SANTA CRUZ BIOTECHNOLOGY, INC.

E-cadherin (2Q663): sc-71008

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

SOURCE

E-cadherin (2Q663) is a mouse monoclonal antibody raised against human breast carcinoma cell line T471.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

E-cadherin (2Q663) 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 flow cytometry (1 µg per 1 x 10^6 cells).

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 mature E-cadherin: 120/80 kDa.

Molecular Weight of E-cadherin precursor: 135 kDa.

Positive Controls: ZR-75-1 cell lysate: sc-2241, LNCaP cell lysate: sc-2231 or Caco-2 cell lysate: sc-2262.

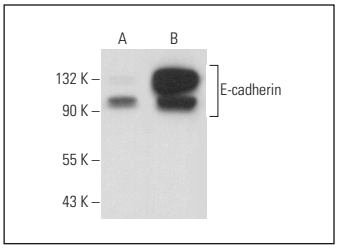
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

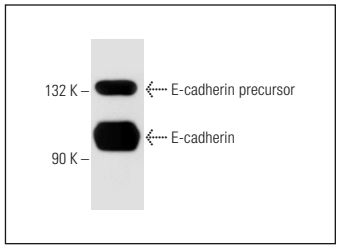
STORAGE

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

DATA



E-cadherin (2Q663): sc-71008. Western blot analysis of E-cadherin expression in ZR-75-1 (**A**) and Caco-2 (**B**) whole cell lysates.



E-cadherin (2Q663): sc-71008. Western blot analysis of E-cadherin expression in LNCaP whole cell lysate.

SELECT PRODUCT CITATIONS

1. Shieh, D.B., et al. 2010. Effects of genistein on β-catenin signaling and subcellular distribution of actin-binding proteins in human umbilical CD105-positive stromal cells. J. Cell. Physiol. 223: 423-434.
2. Zhou, Z., et al. 2014. The cAMP-responsive element binding protein (CREB) transcription factor regulates furin expression during human trophoblast syncytialization. Placenta 35: 907-918.
3. Li, Y., et al. 2015. Involvement of nephrin in human placental trophoblast syncytialization. Reproduction 149: 339-346.
4. Chang, W.L., et al. 2016. PLAC1 is involved in human trophoblast syncytialization. Reprod. Biol. 16: 218-224.
5. Zhu, Y.C., et al. 2017. Suppression of CIP4/Par6 attenuates TGF-β1-induced epithelial-mesenchymal transition in NRK-52E cells. Int. J. Mol. Med. 40: 1165-1171.
6. Yu, S., et al. 2018. Annexin A9 promotes invasion and metastasis of colorectal cancer and predicts poor prognosis. Int. J. Mol. Med. 41: 2185-2192.
7. Jiao, X., et al. 2019. KIAA1199, a target of micoRNA-486-5p, promotes papillary thyroid cancer invasion by influencing Epithelial-Mesenchymal Transition (EMT). Med. Sci. Monit. 25: 6788-6796.
8. Wang, X., et al. 2020. Trichostatin A reverses epithelial-mesenchymal transition and attenuates invasion and migration in MCF-7 breast cancer cells. Exp. Ther. Med. 19: 1687-1694.

RESEARCH USE

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

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.