

## vezatin (C-20): sc-16696

### BACKGROUND

Vezeatin is a single transmembrane domain containing mammalian adhesion protein that is ubiquitously expressed at adherens cell-cell junctions. Adherens junctions (zonula adherens) are cell-cell junctions that host microfilaments and/or intermediate filaments, which can coordinate with focal adhesion proteins and mediate tissue organization and morphogenesis. Vezeatin interacts with Actin filamentous networks and anchors myosin VIIA to cadherin complexes, thereby creating a network between adherens junctions and the Actin cytoskeleton. This may enhance cell-cell adhesion characteristics and influence cadherin-based signals. Vezeatin is concentrated in the fibrillar links interconnecting the bases of adjacent stereocilia in the inner ear sensory hair cells and may mediate proper positioning of hair cell stereocilia. Loss of a functional vezeatin-myosin VIIA complex at both the adherent junctions and the base of the stereocilia is likely to account for the splaying out of the stereocilia observed in *Myo7a*<sup>-/-</sup> animals. Vezeatin recruitment to adherens junctions implicates the C-terminal region of  $\alpha$ -catenin.

### REFERENCES

1. Kemler, R. 1993. From cadherins to catenins: cytoplasmic protein interactions and regulation of cell adhesion. *Trends Genet.* 9: 317-321.
2. Kussel-Andermann, P., El-Amraoui, A., Safieddine, S., Nouaille, S., Perfettini, I., Lecuit, M., Cossart, P., Wolfrum, U. and Petit, C. 2000. Vezeatin, a novel transmembrane protein, bridges myosin VIIA to the cadherin-catenins complex. *EMBO J.* 19: 6020-6029.
3. Ko, K.S., Arora, P.D. and McCulloch, C.A. 2001. Cadherins mediate intercellular mechanical signaling in fibroblasts by activation of stretch-sensitive calcium permeable channels. *J. Biol. Chem.* 276: 35967-35977.
4. Li, G., Satyamoorthy, K. and Herlyn, M. 2001. N-cadherin-mediated intercellular interactions promote survival and migration of melanoma cells. *Cancer Res.* 61: 3819-3825.
5. Geisbrecht, E.R. and Montell D.J. 2002. Myosin VI is required for E-cadherin-mediated border cell migration. *Nat. Cell Biol.* 4: 616-620.
6. Sousa, S., Cabanes, D., El-Amraoui, A., Petit, C., Lecuit, M. and Cossart, P. 2004. Unconventional myosin VIIA and vezeatin, two proteins crucial for *Listeria* entry into epithelial cells. *J. Cell Sci.* 117: 2121-2130.
7. LocusLink Report (LocusID: 55591). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

Genetic locus: VEZT (human) mapping to 12q22.

### SOURCE

vezatin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of vezeatin of human origin.

### STORAGE

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

### 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-16696 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

vezatin (C-20) is recommended for detection of vezeatin of 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).

vezatin (C-20) is also recommended for detection of vezeatin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for vezeatin siRNA (h): sc-43199, vezeatin shRNA Plasmid (h): sc-43199-SH and vezeatin shRNA (h) Lentiviral Particles: sc-43199-V.

Molecular Weight of vezeatin: 89 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

### 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.



Try **vezatin (B-1): sc-271347** or **vezatin (A-3): sc-271369**, our highly recommended monoclonal alternatives to vezeatin (C-20).