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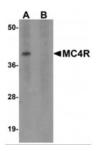
HIGH PERFORMANCE ANTIBODIES ... AND MORE

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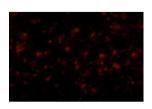
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MC4R Antibody

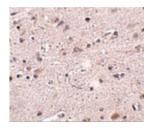
CATALOG NUMBER: 5199



Western blot analysis of MC4R in rat brain tissue lysate with MC4R antibody at 1 ug/mL in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of MC4R in Human Brain cells with MC4R antibody at 20 ug/mL.



Immunohistochemistry of MC4R in human brain tissue with MC4R antibody at 2.5 ug/mL.

Specifications	
SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Pig: (79%)
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	MC4R antibody can be used for detection of MC4R by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1463 - Rat Brain Tissue Lysate
	2) Cat. No. 10-301 - Human Brain Tissue Slide
IMMUNOGEN:	MC4R antibody was raised against a 19 amino acid synthetic peptide near the amino terminus of human MC4R.
	The immunogen is located within the first 50 amino acids of MC4R.
HOST SPECIES:	Rabbit
Donatalia	
Properties	
PURIFICATION:	MC4R Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	MC4R Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	MC4R antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	MC4R Antibody: Melanocortin receptor 4, MC4-R
ACCESSION NO.:	NP_005903
PROTEIN GI NO.:	119508433
OFFICIAL SYMBOL:	MC4R
GENE ID:	4160
Background	
BACKGROUND:	MC4R Antibody: The melanocortin-4 receptor (MC4R) is a member of the superfamily of seven transmembrane G-protein coupled receptors that are involved in multiple signal transduction pathways including the cAMP and MAPK signaling pathways. It is thought that the melanocortin system modulates energy expenditure and insulin sensitivity; activation of the MC4R results in the inhibition of c-Jun N-terminal kinase (JNK) activity and promotes insulin signaling. MC4R-null mice display maturity onset obesity characterized by hyperphagia, increased adiposity, hyperinsulinaemia and hyperleptinaemia, suggesting that like other obesity-linked genes such as FTO, PTER, and NPC1, MC4R is a potential candidate target for the treatment of obesity.
REFERENCES:	1) Gantz I, Miwa H, Konda Y, et al. Molecular cloning, expression, and gene localization of a fourth melanocortin receptor. J. Biol. Chem. 1993; 268:15174-9.
	2) Vongs A, Lynn NM, and Rosenblum CI. Activation of MAP kinase by MC4-R through PI3 kinase. Regul. Pept.2004; 120:113-8.
	3) Cone H. Anatomy and regulation of the central melanocortin system. Nat. Neurosci.2005; 8:571-8.
	4) Chai B, Li J-Y, Zhang W, et al. Melanocartin-4 receptor activation inhibits c-Jun N-terminal kinase activity and promotes insulin signaling. Peptides2009; 30:1098-10

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