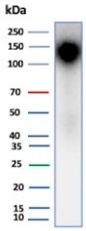
Ksp-Cadherin Antibody / Cadherin 16 [clone rCDH16/7343] (V5385)

Catalog No.	Formulation	Size
V5385-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5385-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5385SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

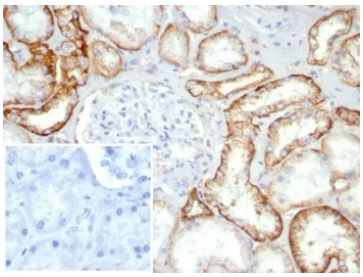
Recombinant MOUSE MONOCLONAL

Bulk quote request

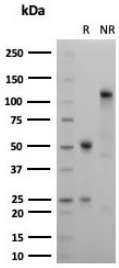
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCDH16/7343
Purity	Protein A/G affinity
UniProt	O75309
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This Ksp-Cadherin antibody is available for research use only.



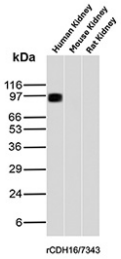
Ksp-Cadherin Antibody Human Kidney WB. Western blot testing of human kidney tissue lysate using Ksp-Cadherin antibody (clone rCDH16/7343). Expected molecular weight ~130 kDa.



Ksp-Cadherin Antibody Human Kidney Tissue IHC. Immunohistochemistry staining of FFPE normal human kidney tissue using Ksp-Cadherin antibody (clone rCDH16/7343) at 2ug/ml in PBS for 30min RT. Inset: PBS used in place of primary Ab (secondary Ab negative control).



SDS-PAGE analysis of purified, BSA-free recombinant Ksp-Cadherin antibody (clone rCDH16/7343) as confirmation of integrity and purity.



Ksp-Cadherin Antibody Kidney Tissue WB. Western blot analysis of Cadherin-16 (CDH16), also known as Ksp-Cadherin, expression in kidney tissue lysates using Ksp-Cadherin antibody clone rCDH16/7343. Lane 1: human kidney lysate, Lane 2: mouse kidney lysate, Lane 3: rat kidney lysate. A band is detected at approximately 90-100 kDa in human kidney lysate, consistent with the predicted molecular weight of Ksp-Cadherin (CDH16), a kidney-specific adhesion protein. Minimal or no detectable signal is observed in mouse and rat kidney lysates under these conditions, suggesting preferential detection in human tissue for this clone.

Description

Cadherin-16 (CDH16), commonly known as Ksp-Cadherin, is a kidney-specific member of the cadherin superfamily that mediates calcium-dependent cell-cell adhesion in renal epithelial cells. Ksp-Cadherin is predominantly localized to the basolateral membrane of tubular epithelial cells in the kidney, where it contributes to the maintenance of epithelial integrity and tissue organization. The Ksp-Cadherin Antibody is designed to detect this tissue-restricted adhesion protein, making it a useful marker for renal epithelial identity and kidney-specific expression patterns.

Ksp-Cadherin antibody, also referred to as Cadherin-16 antibody or CDH16 antibody in the literature, recognizes a transmembrane glycoprotein that is selectively expressed in the distal nephron, including collecting ducts and segments of the distal tubule. Unlike many classical cadherins that are broadly expressed across tissues, CDH16 exhibits highly restricted expression, which supports its use as a kidney-specific epithelial marker. This restricted distribution is particularly valuable in studies focused on renal development, tissue differentiation, and epithelial cell lineage identification.

Structurally, Ksp-Cadherin contains multiple extracellular cadherin repeat domains responsible for calcium-dependent adhesion, a single transmembrane region, and a cytoplasmic tail that participates in intracellular signaling and cytoskeletal organization. Compared to other cadherins such as E-Cadherin or N-Cadherin, CDH16 has distinct sequence features that contribute to its tissue specificity and functional specialization within renal epithelium. The protein is also glycosylated, which can influence its apparent molecular weight on SDS-PAGE and may result in slight variability in migration depending on tissue context and processing state.

Functionally, CDH16 plays a role in maintaining epithelial polarity and structural cohesion within kidney tubules. Its expression supports tight intercellular contacts that are essential for proper tubular function, including fluid transport and barrier formation. Because of its selective expression, Ksp-Cadherin is frequently used as a marker to distinguish renal epithelial cells from other cell types in both normal tissue and disease models.

Altered expression of CDH16 has been associated with renal pathologies, including kidney injury and carcinoma, where disruption of epithelial architecture is a key feature. In renal cell carcinoma, changes in cadherin expression patterns can reflect dedifferentiation and tumor progression, making CDH16 a relevant marker for studying epithelial integrity and tumor biology within the kidney. Its specificity for renal tissue also supports its use in identifying metastatic lesions of kidney origin.

Clone rCDH16/7343 is a recombinant mouse monoclonal antibody designed to detect Ksp-Cadherin with specificity in kidney tissue. Its recognition of CDH16 supports applications in studies of renal epithelial biology, tissue organization, and kidney-associated disease, providing a reliable tool for investigating kidney-specific adhesion mechanisms and epithelial differentiation.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

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

Immunogen

Recombinant human full-length CDH16 protein was used as the immunogen for the recombinant Ksp-Cadherin antibody.

Storage

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

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