

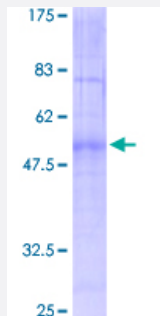
Full-Length

MC1R (Human) Recombinant Protein (P01)

Catalog # H00004157-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human MC1R full-length ORF (NP_002377.3, 1 a.a. - 317 a.a.) recombinant protein with GST tag at N-terminal.

Sequence

MAVQGSQRRLLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFLSLGLVSLVENALVVATIAKN
RNLHSPMYCFICCLALSDLLVSGSNVLETAVILLLEAGALVARAAVLQQLDNVIDVITCSSMLSSLC
FLGAIAVDYRISIFYALRYHSTVTLPRARRAVAAMVASVVFSTLFIAYYDHSVAVLLCLVVFFLAMLVL
MAVLYVHMLARACQHAQGIARLHKRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLTLVLCPE
HPTCGCIFKNFNLFLALICNAIIDPLIYAFHSQELRRTLKEVLTCSW

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

61.1

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MC1R

Entrez GeneID [4157](#)

GeneBank Accession# [NM_002386.2](#)

Protein Accession# [NP_002377.3](#)

Gene Name MC1R

Gene Alias MGC14337, MSH-R, SHEP2

Gene Description melanocortin 1 receptor (alpha melanocyte stimulating hormone receptor)

Omim ID [155555 203200](#)

Gene Ontology [Hyperlink](#)

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]

Other Designations melanocortin 1 receptor|melanocyte stimulating hormone receptor|melanotropin receptor

Pathway

- [Melanogenesis](#)
- [Neuroactive ligand-receptor interaction](#)

Disease

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Albinism](#)
- [Bone Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Disease Susceptibility](#)
- [Dysplastic Nevus Syndrome](#)
- [Epstein-Barr Virus Infections](#)
- [Erythema](#)
- [Eye Neoplasms](#)
- [Genetic Determinism](#)
- [Genetic Predisposition to Disease](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Melanosis](#)
- [Multiple Sclerosis](#)
- [Neoplasms](#)
- [Nevus](#)
- [Obesity](#)

- [Pain](#)
- [Parkinson disease](#)
- [Photosensitivity Disorders](#)
- [Pigmentation Disorders](#)
- [Prostate cancer](#)
- [Prostatic Hyperplasia](#)
- [Prostatic Neoplasms](#)
- [Psoriasis](#)
- [Radiation Injuries](#)
- [Skin Neoplasms](#)
- [Sunburn](#)
- [Thyroid Neoplasms](#)
- [Vitiligo](#)
- [Vulvar Diseases](#)