

MCH-1R (C-17): sc-5534

BACKGROUND

Melanin-concentrating hormone (MCH) is a 19 amino acid cyclic neuropeptide which is mainly expressed in the hypothalamus. MCH modulates feeding behavior, aggression, anxiety, arousal and reproductive function in mammals by controlling the release of luteinizing hormone (LH). The melanin-concentrating hormone receptor (MCHR, also designated SLC-1) is a glycosylated G protein-coupled receptor. MCHR mediates the effects of MCH through $G_{\alpha i}$ and/or $G_{\alpha q}$ signaling and is expressed in several regions of the brain, including the cerebral cortex, amygdala, thalamus and hypothalamus. MCH and MCHR have also been implicated in stimulating leptin expression and secretion in adipocytes, which suggests that the melanin-concentrating hormone and its receptor may be potential targets for modulating obesity.

REFERENCES

1. Drozd, R., et al. 1999. (D-(p-benzoylphenylalanine) 13, tyrosine19)-melanin-concentrating hormone, a potent analogue for MCH receptor crosslinking. *J. Pept. Sci.* 5: 234-242.
2. Saito, Y., et al. 1999. Molecular characterization of the melanin concentrating hormone receptor. *Nature* 400: 265-269.

CHROMOSOMAL LOCATION

Genetic locus: MCHR1 (human) mapping to 22q13.2; Mchr1 (mouse) mapping to 15 E1.

SOURCE

MCH-1R (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MCH-1R of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5534 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MCH-1R (C-17) is recommended for detection of MCH-1R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MCH-1R (C-17) is also recommended for detection of MCH-1R in additional species, including equine, canine, bovine and porcine.

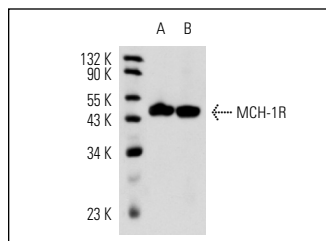
Suitable for use as control antibody for MCH-1R siRNA (h): sc-42017, MCH-1R siRNA (m): sc-42018, MCH-1R shRNA Plasmid (h): sc-42017-SH, MCH-1R shRNA Plasmid (m): sc-42018-SH, MCH-1R shRNA (h) Lentiviral Particles: sc-42017-V and MCH-1R shRNA (m) Lentiviral Particles: sc-42018-V.

Molecular Weight of MCH-1R: 53 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MCH-1R (C-17): sc-5534. Western blot analysis of MCH-1R expression in rat hypothalamus (A) and rat cerebellum (B) tissue extracts.

SELECT PRODUCT CITATIONS

1. Berbari, N.F., et al. 2008. Bardet-Biedl syndrome proteins are required for the localization of G protein-coupled receptors to primary cilia. *Proc. Natl. Acad. Sci. USA* 105: 4242-4246.
2. Berbari, N.F., et al. 2008. Identification of ciliary localization sequences within the third intracellular loop of G protein-coupled receptors. *Mol. Biol. Cell* 19: 1540-1547.
3. Miyoshi, K., et al. 2009. Lithium treatment elongates primary cilia in the mouse brain and in cultured cells. *Biochem. Biophys. Res. Commun.* 388: 757-762.
4. Degenhardt, T., et al. 2009. Population-level transcription cycles derive from stochastic timing of single-cell transcription. *Cell* 138: 489-501.
5. Nollet, M., et al. 2011. Activation of orexin neurons in dorsomedial/perifornical hypothalamus and antidepressant reversal in a rodent model of depression. *Neuropharmacology* 61: 336-346.
6. Heydet, D., et al. 2013. A truncating mutation of Alms1 reduces the number of hypothalamic neuronal cilia in obese mice. *Dev. Neurobiol.* 73: 1-13.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **MCH-1R (52-W7): sc-100327**, our highly recommended monoclonal alternative to MCH-1R (C-17).