

phospho- γ -Catenin (Tyr-550) Peptide

Cat. # CX1125

Size 50 μ g

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.

Peptide Sequence:

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

Applications:

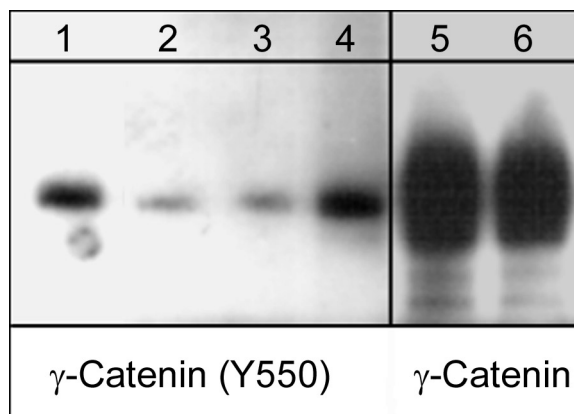
Blocking 1:1000

ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody. Recommended for blocking antibody reactivity in Western blot and immunocytochemistry. ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Related Products:

- CM1111 γ -Catenin (C-terminal) Mouse Monoclonal
CP1121 γ -Catenin (Tyr-550), phospho-specific Rabbit Polyclonal
CP1081 β -Catenin (Tyr-142), phospho-specific [Conserved site] Rabbit
CK6230 δ 1-Catenin Phospho-Regulation Antibody Sampler Kit
CK6120 β -Catenin Phospho-Regulation Antibody Sampler Kit
CK6150 γ -Catenin Phospho-Regulation Antibody Sampler Kit



Western blot analysis of γ -Catenin immunoprecipitated from A431 cells treated with pervanadate. The immunoprecipitation was performed using mouse monoclonal anti- γ -Catenin, then the immunoprecipitates were untreated (lanes 1 & 5) or treated with alkaline phosphatase (lanes 2 & 6) and were probed with either anti- γ -Catenin (Tyr-550) or anti- γ -Catenin. In addition, the anti- γ -Catenin (Tyr-550) was used in the presence of phospho- γ -Catenin (Tyr-550) peptide (lane 3) or phospho- γ -Catenin (Tyr-644) peptide (lane 4).

Buffer and Storage:

Blocking Peptide is supplied in 50 μ l phosphate-buffered saline and 0.05% sodium azide. Store at -20° C. Stable for 1 year.

Specificity:

The peptide is specifically recognized by γ -Catenin (Tyr-550) phospho-specific antibody (CP1121) in ELISA, and has been shown to block the reactivity of CP1121 during Western blot. In addition, the peptide is recommended for use in blocking CP1121 reactivity in immunocytochemistry.

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www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
email: info@ecmbiosciences.com

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