

Product datasheet for **DM3500R**

PDPN Mouse Monoclonal Antibody [Clone ID: 18H5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	18H5
Applications:	FC
Recommended Dilution:	FACS Analysis: Use the antibody at $\leq 0.5 \mu\text{g}$ in 100 μl volume.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Podoplanin-expressing MDCK cells.
Specificity:	This antibody reacts with Podoplanin (gp36). The unconjugated monoclonal antibody will detect native Human Podoplanin in Western Blot and on the surface of Human LEC.
Formulation:	PBS Label: PE State: Liquid purified IgG fraction Stabilizer: 1% BSA Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	PE
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	podoplanin
Database Link:	Entrez Gene 10630 Human Q86YL7



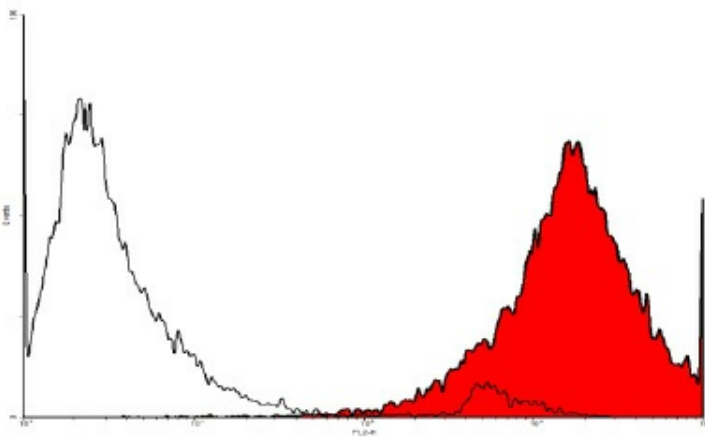
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Background:

Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1alpha (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 (aa) precursor (NP_006465). It contains an undefined signal sequence, a 22 aa transmembrane segment (aa 207228) and a short cytoplasmic tail (aa 229-238). The ECD contains abundant Ser/Thr residues that could serve as potential Olinked glycosylation sites. 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 Ctype lectin-like receptor 2 (CLEC2). Their association is dependent on sialic acid on Oglycans of Podoplanin. Through its association with CLEC2, 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

Product images:

FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).