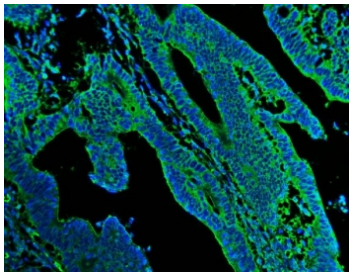
N-Cadherin Antibody for IF / NCAD Antibody for Immunofluorescence (R30391)

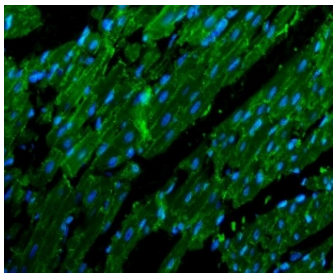
Catalog No.	Formulation	Size
R30391	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

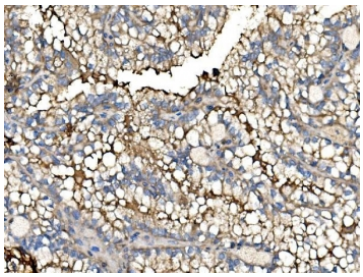
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P19022
Localization	Cell surface, cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence (FFPE): 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This N-Cadherin Antibody for IF / NCAD Antibody for Immunofluorescence is available for research use only.



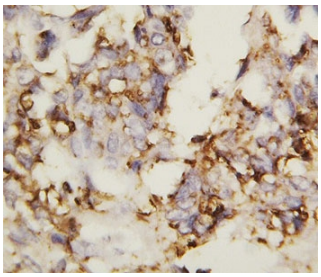
N-Cadherin Antibody for IF Human Colon Cancer. Immunofluorescent staining of FFPE human colon cancer tissue with N-Cadherin Antibody (green) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Green fluorescence demonstrates N-Cadherin expression within the tumor tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cell-cell adhesion, epithelial-mesenchymal transition, and colorectal cancer biology.



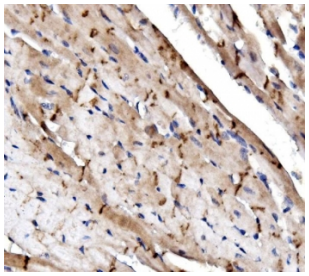
N-Cadherin Antibody for IF Rat Heart Tissue. Immunofluorescent staining of FFPE rat heart tissue with N-Cadherin Antibody (green) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Green fluorescence demonstrates N-Cadherin expression within the cardiac tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cardiac cell adhesion, intercalated disc organization, and heart tissue biology.



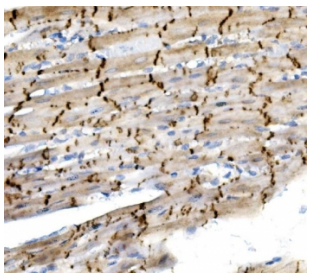
IHC staining of FFPE human tonsil tissue with N-Cadherin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



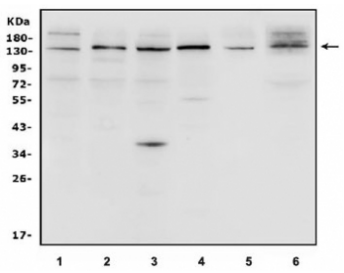
IHC staining of FFPE human ovarian cancer tissue with N-Cadherin antibody. HIER: boil tissue sections in pH6 citrate buffer for 20 min and allow to cool before testing.



