

# N-Cadherin (a.a. 811-824)

Cat. # CP1751

Host Rabbit Polyclonal

Size 100 µl

## 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.

## Immunogen:

unphosphorylated N-Cadherin synthetic peptide (coupled to carrier protein) corresponding to amino acids 811 to 824 from human N-cadherin. This sequence is conserved in rat and mouse N-cadherin, and has three amino acid differences from the conserved region in R-cadherin.

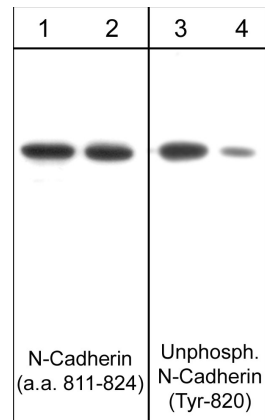
## Applications:

WB	1:1000	ICC	1:200
ELISA	1:2000		
IP	1:100		

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:

- CM1701 N-Cadherin (Cytoplasmic) Mouse Monoclonal  
 CP1901 N-Cadherin (a.a. 853-864) Rabbit Polyclonal  
 CP1801 N-Cadherin (Tyr-820), phospho-specific Rabbit Polyclonal  
 CP1951 N-Cadherin (Tyr-860), phospho-specific [Conserved site] Rabbit  
 CM1681 E-Cadherin (Cytoplasmic) Mouse Monoclonal  
 CP1851 Unphosphorylated N-Cadherin (Tyr-820) Rabbit Polyclonal



Western blot image of human endothelial cells untreated (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 min (lanes 2 & 4). The blots were probed with anti-N-cadherin (a.a. 811-824) (lanes 1 & 2) and anti-unphosphorylated N-cadherin (Tyr-820) (lanes 3 & 4).

## Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}\text{C}$ . Do not aliquot. Stable for 1 year.

## Specificity:

This antibody was affinity purified using N-cadherin (a.a. 811-824) peptide. The purified antibody detects a band at 130 kDa\* in western blots of human endothelial cells and mouse brain tissue, and does not cross-react with E-cadherin.

\*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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