

# MC1R Rabbit mAb

Catalog # AP78073

## Product Information

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<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">Q01726</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Immunogen</b>	A synthesized peptide derived from human MC1 Receptor
<b>Purification</b>	Affinity Chromatography
<b>Calculated MW</b>	34706

## Additional Information

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<b>Gene ID</b>	4157
<b>Other Names</b>	MC1R
<b>Dilution</b>	WB~~1/500-1/1000 IHC-P~~N/A
<b>Format</b>	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	MC1R ( <a href="#">HGNC:6929</a> )
<b>Synonyms</b>	MSHR
<b>Function</b>	G protein-coupled receptor that binds melanocyte-stimulating hormones (alpha, beta, and gamma-MSH) and adrenocorticotrophic hormone/ACTH, which are peptide products of the POMC precursor protein (PubMed: <a href="#">11442765</a> , PubMed: <a href="#">11707265</a> , PubMed: <a href="#">1325670</a> , PubMed: <a href="#">1516719</a> , PubMed: <a href="#">8463333</a> ). 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: <a href="#">11707265</a> , PubMed: <a href="#">1325670</a> , PubMed: <a href="#">16463023</a> , PubMed: <a href="#">19737927</a> , PubMed: <a href="#">31097585</a> , PubMed: <a href="#">34453129</a> ). 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**

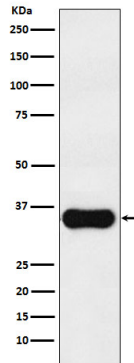
Cell membrane; Multi-pass membrane protein

**Tissue Location**

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

## Images

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.