

### Anti-N-Cadherin (C-terminal region) Antibody

Catalog # AN1659

# **Specification**

### Anti-N-Cadherin (C-terminal region) Antibody - Product Information

Application WB, IHC
Primary Accession P19022
Reactivity Bovine
Host Rabbit

Clonality Rabbit Polyclonal

Isotype IgG
Calculated MW 99809

#### Anti-N-Cadherin (C-terminal region) Antibody - Additional Information

Gene ID **1000** 

**Other Names** 

Cadherin-2, Neural-Cadherin, CD325

#### Target/Specificity

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.

# **Dilution**

WB~~1:1000 IHC~~1:100~500

### **Format**

Antigen Affinity Purified

#### **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

Anti-N-Cadherin (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Shipping**

Blue Ice

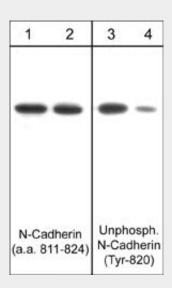


### Anti-N-Cadherin (C-terminal region) Antibody - Protocols

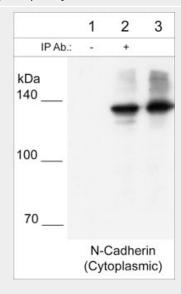
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### Anti-N-Cadherin (C-terminal region) Antibody - Images



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).



Western blot image of mouse brain lysate immunoprecipitated with no antibody (lane 1),





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anti-N-Cadherin (CP1751) rabbit polyclonal antibody (lane 2), and whole mouse brain lysate (lane 3). The blot was probed with anti-N-cadherin (Cytoplasmic) mouse monoclonal antibody (lanes 1-3) and detected using anti-Mouse Ig Light Chain specific:HRP secondary antibody.

# Anti-N-Cadherin (C-terminal region) Antibody - 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 β-catenin. Since many of these tyrosine sites are conserved in the cadherin family, phosphorylation of these sites may be critical for cadherin function.