

# MC4-R (H-60): sc-28992

## BACKGROUND

The melanocortin family comprises the  $\alpha$ -,  $\beta$ - and  $\gamma$ - melanocyte stimulating hormones (MSH) and adrenocorticotrophin. The receptors for these hormones are seven-transmembrane G protein-coupled proteins that activate adenyl 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.

## REFERENCES

1. Mountjoy, K.G., et al. 1992. The cloning of a family of genes that encode the melanocortin receptors. *Science* 257: 1248-1251.
2. Chhajlani, V., et al. 1992. Molecular cloning and expression of the human melanocyte stimulating hormone receptor cDNA. *FEBS Lett.* 309: 417-420.
3. Chhajlani, V., et al. 1993. Molecular cloning of a novel human melanocortin receptor. *Biochem. Biophys. Res. Commun.* 195: 866-873.

## CHROMOSOMAL LOCATION

Genetic locus: MC4R (human) mapping to 18q21.32; Mc4r (mouse) mapping to 18 E1.

## SOURCE

MC4-R (H-60) is a rabbit polyclonal antibody raised against amino acids 5-60 mapping at the N-terminus of MC4-R of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MC4-R (H-60) is recommended for detection of MC4-R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

MC4-R (H-60) is also recommended for detection of MC4-R in additional species, including equine and porcine.

Suitable for use as control antibody for MC4-R siRNA (h): sc-35873, MC4-R siRNA (m): sc-35874, MC4-R shRNA Plasmid (h): sc-35873-SH, MC4-R shRNA Plasmid (m): sc-35874-SH, MC4-R shRNA (h) Lentiviral Particles: sc-35873-V and MC4-R shRNA (m) Lentiviral Particles: sc-35874-V.

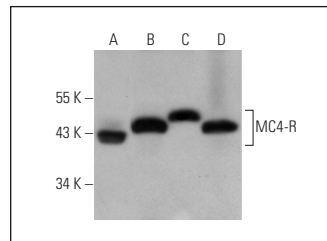
Molecular Weight of MC4-R: 40 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, rat cerebellum extract: sc-2398 or rat brain extract: sc-2392.

## 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



MC4-R (H-60): sc-28992. Western blot analysis of MC4-R expression in MCF7 whole cell lysate (A) and rat brain (B), human hippocampus (C) and rat cerebellum (D) tissue extracts.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **MC4-R (C-10): sc-55567**, our highly recommended monoclonal alternative to MC4-R (H-60).