10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MC1 Receptor Antibody

Rabbit mAb
Catalog # AP91944

Product Information

Application	WB, IHC
Primary Accession	Q01726
Reactivity	Human
Clonality	Monoclonal
Other Names	CMM5; MC1R; MSHR; SHEP2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	34706

Additional Information

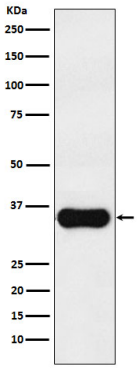
Dilution	WB 1:500~1:2000 IHC 1:100~1:500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human MC1 Receptor
Description	Receptor for MSH (alpha, beta and gamma) and ACTH. The activity of this receptor is mediated by G proteins which activate adenylate cyclase.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	MC1R (HGNC:6929)
Synonyms	MSHR
Function	G protein-coupled receptor that binds melanocyte-stimulating hormones (alpha, beta, and gamma-MSH) and adrenocorticotropic hormone/ACTH, which are peptide products of the POMC precursor protein (PubMed:11442765, PubMed:11707265, PubMed:1325670, PubMed:1516719, PubMed:8463333). Upon activation, MC1R couples with the G(s) protein, stimulating adenylate cyclase and activating the cAMP-dependent signaling pathway. This activation promotes melanogenesis, resulting in the production of eumelanin (black/brown) and pheomelanin (red/yellow) in melanocytes (PubMed:11707265, PubMed:1325670, PubMed:16463023, PubMed:19737927, PubMed:31097585, PubMed:34453129). MC1R interacts with G protein-coupled receptor opsin 3/OPN3, which couples to G(i) proteins and inhibits the alpha-MSH-induced cAMP response, thereby reducing melanin synthesis (PubMed:31097585). Binding to Agouti/ASP precludes alpha-MSH-induced signaling, thereby downregulating melanogenesis (By similarity). Additionally, interaction with MGRN1 displaces the G(s) protein,

	further suppressing MC1R signaling (PubMed:19737927).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed in melanocytes (PubMed:1325670, PubMed:31097585). Expressed in corticoadrenal tissue (PubMed:1325670)

Images



Western blot analysis of MC1 Receptor expression in A375 cell lysate.