

Product datasheet

anti-Nephrin guinea pig polyclonal, serum

Short overview

Cat. No.	GP-N2
Quantity	100 µl

Product description

Host	Guinea pig
Antibody Type	Polyclonal
Immunogen	Synthetic peptide of mouse Nephrin (intracellular domain, aa1243-1256, EPGSLPFELRGHLV)
Formulation	Contains 0.09% sodium azide
UniprotID	O60500 (Human), Q9QZS7 (Mouse)
Synonym	Nephrin, Renal glomerulus-specific cell adhesion receptor, NPHS1, NPHN
Note	Centrifuge prior to opening
Conjugate	Unconjugated
Purification	Stabilized antiserum
Storage	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ICC/IF, IHC, WB
Reactivity	Human, Mouse

Applications

Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	1:50
Immunohistochemistry (IHC) - paraffin	1:50 (microwave treatment recommended)
Western Blot (WB)	1:500

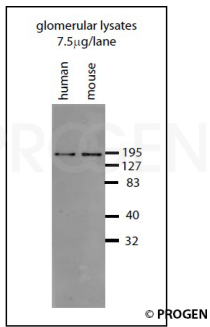
Background

The antibody reacts specifically with nephrin, first described as a kidney podocyte marker protein (MW 135,000 calculated from aa sequence data; apparent Mr 185,000 after SDS-PAGE). Nephrin is a transmembrane cell adhesion molecule located at the slit diaphragm.

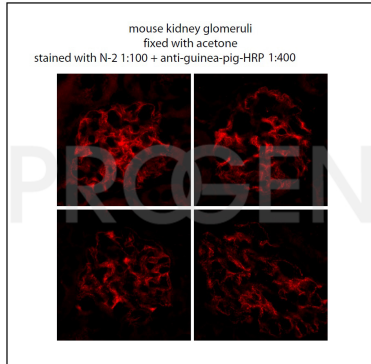
Immunolocalization: the antibody stains positively podocytes of the kidney, radial glial cells of the brain, Sertoli cells of testis, and beta islet cells of the pancreas. Tested cultured cell lines: PCL (podocyte cell line), M-1 (cortical collecting duct cells).

Product images

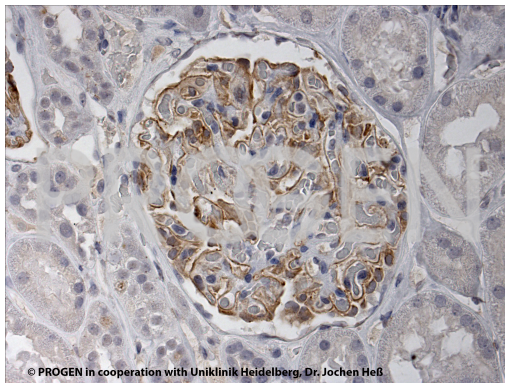
Nephrin-N-2 antiserum



Nephrin antibody Western blot. The antibody to nephrin reacts with human and murine samples.



Mouse kidney glomeruli



Immunohistochemistry with nephrin antibody GP-N2 (human) (courtesy of J. Hess, University Hospital Heidelberg)

References

Publication	Species	Application
Barutta F. et al., Protective effect of the tunneling nanotube-TNFAIP2/M-secl system on podocyte autophagy in diabetic nephropathy., Autophagy, 19, 505-524, (2023).	Mouse	IHC-IF
Kocylowski, M. K. et al. A slit-diaphragm-associated protein network for dynamic control of renal filtration. Nat. Commun. 13, 1â€“15 (2022).	Mouse	IF
Ha, K. B. et al. EW-7197 Attenuates the Progression of Diabetic Nephropathy in db/db Mice through Suppression of Fibrogenesis and Inflammation. Endocrinol. Metab. 37, 96â€“111 (2022).	Mouse	WB
Saito, Y., Matsumoto, N., Yamanaka, S., Yokoo, T. & Kobayashi, E. Beneficial Impact of Interspecies Chimeric Renal Organoids Against a Xenogeneic Immune Response. Front. Immunol. 13, (2022).	mouse	ICC-IF
Maier, J.I. et al. EPB41L5 controls podocyte extracellular matrix assembly by adhesome-dependent force transmission. Cell Rep. 34, 108883(2021).	mouse	IHC (frozen)/IF