

# M-cadherin (h2): 293T Lysate: sc-159446

## BACKGROUND

Cadherins are a multigene family of  $\text{Ca}^{2+}$ -dependent cell adhesion molecules. They are transmembrane glycoproteins consisting of an extracellular domain, which mediates  $\text{Ca}^{2+}$ -dependent intercellular adhesion by homophilic interactions, a transmembrane region and a cytoplasmic domain. The extracellular domain is divided into a series of subdomains designated EC1-EC5. Homologies between different members of the cadherin family are most prominent in the cytoplasmic domain and in EC1 and EC2 and much less so in EC5 of the extracellular domain and in the transmembrane region. The binding properties and specificities of the adhesive function are located in the N-terminal part of the molecules. Four members of the cadherin family have been identified and molecularly cloned from mammalian cells. These include the neuronal (N), epithelial (E), placental (P) and muscle (M) cadherins. M-cadherin is not found in fibroblasts but is expressed at low level in myoblasts and is upregulated following induction of myotube formation, suggesting a specific function in skeletal muscle cell differentiation.

## REFERENCES

1. Ringwald, M., et al. 1987. The structure of cell adhesion molecule uvomorulin: insights into the molecular mechanism of  $\text{Ca}^{2+}$ -dependent cell adhesion. *EMBO J.* 6: 3647-3653.
2. Nose, A., et al. 1987. Isolation of placental cadherin cDNA: identification of a novel gene family of cell-cell adhesion molecules. *EMBO J.* 6: 3655-3661.
3. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.
4. Hatta, K., et al. 1988. Cloning and expression of cDNA encoding a neural calcium-dependent cell adhesion molecule: its identity in the cadherin gene family. *J. Cell Biol.* 106: 873-881.
5. Miyatani, S., et al. 1989. Neural cadherin: role in selective cell-cell adhesion. *Science* 245: 631-635.
6. Nose, A., et al. 1990. Localization of specificity determining sites in cadherin cell adhesion molecules. *Cell* 61: 147-155.
7. Ozawa, M., et al. 1990. Single amino acid substitutions in one  $\text{Ca}^{2+}$  binding site of uvomorulin abolish the adhesive function. *Cell* 63: 1033-1038.
8. Donalies, M., et al. 1991. Expression of M-cadherin, a member of the cadherin multigene family, correlates with differentiation of skeletal muscle cells. *Proc. Natl. Acad. Sci. USA* 88: 8024-8028.

## CHROMOSOMAL LOCATION

Genetic locus: CDH15 (human) mapping to 16q24.3.

## PRODUCT

M-cadherin (h2): 293T Lysate represents a lysate of human M-cadherin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at  $-20^{\circ}\text{C}$ . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

M-cadherin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive M-cadherin antibodies. Recommended use: 10-20 µl per lane.

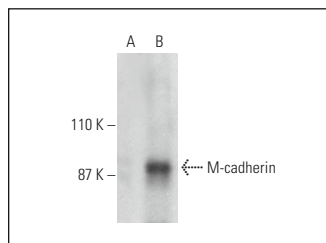
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

pan-cadherin (E-11): sc-515872 is recommended as a positive control antibody for Western Blot analysis of enhanced human M-cadherin expression in M-cadherin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

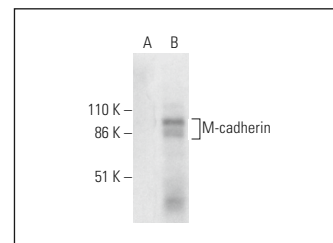
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



pan-cadherin (E-11): sc-515872. Western blot analysis of M-cadherin expression in non-transfected: sc-117752 (A) and human M-cadherin transfected: sc-159446 (B) 293T whole cell lysates.



M-cadherin (C-6): sc-374093. Western blot analysis of M-cadherin expression in non-transfected: sc-117752 (A) and human M-cadherin transfected: sc-159446 (B) 293T 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.