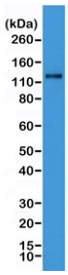
Recombinant N-Cadherin Antibody / CDH2 / CD325 [clone RM259] (R20276)

Catalog No.	Formulation	Size
R20276-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM259
Purity	Protein A purified from animal origin-free supernatant
UniProt	P19022
Gene ID	1000
Applications	Western Blot : 1:1000-1:2000
Limitations	This recombinant N-Cadherin antibody is available for research use only.



Western blot testing of human HeLa cell lysate with recombinant N-Cadherin antibody. Predicted molecular weight ~100 kDa (unmodified), 125-140 kDa (modified).

Description

The Recombinant N-Cadherin antibody is a recombinant reagent engineered to detect N-cadherin, also known as CDH2, a calcium-dependent adhesion molecule belonging to the classical cadherin family. N-cadherin is widely expressed in neural, mesenchymal, and cardiac tissues, where it plays a crucial role in mediating cellâ€“cell adhesion, tissue morphogenesis, and signaling. Unlike E-cadherin, which is primarily associated with epithelial cells, N-cadherin supports dynamic and flexible adhesive interactions that are critical during development, wound healing, and cancer progression.

The Recombinant N-Cadherin antibody provides consistent and reproducible detection of CDH2 across multiple experimental platforms.

N-cadherin is encoded by the CDH2 gene on chromosome 18q12.1. Structurally, it consists of five extracellular cadherin repeats that mediate calcium-dependent adhesion, a single transmembrane helix, and a conserved cytoplasmic tail that binds to catenins, linking adhesion complexes to the actin cytoskeleton. This interaction supports both mechanical stability and intracellular signaling. N-cadherin plays a key role in synapse formation, neuronal migration, and cardiac muscle adhesion at intercalated discs. In cancer biology, its upregulation is a hallmark of epithelial-to-mesenchymal transition (EMT), where it promotes motility and invasion.

In immunohistochemistry, the Recombinant N-Cadherin antibody highlights cellâ€“cell junctions in neural and mesenchymal tissues, providing insights into tissue development and tumor progression. In immunofluorescence, it reveals membranous and cytoplasmic localization, enabling visualization of adhesion complexes in cultured cells. In western blotting, the antibody detects N-cadherin protein in cell and tissue lysates, allowing researchers to quantify expression levels and monitor EMT in experimental models. Recombinant production ensures reliable performance and eliminates variability commonly associated with hybridoma-derived antibodies.

The Recombinant N-Cadherin antibody is especially valuable in developmental biology, as CDH2 is required for neural tube formation, synaptic connectivity, and cardiac morphogenesis. In oncology, it serves as a marker of invasive potential and EMT, distinguishing aggressive tumors from their less invasive counterparts. It is also applied in stem cell and regenerative medicine research, where N-cadherin contributes to cellâ€“cell interactions in pluripotent and differentiated states. Synonym phrases such as recombinant CDH2 antibody, recombinant neural cadherin antibody, and recombinant mesenchymal cadherin antibody expand discoverability for users employing alternate nomenclature.

By providing validated and reproducible detection, the Recombinant N-Cadherin antibody supports investigations in neuroscience, oncology, and cardiovascular biology. NSJ Bioreagents ensures strict quality control for this reagent, giving researchers confidence in immunohistochemistry, immunofluorescence, and western blotting applications. With its specificity for CDH2, the Recombinant N-Cadherin antibody is an indispensable tool for exploring adhesion biology, EMT, and tissue morphogenesis.

Application Notes

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

Immunogen

A peptide corresponding to human N-Cadherin was used as the immunogen for this recombinant N-Cadherin antibody.

Storage

Store the recombinant N-Cadherin antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).