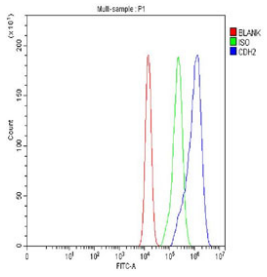
IHC staining of FFPE mouse heart tissue with N-Cadherin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



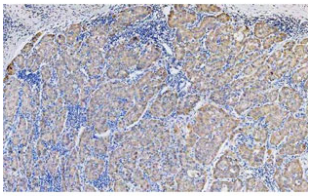
IHC staining of FFPE rat heart tissue with N-Cadherin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



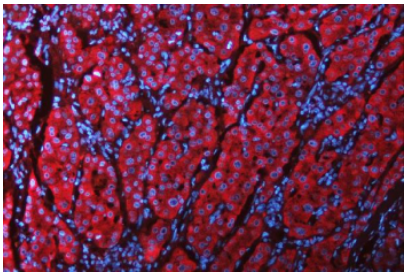
Western blot testing of 1) rat brain, 2) rat heart, 3) rat liver, 4) mouse heart, 5) mouse liver and 6) human SK-O-V3 cell lysate with N-Cadherin antibody. Predicted molecular weight ~100 kDa (unmodified), 125-140 kDa (modified).



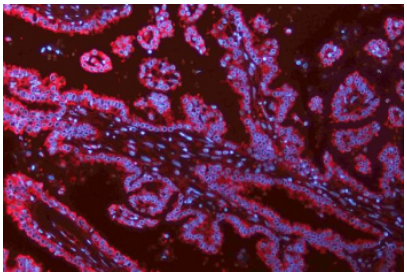
Flow cytometry testing of fixed human A549 cells with N-Cadherin antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= N-Cadherin antibody.



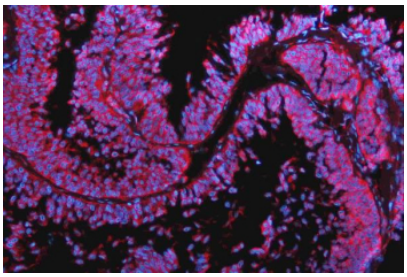
IHC staining of FFPE human liver cancer tissue with N-Cadherin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



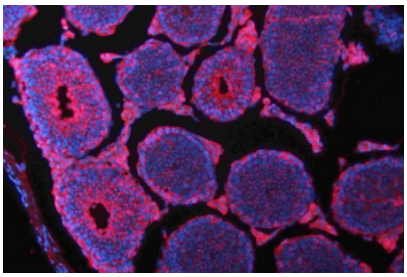
N-Cadherin Antibody for IF Human Liver Cancer. Immunofluorescent staining of FFPE human liver cancer tissue with N-Cadherin Antibody (red) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Red fluorescence demonstrates N-Cadherin expression throughout the tumor tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cell-cell adhesion, epithelial-mesenchymal transition, and liver cancer biology.



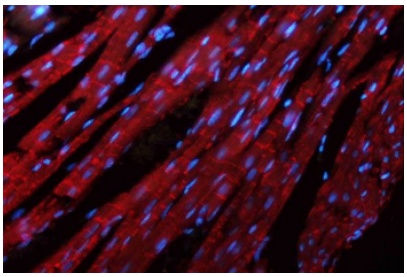
N-Cadherin Antibody for IF Human Lung Cancer. Immunofluorescent staining of FFPE human lung cancer tissue with N-Cadherin Antibody (red) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Red fluorescence demonstrates N-Cadherin expression within the tumor tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cell-cell adhesion, epithelial-mesenchymal transition, and lung cancer biology.



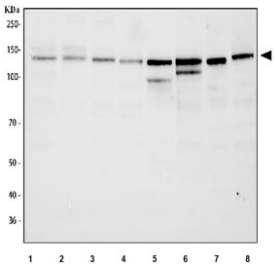
N-Cadherin Antibody for IF Human Ovarian Cancer. Immunofluorescent staining of FFPE human ovarian cancer tissue with N-Cadherin Antibody (red) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Red fluorescence demonstrates N-Cadherin expression within the tumor tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cell-cell adhesion, epithelial-mesenchymal transition, and ovarian cancer biology.



