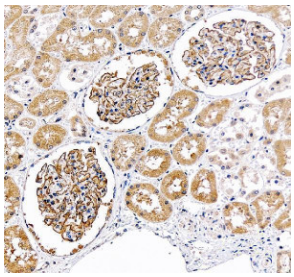
Podocin Antibody / Glomerular Podocyte Marker Antibody (R30383)

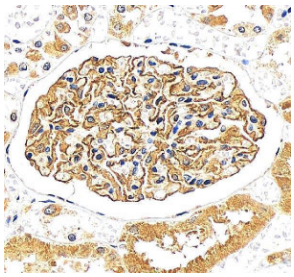
Catalog No.	Formulation	Size
R30383	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

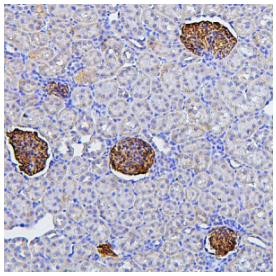
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q9NP85
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-3ug/ml
Limitations	This Podocin Antibody / Glomerular Podocyte Marker Antibody is available for research use only.



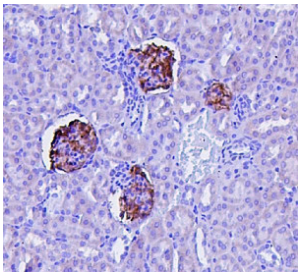
Podocin Antibody Human Kidney Glomeruli IHC. Immunohistochemistry staining of FFPE human kidney tissue was performed with Podocin Antibody at 2 ug/ml following heat-induced epitope retrieval in pH 8 EDTA buffer. HRP-conjugated secondary antibody and DAB were used for detection. Strong podocin staining is observed in multiple renal glomeruli, prominently highlighting the glomerular capillary network and podocyte-associated structures. This Podocin Antibody demonstrates the characteristic glomerular localization of NPHS2 and supports its use as a glomerular podocyte marker.



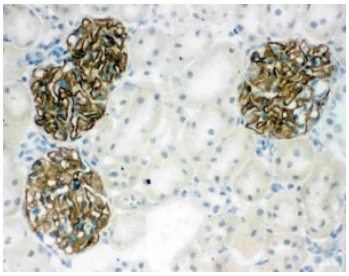
Podocin Antibody Human Kidney Glomerulus IHC. Immunohistochemistry staining of FFPE human kidney tissue was performed with Podocin Antibody at 2 ug/ml following heat-induced epitope retrieval in pH 8 EDTA buffer. HRP-conjugated secondary antibody and DAB were used for detection. Strong podocin staining is observed within the renal glomerulus, highlighting the glomerular capillary network and podocyte-associated structures. This Podocin Antibody demonstrates localization of NPHS2 in human kidney and supports its use as a glomerular podocyte marker.



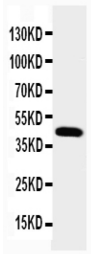
Podocin Antibody Rat Kidney Glomeruli IHC. Immunohistochemistry staining of FFPE rat kidney tissue was performed with Podocin Antibody at 1 ug/ml following heat-induced epitope retrieval in pH 6 citrate buffer for 20 min. Biotinylated goat anti-rabbit IgG and streptavidin-biotin complex with DAB were used for detection. Strong podocin staining is selectively localized to renal glomeruli, with minimal staining in the surrounding tubular tissue. This Podocin Antibody demonstrates the characteristic glomerular distribution of NPHS2 and supports its use as a glomerular podocyte marker.



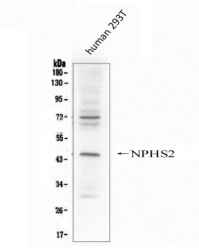
Podocin Antibody Mouse Kidney Glomeruli IHC. Immunohistochemistry staining of FFPE mouse kidney tissue was performed with Podocin Antibody at 1 ug/ml following heat-induced epitope retrieval in pH 6 citrate buffer for 20 min. Biotinylated goat anti-rabbit IgG and streptavidin-biotin complex with DAB were used for detection. Strong podocin staining is selectively localized to renal glomeruli, with little staining observed in the surrounding tubular tissue. This Podocin Antibody demonstrates the characteristic glomerular distribution of NPHS2 and supports its use as a glomerular podocyte marker.



