

pan-cadherin (C-19): sc-1499

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.

SOURCE

pan-cadherin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of 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-1499 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

pan-cadherin (C-19) is recommended for detection of P-cadherin, N-cadherin, E-cadherin, K-cadherin, M-cadherin, and R-cadherin of mouse, rat, human, *Xenopus laevis* and zebrafish 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).

pan-cadherin (C-19) is also recommended for detection of P-cadherin, N-cadherin, E-cadherin, K-cadherin, M-cadherin, and R-cadherin in additional species, including equine, canine, bovine and porcine.

Molecular Weight of pan-cadherin: 120 kDa.

Positive Controls: MDCK cell lysate: sc-2252, A-431 whole cell lysate: sc-2201 or F9 cell lysate: sc-2245.

STORAGE

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

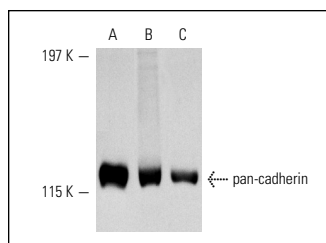
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

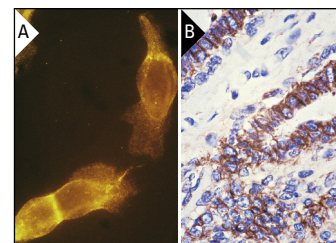
RESEARCH USE

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

DATA



pan-cadherin (C-19): sc-1499. Western blot analysis of pan-cadherin expression in A-431 (A), F9 (B) and MDCK (C) whole cell lysates.



pan-cadherin (C-19): sc-1499. Immunofluorescence staining of methanol-fixed A-431 cells showing membrane and cell junction staining (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human breast tissue showing membrane and cell junction staining (B).

SELECT PRODUCT CITATIONS

- Bannerman, D.D., et al. 1998. Bacterial lipopolysaccharide disrupts endothelial monolayer integrity and survival signaling events through caspase cleavage of adherens junction proteins. *J. Biol. Chem.* 273: 35371-35380.
- Monea, S., et al. 2006. Membrane localization of membrane type 5 matrix metalloproteinase by AMPA receptor binding protein and cleavage of cadherins. *J. Neurosci.* 26: 2300-2312.
- Yu, H., et al. 2007. Selective reconstitution of liver cholesterol biosynthesis promotes lung maturation but does not prevent neonatal lethality in Dhcr7 null mice. *BMC Dev. Biol.* 7: 27.
- Pickard, B.W., et al. 2007. Type 1 parathyroid hormone receptor (PTH1R) nuclear trafficking: regulation of PTH1R nuclear-cytoplasmic shuttling by importin- α/β and chromosomal region maintenance 1/exportin 1. *Endocrinology* 148: 2282-2289.
- Redel, A., et al. 2008. Activation of mitochondrial large-conductance calcium-activated K^+ channels via protein kinase A mediates desflurane-induced preconditioning. *Anesth. Analg.* 106: 384-391.
- Reyes-Reyes, E.M., et al. 2010. A new paradigm for aptamer therapeutic AS1411 action: uptake by macropinocytosis and its stimulation by a nucleolin-dependent mechanism. *Cancer Res.* 70: 8617-8629.
- Konze, S.A., et al. 2014. Cleavage of E-cadherin and β -catenin by calpain affects Wnt signaling and spheroid formation in suspension cultures of human pluripotent stem cells. *Mol. Cell. Proteomics* 13: 990-1007.



Try **pan-cadherin (CH-19): sc-59876** or **N-cadherin (H-4): sc-271386**, our highly recommended monoclonal alternatives to pan-cadherin (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **pan-cadherin (CH-19): sc-59876**.