

# K-cadherin (4A10): sc-71463

## BACKGROUND

Cadherins comprise a family of  $\text{Ca}^{2+}$ -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  $\text{NH}_2$  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  $\beta$ -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.

## REFERENCES

1. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. *Development* 102: 639-655.
2. Hatta, M., et al. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. *Nucleic Acids Res.* 19: 4437-4441.
3. Koch, P.J., et al. 1994. Desmosomal cadherins: another growing multigene family of adhesion molecules. *Curr. Opin. Cell Biol.* 6: 682-687.
4. Ranscht, B. 1994. Cadherins and catenins: interactions and functions in embryonic development. *Curr. Opin. Cell Biol.* 6: 740-746.
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6. Ayalon, O., et al. 1994. Spatial and temporal relationships between cadherins and PECAM-1 in cell-cell junctions of human endothelial cells. *J. Cell Biol.* 126: 247-258.
7. Tanihara, H., et al. 1994. Cloning of five human cadherins clarifies characteristic features of cadherin extracellular domain and provides further evidence for two structurally different types of cadherin. *Cell Adhes. Commun.* 2: 15-26.
8. Takeichi, M. 1995. Morphogenetic roles of classic cadherins. *Curr. Opin. Cell Biol.* 7: 619-627.

## CHROMOSOMAL LOCATION

Genetic locus: CDH6 (human) mapping to 5p13.3; Cdh6 (mouse) mapping to 15 A1.

## SOURCE

K-cadherin (4A10) is a mouse monoclonal antibody raised against the extracellular domain of K-cadherin of human origin.

## PRODUCT

Each vial contains 100  $\mu\text{g}$  IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

K-cadherin (4A10) is recommended for detection of K-cadherin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 K-cadherin siRNA (h): sc-29382, K-cadherin siRNA (m): sc-35730, K-cadherin shRNA Plasmid (h): sc-29382-SH, K-cadherin shRNA Plasmid (m): sc-35730-SH, K-cadherin shRNA (h) Lentiviral Particles: sc-29382-V and K-cadherin shRNA (m) Lentiviral Particles: sc-35730-V.

Molecular Weight of K-cadherin: 120-125 kDa.

Positive Controls: MDCK cell lysate: sc-2252.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 3) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## 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.

## PROTOCOLS

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