



## ***DB077: $\beta$ -catenin (C18)***

### **Background:**

The multifunctional  $\beta$ -catenin protein was originally identified through its association with the cadherin class of cell adhesion proteins (1&2). It was later found to be an integral part of signal transduction pathways and the best studied is the Wnt/ $\beta$ -catenin pathway (3). Wnt signaling inhibits the degradation of  $\beta$ -catenin and as a result  $\beta$ -catenin becomes transcriptionally active (3-5). The deregulation of Wnt signaling leads to the accumulation of  $\beta$ -catenin, allowing it to become transcriptionally active for a number of genes. Many of these genes are associated with cancer, such as colorectal cancer and melanomas (3&4).

### **Origin:**

$\beta$ -catenin (C18) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminal domain of human  $\beta$ -catenin.

### **Product Details:**

Each vial contains 200  $\mu$ g/ml of affinity purified rabbit IgG,  $\beta$ -catenin (C18) DB077, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

### **Competition Studies:**

A blocking peptide is also available, DB077P, for use in competition studies. Each vial contains 100  $\mu$ g of peptide in 0.5 ml PBS with 0.1% sodium azide and 100  $\mu$ g BSA.

### **Specificity:**

$\beta$ -catenin (C18) is recommended to detect mouse, rat and human  $\beta$ -catenin by western blotting, immunoprecipitation, and immunohistochemistry. Recommended western blotting starting dilution 1:400-1:1000.

### **Storage:**

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

### **References:**

1. Hinck L, Nathke IS, Papkoff J, Nelson WJ. 1994.  $\beta$ -catenin: a common target for the regulation of cell adhesion by Wnt-1 and Src signaling pathways. *Trends Biochem Sci.* 19(12):538-542.
2. Bullions LC, Levine AJ. 1998. The role of  $\beta$ -catenin in cell adhesion, signal transduction, and cancer. *Curr Opin Oncol.* 10(1):81-87.
3. Moon RT, Bowerman B, Boutros M, Perrimon N. 2002. The promise and perils of Wnt signaling through  $\beta$ -catenin. *Science* 296(5573):1644-1646.
4. Li H, Pamukcu R, Thompson WJ. 2002.  $\beta$ -catenin signaling: therapeutic strategies in oncology. *Cancer Biol Ther.* (6):621-625.
5. Hecht A, Kemler R. 2000. Curbing the nuclear activities of  $\beta$ -catenin. Control over Wnt target gene expression. *EMBO* 1(1):24-28.