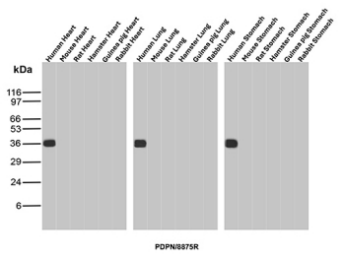
Glycoprotein 36 Antibody / Human PDPN-Specific Antibody [clone PDPN/8875R] (V4701)

Catalog No.	Formulation	Size
V4701-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4701-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4701SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

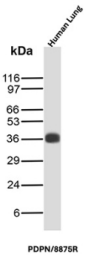
Recombinant RABBIT MONOCLONAL

Bulk quote request

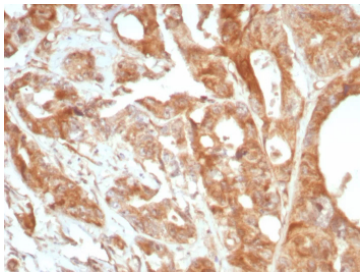
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	PDPN/8875R
Purity	Protein A/G affinity
UniProt	Q86YL7
Localization	Cell surface
Applications	ELISA (Order BSA-free Format For Coating) : Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This Glycoprotein 36 Antibody / Human PDPN-Specific Antibody is available for research use only.



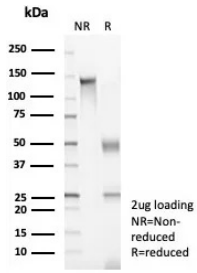
Glycoprotein 36 Antibody Cross-Species Tissue WB. Western blot analysis of Glycoprotein 36 / PDPN expression using recombinant antibody, clone PDPN/8875R. Lanes include human, mouse, rat, hamster, guinea pig, and rabbit tissue lysates from heart, lung, and stomach. A band is detected at approximately 36-40 kDa in human tissues, consistent with the predicted molecular weight of PDPN, while no comparable band is observed in the tested non-human species, supporting selective detection of human PDPN under these conditions.



Glycoprotein 36 Antibody Lung WB. Western blot analysis of Glycoprotein 36 / PDPN expression in human lung tissue lysate using recombinant Glycoprotein 36 antibody, clone PDPN/8875R. Lane 1: human lung tissue lysate. A band is detected at approximately 36-40 kDa, consistent with the predicted molecular weight of PDPN, with migration influenced by glycosylation characteristic of this membrane-associated sialoglycoprotein.



Glycoprotein 36 Antibody Prostate IHC. Immunohistochemistry analysis of Glycoprotein 36 / PDPN expression in FFPE human prostate tissue using recombinant Glycoprotein 36 antibody, clone PDPN/8875R. HRP-DAB brown staining is observed in stromal and perivascular regions with membranous and cytoplasmic localization, while glandular epithelial cells show comparatively reduced signal; nuclei are counterstained blue. This Glycoprotein 36 antibody highlights PDPN-associated stromal compartments consistent with its known distribution. Antigen retrieval was performed by boiling sections in 10 mM Tris buffer with 1 mM EDTA, pH 9, for 20 min followed by cooling at room temperature.



SDS-PAGE analysis of purified, BSA-free Glycoprotein 36 antibody (clone PDPN/8875R) as confirmation of integrity and purity.

Description

Podoplanin (PDPN) is a type I transmembrane sialoglycoprotein of the mucin family that is widely used as a marker of lymphatic endothelium and specialized stromal cell populations. Podoplanin (PDPN), also known as Glycoprotein 36, T1 alpha, or D2-40 antigen, plays a central role in lymphangiogenesis, cell migration, and tissue organization. Glycoprotein 36 Antibody / Human PDPN-Specific Antibody is particularly suited for detecting PDPN in human-derived samples, where accurate identification of lymphatic and stromal components is critical. PDPN is strongly expressed in lymphatic endothelial cells and is also present in tissues such as lung, heart, and certain epithelial compartments, with increased expression observed in a range of tumors including squamous cell carcinomas and mesotheliomas.

Glycoprotein 36 antibody, also referred to as PDPN antibody or podoplanin antibody, recognizes a heavily O-glycosylated protein localized to the plasma membrane. PDPN contains an extracellular mucin-like domain, a single transmembrane region, and a short cytoplasmic tail that interacts with ERM family proteins such as ezrin, radixin, and moesin. Through these interactions, PDPN regulates actin cytoskeleton dynamics, contributing to changes in cell shape, adhesion, and motility. This functional role is particularly important in lymphatic vessel formation and maintenance, as well as in tumor cell invasion and migration. PDPN also interacts with the platelet receptor CLEC-2, linking it to platelet aggregation and tumor-associated thrombotic processes.

This Glycoprotein 36 Antibody / Human PDPN-Specific Antibody is supported by western blot data demonstrating selective detection of PDPN in human tissue lysates, including heart, lung, and stomach, with no detectable corresponding bands observed in tested mouse, rat, hamster, guinea pig, or rabbit tissue lysates under identical conditions. The detected band appears in the expected molecular weight range for glycosylated PDPN, consistent with its known biochemical properties. The consistent absence of signal in multiple non-human species across several tissue types supports preferential recognition of human PDPN under the tested conditions and provides a meaningful advantage for studies focused on human tissues, where reduced cross-species reactivity improves clarity of interpretation.

PDPN plays a central role in lymphatic biology and is widely used to identify lymphatic endothelial cells in both developmental and pathological contexts. In addition to its vascular role, PDPN is expressed by fibroblastic reticular cells and other stromal populations that contribute to tissue architecture and immune cell trafficking. In cancer, PDPN expression has been associated with increased cell motility, epithelial-mesenchymal transition-like behavior, and enhanced metastatic potential. Tumor-associated PDPN-positive stromal cells can influence extracellular matrix organization and modulate interactions between tumor cells and the immune microenvironment, highlighting its importance in tumor progression.

PDPN expression is dynamically regulated during development and in response to tissue remodeling, injury, and disease. Its strong and consistent detection in human tissues, combined with selective recognition in western blot analysis, supports its use as a reliable marker for human-specific studies of lymphatic structure, stromal biology, and tumor-associated changes. A Glycoprotein 36 antibody can be used in western blot, immunohistochemistry, or other research assays to evaluate PDPN expression in human tissues and disease models, supporting investigations into lymphatic development, cancer biology, and cell migration mechanisms.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Glycoprotein 36 Antibody / Human PDPN-Specific Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-150) from the human protein was used as the immunogen for the Glycoprotein 36 antibody.

Storage

Aliquot the Glycoprotein 36 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Glycoprotein 36 antibody, PDPN antibody, Podoplanin antibody, T1 alpha antibody, D2-40 antigen antibody