

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: BAF3104

DESCRIPTION

Species Reactivity	Mouse	
Specificity	Detects mouse Podocan in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human (rh) 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 BSA as a carrier protein. See Certificate of Analysis for details.	

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)

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.	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	 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 CX3CXCX7C 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.

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