Datasheet for ABIN2746857

anti-MC4R antibody (AA 10-60) (FITC)

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Overview

Quantity:	100 µg
Target:	MC4R
Binding Specificity:	AA 10-60
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MC4R antibody is conjugated to FITC
Application:	ELISA, Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	Synthetic peptide taken within amino acid region 10-60 on human MC4R protein.
Isotype:	IgG
Specificity:	The antibody labels a strong band of MC4R at 40 kDa in ABIN1741693 samples and in other cancer cell lines.
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	MC4R selective antibodies were generated against a peptide taken from the N-terminal region. The MC4R-selective antibodies are affinity purified on an immobilized antigen based affinity matrix, the isolated antibodies are then stabilized in antibody stabilization buffer for long-term storage. The anti- MC4Rselective antibodies are fully characterized for applications in western blotting and ELISA at the recommended dilutions. The supplier provides MC4R Western blot positive control samples in ready-to-use SDS-PAGE sample buffer. Limited quantities of

Product Details

	antigenic blocking peptide for MC4R antibody is also available, please inquire before ordering.
Purification:	Affinity Purified

Target Details

Target:	MC4R
Alternative Name:	MC4 Receptor (MC4R Products)
Background:	Melanocortin receptors are members of the rhodopsin family of 7-trans membrane G protein-coupled receptors that are involved in multiple signal transduction pathways including the cAMP and MAPK signaling pathways. These receptors are activated by members of the Melanocortin family: alpha-, beta- and Gammamelanocyte stimulating hormone (MSH) and adrenocorticotropic hormone (ACTH). The Melanocortins are involved in a wide range of physiological functions, including pigmentation, energy homeostasis, inflammation, immunomodulation, steroidogenesis and temperature control. There are five melanocortin receptor subtypes each of which has a different pattern of tissue expression with the relative potency of different melanocortin peptides. The melanocortin signaling system consists of two endogenous antagonists that bind specifically to the receptor but instead of activating they have an inhibitory effect. The antagonist proteins are termed agouti (or agouti signaling protein, ASP) and agouti-related protein (AGRP). Melanocortin-4 receptor (MC4R) transcripts are expressed primarily in the brain. Genetic studies of mice and humans established a critical role of MC4R in appetite regulation. MC4R has been implicated in weight regulation and defects in this gene are a cause of autosomal dominant obesity. Activation of 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 obesity-linked gene, such as, MC4R is a potential candidate target for the treatment of obesity. Heterozygous mutations in MC4R account for 1-6 % of severe cases of human obesity. All known mammalian MC4Rs are 332 amino acids in length with an estimated molecular weight of 40 kDa. The protein is heavily glycosylated and appears at multiple positions on SDS-PAGE. The gene for MC4R is present on chromosome 18q22.
NCBI Accession:	NP_005903
UniProt:	P32245
Pathways:	Hormone Transport, cAMP Metabolic Process, Feeding Behaviour

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.55-0.75 µg/µL
Handling Advice:	Working solutions of antibodies in buffer should be filtered through 0.45 µm filter after every use for long-term storage.
Storage:	-20 °C
Storage Comment:	For long-term storage of keep at -20 °C. We don't recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer.