SANTA CRUZ BIOTECHNOLOGY, INC.

MCH-1R (52-W7): sc-100327

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Drozdz, 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.
3. 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.
4. Murray, J.F., et al. 2000. Melanin-concentrating hormone, melanocortin receptors and regulation of luteinizing hormone release. J. Neuroendocrinol. 12: 217-223.
5. 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.
6. Hawes, B.E., et al. 2000. The melanin-concentrating hormone receptor couples to multiple G proteins to activate diverse intracellular signaling pathways. Endocrinology 141: 4524-4532.
7. Bradley, R.L., et al. 2000. Melanin-concentrating hormone regulates leptin synthesis and secretion in rat adipocytes. Diabetes 49: 1073-1077.

CHROMOSOMAL LOCATION

Genetic locus: MCHR1 (human) mapping to 22q13.2.

SOURCE

MCH-1R (52-W7) is a mouse monoclonal antibody raised against a partial recombinant protein mapping to an internal region of MCH-1R of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

MCH-1R (52-W7) is recommended for detection of MCH-1R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

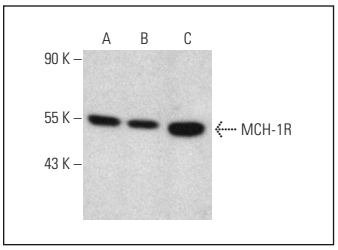
Molecular Weight of MCH-1R: 53 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, IMR-32 cell lysate: sc-2409 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MCH-1R (52-W7): sc-100327. Western blot analysis of MCH-1R expression in HL-60 (**A**), IMR-32 (**B**) and K-562 (**C**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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