SANTA CRUZ BIOTECHNOLOGY, INC.

M-cadherin (T-17): sc-31015

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cadherins are a multigene family of Ca^{2+}-dependent cell adhesion molecules. They are transmembrane glycoproteins consisting of an extracellular domain, which mediates 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 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.

CHROMOSOMAL LOCATION

Genetic locus: CDH15 (human) mapping to 16q24.3; Cdh15 (mouse) mapping to 8 E1.

SOURCE

M-cadherin (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of M-cadherin 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.

Blocking peptide available for competition studies, sc-31015 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

M-cadherin (T-17) is recommended for detection of M-cadherin 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).

Suitable for use as control antibody for M-cadherin siRNA (h): sc-37041, M-cadherin siRNA (m): sc-37042, M-cadherin shRNA Plasmid (h): sc-37041-SH, M-cadherin shRNA Plasmid (m): sc-37042-SH, M-cadherin shRNA (h) Lentiviral Particles: sc-37041-V and M-cadherin shRNA (m) Lentiviral Particles: sc-37042-V.

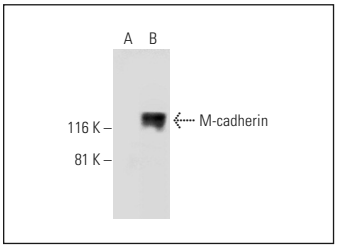
Molecular Weight of M-cadherin: 120 kDa.

Positive Controls: human M-cadherin transfected 293T whole cell lysate, A-673 cell lysate: sc-2414 or SJRH30 cell lysate: sc-2287.

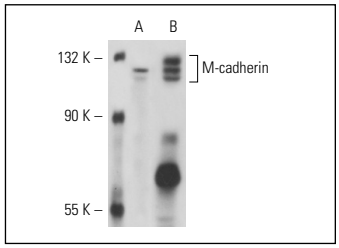
RECOMMENDED SECONDARY REAGENTS

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



M-cadherin (T-17): sc-31015. Western blot analysis of M-cadherin expression in non-transfected (**A**) and human M-cadherin transfected (**B**) 293T whole cell lysates.



M-cadherin (T-17): sc-31015. Western blot analysis of M-cadherin expression in A-673 (**A**) and SJRH30 (**B**) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.