

# phospho-N-Cadherin (Tyr-820) peptide

Cat. # CX1805

Size 50 µg

## Background:

Cadherins are transmembrane glycoproteins vital in calcium-dependent cell-cell adhesion during tissue differentiation. Cadherins cluster to form foci of homophilic binding units. A key determinant to the strength of the cadherin-mediated adhesion may be by the juxtamembrane region in cadherins. This region induces clustering and also binds to the protein p120 catenin. The cytoplasmic region is highly conserved in sequence and has been shown experimentally to regulate the cell-cell binding function of the extracellular domain of E-cadherin, possibly through interaction with the cytoskeleton. Many cadherins are regulated by phosphorylation, including N-cadherin and E-cadherin. N-cadherin is phosphorylated by c-Src at Tyr-820, Tyr-853, Tyr-860, Tyr-884, and Tyr-886. Phosphorylation of Tyr-860 can disrupt cadherin binding to  $\beta$ -catenin. Since many of these tyrosine sites are conserved in the cadherin family, phosphorylation of these sites may be critical for cadherin function.

## References

- Xu, Y. et al. (1997) J. Biol. Chem. 272(21):13463  
Xu, Y. & Carpenter, G. (1999) J. Cell. Bioch. 75:264.  
Qi, J. et al. (2006) Mol. Biol. Cell 17(3):1261.

## Peptide Sequence:

Phospho-N-Cadherin (Tyr-820) synthetic peptide corresponding to amino acids surrounding tyrosine 820 in human N-cadherin. This sequence is conserved in rat and mouse N-cadherin, and has three amino acid differences from the conserved site in R-cadherin.

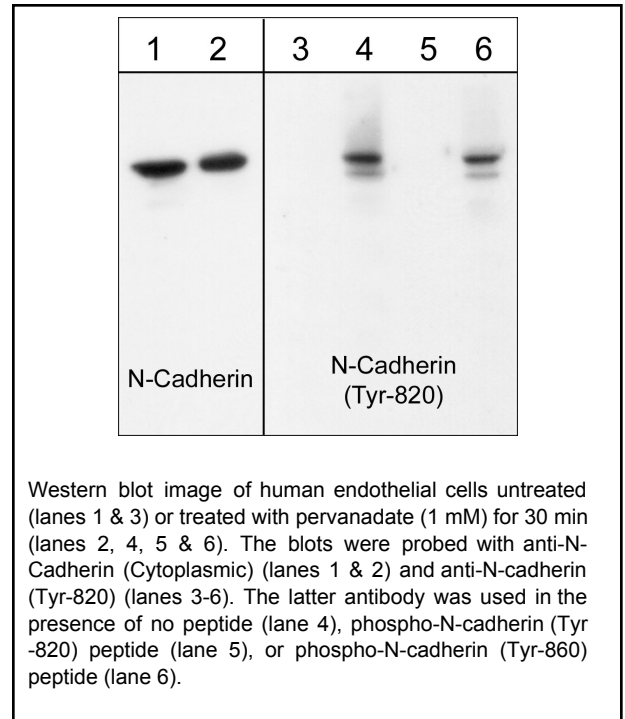
## Applications:

WB 1 µg/ml  
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:

CP1801 N-Cadherin (Tyr-820), phospho-specific  
CP1751 N-Cadherin (a.a. 811-824)



## Buffer and Storage:

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

## Specificity:

The peptide is specifically recognized by anti-N-Cadherin (Tyr-820) antibody (CP1801) in ELISA, and has been shown to block the reactivity of CP1801 during Western blot. In addition, the peptide is recommended for use in blocking CP1801 reactivity in immunocytochemistry.

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

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