N-Cadherin Antibody for IF Mouse Testis Tissue. Immunofluorescent staining of FFPE mouse testis tissue with N-Cadherin Antibody (red) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Red fluorescence demonstrates N-Cadherin expression within the testicular tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cell-cell adhesion, tissue organization, and reproductive biology.



N-Cadherin Antibody for IF Rat Cardiac Tissue. Immunofluorescent staining of FFPE rat heart tissue with N-Cadherin Antibody (red) and DAPI nuclear stain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH8 EDTA buffer for 20 minutes. Red fluorescence demonstrates N-Cadherin expression within the cardiac tissue, with nuclei counterstained blue. This N-Cadherin Antibody for IF, also called NCAD Antibody for Immunofluorescence, supports visualization of CDH2 expression and localization in studies of cardiac cell adhesion, intercalated disc organization, and heart tissue biology.



Western blot testing of 1) human 293T, 2) human PC-3, 3) human HeLa, 4) human A549, 5) rat brain, 6) rat C6, 7) mouse brain and 8) mouse NIH 3T3 cell lysate with N-Cadherin antibody. Predicted molecular weight ~100 kDa (unmodified), 125-140 kDa (modified).

Description

N-Cadherin Antibody for IF / NCAD Antibody for Immunofluorescence recognizes N-Cadherin, a calcium-dependent cell adhesion protein encoded by the CDH2 gene. Also known as NCAD, Cadherin 2, and CD325, N-Cadherin belongs to the classical cadherin family and mediates homophilic adhesion between neighboring cells. Its extracellular domains participate in calcium-dependent interactions, while the cytoplasmic region associates with catenins and the actin cytoskeleton. These interactions make N-Cadherin an important component of adherens junctions and connect cell-cell adhesion with cellular architecture, migration, differentiation, and signaling.

Immunofluorescence provides a useful approach for examining the spatial distribution and subcellular localization of N-Cadherin. Rather than measuring protein abundance alone, IF enables researchers to visualize patterns of NCAD expression within individual cells and tissues and examine its relationship to cellular morphology and cell-cell contacts. An N-Cadherin Antibody for IF can therefore support investigations of CDH2 localization, adherens junction organization, tissue architecture, and changes in N-Cadherin distribution associated with development, differentiation, or disease.

N-Cadherin is particularly important in neural, cardiac, and mesenchymal tissues. In the nervous system, CDH2 participates in neuronal migration, axon guidance, synaptic organization, and neural development. In cardiac tissue, N-Cadherin contributes to intercellular adhesion between cardiomyocytes and organization of intercalated discs. NCAD is also extensively studied during epithelial-mesenchymal transition, where increased N-Cadherin expression can accompany loss of epithelial characteristics and acquisition of a more migratory phenotype. An NCAD Antibody for Immunofluorescence can help visualize these expression and localization patterns in cellular and tissue-based experimental models.

Changes in N-Cadherin expression and localization are studied in cancer progression, particularly in relation to EMT, tumor cell migration, invasion, and metastatic behavior. Immunofluorescence can complement other methods by providing visual information about where CDH2 is distributed within the experimental sample. NSJ Bioreagents offers antibodies for investigating cell adhesion proteins and related biological pathways. An N-Cadherin Antibody for IF is useful for studying NCAD/CDH2 localization, cell-cell adhesion, adherens junctions, neural and cardiac tissue organization, epithelial-mesenchymal transition, and cancer biology.

For additional information on Cadherin 2/N-Cadherin and its roles in cell-cell adhesion, epithelial-mesenchymal transition, and cancer biology, see our Cadherin 2 Antibody / CDH2 page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the N-Cadherin Antibody for IF / NCAD Antibody for Immunofluorescence may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 701-714 (CQCDSNGDCTDVDR) were used as the immunogen for this N-Cadherin antibody (100% homologous human, mouse and rat).

Storage

After reconstitution, the N-Cadherin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

N-Cadherin antibody, NCAD antibody, CDH2 antibody, Cadherin 2 antibody, CD325 antibody, Neural Cadherin antibody

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