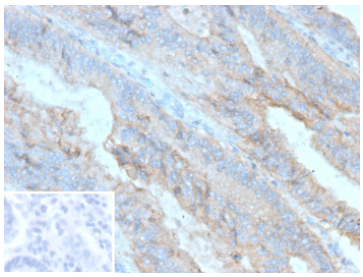
CDH3 Antibody / Cadherin 3 / P-Cadherin [clone r56C1] (V5845)

Catalog No.	Formulation	Size
V5845-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5845-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5845SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

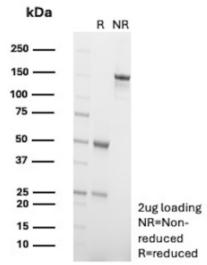
Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	r56C1
Purity	Protein A affinity
UniProt	P22223
Localization	Cell membrane, cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This CDH3/Cadherin 3 antibody is available for research use only.



Immunohistochemistry analysis of Cadherin 3 (P-cadherin) expression. CDH3/Cadherin 3 antibody (clone r56C1) staining was performed on formalin-fixed, paraffin-embedded human colon carcinoma tissue, showing DAB-positive membranous and cytoplasmic staining in tumor epithelial cells, with hematoxylin counterstaining. The inset shows a negative control processed in parallel using PBS in place of the primary antibody, demonstrating minimal background signal with secondary antibody only.



SDS-PAGE Analysis of Purified CDH3/Cadherin 3 Antibody (clone r56C1). Confirmation of Purity and Integrity of Antibody.

Description

CDH3 antibody targets Cadherin 3, also known as P-cadherin, a calcium-dependent cell adhesion protein encoded by the CDH3 gene and a member of the classical cadherin family. Cadherin 3 is a single-pass transmembrane glycoprotein predominantly localized to the plasma membrane at adherens junctions, where it mediates homophilic cell-cell adhesion. CDH3 is highly expressed in basal epithelial cell layers of stratified epithelia, including mammary gland, prostate, skin, and placenta, reflecting its role in tissue organization and epithelial integrity.

Functionally, Cadherin 3 contributes to maintenance of epithelial architecture by linking neighboring cells through calcium-dependent interactions and coupling to the actin cytoskeleton via catenin complexes. A short functional summary is that CDH3 regulates cell adhesion, polarity, and tissue cohesion in epithelial compartments. Through these adhesive functions, Cadherin 3 influences epithelial differentiation, morphogenesis, and barrier formation.

At the molecular level, Cadherin 3 contains multiple extracellular cadherin repeat domains responsible for calcium binding and adhesive interactions, a single transmembrane region, and a cytoplasmic tail that associates with catenins. These interactions anchor Cadherin 3 to the cytoskeleton and integrate adhesion with intracellular signaling pathways. CDH3 antibody reagents are therefore widely used to study adherens junction organization, epithelial cell behavior, and changes in cell-cell adhesion during development and disease. Clone r56C1 is designed to recognize Cadherin 3 and supports consistent detection of CDH3 expression in research applications.

From a biological and disease relevance perspective, altered Cadherin 3 expression has been associated with cancer progression, invasion, and epithelial remodeling. Overexpression of CDH3 has been reported in several carcinomas, including breast, pancreatic, colorectal, and gastric cancers, where it may correlate with aggressive behavior and altered cell adhesion properties. Cadherin 3 is also used as a marker to distinguish epithelial subtypes and assess differentiation status in pathology studies. Clone r56C1 provides a reliable tool for investigating Cadherin 3 expression in studies of tumor biology, epithelial differentiation, and cell adhesion.

Developmentally, CDH3 expression is tightly regulated and enriched in progenitor and basal epithelial populations. Its expression pattern reflects dynamic changes in epithelial structure during tissue development and regeneration. CDH3 antibodies from NSJ Bioreagents are supplied for research use to support investigations in epithelial biology, cancer research, and cell-cell adhesion studies.

Application Notes

1. Optimal dilution of the CDH3/Cadherin 3 antibody should be determined by the researcher.

2. This CDH3/Cadherin 3 antibody is recombinantly produced by expression in CHO cells.

Immunogen

Prokaryotic recombinant protein corresponding to a region of the external domain of the P-cadherin molecule was used as the immuongen for the CDH3/Cadherin 3 antibody.

Storage

CDH3/Cadherin 3 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.