

E-cadherin (SPM471): sc-56527

BACKGROUND

Cadherins comprise a family of Ca^{2+} -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 NH_2 -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

1. Hirsch, H.A., et al. 1978. Surgical therapy of breast cancer. *Gynakol. Rundsch.* 18: 132-141.
2. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.
3. Hatta, M., et al. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. *Nucleic Acids Res.* 19: 4437-4441.

CHROMOSOMAL LOCATION

Genetic locus: CDH1 (human) mapping to 16q22.1.

SOURCE

E-cadherin (SPM471) is a mouse monoclonal antibody raised against amino acids 600-707 of E-cadherin of human origin.

PRODUCT

Each vial contains 200 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

E-cadherin (SPM471) is recommended for detection of E-cadherin of 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 shRNA Plasmid (h): sc-35242-SH and E-cadherin shRNA (h) Lentiviral Particles: sc-35242-V.

Molecular Weight of E-cadherin precursor: 135 kDa.

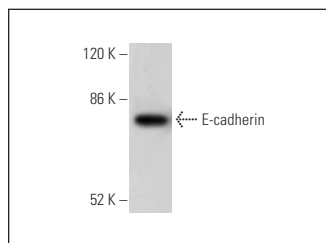
Molecular Weight of mature E-cadherin: 120/80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, LNCaP cell lysate: sc-2231 or MCF7 whole cell lysate: sc-2206.

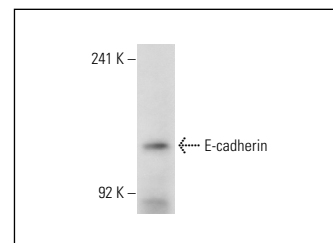
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



E-cadherin (SPM471): sc-56527. Western blot analysis of E-cadherin expression in HeLa whole cell lysate.



E-cadherin (SPM471): sc-56527. Western blot analysis of E-cadherin expression in LNCaP whole cell lysate.

SELECT PRODUCT CITATIONS

1. Michailidi, C., et al. 2015. Expression and promoter methylation status of hMLH1, MGMT, APC, and CDH1 genes in patients with colon adenocarcinoma. *Exp. Biol. Med.* 240: 1599-1605.
2. Bulzico, D., et al. 2017. A novel TP53 mutation associated with TWIST1 and SIP1 expression in an aggressive adrenocortical carcinoma. *Endocr. Pathol.* 28: 326-331.
3. Bulzico, D., et al. 2017. Is there a role for epithelial-mesenchymal transition in adrenocortical tumors? *Endocrine* 58: 276-288.
4. Filipovic, J., et al. 2019. PRMT1 expression in renal cell tumors- application in differential diagnosis and prognostic relevance. *Diagn. Pathol.* 14: 120.
5. Fríon-Herrera, Y., et al. 2020. The Cuban propolis component nemorosone inhibits proliferation and metastatic properties of human colorectal cancer cells. *Int. J. Mol. Sci.* 21 pii: E1827.

STORAGE

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



See **E-cadherin (G-10): sc-8426** for E-cadherin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.