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MC1R Antibody (Center)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2107a

Product Information

Application	WB, E
Primary Accession	Q01726
Other Accession	NP_002377.4
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Clone Names	578CT6.2.3
Calculated MW	34706
Antigen Region	205-232

Additional Information

Gene ID	4157
Other Names	Melanocyte-stimulating hormone receptor, MSH-R, Melanocortin receptor 1, MC1-R, MC1R, MSHR
Target/Specificity	This MC1R antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 205-232 amino acids from the Central region of human MC1R.
Dilution	WB~~1:500~1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MC1R Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MC1R
Synonyms	MSHR
Function	Receptor for MSH (alpha, beta and gamma) and ACTH (PubMed: 11442765,

PubMed:11707265, PubMed:1325670, PubMed:1516719, PubMed:8463333). The activity of this receptor is mediated by G proteins which activate adenylate cyclase (PubMed:11707265, PubMed:1325670, PubMed:16463023, PubMed:19737927). Mediates melanogenesis, the production of eumelanin (black/brown) and phaeomelanin (red/yellow), via regulation of cAMP signaling in melanocytes (PubMed:31097585).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Expressed in melanocytes (PubMed:1325670, PubMed:31097585). Expressed in corticoadrenal tissue (PubMed:1325670)

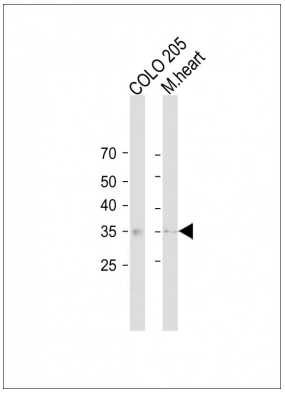
Background

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].

References

Demenais, F., et al. J. Natl. Cancer Inst. 102(20):1568-1583(2010)
Strange, R.C., et al. Mult. Scler. 16(9):1109-1116(2010)
Ibarrola-Villava, M., et al. Exp. Dermatol. 19(9):836-844(2010)
Smith, G., et al. Pharmacogenet. Genomics (2010) In press :
Kricker, A., et al. Cancer Causes Control (2010) In press :

Images



All lanes: Anti-MC1R Antibody (Center) at 1:250 dilution Lane 1: COLO 205 whole cell lysate Lane 2: Mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgM, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 35 KDa Blocking/Dilution buffer: 5% NFDM/TBST.