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Anti-MC4 Receptor Antibody
Catalog # AP53688

Specification

Anti-MC4 Receptor Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P32245
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**36943**

Anti-MC4 Receptor Antibody - Additional Information

Gene ID 4160

Other Names
Melanocortin receptor 4; MC4-R

Target/Specificity
Recognizes endogenous levels of MC4 Receptor protein.

Dilution
WB~~1/500 - 1/1000
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-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

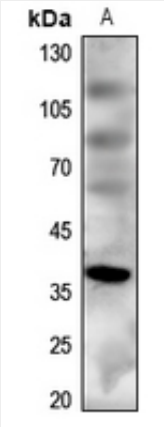
Tissue Location
Brain, placental, and gut tissues.

Anti-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

Anti-MC4 Receptor Antibody - Images



Western blot analysis of MC4 Receptor expression in mouse brain (A) whole cell lysates.

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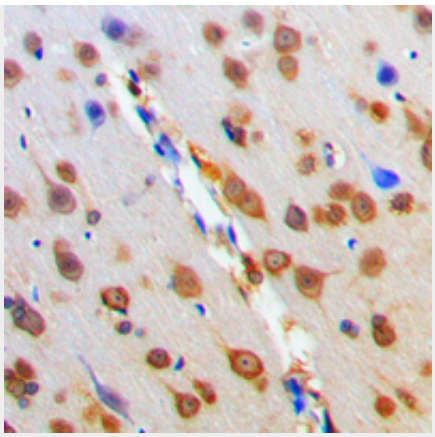

Immunohistochemical analysis of MC4 Receptor staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-MC4 Receptor Antibody - Background

Rabbit polyclonal antibody to MC4 Receptor