

Product Datasheet

Nephrin Antibody - BSA Free

NBP1-77303

Unit Size: 0.1 mg

Store at 4C.

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NBP1-77303

Nephrin Antibody - BSA Free

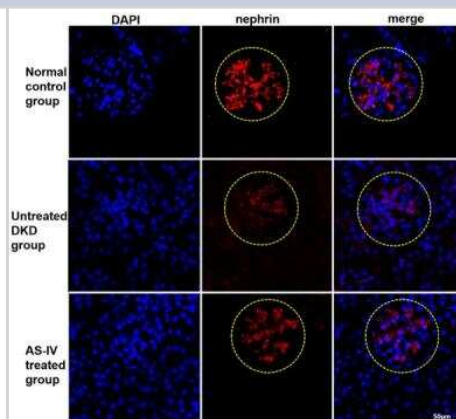
Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS

Product Description	
Host	Rabbit
Gene ID	4868
Gene Symbol	NPHS1
Species	Human, Mouse, Rat
Specificity/Sensitivity	Human Nephrin has 2 isoforms, including isoform 1 (1241aa, 135kD) and isoform 2 (1201aa, 131kD). Mouse Nephrin also has 2 isoforms, including isoform 1 (1256aa, 136kD) and isoform 2 (1242aa, 135kD). Rat Nephrin has 3 isoforms, including isoform 1 (1252aa, 136kD), isoform 2 (1239aa, 135kD) and isoform 3 (1166aa, 127kD). NBP1-77303 can detect isoforms of human, mouse and rat.
Immunogen	Antibody was raised against a peptide corresponding to 14 amino acids near the carboxy terminus of human Nephrin. The immunogen is located within the last 50 amino acids of Nephrin. Amino Acid Sequence: EPDSLPLFELRGHLV

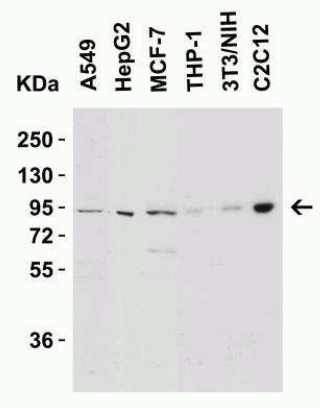
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1-2 ug/ml, ELISA 1:100-1:2000, Immunohistochemistry 1-5 ug/ml, Immunocytochemistry/ Immunofluorescence 10-20 ug/ml, Immunohistochemistry-Paraffin 1-5 ug/ml

Images

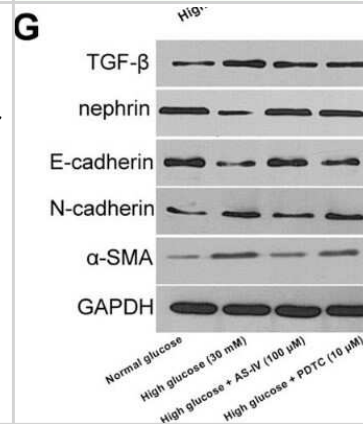
Immunocytochemistry/Immunofluorescence: Nephrin Antibody - BSA Free [NBP1-77303] - Nephrin Antibody [NBP1-77303] - In vivo AS-IV effects on podocyte EMT. Nephrin levels were analyzed by immunofluorescence assay. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-018-36911-1>) licensed under a CC-BY license.



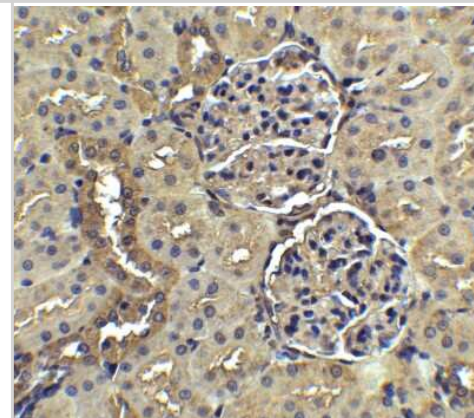
Western Blot: Nephrin Antibody - BSA Free [NBP1-77303] - Nephrin Antibody [NBP1-77303] - Loading: 15 ug of lysates per lane. Antibodies: Nephrin (2 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



