



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Podocin (G-5): sc-518088

BACKGROUND

The onset of autosomal recessive steroid-resistant nephrotic syndrome (SRN1) in humans occurs by early childhood. Characteristics of SRN1 include proteinuria, rapid progression to end-stage renal disease, and focal segmental glomerulo-sclerosis. The pathological conditions of SRN1 correlate well with mutations at the NPHS2 gene, where expression of a protein known as Podocin occurs. Abnormal or inefficient signaling through Podocin protein-dependent networks contributes to the development of podocyte dysfunction and proteinuria. The human NPHS2 gene maps to chromosome 1q25.2 and encodes a 383 amino acid protein. Podocin is an integral membrane protein that appears to fold into a hairpin-like structure with intracellular amino- and carboxy-termini. Transmembrane and cytoplasmic portions of Podocin share homology to the corresponding regions of the stomatin family proteins. Expression of high-order oligomers of Podocin in glomerular podocytes may reflect a scaffolding function that influences proper function of the glomerular filtration barrier, which is necessary for renal stability.

CHROMOSOMAL LOCATION

Genetic locus: Nphs2 (mouse) mapping to 1 G3.

SOURCE

Podocin (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 34-55 within an N-terminal cytoplasmic domain of Podocin of mouse origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Podocin (G-5) is available conjugated to agarose (sc-518088 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518088 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518088 PE), fluorescein (sc-518088 FITC), Alexa Fluor[®] 488 (sc-518088 AF488), Alexa Fluor[®] 546 (sc-518088 AF546), Alexa Fluor[®] 594 (sc-518088 AF594) or Alexa Fluor[®] 647 (sc-518088 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-518088 AF680) or Alexa Fluor[®] 790 (sc-518088 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Podocin (G-5) is recommended for detection of Podocin of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Podocin siRNA (m): sc-40860, Podocin shRNA Plasmid (m): sc-40860-SH and Podocin shRNA (m) Lentiviral Particles: sc-40860-V.

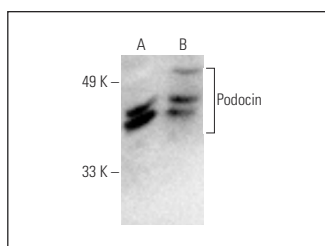
Molecular Weight of Podocin: 42 kDa.

Positive Controls: NRK whole cell lysate: sc-364197 or mouse cerebellum extract: sc-2403.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Podocin (G-5): sc-518088. Western blot analysis of Podocin expression in NRK whole cell lysate (A) and mouse cerebellum tissue extract (B). Detection reagent used: m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM.

SELECT PRODUCT CITATIONS

- de Melo Junior, A.F., et al. 2020. Involvement of sex hormones, oxidative stress, ACE and ACE2 activity in the impairment of renal function and remodelling in SHR. *Life Sci.* 257: 118138.
- Luo, R., et al. 2020. (Pro)renin receptor decoy peptide PRO20 protects against adriamycin-induced nephropathy by targeting the intrarenal renin-angiotensin system. *Am. J. Physiol. Renal Physiol.* 319: F930-F940.
- Chen, L., et al. 2021. Yiqi Huoxue recipe regulates autophagy through degradation of advanced glycation end products via mTOR/S6K1/LC3 pathway in diabetic nephropathy. *Evid. Based Complement. Alternat. Med.* 2021: 9942678.
- Ma, Y., et al. 2022. Podocyte protection by Angptl3 knockout via inhibiting ROS/GRP78 pathway in LPS-induced acute kidney injury. *Int. Immunopharmacol.* 105: 108549.
- Kulkarni, K., et al. 2023. Angiotensin II type 2 receptor activation preserves megalin in the kidney and prevents proteinuria in high salt diet fed rats. *Sci. Rep.* 13: 4277.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA