

T-cadherin (E-9): sc-166875

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 catenin b, 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 (E-9) is a mouse monoclonal 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

T-cadherin (E-9) is available conjugated to agarose (sc-166875 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-166875 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166875 PE), fluorescein (sc-166875 FITC), Alexa Fluor® 488 (sc-166875 AF488), Alexa Fluor® 546 (sc-166875 AF546), Alexa Fluor® 594 (sc-166875 AF594) or Alexa Fluor® 647 (sc-166875 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166875 AF680) or Alexa Fluor® 790 (sc-166875 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

T-cadherin (E-9) is recommended for detection of T-cadherin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

T-cadherin (E-9) is also recommended for detection of T-cadherin in additional species, including equine.

Suitable for use as control antibody for T-cadherin siRNA (h): sc-43015, T-cadherin siRNA (m): sc-43016, T-cadherin siRNA (r): sc-270430, T-cadherin shRNA Plasmid (h): sc-43015-SH, T-cadherin shRNA Plasmid (m): sc-43016-SH, T-cadherin shRNA Plasmid (r): sc-270430-SH, T-cadherin shRNA (h) Lentiviral Particles: sc-43015-V, T-cadherin shRNA (m) Lentiviral Particles: sc-43016-V and T-cadherin shRNA (r) Lentiviral Particles: sc-270430-V.

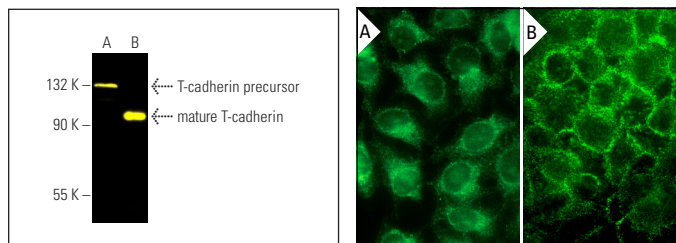
Molecular Weight of T-cadherin precursor: 130 kDa.

Molecular Weight of mature T-cadherin: 105 kDa.

STORAGE

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

DATA



T-cadherin (E-9) Alexa Fluor® 488: sc-166875 AF488. Direct fluorescent western blot analysis of T-cadherin expression in A-431 whole cell lysate (A) and human brain tissue extract (B). Blocked with UltraCruz® Blocking Reagent: sc-516214.

T-cadherin (E-9): sc-166875. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and perinuclear localization (A). Immunofluorescence staining of formalin-fixed A-431 cells showing membrane localization (B).

SELECT PRODUCT CITATIONS

- Listyo, A., et al. 2011. T-cadherin in the mammalian cochlea. *Laryngoscope* 121: 2228-2233.
- Lu, Y., et al. 2015. MIR517C inhibits autophagy and the epithelial to mesenchymal (-like) transition phenotype in human glioblastoma through KPNA2-dependent disruption of TP53 nuclear translocation. *Autophagy* 11: 2213-2232.
- Staubach, S., et al. 2017. Classical galactosemia: insight into molecular pathomechanisms by differential membrane proteomics of fibroblasts under galactose stress. *J. Proteome Res.* 16: 516-527.
- Wang, H., et al. 2018. Long noncoding RNA UPAT promoted cell proliferation via increasing UHRF1 expression in non-small cell lung cancer. *Oncol. Lett.* 16: 1491-1498.
- Wang, Q., et al. 2018. Overexpression of T-cadherin inhibits the proliferation of oral squamous cell carcinoma through the PI3K/Akt/mTOR intracellular signalling pathway. *Arch. Oral Biol.* 96: 74-79.
- Shiotani, H., et al. 2021. Nectin-2 α is localized at cholinergic neuron dendrites and regulates synapse formation in the medial habenula. *J. Comp. Neurol.* 529: 450-477.
- Tan, W.H., et al. 2022. CTRP15 promotes macrophage cholesterol efflux and attenuates atherosclerosis by increasing the expression of ABCA1. *J. Physiol. Biochem.* 78: 653-666.
- Fu, L., et al. 2024. Depleting inositol pyrophosphate 5-InsP7 protected the heart against ischaemia-reperfusion injury by elevating plasma adiponectin. *Cardiovasc. Res.* 120: 954-970.

RESEARCH USE

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

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