SANTA CRUZ BIOTECHNOLOGY, INC.

pro-MCH (H-143): sc-28931

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 $G_{\alpha\ i}$ 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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

pro-MCH (H-143) is a rabbit polyclonal antibody raised against amino acids 23-165 of pro-MCH precursor 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.

APPLICATIONS

pro-MCH (H-143) is recommended for detection of mature MCH, pro-MCH, neuropeptide G-E, neuropeptide E-I and melanin-concentrating hormone of mouse, rat and 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)], 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).

pro-MCH (H-143) is also recommended for detection of mature MCH, pro-MCH, neuropeptide G-E, neuropeptide E-I and melanin-concentrating hormone in additional species, including equine, canine, bovine and porcine.

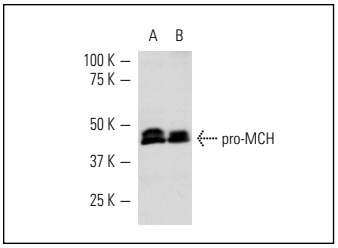
Molecular Weight of pro-MCH: 45-50 kDa.

Positive Controls: JAR cell lysate: sc-2276 or HeLa whole cell lysate: sc-2200.

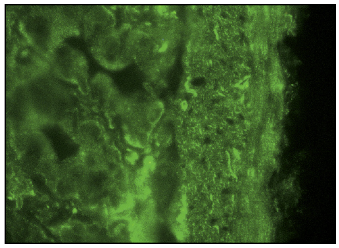
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



pro-MCH (H-143): sc-28931. Western blot analysis of pro-MCH expression in JAR (**A**) and HeLa (**B**) whole cell lysates.



pro-MCH (H-143): sc-28931. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic and extracellular staining.

SELECT PRODUCT CITATIONS

1. Razolli, D.S., et al. 2012. Hypothalamic action of glutamate leads to body mass reduction through a mechanism partially dependent on JAK2. J. Cell. Biochem. 113: 1182-1189.

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.

PROTOCOLS

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