

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Podocan in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human Podocan is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Podocan Val24-Arg611 Accession # Q7TQ62
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

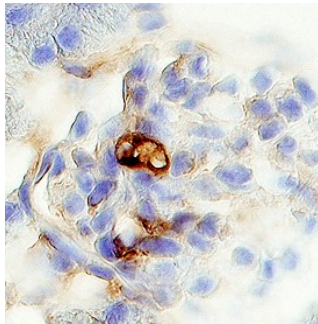
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Podocan (Catalog # 3104-PO)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Podocan in Mouse Kidney. Podocan was detected in perfusion fixed frozen sections of mouse kidney using 15 µg/mL Goat Anti-Mouse Podocan Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3104) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to vascular endothelial cells within glomeruli. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Mouse Podocan is a 95 kDa, secreted glycoprotein that is a class V member of the small leucine rich protein gene family (1, 2). It is synthesized as a 611 amino acid (aa) precursor that contains a 23 aa signal sequence, a cysteine-rich region, a series of leucine rich repeats (LRRs), and an extensive acidic C-terminal domain (4, 5). The 15 aa cysteine-rich region (aa 69-84) shows a CX3CX7C motif, qualifying it as a class V SLRP family member. This is followed by twenty LRRs, thirteen of which are type T (4xLeu; 1xPhe) and seven type S (4xLeu; 2xPro). The LRRs run uninterrupted from aa 89-559. The C-terminal seventeen amino acids contain fourteen Glu residues. The negative charge associated with these residues may play a role in basement membrane permeability (4). Mature mouse Podocan is 93% and 94% aa identical to human and canine Podocan, respectively. Over the last 504 aa, mouse Podocan shares 98% aa sequence identity with rat Podocan. Podocan is apparently secreted by podocytes and vascular endothelial cells, and deposited in the underlying basement membrane (4). Podocan is known to bind to type I collagen, and have an inhibitory effect on the migration of Podocan-transfected CHO cells (5). The significance of this is unclear.

References:

1. Matsushima, N. *et al.* (2000) *Proteins* **38**:210.
2. Matsushima, N. *et al.* (2004) *Proteins* **54**:394.
3. Ross, M.D. *et al.* (2005) *Cell. Mol. Life Sci.* **62**:2771.
4. Ross, M.D. *et al.* (2003) *J. Biol. Chem.* **278**:33248.
5. Shimizu-Hirota, R. *et al.* (2004) *FEBS Lett.* **563**:69.