

MC4 Receptor Antibody

Rabbit mAb

Catalog # AP91945

Product Information

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

Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human MC4 Receptor
Description	Receptor specific to the heptapeptide core common to adrenocorticotrophic 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.

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 anorexigenic 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).

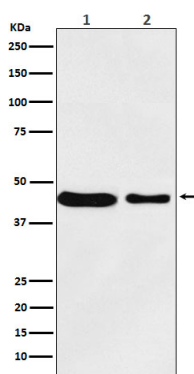
Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Brain, placental, and gut tissues.

Images



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

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