

# cadherin-24 (P-15): sc-242301

## BACKGROUND

The cadherins are a family of Ca<sup>2+</sup>-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of structure and morphogenesis. Cadherins each contain a large extracellular domain at the N-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. Cadherin-24 is a 819 amino acid single-pass type I membrane protein that shares 57% sequence similarity with cadherin-11, a cadherin that is expressed in breast cancer cell lines and osteoblasts. Through association with  $\alpha$ -E-catenin,  $\beta$ -catenin and p120, cadherin-24 mediates strong cell-cell adhesion. There are three isoforms of cadherin-24 that are produced as a result of alternative splicing events.

## REFERENCES

- Gumbiner, B.M. and McCreas, P.D. 1993. Catenins as mediators of the cytoplasmic functions of cadherins. *J. Cell Sci. Suppl.* 17: 155-158.
- Kemler, R. 1993. From cadherins to catenins: cytoplasmic protein interactions and regulation of cell adhesion. *Trends Genet.* 9: 317-321.
- Aberle, H., Schwartz, H. and Kemler, R. 1996. Cadherin-catenin complex: protein interactions and their implications for cadherin function. *J. Cell. Biochem.* 61: 514-523.
- Gottardi, C.J. and Gumbiner, B.M. 2001. Adhesion signaling: how  $\beta$ -catenin interacts with its partners. *Curr. Biol.* 11: R792-R794.
- Katafiasz, B.J., Nieman, M.T., Wheelock, M.J. and Johnson, K.R. 2003. Characterization of cadherin-24, a novel alternatively spliced type II cadherin. *J. Biol. Chem.* 278: 27513-27519.
- Gooding, J.M., Yap, K.L. and Ikura, M. 2004. The cadherin-catenin complex as a focal point of cell adhesion and signalling: new insights from three-dimensional structures. *Bioessays* 26: 497-511.

## CHROMOSOMAL LOCATION

Genetic locus: CDH24 (human) mapping to 14q11.2; Cdh24 (mouse) mapping to 14 C3.

## SOURCE

cadherin-24 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cadherin-24 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-242301 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

cadherin-24 (P-15) is recommended for detection of cadherin-24 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

cadherin-24 (P-15) is also recommended for detection of cadherin-24 in additional species, including equine.

Suitable for use as control antibody for cadherin-24 siRNA (h): sc-92216, cadherin-24 siRNA (m): sc-141974, cadherin-24 shRNA Plasmid (h): sc-92216-SH, cadherin-24 shRNA Plasmid (m): sc-141974-SH, cadherin-24 shRNA (h) Lentiviral Particles: sc-92216-V and cadherin-24 shRNA (m) Lentiviral Particles: sc-141974-V.

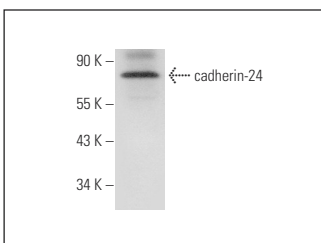
Molecular Weight of cadherin-24: 88/84/42 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



cadherin-24 (P-15): sc-242301. Western blot analysis of cadherin-24 expression in NIH/3T3 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.