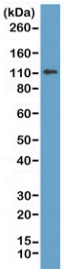
Recombinant E-Cadherin Antibody / CDH1 [clone RM244] (R20265)

Catalog No.	Formulation	Size
R20265-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

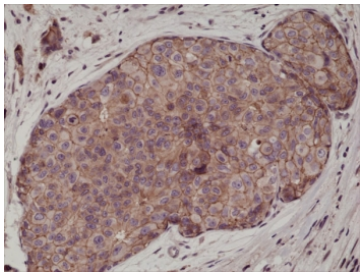
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM244
Purity	Protein A purified from animal origin-free supernatant
UniProt	P12830
Gene ID	999
Localization	Membrane, cytoplasmic
Applications	Immunohistochemistry : 1:500-1:1000 (1) Western Blot : 1:1000-1:2000
Limitations	This recombinant E-Cadherin antibody is available for research use only.



Western blot of human MCF7 lysate using recombinant E-Cadherin antibody at 1:1000. Expected molecular weight: 135 kDa (precursor), 80-120 kDa (mature, depending on glycosylation level).



IHC testing of FFPE human breast cancer tissue with recombinant E-Cadherin antibody at 1:1000.

Description

The Recombinant E-Cadherin antibody is a recombinant reagent engineered to detect E-cadherin, also known as CDH1, a calcium-dependent adhesion protein that is essential for maintaining epithelial cell-cell contacts and tissue architecture. E-cadherin is a member of the classical cadherin family and plays a pivotal role in forming adherens junctions, which connect the actin cytoskeletons of neighboring cells. By promoting strong intercellular adhesion, E-cadherin preserves epithelial integrity, regulates polarity, and contributes to barrier functions. The Recombinant E-Cadherin antibody provides consistent and reproducible detection of this critical adhesion molecule across a wide range of applications.

E-cadherin is encoded by the CDH1 gene located on chromosome 16q22.1. Structurally, it consists of five extracellular cadherin repeats, a single transmembrane domain, and a highly conserved cytoplasmic tail that binds to catenins, linking adhesion complexes to the actin cytoskeleton. Loss or dysfunction of E-cadherin disrupts epithelial cohesion and is associated with epithelial-to-mesenchymal transition (EMT), a process that facilitates cancer invasion and metastasis. Mutations in CDH1 are also causative for hereditary diffuse gastric cancer and lobular breast carcinoma, underscoring its importance as both a tumor suppressor and diagnostic marker.

In laboratory applications, the Recombinant E-Cadherin antibody is widely used in immunohistochemistry to assess epithelial integrity in normal and neoplastic tissues. In cancers, strong membranous staining indicates preserved adhesion, whereas reduced or absent staining suggests EMT and tumor progression. In immunofluorescence, the antibody highlights epithelial cellâ€“cell junctions, making it a valuable tool for studying junctional organization and cytoskeletal interactions. In western blotting, it reliably detects E-cadherin protein levels, enabling quantification in cultured cells and tissue extracts. Recombinant production ensures high lot-to-lot consistency, reducing variability compared with hybridoma-derived antibodies.

The Recombinant E-Cadherin antibody is especially valuable in cancer biology, where downregulation of E-cadherin serves as a hallmark of metastatic potential. It is also used in developmental biology, as E-cadherin is crucial for early embryonic compaction and morphogenesis. Synonym terms such as recombinant CDH1 antibody, recombinant cadherin-1 antibody, and recombinant epithelial cadherin antibody expand discoverability for users employing alternate nomenclature.

By delivering validated and reproducible detection, the Recombinant E-Cadherin antibody provides scientists with a dependable tool for studying epithelial biology, cancer progression, and tissue development. NSJ Bioreagents ensures strict quality control for this antibody, supporting confident use in immunohistochemistry, immunofluorescence, and western blotting. With specificity for CDH1, the Recombinant E-Cadherin antibody is an essential reagent for advancing both basic and translational research on epithelial adhesion and tumor suppression.

Application Notes

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

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

A peptide corresponding to E-Cadherin/CDH1 was used as the immunogen for this recombinant E-Cadherin antibody.

Storage

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