

E-cadherin (DECMA-1): sc-59778

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.

CHROMOSOMAL LOCATION

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

SOURCE

E-cadherin (DECMA-1) is a rat monoclonal antibody raised against the embryonal carcinoma cell line PCC4 Aza RI of mouse origin.

PRODUCT

Each vial contains 200 μg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

E-cadherin (DECMA-1) is available conjugated to agarose (sc-59778 AC), 500 $\mu\text{g}/0.25$ ml agarose in 1 ml, for IP; to HRP (sc-59778 HRP), 200 $\mu\text{g}/\text{ml}$, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59778 PE), fluorescein (sc-59778 FITC), Alexa Fluor® 488 (sc-59778 AF488), Alexa Fluor® 546 (sc-59778 AF546), Alexa Fluor® 594 (sc-59778 AF594) or Alexa Fluor® 647 (sc-59778 AF647), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59778 AF680) or Alexa Fluor® 790 (sc-59778 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

E-cadherin (DECMA-1) is recommended for detection of E-cadherin of mouse, rat, human and canine 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 mature E-cadherin: 120/80 kDa.

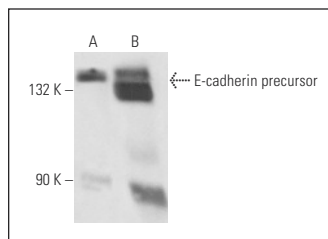
Molecular Weight of E-cadherin precursor: 135 kDa.

Positive Controls: F9 cell lysate: sc-2245, MDCK cell lysate: sc-2252 or LNCaP cell lysate: sc-2231.

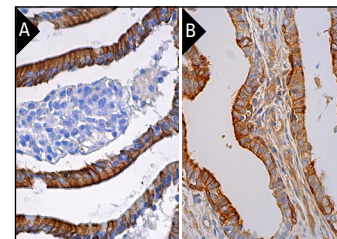
STORAGE

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

DATA



E-cadherin (DECMA-1): sc-59778. Western blot analysis of E-cadherin expression in LNCaP (A) and MDCK (B) whole cell lysates.



E-cadherin (DECMA-1): sc-59778. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing membrane and cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Wianny, F. and Zernicka-Goetz, M. 2000. Specific interference with gene function by double-stranded RNA in early mouse development. *Nat. Cell Biol.* 2: 70-75.
- Mahe, M.M., et al. 2013. Establishment of gastrointestinal epithelial organoids. *Curr. Protoc. Mouse Biol.* 3: 217-240.
- Soh, B.S., et al. 2014. N-cadherin prevents the premature differentiation of anterior heart field progenitors in the pharyngeal mesodermal microenvironment. *Cell Res.* 24: 1420-1432.
- Rötzer, V., et al. 2015. E-cadherin and Src associate with extradesmosomal Dsg3 and modulate desmosome assembly and adhesion. *Cell. Mol. Life Sci.* 72: 4885-4897.
- Cano-González, A. and López-Rivas, A. 2016. Opposing roles of TGF- β and EGF in the regulation of TRAIL-induced apoptosis in human breast epithelial cells. *Biochim. Biophys. Acta* 1863: 2104-2114.
- Xiang, Y., et al. 2017. MiR-93-5p inhibits the EMT of breast cancer cells via targeting MKL-1 and STAT3. *Exp. Cell Res.* 357: 135-144.
- Yin, W., et al. 2018. The potassium channel KCNJ13 is essential for smooth muscle cytoskeletal organization during mouse tracheal tubulogenesis. *Nat. Commun.* 9: 2815.
- Sun, P., et al. 2019. Maintenance of primary hepatocyte functions in vitro by inhibiting mechanical tension-induced YAP activation. *Cell Rep.* 29: 3212-3222.e4.
- Luo, C., et al. 2020. lncRNA XIST promotes glioma proliferation and metastasis through miR-133a/SOX4. *Exp. Ther. Med.* 19: 1641-1648.

RESEARCH USE

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

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