SANTA CRUZ BIOTECHNOLOGY, INC.

E-cadherin (N-20): sc-1500

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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of E-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-1500 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

E-cadherin (N-20) 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

E-cadherin (N-20) is also recommended for detection of E-cadherin in additional species, including equine, canine, bovine, porcine and avian.

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.

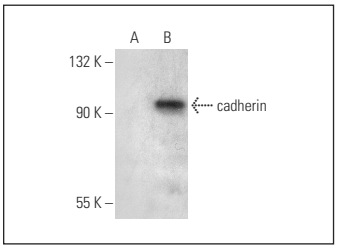
STORAGE

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

RESEARCH USE

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

DATA



E-cadherin (N-20): sc-1500. Western blot analysis of cadherin expression in non-transfected: sc-117752 (**A**) and human cadherin transfected: sc-112608 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Hiscox, S., et al. 1999. Hepatocyte growth factor/scatter factor disrupts epithelial tumour cell-cell adhesion: involvement of β-catenin. Anticancer Res. 19: 509-518.
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3. Pakala, S.B., et al. 2011. TGF-β1 signaling targets metastasis-associated protein 1, a new effector in epithelial cells. Oncogene 30: 2230-2241.
4. Cuccioloni, M., et al. 2012. *Sanguisorba minor* extract suppresses plasmin-mediated mechanisms of cancer cell migration. Biochim. Biophys. Acta 1820: 1027-1034.
5. Calaf, G.M., et al. 2013. Differential expression of cell adhesion molecules in an ionizing radiation-induced breast cancer model system. Oncol. Rep. 30: 285-291.
6. Li, G., et al. 2013. Lyn mitigates mouse airway remodeling by downregulating the TGF-β3 isoform in house dust mite models. J. Immunol. 191: 5359-5370.
7. Wang, D., et al. 2014. Oct-4 and Nanog promote the epithelial-mesenchymal transition of breast cancer stem cells and are associated with poor prognosis in breast cancer patients. Oncotarget 5: 10803-11085.
8. Sun, L., et al. 2015. Hypoxia promotes HO-8910PM ovarian cancer cell invasion via Snail-mediated MT1-MMP upregulation. Exp. Biol. Med. 240: 1434-1445.