SANTA CRUZ BIOTECHNOLOGY, INC.

T-cadherin (H-126): sc-7940

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The cadherins are a family of Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. Cadherins each contain a large extracellular domain at the amino-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. The relatively short carboxy-terminal, intracellular domain interacts with a variety of cytoplasmic proteins, including β-catenin, to regulate cadherin function. T-cadherin (for truncated-cadherin, also designated heart-cadherin or cadherin-13) expression levels have been shown to be reduced in human breast cancers and carcinoma cells lines. Evidence suggests that decreased levels of T-cadherin indicate a progression in breast malignancies.

CHROMOSOMAL LOCATION

Genetic locus: CDH13 (human) mapping to 16q23.3; Cdh13 (mouse) mapping to 8 E1.

SOURCE

T-cadherin (H-126) is a rabbit polyclonal antibody raised against amino acids 300-425 mapping within an internal region of T-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.

APPLICATIONS

T-cadherin (H-126) is recommended for detection of T-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

T-cadherin (H-126) is also recommended for detection of T-cadherin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for T-cadherin siRNA (h): sc-43015, T-cadherin siRNA (m): sc-43016, T-cadherin shRNA Plasmid (h): sc-43015-SH, T-cadherin shRNA Plasmid (m): sc-43016-SH, T-cadherin shRNA (h) Lentiviral Particles: sc-43015-V and T-cadherin shRNA (m) Lentiviral Particles: sc-43016-V.

Molecular Weight of T-cadherin precursor: 130 kDa.

Molecular Weight of mature T-cadherin: 105 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or PC-3 cell lysate: sc-2220.

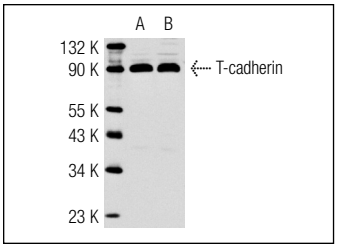
STORAGE

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

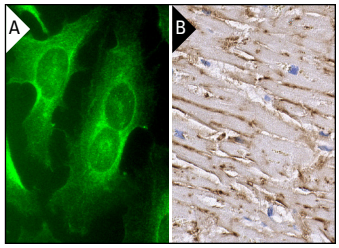
RESEARCH USE

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

DATA



T-cadherin (H-126): sc-7940. Western blot analysis of T-cadherin expression in Jurkat (**A**) and PC-3 (**B**) whole cell lysates.



T-cadherin (H-126): sc-7940. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing membrane staining of myocytes (**B**).

SELECT PRODUCT CITATIONS

1. Sotgia, F., et al. 2002. Intracellular retention of glycosylphosphatidyl inositol-linked proteins in caveolin-deficient cells. Mol. Cell. Biol. 22: 3905-3926.
2. Xu, X.L., et al. 2004. Methylation profile of the promoter CpG islands of 31 genes that may contribute to colorectal carcinogenesis. World J. Gastroenterol. 10: 3441-3454.
3. Marchong, M.N., et al. 2004. Minimal 16q genomic loss implicates cadherin-11 in retinoblastoma. Mol. Cancer Res. 2: 495-503.
4. Takahashi, T., et al. 2005. Adiponectin, T-cadherin and tumour necrosis factor-α in damaged cardiomyocytes from autopsy specimens. J. Int. Med. Res. 33: 236-244.
5. Abdi, F., et al. 2006. Detection of biomarkers with a multiplex quantitative proteomic platform in cerebrospinal fluid of patients with neurodegenerative disorders. J. Alzheimers Dis. 9: 293-348.
6. Bai, S., et al. 2006. Identification of T-cadherin as a novel target of DNA methyltransferase 3B and its role in the suppression of nerve growth factor-mediated neurite outgrowth in PC12 cells. J. Biol. Chem. 281: 13604-13611.
7. Bai, S., et al. 2007. Treatment of PC12 cells with nerve growth factor induces proteasomal degradation of T-cadherin that requires tyrosine phosphorylation of its cadherin domain. J. Biol. Chem. 282: 27171-27180.
8. Chan, D.W., et al. 2008. Genetic and epigenetic inactivation of T-cadherin in human hepatocellular carcinoma cells. Int. J. Cancer 123: 1043-1052.

MONOS Satisfaction Guaranteed

Try **T-cadherin (E-9): sc-166875**, our highly recommended monoclonal alternative to T-cadherin (H-126).