

MC3-R (C-20): sc-6878

BACKGROUND

The melanocortin family comprises the α -, β - and γ - melanocyte stimulating hormones (MSH) and adrenocorticotrophin. The receptors for these hormones are seven-transmembrane G protein-coupled proteins that activate adenylyl cyclase. Five melanocortin receptors have been cloned and shown to exhibit different affinities and patterns of expression. MC1-R (MSH-R) is expressed in melanocytes and corticoadrenal tissue. MC2-R is the ACTH receptor and is expressed primarily in the adrenal cortex. MC3-R has been found in specific regions of the brain and is also expressed in placenta and gut. MC4-R is expressed primarily in brain, while MC5-R is expressed at low levels in most tissues.

REFERENCEREFERENCES

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2. Chhajlani, V., et al. 1992. Molecular cloning and expression of the human melanocyte stimulating hormone receptor cDNA. *FEBS Lett.* 309: 417-420.
3. Gantz, I., et al. 1993. Molecular cloning of a novel melanocortin receptor. *J. Biol. Chem.* 268: 8246-8250.
4. Roselli-Rehffuss, L., et al. 1993. Identification of a receptor for γ melanotropin and other proopiomelanocortin peptides in the hypothalamus and limbic system. *Proc. Natl. Acad. Sci. USA* 90: 8856-8860.
5. Gantz, I., et al. 1993. Molecular cloning, expression and gene localization of a fourth melanocortin receptor. *J. Biol. Chem.* 268: 15174-15179.
6. Chhajlani, V., et al. 1993. Molecular cloning of a novel human melanocortin receptor. *Biochem. Biophys. Res. Commun.* 195: 866-873.
7. Mountjoy, K.G., et al. 1994. Localization of the melanocortin-4 receptor (MC4-R) in neuroendocrine and autonomic control circuits in the brain. *Mol. Endocrinol.* 8: 1298-1308.
8. Labbe, O., et al. 1994. Molecular cloning of a mouse melanocortin 5 receptor gene widely expressed in peripheral tissues. *Biochemistry* 33: 4543-4549.

CHROMOSOMAL LOCATION

Genetic locus: MC3R (human) mapping to 20q13.2; Mc3r (mouse) mapping to 2 H3.

SOURCE

MC3-R (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping to the C-terminus of MC3-R 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-6878 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MC3-R (C-20) is recommended for detection of MC3-R 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).

MC3-R (C-20) is also recommended for detection of MC3-R in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MC3-R siRNA (h): sc-40111, MC3-R siRNA (m): sc-40112, MC3-R shRNA Plasmid (h): sc-40111-SH, MC3-R shRNA Plasmid (m): sc-40112-SH, MC3-R shRNA (h) Lentiviral Particles: sc-40111-V and MC3-R shRNA (m) Lentiviral Particles: sc-40112-V.

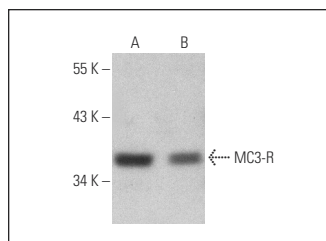
Molecular Weight of MC3-R: 36 kDa.

Positive Controls: T98G cell lysate: sc-2294 or JAR cell lysate: sc-2276.

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



MC3-R (C-20): sc-6878. Western blot analysis of MC3-R expression in T98G (A) and JAR (B) whole cell lysates.

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.