Product datasheet

Anti-Nephrin antibody ab58968

Overview

Product name  Anti-Nephrin antibody
Description  Rabbit polyclonal to Nephrin
Host species  Rabbit
Tested applications  Suitable for: IHC-P, WB
Species reactivity  Reacts with: Mouse, Human
Immunogen  A 14 amino acid peptide from near the carboxy terminus of human Nephrin.
Positive control  WB: HEK293 and Mouse kidney lysate. IHC: Mouse kidney tissue.
General notes  Abcam is committed to meeting high standards of manufacturing and has decided to discontinue this product once the stock runs out as we are unable to secure its future high-quality supply. We suggest ab216341 as possible replacement. We are sorry for any inconvenience this may case. Although there are publications stating this antibody works with Rat species in WB (PMID 19052104). The antibody however fail to stain the Rat kidney sections hence we have removed the species(from customer feedback). Further feedback using this antibody with Rat tissues would be very welcome

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at +4°C.
Storage buffer  Preservative: 0.05% Sodium azide
Constituents: PBS, 0.1% BSA
Purity  Immunogen affinity purified
Purification notes  ab58968 is purified.
Clonality  Polyclonal
Isotype  IgG

Applications

Our Abpromise guarantee covers the use of ab58968 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**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.

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<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 5 - 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 85 kDa (predicted molecular weight: 138 kDa).</td>
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</tbody>
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**Target**

**Images**

**All lanes**: Anti-Nephrin antibody (ab58968) at 1 µg/ml

**Lane 1**: mouse kidney tissue lysate

**Lane 2**: mouse kidney tissue lysate with blocking peptide

Lysates/proteins at 15 µg per lane.

**Predicted band size**: 138 kDa

**Observed band size**: 100 kDa

*why is the actual band size different from the predicted?*
The difference in MW size could be due to modification to the protein or just aberrant migration.

ab58968, at a concentration of 1 µg/ml, staining Nephrin in mouse kidney tissue by Immunohistochemistry.

All lanes: Anti-Nephrin antibody (ab58968)

Lane 1: HEK293 cell lysate

Lane 2: Mouse kidney lysate

Predicted band size: 138 kDa

Anti-Nephrin antibody (ab58968) at 0.5 µg/ml + Mouse kidney tissue lysate at 56 µg with Milk at 5%

Secondary
HRP conjugated Goat anti-rabbit IgG monoclonal at 1/1000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 138 kDa

Observed band size: 85 kDa

why is the actual band size different from the predicted?
**Exposure time:** 30 seconds

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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