

Recombinant Human MC1R

Cat. No. MC1R-29451TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 1-100 of Human MC1 Receptor, with an N-terminal proprietary tag, predicted MWt 36.63 kDa
Species	Human
Source	Wheat Germ
ProteinLength	100 amino acids
Description	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.
Molecular Weight	36.630kDa inclusive of tags
Tissue specificity	Melanocytes and corticoadrenal tissue.

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Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MAVQGSQRRLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFLSLGLVSLVENA LVVATIAKNRNLHSPMYCFICCLALSDLLVSGSNVLETAVILL
Sequence Similarities	Belongs to the G-protein coupled receptor 1 family.

GENE INFORMATION

Gene Name	MC1R melanocortin 1 receptor (alpha melanocyte stimulating hormone receptor) [Homo sapiens]
Official Symbol	MC1R
Synonyms	MC1R; melanocortin 1 receptor (alpha melanocyte stimulating hormone receptor); melanocyte-stimulating hormone receptor; MSH R;
Gene ID	4157
mRNA Refseq	NM_002386
Protein Refseq	NP_002377
MIM	155555

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Uniprot ID	Q01726
Chromosome Location	16q24.3
Pathway	Chaperonin-mediated protein folding, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Cooperation of Prefoldin and TriC/CCTin actin and tubulin folding, organism-specific biosystem; Diurnally regulated genes with circadian orthologs, organism-specific biosystem; Formation of tubulin folding intermediates by CCT/TriC, organism-specific biosystem;
Function	G-protein coupled peptide receptor activity; melanocortin receptor activity; melanocyte-stimulating hormone receptor activity; protein binding; receptor activity;

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