

## Product datasheet for **DM3614P**

### **Pdpn Mouse Monoclonal Antibody [Clone ID: LF3(B7)D5B3]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	LF3(B7)D5B3
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 1-5 µg/ml. <b>Immunofluorescence</b> (Acetone Fixed). <b>Immunohistochemistry on Frozen Sections.</b> <b>Immunohistochemistry on Paraffin Sections.</b>
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	A membrane protein fraction of isolated Rat glomeruli.
Specificity:	This antibody recognizes Rat Podoplanin.
Formulation:	PBS, pH 6.0 without preservatives and stabilizers State: Purified State: Lyophilized purified Ig fraction
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for at least 6 month. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	podoplanin
Database Link:	<a href="#">Entrez Gene 54320 Rat Q64294</a>



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**Background:**

Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1-alpha (T1A), and aggrus, is a 36 kDa type I transmembrane sialoglycoprotein and member of the Podoplanin family. Podoplanin has three potential splice variants, the longest of which is represented by a 238 amino acid precursor. It contains an undefined signal sequence, a 22 aa transmembrane segment (aa 207-228) and a short cytoplasmic tail (aa 229-238). The cytoplasmic tail contains putative sites for protein kinase C phosphorylation. There are two potential alternate start sites at Met 77 (Swiss Prot #: Q86YL7) and Met 119 (EAW51692) that generate short forms. The 162 aa short form Podoplanin precursor shares 47% aa identity with mouse Podoplanin. Podoplanin is expressed on glomerular epithelial cells (podocytes), type I lung alveolar cells, lymphatic endothelial cells, and numerous tumors, including colorectal tumors, squamous cell carcinomas, testicular seminoma, and brain tumors. One study shows high expression of Podoplanin mRNA in placenta, lung, skeletal muscle, and heart, and weaker levels in brain, kidney, and liver. Podoplanin is the ligand for C-type lectin-like receptor 2 (CLEC-2). Their association is dependent on sialic acid on O-glycans of Podoplanin. Through its association with CLEC-2, Podoplanin induces platelet aggregation and tumor metastasis. Podoplanin is also necessary for lymphatic vessel formation, normal lung cell proliferation and alveolus formation at birth.

**Synonyms:**

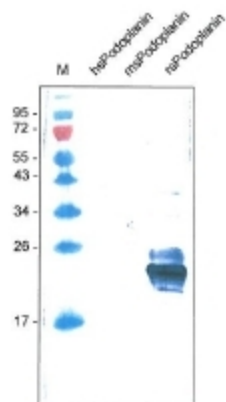
Glycoprotein 36, PA2.26 antigen, T1-alpha, Aggrus, PDPN, GP36, PSEC0003, PSEC0025

**Note:**

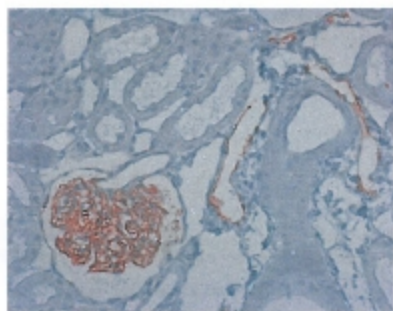
**STAINING PROTOCOL for paraffin-embedded tissue-sections fixed in formalin Anti-rat Podoplanin (#LF3 (B7)D5B3)**

Ultra Vision LP Large Volume Detection System HRP Polymer (Ready-To-Use)

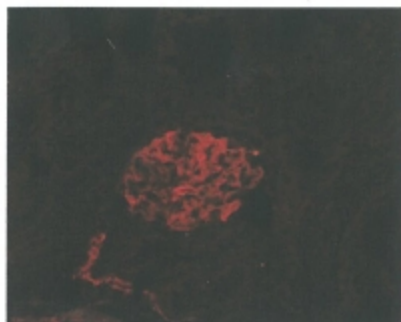
1. Deparaffinize through xylenes, ethanol, and hydrate to water.
2. Heat-Pre-treatment: in 0,1 mol citrate buffer pH 6 in an Autoclave at 1 bar for 10 min
3. Cool down at room temperature for 20 min
4. Block in 3% hydrogen Peroxide in PBS 10 min
5. Wash in buffer
6. Apply Ultra V Block and incubate 5 min at room temperature
7. Wash
8. Apply Primary Antibody: LF3 (B7)D5B3 at a dilution 1:1000 in 1%BSA/PBS for 1 hour
9. Wash 4 times
10. Apply Primary Antibody Enhancer and incubate for 10 min at room temperature
11. Wash 4 times
12. Apply HRP Polymer and incubate for 15 min at room temperature in the dark( HRP Polymer is light sensitive)
13. Wash 4 times
14. Incubate with ACE-Chromogen and stain for 5- 10 min
15. Wash 4 times in AD
16. Counter stain with Mayer's Hämalaun for 1 min
17. Cover slip using an aqueous mounting media

**Product images:**

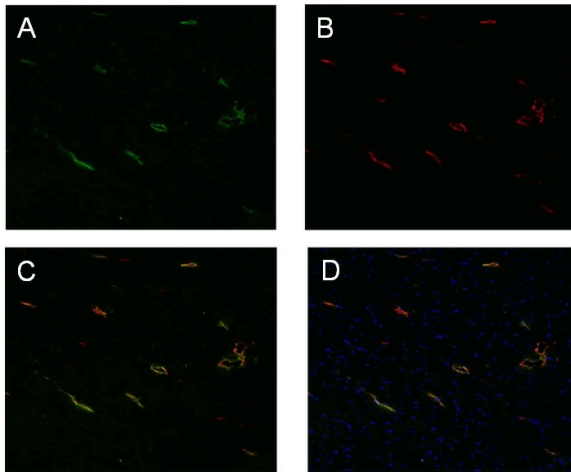
Western blot analysis with recombinant Human, Mouse and Rat soluble Podoplanin using Podoplanin antibody (Clone LF3 (B7)D5B3). There is no cross reaction with Human and Mouse Podoplanin.



Staining of lymphatic endothelial cells and podocytes in normal Rat renal corpuscle (Paraffin-Embedded Tissue-Sections fixed in Formalin) with Podoplanin Antibody. (Clone LF3 (B7)D5B3)



Immunofluorescence staining of lymphatic endothelial cells and podocytes in normal Rat renal corpuscle (Paraffin-Embedded Tissue-Sections fixed in Formalin) with Podoplanin Antibody (Clone LF3 (B7)D5B3).



Rat Cardiac lymphatic microvessels, labeled with antibodies against rat Podoplanin (A, green) and Mouse LYVE-1 (B, red) (n [DP3513P]). Nuclear stain in blue. Double staining with anti-Mouse LYVE-1 and anti-Rat Podoplanin revealed a nice co-expression of both proteins in lymphatic endothelial cells. Note: The anti-mouse Lyve-1 polyclonal antibody shows a strong cross reaction with rat Lyve-1 protein. The experiment was performed by the research group INSERM U1096 in Rouen, France directed by Dr Vincent Richard.