

E-cadherin (5F133): sc-71007

BACKGROUND

Cadherins comprise a family of Ca²⁺-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. Members of this family of adhesion proteins include rat cadherin-K (and its human homolog, cadherin-6), R-cadherin, B-cadherin, E/P-cadherin and cadherin-5. The classical cadherins, E-, N- and P-cadherin, consist of large extracellular domains characterized by a series of five homologous NH₂-terminal repeats. The most distal of these cadherins is thought to be responsible for binding specificity, transmembrane domains and carboxy terminal intracellular domains. The relatively short intracellular domains interact with a variety of cytoplasmic proteins, such as β-catenin, to regulate cadherin function.

REFERENCES

- Hirsch, H.A., et al. 1978. Surgical therapy of breast cancer. *Gynakol. Rundsch.* 18: 132-141.
- Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.

CHROMOSOMAL LOCATION

Genetic locus: CDH1 (human) mapping to 16q22.1; Cdh1 (mouse) mapping to 8 D3.

SOURCE

E-cadherin (5F133) is a mouse monoclonal antibody raised against affinity purified 80 kDa extracellular fragments of E-cadherin derived from tryptic digestion of A-431 vulva carcinoma cells of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

E-cadherin (5F133) is recommended for detection of E-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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for E-cadherin siRNA (h): sc-35242, E-cadherin siRNA (m): sc-35243, E-cadherin shRNA Plasmid (h): sc-35242-SH, E-cadherin shRNA Plasmid (m): sc-35243-SH, E-cadherin shRNA (h) Lentiviral Particles: sc-35242-V and E-cadherin shRNA (m) Lentiviral Particles: sc-35243-V.

Molecular Weight of E-cadherin precursor: 135 kDa.

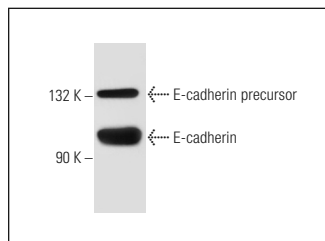
Molecular Weight of mature E-cadherin: 120/80 kDa.

Positive Controls: ZR-75-1 cell lysate: sc-2241, LNCaP cell lysate: sc-2231 or MCF7 whole cell lysate: sc-2206.

STORAGE

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

DATA



E-cadherin (5F133): sc-71007. Western blot analysis of E-cadherin expression in LNCaP whole cell lysate.

SELECT PRODUCT CITATIONS

- Yu, M., et al. 2017. Interference with Tim-3 protein expression attenuates the invasion of clear cell renal cell carcinoma and aggravates anoikis. *Mol. Med. Rep.* 15: 1103-1108.
- Fang, L., et al. 2018. TGF-β1 stimulates epithelial-mesenchymal transition mediated by ADAM33. *Exp. Ther. Med.* 15: 985-992.
- Chen, S., et al. 2018. Conversion of epithelial-to-mesenchymal transition to mesenchymal-to-epithelial transition is mediated by oxygen concentration in pancreatic cancer cells. *Oncol. Lett.* 15: 7144-7152.
- Feng, X., et al. 2018. miR-495 enhances the efficacy of radiotherapy by targeting GRP78 to regulate EMT in nasopharyngeal carcinoma cells. *Oncol. Rep.* 40: 1223-1232.
- Jin, X., et al. 2019. MicroRNA-105 promotes epithelial-mesenchymal transition of nonsmall lung cancer cells through upregulating Mcl-1. *J. Cell. Biochem.* 120: 5880-5888.
- Liu, Z., et al. 2019. Nuclear factor I/B promotes colorectal cancer cell proliferation, epithelial-mesenchymal transition and 5-fluorouracil resistance. *Cancer Sci.* 110: 86-98.
- Li, N., et al. 2019. The role of Zeb1 in the pathogenesis of morbidly adherent placenta. *Mol. Med. Rep.* 20: 2812-2822.
- Hang, C., et al. 2019. MicroRNA-9 inhibits gastric cancer cell proliferation and migration by targeting neuropilin-1. *Exp. Ther. Med.* 18: 2524-2530.
- Kline, K.T., et al. 2020. Neonatal injury increases gut permeability by epigenetically suppressing E-cadherin in adulthood. *J. Immunol.* 204: 980-989.
- Li, S., et al. 2020. Effect of DEC1 on the proliferation, adhesion, invasion and epithelial-mesenchymal transition of osteosarcoma cells. *Exp. Ther. Med.* 19: 2360-2366.

RESEARCH USE

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