

phospho- β -Catenin (Tyr-489) Peptide

Cat. # CX2965

Size 50 μ g

Background:

β -Catenin is a 92 kDa protein that binds to the cytoplasmic tail of E-Cadherin. The cadherins, transmembrane adhesion molecules, are found with catenins at adherens junctions. Deletions in the cytoplasmic domain of E-Cadherin eliminate catenin binding and result in a loss of cell adhesion. Tyrosine phosphorylation of β -Catenin can regulate its interaction with critical components of adherens junctions. Both Fer and Fyn Kinases phosphorylate tyrosine 142 in vitro. Overexpression of these kinases in epithelial cells disrupts interactions between α - and β -Catenins. The phosphorylation of tyrosine 142 may act as a switch from the transcriptional to the adhesive role of β -Catenin. Src family kinases can also phosphorylate tyrosine 86, 489, and 654 in β -Catenin. Tyr-654 phosphorylation regulates β -Catenin binding to E-cadherin, while c-Abl phosphorylation of Tyr-489 decreases β -Catenin binding to N-Cadherin and leads to nuclear translocation and transcriptional activation.

References

- Roura, S. et al. (1999) J Biol Chem. 274(51) :36734.
Piedra, J. et al. (2003) Mol. Cell. Biol. 23(7):2287.
Brembeck, F.H. et al. (2004) Genes Dev. 18(18):2225.
Rhee, J. et al. (2007) Nat. Cell Biol. 9(8):883.

Peptide Sequence:

Phospho- β -Catenin (Tyr-489) synthetic peptide corresponds to amino acid residues around tyrosine 489 of human β -Catenin. This peptide sequence is highly conserved in rat and mouse β -Catenin, and has high homology to the conserved site in γ -Catenin (Tyr-480).

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.

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.

Specificity:

The peptide is specifically recognized by β -Catenin (Tyr-489) phospho-specific antibody (CP2961) in ELISA, and has been shown to block the reactivity of CP2961 during Western blot. In addition, the peptide is recommended for use in blocking CP2961 reactivity in immunocytochemistry.

Related Products:

- CP2961 β -Catenin (Tyr-489), phospho-specific
CP1061 β -Catenin (N-terminal) Rabbit Polyclonal
CP1081 β -Catenin (Tyr-142), phospho-specific [Conserved site] Rabbit
CP1191 β -Catenin (Tyr-86), phospho-specific Rabbit Polyclonal
CX1085 phospho- β -Catenin (Tyr-142) Peptide
CX1195 phospho- β -Catenin (Tyr-86) Peptide

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

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

ECMBiosciences

Rev 3/24/2009