10320 Camino Santa Fe, Suite G
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Anti-N-Cadherin (Cytoplasmic) Antibody
Catalog # AN1658

Specification

Anti-N-Cadherin (Cytoplasmic) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P19022
Reactivity	**Bovine**
Host	**Mouse**
Clonality	**Mouse Monoclonal**
Isotype	**IgG1**
Calculated MW	**99809**

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

Format
Protein A 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 (Cytoplasmic) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-N-Cadherin (Cytoplasmic) Antibody - Protocols

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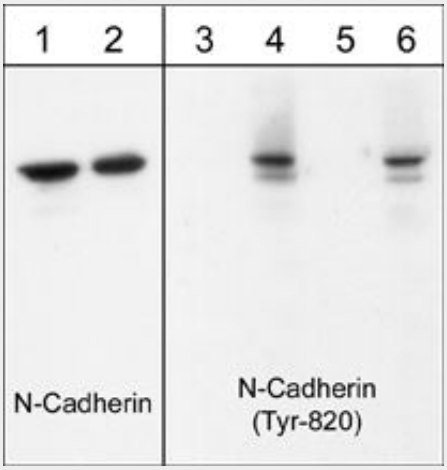
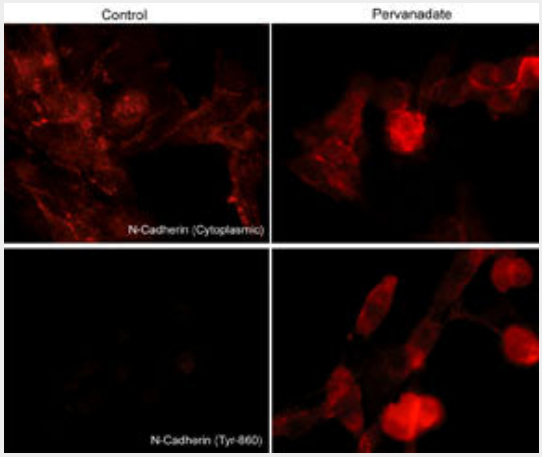
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-N-Cadherin (Cytoplasmic) 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, 5 & 6). The blots were probed with anti-N-Cadherin (Cytoplasmic) (lanes 1 & 2) and anti-N-cadherin (Tyr-820) (lanes 3-6). The latter antibody was used in the presence of no peptide (lane 4), phospho-N-cadherin (Tyr-820) peptide (lane 5), or phospho-N-cadherin (Tyr-860) peptide (lane 6).



Immunocytochemical labeling of phosphorylated N-Cadherin in pervanadate-treated mouse C2C12. The cells were labeled with mouse monoclonal N-Cadherin (Cytoplasmic) and rabbit polyclonal N-Cadherin(Tyr-860) antibodies, then the antibodies were detected using appropriate secondary antibodies conjugated to Cy3.

Anti-N-Cadherin (Cytoplasmic) 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.