SANTA CRUZ BIOTECHNOLOGY, INC.

N-cadherin (8C11): sc-53488

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. 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. 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.

CHROMOSOMAL LOCATION

Genetic locus: CDH2 (human) mapping to 18q12.1; Cdh2 (mouse) mapping to 18 A1.

SOURCE

N-cadherin (8C11) is a mouse monoclonal antibody raised against the extracellular domain of N-cadherin of human origin.

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.

N-cadherin (8C11) is available conjugated to agarose (sc-53488 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-53488 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53488 PE), fluorescein (sc-53488 FITC), Alexa Fluor® 488 (sc-53488 AF488), Alexa Fluor® 546 (sc-53488 AF546), Alexa Fluor® 594 (sc-53488 AF594) or Alexa Fluor® 647 (sc-53488 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53488 AF680) or Alexa Fluor® 790 (sc-53488 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

N-cadherin (8C11) is recommended for detection of N-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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for N-cadherin siRNA (h): sc-29403, N-cadherin siRNA (m): sc-35999, N-cadherin siRNA (r): sc-270280, N-cadherin shRNA Plasmid (h): sc-29403-SH, N-cadherin shRNA Plasmid (m): sc-35999-SH, N-cadherin shRNA Plasmid (r): sc-270280-SH, N-cadherin shRNA (h) Lentiviral Particles: sc-29403-V, N-cadherin shRNA (m) Lentiviral Particles: sc-35999-V and N-cadherin shRNA (r) Lentiviral Particles: sc-270280-V.

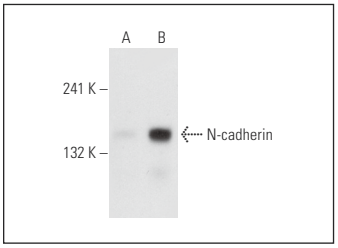
Molecular Weight of N-cadherin: 130 kDa.

Positive Controls: N-cadherin (m): 293T Lysate: sc-121905, mouse brain extract: sc-2253 or human heart extract: sc-363763.

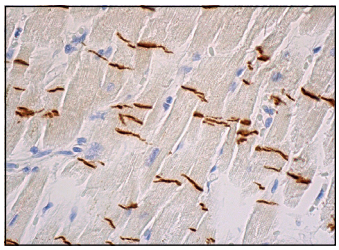
STORAGE

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

DATA



N-cadherin (8C11): sc-53488. Western blot analysis of N-cadherin expression in non-transfected: sc-117752 (**A**) and mouse N-cadherin transfected: sc-121905 (**B**) 293T whole cell lysates.



N-cadherin (8C11): sc-53488. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing intercalated disc staining of myocytes.

SELECT PRODUCT CITATIONS

1. Zirkel, A., et al. 2013. IGF2BP1 promotes mesenchymal cell properties and migration of tumor-derived cells by enhancing the expression of LEF1 and SNAI2 (SLUG). Nucleic Acids Res. 41: 6618-6636.
2. Liu, S., et al. 2014. MiR-137 regulates epithelial-mesenchymal transition in gastrointestinal stromal tumor. Tumour Biol. 35: 9131-9138.
3. Tisza, M.J., et al. 2016. Motility and stem cell properties induced by the epithelial-mesenchymal transition require destabilization of lipid rafts. Oncotarget 7: 51553-51568.
4. Fan, C., et al. 2017. RASSF10 is epigenetically inactivated and suppresses cell proliferation and induces cell apoptosis by activating the p53 signalling pathway in papillary thyroid carcinoma cancer. Cell. Physiol. Biochem. 41: 1229-1239.
5. Wang, L., et al. 2018. K-Ras mutation promotes ionizing radiation-induced invasion and migration of lung cancer in part via the cathepsin L/CUX1 pathway. Exp. Cell Res. 362: 424-435.
6. Pan, S., et al. 2019. Long noncoding RNA LINC01111 suppresses pancreatic cancer aggressiveness by regulating DUSP1 expression via microRNA-3924. Cell Death Dis. 10: 883.
7. Feng, T., et al. 2019. The microRNA-708-5p/ZEB1/EMT axis mediates the metastatic potential of osteosarcoma. Oncol. Rep. 43: 491-502.
8. Lu, Y., et al. 2019. MicroRNA-224, negatively regulated by c-Jun, inhibits growth and epithelial-to-mesenchymal transition phenotype via targeting ADAM17 in oral squamous cell carcinoma. J. Cell. Mol. Med. 23: 4913-4920.
9. 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.