

γ -Catenin (Tyr-550), phospho-specific

Cat. # CP1121

Host Rabbit Polyclonal

Size 100 μ l

Background:

Plakoglobin (γ -catenin) is a catenin family member identified as a component of desmosomes. γ -Catenin has high homology to β -catenin and, like β -catenin, it can associate with the cadherins, E-cadherin and N-cadherin. One molecule of α -catenin and at least one molecule of β -catenin and γ -catenin simultaneously bind to a single cadherin molecule. A 19-amino acid sequence of desmoglein was found to be critical for binding of γ -catenin. Similar catenin-binding domains found in cadherins, suggest a common mechanism for γ -catenin localization to both adherens junctions and desmosomes. Phosphorylation of tyrosine residues in γ -catenin can modify its interactions with other proteins. Phosphorylation of tyrosine 644 decreases γ -catenin association with α -catenin, but increases binding to desmoplakin. Fer kinase can phosphorylate tyrosine 550, which increases γ -catenin binding to α -catenin. Thus, tyrosine phosphorylation may be important for regulation of γ -catenin protein-protein interactions within desmosomal complexes.

References

- McCrea, P.D., et al. (1991) Science 254:1359.
Miravet, S. et al. (2003) Mol. Cell. Biol. 23(20):7391.

Immunogen:

Phospho- γ -Catenin (Tyr-550) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 550 of human γ -Catenin. This peptide sequence is highly conserved in rat and mouse γ -Catenin.

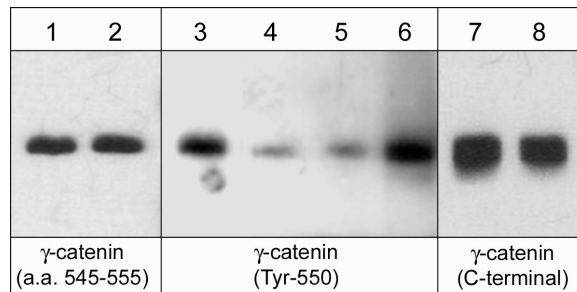
Applications:

WB 1:1000
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- CM1111 γ -Catenin (C-terminal) Mouse Monoclonal
CP1191 β -Catenin (Tyr-86), phospho-specific Rabbit Polyclonal
CP1081 β -Catenin (Tyr-142), phospho-specific [Conserved site] Rabbit Polyclonal
CK6150 γ -Catenin Phospho-Regulation Antibody Sampler Kit
CK6120 β -Catenin Phospho-Regulation Antibody Sampler Kit
CK6230 δ 1-Catenin Phospho-Regulation Antibody Sampler Kit



Western blot analysis of γ -Catenin immunoprecipitated from A431 cells treated with pervanadate using anti- γ -Catenin (C-terminal). The immunoprecipitates were untreated (lanes 1, 3, & 7) or treated with alkaline phosphatase (lanes 2, 4, & 8). Blots of the immunoprecipitates were probed with anti- γ -Catenin (a.a. 545-555), anti- γ -Catenin (Tyr-550) or anti- γ -Catenin (C-terminal). In addition, the anti- γ -Catenin (Tyr-550) was used in the presence of phospho- γ -Catenin (Tyr-550) peptide (lane 5) or phospho- γ -Catenin (Tyr-644) peptide (lane 6).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20° C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was cross-adsorbed to both phospho-tyrosine coupled to agarose and to dephosphorylated γ -Catenin (Tyr-550) peptide before affinity purification using phospho- γ -Catenin (Tyr-550) peptide (without carrier). The antibody detects an 84kDa* protein corresponding to the molecular mass of γ -Catenin on SDS-PAGE immunoblots of A431 and Hct116 src transformed cells treated with pervanadate (1 mM for 30 min), but not in control cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

web: www.ecmbiosciences.com

telephone: 859-879-2075

email: info@ecmbiosciences.com

toll-free: 1-800-859-8202

ECMBiosciences