

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain)
Rabbit Polyclonal Antibody
Catalog # ALS10248**Specification**

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - Product Information

Application	IHC-P
Primary Accession	P32245
Reactivity	Human, Rabbit, Monkey, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37kDa KDa
Dilution	IHC-P~~N/A

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - Additional Information**Gene ID** 4160**Other Names**

Melanocortin receptor 4, MC4-R, MC4R

Target/Specificity

Human MC4 Receptor. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - 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 G α 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.

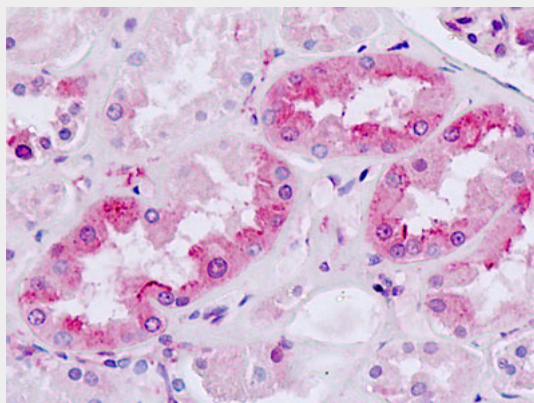
Volume

50 µl

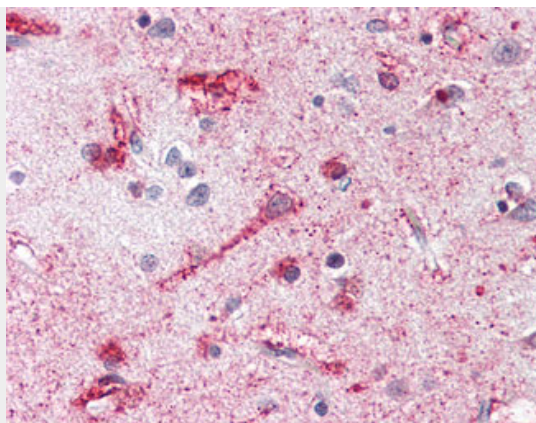
MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - Protocols

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](#)

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - Images

Human, Kidney: Formalin-Fixed Paraffin-Embedded (FFPE)



Anti-MC4R / Melanocortin 4 Receptor antibody IHC of human brain neurons and glia.

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - Background

Receptor specific to the heptapeptide core common to adrenocorticotrophic hormone and alpha-, beta-, and gamma-MSH. Plays a central role in energy homeostasis and somatic growth. This receptor is mediated by G proteins that stimulate adenylate cyclase (cAMP).

MC4R / Melanocortin 4 Receptor Antibody (Cytoplasmic Domain) - References

- Gantz I., et al. J. Biol. Chem. 268:15174-15179(1993).
Mountjoy K.G., et al. Mol. Endocrinol. 8:1298-1308(1994).
Kopatz S.A., et al. Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
Ota T., et al. Nat. Genet. 36:40-45(2004).
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.