

---

**anti- $\beta$ -catenin**

Cat #: HM1068  
Rabbit polyclonal IgG  
0.2  $\mu$ g/ $\mu$ l, store at 4 °C

For research use only

**BACKGROUND**

The catenins ( $\alpha$ ,  $\beta$  and  $\gamma$ ) are proteins that bind to cadherins at the highly conserved intracellular cytoplasmic tail. They link E-cadherin to other integral membrane and cytoplasmic proteins. Together, the catenin/cadherin complexes play an important role mediating cellular adhesion. They also mediate transduction of cell-cell contact positional signals to the cell interior. The 92 kDa  $\beta$ -Catenin binds directly to E-cadherin. It also binds to the N-terminus of  $\alpha$ -catenin and interacts with the protein product of the tumor suppressor gene APC. This interaction involves a 15-aa repeat in the APC.  $\beta$ -catenin levels seem to be controlled by APC.

**APPLICATION**

This antibody specifically reacts with human, mouse and rat  $\beta$ -catenin.

The antibody can be used in Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of  $\beta$ -catenin: 92 kDa.  
Western blotting positive controls: MDCK cells.

**IMMUNOGEN**

A recombinant protein corresponding to the carboxy terminus of human  $\beta$ -catenin.

**STORAGE**

This antibody is stable for 12 months when stored at 2-8°C.

**REFERENCES**

1. Pierceall, W.E., Woodard, A.S., Morrow, J.S., Rimm, D., and Fearon, E.R. 1995. Frequent alterations in Ecadherin and alpha- and beta-catenin expression in human breast cancer cell lines. *Oncogene* 11: 1319-1326.
2. Takayama, T., Shiozaki, H., Shibamoto, S., Oka, H., Kimura, Y., Tamura, S., Inoue, M., Monden, T., Ito, F., and Monden, M. 1996. Beta-catenin expression in human cancers. *Amer. J. Pathol.* 148: 39-46.
3. Brady-Kalnay, S.M., Rimm, D.L., and Tonks, N.K. 1995. Receptor protein tyrosine phosphatase PTPm associates with cadherins and catenins *in vivo*. *J. Cell Biol.* 130: 977-986.
4. Korinek, V., Barker, N., Morin, P.J., van Wichen, D., de Weger, R., Kinzler, K.W., Vogelstein, B. and Clevers, H. (1997) Constitutive transcriptional activation by a beta-catenin-Tcf complex in APC-/- colon carcinoma. *Science* 275, 1784-1787
5. Morin, P.J., Sparks, A.B., Korinek, V., Barker, N., Clevers, H., Vogelstein, B. and Kinzler, K.W. (1997) Activation of beta-catenin-Tcf signaling in colon cancer by mutations in beta-catenin or APC. *Science* 275, 1787-1790
6. Chan, E.F., Gat, U., McNiff, J.M. and Fuchs, E. (1999) A common human skin tumour is caused by activating mutations in beta-catenin. *Nat. Genet.* 21, 410-413

7. Kang, D.E., Soriano, S., Xia, X., Eberhart, C.G., De Strooper, B., Zheng, H. and Koo, E.H. (2002) Presenilin couples the paired phosphorylation of beta-catenin independent of axin: implications for beta-catenin activation in tumorigenesis. *Cell* 110, 751-762.
8. Xiao, J.H., Ghosn, C., Hinchman, C., Forbes, C., Wang, J., Snider, N., Cordrey, A., Zhao, Y. and Chandraratna, R.A. (2003) Adenomatous polyposis coli (APC)-independent regulation of beta-catenin degradation via a retinoid X receptor-mediated pathway. *J. Biol. Chem.* 278, 29954-29962.
9. Topol, L., Jiang, X., Choi, H., Garrett-Beal, L., Carolan, P.J. and Yang, Y. (2003) Wnt-5a inhibits the canonical Wnt pathway by promoting GSK-3-independent beta-catenin degradation. *J. Cell Biol.* 162, 899-908.

**PRODUCTS FROM HYPROMATRIX, INC.****A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™  
Catalog Number HM3000
2. Apoptosis AntibodyArray™  
Catalog Number HM4000
3. Cell Cycle AntibodyArray™  
Catalog Number HM5000

**B. Staining AntibodyArray™s**

1. Staining AntibodyArray™ I  
Catalog Number HM8100
2. AntibodyArray Staining Apparatus  
Catalog Number HM8000

**C. Antibodies****1. HRP-conjugated antibodies**

- anti-phosphotyrosine  
Catalog Number HM2040
- anti-phosphoserine  
Catalog Number HM2070
- anti-phosphothreonine  
Catalog Number HM2090

and more...

**2. Primary antibodies**

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at [www.hypromatrix.com](http://www.hypromatrix.com).

**CONTACT**

**Hypromatrix, Inc.**  
100 Barber Avenue  
Worcester, MA 01606  
USA

Tel: 508-856-7900  
Fax: 508-302-0748  
Email: [contact@hypromatrix.com](mailto:contact@hypromatrix.com)  
Web: [www.hypromatrix.com](http://www.hypromatrix.com)