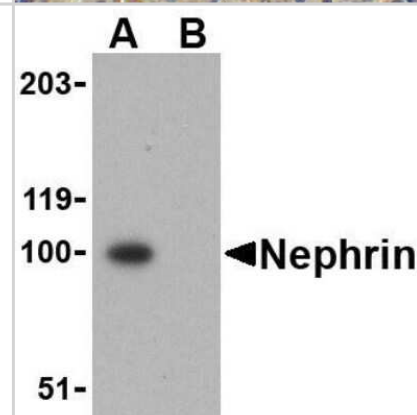
Western Blot: Nephrin Antibody - BSA Free [NBP1-77303] - Nephrin Antibody [NBP1-77303] - In vitro AS-IV effects on SIRT1 and NF-kB p65 expression in hyperglycaemia-triggered podocyte EMT. Podocytes were pretreated with high glucose for 1 hour, and then incubated with PDTC or AS-IV for 48 hours. The levels of TGF-, nephrin, E-cadherin, N-cadherin and -SMA were quantified with Western blotting. Data is presented as meanSD. n=3. *Compared with normal glucose cohort, or high glucose plus AS-IV cohort, or high glucose plus PDTC cohort, P <0.05. Astragaloside IV inhibits glucose-induced epithelial-mesenchymal transition of podocytes through autophagy enhancement via the SIRT-NF-kB p65 axis. Sci Rep (2019)



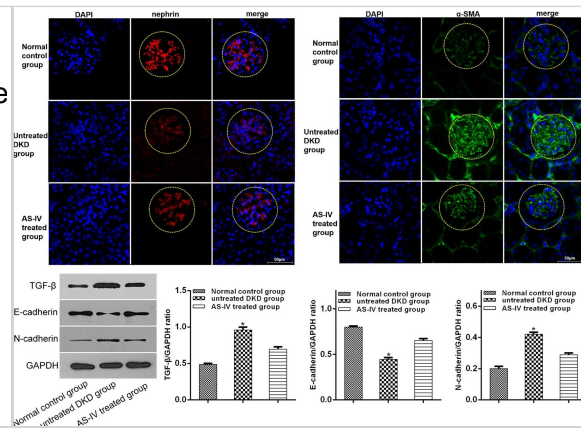
Immunohistochemistry: Nephrin Antibody - BSA Free [NBP1-77303] - Nephrin Antibody [NBP1-77303] - Staining of rat kidney tissue with antibody at 5 ug/mL.



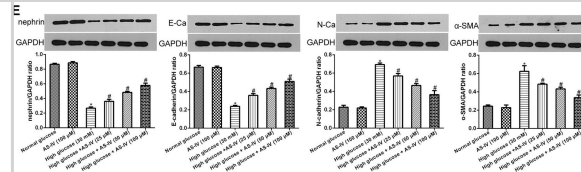
Western Blot: Nephrin Antibody - BSA Free [NBP1-77303] - Nephrin Antibody [NBP1-77303] - Mouse kidney tissue lysate with Nephrin antibody at 1 u/mL in the (A) absence and (B) presence of blocking peptide.



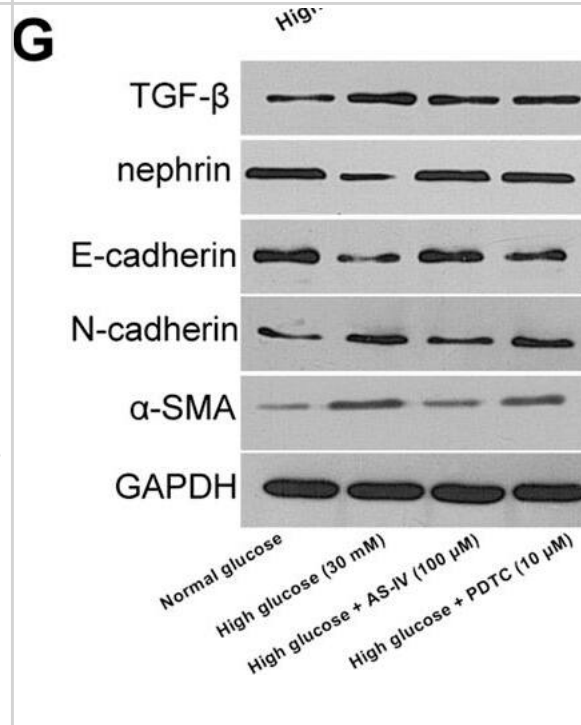
Immunocytochemistry/ Immunofluorescence: Nephrin Antibody - BSA Free [NBP1-77303] - In vivo AS-IV effects on podocyte EMT. α -SMA & nephrin levels in vivo were analyzed by immunofluorescence assay & the levels of TGF- β , N-cadherin & E-cadherin were quantified using Western blotting. Data is presented as mean \pm SD. n = 3. *Compared with normal control cohort, or AS-IV treated cohort, P < 0.05. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30674969>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



