# **Product Datasheet**

# Nephrin Antibody (Y17-R) NBP1-30130-0.05ml

Unit Size: 0.05 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.





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#### NBP1-30130-0.05ml

Nephrin Antibody (Y17-R)

Product Information	
Unit Size	0.05 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Y17-R
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	20mM Tris/HCI (pH 8.0) and 10 mg/ml BSA
Product Description	
Description	This antibody is immunoaffinity purified with immunogenic peptide as a ligand.
Host	Rabbit
Gene ID	4868
Gene Symbol	NPHS1
Species	Human, Mouse, Rat
Immunogen	Peptide derived from the center of the fifth Ig-like domain of human Nephrin. Antibody recognizes the epitope located between Cys465 - Cys528.
Notes	This antibody is immunoaffinity purified with immunogenic peptide as a ligand.
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:5000, ELISA 1:50000-1:100000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1:10-1:500, Immunohistochemistry- Paraffin
Application Notes	Use in IHC-P reported in scientific literature (PMID:34516901). For western blots, incubate the membrane with antibody diluted in blocking buffer for 2 hours at room temperature. Western immunoblotting solutions: Wash buffer: 1x Tris Buffered Saline (TBS).; 0.1% Triton X-100. Blocking buffer: 1xTBS; 0.1% Triton X-100; 5% nonfat dry milk. Use in Immunohistochemistry reported in scientific literature (PMID: 25129444).



#### Images

Western Blot: Nephrin Antibody (Y17-R) [NBP1-30130] - Stiffnessmediated differentiation phenotype induces upregulation of podocytespecific functional proteins. Representative image of Western blot for Nephrin antibody critical for physiological function of podocytes. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/srep43934) licensed under a CC-BY license.

Immunocytochemistry/Immunofluorescence: Nephrin Antibody (Y17-R) [NBP1-30130] - Nephrin expression in HEK293 cells, visualized with clonal rabbit antiNephrin monospecific antibody. Primary antibody dilution - 1:70

Western Blot: Nephrin Antibody (I) [NBP1-30130] - Analysis of mouse nephrin: lane 1 - 50ng; lane 2 - 100ng; lane 3 -200ng of recombinant mouse nephrin.

Western Blot: Nephrin Antibody (Y17-R) [NBP1-30130] - Stiffnessmediated differentiation phenotype induces upregulation of podocytespecific functional proteins.(A) Representative images of Western blots for five proteins critical for physiological function of podocytes. Images of the complete blots are shown in Figure S3. (B) Quantification of kidney podocyte protein markers. Highest upregulation of WT-1 was found on the 2 kPa gel  $(2.2 \pm 0.3)$ . Nephrin, podocin, & CD2AP showed similar trends. Synaptopodin did not show this trend & there was no statistical difference between softer gels & control. T-statistics showed statistically significant changes of the ratios of five protein markers after normalization by control (two-tails,  $\alpha = 0.05$ ). The average t-statistics were 4.5 for the 2 kPa gel & 4.0 for the 5 kPa gel, which were significantly different relative to the control. Those for the 0.6 kPa and 13 kPa gels were 0.8 & 1.5, & the differences were not significant. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/srep43934), licensed under a CC-BY license. Not internally tested by Novus Biologicals.









#### **Publications**

Zhang F, Liu J, Yu J et al. Effect of Nephropathy Prescription I on the Expression of Angptl3 and Podocyte-Associated Protein in Mice with Adriamycin-Induced Nephropathy. Evidence-based complementary and alternative medicine : eCAM 2021-04-01 [PMID: 38149181]

Wu J, Wang Z, Cai M et al. GPR56 promotes diabetic kidney disease through eNOS regulation in glomerular endothelial cells Diabetes 2023-08-14 [PMID: 37579299] (Immunohistochemistry)

Zhang F, Liu J, Yu J et al. Effect of Nephropathy Prescription I on the Expression of Angptl3 and Podocyte-Associated Protein in Mice with Adriamycin-Induced Nephropathy Evidence-Based Complementary and Alternative Medicine 2022-01-31 [PMID: 36787114] (WB, Mouse)

Pace JA, Bronstein R, Guo Y et al. Podocyte-specific KLF4 is required to maintain parietal epithelial cell quiescence in the kidney Science advances 2021-09-03 [PMID: 34516901] (IHC-P, Mouse)

Mallipattu S K, Guo Y et al. Kruppel-Like Factor 15 Mediates Glucocorticoid-Induced Restoration of Podocyte Differentiation Markers. J Am Soc Nephrol 2017-01-01 [PMID: 27288011] (IF/IHC, Human, Mouse)

Melica ME, La Regina G, Parri M, et al. Substrate Stiffness Modulates Renal Progenitor Cell Properties via a ROCK-Mediated Mechanotransduction Mechanism Cells 2019-12-03 [PMID: 31816967] (ICC/IF, Human)

Wang X, Gao Y, Tian N et al. Astragaloside IV improves renal function and fibrosis via inhibition of miR-21-induced podocyte dedifferentiation and mesangial cell activation in diabetic mice Drug Des Devel Ther 2018-08-06 [PMID: 30122901] (WB, ICC/IF, Mouse)

Estrada CC, Paladugu P, Guo Y et al. Kruppel-like factor 4 is a negative regulator of STAT3-induced glomerular epithelial cell proliferation JCI Insight 2018-06-21 [PMID: 29925693] (ICC/IF, Mouse)

Hu M, Azeloglu EU, Ron A et al. A biomimetic gelatin-based platform elicits a pro-differentiation effect on podocytes through mechanotransduction. Sci Rep. 2017-03-06 [PMID: 28262745] (WB, Human)

Finne K, Vethe H, Skogstrand T et al. Proteomic analysis of formalin-fixed paraffin-embedded glomeruli suggests depletion of glomerular filtration barrier proteins in two-kidney one-clip hypertensive rats. Nephrol. Dial. Transplant. 2014-08-16 [PMID: 25129444]





## Novus Biologicals USA

10730 E. Briarwood Avenue Centennial, CO 80112 USA Phone: 303.730.1950 Toll Free: 1.888.506.6887 Fax: 303.730.1966 nb-customerservice@bio-techne.com

#### **Bio-Techne Canada**

21 Canmotor Ave Toronto, ON M8Z 4E6 Canada Phone: 905.827.6400 Toll Free: 855.668.8722 Fax: 905.827.6402 canada.inquires@bio-techne.com

## **Bio-Techne Ltd**

19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB, United Kingdom Phone: (44) (0) 1235 529449 Free Phone: 0800 37 34 15 Fax: (44) (0) 1235 533420 info.EMEA@bio-techne.com

## **General Contact Information**

www.novusbio.com Technical Support: nb-technical@biotechne.com Orders: nb-customerservice@bio-techne.com General: novus@novusbio.com

#### Products Related to NBP1-30130-0.05ml

NBP1-77303PEP	Nephrin Antibody Blocking Peptide
NBP2-24891	Rabbit IgG Isotype Control
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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