

# β-Catenin monoclonal antibody (12F7)

β-Catenin, a vertebrate homologue of *Drosophila armadillo* encoded by the CTNNB1 gene, performs two functions in the cell: mediating cell-cell adhesion by association between E-cadherin and the cytoskeleton, and acting as a downstream transcriptional activator of Wnt signaling, a key player in such functions as embryonic development, the induction of cell polarity, and the determination of cell fate. In the absence of Wnt signaling, glycogen synthase kinase-3β (GSK-3β) phosphorylates any free β-catenin at the amino terminus. This results in adenomatous polyposis coli tumor suppressor protein (APC)-mediated β-catenin degradation via the ubiquitin-proteasome pathway. Wnt signaling stabilizes β-catenin by inhibiting the activity of GSK-3β and preventing β-catenin degradation. β-catenin forms complexes with DNA-binding proteins such as T-cell factor (Tcf) and lymphocyte-enhancer factor (Lef), which promote expression of a variety of target genes, including c-myc and cyclin D1.

This antibody is covered by our [Worry-Free Guarantee](#).

Citations: 2

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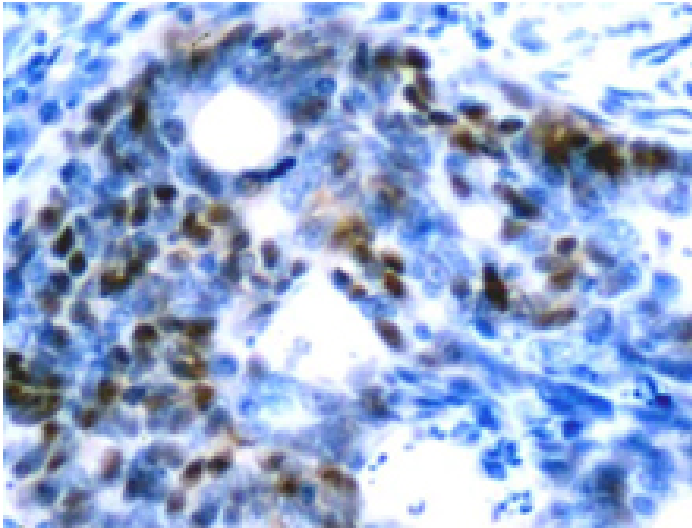
## Ordering Information

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ADI-KAM-ST001-E	100μg
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Manuals, SDS & CofA

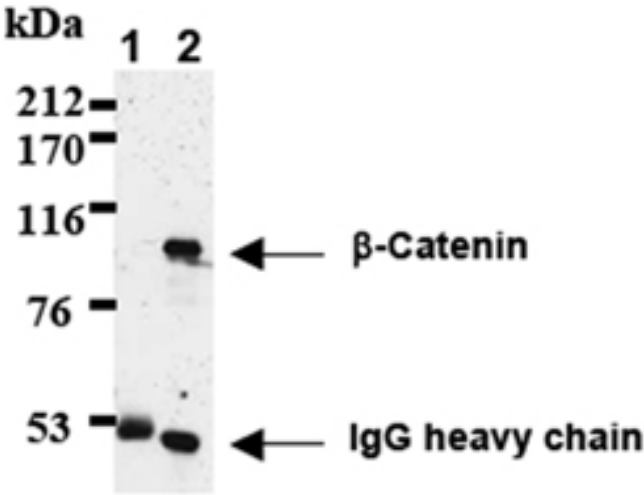
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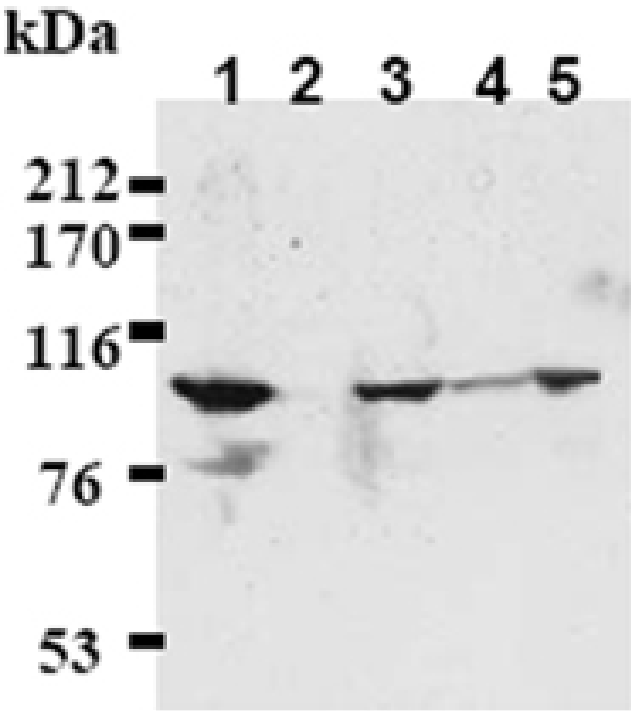
Immunohistochemical detection of colorectal cancer  $\beta$ -catenin on paraffin embedded sections with  $\beta$ -catenin mAb (12F7).



Immunohistochemical detection of gastric epithelium  $\beta$ -catenin on paraffin embedded sections with  $\beta$ -Catenin mAb (12F7).



Immunoprecipitation of Rat-1 cells with normal mouse IgG (1) or  $\beta$ -catenin mAb (12F7) (2). After immunoprecipitated with the antibody, immunocomplex was resolved on SDS-PAGE and immunoblotted with  $\beta$ -catenin mAb (12F7).



Western blot analysis of A431 cells (1), Hela cells (2), NIH/3T3 cells (3), C2C12 cells (4) and Rat-1 cells (5) probed with  $\beta$ -catenin mAb (12F7)

## Handling & Storage

Long Term Storage -20°C

Shipping Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

Alternative Name CTNNB

Application IHC, IP, WB

Application Notes Detects bands of ~97kDa by Western blot.

Clone 12F7

Formulation Liquid. In PBS, pH 7.2, containing 50% glycerol.

Host Mouse

Immunogen Recombinant  $\beta$ -catenin (N-terminal fragment).

Isotype IgG1

Purity Detail Protein A affinity purified.

**Recommendation Dilutions/Conditions** Immunohistochemistry (1-5 $\mu$ g/ml)Immunoprecipitation (2 $\mu$ g/200-300 $\mu$ l cell extract)Western Blot (1 $\mu$ g/ml, ECL)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.

Species Reactivity Human, Mouse, Rat

UniProt ID P35222 (human), Q02248 (mouse), Q9WU82 (rat)

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Last modified: May 29, 2024