

Product datasheet for **RG203218**

MC1 Receptor (MC1R) (NM_002386) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MC1 Receptor (MC1R) (NM_002386) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MC1 Receptor
Synonyms:	CMM5; MSH-R; SHEP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203218 representing NM_002386 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGTGCAGGGATCCCAGAGAAGACTTCTGGGCTCCCTCACTCCACCCACAGCCATCCCCAGC
TGGGGCTGGTGCCAACCAGACAGGAGCCCGGTGCCTGGAGGTGCCATCTCTGACGGGCTTCTCTCAG
CCTGGGGCTGGTGAAGCTTGGTGGAGAACCGCTGGTGGCCACCATCGCCAAGAACCGGAACCTGCAC
TACCCATGTACTGCTTCATCTGCTGCCTGGCCTTGTCCGACCTGCTGGTGAAGCGGGAGCAACGTGCTGG
AGACGGCCGTCATCCTCCTGCTGGAGGCCGGTGCCTGGTGGCCGGGCTGCGGTGCTGCAGCAGCTGGA
CAATGTCATTGACGTGATCACCTGCAGCTCCATGCTGTCCAGCCTCTGCTTCTGGGCGCCATCGCCGTG
GACCGCTACATCTCCATCTTCTACGCACTGCGCTACCACAGCACCGTGACCCCTGCCGCGGGCGCGCGAG
CCGTTGCGGCCATCTGGGTGGCCAGTGTGCTTTCAGCACGCTTTCATCGCCTACTACGACCAGTGGC
CGTCTGCTGTGCTCGTGGTCTTCTTCTGGCTATGCTGGTGTGCTATGGCCGTGCTGTACGTCCACATG
CTGGCCCGGGCCTGCCAGCACGCCAGGGCATCGCCCGGCTCCACAAGAGGCAGCGCCCGGTCCACCAGG
GCTTTGGCCTAAAGGCGCTGTACCCTACCATCCTGCTGGGCATTTTCTTCTCTGCTGGGCCCCCTT
CTTCTGCATCTCACACTCATCGTCTCTGCCCCGAGCACCCACGTGCGGCTGCATCTTCAAGAACTTC
AACCTTTTCTCGCCCTCATCTGCAATGCCATCATCGACCCCTCATCTACGCCCTCCACAGCCAGG
AGCTCCGACGAGCGCTCAAGGAGGTGCTGACGTGCTCCTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203218 representing NM_002386
 Red=Cloning site Green=Tags(s)

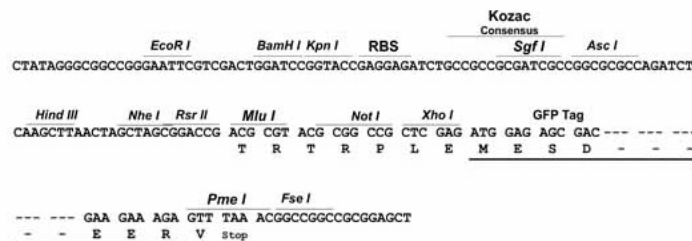
MAVQGSQRRLGSLNSTPTAIPQLGLAANQTGARCLEVISDGLFLSLGLVSLVENALVVATIAKNRNLH
 SPMYCFICCLALSDLLVSGSNVLETAVILLLEAGALVARAAVLQQLDNVIDVITCSSMLSSL CFLGAIIV
 DRYISIFYALRYHSTVTLPRARRAVAAIWWASVVFSTLFIAYYDHVAVLLCLVFFLAMLVLMVAVLYVHM
 LARACQHAQGIARLHKRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLTLIVLCPHEPTCGCIFYKNF
 NLFLALIIICNAIIDPLIYAFHSQELRRTLKEVLTCSW

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_002386

ORF Size: 951 bp

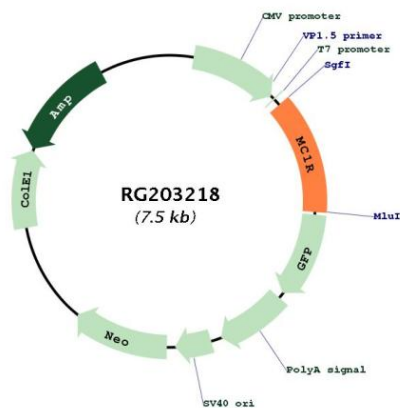
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	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:	<p>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]</p>

Product images:



Circular map for RG203218