Podocin Antibody Rat Kidney Glomerulus IHC. Immunohistochemistry staining of frozen rat kidney tissue was performed with Podocin Antibody at 1 ug/ml overnight at 4oC. Biotinylated goat anti-rabbit IgG and streptavidin-biotin complex with DAB were used for detection. Strong podocin staining is localized to the renal glomeruli, with minimal staining in the surrounding tubular tissue. This Podocin Antibody demonstrates the characteristic glomerular distribution of NPHS2 and supports its use as a glomerular podocyte marker.



Podocin Antibody Rat Kidney WB. Western blot analysis was performed with Podocin Antibody on rat kidney tissue lysate under reducing conditions. The antibody was used at 0.5 ug/ml overnight at 4oC. A specific band is detected at approximately 45 kDa, consistent with the expected molecular weight of approximately 42 kDa for podocin/NPHS2. This Podocin Antibody demonstrates detection of NPHS2 in rat kidney tissue and supports its use for studies of glomerular podocyte biology and slit diaphragm organization.



Podocin Antibody Human 293T Cell WB. Western blot analysis was performed with Podocin Antibody on human 293T whole cell lysate under reducing conditions. The antibody was used at 0.5 ug/ml overnight at 4oC. A prominent band is detected at approximately 45 kDa, close to the expected molecular weight of approximately 42 kDa for podocin/NPHS2. Additional bands are observed at approximately 65-70 kDa and 30 kDa. This Podocin Antibody demonstrates detection of NPHS2 in human 293T cell lysate.

Description

Podocin Antibody / Glomerular Podocyte Marker Antibody detects podocin, a membrane-associated protein encoded by the NPHS2 gene and expressed predominantly in glomerular podocytes of the kidney. Podocytes are specialized epithelial cells that surround glomerular capillaries and contribute to the filtration barrier responsible for restricting the passage of proteins from blood into urine. Podocin is concentrated at the slit diaphragm between adjacent podocyte foot processes, making it an important marker for studying podocyte structure and glomerular function.

Podocin is an integral component of the slit diaphragm protein complex and interacts functionally with proteins including

nephrin and CD2AP. These complexes help organize specialized membrane domains and signaling structures required to maintain podocyte foot processes and filtration barrier integrity. A Podocin Antibody can therefore support studies of podocyte differentiation, slit diaphragm organization and structural changes associated with glomerular injury.

Alterations in podocin are strongly associated with kidney disease. Pathogenic variants in NPHS2 cause autosomal recessive steroid-resistant nephrotic syndrome and can disrupt normal podocin localization or function. Loss or alteration of slit diaphragm proteins can compromise the glomerular filtration barrier, resulting in proteinuria and progressive renal dysfunction. Podocin expression is consequently investigated in studies of nephrotic syndrome, glomerular disease and mechanisms of podocyte injury.

Because podocin is closely associated with differentiated podocytes, it is also widely studied as a marker for evaluating podocyte identity and integrity in kidney tissue, cultured cells and experimental models of renal disease. Changes in podocin expression or localization can accompany podocyte damage and remodeling of the filtration barrier, making the protein useful for research into renal development and glomerular pathology.

NSJ Bioreagents offers Podocin Antibody reagents for investigating podocin expression and localization. A Glomerular Podocyte Marker Antibody can support research into podocyte biology, slit diaphragm organization, glomerular filtration, nephrotic syndrome and mechanisms underlying kidney disease.

Researchers studying podocin and slit diaphragm organization can explore our CD Antibodies page for additional targets, including CD2AP, involved in cellular adhesion, signaling and membrane-associated protein complexes.

Application Notes

Titration of the Podocin Antibody / Glomerular Podocyte Marker Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 368-383 (KPVEPLNPKKKDSPML) were used as the immunogen for this Podocin antibody (100% homologous human and mouse).

Storage

The lyophilized Podocin antibody can be stored at 4oC to -20oC. After reconstitution, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Podocin antibody, Glomerular Podocyte Marker antibody, NPHS2 antibody, Nephrosis 2 antibody, Slit Diaphragm Protein antibody

Copyright © NSJ Bioreagents. All rights reserved.