

**Anti-MC4 Receptor Antibody**  
**Catalog # AP53688****Specification**

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**Anti-MC4 Receptor Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P32245</a>
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:<a href="http://www.uniprot.org/citations/32327598" target="\_blank">32327598</a>, PubMed:<a href="http://www.uniprot.org/citations/33858992" target="\_blank">33858992</a>). 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 G $\alpha$ s signaling leading to induction of anorexigenic signaling in the hypothalamus to result in negative energy balance (PubMed:<a href="http://www.uniprot.org/citations/33858992" target="\_blank">33858992</a>). 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:<a href="http://www.uniprot.org/citations/39562740" target="\_blank">39562740</a>).

**Cellular Location**

Cell membrane; Multi-pass membrane protein

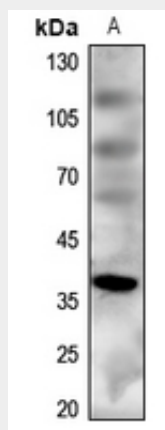
**Tissue Location**

Brain, placental, and gut tissues.

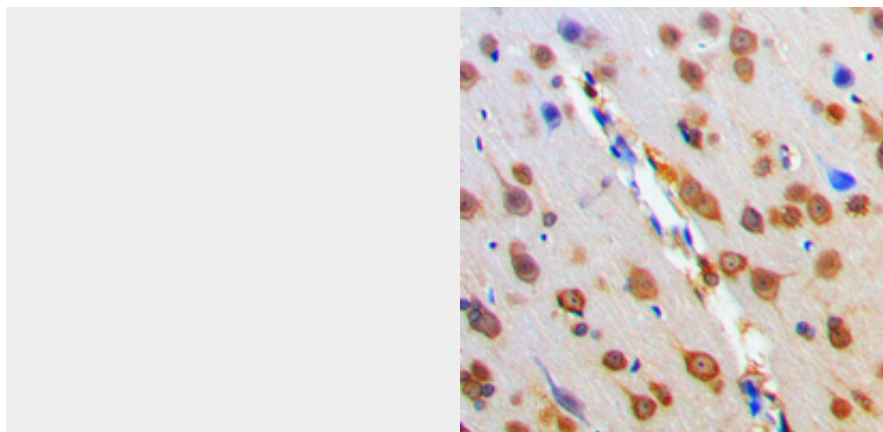
**Anti-MC4 Receptor Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-MC4 Receptor Antibody - Images**

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



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