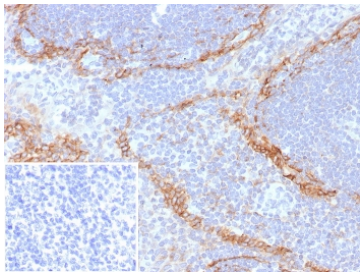
PDPN Antibody / Podoplanin Protein Antibody [clone rPDPN/6994] (V4681)

Catalog No.	Formulation	Size
V4681-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4681-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4681SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

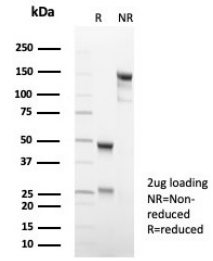
Recombinant MOUSE MONOCLONAL

Bulk quote request

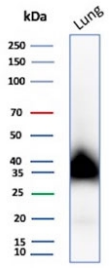
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rPDPN/6994
Purity	Protein A/G affinity
UniProt	Q86YL7
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This PDPN Antibody / Podoplanin Protein Antibody is available for research use only.



PDPN Antibody rPDPN/6994 in Human Tonsil IHC. Immunohistochemistry staining of FFPE human tonsil tissue with PDPN Antibody / Podoplanin Protein Antibody, clone rPDPN/6994. The inset shows PBS used in place of primary antibody as a secondary antibody negative control. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. The observed staining demonstrates podoplanin expression in human tonsil tissue.



Purified PDPN Antibody rPDPN/6994 SDS-PAGE. Gel run analysis of purified, BSA-free PDPN Antibody / Podoplanin Protein Antibody, clone rPDPN/6994. Analysis of the purified recombinant mouse monoclonal antibody provides confirmation of antibody integrity and purity.



PDPN Antibody rPDPN/6994 in Human Lung WB. Western blot testing of human lung tissue lysate with PDPN Antibody / Podoplanin Protein Antibody, clone rPDPN/6994. The predicted molecular weight of podoplanin is approximately 25 kDa, although the protein may be observed at higher molecular weights due to glycosylation. This PDPN Antibody demonstrates detection of podoplanin in human lung tissue by WB.

Description

PDPN Antibody / Podoplanin Protein Antibody detects podoplanin, a heavily O-glycosylated transmembrane protein encoded by the PDPN gene. Also known as gp36, T1 alpha and Aggrus, podoplanin is expressed by lymphatic endothelial cells and several other specialized cell populations. PDPN is widely investigated in lymphatic vascular biology, cell migration, tissue organization and cancer, and its characteristic expression pattern has made it an important marker for studying lymphatic endothelium and selected tumor types.

Podoplanin is a type I transmembrane glycoprotein with a relatively short cytoplasmic domain. Its extracellular region is extensively glycosylated, contributing substantially to the apparent molecular weight of the mature protein. Although PDPN lacks intrinsic enzymatic activity, interactions involving its extracellular and intracellular regions can influence cell adhesion, morphology and migration. Podoplanin also interacts with the platelet receptor CLEC-2, linking PDPN to platelet activation and mechanisms involved in lymphatic vascular development.

PDPN is strongly associated with lymphatic endothelial biology and is widely used to investigate lymphatic vessels and lymphangiogenesis. Its expression can help distinguish lymphatic endothelial cells from blood vascular endothelium and has also been described in lymphangiomas, Kaposi sarcomas and subsets of angiosarcoma showing lymphatic differentiation. The product datasheet additionally notes expression in stromal cells of peripheral lymphoid tissue and thymic epithelial cells.

Podoplanin is also extensively investigated in tumor biology and pathology. Expression has been reported in multiple tumor types and in stromal populations within the tumor microenvironment. PDPN is particularly well established in research involving epithelioid mesothelioma and can be included in antibody panels used to investigate mesothelial differentiation and distinguish mesothelioma or mesothelial cells from pulmonary carcinoma.

Clone rPDPN/6994 is a recombinant mouse monoclonal antibody generated against a recombinant human Podoplanin fragment within amino acids 1-100. It has been evaluated by immunohistochemistry and Western blot in human samples, including FFPE tonsil tissue and lung tissue lysate. Recombinant production provides a defined antibody sequence and supports consistent performance across manufacturing lots. NSJ Bioreagents supplies antibodies for lymphatic, vascular and cancer research. A PDPN Antibody can be used to investigate podoplanin expression, lymphatic endothelial biology, lymphangiogenesis and PDPN-associated tumor biology.

For broader research on podoplanin expression and lymphatic endothelial biology, including a protein microarray validated reagent, see our Podoplanin Antibody / Lymphatic Endothelial Cell Marker page.

Application Notes

Optimal dilution of the PDPN Antibody / Podoplanin Protein Antibody should be determined by the researcher.

Immunogen

A recombinant human Podoplanin protein fragment (within amino acids 1-100) was used as the immunogen for the recombinant PDPN antibody.

Storage

Aliquot the recombinant PDPN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PDPN antibody, Podoplanin Protein antibody, Podoplanin antibody, gp36 antibody, Glycoprotein 36 antibody, T1 Alpha antibody

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