGCCTGCGAATCGGCACGAGGGC
 AGGGAGGGAGCTGAGGACCAGGCTTGGTTGTGAGAATCCCTGAGCCCAGGCGTTGATGC
 CAGGAGGTGTCTGGACTGGCTGGGCCATGCCTGGGCTGACCTGTCCAGCCAGGGAGAGGG
 TGTGAGGGCAGATCTGGGGGTGCCAGATGGAAGGAGGCAGGCATGGGGGACACCCAAGG
 CCCCCTGGCAGCACCATGAACTAAGCAGGACACCTGGAGGGGAAGAACTGTGGGGACCTG
 GAGGCTCCAACGACTCCTTCTGCTTCTGGACAGGACTATGGCTGTGCAGGGATCCCA
 GAGAAGACTTCTGGGCTCCCTCAACTCCACCCACAGCCATCCCCAGCTGGGGCTGGC
 TGCCAACCAGACAGGAGCCCGTGCCTGGAGGTGCCATCTCTGACGGGCTCTTCTCAG
 CCTGGGGCTGGTGGAGCTTGGTGGAGAACGCGCTGGTGGTGGCCACCATCGCCAAGAACC
 GAACCTGCACTCACCCATGTACTGCTTCTGCTGCCTGGCCTTGTCCGACCTGCTGGT
 GAGCGGGAGCAACGTGCTGGAGACGGCCGTCATCCTCCTGCTGGAGGCCGGTGCCTGGT
 GGCCCGGGCTGCGGTGCTGCAGCAGCTGGACAATGTCATTGACGTGATCACCTGCAGCTC
 CATGCTGTCCAGCCTCTGCTTCTGGGCGCCATCGCCGTGGACCGCTACATCTNCATCTT
 CTACGCACTGCGCTACCACAGCATCGTGACCCTGCCGCGNCGCTGCAAGCCGTTGCTGC
 CATCATGGTGGCCAGTGTGCTTTCAGCACC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002386 unedited
 CCCCAGAAATTGTGTGNACCGCGNCCGCATTTTACGATCGAGTTTTTTTTTTTTTTTTT
 TTTTTTTTTTGGGGGATGCTGAGTCACATTTATTACCAGACTTCTGCCCCATGCTCA
 CAGGCACTGGTCACTGAGTCAGGCATTTGCCAGGGCTGTCTGCTTGGGCGACTGCTGCAG
 GAAAGCAGGCTGAGGCCCACTGCCAGTCTGAGCCTTAGAACCGGCCCTTAGGAGGGCT
 CAGCCCCATACCACTAGGGGGCTCCTGCAAACCTGGTCCCTTGGCCTGAGGCAGGGATT
 TCACCTCCTTTTGCAGGAGCCGCTGCAAGGCTGTGGATGAAGCTTCTGCTCACAAAGCC
 CCTTCTCCTGGGGCTGCTGTGGGAGTAGCTTGGCACACACTTCCACCCAGAGACTTCA
 CATCCCAGCTGACGAGGGCACGGTCTGAGAGCTGGCAGCAAAGATGGGGTGGGGTGGAT
 GCTGCTCAGTCATTGGAGCAGACGGAGTGTCCCAGGAGTGGGCGGAAAATGTCTCTTTAG
 GAGCCTGAGGTTGGCCCTGGTGGCCGGAGCCTGAGGCCCCACAACCTCCCCATGCTCTC
 CTCCGTTCCCCACGACTGCTGGTGAAGTCTGCCTGGAGTTTTGCAGGGACCCCTCCC
 TGGACCCAGAAGGGTCCGCGCTTCAACTTTTCAAGATCATTAGTCCATCCTCTTTGA
 CAAACGGGGACCAAGGAGGTAAGGAACTGCCCTAGGTCTCACAGGAACCAAGCCACAAT
 ATTACCCTTCTCTGCCCAGCACACTTAAAGCCGCGTGCACCCGCTCACAGGAGCA
 TGTGAGCACCTTCTTTGACGTCCTTGCNACTCCTGGGCTGTGAAGGCGTACATGAGGGG
 GTCATGATG

Restriction Sites:

NotI-NotI

ACCN:

NM_002386

Insert Size:

2300 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).

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_002386.2](#), [NP_002377.3](#)

RefSeq Size: 2400 bp

RefSeq ORF: 954 bp

Locus ID: 4157

UniProt ID: [Q01726](#)

Cytogenetics: 16q24.3

Domains: 7tm_1

Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Melanogenesis, Neuroactive ligand-receptor interaction

Gene Summary: This intronless gene encodes the receptor protein for melanocyte-stimulating hormone (MSH). The encoded protein, a seven pass transmembrane G protein coupled receptor, controls melanogenesis. Two types of melanin exist: red pheomelanin and black eumelanin. Gene mutations that lead to a loss in function are associated with increased pheomelanin production, which leads to lighter skin and hair color. Eumelanin is photoprotective but pheomelanin may contribute to UV-induced skin damage by generating free radicals upon UV radiation. Binding of MSH to its receptor activates the receptor and stimulates eumelanin synthesis. This receptor is a major determining factor in sun sensitivity and is a genetic risk factor for melanoma and non-melanoma skin cancer. Over 30 variant alleles have been identified which correlate with skin and hair color, providing evidence that this gene is an important component in determining normal human pigment variation. [provided by RefSeq, Jul 2008]