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MC4 Receptor Antibody
Rabbit mAb
Catalog # AP91945

Specification

MC4 Receptor Antibody - Product Information

Application	**WB**
Primary Accession	P32245
Reactivity	**Rat**
Clonality	**Monoclonal**
Other Names	
MC4R; Melanocortin 4 receptor;	
Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**36943 Da**

MC4 Receptor Antibody - Additional Information

Dilution	**WB~~1:1000**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human MC4 Receptor**
Description	**Receptor specific to the heptapeptide core common to adrenocorticotropic hormone and alpha-, beta-, and gamma-MSH. This receptor is mediated by G proteins that stimulate 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.**

MC4 Receptor Antibody - Protein Information

Name MC4R

Function
Hormone receptor that acts as a key component of the leptin- melanocortin pathway at the intersection of homeostatic maintenance of energetic state (PubMed:32327598, PubMed:33858992). Plays a role in regulating food intake: activation by a stimulating hormone such as anorexigenic alpha-melanocyte stimulating hormone (alpha-MSH) inhibits appetite, whereas binding to a natural antagonist like Agouti-related protein/AGRP promotes appetite. G-protein-coupled receptor that activates conventional Galphas signaling leading to induction of anorexogenic signaling in the hypothalamus to result in negative energy balance (PubMed:33858992). Regulates

the firing activity of neurons from the hypothalamus by alpha-MSH and AGRP independently of Galphas signaling by ligand-induced coupling of closure of inwardly rectifying potassium channel KCNJ13 (By similarity). In intestinal epithelial cells, plays a role in the inhibition of hepatic glucose production via nesfatin-1/NUCB2 leading to increased cyclic adenosine monophosphate (cAMP) levels and glucagon-like peptide 1 (GLP-1) secretion in the intestinal epithelium (PubMed:39562740).

Cellular Location
Cell membrane; Multi-pass membrane protein

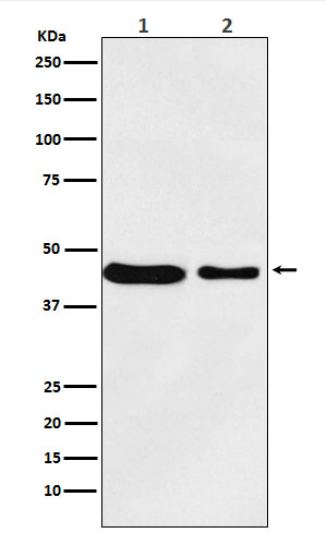
Tissue Location
Brain, placental, and gut tissues.

MC4 Receptor Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MC4 Receptor Antibody - Images



Western blot analysis of MC4 Receptor expression in (1) MCF7 cell lysate; (2) RAW264.7 cell lysate.