

# E-cadherin (Sec11): sc-59780

## 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  $\beta$ -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.
- 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; Cdh1 (mouse) mapping to 8 D3.

## SOURCE

E-cadherin (Sec11) is a mouse monoclonal antibody raised against amino acids 9-21 of E-cadherin of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

E-cadherin (Sec11) is recommended for detection of both the 120 kDa E-cadherin and the 80 kDa Trypsin-resistant extracellular part of mouse, rat, human and canine 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 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.

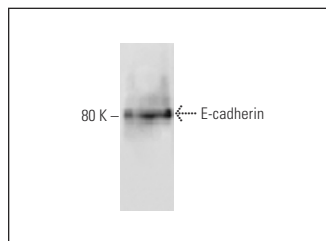
Molecular Weight of mature E-cadherin: 120/80 kDa.

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 (Sec11): sc-59780. Western blot analysis of E-cadherin expression in MCF7 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Xu, T., et al. 2011. Bone morphogenetic protein-4-induced epithelial-mesenchymal transition and invasiveness through Smad1-mediated signal pathway in squamous cell carcinoma of the head and neck. *Arch. Med. Res.* 42: 128-137.
- Zhang, L., et al. 2017. Dysregulation of Fra1 expression by Wnt/ $\beta$ -catenin signalling promotes glioma aggressiveness through epithelial-mesenchymal transition. *Biosci. Rep.* 37: BSR20160643.
- Bai, J.W., et al. 2017. MicroRNA-320 inhibits cell proliferation and invasion in breast cancer cells by targeting SOX4. *Oncol. Lett.* 14: 7145-7152.
- Zhang, Y., et al. 2018. MiR-1294 confers cisplatin resistance in ovarian cancer cells by targeting IGF1R. *Biomed. Pharmacother.* 106: 1357-1363.
- Du, C., et al. 2018. Bcl-2 promotes metastasis through the epithelial-to-mesenchymal transition in the BCcap37 medullary breast cancer cell line. *Oncol. Lett.* 15: 8991-8898.

## 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.

## CONJUGATES

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.