Catalog # 10630-RBM18
Product Datasheet

Recombinant Podoplanin (PDPN) (Lymphatic Endothelial & Mesothelial Marker) Antibody

Rabbit Monoclonal Antibody [Clone PDPN/13976R]

Catalog No	Format	Size
10630-RBM18-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
10630-RBM18-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
10630-RBM18-P1ABX	Purified Ab WITHOUT BSA or Azide at 1.0mg/ml	100 ug

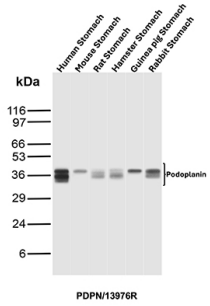
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

Product Details

Clone	PDPN/13976R
Immunogen	Resected tissue from dysgeminoma of the ovary
Host	Rabbit
Clonality	Monoclonal
Isotype / Light Chain	IgG / Kappa
Mol. Weight of Antigen	16.7kDa
Cellular Localization	Apical cell membrane, Basolateral cell membrane, Cell projection, Cytoplasm, Cytosol, Filopodium membrane, Invadopodium, Lamellipodium membrane, Membrane, Membrane raft, Microvillus membrane, Ruffle membrane
Species Reactivity	Human
Positive Control	Highly expressed in placenta, lung, skeletal muscle and brain

**Optimal dilution for a specific application should be determined.*

Product Images for Recombinant Podoplanin (PDPN) (Lymphatic Endothelial & Mesothelial Marker) Antibody



Western blot analysis of stomach tissue lysates from human, mouse, guinea pig, hamster, rabbit and rat using PDPN Recombinant Rabbit Monoclonal Antibody (PDPN/13976R).

Specificity & Comments

Mediates effects on cell migration and adhesion through its different partners. During development plays a role in blood and lymphatic vessels separation by binding CLEC1B, triggering CLEC1B activation in platelets and leading to platelet activation and/or aggregation (PubMed:14522983, PubMed:15231832, PubMed:17222411, PubMed:17616532, PubMed:18215137). Interaction with CD9, on the contrary, attenuates platelet aggregation induced by PDPN (PubMed:18541721). Through MSN or EZR interaction promotes epithelial-mesenchymal transition (EMT) leading to ERZ phosphorylation and triggering RHOA activation leading to cell migration increase and invasiveness (PubMed:17046996, PubMed:21376833). Interaction with CD44 promotes directional cell migration in epithelial and tumor cells (PubMed:20962267). In lymph nodes (LNs), controls fibroblastic reticular cells (FRCs) adhesion to the extracellular matrix (ECM) and contraction of the actomyosin by maintaining ERM proteins (EZR; MSN and RDX) and MYL9 activation through association with unknown transmembrane proteins. Engagement of CLEC1B by PDPN promotes FRCs relaxation by blocking lateral membrane interactions leading to reduction of ERM proteins (EZR; MSN and RDX) and MYL9 activation (By similarity). Through binding with LGALS8 may participate in connection of the lymphatic endothelium to the surrounding extracellular matrix (PubMed:19268462). In keratinocytes, induces changes in cell morphology showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion (PubMed:15515019). Controls invadopodia stability and maturation leading to efficient degradation of the extracellular matrix (ECM) in tumor cells through modulation of RHOC activity in order to activate ROCK1/ROCK2 and LIMK1/LIMK2 and inactivation of CFL1 (PubMed:25486435). Required for normal lung cell proliferation and alveolus formation at birth (By similarity). Does not function as a water channel or as a regulator of aquaporin-type water channels (PubMed:9651190). Does not have any effect on folic acid or amino acid transport (By similarity).

Supplied As

200ug/ml of Ab produced in a mammalian-based expression system. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.