

Anti-Nephrin antibody [EPR20993] - BSA and Azide free ab227806

Recombinant RabMAb

[5 References](#) [7 Images](#)

Overview

Product name	Anti-Nephrin antibody [EPR20993] - BSA and Azide free
Description	Rabbit monoclonal [EPR20993] to Nephrin - BSA and Azide free
Host species	Rabbit
Specificity	Human species is recommended based on IHC-P results, we do not guarantee WB and IHC-Frozen for human.
Tested applications	Suitable for: IHC-Fr, IP, IHC-P, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human kidney tissue.
General notes	<p>ab227806 is the carrier-free version of ab216341.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit</p>

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20993
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab227806 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Use 1/2000 dilution for Mouse and Rat. Primary antibody incubation overnight at +4°C is recommended for human species.
WB		Use at an assay dependent concentration. Detects a band of approximately 200 kDa (predicted molecular weight: 136 kDa).

Target

Function	Seems to play a role in the development or function of the kidney glomerular filtration barrier. Regulates glomerular vascular permeability. May anchor the podocyte slit diaphragm to the actin cytoskeleton. Plays a role in skeletal muscle formation through regulation of myoblast fusion.
Tissue specificity	Specifically expressed in podocytes of kidney glomeruli.
Involvement in disease	Defects in NPHS1 are the cause of nephrotic syndrome type 1 (NPHS1) [MIM:256300]; also known as Finnish congenital nephrosis (CNF). A renal disease characterized clinically by proteinuria, hypoalbuminemia, hyperlipidemia, and edema. Kidney biopsies show non-specific histologic changes such as focal segmental glomerulosclerosis and diffuse mesangial

proliferation. Some affected individuals have an inherited steroid-resistant form and progress to end-stage renal failure.

Sequence similarities

Belongs to the immunoglobulin superfamily.

Contains 1 fibronectin type-III domain.

Contains 8 Ig-like C2-type (immunoglobulin-like) domains.

Developmental stage

In 23-week-old embryo found in epithelial podocytes of the periphery of mature and developing glomeruli.

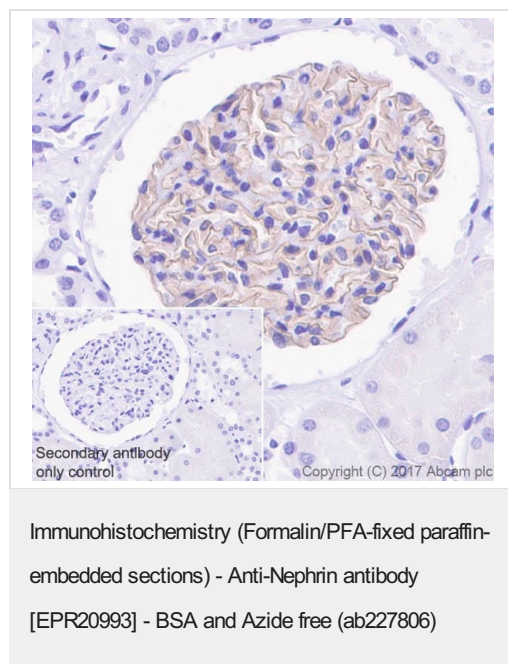
Post-translational modifications

Phosphorylated on tyrosine residues.

Cellular localization

Cell membrane. Predominantly located at podocyte slit diaphragm between podocyte foot processes. Also associated with podocyte apical plasma membrane.

Images



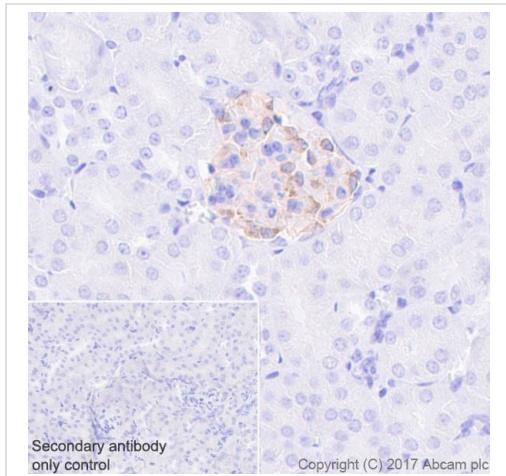
Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Nephrin with [ab216341](#) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on human renal glomerulus (PMID: 18599604; PMID: 25367693). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab216341](#)).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Primary antibody incubation overnight at +4°C is recommended for human species