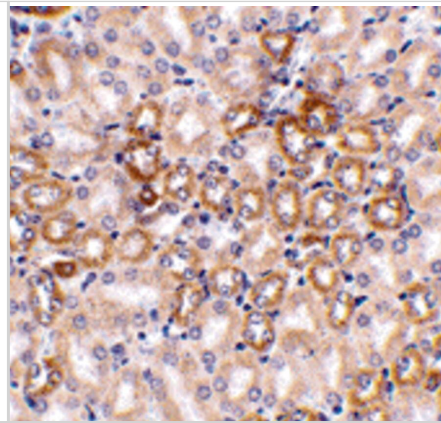
Western Blot: Nephrin Antibody - BSA Free [NBP1-77303] - AS-IV effects on hyperglycaemia-triggered podocyte EMT. (A) AS-IV chemical structure. (B–E) Podocytes were pretreated with high/normal glucose for 1 hour, & then incubated with or without AS-IV (25, 50 & 100 μ M) for 48 hours. (B) mRNA expression levels of TGF- β were detected using real-time PCR. (C) TGF- β protein levels were quantified using Western blotting. (D) mRNA expression levels of α -SMA, N-cadherin, E-cadherin & nephrin were detected using real-time PCR. (E) Protein levels of α -SMA, N-cadherin, E-cadherin & nephrin were detected using Western blotting. Note: E-Ca, E-cadherin; N-Ca, N-cadherin. The molecular weight of the proteins: TGF- β , 44 kDa; nephrin, 100 kDa; E-cadherin, 110 kDa; N-cadherin, 100 kDa; α -SMA, 42 kDa. Data is presented as mean \pm SD. n = 3. *Compared with normal glucose cohort or AS-IV cohort, P < 0.05; #compared with high glucose cohort, P < 0.05. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30674969>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



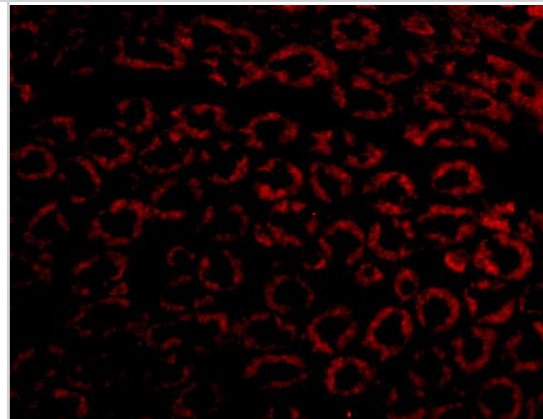
Western Blot: Nephrin Antibody - BSA Free [NBP1-77303] - In vitro AS-IV effects on SIRT1 & NF- κ B p65 expression in hyperglycaemia-triggered podocyte EMT. (A–F) Podocytes were exposed to either a SIRT1 inhibitor EX527 or SIRT1 activator SRT1720 after a 1 hour exposure to hyperglycaemic conditions, & were subsequently incubated with or without AS-IV (100 μ M) for 48 hours. (A,E) mRNA expression levels of SIRT1 and p65 were quantified using real-time PCR. (B) The deacetylase activity of SIRT1 was detected with a SIRT1 activity assay. (C,D,F) The protein levels of SIRT1 & AC-p65 were quantified using Western blotting. The molecular weight of the proteins: SIRT1, 110 kDa; AC-p65, 65 kDa; p65, 65 kDa. Data is presented as mean \pm SD. n = 3. *Compared with normal glucose cohort, or AS-IV cohort, or high glucose plus AS-IV cohort, or high glucose plus SRT1720 cohort, P < 0.05; #compared with high glucose plus AS-IV cohort, P < 0.05. (G) Podocytes were pretreated with high glucose for 1 hour, & then incubated with PDTC or AS-IV for 48 hours. The levels of TGF- β , nephrin, E-cadherin, N-cadherin & α -SMA were quantified with Western blotting. Data is presented as mean \pm SD. n = 3. *Compared with normal glucose cohort, or high glucose plus AS-IV cohort, or high glucose plus PDTC cohort, P < 0.05. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30674969>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



