

MCH-2R (T-20): sc-18763

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). MCH mediates its effects through two melanin-concentrating hormone receptors, MCH-1R (also designated SLC-1) and MCH-2R, whose genes map to human chromosomes 22q13.3 and 6q16.2, respectively. MCH-2R is expressed in several regions of the brain, including the arcuate nucleus and the ventral medial hypothalamus, and upon binding to MCH, MCH-2R signals primarily through the G_{αq} protein. MCH is also implicated in stimulating leptin expression and secretion in adipocytes, which suggests that the melanin-concentrating hormone and its receptors may be potential targets for modulating obesity.

REFERENCES

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- Bradley, R.L., et al. 2000. Melanin-concentrating hormone regulates leptin synthesis and secretion in rat adipocytes. *Diabetes* 49: 1073-1077.
- Hervieu, G.J., et al. 2000. The distribution of the mRNA and protein products of the melanin-concentrating hormone (MCH) receptor gene, slc-1, in the central nervous system of the rat. *Eur. J. Neurosci.* 12: 1194-1216.
- Murray, J.F., et al. 2000. The influence of gonadal steroids on pre-pro melanin-concentrating hormone mRNA in female rats. *J. Neuroendocrinol.* 12: 53-59.
- Murray, J.F., et al. 2000. Melanin-concentrating hormone, melanocortin receptors and regulation of luteinizing hormone release. *J. Neuroendocrinol.* 12: 217-223.
- Sailer, A.W., et al. 2001. Identification and characterization of a second melanin-concentrating hormone receptor, MCH-2R. *Pro. Natl. Acad. Sci. USA* 98: 7564-7569.

CHROMOSOMAL LOCATION

Genetic locus: MCHR2 (human) mapping to 6q16.2.

SOURCE

MCH-2R (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MCH-2R of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-18763 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MCH-2R (T-20) is recommended for detection of MCH-2R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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-2R (T-20) is also recommended for detection of MCH-2R in additional species, including equine, canine and porcine.

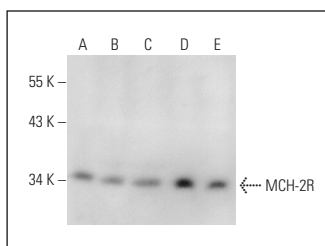
Suitable for use as control antibody for MCH-2R siRNA (h): sc-42019, MCH-2R shRNA Plasmid (h): sc-42019-SH and MCH-2R shRNA (h) Lentiviral Particles: sc-42019-V.

Positive Controls: IMR-32 cell lysate: sc-2409, U-87 MG cell lysate: sc-2411 or T24 cell lysate: sc-2292.

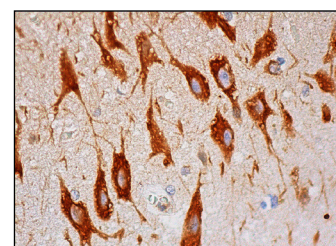
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



MCH-2R (T-20): sc-18763. Western blot analysis of MCH-2R expression in A-375 (A), HUV-EC-C (B), T24 (C), IMR-32 (D) and U-87 MG (E) whole cell lysates.



MCH-2R (T-20): sc-18763. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells and neuropil staining.

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.