

K-cadherin (2B6): sc-59974

BACKGROUND

Cadherins comprise a family of Ca²⁺-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 NH₂ 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 b-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., Miyatani, S., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Takeichi, M. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. *Nucleic Acids Res.* 19: 4437-4441.
3. Koch, P.J. and Franke, W.W. 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.
5. Hinck, L., Näthke, I.S., Papkoff, J. and Nelson, W.J. 1994. Dynamics of cadherin/catenin complex formation: novel protein interactions and pathways of complex assembly. *J. Cell Biol.* 125: 1327-1340.
6. Ayalon, O., Sabanai, H., Lampugnani, M.G., Dejana, E. and Geiger, B. 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., Sano, K., Heimark, R.L., St John, T. and Suzuki, S. 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 (2B6) is a mouse monoclonal antibody raised against the extracellular domain of K-cadherin of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

K-cadherin (2B6) 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.

SELECT PRODUCT CITATIONS

1. Sancisi, V., Gandolfi, G., Ragazzi, M., Nicoli, D., Tamagnini, I., Piana, S. and Ciarrocchi, A. 2013. Cadherin 6 is a new RUNX2 target in TGF-β signalling pathway. *PLoS ONE* 8: e75489.
2. Awazu, M., Nagata, M. and Hida, M. 2017. BMP7 dose-dependently stimulates proliferation and cadherin-11 expression via ERK and p38 in a murine metanephric mesenchymal cell line. *Physiol. Rep.* 5: e13378.

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 for detailed protocols and support products.