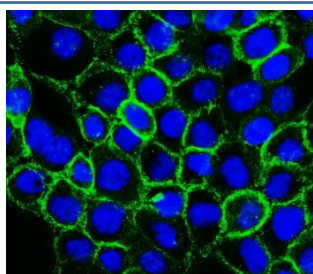


P-Cadherin Antibody / CDH3 (RQ6762)

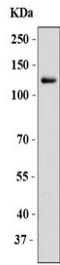
| Catalog No. | Formulation | Size |
|-------------|---|--------|
| RQ6762 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

Bulk quote request

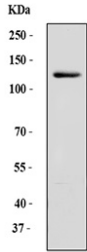
| | |
|---------------------------|--|
| Availability | 1-3 business days |
| Species Reactivity | Human |
| Format | Antigen affinity purified |
| Host | Rabbit |
| Clonality | Polyclonal (rabbit origin) |
| Isotype | Rabbit IgG |
| Purity | Antigen affinity purified |
| Buffer | Lyophilized from 1X PBS with 2% Trehalose |
| UniProt | P22223 |
| Localization | Cell surface, cytoplasmic |
| Applications | Western Blot : 1-2ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml |
| Limitations | This P-Cadherin antibody is available for research use only. |



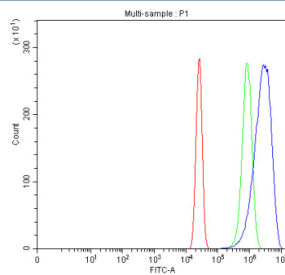
Immunofluorescent staining of FFPE human A431 cells with P-Cadherin antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human A431 cell lysate with P-Cadherin antibody. Expected molecular weight: ~91 kDa (unmodified), 100~130 kDa (glycosylated).



Western blot testing of human A431 cell lysate with P-Cadherin antibody. Expected molecular weight: ~91 kDa (unmodified), 100~130 kDa (glycosylated).



Flow cytometry analysis of fixed and permeabilized human A431 cells with P-Cadherin antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= P-Cadherin antibody.

Description

P-Cadherin antibody targets P-Cadherin, encoded by the CDH3 gene. P-Cadherin is a classical cadherin and a calcium-dependent cell-cell adhesion protein that belongs to the cadherin superfamily. It is a transmembrane glycoprotein that mediates homophilic interactions between adjacent cells, contributing to the maintenance of tissue architecture and epithelial integrity. P-Cadherin is primarily localized at adherens junctions along the plasma membrane, where it connects to the actin cytoskeleton through intracellular binding partners such as catenins.

Functionally, P-Cadherin plays an important role in regulating cell adhesion, polarity, and tissue organization. By forming adherens junctions, P-Cadherin helps control cell positioning and cohesion within epithelial layers. Its adhesive function is tightly regulated by calcium availability and by interactions with intracellular signaling molecules. Beyond structural roles, P-Cadherin can influence signaling pathways involved in cell proliferation, migration, and differentiation, linking cell-cell adhesion to dynamic cellular behaviors. A P-Cadherin antibody supports studies focused on epithelial biology and cell adhesion mechanisms.

CDH3 expression is most prominent in basal and progenitor cell layers of stratified epithelia, including skin, mammary gland, and certain mucosal tissues. During development, P-Cadherin expression is dynamically regulated and contributes to morphogenetic processes that shape epithelial structures. In adult tissues, its expression is more restricted compared with other cadherins, reflecting specialized roles in maintaining basal epithelial compartments and regulating cell renewal.

From a disease-relevance perspective, aberrant P-Cadherin expression has been strongly associated with cancer progression and epithelial dysregulation. Overexpression of CDH3 has been reported in breast, ovarian, pancreatic, colorectal, and other carcinomas, where it is often linked to increased invasiveness, altered adhesion, and poor clinical prognosis. P-Cadherin has been implicated in promoting tumor cell motility and disrupting normal adhesion balance, particularly when co-expressed with other cadherins such as E-Cadherin. These features have made P-Cadherin a molecule of interest in cancer biology and tumor microenvironment research.

At the molecular level, P-Cadherin contains multiple extracellular cadherin repeat domains responsible for calcium-dependent adhesion, a single transmembrane region, and a conserved cytoplasmic tail that mediates interactions with catenins and signaling proteins. Post-translational modifications and proteolytic processing can influence P-Cadherin stability, localization, and electrophoretic behavior on SDS-PAGE. A P-Cadherin antibody supports research applications focused on cell adhesion, epithelial differentiation, and disease-associated changes in cadherin-mediated signaling, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the P-Cadherin antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids Q236-E645) was used as the immunogen for the P-Cadherin antibody.

Storage

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