

# MC1-R (578CT6.2.3): sc-517344

## 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 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.

## 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.
4. Gantz, I., et al. 1993. Molecular cloning of a novel melanocortin receptor. *J. Biol. Chem.* 268: 8246-8250.
5. Roselli-Reh fuss, L., et al. 1993. Identification of a receptor for  $\gamma$  melanotropin and other proopiomelanocortin peptides in the hypothalamus and limbic system. *Proc. Natl. Acad. Sci. USA* 90: 8856-8860.
6. Gantz, I., et al. 1993. Molecular cloning, expression and gene localization of a fourth melanocortin receptor. *J. Biol. Chem.* 268: 15174-15179.
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: MC1R (human) mapping to 16q24.3.

## SOURCE

MC1-R (578CT6.2.3) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 205-232 in a central region of MC1-R of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgM 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

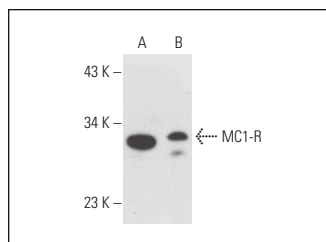
MC1-R (578CT6.2.3) is recommended for detection of MC1-R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for MC1-R siRNA (h): sc-40107, MC1-R shRNA Plasmid (h): sc-40107-SH and MC1-R shRNA (h) Lentiviral Particles: sc-40107-V.

Molecular Weight of MC1-R: 34 kDa.

Positive Controls: COLO 205 whole cell lysate: sc-364177 or HUV-EC-C whole cell lysate: sc-364180.

## DATA



MC1-R (578CT6.2.3): sc-517344. Western blot analysis of MC1-R expression in COLO 205 (A) and HUV-EC-C (B) whole cell lysates.

## 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) for detailed protocols and support products.