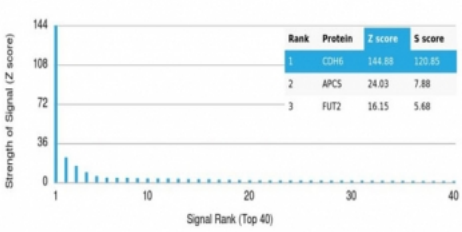
Cadherin 6 Antibody / CDH6 / K-Cadherin [clone CDH6/3191] (V5077)

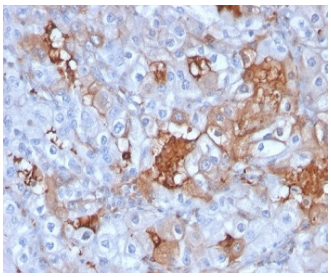
Catalog No.	Formulation	Size
V5077-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5077-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5077SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

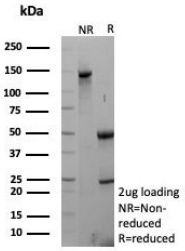
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CDH6/3191
Purity	Protein A/G affinity
UniProt	P55285
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Cadherin 6 antibody is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Cadherin 6 (CDH6) antibody (clone CDH6/3191). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



IHC staining of FFPE human renal cell carcinoma tissue with Cadherin 6 antibody (clone CDH6/3191). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Cadherin 6 antibody (clone CDH6/3191) as confirmation of integrity and purity.

Description

Cadherin 6 antibody targets Cadherin 6, also known as K-Cadherin, a calcium-dependent cell-cell adhesion molecule encoded by the CDH6 gene and a member of the classical cadherin family. Cadherin 6 is a single-pass transmembrane glycoprotein primarily localized to the plasma membrane at adherens junctions, where it mediates homophilic interactions between neighboring cells. CDH6 expression is prominent in kidney epithelium, nervous system tissues, and select epithelial compartments, reflecting its role in tissue patterning and morphogenesis.

Functionally, Cadherin 6 contributes to maintenance of epithelial cohesion and cellular organization by linking adjacent cells through calcium-dependent adhesion and coupling to the actin cytoskeleton via catenin complexes. A short functional summary is that CDH6 supports stable cell-cell adhesion required for proper tissue architecture and differentiation. Through these adhesive interactions, K-Cadherin influences cell polarity, migration, and developmental organization.

At the molecular level, Cadherin 6 contains multiple extracellular cadherin repeat domains that mediate calcium binding and adhesive specificity, a transmembrane region, and a conserved cytoplasmic tail that interacts with beta-catenin and other adaptor proteins. These features integrate extracellular adhesion with intracellular signaling pathways. Cadherin 6 antibody reagents are therefore useful for studying adherens junction biology, epithelial development, and changes in adhesion during disease progression. Clone CDH6/3191 is designed to recognize Cadherin 6 and supports consistent detection of CDH6 expression in research applications.

From a biological and disease relevance perspective, altered Cadherin 6 expression has been reported in several cancers, including renal, ovarian, and thyroid carcinomas, where changes in CDH6 levels may be associated with tumor progression and invasive behavior. Cadherin 6 is also investigated in developmental biology due to its regulated expression during organogenesis. CDH6 antibody tools support studies of epithelial differentiation, cancer biology, and cell adhesion dynamics.

Developmentally, Cadherin 6 expression is tightly regulated and contributes to tissue-specific patterning and morphogenetic processes. CDH6 antibodies from NSJ Bioreagents are supplied for research use to support investigations in epithelial biology, development, and translational cancer research.

Application Notes

Optimal dilution of the Cadherin 6 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 250-450) from the human protein was used as the immunogen for the Cadherin 6 antibody.

Storage

Aliquot the Cadherin 6 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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