

**#75550** Store at -20°C

## γ-Catenin (D9M1Q) Rabbit mAb


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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, IF-IC, FC-FP	H	Endogenous	83	Rabbit IgG	#P14923	3728

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:1000  
1:50  
1:1000  
1:50  
1:100

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

γ-Catenin (D9M1Q) Rabbit mAb recognizes endogenous levels of total γ-Catenin protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro725 of human γ-Catenin protein.

### Background

Also known as plakoglobin, γ-catenin is a member of the Armadillo family of signaling molecules, which includes β-catenin and the *Drosophila* protein armadillo (1). This family of proteins is involved in Wnt signaling, which is important in embryonic development and in tumorigenesis (2-3). Although the two vertebrate proteins β- and γ-catenin display sequence homology, γ-catenin likely plays a role distinct from that of β-catenin (1, 4-6). γ-catenin localizes to desmosomes and adherens junctions, both sites of intercellular adhesion, and interacts with the cytoplasmic domains of classical and desmosomal cadherins. Interaction of γ- or β-catenin with α-catenin, desmoplakin and other junction proteins provides a link between intercellular junctions and the actin and intermediate filament cytoskeleton. Maintenance and/or modification of this link is vital for control of cell adhesion and migration (1). γ-catenin is modified by phosphorylation, affecting both adhesion and β-catenin dependent transcription (7), and by O-glycosylation, affecting adhesion (8). Recent evidence suggests that γ-catenin regulates desmosomal adhesion in response to growth factor stimulation (9).

### Background References

1. Zhurinsky, J. et al. (2000) *J Cell Sci* 113 ( Pt 18), 3127-39.
2. Wodarz, A. and Nusse, R. (1998) *Annu Rev Cell Dev Biol* 14, 59-88.
3. Polakis, P. (1999) *Curr Opin Genet Dev* 9, 15-21.
4. Zhurinsky, J. et al. (2000) *Mol Cell Biol* 20, 4238-52.
5. Charpentier, E. et al. (2000) *J Cell Biol* 149, 503-20.
6. Kolligs, F.T. et al. (2000) *Genes Dev* 14, 1319-31.
7. Miravet, S. et al. (2003) *Mol Cell Biol* 23, 7391-402.
8. Hu, P. et al. (2006) *J Biol Chem* 281, 12786-91.
9. Yin, T. et al. (2005) *J Biol Chem* 280, 40355-63.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)  
**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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