

pro-MCH (E-16): sc-14507

BACKGROUND

Melanin-concentrating hormone (MCH) is a 19 amino acid cyclic neuropeptide derived from a 165 amino acid pro-MCH precursor. In addition to the hormone, the pro-MCH precursor contains a 144 amino acid mature MCH as well as a 12 amino acid neuropeptide glycine-glutamic acid (NGE) and a 19 amino acid neuropeptide glutamic acid-isoleucine (NEI). 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_{α_i} and/or G_{α_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, suggesting 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, Slc1, in the central nervous system of the rat. *Eur. J. Neurosci.* 12: 1194-1216.

CHROMOSOMAL LOCATION

Genetic locus: PMCH (human) mapping to 12q23.2; Pmch (mouse) mapping to 10 C1.

SOURCE

pro-MCH (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of pro-MCH precursor 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-14507 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

pro-MCH (E-16) is recommended for detection of mature MCH and pro-MCH of human and, to a lesser extent, mouse and rat 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); non cross-reactive with Neuropeptide G-E, Neuropeptide E-I or melanin-concentrating hormone.

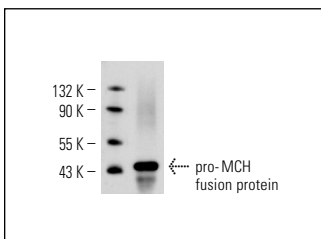
Suitable for use as control antibody for pro-MCH siRNA (h): sc-42015, pro-MCH siRNA (m): sc-42016, pro-MCH shRNA Plasmid (h): sc-42015-SH, pro-MCH shRNA Plasmid (m): sc-42016-SH, pro-MCH shRNA (h) Lentiviral Particles: sc-42015-V and pro-MCH shRNA (m) Lentiviral Particles: sc-42016-V.

Molecular Weight of pro-MCH: 45-50 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



pro-MCH (E-16): sc-14507. Western blot analysis of human recombinant pro-MCH fusion protein.

STORAGE

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

RESEARCH USE

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



Try **pro-MCH (1D1): sc-293231**, our highly recommended monoclonal alternative to pro-MCH (E-16).