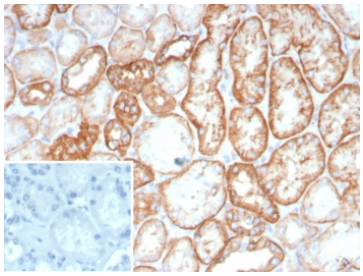
Ksp-Cadherin Antibody / Human Kidney-Enriched Detection Antibody [clone CDH16/8800R] (V4437)

Catalog No.	Formulation	Size
V4437-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4437-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4437SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

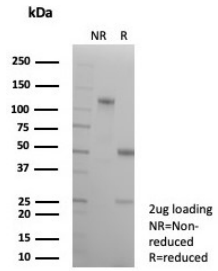
Recombinant RABBIT MONOCLONAL

Bulk quote request

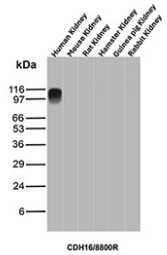
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CDH16/8800R
Purity	Protein A affinity
UniProt	O75309
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT Western blot: 2-4ug/ml
Limitations	This Ksp-Cadherin Antibody / Human Kidney-Enriched Detection Antibody is available for research use only.



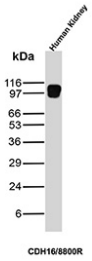
Ksp-Cadherin Antibody Kidney IHC. Immunohistochemical analysis of Cadherin-16 / CDH16, also known as Ksp-Cadherin, in formalin-fixed, paraffin-embedded human kidney tissue using Ksp-Cadherin antibody clone CDH16/8800R. Strong membranous staining is observed in renal tubular epithelial cells, outlining well-defined tubular structures consistent with kidney-specific expression of CDH16. The selective staining pattern supports a human kidney-enriched detection profile for this clone. Background staining is minimal. Inset: PBS used in place of primary antibody serves as a negative control for secondary antibody binding. Required 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 CDH16 antibody (clone CDH16/8800R) as confirmation of integrity and purity.



Ksp-Cadherin Antibody Human Kidney WB. Western blot analysis of Cadherin-16 / CDH16, also known as Ksp-Cadherin, expression across kidney tissue lysates from multiple species using Ksp-Cadherin antibody clone CDH16/8800R. Lane 1: human kidney lysate, Lane 2: mouse kidney lysate, Lane 3: rat kidney lysate, Lane 4: hamster kidney lysate, Lane 5: guinea pig kidney lysate, Lane 6: rabbit kidney lysate. A band is detected at approximately 95-110 kDa in human kidney lysate, consistent with the predicted molecular weight of Ksp-Cadherin (CDH16), with the slightly higher apparent migration reflecting glycosylation of this kidney-restricted adhesion protein. Minimal or no detectable signal is observed in the non-human kidney lysates under these conditions, supporting a human kidney-enriched detection profile for this clone.



Ksp-Cadherin Antibody Human Kidney WB. Western blot analysis of Cadherin-16 / CDH16, also known as Ksp-Cadherin, expression in human kidney tissue lysate using Ksp-Cadherin antibody clone CDH16/8800R. Lane 1: human kidney lysate. A band is detected at approximately 95-110 kDa, consistent with the predicted molecular weight of Ksp-Cadherin (CDH16), with the slightly higher apparent migration reflecting glycosylation of this kidney-restricted adhesion protein. The strong signal in human kidney lysate supports a human kidney-enriched detection profile for this clone and aligns with the restricted expression of CDH16 in renal epithelial tissue.

Description

Cadherin-16 (CDH16), commonly known as Ksp-Cadherin, is a kidney-restricted member of the cadherin superfamily that mediates calcium-dependent cell-cell adhesion in renal epithelial cells. Ksp-Cadherin is localized predominantly to the basolateral membrane of tubular epithelial cells, where it contributes to epithelial polarity, structural cohesion, and maintenance of nephron architecture. This Ksp-Cadherin antibody is designed to detect Cadherin-16 with strong performance in human kidney tissue, supporting a human kidney-enriched detection profile for studies focused on renal epithelial biology.

Ksp-Cadherin antibody, also referred to as CDH16 antibody and Cadherin-16 antibody in the literature, recognizes a transmembrane glycoprotein with highly selective expression within the kidney, most prominently in distal tubules and collecting duct epithelium. A defining feature of this antibody is the strong detection of Cadherin-16 in human kidney lysate by western blot, with minimal or no detectable signal in kidney lysates from mouse, rat, hamster, guinea pig, and rabbit under the tested conditions. This pattern supports a human kidney-enriched detection profile and provides a clear experimental distinction from antibodies with broader cross-species reactivity, enabling focused analysis of human renal tissue.

Structurally, Ksp-Cadherin contains multiple extracellular cadherin repeat domains that mediate calcium-dependent adhesion, a single transmembrane region, and a cytoplasmic domain involved in intracellular signaling and cytoskeletal organization. Unlike widely expressed cadherins such as E-Cadherin and N-Cadherin, CDH16 exhibits a highly restricted expression profile, reflecting its specialized function within renal epithelial compartments. The protein undergoes glycosylation, resulting in a slightly elevated apparent molecular weight on SDS-PAGE, a consistent and reproducible feature observed in kidney tissue lysates.

Functionally, CDH16 plays a critical role in maintaining epithelial integrity and polarity within kidney tubules, supporting tight intercellular junctions required for proper tubular structure and function. Its expression is closely associated with differentiated renal epithelial cells, making it a reliable marker for kidney-specific cell populations and epithelial lineage identity. The strong detection observed in human kidney lysate reinforces its relevance in studies of renal physiology and highlights its utility in identifying kidney-derived cells in complex tissue samples.

Immunohistochemical analysis of human kidney tissue further supports this expression pattern, with distinct membranous staining of renal tubular epithelial cells consistent with the known localization of Ksp-Cadherin. This tissue-level validation complements the western blot findings and provides morphological confirmation of target expression in human kidney. The combined biochemical and histological evidence strengthens confidence in the specificity and applicability of this antibody in human renal studies.

Clone CDH16/8800R is a recombinant rabbit monoclonal antibody designed to recognize Cadherin-16 with high specificity. Its strong and selective detection in human kidney tissue, combined with minimal signal in non-human samples under the tested conditions, provides a clear differentiation as a human kidney-enriched reagent. This makes it particularly valuable for renal research, studies of kidney epithelial differentiation, and investigations requiring precise detection of CDH16 in human tissue.

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

Application Notes

Optimal dilution of the Ksp-Cadherin Antibody / Human Kidney-Enriched Detection Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 350-550) from the human protein was used as the immunogen for the Ksp-Cadherin antibody.

Storage

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

Alternate Names

CDH16 antibody, Cadherin-16 antibody, Ksp-Cadherin kidney antibody, CDH16 renal antibody, Ksp-Cadherin WB antibody

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