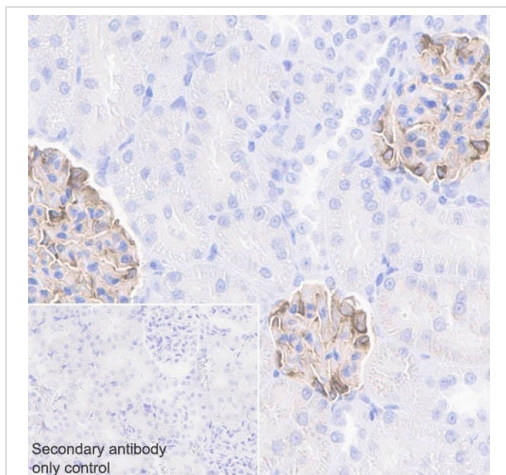
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nephrin antibody [EPR20993] - BSA and Azide free (ab227806)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Nephrin with **ab216341** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on mouse renal glomerulus (PMID: 18599604; PMID: 25367693). Counter stained with hematoxylin.

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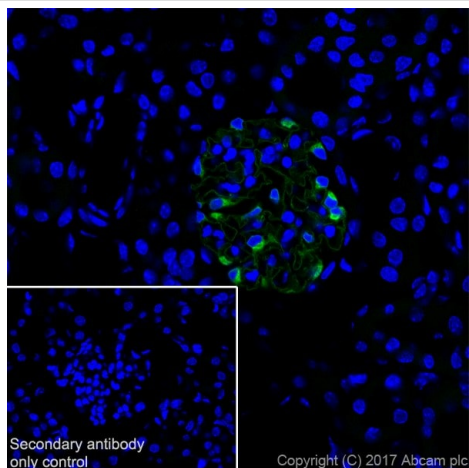
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nephrin antibody [EPR20993] - BSA and Azide free (ab227806)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Nephrin with **ab216341** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on rat renal glomerulus (PMID: 18599604; PMID: 25367693). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216341**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



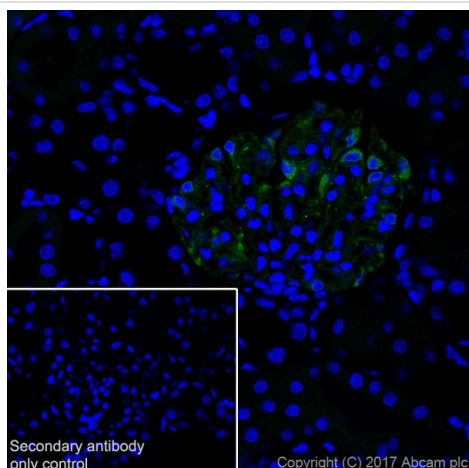
Immunohistochemistry (Frozen sections) - Anti-Nephlin antibody [EPR20993] - BSA and Azide free (ab227806)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse kidney tissue labeling Nephlin with [ab216341](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Positive cytoplasmic staining in the glomerular podocytes (PMID: 26380915).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab216341](#)).



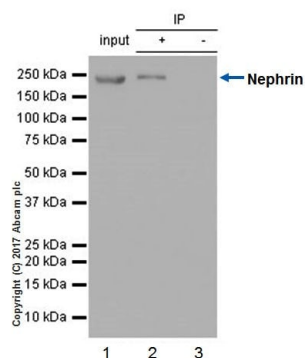
Immunohistochemistry (Frozen sections) - Anti-Nephlin antibody [EPR20993] - BSA and Azide free (ab227806)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat kidney tissue labeling Nephlin with [ab216341](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Positive cytoplasmic staining in the glomerular podocytes (PMID: 26380915).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab216341](#)).



Immunoprecipitation - Anti-Nephrin antibody
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Nephrin was immunoprecipitated from 0.35 mg of mouse kidney lysate with **ab216341** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab216341** at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Mouse kidney lysate 10 µg (Input).

Lane 2: **ab216341** IP in mouse kidney lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab216341** in mouse kidney lysate.

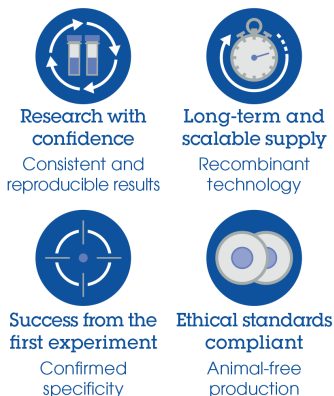
Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 30 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab216341**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Anti-Nephrin antibody [EPR20993] - BSA and Azide free (ab227806)

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