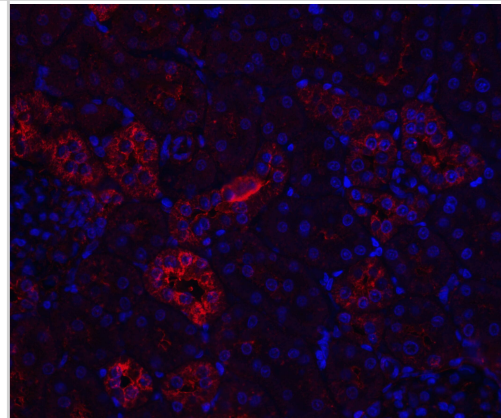
Immunohistochemistry: Nephtrin Antibody - BSA Free [NBP1-77303] - Validation of Nephtrin in Mouse Kidney Tissue. Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti- Nephtrin antibody at 1 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunocytochemistry/ Immunofluorescence: Nephtrin Antibody - BSA Free [NBP1-77303] - Validation of Nephtrin in Mouse Kidney Tissue. Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse kidney cells labeling Nephtrin with at 10 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



Immunocytochemistry/ Immunofluorescence: Nephtrin Antibody - BSA Free [NBP1-77303] - Validation of Nephtrin in Rat Kidney Tissue. Immunofluorescent analysis of 4% paraformaldehyde-fixed rat kidney tissue labeling Nephtrin with at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).



Publications

Nishad R, Tahaseen V, Kavvuri R et al. Advanced-Glycation End-Products Induce Podocyte Injury and Contribute to Proteinuria *Frontiers in Medicine* 2021-07-01 [PMID: 34277660] (Immunohistochemistry-Paraffin, Mouse)

Zhou Y, Li ZL, Ding L, Zhang XJ et Al. Long noncoding RNA SNHG5 promotes podocyte injury via the microRNA-26a-5p/TRPC6 pathway in diabetic nephropathy *J Biol Chem* 2022-10-18 [PMID: 36257404]

Hou Y, Chen S, Peng L, Huang L et Al. Tmem30a protects against podocyte injury through suppression of pyroptosis *iScience* 2024-06-13 [PMID: 38868200]

Pasupulati A, Nishad R, Mukhi D et al. Growth hormone induces TNF-alpha in podocytes and contributes to monocyte-to-macrophage differentiation: Implications in Diabetic kidney disease *Research Square* 2022-02-02 (WB, Human)

Wang X, Gao Y, Yi W et al. Inhibition of miRNA-155 Alleviates High Glucose-Induced Podocyte Inflammation by Targeting SIRT1 in Diabetic Mice *Journal of diabetes research* 2021-03-08 [PMID: 33748285] (IHC-P, Mouse)

Wang X, Gao Y, Tian N et al. Astragaloside IV inhibits glucose-induced epithelial-mesenchymal transition of podocytes through autophagy enhancement via the SIRT-NF-kB p65 axis. *Sci Rep* 2019-01-23 [PMID: 30674969] (IHC-P, Mouse)

Shukla R, Pandey N, Banerjee S, Tripathi, YB. Effect of extract of *Pueraria tuberosa* on expression of hypoxia inducible factor-1alpha and vascular endothelial growth factor in kidney of diabetic rats. *Biomed. Pharmacother.* 2017-06-22 [PMID: 28648975]

Motiram Kakalij R, Tejaswini G, Patil MA et al. Vanillic Acid Ameliorates Cationic Bovine Serum Albumin Induced Immune Complex Glomerulonephritis in BALB/c Mice. *Drug Dev. Res.* 2016-04-30 [PMID: 27130149] (IHC-P, Mouse)





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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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