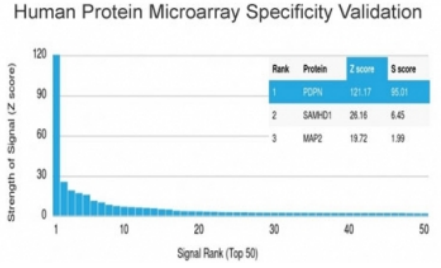
Podoplanin Antibody / Lymphatic Endothelial Cell Marker [clone PDPN/1433] (V3404)

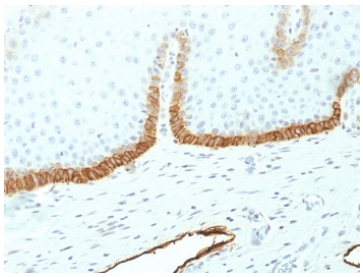
Catalog No.	Formulation	Size
V3404-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3404-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3404SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

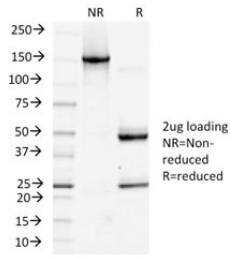
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PDPN/1433
Purity	Protein G affinity chromatography
UniProt	Q86YL7
Localization	Cell surface, cytoplasmic
Applications	1-2ug/ml1-2ug/ml for 30 min at RT
Limitations	This Podoplanin Antibody / Lymphatic Endothelial Cell Marker is available for research use only.



Podoplanin Antibody PDPN/1433 Protein Microarray Validation. Protein microarray analysis of Podoplanin Antibody / Lymphatic Endothelial Cell Marker, clone PDPN/1433, using a HuProt array containing more than 19,000 full-length human proteins. The antibody demonstrates prominent recognition of the intended PDPN target. The Z-score represents signal strength in standard deviations above the array mean, while the S-score measures separation between the intended target and the next strongest signal, providing an assessment of relative target specificity.



Podoplanin Antibody PDPN/1433 in Human Cervical Tissue IHC. Immunohistochemistry staining of FFPE human cervical tissue with Podoplanin Antibody / Lymphatic Endothelial Cell Marker, clone PDPN/1433. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The observed staining demonstrates podoplanin expression in human cervical tissue.



Purified Podoplanin Antibody PDPN/1433 SDS-PAGE. Gel run analysis of purified, BSA-free Podoplanin Antibody / Lymphatic Endothelial Cell Marker, clone PDPN/1433. Analysis of the purified mouse monoclonal antibody provides confirmation of antibody integrity and purity.

Description

Podoplanin Antibody / Lymphatic Endothelial Cell Marker detects podoplanin (PDPN), a mucin-type transmembrane glycoprotein expressed by lymphatic endothelial cells and several other specialized cell populations. Podoplanin is widely used in research as a marker of lymphatic endothelium and is involved in lymphatic vascular development, cell migration and tissue organization. The protein is also known as gp36, T1 alpha and Aggrus, terminology reflecting its identification in different tissues and biological systems.

Podoplanin is a heavily O-glycosylated type I transmembrane protein with a short cytoplasmic tail. Although its intracellular region lacks intrinsic enzymatic activity, PDPN can influence cell morphology, adhesion and migration through interactions with membrane-associated and cytoskeletal proteins. Podoplanin also binds the platelet receptor CLEC-2, an interaction important to separation of developing blood and lymphatic vessels and other aspects of lymphovascular biology.

As a lymphatic endothelial cell marker, podoplanin is extensively investigated in lymphangiogenesis and vascular development. Its expression helps distinguish lymphatic endothelial cells from blood vascular endothelium and is useful for examining lymphatic vessels in normal and pathological tissues. PDPN expression is also found in lymphangiomas and vascular tumors showing lymphatic differentiation, supporting its use in studies of lymphatic lineage and vascular pathology. The NSJ datasheet specifically notes expression in lymphatic endothelium, lymphangiomas, Kaposi sarcomas and a subset of angiosarcomas with probable lymphatic differentiation.

Podoplanin is also important in cancer and tumor pathology research. PDPN expression has been investigated in multiple tumor types and in stromal cell populations within the tumor microenvironment. It is particularly well established as a marker used in the study and identification of epithelioid mesothelioma. Podoplanin can be incorporated into antibody panels used to distinguish mesothelial cells and mesothelioma from pulmonary carcinomas, making PDPN relevant to both fundamental tumor biology and diagnostic-marker research.

Clone PDPN/1433 is a mouse monoclonal antibody generated against a recombinant human PDPN protein fragment corresponding to amino acids 24-126. It has been evaluated by immunohistochemistry in FFPE human cervical tissue and is Protein Microarray Validated using a HuProt array containing more than 19,000 full-length human proteins. The Z-score measures target signal strength in standard deviations above the array mean, while the S-score measures separation between the intended target and the next strongest signal, providing an assessment of relative target specificity. NSJ Bioreagents supplies antibodies for lymphatic, vascular and cancer research. A Podoplanin Antibody can be used to investigate PDPN expression, lymphatic endothelial cells, lymphangiogenesis and podoplanin-associated tumor biology.

For related reagents used to identify and investigate tumor-associated proteins, cellular phenotypes and cancer biology, explore our Cancer Marker Antibodies page.

Application Notes

Optimal dilution of the Podoplanin Antibody / Lymphatic Endothelial Cell Marker should be determined by the researcher.

Immunogen

A human recombinant partial protein corresponding to amino acids 24-126 was used as the immunogen for the Podoplanin antibody.

Storage

Store the Podoplanin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Podoplanin antibody, PDPN antibody, Lymphatic Endothelial Cell Marker antibody, gp36 antibody, Glycoprotein 36 antibody, T1 Alpha antibody

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